City of Auburn, Maine
Financial Services
www.auburnmaine.gov | 60 Court Street
Auburn, Maine 04210
207.333.6601

February 14, 2018

Dear Bidder:

The City of Auburn is accepting written proposals for the Woodbury Brackett Municipal Garage for a **2nd Floor Restroom Renovation Project**, located at 296 Gracelawn Road, Auburn, ME. The City reserves the right to accept or reject any or all proposals in whole or in part and to waive any informality the City may determine necessary. The City also reserves to itself the exclusive right to accept any proposals when it is deemed by the City to be in its best interest. The City of Auburn is governed by Title 1 M.R.S.A. § 401-410, otherwise known as the Freedom of Information Act, which considers bid specifications as public documents. In awarding any proposal, the City may consider, but not be limited to, any of the following factors: Bidder qualifications, price, experience, financial standing with the City, warranties, references, bonding, delivery date, and service of Bidder. Vendors/Contractors shall be current on all amounts due to the City of Auburn prior to the City entering into any contract agreement. All proposals must include FOB to Auburn, Maine unless otherwise specified.

A **pre-bid meeting** to review the work site is scheduled for Thursday, February 22, 2018 at 2:00 p.m.at the Woodbury Brackett Municipal Garage, 296 Gracelawn Road, Auburn, ME. Please contact Derek Boulanger at dboulanger@auburnmaine.gov to confirm participation.

Proposals will not receive consideration unless submitted in accordance with the following instructions to bidders. Please mark sealed envelopes plainly:
"Woodbury Brackett Municipal Garage, 2nd Floor Restroom Renovation Project – Bid #2018-020."

Questions regarding this Request for Proposals should be directed to Derek Boulanger, Facilities Manager/Purchasing Agent, at (207) 333-6601, ext. 1135.

Please submit your proposal to the City of Auburn by **2:00 p.m. Thursday, March 8, 2018**. Proposals will be opened at 2:00 p.m. Proposals must be delivered to **Derek Boulanger, Facilities Manager/Purchasing Agent, 60 Court Street, Auburn, ME 04210** on or before the date and time appointed. No proposals will be accepted after the time and date listed above.

Sincerely,

Derek Boulanger
Facilities Manager/Purchasing Agent

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CONDITIONS AND INSTRUCTIONS TO BIDDERS

1. Bidders shall use the enclosed bid form and schedule of values forms for quotations. Whenever, in bid forms, an article is defined by using a trade name or catalog number, the term "or approved equal", if not inserted, shall be implied.

2. Submit a separate unit price for each item unless otherwise specified in the bid request. Award will be made on a basis of each item, or as a group, whichever is in the best interest of the City. Prices stated are to be "delivered to destination".

3. Bid proposals must be completed in full, in ink, and must be signed by firm official. Bid proposal **must be notarized** prior to bid being sealed and will be disqualified if not notarized. Bids may be withdrawn prior to the time set for the official opening.

4. Bids will be opened publicly. Bidders or representatives may be present at bid opening.

5. Awards will be made to the lowest responsible bidder, considering the quality of the materials, date of delivery, cost which meets specification and is in the best interest to the City of Auburn.

6. All transportation charges, including expense for freight, transfer express, mail, etc. shall be prepaid and be at the expense of the vendor unless otherwise specified in the bid.

7. The terms and cash discounts shall be specified. Time, in connection with discount offered, will be computed from date of delivery at destination after final inspection and acceptance or from date of correct invoice, whichever is later.

8. The City is exempt from payment of Federal Excise Taxes on the articles not for resale, Federal Transportation Tax on all shipments and Maine Sales Tax and Use Taxes. Please quote less these taxes. Upon application, exemption certificate will be furnished with the Purchase Order when required.

9. Time of delivery shall be stated. If time is of the essence, the earliest date may be a factor in the bid award.

10. No contract may be assigned without the written consent of the Finance Director or her designate. The contract shall not be considered valid until a purchase order has been issued to the successful bidder.

11. Please state **"Woodbury Brackett Municipal Garage, 2nd Floor Restroom Renovation Project – Bid #2018-020."** on submitted sealed envelope.

12. The City of Auburn reserves the right to waive any formality and technicality in bids whichever is deemed best for the interest of the City of Auburn.

13. The scope of work shall be substantially completed by May 31, 2018. Final completion shall be on or before June 21, 2018.

GENERAL CONDITIONS

1. Equal Employment Opportunity

The City of Auburn is an Equal Opportunity Employer and shall not discriminate against an applicant for employment, and employee or a citizen because of race, color, sex, marital status, physical and/or mental handicap, religion, age, ancestry or natural origin, unless based upon a bona-fide occupation qualification. Vendors and contractor or their agents doing business with the City shall not violate the above clause or the Civil Rights Acts of 1964. Violations by vendors shall be reviewed on a case-by-case basis and may mean an automatic breach of contract or service to the City of Auburn.

2. Save Harmless

The Bidder agrees to protect and save harmless the owner from all costs, expenses or damages that may arise out of alleged infringement of patents of materials used.

3. Subcontracting

The Bidder shall not subcontract any part of the work or materials or assign any monies due it without first obtaining the written consent of the municipality. Neither party shall assign or transfer its interest in the contract without the written consent of the other party.

4. Warranty

The Bidder warrants that all work will be of good quality and free from faults and defects, and in conformance with the specifications. All work not so conforming to these standards may be considered defective. The Bidder agrees to be responsible for the acts and omissions of all of its employees and all subcontractors, their agents and employees, and all other persons performing any of the work under a contract with the Bidder.

5. Retainage and Payments

Retainage in the amount of 10% will be held from each progress payment and shall be released at the discretion of the Project Engineer. Payments shall be made by the City to the Contractor 30 days after receipt of the request for payment.

6. Changes in the Work

6.1 The Contractor shall not proceed with extra work without an approved Change Order or Construction Change Directive. A Change Order which has been properly signed by all parties shall become a part of the contract.

6.2 A Change Order is the usual document for directing changes in the Work. In certain circumstances, however, the Owner may utilize a Construction Change Directive to direct the Contractor to perform changes in the Work that are generally consistent with the scope of the project. The Owner shall use a Construction Change Directive only when the normal process for approving changes to the Work has failed to the detriment of the Project, or when agreement on the terms of a Change Order cannot be met, or when an urgent situation requires, in the Owner's judgment, prompt action by the Contractor.

6.3 The Architect shall prepare the Construction Change Directive representing a complete scope of work, with proposed Contract Price and Contract Time revisions, if any, clearly stated.

6.4 The Contractor shall promptly carry out a Construction Change Directive which has been signed by the Owner and the Architect. Work thus completed by the Contractor constitutes the basis for a Change Order. Changes in the Contract Price and Contract Time shall be as defined in the Construction Change Directive unless subsequently negotiated with some other terms.

6.5 The method of determining the dollar value of extra work shall be by:

a) An estimate of the Contractor accepted by Owner as a lump sum, or

b) Unit prices named in the contract or subsequently agreed upon, or

c) Cost plus a designated percentage, or

d) Cost plus a fixed fee.

6.6 The Contractor shall determine the dollar value of the extra work for both the lump sum and cost plus designated percentage methods using the following rates. The rates include all overhead and profit expenses.

a) Contractor - for any work performed by the Contractor's own forces, 10% of the cost;

b) Subcontractor - for work performed by Subcontractor's own forces, 10% of the cost;

c) Contractor - for work performed by Contractor's Subcontractor, 10% of the amount due the Subcontractor.

6.7 The Contractor shall keep and provide records as needed or directed for the cost plus designated percentage method. The Architect shall review and certify the appropriate amount which includes the Contractor's overhead and profit. The Owner shall make payments based on the Architect's certificate.

7. Liens

7.1 The Contractor shall deliver to the Owner a complete release of all liens arising out of this contract before the final payment or any part of the retainage payment is released. The Contractor shall provide with the release of liens an affidavit asserting each release includes all labor and materials for which a lien could be filed. Alternately, the Contractor, in the event any Subcontractor or supplier refuses to furnish a release of lien in full, may furnish a bond satisfactory to the Owner, to indemnify the Owner against any lien.

7.2 In the event any lien remains unsatisfied after all payments to the Contractor are made by the Owner, the Contractor shall refund to the Owner all money that the latter may be compelled to pay in discharging such lien, including all cost and reasonable attorney's fees.

BID PROPOSAL FORM

Woodbury Brackett Municipal Garage, 2nd Floor Restroom Renovation Project
Bid #2018-020
Due: Thursday, March 8, 2018 at 2:00 PM

To: City of Auburn
Derek Boulanger,
Facilities Manager/Purchasing Agent
60 Court Street
Auburn, ME 04210

The undersigned individual/firm/business guarantees this price for Thirty days (30) from the bid due date. The undersigned submits this proposal without collusion with any other person, individual, firm, or agency. The undersigned ensures the authority to act on behalf of the corporation, partnership, or individual they represent; and has read and agreed to all of the terms, requests, or conditions written herein by the City of Auburn. By signing this bid form, the firm listed below hereby affirms that its bid meets the minimum specifications and standards as listed above and as amended in
Addendums #_____ Dated_____.

Signature _____ Name (print)_____

Title_____ Company_____

Address_____

Telephone No._____Fax No. _____

Email Address:_____

STATE OF MAINE
_____, SS. Date: _____ _____

Personally appeared _____ and acknowledged the foregoing instrument to be his/her free act and deed in his/her capacity and the free act and deed of said company.

_____
Notary Public

_____
Print Name
Commission Expires_____

Bid Proposal Form must be accompanied with the Schedule of Values Form.

BID BREAKDOWN SCHEDULE OF VALUES

Woodbury Brackett Municipal Garage, 2nd Floor Restroom Renovation Project
Bid #2018-020

Item	Description	Value
1.	General Conditions	$_____ . ____
3.	Demolition & Disposal	$_____ . ____
4.	General Carpentry	$_____ . ____
5.	Mechanical	$_____ . ____
6.	Electrical	$_____ . ____
7.	Plumbing	$_____ . ____
8.	Fire Sprinkler	$_____ . ____
9.	Fire Alarm	$_____ . ____
10.	Asbestos Abatement	$_____ . ____
11.	Other (specify) _____	$_____ . ____
12.	Other (specify) _____	$_____ . ____
13.	Other (specify) _____	$_____ . ____
14.	Other (specify) _____	$_____ . ____
15.	**TOTAL BASE BID (Sum of Items 1 through 14)**	**$_____ . ____**

TOTAL OF ALL LINE ITEMS IN SCHEDULE OF VALUES MUST EQUAL FINAL BASE BID. THERE MUST BE AMOUNTS IN EACH OF THE SPECIFIED ITEMS ABOVE. ENTER A ZERO IF NOT APPLICABLE.

PROJECT SCHEDULE

Estimated Start Date: 7 Days from Notice to Proceed

Substantial Completion Date: May 31, 2018

FAILURE TO PROPERLY COMPLETE THIS BID ATTACHMENT MAY BE CONSIDERED A NON-RESPONSIVE PROPOSAL AND MAY BE REJECTED AT THE OWNERS DISCRETION.

SAMPLE CONTRACT AGREEMENT

THIS AGREEMENT is made this **###** day of ***Month Year***, by and between the CITY OF AUBURN, a municipal corporation existing under the laws of the State of Maine and located in the County of Androscoggin, State of Maine (hereinafter "CITY"), ***Company Name, Address, EIN***, (hereinafter "CONTRACTOR"),

WITNESSETH:
In consideration of the mutual covenants and conditions contained herein, the CITY and the CONTRACTOR agree as follows:

SPECIFICATIONS:

1. The CONTRACTOR shall furnish all of the material and perform all of the work shown on the drawings and described in the specifications entitled: **Bid # *XXXXX Bid Title*** which are attached hereto and made a part hereof, and the CONTRACTOR covenants that it shall do everything required by this Agreement, the Special Provisions of the Agreement, the Invitation to Bid and the Specifications in return for payment as provided herein.

COMPLETION DATE:

2. The work to be performed under this Agreement shall be commenced by ***Month Day, Year*** and fully completed on or before ***Month Day, Year***.

CONTRACT PRICE:

3. The CITY shall pay the CONTRACTOR for the performance of the Agreement the sum of **$*XXX***

PERFORMANCE BOND:

4. If required by the City, the CONTRACTOR shall furnish to the CITY at the time of the execution of this Agreement a performance bond and a labor and material payment bond each in the amount of **$*XXX*** (whichever applies) executed by a surety company satisfactory to the CITY, guaranteeing the performance and payment by the CONTRACTOR. ❑ Yes, Required (Initials: ____) ❑ No, Waived (Initials ___)

GUARANTEE:

5. The CONTRACTOR shall guarantee his work against any defects in workmanship and materials for a period of one year from the date of the CITY's written acceptance of the project.

PERMITS AND LICENSES:

6. Permits and licenses necessary for the prosecution of the work shall be secured and paid by the CONTRACTOR.

CITY'S RIGHT TO TERMINATE CONTRACT:

7. If the CONTRACTOR should be adjudged a bankrupt, or if it should make a general assignment for the benefit of creditors, or if a receiver should be appointed on account of its insolvency, or if it should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if it should fail to make prompt payment to subcontractors or for material or labor, or persistently disregard laws, and ordinances, or otherwise be guilty of a substantial violation of any provision of the Agreement, then the CITY when sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the CONTRACTOR, and his surety, seven (7) days written notice, terminate the employment of the CONTRACTOR and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method it may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Agreement price shall exceed the expense of the finishing the work, including compensation for additional architectural, managerial and administrative services, such excess shall be paid to the CONTRACTOR. If such expense shall exceed such unpaid balance, the CONTRACTOR shall pay the difference to the CITY.

CONTRACTOR'S LIABILITY INSURANCE:

8. The CONTRACTOR shall not commence work under this Agreement until he has obtained all insurance required under this paragraph and such insurance has been approved by the CITY, nor shall the CONTRACTOR allow any subcontractor to commence work on his subcontract until all similar insurance required of subcontractor has been so obtained and approved. **It is a requirement that the CITY be named as an Additional Insured on the General Liability and Automobile Liability policies.**

(a) **Commercial General Liability** to include products and completed operations, and blanket contractual. The limits of liability shall be as follows:

Bodily Injury and Property Damage	$1,000,000
Personal Injury and Advertising Injury	$1,000,000
Per Project Aggregate	$1,000,000
General Aggregate	$2,000,000
Products and Completed Operations Aggregate	$2,000,000
Medical Payments	$10,000

(b) **Business Automobile Liability**

The CONTRACTOR shall maintain and cause all sub-contractors and lower tier contractors to maintain business automobile liability insurance covering all owned, non-owned, leased, rented or hired automobiles (symbol 1). The limits of liability shall be as follows:

Bodily Injury and Property Damage	$1,000,000

Automobile physical damage coverage shall be at the option of the CONTRACTOR, all sub-contractors and lower tier contractors. The CITY shall not be liable for physical loss or damage to any owned, non-owned, leased, rented or hired automobile.

(c) **Workers' Compensation Insurance**

The CONTRACTOR shall maintain and cause all sub-contractors and lower tier contractor's to maintain Workers' Compensation and Employers Liability in accordance with the laws and regulations of the State of Maine. The limits of liability provided shall be as follows:

Coverage A:	Statutory
Coverage B:	$100,000/$500,000/$100,000

(d) **Professional Liability**

If the CONTRACTOR is an Architect, Engineer or Surveyor, they shall maintain a policy of insurance to pay on their behalf whatever amounts that may become legally required to pay on account of an error, omission or negligent act.

Limits of Liability shall be as follows: $1,000,000 per occurrence and in the aggregate site specific.

It is a requirement that this policy be maintained for a period of three (3) years following completion of the project.

(e) **Certificates of Insurance** of the types and in the amounts required shall be delivered to the CITY prior to the commencement of any work by the CONTRACTOR, subcontractor or lower tier contractor or any person or entity working at the direction or under control of the CONTRACTOR. The CONTRACTOR shall assume the obligation and responsibility to confirm insurance coverage for all sub-contractors or lower tier contractors who will participate in the project.

(f) The Certificate of Insurance and the policies of insurance shall include a sixty (60) day notice to the CITY of cancellation, non-renewal or material change in coverage or form.

(g) The CONTRACTOR and his surety shall indemnify and save harmless the CITY, his officers and employees from all suits, actions or claims of any character brought because of any injuries or damage received or sustained by any person, persons or property on account of the operations of the said CONTRACTOR; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in construction of the work; or because of any act or omission, neglect, or misconduct of said CONTRACTOR; or because of any claims or amounts recovered from any infringements or patent trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act" or of any other law, ordinance, order or decree; and so much of the money due to the said CONTRACTOR under and by virtue of his/her contract as shall be considered necessary by the CITY for such purpose, may be retained; or in case no money is due, his surety may be held until such suit or suits, action or actions, claim or claims, for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the CITY.

(h) **Waiver of Subrogation**

Payment of any claim or suit including any expenses incurred in connection therewith by the CITY, or any insurance company on behalf of the CITY shall not constitute a waiver of subrogation against the CONTRACTOR, sub-contractors or any lower tier contractor in the event that such claim or suit was caused by or contributed to as a result of the negligent acts of the CONTRACTOR, any sub-contractors or lower tier contractors.

(i) **Construction Agreement**

The CONTRACTOR shall and does hereby agree to indemnify, save harmless and defend the CITY from the payment of any sum or sums of money to any person whomsoever on account of claims or suits growing out of injuries to persons, including death, or damages to property, caused by the CONTRACTOR, his employees, agents or sub-contractors or in any way attributable to the performance and execution of the work herein contracted for, including (but without limiting the generality of the foregoing), all claims for service, labor performed, materials furnished, provisions and suppliers, injuries to persons or damage to property, liens, garnishments, attachments, claims, suits, costs, attorney's fees, costs of investigation and defense. It is the intention of this paragraph to hold the CONTRACTOR responsible for the payment of any and all claims, suits, or liens, of any nature character in any way attributable to or asserted against the CITY, or the CITY and the CONTRACTOR, which the City may be required to pay. In the event the liability of the CONTRACTOR shall arise by reason of the sole negligence of the CITY and/or the sole negligence of the CITY's agents, servants or employees, then and only then, the CONTRACTOR shall not be liable under the provisions of this paragraph.

DAMAGES:

9. The CONTRACTOR shall defend, indemnify and save harmless the CITY and all persons acting for or in behalf of it against all claims for injuries (including death), loss or damage, arising out of the performance out this contract.

LIENS:

10. Neither the final payment nor any part of the retained percentage shall become due until the CONTRACTOR, if required, shall deliver to the CITY a complete release of all liens arising out of the Agreement, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as it has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed; but the CONTRACTOR may, if any SUB-CONTRACTOR refuses to furnish a release or receipt in full, furnish a bond satisfactory to the CITY to indemnify it against any lien. If any lien remains unsatisfied after all payments are made, the CONTRACTOR shall refund to the CITY all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

ASSIGNMENT:

11. Neither party to the Agreement shall assign the Agreement or sublet it as a whole without the written consent of the other, nor shall the CONTRACTOR assign any moneys due or to become due to it hereunder, without the previous written consent of the CITY.

SUBCONTRACTS:

12. The CONTRACTOR shall not sublet any part of this Agreement without the written permission of the CITY. The CONTRACTOR agrees that it is as fully responsible to the CITY for the acts and omissions of its SUB-CONTRACTORS and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

USE OF PREMISES:

13. The CONTRACTOR shall confine its apparatus, the storage of materials and operations of its workers to limits indicated by law, ordinance and permits and shall not otherwise unreasonably encumber the premises with its materials. If any part of the project is completed and ready for use, the CITY may, by written and mutual consent, without prejudice to any of its rights or the rights of the CONTRACTOR, enter in and make use of such completed parts of the project. Such use or occupancy shall in no case be construed as an acceptance of any work or materials.

CLEANING UP:

14. The CONTRACTOR shall at all times keep the premises free from accumulation of waste materials or rubbish caused by its employees or work, and at the completion of the work it shall remove all its rubbish from and about the project, and all its tools, scaffolding and surplus materials and shall leave its work "broom-clean" or its equivalent, unless more exactly specified. In case of dispute, the CITY may remove the rubbish and charge the cost to the CONTRACTOR.

PAYMENTS:

15. Unless otherwise agreed to, the CITY shall make payments on account of the Agreement less retainage as follows:

Within 30 days, as invoices are submitted for work completed to the satisfaction of the CITY.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

BY:_____ BY:_____
Witness Finance Director

BY:_____ BY:_____
Witness Contractor

CITY OF AUBURN, MAINE

WOODBURY BRACKETT
MUNICIPAL GARAGE
2nd FLOOR RESTROOM RENOVATION PROJECT
296 Gracelawn Road, Auburn, Maine
Bid No. 2018-020

FEBRUARY 14, 2018

APPENDIX A

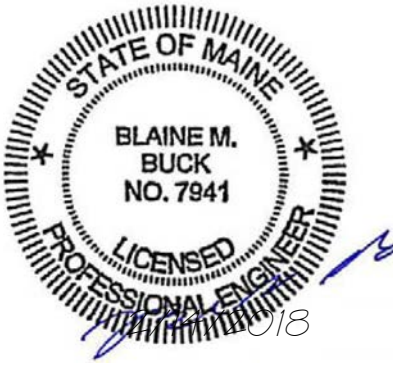
BID SPECIFICATIONS

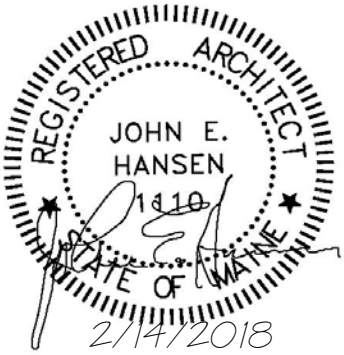
CITY OF AUBURN, MAINE

WOODBURY BRACKETT MUNICIPAL GARAGE 2nd FLOOR RESTROOM RENOVATION PROJECT

296 Gracelawn Road, Auburn, Maine

Bid No. 2018-020





Project Specifications
February 14, 2018
Project No. CCPG-1131

SECTION 00 01 10

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SECTION 01 00 00

ADMINISTRATIVE PROVISIONS

PART 1 GENERAL

1.01 CONTRACT REQUIREMENTS

A. Scope of Work

1. The Work of the Contract includes selective demolition and asbestos abatement; renovations including providing and/or relocating components and equipment, upgrading finishes, carpentry, painting, ACT ceilings, VCT flooring and base; providing and/or relocating components and equipment for mechanical, electrical, plumbing, fire sprinkler and fire alarm to create a code compliant 2nd floor restroom renovation at the Woodbury Brackett Municipal Garage in accordance with the Contract Documents. Work under this contract will be in accordance with plans and specifications created by Cordjia Capital Projects Group, LLC dated February 14, 2018 and as amended.

