State of Nebraska
REQUEST FOR PROPOSAL FOR REAL PROPERTY LEASE

RETURN TO:
AS/State Building Division
Attn: Jim Pinkerton
521 S 14th St, Suite 500
Lincoln, NE 68508
PO Box 98940
Lincoln, NE 68509-8940
Phone: (402) 471-0468

SOLICITATION NUMBER	RELEASE DATE
RFP 65131364	**October 8, 2013**
OPENING DATE AND TIME	PROCUREMENT CONTACT
Friday, November 8, 2013, 2:00 p.m. DST	**Jim Pinkerton**

This form is part of the specification package and must be signed and returned, along with proposal documents, by the due date and time specified.

PLEASE READ CAREFULLY!

SCOPE OF SERVICE

The State Building Division is issuing this Request for Proposal, RFP 65131364 for the purpose of selecting a location for laboratory, office and supporting space.

Written questions are due no later than Friday, October 25, 2013, at 4:00 p.m., DST and should be submitted via e-mail to jim.pinkerton@nebraska.gov.

Bidder should submit one (1) original and eleven (11) copies of the entire proposal as well as one digital copy in PDF format submitted on a CD. In the event of any inconsistencies among the proposals, the language contained in the original proposal shall govern. Proposals must be submitted by the proposal due date and time.

PROPOSALS MUST MEET THE REQUIREMENTS OUTLINED IN THIS REQUEST FOR PROPOSAL TO BE CONSIDERED VALID. IF THE PROPOSAL IS NOT IN COMPLIANCE WITH THESE REQUIREMENTS, IT WILL BE REJECTED.

1. Sealed proposals must be received in the State Building Division offices, Fifth Floor Reception Desk, 521 South 14th Street, Lincoln, NE, no later than the due date and time of Friday, November 8, 2013 at 2:00 p.m. DST. Late proposals will not be accepted. No electronic, e-mail, fax, voice, or telephone proposals will be accepted.
2. This form "REQUEST FOR PROPOSAL FOR REAL PROPERTY LEASE" **MUST** be manually signed, in ink, and returned by the due date and time of the proposal submission along with bidder's lease proposal and any other requirements as specified in this Request for Proposal in order to be considered for an award.
3. It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the bid opening date. Website addresses are as follows: www.adtechplans.com or www.statebuildingdivision-planroom.nebraska.gov.
4. It is understood by the parties that in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section 3, and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied with the contractor's bid or in the final contract.

BIDDER MUST COMPLETE THE FOLLOWING

By signing this Request for Proposal For Real Property Lease form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions (see Section III) and certifies that bidder maintains a drug free work place environment.

FIRM: _____

COMPLETE ADDRESS: _____

TELEPHONE NUMBER: ___ FAX NUMBER: _____

SIGNATURE: _____ DATE: _____

TYPED NAME & TITLE OF SIGNER: _____

EMAIL ADDRESS: _____

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GLOSSARY OF TERMS

Addendum: Something added or deleted.

Agency: Any state agency, board, or commission other than the University of Nebraska, the Nebraska State colleges, the courts, the Legislature, or any officer or agency established by the Constitution of Nebraska.

Agent: A person authorized by a superior or organization to act on their behalf.

Amend: To alter or change by adding, subtracting, or substituting. A contract can be amended only by the parties participating in the contract. A written contract can only be amended in writing.

Amendment: Written correction or alteration.

Appropriation: Legislative authorization to expend public funds for a specific purpose. Money set apart for a specific use.

AS/SBD: Department of Administrative Services, State Building Division

Award: All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

Best and Final Offer (BAFO): A second-stage bid in a public procurement for services.

Bid: The executed document submitted by a bidder in response to a Request for Proposal.

Bid Bond: A bond given by a surety on behalf of the bidder to ensure that the bidder will enter into the contract as bid and is retained by the State from the date of the bid opening to the date of contract signing.

Bidder: Any person or entity submitting a competitive bid response to a solicitation.

Business: Any corporation, partnership, individual, sole proprietorship, joint-stock company, joint venture, or any other private legal entity.

Business Day: Any weekday, excepting public holidays.

Calendar Day: Every day shown on the calendar; Saturdays, Sundays and State/Federal holidays included. Not to be confused with "Work Day".

Collusion: A secret agreement or cooperation between two or more persons or entities to accomplish a fraudulent, deceitful or unlawful purpose.

Commencement Date: The date the Tenant Agency takes occupancy of the Demised Premises.

Competition: The process by which two or more contractors vie to secure the business of a purchaser by offering the most favorable terms as to price, quality, delivery and/or service.

Confidential Information: Unless otherwise defined below, "Confidential Information" shall also mean proprietary trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Nebraska Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would provide.

Contract: An agreement between two or more persons to perform a specific act or acts.

Contract Administration: The management of various facets of contracts to assure that the contractor's total performance is in accordance with the contractual commitments and obligations to the purchaser are fulfilled.

Contract Management: Includes reviewing and approving of changes, executing renewals, handling disciplinary actions, adding additional users, and any other form of action that could change the contract.

Contractor: Any person or entity that supplies goods and/or services.

Copyright: A grant to a writer/artist that recognizes sole authorship/creation of a work and protects the creator's interest(s) therein.

Default: The omission or failure to perform a contractual duty.

Demised Premises: A property, or part of a property, leased to a tenant.

Deviation: Any proposed change(s) or alteration(s) to either the contractual language or deliverables within the scope of this Request for Proposal.

Evaluation Committee: A committee (or committees) appointed by the requesting agency that advises and assists the procuring office in the evaluation of proposals.

Evaluation of Proposal: The process of examining a proposal after opening to determine the bidder's responsibility, responsiveness to requirements, and to ascertain other characteristics of the proposal that relate to determination of the successful bidder.

Extension: A provision, or exercise of a provision, of a contract that allows a continuance of the contract (at the option of the State of Nebraska) for an additional time according to contract conditions. Not to be confused with "Renewals."

F.O.B. Destination: Free on Board. The delivery charges have been included in the quoted price and prepaid by the vendor. Vendor is responsible for all claims associated with damages during delivery of product.

Foreign Corporation: A foreign corporation is a corporation that was formed (i.e. incorporated) in another state but transacting business in Nebraska pursuant to a certificate of authority issued by the Nebraska Secretary of State.

Late Proposal: A proposal received at the place specified in the solicitation after the date and time designated for all proposals to be received.

Lessee: The State Building Division within the lease; a person or entity that leases property from another.

Lessor: The award winning bidder, a person or entity who grants a lease; a person or entity who leases property to the State.

May: Denotes discretion.

Mandatory: Required, compulsory or obligatory.

Must: Denotes the imperative, required, compulsory or obligatory.

NSPCL: Nebraska State Patrol Crime Lab

Opening Date: Specified date and time for the public opening of received, labeled and sealed formal proposals. Not to be confused with "Release Date".

Performance Bond: A bond given by a surety on behalf of the contractor to ensure the timely and proper (in sole estimation of the State) performance of a contract.

Pre-Proposal Conference: A meeting scheduled for the purpose of providing clarification regarding a Request for Proposal and related expectations.

Project: The total of all software, documentation, and services to be provided by the contractor under this contract.

Proposal: The executed document submitted by a bidder in response to a Request for Proposal.

Proprietary Information: Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive.

Protest: A complaint about a governmental action or decision related to a Request for Proposal or the resultant contract, brought by a prospective bidder, a bidder, a contractor, or other interested party to DAS State Building Division or another designated agency with the intention of achieving a remedial result.

Public Proposal Opening: The process of opening proposals, conducted at the time and place specified in the Request for Proposal, and in the presence of anyone who wishes to attend.

Release Date: Date of release of the Request for Proposal to the public for submission of proposal responses. Not to be confused with "Opening Date".

Renewal: Continuance of a contract for an additional term after a formal signing by the parties.

Representative: Includes an agent, an officer of a corporation or association, a trustee, executor or administrator of an estate, or any other person legally empowered to act for another.

Request for Proposal (RFP): All documents, whether attached or incorporated by reference, utilized for soliciting competitive proposals.

Responsible Bidder: A bidder who has the capability in all respects to perform fully all requirements with integrity and reliability to assure good faith performance.

Responsive Bidder: A bidder who has submitted a bid which conforms in all respects to the solicitation document.

SBD: State Building Division

Shall: Denotes the imperative, required, compulsory or obligatory.

Should: Indicates an expectation.

Solicitation: The process of notifying prospective bidders that the State of Nebraska wishes to receive proposals for furnishing services. The process may consist of public advertising, posting notices, or mailing Request for Proposals and/or Request for Proposal announcement letter to prospective bidders, or all of these.

Solicitation Document: Request for Proposal.

Specifications: The information provided by or on behalf of the contractor that fully describes the capabilities and functionality of the Licensed Software as set forth in any material provided by the contractor, including the documentation and User's Manuals described herein.

State: The State of Nebraska means the State Building Division as a representative of the State of Nebraska; or a combination of the requesting agency and State Building Division acting as authorized representatives for the State of Nebraska.

Tenant Agency: The agency requesting the proposal; in this proposal it is the Nebraska State Patrol Crime Lab "NSPCL"

Termination: Occurs when either party pursuant to a power created by agreement or law puts an end to the contract. All obligations which are still executory on both sides are discharged but any right based on prior breach or performance survives.

Trademark: A distinguishing sign, symbol, mark, word, or arrangement of words in the form of a label or other indication, that is adopted and used by a manufacturer or distributor to designate its particular goods and which no other person has the legal right to use.

Trade Secret: Information, including, but not limited to, a drawing, formula, pattern, compilation, program, device, method, technique, code, or process that; (a) derives independent economic value, actual or potential, from not being known to, and not being ascertainable by proper means, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy (see Neb. Rev. Stat. §87-502(4)).

Vendor: An actual or potential contractor; a contractor.

Will: Denotes the imperative, required, compulsory or obligatory.

I. SCOPE OF THE REQUEST FOR PROPOSAL

The State Building Division ("SBD") provides leasing services under statutory authority to requesting agencies, departments, divisions, boards, and commissions. The SBD is a single contact access point for delivery of these services.

The State Building Division issues this Request for Proposal for Real Property, hereinafter "RFP", for the purpose of selecting a location for laboratory, office and supporting space for use by the Nebraska State Patrol as a crime lab, hereinafter "NSPCL".

A lease contract resulting from this RFP will be executed for a period of twenty (20) years effective from the date of occupancy with the option to renew for two (2) additional five (5) year terms as mutually agreed upon by all parties. At the time of the lease contract award, occupancy shall take place on or before June 1, 2015.

A. SCHEDULE OF EVENTS

The State expects to adhere to the tentative procurement schedule shown below. It should be noted, however, that some dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
1.	Release Request for Proposal – First Advertisement	October 8, 2013
2.	Release Request for Proposal – Second Advertisement	October 10, 2013
3.	Mandatory Pre-Proposal Meeting at: AS/State Building Division 521 S 14th St, Suite 500 Lincoln, NE 68508 Phone: (402) 471-0468	Thursday, October 17, 2013 10:00 A.M., DST
	Last Day for Questions Asked	Friday, October 25, 2013 4:00 P.M., DST
	All Questions Answered by Addendum or Amendment	Monday, October 28, 2013 4:00 P.M., DST
4.	Deadline to Receive Proposals - AS/State Building Division 521 S 14th St, Suite 500, Reception Desk, Lincoln, NE	Friday, November 8, 2013 2:00 P.M., DST
	Bid Proposal Opening at: AS/State Building Division 521 S 14th St, Lower Level Conference Room, Lincoln, NE	Friday, November 8, 2013 2:00 P.M., DST
5.	Summarize bids and submit to Tenant Agency for review	November 12, 2013
6.	Conduct site visits and evaluate To be completed on:	November 13-14, 2013
7.	Conduct proposal interviews To be completed on:	November 15, 2013
8.	Selection of award winning bid and notification to winning bidder	November 19, 2013
9.	Complete contract negotiations with winning bidder by	December 17, 2013
10.	Desired Move In Date for Tenant Agency no later than	June 1, 2015

II. PROCUREMENT PROCEDURES

A. CONTACT PERSON

Procurement responsibilities related to this RFP reside with the SBD. The point of contact for this proposal is as follows:

Name: Jim Pinkerton
Agency: AS/State Building Division
Address: 521 S 14th St, Suite 500
Lincoln, NE 68508

Address: PO Box 98940
Lincoln, NE 68509-8940
Telephone: (402) 471-0468
E-Mail: jim.pinkerton@nebraska.gov

B. GENERAL INFORMATION

This RFP is designed to solicit proposals from qualified bidders for the purpose of selecting a location for laboratory, office and supporting space for use by the NSPCL at a competitive and reasonable cost. Proposals that do not conform to the mandatory items as indicated in this RFP will not be considered.

Proposals shall conform to all instructions, conditions, and requirements included in this RFP. Prospective bidders are expected to carefully examine all documentation, schedules and requirements stipulated in this RFP, and respond to each requirement in the format prescribed.

A fixed-price contract will be awarded as a result of this proposal. In addition to the provisions of this RFP and the winning proposal, which shall be incorporated by reference in the lease contract, any additional clauses or provisions required by the terms and conditions will be included as an amendment to the lease contract.

C. COMMUNICATION WITH STATE STAFF

From the date this RFP is issued until a bid award is announced regarding the selection of the vendor, contact regarding this RFP between potential vendor/contractors and individuals employed by the SBD is restricted to only written communication with the point of contact named in Section A, above for this RFP.

Violation of this condition may be considered sufficient cause to reject a bidder's proposal and/or selection, irrespective of any other condition.

The following exceptions to these restrictions are permitted:

1. Written communication with the person(s) designated as the point(s) of contact for this RFP;
2. Contacts made pursuant to any pre-existing contracts or obligations; and

3. State-requested presentations, site visits, key personnel interviews, clarification sessions or discussions to finalize a contract.

Violations of these conditions may be considered sufficient cause to reject a bidder's proposal and/or selection irrespective of any other condition. No individual member of the SBD, employee of the State, or member of the Evaluation Committee is empowered to make binding statements regarding this RFP. The point of contact will issue any clarifications or opinions regarding this RFP in writing.

D. WRITTEN QUESTIONS AND ANSWERS

Any explanation desired by a bidder regarding the meaning or interpretation of any provision in this RFP, must be submitted in writing to the point of contact and clearly marked "RFP 65131364; NSPCL Questions" in the subject line and sent via e-mail to jim.pinkerton@nebraska.gov.

Written answers will be provided through an addendum or amendment sent via email to each known bidder on or before the submission deadline date as shown in the Schedule of Events.

E. ORAL INTERVIEWS/PRESENTATIONS, AND/OR DEMONSTRATIONS, IF APPLICABLE

The Evaluation Committee(s) may conclude that oral interviews/presentations and/or demonstrations are required in order to determine the successful bidder. All bidders may not have an opportunity to interview/present and/or give demonstrations; the State reserves the right to select only the top scoring bidders to present/give oral interviews in its sole discretion. The scores from the oral interviews/presentations and/or demonstrations will be part of the final score. The presentation process will allow the bidders to present their proposal offering, explaining and/or clarifying any unusual or significant elements related to their proposals. Bidders' key personnel may be requested to participate in a structured interview to determine their understanding of the requirements of this proposal, their authority and reporting relationships within their firm, and their management style and philosophy. Bidders shall not be allowed to alter or amend their proposals. Only representatives of the SBD, representatives from the requesting agency and the presenting bidders will be permitted to attend the oral interviews/presentations and/or demonstrations. Oral interviews, if applicable, are tentatively scheduled to take place as outlined in the Schedule of Events above.

Once the oral interviews/presentations and/or demonstrations have been completed the SBD reserves the right to make a contract award without any further discussion with the bidders regarding the proposals received.

Detailed notes of oral interviews/presentations and/or demonstrations may be recorded and supplemental information, such as briefing charts, may be accepted; however, such supplemental information shall not be considered an amendment to a bidders' proposal. Additional written information gathered in this manner shall not constitute replacement of proposal contents.

Any cost incidental to the oral interviews/presentations and/or demonstrations shall be borne entirely by the bidder and will not be compensated by the State.

F. SUBMISSION OF PROPOSALS

The following describes the requirements related to proposal submission, proposal handling and review by the State.

To facilitate the proposal evaluation process, one (1) original, clearly identified as such, and eleven (11) copies, clearly identified as such, of the entire proposal should be submitted, as well as one digital copy in PDF format submitted on a CD. The copy marked "original" shall take precedence over any other copies, should there be a discrepancy. Proposals must be submitted to the SBD by the proposal due date and time. A separate sheet must be provided that clearly states which sections have been submitted as proprietary or have copyrighted materials. All proprietary information the bidder wishes the State to withhold must be submitted in accordance with the instructions outlined in Section III.OO, Terms and Conditions, Proprietary Information. Proposal responses shall include the completed *APPENDIX A, Bidder Contact Sheet*. Proposals and all correspondence shall reference this RFP number and be sent to the specified address. Container/packet(s) utilized for original documents should be clearly marked "ORIGINAL DOCUMENTS". The address label on the face of each container/packet shall contain the identical information shown in "Section II.A. Procurement Procedures, Contact Person." If a recipient phone number is required for delivery purposes, (402) 471-0468 should be used.

Emphasis should be concentrated on conformance to this RFP's instructions, responsiveness to requirements, completeness and clarity of content. Points may be lost if the bidders proposal is presented in such a fashion that makes evaluation, either difficult or overly time consuming. Elaborate and lengthy proposals are neither necessary, nor desired.

The Tenant Improvement Proposal, hereinafter the "Cost Proposal," and the Technical Proposal shall be presented in separate sections (loose-leaf binders are preferred) on standard 8½" x 11" paper, except that charts, diagrams and the like may be on fold-outs which, when folded, fit into the 8½" by 11" format. Pages may be consecutively numbered for the entire proposal, or may be numbered consecutively within sections. Figures and tables must be numbered consecutively within sections. Figures and tables must be numbered and referenced in the text by that number. They should be placed as close as possible to the referencing text.

G. PROPOSAL DUE DATE, TIME AND LOCATION

The sealed bid proposals are due no later than November 8, 2013 at 2:00 p.m. DST. Proposals must be delivered to The Executive Building, State Building Division, Fifth Floor Reception Desk, 521 S 14th St, Lincoln, NE 68508, Attn: Jim Pinkerton.

H. PROPOSAL OPENING

The sealed bid proposals shall be publicly opened and the bidding entities announced upon opening. Proposals will be available for viewing by attendees after the bid proposal opening. After the opening date, vendor/contractors may also contact the SBD to schedule an appointment for viewing proposals.

I. LATE PROPOSALS

Bid proposals received after the due date and time at the delivery location shown in the Schedule of Events will be considered late proposals and rejected. Rejected late proposals will be returned to the

bidder unopened, if requested, at bidder's expense. The State is not responsible for proposals that are late or lost due to mail service inadequacies, traffic or any other reason(s).

J. REJECTION OF PROPOSALS

The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

K. EVALUATION OF PROPOSALS

All proposals to this RFP which fulfill all mandatory requirements shall be evaluated. Each category will have a maximum possible point potential. The State will conduct a fair, impartial and comprehensive evaluation of all proposals in accordance with the criteria set forth below. Areas that will be addressed and scored during the evaluation include:

1. Executive Summary;
2. Technical Proposal (Technology and Building/Location Requirements); and
3. Cost Proposal.

Award of lease/contract shall be pursuant to Neb. Rev. Stat. §81-1108.55:

81-1108.55 Competitive bids; award to lowest responsible bidder; elements considered; procurement reports. All purchases, leases, or contracts which by law are required to be based on competitive bid pursuant to section 81-1108.16 shall be made to the lowest responsible bidder, taking into consideration the best interests of the state, the quality or performance of the property proposed to be supplied, its conformity with specifications, the purposes for which required, and the times of delivery. In determining the lowest responsible bidder, in addition to price, the following elements shall be given consideration:

(1) The ability, capacity, and skill of the bidder to perform the contract required;
(2) The character, integrity, reputation, judgment, experience, and efficiency of the bidder;
(3) Whether the bidder can perform the contract within the time specified;
(4) The quality of performance of previous contracts;
(5) The previous and existing compliance by the bidder with laws relating to the contract;
(6) The life-cost of the property in relation to the purchase price and specific use of the item;
(7) The performance of the property, taking into consideration any commonly accepted tests and standards of product usability and user requirements;
(8) Energy efficiency ratio as stated by the bidder for alternative choices of appliances or equipment;
(9) The information furnished by each bidder, when deemed applicable by the State Building Administrator, concerning life-cycle costs between alternatives for all classes of equipment, evidence of expected life, repair and maintenance costs, and energy consumption on a per-year basis; and
(10) Such other information as may be secured having a bearing on the decision to award the contract.

Reports regarding procurements made pursuant to this section shall be provided to the State Energy Office. Such reports shall be in the form and contain such information as the State Energy Office may require.

All political subdivisions may follow the procurement principles set forth in this section if they are deemed applicable by the official authorized to make purchases for such political subdivision.

Source: Laws 1992, LB 1241, § 25.

In addition to the above Statute requirements, all proposals will be compared and evaluated on the State's assessment of the following factors with a maximum point value, as shown below:

Site Location		15
	Ease of access from interstate and highways	
Parking		15
	A minimum of 50 parking stalls 36 employee/10 visitor/4 state vehicles	
Utilities and Amenities		15
	Ample utilities available – water, natural gas, electricity, sanitary sewer	
	Is there a loading dock?	
	Is there space for mechanical / electrical service yard?	
Safety/Security/Accessibility		5
	Site – two means of access in and out	
	Accessibility issues?	
Building Shell		30
	Minimum 26,000sf	
	Building layout (shape, column spacing, etc…)	
	Ceiling height – 15' clear to structure is optimal	
	Age of roof	
	General condition of building shell	
	Is the building shell structurally sound?	
Future Expansion		20
	Building Expansion up to 55,000sf	
	Parking Expansion to accommodate future building expansion	

Additional Scoring Considerations

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The SBD reserves the right to make site visits and/or inspections prior to awarding this lease. Proposals must include the name, address and telephone number of the person(s) necessary to arrange such site visits, see Bidders Proposal Form. Proposed buildings and/or land are to be made

available for tours by Evaluation Committee on November 13-14 at a time to be determined.

L. EVALUATION COMMITTEE

Proposals will be independently evaluated by the SBD point of contact, other members of SBD, consultants hired by the Tenant Agency, and the Tenant Agency's authorized representative(s). Prior to contract award, bidders are advised that only the point of contact indicated in Section II.A. of this RFP can clarify issues or render any opinion regarding this RFP. No individual employee of the State or any other member of the SBD or Tenant Agency or any member of the Evaluation Committee is empowered to make binding statements regarding this RFP. The point of contact will issue any clarifications or opinions regarding this RFP in writing.

M. MANDATORY REQUIREMENTS

The bid proposals will first be examined to determine if all mandatory requirements listed below have been addressed to warrant further evaluation. Proposals not meeting mandatory requirements will be excluded from further evaluation. The mandatory requirement items are as follows:

1. Request for Proposal For Real Property Lease form, signed in ink;

2. Bidder Proposal form, signed in ink;

3. Executive Summary;

4. Technical Proposal:

    i. Collaboration must occur with all interested parties (e.g., building owners and telecommunication providers). Proposals may be submitted for profit or nonprofit entities. The proposal must contain names and addresses of all parties who assisted in the submission;

    ii. If applicable, evidence of ISDN PRI service from a local telecommunications service provider who is certificated by the Nebraska Public Service Commission with PRI service capability;

    iii. If applicable, evidence of Ethernet based service capable of a minimum of 100 Mb scalable to 1 Gb from a service provider who is certificated by the Nebraska Public Service Commission, or a local provider who will provide an acceptable communications path to a certificated provider;

    iv. If applicable, evidence showing that the necessary technology space requirements are available; and

    v. Documentation that the building square footage meets at least the necessary minimum selected size as outlined in the proposal.

5. Cost Proposal for Tenant Improvements;

6. Proposed Floor Plan of existing building proposed shell space:

   i. A one-line floor plan (to-scale) with measurements depicting the proposed space;
   ii. Its location in the building;
   iii. Indicate location of narrow column spacing, bearing walls, atriums, light wells, or other areas interrupting contiguous spaces; extremely long, narrow runs of space, irregular space configurations, or other unusual building features; and
   iv. Indicate the location of common area ADA compliant restrooms and entrances;

7. Future expansion options identified should Tenant Agency needs increase during any lease term, see APPENDIX B, Bidder Proposal form;

8. References of at least three (3) responsible parties who can attest to the performance of the bidder in a lease agreement or other contractual relationship, see APPENDIX B, Bidder Proposal;

9. References of at least three (3) responsible parties who can attest to the performance of the bidder in completing a laboratory renovation or new construction of a laboratory, see APPENDIX B, Bidder Proposal;

10. Copy of a deed or other legal document showing proof of ownership of proposed site(s), see APPENDIX B, Bidder Proposal; and

11. Drug-Free Workplace Policy, see APPENDIX B, Bidder Proposal.

N. SITE VISITS

Bidders whose bid proposals meet the mandatory criteria shall be contacted for a site visit. A site visit shall be conducted to inspect and evaluate the proposed location and/or building. The SBD point of contact will schedule the site visit(s). Proposed property must be available for Evaluation Committee site visits on either November 13th or 14th and the time for each visit will be determined by the SBD point of contact.

O. REFERENCE CHECKS

The State reserves the right to check any reference(s) included in the Bidder Proposal form, regardless of the source of the reference information, including but not limited to, those that are identified by the company in the proposal, those indicated through the explicitly specified contacts, those that are identified during the review of the proposal, or those that result from communication with other entities involved with similar projects.

Information to be requested and evaluated from references may include, but not limited to, some or all of the following: project description and background, job performed, functional and technical abilities, communication skills and timeliness, cost and schedule estimates and accuracy, problems (poor quality deliverables, contract disputes, work stoppages, etc.), overall performance, and whether or not the reference would rehire the firm or individual. Only top scoring bidders will receive reference checks and negative references may eliminate top scoring bidders from consideration for award.

P. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS

All bidders are expected to comply with any statutory registration requirements. It is the responsibility of the bidder who is the recipient of an award to comply with any statutory registration requirements pertaining to types of business entities (e.g., a foreign or domestic corporation, non-resident contractor, limited partnership, or other type of business entity). The bidder who is the recipient of an award will be required to certify that it has so complied and produce a true and exact copy of its registration certificate, or, in the case registration is not required, to provide the reason as to why none is required. This must be completed within 24-hours of the lease contract award.

Q. VIOLATION OF TERMS AND CONDITIONS

Violation of the terms and conditions contained in this RFP or any resulting contract, at any time before or after the contract award, shall be grounds for action by the State which may include, but is not limited to, the following:

1. Rejection of a bidder's proposal(s); and
2. Suspension of the bidder from further bidding with the State for a period of time relative to the seriousness of the violation, such period to be at the sole discretion of the SBD.

III. TERMS AND CONDITIONS

By signing this RFP form, the bidder guarantees compliance with the provisions stated in this RFP, agrees to the terms and conditions, certifies bidder maintains a drug-free workplace environment, and complies with e-verify requirements regarding new employees.

Bidders are expected to closely read these Terms and Conditions and provide a binding signature of intent to comply with the terms and conditions. A bidder may indicate any exceptions to the terms and conditions by (1) clearly identifying the term or condition by subsection, (2) including an explanation for the bidder's inability to comply with such term or condition and which includes a statement recommending terms and conditions the bidder would find acceptable. Rejection in whole or in part of these Terms and Conditions may be cause for rejection of a bidder's proposal.

Bidders must affirmatively accept each and all of the terms and conditions of this RFP by affixing their initials on the space provided, which is indicated by the words "Accept & Initial."

A. GENERAL

_____
Accept & Initial

The lease contract resulting from this RFP shall incorporate, but are not limited to, the following documents, to be provided at the time of lease negotiations and implementation:

1. Request for Proposal form, signed;
2. Request for Proposal notice;
3. Request for Proposal addenda and/or amendments to include questions and answers, if any;
4. Bidder Proposal(s);
5. Lease contract award letter;
6. Any lease contract amendments, in order of significance;

7. All OCIO Technical, Access, and Installation Requirements;
8. Shell Space Floor Plan, approved, signed and dated by Tenant Agency;
9. Tenant Improvements, approved, signed and dated by Tenant Agency;
10. Data and Voice Labeling Schematic, approved, signed and dated by Tenant Agency;
11. Drug-Free Workplace policy, approved, signed and dated by Lessor;
12. Certificate of Insurance, provided by Lessor;
13. Site Rules and Regulations, provided by Lessor;
14. Smoking Policy, provided by Lessor; and
15. Signage Policy, provided by Lessor.

Unless otherwise specifically stated in a lease amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: (1) the lease contract award, (2) lease contract amendments with the latest dated amendment having the highest priority, (3) RFP addenda and/or amendments with the latest dated amendment having the highest priority, (4) the original RFP, (5) the signed RFP form, (6) the bidder proposal(s).

Any ambiguity in any provision of the lease contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once proposals are opened they become the property of the State of Nebraska and will not be returned.

B. AWARD

Accept & Initial

The lease shall be based on competitive proposal process and will be awarded according to the provisions in this RFP. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part, and at its discretion, may withdraw or amend this RFP at any time. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State. This RFP does not commit the State to award a lease contract. If, in the opinion of the State, revisions or amendments will require substantive changes in proposals, the due date may be extended.

By submitting a proposal, the bidder grants to the State the right to contact or arrange a visit in person with any or all of the bidder's clients.

Any protests must be filed by a bidder within ten (10) calendar days after the award announcement is determined.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION

Accept & Initial

The bidder shall comply with all applicable local, state and federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits bidders of the State of Nebraska, and their subcontractors, from discriminating against any

employee or applicant for employment, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125). The bidder guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The bidder shall include a similar provision in all subcontracts for services to be covered by any contract resulting from this RFP.

D. PERMITS, REGULATIONS, LAWS

Accept & Initial

The bidder, or bidder's contractor, shall procure and pay for all permits, licenses and approvals necessary for the execution of the lease contract; and shall comply with all applicable local, state, and federal laws, ordinances, rules, orders and regulations.

E. OWNERSHIP OF INFORMATION AND DATA

Accept & Initial

The State shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the bidder pursuant to the lease contract.

The bidder must guarantee that it has the full legal right to the materials, supplies, equipment, and other rights or titles (e.g. rights to licenses transfer or assign deliverables) necessary to execute this contract. The lease contract price shall, without exception, include compensation for all royalties and costs arising from patents, trademarks and copyrights that are in any way involved in the lease contract. It shall be the responsibility of the bidder, or bidder's contractor, to pay for all royalties and costs, and the State must be held harmless from any such claims.

F. INSURANCE REQUIREMENTS

Accept & Initial

The bidder's vendor/contractor shall not commence work under the lease contract until he or she has obtained all of the insurance required hereunder and such insurance has been approved by the State. The bidder or vendor/contractor shall not allow any subcontractor to commence work on his or her subcontract until all similar insurance required of the subcontractor has been obtained and approved by the State points of contact named above and the bidder's contractor. Approval of the insurance by the State shall not limit, relieve or decrease the liability of the contractor or subcontractor hereunder.

If by the terms of any insurance a mandatory deductible is required, or if the contractor elects to increase the mandatory deductible amount, the contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

1. **WORKERS' COMPENSATION INSURANCE**

The vendor/contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work under this lease contract and, in case any such work is sublet, the contractor shall require the subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the State, including Occupational Disease. This policy shall include a waiver of subrogation in favor of the State. The amounts of such insurance shall not be less than the limits stated hereinafter.

2. **COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE**

The contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect contractor and any subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under the lease contract, whether such operation be by the contractor or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage. *The policy shall include the State, and others as required by the lease contract documents, as an Additional Insured.* This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered excess and non-contributory. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned and Hired vehicles.

3. **INSURANCE COVERAGE AMOUNTS REQUIRED**

i. **WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY**

Coverage A	Statutory
Coverage B	
Bodily Injury by Accident	$100,000 each accident
Bodily Injury by Disease	$500,000 policy limit
Bodily Injury by Disease	$100,000 each employee

ii. **COMMERCIAL GENERAL LIABILITY**

General Aggregate	$2,000,000 per occurrence
Products/Completed Operations Aggregate	$2,000,000 per occurrence
Personal/Advertising Injury	$1,000,000 any one person
Bodily Injury/Property Damage	$1,000,000 per occurrence
Fire Damage	$50,000 any one fire
Medical Payments	$5,000 any one person

iii. **COMMERCIAL AUTOMOBILE LIABILITY**

Bodily Injury/Property Damage	$1,000,000 combined single limit

iv. **UMBRELLA/EXCESS LIABILITY**

Over Primary Insurance	$1,000,000 per occurrence

4. **EVIDENCE OF COVERAGE**

The contractor shall furnish the State within 24-hours of the award of this contract, and annually thereafter, a certificate of insurance coverage complying with the above requirements, submitted to the State Building Division, Attn: Paula Sedlacek, PO Box 98940, Lincoln, NE 68509-8940. These certificates shall reference lease agreement number CA-

65131364 and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration and amounts and types of coverage afforded; they shall be incorporated as an exhibit in the lease contract. If the State is damaged by the failure of the contractor to maintain such insurance, then the contractor shall be responsible for all reasonable costs properly attributable thereto.

Notice of cancellation of any required insurance policy must be submitted to Department of Administrative Services, Risk Management when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

G. COOPERATION WITH OTHER CONTRACTORS

Accept & Initial

The State may already have in place or choose to award supplemental contracts for work related to this RFP, or any portion thereof.

1. The State reserves the right to award the lease contract jointly between two or more potential contractors, if such an arrangement is in the best interest of the State; and

2. The vendor/contractor shall agree to cooperate with such other contractors, and shall not commit or permit any act which may interfere with the performance of work by any other contractor.

H. INDEPENDENT CONTRACTOR

Accept & Initial

It is agreed that nothing contained herein is intended or should be construed in any manner as creating or establishing the relationship of partners between the parties hereto. The vendor/contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under the lease contract. The vendor/contractor's employees and other persons engaged in work or services required by the vendor/contractor under the lease contract shall have no contractual relationship with the State; they shall not be considered employees of the State.

All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination against the contractor, its officers or its agents) shall in no way be the responsibility of the State. The vendor/contractor will hold the State harmless from any and all such claims. Such personnel or other persons shall not require nor be entitled to any compensation, rights or benefits from the State including without limit, tenure rights, medical and hospital care, sick and vacation leave, severance pay or retirement benefits.

I. BIDDER/CONTRACTOR RESPONSIBILITY

Accept & Initial

The winning bidder is solely responsible for fulfilling the terms of the lease contract, with responsibility for all services offered and as stated in this RFP, the bidder's proposal, and the resulting lease contract. The bidder shall be the sole point of contact regarding all contractual matters.

If the winning bidder intends to utilize any subcontractors' services, the subcontractors' level of effort, tasks and time allocation must be clearly defined in the bidder's proposal. The bidder shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the lease contract, without the prior written authorization of the State. Following execution of the lease

contract, the bidder shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the lease contract.

J. BIDDER/CONTRACTOR PERSONNEL

Accept & Initial

The bidder warrants that all persons assigned to the project shall be employees of the vendor/contractor or specified subcontractors, and shall be fully qualified to perform the work required herein. Personnel employed by the bidder/vendor/contractor to fulfill the terms of the lease contract shall remain under the sole direction and control of the bidder/vendor/contractor. The contractor shall include a similar provision in any contract with any subcontractor selected to perform work on the project.

Personnel commitments made in the bidder's proposal shall not be changed without the prior written approval of the State. Replacement of key personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The State reserves the right to require the bidder to reassign or remove from the project any vendor, contractor or subcontractor employee.

In respect to its employees, the contractor agrees to be responsible for the following:

1. Any and all employment taxes and/or other payroll withholding;

2. Any and all vehicles used by the contractor's employees, including all insurance required by state law;

3. Damages incurred by contractor's employees within the scope of their duties under the contract;

4. Maintaining workers' compensation and health insurance and submitting any reports on such insurance to the extent required by governing State law; and

5. Determining the hours to be worked and the duties to be performed by the contractor's employees.

Notice of cancellation of any required insurance policy must be submitted to the State when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION

Accept & Initial

The bidder shall not, at any time, recruit or employ any State employee or agent who has worked on this RFP or who had any influence on decisions affecting this RFP.

L. CONFLICT OF INTEREST

Accept & Initial

By submitting a bid proposal, bidder certifies that there does not now exist any relationship between the bidder and any person or entity which is, or gives the appearance of, a conflict of interest related to this RFP.

The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or appearance of conflict of interest.

The bidder certifies that it will not employ any individual known by bidder to have a conflict of interest.

M. PROPOSAL PREPARATION COSTS

Accept & Initial

The State shall not incur any liability for any costs incurred by bidders in replying to this RFP, in the demonstrations, site visits or oral presentations, or in any other activity related to bidding on this RFP.

N. ERRORS AND OMISSIONS

Accept & Initial

The bidder shall not take advantage of any errors and/or omissions in this RFP or resulting lease contract. The bidder must promptly notify the State of any errors and/or omissions that are discovered.

O. BEGINNING OF WORK

Accept & Initial

The bidder shall not commence any billable work until a valid lease contract has been fully executed by the State and the successful bidder. The bidder will be notified in writing when work may begin.

P. ASSIGNMENT BY THE STATE

Accept & Initial

The State shall have the right to assign or transfer the lease contract or any of its interests herein to any agency, board, commission, or political subdivision of the State of Nebraska. There shall be no charge to the State for any assignment hereunder.

Q. ASSIGNMENT BY THE CONTRACTOR

Accept & Initial

The bidder may not assign, voluntarily or involuntarily, the lease contract or any of its rights or obligations hereunder, including without limitation, rights and duties of performance to any third party without the prior written consent of the State, which will not be unreasonably withheld.

R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL

Accept & Initial

The requirements contained in this RFP become a part of the terms and conditions of the lease contract resulting from this RFP. Any deviations from this RFP must be clearly defined by the bidder in its proposal and, if accepted by the State, will become part of the lease contract. Any specifically defined deviations must not be in conflict with the basic nature of this RFP or mandatory requirements. The State discourages deviations and reserves the right to reject proposed deviations.

S. GOVERNING LAW

Accept & Initial

The contract shall be governed in all respects by the laws and statutes of the State. Any legal proceedings against the State regarding this RFP or any resultant contract shall be brought into the

State of Nebraska administrative or judicial forums as defined by State law. The contractor must be in compliance with all Nebraska statutory and regulatory law.

T. ATTORNEY'S FEES

Accept & Initial

In the event of any litigation, appeal or other legal action to enforce any provision of the lease contract, the bidder agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party.

U. ADVERTISING

Accept & Initial

There shall be no reference to the contract award in advertising in such a manner as to state or imply that the company or its services are endorsed or preferred by the State and news releases pertaining to this RFP shall not be issued without prior written approval from the State.

V. STATE PROPERTY

Accept & Initial

The contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the contractor's use during the performance of the lease contract. The contractor shall reimburse the State for any loss or damage of such property, normal wear and tear is expected.

W. SITE RULES AND REGULATIONS

Accept & Initial

The contractor shall use its best efforts to ensure that its employees, agents and subcontractors comply with site rules and regulations while on the Demised Premises. If the contractor must perform on-site work outside of the daily operational hours set forth by the bidder or the Tenant Agency, it must make arrangements with the Tenant Agency point of contact to ensure that access to the facility and the equipment has been pre-arranged. No additional payment will be made by the Tenant Agency on the basis of lack of access, unless the Tenant Agency fails to provide access as agreed, between the winning bidder and the contractor.

X. NOTIFICATION

Accept & Initial

During the bid process, all communication between the State and a bidder shall be between the bidder's point of contact clearly noted in its proposal(s) and the SBD point of contact noted in Section II.A of this RFP. Following the bid award, all notices under the lease contract shall be deemed duly given upon delivery to the designated point of contact, in person or upon delivery by overnight courier, US Mail, facsimile, or e-mail. Each bidder should provide in its proposal the name, title and complete address, phone number, and email address, if any, of its designee to receive notices.

1. Except as otherwise expressly specified herein, all notices, requests or other communications shall be in writing and shall be deemed to have been given if delivered personally, if sent via overnight courier using a tracking number, or mailed, by US Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth above, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) days following the date of deposit to the courier company or in the mail.

2. Whenever the contractor encounters any difficulty which is delaying or threatens to delay its timely performance under the lease contract, the contractor shall immediately give notice thereof in writing to the State reciting all relevant information with respect thereto. Such notice shall not in any way constitute a basis for an extension of the delivery schedule or be construed as a waiver by the State of any of its rights or remedies to which it is entitled by law or equity or pursuant to the provisions of the contract. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery schedule because of such delay.

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

For the duration of the lease contract, all communication between contractor and the Tenant Agency regarding the lease contract shall take place between the contractor and individuals specified by the Tenant Agency and the SBD point of contact in writing. Communication about the lease contract between contractor and individuals not designated as points of contact by the SBD is strictly forbidden.

Y. EARLY TERMINATION

The lease contract may be terminated as follows:

Accept & Initial

1. The SBD, Tenant Agency, and the winning bidder, by mutual written agreement, may terminate the lease contract at any time.

2. The State, in its sole discretion, may terminate the lease contract for any reason upon thirty (30) days written notice to the contractor except as described under the Termination section (Section 4) on pages 2 and 3 of *APPENDIX C – Lease Agreement*. Such termination shall not relieve the contractor of warranty or other service obligations incurred under the terms of the lease contract. In the event of cancellation the contractor shall be entitled to payment, determined on a pro rata basis, for services satisfactorily performed or provided.

3. The State may terminate the contract immediately for the following reasons:

   i. If directed to do so by statute;

   ii. Contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;

   iii. A trustee or receiver of the contractor or of any substantial part of the contractor's assets has been appointed by a court;

   iv. Fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its contractor, its employees, officers, directors or shareholders;

v. An involuntary proceeding has been commenced by any party against the contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) days; or (ii) the contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the contractor has been decreed or adjudged a debtor;

vi. A voluntary petition has been filed by the contractor under any of the chapters of Title 11 of the United States Code;

vii. Contractor intentionally discloses confidential information;

viii. Contractor has or announces it will discontinue support of the deliverable; and

ix. Second or subsequent documented "vendor performance report" form deemed acceptable by the SBD.

Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS

Accept & Initial

The SBD may terminate the lease contract, in whole or in part, in the event funding is no longer available. The State's obligation to pay amounts due for fiscal years following the current fiscal year is contingent upon legislative appropriation of funds for the contract. Should said funds not be appropriated, the SBD may terminate the contract with respect to those payments for the fiscal years for which such funds are not appropriated. The SBD will give the contractor written notice thirty (30) days prior to the effective date of any termination, and advise the contractor of the location (address and room number) of any related equipment. All obligations of the State to make payments after the termination date will cease and all interest of the State in any related equipment will terminate. The contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date upon providing to SBD point of contact, invoices and other documents, paid by the contractor for work performed up to the date of termination. In no event, shall the contractor be paid for a loss of anticipated profit.

AA. BREACH BY CONTRACTOR

Accept & Initial

The SBD may terminate the lease contract, in whole or in part, if the contractor fails to perform its obligations under the contract in a timely and proper manner. The SBD may, by providing a written notice of default to the contractor, allow the contractor to cure a failure or breach of contract within a period of thirty (30) days, or longer at SBD's discretion considering the gravity and nature of the default. Said notice shall be delivered by overnight courier or by certified mail, return receipt requested or in person with a signed proof of delivery receipt. Allowing the contractor time to cure a failure or breach of contract does not waive the SBD's right to immediately terminate the lease contract for the same or different contract breach which may occur at a different time. In case of default of the contractor, the SBD may contract the service from other sources and hold the contractor responsible for any excess cost occasioned thereby.

BB. ASSURANCES BEFORE BREACH

Accept & Initial

If any document or deliverable required pursuant to the contract does not fulfill the requirements of this RFP and resulting contract, upon written notice from the SBD, the contractor shall deliver

assurances in the form of additional contractor resources at no additional cost to the project in order to complete the deliverable, and to ensure that other project schedules will not be adversely affected.

CC. PENALTY

Accept & Initial

In the event that the contractor fails to perform any substantial obligation under the contract, the SBD may withhold all monies due and payable to the contractor, without penalty, until such failure is cured or otherwise adjudicated. Failure to meet the commencement date for the Demised Premises stipulated in the contract may result in an assessment of penalty due the Tenant Agency of one percent (1%) per day, until the deliverables are approved. Contractor will be notified in writing when penalty will commence within seven (7) days of the commencement date.

DD. PERFORMANCE BOND

Accept & Initial

If required at the time of the bid award, the selected contractor shall supply a certified check or a bond executed by a corporation authorized to contract surety in the State of Nebraska, payable to the State of Nebraska, which shall be valid until such time of acceptance of Demised Premises and date of occupancy by the Tenant Agency. The amount of the certified check or bond must be no less than ten (10%) of the total lease contract amount. The check or bond, if required, will guarantee that the selected contractor will faithfully perform all requirements, terms and conditions of the lease contract. Failure to comply shall be grounds for forfeiture of the check or bond as liquidated damages. Amount of forfeiture will be determined by the Tenant Agency based on loss to the State of Nebraska. The bond or certified check will be returned when the Tenant Agency has accepted the Demised Premises and taken occupancy and all terms and conditions have been satisfactorily completed as solely determined by the SBD.

EE. FORCE MAJEURE

Accept & Initial

Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract. The party so affected shall immediately give notice to the other party of the Force Majeure Event. The SBD may grant relief from performance of the contract if the contractor is prevented from performance by a Force Majeure Event. The burden of proof for the need for such relief shall rest upon the contractor. To obtain release based on a Force Majeure Event, the contractor shall file a written request for such relief with the SBD. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract.

FF. PROHIBITION AGAINST ADVANCE PAYMENT

Accept & Initial

Payments shall not be made until (1) the Demised Premises are reviewed and accepted, (2) Tenant Agency takes occupancy, and (3) all other terms and conditions are completed and accepted by the SBD point of contact.

GG. PAYMENT

Accept & Initial

SBD will render payment to contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the SBD. Payment will be made by the Lessee in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State requires the contractor to accept payment by electronic means such as ACH deposit. In no event shall the SBD be responsible or liable to pay for any services provided by the contractor prior to the Commencement Date, and the contractor hereby waives any claim or cause of action for any such services.

HH. INVOICES

Accept & Initial

Invoices for payments for goods or services, separate from the lease contract for the Demised Premises, must be submitted by the contractor to the Tenant Agency requesting the services with sufficient detail to support payment. The terms and conditions included in the contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the SBD, in writing, as an amendment to the lease contract.

II. AUDIT REQUIREMENTS

Accept & Initial

All contractor books, records and documents relating to work performed or monies received under the contract shall be subject to audit at any reasonable time upon the provision of reasonable notice by the SBD. The contractor's records shall be maintained for a period of five (5) full years from the date of final payment, or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles.

In addition to, and in no way in limitation of, any obligation in the contract, the contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. The contractor agrees to correct immediately any material weakness or condition reported to the State in the course of an audit.

JJ. TAXES

Accept & Initial

The State is not required to pay taxes of any kind and assumes no such liability as a result of this solicitation. Any property tax payable on the contractor's equipment which may be installed in a state-owned facility is the responsibility of the contractor.

KK. INSPECTION AND APPROVAL

Accept & Initial

Final inspection and approval of all work required under the contract shall be performed by the SBD points of contact. The SBD and/or its authorized representatives shall have the right to enter the Demised Premises where duties under the contract are being performed, and to inspect, monitor or

otherwise evaluate the work being performed. All inspections and evaluations shall be at reasonable times and in a manner that will not unreasonably delay work.

LL. CHANGES IN SCOPE/CHANGE ORDERS

Accept & Initial

The SBD may, at any time with written notice to the contractor, make changes within the general scope of the contract. Changes in scope shall only be conducted with the written approval of the SBD's designee as so defined by the State from time to time. The State retains the right to employ the services of a third party to perform any change order(s).

The SBD may, at any time work is in progress, by written order, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the SBD may find necessary or desirable. The contractor shall not claim forfeiture of contract by reasons of such changes by the SBD. Changes in work and the amount of compensation to be paid to the contractor for any extra work so ordered shall be determined in accordance with the applicable unit prices of the contractor's proposal.

Corrections of any performance of work required pursuant to the contract shall not be deemed a modification requiring a change order.

MM. SEVERABILITY

Accept & Initial

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

NN. CONFIDENTIALITY

Accept & Initial

All materials and information provided by the State or acquired by the contractor on behalf of the State shall be regarded as confidential information. All materials and information provided by the SBD or acquired by the contractor on behalf of the State shall be handled in accordance with federal and state law, and ethical standards. The contractor must ensure the confidentiality of such materials or information. Should said confidentiality be breached by a contractor; contractor shall notify the SBD immediately of said breach and take immediate corrective action.

It is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable to contractors by 5 U.S.C. 552a (m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

OO. PROPRIETARY INFORMATION

Accept & Initial

Data contained in the proposal and all documentation provided therein, become the property of the State and the data becomes public information upon opening the proposal. If the bidder wishes to have any information withheld from the public, such information must fall within the definition of proprietary information contained within Nebraska's public record statutes. All proprietary information the bidder wishes the State to withhold must be submitted in a sealed package, which is separate from the remainder of the proposal. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire RFP as proprietary. Bidder's cost proposals may not be marked as proprietary information. Failure of the bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, bidders submitting information as proprietary may be required to prove specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

PP. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING

Accept & Initial

By submission of this bid proposal, the bidder certifies, that he or she is the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and further that the bidder has not, directly or indirectly, submitted his or her proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

QQ. PRICES

Accept & Initial

All prices, costs, terms and conditions outlined in the proposal shall remain fixed and valid commencing on the opening date of the proposal until an award is made (and for bidder receiving award, prices shall remain stated as bid for the duration of the contract unless otherwise so stated in the contract) or this RFP is cancelled.

Contractor represents and warrants that all prices for services, now or subsequently specified are as low as and no higher than prices which the contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time. If, during the term of the contract, the contractor shall reduce any and/or all prices charged to any customers other than the State for the same or similar products or services specified herein, the contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.

Contractor also represents and warrants that all prices set forth in the contract and all prices in addition, which the contractor may charge under the terms of the contract, do not and will not violate any existing federal, state or municipal law or regulations concerning price discrimination and/or price fixing. Contractor agrees to hold the State harmless from any such violation. Prices quoted shall not be subject to increase throughout the contract period unless specifically allowed by these specifications.

RR. BEST AND FINAL OFFER

Accept & Initial

The State will compile the final scores for all parts of each proposal. If so determined by the SBD, an opportunity to submit a best and final offer will be granted to the highest scoring bidders. When best and final offers are requested by the State and submitted by the bidder, they will be evaluated, scored and ranked by the SBD point of contact, other members of SBD, consultants hired by the Tenant Agency, and the Tenant Agency's authorized representative(s). The award will then be granted to the highest scoring bidder. Bidders are advised to propose their best possible offer(s) at the outset of the process. There is no guarantee that any bidder will be allowed an opportunity to submit a best and final offer.

If the selection process described in this RFP does not lead to a viable recommendation, the State (SBD and NSPCL), at its discretion, may request a 'Best and Final Offer' or "BAFO". The BAFO may include any changes to the original proposal.

After reviewing the BAFOs, the revised proposals will be independently evaluated by the SBD point of contact, other members of SBD, consultants hired by the Tenant Agency, and the Tenant Agency's authorized representative(s) using the original scoring criteria. If an alteration to the original published evaluation criteria is to be made, such changes in the criteria will be published to all bidders along with the BAFO notice.

SS. ETHICS IN PUBLIC CONTRACTING

Accept & Initial

No bidder shall pay or offer to pay, either directly or indirectly, any fee, commission compensation, gift, gratuity, or anything of value to any State officer, legislator or employee based on the understanding that the receiving person's vote, actions or judgment will be influenced thereby. No bidder shall give any item of value to any employee of the SBD.

Bidders shall be prohibited from utilizing the services of lobbyists, attorneys, political activists, or consultants to secure the contract. It is the intent of this provision to assure that the prohibition of state contact during the procurement process is not subverted through the use of lobbyists, attorneys, political activists, or consultants. It is the intent of the State that the process of evaluation of proposals and award of the contract be completed without external influence. It is not the intent of this section

to prohibit bidders from seeking professional advice, for example consulting legal counsel, regarding terms and conditions of this RFP or the format or content of their proposal.

If the bidder is found to be in non-compliance with this section of this RFP, they may forfeit the contract if awarded to them, or, be disqualified from the selection process.

TT. INDEMNIFICATION

1. GENERAL

Accept & Initial

The contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the contractor, its employees, subcontractors, consultants, representatives, and agents, except to the extent such contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. INTELLECTUAL PROPERTY

Accept & Initial

The contractor agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all claims, to the extent such claims arise out of, result from, or are attributable to the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the contractor prompt notice in writing of the claim. The contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the contractor has indemnified the State, the contractor shall at the contractor's sole cost and expense promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the contractor, and the State may receive the remedies provided under this RFP.

3. PERSONNEL

Accept & Initial

The contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel provided by the contractor.

UU. NEBRASKA TECHNOLOGY ACCESS STANDARDS

Accept & Initial

Contractor shall review the Nebraska Technology Access Standards, found at http://www.nitc.state.ne.us/standards/accessibility and ensure that products and/or services provided under the contract comply with the applicable standards. In the event such standards change during the contractor's performance, the SBD may create an amendment to the contract to request that contract comply with the changed standard at a cost mutually acceptable to the parties.

VV. ANTITRUST

Accept & Initial

The contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

WW. DISASTER RECOVERY/BACK UP PLAN

Accept & Initial

The contractor shall have a disaster recovery and back-up plan, of which a copy shall be provided to the SBD, which includes, but is not limited to equipment, personnel, facilities, and transportation, for a continuance of services as specified under these specifications in the event of a disaster.

XX. TIME IS OF THE ESSENCE

Accept & Initial

Time is of the essence in this contract. The acceptance of late performance with or without objection or reservation by the SBD shall not waive any rights of the State nor constitute a waiver of the requirement of timely performance of any obligations on the part of the contractor remaining to be performed.

YY. RECYCLING

Accept & Initial

Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per Neb. Rev. Stat. §81-15, 159.

ZZ. DRUG POLICY

Accept & Initial

Contractor certifies that it maintains a drug-free workplace environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug-free workplace policy along with the bid proposal and at the time of execution of the lease contract which shall become an exhibit to the lease contract.

IV. PROJECT DESCRIPTION AND SCOPE OF WORK

The bidder must provide the following information in response to this RFP.

A. ELIGIBLE BIDDERS

The SBD is requesting comprehensive responses to this RFP. Collaboration must occur with all interested parties, e.g. bidders, building owners, building contractors, and telecommunication providers. Proposals may be submitted by governmental, for profit or nonprofit entities, and

individuals. The response must contain the names and addresses of all parties who assisted in the submission.

B. SERVICES

The winning bidder shall own the land and building for the Demised Premises and provide the needed infrastructure for the technology as determined in this RFP by the Tenant Agency. Proposals must be full-service where all maintenance-related services including, but not limited to, electrical, including light tube/bulb/ballast replacement and installation; mechanical, including furnace filters installation and replacement and other routine maintenance services; plumbing, including clearing clogged toilets and drains within 24 hours of notification; structural, roof, trash removal, lawn services, and pest control, see APPENDIX C - Lease Agreement; and others, are provided by the Lessor as part of the lease.

The Lessor shall also be responsible for snow and ice removal of building entrances, sidewalks, and parking areas within twenty-four (24) hours after cessation of snow, sleet, or icy weather where applicable. It shall be the Lessor's responsibility to correct all unsafe conditions relating to freezing and thawing in a timely manner.

In addition, the Lessor must be prepared to work with the State Recycling Coordinator, SBD, and NSPCL on a recycling program for the office site.

C. OVERVIEW OF TENANT AGENCY

The NSPCL is responsible for providing forensic science examination services to law enforcement agencies in the State of Nebraska and providing court testimony relevant to those examinations. Evidence is received from law enforcement agencies throughout the state and examinations are performed in the areas of latent prints, firearms and tool marks, footwear and tire tread, biology/DNA, toxicology, drug chemistry and trace evidence analysis. The NSPCL is also a NIBIN (National Integrated Ballistics Information Network) repository and the State's CODIS (Combined DNA Index System) database administrator.

D. PROJECT SPECIFICATIONS

This NSPCL will be a State of Nebraska facility with State employees.

1. **Business Day:**
   The NSPCL will be open Monday through Friday, 8:00 a.m. to 5:00 p.m., excluding state and federal holidays.

2. **Hours of Operation:**
   Same as Business day. After hours evidence receipt and examinations occur as needed. Overnight instrument runs prohibit HVAC set-backs at night and on weekends.

3. **Number of Employees:** 31

4. **Building Specifications - Square Footage**:

Area	Square Feet (minimum)
Laboratory, Office and Support Spaces	28,000 GSF

5. **BOMA**:

For purposes of this RFP and subsequent lease, the Building Owners and Managers Association ("BOMA") standard is the method for measuring the actual rentable area of a building available to an occupant for their specific use, more commonly referred to as the Demised Premises. The rentable area will be computed by measuring to the inside finished surface of the dominant portions of the permanent outer building walls, excluding any major vertical penetrations of the floor. The rentable area includes all areas the NSPCL will occupy to accomplish their mission and are exclusive for use by NSPCL.

Common areas include mechanical/electrical areas, building service areas, public restrooms, public break areas, public corridors, vestibules, elevator lobbies, elevator shafts, escalators, stairways and stair towers, and receiving areas such as docks, etc.

The Demised Premises shall be designed and constructed using the proven best practices and technology, with careful use of natural resources. Construction materials should be selected on the basis of aesthetic quality, long-term durability and operational efficiency.

6. **Demised Premises Structure**:

The structure and building components shall include, but not limited to, roofing systems and waterproofing elements, entrances, ceilings, walls, floors and/or floor coverings, windows, lighting, and, common areas accessible to NSPCL such as lobbies, public restrooms, fire egress corridors and stairwells, elevators, garages, and services areas, and all mechanical equipment, such as HVAC system, electrical service, plumbing, sprinklers, etc… These building components shall be coordinated with Tenant Improvements during construction. Reference APPENDICES E, F & G for detailed lists of building components to be provided. If there are discrepancies between these documents, the order of precedence will be APPENDIX G, then APPENDIX F, then APPENDIX E.

E. TECHNOLOGY REQUIREMENTS

The following technology requirements are necessary for the Tenant Agency and the State has standard policies and procedures for the installation of wire and cable facilities in State owned and/or occupied buildings. These policies are identified below.

The Office of the Chief Information Officer (Phone: (402) 471-3851) will make all arrangements for data circuits, voice circuits, and CPE for the NSPCL. In order for a proposed Demised Premises be considered as a viable location, the following represents minimum technologies that must be available:

i. ISDN PRI service from a local telecommunications service provider who is certificated by the Nebraska Public Service Commission. PRI service must be capable of providing toll free non-measured inbound and outbound calling within the local calling area.

ii. Ethernet based service capable of a minimum of 100 Mb scalable to 1 Gb is required from a service provider who is certificated by the Nebraska Public Service Commission, or a local provider who will provide an acceptable communications path to a certificated provider.

iii. Connection to Network Nebraska will be required. Competitive pricing for data services from providers in order to connect the proposed site to Network Nebraska will be obtained by the OCIO. This pricing will include installation, monthly recurring charges, infrastructure build out and any other associated fees. Qualified bidders may be asked to submit a best and final offer upon receiving cost projections from the OCIO.

F. TECHNOLOGY BUILDING SPACE REQUIREMENTS

1. **Computer Wiring**:

The Lessor shall provide communication cabling to each desk and/or workstation as well as all offices/rooms in the facility. Each desk and/or workstation shall have two (2) computer jacks provided. Two (2) computer jacks will also be needed in conference rooms and other offices. Tenant Agency will require a minimum of two (2) 8P8C Category 6 data connections. All terminations shall be installed by qualified personnel in the telecommunications field.

Each data cable shall be a solid copper, 24 AWG, 100 Ω balanced twisted-pair (UTP) Category 6 cable with four individually twisted-pairs, which meet or exceed the mechanical and transmission performance specifications in ANSI/TIA/EIA-568-B up to 250 MHz.
Note: Listed Type CMR, CMP, MPR and/or MPP (as required in the NEC 2011).

Each data outlet shall be an 8-pin modular, Category 6 unkeyed jack using the T568B pin/pair assignment.

Each data faceplate and closet termination point shall be labeled. A copy of the labeling scheme shall be provided to the Tenant Agency and the Lessor.

Each cable link shall be tested and conform to ANSI/TIA/EIA-568-B standard. Testing shall meet Category 6 standards and be accomplished using level III or higher field testers.

Installation methods and procedures shall meet the ANSI/TIA/EIA-568-B wiring standards and those set by the State of Nebraska, Office of the Chief Information Officer as outlined below.

2. **General**:

i. *Work Included*:
The telephone and computer wiring system shall include, but is not limited to: all station, riser, aerial, and intra-campus cables as required; conduits, raceways, messenger wire systems, and all associated cable support hardware; telephone jacks, data interface connectors, face plates, and identification labels; distribution back-boards, line protectors, termination blocks and brackets, patch panels, distribution rings, cross connect wire, and data

distribution equipment as required; all cable terminations; and all associated appurtenances as required by the distribution system.

ii. *Requirements of Regulatory Agencies*:

1) Wiring methods, conductor applications, and insulation materials shall meet all applicable provisions of the National Electrical Code and Federal Communications Commission Rules and Regulations as well as applicable State and Local Codes.

2) All new cables and wires installed shall be listed by Underwriters Laboratories, Inc.

3) All cables installed shall meet appropriate fire ratings.

iii. *Products*:

All required or recommended parts to be used for a specific installation will be listed in the contract.

3. **Execution:**

i. *Workmanship*:

1) All work shall be performed by a company whose primary business is providing telecommunication services. This does not include work normally performed by an electrical contractor.

2) All installations shall conform to the appropriate and most current recommended standards, as well as any associated technical systems bulletin, as published by the EIA/TIA committee of ANSI.

3) All work shall be performed in accordance with the equipment manufacturer's requirements.

4) All cable terminations shall be performed at the respective terminal boards, equipment cabinets, and station outlets.

5) All station cabling shall be "home run" to appropriate distribution frame or equipment cabinet. No splices will be allowed in these lines.

6) Distribution panels are not to be located in a plenum area or above accessible ceilings.

7) All cables installed above accessible ceilings shall be neatly bundled utilizing commercially available products and attached to appropriate supports. Cables installed randomly and disorderly will not be allowed.

8) All cables shall be installed in a fashion not to interfere with the general maintenance of other electrical/mechanical devices as well as in a manner

that other electrical/mechanical devices will not interfere with the operation of the cables intended application.

9) All cables shall be identified and/or labeled at appropriate locations.

10) Contractor shall be responsible for all clean-up associated with the installation of cabling facilities.

ii. *Cabling Records:*
Upon completion, a detailed drawing of the wiring system shall be provided. This drawing should show, but is not limited to, outlet jacks, labeling schemes and numbers, distribution panels and closets, aerial, riser, intra-campus, and building entrance cables, and all splice locations. Underground cabling and conduit systems are to be located with exact measurements using permanent, physical structures as reference points.

iii. *Testing:*
Upon completion of the wiring system, provide written certification that the system is free of shorts, grounds or open circuits, all cables are terminated and identified and that each voice and/or data outlet is functional.

iv. *Warranty:*
All materials and labor shall be warranted for a period of not less than of one year from the date of final acceptance. Extended warranty requirements will be listed in the contract.

G. LOCATION REQUIREMENTS

The State is requesting proposals for the purpose of leasing laboratory, office and support space for the NSPCL. Proposals shall be located within Lincoln, NE city limits.

The State is requesting proposals to include the option to purchase the land and building during any term or at the end of any term of the lease.

If bidder is proposing a build to suit or new construction, the construction for the site must be completed by June 1, 2015. All proposal requirements are outlined herein below.

H. FUNDING SOURCES

This RFP is a State of Nebraska project.

I. DOWN PAYMENT

The Tenant Agency shall pay $2,500,000 at time of substantial completion as a down payment.

J. FURNISHINGS, FIXTURES AND EQUIPMENT (FF&E)

Furniture, Fixtures and Equipment (FF&E) shall be provided and installed by the Lessor and/or Lessee as outlined below. Component descriptions for the lab space furnishings are included in Section 7 and Room Data Sheets of the original NSPCL Program Statement (APPENDIX E) and Section 7 of the updated NSPCL Program Statement (APPENDIX F). FF&E items include but are not limited to those provided in the Program Statements APPENDICES E & F. FF&E items shall be provided as follows:

FF&E Type	Provided By	Installed By
Reusable Equipment	Tenant Agency	Tenant Agency
Fixed Equipment	Owner	Owner
Movable Equipment	Tenant Agency	Tenant Agency
Fixed Casework	Owner	Owner
Movable Casework	Owner	Owner
Furniture	Tenant Agency	Tenant Agency
Furnishings:		
Lockers	Owner	Owner
Evidence Lockers	Owner	Owner
Coat Hooks	Owner	Owner
Marker Boards	Owner	Owner
Tack Boards	Owner	Owner
Projection Screens	Owner	Owner
Interior Signage	Owner	Owner
Exterior Signage	Owner	Owner
Window Coverings, including roller shades and/or blackout panels	Owner	Owner
Smart Boards	Tenant Agency	Tenant Agency
Appliances and Miscellaneous Equipment	Tenant Agency	Tenant Agency
Clocks	Tenant Agency	Tenant Agency
Indoor Plants	Tenant Agency	Tenant Agency
Fitness Equipment	Tenant Agency	Tenant Agency

K. CONTRACTORS.

After contract award, NSPCL will provide a complete set of SBD and NSPCL approved design intent drawings, plans and specifications. The selected bidder will work closely with the SBD's architect and engineer to develop the construction documents and specifications from which the Lessor will complete the building improvements and tenant fit-out.

The design of the space offered shall be conducive to an efficient layout and utilization as determined by the SBD and NSPCL.

Within thirty (30) days after receiving such drawings, plans and specifications, Lessor shall submit to SBD and NSPCL, a construction schedule giving the expected start and completion dates and an itemized estimated cost of the various phases of Tenant Improvements.

The Tenant Improvement process will involve, at a minimum, bi-weekly progress meetings with a representative of NSPCL. Lessor is responsible for keeping minutes of these meetings. All change orders will require the approval of NSPCL.

The Lessor will be responsible for general contract duties for the total build-outs including, but not limited to, managing subcontractors and scheduling material acquisitions.

The SBD and NSPCL reserve the right to be represented at all negotiation sessions between the Lessor and potential contractors/sub-contractors.

All work in performance of this lease shall be done by skilled workers or mechanics and shall be acceptable to SBD. SBD retains the right to reject the Lessor's workers if such are unlicensed, unskilled, or otherwise incompetent or if such have demonstrated a history of either untimely or otherwise unacceptable performance in connection with work carried out in conjunction with either this contract or other State or private contracts.

The Lessor will work with the SBD to ensure that the general contractor and/or its sub-contractors have sufficient experience in the construction of similar laboratory space. Three examples and references will be provided for the Lessor and SBD to review and approve prior to the start of construction.

The Lessor shall demonstrate that best efforts are made to obtain the most competitive prices possible in all services and material acquisitions.

L. OTHER TENANT IMPROVEMENT INFORMATION.

The NSPCL anticipates the Demised Premises to consist of the following:

i. Refer to APPENDICES E, F and G for specific space requirements and additional remarks/footnotes.

ii. The space requirements are approximate and may be adjusted depending on specific existing conditions, building renovation requirements or arrangement and efficiencies of the proposed space.

Total Laboratory Space	16,000 sf
Total Office Space	12,000 sf
GRAND TOTAL	28,000 sf

M. RATE STRUCTURE

The NSPCL requires an initial term of twenty (20) years effective from the date of occupancy with the option to extend for two (2) additional five (5) year terms as mutually agreed upon by all parties.

If the proposed space has more square feet than what is requested, then rental rates shall be based on the requested square feet. In order to provide a fair means of comparison, list the remaining balance of space 'available at no cost' to Lessee/Tenant Agency.

It is the desire of the NSPCL to pay a lower first-year rental rate with increases, no greater than 2%, applied per biennium thereafter.

The illustrated rental rate schedule shall be as a summation of the amounts broken out into 'Laboratory Rate,' 'General Office Rate,' and 'Sq. Ft. at No Cost,' and for each year of the original twenty-year term (example provided).

	Square Feet	Rate/Sq. Ft.	Annual Cost	Monthly Payment
Laboratory Rental Rate	16,000			
Office Rental Rate	12,000			
Sq. Ft. at No Cost		$0/SF	$0	$0
Year One Total	28,000		$779,112	$64,926

N. RFP RESPONSE INFORMATION AND FORMAT

1. Facility

i. *Existing Facility and New Facility*
Please submit information for all building options available for up to five (5) locations (up to 5 proposals). The information for each proposal shall include all the requirements listed in this RFP.

ii. *Building/Location List*
A list of all properties considered shall be included. Please list property address, building owner name and contact information.

2. Telecommunications

i. Provide documentation that ISDN PRI service from a local telecommunications phone service provider who is certificated by the Nebraska Public Service Commission is available. Additionally, indicate that PRI service capable of providing toll free non-measured inbound and outbound calling within the local calling area is available.

iii. Provide documentation that Ethernet based service capable of a minimum of 100 Mb scalable to 1 Gb is available from a service provider who is certificated by the Nebraska Public Service Commission, or a local provider who will provide an acceptable communications path to a certificated provider.

iv. Define in your proposal, connecting ability to Network Nebraska. The OCIO will collect competitive pricing for telecommunication services from providers in order to connect the proposed site on Network Nebraska. This pricing will include installation, monthly recurring charges, infrastructure build out and

any other associated fees. Qualified bidders will be asked to submit a best and final offer upon receiving cost projection from the OCIO.

v. Indicate your proposed ability to meet technology building space requirements identified in Technology Building Space Requirements.

O. PROPOSAL INSTRUCTIONS

This section documents the mandatory requirements that must be met by bidders in preparing the Technical and Cost Proposals. Bidders should identify the subdivisions of "Project Description and Scope of Work" clearly in their proposals; failure to do so may result in disqualification. Failure to respond to a specific requirement may be the basis for elimination from consideration during the State's comparative evaluation.

Proposals are due by the date, time and location shown in the Schedule of Events. Content requirements for the Technical and Cost Proposals are presented separately in the following subdivisions:

1. TECHNICAL PROPOSAL

The Technical Proposal shall consist of three (3) sections:

i. *REQUEST FOR PROPOSAL FORM*
By signing this RFP form, the bidder guarantees compliance with the provisions stated herein, agrees to the Terms and Conditions stated herein and certifies bidder maintains a drug-free workplace environment.

This RFP form must be signed in ink and returned to the location, by the date and time shown herein above in order to be considered for an award.

ii. *EXECUTIVE SUMMARY*
The Executive Summary shall condense and highlight the contents of the solution being proposed by the bidder in such a way as to provide the Evaluation Committee with a broad understanding of the Contractor's Technical Proposal.

Bidders must present their understanding of the problems being addressed by implementing a new system, the objectives and intended results of the project, and the scope of work. Bidders shall summarize how their Technical Proposal meets the requirements of this RFP, and why they are best qualified to perform the work required herein.

If the bidder intends to subcontract any part of its performance hereunder, the bidder must provide:

a) Name, address and telephone number of the subcontractor(s);
b) Specific tasks for each subcontractor(s);

c) Percentage of performance hours intended for each subcontractor; and
d) Total percentage of subcontractor(s) performance hours.

iii. *TECHNICAL APPROACH*

The technical approach section must consist of the following subsections:

a) Technology requirements;
e) Technology building space requirements; and
f) Building/location requirements as outlined herein.

2. COST PROPOSAL REQUIREMENTS

This section describes the requirements to be addressed by bidders in preparing the Cost Proposal. The bidder must submit the Cost Proposal in a section of the proposal that is a separate section as specified in this RFP from the Technical Proposal section.

The component costs of the fixed price proposal for providing the services set forth in this RFP must be provided by submitting forms substantially equivalent to those described below.

i. PRICING SUMMARY

This summary shall present the total fixed price to perform all of the requirements of this RFP. The bidder must include details in the Cost Proposal supporting any and all costs. These details must include, at a minimum, detailed descriptions and/or specifications of the services to be provided, quantities, and timing and unit costs, if applicable.

The State reserves the right to review all aspects of the Cost Proposal for reasonableness and to request clarification of any proposal where the cost component shows significant and unsupported deviation from industry standards or in areas where detailed pricing is required.

ii. PRICES

Prices quoted shall be net F.O.B., Lincoln. No additional charges will be allowed for transportation, delivery charges, packing, packages, or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern.

iii. PAYMENT SCHEDULE

The payment schedule for the project is tied to specific dates, specifically the "Commencement Date" or date of occupancy by the Tenant Agency, June 1, 2015. The lease contract will be written for an annual lease amount that will be payable in twelve (12) monthly payments, to be paid at the beginning of each month.

Appendix A
BIDDER CONTACT SHEET
RFP 65131364

The Bidder Contact Sheet should be completed and submitted with each response to this Request for Proposal. This is intended to provide the State with information on the bidder's name and address, and the specific person(s) who are responsible for preparation of the bidder's response. Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person the State shall contact to set up a presentation/demonstration, if required.

Preparation of Response Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person the State will contact to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

APPENDIX B
BIDDER PROPOSAL

Administrative Services/State Building Division

REQUEST FOR PROPOSAL – BIDDER PROPOSAL

Bidder Name: **Date:**

Address of Bidding Property:

Contract No: **RFP 65131364 NSP Crime Lab Lincoln**

THIS FORM **MUST** BE COMPLETED AND RETURNED WITH YOUR PROPOSAL ALONG WITH THE SIGNED '***REQUEST FOR PROPOSAL FOR LEASING REAL PROPERTY'*** FORM.

For further instructions, please refer to the "PROPOSAL" Chapter of the specifications, which are included in the bid packet.

PART 1 Bidder Information

Bidder's Company Name

Point of Contact Name

Company Address

Owner Name and Address: (if same as above, write "SAME")

PART 2 Requirements of Bidder

Drug Free Workplace Policy Enclosed	Yes ☐ No ☐
Floor Plan Enclosed	Yes ☐ No ☐
RFP for Leasing Real Property Form Signed	Yes ☐ No ☐
Proof of Ownership included	Yes ☐ No ☐

PART 3 Bidder's Proposal

A. Rental Rate & Terms. If the proposed space has more square feet than what is requested, please base rental rates on the **requested** amount of square feet. In order to provide a fair means of comparison, we ask that you list the remaining balance of space *Available at No Cost* to Lessee/Tenant Agency. This proposal **must** provide an annual rental rate for a period of years **without** annual increases or uncapped costs.

Proposed Square Feet x Price/SF = Annual Rent

Additional Sq Ft *Available at No Cost* to Lessee/Tenant Agency, if any:

Original Year Lease Term Renewal Option: Year Lease Term

Space Availability Date:

Other Comments on Rental Rate and Term:

B. Description of Space

Address of Proposed Space:

Is Proposed Space New Construction: ☐ Existing Structure: ☐ Age of Building: ☐

ADA Compliant: Yes ☐ No ☐

Loading Dock: Yes ☐ No ☐

Other Comments on Description of Space:

C. Parking

Bidder may not include cost of parking in any proposal for the State of Nebraska.
Bidder may, however, include a list of available parking lots/garages adjacent or near to the Demised Premises.
No. of Parking Stalls provided by Lessor **at no cost** to Lessee/Tenant Agency:

Parking is adjacent to Demised Premises Yes ☐ No ☐

Parking is near Demised Premises Yes ☐ No ☐

If yes, please describe the parking including location and number of stalls near Demised Premises:

If parking is not provided, please list available parking lots/garages adjacent or close to the Demised Premises

D. References

Please list at least three (3) tenants or other responsible parties (non State) who can attest to the performance of the Bidder in a leasing agreement or other contractual arrangement.

1. Phone:
2. Phone:
3. Phone:

E. References

Please list at least three (3) projects involving a laboratory renovation or new build (non State) and the contact name and phone number who can attest to the performance of the Bidder in a contractual arrangement.

1. Phone:
2. Phone:
3. Phone:

Authorized Signature: _____ Date: _____

APPENDIX C
LEASE AGREEMENT

STATE OF NEBRASKA
DEPARTMENT OF ADMINISTRATIVE SERVICES
STATE BUILDING DIVISION CA - 65131364
LEASE AGREEMENT

This Lease Agreement, hereinafter this "Lease," executed in duplicate, is by and between _____, a individual person acting on their own behalf, or a corporation, limited liability company or limited liability partnership, limited company or limited partnership or other – describe nature of organization, hereinafter known as "Lessor," and **Department of Administrative Services, State Building Division**, an agency of the State of Nebraska, hereinafter known as "Lessee," acting on behalf of **Nebraska State Patrol**, hereinafter known as "Tenant Agency," collectively the "Party" or "Parties."

1. Premises. Lessor hereby leases, subject to the terms, covenants and conditions set forth in this Lease, to Lessee, the premises located at:

_____
_____
_____

hereinafter "Demised Premises," which consists of _____ square feet of leasable area, not including any Common Area, shown on the floor plan attached hereto and incorporated herein as *Exhibit A – Demised Premises Floor Plan*. Lessor warrants and represents that it is the owner of the Demised Premises. The Demised Premises are being leased for the sole purpose of laboratory, general office, and support space.

1.1 **Common Areas – Definition.** "Common Areas" are all areas and facilities outside the Demised Premises and within the exterior boundary line of the building and grounds and interior utility raceways within the Demised Premises that are provided and designated by Lessor from time to time for the general non-exclusive use of Lessor, Lessee/Tenant Agency and other tenants of the building and their respective employees, suppliers, shippers, tenants, contractors and invitees.

1.2 **Common Areas – Lessee/Tenant Agency's Rights.** Lessor hereby grants to Lessee, for the benefit of Tenant Agency and its employees, suppliers, shippers, contractors, customers and invitees, during the term of this Lease, the non-exclusive right to use, in common with others entitled to such use, the Common Areas as they exist from time to time, subject to any rights, powers, and privileges reserved by Lessor under the terms hereof.

2. Term.

2.1 The term of this Lease, hereinafter "Term," shall be for an initial term of twenty (20) years, commencing on _____, hereinafter the "Commencement Date," and ending on _____, hereinafter the "Expiration Date," unless sooner terminated as hereinafter provided. This Lease shall in no case become effective until all required signatures and exhibits have been obtained, the Tenant Improvements for the Demised Premises have been completed to the satisfaction of Tenant Agency and approved by Tenant Agency and Lessee, and Demised Premises are ready for full legal occupancy. If Tenant Agency occupies said Demised

Premises prior to Commencement Date, rent will commence at time of said occupancy and shall be prorated based on the number of days in the month of earlier occupancy. The Expiration Date shall remain the same despite the earlier occupation by Tenant Agency.

2.2 If for any reason Lessor cannot deliver possession of the Demised Premises to Tenant Agency by the Commencement Date, Tenant Agency shall not, except as otherwise provided herein, be obligated to pay rent or perform any other obligation of Lessee under the terms of this Lease until Lessor delivers possession of the Demised Premises to Tenant Agency. The Term of the Lease shall commence on the earlier of (i) the date Tenant Agency takes possession of the Demised Premises for the conduct of business or (ii) ten (10) days following notice to Lessee that Lessor has substantially completed the Tenant Improvements, attached hereto and incorporated herein as *Exhibit B – Tenant Improvements*, provided such notice is no earlier than ten (10) days prior to the Commencement Date. If possession of the Demised Premises is not delivered to Tenant Agency within sixty (60) days after the Commencement Date and such delay is not due to Lessee's acts, failure to act or omissions, Lessee may by notice in writing to Lessor within ten (10) days after the end of said sixty (60) day period cancel this Lease and the Parties shall be discharged from all obligations hereunder.

2.3 It is agreed between Lessor and Lessee that in the event Lessor, Lessee and Tenant Agency have fully complied with all the terms and conditions of this Lease, in that event, Lessee prior to the expiration of the original Term of this Lease shall have the right exercisable at its sole option to renew the Lease for two (2) additional five (5) year terms as mutually agreed by all Parties in writing, upon the same terms and conditions as those set forth in the original Lease, including the right to negotiate the rental rate, provided Lessee notifies Lessor in writing of its exercise of such right within forty-five (45) calendar days before the end of the original Term of this Lease. If any of the terms or conditions of this Lease are to be changed at the time of renewal, said changes must be mutually agreed to in writing between all Parties.

3. Rent.

3.1 Lessee shall pay Lessor rent in equal monthly installments payable in advance on the first (1st) day of each month throughout the Term of this Lease. Rent payable hereunder for any period of time less than one (1) month shall be determined by prorating the monthly rent herein specified based on the actual number of days in the month. Rent shall be made payable to:

"_____"

and sent to Lessor's financial institution as designated by Lessor at the time of this Lease, or during the Term of this Lease to such other financial institution, as designated in writing and served as notice to Lessee.

3.2 Tenant Agency will occupy _____ square feet of space. The actual rentable area of the Demised Premises shall be determined in accordance with the Standard Method for Measuring "Floor Area in Office Buildings, Approved June 7, 1996 ("BOMA Standards") by the American National Standards Institute, Inc. (ANSI/BOMA 265.1-1996).

3.3 The payment schedule for the Term of this Lease shall be as follows:

Description	SF	Rate	Annual Rent	Monthly Rent
Laboratory Space				
Total Office Space				
Total "at no cost" Space				
GRAND TOTAL:				

3.4 Tenant Agency and Lessor agree that the Tenant Improvement Allowance stated in the Lessor's response to Request for Proposal, is based upon a proposed total of $_____ and amortized over a twenty (20) year term. In the event the actual Tenant Improvement Allowance is less than $_____ and the Lessee, acting on behalf of the Tenant Agency, pays Lessor any or all of the final Tenant Improvement Allowance amount prior to acceptance of the Tenant Improvements and occupancy of the Demised Premises, then the Tenant Improvement total amount will decrease accordingly.

Upon acceptance of the completed Tenant Improvements, Tenant Agency and Lessor shall agree on the then final amount of the Tenant Improvement Allowance to be payable by the Lessee, acting on behalf of the Tenant Agency, within the first thirty (30) days of acceptance of the completed Tenant Improvements.

4. Termination.

4.1 This Lease may be terminated by Lessee by written notice to Lessor if sufficient appropriated funds are not available to Lessee and/or Tenant Agency for the purpose of paying necessary operating expenses of Tenant Agency, including rent on the Demised Premises. If any Governor's budget message is such that it does not include sufficient appropriated funds to pay necessary operating expenses of Tenant Agency, including rent hereunder, notice of such fact shall be given promptly to Lessor, and if at any time it appears that appropriated funds will be depleted in the future, or such funds are not sufficient to pay necessary operating expenses of Tenant Agency including rent hereunder, notice of such fact and the estimated date of depletion shall be given promptly to Lessor. If only a portion of the funds sufficient to pay the necessary operating expenses of Tenant Agency including rent hereunder are appropriated, this Lease may be kept in force with a prorata share of the space and corresponding rent decreased. Any such reduction shall be agreed upon by Lessor, Lessee and Tenant Agency.

4.2 Lessor and Lessee each shall have the right to cancel this Lease, for any reason whatsoever including no reason, upon giving one hundred eighty (180) days notice of such cancellation in writing to the other party.

4.3 Lessee may terminate this Lease immediately without penalty for the following reasons: (a) if directed to do so by statute; (b) if Lessor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business; (c) if a trustee or receiver of Lessor or of any substantial part of Lessor's assets has been appointed by any court; (d) in the case of fraud, misappropriation embezzlement, malfeasance, misfeasance, or illegal conduct by Lessor, its employees, officers, directors, or

shareholders; (e) if an involuntary proceeding has been commenced by any party against Lessor under any one of the chapters of Title 11 of the United States Code and (i) if the involuntary proceeding has been pending for at least sixty (60) days; or (ii) Lessor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) Lessor has been decreed or adjudged a debtor; (f) A voluntary petition has been filed by Lessor under any of the chapters of Title 11 of the United States Code.

4.4 Lessee may terminate this Lease, in whole or in part, if Lessor fails to perform its obligations under this Lease in a timely and proper manner. Lessee may, by providing a written notice of default to Lessor, allow Lessor to cure a failure or breach of this Lease within a period of thirty (30) days. Allowing Lessor time to cure a failure or breach of contract does not waive Lessee's right to immediately terminate this Lease for the same or different contract breach which may occur at a different time.

4.5 If the whole or substantial part of the building or Demised Premises shall be taken or condemned by any competent authority for any public use or purpose, unless otherwise agreed upon in writing by the Parties, this Lease shall end upon and not before the date when possession of the part so taken shall be required for such use or purchase, and without apportionment of the award, and current rent shall be apportioned to the date of termination.

4.6 If Lessee acting on behalf of Tenant Agency, opts to terminate this Lease during the original Term for any reason other than non-appropriations or failure of Lessor to comply with the terms and conditions, Tenant Agency will be responsible for any outstanding Tenant Improvement costs and such amount shall be based on the number of years remaining on the agreed to original Term, following Tenant Agency's receipt and review of invoices and other documentation showing proof of Lessor costs for the total Tenant Improvements. Tenant Agency shall pay such dollar amount within thirty (30) days of verification of costs incurred.

If Lessor opts to terminate this Lease during the Term for any reason other than failure of Lessee to comply with the terms and conditions, Lessor will be responsible for any outstanding Tenant Improvements remaining on the original Term.

5. Notices. All notices herein provided to be given, or which may be given, by either party to the other, shall be deemed to have been fully given when made in writing and deposited in the United States mail, postage prepaid, certified return receipt, and addressed as follows:

To Lessor at:

_____
Attn: _____
_____
_____
Phone: _____
Email: _____

To Lessee at:

AS/State Building Division
Attn: CA-65131364
PO Box 98940
Lincoln, NE 68509-8940
Phone: (402) 471-6020

6. Assignment and Subletting.

6.1 Lessee shall not assign this Lease without the written consent of Lessor, which shall not be unreasonably withheld. Any occupant, assignee, or sub-lessee must agree to abide by all of the terms and provisions of this Lease. Lessor shall not assign this Lease without the written consent of Lessee, which shall not be unreasonably withheld.

6.2 Notwithstanding the provisions of Section 6.1, above, Lessee may assign or sublet the Demised Premises, or any portion thereof, to any agency, board or commission of the State of Nebraska provided that said assignee assumes, in full the obligations of Lessee under this Lease and has sufficient appropriated funds available to assignee for the purpose of paying necessary operating expenses of the assignee, including rent on the Demised Premises.

7. Inspection. Lessee and/or Tenant Agency agree to permit Lessor and/or its authorized representative to enter the Demised Premises during usual business hours for the purposes of inspecting the same. Lessee and/or Tenant Agency agree that Lessor may enter the Demised Premises at any reasonable time for the purpose of making necessary repairs for which Lessor is responsible for such repairs that are demonstrably necessary for the safety and preservation of the Demised Premises.

8. Fixtures and Personal Property. Any trade fixtures, equipment or personal property installed in or attached to the Demised Premises by or at the expense of Lessee and/or Tenant Agency, shall be and remain the property of Lessee and/or Tenant Agency and Lessor agrees that Lessee and/or Tenant Agency shall have the right to remove any or all of its personal property, trade fixtures and equipment. Equipment and other personal property which may have been stored or installed by or at the expense of Lessor shall be and remain the property of Lessor. Tenant Agency agrees that it will, at its expense, repair any damage occasioned to the Demised Premises by reason of the removal of its trade fixtures, equipment and other personal property.

9. Alterations. Lessee and Tenant Agency will not permit any alterations or additions to any part of the Demised Premises, except by written consent of Lessor, which consent shall not be unreasonably withheld. All alterations to the Demised Premises shall remain for the benefit of Lessor unless otherwise provided in said consent. Notwithstanding the foregoing, Tenant Agency may, with or without consent of Lessor, make additions, alterations, repairs or other changes to the Demised Premises of a non-structural nature, provided that upon completion of such alterations and additions, the fair market value of the Demised Premises and rental value thereof will not be less than the fair market value and rental value of the Demised Premises immediately prior to such alterations and additions. Said fair market value and rental value shall be determined by a licensed real estate appraiser, in good standing in the State of Nebraska, mutually agreed to by Lessee and Lessor.

10. Return of Premises. At the conclusion of this Lease or any extension thereof, Lessee shall return the Demised Premises to Lessor in the same condition as it was received at origination of this Lease, normal wear and tear excepted as provided in Section 9, above. If at the conclusion of this Lease or any extension thereof, Lessor is of the opinion that Tenant Agency is not leaving the Demised Premises in the same condition as it was received, normal wear and tear excepted, then such costs of restoration will be mutually agreed upon between the Parties. If the costs cannot be agreed upon, the costs will be determined by a panel of three (3) persons consisting of Lessee, Lessor, and one (1) person selected by mutual consent of the Parties.

11. Destruction of Premises.

11.1 If a portion of the Demised Premises or the building is damaged by fire, unavoidable casualty, Act of God, or some other event that renders the Demised Premises unfit ("Event") such that Lessee is prevented from conducting its business in the premises in a manner reasonably comparable to that conducted immediately before such Event, then Lessee may terminate this Lease by delivering written notice to Lessor of its election to terminate immediately after the Event. The portion of any lease payment which is attributed to the period of time after the Lease has been terminated in the above manner shall be refunded by Lessor to Lessee. If Lessee does not so timely terminate this Lease, then Lessor shall repair the building or the Demised Premises, as the case may be, as provided below, and the lease payment for the portion of the Demised Premises rendered unusable for Tenant Agency's purposes by the damage or repair shall be abated on a reasonable basis from the date of damage until the completion of the repair, unless a Tenant Agency agent, invitee or employee caused such damage, in which case, Tenant Agency shall continue to pay the lease payment without abatement.

11.2 Lessor shall, within fifteen (15) days after such Event, deliver to Lessee a good faith estimate of the time needed to repair the damage caused by such Event. Lessor shall be responsible for repairing the same in a timely manner at Lessor's own expense and the lease payments shall be suspended from the time of the Event until the Demised Premises have been put in substantially the same condition as they existed immediately before such Event.

12. Repair and Maintenance. During the Term of this Lease, Lessor shall maintain the Demised Premises including, but not limited to, general landscaping, sidewalks, building entrances and parking areas, the roof, exterior walls, exterior doors, exterior windows and corridors of the building, and any building equipment in good repair and tenantable condition. Lessor's obligations include, but are not limited to, the maintenance and repair of the plumbing, heating, electrical, air-conditioning and ventilating equipment and fixtures, and consequential damages that result from plumbing, window and roof leaks to the end that all such facilities are kept in good operative condition except in case of damage arising from a willful or negligent act of Lessee's and/or Tenant Agency's agent, invitee, or employee. In addition, it is the responsibility of Lessor to ensure that the electrical power to the Demised Premises is distributed in such a way to make it convenient to provide reasonably adequate outlets to general office space and Common Areas; this is in addition to reasonably adequate electrical power required for general lighting and heating, ventilating and air conditioning equipment. Lessor's obligations shall also include, but are not limited to, furnishing and replacing electrical light bulbs, fluorescent tubes, ballasts and starters and air conditioning and ventilating equipment filters.

13. Services and Utilities.

13.1 Utilities: Tenant Agency shall be responsible for all utility services for use by Tenant Agency in the Demised Premises. In the event of any outage of utility services to the Demised Premises, Lessor shall use its best efforts to restore said utility services promptly.

13.2 Janitorial Services/Supplies: Tenant Agency shall be responsible for all janitorial services and/or supplies for the Demised Premises. Lessor shall be responsible for all janitorial services and/or supplies for the remaining square footage of the associated building, if any.

13.3 Parking stalls: Lessor shall provide no less than _____ parking stalls and _____ ADA compliant stalls, as shown on *Exhibit E, Parking Lot Plan* attached hereto and incorporated herein.

13.4 Other: Lessor will provide trash removal, snow/ice removal from parking lots, building entrances, exits, surrounding sidewalks and driveways, lawn care, and interior and exterior pest control and to correct any unsafe condition in a timely manner. All maintenance-related services including, but not limited to, electrical (including light tube/bulb/ballast replacement and installation), mechanical (including furnace filters installation and replacement and other routine maintenance services), plumbing (including clearing clogged toilets and drains within twenty-four (24) hours of notification), structural, roof, lawn services, pest control, etc., provided by Lessor as part of the rental rate. Lessor is responsible for snow and ice removal of entrances/exits, sidewalks, driveways and parking areas within twenty-four (24) hours after cessation of snow, sleet, or icy weather. It is Lessor's responsibility to correct all unsafe conditions relating to freezing and thawing in a timely manner. If conditions warrant, additional snow and ice removal may be needed during the business day based on conditions and the accumulation of snow, sleet, and ice. Lessor is responsible to correct all unsafe conditions relating to freezing and thawing.

Lessor agrees to paint the walls of the Demised Premises every five (5) years with at least one (1) coat of paint; to repair/replace carpet that is worn or becomes hazardous; shall have the carpet cleaned annually and spot cleaning will be performed, as needed, throughout the year, at Lessor's expense.

13.5 Tenant Agency agrees to pay the monthly charges to provide telephone and/or computer networking services supplied to the Demised Premises for the use of Tenant Agency. It is the responsibility of Lessor to ensure adequate entrance facilities are provided by the local communications company for the services required. Lessor shall provide communication cabling to each desk and/or work station. Each desk and/or work station shall have a telephone and computer network jack provided. Each telephone and computer jack shall be terminated on separate cables, which shall be terminated to separate connecting blocks/patch panels at the appropriate central locations. All voice/data cabling will originate from a central communications closet to all requested locations/work stations/offices. Each voice and data faceplate and closet termination point shall be labeled and a copy of the labeling scheme shall be made a part of this Lease and incorporated herein as *Exhibit F, Voice and Data Faceplate and Closet Termination Point Labeling Scheme* as a reference schematic for Tenant Agency and Lessor. A current copy of the labeling scheme shall be provided to both Tenant Agency and Lessor by the installer upon request by either Party throughout the Term of this Lease.

13.6 Tenant Agency agrees to pay all costs and monthly charges to provide cable service to the Demised Premises, if any.

13.7 Communications installation methods and procedures shall meet the ANSI/TIA/EIA-568-B wiring standards and those set by the State of Nebraska, Office of the Chief Information Officer as set forth in the Request for Proposal and all work shall be performed by qualified personnel in the telecommunications field.

14. Holding Over. In the event Lessee remains in possession of the Demised Premises after the expiration of the Term or any extension thereof, this Lease shall be automatically extended on a month-to-month

basis, subject to termination by either party by providing thirty (30) days written notice of termination to the other party, and otherwise on the terms and conditions herein specified. Rent payable during any holdover period shall be the same as the monthly rent payable in the last month prior to expiration unless another amount is mutually agreed upon in writing by Tenant Agency, Lessee and Lessor.

15. Compliance with Law.

15.1 Lessor shall, at its expense, comply with all applicable statutes, charters, laws, ordinances, building and maintenance codes, rules, regulations, requirements and orders of duly constituted public authorities now or hereafter in any manner affecting the Demised Premises, or the use thereof, or the sidewalks, alleys, streets, and ways adjacent thereto, whether or not any such statutes, charters, laws, ordinances, rules, regulations, requirements, or orders which may be hereinafter enacted involve a change of policy on the part of the governmental body enacting the same.

15.2 The Demised Premises shall meet all current applicable code requirements, including but not limited to fire/life safety codes and the Americans with Disabilities Act Accessibility Guidelines. The HVAC System must be able to maintain a constant 72 °F temperature under all conditions. HVAC system in all spaces proposed are required to meet current thermal environmental conditions for human occupancy (ASHREA standard 55-2004) and ventilation (ASHRAE standard 62.1-2007).

15.3 Lessor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If Lessor is an individual or sole proprietorship, the following applies:

1) Lessor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us. *See Exhibit G, United States Citizenship Attestation Form*. WAIVED (if applicable, include Exhibit otherwise "WAIVE" this exhibit),

2) If Lessor indicates on such attestation form that he or she is a qualified alien, Lessor agrees to provide the US Citizenship and Immigration Services documentation required to verify Lessor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3) Lessor understands and agrees that lawful presence in the United States is required and Lessor may be disqualified or the lease terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

16. Liabilities – Limited or Negligent Acts. Lessee and/or Tenant Agency shall not be responsible for any liabilities resulting from negligent acts or omissions of Lessor, its agents, invitees or employees, and Lessor will

hold Lessee and/or Tenant Agency harmless from any damages or injuries caused by Lessor, its agents, invitees or employees. Lessor shall not be responsible for any liabilities resulting from the negligent acts or omissions of Lessee and/or Tenant Agency, its agents, employees or invitees.

17. Default.

17.1 In the event Tenant Agency and/or Lessee fails to pay any lease payment due herein or fails to keep and perform any of the other terms or conditions hereof, Lessor may serve written notice of default upon Lessee. Upon such receipt, Lessee and/or Tenant Agency shall have thirty (30) days to cure the default so noted in the notice of default. If, after said cure period the default has not been cured, Lessor may resort to any and all legal remedies or combination of remedies which Lessor may desire to assert, including but not limited to one or more of the following: (1) declare the Lease terminated; (2) file a claim for the lease payment due under the Lease and/or for any damages sustained by Lessor; (3) continue the Lease in effect and relet the Demised Premises on such terms and conditions as Lessor may deem advisable with Lessee and/or Tenant Agency remaining liable for the monthly lease payment until the Demised Premises is relet.

17.2 No action by Lessor shall be construed as an election to terminate the Lease unless written notice of such intention is given to Lessee by certified mail, return receipt requested.

17.3 In the event Lessor fails or refuses to comply with any requirements of the Lease within thirty (30) days of the event giving rise to the requirement or in the event of an emergency constituting a hazard to the health or safety of Lessee's and/or Tenant Agency's employees, property, or invitees, Lessee and/or Tenant Agency may perform such maintenance or make such repair at its own cost and, in addition to any other remedy Lessee and/or Tenant Agency may have, may deduct the amount thereof from the lease payment that may then be or thereafter become due hereunder.

18. Compliance with Civil Rights Laws and Equal Opportunity Employment. Lessor shall comply with all applicable local, state and federal statutes and regulations regarding civil rights and equal opportunity employment. Neither Lessor nor any subcontractors of Lessor shall discriminate against any employee or applicant for employment, to be employed in the performance of this Lease, with respect to the employee or applicant hire, tenure, terms, conditions or privileges of employment, because of his or her race, color, religion, sex, disability or national origin.

19. Drug Free Workplace. Lessor certifies that it maintains a drug free workplace environment to ensure worker safety and workplace integrity. Lessor agrees to provide a copy of its drug free workplace policy at any time upon request by Lessee.

20. Lessor Site Policies, Rules and Regulations, Smoking Policy and Signage Criteria. Tenant Agency shall use its best efforts to ensure that its employees, agents and subcontractors comply with Lessor's site Policies, Rules and Regulations, while on Lessor's premises, attached hereto and incorporated herein as *Exhibit H-1, Rules and Regulations*. Tenant Agency shall use its best efforts to ensure the policies, rules and regulations are adhered to inside and outside the Demised Premises.

If Tenant Agency must perform on-site work outside of the daily operational hours as provided to Lessor, Tenant Agency must make arrangements with Lessor to ensure access to the facility and Tenant Agency equipment.

Tenant Agency shall use its best efforts to ensure the requirements, as applicable, are met when providing signage criteria to Lessor, inside or outside of Demised Premises, attached hereto and incorporated herein as *Exhibit H-2, Signage Criteria*.

Tenant Agency shall use its best efforts to ensure the smoking policy is complied with on Lessor's Demised Premises, both inside and outside the building, attached hereto and incorporated herein as *Exhibit H-3, Smoking Policy*.

21. Insurance and Notice of Self-Insurance. Lessor shall provide proof it has obtained all the insurance required hereunder and such insurance shall be approved by Lessee. Approval of the insurance by Lessee does not relieve or decrease the liability of Lessor hereunder. If by the terms of any insurance, a mandatory deductible is required or if Lessor elects to increase the mandatory deductible amount, Lessor shall be responsible for payment of the amount of the deductible in the event of a paid claim. This Section 21 shall in no way affect the indemnification, remedy, or warranty provisions set forth in this Lease or Lessee's right of recovery thereunder.

21.1 Lessor shall take out and maintain during the life of this Lease the statutory Workers' Compensation and Employers' Liability Insurance for all of its employees to be engaged in work for Lessor. Lessor shall require any subcontractor similarly to provide Workers' Compensation and Employers' Liability Insurance for all of the latter's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is being performed, including Occupational Disease. This policy shall include a waiver of subrogation in favor of Lessee. The amounts of the insurance shall not be less than the limits stated hereinafter.

21.2 Lessor shall take out and maintain during the life of this Lease such Commercial General Liability insurance as shall protect it and any subcontractor performing work covered by this Lease from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this Lease, whether such operation be by Lessor or any subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than the limits stated hereinafter. The Commercial General Liability insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage, and shall include Lessee as an Additional Insured. This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered excess and non-contributory.

21.3 Lessor shall take out and maintain during the life of this Lease such Commercial Automobile Liability insurance as shall protect it and any subcontractor performing work covered by this Lease from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this Lease whether such operation be by Lessor or any subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than the limits stated hereinafter. The Commercial Auto Liability insurance shall be written to cover all Owned, Non-owned and Hired vehicles.

21.4 Insurance Coverage Amounts Required.

21.4.1 Workers' Compensation and Employer's Liability

Coverage A –	*Statutory*
Coverage B –	
Bodily Injury by Accident -	$100,000 each accident
Bodily Injury by Disease -	$500,000 policy limit
Bodily Injury by Disease -	$100,000 each employee

21.4.2 Commercial General Liability

General Aggregate -	$2,000,000
Products/Completed Operations Aggregate-	$2,000,000
Personal/Advertising Injury -	$1,000,000 any one person
Bodily Injury/Property Damage -	$1,000,000 per occurrence
Fire Damage -	$50,000 any one fire
Medical Payments -	$5,000 any one person

21.4.3 Commercial Automobile Liability

Bodily Injury/Property Damage -	$1,000,000 combined single limit

21.4.4 Umbrella/Excess Liability

Over primary insurance -	$1,000,000 per occurrence

21.5 Lessor shall furnish Lessee with a certificate of insurance coverage, attached hereto and incorporated herein as *Exhibit I, Certificate of Insurance*, which shall be submitted to Lessee *annually thereafter* through the Term of this Lease. The certificate shall include the name of the company, policy numbers, effective dates, dates of expiration and amounts and types of coverage afforded. If Lessee is damaged by the failure of Lessor to maintain such insurance, then Lessor shall be responsible for all reasonable costs properly attributable thereto.

21.6 Lessee, under the provisions of R.R.S., 1943, § 81-8,239.01, self-insures all such exposures and is financially capable of retaining those losses should they occur. If there is a liability loss under the provisions of this Lease, a claim may be filed with the State Claims Board and, if approved, will be paid from the State Tort Claims Act, R.R.S., 1943, § 81.8,209.08, et al., and any other provision of law. Workers' Compensation is statutorily required in Nebraska and Lessee is fully self-insured. Occupational diseases are fully covered by law.

22. Amendments and Binding Effect. This Lease may not be amended except by instrument in writing signed by Lessor and Lessee. No provision of this Lease shall be deemed to have been waived by either party unless such waiver is in writing signed by the applicable party and no custom or practice which may evolve between the Parties in the administration in the terms hereof shall waive or diminish the right of either party to insist on the performance of the other party in strict accordance with the terms hereof.

23. Severability. If any clause or provision of this Lease is illegal, invalid, or unenforceable under present or future laws, then the remainder of this Lease shall not be affected thereby and in lieu of such clause or

provision, there shall be added as a part of this Lease a clause or provision as similar in terms to such illegal, invalid, or unenforceable clause or provision as may be possible and be legal, valid, and enforceable.

24. Entire Agreement. This Lease constitutes the entire agreement between Lessor and Lessee regarding the subject matter hereof and supersedes all oral statements and prior writings relating thereto. Except for those set forth in this Lease, no representations, warranties or agreements have been made by Lessor or Lessee to the other with respect to this Lease or the obligations of Lessor or Lessee in connection therewith. The normal rule of construction that any ambiguities be resolved against the drafting party shall not apply to the interpretation of this Lease or any exhibits or amendments hereto.

THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.

IN WITNESS WHEREOF, the Parties have executed this Lease as of the day and year last below written.

LESSEE:

Gerry A. Oligmueller, Acting Director Department of Administrative Services	Date
Rodney Anderson, Administrator AS/State Building Division	Date

LESSOR:

WHO WILL SIGN? (print name and title of authorized representative)	Date

Federal I.D. Number: _____

ACKNOWLEDGMENT

Choose one notary block (delete the rest prior to printing):

Notary block if an individual is the authorized representative:
STATE OF NEBRASKA, COUNTY OF _____

The foregoing instrument was acknowledged before me this _____day of _____, 2013 by _____, on their own behalf.

Notary block if for a corporation or an "LTD" and an officer is the authorized representative:
STATE OF NEBRASKA, COUNTY OF _____

The foregoing instrument was acknowledged before me this _____day of _____, 2013 by _____ of (name of corporation acknowledging) a (state or place of incorporation) corporation, on behalf of the corporation.

Notary block if for a partnership:
STATE OF NEBRASKA, COUNTY OF _____

The foregoing instrument was acknowledged before me this _____day of _____, 2013 by _____, partner on behalf of (name of partnership), a (state where organized) partnership.

Notary block if for a limited liability company or partnership:
STATE OF NEBRASKA, COUNTY OF _____

The foregoing instrument was acknowledged before me this _____day of _____, 2013 by _____, managing member or partner on behalf of (name of LLC or LLP), a (state where organized) limited liability company or partnership.

_____

Affix seal here. Notary Public

Exhibit A – Demised Premises Floor Plan (Section 1)

Exhibit B – Tenant Improvements (Section 2)

Provided by Tenant Agency; **to be provided prior to setting this up for payment**.

Exhibit C - Intentionally Omitted
Exhibit D – Intentionally Omitted

Exhibit E - Demised Premises– Parking Lot Plan (Section 13) showing where employees and invitees shall park and ADA compliant stalls

Exhibit F - Voice and Data Faceplate and Closet Termination Point Labeling Scheme (Section 13)

Exhibit G – United States Citizenship Attestation Form, if Lessor is an Individual person (Section 15.3)
or WAIVED

Exhibit H-1 - Lessor Site - Rules and Regulations (Section 20)

EXHIBIT H-1 - RULES AND REGULATIONS

These Rules and Regulations, Smoking Policy, and Signage Criteria are made a part of the Lease. Failure to observe these Rules and Regulations shall be a default under the Lease.

1. Notwithstanding any provision of this Lease to the contrary, Lessor shall take all steps necessary to maintain the Demised Premises in a manner that provides a safe environment for Tenant Agency's employees and invitees. Such steps shall include, but not be limited to the prompt (i) removal of snow and ice from the immediate entryway and sidewalk, (ii) spreading ice melt product, and (iii) taking of all other action steps reasonably required to provide a safe environment for employees and invitees.

