



Duluth City Hall Interior Renovations Fourth Floor

411 West 1st Street
Duluth, MN 55802

January 26, 2016

Bid #: 16-03AA
Project #: 15-A-TR

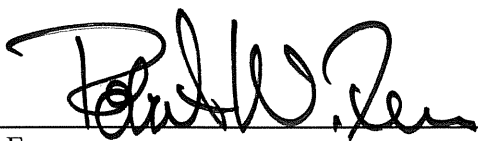
Bid Opening Date: February 16, 2016 at 2:00 PM CST

Project Name: Duluth City Hall Renovations
Fourth Floor
411 West First Street, Duluth, MN

PROJECT NUMBER: 15-A-TR

Date: January 18, 2016

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

Name		Registration Number
Robert Fern		20088

ARCHITECT: RW Fern Associates, Inc.
413 East Superior Street
Duluth, Minnesota 55802
(218)722-8271

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CITY OF DULUTH INVITATION TO BID

PROJECT NAME/DESCRIPTION: City Hall 4th Floor Renovation

BID NUMBER: 16-03AA

BID OPENING: Tuesday February 16th, 2016 AT 2:00 PM

PROJECT DESCRIPTION: Renovation of 4th floor including demolition, wall construction, suspended ceiling, doors, finishes, painting, plaster repair, and cabinetry.

PRE-BID/WALK-THROUGH: A **mandatory** pre-bid walk-through will be conducted on Monday February 1st at 2pm at Duluth City Hall Attorney's Office 4th Floor. All interested bidders must attend. Please contact Tari Rayala with walk-through questions at 218-730-4434.

QUESTIONS: Please submit any questions regarding this project via e-mail to purchasing@duluthmn.gov. Responses will be provided to all interested bidders as an addendum to this solicitation.

The selected contractor will be issued a construction contract (draft attached). Notice to Proceed will be issued once the agreement is fully executed.

Please note that the City of Duluth Supplemental Conditions apply to this project and will be included in the contract. This document can be found online at <http://www.duluthgov.info/engineering/documents/SupplementalGenConditions4-15-11.pdf> . Hard copies may be made available upon request.

Proposal forms, contract documents, plans and specifications are on file at the following offices: Duluth Builder's Exchange, Minnesota Builder's Exchange, BXWI-Fox Valley Plan Room, Blue Book Building and Construction Network, and Meda Construction Connection.

INSTRUCTIONS TO BIDDERS

All bids must be complete, signed, and transmitted in a sealed envelope plainly marked with the bid number, subject matter, and opening date. The City of Duluth reserves the right to split the award where there is a substantial savings to the City, to waive informalities and to reject any and all bids. Bidder must state in their proposal if bid price is based on acceptance of the total order. Do not include sales tax in the unit price. Price may not be the only consideration for bid award. Bids must be firm for a minimum of 60 days.

Bids must be received in Purchasing before 2:00 PM local time on the bid opening date specified on the Invitation for Bids. The City Purchasing Agent or her designee will conduct a public bid opening in Room 100 immediately following receipt of the bids.

No alternatives to the specification will be considered unless specifically requested. Erasures or other changes to the bid must be initialed and dated.

The following documents must be submitted with your bid:

1. **Bid Bond** - A certified check or bank draft, payable to the order of the City of Duluth, negotiable U.S. Government Bonds (at par value), or a satisfactory bid bond executed by the bidder and acceptable surety, in an amount equal to five per cent (5%) of the total bid. Bids may be withdrawn without forfeiture of surety if the request is submitted by the Bidder and received at the Purchasing Office in writing or by telephone prior to the scheduled bid opening.
2. **Acknowledgment of Addendum** (if applicable) – any changes to this solicitation will be announced via Addendum. A signature on the Invitation to Bid acknowledging the Addendum(s) must be submitted with your bid.
3. **Responsible Contractor** - No construction contract in excess of \$50,000 will be awarded unless the Bidder is a "responsible contractor" as defined in Minnesota Statute §16C.285, subdivision 3. All Bidders submitting a proposal for this project must verify that they meet the minimum criteria specified in the statute by submitting a Responsible Contractor Verification and Certification of Compliance form (attached). The owner or officer of the company must sign the form under oath verifying compliance with each of the minimum criteria. Making a false statement under oath will render the Bidder or subcontractor that makes the false statement ineligible to be awarded a construction project and may result in termination of a contract awarded to a Bidder or subcontractor that submits a false statement. Bidders must obtain verification of compliance from all subcontractors. Bidders must submit signed copies of verifications and certifications of compliance from subcontractors at the City's request.

Please note that the following requirements also apply to this project, and any additional required documents must be submitted prior to award/contract execution. Submitting these documents with your bid will assist in expediting the process.

1. **Insurance** – Contractor must provide proof of Public Liability and Automobile Liability Insurance with limits not less than \$1,500,000 Single Limit prior to the commencement of work. The City of Duluth must be named as an additional insured. Please refer to the draft Contract, Section 7.
2. **Affidavit of Non-Collusion** – The successful bidder shall be required to execute the attached affidavit stating that he/she has not entered into a collusive agreement with any other person, firm, or corporation in regard to any bid submitted.
3. **Performance & Payment Bonds** – The awarded contractor will be required to submit performance and payments bonds in the full amount of the project cost prior to award.
4. **Affirmative Action/EEO** - The contractor must take affirmative action to ensure that the employees and applicants for employment are not discriminated against because of their race, color, creed, sex or national origin, and must meet the affirmative action goals. Contractors are encouraged to subcontract with Disadvantaged Business Enterprises (DBEs) when possible. A current list of certified DBEs is available on the Minnesota Unified Certification website at <http://mnucp.metc.state.mn.us> . Contractor will comply with all applicable Equal Employment Opportunity laws and regulations. Awarded contractor will

submit the attached Equal Employment Opportunity (EEO) Affirmative Action Policy Statement & Compliance Certificate.

5. **Out of State Contractor** - Unless a State of Minnesota Certificate of Exemption is provided, any out-of-state bidder receiving a bid award will have 8% retained from invoice payments on any contracts over \$50,000. Submit a signed copy of the signed exemption form when submitting Payment and Performance Bonds. This form may be found at the following web address: http://www.revenue.state.mn.us/Forms_and_Instructions/sde.pdf

6. **Prevailing Wage** - Not less than the minimum salaries and prevailing wages as set forth in the contract documents must be paid on this project.

The City of Duluth is an Equal Opportunity Employer. Contractor shall comply with all applicable Equal Employment Opportunity laws and regulations.

CITY OF DULUTH

Andrew Field	Amanda Ashbach
Financial Analyst	Purchasing Agent

16-03AA Bid Form

City Hall 4th Floor Renovation \$ _____

Bid written out: _____

Acknowledgment of Addendum

Addendum 1: _____

Addendum 2: _____

Addendum 3: _____

Addendum 4: _____

Name and Title: _____

Vendor Name: _____

Address: _____

Phone Number: _____

Email: _____

Signature: _____

AFFIDAVIT AND INFORMATION REQUIRED OF BIDDERS

Affidavit of Non-Collusion:

I hereby swear (or affirm) under penalty of perjury:

- 1) That I am the bidder (if the bidder is an individual), a partner in the bidder (if the bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the bidder is a corporation);
- 2) That the attached bid or bids have been arrived at by the bidder independently and have been submitted without collusion with and without agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid, designed to limit independent bidding or competition;
- 3) That the contents of the bid or bids have not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid or bids and will not be communicated to any such person prior to the official opening of the bid or bids;
- 4) That a family relationship between a City of Duluth employee and bidder/proposer are in non-collusion; and
- 5) That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Signed: _____

Firm Name: _____

Subscribed and sworn to me before this _____ day of _____, _____

NOTARY PUBLIC _____

My commission expires: _____

Bidder's Federal Identification Number _____

**EQUAL EMPLOYMENT OPPORTUNITY EEO AFFIRMATIVE ACTION
POLICY STATEMENT & COMPLIANCE CERTIFICATE**

TO: City of Duluth, MN PROJECT NUMBER & DESCRIPTION _____

FROM: _____

(Vendor's name, address, telephone number)

A) Employment: It is the policy of the above named FIRM to afford equal opportunity for employment to all individuals regardless of race, color, creed, religion, national origin, ancestry, age, sex, marital status, status with respect to public assistance and/or disability. The FIRM will take affirmative action to ensure that we will: (1) recruit, hire, and promote all job classifications without regard to race, color, creed, religion, national origin, ancestry, age, sex, marital status, status with respect to public assistance, and/or disability, except where sex is a bona fide occupational qualification; (2) base decisions on employment so as to further the principle of equal employment opportunity; (3) ensure that promotion decisions are in accord with the principles of equal employment opportunity by imposing only valid requirements for promotional opportunities; (4) ensure that all personnel actions such as compensation, benefits, transfers, layoffs, return from layoff, FIRM sponsored training, education tuition assistance, social and recreational programs will be administered without regard to race, color, creed, religion, national origin, ancestry, age, sex, marital status, status with respect to public assistance, and/or disability. The FIRM also intends full compliance with Veteran affirmative action requirements. Additionally, minority and female employees shall be encouraged to participate in all FIRM activities and refer applicants.

I have designated (name) _____ to direct the establishment of and to monitor the implementation of personnel procedures to guide the FIRM's affirmative action program. Where PROJECTS exceed \$500,000, this official shall also serve as the liaison officer that administers the FIRM's "Minority Business Enterprise Program." This official is charged with designing and implementing audit and reporting systems that will keep management informed on a monthly basis of the status of the equal opportunity area.

Supervisors have been made to understand that their work performance is being evaluated on the basis of their equal opportunity efforts and results, as well as other criteria. It shall be the responsibility of the FIRM and its supervisors to take actions to prevent harassment of employees placed through affirmative action efforts.

B) Reports: Unless exempted by law and regulation, the FIRM shall make available and file those reports related to equal opportunity as may be required by the City of Duluth and State and Federal compliance agencies. Requirements and Reports are defined in 41CFR60 "Compliance Responsibility for Equal Opportunity" published by the U. S. Department of Labor which is incorporated herein by reference. Additional requirements are defined in various State and Federal Civil Rights Legislation and Rules promulgated thereunder.

C) Nonsegregated Facilities: The FIRM certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The FIRM certifies that it will not maintain or provide for its employees any segregated facilities at any of its establishments and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The FIRM agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this certificate. As used in this Certification, the term "segregated

facilities" means any waiting rooms, work area, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation for entertainment area, transportation, and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise.

- D) Affirmative Action Compliance Program:** Unless exempted by regulation and law, the FIRM—if the FIRM has 50 or more employees and if the value of current contracts with the City of Duluth exceeds \$50,000—shall prepare and maintain a written affirmative action compliance program that meets the requirement as set forth in 41CFR60.
- E) Non-Compliance:** The FIRM certifies that it is not currently in receipt of any outstanding letters of deficiencies, show cause, probable cause, or other such notification of non-compliance with EEO Laws and Regulations.
- F) Employment Goals - "Construction" Projects:** It shall be the goal of the FIRM if the PROJECT is of a construction nature that in all on-site employment generated that no less than 3% of the on-site workforce will be minority employees and that no less than 7% of the on-site workforce will be female employees. Further, it is the goal of the FIRM if the PROJECT is of a construction nature that in all on-site employment generated that no less than 3% of the work hours generated shall be worked by minority employees and that no less than 7% of the work hours generated shall be worked by female employees.
- G) Subcontractors:** The FIRM will for all its PROJECT subcontractors regardless of tier (unless exempted by law and regulation) that received in excess of \$2,500 require that: (1) the subcontractor shall execute an "EEO Statement and Certification" similar in nature to this "Statement and Certification", (2) said documentation to be maintained on file with the FIRM or subcontractor as may be appropriate.

Executed this _____ day of _____, 20__ by:

Printed name and title

Signature

NOTE: In addition to the various remedies prescribed for violation of Equal Opportunity Laws, the penalty for false statements is prescribed in 18 U.S.C. 1001.

Contractor Affidavit

This Contractor Affidavit must be certified by the Minnesota Department of Revenue before the state of Minnesota or any of its subdivisions can make final payment to contractors. For more detailed information, see the instructions on the back of this form.

Please type or print clearly. This information will be used for returning the completed form.

Company name		Daytime phone	Minnesota tax ID number
Address		Total contract amount	Month/year work began
City	State	ZIP code	
		\$	
		Amount still due	Month/year work ended
		\$	

Project Information	Project number	Project location		
	Project owner	Address	City	State ZIP code
	Did you have employees work on this project? <input type="checkbox"/> Yes <input type="checkbox"/> No. If no, who did the work?			

Check the box that describes your involvement in the project and fill in all information requested.

☐ **Sole contractor**

☐ **Subcontractor**

Name of contractor who hired you

Address

☐ **Prime contractor**—If you subcontracted out any work on this project, all of your subcontractors must submit their own Contractor Affidavits and have them certified by the Department of Revenue *before* you can submit your Contractor Affidavit. For each subcontractor you had, fill in the information below and attach a copy of each subcontractor's certified Contractor Affidavit. If you need more space, attach a separate sheet.

Business name

Address

Owner/Officer

Contractor Type

Sign Here

I declare that all information I have filled in on this form is true and complete to the best of my knowledge and belief. I authorize the Department of Revenue to disclose pertinent information relating to this project, including sending copies of this form, to the prime contractor if I am a subcontractor, and to any subcontractors if I am a prime contractor, and to the contracting agency.

Contractor's signature

Title

Date

Mail to: Minnesota Revenue, Mail Station 6610, St. Paul, MN 55146-6610

Phone: 651-282-9999 or 1-800-657-3594 (TTY: Call 711 for Minnesota Relay).

Certificate of Compliance

Based on records of the Minnesota Department of Revenue, I certify that the contractor who has signed this Contractor Affidavit has fulfilled all the requirements of Minnesota Statutes 290.92 and 270C.66 concerning the withholding of Minnesota income tax from wages paid to employees relating to contract services with the state of Minnesota and/or its subdivisions.

Department of Revenue approval

Date

Form IC134 Instructions

Contractor Affidavit

No state agency or local unit of government can make final payment to a contractor until the Department of Revenue has certified that the contractor and any subcontractor have fulfilled the requirements of Minnesota withholding tax laws.

If you are a prime contractor, a contractor or a subcontractor who did work on a project for the state of Minnesota or any of its local government subdivisions — such as a county, city or school district — you must submit a Contractor Affidavit to the Department of Revenue to receive a certificate of compliance.

Use of Information

The Department of Revenue needs **all** the requested information to determine if you have met the state income tax withholding requirements. If all required information is not provided, Form IC134 will be returned to you for completion.

All information on this Contractor Affidavit is private by state law. It cannot be given to others without your permission, except to the Internal Revenue Service, other states that guarantee the same privacy and certain government agencies as provided by law.

Minnesota Tax ID Number

You must have a Minnesota tax ID number if you have employees who work in Minnesota. You must enter your Minnesota tax ID number on Form IC134.

If you don't have a Minnesota tax ID number, apply online at www.revenue.state.mn.us or by calling our Business Registration Office at 651-282-5225 or 1-800-657-3605.

If you have no employees and did all the work yourself, you do not need a Minnesota tax ID number. Instead, enter your Social Security number in the space for Minnesota tax ID number and explain who did the work.

Submit Contractor Affidavit

Form IC134 cannot be processed by the Department of Revenue until you finish the work. If you submit the form before the project is completed, it will be returned to you unprocessed.

If any withholding payments are due to the state, Minnesota law requires certified payments before we approve your Form IC134.

If you are a subcontractor or sole contractor, submit the form when you have completed your part of the project.

If you are a prime contractor, submit the form when the entire project is completed and you have received certified Contractor Affidavits from all of your subcontractors.

If you're a prime contractor and a subcontractor on the same project

If you were hired as a subcontractor to do work on a project, and you subcontracted all or a part of your portion of the project to another contractor, you are a prime contractor as well. Complete both the subcontractor and prime contractor areas on a single Form IC134.

You may submit your Contractor Affidavit either electronically **or** by mail. This affidavit must be certified and returned before the state or any of its subdivisions can make final payment for your work.

For an immediate response: Complete and submit your Contractor Affidavit electronically. Go to www.revenue.state.mn.us and choose Withholding Tax. Under the File and Pay tab, click on Contractor Affidavit Information for Government Projects.

You may complete and mail Form IC134 to: Minnesota Revenue, Mail Station 6610, St. Paul, MN, 55146-6610. If you have fulfilled the requirements of Minnesota withholding tax laws, the department will sign your Form IC134 and return it to you.

To receive your final payment, submit the certified Contractor Affidavit to the government unit for which the work was done. If you are a subcontractor, submit the certified Contractor Affidavit to your prime contractor to receive your final payment.

Information and Assistance

Additional forms and information, including fact sheets and frequently asked questions, are available on our website.

Website: www.revenue.state.mn.us

Email: withholding.tax@state.mn.us

Phone: 651-282 9999 or 1-800-657-3594.

We'll provide information in other formats upon request to persons with disabilities.

**ATTACHMENT A
PRIME CONTRACTOR RESPONSE**

RESPONSIBLE CONTRACTOR VERIFICATION AND CERTIFICATION OF COMPLIANCE

STATE PROJECT NUMBER: _____

This form includes changes by statutory references from the Laws of Minnesota 2015, chapter 64, sections 1-9. This form must be submitted with the response to this solicitation. A response received without this form, will be rejected.

<p>Minn. Stat. § 16C.285, Subd. 7. IMPLEMENTATION. ... any prime contractor or subcontractor or motor carrier that does not meet the minimum criteria in subdivision 3 or fails to verify that it meets those criteria is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project...</p>	
<p>Minn. Stat. § 16C.285, Subd. 3. RESPONSIBLE CONTRACTOR, MINIMUM CRITERIA. "Responsible contractor" means a contractor that conforms to the responsibility requirements in the solicitation document for its portion of the work on the project and verifies that it meets the following minimum criteria:</p>	
(1)	<p>The Contractor:</p> <ul style="list-style-type: none">(i) is in compliance with workers' compensation and unemployment insurance requirements;(ii) is in compliance with Department of Revenue and Department of Employment and Economic Development registration requirements if it has employees;(iii) has a valid federal tax identification number or a valid Social Security number if an individual; and(iv) has filed a certificate of authority to transact business in Minnesota with the Secretary of State if a foreign corporation or cooperative.
(2)	<p>The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 177.24, 177.25, 177.41 to 177.44, 181.13, 181.14, or 181.722, and has not violated United States Code, title 29, sections 201 to 219, or United States Code, title 40, sections 3141 to 3148. For purposes of this clause, a violation occurs when a contractor or related entity:</p> <ul style="list-style-type: none">(i) repeatedly fails to pay statutorily required wages or penalties on one or more separate projects for a total underpayment of \$25,000 or more within the three-year period, provided that a failure to pay is "repeated" only if it involves two or more separate and distinct occurrences of underpayment during the three-year period;(ii) has been issued an order to comply by the commissioner of Labor and Industry that has become final;(iii) has been issued at least two determination letters within the three-year period by the Department of Transportation finding an underpayment by the contractor or related entity to its own employees;(iv) has been found by the commissioner of Labor and Industry to have repeatedly or willfully violated any of the sections referenced in this clause pursuant to section 177.27;(v) has been issued a ruling or findings of underpayment by the administrator of the Wage and Hour Division of the United States Department of Labor that have become final or have been upheld by an administrative law judge or the Administrative Review Board; or(vi) has been found liable for underpayment of wages or penalties or misrepresenting a construction worker as an independent contractor in an action brought in a court having jurisdiction. Provided that, if the contractor or related entity contests a determination of underpayment by the Department of Transportation in a contested case proceeding, a violation does not occur until the contested case proceeding has concluded with a determination that the contractor or related entity underpaid wages or penalties;*

(3)	The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 181.723 or chapter 326B. For purposes of this clause, a violation occurs when a contractor or related entity has been issued a final administrative or licensing order;*
(4)	The contractor or related entity has not, more than twice during the three-year period before submitting the verification, had a certificate of compliance under section 363A.36 revoked or suspended based on the provisions of section 363A.36, with the revocation or suspension becoming final because it was upheld by the Office of Administrative Hearings or was not appealed to the office;*
(5)	The contractor or related entity has not received a final determination assessing a monetary sanction from the Department of Administration or Transportation for failure to meet targeted group business, disadvantaged business enterprise, or veteran-owned business goals, due to a lack of good faith effort, more than once during the three-year period before submitting the verification;*
	* Any violations, suspensions, revocations, or sanctions, as defined in clauses (2) to (5), occurring prior to July 1, 2014, shall not be considered in determining whether a contractor or related entity meets the minimum criteria.
(6)	The contractor or related entity is not currently suspended or debarred by the federal government or the state of Minnesota or any of its departments, commissions, agencies, or political subdivisions that have authority to debar a contractor; and
(7)	All subcontractors and motor carriers that the contractor intends to use to perform project work have verified to the contractor through a signed statement under oath by an owner or officer that they meet the minimum criteria listed in clauses (1) to (6).

Minn. Stat. § 16C.285, Subd. 5. SUBCONTRACTOR VERIFICATION.	
<p>A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project. Prior to execution of a construction contract, and as a condition precedent to the execution of a construction contract, the apparent successful prime contractor shall submit to the contracting authority a supplemental verification under oath confirming compliance with subdivision 3, clause (7). Each contractor or subcontractor shall obtain from all subcontractors with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each subcontractor.</p> <p>If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors.</p> <p>A prime contractor shall submit to the contracting authority upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to subdivision 3, clause (7). A prime contractor and subcontractors shall not be responsible for the false statements of any subcontractor with which they do not have a direct contractual relationship. A prime contractor and subcontractors shall be responsible for false statements by their first-tier subcontractors with which they have a direct contractual relationship only if they accept the verification of compliance with actual knowledge that it contains a false statement.</p> <p>Subd. 5a. Motor carrier verification. A prime contractor or subcontractor shall obtain annually from all motor carriers with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each motor carrier. A prime contractor or subcontractor shall require each such motor carrier to provide it with immediate written notification in the event that the motor carrier no longer meets one or more of the minimum criteria in subdivision 3 after submitting its annual verification. A motor carrier shall be ineligible to perform work on a project covered by this section if it does not meet all the minimum criteria in subdivision 3. Upon request, a prime contractor or subcontractor shall submit to the contracting authority the signed verifications of compliance from all motor carriers providing for-hire transportation of materials, equipment, or supplies for a project.</p>	

Minn. Stat. § 16C.285, Subd. 4. **VERIFICATION OF COMPLIANCE.**

A contractor responding to a solicitation document of a contracting authority shall submit to the contracting authority a signed statement under oath by an owner or officer verifying compliance with each of the minimum criteria in subdivision 3, with the exception of clause (7), at the time that it responds to the solicitation document.

A contracting authority may accept a signed statement under oath as sufficient to demonstrate that a contractor is a responsible contractor and shall not be held liable for awarding a contract in reasonable reliance on that statement. A prime contractor, subcontractor, or motor carrier that fails to verify compliance with any one of the required minimum criteria or makes a false statement under oath in a verification of compliance shall be ineligible to be awarded a construction contract on the project for which the verification was submitted.

A false statement under oath verifying compliance with any of the minimum criteria may result in termination of a construction contract that has already been awarded to a prime contractor or subcontractor or motor carrier that submits a false statement. A contracting authority shall not be liable for declining to award a contract or terminating a contract based on a reasonable determination that the contractor failed to verify compliance with the minimum criteria or falsely stated that it meets the minimum criteria. A verification of compliance need not be notarized. An electronic verification of compliance made and submitted as part of an electronic bid shall be an acceptable verification of compliance under this section provided that it contains an electronic signature as defined in section 325L.02, paragraph (h).

CERTIFICATION

By signing this document I certify that I am an owner or officer of the company, and I swear under oath that:

- 1) My company meets each of the Minimum Criteria to be a responsible contractor as defined herein and is in compliance with Minn. Stat. § 16C.285, and**
- 2) if my company is awarded a contract, I will submit Attachment A-1 prior to contract execution, and**
- 3) if my company is awarded a contract, I will also submit Attachment A-2 as required.**

Authorized Signature of Owner or Officer:

Printed Name:

Title:

Date:

Company Name:

NOTE: Minn. Stat. § 16C.285, Subd. 2, (c) If only one prime contractor responds to a solicitation document, a contracting authority may award a construction contract to the responding prime contractor even if the minimum criteria in subdivision 3 are not met.

ATTACHMENT A-1

FIRST-TIER SUBCONTRACTORS LIST

SUBMIT PRIOR TO EXECUTION OF A CONSTRUCTION CONTRACT

STATE PROJECT NUMBER: _____

Minn. Stat. § 16C.285, Subd. 5. A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project. Prior to execution of a construction contract, and as a condition precedent to the execution of a construction contract, the apparent successful prime contractor shall submit to the contracting authority a supplemental verification under oath confirming compliance with subdivision 3, clause (7). Each contractor or subcontractor shall obtain from all subcontractors with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each subcontractor.

FIRST TIER SUBCONTRACTOR NAMES* (Legal name of company as registered with the Secretary of State)	Name of city where company home office is located

*Attach additional sheets as needed for submission of all first-tier subcontractors.

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-1	
By signing this document I certify that I am an owner or officer of the company, and I swear under oath that: All first-tier subcontractors listed on attachment A-1 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. § 16C.285.	
Authorized Signature of Owner or Officer:	Printed Name:
Title:	Date:
Company Name:	

ATTACHMENT A-2

ADDITIONAL SUBCONTRACTORS LIST

PRIME CONTRACTOR TO SUBMIT AS SUBCONTRACTORS ARE ADDED TO THE PROJECT

STATE PROJECT NUMBER: _____

This form must be submitted to the Project Manager or individual as identified in the solicitation document.

Minn. Stat. § 16C.285, Subd. 5. ... If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors. ...

ADDITIONAL SUBCONTRACTOR NAMES* (Legal name of company as registered with the Secretary of State)	Name of city where company home office is located

*Attach additional sheets as needed for submission of all additional subcontractors.

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-2	
By signing this document I certify that I am an owner or officer of the company, and I swear under oath that: All additional subcontractors listed on Attachment A-2 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. § 16C.285.	
Authorized Signature of Owner or Officer:	Printed Name:
Title:	Date:
Company Name:	

GENERAL CONDITIONS 4-15-11

PART I

101. DEFINITIONS

Wherever used in any of the Contract Documents, the following meanings shall be given to the terms herein defined:

- a. The term "Contract" means the Contract executed by the City of Duluth in its capacity as agent for the City of Duluth and the Contractor, of which these GENERAL CONDITIONS form a part.
- b. The term "City" means the City of Duluth, Minnesota, which is authorized to undertake this Contract and within which the Project Area is situated or any employee of the City of Duluth designated by the City of Duluth for the purpose of inspecting, directing, or having in charge the work embraced in this Contract.
- c. The term "Contractor" means the person, firm, or corporation entering into the Contract with the City to construct and install the Improvements embraced in this Contract.
- d. The term "Project Area" means site within which is specified Contract limits of the Improvements contemplated to be constructed in whole or in part under this Contract.
- e. The term "Architect" means the architect or engineer licensed to practice architecture or engineering and serving the City with architectural or engineering services, or his authorized representative or successor.
- f. The term "Change Order" means a written order to the Contractor, signed by the City, issued after execution of the Contract, authorizing and directing a change in the Work or an adjustment in the contract sum or the contract time. The contract sum and the contract time may be changed only by Change Order.
- g. The term "Contract Documents" means and shall include the following: Executed Agreement, Addenda (if any), Invitation for Bids, Instructions to Bidders, Signed Copy of Bid, General Conditions, Special Conditions, Technical Specifications, and Drawings (as listed in the Schedule of Drawings), and all requested submittals such as Certificate of Insurance, performance and payment bonds, EEO Affirmative Action Policy Statement & Compliance Certificate, Certificate of Non-Collusion.
- h. The term "Drawings" means the drawings listed in the Schedule of Drawings.
- i. The term "Field Order" means a written interpretation necessary for the proper execution of the Work, in the form of drawings or otherwise issued to the Contractor by the City or the Architect.
- j. The term "Technical Specifications" means that part of the Contract Documents which describes, outlines and stipulates the quality of the materials to be furnished, the quality of workmanship required, and the methods to be used in carrying out the construction work to be performed under this Contract.
- k. The term "Addenda" or "Addendum" means any changes, revisions or clarifications of the Contract Documents which have been duly issued by the City to prospective Bidders prior to time of receiving Bids.
- l. The term "Work" means all labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated in such construction.

102. SUPERINTENDENCE BY CONTRACTOR

- a. Except where the Contractor is an individual and gives his personal superintendence to the work, the Contractor shall provide a competent superintendent, satisfactory to the City and the Architect, on the work at all times during working hours with full authority to act for him. The Contractor shall also provide an adequate staff for the proper coordination and expediting of his work.
- b. The Contractor shall lay out his own work and he shall be responsible for all work executed by him under the Contract. He shall verify all figures and elevations before proceeding with the work and will be held responsible for any error resulting from his failure to do so.

103. SUBCONTRACTS

- a. The Contractor shall not execute an agreement with any subcontractor, or permit any subcontractor to perform any work included in this contract until he has submitted a noncollusion affidavit from the subcontractor in substantially the form attached and has received written approval of such subcontractor from the City.
- b. No proposed subcontractor shall be disapproved by the City except for cause.
- c. The Contractor shall be as fully responsible to the Owner for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.
- d. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to require compliance by each subcontractor with the applicable provisions of this Contract.
- e. Nothing contained in this Contract shall create any contractual relationship between the subcontractor and the City.

104. OTHER CONTRACTS

The City may award, or may have awarded, other contracts for additional work, and the Contractor shall cooperate fully with such other Contractors, by scheduling his own work with that to be performed under other Contracts as may be directed by the City. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other Contractor as scheduled.

105. FITTING AND COORDINATION OF THE WORK

The Contractor shall be responsible for the proper fitting of all work and for the coordination of the operations of all trades, subcontractors, or materialmen engaged upon this Contract. He shall be prepared to guarantee to each of his subcontractors the locations and measurements which they may require for the fitting of their work to all surrounding work.

106. MUTUAL RESPONSIBILITY OF CONTRACTORS

If, through acts or neglect on the part of the Contractor, any other Contractor or any subcontractor shall suffer loss or damage on the work, the Contractor shall settle with such other Contractor or subcontractor by agreement or arbitration, if such other Contractor or subcontractor will so settle. If such other Contractor or subcontractor shall assert any claim against the City on account of damage alleged to have been so sustained, the City shall notify this Contractor, who shall defend at his own expense any suit based upon such claim, and, if any judgment or claims against the City shall be allowed, the Contractor shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith.

107. PROGRESS SCHEDULE

The Contractor shall submit for approval immediately after execution of the Agreement, a carefully prepared Progress Schedule, showing the proposed dates of starting and of completing each of the various sections of the work, the anticipated monthly payments to become due the Contractor and the accumulated percent of progress each month.

108. PAYMENTS

1) Partial Payments.

- a. The Contractor shall prepare his requisition of partial payment as of the last day of the month and submit it, with the required number of copies, to the City contracting officer for his approval. The amount of the payment due the Contractor shall be determined by adding to the total value of work completed to date, the value of materials properly stored on the site and deducting (1) five percent (5%) of the total amount, this sum to be retained until final payment and (2) the amount of all previous payments. The total value of the work completed to date shall be based on the estimated quantities of work completed and on the unit prices

contained in the agreement. The value of materials properly stored on site shall be based upon the estimated quantities of such materials and the invoice prices. Copies of all invoices shall be available for the inspection of the Architect and the City.

b. Monthly or partial payments made by the City to the Contractor are moneys advanced for the purpose of assisting the Contractor to expedite the work of construction. The Contractor shall be responsible for the care and protection of all materials and work upon which payments have been made until final acceptance of such work and materials by the City. Such payments shall not constitute a waiver of the right of the City to require the fulfillment of all terms of the Contract and the delivery of all improvements embraced in this Contract complete and satisfactory to the City in all details.

2) Final Payment.

a. After final inspection and acceptance by the Architect and the City of all work under the Contract, the Contractor shall prepare his requisition for final payment which shall be based upon the carefully measured and computed quantity of each item of work at the applicable unit prices stipulated in the Agreement. The total amount of the final payment due the Contractor under this Contract shall be the amount computed as described above less all previous payments. Final payment to the Contractor shall be made subject to his furnishing the City with a release in satisfactory form of all claims against the City arising under and by virtue of his contract, other than such claims, if any, as may be specifically excepted by the Contractor from the operation of the release as provided under Section 113 hereof.

b. The City, before paying the final estimate, may require the Contractor to furnish releases or receipts from all subcontractors having performed any work and all persons having supplied materials, equipment (installed on the Project) and services to the Contractor, if the City deems the same necessary in order to protect its interest. The City, however, may if it deems such action advisable make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts and any payments so made shall in no way impair the obligations of any surety or sureties furnished under this Contract.

c. Withholding of any amount due the City under Section 403, entitled "Liquidated Damages," under SPECIAL CONDITIONS, shall be deducted from the final payment due the Contractor.

3) Withholding Payments

The City may withhold from any payment otherwise due the Contractor so much as may be necessary to protect the City and, if it so elects, may also withhold any amounts due from the Contractor to any subcontractors or material dealers for work performed or material furnished by them. The foregoing provisions shall be construed solely for the benefit of the City and will not require the City to determine or adjust any claims or disputes between the Contractor and his subcontractors or material dealers, or to withhold any moneys for their protection unless the City elects to do so. The failure or refusal of the City to withhold any moneys from the Contractor shall in no wise impair the obligations of any surety or sureties under any bond or bonds furnished under this Contract.

4) Payments Subject to Submission of Certificates.

Each payment to the Contractor by the City shall be made subject to submissions by the Contractor of all written certifications required of him and his subcontractors by Section II, Part II Supplementary General Conditions for Federally, State of Minnesota, and/or City Assisted Activities.