B. Contract Method

1. Basis of award of this Contract will be in accordance with the Conditions and Instructions to Bidders section within the RFP.

2. Contract type: City of Auburn, Maine, Standard Form of Agreement. A Sample Agreement is located within the RFP.

3. The project will be constructed under a single lump sum contract.

C. Work Sequence

1. Work of the Contract and related provisions are as described in the Contract Documents.

D. Contractor Use of Premises

1. Work of this Contract includes coordinating the work with the daily operations of the Owner.

2. Limit use of premises for Work and construction operations only, allow for Owner occupancy, work by other Contractors, and public access.

4. Limit access to Owner's site, hours of operations are 7:00 A.M. - 6:00 P.M. If Contractor would like to work on weekends or federal and state holiday's he/she must request permission from Owner three working days in advance. The Owner reserves the right to accept or reject the Contractor's request.

6. Coordinate use of premises under direction of Owner.

7. The Contractor shall be responsible for his/her security in Construction Area until substantial completion. The contractor shall coordinate security of Building with Owner.

8. The Contractor shall be responsible for his/her temporary protection (dust and noise control including abatement) for separating the Construction Area from the building occupants and

workspaces until substantial completion. The contractor shall coordinate temporary protection with Owner.

E. Owner Occupancy

1. Owner will occupy the facility during entire period of construction, to conduct Owner's normal operations. The Contractor shall cooperate with Owner to minimize conflict to the Owner's operations.

F. Owner-furnished Products: See Section 10 28 00 – TOILET & BATH ACCESSORIES

G. Schedule of Allowances: Not Used

H. Alternates Bid Items (ABI): Not Used

I. Unit Prices (UPR): Not Used

J. Applications for Payment:

1. Submit Two (2) copies of each application using a form that is acceptable to the Owner and the Architect/Engineer, hereafter referred to solely as Owner.

K. Coordination:

1. Work of this Contract includes coordination of the entire Work of the Project.

2. The Contractor shall obtain and pay for all necessary construction/building permits. The Contractor shall send two (2) copies of all permits to the Owner.

3. Coordinate work with all utilities. Interruption of services shall be coordinated with an appropriate official at the facility to minimize the disruption of operations within the facility.

4. Notify an appropriate official at the facility at least three days in advance of the need to move furnishings, equipment, materials, etc. from areas to be affected by the construction.

5. Control on-site activities to minimize the disruption of the occupants.

6. Coordinate the work of equipment and material suppliers and subcontractors.

7. Make arrangements for the timely delivery of materials and supplies to the job site and for their temporary storage on site.

8. Maintain the project site in a neat condition.

9. Assist the Owner during periodic site visits and in the review of construction.

10. Maintain up to date progress records and as-built drawings.

L. Conflicts

1. Contractor shall notify Owner in writing of any real or apparent conflicts in the Contract Documents and, except in cases of emergency, await Owner's determination before proceeding.

2. The Owner's Project Manager shall resolve conflicts that arise during construction.

3. If two or more solutions are indicated in the Contract Documents, the Contractor shall assume the cost of the more expensive solution unless otherwise directed by the Owner.

M. Field Engineering

1. The Contractor shall be responsible for all field engineering as required.

2. The Contractor shall be responsible for obtaining any permits necessary.

N. Reference Standards

1. For products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

2. The date of the standard is that in effect as of the Bid date, or date of Owner-Contractor Agreement when there are no bids, except when a specific date is given.

3. Obtain copies of standards when required by Contract Documents. Maintain copy at job site during progress of the specific work.

1.02 SCHEDULING AND PHASING OF WORK

A. Commencement: Work of the Contract may commence when:

1. Within 7 days of receipt of the Notice to Proceed and once the contract requirements have been met.

B. Substantial Completion: Work of the Contract must be Substantially Completed by:

1. ***May 31, 2018*.**

C. Final completion of all Work of this Contract shall be by:

1. ***June 21, 2018*.**

D. Except as otherwise specified, Substantial Completion is hereby defined to mean a stage of completion sufficient for the Owner to have full beneficial use and occupancy of the structure involved, less only minor corrections and repairs that can be performed without undue annoyance to building occupants which shall be documented on the "punch list" as specified hereinafter. Beneficial use and occupancy means removal of all debris, interior and exterior scaffolding, surplus equipment and material and cleaning as required under the Contract completed.

E. Normal building operations will continue throughout the length of the Project. The successful Contractor shall develop a schedule of work that is respectful of the Owner's needs but with a mutual understanding that temporary relocation of personnel within the facility may be required.

F. Within ten (10) working days following receipt of the fully executed formal Contract Agreement by the Contractor, the Contractor shall prepare a proposed Phasing and Progress Schedule. The final Schedule shall be as mutually agreed to by the Owner and Contractor, and within the following guidelines:

1. The Owner's business operations must continue throughout the entire construction period.

2. Work within the building interior must comply with the Owner's requirements for continued use and occupancy.

3. Applicable egress codes must be complied with during the construction period. In particular, building entrances and exit ways must be kept open at all times.

1.03 REGULATORY REQUIREMENTS

A. Conform to Local, State and Federal codes.

1.04 PROJECT MEETINGS

A. Requirements:

1. Contractor shall, upon acceptance of a Contract and before commencing Work, contact the Owner and request a pre-construction conference.

B. Pre-construction Conference

1. The Owner will administer a pre-construction conference for execution of Owner-Contractor Agreement and exchange of information and preliminary submittals.

C. Construction Progress Meetings

1. The Contractor shall schedule and administer Project meetings throughout progress of the Work, called meetings, and pre-installation conferences.

2. The Contractor shall make physical arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two days to Owner, participants, and those affected by decisions made at meetings.

3. Attendance: Job superintendent, major Subcontractors and suppliers, Owner and those appropriate to agenda topics for each meeting.

4. Suggested Agenda: Review of Work progress, status of progress schedule and adjustments thereto, delivery schedules, submittals, maintenance of quality standards, pending changes and substitutions, and other items affecting progress of Work.

1.05 SUBMITTALS

A. Procedures

1. In all submittals always refer to the project name and bid number.

2. Submit the number of copies which Contractor requires, plus two copies, which will be retained by Owner.

3. Submittals can be delivered electronically to both the Architect/Engineer and Owner. If submitting by e-mail, submit to the Architect/Engineer for approval, and the Owner for review, at the e-mail address below:

   Architect/Engineer: mdaigle@cordjiacpg.com

   Owner: dboulanger@auburnmaine.gov

4. Submittals can be delivered in paper form. Deliver copies of submittals to Architect/Engineer for approval at the address below:

   Mitch Daigle
   16 Tannery Lane, Suite 23
   PO Box 1367
   Camden, ME 04843
   And one (1) copy to the Owner for review:

   Derek Boulanger
   Facilities Manager / Purchasing Agent
   City of Auburn
   60 Court St.
   Auburn, Me 04210

5. Submittal Sheets:
   a. Transmit each item, as specified, using a form that is acceptable to the Owner;
   b. Identify Project, Bid No., Contractor, Subcontractor, major supplier;
   c. Identify drawing sheet and detail number, and Specification Section number, as appropriate;
   d. Identify deviations from Contract Documents.

6. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.

7. Architect/Engineer shall have 14 calendar days for review of submittals.

8. After the Architect/Engineer's review of submittal, revise and resubmit as required identifying changes made since previous submittal.

9. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.

B. Construction Progress Schedule

1. Submit an Initial Construction Progress Schedule in duplicate, see 1.02.A.3 this section for submission information. After review by Owner revise and resubmit as required.
2. The Contractor shall submit a Final Construction Progress Schedule within 4 calendar days of Owner review.

3. Show submittal dates required for Shop Drawings, Product Data, and Samples, and product delivery dates, including those furnished by Owner and those under Allowances as applicable.
4. Submit revised schedules with each Application for Payment, reflecting changes since previous submittal.

C. Schedule Of Values

1. Submit Contract Schedule Of Values within 10 days after date of Owner - Contractor Agreement.
2. Submit Contract Schedule Of Values on a form that is acceptable to the Owner, such as the AIA G703 form.
3 Format: Table of Contents of this Project Manual.
4. Include in each line item a directly proportional amount of Contractor's overhead and profit.
5. Revise schedule to list change orders, for each application for payment.

D. Shop Drawings

1. Shop drawings will be submitted to Owner, in accordance with para. 1.05 of this Section for products as required in other specification sections.

E. Product Data

1. Mark each copy to identify applicable products, models, options, and other data; supplement manufacturers' standard data to provide information unique to the Work.

2. Submit the number of copies required in 1.05.A.2, this Section.

F. Manufacturer’s Instructions

1. Submit the number of copies required in 1.05.A.2, this Section, of Manufacturer's Instructions.

G. Samples Not Used

H. Field Samples Not Used

1.06 QUALITY CONTROL

A. Quality Control, General

1. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

B. Workmanship

1. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.

2. Perform work by persons qualified to produce workmanship of specified quality.

3. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking and as otherwise indicated by the manufacturer.

C. Manufacturers' Instructions

1. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Owner before proceeding.

D. Manufacturers' Certificates

1. When required by individual Specifications Section, submit manufacturer's certificate, in duplicate, those products that meet or exceed specified requirements.

1.07 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

A. Electricity

1. The Contractor shall be allowed to hook to existing electrical panel in building, for temporary power. The Contractor will not disrupt power at building. The Owner will only pay for cost of electricity and reserves the right to deny should the use become excessive.

2. The Contractor shall provide all temporary electrical panels.

3. The Contractor shall be responsible to fix any damages, caused by modifications for temporary services.

B. Heat, Ventilation

1. The Contractor shall be allowed to use the building heating as required to protect materials from freezing.

C. Water

1. The Contractor shall be allowed to hook to existing water in building, for temporary water supply. The Contractor will pay for cost of water usage for dust control and compaction [large amounts of water].

D. Sanitary Facilities

1. The Contractor shall be allowed to use the building Sanitary Facilities.

E. Barriers

1. Provide as required to prevent public entry to construction areas, to provide for Owner's continued use of the building, and to protect occupant, existing facilities and adjacent properties from damage from construction operations.

F. The Contractor will provide as necessary:

1. Office Trailer: Weather tight, with lighting, electrical receptacles, heating, cooling and drawing display table. The office trailer will have separate office space for the project manager to conduct his/her daily business, if so required.

2. Storage Sheds for Tools, Materials, and Equipment: Weather tight, with adequate space for organized storage and access, and lighting for inspection of stored materials.

3. His/her own on-site telephone, if so required for the conduct of his/her business.

4. Protected storage.

5. Temporary barricades to separate the construction area from the Owner's area or public area.

G. Protection and Restoration

1. The Contractor shall be responsible for all damages to furnishings, equipment, supplies, existing construction, including finished surfaces, caused by Work of Contract.

2. The Contractor shall be fully responsible for maintaining weather-tight integrity of the roofing system and wall systems, including permanent and temporary flashings, during the entire construction period.

3. The Contractor's responsibilities shall include the cost to repair damage to the existing building's structure, finishes and contents associated with the Contractor's failure to maintain the watertight integrity of the roofing system and wall system, whether permanent or temporary, at no additional cost to the Owner.

4. The Contractor shall protect paved areas and lawns around the Building from damage associated with the construction. Costs to repair damage to paved areas and lawns will be deducted from Contractor's final payment to cover Owner's expenses to repair damage should the Contractor fail to repair the damages to the Owners satisfaction. The Owner will determine if damages are minor or major.

H. Security

1. Provide security program and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, and theft. Coordinate with Owner's security program.

I. Water Control Not Used

J. Cleaning during Construction

1. Throughout the construction period the Contractor shall be responsible for maintaining building and site areas affected by the Work in a standard of cleanliness.

    a. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing protection of materials.

    b. Completely remove all scrap, debris, waste material and other items not required for construction from the site at least once a day.

c. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

2. Conduct daily inspection, more often if necessary, to verify that requirements for cleanliness are being satisfied.

3. Provide required personnel, equipment and materials needed to maintain the specified standard of cleanliness.

4. Use only those cleaning materials and equipment that are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

K. Removal

1. Unless otherwise specified, materials to be removed, including all components and accessories, become property of the Contractor and shall be promptly removed from the Contract Site and legally disposed of at Contractor's expense.

2. Remove temporary materials, equipment, services, and construction prior to Substantial Completion inspection.

3. Clean and repair damage caused by installation or use of temporary facilities. Restore existing facilities used during construction to specified, or to original, condition.

4. The Contractor shall be responsible for removing and disposing of solid wastes (including construction/demolition debris) per Section 01 35 43 and Section 02 41 00.

1.08 MATERIAL AND EQUIPMENT

A. Products

1. Products include material, equipment, and systems.
2. Comply with Specifications and referenced standards as minimum requirements.
3. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.
4. Do not use materials and equipment removed from existing structure, except as specifically required, or allowed, by the Contract Documents.
5. ACBM (ASBESTOS CONTAINING BUILDING MATERIALS) ARE NOT ALLOWED, materials containing asbestos in any manner or quantity are not allowed on this Project. If such materials are installed they shall be removed and replaced at no additional cost to the Owner.

B. Transportation and Handling

1. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
2. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
3. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

C. Storage and Protection

1. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.

2. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

3. Products Specified by Reference Standards or by Description Only: Any product meeting those standards.

4. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not specifically named.

D. Products List

1. Within 15 days after date of Owner-Contractor Agreement, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

E. Substitutions

1. Substitutions shall be submitted to Architect/Engineer a minimum of 7 days prior to bid date for review. Any substitutions not submitted 7 days prior to bid date shall not be reviewed or considered.

2. Do not assume that "or Equal" or terms of similar meaning indicate automatic approval of substitute products.

3. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.

4. Request constitutes a representation that the Contractor:

   a. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.

   b. Will provide the same warranty for substitution as for specified product.

   c. Waives claims for additional costs, which may subsequently become apparent.

5. The Owner will determine acceptability of proposed substitution, and will notify the Contractor of acceptance or rejection in writing within a reasonable time.

1.09 CONTRACT CLOSEOUT

A. Closeout Procedures

1. Submit Closeout Documentation to the Architect/Engineer 10 days prior to the Substantial Completion Date. The Architect/Engineer shall confirm that the Contractor has fulfilled the Contract Closeout Documentation Requirements 10 days prior to the Substantial Completion Date. The Contractor shall not submit for Final Application for Payment until the

Architect/Engineer has notified the Owner that Contractor has fulfilled the Contract Closeout Documentation Requirements.

2. When the Owner considers the Work of this contract has reached Substantial Completion, the Contractor and Owner shall sign a Certificate of Substantial Completion. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. This Certificate of Substantial Completion will be prepared by the Architect/Engineer. When the Certificate of Substantial Completion has been signed by the Owner and the Contractor, the completed Certificate of Substantial Completion shall set the date for Substantial Completion of the work or a designated portion of the work.

3. When the Contractor considers the Work of this contract has reached final completion, the Contractor shall submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for OWNER's inspection. This written notification shall be submitted to the Owner 7 calendar days prior to the proposed inspection date. The Contractor shall not call for final inspection of any portion of the Work that is not complete and permanently installed. The Contractor will be found liable for the re-inspection expenses of individuals called to final inspection meetings prematurely.

4. In addition to submittals required by the conditions of the Contract, provide release of all liens, claims and submit final requisition.

5. The Contractor's failures to comply with Closeout Procedures, if the Closeout Documentation Requirements are not completed by the Substantial Completion Date. The Owner reserves the right to recover the costs to complete the Closeout Documentation Requirements from the Retainage. The Owner reserves the right to hire an Architect/Engineer to complete the required Contract Closeout Documentation.

B. Final Cleaning

1. Execute prior to final inspection.

2. Clean work site; sweep hard surfaced areas, wipe clean vertical surfaces, clean fixtures and glass surfaces so that the work site is ready for Owner occupancy.

3. Remove waste and surplus materials, rubbish, and construction facilities from the Project and from the site. Owner will be responsible for cleaning after acceptance.

C. Project Record Documents

1. Store documents separate from those used for construction.

2. Keep documents current; do not permanently conceal any work until Owner has inspected and required information has been recorded.

3. At Contract Closeout, submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION

3.01 FINAL CLEANING

A. Execute final cleaning before final project assessment.

B. Clean debris from drainage systems.

C. Remove waste and surplus materials, rubbish, and construction facilities from site.

3.02 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified in individual specification sections.

B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

D. Protect finished surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

F. Prohibit traffic from landscaped areas.

3.03 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:

1. Drawings.

2. Specifications.

3. Addenda.

4. Change Orders and other modifications to the Contract.

5. Reviewed Shop Drawings, Product Data, and Samples.

6. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress, not less than weekly.

E. Record Drawings: Legibly mark each item to record actual construction including:

1. Field changes of dimension and detail.

2. Details not on original Contract drawings.

F. Project Summary: The first page in binder should include a paragraph describing the Project followed by a Contact List. The Contact List is to include Owner name along with company name, contact name, address, and telephone number for the Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.

G. Submit three (3) copies of data on 8-1/2 x 11-inch text pages, bound in three (3) separate D side ring binders with durable plastic covers. **Contractor shall also provide the project record documents in electronic form on CD/DVD.**

H. Submit Closeout Documentation to the Architect/Engineer 10 days prior to the Substantial Completion Date. The Architect/Engineer shall confirm that the Contractor has fulfilled the Contract Closeout Documentation Requirements prior to the Substantial Completion Date.

3.07 PRODUCT WARRANTIES AND PRODUCT BONDS

A. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.

B. Verify documents are in proper form, contain full information, and are notarized when required.

C. Co-execute submittals when required.

D. Submit with Project Record Documents and before final Application for Payment.

END OF SECTION 01 00 00

SECTION 01 10 00
SUMMARY

PART 1 GENERAL

1.1 PROJECT

A. Project Name: Woodbury Brackett Municipal Garage, 2nd Floor Restroom Renovation.

B. Bid Number: 2018-020

C. Owner's Name: The City of Auburn, Maine.

D. Architect/Engineer Name: Cordjia Capital Projects Group, LLC.

1.2 CONTRACT DESCRIPTION

A. Contract Type: City of Auburn, Maine, Standard Form of Agreement.

1.3 DESCRIPTION OF ALTERATIONS WORK

A. Scope of alterations work is indicated on drawings and noted in the specifications. The Contractor shall supply all work at no additional cost to the Owner a complete, operable and code compliant systems as required to achieve the design intent whether or not specifically identified in the contract documents.

B. Plumbing: Alter existing system and add new construction, keeping existing in operation.

C. Mechanical: Alter existing system and add new construction, keeping existing in operation. The Contractor is to install a code compliant exhaust system to provide ventilation of the men's room, janitor's closet and the woman's room. The ventilation shall be on by light switch and off by delay relay.

D. Electrical Power and Lighting: Alter existing system and add new construction, keeping existing in operation. The Contractor is to install a code compliant, damp location listed LED light fixture over the new shower connected to the existing light circuit, relocate the light switch, and install a new GFCI outlet in the woman's room, new emergency lighting in the men's and woman's rooms, and LED exit lights in the hall and open office as indicated.

E. Fire Suppression Sprinklers: Alter existing system and add new construction, keeping existing in operation.

F. Fire Alarm: Alter existing system and add new construction, keeping existing in operation. The Contractor is to install code compliant strobes in the men's and woman's rooms.

G. Telephone & Network: Alter existing system and add new construction, keeping existing in operation.

H. Asbestos Abatement: The VCT and mastic flooring materials in the open office tested positive for asbestos and abatement will be required. Refer to Appendix B for the available Asbestos Materials Inspection Report.

1.4 OWNER OCCUPANCY

A. Owner intends to occupy the Project Site during construction.

B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.

C. Schedule the Work to accommodate Owner occupancy.

1.5 CONTRACTOR USE OF SITE AND PREMISES

A. Provide access to and from site as required by law and by Owner:

1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
2. Do not obstruct roadways, sidewalks, or other public ways without permit.

B. Utility Outages and Shutdown:

1. Limit disruption of utility services to hours the building is unoccupied.
2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
3. Prevent accidental disruption of utility services to other facilities.

1.6 PROCUREMENT TIMELINE

A. Bid Documents Available: Wednesday, February 14, 2018.

B. Pre-Bid Meeting: 2:00 PM on Thursday, February 22, 2018 at the Woodbury Brackett Municipal Garage.

C. Last Request for Information and/or Substitution Request Due: Thursday, March 1, 2018 prior to 2:00 PM.

D. Final Addenda Issued By: Monday, March 5, 2018 prior to 2:00 PM.

E. Bid Due Date: Thursday, March 8, 2018, on or before 2:00 PM.

F. Contract Negotiations: Within 7 calendar days after bid due date.

G. Notice of Award: Within 15 calendar days after bid due date.

H. Proposals May Not Be Withdrawn Until: 30 calendar days after bid due date.

I. Substantial Completion Date: Thursday, May 31, 2018.

J. Final Completion Date: Thursday, June 21, 2018.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

END OF SECTION 01 10 00

SECTION 01 35 43

ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.01 DEFINITIONS OF CONTAMINANTS:

A. Sediment: Soil and other debris that has been eroded and transported by runoff water.

B. Solid Waste: Rubbish, debris, garbage, and other discarded solid materials resulting from industrial, commercial, and agricultural operations, and from community activities.

C. Rubbish: A variety of combustible and noncombustible wastes such as paper, boxes, glass, crockery, metal, lumber, cans and bones.

D. Debris: Includes combustible and noncombustible wastes such as ashes, waste materials that result from construction or maintenance and repair work, leaves, and tree trimmings.

E. Chemical Wastes: Includes salts, acids, alkalies, herbicides, pesticides, and organic chemicals.

F. Sanitary Wastes: See Section 01 00 00, para. 1.07. E.1.

G. Sewage: Wastes characterized as domestic sanitary sewage.

H. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

I. Oily Waste: Includes petroleum products and bituminous materials.

1.02 ENVIRONMENTAL PROTECTION REQUIREMENTS:

A. General:

1. Provide and maintain during the life of the contract, environmental protection as defined herein. Provide environmental protective measures as required to control pollution that develops during normal construction practice. Provide also environmental protection measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with all federal, state, and local regulations pertaining to water, air, and noise pollution.

PART 2 - PRODUCTS: NOT USED

PART 3 - EXECUTION

3.01 PROTECTION OF NATURAL RESOURCES:

A. General:

1. The natural resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their existing condition or restored to an

equivalent or improved condition upon completion of the work. Confine construction activities to areas defined by the work schedule, drawings, and specifications.

B. Land Resources:

1. Except in areas indicated to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without special approval of the Owner. Do not fasten or attach ropes, cables, or guys to any existing nearby trees for anchorages unless specifically authorized. Where such special emergency use is authorized, the Contractor shall be responsible for any resultant damage.