2. Tenant Agency shall not:

   A. Keep animals or birds in the rooms;

   B. Use rooms as sleeping apartments; and

   C. In cases of a keyed entry, permit duplicate keys to be made, such keys shall be provided by Lessor at Tenant Agency's expense.

3. Without written permission of Lessor, Tenant Agency shall not:

   A. Place or change locks upon any doors in the Demised Premises;

   B. Conduct any auction on said Demised Premises and shall not store goods, wares or merchandise on the Demised Premises, except for Tenant Agency's own personal use;

   C. Install and/or maintain ATM's in the interior or on or around the exterior of the premises; and

   D. Use any electric heating or cooling devices.

4. Lessor reserves the right, at all times, and, from time to time, to:

   A. Rescind any one or more of these rules and regulations, or to make such other and further reasonable rules and regulations as in Lessor's judgment may from time to time be necessary for the safety, care and cleanliness of the Demised Premises, and for the preservation of order herein;

   B. Possess a pass key to all Demised Premises and shall be allowed admittance in the event of any emergency such as fire and to conduct building inspections; and

   C. Exclude or eject from the Demised Premises all animals, vehicular traffic of every kind and all canvassers and other persons who conduct themselves in such a manner to be, in the judgment of Lessor, an annoyance to Tenant Agency or a detriment to the Demised Premises.

Exhibit H-2 - Lessor Site - Signage Criteria (Section 20)

EXHIBIT H-2 - TENANT AGENCY SIGN CRITERIA

The purpose of these instructions is to outline the criteria, which controls the design, fabrication, and installation of Tenant Agency signs. The reason for establishing certain basic guidelines which must be followed by sign contractor's serves two purposes: 1) it will ensure Tenant Agency of purchasing a sign which meets good standards of material, workmanship, and appearance; 2) it will assure the tenants, owners, and developers of an attractive community, unmarred by poorly designed, badly proportioned signage. Good sign design and balance is necessary to maintain an attractive and successful business community.

A. GENERAL REQUIREMENTS:
   1. Tenant Agency shall submit, or cause to be submitted, to Lessor for written approval before fabrication, at least three (3) copies of detailed drawings indicating the location(s), size, layout, design, and color of the proposed signs including all lettering and/or graphics. Elevation drawings to be ½ = 1'-0"
   2. Tenant Agency representative shall obtain permits, if required, for Tenant Agency signs and sign installation.
   3. All signs shall be constructed and installed at Tenant Agency's expense.
   4. All sign companies must be licensed under their name by the City and must have property liability insurance. Furthermore, Tenant Agency shall be responsible for, and shall bear all cost of, removal and/or correction of sign installation, damage to the building by signs that do not conform to sign criteria and for all costs of restoration of the building at the time any signage is removed.
   5. Tenant Agency shall be responsible for the fulfillment of all Tenant Sign Criteria.

B. STIPULATIONS:
   1. No animated, flashing, or audible signs will be permitted;
   2. No exposed lamps or tubing shall be permitted;
   3. All signs and their installation shall comply with all local building and electrical codes;
   4. No exposed crossovers or conduit will be preempted;
   5. All transformers shall be mounted behind sign parapet;
   6. Electrical service to all signs shall be on Tenant Agency's electric meter;
   7. Painted lettering shall not be permitted; and
   8. All attaching bolts shall be of non-corrosive metal.

C. DESIGN REQUIREMENTS:
   1. All Tenant Agency storefront entrance and store identification designs shall be subject to the written approval of Lessor. Imaginative designs, which depart from traditional methods and placements, will be encouraged.
   2. Wording of signs shall not include the product sold, except as part of Tenant Agency trade name or insignia.
   3. Tenant Agency is encouraged to have signs designed as an integral part of the building design, with letter size and location appropriately scaled and proportioned to the overall storefront design. The design of all signs, including style and placement of lettering, size, color, materials, and method of illumination shall be subject to the approval of Lessor. (NOTE: Innovative designs of high quality which do not strictly adhere to these criteria may be submitted for special consideration)

D. SIZE OF SIGNS: Sign size shall be determined by the already existing space or designated sign mount on the surface or face of the building, or as directed by Lessor in or near the front or main entrance of the building away from or above the exterior of the building.

E. TYPES OF SIGNS:

1. All signs shall be located only on the spaces on the surfaces specifically provided for on the building face at Tenant Agency's expense.
2. No box type signs will be permitted.

F. CONSTRUCTION REQUIREMENTS:

1. All signs, bolts, fastenings, and clips shall be stainless steel, aluminum, brass or bronze. No black iron materials of any type will be permitted;
2. All signs must be centered;
3. All letters shall be fabricated using full-welded construction or approved equal;
4. Location of all openings for conduit in sign panels of building walls shall be indicated by the sign contractor on drawings submitted to Lessor;
5. All penetrations of the building structure required for sign installation shall be indicated by the sign contractor on drawings submitted to Lessor;
6. No labels will be permitted on the exposed surface of signs except those required by local ordinance, which shall be applied in an inconspicuous location;
7. Sign contractor shall repair any damage to any work caused by his work; and
8. Tenant Agency shall be fully responsible for the work performed by Tenant Agency's sign contractor.

G. MISCELLANEOUS REQUIREMENTS:

1. Painted Plexiglas will not be permitted;
2. All letter retainer caps shall be ¾" trim cap edge. Retaining screws shall be #7 x ¾" trim cap edge. Retaining screws shall be painted a minimum of 2 coats of acrylic enamel;
3. Letter returns shall be painted a minimum of 2 coats of acrylic enamel;
4. At no time shall building structure or framing be cut or altered in any way without Lessor's prior written authorization;
5. All signs shall be fabricated and installed with U.L. label, if required by local authorities, in an inconspicuous location;
6. No conduit or electrical runs allowed over rooftop; and
7. All Tenant Agency signage shall be connected to Tenant Agency's parcel or Demised Premise.

H. NON-CONFORMANCE:

1. No field installation changes are permitted without first notifying Lessor in writing. If in the event any signs changed as to placement, location and size which differs from approved sign plan, Tenant Agency will be responsible to properly repair, change, and/or relocate sign to proper placement at Tenant Agency's expense.
2. Tenant Agency shall correct any sign installed by Tenant Agency or its sign contractor, which is not in conformance to the approved drawings, within (15) days after written notice by Lessor. In the event Tenant Agency's sign is not brought into conformance within said fifteen (15) day period, then Lessor shall have the option to correct said sign at Tenant Agency's expense.

Except as provided herein, no advertising placards, banners, pennants, names, insignia, trademarks, or other descriptive material shall be affixed or maintained upon the glass panes and/or supports of the windows and doors, or upon the exterior walls of the building.

I. THE FOLLOWING ARE PROHIBITED:

1. Temporary trailer signs;
2. Animated moving or flashing signs;
3. Iridescent painted signs;
4. Exposed neon, florescent or incandescent illumination;
5. Dayglo colors; and
6. Signs which make or create noise.

Exhibit H-3 - Lessor Site – Smoking Policy (Section 20)

EXHIBIT H-3 - SMOKING POLICY

1. Lessor currently maintains a smoke and tobacco-free campus.

2. Smoking or other use of tobacco products, including, but not limited to, cigarettes, pipes, cigars, smokeless tobacco – snuff or chewing tobacco, is not permitted inside the Demised Premises or any other interior area of the building.

3. This means you may smoke in your vehicle and/or in the parking lot adjacent to your Demised Premises entrance or in a designated smoking area.(See Parking Lot Plan Exhibit H3)

4. Please do not stand at or near an entrance while smoking and dispose of your smoking materials in a proper manner.

All employees and invitees of Tenant Agency or anyone representing Lessee are expected to abide by this policy in all respects while on or at this site.

Exhibit I - Certificate of Insurance Coverage (Section 21)

Exhibit I - Certificate of Insurance Coverage (Section 21)

APPENDIX D
OCIO REQUIREMENTS

Administrative Services/State Building Division

REQUEST FOR PROPOSAL
OCIO STANDARD POLICIES AND PROCEDURES

STANDARD POLICIES AND PROCEDURES FOR INSTALLATION OF WIRE AND CABLE FACILITIES IN STATE OWNED AND OCCUPIED BUILDINGS
State of Nebraska - Office of the Chief Information Officer

PART 1. GENERAL

WORK INCLUDED:

The telephone and computer wiring system shall include, but is not limited to: all station, riser, aerial, and intra-campus cables as required; conduits, raceways, messenger wire systems, and all associated cable support hardware; telephone jacks, data interface connectors, face plates, and identification labels; distribution back-boards, line protectors, termination blocks and brackets, patch panels, distribution rings, cross connect wire, and data distribution equipment as required; all cable terminations; and all associated appurtenances as required by the distribution system.

REQUIREMENTS OF REGULATORY AGENCIES:

- Wiring methods, conductor applications, and insulation materials shall meet all applicable provisions of the National Electrical Code and Federal Communications Commission Rules and Regulations as well as applicable State and Local Codes.
- All new cables and wires installed shall be listed by Underwriters Laboratories, Inc.
- All cables installed shall meet appropriate fire ratings.

PRODUCTS:

All required or recommended parts to be used for a specific installation will be listed in the Request for Proposal or the Lease Agreement.

PART 2. EXECUTION

WORKMANSHIP:

- All work shall be performed by a company whose primary business is providing telecommunication services. This does not include work normally performed by an electrical contractor.
- All installations shall conform to the appropriate and most current recommended standards, as well as any associated technical systems bulletin, as published by the EIA/TIA committee of ANSI.
- All work shall be performed in accordance with the equipment manufacturer's requirements.
- All cable terminations shall be performed at the respective terminal boards, equipment cabinets, and station outlets.
- All station cabling shall be "home run" to appropriate distribution frame or equipment cabinet. No splices will be allowed in

these lines.

- Distribution panels are not to be located in a plenum area or above accessible ceilings.

- All cables installed above accessible ceilings shall be neatly bundled utilizing commercially available products and attached to appropriate supports. Cables installed randomly and disorderly will not be allowed.

- All cables shall be installed in a fashion not to interfere with the general maintenance of other electrical/mechanical devices as well as in a manner that other electrical/mechanical devices will not interfere with the operation of the cables intended application.

- All cables shall be identified and/or labeled at appropriate locations.

- Contractor shall be responsible for all clean-up associated with the installation of cabling facilities.

CABLING RECORDS: Upon completion, a detailed drawing of the wiring system is to be provided to the Lessor and Lessee. This drawing should show, but is not limited to: outlet jacks; labeling schemes and numbers; distribution panels and closets; aerial, riser, intra-campus, and building entrance cables; and all splice locations. Underground cabling and conduit systems are to be located with exact measurements using permanent, physical structures as reference points.

TESTING: Upon completion of the wiring system, provide written certification that the system is free of shorts, grounds or open circuits, all cables are terminated and identified and that each voice and/or data outlet is functional.

WARRANTY: All materials and labor shall be warranted for a period of not less than of one year from the date of final acceptance. Extended warranty requirements will be listed in the Request for Proposal or Lease Agreement.

APPENDIX E
ORIGINAL PROGRAM STATEMENT
(DATED MAY 20, 2011)

Nebraska State Patrol Crime Laboratory

PROGRAM STATEMENT

May 20, 2011

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0.0 PREFACE

Existing crime lab facility

The purpose of this Program Statement is to provide documentation justifying the need for a new forensic crime laboratory and developing the requirements for this new facility.

0.0 PREFACE

On February 1, 2011, the BVH Architectural team entered into a contract with the State of Nebraska. The scope of work included the necessary research and documentation required to prepare a Programming Statement for a proposed new Forensic Crime Laboratory.

The purpose of this Program Statement is to provide documentation justifying the need for a new forensic crime laboratory and developing the requirements for this new facility for the Nebraska State Patrol.

The team was also charged with identifying the space needs required for the future targeting the move-in date of 2014 and subsequent ten year projections into the future to the years 2024 and 2034.

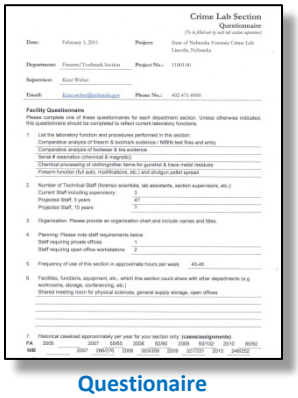
This Program Statement includes background and history of the existing crime laboratory, analysis of the existing crime laboratory, trends and influences of the forensic science industry, justification for a new crime laboratory facility, the requirements for a new forensic crime laboratory and conceptual options illustrating stacking diagrams and section adjacencies.

Room Data Sheets outlining the different room requirements are also included in an Appendix which also contains copies of the workshop minutes.

Preliminary construction cost models and overall project development cost models were also prepared as part of this Program Statement and have been included under separate cover.

0.1 PROGRAM PROCESS OVERVIEW

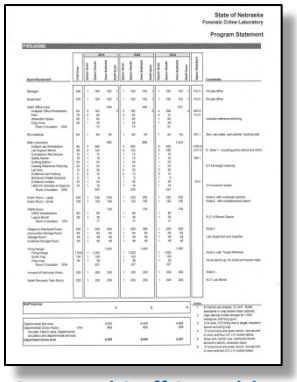
i-SCIENCE.LLC in association with BVH Architects and Durrant performed a three phased Programming process to determine the space and equipment needs for a new forensic crime laboratory facility for the Nebraska State Patrol. This three-phase process included: Data Collection, Data Synthesis, and Documentation as further described below.


Questionaire

Data Collection: This included questionnaires, interviews, and comparisons with other recently constructed forensic crime laboratory facilities.

During meetings with the facility management team and the individual users of the current facility, the collective team identified several key design objectives for the new facility which are summarized as follows:

- Design the crime laboratory to provide a safe environment for all staff.
- Design the building with flexibility to accommodate changes over time.
- Building design should maximize functionality, efficiency and flow of evidence.
- Design the building to be expandable to accommodate future growth.
- Design a cost effective facility.
- The laboratory facility should be one that people enjoy working in.
- Design the facility to maintain the integrity of evidence through appropriate evidence flow principles.
- Provide a secure working environment for both staff and evidence.
- Provide a facility which is sustainable, environmentally friendly, durable and minimizes maintenance.


Space and Staff Spreadsheet

Data Synthesis: Upon collection of the program data, the information collected was synthesized into space and staff spreadsheets which quantified space needs at the 2014, 2024 and 2034 planning windows. The spreadsheets are also supported by narratives and room data sheets describing the overall individual room requirements in each laboratory section.

Documentation: This final phase of the programming process included synthesizing all of the above data into the Program Statement for this project.

The program team also received the invaluable input and support from the entire staff of the NSP Crime Laboratory.

0.2 ACKNOWLEDGEMENTS

The BVH team acknowledges the following people whose participation and cooperation influenced the success of this Program Statement effort:

John Heacock, Project Manager, DAS

Quality Assurance
Vicki Hopkins
Evidence Handling
Jan Johnson
Margaret Wiesen

Physical Sciences Unit
Latent Prints
Mariana Ward
Bridget Driver
Steve Burke
Firearms / Toolmarks
Kent Weber
Sarah Zarnick
Amy Weber

Chemistry Unit
Controlled Substances
Celeste Laird
Vicky Cowan
Abbey Dodds
Sarah Pillard
Toxicology
Brad Rutledge
Trace Evidence
Mike Auten

Biology Unit
Forensic Biology
Cammi Strong
Jason Linder
Brandy Porter
Melissa Kreikemeier
State CODIS
Katie Rector
Heidi Young

A special acknowledgement and appreciation is extended to Pam Zilly, Crime Lab Division Director for her direction and leadership.

1.0 INTRODUCTION

1.0 INTRODUCTION

This Introduction provides the reader with an Executive Summary of the Program Statement. This Executive Summary includes the following categories:

1.1 Background and History
1.2 Project Description
1.3 Purpose and Objectives
1.4 Methodology
1.5 Recommendations

1.1 BACKGROUND AND HISTORY

In **1998** the Nebraska State Patrol Crime Lab moved to its current location at 1233 Arapahoe in Lincoln, Nebraska where they currently occupy 13,032 square feet of space.

At that time, a Satellite Lab in North Platte occupied 2,000 square feet of space and served the western portion of the state to supplement the main facility in Lincoln.

At the time of move-in back in 1998**,** the forensic science staff located in Lincoln consisted of:

- Biology-3 positions (2 examiners, 1 technician)
- Firearms/Toolmarks-1 position
- Toxicology-1 position
- Drugs-4 positions
- Trace-2 positions
- Questioned Documents (QD)-1 position
- Director-1 position
- Evidence Techs/Admin Assistants-2 positions

This provided a Total staff of **15** for the main state forensic science facility.

The move was prompted by the need to start DNA testing and become an ASCLD/LAB (American Society of Crime Lab Directors – Lab Accreditation Board) accredited facility.

The building was originally designed to meet the current needs at the time of programming without taking into account a trends projection based upon the caseload increases that had occurred over the previous years.

As a result, the facility was undersized at the completion of construction due to the additional caseload requirements.

Shortly after move-in, one trace analyst transferred to a newly created Quality Assurance position and two additional people were hired into the Biology/DNA Section.

DNA casework began in 2000 with three people in the Biology/DNA Section. Also in 2000, two people were added to the Firearms Section.

In July, 2005, the Latent Prints Section transferred its two employees, equipment and evidence from the State Patrol Headquarters facility to the forensic crime laboratory facility.

In 2008, the drug testing service offered at the Satellite Lab in North Platte was discontinued and the instrumentation and evidence were transferred to the main facility in Lincoln.

On March 31, 2009, the Satellite Lab facility closed and its two remaining employees, equipment and evidence located there were absorbed into the Lincoln facility. As a result, all forensic science services for the State of Nebraska are now consolidated within the 13,032 square feet facility in Lincoln.

Due to the addition of DNA examination, latent prints, NIBIN databank and the Satellite Lab services, there has also been a large increase in the amount of evidence that is received and stored at the Lincoln crime lab facility.

As of **February, 2011**, the current state crime laboratory facility had the following funded positions at the lab:

- Biology-8 positions (1 Unit Manager, 6 Forensic Scientists, 1 Lab Tech)
- Firearms/Toolmarks-3 positions (1 Supervisor, 2 Forensic Scientists)
- Latent Prints-3 positions (1 Supervisor, 2 Forensic Scientists)
- Toxicology-1 position (1 Forensic Scientist)
- Drugs-3 positions (3 Forensic Scientists)
- Trace-1 position (1 Forensic Scientist)

- Quality Assurance Manager-1 position
- Physical Sciences Unit Manager-1 position
- Chemistry Unit Manager-1 position
- Evidence Tech-1 position
- Administrative Assistant-1 position
- Director-1 position
- Questioned Documents-1 position (vacant/not presently funded, not counted)

This puts the current Total funded staff at **25**.

1.2 PROJECT DESCRIPTION

The programming effort for this report first involved an analysis of the existing forensic science laboratory located in Lincoln, Nebraska.

As recent media and the internet exploit the current fascination in criminal investigation and forensic evidence analysis (especially DNA analysis), the expectations of forensic crime laboratories' processed evidence continues to escalate by the public and juries, and as a result, the scrutiny of laboratory staff and facilities is heightened.

To meet the needs of the people of the state of Nebraska, the new forensic crime laboratory facility will need to respond to changing social trends both in the American society at large and in the local community, as well as to new technology and changing regulatory/judicial requirements.

The programming effort for this report first involved an analysis of the existing forensic science laboratory located in Lincoln, Nebraska. The existing forensic lab facility has been remodeled several times since its initial occupancy in 1998. Since that time, the crime lab has seen a substantial increase in their caseload requirements which ultimately has resulted in the need for a new facility as identified in Section 2 of this Program Statement.

The programming team was also charged with identifying the space and staffing needs required to support this new facility targeting the move-in date of 2014 and subsequent ten year projections into the future to the years 2024 and 2034 which is included in Section 6 of this report.

The proposed project is a new forensic science crime laboratory facility to be constructed in Lincoln, Nebraska. This new facility has been programmed utilizing trend analysis based upon existing yearly caseloads to project the space and staffing needs required for the future targeting the

move-in date of 2014 and subsequent ten year projections into the future to the years 2024 and 2034 as summarized below:

FACILITY SUMMARY

Section / Unit	2014 Departmental Gross Area	2014 Staff	2024 Departmental Gross Area	2024 Staff	2034 Departmental Gross Area	2034 Staff
LAB ADMINISTRATION	2,378	4	2,688	6	2,688	6
CHEMISTRY - TRACE EVIDENCE	2,802	2	3,220	3	3,229	3
TOXICOLOGY	1,565	1	1,900	2	2,091	3
CONTROLLED SUBSTANCES	3,114	5	3,544	6	3,544	6
FIREARMS	4,758	4	5,059	5	5,361	6
LATENT PRINTS	3,154	3	3,649	4	4,096	5
BIOLOGY / DNA	8,891	9	12,154	13	14,615	16
QUESTIONED DOCUMENTS	1,009	1	1,147	2	1,147	2
COMPUTER FORENSICS	2,093	4	2,479	5	2,902	6
VEHICLE PROCESSING	2,159	0	2,159	0	2,159	0
EVIDENCE PROCESSING	4,558	3	4,647	4	4,647	4
BUILDING SUPPORT	5,814	0	5,909	0	6,609	0
TRAINING	2,677	0	2,677	0	2,677	0

Total Department Gross Square Feet:		44,969	51,230	55,763
Building Gross Factor				
Mech/Elec/Support	3%	1,349	1,537	1,673
Structure and Walls	7%	3,148	3,586	3,903
General Building Circulation	5%	2,248	2,562	2,788

TOTAL BUILDING GROSS SQFT / STAFF:	**51,715**	**36**	**58,915**	**48**	**64,128**	**55**

1.3 PURPOSE AND OBJECTIVES

The purpose of this Program Statement is to provide documentation justifying the need for a new forensic crime laboratory and developing the requirements for this new facility.

During meetings with the facility management team and the individual users of the current facility, the collective team identified several key design objectives for the new facility which are summarized as follows:

- Design the crime laboratory to provide a safe environment for all staff.
- Design the building with flexibility to accommodate changes over time.
- Building design should maximize functionality, efficiency and flow of evidence.
- Design the building to be expandable to accommodate future growth.
- Design a cost effective facility.
- The laboratory facility should be one that people enjoy working in.
- Design the facility to maintain the integrity of evidence through appropriate evidence flow principles.
- Provide a secure working environment for both staff and evidence.
- Provide a facility which is sustainable, environmentally friendly, durable and minimizes maintenance.

1.4 METHODOLOGY

The BVH team used a traditional three-step process. These steps included a Data Collection Phase, a Data Analysis Phase and a Documentation Phase which included diagrammatic programming for the new facility. This was followed up with Conceptual Options illustrating stacking diagrams and section adjacencies to help determine the overall project costs.

Data Collection Phase:
Tasks and techniques used during the Data Collection Phase included:

- Questionnaires: Specialized questionnaires were prepared for the forensic laboratory sections. These questionnaires were distributed to and completed by the staff and management of each individual user group, prior to the interviews, and served as the basis for generating more detailed and comprehensive design program information during the interview process.

- Tour of the existing facility at 1233 Arapahoe in Lincoln, Nebraska to allow the design team to observe and become familiar with the operations and procedures of the forensic science crime laboratory as well as to observe and document any deficiencies in the facility which might be in conflict with applicable codes, regulations, safety requirements, or accepted industry standards for similar facilities;

- Staff interviews and workshops were held in two parts. All sections were interviewed over a two day period the third week of February, 2011. This was followed up with space and staffing workshops the first week of March 2011. Both sessions coincided with the facility tours noted above. The interviews and workshops were held to obtain as much information as possible regarding operations and procedures employed by the Forensic Science Laboratory. The design team also wanted to identify any desired operations or procedures that were not being employed because of existing facility constraints. The workshops were also used as a forum for the exchange of ideas in order to achieve efficient operational procedures and to optimize space in the new proposed facility.

Data Analysis:

After concluding the Data Collection Phase, analysis and research was prepared to form the basis of the Data Analysis Phase:

Analysis of the existing facility, including deficiencies and the operations and procedures taking place within this facility, were reviewed to determine the requirements for a new facility.

- Internet research for applicable data was completed to assist in defining the population data and crime trends of the service area. Most of the supporting data for this analysis was obtained from information available on the internet.

- Analysis of the existing facility, including deficiencies and the operations and procedures taking place within this facility, were reviewed to determine the requirements for a new facility.

- The results of the interviews and workshops were gathered together and analyzed on a sectional basis to form a Space and Staff Analysis that accounts for both the current and projected gross square foot area and employee requirements. The spreadsheet format identifies spaces, workstations, equipment or any other elements that will occupy space in the proposed facility. For this report, the move in date of 2014 formed the baseline database.

- Back up data for this spreadsheet is provided that defines the actual physical space requirements for different areas.

Documentation Phase

During the Documentation Phase the following elements were developed to establish the Program requirements:

- The results of the first two phases defined the criteria that established the basis for the new facility for proper adjacencies and efficient circulation. This has been illustrated through Adjacency Diagrams in Section 6.

- Specific project requirements were developed to support the new forensic science facility and included requirements the building, the specific lab sections, mechanical, electrical, plumbing and sustainability. Included in this section is an overview of the design approach, project narratives, diagrams and design criteria, indicating the design team's recommendation for this project.

- Conceptual Options illustrating stacking diagrams and sectional adjacencies were created to summarize the space relationships of each section of the new Crime Laboratory.

- Statements of Probable Cost for the proposed project were developed to determine the overall facility budget. This complete report is included under separate cover.

Although the facility has undergone recent improvements, it still contains many characteristics and features which result in operational inefficiencies.

Condition of Existing Facility

A basic analysis of the conditions of the existing crime lab facility, including architectural, laboratory and engineering systems was completed as a part of the scope of work for this Program Statement.

Although the facility has undergone recent improvements, it still contains many characteristics and features which result in operational inefficiencies. These conclusions are described in more detail in Section 5, but are briefly highlighted below:

- Additional growth potential in the form of renovation and additional square footage is limited by site constraints;

- Staging for the existing forensic garage occurs in an unsecured public parking lot;

- Laboratory deficiencies are numerous and include:
  1. Overcrowding
  2. Equipment space deficiencies
  3. Potential safety issues
  4. Circulation inefficiencies
  5. Work space deficiencies
  6. Inadequate storage
  7. Lack of bio-vestibules

From the Programming team's extensive forensic science experience, we have determined that when a forensic science laboratory experiences any two to three of these deficiencies listed above, serious consideration should be given to developing new facilities. The NSP Forensic Crime Laboratory is characterized by all seven of these deficiencies, and not in a minor way, but in a manner that is approaching crisis level.

Also, numerous deficiencies were identified for the building MEP systems that addressed key issues such as safety, flexibility, reliability, and functional features that an accredited forensic science facility must meet.

Summary of Staff and Space Needs

The ultimate objective of the Program Statement was to arrive at an accurate estimate of gross square feet area for the building and amount of staff necessary to effectively operate the proposed new facility.

FACILITY SUMMARY

		2014		2024		2034	
		Departmental Gross Area	Staff	Departmental Gross Area	Staff	Departmental Gross Area	Staff
Total Department Gross Square Feet:		44,969		51,230		55,763	
Building Gross Factor							
Mech/Elec/Support	3%	1,349		1,537		1,673	
Structure and Walls	7%	3,148		3,586		3,903	
General Building Circulation	5%	2,248		2,562		2,788	
TOTAL BUILDING GROSS SQFT / STAFF:		**51,715**	**36**	**58,915**	**48**	**64,128**	**55**

1.5 RECOMMENDATIONS

Our team's recommendations are based on observations of the existing facilities, discussions with management and staff of the existing NSP Crime Laboratory, comparisons with existing similar facilities, and our team's national experience in the planning and design of forensic science laboratories.

The laboratory is working at a reduced capability in a number of critical forensic science disciplines due to lack of space. This results in situations where some cases must be prioritized based upon court schedules. Processing of selected cases for court is extremely inefficient and therefore more costly to the state. Cases that are "rushed" by court requirements will often interrupt an examiner from the normal testing procedures and will possibly result in an inefficient analysis of the sample. In certain disciplines, drug analysis for example, many of the same types of drug cases may be analyzed using similar techniques in a "grouping" type of analysis. Rushed court cases interrupt this routine and efficiency. The addition of staff to reduce the backlogs improve efficiencies of scale and increase overall work flow.

When considering the cost to the entire criminal justice community, there is a considerable cost benefit to limiting backlogs and reducing the casework turnaround time. Cases that are analyzed on time minimize delays to prosecution, reducing the need for prosecutors to seek court continuances. Police officers benefit in many ways from a laboratory that can meet their time expectations. Speedy analysis of critical samples can allow an officer to focus his/her investigation on appropriate evidence and suspects. Leads that may take considerable time to follow may be quickly resolved through a forensic analysis, saving precious time in the investigation and considerable police resources. A laboratory that meets police and court time-line expectations reduces costs to the entire criminal justice system and can work to prevent future crime.

Comparative science fields (like Firearms and Latent Prints) are vitally important to the forensic laboratory, but have not been critically reviewed as has the field of forensic DNA analysis. Most laboratories are beginning to see what has been termed the "DNA effect", where the standards applied to that field are now becoming the expected standard for all fields of forensic analysis. In the planning for future growth of a laboratory, it is imperative to consider the legal and scientific pressures that may be placed upon a unit to meet the challenges of tomorrow's world.

After analyzing the current facility, our programming team has concluded that the existing crime laboratory has serious space deficiencies, as well as severe planning and design shortcomings.

After analyzing the current facility, our programming team has concluded that the existing crime laboratory has serious space deficiencies, as well as severe planning and design shortcomings. We further concluded that this existing facility is inadequate to serve the expanded caseload and services being projected over the next twenty years for the State of Nebraska. Additionally, the existing facility does not meet many current safety standards, and it is unable to be expanded or effectively upgraded.

Therefore, if a new facility is not approved and constructed, continued use of the existing facility will begin to compromise the advancement of the Nebraska State Patrol Forensic Science programs; and the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska to better serve the needs of the citizens of Nebraska.

2.0 JUSTIFICATION OF THE PROJECT

2.0 JUSTIFICATION OF THE PROJECT

The NSP Forensic Laboratory has grown from a staff of 15 in 1998 to a current staff level of 25 in 2011.

The major lab units were analyzed for growth based on historical caseload data as well as trends & influences affecting the laboratory programs.

Staff Quantity: The Laboratory as a Whole

To keep pace with the increasing workload, the total number of staff projected for the new forensic laboratory is 36 by the year 2014, 48 by the year 2024 and 55 by the year 2034. The Trends Analysis projections prepared for the new crime laboratory have been used as the basis for the future staff and space projections beyond 2014, to the year 2034, which were derived in this study.

Space Needs: The Laboratory as a Whole

Current Space: The existing forensic laboratory currently occupies approximately 13,032 square feet of space as follows:

• Lab Administration	1,083 SF
• Trace Evidence	922 SF
• Toxicology	897 SF
• Controlled Substances	1,704 SF
• Firearms	813 SF
• Latent Prints	933 SF
• Forensic Biology / DNA	3,544 SF
• Questioned Documents	0 SF
• Computer Forensics	0 SF
• Garage / Storage	348 SF
• Evidence Processing	922 SF
• Building Support	1,866 SF
• Training	0 SF

Total Existing Forensic Lab Space: **13,032 SF**

The required space for the laboratory in the year 2014 is 51,715 square feet, for an increase of 38,683 square feet. This area is further broken down into the program subcomponents in the Forensic Laboratory Facility Space Summary which is identified in Section 6.

The importance of laboratory evidence analysis is crucial to the investigation and conviction or exoneration of a suspect.

The need for additional space is required due to a number of reasons, outlined below:

The Growing Importance of Evidence and Forensic Laboratory Analysis:
The importance of laboratory evidence analysis is crucial to the investigation and conviction or exoneration of a suspect, linking evidence to a missing person or victim, evaluating controlled substances, etc. These analyses are varied and changing as new techniques and technology advancements occur, allowing useful information to be gained from smaller and more degraded evidence than ever before possible.

Judges, jurors, law enforcement officers, and prosecuting and defense attorneys all agree that physical, biological or electronic evidence is increasingly becoming the focus in criminal investigations. Courts are asking for more evidence and the available analytical time needed to examine it is becoming less and less. Juries expect evidence to be present in cases, and as a result, credibility of non-scientific testimony has become less defensible. Planning and cooperation within the law enforcement community has clearly identified the increasingly important role of forensic science in fighting crime.

This trend fosters an increasing reliance on forensic science analysis services as a crime-fighting tool, and is increasingly demanded from the public, investigators, defense and prosecuting attorneys, and others.

Data Base Development and the Increase in Case Load:
The emergence of forensic data bases in forensic science (e.g. DNA CODIS database) has given forensic laboratories the opportunity to provide more proactive forensic services. This facilitates solving cases through an increased number of 'hits.' Data bases facilitate linkages between evidential information from crime scenes with the vast pool of evidential data base information collected through many previous efforts across the country.

The rapidly-expanding reliance on data bases to help solve criminal cases, and the ease of accessibility to them via secure intranet / internet, is resulting in an entirely new configuration of casework in the forensic laboratory. Many cases which previously could not be processed now are viable cases due to information contained in these data bases. Data bases enable forensic laboratories to provide leads to investigators in cases where no leads would otherwise exist. It is also feasible to process nontraditional cases without suspects by matching evidential information from a crime scene with information in data bases. Additionally, evidence from un-

solved cases and current cases are equally amenable to these technologies. These examples of the increased capabilities only begin to illustrate why substantial additional case load is being generated for the laboratory.

Growing Confidence Gained from New Facilities:

Lack of space and staff to complete caseloads often result in slower turnaround times and loss of confidence on the part of evidence contributors. Lack of confidence with the laboratory system limits its usefulness and effectiveness. Evidence contributors are then compelled to submit their cases to other laboratories, or worse, not submit some evidence items at all.

Once new facilities are completed, staff is added, and efficiencies are enhanced, it is expected that evidence contributions will increase significantly as a result of unmet needs being fulfilled.

Once new facilities are completed, staff is added, and efficiencies are enhanced, it is expected that evidence contributions will increase significantly as a result of unmet needs being fulfilled (especially in the first few years after move-in, followed by a leveling off of submissions to predictable levels). The higher level of submissions is typically sustained for the life of the facility. This has been the Consultant's experience in the design of many new forensic laboratories nationwide.

Advancing Technology & Improved Scientific Capabilities:

New technology is constantly improving both the speed and accuracy of forensic science procedures. This also makes it possible to process increasing volumes of cases. More technology also allows a lab to do more types of tests, and increases both the quantity and accuracy of the testing. However, the additional equipment which usually accompanies advanced technology normally requires more space and utility infrastructure.

Increasingly Stringent Lab Accreditation Requirements:

As recent media and the internet exploit the current fascination in criminal investigation and forensic evidence analysis (especially DNA analysis), the expectations of forensic crime laboratories' processed evidence continues to escalate by the public and juries, and as a result, the scrutiny of laboratory staff and facilities is heightened.

To satisfy the current requirements being placed on forensic evidence analysis, most agencies are pursuing accreditation by the American Society of Crime Laboratory Directors – Laboratory Accreditation Board (ASCLD/LAB). Issues addressed by ASCLD/LAB requirements encompass critical items such as safety, evidence handling, space deficits, training, design deficiencies, and security. To address all of these accreditation issues, additional space has been incorporated into the proposed space program.

Examples include provision of a firing range complying with NIOSH safety standards, new classroom and training facilities and an evidence storage component designed to accommodate bio-hazardous evidence, etc.

As more restrictive accreditation standards are generated, achieving and maintaining accreditation is deemed essential to ensure the solid integrity and judicial credibility of the forensic crime laboratory. These standards are looked upon to provide effective and consistent standards for forensic crime laboratories.

As more restrictive accreditation standards are generated, achieving accreditation is deemed essential to ensure the solid integrity and judicial credibility of the forensic crime laboratory.

Benefits of Accreditation:
In general, although accreditation puts significant demands on staff time, it makes a statement to prosecutors that a Forensic Crime Lab meets the highest standards.

Also, Federal funding is contingent on accreditation and the ability to maintain this accreditation. Without ASCLD/LAB accreditation, NSPCL would have limited opportunities to apply for NIJ or other federal monies.

Once ASCLD/LAB International is adopted, lab directors will face audits every two years to assure conformance to these standards.

Compliance with Current Design Standards:
The facility needs identified in the proposed space program are in accordance with new standards, codes, and regulations which did not exist when the current forensic lab was designed. In particular among these are the design standards generated by the United States Department of Justice, National Institute of Standards and Technology, in the government document entitled 'Forensic Laboratories Handbook for Facility Planning, Design, Construction, and Moving'.

This document is embraced by the American Society of Crime Laboratory Directors (ASCLD) and is recognized by forensic laboratory directors nationwide as the standard for new forensic laboratory design. It establishes important guidelines for key design parameters such as separation of clean office areas from laboratory areas where biological and chemical hazards are present, sizes of individual space components (for example, firing range, forensic workstations, etc.), and general laboratory requirements specific to forensic laboratories.

One example of these design standards is the need to achieve physical and HVAC separation between office and lab spaces and the use of bio-safety vestibules between these areas. The bio-vestibule concept prevents exfiltration of airborne contaminants from laboratories to adjacent clean spaces and other laboratories. Contamination of evidence must be avoided in the forensic laboratory environment.

This document also sets the standards for establishing the amount of space required for new or renovated forensic science facilities. As an example, it recommends that the square foot allocation for each funded staff member of the facility be between 700 SF and 1,000 SF. The existing NSP Forensic Crime Lab is operating at 521 SF per funded staff (13,032 SF divided by 25 funded staff), which is considerably less than the minimum 700 SF per funded staff.

New Code and Regulatory Requirements:

Forensic laboratory and pathology facilities investigate a relatively high number of cases from the criminal community. Since persons from the crime community are known to have a higher incidence of dangerous diseases such as Hepatitis, HIV and Tuberculosis, some strains of which are drug resistant, workers in the facility will be routinely exposed to dangerous pathogens. New code and regulatory requirements which have been promulgated since the current lab facility was built result in the need for additional design requirements and a corresponding increase of space in the new buildings. Among the new regulations affecting laboratory design are the requirements of the Department of Labor, Occupational Safety and Health Administration (OSHA). The Occupational Safety and Health Administration (OSHA) mandates that workers who may encounter such dangerous pathogens must be provided the necessary protection against them. Protection is afforded by in-house protocols as well as through the physical design of the facility. These recent regulations are contained in the Federal Register Document 29 CFR Part 1910.1030 Occupational Exposure to Bloodborne Pathogens.

These regulations, coupled with requirements of the National Fire Protection Agency (NFPA), result in the inability to recirculate air in laboratory spaces. This results in the need for 100% outside air systems which ultimately results in larger mechanical equipment and larger mechanical rooms in which to house this equipment. Similarly, the Americans with Disabilities Act (ADA), which requires all rooms to be accessible to handicapped and wheelchair bound persons, results in the need for larger rest rooms, passageways, and workstations.

As a result of the all of the above items, the space requirements will increase the size and square feet of a new or renovated forensic science facility in order to develop a fully functional and efficient facility to meet the accreditation requirements.

2.1 TRENDS AND INFLUENCES

Introduction:

For the past two decades, the forensic science community has experienced an era of intense facility development, both throughout the United States and abroad. During this period new forensic laboratories have been developed in nearly every state in the United States, and countless countries abroad.

Since the early 1990's the law enforcement community has undergone a series of dramatic changes as our judicial system employs new strategies and innovations in prosecuting crime.

Since the early 1990's the law enforcement community has undergone a series of dramatic changes as our judicial system employs new strategies and innovations in prosecuting crime. These changes encompass a wide variety of issues including an increasing array of scientific methods to solve crime cases: new computer technologies associated with robotic instruments, computer forensic technologies, and national DNA and fingerprint databases. Perhaps the greatest changes in the field of forensic science are occurring in the science surrounding DNA analysis which is continually being updated requiring new techniques, procedures and equipment.

This growing trend toward the use of scientific evidence in the prosecution of law is being supported by both law enforcement and the public. The public's understanding of forensic science demonstrated by the popularity of the many forensic programs on television contribute to this trend significantly. Also, recent headlines in several major metropolitan areas such as Detroit and Houston, have highlighted the inadequacies of local laboratories or lack of procedures protecting the chain of evidence. Consequently, judges, jurors, police officers, prosecutors, and defense attorneys all agree that physical evidence is increasingly the most important factor in criminal investigations and prosecutions. This trend has fostered an increasing reliance on the nation's forensic laboratories and their caseloads and has caused many laboratory administrators to closely examine their policies, procedures and facilities.

Trends & Influences at the National Level:

To meet the needs of the people of the state of Nebraska, the new forensic crime laboratory facility will need to respond to changing social trends within American society at large and within the local community. These facilities will also be subject to new technology and changing regulatory/judicial requirements.

To determine applicable trends, our Programming team reviewed the research and statistics of the State of Nebraska and other law enforcement organizations such as the Federal Bureau of Investigation. By reviewing this research and statistics, it helps us understand the key 'global' social trends in addition to local/regional trends, and how they may affect the new NSP Forensic Crime Laboratory. As a result, this process enabled us to anticipate some of the future issues that will confront forensic laboratories.

According to the FBI:

"To assess criminality and law enforcement's response from jurisdiction to jurisdiction, one must consider many variables, some of which, while having significant impact on crime, are not readily measurable or applicable pervasively among all locales. Geographic and demographic factors specific to each jurisdiction must be considered and applied if one is going to make an accurate and complete assessment of crime in that jurisdiction. Several sources of information are available that may assist the responsible researcher in exploring the many variables that affect crime in a particular locale. The U.S. Census Bureau data, for example, can be used to better understand the makeup of a locale's population. The transience of the population, its racial and ethnic makeup, its composition by age and gender, educational levels, and prevalent family structures, are all key factors in assessing and comprehending the crime issue.

Local chambers of commerce, planning offices, or similar entities provide information regarding the economic and cultural makeup of cities and counties. Understanding a jurisdiction's industrial / economic base; its dependence upon neighboring jurisdictions; its transportation system; its economic dependence on nonresidents (such as tourists and convention attendees); its proximity to military installations, correctional facilities, etc., all contribute to accurately gauging and interpreting the crime known to and reported by law enforcement.

The strength (personnel and other resources) and the aggressiveness of a jurisdiction's law enforcement agency are also key factors in understanding the nature and extent of crime occurring in that area."

Historically, the causes and origins of crime have been the subjects of investigation by many disciplines.

Thirteen "Crime Factors" have been determined to influence crime. These are published by the FBI in the Uniform Crime Reports (UCR) and are listed below for reference:

- Population density and degree of urbanization.
- Variations in composition of the population, particularly youth concentration.
- Stability of population with respect to residents' mobility, commuting patterns, and transient factors.
- Modes of transportation and highway system.
- Economic conditions, including median income, poverty level, and job availability.
- Cultural factors and educational, recreational, and religious characteristics.
- Family conditions with respect to divorce and family cohesiveness.
- Climate.
- Effective strength of law enforcement agencies.
- Administrative and investigative emphases of law enforcement.
- Policies of other components of the criminal justice system (i.e., prosecutorial, judicial, correctional, and probational).
- Citizens' attitudes toward crime.
- Crime reporting practices of the citizenry.

No one has the ability to accurately predict the future, but with careful analysis, certain trends can point to possible directions American society may be following. Some of the most interesting research in the

investigation of trends in law enforcement is documented by Dr. William L. Tafoya, formerly of the FBI National Academy in Quantico, Virginia. In 1985, Dr. Tafoya published a chronology of trends affecting law enforcement that looked toward the year 2050. Many of his conclusions have already taken place. Some of his future conclusions may have some ramifications toward new facility planning efforts. He documents the following milestones.

Year 2025:

- Formal education will become the standard for entry and advancement in more than 70% of police agencies.
- Training areas will increase in usage, and should be anticipated in the future additions for the facility.

Year 2035:

- Private security agencies will assume more than 50% of all law enforcement responsibilities.

Year 2050:

- Law enforcement will receive professional status.
- More than 50% of all police agencies will have personnel competent to conduct rigorous empirical research.
- Medical (biochemical, genetic, nutritional and brain) research will discover the means and treating of violence-proneness.

While national data has shown decreases in violent crimes nationally, it also documents a substantial increase in drug related crimes.

According to the UCR:
"Arrest data from the Uniform Crime Reporting (UCR) Program show that within the past decade alone, the number of arrests for drug abuse violations has increased 24.2 percent. In fact, the estimated number of arrests for drug abuse violations for the 10-year period 2000 to 2009 topped 15.4 million. Trends for overall arrests involving drug abuse suggest that this social problem shows no signs of abating."

Trends & Influences at the Regional Level:
While the previous section addressed key 'global' social trends pertinent to law enforcement facilities, this section addresses more specific local/regional trends that will impact the future of the NSPCL.

Crime Trends in the Midwest:
The crime trends in the larger region (classified as "The Midwest" by the UCR) were considered. The current UCR notes that while violent crimes nationally and in the Midwest have declined over the past few years, last year the Midwest bucked national trends and posted a significant increase in violent crime. Perhaps, not coincidently, the Midwest has also witnessed the highest growth in the manufacture and abuse of methamphetamine. In fact, Meth use now accounts for 90% of all drug cases in the Midwest.

Crime laboratories have been experiencing an era of intense development throughout the United States and abroad over the past two decades.

The state crime lab facility serves the entire state of Nebraska which has a total population of approximately 1,808,342. Nebraska's state forensic laboratory has been struggling to keep pace with the additional demands for service being placed upon it. The inadequacy of the existing facility could compromise the ability to maintain a quality, contamination free lab environment meeting the standards of the American Society of Crime Laboratory Directors – Laboratory Accreditation Board (ASCLD/LAB), Department of Justice and the National Institute of Standards and Technology (NIST) guidelines for Forensic Lab Design. The inability to provide quality service in a timely fashion can result in a lack of confidence with the laboratory system, which will severely limit its usefulness and effectiveness. These increasing demands in workload for the Forensic Crime Laboratory are related to a combination of regional trends and influences which include the following:

- *Growing awareness of the value of criminal records information and forensic analysis*: Judges, jurors, police officers, and prosecuting and defense attorneys all agree that physical evidence is frequently the most important factor in a criminal investigation. This has been amplified by several high profile cases such as the O.J. Simpson case.

- *A return to basics in law enforcement, which includes the collection of physical evidence:* Proper handling and collection of evidence continues to be a vital component for criminal apprehension. In response to this, the Nebraska State Patrol Crime Lab places an emphasis on the collection of evidence from crime scenes and the training of law enforcement personnel in evidence collection.

- *Advancing technology and improved scientific capabilities:* New technology is constantly improving both the speed and accuracy of forensic science procedures. However, the related validation procedures and quality control checks and balances are very time consuming and require additional time to make sure the evidence has been processed correctly. So, the overall result still requires extensive time in order to process caseload evidence.

- *Technological advances providing for new services:* During recent years, technology advances have given forensic laboratories the opportunity to provide proactive forensic services. Database systems in DNA, firearms, and Latent Prints have expanded the equipment needed as well as adding to their caseloads.

Other specific trends are addressed on a unit by unit basis in this chapter. It is important to note that certain unpredictable global and regional forces are at work that may further alter the growth of workload. Examples of such events may include unforeseen economic events, natural disasters, wars, and civil unrest.

Trends Analysis:

In establishing projections that identify the local trends and influences that will define the requirements for the planning and design of the new NSP Crime Laboratory, several factors were researched. These include:

- Population Demographics
- Types of Crime and Crime Trends
- Historic Caseload Data

1. Population demographics were analyzed regarding the growth the State of Nebraska. This includes an assessment of overall population growth and projected growth of age groups within the population and their influence on certain types of crime.

2. Crime trends were analyzed using historic crime statistics pertaining to violent crime), property crime, drug arrest data and CyberCrime. This analysis will establish the data necessary to project caseload trends.

3. Historic caseload statistics have been provided by the current NSPCL as output from their internal caseload reporting database. These have been analyzed in combination with training and travel data also provided to establish a logical projection of future caseloads.

Population Trends:

Between 2000 and 2010, the population in the state of Nebraska has grown 5.67% and has increased from 1,711,263 in 2000 to 1,808,342 in 2010 based upon Census data from the US Census Bureau (illustrated in Chart 2). However, between the same 10 years, the entire country has grown 9.77% and has increased from 281,421,906 in 2000 to 308,935,581 in 2010 based upon Census data from the US Census Bureau (illustrated in Chart 1).

It is important to note however, that between 1990 and 2000, the population in the state of Nebraska grew 8.41% and increased from 1,578,385 in 1990 to 1,711,263 in 2000.

As illustrated in Chart 2, population in the State of Nebraska is increasing at a declining rate with a rate of increase decreasing with each successive decade. According to the US Census Bureau, the projected growth trend between 2010 and 2020 is projected at 2.13% and between 2020 and 2030 is projected at 0.95%. Therefore, population growth in the state of Nebraska is trending downward in population growth.

Chart 1

Geographic Area	Year 2000	Year 2010	Year 2020	Year 2030
Total U.S.	281,421,906	308,935,581	335,804,546	363,584,435
Growth %	13.15%	9.77%	8.70%	8.27%

Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2010

Chart 2

Geographic Area	Year 2000	Year 2010	Year 2020	Year 2030
Nebraska	1,711,263	1,808,342	1,846,927	1,864,588
Growth %	8.41%	5.67%	2.13%	0.95%

Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2010

Crime Trends:

For this Program Statement, data was utilized from the Federal Bureau of Investigations (FBI) site for Criminal Justice Information Services (CJIS). The CJIS Division is the largest division in the FBI and was established in February 1992 to serve as the focal point and central repository for criminal justice information services in the FBI. Programs initially consolidated under the CJIS Division include the National Crime Information Center, Uniform Crime Reporting (UCR), and Fingerprint Identification.

The data collected from the FBI's website include two major categories of crimes which occur nationwide and in the State of Nebraska:

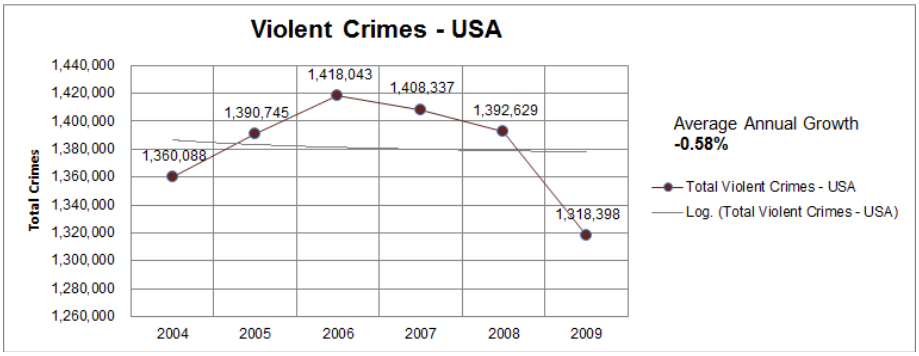
- Violent Crimes – these include Murder/Negligent Manslaughter, Forcible Rape, Robbery and Aggravated Assault

- Property Crimes – these include Burglary, Larceny-Theft, Motor Vehicle Theft and Arson (arson crime data was not available in the State statistics and is therefore not included in these numbers).

The graphs below and on the following pages show the historical trends for these two broad categories based on the most current data available from the FBI for the years 2005 through 2009 as compared from the USA totals to the State of Nebraska totals:

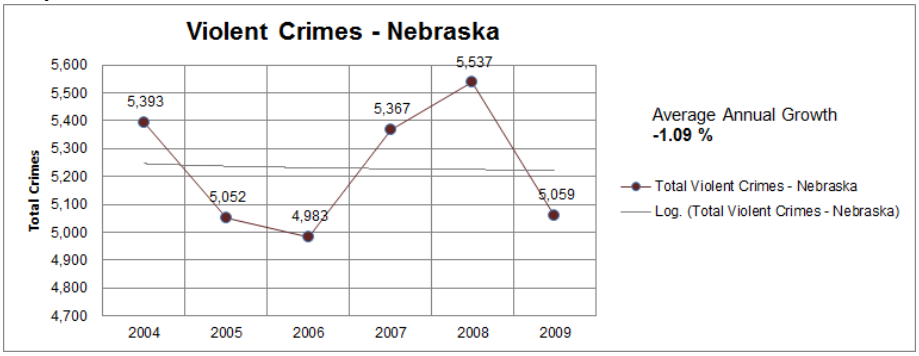
Violent Crimes:

Graph 1



Source: Crime in the United States, from FBI Uniform Crime Reporting (UCR) for years available

Graph 2

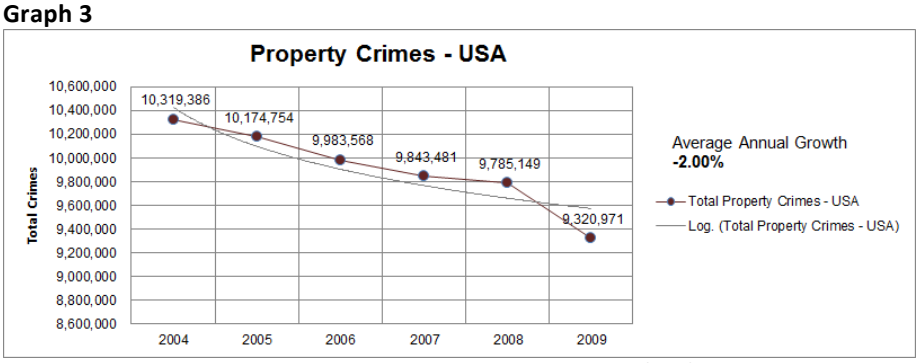


Source: Crime in the United States, from FBI Uniform Crime Reporting (UCR) for years available

As is indicated in the above graphs, Violent Crimes are trending downward both nationally and in the State of Nebraska.

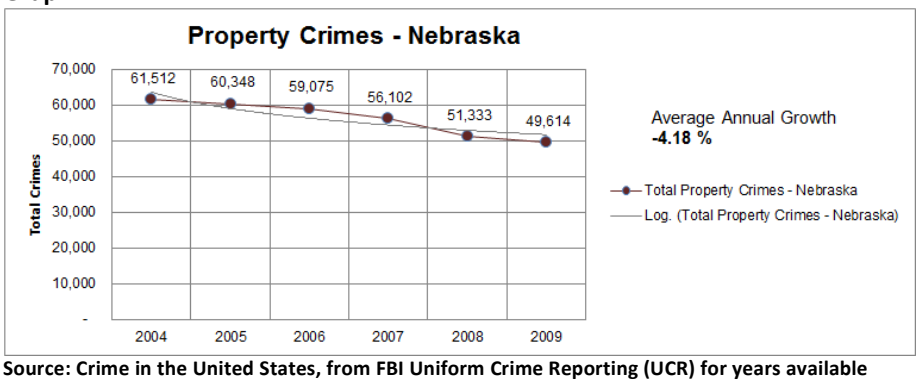
Property Crimes:

Graph 3



Source: Crime in the United States, from FBI Uniform Crime Reporting (UCR) for years available

Graph 4



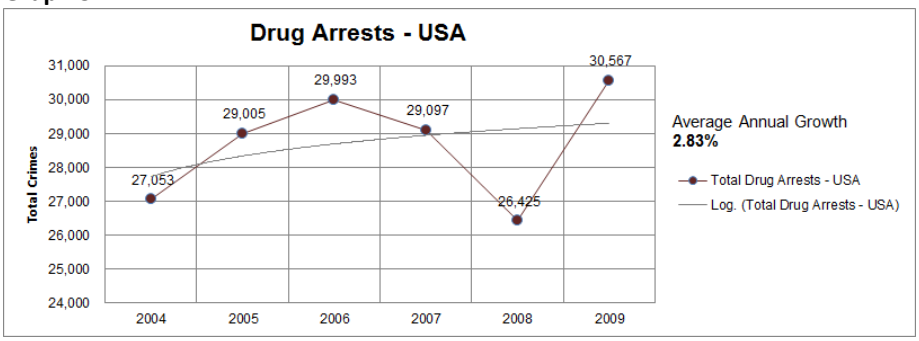
Source: Crime in the United States, from FBI Uniform Crime Reporting (UCR) for years available

As is indicated in the above graphs, Property Crimes are also trending downward both nationally and in the State of Nebraska.

Another area of importance regarding crime trends is Drug Arrests. Although Violent Crimes and Property Crimes are trending downward, Drug Arrests are trending upward as is indicated in Graphs 5 and 6 below.

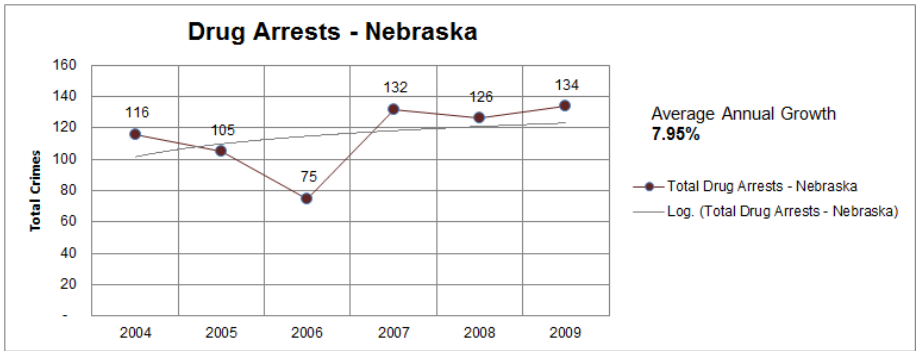
Drug Arrests:

Graph 5



Source: U. S. Drug Enforcement Administration, DEA Arrests for years available

Graph 6

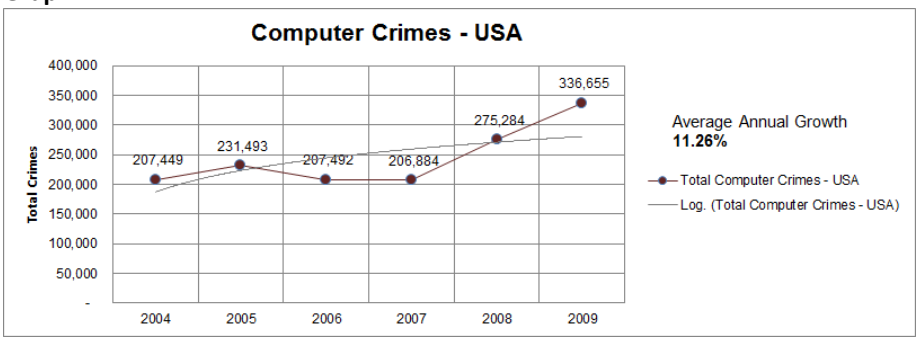


Source: U. S. Drug Enforcement Administration, DEA Arrests for years available

Regarding crime trends, one of the most dramatic increases is related to information technology. The computer has changed many aspects of our daily life, and has become an indispensable tool for the criminal population. Computer crimes, including those committed in cyber space, have only been tracked by the FBI since 2004, but the rate of increase is significant. Refer to Graphs 7 and 8 below.

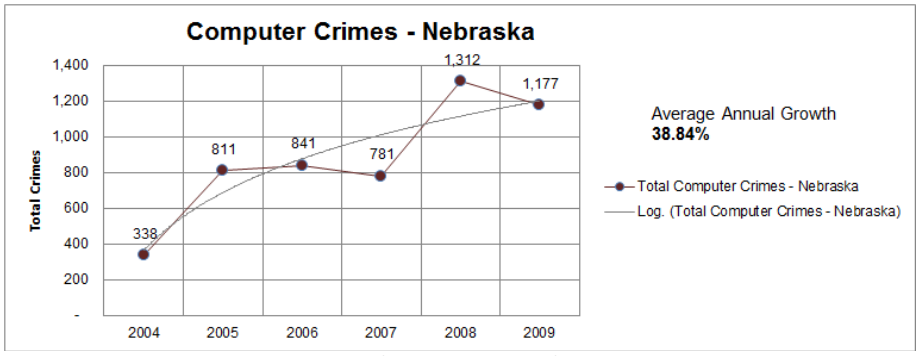
Computer Crimes:

Graph 7



Source: Internet Crime Complaint Center (an FBI Partnership) for years available

Graph 8



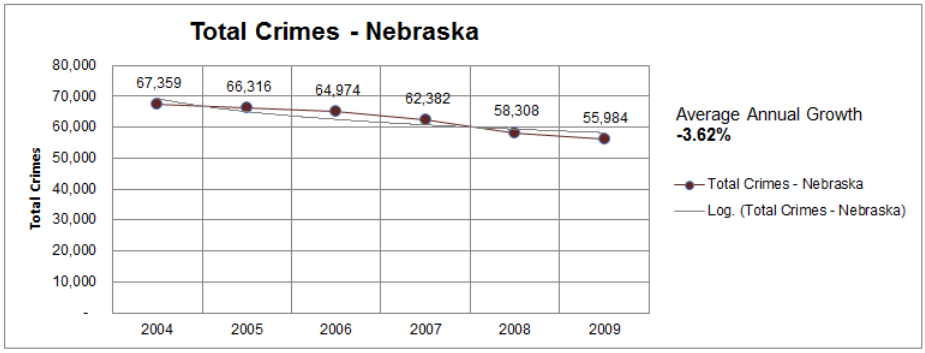
Source: Internet Crime Complaint Center (an FBI Partnership) for years

Caseload Trends:

Historical caseload statistics were provided by the current State of Nebraska Forensic Crime Lab for the last five years and examined as a part of the analysis of this Program Statement.

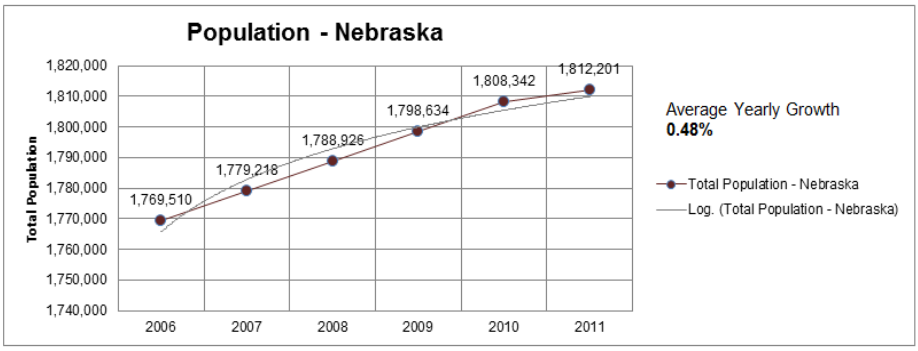
An initial analysis immediately revealed an inconsistency regarding forensic laboratory caseload trends compared to crime trends. Although there has been a decline in the State's crime rate of **-3.62%** (refer to Graph 9) for most types of crime and there is no significant population growth **0.48%** (refer to Graph 10), most crime lab sections experienced caseload increases.

Graph 9



Source: Crime in the United States, from FBI Uniform Crime Reporting (UCR) for years available

Graph 10



Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2010

This phenomenon occurs consistently throughout the forensic science industry and as a result, members of the forensic science industry have examined this issue and concluded that the criminal courts are increasingly relying on and demanding more scientifically examined evidence which ultimately leads to increased caseloads. This can be partially attributed to the public's awareness of forensic science through the regular television programming of shows such as CSI, Law and Order, Bones and Cold Case Files. These programs have increased the public's expectations for evidence examinations and processing. Defense attorneys are successfully challenging evidence that is not based on firm scientific evidence.

From our Programming team's experience, we have observed that where laboratories are overcrowded, understaffed and have significant case backlog similar to the current NSP Forensic Crime Lab, investigators frequently will not submit some evidence. However, when a new and

modern forensic laboratory is constructed to replace the old one, investigators tend to submit more evidence for examination than they would have in the past. This situation is sometimes described as the "build it and they will come" phenomenon which also leads to increased caseloads. This generally results in caseload spikes for the first several years of the new crime lab facility's existence.

Although overall the NSPCL is exceeding the median performance requests completed per FTE, the lab could perform even more efficiently if they had more space.

National Performance compared to the NSP Crime Lab:
In September of 2004, the Bureau of Justice Statistics (hereafter called BJS) published a survey of 2002 performance statistics for the 50 largest publicly - funded crime laboratories in the United States. The focus of the BJS report was to gain an understanding of how many staff would be required to achieve a 30-day turnaround on lab requests received during that calendar year; and the median requests completed per FTE has become the standard by which all crime labs are measured regarding their overall performance.

Using the actual median performance at the 50 Largest Labs for each FTE, a comparison with the state's current performance reveals that the NSP Crime Lab has outperformed its peers in almost every forensic section with the exception of the Firearms and Latent Prints Sections. (Refer to Chart 3).

Chart 3

Laboratory Discipline:	50 Largest Labs	NSPCL
Discipline	Median	Actual
Chemistry - Trace	83	101
Toxicology	444	573
Controlled Substances	846	917
Biology / DNA	54	107
CODIS	-	316
Firearms	121	63
NIBIN	-	173
Latent Prints	236	214
Questioned Documents	98	0
Computer Forensics	70	0
Vehicle Examinations	82	0
Evidence Processing	2,034	2,867

Although overall the NSPCL is exceeding the median performance requests completed per FTE, the lab could perform even more efficiently if they had more space and were able to address the deficiencies identified in Section 5 of this Program Statement.

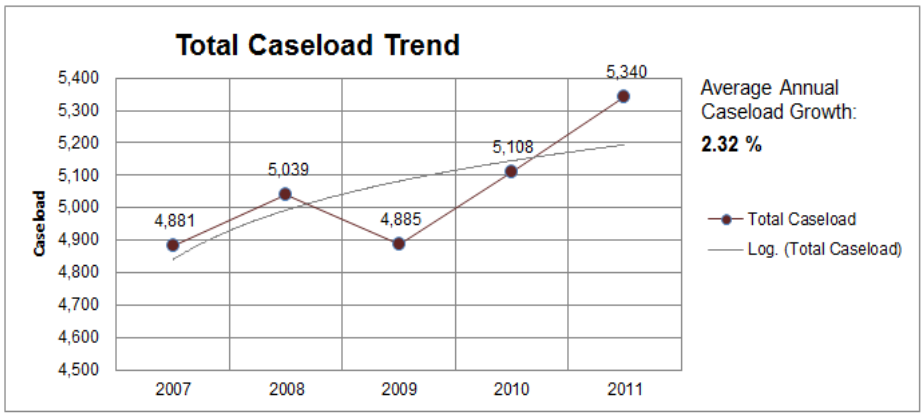
Caseload Analysis and Projections:

The graphs below and on the following page illustrate historical caseloads and backlog for the combined sections of the NSP Crime Lab. Compared to the 50 largest crime labs in the United States, the five year growth averages for caseloads and backlog again exceeds the median for these labs for both caseload increase and backlog decrease. The median caseload growth between 2007 and 2010 is 1.83% compared to NSPCL's caseload growth of 2.32%; and the median backlog growth between 2007 and 2010 is -0.43% compared to NSPCL's backlog growth of- 13.79%.

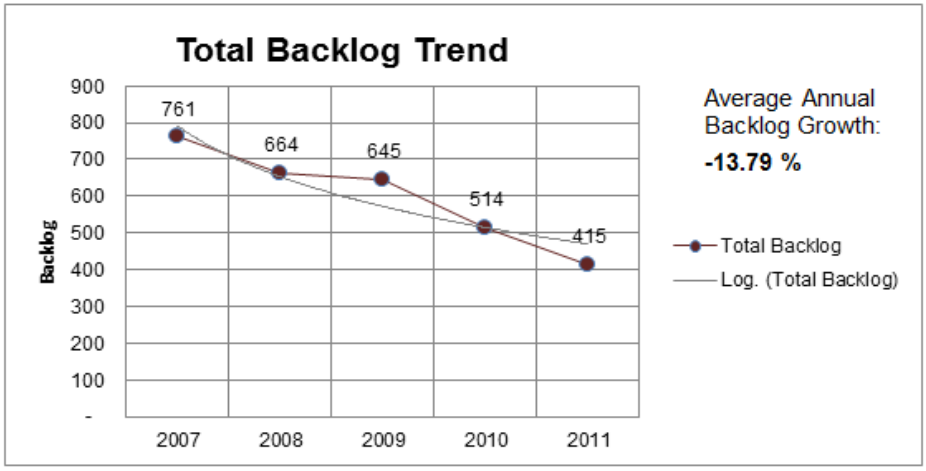
NSP Forensic Crime Laboratory Summary:

As illustrated in Graphs 11 and 12, the overall crime lab caseloads have increased over the past 4 years while their backlog has decreased.

Graph 11

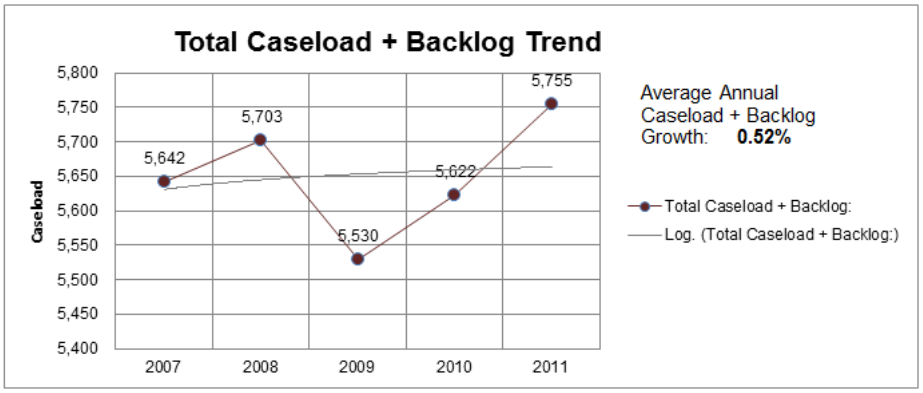


Graph 12



When the total Caseloads and Backlog are combined, the result still indicates a positive increase in the total crime laboratory output of 0.52% averaged over the past five years as identified in Graph 13.

Graph 13



Although the NSP Crime laboratory is currently outperforming its peers nationally, a considerable amount of each analyst's time is spent traveling around the State of Nebraska for court testimony or internal training.

Although the NSP Crime laboratory is currently outperforming its peers nationally, a considerable amount of each analyst's time is spent traveling around the State of Nebraska for court testimony or training. Therefore, the opportunity exists to increase their efficiency even more if the Nebraska Courts system implements a "video Testimony" approach for court cases.

In other states where this approach has been implemented, it has helped to increase the efficiency for case examinations.

Our Programming team also noted that in their experience, other crime laboratories do not train staff in-house nor is the amount of travel for testimony as great as it currently is for the NSPCL. Average travel times to court in the State of Nebraska for the NSPCL can exceed 7 hours one-way.

<u>NSP Forensic Crime Lab Caseload and FTE Analysis and Projections:</u>
The graphs on the following pages illustrate historical and projected caseloads for the various sections within the NSP Crime Lab. Projections for future caseloads have been based upon the analysis of population trends, crime trends, NSP Crime Lab (NSPCL) caseload projections from staff and historical caseload trends. Each laboratory section is summarized below with supporting documentation demonstrating the FTE projections.

Chemistry - Trace Section:
The forensic Chemistry - Trace Section at the NSP Crime Lab is currently staffed with 1 FTE. This section has outperformed its peers nationwide.

The five-year caseload and backlog for NSPCL's Chemistry - Trace Section is 505 cases. On average, the Chemistry – Trace Section has processed 101 cases per year for the past five years and is exceeding the median performance level for Chemistry – Trace of 83 at the 50 largest crimes Labs in the United States.

Projection of Chemistry - Trace Caseload and FTEs by Population Growth:
The population of Nebraska is projected to grow at slightly more than 0.48% per year with an overall increase of approximately 3.08% for the next ten years. (Refer to Graph 10). Using the population growth to calculate the caseload quantity and required FTEs, our team has determined that the existing 0.48% annual growth per year is not sufficient to fully account for the growth needed in this section based upon their caseload growth as one can see from the next page.

Projection of Chemistry - Trace Caseload and FTEs by Caseload Growth:
The average caseload amount of 101 cases (yearly caseload including the previous year's backlog) was projected into the future at the current four year average growth rate of 4.44% per year. By using this average growth rate and including an adjustment for the "Build it and they will come" factor, the caseload projections increase from 115 in 2011 to 409 in 2034. Using the same 4.44% average growth rate for FTE projections, the required FTEs increase from 1.30 FTEs in 2011 to 4.04 FTEs in 2034.

From our Programming team's experience, we have learned that the correct caseload and FTE projections will be somewhere between these two different approaches. Therefore, we average the two approaches and determined the following projections for caseload growth and required FTEs for the Chemistry – Trace Section as identified below:

- Projected Caseload and backlog for 2014: 124 Caseloads
- Required FTEs for 2014: 1.22 FTEs
- Projected Caseload and backlog for 2024: 207 Caseloads
- Required FTEs for 2024: 2.05 FTEs
- Projected Caseload and backlog for 2034: 264 Caseloads
- Required FTEs for 2034: 2.61 FTEs

This supports the FTE requirements of 3 identified in Section 6.0.

Chemistry - Trace Projections by Population Trends

	Population Data - State of Nebraska						
	2006	2007	2008	2009	2010	2011 (Projected)	6-Year Avg. Population Growth
Nebraska Population Data	1,769,510	1,779,218	1,788,926	1,798,634	1,808,342	1,812,201	0.48%

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	
Caseload + Backlog	0	72	101	105	112	115	
Actual Staff FTE	1	1	1	1	1	1	Required FTEs
Performance Expectation / Staff Need		83 per year					1.14
Performance Actual / Staff Need		101 per year					
Court/Travel Case Equiv./FTE	20%	20 per year					
Total Performance Expectation/Staff Ne		121 total cases per FTE/year					

Proposed Annual Growth Trend Based on Population Growth	0.48%

Projected Population Data - State of Nebraska				
2014 Projected Population	2019 Projected Population	2024 Projected Population	2029 Projected Population	2034 Projected Population
1,827,635	1,846,927	1,855,758	1,864,588	1,872,581

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
117	158	162	166	170
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
1.16	1.56	1.60	1.64	1.68

Chemistry - Trace Projections by Caseload Trends

	Crime Data - State of Nebraska				
	2006	2007	2008	2009	4-Year Avg. Crime Growth
Nebraska Crime Data	64,058	61,469	56,870	54,673	-3.66%

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth
Caseload + Backlog	0	72	101	105	112	115	4.44%
Actual Staff FTE	1	1	1	1	1	1	Required FTEs
Performance Expectation / Staff Need		83 per year					1.14
Performance Actual / Staff Need		101 per year					
Court/Travel Case Equiv./FTE	20%	20 per year					
Total Performance Expectation/Staff Ne		121 total cases per FTE/year					

Proposed Annual Growth Trend Based upon Caseload Growth	4.44%

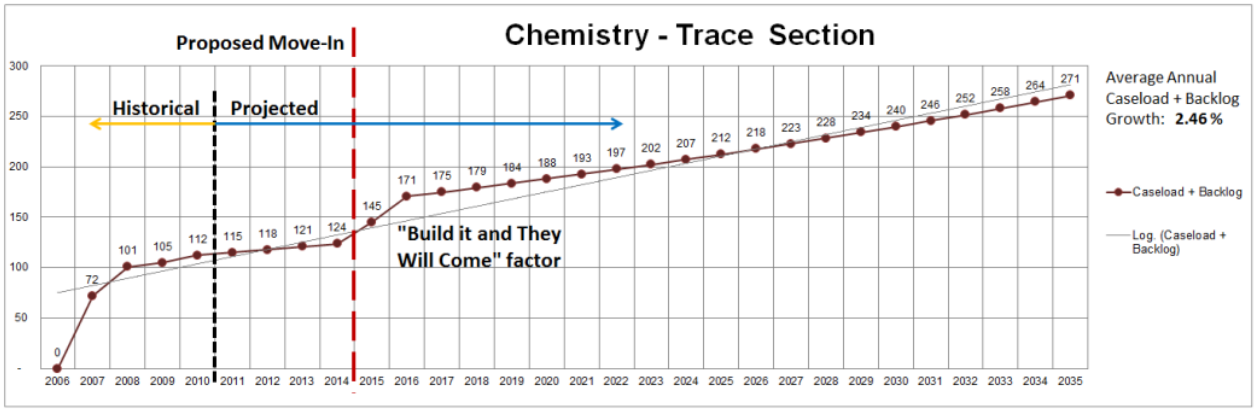
Projected Crime Data - State of Nebraska				
2014 Projected Crime Data	2019 Projected Crime Data	2024 Projected Crime Data	2029 Projected Crime Data	2034 Projected Crime Data
65,049	80,830	100,441	124,808	155,088

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
131	213	265	329	409
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
1.30	2.11	2.62	3.25	4.04

Chemistry - Trace Proposed Projections

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth
Caseload + Backlog	0	72	101	105	112	115	2.46%
							Required FTEs
							1.14

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
124	184	207	234	264
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
1.22	1.82	2.05	2.32	2.61



Toxicology Section:
The Toxicology Section at the NSP Crime Lab is currently staffed with 1 FTE. This section has also outperformed its peers nationwide.

The five-year caseload and backlog for NSPCL's Toxicology Section is 2,866 cases. On average, the Toxicology Section has processed 573 cases per year for the past five years and is exceeding the median performance level for Toxicology of 444 at the 50 largest crimes Labs in the United States.

Projection of Toxicology Caseload and FTEs by Population Growth:
Again, using the population growth to calculate the caseload quantity and required FTEs, our team has determined that the existing 0.48% annual growth per year is not sufficient to fully account for the growth needed in this section.

Projection of Toxicology Caseload and FTEs by Caseload Growth:
The average caseload amount of 573 cases (yearly caseload including the previous year's backlog) was projected into the future at the current four year average growth rate of 0.04% per year. By using this average growth rate and including an adjustment for the "Build it and they will come" factor, the caseload projections increase from 566 in 2011 to 755 in 2034. Using the same 0.04% average growth rate for FTE projections, the required FTEs increase from 0.99 FTEs in 2011 to 1.32 FTEs in 2034.

Again, recognizing that the correct caseload and FTE projections will be somewhere between these two different approaches, we average the two approaches and determined the following projections for caseload growth and required FTEs for the Toxicology Section as identified below:

- Projected Caseload and backlog for 2014: 570 Caseloads
- Required FTEs for 2014: 1.00 FTEs
- Projected Caseload and backlog for 2024: 774 Caseloads
- Required FTEs for 2024: 1.35 FTEs
- Projected Caseload and backlog for 2034: 794 Caseloads
- Required FTEs for 2034: 1.38 FTEs

This is less than the 3 FTE requirements identified in Section 6.0, however the Programming team recommends that increasing the staff in Toxicology between 2011 and 2034 from 1 FTE to 3 FTEs is justified based upon the crime lab's current lack of sufficient space to do additional Toxicology examinations.

Toxicology Projections by Population Trends

	Population Data - State of Nebraska						
	2006	2007	2008	2009	2010	2011 (Projected)	6-Year Avg. Population Growth
Nebraska Population Data	1,769,510	1,779,218	1,788,926	1,798,634	1,808,342	1,812,201	0.48%

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	
Caseload + Backlog	0	586	554	640	520	566	
Actual Staff FTE	1	1	1	1	1	1	Required FTEs
Performance Expectation / Staff Need		444 per year					
Performance Actual / Staff Need		573 per year					0.99
Court/Travel Case Equiv./FTE	20%	115 per year					
Total Performance Expectation/Staff Nee		688 total cases per FTE/year					

Proposed Annual Growth Trend Based on Population Growth	0.48%

Projected Population Data - State of Nebraska				
2014 Projected Population	2019 Projected Population	2024 Projected Population	2029 Projected Population	2034 Projected Population
1,827,635	1,846,927	1,855,758	1,864,588	1,872,581

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
574	588	602	617	632
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
1.00	1.03	1.05	1.08	1.10

Toxicology Projections by Caseload Trends

	Crime Data - State of Nebraska				
	2006	2007	2008	2009	4-Year Avg. Crime Growth
Nebraska Crime Data	64,058	61,469	56,870	54,673	-3.66%

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth
Caseload + Backlog	0	586	554	640	520	566	0.04%
Actual Staff FTE	1	1	1	1	1	1	Required FTEs
Performance Expectation / Staff Need		444 per year					
Performance Actual / Staff Need		573 per year					0.99
Court/Travel Case Equiv./FTE	20%	115 per year					
Total Performance Expectation/Staff Nee		688 total cases per FTE/year					

Proposed Annual Growth Trend Based upon Caseload Growth	0.04%

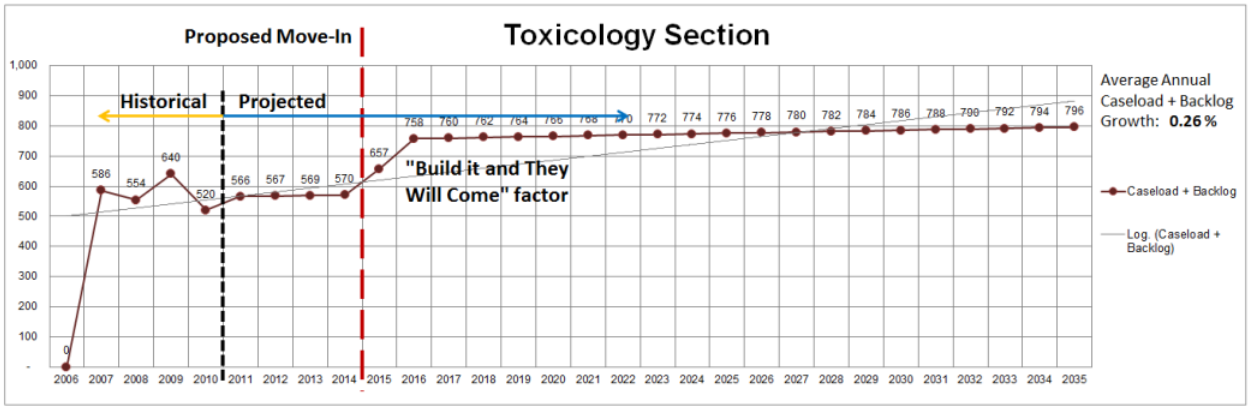
Projected Crime Data - State of Nebraska				
2014 Projected Crime Data	2019 Projected Crime Data	2024 Projected Crime Data	2029 Projected Crime Data	2034 Projected Crime Data
54,761	54,870	54,980	55,090	55,200

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
567	751	752	754	755
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
0.99	1.31	1.31	1.32	1.32

Toxicology Proposed Projections

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth
Caseload + Backlog	0	586	554	640	520	566	0.26%
							Required FTEs
							0.99

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
570	764	774	784	794
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
1.00	1.33	1.35	1.37	1.38



Controlled Substances Section:
In preparing this report, Drug Arrest data, and other information related to drugs were reviewed. While crime in Nebraska is slightly declining, drug related crimes are not. They are growing at a steady six- year average growth of 7.95% (refer to Graph 6 above).

The Controlled Substances Section at the NSP Crime Lab is currently staffed with 3 FTEs. The five-year caseload and backlog for NSPFCL's Controlled Substances Section is 13,748 cases. On average, the Controlled Substances Section has processed 2,750 cases per year (917 cases per analyst per year) for the past five years and has outperformed its peers compared with the median performance level for Controlled Substances of 846 at the 50 largest crimes Labs in the United States.

Controlled Substances Caseload and FTE Projections by Population:
Again, using the population growth to calculate the caseload quantity and required FTEs, our team has determined that the existing 0.48% annual growth per year is not sufficient for this section.

Controlled Substances Caseload and FTE Projections by Caseload Growth:
The average caseload amount of 2,750 cases (yearly caseload including the previous year's backlog) was projected into the future at the current four year average growth rate of 1.84% per year. By using this average growth rate and including an adjustment for the "Build it and they will come" factor, the caseload projections increase from 2,886 in 2011 to 5,778 in 2034. Using the same 1.84% average growth rate for FTE projections, the required FTEs increase from 3.15 FTEs in 2011 to 6.30 FTEs in 2034.

Again, recognizing that the correct caseload and FTE projections will be somewhere between these two different approaches, we average the two approaches and determined the following projections for caseload growth and required FTEs for the Controlled Substances Section below:

- Projected Caseload and backlog for 2014: 2,987 Caseloads
- Required FTEs for 2014: 3.26 FTEs
- Projected Caseload and backlog for 2024: 4,419 Caseloads
- Required FTEs for 2024: 4.82 FTEs
- Projected Caseload and backlog for 2034: 4,958 Caseloads
- Required FTEs for 2034: 5.41 FTEs

This supports the FTE requirements of 6 FTEs for the Controlled Substances Section identified in Section 6.0.

Controlled Substances Projections by Population Trends

	Population Data - State of Nebraska						
	2006	2007	2008	2009	2010	2011 (Projected)	6-Year Avg. Population Growth
Nebraska Population Data	1,769,510	1,779,218	1,788,926	1,798,634	1,808,342	1,812,201	0.48%

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	
Caseload + Backlog	0	2,910	2,756	2,514	2,682	2,886	
Actual Staff FTE	3	3	3	3	3	3	Required FTEs
Performance Expectation / Staff Need		846 per year					3.15
Performance Actual / Staff Need		917 per year					
Court/Travel Case Equiv./FTE	20%	183 per year					
Total Performance Expectation/Staff Nee		1100 total cases per FTE/year					

Proposed Annual Growth Trend Based on Population Growth	0.48%

Projected Population Data - State of Nebraska				
2014 Projected Population	2019 Projected Population	2024 Projected Population	2029 Projected Population	2034 Projected Population
1,827,635	1,846,927	1,855,758	1,864,588	1,872,581

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
2,928	2,998	3,071	3,145	3,221
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
3.19	3.27	3.35	3.43	3.51

Controlled Substances Projections by Caseload Trends

	Crime Data - State of Nebraska				
	2006	2007	2008	2009	4-Year Avg. Crime Growth
Nebraska Crime Data	64,058	61,469	56,870	54,673	-3.66%

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth
Caseload + Backlog	0	2,910	2,756	2,514	2,682	2,886	1.84%
Actual Staff FTE	3	3	3	3	3	3	Required FTEs
Performance Expectation / Staff Need		846 per year					3.15
Performance Actual / Staff Need		917 per year					
Court/Travel Case Equiv./FTE	20%	183 per year					
Total Performance Expectation/Staff Nee		1100 total cases per FTE/year					

Proposed Annual Growth Trend Based upon Caseload Growth	1.84%

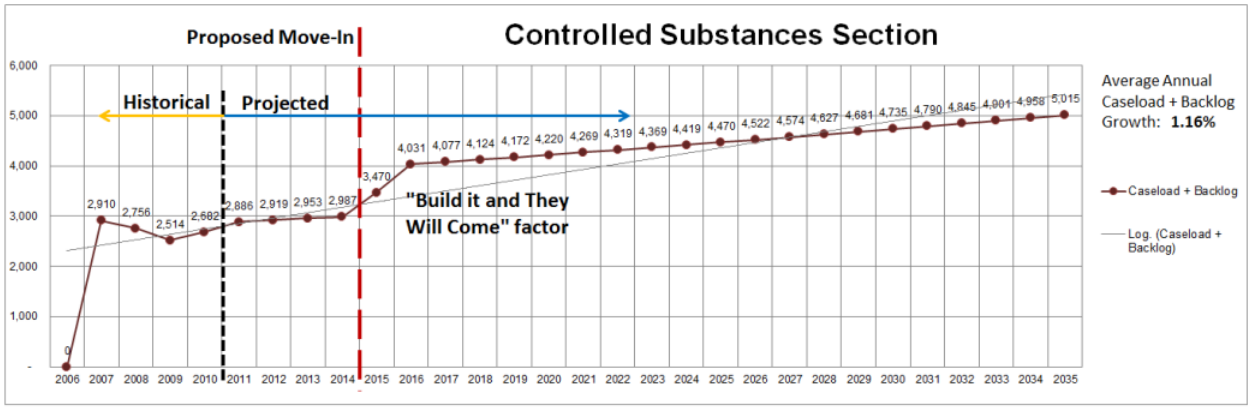
Projected Crime Data - State of Nebraska				
2014 Projected Crime Data	2019 Projected Crime Data	2024 Projected Crime Data	2029 Projected Crime Data	2034 Projected Crime Data
58,809	64,423	70,572	77,308	84,687

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
3,048	4,395	4,815	5,274	5,778
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
3.33	4.80	5.25	5.75	6.30

Controlled Substances Proposed Projections

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth
Caseload + Backlog	0	2910	2756	2514	2682	2886	1.16%
							Required FTEs
							3.15

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
2,987	4,172	4,419	4,681	4,958
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
3.26	4.55	4.82	5.11	5.41



Biology / DNA Section:

The Biology / DNA section at NSPCL is currently staffed with a manager, 5 FTEs with 2 vacancies. The five-year caseload and backlog for NSPCL's Biology / DNA Section is 2,673 cases. On average, the Biology / DNA Section has processed 535 cases per year (107 cases per analyst per year) for the past five years and is exceeding the median performance level for Biology / DNA of 54 at the 50 largest crimes Labs in the United States.

The rapidly-developing role of DNA profiling in forensic science over the past decade has resulted in an increased need to expand this laboratory section. In addition, the procedures for DNA analyses are changing over time as new and more effective procedures are currently being developed. This means that the design of work space for this section must include flexibility to accommodate these future changes.

Some of the various trends driving the increasing case load and program development of the Biology /DNA section are described below.

- Scientific technology is currently evolving more rapidly in DNA science than in any other forensic discipline. Due to the dynamic development of forensic DNA science, new procedures likely will be developed and be in use during the initial planning window of this project.

- Due to the great success in this field and the increasing demands for this service, requests for this work will continue to grow. As a result, laboratories will be confronted with the need to increase their staff as caseloads soar over the planning window. This is due to several factors:

    1. The increasing sensitivity and specificity of DNA procedures broadens the spectrum of cases that can benefit from DNA analysis. Cases that could not be attempted but a few years ago are routine today.
    2. New technologies are continuing to be developed which may both speed analysis and offer additional useful information about the sample. These new technologies may enter the biological screening side of forensic analysis and also lead to an increase in the work load in this section.

Recently, a new law was passed in the State of Nebraska which requires DNA for all felony arrests to be included in the state CODIS database which increased the processing of this information from 534 samples in 2009 to 8,819 samples in 2010.

Many cases which previously could not be processed now are viable cases due to information contained in the CODIS data base. It is now feasible to process nontraditional cases without suspects by matching DNA evidence from a crime scene with DNA information in the CODIS data base. Thus, the Biology / DNA section has experienced an increasing number of hits by utilizing the CODIS databank.

Based upon the information listed above, the Biology / DNA section of any forensic crime laboratory continues to be the fastest growing section and is projected to continue this trend for many years to come.

Biology / DNA Caseload and FTE Projections by Population:
Again, using the population growth to calculate the caseload quantity and required FTEs, our team has determined that the existing 0.48% annual growth per year is significantly insufficient to fully account for the growth needed in this section.

Biology DNA Caseload and FTE Projections by Caseload Growth:
The average caseload amount of 535 cases (yearly caseload including the previous year's backlog) was projected into the future at the current four year average growth rate of 7.47% per year. By using this average growth rate and including an adjustment for the "Build it and they will come" factor, the caseload projections increase from 602 in 2011 to 4,099 in 2034. Using the same 7.47% average growth rate for FTE projections, the required FTEs increase from 5.63 FTEs in 2011 to 38.34 FTEs in 2034.

Again, recognizing that the correct caseload and FTE projections will be somewhere between these two different approaches, we average the two approaches and determined the following projections for caseload growth and required FTEs for the Biology / DNA Section as identified below:

- Projected Caseload and backlog for 2014: 677 Caseloads
- Required FTEs for 2014: 6.33 FTEs
- Projected Caseload and backlog for 2024: 1,308 Caseloads
- Required FTEs for 2024: 12.23 FTEs
- Projected Caseload and backlog for 2034: 1,931 Caseloads
- Required FTEs for 2034: 18.06 FTEs

This supports the FTE requirements of 16 FTEs for the Biology / DNA Section identified in Section 6.0.

Biology / DNA Projections by Population Trends

	Population Data - State of Nebraska							Projected Population Data - State of Nebraska				
	2006	2007	2008	2009	2010	2011 (Projected)	6-Year Avg. Population Growth	2014 Projected Population	2019 Projected Population	2024 Projected Population	2029 Projected Population	2034 Projected Population
Nebraska Population Data	1,769,510	1,779,218	1,788,926	1,798,634	1,808,342	1,812,201	0.48%	1,827,635	1,846,927	1,855,758	1,864,588	1,872,581
	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload		2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	454	506	517	594	602		611	625	641	656	672
Actual Staff FTE	4	4	4	4	4	5	Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
Performance Expectation / Staff Need		54 per year					5.63	5.71	5.85	5.99	6.14	6.28
Performance Actual / Staff Need		107 per year										
Court/Travel Case Equiv./FTE	20%	21 per year										
Total Performance Expectation/Staff Ne		128 total cases per FTE/year										

Proposed Annual Growth Trend Based on Population Growth	0.48%

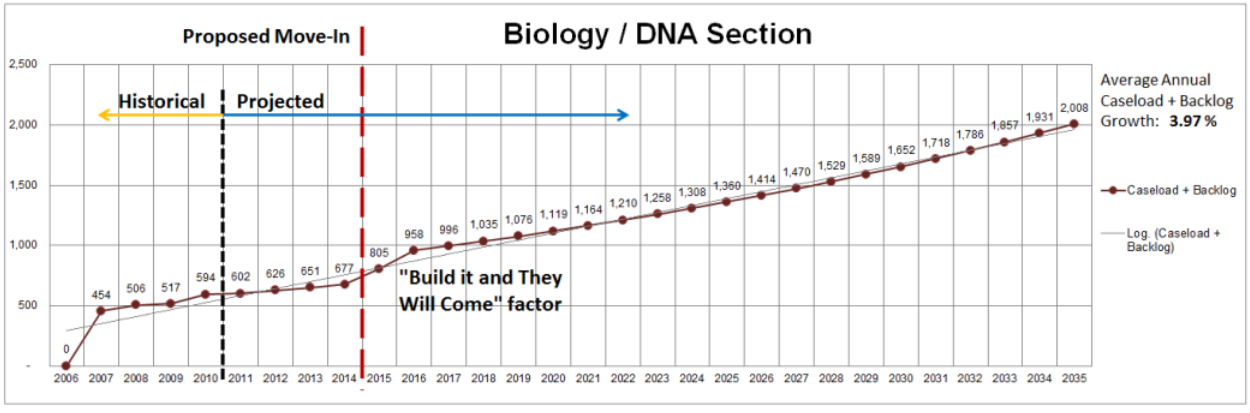
Biology / DNA Projections by Caseload Trends

	Crime Data - State of Nebraska							Projected Crime Data - State of Nebraska				
	2006	2007	2008	2009	4-Year Avg. Crime Growth			2014 Projected Crime Data	2019 Projected Crime Data	2024 Projected Crime Data	2029 Projected Crime Data	2034 Projected Crime Data
Nebraska Crime Data	64,058	61,469	56,870	54,673	-3.66%			72,933	104,558	149,897	214,897	308,082
	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth	2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	454	506	517	594	602	7.47%	747	1,391	1,994	2,859	4,099
Actual Staff FTE	4	4	4	4	4	5	Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
Performance Expectation / Staff Need		54 per year					5.63	6.99	13.01	18.65	26.74	38.34
Performance Actual / Staff Need		107 per year										
Court/Travel Case Equiv./FTE	20%	21 per year										
Total Performance Expectation/Staff Ne		128 total cases per FTE/year										

Proposed Annual Growth Trend Based upon Caseload Growth	7.47%

Biology / DNA Proposed Projections

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth	2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	454	506	517	594	602	3.97%	677	1,076	1,308	1,589	1,931
							Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
							5.63	6.33	10.07	12.23	14.86	18.06



Firearms Section:

The Firearm Section at NSPCL is currently staffed with 3 FTEs which includes a trainee that is currently not working cases. The five-year caseload and backlog for NSPCL's Firearms Section is 632 cases. On average, the Firearm Section has processed 126 cases per year (63 cases per analyst per year) for the past five years which is less than the median performance at the 50 largest crime labs.

A major reason for this lower performance is based upon the Firearms Section being a comparative science discipline which has been closely scrutinized the last several years through a series of national studies. The recommendations of these studies have resulted in a great deal of research and movement towards methodology standardization in this field, as well as a heightened preparedness for challenges in court, regardless of whether these challenges are justified.

These trends require the Firearm Section staff to dedicate a portion of their time to awareness and education regarding current issues facing their discipline. Even though regular training accounts for some of the staff's continuing education, there is a need for staff to spend laboratory time participating in research and standardization efforts, on top of their normal casework load. Staff education and preparedness efforts inevitably lead to careful reviews of protocols and standards as the NSPCL continues to meet the level of quality for which it is known. More stringent accreditation standards in the years to come will add layers of documentation and standards on top of the already substantial workload of the Firearm Section, and is sure to increase the need for additional section staff.

The Firearm Section is responsible for a wide variety of examinations involving not only firearm and ammunition evidence, but also tool and toolmark evidence, and analysis involving suspect shoes, tires, and evidence impressions from those items. Many of the examinations in this section require visual comparison of potential source vs. evidence items, often employing specialized photography techniques, microscopy, and other visual enhancement equipment. Additionally, the section is responsible for performing serial number recovery by way of magnetic and chemical processing, and range estimation (firearm muzzle to target distance) through the chemical analysis of gunshot residues and the visual analysis of shot spread patterns.

The Firearm Section houses one of the NSPCL's individual characteristic computer databases, the National Integrated Ballistics Information Network

(NIBIN). NIBIN is administered by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATFE) and has been in use at the NSPCL since 2002.

The Firearm Section inputs data and photomicrographs from laboratory cases into the NIBIN ballistic imaging database as one method of discovering linkages between same jurisdiction or inter-jurisdiction cases involving firearms and/or fired ammunition evidence.

Therefore, the future NIBIN workload will add significantly to the baseline workload of this section.

Projection of Firearms Caseload and FTEs by Population Growth:
Based upon this information, the Firearms Section is projected to continue to grow for many years to come. Thus, our team has determined that using the population growth of 0.48% annual growth per year to calculate the caseload quantity and required FTEs for the Firearms Section is not sufficient to fully account for the growth needed in this section based upon their caseload growth as one can see from the next page.

Projection of Firearms Caseload and FTEs by Caseload Growth:
The average caseload amount of 126 cases (yearly caseload including the previous year's backlog) was projected into the future at the current four year average growth rate of 8.39% per year. By using this average growth rate and including an adjustment for the "Build it and they will come" factor, the caseload projections increase from 132 in 2011 to 1,091 in 2034. Using the same 8.39% average growth rate for FTE projections, the required FTEs increase from 2.09 FTEs in 2011 to 17.27 FTEs in 2034.

Again, recognizing that the correct caseload and FTE projections will be somewhere between these two different approaches, we average the two approaches and determined the following projections for caseload growth and required FTEs for the Firearms Section as identified below:

- Projected Caseload and backlog for 2014: 150 Caseloads
- Required FTEs for 2014: 2.38 FTEs
- Projected Caseload and backlog for 2024: 303 Caseloads
- Required FTEs for 2024: 4.80 FTEs
- Projected Caseload and backlog for 2034: 468 Caseloads
- Required FTEs for 2034: 7.41 FTEs

This supports the FTE requirements of 6 FTEs for the Firearms Section identified in Section 6.0.

Firearms Projections by Population Trends

	Population Data - State of Nebraska							Projected Population Data - State of Nebraska				
	2006	2007	2008	2009	2010	2011 (Projected)	6-Year Avg. Population Growth	2014 Projected Population	2019 Projected Population	2024 Projected Population	2029 Projected Population	2034 Projected Population
Nebraska Population Data	1,769,510	1,779,218	1,788,926	1,798,634	1,808,342	1,812,201	0.48%	1,827,635	1,846,927	1,855,758	1,864,588	1,872,581
	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload		2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	98	124	137	141	132		134	137	140	144	147
Actual Staff FTE	1	1	1	2	2	2	Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
Performance Expectation / Staff Need		121 per year										
Performance Actual / Staff Need		63 per year					2.09	2.12	2.17	2.22	2.28	2.33
Court/Travel Case Equiv./FTE	20%	13 per year										
Total Performance Expectation/Staff Nee		76 total cases per FTE/year										

Proposed Annual Growth Trend Based on Population Growth	0.48%

Firearms Projections by Caseload Trends

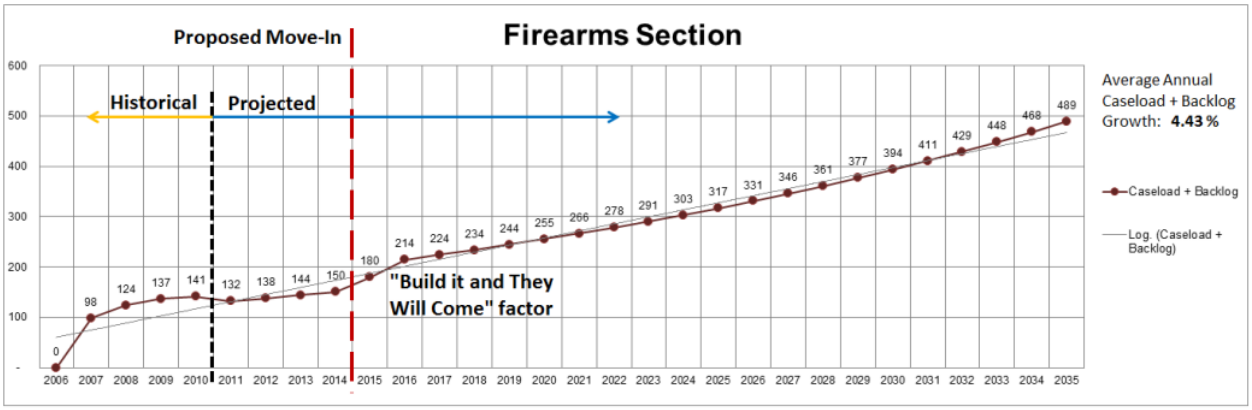
	Crime Data - State of Nebraska					Projected Crime Data - State of Nebraska				
	2006	2007	2008	2009	4-Year Avg. Crime Growth	2014 Projected Crime Data	2019 Projected Crime Data	2024 Projected Crime Data	2029 Projected Crime Data	2034 Projected Crime Data
Nebraska Crime Data	64,058	61,469	56,870	54,673	-3.66%	75,462	112,895	168,897	252,678	378,019

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth	2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	98	124	137	141	132	8.39%	168	326	488	729	1,091
Actual Staff FTE	1	1	1	2	2	2	Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
Performance Expectation / Staff Need		121 per year										
Performance Actual / Staff Need		63 per year					2.09	2.66	5.16	7.71	11.54	17.27
Court/Travel Case Equiv./FTE	20%	13 per year										
Total Performance Expectation/Staff Nee		76 total cases per FTE/year										

Proposed Annual Growth Trend Based upon Caseload Growth	8.39%

Firearms Proposed Projections

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth	2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	98	124	137	141	132	4.43%	150	244	303	377	468
							Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
							2.09	2.38	3.86	4.80	5.96	7.41



Latent Prints Section:

The Latent Prints section at NSPCL is currently staffed with 3 FTEs. The five-year caseload and backlog for NSPCL's Latent Prints Section is 3,208 cases. On average, the Latent Prints Section has processed 642 cases per year (214 cases per analyst per year) for the past five years which also is less than the median performance level for Latent Prints of 236 at the 50 largest crimes Labs in the United States.

A major reason for this lower performance is based upon the Latent Prints Section also being a comparative science discipline which has been closely scrutinized the last several years through a series of national studies. The recommendations of these studies have resulted in a great deal of research and movement towards methodology standardization in this field, as well as a heightened preparedness for challenges in court, regardless of whether these challenges are justified.

These trends require the Latent Prints Section staff to dedicate a portion of their time to awareness and education regarding current issues facing their discipline. Even though regular training accounts for some of the staff's continuing education, there is a need for staff to spend laboratory time participating in research and standardization efforts, on top of their normal casework load. Staff education and preparedness efforts inevitably lead to careful reviews of protocols and standards as the NSPCL continues to meet the level of quality for which it is known. More stringent accreditation standards in the years to come will add layers of documentation and standards on top of the already substantial workload of the Latent Prints Section, and is sure to increase the need for additional section staff.

The rapidly-expanding reliance on data bases to help solve crimes, and the ease of accessibility to them via the internet, such as the emergence of the Automatic Fingerprint Identification System (AFIS), (which provides leads to investigators in cases where no leads would otherwise exist), has also increased the workload requirements for the Latent Prints staff.

As discussed previously for other comparative types of analyses, this discipline will also need to allocate time for court challenges of their work and permit the time necessary to perform increased quality control as standards and expectations increase.

In the near future, Latent print analysis like other forensic comparative sciences will undergo significant changes as to the way an analysis is performed. Many court hearings have recently taken place concerning the

acceptability of comparative fingerprint analysis. One only need to review the Madrid bombing case and problems associated with the FBI's latent print misidentification in that case to understand that latent print examination will face some challenges in the years to come. Although there are only a few modifications to protocols currently being discussed, in the future there will be a greater emphasis for additional quality control measures in print verifications.

Projection of Latent Prints Caseload and FTEs by Population Growth:
Based upon this information, the Latent Prints section is projected to continue to grow for many years to come. Again, our team has determined that using the population growth of 0.48% annual growth per year to calculate the caseload quantity and required FTEs for the Latent Prints Section is not sufficient to fully account for the growth needed in this section based upon their caseload growth as one can see from the next page.

Projection of Latent Prints Caseload and FTEs by Caseload Growth:
The average caseload amount of 642 cases (yearly caseload including the previous year's backlog) was projected into the future at the current four year average growth rate of 2.31% per year. By using this average growth rate and including an adjustment for the "Build it and they will come" factor, the caseload projections increase from 562 in 2011 to 1,249 in 2034. Using the same 2.31% average growth rate for FTE projections, the required FTEs increase from 2.63 FTEs in 2011 to 5.84 FTEs in 2034.

Again, recognizing that the correct caseload and FTE projections will be somewhere between these two different approaches, we average the two approaches and determined the following projections for caseload growth and required FTEs for the Latent Prints Section as identified below:

- Projected Caseload and backlog for 2014: 586 Caseloads
- Required FTEs for 2014: 2.74 FTEs
- Projected Caseload and backlog for 2024: 887 Caseloads
- Required FTEs for 2024: 4.15 FTEs
- Projected Caseload and backlog for 2034: 1,018 Caseloads
- Required FTEs for 2034: 4.76 FTEs

This supports the FTE requirements of 5 FTEs for the Latent Prints Section identified in Section 6.0.