109. CHANGES IN THE WORK

a. The City may make changes in the scope of work required to be performed by the Contractor under the Contract by making additions thereto, or by omitting work therefrom, without invalidating the Contract, and without relieving the Contractor from any of his obligations under the Contract or any guarantee given by him pursuant to the Contract provisions, and without affecting the validity of the guaranty bonds, and without

relieving or releasing the surety or sureties of said bonds. All such work shall be executed under the terms of the original Contract unless is expressly provided otherwise.

b. Except for the purpose of affording protection against any emergency endangering health, life, or property, the Contractor shall make no change in the materials used or in the specified manner of constructing and/or installing the Improvements or supply additional labor, services, or materials beyond that actually required for the execution of the Contract, unless in pursuance of a written order from the City authorizing the Contractor to proceed with the change. No claim for an adjustment of the Contract Price will be valid unless so ordered.

c. If applicable unit prices are contained in the Agreement (established as a result of either a unit price bid or a Supplement Schedule of Unit Prices), the City shall order the Contractor to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the applicable unit prices specified in the Contract; provided that, in case of a unit price contract the net value of all changes does not increase or decrease the original total amount shown in the Agreement by more than twenty-five percent (25%) in accordance with Section entitled Unit Prices, under INSTRUCTIONS TO BIDDERS.

d. If applicable unit prices are not contained in the Agreement or if the total net change increases or decreases the total Contract Price more than twenty-five (25%), the City shall, before ordering the Contractor to proceed with desired changes, request an itemized proposal from him covering the work involved in the change after which the procedure shall be as follows:

(1) If the proposal is acceptable, the City will prepare the change order in accordance therewith for acceptance by the Contractor.

(2) If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the City may order the Contractor to proceed with the work on a cost-plus limited basis; provided that this basis shall not apply to costs incurred by Contractor for any work done by any subcontractor, which work may proceed under the basis set forth in sub-subparagraph (3) below. A cost-plus-limited basis is defined as the net cost of the Contractor's labor, materials, and insurance plus fifteen percent (15%) of said net cost to cover overhead and profit, the total cost not to exceed a specified limit.

(3) If the proposal of the Contractor is not acceptable in whole or part because of the proposals of one or more of the subcontractors and prompt agreement between the two parties cannot be reached, the City may order the Contractor to proceed with the work and reimburse Contractor for work done by any subcontractor on the basis of that subcontractor's net cost of labor, materials, and insurance plus twenty percent (20%) of said net cost to cover overhead and profit, the total cost not to exceed a specified limit. Contractor shall supply all data to City which is necessary to determine any such subcontractor's net costs.

e. Each change order shall include in its final form:

(1) A detailed description of the change in the work.

(2) The Contractor's proposal (if any) of a confirmed copy thereof.

(3) A definite statement as to the resulting change in the Contract price and/or time.

(4) The statement that all work involved in the change shall be performed in accordance with the Contract requirements except as modified by the change order.

110. CLAIMS FOR EXTRA COST

a. If the Contractor claims that any instructions by Drawings or otherwise involve extra cost or extension of time, he shall, within ten (10) days after the receipt of such instructions, and in any event, before proceeding to execute the work, submit his protest thereto in writing to the City, stating clearly and in detail the basis of his objections. No such claim will be considered unless so made.

b. Claims for additional compensation for extra work, due to alleged errors in ground elevations, contour lines, or bench marks, will not be recognized unless accompanied by certified survey data, made prior to the time the original ground was disturbed, clearly showing that errors exist which resulted, or would result, in handling more material, or performing more work, than would be reasonably estimated from the Drawings and maps issued.

- c. Any discrepancies which may be discovered between actual conditions and those represented by the documents shall at once be reported to the City and work shall not proceed, except at the Contractor's risk, until written instructions have been received by him from the City.
- d. If, on the basis of the available evidence, the City determines that an adjustment of the Contract Price and/or time is justifiable, the procedure shall then be as provided in Section 109 hereof.

111. TERMINATION, DELAYS, AND LIQUIDATED DAMAGES

a. Termination of Contract.

If the Contractor refuses or fails to execute the work with such diligence as will insure its completion within the time specified in these Contract Documents, or as modified as provided in these Contract Documents, the City, by written notice to the Contractor, may terminate the Contractor's right to proceed with the work. Upon such termination, the City may take over the work and prosecute the same to completion, by contract or otherwise, and the Contractor and his sureties shall be liable to the City for any additional cost incurred by the City in its completion of the work and they shall also be liable to the City for liquidated damages for any delay in the completion of the work as provided below. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work such materials, tools, equipment, and plant as may be on the site of the work and necessary therefore.

b. Liquidated Damages for Delays.

If the work is not completed within the time stipulated in Section 7 (Special Conditions) hereof, including any extensions of time for excusable delays as herein provided, the Contractor shall pay to the City as fixed, agreed, and liquidated damages (it being impossible to determine the actual damages occasioned by the delay) for each calendar day of delay, until the work is completed, the amount as set forth in Section 7 (Special Conditions) hereof and the Contractor and his sureties shall be liable to the City for the amount thereof.

c. Excusable Delays.

The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due: (1) To any acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, National Defense, or any other national emergency;

(2) To any acts of the City;

(3) To causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of the public enemy, acts of another Contractor in their performance of some other contract with the City, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones, and other extreme weather conditions; and

(4) To any delay of any subcontractor occasioned by any of the causes specified in subparagraphs (1), (2) and (3) of this paragraph "c". Provided, however, that the Contractor promptly notify the City in writing within ten (10) days the cause of the delay. Upon receipt of such notification, the City shall ascertain the facts and the cause of the delay. If, upon the basis of facts and the terms of the Contract, the delay is properly excusable, the City shall extend the time for completing the work for a period of time commensurate with the period of excusable delay.

112. ASSIGNMENT OR NOVATION

The Contractor shall not assign or transfer, whether by an assignment or novation, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under this Contract without the written consent of the City; provided, however, that assignments to banks, trust companies, or other financial institutions may be made without the consent of the City. No assignment or novation expressly provides that the assignment of any of the Contractor's rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered, and materials, tools, and equipment supplied for the performance of the work under this Contract

in favor of all persons, firms, or corporations rendering such labor or services or supplying such materials, tools, or equipment.

113. DISPUTES

a. All disputes arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of contract shall, within ten (10) days of the first event giving rise to the dispute, be presented by the Contractor to the City for decision. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed by the City. Any claim not presented within the time limit specified within this paragraph shall be deemed to have been waived, except that if the claim is of a continuing character and notice of the claim is not given within ten (10) days of the first event giving rise to it, the claim will be considered only for a period commencing ten (10) days prior to the receipt by the City of notice thereof.

b. The Contractor shall submit in detail his claim and his proof thereof. Each decision by the City will be in writing and will be mailed to the Contractor by registered or certified mail, return receipt requested, directed to his last known address or actually delivered to Contractor or its managing agent. All interpretations or decisions of the City shall be consistent with the Contract and its intent.

c. If the Contractor does not agree with any decision of the City, he shall in no case allow the dispute to delay the work but shall notify the City promptly that he is proceeding with the work under protest and he may then accept the matter in question from the final release. If the Contractor does not agree with any decision of the City, he may submit the matter to arbitration no later than thirty (30) days after the date on which the Contractor received the City's decision; provided, however, that the City shall not be required to submit to arbitration without its prior written consent; and if the City does consent to arbitration, then the Contractor shall pay all costs of such arbitration.

114. TECHNICAL SPECIFICATIONS AND DRAWINGS

Anything mentioned in the Technical Specifications and not shown on the Drawings or shown on the Drawings and not mentioned in the Technical Specifications, shall be of like effect as if shown on or mentioned in both. In case of difference between Drawings and Technical Specifications, the Technical Specifications shall govern. In case of any discrepancy on Drawings or Technical Specifications, the matter shall be immediately submitted to the City, without whose decision, said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense.

115. SHOP DRAWINGS

a. All required shop drawings, machinery details, layout drawings, etc. shall be submitted to the Architect or the City, as directed by the City, in two copies for approval sufficiently in advance of requirements to afford ample time for checking, including time for correcting, resubmitting and rechecking if necessary. The Contractor may proceed, only at his own risk, with manufacture or installation of any equipment or work covered by said shop drawings, etc. until they are approved and no claim, by the Contractor, for extension of the Contract time will be granted by reason of his failure in this respect.

b. Any drawing submitted without the Contractor's stamp of approval will not be considered and will be returned to him for proper resubmission. If any drawings show variations from the requirements of the Contract because of standard shop practice or other reason, the Contractor shall make specific mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment of contract price and/or time, otherwise the Contractor will not be relieved of the responsibility for executing the work in accordance with the Contract even though the drawings have been approved.

c. If a shop drawing with the Contractor involves only a minor adjustment in the interest of the City not involving a change in Contract price or time, the Architect may approve the drawing. The approval shall be

general, shall not relieve the Contractor from his responsibility for adherence to the Contract or for any error in the drawing and shall contain in substance the following: "The modification shown on the attached drawing is approved in the interest of the City to effect an improvement for the Project and is ordered with the understanding that it does not involve any change in the Contract price or time; that it is subject generally to all Contract stipulation and covenants; and that it is without prejudice to any and all rights of the City under the Contract and surety bond or bonds."

116. REQUEST FOR SUPPLEMENTARY INFORMATION

It shall be the responsibility of the Contractor to make timely requests of the City for any additional information not already in his possession which should be furnished by the City under the terms of this Contract, and which he will require in the planning and execution of the work. Such requests may be submitted in writing from time to time as the need is approached, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. Each request shall be in writing, and list the various items and the latest date by which each will be required by the Contractor. The first list shall be submitted within two (2) weeks after Contract award and shall be as complete as possible at that time. The Contractor shall, if requested, furnish promptly any assistance and information the City may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for any delay in his work or to others arising from his failure to comply fully with the provisions of this Section.

117. MATERIALS AND WORKMANSHIP

- a. Unless otherwise specifically provided for in the Technical Specifications, all workmanship, equipment, materials and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles or workmanship are referred to in the Technical Specifications as an equal to any particular standard, the City shall decide the question of equality.
- b. The Contractor shall furnish to the City for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment, which he contemplates installing together with full information as to type, performance characteristics, and all other pertinent information as required, and shall likewise submit for approval as required full information concerning all other materials or articles which he proposes to incorporate in the work. (See Section 118 hereof)
- c. Machinery, mechanical and other equipment, materials or articles installed or used without such prior approval shall be at the risk of subsequent rejection.
- d. Materials specified by reference to the number or symbol of a specific standard, such as A.S.T.M. Standard, a Federal Specification or other similar standard, shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in effect on the date of the Invitation for Bids, except as limited to type, class or grade, or modified in such reference. The Standards referred to, except as modified in the Technical Specifications shall have full force and effect as though printed therein.
- e. The City may require the Contractor to dismiss from the work such employee or employees as the City may deem incompetent, or careless, or insubordinate.

118. SAMPLES, CERTIFICATES AND TESTS

- a. The Contractor shall submit all material or equipment samples, certificates, affidavits, etc. as called for in the Contract Documents or required by the Architect, promptly after award of the Contract and acceptance of the Contractor's Bond. No such material or equipment shall be manufactured or delivered to the site, except at the Contractor's own risk, until the required samples or certificates have been approved in writing by the City or the Architect. Any delay in the work caused by late or improper submission of samples or certificates for approval shall not be considered just cause for an extension of the contract time. Each sample submitted by the Contractor shall carry a label giving the name of the Contractor, the project for which it is intended, and the name of the producer. The accompanying certificate or letter from the Contractor shall state that the sample complies with Contract requirements, shall give the name and brand of the product, its place of origin,

the name and address of the producer and all specifications or other detailed information which will assist the Architect or the City in passing upon the acceptability of the sample promptly. It shall also include the statement that all materials or equipment furnished for use in the project will comply with the samples and/or certified statements.

b. Approval of any materials shall be general only and shall not constitute a waiver of the City's right to demand full compliance with Contract requirements. After actual deliveries, the City or the Architect will have such check tests made as they deem necessary in each instance and may reject materials and equipment and accessories for cause, even though such materials and equipment have been given general approval. If materials, equipment or accessories which fail to meet check tests have been incorporated in the work, the City or the Architect will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

c. Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:

(1) The Contractor shall furnish without extra cost, including packing and delivery charges, all samples required for testing purposes, except those samples taken on the project by the City or the Architect; (2) The Contractor shall assume all costs of retesting materials which fail to meet Contract requirements;

(3) The Contractor shall assume all costs of testing materials offered in substitution for those found deficient; and

(4) The City will pay for all other testing expenses.

119. CARE OF WORK

a. The Contractor shall be responsible for all damages to persons or property that occur as a result of his fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the City.

b. In an emergency affecting the safety of life, limb or property, including adjoining property, the Contractor, without special instructions or authorization from the City is authorized to act at his own discretion to prevent such threatened loss or injury, and he shall so act. He shall likewise act if instructed to do so by the City. Any compensation claimed by the Contractor on account of such emergency work will be determined by the City as provided in Section 109 hereof.

c. The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and he shall at his own expense completely repair any damage thereto caused by his operations.

d. The Contractor shall shore up, brace, underpin, secure and protect as may be necessary all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the construction of the Improvements embraced in this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjacent or adjoining property owner or other party before the commencement of any work. The Contractor shall indemnify and save harmless the City from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the City may become liable in consequence of such injury or damage to adjoining structures and their premises.

120. ACCIDENT PREVENTION

a. The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his fault or negligence in connection with the prosecution of the work. The safety provisions of applicable Federal, State and local laws and ordinances and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the City may determine to be reasonably necessary. Machinery, equipment, and all hazards shall be guarded in accordance

with the safety provisions of the A Manual of Accident Prevention in Construction published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable local laws.

b. The Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the Contract. The Contractor shall promptly furnish the Owner with reports concerning these matters.

121. SANITARY FACILITIES

The Contractor shall furnish, install, and maintain ample sanitary facilities for the workmen. As the needs arise a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the sanitary codes of the State and Local Government. Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing health regulations.

122. USE OF PREMISES

a. The Contractor shall confine his equipment, storage of materials, and construction operations to the Contract limits as shown on the Drawings and as prescribed by ordinances or permits, or as may be directed by the City, and shall not unreasonably encumber the site or public rights of way with his materials and construction equipment.

b. The Contractor shall comply with all reasonable instructions of the City and the ordinances and codes of the Local Government regarding signs, advertising, traffic, fires, explosives, danger signals, barricades.

123. REMOVAL OF DEBRIS, CLEANING, ETC.

The Contractor shall, periodically or as directed during the progress of the work, remove and legally dispose of all surplus excavated material and debris, and keep the Project Area and public rights of way reasonably clear. Upon completion of the work, he shall remove all temporary construction facilities, debris and unused materials provided for the work, and put the whole site of the work and public rights of way in a neat and clean condition. Trash burning on the site of the work will be subject to prior approval of the City and existing State and local regulations.

124. INSPECTION

a. All materials and workmanship shall be subject to inspection, examination or test by the City or the Architect at any and all times during manufacture or construction and at any and all places where such manufacture or construction is carried on. The City shall have the right to reject defective or substandard material and workmanship or require its correction. Unacceptable workmanship shall be satisfactorily corrected. Rejected material shall be promptly segregated and removed from the Project Area and replaced with material of specified quality without charge therefor. If the Contractor fails to proceed at once with the correction of rejected workmanship or defective material, the City may contract or otherwise have the defects remedied or rejected materials removed from the Project Area and charge the cost of the same against any moneys which may be due the Contractor, without prejudice to any other rights or remedies of the City.

b. The Contractor shall furnish promptly all materials reasonably necessary for any tests which may be required. (See Section 118 hereof). All tests by the City will be performed in such a manner as not to delay the work unnecessarily and will be made in accordance with the provisions of the Technical Specifications.

c. The Contractor shall notify the City sufficiently in advance of back-filling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent by the City, the Contractor shall uncover for inspection and recover such facilities all at his own expense, when so requested by the City.

Should it be considered necessary or advisable by the City at any time before final acceptance of the entire work to make an examination of work already completed by uncovering the same, the Contractor shall on request promptly furnish all necessary facilities, labor, and material. If such work is found to be defective in any important or essential respect, due to fault of the Contractor or his subcontractors the Contractor shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual cost of labor and material necessarily involved in the examination and replacement, plus 15 percent of such costs to cover superintendence, general expenses and profit, shall be allowed the Contractor and he shall, in addition, if completion of the work of the entire Contract has been delayed thereby, be granted a suitable extension of time on account of the additional work involved.

d. Inspection of materials and appurtenances to be incorporated in the Improvements embraced in this Contract may be made at the place of production, manufacture or shipment, whenever the quantity justifies it, and such inspection and acceptance, unless otherwise stated in the Technical Specifications, shall be final, except as regards (1) latent defects, (2) departures from specific requirements of the Contract, (3) damage or loss in transit, or (4) fraud or such gross mistakes as amount to fraud. Subject to the requirements contained in the preceding sentence, the inspection of materials as a whole or in part will be made at the Project Site.

e. Neither inspection, testing, approval nor acceptance of the work in whole or in part, by the City or its agents shall relieve the Contractor or his sureties of full responsibility for materials furnished or work performed not in strict accordance with the Contract.

125. REVIEW BY THE CITY

The City, its authorized representatives and agents, and the Architect, shall, at all times have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, and other relevant data and records pertaining to this Contract; provided, however, that all instructions and approvals with respect to work will be given to the Contractor only by the City through its authorized representative or agents.

126. FINAL INSPECTION

When the work embraced in this Contract is substantially completed, the Contractor shall notify the City in writing that the work will be ready for final inspection on a definite date which shall be stated in such notice. The notice shall bear the signed concurrence of the representative of the City having charge of inspection. If the City determines that the status of the Improvements is as represented, it will make the arrangements necessary to have final inspection commenced on the date stated in such notice, or as soon thereafter as is practicable.

127. DEDUCTION FOR UNCORRECTED WORK

If the City deems it not expedient to require the Contractor to correct work not done in accordance with the Contract Documents, an equitable deduction from the Contract Price will be made by agreement between the Contractor and the City and subject to settlement, in case of dispute, as herein provided.

128. TIME

a. The Contract Time is the period of time allotted in the Contract for completion of the Work. The date of commencement of the Work is the date established in a notice to proceed issued by the City to the Contractor. The Contractor shall begin the Work upon receipt of the notice to proceed.

b. The term "day" as used herein shall mean calendar day.

c. If a date of completion is included in the Contract, it shall be the Date of Substantial Completion of the Work, including authorized extensions thereto. The "Date of Substantial Completion of the Work" is the date certified by the City when construction is sufficiently complete, in accordance with the Contract, so the City may occupy the Work for the use for which it is intended.

129. INSURANCE

The Contractor shall carry the following insurance, at his expense and no direct payment for premiums shall be made by the City. Carriage of such insurance shall in no way alleviate the Contractor of his responsibilities under the contract.

a. The Contractor will be required to carry insurance of the kinds and in the amounts hereinafter specified. The Contractor shall not commence work under the contract until he has obtained all the insurance required by these specifications and until such insurance has been approved by the City Attorney, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor shall have been so obtained and approved.

b. Insurance

The Contractor shall provide Commercial General Liability in an amount not less than \$1,500,000.00 combined single limit and Automobile Liability Insurance in an amount not less than \$1,500,000.00 combined single limit shall be in a company licensed to do business in Minnesota; and shall provide for the following: Liability for Premises, Operations, Completed Operations, Independent Contractors, and Contractual Liability. Property damage coverage for explosion, collapse, and underground Axcu to be included. City of Duluth shall be named as Additional Insured under the Commercial General Liability policy. Contractor shall also provide evidence of Statutory Worker's Compensation Insurance. Contractor to provide Certificate of Insurance evidencing such coverage with 30-day notice of cancellation, non-renewal, or material change provision included.

c. Subcontractor's Insurance

In the event any work contemplated by the contract is sublet, the Contractor shall have the duty to assure that the subcontractors provide insurance in accord with the minimum requirements hereinabove imposed on the Contractor.

d. Proof of Insurance

The Contractor shall not proceed with the work contemplated in this contract until he has furnished the City Attorney of the City of Duluth with satisfactory proof of the existence and carriage of insurance of the kinds and in the amounts specified.

e. Indemnification

The Contractor shall defend, indemnify and save harmless the City and all of its officers, agents and employees from all suits, actions or claims of any character, name and description brought for on account of any injuries or damages received or sustained by any person, persons or property, by or from the act or acts of said Contractor, or by or in consequence of any negligence in safeguarding the work, or through the use of unacceptable materials in constructing the work, or by or on account of any act or omission, neglect or misconduct of said Contractor, or from any claims or amount arising or recovered under the Workmen's Compensation Law or any other law, by-law, ordinance, order or decree, and so much of the money due the said Contractor under and by virtue of his contract, as shall be considered necessary by the City may be retained for the use of the City or in case no money is due, his surety shall 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. The Contractor shall indemnify and save harmless the City from any and all losses caused by or on account of any claims or amounts recovered for any infringement of patent, trademark, or copyright. The unauthorized use by the Contractor of public or private property for any purpose may be considered an injury or damage to the property so used.

130. PATENTS

The Contractor shall hold and save the City, its officers, employees, representatives and agents, and the Architect, harmless from liability of any nature or kind, including costs and expenses, for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the City, unless otherwise specifically stipulated in the Technical Specifications.

131. WARRANTY

No material, supplies, or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease-purchase or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon by him to the City free from any claims, liens, or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have any right to a lien upon any improvement or appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notices for the work when no formal contract is entered into for such materials.

132. GENERAL GUARANTY

- a. Neither the final certificate of payment nor any provisions in the Contract nor partial or entire use of the improvements embraced in this Contract by the City or the public shall constitute an acceptance of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which subsequently appears. The City will give notice of defective materials and work with reasonable promptness.
- b. If, within one year after the Date of Substantial Completion or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract, any of the Work is found to be defective or not in accordance with the specifications of the Contract, the Contractor shall correct it promptly upon receipt of a written notice from the City to do so, unless the City has previously given the Contractor a written acceptance of such condition or work.

133. ENVIRONMENTAL CONDITIONS

Waste Disposal: The SUBRECIPIENT shall comply with the most recent Minnesota Pollution Control Agency (MPCA) waste disposal requirements and include said disposal requirements in the project's base bid specifications. Waste material, including but not limited to: construction/demolition debris, asbestos-containing material, residential lead paint waste, hazardous waste, and above- and under-ground tanks, shall be disposed of at MPCA-permitted landfill sites only. Copies of all notification, shipment, and landfill receipt records shall be maintained in the subrecipient's project file.

Minnesota Pollution Control Agency
520 Lafayette Rd., St. Paul, MN 55155
(800) 657-3864

a. Construction/Demolition Waste.

Construction/demolition debris will be disposed of at a Minnesota Pollution Control Agency (MPCA) permitted landfill site only, with copies of all landfill receipts for said debris maintained in the subrecipient's project file.

(Solid Waste Management Rules, Chapter 7001 & 7035)

b. Asbestos-Containing Waste.

All asbestos removal and disposal shall be in strict accordance with all applicable permits. The contract bidder shall include the price of all permits, testing, removal, and disposal in the project base bid.

- Project asbestos-containing material removal pursuant to USEPA 40 CFR 61.145 Standard for Demolition and Renovation.
- All asbestos-containing waste material shall be disposed of pursuant to USEPA 40 CFR 61.150 at a MPCA permitted landfill site only, in accordance with the provisions of USEPA 40 CFR 61.154.

- For all asbestos-containing material, a copy of the MPCA Notification of Demolition and Renovation record and all Waste Shipment records shall be maintained in the subrecipient's project file.

c. Hazardous Waste Material.

The MPCA shall be contacted for instructions on handling and disposing of materials containing Polychlorinated Biphenyls (PCBs) or any other identified/encountered hazardous materials. A copy of all correspondence and disposal records shall be maintained in the subrecipient's project file.

- MPCA Hazardous Waste Compliance Guide -- October 1989, Revised January 1991

- MPCA Hazardous Waste Fact Sheet Checklist -- August 1993

d. Above and Below Ground Storage Tanks.

The MPCA Tanks and Spills Section shall be contacted for instructions on handling or removal of all above- and underground tanks identified/encountered. A copy of all correspondence and disposal records shall be maintained in the subrecipient's project file.

e. Residential Lead Paint Waste.

Projects whose activities produce residential lead paint waste are responsible for the management and proper disposal of the waste at an MPCA permitted landfill site only, pursuant to Minn. Stat. sections 116.87, 116.875, 116.88. A copy of the Residential Lead Abatement Notification and Shipping forms shall be maintained in the subrecipient's project file.

134. CONTRACTOR'S RECORDS

The contractor agrees that, as provided in Minnesota Statutes 16C.05, Subd. 5, contractor's books, records, documents, and accounting procedures and practices are subject to examination by the city or the state auditor for three years from the date of execution of this contract.

(End of Document)

General Decision Number: MN160041 01/08/2016 MN41

Superseded General Decision Number: MN20150041

State: Minnesota

Construction Type: Building

County: St Louis County in Minnesota.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date
0 01/08/2016

ASBE0049-007 06/01/2014

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Includes the application of all insulating materials, protective coverings, coatings & finishes to all types of mechanical systems).....	\$ 26.82	23.80

BOIL0647-007 01/01/2013

	Rates	Fringes
BOILERMAKER.....	\$ 32.40	25.37

BRMN0001-050 05/01/2015

ST LOUIS (Remaining Northern part)

	Rates	Fringes
TILE SETTER.....	\$ 24.59	20.98

BRMN0003-008 05/01/2014

ST. LOUIS COUNTY (City of Duluth and South of a line between Townships #54 & #55, 2 miles north of Cotton)

	Rates	Fringes
BRICKLAYER.....	\$ 32.20	20.10

BRMN0003-011 05/01/2008

ST. LOUIS (City of Duluth and south of Township Line 55)

	Rates	Fringes
TILE SETTER.....	\$ 24.13	17.38

BRMN0016-002 05/01/2014

ST. LOUIS COUNTY (North of a line between Townships #54 & #55, 2 miles north of Cotton)

	Rates	Fringes
BRICKLAYER.....	\$ 31.75	20.55

 CARP0068-005 07/01/2012

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 30.94	11.75

 * CARP0361-012 05/01/2015

DULUTH AREA including Alborn, Arnold, Bartlett, Birch, Brookstone, Canyon, Clinton, Culver, Floodwood, Gowan, Island, Kelsey, Lakewood, Meadowlands, Munger, Palmers, Payne, Prasit, Shaw, Taft)

	Rates	Fringes
CARPENTER (Including Acoustical Installation, Drywall Hanging, Form Work & Overhead Door Installation).....	\$ 29.55	16.08

 * CARP0606-001 05/01/2015

EXCLUDING DULUTH AREA

	Rates	Fringes
CARPENTER (Including Acoustical Installation, Drywall Hanging, Form Work & Overhead Door Installation).....	\$ 29.45	14.37

 ELEC0242-012 06/01/2014

ST. LOUIS (South part bounded on the north by the north line of Kelsey Township extended east & west)

	Rates	Fringes
ELECTRICIAN.....	\$ 32.54	24.07

 ELEC0294-006 05/31/2015

ST. LOUIS (North part bounded on the south by the south line of Ellsburg Township, extended east & west)

	Rates	Fringes
ELECTRICIAN.....	\$ 34.68	61.54%

 ENGI0049-045 05/01/2015

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 1.....	\$ 37.74	17.15
GROUP 2.....	\$ 37.40	17.15
GROUP 3.....	\$ 35.99	17.15
GROUP 4.....	\$ 35.65	17.15
GROUP 5.....	\$ 35.48	17.15
GROUP 6.....	\$ 33.97	17.15
GROUP 7.....	\$ 32.85	17.15
GROUP 8.....	\$ 30.84	17.15

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Truck & Crawler Crane with 200' of Boom & Over, including Jib (\$.50 premium with 300' of Boom & over, including jib); & Tower Crane 250' & Over.

GROUP 2: Truck & Crawler Crane with 150' of Boom, up to but not including 200' of Boom, including Jib; & Tower Crane 200' & Over.

GROUP 3: Traveling Tower Crane; Truck & Crawler Crane, up to

but not including 150' of Boom, including Jib; Tower Crane (Stationary) up to 200'; All-Terrain Vehicle Crane, Boom Truck over 100 ft.

GROUP 4: Backhoe/Track/Trackhoe, Hoist (3 drums or more); Overhead Crane (inside building perimeter), Excavator.

GROUP 5: Asphalt Spreader, Bulldozer, Curb Machine, Drill, Forklift, Compressor 450 CFM or over (2 or more machines); Boom Truck up to 100 ft, Loader over 1 cu yd, Hoist (1 or 2 drums); Mechanic; Milling Machine, Roller, Scraper, Tractor over D2.

GROUP 6: Bobcat/Skid Loader, Loader up to 1 cu. yd., Tractor D2 or similar size.

GROUP 7: Compressor 600 CFM or over, Crane Oiler.

GROUP 8: Oiler.

IRON0512-018 05/01/2015

	Rates	Fringes
IRONWORKER, ORNAMENTAL, REINFORCING, AND STRUCTURAL.....	\$ 31.04	23.45

LABO1091-011 01/01/2014

	Rates	Fringes
LABORER (ASBESTOS ABATEMENT) Removal from Floors, Walls & Ceilings.....	\$ 27.89	16.31

LABO1091-013 05/01/2012

ST. LOUIS (South of T 55 N)

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 21.95	14.93
GROUP 2.....	\$ 22.10	14.93
GROUP 3.....	\$ 22.35	14.93
GROUP 4.....	\$ 22.65	14.93

LABORER CLASSIFICATIONS

GROUP 1: Common or General, Asphalt Shoveler, Carpenter Tender, Form Stripping

GROUP 2: Vibrating Plate

GROUP 3: Pipelayer

GROUP 4: Mason Tender (Brick, Cement/Concrete)

LABO1097-008 05/01/2012

ST. LOUIS (North of T 55N)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 20.62	16.25
GROUP 2.....	\$ 21.02	16.25

LABORERS CLASSIFICATIONS

GROUP 1 - Common or General, Asphalt Shoveler, Carpenter Tender, Form Stripping, Mason Tender (Brick, Cement/Concrete)

GROUP 2 - Pipelayer, Vibrating Plate

PAIN0106-001 05/01/2013

	Rates	Fringes
GLAZIER.....	\$ 26.28	15.47

FOOTNOTE:

1 to 4 years service - 1 week paid vacation; 5 to 11 years -
2 weeks paid vacation; 11 years or more - 3 weeks paid
vacation

PAIN0106-013 05/01/2014

	Rates	Fringes
Painters:		
New:		
Brush, Roller.....	\$ 28.81	15.27
Spray, Drywall		
Finisher/Taper.....	\$ 29.41	15.27
Repaint:		
Brush, Roller.....	\$ 27.31	15.27
Spray, Drywall		
Finisher/Taper.....	\$ 27.91	15.27

PLAS0633-024 05/01/2012

ST. LOUIS (North of White Face River) COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 26.71	14.64

PLAS0633-059 05/01/2012

CARLTON & ST. LOUIS (South of T 55N) COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 29.69	16.30

PLUM0011-019 05/12/2014

ST. LOUIS (South of an east-west line drawn through Cotton)

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 37.27	14.03

PLUM0589-007 05/01/2015

ST. LOUIS (North of an East- West line drawn through Cotton)

	Rates	Fringes
PLUMBER/PIPEFITTER		
Contracts \$90,000.00 and		
under.....	\$ 38.65	17.46
Contracts over \$90,000.00...	\$ 38.65	17.46

ROOF0096-024 07/01/2015

ST. LOUIS (South of Hwy 16, excluding City of Forbes)

	Rates	Fringes
ROOFER.....	\$ 32.15	14.67

ROOF0096-025 05/01/2015

ST. LOUIS (Remaining Northern two-thirds)

	Rates	Fringes
ROOFER.....	\$ 28.89	11.13

SHEE0010-045 05/01/2009

ST. LOUIS (Southern one-third)

Rates	Fringes
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SHEET METAL WORKER (Including HVAC Duct Installation).....	\$ 31.61	16.52
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SHEE0010-056 05/01/2008

ST. LOUIS (Northern two-thirds)

	Rates	Fringes
SHEET METAL WORKER (Including HVAC Duct Installation).....	\$ 29.99	16.08

SUMN2009-050 07/27/2009

	Rates	Fringes
LABORER: Landscape.....	\$ 12.88	4.61
TRUCK DRIVER: Dump Truck.....	\$ 19.15	5.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

CONTRACTOR & CITY OF DULUTH

THIS AGREEMENT, effective as of the date of attestation by the City Clerk, is made by and between the **CITY OF DULUTH**, a municipal corporation, hereinafter referred to as the "CITY," party of the first part, and **Contractor, address**, hereinafter referred to as the "Contractor," party of the second part;

WITNESSETH: That the Contractor and the City agree as follows:

1. The following shall be deemed to be part of this contract:
 - a. The annexed resolution and legal advertisement of the City Council.
 - b. The bid request and specifications, as modified by irreconcilable language in this written contract.
 - c. The bid by Contractor, as modified by irreconcilable language in this written contract.
 - d. The performance bond and payment bond certification.
 - e. All provisions of law applicable to a contract of this nature.
2. The Contractor agrees to furnish and deliver to the **Department** all labor, supervision, material, equipment, supplies, insurance, performance bond, payment bond and everything else necessary for general construction of **Project** at **location**, all in strict accordance with plans and specifications prepared by **design co. or city architect**, your bid of \$ and **resolution no. passed on date**. Contractor shall not commence performance of any work under this contract until Contractor receives authorization from the City's Purchasing Agent in writing and dated.
3. The City agrees to pay progress payments and make final payments to the Contractor as stated in the contract specifications. The total amount payable under this contract shall not exceed **dollar amount spelled out (\$)** unless the contract is modified by formal amendment or change order. Payments under this Agreement shall be made from the following accounts **funding** and **RQ no.**
4. The Contractor shall furnish and maintain in full force and effect until this contract is completely performed by the Contractor, a performance bond and payment bond if and when required by law, or if and when required by the City.
5. Inasmuch as this contract concerns work, materials and equipment needed for the public benefit, the provisions of this contract relating to the time of performance and completion of work and delivery of materials or equipment are of the essence of this contract.
6. The Contractor will defend, indemnify and save the City harmless from all costs, charges, damages, and loss of any kind that may grow out of the matters covered by this contract. Said obligation does not include indemnification of the City for claims of liability arising

out of the sole negligent or intentional acts or omissions of City but shall include but not be limited to the obligation to defend, indemnify and save harmless the City in all cases where claims of liability against the City arise out of acts or omissions of City which are derivative of the negligence or intentional acts or omissions of Contractor such as, and including but not limited to, the failure to supervise, the failure to warn, the failure to prevent such act or omission by Contractor and any other such source of liability. In addition Contractor will comply with all local, state and federal laws, rules and regulations applicable to this contract and to the work to be done and things to be supplied hereunder.

