

INVITATION TO BID (REBID)

40th WEST TOOLHOUSE BRINE SHED

POSTED: August 29, 2016

Bid #: 16-0423 (REBID)

BIDS DUE: FRIDAY, SEPTEMBER 9, 2016 @ 2:00 PM CST



Property & Facilities Maintenance
1532 W. Michigan Street
Duluth, MN 55806

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Purchasing Division
100 City Hall, 411 W. 1st Street
Duluth, MN 55802-1189
TEL. 218-730-5340 FAX: 218-730-5921
purchasing@duluthmn.gov

INVITATION TO BID (REBID)

40th WEST TOOLHOUSE BRINE SHED

BID NUMBER: 16-0423 REBID

BID OPENING: FRIDAY, SEPTEMBER 9, 2016, AT 2:00 PM

PROJECT DESCRIPTION: Construction of a brine shed per specifications. **THIS PROJECT MUST BE SUBSTANTIALLY COMPLETE BY OCTOBER 31, 2016.** We are assuming council approval will be obtained on September 26, 2016, and a notice to proceed issued once bonds and insurance are verified. Please initial the appropriate line on the bid form indicating your understanding of this timeline.

QUESTIONS: Please submit any questions regarding this project via e-mail to rhurd@duluthmn.gov or call (218) 730-4416. 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.

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, and Blue Book Building and Construction Network.

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.

Bids may be mailed to the Purchasing Office, City Hall, 411 West 1st Street, Room 100, Duluth, MN 55802 or dropped off in person at the same address.

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. Bid results will be posted online at <http://www.duluthmn.gov/purchasing/bids-request-for-proposals/> once all bids have been reviewed.

No alternatives to the specification will be considered unless specifically requested. Erasures or other changes to the bid must be initialed and dated, however no special conditions shall be made or included in the bid form by the bidder.

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. 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 30 days.

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 e-mail prior to the scheduled bid opening.

2. **Acknowledgment of Addendum** – any changes to this solicitation will be announced via Addendum. Bidders must indicate that they have reviewed any addendum(s) by initialing and dating on the bid form where indicated. Failure to acknowledge addendum(s) may result in your bid being deemed non-responsive.

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) with their bid. 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. **Project Labor Agreement (PLA)** - A PLA will be required for any bid that is over or could virtually go over \$150,000. A copy of the City standard PLA is included in this package.

6. **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

7. **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

Amanda Ashbach
Purchasing Agent

BID FORM
BID # 16-0423 (REBID)
40th WEST TOOLHOUSE BRINE SHED

ITEM	PRICE
	\$
	\$
	\$
TOTAL	\$

TOTAL PRICE IN WRITING

I understand and acknowledge that this project must be substantially completed by October 31, 2016. _____

ACKNOWLEDGMENT OF ADDENDA

ADDENDUM #	INITIAL/DATE
ADDENDUM #	INITIAL/DATE
ADDENDUM #	INITIAL/DATE
ADDENDUM #	INITIAL/DATE

Signature _____ Date _____

Name/Title _____

Company Name _____

Address _____

City, State, Zip _____

Tel. _____ E-Mail _____

If your organization is certified as a Disadvantaged Business Enterprise, please check here: ☐

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.

**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:	

CITY OF DULUTH - PART II -
SUPPLEMENTARY GENERAL CONDITIONS FOR FEDERALLY, STATE OF MINNESOTA, AND/OR CITY ASSISTED ACTIVITIES
(revised 4/15/11)

The following conditions take precedence over any conflicting conditions in this Contract.

<u>Section</u>	<u>Title</u>
1	Restrictions on Disbursements, Subcontractors Federal Agency Requirements, Separability, Property
2	Miscellaneous Provisions
3	Definitions
4	Environmental Provisions
5	Contract Compliance
6	Records, Reports and Information, Audits and Inspections
7	Conflict of Interest and Lobbying
8	Labor Standards - Physical Improvement Projects
9	Minnesota Department of Transportation Specification 1960 Partial Payments
10	Housing and Urban Development (HUD) Section 4010
11	Equal Opportunity and Affirmative Action
12	Employment Opportunities - "HUD Section 3"
13	Federal Requirements for Minority/Women Business Enterprises Contract Guidance - MPFA
14	Forms

E-Mail Addresses

For ease in communication, the e-mail address of the person(s) responsible for preparing certified payroll reports (CPRs) is required from the prime contractor and all subcontractors (regardless of tier). This information will be provided to the project engineer prior to the pre-construction meeting OR with materials required in the Letter of Intent.

Section I

Restrictions on Disbursements

No money under this Contract shall be disbursed by the City to any Contractor except pursuant to a written contract which incorporates the applicable PART II, Supplementary General Conditions for Federally, State of Minnesota, and/or City Assisted Activities, and unless the Contractor is in compliance with the Federal Agency requirements with regard to accounting and fiscal matters to the extent they are applicable.

Subcontractors

(A) The Contractor shall include in any subcontract the clauses set forth in the PART II, Supplementary General Conditions for Federally, State of Minnesota and/or City Assisted Activities in their entirety and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.

(B) The Contractor shall not subcontract any part of the work covered by this Contract or permit subcontracted work to be further subcontracted without the City's prior written approval of the subcontractors. The City will not approve any subcontractor for work covered by this Contract who is at the time ineligible under the provisions of any applicable regulations issued by a Federal Agency or the Secretary of Labor, United States Department of Labor, to receive an award of such subcontract.

Federal Agency Requirements

Unearned payments under this Contract may be suspended or terminated upon refusal to accept any additional conditions that may be imposed by the Federal Agency at any time; or if the grant, if applicable, to the City under which this Contract is made is suspended or terminated.

Separability

If any provisions of this Contract is held invalid, the remainder of this Contract shall not be affected thereby if such remainder would then continue to conform to the terms and requirements of applicable law.

Property

Acquisition, use, and disposal of all property, materials and goods acquired as a result of activities made possible by this Contract shall be accomplished in accordance with the applicable provisions of Federal Management Circular (FMC)-74-7, as amended.

Section 2

Miscellaneous Provisions

(A) **Copyrights.** In the event this Contract results in a book or other copyrightable material, the author is free to copyright the work, but Federal Agency and the City reserve a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, all copyrighted material and all material which can be copyrighted.

(B) **Patents.** Any discovery or invention arising out of or developed in the course of work aided by this Contract shall be promptly and fully reported to the Federal Agency and the City for determination by the Federal Agency as to whether patent protection on such invention or discovery shall be sought and how the rights in the invention or discovery, including rights under any patent issued thereon, shall be disposed of and administered in order to protect the public interests.

(C) **Political Activity Prohibited.** None of the funds, materials, property or services provided directly or indirectly under this Contract shall be used in the performance of this Contract on any partisan political activity, or to further the election or defeat of any candidate for public office.

(D) **Lobbying Prohibited.** None of the funds under this Contract shall be used for publicity or propaganda purposes designed to support or defeat legislation pending before the Congress or the City.

(E) **Prohibition of and Elimination of Lead-Based Paint Hazard.** Notwithstanding any other provision, the Agency and Contractor agree to comply with the regulation issued by the Secretary of Housing and Urban Development set forth in 37 F. R. 22732-3 and all applicable rules and orders issued thereunder which prohibit the use of lead-based paint in residential structures undergoing Federally assisted construction or rehabilitation and require the elimination of lead-based paint hazards. Every contract or subcontract, including paint, pursuant to which such Federally assisted construction or rehabilitation is performed shall include appropriate provisions prohibiting the use of lead-based paint.

(F) **Architectural Barriers Act.** The design for and construction of any facility funded in whole or in part by this Contract shall be in conformance with the American Standard Specification for Making Buildings and Facilities Accessible and Usable by the Physically Handicapped, Number A-117.1-1971, as modified.

(G) **Relocation and Acquisition.** Any relocation or acquisition resulting from activities funded in whole or in part by this Contract shall be in conformance with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (40 U.S.C. 4601) and the implementing regulations 24CFR Part 42.

(H) **Prohibition Against Payments of Bonus or Commission.** The assistance provided under this Contract shall not be used in the payment of any bonus or commission for the purpose of obtaining Federal Agency approval for such assistance, or Federal Agency approval of applications for additional assistance, or any other approval or concurrence of a Federal Agency required under this Contract, Federal Law or Federal Regulations thereto; provided, however, that reasonable fees or bonafide technical, consultant, managerial or other such services, other than actual solicitation, are not hereby prohibited if otherwise eligible as project costs.

(I) **Hatch Act.** Where applicable, the Contractor will comply with the provisions of the Hatch Act which limits the political activity of the Contractor's employees.

Section 3

Definitions

(A) City means the City of Duluth, Contracting Officer, or other persons authorized to act on behalf of the City of Duluth.

(B) Contracting Officer is the delegated representative of the City who has the responsibility for administering the Project.

(C) Contractor means an entity, whether public or private, which furnishes (other than standard commercial supplies, office space or printing services) to the City, products, services or supplies as described in this project Contract.

(D) Federal Agency means the United States, the District of Columbia, and any executive department, independent establishment, administrative agency, or instrumentality of the United States or of the District of Columbia, including any corporation, all or substantially all of the stock of which is beneficially owned by the United States, by the District of Columbia, or by any of the foregoing departments, establishments, agencies, and instrumentalities. The term Federal Agency shall also include the person or persons authorized to act on behalf of said Federal Agency.

(E) Project means the activities to be undertaken by the Contractor as described in this Contract, which from time to time may be amended by mutual consent of the City and Contractor.

(F) Subcontractor means an entity, regardless of tier, which has entered into an agreement with the Contractor or another Subcontractor, to undertake certain Project activities as described in that agreement.

(G) The term labor standards, as used in the Contract, means the requirements of the Davis-Bacon Act, the Contract Work Hours and Safety Standards Act (other than those relating to safety and health), the Copeland Act, and the prevailing wage provisions of the other statutes listed in 20 CFR 5.1.

(H) Work means all labor necessary to produce the construction required by the Contract Documents, all materials and equipment incorporated or to be incorporated in such construction, products, services, or supplies required by the Contract Documents, or any other requirements set forth in the Contract.

(I) Additional Definitions, that are applicable to the Labor Standards provisions - Section 8 - of this Contract can be found in 29CFR5.2 as published by the U.S. Department of Labor and said definitions are hereby incorporated by reference into the provisions of this Contract.

Section 4

Environmental Provisions

(A) The Contractor agrees to follow the regulations, requirements, policies, goals and procedures set forth by the Council on Environmental Quality (CEQ) under provisions of the National Environmental Policy Act (NEPA) (Pub. L 91-190, 42 U.S.C. 4321 et seq.), Executive Order 11514, and 40 CFR Part 1500.

(B) **Historic Properties.** The Contractor agrees to follow the regulations, requirements, policies, goals, and procedures set forth under provisions of the National Historic Preservation Act of 1966 (Pub. L. 89-665); Preservation of Historic and Archeological Data Act of 1974 (Pub. L. 93-291); Executive Order 11593; 36 CFR , Part 800 and applicable State legislation or regulations.

(C) **Coastal Zones and Wetlands.** The Contractor agrees to follow the regulations, requirements, policies, goals and procedures set forth under provisions of the Coastal Zone Management Act of 1972 (Pub. L. 92-583) and applicable State legislation or regulations.

(D) **Noise.** The Contractor agrees to comply with provisions set forth in the U.S. Department of Housing and Urban Development Handbook 1390.2, Noise Abatement and Control, Department Policy, Responsibility and Standards, 1971.

(E) **Flood Plain.** The Contractor agrees to comply with the provisions set forth in the Flood Disaster Protection Act of 1973 (Pub. L. 93-234) and implementing regulations; Title 24, Chapter X, Subchapter B, National Flood Insurance Program, Executive Order 11296, and Executive Order 11988 relating to the evaluation of flood hazards.

(F) **Air Quality.** The Contractor agrees to comply with provisions set forth in the Clean Air Act (Pub. L. 90-148) and Clean Air Act Amendments of 1970 (Pub. L. 91-604); and applicable U.S. Environmental Protection Agency implementing regulations.

(G) **Water Quality.** The Contractor agrees to comply with the provisions set forth in the Federal Water Pollution Control Act (Pub. L. 92-500) and applicable U.S. Environmental Protection Agency implementing regulations, and Executive Order 11288 relating to the prevention, control, and abatement of water pollution.

(H) **Wildlife.** The Contractor agrees to comply with the provisions of the Fish and Wildlife Coordination Act (Pub. L. 85-264).

Section 5

Contract Compliance

(A) In the event of the Contractor's noncompliance with the provisions of this Contract or with any of the said regulations, the City may withhold payment(s) until evidence of compliance by the Contractor has been demonstrated, or the Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further City contracts.

(B) In the event the Contract is terminated or canceled as a result of noncompliance with any of the provisions of this Contract, the City may subject to bids the remainder of the Project for which this Contract was made. The City shall have the right upon termination or suspension to withhold all further payments under this

Contract to the Contractor. Upon the award of a new contract for the remainder of the Project, the City shall pay to the Contractor an amount no more than the balance remaining due to the Contractor less the sum of the costs incurred by the City which are necessary in preparing the new bid specifications. In the event the amount paid the Contractor prior to the date of termination or cancellation exceeds the full amount of this Contract less the cost of the new contract and the additional costs mentioned above, the Contractor agrees to reimburse the City for such excess amount within ninety days after the new contract is awarded by the above procedures.

(C) Provisions contained in subparagraph (A) and (B) above shall not be interpreted as precluding any authorized Federal, State, or County governmental unit from exercising their legal administrative or other responsibilities in respect to the enforcement by said governmental units of laws or regulations concerning activities of the Contractor.

Section 6

Records

(A) **Establishment and Maintenance of Records.** Records shall be maintained in accordance with requirements prescribed by the Federal Agency or the City with respect to all matters covered by this Contract. Except as otherwise authorized by the Federal Agency, such records shall be maintained for a period of three years after receipt of final payment under this Contract.

(B) **Documentation of Costs.** All costs shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers, or other official documentation evidencing in proper detail the nature and propriety of the charges. All checks, payrolls, invoices, contracts, vouchers, orders, or other accounting documents pertaining in whole or in part to this Contract shall be clearly identified and readily accessible.

Reports and Information

At such times and in such forms as the Federal Agency or the City may require, there shall be furnished to the Federal Agency or the City such statements, records, data and information as the Federal Agency or the City may request pertaining to matters covered by this Contract.

Audits and Inspection

At any time during normal business hours and as often as the City, the Federal Agency and/or the Comptroller General of the United States may deem necessary, there shall be made available to the City, the Federal Agency and/or representatives of the Comptroller General for examination of all its records with respect to all matters covered by this Contract and will permit the City, the Federal Agency and/or representative of the Comptroller General to audit, examine and make excerpts or transcripts from such records, and to make audits of all contracts, invoices, materials, payrolls, records of personnel, conditions of employment, and other data relating to all matters covered by this Contract.

Section 7

Conflict of Interest and Lobbying

(A) **Interest of Members, Officers, or Employees of the City, Members of Local Governing Body, or Other Public Officials.** No member, officer, or employee of the City, or its designees or agents, or member of the governing body of the City, during his/her tenure of for one year thereafter, shall have any interest, direct or indirect in any contract or subcontract, or the proceeds thereof, for work to be performed in connection with the Project assisted under this Contract. Any contract in which any of the above indicated individuals becomes directly or indirectly, interested, personally or as a member of a firm, or as an officer, director, or stockholder of a corporation, shall be and become absolutely void; and any money which shall have been paid on such contract by the City may be recovered back from any or all persons interested therein, by a joint action or several actions.

(B) The Contractor agrees that he will incorporate into every contract required to be in writing the following provisions: **Interest of Contractors and Employees** - The Contractor covenants that he presently has no interest and shall not acquire any interest, direct or indirect, in the Project which would conflict in any manner or degree with the performance of this Contract, and no person having any conflicting interest shall be employed. Any interest on the part of the Contractor or his employees must be disclosed to the Federal Agency and the City. Provided, however, that this paragraph shall be interpreted in such a manner so as not to unreasonably impede any statutory requirements that opportunity be provided for employment of and participation by certain residents of a designated geographical area, if applicable.

(C) **Interest of Member or of Delegate to Congress.** No member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this Contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.

(D) The Contractor by signing this document certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the Contractor shall complete and submit Standard Form -LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The above certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1332, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

(E) The parties to this Contract certify and agree that they are under no contractual or other disability which would prevent them from complying with the terms of this Contract.

Section 8

Labor Standards - Physical Improvement Projects

Where applicable, there shall be included in all construction, rehabilitation, alteration or repair contracts with private entities made possible by or resulting from this Contract, the following Labor Standards provisions;

(A) **General Requirements.**

(1) **Subcontracts.** The Contractor shall include in any subcontract the clauses set forth in Section 8, **Labor Standards**, in their entirety and also a clause requiring the subcontractors to include these clauses in any Tower tier subcontract which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.

(2) The transporting of materials and supplies to or from the site of the Project or Program to which this Contract pertains by the Employees of the Contractor or of any subcontractor, and the manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the Project or Program to which this Contract pertains by persons employed by the Contractor or by any subcontractor, shall for the purpose of this Contract, and without limiting the generality of the foregoing provisions of this Contract, be deemed to be work to which these **Labor Standards** provisions are applicable.

(3) No person under the age of eighteen years shall be employed on work covered by this Contract.

(4) In connection with the performance of work under this Contract, the Contractor agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, September 10, 1955 (18 U.S.C. 4082 (c) (2)) and Executive Order 11755, December 29, 1973.

(5) The Contractor will permit authorized representatives of the Federal Agency and the City to interview employees during working hours on the job.

(6) No employee to whom the wage, salary, or other **Labor Standards** provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the Labor Standards applicable under this Contract to his employer.

(B) **Safety Standards.** No Contractor or subcontractor contracting for any part of a construction contract shall require any laborer or mechanic, including apprentices and trainees, employed in the performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to his health or safety, as determined under construction safety and health standards promulgated by the Secretary of Labor. The Contractor or subcontractor comply with all the rules, regulations, and relevant orders, promulgated by the Secretary of Labor pursuant to Public Law 91-54.

(C) **Davis-Bacon Act - 29 CFR 5.5**

web site: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title29/29cfr5_main_02.tpl

Refer to Section 10, Page 10 Housing and Urban Development (HUD) form-4010 (06/2009) Ref Handbook 1344.1

City of Duluth "Mini Davis-Bacon"

(D) **City of Duluth - Minimum Wage Ordinance 8940, as Amended.**

(1) On a project (as defined below) funded in whole or in part by federal and/or state funds and/or city of Duluth funds, these local provisions shall prevail in those instances where the requirements of the local provisions are equal to or greater than similar minimum labor standards provisions as set forth in applicable federal and/or state laws and regulations.

(2) In all contracts in excess of \$2,000 for projects (as defined below), the Contractor's particular attention is called to Ordinance 8940, effective June 8, 1989, respectively coded as Article IV of Chapter 2 of the Duluth City Code, and entitled "An Ordinance Pertaining to Wages and Working Hours of Persons on Public Works in the City of Duluth", as set forth below:

(3) **Definitions.**

For the purposes of this section the following words and phrases shall have the meanings respectively ascribed to them in this section:

(a) **Basic hourly rate** - The hourly wage paid to any employee.

(b) **Prevailing wage rate** - The basic hourly rate plus fringe benefits prevailing in the city of Duluth as determined by the United States secretary of labor pursuant to the Davis-Bacon act, as amended; provided that whenever employer and employee organizations employing and representing a majority of a class of workers in a particular industry within the city jointly certify that the prevailing basic hourly rate plus fringe benefits of such workers differs from the amount determined by the secretary of labor, the certified rate shall be considered to be the prevailing wage rate for such class of workers in that industry.

(c) **Fringe benefits** - Employer contribution for health and welfare benefits, vacation benefits, pension benefits, and all other economic benefits other than the basic hourly rate.

(d) **Apprentice** - An employee who is working under a training program which is approved either by the U.S. Department of Labor Bureau of Apprenticeship & Training or the Minnesota Director of Voluntary Apprenticeship; see apprentice ratios on pages 6-7 and HUD 4010 in Section 10.

(e) **Trainee** - An employee registered with the U. S. Department of Labor Employment & Training Administration; see HUD 4010 in Section 10.

(f) **Project** - Erection, construction, demolition, painting, remodeling or repairing of any public building, highway, sidewalk, bridge, water or gas line, sewer and sewage treatment facility or other public work performed under contract with the city.

(g) **Labor, mechanic** - All persons utilized, employed or working on a project who are doing work usually done by mechanics and laborers, including proprietors, partners, and members of cooperatives.