C. Protection:

1. Protect existing trees which are to remain and which may be injured, bruised, defaced, or otherwise damaged by construction operators. Remove displaced rocks from uncleared areas. Protect monuments, markers and works of art.

D. Repair and Restoration:

1. Repair or restore to their original condition all trees or other landscape features scarred or damaged by the equipment operations. Obtain approval of the repair or restoration from the Owner prior to its initiation.

E. Temporary Construction:

1. Obliterate all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, and all other vestiges of construction. Temporary roads, parking areas, and similar temporary use areas shall be graded in conformance with surrounding areas, tilled, and seeded. Include topsoil or nutriment during the seeding operation as necessary to establish a suitable stand of grass.

F. Water Resources:

1. Perform all work in such a manner that any adverse environmental impact on water resources is reduced to a level acceptable to the Owner.

G. Oil Substances:

1. Take special measures to prevent oily or hazardous substances from entering the ground, drainage areas or local bodies of water. Surround all temporary fuel oil, petroleum, or liquid chemical storage tanks with a temporary berm of sufficient size and strength to contain the contents of the tanks in the event of content leakage or spillage.

H. Fish and Wildlife Resources:

1. During the performance of the work take such steps as required to prevent interference or disturbance to fish and wildlife. Do not alter water flows or otherwise significantly disturb native habitat adjacent to the project area which are critical to fish and wildlife except as may be indicated or specified.

I. Historical and Archaeological Resources:

1. Carefully preserve and report immediately to the Owner all items having any apparent historical or archaeological interest which are discovered in the course of any construction activities.

3.02 EROSION AND SEDIMENT CONTROL MEASURES:

A. Burn-off:

1. Burn-off of ground cover is not permitted.

B. Protection of Erodible Soils:

1. All earthwork brought to final grade shall be immediately finished as indicated or specified. Protect immediately side slopes and backslopes upon completion of rough grading. Plan and conduct all earthwork in such a manner as to minimize the duration of exposure of unprotected soils.

C. Temporary Protection to Erodible Soils:

1. Utilize the following methods to prevent erosion and control sedimentation.

D. Mechanical Retardation and Control of Runoff:

1. Mechanically retard and control the rate of runoff from the construction site. This includes construction of diversion ditches, benches, and berms, to retard and divert runoff to protected drainage courses.

E. Vegetation and Mulch:

1. Provide temporary protection on all side and back slopes as soon as rough grading is completed or sufficient soil is exposed to require protection to prevent erosion. Such protection shall be by accelerated growth of permanent vegetation, temporary vegetation, mulching, or netting. Stabilize slopes by hydroseeding, anchoring mulch in place, covering with anchored netting, sodding, or such contamination of these and other methods necessary for effective erosion control.

3.03 CONTROL AND DISPOSAL OF SOLID, CHEMICAL AND SANITARY WASTES:

A. General:

1. Handle and dispose of wastes in accordance with this specification section. If directions conflict with another included specification, the other specification shall take precedence.

2. Track the disposal of all solid, hazardous and chemical wastes and provide Waste Disposal Tracking as required by Local, State and Federal regulations.

3. The preparation, cooking, and disposing of food is strictly prohibited on the project site.

4. Conduct handling and disposal of wastes to prevent contamination of the site and other areas. On completion, leave areas clean and natural looking. Obliterate signs of temporary construction and activities incidental to construction of permanent work in place.

B. Solid Wastes:

1. Pick up solid wastes and place in containers which are emptied on a regular schedule at the Contractor's expense.

2. Solid wastes shall be recycled whenever practicable.

3. The Contractor shall be responsible for contacting disposal facilities to determine what types of solid waste they will accept. The Contractor shall dispose of solid wastes only at facilities allowed to accept such material per Federal, State, and Local regulations.

C. Sewage, Odor, and Pest Control:

1. Dispose of sewage through connection to an authorized sanitary sewage system. Where such a system is not available, use chemical toilets or comparable effective units and periodically empty wastes. Include provisions for pest control and elimination of odors.

D. Chemical Wastes:

1. Store chemical waste in corrosion resistant containers labeled to identify type of waste and date filled. Remove containers from the project site, and dispose of chemical waste in accordance with Federal, State, and Local regulations. For oil and hazardous material spills which may be large enough to violate Federal, State, or Local regulations, notify the Owner and appropriate regulating Agency immediately.

E. Petroleum Products:

1. Conduct fueling and lubricating of equipment and motor vehicles in a manner that affords the maximum protection against spills and evaporation. Dispose of lubricants to be discarded and excess oil in accordance with approved procedures meeting Federal, State and Local regulations.

3.04 DUST CONTROL:

A. General:

1. Keep dust down at all times, including nonworking hours, weekends, and holidays. Sprinkle or treat with dust suppressors, the soil at the site, haul roads, and other areas disturbed by operations. Petroleum products will not be used as suppressors. No dry power brooming is permitted. Instead use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing is permitted only for cleaning of non-particulate debris, such as steel reinforcing bars. No unnecessary shaking of bags is permitted where bagged cement, concrete mortar and plaster is used.

3.05 NOISE:

A. General:
1. When available, make the maximum use of "low-noise-emission products" as certified by EPA. No blasting or use of explosives is permitted without written permission of the Owner and then only during designated times.

END OF SECTION 01 35 43

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 GENERAL

1.01 SUMMARY

A. Section includes procedural requirements for cutting and patching.

1.02 DEFINITIONS

A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.

B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.03 RELATED REQUIREMENTS

A. Section 01 00 00 – ADMINISTRATIVE PROVISIONS

B. Section 01 35 43 – ENVIRONMENTAL PROTECTION

C. Section 02 41 00 – DEMOLITION

1.04 QUALITY ASSURANCE

A. General: Contractor shall take reasonable care prior to all cutting and drilling in order to minimize unintended damage to concealed conduits, cables, pipes, reinforcing steel, etc. In circumstances where the absence of such concealed elements is not established conclusively, utilize detection and mapping technology, e.g., X-ray or Sub-surface Interface Radar (SIR), to locate any such elements that may be present before proceeding with the cutting or drilling work.

B. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

C. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational Elements include but are not limited to the following:

1. Air or smoke barriers.
2. Fire-protection systems.
3. Control systems.
4. Communication systems.
5. Conveying systems.
6. Electrical wiring systems.
7. Operating systems of special construction.

D. Miscellaneous Elements: Do not cut and patch elements or related components in a manner that could change their load-carrying capacity that results in reducing their capacity to perform as intended, or that result in an increased maintenance or decreased operational life or safety. Miscellaneous Elements include but are not limited to the following:

1. Water, moisture, or vapor barriers.
2. Membranes and flashings [that are scheduled to remain].
3. Exterior curtain-wall construction.
4. Equipment supports.
5. Piping, ductwork, vessels, and equipment.

6. Noise- and vibration-control elements and systems.

E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.05 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 PRODUCTS

2.01 MATERIALS

A. General: Comply with requirements specified in other Sections of these Specifications.

B. Existing and In-Place Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
   1. If identical materials are unavailable or cannot be used, use materials that, when installed, shall match the visual and functional performance of existing materials.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
   1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
   2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass such services before cutting to prevent interruption of services to occupied areas.
   1. If existing services to occupied areas must be interrupted, coordinate and receive approval of the interruption of services prior to starting work.

3.03 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
   1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
   1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
   2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
   3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
   4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
   5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
   6. Proceed with patching after construction operations requiring cutting are complete.

C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
   1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
   2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that shall eliminate evidence of patching and refinishing.
      a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
      b. Restore damaged pipe covering to its original condition.

D. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
   1. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.

E. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

F. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weather tight condition.

G. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 73 29

SECTION 02 41 00

DEMOLITION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. Section 01 00 00 – Administrative Provisions.

C. Section 01 35 43 – Environmental Protection.

D. Section 01 73 29 – Cutting and Patching.

E. Appendix B – Hazardous Material Inspection Report.

1.02 SECTION INCLUDES

A. Selective demolition of building elements for alteration purposes.

B. Selective removal and disposal of asbestos containing flooring materials as indicated in the Hazardous Material Identification Report.

1.03 REFERENCE STANDARDS

A. The publications listed below form a part of this specification to the extent referenced.

B. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.

1. Title 29 CFR 1926.1101 - Construction Standard for Asbestos.
2. Title 29 CFR 1910.132 - Personal Protective Equipment.
3. Title 29 CFR 1910.134 - Respiratory Protection.
4. Title 29 CFR 1926 - Construction Industry Standards.
5. Title 29 CFR 1910.20 - Access to Employee Exposure and Medical Records.
6. Title 29 CFR 1910.1200 - Hazard Communication.
7. Title 29 CFR 1910.151 - Medical and First Aid.

C. Environmental Protection Agency (EPA)

1. 40 CFR 61 Subpart A and M (Revised Subpart B) - National Emission Standard for Hazardous Air Pollutants - Asbestos.
2. 40 CFR 148 - Hazardous Waste Injection Restrictions.
3. 40 CFR 260 - Hazardous Waste Management System: General.
4. 40 CFR 261 - Identification and Listing of Hazardous Waste
5. 40 CFR 263 - Standards Applicable to Transporters of Hazardous Waste.
6. 40 CFR 264 - Standards for Owners and Operations of Hazardous Waste Treatment, Storage, and Disposal Facilities.

7. 40 CFR 265 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
8. 40 CFR 268 - Land Disposal Restrictions.
9. 40 CFR 763.80 - Asbestos Hazard Emergency Response Act (AHERA).

D. Department of Transportation (DOT)

1. Title 49 CFR 172 - Hazardous Material Table, Special Provisions, Hazardous Material Communications, Emergency Response Information, and Training Requirements.
2. Title 49 CFR 178 - Specifications for Packaging.
3. Title 49 CFR 100 - 185 – Transportation.

E. National Fire Protection Association (NFPA)

1. NFPA 101 - Life Safety Code.
2. NFPA 241-2004 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

F. Underwriters Laboratories (UL)

1. UL 586-1996 (Rev 2004) - High-Efficiency, Particulate, Air Filter Units.

G. American National Standards Institute (ANSI)

1. Z9.2-2001 - Fundamentals Governing the Design and Operation of Local Exhaust Systems.
2. Z88.2-1992 - Respiratory Protection.

H. State Requirements

State requirements that apply to the abatement work, disposal, clearance, etc., include, but are not limited to, the following:

1. Maine Department of Environmental Protection:
   a. Chapter 425, Asbestos Management Regulations; current edition.
   b. Chapter 401, Landfilling, Siting, Design and Operation Rule; current edition.
   c. Chapter 850: Identification of hazardous Wastes.
   d. Chapter 851: Standards for Generators of Hazardous Waste.
   e. Chapter 857: Hazardous Waste Manifest Requirements.

1.04 SUBMITTALS

A. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.

1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences.

2. Identify demolition firm and submit qualifications.

3. Include a summary of safety procedures.

B. Asbestos Abatement Plan:

1. Submit a detailed work schedule for the entire project reflecting contract documents and the phasing/schedule requirements.

2. Submit a staff organization chart showing all personnel who will be working on the project and their capacity/function. Provide their qualifications, training, accreditations, and licenses, as appropriate.
3. Submit required notifications and arrangements made with regulatory agencies having regulatory jurisdiction and the specific contingency/emergency arrangements made with local health, fire, ambulance, hospital authorities and any other notifications/arrangements.
4. Submit copies of State license for asbestos abatement; copy of insurance policy, including exclusions with a letter from agent stating in plain english the coverage provided and the fact that asbestos abatement activities are covered by the policy.

C. Records:

1. Completed and signed hazardous waste manifest from treatment or disposal facility.
2. Certification of Medical Examinations.
3. A list of all workers who will participate in the project, including experience and verification of training and accreditation.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Not Used

PART 3 - EXECUTION

3.01 SCOPE

A. Remove portions of existing building as indicated or described.

B. Remove other items indicated, for salvage and relocation as directed by the Owner.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

A. Comply with applicable codes and regulations for demolition and abatement operations and safety of adjacent structures and the public.

1. Obtain required permits.
2. Provide, erect, and maintain temporary barriers and security devices.
3. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
4. Do not close or obstruct roadways or sidewalks without permit.
5. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.

B. Do not begin removal until receipt of notification to proceed from City of Auburn.

C. Protect existing structures and other elements that are not to be removed.

D. Perform removal of waste ACM and debris shall be in accordance with approved asbestos abatement plan and packaged in accordance with applicable OSHA, EPA, DEP and DOT regulations. The landfill requirements for packaging must also be met.

E. If unforeseen hazardous materials are discovered during removal operations, stop work and notify owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
   1. Refer to the Hazardous Materials Inspection Report, prepared by Acadia Contractors, LLC that is included in Attachment B.

3.03 SELECTIVE DEMOLITION FOR ALTERATIONS

A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
   1. Verify that construction and utility arrangements are as shown.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.

B. Remove existing work as indicated and as required to accomplish new work.
   1. Remove items indicated on drawings.

C. Protect existing work to remain.
   1. Perform cutting to accomplish removals neatly and as specified for cutting new work.
   2. Repair adjacent construction and finishes damaged during removal work at no additional cost to the Owner.
   3. Patch as specified for patching new work.

3.04 DEBRIS AND WASTE REMOVAL

A. Remove debris, junk, and trash from site.

B. Clean up spillage and wind-blown debris from public and private lands.

C. Leave site in clean condition, ready for subsequent work.

D. Transport and dispose of regulated hazardous materials in accordance with applicable Local, State and Federal regulations. Disposal shall be done at an approved landfill. Disposal of non-friable ACM shall be done in accordance with applicable regulations.

END OF SECTION 02 41 00

SECTION 05 40 00

COLD-FORMED METAL FRAMING

PART 1- GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Formed steel stud framing and bridging.

1.03 RELATED REQUIREMENTS

A. Section 09 21 16 - Gypsum Board Assemblies: Gypsum-based sheathing.

1.04 REFERENCE STANDARDS

A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2009.

B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2013.

C. ASTM C955 - Standard Specification for Non- Load-Bearing (Transverse and Axial) Steel Studs, Runners (Tracks), and Bracing or Bridging for Screw Application of Gypsum Panel Products and Metal Plaster Bases; 2011c.

D. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); Society for Protective Coatings; 2002 (Ed. 2004).

E. ASTM C754 – Installation of non-bearing steel studs with gypsum board.

1.05 SUBMITTALS

A. Product Data: Provide data on standard framing members; describe materials and finish, product criteria, limitations.

B. Product Data: Provide manufacturer's data on factory-made framing connectors, showing compliance with requirements.

PART 2- PRODUCTS

2.01 FRAMING SYSTEM

A. Provide primary and secondary non-bearing stud framing members, bridging, bracing, plates, gussets, clips, fittings, reinforcement, and fastenings as required to provide a complete framing system.

B. Provide galvanized 20 GA. minimum.

2.03 ACCESSORIES

A. Bracing, Furring, Bridging: Formed sheet steel, thickness determined for conditions encountered; finish to match framing components.

B. Plates, Gussets, Clips: Formed Sheet Steel, thickness determined for conditions encountered; finish to match framing components.

C. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

2.04 FASTENERS

A. Self-Drilling, Self-Tapping Screws, Bolts, Nuts and Washers: Hot dip galvanized per ASTM A153/A153M.

B. Anchorage Devices: Powder actuated.

PART 3- EXECUTION

3.01 INSTALLATION OF COMPONENTS

A. Install framing components in accordance with manufacturer's instructions.

B. Make provisions for erection stresses. Provide temporary alignment and bracing.

3.02 TOLERANCES

A. Maximum Variation from True Position: 1/4 inch.

B. Maximum Variation of any Member from Plane: 1/4 inch.

END OF SECTION 05 40 00

SECTION 06 10 00

ROUGH CARPENTRY

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Non-structural dimension lumber framing.

B. Miscellaneous framing and sheathing.

C. Concealed wood blocking, nailers, and supports.

D. Miscellaneous wood nailers, furring, and grounds.

1.03 RELATED REQUIREMENTS

A. Section 09 21 16 - Gypsum Board Assemblies: Gypsum-based sheathing.

B. Section 10 28 00 – Toilet& Bath Accessories: blocking in existing walls for grab bar and mirror.

1.04 SUBMITTALS

A. Product Data: Provide technical data on wood products and materials.

1.05 DELIVERY, STORAGE, AND HANDLING

A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.

1. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.

2. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides

grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

A. Sizes: Nominal sizes as indicated on drawings, S4S. Moisture Content: S-dry or MC19.

B. Miscellaneous Blocking, Nailers, Grounds, and Furring:

1. Lumber: S4S, No. 2 or Standard Grade.

PART 3 - EXECUTION

3.01 INSTALLATION - GENERAL

A. Select material sizes to minimize waste. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

3.02 BLOCKING, NAILERS, AND SUPPORTS

A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

3.03 TOLERANCES

A. Framing Members: 1/4 inch from true position, maximum.

B. Variation from Plane (Other than Floors): 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

3.04 CLEANING

A. Waste Disposal.

1. Comply with applicable regulations.

2. Do not burn scrap on project site.

3. Do not burn scraps that have been pressure treated.

4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or “waste-to-energy” facilities.

B. Do not leave any wood, shavings, sawdust, etc. on the ground or buried in fill.

C. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION 06 10 00

SECTION 06 20 00
FINISH CARPENTRY

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Misc. wood trim.

1.03 RELATED REQUIREMENTS

A. Section 06 10 00 - Rough Carpentry: Support framing, grounds, and concealed blocking.

B. Section 09 90 00 - Painting and Coating: Painting and finishing of finish carpentry items.

1.04 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2014.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the work with plumbing rough-in, electrical rough-in, and installation of associated and adjacent components.

B. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.

1.06 QUALITY ASSURANCE

A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Protect work from moisture damage.

PART 2 - PRODUCTS

2.01 FINISH CARPENTRY ITEMS

A. Wood trim.

2.02 FASTENINGS

A. Adhesive suitable for the purpose; not containing formaldehyde or other volatile organic compounds.

2.03 FABRICATION

A. Shop assemble work for delivery to site, permitting passage through building openings.

B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify adequacy of backing and support framing.

B. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.

3.02 INSTALLATION

A. Set and secure materials and components in place, plumb and level.

B. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.

3.03 TOLERANCES

A. Maximum Variation from True Position: 1/16 inch.

B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch.

END OF SECTION 06 20 00

SECTION 07 21 00

THERMAL INSULATION

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Batt insulation in wood or steel Framing for sound insulation.

1.03 RELATED REQUIREMENTS

A. Section 06 10 00 - Rough Carpentry: Construction for batt insulation.

1.04 REFERENCE STANDARDS

A. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2012.

B. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace At 750 Degrees C; 2012.

1.05 SUBMITTALS

A. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

PART 2 - PRODUCTS

2.01 BATT INSULATION MATERIALS

A. Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.

1. Combustibility: Non-combustible, when tested in accordance with ASTM E136, except for facing, if any.

2.02 ACCESSORIES

A. Tape, plastic, white.

PART 3 - EXECUTION

3.01 BATT INSTALLATION

A. Install insulation in accordance with manufacturer's instructions.

B. Install in spaces without gaps or voids. Do not compress insulation.

C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.

D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.

.

3.02 PROTECTION

A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION 07 21 00

SECTION 07 90 05

JOINT SEALERS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Sealants and joint backing.

1.03 RELATED REQUIREMENTS

A. Section 08 11 13 - Hollow Metal Doors & Frames

.

1.04 REFERENCE STANDARDS

A. ASTM C834 - Standard Specification for Latex Sealants; 2010.

B. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2013.

1.05 SUBMITTALS

A. Product Data: Provide data indicating sealant chemical characteristics.

1.06 FIELD CONDITIONS

A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.07 WARRANTY

A. Correct defective work within a five year period after Date of Substantial Completion.

B. Warranty: Include coverage for installed sealants and accessories which fail to achieve airtight seal, exhibit loss of adhesion or cohesion, or do not cure.

PART 2 - PRODUCTS

2.01 SEALANTS

A. Type A - Exterior Metal Lap Joint Sealant: Butyl or polyisobutylene, nondrying, nonskinning, noncuring.

1. Applications: Use for:
    a. Concealed sealant bead in sheet metal work.

B. Type B - General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C834, Type OP, Grade NF single component, paintable.
    1. Color: Match adjacent finished surfaces.
    2. Applications: Use for:
        a. Interior wall and ceiling control joints.
        b. Joints between door and window frames and wall surfaces.
        c. Other interior joints for which no other type of sealant is indicated.

2.02 ACCESSORIES

A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.

B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.

C. Joint Backing: Round foam rod compatible with sealant; ASTM D 1667, closed cell PVC; oversized 30 to 50 percent larger than joint width.

D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 - EXECUTION

3.01 PREPARATION

A. Remove loose materials and foreign matter that could impair adhesion of sealant.

B. Clean and prime joints in accordance with manufacturer's instructions.

C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.

D. Protect elements surrounding the work of this section from damage or disfigurement.

3.02 INSTALLATION

A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

B. Perform installation in accordance with ASTM C1193.

C. Install bond breaker where joint backing is not used.

D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.

E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.

F. Tool joints concave.

3.03 CLEANING

A. Clean adjacent soiled surfaces.

3.04 PROTECTION

A. Protect sealants until cured.

END OF SECTION 07 90 05

SECTION 08 11 13

HOLLOW METAL DOORS AND FRAMES

PART 1- GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Non-fire-rated insulated steel interior doors and frames.

1.03 RELATED REQUIREMENTS

A. Section 08 71 00 - Door Hardware.

B. Section 09 90 00 - Painting and Coating.

1.04 REFERENCE STANDARDS

A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.

B. ANSI A250.8 - SDI-100 Recommended Specifications for Standard Steel Doors and Frames.

C. ANSI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 1998 (R2011).

D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2013.

E. ASTM C1363 - Standard Test Method for Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus; 2011.

F. BHMA A156.115 - Hardware Preparation in Steel Doors and Steel Frames; 2006.

G. ICC A117.1 - Accessible and Usable Buildings and Facilities; International Code Council; 2009 (ANSI).

H. NAAMM HMMA 840 - Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames; The National Association of Architectural Metal Manufacturers; 2007.

I. NAAMM HMMA 861 - Guide Specifications for Commercial Hollow Metal Doors and Frames; The National Association of Architectural Metal Manufacturers; 2006.

1.05 SUBMITTALS

A. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced grade standard.

B. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, thermal performance, and identifying location of different finishes, if any.

1.06 QUALITY ASSURANCE

A. Maintain at the project site a copy of all reference standards dealing with installation.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Store in accordance with NAAMM HMMA 840.

B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion.

