City of Auburn, Maine
Finance Department
Jill Eastman, Director
www.auburnmaine.gov | 207.333.6601
60 Court Street, Auburn, Maine 04210

February 6, 2017

Dear Bidder:

The City of Auburn is accepting written proposals for the Auburn Parks Garage for a **Senior Center Renovations Project,** located at 48 Pettingill Park 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 **mandatory** pre-bid meeting to review the work site is scheduled for Tuesday, February 14, 2017 at 9:00 a.m.at the Auburn Parks Garage, 48 Pettingill Park 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:
"Parks Garage Senior Center Renovations Project – Bid #2017-023."

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, February 23, 2017.** 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

Table of Contents

CONDITIONS AND INSTRUCTIONS TO BIDDERS

1. Bidders shall use the enclosed bid form 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 **"Parks Garage Senior Center Renovations Project – Bid #2017-023."** 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.

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.

BID PROPOSAL FORM
Parks Garage Senior Center Renovations Project – Bid #2017-023
Due: Thursday, February 23, 2017 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.

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

SCHEDULE OF VALUES

PROJECT NAME: **Parks Garage Senior Center Renovations Project – Bid #2017-023**

BID BREAKDOWN SCHEDULE OF VALUES

Item	Description	Value
1.	General Conditions	$_____ . _____
2.	Demolition & Disposal	$_____ . _____
3.	Concrete	$_____ . _____
4.	General Carpentry & Miscellaneous Items	$_____ . _____
5.	Doors, Frames & Hardware	$_____ . _____
6.	Thermal Insulation	$_____ . _____
7.	Storefronts	$_____ . _____
8.	Drywall	$_____ . _____
9.	Acoustical Ceilings	$_____ . _____
10.	Flooring	$_____ . _____
11.	Painting	$_____ . _____
12.	Toilet Accessories	$_____ . _____
13.	Cabinetry & Countertops	$_____ . _____
14.	Mechanical	$_____ . _____
15.	Electrical	$_____ . _____
16.	Plumbing	$_____ . _____
17.	Fire Alarm & Sprinkler	$_____ . _____
18.	Lift(s), Equipment and Staging	$_____ . _____
19.	Other (specify) _____	$_____ . _____
20.	Other (specify) _____	$_____ . _____
21.	**TOTAL BASE BID (Sum of Items 1 through 20)**	**$_____ . _____**

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.

PROJECT SCHEDULE

Estimated Start Date: March 13, 2017 Substantial Completion Date: June 30, 2017

FAILURE TO PROPERLY COMPLETE THIS ATTACHEMENT MAY BE CONSIDERED A NON-RESPONISVE PROPOSAL AND MAY BE REJECTED AT THE OWNERS DISCRETION.

SAMPLE 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 ***March 13, 2017*** and fully completed on or before ***June 30, 2017***.

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 **N/A** (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 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

PARKS GARAGE
SENIOR CENTER RENOVATIONS

48 Pettingill Park Road, Auburn, Maine

Bid No. 2017-023

Bid Documents

January 27, 2017

APPENDIX A
CONSTRUCTION SPECIFICATIONS

CITY OF AUBURN, MAINE

PARKS GARAGE
SENIOR CENTER RENOVATIONS

48 Pettingill Park Road, Auburn, Maine

Bid No. 2017-023

100% Bid Specifications

January 27, 2017

SECTION 00 01 00

TABLE OF CONTENTS

END OF SECTION 00 01 00

SECTION 00 01 02
PROJECT INFORMATION

PART 1 GENERAL

1.01 PROJECT IDENTIFICATION

A. Project Name: Parks Garage Senior Center Renovations, located at 48 Pettingill Park Road, Auburn, Maine.

B. The Owner, hereinafter referred to as Owner: The City of Auburn, Maine.

C. Owner's Representative: Cordjia Capital Projects Group
   1. Contact: Mitch Daigle
   2. Address: 16 Tannery Lane, Suite 23; PO Box 1367
   3. City, State, Zip: Camden, Maine 04843
   4. Phone / Fax: (207) 236-9970 / (207) 236-9971
   5. E-mail: mdaigle@cordjiacpg.com

1.02 PROJECT DESCRIPTION

A. The project consists of selective demolition, accessibility improvements, renovations and finish upgrades, painting, mechanical upgrades, and plumbing upgrades for the Parks Garage Senior Center building. The building included in this specification is owned and operated by The City of Auburn, Maine located at City Hall, 60 Court Street in Auburn, Maine.

B. Contract Terms: City of Auburn, Maine Standard Form of Agreement Between Owner and Contractor.

C. A Bid Bond is NOT required.

D. The selected contractor will NOT be required to furnish 100% Performance and Payment Bonds unless the Owner requests such bonds after award.

C. Phasing of the Work: The selected Contractor may be required to participate with the Owner and the Owners Representative to phase the scope of work based on available funding.

D. The premises at the project site are open for examination by bidders with advance notice and approval from the Owner during the following hours:
   1. Monday through Friday: 8:00 a.m. to 3:00 p.m.

1.03 PROJECT CONSULTANTS

A. Owner's A&E Consultant & Owners Representative: Cordjia Capital Projects Group
   1. Address: 16 Tannery Lane, Suite 23; PO Box 1367
   2. City, State, Zip: Camden, Maine 04843
   3. Phone / Fax: (207) 236-9970 / (207)236-9971
   4. E-mail: mdaigle@cordjiacpg.com

1.04 PROCUREMENT TIMETABLE

A. Mandatory Pre-Bid Meeting: 9:00 AM on February 14, 2017 at the Parks Garage Building, located at 48 Pettingill Park Road, Auburn, Maine.

B. Last Request for Information Due: February 17, 2017 prior to 2:00 PM.

C. Final Addenda Issued By: February 20, 2017 prior to 2:00 PM.

C. Bid Due Date: February 23, 2017, on or before 2:00 PM local time.

D. Contract Negotiations: Within 15 working days after due date.

E. Notice of Award: Within 20 working days after due date.

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

G. Substantial Completion Date: Contractor to provide best price schedule but not later than 110 calendar days from date of commencement or June 30, 2017.

H. The Owner reserves the right to change the schedule or terminate the entire procurement process at any time.

1.05 PROCUREMENT DOCUMENTS

A. Availability of Documents: Complete sets of procurement documents may be obtained:
   1. From the Owner's Representative for a non-refundable fee of:
      a. $50 for one complete set of specifications and full scale drawings.
      b. Electronic PDF file emailed at no charge.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 00 01 02

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, accessibility improvements, renovations and finish upgrades, painting, mechanical upgrades, and plumbing upgrades for the Parks Garage Senior Center building in accordance with the Contract Documents.

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 Between Owner and Contractor. 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.

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:

1. Toilet Paper Dispensers, Soap Dispensers and Paper Towel Dispensers; Contractor shall be responsible to notify Owner when Owner-furnished products are ready for installation by the Contractor.

G. Schedule of Allowances: Not Used

H. Additive Alternate: Not Used

I. Unit Prices: 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. Provide Lien Waivers with each application for payment.

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 and post at the project site in accordance with the issuing authority.

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. Substantial Completion: Work of the Contract must be Substantially Completed by ***June 30, 2017*** so that the Owner can have full use of the facility. Final completion of all Work of this Contract shall be by ***July 21, 2017***.

1. 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.

2. 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.

3. 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:

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

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

    c. 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 construction 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 of values 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.

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. Informational Submittals:

1. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CSI Form 1.5A. Include the following information in tabular form:
    a. Name, address, and telephone number of entity performing subcontract or supplying products.

b. Number and title of related Specification Section(s) covered by subcontract.

c. Drawing number and detail references, as appropriate, covered by subcontract.

2. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

a. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

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. Lighting

1. The Contractor shall provide source of temporary lighting.

C. Heat, Ventilation

1. The Contractor shall provide source of heating as required that is beyond the heating and ventilation supplied by the Owner under normal operating conditions. The Contractor shall not use electrical heating units, if the Owner is supplying electrical power to the Contractor.

D. 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].

E. Sanitary Facilities

1. The Contractor shall provide their own Sanitary Facilities.

F. Barriers

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

G. 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.

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, if necessary.

5. Temporary barricades to separate the Contract Site areas from the Owner's area or public area.

H. 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.

I. Security: 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.

J. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

K. 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 week.

    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.

L. 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.

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 REPORTS

A. Weekly Construction Reports: Prepare a weekly construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. Equipment at Project site.
3. Material deliveries.
4. High and low temperatures and general weather conditions, including presence of rain or snow.
5. Accidents.

6. Meetings and significant decisions.
7. Unusual events.
8. Stoppages, delays, shortages, and losses.
9. Orders and requests of authorities having jurisdiction.
10. Change Orders received and implemented.
11. Construction Change Directives received and implemented.
12. Services connected and disconnected.
13. Equipment or system tests and startups.

1.10 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 site; sweep hard surfaced areas, rake clean other surfaces.

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

1. Clean Project site, yard, and grounds, in areas disturbed by construction activities of rubbish, waste material, litter, and other foreign substances.

2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits. Rake landscaped areas.

3. Remove tools, construction equipment, machinery, and surplus material from Project site.

4. Clean exposed interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition.

5. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.

6. Sweep hard flooring surfaces broom clean.

7. Vacuum carpet and similar soft surfaces, removing debris; clean according to manufacturer's recommendations if visible soil or stains remain.

8. Clean transparent materials, including mirrors and glass in doors and windows.

9. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.

10. Remove labels that are not permanent.

11. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and other foreign substances.

12. Replace filters of operating equipment.

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

14. Leave Project clean and ready for occupancy.

3.02 STARTING OF SYSTEMS

A. Coordinate schedule for start-up of various equipment and systems.

B. Notify Architect/Engineer seven days before start-up of each item.

C. Verify each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.

D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.

E. Verify wiring and support components for equipment are complete and tested.

F. Execute start-up under supervision of applicable manufacturer's representative in accordance with manufacturers' instructions.

G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation before start-up, and to supervise placing equipment or system in operation.

H. Submit a written report stating the equipment or system has been properly installed and is functioning correctly.

3.03 DEMONSTRATION AND INSTRUCTIONS

A. Demonstrate operation and maintenance of products to Owner's personnel two weeks before date of Substantial Completion.

B. Use operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.

C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at equipment location.

D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

E. Required instruction time for each item of equipment and system is specified in individual sections.

3.04 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 floors, stairs, and other 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.

3.05 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. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:

1. Manufacturer's name and product model and number.

2. Product substitutions or alternates used.

3. Changes made by Addenda and modifications.

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

1. Measured depths of foundations in relation to finish main floor datum.

2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.

3. Measured locations of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of the Work.

4. Field changes of dimension and detail.

5. Details not on original Contract drawings.

G. 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.

3.06 OPERATION AND MAINTENANCE DATA

A. Submittal Requirements:

1. 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 O&M Manual in electronic form on CD/DVD**.

2. Prepare binder cover with printed title "OPERATION AND MAINTENANCE", title of project, location, bid number, and subject matter of binder when multiple binders are required. A spine label with same information should also be provided.

3. Subdivide each binder's contents with permanent page dividers, logically organized, with tab titles clearly printed. Tabs should be organized and titled based on the Table of Contents.

B. Manual Submission

1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect/Engineer will review draft and return one copy with comments.

2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.

3. Submit one copy of completed volumes 15 days before final inspection. Draft copy will be reviewed and returned after final inspection, with Architect/Engineer comments. Revise content of document sets as required before final submission.

4. Submit two sets of revised final volumes in final form within 10 days after Receipt from Owner.

C. Contents

1. 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.

2. Drawings: Provide reduced copies of each plan printed on 11 x 17 pages and insert them after the Project Summary page. Also provide a CD/DVD in the back of each binder containing Record Drawing files in Adobe PDF format. AutoCAD drawings shall be delivered as stand-alone without X-references.

3. Table of Contents: Provide a Table of Contents (TOC) for the binder and place behind the reduced plans. If multiple binders are necessary, include a TOC for the entire submission, then a TOC for the individual binder. TOC should be a listing of all products or systems and the 6 required components below each.

4. Product/System Components: Provide the following information for each product and/or system. Provide additional requirements as specified in individual product specification sections.

    a. OVERVIEW and INFORMATION:
        i. Equipment Register: equipment description, model number(s), date of installation, installer w/contact info, supplier w/contact info, manufacturer w/contact info, warranty date, warranty details, estimated life / useful life.
        ii. Description of Complete Installation: A general description of the installation to provide a general understanding of the equipment and its operation.
        iii. Specific System Description: A technical description of each system of the installation, written to ensure it can be clearly understood by persons not familiar with the installation.
        iv. Performance Data: Technically description of the mode of operation of each system provided. This section provides functionality details.
        v. When applicable, include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.

    b. OPERATIONS:
        i. Manufacturers' technical literature as appropriate. For other than common accessories, where no manufacturer literature is available, provide a precise and concise description of the operation procedure in plain English.
        ii. Safe start-up, break-in, routine operation, shut-down, and emergency operations for the equipment installed including a logical step-by-step sequence of instructions for each procedure. Include summer, winter and special operating instructions.

iii. List of all limiting conditions for equipment.
iv. Control Sequence and flow diagrams for the system installed.
v. A legend for color-coded services. A legend of the symbols used on the drawings, unless included on the drawings.
vi. Schedules of the parameter settings of each protective device, including fixed and adjustable circuit breakers, protective relays, adjustable photoelectric switches, pressure switches, and any other control and monitoring device, as established during commissioning and maintenance.

c. MAINTENANCE:
i. Emergency procedures, including telephone numbers for emergency services, and procedures for fault-finding.
ii. Manufacturers' technical literature, as appropriate. Include original manufacturers' parts list, illustrations, assembly drawings, and diagrams required for maintenance.
iii. Detailed recommendations for the frequency of performance of routine maintenance tasks
iv. List of procedures and tasks associated with preventative (routine) maintenance.
v. Procedures for safe trouble shooting, disassembly, repair and reassembly, cleaning, alignment, inspection and adjustment, including a logical step-by-step sequence of instructions for each procedure.
vi. Include summer, winter and special maintenance instructions.
vii. Maintenance Schedule: schedule of the frequency of the required or recommended maintenance, testing and inspection for each type of equipment. The schedule is to include weekly and monthly attendance times.
viii. Installation and dismantling instructions: Instructions for the proper installation and dismantling of the equipment.
ix. Spares and Consumables:
1. Schedule of spares (including bearings) with an expected operating life less than 40,000 hours. Include expected replacement frequency, item label manufacturer name, address, and telephone number, catalogue number name and address of local distributor.
2. Schedule of Consumable Items (oil, grease, belts, bearings) to be used during servicing.
3. Furnish spare parts, consumable items, and extra products in quantities specified in individual specification sections and/or as recommended by manufacturer or requested by Owner. Deliver to project site and place in location as directed by Owner; *obtain receipt before final payment*.

d. TECHNICAL DATA
i. Manufacturers' technical literature assembled specifically for the project and **excluding irrelevant material.**
ii. Each product data sheet marked to clearly identify the specific products and components used in the installation and the data applicable. Additional instructions and illustrations, as required, to identify and changes to the manufacturers' data or to illustrate the function of each component in the installation.
iii. Provide performance curves and engineering data
iv. Include control diagrams by controls manufacturer as installed.
v. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.

vi. Shop drawings.

e. WARRANTIES
   i. Provide originals of Manufacturers' warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, *within ten days after completion of applicable item of work.*
   ii. All Guarantees
   iii. Certificates of compliance for all electrical and plumbing works, where applicable.
   iv. If installation is not by the manufacturer, and product warranty is conditional on the manufacturer's approval of the installer, submit the manufacturer's approval of the installing firm.

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.

C. Co-execute submittals when required.

D. Submit before final Application for Payment.

E. Time of Submittals:

1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.

2. Make other submittals within ten days after Date of Substantial Completion, before final Application for Payment.

3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

END OF SECTION 01 00 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, patching and demolition 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. Patch and paint ceilings where existing equipment (i.e. light fixtures) are scheduled to be removed.

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.

1.02 SECTION INCLUDES

A. Selective demolition of building elements for alteration purposes.

1.03 REFERENCE STANDARDS

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

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.

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 operations and safety of adjacent structures and the public.

1. Obtain required permits.
2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
3. Provide, erect, and maintain temporary barriers and security devices.
4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.

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

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

D. If hazardous materials are discovered during removal operations, stop work and notify Architect and City of Auburn; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

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.

3.04 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.

END OF SECTION 02 41 00

SECTION 03 30 00
CAST-IN-PLACE CONCRETE

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. Floors and slabs on grade patching.

B. Concrete reinforcement.

C. Concrete curing.

1.03 REFERENCE STANDARDS

A. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials; American Concrete Institute International; 2010.