(4) **Wage Rates and Hours for City of Duluth Projects.**

(a) Any contract which provides for a project of estimated total cost of over \$2,000.00 shall contain a stipulation that no laborer, mechanic or apprentice-trainee employed directly upon the project work site by the contractor or any subcontractor shall be permitted or required to work at a rate of pay less than the prevailing wage rate; nor shall any such employee be permitted or required to work more than 8 hours in any work day **OR** 40 hours in any work week unless he is paid at a rate of at least 1½ times the basic hourly rate for all hours in excess of 8 per day **OR** 40 per week [in other words: all hours in excess of eight per day and all hours after 40 per week] and unless he receives fringe benefits that are at least equal to those in the prevailing wage rate; provided that whenever employer and employee organizations employing and representing a majority of a class of workers in a particular industry within the city jointly certify that the maximum number of hours that such persons may work under existing labor agreements before overtime wages must be paid differs from the hours specified in this paragraph, the maximum number of hours specified in such labor agreements shall be substituted for those specified above in applying the provisions of this paragraph to such workers.

(b) The word "or" in the state statute and the city of Duluth Code refers to the number of hours worked in any one week or, in the alternative, the number of hours worked in any one day in the week (the days in one week being totaled for reporting purposes); the law requires use of the alternative which results in the higher number of overtime hours for each employee whose time is being reported.

EXCEPTIONS: Federal government funding only and HUD (Housing and Urban Development) funding - see point "e"

In summary, if a project is solely funded with city of Duluth monies, city ordinance 8940 as amended allows the employees to work four ten-hour days and be paid at the regular hourly rate for those ten hours; exceeding hours must be paid at the overtime rate. An employer may not withhold overtime payment exclusively until 40 hours per week have been worked. Daily overtime must be paid as it is earned.

- **The base workweek hours must be clearly indicated on each payroll. Employees may be assigned a different workweek; however, that must be clearly marked beside the employees' names.**

The following are examples of how these rules apply to different situations.

- TT refers to the total time worked on the day or in the week
- RT refers to the hours worked at the regular rate of pay (straight time)
- OT refers to the hours worked for which overtime must be paid

State Funded with or without federal funding Projects								City-only Funded Projects (4 ten-hour days)							
	Mon	Tues	Wed	Thurs	Fri	Sat	Total		Mon	Tues	Wed	Thurs	Fri	Sat	Total
TT	10	10	10	10	0	6	46		10	10	10	10	0	6	46
RT	8	8	8	8	0	6	38		10	10	10	10	0	0	40
OT	2	2	2	2	0	0	8		0	0	0	0	0	6	6

State Funded with or without federal funding Projects								City-only Funded Projects (4 ten-hour days)							
	Mon	Tues	Wed	Thurs	Fri	Sat	Total		Mon	Tues	Wed	Thurs	Fri	Sat	Total
TT	0	10	10	0	7	0	27		10	0	12	0	0	0	32
RT	0	8	8	0	7	0	23		10	0	10	10	0	0	30
OT	0	2	2	0	0	0	4		0	0	2	0	0	0	2

c) **Overtime Calculations**

Minnesota Statutes Chapter 177.42, subd 4 specifies that the prevailing hours of labor may not be more than eight hours per day or more than 40 hours per week (as stated above in (b)), the City of Duluth does allow for ten hours per day/40 hours per week with City funding *only*. **Example: hours exceeding eight per day are paid at 1.5 times the rate in the contract's wage decision OR the base rate the employee is being paid if it is higher than the required base rate; once 40-hours in any one week are attained, all hours exceeding that 40 are paid at 1.5 times the rate in the project contract's wage decision.** See example (1) and (2) below.

Minnesota Statutes Chapter 177.42, subd 5 defines the hourly basic rate as the hourly wage paid to any employee. (subd 6): The prevailing wage rate means the hourly basic rate of pay plus the contribution for health and welfare benefits, vacation benefits, pension benefits, and any other economic benefit paid to the largest number of workers engaged in the same class of labor within the area...

Minnesota Statutes Chapter 177.43, subd 1 (1) ...employees are permitted to work more hours than the prevailing hours of labor [being] paid for all hours in excess of the prevailing hours at a rate of at least 1-½ times the hourly basic rate of pay. (2) A laborer or mechanic may not be paid a lesser rate of wages than the prevailing wage rate in the same or most similar trade or occupation in the area.

An employer may pay a lower **regular time/straight time** hourly rate and higher fringe benefit rate--to a bona fide plan--than stated in the contract's wage decision providing the total of the two rates is equal to or greater than the total in the wage decision; however, the **OVERTIME rate** must be paid on the higher rate in the contract's wage decision.

(1) Overtime Calculation with Fringe Benefits Paid to Bona Fide Plans

For overtime purposes, an employer paying higher fringe benefits to a bona fide plan and paying a lower hourly rate **MUST** calculate the overtime on the higher hourly rate as stated in the project contract's wage decision. The fringe benefit amount may be reduced to reflect any increase in the total prevailing wage package IF the plan administrator permits such a reduction. This acceptance must be verified in writing by the plan administrator and attached to the appropriate certified payroll report.

(2) Overtime Calculation with Cash Payment of Fringe Benefits

When the fringe benefit is paid directly to an employee, the prevailing base rate and the fringe benefit rate as established in the project contract's wage decision for a specific classification are totaled to arrive at the hourly rate. *Overtime is calculated at 1.5 x the base rate of the wage decision with the fringe benefit amount added to that rate: base rate of the wage decision x 1.5 + fringe benefit rate = overtime rate.*

Contract Work Hours and Safety Standards Act

[Refer to page two of this document.] All projects valued at \$100,000 or greater are subject to this Act. As with Minnesota Statutes Chapter 177.43, the overtime rate is calculated as in items one and two above OR (e) below.

- (d) A contractor shall not reduce a worker's private, regular rate of pay when the wage rate certified by the U. S. Department of Labor or the Minnesota Department of Labor & Industry is less than the worker's normal hourly wage [Minnesota Statute 181.03 subdivision 1(2)].

(e) **Regular Time & Overtime Definitions**

- **State of Minnesota** funded projects with or without federal funding *only allow for five eight-hour days per week at regular time*. Overtime is calculated at a rate not less than time and one-half (1.5) of the prevailing base rate as stated in the wage decision OR the base rate the employee is being paid if it is higher than the required base rate--plus the straight time fringe benefit amount. (see (1) above for example when a lower base rate and higher fringe are paid)
- **City of Duluth** funded projects do permit four ten-hour work days at regular time--see point 4-a, b for stipulations. Overtime is calculated at a rate not less than time and one-half (1.5) of the prevailing base rate as stated in the wage decision--OR the base rate the employee is being paid if it is higher than the required base rate--plus the straight time fringe benefit amount. (see (1) above for example when a lower base rate and higher fringe are paid)
- **Federal** funded only projects allow overtime pay for hours worked in excess of 40 in a workweek at a rate not less than time and one-half (1.5) of the prevailing base rate as stated in the wage decision OR the base rate the employee is being paid if it is higher than the required base rate--plus the straight time fringe benefit amount.
- **HUD** funded projects allow overtime pay for hours worked in excess of 40 in a workweek at a rate not less than time and one-half (1.5) of the prevailing base rate as stated in the wage decision OR the base rate the employee is being paid if it is higher than the required base rate--plus the straight time fringe benefit amount.

** When a combination of funding sources are included in any one project, the most strict requirements will apply.

- (f) The minimum hourly prevailing wages are contained in each project specification. When both federal (general decision rates from the U. S. Department of Labor) and State of Minnesota prevailing wages for state funded construction projects from the Minnesota Department of Labor and Industry are used, the prime contractor and all subcontractors including trucking operations, are required to pay the higher of the two wages for all laborers and mechanics [MnDOT Contract Administration Manual, Section 5-591.320].
- (g) The prime contractor and any lower-tier subcontractor shall review all wage decisions and compensate a worker according to the type of work performed and at the rate that is the greatest.
- (h) State of Minnesota prevailing wages typically list two rates for each classification with two effective dates. Should any City of Duluth contract continue to and past the second effective date, that rate and fringe benefit will be in effect through the remainder of the project.
- (i) **Mn/DOT Statement of Compliance is required on all city of Duluth construction projects (regardless of the project funding source) with each weekly certified payroll report.** web site: <http://dot.state.mn.us/const/labor/forms.html>
- (j) All contracts for city projects shall have applicable schedules of prevailing wage rates set forth in the contract. Schedules of applicable prevailing wage rates shall be posted on all project job sites for public review and shall be protected from the weather.
- (k) Employees on projects shall be paid at least **weekly**. Fringe benefits shall be paid either in cash or to an employee benefit plan that has been approved by the U.S. Department of Labor. ■ **The fringe benefit package is an integral portion of the prevailing wage. Should the prime contractor or any subcontractor (regardless of tier) become delinquent with any fringe benefit plan administrator's requirements for monthly payment, the monthly estimate(s) may be withheld until the plan payments are made current.** (city ordinance 8940 6-18-89 plus amendments)
See MnDOT Specification 1906 on page nine and Section 5 of this document: Contract Compliance.
See Statement of Compliance and Certified Payroll Report requirements in Section 10, HUD 4010 and web sites in Section 14, Forms.
- (l) Any contractor or subcontractor working on a project shall furnish the City with **original** certified payroll reports with **original signatures** relating to the project. Such certified payroll reports shall be **submitted weekly** on U.S. Department of Labor standard forms (WH-347) or their equivalent--using the same format--to the City of Duluth Labor Standards representative. All City of Duluth funded projects must have the base workweek hours indicated on the certified payroll form and/or beside each employee's name (should some employees be working different base workweeks).
- (m) No contractor or subcontractor working on a project shall evade or attempt to evade the provisions of this section through the use of non-recognized training programs. The only employees involved in training programs that shall be allowed to work on projects covered by this section shall be apprentice-trainees as defined by this article.
- (n) Any person violating the provisions of this section shall be guilty of a misdemeanor with each day of violation constituting a separate offense. In addition, if the prevailing wage rate and accompanying fringe benefit rate is not paid to employees working on a project, the City of Duluth may withhold contract payments to the prime contractor until such deficiencies are corrected. Should fringe benefits be paid to authorized Plans, the payments must be made within the demands of those Plans. Delinquencies may result in withholding of project funds to the prime contractor.
- (o) This section shall not apply to contracts for projects where the total cost of the project is less than \$2,000.00; nor to materialmen who do no more than deliver materials to the work site, except that this section shall apply to employees who deliver asphalt, concrete or mineral aggregate such as sand, gravel or stone where such material is incorporated into the project by depositing the material substantially in place, either directly or through spreaders, from the transporting vehicle.

(5) **Helpers**

A helper may perform work *only* if the helper classification is specified and defined in the federal wage decision and/or State of Minnesota wage decision incorporated into the project contract. Without such a helper classification, the contractor must assign a job classification that is the "same or most similar" [Minnesota Statute 177.44, subdivision 1] and compensate the helper for the actual work performed regardless of the helper's skill level.

(6) **Apprentice Ratios**

Journeyworkers must be on site with the apprentices and their hours must match.

FUNDING SOURCE:

City of Duluth and State of Minnesota with or without Federal funding

- Apprentices are not permitted to work alone under any circumstances.
- Working foremen are acceptable as a journeyworker PROVIDING he/she is in the same classification.
 - » Example: carpenter foreman and carpenter apprentice
- Ratios are determined by the trade's labor agreement.
- In the absence of ratio language, the following State of Minnesota apprenticeship ratios will be applied:
(apprentice : journeyworker) 1:1 2:4 3:7 4:10, etc.

- Employees working in excess of the allowable ratio must be paid the full journeyworker compensation.
- Out-of-ratio apprentices will be calculated beginning with the **apprentice at the highest level of training** and, then, to less senior apprentices in their rank order.
- Should two or more out-of-ratio apprentices have the same level of training, whomever was on the work site first will receive journeyworker pay; if the apprentices at the same level of training began work on the project site at the same time, hours worked out-of-ratio for which restitution is due will be divided among those apprentices.

Examples:

Four apprentices working unsupervised are on site. [4:0]
Ratio calls for four apprentices and ten journeyworkers [4:10]

Correction: all apprentices will receive the full journeyworker compensation as apprentices are not permitted to work alone.

Three apprentices and two journeyworkers are on site. [3:2]
Ratio calls for three apprentices and seven journeyworkers [3:7]

Two journeyworkers may accompany only one apprentice; therefore, the two highest level apprentices are paid the full journeyworker compensation.

Even though this particular job has three apprentices—the second journeyworker is a mute point; a third journeyworker would also be a mute point in this example.

Correction: the two highest level apprentices are paid the full journeyworker compensation and the third lower level apprentice is considered in ratio.

H U D (CDBG) and Federal funding only

- Apprentices are not permitted to work alone unless the U. S. Department of Labor-approved agreement allows that practice.
- Working foremen are acceptable as a journeyworker PROVIDING he/she is in the same classification.
 - » Example: electrician foreman and electrician apprentice
- Ratios are determined by the trade's U. S. Department of Labor-approved agreement.
- In the event of the absence of ratio language in the applicable agreement, the Minnesota Department of Labor ratio of one apprentice for the first journeyworker and one apprentice for each three journeyworkers thereafter will be applied, (i.e., 1:1, 2:4, 3:7, 4:10, etc.).
- The **legal apprentices are those who first came to work on the job site**; in the event that all apprentices begin work on the project site at the same time, hours worked out-of-ratio for which restitution is due will be divided among the apprentices.
- Time cards will be required to substantiate the start times.
- Employees working in excess of the allowable ratio—or for which U. S. Department of Labor-apprentice agreement/certificate is not provided—must be paid the full journeyworker compensation.

Examples:

Four apprentices and one journeyworker are on site. [4:1]
Ratio calls for four apprentices and ten journeyworkers. [4:10]

The first apprentice on site is considered in ratio as one journeyworker may only accompany one apprentice [1:1]; this particular job has four apprentices.

Correction: the second through the fourth apprentices coming on site are paid the full journeyworker compensation.

Six apprentices and two journeyworkers are on site [6:2]
Ratio calls for six apprentices and sixteen journeyworkers [6:16]

The first apprentice on site is considered in ratio as two journeyworkers may only accompany one apprentice; this particular job has six apprentices—the second journeyworker is a mute point.

Correction: the second through sixth apprentices coming on site are paid the full journeyworker compensation.

(7) Poster Boards

The prime contractor must construct and display a poster board, which contains all required posters, is legible and is accessible to all workers from the first day of work until the project is 100% complete. Posters must be protected from the weather. Prime contractors are not allowed to place a poster board at an off-site facility location.

(8) Trucking Issues

a) For the purpose of sections seven and eight, the term “owner” includes all persons having an ownership interest in the trucking entity or a partnership interest in the trucking entity and has a legal and rightful title to the vehicle(s) or has an approved lease on the vehicle(s). “Operate” means the owner either physically drives the vehicle or hires another to physically drive the vehicle; yet, maintains the right to direct the day-to-day operations of the vehicle.

b) Trucking Operations Definitions: See MN Rule 5200.1106 web site: <https://www.revisor.mn.gov/rules/?id=5200.1106>

Independent Trucking Operator: an individual or partnership who owns or holds a vehicle under lease and who contracts that vehicle and the owner's services to an entity which provides construction services to a public works project. The individual owns or leases and drives the equipment, is responsible for the maintenance of the equipment, bears all operating costs, determines the details and means of performing the services, and enters into a legally binding agreement that specifies the relationship to be that of an independent contractor and not that of an employee.

Multiple Truck Operations: any legal business entity that owns more than one vehicle and hires the vehicles out for services to brokers or contractors on public works projects. The owners of a trucking firm may either drive the vehicles or hire employees to drive the vehicles. Employee drivers are subject to the appropriate prevailing wage rate. The owner driving a vehicle is obligated to account for the value of his/her services as a driver at the appropriate prevailing wage.

Partnerships: a legal business entity where two or more individuals hold vehicles under lease and contract those vehicles and their services to an entity which provides construction services to a public works project. The partners own or lease the equipment, are responsible for maintenance and all operating costs, drive the equipment, determine the details and means of performing the services, and enter a legally binding agreement that specifies the

relationship to be that of a partner and not that of an employee. All partners are subject to the appropriate prevailing wage per city of Duluth ordinance 8940 as amended.

Corporation: any legal business entity that owns or leases vehicles to provide construction services to public works projects. All individuals are employees of the corporation and subject to the appropriate prevailing wage regardless of title or position.

Broker: an individual or firm who (activities include, but are not limited to):

- contracts to provide trucking services [equipment and driver] in the construction industry to users of such services, such as prime contractors and various subcontractors of the prime;
- contracts to obtain services from other trucking operations and dispatches them to various assignments;
- receives payment from the users (such as prime contractors and various subcontractors) in consideration for the trucking services provided; and
- makes payment to the providers (trucking operations so contracted with) for their services.

(9) **Specific documentation from trucking operations.**

Independent Trucking Operators

The owner/operator of a truck must submit a copy of his/her commercial driver's license (CDL), cab card, and insurance certificate for each truck the owner/operator drives on each construction project *before commencing work on that project*. These documents must be sent to the prime contractor who will then forward the material to Labor Standards, Engineering Division at the City of Duluth.

Multiple Truck Operators

Weekly certified payrolls and payment of corresponding prevailing wages plus the fringe benefit package will be required for each project where trucks are operating. This covers the owner plus all employees performing work on the project.

Partnerships

Weekly certified payrolls and payment of corresponding prevailing wages plus fringe benefit packages will be required for each project where trucks are operating. This covers all partners of the organization who perform work on the project.

Each partner performing work on a project must submit a copy of his/her commercial driver's license (CDL), cab card, and insurance certificate for the truck being operated with that weekly certified payroll. It is not necessary to repeat such supporting documentation until a different truck is used and/or certificates or licenses have expired.

Employees of the partnership are always reported on a weekly certified payroll and paid the appropriate prevailing wage plus fringe benefit package for the work being performed.

Corporations

All persons employed by the corporation are subject to receive payment of the prevailing wage plus the fringe benefit package for the work performed on a project regardless of title or position. Weekly certified payrolls must be submitted for all work performed on the project.

Brokers

Truck ownership and a **bonafide contract** between the broker and another trucking operation, a prime contractor, or a subcontractor must be identified. Paperwork must be submitted with the month end trucking report to the city of Duluth Labor Standards representative - Engineering. Certified payrolls are not required when the above documentation is provided and approved.

(10) **Month End Trucking Report - ONLY REQUIRED WITH STATE OF MINNESOTA FUNDING**

The Minnesota Department of Transportation Month End Trucking Report Form A and Form B plus Minnesota Department of Transportation Month End Trucking Report Statement of Compliance are *only required on state funded projects*.

A guide for completing the forms including definitions and the reports, themselves, may be downloaded from:

www.dot.state.mn.us/const/labor/forms.html

Payment to the prime contractor may be withheld until documentation is received and approved.

(11) **Truck Rental Rates - ONLY REQUIRED WITH STATE OF MINNESOTA FUNDING**

Truck rental rates are listed in the prevailing wage section of the project specifications.

(12) **Minnesota Rules 5200.1105 and 5200.1106**

These rules are incorporated into this supplementary general conditions part II by reference and are found on these web sites:

www.revisor.mn.gov/rules/?id=5200

(13) **Truck Axles** web site: <https://www.revisor.mn.gov/rules/?id=5200.1100>

Per Minnesota Rules 5200.1100 Master Job Classifications, a truck "unit" refers to all axles including the steering axle. A tag axle is also counted as one of the axles. Examples: four rear axles plus one steering axle = five axles total one rear axle plus one steering axle = two axles total

(14) **Non-Compliance and Enforcement**

- a) The prime contractor shall be liable for any unpaid wages to its workers or those of its lower-tier subcontractors, trucking companies/Multiple Truck Owners (MTO's) and/or Independent Truck Owner/Operator (ITOs) [MnDOT Standard Specifications for Construction, Section 1801].
- b) See Section 9, MnDOT Specification 1906 Partial Payments and Section 5, page two of this document.
- c) City of Duluth ordinance 8940 as amended.

(15) **IC-134 form - Withholding Affidavit for Contractors**

The IC-134 form will be required from all Multiple Truck Operators, Partnerships, and Corporations performing trucking services on a project before the retainage or all remaining funds can be released. Web site for completing form online: www.mndor.state.mn.us

The form, itself, is found at: www.taxes.state.mn.us/Forms_and_Instructions/ic134.pdf

(16) **Owners, Supervisors, Foremen listed on certified payrolls.**

All persons working on a City of Duluth project including owners, partners, supervisors, salaried persons, and working foremen who perform laborer and/or mechanic work shall be reported on the weekly certified payroll reports including all data required of any laborer or mechanic. (ordinance 8731, 6/24/85 and 8940 as amended).

(17) **Supporting documentation.**

At his/her discretion, the City of Duluth employee responsible for prevailing wage labor standards may demand proof of payment of the prevailing wage which may include copies of a payroll register, itemized time sheet and matching cancelled check, or any other supporting documents as stipulated. Payment to the prime contractor may be withheld until documentation is received and approved.