PART 2 - PRODUCTS

2.01 DOORS AND FRAMES

A. Requirements for All Doors and Frames:

1. Accessibility: Comply with ICC A117.1 and ADA Standards.

2. Door Texture: Smooth faces.

3. Hardware Preparation: In accordance with BHMA A156.115, with reinforcement welded in place, in addition to other requirements specified in door grade standard.

4. Finish: Factory primed, for field finishing.

B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with all the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.02 INSULATED STEEL DOORS

B. Interior Doors, Non-Fire-Rated:

1. Grade: ANSI A250.8 - SDI-100.

2. Thickness: 1 3/4".

3. Core: Insulated to prevent sound transmission.

2.03 STEEL FRAMES

A. General:

1. Comply with the requirements of grade specified for corresponding door.

2.04 ACCESSORY MATERIALS

A. Silencers: Resilient rubber, fitted into drilled hole; 3 on strike side of single door, 3 on center mullion of pairs, and 2 on head of pairs without center mullions.

B. Temporary Frame Spreaders: Provide for all factory- or shop-assembled frames.

2.05 FINISH MATERIALS

A. Primer: Rust-inhibiting, complying with ANSI A250.10, door manufacturer's standard.

PART 3 - EXECUTION

3.01 PREPARATION

A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

3.02 INSTALLATION

A. Install in accordance with the requirements of the specified door grade standard and NAAMM HMMA 840.

B. Coordinate frame anchor placement with wall construction.

C. Coordinate installation of hardware.

3.03 TOLERANCES

A. Maximum Diagonal Distortion: 1/16 in measured with straight edge, corner to corner.

3.04 ADJUSTING

A. Adjust for smooth and balanced door movement.

3.05 SCHEDULE

A. Refer to notes on the drawings.

END OF SECTION 08 11 13

SECTION 08 71 00

DOOR HARDWARE

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Hardware for hollow steel doors including:

1. Hinges.
2. Lever handle hardware.
3. Floor or wall stops.
4. Locks and latches.
5. Closers

1.03 RELATED REQUIREMENTS

A. Section 08 11 13 – Hollow Metal Doors and Frames.

1.04 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; current edition.

B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.

C. BHMA A156.3 - American National Standard for Exit Devices; Builders Hardware Manufacturers Association; 2008 (ANSI/BHMA A156.3).

D. BHMA A156.4 - American National Standard for Door Controls - Closers; Builders Hardware Manufacturers Association, Inc.; 2008 (ANSI/BHMA A156.4).

E. BHMA A156.8 - American National Standard for Door Controls - Overhead Stops and Holders; Builders Hardware Manufacturers Association, Inc.; 2010 (ANSI/BHMA A156.8).

F. BHMA A156.22 - American National Standard for Door Gasketing and Edge Seal Systems, Builders Hardware Manufacturers Association; 2012 (ANSI/BHMA A156.22).

G. BHMA A156.115 - Hardware Preparation in Steel Doors and Steel Frames; 2006.

H. DHI (LOCS) - Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; Door and Hardware Institute; 2004.

I. ICC A117.1 - Accessible and Usable Buildings and Facilities; International Code Council; 2009 (ANSI).

J. NFPA 101 - Life Safety Code; National Fire Protection Association; 2012.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the manufacture, fabrication, and installation of products onto which door hardware will be installed.

1.06 SUBMITTALS

A. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project.

B. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

1.07 QUALITY ASSURANCE

A. Hardware Supplier Qualifications: Company specializing in supplying commercial door hardware with 5 years of experience.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.

PART 2 - PRODUCTS

2.01 DOOR HARDWARE - GENERAL

A. Provide all hardware specified or required to make doors fully functional, compliant with applicable codes, and secure to the extent indicated.

B. Provide all items of a single type of the same model by the same manufacturer.

C. Provide products that comply with the following:

1. Applicable provisions of federal, state, and local codes.

2. Accessibility: ADA Standards and ICC A117.1.

3. Applicable provisions of NFPA 101, Life Safety Code.

2.02 HINGES

A. Hinges: Provide hinges on every swinging door.
   1. Provide five-knuckle full mortise butt hinges unless otherwise indicated.
   2. Provide ball-bearing hinges at all doors having closers.
   3. Provide hinges in the quantities indicated.

B. Quantity of Hinges Per Door:
   1. Doors From 60 inches high up to 90 inches high: Three hinges.

2.03 LOCKS AND LATCHES

A. Locks: Provide a lock for every door, unless specifically indicated as not requiring locking.
   1. Provide privacy lock function.
   2. Trim: Provide lever handle.

D. Latches: Provide a latch for every door that is not required to lock, unless specifically indicated "push/pull" or "not required to latch".

2.04 STOPS AND HOLDERS

A. Stops: Complying with BHMA A156.8; provide a stop for every swinging door, unless otherwise indicated.
   1. Provide wall stops, unless otherwise indicated.
   2. If wall stops are not practical, due to configuration of room or furnishings, provide floor stop.
   3. Stop is not required if positive stop feature is specified for door closer; positive stop feature of door closer is not an acceptable substitute for a stop unless specifically so stated.

2.05 CLOSERS

A. Closers: Complying with BHMA A156.4.
   1. Provide surface-mounted, door-mounted closers unless otherwise indicated.
   2. Provide a door closer on indicated door.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that doors and frames are ready to receive work; labeled, fire-rated doors and frames are present and properly installed, and dimensions are as indicated on shop drawings.

3.02 INSTALLATION

A. Install hardware in accordance with manufacturer's instructions and applicable codes.

B. Use templates provided by hardware item manufacturer.

C. Mounting heights for hardware from finished floor to center line of hardware item:

1. For steel doors and frames: Comply with DHI "Recommended Locations for Architectural Hardware for Steel Doors and Frames."

3.03 ADJUSTING

A. Adjust hardware for smooth operation.

3.04 CLEANING

A. Clean adjacent surfaces soiled by hardware installation. Clean finished hardware per manufacturer's instructions after final adjustments has been made. Replace items that cannot be cleaned to manufacturer's level of finish quality at no additional cost.

3.05 PROTECTION

A. Do not permit adjacent work to damage hardware or finish.

END OF SECTION 08 71 00

SECTION 09 21 16

GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Gypsum wallboard, fire rated and non-fire rated.

B. Joint treatment and accessories.

1.03 RELATED REQUIREMENTS

A. Section 06 10 00 - Rough Carpentry: Wood blocking product and execution requirements.

B. Section 05 40 00 - Cold Formed Metal Framing: Framing for Gypsum Drywall.

1.04 REFERENCE STANDARDS

A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2012.

B. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2011.

C. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2013.

D. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; 2011

E. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2007 (Reapproved 2013).

F. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2014.

G. GA-216 - Application and Finishing of Gypsum Board; Gypsum Association; 2013.

1.05 SUBMITTALS

A. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.

PART 2 - PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.

1. See PART 3 for finishing requirements.

2.02 BOARD MATERIALS

A. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.

1. Application: Use for vertical surfaces, unless otherwise indicated.
2. Thickness:
    a. Vertical Surfaces: 5/8 inch.
3. Provide Type "X" fire rated where indicated or required.

2.03 ACCESSORIES

A. Joint Materials: ASTM C475 and as recommended by gypsum board manufacturer for project conditions.

1. Tape: 2 inch wide, coated glass fiber tape for joints and corners, except as otherwise indicated.
2. Ready-mixed vinyl-based joint compound.
3. Chemical hardening type compound.

B. Screws for Attachment to Steel Members Less Than 0.03 inch In Thickness, to Wood Members, and to Gypsum Board: ASTM C1002; self-piercing tapping type.

C. Screws for Attachment to Steel Members From 0.033 to 0.112 inch in Thickness: ASTM C954; steel drill screws for application of gypsum board to loadbearing steel studs.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 FRAMING INSTALLATION

A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.

3.03 BOARD INSTALLATION

A. Comply with ASTM C 840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.

3.04 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.

B. Corner Beads: Install at external corners, using longest practical lengths.

C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials and as indicated.

3.05 JOINT TREATMENT

A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, bedded and finished with chemical hardening type joint compound.

B. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:

1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.

C. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.

1. Feather coats of joint compound so that camber is maximum 1/32 inch.

2. Blend into existing Gypsum Drywall.

3.06 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION 09 21 16

SECTION 09 51 00

ACOUSTICAL CEILINGS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Suspended metal grid ceiling system, new and patch & repair.

B. Acoustical units, to match existing where reworked.

C. Acoustical units, new standard units.

D. Acoustical units, new for damp locations.

1.03 RELATED REQUIREMENTS

A. Section 07 21 00 – Thermal Insulation: Acoustical insulation.

B. Section DC D6 – Electrical Criteria: Light fixtures in ceiling system.

1.04 REFERENCE STANDARDS

A. ASTM C635 - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings; 2007.

B. UL (FRD) - Fire Resistance Directory; Underwriters Laboratories Inc.; current edition.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.

B. Do not install acoustical units until after interior wet work is dry.

1.06 SUBMITTALS

A. Shop Drawings: Indicate grid layout and related dimensioning.

B. Product Data: Provide data on suspension system components.

C. Samples: Submit two samples 6"x6" inch in size illustrating material and finish of acoustical units.

D. Maintenance Materials: Furnish the following for the City of Auburn's use in maintenance of project.
   1. Extra Acoustical Units: Quantity equal to 5 percent of total installed.

1.07 QUALITY ASSURANCE

A. Fire-Resistive Assemblies: Complete assembly listed and classified by UL for the fire resistance if indicated.

1.08 FIELD CONDITIONS

A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2 PRODUCTS

2.01 ACOUSTICAL UNITS

A. Match existing ceiling tile in areas modified by this work: Open office.

B. Provide CertainTeed Ceilings PERFORMA, Vinylrock 1142-CRF-1 for new ceilings in damp locations: Toilet and janitor rooms.

C. CertainTeed Ceilings, PERFORMA Fine Fissured, HHF-197 for new ceilings in normal locations: Upper lobby and hall.

2.02 SUSPENSION SYSTEM(S)

A. Suspension Systems - General: ASTM C635; die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.

B. Exposed Steel Suspension System: Formed steel, commercial quality cold rolled; heavy-duty.
   1. Profile: Tee; 15/16 inch wide face.
   2. Construction: Double web.
   3. Finish: Match existing.

2.03 ACCESSORIES

A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.

B. Perimeter Moldings: Same material and finish as grid.
   1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid. (no overlaps)

C. Gasket For Perimeter Moldings: Closed cell rubber sponge tape.

D. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that layout of hangers will not interfere with other work.

3.02 INSTALLATION - SUSPENSION SYSTEM

A. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.

B. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.

C. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

D. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.

E. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.

F. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.

G. Do not eccentrically load system or induce rotation of runners.

H. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
   1. Install with continuous gasket.
   2. Use longest practical lengths.

3.03 INSTALLATION - ACOUSTICAL UNITS

A. Install acoustical units in accordance with manufacturer's instructions.

B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.

C. Fit border trim neatly against abutting surfaces.

D. Install units after above-ceiling work is complete.

E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.

F. Cutting Acoustical Units:
   1. Cut to fit irregular grid and perimeter edge trim.
   2. Make field cut edges of same profile as factory edges.
   3. Double cut and field paint exposed reveal edges.

3.04 TOLERANCES

A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.

B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

END OF SECTION 09 51 00

SECTION 09 65 00

RESILIENT FLOORING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Resilient tile flooring.

B. Resilient base.

C. Installation accessories.

1.03 REFERENCE STANDARDS

A. ASTM F1066 - Standard Specification for Vinyl Composition Floor Tile; 2004 (Reapproved 2010)e1.

B. ASTM F1344 - Standard Specification for Rubber Floor Tile; 2012.

C. ASTM F1700 - Standard Specification for Solid Vinyl Floor Tile; 2004 (reapproved 2010).

D. ASTM F1861 - Standard Specification for Resilient Wall Base; 2008.

1.04 SUBMITTALS

A. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.

B. Selection Samples: Submit manufacturer's complete set of color samples for Owner’s initial selection.

C. Certification: Prior to installation of flooring, submit written certification by flooring manufacturer and adhesive manufacturer that condition of sub-floor is acceptable.

D. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

E. Maintenance Materials: Furnish the following for City of Auburn's use in maintenance of project.

1. Extra Flooring Material: 20 square feet of each type and color.

2. Extra Wall Base: 15 linear feet of each type and color.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect roll materials from damage by storing on end.

1.06 FIELD CONDITIONS

A. Maintain temperature in storage area between 55 degrees F and 90 degrees F.

B. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

PART 2 - PRODUCTS

2.01 TILE FLOORING

A. Vinyl Composition Tile: Homogeneous, with color extending throughout thickness, and:

1. Minimum Requirements: Comply with ASTM F1066, of Class corresponding to type specified.
2. Size: 12 x 12 inch.
3. Thickness: 0.125 inch.
4. Pattern: Marbleized.
5. Color: Color as selected by Owner from manufacturer's standards.

2.03 RESILIENT BASE

A. Resilient Base: ASTM F1861, Type TS rubber, vulcanized thermoset; top set Style B, Cove, and as follows:

1. Height: 4 inch.
2. Thickness: 0.125 inch thick.
3. Finish: Satin.
4. Color: Color as selected by Owner from manufacturer's standards.

2.04 ACCESSORIES

A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.

B. Filler for Coved Base: Plastic.

C. Moldings, Transition and Edge Strips: Same material as flooring.

D. Sealer and Wax: Types recommended by flooring manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.

B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.

C. Cementitious Sub-floor Surfaces: Verify that substrates are dry enough and ready for resilient flooring installation by testing for moisture and pH.

1. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.

D. Verify that required floor-mounted utilities are in correct location.

3.02 PREPARATION

A. Remove sub-floor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.

B. Prohibit traffic until filler is cured.

C. Clean substrate.

3.03 INSTALLATION

A. Starting installation constitutes acceptance of sub-floor conditions.

B. Install in accordance with manufacturer's instructions.

C. Spread only enough adhesive to permit installation of materials before initial set.

D. Fit joints tightly.

E. Set flooring in place, press with heavy roller to attain full adhesion.

F. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.

G. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.

H. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

3.04 TILE FLOORING

A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless manufacturer's instructions say otherwise.

B. Lay flooring with joints and seams parallel to building lines to produce symmetrical tile pattern.

3.05 RESILIENT BASE

A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.

B. Install base on solid backing. Bond tightly to wall and floor surfaces.

C. Scribe and fit to door frames and other interruptions.

3.06 CLEANING

A. Remove excess adhesive from floor, base, and wall surfaces without damage.

B. Clean in accordance with manufacturer's instructions.

3.07 SEALING & WAXING

A. One coat of sealer shall be applied after floor cleaning.

B. Apply 3 coats of wax after sealing.

3.08 PROTECTION

A. Prohibit traffic on resilient flooring for 48 hours after installation.

END OF SECTION 09 65 00

SECTION 09 90 00

PAINTING AND COATING

PART 1- GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUBMITTALS

A. Provide submittals for all paint systems and types.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.

2.02 PAINTS AND COATINGS – GENERAL

A. Paints and Coatings: Ready mixed.

1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.

2. Supply each coating material in quantity required to complete entire project's work from a single production run.

3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.

B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.

C. Volatile Organic Compound (VOC) Content:

1. Provide coatings that comply with the most stringent requirements specified in the following:

a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.

2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.

2.03 PAINT SYSTEMS – INTERIOR: For new and existing surfaces.

A. Paint I-OP - All Interior Surfaces Indicated to be Painted, Unless Otherwise Indicated: Including gypsum board, concrete, concrete masonry, wood, uncoated steel, shop primed steel, and aluminum.

1. Applications: See 3.06, Schedule this section.
2. Two top coats and one coat primer.
3. Top Coat(s): MPI Interior Latex; MPI #43, 44, 52, 53, 54, 114.
4. Satin: MPI gloss level 4; use this sheen for items subject to frequent touching by occupants, including door frames and railings.
5. Primer(s): As recommended by manufacturer of top coats.

B. Paint I-OP-MD-DT - Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals and wood:

1. Applications: See 3.06, Schedule this section.
2. Two top coats and one coat primer.
3. Top Coat(s): MPI High Performance Architectural Interior Latex; MPI #139,140, 141.
4. Semi-Gloss: MPI gloss level 5;
5. Primer(s): As recommended by manufacturer of top coats.

2.04 ACCESSORY MATERIALS

A. Accessory Materials: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.

B. Patching Material: Latex filler.

C. Fastener Head Cover Material: Latex filler.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that new surfaces are ready to receive work as instructed by the product manufacturer.

B. Examine existing surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

C. Test shop-applied primer for compatibility with subsequent cover materials.

D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:

1. Gypsum Wallboard: 12 percent.

2. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.

3. Interior Wood: 15 percent, measured in accordance with ASTM D4442.

3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to coating application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or repair existing coatings that exhibit surface defects including rust and scaling.

D. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.

E. Seal surfaces that might cause bleed through or staining of topcoat.

F. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

G. Gypsum Board Surfaces to be Painted: Fill minor defects with filler compound. Spot prime defects after repair.

H. Aluminum Surfaces to be Painted: Remove surface contamination by steam or high pressure water. Remove oxidation with acid etch and solvent washing. Apply etching primer immediately following cleaning.

I. Galvanized Surfaces to be Painted: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.

J. Corroded Steel and Iron Surfaces to be Painted: Prepare using at least SSPC-SP 2 (hand tool cleaning) or SSPC-SP 3 (power tool cleaning) followed by SSPC-SP 1 (solvent cleaning).

K. Uncorroded Uncoated Steel and Iron Surfaces to be Painted: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand or power tool wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint entire surface; spot prime after repairs.

L. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

M. Interior Wood Surfaces to Receive Opaque Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.

N. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

O. Concrete and Unit Masonry Surfaces to be Painted: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution

of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.

3.03 APPLICATION

A. Apply products in accordance with manufacturer's instructions.

B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

C. Apply each coat to uniform appearance.

D. Sand wood and metal surfaces lightly between coats to achieve required finish.

E. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

F. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

G. All colors shall be selected by owner.

3.04 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.05 PROTECTION

A. Touch-up damaged coatings after Substantial Completion.

3.06 SCHEDULE - PAINT SYSTEMS

A. Gypsum Board: Finish all surfaces exposed to view.

1. Interior Walls: I-OP, satin.

B. Wood: Finish all surfaces exposed to view.

1. Interior trim and frames: I-OP-MD-DT, semi-gloss.

C. Steel Doors and Frames: Finish all interior surfaces exposed to view; I-OP-MD-DT, semi-gloss.

D. Suspended ceiling grid: Finish all surfaces exposed to view.

E. Shop-Primed Metal Items: Finish all surfaces exposed to view.

END OF SECTION 09 90 00

SECTION 10 14 00

SIGNAGE

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Room signs.

B. ADA signage with braille.

1.03 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; current edition.

B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.

C. ICC A117.1 - Accessible and Usable Buildings and Facilities; International Code Council; 2009 (ANSI).

1.04 SUBMITTALS

A. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.

B. Signage Schedule: Provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts, and colors.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Package signs as required to prevent damage before installation.

B. Package room and door signs in sequential order of installation, labeled by room number.

C. Store tape adhesive at normal room temperature.

1.06 FIELD CONDITIONS

A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.

B. Maintain this minimum temperature during and after installation of signs.

PART 2 - PRODUCTS

2.01 SIGNAGE APPLICATIONS

A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1 and applicable building codes, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.

B. Room Signs: Provide signs as indicated on drawings.

1. Sign Type: Flat signs with engraved panel media as specified.
2. Provide "tactile" signage, with letters raised minimum 1/32 inch and Grade II braille. Mounted to the side of the door on the wall. Women’s room only.
3. Character Height: 3/4 inch.
4. Sign Height: 2 inches, unless otherwise indicated.
5. Rest Rooms / Janitor Room: Identify with the names "WOMEN”, “MEN” and “JANITOR” on the wall at latch side of door with sign at 60 inches above finished floor.
6. Office: Identify with the name “MAIN OFFICE” on the wall at latch side of door with sign at 60 inches above finished floor.

2.03 TACTILE SIGNAGE MEDIA

A. Engraved Panels: Laminated colored plastic; engraved through face to expose core as background color:

1. Total Thickness: 1/16 inch.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install neatly, with horizontal edges level.

C. Locate signs where indicated.

D. Protect from damage until Substantial Completion; repair or replace damage items.

END OF SECTION 10 14 00

SECTION 10 28 00

TOILET & BATH, ACCESSORIES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Accessories for toilet rooms.

B. Grab bars.

C. Mirrors.

D. Shower rod and curtain.

E. Owner furnished toilet accessories.

1.03 RELATED REQUIREMENTS

A. Section 06 10 00 – Wood Blocking for grab bars, accessories & mirrors.

1.04 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; current edition.

B. ASTM A269/A269M - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service; 2014e1.

C. ASTM B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium; 2011e1.

1.05 SUBMITTALS

A. Product Data: Provide data on accessories describing size, finish, details of function, attachment methods.

B. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

C. Proposed mounting locations of Owner supplied accessories if not similar to items shown on drawings.

PART 2 – PRODUCTS

2.01 TOILET ROOM ACCESSORIES

A. Toilet Paper Dispenser, Soap Dispenser and Paper Towel Dispenser: Provided by Owner, to be installed by Contractor.

B. Grab Bars: Stainless steel, nonslip grasping surface finish.

1. Standard Duty Grab Bars: (Verify existing location)

a. Push/Pull Point Load: 250 pound-force, minimum.

b. Dimensions: 1-1/4 inch outside diameter, minimum 0.05 inch wall thickness, exposed flange mounting, 1-1/2 inch clearance between wall and inside of grab bar.

c. Length and Configuration: As indicated on drawings.

C. Mirror: Bradley model 780 series 18"x 30" float glass mirror with stainless steel frame, or approved equal.

D. Shower Rods and Curtains:

1. Stainless steel, 1 inch diameter with mounting flanges.

2. Length and configuration: As indicated on drawings.

3. Curtain shall be heavy duty reinforced water and mold resistant fabric.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify exact location of accessories for installation.

C. Verify Owner supplied accessories.

3.02 PREPARATION

A. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

A. Install accessories in accordance with manufacturers' instructions in locations indicated on the drawings including Owner supplied items.

B. Install plumb and level, securely and rigidly anchored to substrate.

C. Mounting Heights and Locations: As required by accessibility regulations and as indicated on drawings.

1. Grab Bars: As indicated on the drawings.

2. Mirrors: 40 inch, measured to bottom of mirrored surface to floor.

3. Shower Rods at 72".

3. Owner supplied accessories: As shown on drawings or as directed by Owner.

3.04 PROTECTION

A. Protect installed accessories from damage due to subsequent construction operations.

END OF SECTION 10 28 00

SECTION DC 0
FACILITY DESIGN CRITERIA

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Project Owner: The City of Auburn, Maine.