B. ACI 301 - Specifications for Structural Concrete; American Concrete Institute International; 2010.

C. ACI 302.1R - Guide for Concrete Floor and Slab Construction; American Concrete Institute International; 2004 (Errata 2007).

D. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.

E. ACI 308R - Guide to Curing Concrete; American Concrete Institute International; 2001 (Reapproved 2008).

F. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon Billet-Steel Bars for Concrete Reinforcement; 2014.

G. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2013.

H. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2013.

I. ASTM C150/C150M - Standard Specification for Portland Cement; 2012.

J. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete; 2007.

K. ASTM C1059/C1059M - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete; 2013.

L. ASTM E154/E154M - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover; 2008a (Reapproved 2013).

M. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2011.

1.04 SUBMITTALS

A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.

B. Mix Design: Submit proposed concrete mix design.

1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures. Minimum compressive strength shall be 3000 psi @ 30 days.

C. Samples: Submit samples of under-slab vapor retarder to be used.

1.05 FIELD CONDITIONS

A. Cold and Hot Weather Requirements: Comply with requirements of ACI 530/530.1/ERTA or applicable building code, whichever is more stringent.

PART 2- PRODUCTS

2.01 REINFORCEMENT

A. Steel Welded Wire Reinforcement (WWR): Plain type, ASTM A1064/A1064M.

1. WWR Style: 4 x 8-W6 x W10.

B. Reinforcement Accessories:

1. Tie Wire: Annealed, minimum 16 gage, 0.0508 inch.

2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

2.02 CONCRETE MATERIALS

A. Cement: ASTM C150, Type I - Normal Portland type.

B. Fine and Coarse Aggregates: ASTM C 33.

C. Water: Clean and not detrimental to concrete.

2.03 ACCESSORY MATERIALS

A. Under-slab Vapor Retarder: Multi-layer, fabric-, cord-, grid-, or aluminum-reinforced polyethylene or equivalent, complying with ASTM E1745, Class A; stated by manufacturer as suitable for installation in contact with soil or granular fill under concrete slabs. The use of single ply polyethylene is prohibited.

1. Accessory Products: Vapor retarder manufacturer's recommended tape, adhesive, mastic, prefabricated boots, etc., for sealing seams and penetrations in vapor retarder.

2.04 BONDING AND JOINTING PRODUCTS

A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M, Type II.

1. Products:

a. SpecChem, LLC; Strong Bond Acrylic Bonder.

b. W.R. Meadows, Inc.; ACRY-LOK-.

B. Slab Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.

2.05 CURING MATERIALS

A. Evaporation Reducer: Liquid thin-film-forming compound that reduces rapid moisture loss caused by high temperature, low humidity, and high winds; intended for application immediately after concrete placement.

1. Products:

a. Dayton Superior Corporation; AquaFilm Concentrate J74.

b. SpecChem, LLC; SpecFilm Concentrate or SpecFilm RTU.

c. W.R. Meadows, Inc; Evapre or Evapre-RTU.

PART 3- EXECUTION

3.01 PREPARATION

A. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.

B. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.

1. Use latex bonding agent only for non-load-bearing applications.

C. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Lap joints a minimum of 6 inches. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.

3.02 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.

B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire. Provide mechanical connection to existing slab.

3.03 PLACING CONCRETE

A. Place concrete in accordance with ACI 304R.

B. Place concrete for floor slabs in accordance with ACI 302.1R.

C. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.04 SLAB JOINTING

A. Pin new slab to existing slab with #4 bars at 24” on center.

B. Anchor joint fillers and devices to prevent movement during concrete placement.

C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.

3.05 FLOOR FLATNESS AND LEVELNESS TOLERANCES

A. Maximum Variation of Surface Flatness:

1. Exposed Concrete Floors: 1/4 inch in 10 ft.
2. Under Seamless Resilient Flooring: 1/4 inch in 10 ft.
3. Under Carpeting: 1/4 inch in 10 ft.

B. Correct the slab surface if tolerances are less than specified.

C. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.06 CONCRETE FINISHING

A. Repair surface defects, immediately after removing formwork.

B. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:

1. Other Surfaces to Be Left Exposed: "Steel trowel" as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

C. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains at 1:100 nominal.

3.07 CURING AND PROTECTION

A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.

B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

C. Surfaces Not in Contact with Forms:

1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
2. Final Curing: Begin after initial curing but before surface is dry.

3.08 DEFECTIVE CONCRETE

A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements shall be replaced at no additional cost to the Owner.

3.09 PROTECTION

A. Do not permit traffic over unprotected concrete floor surface until fully cured.

END OF SECTION 03 30 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.

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.

B. Moisture Content: S-dry or MC19.

C. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:

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

2. Boards: Standard or No. 3.

PART 3 - EXECUTION

3.01 INSTALLATION - GENERAL

A. Select material sizes to minimize waste.

B. 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.

C. Section 12 35 30 - Casework: cabinets and counter tops.

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 SUBMITTALS

A. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.

1. Minimum Scale of Detail Drawings: 1-1/2 inch to 1 foot.

2. Manufacturer’s standard color selections.

1.07 QUALITY ASSURANCE

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

1.08 DELIVERY, STORAGE, AND HANDLING

A. Protect work from moisture damage.

PART 2 - PRODUCTS

2.01 FINISH CARPENTRY ITEMS

A. Wood trim.

2.02 BOARD STOCK.

A. #1 Pine trim or Shelves.

2.03 FASTENINGS

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

2.04 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 and vapor retarder in exterior walls for thermal insulation.

B. Batt insulation in wood 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. Sheet Vapor Retarder: White polyethylene film for above grade application, 10 mil thick.

B. Tape, plastic, white.

PART 3 - EXECUTION

3.01 BATT INSTALLATION

A. Install insulation and vapor retarder 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 80 00 - Glazing: Glazing sealants and accessories.

B. 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 and fire-rated steel interior doors and frames.

B. Thermally insulated exterior steel doors and frames.

1.03 RELATED REQUIREMENTS

A. Section 08 71 00 - Door Hardware.

B. Section 08 80 00 - Glazing.

C. 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 Top Closures: Flush with top of faces and edges.

3. Door Texture: Smooth faces.

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

5. 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 STEEL DOORS

A. Exterior Doors:

1. Core: Insulated.
2. Thickness: 1 3/4".
3. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M.
4. Insulating Value: U-value of 0.70, when tested in accordance with ASTM C1363.
5. Weatherstripping: At door edge or frame on head, jambs and sill.

B. Interior Doors, Fire Rated and Non-Fire-Rated:

1. Grade: ANSI A250.8 - SDI-100.
2. Thickness: 1 3/4".
3. Fire rated doors shall bear the UL Fire label.

2.03 STEEL FRAMES

A. General:

1. Comply with the requirements of grade specified for corresponding door.
2. Provide mortar guard boxes for hardware cut-outs in frames to be installed in masonry or to be grouted.
3. Frames in Masonry Walls: Size to suit masonry coursing with head member to fill opening without cutting masonry units.

B. Exterior Door Frames: Face welded, seamless with joints filled.

1. Weatherstripping: At door edge or frame on head, jambs and sill.

C. Interior doors shall be KD. Fire rated frames shall bear the UL Fire label.

2.04 ACCESSORY MATERIALS

A. Grout for Frames: Portland cement grout of maximum 4-inch slump for hand troweling; thinner pumpable grout is prohibited.

B. 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.

C. 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.

B. Bituminous Coating: Asphalt emulsion or other high-build, water-resistant, resilient coating.

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. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.

D. 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 Door and Frame Schedule on the drawings.

END OF SECTION 08 11 13

SECTION 08 42 29
AUTOMATIC ENTRANCES

PART 1 GENERAL

1.02 RELATED DOCUMENTS

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

1.01 SECTION INCLUDES

A. Packaged power-operated door openers.

1.02 RELATED REQUIREMENTS

A. Section 26 05 00- Electrical

1.03 REFERENCE STANDARDS

A. BHMA A156.10 - American National Standard for Power Operated Pedestrian Doors; Builders Hardware Manufacturers Association; 2011 (ANSI/BHMA A156.10).

1.04 SUBMITTALS

A. Shop Drawings:
   1. Indicate layout and dimensions; head, jamb, and sill conditions; elevations; components, anchorage, recesses, materials, and finishes, electrical characteristics and connection requirements.

B. Product Data: Provide data on system components, sizes, features, and finishes.

C. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention, and manufacturer's hardware and component templates.

D. Maintenance Data: Include manufacturer's parts list and maintenance instructions for each type of hardware and operating component.

E. Warranty: Submit manufacturer warranty and ensure that forms have been completed in City of Auburn's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.

1.06 WARRANTY

A. Provide two-year manufacturer’s warranty.

PART 2 PRODUCTS

2.01 POWER OPERATED DOORS

A. All Power Operated Doors: Provide products that comply with the requirements of the authorities having jurisdiction; unless otherwise indicated, provide equipment selected for the actual weight of the doors and for medium to heavy pedestrian traffic. Example: Gyrotec 710, surface mounted, bottom access, out swing with wireless switch.
   1. Swinging Door Operators: In addition to other requirements, provide surface mounted door operator with automatic closer.
      a. Finish exposed equipment components to match door and frame finish.

2.03 CONTROLS

A. Push Plate Actuator: Standard wall mounted, surface mounted momentary contact type; satin stainless steel plate; 3 inches in diameter; labeled PUSH.

B. Provide both interior and exterior push plate actuator.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are ready to receive work and dimensions are as indicated on shop drawings.

3.02 INSTALLATION

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

3.03 ADJUSTING

A. Adjust door equipment for correct function and smooth operation.

3.05 CLOSEOUT ACTIVITIES

A. Demonstrate operation, operating components, adjustment features, and lubrication requirements.

3.06 MAINTENANCE

A. Provide service and maintenance of operating equipment for one year from Date of Substantial Completion, at no extra charge to City of Auburn.

END OF SECTION 08 42 29

SECTION 08 43 13

ALUMINUM-FRAMED STOREFRONTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.01 SECTION INCLUDES

A. Aluminum Doors, Transoms and Frames.

B. Fixed Glass / Sidelight and Frame.

B. Door Weatherstripping.

1.02 RELATED REQUIREMENTS

A. Section 08 71 00 – Door Hardware: Hardware items other than specified in this section.

B. Section 08 42 29 – Automatic Entrances.

C. Section 08 80 00 – Glazing.

1.03 REFERENCE STANDARDS

A. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; American Architectural Manufacturers Association; 2012.

B. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; American Architectural Manufacturers Association; 2012.

C. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2013.

D. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes [Metric]; 2013.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate with installation of other components that comprise the exterior enclosure.

B. Preinstallation Meeting: Conduct a preinstallation meeting one week before starting work of this section; require attendance by all affected installers.

1.05 SUBMITTALS

A. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, internal drainage details.

B. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related Work, expansion and contraction joint location and details, and field welding required.

C. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.

D. Manufacturer's Certificate: Certify that the products supplied meet or exceed the specified requirements.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Handle products of this section in accordance with AAMA CW-10.

B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.07 WARRANTY

A. Provide five-year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.

B. Provide five-year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 - PRODUCTS

2.01 STOREFRONT

A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.

1. Glazing Position: Centered (front to back).

2. Vertical Mullion Dimensions: 2 inches wide by 4-1/2 inches deep.

3. Finish: Pigmented organic coatings.

a. Factory finish all surfaces that will be exposed in completed assemblies.

b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.

4. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.

5. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
6. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
7. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
8. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
9. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.

2.02 COMPONENTS

A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
   1. Glazing stops: Flush.

B. Swing Doors: Glazed aluminum. Above mid rail, insulated panel below.
   1. Thickness: 1-3/4 inches.
   2. Top Rail: 4 inches wide.
   3. Mid rail: 6 inch high.
   3. Vertical Stiles: 4-1/2 inches wide.
   4. Bottom Rail: 12 inches wide.
   5. Glazing Stops: Square.

C. Sidelight: Match appearance of door.

D. Transoms: as indicated.

2.03 MATERIALS

A. Extruded Aluminum: ASTM B221 (ASTM B221M).

B. Fasteners: Stainless steel.

C. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.

2.04 FINISHES

A. Class I Color Anodized Finish: AAMA 611 AA-M12C22A42 Integrally colored anodic coating not less than 0.7 mils thick.

2.05 HARDWARE

A. For each door, include weatherstripping, sill sweep strip, and threshold.

B. Other Door Hardware: Storefront manufacturer's standard type to suit application.

1. Finish on Hand-Contacted Items: Polished chrome.

2. For each door, include butt hinges, pivots, push handle, pull handle, exit device, narrow stile handle latch, and closer.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install wall system in accordance with manufacturer's instructions.

B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.

C. Provide alignment attachments and shims to permanently fasten system to building structure.

D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.

E. Provide thermal isolation where components penetrate or disrupt building insulation.

F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.

G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.

H. Coordinate attachment and seal of perimeter air and vapor barrier materials.

I. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

J. Set thresholds in bed of mastic and secure.

K. Install hardware using templates provided.

L. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

3.02 TOLERANCES

A. Maximum Variation from Plumb: 0.06 inches every 3 ft non-cumulative or 1/16 inches per 10 ft, whichever is less.

B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

3.03 ADJUSTING

A. Adjust operating hardware and sash for smooth operation.

3.04 CLEANING

A. Remove protective material from pre-finished aluminum surfaces.

B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths. Take care to remove dirt from corners. Wipe surfaces clean.

C. Remove excess sealant by method acceptable to sealant manufacturer.

3.05 PROTECTION

A. Protect installed products from damage during subsequent construction.

END OF SECTION 08 43 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. Exit devices.
   3. Closers.
   4. Push bars and pull handles.
   5. Floor or wall stops.
   6. Installation of lock cylinders provided under this section.
   7. Thresholds.
   8. Integral weatherstripping, seals and door gaskets.

1.03 RELATED REQUIREMENTS

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

B. Section 08 43 13 – Aluminum-Framed Storefronts

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.
   4. Provide non-removable pins on exterior out-swinging doors.
   5. Where electrified hardware is mounted in door leaf, provide power transfer hinges.

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. Hardware Sets indicate locking functions required for each door.
   2. If no hardware set is indicated for a swinging door provide an office lockset.
   3. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim.
   4. Lock Cylinders: Provide key access on outside of all locks unless specifically stated to have no locking or no outside trim.

B. Lock Cylinders: Manufacturer’s standard tumbler type, six-pin standard core.
   1. Provide cams and/or tailpieces as required for locking devices required.

C. Keying: Grand master keyed. Coordinate with Owner for final keying.

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 EXIT DEVICES

A. Locking Functions: Functions as defined in BHMA A156.3, and as follows:
   1. Entry/Exit, Free Swing: Key outside retracts latch, latch holdback (dogging) for free swing during occupied hours, not fire-rated; outside trim, lever or pull.

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 every exterior door.
3. Provide a door closer on every fire- and smoke-rated door. Spring hinges are not an acceptable self-closing device unless specifically so indicated.
4. On pairs of swinging doors, if an overlapping astragal is present, provide coordinator to ensure the leaves close in proper order.
5. Provide closers per door schedule.

2.06 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.

2.07 GASKETING AND THRESHOLDS

A. Gaskets: Complying with BHMA A156.22.

1. On each exterior door, provide weatherstripping gaskets, unless otherwise indicated; top, sides, and meeting stiles of pairs.
    a. Where exterior door is also required to have fire or smoke rating, provide gaskets functioning as both smoke and weather seals.
2. On each exterior door, provide door bottom sweep, unless otherwise indicated.

B. Thresholds:

1. At each exterior door, provide a threshold unless otherwise indicated. Low profile shall be ½” high ADA compliant.

2.08 PROTECTION PLATES AND ARCHITECTURAL TRIM

A. Protection Plates:

1. Kickplate: Provide on push side of every door with closer, except storefront and all-glass doors.

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.

B. Verify repairs necessary to existing door hardware and weatherstripping.

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 08 80 00
GLAZING

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. Glass, tempered.

B. Glazing compounds and accessories.

1.03 RELATED REQUIREMENTS

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

1.04 REFERENCE STANDARDS

A. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers; 2005 (Reapproved 2011).

B. ASTM C1036 - Standard Specification for Flat Glass; 2011e1.

C. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2012.

1.05 SUBMITTALS

A. Product Data on Glass Types: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.

B. Product Data on Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colors.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing the work of this section with minimum three years documented experience.

PART 2 - PRODUCTS

2.01 GLAZING TYPES

A. Type S-3 - Safety Glazing: Non-fire-rated.

1. Applications: Provide this type of glazing in the following locations:

a. Glazed door lights. sidelites and transoms.

b. Locations indicated on the drawings.