Latent Prints Projections by Population Trends

	Population Data - State of Nebraska							Projected Population Data - State of Nebraska				
	2006	2007	2008	2009	2010	2011 (Projected)	6-Year Avg. Population Growth	2014 Projected Population	2019 Projected Population	2024 Projected Population	2029 Projected Population	2034 Projected Population
Nebraska Population Data	1,769,510	1,779,218	1,788,926	1,798,634	1,808,342	1,812,201	0.48%	1,827,635	1,846,927	1,855,758	1,864,588	1,872,581
	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload		2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	717	752	678	499	562		570	584	598	612	627
Actual Staff FTE	3	3	3	3	3	3	Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
Performance Expectation / Staff Need		236 per year					2.63	2.67	2.73	2.80	2.86	2.93
Performance Actual / Staff Need		214 per year										
Court/Travel Case Equiv./FTE	20%	43 per year										
Total Performance Expectation/Staff Ne		257 total cases per FTE/year										

Proposed Annual Growth Trend Based on Population Growth	0.48%

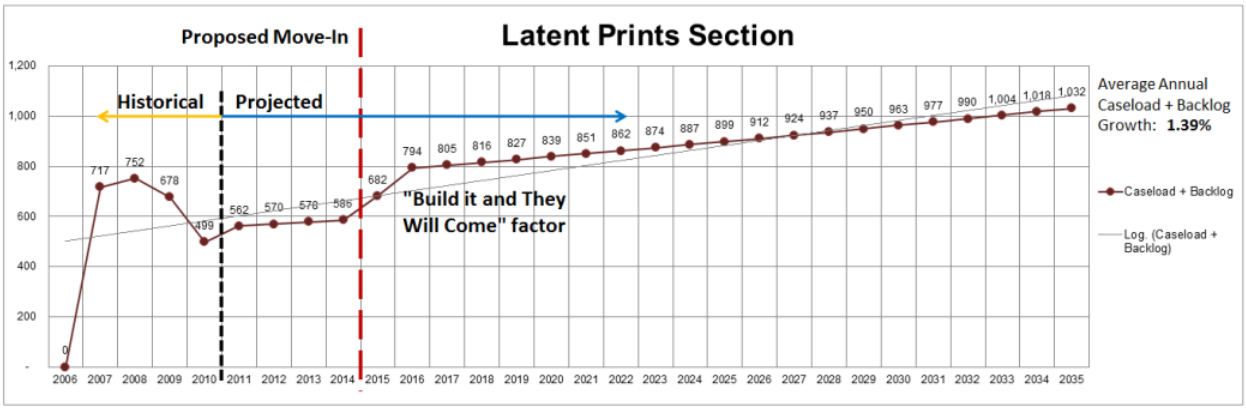
Latent Prints Projections by Caseload Trends

	Crime Data - State of Nebraska							Projected Crime Data - State of Nebraska				
	2006	2007	2008	2009	4-Year Avg. Crime Growth			2014 Projected Crime Data	2019 Projected Crime Data	2024 Projected Crime Data	2029 Projected Crime Data	2034 Projected Crime Data
Nebraska Crime Data	64,058	61,469	56,870	54,673	-3.66%			59,903	67,148	75,271	84,376	94,582
	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth	2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	717	752	678	499	562	2.31%	602	887	994	1,115	1,249
Actual Staff FTE	3	3	3	3	3	3	Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
Performance Expectation / Staff Need		236 per year					2.63	2.81	4.15	4.65	5.21	5.84
Performance Actual / Staff Need		214 per year										
Court/Travel Case Equiv./FTE	20%	43 per year										
Total Performance Expectation/Staff Ne		257 total cases per FTE/year										

Proposed Annual Growth Trend Based upon Caseload Growth	2.31%

Latent Prints Proposed Projections

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth	2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	717	752	678	499	562	1.39%	586	827	887	950	1,018
							Required FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
							2.63	2.74	3.87	4.15	4.44	4.76



Computer Forensic Section:

A Computer Forensics Section does not exist in the NSPCL. Cybercrime is a relatively new phenomenon in the United States, but is rapidly becoming a problem for law enforcement. In 2004, the FBI started collecting data on the reporting of Cybercrime on a state by state basis. Since 2004, Nebraska data has shown an average growth increase of 38.84% (refer to Graph 8).

As identified on Chart 3, the Bureau of Justice Statistics (BJS) Report of the 50 Largest Labs reflects a median performance of 70 cases per year per analyst.

Computer Forensics Caseload and FTEs Projection by Population Growth:

As noted previously, the population of Nebraska is projected to grow at slightly more than 0.48% per year (refer to Graph 10). To calculate the caseload quantity our Programming team has determined that using the current 0.48% average yearly population growth for Computer Forensic cases is not sufficient to fully account for the growth needed in this section.

Computer Forensics Caseload and FTEs Projection by Caseload Growth:

Since this forensic science section does not currently exist at the NSPCL, we can not use past performance of caseloads to determine the required FTEs for this unit.

Instead, to forecast the projected FTE for this unit, our Programming team has conferred with the NSPCL's administrative staff and together decided to use the BJS median performance of 70 cases per year per analyst as a starting point for determining the required FTEs for this unit.

Using this data and reviewing the historical Computer Crimes data identified in Graph 8, we determined that 4 FTEs and 280 caseloads starting in 2014 would be a reasonable approach for developing this forensic science section. Thus, the projected caseload growth and required FTEs for the Computer forensics Section would be as identified below:

- Projected Caseload and backlog for 2014: 280 Caseloads
- Required FTEs for 2014: 4.0 FTEs
- Projected Caseload and backlog for 2024: 609 Caseloads
- Required FTEs for 2024: 8.70 FTEs
- Projected Caseload and backlog for 2034: 1,014 Caseloads
- Required FTEs for 2034: 14.48 FTEs

Computer Forensics Projections by Population Trends

	Population Data - State of Nebraska							Projected Population Data - State of Nebraska				
	2006	2007	2008	2009	2010	2011 (Projected)	6-Year Avg. Population Growth	2014 Projected Population	2019 Projected Population	2024 Projected Population	2029 Projected Population	2034 Projected Population
Nebraska Population Data	1,769,510	1,779,218	1,788,926	1,798,634	1,808,342	1,812,201	0.48%	1,827,635	1,846,927	1,855,758	1,864,588	1,872,581

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload		2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	0	0	0	0	0	280	280	287	294	301	308
Actual Staff FTE	0	0	0	0	0	0	Required	Projected	Projected	Projected	Projected	Projected
Performance Expectation / Staff Need		70	per year				FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
Performance Actual / Staff Need		70	per year				4.00	4.00	4.10	4.20	4.30	4.40
Court/Travel Case Equiv./FTE	20%	14	per year									
Total Performance Expectation/Staff Ne		84	total cases per FTE/year									

Proposed Annual Growth Trend Based on Population Growth	0.48%

Computer Forensics Projections by Caseload Trends

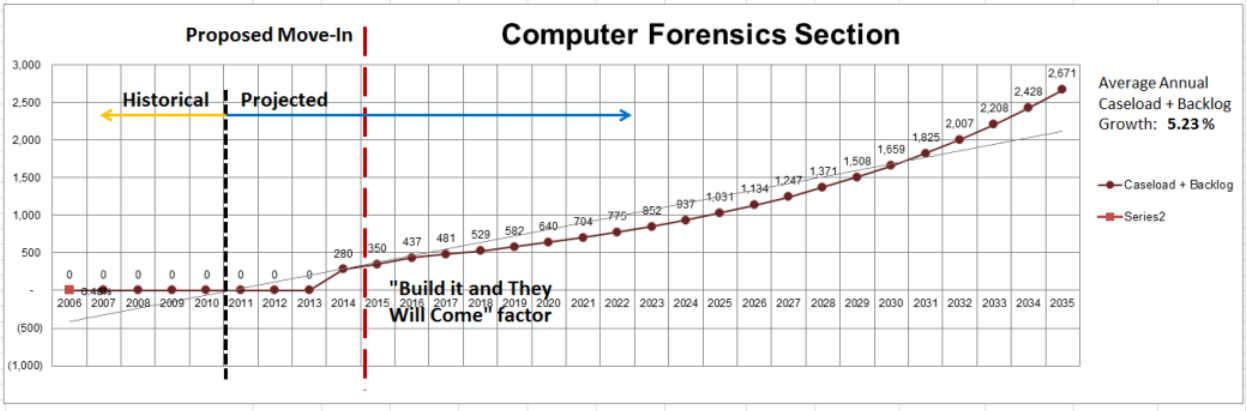
	Crime Data - State of Nebraska						Projected Crime Data - State of Nebraska				
	2006	2007	2008	2009	4-Year Avg. Crime Growth		2014 Projected Crime Data	2019 Projected Crime Data	2024 Projected Crime Data	2029 Projected Crime Data	2034 Projected Crime Data
Nebraska Computer Crimes	841	781	1,312	1,177	9.99%		1,723	2,773	4,464	7,186	11,568

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth	2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	0	0	0	0	0	9.99%	280	582	937	1,508	2,428
Actual Staff FTE	0	0	0	0	0	0	Required	Projected	Projected	Projected	Projected	Projected
Performance Expectation / Staff Need		70	per year				FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
Performance Actual / Staff Need		70	per year				4.00	4.00	8.32	13.39	21.55	34.69
Court/Travel Case Equiv./FTE	20%	14	per year									
Total Performance Expectation/Staff Ne		84	total cases per FTE/year									

Proposed Annual Growth Trend Based upon Crimes Growth	9.99%

Computer Forensics Proposed Projections

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth	2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
Caseload + Backlog	0	0	0	0	0	0	5.23%	280	472	609	786	1,014
							Required	Projected	Projected	Projected	Projected	Projected
							FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
							4.00	4.00	6.74	8.70	11.22	14.48



Questioned Documents Section:

A Questioned Documents Section also does not exist in the NSPCL primarily due to the existing overcrowded conditions and no available space to re-establish this section even though there is a need for these forensic services statewide. This forensic science service was originally offered by NSPCL, but was eliminated when the Latent Prints Section was transferred to this lab in 2005.

As identified on Chart 3, the Bureau of Justice Statistics (BJS) Report of the 50 Largest Labs reflects a median performance of 98 cases per year per analyst for the Questioned Documents section.

Questioned Documents Caseload and FTEs Projection by Population:

As noted previously, the population of Nebraska is projected to grow at slightly more than 0.48% per year (refer to Graph 10). To calculate the caseload quantity our Programming team has determined that using the current 0.48% average yearly population growth for Questioned Documents cases is not sufficient to fully account for the growth needed in this section.

Questioned Documents Caseload and FTEs Projection by Caseload Growth:

Again, since this forensic science section does not currently exist at the NSPCL, we can not use past performance of caseloads to determine the required FTEs for this unit.

Instead, to forecast the projected FTE for this unit, our Programming team has conferred with the NSPCL's administrative staff and together decided to use the BJS median performance of 98 cases per year per analyst as a starting point for determining the required FTEs for this unit.

Using this data, we determined that 1 FTE and 98 caseloads starting in 2014 would be a reasonable approach for re-establishing this forensic science section.

Also, since the Questioned Documents work in general is in a decline nationwide due to the shift to more electronic forms of communications rather than hand written communications, it was decided that this section would be planned to grow from 1 FTE in 2014 to 2 FTEs in 2034.

Evidence Processing Section:

The Evidence Processing section at NSPCL is currently staffed with 2 FTEs. The five-year caseload and backlog for NSPCL's Evidence Processing Section is 28,672 cases. On average, the Evidence Processing Section has processed 5,734 cases per year (2,867 cases per analyst per year) for the past five years and is exceeding the median performance level for Evidence Processing of 2,842 at the 50 largest crimes Labs in the United States. Also, the Evidence Processing Section will grow with the laboratory as a whole following the increase in number of staff and the number of items of evidence submitted. New ASCLD/LAB regulatory requirements also will cause the Evidence Processing Section to increase in size.

Evidence Processing Caseload and FTEs Projection by Population Growth:

Based upon the above, the Evidence Processing section is projected to continue to grow for many years to come. Again, our team has determined that using the population growth of 0.48% annual growth per year to calculate the caseload quantity and required FTEs for this Section is not sufficient to fully account for the growth needed in this section based upon their caseload growth as one can see from the next page.

Evidence Processing Caseload and FTEs Projection by Caseload Growth:

The average caseload amount of 5,734 cases (yearly caseload including the previous year's backlog) was projected into the future at the current four year average growth rate of 2.39% per year. By using this average growth rate and including an adjustment for the "Build it and they will come" factor, the caseload projections increase from 6,175 in 2011 to 13,974 in 2034. Using the same 2.39% average growth rate for FTE projections, the required FTEs increase from 2.15 FTEs in 2011 to 4.87 FTEs in 2034.

Again, recognizing that the correct caseload and FTE projections will be somewhere between these two different approaches, we average the two approaches and determined the following projections for caseload growth and required FTEs for the Evidence Processing Section as identified below:

- Projected Caseload and backlog for 2014: 6,444 Caseloads
- Required FTEs for 2014: 2.25 FTEs
- Projected Caseload and backlog for 2024: 9,789 Caseloads
- Required FTEs for 2024: 3.41 FTEs
- Projected Caseload and backlog for 2034: 11,285 Caseloads
- Required FTEs for 2034: 3.94 FTEs

This supports the 4 FTEs determined for this Section.

Evidence Processing Projections by Population Trends

	Population Data - State of Nebraska						
	2006	2007	2008	2009	2010	2011 (Projected)	6-Year Avg. Population Growth
Nebraska Population Data	1,769,510	1,779,218	1,788,926	1,798,634	1,808,342	1,812,201	0.48%

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	
Caseload + Backlog	0	5,642	5,703	5,530	5,622	6,175	
Actual Staff FTE	1	1	2	2	2	2	Required FTEs
Performance Expectation / Staff Need		2,034	per year				2.15
Performance Actual / Staff Need		2,867	per year				
Court/Travel Case Equiv./FTE	0%	0	per year				
Total Performance Expectation/Staff Ne		2867	total cases per FTE/year				

Proposed Annual Growth Trend Based on Population Growth	0.48%

Projected Population Data - State of Nebraska				
2014 Projected Population	2019 Projected Population	2024 Projected Population	2029 Projected Population	2034 Projected Population
1,827,635	1,846,927	1,855,758	1,864,588	1,872,581

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
6,264	6,415	6,570	6,728	6,891
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
2.18	2.24	2.29	2.35	2.40

Evidence Processing Projections by Caseload Trends

	Crime Data - State of Nebraska				
	2006	2007	2008	2009	4-Year Avg. Crime Growth
Nebraska Crime Data	64,058	61,469	56,870	54,673	-3.66%

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth
Caseload + Backlog	0	5,642	5,703	5,530	5,622	6,175	2.39%
Actual Staff FTE	1	1	2	2	2	2	Required FTEs
Performance Expectation / Staff Need		2034	per year				2.15
Performance Actual / Staff Need		2867	per year				
Court/Travel Case Equiv./FTE	0%	0	per year				
Total Performance Expectation/Staff Ne		2867	total cases per FTE/year				

Proposed Annual Growth Trend Based upon Caseload Growth	2.39%

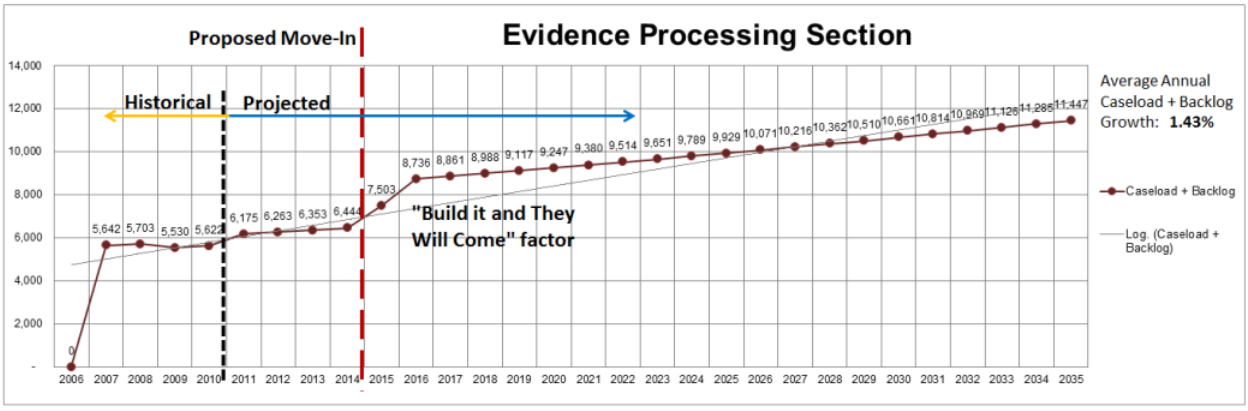
Projected Crime Data - State of Nebraska				
2014 Projected Crime Data	2019 Projected Crime Data	2024 Projected Crime Data	2029 Projected Crime Data	2034 Projected Crime Data
60,090	67,622	76,099	85,638	96,373

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
6,628	9,805	11,034	12,417	13,974
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
2.31	3.42	3.85	4.33	4.87

Evidence Processing Proposed Projections

	2006 Actual Caseload	2007 Actual Caseload	2008 Actual Caseload	2009 Actual Caseload	2010 Actual Caseload	2011 (Projected) Caseload	4-YEAR Avg. Caseload Growth
Caseload + Backlog	0	5642	5703	5530	5622	6175	1.43%
							Required FTEs
							2.15

2014 Projected Caseloads	2019 Projected Caseloads	2024 Projected Caseloads	2029 Projected Caseloads	2034 Projected Caseloads
6,444	9,117	9,789	10,510	11,285
Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs	Projected FTEs
2.25	3.18	3.41	3.67	3.94



2.2 DATA WHICH SUPPORTS THE FUNDING REQUEST

The space identified in this Program Statement over and above the existing area is required for a number of reasons. In addition to the need for more space just to meet current needs, future projections due to crime trends, demographic factors and technological advancements indicate the need for even more staff and space in the future.

Additionally, several forensic laboratory sections (i.e. Computer Forensics and Vehicle Processing) are planned to be added to the NSPCL and are currently needed; and the Questioned Documents Section is planned to be re-established in the NSPCL, however the existing forensic lab does not have the space to be able to include these services.

Furthermore, new standards, codes, and regulatory requirements applicable to forensic laboratories have been developed since the current lab facility was built. These advancements require many special design features and the need for more equipment and instruments to process information that result in the need for additional space in a new facility.

Conclusions:
Analysis of all the data presented in this section, including population trends, crime trends and the historical caseload data provide a clear indication of the need to increase the size and the staff at the NSP Crime Laboratory.

Due to the current facility limitations, neither DAS nor the State Patrol wishes to commit to another long term lease at the current building.

2.3 ALTERNATES CONSIDERED

The obvious alternative to the proposed new facility is to renovate and expand the current facility.

Since the State of Nebraska currently leases the space for the existing forensic crime laboratory, the ability to expand this facility needs to be approved by the current Owner of the property. However, after our Programming team analyzed the existing facility and site, we have concluded that the current facility does not have the ability to be expanded due to the existing site limitations. In addition, the current owner is attempting to sell the building and the lease with the Nebraska Department of Administrative Services (DAS) expires in 2014. Due to the current facility limitations, neither DAS nor the State Patrol wishes to commit to another long term lease at the current building.

To assist the State of Nebraska in trying to find alternates for solving the facility deficiencies associated with the existing crime lab (as identified in Section 5 of this Program Statement), our Programming team briefly analyzed the following existing vacant facilities located in the Lincoln, Nebraska area with the following comments:

Site 1 was the Industrial Arts building at the University of Nebraska campus. (See Photos 1 and 2):

- The building is very large and needs a lot of work in order to make it usable for any function.
- It is located directly adjacent to a major highway which was very noisy.
- It was also located close to a major railway, which in the little time we were there, had (2) large trains go by. Although we did not feel any major vibration from the trains, we did have concerns that it might cause vibration issues for the building and evidence examinations.

Conclusion:
This is not a feasible option for a new crime lab.

Photo 1

Photo 2

Site 2 was the old Ag / 4-H building also located at the University of Nebraska campus and is directly across the parking lot from the Industrial Arts building. (See Photos 3 and 4):

- It is a little smaller than the Industrial Arts building, but reasonable.
- The exterior appeared to be in reasonable condition. We noted that the overall design was very architectural and nicely detailed.
- The floor to floor height was substantial which would lend this building to be a good candidate for a future lab.
- The second floor was also constructed of a concrete pan joist system which means it has the stiffness already built in for lab loads and vibration mitigation.
- It appears that the column spacing is approximately 24' x 24' which is not ideal for a lab, but we have made this spacing work in other lab buildings.
- It is located farther away from the railway and we don't think this will cause any issues with the building or evidence examinations, since the structure is a concrete frame.

Conclusion:
This could be a possible option for the crime lab.

Photo 3

Photo 4

Site 3 was Building 15 at the State Mental Hospital. (See Photos 5 and 6):

- Building 15 is the first building as you enter the site and as such, has great access from the main highway.
- The exterior of the building appears to be in great shape. We noted that the overall design for this building was also very architectural and nicely detailed.
- The site is sloped and has a lot of trees on the north side along with tennis courts and a ball field on the west side.
- The building is approximately 36' wide by 200' long. We noted that it would be very difficult and inefficient to convert this building for labs due its narrow width. However, it could be configured with office/ administration support functions and non-wet lab functions with a new wet lab block built separately on the north side and connected to the existing building by enclosed bridges potentially creating either a courtyard or an atrium.

Conclusion:
This building could not be reconfigured efficiently for lab functions, but could be used as part of an overall concept for a future crime lab by building an addition for lab space and using the existing building for administrative and support space.

Photo 5

Photo 6

2.4 CONSEQUENCES IF PROJECT IS NOT FUNDED

After analyzing the current facility, our programming team has concluded that the existing crime laboratory has serious space deficiencies, as well as severe planning and design shortcomings (refer to Section 5). We further concluded that this existing facility is inadequate to serve the expanded caseload and services being projected over the next twenty years for the State of Nebraska. Additionally, the existing facility does not meet many current safety standards, and it is unable to be expanded or effectively upgraded.

If this project is not funded, then the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska will be severely compromised.

Therefore, it is the recommendation of our Programming team that the funding of a new facility be approved.

3.0 LOCATION AND SITE CONSIDERATIONS

3.0 LOCATION AND SITE CONSIDERATIONS

3.1 PROPOSED SITE

The proposed project site for this project has not been selected at the time that this Program Statement was developed.

Although this Program Statement has been developed as a means to fund a new crime lab facility, our Programming team also was asked to briefly review some existing facilities located in the Lincoln area to determine if any of these facilities would be feasible to relocate the existing crime lab. Our team's brief analysis is included in Section 2, Justification of the Project.

However, if the State of Nebraska does not find a suitable existing facility for relocation, Our Programming team has included our recommendations to assist the State of Nebraska in finding a suitable site. In Section 6 of this Program Statement, our Programming team has determined the minimum site acreage required for the three planning years based upon a single story design solution. If the final design concept provides a multi-level scheme, the amount of total site acreage required could be reduced accordingly.

3.2 INFLUENCE OF THE PROJECT ON EXISTING SITE CONDITIONS

Again, since a site has not been selected for this project, the influence of the project on existing site conditions is not applicable. However, again to assist the State of Nebraska in finding a suitable site, the Programming team has identified some keys site considerations below that should be utilized when selecting an appropriate site as it pertains to existing site conditions for this project:

- Avoid selecting a site that is located in a highly visable or highly public area. Crime labs are identified as target facilities for the crime community and as such need to be securely protected.

- Select a site that is close to major roadway access or highway exits. Since crime scene investigators will be coming from all over the state to drop off evidence, they need to be able to get to and from the facility easily and efficiently.

3.3 RELATIONSHIP TO NEIGHBORS AND ENVIRONMENT

Again, since a site has not been selected for this project, the relationship to surrounding neighbors and the environment is not applicable. However, again to assist the State of Nebraska in finding a suitable site, the Programming team has identified some keys site considerations below that should be utilized when selecting an appropriate site as it pertains to surrounding neighbors and the environment for this project:

- Select a site that is adjacent to established neighborhoods. Crime labs make good neighbors. Research has shown that the public's perception of having a crime lab constructed in their vicinity makes them feels safer.

- If an urban site is considered, select a site that is generally located in an area that is not highly visible to the surrounding public. The site also should provide two means of access in and out of the site for security and safety.

3.4 UTILITIES

Crime labs are identified as major energy users. As such, they require a lot of utilities to support the internal functions of the labs. Again, since a site has not been selected for this project, the impact on existing utilities is not applicable. However, again to assist the State of Nebraska in finding a suitable site, the Programming team has identified some keys site considerations below that should be utilized when selecting an appropriate site as it pertains to utilities for this project:

- Crime labs require a considerable amount of water in order to function properly. As such, a site should be selected that provides a considerable amount of water availability.

- Crime labs also expel a considerable amount of exhaust which requires a large demand of heating and cooling in order to provide the required amount of air for exhaust. Depending on the type of heating and cooling systems selected, the utilities required to heat and cool the air could be natural gas, electricity, and steam. Therefore, a site should be selected that has a considerable amount of these utilities available.

3.5 PARKING AND CIRCULATION

Again, since a site has not been selected for this project, the impact of the new facility to existing parking and circulation is not applicable. However, again to assist the State of Nebraska in finding a suitable site, the Programming team has determined the parking requirements for this project.

These requirements can be found in Section 6.3 of this Program Statement and are summarized below:

- Since the objective of this Program Statement was to determine the required space needs and staffing needs for the years 2014, 2024 and 2034, the required staff parking has been calculated at 40, 49 and 56 spaces accordingly.
- Main Visitor parking over these same planning years has been calculated at 10, 10 and 10 accordingly.
- Additional Visitor parking for the Training area has been determined to be 50 spaces for all three planning years.
- Additional parking for state owned vehicles has been calculated at 4, 6 and 6 accordingly.

4.0 COMPREHENSIVE PLAN COMPLIANCE

4.0 COMPREHENSIVE PLAN COMPLIANCE

Judges, jurors, law enforcement officers, and prosecuting and defense attorneys all agree that rather than relying on verbal testimony, evidence (physical, biological or electronic) is increasingly becoming the focus in criminal investigations. Courts are asking for more evidence and the associated analytical time needed to examine it is becoming less and less. Juries expect evidence to be present in cases, and as a result, credibility of verbal testimony has become less defensible. Planning and cooperation within the law enforcement community has clearly identified the increasingly important role of forensic science in fighting crime.

Recently all forensic science services for the State of Nebraska have been consolidated within the current 13,032 square feet facility in Lincoln, Nebraska resulting in overcrowded conditions and outdated facilities.

4.1 CONSISTENCY WITH THE AGENCY COMPREHENSIVE CAPITAL FACILITIES PLAN.

This requested project is justified by the State's decision to increase the State's efficiency to provide law enforcement services to aid in the prosecution and convictions of criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska.

Lack of space and staff to complete caseloads has resulted in slower turnaround times and loss of confidence on the part of evidence contributors. This lack of confidence with the laboratory system limits its usefulness and effectiveness; and left unresolved, these evidence contributors are then compelled to submit their cases to other laboratories, or worse, not submit some evidence items at all.

As a result, this consolidation of services has created the need for a new facility consistent with the State Agency Comprehensive Plan which requires a system wide approach for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska.

This Program Statement is the logical next step to define the space needs, costs and timeline required for a new forensic crime laboratory facility.

4.2 CONSISTENCY WITH THE STATEWIDE COMPREHENSIVE CAPITAL FACILITIES PLAN.

This Program Statement complies with the Statewide Comprehensive Capital Facilities Plan and the Mission Statement for Nebraska Capital Construction by offering a capital solution for resolving the current forensic science issues as they relate to increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska.

Mission Statement for Nebraska Capital Construction

"This mission of capital construction in the state of Nebraska is to plan, fund, design, construct and maintain facilities to serve the best interest and needs of ALL Nebraskans in an efficient and cost-effective manner."

The Nebraska Comprehensive Capital Facilities Planning Committee has established the 2010 Mission Statement/Governing Values for State of Nebraska Capital Construction. This project responds to many of the Governing Values in the 2010 Plan. Below, each Governing Value is listed along with a description of how this project responds to and supports each listed Value:

1. Facilities should be accessible and designed/constructed to serve the interests and needs of all persons.

This requested project is justified by the state's decision to increase the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska.

2. Facilities should represent a wise, responsible use of taxpayer funds which utilizes efficient, cost- effective design and construction methods and modern technology, and results in reasonable ongoing operations and maintenance costs.

This project has been programmed to provide a new facility for the State of Nebraska that will provide a "best Value" approach for meeting these requirements.

3. Facilities should be safe, promote health and well being, and maintain a quality of life for all persons.

This proposed new facility will address the existing safety issues of the current facility and provide a safe and efficient working environment for the current and future staff. It has also been programmed to incorporate "sustainable design" principles for efficient operations and environment sensitivity.

4. Facility decisions and projects should reflect the state's stewardship role in preserving, protecting and maintaining existing facility assets, including state-owned historic properties.

Since the state leases the current facility and does not own the property, a new facility will add value for the citizens of Nebraska.

5. Facility decisions and projects should serve the long-term interests of all Nebraskans including future generations.

This project will provide increased safety and protection for the citizens of Nebraska both current and future by increasing the ability to prosecute and convict criminal suspects within the State of Nebraska.

6. Based on appropriate evaluations, facilities should responsibly support state agencies, their missions and goals, and be of service to Nebraska's citizens.

This project supports the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska.

7. Facility projects should encourage partnering, cooperation and the sharing of resources between state agencies, local governments and private entities, where appropriate.

Once the new facility is constructed, additional staff is added, and efficiencies are enhanced, it is expected that evidence contributions will increase

significantly as a result of unmet needs being fulfilled. Judges, jurors, law enforcement officers, and prosecuting and defense attorneys will all benefit from this new efficient facility. As a result, the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska will be met.

8. State facility planning, design and construction should act as a model for other state and local governments, as well as private entities and institutions.

This Program Statement has incorporated "State of the Industry" requirements for safety, efficiency, flexibility, sustainability and operations for this new forensic science facility and will become a model for other state forensic science crime lab facilities.

9. State facilities should strike a balance between quality and quantity and incorporate a level of excellence that reflects a high appreciation for the built and natural environments.

This proposed new facility will address the existing safety issues of the current facility and provide a safe and efficient working environment for the current and future staff. It has also been programmed to incorporate "sustainable design" principles for efficient operations and environment sensitivity.

10. State facilities and those who plan, build and care for them must be accountable to all Nebraskans and responsive to their changing needs.

This Program Statement has incorporated "State of the Industry" requirements for safety, efficiency, flexibility, sustainability and operations for this new forensic science facility and once constructed will achieve the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska will be met.

5.0 ANALYSIS OF EXISTING FACILITIES

5.0 ANALYSIS OF EXISTING FACILITIES

This section of the Program Statement analyzes the conditions of the existing building in which the NSP Forensic Crime Laboratory is currently located.

Additionally, various issues were explored as they relate to the physical condition of these existing facilities. The laboratories, as well as their support spaces, were evaluated with regard to their impact on such critical issues as life safety, evidence contamination, physical deficiencies and constraints, programmatic deficiencies and constraints and expandability.

5.1 EXISTING FACILITY ANALYSIS OVERVIEW

The existing facility overview identified below was developed as part of our Programming team's facility analysis:

Site Overview:
The existing site was reviewed as part of the existing facility analysis. The following highlights were identified as part of this analysis:

The existing site is located at 1233 Arapahoe in Lincoln, Nebraska in a strip mall. The following items were noted as part of the Site Review:

- The parking for staff is unsecured. The general public and employees utilize the same general parking area.
- Evidence drop off is also in an unsecured area.
- The Garage / Storage bay is also located in an unsecure area on the site. Staging for the existing Garage / Storage occurs in the parking area.
- There is no Loading and Unloading zone for equipment and supplies.
- No Water Quality Management Plan was found for the existing property.
- The site has been maximized for parking and expandability.

Building Overview:
The existing building was also reviewed as part of the existing facility analysis.

The following highlights were identified as part of this analysis:

- The building was renovated specifically for its present use, but the design was developed without adequate lab design expertise.

- The width of the main corridors is undersized and creates issues when equipment or large evidence items are moved throughout the facility.
- Door width is also undersized and creates issues when moving equipment or large pieces of evidence in and out of the lab sections.
- Vinyl tile was also installed throughout the lab and support spaces in lieu of seamless flooring.
- The facility does not have a Loading Dock.
- The facility is not designed for handicapped individuals in the labs.

Conclusion:

After analyzing the current facility, our programming team has concluded that the existing crime laboratory has serious space deficiencies, as well as severe planning and design shortcomings. We further concluded that this existing facility is inadequate to serve the expanded caseload and services being projected over the next twenty years for the State of Nebraska. Additionally, the existing facility does not meet many current safety standards, and it is unable to be expanded or effectively upgraded.

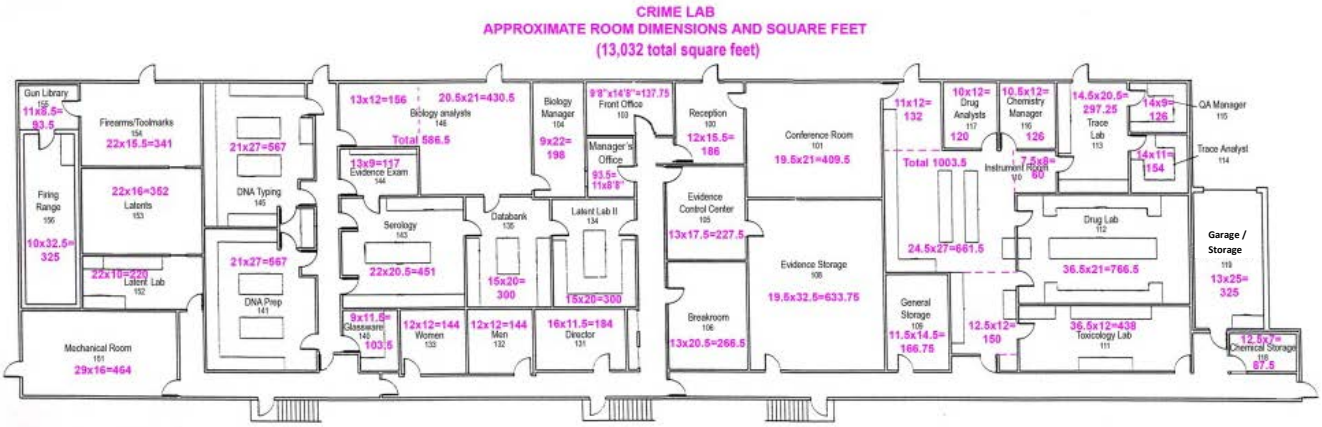
The NSP Forensic crime laboratory also has been struggling to keep pace with the additional demands for service being placed upon them. If not remedied, the inability to provide quality service in a timely fashion may result in a lack of confidence with the law enforcement community, which would severely limit its usefulness and effectiveness. The inadequacy of the existing facility is also hampering the ability to maintain safe, contamination free lab environments meeting current forensic laboratory standards, including those standards of the American Society of Crime Laboratory Directors – Laboratory Accreditation Board (ASCLD/LAB) and Department of Justice, National Institute of Standards and Technology (NIST) guidelines for Forensic Lab Design.

The existing facility also has HVAC issues such as the lack of consistent air temperature control throughout the facility and the lack of humidity control which has caused static discharge issues with several very expensive instruments in addition to jeopardizing the safety of the staff.

Additionally, the current facility is not designed to accommodate future expansion or changing technologies. As an example, the current facility does not have the capacity to add additional fume hoods to the existing HVAC system which could result in safety issues for the staff.

Therefore, if a new facility is not approved and constructed, continued use of the existing facility will begin to compromise the advancement of the Nebraska State Patrol Forensic Science programs.

5.2 EXISTING FACILITIES SIZE



The existing facility is approximately 13, 032 SF. It currently has a funded staff of 25. This equates to 521 SF per staff.

According to the "Forensic Laboratories: Handbook for Facility Planning, Design, Construction and Moving" (which has been endorsed by the American Society of Crime Lab Directors (ASCLD), the average square feet per funded staff should be between 700 and 1,000 SF per staff.

This item alone identifies that the existing NSP Forensic Crime Laboratory is overcrowded and undersized to support the forensic science services required by the state of Nebraska.

5.3 PHYSICAL DEFICIENCIES AND CONSTRAINTS

In assessing the existing facility, this section of the Program Statement addresses issues pertaining to the architectural, laboratory, mechanical, plumbing and electrical elements of the existing building.

The existing facility was constructed and occupied in 1998. It is a single-story building of approximately 13,032 square feet.

The facility is currently located in a strip mall across from a bank and is leased by the State of Nebraska with its current lease expiring in April, 2014.

Several renovations and expansions have occurred between then and now resulting in the current overcrowded conditions and the inability to expand any further due to lack of additional space on the site.

Existing Building

The existing building is a steel framed structure with a slab-on-grade foundation system. Exterior cladding includes brick masonry and metal siding. Exterior door and window frames are painted aluminum. Windows are vision glass in a painted aluminum storefront system. The roof is comprised of asphalt shingles and a metal panel system.

Interior doors and frames are hollow metal. Interior partitions are painted gypsum wallboard on metal studs. Ceilings are suspended acoustical tile on metal grids, and flooring consists of vinyl composition tile in the corridors and laboratory spaces, and carpet in the administrative spaces.

As part of the analysis of the existing facility as it relates to the physical deficiencies and constraints, our Programming team identified the following categories of deficiencies (which are utilized within the forensic science industry) as a means to evaluate this existing crime lab facility:

1. Overcrowding
2. Equipment Space Deficiencies
3. Potential Safety Issues
4. Circulation Inefficiencies
5. Work Space Deficiencies
6. Inadequate Storage
7. Lack of Bio-Vestibules

<u>Overcrowding:</u>
This deficiency is chronic throughout the facility, resulting in spaces that are well below the accepted industry standards for forensic laboratories. Overcrowded conditions are evident in laboratory and office workstations, instrument and equipment benches, personnel circulation spaces, and storage. The efficiency of many spaces is hindered due to the lack of adequate storage space and items are stored in offices, conference rooms, laboratory spaces, and other work areas.

Photo 1

Photo 1 - The overcrowded conditions of the Forensic Biology / DNA Section.

Photo 2

Photo 3

Photo 4

Photo 5

Equipment Space Deficiencies:

Due to the overall lack of adequate space throughout the facility, many items of laboratory and administrative equipment are installed without required circulation space, access space, or adjacent work space.

Photo 2 - Typically throughout the laboratory, biological safety cabinets and fume hoods are installed with little or no space between equipment items for notes, set-up, or sorting.

Photo 3 - Lack of adequate bench space and storage areas has resulted in laboratory equipment of all types to be placed without any required space between equipment items.

Photo 4 – Due to lack of adequate equipment space, a portion of the firearms reference collection and the shooting tank are located in the firing range.

Potential Safety Issues:

Being an ASCLD/LAB accredited laboratory, no conditions were discovered in the facility that pose an imminent threat to the safety of personnel, however, there were some conditions noted that are considered a potential safety issue, and which should be addressed in the design of a new facility.

Photo 5 – Due to lack of adequate equipment space there is inadequate passage space at laboratory benches where wet chemistry procedures are being conducted. As an optimum, back-to-back laboratory workstations should be designed with a minimum of 6-feet between laboratory benches. This figure shows a passage of less than 5-feet, which is not only inefficient, but could pose a safety problem.

Photo 6 – Laboratory spaces are constructed with inappropriate floor finishes such as vinyl tile throughout all the labs in lieu of seamless flooring. In some cases, mold is even growing between the tiles.

An additional issue related to safety is the lack of air-lock bio-vestibules separating the “dirty” laboratory spaces from the “clean” corridors and administrative spaces. The inclusion of air-lock bio-vestibules in the design of forensic science crime laboratories has become an industry standard as an additional safeguard to prevent the migration from the laboratory spaces of airborne contaminants.

Photo 6

Photo 7

Photo 8

Photo 9

Circulation Inefficiencies:

Among the most obvious circulation inefficiencies is the fact that personnel must pass through one or more laboratory sections in order to get to another laboratory section. The correct design of a forensic laboratory requires each laboratory section to be accessible from a main circulation corridor through a Bio-vestibule. In addition to being a circulation inefficiency, this condition poses a safety risk with personnel using a laboratory space as a passageway.

Photo 7 - An obvious circulation inefficiency is the size of the main circulation corridors through the facility and into the lab areas which makes it very difficult to move equipment and large pieces of evidence throughout the facility.

Photo 8 - Personnel must pass through one or more laboratory sections in order to get to another laboratory section as is the case with having to walk through the Latent Prints area in order to get to the Firearms area.

Photo 9 – Due to lack of space within each lab, emergency showers and eyewash safety devices are located in the main corridors.

Photo 10 - The size of the main laboratory doors are also undersized for adequately moving equipment and large pieces of evidence throughout the facility.

Workspace Deficiencies:

Workspaces throughout the facility have inadequate space in order to properly perform required procedures. Even the office workspaces fall below the state standards for minimum square feet.

Related to workspace inefficiency, is the fact that the Firearms section does not include an adequate firing range for some distance determinations, test firing, and ejection measurements. In order to conduct some of these procedures, the firearms analyst must gather the required weapon, ammunition, materials and paperwork and drive to a remote firing range.

Photo 11 - Although recirculating hoods are generally accepted as safe for many procedures, an exhausting hood is more appropriate and offers protection for a wider range of procedures

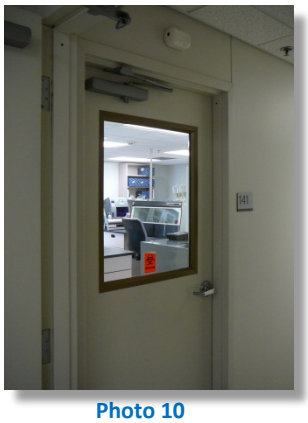


Photo 10

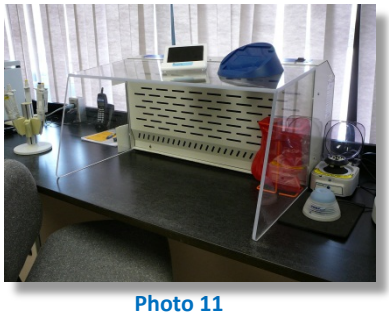


Photo 11

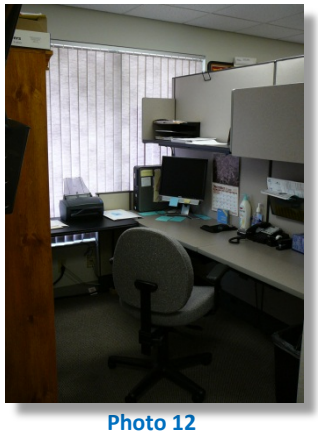


Photo 12

Photo 13

Photo 12 - the space allotted for each office workspace is not sufficient or in compliance with accepted state standards.

Photo 13 - the space allotted for each lab workstation is not sufficient or in compliance with accepted laboratory standards.

Photo 14 - The firearms/toolmarks workspace is located in the Weapons Collection area. An optimal design should include a separate room so that a shop sink, power tools and an ultrasonic cleaner can be included to efficiently examine firearms and to perform effective serial number restorations separate from the Weapons Reference Collection.

Photo 15 – Office functions are located in the laboratories and not separated by Bio-vestibules.

Photo 16 - This facility includes a single Garage bay that is insufficient to handle vehicle processing. It is too small in both directions to effectively process a vehicle and does not include a vehicle lift. As can be seen in the photo, due to lack of adequate storage space in the existing facility, the Garage bay serves as storage for the facility.

<u>Inadequate Storage:</u>
Inadequate storage space is a critical deficiency throughout the facility, not only in the laboratory sections, but also in the administration spaces and the Evidence Processing Section. Most of the storage spaces throughout the facility are filled to capacity and are overflowing into adjacent areas including the garage.

Photo 17 - Lack of sufficient storage space in the laboratories. As shown, much of the equipment and supplies is stored on the lab countertops.

Photo 18 - Lack of sufficient storage space throughout the facility has required many storage items, large pieces of evidence and files to be placed in the garage, restricting the use of this area.

Photo 19 - Weapons Reference Collection for the Firearms Section is so limited that they are unable to maintain a complete reference collection and portions of their collection have to be stored in the Firing Range due to lack of storage space.

Photo 14

Photo 15

Photo 16

Photo 17

Lack of Bio-Vestibules:
For each laboratory section that deals with biological evidence, typical forensic laboratory design standards include a bio-vestibule between the "clean" circulation corridors leading to the "dirty" laboratory spaces. There are no bio-vestibules in the existing facility.

Photo 20 - Lack of air-lock bio-vestibules separating the "dirty" laboratory spaces from the "clean" corridors and administrative spaces.

Additional Deficiencies and issues were identified as follows:
Lack of Designated Shipping and Receiving Area. Currently, the Lab Administration and Evidence Processing sections are providing the shipping and receiving services for the Crime Lab at the Evidence Processing service counter where evidence transfer functions are being conducted. It is a more desirable situation for evidence transfer functions to be conducted in a more secure manner, with shipping and receiving as a separate function in a less secure area.

Photo 21 – In addition to all of the items listed above, the building itself has been subject to floor settling in which mud jacking has been required to bring the existing floors back up to a level condition. Unfortunately, this continues to be an ongoing issue and the building is still having floor settlement problems.

Conclusions:
From the Programming team's extensive forensic science experience, we have determined that when a forensic science laboratory experiences any two to three of the (7) deficiencies listed above, serious consideration should be given to developing new facilities. The NSP Crime Laboratory is characterized by all seven of these deficiencies, and not in a minor way, but in a manner that is approaching crisis level.

The existing crime lab also has several ADA deficiencies including such items as the following:

- No handicap accessible lab workstations
- Non-ADA accessible emergency showers and eye washes

In addition to the above, our Programming team also noted several mechanical, electrical, telecommunications and security deficiencies while performing the facilities analysis. These items are listed below:

Photo 18

Photo 19

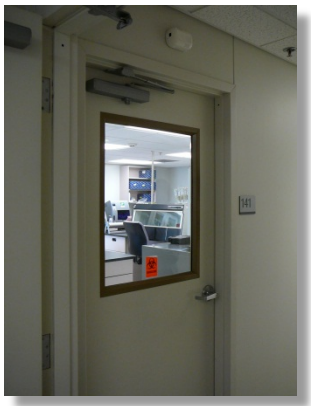


Photo 20

Photo 21

Mechanical:

The primary source for building air conditioning is air cooled direct expansion refrigeration.

The primary source for building heating is natural gas. A boiler provides heating hot water to heating coils at zone terminal units located throughout the facility.

The laboratory exhaust ventilation system includes roof mounted exhaust fans serving the chemical fume hoods.

Building mechanical system deficiencies are listed below:

- Air Filtration. The existing packaged rooftop units have low air filtration efficiency to clear the air, on the order of 30% ASHRAE dust spot. Minimum recommended filter efficiency should be 85% ASHRAE dust spot.

- Fume Hood Exhaust Effluent. The manner in which the laboratory exhaust air is conveyed to the outdoors could pose an additional environmental contamination concern. The rooftop package air conditioning units and the exhaust fans serving fume hoods are in close proximity to each other on the building roof. Also the exhaust systems do not have duct extensions to raise the discharge level above the air handling units (refer to Photo 22). The relative low discharge of exhaust effluent occasionally gets recirculated back within the building through the building's AC units' fresh air intakes.

- Fume Hood Locations. Fume hoods are currently located on the traffic path within the laboratory. People walking past fume hoods can disrupt the airflow currents entering the hood resulting in poor contaminant capture. There also are ventilation issues within the building prohibiting the lab from adding additional fume hoods.

- Recirculating bio-safety cabinets are currently being used for blood spotting. For increased containment of biological material exhausted cabinets or fume hoods should be used.

- Point Source Exhaust. A number of laboratory functions and equipment require point source exhaust for odors and heat source capture such as Gas Chromatographs, Controlled Substance testing workstations, and Thermocycler equipment.

Photo 22

- There is a lack of humidity control in the existing facility which has resulted in seasonal issues with static and mold. Excessive humidity can also cause evidence tapes to loosen.

- There is little temperature control throughout the building, so some rooms can get as cold as in the 50's in the winter, while other rooms are too warm.

Conclusions:
Crime laboratory operations require the building mechanical systems to provide a level of safety, flexibility, reliability, and functional features that the existing mechanical systems are not able to meet.

Plumbing:
The utilities serving the building consist of domestic water service, natural gas medium pressure service, sanitary waste and fire sprinkler system.

Photo 23

Laboratory gases for helium, nitrogen, and instrument grade air are piped to the laboratory equipment from localized gas cylinders. The cylinders are located inside the lab; (refer to Photo 23) and are both a code violation as well as a safety hazard for the staff.

Building plumbing system deficiencies are listed below:

- Toilet Rooms. The building has an insufficient quantity of toilet rooms. There are only two toilet rooms serving the entire building.

- Laboratory Hot Water Heaters. Gas fired hot water heaters are located in a confined space and are in violation of the Building Code.

- Emergency Safety Equipment. There are an insufficient number of eye wash and safety showers located throughout the building and are located outside of the laboratory sections since there is no room to add them inside each lab. In several areas, they are located too far away to be of any value. As an example, if an incident occurs with chemical processing inside the Firearms Section, an individual must walk through the Latent Print Section to the hallway outside of the Biology Unit.

Conclusions:
Crime laboratory operations require the building plumbing systems to provide a level of safety, flexibility, reliability, and functional features that the existing plumbing systems are not able to meet.

Photo 24

Photo 25

Photo 26

Electrical:
Electrical distribution panels are located in the Mechanical Room directly behind the Firing Range (refer to Photo 24) which is a code violation. The space directly adjacent to these electrical panels includes a floor sink and other mechanical equipment which could result in a safety issue for the facility staff and the maintenance staff.

The in-coming building main electrical service is located on the outside of the existing building completely exposed to the public and does not have any barrier protection in front of it. (Refer to Photo 25).

The fuel lines for the emergency generator are also located on the outside of the existing building completely exposed to the public and does not have any barrier protection in front of it. (Refer to Photo 26).

In general, most of the circuits in the electrical panels are over utilized. In most cases, where additional branch circuits are required, additional electrical panels will need to be added.

There is a shortage of receptacles in the lab areas. Plug strips are being used to supplement lack of receptacles. This condition should be evaluated to ensure that equipment is safely utilized.

Throughout the facility, a majority of the lighting fixtures in the building are 2X4 fluorescent troffers with acrylic lenses, T12 lamps and magnetic ballasts and should be replaced with energy saving lamp sources, energy efficient ballasts and lighting controls. Existing lighting controls consist primarily of singlepole toggle switches.

There are a limited number of self contained emergency battery pack units and exit signs throughout the facility, many of which are in need of replacement. The present emergency lighting distribution should be evaluated to ensure that the minimum egress lighting levels are met.

Conclusions:
Crime laboratory operations require the building electrical systems to provide a level of safety, flexibility, reliability, and functional features that the existing electrical systems are not able to meet.

Photo 27

Telecommunications and Security Systems:
Telecommunications equipment and the Security equipment have been located in the General Storage Room since there is no space in the existing building for this equipment. (Refer to Photo 27). This allows unauthorized individuals access to this area (and possibly this equipment) when telephone service calls are needed.

Also, the telecommunications cabling is CAT5, 4pr, UTP and is outdated.

Conclusions:
Crime laboratory operations require the building telecommunications systems and Security systems to provide a level of flexibility, reliability, and functional features that the existing Telecommunications systems and Security systems are not able to meet.

The long term IT needs of the facility should be evaluated and the telecommunications cabling infrastructure should be upgraded to a minimum CAT6 solution or CAT6A alternative.

5.4 PROGRAMMATIC DEFICIENCIES AND CONSTRAINTS

The current facility contains spaces for Lab Administration, Trace Evidence, Toxicology, Controlled Substances, Firearms, Latent Prints, Biology / DNA, Garage, Evidence Processing and mechanical and electrical utility spaces. The crime lab would like to restart the Questioned Documents section and restart glass and fiber testing. They also would like add the Computer Forensics Section, however due to their current overcrowded conditions, the crime lab is unable to provide these services.

The primary programmatic deficiencies and constraints include the following items listed below:

- The original Questioned Documents (QD) space was designed for one person and a function that requires minimal chemical processing. That space now houses the Latent Print Section. Latent print examination requires extensive chemical processing. Due to the amount of lab space needed by Latent Prints, a second lab area in a different part of the building was absorbed by them when the Satellite Lab closed, necessitating that the latent print examiners move throughout the building to access what they need to work cases. Splitting the section is not efficient, but is necessary in this facility. Due to the need for space

by the Latent Print Section, the QD space had to be sacrificed. QD services are now offered via an outsourcing arrangement that is grant funded. Once the funding is expended, the lab will cease offering that service to the state.

- The Biology/DNA Section was in the planning stages for DNA when the building was designed. Now, due to caseload demand, one evidence examination room is not sufficient. Examiners spend time waiting for the room to become available. Office area is also extremely lacking. Analysts need sufficient office space, as much data analysis is done at the work stations located at their desks. Data analysis requires concentration, which is difficult in the present situation. The serology screening room is also overcrowded. The lab has remodeled this area in an attempt to better suit the needs of the analysts in that room, however, it is still crowded and inefficient. Based upon these issues, no additional staff can be added to this section to address the ongoing demand for these services.

- The State of Nebraska recently expanded the DNA collection to include all felons within the state, as a result, the storage space for the samples has become a big issue. The samples received jumped from 534 in 2009 to 8,819 in 2010, with this increase expected to continue for many years. The sample submissions will grow even more if the state follows the national trend and passes legislation to add all arrestees to the database.

- The Firearms/Toolmarks Section was originally designed for one examiner. It now houses three people and the NIBIN database equipment. Firearms/Toolmarks chemical processing is done in a chemical hood in their range. This is not a good situation, as their chemical tests are often for the purpose of checking for gunshot residue. Clearly when that testing is done in a firing range, contamination is a concern, and extra steps are taken to insure that contamination does not occur. In addition, the firing range is too short and fragments have bounced back and hit the shooter, causing safety concerns. The ventilation flow in that room is not sufficient during test firing, increasing the safety concerns. NIBIN samples are kept indefinitely, causing storage issues. Much of the firearm's reference collection must be stored in the range, where rust is a problem.

- The existing evidence room is often quite full. The garage is used as a back up evidence storage area. This requires the evidence techs to travel to the south end of the building to access that evidence storage area. It also limits the lab's ability to use the garage for other things.

- The Chemistry Unit in the south end of the building is lacking office space for the analysts. Three analysts share one very small office area and two analysts have no office outside of their lab areas. In addition, they have no room to add any additional analyses types. The shared instrument room is filled to capacity so that new instrumentation cannot be added.

- Presently, the front office has file storage area for only two years files. A third year is kept in the garage. Years prior to that are sent out to central storage. Cases are frequently active for more than the conveniently located two years and often for more than the three years available in the building. Cases are routinely requested to be returned to the lab from central storage. The addition of the Satellite Lab personnel at the Lincoln location necessitated the dividing of the front office into two office areas and the consolidating of the case files. While more file space was needed, the lab currently has less.

- The current facility has no loading dock for receipt of large evidence and/or instruments and supplies.

- The lab has no examination area adequate for processing vehicles or other large items, with sufficient space, light, ability to darken, and access to equipment and supplies.

- The lab has one small break room that does not meet the demands of the staff at lunch time and does not have space for a second refrigerator.

- The lab also only has one conference room which does not meet the current demand and often creates scheduling conflicts. Reference materials stored in that room are unavailable when the room is in use.

- The lab does not have secured temporary evidence storage lockers in some areas of the facilities which is an operational issue.

- Not all supervisors and managers have office space for private meetings.

- The Firearms and Latent Prints Sections have no space to lay out examination items and Biology / DNA and Trace Evidence Sections only have a small room to lay out their examination items.
- The Chemistry Section can not add Toxicology blood sample testing due to lack of additional space.

- Throughout the existing crime lab, the insufficiently sized work areas and shared space areas necessitate extreme extra measures to prevent contamination of evidence items.

- There is no room for addition of new programs, staff, or instrumentation in most areas of the facility including the Firearms, Latent Prints and Chemistry Sections.

- The lab does not have training facilities for their staff or other state employees, so all instruction must be done elsewhere.

- Based upon the overcrowded conditions, the ability to give facility tours is extremely limited.

- As identified above, the lab has inadequate storage.

- Without the ability to grow, law enforcement agencies will have to continue to pay private labs to get their evidence items examined in a timely manner adding additional cost for processing these items.

Conclusion:

As a result of all of the above, the NSP crime lab is unable to expand and provide the additional forensic science services and testing required to meet the needs of the law enforcement community in their current facility. Therefore, a new crime laboratory facility is required.

5.5 REPLACEMENT COST OF EXISTING BUILDING

The State of Nebraska has been leasing the existing facility since 1998. Since that time, numerous renovation projects have been implemented to increase the crime lab's forensic science programs. However, the crime lab has grown beyond the ability to renovate this facility any further.

Also, as stated earlier in this section, the current site does not allow for this facility to be expanded to incorporate the additional space required for this facility.

In addition, since the State of Nebraska does not own the current facility and the current facility has been renovated and expanded to its maximum available size during the last 13 years, the replacement cost for this existing building is not applicable for this project.

Therefore, a new facility (based upon the program information contained within this report) is required in order to provide a fully functional forensic science crime laboratory facility.

In Section 10, our Programming team has included Project budgets and Cost Models for various new facility options that address all of the items listed in this Program Statement.

6.0 FACILITY REQUIREMENTS

6.0 FACILITY REQUIREMENTS

On February 1, 2011, the BVH Architectural team entered into a contract with the State of Nebraska. The scope of work included the necessary research and documentation required to prepare a Programming Statement for a proposed new Forensic Crime Laboratory.

6.1 FUNCTIONS / PURPOSE OF THE PROPOSED PROGRAM

The purpose of this report is to provide documentation justifying the need for a new forensic laboratory and developing the requirements for this new facility.

The purpose of this report was to provide documentation substantiating the need for a new forensic science laboratory facility and developing a design concept for these new facilities. Preliminary cost models and other project development costs have also been included as part of this report and are documented in Section 10 and included under separate cover.

The programming team was also charged with identifying the space and staffing needs required to support this new facility targeting the move-in date of 2014 and subsequent ten year projections into the future to the years 2024 and 2034 which is included in Sub-Section 6.2 of this report.

The programming effort for this report first involved an analysis of the existing forensic science laboratory located in Lincoln, Nebraska. The existing forensic lab facility has been remodeled several times since its initial occupancy in 1998. Since that time, the crime lab has seen a substantial increase in their caseload requirements which ultimately has resulted in the need for a new facility as identified in Section 2 of this Program Statement.

From the existing facility analysis, the programming team developed the following recommendations for a new NSP Forensic Crime Laboratory.

6.2 FACILITY SPACE AND STAFF NEEDS ANALYSIS

This section of the Program Statement provides area and staff tabulations in spreadsheet format for each individual space, as well as a final tabulation of the building's gross square feet area.

These spreadsheet pages constitute back-up documentation for the proposed amount of space and staff needed for the new NSP Forensic Crime Laboratory.

The first two pages of this Space and Staff Needs Analysis are the Summary pages. The first Summary page tabulates the total area and staff requirements for each laboratory section.

In the first column of the Summary page each section of the new facility is listed. These sections consist of following:

- Lab Administration
- Chemistry – Trace Evidence
- Toxicology
- Controlled Substances
- Firearms
- Latent Prints
- Biology / DNA
- Questioned Documents
- Computer Forensics
- Vehicle Processing
- Evidence Processing
- Building Support
- Training

The second and third columns list the departmental gross square feet of space needs and associated staff required for each laboratory section at the anticipated move-in year of 2014. These space and staff numbers have been forwarded from the subsequent spreadsheet pages for each respective section. The fourth through seventh columns provide similar anticipated space and staff needs for future target years of 2024 and 2034. The final column of the Summary sheet consists of miscellaneous comments.

In order to correctly size the new facility additional factors are added to the above departmental totals. These factors add additional square feet in order to determine the total Building Gross Square Feet required for the new forensic crime lab and include square feet for the following items:

- Mechanical, electrical, and other support spaces
- Building structure and exterior walls
- General building circulation between each crime lab section (main corridors, stairways, elevators, etc.)

FACILITY SUMMARY

Section / Unit	2014 Departmental Gross Area	2014 Staff	2024 Departmental Gross Area	2024 Staff	2034 Departmental Gross Area	2034 Staff
LAB ADMINISTRATION	2,378	4	2,688	6	2,688	6
CHEMISTRY - TRACE EVIDENCE	2,802	2	3,220	3	3,229	3
TOXICOLOGY	1,565	1	1,900	2	2,091	3
CONTROLLED SUBSTANCES	3,114	5	3,544	6	3,544	6
FIREARMS	4,758	4	5,059	5	5,361	6
LATENT PRINTS	3,154	3	3,649	4	4,096	5
BIOLOGY / DNA	8,891	9	12,154	13	14,615	16
QUESTIONED DOCUMENTS	1,009	1	1,147	2	1,147	2
COMPUTER FORENSICS	2,093	4	2,479	5	2,902	6
VEHICLE PROCESSING	2,159	0	2,159	0	2,159	0
EVIDENCE PROCESSING	4,558	3	4,647	4	4,647	4
BUILDING SUPPORT	5,814	0	5,909	0	6,609	0
TRAINING	2,677	0	2,677	0	2,677	0

		2014	2024	2034
Total Department Gross Square Feet:		44,969	51,230	55,763
Building Gross Factor				
Mech/Elec/Support	3%	1,349	1,537	1,673
Structure and Walls	7%	3,148	3,586	3,903
General Building Circulation	5%	2,248	2,562	2,788

	2014		2024		2034	
TOTAL BUILDING GROSS SQFT / STAFF:	51,715	36	58,915	48	64,128	55

Notes:*
1

The following pages of the Space and Staff Needs Analysis describe the functions of each laboratory section and the space and staff needs required for each laboratory section.

The space needs are presented in columns that identify each space and equipment item, and address the net area required for each space and equipment item ("Unit Area"). (See "Space Standards" in Section 6.4 of this Program Statement for a clarification of unit area needs.) The next column ("Space Quan") identifies the required quantity of each space and equipment item. The next column, "Space Need," is the product of the Unit Area and the Space Quan. Figures in the Space Needs column are then extended to the "Room Area" column in one of two ways. If the Space Need refers to a simple room, such as a private office or an exam room, for example, the Space Need figure is simply extended to the "Area Subtotal" column. However, if a large and complex room is identified in the Space Need column, such as an Open Office Area or a Main Laboratory, all of the space and equipment components that are contained within that room are quantified in the "Space Need" column, a Room Circulation factor is included, and the area sum of all of the spaces is extended to the "Area Subtotal" column. The required staff for each laboratory section is included in the "Staff Quan" column.

The above space and staff quantification process has been calculated for the anticipated move-in year of 2014, with additional projected space and staff needs to the years 2024 and 2034. The "Space Standard" column includes a designator which relates to the Space Standards located in Section 6.4 of this Program Statement, and provides a graphic representation of the individual spaces identified in this Space Analysis. The "Comments" column is provided to add clarification to particular space and equipment items.

Finally, each spreadsheet page or pages for each laboratory section includes a "Departmental Net Area," which is the sum of the Room Area column. To that is added a "Departmental Gross Factor," which accounts for the space required to: circulate from room to room within the laboratory section, interior walls and additional support space. The "Departmental Gross Area" is then provided as the sum of the Departmental Net Area and the Departmental Gross Factor, and the required Staff is provided as the sum of the "Staff Quan" column. These two final totals for Departmental Gross Area and Staff are then extended to their respective sections on the Facility Summary page of this section.

LAB ADMINISTRATION

Overall Functions:
The Lab Administration Section, headed by the Lab Director, provides leadership and management of the daily laboratory operations through supervision. It also makes available the necessary resources (equipment and supplies) for forensic scientists to perform casework analyses. Administration is also responsible for quality assurance and safety within the laboratory. It maintains communication within the organization and with user agencies and provides training and continuing education opportunities to staff and others. Finally, the laboratory Administration Section meets with visitors, including tour groups. The new facility will be designed to accommodate tours without interrupting any lab functions.

Visitors meeting with laboratory administration will be escorted from the Main Lobby to the administration area (evidence contributors will be directed to a separate evidence lobby). In addition to receiving visitors, front office staff duties include answering incoming phone calls, maintaining all records and document images, purchasing materials, goods and services, contract maintenance for all laboratory equipment, and finally aiding and assisting all laboratory staff, law enforcement agencies, the DA's office and the public. Preparing for and maintaining accreditation standards also is a responsibility of the Lab Administration Section.

The Lab Administration Section will also manage the information technology needed for the new forensic laboratory. This section will include the central computer area housing laboratory servers. These servers include general file servers and the Laboratory Information Management System (LIMS).

LAB ADMINISTRATION

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Private Offices															
Director	220	1	220	220	1	1	220	220	1	1	220	220	1	PO-4	
Assistant Director	150	0	0	0	0	1	150	150	1	1	150	150	1	PO-3	
QA/QC Manager	150	1	150	150	1	1	150	150	1	1	150	150	1	PO-3A	
Assistant QA/QC	120	0	0	0	0	1	120	120	1	1	120	120	1	PO-2	
LIMS Tech Office	120	1	120	120	1	1	120	120	1	1	120	120	1	PO-2	
Exec Conference Room	260	1	260	260		1	260	260		1	260	260		CR-2	for 10 to 12 people
Open Office Area				298				298				298			
Reception	80	0	0		0	0	0		0	0	0		0		
Administrative Assistant	64	1	64		1	1	64		1	1	64		1	WS-2	
Files Area	64	1	64			1	64			1	64				
Work Area	120	1	120			1	120			1	120				include copy area
Room Circulation 20%			50				50				50				
Lobby/Waiting	900	1	900	900		1	900	900		1	900	900			
QA/QC Files Room	120	1	120	120		1	120	120		1	120	120			Lockable
Staff Subtotal					**4**				**6**				**6**		
Departmental Net Area				2,068				2,338				2,338			
Departmental Gross Factor: 15%				310				351				351			
Includes: Interior walls, departmental circulation and departmental services															
Departmental Gross Area				**2,378**				**2,688**				**2,688**			

Notes:
1

CHEMISTRY – TRACE EVIDENCE

Overall Functions:

The Trace Evidence Section provides the recovery, identification, analysis, and comparison of traces of evidence from crime scenes consisting of very small particles, such as tape comparisons, fracture matching, paint samples, unknown materials, arson debris, and building materials. Also, fractured materials, such as pieces of broken vehicle lamps and filaments, and cases involving explosives and pyrotechnics, are examined in this section.

Trace evidence is generally, but not always, found on host evidence items, such as clothing, bedding, or carpets, and must be extracted from the host evidence before being examined. Host evidence items, such as car bumpers or doors, sheets, etc., may be very large. Trace evidence may also be discovered embedded in the wound of an assault or homicide victim. This evidence will be extracted during autopsy and sent to this section for examination in order to determine the type of weapon used in the assault.

The Trace Section performs fire debris analysis to detect the presence of common ignitable liquids. A variety of chemical extraction procedures and instrumental analyses is utilized to assist the analyst in the identification of accelerants used, such as gasoline, paint thinner, solvents, etc.

If additional space was available, the Trace Evidence Section would like to re-establish glass and fiber testing. However, due to the overcrowded conditions of the current facility, these services can not be re-established.

CHEMISTRY - TRACE EVIDENCE

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Supervisor	120	1	120	120	1	1	120	120	1	1	120	120	1	PO-2	Private office
Open Office Area				204				302				302			
Analysts Office Workstation	64	1	64		1	2	128		2	2	128		2	WS-2	
Files	18	1	18			2	36			2	36			FC-2	
Copy Area	48	1	48			1	48			1	48				
Interaction Space	40	1	40			1	40			1	40				Includes reference shelving
Room Circulation 20%			34				50				50				
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				516				680				688			
Analyst Lab Workstation	90	2	180			3	270			3	270			LWS-5	
Lab Support Bench	36	2	72			3	108			3	108			LCT-3	8 lf per analyst
4-foot Fume Hood	27	2	54			2	54			2	54			LE-2	
Evidence Cart Parking	6	1	6			1	6			2	12				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
Safety Station	16	1	16			1	16			1	16			SS-1	
Evidence Lockers	32	1	32			1	32			1	32			LE-3	
Lab Sink	15	1	15			1	15			1	15				4 lf bench
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				4 lf bench
Room Circulation 30%			119				157				159				
Instrumentation Room				451				552				552			Combine with CS and Tox
Lab Instrument	52	5	260			6	312			6	312			LCT-2	8 lf per instrument,
Lab Support Bench	36	2	72			3	108			3	108			LCT-3	8 lf per analyst
4-foot fume hood	27	1	27			1	27			1	27			LE-2	
Inst Maint Bench	18	1	18			1	18			1	18			LCT-1	4 lf bench
Lab Sink	15	1	15			1	15			1	15				
Room Circulation 15%			59				72				72				
Arson/Explosion Room				258				258				258			Enclosed Glass Area w/ Door
Lab Support Bench	36	2	72			2	72			2	72			LCT-3	8 lf per analyst, Incl. Undercounter Refrig.
4-foot fume hood	27	1	27			1	27			1	27			LE-2	
Freezer	20	1	20			1	20			1	20				Explosion proof
Mobile Tables	90	1	90			1	90			1	90				Two 2.5' x 5' adjustable height mobile tables
Lab Sink	15	1	15			1	15			1	15				
Room Circulation 30%			34				34				34				
Microscopy Room	160	1	160	160		1	160	160		1	160	160			Plan for (4) microscopes
Scanning Electron M'scope Rm	80	1	80	80		1	80	80		1	80	80			
SEM Utility Room	40	1	40	40		1	40	40		1	40	40			Lab equipment and supplies
Storage Room	48	1	48	48		1	48	48		1	48	48			
Trace Suspect Exam Room	200	1	200	200		1	200	200		1	200	200			Note 1, 2
Trace Victim's Exam Room	200	1	200	200		1	200	200		1	200	200			Note 1, 2
Trace Standards Room	48	1	48	48		1	48	48		1	48	48			Note 3
Arson Standards Room	48	1	48	48		1	48	48		1	48	48			Note 3

Staff Subtotal	**2**	**3**	**3**
Departmental Net Area	2,437	2,800	2,808
Departmental Gross Factor: 15%	365	420	421
Includes: Interior walls, departmental circulation and departmental services			
Departmental Gross Area	**2,802**	**3,220**	**3,229**

Notes:

1. Four 2.5' x 5' adjustable height mobile tables, suspended magnifying ring on articulating arm, lab bench with sink
2. With ceiling mounted adjustable camera
3. Acid and Flammable storage cabinets

TOXICOLOGY

Overall Functions:

The Toxicology Section provides laboratory analysis of urine for the presence of chemicals such as drugs, alcohols or poisons in conjunction with persons arrested for DUI; and assist state agencies with probation revocation. Evidence received and examined in the toxicology unit will also include human tissue samples provided by the Medical Examiner taken during autopsies.

The toxicology unit involves the handling, pipetting and extraction of biological specimens in a hooded environment and various bench procedures. This lab will be used for a variety of procedures, including thin layer chromatography, solid phase extraction, derivitizations, evaporations and immunoassay work. Extractions will involve the use of organic solvents, some of which are carcinogenic. Chemical solutions and drug standards are also prepared, involving the use of an analytical balance. Extracted samples are further analyzed and quantitated using a variety of sensitive scientific instrumentation. Robotic extraction of some samples will be performed as well. Results are then entered into the Laboratory Information Management System (LIMS) and reports are generated.

Currently the Nebraska State Patrol offers a limited toxicology program, limited for the most part to the qualitative analysis of urine for presence of drugs. This service provides the criminal justice system with the basic information most commonly needed to support police officers evaluations of impairment and to support investigations of unlawful use of controlled substances.

With the funding of a new forensic crime lab, the NSPCL will have the opportunity to provide expanded services for Toxicology.

TOXICOLOGY

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Supervisor	120	0	0	0	0	1	120	120	1	1	120	120	1	PO-2	Private office
Open Office Area				194				194				293			
Analysts Office Workstation	64	1	64		1	1	64		1	2	128		2	WS-2	
Files	18	1	18			1	18			2	36			FC-2	
Interaction Space	80	1	80			1	80			1	80				Includes reference shelving
Room Circulation 20%			32			0	32				49				
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				606				777				824			
Analyst Lab Workstation	90	2	180			3	270			3	270			LWS-6	
Lab Support Bench	36	2	72			3	108			3	108			LCT-3	8 lf per analyst
4-foot Fume Hood	36	1	36			1	36			2	72			LE-2	with cup sink
4-foot Biosafety Hood	27	1	27			1	27			1	27			LE-2	
Reagent Prep Workstation	90	1	90			1	90			1	90				Note 1
Safety Station	18	1	18			1	18			1	18			SS-1	
Evidence Cart Parking	6	1	6			2	12			2	12				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				4 lf bench
Lab Sink	15	1	15			1	15			1	15				
Room Circulation 30%			140				179				190				
Instrumentation Room				120				120				120			Combined with Trace and CS
Lab Instrument	52	2	104			2	104			2	104			LCT-2	8 lf per instrument
Room Circulation 15%			16				16				16				
Blood Alcohol Prep Room				0				0				0			
Lab Instrument	66	0	0			0	0			0	0			LCT-2	10 lf per instrument
6-foot hood	36	0	0			0	0			0	0			LE-2	Biosafety Hoods
Inst Maint Bench	18	0	0			0	0			0	0			LCT-1	8 lf bench
Hydrogen Generator	18	0	0			0	0			0	0				
Storage Cabinet	18	0	0			0	0			0	0				
Lab Sink	15	0	0			0	0			0	0				
Room Circulation 15%			0				0				0				
Robotics Room				289				289				309			
Robot Instrument	52	2	104			2	104			2	104			LCT-2	8 lf per instrument
4-foot hood	27	1	27			1	27			1	27			LE-2	Biosafety Hoods
4' - Fume Hood	36	1	36			1	36			1	36			LE-2	
Inst Maint Bench	18	2	36			2	36			3	54			LCT-1	8 lf bench
Refrigerator/freezer	18	1	18			1	18			1	18				
Lab Sink	15	2	30			2	30			2	30				
Room Circulation 15%			38				38				40				
Storage Room	48	1	48	48		1	48	48		1	48	48			Lab equipment and supplies
Walk-in Refrigerator/Freezer	40	1	40	40		1	40	40		1	40	40			

Staff Subtotal	**1**	**2**	**3**

Notes:

1 4 ft fume hood, dbl lab sink, prep bench, glasswares washing and storage, lab

Departmental Net Area	1,360	1,652	1,818
Departmental Gross Factor: 15%	204	248	273
Includes: Interior walls, departmental circulation and departmental services			
Departmental Gross Area	**1,565**	**1,900**	**2,091**

CONTROLLED SUBSTANCES

Overall Functions:

The Controlled Substances Section examines controlled substances and precursor chemicals, including suspected narcotics and drug evidence seized in violation of laws regulating the sale, use, manufacture, and distribution of drugs. This laboratory section involves the analysis of solid dosage drugs and plant material for controlled substances utilizing microscopic, chemical and instrumental procedures.

Specific procedures utilized by this unit include color tests, chemical extractions, ultraviolet spectrophotometry, gas chromatography, liquid chromatography, thin layer chromatography, gas chromatograph mass spectrometry (GCMS), x-ray fluorescence, and fourier transform infrared spectrometry (FTIR).

The laboratory procedures involved in this section include: identification of controlled substances, quantitation of controlled substances for investigative intelligence, identification of non-controlled drugs of abuse, identification of controlled steroids.

The Controlled Substances Section provides evidence analysis for both the State of Nebraska and federal prosecutions.

In spite of the overcrowded conditions of the existing NSPCL, the Chemistry unit utilizes personnel in the most efficient manner possible. In order to accomplish this, analysts who are primarily assigned to one specific section are actually cross-trained and considered analysts in other sections. The result is that although the total number of personnel for a given section may be reduced in number, the amount of space/number of work areas in each area must be larger.

For example, in 2014, the Controlled Substances Section is planned to include (4) analysts working cases, which in turn requires (4) work areas. Also, in 2014, the Toxicology Section is planned to only have one analyst specifically assigned to it, but one of the Controlled Substance analysts will also be cross-trained and working Toxicology cases. Like the Controlled Substances Section, the Toxicology Section will need to have additional workspace in the laboratory for two analysts.

CONTROLLED SUBSTANCES

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Manager	150	1	150	150	1	1	150	150	1	1	150	150	1	PO-3	Private office
Supervisor	120	1	120	120	1	1	120	120	1	1	120	120	1	PO-2	Private office
Open Office Area				449				547				547			
Analysts Office Workstation	64	3	192		3	4	256		4	4	256		4	WS-2	
Files	18	3	54			4	72			4	72			FC-2	
Copy Area	48	1	48			1	48			1	48				Shared with Trace and Tox
Interaction Space	80	1	80			1	80			1	80				Includes reference shelving
Room Circulation 20%			75				91				91				
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				948				1,147				1,147			
Analyst Lab Workstation	90	4	360			5	450			5	450			LWS-2	
Lab Support Bench	36	4	144			5	180			5	180			LCT-3	8 lf per analyst
4-foot Fume Hood	27	1	27			2	54			2	54			LE-2	with cup sink
Reagent Prep Workstation	90	1	90			1	90			1	90				Note 1, include polisher at sink
Safety Station	18	1	18			1	18			1	18			SS-1	
Evidence Cart Parking	6	1	6			1	6			1	6				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
Evidence Lockers	32	1	32			1	32			1	32			LE-3	
Lab Sink	15	2	30			2	30			2	30				Drying rack above, eyewash ea sink
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				4 lf bench
Room Circulation 30%			219				265				265				
Drug Standards Room				170				170				170			
4-foot fume hood	27	1	27			1	27			1	27			LE-2	with cup sink
Lab Sink	15	1	15			1	15			1	15				
Lab Support Bench	36	1	36			1	36			1	36			LCT-3	8 lf per analyst
Refrigerator	20	1	20			1	20			1	20				Explosion Proof
Freezer	20	1	20			1	20			1	20				Explosion Proof
Storage	40	1	40			1	40			1	40				
Room Circulation 15%			12				12				12				
Instrumentation Room				559				636				636			Combined with Trace and Tox
Lab Instrument	52	9	468			10	520			10	520			LCT-2	8 lf per instrument
Inst Maint Bench	18	1	18			1	18			1	18			LCT-1	4 lf bench
Lab Sink	15	0	0			1	15			1	15				
Room Circulation 15%			73				83				83				
Exam/Clan Lab/Bulk Case Analysis	200	1	200	200		1	200	200		1	200	200			Note 2
Storage Room	48	1	48	48		1	48	48		1	48	48			Lab equipment and supplies
Staff Subtotal					**5**				**6**				**6**		

Departmental Net Area		2,707	3,082	3,082
Departmental Gross Factor:	15%	406	462	462
Includes: Interior walls, departmental circulation and departmental services				
Departmental Gross Area		**3,114**	**3,544**	**3,544**

Notes:

1. 4 ft fume hood, dbl lab sink, prep bench, glasswares washing and storage, lab
2. Four 2.5' x 5' adj. ht. mobile tables, 8' fume hood, lab sink, drying rack and bench sp.

FIREARMS

Overall Functions:

The Firearm/Tool Mark Section examines and compares firearms and fired ammunition components which have been involved in criminal or suspicious shooting incidents. Test bullets and cartridge casings are searched through the National Integrated Ballistics Information Network (NIBIN). Such evidence may include not only the firearm, but also any projectiles, cartridge cases, bullet perforations, and other related evidence that might be discovered at the scene of a crime. The NSPCL Firearm/Tool Mark Section also examines shoes, tires, and the impression evidence made by them in the course of their duties.

Procedures used in these examinations include measuring the speed and pattern of discharged projectiles in the firing range; recovering discharged projectiles for examination from a water recovery tank or other specialized bullet trap; comparing test and evidence bullets and casings through comparison microscopes; determining muzzle-to-target distance; testing of firearm function/operation; examination and comparison of tool mark evidence; and characterization of recovered ammunition components.

The diverse set of tasks performed through these various analyses are such that a number of specialized workspaces and work areas are required which include the following:

- An indoor firing range capable of handling both short and long-distance shooting examinations;
- The need for a recirculating water recovery tank for projectiles; adequate work benches and equipment for dismantling/reassembling firearms;
- A separate room with variable lighting for conducting NIBIN operations and to house its equipment;
- Locations for microscopy and photography equipment with adjacent computer terminals for note-taking, composing reports, and cataloging digital photos pertaining to analysis.

This section also performs analysis involving chemicals, necessitating examination areas suitable for such testing. The restoration of serial numbers from weapons or tools whose serial numbers have been obliterated or obscured requires the use of acid etching reagents and magnetic serial number restoration procedures. Clothing (or other materials suspected of involvement in a shooting incident) is examined through microscopy and chemical processing for the presence of gunshot residues in order to both characterize the residues and to estimate a discharge distance.

As mentioned above, this section performs tool mark comparisons using visual and comparison microscopy of suspect tools with tool mark impressions. Tasks such as these, in addition to the functional testing of firearms, often require a wide range of mechanical tools and equipment. Space for these mechanical functions and the storage of such tools and equipment is necessary to ensure such operations do not damage other sensitive equipment (cameras, microscopes, computers, etc.).

Bullets removed from a victim, clothing stained with biological fluids, and related firearms evidence from violent crimes are examined as part of this section's responsibilities. These forms of evidence, being potential biological-hazards, make it imperative that this laboratory section, in addition to all of the other laboratory sections, be designed with special mechanical features required for a biological laboratory. (Refer to Section 8 of this Program Statement for these mechanical requirements.)

The Firearms Section also maintains a large reference firearms collection and a library of manufacturers' products in order to keep current on industry changes, diagnose firearm function issues, and to utilize as standards when drawing conclusions regarding intentional or accidental alteration of firearms and their various components. A humidity controlled storage area with sufficient shelving is critical for the firearm reference collection to ensure reference guns are not deteriorating from inadequate care and can be located easily when needed for comparison or property inventory.

FIREARMS

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Manager	150	1	150	150	1	1	150	150	1	1	150	150	1	PO-3	Private office
Supervisor	120	1	120	120	1	1	120	120	1	1	120	120	1	PO-2	Private office
Open Office Area				350				449				547			
Analysts Office Workstation	64	2	128		2	3	192		3	4	256		4	WS-2	
Files	18	2	36			3	54			4	72			FC-2	
Interaction Space	80	1	80			1	80			1	80				Includes reference shelving
Copy Area	48	1	48			1	48			1	48				
Room Circulation 20%			58				75				91				
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				716				880				1,044			
Analyst Lab Workstation	90	3	270			4	360			5	450			LWS-4	
Lab Support Bench	36	3	108			4	144			5	180			LCT-3	8', Note 1 - including photo stand and sink
Comparison Microscope	15	1	15			1	15			1	15				
Safety Station	18	1	18			1	18			1	18			SS-1	
Drafting Station	20	1	20			1	20			1	20				
Catalog Reference Shelving	24	1	24			1	24			1	24				8 lf full-height shelving
Lab Sink	15	2	30			2	30			2	30				
Evidence Cart Parking	6	2	12			2	12			2	12				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
Evidence Lockers	32	1	32			1	32			1	32			LE-3	
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				4 lf on bench space
Room Circulation 30%			165				203				241				
Exam Room - Large	230	1	230	230		1	230	230		1	230	230			Note 4, with overhead camera
Exam Room - Small	150	1	150	150		1	150	150		1	150	150			Note 6, with movable photo stand
NIBIN Room				133				133				133			
NIBIN Workstations	80	1	80			1	80			1	80				
Layout Bench	36	1	36			1	36			1	36				8 LF of Bench Space
Room Circulation 15%			17				17				17				
Weapons Standards Room	300	1	300	300		1	300	300		1	300	300			Note 2
Ammunition Storage Room	64	1	64	64		1	64	64		1	64	64			
Storage Room	48	1	48	48		1	48	48		1	48	48			Lab equipment and supplies
Evidence Storage Room	48	1	48	48		1	48	48		1	48	48			
Firing Range				1,363				1,363				1,363			
Firing Range	1,000	1	1,000			1	1,000			1	1,000				Note 3, with Target Retrieval
Bullet Trap	100	1	100			1	100			1	100				
Prep Area	36	1	36			1	36			1	36				Work Bench,sp. for Snail and Kevlar traps
Room Circulation 20%			227				227				227				
Armorer's/Toolmarks Room	200	1	200	200		1	200	200		1	200	200			Note 5
Bullet Recovery Tank Room	200	1	200	200		1	200	200		1	200	200			8 LF Lab Bench
Staff Subtotal					**4**				**5**				**6**		
Departmental Net Area				4,137				4,400				4,662			
Departmental Gross Factor: 15%				621				660				699			
Includes: Interior walls, departmental circulation and departmental services															
Department Gross Area				**4,758**				**5,059**				**5,361**			

Notes:

1. 8 lf bench per analyst, (1) Unit - Bullet standards in map drawer base cabinets.
2. High-density mobile storage for 1,000 handguns, 500 long guns
3. 12 ft wide, 75 ft firing line to target, shooter's space excluding trap
4. 5' fume hood and exam bench, include sink in room and four 2.5' x 5' mobile tables
5. Shop sink, bench vice, toolmarks bench, armorer's bench, ultrasonic clean.
6. 5' fume hood and exam bench, include sink in room and two 2.5' x 5' mobile tables

LATENT PRINTS

Overall Functions:
The Latent Prints Section examines and processes evidence from impressions that are not readily visible.

Latent print analysts perform tests on crime scene evidence to lift prints or impressions that may have been left by contact of bare hands or feet.

Comparisons of latent prints to known prints of suspects and elimination prints from those uninvolved with the crime, but associated with the scene are also conducted. Unidentified latent prints are searched through the Automated Fingerprint Identification System (AFIS). This section examines and compares unknown-to-known dermal friction ridge comparisons utilizing physical, chemical, and fluorescent development of latent fingerprint evidence. A variety of chemical processing procedures are employed, including cyanoacrylate vapor exposure, DFO, dye staining, ninhydrin (with humidity control), graphite powder dusting, and exposure to laser and alternate light sources to enhance the visibility of latent fingerprints.

Evidence is preserved using digital photography.

LATENT PRINTS

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Supervisor	120	1	120	120	1	1	120	120	1	1	120	120	1	PO-2	Private office
Open Office Area				350				449				547			
Analysts Office Workstation	64	2	128		2	3	192		3	4	256		4	WS-2A	
Files	18	2	36			3	54			4	72			FC-2	
Copy Area	48	1	48			1	48			1	48				
Interaction Space	80	1	80			1	80			1	80				Includes reference shelving
Room Circulation 20%			58				75				91				
AFIS Room				382				509				636			
Adobe Workstation	20	3	60			4	80			5	100				
AFIS Workstation	50	3	150			4	200			5	250				
Support Bench	36	3	108			4	144			5	180				8 If per individual
Room Circulation 20%			64				85				106				
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				1,079				1,262				1,426			
Analysts Lab Workstation	90	3	270			4	360			5	450			LWS-3	
Lab Support Bench	36	3	108			4	144			5	180			LCT-3	Note 1, 5
Dusting Hoods	36	1	36			1	36			1	36			LE-2	4'
Cyanoacrylate Cabinet	30	1	30			1	30			1	30				8-ft wide, multi-chambered cabinet
Ninhydrin Hood	48	2	96			2	96			2	96				6 ft hood
6' Fume Hood	36	1	36			1	36			1	36			LE-2	
Safety Station	18	1	18			1	18			1	18			SS-1	
Lab Sink	15	2	30			3	45			3	45				
Evidence Cart Parking	6	2	12			2	12			2	12				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
Shop Sink	25	1	25			1	25			1	25				
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Reagent Prep Workstation	100	1	100			1	100			1	100				Note 2
Evidence Lockers	32	1	32			1	32			1	32			LE-3	
Refrigerator Freezer	15	1	15			1	15			1	15				
Room Circulation 30%			249				291				329				
Evidence Storage Room	48	1	48	48		1	48	48		1	48	48			For large pieces of evidence - eg. ATM
Comparison Room				125				125				125			
Analysts Workstation	48	2	96			2	96			2	96				
Room Circulation 30%			29				29				29				
Photo/ALS Workroom				326				348				348			Note 3, mobile ALS equipment
PC Laptop Workstation	30	1	30			1	30			1	30				with laptop large monitors and scanners
Files	18	2	36			3	54			3	54			FC-2	
Mobile Exam tables	63	2	126			2	126			2	126			ET-1	(2) 2.5' x 5' adj. ht. mobile tables
Layout Work Area	40	2	80			2	80			2	80				1 Photo stands
Room Circulation 20%			54				58				58				
Storage Room	48	1	48	48		1	48	48		1	48	48			
Exam Room - Large	200	1	200	200		1	200	200		1	200	200			Note 4, 1 Photo stands
Staff Subtotal					**3**				**4**				**5**		
Departmental Net Area				2,742				3,173				3,562			
Departmental Gross Factor: 15%				411				476				534			
Includes: Interior walls, departmental circulation and departmental services															
Departmental Gross Area				**3,154**				**3,649**				**4,096**			

Notes:

1. 8 If bench per analyst, one magnifier on suspended articulating arm
2. 4 ft fume hood, dbl lab sink, prep bench, glasswares washing and storage, lab refr.
3. With ceiling mounted adjustable camera
4. (4) 2.5' x 5' adj. ht. mobile tables, suspended surgical type exam lights, lab bench w/ sink
5. (1) 2.5' x 5' adj. ht. mobile table

BIOLOGY / DNA

Overall Functions:
The Forensic Biology / DNA Section performs both forensic examination and DNA profiling of criminal evidence (casework), as well as preparation of DNA profiles of convicted felons (databank work). This laboratory is the only public laboratory in the state to provide this service.

In the casework sub-unit, biological evidence (blood, semen, saliva, hairs, etc.) from criminal cases is examined by forensic scientists. Biological evidence is usually associated with violent crimes such as murders, rapes, assaults, etc.

Examination of evidence includes identification of biological materials as well as DNA profiling. Typical laboratory procedures include gross visual, microscopic and chemical analysis, removal and extraction of suspected body fluid stains, and deoxyribonucleic acid (DNA) testing to include short tandem repeat (STR) type of polymerase chain reaction (PCR) based testing. STR is a recent advancement over conventional PCR and it involves a fluorescent based semi-automated detection system. This system incorporates automatic sizing of PCR products and eliminates differences in the electrophoretic mobility of gel lines by the inclusion of an internal sizing standard.

The DNA profiles generated from samples are entered into the National FBI DNA databank and Combined DNA Index System (CODIS), and are searched to compare the profiles from a crime scene to the profiles obtained from convicted felons. This often results in a matching profile that leads to solving a case, or even a cold hit where there is no suspect.

BIOLOGY / DNA

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Manager	150	1	150	150	1	1	150	150	1	1	150	150	1	PO-3	Private office
Supervisor	120	2	240	240	2	2	240	240	2	2	240	240	2	PO-2	Private office
Open Office Area				917				1,550				1,932			
Analysts Office Workstation	64	6	384		6	10	640		10	13	832		13	WS-2	
Files	18	6	108			10	180			13	234			FC-2	
Copy Area	48	1	48			2	96			2	96				
Interaction Space	80	1	80			2	160			2	160				Includes reference shelving
CODIS Workstations	48	2	96			3	144			4	192			WS-1	
CODIS Layout Space	24	2	48			3	72			4	96			OCT-2	6 lf work surface
Room Circulation 20%			153				258				322				
CODIS Server Room	40	1	40	40		1	40	40		1	40	40			
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking Stat.
State CODIS Extract./Pre-Amp Lab				1,079				1,565				1,950			
Analyst Workstation	90	2	180			3	270			4	360			LWS-1A	
Accesioning Workstation	90	2	180			3	270			4	360			LWS-1A	
Lab Support Bench	36	2	72			3	108			4	144			LCT-3	8 lf / analyst
4-foot Hood	36	1	36			1	36			1	36			LE-2	Biological Hood
Evidence Cart Parking	6	1	6			2	12			2	12				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
Refrig/Freezer	15	1	15			1	15			1	15				
Robot	36	1	36			2	72			2	72			LCT-1	8 lf
4' PCR Hood	36	1	36			2	72			2	72			LCT-1	
Pass-Thru	3	1	3			1	3			1	3				
Storage Space	36	1	36			1	36			1	36				
Lab Sink	15	2	30			2	30			2	30				Local polisher
Safety Station	18	1	18			1	18			1	18			SS-1	
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Lektriever	80	2	160			3	240			4	320				
Room Circulation 30%			249				361				450				
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking Stat.
State CODIS Amplification Lab				462				675				675			
3130 DNA Sequencer	52	1	52			2	104			2	104			LCT-2	8 lf per instrument
Robot Instrument	52	1	52			1	52			1	52			LCT-2	
Thermal Cycler	23	2	46			4	92			4	92			LCT-1	3 lf bench
Layout Bench	36	1	36			2	72			2	72			LCT-3	8 lf per instrument
Large Centrifuge	15	1	15			2	30			2	30				
Real Time PCR	36	1	36			1	36			1	36				8 lf bench
4-foot Fume Hood	27	1	27			1	27			1	27			LE-2	
Lab Sink	15	2	30			2	30			2	30				Local polisher
Evidence Cart Parking	6	1	6			1	6			1	6				
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
Refrig/Freezer	15	1	15			2	30			2	30				
Safety Station	18	1	18			1	18			1	18			SS-1	
Room Circulation 30%			107				156				156				
Reagent Prep Room	160	1	160	160	0	1	160	160		1	160	160			Note 1

BIOLOGY / DNA (cont.)

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking Stat.
Main Forensic Biology Lab				1,533				2,399				3,194			
Analyst Lab Workstation	90	7	630			12	1,080			16	1,440			LWS-1	
Lab Support Bench	36	7	252			12	432			16	576			LCT-3	8 lf / analyst and microscopes
4-foot Hood	27	1	27			1	27			2	54			LE-2	Biological Hood
4-foot Fume Hood	27	1	27			1	27			2	54			LE-2	
Lab Sink	15	2	30			2	30			2	30				Local polisher
Evidence Cart Parking	6	4	24			4	24			4	24				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
Lab Refrigerator	15	1	15			1	15			1	15				
Microscopy Station	18	4	72			6	108			8	144				4 LF of bench per workstation
Minus 80 Lab Freezer	15	1	15			1	15			1	15				
Lab Freezer	15	1	15			1	15			1	15				
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Safety Station	18	1	18			1	18			2	36			SS-1	
Evidence Lockers	32	1	32			1	32			1	32			LE-3	
Room Circulation 30%			354				554				737				
Exam Room - Large	200	1	200	200		1	200	200		1	200	200			Note 2
Exam Room - Small	150	2	300	300		2	300	300		2	300	300			Note 3
Walk-in Refrigerator	120	1	120	120		1	120	120		1	120	120			

BIOLOGY / DNA (cont.)

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking Stat.
Main DNA Laboratory				988				1,274				1,622			
Extraction Workstation	90	2	180			2	180			2	180			LWS-1	
Extraction Robotics - Large	52	0	0			1	52			2	104			LCT-2	8 LF bench with access both sides
Extraction Robotics - Small	40	4	160			6	240			8	320			LCT-2	6 LF Benchtop with rear access
Lab Support Bench	36	2	72			2	72			2	72			LCT-3	8 lf / workspace
Pass-Thru	3	1	3			1	3			1	3				
4-foot Fume Hood	27	2	54			2	54			2	54			LE-2	
PCR Robotics (TECAN)	52	2	104			3	156			4	208			LCT-2	8 LF for robot, computer and layout bench
PCR Prep Workstations	36	2	72			3	108			4	144				
Lab Sink	15	2	30			2	30			2	30				Local polisher
Large Centrifuge	15	1	15			1	15			1	15				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
Lab Refrigerator	15	1	15			1	15			2	30				
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Lab Freezer	15	1	15			1	15			2	30				
Safety Station	18	1	18			1	18			2	36			SS-1	
Room Circulation 30%			228				294				374				
Bone/Teeth Grinding Room				0				142				142			
Robot Instruments	40	0	0			1	40			1	40			LCT-2	6 lf bench
Lab Sink	15	0	0			1	15			1	15				
4-foot Fume Hood	27	0	0			1	27			1	27			LE-2	
Layout Bench	27	0	0			1	27			1	27			LCT-3	6 lf bench
Room Circulation 30%			0				33				33				
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		D-1	Sink, lab coats, wall cabinet, docking stat.
Bio-Janitor's Closet	20	1	20	20		1	20	20		1	20	20			
Post Amplification Lab				703				914				1,144			
Thermal Cycler	20	3	60			4	80			5	100			LCT-2	3 lf bench, Note 1
3130 DNA Sequencer	52	2	104			2	104			2	104			LCT-2	8 lf per instrument
3500 Genetic Analyzer	52	1	52			2	104			3	156			LCT-2	8 lf per instrument
Layout Bench	54	2	108			3	162			4	216			LCT-3	12 lf bench
Pass-Thru	3	1	3			1	3			1	3				Equiped with UV and Vacuum
Lab Refrigerator/Freezer	15	1	15			1	15			1	15				for Reagents
Freezer	15	2	30			2	30			3	45				
Real Time PCR	36	2	72			3	108			4	144				8 lf bench
4-ft Fume Hood	27	1	27			1	27			1	27			LE-2	
Large Centrifuge	15	1	15			1	15			1	15				
Biohazard Waste Disposal	6	1	6			1	6			1	6				
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Lab Sink	15	1	15			1	15			1	15				
Safety Station	18	1	18			1	18			1	18			SS-1	
Room Circulation 30%			162				211				264				
Evidence Storage	80	1	80	80		1	80	80		1	80	80			
Reagent Prep Room	160	1	160	160	0	1	160	160		1	160	160			Note 1
Storage Room	80	1	80	80		1	80	80		1	80	80			Lab equipment and supplies
Minus 20 Freezer - Walk-in	120	1	120	120		1	120	120		1	120	120			
Gowning	60	1	60	60		1	60	60		1	60	60			

Staff Subtotal	**9**	**13**	**16**

Departmental Net Area	7,731	10,568	12,709
Departmental Gross Factor: 15%	1,160	1,585	1,906
Includes: Interior walls, departmental circulation and departmental services			
Departmental Gross Area	**8,891**	**12,154**	**14,615**

Notes

1. 4 ft fume hood, dbl lab sink, prep bench, glasswares washing and storage, bench space, autoclave, dishwasher
2. Four 2.5' x 5' adj. ht. mobile tables, suspended surgical type exam lights, lab bench w/ sink
3. Two 2.5' x 5' adj. ht. mobile tables, suspended surgical type exam lights, lab bench w/ sink

QUESTIONED DOCUMENTS

Overall Functions:

The Questioned Documents Section is responsible for the examination of all paper document evidence, including forged documents, currency, suicide notes, computer printouts, note pads, bank checks, burned documents and drafts, securities or any other paper documents seized in connection with a crime scene to determine authorship or contents of documents because of alterations.

In addition to the examination of the paper documents, the document analyst also provides expertise regarding implements used to produce a document, including pens, pencils, paper, typewriters, printers, inks, engraving and embossing instruments, and photocopy processes.

Currently the NSP Forensic Crime Laboratory does not offer Questioned Documents services due to lack of space in the current facility.

QUESTIONED DOCUMENTS

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Supervisor	120	0	0	0	0	1	120	120	1	1	120	120	1	PO-2	Private office
Open Office Area				286				286				286			
Analysts Office Workstation	64	1	64		1	1	64		1	1	64		1	WS-2	
Document Layout	36	1	36			1	36			1	36				8 lf per analyst
Document Display	40	1	40			1	40			1	40				20 lf of wall display
Files	18	1	18			1	18			1	18			FC-2	
Interaction/Copy Space	80	1	80			1	80			1	80				Includes reference shelving
Room Circulation 20%			48				48				48				
Bio-vestibule	64	0	0	0		0	0	0		0	0	0		BV-1	Sink, lab coats, wall cabinet, docking stat.
Chemical Processing Room				134				134				134			
4-ft Fume Hood	27	1	27			1	27			1	27			LE-2	
Lab Sink	15	1	15			1	15			1	15				
Safety Station	18	1	18			1	18			1	18			SS-1	
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Layout Bench	36	1	36			1	36			1	36			LCT-3	8
Room Circulation 20%			22				22				22				
Instrument Room				198				198				198			
Visual Spectrum Comp	36	1	36			1	36			1	36			LCT-1	8 lf bench
Document Comparator	27	1	27			1	27			1	27			LCT-1	6 lf bench
Evidence Lockers	18	1	18			1	18			1	18			LE-3	Half of the overall unit
Copy Space	40	1	40			1	40			1	40				
Evidence Cart Parking	6	1	6			1	6			1	6				
Layout Bench	45	1	45			1	45			1	45			LCT-3	10
Room Circulation 15%			26				26				26				
ESDA Room				109				109				109			
ESDA Instrument	26	1	26			1	26			1	26			LCT-2	4 lf bench
4-ft Fume Hood	27	1	27			1	27			1	27			LE-2	
Lab Sink	15	1	15			1	15			1	15				
Layout Bench	27	1	27			1	27			1	27			LCT-3	6 lf bench
Room Circulation 15%			14				14				14				
Exam Room - Small	150	1	150	150		1	150	150		1	150	150			Note 1
Staff Subtotal					**1**				**2**				**2**		
Departmental Net Area				877				997				997			
Departmental Gross Factor: 15%				132				150				150			
Includes: Interior walls, departmental circulation and departmental services															
Departmental Gross Area				**1,009**				**1,147**				**1,147**			

Notes:

1 Two 2.5' x 5' adj. ht. mobile tables, suspended surgical type exam lights, lab bench w/ sink

COMPUTER FORENSICS

Overall Functions:

The Computer Forensics Section performs forensic analysis on computer storage media including hard disk drives, floppy disk drives, compact discs, and related peripheral equipment submitted in association with criminal cases.

Work in this laboratory section involves the disassembly of computers and the recovery of information stored in hard drives, discs, and other storage devices. Such information might include deleted information, directories, and email from seized computer systems.

The recovery of information begins with mirroring the hard drive to retrieve the data. The mirrored evidence is then examined. Storage areas are provided for both the original and mirrored evidence. A separate secure server is also required for this area.

Currently the NSP Crime Laboratory does not offer Computer Forensics services due to lack of space in the current facility. However, it currently exists as part of the State Patrol Division and is planned to be relocated in this new facility.

COMPUTER FORENSICS

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Supervisor	120	1	120	120	1	1	120	120	1	1	120	120	1	PO-2	Private office
Open Office Area				391				490				588			
Analysts Office Workstation	64	3	192		3	4	256		4	5	320		5	WS-2	Multiple monitors/networks
Files	18	3	54			4	72			5	90			FC-2	
Interaction/Copy Space	80	1	80			1	80			1	80				Includes reference shelving
Room Circulation 20%			65				82				98				
Laboratory Area				730				917				1,078			Note 1
Analysts Lab Workstation	80	4	320			5	400			6	480			LWS-8	
Lab Support Bench	36	4	144			5	180			6	216			LCT-3	8 lf per analyst
Document Display	40	2	80			3	120			3	120				
Evidence Cart Parking	6	2	12			2	12			2	12				
Files	18	2	36			2	36			3	54			FC-2	
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Evidence Lockers	32	0	0			0	0			0	0			LE-3	
Room Circulation 20%			122				153				180				
MDF/Equipment Room				259				310				418			Note 1, Include Security
Locked Racks	14	12	168			15	210			18	252				
Workstation	48	1	48			1	48			2	96			WS-1	
Room Circulation 20%			43				52				70				
Evidence In-Process Room	120	1	120	120		1	120	120		1	120	120			Include security
Storage Room	120	1	120	120		1	120	120		1	120	120			
Evidence Room	80	1	80	80		1	80	80		1	80	80			Include security
Staff Subtotal					**4**				**5**				**6**		
Departmental Net Area				1,820				2,156				2,523			
Departmental Gross Factor: 15%				273				323				378			
Includes: Interior walls, departmental circulation and departmental services															
Departmental Gross Area				**2,093**				**2,479**				**2,902**			

Notes:

1 Section on raised floor

VEHICLE PROCESSING

Overall Functions:

The Vehicle Processing Section is where vehicles involved in crime scenes are examined by the forensic laboratory for the processing and collection of any physical evidence present. Additionally, the vehicle bays are used for the receipt and handling of large bulky evidence which is too large to bring into the other lab areas.

This section will support other laboratory units as well. Examples of evidence that may be found includes latent prints, hairs and fibers, blood and body fluids, other transfer evidence from hit and run accidents, and fabric impressions.

Occasionally, shoe and tire impressions will be rolled or examined as well in this space.

VEHICLE PROCESSING

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Processing Room/Garage				1,877				1,877				1,877			Note 1, 2, 3, 4
Equipment Support Bench	36	2	72			2	72			2	72				3' x 12' bench
Mobile Carts	5	4	20			4	20			4	20				
Mobile Lift	20	2	40			2	40			2	40				
Garage Bay	576	2	1,152			2	1,152			2	1,152				24' x 24' vehicle bays, blackout capability
PC Workstation	20	1	20			1	20			1	20				
Service Sink	15	2	30			2	30			2	30				
Tire Impressions Sink	24	1	24			1	24			1	24				Large sink
Mop Sink	16	1	16			1	16			1	16				
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Safety Station	18	1	18			1	18			1	18				
6' Fume Hood	36	1	36			1	36			1	36				
Room Circulation 30%			433				433				433				
Staff Subtotal				**0**				**0**				**0**			
Departmental Net Area				1,877				1,877				1,877			
Departmental Gross Factor: 15%				282				282				282			
Includes: Interior walls, departmental circulation and departmental services															
Departmental Gross Area				**2,159**				**2,159**				**2,159**			

Notes:

1. Provide raisable superglue tent and fuming apparatus including venting for (1) bay
2. Provide movable wire cage wall assembly to separate and secure bays
3. Configure bays to allow for (2) regular bays or (1) large combined bay
   Provide overhead coiling racks for power and compressed air

EVIDENCE PROCESSING

Overall Functions:

The Evidence Processing Section is responsible for the receipt, sorting, routing, storage, safekeeping, release, and disposal of all evidence submitted to the forensic science laboratory by evidence contributors. Evidence is submitted to the laboratory by law enforcement personnel, investigators and other sources. Once evidence is submitted, evidence technicians in this section manage all evidence functions.

The Evidence Processing Section is also an integral part of the chain-of-custody of evidence, and must be able to determine the disposition of evidence within the laboratory at all times. A crime lab management system tracks evidence movement within the lab and is part of the Laboratory Information Management System (LIMS).

Centralized evidence processing and control functions are incorporated into all new crime laboratories across the country because all evidence reception, inventory, storage, and distribution responsibilities are in one central area of the facility under one control system.