(18) **Kickbacks from Public Works employees prohibited.**

No contractor working on a project or other person shall, by force intimidation, or threat of termination of employment, cause any employee working on a project to give up any part of the compensation to which he is entitled under his contract of employment.

Section 9

**Minnesota Department of Transportation Specification 1906 Partial Payments
Process For "Withholding Contract Monies" and "Default and Termination of a Contract" 11/5/04**

Mn/DOT Specification 1906 Partial Payments describes the Commissioner's authority to withhold funds to protect the Department's interests. In addition, Specification 1808 Default and Termination of a Contract describes the Commissioner's authority to take the prosecution of the work out of the hands of the Contractor.

Additionally, on projects funded in whole or part with federal funds and in accordance with the Required Contract Provisions Federal-Aid Construction Contracts Form – 1273, Section IV, Subpart 6, "Withholding", incorporated into federal aid contracts, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance or guarantee of funds until such violations have ceased.

However, the Department must give the Contractor, and its Sureties due notice prior to exercising these authorities. The withholding of contract funds, in accordance with Specification 1906 or the Required Contract Provisions Federal-Aid Construction Contracts Form – 1273, Section IV, Subpart 6, "Withholding", should be implemented as soon as a possible prevailing wage violation is recognized. However, Default and Termination of a Contract, in accordance with Specification 1808, should only be exercised as a "last resort" if the Contractor is not willing to comply.

Definitions

(Mn/DOT Standard Specifications for Construction 2000 Edition, Section 1103)

Commissioner: The Commissioner of the Minnesota Department of Transportation, or the chief executive of the department or agency constituted for administration of Contract work with its jurisdiction.

Contractor: The individual, firm or corporation Contracting for and undertaking prosecution of the prescribed work; the party of the second part to the Contract, acting directly or through a duly authorized representative.

Department: The Department of Transportation or the State of Minnesota, or the political subdivision, governmental body, board, commission, office, department, division, or agency constituted for administration of the Contract work within its jurisdiction.

(Form 1273 - 29 CFR, Part 5.1, Definitions)

Contracting Officer: The individual, a duly appointed successor or authorized representative who is designated and authorized to enter into Contracts on behalf of the Federal Agency and/or the City of Duluth.

Important Considerations

1. Upon completion of the work under a contract, the department should consider issuing the final voucher as soon as possible. Failure to finalize a contract expeditiously could result in subsequent claims that would prevent the department from finalizing the contract. However, before the issuance of the final voucher, the department must be able to ensure that the terms of the contract have been satisfied. Failure on the part of the department to ensure compliance could result in the Mn/DOT state aid division retaining funds from the department in accordance with *Minnesota Rules 8820.3000, subpart 5*.
2. On every contract, the department should withhold the final retainage in accordance with the following guidelines: (1) if the total amount of the contract is \$1,000,000 or more, the department should retain funds not more than \$50,000, (2) if the total amount of the contract is less than \$1,000,000, the department should retain 5% of the total contract, (3) retainage should be withheld until the department can ensure that the contractor has met the terms of the contract or until the finalization of the contract.
3. This guide specifies that the department verbally notify the bonding company early in the process. Generally, as a "rule of thumb", notifying the bonding company is usually the "last resort". However, the justification for the early notification is related to the language found in *Minnesota statute 574.31, subdivision 2*, which summarizes that if an individual or the department does not submit a claim on the payment bond within 120 days after the completion of work under the contract, the claim can be denied.

The following are general guidelines that should be followed prior to placing a Contractor in default:

- Step 1: Upon verbal or written notification that a possible prevailing wage violation exists, the Department should give written notice to the Contractor regarding the nature of the claim, along with the Department's intent to withhold monies until the claim is investigated and determined to be in compliance. Additionally, the Department should inform the Contractor that the bonding company has been verbally notified of the claim. Please be aware, the Department should ensure employee confidentiality at all times.
- Step 2: Upon a preliminary determination surrounding the financial extent of the claim, the Department should consider retaining a "reasonable" portion of one or more partial estimates in accordance with Mn/DOT's 2000 Standard Specifications for Construction, Section 1906; or on federal aid contracts, in accordance with the Required Contract Provisions Federal-Aid Construction Contracts Form – 1273, Section IV, Subpart 6, "Withholding".
- Step 3: If it is determined that the claim is valid, the Department should schedule a meeting with the Contractor and attempt to resolve the matter. If the claim is determined to be invalid, the Department should release any partial estimates that may have been held as a result of the claim. However, the Department should continue to withhold the final retainage in accordance with the above-mentioned: *Important Considerations, 2*.
- Step 4: If resolution cannot be obtained through a meeting, the Department should order the Contractor, in writing, to complete their obligations under the contract. The letter should clearly state the circumstances under which the Department has deemed that the Contractor has not met the terms of the contract. Additionally, the Department should include a reasonable deadline for this obligation to be completed. A copy of this letter should be forwarded to the Surety, District State Aid Engineer (DSAE), Labor Compliance Unit and the Department's Attorney.
- Step 5: In the event that the Contractor does not respond to the Department's written order, the Department should send a similar letter, requesting that the Contractor respond immediately, in writing, regarding the Contractor's intention to comply or not comply with the order. A copy of this letter should be forwarded to the Surety, District State Aid Engineer (DSAE), Labor Compliance Unit and the Department's Attorney.
- Step 6: If the Department still does not get a proper response from the Contractor, the Department should write another letter, addressed to both the Contractor and the Surety, specifying all the facts of the alleged breach, demanding that the Contractor, or its Surety, respond satisfactorily within 10 days or the Department may exercise its authority to Default and Terminate the Contract in accordance within/DOT's 2000 Specifications for Construction, Section

1808. It's important to provide sufficient detail so that the Surety understands the situation. This notification should be sent by certified mail. A copy of this letter should be forwarded to the Surety, District State Aid Engineer (DSAE), Labor Compliance Unit and the Department's Attorney.

Step 7: If the Contractor or Surety is unresponsive after 10 days, the Department should consult with their attorney to consider proceeding with Default and Termination of the Contract.

Step 8: Upon termination of the contract, the Department provides a written order to the Surety, requiring the Surety to bring resolution to the prevailing wage violation.

Step 9: The Department places the Contractor on a Non-Responsible Bidder's List and rejects any future awards.

Section 10

Federal Labor Standards Provisions U.S. Department of Housing and Urban Development Office of Labor Relations

Previous editions are obsolete Page 1 of 5 form HUD-4010 (06/2009) ref. Handbook 1344.1

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part Previous editions are obsolete Page 2 of 5 form HUD-4010 (06/2009) ref. Handbook 1344.1 of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section I(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section I(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/whd/wh347.pdf> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

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(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding

journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by Previous editions are obsolete; Page 4 of 5 form HUD-4010 (06/2009) ref. Handbook 1344.1

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in sub paragraph (1) of this paragraph.

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(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

Section 11

Equal Opportunity Laws and Regulations

(A) In addition to Contract specifications set forth below, the Contractor shall conduct and administer this Contract in compliance with:

- (1) Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352) and implementing regulations issued at 24 CFR Part 1;
- (2) Title VIII of the Civil Rights Act of 1968 (Pub. L. 90-284), as amended, and implementing regulations;
- (3) Section 109 of the Housing and Community Development Act of 1974, as amended; and the regulations issued pursuant thereto (24 CFR Section 570.601);
- (4) Section 3 of the Housing and Urban Development Act of 1968, as amended, and implementing regulations of 24 CFR Part 135;
- (5) Executive Order 11246, as amended by Executive Order 11375 and 12086 and implementing regulations at 41 CFR Chapter 60;
- (6) Executive Order 11063, as amended by Executive Order 12259 and implementing regulations at 24 CFR Part 107;
- (7) Section 504 of the Rehabilitation Act of 1973 (Pub. L. 93-112), as amended, and implementing regulations when published for effect;
- (8) The Age Discrimination Act of 1975, as amended, (Pub. L. 94-135) and implementing regulations when published for effect;
- (9) The Minnesota Human Rights Act of 1974, as amended (Chapter 363).

Equal Opportunity and Affirmative Action

(A) Contractors and Subcontractors that have a work force in excess of fifty (50) employees and a contract in excess of \$50,000.00 shall prepare and maintain an appropriate affirmative action plan in accordance with the provisions of 41 CFR 60 "Compliance Responsibility for Equal Opportunity".

(B) Non-segregated Facilities. The Contractor shall certify that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Contractor covenants that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. As used in this paragraph the term "segregated facilities" means any waiting rooms, work areas, 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 or facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, creed, religion, national origin, ancestry, age, marital status, status with respect to public assistance, and/or disability because of habit, local custom, or otherwise.

General Provisions Against Discrimination

(A) In all hiring or employment made possible by or resulting from this Contract, there:

- (1) will not be any discrimination against any employee or applicant for employment because of race, color, creed, religion, national origin, ancestry, age, sex, marital status, status with respect to public assistance, and/or disability.
- (2) affirmative action will be taken to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, creed, religion, national origin, ancestry, age, sex, marital status, status with respect to public assistance, and/or disability. This requirement shall apply to, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; lay-off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. There shall be posted in conspicuous places available to employees and applicants for employment, notices setting forth the provisions of this clause. All solicitations or advertisements for employees shall state that all qualified applicants will receive consideration for employment without regard to race, color, creed, religion, national origin, ancestry, age, sex, marital status, status with respect to public assistance, and/or disability.

(B) No person in the United States shall, on the grounds of race, color, creed, religion, national origin, age, sex, marital status, status with respect to public assistance, and/or disability, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity made possible by or resulting from this Contract. The Contractor and each employer will comply with all requirements imposed by or pursuant to the regulations of the Federal Agency effectuating Title VI of the Civil Rights Act of 1966. The Contractor will note this requirement in all solicitations or advertisements for employees. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(C) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or workers' representative of the Contractor's commitments under these provisions, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(D) The Contractor hereby agrees that he will incorporate into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained pursuant to this Contract, the equal opportunity clause which is a part of these Contract Documents.

(E) The Contractor further agrees that he will be bound by the equal opportunity clause and other provisions of 41 CFR Chapter 60, with respect to his own employment practices when he participates in federally assisted construction work: **Provided:** That of the Contractor so participating is a State or Local Government, the above equal opportunity clause is not applicable to any agency, instrumentality, or subdivision of such government which does not participate in work on or under the Contract. Also, the Contractor will make his files available to inspection by appropriate government agencies and shall furnish those reports as may be required by said agencies.

(F) The Contractor agrees that he will assist and cooperate actively with the Federal Agency and the Secretary of Labor in obtaining the compliance of subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that he will furnish the Federal Agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that he will otherwise assist the Federal Agency in the discharge of its primary responsibility for securing compliance.

(G) The Contractor further agrees that he will refrain from entering into any contract or any contract modification subject to Executive Order 11246 of September 24, 1965, with a subcontractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order. In addition, the Contractor agrees that if he fails or refuses to comply with these undertakings, the City or the Federal Agency may take any or all of the following actions: Terminate or suspend in whole or in part this Contract; refrain from extending any further assistance to the Contractor under the Project with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received from such Contractor and refer the case to the Department of Justice for appropriate legal proceedings.

Affirmative Action - "Construction Contracts" over \$10,000

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity
(Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

<u>Timetables</u>	<u>Goals for minority participation (percent)</u>	<u>Goals for female participation (percent)</u>
From April 1, 1980 until revised	3.0	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3 (a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the City and to the Director of the Office of Federal Contract Compliance Programs; U.S. Department of Labor, ESA/OFCPP, 16th Floor, 230 South Dearborn Street, Chicago, Illinois, 60604, within 10 working days of award of any construction subcontract and/or subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the contractor and/or subcontractor; employer identification number; estimated dollar amount of the prime contract; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Notice, and in the Contract, the "covered area" is all work under a contract currently held with the City of Duluth, Minnesota.

Standard Federal Equal Employment Opportunity
Construction Contract Specifications (Executive Order 11246)

1. As used in these specifications:

- a) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor; or any person to whom the Director delegates authority;
- b) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- c) "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notices of these programs to the sources compiled under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
 - g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitments and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of officers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, creed, religion, national origin, sex, ancestry, age, marital status, status with respect to public assistance and/or disability.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails

to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

Affirmative Action for Handicapped Workers

(applies to contracts in excess of \$2,500)

(A) The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: Employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(B) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(C) In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.

(D) The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

(E) The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Rehabilitation Act of 1973, and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.

(F) The Contractor will include the provisions of this clause in every subcontract or purchase order of \$2,500 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to Section 503 of the Act, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era

(applies to contracts in excess of \$10,000)

(A) The Contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans status in all employment practices such as the following: Employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(B) The Contractor agrees that all suitable employment openings of the Contractor which exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract and including those occurring at an establishment of the Contractor other than the one wherein the contract is being performed but excluding those of independently operated corporate affiliates, shall be listed at an appropriate local office of the State employment service system wherein the opening occurs. The Contractor further agrees to provide such reports to such local office regarding employment openings and hires as may be required.

State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their suitable openings with the appropriate office of the State employment service, but are not required to provide those reports set forth in paragraphs (D) and (E).

(C) Listing of employment openings with the employment service system pursuant to this clause shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and non-veterans. The listing of employment openings does not require the hiring of any particular job applicant or from any particular group of job applicants, and nothing herein is intended to relieve the Contractor from any requirements in Executive Orders or regulations regarding nondiscrimination in employment.

(D) The reports required by paragraph (B) of this clause shall include, but not be limited to, periodic reports which shall be filed at least quarterly with the appropriate local office or, where the Contractor has more than hiring location in a State, with the central office of that State employment service. Such reports shall indicate for each hiring location (1) the number of individuals hired during the reporting period, (2) the number of non-disabled veterans of the Vietnam era hired, (3) the number of disabled veterans of the Vietnam era hired, and (4) the total number of disabled veterans hired. The reports should include covered veterans hired for on-the-job training under 38 U.S.C. 1787. The Contractor shall maintain at each hiring location copies of the reports submitted until the expiration of one year after final payment under the contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representatives of the contracting officer of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment and placement.

(E) Whenever the Contractor becomes contractually bound to the listing provisions of this clause, it shall advise the employment service system in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these provisions, and has so

advised the State system, there is no need to advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by this contract clause.

(F) This clause does not apply to the listing of employment openings which occur and are filled outside of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

(G) The provisions of paragraphs (B), (C), (D), and (E) of this clause do not apply to openings which the Contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement for that opening.

(H) As used in this clause:

(1) "All suitable employment openings" includes, but is not limited to, openings which occur in the following job categories: Production and non-production; plant and office; laborers and mechanics; supervisory and non-supervisory; technical; and executive, administrative, and professional openings as are compensated on a salary basis of less than \$25,000 per year. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment. It does not include openings which the Contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement nor openings in an educational institution which are restricted to students of that institution. Under the most compelling circumstances an employment opening may not be suitable for listing, including such situations where the needs of the Government cannot reasonably be otherwise supplied, where listing would be contrary to national security, or where the requirement of listing would otherwise not be for the best interest of the Government.

(2) "Appropriate office of the State employment service system" means the local office of the Federal-State national system of public employment offices with assigned responsibility for serving the area where the employment opening is to be filled, including the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

(3) "Openings which the Contractor proposes to fill from within his own organization" means employment openings for which no consideration will be given to persons outside the Contractor's organization (including any affiliates, subsidiaries, and the parent companies) and includes any openings which the Contractor proposes to fill from regularly established "recall" lists.

(4) "Openings which the Contractor proposes to fill pursuant to a customary and traditional employer-union hiring arrangement" means employment openings which the Contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the Contractor and representatives of his employees.

(I) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(J) In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.

(K) The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.

(L) The Contractor will notify each labor union representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of the Vietnam Era Veterans Readjustment Assistance Act, and is committed to take affirmative action to employ and advance qualified disabled veterans and veterans of the Vietnam era..

(M) The Contractor will include the provisions of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

Section 12

Employment Opportunities - "HUD Section 3"

General

These requirements apply to the City of Duluth contracts receiving assistance under the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) Program.

Type of Covered Projects

24CFR570.607 (b) of the HUD CDBG Program Regulations state in part "... that employment and other economic opportunities arising in connection with housing rehabilitation, housing construction, or other public construction projects shall to the greatest extent feasible, and consistent with existing Federal, State, and local laws and regulations be given to low- and very low-income persons.

Thresholds

In accordance with the provisions of 24CFR135.3(a) (3) (ii) (A), the requirements of this Section apply to those recipients as defined at 24CFR135.5 when the amount of this contract exceeds \$200,000.

In addition, in accordance with the provisions of 24CFR135.3 (a) (3) (ii) (B), the requirements of this Section apply to any contractor or subcontractor whose contract exceeds \$100,000 as a result of assistance provided under this contract.

Requirements (Section 3 Clause)

(A) The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

(B) The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

(C) The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement, or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The

notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

(D) The Contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.

(E) The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligation under 24 CFR part 135.

(F) Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD-assisted contracts.

Section 13

Federal Requirements for Minority/Women Business Enterprises Contract Guidance - MPFA

General

Municipalities that receive loan funding must comply with Federal requirements concerning utilization of Minority Business Enterprises (MBE) and Women's Business Enterprises (WBE). These requirements are designed to encourage the prime contractors to utilize MBEs and WBEs whenever procurement opportunities occur.

Regulation

40 C.F.R. Section 35.3145(d) Application of other Federal Authorities, M/WBE Requirements

Executive Orders No. 11625, 12138 and 12432 - Promoting the use of M/WBEs

Section 129 of Public Law 100-590 - Small Business Administration Reauthorization and Amendment Act of 1988

Regulations detailed in the EPA's *Cross-Cutting Federal Authorities - Clean Water Act State Revolving Fund Program and Safe Drinking Water Act State Revolving Fund Program*

Implementation

The "fair share" target percentage participation proposed for this project is 3.5 percent (3.5%) for MBE and 11.5 percent (11.5%) for WBE.

If the Contractor intends to let any subcontractors for a portion of the work, the Contractor shall take affirmative steps to assure that minority and women businesses are utilized when possible as sources of supplies, equipment, construction and services. Affirmative steps shall include the following:

- a) Include qualified minority businesses on solicitation lists.
- b) Assure that minority businesses are solicited whenever they are potential sources.
- c) When economically feasible, divide total requirements into smaller tasks or quantities so as to permit maximum small and minority business participation.
- d) Where the requirement permits, establish delivery schedules, which will encourage participation by minority businesses.
- e) Use the services and assistance of the Office of Minority Business Enterprise of the Department of Commerce.

The low bidder will be required to submit to the City of Duluth documentation of his good faith efforts to meet the targeted goals of utilizing MBEs and WBEs.

Section 14 - Forms

Minnesota Department of Transportation and City of Duluth, Minnesota funded certified payroll forms

- MnDOT Prime Contractor's-Subcontractor's Statement of Compliance form (12/2010)
www.dot.state.mn.us/const/labor/forms.html
- Certified Payroll Forms
<http://www.dol.gov/forms/whd/wh347.pdf>
use front side only

U. S. Department of Housing and Urban Development and federal government funded certified payroll forms

- Statement of Compliance Form & Certified Payroll Forms
<http://www.dol.gov/forms/whd/wh347.pdf>
(use reverse side for Statement of Compliance form)
- MnDOT Prime Contractor's-Subcontractor's Statement of Compliance form (12/2010)
www.dot.state.mn.us/const/labor/forms.html

Minnesota Department of Transportation Trucking Requirements

- Month End Trucking Report Form A and Form B
- Month End Trucking Report Statement of Compliance
- Definitions, instructions, forms:
www.dot.state.mn.us/const/labor/forms.html

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 **funding** and **RQ no**. Due to the dollar amount of this contract, a Project Labor Agreement **is or is not** included as part of this contract (City Code Section 2-29).
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/COMPANY
Contractor

By

Assistant City Attorney
Approved this _____ day of _____

Company Representative

Its

Title of Representative
Approved this _____ day of _____

General Decision Number: MN160041 08/26/2016 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
1	03/04/2016
2	04/15/2016
3	05/20/2016
4	06/17/2016
5	06/24/2016
6	07/01/2016
7	07/22/2016
8	07/29/2016
9	08/26/2016

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 05/01/2016		

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

	Rates	Fringes
BRICKLAYER.....	\$ 32.91	22.82

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 05/01/2016		

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

	Rates	Fringes
BRICKLAYER.....	\$ 32.47	23.26

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 05/29/2016

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

	Rates	Fringes
ELECTRICIAN.....	\$ 34.92	25.05

ELEC0294-006 05/29/2016

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

	Rates	Fringes
ELECTRICIAN.....	\$ 35.60	71.72%

ENGI0049-045 05/01/2016

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 1.....	\$ 39.14	18.40
GROUP 2.....	\$ 38.80	18.40
GROUP 3.....	\$ 37.39	18.40
GROUP 4.....	\$ 37.05	18.40
GROUP 5.....	\$ 36.13	18.40
GROUP 6.....	\$ 34.62	18.40
GROUP 7.....	\$ 33.50	18.40
GROUP 8.....	\$ 31.49	18.40

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 06/05/2016

	Rates	Fringes
IRONWORKER, ORNAMENTAL, REINFORCING, AND STRUCTURAL.....	\$ 31.54	24.90

LABO1091-011 01/01/2016

	Rates	Fringes
LABORER (ASBESTOS ABATEMENT) Removal from Floors, Walls & Ceilings.....	\$ 29.20	17.43

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 05/01/2016

ST. LOUIS (North of White Face River) COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 29.46	15.77

PLAS0633-059 05/01/2016

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

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 30.86	17.13

PLUM0011-019 05/02/2016		

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

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 39.07	18.73

PLUM0589-007 05/01/2016		

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

	Rates	Fringes
PLUMBER/PIPEFITTER		
Contracts \$90,000.00 and		
under.....	\$ 39.25	18.66
Contracts over \$90,000.00...	\$ 39.25	18.66

ROOF0096-024 07/01/2015		

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

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

ROOF0096-025 05/01/2016		

ST. LOUIS (Remaining Northern two-thirds)

	Rates	Fringes
ROOFER.....	\$ 29.00	11.82

SHEE0010-045 05/01/2009		

ST. LOUIS (Southern one-third)

	Rates	Fringes
SHEET METAL WORKER (Including		
HVAC Duct Installation).....	\$ 31.61	16.52

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.