3. Tint: Clear.

4. Thickness: 1/4 inch.

2.02 GLAZING ACCESSORIES

A. Setting Blocks: Neoprene, 80 to 90 Shore A durometer hardness, ASTM C864 Option I. Length of 0.1 inch for each square foot of glazing or minimum 4 inch x width of glazing rabbet space minus 1/16 inch x height to suit glazing method and pane weight and area.

B. Glazing Tape, Back Bedding Mastic Type: Preformed, butyl-based, 100 percent solids compound with integral resilient spacer rod applicable to application indicated; hardness of 5 to 30 Durometer Shore "A"; coiled on release paper; black color.

C. Glazing Clips: Manufacturer's standard type.

PART 3 - EXECUTION

3.01 PREPARATION

A. Clean contact surfaces with solvent and wipe dry.

3.02 INSTALLATION - INTERIOR DRY METHOD (TAPE AND TAPE)

A. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch above sight line.

B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.

C. Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.

D. Place glazing tape on free perimeter of glazing in same manner described above.

E. Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.

F. Knife trim protruding tape.

3.03 CLEANING

A. Remove glazing materials from finish surfaces.

B. Remove labels after Work is complete.

C. Clean glass and adjacent surfaces.

3.04 PROTECTION

A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.

END OF SECTION 08 80 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.

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.

B. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.

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 and ceilings, unless otherwise indicated.
2. Thickness:
    a. Vertical Surfaces: 5/8 inch.
    b. Ceilings: 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; cadmium-plated for exterior locations.

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

B. Suspended Ceilings and Soffits: Space framing and furring members as indicated.

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.

2. Level 1: Fire rated wall areas above finished ceilings, whether or not accessible in the completed construction.

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.

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, patch & repair.

B. Acoustical units, to match existing.

1.03 RELATED REQUIREMENTS

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

B. Section 26 05 00 – Basic Electrical Materials and Methods: 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.

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: 50 square feet of each type and color.

2. Extra Wall Base: 25 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.

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 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. 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.

3.07 CLEANING

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

B. Clean in accordance with manufacturer's instructions.

3.08 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, unless intended to be a field-catalyzed coating.

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 – EXTERIOR: For non-factory finished metals.

A. Paint ME-OP-2A - Ferrous Metals, Primed, Alkyd, 2 Coat:

1. Touch-up with rust-inhibitive primer recommended by top coat manufacturer.
2. Semi-gloss: Two coats of alkyd enamel.

2.04 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.

C. Paint I-OP-MD-WC - Medium Duty Vertical/Overhead: Including gypsum board, plaster, concrete, concrete masonry, uncoated steel, shop primed steel, galvanized 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 Epoxy-Modified Latex; MPI #115, 215.
4. Semi-Gloss: MPI gloss level 5;
5. Primer(s): As recommended by manufacturer of top coats.

D. Paint CI-OP- 3E- Epoxy Concrete Floor Finish.

1. One coat of catalyzed epoxy primer.
2. 2 top coats catalyzed epoxy enamel, gloss finish.

3. Color selected by owner.

2.05 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. 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.

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

I. 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.

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

K. 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).

L. 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.

M. 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.

N. 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.

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

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. Concrete Floor: CI-OP-3E.

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

1. Interior Ceilings and Bulkheads: I-OP-, flat.

2. Interior Walls: I-OP, satin.

C. Wood: Finish all surfaces exposed to view.

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

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

E. Steel Fabrications: Finish all surfaces exposed to view, except Above 8 ft. floor.

1. Interior: I-OP-MD-WC, semi-gloss.

2. Above 8 ft. use dry fall I-OP-DF, flat.

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

1. Finish the following items:

a. Mechanical equipment.

b. Electrical equipment.

2. Exterior: Steel Doors and Frames. ME-OP-2A

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 and door signs.

B. ADA signage with braille.

1.03 RELATED REQUIREMENTS

A. Section 26 05 00 – Interior Lighting: Emergency lighting and exit signs required by code.

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

1.05 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.

1.06 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.

1.07 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 and Door 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.
3. Character Height: 3/4 inch.
4. Sign Height: 2 inches, unless otherwise indicated.
5. Rest Rooms: Identify with pictograms, the names "MEN" and "WOMEN, and braille.

2.02 SIGN TYPES

A. Flat Signs: Signage media without frame.

1. Edges: Square.
2. Corners: Square.
3. Wall Mounting of One-Sided Signs: Tape adhesive.

B. Color and Font: Unless otherwise indicated:

1. Character Font: Helvetica, Arial, or other sans serif font.
2. Character Case: Upper case only.
3. Background Color: Black
4. Character Color: White.

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:

1. Room and Door Signs: Locate on wall at latch side of door with centerline of sign at 60 inches above finished floor.

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

END OF SECTION 10 14 00

SECTION 10 21 13
METAL TOILET COMPARTMENTS

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. Metal toilet compartments.

1.03 RELATED REQUIREMENTS

A. Section 10 28 00 – Toilet and Bath Accessories.

1.04 REFERENCE STANDARDS

A. ASTM A424 - Standard Specification for Steel, Sheet, for Porcelain Enameling; 2009a.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate the work with placement of support framing and anchors in walls and ceilings.

1.06 SUBMITTALS

A. Shop Drawings: Indicate partition plan, elevation views, dimensions, details of wall supports, door swings.

B. Product Data: Provide data on panel construction, hardware, available colors and accessories.

C. Manufacturer's Installation Instructions: Indicate special procedures.

PART 2 - PRODUCTS

2.01 COMPONENTS

A. Toilet Compartments: Powder coated steel, floor-mounted headrail-braced.

B. Doors, Panels, and Pilasters: Sheet steel faces, pressure bonded to sound deadening core, formed and closed edges; corners made with corner clips or mitered, welded, and ground smooth.

1. Panel Faces: 20 gage, 0.0359 inch.
2. Door Faces: 22 gage, 0.0299 inch.
3. Pilaster Faces: 20 gage, 0.0359 inch.
4. Reinforcement: 12 gage, 0.1046 inch.
5. Internal Reinforcement: Provide in areas of attached hardware and fittings. Mark locations of reinforcement for partition mounted washroom accessories.

C. Door and Panel Dimensions:

1. Thickness: 1 inch.
2. Door Width: 24 inch.
3. Door Width for Handicapped Use: 36 inch, out-swinging.
4. Height: 58 inch.

D. Pilasters: 1-1/4 inch thick, of sizes required to suit compartment width and spacing.

2.02 ACCESSORIES

A. Pilaster Shoes: Formed chromed steel with polished finish, 3 inch high, concealing floor fastenings.

1. Provide adjustment for floor variations with screw jack through steel saddles integral with pilaster.

B. Head Rails: Hollow chrome-plated steel tube, 1 x 1-5/8 inch size, with anti-grip strips and cast socket wall brackets.

C. Brackets: Polished chrome-plated non-ferrous cast metal.

D. Attachments, Screws, and Bolts: Stainless steel, tamper proof type.

1. For attaching panels and pilasters to brackets: Through-bolts and nuts; tamper proof.

E. Hardware: Polished chrome plated non-ferrous cast metal:

1. Pivot hinges, gravity type, adjustable for door close positioning; two per door.
2. Nylon bearings.
3. Thumb turn or sliding door latch with exterior emergency access feature.
4. Door strike and keeper with rubber bumper; mounted on pilaster in alignment with door latch.
5. Coat hook with rubber bumper; one per compartment, mounted on door.
6. Provide door pull for out-swinging doors.

2.03 FINISHING

A. Powder Coated Steel Compartments: Clean, degrease, and neutralize. Follow immediately with a phosphatizing treatment, prime coat and two finish coats powder coat enamel.

B. Color selection shall be by owner.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify correct spacing of and between plumbing fixtures.

C. Verify correct location of built-in framing, anchorage, and bracing.

3.02 INSTALLATION

A. Install partitions secure, rigid, plumb, and level in accordance with manufacturer's instructions.

B. Maintain 3/8 to 1/2 inch space between wall and panels and between wall and end pilasters.

C. Attach panel brackets securely to walls using anchor devices.

D. Attach panels and pilasters to brackets. Locate head rail joints at pilaster center lines.

3.03 TOLERANCES

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

B. Maximum Variation From Plumb: 1/8 inch.

3.04 ADJUSTING

A. Adjust hinges to position doors in partial opening position when unlatched. Return out swinging doors to closed position.

B. Adjust adjacent components for consistency of line or plane.

END OF SECTION 10 21 13

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. (existing)

C. Mirrors (one mirror)

D. Owner furnished toilet accessories.

E. TRUEBRO Lav. Guard

1.03 RELATED REQUIREMENTS

A. Section 10 21 13 - Metal Toilet Compartments.

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. (existing)

1. Standard Duty Grab Bars: (Verify existing location and correct as necessary)

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. Lav Guard: TRUEBRO LAV GUARD2 ADA compliant piping covers for supply lines and drain.

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

D. Install LAV GUARD per manufacturer's instructions to provide complete insulated protection of supply and drain pipes.

3.04 PROTECTION

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

END OF SECTION 10 28 00

SECTION 12 35 30
CASEWORK

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Kitchen cabinets.

B. Kitchen countertops.

C. Casework hardware & components.

1.02 REFERENCE STANDARDS

A. BHMA A156.9 - American National Standard for Cabinet Hardware; 2010.

B. KCMA A161.1 - Performance and Construction Standard for Kitchen and Vanity Cabinets; 2012.

C. KCMA (DIR) - Directory of Certified Cabinet Manufacturers; current edition, online.

1.03 SUBMITTALS

A. Product Data: Provide component dimensions and construction details.

B. Shop Drawings: Indicate casework locations, large scale plans, elevations, clearances required, rough-in and anchor placement dimensions and tolerances.

1.04 QUALITY ASSURANCE

A. Products: Complying with KCMA A161.1 and KCMA Certified.

PART 2 PRODUCTS

2.01 COMPONENTS

A. Cabinet Construction: Softwood lumber framing and particle board, tempered hardboard gables.

B. Kitchen Countertop: Post formed plastic laminate over particle board, coved to back splash.
   1. Side Splash: Plastic laminate over particle board, square internal intersections to back splash and top surface, contoured to suit counter top profile.

C. Door and Drawer Fronts: Solid wood.

D. Bolts, Nuts, Washers and Screws: Of size and type to suit application.

E. Basin Guard: Undersink Protective Enclosure. Basin Guard #36, Beige. including .75" galvanized pipe.

2.02 HARDWARE

A. Hardware: BHMA A156.9.

B. Drawer and Door Pulls: Chrome wire pulls, 4 inches (102 mm) wide.

C. Catches: Magnetic.

D. Drawer Slides: Extension arms, steel construction.

E. Hinges: Offset pin.

2.03 FABRICATION

A. Shop assemble casework for delivery to site in units easily handled and to permit passage through building openings.

B. Fabricate corners and joints without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.

C. Provide cutouts for plumbing fixtures, appliances, and fixtures and fittings. Prime paint contact surfaces of cut edges.

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

2.04 FINISHES

A. Exposed To View Surfaces: Stain, seal, and varnish sides in color as selected by Owner.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify adequacy of support framing.

3.02 INSTALLATION

A. Install casework, components and accessories in accordance with manufacturer's instructions.

B. Set casework items plumb and square, securely anchored to building structure.

C. Install Basin Guard per manufacturer's instructions and as detailed on drawings. Provide .75" galv. pipe.

3.03 ADJUSTING

A. Adjust doors, drawers, hardware, fixtures, and other moving or operating parts to function smoothly.

3.04 CLEANING

A. Clean casework, countertops, shelves, and hardware.

3.05 PROTECTION

A. Do not permit finished casework to be exposed to continued construction activity.

END OF SECTION 12 35 30

SECTION 26 05 00

BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:
1. Existing work
2. Grounding and bonding
3. Connection of utilization equipment
4. Supports
5. Identification
6. Conduit and fittings
7. Electrical boxes
8. Wire and cable
9. Electrical tape
10. Terminations
11. Wiring devices
12. Firestopping

1.3 REFERENCES

A. Conform to requirements of National Electrical Code (NEC) ANSI-C1/NFPA 70-2014.

1.4 COORDINATION

A. Obtain and review shop drawings, product data, and manufacturer's instructions for equipment furnished under other sections to determine connection locations and requirements.

B. Sequence rough-in of electrical connections to coordinate with installation and start up of equipment furnished under other sections.

C. All work shall be in accordance with the laws, rules, codes, and regulations set forth by Local, State, and Federal authorities having jurisdiction.

1.5 WORK TO BE PROVIDED UNDER THIS DIVISION

A. General Scope:

The Work shall be complete from point of service to each outlet or device with all accessory construction and materials required to make each item of equipment or system complete and ready for operation. The work shall include but not be limited to the following. The Electrical Subcontractor shall provide:

1. Feeder and Branch Circuit Wiring: Provide feeder and branch circuits and devices for power to equipment and convenience receptacles. This includes branch wiring to system control panels furnished under other sections.
2. Motor Circuit Wiring: Provide all motor wiring, safety disconnects, and motor starters unless integral with equipment.
3. Emergency Lighting Systems: Provide complete emergency lighting system including emergency fixtures, exit signs, remote lamps, trim and accessories for new fixtures as indicated on the drawings.
4. Exhaust Fans: Remove one restroom exhaust fan, one wall exhaust fan and one vehicle exhaust fan completely back to the panel. Remove two existing restroom exhaust fans and replace with new exhaust fans (EF-1 & EF-2).
5. Convenience Receptacles: Install two new GFCI receptacles above the kitchen countertop in room 107, one new receptacle for a refrigerator and one new GFCI receptacle for a dishwasher in room 107, and three new convenience receptacles in the new wall partition to be installed in room 103.
6. Restroom Receptacle: Relocate one receptacle in room 104.
7. HVAC: Install new circuit(s), disconnect(s) and convenience receptacle(s) as required to the new exterior pad mounted DX condenser unit (CU-1) and to the indoor unit (F-1 & CC-1).
8. Automatic Entrance: Provide power to a new automatic entrance at door 01.
9. Overhead Door: Remove overhead door operator circuit completely back to the panel.

PART 2 - PRODUCTS

2.1 BASIC MATERIALS

A. Steel Channel: Galvanized or painted steel.

B. Anchors:

1. Masonry Anchors: Rawl-Stud, Lok-Bolt, Saber-Tooth, or equal by Arro, Diamond, or Redhead.
2. Hollow-Wall Anchors: Toggle bolt by Rawl or equal by Arro, Diamond, or Redhead.
3. Anchors shall have sufficient holding power for intended use.
4. Plastic anchors and powder actuated anchors are not permitted.

C. Miscellaneous Hardware: Treat for corrosion resistance.

2.2 METAL CONDUIT

A. Acceptable Manufacturers:

1. Allied Tube and Conduit
2. Wheatland Tube Company

3. Jones and Laughlin
4. Republic Steel
5. Triangle PWC

B. Conduit:

1. Metal Conduit and Tubing: Hot dipped galvanized or sheradized steel.
2. Flexible Conduit: Galvanized steel.
3. Liquidtight Flexible Metallic Conduit: Flexible conduit with PVC jacket.

2.3 PLASTIC CONDUIT

A. Acceptable Manufacturers:

1. Carlon
2. National
3. American Pipe & Plastics, Inc.

B. Plastic Conduit:

1. Plastic Conduit: NEMA TC 2; PVC. Use Schedule 40 conduit.

2.4 FITTINGS

A. Manufacturers:

1. Appleton
2. Bridgeport
3. O-Z/Gedney
4. Raco
5. Steel City
6. Thomas and Betts
7. Carlon
8. American Pipe & Plastics, Inc.

B. Conduit Fittings:

1. Metal Fittings and Conduit Bodies: NEMA FB 1.
2. Plastic Fittings and Conduit Bodies: NEMA TC 3.
3. Fittings and Conduit Bodies for RSC: Galvanized steel or malleable iron, couplings and fittings threaded.
4. Fittings for EMT: Watertight compression or set screw type as appropriate for the application.
5. Conduit Bodies for EMT: Cast aluminum, galvanized iron or malleable iron bodies.
6. Insulated Bushings: Appleton "BBU".
7. Grounding Bushings: O-Z/Gedney "BLG".
8. Conduit Sealing Bushings: OZ Gedney Type CSB, or approved equal.
9. Fittings for Liquidtight Flexible Metallic Conduit: Galvanized steel or malleable iron, couplings and fittings threaded.

10. Conduit Clamps: Galvanized malleable iron equivalent to O-Z/Gedney 14-G and 15-G Series with clamp back spacer for RSC, and single hole #15-75G malleable or #15-75S galvanized steel clips for EMT.