EVIDENCE PROCESSING

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Vestibule	80	1	80	80		1	80	80		1	80	80			
Evidence Lobby	200	1	200	200		1	200	200		1	200	200			Counter, Wrapping and LIMS station
Public Toilet	65	1	65	65		1	65	65		1	65	65			
Evidence Review Room	160	1	160	160		1	160	160		1	160	160			Note 4
Supervisor	120	1	120	120	1	1	120	120	1	1	120	120	1	PO-2	Note 5
Open Office Area				871				948				948			
Evidence Drop Off Counter	64	1	64			1	64			1	64				12' long counter
Evidence Processing Area	100	1	100			1	100			1	100				
Evidence Workstation	64	3	192			3	192			3	192			LWS-7	
Files	80	3	240			3	240			3	240				
Copy Area	48	1	48			1	48			1	48				
Evidence Mail Processing Area	100	1	100			1	100			1	100				
Office Work Station	64	2	128		2	3	192		3	3	192		3	WS-2	
Large Mobile Cart Parking	12	1	12			1	12			1	12				
Mobile Cart Parking	6	1	6			1	6			1	6				
Room Circulation 20%			145				158				158				
Active File Room	200	1	200	200		1	200	200		1	200	200			Storage for 3 years minimum
Laboratory Pickup	64	1	64	64		1	64	64		1	64	64			Counter and LIMS station
Evidence Vault				1,822				1,822				1,822			
Walk-in Refrigerator	120	1	120			1	120			1	120				
Walk-in Freezer	120	1	120			1	120			1	120				
Lab Support Bench	36	1	36			1	36			1	36			LCT-3	4 LF bench space
Evidence Drying Cabinet	12	1	12			1	12			1	12				For disipating smells, Lockable
Large Mobile Cart Parking	12	1	12			1	12			1	12				
Mobile Cart Parking	6	3	18			3	18			3	18				
Evidence Storage	1,000	1	1,000			1	1,000			1	1,000				Note 3
Drug Storage	120	1	120			1	120			1	120				High density storage, Subdividable
NIBIN Test Fires Room	80	1	80			1	80			1	80				
Room Circulation 20%			304				304				304				
Storage Room	80	1	80	80		1	80	80		1	80	80			Packing and Shipping Storage
Bio-vesibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Drying Room				318				318				318			
Unwrap/wrap Area	80	1	80			1	80			1	80				(2) 30" x 60" mobile tables
Lab Support Bench	36	1	36			1	36			1	36			LCT-3	4 LF bench space
Drying Cabinets	100	1	100			1	100			1	100				Multiple sizes, 2 Large, 2 Small
Safety Station	18	1	18			1	18			1	18			SS-1	
Lab Sink	15	1	15			1	15			1	15				
Mop Sink	16	1	16			1	16			1	16				
Room Circulation 20%			53				53				53				
Staff Subtotal					**3**				**4**				**4**		
Departmental Net Area				3,964				4,041				4,041			
Departmental Gross Factor: 15%				595				606				606			
Includes: Interior walls, departmental circulation and departmental services															
Departmental Gross Area				**4,558**				**4,647**				**4,647**			

Notes:

1. High density storage, 3x3 safe, secure gun area and freezer
2. High density storage, freezer, drug area and secure gun area
3. Subdividable between incoming and outgoing, separate locable areas for valuables and guns, parking for mobile carts
4. Wrapping Station with (2) adjustable height mobile tables
5. Private office, with windows to see processing

BUILDING SUPPORT

Overall Functions:
Building support functions includes diverse spaces that support the entire facility.

Supporting spaces include the staff workroom and mail room, additional conference rooms for the staff, janitor's closets, public and staff toilets, staff break room, coffee alcoves, bulk office supply (receipt and storage of office supplies), bulk laboratory supply (receipt and storage of laboratory supplies), bulk chemical storage (receipt and storage of laboratory chemicals), hazardous and biological waste products storage (prior to being picked up by vendors), lab gas cylinder storage, recycling area, loading dock (including a shipping and receiving area), staff showers and lockers, exercise room, long term storage room, mechanical room, electrical rooms, UPS room, data/telecom rooms, security rooms, and building server room.

For the purposes of this report, the programming team assumed that all the crime lab functions would be located on one level. If the design solution requires a multi-level scheme, then additional space must be programmed for stairs, mechanical and electrical shafts and elevator(s).

BUILDING SUPPORT

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Support Spaces															
Work Room	160	1	160	160		1	160	160		1	160	160			Administrative supplies
Mail Room	120	1	120	120		1	120	120		1	120	120			
Conference Room	150	2	300	300		2	300	300		3	450	450		CR-1	for 4 to 6 people
Janitor - Main	64	1	64	64		1	64	64		1	64	64			
Janitor - Satelite	24	2	48	48		2	48	48		2	48	48			
Public Toilets - Men	65	1	65	65		1	65	65		1	65	65			
Public Toilets - Women	65	1	65	65		1	65	65		1	65	65			
Break Room				485				572				658			
Vending Area	8	3	24			3	24			3	24				
Counter Area	30	1	30			1	30			1	30				with 2 bowl deep kitchen sink
Refrigerator/freezer	20	2	40			2	40			2	40				
Recycling Bin	8	1	8			1	8			1	8				
Dish Washer	20	1	20			1	20			1	20				
Dining Area	15	20	300			25	375			30	450				
Room Circulation 15%			63				75				86				
Bulk Office Supply Inventory	120	1	120	120		1	120	120		1	120	120			
Bulk Lab Supply Inventory	160	1	160	160		1	160	160		1	160	160			Lab Supplies minus chemicals
Bulk Chemical Storage	160	1	160	160		1	160	160		1	160	160			Note 1
Hazardous Waste	36	1	36	36		1	36	36		1	36	36			
Biological Waste	36	1	36	36		1	36	36		1	36	36			
Large Paper Shredder and Storage	36	1	36	36		1	36	36		1	36	36			
Gas Distribution	50	1	50	50		1	50	50		1	50	50			Gas Cylinders
Recycling Area	36	1	36	36		1	36	36		1	36	36			include cardboard compactor
Loading Dock	80	1	80	80		1	80	80		1	80	80			secure
Shipping/Receiving/Staging	120	1	120	120		1	120	120		1	120	120			secure, accommodate pallettes
Mens Restroom - Staff	120	3	360	360		3	360	360		4	480	480			
Womens Restroom - Staff	120	3	360	360		3	360	360		4	480	480			
Mens Showers & Locker Room	80	1	80	80		1	80	80		1	80	80			20 half high lockers
Womens Shower & Locker Rm.	120	1	120	120		1	120	120		1	120	120			40 half high lockers
Exercise Room	160	1	160	160		1	160	160		1	160	160			
Long Term Storage	200	1	200	200		1	200	200		1	200	200			
Mechanical Room	1,000	1	1,000	1,000		1	1,000	1,000		1	1,000	1,000			In addition to building gross factor
Electrical Room	400	1	400	400		1	400	400		1	400	400			In addition to building gross factor
UPS	64	1	64	64		1	64	64		1	64	64			
Data/Telecom Room	80	2	160	160		2	160	160		3	240	240			
Security	80	2	160	160		2	160	160		3	240	240			
Server Room	80	1	80	80		1	80	80		1	80	80			
Staff Subtotal				**0**				**0**				**0**			
Departmental Net Area				5,285				5,372				6,008			
Departmental Gross Factor: 10%				529				537				601			
Includes: Interior walls, departmental circulation and departmental services															
Departmental Gross Area				**5,814**				**5,909**				**6,609**			

Notes:

1 With fume hood and refrigerator and PC Workstation and safety station

TRAINING

Overall Functions:

The training Section of the forensic crime lab is used in a variety of different ways. It can be used to train officers around the state of Nebraska in the proper handling, collection and packaging of evidence collected at crime scenes.

It is also used to teach forensic science related programs to both the law enforcement community as well as the general public.

The training section also includes a fully functioning demonstration lab which is used to educate new staff on the proper procedures required for crime lab examinations and procedures as well as to introduce new validated procedures to the existing staff in the forensic science industry.

The Training section includes a large multi-functional classroom with state of the industry audio visual design to enhance the teaching functions of the crime laboratory.

A video testimony / mock courtroom has also been included to train forensic science staff in the proper procedures in testimony for criminal cases as well as provide for future video testimony once the state approves this concept. This will increase the efficiency of each forensic science staff based upon not having to travel all over the State of Nebraska to testify in court cases.

The Training Section is designed to be used after hours by the local community, so additional public restrooms, a breakout area, a reference library, and a coat room have been included to make this section a complete, self-contained component of the overall facility.

TRAINING

Space/Equipment	Unit Area	2014 Space Quan	2014 Space Needs	2014 Area Subtotal	2014 Staff Quan	2024 Space Quan	2024 Space Needs	2024 Area Subtotal	2024 Staff Quan	2034 Space Quan	2034 Space Needs	2034 Area Subtotal	2034 Staff Quan	Space Standard	Comments
Training Classroom - Large	15	50	750	750		50	750	750		50	750	750			
Storage	120	1	120	120		1	120	120		1	120	120			
Bio-vestibule	64	1	64	64		1	64	64		1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Training Laboratory				545				545				545			
Lab Support Bench	36	1	36			1	36			1	36			LCT-3	8', include area for mock evidence storage
4-foot Dusting Hood	27	1	27			1	27			1	27			LE-2	on 4 LF bench space
Lab Sink	14	1	14			1	14			1	14				
Demonstration Bench	36	1	36			1	36			1	36			LCT-3	8 LF of bench space
4-foot Hood	27	1	27			1	27			1	27			LE-2	Biological Hood
4-foot Fume Hood	27	1	27			1	27			1	27			LE-2	
4-foot Cyan. Hood	27	1	27			1	27			1	27			LE-2	
Evidence Lockers	32	1	32			1	32			1	32			LE-3	
LIMS PC Worksta w/ Scanner	16	1	16			1	16			1	16				
Lab Refrigerator/Freezer	15	1	15			1	15			1	15				
Safety Station	18	1	18			1	18			1	18			SS-1	
Seating Area	15	12	180			12	180			12	180				
Room Circulation 20%			91				91				91				
Video Testimony/Mock Courtrm.	200	1	200	200		1	200	200		1	200	200			located by Training Area
Public Toilets - Men	65	1	65	65		1	65	65		1	65	65			Combine with Building Public Toilets
Public Toilets - Women	65	1	65	65		1	65	65		1	65	65			Combine with Building Public Toilets
Break-out Area	120	1	120	120		1	120	120		1	120	120			
Reference Library	150	1	150	150		1	150	150		1	150	150			
Coat Room	80	1	80	80		1	80	80		1	80	80			
Case Review Room	120	1	120	120		1	120	120		1	120	120			
Copy Area	48	1	48	48		1	48	48		1	48	48			

Staff Subtotal	**0**	**0**	**0**

Notes:
1

Departmental Net Area	2,327	2,327	2,327
Departmental Gross Factor: 15%	349	349	349
Includes: Interior walls, departmental circulation and departmental services			
Departmental Gross Area	**2,677**	**2,677**	**2,677**

6.3 FACILITY SITE SPACE ANALYSIS

This section of the Program Statement provides area requirements to support the Forensic Science Laboratory. The information was derived from the Facility Space and Staff Analysis in addition to staff conversations and local zoning laws.

Impound Lot

Although a Vehicle processing Section is included in this Program Statement, no area is allocated for impound vehicle parking.

Secure State Vehicle Parking

A new secure yard has been programmed as a requirement both for Property and Evidence as well as parking spaces for 4 - 6 state-owned vehicles between 2014 and 2034.

Secure Employee Parking

A secure Staff parking area has been included in this Program Statement and provides one space for each staff member 36, 48 and 55 as determined by the planning years of 2014, 2024 and 2034.

Public Parking

This Program Statement also includes public space for visitors coming to the facility and for the Training Section. The combined area for these spaces is based upon 60 vehicles between 2014 and 2034.

Loading Dock and Unloading Area

A loading and unloading area has been programmed for one loading dock bay and the ability to stage and unload a semi-tractor trailer.

Landscaped Area

Based upon local zoning requirements, additional area has been programmed for the minimum required landscape areas. For the purposes of this Program Statement, the programming team has assumed that all the crime lab functions would be located on one level. If the design solution requires a multi-level scheme, then the space allocated must be revised accordingly.

Mechanical / Electrical Yard

Additional space has also been programmed for mechanical and electrical equipment required to support the new forensic crime laboratory.

The Site Requirements Summary below tabulates the site area requirements based upon the new forensic laboratory being a one story facility. If the design solution creates a multi-story facility, the overall site requirements can be reduced accordingly.

SITE REQUIREMENTS

Site Elements	2014 Site Requirements	2024 Site Requirements	2034 Site Requirements
PARKING			
Staff Parking - Secure	20,700	27,600	31,625
Visitor's Parking	5,750	5,750	5,750
Visitor's Parking (Additional for Training)	23,000	23,000	23,000
State Vehicles' Parking	2,300	3,450	3,450
Loading / Unloading	1,000	1,000	1,000
Landscaping	18,100	20,620	22,445
Mechanical / Electrical Yard	2,000	2,000	2,000
Building Footprint	51,715	58,915	64,128
Total Net Site Area Square Feet (Excludes Building Footprint)	72,850	83,420	89,270
Site Circulation Factor 10% (Includes: on-site circulation and interior roadways)	7,285	8,342	8,927
Total Gross Site Area Square Feet (Excludes Building Footprint)	80,135	91,762	98,197
TOTAL SITE GROSS SQUARE FEET (Incl. Bldg Ftpt.)	**131,850 SF**	**150,677 SF**	**162,324 SF**
TOTAL SITE ACREAGE (Including Bldg Footprint)	**3.03 A**	**3.46 A**	**3.73 A**

6.4 SPACE STANDARDS

The following pages provide graphic representations of Space Standards that are applicable to this project. A Space Standard, as used in this Programming Statement, consists of a functional diagram of a space that is used as a basis to establish the required work area and space requirements for particular functions in order to determine the required space square footage for this project.

There are two separate series of Space Standards:

- Office space standards
- Laboratory space standards

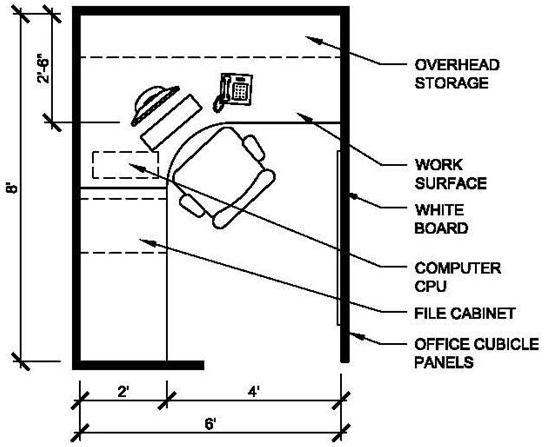
Each Space Standard is given a designator consisting of its series letter and a number. In Section 6.2 “Facility Space and Staff Analysis” this designator appears in the “Space Standard” column, corresponding with the space that it represents.

Each Space Standard is given a designator consisting of its series letter and a number. In the “Facility Space and Staff Analysis” this designator appears in the “Space Standard” column, corresponding with the space that it represents.

SPACE STANDARDS (OFFICE FUNCTIONS)

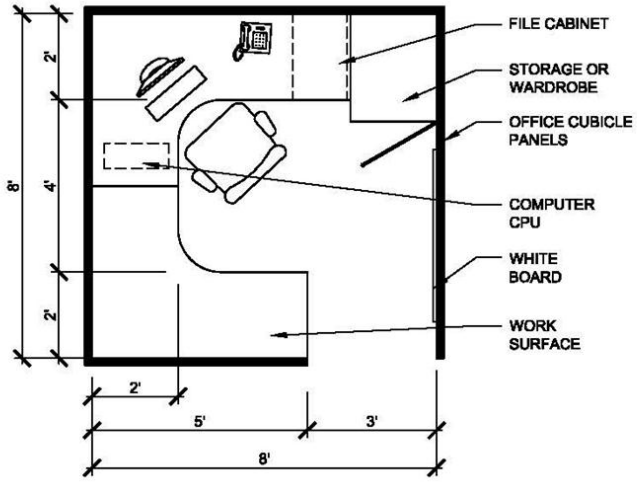
WS-1 Office Workstation

48 SF



WS-2 Office Workstation

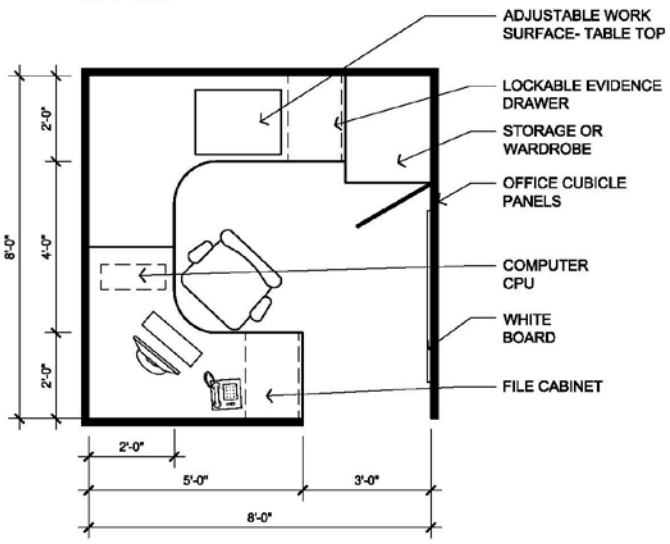
64 SF



SPACE STANDARDS (OFFICE FUNCTIONS)

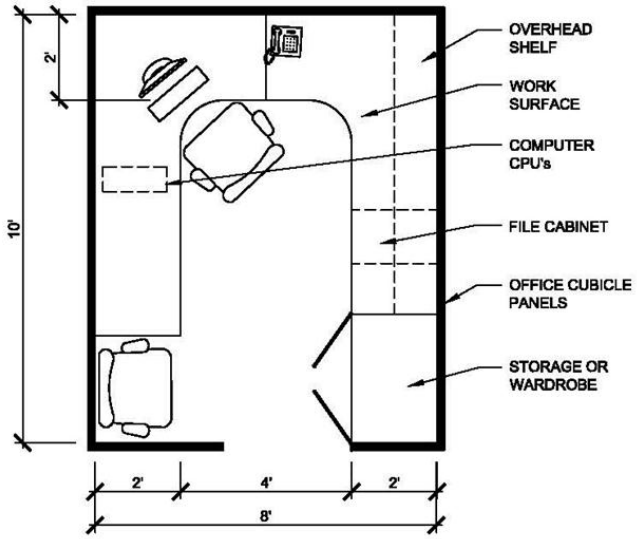
WS-2A Latent Office Workstation

64 SF *PROXIMITY TO WINDOWS



WS-3 Office Workstation

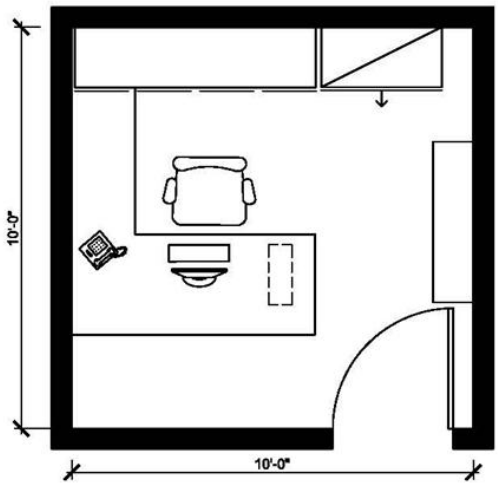
80 SF



SPACE STANDARDS (OFFICE FUNCTIONS)

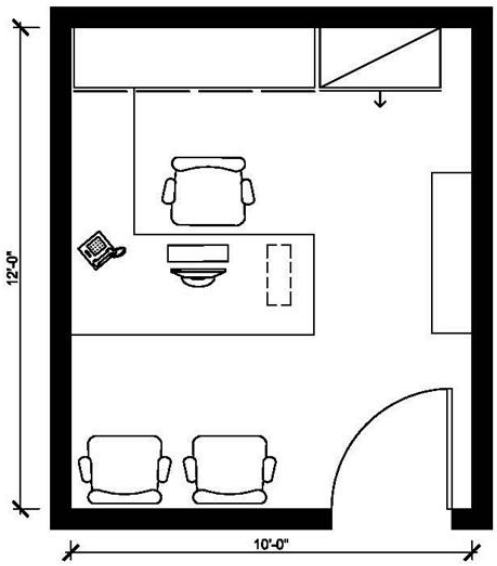
PO-1 Private Office

100 SF



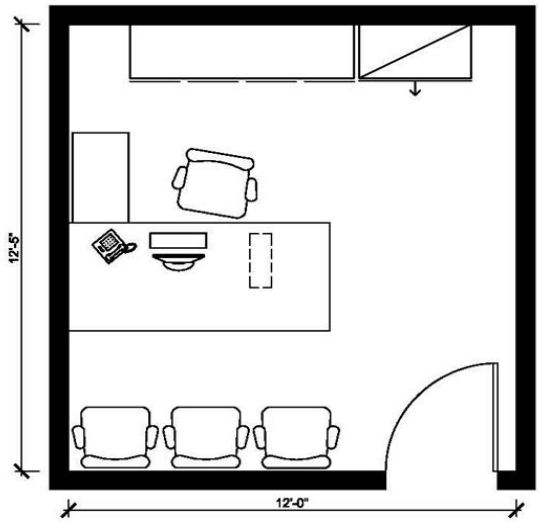
PO-2 Private Office

120 SF

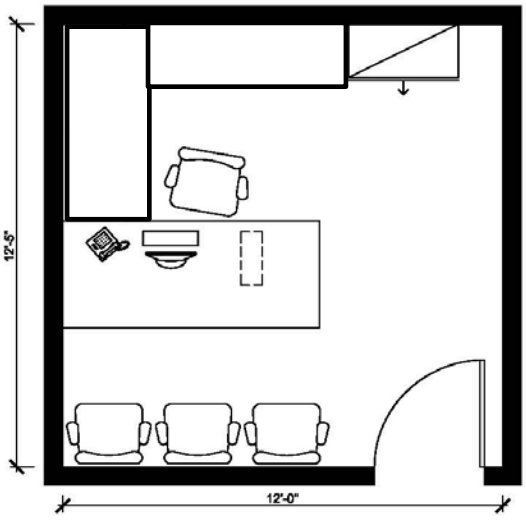


SPACE STANDARDS
(OFFICE FUNCTIONS)

PO-3 Private Office
150 SF

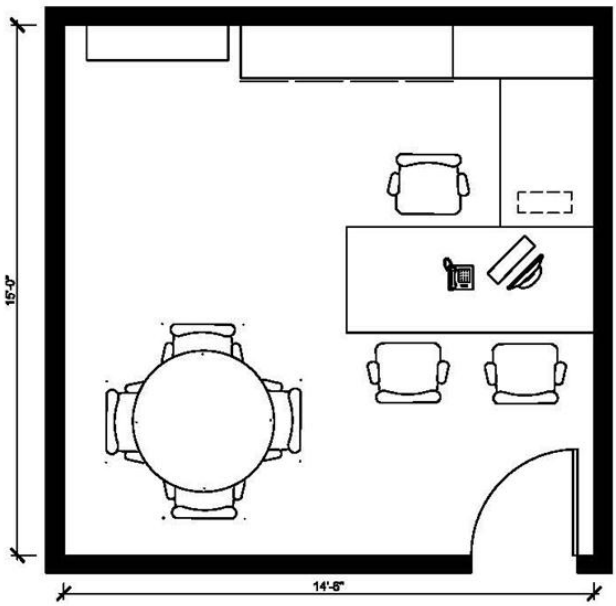


PO-3A QA/QC Private Office
150 SF



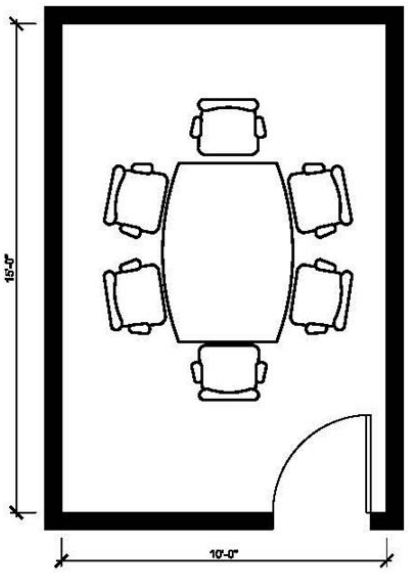
SPACE STANDARDS
(OFFICE FUNCTIONS)

PO-4 Private Office
220 SF

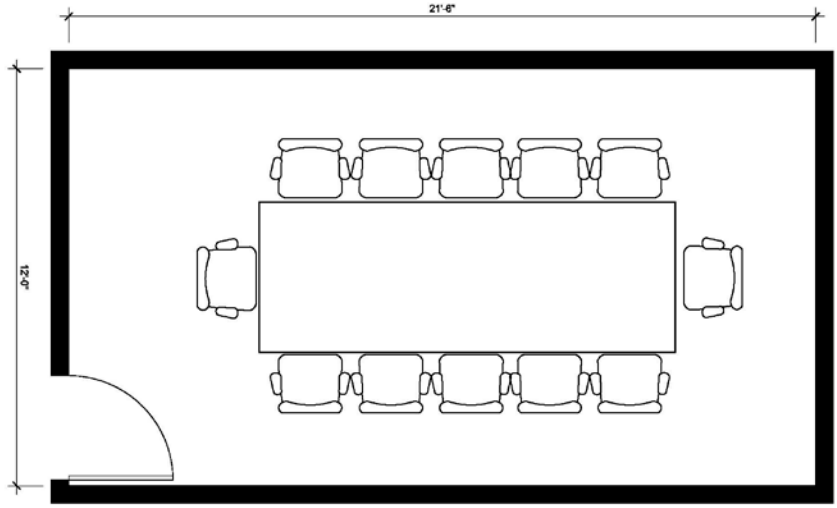


SPACE STANDARDS
(OFFICE FUNCTIONS)

CR-1 Conference Room
150 SF

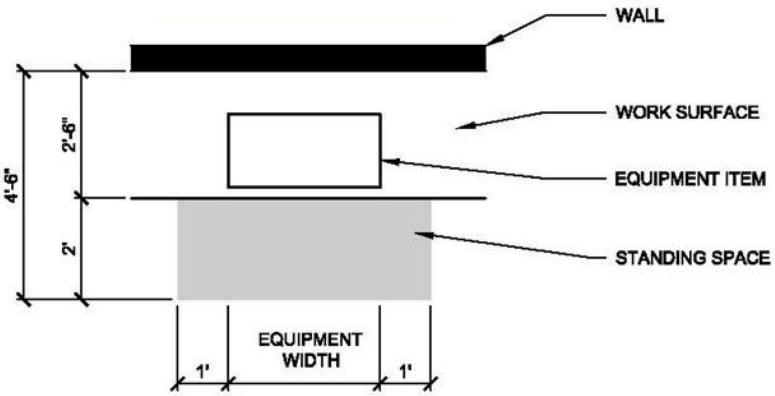


CR-2 Conference Room
260 SF

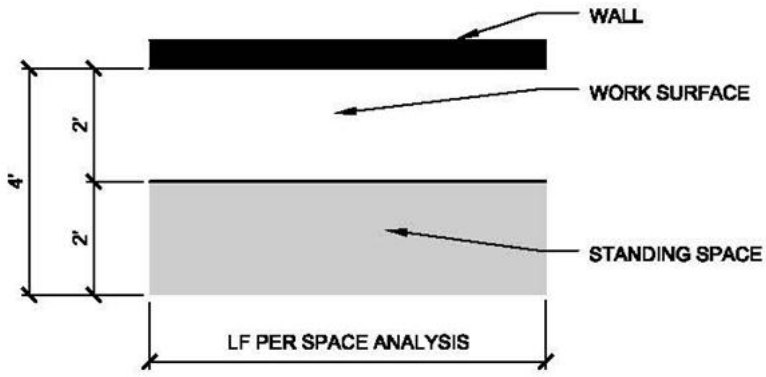


SPACE STANDARDS (OFFICE FUNCTIONS)

OCT-1 Office Countertop Equipment

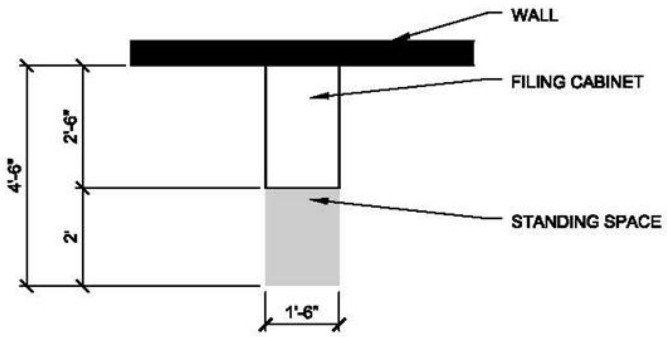


OCT-2 Office Countertop Work Space

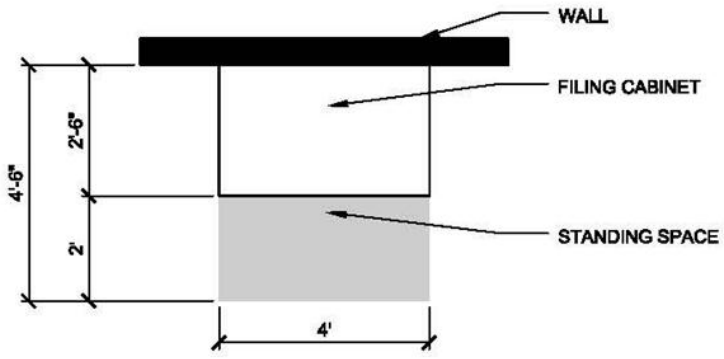


SPACE STANDARDS (OFFICE FUNCTIONS)

FC-1 Filing Cabinet
Vertical File

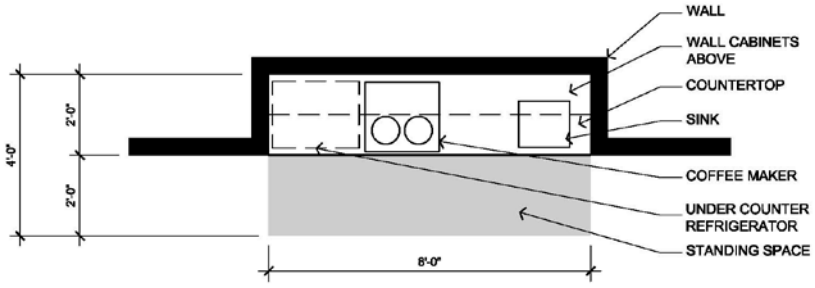


FC-2 Filing Cabinet
Lateral File

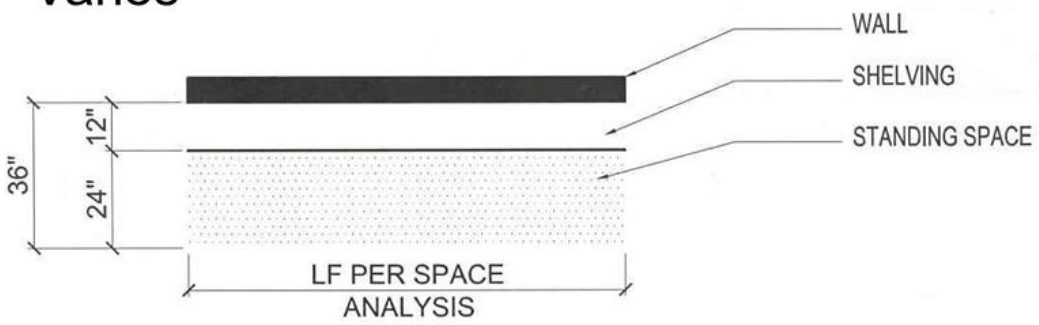


SPACE STANDARDS
(OFFICE FUNCTIONS)

CB-1 Coffee Bar
32 SF

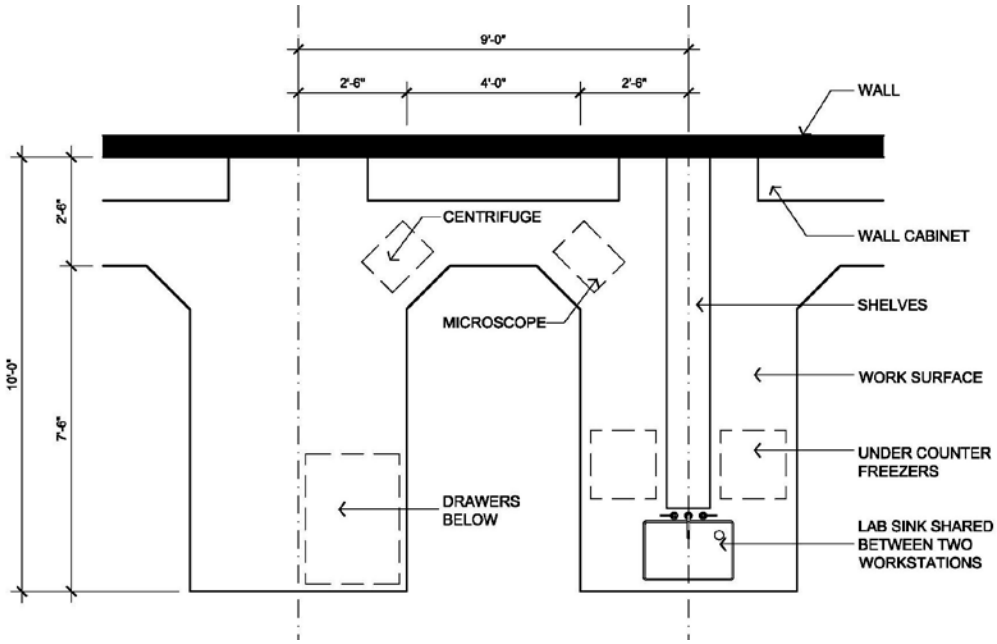


RS-1 Reference Shelving
Varies



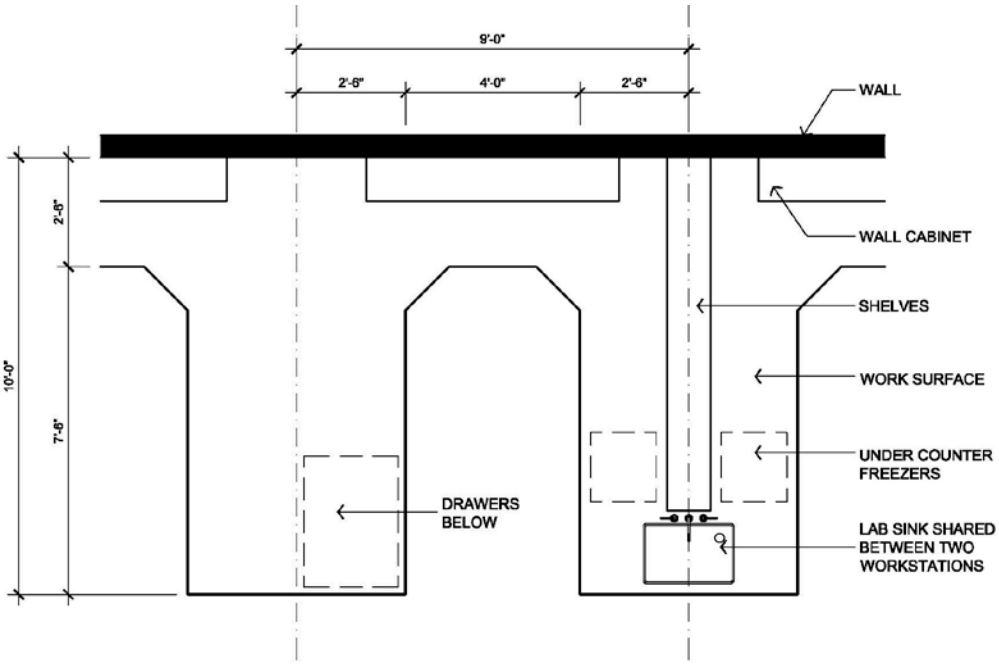
SPACE STANDARDS
(LAB FUNCTIONS)

LWS-1 Laboratory Workstation
90 SF (Biology / DNA)



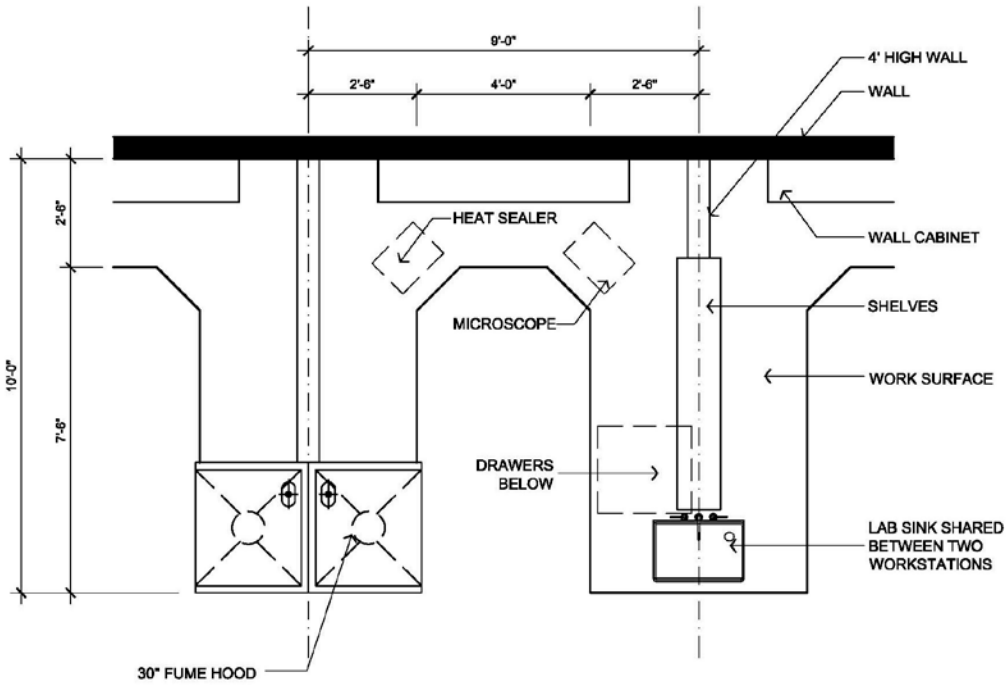
SPACE STANDARDS
(LAB FUNCTIONS)

LWS-1A Laboratory Workstation
90 SF (CODIS)



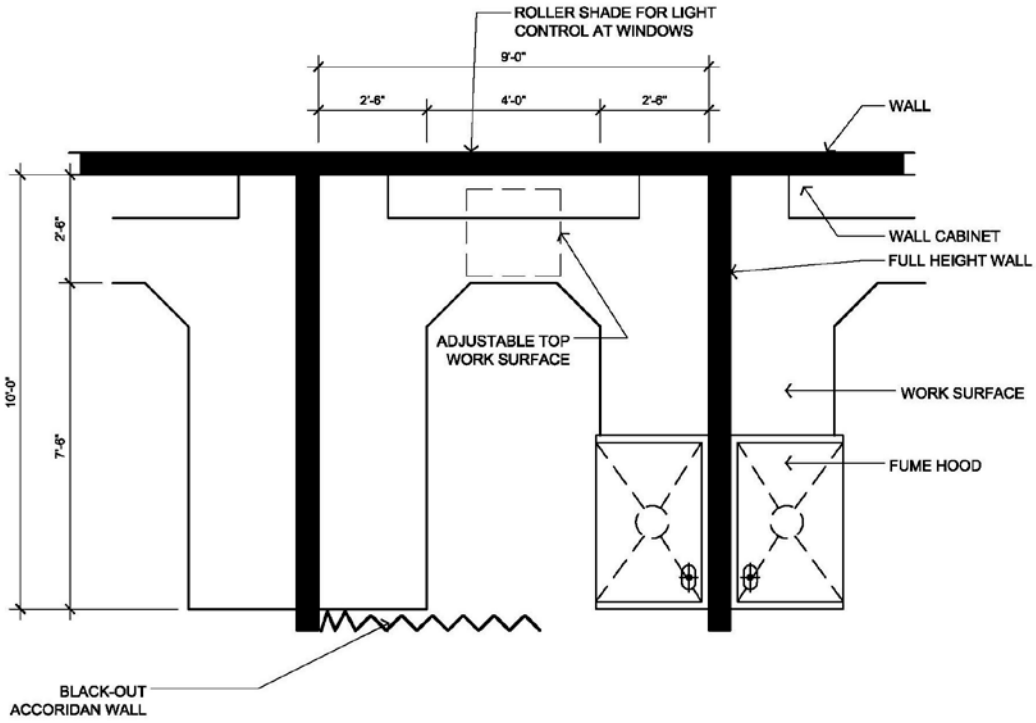
SPACE STANDARDS
(LAB FUNCTIONS)

LWS-2 Laboratory Workstation
90 SF (Controlled Substances)



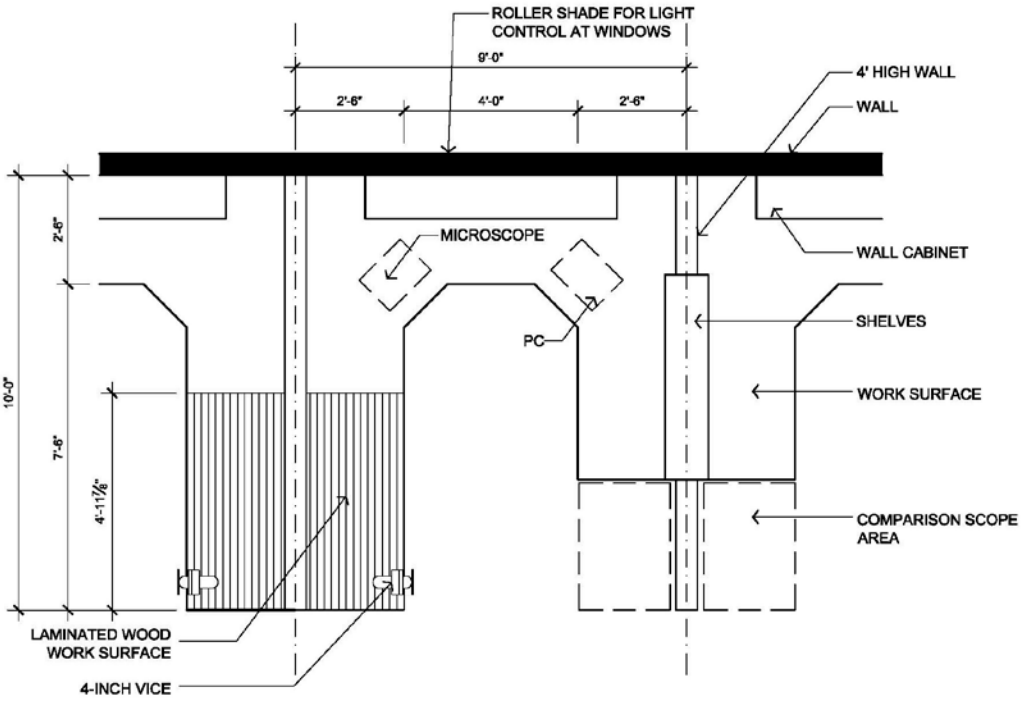
SPACE STANDARDS
(LAB FUNCTIONS)

LWS-3 Laboratory Workstation
90 SF (Latent Prints)



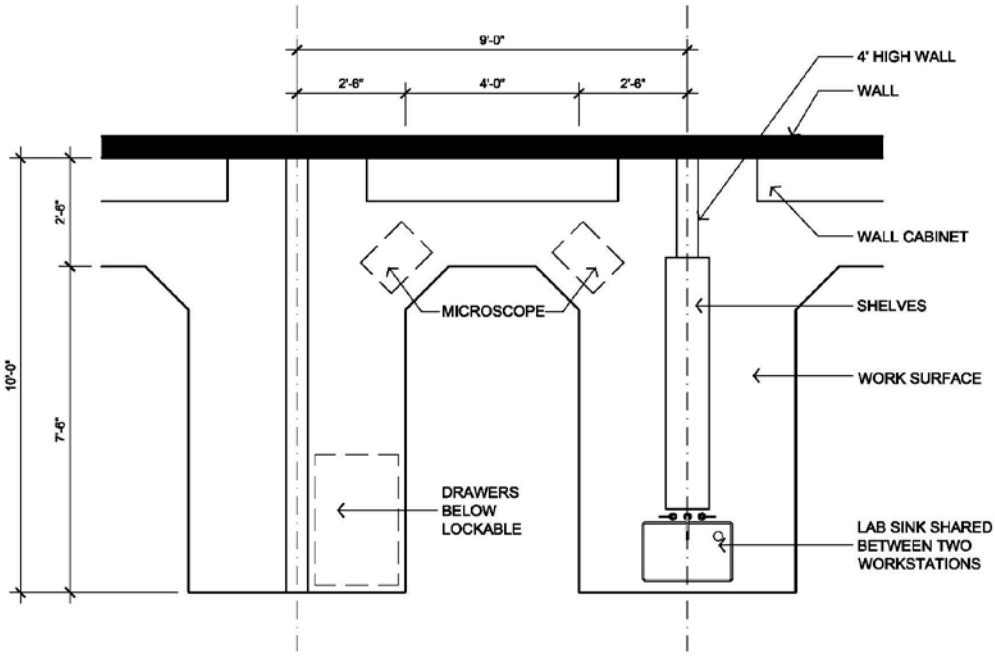
SPACE STANDARDS
(LAB FUNCTIONS)

LWS-4 Laboratory Workstation
90 SF (Firearms)



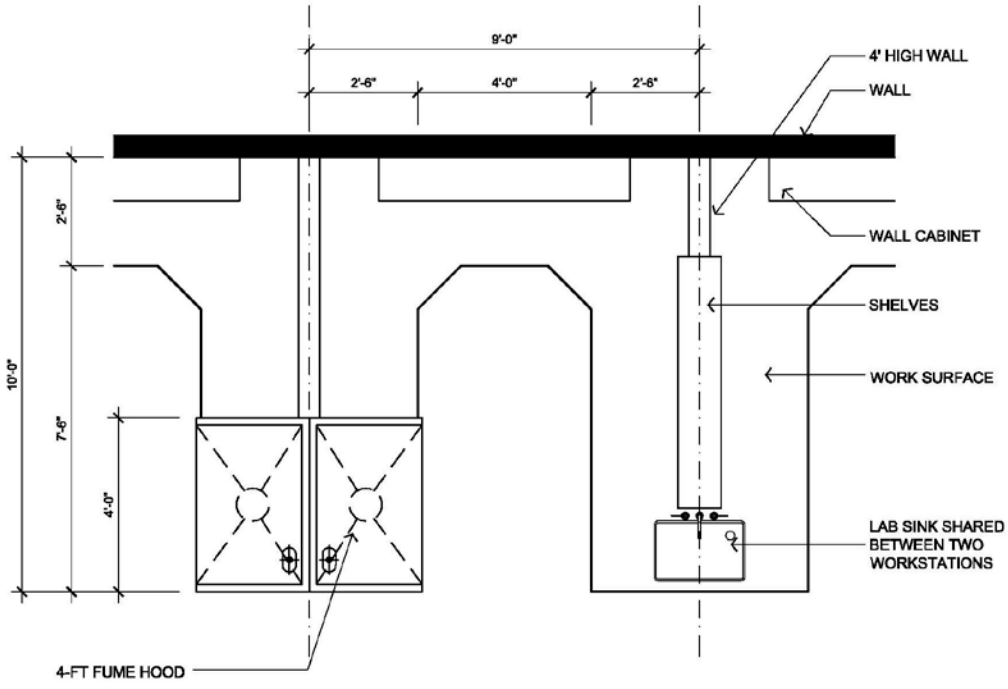
SPACE STANDARDS
(LAB FUNCTIONS)

LWS-5 Laboratory Workstation
90 SF (Trace)



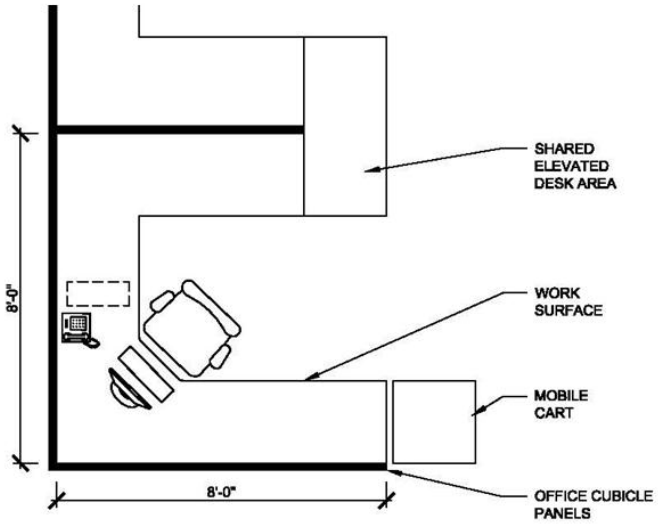
SPACE STANDARDS
(LAB FUNCTIONS)

LWS-6 Laboratory Workstation
90 SF (Toxicology)

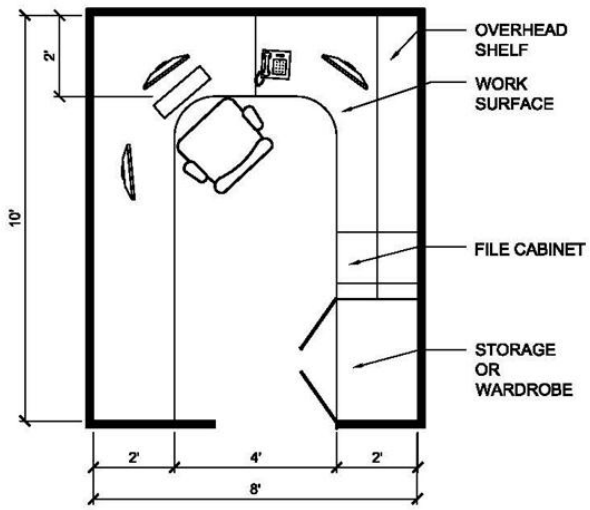


SPACE STANDARDS
(LAB FUNCTIONS)

LWS-7 Laboratory Workstation
64 SF (Evidence)

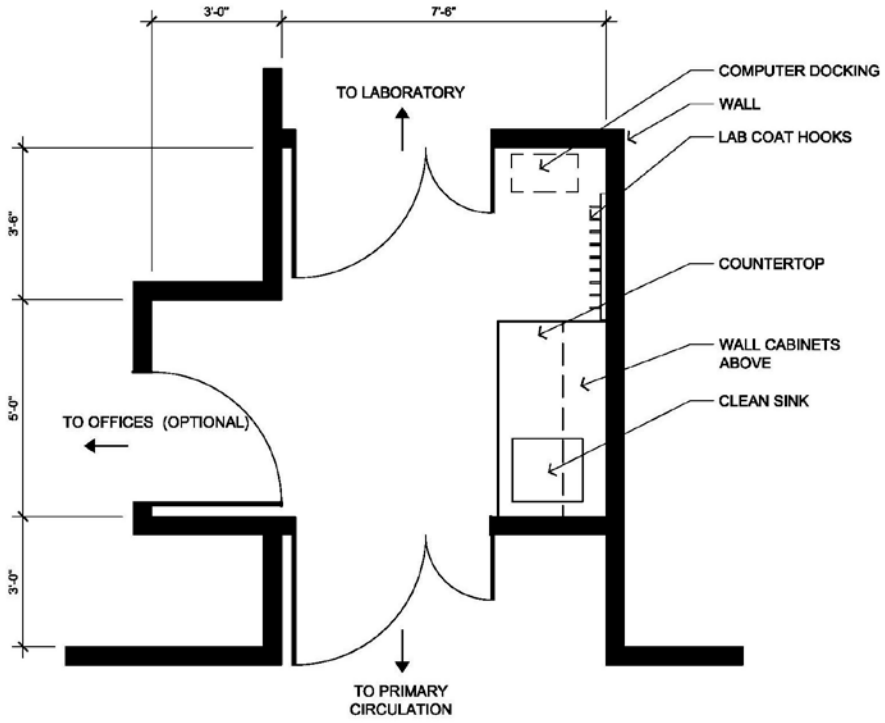


LWS-8 Laboratory Workstation
80 SF (Computer Forensics)



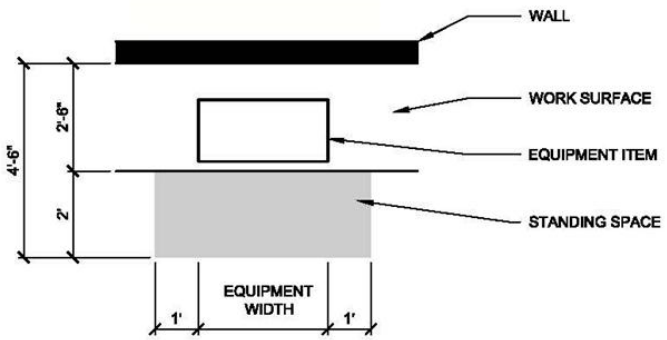
SPACE STANDARDS
(LAB FUNCTIONS)

BV-1 Bio-Vestibule
64 SF

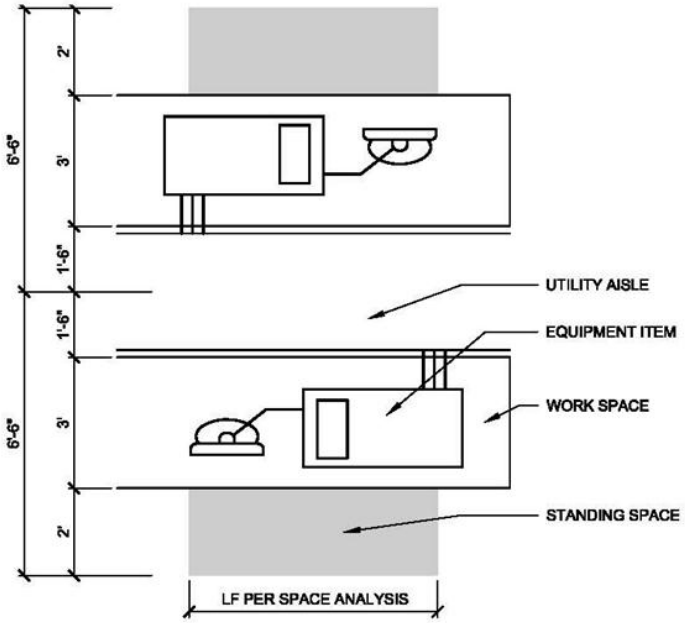


SPACE STANDARDS (LAB FUNCTIONS)

LCT-1 Lab Countertop
Equipment

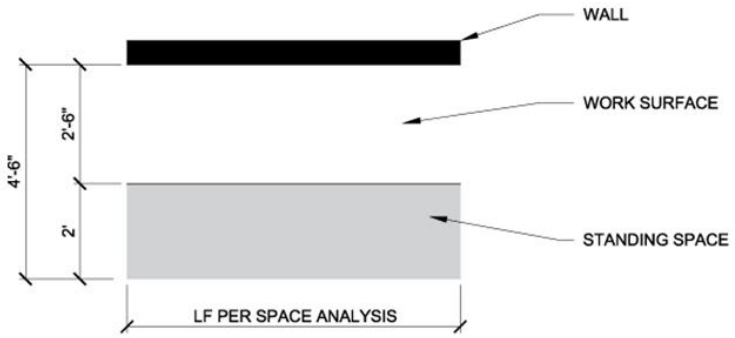


LCT-2 Lab Countertop
Rear Access Equipment



SPACE STANDARDS
(LAB FUNCTIONS)

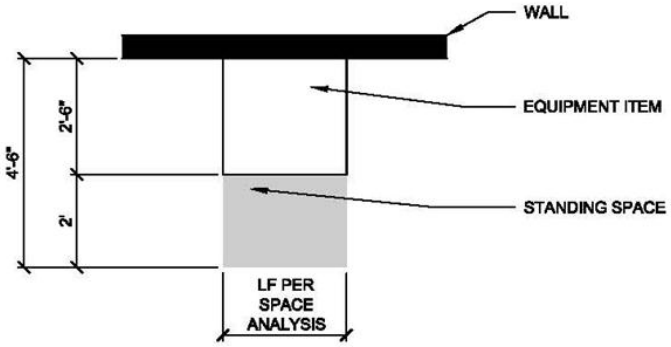
LCT-3 Lab Countertop
Shared Bench Space



SPACE STANDARDS (LAB FUNCTIONS)

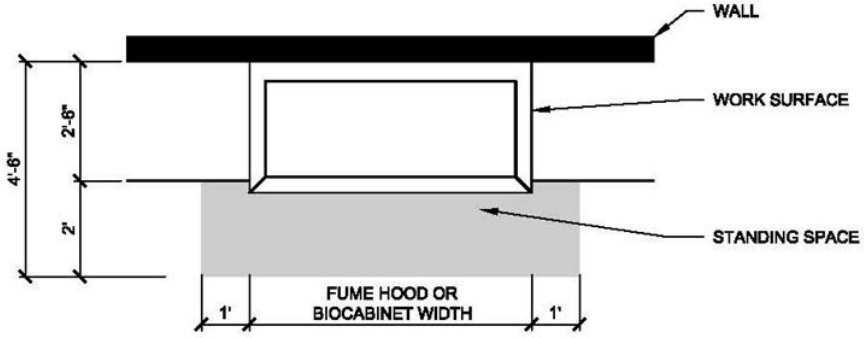
LE-1 Lab Equipment

Floor Standing Equipment



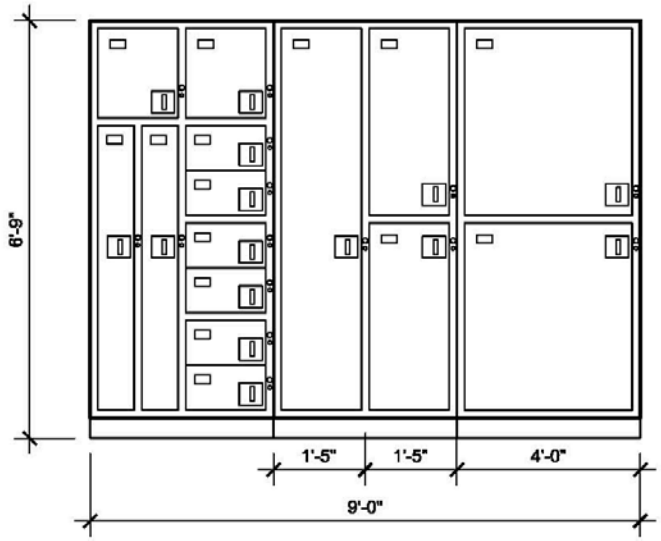
LE-2 Lab Equipment

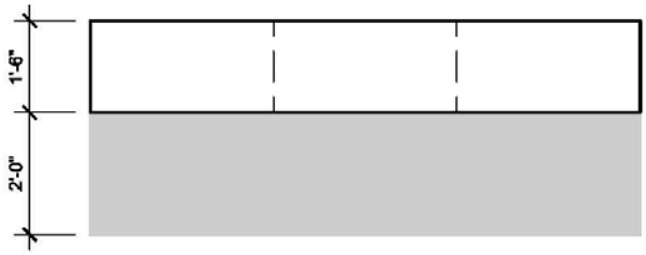
Fume Hood or Biosafety Cabinet



SPACE STANDARDS
(LAB FUNCTIONS)

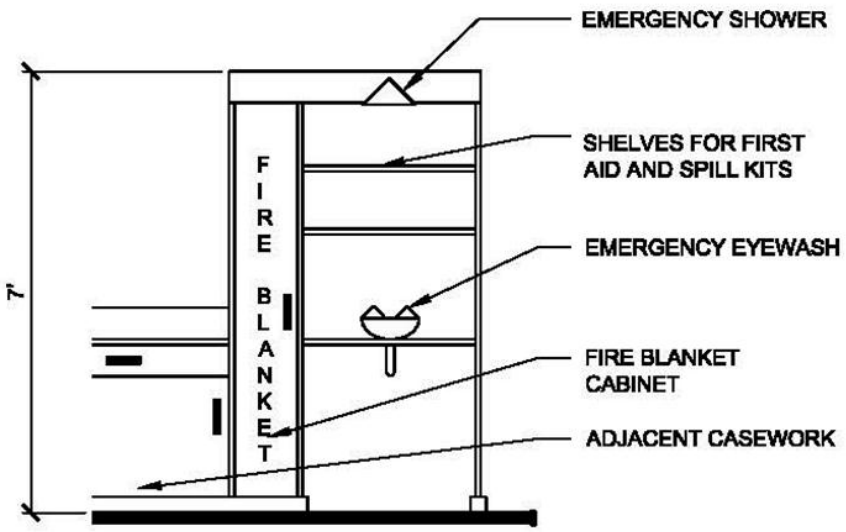
LE-3 Lab Equipment
32 SF (Evidence Lockers)

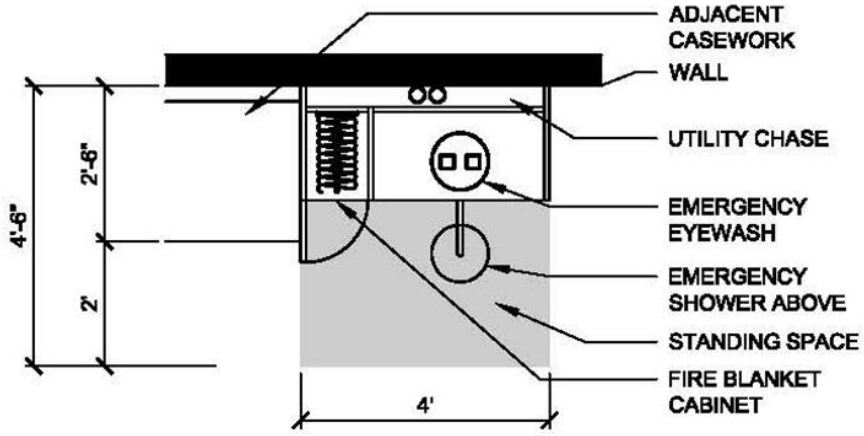




SPACE STANDARDS
(LAB FUNCTIONS)

SS-1 Safety Station
18 SF

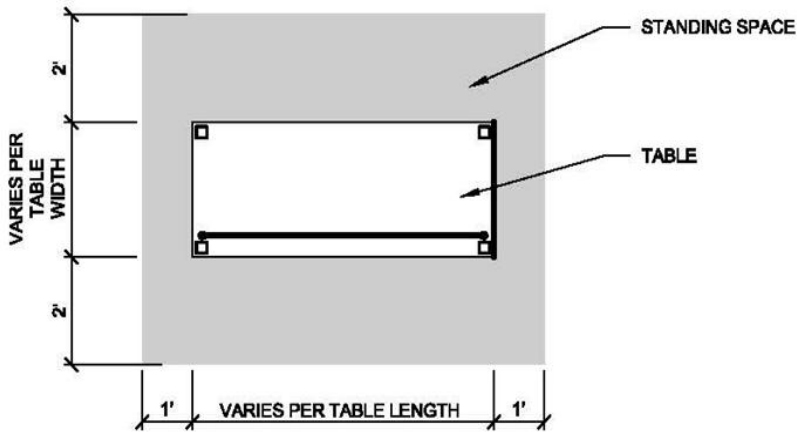


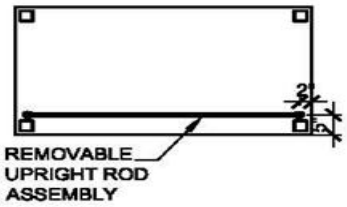


SPACE STANDARDS
(LAB FUNCTIONS)

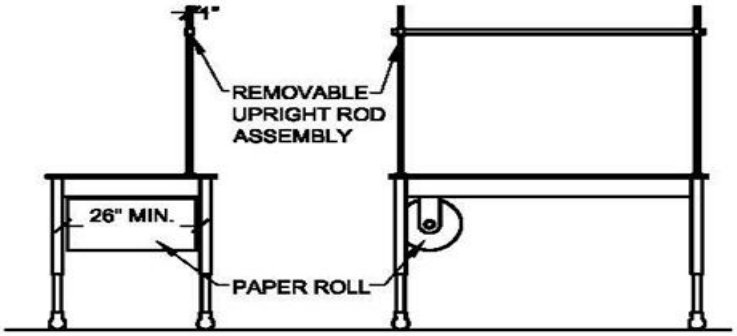
ET-1 Exam Table

Varies





PLAN VIEW



SIDE VIEW FRONT VIEW

6.5 ADJACENCY DIAGRAMS

This section of the Program Statement addresses the adjacency relationships of rooms, or spaces, within the building. In order to function properly and efficiently it is necessary to locate a certain space or area adjacent to another space or area.

The following pages illustrate adjacency diagrams for the whole building, and additional adjacency diagrams for each section within the crime laboratory.

The diagrams consist of round or rectangular "bubbles" in which spaces, areas, or rooms within the building are identified. The bubbles are then connected with solid black lines to show personnel connection or circulation among the spaces. Adjacency diagrams are frequently referred to as "bubble diagrams."

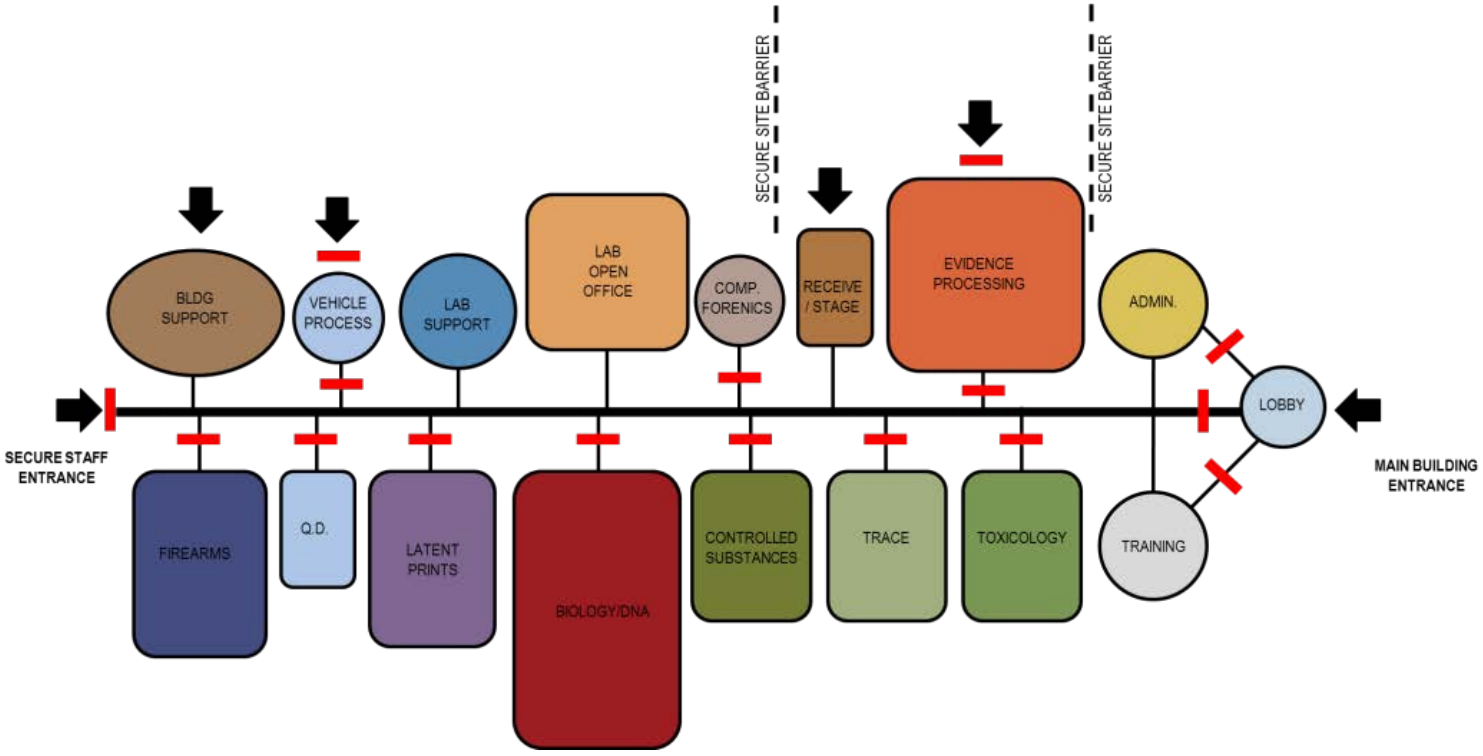
In order to fully comprehend an adjacency diagram, it is necessary to understand some of the rules pertaining to such diagrams.

1. It is not a floor plan. The adjacency diagram should not in any way be construed to consist of a floor plan or anything related to a floor plan. The diagram is intended simply to show proximity relationships between spaces.

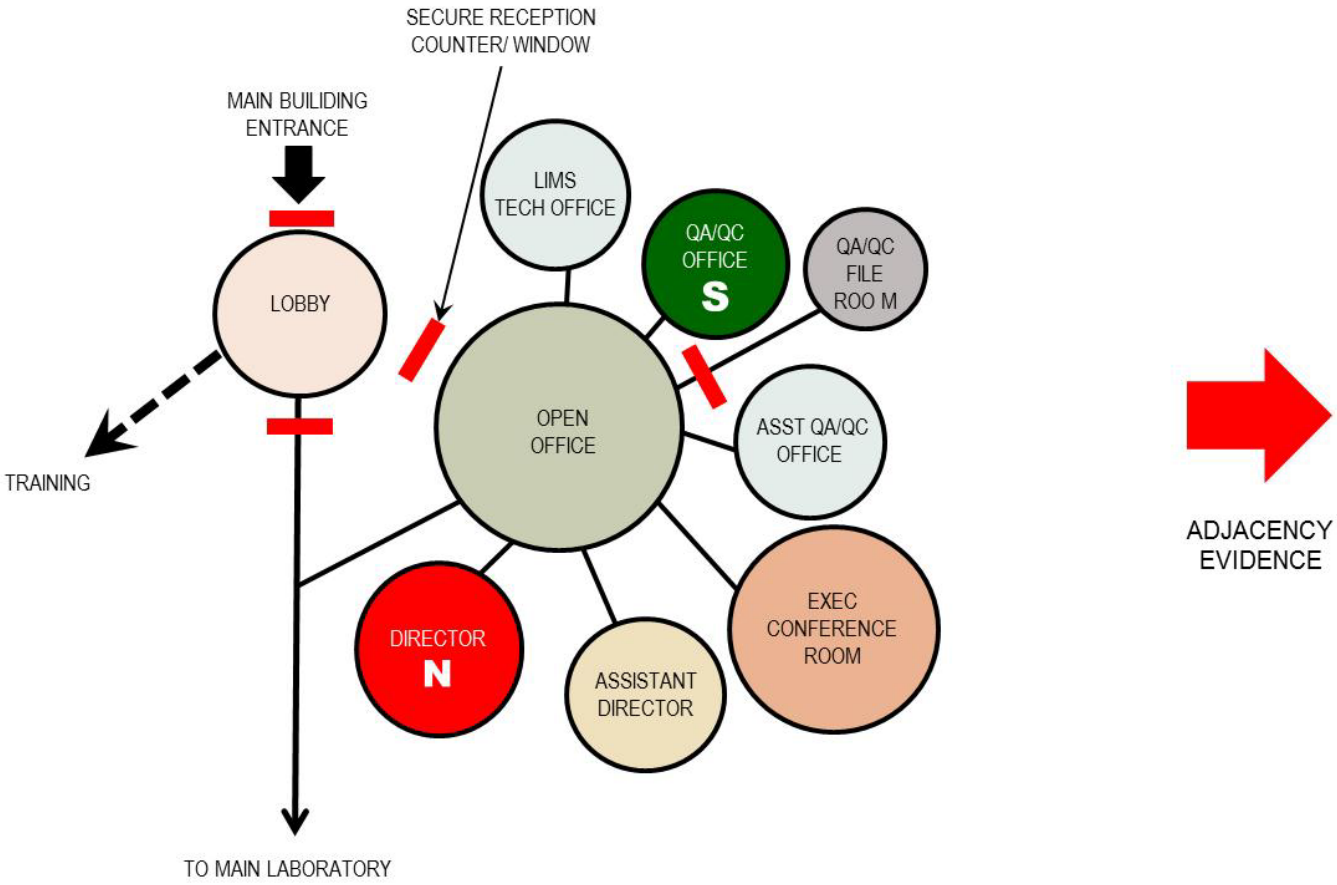
2. It is not proportional. Although the bubbles vary in size with the smaller spaces shown in small bubbles, and larger spaces shown in larger bubbles, the diagram is not intended to show a proportional representation of the spaces. The bubbles are shown in various sizes merely as a convenient way to incorporate the bubbles on a single page and in an orderly fashion.

3. No building support spaces. The adjacency diagrams show only those spaces programmed in the Space and Staff Needs Analysis of this report. Utility spaces such as mechanical rooms, electrical rooms and telecommunications rooms are not shown on the adjacency diagrams.

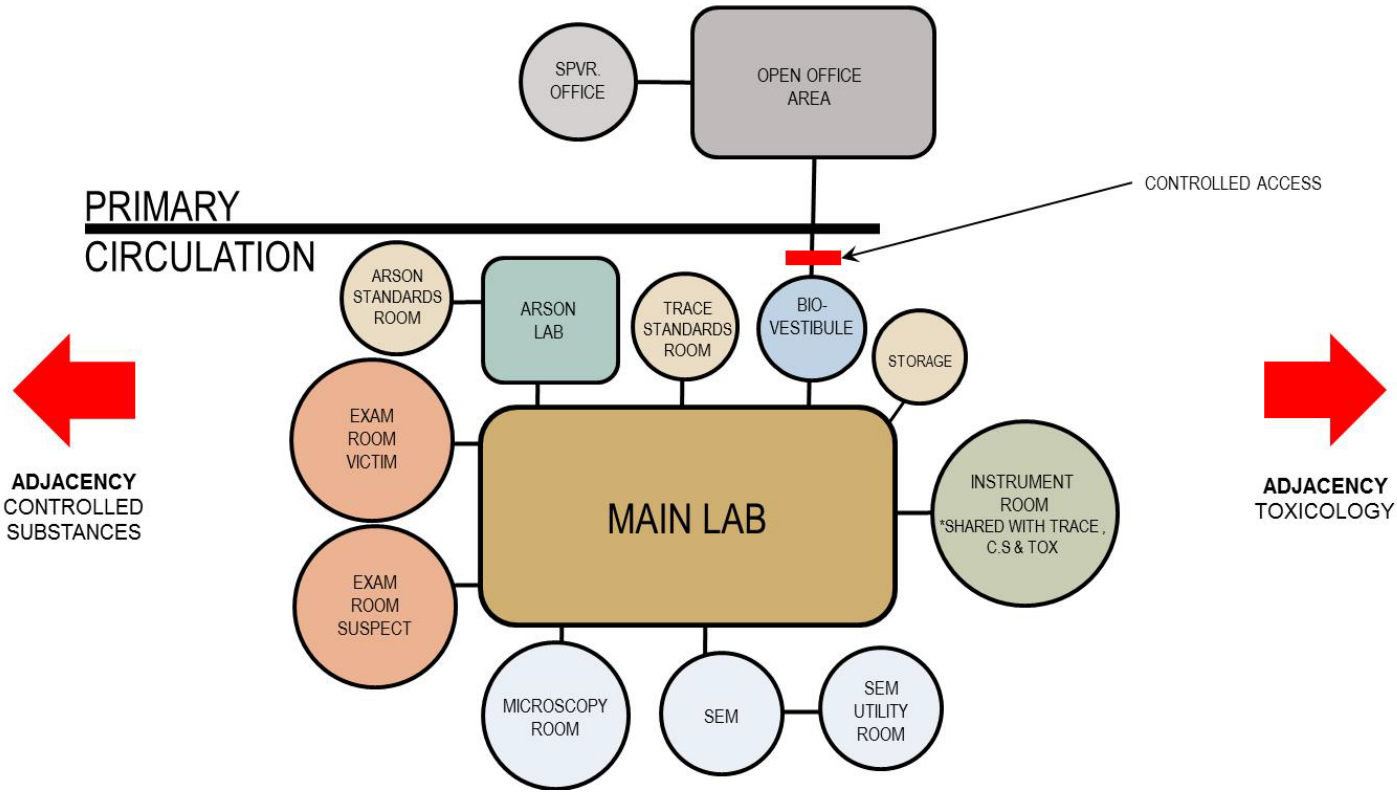
OVERALL BUILDING



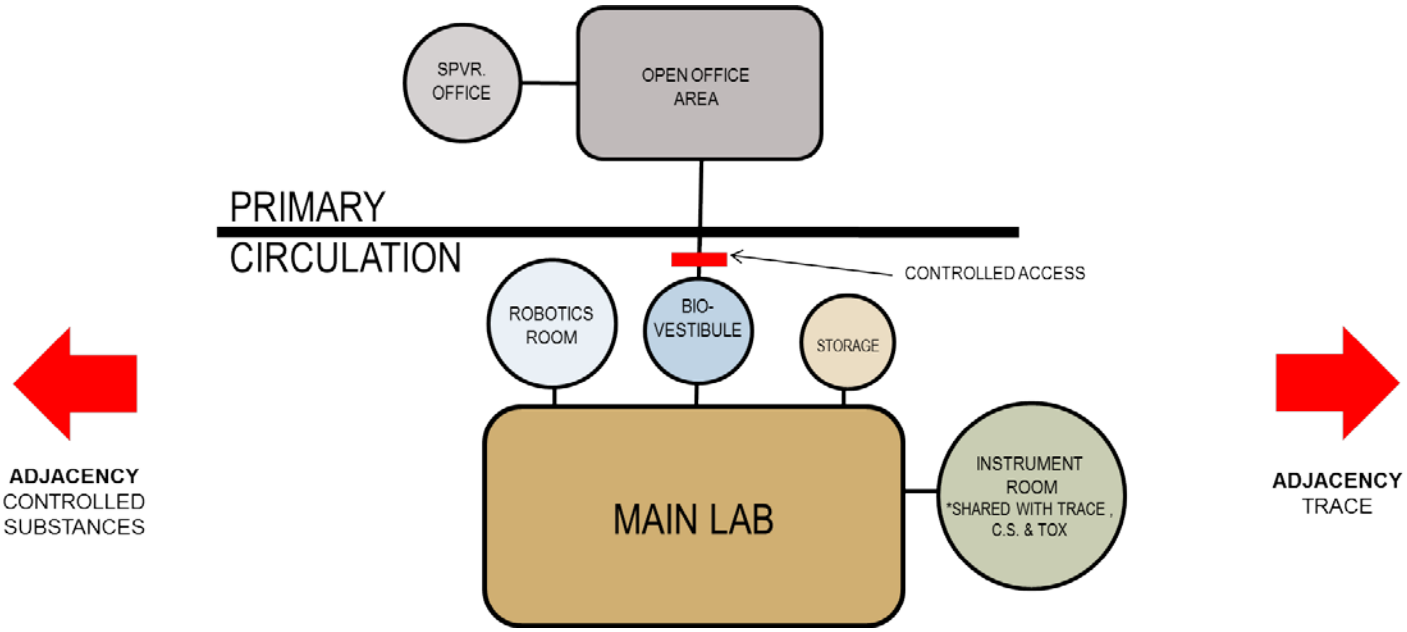
LAB ADMINISTRATION



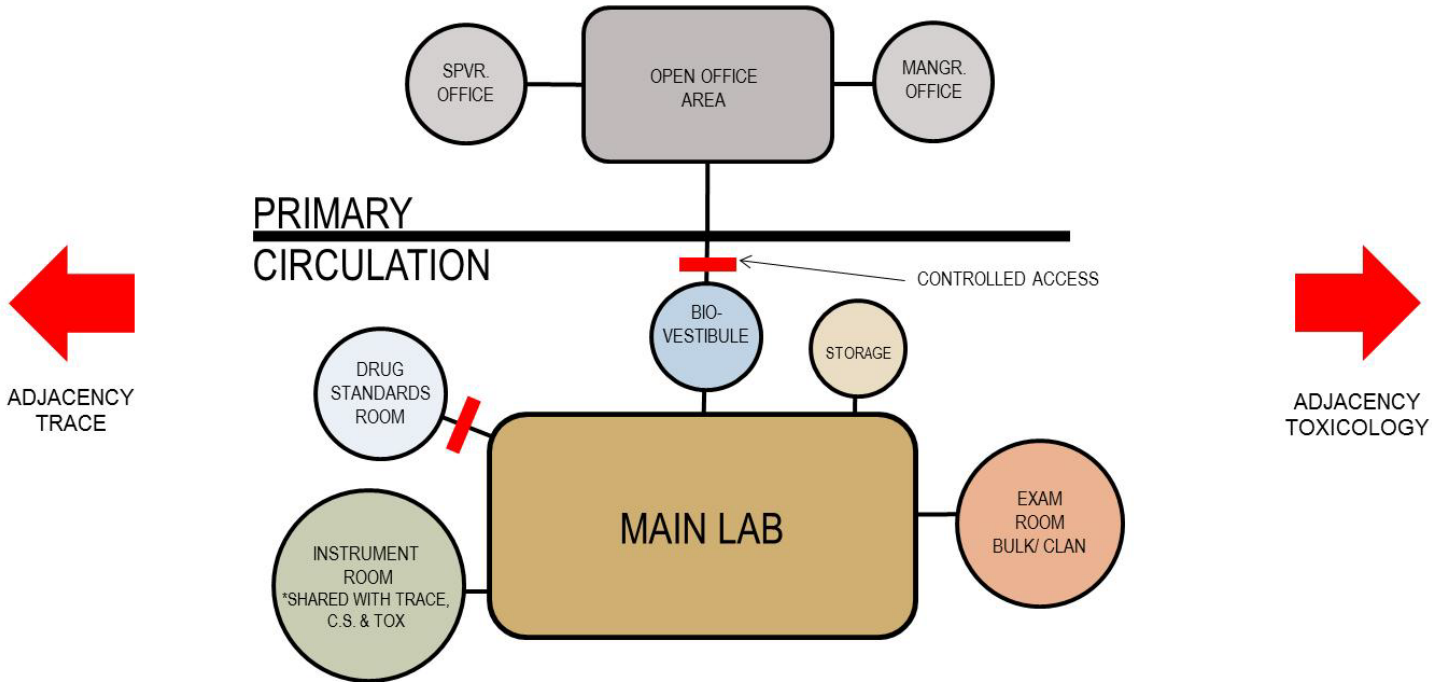
CHEMISTRY - TRACE



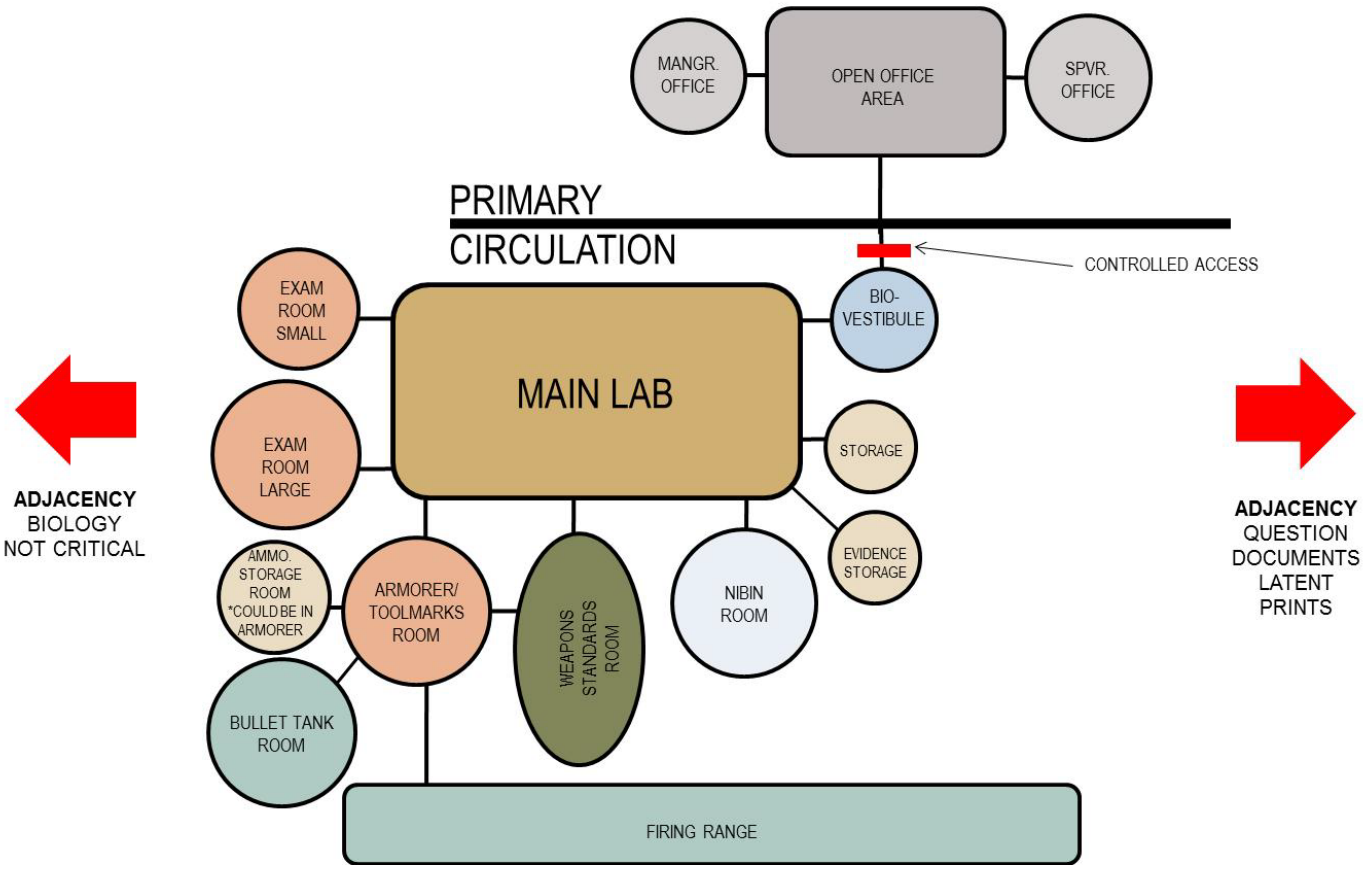
TOXICOLOGY


SPVR. OFFICE
OPEN OFFICE AREA
PRIMARY CIRCULATION
CONTROLLED ACCESS
ROBOTICS ROOM
BIO-VESTIBULE
STORAGE
MAIN LAB
INSTRUMENT ROOM *SHARED WITH TRACE, C.S. & TOX
ADJACENCY CONTROLLED SUBSTANCES
ADJACENCY TRACE

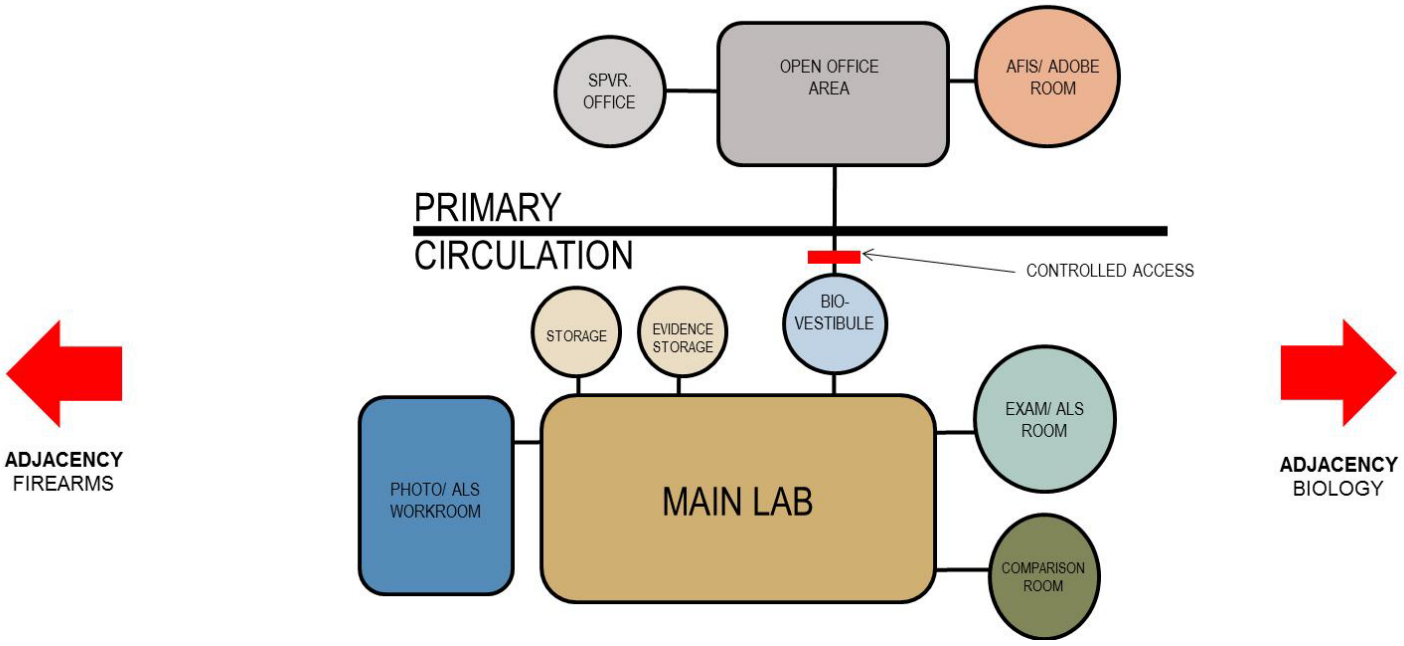
CONTROLLED SUBSTANCES



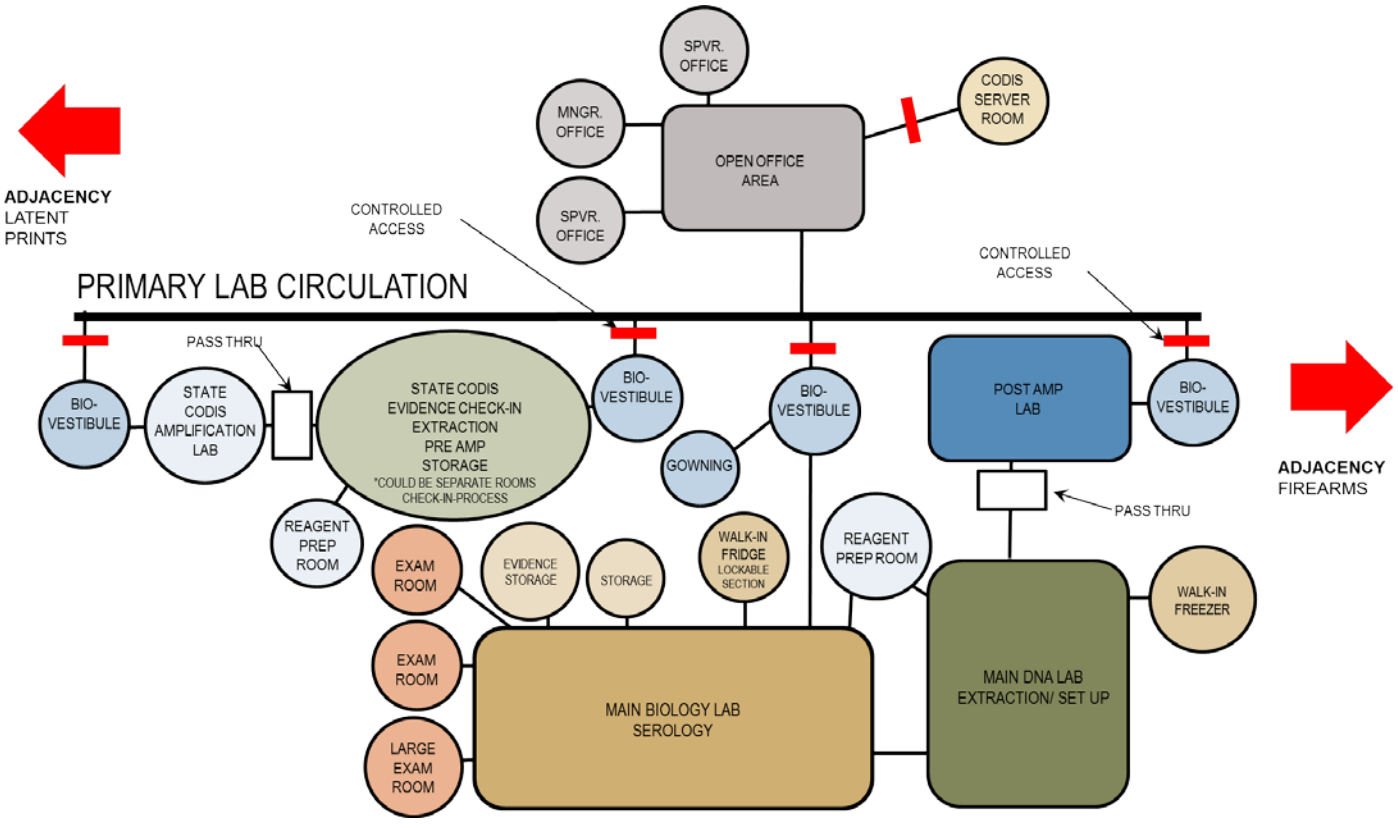
FIREARMS


MANGR. OFFICE
OPEN OFFICE AREA
SPVR. OFFICE
PRIMARY CIRCULATION
CONTROLLED ACCESS
EXAM ROOM SMALL
BIO-VESTIBULE
MAIN LAB
EXAM ROOM LARGE
STORAGE
EVIDENCE STORAGE
AMMO. STORAGE ROOM *COULD BE IN ARMORER
ARMORER/ TOOLMARKS ROOM
WEAPONS STANDARDS ROOM
NIBIN ROOM
BULLET TANK ROOM
FIRING RANGE
ADJACENCY BIOLOGY NOT CRITICAL
ADJACENCY QUESTION DOCUMENTS LATENT PRINTS

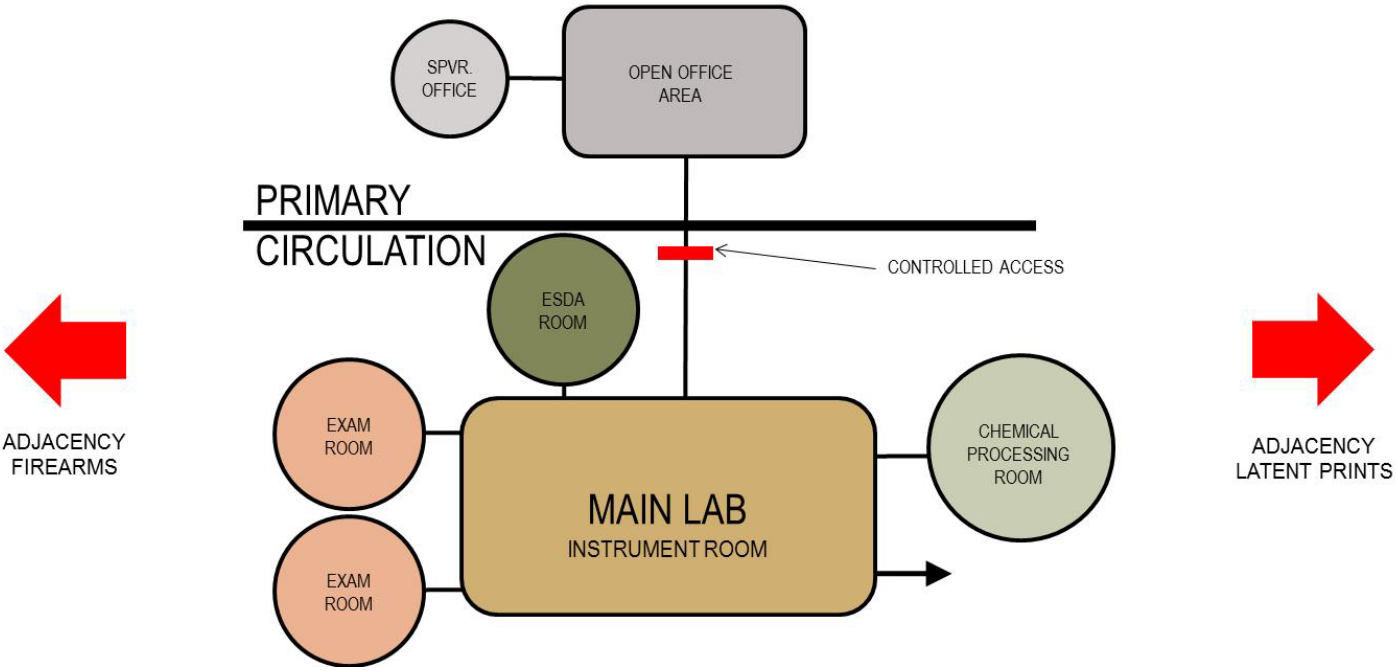
LATENT PRINTS



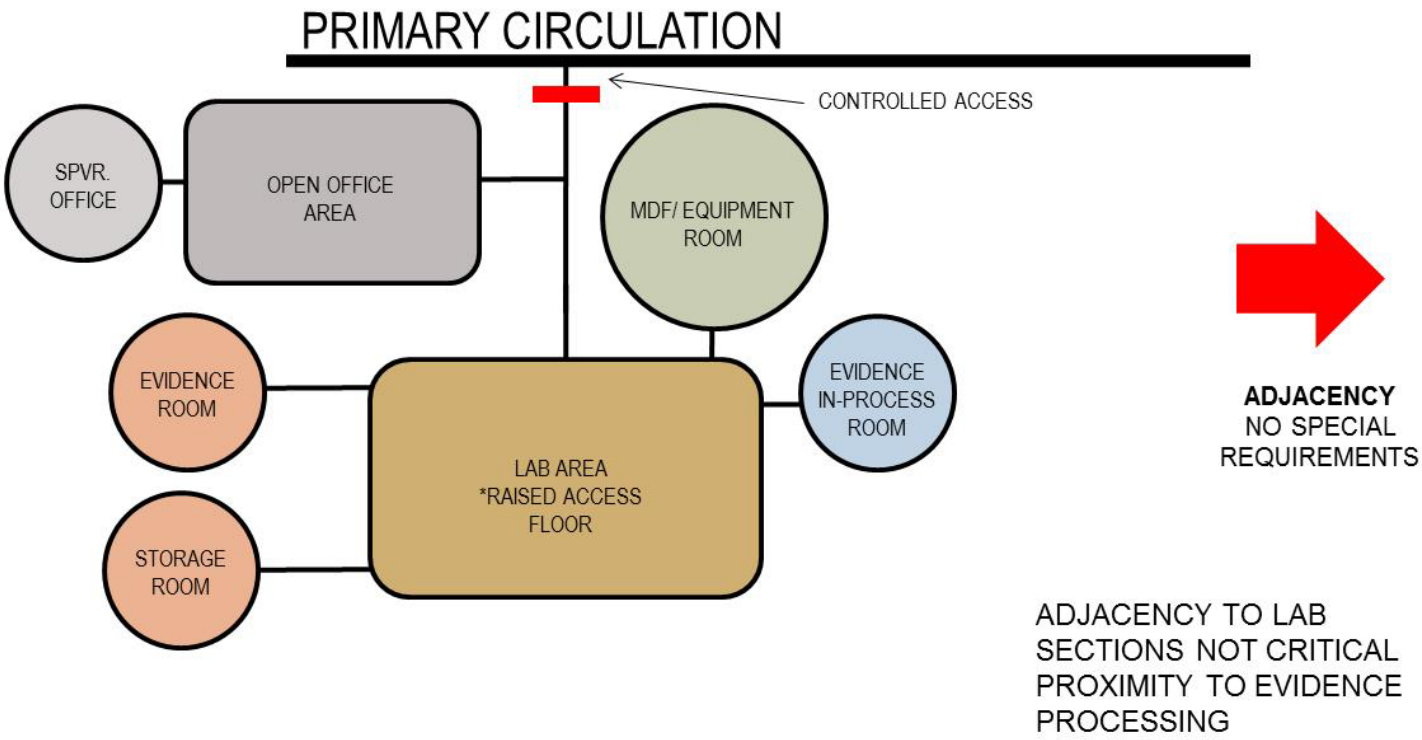
BIOLOGY / DNA


ADJACENCY
LATENT
PRINTS
SPVR.
OFFICE
MNGR.
OFFICE
SPVR.
OFFICE
OPEN OFFICE
AREA
CODIS
SERVER
ROOM
CONTROLLED
ACCESS
CONTROLLED
ACCESS
PRIMARY LAB CIRCULATION
PASS THRU
BIO-
VESTIBULE
STATE
CODIS
AMPLIFICATION
LAB
STATE CODIS
EVIDENCE CHECK-IN
EXTRACTION
PRE AMP
STORAGE
*COULD BE SEPARATE ROOMS
CHECK-IN-PROCESS
BIO-
VESTIBULE
BIO-
VESTIBULE
GOWNING
POST AMP
LAB
BIO-
VESTIBULE
ADJACENCY
FIREARMS
PASS THRU
REAGENT
PREP
ROOM
EXAM
ROOM
EVIDENCE
STORAGE
STORAGE
WALK-IN
FRIDGE
LOCKABLE
SECTION
REAGENT
PREP ROOM
WALK-IN
FREEZER
EXAM
ROOM
MAIN BIOLOGY LAB
SEROLOGY
MAIN DNA LAB
EXTRACTION/ SET UP
LARGE
EXAM
ROOM

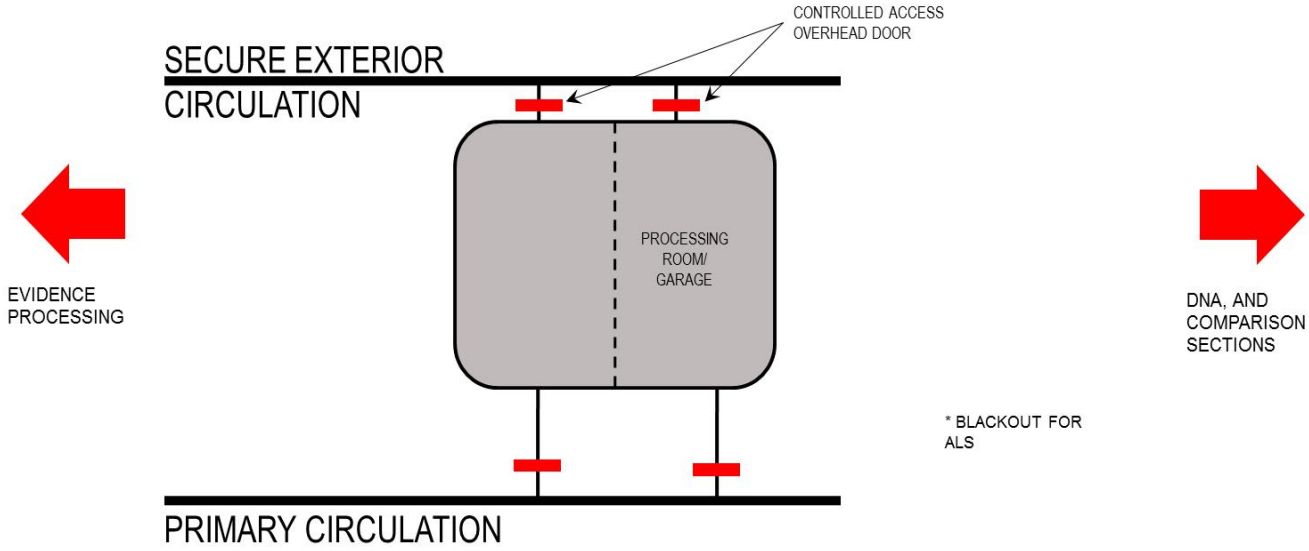
QUESTIONED DOCUMENTS



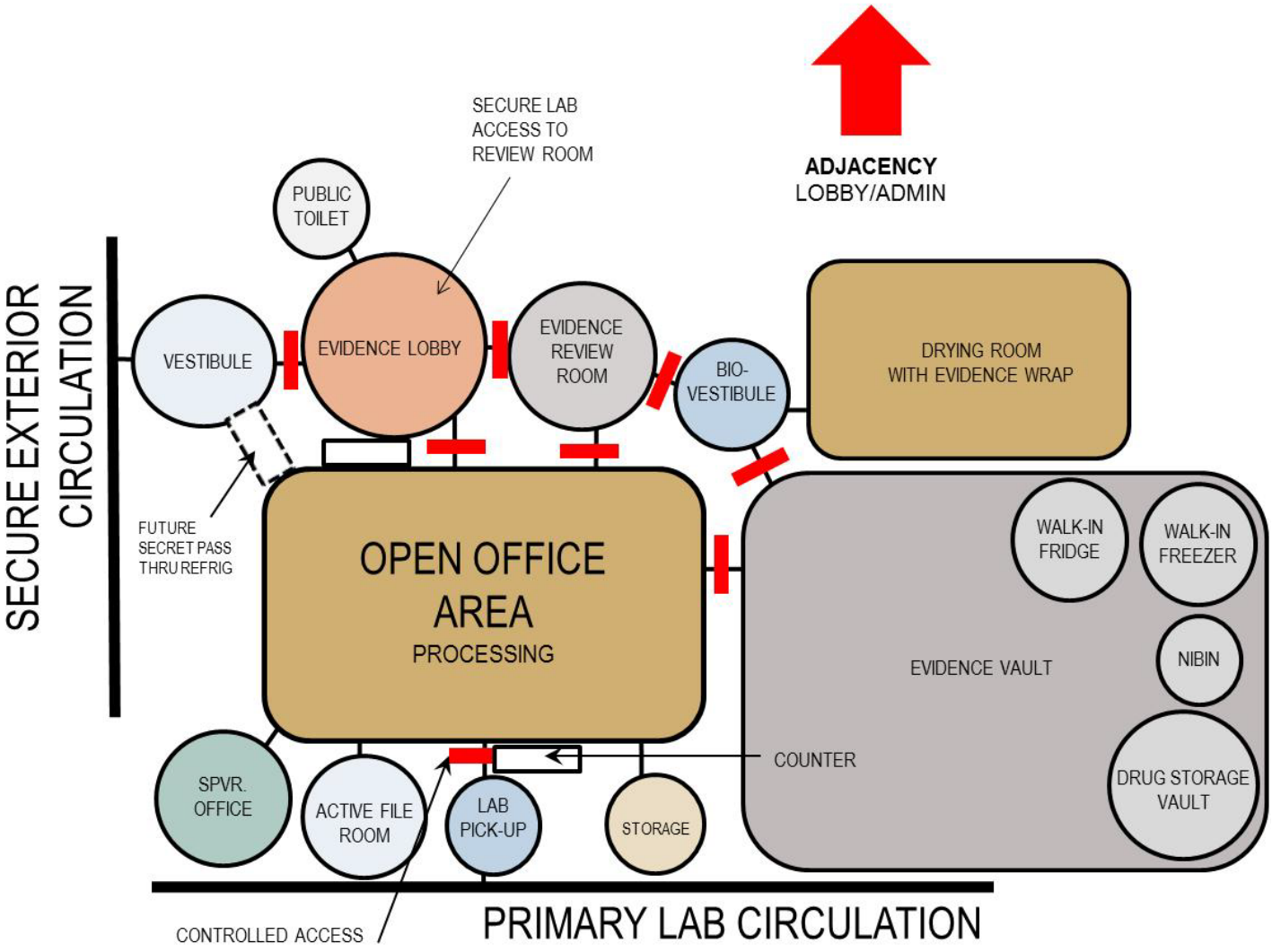
COMPUTER FORENSICS



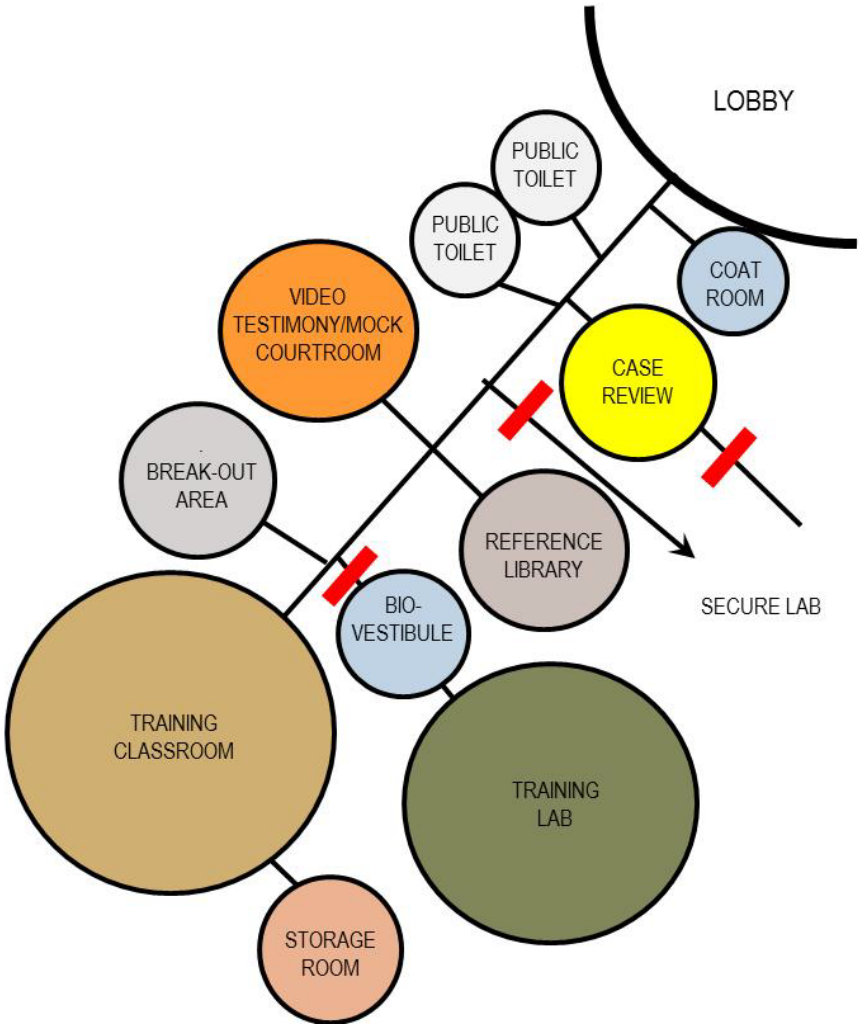
VEHICLE PROCESSING



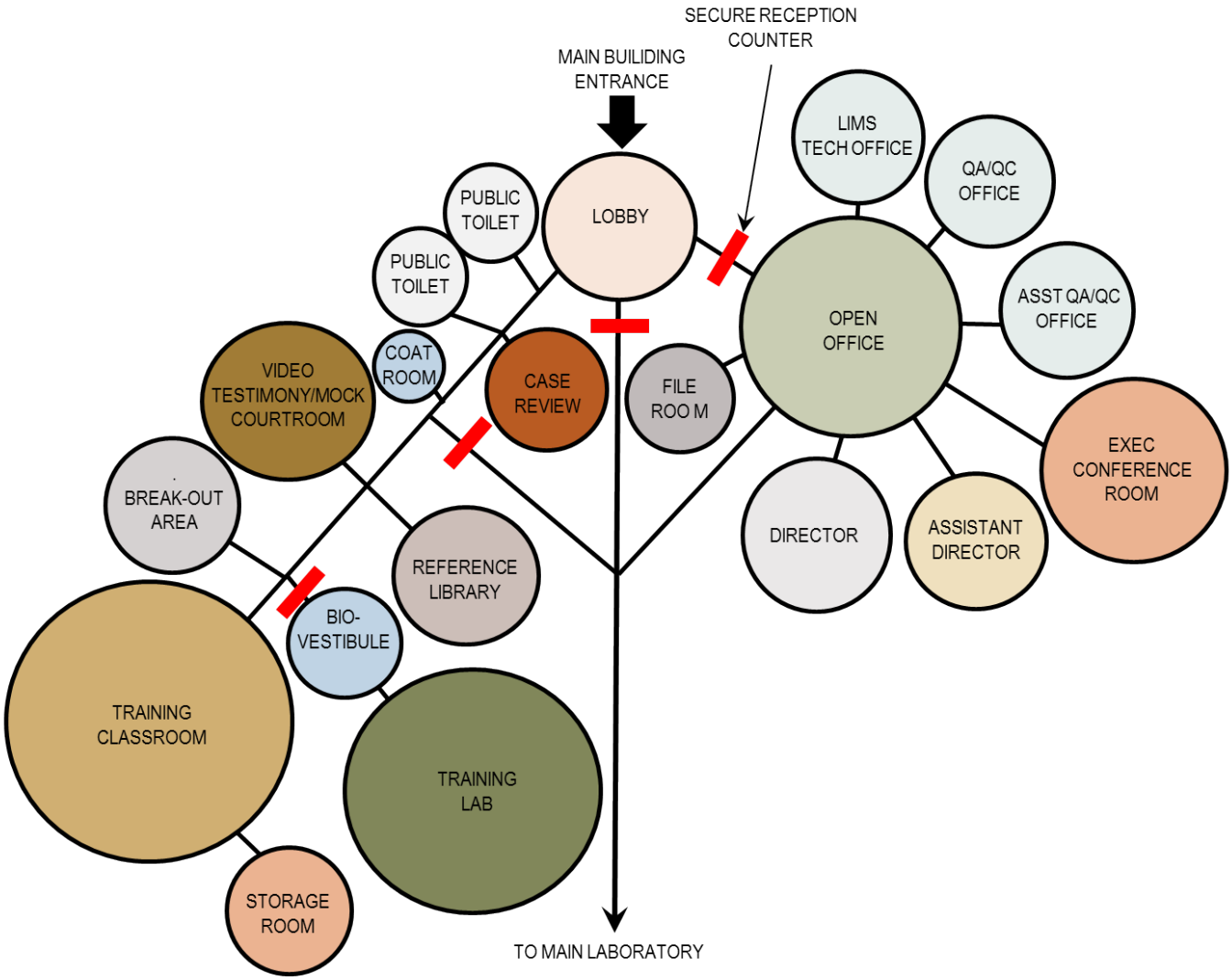
EVIDENCE PROCESSING



TRAINING (ISOLATED)



TRAINING (WITH ADMINISTRATION)



6.6 PROJECT REQUIREMENTS OVERVIEW

This section of the Program Statement provides the general requirements for the site and project. Information is first provided for a future site and is followed by requirements for the laboratory and the building. This is then followed up with the specific requirements for individual rooms within the facility in the form of Room Data Sheets.