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.

=====

END OF GENERAL DECISION

PROJECT LABOR AGREEMENT

NO STRIKE, NO LOCKOUT

PUBLIC SECTOR

CITY OF DULUTH

&

Vendor

Project name

Project No.

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AGREEMENT

This Project Labor Agreement (hereinafter, the “Agreement”), effective as of the date of attestation by the City Clerk, by and between the various contractors engaged in the construction of facilities to be known as the (Project). The parties to this Agreement are the Building and Construction Trades Council, on behalf of its affiliated Local Unions (hereinafter “Union” or “Unions”), the City of Duluth (hereinafter “Owner”) and Contractor (hereinafter “Construction Manager/General Manager,” “Contractor,” and “Contractors”).

It is understood by the parties to this Agreement that it is the policy of the Owner that the construction work covered by this Agreement shall be contracted to Contractors who agree to be bound by the terms of this Agreement. Therefore, the Union agrees that other Contractors may execute the Agreement for the purpose of covering that work. The Construction Manager/General Contractor shall monitor compliance with this Agreement by all Contractors who through their execution of this Agreement, together with their subcontractors, have become bound hereto.

The term “Contractor” shall include all Contractors and subcontractors of whatever tier engaged in on-site construction work within the scope of this Agreement.

The Union and all signatory Contractors agree to abide by the terms and conditions contained in this Agreement with respect to the administration of the Agreement by the Owner and the performance of the construction by the Contractor of the Project. This Agreement represents the complete understanding of the parties, and it is further understood that no Contractor party is required to sign any other agreement as a condition of performing work within the scope of this Agreement. No practice, understanding or agreement between a Contractor and a Union party which is not explicitly set forth in this Agreement shall be binding on any other party unless endorsed in writing by the Project Contractor.

ARTICLE I - PURPOSE

The (Project), an undertaking of the Owner, is a public project which will employ numbers of skilled and unskilled workers. Construction of the Project will entail utilization of the construction industry in an area having multiple labor contracts and employer associations. Consequently, conflicts within labor-management relations could cause delay or disruption of the efficient completion of the .project unless maximum cooperation of all segments of the construction industry is obtained. This Agreement is to establish as the minimum standards on the Project the hours and working conditions as those prevailing for the largest number of workers engaged in the same classes of work within the area.

It is in the public interest that the Project progress and be completed in an expeditious and efficient manner, free of disruption or delay of any kind. Therefore, it is essential to secure optimum productivity and to eliminate any delays in the work. In recognition of the special needs of this Project and to maintain a spirit of harmony, labor-management peace and stability during the term of this Project Labor Agreement, the parties agree to establish effective and binding methods for the settlement of all misunderstandings, disputes or grievances which may arise. Therefore, the Unions agree not to engage in any strike, slowdown or interruption of work and the Contractor agrees not to engage in any lockout.

ARTICLE II - SCOPE OF THE AGREEMENT

Section 1. This Agreement, hereinafter designated as the “Project Labor Agreement” or “Agreement,” shall apply and is limited to all construction work included in all Bid Categories for the (Project), under the direction of the signatory Contractors and performed by those Contractor(s) of whatever tier which have contracts awarded for such work on and after the effective date of this Agreement with regard to the Project.

Such Project is generally described as the construction of: **Project**

Section 2. It is agreed that all direct subcontractors of a Contractor, of whatever tier, who have been awarded contracts for work covered by this Agreement on or after the effective date of this Agreement shall be required to accept and be bound by the terms and conditions of the Project Labor Agreement.

Section 3. The provisions of this Project Labor Agreement shall apply to all craft employees represented by any Union listed in Schedule A hereto attached and shall not apply to other field personnel or managerial or supervisory employees as defined by the National Labor Relations Act.

Section 4. All employees covered by this Agreement shall be classified in accordance with work performed and paid the base hourly wage rates for those classifications as specified in the attached Schedule A.

Section 5. The Contractors agree to pay contributions to the established employee benefit funds in the amounts designated in the appropriate Schedule A.

Contractors that are not signatory to a collective bargaining agreement beyond the scope of this Agreement ("PLA contractor") may select to participate in the legally established industry health reimbursement arrangement ("HRA") plan, in lieu of contributing to the respective bona fide benefit funds as designated in Schedule A. The amount of the contribution is based on the difference between the contribution amount of the bona fide Schedule A benefit funds and the cost of the PLA contractor's bona fide non-discretionary plans. Contributions must be made on behalf of named employees. Participating contractors will submit to the Trustees of the HRA trust and plan a copy of their plan, summary plan description, and the premium structure for workers covered under the PLA contractor's bona fide, non-discretionary plans. The value of the PLA contractor's benefit plans are subject to confirmation by the Trustees of the HRA trust and plan. This may include an independent audit according to a policy as established by the Trustees. Contractors are required to submit certified payroll reports to the Trustees or authorized administrator in order to confirm compliance with the terms of the HRA trust and plan.

The Contractors adopt and agree to be bound by the written terms of the legally-established Trust Agreements (or in lieu thereof, the aforementioned HRA plan and trust including any policies) specifying the detailed basis on which payments are to be made into, and benefits paid out of, such Trust Funds. The Contractors authorize the parties to such Trust Agreements to appoint trustees and successor trustees to administer the Trust funds and hereby ratify and accept the Trustees so appointed as if made by the Contractors.

Section 6. In the event of any conflict between any provisions of this Agreement and in the Local Area Agreements, the terms of this Agreement will be applied. In other words, where a subject covered by the provisions of this Project Labor Agreement is also covered by the Local Area Agreement the provisions of this Project Labor Agreement shall prevail. Where a subject is covered by the Local Area Agreement and not covered by this Project Labor Agreement, the Local Area Agreement provisions shall prevail.

Section 7. This Agreement shall only be binding on the signatory parties hereto and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any such party.

Section 8. This Agreement shall be limited to work historically recognized as construction work. Nothing contained herein shall be construed to prohibit, restrict, or interfere with the performance of any other operation, work or function which may occur in or around the Project site or be associated with the development of the Project, or with the ongoing operations of the Owner.

Section 9. It is understood that the liability of any Contractor and the liability of the separate Unions under this Agreement shall be several and not joint. The Union agrees that this Agreement does not have the effect of creating any joint employment status between or among Owner and any Contractor.

Section 10. All workers delivering fill, sand, gravel, crushed rock, transit/concrete mix, asphalt or other similar materials and all workers removing any materials from the construction site as required by the specifications are subject to the provisions of the Minnesota state

prevailing wage law and are entitled to the appropriate area standard wage. For purposes of this contract, such materials are for specified future use and per Minnesota state prevailing wage law delivery and pickup of the above-listed materials constitutes incorporation.

ARTICLE III - UNION RECOGNITION AND REPRESENTATION

Section 1. The Contractor recognizes the Union as the sole and exclusive bargaining representative of all craft employees working on facilities within the scope of this Agreement.

Section 2. Authorized representatives of the Union shall have access to the Project, provided they do not interfere with the work of employees and further provided that such representatives fully comply with the posted visitor and security and safety rules of the Project.

ARTICLE IV - LABOR HARMONY CLAUSE

The contractor shall furnish labor that can work in harmony with all other elements of labor employed on that (Project) and shall submit a labor harmony plan to demonstrate how this will be done. "Harmony" shall include the provision of labor that will not, either directly or indirectly, cause or give rise to any work disruptions, slow downs, picketing, stoppages, or any violence or harm to any person or property while performing any work, or activities incidental thereto at the (project). The labor harmony plan should include the company's labor management policies, collective bargaining agreements if any and their expiration dates, past labor relations history, a listing of activities anticipated under this contract that may potentially cause friction with on-site workers, and procedures the company will undertake to eliminate this friction.

The contractor agrees that it shall require every lower-tier subcontractor to provide labor that will work in harmony with all other elements of labor employed in the work, and will include the provisions contained in the paragraph above, in every lower-tier subcontract let for work under this contract.

The requirement to provide labor that can work in harmony with all other elements of labor employed in the work throughout the contract performance is a material element of this contract. Failure by the contractor or any of its lower tier subcontractors to comply with this requirement shall be deemed a material breach of the contract which will subject the contractor to all rights and remedies the city of Duluth may have, including without limitation the right to terminate the contract.

ARTICLE V - WORK STOPPAGES AND LOCKOUTS

Section 1. There shall be no strike, picketing, work stoppages, slowdowns or other disruptive, activity for any reason by the Union or employees against any Contractor covered under this Agreement, and there shall be no lockout by the Contractor. Failure of any Union or employee to cross any picket line established by any union, signatory or non-signatory, or any other organization, at or in proximity to the Project site is a violation of this Article.

Section 2. Any party alleging a breach of Section 1, of Article IV shall have the right to petition a court for temporary and permanent injunctive relief. The moving party need not show the existence of irreparable harm, and shall be required to post bond only to secure payment of court costs and attorney fees as may be awarded by the court.

ARTICLE VI - DISPUTES AND GRIEVANCES

Section 1. This Agreement is intended to provide close cooperation between management and labor. The Construction Manager/General Contractor and the Building and Construction Trades Council shall each assign a representative to this Project for the purpose of assisting the Local Unions, together with the Contractor, to complete the construction of the Project economically, efficiently, continuously and without interruption, delays or work stoppages.

Each Contractor shall hold a pre-job conference with the Union and Construction Manager/General Contractor to clear up any project question and work assignments in which there is thought to be a difference in opinion. Every effort will be made to hold such conference well in advance of actual work performance.

Section 2. The Contractor, Union, and employees collectively and individually, realize the importance to all parties to maintain continuous and uninterrupted performance of the work of the Project, and agree to resolve disputes over grievances in accordance with the arbitration provisions set forth in the Local Area Agreements in effect with the Unions listed in Schedule A attached hereto.

ARTICLE VII - JURISDICTIONAL DISPUTES

Section 1. There will be no strikes, work stoppages, slowdowns, or other disruptive activity arising out of any jurisdictional dispute. Pending the resolution of the dispute, the work shall continue uninterrupted as assigned by the Contractor.

Section 2. Building construction work shall be assigned by the Contractor in accordance with the procedural rules of the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (hereinafter the "Plan"). Any jurisdictional dispute over the Contractor's assignment of work shall be settled in accordance with the provisions of the Plan.

Section 3. Where a jurisdictional dispute involves the International Brotherhood of Teamsters, it shall be referred for resolution to that International Union and the disputing International Union. The resolution of the dispute shall be reduced to writing, signed by the authorized representative of the International Unions and the Contractor. The assignments made by the Contractor shall be followed until such time as the dispute is resolved in accordance with this Section.

ARTICLE VIII - NO DISCRIMINATION

Section 1. The Contractor and Union agree that they will not discriminate against any employee or applicant for employment because of his or her membership or nonmembership in a Union or based upon race, color, religion, sex, national origin or age in any manner prohibited by law or regulation.

Section 2. Any complaints regarding application of the provisions of Section 1 should be brought to the immediate attention of the involved Contractor for consideration and resolution.

Section 3. The use of the masculine or feminine gender in this Agreement shall be construed as including both genders.

ARTICLE IX - SAVINGS AND SEPARABILITY

It is not the intention of the parties to violate any laws governing the subject matter of this Agreement. The parties hereto agree that in the event any provisions of the Agreement are finally held determined to be illegal or void as being in contravention of any applicable law, the remainder of the Agreement shall remain in full force and effect unless the part or parts so found to be void are wholly inseparable from the remaining portions of this Agreement. Further, the contractor and Union agree that if and when any and all provisions of this Agreement are finally held or determined to be illegal or void by Court of competent jurisdiction, the parties will promptly enter into negotiations concerning the substance affected by such decision for the purpose of achieving conformity with the requirements of an applicable law and the intent of the parties hereto.

ARTICLE X DURATION OF THE AGREEMENT

The Project Labor Agreement shall be effective as of the date of attestation by the City Clerk, and shall continue in effect for the duration of the Project construction work described in Article II hereof Construction of any phase, portion, section or segment of the project shall be deemed complete when such phase, portion, section or segment has been turned over to the Owner and has received the final acceptance from the Owner's representative.

Since there are provisions herein for no strikes or lockouts in the event any changes are negotiated and implemented under a Local Area Agreement during the term of this Agreement, the Contractor agrees that, except as specified herein, such changes shall be recognized and shall apply retroactively to the termination date in the particular Local Agreement involved. Each Contractor which has a Local Agreement with a Union at the time that its contract at the project

commences shall continue it in effect with each said Union so long as the Contractor remains on the project. In the event any such Local Area Agreement expires, the Contractor shall abide by all of the terms of the expired Local Agreement until agreement is reached on a new Local Agreement, with any changes being subject to the provisions of this Agreement.

The Union agrees that there will be no strikes, work stoppages, sympathy actions, picketing, slowdowns or other disruptive activity affecting the Project by any Union involved in the negotiation of a Local Area Agreement nor shall there be any lockout on this Project affecting the Union during the course of such negotiations.

IN WITNESS WHEREOF, the parties have hereunto set their hands on the date of attestation shown below.

DULUTH BUILDING AND
CONSTRUCTION TRADES COUNCIL

VENDOR

By: _____

By: _____

Its _____
(Printed Name/Title)

Its _____
(Printed Name/Title)

Date: _____

Date: _____

CITY OF DULUTH

By: _____
Mayor

Attest:

City Clerk

Date: _____

City Auditor

Date: _____

Assistant City Attorney

Date: _____

SCHEDULE “A”

- A1 Asbestos Workers Local 49
- A-2 Boilermakers Local 647
- A-3 BAC Local 1 Chapter 3 Duluth & Iron Range
- A-4 Carpenters Local 361
- A-5 Cements Masons/Plasterers Local 633
- A-6 Elevator Constructors Local 9
- A-7 IBEW Local 242
- A-8 Iron Workers Local 512
- A-9 Laborers Local 1091
- A-10 Millwrights & Machinery Erectors Local 1348
- A-11 Operating Engineers Local 49
- A-12 Painters & Allied Trades Local 106
- A-13 Plumbers & Fitters Local 11
- A-14 Roofers Local 96
- A-15 Sheet Metal Workers Local 10
- A-16 Sprinkler Fitters Local 669
- A-17 Teamsters Local 346

CITY OF DULUTH - STREET MAINTENANCE FACILITY
BRINE STORAGE SHED

105 NORTH 40TH AVE WEST, DULUTH, MINNESOTA 55802

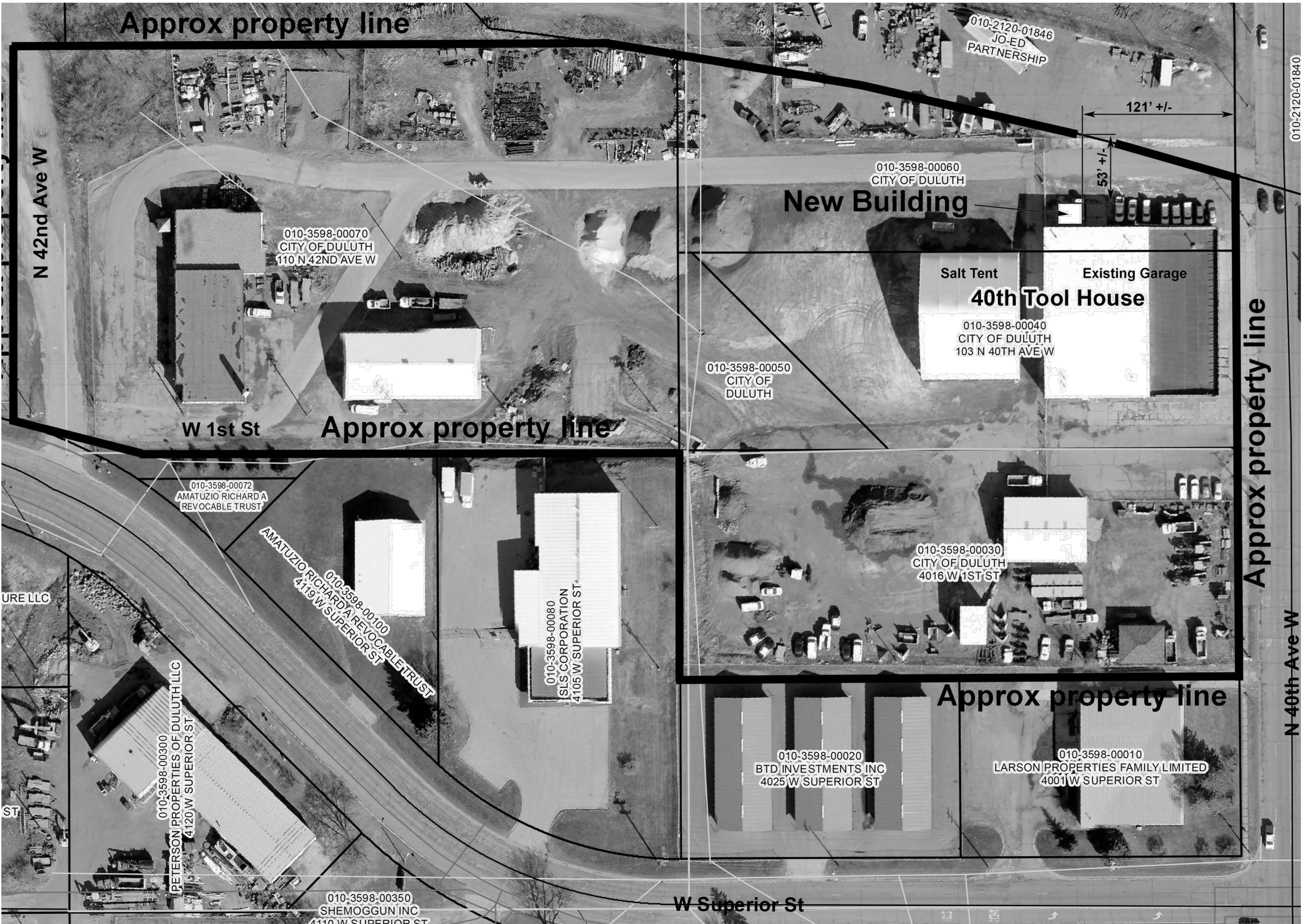
CITY OF DULUTH,
STREET MAINTENANCE
FACILITY & TOOL HOUSE



LOCATION MAP

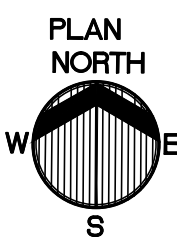
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

ROBERT W. FERN
Date: 5/25/16 Reg. No.: 2008



1 SITE PLAN
T1

1" = 40'



CODE SUMMARY

City of Duluth-Brine Storage Shed
105 North 40th Ave West Street,
Duluth, Minnesota

Code Summary

- 2015 International Building Code (IBC) with MN. Amendments

1) Occupancy Group:	U
2) Type of Construction:	VB
3) Allowable Building Area (Table 503)	5,500 S.F.
U Occupancy:	Area increase not required or calculated.
Actual Building Area	357 S.F.
4) Sprinkler System:	NA
5) Height/Number of Stories:	1 Story
6) Occupant Load:	Accessory Storage: 1/300 Area: 357 Occupants: 2

SHEET INDEX

ARCHITECTURAL:

T1	TITLE SHEET
A1	FLOOR PLAN & ELEVATIONS & DETAILS

STRUCTURAL:

S1	GENERAL NOTES/ TYPICAL DETAILS/ SHEET INDEX
S2	FOUNDATION PLAN/ SECTIONS/ WOOD DETAILS

CONTACTS

ARCHITECT:

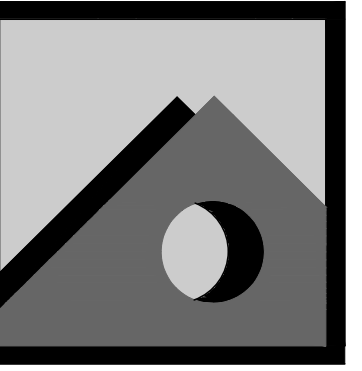
RW Fern Associates, Inc., Architects
413 East Superior Street
Duluth, MN 55802
(218) 722-8271
CONTACT: ROBERT FERN
E-MAIL: Robert@rwassociates.com

STRUCTURAL ENGINEER:

Northern Consulting Engineers L.L.P.
102 South 21st Ave West,
Duluth, MN 55806
(218) 727-5995
CONTACT: Jon Aamodt
E-MAIL: jon@nce-duluth.com

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

CITY OF DULUTH - STREET MAINTENANCE FACILITY
BRINE STORAGE SHED
105 NORTH 40TH AVE WEST STREET, DULUTH, MN. 55802



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 Professional Engineer under the laws of the State of Minnesota.