7. Insurance

a. Contractor shall provide the following minimum amounts of insurance from insurance companies authorized to do business in the state of Minnesota, which insurance shall indemnify Contractor and City from all liability described in Paragraph 6 above, subject to provisions below.

- (1) Workers' compensation insurance in accordance with the laws of the State of Minnesota.
- (2) Public Liability and Automobile Liability Insurance with limits not less than **\$1,500,000** Single Limit, and twice the limits provided when a claim arises out of the release or threatened release of a hazardous substance; shall be in a company approved by the city of Duluth; and shall provide for the following: Liability for Premises, Operations, Completed Operations, Independent Contractors, and Contractual Liability.
- (3) City of Duluth shall be named as **Additional Insured** under the Public Liability, Excess/Umbrella Liability* and Automobile Liability, or as an alternate, Contractor may provide Owners-Contractors Protective policy, naming itself and the City of Duluth. Contractor shall also provide evidence of Statutory Minnesota Workers Compensation Insurance. Contractor to provide Certificate of Insurance evidencing such coverage with 30-days notice of cancellation, non-renewal or material change provisions included. The City of Duluth does not represent or guarantee that these types or limits of coverage are adequate to protect the Contractor's interests and liabilities.

**An umbrella policy with a "following form" provision is acceptable if written verification is provided that the underlying policy names the City of Duluth as an additional insured.*

- (4) If a certificate of insurance is provided, the form of the certificate shall contain an unconditional requirement that the insurer notify the City without fail not less than 30 days prior to any cancellation, non-renewal or modification of the policy or coverages evidenced by said certificate and shall further provide that failure to give such notice to City will render any such change or changes in said policy or coverages ineffective as against the City.

- (5) The use of an “ACORD” form as a certificate of insurance shall be accompanied by two forms – 1) ISO Additional Insured Endorsement (CG-2010 pre-2004) and 2) Notice of Cancellation Endorsement (IL 7002) or equivalent, as approved by the Duluth City Attorney’s Office.
- b. The insurance required herein shall be maintained in full force and effect during the life of this Agreement and shall protect Contractor, its employees, agents and representatives from claims and damages including but not limited to personal injury and death and any act or failure to act by Contractor, its employees, agents and representatives in the negligent performance of work covered by this Agreement.
- c. Certificates showing that Contractor is carrying the above described insurance in the specified amounts shall be furnished to the City prior to the execution of this Contract and a certificate showing continued maintenance of such insurance shall be on file with the City during the term of this Contract.
- d. Contractor shall be required to provide insurance meeting the requirements of this Paragraph 7 unless Contractor successfully demonstrates to the satisfaction of the City Attorney, in the exercise of his or her discretion, that such insurance is not reasonably available in the market. If Contractor demonstrates to the satisfaction of the City Attorney that such insurance is not reasonably available, the City Attorney may approve an alternative form of insurance which is reasonably available in the market which he or she deems to provide the highest level of insurance protection to the City which is reasonably available.
8. No claim whatsoever shall be made by the Contractor against any officer, agent or employee of the City for, or on account of, anything done, or omitted to be done, in connection with this contract. If this contract is not made in conformity with mandatory provisions of any statute or of the ordinances and charter of the City of Duluth, the Contractor agrees to raise no defense and make no claim against the City on the basis of ratification, laches, estoppel, or implied contract.
9. The Contractor shall not assign, transfer, convey or otherwise dispose of this contract, or his right to execute it, or his right, title or interest in or to it, or any part thereof, without the consent of the City, evidenced by a resolution duly adopted by the City Council. The prohibition contained in this paragraph shall not be deemed to prevent the contractor from subcontracting. Contractor shall remain primarily responsible for all work performed by any subcontractor.
10. The Contractor agrees that in the hiring of common or skilled labor for the performance of any work under this contract, Contractor will not discriminate by reason of race, creed or color, religion, national origin, sex, marital status, status with regard to public assistance, disability or age.
11. The Contractor agrees that Contractor shall not in any manner discriminate against or intimidate or prevent the employment of any person or persons, or on being hired, prevent or conspire to prevent any person or persons from the performance or work under this contract on account of race, creed or color, religion, national origin, sex, marital status, status with regard to public assistance, disability or age.

12. The contractor agrees that, as provided in Minnesota Statutes 16C.05, Subd. 5, contractor's books, records, documents, and accounting procedures and practices are subject to examination by the City or the state auditor for six years from the date of final payment under this contract.
13. This contract may be cancelled or terminated by the City and all moneys due or to become due hereunder may be forfeited for any failure to perform any terms or conditions of this contract including but not limited to any violation of the terms or conditions of Section 10 or 11 of this contract.
14. Any waiver by any party of any provision of this contract shall not imply a subsequent waiver of that or any other provision.
15. This contract is made in the state of Minnesota and shall be construed and interpreted in accordance with the laws of the State of Minnesota. The appropriate venue and jurisdiction for any litigation hereunder shall be in a court located in St. Louis, County, Minnesota, and the parties to this Agreement waive objection to the jurisdiction of this court, whether based on convenience or otherwise.
16. This Agreement constitutes the entire agreement between the City and the Contractor on the subject matter hereof. It may not be changed, modified, discharged or extended except by written instrument duly executed on behalf of the City and the Contractor. The Contractor agrees that no representations or warranties made by the City shall be binding upon the City unless expressed in writing herein.
17. This Agreement shall not be in force and effect, or in any way binding upon the City until the same shall have been approved by the Department Head, signed by the Mayor, attested by the Clerk, and countersigned by the City Auditor.
18. The Contractor unconditionally guarantees to perform all work pursuant to this contract in a good and workmanlike manner, in strict compliance with the specifications and instructions hereto attached, and to the satisfaction of the City of Duluth.
19. This Agreement may be executed in counterparts, each of which shall be deemed to be original and all of which together shall constitute the binding and enforceable agreement of the parties hereto. This Agreement may be executed and delivered by a party by facsimile or PDF transmission, which transmission copy shall be considered an original and shall be binding and enforceable against such party.

Countersigned:

CITY OF DULUTH-Client

By

City Auditor
Approved this _____ day of _____

Mayor

Attest:

Department Director
Approved this _____ day of _____

City Clerk
Attested this _____ day of _____

Purchasing Agent
Approved this _____ day of _____

Contractor
Consultant (Service Provider)

By

Assistant City Attorney
Approved this _____ day of _____

Company Representative

Its

Title of Representative
Approved this _____ day of _____

SECTION 01 11 00

SUMMARY OF WORK

Work includes:

- Demolition
- New wall construction, trim, casings, baseboards.
- Suspended acoustical ceilings.
- New doors, frames, and hardware.
- Finishes
- Painting
- Plaster repair
- Millwork and cabinetry

Design/Build:

- Mechanical
- Electrical

SECTION 01 22 00

UNIT PRICES

PART 1 – GENERAL

1.1 SUMMARY

- A. Related Requirements:
 - 1. Instructions to Bidders
 - 2. AIA A201 General Conditions
- B. Definition: Unit price is an amount incorporated in the agreement, applicable during the duration of the work, as a price per unit of measurement for materials, equipment, or services, or a portion of the work, added to or deducted from the contract sum by appropriate modification if the scope of work or estimated quantities of work required by the contract documents are increased or decreased.
- C. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION

3.1 SCHEDULE

- A. Unit Price #1: Cost to increase/decrease removal of loose plaster per square foot. 1000 S.F. of "larger cracks/small holes" included in base bid.
- B. Unit Price #2: Cost to increase or decrease removal of floor repair and leveling. 500 S.F. of "heavy repair" included in base bid.

SECTION 01 31 00

PROJECT COORDINATION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Project Coordination
- B. Schedule
- C. Construction Meetings
- D. Shift Times

1.2 SCHEDULE

- A. Schedule: The general contractor shall submit a schedule of construction activities for approval. Work shall be started as soon as Notice to Proceed is received.
- B. Project Completion: Construction work is to proceed immediately from Notice to Proceed with on-site construction work to begin when directed and continue uninterrupted until completion. Timelines as established by Contractor will be adhered to and used as a guide to construction progress.

1.3 CONSTRUCTION MEETINGS/COORDINATION

- A. All contractors scheduled to have operations on site during any week, or when requested, shall attend weekly construction meetings as scheduled. All upcoming construction operations will be reviewed at this meeting to allow for scheduling of building activities. Close coordination with owner's representative must occur throughout construction period.
- B. Coordination: The general contractor shall provide scheduling and superintendence.

1.4 SHIFT TIMES

- A. Minimum of eight (8) hour work days during regular Monday – Friday schedule. Work can be arranged for longer hours.

1.5 SITE ACCESS/RESTRICTIONS

- A. Building Access: As building will be occupied during construction, access to facilities will not be allowed except for scheduled construction operations.
- B. Operations must be fenced to extent possible for safety. All entrances must remain passable unless prior arrangements for restricted use have been made.
- C. Storage Areas: Storage areas are indicated on plans and must be fenced by contractor to preclude access by patients or others.
- D. Maintain facility delivery access during construction. Coordinate operations with Owner's representative.
- E. Parking – See Section 01500.

SECTION 01 33 00

SUBMITTALS

1.1 REQUIREMENTS INCLUDED

- A. Administrative provisions for required submittals.

1.2 RELATED REQUIREMENTS

- A. Sections 00 72 00 and 00 73 00 - General and Special Conditions
- B. Section 01 33 23 - Shop Drawings, Product Data, and Samples
- C. Section 01 70 00 - Contract Closeout Procedures - Closeout Submittals

1.3 SUBMITTALS

- A. Successful bidder will be required to submit the following:
- B. Performance and Material Payment Bond - on City Forms
- C. Non-Collusive Affidavit
- D. Progress Schedule
 - 1. The Contractor shall, within ten (10) days after the Notice of Award, prepare and submit to the Architect for approval, a schedule showing the order in which he proposes to carry on the work, and dates on which he will start, suspend, and complete the various items of work included in this agreement.
 - 2. The Contractor will be required to adhere to his proposed schedule and he shall prosecute the work in such a manner as to insure its completion within the time set forth in the contract. Any failure to adhere to the proposed schedule will be considered prima facie evidence that Contractor has failed to provide sufficient workmen, equipment or materials to insure completion of the work within the specified time limit.
- E. List of Subcontractors and Suppliers
- F. Certificates of Insurance

Certificates of insurance shall be filed with Owner and Architect/Engineer. No work under this contract shall be started until all insurance policies have been filed and approved.
- G. Other submissions required in this specification book.

SECTION 01 33 23

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Submit all shop drawings, product data, and samples to the Architect for approval.

1.2 RELATED REQUIREMENTS

- A. Conditions of Contract govern requirements of this section.
- B. Documents 00 72 00 and 00 73 00 - Conditions of Contract: Definitions and basic responsibilities of entities.
- C. Section 01 72 00 - Project Record Documents
- D. Section 01 73 00 - Operations and Maintenance Data

1.3 SHOP DRAWINGS

- A. Contractor shall review, approve, and then submit to the Architect with reasonable promptness and in such sequence as to cause no delay in the work or in the work of the Owner or any separate contractor, shop drawings in electronic format, product data, and samples required by the Contract Documents. Each drawing must contain sufficient clear area for the Contractor stamp and the Architect/Engineer stamp.
- B. By approving and submitting shop drawings, product data, and samples, the Contractor represents that he has determined and verified all field materials, field measures, and file construction criteria related thereto, or will do so, and that he has checked and coordinated the information contained within such submittals with the requirements of the work and of the contract documents.
- C. The Contractor shall not be relieved of any responsibility for any deviation from the requirements of the Contract Documents by the Architect's approval of shop drawings, product data or samples, unless the Contractor has specifically informed the Architect in writing of such deviation at the time of the submission, and the Architect has given written approval to the specific deviation.
- D. The Contractor shall not be relieved from responsibility for errors or omissions in the shop drawings, product data, or samples by the Architect/Engineer's approval thereof.
- E. No portion of the work requiring submission of a shop drawing, product, or sample shall be commenced until the submittal has been approved by the Architect/Engineer. All such portions of the work shall be in accordance with approved submittals.

1.4 PRODUCT DATA

- A. Submit only pages which are pertinent; mark each copy of standard printed data to identify pertinent products referenced to Specification Section and Article number. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.

- B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the work. Delete information not applicable.

1.5 SAMPLES

- A. Where specific color or finish is not indicated in the specification, submit samples for selection of finishes within eight (8) days after date of contract.
- B. Note: Architect will act on color, finish, texture and pattern selections within reasonable time (30 days minimum) after all sample palettes have been received.
- C. Submit full range of manufacturer's standard finishes except when more restrictive requirements are specified, indicating colors, textures, and patterns, for Architect/Engineer selection.
- D. Submit samples to illustrate functional characteristics of products, including parts and attachments.
- E. Approved samples which may be used in the Work are indicated in the specification section.
- F. Label each sample with identification required for transmittal letter.
- G. Provide field samples of finishes at Project, at location acceptable to Architect/Engineer, as required by individual specifications section. Install each sample complete and finished. Acceptable finishes in place may be retained in completed work.

1.6 MANUFACTURER'S INSTRUCTIONS

- A. Manufacturer's instructions for storage, preparation, assembly, installation, start-up, adjusting, and balancing.

1.7 CONTRACTOR'S REVIEW

- A. Contractor shall sign or initial each sheet of shop drawings and product data, and each sample label to certify compliance with requirements of Contract Documents. Notify Architect/Engineer in writing at time of submittal, of any deviations from requirements of Contract Documents.
- B. Do not fabricate products or begin work which requires submittals until return of submittal with Architect/Engineer acceptance.

1.8 SUBMITTAL REQUIREMENTS

- A. Transmit submittals electronically in such sequence to avoid delay in the Work or work of other trade contracts.
- B. Provide blank space on each submittal for Architect/Engineer stamps.
- C. Apply Contractor's stamp, signed or initialed, certifying to review, verification of products, field dimensions and field construction criteria, and coordination of information with requirements of Work and Contract Documents.
- D. Submit under transmittal letter. Identify Project by title, work and product by specifications section and article number.

1.9 RESUBMITTALS

- A. Make resubmittals under procedures specified for initial submittals; identify changes made since previous submittal.

1.10 ARCHITECT/ENGINEER REVIEW

- A. Architect/Engineer will review shop drawings for general design only, product data, and samples and return submittals to Contractor within seven (7) days. Dimensions and quantities are the responsibility of the Contractor.

1.11 DISTRIBUTION

- A. Duplicate and distribute reproductions of shop drawings, copies of product data, and samples, which bear Architect/Engineer stamp of approval, to job site file, Record Documents file, subcontractor, suppliers, other affected contractors, and other entities requiring information.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

SECTION 01 50 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Temporary Utilities

1. Electricity: All electricity for construction program and temporary lighting by Contractor.
2. Heat: From building.
3. Telephone Service: Contractor will be required to have telephone service available.
4. Water: From building.
5. Sanitary Facilities: Toilets design in building for contractor to use.

B. Temporary Controls

1. Barriers: By Contractor.
2. Enclosures and Fencing: By Contractor.
3. Protection of the Work: By Contractor
4. Safety Railings: Provide required safety railings.

C. Construction Facilities

1. Parking: No Contractor parking will be allowed on site.
2. Project Sign: None on site.
3. Temporary Buildings: Not required.

- D. Delivery of Materials: All delivery of materials across owner's parking lot must be coordinated with owner's representative.

- E. Snow Removal: N/a.

- F. Clean Up: Parking lot, staging area, and construction zone must be kept clean and all debris kept in approved dumpsters.

- G. Safety Programs: Each contractor shall be responsible for their safety programs and safety programs of their subcontractors. They shall be responsible for holding safety meetings, adherence to safety programs for their own forces or forces that are performing work that is a part of their contract. They shall be further responsible for the related safety of the public or other persons on site relative to the work under their control.

In no case shall the Owner, the Architect, or their respective employees and agents have either direct or indirect responsibility for matters related to project safety.

SECTION 01 70 00

CONTRACT CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Administrative provisions for Substantial Completion and for final acceptance.

1.2 SUBSTANTIAL COMPLETION

- A. When Contractor considers Work or designated portion of Work is substantially complete, submit written notice to Architect with list of items to be completed or corrected.
- B. Should Architect/Engineer inspection find Work is not substantially complete, he will promptly notify Contractor in writing, listing observed deficiencies.
- C. Contractor shall remedy deficiencies and send a second written notice of substantial completion.
- D. When Architect/Engineer finds Work is substantially complete he will prepare a Certificate of Substantial Completion in accordance with provisions of General Conditions.

1.3 FINAL COMPLETION

- A. When Contractor considers Work is complete, submit written certification:
 - 1. Contract Documents have been reviewed.
 - 2. Work has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents, and deficiencies listed with Certificate of Substantial Completion have been corrected.
 - 4. Equipment and systems have been tested, adjusted, and balanced, and are fully operational.
 - 5. Operation of systems has been demonstrated to Owner's personnel.
 - 6. Work is complete and ready for final inspection.
- B. Should Architect/Engineer inspection find Work incomplete, he will promptly notify Contractor in writing listing observed deficiencies.
- C. Contractor shall remedy deficiencies and send a second certification of final completion.
- D. When Architect/Engineer finds work is complete, he will consider closeout submittals.

1.4 REINSPECTION FEES

- A. Should status of completion of Work require reinspection by Architect/Engineer after substantial completion inspection and final inspection of this work and due to failure of Work to complete, Owner will deduct the amount of Architect/Engineer's compensation for reinspection services from final payment to Contractor.

1.5 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Under provisions of Section 01720.
- B. Warranties and Bonds: Under provisions of Section 01740.
- C. Evidence of Payment and Release of Liens: In accordance with Conditions of the Contract.
- D. Consent of Surety to Final Payment.
- E. Certificates of Insurance for Products and Completed Operations: In accordance with Supplementary Conditions.

1.6 STATEMENT OF ADJUSTMENT OF ACCOUNTS

- A. Submit final statement reflecting Adjustments to Contract Sum indicating:
 - 1. Original contract sum.
 - 2. Previous change orders.
 - 3. Changes under allowances.
 - 4. Changes under unit prices.
 - 5. Deductions for uncorrected work.
 - 6. Penalties and bonuses.
 - 7. Deductions for liquidated damages.
 - 8. Deductions for reinspection fees.
 - 9. Other adjustment to contract sum.
 - 10. Total contract sum as adjusted.
 - 11. Previous payments.
 - 12. Sum remaining due.
- B. Architect/Engineer will issue a final Change Order reflecting approved adjustments to Contract Sum not previously made by change orders.

1.7 APPLICATION FOR FINAL PAYMENT

- A. Submit application for final payment in accordance with provisions of Conditions of the Contract.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

SECTION 01 74 00

FINAL CLEANING

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Final cleaning of project to be done by Contractor.

1.2 DESCRIPTION

- A. Contractors execute cleaning prior to inspection for Substantial Completion of each designated portion of the Work.
- B. Execute exterior and site cleaning. Provide access and coordinate with owner's personnel.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS

- A. Use materials which will not create hazards to health or property, and which will not damage surfaces.
- B. Use only materials and methods recommended by manufacturer of material being cleaned.

PART 3 - EXECUTION

3.1 CLEANING

- A. In addition to removal of debris and cleaning specified in other sections, clean exterior exposed to view surfaces.
- B. Remove temporary protection and labels not required to remain.
- C. Clean finishes free of dust, stains, films, and other foreign substances.
- D. Maintain cleaning until Substantial Completion.
- E. Remove waste, foreign matter, and debris from roofs, gutters, area ways, and drainage systems.
- F. Remove waste, debris, and surplus materials from site. Clean grounds; remove stains, spills, and foreign substances from paved areas and sweep clean. Rake clean other exterior surfaces.
- G. After substantial completion Owner will perform further cleaning as he may require.

SECTION 01 78 36

WARRANTIES, BONDS, AND GUARANTEES

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. This is separate from performance and payment bonds which are reviewed in other parts of this document.

See also Instructions to Bidders: Bid Bonds.

General and Special Conditions: Performance Bond and Labor and Material Payment Bonds, Warranty, and Correction of Work.

- B. Preparation and submittal of warranties and bonds.
- C. Schedule of submittals.

1.2 RELATED REQUIREMENTS INCLUDE

- A. Conditions of Contract and Division 1 - General Requirements govern work of this section.
- B. Section 01 70 00 - Contract Closeout Procedures
- C. Individual Specification Sections; Warranties and bonds required for specific products or work.

1.3 FORM OF SUBMITTALS

- A. Bind in commercial quality 8-1/2 x 11 inch three-ring side binders, with hard back, cleanable, plastic covers.
- B. Label cover of each binder with typed or printed title WARRANTIES AND BONDS, with title of project; name, address and telephone number of Contractor; and name of responsible principal.
- C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of Product or work item.
- D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List subcontractor, supplier, and manufacturer with name, address, and telephone number of responsible principal.

1.4 PREPARATION OF SUBMITTALS

- A. Obtain warranties and bonds, executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.

- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Submit to Owner.

1.5 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
- B. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
- C. For items of Work when acceptance is delayed beyond date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

SECTION 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Maintenance of Record Documents and Samples.
- B. Submittal of Record Documents and Samples

1.2 RELATED REQUIREMENTS

- A. Conditions of Contract govern requirements of this section.
- B. Section 00 72 00 - General Conditions
- C. Section 01 33 23 - Shop Drawings, Product Data, and Samples
- D. Section 01 70 00 - Contract Closeout Procedures
- E. Individual Specification Sections: Manufacturer' certificates and certificates of inspection.

1.3 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. In addition to requirements in General Conditions, all Contractors shall maintain at the site for Owner one record copy of:
 - 1. Contract Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other modifications to the Contract
 - 5. Reviewed shop drawings, product data, and samples.
 - 6. Field test records
 - 7. Inspection certificates
 - 8. Manufacturer's certificates
- B. Store Record Documents and samples in Field Office apart from documents used for construction. Provide fields, racks, and secure storage for record documents and samples.
- C. Label and file Record Documents and samples in accordance with Section number listing in Table of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- D. Maintain Record Documents in a clean, dry and legible condition. Do not use Record Documents for construction purposes.
- E. Keep Record Documents and samples available for inspection by Architect/Engineer.

1.4 RECORDING

- A. Record information on a set of blue line opaque drawings and in a copy of a Project Manual, provided to Owner.
- B. Provide felt tip marking pens, maintaining separate colors for each major system, for recording information.
- C. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- D. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction, including:
 - 1. Measured depth of element of foundation in relation to finish first 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 construction.
 - 4. Field changes of dimension and detail.
 - 5. Changes made by Modifications.
 - 6. Details not on original Contract Drawings.
 - 7. References to related shop drawings and Modifications.
- E. Specifications: Legibly mark each item to record actual construction, including;
 - 1. Manufacturer, trade name, and catalog number of each product actually installed, particularly optional items and substitute items.
 - 2. Changes made by Addenda and Modifications.
- F. Other Documents: Maintain manufacturer's certifications, inspection certifications, and field test records, required by individual specification sections.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

SECTION 02 40 00

DEMOLITION

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. Work under this section includes all demolition and removal work at the existing building as is necessary to accommodate, build, and use the new construction; and disposition of all removed materials and equipment.
- B. Furnish all labor, tools, and appliances, and perform all operations necessary to complete all demolition work shown on the drawings and hereinafter specified, or as required to carry all work in the contract to satisfactory completion.
- C. The work shall include, but not necessarily be limited to, the following:
 - 1. Remove portions of existing building to receive new construction shown on drawings or herein specified including electrical, mechanical, and sprinkler work. Secure any unsupported ceiling areas or mechanical or electrical work.
 - 2. Remove materials, cut openings, chase masonry providing continuous waterproofing of building and protection of all openings.
 - 3. Removal and salvaging existing original panel doors not scheduled for reuse including hardware.
 - 4. Removal of wood paneling from Meeting Room 400, Files 417.
 - 5. Removal and salvaging of existing carpet tile and other floor finishes and adhesives.
 - 6. Removal and salvaging of all existing wood casings, trim, and wood base boards for reinstallation. Turn over usable excess pieces to owner. Removal all nails (pull through backside).
- D. Contractor to remove and catalog location of all existing blinds for reinstallation by contractor.

1.2 WORK NOT INCLUDED

- A. This section does not include removal of asbestos or existing VAT floor tile or floor tile adhesive if quantities require abatement by an abatement contractor.

1.2 GENERAL

- A. Care of Work
 - 1. The Contractor shall be responsible for all injury to persons or property that occur as a result of his fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all work performed until completion and final acceptance.
 - 2. Demolition work shall proceed only after all materials, equipment, etc. designated for reuse or salvage of the Owner have been removed.

3. In an emergency affecting the safety of life or property, on or adjoining the site, the contractor shall act, at his own discretion, to prevent such threatened loss or injury.
 4. The Contractor shall avoid damaging sidewalks, streets, curbs, pavements, utilities, structures or any other property (except that which is to be replaced or removed) either on or adjacent to the site. He shall repair, at his own expense and in a manner satisfactory to the Architect, any damage thereto caused by his operations.
 5. **Note: Existing terrazzo floors within building are to be protected from damage throughout entire construction work.**
- B. Except as otherwise specifically stated in the contract documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, heat, power, transportation, superintendence, temporary construction of every nature, charges, levies, fees or other expenses incurred and all other services and facilities of every nature whatsoever necessary for his performance of the contract within the time specified.

PART 3 - EXECUTION

3.1 PROTECTION

- A. The contractor shall take responsible and adequate precautions to protect the Owner's property from damage during demolition work, moving of debris, and damage by the elements, including flooding, wind storms, etc. Any damage to the Owner's property due to the aforesaid work shall be restored or replaced by the contractor at his own expense and in a manner satisfactory to the Owner.
- B. Contractor shall provide and maintain suitable barricades, shelters, lights and danger signals during the progress of the work. They must meet the requirements of state and/or local building codes. The Contractor shall assume full responsibility of barriers to completion of contract and shall remove same. This shall include fence and barriers erected by other contractors.

3.2 GENERAL

- A. Remove all work carefully and only to the extent required for the final work. Remove all loose or damaged materials caused by demolition, or noted or specified to be removed. Protect existing construction that is to remain from damage.
- B. Openings and pockets shall be neatly cut for installation of lintels, anchors, concrete slabs, and precast concrete slabs or bearing plates where required.
- C. Depressions, chases, etc. shall be neatly cut with carborundum saws where such cuts will be exposed in the finished work.
- D. The use of pneumatic hammers for demolition and cutting purposes within the existing building will not be permitted.
- E. Debris transported through finished spaces shall be on rubber-tired trucks or dollies and shall be properly covered to minimize spread of dust. Clean up in finished spaces must occur on a regular basis.

- F. Leave each area broom clean upon completion of the demolition work.
- G. When clay tile walls are to have openings made, clay tile wall above opening is to be removed full height. Openings are to be saw cut plumb and square. No unsupported clay tile is to remain.

3.3 DISPOSITION OF MATERIALS

- A. Unsalvageable Materials - All unsalvageable materials shall be removed in a manner that will avoid damage to materials or equipment to remain and shall be completely removed and legally disposed away from the site.
- B. Salvageable Materials to be Reused in the Work - Salvageable materials designated for reuse or relocation shall be carefully removed by the applicable trades and shall be protected from damage until they are incorporated into the new work.
- C. Salvageable Materials to be Stored for the Owner - Salvageable materials designated to remain the property of the Owner shall be carefully removed by the applicable trades, protected from damage, and stored as directed on the site.
- D. All other materials or debris resulting from demolition operation shall become the property of the Contractor and shall be removed from the site promptly. No accumulation of debris will be permitted. Wood and flammable debris resulting from demolition operations shall not be burned on the site.

3.4 ASBESTOS OR PCB REMOVAL/ENCAPSULATION

- A. If suspect material is encountered, advise Project Manager for removal action or instructions.

3.5 DEMOLITION AND SALVAGE

- A. No right, title, property or interest of any kind whatsoever in or to the land or premises upon which buildings or structures stand is created, assigned, conveyed, granted or transferred to the Contractor or any other person or persons, except only the license and right of entry to remove parts of buildings and structures in strict accordance with the Contract.
- B. Only such property may be salvaged by the Contract as is owned by the Owner and in the event of any doubt respecting the ownership of any particular property, the Contractor shall request from the Owner a written statement regarding its ownership.
- C. All salvage becomes the property of the contractor except as otherwise indicated, but storage of such materials and equipment on the project area will not be permitted except for the duration of the contract and such storage at no time interfere with the activities of the Owner or of other contractors.
- D. Personal property of third persons or of occupants of buildings on the site shall not become the property of the Contractor.
- E. Unless otherwise specified, no part of the structure shall be removed from the premises as a whole, or in a substantially whole condition, but all such parts shall be demolished on the premises.
- F. Live Utilities and Other Property

1. The contractor shall assume all responsibility for damage attributable to him to any property upon, or passing through the project area, but excluded from the work not owned by the Owner such as utility lines, surface improvements, or like items.
 2. If disconnections of underground utility services are required to be made in public thoroughfares, the Contractor shall comply with all local requirements and regulations respecting the barricading of trees, the removal and restoration of pavement, and other pertinent matters.
- G. Mechanical and Electrical Work Exposed: Where mechanical ductwork or piping or electrical conduit is exposed during removal of partitions or walls it shall be removed or rerouted by the respective trades as required. Rerouting piping shall be located where directed and shall be connected to maintain all functions in proper operation. Abandoned piping may be left in place where it is concealed in floors or walls, providing that it is disconnected from its source. There shall be no "dead end" water, sewer, or vent piping existing in the completed work.

3.4 PRECAUTIONS

- A. The operations of the contractor shall be done in such manner as to avoid fires and other hazards to persons and property, interference with the use of adjacent buildings or interruption of free passage to and from such buildings. On completion of the work at each building, the premises shall be left in a condition satisfactory to the Architect.
- B. Where adjoining structures are occupied, the contractor is required to advise the inhabitants as to when the demolition work or site clearance work will be started and of the hazards involved. A minimum of a rope barricade shall be provided during working hours to restrict unauthorized persons from entering hazardous working areas. If basement openings or other hazardous conditions must be left unattended, a minimum of a continuous snow fence barricade shall be provided around the entire basement opening or hazard.
- C. The use of explosives in the performance of the work under this Contract is prohibited.

3.5 DEBRIS CLEANUP

- A. No combustible debris shall be thrown, stored or burned on the site or adjacent parcels, sidewalks, streets, drives, parking lots or alleys. Debris created must be disposed of as demolition or removal work proceeds.
- B. Dropping of brick, stone or concrete walls on adjacent property, sidewalks, streets, drives, parking lots or alleys not in Contract is forbidden. All wrecking operations, storing or processing of non-combustible debris shall be restricted to the boundaries of the demolition area.
- C. The clean up of streets, drives, walks, parking lots, parcels and the site shall include the removal and disposal of any rubbish, refuse or other trash lying within the areas, whether or not such conditions have resulted from operations under this Contract.

SECTION 05 40 00

LIGHT GAUGE FRAMING

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. Furnish and install light gauge framing as described in the specifications or shown on the plans. All partition walls to run from floor to underside of deck unless otherwise noted.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Exterior Wall Studs:N/A
- B. Regular Duty: Studs shall be non-load bearing 16" o.c. equal to Gold Bond channel stud 20 gauge or approved equal. Metal studs and tracks 3-5/8" wide shall be erected where partitions are shown on drawings without specific designation. Install partitions plastered both sides except where wider space is indicated, as in back of toilets or other mechanical equipment where two sets of studs will be erected and braced between 4'-6" o.c. and plastered one side each set of studs. Studs shall not be set to be restrained at masonry, columns, or similar intersections. Use 6" stud walls behind lavatories. Thickness of walls above shall be verified in each case with total wall thickness shown on drawings.
- C. Heavy Duty: As indicated on drawings.
- D. Provide miscellaneous and shaft framing in shapes and sizes indicated on plans.
- E. Wall Furring: Provide and install light gauge metal furring system as detailed on plans.
- F. Suspended Metal Stud Ceiling Support System – N/A

PART 3 - EXECUTION

3.1 APPLICATION

- A. Track - Align steel stud track accurately to the partition layout at both floor and ceiling. Secure to concrete slabs with 1/2" concrete stud nails or other suitable fasteners not over 24" o.c.
- B. Studs - Secure studs, spaced 16" o.c. and doubled at doors between the track flanges with two stud shoes at both top and bottom. Wire tie shoes to studs with two double strands of 18 gauge, type I, galvanized tie wire.

Alternate: Combination stud shoe and starter clip may be used on base track, or shoe clips may be used to secure the stud shoes at floor and ceiling. Snap-in track may be used as another alternate.

- C. Framing Around Door Frame - When the door frame assembly is securely anchored, secure attachment around the frame. Adjacent to the stud which is fastened to the jamb anchors, erect another stud.

Over the frame head, erect jack studs not exceeding 16" o.c. Reinforce the framing over the door frame head by placing a 3/4" furring channel no more than 6" above the frame opening and extend this channel at least two full stud spaces beyond each side of the opening. The channel shall be securely wire tied to the flanges of each studs.

D. Studs and Runners

1. Align runners accurately according to wall layout and secure to base and head with power-driven fastener spaced 8" o.c.
2. Position studs vertically in runners and space no greater than 16". Securely anchor each stud or runner with four 1/2" Type S-12 pan head or 5/8" Type S-12 low profile head screws, two at top and two at bottom, with one screw in each flange.
3. For the slip track system, allow 1/2" to 3/4" clearance between top of studs and UR runner. Do not fasten studs to UR runner. Install 1 1/2" cold rolled channel lateral bracing within 10" to 12" of tops of studs. Connect bracing to each stud using welded or screw attached USG Clip Angle.

SECTION 05 50 00

MISCELLANEOUS METALS

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. The work required under this section consists of all steel and miscellaneous metals, painting, and related items necessary to complete the work indicated on the drawings and described in the specifications.