6.7 Project Codes Required

6.8 Site Design Requirements
- Site - Environmental
- Site - Geotechnical Engineering
- Site - Civil Engineering
- Site – Overall Requirements
- Site - Landscape Architecture

6.9 Laboratory Design Criteria

6.10 Building Design Requirements
- Architecture Design Criteria
- Structural Design Criteria
- Acoustical Design Criteria
- Vibration Design Criteria

Note: Laboratory and Building MEP (Mechanical, Electrical and Plumbing) requirements are found in Section 8.

6.7 PROJECT CODES REQUIRED

Outlined in this section are the regulatory requirements this project will be required to conform with including: Building Codes, Zoning Regulations and Lab Accreditation Standards.

Building Code and Facility Review
- International Building Code, 2009 Edition
- International Mechanical Code, 2009 Edition
- International Energy Conservation Code, 2003 Edition
- ASHRAE Guidelines
- Delete “International Fire Code, 2006 Edition”

- International Plumbing Code, 2009 Edition
- NFPA 101 Code and Life Safety Standards adopted by State Fire Marshal
- Occupational Safety and Health Administration Standards (OSHA)
- National Electrical Code, 2005 Edition

Local Zoning Review

Prior to site selection, the local zoning requirements need to be determined.

Accreditation Standards

ASCLD/LAB offers Accreditation under three (3) voluntary programs in which any crime laboratory may participate to demonstrate that its management, personnel, quality system, operational and technical procedures, equipment and physical facilities meet established standards.

ASCLD/LAB began accrediting crime laboratories in 1982. Since that time, the standards and requirements for accreditation have evolved through numerous versions of the accreditation manual. The evolution of standards and accreditation requirements has been very methodical and has been accomplished with approval of the Delegate Assembly. Every change in the program has been consistent with the stated objectives and mission of the accreditation program and has been the result of a recognized need to enhance the effectiveness of the program in achieving its stated objectives.

In April 2004, ASCLD/LAB embarked upon a dual-track accreditation program which allowed a laboratory to opt for accreditation under the longstanding program which was designated as the ASCLD/LAB Legacy Accreditation Program or to seek accreditation under a new program named the ASCLD/LAB-*International* Accreditation Program that is based upon ISO 17025 standards and supplemented by forensic specific requirements taken from the ASCLD/LAB Legacy Program. The option to seek accreditation under either program continued for five years. Effective April 1, 2009, ASCLD/LAB no longer accepts new applications for accreditation under the ASCLD/LAB Legacy Program.

Although ASCLD/LAB will no longer accept new applications for accreditation under the Legacy Program, full support and program compliance monitoring will be given to those laboratories accredited under the program. ASCLD/LAB will accept applications to add new accredited disciplines under the Legacy Program for those laboratories that are accredited under the program.

On May 18, 2008, ASCLD/LAB introduced a new accreditation program for breath alcohol calibration laboratories called the ASCLD/LAB-*International* Calibration Accreditation Program. This program is based upon ISO 17025 standards supplemented by forensic specific standards for breath alcohol programs.

6.8 SITE DESIGN REQUIREMENTS

Site - Environmental

Once a site is selected, a Phase I Environmental Site Assessment will be required and will need to be in general conformance with ASTM E1527-05.

Site - Geotechnical Engineering

Once a site is selected, a geotechnical engineering report will need to be provided in order to properly design the foundation and building drainage systems. The Geotechnical Report at a minimum should address the following items:

- Discussion of general site conditions;
- Discussion of general subsurface conditions as encountered in the field exploration;
- Anticipated total and differential movements;
- Recommendations for lateral earth pressures for flexible shoring design;
- Discussion of minimum slope requirements for un-shored excavations;
- Recommendations of lateral earth pressures for design of rigid, below-grade walls;
- Recommendations for lateral load resistance and coefficient of sliding friction;
- Recommendations for site preparation, earthwork, and compaction specifications;
- Discussion of suitability for use of on-site soils as pipe bedding and/or backfill material;
- Discussion of excavatability of on-site soils;
- Discussion of basic pavement foundation design criteria;
- Recommendations for lateral earth pressures for retaining walls;
- Allowable soil bearing pressure.
- Slab-on-grade recommendations.
- Analysis of soil expansiveness. If expansive soils are present, provide remediation recommendations.

- Analysis of soil corrosiveness. If soil is corrosive, provide remediation recommendations.
- 2006 IBC site class definition and seismic design parameters.
- Earthwork preparation requirements beneath footings and slab-on-grade.
- Groundwater analysis.
- If the building requires a deep foundation system, recommendation as to the most appropriate type.

Site - Civil Engineering

Once a site is selected, the project civil engineering criteria should include at a minimum the following information:

- Identification of fill material of an approximate depth of between zero to ten feet high should be completed.
- A water Quality Management Plan will be required as part of the development of the proposed property. Project development will include the use of on-site retention systems to reduce runoff from the site.
- Existing and proposed water and sewer lines.
- Existing and proposed gas line(s).
- Existing and proposed storm sewer lines.
- Existing and proposed fire water lines.
- Existing and proposed electrical lines.
- Existing and proposed telephone and communication lines.

Site - Overall Requirements

Site access:

Design the site in such a way that access is provided from at least two directions. This is required in order to ensure access to the site despite traffic accidents, street work, and acts of sabotage, and also to maximize the free flow of traffic to and from the site.

Site Security:

It is recommended that the site design provide four levels of security for the site. These security levels are as follows:

- Level 1, unsecured site area: The level 1 unsecured site area, located outside the facility security zone, accommodates general visitor parking and allows these visitors to enter and leave the parking area without security barriers.

- Level 2, Partially Secured. This parking area should be fenced, and would be used by people having the type of business at the facility which would require special vehicular access. Access to shipping/receiving, venders picking up biological and toxic waste, dumpster replacement, and police officers delivering evidence might use this parking area. It is considered "partially" secured, because it should be fenced and gated, with the gate left open during working hours, and locked after hours.
- Level 3, Secured. Parking for staff, state vehicles, pool cars and other specialized law enforcement vehicles should be parked in the Level 3 parking area. It should be secured 24 hours, surrounded by a security fence, and access to the parking area should be restricted, preferably by use of a proximity access device.
- Level 4, Secured and Monitored. : Mechanical, electrical and other outside building support systems will be included in this area. It should include a security fence, with access to only a selected few. In addition, the area should be covered with electronic security devices such as CCTV or intrusion detection devices and should be electronically monitored.

Site lighting:

Include site lighting that is comparable to that of a college campus offering night classes. This facility has been programmed to be available to the public after normal working hours and although it will have secured perimeter fencing, adequate lighting is required in order to deter vandalism and help maintain security.

- Provide excellent lighting to all areas of the site, not just the parking areas.
- Avoid wall washer lighting fixtures which illuminate the building walls. Instead, direct site lighting to illuminate the ground plane which surrounds the building and areas of possible intrusion.
- Provide path lighting.

Site - Landscape Architecture

Described below is a summary of systems and design criteria for landscape architecture. The descriptions reference a minimum level of quality, operation and maintenance. Actual design and item selections may change during the design process. The design criteria includes:

- Plant Material
- Irrigation System
- Hardscape
- Sustainability
- Design Considerations

Plant Material

Plant selection shall be based on the plant's adaptability to the region. Landscape design will be coordinated with the architectural characteristics of the building and community where the facility is located. The use of native plant material for the building shall be incorporated into the design. The plant palette and placement will be attentive to the color, texture, materials, and program of the building.

Irrigation System

An irrigation system shall be specified to water plants when needed utilizing drip irrigation so water can be conserved. Reliable and proven system components will be specified to ensure a durable and relatively maintenance free system is installed that conforms to local standard practices.

- The components of the new drip irrigation systems will include a meter, backflow preventer, electric control valves, emitters, controller, and rain sensor. The rain sensor will shut the system off when humidity reaches a set point.
- Major components of the irrigation system shall be installed in protected, accessible locations. Controllers and remote sensing stations will be placed in vandal-proof enclosures.
- Drip emitters ensure that the water is deposited directly to the root zones with little loss to evaporation. The low-flow of this type of system eliminates excess water run-off common to other types of irrigation systems.
- The irrigation systems shall be zoned so different areas and plant types can be watered at different times.
- This combination of native and drought tolerant plant material as well as the highly efficient drip irrigation system will significantly reduce the amount of water needed from a more traditional landscape design.

Hardscape

Hardscape areas will generally consist of concrete and will be located on the site where the building personnel will congregate. Potential areas for the introduction of hardscape are at building entries, courtyards, and new walkways.

- A separate and secured area for the use of facility staff is anticipated that may include a grill area.

Sustainability

Low maintenance materials, non-invasive xeriscape and carefully designed storm water systems can help reduce costs and effort. Sustainable design benefits projects with healthier, longer lived plants that rely less on pesticides, herbicides and fertilizers, minimize water use, require less maintenance and increase erosion control.

Design Considerations

- Avoid dense shrubbery within 10 feet of the building.
- Also, avoid throughout the site large clusters of high shrubbery and trees with branches lower than 5 feet above grade.
- Design landscaping to deter someone from hiding on the site after dark, or planting explosives near the building.

In addition to the above, the City of Lincoln has landscape standards for new projects which need to be followed for this project and have been developed to establish landscape regulations that are intended to:

- Enhance the aesthetic appearance of development in all areas of the City by providing standards relating to quality, quantity and functional aspects of landscaping and landscape screening.
- Increase compatibility between residential and abutting commercial and industrial land uses.
- Reduce heat and glare generated by development.
- Protect public health, safety and welfare by minimizing the impact of all forms of physical and visual pollution, controlling soil erosion, screening incompatible land uses, preserving the integrity of neighborhoods and enhancing pedestrian and vehicular traffic and safety.
- Establish a water conservation plan to reduce water consumption in the landscape environment by using drought tolerant principals.

6.9 LABORATORY DESIGN REQUIREMENTS

This section provides design criteria for the Forensic Crime Laboratory and includes necessary information to enable the design team to design the project successfully. These criteria cover design issues pertaining to the laboratory, and supplements the previous information provided in the "Space Analysis," "Space Standards" and "Adjacency Diagrams,". General building design criteria is described following this section.

Refer to Section 8 for the Building and Laboratory MEP Systems Design Requirements.

It should be understood that this design criteria constitute performance requirements, and are not intended to represent design solutions. It is expected that the design team members will develop specific solutions for the design of this new facility and that their solutions will be based on the criteria set forth in this section.

Laboratory Technology Assessment

Trends in programming and planning of new forensic science facilities include the following items:

- A shift away from fixed laboratory casework applications and toward the use of 'plug & play' furniture systems to allow for ease of rearrangement and provision for flexibility of space and services to accommodate future change in investigative techniques and any new instruments required. These new systems feature caster mounted base cabinetry to allow for mobility.

- Once prominent central service systems, such as piped specialty gases, are no longer the norm. Instead, as determined by initial capital cost versus ongoing operational costs, modern scientific instrumentation is provided with dedicated specialty gas generators, or by the traditional use of replenishable cylinder gas.

- While the need for traditional piped service systems have waned, the need for increased, clean power has increased dramatically as more scientific instrumentation has made its way to the investigative environment.

- In concert with the increased demand for electrical power, comes the need for an integrated and well distributed data network. This increase in data requirements, and the ability of the various instruments to

communicate with central systems, has led to the development of Laboratory Information Management Systems (LIMS). The development and application of LIMS, in turn, has caused yet more need for an extensive data network.

- And, the primary trend is toward energy conservation and sustainability. Sophisticated control devices are placed on environmental systems, such as lighting and exhaust. While additive to initial cost, life cycle costs are such that pay-back is within acceptable time frames, and ongoing financial savings are accumulated thru energy use reduction.

General Laboratory Design Criteria

- "Essential" facilities: The Forensic Science Laboratory is **not** required to be classified as an "essential" facility by Building Codes.

- Flexibility & Expandability: Forensic science laboratories are evolving at a rapid rate. The development of new laboratory procedures, changes in crime trends, and political considerations all tend to influence the type of laboratory work and quantities of evidence being processed in the laboratory. As a result, forensic science laboratories frequently experience need for growth and change over their life-span.

- Building Organization. The building organizational concept must provide expansion options to accommodate the growth of laboratory programs, staff increases, and addition of new programs and equipment.

- Laboratory planning module: A repetitive planning module will be incorporated into the laboratory design at both large and small scales to achieve an efficient and flexible organizational pattern. While a large, 33-foot structural and planning module works well in conjunction with the design of the laboratory facility, it is based on multiples of a smaller basic planning module of 11 foot x 11 foot. The basic 11-foot planning module is based on the width of laboratory casework on two walls separated by a 5-foot to 6-foot wide aisle. All other systems, including lighting, service distributions, HVAC grille locations, sprinklers, etc., can be organized on this planning pattern as well. This modular planning approach permits achievement of a highly-flexible and adaptable laboratory environment while maximizing the integration of all building systems.

- Biological Hazards / Chemical Hazards: Recent regulatory requirements issued by the United States Occupational Safety and Health Administration (OSHA) mandate the need to provide protection for workers encountering biohazards materials. The forensic science laboratory investigates a relatively-high number of cases which originate from the criminal community, known to carry a higher incidence of dangerous diseases. Primary risks to staff are posed by such dangerous pathogens as Hepatitis A, B, & C; Tuberculosis; HIV (AIDS); and Aspergillus Fumigatis, to name a few. High- risk materials also include all serological evidence (evidence saturated with body fluids or biological tissue). These materials must be treated with exceptional care.
  1. In view of the biologically- and chemically-hazardous nature of the work in each laboratory unit, it is important that the laboratory staff be provided with separate office / report writing areas in a "clean" space outside of the laboratory.
  2. It is recommended that all air-ventilation systems serving laboratory spaces where biological or chemical agents are present, be served with independent air handling systems with once-through (100%) exhausted air flow.
  3. HEPA filtration is required for exhaust from the firing range in the firearms / toolmarks section.

- Lab Office environments: All of the laboratory sections include separate report-writing workstation areas near their laboratory space. These areas should be designed as standard office space with access to the laboratory corridor and adjacent laboratory area through a laboratory vestibule. Each forensic scientist's 'clean' furniture workstation will be a standard-sized, modular-systems, open office. This office space has some degree of visual access to the adjacent laboratory it serves.

- Laboratory vestibule: Vestibules are provided at the entry points to laboratory areas to provide a physical and air (HVAC) separation between the biohazards zone and clean office areas. These vestibules minimize the potential transfer of biological contaminants to clean areas. When leaving a biohazards zone, staff members are required by policy to remove laboratory coats and to clean- up prior to moving to the office area. Similarly, when moving from the clean office zone to the biohazards area, staff members are required to put on protective laboratory clothing.

1. This space will contain a hand-washing sink with hands-free controls, coat hanging rack, and storage cabinets.
2. Other special features in the vestibule include docking stations for laptops, spill kits, a fire extinguisher cabinet, safety kits, electrical panels, and a plumbing systems control panel (RO water, hot water, cold water, vacuum, compressed air or gases) for the lab section the vestibule serves.
3. The vestibule must be maintained under negative pressure relative to the outer clean areas, and positive pressure relative to the biohazards area in order to maintain a flow of clean air from the clean office environment to the potentially biohazards lab zone. This containment strategy greatly reduces the risk of odors and airborne contaminants escaping from the laboratory areas.

- Doors: Oversized or double doors (door and a half) are required from corridors to major laboratory spaces.
  1. Provide standard laboratory doors consisting of a 48-inch active leaf and an 18-inch inactive leaf to all laboratory spaces and equipment rooms. Those spaces will include access from non-laboratory spaces to all main laboratories, all instrumentation rooms, and the Scanning Electron Microscope Room.
  2. Door lites are required in all doors except where a darkenable room is required or in doors leading to evidence storage rooms.
  3. Gasketed doors may be needed where required by the mechanical engineer for maintaining room pressurization, and to prevent hatched insects from escaping from drying rooms.

- Primary Circulation Corridors. Provide a minimum of 7- foot width, preferably 8-foot width, to all primary circulation corridors throughout the laboratory portion of the building.

- Fume hoods: All fume hoods will be Class A, low flow or low velocity, chemical fume hoods for either a variable air volume (VAV) or constant volume (CV) system, as recommended by the mechanical engineer.
  1. Install all fume hood exhaust fans in a rooftop penthouse and isolate them from the building structure and laboratory spaces.
  2. Equip all chemical fume hoods with GFI fume hood power outlets and explosion-resistant light fixtures.
  3. Make available plumbing options that include vacuum, compressed air, water, and other gasses. Additional lab gases may be required in special applications and shall be coordinated with each User Group during the actual design of the new facility.

4. Provide all fume hoods with a UL listing label.

- Biological safety cabinets: Biological safety cabinets are used instead of fume hoods when two additional requirements must be met which cannot be achieved with fume hoods:
  1. Additional user protection is required from biological agents. This added protection is achieved by means of a lowered sash height and the use of the sash as a splash guard;
  2. Evidential material in the hood must be maintained free of contamination from the air which passes over it. Biological safety cabinets deliver a supply of HEPA filtered air over the samples contained within to avoid contamination.
  3. All biological safety cabinets shall be UL-listed Class II Type B2 or B3, complying with NSF-49; equip cabinets with GFI power outlets and light fixtures. Lighting should include standard task lighting and can include an ultraviolet disinfectant light if required by the laboratory staff. Plumbing options include vacuum, compressed air, and other gasses.
  4. The control interfaces and HVAC requirements are quite different from fume hoods. The HVAC engineer will need to review pertinent sections of the biological safety cabinet specification, relating to interfacing between the HVAC systems design and the hood sash controls, monitors, etc.

- Articulating arm / task-exhaust units (snorkels): Task-exhaust units will be located selectively where local exhaust would be advantageous to laboratory staff for small desk-top procedures involving odoriferous evidence or procedures, instrument exhaust, or removal of heat from instruments. Task-exhaust units would never be used in place of a fume hood or biological safety cabinet.
  1. Task-exhaust units are UL-listed, as these units contain a task light as well.

- Work Surfaces. Countertop work surfaces in wet chemistry and biological sciences spaces shall be epoxy resin material. In any areas where evidence containing biological fluids will be examined countertops could be stainless steel. Most other laboratory work surfaces could be chemical resistant plastic laminate, however, for consistency, this facility has been programmed with epoxy resin tops throughout the facility.
  1. In addition, a few selected spaces throughout the facility will require wood work surfaces such as the Firearms Section and the Vehicle Processing section.

2. Work surfaces in non-laboratory areas, such as offices, administration, and clerical areas can be standard plastic laminate.

- Laboratory Sinks. Provide epoxy resin sinks in all epoxy resin countertops. All other sinks shall be stainless steel.

- Flexible Modular Laboratory Casework: It is recommended that flexible modular laboratory casework systems be specified throughout the laboratory space. If this is cost prohibitive, fixed laboratory casework should be installed along perimeter walls, and laboratory island and peninsula benches should be flexible modular systems.

- Laboratory tours: The facility is designed so that guided tours of the laboratory can be conducted at the option and discretion of the laboratory;
  1. Tour groups are not to be allowed any closer to the laboratory spaces than the outside corridors serving these spaces.
  2. Viewing windows can be installed in the corridor walls to facilitate viewing of certain laboratory areas.
  3. Display cases will be used to illustrate graphically the functions of each laboratory section in order to further educate tour groups. These are placed next to the viewing windows to enhance the learning experience.

- Viewing between laboratory spaces: As a general safety feature, it is desirable that laboratory staff members be able to maintain visual connection between adjacent laboratory spaces. The use of interior windows between laboratory spaces not only enhances safety, but also enhances the overall laboratory environment.

- Evidence Storage Space Design Guidelines Securely construct the evidence storage rooms in order to uphold the chain-of-custody while the evidence is in the jurisdiction of the forensic laboratory. Secure wall construction will consist of heavy-gauge, hardened, steel security mesh applied to the perimeter of stud walls, or the use of concrete masonry wall construction. The security mesh would be specified during the design phase by the prime architect in division 9. Extend the wall assembly up to the structural deck above or to a security ceiling.
  1. Lay out lighting at high-density storage areas perpendicular to the row lengths so lighting is provided at all rows. If lighting is parallel to rows, some will be lit and some will not.

2. Provide a security system motion detector in the evidence storage room.
3. Well-ventilate the evidence storage spaces with 100% exhaust to remove odors.
4. Ventilation is important in all evidence areas. Provide a minimum of 12 air changes per hour in the main evidence storage area and 15 air changes per hour in areas where drugs and marijuana are stored.
5. Provide a chemical storage cabinet for chemical samples such as those received from an arson case.
6. They shall be a lockable room with partitions to the structure above and equipped with adjustable stainless steel shelving.

- Biological and hazardous Waste Storage: These areas shall be designed with proper ventilation and with 100% exhaust.

- Emergency eyewash and shower units: Provide combination emergency eyewash and shower units no more than 10 seconds walk from any point in the laboratory in accordance with ANSI Z358.1-1998 regulations. Utilize manufactured products, not site- built units, and assure ADA compliance. Provide a hard plumbing drainage connection from the eyewash bowl drain.
  1. At each laboratory sink, provide a deck-mounted, drench hose emergency eyewash for added safety. Such eye- wash units are common practice and are expected by most laboratory staff.
  2. Locate at least one combination emergency eyewash and shower unit outside the laboratory areas, in each primary egress corridor. This recommendation is for the use of anyone who must exit the laboratory space due to chemical fumes resulting from an accidental spill.

- Pressurization in lab spaces: Labs generally are to be under negative pressure relative to adjacent office and corridor areas. This is to ensure that airborne contaminants and fumes stay in the lab areas. Flow of air should always be from clean areas (i.e. offices and corridors) to lab areas.
  1. Try to avoid excess negative pressurization to the exterior to prevent infiltration of moisture and exterior dust. This issue needs to be reviewed with the prime architect and engineer relative to the design of the exterior envelope.

- Instrument rooms: Requirements for instrumentation rooms are as follows:

1. Supplemental cooling: Instruments in these rooms will produce excess heat. Therefore, equip these rooms with a cooling system designed accordingly.
2. Instrument Exhaust: To minimize supplemental cooling requirements, a local exhaust unit is required at instrument workstations to exhaust heat or chemical fumes. Additionally, an exhaust port is required in each vented base cabinet where the pumps will be housed. Local exhaust of excess heat from instruments can greatly decrease the need for supplemental cooling of the instrument room.
3. Ultrapure laboratory gases: Various instruments in these rooms will consume nitrogen, hydrogen, helium, and medical grade air, which must be plumbed to ultrapure laboratory gas fittings located on the laboratory instrument benches. Hydrogen will be delivered from gas generators or cylinder-fed, while helium and nitrogen are to be cylinder-fed. The hydrogen gas generators would be specified by the plumbing engineer as an integral part of their laboratory gas distribution system based on gas usage capacities for each instrument. Pipe all ultrapure gases through a stainless-steel laboratory gas distribution system having a purity level of 99.999%.
4. The stainless steel piping should be delivered to the job site capped and bagged to maintain this level of purity from the factory. The entire ultrapure gas distribution system should be designed by the lab plumbing engineer and must be constructed and installed by a specialty gas contractor who is highly experienced in this kind of work. The following UHP gases are limited to the instrument rooms and will be located on subsequent lab plans.
5. UHP Helium: 99.999% purity cylinder fed.
6. UHP Nitrogen: 99.999% purity cylinder fed.
7. UHP Hydrogen: 99.999% purity generator or cylinder-fed.
8. UHP Argon: 99.999% purity.
9. UHP spare instrument gas: 99.999% purity.
10. Lab Compressed air: A medical-grade compressed air system will need to be designed by the plumbing engineer capable of delivering a minimum of 110 psi of pressure to the bench top lab gas fittings. This will be piped to the fume hoods and bench air outlets. Medical grade quality purity needs to be defined by the engineer and verified by the lab, but should be at least 99.95% pure.

11. UHP gases will be plumbed to ultrapure quick disconnect gas fittings located on the lab benches. The bench top fittings and the lab gas distribution system will be designed and specified by the engineer. Keep in mind that the lab gas piping system (including bench top fittings) must be installed by a specialty gas contractor, who should be pre qualified.
12. Gas flow rates and pressures for each instrument for each gas need to be verified with the lab staff.
13. There should be a recessed gas annunciator panel in the instrument room containing the annunciator device to alert staff when one of the gas cylinders is empty. Additional gas dryers and filters may be installed by the lab staff in line at the instruments.
14. The manifolded gas cylinders will be located in the gas cylinder room at the ground floor loading area. The gas cylinders should be manifolded in pairs, with an automatic, switch-over device. The dual manifolded system enables the gas system to deliver uninterrupted gas when one cylinder goes dry. The lab gas distribution system also should have a two stage regulation system which first decreases the 2,000 psi cylinder pressure to a lower level which is manageable by the lab gas piping system. The second stage of pressure regulation occurs at or near the instrument room, stepping the pressure down to a level that the instrument can tolerate, generally approximately 100 psi. The gas system also should include an alarm to alert lab staff when one cylinder is empty so that it can be replaced before the other one goes empty. From the manifolds, gasses should be plumbed to the instrumentation room through stainless steel piping.
15. Power: Instrumentation consumes large amounts of power and requires dedicated circuits, emergency power, and UPS. In the instrument rooms, provide a two-compartment electrical raceway with 8 electrical outlets for each 8 feet of instrument bench. Provide a minimum of 2 dedicated, 120v, 20 amp circuits at each 8 feet of instrument bench. Provide computer network outlets spaced as required for the instrumentation, but no less than 4 foot on center. As some instruments require 220 volts as well, provide one 220v outlet for each 8 feet of instrument bench. Pumps shall be located in ventilated cabinets below the counter. These cabinets will be exhausted and will need to have a duplex electrical outlet for the pumps.

- Exam (search) rooms: Exam rooms require a 10’- 0” high ceiling for installation of the ceiling-mounted photo / light track systems.

1. The exam room ceilings should be gypsum board.
2. Exam rooms should be designed with low velocity air flow to avoid disturbance of small evidential particles.
3. Provide down-flow air in exam rooms. The air flow in exam rooms should be supplied from the ceiling and exhausted from wall exhaust grilles located 16" above the floor. This provides a laminar flow of air from high to low, minimizing contamination of evidence.
4. Provide a combination of incandescent lighting and fluorescent lighting in exam rooms. This reduces eye fatigue while doing tedious examination of evidence.

- SEM (Scanning electron microscope): The SEM will be incorporated into the Trace Evidence Section. Avoid use of power-actuated fasteners in the construction of this space and surrounding area. Avoid locating next to elevators, large electrical feeds, wiring, electrical panels, and electrical devices in close proximity to the SEM, as these could produce electromagnetic fields.

<u>Laboratory finishes:</u>

- Flooring:
  1. Chemically-resistant, heat-welded, homogeneous seamless, vinyl flooring in most laboratory spaces, and epoxy resinous flooring in drying rooms and the vehicle exam bays.

- Walls:
  2. Paint walls with latex paint over gypsum board surfaces in office areas and epoxy paint over in lab areas and CMU surfaces. Provide epoxy resin finish in evidence drying rooms.

- Ceilings:
  1. In laboratory spaces where there are special containment and pressurization requirements, use hard ceilings constructed of suspended gypsum board systems.
  2. Use acoustical lay-in ceilings in most laboratory spaces.
  3. Lab acoustical ceilings should be similar to Armstrong Ultima with NRC of .7 and reflectance of .9.
  4. All exam room ceilings should be gypsum-board for better environmental control.

5. In special applications, provide vinyl-coated, lay-in ceilings in laboratories. At labs where vinyl-coated ceilings are needed, use a clean room ceiling, with a high NRC and high light reflectance.

- Floor slopes:
  1. Slope the floor at the ballistic recovery tank to the floor sink. Waterproof the entire floor area at the ballistic recovery tank.

INDIVIDUAL LABORATORY SECTION DESIGN CRITERIA

Lab Administration / Quality Assurance

- General Criteria. This section should be designed using standard office design criteria.

Trace Evidence

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
  1. Low velocity air flow: This Section requires low velocity air flow to avoid disturbing small particles of evidence such as hairs and fibers. This can be achieved by means of larger ducts, special diffusers, and a greater numbers of diffusers.
- Instrumentation. The instrumentation units in this space will produce heat and excess noise. The building systems included in this space should be designed accordingly.
- Scanning Electron Microscope Room. The scanning electron microscope is sensitive to temperature, humidity, and vibration; and the room that houses it, should be designed accordingly. Refer to the vibration requirements in Section 6.10 for specific requirements.

Toxicology

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.

- Instrumentation. The instrumentation units in this space will produce heat and excess noise. The building systems included in this space shall be designed accordingly.

Controlled Substances

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
- Special Case Exam Room. This space shall serve multiple functions. It shall be designed as a wet chemistry space for the examination of large narcotics cases, such as bricks of cocaine or other powdered narcotics Finally, this room shall be used to examine evidence from clandestine laboratories. Ventilation in this room should be directional laminar flow from one end of the room to the other.
- Instrumentation. The instrumentation units in this space will produce heat and excess noise. The building systems included in this space shall be designed accordingly.

Firearms

- Office Spaces. Office spaces for this section shall be designed in using standard office design criteria.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories.
- Firing Range
  1. The range shall be a 12-foot wide, single line ballistics testing firing range. There should be 75-feet between the firing line and the bullet trap.
  2. The range shall supply from behind the shooter in a laminar flow manner to the bullet trap. 25% of the air should be exhausted within 15 feet of the firing line, and the remainder shall be exhausted at the bullet trap. Air velocity downrange should be 200 feet per minute.
  3. The range shall be acoustically isolated from surrounding spaces.
  4. Wall and ceiling construction (and floor construction if above the ground floor) shall be 8-inch thick concrete or fully grouted 8-inch concrete masonry units. Ceiling height should be 11-feet minimum.

5. The entire length of the range shall be equipped with steel deflector baffles designed to protect light fixtures and other projections, and to either direct misfired rounds down range, or to trap misfired rounds.

- Bullet Recovery Tank Room
  1. This room will house the equipment in which a gun is fired into a tank of water in order to recover the undamaged bullet projectile for examination.
  2. This room shall be acoustically isolated from surrounding spaces.
  3. Wall and ceiling construction (and floor construction if above the ground floor) shall be 8-inch thick concrete or fully grouted 8-inch concrete masonry units.
  4. The type of water recovery tank shall be a horizontal unit, fully exhausted, with a circulating chlorine filtration system. Minimum length shall be 12-feet.

Latent Prints

- Office Spaces. Office spaces for this section shall be designed in using standard office design criteria.
- General Latent Print Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories.

Biology / DNA and State CODIS

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry and biological sciences laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
- Walk-In Refrigerator. This walk-in unit shall be designed like a typical food service walk-in refrigerator. The cooling system shall have totally redundant equipment systems so that if one cooling system fails the back-up systems will automatically take over. It also shall be connected to the building's emergency generator.
- Amplification Lab. Airborne DNA product from these rooms could potentially contaminate DNA in other areas of the Biology / DNA Section. Therefore, all these rooms must be designed to prevent exfiltration. Features that should be included to accomplish this are:
  1. Bio-vestibule. Access to these rooms shall be through an interlocking vestibule, where staff will leave their lab coats and other protective attire when leaving these rooms.

2. Negative Pressure. These rooms shall be under negative HVAC pressure relative to adjacent rooms.
3. Restricted Removal. No equipment, materials or supplies shall be allowed to be removed from these rooms through any other spaces of the Forensic Biology Section. A restricted access door or hatch from these rooms to the main exit corridor can be incorporated in the design to accomplish this.

Questioned Documents

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for dry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
- Instrumentation. The instrumentation units in this space will produce heat and excess noise. The building systems included in this space shall be designed accordingly.

Computer Forensics

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for dry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
- Instrumentation. The instrumentation units in this space will produce heat and excess noise. The building systems included in this space shall be designed accordingly.

Vehicle Processing

- General Criteria. The garage bay spaces shall be designed using standard design criteria for maintenance garage facilities. Provide overhead coiling services for power, light and air.

Evidence Processing

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- Incoming and Outgoing Vaults. These spaces shall be designed for security, with floor-to-ceiling walls containing security mesh, and electronics security systems as determined.

- Evidence Storage. Provide warehouse storage facilities for evidence, using pallet storage with forklifts, or man-lift systems where applicable.
- Cash Storage and Cash Counting Rooms. These spaces shall be designed for security, with floor-to-ceiling walls containing security mesh, and electronics security systems as determined.
- Walk-In Cooler and Freezer. These walk-in units shall be designed like a typical food service walk-in refrigerator. The cooling system shall have totally redundant equipment systems so that if one cooling system fails the back-up systems will automatically take over. They also shall be connected to the building's emergency generator.

Training

- Public Spaces. Public spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.

6.10 BUILDING DESIGN REQUIREMENTS

Architectural Design Criteria

General building design requirements are listed below: Refer to Section 8 for the Building and Laboratory MEP Systems Design Requirements.

- Exterior walls: Exterior wall materials should include bullet-resistant materials such as concrete or masonry construction. Ground floor window sill height should be a minimum 4'-0" above the finished floor in order to reasonably protect seated occupants from a weapon fired from the surrounding site. The 48" high window sill also coincides with the top of the electrical raceway, which is located just above the backsplash. Window glazing should be sufficiently reflective to prevent daytime viewing into the building from the exterior, while not adversely altering color rendition of evidence being examined. Window frames at the sill should not project more than 1-3/4" (preferably less) from the exterior face of the glass. If windows are recessed, slope the sills at the exterior down at 45° minimum in order to prevent the placement of combustibles / explosives next to the window.

- Mechanical locking devices: The facility will require numerous styles of mechanical locking devices. For durability and less maintenance requirements, mortise mechanical locks are recommended that match the electrified mortise locks.
  1. Some of the doors equipped with mechanical locks may require door position switches. These switches indicate if the door is open or closed. If a door with a door position switch is opened, an alarm will be transmitted to the security control location. If a camera is positioned to view the door, it would begin to record the scene up to 10 seconds prior to the alarm.
  2. Exit stair doors should have door position monitoring, exit hardware, and bolt position sensors. It is not recommended to have any exterior hardware on the exit doors other than a key cylinder and fixed door pull only.

Structural Design Criteria

Once a site is selected for this new facility, the structural systems can be designed accordingly. At a minimum, the structural design should be based upon the following:

- Foundations and slabs on grade shall be designed in accordance with a geotechnical report to be completed during the design phase of the project.

- Shear walls in the form of cast-in-place concrete or masonry shall be used to resist seismic and wind lateral forces located on the perimeter of the building.

- The main building structural systems shall be cast-in-place concrete or structural steel.

- Layout of the structural grid must respect the planning module established for the various building functions. The planning module will be selected to allow the greatest economical span possible to allow for maximum design flexibility. During design, distribution of services must be carefully coordinated with the structural layout, particularly at framing intersections and major crossover points, in order to avoid conflicts and limit penetrations of major structural members.

Acoustical Design Criteria:

Noise can affect both personnel and equipment within the building and, if projected in excess into the environment, can impact neighboring buildings. Control of HVAC noise and the careful selection of relevant architectural details can improve communications, speech privacy, and the general condition of work environments. Proper noise control design can also reduce long-term, work-related hearing damage, fatigue, and general annoyance. It is best to consider noise control during the design stage rather than retrofit potentially more-costly noise control measures later. The following are some general comments related to acoustics:

- HVAC design: HVAC layouts must be consistent with the noise requirements. Whenever possible, large ducts should not run above noise sensitive spaces. No duct shafts or plumbing chases should be common with walls of noise sensitive spaces. The need for additional noise control in the form of duct lining, silencers, etc., will be determined as the mechanical design progresses.

- Air volume control devices: Terminal units, VAV boxes, and diffusers must be selected so that the noise they generate is consistent with the recommended Noise Criterion (NC) levels of the rooms they serve. The equipment manufacturer's NC rating may not apply to many rooms within a laboratory facility, as these ratings are usually computed for rooms with a great deal more sound absorption than is found in a typical laboratory. Terminal units shall be selected on the basis of the manufacturer's certified laboratory octave band, sound power levels. Diffusers should be selected for an NC requirement, 5 points lower than the stated room design criterion to account for the impact of multiple diffusers.

- Breakout noise: HVAC breakout noise is the noise that is transmitted into a space through the walls of the ducts. This is most commonly a problem when a particular system has large ducts that pass over an acoustically- sensitive space on the way to a space with a much- less-stringent design criterion. Breakout noise may be reduced by using round ducts.

- General acoustic design criteria: Most laboratories, corridors, and lobbies can be designed to a Noise Criterion of NC-45, while private offices should be designed to NC-35. NC-30 would be appropriate for executive offices, conferences rooms, and the library.

Vibration Design Criteria:

- Various areas of the building, in particular the DNA section, and firearms / toolmarks sections must be designed to provide a vibration environment consistent with the criteria specified for the equipment to be used in these labs. Design considerations for providing a suitable laboratory environment should include the following:

- Building layout: The layout of the rooms is important insofar as the placement of major mechanical systems relative to the vibration-sensitive areas is concerned. Other layout considerations may emerge when the design is developed.

- Laboratory module layout: Location of laboratories within the building, and with respect to vibration sources outside the building, influences the vibration environment achievable in the lab. Ideal location is the most cost-effective way (and sometimes the only way) to achieve a good vibration environment. The most sensitive labs, such has the SEM room, should be located as far as possible from internal sources of vibration such as mechanical and electrical equipment, elevators, major corridors, loading docks, etc. Position with respect to external sources, such as the adjacent streets, should also be considered.

- Mechanical equipment: Mechanical rooms should not be located on suspended floors which also contain laboratories, nor should they be located on a suspended floor directly below a vibration-sensitive area. Mechanical equipment should be located instead in roof-top penthouses or on slab-on-grade. It is important that all major items of equipment (with ratings in excess of 5 horsepower) be designed and installed in such a way that the vibration they transmit to the building structure is controlled. Carefully consider the location of reciprocating mechanical equipment (compressors, chillers, pumps, etc.) due to the vibration produced by this type of equipment. Such equipment should not be located on suspended floor slabs, but rather in a ground floor mechanical room, as the slab on-grade and ground 'sink' will be an effective absorber of vibration. Slabs of mechanical rooms should be isolated around the perimeter of the room. Piping and associated pumps should not be hung from supported floors as these can also transmit vibration to the structural systems.

- Pipes and ducts: Vibration control must also encompass mechanical systems such as ductwork and piping since these systems also can generate and transmit vibration via turbulent flow. It is most important to limit fluid flow velocities in pipes and ducts since turbulence associated with fluid flow can be a substantial vibration source. For this reason, air flow velocities should be limited to 1800 ft. / min. and liquid flow velocities limited to 7 ft. / sec.. Major pipes and ducts (in excess of 4 inches in diameter and 20 inches in diameter, respectively) located under suspended highly vibration-sensitive floors should be supported from the columns or the floor and not directly from the vibration-sensitive floor, even with vibration isolation hangers.

- Inertia bases: Inertia bases should be used for all liquid pumps and, depending on the equipment specifications, for certain exhaust and make-up air fans. The structural design must take these loads into account.

- Vibration criteria: Vibration criteria is usually expressed in terms of root-mean-square (rms) velocity for one- third octave frequencies between 8 and 100 Hz. The specified limits are intended to apply to vertical and horizontal (in two axes) vibration as measured on the structural floor. They do not apply to bench tops.

- General vibration design criteria: Generic laboratories should be designed to a minimum vibration velocity of 2000 micro-inches / second. This criterion may be relaxed once details for specific equipment are known. In general, laboratories should be designed for vibration control based upon the following information which is identified in micro-inches / second:
  1. **8000** Computer systems- Operating rooms; Surgery; Bench microscopes at up to 100x magnification.
  2. **4000** Laboratory Robots
  3. **2000** Class A - Bench microscopes at up to 400x magnification; Optical and other precision balances; Coordinate measuring machines; Metrology laboratories; Optical comparators; Microelectronics manufacturing equipment.
  4. **1000** Class B - Micro surgery, eye surgery, neurosurgery; Bench microscopes at magnification greater than 400x; Optical equipment on isolation tables; Microelectronics manufacturing equipment.
  5. **500** Class C - Electron microscopes at up to 30,000x magnification; Microtomes; Magnetic resonance imagers; Microelectronics manufacturing equipment.

6. **250** Class D - Electron microscopes at greater than 30,000x magnification; Mass spectrometers; Cell implant equipment; Microelectronics manufacturing equipment.
7. **130** Class E - Unisolated laser and optical research systems; Microelectronics manufacturing equipment.

- Footfall impact: One prevalent source of vibration affecting performance of microscopes is that caused by persons walking on the floor. Dampening of the floor structure is required to minimize footfall impact. Limiting walker response to the above-given general vibration design criteria levels requires the following floor dampening levels, measured in kips / in-seconds (Kf Product):
  1. For 4,000 microinches / second, use Kf of 2,000 (medium damping) or Kf of 1,000 (high damping).
  2. For 2,000 microinches / second, use Kf of 4,000 (medium damping) or Kf of 2,000 (high damping).

Room Data Sheets

An additional section of this Program Statement contains the project's Room Data Sheets. These Room Data Sheets provide information pertaining to the following issues and features:

- Hours of Operation
- Mechanical
- Hoods
- Plumbing
- Fire Protection
- Electrical
- Lighting
- Communication / Data
- Security
- Floor Finishes
- Wall Finishes
- Ceiling Finishes
- Casework
- Countertop Material
- Furnishings / Accessories
- Equipment

An individual Room Data Sheet has been provided for each room in the building as identified in Section 6.2 Facility Space and Staff Analysis.

Note, these Room Data Sheets have been included in Section 12 Appendix.

6.11 IMPACT OF PROPOSED PROJECT ON EXISTING SPACE

Reutilization and function(s)
Since this project is programmed to be a new replacement facility, no plans have been made for reutilization of the existing facility. The State of Nebraska currently leases the existing facility and their current lease expires in 2014.

Demolition:
Since the State of Nebraska currently leases the existing facility and their current lease expires in 2014, there are no plans for demolishing the existing facility.

Renovation:
The State of Nebraska has been leasing the existing facility since 1998. Since that time, numerous renovation projects have been implemented to increase the crime lab's forensic science programs. However, the crime lab has grown beyond the ability to renovate this facility any further. Thus, as identified in Section 2 of this Programming Statement, a new facility is required.

7.0 EQUIPMENT REQUIREMENTS

7.0 EQUIPMENT REQUIREMENTS

As part of any new facility is the need to include FF & E (Furniture, Furnishings and Equipment) items to make sure the new facility has the proper fit out of equipment and furnishings at the time of Building Occupancy.

To that end, our Programming team has compiled a list of possible existing equipment that could be considered for reuse in addition to the typical new FF & E items that are generally provided for new forensic crime laboratories.

7.1 EXISTING EQUIPMENT FOR REUSE

Existing equipment re-use will be evaluated during the design phase. Where practical, existing equipment in the existing crime laboratory will be reused in the new facility.

A potential list of possible reusable equipment could include the following items:

- Microscopes
- Comparison Microscopes and Stands
- NIBIN System
- CODIS System
- AFIS System
- Adobe Workstations
- MCS-400
- Gas Chromatographs with Autosamplers
- GC/MS with Autosamplers
- FTIRs
- XRD System
- AXSYM
- EZ1 Robots
- EZ1 Advanced XL robots
- TECAN Robots
- 7500 PCR
- PCR Enclosures
- 3130 Genetic Analyzers
- 3500 Genetic Analyzer
- Large centrifuges

- Autoclave
- Fuming Chambers
- Stratalinker
- Minicentrifuges
- Microcentrifuges
- pH meter
- Balances
- Refrigerators
- Freezers
- Refrigerator/freezer Combinations
- Vortex
- Cameras and Stands
- Digital Camera
- Water baths
- Ovens
- Conductivity meter
- Heat blocks
- Vacufuge concentrator
- ESDA and Humidity Chamber
- VSC2000 with Dedicated printer and Stereoscope
- UV Viewing Box and lights
- Stereoscope with Photo Attachment and Light Box
- Flammable cabinet
- Acid cabinet
- Microwave
- Water system
- Vacuum pump

7.2 NEW EQUIPMENT AND FURNISHINGS

The following fixed equipment, moveable equipment, lab casework, furniture and furnishings shall be included in, but not be limited to the new forensic crime laboratory; and have been included in the Project Budget.

Fixed Equipment:

- Ballistic Water Tank
- Ballistic Range Equipment
- Bullet Trap
- Fume Hoods

- Biological Safety Cabinets
- Dusting Hoods
- Service Carrier
- Surgical Type Exam Lights
- Autoclaves
- Dishwasher
- Cylinder Restraint
- Overhead Cameras and Supporting Track
- Snorkels
- Super Glue Cabinets
- Drying Cabinets
- Drug Storage Cabinets
- Acids and Solvents Cabinets
- Interlocking Door Passthru
- Chemical Storage Cabinets
- Lab Gas Generators
- Walk-in Refrigerators
- Walk-in Freezers
- High Density Storage System
- Lectriever Filing System

Movable Equipment:

- Medical/Defibrillator
- Refrigerators and Freezers
- Mobile Lifts
- Movable Lockable Wire Mesh Partitions
- Fuming Tent
- Movable Exam tables
- Janitor Equipment
- Stainless Steel Shelving
- Wire Shelving

Fixed Casework:

- Laboratory Casework

Movable Casework:

- Laboratory Casework

Furnishings:

- Lockers
- Evidence Lockers
- Coat Hooks
- Marker Boards
- Tack Boards
- Projection Screens
- Smart Board
- Appliances/Misc Equipment
- Clocks
- Plants
- Fitness Equipment
- Signage Interior

Furniture:

- Office Furniture
- Outdoor Furniture
- Break Room Furniture
- Conference Room Furniture
- Lobby Furniture
- Classroom Furniture
- Storage Shelving

All new plumbing, HVAC and electrical equipment is included in the general construction category for the project.

Note additional "Owner Provided" new equipment and replacement equipment will be required for the new facility once the project is approved for construction.

8.0 SPECIAL DESIGN CONSIDERATIONS

8.0 SPECIAL DESIGN CONSIDERATIONS

Forensic Science Crime Laboratories are unique, specialty type facilities. They are designed to have multiple specialty lab sections together under one roof. As a result, there are a multitude of special design considerations that need to be incorporated into the facility design.

8.1 CONSTRUCTION CLASSIFICATION

In order to design a safe and cost effective facility, the designer needs to evaluate the various building design classifications in order to arrive at the "best value" solution for the Owner. Checking with the Owner's insurance carrier is also important prior to finalizing the building classification to confirm that the insurance carrier does not require stricter design criteria in order to cost effectively insure the new facility.

Since the site has not been chosen for this project, the Programming team has identified an approach that has been accepted successfully in other parts of the country as a classification for this project. This analysis has been based upon the International Building Code requirements.

OCCUPANCY CLASSIFICATION

The building will be classified as a Business Occupancy in accordance with IBC 302.1. All Storage Areas within the building are incidental to the main occupancy and will comply with IBC 302.1.1. Table 1 assigns the occupancy classifications for the areas of the building for use in determining occupant load and egress requirements.

TABLE 1 – AREA CLASSIFICATIONS

Area of Use	Occupancy
Laboratory[1]	B
Offices	B
Office Storage	S-1
Training/Classroom	A-3
Chemical Storage	S-1 (H?)[2]
Lab Storage	S-1 (H?)[2]
Gas Cylinder Storage	S-1 (H?)[2]
Mechanical Rooms	S-2
Electrical Rooms	S-2
Weapon Storage	S-2

1 In laboratories which do not exceed the limits on hazardous or explosive materials allowed in use. (The fire separation distance is that measured from the face of the building to the closest interior lot line, center of a public street alley or public way, or to an imaginary property line between two buildings on the same lot.)

2 Area that may be classified as a Group H occupancy area based on amounts of hazardous materials present.

CONSTRUCTION

Construction Classification

There are several construction classifications that can be utilized for a forensic crime laboratory ranging from a Type I-A to a Type II-B depending on the local zoning requirements. Since the site has not been chosen for this project, the Programming team has identified an approach that has been accepted successfully in other parts of the country as a classification for this project.

Utilizing the International Building Code, the Programming team has classified the design for the structure to be a Type II-B fully sprinklered facility. The allowable area per floor based on area increases allowed in IBC 506 for sprinklers is 69,000 square feet.

Exterior Walls

- Bearing - one-hour rating where fire separation is ten feet or less; non-rated in all other areas.
- Non-bearing - one-hour rating where fire separation is ten feet or less; non-rated in all other areas.

Interior Walls

- Bearing – Non-rated
- Nonbearing – Non-rated

Structural frame – Non-rated

Roof – Non-rated

Floor – Non-rated

Shafts

- Shafts which connect three (3) stories are required to be provided with a 1-hour rating.
- A maximum of 50 percent of egress stairways serving one adjacent floor are not required to be enclosed. Any two such interconnected floors shall not be open to other floors.

Corridors – Non-rated

Exterior Wall Openings

This building shall be protected throughout by an automatic sprinkler system; therefore the allowable area for unprotected openings is the same as allowed for protected openings. Exterior walls which are greater than 20 feet from the property line are permitted to have unlimited unprotected openings.

Table 2 – Allowable Exterior Openings

Fire Separation Distance	Percentage of Allowable Openings Per Area of Exterior Wall
0-3 ft.	None Permitted
3-5 ft.	15%
5-10 ft.	25%
10-15 ft.	45%
15-20 ft.	75%
Greater than 20 ft.	No Limit

Duct and Air-Transfer Penetrations

Fire and Smoke dampers are required at locations where ducts or air transfer openings of an air distribution system penetrate fire resistance rated assemblies such as rated shafts. Minimum damper rating will be 90 minutes.

Imaginary Property Lines

Although a site has not been selected for this project, if a final site selection is located as part of a larger development, imaginary property lines shall be drawn such that at no points are they closer than 10 feet from the proposed building. This will allow the new building to have non-rated exterior walls.

MEANS OF EGRESS

Table 3 - Occupant Load Factors

Occupant Load Factors based on Table 1004.1.2	
Occupancy	Occupant Load Factor (SF/Person)
Laboratory	100
Offices	100
Classroom / Assembly	20
Office Storage	300
Chemical Storage	300
Lab Storage	300
Gas Cylinder Storage	300
Mechanical Rooms	300

Accessory Use

Accessory-use areas are areas that are ordinarily used only by persons who occupy the main area of the occupancy. Restrooms, lobbies and corridors will be considered as accessory-use areas. Accessory-use areas will be provided with exits as though they are completely occupied, but their occupant load will not be included in the occupant load of the building.

Means of Egress Description

If a multi-level design solution is developed for this project, each floor will be provided with at least two means of egress.

Number of Exits or Exit Accesses

- A minimum of two exits or exit accesses are required from each space when the common path of travel of 100 feet is exceeded, or when the occupant loads exceed the following:
  a) Business and Assembly Areas – 50
  b) Storage Areas - 30
- Three exits are required where the occupant load exceeds 500, and four exits are required where the occupant load exceeds 1000.
- Separation of Exits – Where two exits or exit accesses are required, they will be separated from one another by one-third the overall diagonal of the space as allowed in buildings equipped with an automatic sprinkler system.

8.2 BUILDING AND LABORATORY MEP REQUIREMENTS

It should be understood that the following design requirements relating to engineered systems, constitute performance requirements, and are not intended to represent design solutions. It is expected that the design team members will develop specific solutions to the engineered systems while executing the design of their respective engineered systems; and their solutions will be based on the criteria set forth in this section.

GENERAL BUILDING AND LABORATORY MEP REQUIREMENTS:

General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories.

- Laboratory Areas: Air-handling units serving the laboratory spaces will utilize 100% outside air, and be located in the penthouse.
  1. Exhaust fans will be located on the roof adjacent to the penthouse with vertical discharge stacks terminating above any visual screen wall and a minimum of 10'-0" above the penthouse roof parapet with an outlet velocity of approximately 3000 feet per minute.
  2. Each air-handling unit will include centrifugal fan with variable speed drive, hot water heating coils, chilled water cooling coils, 30% efficient pre-filters, 95% efficient final filters, and associated controls. The air-handling unit casing will be 4 inch insulated double wall construction.
  3. Room pressure controls will be provided in each lab area. Room pressure will be maintained by continually measuring the air exhausted and supplied to the room and maintaining the appropriate differential.
  4. Controls will be pressure independent and will vary the exhaust airflow through the fume hoods (according to sash position) to maintain the required face velocity entering the hood.
  5. Low velocity air flow: The Trace Evidence Section requires low velocity air flow to avoid disturbing small particles of evidence such as hairs and fibers. This can be achieved by means of larger ducts, special diffusers, and a greater numbers of diffusers.

- Administration and General Support Areas: Air-handling units serving the administration and general support spaces will be located in the penthouse, and include centrifugal supply air fan with variable speed drive, hot water heating coils, chilled water coils, 30% and 85% efficient

filters, centrifugal return/relief fan with variable speed drive, and associated controls. The air-handling unit casing will be 2 inch insulated double wall construction.

Pressure independent variable air volume (VAV) supply air terminal boxes will be provided for each office zone. Typically, three to four offices with similar exposures will be grouped together to form a single temperature control zone. Hot water reheat coils will be provided in the supply air terminal boxes to maintain temperature control in each zone.

- Biological Hazards / Chemical Hazards: Recent regulatory requirements issued by the United States Occupational Safety and Health Administration (OSHA) mandate the need to provide protection for workers encountering biohazards materials. The forensic science laboratory investigates a relatively-high number of cases which originate from the criminal community, known to carry a higher incidence of dangerous diseases. Primary risks to staff are posed by such dangerous pathogens as Hepatitis A, B, & C; Tuberculosis; HIV (AIDS); and Aspergillus Fumigatis, to name a few. High- risk materials also include all serological evidence (evidence saturated with body fluids or biological tissue). These materials must be treated with exceptional care.
  1. In view of the biologically- and chemically-hazardous nature of the work in each laboratory unit, it is important that the laboratory staff be provided with separate office / report writing areas in a "clean" space outside of the laboratory.
  2. It is recommended that all air-ventilation systems serving laboratory spaces where biological or chemical agents are present, be served with independent air handling systems with once-through (100%) exhausted air flow.
  3. HEPA filtration is required for exhaust from the firing range in the firearms / toolmarks section.

- Laboratory vestibule: Vestibules are provided at the entry points to laboratory areas to provide a physical and air (HVAC) separation between the biohazards zone and clean office areas. These vestibules minimize the potential transfer of biological contaminants to clean areas. When leaving a biohazards zone, staff members are required by policy to remove laboratory coats and to clean- up prior to moving to the office area. Similarly, when moving from the clean office zone to the biohazards area, staff members are required to put on protective

laboratory clothing.

1. This space will contain a hand-washing sink with hands-free controls, coat hanging rack, and storage cabinets.
2. Other special features in the vestibule include docking stations for laptops, spill kits, a fire extinguisher cabinet, safety kits, electrical panels, and a plumbing systems control panel (RO water, hot water, cold water, vacuum, compressed air or gases) for the lab section the vestibule serves.
3. The vestibule must be maintained under negative pressure relative to the outer clean areas, and positive pressure relative to the biohazards area in order to maintain a flow of clean air from the clean office environment to the potentially biohazards lab zone. This containment strategy greatly reduces the risk of odors and airborne contaminants escaping from the laboratory areas.

- Chemical storage areas:
  1. Design these rooms to be explosion-resistant.
  2. In the chemical storage room and chemical hazard room, provide explosion-resistant design classification of class 1, division 2 (chemicals always in closed contain- ers). In the chemical hazard room, explosion-resistant design classification shall be class 1, division 1 (since chemicals will be transferred). Design chemical stor- age rooms and hazardous chemical holding rooms with a blow-out panel to direct the force of a potential explosion in the safest direction possible.
  3. Chemical storage generally occurs in approved fire resistant chemical storage cabinets with internal spill containment in laboratory spaces and the chemical stor- age room. Additionally, drain the floor of the chemical storage room to a chemical floor drain which is piped to an approved dry chemical spill tank exterior to the building. This is not connected to the sewer system. Tanks should be sized for sprinkler discharge.
  4. Chemical storage rooms should be well-ventilated (at least 12 air changes per hour) and as directed by the HVAC engineer.
  5. Acid storage cabinets will need to be exhausted, with a recommended minimum of 12-15 air changes per hour from the cabinet and as directed by the HVAC engineer. The exhaust duct should be tied into the fume hood exhaust duct by division 15. The location of this tie-in should be studied by the HVAC engineer to avoid problems with the controls systems.
  6. Generally, the ventilation of flammable chemical storage cabinets is not recommended by NFPA 30, unless there is a compelling reason

to, for health or safety reasons. (The ventilation of flammable cabinets could compromise the ability of the cabinet to protect its contents adequately from involvement in a fire. The UL listing of these cabinets is based on fire testing of cabinets with vent outlets plugged; this means that if the cabinets are ventilated then the UL listing is compromised.) Therefore, only selected flammable chemical cabinets are ventilated in cases where outgassing cannot be eliminated by the chemical container. In such cases where the cabinets must be ventilated, this must be done directly to the outdoors in such a manner that it will not compromise the specified performance of the cabinet and in a manner that is acceptable to the authority having jurisdiction. At ventilated flammable chemical storage cabinets, the supply and exhaust ductwork will need to be designed by the engineer to be fire resistant, in accordance with NFPA.

- Instrument rooms: Requirements for instrumentation rooms are as follows:
  1. Supplemental cooling: Instruments in these rooms will produce excess heat. Therefore, equip these rooms with a cooling system designed accordingly.
  2. Instrument Exhaust: To minimize supplemental cooling requirements, a local exhaust unit is required at instrument workstations to exhaust heat or chemical fumes. Additionally, an exhaust port is required in each vented base cabinet where the pumps will be housed. Local exhaust of excess heat from instruments can greatly decrease the need for supplemental cooling of the instrument room.
  3. Ultrapure laboratory gases: Various instruments in these rooms will consume nitrogen, hydrogen, helium, and medical grade air, which must be plumbed to ultrapure laboratory gas fittings located on the laboratory instrument benches. Hydrogen will be delivered from gas generators or cylinder-fed, while helium and nitrogen are to be cylinder-fed. The hydrogen gas generators would be specified by the plumbing engineer as an integral part of their laboratory gas distribution system based on gas usage capacities for each instrument. Pipe all ultrapure gases through a stainless-steel laboratory gas distribution system having a purity level of 99.999%.
  4. The stainless steel piping should be delivered to the job site capped and bagged to maintain this level of purity from the factory. The entire ultrapure gas distribution system should be designed by the lab plumbing engineer and must be constructed

and installed by a specialty gas contractor who is highly experienced in this kind of work. The following UHP gases are limited to the instrument rooms and will be located on subsequent lab plans.

5. UHP Helium: 99.999% purity cylinder fed.
6. UHP Nitrogen: 99.999% purity cylinder fed.
7. UHP Hydrogen: 99.999% purity generator or cylinder-fed.
8. UHP Argon: 99.999% purity.
9. UHP spare instrument gas: 99.999% purity.
10. Lab Compressed air: A medical-grade compressed air system will need to be designed by the plumbing engineer capable of delivering a minimum of 110 psi of pressure to the bench top lab gas fittings. This will be piped to the fume hoods and bench air outlets. Medical grade quality purity needs to be defined by the engineer and verified by the lab, but should be at least 99.95% pure.
11. UHP gases will be plumbed to ultrapure quick disconnect gas fittings located on the lab benches. The bench top fittings and the lab gas distribution system will be designed and specified by the engineer. Keep in mind that the lab gas piping system (including bench top fittings) must be installed by a specialty gas contractor, who should be pre qualified.
12. Gas flow rates and pressures for each instrument for each gas need to be verified with the lab staff.
13. There should be a recessed gas annunciator panel in the instrument room containing the annunciator device to alert staff when one of the gas cylinders is empty. Additional gas dryers and filters may be installed by the lab staff in line at the instruments.
14. The manifolded gas cylinders will be located in the gas cylinder room at the ground floor loading area. The gas cylinders should be manifolded in pairs, with an automatic, switch-over device. The dual manifolded system enables the gas system to deliver uninterrupted gas when one cylinder goes dry. The lab gas distribution system also should have a two stage regulation system which first decreases the 2,000 psi cylinder pressure to a lower level which is manageable by the lab gas piping system. The second stage of pressure regulation occurs at or near the instrument room, stepping the pressure down to a level that the instrument can tolerate, generally approximately 100 psi. The gas system also should include an alarm to alert lab staff when one cylinder is empty so that it can be replaced before the other one goes empty. From the manifolds, gasses should be plumbed to the

instrumentation room through stainless steel piping.

15. Power: Instrumentation consumes large amounts of power and requires dedicated circuits, emergency power, and UPS. In the instrument rooms, provide a two-compartment electrical raceway with 8 electrical outlets for each 8 feet of instrument bench. Provide a minimum of 2 dedicated, 120v, 20 amp circuits at each 8 feet of instrument bench. Provide computer network outlets spaced as required for the instrumentation, but no less than 4 foot on center. As some instruments require 220 volts as well, provide one 220v outlet for each 8 feet of instrument bench. Pumps shall be located in ventilated cabinets below the counter. These cabinets will be exhausted and will need to have a duplex electrical outlet for the pumps.

- Exam (search) rooms: Exam rooms require a 10'- 0" high ceiling for installation of the ceiling-mounted photo / light track systems.
  1. The exam room ceilings should be gypsum board.
  2. Exam rooms should be designed with low velocity air flow to avoid disturbance of small evidential particles.
  3. Provide down-flow air in exam rooms. The air flow in exam rooms should be supplied from the ceiling and exhausted from wall exhaust grilles located 16" above the floor. This provides a laminar flow of air from high to low, minimizing contamination of evidence.
  4. Provide a combination of incandescent lighting and fluorescent lighting in exam rooms. This reduces eye fatigue while doing tedious examination of evidence.

- Evidence Storage Space Design Guidelines Securely construct the evidence storage rooms in order to uphold the chain-of-custody while the evidence is in the jurisdiction of the forensic laboratory. Secure wall construction will consist of heavy-gauge, hardened, steel security mesh applied to the perimeter of stud walls, or the use of concrete masonry wall construction. The security mesh would be specified during the design phase by the prime architect in division 9. Extend the wall assembly up to the structural deck above or to a security ceiling.
  1. Lay out lighting at high-density storage areas perpendicular to the row lengths so lighting is provided at all rows. If lighting is parallel to rows, some will be lit and some will not.
  2. Provide a security system motion detector in the evidence storage room.
  3. Well-ventilate the evidence storage spaces with 100% exhaust to remove odors.

4. Ventilation is important in all evidence areas. Provide a minimum of 12 air changes per hour in the main evidence storage area and 15 air changes per hour in areas where drugs and marijuana are stored.
5. Provide a chemical storage cabinet for chemical samples such as those received from an arson case.
6. They shall be a lockable room with partitions to the structure above and equipped with adjustable stainless steel shelving.

- Firing Range
  1. The range shall be a 12-foot wide, single line ballistics testing firing range. There should be 75-feet between the firing line and the bullet trap.
  2. The forensic firing range will be supplied with ventilation air at a rate of approximately 50 feet per minute across the range cross section. Exhaust inlets will be located at the far end of the range and sized to maintain negative room pressurization.
  3. The range shall supply from behind the shooter in a laminar flow manner to the bullet trap. 25% of the air should be exhausted within 15 feet of the firing line, and the remainder shall be exhausted at the bullet trap. Air velocity downrange should be 200 feet per minute.
  4. Filtration will be considered for use in the exhaust ductwork for containment of residual lead, based on the projected utilization of the range. No special filtration will be required unless required by local environmental services.
  5. The range shall be acoustically isolated from surrounding spaces.
  6. Wall and ceiling construction (and floor construction if above the ground floor) shall be 8-inch thick concrete or fully grouted 8-inch concrete masonry units. Ceiling height should be 11-feet minimum.
  7. The entire length of the range shall be equipped with steel deflector baffles designed to protect light fixtures and other projections, and to either direct misfired rounds down range, or to trap misfired rounds.
  8. A rooftop dedicated exhaust fan will be provided for the firing range and water tank room.

- Bullet Recovery Tank Room
  1. This room will house the equipment in which a gun is fired into a tank of water in order to recover the undamaged bullet projectile for examination.
  2. The water tank room will be supplied with ventilation air, behind the shooter, at a rate of approximately 100 feet per minute through

the inlet openings of the water tanks. Exhaust ductwork will connect to the outlet openings of the water tanks and be sized to maintain negative room pressurization.

3. This room shall be acoustically isolated from surrounding spaces.
4. Wall and ceiling construction (and floor construction if above the ground floor) shall be 8-inch thick concrete or fully grouted 8-inch concrete masonry units.
5. The type of water recovery tank shall be a horizontal unit, fully exhausted, with a circulating chlorine filtration system. Minimum length shall be 12-feet.

- Biological and hazardous Waste Storage: These areas shall be designed with proper ventilation and with 100% exhaust.

- Mechanical Equipment Rooms: Mechanical penthouse areas and equipment rooms will be ventilated with exhaust fans and outside air intake louvers with filters and motorized dampers. Thermostatically controlled hot water unit heaters will be provided for space heating.

- Server/Communication Rooms: Dedicated cooling units (with humidification) will be provided for the Server/Communication Rooms.

- Receiving/Loading Dock Area: Receiving and loading dock areas will be served by a dedicated ventilation system and local radiant heaters. Air conditioning will not be provided.

- Toilet Rooms: All toilet rooms and janitor's closets will be exhausted directly to the outdoors. Make-up air will be provided by the air-handling unit serving the adjacent space.

- Elevator Machine Rooms: Each elevator machine room will be served by a dedicated cooling unit and exhaust fan.

- Miscellaneous Ventilation Items:
  1. Smoke dampers shall be provided at smoke barrier walls, as required by code.
  2. Fire dampers will be provided in all walls and floors with a rating of 2-hour or greater. Exception: Exhaust systems serving fume hoods and biological safety cabinets will be located in a separate 2-hour rated shafts, each dedicated to a single control

area, such that the need for fire dampers is eliminated.

3. Electric heating and ventilation of perimeter stair towers will be provided.

4. Elevator shafts will be ventilated.
5. Smoke evacuation and stair pressurization systems will not be provided.

SPECIFIC BUILDING AND LABORATORY MEP REQUIREMENTS:

HVAC Systems Design Criteria:

This section outlines recommended heating, ventilating, and air conditioning (HVAC) systems. For all recommendations, special emphasis has been placed on safety, reliability, value, ease of maintenance, adaptability to changes, sustainability and comfort for each space and function.

- The forensic laboratory spaces shall be designed to BSL-2 containment requirements as outlined in the Centers for Disease Control and Prevention CDC/NIH Bio-safety in microbiological and biomedical laboratories.

- HVAC Load Assumptions: Pending the completion of detailed laboratory and facility planning, the following assumptions have been made with respect to building HVAC loads:
  1. Aggregate lighting loads used to determine space internal heat gain, shall be 1 watt per square foot in all areas.
  2. Aggregate equipment loads shall be 6 watts per square foot in laboratory areas, and 1 watt per square foot in all other areas. Specific equipment loads for laboratory areas may exceed the 6 watts per square foot overall allowance. During design, unique requirements for instrumentation areas shall be developed.
  3. Laboratory supply airflow = 2.0 CFM per SF average
  4. Office/support supply airflow = 1.2 CFM per SF average
  5. Preliminary mechanical system capacities will be determined from above supply airflow values:

- Redundancy: General system/equipment redundancy will be in accordance with the following table:

	System	Redundancy	Notes
1.	Chilled Water Pumps:	N+1	Lead-lag
2.	Heating Water Pumps	N+1	Lead-lag
3.	Domestic Hot Water Heaters	N	
	Supply Fans	N	N-1 > 50%
	Lab Exhaust Fans	N+1	

  Note: N = Number and capacity required to satisfy 100% of load.

- Ground level mounted or interior mechanical equipment is preferred. Any equipment required by design considerations to be located high and / or at roof level must be enclosed within a rooftop penthouse.

- Ventilation Rate. Laboratory ventilation rate minimum air changes per hour (ACH) will be 6 ACH to control fumes, odors, and airborne contaminants during lab occupied hours and 4 ACH during lab unoccupied hours. All supplied air into laboratory spaces that have a potential for airborne chemical or biological contamination will be once through air.
  1. All units will be draw-thru type to reduce the possibility of moisture "carryover" off of the cooling coils.
  2. Outside air will be introduced to the air-handling units through intake hoods on the roof or louvers in the penthouse wall. Each intake will be equipped with filters to eliminate dust/debris present in the ambient air.
  3. Relief air will be ducted from the air-handling units and discharged through gravity relief hoods on the roof or louvers in the penthouse wall.
  4. Acoustical analysis will be performed to determine the need for attenuators in the supply and return air systems. No duct acoustical lining will be utilized.
  5. In general, airflow pattern will be from lower hazard to higher hazard areas to protect building occupants.

- 100% exhausted. Airflow within lab spaces shall directional movement from clean to dirty operations. Laboratory sections shall be maintained at a relative negative pressure to surrounding areas. Personnel entry/exit laboratory bio-vestibules will provide separation for differential pressure zones. The laboratory exhaust system will be manifolded, pressure independent, and variable volume. Multiple

exhaust fans will draw from the plenum and be staged on/off as required to accommodate the total laboratory exhaust air load. Constant stack discharge velocities will be maintained by introducing outdoor air into the exhaust plenum to offset a reduction in volume from the laboratory exhaust. Exhaust ductwork will be separated by floor within the vertical shafts.

- Laboratory HVAC. Each laboratory space HVAC system will be sized to accommodate the needed supply and exhaust air to support internal equipment heat gain, number of fume hoods, bio-safety cabinets, snorkels, etc. Supply and exhaust air will be metered into the laboratory space through air valves set for a volumetric offset to establish the desired pressure relationship. The air valves will have an occupied and unoccupied airflow setpoint to allow the lab space to reduce airflow levels when unoccupied down to 4 ACH. In labs with fume hoods, where the air change rate is dictated by the make up air required, a variable air volume approach is recommended to take advantage of the diversity in fume hood usage, in order to save energy associated with fan motor horsepower and outdoor air heating and cooling. Pressure independent variable air volume (VAV) supply and exhaust air terminal boxes will be provided for each lab. VAV exhaust air terminal boxes will be provided for each fume hood. Hot water reheat coils will be provided in the supply air terminal boxes to maintain temperature control in each lab.

- A variable air volume approach may not be justified in all cases. A constant volume system will be provided for those labs where the minimum ventilation rate exceeds the fume hood exhaust flow rate.

- Fume Hoods. Fume hoods will be class A per ANSI/AIHA 29.5 specifications and will be of the high efficiency VAV or constant volume exhaust type Fume hood exhaust is based on a sash position of 18 inches, or approximately 50 percent open, and 100 fpm face velocity. Face velocity will be within the range of 60-125 feet per minute for all sash positions, though anything less than 75 feet per minute will initiate an alarm.

- Air handling units. The air handling units serving the crime laboratory will have pre-heating coils, cooling coils, pre-filters to capture 30% of the particulates over 85 microns and final filters to capture 95% of the particulates down to 30 microns. Design consideration should be given

to installation of energy recovery run-around coil between outside and exhaust airstreams. In order to provide redundancy, the design should be based on multiple fan air handling units or fan wall air handling systems. Supply air will be delivered from AHU(s) through galvanized sheet metal duct systems to air valves with reheat coils for distribution to ceiling mounted supply diffusers.

- Exhaust system. The crime laboratory exhaust system will require a level of redundancy such that one fan minimally will serve as standby. The laboratory effluent will discharge from roof exhaust stacks a minimum of 10 foot in height above roof parapet level at an exit velocity of 2500 to 3000 FPM to direct exhaust away from air intakes and adjacent buildings. Branch exhaust ductwork serving fume hoods and bio-safety cabinets will be constructed from 316 stainless steel. Exhaust air valves will be required to meter the flow through exhaust terminal devices. It is recommended that specific design locations of outside air intakes and exhaust stacks be verified by either numerical or physical modeling to verify proposed design. A preliminary analysis should be made at the end of the schematic design phase, before proceeding with design development.

- Air pressure. Office space functions will be maintained at a positive pressure with respect to the laboratory areas. Return air from the office space functions will be recirculated and ducted back to the air handing unit. Temperature control for the offices spaces will be through variable air volume terminal units with reheat coils. Supply and return ductwork will be galvanized sheet metal duct. Air distribution will be through ceiling mounted diffusers, and registers. Toilet rooms and locker rooms will be exhausted through a general exhaust air system with a capacity of 5000 CFM .

- Pressurization in lab spaces: Labs generally are to be under negative pressure relative to adjacent office and corridor areas. This is to ensure that airborne contaminants and fumes stay in the lab areas. Flow of air should always be from clean areas (i.e. offices and corridors) to lab areas.
  1. Try to avoid excess negative pressurization to the exterior to prevent infiltration of moisture and exterior dust. This issue needs to be reviewed with the prime architect and engineer relative to the design of the exterior envelope.

- Articulating arm / task-exhaust units (snorkels): Task-exhaust units will be located selectively where local exhaust would be advantageous to laboratory staff for small desk-top procedures involving odoriferous evidence or procedures, instrument exhaust, or removal of heat from instruments. Task-exhaust units would never be used in place of a fume hood or biological safety cabinet.
  1. Task-exhaust units are UL-listed, as these units contain a task light as well.

- Heating Systems: New steam-to-water converters will be designed to supply water at 180°F. Pumps will be provided to distribute heating hot water to air-handling unit heating coils, reheat coils, unit heaters and other terminal equipment.
  1. The heating hot water system will be located in the penthouse and include converters, distribution pumps, expansion tank, air separator and chemical feeder.
  2. Two-way modulating control valves will control hot water to each reheat coil to maintain space temperature setpoint. Reheat coils serving perimeter rooms will be sized to offset the transmission heat losses. Secondary pump speed will be adjusted to maintain setpoint differential pressure between supply and return. Safety relief valves will be provided in the hot water piping system to protect the piping system from over-pressurization.
  3. The heating hot water piping system will designed based on a maximum of 8 feet per second for pipe mains and 4 feet per second over occupied areas.
  4. Expansion loops or other methods to accommodate pipe expansion will be provided.
  5. Glycol-water mixtures will not be utilized for freeze protection.

- Humidification Systems: Laboratory and general support area systems will be provided with humidification equipment, upon verification of functional need. Gas-fired steam generators will be provided to produce clean steam for humidification purposes.
  1. Humidifiers will be steam injection type, fitted with control valves for 15 PSIG steam, and located in the air handling unit or main supply air duct, within a section of stainless steel ductwork.
  2. Each humidifier will be furnished with humidity high limit sensors located downstream of the humidifier. Each humidifier will be interlocked with the corresponding air-handling unit supply fan to prevent operation if the corresponding supply fan is off. Each humidifier will be furnished with a steam temperature

switch interlock to prevent humidifier operation if steam supply is shut off.
3. Control valves for humidifiers will be industrial grade.
4. If humidification requirements do not justify centralized systems, local humidifiers will be
5. provided in specific spaces where this level of control is functional necessary.

- Chilled Water System: The chilled water piping system will designed based on a maximum of 8 feet per second for pipe mains and 4 feet per second over occupied areas. Glycol-water mixtures will not be utilized for freeze protection.
  1. The chilled water cooling coils will be selected for an entering water temperature of 42°F and a 14°F temperature rise. Two-way modulating control valves will supply chilled water to each cooling coil to maintain setpoint. Safety relief valves will be provided in the chilled water piping system to protect the piping system from over-pressurization.

- Process Water System: Closed loop process cooling water systems are not anticipated at this time.

- Energy Conservation: Air side economizers will be provided on all recirculating air handling units, to benefit from "free cooling" opportunities and reduce energy consumption. A run-around energy recovery coil system will be considered to capture energy from the laboratory exhaust air systems and utilize it to pre-condition the laboratory supply air. This system will be eliminated if payback analysis fails to justify economic feasibility.
  1. A Building Management System (BMS) will be designed with the capability to reduce heating and cooling during unoccupied hours within agreed setback limits. Critical areas will have consistent temperature maintenance. The Building Management System will be designed with the capability to reset the supply air temperature (within limits to control indoor humidity) in order to reduce reheat under part load conditions.
  2. Central system equipment will be selected for efficient operation with due consideration of part load operation, and will be EPA Energy Star Compliant.

HVAC Materials Ductwork

System	Material
All Supply	Galvanized Steel - externally insulated
All Return	Galvanized Steel - no insulation
Toilet Exhaust	Galvanized Steel - no insulated
Lab Exhaust Mains	Stainless Steel - no insulation
Lab Exhaust Branches & Ducts that contain Corrosive Materials	Type 304L Stainless Steel - no insulation
Mechanical Room Exhaust	Galvanized Steel - no insulation

Fans

System	Material
Supply, Return & Toilet Exhaust	Carbon Steel
Laboratory Exhaust	Epoxy Phenolic Resin-Coated Carbon Steel

Piping

System	Material
Heating Hot Water Piping	2-1/2" & larger- Schedule 40 Carbon Steel Welded and Flanged 2" & smaller- Type L Copper Sweat Connections All insulated
Chilled Water Piping	2-1/2" & larger- Schedule 40 Carbon Steel Welded and Flanged 2" & smaller- Schedule 40 Carbon Steel Threaded All insulated (PVC pipe will be considered for interior building piping)

Service Carrier Structure:

A service carrier structure shall be provided and is a ceiling hung raceway system providing power, data, lighting and snorkel exhaust for free standing lab benches or movable tables. The service carriers are furnished pre-assembled and pre-wired with receptacle outlets and data outlets provided in a similar fashion to the bench mounted raceways.

Plumbing Systems Design Criteria:

The water supply will be provided from the municipal system. The building should be separated from the municipal system with a dual (parallel) reduced pressure backflow preventor.

The laboratory will have risers of cold water, hot water, compressed air, vacuum, purified water, natural gas, sanitary waste and vent, storm drainage, and others as required. Main underground water piping will be ductile iron.

- Domestic Cold Water System: Domestic cold water will be supplied to urinals, water closets, lavatories, showers, electric water coolers, mop receptors, countertop sinks, and mechanical equipment where required. Domestic cold water will be provided from a connection to a utility main.
  1. A booster pump system will be provided (if water flow test data indicates that such a system is required) to maintain a minimum of 25 psig at the furthest flush valve and 30 psig at the furthest safety shower.
  2. Vacuum breakers will be provided at lab equipment.
  3. All cold water piping supplying mechanical equipment will be provided with backflow preventors.
  4. All valves 4 inches and smaller will be ball type. All valves over 4 inches size will be gate or butterfly type.
  5. Piping located within the building will be Type L copper, insulated.

- Domestic Hot Water System: Domestic hot water will be supplied to all areas and equipment, including countertop sinks, lavatories, showers, and mop receptors, where required at 120°F.
  1. One steam fired domestic hot water heating system will be located in the basement to generate domestic hot water. Domestic hot water return piping and inline pump will be provided to continuously circulate hot water throughout the building.
  2. Vacuum breakers will be provided at lab equipment.
  3. All valves 4 inches and smaller will be ball type. All valves over 4 inches size will be gate or butterfly type. Piping will be Type L copper, insulated.
  4. Zone valves will be provided to facilitate system maintenance.

- Safety equipment. Combination safety showers/eyewash will be installed in compliance with ANSI 2358.1-1998 and will be located with an unobstructed travel path. They will have a controlled flow capable of 3 gpm for 15 minutes. Tempered domestic water will be delivered via point of use thermostatic mixing valves.
  1. Locate units no more than 10 seconds walk from any point in the

laboratory in accordance with ANSI 2358.1-1998 regulations. Utilize manufactured products, not site-built units, and assure ADA compliance. Provide a hard plumbing drainage connection from the eyewash bowl drain.

2. At each laboratory sink, provide a deck-mounted, drench hose emergency eyewash for added safety. Such eyewash units are common practice and are expected by most laboratory staff.
3. Locate at least one combination emergency eyewash and shower unit outside the laboratory areas, in each primary egress corridor. This recommendation is for the use of anyone who must exit the laboratory space due to chemical fumes resulting from an accidental spill.

- Laboratory sinks: Provide hands free operation at each laboratory sink, except at ADA-compliant sinks, provide infrared-operated sink controls. Sinks shall be either elbow paddle, foot peddle or knee stirrup operation, depending on the users' preference.

- Waste system. The forensic laboratory shall have two separate waste systems:
  1. A sanitary waste system.
     - Sanitary drain and vent system will be provided for lavatories, water closets, urinals, electric water coolers, countertop sinks, mop receptors, mechanical equipment drains and floor drains as required.
     - All sanitary drainage and vent piping will be located either below floor slabs, above ceilings, in pipe chases, or in wall cavities as required. Complete accessibility will be available to all cleanouts in the piping system.
     - All sanitary drainage will be collected into a gravity main within the building and connected to the site sanitary sewer main. It is anticipated that sanitary service will be available to the site.
     - Above ground sanitary piping will be service weight hubless cast iron with neoprene gaskets and stainless couplings or Schedule 40 galvanized steel or DWV copper drainage piping with wrought copper DWV fittings. Below ground soil and waste piping will be cast iron service weight bell and spigot pipe with neoprene gasket joints.
     - Plastic (PVC) piping may be considered for underground sanitary piping. It is not recommended for above ground

applications because of excessive noise due to its thin wall, and inherent limitations of its use (i.e. not permitted in return air plenums). If PVC piping is utilized, it must be camera inspected for standing water.
- Cleanouts will be provided in accordance with applicable code requirements.

2. A laboratory waste system. The laboratory waste system shall collect waste from all lab sinks, cup sinks and equipment located in laboratories and support areas. The laboratory waste system shall be minimum 4" pipe size schedule 40 polypropylene pipe. Liquid waste from the laboratories and support areas are not expected to be concentrated due to ASCLD dilution procedures and therefore can be discharged to the local sewer system after flowing through a monitoring manhole. As a precaution, piping and traps from the sinks to the main discharge connections shall be cast iron to aid in dilution prior to draining through the polypropylene piping.
   - All laboratory waste and vent piping will be located either below floor slabs, above ceilings, in pipe chases or in wall cavities as required. The laboratory waste will be collected into a gravity main, which will connect to a manhole outside the building.
   - All concentrated acids and alkalines, toxic, radioactive and other hazardous materials shall be disposed of in portable containers for off-site disposal.
   - Floor drains will not be provided in the laboratories.

- Storm/Roof Drainage: Primary removal of storm water will be provided by an overhead storm piping system. Piping will extend from roof sumps, down columns, and connect to the underground site storm drainage system.
  1. A secondary system will be provided and piped to discharge above grade, separate from the primary system (as required by building code).
  2. Horizontal above ground storm drainage piping will be insulated to control condensation.
  3. Above ground storm drainage piping will be service weight hubless cast iron with neoprene gaskets and stainless couplings. Below ground soil and waste piping will be cast iron service weight bell and spigot pipe with neoprene gasket joints.

- Plumbing Fixtures and Specialties: Plumbing fixtures and specialties will be supplied in sufficient quantity to meet or exceed the requirements of the Code.
  1. Water Closet - Water-saver (1.6 gpf).
  2. Urinals - Water-saver (1.0 gpf).
  3. Lavatories - Countertop type units, with restricted flow faucets.
  4. Stainless Steel Lab and Process Sinks - Will be provided with either foot pedal or automatic sensor (touchless) control and gooseneck faucet for laboratory hot and cold water.
  5. Mop Receptors - Stainless steel with hose-end type faucet, complete with vacuum breaker. Showers - Will be provided to support program requirements.
  6. Electric Water Coolers - Wall-hung electric water cooler, barrier-free for handicap use. Safety Shower/Eyewash - Will be provided to support program requirements.
  7. Safety Eyewash - Will be provided to support program requirements.
  8. Water Hammer Arrestors - Will be provided to absorb hydrostatic shock pressure in the domestic water piping systems.
  9. Backflow Preventors - Reduced pressure zone and double check type will be provided as required.
  10. Hose bibs will be provided in mechanical rooms and on the building exterior as required.

- Compressed Air System: Oil-free instrument grade compressed air dried to -10°F will be provided for laboratory areas.
  1. Compressed air will be supplied from duplex rotary screw compressors located in the penthouse. The system will include an air receiver, duplex coalescing filters, duplex twin- tower heatless-regenerative desiccant air dryers and duplex 1.0 micron final filters. Additional branch or point of use filtration will be added locally by users, where necessary. Air will be distributed at 125 psig for a minimum outlet pressure of 100 psig, with local pressure reduction sets provided as required. Process equipment requiring compressed air will have its own regulator to further reduce the air pressure according to its needs.
  2. All compressed air piping will be type "K" copper with brazed joints. All piping will be cleaned to USP requirements and inert gas purged.

- Vacuum. A laboratory vacuum plant will provide 19 inches HG intake vacuum to laboratory service fixtures. The vacuum piping will be type L copper 2-inch pipe size.

- Lab Gas Systems: Whenever possible, point of use gas generators will be used. Helium will be stored in gas cylinders and distributed to the labs as required.
  1. Zero-grade dry air will be either created in gas generators or stored in gas cylinders and distributed to the lab as required.
  2. Nitrogen will be either created in gas generators or stored in gas cylinders and distributed to the labs as required.
  3. Hydrogen will be created in gas generators and distributed to lab outlets as required. Local water reservoirs with manual fill provisions will be provided.
  4. Piping will be stainless steel (helium, dry air and nitrogen) or double containment stainless steel (hydrogen) with orbital welded connections and fittings.
  5. Local toxic/combustible gas detection systems will be provided, as applicable.

- Purified water:
  1. From a central point, provide ASTM type III (1 megaohm) purified water to laboratory sinks with the exception of vestibule sinks. At selected lab sinks, provide ASTM type I (18 megaohm) purified water from individual point-of-use polishing units at various laboratory sinks where this higher purity is required.
  2. Design and specification of all components of the purified water system, excluding faucets, are to be covered by the plumbing engineer under a single specification section. Faucets will be specified in the lab fixture package and installed by the pure water contractor. This approach helps to ensure that the entire purified water system installation is under the responsibility of one contractor and vendor.
  3. Type III water will need to be piped to all under counter lab glassware washers.

<u>Fire Protection Design Criteria:</u>

The entire facility will be fully sprinklered with automatic sprinkler systems. The following types will be provided for these areas:

- Wet sprinkler systems will be zoned by floor. Each of these zones will be provided with water from an interconnected fire protection automatic riser distribution system.
  1. Dedicated supervised valves will be provided for the electrical rooms and elevator machine rooms.
  2. Dedicated supervised valves will be provided for the elevator pits to isolate the sprinkler heads.

- A gaseous or low expansion foam fire suppression system will be considered for computer and network server rooms.

- Dry pendent-type sprinklers will be used in walk-in freezers and refrigerators.

- A pre-action fire suppression system shall be used for chemical and evidence storage rooms.

- Fire Water Source and Conveyance: Fire protection will be supplied from the municipal water service piping.

- Combination Wet Pipe Sprinkler/Standpipe System: Wet pipe sprinkler system zones will get their source of water via a connection to the wet standpipe system thereby creating what is termed a combination standpipe/sprinkler system. Wet pipe sprinkler protection will be provided throughout the facility, including spaces such as elevator shafts and machine rooms, electrical closets, telecommunications rooms, etc. except as otherwise identified within this document.
  1. Individual zones with flow detection switch, control valve and test and drain connection (floor control station) will be provided on each floor and for each zone within the stair enclosure. Additional zoning, as required to be consistent with the building's fire alarm system requirements, will be provided.
  2. Sprinkler system piping will be Schedule 10 or 40 black steel. All piping, fittings, devices, and their installation will comply with the requirements of the authority having jurisdiction.
  3. Water-flow detection devices will transmit an alarm signal to the building fire alarm control panel upon detection of water flow. Valves controlling water supplies to the sprinkler system will be provided with "tamper" detection switches. A trouble signal will be transmitted to the building fire alarm control panel upon detection of an unauthorized valve closure.

- If the building design includes a multi-story solution, each stair tower will contain either a combination standpipe/sprinkler riser or a standpipe riser. Hose valves will be located at each intermediate floor landing or as required by the authority having jurisdiction. Hose valves will be provided elsewhere in the building as necessary to meet codes.
  1. Siamese connections will be provided on the building exterior and on roof. Horn/strobe units will be located on the building to annunciate a flow through the fire protection system.
  2. Piping, fittings, devices, and their installation will comply with the requirements of:
     - NFPA 11, NFPA 13, NFPA 14, NFPA 16, NFPA 20, NFPA 30
     - FM Data Sheet 2-8N "Installation of Sprinkler Systems"
     - Local codes and standards

- All fire protection equipment, devices, and materials will be Underwriters Laboratories (UL) listed and Factory Mutual (FM) approved for fire protection service as applicable.

- Fire Pump: If a fire pump is deemed necessary, an outdoor, diesel engine powered, enclosed pump system package will be provided. The system will include jockey pump, fuel storage tank and controls. The pump motor and associated peripheral devices will be connected to the emergency power system. The fire pump system will comply with NFPA 20.

<u>Temperature Controls System Design Criteria:</u>

Laboratory Airflow Control System (LACS): A new Laboratory Airflow Control System will be provided to maintain laboratory airflow, pressurization, temperature and fume hood average face velocity. Room pressurization control shall utilize airflow tracking to vary the volume of supply air into the room, and general exhaust air from the room, to maintain both minimum ventilation and airflow balance. The room pressurization control system will also maintain laboratory temperature. The exhaust air volume of laboratory fume hoods will be controlled by a stand alone fume hood controller that is seamlessly incorporated into the room pressurization control system.

- The LACS system will include room controllers, fume hood controllers, supply and exhaust airflow control devices, reheat coils and valves, all associated low voltage wiring, and all necessary

accessories to implement an integrated system.

1. All laboratory airflow control system components will be products of a single manufacturer.
2. The system will be fully compatible with the Building Management System described below, to allow the LACS to be monitored by the Building Management System.

- Building Management System (BMS): All mechanical systems will be monitored and controlled by a new Building Management System (BMS). A central control interface terminal will be provided.
  1. The BMS will be capable of Web-based access via Intranet and/or Internet.
  2. BMS Local Control/Monitoring: BMS remote control panel(s) (RCP's) will be the main device(s) used to control equipment in the building. Each RCP will be a microprocessor-based, multifunctional digital controller. The RCP will provide real-time continuous loop control and sequential logic control based on monitored data and system configuration (programming). Each RCP will function on a stand-alone basis and have self-diagnostics. It will accept both analog and digital inputs from field sensors and provide both analog and digital outputs to operating mechanical and electrical equipment. Each RCP will have 15% spare I/O space.
  3. Monitoring System: The building's monitoring system shall be provided through the Building Management System (BMS) and connected in conjunction with the security system. Special monitoring features within the facility shall include, but shall not be limited to:
     - Refrigerator (status)
     - Freezers (status)
     - Building Power Loss
     - Emergency Generator Start
     - Fire Alarm System (alarm status)
     - Mechanical System Failure
     - Security System (back-up alarm)
     - Gas System Monitoring
  4. All final control elements, including larger size valves and dampers, will have electronic actuators.
  5. Where packaged control systems are supplied, the BMS will interface to these packages via a network node rather than by field inputs and outputs.

6. Utilities entering the building such as natural gas and water will be monitored by either pulse totalization digital inputs or analog inputs to the BMS depending on the type of meter appropriate for their measurement.

- Instrument Controls: Industrial control sensing devices, dampers, and valves will be used for temperature, humidity and pressure measurements in central supply and exhaust systems as well as in water supply systems and any other primary HVAC systems for both comfort and process.
  1. Commercial-grade temperature sensors and control valves will be used for HVAC terminal units in laboratories, offices, and support spaces.

- BMS Normal-Emergency Power: Power to the BMS RCP's and other devices will be powered from the building normal power source. In the event of loss of normal power, the BMS will be operated from computer grade uninterruptible power supplies (UPS's). This use of UPS is to prevent the BMS from experiencing diagnostic alarms and advisories caused by short-term power losses and the power losses during the transition time to emergency power.

Electrical Systems Design Criteria:

This section outlines the recommended electrical systems for this type of project. For each system, consideration will be placed on safety, reliability, flexibility of future changes, ease of maintenance and value.

- Incoming Electrical Service: The site shall be fed from the existing service provided by the local utility company.

- Transformer secondary voltages will be 480/277 volts and will feed the main switchboard located in the main electrical room within the building. Underground feeder cables will be used to connect the transformer secondary windings to the main switchboard. The transformer shall be a dry-type cast coil type.

- Building Electrical Distribution System: The building electrical system is configured from a single electrical source as noted in the "Incoming Electrical Service" Section. The 480/277 volt main distribution equipment shall be located indoors in the main electrical room.

- Large mechanical loads such as chillers, pumps, etc. are fed from a Motor Control Center (MCC) located in the manufactured enclosure that is directly connected to the main distribution panel located in the main electrical room. The exhaust fans, ventilation equipment and any other mechanical devices will be located in the penthouse or on the roof and shall be powered from a motor control center located in the Penthouse. Each motor control center will be connected directly to the main distribution switchboard. Mechanical equipment required to be fed from an emergency source will be fed from a separate motor control center and powered from the emergency generator.

- Lighting and receptacle panelboards will be fed from the main distribution switchboard. In electrical closets on each floor, a 480/277 volt lighting panelboard will provide electrical service to general lighting and also feed 480-to-208/120 volt transformers. These transformers will feed general receptacle panel boards to provide general receptacle (120 volt) power throughout the area.

- The electrical closets shall be located on each floor in a central location, one above the other to allow for the vertical distribution of electrical service effectively. The electrical closets will house the general lighting and power panelboards, emergency panelboards, 480-208/120 volt transformers for lab panels and other miscellaneous electrical items.

- The receptacle panelboards for laboratory use will be located near the loads served. Typically it is desirable to have the laboratory panelboards located just outside the entry doors to the laboratories. General use receptacle panelboards will be located in the electrical closet or other common area. If a laboratory area requires the majority of its circuits to be on UPS power, the lab panel at the door will provide UPS circuits for the entire laboratory.

- Surge suppression devices will be located at the main distribution switchboard to protect the integrity of the entire system.

- The electrical service for the building will be sized to meet current requirements plus 25% for future growth. All lighting and receptacle panelboards will be provided with 25% spare electrical and physical capacity.

- Receptacles and Lab Bench Wiring: General purpose receptacles shall be wall mounted at a height of 18" above finished floor unless otherwise noted.
  1. Laboratory bench receptacles are located in surface mounted, divided metal raceways and located on the bench at the backsplash or in a bench trench. The raceways are divided to separate the bench power from the data/communications cabling and outlets. The receptacle outlets in the raceways are installed 24" on center from one another the entire length of the raceway.
  2. All receptacles will be color coded so that it will be obvious what power source they are connected to. Normal power receptacles will be "ivory, brown or white", as selected to coordinate with facility colors, and isolated ground receptacles will be "orange" in color. Emergency outlets shall be "red" in color and connected to the emergency system. Outlets for equipment required to be supplied from an uninterruptible power source (UPS) will be "red" in color with a label indicating that it is on a UPS circuit. The color scheme will be fully developed during the design development phase of work with a list of all the power sources available in each laboratory and the color of outlets will be indicated.
  3. Raceway: Provide a two-compartment electrical raceway in all laboratory spaces, mounted just above the backsplash. One compartment is for electrical wiring while the other is for data cabling. The top of the raceway will be set at 48” above the floor. Space duplex outlets at 4’- 0” on center and space duplex data outlets at 8’- 0” on center. At all bench sections less than 4 feet in length, provide at least one duplex power outlet, and at benches less than 8 feet, provide at least one duplex data outlet. The exception will be special areas such as in the instrument rooms and other locations where noted on the plans, e.g. under the instrument bench where power outlets are to be 2 feet on center, and data outlets at 4 feet on center. Incorporate UPS circuits into this raceway system as well. UPS will be a separate, smaller raceway mounted below the standard raceway.
  4. Provide a wall-mounted, data outlet behind each refrigerator and freezer for connection to a PC-based monitoring system. Most lab refrigerators and freezers are available with a data port to remotely monitor temperature in these units.
  5. Pedestal Boxes: Each to have three outlets and one 2- port data outlet.

6. Cable Trays: Cable trays should be exposed type, to be specified by the electrical engineer.
7. Overhead Cord Reels: All overhead cord reels are to be specified by the electrical engineer. These will be ceiling-mounted, recessed type within the lab areas and suspended type in the vehicle examination bays.
8. Provide power outlets at the building exterior to provide power for temporary refrigerator trucks in case of facility overload or disaster. These outlets will be connected to the separate emergency system.

- Emergency Power System: Emergency power will be supplied from a diesel fueled emergency generator capable of providing power to life safety and critical loads in case of the loss of normal utility power. Generator start-up, transfer to emergency, transfer to normal and periodic testing shall be automatic and will be under the control of the automatic transfer switch. Life safety requirements mandate that emergency power be available in 10 seconds after an outage.
  1. A complete emergency power distribution system will be provided separate from the normal power distribution system. Receptacles on the emergency power system will be uniquely identified by color. Generally the emergency receptacles are "red" in color.
  2. In each electrical closet and main distribution point, supplemental battery lighting will be provided in case of generator failure.
  3. Typical loads that will be on the generator are:
     - Emergency Egress and Exit Lighting
     - Uninterruptible Power Source (UPS system)
     - One Elevator (if applicable)
     - Security/surveillance System
     - Telecommunications/Data Systems
     - BMS/Monitoring system
     - Critical Refrigerators/Freezers
     - Sewage and/or Sump Pumps (if any)
     - Fire Alarm System
     - Selected building lighting
     - Selected building and special purpose receptacles
     - Fume hood exhaust systems
     - Selected laboratory equipment per the Owner's requirements
     - Computer servers (file server, NIBIN, CODIS, AFIS, etc)
     - Critical Exhaust Fans And Cooling Systems for Support Systems (i.e.; server room/data telephone rooms).

- UPS System: A central uninterruptible power supply system (UPS) will be provided for systems and/or equipment requiring clean, uninterrupted power. For major equipment and/or devices within the facility, the UPS power will be provided from a separate power system dedicated to that system and usually provided with that system. The UPS System shall be provided with a manual by-pass switch that will allow maintenance to be performed without disrupting normal operations. The use of small individual UPS devices should be avoided wherever possible. Overall systems that will be connected to the base UPS system shall be:
  1. Computer Servers
  2. AFIS, CODIS and NIBIN Systems
  3. Telephone Equipment
  4. Security/Access System
  5. Owner identified equipment
  6. Building Management System (BMS)

Lighting Design Criteria:

This section outlines the recommended lighting systems for the project. For each system, consideration will be placed on energy efficiency, fixture placement, controls and esthetics. Lighting shall be designed to minimize the various lamp types, taking into consideration the Energy Efficiency Standards, the illumination requirements of the various building spaces and the recommended practices as outlined in the Illumination Engineering Society of North America (IESNA) Lighting Handbook. The lighting system shall conform to applicable Electrical and Energy Codes.

- Lighting (Artificial and daylighting): Lighting of the laboratory environment is critical to the work which goes on within.
  1. Color rendition is important. Light fixtures should have a high rendition index (CRI) of around .90, to maximize color rendition of evidence.
  2. Provide a general lighting level of 80 foot candles of illumination, 3' above the floor, at all laboratories.
  3. Indirect lighting is preferred. Position light fixtures over the laboratory benches to maximize the effectiveness of the lighting.
  4. Lighting at the range will consist of fluorescent lights, spot lights as well as ambient lighting, each individually switched. Additional lighting, also individually switched, is required over the firing line and in the projectile recovery tank room.

5. In vehicle bays, mount general lighting at 14'-10" AFF; sidewall lighting to be mounted at 7'-4" AFF. Light fixtures shall have a high CRI, and be mounted on both sides of the bay. The sidewall lighting should direct light at a downward angle to wash the sides of vehicles.
6. Dual-level controls and sensor-operated lighting controls default to the electrical engineer.

- Lighting Systems – Interior: Lamps for general lighting will be fluorescent (linear and compact), low mercury TCLP compliant (linear lamps), with a color temperature of 4100 degrees K (neutral color). Certain areas will require special lighting and controls for color comparison work. These areas and other special areas will be developed further as the project develops.
  1. Ballasts for the operation of fluorescent lamps will be electronic type with a 10% or less harmonic output.
  2. Luminaires in the office areas and corridors will be recessed type, 2' X 2' or 2' x 4' low brightness louvered parabolic or lensed troffers with T8 or T5 lamps. Lighting levels will be designed to provide general ambient illumination with task lighting provided at the workstations.
  3. Decorative sconces, downlights, wall washers, cove lighting, etc. will be provided as required to accent public spaces and supplement the architectural design features. Controls will be provided as needed to implement the lighting schemes that will include on-off switching, multi-level switching, dimming, day lighting, etc.
  4. Luminaires in the laboratory areas will be pendant mounted indirect, fluorescent type, T5 or T8 lamps and oriented as required to complement the bench layout and/or the overhead equipment carriers that will be suspended from the ceiling. Certain sensitive laboratory areas will utilize radio frequency (RF) shielding to limit the amount of RF interference generated by the fluorescent lamps. Other areas may require special color, lamp source and luminary design to meet the desired task. These areas will be outlined as the project proceeds.
  5. Luminaires in utility spaces such as mechanical rooms, electrical rooms and closets, etc. that do not contain a lay-in ceiling will be provided with chain-hung, pendant or surface-mounted industrial fluorescent luminaries. Spaces with lay-in or hard ceilings shall be designed to utilize recessed, lensed fluorescent luminaries.