2.5 ELECTRICAL BOXES

A. Manufacturers:

1. Appleton
2. Crouse Hinds
3. Hoffman
4. Killark
5. Lee Products
6. Raco
7. Square D
8. Steel City

B. Boxes:

1. Sheet Metal: NEMA OS 1; galvanized steel, 4" x 4" x 2" with raised plaster ring and non-gangable 3" H x 3 1/2" D x 2" W per section masonry boxes. Gangable or sectionalizing boxes are not permitted.
2. Cast Metal: Aluminum or cast alloy, deep type "FD", gasket cover, threaded hubs, "Bell" boxes not permitted.

C. Mounting Brackets and Adjustable Ceiling Channels: Galvanized steel of substantial construction to support boxes by bridging between hollow wall studs or ceiling channels, like Caddy #SGB24 screw gun bracket, Caddy #H4 mounting bracket, and B-Line #BA-12 box hanger, or approved equal.

D. Hinged Cover Enclosures: NEMA 250, Type 1, steel enclosure with manufacturer's standard enamel finish and continuous hinge cover, held closed by flush latch operable by screwdriver.

2.6 WIRE AND CABLE

A. Manufacturers:

1. Anaconda
2. Rome Cable
3. General Cable
4. Okonite
5. Phelps Dodge Cable
6. Southwire
7. Triangle PWC

B. Building Wire:

1. Feeders and Branch Circuits 6 AWG and Smaller: Annealed copper conductor, 600 volt insulation, THHN/THWN or XHHW, stranded conductor; use compression set terminals.
2. Control Circuits: Copper, stranded conductor, 600 volt insulation, THHN/THWN.

C. Metal Clad Cable:

1. Metal Clad Cable, Size 12 through 10 AWG: Interlocked galvanized steel armor, stranded annealed copper conductor, 600 volt insulation, rated 60E C, with separate green ground wire, NEC Type MC.

2.7 TAPE AND TERMINATIONS

A. Manufacturers, Tape:

1. 3M Co., Scotch #33 and #88

B. Manufacturers, Terminations:

1. Dossert
2. Ideal
3. 3M Co.
4. Thomas and Betts

C. Wire Connection Devices/Terminations: Compression set or twist-on type with integral molded insulation and internal metallic compression ring or spiral screw-on connecting device. Twist-on type shall be like Ideal "Wing Nut" series. Push-on type wire terminals are not acceptable.

D. Wire Terminals, Butt Splices: Crimp set with integral insulated sleeve, electro tin plated, fully annealed copper.

2.8 WIRING DEVICES AND WALL PLATES

A. Manufacturers:

1. Bryant
2. Hubbell
3. Arrow-Hart
4. Pass and Seymour
5. General Electric
6. Leviton

B. Wall Switch: AC general use, specification grade, quiet operating snap switch rated 20 amperes and 120/277 volts AC, with plastic toggle handle, white color, Hubbell Model 1221.

C. Receptacle:

1. Provide straight blade receptacles to NEMA WD 1.
2. Provide locking blade receptacles to NEMA WD 5.

3. Convenience Receptacle Configuration, general use: Type 5-20 R, specification grade, plastic face, white color, Bryant Model 5352.
4. GFCI Receptacle, general use: Specification grade duplex convenience receptacle with integral ground fault current interrupter, white color, Bryant Model GFR53FT.
5. Isolated Ground Receptacle: Specification grade back and side wired, orange face, Bryant Model 5262-IG.
6. Specific Purpose Receptacle: Configuration indicated on drawings with ivory nylon face.

D. Decorative Cover Plate: White color, smooth rigid nylon or high impact plastic.

E. Weatherproof Covers: Die cast aluminum, gasketed, duplex receptacle cover, weatherproof when attachment plug is inserted.

2.9 FIRESTOPPING MATERIALS

A. Use only through-penetration firestop products that have been tested for specific fire resistance rated conditions conforming to construction assembly type, penetrating item type, annular space requirements, and fire rating required for the application:
1. Latex Sealants: Single component latex formulations that when cured do not re-emulsify during exposure to moisture.
2. Firestop Devices: Factory assembles steel collars lined with intumescent material sized to fit a specific outside diameter of penetrating item.
3. Firestop Putty: Intumescent, non-hardening, water resistant putties containing no solvents, inorganic fibers or silicone compounds.
4. Wrap Strips: Single component intumescent elastomeric strips faced on both sides with a plastic film.
5. Firestop Pillows: Re-useable, non-curing, mineral fiber core encapsulated with an intumescent coating contained in a flame retardant poly bag.
6. Silicone Sealants: Moisture curing, single component, silicone elastomeric sealant for horizontal surfaces (pourable or non-sag) or vertical surface (non-sag).
7. Silicone Foam: Multi-component, silicone based, liquid elastomers that when mixed expand and cure in place to produce a flexible, non-shrinking foam.

B. Firestop systems shall be UL classified and rated for the type of construction where it is applied.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify that the interior of the building has been physically protected from weather.

B. Verify that supporting surfaces are ready to receive work.

C. All electrical work shall be completed by a master electrician that is licensed in the State of Maine.

D. Make electrical connections to utilization equipment in accordance with equipment manufacturer's instructions.

1. Verify that wiring and outlet rough-in work is complete and that utilization equipment is ready for electrical connection, wiring, and energization.
2. Make wiring connections in control panel or in wiring compartment of prewired equipment. Provide interconnecting wiring where indicated.

3.2 GROUNDING

A. Maintain isolation between neutral and ground conductors in accordance with NEC.

B. Install grounding system so all conductive materials operate at ground potential and there is a low impedance path to ground in the event of a fault.

C. Test grounding system for resistance to earth using fall-to-potential method in accordance with IEEE Std. 81. Maximum ground to earth resistance shall not exceed 25 ohms.

3.3 SUPPORT SYSTEMS

A. Install support systems sized and fastened to accommodate weight of equipment and conduit, including wiring, which they carry.

1. Fasten hanger rods, conduit clamps, and outlet and junction boxes to building structure using expansion anchors, beam clamps, and spring steel clips as appropriate for the application.
2. Use toggle bolts or hollow wall fasteners in hollow masonry, plaster, or gypsum board partitions and walls; expansion anchors or preset inserts in solid masonry walls; self-drilling anchors or expansion anchor on concrete surfaces; sheet metal screws in sheet metal studs; and wood screws in wood construction.
3. Do not fasten supports to piping, ceiling support wires, ductwork, mechanical equipment, or conduit.
4. Do not use powder actuated anchors.
5. Do not drill structural wood or steel members.

3.4 CONDUIT

A. Size raceways for conductor type installed or for type THW conductors, whichever is larger.

1. Minimum Size Conduit: 3/4".

B. Install all conduits concealed in walls or above finished ceilings except where specifically indicated to be surface mounted. Arrange conduit to maintain headroom and to present neat appearance. Install conduit in accordance with the following:

1. Route exposed raceway parallel and perpendicular to walls and adjacent piping.
2. Maintain minimum 6" clearance to piping and 12" clearance from parallel runs of flues, steam pipes, and heating appliances. Install horizontal raceway runs above water piping.
3. Complete raceway installation before installing conductors.
4. Maintain required fire, acoustic, and vapor barrier rating when penetrating walls, floors, and ceilings. Where indicated on drawings, sleeve penetrations through concrete walls, floors, and ceilings.

5. Route conduit through roof openings for piping and ductwork where possible; otherwise, route through roof with pitch pocket.
6. Group in parallel runs where practical and install on steel channel support system. Maintain spacing between raceways or derate circuit ampacities to NFPA 70 requirements.
7. Use conduit hangers and clamps; do not fasten with wire or perforated pipe straps.
8. Use conduit bodies to make sharp changes in direction.
9. Terminate conduit stubs and box connections with insulated bushings.
10. Steel conduit joints shall be threaded; clamp on or set screw fittings are not permitted.
11. Use suitable caps to protect installed raceway against entrance of dirt and moisture.
12. Provide No. 12 AWG insulated conductor or suitable pull string in empty raceways, except sleeves and nipples.
13. Install expansion joints where raceway crosses building expansion joints, and where necessary to compensate for thermal expansion.
14. Install plastic conduit and tubing in accordance with manufacturer's instructions; thermoweld or cement PVC joints.
15. Use flexible or liquidtight conduit, short as possible, maximum 72 inches, for motor and equipment hookup; always include a separate green ground wire.
16. Use liquidtight conduit for flexible connections in damp or wet locations.
17. Install conduit so condensation will drain and not be trapped.
18. Prevent lodgement of dirt, trash, and mortar; swab all raceways prior to installation of wire and cable.
19. Paint surface mounted conduit the color of the surface being mounted too.

3.5 BOXES

A. General:

1. Install electrical boxes where shown on the drawings, and as required for splices, taps, wire pulling, equipment connections, and regulatory requirements.
2. Locate and install electrical boxes to maintain headroom and to present neat mechanical appearance.
3. Align wall mounted outlet boxes for switches, thermostats, and similar devices.
4. Coordinate mounting heights and locations of outlets above counters, benches, and back splashes.
5. Install lighting outlets to locate luminaires as shown on electrical plan.
6. Use expansion anchors, shields, or toggle bolts to fasten boxes in place. Do not use explosive powder driven anchors, except where specifically permitted by Engineer. Do not use nails or wire for permanent support.
7. Secure boxes to interior wall and partition studs, accurately positioned to allow for surface finish thickness; select raised cover depth to assure proper fit.
8. Do not install boxes back-to-back in walls; provide 6" separation, minimum; except provide 24" separation, minimum in acoustic rated walls.
9. Use hinged cover enclosure for interior pull and junction boxes larger than 12 inches in any dimension. Install in an accessible location that will allow easy access.
10. Field punch openings in pull boxes using punch/dies of appropriate size. Provide knockout closures for unused openings.

B. Surface mounted applications:

1. Use cast "FD" outlet boxes for all surface mounted applications to 10 feet above finished floor, and for exterior and wet locations.
2. Where pull boxes must be installed in finished areas, consult Engineer to select location, style, and finish. The location shall always be as inconspicuous as possible.

C. Concealed above ceilings:

1. Install 4" x 4" x 2" or larger steel boxes for general wiring.
2. Octagon boxes, 3 ½" or 4" by 1 ½" or larger depth, are permitted for flush mounted lighting fixture outlets, use adjustable steel channel fasteners for support.
3. Locate and install electrical boxes to allow access. Provide access panels where required for practical access, and as required by the NEC.

D. Concealed in GWB or plaster walls:

1. Install 4" x 4" x 2" steel box; select raised plaster ring and set box so that outer edge is not less than 1/8" below finished wall surface.
2. Use stamped steel mounting bracket for flush outlet/device boxes in hollow stud wall.
3. Align wall mounted outlet boxes for switches, thermostats, and similar devices.
4. Coordinate mounting heights and locations of outlets above counters, benches, and back splashes.

3.6 INSTALLATION OF WIRES AND CABLES

A. Verify that interior of building has been physically protected from weather, that mechanical work which is likely to injure conductors has been completed and completely and thoroughly swab raceway system before installing conductors.

B. Use wire not smaller than 12 AWG for power and lighting circuits, and not smaller than 14 AWG for control wiring.

1. Use 10 AWG conductor for 20 ampere, 120 volt branch circuit home runs longer than 75 feet; and for 20 ampere, 277 volt branch circuit home runs longer than 200 feet.

C. Neatly train and secure wiring inside boxes, equipment, and panelboards.

D. Use UL listed wire pulling lubricant for pulling 4 AWG and larger wires.

E. Install wiring according to the Wiring Standard. Protect and support exposed cables (where allowed) above accessible ceilings to keep them from resting on ceiling tiles. Use channel, or running boards as necessary to provide support. Do not support wiring on ceiling support wires, unless ceiling installer has provided certification that ceiling support system is rated to carry the additional load of the cables. Install cables to run parallel and perpendicular to building lines; do not run diagonally, leave ample slack cable at turns.

F. Make splices, taps, and terminations to carry full ampacity of conductors without perceptible temperature rise.

G. Terminate spare conductors with electrical tape.

H. Color code all service, feeder, branch, control, and signalling circuit conductors. Color shall be green for grounding conductors and white for neutrals, except where neutrals of more than one system are installed in same raceway or box, the other neutral shall be white with a colored (not green) stripe. Color code ungrounded conductors operating at 120 volts to ground black, red, and blue for Phases A, B, and C and at 277 volts, brown, orange, and yellow respectively.

I. Terminate all wire joints #10 AWG or smaller with crimp set or twist-on wire terminating device. Use crimp set or bolted "Burndy" or suitable alternate bolted or crimp set device for conductors larger than #10 AWG.

J. Cover all joints made with non-insulated connecting devices with electrical tape; use Type #88 at any time or #33 whenever the temperature of the joint or the room. Triple wrap joints, each wrap having a 50% overlay.

3.7 DEVICES

A. Install wiring devices in accordance with manufacturer's instructions.

1. Install wall switches 48" above floor, OFF position down.
2. Install wall dimmers 48" above floor. Derate ganged dimmers as instructed by manufacturer. Do not use common neutral.
3. Install convenience receptacles 18" above floor, 6" above counters and backsplash or as indicated, with grounding pole on top.
4. Install cord and attachment plug caps on equipment. Size cord for connected load and rating of branch circuit overcurrent protection.

3.8 FIRESTOPPING

A. Install through penetration firestop systems in accordance with firestop system manufacturer’s written installation instructions for products and applications indicated.

B. Engage an experienced installer who is trained, certified, licensed, or otherwise qualified by the firestop system manufacturer to install the firestop products.

C. Coordinate construction of openings and penetrating items to ensure that firestop systems are installed according to specified requirements.

D. Provide firestop systems that are compatible with one another, with the substrates forming openings, with the items penetrating the firestop system, and under the conditions of service for the application being considered.

E. Provide components for each firestop system that are needed to install fill materials. Use only components specified by the firestop system manufacturer and approved by the qualified testing agency for the designated system.

F. Keep areas of work accessible until inspection by the AHJ has been completed.

G. Inspecting Agency: Owner may engage a qualified independent inspecting agency to inspect the completed firestop system. The independent agency shall comply with ASTM E 2174

requirements including inspecting personnel qualifications, method of conducting inspections, and preparation of test reports.

H. Where deficiencies are found, repair or replace the firestop systems so that they comply with requirements. Proceed with enclosing firestop systems with other construction only after inspection reports are issued and the firestop installations comply with requirements.

I. Protect the firestop system during and after installation to insure that the systems do not deteriorate and are not damaged during the remaining period of construction. In the event damage or deterioration occurs, remove affected firestop system and replace with new materials in compliance with this specification.

3.9 IDENTIFICATION

A. Identify electrical distribution and control equipment, and loads served, to meet regulatory requirements and as scheduled.

1. Degrease and clean surfaces to receive nameplates and tape labels.
2. Secure nameplates to equipment fronts using screws, rivets, or adhesive, with edges parallel to equipment lines. Secure nameplate to inside face of recessed panelboard doors in finished locations.
3. Use embossed tape nameplates with 3/16" lettering to identify individual switches and circuit breakers, wall switches, receptacle circuits, and loads served.
4. Use lamicoid nameplates with minimum 1/4" lettering to identify distribution and control equipment.
5. Nameplate information shall suitably identify the device or circuit. Any nameplate that is not suitably descriptive in the opinion of the Engineer shall be replaced as directed.

B. Install wire markers on each conductor in panelboard gutters, pull boxes, outlet and junction boxes, and at load connections.

1. Use branch circuit or feeder number to identify power and lighting circuits.
2. Use control wire number as indicated on schematic and interconnection diagrams and equipment manufacturer's shop drawings to identify control wiring.

3.10 FIELD QUALITY CONTROL

A. Perform field inspection and testing of wiring as follows:

1. Inspect wire and cables for physical damage and proper connection.
2. Torque test conductor connections and terminations to manufacturer's recommended values.
3. Verify proper phasing connections; check rotation of all motors.

B. Perform field inspection and testing of devices as follows:
1. Test for proper polarity and ground continuity.
2. Test GFCI operation according to manufacturer’s written instructions.
3. Replace defective units and retest.