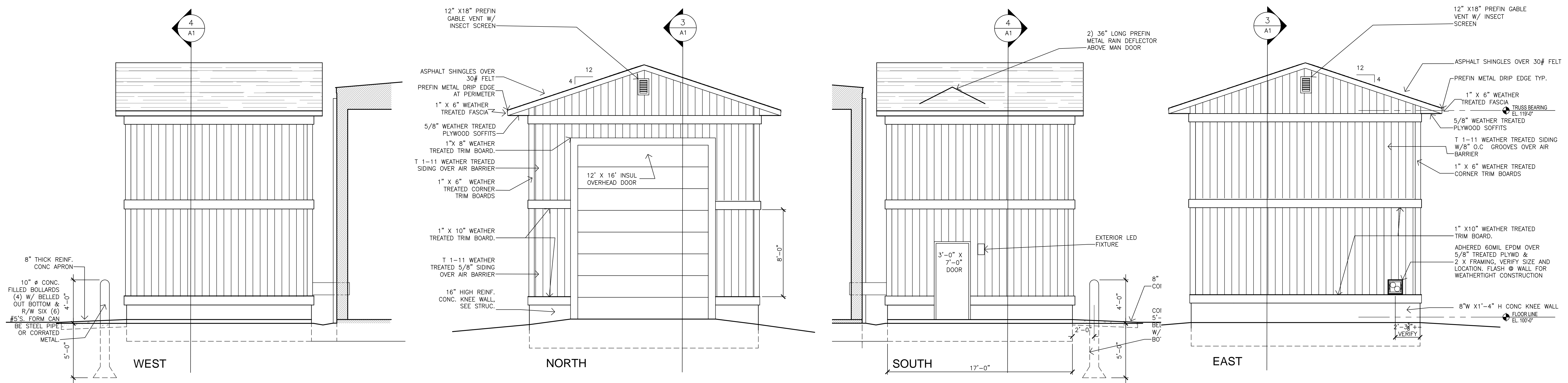
ROBERT W. FERN
Professional Engineer
Date: 5-25-16 Reg. No.: 20088

PLAN, ELEVATIONS & DETAILS

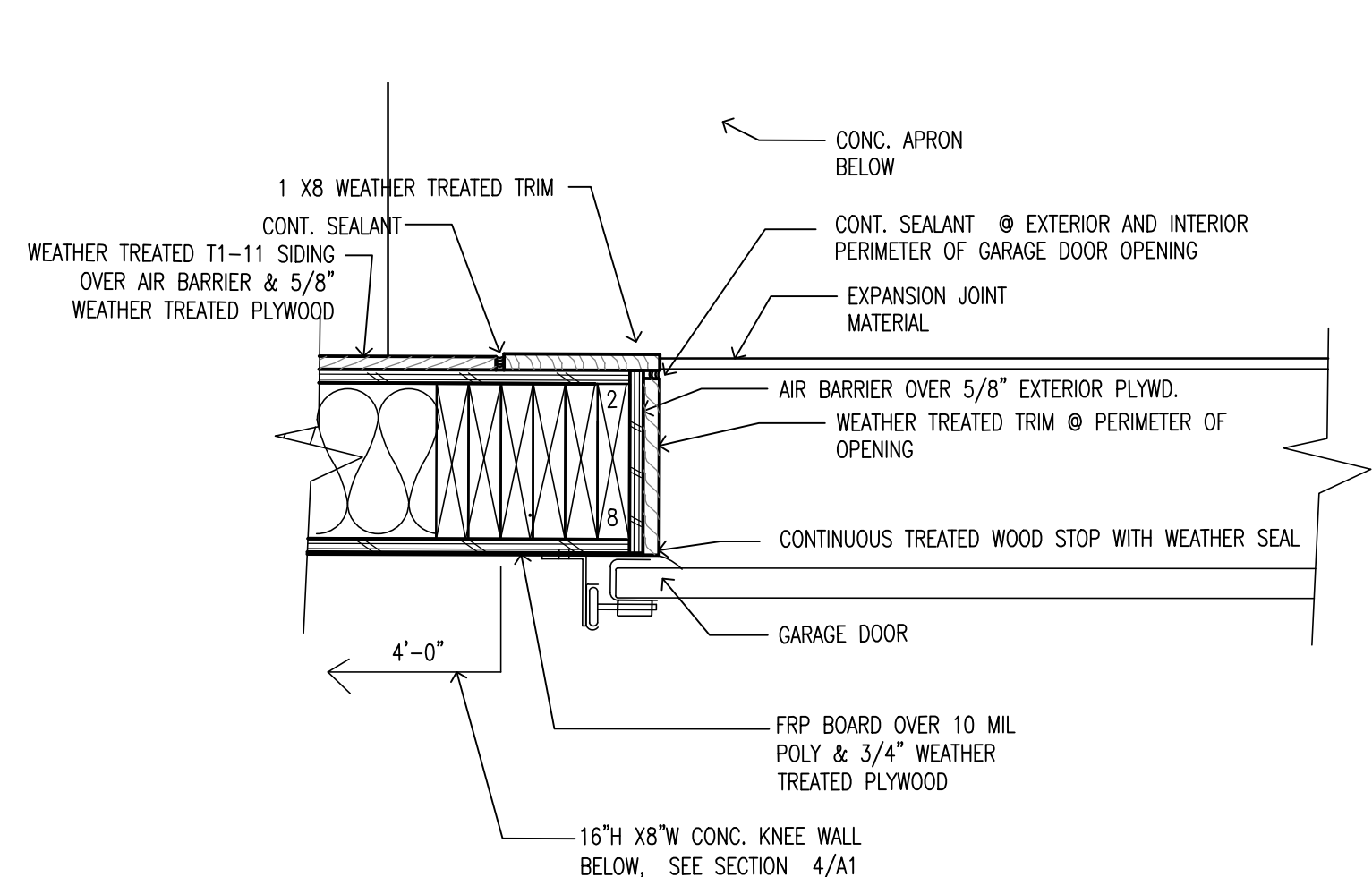
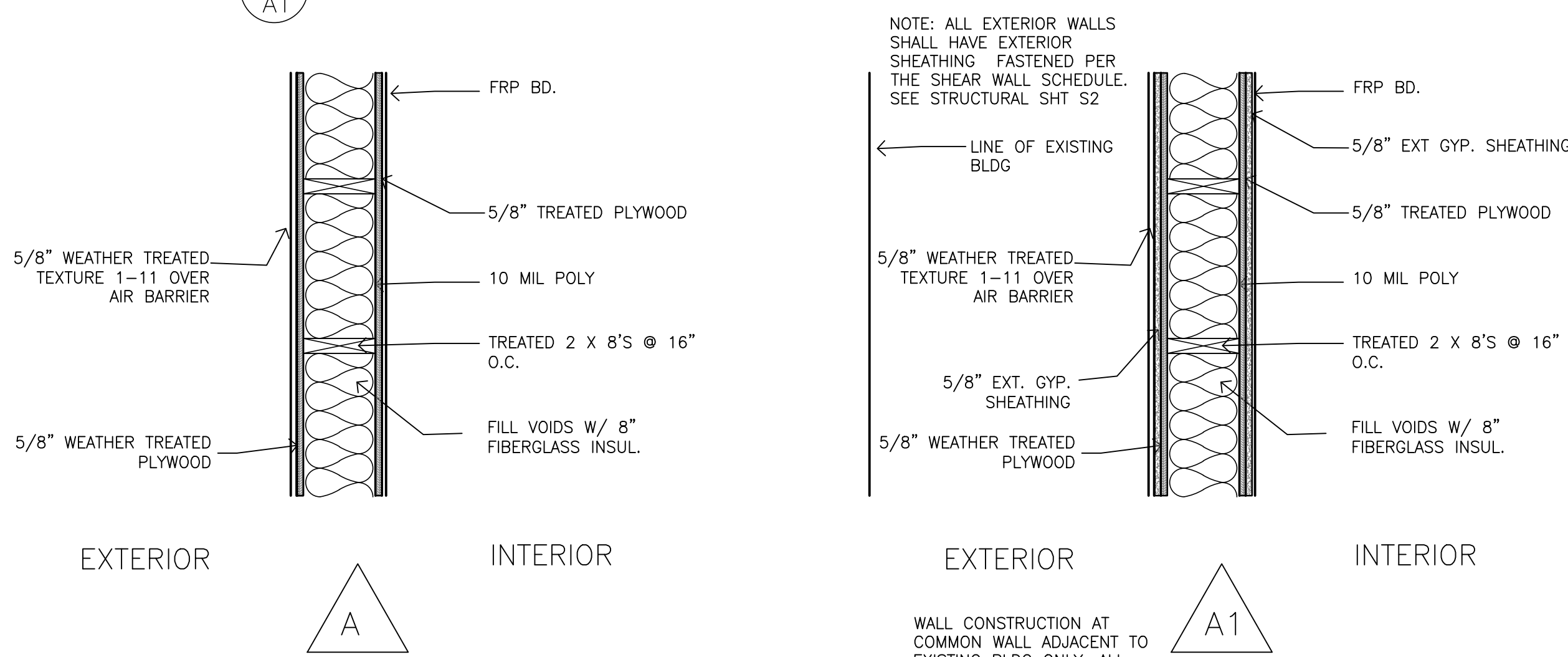
RW Fern Associates Inc. Architects, 413 East Superior Street, Duluth, Minnesota 55802 (218) 722-8271

CITY OF DULUTH - STREET MAINTENANCE FACILITY
BRINE STORAGE SHED
105 NORTH 40TH AVE WEST STREET, DULUTH, MN. 55802

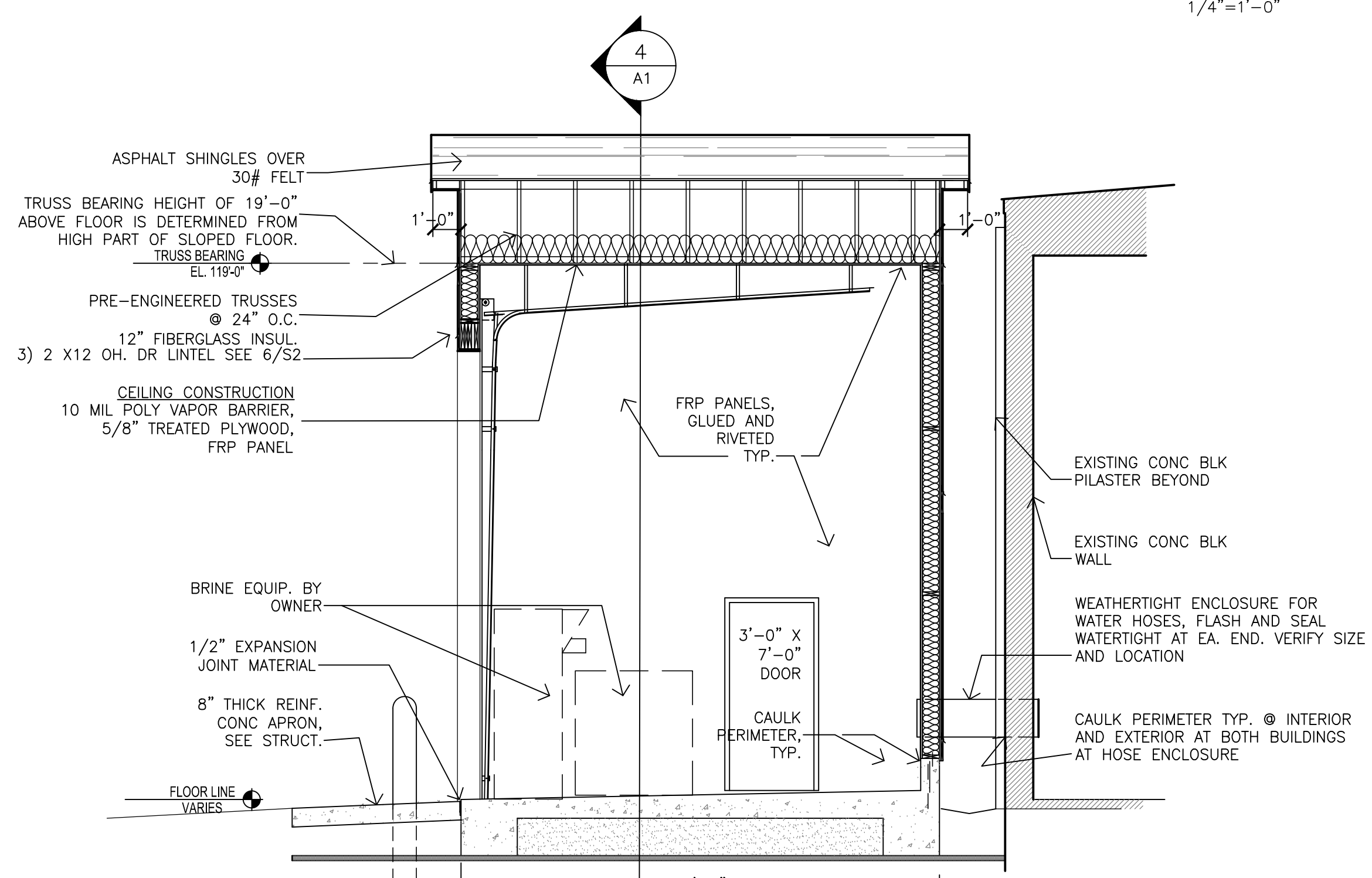
REVISED AND REISSUED 8-22-16
2375 5-23-16
SMW
Sheet: **A1**
of: 1