6. Exit and emergency lighting will be provided at each laboratory, and as otherwise required by Code. Exit lighting will be equipped with "LED" type lamps for low power consumption and long lamp life. Emergency lighting will consist of individual or portions of a luminary (one or two lamps) that will be continuously energized and placed on an emergency circuit. These luminaries will be installed along the path of egress to provide the Code required 1 FC, average luminance and also serve as nightlights. An independent, emergency power source will be provided for powering both the exit and emergency lighting systems during power outages.
7. For safety, in some areas, battery-operated emergency lighting units may be supplemented to provide continuous lighting during the 10-second interval the generator is starting and coming up to speed. Bi-level lighting controls will primarily be utilized for local switching in the offices and laboratory spaces. Day-lighting sensors will be incorporated into the perimeter laboratories and office lighting systems to utilize day- lighting where ever possible. Dimming will be available in conference rooms and other special spaces where it will be beneficial or required. RF filtering/shielding will be specified in sensitive spaces containing dimming circuits. Task lighting will be planned for laboratory work surfaces.
8. Corridors and large open spaces will use contactor or group switching controls for everyday operation of control. Day-lighting sensors can also be utilized for control of lighting system. Occupancy sensors will be utilized where their application can be beneficial to energy savings and operations.

- Lighting Systems – Exterior: Exterior lighting systems will utilize high-intensity discharge (HID) lamp sources for parking lot luminaries; building mounted luminaries for perimeter lighting, walkway lighting and building entrances. At the building exterior, emergency exits from the building will be equipped with compact fluorescent (CF) luminaries. These luminaries are provided in conjunction with the exterior HID sources to allow the luminaries the time delay in re- striking. HID lamps typically have a re-strike time delay after a power outage to provide illumination at an emergency exit of the building. However, "ride-thru ballasts" are available to maintain the arc during the time it takes for the generators to start, normally 10 seconds.

1. This feature allows HID lamps to resume full brightness the moment generator voltage is available.
2. The luminaries selected for exterior use will utilize "sharp" cut-off optics, which minimize glare and prevent light spill onto adjacent properties. Floodlights will be carefully located and shielded to minimize glare and provide ample security and decorative effects.
3. The exterior lighting control, which includes security lighting, decorative walkway and parking areas, will be controlled by the building's (BMS) Building Management System. Incorporated into the "exterior lighting control" shall e "bi-level" ballasts to allow the luminaries to operate at lower levels during off hours of operation.
4. Illumination levels will be provided as outlined in the latest edition of Illumination Engineering Society of North America.

Security Design Criteria: Security for the crime lab will not only restrict entry from the outside, but is critical to the internal operation of the facility to control access and maintain the integrity of the chain of evidence processing.

The electronic security system will consist of a card access system, critical programming of same, closed circuit television that is recorded continuously or by event according to the owners use, and a secure envelope of detection devices properly engineered to enhance the safety and operation of the facility. All security electronics shall be powered by emergency circuits backed up by emergency generator power.

The security system will also monitor temperature alarms for critical equipment operated by the building automation system, or stand alone critical equipment equipped with temperature controls.

A standard card access and security control and administration station shall be designed to allow the facility security, or administration staff to monitor and operate the system, or the system may be designed for automatic and non monitored operation.

Portions of the Crime Lab property will be accessed by vendors, tow truck drivers, trash collection, systems maintenance engineers and other service providers. It is critical to control and contain the support vendor’s access to parking and storage areas.

- Site security. It is recommended that the site design provide four levels of security for the site. These security levels are as follows:
  1. Level 1, unsecured site area: The level 1 unsecured site area, located outside the facility security zone, accommodates general visitor parking and allows these visitors to enter and leave the parking area without security barriers.
  2. Level 2, Partially Secured. This parking area should be fenced, and would be used by people having the type of business at the facility which would require special vehicular access. Access to shipping/receiving, venders picking up biological and toxic waste, dumpster replacement, and police officers delivering evidence might use this parking area. It is considered "partially" secured, because it should be fenced and gated, with the gate left open during working hours, and locked after hours.
  3. Level 3, Secured. Parking for staff, state vehicles, pool cars and other specialized law enforcement vehicles should be parked in the Level 3 parking area. It should be secured 24 hours, surrounded by a security fence, and access to the parking area should be restricted, preferably by use of a proximity access device.
  4. Level 4, Secured and Monitored. : Mechanical, electrical and other outside building support systems will be included in this area. It should include a security fence, with access to only a selected few. In addition, the area should be covered with electronic security devices such as CCTV or intrusion detection devices and should be electronically monitored.

- Building Security. Card readers, door control, door monitoring, cameras and other required security equipment shall be provided at locations directed by the owner.

- Security Electronics. The facility shall include Closed Circuit Television (CCTV) cameras, monitored at a common area within the building. The quantity of CCTV cameras and their locations shall be determined by management policy as part of overall security strategy. The CCTV system will be integrated with the access control system. The system will provide interior and exterior camera views that will be recorded for future reference or retrieval. Certain assigned alarming mechanisms will be programmed to initiate alarm recording on a call up CCTV monitor if the system is attended by local security and cameras are being watched.

The CCTV system will provide video surveillance utilizing vandal resistant, color, low light CCTV Cameras. Fixed and Pan Tilt and Zoom may be incorporated. For initial cost reasons, analog CCTV system is recommended for a crime laboratory. The basis of design for the CCTV system will be a non proprietary and commercially available off the shelf product of high security grade. The CCTV System design will include a manufacturer's equipment warranty of up to 3 years for parts and labor. The system may be of analog or IP digital design. Both types have their respective attributes.

This CCTV system will record using digital video recorders. The time of recorded video will be determined by the needs of the facility.
Audio and video recording may be included and initiated at sensitive areas designated by the user and activated by motion. Such as the firing range area to provide as quick as possible response to an incident.

The digital video recorders access may be authorized by the Crime Lab director to be seen off premises on a secure network, or via an internet connection.

At a minimum, the types of locations for which CCTV surveillance should be considered might include, but are not limited to, the following:

1. Sweeping cameras in parking areas and at vehicle entrances to the parking area.
2. Camera coverage at the entrances to the evidence storage vault and the narcotics vault.
3. Camera coverage for the site service access and loading dock area.
4. Sweeping camera in the vehicle examination area.
5. Camera coverage at all building entrances.

- Other Security Electronics. Additional security devices, also monitored at a common area within the building, should include:
  1. Motion detection throughout all evidence storage spaces, in the firearms collection room, and in all main corridors.
  2. In the firing range to allow shooters to be viewed from outside the range, in case of a misfire or other accident.
  3. Electronic door status monitors at all exterior doors.
  4. Double access security devices at the narcotics vault.

- Proximity Access. The facility should be equipped throughout with a monitored proximity card access system. The card access system shall be integrated with the security system to monitor all perimeter doors, secured areas, and critical storage/holding areas. Each perimeter door shall be equipped with an interior mounted CCTV camera that is motion activated and designed to transmit the signal to a remote recorder and record the event that occurred during "off" hours or at selected days and/or times. Intrusion type alarm devices are provided at each door that is also part of the perimeter security system. All controlled areas will provide free exit from the secure side.

- A Card reader and Intercom shall be located 10-12 feet in front of any vehicle entrance control gate or door. The readers may be on a pedestal or wall mounted as the architecture requires.

- Remote monitoring of the security/access system shall be provided through the (BMS) Basic Management System for the selected destination.

Communications (voice, data, digital) Design Criteria: The design team shall utilize the following design features in the building design:

- The voice/data infrastructure for the new building will be based upon the CommScope Systimax X10D Series, providing up to 10 gigabits per second communication to the desktop over plenum-rated Category 6A horizontal cables in cable tray. At the work area, the cables will be routed into the wall by 1" conduit stub ups with bushings and terminated in T568B fashion, on 4 port modular telecom wall outlets mounted on 4" x 4" deep electrical boxes with single gang mud rings.
  1. A 50 micron multimode fiber optic backbone plenum-rated cable in inner duct will connect all IDF's to the MDF and the MDF to the Building Service Entry in the basement. The fiber will be terminated on rack mounted patch panels in a second open frame distribution rack located in each IT room. In the Building Service Entry, the backbone fiber optic cable will terminate on a fiber optic patch panel, where it will transition to Outside Plant (OSP) rated cable and exit the building, traveling underground to existing Telecom Vault (TBD).

- Telecom outlets consisting of a minimum of two Cat 6A connectors per outlet shall be installed for telephone/data combination outlets in offices, workstations and other areas as directed by the owner. Backbone cabling will consist of multimode and single mode fiber optic cabling as directed by the owner. Copper backbone cabling will be provided where required.

- A light-weight cable basket type cable tray will be utilized as the primary telecommunications/data cable raceway located above the corridor ceilings.

- Computer data ports: Provide computer data ports at key points in the laboratory and office areas to permit staff to link computers to the local area network or laboratory information management system (LIMS). Locate data ports at all designated workstations, functional work areas, office spaces, and in all designated laboratory workstations. Each workstation in all areas will be designed for a minimum of two cable drops with the capability for a future third drop or fiber optic cable installation. Additional outlets will be provided as required.

- In the laboratory spaces, a minimum of one drop will be provided for each major instrument location plus additional drops to support other functions as needed.

- All FAX machines and copiers will be provided with data/telecommunications outlets for connections to the LAN system and telephone system.

- Telephone System: The building will be equipped with a single common system used by all occupants including laboratory and office personnel. The system will have the following characteristics:
  1. Shared LAN System: Capability for station cables to be provided at each workstation (office and lab). Provide a wall mounted telephone in each lab or exam area at the entry door for convenience. Provide standard voice communications lines to administrative areas for FAX machines and Copiers.
  2. Data System: A complete data/information system including all hardware and software, LAN network and all internal and external connections to link the new facility with all required departments will be provided.

- The Data System shall include a server room to house LAN servers, a data closet on each level from cable termination and light weight cable basket to extend data cable and other communication cabling, including CCTV through the corridor ceilings. The complete scope of the data system will be finalized as the project proceeds.

- The telecommunications structured cabling system will be designed in accordance with current EIA/TIA standards to support software applications such as LIMS.

- Telecommunications & Data Distribution System Infrastructure: Station cables shall be (Cat 6A) routed to individual workstations from a termination hub located in the telecommunications/data closet on each floor. A vertical fiber backbone will interconnect the hubs on each floor. A horizontal fiber backbone will connect the first floor hub in the telecommunications/data closet with the head-in equipment in the main telecommunications/ data room.
  1. Four-inch (4") conduit sleeves will be provided to connect the telecommunications/data closets vertically between floors and provide a path between the closets and the corridor ceiling space. Inter-connection between special areas will be extended via a light-weight cable basket system.
  2. Telecommunications/data closets will be provided with fire-resistant plywood backboards on all walls or as required. Provide two (2) sets of data cables to each workstation with an option to provide fiber optic cables at a later date.
  3. Electrical power for the telecommunications closets will be provided via a separate panelboard located in the server room and dedicated to the requirements of the data and telecommunications system in all closets throughout the facility. The panel will be served from an emergency/UPS source as previously indicated.
  4. Provisions for emergency secondary telephone and redundant data distribution service will be provided.
  5. Outlet Criteria: Outlet boxes for the telecommunications/data system shall be double-gang with a 3/4- inch conduit run up to the ceiling space with a nylon pull cord for ease of data cable installation. For hard or inaccessible ceiling areas, the conduit will be run back to an accessible point or shall be provided with a ceiling access panel. Outlets at laboratory work stations will be provided as part of a continuous bench mounted

raceway system comprising data/telephone outlets and power receptacles.

- Digital photography: To enhance the potential for forensic photography in each individual laboratory unit, provide the necessary supplies for accomplishing digital photography in the laboratory areas.

- Consider special grounding at the facilities foundation system, compatible with the Owner's communication systems, to minimize effects of lightning strikes.

- Paging System: The crime lab operation requires staff to be mobile between laboratories and office spaces. It will occasionally be necessary to establish contact with a staff member on an expedited basis. To facilitate that need, a zoned public address system will be used to page the employee when they are in corridors or public spaces. The system will interface with the telephone system so all-call pages can be announced on desk phones in offices spaces.
  1. Generally paging is delivered as a combined system. Paging speakers are assembled into "zones" for zone controlled paging with volume controls in specific locations. These paging zones are normally in public spaces and corridors. Paging in offices and labs is accomplished through the building telephone system. These two systems are connected such that zoned pages can be accomplished from a telephone.

- Cable television: During recent disasters and periods of civil unrest, emergency response coordination was aided greatly by continuous reports by television news media. As a result, it is beneficial to provide cable television monitors in key areas, such as the conference room, classroom areas, and laboratory director's office.
  1. The system shall consist of outlets, both cable and power, and antenna cabling to the point of building entry with future hookups to dish and/or the local cable provider.
  2. Infrastructure (cabling) will be designed into the facility that will provide a complete web accessible system.

- Since teleconferencing probably will be in greater use in the future as the technology improves and costs decline, build in provisions for such teleconferencing to the conference rooms, classroom, video testimony room.

Specialty Systems Design Criteria:

- Fire Alarm System: Installation of a complete and functioning fire alarm system will be provided for the entire building in all areas. The system shall be a completely addressable type with expansion capabilities built in.
  1. The fire alarm control panel (FACP) will be located in the mechanical equipment room with the fire alarm annunciator panel located in the main lobby or at the manned command and/or control point within the facility.
  2. The fire alarm system shall include automatic and manual fire alarm initiating devices. All devices, such as manual pull-stations, smoke and heat detectors, water flow devices, etc., shall be selected and located by applicable codes and standards.
  3. Audible evacuation devices such as horns and visual evacuation devices as strobes shall be located throughout the facility as required by national and local codes including NFPA and UL.
  4. Power for the fire alarm system will be fed from an emergency source. Back up batteries will also be provided in the main fire alarm control panel in case of generator failure or shut down for generator maintenance or testing.

- Lightning Protection: Lightning arrestors will be specified for the incoming electrical and communications service lines.
  1. Surge protection will be provided for the main switchboard and possibly at panelboards serving sensitive equipment including monitoring systems.
  2. The lightning protection system shall include perimeter "aerial" protection, antenna and/or dish protection, exposed roof mechanical equipment that applies mainly to exhaust equipment, and exhaust stacks protection.
  3. The system shall be designed and conform to the requirements of NFPA 7B0, Standard for the Installation of Lightning Protection Systems.

8.3 LIFE SAFETY / ADA

This facility will be designed to meet all applicable building and life safety codes and regulations as wells as ADA requirements.

Specific items recommended to achieve ADA compliance in crime laboratories include the following (typical in each laboratory section, as a minimum):

- Designation of one ADA-compliant workstation with, a 34" high counter in each laboratory section;
- One ADA-compliant fume hood in each laboratory section, in close proximity to the ADA-compliant workstation;
- Unless waived by the Owner, ADA-compliant sinks in the laboratory vestibules and in one other location in each laboratory section in close proximity to the ADA-compliant workstation;
- ADA compliant emergency shower / eyewash units; (The use of adaptable laboratory casework enhances the ability to make additional modifications to suit handicapped individuals in the future.)

8.4 HISTORIC OR ARCHITECTURAL SIGNIFICANCE

This project has been programmed to be a new facility. Therefore, it does not have any Historic or Architectural design significance.

8.5 ARTWORK

This project is not required to include a 1% Allowance for Artwork. However, to enhance the overall design and to increase the interest and appreciation of the staff, it is recommended that somehow artwork be incorporated into the design solution.

8.6 PHASING

This new facility has been programmed utilizing the space and staffing needs required for the future targeting the move-in date of 2014 and subsequent ten year projections into the future to the years 2024 and 2034. Depending on the final Construction budget, project phasing may be required as part of the Design Phase in order to develop a fully functioning forensic science laboratory facility.

8.7 FUTURE EXPANSION

This facility will be planned for future expansion during the actual design of the project.

8.8 SUSTAINABILITY

This Crime Laboratory facility offers many opportunities for sustainability. Even though a site has not been selected for this project, there are many opportunities that can be evaluated during the Design Phase in order to include sustainable design concepts.

Should renovation of an existing building be required, efforts should be made to salvage and recycle construction waste wherever possible. Design and construction of any new facility or renovation should create a place to work that is a more efficient, comfortable, and better place to work.

The essence of sustainable design is in designing and building facilities that address and improve upon social, economic as well as environmental issues and to ensure that the needs of future generations are met. This project shall strive to seek benefits in all three areas. From an environmental standpoint, the project should strive to conserve natural resources, reduce solid waste, energy consumption and associated greenhouse gas emissions, minimize the development footprint and improve air and water quality. From an economic standpoint, the project should strive to reduce operating costs and improve employee productivity, recruitment, retention and satisfaction. From a social, community and health standpoint, the project should enhance occupant comfort and health, minimize strain on local infrastructure and contribute to the overall quality of life.

Sustainable Design Issues and Strategies:

Sustainable design issues and strategies for this project have been framed within five main categories; Sustainable Sites, Water Conservation, Energy Efficiency, Material Conservation and Indoor Environmental Quality. Each category identifies potential sustainable design opportunities for further investigation and discussion during the Design Phase.

Sustainable Sites:

Even though a site has not been selected for this project, opportunities for decreasing the rate and quantity of stormwater runoff from the site can be explored and possibly utilized to water landscape plants. Light-colored surfaces for the roof and areas surrounding the building should also be explored to contribute to reducing urban "heat island effect".

Water Conservation:

Conserving water in Nebraska is a high priority. Attention should be focused on reducing demand for potable water supplies. Strategies that should be implemented that would contribute to water reduction on the site would be to utilize high- efficiency irrigation strategies along with native and adaptive vegetation. Strategies within the building would be to provide low-flow fixtures (toilets, urinals, faucets, and showers). Reuse of water should also be considered for both domestic and landscaping purposes.

Energy Efficiency:

Energy efficiency should always begin with optimizing building orientation and how that translates into proper envelop design and maximizing opportunities for harvesting free energy. Optimal orientation would be to drive the design into a long east / west axis which would maximize solar orientation on the north and south while minimizing orientation on the east and west.

- Beyond understanding optimal orientation, other energy saving strategies that need to be investigated would include passive heating and cooling, maximizing daylighting and reducing lighting power densities, incorporating photo-sensors and occupancy sensors in lighting fixtures, utilizing energy recovery and carbon dioxide monitoring.

- Utilizing photovoltaic (PV) panels to generate solar energy also should be considered and possibly used to provide covered parking while storing and generating electricity that could be used to light the parking Lots at night.

- Pre-wiring or roughing-in for future installation for various clean renewable onsite-generated energy forms should be investigated.

- Commissioning services should be included in the project to ensure that the design intent has been met in construction and that the building is operating as designed for optimal operating costs, greatest comfort, and equipment longevity.

- Partnering with the local utility company, to participate in their Energy Design Assistance (EDA) program which contributes significant engineering services for energy modeling should also be explored by the design team.

- The current federal tax deduction of $0.60-$1.80 / square foot based on increased energy efficiency of the building should also be explored during the Design Phase..

- Tax rebates for solar energy installations are also available.

Material Conservation:

From a materials standpoint, we need to strive to maximize conserving our natural resources as well as reducing the impacts associated with transporting materials from long distances. Strategies include specifying materials that contain recycled content and are sourced regionally. We also need to look toward sourcing wood from sustainably managed forests.

- The contractor should strive to divert a majority (50 - 75%) of construction waste from landfills.

Indoor Environmental Quality:

We need to place equal importance on the indoor environment as we do to protect the external environment. We need to provide a healthy, productive functional space. Specific strategies that should be investigated during design include carbon dioxide monitoring, increasing ventilation rates, installing low emitting materials, providing a connection to the outdoors by maximizing daylight and view opportunities, and implementing an Indoor Air Quality (IAQ) management plan during construction.

9.0 CONCEPTUAL PLAN

9.0 CONCEPTUAL PLAN

This next section has been developed to assist the design team in understanding the relationships of the various crime lab sections as they relate to the Adjacency Diagrams illustrated in Section 6.0. It is important to note that the following illustrations are **not** intended to be actual design solutions, but conceptual diagrams that illustrate relationships of the program elements.

In the design of any laboratory facility, there are several key considerations that need to be analyzed in order to determine the appropriate design solution for each specific laboratory facility. The primary key considerations include the following:

- Planning Module
- Circulation Concept
- Flexibility and Expandability
- Sustainability
- Single Story versus Multiple Story
- Office proximity to Lab area
- Interaction

Planning Module:
A repetitive planning module should be incorporated into the laboratory design at both large and small scales to achieve an efficient and flexible organizational pattern. While a large, 33-foot structural and planning module works well in conjunction with the design of the laboratory facility, it is based on multiples of a smaller basic planning module of 11 foot x 11 foot.

The basic 11-foot planning module is based on the width of laboratory casework on two walls separated by a 5-foot to 6-foot wide aisle. All other systems, including lighting, service distributions, HVAC grille locations, sprinklers, etc., can be organized on this planning pattern as well. This modular planning approach permits achievement of a highly-flexible and adaptable laboratory environment while maximizing the integration of all building systems.

Circulation Concept:
There are numerous options for developing the circulation concept for a lab. The primary considerations that are involved in analyzing different options for lab circulation involve the following:

- Circulation and travel distance between the offices and associated lab functions.
- Circulation and travel distance between all the lab functions and other building elements.
- Separation of the lab functions from the maintenance and building functions.
- Location and separation of the entry points to the facility.

When considering the items above, there are many different solutions that are acceptable; however, all of the solutions derive from two basic concepts:

- "Linear" or "Double Loaded Corridor" concept
- "Race Track" concept

"Linear" or "Double Loaded Corridor" concept:
This concept arranges the primary building functions along a central corridor. Although this concept creates a straightforward approach, it also tends to develop the longest travel distances between various elements of the facility.

"Race Track" concept:
This concept arranges the primary building functions around a central support area. The primary advantage of this concept versus the "Linear" or "Double Loaded Corridor" concept is that it generally minimizes the travel distance between various elements of the facility and creates a central support area that serves the other portions of the facility.

In the case of crime lab facilities, it also provides a secure internal area for the users of the facility.

Flexibility and Expandability:
Forensic science laboratories are evolving at a rapid rate. The development of new laboratory procedures, changes in crime trends, and political considerations all tend to influence the type of laboratory work and quantities of evidence being processed in the laboratory. As a result, forensic science laboratories frequently experience need for growth and change over their life-span.

To address these issues, the building organizational concept must provide expansion options to accommodate the growth of laboratory programs, staff increases, and addition of new programs and equipment.

Sustainability:

The essence of sustainable design is in designing and building facilities that address and improve upon social, economic as well as environmental issues and to ensure that the needs of future generations are met. This project shall strive to seek benefits in all three areas. From an environmental standpoint, the project should strive to conserve natural resources, reduce solid waste, energy consumption and associated greenhouse gas emissions, minimize the development footprint and improve air and water quality. From an economic standpoint, the project should strive to reduce operating costs and improve employee productivity, recruitment, retention and satisfaction. From a social, community and health standpoint, the project should enhance occupant comfort and health, minimize strain on local infrastructure and contribute to the overall quality of life.

Additional information regarding sustainable design as it relates to this project can be found in Section 8.0 of this Program Statement.

Single Story versus Multiple Story:

In conjunction with determining the appropriate circulation concept for a laboratory facility, the issue of "Single Story" versus "Multiple Story" also needs to be analyzed if the selected site is appropriate for either option. If a small site is selected, then a multiple story option will be required.

Generally a multiple story option will provide the minimum travel distance between building functions, but, it requires additional building elements such as stairs, elevators and other building support elements which adds additional cost to the overall construction of the project.

However, because the building footprint is less than a single story option, the site area and associated site costs are reduced which generally provides a reduced overall total Project Cost for the project.

Office proximity to Lab area:

When developing a design solution for any laboratory facility, especially for a crime lab facility, the issue of location of the office space in proximity to the lab space always becomes a key design item. There are three basic concepts that need to be considered when determining the location of the office functions in proximity to the lab functions:

- Office functions grouped together in a location to encourage interaction between the forensic scientists and examiners and does not relate to the location of the individual lab sections.

- Office functions located approximately adjacent to the each lab section. This option does not promote interaction, but it minimizes the travel distance and time required to circulate between the office functions and the labs.

- Office functions located in a separate block and isolated from the lab block. This option provides an opportunity to develop separate HVAC design zones between the office block and lab block and allows the office block to utilize recirculated air in lieu of 100% outside air, thus reducing the overall energy requirements for the building.

It is important to note that any of these options (or combinations of these options) can work successfully as a design solution and that the ultimate decision should be determined by the users of the forensic crime lab facility.

Interaction:

The need for interaction between the various lab sections and forensic scientists in crime labs is critical to the efficient and successful processing of evidence. To that end, the design for this facility must encourage interaction. This can be accomplished in several different planning aspects:

- Create a combined office area which forces all the users of the crime lab to process their paperwork together in one central location. By being located together, this develops an opportunity for interaction and discussion of specific case criteria.

- Create a central interaction area where various forensic scientists can get together and discuss their cases.

- Create interaction pockets throughout the facility that include sit down areas with white boards and encourage individuals to get together to discuss case criteria.

9.1 CONCEPTUAL OPTIONS

When referencing the diagrams below, it is important to understand the purpose of their creation. Each Conceptual diagram is intended to be a visual tool that assists in confirming the Facility Space and Staff Analysis, understanding potential building proportions, and illustrating departmental adjacencies.

Each block of color represents a lab section or building element specific to this project and is relatively scaled to the area defined by the Facility Space and Staff Needs Analysis identified in Section 6.0 of this Program Statement.

As discussed above, there are numerous options that should be analyzed as part of the design process for this facility. For the purposes of illustrating one possible concept for this project, our Programming team has determined to utilize the "Race Track" concept for this Program Statement.

Since a site has not been selected for this project, our Programming team has further decided to develop two separate options that address the "Race Track" concept:

- Option 1 assumes that the program elements will be developed as a single story solution consistent with the program space and site requirements.

- Option 2 assumes that the program elements will be developed as a two story solution consistent with the program space requirements and the opportunity for a reduction in the site requirements.

To further assist the design team, our Planning team has developed sub options to each of the options above:

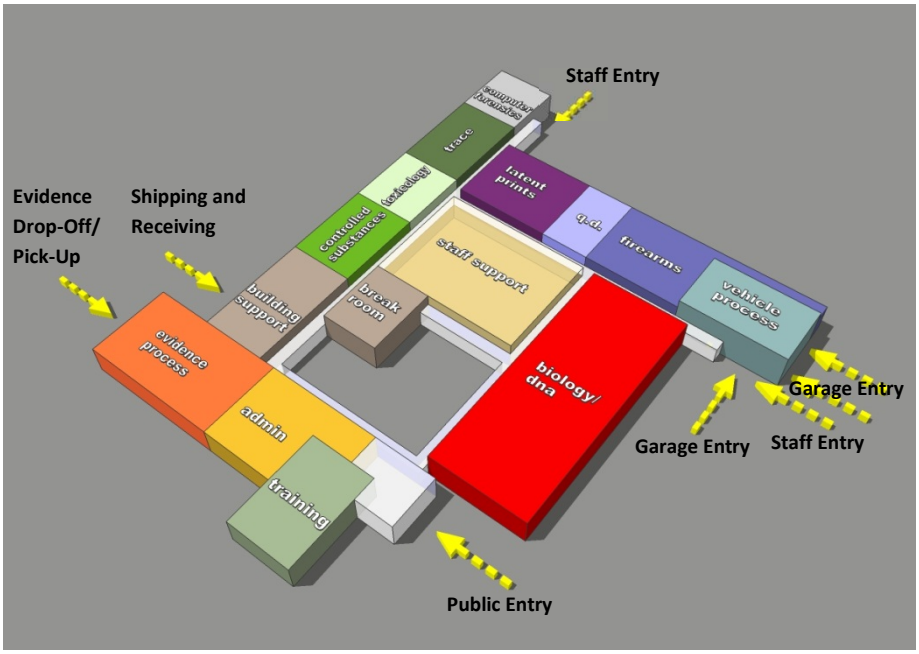
- Option A illustrates a concept where the office functions are grouped together to encourage interaction between the forensic scientists and examiners and does not relate to the location of the individual lab sections.

- Option B illustrates a concept where the office functions are located approximately adjacent to the each lab section.

Option 1A – Single Story Concept with offices grouped in one central location.

This option illustrates a "racetrack" concept that organizes the program elements around a central courtyard and offers the following:

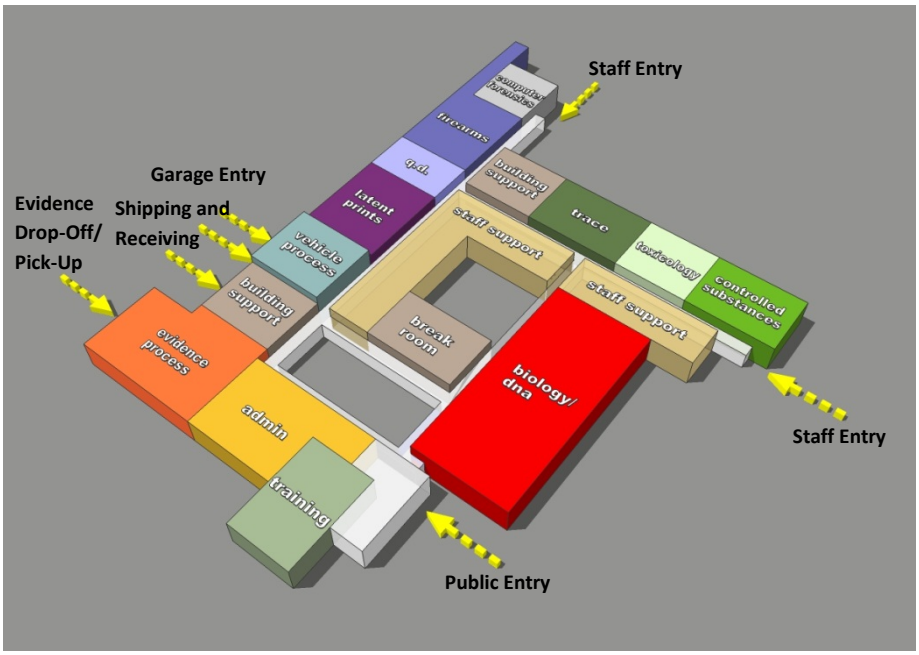
- Compared to a linear design it minimizes the travel distances between the various lab elements.
- Provides a central location for all the office functions
- Creates an outdoor protected staff interaction area that could be utilized for providing daylighting into the facility and used by the staff in nice weather.
- Separates all the major entry points



Option 1B – Single Story Concept with offices located adjacent to the lab functions.

This option illustrates a "racetrack" concept that organizes the program elements around a central courtyard and offers the following:

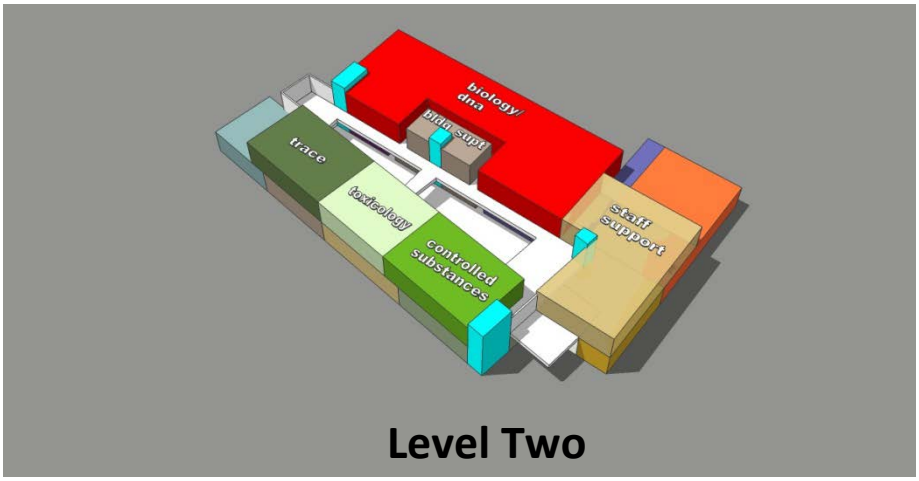
- Compared to a linear design it minimizes the travel distances between the various lab elements.
- Locates the office functions approximately across from the lab functions
- Creates an outdoor protected staff interaction area that could be utilized for providing daylighting into the facility and used by the staff in nice weather.
- Separates all the major entry points

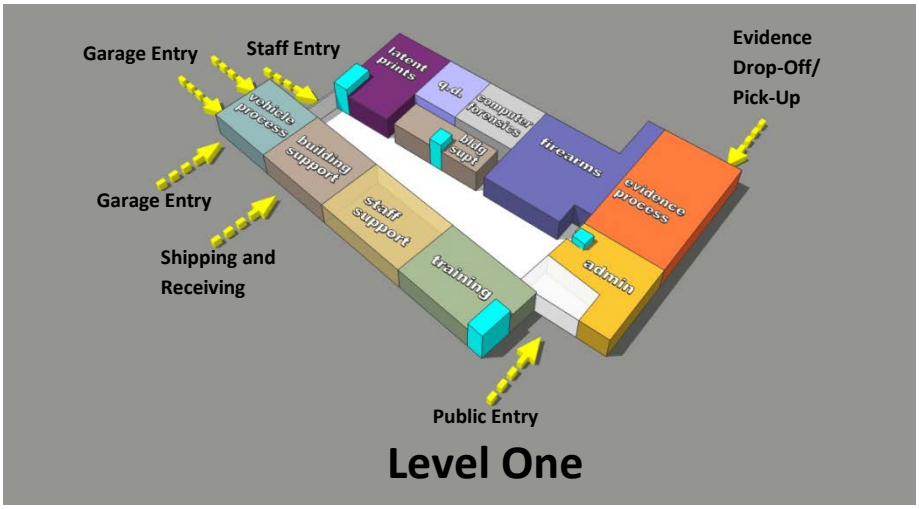


Option 2A – Two Story Concept with offices grouped in a central location.

This option illustrates a "racetrack" concept that organizes the program elements around a central indoor two-story interaction area and offers the following:

- Compared to a linear design it minimizes the travel distances between the various lab elements and further reduces the travel from Options 1A and 1B.
- Provides a central location for all the office functions on each level.
- Creates an indoor protected staff interaction area that could be utilized for providing daylighting into the facility and used by the staff.
- Separates all the major entry points

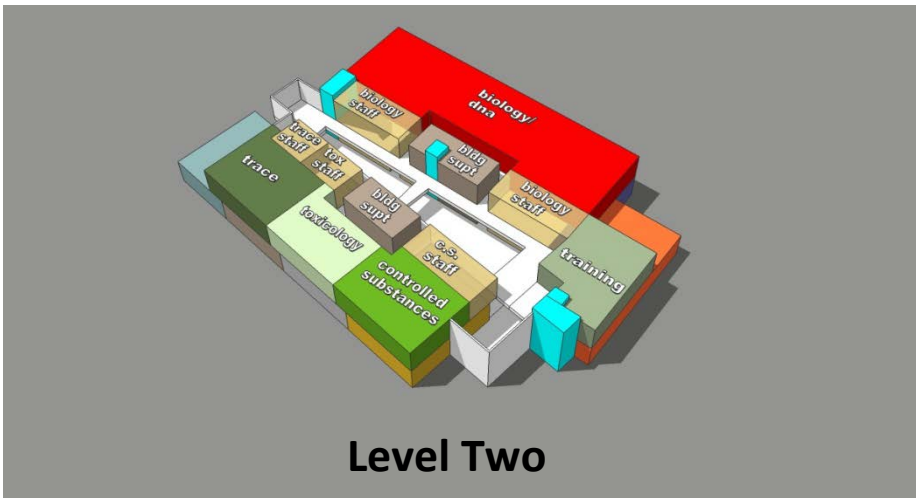


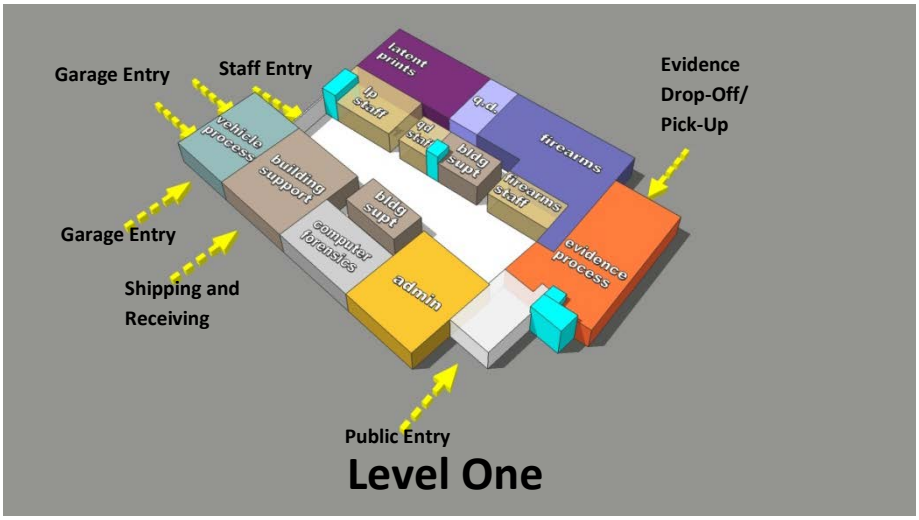


Option 2B – Two Story Concept with offices located adjacent to the lab functions.

This option illustrates a "racetrack" concept that organizes the program elements around a central indoor two-story interaction area and offers the following:

- Compared to a linear design it minimizes the travel distances between the various lab elements and further reduces the travel from Options 1A and 1B.
- Locates the office functions approximately across from the lab functions
- Creates an indoor protected staff interaction area that could be utilized for providing daylighting into the facility and used by the staff.
- Separates all the major entry points





Other Considerations:
When designing the facility, our Programming team has identified some additional specific design objectives that should be incorporated into the final design solution:

- Provide a straightforward, functional and flexible building plan to meet the Nebraska State Patrol's specific needs for a forensic science laboratory and training facility.
- Provide a cost-effective design that delivers the best value for the Nebraska State Patrol and citizens of the state of Nebraska.
- Provide an effective, pleasant and humane work environment with opportunities for staff to interact within the building.
- Provide a building designed to express openness to the community as a good neighbor, while providing absolute safety and security for staff.
- Provide operational quality and efficiency through energy efficient support systems; and low maintenance and longevity of materials.
- Future Expansion.

Preferred Option:
All (4) Conceptual Options were reviewed with the NSPCL. After thoroughly analyzing each conceptual option, the consensus of the lab personnel was the selection of Option 1B as their "Preferred Conceptual Option".

9.2 CONCLUSIONS

The successful design of any crime laboratory project requires the involvement of the users in the design process to assure that the needs and objectives for the new facility are addressed properly.

The design team should review the items above with the crime lab personnel and incorporate their decisions into the final design solution.

10.0 PROJECT BUDGET AND FISCAL IMPACT

(Included under Separate Cover)

11.0 TIMELINE

11.0 TIMELINE

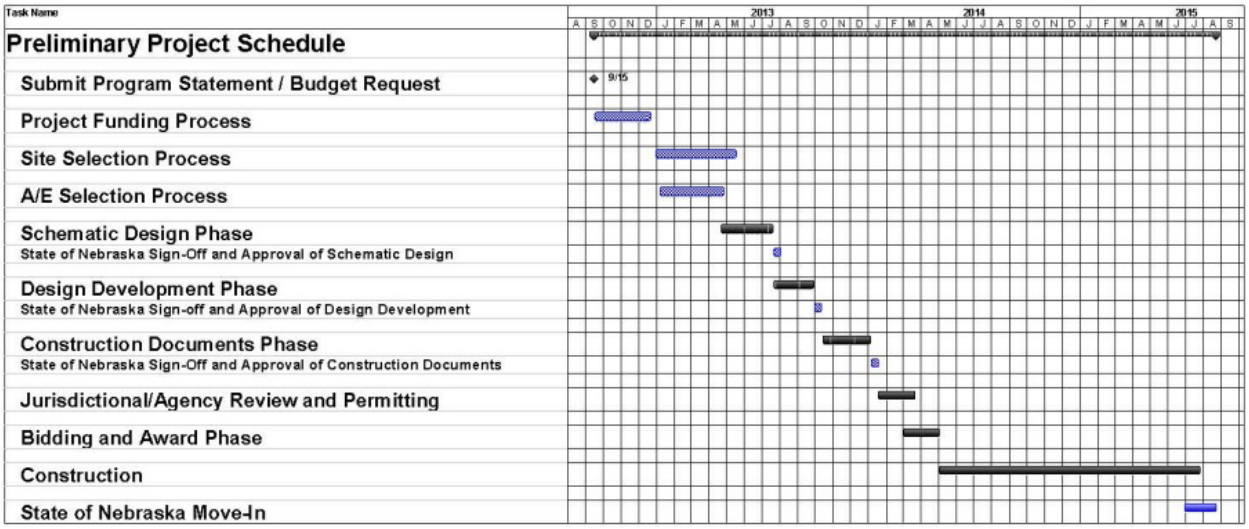
The timeline for this project begins after the Project Funding has been approved.

The timeline shown below assumes that the Project Funding will be approved by the end of December 2012. At that time, the Site Selection Process and the A/E Selection Process can begin. Once the A/E has been selected, Schematic Design can begin provided that the Site Selection Process has determined the final site and that the State of Nebraska is in the final negotiations to purchase the selected site.

The Design and Documentation Process (including Owner Reviews and Approvals) will require nine months and should be completed by the end of January, 2014. At that point, the Construction Documents should be submitted for Approval and Bidding. Once approved and the Contractor has been awarded a Construction Contract, Construction can begin May 2014. Depending on the actual site selected, the construction for this project should reach Substantial Completion by the end of June, 2015. This allows the State of Nebraska two months for Move-In and Occupancy prior to the end of August, 2015.

If the schedule shifts, the budget will also need to be adjusted.

Escalation has been calculated to the mid-point of construction and is included in the Cost Models in Section 10.



12.0 APPENDIX

12.1 ACRONYMS, ABBREVIATIONS AND DEFINITIONS

The following list of acronyms, abbreviations and definitions has been used throughout this Program Statement:

ASCLD - American Society of Crime Lab Directors

ABI - American Ballistics Institute

ACH - Air Changes per Hour

ADA - Americans with Disabilities Act

AFIS - Automated Fingerprint Identification System

ATF - Bureau of Alcohol, Tobacco, and Firearms

ANSI - American National Standards Institute

APIS - Automated Palm Identification System

ASTM - American Society of Testing Materials

CCTV - Closed Circuit TV

CDC - Center for Disease Control

CFM - Cubic Feet per Minute

CMU - Concrete Masonry Unit

CODIS - Combined DNA Index System

CV - Constant Volume

DBA - Decibels

DNA - Deoxyribonucleic Acid

EPA - Environmental Protection Agency

FH - Fume Hood

FPM - Feet per Minute

FTIR - Fourier Transform Infrared Spectrometer

FVA - Forensic Video Analysis

GC / MS - Gas Chromatographs / Mass Spectrometers

GFI - Ground Fault Interruption

GSR - Gun Shot Residue

GSF - Gross Square Feet

HDD - High Density digital

HDFL - High-Density File System

HEPA - High Efficiency Particulate Air Filter

HVAC - Heating, Ventilating, and Air Conditioning

HZ - Hertz

IAQ - Indoor Air Quality

IBIS - Integrated Ballistics Identification System

ISO - International Standards Organization

IT - Information Technology

JIMS - Judicial Information Management System

LEED - Leadership in Energy and Environmental Design

LIMS - Laboratory Information Management System

MCC - Motor Control Center

MEP - Mechanical, Electrical, Plumbing

NC - Noise Criterion

NCIC - National Crime Information Center

NFPA - National Fire Protection Association

NIBIN - National Integrated Ballistics Information Network

NIH - National Institute of Health

NRC - Noise Reduction Coefficient

NSF - Net Square Feet

OH - Overhead

OSHA - Occupational Safety and Health Administration

PCR - Polymerase, Chain Reaction

PSI - Pounds per Square Inch

QA - Quality Assurance

RCP - Reflected Ceiling Plan

RCP - Remote Control Panel

SEM - Scanning Electron Microscope

SF - Square Feet

UCR - Uniform Crime Reports

UHP - Ultra High Pure

UL - Underwriters Laboratory

UPS - Uninterrupted Power Supply

VAV - Variable Air Volume

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12.3 ROOM DATA SHEETS

This section of the Program Statement contains the project's Room Data Sheets. These Room Data Sheets provide information pertaining to the following issues and features:

- Hours of Operation
- Mechanical
- Hoods
- Plumbing
- Fire Protection
- Electrical
- Lighting
- Communication / Data
- Security
- Floor Finishes
- Wall Finishes
- Ceiling Finishes
- Casework
- Countertop Material
- Furnishings / Accessories
- Equipment

Note, an individual Room Data Sheet has been provided for each room in the building as identified in Section 6.2 Facility Space and Staff Analysis.

ROOM DATA SHEETS

LAB ADMINISTRATION

ROOM DATA SHEETS

Section:
LAB ADMINISTRATION
Room Name:
Director's Office

Utilization	
Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	
Recessed Head	X
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	X
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	X
Paging/Public Address	X
SATV	X

Security	
Proximity Card Reader	
Key Locked	X
CCTV	
Door Status	

Floor	
Tile	
VCT	
Carpet	X
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	X
Full Height	

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	
Accent	X

Casework	
Laboratory	
Office	X
Wood	
Metal	
Plastic Laminate	
Custom Wood	X

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	
Custom Wood	X

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	X
Marker Board	X
Tack Board	X
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
LAB ADMINISTRATION
Room Name:
Assistant Director

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV	X	
Paging/Public Address	X	
SATV	X	

Security

Proximity Card Reader		
Key Locked	X	
CCTV		
Paging/Public Address		
SATV		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Custom Wood	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		
Custom Wood	X	

Furnishing/Accessories

Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
LAB ADMINISTRATION
Room Name:
QA/QC Manager

Utilization	
Hours of Use	8 am to 5 pm
Hours of Operation	
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	
Recessed Head	X
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	X
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	X
SATV	

Security	
Proximity Card Reader	
Key Locked	X
CCTV	X
Door Status	

Floor	
Tile	
VCT	
Carpet	X
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	X
Full Height	

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	X
Marker Board	X
Tack Board	X
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
LAB ADMINISTRATION
Room Name:
Assistant QA/QC Office

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked	X	
CCTV	X	
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
LAB ADMINISTRATION
Room Name:
Executive Conference Rm

Utilization	
Hours of Use	8 am to 5 pm
Hours of Operation	
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	
Recessed Head	
Concealed Head	X

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	X
Dimmable	X
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	X
CATV	X
Paging/Public Address	X
SATV	X

Security	
Proximity Card Reader	
Key Locked	X
CCTV	X
Door Status	

Floor	
Tile	
VCT	
Carpet	X
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	X
Full Height	

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	
Accent	X

Casework	
Laboratory	
Office	X
Wood	
Metal	
Plastic Laminate	
Custom Wood	X

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	
Custom Wood	X

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	X
Marker Board	X
Tack Board	
Projection Screen	X
Projector	X
Smart Board	X
Video Conferencing	X

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

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ROOM DATA SHEETS

Section:
LAB ADMINISTRATION
Room Name:
Open Office Area

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete		
Carpet Tile	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
LAB ADMINISTRATION
Room Name:
Building Lobby/Waiting

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head		
Concealed Head	X	

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent	X	
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV	X	
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete		
Ground Conc./ Terrazzo	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Accent	X	

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Lobby Furnishings	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

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ROOM DATA SHEETS

Section:
LAB ADMINISTRATION
Room Name:
QA/QC File Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		
Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		
Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		
Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	
Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		
Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	
Floor		
Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		
Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		
Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Casework		
Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate	X	
Shelving	X	
Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

TRACE EVIDENCE

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Supervisor

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Open Office Area

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Bio-Vestibule

Utilization

Hours of Use		
Hours of Operation	8am to 5pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	1
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Coat Hooks	X	

Room Data Notes

1 Computer Docking Stations
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ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Main Laboratory

Utilization		
Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	1
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Evidence Lockers	X	

Room Data Notes

1 Provide non-directional air supply
2
3
4
5
6

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Instrumentation Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	1
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Lab Instruments	A,D,E,F,G

Room Data Notes

1 30% Relative Humidity
2
3
4
5
6

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Arson / Explosion Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	3
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Magnifying Ring	X	2

Equipment Key	
A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power
H.	Explosionproof

Equipment		
Oven	X	F,G
Freezer	X	G,H
Undercounter Refrig	X	G,H

Room Data Notes	
1	incl. (2) 30" x 60" adj. ht. SS mov. tables
2	ceiling suspended on articulating arm
3	Provide non-directional air supply
4	
5	
6	

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Microscopy Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent		
Incandescent	X	
Dimmable	X	
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Microscopes	X	A,B

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
SEM Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable	X	
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
SEM Station	X	A,D

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
SEM Utility Room

Utilization	
Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	
100% Outside Air	X
Humidity Control	X
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	
CCTV	
Door Status	

Floor	
Tile	
VCT	
Carpet	
Seamless	
Sealed Concrete	X

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Liquid Nitrogen Tank	X

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Storage Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		
Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		
Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		
Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	
Communication/ Data		
Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		
Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		
Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	
Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		
Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	
Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Trace Suspect Exam Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	1
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	4

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	2
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Overhead Camera	X	3

Room Data Notes

1 Provide non-directional air supply
2 incl. (4) 30" x 60" adj. ht. SS mov. tables
3 ceiling mounted adjustable camera
4 Occupancy Sensor disable feature
5
6

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Trace Victim's Exam Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	1
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	4

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	2
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Overhead Camera	X	3

Room Data Notes

1 Provide non-directional air supply
2 incl. (4) 30" x 60" adj. ht. SS mov. tables
3 ceiling mounted adjustable camera
4 Occupancy Sensor disable feature
5
6

ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Trace Standards Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Refrigerator	X	F,G
Acid Cabinets	X	
Flammable Storage Cabinets	X	

Room Data Notes

1
2
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4
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ROOM DATA SHEETS

Section:
TRACE EVIDENCE
Room Name:
Arson Standards Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Refrigerator	1	F,G
Acid Cabinets	X	
Flammable Storage Cabinets	X	

Room Data Notes

1 Explosionproof
2
3
4
5
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ROOM DATA SHEETS

TOXICOLOGY

ROOM DATA SHEETS

Section:
TOXICOLOGY
Room Name:
Supervisor

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
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4
5
6

ROOM DATA SHEETS

Section:
TOXICOLOGY
Room Name:
Open Office Area

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
TOXICOLOGY
Room Name:
Bio-Vestibule

Utilization		
Hours of Use		
Hours of Operation	8am to 5pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Stations
2
3
4
5
6

ROOM DATA SHEETS

Section:
TOXICOLOGY
Room Name:
Main Laboratory

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt	X	4' - 0"
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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4
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6

ROOM DATA SHEETS

Section:
TOXICOLOGY
Room Name:
Instrumentation Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	1
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Lab Instruments	A,D,E,F,G

Room Data Notes

1 30% Relative Humidity
2
3
4
5
6

ROOM DATA SHEETS

Section:
TOXICOLOGY
Room Name:
Robotics Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		
Hoods		
Chemical Fume Hood		
Biological Safety Cabt	X	4' - 0"
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		
Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases	X	H,He,N_2
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		
Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		
Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	
Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		
Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		
Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		
Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	
Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		
Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment	
Robot instruments	A,D,E,F,G
Refrigerator Freezer	F,G

Room Data Notes

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4
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ROOM DATA SHEETS

Section:
TOXICOLOGY
Room Name:
Storage Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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2
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4
5
6

ROOM DATA SHEETS

Section:
TOXICOLOGY
Room Name:
Walk-in Refrig. / Freezer

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F		
Temp: Other	X	
Recirculated Air		
100% Outside Air		
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction	X	
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	1,2
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board		
CMU/ Concrete		
Latex Paint		
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	
Stainless Steel	X	

Ceiling		
Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Stainless Steel	X	

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
SS Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1 Connect to UPS and Emergency Power
2 constant monitoring
3
4
5
6

ROOM DATA SHEETS

CONTROLLED SUBSTANCES

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Manager

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Supervisor

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Open Office Area

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Bio-Vestibule

Utilization		
Hours of Use		
Hours of Operation	8am to 5pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Stations
2
3
4
5
6

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Main Laboratory

Utilization		
Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Evidence Lockers	X

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Drug Standards Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
SS Shelving	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel	X	
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

refrigerator	X	1
freezer	X	1

Room Data Notes

1 explosion proof
2
3
4
5
6

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Instrumentation Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	1
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Lab Instruments	A,D,E,F,G

Room Data Notes

1 30% Relative Humidity
2
3
4
5
6

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Exam/Clan Lab/Bulk Case

Utilization		
Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	8' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1 incl. (4) 30" x 60" adj. ht. SS mov. tables
2
3
4
5
6

ROOM DATA SHEETS

Section:
CONTROLLED SUBST.
Room Name:
Storage Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

FIREARMS

ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Manager

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Supervisor

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Open Office Area

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Bio-Vestibule

Utilization		
Hours of Use		
Hours of Operation	8am to 5pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Stations
2
3
4
5
6

ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Main Laboratory

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	1
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood	X	
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key	
A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment		
Comparison scope	X	A
Evidence lockers	X	

Room Data Notes	
1	catalog reference shelving, map drawers
2	
3	
4	
5	
6	

ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Exam Room- Large

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	5' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	3

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Overhead Camera	X	2

Room Data Notes

1 incl. (4) 30" x 60" adj. ht. SS mov. tables
2 ceiling mounted adjustable camera
3 Occupancy Sensor disable feature
4
5
6

ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Exam Room- Small

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	5' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	2

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Mobile Camera Stand	X	

Room Data Notes

1 incl. (2) 30" x 60" adj. ht. SS mov. tables
2 Occupancy Sensor disable feature
3
4
5
6

ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
NIBIN Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable	X	
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	1

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

NIBIN Station	X	

Room Data Notes

1 Occupancy Sensor disable feature
2
3
4
5
6

ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Weapons Standards Room

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

high density storage	X	1,

Room Data Notes

1 1,000 Hand guns, 500 long guns
2
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5
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ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Ammunition Storage Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Adjustable Wire Shelving	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Storage Room

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Evidence Storage Room

Utilization		
Hours of Use	24 hours	
Hours of Operation		
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Firing Range

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply		
Filtered Exhaust	X	
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent	X	
Dimmable		
Task Lighting	X	
In-Use Light	X	
Occupancy Sensor	X	1

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV	X	
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board		
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete	X	
STC Rated	X	
Full Height	X	
Balistic Resistant	X	

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Deflector/Baffle System	X	

Casework

Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood	X	
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Bullet Trap	X	

Room Data Notes

1 Occupancy Sensor disable feature
2
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ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Armorer's/Toolmarks Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink	X	
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head		
Concealed Head	X	

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate	X	

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood	X	
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Toolmarks Bench	X	
Armorer's Bench	X	
Ultrasonic Cleaner	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
FIREARMS
Room Name:
Bullet Recovery Tank Room

Utilization

Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical

Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	
100% Outside Air	X
Humidity Control	X
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	
Filtered Exhaust	X
Dedicated Cooling	

Hoods

Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing

Cold Water	X
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	X
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	X
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection

Wet Pipe	X
Preaction	
Dry System	
Standard Head	
Recessed Head	X
Concealed Head	

Electrical

110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	X

Lighting

Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data

Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	X
SATV	

Security

Proximity Card Reader	X
Key Locked	
CCTV	X
Door Status	X

Floor

Tile	
VCT	
Carpet	
Seamless	
Sealed Concrete	X

Wall

Gyp. Board	
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	X
STC Rated	X
Full Height	X
Balistic Resistant	X

Ceiling

Acoustical Tile	
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	
Deflector/Baffle System	X

Casework

Laboratory	X
Office	
Wood	
Metal	
Plastic Laminate	

Countertop

Plastic Laminate	
Epoxy	X
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories

Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Bullet Tank	X

Room Data Notes

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ROOM DATA SHEETS

LATENT PRINTS

ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Supervisor

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable	X	
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Adjustable Table	X	1

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1 For Comparison Scope
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ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Open Office Area

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate	X	
Shelving	X	

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Adjustable Workstations	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
AFIS Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable	X	
Task Lighting		
In-Use Light		
Occupancy Sensor	X	1

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood	X	
Metal		
Plastic Laminate	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

AFIS Station	X	
Adobe Stations	X	

Room Data Notes

1 Occupancy Sensor disable feature
2
3
4
5
6

ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Bio-Vestibule

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1,
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Station
2
3
4
5
6

ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Main Laboratory

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	6' - 0", 2
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood	X	4' - 0"
Cyano. Chamber	X	8' - 0", 3
Snorkel		
Drying Cabinet		
Ninhydrin Hood	X	6' - 0"

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink	X	
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable	X	1
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Evidence Lockers	X
Refrigerator	X

Room Data Notes

1 Analysts WS have individual dimming
2 4' - 0" Fume hood in Reagent Prep
3 Multi-chambered hood
4
5
6

ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Evidence Storage Room

Utilization	
Hours of Use	24 hours
Hours of Operation	
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	
100% Outside Air	X
Humidity Control	X
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	
Recessed Head	X
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	X
CCTV	
Door Status	X

Floor	
Tile	
VCT	
Carpet	
Seamless	X
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	
Epoxy Paint	X
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	
Shelving	X

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Refrigerator	X

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Comparison Room

Utilization		
Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent		
Incandescent	X	
Dimmable	X	
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Photo/ALS Workroom

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent	X	
Dimmable	X	
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	1
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Photo Stands	X	
ALS Equipment	X	A,B,D
Overhead Camera	X	2

Room Data Notes

1 incl. (2) 30" x 60" adj. ht. SS mov. tables
2 ceiling mounted adjustable camera
3
4
5
6

ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Storage Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
LATENT PRINTS
Room Name:
Exam Room- Large

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable	X	
Task Lighting		
In-Use Light		
Occupancy Sensor	X	3

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Surgical Exam Lights	X	2
Photo Stands	X	

Room Data Notes

1 incl. (4) 30" x 60" adj. ht. SS mov. tables
2 Ceiling suspended
3 Occupancy Sensor disable feature
4
5
6

ROOM DATA SHEETS

BIOLOGY / DNA

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Manager

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Supervisor

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Open Office Area

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
CODIS Server Room

Utilization		
Hours of Use	24 hours	
Hours of Operation		
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling	X	

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete		
Anti-Static	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
CODIS Server	X	D,F,G

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Bio-Vestibule (State CODIS)

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1,
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docknig Stations
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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
State CODIS Extract/Pre-Amp

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt	X	4' - 0"
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		
PCR Hood	X	4' - 0"

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Refrigerator/Freezer	X	D,F,G
Robotic Instrument	X	D,E,F,G
Lektriever	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Bio-Vestibule (State CODIS)

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1,
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docknig Stations
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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
State CODIS/Amp. Lab

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F		
Temp: Other	X	68 - 73
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key	
A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment		
3130 DNA Sequencer	X	D,E,F,G
Robotic Instrument	X	D,E,F,G
Thermal Cycler	X	D,E,F,G
Refrigerator/Freezer	X	D,F,G
Real Time PCR	X	D,E,F,G

Room Data Notes
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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Reagent Prep Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water	X	
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Autoclave	X	D,E
Dishwasher	X	D,E

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Bio-Vestibule

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1,
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Stations
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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Main Forensic Biology Lab

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt	X	4' - 0"
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet	X	2' x 6"

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water	X	
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Lab freezer	X	D,F,G
Autoclave	X	D,F,G
Lab refrigerator	X	D,F,G
Evidence lockers	X	
Minus 80 Lab Freezer	X	D,F,G

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Exam Room - Large

Utilization		
Hours of Use		
Hours of Operation	8 am to 5pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum	X	
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	4
Specialty Lighting	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Surgical Type Exam Lights	X	2
Overhead Camera	X	3

Room Data Notes

1 incl. (4) 30" x 60" adj. ht. SS mov. tables
2 Ceiling suspended
3 ceiling mounted adjustable camera
4 Occupancy Sensor disable feature
5
6

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Exam Room - Small

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum	X	
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	4
Specialty Lighting	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Surgical Type Exam Lights	X	2
Overhead Camera	X	3

Room Data Notes

1 incl. (2) 30" x 60" adj. ht. SS mov. tables
2 Ceiling suspended
3 ceiling mounted adjustable camera
4 Occupancy Sensor disable feature
5
6

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Walk-in Refrigerator

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F		
Temp: Other	X	
Recirculated Air		
100% Outside Air		
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	1,2
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board		
CMU/ Concrete		
Latex Paint		
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	
Stainless Steel	X	

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Stainless Steel	X	

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
SS Shelving	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

1 Connect to UPS and Emergency Power
2 constant monitoring
3
4
5
6

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Bio-Vestibule

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1,
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Stations
2
3
4
5
6

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Main DNA Lab

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water	X	
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key	
A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment		
Extraction Robots	X	D,E,F,G
PCR Robots	X	D,E,F,G
Lab refrigerator	X	D,F,G
Lab freezer	X	D,F,G

Room Data Notes
1
2
3
4
5
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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Bone/Teeth Grinding Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum	X	
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Robot Instruments	X	D,E,F,G

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Bio-Vestibule

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1,
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Stations
2
3
4
5
6

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Bio-Janitor's Closet

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink	X	
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor		

Communication/ Data		
Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1
2
3
4
5
6

ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Post Amplification Lab

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Thermal Cycler	X	D,E,F,G
3130 DNA sequencer	X	D,E,F,G
3500 Genetic Analyzer	X	D,E,F,G
Refrigerator/Freezer lab	X	D,F,G
Real Time PCR	X	D,E,F,G
Freezer	X	D,F,G

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Evidence Storage Room

Utilization		
Hours of Use	24 hours	
Hours of Operation		
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Reagent Prep Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood	X	4" - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water	X	
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Autoclave	X	D,E
Dishwasher	X	D,E

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Storage Room

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Minus 20 Freezer - Walk-in

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F		
Temp: Other	X	
Recirculated Air		
100% Outside Air		
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe		
Preaction	X	
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	1,2
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	
CCTV	
Door Status	X

Floor	
Tile	
VCT	
Carpet	
Seamless	X
Sealed Concrete	

Wall	
Gyp. Board	
CMU/ Concrete	
Latex Paint	
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X
Stainless Steel	X

Ceiling	
Acoustical Tile	
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	
Stainless Steel	X

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	
SS Shelving	X

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	X
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1 Connect to UPS and Emergency Power
2 constant monitoring
3
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ROOM DATA SHEETS

Section:
BIOLOGY / DNA
Room Name:
Gowning

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Lockers	X	
Bench	X	
Coat Hooks	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		

ROOM DATA SHEETS

QUESTIONED DOCUMENTS

ROOM DATA SHEETS

Section: QUESTIONED DOCUMNTS.
Room Name: Supervisor

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		
Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		
Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		
Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		
Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	
Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		
Security		
Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		
Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		
Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		
Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
QUESTIONED DOCUMNTS.
Room Name:
Open Office Area

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
QUESTIONED DOCUMNTS.
Room Name:
Chemical Processing Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
QUESTIONED DOCUMNTS.
Room Name:
Instrumentation Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	1
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Visual Spectrum Comp	X	D
Document comparator	X	D
Evidence Lockers	X	

Room Data Notes

1 30% Relative Humidity
2
3
4
5
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ROOM DATA SHEETS

Section:
QUESTIONED DOCUMNTS.
Room Name:
ESDA Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
ESDA Instrument	X	D,E,F,G

Room Data Notes

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ROOM DATA SHEETS

Section:
QUESTIONED DOCUMNTS.
Room Name:
Exam Room - Small

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	3

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Surgical Type Exam Lights	X	2

Room Data Notes

1 incl. (2) 30" x 60" adj. ht. SS mov. tables
2 Ceiling suspended
3 Occupancy Sensor disable feature
4
5
6

ROOM DATA SHEETS

COMPUTER FORENSICS

ROOM DATA SHEETS

Section:
COMPUTER FORENSICS
Room Name:
Supervisor

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked	X	
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
COMPUTER FORENSICS
Room Name:
Open Office Area

Utilization

Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical

Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	
Filtered Exhaust	
Dedicated Cooling	

Hoods

Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing

Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection

Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical

110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting

Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	X
In-Use Light	
Occupancy Sensor	X

Communication/ Data

Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	X
SATV	

Security

Proximity Card Reader	X
Key Locked	
CCTV	
Door Status	

Floor

Tile	
VCT	
Carpet	X
Seamless	
Sealed Concrete	

Wall

Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	X
Full Height	

Ceiling

Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework

Laboratory	
Office	X
Wood	
Metal	
Plastic Laminate	
Shelving	X

Countertop

Plastic Laminate	X
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories

Modular	X
Freestanding Office Furn.	X
Marker Board	X
Tack Board	X
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
COMPUTER FORENSICS
Room Name:
Laboratory Area

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		
Raised Floor	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Evidence Lockers	X	

Room Data Notes

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6

ROOM DATA SHEETS

Section:
COMPUTER FORENSICS
Room Name:
MDF/Equipment Room

Utilization

Hours of Use		
Hours of Operation	24 hours	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling	X	

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe		
Preaction	X	
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps	X	
Raceway/ Plugmold	X	

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	1,
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete		
Anti Static	X	
Raised Floor	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

1 Lockable racks
2
3
4
5
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ROOM DATA SHEETS

Section:
COMPUTER FORENSICS
Room Name:
Evidence In-Process Room

Utilization	
Hours of Use	24 hours
Hours of Operation	
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	X
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	
Recessed Head	X
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	X

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	X
CCTV	
Door Status	X

Floor	
Tile	
VCT	X
Carpet	
Seamless	
Sealed Concrete	
Raised Floor	X

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	X
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	X
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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5
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ROOM DATA SHEETS

Section:
COMPUTER FORENSICS
Room Name:
Storage Room

Utilization	
Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	
Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	X
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	
CCTV	
Door Status	

Floor	
Tile	
VCT	
Carpet	
Seamless	
Sealed Concrete	X

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	
Shelving	X

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
COMPUTER FORENSICS
Room Name:
Evidence Storage Room

Utilization	
Hours of Use	24 hours
Hours of Operation	
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	X
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	
Recessed Head	X
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	X
CCTV	
Door Status	X

Floor	
Tile	
VCT	X
Carpet	
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	
Shelving	X

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

VEHICLE PROCESSING

ROOM DATA SHEETS

Section:
VEHICLE PROCESSING
Room Name:
Processing Room/Garage

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	6' 0 "
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air	X	
Lab Air		
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks		
Clean Sink		
Shop Sink	X	
Floor Sink	X	
Eye Wash	X	
Safety Shwr/ Eyewash	X	
Tire Impressions Sink	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable	X	3
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	2

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board		
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed	X	

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel	X	
Wood	X	
Solid Surface		

Furnishing/Accessories		
Modular	X	1
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Mobile Lift	X
Fuming Tent in (1) bay	X
Mov./lock. wire mesh part.	X
Coiling Power	X
Coiling Lights	X
Coiling Compressed Air	X

Room Data Notes

1 incl. (4) 30" x 60" adj. ht. SS mov. tables
2 Occupancy Sensor disable feature
3 Provide Black-out capabilities of bays
4
5
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ROOM DATA SHEETS

EVIDENCE PROCESSING

ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Vestibule

Utilization

Hours of Use	24 hours
Hours of Operation	
Shifts	

Mechanical

Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	X
Humidity Control	
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods

Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing

Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection

Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical

110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting

Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data

Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security

Proximity Card Reader	X
Key Locked	
CCTV	X
Door Status	X

Floor

Tile	
VCT	X
Carpet	
Seamless	
Sealed Concrete	

Wall

Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling

Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework

Laboratory	X
Office	
Wood	
Metal	
Plastic Laminate	

Countertop

Plastic Laminate	X
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories

Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Evidence Lobby

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV	X	
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete		
Ground Conc./ Terrazzo	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		
Accent	X	

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface	X	

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Public Toilet

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
SS Sink	X	
Floor Drain	X	

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor

Tile	X	
VCT		
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint		
Tile	X	
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface	X	

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Paper towel dispenser	X	
Soap dispenser	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Toilet	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Evidence Review Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor		

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV	X	
Door Status	X	

Floor		
Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface	X	

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Supervisor

Utilization	
Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	X
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	X
SATV	

Security	
Proximity Card Reader	
Key Locked	X
CCTV	
Door Status	

Floor	
Tile	
VCT	
Carpet	X
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	X
Full Height	

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework
Laboratory
Office
Wood
Metal
Plastic Laminate

Countertop
Plastic Laminate
Epoxy
Stainless Steel
Wood
Solid Surface

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	X
Marker Board	X
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key	
A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes
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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Open Office Area

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV	X	
Door Status		

Floor

Tile		
VCT	X	
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Active File Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV	X	
Door Status	X	

Floor		
Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
High Density Storage	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Laboratory Pickup

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air	X	
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor

Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface	X	

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

LIMS Station		

Room Data Notes

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Evidence Vault

Utilization

Hours of Use		
Hours of Operation	24 hours	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet	X	

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink	X	
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash	X	

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV	X	
Door Status	X	

Floor

Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed	X	

Casework

Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Walk-in Refrigerator	X	G
Walk-in Freezer	X	G
High density storage	X	
Drug Storage Cabinet	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Storage Room

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Bio-vestibule

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink	X	
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Station
2
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ROOM DATA SHEETS

Section:
EVIDENCE PROCESSING
Room Name:
Drying Room

Utilization		
Hours of Use		
Hours of Operation	24 hours	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet	X	1

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink	X	
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV	X	
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board		
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel	X	
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1 Multiple sizes (2) Large, (2) small
2
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ROOM DATA SHEETS

BUILDING SUPPORT

ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Work Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate	X	
Shelving	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Mail Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate	X	
Shelving	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Conference Room

Utilization

Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical

Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods

Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing

Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection

Wet Pipe	X
Preaction	
Dry System	
Standard Head	
Recessed Head	X
Concealed Head	

Electrical

110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting

Fluorescent	X
Incandescent	X
Dimmable	X
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data

Telephone/ Data	X
Video Conferencing	X
CATV	X
Paging/Public Address	X
SATV	X

Security

Proximity Card Reader	
Key Locked	
CCTV	
Door Status	

Floor

Tile	
VCT	
Carpet	X
Seamless	
Sealed Concrete	

Wall

Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	X
Full Height	X

Ceiling

Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework

Laboratory	
Office	X
Wood	
Metal	
Plastic Laminate	X

Countertop

Plastic Laminate	X
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories

Modular	
Freestanding Office Furn.	X
Marker Board	X
Tack Board	
Projection Screen	X
Projector	X
Smart Board	X
Video Conferencing	X

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Janitor - Main

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air		
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink	X	
Floor Sink	X	
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor		

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed	X	

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Janitor - Satelite

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air		
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink	X	
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor		

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed	X	

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Public Toilets - Men

Utilization	
Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	X
Hot Water	X
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	
SS Sink	X
Floor Drain	X

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	
Key Locked	
CCTV	
Door Status	

Floor	
Tile	X
VCT	
Carpet	
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	
Epoxy Paint	
Tile	X
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	X

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	
Paper towel dispenser	X
Soap dispenser	X

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Toilet	X
Urinal	X

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Public Toilets - Women

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
SS Sink	X	
Floor Drain	X	

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor

Tile	X	
VCT		
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint		
Tile	X	
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface	X	

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Paper towel dispenser	X	
Soap dispenser	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Toilet	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Break Room

Utilization	
Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	X
Hot Water	X
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	X
SATV	

Security	
Proximity Card Reader	X
Key Locked	
CCTV	
Door Status	

Floor	
Tile	
VCT	X
Carpet	
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	X
Full Height	X

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	X
Wood	
Metal	
Plastic Laminate	X

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	X

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	X
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key	
A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment	
refrigerator/freezer	X
dishwasher	X
Garbage Disposal	X

Room Data Notes
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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Bulk Office Supply Inventory

Utilization		
Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Bulk Lab Supply Inventory

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Bulk Chemical Storage

Utilization

Hours of Use	24 hours	
Hours of Operation		
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status	X	

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board		
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint	X	
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

refrigerator	X	
Chemical Storage Cabinets	X	1

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Hazardous Waste

Utilization

Hours of Use	24 hours
Hours of Operation	
Shifts	

Mechanical

Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	
100% Outside Air	X
Humidity Control	X
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods

Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing

Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection

Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical

110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting

Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data

Telephone/ Data	
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security

Proximity Card Reader	X
Key Locked	
CCTV	
Door Status	X

Floor

Tile	
VCT	
Carpet	
Seamless	
Sealed Concrete	X

Wall

Gyp. Board	
CMU/ Concrete	X
Latex Paint	
Epoxy Paint	X
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling

Acoustical Tile	
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	X

Casework

Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop

Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories

Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Biological Waste

Utilization	
Hours of Use	24 hours
Hours of Operation	
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	
100% Outside Air	X
Humidity Control	X
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	
CCTV	
Door Status	X

Floor	
Tile	
VCT	
Carpet	
Seamless	
Sealed Concrete	X

Wall	
Gyp. Board	
CMU/ Concrete	X
Latex Paint	
Epoxy Paint	X
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	X
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Paper Shredder and Storage

Utilization

Hours of Use		
Hours of Operation	8AM - 5PM	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV	X	
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board		
CMU/ Concrete	X	
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed	X	

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Gas Distribution

Utilization		
Hours of Use	24 hours	
Hours of Operation		
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air		
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air	X	
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor		

Communication/ Data		
Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV	X	
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board		
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed	X	

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Cylinder manifold

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Recycling Area

Utilization	
Hours of Use	
Hours of Operation	8AM - 5PM
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	X
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	
CCTV	
Door Status	

Floor	
Tile	
VCT	
Carpet	
Seamless	
Sealed Concrete	X

Wall	
Gyp. Board	
CMU/ Concrete	X
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	X

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key	
A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment	
cardboard compactor	X

Room Data Notes
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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Loading Dock

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor		

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV	X	
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board		
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint	X	
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Receiving/Staging Area

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor		

Communication/ Data		
Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked	X	
CCTV	X	
Door Status		

Floor		
Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall		
Gyp. Board		
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint	X	
No Ceiling/ Exposed		

Casework		
Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Men's Restroom - Staff

Utilization

Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical

Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods

Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing

Cold Water	X
Hot Water	X
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	
SS Sink	X
Floor Drain	X

Fire Protection

Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical

110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting

Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data

Telephone/ Data	
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security

Proximity Card Reader	
Key Locked	
CCTV	
Door Status	

Floor

Tile	X
VCT	
Carpet	
Seamless	
Sealed Concrete	

Wall

Gyp. Board	X
CMU/ Concrete	
Latex Paint	
Epoxy Paint	X
Tile	X
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling

Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework

Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop

Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	X

Furnishing/Accessories

Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	
Paper towel dispenser	X
Soap dispenser	X

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Toilet	X
Urinal	X

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Women's Restrooms - Staff

Utilization	
Hours of Use	
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	X
Hot Water	X
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	
SS Sink	X
Floor Drain	X

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	
Key Locked	
CCTV	
Door Status	

Floor	
Tile	X
VCT	
Carpet	
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	
Epoxy Paint	X
Tile	X
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	X

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	
Paper towel dispenser	X
Soap dispenser	X

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment	
Toilet	X

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Men's Showers/Locker Room

Utilization		
Hours of Use		
Hours of Operation	24 hours	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
Floor Drain	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile	X	
VCT		
Carpet		
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile	X	
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Lockers	X	1
Wood Bench	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1 20 half height lockers
2
3
4
5
6

ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Women's Showers/Locker Rm

Utilization

Hours of Use		
Hours of Operation	24 hours	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
Floor Drain	X	

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile	X	
VCT		
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete	X	
Latex Paint		
Epoxy Paint	X	
Tile	X	
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Lockers	X	1
Wood Bench	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1 40 half height lockers
2
3
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6

ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Exercise Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Long Term Storage

Utilization

Hours of Use		
Hours of Operation	8 am	to 5 pm
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV	X	
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

shelving	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Mechanical Room

Utilization	
Hours of Use	
Hours of Operation	24 hours
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	
Positive Air Pressure	
Negative Air Pressure	X
Filtered Supply	
Filtered Exhaust	
Dedicated Cooling	

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	X
Hot Water	X
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	X
Floor Sink	X
Eye Wash	X
Safety Shwr/ Eyewash	
Floor Drain	X

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	X
480V, 3 Phase@ xamps	X
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	X
SATV	

Security	
Proximity Card Reader	X
Key Locked	X
CCTV	
Door Status	

Floor	
Tile	
VCT	
Carpet	
Seamless	
Sealed Concrete	X

Wall	
Gyp. Board	
CMU/ Concrete	X
Latex Paint	
Epoxy Paint	X
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	X

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Electrical Room

Utilization

Hours of Use		
Hours of Operation	24 hours	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase		
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet		
Seamless		
Sealed Concrete	X	

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile		
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed	X	

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
UPS

Utilization	
Hours of Use	
Hours of Operation	24 hours
Shifts	

Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	
100% Outside Air	
Humidity Control	
Positive Air Pressure	
Negative Air Pressure	
Filtered Supply	
Filtered Exhaust	
Dedicated Cooling	X

Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	
SATV	

Security	
Proximity Card Reader	X
Key Locked	X
CCTV	
Door Status	

Floor	
Tile	
VCT	X
Carpet	
Seamless	
Sealed Concrete	

Wall	
Gyp. Board	
CMU/ Concrete	X
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X

Ceiling	
Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	

Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Data/Telecomm Room

Utilization

Hours of Use		
Hours of Operation	24 hours	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling	X	

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Security Room

Utilization	
Hours of Use	
Hours of Operation	
Shifts	
Mechanical	
Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	X
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	
Filtered Exhaust	
Dedicated Cooling	X
Hoods	
Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	
Plumbing	
Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	
Fire Protection	
Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	
Electrical	
110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting	
Fluorescent	X
Incandescent	
Dimmable	
Task Lighting	
In-Use Light	
Occupancy Sensor	X
Communication/ Data	
Telephone/ Data	X
Video Conferencing	
CATV	
Paging/Public Address	
SATV	
Security	
Proximity Card Reader	X
Key Locked	X
CCTV	
Door Status	
Floor	
Tile	
VCT	X
Carpet	
Seamless	
Sealed Concrete	
Wall	
Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	
Full Height	X
Ceiling	
Acoustical Tile	
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	X
Casework	
Laboratory	
Office	
Wood	
Metal	
Plastic Laminate	
Countertop	
Plastic Laminate	
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories	
Modular	
Freestanding Office Furn.	
Marker Board	
Tack Board	
Projection Screen	
Projector	
Smart Board	
Video Conferencing	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
BUILDING SUPPORT
Room Name:
Server Room

Utilization

Hours of Use		
Hours of Operation		
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling	X	

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked	X	
CCTV		
Door Status		

Floor

Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

TRAINING

ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Large Training Classroom

Utilization

Hours of Use	Plan for Off-Hrs.
Hours of Operation	8 am to 5 pm
Shifts	

Mechanical

Temp: 68 to 78 deg F	X
Temp: Other	
Recirculated Air	X
100% Outside Air	
Humidity Control	X
Positive Air Pressure	X
Negative Air Pressure	
Filtered Supply	X
Filtered Exhaust	
Dedicated Cooling	

Hoods

Chemical Fume Hood	
Biological Safety Cabt	
Laminar Flow Hood	
Dusting Hood	
Cyano. Chamber	
Snorkel	
Drying Cabinet	

Plumbing

Cold Water	
Hot Water	
Distilled Water	
RO Water	
Deionized Water	
Compressed Air	
Lab Air	
Vacuum	
Natural Gas	
Lab Gases	
Laboratory Sinks	
Clean Sink	
Shop Sink	
Floor Sink	
Eye Wash	
Safety Shwr/ Eyewash	

Fire Protection

Wet Pipe	X
Preaction	
Dry System	
Standard Head	X
Recessed Head	
Concealed Head	

Electrical

110V, 20A, 1 Phase	X
208V, 1 Phase@ xamps	
208V, 3 Phase@ xamps	X
480V, 3 Phase@ xamps	
Raceway/ Plugmold	

Lighting

Fluorescent	X
Incandescent	X
Dimmable	X
Task Lighting	
In-Use Light	
Occupancy Sensor	X

Communication/ Data

Telephone/ Data	X
Video Conferencing	X
CATV	X
Paging/Public Address	X
SATV	X

Security

Proximity Card Reader	X
Key Locked	X
CCTV	
Door Status	

Floor

Tile	
VCT	
Carpet	X
Seamless	
Sealed Concrete	

Wall

Gyp. Board	X
CMU/ Concrete	
Latex Paint	X
Epoxy Paint	
Tile	
Sealed CMU/ Concrete	
STC Rated	X
Full Height	X

Ceiling

Acoustical Tile	X
Gyp. Board, Latex Paint	
Gyp. Board, Epoxy Paint	
No Ceiling/ Exposed	

Casework

Laboratory	
Office	X
Wood	
Metal	
Plastic Laminate	X

Countertop

Plastic Laminate	X
Epoxy	
Stainless Steel	
Wood	
Solid Surface	

Furnishing/Accessories

Modular	X
Freestanding Office Furn.	X
Marker Board	X
Tack Board	X
Projection Screen	X
Projector	X
Smart Board	X
Video Conferencing	X

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Bio-vestibule (Training Lab)

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control	X	
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink	X	
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	1
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Coat Hooks	X	

Room Data Notes

1 Computer Docking Stations
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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Training Laboratory

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air		
100% Outside Air	X	
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood	X	4' - 0"
Biological Safety Cabt	X	4' - 0"
Laminar Flow Hood		
Dusting Hood	X	4' - 0"
Cyano. Chamber	X	4' - 0"
Snorkel		
Drying Cabinet	X	4' - 0"

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water	X	
Compressed Air		
Lab Air	X	
Vacuum	X	
Natural Gas		
Lab Gases	X	
Laboratory Sinks	X	
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash	X	
Safety Shwr/ Eyewash	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps	X	
480V, 3 Phase@ xamps		
Raceway/ Plugmold	X	

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing	X	
CATV	X	
Paging/Public Address	X	
SATV	X	

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status	X	

Floor		
Tile		
VCT		
Carpet		
Seamless	X	
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint	X	
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory	X	
Office		
Wood	X	
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy	X	
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular	X	
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen	X	
Projector	X	
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Evidence Lockers

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Video Test./Mock Courtroom

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps	X	
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent	X	
Dimmable	X	
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data	X	
Video Conferencing	X	
CATV	X	
Paging/Public Address		
SATV	X	

Security		
Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor		
Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office	X	
Wood	X	1
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories		
Modular		
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen	X	
Projector	X	
Smart Board	X	
Video Conferencing	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

1 Mock Court Bench
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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Storage Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head		
Recessed Head	X	
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Public Toilets - Men

Utilization		
Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical		
Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods		
Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing		
Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
SS Sink	X	
Floor Drain	X	

Fire Protection		
Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical		
110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting		
Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data		
Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security		
Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor		
Tile	X	
VCT		
Carpet		
Seamless		
Sealed Concrete		

Wall		
Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint		
Tile	X	
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling		
Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework		
Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop		
Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface	X	

Furnishing/Accessories		
Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Paper towel dispenser	X	
Soap dispenser	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment		
Toilet	X	
Urinal	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Public Toilets - Female

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure		
Negative Air Pressure	X	
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water	X	
Hot Water	X	
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		
SS Sink	X	
Floor Drain	X	

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor

Tile	X	
VCT		
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint		
Epoxy Paint		
Tile	X	
Sealed CMU/ Concrete		
STC Rated		
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface	X	

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Paper towel dispenser	X	
Soap dispenser	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Toilet	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Break-Out Area

Utilization

Hours of Use	Plan for Off-Hrs.	
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent	X	
Dimmable	X	
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Reference Library

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent	X	
Dimmable	X	
Task Lighting	X	
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV	X	
Paging/Public Address	X	
SATV	X	

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood	X	
Metal		
Plastic Laminate		

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood	X	
Solid Surface		

Furnishing/Accessories

Modular	X	
Freestanding Office Furn.	X	
Marker Board	X	
Tack Board		
Projection Screen	X	
Projector	X	
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Coat Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data		
Video Conferencing		
CATV		
Paging/Public Address		
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT	X	
Carpet		
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated		
Full Height		

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office		
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate		
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board		
Tack Board		
Projection Screen		
Projector		
Smart Board		
Video Conferencing		

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Coat Rods and hangars	X	

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Case Review Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control	X	
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply	X	
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable	X	
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing	X	
CATV	X	
Paging/Public Address		
SATV	X	

Security

Proximity Card Reader	X	
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.	X	
Marker Board		
Tack Board		
Projection Screen	X	
Projector	X	
Smart Board	X	
Video Conferencing	X	

Equipment Key

A. Vibration Sensitve
B. Light Sensitive
C. Vibration Producing
D. Heat Producing
E. Noise Producing
F. UPS Power
G. Emergency Power

Equipment

Room Data Notes

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ROOM DATA SHEETS

Section:
TRAINING
Room Name:
Copy Room

Utilization

Hours of Use		
Hours of Operation	8 am to 5 pm	
Shifts		

Mechanical

Temp: 68 to 78 deg F	X	
Temp: Other		
Recirculated Air	X	
100% Outside Air		
Humidity Control		
Positive Air Pressure	X	
Negative Air Pressure		
Filtered Supply		
Filtered Exhaust		
Dedicated Cooling		

Hoods

Chemical Fume Hood		
Biological Safety Cabt		
Laminar Flow Hood		
Dusting Hood		
Cyano. Chamber		
Snorkel		
Drying Cabinet		

Plumbing

Cold Water		
Hot Water		
Distilled Water		
RO Water		
Deionized Water		
Compressed Air		
Lab Air		
Vacuum		
Natural Gas		
Lab Gases		
Laboratory Sinks		
Clean Sink		
Shop Sink		
Floor Sink		
Eye Wash		
Safety Shwr/ Eyewash		

Fire Protection

Wet Pipe	X	
Preaction		
Dry System		
Standard Head	X	
Recessed Head		
Concealed Head		

Electrical

110V, 20A, 1 Phase	X	
208V, 1 Phase@ xamps		
208V, 3 Phase@ xamps		
480V, 3 Phase@ xamps		
Raceway/ Plugmold		

Lighting

Fluorescent	X	
Incandescent		
Dimmable		
Task Lighting		
In-Use Light		
Occupancy Sensor	X	

Communication/ Data

Telephone/ Data	X	
Video Conferencing		
CATV		
Paging/Public Address	X	
SATV		

Security

Proximity Card Reader		
Key Locked		
CCTV		
Door Status		

Floor

Tile		
VCT		
Carpet	X	
Seamless		
Sealed Concrete		

Wall

Gyp. Board	X	
CMU/ Concrete		
Latex Paint	X	
Epoxy Paint		
Tile		
Sealed CMU/ Concrete		
STC Rated	X	
Full Height	X	

Ceiling

Acoustical Tile	X	
Gyp. Board, Latex Paint		
Gyp. Board, Epoxy Paint		
No Ceiling/ Exposed		

Casework

Laboratory		
Office	X	
Wood		
Metal		
Plastic Laminate		
Shelving	X	

Countertop

Plastic Laminate	X	
Epoxy		
Stainless Steel		
Wood		
Solid Surface		

Furnishing/Accessories

Modular		
Freestanding Office Furn.		
Marker Board	X	
Tack Board	X	
Projection Screen		
Projector		
Smart Board		
Video Conferencing		
Copiers	X	

Equipment Key

A.	Vibration Sensitve
B.	Light Sensitive
C.	Vibration Producing
D.	Heat Producing
E.	Noise Producing
F.	UPS Power
G.	Emergency Power

Equipment

Room Data Notes

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12.4 WORKSHOP PROCESS

To facilitate the Nebraska State Patrol Crime Laboratory personnel, our team utilized a "workshop" approach through the Needs Assessment and Programming development for this project.

This "workshop" process was used to establish and confirm project goals and objectives and to determine the Program requirements for this project. Through this process, our team met with key individuals including managers, supervisors, forensic scientists and administrative staff to gain a mutual understanding and direction for this project within a short period of time. Our team then facilitated a concentrated effort through user group sessions with each forensic section to help define the sectional needs of the NSPCL.

Three Workshops took place during our Programming Process. The dates and duration of these workshops were as follows:

- Workshop 1 February 9 through February 10, 2011
- Workshop 2 March 2 through March 3, 2011
- Workshop 3 April 27 through April 28, 2011

Workshop 1: Workshop 1 included an overview of the Programming Process and a general planning workshop in preparation for the individual user workshop sessions. Individual user workshop sessions were conducted with personnel from each forensic section in order to determine their requirements and to review their completed questionnaires. The final workshop meeting was an Executive Committee workshop for the purpose of summarizing the Workshop 1 sessions and to discuss and address unresolved issues.

The purpose of Workshop 1 was to gather as much information as possible regarding space needs, adjacency requirements, training programs and procedures, assembly and conference needs, storage requirements, site requirements, and any other issues that might affect the program of the proposed new crime laboratory.

Workshop 2: Workshop 2 started with an Executive Team meeting, followed by individual workshop sessions that were conducted with personnel from each forensic section in order to discuss and determine the following:

- Reviewed "draft" Space List for each room/area within each section and updated in real time in each session based upon the draft sent in advance of Workshop 2.
- Reviewed "draft" Space Standards for each section which included our team's first pass at laying out individual work stations for each lab and administrative area based upon the "draft" Space Standards sent in advance of Workshop 2.
- Reviewed and developed together the Adjacency Diagrams for how each section wanted to be organized in terms of adjacent space.
- Discussed the support services for each space and in particular any special services, such as special electrical, cooling, lighting, security, IT, etc. for each section.

In addition to further discussions and clarifications of issues raised during Workshop 1, Workshop 2 concentrated on observing the existing crime lab and laboratory procedures. Procedures and processes, including the equipment currently being used, were described by the user representatives. This was done in order to provide our programming team with a better understanding of the users' needs. Discussions also took place regarding space and equipment needs in the proposed new facility that would allow each group to operate more efficiently and effectively.

Workshop 2 concluded with an Executive Committee workshop for the purpose of summarizing the Workshop 2 sessions and to discuss and address unresolved issues.

Workshop 3: Workshop 3 started with an Executive Team meeting to address any big picture comments that the Executive Team had. We then presented basic Concepts for a possible starting point for the Design Phase (next contract once funding is approved) for the new facility) and reviewed the Cost Models and Project Costs Analysis for the (3) planning year options.

The Executive Team meeting was followed by individual workshop sessions that were conducted with personnel from each forensic section in order to discuss and determine the following:

- Answered questions and revised items in the "draft" Program Statement for each section and also discussed the Room Data Sheets.
- Presented basic Concepts for a possible starting point for the Design Phase to each User Group to get their input and have them determine which option best fit their needs.

Workshop 3 concluded with an Executive Committee workshop for the purpose of summarizing the Workshop 3 sessions and to discuss and address unresolved issues and the next steps.

Workshop Meeting Minutes: Minutes of all of the workshops conducted for this programming effort, including names of participants, are included in the appendix to this Program Statement below.

MEETING MINUTES

WORKSHOP ONE

Work Shop Notes

Date: 2/9/11

Time/Section: 8:00; "Pre-Kick Off"

Project: NSP Crime Lab
Lincoln, NE

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, John Heacock. Staff: Pam Zilly, Kent Weber, Cammi Strong, Celeste Laird, Vicki Hopkins, Mariana Ward.

Discussion:

This session provided for introduction of the design team to Pam Zilly, Executive Director, NSP Crime Lab Division, other department heads and John Heacock, Department of Administrative Services.

Very general discussion was commenced on the plan for the two day planning session.

Specific topics discussed:

*How far out do you want to project out usage for the facility we are programming?
Pam – Should be twenty years minimum. It could be phased for future additions beyond twenty years.

*Pam – The crime lab needs to be out of the building in 3 years when the lease expires. Great Western Bank currently owns the facility.

*Could be looking a new building that would be 40,000 sf; say $400/sf construction costs. This would be a $16 million facility. Pam's gut feel would be more like $12-16 million being where it would likely end up with current funding climate.

*The current lab is roughly 13,000 sf.

*A new building would take 3 months to program and 6 to 8 months design time.

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i-SCIENCE DURRANT

Work Shop Notes

Date: 2/9/11

Time/Section: 8:30; "Kick-off"

Project: NSP Crime Lab
Lincoln, NE

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, John Heacock. Staff: Pam Zilly, Kent Weber, Cammi Strong, Celeste Laird, Vicki Hopkins, Mariana Ward, Brad Rutledge, Mike Auten, Sarah Pillard, Vicki Cowan, Abby Dodds, Amy Weber, Steve Burke, Bridget Driver, Jan Johnson, Margaret Wiesen, Heidi Young, Katie Rector, Melissa Kreikemeier, Jason Linder, Brandy Porter

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Discussion:

This session provided for introduction of the design team to the entire staff of the NSP Crime Lab.

Dan and Evan again lead a general discussion regarding the plans for the two day planning session as well as hoped for accomplishments.

Dan applauded all for taking the tasks of filling out the questionnaires.

Dan and Evan elaborated upon what they are seeing as trends in this field and related experiences in recent projects that they have been involved in.

More detailed accounting of concerns/questions/observations appears in the individual Sections.

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i-SCIENCE DURRANT

Work Shop Notes

Date: 2/9/11

Time/Section: 9:30; "Admin / QA"

Project: NSP Crime Lab
Lincoln, NE

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Margret Wilson (Front Desk), Cami Strong, Jan Johnson (Evidence Handling-Front Door), Vick Hopkins

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Discussion:

*Lab load went down in 2010; likely to come back.
*Misinformation has caused skewed picture of time required for test results and impression that there is big backlog.
*Training Room - no training on site, but would like it on-site.
-Facility could be used by other groups.
-More training dollars would give 'investigators' more options to use the crime lab.
-New facility/ labs will ramp up need for on-site training.
Want to assist QA admin
Want to assist lab admin
*A recent Crime Lab Study went to the legislature. It was on timed well as there is an awareness now. Pam will get a copy of the report to the Design Team (DT).

Administration

*Dan asked about CL's 'need for storage', 'central supply room', and mentioned that it is better to limit stored chemicals rather than increasing storage.

*Evidence drop off-currently unload in wide open. Need a secure/ covered loading area for evidence transfer. More safety/screening at unloading areas is desired.
-"Manpower", "FedEx" currently jwalks in without any screening.(FedEx)
-A secure vestibule would be a good idea.
*Parking for CL company cars & personal cars.
-Need secure but separate parking for employee cars. Many cars stay overnight, however most work normal hours.

-Reason for overnight travel is for distances traveled across the state or postponed court cases.

Evidence Storage

*Only store evidence during analysis; then return to agency.

-DNA is stored indefinitely.

-Blood Evidence has to be frozen; also stored indefinitely

?NIBEN Test

*Discussion about whether to store in a separate facility?

-DO/Better to keep in separate facility (central)

-PZ/Yes, but then stepping out of building with evidence.

-DO/Better to store only cases that you are working on.

-NSP has some long term storage in Evidence facility.

-Not many big bulk drug storage needs. Need to store more if 'sentence' is MAX.

Evidence Drop-off

*No drop offs after hours. Blood Alcohol testing by CL might change that.

-9:00AM to 4:00PM is current Evidence hours.

-ES/Would you like twenty-four/ seven? CS/Yes, for Blood Alchohol.

-PZ/Would like to talk to other labs, but would like to have dialogue with the evidence drop off person/ investigators.

-Evidence brought into Margret's window or buzzed into evidence room.

-PZ/Wants an area to fill out paperwork, forms, boxes, phone, computer station, printer that is not within the working areas of the facility.

-PZ/Break room is too close to where evidence is brought in; or for other public entrants.

-DO/Need interview room so drop –offs/others can not get further into the facility

*What happens at drop-off?

-Processing done, evidence is checked out, checked back in

-question-who checks chain of custody?

-Resealing evidence packages, transfers, check bar codes.

-Dan/Who checks chain of custody?

Evidence Drying

*Does anything need to be dried?"

-ES/Shoujd drying be done by the submitter?

-CS/Should the drying area be in the evidence room?

-DO/Drying should be in the inspection room.

-VH/likes the way CL is currently doing it. Could be exception for drying before CL's receipt.

-ES/A drying room on –site would be good.

Areas where evidence is stored

*Chemistry Lab

-CS/Evidence goes to locked locker. If oo large it may locked in lab room.

-PZ/Problem in many areas now. Chemistry is not in bad shape for storage. Finger Print, DNA storage lacking. Firearms has some new storage cabinets.

-CS/Would like locking hoods.

Administrative Office Space/functions

-CS/Where would these be located?

-VH/Nice to be separate from have public side (evidence drop –off &evidence storage).

-PZ/Don't have big staff numbers; Margret is the only Evidence Tech; Jan does purchasing but also backs up Margret.

-PZ/Need space for small meetings in Department Manager/ supervisior's offices. It currently is hard to have private conversations with staff.

-ES/Would like a dedicated file room. Currently keep records for 5 years then ship to State's records.

Vehicle Evidence Examinations

-DO/Need tent for super glueing.

-PZ/Problem if a motor home. Need garage large enough and with garage doors on both ends.

-PZ/Need room with ability to completely darken. Current light leaks around door seals allow light in.

Work Shop Notes

Date: 2/9/11

Time/Section: 10:30; "Firearms / Tool Marks"

Project: NSP Crime Lab
Lincoln, NE

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant, Staff: Pam Zilly, Kent Weber, Amy Weber.

Discussion:

*Do you destroy many guns?
-Screen what comes in. If have in current library, they are usually passed to another evidence person to destroy.

*Shooting range
-KW/A 75' range would be nice.
-Shotgun patterns are an issue with the current lack of range length.
-AW/Silencer testing- need more distance to locate microphones at correct distances.
-DO/12' of width is needed for 75' long range. KW/Would like 15' of width.
-AW/It would be a good idea to have shooting tank)s) in a separate room from the range.
-PZ/Current setup doesn't exhaust enough air at shooting tank. Shooting gases/smoke gets directed back at operator as the shooter is between the tank and the exhaust intake.
-DO/Most of what is currently being stored in the range should not be within the room.
-KW/Firing Range also serves as facility tornado shelter.

*Bullet Trap
-KW/Bullet trap- likes liquid traps, fluid salvage sales or shredded rubber.
-Hanging traps vs sloped vs trapped?
-Would use for proficiency testing
-KW/Don't want other agencies doing the proficiency testing.
-KW/May want setup for high volume shooting.
-AW/Need better filtration on the water tank.

*Gun collection
-PZ/Interested in having display cases in corridors as this is what most visitors want to see. This would keep them out of the shooting room.

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*Office Space

-PZ/Kent doesn't have an office. As a supervisor, he needs his own office and the department needs a conference room for unit meetings.

-KW/Reference material is needed close to analytical material.

*Foot, Shoe, and Tire Work

-AW/They do foot work & Shoe and Tire in this department. Current department is long ways from the vehicle evidence bay, resulting in long ways to push carts from one space to another.

-AW/Need big tables to spread out of materials & shoe print castings.

-PZ/Tire prints should be taken with car weight. Should they do more in the garage?

*Ammunition

-DO/Ammo storage-Do you have bullet drawers? KW/Would be nice, but just have shelves.

*Spaces

-KW/Doesn't like idea of a separate scope room; doesn't like thought of going from Analytic Room to a dedicated Scope Room; "want scopes right here".

-KW/Don't have a scope(s) but a counter cut-out for astand up scope would be ok.

-AW/Envisioned short separation walls to allows more natural light to penetrate the spaces.

-PZ/Natural light really desired in all of new facility.

*Staffing

-KW/Have expectations for staff growth. This year seems to be a turning point; 3 staff members now, but could easily go to four (DO/plan for 5).

-PZ/Turn-around time has really improved this last year. Omaha has own firearm testing and will likely remain, however increases are coming in from Grand Island.

-KW/There would be a huge increase if Omaha stops doing their own testing.

*General Facility discussion

-AW/Would be nice to have a 'built-in' green space for walking.

-DO/It may be possible to put in an exercise room.

-PZ/Showers/ bike racks/ halls for walking are all desirable.

-Mock trails happen in the Conference Room. It would be nice to have a stand-alone mock-trail room.

-PZ/Video testimony not used in Nebraska yet. Travel in NE is a big deal.

-PZ/It would be great to plan for video testimony. It could be available to other agencies.

Work Shop Notes

Date: 2/9/11

Time/Section: 1:00; "Latent Prints"

Project: NSP Crime Lab
Lincoln, NE

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Mariana Ward, Steve Burke, Bridget Driver.

Discussion:

*General Topics

-Steve/Are there required SF's for different classifications? PZ/Forensic Scientist should have a cubicle. Managers should have offices.
-Currently have an AFI to recover prints.
-Storage- Need one big tall cubby for each analyst. Big cubby for guns, small cubby for others.
-Currently have superglue cabinets (two big one and one small one).
-Walk-in Cabinet for superglue would be great.
-DO/In a new facility we should plan on a 2 car garage and large enough for a large vehicle.

*Other thoughts

-See Mariana's Plan for her thoughts on future layout.
-Space doesn't have to be pitch black for ALS.
-Does need to be blackened for fluorescents.
-Each area should have flame hood
-Like ability to have communication; shouldn't have separate spaces.
-MW/Powder Process- don't do much anymore.
-BD/Would like tables with height adjustments.
-SB/Would like to have countertops large enough to lay out evidence for photography.
-MW/Doesn't like packing up evidence to go to another location for photography.
-PZ/Might be nice to have tables to lay out for preliminary look.
-SB/We are creatures of habit; can't imagine going to another room for processing.
-SB/"I have issues with moving evidence".

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-DO/Maybe a combo with other rooms would be good, but keep all within the suite.

*Continuing conversation

-MW/Would like to have a small meeting room (6 people).
-Need a separate AF & Adobe area. Currently have 2 stations.
-MW/Should have 1-2 AF's.
-SB/Comparisons are done at workstations.
-SB/Each examiner should have own adobe setup.
-DO/You can't have office functions in the lab area if accredited. Although latent may be a little more relaxed rules.
-DO/There could be a vestibule into the lab area.
-ES/Evidence comes all the way into lab space, then to storage or to work on directly. Could have Exam rooms off of the labs?
-ASCLAP?
-BD/Photocopy in lab or out?
-Lab processes need to be separate from Process functions (photocopy). PZ/Currently are shared.

*IT

-PZ/Crime Lab won't go wireless in new facility. Have concern with the portal that the state requires; too slow.
-DO/New facilities-currently hardwiring but being set up for wireless. Doing CAT GAMON.
-Current facility lacks hardwire drops. No ability to leave laptops in lab that are dedicated to only that space. Produces the potential for DNA contamination.

*AFIS-Dedicated staff person- no

*What needs to go on emergency power? Current facility has a generator. DO/Ideal to have a UPS on each piece of equipment.

Work Shop Notes

Date: 2/9/11

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 2:30; "Questioned Documents"

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly.

Discussion:

*Questioned Documents

-Currently do not do anymore. Likely won't do in the future.
-Currently bring in a consultant for this case type.
-Would like to pull this use back into the new building.
-Need to get the space. However, it may get used for something different later. It could be converted to computer crime lab. However, there are differences between investigation hours and crime lab hours. There is really no reason for them to be in same facility.
-PZ/They would only consider "hard drive" computer investigation; not "on-line" casework.
-Paper crime has diminished as there is less paper/forgery anymore; everything is going digital.

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Work Shop Notes

Date: 2/9/11

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 3:30; "DNA Typing Lab Tour"

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Cami Strong.

Discussion:

*Current Lab Equipment & Observations
- -(1) Evidence Freezer
- -(1) Reagent Fridge
- -(4) Genetic Analyzers
- -"room is fairly good sized"
- -Need UPS backups
- -Need 220v for genetic analyzers
- -currently have a monitor on air system to insure negative air flow.

*Rm. #14.6 Office
- -CODIS (Combined DNA Index System) server within space; it needs to be separated from other servers

*Data bank lab
- -Required to have sample storage of all felons.
- -DO/"Lectriver" filing system would be good.

*Sampling went from typical 500/year to 8-9,000/ in 2010. This is a result of new law requiring all felons to be sampled and keep on file.
- -Want casework data bank separate from data bank but close so they can work together easily.

*Other current equipment:
- -PCR hood
- _TECAN Robot
- -New auto-punch

*All freezers/ refrigerator should be on generators.

*Storage; B16 Issues (data bank kits) no room to stock.

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*Tour Conversation

-PZ/Doesn't want investigation in the same building as crime lab. Investigators always want to be close to the lab. Don't want investigators in building. Don't want any perception of a slant forced on them; want to be totally unbiased.
-CL staff doesn't go to crime scenes.
-CL staff is not trained to do scene analysis.

-Latent or Firearms could move into this Questioned Document's space if not used for future QD's.
-Probably could not be used for computers as it would need raised floors & more AC.

-PZ/Future break rooms: "Don't want private break room in each unit".
-PZ/IT & QA should be near front entry.

-PZ/Always error on side of being able to work together & to allow communication within the unit.
-PZ/Crime Lab study went to Legislature. Douglas County charges for services, so don't want free state service. UNMC only place in the state doing DNA sampling.

-PZ/CL doesn't do mitochondria

-PZ/Would like to have own IT staff/person. Currently NSP IT staff cover the CL. Can be delays in service.

*Cami Strong; Tour notes

-"Bio-storage is bad".
-"Distilled water should be moved out to more convenient location for others to use".

#143- Serology Lab

-Currently use "Tough Books" for taking notes. Power drop poles always in the way.
-Have one hood for spooling blood, drying samples.
-Have a special reagent station for prep.
-Have no evidence storage space.
-Don't like that 'cutting' happens here; then they have to take item across table.
-Have (1) refrigerator for Evidence & (1)for Reagents.

*DNA Prep Room

-PCR set up (2) hoods. CL wants to keep them, but not used much.
-Have (1) Organic Extraction hood.

*Room #142

-Has (1) TECAN machine.
-"Love foot pedal controls on sinks".
-"Don't ever use gas".
-DO/You want to try keep Humidity at 30%. This keeps down static electricity but won't damage equipment.

Work Shop Notes

Date: 2/10/11

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 8:00; "Trace Evidence"

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Celeste Laird, Vicki Hopkins, Mike Auten, Vicki Cowan, Abby Dodds, Brad Rutledge.

Discussion:

*"Arson Room" – Mike Auten's office

-Large table; small office with Microscope (wet chemical).
-Individual stations seem to work the best.
-Have (1) shared instrument room (x-ray).
-Instrument remains in room but has to go back to office.
-Mike has zero storage for evidence; walk in closet would be good.
-Arson chemicals – crammed storage; it is a 'safety worry'.
-work includes analyzing victim suspect's clothes to condom DNA.
- they might want to count back fibers.
-DO/Would be good to put instruments together to centralize the tremendous amount of heat.
-CL/The current lab is designed for lab doors to be closed, but doesn't work well. How would swing doors work? Or power-operated doors? DO/Many new applications include a 48" door with a 18'' slide leaf that can be opened for larger items.