1.2 REFERENCE STANDARDS

- A. Cast iron shall conform to ASTM Specification A48-60T and unless designated otherwise shall be Class No. 30 with a minimum tensile strength of 30,000 psi.
- B. Nodular or ductile iron bars shall conform to ASTM A339-55. This material may be used in place of cast iron for items and locations as hereinafter specifically designated.
- C. Refined wrought iron bars shall conform to ASTM A189-60T, Grade B, single refined, round, hexagonal, and rectangular bars.
- D. Steel shall conform to ASTM A36-61T.

1.3 SUBMITTALS

- A. Submit shop drawings for approval. Shop drawings shall indicate the fabrication, gauge, assembly and erection details, size of members, fastenings, anchors, and all necessary connections to work of other trades and related items required.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Miscellaneous Anchors and Bolts: Provide all anchors, hangers, bolts, toggle bolts, expansion bolts, rods, clip angle screws, sleeves, shims, connection stiffeners, reinforcement screws, etc. required for proper and complete fabrication, assembly, and installation of miscellaneous and ornamental metal work. Exposed accessories shall have finish to match exposed hardware.

2.2 PAINTING AND PROTECTIVE COATING

- A. All ferrous metal, except stainless steel, shall be properly cleaned and given one (1) shop coat of red lead or zinc chromate primer. Anchors that are built into masonry shall be coated with asphalt paint unless specified to be galvanized. Metal work to be encased in concrete shall be left unpainted unless specified or noted otherwise. Where hot dip galvanized or zinc coated metal is specified or shown, it shall not be shop primed unless specifically required.

- B. Hot dip galvanized or zinc coatings applied on products fabricated from rolled, pressed, and forged steel shapes, plates, bars, and strips shall comply with ASTM A123-59. Hot dip galvanized or zinc coatings on assembled steel products shall comply with ASTM A386-61. The weight of coatings shall be as designated in Table 1 for class and thickness of material to be coated. Galvanized surfaces for which a shop coat of paint is specified shall be chemically treated to provide a bond for the paint. Except for bolts and nuts, all galvanizing shall be done after fabrication.
- C. Insulate faces of metal in contact with different metals, with masonry, concrete, or plaster, by giving each contact surface one coat of approved alkali resistant bituminous paint.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Metal surfaces shall be clean and free from mill scale, flake rust, and pitting; well formed and finished to shape and size with sharp lines and angles and smooth surfaces. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Welds and flush rivets shall be finished flush and smooth on surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided. Where used, heads shall be countersunk, screwed up tight, and threads nicked to prevent loosening.
- B. Casting shall be of uniform quality, free from blowholes, porosity, hard spots, shrinkage distortion or other defects. Casting shall conform to the dimensions indicated with a tolerance of plus or minus 1/8 inch, except in the dimensions of covers and the openings to receive them shall be limited to blasting or other approved method. Covers subject to street or foot traffic shall have machined horizontal bearing surfaces; provide machine bearing for contact surfaces for other joints where indicated or required.
- C. Fastenings shall be concealed where practicable. Thickness of metal and details of assembly and supports shall give ample strength and stiffness. Joints exposed to weather shall be formed to exclude water. Provide holes and connections for the work of other trades.
- D. At the proper time, deliver and set in place items of metal work to be built into adjoining construction.

SECTION 06 10 00

ROUGH CARPENTRY

PART 1 – GENERAL

1.1 WORK INCLUDES

- A. Furnish and install all carpentry indicated on the drawings and herein specified. The Contractor shall furnish and install carpentry work and wood necessary to complete structure in accordance with plans and specifications.
- B. Coordinate location of blocking in walls where required for installation of cabinets, grab bars, shelf supports, etc. This Contractor shall furnish and install all rough hardware such as nails, spikes, screws, joist hangers, etc. which may be required in connection with carpentry work.
- C. Install all materials, equipment, and specialties specified not indicated to be installed by others.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Lumber: Lumber that has been used for concrete scaffolding and falsework may be used if thoroughly cleaned of nails and concrete, provided that this material is sound and to be covered with other finishes. All of the above shall be less than 15% moisture content when installed as framing, furring, or rough bucks. Lumber must bear stamp on each piece over 5'-0" long.
 - 1. Studs - Stud grade #2 and better. Spruce, Pine, White Fir. 16" o.c. except where noted. Fire treated where indicated or required by Code.
 - 2. Miscellaneous Framing - Spruce, Pine, Fir #2 and better. Fire treated where indicated or required by Code.
 - 3. Flat Board –White Oak to match existing oak trim.
- B. Plywood shall be DFPA exterior grade "A-C" Douglas Fir plywood of thickness indicated on the drawings, tongue and groove where called for. Plywood shall comply with ANSI A199.1. Fire treated where indicated or required by Code.
- C. Vapor Barrier: N/A.
- D. Air Infiltration Barrier: N/A.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Protect all masonry, carpentry, metal work, millwork and other materials from damage of any character during the progress of the work. Store millwork in accordance with manufacturer's recommendations. Provide temporary wood doors in exterior walls and cloth or transparent plastic covering over windows in exterior walls during plastering and until the building has dried out.
- B. Furnish and install all wood plates, nailing blocks, furring strips, plaster grounds, including grounds at top and ends of base cabinets, nailing strips for wall paneling, mounting grounds for folding doors, etc. and all other ground and framing detailed or required for the securing of all finished work. When installed on masonry, securely fasten with anchors spaced not more than 18" on centers. Anchors shall be similar to Rawl Plugs consisting of #12 sheet metal screws at least 2-1/4" long and lead lined fibre enclosed shield inserted in 1/4" holes drilled in masonry with a carboloy bit. Devices other than Rawl Plugs may be substituted provided they consist of metal lined shields enclosed with compressive material inserted in drilled holes and have screws to permit shimming of wood grounds providing for adjustment and alignment to true lines and planes.
- C. Furnish and install all rough hardware required, such as nails, screws, anchor bolts and devices (except those occurring in structural steel). All rough hardware shall be of the proper type and size for the intended use. Provide adequate hardware to achieve substantial and positive anchorage. Nailing into wood plugs is not acceptable for any work.
- D. After finish hardware is received from the hardware supplier, Contractor shall safeguard and install all hardware and be responsible for labor and material required to correct improper installation. Hardware shall be applied in strict conformance to the manufacturer's printed instructions at the mounting heights specified in Section 08700.

Holes and mortises in wood doors for locks and other hardware shall be cut with a jig approved or provided by the manufacturer of the item to be applied. All holes and mortises shall fit snugly to provide as much support as possible to the hardware. All locks shall be mounted so that the key enters the lock with its smooth edge DOWN. After hardware has been fitted, escutcheons and face-applied hardware shall be removed until final painting has been completed. Hardware shall be reinstalled after painting is completed, properly adjusted, tested, and left in perfect working order. Thresholds shall be set in a bed of mastic. After each lock has been reinstalled, the installer shall seal its keys in one of the supplied envelopes and shall enter on the exterior, all data for which space is provided. The envelopes with the keys they contain shall be delivered to the Owner by the installing contractor, together with all surplus envelopes. Door knobs, etc. shall be kept covered with heavy cloth, tied on, until the building is ready for occupancy.

- E. In no case shall any finish be allowed in the building until at least ten days after plastering or sheetrock taping has been completed. All finish material shall be air and kiln dried, highly sanded and free from defects. All finish shall be back painted and face primed, filled or stained as part of the work under painting section before placing. Fit and place all finish accurately and in a workmanlike manner. Gouges, dents, hammer marks, splits or other defects will not be permitted in the finished work. Doors shall be fitted with a uniform clearance of 1/8" at heads and jambs, and 5/8" clearance at floor unless additional clearance at floor is called for on drawings.
- F. Blanket and fill type insulation shall be installed where shown and to the extent indicated on the drawings.
- G. Hang doors with all screws inserted and hinges properly adjusted so that doors swing free and do not rattle when closed.
- H. Sinks and rims occurring in millwork are specified elsewhere but shall be installed as part of this section. Set sink rims in waterproof cement.
- I. Framing: All framing shall be done with nailing, bolting, and screwing in strongest possible manner developing full strengths of each member and in best practice.

SECTION 06 20 00

MILLWORK AND FINISH CARPENTRY

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. The work of this section consists of the furnishing of all millwork indicated on the drawings and herein specified. Include all wood window casings/enclosures, modifications to existing carpentry and ends panels and trim as shown on drawings. Remove and salvage existing casings, trim, and baseboards for reinstallation.
- B. Modifications to existing casings, moldings, and trim required for new construction.

1.2 SHOP DRAWINGS AND SAMPLES

- A. Submit shop drawings in accordance with Supplementary General Conditions for all built-up millwork items. Include schedules defining the types of wood.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. City Hall Building
 - 1. Interior Trim: Where indicated, reinstall salvaged wood trim casings and baseboard to match and align with existing. Supplement shortages with new material matching existing species and profile.

Contractor's Option: Furnish and install new white oak trim/casings matching existing in lieu of installation of salvaged material. All salvaged material to be turned over to owner.
 - 2. Wood preservative shall be a brand conforming to the requirements of Commercial Standard CS 262-63
 - 3. Quality Grading:
 - a. Moisture content not to exceed 5-10% for all lumber.
 - b. Lumber must be sound, thoroughly seasoned, well manufactured, and free from warp. Woodwork exposed on exterior of building shall be dressed.
 - c. Grade and trademark required on each piece of lumber (or bundle in bundled stock). Use only recognized official marks of Association. Grade and trademarks not required if each shipment is accompanied by certificate of inspection issued by Association.
 - 4. Hardware – Provide all required hardware.

2.2 FABRICATION

- A. Millwork and trim shall conform to design and details shown. Where practical, work shall be finished and assembled at the mill. All millwork and trim shall be finished smooth and free from machine or tool marks that will show through the finish. All nail heads shall be set to receive putty.

PART 3 - EXECUTION

3.1 GENERAL

- A. All finish carpentry work shall be done in a neat and workmanlike manner. Items shall be accurately cut, scribed, fitted and joints and all work shall be plumb, square, level, at proper elevation, straight, true to line and flush.
- B. In no case shall any finish be allowed in the building until at least ten days after plastering has been completed. All finish material shall be air and kiln dried, highly sanded and free from defects. All finish shall be back painted and face primed, filled or stained as a part of the work under painting specification before placing. Gouges, dents, hammer marks, splits or other defects will not be permitted in the finish work.
- C. Joints in plastic laminate shall be held to a minimum. Where joints are required in plastic laminate core material, provide tempered hardboard splines. Coat field joints with waterproof glue. Provide a backing sheet of thickness required to provide balanced construction on unexposed sides of all plastic laminate work. Apply plastic laminate to core materials by the hot press method.
- D. Coordinate unit construction with mechanical or electrical equipment.

SECTION 07 20 00

INSULATION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Provide and install all insulation not specifically listed by other sections of the specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All insulation materials shall be inorganic and fire, moisture, mold, and vermin resistant.
- B. Urethane and polystyrene insulation materials must have protection from direct flame contact and sunlight.
- C. Foamed Plastic Insulation: N/A
- D. Foam Insulation: N/A
- E. Roof Insulation: N/A
- F. Sound Insulation: Certainteed unfaced 3½" sound control batt, or approved equal, where called for on drawings as sound insulation.

SECTION 07 84 00

FIRE STOPPING

PART 1 - GENERAL

1.1 SCOPE

- A. The Contractor shall provide UL Listed fire stopping of penetrations through protected walls and floors not covered in mechanical, sprinkler, or electrical portions of the specifications. This is primarily around penetrations and at intersections of walls and floor deck.
- B. Protected walls are along all corridor walls or as indicated on plans. Floor between first and second floor is a protected floor.

1.2 SUBMITTALS

- A. Submit product data for all types of fire stopping methods to be employed throughout project. Include ratings and details for installation.

PART 2 - PRODUCTS

2.1 SYSTEMS

- A. It shall be the responsibility of the contractor to determine the rating required for each penetration and verify that the method of fire stopping used will meet the approval of the inspectors having jurisdiction.
- B. Firestop Putty System: The system shall be a non-hardening, conformable firestop system consisting of a water-insoluble putty and suitable damming materials where required. Putty shall contain no asbestos, fiberglass, or solvents. The putty shall be capable of being removed and reinstalled, and shall adhere to all common building materials and penetrations. Putty shall meet the requirements of ASTM E119 and system shall be tested to UL 1479 (ASTM E814) and classified for up to 2 hours.
- C. Firestop Sealant System: System shall be a water based firestop compound (along with the proper damming materials). Sealant shall not contain any solvents or inorganic fibers. Sealant shall be one part, requiring no critical mixing. The firestop system shall be tested to UL 1479 (ASTM E814) and classified for up to 3 hours.
- D. Firestop Mortar System: System shall be a lightweight cementitious mortar and suitable temporary damming material (where required). The mortar shall be fast drying and shall not shrink or crack during its cure. The firestop system shall be tested to the requirements of ASTM E119 and shall be tested UL1479 (ASTM E814) and classified for up to 3 hours.

- E. Manufactured Collars: System shall consist of a factory manufactured fire stop device and suitable smoke seal. The device shall contain a molded compound capable of expanding up to 10 times its original volume. This collar shall contain no asbestos, no fiberglass, no solvents nor corrosive mineral salts. It shall be sized to match the pipe and shall require no cutting, sizing or fabricating of components at the job site. The fire stop system shall be tested to the time/temperature requirements of ASTM E119 and shall be tested to UL 1479 (ASTM E814) and classified for up to 3 hours in both vented and unvented applications. Specified Technologies, Inc. - Specseal Firestop Collar or equal.

SECTION 07 90 00

CAULKING AND SEALANTS

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. Furnish and apply all caulking complete, in strict accordance with these specifications and the applicable drawings. Caulk at all intersections or junctions of metal and other materials as shown on drawings and as required.
- B. Caulk at intersections of metal, concrete, masonry, wood, or similar combinations. Caulk at all joints of aluminum clad composite panels.
- C. Related Work:
 - 1. Firestopping – See Section 07 84 00
 - 2. Caulking at aluminum fenestration.
 - 3. Acoustical - See plaster and gypsum drywall specification for sealants required for sound conditioned walls.
 - 4. All door frames and HM work, caulking at grills.
 - 5. Expansion joint flashings, wood, joints, and where indicated on drawings.

1.2 SUBMITTALS

- A. Provide samples of colors of sealants to be selected.
- B. Manufacturer's Data - Provide three (3) copies of manufacturer's data sheet recommendations, specifications, and installation instructions.

1.3 STORAGE AND DELIVERY

- A. Deliver materials in manufacturer's original unopened packaging with identification labels intact and eligible.
- B. Store materials in area protected from weather, moisture, open flame, and sparks.
- C. Environmental Requirements: Comply with sealant manufacturer's recommendations for maximum and minimum application temperatures and humidity.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Caulking and sealant material for exterior use shall be 20-year minimum life expectancy products.
- B. Control Joints and Exterior Wall Maintenance: Provide Ethafoam rod and Tremco DYmeric or Sonneborn NP-2 caulking, both installed as recommended by manufacturer and as per typical details shown on plans. Tremco DyMonic or Sonneborn NP-1 may be approved, dependent on the location of installation.. Architect will select color from samples provided by contractor. Installation shall be made by applicator regularly engaged in this work and knowledgeable in current caulking techniques and having approved equipment.

- C. One part urethane sealant shall comply with Federal Specification TT-S-00230C. Use for interior and exterior vertical surface joints where normal movement is anticipated, window and door perimeters, etc. Sonneborn-Contech-Sonolastic NPI; Sika Chemical Corp. - Sikaflex 1A. Colors as selected by Architect from manufacturer's standard colors.
- D. Two part self-leveling urethane sealant shall comply with Federal Specification TT-S-00227E, Type I, Class A. Use for horizontal surface joints, exterior/interior, such as concrete paving joints, concrete floor joints, etc. Sonolastic Paving Joint Sealant; Sonneborn-Contech, Urexpan NR100, Pecora Corp. Color as selected by Architect from manufacturer's standard colors.
- E. Acrylic Latex Sealant - Use for non-moving interior joints at HM doors, etc. Sonneborn-Contech-Sonolac; Tremco - Acrylic Latex Caulk; Pecora Corp. AC-20. Colors as selected by Architect from manufacturer's standard colors.
- F. Silicone Sanitary Sealant - Use at joints in ceramic tile, joints around plumbing fixtures, etc. General Electric Co. - Silicone Rubber Bathtub Caulk. Colors as selected by Architect from manufacturer's standard colors.
- G. Joint Cleaner - As recommended by sealant manufacturer.
- H. Joint Primer - As recommended by sealant manufacturer.
- I. Bond Breaker Tape - As recommended by sealant manufacturer.
- J. Sealant Backer Rod - Ethafoam circular sized to tight fit into opening.
 - 1. Sealant is to be "Sikaflex" polyurethane in color to match aluminum panels.
 - 2. Back up material shall be non-asphaltic expanded closed cell polyethylene, Ethafoam (round) Rod Stock by Dow Chemical Co., or approved equal. Back up material shall not bond to sealant. Diameter of rod stock shall be at least 1/8" larger than the joint opening.

PART 3 - EXECUTION

3.1 GENERAL

- A. Furnish and apply all caulking, complete, in strict accordance with these specifications and the applicable drawings. Caulk at all intersections or junctions, masonry and concrete at junctions of metal, and concrete or masonry at hollow metal and aluminum windows and doors, at tops of all precast and poured concrete walls, tops of block partitions, and as shown on drawings. Caulk at intersections of plaster, metal, concrete, masonry, wood, or similar combinations. Caulk under copings at expansion joints and where required for watertight construction.
- B. Caulk at all joints around doors, windows, louvers, or other openings through exterior walls where shown on drawings. Expansion joints, top joints of all sills, coping stone and projecting cut stone ledges, both sides of jambs and heads on exterior and interior panels, and interior joint at spandrel beams shall be caulked with caulking compound. Where joints are more than 3/4" in depth, joints shall be backed up to 3/4" of surface before caulking.
- C. Caulking compound shall be applied around metal walls and roof panels, HM doors, and similar locations. Where voids occur, joints shall be filled with back-up material

specified for use with flexible sealant. For joints up to 1/2" in width, depth of joint shall be equal to width; for joints over 1/2" in width, depth shall be 1/2 of width.

3.2 INSPECTION

- A. Examine joints to be sealed for construction defects that would adversely affect execution of work.
- B. Ensure that masonry and concrete have cured a minimum of 28 days.
- C. Do not proceed with installation until unsatisfactory conditions are corrected.

3.3 PREPARATION

- A. At exterior wall maintenance locations, remove existing sealant, backer rod, and joint materials in area of replacement.
- B. Clean joint surfaces with joint cleaner, free of dust, dirt, oil, grease, lacquers, laitance, release agents, moisture, or other matter which might adversely affect adhesion of sealant.
- C. Apply primer to surfaces recommended by sealant manufacturer to be primed, following manufacturer's instructions.

3.4 INSTALLATION

- A. Install bond breaker tape where required by sealant manufacturer's instructions.
- B. Install sealant backer rod where shown or required by sealant manufacturer's instructions. Install in joints using a blunt instrument to avoid puncturing. Do not twist the backer rod while installing. Install so that joint depth is 50% of joint width, minimum 1/4" deep. Install dry and free of tears or holes.
- C. Install sealants in accordance with manufacturer's instructions. Install sealants in uniform, neat and continuous beads without gaps or air pockets. Tool joints to required configuration within 10 minutes of sealant installation.

3.5 WORKMANSHIP

- A. Sides and tops of windows and inside joint areas of exterior frames or any other openings in exterior wall shall be caulked with oakum where voids exist and tubular backup can not be used.
- B. After all back up caulking has been placed, caulk all joints with caulking compound. All surfaces to be caulked shall be clean and thoroughly dry. Caulking shall be forced into rabbets under mechanical pressure, filling all voids complete to render water and airtight and shall be struck smooth and left ready for painting. Where joints occur in stone or other materials not to be painted, compound shall match adjoining surface.

- C. Temperature shall be not less than 40°F, surface dry and clean when flexible sealant is applied. Remove lacquer from caulking rabbets in aluminum. Metal, glass, and other dense surfaces shall be solvent cleaned. Apply solvent with brush and wipe dry with lint-free paper towel. All stone, concrete, wood, and other porous surfaces shall be primed. Primer shall be dry before installation of back up material and applying sealant. Flexible sealant shall be applied from a gun or cartridge in a neat bead, well bonded to both sides and extending full depth of caulking rabbet. Joints shall be masked and struck as required for neatness, and smears solvent-cleaned immediately.

3.6 ADJUSTMENT AND CLEANING

- A. Remove excess materials adjacent to joints by mechanical means or with solvents as recommended by sealant manufacturer as work progresses to eliminate evidence of spillage or damage to adjacent surfaces.

SECTION 08 11 00

HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Drawings and general provisions of the contract, including General and Supplemental Conditions, and Division 1 specification sections, apply to work of this section.
- B. This section includes all labor, materials, equipment, and services necessary to furnish and install all commercial grade steel doors, frames, and related items to complete the work indicated on the drawings and described in the specifications.
- C. Preparation of frames for access control hardware as scheduled.

1.2 RELATED WORK

- A. Section 08 14 00 – Wood Doors
- B. Section 08 71 00 – Door Hardware
- C. Section 08 80 00 – Glazing
- D. Section 09 90 00 – Painting and Coating

1.3 REFERENCES

- A. ANSI/SDI-250.8 - 2003 – Recommended Specifications for Standard Steel Doors and Frames
- B. ANSI A250.4-2001 – Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors and Hardware Reinforcing
- C. ASTM-E152 – Standard Methods of Fire Tests for Door Assemblies
- D. NFPA 80 – Standards for Fire Doors and Windows
- E. DHI – Recommended Locations for Builder's Hardware
- F. NFPA 101 – Life Safety Code
- G. U.L. – Building Material Directory

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's current product data including specifications, handling, storage, installation instructions and maintenance recommendations.
- B. Shop Drawings: Submit shop drawings showing system fabrication and installation drawings. Include plans, elevations, section details of components, joint locations, elevations of door design types, conditions at openings, details of construction, and installation requirements of finish hardware and reinforcements. Show anchorage and accessory items required for installation.
 - 1. Provide schedule of doors and frames using the same reference numbers for details and openings as those on the contract drawings.

2. Indicate and coordinate frames to receive glass and glass stop with glass and glazing requirements.
 3. Resubmit copies of the corrected shop drawings when required.
- C. Substitutions: Submit under provisions of Division One - Substitutions. Provide detailed information and catalog cuts indicating the comparison to the specified products. If requested by the architect, provide a sample of the proposed substitution for review.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. General: Provide steel door and frame units made of components of standard construction furnished by one manufacturer as a coordinated assembly.
2. Manufacturer: Minimum of ten years experience in the manufacture of steel doors and frames.
3. Supplier: Minimum of ten years experience in the steel door and frame industry.

B. Regulatory Requirements:

1. Steel Door Institute: Comply with standards of ANSI/SDI-100.
2. Fire-rated Door Assemblies: NFPA 80, tested, listed, and labeled in accordance with ASTM E152 and by nationally a recognized independent testing and inspection agency acceptable to authorities having jurisdiction.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Protection: Protect steel doors and frames from damage during shipment, storage, and construction.
- B. Delivery: Deliver materials to the jobsite in factory sealed containers bearing the manufacturer's name and brand.
- C. Storage: Store at building site under cover. Place on minimum 4 inch high wood blocking, with _" space between stacked doors to promote air circulation. Avoid use of non-vented plastic or canvas shelters that could create a humidity chamber. If cardboard wrapper on door becomes wet, remove immediately.
- D. Damaged Material: Replace damaged material prior to acceptance at no additional cost to the owner.

1.7 PROJECT CONDITIONS

A. Existing Conditions:

1. Inspect the project prior to installation. If conditions do not meet approval, notify the Architect. Proceeding without notification implies acceptance of conditions.
2. Field Dimensions: Drawings do not purport to show actual dimensions, but are intended only to establish location and scope of work. Field verify dimensions and assume full responsibility for their accuracy.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Standard of Quality: Design is based on products of Curries Manufacturing, Mason City, Iowa.
- B. Other Acceptable Manufacturers: Subject to compliance with requirements, acceptable manufacturers and products are:
 - 1. Curries
 - 2. Steelcraft
 - 3. Ceco

2.2 MATERIALS

- A. Hot-rolled Steel Sheets and Strip: Commercial quality carbon steel, pickled and oiled; comply with ASTM A569, ASTM A568
- B. Cold-rolled Steel Sheets: Commercial quality carbon steel; comply with ASTM A569, ASTM A568
- C. Galvanized Steel Sheets: Commercial quality zinc-plated carbon steel; comply with ASTM A526, ASTM A525, A60 zinc coating; mill phosphatized.
- D. Supports and Anchors: Fabricate of not less than 18 gauge galvanized sheet steel.
- E. Inserts, Bolts, and Fasteners: Manufacturer's standard units, except hot-dip galvanized at items to be built into exterior walls, comply with ASTM A153, Class C or D as applicable.
- F. Shop applied Primer: Rust-inhibitive primer, air-dried or baked, suitable as a base for specified finish paints.

2.3 FABRICATION, GENERAL

- A. Steel Door and Frame Units: Rigid, neat in appearance, free from defects, warp or buckle. Where practical, fit and assemble in manufacturer's plant. Clearly identify work that cannot be permanently factory-assembled before shipment to assure proper assembly at the project site.
- B. Exposed Faces of Doors and Panels, Including Stiles and Rails of Non-flush Units: Constructed of cold-rolled furniture steel only.
- C. Frames, Concealed Stiffeners, Reinforcements, Edge Channels, Louvers, and Moldings: Cold-rolled or hot-rolled steel at fabricator's option.
- D. Exposed Fasteners: Countersunk Phillips head screws unless otherwise indicated.
- E. Finish Hardware Preparation:
 - 1. Doors and Frames to Receive Mortised and Concealed Finish Hardware: Prepare doors and frames in accordance with the final Finish Hardware Schedule and templates provided by the hardware supplier. Comply with applicable requirements of ANSI A115 specifications for door and frame preparation for hardware.

2. Doors and Frames to Receive Surface Applied Hardware: Doors and frames to be reinforced for surface applied hardware in compliance with SDI recommendations. Drilling and tapping for surface applied finish hardware to be done at the project site.
 3. Finish Hardware: Locate as indicated on the final hardware schedule or, if not shown, in accordance with referenced DHI Recommended Locations for Builder's Hardware standard.
- F. Shop Painting: Clean, treat, and prime paint exposed surfaces of units, including galvanized surfaces with manufacturer's standard rust-inhibitive primer. Clean steel surfaces of mill scale, rust, oil, grease, dirt, and other foreign materials. Correct minor irregularities with metallic putty sanded smooth before application of primer. Apply shop coat of prime paint of even consistency to provide uniform finish surface, ready for finish paint.

2.4 STANDARD HOLLOW METAL DOORS – N/A

2.5 STANDARD HOLLOW METAL FRAMES

- A. General Requirements: Types and styles as shown on drawings and schedules. Conceal fasteners unless otherwise indicated. Fabricate of minimum 16 gauge cold-rolled steel at interior locations and 14 gauge galvanized steel at exterior locations with mitered and welded corners. Reinforce for hardware using the SDI Hardware Reinforcing Gauges as a minimum standard.
- B. Door Silencers: Except at weather-stripped frames, drill stops to receive 3 silencers on strike jambs of single swing frames, and 2 silencers on heads of double swing frames.
- C. Plaster Guards: Provide 26 gauge steel plaster guards or mortar boxes, welded to frame at the back of finish hardware cutouts where mortar or other materials might obstruct hardware operation, and to close off the interior of openings.
- D. Glazing Beads: On frame assemblies indicated to have glazed openings, the frame shall be provided with glass stop designed to receive the glass and glazing specified.

PART 3 - EXECUTION

3.1 EXAMINATION AND INSTALLATION

- A. General Requirements: Install in accordance with the final Shop Drawings, manufacturer's data, and as specified.
- B. Placing Frames: Comply with SDI-105 unless otherwise indicated.
 1. Except for frames located at in-place concrete, masonry, or drywall constructions, place frames prior to construction. Remove temporary shipping spreader bars before beginning frame installation. Set accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. Remove temporary braces and spreaders after wall construction is completed, leaving surfaces smooth and undamaged.
 2. In masonry construction, locate a minimum of 3 wall anchors per jamb.
 3. In masonry construction, fill frames including head, with mortar.

4. At in-place concrete or masonry construction, set and secure using existing opening anchors.
 5. In metal stud partitions, install a minimum of 3 wall anchors per jamb. In open steel stud partitions, place studs in wall anchor and attach with screws. In closed steel stud partitions, attach wall anchors to studs with self-tapping screws.
 6. Where frames require existing opening anchors, dimple to receive countersunk flathead expansion anchor screws, setting screw heads below surface of frame. Fill countersink with metal putty, sand smooth to match adjacent surface. Prime affected area to match shop finish.
 7. Install fire-rated frames in accordance with NFPA Standard #80.
- C. Door Installation: Fit accurately in frames within clearances specified in SDI-100. Install fire-rated doors using clearances specified in NFPA Standard #80.

3.2 ADJUSTMENT AND CLEANING

- A. Prime Coat Touch-up: Immediately after erection, sand smooth rusted or damaged areas of prime coat. Apply touch-up primer to match adjacent surfaces.
- B. Protection Removal: Immediately prior to final inspection, remove protective plastic wrappings from pre-finished doors.
- C. Final Adjustment: Check and readjust operating finish hardware items, leaving steel doors and frames undamaged and in complete and proper operating condition.

3.3 SCHEDULE

- A. Furnish items in amounts indicated on Drawings or required for complete and operable facility. Verify quantities and suitability of fasteners. Provide doors and frames required for fire rating indicated on Drawings or Door Schedule whether or not indicated in this Section. Coordinate schedule with Drawings and notify Architect of any door not scheduled.

SECTION 08 14 00

WOOD DOORS

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. Furnish and install wood doors where indicated on plans and/or schedule. All doors shall be designed by manufacturer for use as indicated on drawings and recommended for that service.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's current product data including specifications, handling, storage, installation instructions and maintenance recommendations.
- B. Shop Drawings: Submit shop drawings showing system fabrication and installation drawings. Include plans, elevations, section details of components, joint locations, elevations of door design types, conditions at openings, details of construction, and installation requirements of finish hardware and reinforcements. Show anchorage and accessory items required for installation.
 - 1. Provide schedule of doors and frames using the same reference numbers for details and openings as those on the contract drawings.
 - 2. Indicate and coordinate frames to receive glass and glass stop with glass and glazing requirements.
 - 3. Resubmit copies of the corrected shop drawings when required.
- C. Substitutions: Submit under provisions of Division 1. Provide detailed information and catalog cuts indicating the comparison to the specified products. If requested by the architect, provide a sample of the proposed substitution for review.

PART 2 – PRODUCTS

- A. All wood doors to be: White Oak, Karona K4010 flat panel ogee with custom layout. Doors are to replicate existing wood doors. Provide half lite doors as indicated on schedule.
- B. Label as indicated on schedule.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Carefully inspect the locations where the doors are to be installed. Notify architect of any conditions that would adversely affect the installation or the subsequent operation of the door. Do not proceed until unsatisfactory conditions are corrected.
- B. Allow doors to become acclimated to building temperature and humidity before installation.
- C. Use only skilled mechanics to install and adjust the finish hardware.

3.2 INSTALLATION

- A. Install doors per manufacturer's recommendations.
- B. Clearances:
 - 1. For non-fire doors provide clearances of 1/8 inch at jambs and head; 1/8 inch at meeting stiles for pairs of doors, and 1/2 inch from bottom of door to top of decorative floor finish or covering. Where threshold is shown or scheduled, provide 1/4 inch clearance from bottom of door to top of threshold.
 - 2. For fire rated doors, provide clearances complying with the limitations of the authority having jurisdiction.

3.3 ADJUST AND CLEAN

- A. Operation: Rehang or respace doors that do not swing or operate freely, as directed by the Architect.
- B. Finish: Replace doors damaged during construction as directed by Architect.
- C. After the doors have been adjusted and cleaned, place poly bags over the doors to provide protection while the remainder of construction proceeds.

SECTION 08 56 00

BULLET RESISTANT BAFFLE TRANSACTION WINDOW ASSEMBLY

PART 1 - GENERAL

1.1 REFERENCE

- A. Underwriters Laboratory UL 752-Standard for Bullet Resisting Equipment & ASTM E119-98- Standard Test Methods for Fire Tests of Building Construction and Materials, NIJ Standard 0108.01-(National Institute of Justice) Standard for Ballistic Resistant Protective Materials, ASTM B 209/B 209M- Standard Specification for Aluminum and Aluminum Alloy Sheet and Plate, ASTM A 666-Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate and Flat Bar.

1.2 SUBMITTALS

- A. The following shall be submitted by the manufacturer in accordance with Sections 13070 and any Special Contract Requirements and coordinate with Sections 01340: Submit for approval prior to fabrication: samples, product data (including preparation, storage and installation methods), cuts & anchor spacing, reinforcement & location , product specifications, shop drawings, test reports (current UL Listing Verification & UL 752 Test Results as provided by Underwriters Laboratories), and printed data in sufficient detail to indicate compliance with the contract documents.
- B. Manufacturer's Instructions for installation and cleaning of Bullet Baffle Design Transaction Window Assemblies. All required submittals shall be approved prior to installation.
- C. Submit color samples.

1.3 DESIGN PERFORMANCE

- A. Through the design, manufacturing techniques and material application the Bullet Baffle Design Transaction Window shall be of the "non-ricochet" type. This design is intended to permit the encapture and retention of an attacking projectile lessening the potential of a random injury or lateral penetration. This assembly shall provide single or multiple transaction positions utilizing the "natural voice" baffle configuration. This design shall employ offset vertical standing vision panels and 5" baffles to complete the "natural voice" design as well as to protect against angled ballistic penetrations. Each transaction position shall have a stainless steel dip tray as shown on the drawings. Components must be manufactured in strict accordance with the specifications, design and details. All vision panels and baffles shall be cut to size with all exposed edges polished. Necessary holes shall be pre drilled and tapped where required. Stainless Steel assembly screws and acrylic spacers shall be provided. Clear anodized angles and channels shall be provided in field lengths. Anchor screws shall be provided by the installer.

- B. No field alterations to the construction of the units fabricated under the acceptable standards shall be allowed unless approved by the manufacturer and the architect. Standard manufacturing tolerances shall be +/- 1/16".
- C. Materials shall meet or exceed UL 752 requirements.
- D. Assembly to meet UL Level 1 Projectile Resistance.