1 EXTERIOR ELEVATIONS



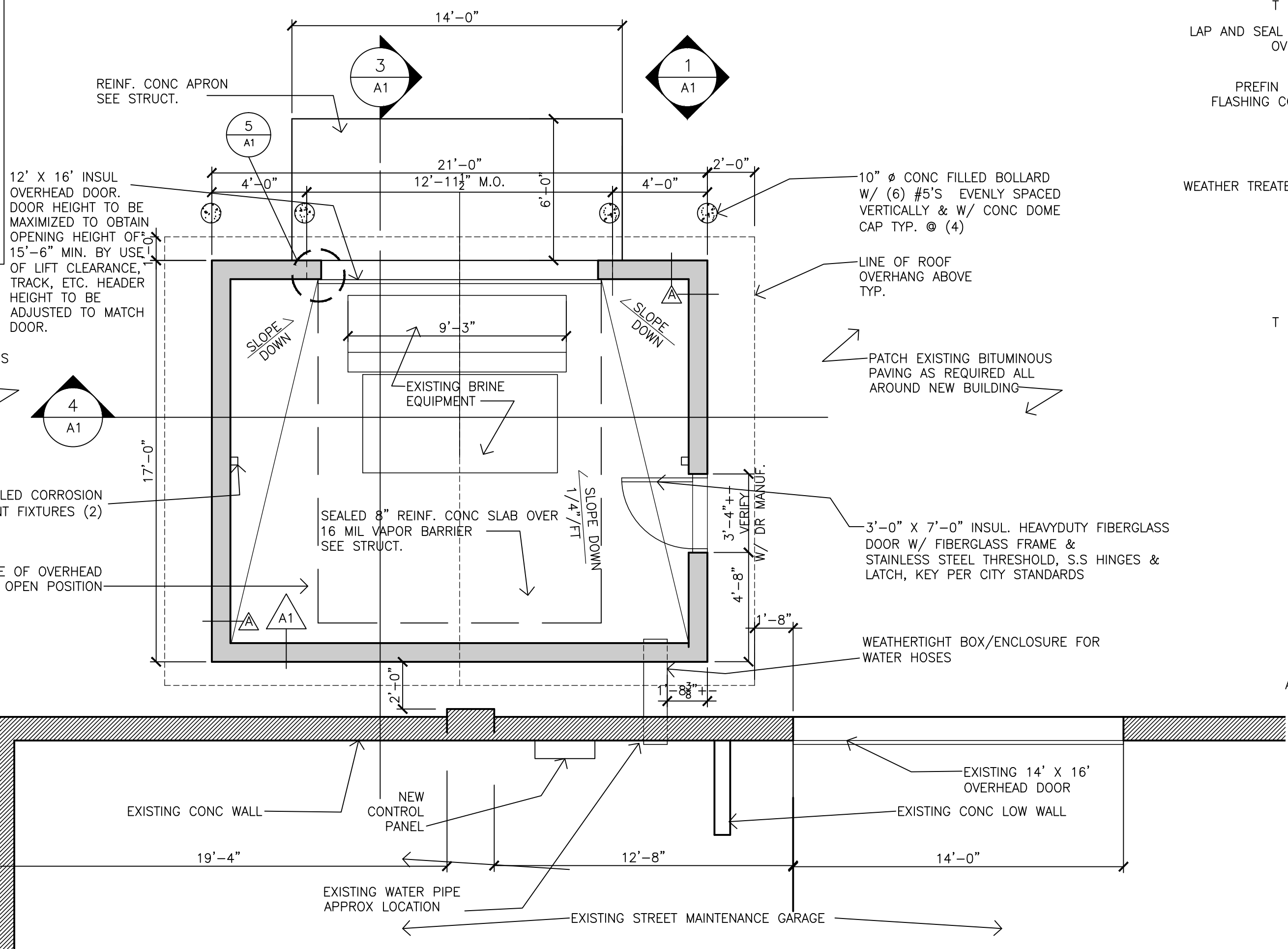
5 JAMB DETAIL @ OVERHEAD DOOR



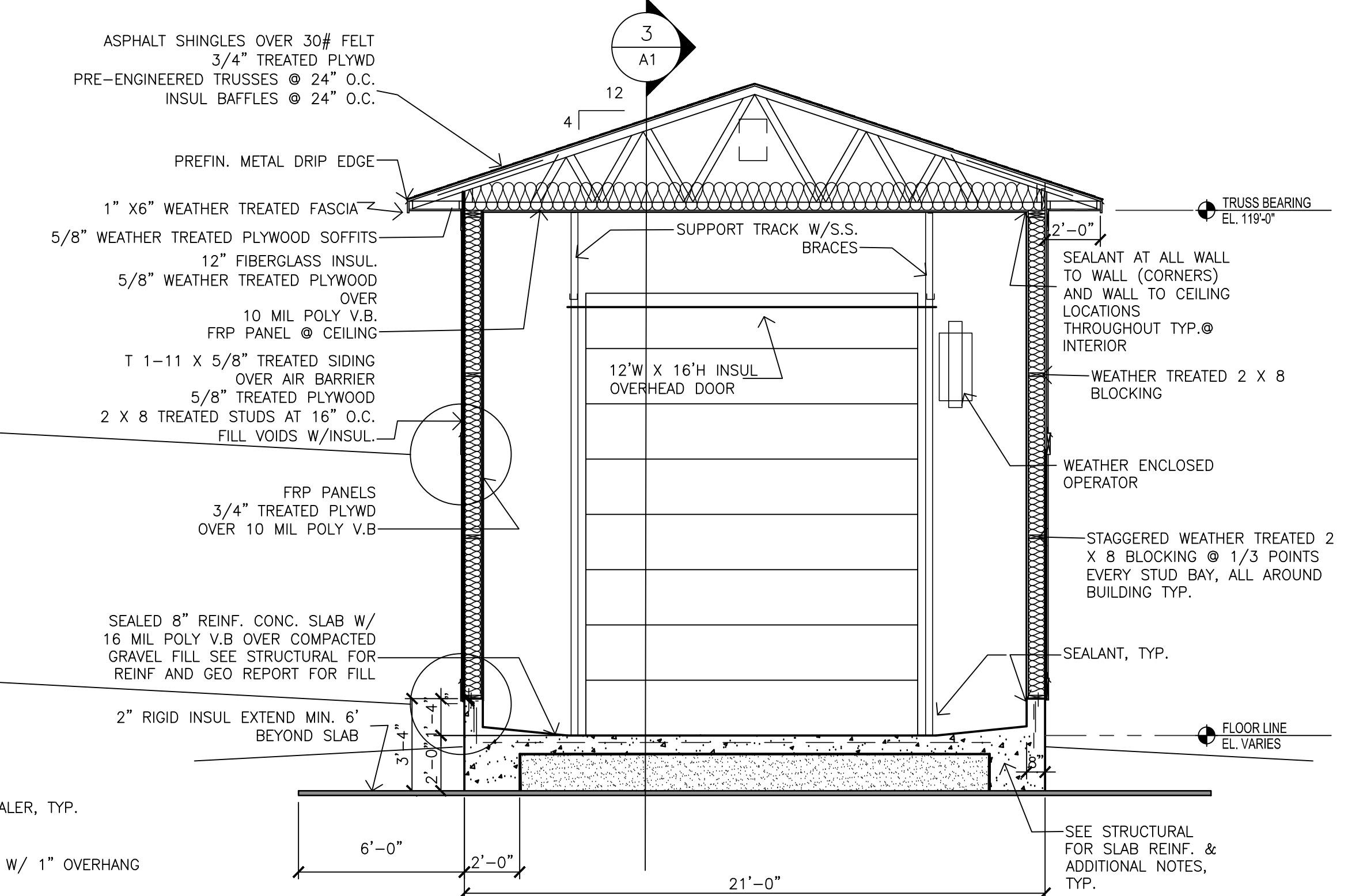
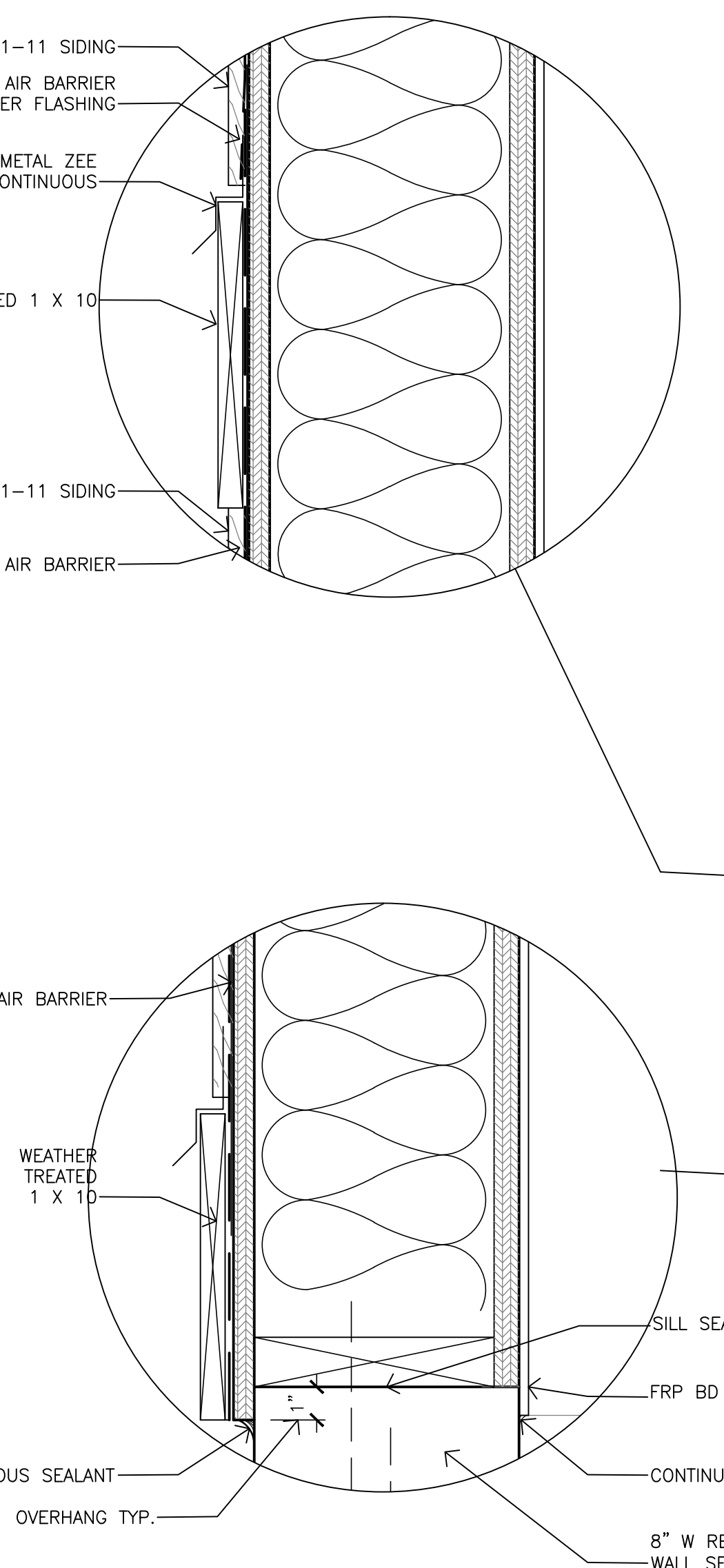
3 BUILDING SECTION

OVERHEAD DOOR
WAYNE DALTON MODEL 5155, PREFINISHED OVERHEAD DOOR
1 3/8" THICK PANELS, URETHANE INSULATION
3" GALVANIZED TRACK
STAINLESS STEEL TOP AND BOTTOM BRACKETS, TOP ALUMINUM STRUT
STAINLESS STEEL HARDWARE-HINGES, ROLLERS & CABLE

OPERATOR
1/2 HP WATERPROOF SIDE MOUNT OPERATOR
RUBBER MOUNT, WATERPROOF PHOTO EYES
REMOTE CONTROLLERS (QUANTITY PER CITY),
WATERPROOF WALL CONTROL SWITCH



2 FLOOR PLAN



4 BUILDING SECTION

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

GENERAL

ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE DRAWINGS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

BUILDING CODE

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BUILDING CODE. THE PUBLICATIONS LISTED BELOW ARE THE GOVERNING CODES AND STANDARDS AND ARE REFERENCED BY THEIR BASIC DESIGNATION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE BUILDING CODE SHALL GOVERN.

APPLICABLE CODES AND STANDARDS

BUILDING CODE	INTERNATIONAL BUILDING CODE (IBC), 2012 EDITION, INCLUDING THE STATE OF MINNESOTA BUILDING CODE AMENDMENTS
ACI 318	AMERICAN CONCRETE INSTITUTE, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" 2005 EDITION
ASCE 7	AMERICAN SOCIETY OF CIVIL ENGINEERS, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", 2005 EDITION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM INTERNATIONAL)
NDS	NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS), 2005 EDITION
ICC	INTERNATIONAL CODE COUNCIL, INTERNATIONAL CODE COUNCIL - EVALUATION SERVICES (ICC-ES)

STRUCTURAL DESIGN DATA

LOAD COMBINATIONS
LOAD COMBINATIONS ARE IN ACCORDANCE WITH SECTION 1605 OF THE BUILDING CODE.

LIVE LOADS

LIVE LOADS SHALL BE IN ACCORDANCE WITH THE BUILDING CODE (SECTION 1607) OR AS NOTED ON THE PLANS.

HEAVY STORAGE: BRINE STORAGE TANK	LL = 250 PSF LL = 400 PSF
--------------------------------------	------------------------------

SNOW LOADS
SNOW LOADING AND SNOW DRIFT LOADING SHALL BE IN ACCORDANCE WITH THE BUILDING CODE (SECTION 1608).

GROUND SNOW LOAD: IMPORTANCE FACTOR: SNOW EXPOSURE FACTOR: THERMAL FACTOR: FLAT-ROOF SNOW LOAD:	P _g = 60 PSF I _s = 1.0 C _e = 1.0 C _t = 1.0 P _f = 42 PSF
---	--

WIND LOADS

WIND PRESSURE SHALL BE IN ACCORDANCE WITH THE BUILDING CODE (SECTION 1609).

BASIC WIND SPEED: RISK CATEGORY: EXPOSURE: ENCLOSURE CLASSIFICATION: INT. PRESSURE COEFFICIENT:	V = 90 MPH (3-SECOND GUST) II C ENCLOSED G _{cf} = 0.18
---	---

LOAD PATH FOR LATERAL FORCES

LATERAL FORCES ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS, BRACED FRAMES, MOMENT FRAMES, ETC. MOMENTS, SHEARS, AND ROTATIONAL FORCES ARE DELIVERED TO THE FOUNDATION BY THE SHEAR WALLS, BRACED FRAMES, MOMENT FRAMES, ETC. IN PROPORTION TO THEIR ABILITY TO RESIST LATERAL DEFORMATION.

CONCRETE

- MIXING, BATCHING, TRANSPORTING, PLACING, AND CURING OF ALL CONCRETE, AND SELECTION OF CONCRETE MATERIALS, SHALL CONFORM TO ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS NOTED BELOW. PROPORTIONS OF AGGREGATE TO CEMENTITIOUS PASTE SHALL BE SUCH AS TO PRODUCE A DENSE, WORKABLE MIX THAT CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER.
- ALL CONCRETE USED IN HORIZONTAL SURFACES EXPOSED TO THE WEATHER SHALL CONTAIN AN ACCEPTABLE ADMIXTURE TO PRODUCE AIR-ENTRAINED CONCRETE WITH TOTAL AIR CONTENT, AS NOTED IN THE CONCRETE MIX SPECIFICATION TABLE. TOLERANCE FOR AIR CONTENT SHALL BE ± 1 PERCENT. AIR CONTENT SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, AIR CONTENT SHALL BE MEASURED AT THE DISCHARGE END OF THE PUMP LINE. TESTS FOR AIR CONTENT SHALL MEET ASTM C172 REQUIREMENTS.
- MIX DESIGNS LISTED BELOW SHALL BE SUBMITTED TO THE ARCHITECT AND APPROVED PRIOR TO USE. SUBMITTALS SHALL INCLUDE TEST DATA THAT CONFIRMS THE STRENGTH OF EACH MIX PER ACI 318 CHAPTER 19. SELECTION OF CONCRETE MIX PROPORTIONS SHALL BE IN ACCORDANCE WITH ACI 301. MIX PROPORTIONS SHALL MEET OR EXCEED THE REQUIREMENTS LISTED BELOW FOR THE LOCATIONS NOTED. THE MORE STRINGENT OF THE REQUIREMENTS LISTED SHALL GOVERN.
- MAXIMUM SIZE OF AGGREGATE SHALL BE AS LISTED BELOW. MAXIMUM FLY ASH AS A PERCENTAGE OF TOTAL WEIGHT OF CEMENTITIOUS MATERIAL SHALL BE 30 PERCENT. FLY ASH SHALL BE CLASS C OR F, MEETING ASTM C618 REQUIREMENTS. WATER/CEMENT RATIO SHALL BE BASED ON TOTAL CEMENTITIOUS MATERIAL, INCLUDING FLY ASH AND OTHER POZZOLANIC MATERIAL.
- THE CONTRACTOR SHALL DETERMINE SLUMP. EACH CONCRETE MIX SUBMITTED SHALL HAVE THE SLUMP SPECIFIED. SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, SLUMP SHALL BE MEASURED AT THE DISCHARGE END OF THE PUMP LINE. SLUMP SHALL BE WITHIN ± 1 INCH AND ± 2 INCHES OF THE SPECIFIED SLUMP.
- THE USE OF SUPER PLASTICIZERS AND WATER REDUCERS IS ALLOWED, BUT NOT REQUIRED. ALL ADMIXTURES SHALL BE CHLORIDE FREE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

CONCRETE MIX DESIGN TABLE					
LOCATION	f' _c (PSI)	TEST AGE (DAYS)	MAX W/C RATIO	AIR CONTENT (%)	MAX. AGGREGATE SIZE
MISCELLANEOUS CONCRETE, CURBS, SIDEWALKS	4,500	28	0.45	6.0	1"
WALLS AND FOOTINGS	4,000	28	0.44	-	1"
CONCRETE ON STEEL DECK	4,000	28	0.44	-	3/4"
REINFORCED BEAMS AND SLABS	5,000	28	0.44	-	3/4"

REINFORCING STEEL

- ALL REINFORCING SHALL BE NEW BILLET STOCK ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE. BARS SHALL BE SECURELY TIED IN PLACE WITH #10 DOUBLE-ANNEALED IRON WIRE. BARS SHALL BE SUPPORTED ON ACCEPTABLE CHAIRS. REINFORCING STEEL SHALL BE DETAIL IN ACCORDANCE WITH THE A/C MANUAL OF STANDARD PRACTICE FOR DETAILING OF REINFORCED CONCRETE STRUCTURES. CONTRACTOR SHALL COORDINATE REINFORCING STEEL PLACEMENT DETAILS AND PROVIDE TEMPLATES FOR PLACING STEEL IN CONGESTED AREAS AS NECESSARY. SHOP DRAWINGS (INCLUDING PLACING PLANS AND ELEVATIONS) SHALL BE SUBMITTED TO, AND REVIEWED BY, THE ARCHITECT/ENGINEER BEFORE STARTING FABRICATION.
- NO REINFORCING BARS SHALL BE SPliced BY WELDING. AT THE CONTRACTOR'S OPTION, MECHANICAL BUTT SPlicing USING AN EXOTHERMIC WELDING PROCESS AND HIGH-STRENGTH SLEEVES OR MECHANICAL CONNECTION SPlicing MAY BE USED, PROVIDED THAT THE MECHANICAL SPlices SHALL HAVE A CURRENT ICC-ES REPORT DEMONSTRATING THAT THE PRODUCT CAN ACHIEVE A MINIMUM TENSILE STRENGTH OF 125 PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE BAR. SPlice DEVICES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. REINFORCING BARS SHALL BE LAP SPliced FOR TENSION (LSP) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- WELDING OR TACK WELDING OF REINFORCING BARS TO OTHER BARS OR TO PLATES, ANGLES, ETC. IS PROHIBITED, EXCEPT WHERE SPECIALLY APPROVED BY THE ENGINEER. WIRE WELDING IS APPROVED. IT SHALL BE DONE BY AWS CERTIFIED WELDERS USING E6018 OR APPROVED ELECTRODES. WELDING PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.4.

- MINIMUM CAST-IN-PLACE CONCRETE COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: ALL SIZES, 3 INCHES
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
#5 BAR OR SMALLER: 1 1/2 INCHES
#6 BAR OR LARGER: 2 INCHES
 - OTHER CONCRETE:
 - WALLS - INTERIOR FACE:
#14 AND #18 BARS: 1 1/2 INCHES
#11 BARS AND SMALLER: 3/4 INCH
 - SLABS:
#14 AND #18 BARS: 1 1/2 INCHES
#11 BARS AND SMALLER: 3/4 INCH
 - BEAMS AND COLUMNS - TIES, STIRRUPS, SPIRALS:
INTERIOR FRAMES: 1 1/2 INCHES
EXTERIOR FRAMES: 2 INCHES

ANCHORAGE TO HARDENED CONCRETE

- ANCHORAGE TO HARDENED CONCRETE SHALL INCLUDE MECHANICAL AND ADHESIVE ANCHORS OF SIZE, NUMBER, AND SPACING AS SHOWN ON THE DRAWINGS.
- HOLES SHALL BE DRILLED AND CLEANED AND ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS AND AN APPROVED ICC-ES REPORT.
- INSPECTION AND TESTING SHALL BE PROVIDED IN ACCORDANCE WITH THE GENERAL NOTES AND THE APPROVED ICC-ES REPORT. WHERE A SPECIFIC TYPE OF ANCHORAGE IS SPECIFIED ON THE DRAWINGS, SUBSTITUTION FOR A DIFFERENT TYPE OF ANCHORAGE (INCLUDING SUBSTITUTING FOR CAST-IN-PLACE ANCHORAGE) SHALL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL.

MECHANICAL ANCHORS

- ACCEPTABLE MECHANICAL ANCHORS SHALL BE AS FOLLOWS: HLTI "KWIK BOLT" T2 CARBON AND STAINLESS STEEL EXPANSION ANCHOR (ICC-ES ESR-1917), SIMPSON STRONG-TIE "STRONG-BOLT" WEDGE ANCHOR (ICC-ES ESR-1771), OR APPROVED ALTERNATIVE WITH A CURRENT ICC-ES REPORT INDICATING THAT THE ANCHOR IS PERMITTED FOR RESISTING THE APPLIED LOADS IN CRACKED CONCRETE.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM EFFECTIVE ANCHOR EMBEDMENT DEPTH SHALL BE 6.5 ANCHOR DIAMETERS. MINIMUM DISTANCE TO THE NEAREST CONCRETE EDGE SHALL BE 8 ANCHOR DIAMETERS, AND MINIMUM ANCHOR SPACING SHALL BE 12 ANCHOR DIAMETERS.
- STAINLESS STEEL ANCHORS SHALL BE USED AT ALL EXTERIOR LOCATIONS AND WHERE SPECIFICALLY INDICATED ON THE DRAWINGS.
- NO STEEL REINFORCEMENT SHALL BE CUT TO INSTALL ANCHORS.
- DEFECTIVE OR ABANDONED HOLES SHALL BE FILLED WITH NON-SHRINK GROUT OR AN INJECTABLE ADHESIVE MATCHING THE ADJACENT CONCRETE COMPRESSIVE STRENGTH. NOTIFY THE STRUCTURAL ENGINEERS OF DEFECTIVE OR ABANDONED HOLES IN WALLS AND COLUMNS. THESE ELEMENTS MAY REQUIRE NON-SHRINK GROUT WITH A COMPRESSIVE MODULUS OF ELASTICITY MATCHING THAT OF THE ADJACENT CONCRETE.

ADHESIVE ANCHORS

- ACCEPTABLE ADHESIVE (EPOXY) ANCHORS SHALL BE AS FOLLOWS:
 - INSTALLED IN CONCRETE:
 - HLTI "HT-HY 200" (ICC-ES ESR-3187)
 - SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)
 - APPROVED ALTERNATE WITH A CURRENT ICC-ES REPORT
 - INSTALLED IN CONCRETE MASONRY:
 - HLTI "HT-HY 70" (ICC-ES ESR-2888)
 - SIMPSON STRONG-TIE "SET" (ICC-ES ESR-1772)
 - APPROVED ALTERNATE WITH A CURRENT ICC-ES REPORT
 - INSTALLED IN BRICK MASONRY:
 - HLTI "HT-HY 70" (ICC-ES ESR-3342)
 - SIMPSON STRONG-TIE "SET" (ICC-ES ESR-1772)
 - APPROVED ALTERNATE WITH A CURRENT ICC-ES REPORT
- UNLESS NOTED OTHERWISE, ANCHORS SHALL BE ASTM A36 THREADED ROD OR ASTM A615, GRADE 60 REINFORCING STEEL DOWELS.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM EFFECTIVE ANCHOR EMBEDMENT DEPTH SHALL BE 6.5 ANCHOR DIAMETERS, AND MINIMUM ANCHOR SPACING SHALL BE 6 ANCHOR DIAMETERS.
- HOLES SHALL BE DRILLED WITH ROTARY IMPACT HAMMER OR EQUIVALENT METHOD TO PRODUCE A HOLE WITH A ROUGH INSIDE SURFACE. CORE DRILLING HOLES IS NOT PERMITTED.
- NO REINFORCING SHALL BE CUT TO INSTALL ADHESIVE ANCHORS.
- TWO-PART ADHESIVES SHALL BE MIXED, APPLIED, AND CURED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS IN THE ICC-ES REPORT. ALL PLACEMENT AND CURING SHALL BE DONE CONFORMANT WITH CONCRETE AND AIR TEMPERATURES ABOVE 50 DEGREES FAHRENHEIT. ADHESIVE SHALL BE APPLIED ONLY TO CLEAN, DRY CONCRETE. POSITIVE PROTECTION SHALL BE PROVIDED SO THAT ANCHORS ARE NOT DISTURBED DURING THE CURING PERIOD.
- DEFECTIVE OR ABANDONED HOLES SHALL BE FILLED WITH NON-SHRINK GROUT OR AN INJECTABLE ADHESIVE MATCHING THE ADJACENT CONCRETE COMPRESSIVE STRENGTHS. NOTIFY THE STRUCTURAL ENGINEER OF DEFECTIVE OR ABANDONED HOLES IN WALLS AND COLUMNS. THESE ELEMENTS MAY REQUIRE NON-SHRINK GROUT WITH A COMPRESSIVE MODULUS OF ELASTICITY MATCHING THAT OF THE ADJACENT CONCRETE.