*Trace Evidence conversation

-MA/State wasn't going to give CL a separate microscopy room.
-MA/Does many cases conjunction with DNA department.
-MA/Mike wants to continue doing glass and fiber.
-CL/Not familiar with small fume hoods. DO/Will get into that in Workshop II.
-DO/Each station should get it's own fume hood (36-48" width).
-DO/Don't use "snorkels" (they are only to be used for heated smells).
-CL/Hoods that are shared? Are there sinks in each? DO/Don't like to put sink in each station.

-DO/Distilled water – recommend main pipe (one level) and then "individual polisher" at each sink.

*Biology

-Controlled sinks & stove –dosn't use distilled water. Don't want polisher at each station but use polisher mounted under sink.
-CL/Compressed gases – presents problems; shouldn't be in the room w/instruments.
-DO/CGases should be at loading dock "tank farm" with lines to individual stations.
-Should have two tanks with auto crossovers and alarms.
-DO/Or put CGases in closets directly outside the individual labs.
-DO/Or you could go to own gas generators.
-DO/Gas Lines shouldn't be concealed and future lines should be oversized.

*Gas for instruments

-Would like nitrogen, compressed air.
-Brad uses nitrogen (once every four months); Mike occasionally uses nitrogen.

*Hoods should have "vacuum".

*Chemical Storage

-CL/Chemical storage is big problem. Current 'chemical storage room' is also the Janitor Closet. Bulk chemical amounts are stored there.
-CC/Each desk also has acid/chemical storage. ES/Need to centralize all.

*Other Items/Conversation

-ES/Will there be a separate room for reference?
-CL/Trace Lab – It would be good to have a camera track system on the ceiling. Would be good in DNA as well. AD/It is almost necessity and prevents shedding fibers as possible in current situation. AD/Had a separate victim room/suspect room in Sacramento.

-MA/Work site should have a stereoscope. CC/Should have clean power. DO/You need UPS and generator. MA/Want humidity control.

-CL/Compressed Gas Tanks - have dual temperature system.
-Analyst would like lower tables.
-Currently have (20 Compressed Gasses: Helium tank & Nitrogen.
-Air system 10 feet/minimum to purge?

*X-RAY

-Liquid Nitrogen storage is too close to x-ray

*Arson Lab

-Currently have a big table to layout evidence. Like.
-Use minimum amount of carbon dioxide.
-would like a bigger oven (Equatherm) than what they have.
-would like to get all flammable chemical storage out of room.

*Room #114 Office (Arson Office)

-MA/Stereoscope – would like it lower than the desk height. "CL's Comparison Scope is so cheap it is worthless".
-Sample prep done here.
-Only a few explosive cases are done.
-Should have a small hood.

*Room #116 – Celeste Laird's office

*Room #117 – This is office for three staff members.

*Room #112 Control Substance Lab (Sarah Pillard)

-CL/Fine with setup but not enough evidence storage.
-DO/Latest trend in lab design is to have utilities coming down from ceiling.
-PZ/A new facility should be designed to be as flexible as possible.
-CL/Chemical storage is under the hoods.
-DO/Wood cabinets are easier to repair. PZ/Money might force cheaper decision on wood vs plastic laminate or metal.
-DO/You could consider going to moveable casework.
-PZ/Could have fixed wall units with moveable units in center island.
-CL/CLab does utilize some reference materials within the lab. DO/Alot is being retrieved digitally from computers.

*Room #111 Controlled Substance

-Brad Rutledge's office
-"KBR Columns" – still use them.
-Toxicology – Brad is only analyst in room.
-CL/Office shouldn't be in same room.
-Bio-hood is important.
-BR/Needs (2) 72" food hoods.
-Sampling – have to have bio (?)
-Has evidence storage is the refrigerator.
-What happens when blood/alcohol starts? PZ/Won't calibrate the monitoring for breath.

Work Shop Notes

Date: 2/10/11

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 9:00; "Controlled Substance"

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Vicki Hopkins, Celeste Laird, Brad Rutledge, Mike Auten, Vicki Cowan, Abby Dodds.

Discussion:

*General Topics

-PZ/NSP has good training facilities in Grand Island.
-CL/Brad needs more space; should have an office outside the lab.
-Brad does silanized glass in hood.
-Has a liquid extractor on benchtop.
-Needs to spread out evidence.
-CL/Urine kits are not standardized. All sizes go into evidence as they are. Brad takes out urine sample, stores in refrigerator, keeps packaging.
-Both Mike and Brad have shortage of glass storage.
-Needs more shelf space for manuals, QA & other.
-AD/Would be nice to have a hood that would accommodate two techs.
-A Walk-in Refrigerator would be nice.
-ES/Nee space for bulk evidence. CL/Occasionally we get some suitcases of meth at one time. ES/We could use a 'bulk' exam room. It would need specialized exhaust systems. CL/'Clama' and Bulk Exam could combine. Brad/It could be a multipurpose room.
-AD/Ergonometric furniture is needed.
-DO/A new facility will be designed for ADA requirements.
-CL/We don't leave work area with evidence out. A temporary evidence closet/locker would be great.
-CL/Would like a dock to unload big items.
-DO/All Coolers and Freezers need to be monitored and screened. They should be digitized for tracing.
-CL/She will get a list of current equipment and what is wanted.
-VH/Visitors; they are 'buzzed' through. How should you handle that?
-ES/It is typical to sign them in and escort them.

Work Shop Notes

Date: 2/10/11

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 10:30; "Toxicology"

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Celeste Laird, Vicki Hopkin, Brad Rutledge, Mike Auten, Vicki Cowan, Abby Dodds.

Discussion:

The topics of this session were covered in the earlier session "Controlled Substances".

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Work Shop Notes

Date: 2/10/11

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 12:30; "Biology / DNA"

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Cami Strong, Katie Rector, Vicki Hopkins, Vicki Cowan, Heidi Young, Melissa Kreikemeier, Jason Linder, Brandy Porter

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Discussion:

*General Topics

-KR/ Rebuilt DNA Codes LAB in October; not sure how it is working yet.
-DNA sampling increased from 500 case to 9,000 per year.
-Prefer that DNA stays at the Crime lab.
-Change in laws: DNA now has to be stored forever. Testing is probably going to include each arrestee; not just felons.
-DO/Most Crime Labs are going to separate buildings for 'evidence storage'.

*DNA Testing Area/comments

-KR/Wants check in work separate from analysis.
-KR/Want to keep 'typing' separate from casework lab work.
-PZ/Would like a 'prep lab' and a separate 'work lab'.
-PZ/Where would 'COPIS' be? Would like to see multiple locations including at the Administrative Person (Katie) and at Backup Techs.

-BP/Would like lockable storage lockers.
-More room to allow larger tables.
-Would like an outdoor area for lunch.
-Would be good to combine Serology and Prep.
-HY/Would like to have key cards. Do away with 'dirty keys'.
-DO/Could have (2) small exam rooms and one large room in biology.
-Several tables can be bunched together or be separate.
-BP/Counter tops should be adjustable for convenient heights for all employees.
-HY/Current setup does not have enough room for preparing reagents. JL/A central reagent area would be good.

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*Conversation: A new facility should:

-Have a meeting area that is centrally located.
-Wide hallways.
-Lighting – Surgeon's light fixtures would be good.
-Don't want to use ladders for taking pictures – Can we have ceiling tracks?
-Like office areas to be separate from lab.
-Like u-shaped work areas.
-Vehicle Bay – A car-lift would be good to allow getting under the vehicle.
-Need bulk storage for chemicals.
-ES/There are alot of individual refrigerators. A walk-in would be great.
-VH/Exam rooms should have shutters to hide the view when needed.
-JL/Exam Rooms need to be able to be pitch black.
-MK/Biohazard Storage; it needs a separate storage area.
-ES/Trash cans okay, but need foot openers for them.
-DO/Currently have scattered locations; then trash goes to central storage at dock area.
-Cubicles should have lots of shelves with deeper tabletops.
-Exam benches – They shoud be large enough to lay out a shirt or pair of pants.
-Lazy-susans in the corners would be nice.
-LIKE 'U'-shaped desks. DO/It looks like you should stick with 'u' shape rather than stations for each process.
-Currently there is no space around 'robots'.
-ES/In DNA, you shouldn't take your laptop into lab. You should have a docking station outside lab.
-JL/Phones: It would be nice to carry a phone (Iowa does that).
-JL/Would like one room and CL's own staff for IT.
-Would like a Training Room/Classroom/Demonstration Lab.
-Would like Displays located in the Reception Area.

*Continuing conversation:

-DO/There should be a separate "drug evidence" storage area within the large evidence room. This separate room can contain the fumes/smells of the drugs.
-DO/Recommends against floor drains. The traps tend to dry out. Same with emergency showers; don't put drain under them. You use a bucket to test them.
-MK/It would be nice to have a small drying chamber.
-Would be nice to have an isolated Changing Room/Locker Room.
-Would be nice to have a personal locker at the CL. This could be a location to keep clothes for going to court.
-KR/It is tough to clean so many cabinet doors. Are there ways to not have so many cabinet doors. Currently spend too much time cleaning.

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-JL/Crime Lab needs secure parking for overnight parking of personal vehicles.
-CS/No, we don't need natural gas. But there is the need for compressed air.
-JL/The facility needs a standard furnace hood for drying.
-Typing Lab – Has an ongoing temperature problem.
-CS/Would be nice to have a small refrigerators for own lunches that don't have to be monitored.
-CS/Need more storage for office supplies.
-MK/Need place for bar code scanning of incoming items, then distribute within facility.
-JL/Would like own mailing counter; A CODIS area that is dedicated. Wrap there and take to front checkout.

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Work Shop Notes

Date: 2/10/11

Time/Section: 3:00; "Executive Wrap-Up"

Project: NSP Crime Lab
Lincoln, NE

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, John Heacock. Staff: Pam Zilly, Kent Weber, Cammi Strong, Celeste Laird, Vicki Hopkin, Mariana Ward.

Discussion:

*General Conversations/Closing ideas
-CS/Would be great to have a large conference room. Would be nice to have counter/bar for hospitality items.
-Currently have (4) state vehicles.
-Should there be a Cleaning Station?
-How many visitors does this facility have? Currently limit groups to 15 to 20 for training events. Could have 25 to 30 if they come in separate vehicles.
-Energy saving item for a new facility: Motion sensor lights. Waterless urinals?
-Office window shades; need to allow private discussions to happen without others being able to look on.
-Need lots of restrooms for women.
*What is the State & Crime Lab looking at for project size?
-John Heacock understood that a new space would be about twice the current size (26,000sf). There hasn't been too much thought about it yet and really not sure about projected size.
*Design Team would like to get a copy of the EXECUTIVE SUMMARY.
*John will check to see if there is a state standard for individual office area per position level.
*John will check on "1 percent for Art" requirement.
*Next meetings? Does March 1, 2, 3 work for all?
*Pam Z will plan the new facility for blood alcohol testing.

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MEETING MINUTES

WORKSHOP TWO

Workshop II Notes

Date:	March 2, 2011/Day One	**Project:**	NSP Crime Lab Lincoln, NE
Time/Section:	8:00; Executive Team Meeting	**Project No.**	L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant Staff: Pam Zilly, Kent Weber, Cammi Strong, Celeste Laird, Vicki Hopkins, Mariana Ward.

DO -Introductions were made and Dan recapped where we left off at the last workshop.
DO -Dan discussed the day's procedures and schedules.
DO -We will send back a preliminary "draft" program on April 1st . The Crime Lab should be able to review in a week.
PZ -Will the study include how much property is required? DO –Yes.
PZ -Supervisors are not scheduled for private offices in the State's criteria. The Crime Lab supervisors will require it.
PZ -"Some of the state standards for space seemed small."

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Date:	March 02, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day One	**Session:**	Executive Team Meeting
Time:	8:00 AM – 8:30 AM	**Project No.:**	L11008

Please initial if present.

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	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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	Kent Weber	NSP Lab		
	Mariana Ward	NSP Lab		
	Celeste Laird	NSP Lab		
	Vicki Hopkins	NSP Lab		
	Cammi Strong	NSP Lab		

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Workshop II Notes

Date: March 2, 2011/Day One

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 8:30; Questioned Documents

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant John Heacock, Staff: Pam Zilly, Vicki Hopkins.

Questions Documents

DO -Similar to most Workshop II Sessions, Dan recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.

PZ -Chemical Process room is less utilized than the layout rooms
-Documents don't take much room
-Most work will happen in Instrument Room. This is the 'nerve center'
PZ/DO -Swapped some SF's between rooms
PZ -There was some discussion regarding a document comparator
ES -switch 'Chemical Processing' to 'Instrumentation'
PZ -120sf for Supervision is ok
PZ -Analyst Cubicles at 64 sf for workstations is ok
PZ -Photocopy would be in Instrument Room
ES -A Bio-Vestibule; Yes, for firearms
PZ - ESDA room, ok
PZ -Popular to have a small hood in ESDA; seems to be the trend

<u>Computer Forensics (Don't currently have this)</u>
ES -Plan rearranged. VH & PZ are ok with changes
PZ -Don't know if they will ever have Computer Forensics in-house
PZ -Don't really want them in Crime Lab; currently they are at NSP, out by the airport
PZ -Pam will get input from her command staff
DO -Their function takes a lot of room

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PZ -No real adjacencies required. Locate at end of building or by the loading dock (close to bringing in computer equipment).

VH -Wouldn't their evidence have to go through the Evidence Room before going to the lab? Why locate them close to the dock?

PZ -Changed "Staff" from 2 people to 5 people.

PZ -What is document display? Dan Olson explained.

**Session finished early so Dan Olson showed examples of the Phoenix Crime Lab.

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Date:	March 02, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day One	**Session:**	Question Documents/ Computer Crimes
Time:	8:30 AM – ~~10:00~~ 9:30 AM	**Project No.:**	L11008

Please initial if present.

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✓	Pam Zilly			
✓	Vicki Hopkins			

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Workshop II Notes

Date: March 2, 2011/Day One

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 9:30; Biology / DNA

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant Staff: Pam Zilly, Cami Strong, Katie Rector, Vicki Hopkins, Vicki Cowan, Heidi Young, Melissa Kreikemeier, Jason Linder, Brandy Porter

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DO *-Similar to most Workshop II Sessions, Dan recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.*

MK -Are doors auto-opening? DO -Could be.

Biology/ Serology Lab

DO -Trend is to separate Serology from Extraction; there are different HVAC pressure requirements between the two

JL -First Bio-Vestibule to Reagent Prep; Would like to go directly to Reagent Prep; no bio-vestibule. Could see an intern doing the Reagent Prep
CS -We were all thinking that Extraction/ Serology were in one room
ES -Even if in different rooms, you wouldn't card between them
PZ -You only need card access to get into the Main dept; you don't card twice
JL -Thinks (2) 'controlled accesses' is needed.
CS -Walk-in refrigerator-"probably not". A Full-size refrigerator will suffice
JL -Don't need (2) walk-in freezers
JL -Today; don't need any walk in freezers. Would give up freezers for prep room at CODIS
JL -Need a freezer only if we started storing extract on site
JL -Should have refrigerator / freezer in the Evidence Storage
JL -A walk-in refrigerator would be more beneficial than a walk-in freezer
DO -Would recommend a combined refrigerator /freezer
DO -There will be scattered "interaction spaces" in Biology
JL -Audit Area; a dedicated space in this section would be good
DO -Biology and Chemistry will likely be on the second level; shorter fume hood duct lengths

KR -How many lineal feet of shelf space in a "Lecktrieve"?

CODIS

DO -Changed some quantities
KR -Ok with extraction station
CS -Instead of U-shape desks, have process stations in lineal fashion
DO -'U-shape' with support bench would give you a good layout
-'Station to station' might be better for CODIS, but U-shape gives you more area for future space
KR -We don't get a lot of blood work anymore
KR -Robotic could be (1)-2014; (2)-2024; and (2)-2034
KR -Want a 'real time' PCR in CODIS
JL -need to add a Reagents Prep Room
CS -Add a dishwasher to CODIS
KR -By 2034, there should be 2 fume hoods

Biology

JL -(4) Work Stations doesn't cover us now. Would like to start at (7)-2014; (12(-2024; and (16)-2034

JL -What about doubling the Biology Hoods?
ES -Any benefit to mobile stations?
CS -Would be nice to have a designated "kit" area in the refrigerator
JL -Add a "minus 20" walk- in-freezer
KR -Have sinks/shared sinks at end of workstations
JL -Evidence locker- ok with wall of lockers vs. whole room
CS -Could we put an Evidence Locker under the work station group? Decided not to; Melissa likes at her desk

Main Biology Lab

-Will have (4) Evidence Carts
-Move the Microscopy Station to the Main Lab
-Delete evidence lockers
-Delete cart parking
-Delete '-80' walk- in-freezer

Bone/Teeth Grinding Room

CS -Needs to be a separate room/enclosure
CS -Have (3) thermocyclers now

CS -Have no new 3130 DNA Sequencer's planned for now

JL -Would it better to get one large unit; DO –Better to stay with several smaller units

JL -Car examination area? ES – Good to be a flexible space, so you could also roll out a carpet or do 'luminal' searches on cars as well

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Date:	March 02, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day One	**Session:**	Biology/ DNA
Time:	9:30 ~~10:00~~ AM – 12:00 PM	**Project No.:**	L11008

Please initial if present.

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Work Shop II Notes

Date: March 2, 2011/Day One

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 1:00; Latent Prints

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant Staff: Pam Zilly, Mariana Ward, Steve Burke, Vicki Hopkins.

DO -Recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.

MW -Adobe analysis takes place in the AFIS Room
SB - Likes office close to the lab
DO -Keep the office for doing paperwork
PZ -Doesn't want these staff members to be secluded
DO -Dan presented plans of Supervisors office/ Analysts work area (WS-2); File Cabinet is 4'H/4'W/15"D

*<u>AFIS Room</u>
SB -Would like a Support Bench
DO -Laboratory Work Station (HWS-3); Do you need evidence or lockable file under workstation bench top?
MW -Would like would to process within the cubicles. Lockable file drawer would be good
SB/MW :
-U shaped workstation is fine
-Keep Evidence Storage Room in program
-Comparison Room; needs more than 2 workstations; needs 4 to 6
-Leave adjustable table within the workstation
-No film is used anymore, all is digital
-Lab is not storing film anymore either
PZ -Could Latent's & Firearms share the some photography room with ceiling track?
PZ -"Never mind; let's don't plan on sharing with Firearms"

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*Latent Prints

SB - "Would be nice if ALS is portable; or one that is fixed and another one that is portable"
-Large exam room with suspended surgery lights would be great"

DO -Any special equipment needs for being on a generator?
SB -AFIS needs power for cooling requirements.

DO -We need to check with John Heacock on State's use of T5's.
SB -Latent Prints doesn't use a microscope any more.

VH -Don't see a small conf room? ES-"There are shared conference rooms in the General Office area

"Latent Prints"-rehash

-Want to do 'Comparisons' in the office area

PZ -likes the idea of access of AFIS from office area
PZ -Wants one Comparison in the lab area
PZ -AFIS is currently in the workstation

Date:	March 02, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day One	**Session:**	Latent Prints
Time:	1:00 PM – 3:00 PM	**Project No.:**	L11008

Please initial if present.

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	Mariana Ward			
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Workshop II Notes

Date:	March 2, 2011/Day 1	**Project:**	NSP Crime Lab Lincoln, NE
Time/Section:	3:00; Firearms / Tool Marks	**Project No.**	L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant, Staff: Pam Zilly, Kent Weber, Amy Weber, Vicki Hopkins, Sarah Zamick.

DO *-Similar to most Workshop II Sessions, Dan recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.*

KW -Wants Exam Room close to Range; don't need to have the Weapons Standards close to the Range

KW -Should have a pass from the Range into the Bullet Tank room

KW - Exam Room should have a couple of hoods. The Armorer Room should be passed through from the Range to Main Lab

ES -This plan has fume hoods in the Exam Room and the Armorer/Toolmark Room

KW -A small Exam Room with hood would make sense

DO -showed an illustration of a Supervisor Office

PZ -"Won't add anyone in this division in the next 3 years"
-Analyst work stations should likely be 3; 3 in 2024 and increasing to 4 in 2034
-Have stereoscopes on all work stay in main lab
-Don't need black-out drapes if windows are at the end of work stations
-Like tilting table top- add to Main Lab

KW - need place for destroyed guns in Evidence Storage Rooms

KW -Microscopy Room- don't want

KW -We get it from Latent's usually/ or Biology

KW -Chronographs can be effected by 'fluorescents'

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Date:	March 02, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day One	**Session:**	Firearms/ Tool Marks
Time:	3:00 PM – 5:00 PM	**Project No.:**	L11008

Please initial if present.

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Workshop II Notes

Date: March 03, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 8:00; Trace Evidence

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant. Staff: Pam Zilly, Abby Dodds, Michael Auten, Celeste Laird, Vicky Cowan, Vicki Hopkins, Brad Rutledge.

Discussion:

DO *-Similar to most Workshop II Sessions, Dan recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.*

MA -No need for special storage in arson.

PZ -In Oklahoma, they only have one table with a ceiling camera track.

MA -Better to separate Flammable Liquids from Explosives

AD -SEM should be 30-35 feet away from elevator (?)

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Date:	March 03, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day Two	**Session:**	Trace Evidence ~~GALLE GROUP PROCEED INTO~~
Time:	8:00 AM – ~~9:00~~ 9:30 AM	**Project No.:**	L11008

Please initial if present.

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✓	Evan Sockalosky	Durrant	602-275-6830	esockalosky@durrant.com
	Abbey Dodds			
	Michael Auten			
	Vicky Cowan			
	Celeste Laird			
	Vicki Hopkins			
	BRAD RUTLEDGE (9:10)			

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Workshop II Notes

Date: March 03, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 9:30; Controlled Substance

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant. Staff: Pam Zilly, Abby Dodds, Michael Auten, Celeste Laird, Vicky Cowan, Vicki Hopkins, Brad Rutledge.

Discussion:

DO *-Similar to most Workshop II Sessions, Dan recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.*

CL -"If Omaha Labs shut down, it will change loads considerably"
CL -Wants locking storage under analyst's desk
CL -Should have a hood with sink (cup)

Drug Standard Room
CL -Don't need sink in hood
CL -Needs to be a "shared" instrument room
CL -Don't need a Evidence Storage room in here
PZ -There is a good sharing ability between Trace & Controlled Substances

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Date:	March 03, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day Two	**Session:**	Controlled Substance
Time:	9:30 ~~9:00~~ AM – 10:30 AM	**Project No.:**	L11008

Please initial if present.

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	Mike Auten			
	Brad Rutledge			
	Vicky Cowan			
	Vicki Hopkins			
	Celeste Cano			

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Workshop Notes

Date: March 3, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 10:30; Toxicology

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant. Staff: Pam Zilly, Abby Dodds, Michael Auten, Celeste Laird, Vicky Cowan, Vicki Hopkins, Brad Rutledge.

Discussion:

DO *-Similar to most Workshop II Sessions, Dan recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.*

-Exam room would be for large pieces
-Kind of a place holder right now

BR -Doesn't need the exam room

CL -Would like to have auto doors in many of the areas

BR -Sink needs? Maybe a cup sink would work

BR -Refrigerator usage is small

BR -Evidence lockers- don't need

CL -Won't ever prep the solutions

CL -Hydrogen & Helium.. ES –will put in a Hydrogen generator

CL -Need vial crimper. Could happen outside the hood. ES -Should size the hood so a crimper can happen in a 6' hood

BR -Uses nitrogen where he 'extracts'

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Date:	March 03, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day Two	**Session:**	Toxicology
Time:	10:30 AM – 12:00 PM 11:90	**Project No.:**	L11008

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	Mike Auten			
	Brad Rutledge			
	Celeste Laird			
	Vicki Hoskins			

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Workshop II Notes

Date:	March 3, 2011/Day Two	**Project:**	NSP Crime Lab Lincoln, NE
Time/Section:	1:00; Admin / Evidence Processing / QA	**Project No.**	L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Margret Wilson (Front Desk), Jan Johnson (Evidence Handling-Front Door), Vick Hopkins

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DO *-Similar to most Workshop II Sessions, Dan recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.*

VH -People in state know they have to dry the evidence material.

VH -Supervisor's office should have vision glass in order for others to see when help is needed.

General

-Discussed counter arrangements. Looked at a 12' long counter. Also looked at (3) 'u-shaped desk behind the counter.

Most of the discussion centered around the Adjacencies.

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Date:	March 03, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day Two	**Session:**	Evidence Processing/ Admin/ QA
Time:	1:00 PM – 3:00 PM	**Project No.:**	L11008

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☐	Jan Johnson	NSPCL		
☐	Margaret Wilson	NSPCL		
☐	Vicki Hawkins	NSPCL		
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Workshop II Notes

Date: March 3, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 3:45; Training/ Building Support

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Celeste Laird, Vicki Hopkins, Ken Weber, Mariana Ward, Cami Strong.

DO *-Similar to most Workshop II Sessions, Dan recapped last workshop's projections and presented Workshop II Program Statement's new projections. Most of the conversation dealt directly with tweaking the program and the Adjacency Diagrams. Accordingly, Dan updated the data/criteria as the conversation directed.*

PZ -Wants to host some of the events they now go to
-Training Lab for 12 people would be about right
-Put in a small office
-Likes the idea of showers/ locker rooms for employees that exercise/ride bikes to work

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Date:	March 03, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day Two	**Session:**	Training/ Building Support
Time:	3:45 3:00 PM – 4:00 PM	**Project No.:**	L11008

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X	VICKI HOPKINS			
X	KEN WEBER			
X	CELESTE			
X	Marianna Ward			
X	Carri Strong			

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Work Shop Notes

Date: March 3, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 4:30; Executive Team Wrap-Up

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, John Heacock. Staff: Pam Zilly, Kent Weber, Cami Strong, Celeste Laird, Vicki Hopkins, Mariana Ward.

Discussion:

DO -Pam should meet with Dennis Summers to lobby for a push for funding.

John Heacock
-Would like to see a rough idea of a plan; DO –will likely have a one-story and a two story plan.
-Reminder that the Program Statement must follow the state's format.

DO- -April 1st, a rough draft of the Program Statement will be sent to Pam and John.
DO -The next meeting will be held April 13 / 14th.

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Date:	March 03, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 2 Day Two	**Session:**	Executive Team Wrap Up
Time:	4:30 PM – 5:00 PM	**Project No.:**	L11008

Please initial if present.

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	SAME GROUP			
✓	JOHN HEACOCK.			

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MEETING MINUTES

WORKSHOP THREE

BVH ARCHITECTS

Date:	April 27, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day One	**Session:**	Executive Team Meeting
Time:	9:00 AM – 10:00 AM	**Project No.:**	L11008

Please initial if present.

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X	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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Workshop III Notes

Date: April 27, 2011/Day One

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 9:00; Executive Team Meeting

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant
Staff: Pam Zilly, Cammi Strong, Celeste Laird, Vicki Hopkins.

Discussion:

DO -Showed Projections. Caseloads look like they are going down but Pam says they will go up.
VH -Hard to justify doing some of the training on site because there are so few in the sessions.
DO -Training Facilities will attract other groups/individuals for training purposes.
DO -Use of Video Testimony would help to save travel time, but increase caseload.
PZ -Training room could be loaned out to LPD, County, others; that helps to sells it.
CL -TOX won't do 'Blood and Alcohol'. Take out the 'walk in fridge'
PZ -Bigger Picture…Move in staff numbers; would like to go see more realistic numbers. 2014 shows total staff of 40; only have 25 now.
CL -Would like to add (1) in to Controlled Substances and (1) in Trace. In 2014, they won't have these added people but want the space. What to do?
DO -Cross Training is good but still need space for both employees.
CL -Will provide explanation of spaces vs. cross training advantages. Trace foresees adding (1) in chemistry but that person will also work in Toxicology.
PZ -Can we take (1) out of TOX?
DO -Discussed costs. Could we do 'CM at Risk'. Need to ask John Heacock.
DO -Presented concept plans. CL and VH prefer 'Concept 1b'.
CL -Not a big fan of 'bull pen' offices. Prefer offices local to the individual lab areas.

END

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(2)

Date:	April 27, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day One	**Session:**	Biology/ DNA
Time:	10:~~00~~ 30 AM – 12:00 PM	**Project No.:**	L11008

Please initial if present.

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Workshop III Notes

Date: April 27, 2011/Day One

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 10:30; Biology / DNA

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant
Staff: Pam Zilly, Katie Rector, Heidi Young, Melissa Kreikemeier, Jason Linder, Brandy Porter

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Discussion:

JL -Temperature range needs to be tighter. Temperature range can affect the migration of DNA.
-Maybe a 5 degree window; 68-73 degrees?
-CODIS / Temperature should be in the 68 – 75 degrees range.

JL -Auto shut-off on lights can be a problem. What about red lights in some rooms? Dan O. showed that a "specialty fixture" shows up in the spreadsheet.

JL -Vehicle Processing; a light 'disable' feature wanted on the Light Occupancy Sensor.

JL -Noted that the Labs should have negative pressure. DO agrees.

DO -Section 6, Page 17; All please review descriptions for correctness. Please mark up.

PZ -See 2/29; Pam has markups.
-2.28; 5 year Case and Building numbers; where did that number come from?

PZ -5, Figure 9; Picture is not a 'hood'. DO-will replace with a new picture.

Other general conversation:
-Concept Plans: Most like offices by their labs rather than a 'bull pen' setup.
-Biology/ DNA RO; Verify RO water needs.
-Exam Room seems small.
-'Latents' will use Distilled water.

DO- -You use RO/DI in research labs; do you need to go to that level?
-Not sure if RO is needed?
-We want to control the bacterial level in the water lines.

DO -Like to bring DI level and then use isolated polishers to get to higher levels where needed.

PZ -5.9; Laminar Flow hood-Dan made changes

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PZ -5.11; yes, a storage room but not 'chemical storage'.
-7.1; Didn't include 'Tocans' robots (2), 7500 PCR/ PCR enclosures, AFIS & Adobe work station.

Other

Evidence entry

-Don't necessarily want evidence coming in front door; need a separate entrance.

PZ -5.13: Pam has changes on language.
-2.10 & .11: Pam has edits.
-2.32: Firearm Examinations; Pam will get with Kent on rewording 2nd to last paragraph.
-Caseload numbers will be changed.
-5.2 edits were recorded.

DO -5.15 DO noted changes.

END

Date:	April 27, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day One	**Session:**	Latent Prints
Time:	1:00 PM – 2:00 PM	**Project No.:**	L11008

Please initial if present.

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☐	PAM PRESENTED FOR THE GROUP			
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Work Shop III Notes

Date: April 27, 2011/Day One

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 1:00; Latent Prints

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant, Staff: Pam Zilly.

Discussion:

-Section.page

PZ -12.66
-Why 2 shifts?
-want an override on OCC sensor.
-Fire Protection should there be a dry system. ES, No, go to "Pre-Action" type.
-same section, page 68: DI water is better quality than distilled.
-need a refrigerator.
-same section, page 150: Women's RR should show the requirement for recycled air.
-2.35: 4lh Paragraph; delete discussion regarding photographs.
-"Resourced" (?) Pam will reword that paragraph.
-Last paragraph: the Crime Lab doesn't have a large back log.
-6.15; 2nd paragraph; move to Firearms.
-6.16; Pam has changes.
-Leave Firearm numbers 'as is' for employee numbers.
-6.22; No supervisor, change to zero.

DO -Dan picked up tweaks.

This session morphed into **Questioned Documents**

PZ -It implies that the Crime Lab never had 'Questioned Documents' before. The Crime Lab did have it, but had to cut it in order to create Latent Prints. Insert "re-establish" into the text.
-Below the text mentioned above: "196, what is that based on? Probably half that. Change to '1 person@ half that amount".

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Text changes in the program statement. Dan O. redlined changes in the following locations:

-section.page:

-0.1- Date typo.
-1.2
-1.1
-general: should be "ASCLAD/ LAB".
-2.7; trends.
-2.1; "garage/ storage"
-6.33; change 'county' to 'state'
-8.17; "B"
-8.30 "1B"
-8.32; check with manufacturer on UPS provider (Pam will check).
-12.1; notes
-1. 7
-2.2
-2.3 (Pam will rewrite last paragraph)
-2.4; whole page implies we don't have it
-2.5
-2.20; travel is 7 hours
-2/11
-3.1
-4.2; Steve needs mission statement from John Heacock
-5.1
-5.2
-5.4; add mud jacking
-5.5
-5.6, .7, .8, .9
-5.10, .12, .13, .14

END

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Date:	April 27, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day One	**Session:**	Question Documents/ Computer Crimes
Time:	2:00 PM – 3:00 PM	**Project No.:**	L11008

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Workshop III Notes

Date:	April 27, 2011/Day One	**Project:**	NSP Crime Lab Lincoln, NE
Time/Section:	2:00; Questioned Documents	**Project No.**	L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant Staff: Pam Zilly, Vicki Hopkins.

Discussion:

The end of "Latent Prints" discussion rolled into this section, Questioned Documents. See "Latent Prints" minutes for minor notes regarding QD discussion.

END

Date:	April 27, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day One	**Session:**	Firearms/ Tool Marks
Time:	3:00 PM – 4:00 PM	**Project No.:**	L11008

Please initial if present.

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Workshop III Notes

Date: April 27, 2011/Day One

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 3:00; Firearms / Tool Marks

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant, Staff: Pam Zilly, Kent Weber, Amy Weber, Sarah Zamick.

Discussion:

Text changes in the program statement. Dan O. redlined changes in the following locations:

Section.page:
-6.8; font change
-6.13
-12.53, .54, .55; added OCC sensor 'overrides'.
-12.60; Firing Range needs two types of light sources
-Add incandescent
-2.32; 3rd Paragraph: NIBEN; 4Ih paragraph IBIS

END

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i-SCIENCE DURRANT

Date:	April 28, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day Two	**Session:**	Trace Evidence
Time:	9:00 AM – 10:00 AM	**Project No.:**	L11008

Please initial if present.

	Name	Company	Phone	Email
X	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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	Vicky Cowan			
	Mike Anton			
	Celeste Laird			
	Vicki Hopkins			

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i-SCIENCE DURRANT

Workshop III Notes

Date: April 28, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 9:00; Trace Evidence

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant.
Staff: Pam Zilly, Michael Auten, Celeste Laird, Vicky Cowan, Vicki Hopkins.

Discussion:

DO -Reviewed Project Schedule (Programming Statement); wraps up middle of May.

Text changes in the program statement. Dan O. redlined changes in the following locations:
-Section.page

PZ -2.21; Backlog language changes
CL -likely will add some new items to 'analysis'.
PZ -6.7
PZ -12.21; microspy override
MA -Will there be humidity control; DO -yes the building will have humidity control (20-30% range).
-Trace standards room; are there any countertops; will add them.
-Chemical Storage- closed lab? (determine later)
PZ -current building has inadequate size; the building has inadequate-HVAC system.
MA -Compressed gas "Gas cylinder storage may not meet code".
DO -The new facility will have a gas generator most likely.
CL -Air and Helium are biggest purchases.
DO -Compressed air system – "plan for today and tomorrow's needs".
PZ -UPS question
CL -We got rid of "power conditioners'. Should have all equipment on UPS, but none are.
PZ -6.85; articulating arm hoods.

END

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i-SCIENCE DURRANT

Date:	April 28, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day Two	**Session:**	Controlled Substance
Time:	10:00 AM – 11:00 AM	**Project No.:**	L11008

Please initial if present.

	Name	Company	Phone	Email
☐	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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☐	< SAME GROUP AS TRACE >			
☐	VICKI COWAN			
☐	MIKE AUTEN			
☐	CELESTE LAIRD			
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Workshop III Notes

Date: April 28, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 10:00; Controlled Substance

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant.
Staff: Pam Zilly, Michael Auten, Celeste Laird, Vicky Cowan, Vicki Hopkins.

Discussion:

This section was a continuation of previous session, 'Trace Evidence'.

Text changes in the program statement. Dan O. redlined changes in the following locations:

-Section.page

PZ -2.25; Statement not true.

-6.1

CL -12.43

CL -12.42, .43, .48; hoods okay

END

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i-SCIENCE DURRANT

Date:	April 28, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day Two	**Session:**	Toxicology
Time:	11:00 AM – 12:00 PM	**Project No.:**	L11008

Please initial if present.

	Name	Company	Phone	Email
☐	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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☐	Evan Sockalosky	Durrant	602-275-6830	esockalosky@durrant.com
☐	<SAME GROUP AS TODAY>			
☐	BRAD RUTLEDGE			
☐	VICKI COWAN			
☐	MIKE AUSTIN			
☐	CELESTE LAIRD			
☐	VICKI HOPKINS			
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i-SCIENCE DURRANT

Date: April 28, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 11:00; Toxicology

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant. Staff: Pam Zilly, Michael Auten, Celeste Laird, Vicky Cowan, Vicki Hopkins, Brad Rutledge.

Discussion:

CL -We don't do blood analysis; 'urine' samples only.
-State doesn't have a State Medical Examiner.

Text changes in the program statement. Dan O. redlined changes in the following locations:
-Section.page

CL - 6.9
-6.10
-6.51; Want to sample where the AXOM is. Urine samples need a bio hood; 48".
-(1) 48" hood in biology.
-(1) 48" fume hood in robotics.

CL -In 2024, we should need 2 people; thus should design for (2) workstations. If we start doing blood analysis, we should plan on (3) work stations in 2024.

DO -Redlined changes for the numbers for workstations.

CL -Concerned that in 2024, we will end up with a supervisor in the cube area.

Instrument Room

MA -Section 12, page 34; Add a marker and tack board.
-Like a lot of space for reference materials.
-don't want problem of equipment setting off motion sensors.
-6.21; Bold text in last sentence.
-6.23; Bold text in last sentence.
-6.31; local community

Concept plans

ES -This group likes concept '1B'.

General Items

-Section.page
-6.76; Accreditation standards change. PZ gave DO an organizational chart of Accreditation agencies.
-FQS; acronym for 'Forensic Quality Standards'.
-7.2
-6.5

VH -Eye wash/safety showers; DO -'usually want inside the lab, although in hall is okay'.
-12.6
-12.13; Yes, there is some office casework.

END

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Date:	April 28, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day Two	**Session:**	Evidence Processing/ Admin/ QA
Time:	1:00 PM – 2:00 PM	**Project No.:**	L11008

Please initial if present.

	Name	Company	Phone	Email
X	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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Workshop III Notes

Date:	April 28, 2011/Day Two	**Project:**	NSP Crime Lab Lincoln, NE
Time/Section:	1:00; Admin / Evidence Processing / QA	**Project No.**	L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Margret Wiesen, Jan Johnson, Vick Hopkins.

Discussion:

Text changes in the program statement. Dan O. redlined changes in the following locations:

-Section.page:
-2.41; "ASUD/ LAB"
-6.27; Strike 'coroner'
-6.28; 2034 Number for FTE.

WH -Vestibule; still need protection from outside weather.

PZ -12.118; ok
-12.126; spelling
-12.129; add 'paging'
-6.95; cash normally goes in vault in Drugs. No, we don't get to keep it.
-6.84; Revise 'door' language.
-12.116; Vehicle Processing.

JJ -likes concept '1b-5' (2 story version).

MW -likes '1b-5' concept.

END

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Date:	April 28, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day Two	**Session:**	Training/ Building Support
Time:	2:00 PM – 3:00 PM	**Project No.:**	L11008

Please initial if present.

	Name	Company	Phone	Email
X	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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Workshop III Notes

Date: April 28, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 2:00; Training/ Building Support

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, Staff: Pam Zilly, Celeste Laird, Vicki Hopkins, Kent Weber.

Discussion:

Text changes in the program statement. Dan O. redlined changes in the following locations:

-Section.page
-6.31; PZ had changes that Dan picked up
-12.162; PZ; Add smart board.
-12.165 Add maker board.
-12.169; Card reader? Add tack board.

Work Room
-12.131
-12/133; Add smart board.
-12.134; Add marker board.
-12.138; Add garbage disposer and microwave space.
-12.141
-12.144; Hours of operation.
-12.147; Add tack board.

-PZ -2.44; Real consequences.

END

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i-SCIENCE DURRANT

Date:	April 28, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day Two	**Session:**	BVH Team Work Session
Time:	3:00 PM – 4:00 PM	**Project No.:**	L11008

Please initial if present.

	Name	Company	Phone	Email
☒	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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i-SCIENCE DURRANT

Work Shop III Notes

Date: April 28, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 3:00; BVH Team Work Session

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant. Staff: Pam Zilly.

Discussion:

This session was a continuation of "Training / Building Support' discussions.

PZ -Free drug analysis in Lincoln (Crime Lab) Would Omaha pay? Douglas County has response team with limited lab.
-Deb Collins, NSP, serves as Publicity spokesman for NSP.

DO -Will see if he can get the Denver Director of Crime Lab in touch with Pam.

PZ -NSP has to go to the Governor for needs/improvements.
-Priorities for NSP – goes through person with name of Sanke.
-Closing of satellite labs brought people back to the Lincoln location and thus took needed space away from other needs.

ES -Presented concept plans.

PZ -Face Possibility of eviction if the building sold.
-The current building was undersized in the beginning when NSPCL moved in.

END

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i-SCIENCE DURRANT

Date:	April 28, 2011	**Project:**	State of Nebraska Forensic Crime Lab
Meeting:	Workshop No. 3 Day Two	**Session:**	Executive Team Wrap Up
Time:	4:00 PM - 4:30 PM	**Project No.:**	L11008

Please initial if present.

	Name	Company	Phone	Email
X	Pam Zilly	NSPCL	402-471-8967	pam.zilly@nebraska.gov
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X	Dan Olson	i-SCIENCE	602-315-0499	dolson@i-science.com
X	Evan Sockalosky	Durrant	602-275-6830	esockalosky@durrant.com
☐	VICKI HOPKINS			
☐	KERRY WEBER			
☐	CELESTE LAIRD			
☐	CAMI STRONG			
☐				
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Work Shop III Notes

Date: April 28, 2011/Day Two

Project: NSP Crime Lab
Lincoln, NE

Time/Section: 4:00; Executive Team Wrap-Up

Project No. L11008

Participants: Steve Clymer, BVH Architects; Dan Olson, i-Science; Evan Sockalosky, Durrant DAS, John Heacock. Staff: Pam Zilly, Kent Weber, Cami Strong, Celeste Laird, Vicki Hopkins.

Discussion:

JH -'Lease-back' arrangement - John not familiar with this. Will check with Craig Thielen, (471-7855).

DO -Maybe cut some of the square feet out?
-Started Workshop III with staff at 40; took down to 36.

PZ/DO -Want to use 2024 numbers for a new facility.

JH -Executive Summary; keep to 50-60 pages.

JH -Personnel on the Funding Priority committee among many, includes Doug Hansen, Dpt. of Corrections and Marvin Krout, City of Lincoln Planning Director.

JH -John presents project needs to the 'Budget Office'.
-Governor relies on the Budget Office's recommendations.
-Legislature make the final vote for/against funding.
-Doesn't know if DAS charges Project Management fees to projects; as University Facilites would do for their projects.
-Wouldn't use a Construction Manager. Zero out the costs for that.

DO -Put in land costs?

PZ -Old K-Mart location could work; if it could be redone.

END

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Nebraska State Patrol Crime Laboratory

PROGRAM STATEMENT
May 20, 2011

APPENDIX F

UPDATED PROGRAM STATEMENT

(DATED JUNE 26, 2013)

Nebraska State Patrol
Forensic Crime Laboratory

PROGRAM STATEMENT

June 26, 2013

BVH ARCHITECTS | i-SCIENCE

ACKNOWLEDGEMENTS

The BVH team acknowledges the following people whose participation and cooperation influenced the success of this Program Statement effort:

John Heacock, Project Manager, DAS

Quality Assurance
Vicki Hopkins
Evidence Handling
Jan Johnson
Margaret Wiesen

Physical Sciences Unit
Latent Prints
Mariana Ward
Bridget Driver
Steve Burke
Firearms / Toolmarks
Kent Weber
Sarah Zarnick
Amy Weber

Chemistry Unit
Controlled Substances
Celeste Laird
Vicky Cowan
Abbey Dodds
Sarah Pillard
Toxicology
Brad Rutledge
Trace Evidence
Mike Auten

Biology Unit
Forensic Biology
Cammi Strong
Jason Linder
Brandy Porter
Melissa Kreikemeier
State CODIS
Katie Rector
Heidi Young

A special acknowledgement and appreciation is extended to Pam Zilly, Crime Lab Division Director for her direction and leadership.

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PREFACE

On June 17, 2013, the BVH Architectural team entered into a contract with the State of Nebraska. The scope of work included the necessary research and documentation required to develop a Revised Program Statement for a proposed State Forensic Crime Laboratory.

This new Program Statement is based upon utilizing the original Program Statement dated May 20, 2011 and revising it to be a fit up in an existing building located in Lincoln, Nebraska of approximately 26,000 leasable square feet. At the time of development of this Program Statement, the building and site was not selected.

Since this is a revised Program Statement, information contained within the original document dated May 20, 2011, will still apply and be applicable to this revised Program Statement. This includes such items as:

- Space Standards
- Adjacency Diagrams
- Room Data Sheets

The purpose of this Program Statement is to provide documentation justifying the need for a new forensic crime laboratory and developing the requirements for this new facility.

The purpose of this Program Statement is to provide updated documentation justifying the need for a new forensic crime laboratory and developing the requirements for this new facility for the Nebraska State Patrol.

This Program Statement includes background and history of the existing crime laboratory, analysis of the existing crime laboratory, trends and influences of the forensic science industry, justification for a new crime laboratory facility and the requirements for a new forensic crime laboratory.

A Preliminary Cost Model and other project development costs have also been included as part of this report and are documented in Section 9 of this Program Statement.

1.0 INTRODUCTION

This Introduction provides the reader with an Executive Summary of the Program Statement. This Executive Summary includes the following categories:

1.1 Background and History
1.2 Project Description
1.3 Purpose and Objectives
1.4 Methodology
1.5 Recommendations

1.1 BACKGROUND AND HISTORY

In **1998** the Nebraska State Patrol Crime Lab moved to its current location at 1233 Arapahoe in Lincoln, Nebraska where they currently occupy 13,032 square feet of space.

Existing crime lab facility

At that time, a Satellite Lab in North Platte occupied 2,000 square feet of space and served the western portion of the state to supplement the main facility in Lincoln.

At the time of move-in back in 1998**,** the forensic science staff located in Lincoln consisted of:

- Biology-3 positions (2 examiners, 1 technician)
- Firearms/Toolmarks-1 position
- Toxicology-1 position
- Drugs-4 positions
- Trace-2 positions
- Questioned Documents (QD)-1 position
- Director-1 position
- Evidence Techs/Admin Assistants-2 positions

This provided a Total staff of **15** for the main state forensic science facility.

The move was prompted by the need to start DNA testing and become an ASCLD/LAB (American Society of Crime Lab Directors – Lab Accreditation Board) accredited facility.

On March 31, 2009, the Satellite Lab facility closed and its two remaining employees, equipment and evidence located there were absorbed into the Lincoln facility. As a result, all forensic science services for the State of

Nebraska are now consolidated within the 13,032 square feet facility in Lincoln.

Due to the addition of DNA examination, latent prints, NIBIN databank and the Satellite Lab services, there has also been a large increase in the amount of evidence that is received and stored at the Lincoln crime lab facility.

As of **June 18, 2013**, the current state crime laboratory facility had the following funded positions at the lab:

- Biology-8 positions (1 Unit Manager, 1 Supervisor, 5 Forensic Scientists, 1 Lab Tech)
- Firearms/Toolmarks-3 positions (1 Supervisor, 2 Forensic Scientists)
- Latent Prints-3 positions (1 Supervisor, 2 Forensic Scientists)
- Toxicology-1 position (1 Forensic Scientist)
- Drugs-4 positions (4 Forensic Scientists)
- Trace-1 position (1 Forensic Scientist)
- Quality Assurance Manager-1 position
- Physical Sciences Unit Manager-1 position
- Chemistry Unit Manager-1 position
- Evidence Tech-1 position
- Administrative Assistant-1 position
- Director-1 position
- Questioned Documents-1 position (vacant/not presently funded, not counted)

This puts the current Total funded staff at **26**.

The programming effort for this report first involved an analysis of the existing forensic science laboratory located in Lincoln, Nebraska.

1.2 PROJECT DESCRIPTION

The existing forensic lab facility has been remodeled several times since its initial occupancy in 1998. Since that time, the crime lab has seen a substantial increase in their caseload requirements which ultimately has resulted in the need for a new facility as identified in Section 2 of this Program Statement.

The proposed project is a new forensic science crime laboratory facility to be renovated in an existing facility (TBD) in Lincoln, Nebraska. This new facility has been programmed utilizing trend analysis based upon existing yearly caseloads to project the space and staffing needs required for the present and the future.

As part of the building selection process, the intent is to find a facility that has a minimum available leasable space of approximately 26,000 square feet with additional space available which could be renovated in the future for additional or expanded crime lab functions as funding becomes available.

1.3 PURPOSE AND OBJECTIVES

The purpose of this Program Statement is to provide documentation justifying the need for a new forensic crime laboratory and developing the requirements for this new facility.

2.0 JUSTIFICATION OF THE PROJECT

The importance of laboratory evidence analysis is crucial to the investigation and conviction or exoneration of a suspect.

<u>The Growing Importance of Evidence and Forensic Laboratory Analysis:</u>
The importance of laboratory evidence analysis is crucial to the investigation and conviction or exoneration of a suspect, linking evidence to a missing person or victim, evaluating controlled substances, etc. These analyses are varied and changing as new techniques and technology advancements occur, allowing useful information to be gained from smaller and more degraded evidence than ever before possible.

Judges, jurors, law enforcement officers, and prosecuting and defense attorneys all agree that physical, biological or electronic evidence is increasingly becoming the focus in criminal investigations. Courts are asking for more evidence and the available analytical time needed to examine it is becoming less and less. Juries expect evidence to be present in cases, and as a result, credibility of non-scientific testimony has become less defensible. Planning and cooperation within the law enforcement community has clearly identified the increasingly important role of forensic science in fighting crime.

This trend fosters an increasing reliance on forensic science analysis services as a crime-fighting tool, and is increasingly demanded from the public, investigators, defense and prosecuting attorneys, and others.

2.1 TRENDS AND INFLUENCES

Since the early 1990's the law enforcement community has undergone a series of dramatic changes as our judicial system employs new strategies and innovations in prosecuting crime. These changes encompass a wide variety of issues including an increasing array of scientific methods to solve crime cases: new computer technologies associated with robotic instruments, computer forensic technologies, and national DNA and fingerprint databases. Perhaps the greatest changes in the field of forensic science are occurring in the science surrounding DNA analysis which is continually being updated requiring new techniques, procedures and equipment.

This growing trend toward the use of scientific evidence in the prosecution of law is being supported by both law enforcement and the public. The public's understanding of forensic science demonstrated by the popularity of the many forensic programs on television contribute to this trend significantly. Also, recent headlines in several major metropolitan areas such as Detroit and Houston, have highlighted the inadequacies of local laboratories or lack of procedures protecting the chain of evidence. Consequently, judges, jurors, police officers, prosecutors, and defense attorneys all agree that physical evidence is increasingly the most important factor in criminal investigations and prosecutions. This trend has fostered an increasing reliance on the nation's forensic laboratories and their caseloads and has caused many laboratory administrators to closely examine their policies, procedures and facilities.

Trends Analysis:
In establishing projections that identify the local trends and influences that will define the requirements for the planning and design of the new NSP Crime Laboratory, several factors were researched. These include:

- Population Demographics
- Types of Crime and Crime Trends
- Historic Caseload Data

1. Population demographics were analyzed regarding the growth for the State of Nebraska. This includes an assessment of overall population growth and projected growth of age groups within the population and their influence on certain types of crime.

2. Crime trends were analyzed using historic crime statistics pertaining to violent crime), property crime, drug arrest data and CyberCrime. This analysis will establish the data necessary to project caseload trends.

3. Historic caseload statistics have been provided by the current NSPCL as output from their internal caseload reporting database. These have been analyzed in combination with training and travel data also provided to establish a logical projection of future caseloads.

Refer to Section 2.1 of the original Program Statement if the reader is interested in the complete Trends and Influences analysis of the above.

National Performance compared to the NSP Crime Lab:
In September of 2004, the Bureau of Justice Statistics (hereafter called BJS) published a survey of 2002 performance statistics for the 50 largest publicly - funded crime laboratories in the United States. The focus of the BJS report was to gain an understanding of how many staff would be required to achieve a 30-day turnaround on lab requests received during that calendar year; and the median requests completed per FTE has become the standard by which all crime labs are measured regarding their overall performance.

Although overall the NSPCL is exceeding the median performance requests completed per FTE, the lab could perform even more efficiently if they had more space.

Using the actual median performance at the 50 Largest Labs for each FTE, a comparison with the state's current performance reveals that the NSP Crime Lab has outperformed its peers in almost every forensic section with the exception of the Firearms and Latent Prints Sections. (Refer to Chart 1).

Chart 1

Laboratory Discipline:	50 Largest Labs	NSPCL
Discipline	Median	Actual
Chemistry - Trace	83	101
Toxicology	444	573
Controlled Substances	846	917
Biology / DNA	54	107
CODIS	-	316
Firearms	121	63
NIBIN	-	173
Latent Prints	236	214
Questioned Documents	98	0
Computer Forensics	70	0
Vehicle Examinations	82	0
Evidence Processing	2,034	2,867

Although overall the NSPCL is exceeding the median performance requests completed per FTE, the lab could perform even more efficiently if they had more space and were able to address the deficiencies identified in Section 5 of this Program Statement.

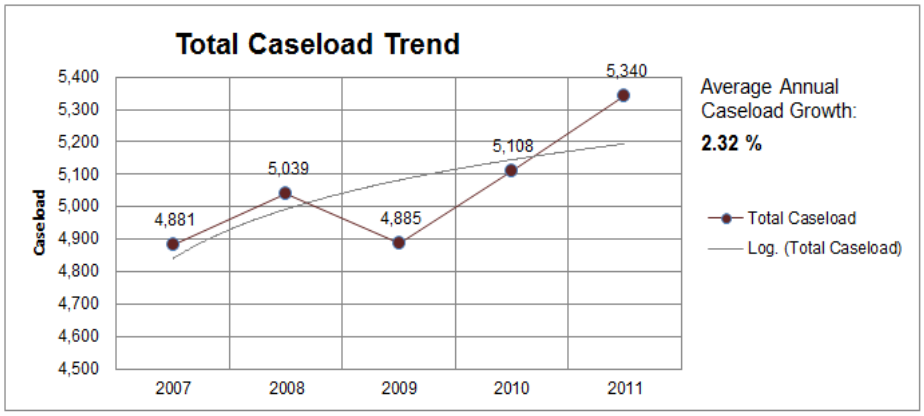
Caseload Analysis and Projections:

The graphs below and on the following page illustrate historical caseloads and backlog for the combined sections of the NSP Crime Lab. Compared to the 50 largest crime labs in the United States, the five year growth averages for caseloads and backlog again exceeds the median for these labs for both caseload increase and backlog decrease. The median caseload growth between 2007 and 2011 is 1.83% compared to NSPCL's caseload growth of 2.32%; and the median backlog growth between 2007 and 2011 is -0.43% compared to NSPCL's backlog growth of- 13.79%.

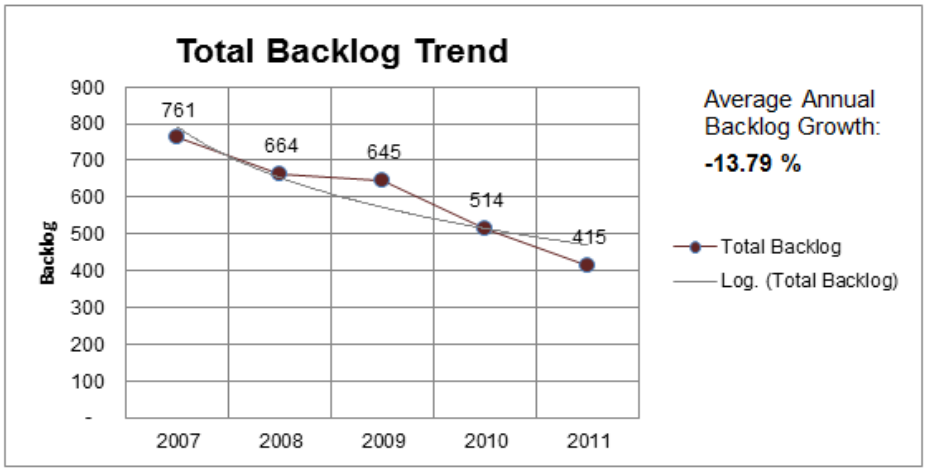
NSP Forensic Crime Laboratory Summary:

As illustrated in Graphs 1 and 2, the overall crime lab caseloads have increased over the past 5 years while their backlog has decreased.

Graph 1

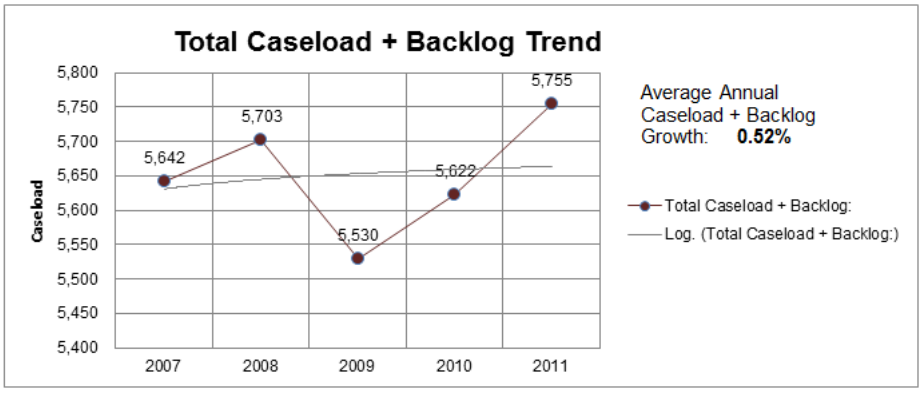


Graph 2



When the total Caseloads and Backlog are combined, the result still indicates a positive increase in the total crime laboratory output of 0.52% averaged over the past five years as identified in Graph 3.

Graph 3



Although the NSP Crime laboratory is currently outperforming its peers nationally, a considerable amount of each analyst's time is spent traveling around the State of Nebraska for court testimony or internal training.

Although the NSP Crime laboratory is currently outperforming its peers nationally, a considerable amount of each analyst's time is spent traveling around the State of Nebraska for court testimony or training. Therefore, the opportunity exists to increase their efficiency even more if the Nebraska Courts system implements a "video Testimony" approach for court cases. In other states where this approach has been implemented, it has helped to increase the efficiency for case examinations.

Our Programming team also noted that in their experience, other crime laboratories do not train staff in-house nor is the amount of travel for testimony as great as it currently is for the NSPCL. Average travel times to court in the State of Nebraska for the NSPCL can exceed 7 hours one-way.

Refer to Section 2.1 of the original Program Statement dated May 20, 2011 if the reader is interested in the complete Crime Lab Sectional analysis based upon the above.

2.2 DATA WHICH SUPPORTS THE FUNDING REQUEST

The space identified in this Program Statement over and above the existing area is required for a number of reasons. In addition to the need for more space just to meet current needs, future projections due to crime trends, demographic factors and technological advancements indicate the need for even more staff and space in the future.

Additionally, several forensic laboratory sections (i.e. Computer Forensics and Vehicle Processing) are currently needed to be added to the NSPCL; and the Questioned Documents Section is planned to be re-established in the NSPCL, however the existing forensic lab does not have the space to be able to include these services.

Furthermore, new standards, codes, and regulatory requirements applicable to forensic laboratories have been developed since the current lab facility was built. These advancements require many special design features and the need for more equipment and instruments to process information that result in the need for additional space in a new facility.

Due to the current facility limitations, neither DAS nor the State Patrol wishes to commit to another long term lease at the current building.

Conclusions:
Analysis of all the data presented in this section, including population trends, crime trends and the historical caseload data provide a clear indication of the need for a new NSP Crime Laboratory.

2.3 ALTERNATES CONSIDERED

The obvious alternative to the proposed new facility is to renovate and expand the current facility.

Since the State of Nebraska currently leases the space for the existing forensic crime laboratory, the ability to expand this facility needs to be approved by the current Owner of the property. However, after our Programming team analyzed the existing facility and site, we have concluded that the current facility does not have the ability to be expanded due to the existing site limitations. In addition, the current owner is attempting to sell the building and the lease with the Nebraska Department of Administrative Services (DAS) expires in 2014. Due to the current facility limitations, neither DAS nor the State Patrol wishes to commit to another long term lease at the current building.

After analyzing the current facility, our programming team has concluded that the existing crime laboratory has serious space deficiencies, as well as severe planning and design shortcomings. We further concluded that this existing facility is inadequate to serve the expanded caseload and services being projected for future years for the State of Nebraska. Additionally, the existing facility does not meet many current safety standards, and it is unable to be expanded or effectively upgraded.

2.4 CONSEQUENCES IF PROJECT IS NOT FUNDED

After analyzing the current facility, our programming team has concluded that the existing crime laboratory has serious space deficiencies, as well as severe planning and design shortcomings.

Therefore, if a new facility is not approved and constructed, continued use of the existing facility will begin to compromise the advancement of the Nebraska State Patrol Forensic Science programs; and the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska to better serve the needs of the citizens of Nebraska.

3.0 LOCATION AND SITE CONSIDERATIONS

3.1 PROPOSED SITE

The proposed building and project site for this project has not been selected at the time that this Program Statement was developed.

3.2 INFLUENCE OF THE PROJECT ON EXISTING SITE CONDITIONS

Again, since a site has not been selected for this project, the influence of the project on existing site conditions is not applicable. However, again to assist the State of Nebraska in finding a suitable site, the Programming team has identified some keys site considerations below that should be utilized when selecting an appropriate site as it pertains to existing site conditions for this project:

- Avoid selecting a site that is located in a highly visible or highly public area. Crime labs are identified as target facilities for the crime community and as such need to be securely protected.

- Select a site that is close to major roadway access or highway exits. Since crime scene investigators will be coming from all over the state to drop off evidence, they need to be able to get to and from the facility easily and efficiently.

3.3 RELATIONSHIP TO NEIGHBORS AND ENVIRONMENT

Again, since a site has not been selected for this project, the relationship to surrounding neighbors and the environment is not applicable. However, again to assist the State of Nebraska in finding a suitable site, the Programming team has identified some keys site considerations below that should be utilized when selecting an appropriate site as it pertains to surrounding neighbors and the environment for this project:

- Select a site that is adjacent to established neighborhoods. Crime labs make good neighbors. Research has shown that the public's perception of having a crime lab constructed in their vicinity makes them feels safer.

- If an urban site is considered, select a site that is generally located in an area that is not highly visible to the surrounding public. The site also should provide two means of access in and out of the site for security and safety.

3.4 UTILITIES

Crime labs are identified as major energy users. As such, they require a lot of utilities to support the internal functions of the labs. Again, since a site has not been selected for this project, the impact on existing utilities is not applicable. However, again to assist the State of Nebraska in finding a suitable site, the Programming team has identified some keys site considerations below that should be utilized when selecting an appropriate site as it pertains to utilities for this project:

- Crime labs require a considerable amount of water in order to function properly. As such, a site should be selected that provides a considerable amount of water availability.

- Crime labs also expel a considerable amount of exhaust which requires a large demand of heating and cooling in order to provide the required amount of air for exhaust. Depending on the type of heating and cooling systems selected, the utilities required to heat and cool the air could be natural gas, electricity, and steam. Therefore, a site should be selected that has a considerable amount of these utilities available.

3.5 PARKING AND CIRCULATION

Again, since a site has not been selected for this project, the impact of the new facility to existing parking and circulation is not applicable. However, again to assist the State of Nebraska in finding a suitable site, the Programming team has determined the parking requirements for this project.

These requirements can be found in Section 6.3 of this Program Statement and are summarized below:

- Staff parking has been calculated at a minimum of 31 with available space to be expanded.

- Main Visitor parking has been calculated at 10.

- Additional parking for state owned vehicles has been calculated at 4.

4.0 COMPREHENSIVE PLAN COMPLIANCE

4.1 CONSISTENCY WITH THE AGENCY COMPREHENSIVE CAPITAL FACILITIES PLAN.

This requested project is justified by the State's decision to increase the State's efficiency to provide law enforcement services to aid in the prosecution and convictions of criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska.

Lack of space and staff to complete caseloads has resulted in slower turnaround times and loss of confidence on the part of evidence contributors. This lack of confidence with the laboratory system limits its usefulness and effectiveness; and left unresolved, these evidence contributors are then compelled to submit their cases to other laboratories, or worse, not submit some evidence items at all.
As a result, this consolidation of services has created the need for a new facility consistent with the State Agency Comprehensive Plan which requires a system wide approach for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska.

4.2 CONSISTENCY WITH THE STATEWIDE COMPREHENSIVE CAPITAL FACILITIES PLAN.

This Program Statement complies with the Statewide Comprehensive Capital Facilities Plan and the Mission Statement for Nebraska Capital Construction by offering a capital solution for resolving the current forensic science issues as they relate to increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska.

<u>Mission Statement for Nebraska Capital Construction</u>

"This mission of capital construction in the state of Nebraska is to plan, fund, design, construct and maintain facilities to serve the best interest and needs of ALL Nebraskans in an efficient and cost-effective manner."

The Nebraska Comprehensive Capital Facilities Planning Committee has established the 2010 Mission Statement/Governing Values for State of Nebraska Capital Construction. This project responds to many of the

Governing Values in the 2010 Plan. Below, each Governing Value is listed along with a description of how this project responds to and supports each listed Value:

1. Facilities should be accessible and designed/constructed to serve the interests and needs of all persons.

This requested project is justified by the state's decision to increase the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska.

2. Facilities should represent a wise, responsible use of taxpayer funds which utilizes efficient, cost- effective design and construction methods and modern technology, and results in reasonable ongoing operations and maintenance costs.

This project has been programmed to provide a new facility for the State of Nebraska that will provide a "best Value" approach for meeting these requirements.

3. Facilities should be safe, promote health and well being, and maintain a quality of life for all persons.

This proposed new facility will address the existing safety issues of the current facility and provide a safe and efficient working environment for the current and future staff. It has also been programmed to incorporate "sustainable design" principles for efficient operations and environment sensitivity.

4. Facility decisions and projects should reflect the state's stewardship role in preserving, protecting and maintaining existing facility assets, including state-owned historic properties.

Since the state leases the current facility and does not own the property, a new facility will add value for the citizens of Nebraska.

5. Facility decisions and projects should serve the long-term interests of all Nebraskans including future generations.

This project will provide increased safety and protection for the citizens of Nebraska both current and future by increasing the ability to prosecute and convict criminal suspects within the State of Nebraska.

6. Based on appropriate evaluations, facilities should responsibly support state agencies, their missions and goals, and be of service to Nebraska's citizens.

This project supports the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska.

7. Facility projects should encourage partnering, cooperation and the sharing of resources between state agencies, local governments and private entities, where appropriate.

Once the new facility is constructed, additional staff is added, and efficiencies are enhanced, it is expected that evidence contributions will increase significantly as a result of unmet needs being fulfilled. Judges, jurors, law enforcement officers, and prosecuting and defense attorneys will all benefit from this new efficient facility. As a result, the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska will be met.

8. State facility planning, design and construction should act as a model for other state and local governments, as well as private entities and institutions.

This Program Statement has incorporated "State of the Industry" requirements for safety, efficiency, flexibility, sustainability and operations for this new forensic science facility and will become a model for other state forensic science crime lab facilities.

9. State facilities should strike a balance between quality and quantity and incorporate a level of excellence that reflects a high appreciation for the built and natural environments.

This proposed new facility will address the existing safety issues of the current facility and provide a safe and efficient working environment for the current and future staff. It has also been programmed to incorporate "sustainable design" principles for efficient operations and environment sensitivity.

10. State facilities and those who plan, build and care for them must be accountable to all Nebraskans and responsive to their changing needs.

This Program Statement has incorporated "State of the Industry" requirements for safety, efficiency, flexibility, sustainability and operations for this new forensic science facility and once constructed will achieve the state's mission and goals for increasing the state's efficiency to provide law enforcement services to prosecute and convict criminal suspects within the State of Nebraska and to better serve the needs of the citizens of Nebraska will be met.

5.0 ANALYSIS OF EXISTING FACILITIES

5.1 EXISTING FACILITY ANALYSIS OVERVIEW

The existing facility overview identified below was developed as part of our Programming team's facility analysis:

Site Overview:
The existing site was reviewed as part of the existing facility analysis. The following list was identified as part of this analysis:

The existing site is located at 1233 Arapahoe in Lincoln, Nebraska in a strip mall. The following items were noted as part of the Site Review:

- The parking for staff is unsecured. The general public and employees utilize the same general parking area.
- Evidence drop off is also in an unsecured area.
- The Garage / Storage bay is also located in an unsecure area on the site. Staging for the existing Garage / Storage occurs in the parking area.
- There is no Loading and Unloading zone for equipment and supplies.

- No Water Quality Management Plan was found for the existing property.
- The site has been maximized for parking and expandability.

Building Overview:
The existing building was also reviewed as part of the existing facility analysis.

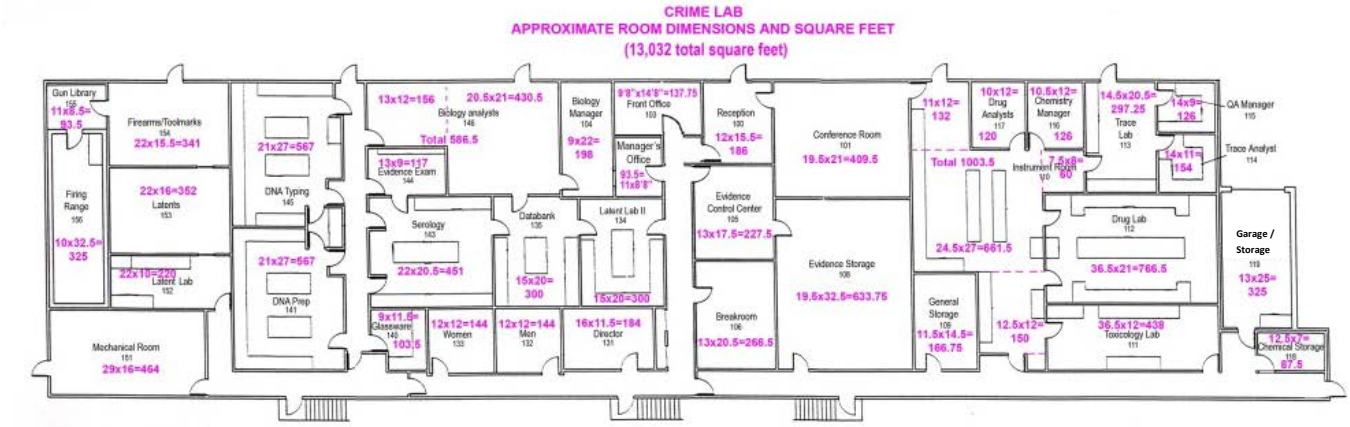
The following highlights were identified as part of this analysis:

- The building was renovated specifically for its present use, but the design was developed without adequate lab design expertise.
- The width of the main corridors is undersized and creates issues when equipment or large evidence items are moved throughout the facility.
- The facility does not have a Loading Dock.
- Door width is also undersized and creates issues when moving equipment or large pieces of evidence in and out of the lab sections.
- Vinyl tile was also installed throughout the lab and support spaces in lieu of seamless flooring.
- The facility is not designed for handicapped individuals in the labs.

Conclusion:
After analyzing the current facility, our programming team has concluded that the existing crime laboratory has serious space deficiencies, as well as severe planning and design shortcomings. We further concluded that this existing facility is inadequate to serve the expanded caseload and services being projected over the next twenty years for the State of Nebraska. Additionally, the existing facility does not meet many current safety standards, and it is unable to be expanded or effectively upgraded.

Therefore, if a new facility is not approved and constructed, continued use of the existing facility will begin to compromise the advancement of the Nebraska State Patrol Forensic Science programs.

5.2 EXISTING FACILITIES SIZE



The existing facility is approximately 13, 032 SF. It currently has a funded staff of 26. This equates to 501 SF per staff.

According to the "Forensic Laboratories: Handbook for Facility Planning, Design, Construction and Moving" (which has been endorsed by the American Society of Crime Lab Directors (ASCLD), the average square feet per funded staff should be between 700 and 1,000 SF per staff.

This item alone identifies that the existing NSP Forensic Crime Laboratory is overcrowded and undersized to support the forensic science services required by the state of Nebraska.

5.3 PHYSICAL DEFICIENCIES AND CONSTRAINTS

Existing Building

In assessing the existing facility, this section of the Program Statement addresses issues pertaining to the architectural, laboratory, mechanical, plumbing and electrical elements of the existing building.

The existing facility was constructed and occupied in 1998. It is a single-story building of approximately 13,032 square feet.

The facility is currently located in a strip mall across from a bank and is leased by the State of Nebraska with its current lease expiring in April, 2014.

Several renovations and expansions have occurred between then and now resulting in the current overcrowded conditions and the inability to expand any further due to lack of additional space on the site.

As part of the analysis of the existing facility as it relates to the physical deficiencies and constraints, our Programming team identified the following categories of deficiencies (which are utilized within the forensic science industry) as a means to evaluate this existing crime lab facility:

1. Overcrowding
2. Equipment Space Deficiencies
3. Potential Safety Issues
4. Circulation Inefficiencies
5. Work Space Deficiencies
6. Inadequate Storage
7. Lack of Bio-Vestibules

Overcrowding:
This deficiency is chronic throughout the facility, resulting in spaces that are well below the accepted industry standards for forensic laboratories. Overcrowded conditions are evident in laboratory and office workstations, instrument and equipment benches, personnel circulation spaces, and storage. The efficiency of many spaces is hindered due to the lack of adequate storage space and items are stored in offices, conference rooms, laboratory spaces, and other work areas.

Equipment Space Deficiencies:
Due to the overall lack of adequate space throughout the facility, many items of laboratory and administrative equipment are installed without required circulation space, access space, or adjacent work space.

Potential Safety Issues:
Being an ASCLD/LAB accredited laboratory, no conditions were discovered in the facility that pose an imminent threat to the safety of personnel, however, there were some conditions noted that are considered a potential safety issue, and which should be addressed in the design of a new facility.

Circulation Inefficiencies:
Among the most obvious circulation inefficiencies is the fact that personnel must pass through one or more laboratory sections in order to get to another laboratory section. The correct design of a forensic laboratory requires each laboratory section to be accessible from a main circulation

corridor through a Bio-vestibule. In addition to being a circulation inefficiency, this condition poses a safety risk with personnel using a laboratory space as a passageway.

Workspace Deficiencies:
Workspaces throughout the facility have inadequate space in order to properly perform required procedures. Even the office workspaces fall below the state standards for minimum square feet.

Inadequate Storage:
Inadequate storage space is a critical deficiency throughout the facility, not only in the laboratory sections, but also in the administration spaces and the Evidence Processing Section. Most of the storage spaces throughout the facility are filled to capacity and are overflowing into adjacent areas including the garage.

Lack of Bio-Vestibules:
For each laboratory section that deals with biological evidence, typical forensic laboratory design standards include a bio-vestibule between the "clean" circulation corridors leading to the "dirty" laboratory spaces. There are no bio-vestibules in the existing facility.

From the Programming team's extensive forensic science experience, we have determined that when a forensic science laboratory experiences any two to three of these deficiencies listed above, serious consideration should be given to developing new facilities. The NSP Crime Laboratory is characterized by all seven of these deficiencies in a manner that is approaching crisis level.

Additional Deficiencies and issues were identified as follows:

Lack of Designated Shipping and Receiving Area: Currently, the Lab Administration and Evidence Processing sections are providing the shipping and receiving services for the Crime Lab at the Evidence Processing service counter where evidence transfer functions are being conducted. It is a more desirable situation for evidence transfer functions to be conducted in a more secure manner, with shipping and receiving as a separate function in a less secure area.

The existing crime lab also has several ADA deficiencies including such items as the following:

- No handicap accessible lab workstations
- Non-ADA accessible emergency showers and eye washes

In addition to the above, our Programming team also noted several mechanical, electrical, telecommunications and security deficiencies while performing the facilities analysis.

Refer to Section 5.3 of the original Program Statement dated May 20, 2011 if the reader is interested in a complete analysis of the Physical Deficiencies of the existing facility.

5.4 PROGRAMMATIC DEFICIENCIES AND CONSTRAINTS

The current facility contains spaces for Lab Administration, Trace Evidence, Toxicology, Controlled Substances, Firearms, Latent Prints, Biology / DNA, Garage, Evidence Processing and mechanical and electrical utility spaces. The crime lab would like to restart the Questioned Documents section and restart glass and fiber testing. They also would like add the Computer Forensics Section, however due to their current overcrowded conditions, the crime lab is unable to provide these services.

The primary programmatic deficiencies and constraints include the following items listed below:

- The original Questioned Documents (QD) space was designed for one person and a function that requires minimal chemical processing. That space now houses the Latent Print Section. Latent print examination requires extensive chemical processing. Due to the amount of lab space needed by Latent Prints, a second lab area in a different part of the building was absorbed by them when the Satellite Lab closed, necessitating that the latent print examiners move throughout the building to access what they need to work cases. Splitting the section is not efficient, but is necessary in this facility. Due to the need for space by the Latent Print Section, the QD space had to be sacrificed. QD services are now offered via an outsourcing arrangement that is grant funded. Once the funding is expended, the lab will cease offering that service to the state.

- The existing evidence room is often quite full. The garage is used as a back up evidence storage area. This requires the evidence techs to travel to the south end of the building to access that evidence storage area. It also limits the lab's ability to use the garage for other things.

- The State of Nebraska recently expanded the DNA collection to include all felons within the state, as a result, the storage space for the samples has become a big issue. The samples received jumped from 534 in 2009 to 8,819 in 2010, with this increase expected to continue for many years. The sample submissions will grow even more if the state follows the national trend and passes legislation to add all arrestees to the database.

- The Biology/DNA Section was in the planning stages for DNA when the building was designed. Now, due to caseload demand, one evidence examination room is not sufficient. Examiners spend time waiting for the room to become available. Office area is also extremely lacking. Analysts need sufficient office space, as much data analysis is done at the work stations located at their desks. Data analysis requires concentration, which is difficult in the present situation. The serology screening room is also overcrowded. The lab has remodeled this area in an attempt to better suit the needs of the analysts in that room, however, it is still crowded and inefficient. Based upon these issues, no additional staff can be added to this section to address the ongoing demand for these services.

- The Firearms/Toolmarks Section was originally designed for one examiner. It now houses three people and the NIBIN database equipment. Firearms/Toolmarks chemical processing is done in a chemical hood in their range. This is not a good situation, as their chemical tests are often for the purpose of checking for gunshot residue. Clearly when that testing is done in a firing range, contamination is a concern, and extra steps are taken to insure that contamination does not occur. In addition, the firing range is too short and fragments have bounced back and hit the shooter, causing safety concerns. The ventilation flow in that room is not sufficient during test firing, increasing the safety concerns. NIBIN samples are kept indefinitely, causing storage issues. Much of the firearm's reference collection must be stored in the range, where rust is a problem.

- The Chemistry Unit in the south end of the building is lacking office space for the analysts. Three analysts share one very small office area and two analysts have no office outside of their lab areas. In addition, they have no room to add any additional analyses types. The shared instrument room is filled to capacity so that new instrumentation cannot be added.

- The current facility has no loading dock for receipt of large evidence and/or instruments and supplies.

- Presently, the front office has file storage area for only two years files. A third year is kept in the garage. Years prior to that are sent out to central storage. Cases are frequently active for more than the conveniently located two years and often for more than the three years available in the building. Cases are routinely requested to be returned to the lab from central storage. The addition of the Satellite Lab personnel at the Lincoln location necessitated the dividing of the front office into two office areas and the consolidating of the case files. While more file space was needed, the lab currently has less.

- The lab has no examination area adequate for processing vehicles or other large items, with sufficient space, light, ability to darken, and access to equipment and supplies.

- The lab has one small break room that does not meet the demands of the staff at lunch time and does not have space for a second refrigerator.

- The lab also only has one conference room which does not meet the current demand and often creates scheduling conflicts. Reference materials stored in that room are unavailable when the room is in use.

- The lab does not have secured temporary evidence storage lockers in some areas of the facilities which is an operational issue.

- Not all supervisors and managers have office space for private meetings.

- The Firearms and Latent Prints Sections have no space to lay out examination items and Biology / DNA and Trace Evidence Sections only have a small room to lay out their examination items.

- The Chemistry Section can not add Toxicology blood sample testing due to lack of additional space.

- Throughout the existing crime lab, the insufficiently sized work areas and shared space areas necessitate extreme extra measures to prevent contamination of evidence items.
- The lab does not have training facilities for their staff or other state employees, so all instruction must be done elsewhere.

- There is no room for addition of new programs, staff, or instrumentation in most areas of the facility including the Firearms, Latent Prints and Chemistry Sections.

- Based upon the overcrowded conditions, the ability to give facility tours is extremely limited.

- The lab has inadequate storage.

- Without the ability to grow, law enforcement agencies will have to continue to pay private labs to get their evidence items examined in a timely manner adding additional cost for processing these items.

Conclusion:

As a result of all of the above, the NSP crime lab is unable to expand and provide the additional forensic science services and testing required to meet the needs of the law enforcement community in their current facility. Therefore, a new crime laboratory facility is required.

Refer to Section 5.4 of the Program Statement if the reader is interested in a complete analysis of the Programmatic Deficiencies of the existing facility.

5.5 REPLACEMENT COST OF EXISTING BUILDING

The State of Nebraska has been leasing the existing facility since 1998. Since that time, numerous renovation projects have been implemented to increase the crime lab's forensic science programs. However, the crime lab has grown beyond the ability to renovate this facility any further.

Also, as stated earlier in this section, the current site does not allow for this facility to be expanded incorporating the additional space required for this facility.

In addition, since the State of Nebraska does not own the current facility and the current facility has been renovated and expanded to its maximum available size during the last 13 years, the replacement cost for this existing building is not applicable for this project.

Therefore, a new facility (based upon the program information contained within the Program Statement) is required in order to provide a fully functional forensic science crime laboratory facility.

Projected construction costs for a leased facility in an existing building (TBD) is included in Section 9 of this Program Statement.

6.0 FACILITY REQUIREMENTS

6.1 FUNCTIONS / PURPOSE OF THE PROPOSED PROGRAM

The purpose of this report is to provide documentation justifying the need for a new forensic laboratory and developing the requirements for this new facility.

The purpose of this report was to provide documentation substantiating the need for a new forensic science laboratory facility. A Preliminary Cost Model and other project development costs have also been included as part of this report and are documented in Section 9 of this Program Statement.

From the existing facility analysis, the programming team developed the following recommendations for a new NSP Forensic Crime Laboratory.

6.2 FACILITY SPACE AND STAFF NEEDS ANALYSIS

The following Facility Summary provides area and staff tabulations in spreadsheet format for each individual forensic section, as well as a final tabulation of the building's gross square feet area.

These spreadsheet pages constitute back-up documentation for the proposed amount of space and staff needed for the new NSP Forensic Crime Laboratory.

The first page of this Space and Staff Needs Analysis is the Summary page.

In the first column of the Summary page each section of the proposed facility is listed. These sections consist of following:

- Lab Administration
- Chemistry – Trace Evidence
- Toxicology

- Controlled Substances
- Firearms
- Latent Prints
- Biology / DNA
- Evidence Processing
- Building Support

The second and third columns list the departmental gross square feet of space needs and associated staff required for each laboratory section at the anticipated move-in year of 2015. These space and staff numbers have been forwarded from the subsequent spreadsheet pages for each respective section.

In order to correctly size the new facility additional factors are added to the above departmental totals. These factors add additional square feet in order to determine the total Building Gross Square Feet or in this revised Program Statement identify the total leasable square feet required for the new forensic crime lab which include square feet for the following items:

- Mechanical, electrical, and other support spaces
- Building structure
- Exterior walls (for this revised Program Statement, the leasable space is figured from the inside face of the existing walls. So no square feet have been included for the existing walls.)
- General building circulation between each crime lab section (main corridors) Again, for this revised Program Statement, the assumption is that the State of Nebraska will find an existing building that has all of the required square feet located on one level. If a multi-floor facility is selected, then additional square feet will have to be allocated for such items as stairways, elevators, etc.)

FACILITY SUMMARY

Section / Unit	2015 Departmental Gross Area	2015 Staff
LAB ADMINISTRATION	1,463	3
CHEMISTRY - TRACE EVIDENCE	1,411	1
TOXICOLOGY	1,265	2
CONTROLLED SUBSTANCES	2,869	6
FIREARMS	3,412	5
LATENT PRINTS	2,204	3
BIOLOGY / DNA	6,606	9
EVIDENCE PROCESSING	1,742	2
BUILDING SUPPORT	2,580	0

Total Department Gross Square Feet:		23,552
Building Gross Factor		
Mech/Elec/Support	2%	471
Structure and Walls (in existing building)	3%	707
General Building Circulation	5%	1,178

TOTAL BUILDING GROSS SQFT / STAFF:	**25,907**	**31**

Notes:*

The following pages of the Space and Staff Needs Analysis describe the functions of each laboratory section and the space and staff needs required for each laboratory section.

The space needs are presented in columns that identify each space and equipment item, and address the net area required for each space and equipment item ("Unit Area"). (See "Space Standards" in Section 6.4 of the original Program Statement for a clarification of unit area needs.) The next column ("Space Quan") identifies the required quantity of each space and equipment item. The next column, "Space Need," is the product of the Unit Area and the Space Quan. Figures in the Space Needs column are then extended to the "Room Area" column in one of two ways. If the Space Need refers to a simple room, such as a private office or an exam room, for example, the Space Need figure is simply extended to the "Area Subtotal" column. However, if a large and complex room is identified in the Space Need column, such as an Open Office Area or a Main Laboratory, all of the space and equipment components that are contained within that room are quantified in the "Space Need" column, a Room Circulation factor is included, and the area sum of all of the spaces is extended to the "Area Subtotal" column. The required staff for each laboratory section is included in the "Staff Quan" column.

The "Space Standard" column includes a designator which relates to the Space Standards (located in Section 6.4 of the original Program Statement), and provides a graphic representation of the individual spaces identified in this Space Analysis. The "Comments" column is provided to add clarification to particular space and equipment items.

Finally, each spreadsheet page or pages for each laboratory section includes a "Departmental Net Area," which is the sum of the "Area Subtotal" column. To that is added a "Departmental Gross Factor," which accounts for the space required to: circulate from room to room within the laboratory section, interior walls and additional support space. The "Departmental Gross Area" is then provided as the sum of the Departmental Net Area and the Departmental Gross Factor, and the required Staff is provided as the sum of the "Staff Quan" column. These two final totals for Departmental Gross Area and Staff are then extended to their respective sections on the Facility Summary page of this section.

LAB ADMINISTRATION

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Private Offices							
Director	220	1	220	220	1	PO-4	
Assistant Director	150	0	0	0	0	PO-3	
QA/QC Manager	150	1	150	150	1	PO-3A	
Assistant QA/QC	120	0	0	0	0	PO-2	
LIMS Tech Office	120	0	0	0	0	PO-2	
Exec Conference Room	450	1	450	450			for 20 to 25 people
Small Conference Room	200	0	0	0		CR-2	for 10 to 12 people
Open Office Area				132			
Reception	80	0	0		0		
Administrative Assistant	120	1	120		1	PO-2	
Files Area	64	0	0				
Work Area	120	0	0				include copy area
Room Circulation 10%			12				
Lobby/Waiting	200	1	200	200			
QA/QC Files Room	120	1	120	120			Lockable

Staff Subtotal	**3**

Notes:

Departmental Net Area		1,272
Departmental Gross Factor:	15%	191
Includes: Interior walls, departmental circulation and departmental services		
Departmental Gross Area		**1,463**

CHEMISTRY - TRACE EVIDENCE

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Supervisor	120	0	0	0	0	PO-2	Private office
Open Office Area				98			
Analysts Office Workstation	64	1	64		1	WS-2	
Files	18	1	18			FC-2	
Copy Area	48	0	0				
Interaction Space	40	0	0				Includes reference shelving
Room Circulation 20%			16				
Bio-vestibule	64	1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				476			
Analyst Lab Workstation	90	2	180			LWS-5	
Lab Support Bench	36	2	72			LCT-3	8 lf per analyst
4-foot Fume Hood	27	2	54			LE-2	
Evidence Cart Parking	6	1	6				
Biohazard Waste Disposal	6	1	6				
Safety Station	16	1	16			SS-1	
Evidence Lockers	32	1	32			LE-3	
Lab Sink	15	1	15				4 lf bench
LIMS PC Worksta w/ Scanner	16	1	16				4 lf bench
Room Circulation 20%			79				
Instrumentation Room				420			Combine with CS and Tox
Lab Instrument	52	5	260			LCT-2	8 lf per instrument,
Lab Support Bench	36	2	72			LCT-3	8 lf per analyst
4-foot fume hood	27	0	0			LE-2	
Inst Maint Bench	18	1	18			LCT-1	4 lf bench
Lab Sink	15	1	15				
Room Circulation 15%			55				
Arson/Explosion Room				0			Enclosed Glass Area w/ Door
Lab Support Bench	36	0	0			LCT-3	8 lf per analyst, Incl. Undercounter Refrig.
4-foot fume hood	27	0	0			LE-2	
Freezer	20	0	0				Explosion proof
Mobile Tables	90	0	0				Two 2.5' x 5' adjustable height mobile tables
Lab Sink	15	0	0				
Room Circulation 20%			0				
Microscopy Room	160	0	0	0			Plan for (4) microscopes
Scanning Electron M'scope Rm	80	0	0	0			
SEM Utility Room	40	0	0	0			Lab equipment and supplies
Storage Room	48	1	48	48			
Trace Suspect Exam Room	120	0	0	0			Note 1, 2
Trace Victim's Exam Room	120	0	0	0			Note 1, 2
Trace Standards Room	40	1	40	40			Note 3
Arson Standards Room	40	0	0	0			Note 3
Exam Room	80	1	80	80			

Staff Subtotal	**1**

Departmental Net Area		1,227
Departmental Gross Factor:	15%	184
Includes: Interior walls, departmental circulation and departmental services		
Departmental Gross Area		**1,411**

Notes:

1. (2) 2.5' x 5' adjustable height mobile tables, suspended magnifying ring on articulating arm, lab bench with sink
2. With ceiling mounted adjustable camera
3. Acid and Flammable storage cabinets

TOXICOLOGY

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Supervisor	120	1	120	120	1	PO-2	Private office
Open Office Area				98			
Analysts Office Workstation	64	1	64		1	WS-2	
Files	18	1	18			FC-2	
Interaction Space	80	0	0				Includes reference shelving
Room Circulation 20%			16				
Bio-vestibule	64	1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				650			
Analyst Lab Workstation	90	2	180			LWS-6	
Lab Support Bench	36	2	72			LCT-3	8 lf per analyst
4-foot Fume Hood	36	1	36			LE-2	with cup sink
4-foot Biosafety Hood	27	1	27			LE-2	
Reagent Prep Workstation	90	1	90				Note 1
Robot Instrument	52	1	52			LCT-2	8 lf per instrument
Refrigerator/Freezer	24	1	24				
Safety Station	18	1	18			SS-1	
Evidence Cart Parking	6	1	6				
Biohazard Waste Disposal	6	1	6				
LIMS PC Worksta w/ Scanner	16	1	16				4 lf bench
Lab Sink	15	1	15				
Room Circulation 20%			108				
Instrumentation Room				120			Combined with Trace and CS
Lab Instrument	52	2	104			LCT-2	8 lf per instrument
Room Circulation 15%			16				
Blood Alcohol Prep Room				0			
Lab Instrument	66	0	0			LCT-2	10 lf per instrument
6-foot hood	36	0	0			LE-2	Biosafety Hoods
Inst Maint Bench	18	0	0			LCT-1	8 lf bench
Hydrogen Generator	18	0	0				
Storage Cabinet	18	0	0				
Lab Sink	15	0	0				
Room Circulation 15%			0				
Robotics Room				0			
Robot Instrument	52	0	0			LCT-2	8 lf per instrument
4-foot hood	27	0	0			LE-2	Biosafety Hoods
4' - Fume Hood	36	0	0			LE-2	
Inst Maint Bench	18	0	0			LCT-1	8 lf bench
Refrigerator/freezer	18	0	0				
Lab Sink	15	0	0				
Room Circulation 15%			0				
Storage Room	48	1	48	48			Lab equipment and supplies
Walk-in Refrigerator/Freezer	40	0	0	0			

Staff Subtotal	**2**

Departmental Net Area		1,100
Departmental Gross Factor:	15%	165
Includes: Interior walls, departmental circulation and departmental services		
Departmental Gross Area		**1,265**

Notes:

1 4 ft fume hood, dbl lab sink, prep bench, glasswares washing and storage, lab

CONTROLLED SUBSTANCES

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Manager	150	1	150	150	1	PO-3	Private office
Supervisor	120	1	120	120	1	PO-2	Private office
Open Office Area				528			
Analysts Office Workstation	64	4	256		4	WS-2	
Files	18	4	72			FC-2	
Copy Area	48	1	48				Shared with Trace and Tox
Reference Area	64	1	64				Includes reference shelving
Room Circulation 20%			88				
Bio-vestibule	64	1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				1,026			
Analyst Lab Workstation	90	5	450			LWS-2	
Lab Support Bench	36	5	180			LCT-3	8 lf per analyst
4-foot Fume Hood	27	1	27			LE-2	with cup sink
Reagent Prep Workstation	90	1	90				Note 1, include polisher at sink
Safety Station	18	1	18			SS-1	
Evidence Cart Parking	6	1	6				
Biohazard Waste Disposal	6	1	6				
Evidence Lockers	32	1	32			LE-3	
Lab Sink	15	2	30				Drying rack above, eyewash ea sink
LIMS PC Worksta w/ Scanner	16	1	16				4 lf bench
Room Circulation 20%			171				
Drug Standards Room				0			
4-foot fume hood	27	0	0			LE-2	with cup sink
Lab Sink	15	0	0				
Lab Support Bench	36	0	0			LCT-3	8 lf per analyst
Refrigerator	20	0	0				Explosion Proof
Freezer	20	0	0				Explosion Proof
Storage	40	0	0				
Room Circulation 15%			0				
Instrumentation Room				559			Combined with Trace and Tox
Lab Instrument	52	9	468			LCT-2	8 lf per instrument
Inst Maint Bench	18	1	18			LCT-1	4 lf bench
Lab Sink	15	0	0				
Room Circulation 15%			73				
Exam/Clan Lab/Bulk Case Analysis	120	0	0	0			Note 2
Storage Room	48	1	48	48			Lab equipment and supplies

Staff Subtotal	**6**

Departmental Net Area		2,495
Departmental Gross Factor:	15%	374
Includes: Interior walls, departmental circulation and departmental services		
Departmental Gross Area		**2,869**

Notes:

1 4 ft fume hood, dbl lab sink, prep bench, glasswares washing and storage, lab

2 Four 2.5' x 5' adj. ht. mobile tables, 8' fume hood, lab sink, drying rack and bench sp.

FIREARMS

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Manager	150	1	150	150	1	PO-3	Private office
Supervisor	120	1	120	120	1	PO-2	Private office
Open Office Area				353			
Analysts Office Workstation	64	3	192		3	WS-2	
Files	18	3	54			FC-2	
Interaction Space	80	0	0				Includes reference shelving
Copy Area	48	1	48				
Room Circulation 20%			59				
Bio-vestibule	64	1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				766			
Analyst Lab Workstation	90	4	360			LWS-4	
Lab Support Bench	36	4	144			LCT-3	8', Note 1 - including photo stand and sink
Comparison Microscope	15	0	0				
Safety Station	18	1	18			SS-1	
Drafting Station	20	1	20				
Catalog Reference Shelving	24	0	0				8 lf full-height shelving
Lab Sink	15	2	30				
Evidence Cart Parking	6	2	12				
Biohazard Waste Disposal	6	1	6				
Evidence Lockers	32	1	32			LE-3	
LIMS PC Worksta w/ Scanner	16	1	16				4 lf on bench space
Room Circulation 20%			128				
Exam Room - Large	230	0	0	0			Note 4, with overhead camera
Exam Room - Small	150	1	150	150			Note 6, with movable photo stand
NIBIN Room				115			
NIBIN Workstations	64	1	64				
Layout Bench	36	1	36				8 LF of Bench Space
Room Circulation 15%			15				
Weapons Standards Room	200	1	200	200			Note 2
Ammunition Storage Room	36	1	36	36			
Storage Room	48	1	48	48			Lab equipment and supplies
Evidence Storage Room	48	1	48	48			
Firing Range				678			
Firing Range	500	1	500				Note 3, with Target Retrieval
Bullet Trap	80	1	80				
Prep Area	36	1	36				Work Bench,sp. for Snail and Kevlar traps
Room Circulation 10%			62				
Armorer's/Toolmarks Room	120	1	120	120			Note 5
Bullet Recovery Tank Room	120	1	120	120			8 LF Lab Bench

Staff Subtotal	**5**

Departmental Net Area		2,967
Departmental Gross Factor:	15%	445
Includes: Interior walls, departmental circulation and departmental services		
Department Gross Area		**3,412**

Notes:

1. 8 lf bench per analyst, (1) Unit - Bullet standards in map drawer base cabinets.
2. High-density mobile storage for 750 handguns, 300 long guns
3. 9 ft wide, 55 ft firing line to target, shooter's space excluding trap
4. 5' fume hood and exam bench, include sink in room and four 2.5' x 5' mobile tables
5. Shop sink, bench vice, toolmarks bench, armorer's bench, ultrasonic clean.
6. 5' fume hood and exam bench, include sink in room and two 2.5' x 5' mobile tables

LATENT PRINTS

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Supervisor	120	1	120	120	1	PO-2	Private office
Open Office Area				254			
Analysts Office Workstation	64	2	128		2	WS-2A	
Files	18	2	36			FC-2	
Copy Area	48	1	48				
Interaction Space	80	0	0				Includes reference shelving
Room Circulation 20%			42				
AFIS Room				266			
Adobe Workstation	20	0	0				
AFIS Workstation	50	3	150				
Support Bench	36	2	72				8 If per individual
Room Circulation 20%			44				
Bio-vestibule	64	1	64	64		BV-1	Sink, lab coats, wall cabinet, docking stat.
Main Laboratory				996			
Analysts Lab Workstation	90	3	270			LWS-3	
Lab Support Bench	36	3	108			LCT-3	Note 1, 5
Dusting Hoods	36	1	36			LE-2	4'
Cyanoacrylate Cabinet	30	1	30				8-ft wide, multi-chambered cabinet
Ninhydrin Hood	48	2	96				6 ft hood
6' Fume Hood	36	1	36			LE-2	
Safety Station	18	1	18			SS-1	
Lab Sink	15	2	30				
Evidence Cart Parking	6	2	12				
Biohazard Waste Disposal	6	1	6				
Shop Sink	25	1	25				
LIMS PC Worksta w/ Scanner	16	1	16				
Reagent Prep Workstation	100	1	100				Note 2
Evidence Lockers	32	1	32			LE-3	
Refrigerator Freezer	15	1	15				
Room Circulation 20%			166				
Evidence Storage Room	48	1	48	48			For large pieces of evidence - eg. ATM
Comparison Room				0			
Analysts Workstation	48	0	0				
Room Circulation 20%			0				
Photo/ALS Workroom				0			Note 3, mobile ALS equipment
PC Laptop Workstation	30	0	0				with laptop large monitors and scanners
Files	18	0	0			FC-2	
Mobile Exam tables	63	0	0			ET-1	(2) 2.5' x 5' adj. ht. mobile tables
Layout Work Area	40	0	0				1 Photo stands
Room Circulation 20%			0				
Storage Room	48	1	48	48			
Exam Room	120	1	120	120			Note 4, 1 Photo stands

Staff Subtotal	**3**

Departmental Net Area	1,917
Departmental Gross Factor: 15%	288
Includes: Interior walls, departmental circulation and departmental services	
Departmental Gross Area	**2,204**

Notes:

1. 8 If bench per analyst, one magnifier on suspended articulating arm
2. 4 ft fume hood, dbl lab sink, prep bench, glasswares washing and storage, lab refr.
3. With ceiling mounted adjustable camera
4. (2) 2.5' x 5' adj. ht. mobile tables, suspended surgical type exam lights, lab bench w/ sink
5. (1) 2.5' x 5' adj. ht. mobile table

BIOLOGY / DNA

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Manager	150	1	150	150	1	PO-3	Private office
Supervisor	120	2	240	240	2	PO-2	Private office
Open Office Area				734			
Analysts Office Workstation	64	6	384		6	WS-2	
Files	18	6	108			FC-2	
Copy Area	48	1	48				
Interaction Space	80	0	0				Includes reference shelving
CODIS Workstations	48	1	48			WS-1	
CODIS Layout Space	24	1	24			OCT-2	6 lf work surface
Room Circulation 20%			122				
CODIS Server Room	40	0	0	0			
Bio-vestibule	64	1	64	64		BV-1	Sink, lab coats, wall cabinet, docking Stat.
State CODIS Extract./Pre-Amp Lab				677			
Analyst Workstation	90	1	90			LWS-1A	
Accesioning Workstation	90	2	180			LWS-1A	
Lab Support Bench	36	3	108			LCT-3	8 lf / analyst
4-foot Hood	36	1	36			LE-2	Biological Hood
Evidence Cart Parking	6	1	6				
Biohazard Waste Disposal	6	1	6				
Refrig/Freezer	15	1	15				
Robot	36	0	0			LCT-1	8 lf
4' PCR Hood	36	1	36			LCT-1	
Pass-Thru	3	1	3				
Storage Space	36	1	36				
Lab Sink	15	2	30				Local polisher
Safety Station	18	1	18			SS-1	
LIMS PC Worksta w/ Scanner	16	0	0				
Lektriever	80	0	0				
Room Circulation 20%			113				
Bio-vestibule	64	0	0	0		BV-1	Sink, lab coats, wall cabinet, docking Stat.
State CODIS Amplification Lab				295			
3130 DNA Sequencer	52	1	52			LCT-2	8 lf per instrument
Robot Instrument	52	1	52			LCT-2	
Thermal Cycler	23	0	0			LCT-1	3 lf bench
Layout Bench	36	1	36			LCT-3	8 lf per instrument
Large Centrifuge	15	1	15				
Real Time PCR	36	0	0				8 lf bench
4-foot Fume Hood	27	0	0			LE-2	
Lab Sink	15	2	30				Local polisher
Evidence Cart Parking	6	1	6				
LIMS PC Worksta w/ Scanner	16	1	16				
Biohazard Waste Disposal	6	1	6				
Refrig/Freezer	15	1	15				
Safety Station	18	1	18			SS-1	
Room Circulation 20%			49				
Reagent Prep Room	160	1	160	160	0		Note 1
CODIS Sample Storage Room	160	1	160	160	0		

BIOLOGY / DNA (cont.)

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Bio-vestibule	64	1	64	64		BV-1	Sink, lab coats, wall cabinet, docking Stat.
Main Forensic Biology Lab				1,093			
Analyst Lab Workstation	90	5	450			LWS-1	
Lab Support Bench	36	5	180			LCT-3	8 lf / analyst and microscopes
4-foot Hood	27	1	27			LE-2	Biological Hood
4-foot Fume Hood	27	1	27			LE-2	
Lab Sink	15	2	30				Local polisher
Evidence Cart Parking	6	4	24				
Biohazard Waste Disposal	6	1	6				
Lab Refrigerator	15	1	15				
Microscopy Station	18	4	72				4 LF of bench per workstation
Minus 80 Lab Freezer	15	1	15				
Lab Freezer	15	1	15				
LIMS PC Worksta w/ Scanner	16	0	0				
Safety Station	18	1	18			SS-1	
Evidence Lockers	32	1	32			LE-3	
Room Circulation 20%			182				
Exam Room - Large	200	1	200	200			Note 2
Exam Room - Small	150	1	150	150			Note 3
Walk-in Refrigerator	64	1	64	64			

BIOLOGY / DNA (cont.)