B. Project Location: 296 Gracelawn Road, Auburn, Maine

C. The construction consists, generally, of renovating a portion of an existing building.

D. The occupancy is a multi-use complex consisting of offices and vehicle storage and repair uses.

1.2 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Section DC D2 - Fire Suppression Criteria.

C. Section DC D3 - Plumbing Criteria.

D. Section DC D4 - HVAC Criteria.

E. Section DC D6 - Electrical Criteria.

F. Section DC D7 - Communications Criteria.

G. Section DC D8 - Electronic Safety and Security Criteria.

1.3 DEFINITIONS

A. Code: The code referred to herein consists of all applicable local, state, and federal regulations.

B. Communications: Services that provide voice and data transmission, sound reinforcement, and television reception and distribution.

C. Conveying Equipment: Mechanized means of conveying people and goods, comprising people-moving equipment, material handling equipment, and maintenance conveying equipment.

D. Demolition: Removal of unneeded and undesirable existing elements.

E. Electrical: Provision and distribution of electrical power to operate all electrically-operated devices, including those included under other services and those provided separately by the Owner; artificial lighting to illuminate spaces and tasks, both interior and exterior, without reliance on natural light; grounding systems, including lightning protection, and cathodic protection.

F. Electronic Safety and Security: Services that provide fire detection and alarm, access control, intrusion detection, and remote surveillance.

G. Equipment: Fixed elements usually having services connections. Equipment operated or used by occupants in the functioning of the project and but not comprising part of services systems is specified in the DCE series Sections. Equipment comprising part of services systems is specified in the DCD series Sections.

H. Exterior Enclosure: All non-structural vertical exterior elements, including openings and elements closing or covering openings, comprising the exterior skin, the structure supporting the skin unless part of the superstructure, weather barriers, balcony walls and railings, parapets, joint sealers, insulation, exterior ceilings and soffits, and wall mounted appurtenances, but not including the interior finish unless an integral part of the enclosure.

I. Fire Suppression: Automatic fire sprinklers, standpipes, and extinguishing systems.

J. Fixtures: Fixed elements used by occupants in the functioning of the project but not having services connections.

K. General Equipment: Equipment that could occur in buildings of any occupancy, such as fire protection specialties, loading dock equipment, solid waste handling equipment and chutes, anchorage systems for working on the roof, and built-in vacuum system.

L. HVAC: Artificial means of maintaining interior space comfort and air quality, including heating, cooling, ventilation, and energy supply.

M. Maintenance Conveying Equipment: Vertical and horizontal conveying equipment for moving people and goods for facility maintenance, such as swingstages and lifts for window washing.

N. Material Handling Equipment: Vertical and horizontal conveying equipment for moving goods and objects (and people, but only incidentally), such as freight elevators, vehicle elevators, dumbwaiters, and laundry chutes.

O. People-Moving Equipment: Vertical and horizontal conveying equipment primarily for moving people, such as elevators, escalators, moving walks, and lifts.

P. Plumbing: Means of delivery of water to points of utilization; automatic heating and conditioning of domestic water; and unattended removal of water, rainwater, and liquid waste.

S. Residential Equipment: Equipment that most often occurs in residential occupancies but which could occur in any other occupancy, including manufactured fireplaces and stoves, kitchen appliances, laundry appliances, saunas and steam baths.

T. Roofing: All elements forming weather barriers at the sloped or essentially flat weather-proof enclosure over the entire "top side" of the building, including all elements from the top of the deck up, roof coverings, gutters and downspouts, wearing surfaces, roof openings and elements that close openings, such as skylights, vents, and hatches, and roof mounted appurtenances.

U. Security Zones:

1. Public Access Zone: That area to which the public has free access, including public corridors, grounds, and parking lots.

2. Reception Zone: The area to which the general public has access but beyond which access is restricted at all times.
3. Operations Zone: The area to which only residents and visitors with a legitimate reason to be there have access.
4. Secure Zone: The area to which access is always controlled and which is monitored continuously.

V. Services: Mechanized, artificial, automatic, and unattended means of supply, distribution, transport, removal, disposal, protection, control, and communication.

W. Shell: The superstructure, exterior enclosure, and roofing.

X. Storage Fixtures: Fixed storage elements, usually modular, and to some extent relocatable, including built-in cabinetry, wardrobe units, lockers, anchored utility shelving, mailboxes and other postal specialties except in post offices.

Y. Substructure: Elements below grade and in contact with the ground.

Z. Superstructure: All elements of floor and roof construction above grade and within basements, and elements required for support, including structural frame and load-bearing walls, and including fireproofing and firestopping, and vapor retarders and air barriers when an integral part of the structure.

1.4 REFERENCE STANDARDS

A. ASHRAE Std 62.1 - Ventilation for Acceptable Indoor Air Quality; 2016.

B. ASHRAE Std 90.1 I-P - Energy Standard for Buildings Except Low-Rise Residential Buildings; 2013, Including All Amendments and Errata.

C. ASHRAE (FUND) - ASHRAE Handbook - Fundamentals; 2013.

D. AWPA U1 - Use Category System: User Specification for Treated Wood; 2012.

E. ICC (IFC) - International Fire Code; 2012.

F. ICC (IBC) - International Building Code; 2015.

G. ICC (IPC) - International Plumbing Code; 2015.

H. ICC (IMC) - International Mechanical Code; 2012.

I. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

J. NFPA 101 - Life Safety Code; 2015.

K. NFPA 5000 - Building Construction and Safety Code; 2012.

1.5 FIELD CONDITIONS

A. Project Site: The project is currently and will remain occupied by the building Occupants.

B. Do not enter, cross, infringe upon, or limit access to adjacent property without first obtaining written permission from the property owner.

C. Coordination with Occupants:

1. In Existing Building: Owner intends to continue to occupy portions of the existing building during the construction period.
2. Existing Utility, Life Safety, and Fire Safety System Elements:

a. No disruption of services to areas that continue to be occupied during hours which they are occupied; all disruptions arranged at least 24 hours in advance with Owner.
b. Prevent accidental disruptions to facilities outside the project limits by investigation of existing utilities and protection during construction; remedy accidental disruptions at no cost to Owner.

D. Existing Built Elements:

1. Existing structures are to be reused.
2. Extent of preservation, restoration, re-use, or adaptation is specified in the project program.
3. Preservation: The following existing elements must be preserved:

a. Any building elements not scheduled for demolition.

PART 2 - PRODUCTS (SEE OTHER SECTIONS)

PART 3 - DESIGN CRITERIA

3.1 BASIC FUNCTION

A. Code: Make all portions of the renovation comply with the code.

B. Provide built elements and site modifications as required to fulfill needs described in the project program and as specified.

C. Provide permanently enclosed spaces for all functional areas included in the project program, unless otherwise indicated.

E. Provide and/or modify the following services:

1. Plumbing.
2. HVAC.
3. Electrical.
4. Fire suppression.
5. Fire detection and alarm.
6. Voice and data communication.

F. Provide the following fixtures as included in the project program and as specified:

1. Toilet, lavatory, shower, mop sinks, and toilet room accessories.
2. LED lighting.

G. Provide the following equipment as included in the project program and as specified:

1. General equipment.
2. Commercial equipment.

H. Provide an exhaust ventilation system and accessories for toilet, janitor and locker room.

3.2 AMENITY AND COMFORT CRITERIA

A. Public Amenity: Conduct operations so as to cause minimum annoyance of the occupants, public and adjacent property owners and tenants.

1. Where existing structures on the site continue to be occupied, provide alternate means of access with physical barriers and directional signs acceptable to Owner.

B. Environmental Responsibility:

1. In addition to other requirements, provide design and construction that minimizes adverse effects on the exterior environment, enhances the quality of the indoor environment, and minimizes consumption of energy, water, construction materials, and other resources.

C. Water Penetration Resistance: Design and select materials to prevent water penetration into the interior of the building, under conditions of rain driven by 50 mph wind.

D. Ventilation:

1. Indoor Air Quality: Design and construct to comply with the code and the following:
   a. Acceptable air quality as defined by ASHRAE Std 62.1.
2. Equipment Producing By-Product Heat: Ventilate housings and cabinets as required by equipment manufacturer and rooms and spaces as required to maintain specified environmental conditions.

E. Condensation Resistance: Prevent condensation from forming on interior elements under normal thermal and humidity conditions inside building.

1. Exception: Provide insulated drain pans and piping to remove condensation from cooling coils.

F. Odors: Eliminate, isolate, or exhaust odors produced by occupant functions and building services.

G. Sound Transmission and Vibration Resistance:

1. Design and construct components to limit sound transmission.
2. Use elements that will not resonate at frequencies that are characteristic of ambient exterior sound sources at the project site

2. Services:

a. Maintain the sound transmission characteristics of assemblies through which services must pass.
b. Prohibited Plumbing Noises: All sounds of flushing and of liquid running through pipes ("bathroom sounds") are prohibited outside of the newly constructed rooms housing toilets, bathtubs, and showers, with the exception of when doors to those rooms are open.
c. Equipment Noises: Noise level below that which will be objectionable, based on occupancy of spaces.
d. When services are located within assemblies that perform sound isolation functions, consider the noise produced by the service itself as one of the external sound sources.

3. Structure-Borne Sound and Vibration: Prevent transmission of perceptible sound and vibration from equipment that rotates, vibrates, or generates sound, by isolating such equipment from superstructure or by isolating equipment support foundations from building foundations.

K. Cleanliness:

1. Surfaces: Design and select materials to:

a. Prevent attraction and adherence of dust and air-borne dirt and soot, and minimize appearance of settled dust and dirt.
b. Be washed reasonably clean by normal methods.

L. Appearance:

1. Appearance: Design and select materials to provide appearance with characteristics as follows:

    a. Concealing mechanical equipment, plumbing equipment, electrical equipment, and piping, conduit, and ducts from view.

2. Services Elements:

    a. Conceal services elements from view to greatest extent possible.
    b. Exception: Standard designs of manufacturers, without consideration for appearance, may be used for fire suppression sprinkler heads.
    c. Exception: Exposed portions are acceptable in the janitor's closet.
    d. Where exposed portions are acceptable, do not obstruct or diminish clear dimensions of doorways, windows, other operable openings, access panels and cabinet doors, or passageways, stairs, and other exitways.
    e. Where exposed piping is acceptable, install it close to walls and overhead structure, parallel and square to finished construction, plumb and nominally horizontal (except where required to slope for drainage).
    f. Cover annular spaces around pipes, ducts, and conduits, where they pass through walls, ceilings, and floors with escutcheons or cover plates.
    g. Mountings: On finished surfaces, use concealed attachments with cover plates, frames, or trim overlapping finishes.

3.3 HEALTH AND SAFETY CRITERIA

A. Fire Resistance: Design and select materials to provide fire resistance in accordance with code.

1. Provide construction as specified in the code.
2. Maintain fire resistance of walls, floors, ceilings, and other fire-rated assemblies that services must pass through, in accordance with requirements of the section in which the fire-rated assembly is specified.
3. Provide fire-rated separations between equipment rooms and other spaces where required, and as specified by, the code.
4. Combustible pipes may be used only where buried if outside building.
5. Provide products which are fire rated for the specific locations where they are installed.

B. Prevention of Accidental Injury: As required by code.

C. Health Hazards:

1. Select materials to prevent growth of fungus, mold, and bacteria on surfaces and in concealed spaces on a long-term basis.

D. Electric Shock Hazard: Provide equipment which protects personnel from electrical shock.

E. Excess Pressure Hazard: Design pressurized components to withstand operational pressures without failure and to relieve or reduce excessive pressure to prevent failure.

F. Misuse: Minimize misuse that could result in damage to property, injury, or loss of life.

G. Vermin Resistance: Use components that are resistant to the entry of rodents and insects.

3.4 DURABILITY CRITERIA

A. Expected Service Life Span: Expected functional service life of the built portions of this project is 50 years.

1. Ducts, Piping, and Wiring in All Services: Same as the service life of the building.
2. All Components Permanently Installed Underground or Encased in Concrete: Not less than service life of building.
3. Service life spans of individual elements that differ from the overall project life span are defined in other sections.

B. Water Penetration Resistance:

1. Design and select materials to prevent water penetration into the interior of shell assemblies, under conditions of rain driven by 35 mph wind.

2. Component Mountings: Where components are mounted to surfaces that are required to be moisture-resistant, seal mounting surface of components to finish surface so that moisture cannot penetrate under or behind component, using material that is not affected by presence of water, that is mildew-growth resistant, and that has a minimum service life of 10 years.

C. Moisture Vapor Transmission Resistance: Design to prevent deterioration of materials due to condensation of moisture vapor inside assemblies.

1. Use supplementary vapor retarder if necessary to meet requirements.
2. Use method of sealing joints between elements that will be effective given available construction practices.

D. Corrosion Resistance: Prevent corrosion by using corrosion-resistant materials, by preventing galvanic action, by preventing contact between metals and concrete and masonry, and by preventing condensation on metals.

1. Separation of Dissimilar Metals:

a. Where different metals subject to galvanic action are exposed to weather or moisture, prevent direct contact between them.
b. Piping Connections for Piping of Dissimilar Metals: Dielectric adapters.

2. Aluminum: Prevent direct contact of aluminum with concrete or cementitious materials.
3. Steel: Where permitted to be coated with other than zinc, zinc-alloy, or aluminum-zinc alloy, follow the recommendations of Society for Protective Coatings (SSPC) in regard to preparation for coating and coating type.
4. Outdoor Metal Elements Except in Contact with Soil: The following are considered corrosion-resistant metals:

a. Aluminum.
b. Stainless steel, Type 304 or 316.
c. Hot-dipped galvanized steel, with minimum zinc coating of 0.90 oz/sq ft total, both sides, or equivalent aluminum-zinc alloy coating.
d. Cadmium-plated steel, with minimum coating of 12 micrometers.

5. Indoor Metal Elements Potentially Exposed to Moisture: The following are considered corrosion-resistant metals:

a. All metals listed above for exterior exposure.
b. Brass and bronze, but not copper.
c. Cast iron, ductile iron, and malleable iron.
d. Steel coated with high-build epoxy or coal tar-based paint.
e. Chrome-plated steel.

E. Weather Resistance: Design and select materials to minimize deterioration due to precipitation, sunlight, ozone, normal temperature changes, salt air, and atmospheric pollutants.

1. Weather resistance requirements apply to all components exposed to the outdoor environment, including services, unless specifically excepted; equipment enclosures are considered the equivalent of the exterior enclosure.
2. Deterioration includes corrosion, shrinking, cracking, spalling, delamination, abnormal oxidation, decay and rot.
3. Surfaces Exposed to View: Deterioration adversely affecting aesthetic life span includes color fading, crazing, and delamination of applied coatings.
   a. Coating Performance: AAMA 2605 (10-year), minimum.
4. Joint Components and Penetration Seals: Capable of resisting expected thermal expansion and contraction; use overlapping joints that shed water wherever possible.
5. Transparent Elements (Glazing): No haze, loss of light transmission, or color change, during entire expected service life.

6. Service Temperature: Low temperature equal to historically-recorded low; high temperature equal to that expected due to any combination of air temperature and heat gain from solar and other sources.
7. Freeze-Thaw Resistance: Adequate for climate of project.
8. Ozone Resistance: Do not use materials that are adversely affected by ozone.
9. Liquid Storage and Distribution Components: Prevent freezing during longest duration of low temperature anticipated, based on historical weather data; if necessary, provide automatically controlled supplemental heating.
10. Buried Water Piping: Minimum of 6 inches below lowest recorded level at which the ground freezes.
11. Services Passing From Inside to Outside: Openings through shell sealed as required to meet performance specified, and using materials specified.

F. Temperature and Humidity Endurance: Design equipment to endure temperature and humidity that will be encountered and to resist damage due to thermal expansion and contraction.

G. Impact Resistance: Design and select materials to resist damage due to impact in accordance with code and the following:

1. Minimize damage from windborne debris propelled at up to 35 mph.
2. Design and select materials to resist damage from hail of size up to 1/2 inch.
3. Minimize damage due to potential vandalism.

H. Accidental Damage Resistance:

1. Minimize potential for damage to built elements due to accidents.
2. Accidental Water Leakage: Locate components that would be damaged by water leakage from pipes or through foundations or roof out of likely paths of water and at least 4 inches above floor level.
3. Buried Components: Minimum of 12 inches below surface of ground.
4. Underground Piping and Conduit: Watertight and rootproof.
5. Finishes on Exposed Components Subject to Touching by Occupants: Durable enough to withstand regular scrubbing using ordinary methods.
6. Equipment: Provide equipment which has been designed to prevent tampering.
7. Underground Piping: Protect heating piping and chilled water piping from accidental damage with a warning tape buried 12 inches above the pipe.

I. Wear Resistance: Design and select materials to provide resistance to normal wear-and-tear in accordance with code and the following:

1. Elements Within Reach of Pedestrians: Minimize degradation from rubbing and scratching caused by pedestrians.
2. Minimize degradation caused by windblown sand and acid rain.

3.5 OPERATION AND MAINTENANCE CRITERIA

A. Comply with requirements of utility providers.

B. Energy Efficiency: Design and construct to minimize energy consumption while providing function, amenity, and comfort specified, in accordance with the code.

C. Water Consumption: Minimize water consumption.

D. Waste (Trash/Rubbish) Removal: Contractor shall keep project free of debris and refuse.

E. Ease of Operation and Use:

1. Intended operating personnel are personnel with a reasonable level of training for similar activities.
2. Provide facility, equipment, and systems that are easily operated by intended personnel.
    a. Space Around Components: Working clearances and access routes as required by code and as recommended by component manufacturer.
    b. Access: All mechanical and electrical equipment located to allow easy access. Provide access doors for equipment accessed through walls, partitions, or fixed ceilings.
    c. Valves and Other Control Devices: Accessible handles, switches, control buttons; valve handles on top/upper side; chain or other remote operators where located out of normal reach above floor level.
3. Minimize the need for specialized training in operation of specific equipment or systems; identify all equipment and systems for which the manufacturer recommends or provides training programs.
4. Preparation for Use: Prepare services for use by testing appropriately for proper operation before start-up, eliminating operational anomalies, adjusting control systems for optimum operation, and demonstrating proper functioning.

F. Ease of Maintenance:

1. Minimize the amount of maintenance required.
2. Do not locate any equipment requiring maintenance where access is not possible.
3. Light Levels: Provide adequate lighting for locating and maintaining equipment; emergency lighting for critical components.
4. Cleaning: Where not otherwise specified, design equipment mountings to allow easy cleaning around, and under, equipment, if applicable, without crevices, cracks, and concealed spaces where dirt and grease can accumulate and with raised, closed bases for equipment mounted on the floor.
5. Equipment Enclosures: Provide removable access panels to allow cleaning.
6. Site Utilities: Record or mark locations of existing, abandoned, and new utility lines in such a manner that they can be easily located during and after completion of construction.

7. Piping Systems:

    a. Piping Other Than Gravity Drains: Provide means of isolating convenient portions of piping system, so that small portions may be shut down leaving the remainder in operation and so that drainage of the entire system is not required to enable repair of a portion of it.
    b. Piping: Entire systems drainable without disassembly of piping.
    c. Above Ground Piping: Labeled to identify contents and direction of flow, each shut-off valve, each piece of equipment, each branch take off, and at 20 ft maximum spacing on exposed straight pipe runs.
    d. Equipment in Piping Systems: Each unit provided with a union or flanged connector at each pipe connection to allow easy removal.

8. Replaceability of Parts:
    a. Parts Having Service Life Less Than That Specified for Element: Easily replaceable, without de-installation or de-mounting of the entire element, component, or equipment item.
    b. Valves: Easily replaceable internal parts, eliminating necessity of removal of entire valve for repair.
    c. Parts Availability: Readily available from stocking distributors within 50 miles of project location.

9. Exceptions: Elements that do not meet the specified requirements for ease of maintenance may be used, provided 1) they meet the specified requirements for ease of replacement of elements not required to have service life span equal to that specified for the project as a whole, 2) the service life expectancy analysis and life cycle cost substantiation specified for service life are provided, and 3) Owner's acceptance is granted.

G. Ease of Replacement:

1. Elements Not Required to have Expected Service Life Span Equal to that Specified for the Facility as a Whole: Make provisions for replacement without undue disruption of building operation.

END OF SECTION DC 0

SECTION DC D2

FIRE SUPPRESSION CRITERIA

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Fire Sprinkler and Extinguishing Systems: Elements which automatically extinguish fires; automatic fire suppression is provided for the entire building. Renovation area to receive modifications as required by code.

1.2 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Section DC 0 - Facility Design Criteria: Criteria that apply to all relevant elements of the facility.

C. Section DC D3 - Plumbing Criteria: Water source.

D. Section DC D8 - Electronic Safety and Security Criteria: Fire detection and alarm.

1.3 REFERENCE STANDARDS

A. NFPA 13 - Standard for the Installation of Sprinkler Systems; 2016.

B. NFPA 14 - Standard for the Installation of Standpipe and Hose Systems; 2016.

C. NFPA 17 - Standard for Dry Chemical Extinguishing Systems; 2013.

D. NFPA 25 - Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems; 2011.

PART 2 - PRODUCTS

2.1 FIRE SUPPRESSION SYSTEM TYPES

A. Use one or more of the following:
   1. Wet pipe sprinkler system.
   2. Preaction sprinkler system.

2.2 FIRE SPRINKLER AND EXTINGUISHING SYSTEM COMPONENTS

A. Pipe:
   1. Use one or more of the following:
      a. Materials permitted by code.

B. Fittings:
   1. Use one or more of the following:

a. Materials permitted by code.

PART 3 - DESIGN CRITERIA

3.1 BASIC FUNCTION

A. Provide code-required fire suppression regardless of type or coverage specified.

B. Fire Sprinklers: Types as indicated for specific spaces and areas.
   1. Design and construction in accordance with code and NFPA 13.
   2. Provide wet pipe sprinkler systems unless otherwise indicated or required by code.
   3. General Use (Not Indicated As Another Type): Wet pipe.
      a. Occupancy: Light Hazard.
      b. Density/Area: 0.08 gpm per sq ft over 2000 sq ft.

C. Water Source: Provide water supply as required by NFPA 14.

D. Where fire protection elements also must function as elements defined within another element group, meet the requirements of both element groups.

E. In addition to the requirements of this section, comply with all applicable requirements of Section DC 0 - Facility Design Criteria.

F. Substantiation:
   1. Proposal: Description of systems required, sources, input-side capacities, and means of distribution.
   2. Preliminary Design: Fire protection areas identified.
   3. Design Development: Fire protection zones indicated on the drawings with riser locations identified.
   4. Design Development: Engineering calculations showing input- and output-side capacities and loads and sizes of distribution elements.
   5. Design Development: System equipment locations indicated on the drawings and manufacturer's product data indicating products to be used.
   6. Construction and Closeout: Functional performance testing.