WOOD FRAMING LUMBER

- FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN CONFORMANCE WITH WEST COAST LUMBER INSPECTION BUREAU STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 16, LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:
 - JOISTS AND BUILT-UP MEMBERS: DOUGLAS FIR-LARCH NO. 2 OR SOUTHERN PINE NO. 2
 - STUDS, PLATES AND MISCELLANEOUS LIGHT FRAMING: SPRUCE-PINE-FIR NO. 2 OR BETTER
 - TOP AND BOTTOM PLATES AT BEARING WALLS: DOUGLAS FIR-LARCH CONSTRUCTION GRADE

PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES

- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES. THESE MEMBERS SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES," LATEST EDITION, BY THE TRUSS PLATE INSTITUTE, FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. THE FOLLOWING TRUSS LOADING IS TYPICAL UNLESS NOTED OTHERWISE ON PLANS AND/OR LOAD MAPS.
 - TOP CHORD LIVE LOAD (SNOW): 42 PSF
 - TOP CHORD DEAD LOAD: 10 PSF
 - BOTTOM CHORD DEAD LOAD: 10 PSF
 - TOTAL LOAD: 62 PSF
- ROOF TRUSSES SUPPORTING SNOW LOADS SHALL BE DESIGNED TO RESIST THE SNOW LOADS SET FORTH IN ACSE 7, CHAPTER 7.
- ROOF TRUSS DEFLECTION SHALL MEET THE MINIMUM IRC REQUIREMENTS UNLESS A MORE STRINGENT CRITERIA IS NOTED ON THE PLANS.
- WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR APPROVED EQUAL).
- SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS COMPLETE WITH STRESS DIAGRAM FOR REVIEW A MINIMUM OF TWO WEEKS PRIOR TO FABRICATION. SUBMITTED DOCUMENTS SHALL BEAR THE STAMP AND SIGNATURE OF AN ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED. PROVIDE FOR SHAPES, BEARING POINTS, GIRDERS, INTERSECTIONS, HIPs, VALLEYS, ETC. SHOWN ON THE DRAWINGS. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS USE OF GIRDERS TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ETC. SHALL BE DETERMINED BY THE CONTRACTOR UNLESS SPECIFICALLY INDICATED ON THE PLANS.
- PROVIDE FOR ALL TRUSS-TO-TRUSS AND TRUSS-TO-GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

PLYWOOD

- PLYWOOD SHEATHING SHALL BE GRADE C-EXTERIOR GLUE OR STRUCTURAL II. EXTERIOR GLUE SHALL BE IN CONFORMANCE WITH THE BUILDING CODE, UNITED STATES VOLUNTARY PRODUCT STANDARDS PS-1 AND PS-2.
- ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING, AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

ROOF SHEATHING

- PROVIDE 5/8-INCH CDX PLYWOOD, INDEX 32/16, UNLOCKED, LAID UP WITH FACE GRAIN PERPENDICULAR TO FRAMING BELOW. STAGGER PANEL END JOINTS, PROVIDE APPROVED EDGE CLIPS AT 24 INCHES ON CENTER AT UNBOLTED ROOF SHEATHING EDGES. PROVIDE 1/8-INCH GAP BETWEEN ALL BUTTING PANEL EDGES. PROVIDE THE FOLLOWING MINIMUM NAILING UNLESS NOTED OTHERWISE ON THE DRAWINGS:
 - ALL SUPPORTED PANEL EDGES, DIAPHRAGM BOUNDARIES AND OVER EXTERIOR WALLS AND SHEAR WALLS: 8d AT 6 INCHES ON CENTER
 - AT 12 INCHES ON CENTER
 - FIELD NAILING

TREATED WOOD

- ALL WOOD PLATES, LEDGERS AND BLOCKING IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESURE-TREATED WITH AN AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) APPROVED PRESERVATIVE, ALTERNATIVELY PER IBC SECTION 2304.11, FOR SOME EXCEPTIONS, IMPERVIOUS MOISTURE BARRIERS MAY BE PROVIDED BETWEEN UNTREATED MEMBERS AND CONCRETE OR MASONRY.
- ALL METAL FASTENERS IN CONTACT WITH TREATED WOOD SHALL BE GALVANIZED OR STAINLESS STEEL, WHEN USING GALVANIZED FASTENERS, THE CONTRACTOR SHALL PROVIDE THE GALVANIZATION PROCESS WITH THE CHEMICAL COMPOSITION OF THE WOOD TREATMENT.

TIMBER CONNECTORS

- TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE BY SIMPSON STRONG-TIE COMPANY, INC. AS SPECIFIED IN THE LATEST EDITION OF THEIR CATALOG. ALL CONNECTORS SHALL BE STAINLESS STEEL OR GALVANIZED. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE USED IF THEY ARE APPROVED BY THE CURRENT ICC-ES EVALUATION REPORTS DEMONSTRATING THAT THE PRODUCTS HAVE EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS BY THE MANUFACTURER.
- CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS, WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.
- ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.
- ALL NAILS SHALL BE COMMON UNLESS NOTED OTHERWISE.
- ALL SHIMS SHALL BE SMOKE AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.
- ALL SINGLE JOISTS, DOUBLE JOISTS AND TRIPLE JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "U" SERIES JOIST HANGERS, UNLESS NOTED OTHERWISE.

WOOD FRAMING DETAILS

THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS.

- AT JOIST AREAS: PROVIDE CROSS-BRIDGING AT 8'-0" ON CENTER MAXIMUM. PROVIDE SOLID BLOCKING OR CONTINUOUS RIM AT ALL BEARING POINTS. PROVIDE SOLID BLOCKING UNDER ALL BEARING WALLS ABOVE.
- PROVIDE DOUBLE JOIST UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF OF THE JOIST LENGTH. PROVIDE DOUBLE JOIST EACH SIDE OF ALL OPENINGS IN FLOORS AND ROOFS UNLESS DETAILED OTHERWISE. COORDINATE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- PROVIDE TWO 2x8 HEADERS OVER AND DOUBLE STUDS EACH SIDE OF ALL OPENINGS IN STUD BEARING WALLS UNLESS NOTED OTHERWISE.
- PROVIDE SOLID BLOCKING AT FLOORS FOR WOOD COLUMNS AND MULTIPLE STUD POSTS TO SUPPORT THE COLUMNS.
- PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.
- ALL STUD WALLS UNLESS NOTED OTHERWISE SHALL BE 2x4 AT 16 INCHES ON CENTER AT INTERIOR WALLS AND 2x6 AT 16 INCHES ON CENTER AT EXTERIOR WALLS.
- USE FULL LENGTH STUDS (BALLOON FRAME) ON EXTERIOR WALLS AT STAIRWAYS AND AT VAULTED CEILINGS.
- PLYWOOD WALL SHEATHING SHALL HAVE SOLID BLOCKING AT ALL EDGES. PROVIDE THE FOLLOWING MINIMUM NAILING UNLESS NOTED OTHERWISE ON PLANS:
 - 8d AT 6 INCHES ON CENTER AT SHEET EDGES
 - 8d AT 12 INCHES ON CENTER AT INTERMEDIATE BEARING POINTS
- ALL WOOD STUD WALLS SHALL HAVE LOWER WOOD PLATE ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 6 INCHES ON CENTER ATTACHED OR BOLTED TO THE STUDS. PROVIDE 16d NAILS AT 6 INCHES ON CENTER AT 6'-0" ON CENTER UNLESS NOTED OTHERWISE ON THE PLANS. ALL ANCHOR BOLTS SHALL HAVE 2x3x16-INCH PLATE WASHERS AND A MINIMUM EMBEDMENT OF 7 INCHES IN CONCRETE.

FOUNDATIONS

- HELICAL PILES:
 - THE ALLOWABLE DESIGN AXIAL COMPRESSION LOAD ON EACH HELICAL PILE IS 15 TONS.
 - THE ALLOWABLE DESIGN AXIAL TENSION LOAD ON EACH HELICAL PILE IS 3 TONS.
 - THE CONTRACTOR SHALL FURNISH AND INSTALL HELICAL SCREW PILES AND CONDITIONS THAT WILL DEVELOP THE REQUIRED VERTICAL LOAD CAPACITIES. TENSION OR COMPRESSION, SHOWN ON THE DRAWINGS.
 - STEEL PILE CAPS SHALL BE PROVIDED ON ALL PILES, UNLESS NOTED OTHERWISE. PILE CAPS SHALL FIT SNUGLY WITHIN EACH PILE. PILE CAPS AND THEIR CONNECTIONS TO THE PILES SHALL MEET OR EXCEED THE REQUIRED PILE CAPACITIES.
 - ALL CONNECTIONS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE TO ASTM A 153.
- THE OVERALL LENGTH AND INSTALLED TORQUE OF THE HELICAL SCREW PILES SHALL BE SUCH THAT THE REQUIRED IN-SOIL CAPACITY IS DEVELOPED BY END BEARING ON THE HELIX PLATES IN AN APPROPRIATE SOIL. THE TOP OF THE HELIX SHALL BE LOCATED BELOW THE FROST DEPTH.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER WORKING DRAWINGS AND CERTIFIED DESIGN CALCULATIONS FOR THE PILE INSTALLATIONS PRIOR TO FABRICATION AND INSTALLATION. CONSTRUCTION METHODS USED FOR INSTALLATION SHALL ALSO BE SUBMITTED TO THE ENGINEER.
- ALL PILES SHALL BE STEEL CONFORMING TO ASTM A36 WITH SIZE AS REQUIRED BY SUPPLIER.
- PILE INSTALLATION SHALL BE MONITORED BY A QUALIFIED GEOTECHNICAL ENGINEER. THE DRIVING CRITERIA MAY BE MODIFIED TO SUIT THE SITE CONDITIONS ENCOUNTERED WHEN APPROVED BY THE ARCHITECT.
- REFER TO THE GEOTECHNICAL REPORT PREPARED BY AMERICAN ENGINEERING TESTING, PROJECT NUMBER DT-06324, DATED JUNE 2, 2015, FOR DESIGN RECOMMENDATIONS.

STRUCTURAL FILL

- ALL FILL PLACED TO SUPPORT SLABS ON GRADE, BEHIND PERMANENT WALLS, AND AROUND ALL DRAINS SHALL CONSIST OF WELL GRADED, GRANULAR MATERIAL PER THE SPECIFICATIONS.
- SOILS FOR STRUCTURAL FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER.
- STRUCTURAL FILL SHALL BE PLACED ON SOUND NATIVE MATERIAL.
- PROOF-ROLL CUT AREAS WHICH PROVIDE SUPPORT FOR PERMANENT STRUCTURES.
- AREAS WHICH ARE EXCESSIVELY YIELDING, AS DETERMINED BY THE CONTINUOUS OBSERVATION OF THE GEOTECHNICAL ENGINEER, SHALL BE OVEREXCAVATED AND REPLACED WITH STRUCTURAL FILL.
- STRUCTURAL FILL SHALL BE PLACED PER THE SPECIFICATION.

MISCELLANEOUS METALS

- THE CONTRACTOR SHALL DESIGN AND SUPPLY ALL ADDITIONAL METALS AND METAL CONNECTIONS THAT ARE INDICATED BY ARCHITECTURAL DRAWINGS OR THOSE METALS WHICH ARE FOUND TO BE NECESSARY TO SUPPORT THE BRINE STORAGE TANK.
- ALL FRAMING AND CONNECTIONS DESIGNED BY THE CONTRACTOR SHALL NOT RESULT IN ECCENTRIC LOADS BEING APPLIED TO THE PRIMARY STRUCTURE NOR LATERAL LOADS BEING APPLIED TO THE BOTTOM FLANGE OF STEEL BEAMS. THE CONTRACTOR'S DESIGN SHALL VERIFY THAT THE CONNECTIONS DO NOT RESULT IN ADVERSE LOCAL CONNECTION STRESSES OCCURRING WITHIN THE PRIMARY STRUCTURE. SUBMIT CALCULATIONS STAMPED BY A STRUCTURAL ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED AND SHOP DRAWINGS INDICATING IMPOSED LOADS ON THE PRIMARY STRUCTURE.

BUILDING TOLERANCES

- STANDARD TOLERANCES SHALL BE BASED ON THE REQUIREMENTS OF THE AISI CODE OF STANDARD PRACTICE AND ACI 117, "STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."

SEQUENCING CONSTRUCTION AND LATERAL STABILITY

- THE STRUCTURAL COMPONENTS BY THEMSELVES ARE A NON-Self-SUPPORTING STRUCTURE. LATERAL FORCES DUE TO WIND, EARTHQUAKE, OR SOIL ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE LATERAL SYSTEM. CERTAIN ELEMENTS SHOWN ON THE STRUCTURAL DRAWINGS (SUCH AS BRACING, ROOF AND FLOOR SLABS, AND CONCRETE IN OVERSIZED COLUMNS) ARE REQUIRED FOR OVERALL OR LOCAL STABILITY OF OTHER ELEMENTS (SUCH AS BEAMS, COLUMNS, AND WALLS).
- IF, DUE TO SEQUENCING OF CONSTRUCTION, THESE STABILITY ELEMENTS ARE NOT IN PLACE, THE CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED, WHO SHALL INVESTIGATE WHERE TEMPORARY SHORING/BRACING IS REQUIRED, AND SHALL DESIGN THIS TEMPORARY SHORING/BRACING. THE CONTRACTOR SHALL PROVIDE THIS SHORING/BRACING UNTIL THE REQUIRED STRUCTURAL ELEMENTS AND THEIR CONNECTIONS HAVE BEEN INSTALLED AND REACH THEIR FINAL DESIGN STRENGTHS.

DEFERRED STRUCTURAL SUBMITTALS

- SOME STRUCTURAL SYSTEMS ARE DEFINED AS VENDOR-DESIGNED COMPONENTS PER THE STRUCTURAL DOCUMENTS. THESE ELEMENTS OF THE DESIGN ARE DEFERRED SUBMITTAL COMPONENTS AND HAVE NOT BEEN PERMITTED UNDER THE BASE BUILDING APPLICATION. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT THE STAMPED COMPONENT SYSTEM DOCUMENTS TO THE BUILDING OFFICIAL FOR APPROVAL.
- DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT WHO SHALL REVIEW THEM FOR GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE CONTRACTOR SHALL SUBMIT THESE DEFERRED DEFERRED SUBMITTAL DOCUMENTS TO THE BUILDING OFFICIAL. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
- THE FOLLOWING LIST INCLUDES THE ITEMS THAT ARE DEFINED AS DEFERRED STRUCTURAL SUBMITTAL COMPONENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR ADDITIONAL DEFERRED SUBMITTAL COMPONENTS.
- DEFERRED STRUCTURAL SUBMITTAL COMPONENTS:
 - HELICAL PILES AND PILE CAPS
 - WOOD ROOF TRUSSES

MISCELLANEOUS

- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, ELEVATOR, OR OTHER SPECIALTY ENGINEERING DRAWINGS FOR DIMENSIONS NOT SHOWN, INCLUDING BUT NOT LIMITED TO: SIZE AND LOCATION OF CURBS, EQUIPMENT HOUSEKEEPING PADS, WALL AND FLOOR OPENINGS, BLOCKOUTS, FLOOR DEPRESSIONS, SUMPS, DRAINS, ANCHOR BOLTS, EMBEDDED ITEMS, ARCHITECTURAL TREATMENT, ETC. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND RESOLVE DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION.
- WHERE SECTIONS ARE INDICATED ON THE PLAN BY A NUMBER AND A DRAWING NUMBER THUS, 155.01, THE INDICATED SECTION (1) IS SHOWN ON STRUCTURAL DRAWINGS SS.01.

SPECIAL INSPECTION

- THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION AND TESTING PER IBC SECTION 1704.
- THIS WORK SHALL BE PERFORMED BY A SPECIAL INSPECTOR CERTIFIED BY THE GOVERNING BUILDING OFFICIAL TO PERFORM THE TYPES OF INSPECTIONS AND TESTS SPECIFIED.
- THE FREQUENCY OF INSPECTIONS AND TESTING SHALL AS BE OUTLINED IN THE IBC TABLE ITEMS LISTED BELOW.
- DEFICIENCIES SHALL BE REPORTED DAILY TO THE CONTRACTOR.
- SUMMARY REPORTS SHALL BE DISTRIBUTED WEEKLY TO THE OWNER, ARCHITECT, CONTRACTOR, BUILDING OFFICIAL, AND STRUCTURAL ENGINEER. THE CONCRETE SUPPLIER SHALL BE INCLUDED IN THE DISTRIBUTION OF ALL SUMMARY REPORTS FOR CONCRETE TESTING.
- SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SPECIAL INSPECTION AND TESTING.

ITEM	DESCRIPTION (SEE IBC SECTS. 1704 & 1705)	IBC REQUIREMENT
CONCRETE	CONCRETE THAT IS PART OF THE STRUCTURE	TABLE 1705.3 ITEMS 4, 5, 6, 7, 8, 10, AND 12
REINFORCING STEEL	A. PLACEMENT OF REINFORCING STEEL	TABLE 1705.3 ITEM 1
STRUCTURAL WOOD	A. PRE-FABRICATED STRUCTURAL ELEMENTS B. FASTENING COMPONENTS TO WIND FORCE RESISTING WOOD CONSTRUCTION INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, DRAG STRUTS, AND HOLD-DOWNS	SECTION 1705.5 AND 1705.5.2 SECTION 1705.10.1
HELICAL PILE FOUNDATION	HELICAL PILE FOUNDATION THAT IS PART OF THE STRUCTURE	SECTION 1705.9
SOILS, SPECIAL GRADING, AND EXCAVATION AND FILLING	A. FOUNDATION EXCAVATION AND BEARING STRATA B. TESTING, PREPARATION, PLACEMENT, AND COMPACTION	TABLE 1705.6 ITEMS 1 AND 2 TABLE 1705.6 ITEMS 3, 4, AND 5

SHOP DRAWINGS

- SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION:
 - REINFORCING STEEL
 - STRUCTURAL STEEL
 - WOOD ROOF TRUSSES
 - HELICAL PILES AND PILE CAPS
- THE CONTRACTOR SHALL SUBMIT CONCRETE WALL ELEVATION DRAWINGS OF AT LEAST 1/8" = 1'-0" SCALE INDICATING LOCATIONS OF CONNECTION EMBEDMENTS AND WALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH REINFORCEMENT DRAWINGS.
- DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE, THEY SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW AND SIGN SHOP DRAWINGS PRIOR TO REVIEW BY THE ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE ONE REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED.
- SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED, AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWINGS SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.
- SHOP DRAWINGS FOR DEFERRED SUBMITTALS THAT ARE DEFINED AS DESIGN-BUILD COMPONENTS IN THE CONSTRUCTION DOCUMENTS SHALL INCLUDE THE DESIGNING PROFESSIONAL ENGINEER'S STAMP FOR THE JURISDICTION WHERE THE PROJECT IS LOCATED AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALCULATED OR INDICATED ON THE STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE INCLUDED IN THE SUBMITTAL.