1.4 QUALITY ASSURANCE

- A. Manufacturer shall be a Company that specializes in manufacturing products of the specified type with a minimum of five years experience. Installer shall be a Company that specializes in product type specified and Certified for the installation by the manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver the materials to the project with the manufacturer's UL Listed Labels intact and legible. Handle the materials with care to prevent damage. Store materials inside and under cover, stack flat and off floor. Project conditions (temperature, humidity, and ventilation) shall be within the maximum limit recommendations set by manufacturer. Do not install products that are under conditions outside these limits.

1.6 WARRANTY

- A. All materials shall be warranted against defects for a period of 1 year for the date of receipt at the project site. Certificates of manufacturer's standard limited warranty shall be provided at project completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products shall be manufactured by: Total Security Solutions, Inc, 170 National Park Drive, Fowlerville, MI 48836, 866-930-7807. Jim Richards, jim@demandtss.com . Web: www.tssbulletproof.com or approved equal meeting or exceeding specified requirements.

2.2 BULLET RESISTANT GLAZING PANELS-BAFFLES

- A. Glazing Panels and baffles shall be Level 1 acrylic, or laminated acrylic/polycarbonate composite as shown on the drawings with "Natural Voice" . The frame shall be of the "non-ricochet" type, lined with UL Listed Bullet Resistant Composite.
- B. Aluminum sections to be manufactured in accordance with ASTM B209, Extruded aluminum alloy 6063 T5 Anodized or powder coated finish to match the existing décor and be free of sharp edges or burrs when in place. Glazing Channel: U-Channel specifically designed for securing transparencies tightly in place. Angles and stops are only acceptable for top attachment.
 - 1. Frame to be anodized aluminum. Glazing must be removable from the secure side and not require the removal of the frame from opening. The bottom of the glazing to be capped with corresponding material on the frame (ie:

stainless steel on stainless steel). Provide a shelf 2" thick with a recessed deal tray. The shelf to be full width of window, 12" deep, centered under the glazing and covered with a black high pressure laminate.(optional stainless steel 18 ga. #3 finish).

2. Deal tray to be 16 ga. stainless steel, # 4 finish 12" x 10" from the outside edge of flanges with a clear opening .

C. Product shall be: Aluminum Interior Transaction Window

1. Size shall be 4'-4"H x 48" W
2. Color shall be dark bronze anodized.
3. Glazing Material shall be ballistic glass clad polycarbonate LT1-BR1 Level 1.
4. Security Level shall be 1.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Prior to installing the bullet resistive material, the contractor shall verify that all supports have been installed as required by the contract documents and architectural drawings, and approved shop/CAD drawings, if required. Installer shall notify architect of any unsatisfactory preparation that is responsibility of another installer.
- B. Clean and prepare all surfaces per manufacturers recommendations for achieving the best results for the substrate under the project conditions.

3.2 INSTALLATION

- A. Do not begin installation until openings have been verified and surfaces properly prepared in accordance with Drawings. Install in accordance with manufacturer's instructions and UL 752. Set all equipment plumb. All product shall be installed per manufacturer's installation instructions.
- B. Aluminum Interior Transaction Window with Package Passer shall arrive on site as a completed unit. Unit shall be installed in provided opening (wall), secured to structure.

3.3 POST APPLICATION

- A. Aluminum Interior Transaction Window with Package Passer shall be installed in accordance with manufacturer's printed recommendations, including adhering to anchoring and finishing details.
- B. Inspection and Cleaning: Verify installation is complete and complies with manufacturer's requirements. Clean product and accessories, removing excess sealant, labels and protective covers.
- C. Touch-up, repair or replace damaged products before Substantial Completion.
- D. Product Warranty: Applicable warranty shall be issued to owner upon final release of completed project.

SECTION 08 70 00

FINISH HARDWARE

SCOPE OF WORK:

The General Conditions, supplemental general conditions, and special conditions apply to all work in the section.

Provide all Finish Hardware as shown on the Drawing or as specified herein unless specified excluded and called for in other Sections.

All items of Finish Hardware shall be guaranteed for one year, except closers shall be guaranteed for five years.

Conform to building code and life safety code requirement If more restrictive than those specified herein, including UBC 7-2(1997) for positive pressure. Notify Architect of differences prior to starting work. Conform to Underwriters Laboratories (U.L.) requirements for fire rated openings, including UL10-C for positive pressure.

SUBMITTALS:

After award of contract and prior to ordering material, Hardware Supplier shall deliver one PDF copy of hardware schedules to architect for approval.

Each door shall be scheduled to show door number, room name and number (from and to), door size, door and frame material and hand of door, name of manufacturer of items furnished.

Each item listed, including those specifically called for herein, shall be illustrated by manufacturer's catalog data furnished in brochure form. Architect's approval of schedule is limited to approval of products and does not relieve hardware supplier of responsibility to furnish hardware in all quantities required in accordance with the plans and specifications and to meet the function of each door.

Should items of hardware not definitively specified be required for completion of work, furnish such items in type and quantity compatible to adjacent hardware.

Include wiring schematics as part of the hardware schedule showing product numbers and Quantities and gauges of wire required for connecting electronic components.

SAMPLES:

If requested by the architect, physical samples shall be submitted for any item listed in the hardware schedule for acceptance of the project by the owner.

COORDINATION:

Submit necessary templates and schedules as soon as possible to door and frame fabricator in accordance with the schedule they require for fabrication.

DELIVERY, STORAGE AND HANDLING:

Properly and carefully package items to protect against damage in shipment and storage; each item shall be packaged complete with all proper fastenings.

Each item shall be marked with appropriate heading and door number in conformance with approved hardware schedule, WITH INDEX SHOWING HEADING NUMBER WHERE DOORS ARE SCHEDULED.

After approval of hardware schedule, deliver hardware templates and/or physical hardware as required to door and frame manufacture to insure building project is not delayed.

GUARANTEE AND ADJUSTMENTS:

All hardware shall be guaranteed against defective workmanship, and shall replace and make good all defective material appearing within a period of one (1) year after completion of work. Closers shall be guaranteed for five (5) years. Hardware supplier shall not be responsible for faulty application of hardware.

Where hardware indicates improper operation, hardware supplier or manufacturer shall visit job and make necessary adjustments and corrections. Where hardware is inadequate for required function, exposure or use, replace with suitable hardware as directed.

Shortages and/or incorrect items (based on the plans and specifications and approved sample lists and schedules) shall be furnished and/or replaced with correct material by the hardware distributor, at no additional cost to the owner.

At completion of project, installer shall notify hardware contractor, who shall have an AHC (Architectural Hardware Consultant) make an inspection of all hardware installation, and make a written report to the Architect reporting conditions of adjustments or improper installation and advise changes required.

KEYING:

All lock cylinders shall be BEST SFIC.

Hardware supplier shall prepare keying schedule and meet with owner and Architect to review and obtain approval. Supply six (6) Master keys per set.

Keying must be done by lock manufacturer or supplier, Manufacturer or supplier is to keep complete and proper records and identification of master keys and their serial numbers.

Furnish two (2) change keys per lock. All keys shall be properly marked immediately on receipt and turned over to the Owner at completion of project.

INSTALLATION:

Carefully install hardware, using skilled finish carpenters. Fit before painters finish is applied. Remove and re-install after finish is complete. Install hardware so that all operating parts function smoothly, close tightly and do not rattle. Carefully install hardware as listed in the installation instructions furnished with each finish hardware item, adhere to manufacturer's instructions for mounting.

Set metal thresholds in full bed of specified caulking compound, forming tight seal between threshold and surface to which set. Secure permanently using countersunk non-ferrous screws to match color of threshold.

Hardware Mounting Heights (Verify with Architect before installation):

Centerline pulls to finish floor 42"

Centerline push plates to finish floor 45"

Centerline lock strikes to finish floor 40 5/16"

Centerline cross bar on panic devices from finish floor 37 1/2"

Centerline deadlock strikes to finish floor 48"

Provide all anchorage, fasteners, etc. as required for the complete installation of all hardware. Furnish thru-bolts for all butts (surface type only), closers, exit devices, push bars and other hardware subject to severe usage or as required by Underwriter Laboratory (UL) or as directed by the Architect on the shop drawings.

FINISHES AND MATERIALS:

Butts, Exterior	<u>US10</u>
Interior	<u>US10</u>
Locksets	<u>US10</u>
Door Closers	<u>LT BRONZE</u>
Exit Devices	<u>US10</u>
Push Bars, Push Plates, Pulls	<u>US10</u>
Kickplates	<u>US10</u>
Stops and Holders	<u>US10</u>
Misc., Hardware	<u>US10</u>

BUTTS:

The following is a table of butt types in manufacturer's catalogue numbers which are considered equal. No substitutions will be allowed:

	<u>Hager</u>	<u>Stanley</u>	<u>PBB</u>
Type 3	BB1168	BB168	4B81

Butts types shall be furnished as follows, except as otherwise noted.

Interior Doors over 36" wide	Type <u>3</u>
Interior Doors with Closers	Type <u>3</u>
Interior Doors without closer	Type <u>3</u>

Butt quantities and sizes shall be as follows, except as otherwise noted. All butts shall be 4 1/2 x 4 1/2.

- Two (2) butts for Doors 60" in height and under
- Three (3) butts for doors 61" thru 90" in height
- Four (4) butts for doors 91" thru 120" in height
- Four (4) butts for Dutch doors

Provide proper width of butts to clear trim and allow full 180 degree swing.

LOCKSETS AND LATCHSETS

Unless otherwise indicated in hardware groups, all locks, latches, trim, deadlocks shall be the products of one manufacturer.

All locks shall be: **CORBIN ML2000 SERIES**

Design to be: **PSM**

Provide wrought boxes and strikes with proper length to protect trim, provide open back strikes where required. Lock functions shall be as listed in hardware groups.

Knurled knobs shall be installed on Janitor, Mechanical Stair, Equipment, etc, per Handicap Code restrictions where applicable.

The following is a table of devices and design which are considered equal and acceptable.

NO SUBSTITUTION.

EXIT DEVICES

All exit devices shall be U.L. listed for safety requirements as well as listed for labeled doors.

VON DUPRIN

Series	99L
Design	06
Series	9927L
Design	06

Furnish electric latch retraction "EL" as specified in hardware groups including applicable power supply as required by the manufacturer.

ELECTRIC STRIKES

All electric strikes shall be U.L. listed for safety and fire requirements. Provide strikes with voltage as required by security system.

ELECTRIC STRIKES ARE TO BE HES 1000 SERIES PROVIDED BY THE SECURITY CONTRACTOR.

DOOR CLOSERS:

All closers shall be of rack and pinion construction with separate adjusting valves for latching speed, closing speed and back check. All closers to be surface applied and have non-ferrous covers.

All closers to be mounted on room side wherever possible, where wall conditions permit, all doors shall swing 180 degree.

It shall be the hardware supplier's responsibility to furnish door closers sized to comply with The manufacturer's recommendations for door sizes. Furnish thru bolts for all labeled wood doors.

The following is a table of closers which are considered acceptable:

<u>LCN</u>	
Exterior	4041XP H CUSH
Interior	4041XP

NO SUBSTITUTION.

DOOR TRIM:

Unless otherwise specified, all push plates shall be equal to Hiawatha 200F and pull plates shall be equal to Hiawatha 200F x 535B.

All push/pull bars shall be equal to Hiawatha 1081 LBP x 535B.

All kickplates shall be equal to Hiawatha 10" high and 2" less than door width for single doors, 1 1/2" less than door width for pairs of doors. Armor plates shall be 40" high, mop plates 6" high, width same as kickplates.

Items equal in quality and design by, Trimco, Ives, Quality, Hager, Burns will be acceptable.

DOOR STOPS AND HOLDERS

Unless otherwise indicated, all door stops shall be equal to Glynn Johnson GJWB50W OR GJWB60W.

Where wall bumpers are not applicable, provide overhead door stays equal to Glynn Johnson GJ450 series, unless otherwise specified.

Provide overhead holders and shock absorber equal to Glynn Johnson GJ900M for all exterior doors call for, unless otherwise specified.

FLUSH BOLTS

Unless otherwise indicated, Inactive doors of pairs shall have two flush bolts, equal to H. B. Ives FB358, FB458UL. The bottom bolt shall be provided with a dustproof strike, equal to H. B. Ives DP2.

Where indicated, furnish automatic flush bolts H. B. Ives FB41P on Wood Doors H. B. Ives FB31P on Hollow Metal doors.

Where indicated, furnish Coordinators equal to H. B. Ives COR complete with proper filler bar H. B. Ives FL, also furnish mounting brackets for any stop mounted hardware equal to H. B. Ives MB1 OR MB2. Provide carry open bars where applicable equal to H. B. Ives **CB1**.

WEATHERSTRIPPING, THRESHOLDS, SWEEPS, SMOKESTRIPPING

Unless otherwise indicated, thresholds shall be equal to Reese S424A
Weather stripping shall be equal to Reese 769C apply to head and jambs where indicated in hardware groups.

Sweeps shall be equal to Reese 323C, apply to door bottoms where indicated in hardware.

Smoke gasket shall be equal to Reese 797B, apply to head and jambs where indicated in hardware groups.

The following schedule of hardware will be considered a guide only and the supplier is cautioned to refer to GENERAL CONDITIONS and PREAMBLE. It will be the hardware supplier's responsibility to advise the Architect before bidding if a conflict exists.

Refer to floor plans and/or door schedule for hardware group required at each opening. Ignore hardware groups not used on floor plans or door schedule. If conflict exists between The hardware preamble and schedule of hardware groups, the hardware listed in hardware group shall be furnished.

GROUP 01

DOORS 402, 403, 404, 405, 407

EACH LEAF TO RECEIVE;

3 EA. HINGE BB1279 4½ x 4½ US10
1 EA. LOCKSET ML2051 x PSM x CLS6 US10 (office function)
1 EA. BEST SFIC CORE US10
1 EA. STOP 236W 10

GROUP 02

DOOR 409

EACH LEAF TO RECEIVE;

3 EA. HINGE BB1279 4½ x 4½ US10
1 EA. LOCKSET ML2057 X PSM x CLS6 US10 (storeroom function)
1 EA. BEST SFIC CORE US10
1 EA. CLOSER 4040XP Rw/PA 691
1 EA. STOP 236W10
1 EA. ELECTRIC STRIKE BY OTHERS
1 EA. CREDENTIAL READER BY OTHERS
1 EA. POWER SUPPLY BY OTHERS

GROUP 03

DOOR 408

EACH LEAF TO RECEIVE;

- 3 EA. HINGE BB1279 4½ x 4½ US10**
- 1 EA. LOCKSET ML2057 x PSM x CLS6 US10 (storeroom function)**
- 1 EA. BEST SFIC CORE US10**
- 1 EA. CLOSER 4040XP CUSH 691**
- 1 EA. STOP 236W10**
- 1 EA. ELECTRIC STRIKE BY OTHERS**
- 1 EA. CREDENTIAL READER BY OTHERS**
- 1 EA. POWER SUPPLY BY OTHERS**

GROUP 04

DOOR 400

EACH LEAF TO RECEIVE;

- 3 EA. HINGE BB1279 4½ x 4½ US10**
- 1 EA. LOCKSET ML2055 X PSM x CLS6 US10 (classroom function)**
- 1 EA. BEST SFIC CORE US10**
- 1 EA. CLOSER 4040XP Rw/PA 691**
- 1 EA. STOP 236W10**

GROUP 05

DOORS 400A

EACH PAIR TO RECEIVE;

- 1 EA. LOCKSET ML2051 x PSM x CLS6 US10 (office function)**
- 1 EA. BEST SFIC CORE US10**

GROUP 06

DOOR 406

EACH LEAF TO RECEIVE;

- 6 EA. HINGE BB1279 x 4½ x 4½ US10**
- 1 EA. LOCKSET ML2057 x PSM x CLS6 US10 (storeroom function)**
- 2 EA. FLUSHBOLT FB458-12" US10**
- 1 EA. DUSTPROOF STRIKE DP2 US10**

SECTION 08 74 00

CARD READER SYSTEM

Card reader equipment and installation including electrical strikes and installation will be completed by City.

Contractors are responsible to coordinate and schedule work with vendor.

SECTION 08 80 00

GLAZING

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. Furnish all labor and materials in connection with glass and glazing, interior and exterior hollow metal and doors, complete, in accordance with the drawings and as herein specified.
- B. Glass sizes, glass types, glazing details and methods shall conform to the published recommendations of the glass manufacturer and the "Glazing Manual" of the Flat Glass Jobber's Association.
- C. Compounds, tapes, and gasket materials for exterior glazing shall be products having a life expectancy of 20 years minimum.
- D. Glass shall be accurately sized from actual frame measurements to provide the required edge clearances and lap. Glass shall be accurately positioned by means of setting blocks and centering shims in accordance with glass manufacturer's recommendations.
- E. Surfaces to receive glazing compounds and tapes shall be wiped clean and dry. In cold weather the glass, frames, and sealants shall be warmed before installation.
- F. All glazing for rated doors must be installed in approved metal frames and shall be clear fire rated glass.
- G. Fire rated glass to be used in fire rated assemblies.
- H. All glass to be tempered except where tempered fire rated glass required by code.
- I. Related Sections: 08 86 00 – Security Glazing.

1.2 WARRANTY

- A. Contractor shall furnish the Owner, manufacturer's written warranty on all units of insulating glass herein specified, guaranteeing insulating glass against film formation or dust collection between interior glass surfaces for a period of ten (10) years from the date of shipment to the job site.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Glass shall be as manufactured by Pittsburgh Plate Glass Co., Libby-Owens-Ford Co., American Saint Gobain, Mississippi Glass Co., or approved equal. Manufacturer of insulating glass must have had not less than five (5) years' experience in such manufacture.
 - 1. Tempered Plate Glass - 1/4" thick clear.
 - 2. Exterior Fixed Glazing and Sidelights – N/A

- B. Polybutene glazing compound shall be as manufactured by Tremco Manufacturing Co., Minneapolis Mining and Manufacturing Co., Presstite Division of Martin-Marietta Corporation, or approved equal. Compound shall be non-drying, non-oxidizing, and non-skinning.
- C. Oleo-resinous glazing compound shall be as manufactured by Dicks-Armstrong-Pontius, Tremco Manufacturing Co., Plastic Products Co., or approved equal. Compounds shall be especially formulated for the materials to which applied. Compound for face glazing of metal sash shall conform to Federal Specifications TT-G-00410(c).
- D. Flexible sealant shall be a two-component polysulfide base compound conforming to Federal Specification TT-S-227B and bearing a tested and approved seal of the Thiokol Chemical Corporation, or a one compound polysulfide, acrylic, or silicone base compound conforming to Federal Specification TT-S-00230, color as selected. Primer shall be as recommended by manufacturer.
- E. Glazing tape shall be a non-hardening, non-drying butyl rubber cloth reinforced tape; an extruded polybutene glazing tape, a reinforced butyl polyisobutylene tape or an approved equal.
- F. Setting blocks and spacers shall be neoprene or vinyl, maximum durometer hardness 40-50 for spacers and 70-80 for setting blocks.
- G. Glazing clips as required.

2.2 LOCATION OF MATERIALS

- A. Door and sidelight exterior glass shall be as specified above unless noted otherwise. Door and sidelight glazing to be tempered glass.
- B. Interior glazing shall be as specified above and as called for on drawings.
- C. All other glazing shall conform to the following minimum requirements:

<u>Size of Opening</u> (sq. ft.)	<u>Glass</u>
Maximum 12	1/8" thick (DS) sheet
Maximum 24	3/16" thick sheet
Maximum 29	7/32" thick sheet
Over 30	1/4" thick plate

- D. Glazing compounds and sealants shall be located as follows:
 - 1. All interior glass set in wood or metal doors and frames; Oleo-resinous glazing compound.
 - 2. All exterior glass to be face glazed, set in aluminum, and embedded in polybutene glazing compound and faced with oleo-resinous glazing compound.
- E. All glazing must conform to IBC requirements. Sidelites and door glazing shall be tempered glazing unless fire rated glazing is required.

PART 3 - EXECUTION

3.1 PREPARATION

- A. All surfaces to receive glazing compound and tapes shall be wiped clean and dry. In cold weather the glass, frames, sealant, etc. shall be warmed before installation.

3.2 INSTALLATION

- A. All sizes for glass shall be taken from the actual sash, doors and frames. Glass shall be set so that there will be equal bearing the entire width of each panel. All glass shall be continuously sealed the entire perimeter of the glass. Wood and metal stops, stop screws, and washers are specified elsewhere, but shall be applied as a part of the work of this section. Use neoprene vinyl or other approved setting blocks and spacers to achieve proper bearing and uniform beads of glazing compound or sealant.

3.3 CLEANING

- A. Upon completion of the work, when directed by General Contractor, replace all cracked or broken glass and clean all glass thoroughly both sides.

SECTION 09 21 00

PLASTER PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes the minimum requirements for full-thickness interior gypsum plastering on gypsum lath, metal lath plaster base, masonry and concrete bases.
- B. All existing defective plaster throughout entire building is to be restored to perfect condition. Contractor is responsible for identifying repair locations and quantities and repair method for each condition.
- C. All repaired areas are to match and align with existing finishes and textures and be invisible when painted.
- D. Quantities: Base bid includes completion of 1000 sq. ft. of "larger cracks/small holes" plaster patching and restoration work as specified throughout first floor areas. Contractor is to document and submit actual areas/quantities to be repaired for verification by architect. Adjustment to quantities and prices up or down to be per rates included in unit costs, with prior approval by architect.

1.2 RELATED SECTIONS

- A. Metal Furring and Lathing
- B. Gypsum Lathing

1.3 REFERENCES

- A. ASTM C 5 Specification for Quicklime for Structural Purposes.
- B. ASTM C 11 Terminology Relating to Gypsum and Related Building Materials and Systems.
- C. ASTM C 28 Specification for Gypsum Plasters.
- D. ASTM C 35 Specification for Inorganic Aggregates for Use in Gypsum Plaster.
- E. ASTM C 61/C 61M Specification for Gypsum Keene's Cement.
- F. ASTM C 206 Specification for Finishing Hydrated Lime.
- G. ASTM C 631 Specification for Bonding Compounds for Interior Gypsum Plastering.
- H. ASTM C 645
- I. ASTM C 841 Specification for Installation of Interior Lathing and Furring.
- J. ASTM C 1489 Specification for Lime Putty for Structural Purposes.

1.4 SYSTEM DESCRIPTION

- A. Gypsum Plaster – Two and Three-coat work over gypsum lath, troweled or floated finish. 3/4 inch thick including finish.
- B. Gypsum Plaster – Three-coat work over interior vertical metal lath, troweled or floated finish. 3/4 inch thick including finish.
- C. Gypsum Plaster – Two and Three-coat interior vertical on masonry or concrete troweled or floated finish. 3/4 inch thick including finish.
- D. Veneer Plaster – ½ inch two coat plaster over gypsum lath.

- E. Patch Plaster – Two and three coat interior plaster over metal lath to match adjacent surface texture and alignment.

1.5 SUBMITTALS

- A. Product Data: Manufacturer's specifications and technical data.
- B. Manufacturer's installation instructions.
- C. Identify tested assemblies for fire rated construction.
- D. Preliminary Samples for Verification: 24" x 24" for each type of finish-coat color and texture indicated, prepared using same tools and techniques intended for actual work.

1.6 QUALITY ASSURANCE

- A. Fire Resistance Ratings: Where plaster systems with fire-resistance ratings are indicated, provide materials and installations identical to those of applicable tested assemblies by fire testing laboratories acceptable to authorities having jurisdiction.
- B. Plastering Contractor Qualifications: Contractor shall provide a list of completed work of equal scope.

1.7 DELIVERY STORAGE AND HANDLING

- A. Packing and Shipping: Deliver products in original unopened manufacturer's packaging.
- B. Storage and Protection: Comply with manufacturer's recommendations.
- C. Damaged Materials: Remove damaged or deteriorated materials from site.

1.8 PROJECT CONDITIONS

- A. One week prior to commencing plastering and continuing until plastering is completed, maintain a temperature of not less than 55°F (13°C) and not more than 80°F (27°C).
- B. After plaster has taken set, provide free circulation of air evenly distributed.
- C. Protect plaster from freezing and too rapid drying.

PART 2 – PRODUCTS

2.1 SUPPORTS

- A. Steel Framing: Non-axial load bearing studs complying with ASTM C 645.
- B. Furring: Cold-rolled spacer channels and metal furring fastened to framing or solid base to create an even surface for the application gypsum lath or metal plaster base. Installation shall comply with ASTM C 841.
- C. Wood Framing: Thickness in the least dimension shall not be less than 2 inches (51 mm) nominal.

2.2 SOLID BASE

- A. Masonry: Standard Concrete Masonry Units, Structural Clay Tile, Porous Brick.
- B. Concrete.

2.3 LATHING MATERIALS

- A. Gypsum Lath: Gypsum core faced with multilayer laminated paper to provide proper absorption, check plaster slide and resist sag complying with ASTM C 37.
- B. Metal Lath: expanded metal lath, sheet metal lath conforming to ASTM C 847.
- C. Lath Attachment Devices and Accessories: As required by ASTM C 841.

2.4 PLASTERING MATERIALS

- A. Liquid Bonding Compound: Vinyl acetate homopolymer emulsion for enhanced adhesion of new plaster to concrete. Larsen's Plaster Weld, USG Plaster Bonder or equal.
- B. Aggregate: ASTM C 35
- C. Water: Clean potable. Free of mineral or organic impurities that may affect the set of the plaster.
- D. Base Coat Gypsum Plasters: Shall conform to ASTM C 28.
 - 1. Mill-Mixed Plaster: Regular with mill added sand or job added sand.
 - 2. Wood Fibered Plaster:
 - a. Water added only for standard lath applications or with added sand for scratch and brown coat.
 - b. Job added sand over masonry bases or machine application.
 - 3. Neat Plaster: Plaster without added aggregate.
 - 4. High Strength Plaster: Proprietary where higher strength than conventional plaster is required.
- E. Finish Plasters
 - 1. Job Mixed
 - a. Gypsum Gauging Plaster.
Regular
Keenes Cement: Retemperable. Shall conform to ASTM C 61.
 - 2. Manufacturer's Prepared Finish: To match existing.

2.5 GYPSUM PLASTER MIXES AND PROPORTIONS

- A. Base Coat: Mix design and proportions per ASTM C 28 and ASTM C 842 and manufacturer's directions for gypsum plaster base coat proportions.
- B. Two-Coat Work over Gypsum Lath: 2 ½ ft.³ (250 lb.) damp loose sand per 1 ft.³ (100 lb.) of plaster.
- C. Three-Coat Work over Gypsum Lath or Metal Lath: Damp loose sand per 1 ft.³ (100 lb.) plaster.
 - 1. Scratch Coat: 2 ft.³ (200 lb.) sand to 1 ft.³ (100 lb.) plaster.
 - 2. Brown Coat: 3 ft.³ (300 lb.) to 1 ft.³ (100 lb.) plaster.
 - 3. Scratch & Brown: 2 ½ ft.³ (250 lb.) to 1 ft.³ (100 lb.) plaster.
- D. Two-Coat Work over Masonry: 3 ft.³ (300 lb.) damp loose sand per 1 ft.³ (100 lb.) plaster.
- E. Three-Coat Work over Masonry and Monolithic Concrete: 3 ft.³ (300 lb.) damp loose sand per 1 ft.³ (100 lb.) plaster.
- F. Finish Plaster: Mix design and proportions per ASTM C 842 and manufacturer's directions for finish coat proportions.
- G. Troweled Finishes
 - 1. Lime Putty with Gypsum Gauging: 1 ft.³ (100 lb.) gypsum/ 3 ft.³ (225 lb.) lime/ no sand.
 - 2. Gypsum Keene's Cement (Medium): 1 ft.³ (100 lb.) gypsum/ 1 ft.³ lime (50 lb.) / no sand.
 - 3. Gypsum Keene's Cement (Hard): 1 ft.³ (100 lb.) gypsum/ ½ ft.³ (25 lb.) lime/ no sand.
 - 4. Manufacturer's prepared finish.
- H. Floated Finishes
 - 1. Lime Putty with Gypsum Gauging: 1 ft.³ (100 lb.) gypsum/ 3 ft.³ (225 lb.) lime/ 2 ft.³ (200 lb.) sand.
 - 2. Gypsum Keene's Cement (Medium): 1 ½ ft.³ (150 lb.) gypsum/ 2 ft.³ (100 lb.) lime/ 4 ½ ft.³ (450 lb.) sand.
 - 3. Manufacturer's prepared finish.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion. Do not proceed until unsatisfactory conditions have been corrected.
- B. Other Work: Verify that electrical wiring, plumbing and heating, piping and ductwork is installed and accepted by architect/ owner's representative before plastering.

3.2 PREPARATION

A. Protection

1. Close exterior openings necessary to protect plaster from inclement weather. Protect wood, glass, tile and other finished work.
2. Provide watertight pans/ boxes under water barrels and mixers.
3. Place three layers of tarred felt extending 6 feet beyond outer edges of mix area.

B. Substrates: Surfaces of substrates for the application of gypsum plaster shall be free of materials that may inhibit the bond.

1. Substrates shall be straight, plumb, level, square, and true to the project requirements.
2. Comply with referenced lathing and furring installation standards for provision and location of plaster accessories of type indicated.
3. Hollow metal window and door frames shall be filled with gypsum plaster or grout.

C. Conditioning of Surfaces: Concrete and masonry:

1. All voids and depressions greater than 1/8" shall be filled with compatible cementitious materials.
2. All masonry surfaces shall be dampened (not saturated) with water prior to application of gypsum plaster.
3. Smooth surfaces shall be roughened by mechanical means and/ or a liquid bonding compound shall be utilized.
4. Where bond cannot be attained to smooth surfaces, self furring lath shall be installed as per ASTM C 841.

D. Gypsum or Metal Lath: Shall be installed as per ASTM C 841.

E. Patching of Existing Plaster

1. Hairline surface cracks
 - a. Commercially available spackling pastes are best suited to filling hairline cracks. Fill the void using a putty or broad knife. Strike the material off flush with the plaster surface.
 - b. Sand lightly when dry if necessary, and then re-paint.
2. Surface cracks larger than hairline up to credit card thickness
 - a. Use a ready mix drywall compound or setting type by method listed above. Setting type joint compounds (USG Durabond or equal) shrink less than ready mix compounds and may be preferable for cracks on the wider side of the scale.
3. Larger cracks/small holes
 - a. Clean out loose plaster particles.
 - b. Fill crack/hole with setting type joint compound (USG Durabond or equal) with a broad knife, striking the material off flush with the surface. Allow to set.

- c. Reinforce filled in crack with drywall tape embedded in setting type joint compound. Feather edges out to smooth and begin to conceal the repair. Allow to set.
 - d. Sand lightly to smooth and apply another thin coat of setting type joint compound. Allow to set. Repeat procedure as necessary to complete the repair.
- 4. Small patches (less than 4 inches in diameter)
 - a. Clean out loose plaster particles.
 - b. Apply bonding agent, Larsen Plaster Weld or equal, to edges of existing plaster around the hole to be filled. Follow manufacturer's instructions for application.
 - c. Old, dry wooden lath should be dampened with a water spray mist to limit suction and uneven drying of the plaster.
 - d. Fill void with milled plaster product, National Gypsum Gold Bond, USG Red Top, or equal. Fill void full for smooth patch or leave slightly recessed as necessary to accommodate similar finish texture.
- 5. Large Patches
 - a. Scrape and remove any loose plaster or debris.
 - b. Reinforce with expanded metal lath, cut slightly smaller than opening, fastened to framing, wood lath or other solid substrate.
 - c. Apply bonding agent (Larsen's Plaster-Weld or equal) to edges of sound existing plaster.
 - d. Re-plaster using three-coat technique as per ASTM C842 using milled plaster product, National Gypsum Gold Bond, USG Red Top, or equal.
- 6. Re-Surfacing Plaster Walls
 - a. Sand surface. Painted surfaces may require more preparation.
 - b. Apply bonding agent, Larsen's Plaster-Weld or equal. Follow manufacturer's instructions for application.
 - c. Fill any low spots with prepared veneer base coat gypsum plaster product, USG Diamond, National Gypsum Kal-Kote or equal. Thickness should be no greater than 1/4" per layer. Scratch surface for key of next layer and allow to take-up sufficiently or dry.
 - d. Parge entire wall area with veneer base coat at approximately 1/16 – 3/32" thickness.
 - e. Embed glass fiber mesh (EIFS type such as Dryvit, Sto or equal) into the fresh veneer plaster base coat, scratching surface for subsequent finish coat. Allow to take-up sufficiently or dry.
 - f. Apply final finish veneer plaster, National Gypsum Kal-Kote, USG Imperial, Lime and Gauging.

F. Veneer Plaster Application

- 1. Base: Manufacturer's standard size gypsum base sheets in maximum available lengths to minimize end-to-end joints, manufacturer's standard edge profile.
- 2. Comply with ASTM C588.
- 3. Thickness: 5/8" unless otherwise indicated.
- 4. Imperial Gypsum base by USG or approved equal.
- 5. Bonding agent: USG Plaster Bonder or approved equal.

6. Plaster Base Coat: Ready-mixed material, mill-prepared, high-strength gypsum veneer plaster for two-coat application. Diamond Basecoat by USG or equal.
7. Plaster Finish Coat: Ready-mixed material. Textured finish. Match existing sand texture as required. Add water in accordance with manufacturer's instructions. Imperial finish by USG or equal.