END OF SECTION 26 05 00

CITY OF AUBURN, MAINE

PARKS GARAGE
SENIOR CENTER RENOVATIONS

48 Pettingill Park Road, Auburn, Maine

Bid No. 2017-023

Bid Documents

January 27, 2017

APPENDIX B

CONSTRUCTION DRAWINGS

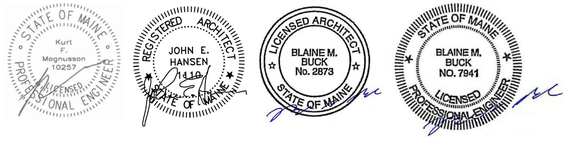
CITY OF AUBURN, MAINE

PARKS GARAGE
SENIOR CENTER RENOVATIONS

48 Pettingill Park Road, Auburn, Maine
Bid No. 2017-023

Bid Drawings

January 27, 2017

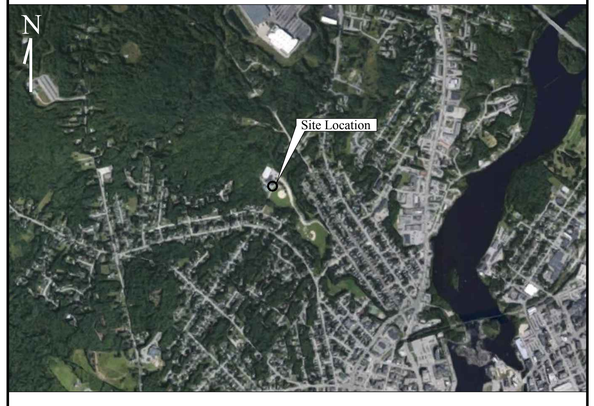


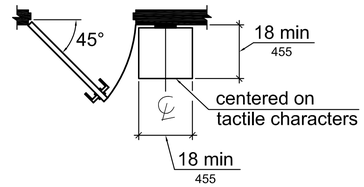
CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing List

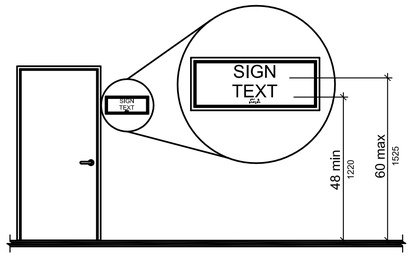
Location Map

No Scale

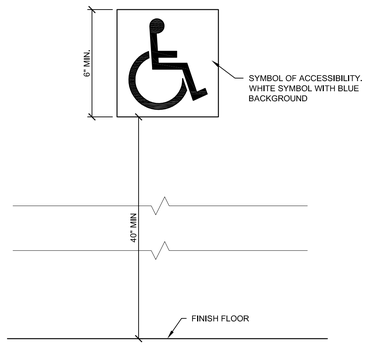




K A0.0 ROOM SIGN



J A0.0 ROOM SIGN



H A0.0 SYMBOL OF ACCESSIBILITY

0 2" 4" 8"

SCALE: 3" = 1'-0"

ACCESSIBILITY NOTES

EXTERIOR ROUTE:
1. ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE IN EXCESS OF 1:20, EXCEPT AT A RAMP.
2. AN ACCESSIBLE ROUTE SHALL NOT HAVE A CROSS SLOPE IN EXCESS OF 1:50.
3. ACCESSIBLE ROUTE TO BE PROVIDED FROM DROP OFF AND PARKING AREA TO BUILDING ENTRANCES.

BUILDING ENTRANCES:
1. ACCESSIBLE BUILDING ENTRANCES SHALL EQUAL THE NUMBER OF REQUIRED MEANS OF EGRESS OR 50% OF THE PUBLIC ENTRANCES, WHICHEVER IS GREATER.
2. WHERE ALL PUBLIC ENTRANCES ARE NOT ACCESSIBLE, ACCESSIBLE ENTRANCES SHALL BE DESIGNATED BY THE ACCESS SYMBOL. DIRECTIONAL SIGNAGE IS REQUIRED AT INACCESSIBLE PUBLIC ENTRANCES. SIGNAGE SHOULD BE LOCATED TO MINIMIZE BACKTRACKING.

INTERIOR ROUTE:
1. AN ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE IN EXCESS OF 1:20, EXCEPT AT A RAMP.
2. AN ACCESSIBLE ROUTE SHALL NOT HAVE A CROSS SLOPE IN EXCESS OF 1:50.
3. ALL NEW FLOOR CONSTRUCTION AND FLOORING MATERIALS SHALL NOT HAVE AN ABRUPT VERTICAL CHANGE IN FINISH SURFACE IN EXCESS OF ¼" WHEN ABUTTING EITHER EXISTING OR NEW SURFACES.
4. THE EXPOSED EDGE OF ALL FLOORING MATERIALS SHALL BE SECURELY ATTACHED TO THE FLOOR SURFACE, AND WHEN RAISED ABOVE THE FLOOR SURFACE, SHALL HAVE A SLOPED EDGE TRIM, NOT TO EXCEED 1:2, INSTALLED CONTINUOUSLY ALONG THE EDGE.

PROTRUDING OBJECTS:
1. OBJECTS WITH LEADING EDGES MORE THAN 27" AND NOT MORE THAN 80" ABOVE THE FINISH FLOOR OR GROUND SHALL PROTRUDE 4 INCHES MAXIMUM HORIZONTALLY INTO THE CIRCULATION PATH.

DOORS
1. NO THRESHOLD SHALL EXCEED ½" IN HEIGHT OR 1:2 SLOPE.
2. ALL ACCESSIBLE HARDWARE SHALL NOT EXCEED 4'-0" AFF AND SHALL BE EASILY OPERATED WITH ONE HAND WITHOUT GRASPING, PINCHING OR TWISTING OF THE WRIST.
3. ACCESSIBLE LATCHING HARDWARE SHALL BE LEVER TYPE.
4. ALL ACCESSIBLE DOORS WITH CLOSERS SHALL HAVE THE CLOSER ADJUSTED SO THAT THE CLOSING TIME, FROM 70° OPEN ANGLE TO 3" FROM THE JAMB, IS NOT LESS THAN 3 SECONDS.
5. THE OPENING FORCE OF ALL ACCESSIBLE DOORS SHALL NOT EXCEED 5 POUNDS IN THE DIRECTION OF TRAVEL FOR EXITING.
6. THE OPERABLE HARDWARE ON A DOOR LEADING TO A HAZARDOUS AREA (E.G. BOILER ROOMS, MECHANICAL ROOMS, ELECTRIC ROOMS, OTHER EQUIPMENT ROOMS, AND LOADING DOCKS, SHALL HAVE A TEXTURED SURFACE ON THE TOUCHABLE AREA.

TOILET ROOMS
1. THE FLUSH CONTROL FOR ALL ACCESSIBLE TOILETS/URINALS SHALL NOT EXCEED 3'-8" AFF, AND SHALL BE ON THE WIDE (APPROACH) SIDE OF THE TOILET.
2. THE OPERATING FORCE FOR ALL ACCESSIBLE TOILET ROOM CONTROLS SHALL NOT EXCEED 5 POUNDS AND THE CONTROLS SHALL BE OPERABLE WITH ONE HAND WITHOUT GRASPING, PINCHING OR TWISTING OF THE WRIST.
3. THE OPENING FORCE OF ALL TOILET STALL DOORS SHALL NOT EXCEED 5 POUNDS. BOLT TYPE LOCKING HARDWARE SHALL BE OPERABLE WITH ONE HAND WITHOUT GRASPING PINCHING OR TWISTING OF THE WRIST.
4. ACCESSIBLE TOILET PAPER DISPENSERS SHALL NOT RESTRICT THE FLOW OF PAPER.
5. THE TOP OF ALL LAVATORIES SHALL NOT EXCEED 34" AFF.
6. ACCESSIBLE LAVATORIES SHALL HAVE ALL EXPOSED HOT WATER PIPING AND DRAIN PIPES EITHER INSULATED OR CONFIGURED TO PROTECT AGAINST SKIN CONTACT. THE UNDERSIDE OF THE LAVATORY SHALL NOT HAVE ANY SHARP OR ABRASIVE SURFACES.
7. ANY GRAB BAR INSTALLATION SHALL BE ABLE TO SUPPORT 250 POUNDS APPLIED IN ANY DIRECTION.

SIGNAGE
1. ALL ACCESSIBLE PERMANENT ROOMS AND SPACES, EXITWAYS AND EXIT STAIRS, SHALL HAVE SINAGE THAT MEETS ACCESSIBLE SIGNAGE REQUIREMENTS FOR LETTER SIZE, LETTER AND NUMBER TYPESTYLE, RAISED LETTERS, GRADE 2 BRAILLE, COLOR/CONTRAST, AND LOCATION. THE SIGNAGE AT EXITS, WHICH ARE REQUIRED TO MEET THESE REQUIREMENTS ARE AT THE DOOR LOCATIONS ONLY, AND DOES NOT INCLUDE THE LIT EXIT SIGNAGE.
2. ALL ACCESSIBLE TOILET ROOMS SHALL BE DESIGNATED WITH THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND ACCESSIBLE TEXT SIGNAGE FOR A PERMANENT ROOM, PLACED DIRECTLY BELOW THE PICTOGRAM SYMBOL. THE SIGNAGE SHALL MEET THE ACCESSIBLE SIGNAGE REQUIREMENTS FOR LETTER SIZE, LETTER AND NUMBER TYPE STYLE, RAISED LETTERS, GRADE 2 BRAILLE, COLOR/CONTRAST, AND LOCATION. IT IS SUGGESTED THAT THE INTERNATIONAL SYMBOL BE RAISED. THE SURROUNDING BORDER, 6" MINIMUM IN HEIGHT AROUND THE PICTOGRAM, SHOULD NOT BE RAISED, BUT MAY BE RAISED AS LONG AS IT DOES NOT SURROUND THE RAISED LETTERS AND BRAILLE.
3. ALL ACCESSIBLE PARKING SPACES AND PUBLIC ENTRANCES SHALL BE DESIGNATED WITH THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGNAGE IN ADDITION TO ANY OTHER SIGNAGE REQUIRED FOR ACCESSIBILITY.
4. ALL OTHER SIGNAGE ALONG THE ACCESSIBLE ROUTE THAT PROVIDES EMERGENCY INFORMATION, DIRECTIONS, OR INFORMATION ABOUT FUNCTIONAL SPACES, SHALL MEET THE ACCESSIBLE SIGNAGE REQUIREMENTS FOR LETTER SIZE, LETTER AND NUMBER TYPE STYLE, COLOR/CONTRAST, AND LOCATION, AND RAISED LETTERS AND GRADE 2 BRAILLE WHEN PROVIDED. IT IS SUGGESTED THAT SIGNAGE USED FOR THIS PURPOSE, IN INTERIOR SPACES AND WITHIN REACH, SHOULD HAVE RAISED LETTERS: AND MAY HAVE GRADE 2 BRAILLE(OPTIONAL). RAISED LETTERS AND GRADE 2 BRAILLE IS NOT REQUIRED FOR EXTERIOR SIGNAGE AND INTERIOR SIGNAGE NOT WITHIN REACH. PICTOGRAMS OTHER THAN THE INTERNATIONAL SYMBOL OF ACCESSIBILITY, ARE NOT REQUIRED. HOWEVER, WHEN THEY ARE PROVIDED, TEXT OF THE EQUIVALENT VERBAL DESCRIPTION SHOULD BE PLACED DIRECTLY BELOW THE PICTOGRAM. THE TEXT SHALL MEET ACCESSIBLE SIGNAGE REQUIREMENTS FOR LETTER SIZE, LETTER AND NUMBER TYPESTYLE, COLOR AND CONTRAST, AND LOCATION. IT IS SUGGESTED THAT PICTOGRAMS, WHEN PROVIDED WITHIN REACH, ALSO SHOULD MEET ACCESSIBLE SIGNAGE REQUIREMENTS FOR RAISED LETTERS, RAISED SYMBOLS, GRADE 2 BRAILLE, AND ARE NOT TO HAVE ANY RAISED BORDERS (IF PROVIDED) SURROUNDING THE RAISED LETTERS AND BRAILLE. ACCESSIBILITY STANDARDS DO NOT REQUIRE PICTOGRAMS IN ANY LOCATION, TO HAVE RAISED PICTURES, SYMBOLS, OR BORDERS, BUT DOES REQUIRE RAISED LETTERS AND GRADE 2 BRAILLE WHEN THE PICTOGRAM IS PART OF OR ACCOMPANIES ACCESSIBLE SIGNAGE FOR PERMANENT ROOMS AND SPACES.
5. INSTALLATION HEIGHT: SIGNS WITH TACTILE CHARACTERS SHALL BE LOCATED 48" MINIMUM ABOVE FINISH FLOOR, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60" MAXIMUM ABOVE FINISH FLOOR MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER.
6. INSTALLATION LOCATION: WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT A DOUBLE DOOR WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDE AT A DOUBLE DOOR WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR TO THE RIGHT OF A DOUBLE DOOR, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL.
NOTE: SIGNS WITH TACTILE CHARACTERS SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD-OPEN DEVICES.

CONTROLS AND OPERATING MECHANISMS.
1. ALL NEW AND ALTERED CONTROLS AND OPERATING MECHANISMS REQUIRED TO BE ACCESSIBLE, SHALL COMPLY WITH THE HEIGHT RANGE AND CLEAR FLOOR AREA REQUIREMENTS OF THE (ADA GUIDELINES). ACCESSIBLE HEIGHTS ARE AS FOLLOWS.
2. ELECTRICAL, TELEPHONE, COMPUTER, AND CATV OUTLETS. CENTERLINE AT 16 ½" ABOVE FINISH FLOOR (LOWEST REACH) AS STANDARD, AND NOT TO EXCEED 46 ½" ABOVE FINISH FLOOR (HIGHEST REACH) WHEN NOTED TO BE HIGHER AT A PARTICULAR LOCATION.
3. LIGHT SWITCHES. CENTERLINE AT 46 ½" (HIGH REACH).
4. THERMOSTATS. TOP OF OPERATING MECHANISM NOT TO EXCEED 48" ABOVE FINISH FLOOR (HIGH REACH).
5. FIRE ALARM PULL STATIONS. TOP OF OPERATING MECHANISM NOT TO EXCEED 48" ABOVE FINISH FLOOR (HIGH REACH).
6. FIRE EXTINGUISHER CABINETS. OPENING LEVER NOT TO EXCEED 48" ABOVE FINISH FLOOR (HIGH REACH).

WORK SURFACES:
1. CLEAR FLOOR OR GROUND SPACE 30"x48" SHALL BE PROVIDED.
2. KNEE AND TOE CLEARANCE. PROVIDE KNEE AND TOE CLEARANCE, TOE CLEARANCE SHALL EXTEND 25" AND 17" MINIMUM UNDER AN ELEMENT.
3. HEIGHT. TOPS OF DINING SURFACES AND WORK SURFACES SHALL BE 28" MINIMUM AND 34" MAXIMUM ABOVE THE FINISH FLOOR.

Project:
PARKS GARAGE
SENIOR CENTER
RENOVATIONS
48 Pettingill Park Road, Auburn, Maine
Bid No. 2017-023

Client:
City of Auburn, Maine
60 Court Street
Auburn, Maine 04210

Legend:

REGISTERED ARCHITECT. JOHN E. HANSEN 1410 STATE OF MAINE

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

Firm Name and Address:
CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing Status:
- ☐ CONCEPT DESIGN
- ☐ 30% DESIGN DEVELOPMENT
- ☐ 60% DESIGN DEVELOPMENT
- ☐ 90% DESIGN DEVELOPMENT
- ■ 100% BID DOCUMENT
- ☐ 100% CONSTRUCTION DOCUMENT
- ☐ RECORD DOCUMENT

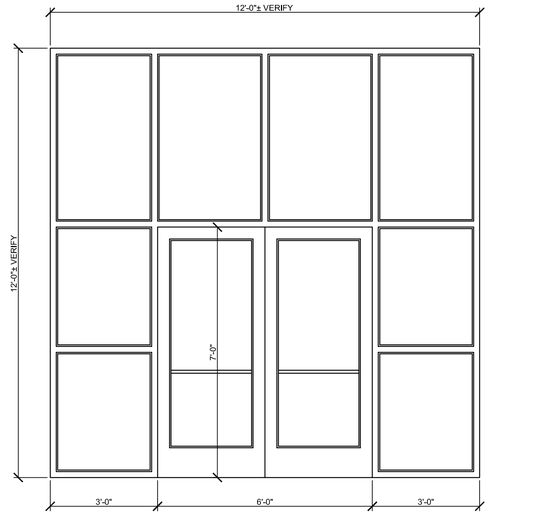
NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:
ACCESSIBILITY
NOTES

No.	Revision/Issue	Date

Design by:	Checked by:
JEH	MAD
Drawn by:	Approved by:
CMC	BMB
Project No:	Date:
1001	JANUARY 27, 2017