3.2 AMENITY AND COMFORT CRITERIA

A. Leakage: Provide systems that are leak-free.

B. Accessibility: Provide clearances around system components for service and use.
   1. Provide fire department connections as required by code.

3.3 HEALTH AND SAFETY CRITERIA

A. Path of Egress: Provide systems which safeguard path of egress.

B. Fire Source: Provide system materials which do not contribute to the spread of the fire.

C. Sprinkler Head Performance: As required by code and NFPA 13.

3.4 STRUCTURAL CRITERIA

A. Seismic Design:
   1. Provide a sprinkler system which allows movement where differential movement is anticipated.
   2. Provide sprinkler system supports capable of supporting twice its installed wet weight.

3.5 DURABILITY CRITERIA

A. Expected Service Life Span:
   1. Provide a sprinkler system which will last a minimum of 10 years in service without major repairs or operating expense when maintained as specified in NFPA 25.
      a. Substantiation:
         1) Preliminary Design: Identification of the system type to be installed.
         2) Design Development: Identification of a similar system in use in an existing facility for 3 years and consisting of components from the same manufacturers.
   2. Sprinkler Heads, Valves, and Other Inlet and Outlet Components: Same as building service life.

B. Corrosion Resistance: Use corrosion resistant materials; ferrous metal is not considered corrosion resistant unless it is hot dipped galvanized, chrome plated, or coated with rust inhibitive paint.

3.6 OPERATION AND MAINTENANCE CRITERIA

A. Capacity: As required by code.

B. Ease of Use: Provide easy access to and working clearances around system components.

C. Ease of Use: Provide standpipes which comply with the acceptance requirements of NFPA 14.

D. Ease of Service:
   1. Spare Sprinkler Heads: Provide additional sprinkler heads as required by code to service the system.

E. Unauthorized Use: Provide systems which minimize activation and use by unauthorized persons.

END OF SECTION DC D2

SECTION DC D3
PLUMBING CRITERIA

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Plumbing elements comprise the following:
   1. Water Supply: Water sources to new and relocated fixtures.
   2. Domestic Water: Elements required to distribute water to fixtures, including piping and equipment.
      a. Water Distribution: Piping within the building, serving fixtures. specialties, and equipment.
   3. Sanitary Waste: Elements required for removal of sanitary waste, including piping, venting, discharge and disposal, and equipment.
   4. Plumbing Fixtures: Fixtures necessary for sanitation, occupancy, and use, that are connected to water supply or drainage.
      a. Fixtures Required: As specified by code.
         1) Lavatories: One in the men's bathroom and one in the woman's locker room.
         2) Water Closets: One in the woman's locker room. Relocate one for the men's bathroom
         3) Showers: One in the woman's locker room.
         4) Utility Sinks: One in the janitor's closet. Floor basin type.
         5) Faucets and Trim: For each fixture.

B. Utility Sources and Outlets:
   1. Water Source: Existing public utility.
   2. Sewage Disposal: Existing public sewage system.

1.2 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Section DC 0 - Facility Design Criteria: Criteria that applies to relevant elements of facility.

1.3 REFERENCE STANDARDS

A. ASME A13.1 - Scheme for the Identification of Piping Systems; 2015.

B. ASTM B42 - Standard Specification for Seamless Copper Pipe, Standard Sizes; 2015a.

C. ASTM B88 - Standard Specification for Seamless Copper Water Tube; 2014.

D. Maine State Plumbing Code; Current edition.

PART 2 - PRODUCTS

2.1 DOMESTIC WATER PIPING AND EQUIPMENT

A. Use piping and equipment permitted by code.

B. Method of Removing Air from Supply Piping:
   1. Use one of the following:
      a. Automatic air vents.

2.2 SANITARY WASTE AND VENT PIPING AND EQUIPMENT

A. Sanitary Waste and Vent Piping, Not Buried:
   1. Use one or more of the following as permitted by code:
      a. Acrylonitrile butadiene styrene (ABS) plastic pipe and fittings, with solvent welded joints.
      b. Brass pipe and fittings, chrome-plated, with mechanical compression joints.
      c. Cast iron pipe and fittings, hubless, with neoprene gaskets and stainless steel clamps.
      d. Polyvinyl chloride (PVC) DWV pipe and fittings, with solvent welded joints.

B. Chemical Resistant Sanitary Waste and Vent Piping:
   1. Use one or more of the following:
      a. Polyvinyl chloride (PVC) DWV pipe and fittings, with solvent welded joints.

2.3 PLUMBING FIXTURES

A. Water Closets: Floor mount, tank type, barrier free. Include molded, solid plastic toilet seat with antimicrobial agent.

B. Lavatories: Accessible, ADA approved wall hung with hanger, vitreous-china fixture. Include protective shielding.

C. Lavatory Faucets: Lever type, ADA approved, two-handle mixing valve. Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.

D. Showers: ADA approved transfer shower, ½" lip, one-piece or sealed FRP PMMA shower enclosure with slip-resistant bathing surface and shower rod with curtain. Include grab bar and seat to comply with ADA. Include collapsible water dam.

E. Shower Faucet: ADA approved, single-handle pressure-balance thermostatic valve. Include hot- and cold-water indicators; check stops; and shower head, arm, and flange. Coordinate faucet inlets with supplies and outlet.

F. Utility (Mop or Janitor's) Sink: Floor mounted, composite material.

G. Utility Faucet: Two-handle mixing valve. Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture holes; coordinate outlet with fixture receptor. Include hook and support for hanging mop bucket.

PART 3 - DESIGN CRITERIA

3.1 BASIC FUNCTION

A. Provide water supply necessary for building occupancy and use.

B. Provide delivery of domestic water to points of utilization.

C. Provide drainage for disposal of waste as required by the code and for the following:
   1. Fixtures and equipment which have a waste connection or a domestic water connection.
   2. Indirect Drainage: Floor drains to receive piping from:
      a. Equipment drain pans.
      b. Condensate drains.
      c. Other equipment that produces clear wastes.
      d. Other equipment specified to have indirect drain.

D. Provide plumbing fixtures necessary for occupancy, use, and sanitation.

E. In addition to the requirements of this section, comply with applicable requirements of Section DC 0 - Facility Design Criteria.

3.2 AMENITY AND COMFORT CRITERIA

A. Hot Water Supply:
   1. Provide pressure balanced shower valves which limit the water temperature to 120 degrees F.

B. Noise:
   1. Design to prevent noise due to air trapped in piping systems.
   2. Locate risers in dedicated and sound attenuated chases.

C. Convenience:
   1. Fixture Heights: As specified in code.
   2. Fixture Configurations: As specified in code.
   3. Maneuvering Space: Provide space between and around fixtures as required by code.
   4. Water Connections: Hot water on the left side of fixtures and cold water on the right side of fixtures.
   5. Faucets: Single action operation.
   6. Install floor drains flush with the surface on which they are installed, out of pedestrian traffic patterns wherever possible.
   7. Do not locate floor drains and floor cleanouts in doorways or directly in traffic paths.

D. Odors:
   1. Do not locate sanitary waste vent openings where odors are noticeable by occupants or by occupants of adjacent properties or where odor-bearing air may enter building spaces.
      a. Do not terminate vents within 10 feet horizontally of doors, windows, air intake or exhaust openings, or other openings in the exterior enclosure, unless vent termination is at least 3 feet above the top of the opening.
      b. Do not locate vent openings under overhangs.

c. Extend vent pipes at least 18-inches inches above the surface of roofs.
d. Extend vent pipes at least 12 inches above overflow level of the highest fixture served by the vent.
e. Provide an automatic means of priming traps which may evaporate enough water to break the trap seal allowing sewer gases to enter the building.

2. Connect fixtures to prevent entry of sewer gases into occupied spaces.

E. Appearance:
1. Vents: Conceal vents from view.
2. Fixtures:
a. Smooth, corrosion-resistant, non-absorbent, with no crevices to collect dirt.
b. Aesthetically pleasing and easy and comfortable to use; submit for Architects approval.

3.3 HEALTH AND SAFETY CRITERIA

A. Health: Provide potable water.
1. Public utility water can be considered to be potable.
2. Maintain the safety of potable water source.
3. Do not connect the potable water source to any non-potable water source.
4. Keep animals and vermin out of open pipes, tanks, and other system components.
5. Keep other contaminants out of the distribution systems, equipment, and water source.
6. All openings and edges around the sides and bottom of each fixture permanently sealed with waterproof material.
7. Do not locate indirect drains in toilet rooms, unventilated or inaccessible rooms, or in air distribution or return plenums.
8. Provide a backflow prevention device in the sewer discharge to prevent back-up into plumbing fixtures and floor drains.

B. Waste Disposal: Connect each fixture to sanitary drainage system for proper disposal of waste and harmful materials.

C. Pressure Control: Control pressures to protect the building, fixtures, equipment, and occupants from harm.

D. Burn Hazards:
1. Maximum Fixture Discharge Temperature: 120 degrees F.
2. Maximum Exposed Surface Temperature: 95 degrees F.
3. Insulate all exposed piping.

3.4 STRUCTURAL CRITERIA

A. Hub-and-Spigot Pipe Joint Support: Support joints so they do not separate under weight of pipe or live loads.

B. Insulated Pipes: Prevent compression of insulation by using pipe shields or saddles or dense insulation inserts.

C. Fixtures:
   1. Anchored to support weight of fixtures and a minimum of 400 pounds without failure or stress on the connecting pipes.
   2. Wall Mounted Fixtures: Carriers concealed inside fixture and in wall or floor.

3.5 DURABILITY CRITERIA

A. Expected Service Life Span: Same as service life of building unless otherwise indicated.
   1. Piping, Wiring, and Flues: Same as the service life of the building.
   2. Plumbing Fixtures: Same as building service life.
   3. Faucet Valves: 20 years.
      a. Substantiation: Manufacturer's unconditional warranty.
   4. Flushing Mechanisms: 20 years.
      a. Substantiation: Manufacturer's unconditional warranty.

B. Water Penetration: Reinforce weather barrier around roof and deck drains using extremely durable, permanently watertight material; one acceptable method is using 4 pound sheet lead, extending minimum of 10 inches from center of drain.

C. Moisture: Do not locate water heaters where leakage would cause damage to surrounding building materials, unless drip pans piped to floor drains are provided.

D. Condensation:
   1. Prevent condensation from forming on or dripping from sanitary drain piping, floor drain bodies, condensate piping, and p-traps.

E. Temperature Changes: Provide method of allowing thermal expansion of domestic water in the hot water system.

F. Wear Resistance:
   1. Shutoff Valves: Resistant to corrosion, breakage, and scratching due to continual contact with water, human usage, and cleaning with abrasive materials.
   2. Fixtures, Trim and Accessories: Resistant to corrosion, breakage, scratching, burning, fading and chipping due to continual contact with water, human usage, and cleaning with abrasive materials.

G. Freeze Protection: Protect piping from freezing.

H. Joint Durability: Provide watertight joints.

I. Electrical Component Protection:
   1. Do not route piping through electrical rooms, switchgear rooms, transformer vaults, and elevator equipment rooms unless it is absolutely necessary.
      a. Where piping must be routed near electrical equipment, shield the electrical equipment with drip pans which drain to the nearest floor drain.
   2. Substantiation: See tests specified under Operation and Maintenance.

J. Maximum Discharge Temperature into Sewer: 120 degrees F.

3.6 OPERATION AND MAINTENANCE CRITERIA

A. Fixture Functions:
   1. Lavatories: Standard spout, with integral overflow.
   2. Showers: With single-action hot-cold mixing valve.
   3. Utility (Mop or Janitor's) Sinks: Filling of standard rolling mop bucket required; spout designed to support full bucket of water.

B. Water Consumption:
   1. Water Closets: 1.6 gallons per flush, maximum, with complete waste removal in one flush.
   2. Lavatory Faucets in Other Areas: 0.25 gallon per use.
   3. Shower Heads: 2.5 gallons per minute, maximum.

C. Capacity of Water Service: Provide adequate water flow and pressure to supply peak demand requirements. Comply with requirements specified in the code.
   1. Size the water supply to exceed code by 10 percent.
   2. Water Delivery: If the water source has insufficient flow or pressure, provide means of increasing to required level.
      a. Use booster pumps.
   3. Water Flow:
      a. Maximum Velocity: 8 fps at the design flow rate.
   4. Water Supply Pressures:
      a. Water Pressure/Flow At Fixtures: 8 psi, minimum, except as otherwise required by code.
         1) Showers: 20 psi, minimum.
         2) Flush Valves at Water Closets and Urinals: 15 psi, minimum.
      b. Service Main Working Pressure: 100 psi at 75 degrees F.
      c. Water Distribution Working Pressure: 80 psi at 75 degrees F.
      d. Pressure Classification: Provide pipe, pipe components, and equipment with a pressure classification of 125 psi.
   5. Substantiation:
      a. Construction: Prior to installation of plumbing fixtures and prior to concealment of piping, air and water tests of piping systems at 110 percent of operating pressure, maintaining pressure for 2 hours to demonstrate system is watertight.

D. Waste Pipe Sizing:
   1. Size piping as required by code.

E. Ease of Maintenance and Repair:
   1. Provision for Drainage of Water Distribution Piping:
      a. Slope Piping Toward Drain: 1/4 inch per 10 feet.
      b. Provide a system drain at the lowest point in the system.
      c. Provide an adequately sized drain for the volume of water inside the distribution system.
      d. Drain valve (or fixture shut-off valve) located at each low point.

2. Provision for Cleaning of Drainage Piping: Provide a cleanout as required by code and as follows:
    a. At the upstream end of each horizontal sanitary drainage pipe, for cleaning in direction of flow.
    b. At the dead end of each dead-end pipe.
    c. Pipe 3 inches and Smaller: At intervals of 50 foot, maximum.
    d. Pipe 4 inches to 6 inches: At intervals of 80 foot, maximum.
    e. Pipe 8 inches and Larger: At intervals of 100 foot, maximum.
    f. Clearance: As required by code to allow for cleaning and rodding of pipe.
3. Interceptors That Must be Manually Cleaned:
    a. Designed for minimum of 2 months operation between cleanings.
    b. Located close to or in the same area as drains that receive the harmful wastes, for supervision and maintenance by occupants creating the waste.
    c. Removable waste container, with spare.
4. Plumbing Fixtures:
    a. Faucet valves easily removable and replaceable as a single unit.
    b. Each pipe connection to each fixture provided with a stop valve, for easy disconnection from water service.
    c. Provide access to concealed connections, such as floor and wall cleanouts and slip-joint connections.

END OF SECTION DC D3

SECTION DC D4

HVAC CRITERIA

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. HVAC: Artificial means of maintaining interior space comfort and air quality, including heating, cooling, ventilation, and energy supply.

B. The HVAC system consists of the following elements used to maintain occupant comfort:
   1. Ventilation: Elements required to provide code compliant exhaust air from the men's bathroom, janitor's closet and the woman's locker room.
   2. HVAC Controls: Elements required to control HVAC equipment and systems. On with light switch off by 5 minute time delay.
   3. Other HVAC elements required to maintain occupant comfort.

1.2 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Section DC 0 - Facility Design Criteria: Criteria that apply to all relevant elements of the facility.

A. Section DC D6 - Electrical Criteria: Criteria that apply to connecting HVAC equipment to electrical power.

1.3 REFERENCE STANDARDS

A. AABC MN-1 - AABC National Standards for Total System Balance; 2002 .

B. AHRI 880 (I-P) - Performance Rating of Air Terminals; 2011 with Addendum 1.

C. ASHRAE (HVACA) - ASHRAE Handbook - HVAC Applications; 2015.

D. ASHRAE Std 15 - Safety Standard for Refrigeration Systems; 2013.

E. ASHRAE Std 55 - Thermal Environmental Conditions for Human Occupancy; 2013, Including All Amendments.

F. ASHRAE Std 62.1 - Ventilation for Acceptable Indoor Air Quality; 2016.

G. SMACNA (DCS) - HVAC Duct Construction Standards Metal and Flexible; 2005 (Rev. 2009).

PART 2 - PRODUCTS

2.1 HVAC VENTILATION

A. Exhaust Fans:
   1. Use one of the following:
      a. Ceiling mounted.
      b. Inline.

c. Roof mounted.

B. Control System Types:
1. Use one or more of the following:
a. Delay relay.
b. Electronic control system.

C. Ductwork:
1. Use one or more of the following:
a. Galvanized metal duct.
b. Flexible duct suitable for exhaust.

D. Registers, Diffusers and Grilles:
1. Suitable for exhaust ventilation.

PART 3 - DESIGN CRITERIA

3.1 BASIC FUNCTION

A. Provide natural and artificial means of controlling temperature, relative humidity, velocity and direction of air motion in the interior spaces enclosed by the shell, and reduction of airborne odors, particulates, and contaminant gases.

B. Provide the necessary equipment and infrastructure to ventilate the conditioned spaces.

C. Where HVAC elements also must function as elements defined within another element group, meet the requirements of both element groups.

D. In addition to the requirements of this section, comply with all applicable requirements of Section DC 0 - Facility Design Criteria.

3.2 AMENITY AND COMFORT CRITERIA

A. Acoustical Performance:
1. Air Distribution Background Noise: Provide systems which comply with the acoustical requirements following RC Levels as defined in ASHRAE HVAC Applications Handbook. Do not exceed the sound pressure level for any octave band at the specified RC.
2. Equipment: Provide equipment with sound ratings which comply with testing and rating requirements of AHRI 880 (I-P).

B. Indoor Air Quality: Provide sufficient ventilation to obtain acceptable indoor quality, determined using the Ventilation Rate Procedure of ASHRAE Std 62.1.

3.3 HEALTH AND SAFETY CRITERIA

A. Life Safety: Provide interconnection and coordination of HVAC controls with other life safety systems.

B. Fire Sources:
1. Provide products which are rated for the specific locations where they are installed.

2. Provide distribution elements constructed from incombustible materials.

C. Electrical Shock Prevention:
   1. Electrically Operated Equipment: Tested and listed by UL.
   2. Provide a means of disconnecting power at each piece of equipment.

3.4 STRUCTURAL CRITERIA

A. Seismic Protection:
   1. Provide fuel distribution system with the ability to flex where differential movement is anticipated.

3.5 DURABILITY CRITERIA

A. Expected Service Life Span:
   1. HVAC System: Provide a system which will last a minimum of 10 years in service without major repairs or operating expense.

B. Aesthetic Life Span: Provide units exposed within the occupied space which will not fade, chip, or peel for a minimum of 10 years.

C. Temperature Endurance:
   1. Equipment: Provide equipment designed for ambient temperatures ranging from 50 degrees F to 122 degrees F (10 degrees C to 50 degrees C).

3.6 OPERATION AND MAINTENANCE CRITERIA

A. Capacity: As required by code.

B. Ease of Use: Provide easy access to and working clearances around system components.

END OF SECTION DC D4

SECTION DC D6
ELECTRICAL CRITERIA

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Electrical: Provision and distribution of electrical power to operate all electrically-operated devices, including those included under other services and those provided separately by the Owner; artificial lighting to illuminate spaces and tasks, both interior and exterior, independent of reliance on natural light; and grounding systems; provide and/or relocate comprising the following elements.

B. Electrical Energy Supply and Generation: Utility power sources, engine-generator systems, battery power systems, uninterruptible power supply systems and unit power conditioners.
   1. Electrical Power Source: Existing public utility.

C. Service and Distribution: Service entrance equipment, distribution equipment, transformers, motor control equipment, service and feeder wiring (conductors and raceways), monitoring, safety and control equipment, and other elements required for a complete functional system.

D. Branch Circuits: Branch circuit wiring and receptacles and other branch circuit wiring systems, comprising the following elements:
   1. Branch circuit breakers.
   2. Conductors and cable from panelboards to fixtures, wiring devices, and mechanical equipment.
   3. Raceways and boxes.
   4. Wiring devices, including, but not limited to, receptacles, floor boxes and plates, wall switches, wall dimmers, remote control switching devices, delay relay's, and wall plates.

E. Interior LED Lighting: Comprising the following elements:
   1. Luminaires for general illumination.
   2. Illuminated exit signs.
   3. Emergency lights.

F. Cathodic Protection: Supplementary corrosion prevention using cathodic protection; see Section DC 0 - Facility Design Criteria for elements for which cathodic protection is a permitted measure.

1.2 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section

B. Section DC 0 - Facility Design Criteria: Criteria that apply to all relevant elements of the facility.

C. Section DC D4 - HVAC Criteria: Criteria that apply to power supply and delay control of HVAC equipment.

1.3 REFERENCE STANDARDS

A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.

B. IEEE 142 - IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems; 2007, with Errata, 2014.

C. IEEE 241 - IEEE Recommended Practice for Electric Power Systems in Commercial Buildings; 1990 (R1997).

D. IEEE 493 - IEEE Recommended Practice for the Design of Reliable Industrial and Commercial Power Systems; 2007.

E. IEEE 739 - IEEE Recommended Practice for Energy Management in Industrial and Commercial Facilities; 1995.

F. IEEE 1100 - IEEE Recommended Practice for Powering and Grounding Sensitive Electronic Equipment; 2005.

G. IEEE C57.12.00 - IEEE Standard for General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers; 2015.

H. IES (LH) - Lighting Handbook; 10th edition, 2011.

I. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2014.

J. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

PART 2 DESIGN CRITERIA

2.1 BASIC FUNCTION

A. Provide electrical power with the appropriate characteristics to operate all electrically operated devices, including those in other services.
   1. Capacity: Calculated in accordance with NFPA 70.
   2. General Receptacle System Voltage: 120 volts/3-phase/60 Hz.
      a. Equipment Voltage: 208 volts/3-phase/60 Hz.
   3. Service Transformers: In accordance with code plus 10 percent spare capacity.
      a. Kilovoltampere (kVA) Rating: Provide transformers with preferred ratings according to IEEE C57.12.00.
      b. Primary Voltage: As required.
      c. Secondary Voltage: As required to serve building switchgear and electrical loads.
   4. Main Switchboards: In accordance with code plus 10 percent spare capacity.
   5. Interior Distribution Transformers: As required to serve building circuits and equipment plus 10 percent spare capacity.
   6. Branch Circuit Panelboards: In accordance with code plus 10 percent spare capacity.

B. Emergency Power: Provide emergency power as required by code including the following:
   1. Emergency Lighting: Duration as required by code.

2. Smoke Control System: Duration as required by code.
3. Fire Detection and Alarm System: Duration as required by code.
4. Central Control Station and Lighting: Duration as required by code.