3.3 APPLICATION

- A. Conform to applicable requirements of ASTM C 842 Standard Specification for the Application of Interior Gypsum Plaster.
- B. Thickness: Apply gypsum plaster in thickness described in section 1.4.
- C. Two-Coat Work over Gypsum Lath or Masonry: The first coat shall be applied with sufficient material and pressure to form a good bond. Double-back immediately to bring plaster out to grounds; straighten to true surface with rod and darby, leaving surface sufficiently rough to receive finish.
- D. Three-Coat Work over Metal Lath: Apply scratch coat with sufficient material and pressure to form a good bond with metal lath; then scratch to roughen surface to accept brown coat. Allow to dry firm and hard, then apply brown coat and true with rod and darby, leaving surface sufficiently rough to receive finish coat.
- E. Three-Coat Work over Masonry or Monolithic Concrete: Apply scratch coat with sufficient material and pressure to form a good bond with the masonry or concrete substrate; then scratch to roughen surface to accept brown coat. Allow to dry firm and hard, then apply brown coat and true with rod and darby, leaving surface sufficiently rough to receive finish.
- F. Application of Finishes: Base coat to receive finish shall be damp from partial drying. Or dry base coat shall be dampened (not saturated).
 1. Apply finish coat over base coat, 1/16 to 1/8 inch thick, doubling back as necessary for an even surface free of scratches, ridges, waves or other irregularities.
 2. Final trowelling for smooth finish
 - a. Lime Putty Keene's Cement: Trowel until finish has set.
 - b. Manufacturer's prepared finish: Shall be trowelled according to directions of manufacturer.
 3. Float/ Textured Finish
 - a. Texture shall be per sample or mock-up using float, methods and devices as predetermined.
 - b. Manufacturer's prepared finish: Special textures shall be floated according to the directions of the manufacturer.

3.4 CUTTING, FITTING AND PATCHING

- A. After finishing last coat, point up plastering, rake out surfaces where necessary, point up around trim and other adjoining work and leave surfaces complete and uniform at final completion.
- B. Unacceptable defects: Cracks, blisters, pits, discoloration or checks.
- C. Patch existing plaster surfaces where indicated on drawings and where affected by new construction as necessary to match existing plaster surfaces.

3.5 CLEANING AND PROTECTION

- A. Remove temporary protection and enclosure of other work. Promptly remove plaster from door frames, windows, floors, walls and other surfaces that are not to be plastered. When plastering work is completed, remove unused materials, containers, and equipment and clean floors of plaster debris.

SECTION 09 29 00

GYPSUM DRYWALL WORK

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Furnish all materials, labor, and related items required to complete work shown and/or specified. See wall types on plan for layers of gypsum. All interior walls shall be a minimum of gypsum partition metal studs 16" o.c. with 5/8X each side.
- B. Examine framing and blocking and report to the Architect any defects that should be corrected before installing dry interior finish. Do not install dry interior finish until work of other division is in compliance with Appendix A of ASA No. A97.1.
- C. Install poly film vapor barrier where shown on the drawings – see Section 06 10 00.
- D. Fit gypsum tight to decks and around joists where indicated. All walls to run full height from floor to underside of deck above
- E. Metal Stud Framing - See Light Gauge Framing - Section 05 40 00.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Interior Regular Gypsum Board: Gypsum wallboard shall be as manufactured by the National Gypsum Co., United States Gypsum Co., or Johns-Manville, UL listed gypsum wallboard (5/8 X), 5/8" thick, labeled type, tapered edge, 4' wide in lengths as long as practical to minimize the number of joints, or same 5/8 X water resistant type.
- B. Acoustical Sealant: Meeting ASTM C919 and ASTM C834. Highly elastic, water-based caulking for sound-rated partition and ceiling systems and sealing vapor barriers at exterior walls to reduce air infiltration. Non-bleeding and staining, pumpable and easily applied in beads, providing adherence to surfaces, permanent flexibility, and lasting seal.
- C. Fasteners, joint and corner reinforcing joint compound, and surface sealer for gypsum board shall be as standard with and as recommended by the manufacturer of the gypsum wallboard.
- D. Furnish and install all required metal corner beads, metal end casings, and all other trim pieces as required or as called for on the drawings. Resilient clips or resilient channel on ceilings and necessary suspension and backing not shown by others. Feather out from all casing beads with taping compound.
- E. Expansion Joints: Shall be fabricated with casing beads back to back with 1/8 inch space between beads. Joint must be installed to allow direct expansion and contraction and also lateral movement. Provide all back up for expansion joints. Feather out from casing beads with taping compound each way. Cut and caulk open space.

PART 3 - EXECUTION

3.1 GENERAL

- A. Workmanship shall comply with applicable parts of American Standard Specifications for Gypsum Wallboard Finishes, ASA No. A97.1.
- B. In cold weather the building shall be heated during the application of the gypsum wallboard to maintain a uniform temperature in the range of 70°F and ventilation shall be provided to eliminate excessive moisture.
- C. All materials as specified above shall be delivered to the job in original unopened containers or bundles, stored in a place protected from exposure to elements and from damage by tampering, and used in strict accordance with manufacturer's directions.

3.2 INSTALLATION

- A. Installation of gypsum wallboard shall be in strict accordance with the manufacturer's printed recommendations and specifications.
- B. All ends and edges of gypsum wallboard shall occur over nailing members except when joints are at right angles to framing members as in horizontal application at all walls.
- C. Fastenings shall be by the double screwing method in groups approximately 9" o.c. in compliance with the manufacturer's printed recommendations and specifications. Install ceiling first with closest screwing 12" from wall. On wall sheets, fit with 1/2" gap at floor and 1/8" gap at ceiling board. Screw to approximately 9" from ceiling. Float corners.
- D. Joint reinforcing, corner reinforcing, joint compound, and topping compound shall be installed in accordance with manufacturer's printed specifications.
- E. Install poly film by securing to studs on all exterior insulated walls and ceilings.
- F. At water resistant drywall furnish joint treatment sealant as recommended by manufacturer at all cut edges, utility holes and joints, including those at all angle intersections and treat all fastener heads with sealant after installation.
- G. Tape and fill all joints, nail and screw holes as recommended by manufacturer at all cut edges, utility holes and joints, including those at all angle intersections. Treat all fastener heads with sealant after installation.
- H. Furnish blocking, anchoring devices, corner beads, casing beads, and other necessary accessories of size and spacing as recommended by manufacturer whether specified or not, but required for proper construction of systems.
- I. Install expansion joints where called for on drawings and as required using Metal Trim 200-A.
- J. Provide casing bead or approved surface bead where sheetrock abuts masonry or precast concrete. Miter corners of abutting metal return beads. Flat type and score joints between walls and ceiling.

SECTION 09 40 00

FLOOR REPAIR AND LEVELING

PART 1 - GENERAL

1.1 SCOPE

- A. Where necessary to level new and existing concrete, bush hammer existing concrete and provide tapering slab using Five Star Structural Concrete or approved equal, all according to manufacturer's recommendations.
- B. Provide all materials and labor necessary to make smooth transition where ramped floors interface with existing topping slabs, insulation, and structural slabs, and to correct the defective conditions of existing or new floors to level areas where walls, bases, or raised areas are to be revised and to make all floor area suitable for first class installation of flooring specified for this project.
- C. Prepare all floor areas for specified finishes. Include sloping of floor surface toward draws where applicable.
- D. Quantities: Base bid includes 500 sq. ft. of "heavier repair work" as specified throughout first floor areas. Contractor is to document and submit actual areas/quantities to be repaired for verification by architect. Adjustments to quantities and prices up or down to be per unit price cost, with prior approval by architect.

1.2 REFERENCES

- A. ASTM C33: Concrete Aggregates
- B. ASTM C144: Aggregate for Masonry Mortar
- C. ASTM C150: Portland Cement
- D. ASTM C404: Aggregates for Masonry Grout

1.3 SUBMITTALS

- A. Comply with requirements of Division 0 and 1.
- B. Product Data: Submit with mixing and application instructions.

1.4 STORAGE AND HANDLING

- A. Deliver materials in original unopened containers. Store so as to prevent damage and deterioration.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portland Cement: ASTM C150, Type I
- B. Sand: ASTM C33, use in section topping.
Sand: ASTM C144, use in bonding grout mix.
Sand: ASTM C404, size no. 2, use in thin section topping mix.
- C. Bonding Agent:

1. Grace and Co., Daraweld-C
 2. Sonneborn, Sonocrete
- D. Thin Repair Work: Material for floor repair less than 3/4 inch thick shall be cement, sand, water, and bonding agent or one of the following proprietary compounds.
1. Bonsal Construction Products, Fast Set Cement Mix
 2. Laticrete International, Inc. Laticrete 3701 Mortar
 3. Thoro Systems Products, Thorocrete
- E. Heavier Repair Work: Use 3.4 gal. lath and concrete leveling.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare existing floors to assure secure bonding of new floor repair material. Remove oil, grease, dirt, and other substances which will prevent bonding. Remove loose or unsound concrete. Follow with acid etching and rinsing in accordance with bonding agent manufacturer's instructions.

3.2 MIXING

- A. Bonding Grout Mixing: Mix Portland cement, sand, bonding agent, and water in proportions and method recommended by bonding agent manufacturer's instructions.
- B. Thin Section Topping; Mix Portland cement, sand, bonding agent, and water in proportions and method recommended by bonding agent manufacturer's instructions. For use in repairs not over 1/2 inch thick.

3.3 APPLICATION

- A. Grouting Application: Thoroughly moisten previously prepared surface and then scrub grout onto the surface, and in accordance with bonding agent manufacturer's instructions.
- B. Thin Section Topping Application: Immediately following application of grout, while grout is still soft and plastic, place and finish without excessive working or troweling, and in accordance with the bonding agent manufacturer's instructions.
- C. Proprietary Floor Repair Application: Mix and apply in strict accordance with the manufacturer's current printed instructions, trowel surface smooth.
- D. Finish: Match existing adjacent floor finish.
- E. Curing: Cure toppings by maintaining surface moist for four days after placement, or as recommended by manufacturer of prepared mixes.

SECTION 09 50 00

ACOUSTICAL CEILINGS

PART 1 - GENERAL

1.1 GENERAL

- A. Furnish and install suspended ceiling systems in rooms noted using first line materials, symmetrical layout, and good workmanship.
- B. Modify existing ceiling system as required for new wall construction as indicated. Include salvaging and reinstallation at retrofitted areas.
- C. Acoustic materials and application shall comply with UL, ASTM or other recognized industry standards. Specifications and details for acoustic materials and application shall conform to the recommendations of the manufacturer of the material used.

1.2 SAMPLES, EXTRA MATERIAL, AND SHOP DRAWINGS

- A. Samples: Two pieces of each pattern or finish of ceiling panel material specified or proposed shall be submitted for approval by the Architect. Approvals must be received by Contractor in writing before proceeding with any phase of the work.
- B. Extra Materials for Maintenance: Upon completion of the acoustical work, the acoustical contractor shall deliver to the Owner or his agent, one carton of each size, pattern, and finish of the material used in the project.
- C. Shop Drawings: Layouts of grid system shall be supplied to Architect for approval prior to installation.

1.3 GUARANTEE

- A. The acoustical material and subcontractor shall furnish Owner, through Architect, a guarantee against sagging, warping, or shrinking where installed in accordance with manufacturer's directions. This guarantee for five (5) years.

PART 2 - PRODUCTS

2.1 MATERIALS AND SYSTEMS

- A. All acoustic material shall be non-combustible and, where required by code, shall be rated and labeled by UL for fire resistance or fire hazard classification.
- B. Support systems for suspended acoustical ceilings shall permit access to ceiling space where mechanical and/or electrical distribution systems are located above the ceiling and access to same is required for modifications or servicing.
- C. Ceiling Tile: Armstrong Cirrus, square lay-in #533, 2' x 4' x 3/4" white to match existing building standard. Verify style with existing prior to installation. Notify architect if different.
- E. Hanger wire no. 12 galvanized wire located 48" o.c.

- F. Grid: Grid system as required for Class "A" system. Chicago Metallic "200" Series snap grid with paint finish and using all available applicable accessories. Grid main runners and cross tees to be of proper size and length to form the module and support the ceiling load. Main runners to be not less than .025" cold rolled steel and 1" flange. 4' cross tees to be not less than .024 cold rolled steel, 1-1/2" web, and 1" flange. Exposed flanges of main runner and cross tees to be finished with white high bake enamel.
- G. Accessories shall be specifically designed for use with components employed.
- H. Molding - Channel section shall be not less than .020 cold rolled steel of sufficient web height to accommodate the tile and runners used.
- I. Wall Molding - Angle section shall be no less than .025 with legs no less than 15/16" with hemmed edge.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Layout work so that all tile, boards, and panels are symmetrical about the centers. Coordinate acoustical work with other trades so that all materials work together as perfectly as possible and not less than 1/2 panel is used.
- B. Main runners shall be suspended from the structure by means of #12 galvanized wire located 48" o.c. Runners shall be straight, true, and accurately leveled. Main runners and cross tees to be located on centers to form the module and support the ceiling load. Grid members to be positively interlocked by manufacturer's standard method.

SECTION 09 65 13

RESILIENT BASE

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Furnish and install all resilient baseboard as scheduled in Room Finish Schedule.
- B. All toe spaces of millwork where wood base is not called for.

1.2 SUBMITTALS

- A. Submit samples of resilient baseboard for color selections.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Refer to Room Finish Schedule and details for extent and location of materials.
- B. Base shall be 4" high molded top set cove base, color as selected, complete with external cove corners with returns of not less than 2-1/2". Base to be rubber. Provide sheet base at ramps and other areas called for on drawings.
- C. Adhesive shall be as recommended by the manufacturer in his standard printed instructions.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install in accordance with manufacturer's recommendations.
- B. Cleaning and Finishing: Remove all excess cement and clean base thoroughly. Do not use cleaners containing solvents such as gasoline, kerosene, benzene, turpentine, oils, free fats, alkali or acids.

SECTION 09 65 19

RESILIENT FLOORING

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Furnish and install all composition floor and base covering as scheduled in Room Finish Schedule including vinyl base at walls, millwork, and casework.
- B. Application methods and materials shall be in accordance with flooring manufacturer's recommendations for the particular conditions of application.
- C. This section shall also include all necessary leveling, trueing, filling necessary to correct defects in sub-floors. See also Section 09 40 00 – Floor Leveling and Repair.
- D. Base to be included at all resilient and carpeted areas and where indicated on plans when wood base is not called for. See Section 09 65 13.

1.2 SAMPLES AND SHOP DRAWINGS

- A. Submit two (2) complete sample boxes of all tile for approval.
- B. Submit shop drawings showing pattern and distribution of color.

1.3 ENVIRONMENTAL CONDITIONS

- A. Deliver materials in good condition to the job site in the manufacturer's original unopened containers that bear the name and brand of the manufacturer, project identification, and shipping and handling instructions.
- B. Store materials in a clean, dry, enclosed space off the ground, and protected from the weather and from extremes of heat and cold. Protect adhesives from freezing. Store flooring, adhesives and accessories in the spaces where they will be installed for at least 48 hours before beginning installation.
- C. Maintain a minimum temperature in the spaces to receive the flooring and accessories of 65°F and a maximum temperature of 100°F for at least 48 hours before, during, and for not less than 48 hours after installation. Thereafter, maintain a minimum temperature of 55°F in areas where work is completed. Protect all materials from the direct flow of heat from hot-air registers, radiators, or other heating fixtures and appliances.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Refer to Room Finish Schedule and details for extent and location of materials. Review drawings and include any pattern areas indicated.
- B. Composition flooring is not required under permanently installed base cabinets and similar items.

2.2 MATERIALS

- A. Vinyl tile (VCT) shall be 12 x 12 x 1/8" thick, Armstrong Standard Excelon or similar by Azrock, Congoleum or Tarkett. Color as selected from full palette.
- B. Metal edging to be used where resilient meets carpet. Metal edging where composition floor meets cement floor shall be Trimedge A-115-H.
- C. Base shall be resilient, specified in 09 65 13 or wood, specified in Section 06 20 00.
- D. Adhesive shall be as recommended by the tile manufacturer in his standard printed instructions.
- E. Wax for VCT floor shall be non-slip, waterproof water emulsion type wax as manufactured by Multi-Clean Products Inc., Midland Laboratories, Hillyard Chemical Co., Industrial Chemical Laboratories, Inc. or approved equal.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Inspect all floors before installing new resilient flooring. Do not install if floor is not level within 1/8" in 10'-0" or if floor is not smooth or free from marks that will affect the finish surface. Provide all necessary truing and leveling to prevent telegraphing of subfloor through tile.
- B. Do not install until floors are satisfactory. This contractor will be responsible if sub floor deficiencies impair quality installation and telegraph imperfections through tile.
- C. Substrate Conditions: F1869-98 Standard Test for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride: The flooring contractor shall be responsible for conducting one calcium chloride test for every 1000 sq.ft. (minimum – three tests) to ensure concrete moisture emissions do not exceed 5.0 lbs. per 1000 sq.ft. within a 24-hour period. A diagram of the area showing the location and results of each test shall be submitted to the architect and general contractor. If the test results exceed the limitations, the installation must not proceed until the problem has been corrected. Alternately, use an internal relative humidity probe kit to measure moisture content, relative humidity, temperature and dew point.

1. Contingency for High Moisture Readings: If at the time of testing the moisture readings are in excess of 5.0 lbs., the flooring contractor will initiate testing using petrographic analysis to determine if the Water Cement Ratio and sufficient hydration has taken place. If the specifications were not followed in their entirety, water/cement ratio (as specified), and/or the concrete surface has been inadequately hydrated, the contractor responsible for the placement of the cement shall be responsible for the costs associated with the petrographic analysis and subsequent remediation requirements.
2. The flooring contractor shall verify in writing to the architect, a minimum of 30 days prior to scheduled resilient flooring installation, the following substrate conditions:
 - a. Moisture: Initial emission rate, as tested with a calcium chloride test kit, per ASTM F1869-89 requirements.
 - b. Alkalinity: Maximum pH of 10; floors with a pH higher than 10 must be neutralized and rested.
3. Upon request by architect, flooring manufacturer to provide independent testing lab verification of all applicable test results.

3.2 PREPARATION

- A. For patching, smoothing, and leveling, use manufacturer's recommended fast setting cement based underlayment. Prepare existing sub floor as required by manufacturer to insure adequate bond strength.
- B. Verify subfloor is prepared and ready to receive new flooring per manufacturer's written instructions.

3.3 INSTALLATION

- A. Vinyl Composition Tile:
 1. All vinyl tile shall be laid in a workmanlike manner in mastic cement conforming to manufacturer's standard practice. Room temperature shall be not less than 70°F and shall be kept at that temperature for several days after material has been installed. Tiles shall be stored in the building at the above mentioned temperature for at least 40 hours before they are laid. Tiles shall be laid in true, straight line, closely fitted to adjacent tile on all sides without voids. Lines shall be stretched on both axes of the room and tile shall be spaced from the center in both directions so that opposite margins will be uniform and not less than one half tile in width. Where composition flooring abuts floors of greater thickness, the composition flooring shall be ramped with trowel type underlayment to meet adjacent floors in a flush joint. In areas where vinyl wall covering occurs, it shall be in place before composition base is applied.
 2. After all vinyl is in place it shall be rolled in both directions with a roller not less than 12" wide and weighing not less than 150 pounds per foot of width.
 3. Floors shall be leveled to within 1/8" in 10'-0" in all directions and be smooth and free of trowel marks. See Section 09 64 00.

- B. Divider Strip: Install 1/8" top, recess white metal edging strip continuous wherever two different floor materials meet, similar and equal to Manhattan Edging Strip. Provide where composition covered floor meet carpeting concrete, ceramic or quarry tile.

3.2 CLEANING AND FINISHING

- A. Vinyl Composition Tile - Remove all excess cement and clean floor and base thoroughly. Scrub floor with power scrubber. Do not use cleaners containing solvents such as gasoline, kerosene, benzene, turpentine, oils, free fats, alkali or acids. Before occupancy, when directed by General Contractor, clean again and apply two light coats of wax and machine buff.

SECTION 09 68 00

CARPET

PART 1 GENERAL

1.1 WORK INCLUDES

- A. This contract includes preparation of floor after existing carpet is removed and the furnishing and installation of all carpet, pad, and metal edgings specified herein and indicated on drawings, utilizing glued down method, nails, adhesives, binder bar, and all other materials and labor required for finished job.
- B. This contract includes examining new concrete floors in all areas to be carpeted and reporting in writing to the general Contractor all defects that could produce wear concentration or visual imperfections in the final carpeted areas except those defects to be filled and repaired as a part of this contract. Any unavoidable changes in the floor height shall be gradually raised and troweled to create a ramp like effect.
- C. Reinstallation of salvaged carpet tiles where noted on plans.

1.2 QUALITY ASSURANCE

- A. Tests: Flame Spread Rating: Results of each carpet shall be furnished to the Architect before installation. Flame spread rating shall be 75 or less.
- B. Carpet shall pass the flame spread rating requirements of the State Fire Marshall and ASTM E-84 Tunnel Test.

1.3 SUBMITTALS

- A. Prior to installation the carpet contractor shall submit a working layout for seams to the Architect for approval. Cross seams are to be kept at an absolute minimum.

1.4 DELIVERY AND STORAGE

- A. The carpet contractor shall be held responsible for the scheduling, receiving, and placement on floors of goods from the manufacturer. Goods shall be delivered to the job site in the manufacturer's bundles and shall be clearly marked as to size, dye lot, and materials. A written record of received goods shall be submitted to the Architect.
- B. Store and carefully protect carpet from soiling, damage, and disappearance. Contractor is responsible for security of all goods left on job site. Carpet and adhesive shall be stored at a temperature of at least 60 degrees F. for at least 24 hours before installation.

1.5 WARRANTY

- A. All workmanship, and installation shall be guaranteed for a period of one (1) year. Industry standards of two year guarantee of materials shall prevail. If evidence is discovered within this two year period that the normal expected life of materials furnished can not be expected, the carpet contractor shall develop a replacement program for defective materials.

- B. Contractor shall, at his expense and upon written notice, promptly and properly replace any and all improper work and material that may become apparent within 12 months after final approval as evidenced by the date of the final certificate. Warning is hereby given that strict adherence to this specification will be required by the Owner and that the contractor shall receive no compensation for loss in replacement of goods disapproved.

1.6 MAINTENANCE

- A. Maintenance Manuals: The carpet manufacturer shall submit to the Owner, six (6) copies of a complete manual of the manufacturer's recommendations for this quality of carpet.
- B. Service: All service except cleaning required by carpeted areas during the first year after installation shall be included in the base bid. This shall include seam repair and restretching as necessary to remove defects in the surface.

PART 2 PRODUCTS

2.1 CARPET

- A. Carpet 1: Commercial grade, low static, modular carpet tiles.
 - 1. Brand: Interface Carpet Squares
 - 2. Pattern and Color: To Scale 7768 Cross Section
 - 3. Construction: 100% solution dye, tufted tip-sheared, 20 oz./yd. weight, 9.7 stitches/inch, 6.729 oz./yd. pile density, standard backing, 19.69" x 19.69".
- B. Verify carpet selections with owner prior to ordering.

2.2 ACCESSORIES

- A. Carpet edgings shall be metal with textured, polished, aluminum finish surface.
- B. Binder: Roll down type, color as selected.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspection Before Laying: Review floor areas before installation. Notify the Architect if any conditions exist that would be detrimental to proper installation of the carpet. The installation of any carpeting shall be an indication of the carpet contractor's acceptance of the sub-surface conditions and he shall be held responsible for any defects after laying the carpet

3.2 PREPARATION

- A. Measurements: The Contractor shall verify all dimensions for the carpeting at the building before cutting carpet.
- B. The carpet contractor shall submit a working layout for seams for the Architect's approval. Cross seams are to be kept at an absolute minimum. No carpet shall be installed until the Architect's approval has been received in writing.

- C. Floor Preparation: The floor must be dried, cleaned of dust, grease, wax, oil or other finishing material, and smooth enough to allow the carpet to cover the floor without high or low spots. Any cracks, irregularities or breaks shall be leveled to an even plane with water-resistant, non-shrinking, patching compound by this contractor.
- D. After existing carpet is removed, level ridges on remaining old glue to provide level surface for carpet. Install primer on existing glue as recommended by carpet manufacturer.
- E. Protection of Surrounding Areas: Any damage done to paint, walls, woodwork, doors, etc. shall be the responsibility of the carpet contractor.

3.3 INSTALLATION

A. Installation of Areas Utilizing Direct Glue Down

1. Damp mop the area of the floor after having properly prepared it as described under floor preparation to remove the surface dust, dirt, etc. On long runs, add 2 or 3 teaspoons of household ammonia per gallon of water to extend "open time" of waterproof adhesive.
2. Unroll the carpet face-up and cut the lengths required, making sure that the pile-lay runs in the same direction. Before cutting, be sure to check starting wall for squareness and allow extra inches of carpet for an off-square wall.
3. Strike a chalk line on the floor to designate the seam placement.
4. Prepare and seal carpet edges for seaming by applying a bead of latex carpet seaming adhesive along both edges of the carpet. In addition, these edges shall be taped by an approved method.
5. Spread the waterproof adhesive about three feet on each side of the chalk line. Apply adhesive evenly to the floor using a V-notched trowel. The trowel should be notched 1/8" in depth and 1/8" apart to spread adhesive minimum of 1/8" in thickness. These trowel dimensions should be maintained at all times. Trowels with clogged or worn teeth should never be used.
6. Because the carpet should be installed within 20 minutes after adhesive application, it is most important that ample manpower be available for spreading the adhesive, dependent upon the size of the area to be carpeted.
7. Carpet shall be securely bonded to the substrate with a waterproof adhesive such as the WW Henry Co. multi-purpose adhesive #356 or equal. All seams shall be trimmed and fitted in a workmanlike manner and shall be bonded at the time of installation with WW Henry's suction back seam adhesive #346 or equal. Contractor shall verify compatibility of adhesive and carpet with manufacturers, and make substitutions as required, subject to approval by the Architect. This adhesive must be applied to the cut edge of the carpet at the level of the carpet backing. The carpet must be tightly fitted to all vertical surfaces in a workmanlike manner. All carpet edges that abut on adjacent floor of a different level than the face of the carpet shall be finished with molding or edging.
8. Install roll down type edge metal where necessary and as directed.

9. Butt seaming shall be done utilizing either hot seam method as approved, or by sewing and taping all seams.
- C. Cutting Carpet: Pillars, pipes, and other obstructions should be "dry-cut" with as much overage as possible. After the carpet is installed in place, finish cut these areas. Be careful to position the seams made by these cuts before working the balance of goods into place.

3.3 CLEANING

- A. Upon completion of the job, the installer shall remove all waste and excess materials, all tools and equipment, and shall carefully remove all waste and excess materials, all tools and equipment, and carefully vacuum clean the entire floor surface with an upright beater bar type vacuum cleaner. Restrict heavy traffic and furniture movement for at least 24 hours after carpet installation.
- B. Excess Carpet Pieces: All usable pieces of carpet not necessary to complete the work are to be left on the job site and placed in an orderly manner in an area designated by the Owner.
- C. Rubbish: All wrappings, small scraps, etc. shall be collected during operations by this contractor and promptly removed from job site by this contractor.

SECTION 09 90 00

PAINTING

PART 1 - GENERAL

1.1 SCOPE

- A. These specifications cover the complete painting and finishing of all surfaces throughout the project, unless otherwise specified. Coats listed are a minimum and additional coats may be necessary to provide coverage/hideability.
- B. The painting contractor shall furnish all material, labor, and equipment required to complete all painting and finishing as shown on the drawings and specified in the project manual. The word "paint" includes stain, lacquer, varnish, etc. applied by brush or staining.
- C. The Contractor shall examine all sections of this specification as well as mechanical and electrical specifications, and shall thoroughly familiarize himself with all provisions regarding painting. He shall understand that all surfaces that are left unfinished by the requirements of other divisions shall be painted or finished as a part of this division.
- D. Copper, bronze, chromium plate, nickel, stainless steel, aluminum, Monel metal, lead and lead-coated copper shall not be painted or finished, except as otherwise specified.
- E. The Contractor shall examine all surfaces to be finished and make certain that they can be put in proper condition for finishing by customary cleaning, sanding, and puttying operations. The painting subcontractor assumes full responsibility for producing a satisfactory finish with the materials specified.
- F. A "coat" of finish shall be defined as one layer of finish applied with a minimum of four hours dry time (unless longer drying times are required by manufacturer or conditions) between succeeding coats.
- G. Installation of painting caulk at all intersections of painted surfaces to prevent gaps and paint bridging.

1.2 REFERENCES

- A. ASTM D16- Definitions of Terms Relating to Paint, Varnish, Lacquer, and Related Products.
- B. ASTM B2016 – Test Method for Moisture Content of Wood

1.4 SUBMITTALS

- A. Submit list of proposed material including manufacturer's name, trade name, and data for each product.

B. Colors and Samples:

1. All colors shall be selected or approved by the architect.
2. Upon request, painting contractor shall prepare and submit finished samples of specified materials for approval by the Architect. Successive coats on these sample panels shall be applied in such a way that portions of all preceding coats remain exposed. Samples shall be retained by the Architect to compare with the finishes as they are applied.

1.5 QUALITY ASSURANCE

A. Qualifications

1. Manufacturer: All materials used on the work shall be as specified in brand and quality. No claim by the painting contractor to the unsuitability of any material specified, or his/her unwillingness to use same, or his/her inability to produce first class work with the same, will be entertained unless such claims are made in writing and submitted prior to receipt of bids.

All paints, varnishes, enamels, lacquers, stains, paste fillers, and similar materials must be delivered in the original containers with the seals unbroken and labels intact.

2. Contractor: Employ skilled mechanics to ensure the very best workmanship. Quality workmanship is required. Materials to be applied by craftsmen experienced in the use of the specific product involved.
3. Job Mock-Up: Up to three (3) rooms in project area or areas as designated by architect. These rooms will serve as the standard for subsequent rooms.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame and smoke rating requirements for finishes.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. All materials used on the job shall be stored in a single place designated by the Owner or the Architects. Such storage place should be kept neat and clean and all damage thereto or to its surroundings shall be made good by the painting contractor. All soiled or used rags, waste, and trash shall be removed from the building each night and every precaution taken to avoid the danger of fire. Latex painted must be stored at above freezing temperature (32° F). The area selected for paint storage and mixing must have good natural or mechanical ventilation. It shall be posted as a "No Smoking" area and this regulation strictly enforced.

There shall be no open containers of any flammable liquids, including paint left in the storage or mixing area. Paints, turpentine, spirits, thinners, and all other flammable liquids shall be kept in closed metal containers. The container size shall be one gallon or smaller if the material is more flammable than kerosene. Brushes and rollers left in solvent or brush cleaner must be kept in closed containers. If the quantity of materials more flammable than kerosene exceeds five gallons, it must be stored in a closed metal or flame retardant plywood lockers.

Waste rags, paper and similar combustible materials shall be placed in metal containers provided with self-closing covers. These containers shall be emptied regularly and the contents removed from the premises.

- B. The painting contractor shall protect surfaces and objects outside the building against damage. The painting contractor shall hold himself/herself responsible for all damage to adjacent property.
- C. At completion of work the painting contractor shall remove from the premises all surplus painting materials and debris; remove all spatters, and leave this part of the work in a clean and finished condition.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. When surface temperature is below 50° F do not apply paints, varnishes or special coatings unless otherwise specified. Do not paint exterior during frosty or rainy weather. Avoid painting surfaces while they are exposed to hot sun.

1.9 JOB CONDITIONS

- A. Cleaning: Areas to be painted shall be cleaned and free of dust and shall remain in that condition throughout the painting process.
- B. Protection: The painter shall not only protect his/her work at all times but shall also protect all adjacent work and materials by suitable covering or other method during progress of work.

1.10 EXTRA MATERIALS

- A. Provide one gallon minimum of each color to owner.
- B. Label each container with color, type, and room locations in addition to the manufacturer's label.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. All paint to be best quality and grade of products manufactured by PPG, Benjamin Moore, Sherwin Williams, Valspar, or approved equal

2.2 MATERIALS

- A. All materials on the work shall be of the brand and quality specified and shall be delivered to site in original containers with seals unbroken and labels intact.
- B. All materials shall be used in strict accordance with manufacturer's label directions. All paint products shall be of the specific type recommended by the paint manufacturer of the particular substrate and conditions of exposure.

- C. All paint shall be ready mixed and delivered to the site in manufacturer's sealed containers. Each container shall be labeled by the manufacturer; labels shall give manufacturer's name, type of paint, and instructions for reducing. Thinning shall be done only in accordance with directions from manufacturer. Job mixing or job tinting may be done when approved by the Architect. Each coat shall be tinted so that respective coats can be identified.
- D. All materials such as linseed oil, shellac, and turpentine shall be pure and of highest quality and approved by the Architect. They shall bear identifying labels on the containers.
- E. Any necessary materials not specifically covered and specified in this contract shall be subject to the Architect's approval and the Contractor shall submit to the Architect, before any materials are delivered, the name and brand of materials proposed to be use. Approval will be provided by the Architect in writing.
- F. Colors – To be selected by Architect. No limit on number of different selections within individual rooms or project.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify site conditions.
- B. Verify that surfaces are ready to receive work as instructed by product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- D. Test shop applied primer for compatibility with subsequent cover materials.
- E. 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. Wood: 15%, measured in accordance with ASTM D2016
 - 2. Masonry: Mortar, block, brick, concrete or any other masonry related surface shall not be painted if its moisture content exceeds 12%. If moisture content is between 8% and 12%, prime with an Alkali Resistant Primer in place of specified primer.

3.2 SURFACE PREPARATION

- A. All surfaces shall be sound, clean, and free of oil, grease, loose or peeling paint, and other foreign substrates.
- B. New Steel: Surfaces that exhibit mill scale, rust formation, etc. shall be cleaned by hand scraping, wire brushing, power tool scraping, or sandblasting.
- C. New Galvanized Iron: Acid etch or clean thoroughly with a grease cutting solvent such as mineral spirits. Prime with a galvanized metal primer.
- D. This contractor will remove and reinstall, or provide acceptable in-place protection for, all installed hardware, accessories, lighting and electric components, factory finish materials, plumbing fixtures and fittings, and any other materials that may become splattered or damaged by the paint or coating materials.

- E. New Interior Wood: Sand lightly. Countersink nailheads and putty. Prime or stain entire surface with an enamel undercoat or stain. After thoroughly drying, sand lightly before applying finish coat.
- F. Existing Interior Wood: Sand/prep and touch-up stain to provide even and consistent color coverage. Apply two coats varnish.
- G. New Plaster: allow to cure 30 days before painting. Cracks and holes shall be spackled and finished flush to the adjoining surface. Prime with the appropriate primer sealer.
- H. Existing Interior Walls: Clean/prep/prime as recommended by paint manufacturer.
- I. New Drywall: Must be free of sanding dust and joint treatment cement shall be thoroughly dry. Steel corner beadings shall be primed with appropriate metal primer before applying latex coating.
- J. Dry Erase: At locations indicated on plans, furnish, prepare wall surfaces, and apply dry erase paint coatings. Coating is to be applied full height of wall – floor to ceiling, corner to corner, at listed rooms. Coating to be Sherwin Williams Dry Erase Gloss Coating. On rough/uneven surface, apply coats of Sherwin Williams "Builders Solution Surfacers." Apply per manufacturer's written instructions.