Sheet Number:
A0.0



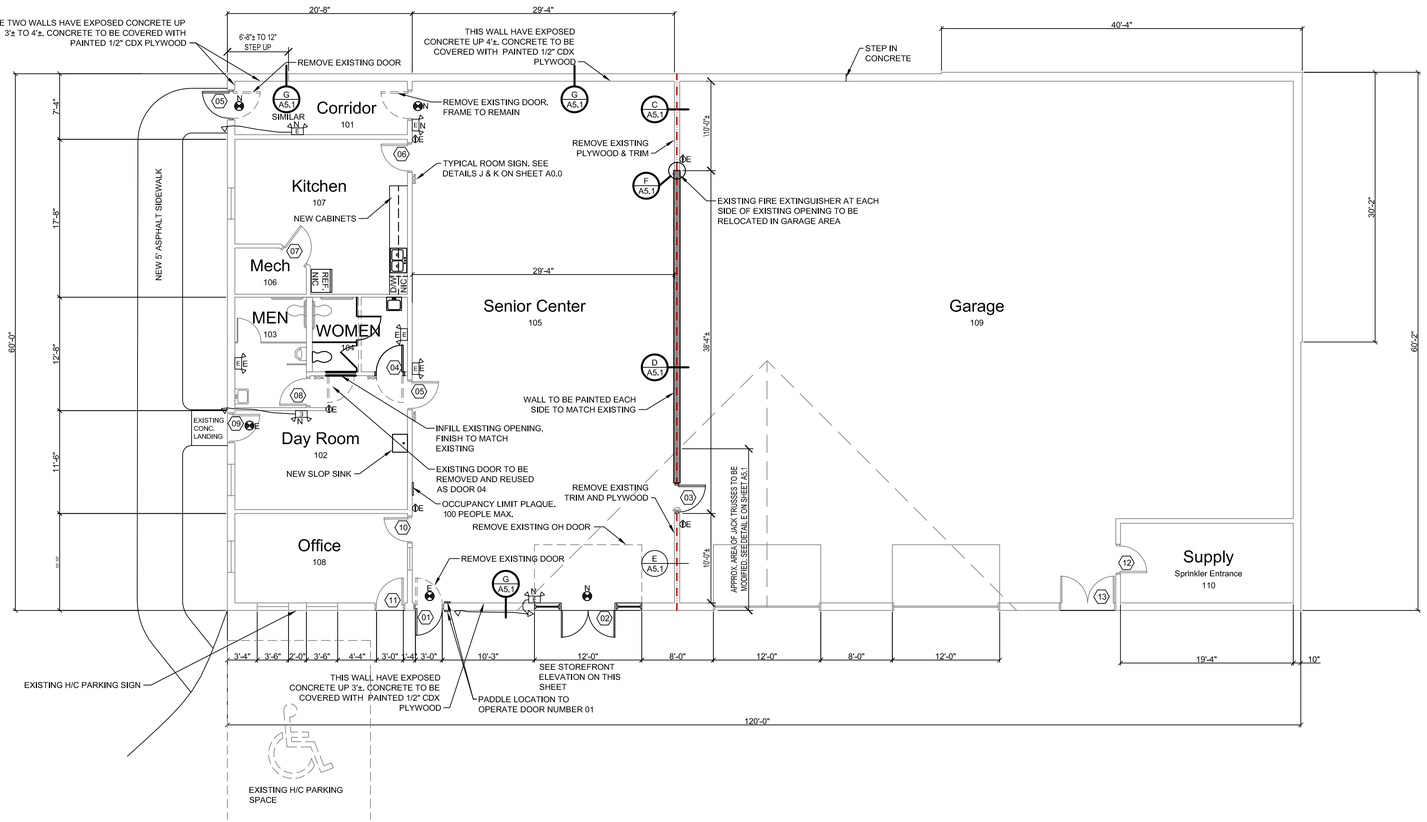
STOREFRONT ELEVATION

0 1' 2' 4'

SCALE: 1/2" = 1'-0"

GENERAL NOTES

1. GENERAL CONTRACTOR OR CONSTRUCTION MANAGER SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD
2. THE GENERAL CONTRACTOR OR CONSTRUCTION MANAGER IS RESPONSIBLE FOR COORDINATION AND THOROUGH UNDERSTANDING OF ALL DRAWINGS AND SPECIFICATIONS. GENERAL CONTRACTOR OR CONSTRUCTION MANAGER 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. PROVIDE ACCESS DOORS IN WALLS AND CEILINGS AS NEEDED TO ACCESS CONCEALED ITEMS.
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. THE CONTRACTOR SHALL FURNISH AND INSTALL ADEQUATE TEMPORARY VERTICAL & LATERAL BRACING AT ALL TIMES DURING CONSTRUCTION UNTIL STRUCTURE IS COMPLETELY TIED TOGETHER.
9. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL BLOCKING NECESSARY TO MOUNT GRAB BARS, TOILET ACCESSORIES, ETC.
10. ALL FRAMING LUMBER SHALL BE NELMA SPF NO. 1 OR APPROVED EQUAL.
11. PROVIDE ALL NECESSARY WOOD FRAMING, BRACING, BLOCKING, NAILERS AND SHIMS REQUIRED TO INSTALL ALL DOORS, WINDOWS, MEP WORK, MILLWORK, MOLDINGS, ACCESSORIES, CABINETS, FIXTURES AND FITTINGS.
12. MAKE MINOR RELOCATIONS OR ADJUSTMENTS AS REQUIRED BY FIELD CONDITIONS. FOR WALL LOCATIONS NOT DIMENSIONED, ADVISE THE ARCHITECT IF LAYOUT LOCATIONS DIFFER FROM THE SCALED LOCATIONS BY MORE THAN 3".
13. PROVIDE TRANSITION STRIPS AT ALL FLOORING TRANSITIONS AND DIFFERING FLOOR MATERIAL THICKNESSES.
14. PROVIDE SIGNAGE AT MENS, WOMENS , OFFICE, MECHANICAL, DAY ROOM AND KITCHEN. USE A 6"x12" SIGN. SIGNS SHALL BE ADA COMPLIANT.
15. EXISTING SPRINKLER SYSTEM TO BE MODIFIED AS REQUIRED FOR NEW PARTITIONS.
16. SECURITY SYSTEM TO BE MODIFIED AS REQUIRED.
17. ALL NEW INTERIOR FINISH TO BE CLASS C FINISH



FLOOR PLAN

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

ELEVATION KEY

BUILDING CONSTRUCTION TYPE - VB / V (000)
SPRINKLERED - YES
FURNACE ROOM - SPRINKLERED
ALARM - NO
OCCUPANCY - MIXED SEPARATED - ASSEMBLY, STORAGE
OCCUPANT LOAD - ASSEMBLY AREA 1682 SQ.FT. @ 7 SQ.FT./PERSON = 240.2
DAY ROOM 255 SQ.FT. @ 15 SQ.FT./PERSON = 17
KITCHEN = 2
TOTAL = 259
EGRESS WIDTH - 259 x .2 = 51.8 INCHES REQUIRED 102" PROVIDED WITH 68" AT MAIN ENTRANCE.
ASSEMBLY SPACE FINISH - ALL FINISH IN THE ASSEMBLY SPACE SHALL BE A CLASS C FINISH AS PERMITTED BY NFPA TABLE A.10.2.2. FOR A SPRINKLED BUILDING

Project:

PARKS GARAGE
SENIOR CENTER
RENOVATIONS

48 Pettingill Park Road, Auburn, Maine

Bid No. 2017-023

Client:

City of Auburn, Maine
60 Court Street
Auburn, Maine 04210

Legend:

- EXISTING EMERGENCY LIGHT TO REMAIN
- EXISTING EXIT SIGN TO REMAIN
- EXISTING FIRE EXTINGUISHER TO REMAIN
- NEW EMERGENCY LIGHT
- EMERGENCY LIGHT REMOTE HEAD
- NEW ILLUMINATED EXIT SIGN
- EXISTING WALL TO REMAIN
- NEW WALL
- EXISTING TO BE REMOVED
- 1 HR. RATED WALL

REGISTERED ARCHITECT JOHN E. HANSEN 1119 STATE OF MAINE

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

Firm Name and Address:

CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing Status:

- ☐ CONCEPT DESIGN
- ☐ 30% DESIGN DEVELOPMENT
- ☐ 60% DESIGN DEVELOPMENT
- ☐ 90% DESIGN DEVELOPMENT
- ■ 100% BID DOCUMENT
- ☐ 100% CONSTRUCTION DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:

PROPOSED
FLOOR PLAN

No.	Revision/Issue	Date

Design by: JEH	Checked by: MAD
Drawn by: CMC	Approved by: BMB
Project No: 1001	Date: JANUARY 27, 2017

Sheet Number:

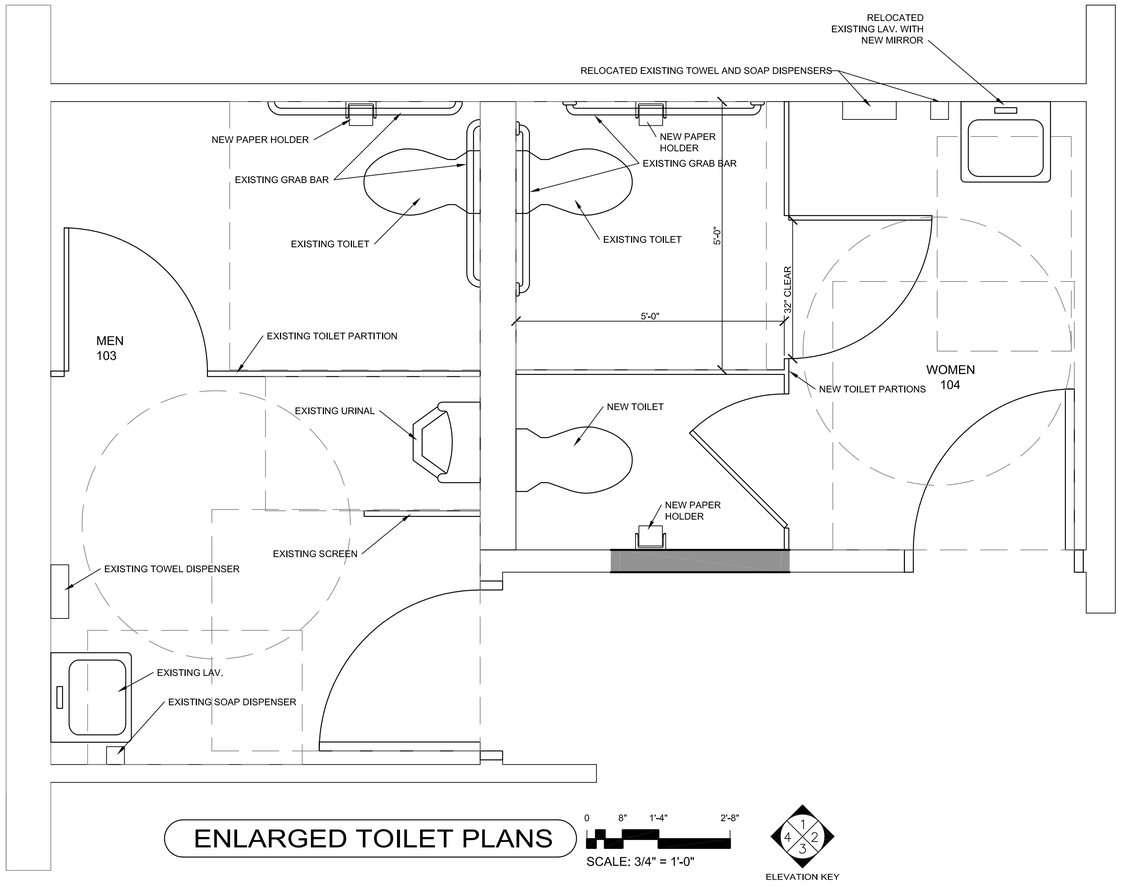
A1.1

ROOM FINISH SCHEDULE

NO.	ROOM	FLOOR	BASE	WALLS	CEILING	REMARKS
101	CORRIDOR	ACID WASH AND EPOXY PAINT	4" VINYL	EXISTING. NEW PAINTED 1/2" CDX PLYWOOD OVER EXPOSED CONCRETE	EXISTING	
102	DAY ROOM	EXISTING VCT	EXISTING	EXISTING	EXISTING	
103	MEN	EXISTING VCT	EXISTING	EXISTING	EXISTING	
104	WOMEN	VCT	4" VINYL	PATCH & REPAIR AS REQUIRED - PAINT ALL WALLS	PATCH AND REPAIR EXISTIND SUSPENDED	
105	SENIOR CENTER	ACID WASH AND EPOXY PAINT	4" VINYL	PAINTED 1/2" CDX PLYWOOD OVER CONCRETE/PAINT EXISTING	EXISTING TO BE PAINTED	
106	MECH	EXISTING	EXISTING	EXISTING	EXISTING	
107	KITCHEN	EXISTING VCT	EXISTING	EXISTING	EXISTING	
108	OFFICE	EXISTING	EXISTING	EXISTING	EXISTING	
109	GARAGE	EXISTING	EXISTING	EXISTING - PAINT NEW WALL TO MATCH EXISTING	EXISTING	
110	SUPPLY	EXISTING	EXISTING	EXISTING	EXISTING	

DOOR SCHEDULE

NO.	SIZE	TYPE	HARDWARE	FRAME	REMARKS
01	3'-0" x 6'-8"	ALUMINUM STOREFRONT	LATCH, LOCK, LEVER HANDLE, CLOSER, PANIC DEVICE	ALUMINUM	MAXIMUM U FACTOR OF .45
02	6'-0" x 7'-0"	ALUMINUM STOREFRONT W/SIDE LIGHT AND TRANSOM	PUSH, PULL, LOCK, CLOSER, PANIC DEVICE WITH PUSH BUTTON OPERATOR	ALUMINUM	MAXIMUM U FACTOR OF .80
03	3'-0" x 6'-8"	FLUSH STEEL 1 HR. RATED	LATCH, LOCK, LEVER HANDLE, CLOSER	STEEL WRAP AROUND	
04	3'-0" x 6'-8"	EXISTING DOOR RELOCATED	PUSH, PULL, CLOSER	STEEL WRAP AROUND	
05	3'-0" x 6'-8"	INS. FLUSH STEEL	LATCH, LOCK, LEVER HANDLE, CLOSER, PANIC DEVICE	STEEL WRAP AROUND	MAXIMUM U FACTOR OF .70
06	3'-0" x 6'-8"	EXISTING	NEW LEVER HANDLE	EXISTING	
07	3'-0" x 6'-8"	EXISTING	EXISTING	EXISTING	
08	3'-0" x 6'-8"	EXISTING	EXISTING	EXISTING	
09	3'-0" x 6'-8"	EXISTING	EXISTING	EXISTING	
10	3'-0" x 6'-8"	EXISTING	EXISTING	EXISTING	
11	3'-0" x 6'-8"	EXISTING	EXISTING	EXISTING	
12	3'-0" x 6'-8"	EXISTING	EXISTING	EXISTING	
13	6'-0" x 6'-8"	EXISTING	EXISTING	EXISTING	



ENLARGED TOILET PLANS

0 8" 1'-4" 2'-8"

SCALE: 3/4" = 1'-0"

ELEVATION KEY

Project:

PARKS GARAGE
SENIOR CENTER
RENOVATIONS

48 Pettingill Park Road, Auburn, Maine

Bid No. 2017-023

Client:

City of Auburn, Maine
60 Court Street
Auburn, Maine 04210

Legend:

REGISTERED ARCHITECT
JOHN E. HANSEN
1410
STATE OF MAINE

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

Firm Name and Address:

CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing Status:

- ☐ CONCEPT DESIGN
- ☐ 30% DESIGN DEVELOPMENT
- ☐ 60% DESIGN DEVELOPMENT
- ☐ 90% DESIGN DEVELOPMENT
- ■ 100% BID DOCUMENT
- ☐ 100% CONSTRUCTION DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:

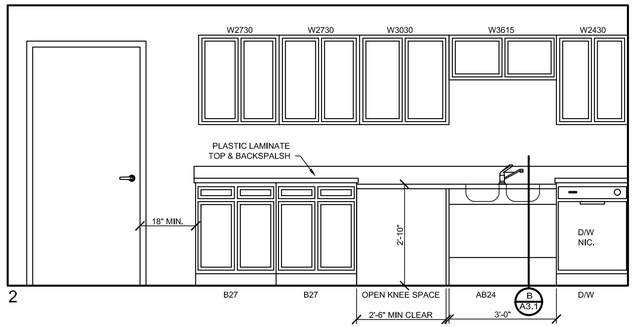
ENLARGED TOILET PLAN & SCHEDULES

No.	Revision/Issue	Date

Design by: JEH	Checked by: MAD
Drawn by: CMC	Approved by: BMB
Project No: 1001	Date: JANUARY 27, 2017

Sheet Number:

A1.2

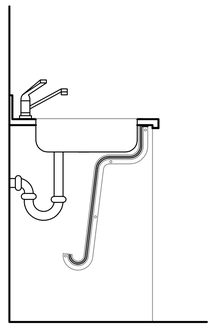


2

KITCHEN 107 ELEVATIONS

0 1' 2' 4'

SCALE: 1/2" = 1'-0"

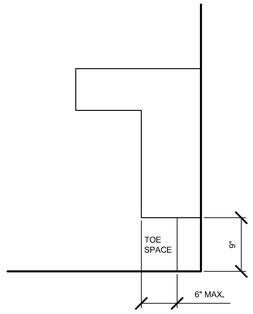


B
A3.1

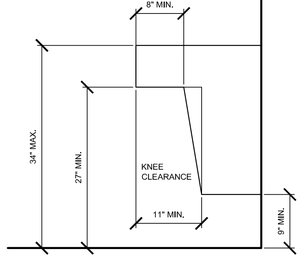
BASIN GUARD

0 6" 1' 2'

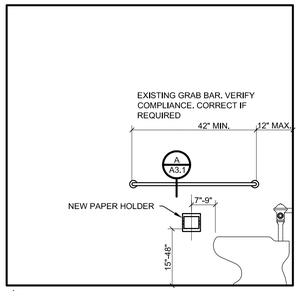
SCALE: 1" = 1'-0"



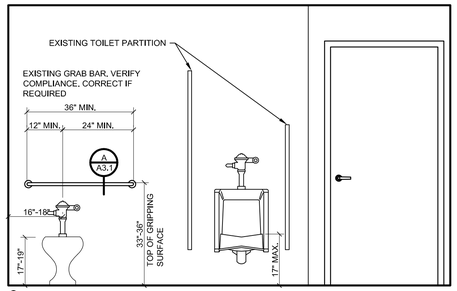
TOE CLEARANCE N.T.S.