C. Distribution: Distribute electric power for equipment circuits, lighting circuits, receptacle circuits, and electrical utilization devices.
   1. Branch Circuits: Provide adequate electrical power and safe and efficient distribution from panelboards to lighting, wiring devices, equipment, and appliances, based on the project program, requirements of other sections.

D. Lighting: LED. Provide artificial means of lighting interior spaces.
   1. Interior Lighting: Provide and/or relocate artificial lighting for all interior spaces that is adequate in quality and distribution for the performance of tasks typical for the type of space and the characteristics of the intended population, regardless of the availability of natural light.

E. Grounding: Provide grounding systems that:
   1. Provide protection from lightning strikes; scope and design of protection as defined in Section DC 0 - Facility Design Criteria.
   2. Comply with applicable recommendations of IEEE 142 and IEEE 1100.

F. Where electrical elements also must function as elements defined within another element group, meet the requirements of both element groups.

G. In addition to the requirements of this section, comply with all applicable requirements of Section DC 0 - Facility Design Criteria - Facility Design Criteria.

H. Substantiation:
   1. Proposal: Description of systems required, sources, input-side capacities, identification of service voltages and amperage, means of distribution, and major equipment.

2.2 AMENITY AND COMFORT CRITERIA

A. Accessibility: Comply with ADA Standards for Accessible Design.
   1. Receptacles: Provide ADA compliant receptacles in ADA accessible spaces.
      a. Location: Where ADA compliant receptacles are required, mount devices no higher than 48 inches and not less than 15 inches above the finished floor.
   2. Lighting Controls: Provide ADA compliant lighting controls for all spaces, regardless of location.
      a. Location: Where ADA accessible lighting controls are required, provide devices that are mounted so they can be reached from a wheelchair and are not more than 54 inches and not less than 15 inches from the floor.
      b. Operating Force: Where ADA accessible lighting controls are required, provide controls that can be operated without tight grasping or pinching and by a force of not more than 5 lbf.

B. Artificial Light Levels: Provide maintained ambient illuminance values for various activities based on the primary visual tasks to be accommodated and that are within the ranges specified in IES (LH).

1. Emergency Lighting: In addition to exit signs and means of egress lighting, provide emergency illumination of not less than 1 fc for a minimum of 1 hour in or as required by code.:
2. Interior Lighting: Not less than the following, when measured at task height:
    a. Category A (Public spaces where reading and visual inspection are performed only occasionally): General lighting throughout space of 3 fc.
    b. Category B (Lobbies and other spaces characterized by short stays and the need for simple orientation): General lighting throughout space of 5 fc.
    c. Category C (Working spaces where simple visual tasks are performed): General lighting throughout space of 10 fc.
    d. Category D (Spaces requiring performance of visual tasks of large size and high contrast): Task illumination of 30 fc.
    e. Category E (Spaces requiring performance of visual tasks of high contrast and small size, or low contrast and large size): Task illumination of 50 fc.
    f. Category F (Spaces requiring performance of visual tasks of low contrast and small size): Task illumination of 100 fc.
    g. Category G (Spaces requiring performance of visual tasks that are near the threshold of visibility): Task illumination of 500 fc, achieved by a combination of general and local lighting.
3. Interior Lighting: Not less than the following, when measured at task height:
    a. SP1 Customer Contact Spaces:
        1) Reception Desk: 50 fc.
    b. SP2 Occupant Work Spaces:
        1) Private Office: 20 fc.
        2) Open Office Cubicle: 50 fc.
    c. SP3 Equipment Utilization Spaces:
        1) Mailroom: 50 fc.
    d. SP6 Meeting and Instruction:
        1) Conference Room: 20 fc.
    e. SR Resident or Occupant Service Spaces:
        1) Toilet Room or Bathroom: 10 fc.
        2) Kitchen: 20 fc.Dining room:
        3) Break Room: 20 fc.
        4) Living Room or Lounge: 10 fc.
        5) Bedroom: 10 fc.
    f. SS Storage Spaces:
        1) Closet: 10 fc.
        2) Storeroom: 10 fc.
    g. SC Circulation Spaces:
        1) Corridor: 10 fc.
        2) Lobby: 10 fc.
        3) Waiting Room: 10 fc.
        4) Stair: 10 fc.

5) Elevator: 10 fc.

h. SU1 Maintenance Facilities:

1) Janitors Closet: 10 fc.

i. SU2 Utility Equipment Spaces:

1) Mechanical Equipment Room: 10 fc.

2) Electrical Equipment Room: 10 fc.

3) Elevator Equipment Room: 10 fc.

4. Local Interior Lighting: In spaces where local task lighting is used to achieve maintained luminance levels, maintain balance with ambient illumination such that general lighting for space provides not less than 20 percent of local lighting level.

C. Artificial Light Quality: Provide luminous environment in each space that is designed to complement the functions and the character of the space.

1. Interior Lighting:

a. Distribution: In keeping with geometry of space and location of visual tasks.

b. Visual Comfort: Provide lighting systems with the following characteristics:

1) VCP: Visual Comfort Probability (VCP) of not less than 70.

2) Luminance Ratio: Maximum luminance of luminaire does not exceed average luminance by ratio of more than 5:1 at 45, 55, 65, 75, and 85 degrees from nadir for crosswise and lengthwise viewing.

3) Maximum luminances of luminaires crosswise and lengthwise do not exceed the following values:

(a) 45 degrees above nadir: 7710 cd/sq m.

(b) 55 degrees above nadir: 5500 cd/sq m.

(c) 65 degrees above nadir: 3860 cd/sq m.

(d) 75 degrees above nadir: 2570 cd/sq m.

(e) 85 degrees above nadir: 1695 cd/sq m.

c. Spatial Luminance: Provide luminous environments throughout project in which brightness ratios are maintained within the following ranges:

1) Task Area and Adjacent Darker Surroundings: 3:1.

2) Task Area and Adjacent Lighter Surroundings: 1:3.

3) Task Area and More Remote Darker Surfaces: 10:1.

4) Task Area and More Remote Lighter Surfaces: 1:10.

5) Light Sources and Adjacent Surfaces: 10:1.

6) Any Surfaces Within Normal Field of View: 30:1.

d. Color of Light: Appropriate for functions accommodated in space and characteristics of interior finishes.

1) Color: Provide light sources throughout project with Color Rendering Index of not less than 70.

e. Substantiation:

1) Construction Documents: Calculations for representative spaces, prepared by a registered electrical engineer, and product data for lamps and luminaires.

D. Sound and Noise:

1. Do not locate transformers near sound sensitive areas. See Section C for interior space sound level requirements.
2. Provide transformers with noise generation 3 dBA less than the sound levels listed in IEEE 241.

E. Convenience:
1. Provide convenience receptacles at intervals no greater than 10 feet along the base of all wall areas.
2. Locate metering and monitoring facilities in a single location not in a mechanical equipment room.
3. Provide means of reading power meters and demand meters at exterior wall.
4. Provide means of recording power meter and demand meter readings continuously in hard copy printout.

F. Appearance:
1. Do not locate switchboards, transformers, and panelboards in corridors, lobbies, or stairwells.
2. Conceal electrical conduit in walls and behind ceilings in the occupied spaces. See Section D for additional requirements.
3. Conceal grounding conductors and ground terminals wherever possible.
4. Character of Lighting Fixtures: Coordinated with architecture and other building systems and appropriate to finish level.
5. Provide emergency lights which appear to be normal space luminaires.
   a. Exception: Mechanical and electrical rooms may have self-contained emergency lights.

2.3 HEALTH AND SAFETY CRITERIA

A. Fire Hazard:
1. Provide branch circuit elements in compliance with code and that are UL listed or labeled.
   a. Provide elements that have their flame spread and smoke developed ratings printed on them.
2. Fire Resistant Construction: Provide lighting elements throughout the project that are made of incombustible materials in compliance with code and that are UL listed or labeled, with flame spread and smoke developed ratings printed on product.

2.4 STRUCTURAL CRITERIA

A. Seismic Design:
1. Provide electrical energy generation equipment supports capable of supporting twice equipment's normal weight.
2. Provide service and distribution elements with the ability to move where differential movement is anticipated.

2.5 DURABILITY CRITERIA

A. Expected Service Life Span:
   1. Electrical:
      a. Power Distribution Equipment: Same as building service life.
   2. Lighting Fixtures: Minimum 15 years.
   3. All Grounding Systems: Life of the building without requiring any more maintenance than annual inspection and minor repairs not more frequently than annually.

B. Moisture Resistance:
   1. Water-resistant equipment includes transformers, raceways, enclosures, and panelboards.
   2. Regardless of whether exposure to moisture is likely or not, design lighting equipment to be resistant to moisture.
   3. Enclosures: As required to protect equipment from environment in which it is installed, complying with NEMA 250 and:
      a. Areas to be Hosed-Down, or Equivalent, Exterior or Interior: Type 4.
      b. Exterior, Exposed to Weather and Wind: Type 3S.
      c. Interior, Other Locations: Type 1.

C. Impact Resistance:
   1. Provide electrical energy generation equipment with a protective housing.
   2. Provide service and distribution equipment with industrial grade enclosures.

2.6 OPERATION AND MAINTENANCE CRITERIA

A. Power Quality:
   1. Power Conditioning: Modify incoming power characteristics to comply with utilization equipment requirements.
      a. Function:
         1) Static Voltage Regulation: For any load condition:
         2) Unbalanced Load Voltage Regulation: Within plus 5 and minus 2 percent, at nominal input voltage at 100 percent load imbalance.
         3) Overload Voltage Regulation: Output voltage of no less than minus 6 percent of nominal, at nominal input voltage for an increasing load from 100 percent to 200 percent of full load.
         4) Electrical Noise Suppression:
            (a) Common Mode: 120 dB minimum.
            (b) Normal Mode: 120 dB minimum.
         5) Single-Phasing Response: Upon loss of one input phase, output phase voltages shall remain within plus 5.8 to minus 4 percent of nominal from no load to 60 percent load.
         6) Harmonic Distortion: Less than 4 percent from no load to full load.
      b. Input Power Factor: 0.96 lagging or better, independent of the load power factor.
      c. Input Current Distortion: Less than 8 percent THD, independent of the output current distortion.
      d. Paralleling capable.

B. Load Characteristics:
   1. Maximum Harmonic Current Distortion: Plus or minus 2 percent of design current.

C. Protection Against Disturbances:
   1. Provide circuits which serve sensitive electronic equipment with electrical characteristics within the ranges defined in IEEE 1100 and as follows.
      a. Swells and Sags: Voltage fluctuation limit of plus or minus 5 percent.
      b. Overvoltage and Undervoltage: Voltage fluctuation limit of plus or minus 5 percent.

D. Energy Efficiency:
   1. Interior Lighting Controls: Provide level of control of lighting appropriate to type of space and Owner's requirements for energy conservation.
      a. Occupancy Controls: Provide lighting circuits for private offices that are controlled by devices that do not require action by occupants.
         1) Controls: Occupancy sensor and programmable timing control throughout project.

E. Ease of Use:
   1. Configuration: Design wiring and protective devices so that outages caused by local overloads do not affect unrelated areas or systems.

END OF SECTION DC D6

SECTION DC D7
COMMUNICATIONS CRITERIA

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Communications services comprise the following:
   1. Voice and Data: For infrastructure for voice and data transmission and telephone equipment.

B. Provide and/or relocate internal wiring and outlets as required.

C. Products: Where specific products are required or allowed, use products complying with the additional requirements specified elsewhere.

1.2 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Section DC 0 - Facility Design Criteria: Criteria that apply to all relevant elements of the facility.

1.3 REFERENCE STANDARDS

A. ASHRAE Std 90.1 I-P - Energy Standard for Buildings Except Low-Rise Residential Buildings; 2013, Including All Amendments and Errata.

B. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2014.

C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

D. TIA-568 (SET) - Commercial Building Telecommunications Cabling Standard Set; 2016.

E. TIA-569-D - Telecommunications Pathways and Spaces; Rev D, 2015.

F. TIA-570-C - Residential Telecommunications Infrastructure Standard; Rev C, 2012.

PART 3 - DESIGN CRITERIA

2.1 BASIC FUNCTION

A. Voice: Provide means of conveying voice communication between rooms and spaces in the building and between the building and the Owner's telephone network provider as specified in the program and as follows.
   1. Point-to-Point Voice Communications For:
      a. Private two-way verbal communication.
      b. Group conversations among more than 2 stations, at user's option.
      c. Both handset and speaker operation, at user's option.

d. Transfer of live call to another station, at user's option.

B. Data: Provide means of conveying data between computers within the building, between buildings in the campus, and between the data transmission network and the Owner's Internet service provider as specified in the program and as follows.
   1. Comply with TIA-568 (SET) and TIA-569-D, latest editions.

C. Television: Provide the following television reception and distribution functions:
   1. Cable television reception, via provider hard connection.

D. Where communications elements also must function as elements defined within another element group, meet the requirements of both element groups.

E. In addition to the requirements of this section, comply with all applicable requirements of Section DC 0 - Facility Design Criteria.

2.2 AMENITY AND COMFORT CRITERIA

A. Accessibility: Comply with requirements of local authorities for facilities for the disabled.

B. Convenience:
   1. Time/Date Displays: Analog, easily readable from at least 15 feet distance by persons of normal eyesight.

2.3 HEALTH AND SAFETY CRITERIA

A. Electrical Hazards: Design in accordance with all NFPA standards that apply to the occupancy, application, and design.
   1. Control access to spaces housing electrical components and allow access only by qualified personnel.
   2. Comply with NFPA 70 requirements for hazardous locations applications.

2.4 DURABILITY CRITERIA

A. Moisture Resistance and Thermal Compatibility: Materials that will resist degradation and failure of signals under ambient conditions expected.

B. Enclosures: As required to protect equipment from environment in which it is installed, complying with NEMA 250 and as follows, as a minimum:
   1. Areas to be Hosed-Down, or Equivalent, Exterior or Interior: Type 4.
   2. Exterior, Exposed to Weather and Wind: Type 3S.
   3. Interior, Other Locations: Type 1.

2.5 OPERATION AND MAINTENANCE CRITERIA

A. Transmission Capacity:
   1. Within Buildings:
      a. Sound Communication Cabling: 10 megabits per second; RJ11 connectors.
      b. Data and Combined Data/Sound Communication Cabling: 100 megabits per second; RJ11 connectors.

c. Visual Communication Cabling: Coaxial 75 ohm, plus 2 dB, 100 percent shielded.

2. Substantiation:
   a. Closeout: Continuity and performance testing.

B. Ease of Use:
   1. Zoning: Arrange wiring and protective devices so that outages caused by local faults do not affect unrelated areas or systems.
   2. Main Telecommunications Panel: Provide one for each building.
   3. Branch Telecommunications Panels:
      a. Provide one for each tenant unit, located inside unit.

C. Ease of Maintenance: Provide communications networks that are logically arranged and well-marked, using terminal panels that provide:
   1. Connections between each voice station and hub in server room.
   2. Point-to-point connections between each data input and output point and hub location in server room.

D. Allowance for Change and Expansion:
   1. Spare Distribution Capacity: 10 percent, minimum.
   2. Future Distribution Capacity: 40 percent, minimum.

END OF SECTION DC D7

SECTION DC D8

ELECTRONIC SAFETY AND SECURITY CRITERIA

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Electronic safety and security services comprise:
   1. Fire Detection and Alarm: Elements required to detect fires and communicate fire location to occupants, facility management, and public fire fighting agencies.
   2. System operation consoles, monitoring displays, input/output devices, control and data networks, and sound, data, and voice communication related to system functions.

B. Products: Where specific products are required or allowed, use products complying with the additional requirements specified elsewhere.

1.2 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Section DC 0 - Facility Design Criteria: Definitions of security zones; physical security requirements applicable to entire facility, including CPTED; other criteria that apply to all relevant elements of the facility.

C. Section DC D2 - Fire Suppression Criteria: Requirements for automatic fire suppression systems.

1.3 REFERENCE STANDARDS

A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.

B. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2014.

C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

D. NFPA 72 - National Fire Alarm and Signaling Code; 2016.

PART 2 - PRODUCTS

2.1 FIRE DETECTION AND ALARM COMPONENTS

A. Fire/Smoke Detectors:
   1. Use one of the following:
      a. Ionization smoke detectors.
      b. Photoelectric smoke detectors.
      c. Beam detectors.
      d. Thermal detectors.

B. Warning Devices:
   1. Use one of the following:
      a. Horns.
      b. Speakers.
      c. ADA compliant Strobes.
      d. Combination speaker /strobes.
      e. Combination horn/strobes.

PART 3 - DESIGN CRITERIA

3.1 BASIC FUNCTION

A. Fire Detection and Alarm: Provide automatic fire detection and automatic alarm systems as required by code and as follows:
   1. Functions:
      a. Detection, Alarm, Notification Methods: In accordance with NFPA 72.
      b. Evacuation Plan: Multiple smoke zones and alarm notification of any zone or combination of zones in addition to general evacuation of entire premises.
      c. Detection:
         1) Air Handling Units Over 2,000 cfm: Minimum of one detector in both supply and return.
         2) Upon detection of fire or smoke condition, automatic notification of occupants.
      d. Alarms:
         1) Means for occupants to communicate same types of alarm as automatic system does.
         2) Audible Alarms: Minimum of 15 dB over ambient noise, audible throughout common areas and means of egress.
         3) Visual alarms, in locations required by code and public toilets and corridors.
         4) Separate audible and visual signals for alarms and trouble notification in corridors.
      e. Fire Protection Controls:
         1) Provide connections between alarm and detection system and fire suppression system activation sensors.
         2) Upon Alarm: Shut down or deactivate the following:
            (a) HVAC air distribution.
            (b) Fire-rated door hold-opens.
            (c) Locks restricting exit through doors constituting means of egress.
      f. Audible and visual trouble notification of operations staff, for alarm zone failures, annunciator zone failures, ground faults, backup power failure, water supply equipment failures.

C. Data Communications Functions: As required to accomplish system functions.
   1. Connection between Internet and internal network.

D. Integrated systems performing all functions are preferred, subject to requirements of code for separated, independent systems.

E. Where electronic safety and security elements also must function as elements defined within another element group, meet the requirements of both element groups.

F. In addition to the requirements of this section, comply with all applicable requirements of Section DC 0 - Facility Design Criteria.

3.2 AMENITY AND COMFORT CRITERIA

A. Accessibility: Comply will requirements of local authorities for facilities for the disabled.

3.3 HEALTH AND SAFETY CRITERIA

A. Electrical Hazards: Design in accordance with all NFPA standards that apply to the occupancy, application, and design.
   1. Comply with NFPA 70 requirements for hazardous locations applications.

3.4 DURABILITY CRITERIA

A. Enclosures: As required to protect equipment from environment in which it is installed, complying with NEMA 250 and:
   1. Areas to be Hosed-Down, or Equivalent, Exterior or Interior: Type 4.
   2. Exterior, Exposed to Weather and Wind: Type 3S.
   3. Interior, Other Locations: Type 1.

B. Corrosion Resistance: Use corrosion resistant materials.

C. Vandalism: Provide systems which are tamper-resistant.

3.5 OPERATION AND MAINTENANCE CRITERIA

A. Power Supplies:
   1. Building power with power line conditioner for all systems.

B. Transmission Capacity:
   1. Within Buildings:
      a. Sound Communication Cabling: 10 megabits per second; RJ11 connectors.
      b. Data and Combined Data/Sound Communication Cabling: 100 megabits per second; RJ11 connectors.
      c. Visual Communication Cabling: Coaxial 75 ohm, plus 2 dB, 100 percent shielded.

D. Unauthorized Use: Provide systems which minimize activation and use by unauthorized persons.

E. Allowance for Change and Expansion:
   1. Spare Distribution Capacity: 10 percent, minimum.
   2. Future Distribution Capacity: 40 percent, minimum.

END OF SECTION DC D8

CITY OF AUBURN, MAINE

WOODBURY BRACKETT
MUNICIPAL GARAGE
2nd FLOOR RESTROOM RENOVATION PROJECT
296 Gracelawn Road, Auburn, Maine
Bid No. 2018-020

FEBRUARY 14, 2018

APPENDIX B

ASBESTOS MATERIALS INSPECTION REPORT

Prepared by: Acadia Contractors, LLC, Dated: April 25, 2014

Derek Boulanger
Facilities Manager
City of Auburn Public Works
296 Gracelawn Rd Auburn, Maine 04210

April 25th, 2014

Re: Asbestos Materials Inspection
Acadia Job #3336-14

Dear Mr. Boulanger,

Acadia Contractors, LLC has completed an Asbestos *Materials Inspection for* the City of Auburn Public Works located in Auburn, Maine. This involved inspecting a specific area for asbestos containing building materials (ACBM).

PURPOSE

The purpose of this assessment was to characterize environmental conditions for the presence of asbestos containing building materials (ACBM) within a specified area of the property. The specific area within the property was the 2nd Floor Main Office and adjacent Foyer to support floor drilling. The Asbestos Materials Assessment consisted of visual evaluation and physical collection of suspect asbestos materials encountered during this assessment.

Any conclusions contained herein are limited by the scope of work performed; no warranty, expressed or implied, is indicated as to any subsurface condition not specifically noted within this report.

PROCEDURES

On April 18th, 2014, a representative of *Acadia Contractors, LLC* was on-site of City of Auburn Public Works located in Auburn, Maine to perform survey and inspection work.

The collection of suspect asbestos containing building materials was performed in accordance with the *State of Maine Department of Environmental Protection's* Asbestos Management Regulations, Chapter 425, Section 6, and Inspection Requirements. Analysis was performed in accordance with the *US Environmental Protection Agency's* Method, EPA 600/R93-116, Asbestos in Bulk Samples.

Justin McAlister, *C*ertified Asbestos Inspector – Certification # AI-0592 performed the site inspection for asbestos.

ASBESTOS INSPECTION SAMPLING

The property was found to have suspect asbestos containing building materials (insulation debris) that required bulk sampling for analysis. Suspect materials of concern were tan 12" X 12" floor tile, black mastic, white 12" X 12" floor tile, and yellow glue.

Sample groups of similar materials are only analyzed until positive, if applicable.

Asbestos **WAS** detected in the group of material sampled.

Tan 12" X 12" Floor Tile	2nd Floor Main Office	6.4% Chrysotile
Black Mastic (Under Tile)	2nd Floor Main Office	5.5% Chrysotile

---

EXPLAINATION OF ANALYSIS METHODS

The collected samples were analyzed utilizing Polarized Light Microscopy (PLM) methods.

PLM methods are compiled from standard techniques used in mineralogy and standard laboratory procedures used for asbestos bulk sample analysis for years. These techniques have been successfully applied to the analysis of US EPA Bulk Sample Analysis Quality Assurance Program since 1982.