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Bio-vestibule	64	1	64	64		BV-1	Sink, lab coats, wall cabinet, docking Stat.
Main DNA Laboratory				811			
Extraction Workstation	90	2	180			LWS-1	
Extraction Robotics - Large	52	0	0			LCT-2	8 LF bench with access both sides
Extraction Robotics - Small	40	4	160			LCT-2	6 LF Benchtop with rear access
Lab Support Bench	36	2	72			LCT-3	8 lf / workspace
Pass-Thru	3	1	3				
4-foot Fume Hood	27	0	0			LE-2	
PCR Robotics (TECAN)	52	2	104			LCT-2	8 LF for robot, computer and layout bench
PCR Prep Workstations	36	2	72				
Lab Sink	15	0	0				Local polisher
Large Centrifuge	15	1	15				
Biohazard Waste Disposal	6	1	6				
Lab Refrigerator	15	1	15				
LIMS PC Worksta w/ Scanner	16	1	16				
Lab Freezer	15	1	15				
Safety Station	18	1	18			SS-1	
Room Circulation 20%			135				
Bone/Teeth Grinding Room				0			
Robot Instruments	40	0	0			LCT-2	6 lf bench
Lab Sink	15	0	0				
4-foot Fume Hood	27	0	0			LE-2	
Layout Bench	27	0	0			LCT-3	6 lf bench
Room Circulation 20%			0				
Bio-vestibule	64	1	64	64		D-1	Sink, lab coats, wall cabinet, docking stat.
Bio-Janitor's Closet	20	1	20	20			
Post Amplification Lab				550			
Thermal Cycler	20	3	60			LCT-2	3 lf bench, Note 1
3130 DNA Sequencer	52	1	52			LCT-2	8 lf per instrument
3500 Genetic Analyzer	52	1	52			LCT-2	8 lf per instrument
Layout Bench	54	2	108			LCT-3	12 lf bench
Pass-Thru	3	1	3				Equiped with UV and Vacuum
Lab Refrigerator/Freezer	15	1	15				for Reagents
Freezer	15	1	15				
Real Time PCR	36	2	72				8 lf bench
4-ft Fume Hood	27	1	27			LE-2	
Large Centrifuge	15	1	15				
Biohazard Waste Disposal	6	1	6				
LIMS PC Worksta w/ Scanner	16	0	0				
Lab Sink	15	1	15				
Safety Station	18	1	18			SS-1	
Room Circulation 20%			92				
Evidence Storage	80	1	80	80			
Reagent Prep Room	160	0	0	0	0		Note 1
Storage Room	80	1	80	80			Lab equipment and supplies
Minus 20 Freezer - Walk-in	80	0	0	0			
Gowning	24	1	24	24			

Staff Subtotal	**9**

Departmental Net Area		5,744
Departmental Gross Factor:	15%	862
Includes: Interior walls, departmental circulation and departmental services		
Departmental Gross Area		**6,606**

Notes

1. 4 ft fume hood, dbl lab sink, prep bench, glasswares washing and storage, bench space, autoclave, dishwasher
2. Four 2.5' x 5' adj. ht. mobile tables, suspended surgical type exam lights, lab bench w/ sink
3. Two 2.5' x 5' adj. ht. mobile tables, suspended surgical type exam lights, lab bench w/ sink

EVIDENCE PROCESSING

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Vestibule	48	0	0	0			
Evidence Lobby	64	0	0	0			Counter, Wrapping and LIMS station
Public Toilet	65	0	0	0			
Evidence Review Room	80	0	0	0			Note 4
Supervisor	120	0	0	0	0	PO-2	Note 5
Open Office Area				394			
Evidence Drop Off Counter	24	1	24				12' long counter
Evidence Processing Area	80	1	80				
Evidence Workstation	64	2	128			LWS-7	
Files	48	1	48				
Copy Area	24	1	24				
Evidence Mail Processing Area	100	0	0				
Office Work Station	64	2	128		2	WS-2	
Large Mobile Cart Parking	12	0	0				
Mobile Cart Parking	6	0	0				
Room Circulation 20%			66				
Active File Room	80	1	80	80			Storage for 3 years minimum
Laboratory Pickup	40	1	40	40			Counter and LIMS station
Evidence Vault				1,001			
Walk-in Refrigerator	80	1	80				
Walk-in Freezer	48	1	48				
Lab Support Bench	36	1	36			LCT-3	4 LF bench space
Evidence Drying Cabinet	12	1	12				For disipating smells, Lockable
Large Mobile Cart Parking	12	1	12				
Mobile Cart Parking	6	3	18				
Evidence Storage	500	1	500				Note 3
Drug Storage	80	1	80				High density storage, Subdividable
NIBIN Test Fires Room	48	1	48				
Room Circulation 20%			167				
Storage Room	80	0	0	0			Packing and Shipping Storage
Bio-vesibule	64	0	0	0		BV-1	Sink, lab coats, wall cabinet, docking stat.
Drying Room				0			
Unwrap/wrap Area	48	0	0				(2) 30" x 60" mobile tables
Lab Support Bench	36	0	0			LCT-3	4 LF bench space
Drying Cabinets	100	0	0				Multiple sizes, 2 Large, 2 Small
Safety Station	18	0	0			SS-1	
Lab Sink	15	0	0				
Mop Sink	16	0	0				
Room Circulation 20%			0				

Staff Subtotal	**2**

Departmental Net Area		1,514
Departmental Gross Factor:	15%	227
Includes: Interior walls, departmental circulation and departmental services		
Departmental Gross Area		**1,742**

Notes:

1. High density storage, 3x3 safe, secure gun area and freezer
2. High density storage, freezer, drug area and secure gun area
3. Subdividable between incoming and outgoing, separate locable areas for valuables and guns, parking for mobile carts
4. Wrapping Station with (2) adjustable height mobile tables
5. Private office, with windows to see processing

BUILDING SUPPORT

Space/Equipment	Unit Area	2015 Space Quan	2015 Space Needs	2015 Area Subtotal	2015 Staff Quan	Space Standard	Comments
Support Spaces							
Work Room	80	1	80	80			Administrative supplies
Mail Room	80	1	80	80			
Conference Room	200	1	200	200		CR-1	for 8 to 10 people
Janitor - Main	64	1	64	64			
Janitor - Satelite	24	1	24	24			
Public Toilets - multi sex	65	1	65	65			
Public Toilets - Women	65	0	0	0			
Break Room				331			
Vending Area	8	3	24				
Counter Area	24	1	24				with 2 bowl deep kitchen sink
Refrigerator/freezer	20	2	40				
Recycling Bin	8	1	8				
Dish Washer	12	1	12				
Dining Area	15	12	180				
Room Circulation 15%			43				
Bulk Office Supply Inventory	80	1	80	80			
Bulk Lab Supply Inventory	80	1	80	80			Lab Supplies minus chemicals
Bulk Chemical Storage	120	1	120	120			Note 1
Hazardous Waste	36	0	0	0			Locate outside at Loading Dock
Biological Waste	36	0	0	0			Locate outside at Loading Dock
Large Paper Shredder and Storage	36	0	0	0			Locate outside at Loading Dock
Lab Gases Generator Room	24	1	24	24			
Gas Distribution	24	1	24	24			Gas Cylinders
Recycling Area	36	0	0	0			Locate at LD, include cardboard comp.
Loading Dock	80	1	80	80			secure
Shipping/Receiving/Staging	120	1	120	120			secure, accommodate pallettes
Mens Restroom - Staff	80	2	160	160			
Womens Restroom - Staff	80	2	160	160			
Mens Showers & Locker Room	80	0	0	0			20 half high lockers
Womens Shower & Locker Rm.	120	0	0	0			40 half high lockers
Exercise Room	160	0	0	0			
Long Term Storage	200	0	0	0			
Mechanical Room	400	1	400	400			In addition to building gross factor
Electrical Room	200	1	200	200			In addition to building gross factor
UPS	64	1	64	64			
Data/Telecom Room	80	2	160	160			
Security/ Server	64	1	64	64			
Server Room	64	0	0	0			

Staff Subtotal	**0**

Departmental Net Area		2,580
Departmental Gross Factor:	0%	0
Includes: Interior walls, departmental circulation and departmental services		
Departmental Gross Area		**2,580**

Notes:

1 With fume hood and refrigerator and PC Workstation and safety station

6.3 FACILITY SITE SPACE ANALYSIS

The following provides area requirements to support the Forensic Science Laboratory. The information was derived from the Facility Space and Staff Analysis in addition to staff conversations and local zoning laws.

Secure State Vehicle Parking
A new secure yard has been programmed as a requirement both for Property and Evidence as well as parking spaces for 4 state-owned vehicles.

Secure Employee Parking
A secure Staff parking area has been included in this Program Statement which includes 31 parking spaces and provides one space for each staff member.

Public Parking
This Program Statement also includes public space for visitors coming to the facility and includes 10 visitor's parking spaces.

Loading Dock and Unloading Area
A loading and unloading area has been programmed for one loading dock bay and the ability to stage and unload a semi-tractor trailer.

Landscaped Area
Landscaping around the facility is included and is designed as a buffer zone to deter individuals and vehicles and protect the facility from potential harmful acts.

Also, based upon local zoning requirements, minimum landscape areas will need to be developed as part of this project. For the purposes of this Program Statement, the programming team has assumed that all the crime lab functions would be located on one level. If the design solution requires a multi-level scheme, then the space allocated must be revised accordingly.

Mechanical / Electrical Yard
Additional space has also been programmed for mechanical and electrical equipment required to support the new forensic crime laboratory.

The Site Requirements Summary below tabulates the site area requirements based upon the new forensic laboratory being a one story facility. If the design solution creates a multi-story facility, the overall site requirements can be reduced accordingly.

SITE REQUIREMENTS

Site Elements	2014 Site Requirements
PARKING	
(31) Staff Parking - Secure	17,825
(10) Visitor's Parking	5,750
(4) State Vehicles' Parking	2,300
Loading / Unloading	1,000
Landscaping	4,000
Mechanical / Electrical Yard	2,000

Total Net Site Area Square Feet (Excludes Building Footprint)		32,875
Site Circulation Factor (Includes: on-site circulation and interior roadways)	10%	3,288
Total Gross Site Area Square Feet (Excludes Building Footprint)		36,163

Notes:*

Flexibility and Expandability:
Forensic science laboratories are evolving at a rapid rate. The development of new laboratory procedures, changes in crime trends, and political considerations all tend to influence the type of laboratory work and quantities of evidence being processed in the laboratory. As a result, forensic science laboratories frequently experience need for growth and change over their life-span.

To address these issues, the building organizational concept must provide expansion options to accommodate the growth of laboratory programs, staff increases, and addition of new programs and equipment.

6.4 SPACE STANDARDS

Space Standards were provided in the original Program Statement as a functional diagram of a space that is used as a basis to establish the required work area and space requirements for particular functions within the crime lab in order to determine the required space square footage for this project.

Provided are two separate series of Space Standards:

- Office space standards
- Laboratory space standards

Refer to Section 6.4 of the original Program Statement if the reader is interested in the complete Space Standards that were developed for this new facility.

6.5 ADJACENCY DIAGRAMS

Adjacency Diagrams were provided in the Program Statement to address the adjacency relationships of rooms, or spaces, within the building. In order to function properly and efficiently it is necessary to locate a certain space or area adjacent to another space or area.

Refer to Section 6.5 of the original Program Statement if the reader is interested in the complete Adjacency Diagrams that were developed for this new facility.

6.6 PROJECT REQUIREMENTS OVERVIEW

This section of the Program Statement provides the general requirements for the site and project. Information is first provided for a future site and is followed by requirements for the laboratory and the building. This is then followed up with the specific requirements for individual rooms within the facility in the form of Room Data Sheets.

6.7 Project Codes Required

6.8 Site Design Requirements
- Site - Environmental
- Site - Geotechnical Engineering
- Site - Civil Engineering
- Site – Overall Requirements
- Site - Landscape Architecture

6.9 Laboratory Design Requirements

6.10 Building Design Requirements
- Architecture Design Criteria
- Structural Design Criteria
- Acoustical Design Criteria
- Vibration Design Criteria

Note: Laboratory and Building MEP (Mechanical, Electrical and Plumbing) requirements are found in Section 8 of the original Program Statement.

6.7 PROJECT CODES REQUIRED

Outlined in this section are the regulatory requirements this project will be required to conform with including: Building Codes, Zoning Regulations and Lab Accreditation Standards.

Building Code and Facility Review
- International Building Code, 2009 Edition
- International Mechanical Code, 2009 Edition
- International Energy Conservation Code, 2009 Edition
- ASHRAE Guidelines
- International Plumbing Code, 2009 Edition

- NFPA 101 Code and Life Safety Standards adopted by State Fire Marshal, 2000 Edition
- Occupational Safety and Health Administration Standards (OSHA)
- National Electrical Code, 2011 Edition

Local Zoning Review

Prior to site selection, the local zoning requirements need to be determined.

Accreditation Standards

ASCLD/LAB offers Accreditation under three (3) voluntary programs in which any crime laboratory may participate to demonstrate that its management, personnel, quality system, operational and technical procedures, equipment and physical facilities meet established standards.

ASCLD/LAB began accrediting crime laboratories in 1982. Since that time, the standards and requirements for accreditation have evolved through numerous versions of the accreditation manual. The evolution of standards and accreditation requirements has been very methodical and has been accomplished with approval of the Delegate Assembly. Every change in the program has been consistent with the stated objectives and mission of the accreditation program and has been the result of a recognized need to enhance the effectiveness of the program in achieving its stated objectives.

In April 2004, ASCLD/LAB embarked upon a dual-track accreditation program which allowed a laboratory to opt for accreditation under the longstanding program which was designated as the ASCLD/LAB Legacy Accreditation Program or to seek accreditation under a new program named the ASCLD/LAB-*International* Accreditation Program that is based upon ISO 17025 standards and supplemented by forensic specific requirements taken from the ASCLD/LAB Legacy Program. The option to seek accreditation under either program continued for five years. Effective April 1, 2009, ASCLD/LAB no longer accepts new applications for accreditation under the ASCLD/LAB Legacy Program.

Although ASCLD/LAB will no longer accept new applications for accreditation under the Legacy Program, full support and program compliance monitoring will be given to those laboratories accredited under the program. ASCLD/LAB will accept applications to add new accredited disciplines under the Legacy Program for those laboratories that are accredited under the program.

On May 18, 2008, ASCLD/LAB introduced a new accreditation program for breath alcohol calibration laboratories called the ASCLD/LAB-*International*

Calibration Accreditation Program. This program is based upon ISO 17025 standards supplemented by forensic specific standards for breath alcohol programs.

6.8 SITE DESIGN REQUIREMENTS

Site - Environmental

Once a site is selected, a Phase I Environmental Site Assessment will be required and will need to be in general conformance with ASTM E1527-05.

Site - Civil Engineering

Once a site is selected, the project civil engineering criteria should include at a minimum the following information:

- Existing and proposed water and sewer lines.
- Existing and proposed gas line(s).
- Existing and proposed storm sewer lines.
- Existing and proposed fire water lines.
- Existing and proposed electrical lines.
- Existing and proposed telephone and communication lines.

Site - Overall Requirements

Site access:

access needs to be provided from at least two directions. This is required in order to ensure access to the site despite traffic accidents, street work, and acts of sabotage, and also to maximize the free flow of traffic to and from the site.

Site Security:

It is recommended that the site provide four levels of security for the site. These security levels are as follows:

- Level 1, unsecured site area: The level 1 unsecured site area, located outside the facility security zone, accommodates general visitor parking and allows these visitors to enter and leave the parking area without security barriers.

- Level 2, Partially Secured. This parking area should be fenced, and would be used by people having the type of business at the facility which would require special vehicular access. Access to shipping/receiving, venders picking up biological and toxic waste, dumpster replacement, and police officers delivering evidence might use this parking area. It is considered "partially" secured, because it should be fenced and gated, with the gate left open during working hours, and locked after hours.
- Level 3, Secured. Parking for staff, state vehicles, pool cars and other specialized law enforcement vehicles should be parked in the Level 3 parking area. It should be secured 24 hours, surrounded by a security fence, and access to the parking area should be restricted, preferably by use of a proximity access device.
- Level 4, Secured and Monitored. : Mechanical, electrical and other outside building support systems will be included in this area. It should include a security fence, with access to only a selected few. In addition, the area should be covered with electronic security devices such as CCTV or intrusion detection devices and should be electronically monitored.

Site lighting:

Include site lighting that is comparable to that of a college campus offering night classes. Adequate lighting is required in order to deter vandalism and help maintain security.

- Provide excellent lighting to all areas of the site, not just the parking areas.
- Avoid wall washer lighting fixtures which illuminate the building walls. Instead, direct site lighting to illuminate the ground plane which surrounds the building and areas of possible intrusion.
- Provide path lighting.

Site - Landscape Architecture

Described below is a summary of systems and design criteria for landscape architecture. The descriptions reference a minimum level of quality, operation and maintenance. Actual design and item selections may change during the design process. The design criteria includes:

- Plant Material
- Irrigation System
- Hardscape
- Sustainability

- Design Considerations

Plant Material

Plant selection shall be based on the plant's adaptability to the region. Landscape design will be coordinated with the architectural characteristics of the building and community where the facility is located. The use of native plant material for the building shall be incorporated into the design. The plant palette and placement will be attentive to the color, texture, materials, and program of the building. The plant selection will be developed to provide security and deter individuals from getting too close to the facility.

Irrigation System

An irrigation system shall be specified to water plants when needed utilizing drip irrigation so water can be conserved. Reliable and proven system components will be specified to ensure a durable and relatively maintenance free system is installed that conforms to local standard practices.

- The components of the new drip irrigation systems will include a meter, backflow preventer, electric control valves, emitters, controller, and rain sensor. The rain sensor will shut the system off when humidity reaches a set point.
- Major components of the irrigation system shall be installed in protected, accessible locations. Controllers and remote sensing stations will be placed in vandal-proof enclosures.
- Drip emitters ensure that the water is deposited directly to the root zones with little loss to evaporation. The low-flow of this type of system eliminates excess water run-off common to other types of irrigation systems.
- The irrigation systems shall be zoned so different areas and plant types can be watered at different times.
- This combination of native and drought tolerant plant material as well as the highly efficient drip irrigation system will significantly reduce the amount of water needed from a more traditional landscape design.

Hardscape

Hardscape areas will generally consist of concrete and will be located on the site where the building personnel will congregate. Potential areas for the introduction of hardscape are at building entries, courtyards, and new walkways.

Hardscape design will also include security elements such as bollards low concrete walls to deter vehicles from getting too close or hitting the facility.

Sustainability

Low maintenance materials, non-invasive xeriscape and carefully designed storm water systems can help reduce costs and effort. Sustainable design benefits projects with healthier, longer lived plants that rely less on pesticides, herbicides and fertilizers, minimize water use, require less maintenance and increase erosion control.

Design Considerations

- Avoid dense shrubbery within 10 feet of the building.
- Design landscaping to deter someone from hiding on the site after dark, or planting explosives near the building.

In addition to the above, the City of Lincoln has landscape standards for new projects which need to be followed for this project and have been developed to establish landscape regulations that are intended to:

Enhance the aesthetic appearance of development in all areas of the City by providing standards relating to quality, quantity and functional aspects of landscaping and landscape screening.

- Increase compatibility between residential and abutting commercial and industrial land uses.
- Reduce heat and glare generated by development.
- Protect public health, safety and welfare by minimizing the impact of all forms of physical and visual pollution, controlling soil erosion, screening incompatible land uses, preserving the integrity of neighborhoods and enhancing pedestrian and vehicular traffic and safety.
- Establish a water conservation plan to reduce water consumption in the landscape environment by using drought tolerant principals.

6.9 LABORATORY DESIGN REQUIREMENTS

This section provides design criteria for the Forensic Crime Laboratory and includes necessary information to enable the design team to design the project successfully. These criteria cover design issues pertaining to the laboratory, and supplements the previous information provided in the "Space Analysis," "Space Standards" and "Adjacency Diagrams,". General building design criteria is described following this section.

Refer to Section 8 of the original Program Statement dated May 20, 2011 for the Building and Laboratory MEP Systems Design Requirements.

It should be understood that this design criteria constitute performance requirements, and are not intended to represent design solutions. It is expected that the design team members will develop specific solutions for the design of this new facility and that their solutions will be based on the criteria set forth in this section.

Laboratory Technology Assessment

Trends in programming and planning of new forensic science facilities include the following items:

- A shift away from fixed laboratory casework applications and toward the use of 'plug & play' furniture systems to allow for ease of rearrangement and provision for flexibility of space and services to accommodate future change in investigative techniques and any new instruments required. These new systems feature caster mounted base cabinetry to allow for mobility.

- Once prominent central service systems, such as piped specialty gases, are no longer the norm. Instead, as determined by initial capital cost versus ongoing operational costs, modern scientific instrumentation is provided with dedicated specialty gas generators, or by the traditional use of replenishable cylinder gas.

- While the need for traditional piped service systems have waned, the need for increased, clean power has increased dramatically as more scientific instrumentation has made its way to the investigative environment.

- In concert with the increased demand for electrical power, comes the need for an integrated and well distributed data network. This increase in data requirements, and the ability of the various instruments to communicate with central systems, has led to the development of

Laboratory Information Management Systems (LIMS). The development and application of LIMS, in turn, has caused yet more need for an extensive data network.

- And, the primary trend is toward energy conservation and sustainability. Sophisticated control devices are placed on environmental systems, such as lighting and exhaust. While additive to initial cost, life cycle costs are such that pay-back is within acceptable time frames, and ongoing financial savings are accumulated thru energy use reduction.

General Laboratory Design Criteria

- "Essential" facilities: The Forensic Science Laboratory is **not** required to be classified as an "essential" facility by Building Codes.

- Flexibility & Expandability: Forensic science laboratories are evolving at a rapid rate. The development of new laboratory procedures, changes in crime trends, and political considerations all tend to influence the type of laboratory work and quantities of evidence being processed in the laboratory. As a result, forensic science laboratories frequently experience need for growth and change over their life-span.

- Building Organization. The building organizational concept must provide expansion options to accommodate the growth of laboratory programs, staff increases, and addition of new programs and equipment.

- Biological Hazards / Chemical Hazards: Recent regulatory requirements issued by the United States Occupational Safety and Health Administration (OSHA) mandate the need to provide protection for workers encountering biohazards materials. The forensic science laboratory investigates a relatively-high number of cases which originate from the criminal community, known to carry a higher incidence of dangerous diseases. Primary risks to staff are posed by such dangerous pathogens as Hepatitis A, B, & C; Tuberculosis; HIV (AIDS); and Aspergillus Fumigatis, to name a few. High- risk materials also include all serological evidence (evidence saturated with body fluids or biological tissue). These materials must be treated with exceptional care.
  1. In view of the biologically- and chemically-hazardous nature of the work in each laboratory unit, it is important that the laboratory staff be provided with separate office / report writing areas in a "clean" space outside of the laboratory.

2. It is recommended that all air-ventilation systems serving laboratory spaces where biological or chemical agents are present, be served with independent air handling systems with once-through (100%) exhausted air flow.
3. HEPA filtration is required for exhaust from the firing range in the firearms / toolmarks section.

- Lab Office environments: All of the laboratory sections will include separate report-writing workstation areas near their laboratory space. These areas should be designed as standard office space with access to the laboratory corridor and adjacent laboratory area through a laboratory vestibule. Each forensic scientist's 'clean' furniture workstation will be a standard-sized, modular-systems, open office. This office space has some degree of visual access to the adjacent laboratory it serves.

- Laboratory vestibule: Vestibules are provided at the entry points to laboratory areas to provide a physical and air (HVAC) separation between the biohazards zone and clean office areas. These vestibules minimize the potential transfer of biological contaminants to clean areas. When leaving a biohazards zone, staff members are required by policy to remove laboratory coats and to clean- up prior to moving to the office area. Similarly, when moving from the clean office zone to the biohazards area, staff members are required to put on protective laboratory clothing.
  1. This space will contain a hand-washing sink with hands-free controls, coat hanging rack, and storage cabinets.
  2. Other special features in the vestibule include docking stations for laptops, spill kits, a fire extinguisher cabinet, safety kits, electrical panels, and a plumbing systems control panel (RO water, hot water, cold water, vacuum, compressed air or gases) for the lab section the vestibule serves.
  3. The vestibule must be maintained under negative pressure relative to the outer clean areas, and positive pressure relative to the biohazards area in order to maintain a flow of clean air from the clean office environment to the potentially biohazards lab zone. This containment strategy greatly reduces the risk of odors and airborne contaminants escaping from the laboratory areas.

- Doors: 4’ – 0” doors or double doors (door and a half) are required from corridors to major laboratory spaces.

1. Provide standard laboratory doors consisting of a 48-inch active leaf and an 18-inch inactive leaf to all laboratory spaces and equipment rooms. Those spaces will include access from non-laboratory spaces to all main laboratorie and all instrumentation rooms.
2. Door lites are required in all doors except where a darkenable room is required or in doors leading to evidence storage rooms.
3. Gasketed doors may be needed where required by the mechanical engineer for maintaining room pressurization.

- Primary Circulation Corridors. Provide a minimum of 7- foot width, preferably 8-foot width, to all primary circulation corridors throughout the laboratory portion of the building.

- Fume hoods: All fume hoods will be Class A, low flow or low velocity, chemical fume hoods for either a variable air volume (VAV) or constant volume (CV) system, as recommended by the mechanical engineer.
  1. Install all fume hood exhaust fans in a rooftop penthouse and isolate them from the building structure and laboratory spaces.
  2. Equip all chemical fume hoods with GFI fume hood power outlets and explosion-resistant light fixtures.
  3. Make available plumbing options that include vacuum, compressed air, water, and other gasses. Additional lab gases may be required in special applications and shall be coordinated with each User Group during the actual design of the new facility.
  4. Provide all fume hoods with a UL listing label.

- Biological safety cabinets: Biological safety cabinets are used instead of fume hoods when two additional requirements must be met which cannot be achieved with fume hoods:
  1. Additional user protection is required from biological agents. This added protection is achieved by means of a lowered sash height and the use of the sash as a splash guard;
  2. Evidential material in the hood must be maintained free of contamination from the air which passes over it. Biological safety cabinets deliver a supply of HEPA filtered air over the samples contained within to avoid contamination.
  3. All biological safety cabinets shall be UL-listed Class II Type B2 or B3, complying with NSF-49; equip cabinets with GFI power outlets and light fixtures. Lighting should include standard task lighting and can include an ultraviolet disinfectant light if required by the laboratory staff. Plumbing options include vacuum, compressed air, and other gasses.

4. The control interfaces and HVAC requirements are quite different from fume hoods. The HVAC engineer will need to review pertinent sections of the biological safety cabinet specification, relating to interfacing between the HVAC systems design and the hood sash controls, monitors, etc.

- Articulating arm / task-exhaust units (snorkels): Task-exhaust units will be located selectively where local exhaust would be advantageous to laboratory staff for small desk-top procedures involving odoriferous evidence or procedures, instrument exhaust, or removal of heat from instruments. Task-exhaust units would never be used in place of a fume hood or biological safety cabinet.
  1. Task-exhaust units are UL-listed, as these units contain a task light as well.

- Work Surfaces. Countertop work surfaces in wet chemistry and biological sciences spaces shall be epoxy resin material. In any areas where evidence containing biological fluids will be examined countertops could be stainless steel. Most other laboratory work surfaces could be chemical resistant plastic laminate, however, for consistency, this facility has been programmed with epoxy resin tops throughout the facility.
  1. In addition, a few selected spaces throughout the facility will require wood work surfaces such as the Firearms Section.
  2. Work surfaces in non-laboratory areas, such as offices, administration, and clerical areas can be standard plastic laminate.

- Laboratory Sinks. Provide epoxy resin sinks in all epoxy resin countertops. All other sinks shall be stainless steel.

- Flexible Modular Laboratory Casework: It is recommended that flexible modular laboratory casework systems be specified throughout the laboratory space. If this is cost prohibitive, fixed laboratory casework should be installed along perimeter walls, and laboratory island and peninsula benches should be flexible modular systems.

- Laboratory tours: The facility will be designed so that guided tours of the laboratory can be conducted at the option and discretion of the laboratory;
  1. Tour groups are not to be allowed any closer to the laboratory spaces than the outside corridors serving these spaces.
  2. Viewing windows can be installed in the corridor walls to facilitate viewing of certain laboratory areas.

3. Display cases will be used to illustrate graphically the functions of each laboratory section in order to further educate tour groups. These are placed next to the viewing windows to enhance the learning experience.

- Viewing between laboratory spaces: As a general safety feature, it is desirable that laboratory staff members be able to maintain visual connection between adjacent laboratory spaces. The use of interior windows between laboratory spaces not only enhances safety, but also enhances the overall laboratory environment.

- Evidence Storage Space Design Guidelines: Securely construct the evidence storage rooms in order to uphold the chain-of-custody while the evidence is in the jurisdiction of the forensic laboratory. Secure wall construction will consist of heavy-gauge, hardened, steel security mesh applied to the perimeter of stud walls, or the use of concrete masonry wall construction. The security mesh would be specified during the design phase by the prime architect in division 9. Extend the wall assembly up to the structural deck above or to a security ceiling.
  1. Lay out lighting at high-density storage areas perpendicular to the row lengths so lighting is provided at all rows. If lighting is parallel to rows, some will be lit and some will not.
  2. Provide a security system motion detector in the evidence storage room.
  3. Well-ventilate the evidence storage spaces with 100% exhaust to remove odors.
  4. Ventilation is important in all evidence areas. Provide a minimum of 12 air changes per hour in the main evidence storage area and 15 air changes per hour in areas where drugs and marijuana are stored or as designed by the mechanical engineer.
  5. Provide a chemical storage cabinet for chemical samples such as those received from an arson case.
  6. They shall be a lockable room with partitions to the structure above and equipped with adjustable stainless steel shelving.

- Biological and hazardous Waste Storage: These areas shall be designed with proper ventilation and with 100% exhaust.

- Emergency eyewash and shower units: Provide combination emergency eyewash and shower units no more than 10 seconds walk from any point in the laboratory in accordance with ANSI Z358.1-1998 regulations. Utilize manufactured products, not site- built units, and

assure ADA compliance. Provide a hard plumbing drainage connection from the eyewash bowl drain.

1. At each laboratory sink, provide a deck-mounted, drench hose emergency eyewash for added safety. Such eye- wash units are common practice and are expected by most laboratory staff.
2. Locate at least one combination emergency eyewash and shower unit outside the laboratory areas, in each primary egress corridor. This recommendation is for the use of anyone who must exit the laboratory space due to chemical fumes resulting from an accidental spill.

- Pressurization in lab spaces: Labs generally are to be under negative pressure relative to adjacent office and corridor areas. This is to ensure that airborne contaminants and fumes stay in the lab areas. Flow of air should always be from clean areas (i.e. offices and corridors) to lab areas.
  1. Try to avoid excess negative pressurization to the exterior to prevent infiltration of moisture and exterior dust. This issue needs to be reviewed with the prime architect and engineer relative to the design of the exterior envelope.

- Instrument rooms: Requirements for instrumentation rooms are as follows:
  1. Supplemental cooling: Instruments in these rooms will produce excess heat. Therefore, equip these rooms with a cooling system designed accordingly.
  2. Instrument Exhaust: To minimize supplemental cooling requirements, a local exhaust unit is required at instrument workstations to exhaust heat or chemical fumes. Additionally, an exhaust port is required in each vented base cabinet where the pumps will be housed. Local exhaust of excess heat from instruments can greatly decrease the need for supplemental cooling of the instrument room.
  3. Ultrapure laboratory gases: Various instruments in these rooms will consume nitrogen, hydrogen, helium, and medical grade air, which must be plumbed to ultrapure laboratory gas fittings located on the laboratory instrument benches. Hydrogen will be delivered from gas generators or cylinder-fed, while helium and nitrogen are to be cylinder-fed. The hydrogen gas generators would be specified by the plumbing engineer as an integral part of their laboratory gas distribution system based on gas usage capacities for each instrument. Pipe all ultrapure gases through a stainless-steel

laboratory gas distribution system having a purity level of 99.999%.

4. The stainless steel piping should be delivered to the job site capped and bagged to maintain this level of purity from the factory. The entire ultrapure gas distribution system should be designed by the lab plumbing engineer and must be constructed and installed by a specialty gas contractor who is highly experienced in this kind of work. The following UHP gases are limited to the instrument rooms and will be located on subsequent lab plans.
5. UHP Helium: 99.999% purity cylinder fed.
6. UHP Nitrogen: 99.999% purity cylinder fed.
7. UHP Hydrogen: 99.999% purity generator or cylinder-fed.
8. UHP Argon: 99.999% purity.
9. UHP spare instrument gas: 99.999% purity.
10. Lab Compressed air: A medical-grade compressed air system will need to be designed by the plumbing engineer capable of delivering a minimum of 110 psi of pressure to the bench top lab gas fittings. This will be piped to the fume hoods and bench air outlets. Medical grade quality purity needs to be defined by the engineer and verified by the lab, but should be at least 99.95% pure.
11. UHP gases will be plumbed to ultrapure quick disconnect gas fittings located on the lab benches. The bench top fittings and the lab gas distribution system will be designed and specified by the engineer. Keep in mind that the lab gas piping system (including bench top fittings) must be installed by a specialty gas contractor, who should be pre qualified.
12. Gas flow rates and pressures for each instrument for each gas need to be verified with the lab staff.
13. There should be a recessed gas annunciator panel in the instrument room containing the annunciator device to alert staff when one of the gas cylinders is empty. Additional gas dryers and filters may be installed by the lab staff in line at the instruments.
14. The manifolded gas cylinders will be located in the gas cylinder room at the ground floor loading area. The gas cylinders should be manifolded in pairs, with an automatic, switch-over device. The dual manifolded system enables the gas system to deliver uninterrupted gas when one cylinder goes dry. The lab gas distribution system also should have a two stage regulation system which first decreases the 2,000 psi cylinder pressure to a lower level which is manageable by the lab gas piping system. The second stage of pressure regulation occurs at or near the

instrument room, stepping the pressure down to a level that the instrument can tolerate, generally approximately 100 psi. The gas system also should include an alarm to alert lab staff when one cylinder is empty so that it can be replaced before the other one goes empty. From the manifolds, gasses should be plumbed to the instrumentation room through stainless steel piping.

15. Power: Instrumentation consumes large amounts of power and requires dedicated circuits, emergency power, and UPS. In the instrument rooms, provide a two-compartment electrical raceway with 8 electrical outlets for each 8 feet of instrument bench. Provide a minimum of 2 dedicated, 120v, 20 amp circuits at each 8 feet of instrument bench. Provide computer network outlets spaced as required for the instrumentation, but no less than 4 foot on center. As some instruments require 220 volts as well, provide one 220v outlet for each 8 feet of instrument bench. Pumps shall be located in ventilated cabinets below the counter. These cabinets will be exhausted and will need to have a duplex electrical outlet for the pumps.

- Exam (search) rooms: Exam rooms require a 10'- 0" high ceiling for installation of the ceiling-mounted photo / light track systems.
  1. The exam room ceilings should be gypsum board.
  2. Exam rooms should be designed with low velocity air flow to avoid disturbance of small evidential particles.
  3. Provide down-flow air in exam rooms. The air flow in exam rooms should be supplied from the ceiling and exhausted from wall exhaust grilles located 16" above the floor. This provides a laminar flow of air from high to low, minimizing contamination of evidence.
  4. Provide a combination of incandescent lighting and fluorescent lighting in exam rooms. This reduces eye fatigue while doing tedious examination of evidence.

<u>Laboratory finishes:</u>

- Flooring:
  1. Chemically-resistant, heat-welded, homogeneous seamless, vinyl flooring in most laboratory spaces.

- Walls:
  2. Paint walls with latex paint over gypsum board surfaces in office areas and epoxy paint in lab areas and over CMU surfaces. Provide epoxy resin finish in evidence drying rooms.

- Ceilings:
  1. In laboratory spaces where there are special containment and pressurization requirements, use hard ceilings constructed of suspended gypsum board systems.
  2. Use acoustical lay-in ceilings in most laboratory spaces.
  3. Lab acoustical ceilings should be similar to Armstrong Ultima with NRC of .7 and reflectance of .9.
  4. All exam room ceilings should be gypsum-board for better environmental control.
  5. In special applications, provide vinyl-coated, lay-in ceilings in laboratories. At labs where vinyl-coated ceilings are needed, use a clean room ceiling, with a high NRC and high light reflectance.

- Floor slopes:
  1. Slope the floor at the ballistic recovery tank to a floor sink. Waterproof the entire floor area at the ballistic recovery tank.

INDIVIDUAL LABORATORY SECTION DESIGN CRITERIA

Lab Administration / Quality Assurance

- General Criteria. This section should be designed using standard office design criteria.

Trace Evidence

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
  1. Low velocity air flow: This Section requires low velocity air flow to avoid disturbing small particles of evidence such as hairs and fibers. This can be achieved by means of larger ducts, special diffusers, and a greater numbers of diffusers.
- Instrumentation. The instrumentation units in this space will produce heat and excess noise. The building systems included in this space should be designed accordingly.

Toxicology

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
- Instrumentation. The instrumentation units in this space will produce heat and excess noise. The building systems included in this space shall be designed accordingly.

Controlled Substances

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
- Special Case Exam Room. This space shall serve multiple functions. It shall be designed as a wet chemistry space for the examination of large narcotics cases, such as bricks of cocaine or other powdered narcotics Finally, this room shall be used to examine evidence from clandestine laboratories. Ventilation in this room should be directional laminar flow from one end of the room to the other.
- Instrumentation. The instrumentation units in this space will produce heat and excess noise. The building systems included in this space shall be designed accordingly.

Firearms

- Office Spaces. Office spaces for this section shall be designed in using standard office design criteria.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories.
- Firing Range
  1. The range shall be a 9-foot wide, single line ballistics testing firing range. There should be 55-feet minimum between the firing line and the bullet trap.
  2. The range shall supply from behind the shooter in a laminar flow manner to the bullet trap. 25% of the air should be exhausted within 15 feet of the firing line, and the remainder shall be exhausted at the bullet trap. Air velocity downrange should be 200 feet per minute.

3. The range shall be acoustically isolated from surrounding spaces.
4. Wall and ceiling construction (and floor construction if above the ground floor) shall be 8-inch thick concrete or fully grouted 8-inch concrete masonry units. Ceiling height should be 11-feet minimum.
5. The entire length of the range shall be equipped with steel deflector baffles designed to protect light fixtures and other projections, and to either direct misfired rounds down range, or to trap misfired rounds.

- Bullet Recovery Tank Room
  1. This room will house the equipment in which a gun is fired into a tank of water in order to recover the undamaged bullet projectile for examination.
  2. This room shall be acoustically isolated from surrounding spaces.
  3. Wall and ceiling construction (and floor construction if above the ground floor) shall be 8-inch thick concrete or fully grouted 8-inch concrete masonry units.
  4. The type of water recovery tank shall be a horizontal unit, fully exhausted, with a circulating chlorine filtration system. Minimum length shall be 12-feet.

<u>Latent Prints</u>

- Office Spaces. Office spaces for this section shall be designed in using standard office design criteria.
- General Latent Print Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry laboratories.

<u>Biology / DNA and State CODIS</u>

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- General Laboratory Criteria. The laboratory spaces shall be designed using standard design criteria for wet chemistry and biological sciences laboratories. Provide at least one lockable base cabinet in the laboratory casework of each workstation in the Main Laboratory for securing evidence.
- Walk-In Refrigerator. This walk-in unit shall be designed like a typical food service walk-in refrigerator. The cooling system shall have totally redundant equipment systems so that if one cooling system fails the back-up systems will automatically take over. It also shall be connected to the building's emergency generator.

- Amplification Lab. Airborne DNA product from these rooms could potentially contaminate DNA in other areas of the Biology / DNA Section. Therefore, all these rooms must be designed to prevent exfiltration. Features that should be included to accomplish this are:
  1. Bio-vestibule. Access to these rooms shall be through an interlocking vestibule, where staff will leave their lab coats and other protective attire when leaving these rooms.
  2. Negative Pressure. These rooms shall be under negative HVAC pressure relative to adjacent rooms.
  3. Restricted Removal. No equipment, materials or supplies shall be allowed to be removed from these rooms through any other spaces of the Forensic Biology Section. A restricted access door or hatch from these rooms to the main exit corridor can be incorporated in the design to accomplish this.

<u>Evidence Processing</u>

- Office Spaces. Office spaces for this section shall be designed in accordance with industry accepted standards for office design.
- Incoming and Outgoing Vaults. These spaces shall be designed for security, with floor-to-ceiling walls containing security mesh, and electronics security systems as determined.
- Evidence Storage. Provide warehouse storage facilities for evidence, using pallet storage with forklifts, or man-lift systems where applicable.
- Cash Storage and Cash Counting Rooms. These spaces shall be designed for security, with floor-to-ceiling walls containing security mesh, and electronics security systems as determined.
- Walk-In Cooler and Freezer. These walk-in units shall be designed like a typical food service walk-in refrigerator. The cooling system shall have totally redundant equipment systems so that if one cooling system fails the back-up systems will automatically take over. They also shall be connected to the building's emergency generator.

6.10 BUILDING DESIGN REQUIREMENTS

Architectural Design Criteria

General building design requirements are listed below: Refer to Section 8 for the Building and Laboratory MEP Systems Design Requirements.

- Exterior walls: Exterior wall materials should include bullet-resistant materials such as concrete or masonry construction. Ground floor window sill height should be a minimum 4'-0" above the finished floor in order to reasonably protect seated occupants from a weapon fired from the surrounding site. The 48" high window sill also coincides with the top of the electrical raceway, which is located just above the backsplash. Window glazing should be sufficiently reflective to prevent daytime viewing into the building from the exterior, while not adversely altering color rendition of evidence being examined. Window frames at the sill should not project more than 1-3/4" (preferably less) from the exterior face of the glass. If windows are recessed, slope the sills at the exterior down at 45° minimum in order to prevent the placement of combustibles / explosives next to the window.
- Mechanical locking devices: The facility will require numerous styles of mechanical locking devices. For durability and less maintenance requirements, mortise mechanical locks are recommended that match the electrified mortise locks.
  1. Some of the doors equipped with mechanical locks may require door position switches. These switches indicate if the door is open or closed. If a door with a door position switch is opened, an alarm will be transmitted to the security control location. If a camera is positioned to view the door, it would begin to record the scene up to 10 seconds prior to the alarm.
  2. Exit doors should have door position monitoring, exit hardware, and bolt position sensors. It is not recommended to have any exterior hardware on the exit doors other than a key cylinder and fixed door pull only.

Structural Design Criteria

Once a site is selected for this new facility, the structural systems can be designed accordingly. At a minimum, the structural design should be based upon the following:

- Foundations and slabs on grade shall be designed in accordance with a geotechnical report to be completed during the design phase of the project.

- Shear walls in the form of cast-in-place concrete or masonry shall be used to resist seismic and wind lateral forces located on the perimeter of the building.

- The main building structural systems shall be cast-in-place concrete or structural steel.

Acoustical Design Criteria:

Noise can affect both personnel and equipment within the building and, if projected in excess into the environment, can impact neighboring buildings. Control of HVAC noise and the careful selection of relevant architectural details can improve communications, speech privacy, and the general condition of work environments. Proper noise control design can also reduce long-term, work-related hearing damage, fatigue, and general annoyance. It is best to consider noise control during the design stage rather than retrofit potentially more-costly noise control measures later. The following are some general comments related to acoustics:

- HVAC design: HVAC layouts must be consistent with the noise requirements. Whenever possible, large ducts should not run above noise sensitive spaces. No duct shafts or plumbing chases should be common with walls of noise sensitive spaces. The need for additional noise control in the form of duct lining, silencers, etc., will be determined as the mechanical design progresses.

- Air volume control devices: Terminal units, VAV boxes, and diffusers must be selected so that the noise they generate is consistent with the recommended Noise Criterion (NC) levels of the rooms they serve. The equipment manufacturer's NC rating may not apply to many rooms within a laboratory facility, as these ratings are usually computed for rooms with a great deal more sound absorption than is found in a typical laboratory. Terminal units shall be selected on the basis of the manufacturer's certified laboratory octave band, sound power levels. Diffusers should be selected for an NC requirement, 5 points lower than the stated room design criterion to account for the impact of multiple diffusers.

- Breakout noise: HVAC breakout noise is the noise that is transmitted into a space through the walls of the ducts. This is most commonly a problem when a particular system has large ducts that pass over an acoustically- sensitive space on the way to a space with a much- less-

stringent design criterion. Breakout noise may be reduced by using round ducts.

- General acoustic design criteria: Most laboratories, corridors, and lobbies can be designed to a Noise Criterion of NC-45, while private offices should be designed to NC-35. NC-30 would be appropriate for executive offices, conferences rooms, and the library.

Vibration Design Criteria:

- Various areas of the building, in particular the DNA section, and firearms / toolmarks sections must be designed to provide a vibration environment consistent with the criteria specified for the equipment to be used in these labs. Design considerations for providing a suitable laboratory environment should include the following:

- Building layout: The layout of the rooms is important insofar as the placement of major mechanical systems relative to the vibration-sensitive areas is concerned. Other layout considerations may emerge when the design is developed.

- Laboratory module layout: Location of laboratories within the building, and with respect to vibration sources outside the building, influences the vibration environment achievable in the lab. Ideal location is the most cost-effective way (and sometimes the only way) to achieve a good vibration environment. Position with respect to external sources, such as the adjacent streets, should also be considered.

- Mechanical equipment: Mechanical rooms should not be located on suspended floors which also contain laboratories, nor should they be located on a suspended floor directly below a vibration-sensitive area. Mechanical equipment should be located instead in roof-top penthouses or on slab-on-grade. It is important that all major items of equipment (with ratings in excess of 5 horsepower) be designed and installed in such a way that the vibration they transmit to the building structure is controlled. Carefully consider the location of reciprocating mechanical equipment (compressors, chillers, pumps, etc.) due to the vibration produced by this type of equipment. Such equipment should not be located on suspended floor slabs, but rather in a ground floor mechanical room, as the slab on-grade and ground 'sink' will be an effective absorber of vibration. Slabs of mechanical rooms should be

isolated around the perimeter of the room. Piping and associated pumps should not be hung from supported floors as these can also transmit vibration to the structural systems.

- Pipes and ducts: Vibration control must also encompass mechanical systems such as ductwork and piping since these systems also can generate and transmit vibration via turbulent flow. It is most important to limit fluid flow velocities in pipes and ducts since turbulence associated with fluid flow can be a substantial vibration source. For this reason, air flow velocities should be limited to 1800 ft. / min. and liquid flow velocities limited to 7 ft. / sec.. Major pipes and ducts (in excess of 4 inches in diameter and 20 inches in diameter, respectively) located under suspended highly vibration-sensitive floors should be supported from the columns or the floor and not directly from the vibration-sensitive floor, even with vibration isolation hangers.

- Inertia bases: Inertia bases should be used for all liquid pumps and, depending on the equipment specifications, for certain exhaust and make-up air fans. The structural design must take these loads into account.

- Vibration criteria: Vibration criteria is usually expressed in terms of root-mean-square (rms) velocity for one- third octave frequencies between 8 and 100 Hz. The specified limits are intended to apply to vertical and horizontal (in two axes) vibration as measured on the structural floor. They do not apply to bench tops.

- General vibration design criteria: Generic laboratories should be designed to a minimum vibration velocity of 2000 micro-inches / second. This criterion may be relaxed once details for specific equipment are known. In general, laboratories should be designed for vibration control based upon the following information which is identified in micro-inches / second:
  1. **8000** Computer systems- Operating rooms; Surgery; Bench microscopes at up to 100x magnification.
  2. **4000** Laboratory Robots
  3. **2000** Class A - Bench microscopes at up to 400x magnification; Optical and other precision balances; Coordinate measuring machines; Metrology laboratories; Optical comparators; Microelectronics manufacturing equipment.

4. **1000** Class B - Micro surgery, eye surgery, neurosurgery; Bench microscopes at magnification greater than 400x; Optical equipment on isolation tables; Microelectronics manufacturing equipment.
5. **500** Class C - Electron microscopes at up to 30,000x magnification; Microtomes; Magnetic resonance imagers; Microelectronics manufacturing equipment.
6. **250** Class D - Electron microscopes at greater than 30,000x magnification; Mass spectrometers; Cell implant equipment; Microelectronics manufacturing equipment.
7. **130** Class E - Unisolated laser and optical research systems; Microelectronics manufacturing equipment.

- Footfall impact: One prevalent source of vibration affecting performance of microscopes is that caused by persons walking on the floor. Dampening of the floor structure is required to minimize footfall impact. Limiting walker response to the above-given general vibration design criteria levels requires the following floor dampening levels, measured in kips / in-seconds (Kf Product):
  1. For 4,000 microinches / second, use Kf of 2,000 (medium damping) or Kf of 1,000 (high damping).
  2. For 2,000 microinches / second, use Kf of 4,000 (medium damping) or Kf of 2,000 (high damping).

6.11 IMPACT OF PROPOSED PROJECT ON EXISTING SPACE

Reutilization and function(s)

Since this project is programmed to be a new replacement facility, no plans have been made for reutilization of the existing facility. The State of Nebraska currently leases the existing facility which expires in April, 2014.

Demolition:

Since the State of Nebraska currently leases the existing facility and their current lease expires in 2014, there are no plans for demolishing the existing facility.

Renovation:

The State of Nebraska has been leasing the existing facility since 1998. Since that time, numerous renovation projects have been implemented to increase the crime lab's forensic science programs. However, the crime lab has grown beyond the ability to renovate this facility any further. Thus, as identified in Section 2 of this Programming Statement, a new facility is required.

7.0 EQUIPMENT REQUIREMENTS

As part of any new facility is the need to include FF & E (Furniture, Furnishings and Equipment) items to make sure the new facility has the proper fit out of equipment and furnishings at the time of Building Occupancy.

To that end, our Programming team has compiled a list of possible existing equipment that could be considered for reuse in addition to the typical new FF & E items that are generally provided for new forensic crime laboratories.

7.1 EXISTING EQUIPMENT FOR REUSE

Existing equipment re-use will be evaluated during the design phase. Where practical, existing equipment in the existing crime laboratory will be reused in the new facility.

A potential list of possible reusable equipment could include the following items:

- Microscopes
- Comparison Microscopes and Stands
- NIBIN System
- CODIS System
- AFIS System
- Adobe Workstations
- MCS-400
- Gas Chromatographs with Autosamplers
- GC/MS with Autosamplers
- FTIRs
- XRD System
- Architect Instrument
- EZ1 Robots
- EZ1 Advanced XL robots
- TECAN Robots
- 7500 PCR
- PCR Enclosures
- 3130 Genetic Analyzers
- 3500 Genetic Analyzer
- Large centrifuges

- Autoclave
- Fuming Chambers
- Stratalinker
- Minicentrifuges
- Microcentrifuges
- pH meter
- Balances
- Refrigerators
- Freezers
- Refrigerator/freezer Combinations
- Vortex
- Cameras and Stands
- Digital Camera
- Water baths
- Ovens
- Conductivity meter
- Heat blocks
- Vacufuge concentrator
- ESDA and Humidity Chamber
- VSC2000 with Dedicated printer and Stereoscope
- UV Viewing Box and lights
- Stereoscope with Photo Attachment and Light Box
- Flammable cabinet
- Acid cabinet
- Microwave
- Water system
- Vacuum pump

7.2 NEW EQUIPMENT AND FURNISHINGS

The following fixed equipment, moveable equipment, lab casework, furniture and furnishings shall be included in, but not be limited to the new forensic crime laboratory; and have been included in the Project Budget.

Fixed Equipment:

- Ballistic Water Tank
- Ballistic Range Equipment
- Bullet Trap
- Fume Hoods
- Biological Safety Cabinets

- Dusting Hoods
- Service Carrier
- Surgical Type Exam Lights
- Autoclaves
- Dishwasher
- Cylinder Restraint
- Overhead Cameras and Supporting Track
- Snorkels
- Super Glue Cabinets
- Drying Cabinets
- Drug Storage Cabinets
- Acids and Solvents Cabinets
- Interlocking Door Passthru
- Chemical Storage Cabinets
- Lab Gas Generators
- Walk-in Refrigerators
- Walk-in Freezers
- High Density Storage System

Movable Equipment:

- Medical/Defibrillator
- Refrigerators and Freezers
- Mobile Lifts
- Movable Lockable Wire Mesh Partitions
- Fuming Tent
- Movable Exam tables
- Janitor Equipment
- Stainless Steel Shelving
- Wire Shelving

Fixed Casework:

- Laboratory Casework

Movable Casework:

- Laboratory Casework

Furnishings:

- Lockers
- Evidence Lockers
- Coat Hooks

- Marker Boards
- Tack Boards
- Projection Screens
- Smart Board
- Appliances/Miscellaneous Equipment
- Clocks
- Plants
- Fitness Equipment
- Signage Interior

Furniture:

- Office Furniture
- Outdoor Furniture
- Break Room Furniture
- Conference Room Furniture
- Lobby Furniture
- Storage Shelving

All new plumbing, HVAC and electrical equipment is included in the general construction category for the project.

Note additional "Owner Provided" new equipment and replacement equipment will be required for the new facility once the project is approved for construction.

8.0 SPECIAL DESIGN CONSIDERATIONS

Forensic Science Crime Laboratories are unique, specialty type facilities. They are designed to have multiple specialty lab sections together under one roof. As a result, there are a multitude of special design considerations that need to be incorporated into the facility design.

8.1 CONSTRUCTION CLASSIFICATION

In order to design a safe and cost effective facility, the designer needs to evaluate the various building design classifications in order to arrive at the "best value" solution for the Owner. Checking with the Owner's insurance carrier is also important prior to finalizing the building classification to confirm that the insurance carrier does not require stricter design criteria in order to cost effectively insure the new facility.

OCCUPANCY CLASSIFICATION

The building will be classified as a Business Occupancy in accordance with IBC 302.1. All Storage Areas within the building are incidental to the main occupancy and will comply with IBC 302.1.1. Table 1 assigns the occupancy classifications for the areas of the building for use in determining occupant load and egress requirements.

TABLE 1 – AREA CLASSIFICATIONS

Area of Use	Occupancy
Laboratory[1]	B
Offices	B
Office Storage	S-1
Training/Classroom	A-3
Chemical Storage	S-1 (H?)[2]
Lab Storage	S-1 (H?)[2]
Gas Cylinder Storage	S-1 (H?)[2]
Mechanical Rooms	S-2
Electrical Rooms	S-2
Weapon Storage	S-2

8.2 BUILDING AND LABORATORY MEP REQUIREMENTS

These systems need to be designed to be functional to the variety of space considerations, energy efficient, low maintenance and long operating life cycles. General design requirements can be found in Section 8.2 of the original Program Statement dated May 20, 2011.

It is expected that the design team members will develop specific solutions to the engineered systems while executing the design of their respective engineered systems.

8.3 LIFE SAFETY / ADA

This facility will be designed to meet all applicable building and life safety codes and regulations as wells as ADA requirements.

Specific items recommended to achieve ADA compliance in crime laboratories include the following (typical in each laboratory section, as a minimum):

- Designation of one ADA-compliant workstation with, a 34" high counter in each laboratory section;
- One ADA-compliant fume hood in each laboratory section, in close proximity to the ADA-compliant workstation;
- Unless waived by the Owner, ADA-compliant sinks in the laboratory vestibules and in one other location in each laboratory section in close proximity to the ADA-compliant workstation;
- ADA compliant emergency shower / eyewash units; (The use of adaptable laboratory casework enhances the ability to make additional modifications to suit handicapped individuals in the future.)

8.4 HISTORIC OR ARCHITECTURAL SIGNIFICANCE

This project has been programmed to be a new facility. Therefore, it does not have any Historic or Architectural design significance.

8.5 ARTWORK

This project is not required to include a 1% Allowance for Artwork. However, to enhance the overall design and to increase the interest and appreciation of the staff, it is recommended that somehow artwork be incorporated into the design solution.

8.6 PHASING

This proposed facility has been programmed utilizing the space and staffing needs required for the future targeting the move-in date of 2015. Additional renovation or expansion of this facility will occur as additional funding becomes available.

8.7 FUTURE EXPANSION

This facility has been planned for approximately 26,000 leasable square feet to be located in an existing building (TBD). During the Design Phase planning should be included to identify opportunities for future renovation and expansion as funding becomes available.

8.8 SUSTAINABILITY

This Crime Laboratory facility offers many opportunities for sustainability. Even though a site has not been selected for this project, there are many opportunities that can be evaluated during the Design Phase in order to include sustainable design concepts.

The essence of sustainable design is in designing and building facilities that address and improve upon social, economic as well as environmental issues and to ensure that the needs of future generations are met. This project shall strive to seek benefits in all three areas. From an environmental standpoint, the project should strive to conserve natural resources, reduce solid waste, energy consumption and associated greenhouse gas emissions, minimize the development footprint and improve air and water quality. From an economic standpoint, the project should strive to reduce operating costs and improve employee productivity, recruitment, retention and satisfaction. From a social, community and health standpoint, the project should enhance occupant comfort and health, minimize strain on local infrastructure and contribute to the overall quality of life.

Sustainable Design Issues and Strategies:

Sustainable design issues and strategies for this project have been framed within five main categories; Sustainable Sites, Water Conservation, Energy Efficiency, Material Conservation and Indoor Environmental Quality. Each category identifies potential sustainable design opportunities for further investigation and discussion during the Design Phase.

Sustainable Sites:

Even though a site has not been selected for this project, opportunities for decreasing the rate and quantity of stormwater runoff from the site can be explored and possibly utilized to water landscape plants. Light-colored surfaces for the roof and areas surrounding the building should also be explored to contribute to reducing urban "heat island effect".

Water Conservation:

Conserving water in Nebraska is a high priority. Attention should be focused on reducing demand for potable water supplies. Strategies that should be implemented that would contribute to water reduction on the site would be to utilize high- efficiency irrigation strategies along with native and adaptive vegetation. Strategies within the building would be to provide low-flow fixtures (toilets, urinals, faucets, and showers). Reuse of water should also be considered for both domestic and landscaping purposes.

Energy Efficiency:

Energy efficiency should always begin with optimizing building orientation and how that translates into proper envelop design and maximizing opportunities for harvesting free energy. Optimal orientation would be to drive the design into a long east / west axis which would maximize solar orientation on the north and south while minimizing orientation on the east and west.

- Beyond understanding optimal orientation, other energy saving strategies that need to be investigated would include passive heating and cooling, maximizing daylighting and reducing lighting power densities, incorporating photo-sensors and occupancy sensors in lighting fixtures, utilizing energy recovery and carbon dioxide monitoring.

- Utilizing photovoltaic (PV) panels to generate solar energy also should be considered and possibly used to provide covered parking while storing and generating electricity that could be used to light the parking Lots at night.

- Pre-wiring or roughing-in for future installation for various clean renewable onsite-generated energy forms should be investigated.

- Commissioning services should be included in the project to ensure that the design intent has been met in construction and that the building is operating as designed for optimal operating costs, greatest comfort, and equipment longevity.

- Partnering with the local utility company, to participate in their Energy Design Assistance (EDA) program which contributes significant engineering services for energy modeling should also be explored by the design team.

- The current federal tax deduction of $0.60-$1.80 / square foot based on increased energy efficiency of the building should also be explored during the Design Phase..

- Tax rebates for solar energy installations are also available.

Material Conservation:

From a materials standpoint, we need to strive to maximize conserving our natural resources as well as reducing the impacts associated with transporting materials from long distances. Strategies include specifying materials that contain recycled content and are sourced regionally. We also need to look toward sourcing wood from sustainably managed forests.

- The contractor should strive to divert a majority (50 - 75%) of construction waste from landfills.

Indoor Environmental Quality:

We need to place equal importance on the indoor environment as we do to protect the external environment. We need to provide a healthy, productive functional space. Specific strategies that should be investigated during design include carbon dioxide monitoring, increasing ventilation rates, installing low emitting materials, providing a connection to the outdoors by maximizing daylight and view opportunities, and implementing an Indoor Air Quality (IAQ) management plan during construction.

9.0 PROJECT BUDGET AND FISCAL IMPACT

As part of this revised program Statement, our Programming team developed a Statement of Probable Cost for this renovation project.

9.1 STATEMENT OF PROBABLE COST

The Statement of Probable Cost of Construction (Cost Model) was made on the basis of experience, qualifications, and best judgment of our qualified staff familiar with the forensic science construction industry. I-SCIENCE, however, cannot and will not guarantee that actual construction costs will not vary from this Statement of Probable Cost.

9.2 PROBABLE COST ANALYSIS

Cost Estimate versus Recommended Budget:
There are differences between Cost Estimates and Statements of Probable Costs (Cost Models or budget recommendations).

A Cost Estimate is prepared by making actual quantity/material take-offs from an actual building design to anticipate the probable bids.

During the pre-planning stages there is no building design. Hence there is nothing to take-off. Therefore, a true cost estimate cannot be prepared.

As a result, a Cost Model or budget recommendation is prepared. In this approach, the Programming Team creates a probable quantity/ material take-off based on historical square footage building cost data and our collective experience from other similar facilities undertaken in the last five years. These building costs were adjusted for time and location and were used as a benchmark for cost comparisons.

Construction Budgets versus Project Budgets:
It is also important to differentiate between Construction Budgets and Project Budgets.

A Construction Budget is simply that. It is an anticipated hard bid amount, which an architect uses as the budget for design of the facility.

However, the Project Budget is what the Owner will actually spend for the entire project. It adds recommended budgets for indirect costs associated with construction in the state of Nebraska. These include: typical site preparation, typical testing/inspection fees, architect/engineering fees, project management fees, prevailing wage impacts, furniture, fixtures/equipment costs, telephone systems, traffic studies, typical geotechnical investigations, and public art, to name a few.

The suggested Project Budget that was developed is recommendations based on square footage projections found in Section 6, Facility Requirements.

9.3 BASIS FOR PROBABLE COST ANALYSIS

Our Design Team understands that Cost is a principal factor in the process of design and construction and assists in the formulation of realistic cost plans and checks for construction projects.

The total Time Frame proposed for this project is approximately 24 months starting with this Program Statement.

In order to properly estimate the overall construction costs, it is necessary to include projected escalation costs to the proposed mid-point of construction. Based upon the previous trends, and the construction industry's current escalation projections, our team has included the following 3.17% escalation factor in our Cost Model. Our escalation calculations are based upon the information listed below:

Criteria:	
Estimate Date	06/24/13
Construction Start	04/22/14
Construction Completion	06/15/15

Region: **Nebraska**

Derived:

Construction Duration: 419 Days *Calendar days*
Construction Duration: 14 months
Construction Midpoint: **11/17/14**

Year	Time	Rate	Total	Compounded Rate	
2013	0.52	1.0%	0.5%		
2014	0.88	3.0%	2.6%	**3.17%**	**Midpoint Year Rate**
2015	0.00	4.0%	0.0%	**3.17%**	

Total Escalation: 3.17%

Probable Cost Analysis was prepared using costs per square foot applied to the various different components within the project (new construction and site work). The costs per square foot used for each of these different components were derived from cost information obtained from previous detailed estimates and bids on similar projects.

PRELIMINARY PROBABLE COST ANALYSIS

PROBABLE PROJECT COST SUMMARY

Proj. No.:	2013-005			
Project Name:	NSP Forensic Crime Lab	(Assumes Single Story Option)	Date:	6/24/2013
Project Location:	Lincoln, Nebraska		Division:	Labs
Estimate Type:	BUDGET: Probable Cost Analysis		Original Bid Date:	2/25/2014

A. Construction:			$8,325,000
Building	25,907 GSF	$7,814,126	
Sitework (Site has not been selected)	1.00 ACRE	$255,000	
Subtotal		$8,069,100	
Escalation	3.17%	$255,897	
Subtotal		$8,324,997	

B. Furnishings, Fixtures and Equipment			$126,000
Furniture Allowance	0.24%	$19,349	
Equipment Allowance	1.33%	$106,821	

C. Fees, Costs, Inspections and Testing:	$892,000
A/E Fees & Expenses	
Fees and Permits	
As-Builts Development	
Tests, Soil Borings & Surveys	
Construction Inspections	
Owner Representative Costs	

D. Management:			$0
Construction Manager	0.00%	$0	

E. Site Acquisition:			$0
Land and Building Acquisition	0.00%	$0	
Legal Fees, etc.	0.00%	$0	

F. Miscellaneous Project Costs:			$1,904,000
Construction Contingency	15.05%	$1,252,900	
Owner's Contingency	1.65%	$137,400	
Security	1.01%	$81,400	
Telecommunications	0.45%	$36,300	
Commissioning (Fundemental Comm. incl above)	0.00%	$0	
Printing / Advertising	0.45%	$37,500	
Interior Signage	0.08%	$6,046	
Move-in/Reloc. Costs	4.23%	$351,700	
Code Review and Inspections	0.02%	$1,200	

PROBABLE OVERALL PROJECT BUDGET	$11,247,000

PRELIMINARY PROBABLE COST ANALYSIS

Overall Total Building Systems Summary (2015 - Single Story Option)

	BUILDING COSTS:	Total Project Costs	
		TOTAL COST	COST/SF
A10	FOUNDATIONS	$33,821	$1.21
A20	BASEMENT CONSTRUCTION	$10,095	$0.39
B10	SUPERSTRUCTURE	$16,496	$0.64
B20	EXTERIOR CLOSURE	$381,602	$14.73
B30	ROOFING	$127,386	$4.92
C10	INTERIOR CONSTRUCTION	$750,790	$28.98
C20	STAIRS	$0	$0.00
C30	INTERIOR FINISHES	$725,330	$28.00
D10	CONVEYING SYSTEMS	$0	$0.00
D20	PLUMBING	$479,225	$18.50
D30	HVAC	$2,054,669	$79.31
D40	FIRE PROTECTION	$138,011	$5.33
D50	ELECTRICAL	$1,112,891	$42.96
E10	BUILDING EQUIPMENT	$1,701,010	$65.66
E20	BUILDING FURNISHINGS	$219,106	$8.46
F10	SPECIAL CONSTRUCTION	$0	$0.00
F20	SELECTIVE BUILDING DEMOLITION	$63,693	$2.46
	TOTAL CONSTRUCTION COST	$7,814,126	$301.62

PRELIMINARY PROBABLE COST ANALYSIS

Overall Site Systems Summary (2015 - Single Story Option)

	SITEWORK COSTS:	Total Project Costs	
		TOTAL COST	COST/SF
G10	SITE PREPARATION	$4,500	$0.17
G20	SITE IMPROVEMENTS	$133,250	$5.14
G30	SITE MECHANICAL UTILITIES	$59,750	$2.31
G40	SITE ELECTRICAL UTILITIES	$57,500	$2.22
G50	OTHER SITE CONSTRUCTION	$0	$0.00
	TOTAL SITE COST	$255,000	$9.84

9.4 FISCAL IMPACT

This facility is projected to have an increase in staffing compared to the current NSPCL located in Lincoln, Nebraska.

The ability of this facility to attract and retain a consistently full complement of well-trained staff will be crucial to the success of the crime laboratory; and the achievement of Comprehensive Capital Facilities Plan.

A detailed staffing table, along with the estimated salary costs associated with those staff, is shown below. The operating cost at this facility will be comprised of the staffing cost, an overall operating cost, annual maintenance (per LB 1100) plus utilities. The overall estimated operating budget is shown below.

Estimated Operating Budget (annual, in 2013 dollars):

Yearly Staffing Costs:

2015			Per FTE Cost			
Funded Positions:	Current FTE's	Projected FTE's	Average Base Salaries	Estimated Average Benefits (31%)	Total Average Salary + Benefits	Estimated Projected Staffing Cost
Director	1	1	$93,849	$29,093	$122,942	$122,942
Managers	4	4	$64,915	$20,124	$85,039	$340,155
Forensic Scientist Supervisors	3	5	$61,144	$18,955	$80,099	$400,493
Forensic Scientists	15	17	$52,904	$16,400	$69,304	$1,178,172
Administration and Technicians	3	4	$33,722	$10,454	$44,176	$176,703
Totals:	26	31				$2,095,523

Overall Yearly Operating Cost:
For this proposed facility of approximate 26,000 leasable square feet, we estimate that the yearly Operating Costs should be approximately $100,000 per month or $1,200,000 per year.

Overall Yearly Utilities Cost:
Although a site has not been selected for this project, we estimate that the yearly Utilities Costs for this proposed facility of approximately 26,000 leasable square feet should be approximately $7.00 per square foot or $182,000 per year.

Overall Yearly Maintenance Cost:
Based upon the 2% of allowance from the Project Costs dictated by LB 1100, the yearly Maintenance Costs for a new sustainable designed facility of approximately 26,000 leasable square feet should be approximately $226,000 per year.

Summary of Estimated Yearly Operating Budget (annual, in 2013 dollars):

2015	
Operating Budget Item:	**Estimated Yearly Cost**
Staffing Cost	$2,095,523
Operating Cost	$1,200,000
Utilities	$182,000
Maintenance (LB1100)	$226,000
Totals:	$3,703,523

10.0 PROJECT FUNDING

Funding for this project is in the process of approval by the State of Nebraska.

11.0 TIMELINE

Once the A/E has been selected, Schematic Design can begin provided that the Site Selection Process has determined the final site and that the State of Nebraska is in the final negotiations to lease the selected building.

Based upon the A/E selection by July 31, 2013, the timeline for this project has been determined as identified below.

DESIGN:

Complete Schematic Design	October 31, 2013
Complete Design Development	November 28, 2013
Complete Construction Documents	January 30, 2014
Receive Bids	February 25, 2014

CONSTRUCTION:

Construction Contract Award	March 18, 2014
Begin Construction	April 22, 2014
Midpoint of Construction	November, 2014
Project Completion	June, 2015

12.0 ROOM DATA SHEETS

Room Data Sheets were developed as part of the original Program Statement dated May 20, 2011 which provide information pertaining to the following issues and features for each room or area of the crime lab and can be found in the Appendix Section of that document:

- Hours of Operation
- Mechanical
- Hoods
- Plumbing
- Fire Protection
- Electrical
- Lighting
- Communication / Data
- Security
- Floor Finishes
- Wall Finishes
- Ceiling Finishes
- Casework
- Countertop Material
- Furnishings / Accessories
- Equipment

APPENDIX G

VERIFIED PROGRAMMATIC SPACES, EQUIPMENT AND SQUARE FOOTAGES

Nebraska State Police Crime Laboratory

Lincoln, Nebraska

Space Validation • September 25 2013

Space Name	Year	Number of Staff per Section: * Current Analysis	Number of Staff per Section: *Move-In	Number of Staff per Section: Budget Driven Construction Plan (Validated)	Number of Staff per Section: Initial Program Statement	Square Footage Area By Section: Budget Driven Construction Plan (Validated)	Square Footage Area By Section: Initial Program Statement
Area Summary: NEBRASKA STATE POLICE CRIME LAB							
		Staff / Section				Net Area per Section	
Lab Administration		4	4	5	5	2,388	1,463
Chemistry							
Trace Evidence		1	1	1	1	832	1,410
Toxicology		1	1	2	2	1,083	1,265
Controlled Substances		5	5	6	6	3,300	2,869
Physical Sciences							
Firearms / Toolmarks		3	3	4	4	3,511	3,412
Latent Prints		4	4	4	4	2,213	2,205
Biology / DNA		8	8	9	9	6,714	6,606
Evidence Processing		0	0	0	0	1,874	1,742
Building Support		0	0	0	0	1,955	2,580
Total Lab Staff for Facility:		**26**	**26**	**31**	**31**		
TOTAL NET SQUARE FOOTAGE OF FACILITY:						**23,870**	**23,551**
Wall Construction/Structure/Lease space only		7%		Walls/Structure	2%	1,671	471
Electrical Primary/Secondary Gear						500	
Electrical Room Step Transformers-remote						120	
Plumbing/Mechanical Space						2,300	
Exhaust Fans - Roof						0	
Mechanical/Electrical		15%		MEP	3%	0	707
Multiple floor factor	1 Floors	1000 SF per floor		General	5%	0	1,178
TOTAL GROSS SQUARE FOOTAGE OF FACILITY:						**28,461**	**25,907**
Gross Square Footage of Area per Lab Staff:						918	836
Delta Square Footage						2,553	

Key to spreadsheet:

Yellow shaded lines indicate rooms | • Bullets indicate items within rooms | * Indicates existing conditions | Blue text is Initial Program

Nebraska State Police Crime Laboratory

Lincoln, Nebraska

Space Validation • September 25 2013

Space Name	Year	Number of Staff: *Current Analysis	Number of Staff: *Move-In	Number of Staff: Budget Driven Construction Plan (Validated)	Number of Staff: Initial Program Statement	# of Spaces: Budget Driven Construction Plan (Validated)	Space Type Std. or Unit Area	Square Footage Area of Spaces: MWL SF	Square Footage Area of Spaces: Budget Driven Construction Plan (Validated)		Square Footage Area of Spaces: Initial Program Statement	Remarks:
		2013	2015	2013	2013	2013			2013		2013	
Lab Administration												*Direct access to lobby and to evidence on other side of wall*
												Design lab to be tourable
Director		1	1	1	1	1	*PO4*		220		220	*Include area for round 4 person table*
QA/QC Manager		1	1	1	1	1	*PO3*		150		150	
Administrative Assistant (Supervisor)		1	1	1	1	1	*PO2*		120		120	
Exec Conference Room / Library						1	*CNF25*		408		450	*Outfit with Video conf media center flat panel (20-25) movable wall between*
Small Conference Room						1	*CNF12*		240			*Outfit with Video conf media center flat panel (10-12) movable wall between*
Open Office:									288		12	
• Office Workstations		1	1	2	2	2	*OP3*	128		0		*Assume systems furniture workstation 8'x8'*
• Work - Copy/Print/Scan/Fax						1	*80*	80		0		
• Mail						1	*80*	80		0		
* Room Circ 10%										12		
Office Supply Room									100		0	
• Shelving						1	*HDFL.5*	100				*High Density, must keep 3 yrs at one time*
Active Case Files									80		0	
• File Storage						5	*SHLF4*	80				*Only files will be stored in this room.*
Lobby / Waiting - Public Side & Display						1	*200*		200		200	
Public Toilet - Uni-sex						1	*T1*		64		0	
Filing Room						1	*120*		120		120	*QA Documentation, Locking*
Subtotals	Staff	4	4	5	5			Area	1,990	Area	1,272	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	15%										191	*The area totals were maintained to give accurate comparison.*
MWL Circulation	20%								398			
Net Area for Section									**2,388**		**1,463**	

Nebraska State Police Crime Laboratory

Lincoln, Nebraska

Space Validation • September 25 2013

Space Name	Year	Number of Staff: *Current Analysis	Number of Staff: *Move-In	Number of Staff: Budget Driven Construction Plan (Validated)	Number of Staff: Initial Program Statement	# of Spaces: Budget Driven Construction Plan (Validated)	Space Type Std. or Unit Area	Square Footage Area of Spaces: MWL SF	Square Footage Area of Spaces: Budget Driven Construction Plan (Validated)		Square Footage Area of Spaces: Initial Program Statement	Remarks:
		2013	2015	2013	2013	2013			2013		2013	
Trace Evidence												*Adj to Controlled Sub and Tox*
Office												
Open Office:									75		98	*Put open plan office in the Chem section office area*
• Analysts Office Workstation		1	1	1	1	1	*OP3*	64		64		*Assume systems furniture workstation 8'x8'*
• Files						1	*SHLF1*	11		18		
* Room Circ 20%										16		
Laboratory												
Lab Vestibule						1	*LV*		64		64	*Computer in Vestibule*
Main Trace Lab									411		476	
• Analysts Lab Workstations						2	*OPL.5*	180		180		*Snorkel at each station, with stereo scope at each*
• Lab Support Bench						13	*LC*	72		72		*Undercounter Flam frig*
• Fume Hoods						1	*FH6*	36		54		
• Evid Cart Park						1	*CART*	8		6		
• Bio Waste Disposal						1	*WASTE*	8		6		
• Emergency Shower/Eyewash						1	*ESEW*	15		16		
• Evidence Lockers						2	*LKR5*	24		32		
• Sink						1	*SINK1*	17		15		*Hand wash glassware*
• Oven						1	*O*	10				
• Tall Cabinets for Standards (VENTED)						1	*CAB4*	20				
• LIMS Workstation w/ Scanner						4	*LC*	22		16		
*Room Circ 20%										79		
Exam Room									132		80	
• Lab Bench						6	*LC*	33				
• Mobile Table						1	*WTBL1*	99				
Subtotals	Staff	1	1	1	1			Area	682	Area	1,226	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	15%										184	*The area totals were maintained to give accurate comparison.*
MWL Circulation	22%								150			
Net Area for Section									**832**		**1,410**	

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		2013	2015	2013	2013	2013			2013		2013	
Toxicology												*Adj to Controlled Sub and Trace*
												Office adjacent to lab space this section
Blood and Breath Office												
Tox Supervisor		0	0	1	1	1	*PO2*		120		120	
Open Office:									82		98	*Put open plan office in the Chem section office area*
• Analysts Office Workstation		1	1	1	1	1	*OP3*	64		64		*Assume systems furniture workstation 8'x8'*
• Files						2	*FL1*	18		18		
• Interaction						0	*SHLF1*	0		0		
* Room Circ 20%										16		
Alcohol Lab												
Lab Vestibule						1	*LV*		64		64	*Dual use with Controlled Sub*
Main Tox Lab									622		650	
• Analysts Lab Workstations						2	*OPL.5*	180		180		*U workstation with a 4' FH*
• Abbott Architect 4000C						1	*IWS1*	111		0		*Need cut sheet, floor mounted*
• Lab Support Bench						13	*LC*	72		72		*Instruments in Main Chemistry Instrument Room*
• Fume Hoods						1	*FH6*	36		36		
• Biosafety Cabinet						1	*BH6*	40		27		
• Reagent Prep Workstation						1	*OPL.5*	90		90		
• Robot Instrument Bench						0	*IWS1*	0		52		
• Refrigerator/Frz Combo						2	*REF1*	30		24		
• Emergency Shower/Eyewash						1	*ESEW*	15		18		
• Evid Cart Park						1	*CART*	8		6		
• Bio Waste Disposal						1	*WASTE*	8		6		
• LIMS Workstation w/ Scanner						3	*LC*	17		16		
• Sink						1	*SINK1*	17		15		*DI water*
*Room Circ 20%										108		
Subtotals	Staff	1	1	2	2			Area	888	Area	1,100	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	15%										165	*The area totals were maintained to give accurate comparison.*
MWL Circulation	22%								195			
Net Area for Section									**1,083**		**1,265**	

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Lincoln, Nebraska

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		2013	2015	2013	2013	2013			2013		2013	
Controlled Substances												
												Adj to Tox and Trace
Office												
Chemistry Unit Manager		1	1	1	1	1	*PO3*		150		150	
Lab Unit Supervisor		0	1	1	1	1	*PO2*		120		120	
Open Office:									442		528	*Put open plan office in the Chem section office area*
• Analysts Office Workstation		4	3	4	4	4	*OP3*	256		256		*Assume systems furniture workstation 8'x8'*
• Files						8	*FL1*	72		72		
• Media Center (printer, fax, etc.)						5	*PRNT*	50		48		
• Reference Shelving						1	*OP3*	64		64		
* Room Circ 20%										88		
Laboratory												
Lab Vestibule						1	*LV*		64		64	
Controlled Sub Main Lab									909		1,026	
• Analysts Lab Workstations						5	*OPL.5*	450		450		*U workstation, FH4 at each, Stereoscopes, Computer, bal, temp evidence cab at each*
• Lab Support Bench						33	*LC*	182		180		*NARC mounted to wall*
• Fume Hoods						1	*FH6*	36		27		
• Reagent Prep Workstation						1	*OPL.5*	90		90		
• Emergency Shower/Eyewash						1	*ESEW*	15		18		
• Evid Cart Park						1	*CART*	8		6		
• Bio Waste Disposal						1	*WASTE*	8		6		
• Refrigerator/Frz Combo						2	*REF1*	30		0		
• Evidence Lockers						2	*LKR5*	24		32		
• Sink						3	*SINK1*	50		30		*DI water*
• LIMS Workstation w/ Scanner						3	*LC*	17		16		
*Room Circ 20%										171		

Nebraska State Police Crime Laboratory

Lincoln, Nebraska

Space Validation • September 25 2013

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		2013	2015	2013	2013	2013			2013	2013	
Instrument Lab									909	559	*One Instrument Lab with Trace, Tox and CS instruments within*
• Lab Support Bench						16	*LC*	88			*Near cylinder room*
• Trace GC/MS						1	*IWS3*	56			*W/ High Purity He5, Ni5, H5, CA; instrument exhaust bench.*
• Trace GC w/Pyro FID						2	*IWS3*	112			*W/ High Purity He5, Ni5, H5, CA; instrument exhaust bench.*
• FTIR						1	*IWS3*	56			*W/ High Purity He5, Ni5, H5, CA; instrument exhaust bench.*
• Trace XRF						1	*IWS3*	56			*Floor mounted*
• Tox GC/MS						1	*IWS3*	56			*W/ High Purity He5, Ni5, H5, CA; instrument exhaust bench.*
• CS GC FID						4	*IWS3*	224			*W/ High Purity He5, Ni5, H5, CA; instrument exhaust bench.*
• CS GC/MS						2	*IWS3*	112			*W/ High Purity He5, Ni5, H5, CA; instrument exhaust bench.*
• Pellet Press w/ Vac pump						1	*IWS3*	56			*W/ High Purity He5, Ni5, H5, CA; instrument exhaust bench.*
• Printer Large						2	*PRNT*	20			
• Gas Generator						2	*GEN*	12			
• Instrument Maint Bench						8	*LC*	44			
• Sink						1	*SINK1*	17			*DI water for Hydrogen Generator*
*Room Circ 15%											
Chemistry Unit Storage Room									112	48	
• Shelving						7	*SHLV4*	112			
Subtotals		5	5	6	6				2,705	2,495	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	15%									374	*The area totals were maintained to give accurate comparison.*
MWL Circulation	22%								595		
Net Area for Section									**3,300**	2,869	

Nebraska State Police Crime Laboratory

Lincoln, Nebraska

Space Validation • September 25 2013

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		2013	2015	2013	2013	2013			2013		2013	
Firearms / Toolmarks												*Adj to Latent Print*
Office												
Firearms Supervisor		1	1	1	1	1	*PO2*		120		120	
Open Office									246		305	*Share office environment with LP, put AFIS between*
• Analysts Office Workstations		2	2	3	3	3	*OP3*	192		192		*Assume systems furniture workstation 8'x8'*
• Files						6	*FL1*	54		54		
*Room Circ 20%										59		
Laboratory												
Lab Vestibule						1	*LV*		64		64	
Main Lab									525		690	
• Analysts Office Workstations						4	*OPL.5*	360		360		*Pull curtain with black out shades, each with comparison and Stereo scopes*
• Lab Support Bench						24	*LC*	132		144		*Prefer to mobile table*
• Catalog Reference Shelving						0	*SHLF1*	0		0		*Above counter on wall*
• Sink						1	*SINK1*	17		30		
• Evidence Cart Parking						2	*CART*	16		12		
• LIMS PC Workstation w/Scanner						0	*LC*	0		16		*In U shape workstation*
*Room Circ 20%										128		
GSR/SNR Exam Room									275		150	
• Lab Bench						12	*LC*	66				
• Sink						1	*SINK1*	17		30		
• Mobile Table						1	*WTBL3*	117				
• Fume Hoods						1	*FH4*	24		27		
• Fume Hoods						1	*FH6*	36		27		
• Emergency Shower/Eyewash						1	*ESEW*	15				
NIBIN Room									315		235	
• NIBIN Workstations						1	*NIBIN*	140		64		
• Drafting Station						5	*LC*	28		20		*Tilting table surface*
• Layout Bench						1	*WTBL1*	99		36		
• MP4						1	*MP4*	22		36		
• LIMS PC Workstation w/Scanner						3	*LC*	17		16		*Computer Workstation*
• Print						1	*PRNT*	10		48		
*Room Circ 20%										15		

Nebraska State Police Crime Laboratory

Lincoln, Nebraska

Space Validation • September 25 2013

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		2013	2015	2013	2013	2013			2013		2013	
Firearms Reference Library)									158		200	*HD shelving in the Ref. Guns up to 300 long guns, 750 hand minimum with Goal for 1000 hand 500 long*
• Shelving						1	*HDFL1*	150				
• Waste Guns						1	*WASTE*	8				
Shop									190		36	
• Ammo Storage						2	*SHLF1*	22				
• Lab Bench						8	*LC*	44				*Maple butcher block*
• Sink						1	*SINK4*	28		30		*4' DEEP TANK*
• Evidence Cart Parking						2	*CART*	16		12		
• Tall Cabinets						6	*CAB1*	30		12		
• Drill press						0	*12*	0				
• Vise						0	*12*	0				
• Grinder						0	*12*	0				
• Tool Storage Rack on wall						0	*0*	0				*On the wall*
• Remote Firing Device Park						1	*50*	50				
Evidence Storage Room									48		48	
• Shelving						3	*SHLV4*	48				
Firearms Range									860		642	*Window to look down range*
• Range						1	*860*	860		500		*8' wide, 55' firing distance minimum plus 18' trap and firing zone and walls*
*Room Circ 20%										62		
Bullet Recovery Tank Room									126		120	
• Projectile Recovery Tank w/Remote Firing Stand on Platform						1	*PRT2*	126				*Requires water supply and drainage, floor sink*
Subtotals	Staff	3	3	4	4			Area	2,926	Area	2,610	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	15%										392	*The area totals were maintained to give accurate comparison.*
MWL Circulation	20%								585			
Net Area for Section									**3,511**		**3,412**	

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		2013	2015	2013	2013	2013			2013		2013	
Latent Prints												*Adj to Firearms*
Office												
Physical Sciences Manager		1	1	1	1	1	*PO3*		150		150	
Latent Print Supervisor		1	1	1	1	1	*PO2*		120		120	
Open Office:									478		476	*Share office environment with FA*
• Analysts Office Workstations		2	2	2	2	2	*OP3*	128		128		*Assume systems furniture workstation 8'x8'*
• AFIS Workstation						3	*OP3*	192		150		
• Files						4	*FL1*	36		36		
• Copy / Print /Scan / Fax / Supply						5	*PRNT*	50		48		
• Support Bench						13	*LC*	72		72		
*Room Circ 20%										42		
Lab												
Lab Vestibule						1	*LV*		64		64	
Evidence Storage Room									72		48	
• Shelving						4	*SHLV4*	64				
• Evidence Cart Parking						1	*CART*	8				
Latent Exam/ALS Lab 1									315			
• Cyanoacrylate Cabinet (Air Science)						1	*SG2*	39				
• Lab Support Bench						12	*LC*	66				
• Ninhydrin Humidity Chamber (Counter mount)						1	*HC*	33				
• Fume Hood SS for Dusting						1	*FH6*	36				
• LIMS PC Workstation w/scanner						0	*LC*	0				*Use mobile computer cart*
• Sink						1	*SINK4*	28				
• Emergency Shower/Eyewash						1	*ESEW*	15				
• Mobile Table						1	*WTBL1*	99				

Nebraska State Police Crime Laboratory

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		2013	2015	2013	2013	2013			2013		2013	
Latent Exam/ALS Lab 2									315			*Mobile wall between*
• Cyanoacrylate Cabinet (Air Science)						1	*SG2*	39				
• Lab Support Bench						12	*LC*	66				
• Ninhydrin Humidity Chamber (Counter mount)						1	*HC*	33				
• Fume Hood SS for Dusting						1	*FH6*	36				
• LIMS PC Workstation w/scanner						0	*LC*	0				*Use mobile computer cart*
• Sink						1	*SINK4*	28				
• Emergency Shower/Eyewash						1	*ESEW*	15				
• Mobile Table						1	*WTBL1*	99				
Latent Prep Lab 3									300			
• Evidence Cart Parking						2	*CART*	16				
• Cyanoacrylate Cabinet (FR600 Defumigator)						1	*SG1*	19				
• Lab Support Bench						24	*LC*	132				
• Undercounter Refrigerator						1	*REF1*	15				
• Sink						1	*SINK1*	17				
• MP4						2	*MP4*	44				
• Staining Floor Zone (like a shower)						1	*SINK4*	28				
• RUVIS						2	*R*	30				
Subtotals	Staff	4	4	4	4			Area	1,814	Area	1,917	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	15%										288	*The area totals were maintained to give accurate comparison.*
MWL Circulation	22%								399			
Net Area for Section									**2,213**		**2,205**	

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		2013	2015	2013	2013	2013			2013		2013	
Biology / DNA												*Near Physical Sciences rather than Chemistry*
Office												
Biology / DNA Manager		1	1	1	1	1	*PO3*		150		150	
Biology / DNA Supervisor		1	1	2	2	2	*PO2*		240		240	
Open Office:									670		734	
• Analysts Office Workstation		6	6	6	6	6	*OP3*	384		384		*Assume systems furniture workstation 8'x8'*
• Files						12	*FL1*	108		108		
• Copy / Print /Scan / Fax / Supply						5	*PRNT*	50		48		*2 printer units, one is with CODIS*
• CODIS Workstations						1	*OP3*	64		48		
• CODIS Layout Space						1	*OP3*	64		24		
*Room Circ 20%										122		
CODIS Record Storage									100			
• HD Shelving						1	*HDFL.5*	100				
Laboratories												
Lab Vestibule						1	*LV*		64		64	
Main Evidence Storage									80		80	
• Shelving						5	*SHLV4*	80				
Main Forensic Biology/Extractions Lab									1,856		1,703	
• Analysts Lab Workstations						8	*OPL.5*	720		450		*With Microscopy*
• Lab Support Bench						48	*LC*	264		180		
• BSC						1	*BH6*	40		27		
• Fume Hood						1	*FH6*	36		27		
• Lab Sink						4	*SINK1*	66		30		
• Evidence Cart Packing						4	*CART*	32		24		
• Biohazard Waste Disposal						1	*WASTE*	8		6		
• Stereoscope						1	*MIC*	25		72		
• -20 Lab Freezer						3	*REF1*	45		15		
• Lab Refrigerator/Freezer						3	*REF1*	45		15		
• Emergency Shower/Eyewash						1	*ESEW*	15		18		
Instrument Alcove												
• PCR Robotics (TECAN 150)						1	*TECAN*	121		104		
• PCR Robotics (TECAN 100)						1	*TECAN1*	100		104		
• Extraction Robotics - Small						5	*EZ1*	75		160		
• PCR Prep Workstations						2	*FH4*	48		72		*Dead air hood*
• Large Centrifuge						1	*C*	10		15		
• Lab Support Bench						12	*LC*	66		180		
• Biohazard Waste Disposal						1	*WASTE*	8		6		
• LIMS PC Workstation w/scanner						24	*LC*	132		16		*8 computer work stations*
*Room Circ 20%										182		

Nebraska State Police Crime Laboratory

Lincoln, Nebraska

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		2013	2015	2013	2013	2013			2013		2013	
Exam Room - Large									262		200	
• Lab Bench						5	*LC*	28				
• Lab Sink						1	*SINK1*	17		30		
• Mobile Table						2	*WTBL1*	198				
• LEEDS LSV Parking						1	*LSV*	20				
Exam Room - Small									161		150	*Movable wall between large and small*
• Lab Bench						5	*LC*	28				
• Lab Sink						1	*SINK1*	17		30		
• Mobile Table						1	*WTBL3*	117				
Consumable Storage Room									80		80	
• Shelving						5	*SHLV4*	80				
Reagent Prep Room									179		160	
• Fume Hoods						1	*FH4*	24		0		
• Sink						1	*SINK4*	28		0		*DI water*
• Lab Support Bench						12	*LC*	66		0		
• Refrigerator/Frz Combo						1	*DW*	30		0		
• Autoclave						1	*ACL1*	15		0		
• Storage						1	*SHLV4*	16		0		
CODIS Lab Vestibule						1	*LV*		64		64	
Biology/CODIS Janitor's Closet						1	*20*		20		20	
CODIS/Pre-Amp Lab									561		458	
• Analysis Workstations						2	*OPL.5*	180		90		
• Lab Support Bench						20	*LC*	110		108		
• BSC						1	*BH6*	40		36		
• Evidence Cart Parking						1	*CART*	8		6		
• Biohazard Waste Disposal						1	*WASTE*	8		6		
• Refrigerator / Freezer						1	*REF1*	15		15		
• Robot (BSD600 Punch)						1	*RT*	22		0		
• 4' PCR Hood						1	*FH4*	24		36		*Dead Air Hood*
• Sink						2	*SINK1*	33		30		
• Emergency Shower/Eyewash						1	*ESEW*	15		18		
*Room Circ 20%										113		
Accessioning Alcove												
• Accessioning Workstation						1	*OPL.5*	90		180		
• Evidence Cart Parking						1	*CART*	8		6		
• Biohazard Waste Disposal						1	*WASTE*	8		6		
CODIS Sample Storage									250		160	
• Offender Sample Shelving						1	*HDFL1*	150				
• Kit Shelving						1	*HDFL.5*	100				

Nebraska State Police Crime Laboratory

Lincoln, Nebraska

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		2013	2015	2013	2013	2013			2013		2013	
Gowning Vestibule One way						1	64		64		24	
Post Amplification Lab									619		547	
• Thermal Cycler						4	*TC*	88		60		
• 3130 DNA Sequencer						1	*SEQ*	44		52		
• 3500 Genetic Analyzer						2	*SEQ*	88		52		
• Layout Bench						20	*LC*	110		108		
• Lab Refrigerator						1	*REF1*	15		15		
• Lab Freezer						1	*REF1*	15		15		
• Real Time PCR						3	*RT*	66		72		
• 4-foot Fume Hood						1	*FH4*	24		27		
• Large Centrifuge						2	*C*	20		15		
• Biohazard Waste Disposal						1	*WASTE*	8		6		
• LIMS PC Workstation w/scanner						21	*LC*	116		0		
• Lab Sink						1	*SINK*	10		15		
• Emergency Shower/Eyewash						1	*ESEW*	15		18		
*Room Circ 20%										92		
Post Amp Janitor's Closet						1	*20*		20		20	
Degowning Vestibule Two Way						1	64		64		24	
Subtotals	Staff	8	8	9	9			Area	5,503	Area	5,744	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	15%										862	*The area totals were maintained to give accurate comparison.*
MWL Circulation	22%								1,211			
Net Area for Section									**6,714**		**6,606**	

Nebraska State Police Crime Laboratory

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		2013	2015	2013	2013	2013			2013		2013	
Evidence Processing												*Adj to Lobby*
Evidence Complex												
Evidence Receiving Repack									50			*Dedicated Evidence Contributor*
• Lab Counter						6	*LC*	33				*Controlled Door operators by reception/security*
• Sink						1	*SINK1*	17				
Evidence/Receiving						1			578	Error	394	*Need door for medium size evidence on carts to get to evid.*
• Evidence Workstations from Contributors						2	*OP3*	128		128		*Each station with bar code PC (LIMS and printer) scanner*
• Evidence Processing Area						2	*WTBL3*	234		80		
• Sink						1	*SINK1*	17				
• Files						4	*SHLF1*	44		48		
• Printer/copy/fax						2	*PRNT*	20		24		*Near to receiving counter*
• Shared Evidence Counter						12	*LC*	66		0		
• Office Workstations		0	0	0	0	0	*OP3*	0		128		*Moved to Admin*
• Staff Evidence Pickup						6	*LC*	33		24		*Bar code PC (LIMS and printer) scanner*
• Large Cart Park						1	*CART1*	12		0		
• Evid Cart Park						3	*CART*	24		0		*Undercounter*
* Room Circ 20%										66		
Evidence Vault						1			855		921	
• Refrigerator						4	*REF1*	60				*Glass front*
• Freezer						3	*REF1*	45				
• Evidence Drying Cabinet						1	*DRY1*	15		12		
• Lab Support Bench						6	*LC*	33		36		*with LIMS Station*
• Shelving						2	*HDFL3*	504		500		
• Open Floor Bulk Storage						1	*150*	150				
• NIBIN Test Fires Storage						1	*48*	48		48		
* Room Circ 20%										167		
Drug Storage Vault						1	*80*		80		80	*In the Evidence Vault*
Subtotals	Staff	0	0	0	0			Area	1,562	Area	1,515	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	15%										227	*The area totals were maintained to give accurate comparison.*
MWL Circulation	20%								312			
Net Area for Section									**1,874**		**1,742**	

Nebraska State Police Crime Laboratory

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		2013	2015	2013	2013	2013			2013		2013	
Building Support												
Work Room						0	*80*		0		80	*Move to Admin office*
Mail Room						0	*80*		0		80	*Move to Admin office*
Conference Room						0	*CNF12*		0		200	*Move to Admin office*
Janitor - Main						1	*64*		64		64	
Janitor - Satellite						1	*50*		50		24	
Public Toilet - Multi Sex						0	*T1*		0		65	*Move to Admin office*
Break Room									417		331	*Away from the lobby*
• Vending						2	*REF1*	30		24		
• Counter						8	*LC*	44		24		
• Sink						1	*SINK1*	17				
• Refrigerator/Frz						2	*REF1*	30		40		
• Recycling Bin						1	*WASTE*	8		8		
• Dish Washer						0	*LGW*	0		12		
• Dining Area						1	*CNF16*	288		180		
*Room Circ 20%										43		
Bulk Lab Supply Inventory									80		80	
• Shelving						5	*SHLV4*	80				
Bulk Chemical Storage Room									82		120	*Raw flammable chemical storage, near receiving and ship*
• Flammable Storage Chemical Cabinet						2	*CSC*	30				
• Acid Storage Cabinets						1	*CSC*	15				
• Waste Chemical Cabinet						1	*CSC*	15				*No dispensing*
• Fume Hoods						0	*FH4*	0				
• Sink						0	*SINK1*	0				
• Counter						4	*LC*	22				
• Emergency Shower/Eyewash						0	*ESEW*	0				*Locate just outside this room in corridor*

Nebraska State Police Crime Laboratory

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		2013	2015	2013	2013	2013			2013		2013	
Cylinder Storage						1	*40*		40		24	*Adjacent to Instrument Lab area, He5, Ni Liq, Ni5, LA5*
Loading Dock						1	*80*		80		80	
Shipping/Receiving Area						1	*120*		120		120	
• LIMS Workstation w/ Scanner						4	*LC*	22				
• Emergency Shower/Eyewash						1	*ESEW*	15				
Bio Waste Alcove						1	*50*		50		0	
Men's Restroom - Staff						1	*160*		160		160	*KMD to confirm toilet counts*
Women's Restroom - Staff						1	*160*		160		160	*KMD to confirm toilet counts*
Network / Telcom Rooms						2	*80*		160		160	*Confirm size with IT*
NSP Server / Security Room						1	*64*		64		64	*Confirm size with IT*
Safety/First Aid/Wellness									66			*This room to be used by nursing mothers or for illness*
• Counter						4	*LC*	22				*No windows in wall or doors*
• Dorm Size Refrigerator						1	*REF1*	15				
• Reclining Chair						1	*CHAIR*	12				
• Sink						1	*SINK1*	17				
Subtotals	Staff	0	0	0	**0**			Area	1,629	Area	2,580	*Some initial program items were revised during the September validation efforts*
Initial Program Circulation Factor	0%										0	*The area totals were maintained to give accurate comparison.*
MWL Circulation	20%								326			
Net Area for Section									**1,955**		**2,580**	

APPENDIX H

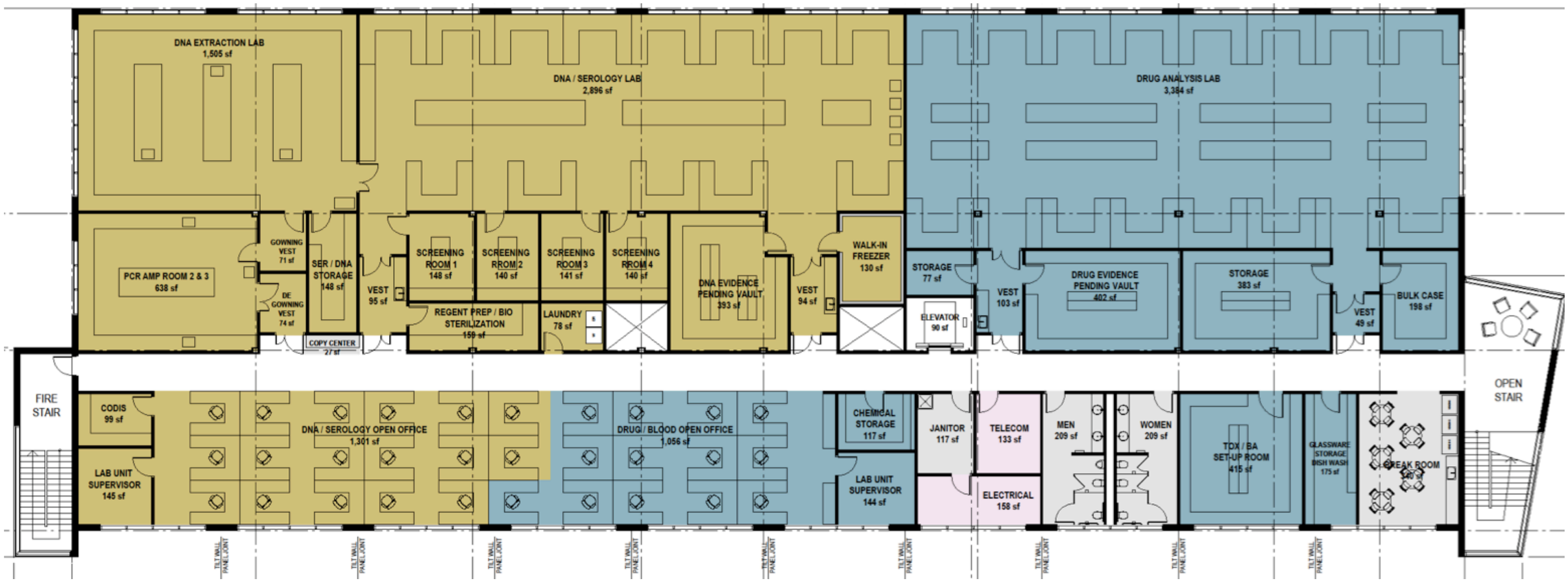
SAMPLE BUILDING FLOOR PLAN

(Note: This plan is not representative of any particular layout or design, rather its intent is to show the general type of spaces and layout that are to be expected as a result of this RFP)

NEBRASKA STATE PATROL CRIME LAB | SAMPLE FLOOR PLAN 1

27 SEPTEMBER 2013

DLR Group
Architecture Engineering Planning Interiors



NEBRASKA STATE PATROL CRIME LAB | SAMPLE FLOOR PLAN 2

27 SEPTEMBER 2013

DLR Group
Architecture Engineering Planning Interiors

APPENDIX I

STATE BUILDING DIVISION APPROVED PROJECT BUDGET

Nebraska Crime Lab Facility

Preliminary Project Budget

September 23, 2013

Estimated total project cost	$9,577,300
Down payment by the state at substantial completion	$2,500,000
Amount to be financed by the lessor	$7,077,300
Initial annual lease payment	$779,112

Project costs to be paid by the State of Nebraska

- Consultant fees
- Moving costs
- Internal card access security systems
- Building internal telecommunication costs
- Office furnishings

Note: The amount of the initial annual lease payment and the minimum number of GSF of lab space are fixed. The total project cost may vary based upon financing costs, additional offered GSF lab space or other factors related to the character of building space to be offered in response to the RFP.

APPENDIX J

MECHANICAL AND ELECTRICAL AMENDMENTS TO APPENDIX E

Revisions to the Original Program Statement dated May 20, 2011

6.7 PROJECT CODES REQUIRED

Page 6 | 76 – Add the Nebraska Energy Code to the list of regulatory requirements this project will be required to meet.

8.2 BUILDING AND LABORATORY MEP REQUIREMENTS

GENERAL BUILDING AND LABORATORY MEP REQUIREMENTS

General Laboratory Criteria

Page 8 | 5 – Add the following to Laboratory Areas:

- Air Handling Units, chilled water storage tanks, and chillers are to be located at grade in a secured yard with 8'-0" tall fence.

SPECIFIC BUILDING AND LABORATORY MEP REQUIREMENTS

HVAC System Design Criteria

Page 8 | 18 – Add the following to Chilled Water System:

- A propylene glycol solution will be used in the chilled water system to protect the pipe from freezing.

Page 8 | 18 – Revise the existing sentence under Energy Conservation to state "A run-around energy recovery coil system shall be installed…" in lieu of "A run-around energy recovery coil system will be considered…"

Page 8 | 18 – Add the following to Energy Conservation:

- Chilled water storage tanks shall be included in the secured yard and utilized to help limit peak electrical demand.

Page 8| 19 – Revise the following under HVAC Materials Ductwork:

- Lab Exhaust Mains: Type 316L Stainless Steel - no insulation.
- Lab Exhaust Branches & Ducts that contain Corrosive Materials: Type 316L Stainless Steel - no insulation.

Plumbing System Design Criteria

Page 8 | 21 – Under sanitary waste system, revise the statement about PVC piping to state "PVC piping is not allowed."

Fire Protection Design Criteria

Page 8 | 25 – Replace item 2 under Combination Wet Pipe Sprinkler/Standpipe System with the following:

- 2. Sprinkler system piping will be Schedule 40 black steel. All piping, fittings, devices, and their installation will comply with the requirements of the authority having jurisdiction.

Electrical System Design Criteria

Page 8 | 28 – Add the following requirements to the Electrical Systems Design Criteria:

- All outdoor exposed conduit shall be rigid steel conduit. All outdoor underground conduit shall be schedule 40 PVC.
- Indoor conduit shall be EMT with steel compression fittings.
- The minimum conduit size shall be 3/4".
- All conductors shall be individual copper conductors with THHN/THWN-2 insulation in conduit.

Page 8 | 28 – Switchboards shall meet the following requirements:

- Phase, neutral, and ground bus material shall be hard-drawn copper, 98 percent conductivity.
- Circuit breakers less than 100-amp shall be thermal-magnetic: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits.
- Circuit breakers 100-amp and larger shall be electronic trip circuit breakers with rms sensing; field-replaceable rating plug or field-replicable electronic trip; and the following field-adjustable settings: instantaneous trip, long- and short-time pickup levels, long- and short-time time adjustments.
- Short-Circuit current rating shall be fully rated to interrupt symmetrical short-circuit current available at terminals.
- The equipment shall be manufactured by Square D, Cutler Hammer, or Siemens.

Page 8 | 29 – Panelboards shall meet the following requirements:

- Entire front trim hinged to box and with standard door within hinged trim cover.
- Phase, neutral, and ground bus material shall be hard-drawn copper, 98 percent conductivity.
- Short-Circuit current rating shall be fully rated to interrupt symmetrical short-circuit current available at terminals.
- Have bolt-on circuit breakers.
- The equipment shall be manufactured by Square D, Cutler Hammer, or Siemens.

Page 8 | 29 – Motor Control Centers shall meet the following requirements:

- A metal barrier extending the full height and depth of the section shall be provided to isolate each section from the next section.
- Each vertical section shall have a vertical-wiring trough for power and control wiring, and wiring troughs on top and bottom, which are continuous through the entire control center.
- Phase, neutral, and ground buses shall be tin-plated copper. The main bus shall extend the full length of the motor control center and shall have provisions for splicing additional sections onto either end.
- The vertical bus connecting an incoming power feeder cable shall have the same ampere rating as the main horizontal bus. Each vertical bus extension shall be rated for the total connected load of the vertical section.
- Short-Circuit current rating shall be fully rated to interrupt symmetrical short-circuit current available at terminals.
- Starters shall be 3 phase, with overloads, a 120 volts ac coil, a dry type control transformer, and a molded-case circuit breaker. Control transformers shall be mounted with the removable starters and shall have capacity for all simultaneous loads. Control transformers shall have both primary leads fused, one secondary lead fused, and one secondary lead grounded.
- A 3 phase ambient-compensated solid state overload relay with external manual reset shall be furnished with each starter. The overload device shall also include phase loss and unbalance protection and manual reset.
- Main circuit breakers and feeder circuit breakers 100 amperes and larger shall be furnished with a solid-state trip unit complete with built-in current transformers. The trip unit shall have adjustable settings for instantaneous trip, long- and short-time pickup levels, long- and short-time time adjustments.
- The equipment shall be manufactured by Allen-Bradley, Square D, Cutler-Hammer, or Siemens.

Page 8 | 29 – 480-208/120 volt transformers shall meet the following requirements:

- The coil material shall be copper.
- Comply with NEMA TP 1, Class 1 efficiency levels.
- Have two 2.5 percent taps above and two 2.5 percent taps below normal full capacity.
- 220 deg C, UL-component-recognized insulation system with a maximum of 115 deg C rise above 40 deg C ambient temperature.
- The equipment shall be manufactured by Square D, Cutler-Hammer, or Siemens.

Page 8 | 31 – Emergency Generator shall meet the following requirements:

- Manufactured by Caterpillar, Kohler, Onan, or MTU Detroit Diesel Power Generation.
- Generator Circuit Breaker: Molded-case, electronic-trip type; 100 percent rated; complying with UL 489. The generator circuit breaker shall have adjustable long-time and short-time delay and instantaneous tripping characteristics. The generator circuit breaker shall have shunt trip connected to trip breaker when generator set is shut down by other protective devices.
- Vandal-resistant, sound attenuating weather steel housing, wind resistant up to 100 mph (160 km/h). The enclosure shall have acoustic insulation that meets UL94 HF1 flame resistance standards, 2 inches thick minimum. The enclosure shall be sound attenuated with a maximum 86 dB(A) at 23 ft.

Lighting Design Criteria

Page 8 | 34 – Replace the "Lighting Systems – Exterior" with the following:

- Lighting Systems – Exterior: Exterior lighting systems will utilize light emitting diode (LED) sources for parking lot luminaries; building mounted luminaries for perimeter lighting, walkway lighting and building entrances.
    1. The luminaries selected for exterior use will utilize "sharp" cutoff optics, which minimize glare and prevent light spill onto adjacent properties. Floodlights will be carefully located and shielded to minimize glare and provide ample security and decorative effects.
    2. The exterior lighting control, which includes security lighting, decorative walkway and parking areas, will be controlled by the building's (BMS) Building Management System. Incorporated into the exterior lighting control shall be "bi-level" capability to allow the luminaries to operate at lower levels during off hours of operation.
    3. Illumination levels will be provided as outlined in the latest edition of Illumination Engineering Society of North America.