3.4 APPLICATION

- A. All work shall be done by skilled mechanics in accordance with the best standard practice and in a manner acceptable to the Architect. Any work not conforming to these specifications shall be corrected to the satisfaction of the Architect. Such corrections shall be made at the expense of the painting contractor.
- B. All materials shall be applied to surfaces that are dry and properly prepared and when weather conditions are favorable. Exterior surfaces shall not be painted in damp, frosty, or cold weather. Latex paints shall not be applied when surface or air temperature is below 50 degrees F.
- C. All finishes shall be evenly applied and free from sags, runs, crawls, brush marks, skips or other defects. Make edges of paint, stain, or coating adjoining other materials or colors, sharp and clean, with no overlapping.
- D. When paint, stain or coating is brush applied, each coat shall be brushed out uniformly to eliminate laps, skips and excess brush marks.
- E. When paint, stain or coating is roller applied, proper skill must be used to avoid all signs of lapping and excess paint lines from edge of roller. When cutting in with a brush is required, these areas must be of the same texture, color and hiding as adjacent areas, to assure good appearance.
- F. When paint, stain or coating is applied by spray, the work shall be done before the installation of fixtures, hardware, flooring and other finish items. If installed, these items must be thoroughly protected from the paint, stain or coating. The paint, stain or coating shall be applied only by skilled painters to assure a uniform finish, with no evidence of poor or improper application.
- G. Each coat of clear finish or enamel shall be lightly sanded and wiped free of dust before applying the first and successive coats. Final coat to be smooth to the touch.

- H. If the finish coat is to be colored, the prime coat and the intermediate coat shall be tinted to have a slight variation in color from each other and from the finish coat.
- I. Each coat of material shall be thoroughly dry before application of the succeeding coat. The number of coats listed in the schedule is a minimum. Additional coats may be required for proper coverage and hideability.
- J. Block filler when applied to concrete or lightweight block shall be in two coats: Smooth the filler with a squeegee to leave the surface film with no pinholes.
- K. Tops of all upper sashes and bottoms of all lower sashes shall be finished same as exterior finish. Tops, bottoms, and edges of doors shall be finished the same as balance of doors after they are fitted by the carpenter.
- L. All necessary puttying of nail holes, cracks, and other defects shall be done after application of the first coat, using putty of a color to match that of the finish. Putty shall be brought flush with the adjoining surface. Install paintable caulk at all painted surface intersections to eliminate gap and paint bridging.
- M. To prevent bleeding or discoloration, all knots, pitch streaks and sappy spots shall be sealed before application of the prime coat.
- N. All metal surfaces shall be washed with mineral spirits to remove any dirt, oil, or grease before being painted. Remove rust and scale by wire-brush or sanding before painting. Shop coats of paint that become badly weathered, worn, or marred shall be cleaned and spot primed by the painting contractor with the recommended metal primer.
- O. Back prime exterior trim before installation with primer specified.
- P. Do not paint plaster containing more than 15% moisture. After the application of the first coat, all suction spots or hot spots in plaster or cement shall be touched up before the second coat is applied.
- Q. All scratches, cracks, and abrasions in plaster surfaces, and openings adjoining trim, shall be cut out as required, then filled with a spackling compound or approved patching plaster, flush with adjoining plaster surface, and when dry shall be sanded smooth and sealed before application of the prime coat.
- R. All closet and ancillary rooms shall be finished the same as adjoining rooms, unless otherwise specified. All other surfaces shall be finished with the same materials as used on the nearest or adjoining surfaces, unless otherwise specified.
- S. The painting contractor shall notify the Architect in writing of any surface which he/she considers not his/her responsibility, of any defects in surfaces to be painted, or of any error or omissions in the drawings or in the specification. The painting contractor shall not proceed with the finishing of the surfaces in question until an agreement has been reached with the Architect concerning all alleged discrepancies. The start of work on any surface shall imply that the surface has been inspected and approved by the painting contractor.
- T. Spot painting to correct soiled or damaged paint surfaces will be allowed only when touch up spot is blended into surrounding finish and is invisible to normal viewing. Otherwise, re-coat entire section to corners or visible stopping point. Touch up should be accomplished by same method used in applying the original coating: when sprayed, touch up with spray; if brushed, use a brush; if rolled, use same texture roller.

3.5 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Paint shop primed equipment.
- B. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- C. Prime and paint exposed piping, conduit, and electrical equipment occurring in finished areas to match adjacent surfaces. Where walls only are painted, pipes, ducts, conduit in ceiling to be painted color of ceiling tile or color selected.
- D. Hanger and other pipe accessories: In all areas where pipe and pipe covering, ducts and conduit are paint, the hangers, accessories and/or supports are to be primed and painted two coats as called for piping.
- E. Paint interior surfaces of air ducts, and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint, to visible surfaces. Paint dampers exposed behind louvers, grilles, and convector and baseboard cabinets to match face panels.
- F. Electrical conduit carrying over 240 volts in room and areas not painted shall be painted orange and voltages stenciled every ten (10) feet.
- G. Identification: Identification of piping, conduit, etc. shall be accomplished by stenciling black letters on a yellow background or may be done by applying self-sticking cloth tape employing black letters on a yellow background similar to W.H. Brady Co. or approved equal tapes. Where possible the letters shall be 1" in height. Omit labels in painted rooms.

3.6 SCHEDULE/FINISHES

- A. Painter's finishes shall generally be as follows:
 - 1. Finish for exterior wood (except wood to be stained) shall be a first quality oil or acrylic paint applied over compatible primer.
 - 2. Finish for exterior ferrous metals shall be rust inhibitive type paint applied over compatible shop prime coat.
 - 3. In general, finish for interior wall and ceiling surfaces shall be latex paint or enamel with semi-gloss or eggshell finish over primers or epoxy finishes or shop coats compatible with the substrate material.
 - 4. Finish for hollow metal frames, sidelights, and all interior metal and steel shall be alkyd base semi-gloss or eggshell enamel. Hollow metal doors to be semi-gloss finish only.
 - 5. Finish for interior wood doors (except prefinished doors) cabinet work, wood paneling, and trim shall be alkyd base semi-gloss or eggshell enamel. Interior millwork may be stained and varnished or oiled in lieu of enameling as herein specified or called for on drawings when prior authorization is received from Architect.
 - 6. Prime coated butts and overhead door closers will be painted the same color as door and frame to which they are attached.

7. Metal covered and hollow metal doors, trim, and frames will not be painted the same color or finish as adjacent walls.
 8. Access doors, electric panel doors, fire extinguisher cabinets, etc. shall be painted in an open position.
 9. Prime and back prime all surfaces of millwork indicated to be painted and enameled. Also back prime all unexposed faces of millwork indicated, scheduled or specified to be stained, varnished, lacquered or otherwise finished on exposed faces. Parts inaccessible after assembly shall be primed or back primed before assembly. Shellac all knots, streaks, etc. before priming.
- B. Exposed steel beams and steel members in finished rooms and areas: One coat enamel undercoat. Two coats alkyd satin enamel (sprayed or brush painted). Treat galvanized metal with bonding compound.
- C. Metal and aluminum stops for all hollow metal doors, frames, and sidelights: Paint to match color of frame.
- D. All new and existing regular concrete masonry and concrete wall surfaces (interior): Semi-gloss, Low VOC.
1. New:
 - a. Surface Preparation
 - b. Base coat: 1 coat block filler applied as recommended by the manufacturer. Benjamin Moore 285 Supercraft alkali; Benjamin Moore M310M32 waterborne epoxy block filler.
 - c. Primer: 1 coat CMU primer applied as recommended by the manufacturer.
 - d. Finish: Two coats compatible with base coat and primer.
 2. Existing: Clean/prep/prime as required. Two (2) coats minimum finish same as new.
- E. High Moisture Areas: Benjamin Moore solvent base epoxy (gloss).
- F. Hollow Metal: Factory primed, two (2) coats enamel, semi gloss.
- G. SCHEDULE

Exterior - N/A

Interior

1. Drywall: 1 Coat PVA Latex Wall Primer, 2 coats Acrylic Latex, sheen as selected
2. Galvanized Metal: 1 coat Interior Trim Primer, 2 coats Enamel
3. Ferrous Metal: 1 coat Interior Trim Primer, 2 coats Enamel
4. Plaster: 1 Coat PVA Latex Wall Primer, 2 coats Acrylic Latex, sheen as selected.
5. Exposed Wood: 1 coat stain, 2 coats polyurethane satin finish.

6. Existing Wood Trim Baseboards: Sand and prep surface as required to receive new finish.
 - a. Paint: 1 coat adhesion promoting primer, 2 coats latex trim paint.
 - b. Stain: 1 or 2 coats gel stain, 2 coats UV resistant polyurethane satin finish.
7. Existing Plaster: 1 coat primer, 2 coats acrylic latex – satin finish.
8. Dry Erase: 1 coat Builders Solution Surfacer, Primer (depending on substrate); 1 coat interior latex eggshell, 1 coat dry erase coating.

SECTION 10 14 00

SIGNAGE

All interior signage will be furnished and installed by others.

SECTION 12 24 00

WINDOW SHADES

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. Reinstall owner's blinds at cataloged locations. Reuse existing hardware.
- B. Installer shall be approved by manufacturer.

PART 2 PRODUCTS

2.1 WINDOW TREATMENT

- A. Existing mini blinds.

PART 3 – EXEUCION

3.1 INSTALLATION

- A. Install window shade systems in accordance with manufacturer's instructions and these specifications. Adjust window shade system for proper operation.

SECTION 12 35 70

CUSTOM CASEWORK/MILLWORK

See also Section 06 20 00

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. The work of this section consists of the furnishing of all millwork indicated on the drawings and herein specified. Include all hinges, drawer guides, shelf supports, catches and pulls for cabinets in this section.
- B. Casework provided under this section includes, but is not limited to, the following:
 - 1. New main reception counters.
 - 2. Break room base/wall cabinets.
 - 3. Other cabinet configurations shown on plans.
- C. All casework to be fabricated in AWI certified shop and conform to AWI standards of construction.
- D. All materials low VOC and without formaldehyde.
- E. Related Sections: 12 36 23 – Plastic Laminate
- F. Submittals: Submit complete shop drawings of all cabinetry provided under this section. Include field verified dimensions and conditions noted. Submit product for all hardware.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Interior Trim: Furnish and install all interior trim moldings and all other trim as noted in this section or on plans. All exposed trim to be oak to match existing.
- B. Wood preservative shall be a brand conforming to the requirements of Commercial Standard CS 262-63
- C. Quality Grading:
 - 1. Moisture content not to exceed 5-10% for all lumber.
 - 2. Lumber must be sound, thoroughly seasoned, well manufactured, and free from warp. Woodwork exposed on exterior of building shall be dressed.
 - 3. Grade and trademark required on each piece of lumber (or bundle in bundled stock). Use only recognized official marks of Association under show rules it is grade. Grade and trademarks not required if each shipment is accompanied by certificate of inspection issued by Association.
- D. All open bookcase units are to be constructed from Combo Core material with plastic laminate faces and hardwood edging.

- E. Plastic laminate shall be hard, dense, stainproof, 1/16" thick high pressure plastic laminate, in color as selected, conforming to NEMA specifications, general purpose type or post forming type as required. Colors and type to be selected by Architect.
- F. Core materials: CFC Combo Core: Veneer core consisting of Western softwood inner core, with outer plys on both faces consisting of medium density fiberboard (MDF) resulting in a smooth laminating surface with minimal telegraphing. 5-ply for 1/2 inch thickness, 7-ply for 3/4 inch thickness, and 9-ply for 1 inch formaldehyde. All edges to receive 3 mm PVC edging, color to match laminate unless hardwood edging is called out. Faces to be covered with plastic laminate.
- G. Hardware
- Door and Drawer Pulls
Drawer Pull Stanley #4484 - SS
Door Pulls Stanley #4484 - SS
- Drawer Slides
KV No. 8400 - Full Extension Ball Bearing Slide, 100 lb. Class
- Fill Drawer Slides
KV No. 8525, Full Extension, 175 lb. Class
- Cabinet Door Catches
Stanley #SP45
- Shelf Supports
5 MM Clip System with Steel "L" Shaped Supports
- Door Hinges
Stanley HT 1592 satin chrome, knuckle hinge
- Finish Washers
Stanley - Stainless steel, appropriate size for oval head screws.
- Door and Drawer Locks – N/A
- H. Cabinets, Casework, and Similar Cabinet Work:
1. Work to be equal to AWI Custom Standards, site installed.
 2. All surfaces exposed in building shall be plastic laminate color as selected. Interior indicates space enclosed by doors or drawer fronts - see below.
 3. Cabinet Body Construction:
 - a. Tops and bottoms are glued and doweled to cabinet sides and internal cabinet components such as fixed horizontals, rails, and vertical. Minimum 6 dowels each joint for 24" deep cabinets and a minimum of 4 dowels each joint for 12 inch deep cabinets. Tops, bottoms, and sides of all cabinets are CFC Combo Core.

- b. Cabinet backs: ¼ inch thick medium density fiberboard panel fully captured by the cabinet top, bottom, and side panels. Finish matching cabinet interior. ¾ inch x 4 inch CFC Combo Core rails will be placed behind the back panel at the top and bottom, and doweled to the sides utilizing 10 mm hardwood fluted dowels. A third intermediate rail will be included on all cabinets taller than 56 inches. Utilize hot metal glue to further secure back and increase overall strength.
 - c. Exposed back on fixed or movable cabinets: ¾ inch thick CFC Combo Core with the exterior surface finished in VGS laminate as selected.
 - d. Fixed base and tall units have an individual factory-applied base, constructed of ¾ inch thick exterior grade plywood. Base is 96 mm (nominal 4 inch) high unless otherwise indicated on the drawings.
 - e. Base units, except sink base units: Full sub-top. Sink base units are provided with open top and a stretcher at the front, attached to the sides. Back to be split removable access panel.
 - f. Side panels and vertical dividers shall receive adjustable shelf hardware at 32 mm line boring centers. Mount door hinges, drawer slides, and pull-out shelves in the line boring for consistent alignment.
 - g. Exposed and semi-exposed edging. Edging: 1 mm PVC machine applied.
 - h. Adjustable shelf core: ¾ inch thick CFC Combo Core up to 30 inches wide, 1 inch thick CFC Combo Core over 30 inches wide. Front edge: 1 mm PVC.
 - i. Interior finish, units with open interiors: Top, bottom, sides, horizontal and vertical members, and adjustable shelving faces with CLS with matching prefinished back.
 - j. Interior finish, units with closed interiors: Top, bottom, sides, horizontal and vertical members, and adjustable shelving faces with CLS with matching prefinished back.
 - k. Exposed ends: Faced with VGS high-pressure decorative laminate.
 - l. Wall unit bottom: Faced with CLS.
 - m. Balanced construction of all laminated panels is mandatory. Unfinished core stock surfaces, even on concealed surfaces (excluding edges), not permitted.
4. Drawers:
- a. Sides, back, and sub front: Minimum ½ inch thick plywood, laminated with CLS doweled and glued into sides. Top edge banded with 1 mm PVC.
 - b. Drawer bottom: Minimum ½ inch thick plywood laminated with CLS screwed directly to the bottom edges of drawer box.
 - c. Paper storage drawings; Minimum ¾ inch thick plywood sides, back, and sub front laminated with CLS. Minimum ½ inch thick plywood

drawer bottoms screwed directly to the bottom edges of the drawer box. Provide PVC angle retaining bar at the rear of the drawer.

5. Door/Drawer Fronts

- a. Core: ¾ inch thick Combo Core.
- b. Provide double doors in openings in excess of 24 inches wide.
- c. Faces:
 - 1) Exterior: VGS high-pressure decorative laminate.
 - 2) Interior: High-pressure cabinet liner CLS.
- d. Door/drawer edges: 3 mm PVC, external edges and outside corners machine profiled to 1/8 inch radius.
- e. Miscellaneous Shelving:
 - 1) Core material: ¾ inch or 1 inch thick Combo Core.
 - 2) Exterior: VGS high-pressure decorative laminate.
 - 3) Edges: 2 mm PVC, external edges and outside corners machine profiled to 1/8 inch radius.

J. Countertops and Backsplashes: See Section 12 36 23 and 12 36 60.

K. All exposed wood to be prefinished in shop with stain, two coat varnish system. Color as selected by Architect. Submit samples for final approval. Finishing includes exposed wood and interior of cabinets and drawers. Include nail hole filling and touch up after installation.

2.2 FABRICATION

A. Millwork and trim shall conform to design and details shown. Where practical, work shall be finished and assembled at the mill. All millwork and trim shall be finished smooth and free from machine or tool marks that will show through the finish. All nail heads shall be set to receive putty.

PART 3 - EXECUTION

3.1 GENERAL

- A. All finish carpentry work shall be done in a neat and workmanlike manner. Items shall be accurately cut, scribed, fitted and joints and all work shall be plumb, square, level, at proper elevation, straight, true to line and flush.
- B. In no case shall any finish be allowed in the building until at least ten days after plastering has been completed. All finish material shall be air and kiln dried, highly sanded and free from defects. All finish shall be back painted and face primed, filled or stained as a part of the work under painting specification before placing. Gouges, dents, hammer marks, splits or other defects will not be permitted in the finish work.

- C. Joints in plastic laminate shall be held to a minimum. Where joints are required in plastic laminate core material, provide tempered hardboard splines. Coat field joints with waterproof glue. Provide a backing sheet of thickness required to provide balanced construction on unexposed sides of all plastic laminate work. Apply plastic laminate to core materials by the hot press method.
- D. All shelves in cabinets to have solid wood exposed edges.
- E. Coordinate unit construction with mechanical or electrical equipment.

SECTION 12 36 23

PLASTIC LAMINATE WORK

See also Section 06 20 00

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. Furnish and install plastic laminate tops and backsplashes, colors as selected from full color line.
- B. Laminate shall conform to NEMA specifications.

PART 2 - PRODUCTS

2.1 FABRICATION

- A. Countertops: 1 inch thick ANSI A208.1-1993 M-2 Certified particle board.
- B. Surface: High-pressure decorative HGS/HGP laminate with balanced backer sheeting.
- C. Edges, including applied backsplash: 3 mm ABS, exposed edges and corners machine profiled to 1/8 inch radius. Edges are machine applied with water based low Volatile Organic Compound (VOC), non-toxic, PVA adhesive.
- D. All countertop joints must be dry fit at the factory to check for consistency in color from one panel to the other and overall finished panel thickness.
- E. Selection will be made from full line of Wilson Art or Formica.
- F. Other plastic laminate work as indicated. Provide rounded hardwood edges where indicated.
- G. Certify that casework does not contain formaldehyde.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Joints in plastic laminate shall be held to a minimum. Where joints are required in plastic laminate core material, provide tempered hardboard splines. Coat field joints with waterproof glue. Provide a backing sheet of thickness required to provide balanced construction on unexposed sides of all plastic laminate work. Apply plastic laminate to core materials by the hot press method.

SECTION 21 10 00

FIRE PROTECTION/SPRINKLER SYSTEM

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. Extend and revise existing sprinkler system to all renovated areas of this facility. System to be designed and installed in accordance with NFPA 13 and the State of Minnesota codes and regulations. Generally work includes relocation of sprinkler heads as required for new room configuration. All new sprinkler heads to be quick response heads.
- B. Drawings indicate areas with suspended ceiling and indicate fire walls and standpipe locations.
- C. Code: Comply with NFPA 13 "Installation of Sprinkler Systems".
- D. UL and FM Labels: Provide fire sprinkler piping products which have been approved and labeled by Underwriters Laboratories, and have Factory Mutual approval.
- E. The system is not shown on the drawings. Fire protection contractor to submit system from plans to architect for approval.

1.2 SUBMITTALS

- A. Approved Drawings: Prepare approval drawings of fire protection systems, hydraulically calculated, indicating pipe sizes, pipe locations, fittings, shutoffs, equipment, etc. Submit to Architect/Engineer and Agency having jurisdiction for approval. Submit one reproducible approved copy, bearing stamp and or signature of Agency having jurisdiction, before proceeding with fabrication. Drawings shall be prepared by and signed by person with NICET Level 3 Certification.
- B. Approved Calculations: Prepare hydraulic calculations of fire protection systems. Submit to Architect/Engineer and Agency having jurisdiction for approval. Submit one approved copy, bearing stamp and/or signature of Agency having jurisdiction, before proceeding with fabrication.
- C. Certification: The plans submitted for this project shall be signed by a Certified Fire Protection Technician NICET Level 3 who had direct involvement in the design.
- D. Maintenance Data: Submit maintenance data and parts lists for fire protection materials and products. Include this data, product data, shop drawings, approval drawings, approval calculations, certificate of installation in maintenance manual.
- E. Product Data: Submit manufacturer's data for fire protection systems, materials and products.
- F. Shop Drawings: Submit scaled layout drawings for fire protection pipe and fittings including, but not necessarily limited to, pipe and tube sizes, locations, elevations and slopes of horizontal runs, wall and floor penetrations, and connections. Show interface and spatial relationship between piping and proximate equipment. Check electrical fixture layouts and HVAC plans to avoid conflicts in locations.

- G. Certificate of Installation: Submit certificate upon completion of fire protection piping work which indicates that work has been installed, flushed and tested in accordance with ANSI/NFPA 13 and also that system is operational, complete, and has no defects.

1.3 GUARANTEE

- A. System shall be guaranteed for a period of five (5) years.

1.4 INSPECTIONS AND TESTS

- A. Inspections and Tests: All inspections, permits, examinations and tests required by the authorities and/or agencies specified shall be arranged and paid for by fire protection contractor as necessary to obtain complete and final acceptance of the fire protection system. The fire protection contractor shall deliver certificates of all such inspections to the Architect and ISO of Minnesota.

PART 2 - PRODUCTS

2.1 FIRE PROTECTION PIPING MATERIALS AND PRODUCTS

- A. General: Provide piping materials and factory-fabricated piping products of sizes, types, pressure ratings, temperature ratings and capacities as indicated. Where not indicated, provide proper selection as determined by installer to comply with installation requirements. Provide sizes and types matching piping and equipment connections; provide fittings of materials that match pipe materials used in fire protection piping systems. Where more than one type of material or product is indicated, selection is installer's option.

2.2 BASIC PIPE, TUBE, AND FITTINGS

- A. General: Provide pipe, tube, and fittings complying with Division 15 Basic Materials and Methods section "Pipe, Tube, and Fittings", in accordance with the following listing:
- B. Pipe Weight: Schedule 40 electric resistant welded, ASTM A-135. Schedule 10 electric resistant welded, ASTM A-135 or threadable lightwall pipe.
- C. Fittings: Class 125 sprinkler system, cast iron threaded.
- D. Fittings: Mechanical grooved pipe couplings and fittings; cut-groove type or rolled.
- E. Interior Valves:
 - 1. Valves shall be Grinnell, Elkhart, Allenco, JL Industries, Crane, or approved equivalent, UL, 175 psi working pressure.
 - 2. Provide drains in all piping for draining the entire piping system, using 2" valve in main risers, 1" for "auxiliary" system drainage, approved UL, 175 psi bronze globe valves with C.I. plug in end. Provide two adapters to screw into drain valves with garden hose thread outlet.
- F. Escutcheon - Provide where piping passes through wall - white.

2.3 SPRINKLER HEADS

- A. Shall be quick response brass upright or side-wall mounted on exposed piping in all areas without lowered ceilings, using light hazard head spacing. Install wire guards on heads in gym.
- B. In lowered ceiling areas where piping is concealed, install chrome plated pendant sprinkler below ceiling.
- C. Where shown on drawings, provide chrome sidewall sprinkler heads at proper spacing from ceilings and walls.
- D. Heads under hood shall be glass as designed for cooking hood use.
- E. Coordination: Head layouts shown are diagrammatic only. Sprinkler contractor shall coordinate with other trades and contractors to avoid conflict of heads with location of lights, registers, equipment, etc. No extras will be allowed due to lack of layout coordination.

2.4 WATER SUPPLY CONNECTION

- A. Connect system to existing mains. Verify proper sizes.

2.5 FLOW SWITCH, TAMPER SWITCHES

- A. Furnish and install approved flow switches and tamper switches. Tamper switches on all gate valves.
- B. Wiring from flow switches, pressure switches, and tamper switch to fire alarm shall be by the Electrical contractor. Exterior annunciator and light shall be furnish and installed by the Sprinkler Contractor.

2.6 VALVES

- A. All control valves shall be O.S.&Y. Type. M&H FIG. 81-F or approved equal.
- B. Check valves shall be rubber faced as approved by Underwriters for Fire Service.
- C. All gate valves shall be supplied with approved tamper switches. (Wiring by Electrical Contractor.)

2.7 INSPECTOR'S TEST CONNECTION

- A. Furnish and install inspector's test connections as required.

2.8 INSPECTION OF SITE

- A. Sprinkler Contractor shall make a detailed inspection of site before bidding, including determination of water pressure from local utility.

2.9 PIPE AND FITTINGS

- A. Refer to Mechanical Specifications. Acceptable pipe shall be schedule 40 black steel, or light wall steel, 0.120 thickness with roll groove/mechanical couplings.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Fire Protection Contractor shall provide all necessary labor, equipment, and materials required to accomplish all the specified cleaning operations on all pipe, pipe components, and designated equipment. Where ducts or mechanical equipment block water spray, install sprinklers below ducts in addition to other requirements.
- B. Prior to assembly of pipe and pipe components, all loose dirt and scale on internal and external surfaces shall be removed by wire brush or by other means approved by Architect/Engineer in accordance with good piping practice.
- C. Chips and burrs from machining or thread cutting operations shall be wiped or blown out of the pipe before assembly.
- D. All excess cutting oil shall be wiped from external and internal surfaces of pipe prior to assembly.

3.2 INSTALLATION OF PIPE, TUBE, AND FITTINGS

- A. General: Install pipe, tube, and fittings in accordance with Division 15 Basic Materials and Methods section "Pipe, Tube, and Fittings".
- B. Grade water piping in such a manner that low points or traps shall be avoided. If traps are unavoidable, tees with plugs shall be provided at low points.
- C. Install hose outlet valves in piping where hose outlets are required for service or inspection.
- D. Install fire department connection valves in piping where fire department connections are indicated.
- E. Cutting as required for sprinkler installation shall be done by this contractor.
- F. Patching made necessary by cutting or condition of surface shall be done by this contractor.
- G. Fire Sprinkler Piping Systems:
 - 1. General: Comply with requirements of NFPA 13 and NFPA 14 for installation of fire sprinkler piping materials. Install fire sprinkler piping products where indicated, in accordance with manufacturer's written instructions, and in accordance with recognized industry practices to ensure that fire sprinkler piping complies with requirements and services intended purposes.
 - 2. Coordinate with other work, including other piping and ductwork as necessary to interface components of fire sprinkler piping properly with other work.
 - 3. Install valved vent connections of sizes indicated, or 3/4" size if not otherwise indicated, on sprinkler at ends of branch lines and cross mains.
 - 4. Install drain piping at low points of fire sprinkler piping.

3.3 FIRE WALL AND CEILING SEALING

- A. Furnish and install approved fire safing where piping penetrates fire walls, ceiling corridors, or precast concrete floor construction.

3.4 INSTALLATION OF SUPPORTS, ANCHORS AND SEALS

- A. Install supports, anchors, and seals in accordance with Division 15 Basic Material and Methods section "Supports and Anchors", and NFPA 13 and NFPA 14.

3.5 INSTALLATION OF VALVES

- A. Install valves in accordance with Division 15 Basic Materials and Methods section "Valves".

3.6 ADJUST AND CLEAN

- A. Sprinkler Piping Flushing: Prior to connecting sprinkler risers for flushing, flush water feed mains, lead-in connections and control portions of sprinkler piping. After fire sprinkler piping installation has been completed and before piping is placed in service, flush entire sprinkler system, as required to remove foreign substances, under pressure as specified in ANSI/NFPA 13. Continue flushing until water is clear, and check to ensure that debris has not clogged sprinklers.

3.7 FIELD QUALITY CONTROL

- A. Hydrostatic Testing: After flushing system, test fire sprinkler piping hydrostatically for a period of two (2) hours at not less than 200 psi or 50 psi in excess of maximum static pressure when maximum static pressure is in excess of 150 psi. Check system for leakage of joints. Measure hydrostatic pressure at low point of each system or zone being tested.
- B. Repair or replace piping system as required to eliminate leakage in accordance with ANSI/NFPA standards for "little or no leakage", and retest as specified to demonstrate compliance.
- C. Wiring: Wiring for outside alarm from flow switch, supervised valves and for air compressor and dry pipe assembly is work of Division 26.
- D. Inspector's Test Connection: Furnish and install Inspector's test connection on system so that periodic tests can be made as required by the Underwriter's Fire Inspection Bureau.

DIVISIONS 22 AND 23

220500 – COMMON WORK RESULTS FOR MECHANICAL

A. Purpose

1. The purpose of this Design Build Outline Specification is to define the scope of work; to serve as a vehicle for Owner/Contractor review; and to allow architectural/engineering coordination of specific mechanical devices and equipment, and required systems distribution and space allocation.

B. Scope of Work

1. Mechanical work general consists of the following:
 - Demolition of sink, piping system.
 - New sink, waste, vent and supply piping.
 - Relocation of existing grilles/vents as required by construction work.
2. Provide all labor, materials, equipment and services necessary for the installation, relocation, and completion of the Mechanical Work.
3. This contractor is solely responsible for the associated requirements with the conditions outlined within all divisions.
4. All coordination and scheduling of work as directed by General Contractor.
5. Do the work in a workmanlike manner by persons experienced and skilled in the trade. All work to be completed and meet all applicable codes and regulations.

C. General conditions

1. The general conditions, special conditions, supplementary conditions, building owner mechanical specifications, and "general conditions of the contract," current edition, established in Standard Form by the American Institute of Architects shall apply to all work on this project except as modified below. This contractor shall be familiar with these provisions and adhere to these requirements.
This contractor shall coordinate mechanical work with other trades, building owner, and tenant prior to installation.

D. Related documents

1. This contractor shall refer to the plans and specifications. Such plans and specifications are a part of the contract documents. Contractors shall visit the site and familiarize themselves with all conditions surrounding the work.

E. Plans and specifications

1. Throughout the course of the work, the building owner may request minor changes and adjustments to the plans and specifications. The contractor shall make such adjustments without additional cost to the tenant, where such adjustments are necessary for the proper installation and operation of the systems, and within the intent of the contract documents.

2. It is the intent of the design build plans and specifications to form a guide for a complete installation. Everything necessary for the completion and successful operation of the work, whether or not definitely specified or indicated on the drawings shall be provided as if so specified or indicated without additional cost to the Owner. The mechanical contractor shall verify all dimensions prior to installation.
3. Notwithstanding any other provisions of the contract documents, the contractor bears ultimate responsibility for compliance of the installation with the requirements of the building owner and of the local authority having jurisdiction.

F. Modifications

1. If any errors, discrepancies or omissions appear in the drawings, specifications or other contract documents, the contractor shall notify the architect in writing of such error or omission. In the event of the contractor failing to give such notice before construction and/or fabrication of the work, he will be held responsible for the results of any such errors, discrepancies or omissions and the associated cost of rectifying.

G. Code compliance

1. This contractor shall comply with the requirements of all state and local codes regulating this work. However, this shall not be construed as relieving the contractor from complying with any requirements of the drawings and specifications that may be in excess of any governing codes.

H. Permits, fees, licenses

1. This contractor shall pay all fees and related charges for permits, licenses, etc., required for installation of the mechanical system, including required submissions for plan review and approval.

I. Warranty

1. All construction work shall be performed in a first-class workmanlike manner and shall be in good and usable condition at the date of completion. This contractor shall require any persons performing any such work to guarantee the same to be free from any and all defects in workmanship and materials for one (1) year from the date of completion thereof. This contractor shall also require any such persons to be responsible for the replacement or repair without any additional cost to any and all work done or furnished by or through such persons which shall become defective within one (1) year after substantial completion of work. The correction of such work shall include without additional cost all expenses and damages in connection with such removal, replacement or repair of any part of the work which may be damaged or disturbed thereby. All warranties or guarantees as to materials or workmanship with respect to building owner's work shall be written so that such warranties or guarantees shall be to ensure the benefit of both landlord and tenant as their respective interests appear and can be directly enforced by either.

J. Field quality control

1. Upon completion of installation of mechanical equipment, start-up and operate equipment to demonstrate capability and compliance with requirements.
2. Remove malfunctioning units, replace with new units and

retest. 220510 – BASIC MATERIALS AND METHODS

A. Mechanical related work

1. Materials and equipment designed to be new shall be free of defects.
2. Design and install piping and ductwork to present a neat orderly appearance. Route parallel with building walls and construction.
3. Roof openings shall be performed by the building owner's designated roofing company at this contractor's expense. Field verify existing conditions and provide flashing and water proofing to meet original roof systems and warranty.
4. Provide all cutting and patching necessary for installation of new systems and equipment.

B. Equipment order

1. The contractor shall order all equipment required within ten days upon receipt of contract in order to ensure timely receipt of material. Substitutions after this date due to lack of placement of order will not be approved.

C. Hangers, supports, and sleeves

1. Support piping and dryer exhaust ductwork adequately from slabs or other structural members at intervals in compliance with industry standards.
2. All horizontal piping penetrating walls shall be fitted with sleeves made of standard steel pipe 1 inch larger than the pipe and insulation diameter. Sleeves shall be cut flush with the wall on both sides. Seal the sleeve voids with nonshrinking sealant. All penetrations through fire rated walls shall be sealed in compliance with UL.
3. Provide escutcheon plates on all exposed pipe penetrations through walls.