Analysis of asbestos-containing non friable organically bound materials (NOB) Bulk samples of non-friable organically bound materials (NOB) including but not limited to floor tiles, asphalt shingles, caulking, glazing, mastics, coatings, sealants, adhesives and glues

shall be analyzed using PLM NOB–EPA 600/R-93/116 with gravimetric preparation method.

This analysis method readily identifies asbestos content quantitatively in the type of matrixes present for the sample collected for the inspection. However, it sometimes fails in samples where asbestos fibers are very fine or obscured by a tight bound matrix system.

RECOMMENDATIONS

The asbestos containing materials found at the site consist of friable and *non-friable* materials in their present state. It is important to note that aggressive methods (scraping, prying, chipping, etc) can alter the current non-friable asbestos containing building materials resulting in a friable condition.

Friable materials can be crumbled by hand pressure and readily release asbestos fibers when impacted. Comparatively, *non-friable* materials do not crumble under hand pressure and do not readily release asbestos fibers to the surrounding atmosphere.

Materials containing **1% or greater** of asbestos by volume are a regulated material under the requirements of OSHA 29 CFR 1910.1001 and 29 CFR 1926.1101, US EPA, and ME DEP.

The asbestos containing materials identified during this inspection containing 1% or greater asbestos by volume **are** subject to the State of Maine DEP Asbestos Regulations, OSHA, and US EPA regulatory requirements for impact and disposal.

Properly licensed companies should perform removal and disposal of the identified asbestos containing materials with appropriately trained and certified personnel in accordance with the regulatory statutes prior to any demolition or renovation activity of the structure.

The following guidelines and requirements are either recommended or are required for remediation of the asbestos materials identified:

** Asbestos Abatement Design Plan
Required by: **ME DE**P *(>3 linear/square feet*) **Chapter 425**

** Asbestos Project Notification
Required by: **ME DEP** *(>3 linear/square feet*) US EPA *(>/=3 in/sq ft*.) **Chapter 425**

**** Proper Transportation & disposal of materials & debris containing asbestos materials greater than 1% by volume

Required by:

EPA Regulations	40 CFR 61.152 (b) (IV)
EPA Regulations	40 CFR 763, Appendix D
OSHA Regulations	29 CFR 1910.1001
OSHA Regulations	29 CFR 1926.1101
DOT Regulations	49 CFR 172
DOT Regulations	49 CFR 173

** Critical barriers regulated asbestos work area with contiguous or remote decontamination facility, negative pressure enclosures and or glove bag techniques, wet methods, HEPA vacuuming, and proper personal protective equipment.

Required by:

OSHA Regulation	29 CFR 1910.1001
OSHA Regulations	29 CFR 1926.1101
ME DEP	*CMR 425*
EPA Regulations	40 CFR 61

** Only authorized personnel in proper personal protective equipment and with proper training may handle, package, or enter regulated asbestos posted areas.

Required by:

ME DEP Chapter 425	*CMR 425*
OSHA Regulations	29 CFR1910.1001
OSHA Regulations	29 CFR1926.1101

** Visual inspection of removal area(s) involving asbestos materials and air clearance sampling of work area(s)

Required by:

ME DEP Chapter 425 *& US EPA*

Please review the attached analytical results for the collected bulk samples and the asbestos materials listed and file for your records

Should you have any questions please feel free to give us a call.

Sincerely,

Justin McAlister
Acadia Contractors, LLC
Licensed Maine DEP Asbestos Inspector
(207) 225 - 5400

CITY OF AUBURN, MAINE

WOODBURY BRACKETT
MUNICIPAL GARAGE
2nd FLOOR RESTROOM RENOVATION PROJECT
296 Gracelawn Road, Auburn, Maine
Bid No. 2018-020

FEBRUARY 14, 2018

APPENDIX B

BID DRAWINGS

CITY OF AUBURN, MAINE

60 Court Street, Auburn, Maine

WOODBURY BRACKETT MUNICIPAL GARAGE
2ND FLOOR RESTROOM RENOVATION

296 Gracelawn Road, Auburn, Maine
Bid No. 2018-020

100% Bid Documents

February 14, 2018

CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing List

Location Map

No Scale

DEMOLITION NOTES

1. MEN: TOILET AND LAVATORY AND ALL ACCESSORIES TO BE REMOVED. TOILET TO BE SALVAGED FOR REINSTALLATION IN NEW MEN ROOM. EXISTING BASE TO BE REMOVED. EXISTING SUSPENDED CEILING TILES AND GRID TO BE REMOVED. COMMON WALL WITH EXISTING JANITOR ROOM TO BE REMOVED.
2. WOMEN: TOILET AND LAVATORY AND ALL ACCESSORIES TO BE REMOVED. EXISTING BASE TO BE REMOVED. EXISTING CEILING GRID AND TILES TO BE REMOVED.
3. JANITOR: REMOVE EXISTING JANITOR SINK AND FAUCET. REMOVE EXISTING BASE. REMOVE EXISTING CEILING GRID AND TILE. REMOVE EXISTING DOOR AND FRAME, MODIFY OPENING FOR NEW 3'-0" DOOR. REMOVE EXISTING GYP. BOARD AS REQUIRED FOR SOUND INSULATION INSTALLATION.
4. HALL: REMOVE EXISTING BASE. REMOVE EXISTING CEILING GRID AND TILES .
5. UPPER LOBBY: REMOVE EXISTING CEILING GRID AND TILES. REMOVE EXISTING BASE..
6. STAIR: REMOVE EXISTING CEILING GRID AND TILES
7. OPEN OFFICE: REMOVE ACM FLOOR TILE AND EXISTING BASE. REMOVE SUSPENDED CEILING AS REQUIRED FOR RESTROOM EXPANSION.

THE DEMOLITION NOTES ARE NOT INTENDED TO BE ALL INCLUSIVE.
THEY ARE INTENDED AS AN OVERVIEW.

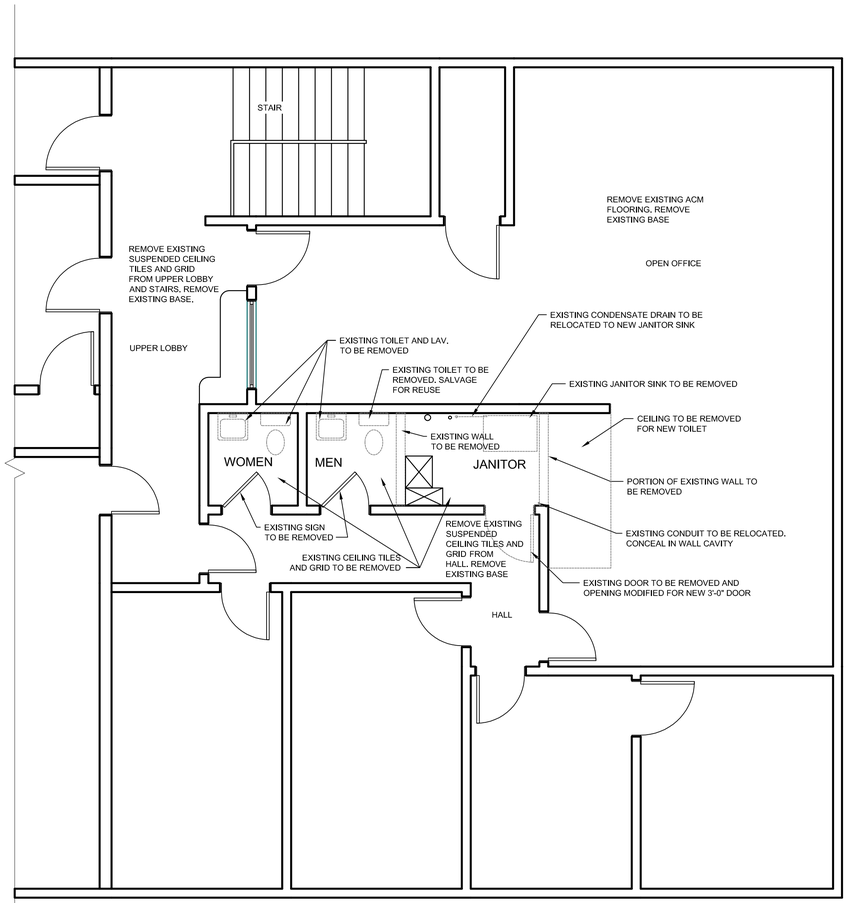
CONSTRUCTION NOTES

1. MEN: INSTALL SALVAGED TOILET. INSTALL NEW LAVATORY WITH PIPE PROTECTION, MIRROR AND ALL OWNER PROVIDED ACCESSORIES. VCT FLOORING AND VINYL BASE. INSTALL NEW CEILING GRID AND TILES. PAINT ALL WALLS AND TRIM. PAINT MEN SIDE OF DOOR. INSTALL NEW LED EMERGENCY LIGHT.
2. JANITOR: INSTALL NEW FLOOR JANITOR SINK AND FAUCET. VCT FLOORING AND VINYL BASE. NEW CEILING GRID AND TILES. PAINT ALL WALLS AND TRIM. PAINT JANITOR SIDE OF DOOR.
3. WOMEN: INSTALL NEW WALLS AS INDICATED ON FLOOR PLAN TO CREATE THE NEW WOMEN ROOM. INSTALL NEW DOOR WITH LEVER HANDLE HARDWARE. INSTALL NEW SHOWER, NEW TOILET AND GRAB BARS, NEW LAVATORY, MIRROR AND PIPE PROTECTION. INSTALL OWNER PROVIDED ACCESSORIES. NEW VCT FLOORING AND VINYL BASE, NEW CEILING GRID AND TILES. PAINT ALL WALLS AND TRIM. PAINT WOMEN SIDE OF DOOR. INSTALL NEW LED EMERGENCY LIGHT. INSTALL NEW LED LIGHT, LISTED FOR DAMP LOCATIONS, OVER NEW SHOWER
4. HALL: NEW VCT FLOORING AND VINYL BASE. NEW CEILING GRID AND TILES. PAINT ALL WALLS AND TRIM. PAINT HALL SIDE OF DOORS. ADD A NEW ILLUMINATED EXIT SIGN OVER DOOR TO UPPER LOBBY.
5. UPPER LOBBY: VCT FLOORING VINYL BASE. NEW CEILING GRID AND CEILING TILES. PAINT ALL WALLS AND TRIM. PAINT UPPER LOBBY SIDE OF DOORS.
6. STAIR: NEW CEILING GRID AND CEILING TILES. PAINT WALLS DOWN TO BOTTOM OF STAIR. PAINT RAILINGS.
7. OPEN OFFICE: NEW VCT FLOORING AND VINYL BASE. PAINT ALL WALLS AND TRIM. PAINT DOORS ON OPEN OFFICE SIDE. PATCH AND REPAIR EXISTING SUSPENDED CEILING. INSTALL NEW ILLUMINATED EXIT SIGN OVER DOOR TO UPPER LOBBY.

THE CONSTRUCTION NOTES ARE NOT INTENDED TO BE ALL INCLUSIVE.
THEY ARE INTENDED AS AN OVERVIEW.

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND THOROUGH UNDERSTANDING OF ALL DRAWINGS AND SPECIFICATIONS. CONTRACTOR MUST REPORT ALL CONFLICTS BETWEEN SEPARATE ADJACENT TRADES PRIOR TO THE INSTALLATION OF ANY CONFLICTING WORK.
3. ALL GENERAL NOTES APPLY UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
4. INSTALL WORK READILY ACCESSIBLE FOR OPERATION, MAINTENANCE, AND REPAIRS.
5. COORDINATE STAGING AREAS WITH OWNER AND ARCHITECT AND ANY OTHER CONTRACTORS EMPLOYED BY OWNER PRIOR TO COMMENCEMENT OF WORK.
6. ALL NOTES AND DETAILS MARKED TYPICAL APPLY TO SIMILAR CONDITIONS THROUGHOUT THE PROJECT WHETHER SPECIFICALLY NOTED OR NOT.
7. DRAWINGS ARE PREPARED TO SCALE UNLESS NOTED NTS (NOT TO SCALE)
8. PROVIDE ALL NECESSARY WOOD FRAMING, BLOCKING, NAILERS AND SHIMS REQUIRED TO INSTALL FIXTURES, GRAB BARS, ETC.
9. MAKE MINOR RELOCATIONS OR ADJUSTMENTS AS REQUIRED BY FIELD CONDITIONS.
10. ANY WALL DAMAGED DURING CONSTRUCTION TO BE REPAIRED AND THE ENTIRE WALL TO BE REPAINTED.
11. BUFF & WAX ALL NEW VCT.
12. PROVIDE EXHAUST VENTILATION FOR MEN, WOMEN, & JANITOR ROOMS. ON BY SWITCH AND OFF BY DELAY RELAY.
13. MODIFY FIRE ALARM AND SPRINKLER SYSTEM AS REQUIRED BY CODE.
14. CORE DRILL FLOOR AS NECESSARY FOR PLUMBING ROUGH-IN. GROUT UNUSED OPENINGS AS NECESSARY.
15. MODIFY/ADD ELECTRICAL, DATA & TELEPHONE AS REQUIRED FOR OWNERS CONTINUED USE.
16. REMOVE WALL MOUNTED ACCESSORIES ON WALLS TO BE PAINTED. REINSTALL REMOVED ACCESSORIES AFTER PAINTING IS COMPLETE.
17. PROVIDE A TRANSITION STRIP WHERE FLOOR MATERIAL CHANGES AND WHERE FLOOR TILE CHANGES.

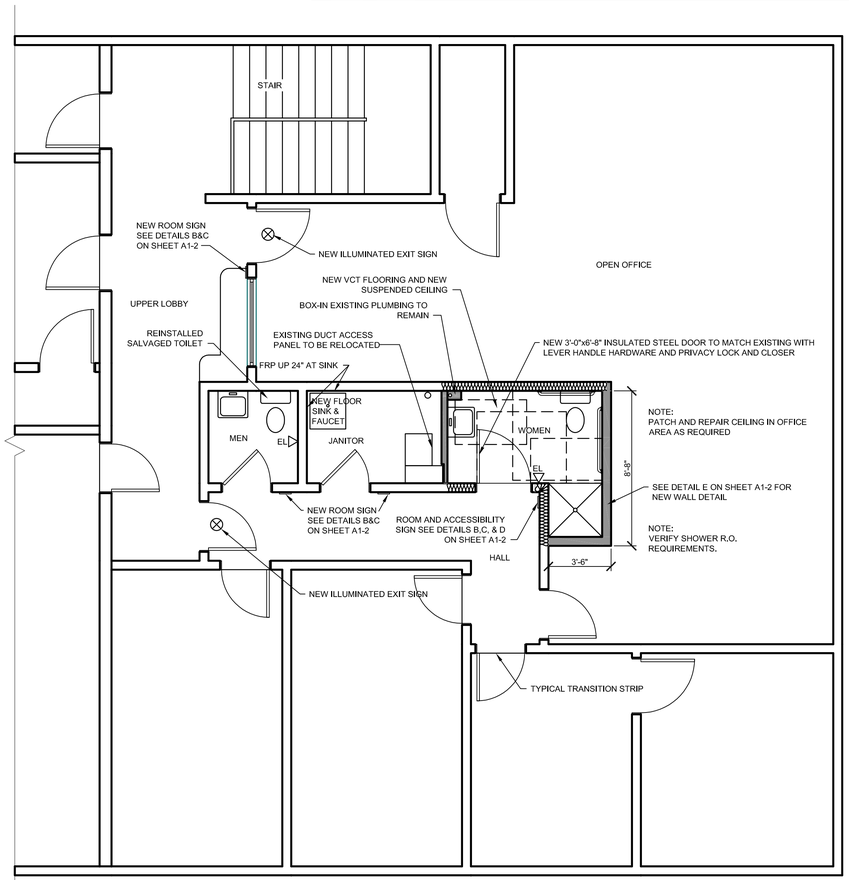


DEMOLITION PLAN

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

NOTE:
EXISTING EXTERIOR WINDOWS NOT SHOWN



ELEVATION KEY

FLOOR PLAN

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

NOTE:
EXISTING EXTERIOR WINDOWS NOT SHOWN

Project:

WOODBURY BRACKETT MUNICIPAL GARAGE- 2ND FLOOR RESTROOM RENOVATION

296 Gracelawn Road, Auburn, Maine

Bid No. 2018-020

Client:

City of Auburn, Maine
60 Court Street
AUBURN,MAINE 04210

Legend:

REGISTERED ARCHITECT. JOHN E. HANSEN 1110 STATE OF MAINE

Firm Name and Address:

CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Consultant Name and Address:

ARCHITECT
JOHN E. HANSEN, ARCHITECT
632 SPRUCE HEAD ROAD
SOUTH THOMASTON, MAINE 04858
PHONE: (207) 594-5310 FAX: (207) 594-5370

Drawing Status:

- ☐ CONCEPT DESIGN
- ☐ 65% DESIGN DEVELOPMENT
- ☐ 100% DESIGN DEVELOPMENT
- ■ BID DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:

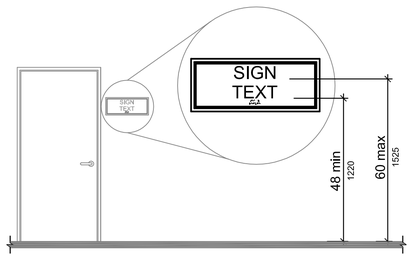
FLOOR PLANS

No.	Revision/Issue	Date

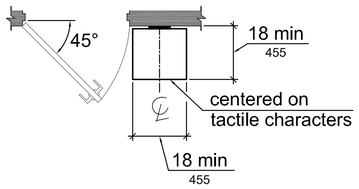
Design by:	Checked by:
JEH	MAD
Drawn by:	Approved by:
CMC	BMB
Project	Date.
Project # CCPG-1131	FEBRUARY 14, 2018

Sheet Number:

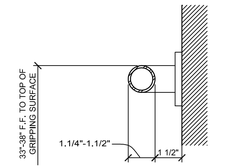
A1-1



C A1-2 ROOM SIGN



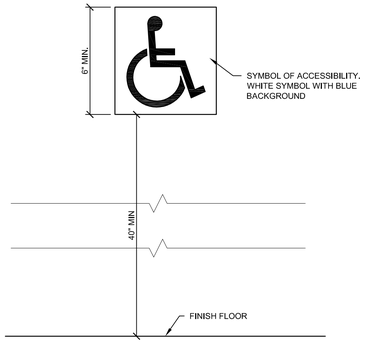
B A1-2 ROOM SIGN



A A1.2 GRAB BAR

0 2" 4" 8"

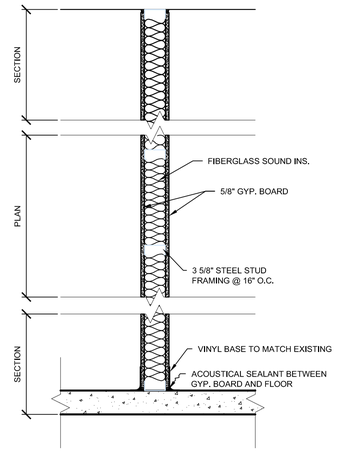
SCALE: 3" = 1'-0"



D A1-2 SYMBOL OF ACCESSIBILITY

0 2" 4" 8"

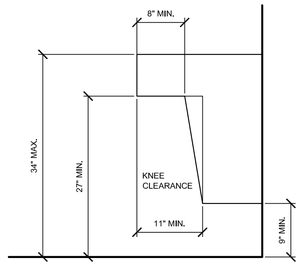
SCALE: 3" = 1'-0"



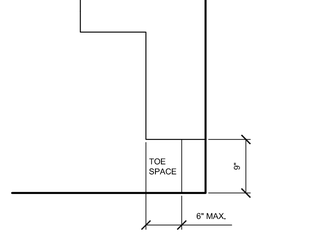
E A1-2 WALL DETAIL

0 6" 1' 2'

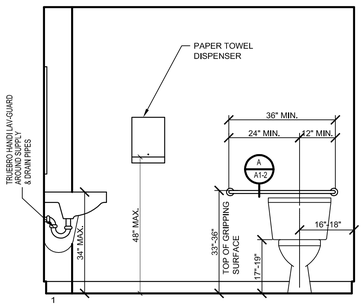
SCALE: 1" = 1'-0"



KNEE CLEARANCE N.T.S.



TOE CLEARANCE N.T.S.



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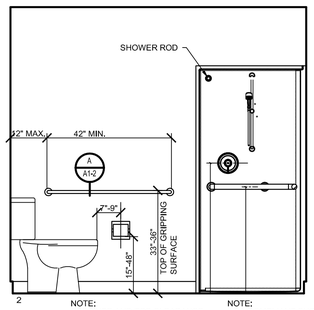
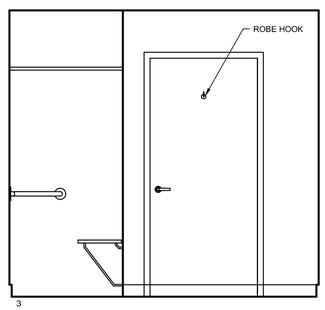


2

NOTE:
SEE KNEE AND TOE CLEARANCE
DIAGRAMS ON SHEET A2-1

NOTE:
ADA COMPLIANT SHOWER



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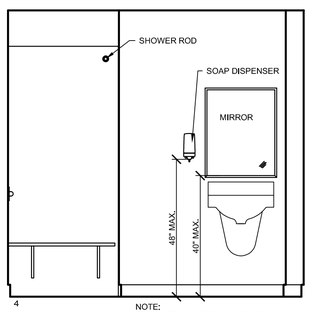

4

NOTE:
SEE KNEE AND TOE CLEARANCE
DIAGRAMS ON SHEET A2-1

ELEVATION KEY

WOMEN ELEVATIONS

0 1' 2' 4'

SCALE: 1/2" = 1'-0"

NOTE:
NOTE: FIXTURE AND TOILET ACCESSORIES
LOCATIONS SIMILAR IN MENS ROOM

Project:

WOODBURY BRACKETT
MUNICIPAL GARAGE - 2ND
FLOOR RESTROOM RENOVATION

296 Gracelawn Road, Auburn, Maine
Bid No. 2018-020

Client:

City of Auburn, Maine
60 Court Street
AUBURN, MAINE 04210

Legend:

REGISTERED ARCHITECT
JOHN E. HANSEN
1110
STATE OF MAINE

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Drawing Status:

- ☐ CONCEPT DESIGN
- ☐ 65% DESIGN DEVELOPMENT
- ☐ 100% DESIGN DEVELOPMENT
- ■ BID DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:

DETAILS

No.	Revision/Issue	Date

Design by: JEH
Checked by: MAD
Drawn by: CMC
Approved by: BMB
Project: Project # CCPG-1131
Date: FEBRUARY 14, 2018

Sheet Number:

A1-2