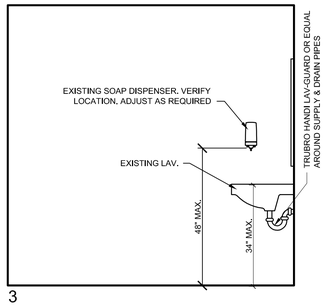
KNEE CLEARANCE N.T.S.



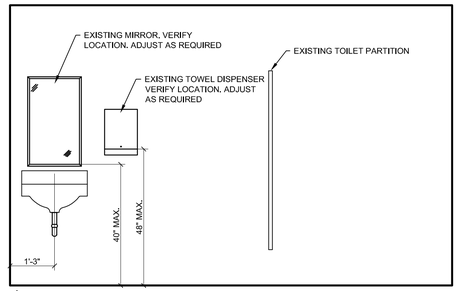
1



2



3



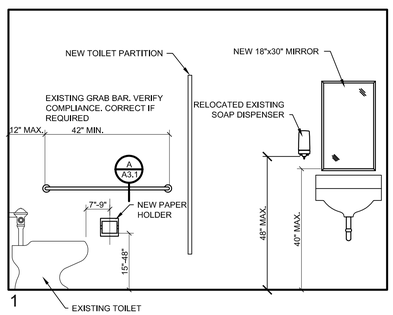
4

MEN 103 ELEVATIONS

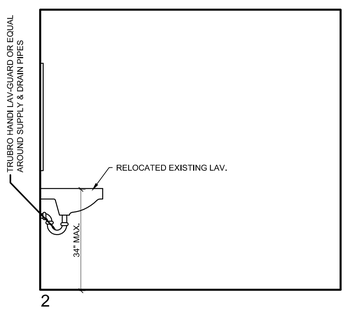
0 1' 2' 4'

SCALE: 1/2" = 1'-0"

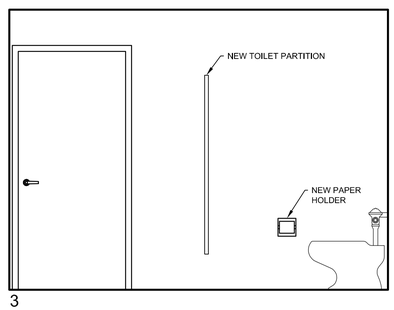
ELEVATION KEY



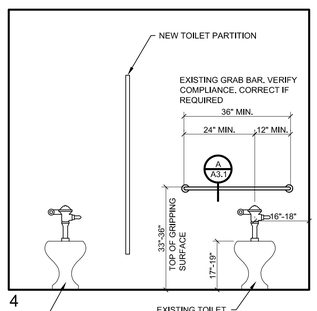
1



2



3



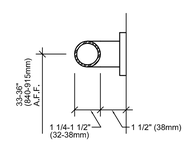
4

WOMEN 104 ELEVATIONS

0 1' 2' 4'

SCALE: 1/2" = 1'-0"

ELEVATION KEY



A
A3.1

GRAB BAR

0 2" 4" 8"

SCALE: 3" = 1'-0"

Project:

PARKS GARAGE
SENIOR CENTER
RENOVATIONS

48 Pettingill Park Road, Auburn, Maine

Bid No. 2017-023

Client:

City of Auburn, Maine
60 Court Street
Auburn, Maine 04210

Legend:

REGISTERED ARCHITECT
JOHN E. HANSEN
1110
STATE OF MAINE

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

Firm Name and Address:

CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing Status:

- ☐ CONCEPT DESIGN
- ☐ 30% DESIGN DEVELOPMENT
- ☐ 60% DESIGN DEVELOPMENT
- ☐ 90% DESIGN DEVELOPMENT
- ■ 100% BID DOCUMENT
- ☐ 100% CONSTRUCTION DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:

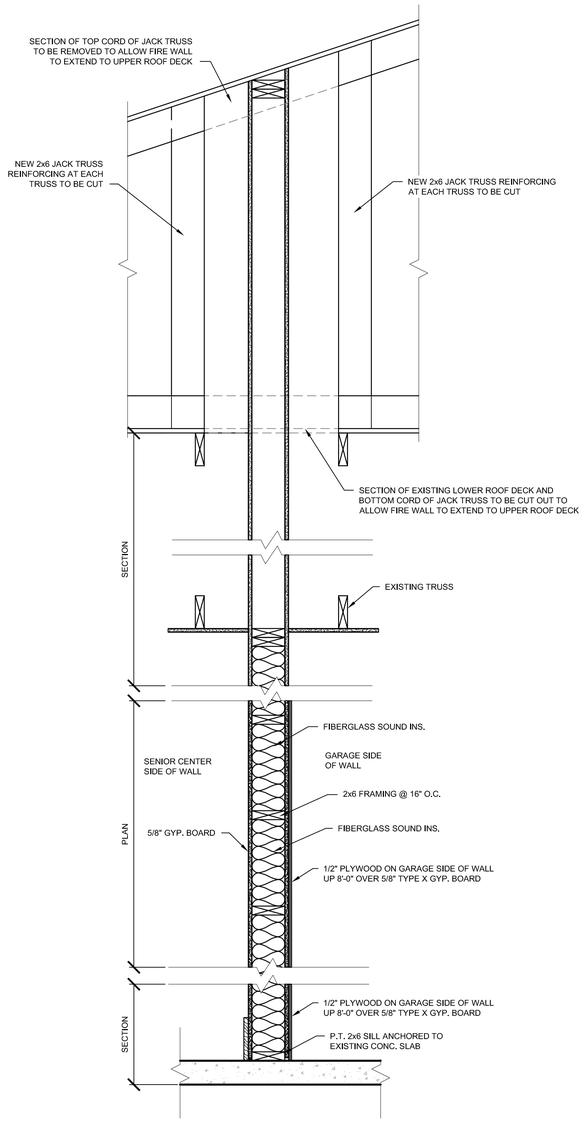
PROPOSED
INTERIOR ELEVATIONS

No.	Revision/Issue	Date

Design by:	Checked by:
JEH	MAD
Drawn by:	**Approved by:**
CMC	BMB
Project No:	**Date:**
1001	JANUARY 27, 2017

Sheet Number:

A3.1

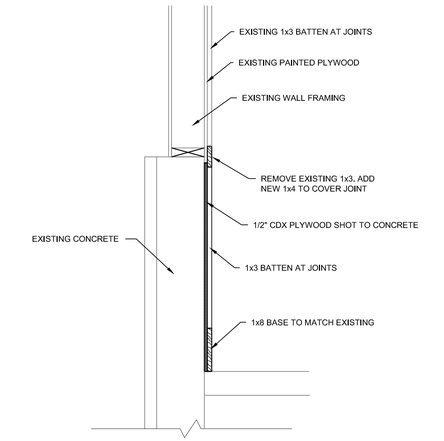


TYPE 3

UL U305

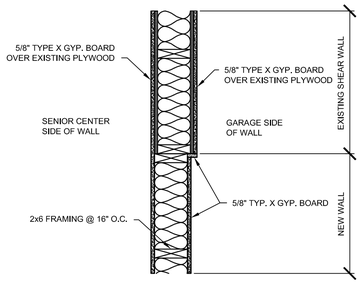
E / A5.1 WALL TYPES 0 6" 1' 2'

SCALE: 1" = 1'-0"



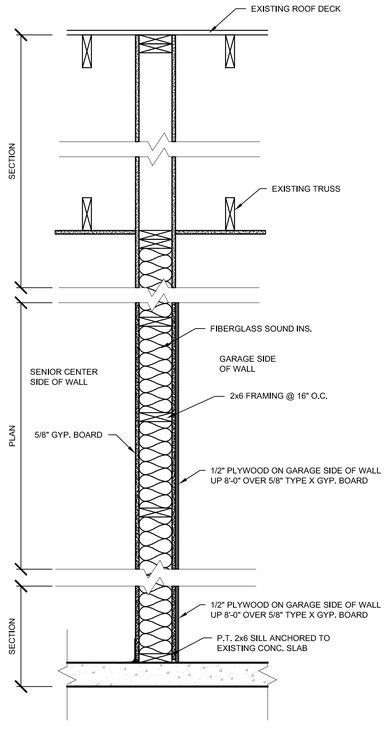
G / A5.1 WALL DETAIL 0 6" 1' 2'

SCALE: 1" = 1'-0"



F / A5.1 WALL DETAIL 0 6" 1' 2'

SCALE: 1" = 1'-0"

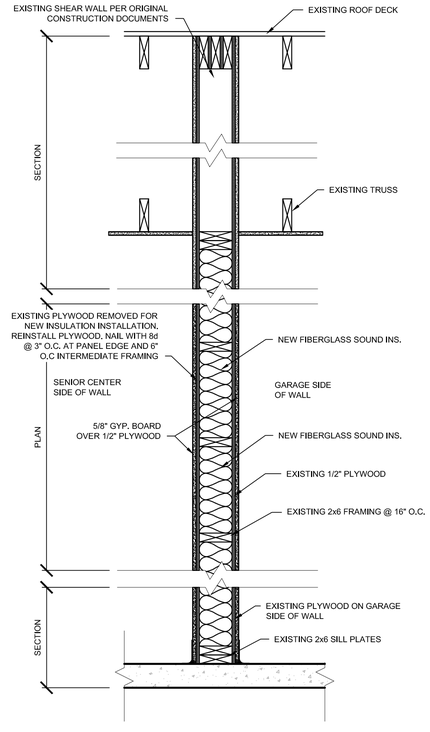


TYPE 1

UL U305

D / A5.1 WALL TYPES 0 6" 1' 2'

SCALE: 1" = 1'-0"



TYPE 2

UL U305

C / A5.1 WALL TYPES 0 6" 1' 2'

SCALE: 1" = 1'-0"

Project:

PARKS GARAGE SENIOR CENTER RENOVATIONS

48 Pettingill Park Road, Auburn, Maine

Bid No. 2017-023

Client:

City of Auburn, Maine
60 Court Street
Auburn, Maine 04210

Legend:

REGISTERED ARCHITECT JOHN E. HANSEN 1110 STATE OF MAINE

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

Firm Name and Address:

CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing Status:

- ☐ CONCEPT DESIGN
- ☐ 30% DESIGN DEVELOPMENT
- ☐ 60% DESIGN DEVELOPMENT
- ☐ 90% DESIGN DEVELOPMENT
- ■ 100% BID DOCUMENT
- ☐ 100% CONSTRUCTION DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:

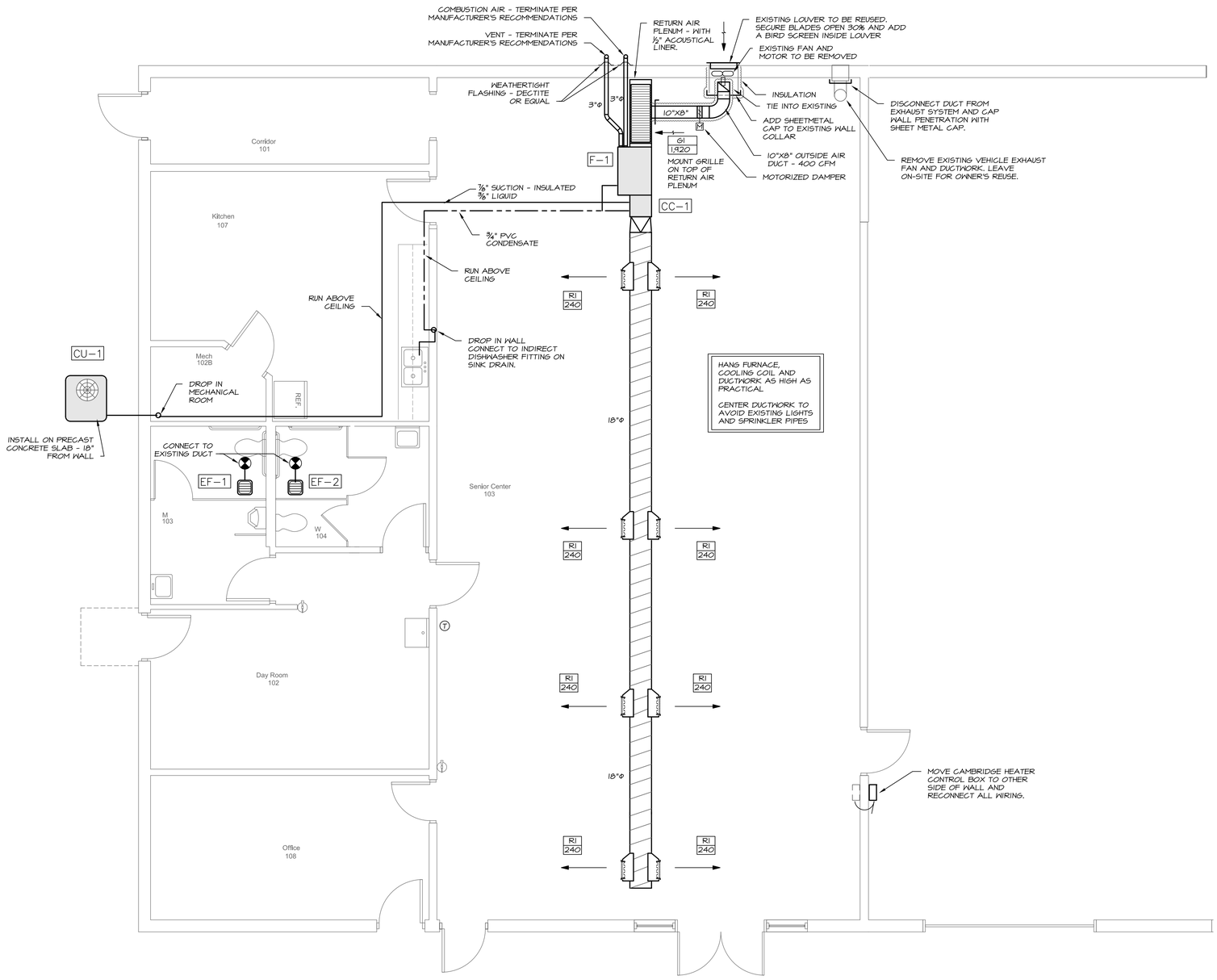
PROPOSED DETAILS

No.	Revision/Issue	Date

Design by: JEH	**Checked by:** MAD
Drawn by: CMC	**Approved by:** BMB
Project No: 1001	**Date:** JANUARY 27, 2017

Sheet Number:

A5.1



1 MECHANICAL SHEETMETAL PLAN

SCALE: 1/4" = 1'-0"

SHEETMETAL LEGEND

- RETURN AIR GRILLE
- DOUBLE DEFLECTION GRILLE WITH OPPOSED BLADE DAMPER
- MANUAL DAMPER - LOCKING QUADRANT
- MOTORIZED DAMPER
- THERMOSTAT
- CONNECT TO EXISTING

MECHANICAL SCOPE OF WORK

1. Remove from jobsite all HVAC material and equipment that is not being reused in the renovation, including:
   - 1.1. Motor and fan from the opening being reused for an outside intake for F-1
   - 1.2. Bathroom exhaust fans that are being replaced
2. Disconnect and leave on-site for owner relocation the automobile exhaust fan and ductwork.
3. Contractor to provide a completely installed and operating heating and cooling system including but not limited to:
   - 3.1. Condensing gas furnace and split system air conditioning system.
   - 3.2. Ductwork including supply, return and outside air.
   - 3.3. Registers, and grilles.
   - 3.4. Replacement bath fans.
   - 3.5. Condensate piping
   - 3.6. Refrigerant piping
   - 3.7. Vent and combustion air piping
   - 3.8. Relocation of existing Cambridge Control Panel
   - 3.9. Precast cement pad for CU-1
   - 3.10. Motorized damper and thermostat.
   - 3.11. Control wiring. Note- control wiring can be done by a control contractor or the mechanical contractor.
4. Start, test, balance and warranty.
   - 4.1. Start and test all new HVAC equipment per manufacturers recommendations.
   - 4.2. Balance air flow as indicated on drawings. Provide owner with a balance report, Note- balancing can be done by a balancing contractor or the mechanical contractor.
   - 4.3. Provide the owner with a one-year warranty or all parts, labor and material. Five-year parts only warranty on compressor and ten-year parts only warranty on heat exchanger.
   - 4.4. Provide at least one-hour of owner training and an operation and maintenance manual.