D. Cleaning and testing

1. Clean, disinfect, and test all new plumbing and piping systems as required by the governing codes.

220700 – INSULATION

A. Mechanical insulation

1. Insulation shall be Owens-Corning, Manville Corporation, Certain-Teed, Knauf or equal. All insulating materials shall have fire and smoke hazard ratings as

tested by procedure ASTM E-84, NFPA 255 and UL 723 not exceeding flame spread 25 and smoke developed 50. Insulation accessories such as adhesives, mastics, cement, tapes and glass cloth shall have the same component rating as listed above.

2. Insulate domestic cold and hot water supply piping with a minimum 1/2 inch thick closed cell flexible rubber pipe insulation.

221100 – PLUMBING

1. Domestic Water Piping and Related Fixtures

1. QUALITY ASSURANCE

- a. Piping materials shall bear label, stamp, or other markings of specified testing agency.
- b. Plumbing Code Compliance: Comply with applicable portions of State Plumbing Code pertaining to plumbing materials, construction and installation of products.
- c. Comply with NSF 61, "Drinking Water System Components - Health Effects; Sections 1 through 9," for potable domestic water piping and components, including but not limited to valve materials.
- d. MSS Standard Practices: Comply with the following standards for valves:
MSS SP-110: Ball valves threaded, socket welding, solder joint, grooved and flared ends.

2. Remove and install new and/or relocated plumbing fixtures as indicated on plan and specified herein. Provide new stop valves and braided flexible metal hot and cold water lines. No substitutions will be permitted without authorization from the architect.

3. Provide Soft Copper Tube: ASTM B 88, Type (ASTM B 88M, Types A and B), water tube, annealed temper for new and extension to sinks and washer machines.

1. Copper Pressure Fittings: ASME B16.18, cast-copper-alloy or ASME B16.22, wrought-copper, solder-joint fittings. Furnish wrought-copper fittings if indicated.
2. Bronze Flanges: ASME B16.24, Class 150, with solder-joint ends. Furnish Class 300 flanges if required to match piping.
3. Copper Unions: MSS SP-123, cast-copper-alloy, hexagonal-stock body, with ball-and-socket, metal-to-metal seating surfaces, and solder-joint or threaded ends.

4. Provide Two Piece, Copper Alloy Ball Valves: Bronze body with full port, chrome plated bronze ball; TFE seats; and 600 psig minimum CWP rating and blowout proof stem; Manufactured by Nibco or equivalent, MSS-SP-110; size same as upstream pipe and pressure/ temp rating.

- a. Select valves, except wafer and flangeless types, with the following end connections.
- b. Install valves with unions or flanges at each piece of equipment arranged to allow service, maintenance, and equipment removal without system shutdown; Locate valves for easy access and provide separate support where necessary; Install valves in horizontal piping with stem at or above center of pipe; Install valves in position to allow full stem movement.

5. Examine piping system for compliance with requirements for installation tolerances and other conditions affecting performance.
 - a. Proceed with installation only after unsatisfactory conditions have been corrected.
 - b. Examine valve interior for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling.
 - c. Operate valves in positions from fully open to fully closed. Examine guides and seats made accessible by such operations.
 - d. Examine threads on valve and mating pipe for form and cleanliness.
 - e. Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length, and material. Verify that gasket is of proper size, that its material composition is suitable for service, and that it is free from defects and damage.
 - f. Do not attempt to repair defective valves; replace with new valves.
 - g. Transition and special fittings with pressure ratings at least equal to piping rating.
 - h. Flanges may be used on aboveground piping, unless otherwise indicated.
 - i. Grooved joints may be used on aboveground grooved end piping.
 - j. Ball Valves, NPS 2-1/2 and Smaller: Two or three piece, 600 psig CWP rating, copper alloy. If valves with specified CWP ratings are not available, the same types of valves with higher CWP ratings may be substituted.
 - k. Soldered Joints: Use ASTM B 813, water flushable, lead free flux; ASTM B 32, lead free alloy solder; and ASTM B 828 procedure, unless otherwise indicated.

B. Sanitary Waste and Vent Piping.

1. Plumbing Code Compliance: Comply with applicable portion of Minnesota State Plumbing Code pertaining to plumbing materials, construction and installation of products; ANSI Compliance: Comply with applicable American National Standards pertaining to products and installation of soil and waste piping systems; PDI Compliance: Comply with applicable Plumbing and Drainage Institute Standards pertaining to products and installation of soil and waste piping system.
2. Disconnect, extend and reconnect existing waste, and vent piping to facilitate fixture replacement. Provide new waste and vent piping associated with new fixture locations as indicated on plan.
 1. Provide PVC pipe and fittings to facilitate new and extension of existing drain, waste, and vent piping.
 2. Aboveground, soil, waste and vent piping shall be the following:
 - Solid wall PVC pipe, PVC socket fittings, and solvent cemented joints. PVC piping not to be installed within return air plenums.
 - Solid wall PVC pipe, PVC socket fittings, and solvent cemented joints. PVC piping not to be installed within return air plenums.
 3. Solid Wall PVC Pipe: ASTM D 2665, drain, waste, and vent.
 4. PVC Socket Fittings: ASTM D 2665, socket type, made to ASTM D 3311, drain, waste, and vent patterns.

END OF MECHANICAL DESIGN BUILD
OUTLINE SPECIFICATION

DIVISIONS 26, 27, AND 28

260500 – COMMON WORK RESULTS FOR ELECTRICAL

A. Purpose

1. The purpose of this Design Build Outline Specification is to define the scope of work; to serve as a vehicle for Owner/Contractor review; and to allow architectural/engineering coordination of specific electrical devices and equipment, and required systems distribution and space allocation.

B. Scope of Work

1. Provide all labor, materials, equipment and services necessary for the installation and completion of the Electrical Work.
2. Electrical work generally consists of the following:
 - Demolition
 - New Receptacles
 - New Light Fixtures (fixtures to match City Standard)
 - Switches
 - Data/Telephone Wiring
 - Wiring of Door Security Devices
 - Any electrical required by new construction.
3. This contractor is solely responsible for the associated requirements with the conditions outlined within all divisions.
4. Submittals, provide as follows: N/A
5. Do the work in a workmanlike manner by persons experienced and skilled in the trade.

C. Current Characteristics

1. Electrical service will be obtained from existing services. It is the contractor's responsibility to verify and adjust accordingly.

D. Codes, Permits and Fees

1. All work shall be done in accordance with the 2014 National Electrical Code, the Minnesota State Building Code, and local codes.
2. The Contractor shall pay for required permits and fees.

DULUTH CITY HALL -PROJECT # 15-A-TR

INTERIOR RENOVATIONS - FOURTH FLOOR

411 WEST FIRST STREET, DULUTH, MINNESOTA 55802

DEMO NOTES

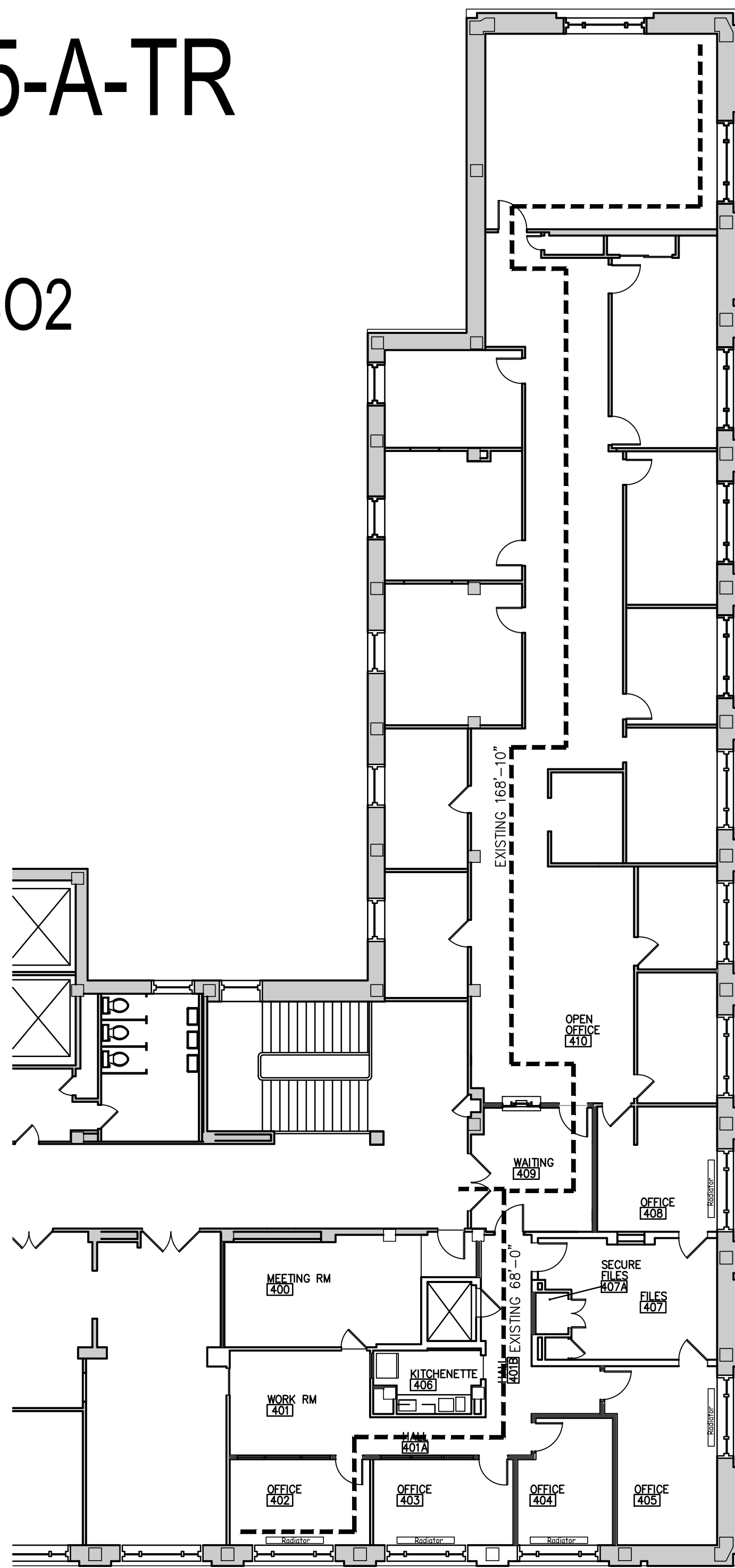
Contractor to protect all existing surfaces and finishes to remain.

- A Remove and salvage existing wood door. Turn over to owner. Existing frame and trim to remain. Prepare existing frame as required for new wood door.
- B Remove and salvage existing carpet tile for reuse. Level floor at areas where walls were removed and prep floor as required for new finish.
- C Saw cut and remove existing clay tile and plaster wall full height. Remove and salvage all existing wood baseboards, chair rails, and other moldings. Turn surplus over to owner.
- D Remove and dispose existing rod and shelf. Patch plaster to match existing. Install wood base as req'd to match existing.
- E Existing wood door, frame to remain. Close door and lock existing latch set and turn key over to owner.
- F Remove and salvage all existing wood baseboards, chair rails, and other moldings at walls to be removed for reuse at new wall locations. Turn surplus over to owner.
- G Remove all components of suspended acoustical tile ceiling system. See demo cty plan.
- H Existing sprinkler piping to remain. Modify as required for new ceiling system, room layout and cty height.
- I Existing windows and stools to remain. Protect from damage. Remove and reinstall existing blinds.
- J Remove and dispose existing cabinets and countertop. Prepare area as required for new construction.
- K Remove and salvage doors, trim and frame. Turn over to owner.
- L Remove existing door, turn over to owner. Remove existing door stops all around. Patch/finish former hinge and strike recesses. Stain, varnish entire frame.
- M Remove existing wood paneling full height of wall. Salvage and turn over to owner. Prepare new opening as required for new door, frame and trim into existing clay tile/plastered wall. Patch plaster to match existing. Install wood base to match existing.
- N Modify existing carpeting as req'd for new walls and/or openings.
- O Existing wood door, frame & trim to remain. Salvage and remove existing hardware and replace w/ new. Turn hardware over to owner. Typical
- P Remove existing glass, frame, trim and counter.
- Q Remove and salvage existing adjustable metal shelving units and wood shelves. Turn over to owner. Patch plaster to match existing.
- R Remove existing surface applied tack boards and trim. Salvage trim for reuse. Turn surplus over to owner. Remove and salvage hanging tack boards and turn over to owner. Patch plaster to match existing.
- S Remove and salvage for reinstall existing miscellaneous wall hung items ie: paper towel holders, soap dispensers, mirrors first aid kits, clocks etc. typ. Patch existing plaster to match existing where applicable.
- T Remove and salvage all components of demountable partition wall system with and without high windows above partitions.
- U Remove and salvage existing door frame, trim & transom. Turn over to owner.

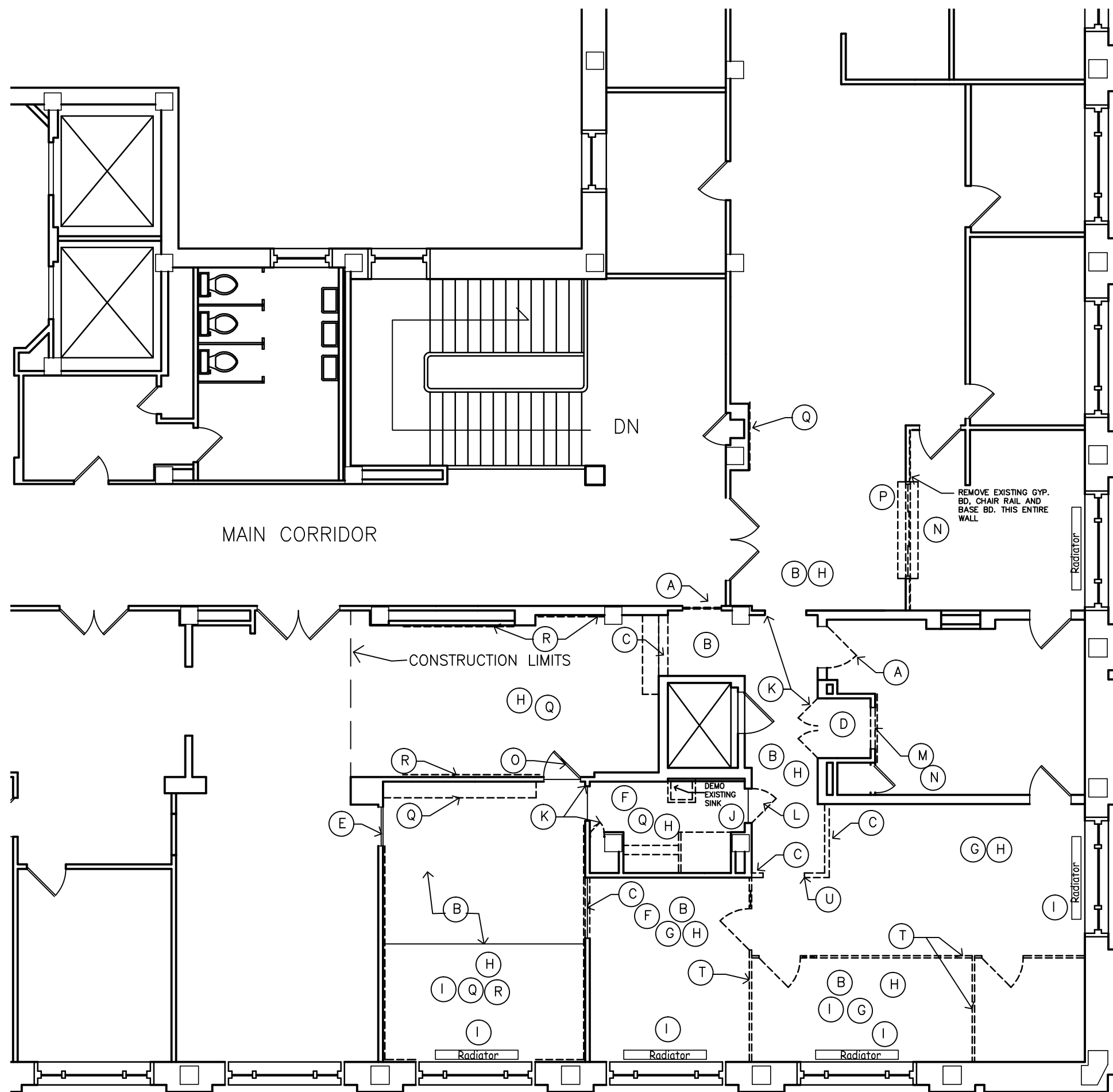
CONSTRUCTION NOTES

Electrical, Mechanical and fire suppression systems by design build. See plans and specification for additional requirements

- 1 Patch and repair existing floor surfaces as required for new construction.
- 2 Install salvage carpet tiles this area. To match adjacent room.
- 3 Install salvaged chair rail & wood baseboard at each new wall face as req'd-match, fit, align with existing. Contractor to fill old nail holes and defects on all chair rails and wood base boards. Prep, touch-up stain and varnish all woodwork - see specifications. Supplement shortages as required with new, matching species and profile.
- 4 Patch existing plaster to new condition - see specification. Plaster patching to align existing and match texture. Patch to be invisible when painted. Typical
- 5 Patch existing plaster behind radiators (to remain) as best as possible (patching of plaster visible beyond radiator). Prep, prime, and paint wall and radiator
- 6 Patch floors, walls and cty as req'd due to new construction.
- 7 Infill existing opening with metal studs & 5/8" gyp. bd @ ea. face. Fill voids with sound insul. Match existing wall thickness. Patch to match existing.
- 8 Cope new walls around existing trim, ie chair rail and base board where new wall abuts existing, typ.
- 9 Align new walls with existing plastered cty above. See demo cty plan.
- 10 Install suspended. cty system to match existing/adjacent cty. Contractor to verify existing layouts and conditions.
- 11 Modify existing fire sprinkler system and electrical as req'd due to new cty/walls etc. contractors to verify existing layouts and conditions.

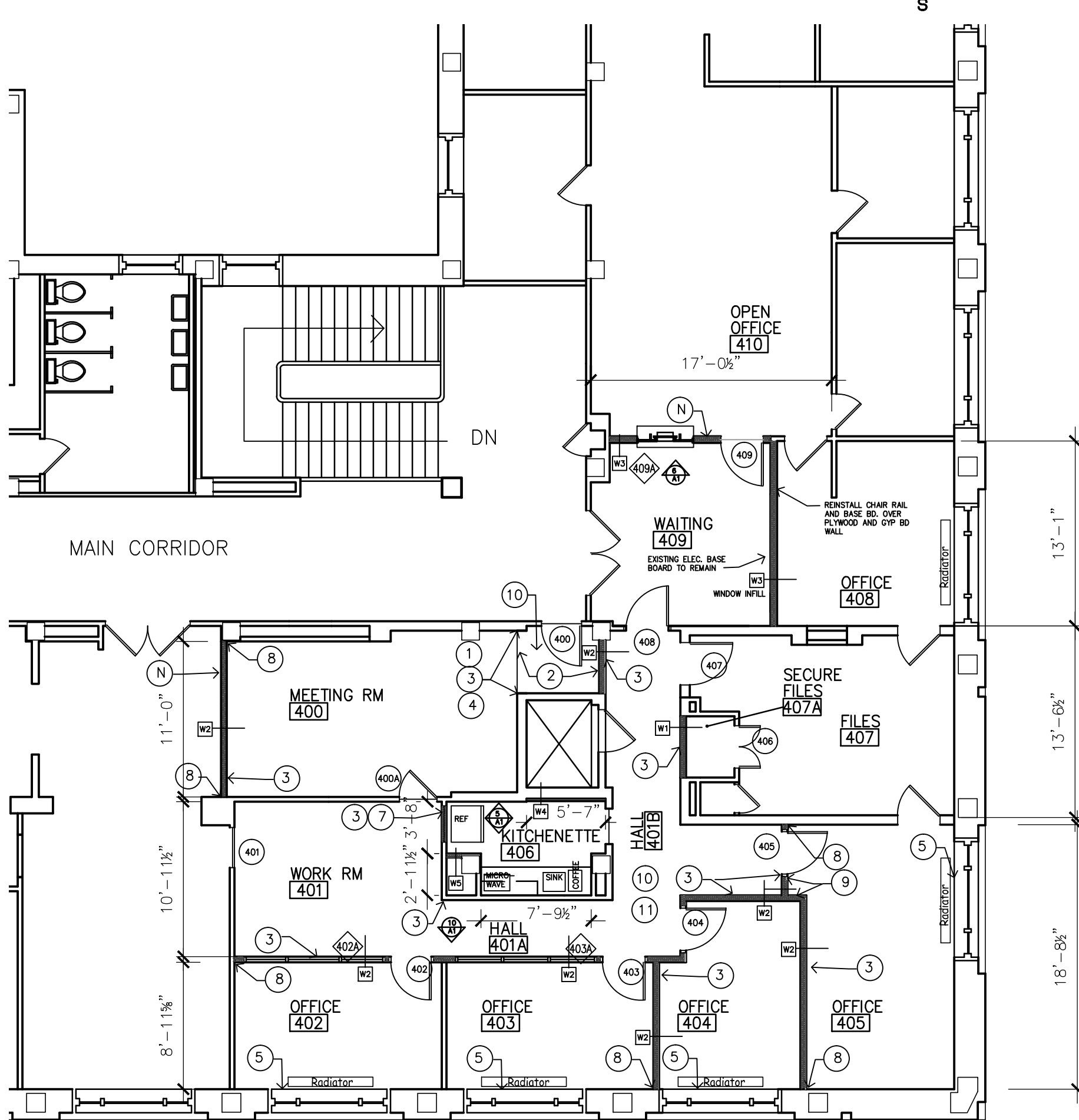


1 T1 FOURTH FLOOR EGRESS PLAN
3/32"=1'-0"



- NOTE:
1. EXISTING FURNITURE TO BE REMOVED & RECONFIGURED BY THE CITY.
 2. SEE 3/T1 AND 1/A1 FOR ADDITIONAL DEMO NOTES AND DIMENSIONS

2 T1 FOURTH FLOOR DEMO PLAN
1/8"=1'-0"



3 T1 FOURTH FLOOR PLAN
1/8"=1'-0"

SHEET INDEX

ARCHITECTURAL:

- T1 TITLE SHEET, PLANS
A1 DETAILS, SCHEDULES

MECHANICAL AND ELECTRICAL BY DESIGN BUILD

CONTACTS

ARCHITECT:

RW Fern Associates, Inc. Architects
413 East Superior Street
Duluth, MN 55802
(218) 722-8271
CONTACT: ROBERT FERN
E-MAIL: robert@rwfassociates.com

CITY ARCHITECT:

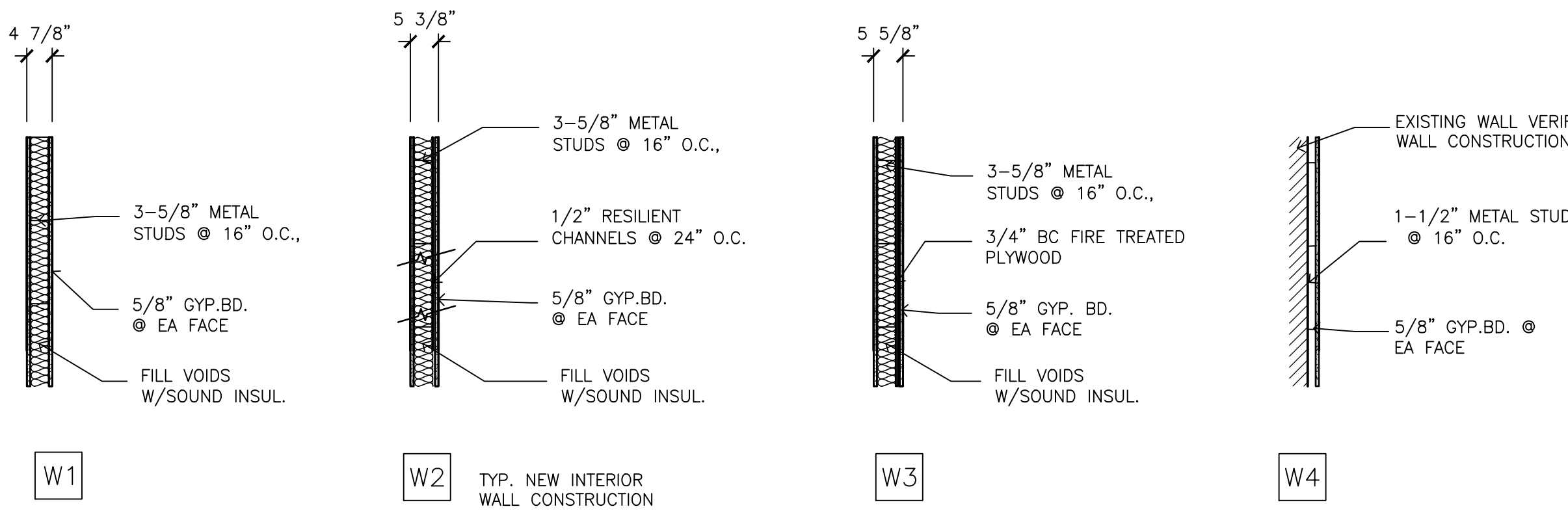
City of Duluth - Architect
Property & Facilities Management
1532 W Michigan Street
Duluth, MN 55808
(218) 730-4434
CONTACT: Tari L. Rayala
E-MAIL: trayala@duluthmn.gov

CODE SUMMARY

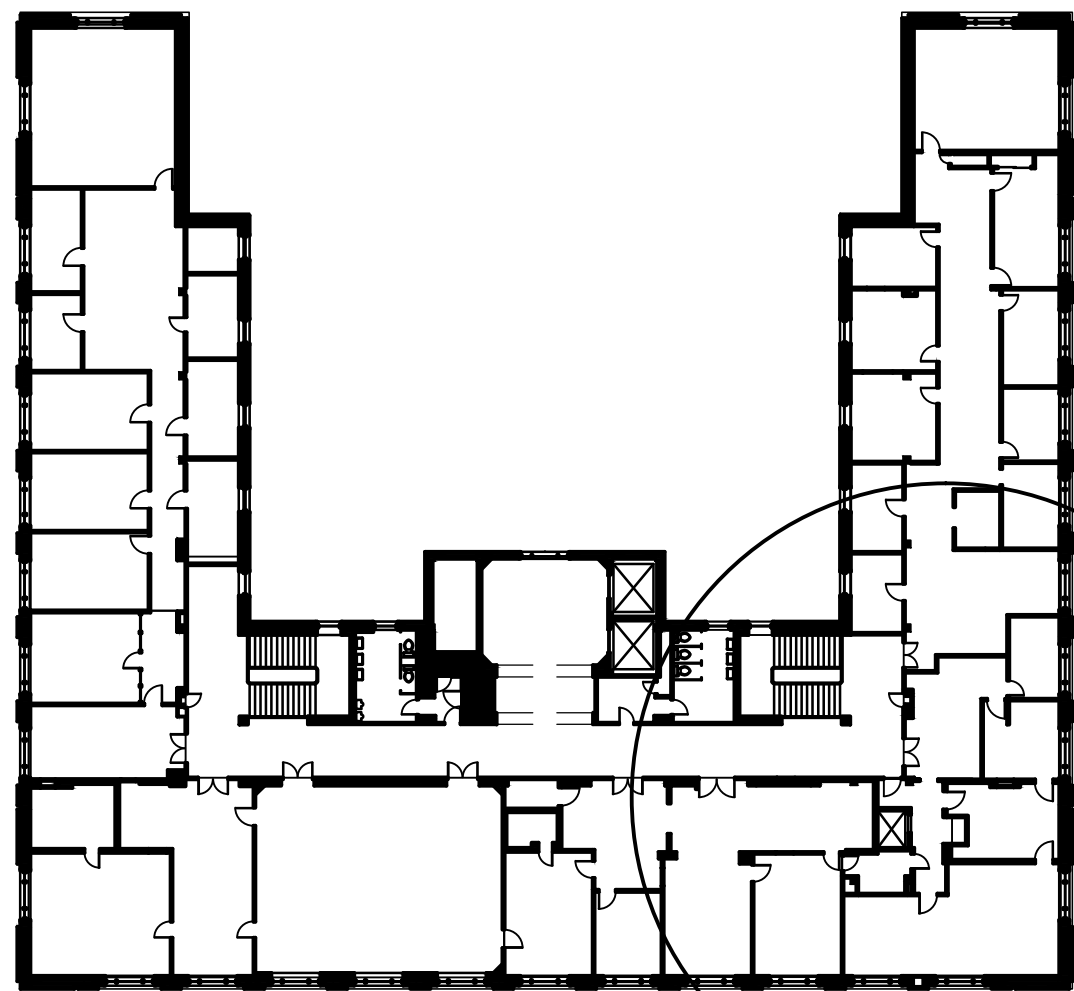
City Hall Renovation - Fourth Floor
411 West First Street, Duluth, Minnesota

MN 2015 State Building Code Summary w/Amendments

- 1) Occupancy Group: B
- 2) Type of Construction: II B
- 3) Allowable Building Area (Table 503)
B Occupancy: 23,000 S.F./Floor - 46,000 S.F./Floor Sprinklered
4 stories maximum
Frontage increase not required or calculated.
Actual Building Area: Ground 31,814
First 28,467
Second 28,467
Third 24,547
Fourth 18,318
Total 131,613 S.F.
Project Area (Fourth Floor) 2037 S.F.
This project does not change the occupancy classification, construction type, or increase building area.
- 4) Sprinkler System: Building has an automatic sprinkler system.
- 5) Fire Alarm: Bldg. has an automatic fire alarm system w/monitoring
- 6) Height/Number of Stories: Existing Basement (Ground Floor)
4 stories (First to Fourth Floor)
- 7) Occupant Load:
B Occupancy Fourth Floor Project Area 2037 + 100 (factor) = 20 occupants
This project does not increase the occupant load for this building.
- 8) Separations Required:
Corridors: 0 with sprinkler system - Table 1017.1
Existing Corridor Doors: 0 - MN Conservation Code Chapter 6
New Corridor Doors: 0 - IBC 1017.1
Stairway: 0 - MN Conservation Code Chapter 6
New Shaftway: 1 hour/30 minute not more than 3 stories - MN Conservation Code 405.2
Transoms: Existing allowed per MN Conservation Code 403.14.1.3 Exception 603.3
Glazing: Existing allowed per MN Conservation Code 403.14.1.3 Exception 603.7
- 9) Minimum Plumbing Fixtures: Existing toilet rooms to remain as is.
This project does not change occupant load.



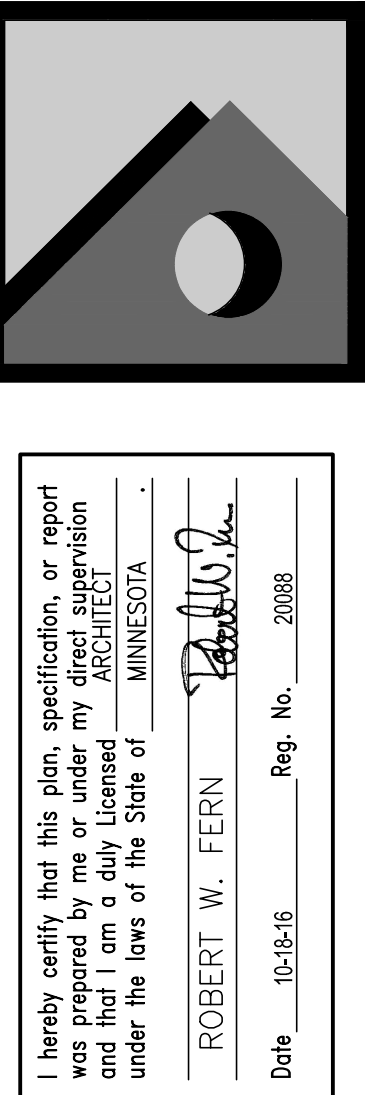
WALL TYPES

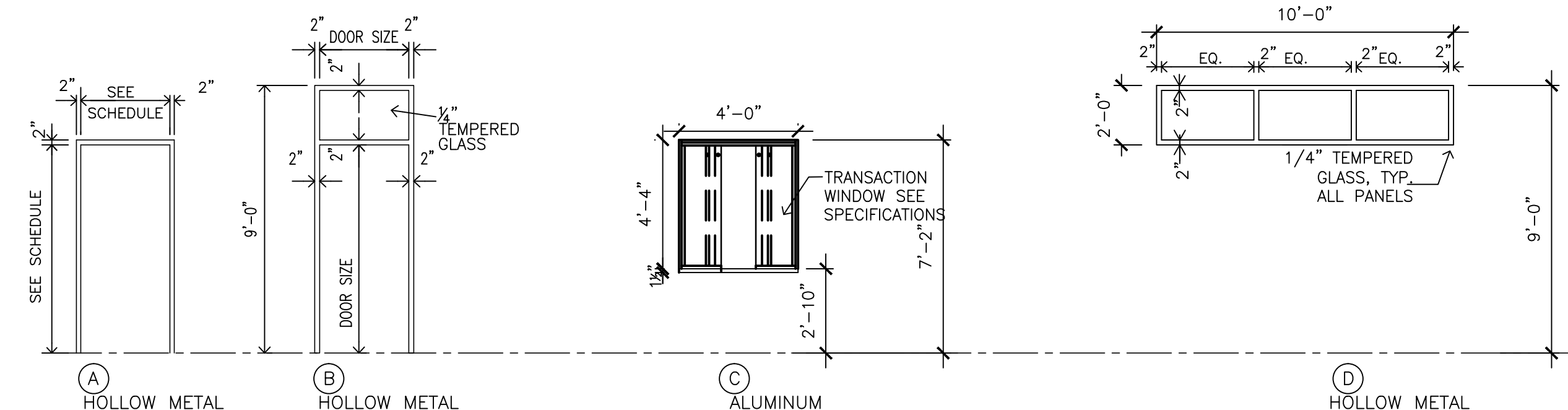
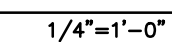
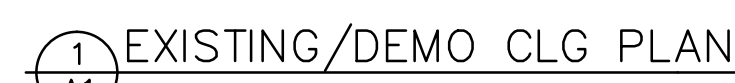


KEY PLAN OF PROJECT AREA

PROJECT LOCATION

LINE IS TWO INCHES
AT FULL SCALE on a 30x42 sheet
(IF NOT 2" - SCALE ACCORDINGLY)





HOLLOW METAL FRAMES TO BE FULL DEPTH OF WALL