¼" = 1'-0" 0' 1' 2' 3' 4' 8' 12' 16'

Project:
PARKS GARAGE
SENIOR CENTER
RENOVATIONS
48 Pettingill Park Road, Auburn, Maine
Bid No. 2017-023

Client:
City of Auburn, Maine
60 Court Street
Auburn, Maine 04210

Legend:

STATE OF MAINE · Kurt F. Magnusson · 10257 · LICENSED PROFESSIONAL ENGINEER

Consultant Name and Address:
MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT #10B
10 FOREST FALLS DRIVE
YARMOUTH, MAINE 04096
(207) 846-1441

ARCHITECT
JOHN E. HANSEN, ARCHITECT
632 SPRUCE HEAD ROAD
SOUTH THOMASTON, MAINE 04858
PHONE: (207) 594 - 5310 FAX: (207) 594 - 5370

Firm Name and Address:
CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing Status:
- ☐ CONCEPT DESIGN
- ☐ 30% DESIGN DEVELOPMENT
- ☐ 60% DESIGN DEVELOPMENT
- ☐ 90% DESIGN DEVELOPMENT
- ■ 100% BID DOCUMENT
- ☐ 100% CONSTRUCTION DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:
MECHANICAL SHEETMETAL PLAN

No.	Revision/Issue	Date

Design by:	Checked by:
KFM	KFM
Drawn by:	**Approved by:**
KFM	KFM
Project No:	**Date:**
1001	JANUARY 27, 2017

Sheet Number:
M1.1

CONDENSING UNIT SCHEDULE

TAG	MANUFACTURER AND MODEL	NOMINAL SIZE	REFRIGERANT	ELECTRIC			WEIGHT	REMARKS
				POWER	MCA	MOP		
CU-1	TRANE 4TTR3060D1000N	5 TONS	410A	240/60/1	35	60	226 LBS	MOUNTED ON CONCRETE PAD BY MECHANICAL CONTRACTOR

GAS FURNACE SCHEDULE

TAG	MANUFACTURER & MODEL	BTUH INPUT	BTUH OUTPUT	AFUE	FUEL	CFM	E.S.P.	MOTOR HP	POWER	REMARKS
F-1	TRANE TDXD120A9H5IB	120,000	110,000	92.1%	NAT. GAS.	1,920	0.5"	0.5	120/60/1	CONDENSING FURNACE SEALED COMBUSTION, CONDENSATE NEUTRALIZER, AND 7-DAY PROGRAMMABLE TSTAT

COOLING COIL SCHEDULE

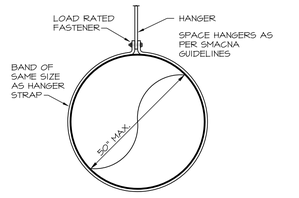
TAG	MANUFACTURER & MODEL	TOTAL BTUH	SEER	REMARKS
CC-1	TRANE TO MATCH FURNACE AND MEET SEER SPECIFIED	60,000	13	HORIZONTAL CASED COIL WITH TX VALVE

FAN SCHEDULE

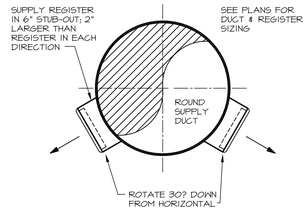
TAG	MANUFACTURER & MODEL	TYPE	CFM	ESP	ELECTRIC		REMARKS	REMARKS
					POWER	FLA		
EF-1	NUTONE QTXEN110	CEILING	110	0.1"	115 / 60 / 1	0.4	MAXIMUM 0.7 SONE	POWERED BY ROOM LIGHT SWITCH
EF-2	NUTONE QTXEN110	CEILING	110	0.1"	115 / 60 / 1	0.4	MAXIMUM 0.7 SONE	POWERED BY ROOM LIGHT SWITCH

AIR TERMINAL SCHEDULE

TAG	MANUFACTURER & MODEL	SIZE	MAX NC	MAX SP	REMARKS
R1	PRICE 5205	12"X8"	20	.07	DOUBLE DEFLECTION SUPPLY REGISTER
G1	PRICE 530	14"X48"	20	.07	45 DEGREE RETURN GRILLE FOR SURFACE MOUNT



1 ROUND DUCT SUPPORTS
NO SCALE



2 TYPICAL SUPPLY REGISTER IN EXPOSED ROUND DUCT
NO SCALE

SHEETMETAL NOTES

1. All ductwork to be fabricated and installed per SMACNA Low Pressure Ductwork Standards.
2. Ductwork is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
3. All square elbows are to be installed with turning vanes.
4. All outside air ductwork to be 1-1/2" fiberglass duct wrap with foil-faced vapor barrier.
5. Line return air plenum with ½" acoustical duct liner. Closed-cell flexible electrometric insulation.
6. Furnace vent and combustion air to be Schedule 40 PVC plastic. Terminate per manufacturer's recommendations.

PIPING NOTES

1. Piping is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
2. Condensate piping to be Schedule 40 PVC plastic. Provide trap, condensate neutralizer and cleanout at F-1, CC-1.
3. Refrigerant piping to be Type "K" tubing or bendable ACR tube.
4. Insulate suction lines with ¾" electrometric closed cell insulation (Armaflex or equal). All exterior pipe insulation to be painted with a exterior paint approved by the insulation manufacturer.

CONTROL NOTES

1. It will be the Mechanical Contractor's responsibility to provide and install all controls and all control wiring.
2. All control wiring that is run in concealed spaces to be plenum rated.
3. All control wiring that is run exposed shall be in electrical conduit provided and installed by the mechanical contractor. All new electrical conduit to be painted to match wall/ceiling.
4. Thermostat to be electronic programmable with 7-day programming and an acrylic locked enclosure. Thermostat to be able to provide the fan and outdoor air damper sequence of operation described below.
5. Sequence of operation
   - 5.1. During the occupied cycle the outside air damper is to be 100% open and the indoor fan for F-1 is to run continuously. Heating and cooling to cycle on the occupied settings.
   - 5.2. During the unoccupied cycle the outside air damper is to be 100% closed and the fan for F-1 to run only on a call be heating or cooling.

GENERAL NOTES

1. All systems are to be to meet the following Codes and Standards.
   - 1.1. ASHRAE 90.1 2007 - Energy Standard for Commercial Buildings.
   - 1.2. ASHRAE 60.1 2007 - Standard for Indoor Air Quality in Commercial Buildings.
   - 1.3. 2009 IECC - International Energy Conservation Code.
   - 1.4. NFPA - National Fire Protection Association Standards.
   - 1.5. NEC 2014
2. Do not cut any structural members without pre-approval of structural engineer.

Project:
PARKS GARAGE
SENIOR CENTER
RENOVATIONS
48 Pettingill Park Road, Auburn, Maine
Bid No. 2017-023

Client:
City of Auburn, Maine
60 Court Street
Auburn, Maine 04210

Legend:

STATE OF MAINE · Kurt F. Magnusson · 10257 · LICENSED PROFESSIONAL ENGINEER

Consultant Name and Address:
MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT #10B
10 FOREST FALLS DRIVE
YARMOUTH, MAINE 04096
(207) 846-1441

ARCHITECT
JOHN E. HANSEN, ARCHITECT
632 SPRUCE HEAD ROAD
SOUTH THOMASTON, MAINE 04858
PHONE: (207) 594 - 5310 FAX: (207) 594 - 5370

Firm Name and Address:
CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing Status:
- ☐ CONCEPT DESIGN
- ☐ 30% DESIGN DEVELOPMENT
- ☐ 60% DESIGN DEVELOPMENT
- ☐ 90% DESIGN DEVELOPMENT
- ■ 100% BID DOCUMENT
- ☐ 100% CONSTRUCTION DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:
MECHANICAL SCHEDULES, NOTES & DETAILS

No.	Revision/Issue	Date

Design by:	Checked by:
KFM	KFM
Drawn by:	Approved by:
KFM	KFM
Project No:	Date:
1001	JANUARY 27, 2017

Sheet Number:
M1.2

GENERAL NOTES

1. All work shall be in accordance with the State Plumbing Code, local codes and ordinances, National Fire Code (NFPA), or these plans or specifications, whichever is more strict. The Plumbing Contractor is responsible to obtain the Plumbing permit and pay the fee.

2. All drawings are schematic only, and are intended to indicate the intent, extent, and general arrangement of work. They are not meant to show every fitting, change of direction or every situation. Work indicated shall be furnished complete to perform the function intended. Verify locations in the field. Document the locations and sizes of the existing sanitary/vent system. Provide a shop drawing showing how the new work connects into the existing, for review by AHJ.

3. No structural members shall be cut without approval of the Architect.

4 All plumbing shall be supported from the building structure.

5. All water piping shall be installed parallel to building lines. Use hangers appropriate for each type of piping. Piping shall be run neatly grouped together when practical. Allow room between all piping and other obstructions to allow for the installation of the specified pipe insulation.

6. Any piping through roofs, concrete walls and masonry partitions shall have steel pipe sleeves. Openings between pipes and sleeves shall be caulked and sealed smoke and water tight. Any pipe penetrations through a fire rated wall or floor shall have a UL rated fire stop system rated to match the rating of the wall, as per the NFPA.

7. Run all piping on warm side of building insulation. No water, or drain lines shall be run in exterior walls, unless directly indicated.

8. All sanitary waste piping less than 4" shall pitch down at ¼" per L.F. All 4" and larger piping shall pitch at ¼" per L.F. whenever possible. No sanitary/ waste piping under slab shall be less than 2" in diameter.

FIRE SPRINKLER NOTES

A. Provide all design services, construction documents, labor, Transportation, equipment, permits, materials, tools, inspections, incidentals, tests and perform all operations in connection with the modification of the existing Pipe Sprinkler System in the building.

B. Comply with requirements of all Authorities Having Jurisdiction.

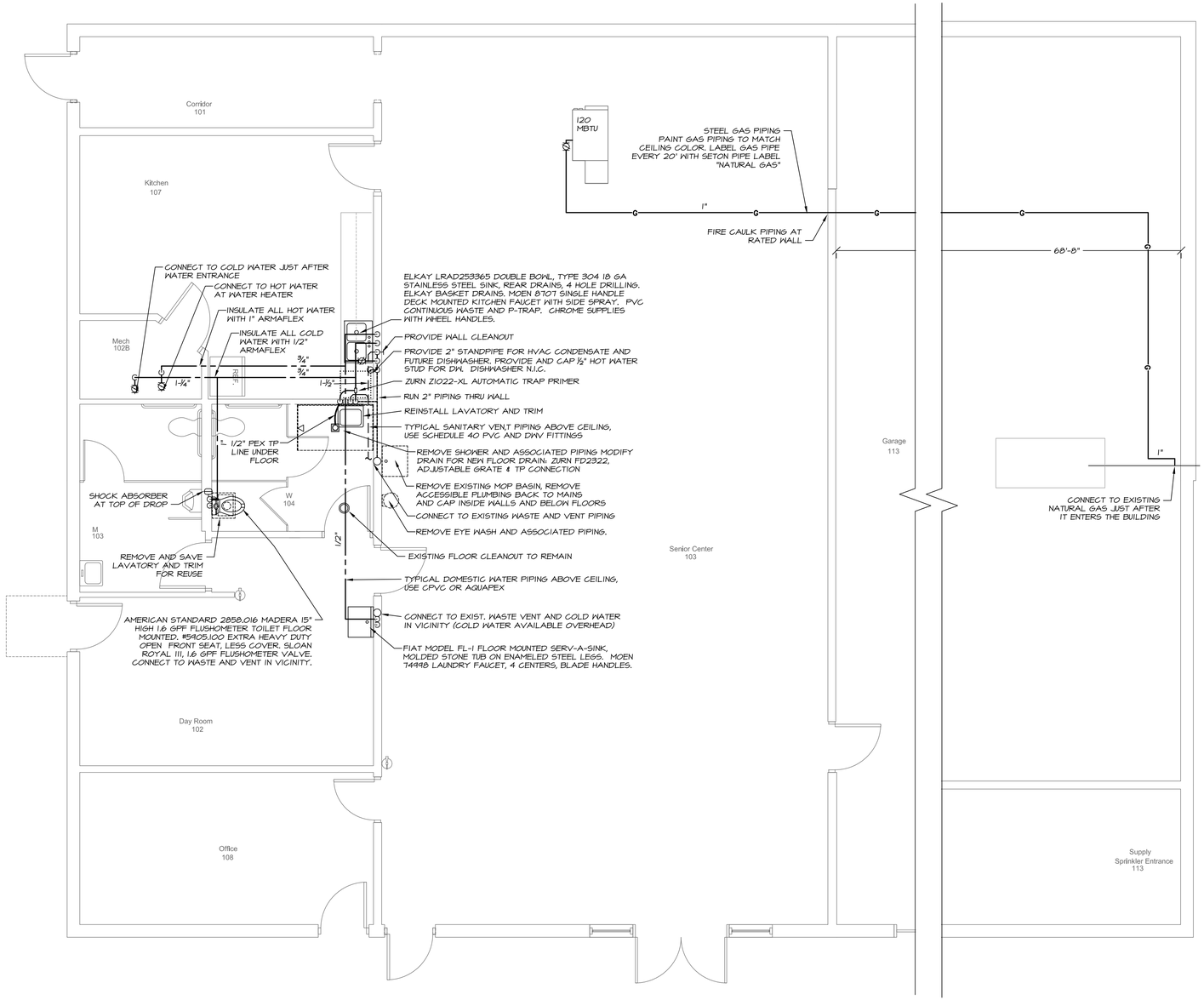
C. Rearrange sprinkler coverage as required for new partitions.

D. Coordinate with interfacing trades.

E. Submit equipment and components for review. Prepare sprinkler drawings and Record Drawings.

F. Provide 1 year guarantees and warranties on all new work.

G. The Automatic Sprinkler System shall meet the standards of the most recent edition of the National Fire Protection Association's (NFPA) NFPA 13 Standard for the Installation of Sprinkler Systems.



1 PLUMBING PLAN
SCALE: 1/4" = 1'-0"

¼" = 1'-0" 0' 1' 2' 3' 4' 8' 12' 16'

Project:
PARKS GARAGE
SENIOR CENTER
RENOVATIONS
48 Pettingill Park Road, Auburn, Maine
Bid No. 2017-023

Client:
City of Auburn, Maine
60 Court Street
Auburn, Maine 04210

Legend:

STATE OF MAINE · Kurt F. Magnusson 10257 · LICENSED PROFESSIONAL ENGINEER

Consultant Name and Address:
MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT #10B
10 FOREST FALLS DRIVE
YARMOUTH, MAINE 04096
(207) 846-1441

ARCHITECT
JOHN E. HANSEN, ARCHITECT
632 SPRUCE HEAD ROAD
SOUTH THOMASTON, MAINE 04858
PHONE: (207) 594 - 5310 FAX: (207) 594 - 5370

Firm Name and Address:
CORDJIA
CAPITAL PROJECTS GROUP
Camden, ME | Portland, ME | York, ME
207.236.9970 | www.cordjiacapitalprojects.com

Drawing Status:
- ☐ CONCEPT DESIGN
- ☐ 30% DESIGN DEVELOPMENT
- ☐ 60% DESIGN DEVELOPMENT
- ☐ 90% DESIGN DEVELOPMENT
- ■ 100% BID DOCUMENT
- ☐ 100% CONSTRUCTION DOCUMENT
- ☐ RECORD DOCUMENT

NO DRAWING SHALL BE RECOGNIZED AS A CONSTRUCTION DOCUMENT UNLESS IT BEARS A SIGNED REGISTRATION SEAL

Sheet Title:
PLUMBING
PLAN

No.	Revision/Issue	Date

Design by: EJP
Drawn by: EJP
Checked by: KFM
Approved by: KFM
Project No: 1001
Date: JANUARY 27, 2017

Sheet Number:
P1.1