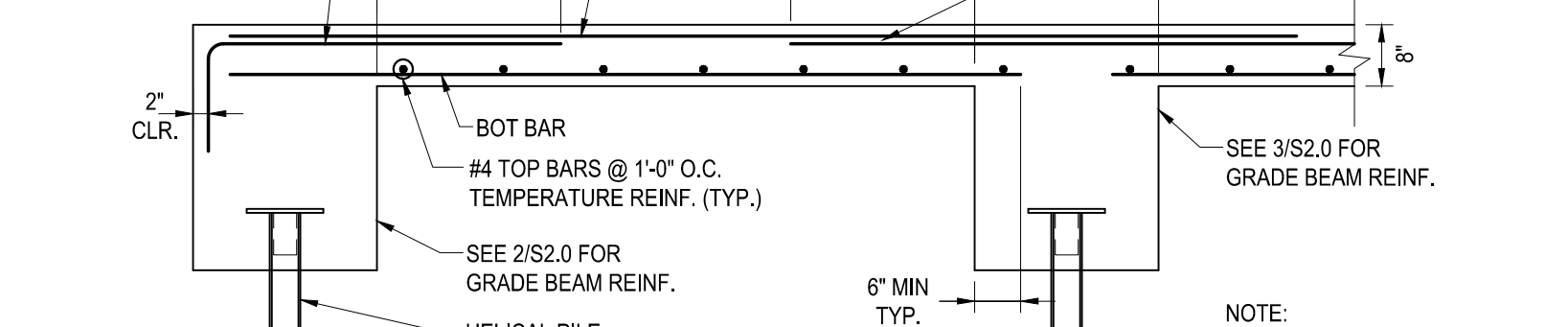
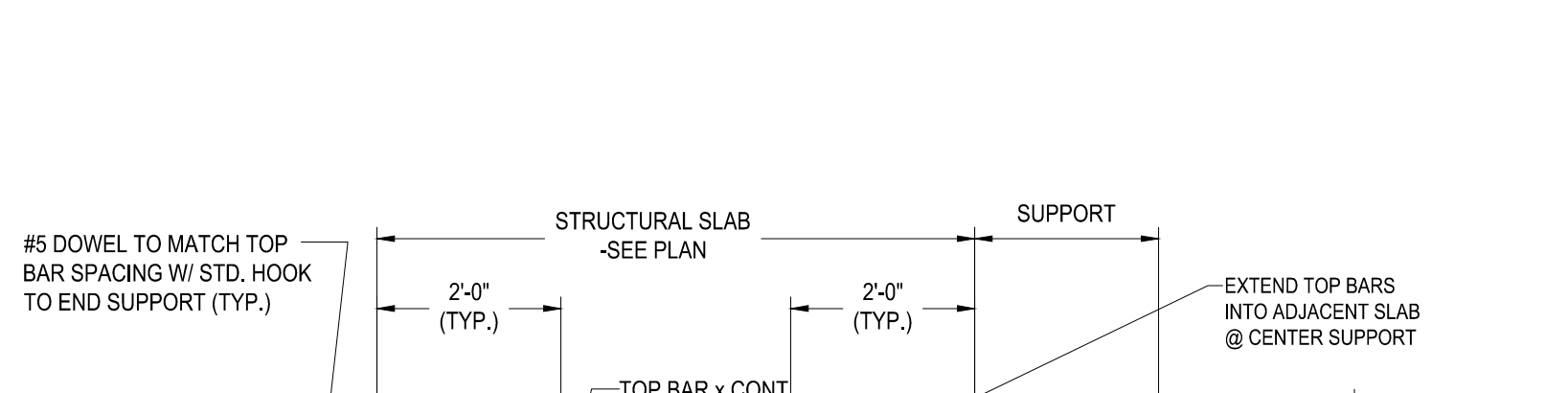
NOTES:

- BAR DIMENSION REQUIRED TO MANUFACTURE HOOK.
- FOR EPOXY COATED HOOKS, INCREASE THE ABOVE EMBEDMENT LENGTHS BY 20%.
- ABOVE VALUES VALID FOR ALL CASES IF:
SIDE COVER $\geq 2 \times 12"$
END COVER $\geq 2"$

3 ST

TYPICAL REINFORCING BAR STANDARD HOOK AND EMBEDMENT TABLES

NOT TO SCALE



NOTE: 1. SEE PLAN FOR REINFORCING

4 ST

TYPICAL ONE-SLAB LAP REINFORCING DETAIL

NOT TO SCALE





CONSULTANTS

- ENVIRONMENTAL
- GEOTECHNICAL
- MATERIALS
- FORENSICS

REPORT OF GEOTECHNICAL EXPLORATION AND REVIEW Toolhouse Building Addition

40th Avenue West
Duluth, Minnesota

AET Project No. 07-06324

Date:

June 2, 2015

Prepared For:

City of Duluth
Property & Facilities Management
1532 West Michigan Street
Duluth, Minnesota 55806





CONSULTANTS
• ENVIRONMENTAL
• GEOTECHNICAL
• MATERIALS
• FORENSICS

June 2, 2015

Ms. Tari L. Rayala, AIA
City of Duluth
Property & Facilities Management
1532 West Michigan Street
Duluth, Minnesota 55806

RE: Report of Geotechnical Exploration and Review
Toolhouse Building Addition
40th Avenue West
Duluth, Minnesota
AET Project No. 07-06324

Dear Ms. Rayala:

We are pleased to present the results of our subsurface exploration program and geotechnical review for your building addition project in Duluth, Minnesota. These services were performed following your acceptance of our proposal number 07-06324 dated April 27, 2015.

We are submitting one electronic copy and two hard copies of this report to you. This report is the instrument of service defined in our proposal.

We have enjoyed working with you on this phase of the project. Please contact us if you have questions about this report or require further assistance.

Sincerely,
American Engineering Testing, Inc.

A handwritten signature in blue ink, appearing to read 'Taryn J. Erickson', is written over a light blue horizontal line.

Taryn J. Erickson, PE
Geotechnical Engineer



Signature Page

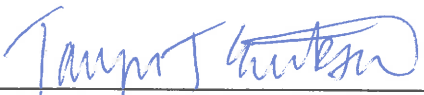
Prepared for:

Ms. Tari L. Rayala, AIA
City of Duluth
Property & Facilities Management
Duluth, Minnesota 55806

Prepared by:

American Engineering Testing, Inc.
4431 West Michigan Street, Suite 4
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(218) 628-1518/www.amengtest.com

Report Authored By:


Taryn J. Erickson, PE
Geotechnical Engineer

Review Conducted By:


Megan J.L. Hoppe, PE
Senior Geotechnical Engineer

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 Professional Engineer under the laws of the State of Minnesota

Printed Name: Taryn J. Erickson

Signature: 

Date: 6/2/15 License #: 51795

Report of Geotechnical Exploration and Review

Toolhouse Building Addition
40th Avenue West; Duluth, Minnesota
June 2, 2015
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1.0 INTRODUCTION

The City of Duluth (City) is planning the construction of an addition to their existing toolhouse building on 40th Avenue West. To assist with planning and design, Ms. Tari Rayala, of the City, authorized American Engineering Testing, Inc. (AET) to conduct a subsurface exploration program at the site and perform a geotechnical engineering review for the project. This report presents the results of the above services, and it provides our engineering recommendations based on this data.

2.0 SCOPE OF SERVICES

AET's services were performed according to our proposal number 07-06324 dated April 27, 2015, and authorized by PO 185676 dated April 28, 2015. The authorized scope consists of the following:

- Arrange for the locating of public underground utilities through Gopher State One Call;
- Drill and sample one standard penetration test boring to a depth of 25 feet or auger refusal, whichever comes first;
- Perform visual-manual classification and limited laboratory testing of the recovered soil samples; and
- Perform a geotechnical engineering analysis based on this data and prepare this report.

These services are intended for geotechnical purposes, to evaluate the structural properties of the soil. The scope is not intended to explore for the presence or extent of environmental contamination in the soil or groundwater.

3.0 PROJECT INFORMATION

The addition will be constructed off the west side of the existing toolhouse building. We understand that the existing building is supported on an insulated, thickened-edge slab. The addition will be a metal structure, also planned for support on a thickened-edge slab, and will be used to hold a brine

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tank. The addition will cover a footprint of 14 feet by 16 feet and will match the finished floor elevation (FFE) of the existing building. The brine tank weighs approximately 2,200 pounds and has up to an 800-gallon capacity. We understand that the addition will be unheated; we assume the structure will have an average monthly indoor air temperature of 41°F or lower.

This information represents our understanding of the proposed construction and is an integral part of our engineering review. It is important that we be contacted if there are changes from that described so that we can evaluate whether modifications to our recommendations are appropriate.

4.0 SUBSURFACE EXPLORATION AND TESTING

4.1 Field Exploration Program

Our subsurface exploration program for the project consisted of drilling one boring with standard penetration testing (SPT) and sampling on May 7, 2015. The City requested the number of borings; AET recommended the depth and location of the boring based on our understanding of the project. AET staked the boring location by measuring off the existing walls; we recorded the surface elevation at the location using the existing slab. Due to the absence of a known elevation for the slab, we assigned an arbitrary elevation of 100.0 feet to the top of slab. The boring location and surface elevation are shown on Figure 1 in Appendix A.

Prior to drilling, we contacted Gopher State One Call to locate public underground utilities at the site. We drilled the boring using 3¼-inch inside diameter hollow stem augers. Please refer to Appendix A for details on the drilling and sampling methods, the classification methods, and the water level measurement details.

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The boring log is found in Appendix A and contains information concerning soil layering, geologic description, moisture condition, and USCS classifications. Relative density or consistency is also noted for the natural soils, which are based on the standard penetration resistance (N-value).

4.2 Soil Classification

We performed moisture content and hand penetrometer testing on the clay samples from the boring. We visually-manually classified the samples based on texture and plasticity according to the Unified Soil Classification System (USCS) (ASTM D2488). Data sheets describing the USCS System, the descriptive terminology, and the symbols used on the boring logs are included in Appendix A.

5.0 SITE CONDITIONS

5.1 Surface Features

The area of the addition is to the west of the existing building and is currently bituminous parking. Based on the boring elevation in relation to the existing slab, the proposed footprint is relatively flat.

5.2 Subsurface Soils/Geology

The generalized soil profile found in our boring consisted of fill to a depth of 14 feet, overlying naturally-occurring lacustrine deposits and then coarse alluvium. The fill consisted of a mixture of organic to slightly organic sandy clay, silty sand with gravel, and fat clay; some bricks were noted in the upper 4 feet of the fill. The lacustrine soils consisted of stiff fat clay to a depth of 17½ feet; the coarse alluvium consisted of medium dense, waterbearing sand.

5.3 Water Level Measurements

We encountered groundwater in the boring at a depth of 15 feet. The sand that the boring terminated in is relatively permeable. However, the overlying clayey soils on this site have a relatively low

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permeability. Therefore, an extended period of time (several days) could be needed for groundwater levels to reach equilibrium in the borehole.

The groundwater levels on this site, hydrostatic and perched, will vary in elevation seasonally and annually depending on local precipitation, infiltration, and runoff. The presence or absence of groundwater will depend in part on precipitation or snow melt prior to construction.

6.0 RECOMMENDATIONS

6.1 Approach Discussion

Based on the soil conditions found in our boring and our understanding of the project, the addition may be supported on a thickened-edge slab after proper site preparation. This should include removing the existing pavement and fill under the addition footprint and then placing and compacting granular fill and non-frost susceptible (NFS) fill to design grades. The thickened slab foundation must have proper thermal insulation to protect against frost penetration. Based on our boring, site preparation would require excavations up to 14 feet deep. An alternative to excavating/replacing would be to support the addition on helical piles. Details of our recommendations are presented below.

6.2 Option 1: Excavate/Replace

6.2.1 Excavation

The existing pavement and fill should be removed from the planned addition footprint. Based on our boring, we estimate a subcut depth below existing grade of about 14 feet to remove the existing fill. However, the actual excavation depths required to remove the existing fill may be shallower or deeper. These depths should be determined by a geotechnical engineer or material technician performing observation of the base soils at the time of excavation. The soils removed should not be

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reused below the addition area; we recommend granular borrow, select granular backfill, and non-frost susceptible (NFS) engineered fill be placed to re-establish design grades.

We anticipate naturally-occurring stiff lacustrine clays at the bottom of the subcut. Any soils at the bottom of the excavations that are disturbed or loose/soft should be compacted to improve density, or they should be further subcut and replaced. We recommend that the excavator use a backhoe with a smooth-edged bucket (rather than a toothed bucket) to avoid tearing/disturbing the base soils.

We recommend that the zone of subcutting be laterally extended to provide a minimum 1:1 lateral oversize of the fill zone below the thickened-edge and the horizontal insulation (which is discussed in subsequent Section 6.4). The oversize zone should be measured at the base of the excavation.

The contractor must be careful to avoid damaging or undermining the existing building foundations during excavation and construction of the new addition. Based on the depth of excavation, the existing building may need to be underpinned. This is the responsibility of the contractor; the design of this system is not a part of our scope of services. The contractor may also encounter groundwater during excavations for soil correction and should be prepared to properly de-water the excavation before excavating below the water table and before placing new fill or concrete.

6.2.2 Fill Placement and Compaction

Fill placed and compacted in the bottom portion of the excavation extending up to within 5½ feet of the surface should consist of material at least meeting the requirements of MnDOT Specification 3149.2.B.1 for Granular Borrow, which is granular soil with less than 20% passing the #200 sieve.

Within 5½ feet of surface, engineered fill should consist of material meeting the requirements of MnDOT Specification 3149.2.D.3 for Select Granular Backfill. This specification requires that

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100% of the material pass the 3-inch sieve and that no more than 12% of the material may pass the #200 sieve. This material should be used to within 6 inches of the insulation layer.

For proper support and drainage of the insulated thickened-edge slab/foundation system, we recommend the insulation be supported on a minimum 6-inch thick layer of non-frost susceptible (NFS) engineered fill. NFS engineered fill should also be placed above the insulation inside the addition up to the bottom of the non-thickened portion of the slab. We recommend the NFS engineered fill consist of a clean, medium grained sand meeting the following gradation requirements.

Sieve Designation	Percent Passing
3-inch	100%
Ratio No. 40 / 1-inch	0 - 40%
Ratio No. 200 / 1-inch	0 - 5%

If the contractor wishes to propose a different gradation of material, they should submit a sample to AET at least three weeks before the start of construction for gradation testing and assessment by a geotechnical engineer. Uniformly-graded fine sand, silty sand, clayey sand, or other fine grained soils will not be suitable.

New fill should be placed in loose lifts about 6 to 8 inches thick, with each lift mechanically compacted. The lower Granular Borrow layer should be compacted to at least 98% of the Standard Proctor maximum dry density (ASTM D698). The upper layers of Select Granular Backfill and NFS can have a reduced compaction level of 95% of the Standard Proctor maximum dry density.

6.2.3 Drainage

Provided the soil correction excavation for the new addition is filled with the granular materials recommended above, placement of drainage system should not be necessary.

6.2.4 Foundation Design

After the site has been prepared as described above, the structure may be supported on a thickened-edge slab properly insulated to eliminate the need to embed the thickened-edge below frost depth. A continuous horizontal ground insulation layer must be placed below the entire foundation for the unheated structure and over the 6-inch NFS engineered fill section. NFS engineered fill should also be placed between the insulation and non-thickened portion of the slab. The insulation should consist of extruded polystyrene (XPS) in accordance with ASTM C578. The air-freezing index for Duluth is approximately 3,130 °F-Days; therefore, for an unheated addition, we recommend the thickened edge bear at least 22 inches below exterior grade.

Based on the recommended soil correction, we recommend limiting the net allowable soil bearing pressure to 2,500 pounds per square foot. It is our judgment this design pressure will provide a factor of safety up to 3 against soil bearing capacity failure. However, the thickened-edge will bear directly on the insulation; therefore, appropriate dimensioning of the thickened-edge and selection of the insulation type will be very important. Allowable bearing capacities for different types of insulation materials are provided in ASTM C578. The insulation should have a minimum thickness of 2 inches; extend at least 6 feet out beyond the outside edge of the slab; and be sloped downward away from the addition for drainage.

With this design, we estimate that total settlement of the addition will be 1 inch or less, with differential settlement less than half this amount provided the bearing soils are not soft, wet, disturbed, or frozen before or after construction. Please note that the total settlement of the addition

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will be differential to the existing building, which has likely experienced most of its settlement; the structural engineer and architect must consider this when designing connections between the existing building and addition.

6.2.5 Floor Slab Design

Interior backfill under the slab and above the horizontal insulation should consist of NFS fill meeting the gradation and compaction requirements provided in Section 6.2.2 of this report.

Based on a subgrade prepared as discussed in Section 6.2, the structural engineer may use a modulus of subgrade reaction of 200 pounds per cubic inch to design the floor slab thickness and reinforcement.

We recommend that a vapor retarder be placed under the floor slab; the purpose of a vapor retarder is to reduce the potential for the upward migration of water vapor from the soil into and through the concrete slab. Water vapor migrating upward through the slab can damage floor coverings such as the carpeting, wood, or paint/sealers and contribute to excess humidity and microbial growth in the building. Various methods of vapor retarder construction are described in Part 2, Section 302 of the American Concrete Institute *Manual of Concrete Practice*.

6.2.6 Exterior Backfill

Exterior backfill above the NFS fill zone and the horizontal insulation should include a surface cap of low permeability material, such as clay, Class 5 aggregate surfacing/base, or pavement. The low permeability soil cap should be compacted and should be at least 12 inches thick. The surficial low permeability cap should be sloped down and away from the addition at least 1 inch in 10 feet to promote drainage away from the backfill and insulation.

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All exterior backfill should be placed in loose lifts about 6 inches thick, with each lift mechanically compacted using only manually-operated vibratory or impact equipment to at least 95% of the Standard Proctor maximum dry density (ASTM:D698).

6.3 Option 2: Helical Piles

6.3.1 Overview

Helical piles have steel shafts with one or more helices, and they are installed by rotating the piles into the ground using a tool attached to a skid steer, backhoe, or excavator. No soil cuttings are generated during installation. In order to provide the required resistance to support the design loads, the helical piles are generally installed to a depth at which a pre-determined torque is achieved.

Because helical piles are proprietary systems, the shaft size, number and size of helices, installation depths, design capacity, and settlement estimates should be determined by the selected installation contractor's Engineer. The helical piles should be designed by a Professional Engineer licensed in the State of Minnesota. We recommend performance based specifications be used to meet capacity needs. Load tests should be performed on test piles at the start of installation; torque measurements can then be used to evaluate production pile depth suitability.

We recommend all helices on the helical pile extend a minimum of 12 feet below the ground surface so that they are well below the frost depth. The helices should also extend below the existing fill. At this site, we anticipate helical piles will need to be installed to bear within the medium dense sands encountered below a depth of about 17½ feet in our boring.

Gravel was recovered from the boring and although not encountered by our boring, cobbles are possible within the on-site soils. These materials, as well as debris present in the existing fill, could make helical pile installation somewhat more difficult at this site. However, based on the N-values

and soil types encountered in our boring, it is our opinion that it should be possible to install helical piles at this site.

6.3.2 Site Preparation

With helical piles, the existing fill soils can be left in-place. However, for proper support and drainage of the insulated thickened-edge slab/foundation system, we recommend the insulation be supported on a minimum 12-inch thick layer of non-frost susceptible (NFS) engineered fill meeting the gradation and compaction requirements provided in Section 6.2.2.

6.3.3 Drainage

If helical piles are used for support, we recommend placement of drainage system at the base of the NFS engineered fill zone to remove infiltrating water. The drainage system should consist of perforated or slotted PVC drainage pipes surrounded by properly graded filter rock, and a filter fabric should envelope the filter rock. The drain pipes should be connected to a suitable means of disposal, such as a sump basket or a gravity outfall. A storm sewer gravity outfall would be preferred over exterior daylighting, as the latter may freeze during winter.

6.3.4 Foundation Design

After the site has been prepared as described above, the structure may be supported on a thickened-edge slab supported on helical piles. The slab should be properly insulated to eliminate the need to embed the thickened-edge below frost depth per our recommendations in Section 6.2.4 and 6.2.6, except that the NFS below the insulation should be a minimum of 12 inches thick.

At this site, we anticipate the capacity of each helical pile will be limited by the structural capacity of the pile. The N-values within the soils in the boring were greater than 4; therefore, we do not anticipate lateral buckling will control the design. Depending on the size and configuration of the

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helices, ultimate compression resistances between 20 and 90 kips per pile should be achievable within the medium dense sands below 17½ feet, although higher capacities may also be possible.

For helical piles, we recommend a factor of safety of 2 be applied to the compressive resistance, assuming that static load testing is performed. We recommend using a factor of safety of 3 for installation of helical pile types that are not subject to static load testing. Final helical pile design should be performed by the helical pile contractor's Professional Engineer.

6.3.5 Floor Slab Design

Helical piles could also be used to support the floor slab on this site. Our other floor slab recommendations discussed in Section 6.2.5 also apply to this section.

7.0 CONSTRUCTION CONSIDERATIONS**7.1 Groundwater**

We encountered groundwater in our boring at a depth of 15 feet. We anticipate that the contractor will encounter hydrostatic groundwater in the excavation if the excavate/replace option is chosen. To allow observation of the excavation bases and to reduce the potential for soil disturbance or softening by standing water, we recommend that all water (groundwater seepage, precipitation, or runoff) be pumped out of excavations prior to placement of compacted fill or concrete. The contractor should not excavate in standing water, or place select fill or concrete into standing water in an attempt to displace it. This technique can result in trapping softened soils under the building, causing excess post-construction settlement even if the softened zone is only a few inches thick.

7.2 Excavation Sidesloping

The excavations for this project must have side slopes in accordance with OSHA Regulations (Standards 29 CFR), Part 1926, Subpart P, "Excavations" (can be found on www.osha.gov). Even

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with the required OSHA sloping, water could induce side slope erosion which would require slope maintenance. The decision on excavating safe slopes for this project should be made by the excavator's "competent person." AET will not accept any liability or responsibility for excavation safety on this project.

7.3 Soil Disturbance

The soils found at the site are susceptible to disturbance by construction equipment and workers' foot traffic, and should be protected until a final observation can be made immediately prior to placing concrete. The responsibility to avoid disturbing the soils by choosing proper equipment and methods lies solely with the contractor.

7.4 Observation and Testing

The recommendations in this report are based on the subsurface conditions found at our boring locations. We recommend that the base soils be observed and tested by an experienced material technician or a geotechnical engineer. The fill materials should be tested for gradation and Proctor values, and field density tests should be performed as the fill is placed and compacted. Full time observation should be performed during installation and testing of helical piles.

8.0 LIMITATIONS

Within the limitations of scope, budget, and schedule, we have endeavored to perform our services according to generally accepted geotechnical engineering practices at this time and location. Other than this, no warranty, expressed or implied, is intended. Important information regarding risk management and proper use of this report is given in Appendix B entitled "Geotechnical Report Limitations and Guidelines for Use."

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Appendix A

AET Project No. 07-06324

Geotechnical Field Exploration and Testing
Boring Log Notes
Unified Soil Classification System
Figure 1 – Approximate Boring Location
Subsurface Boring Log

Geotechnical Field Exploration and Testing

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A.1 FIELD EXPLORATION

The subsurface conditions at the site were explored by performing one standard penetration test (SPT) boring on May 7, 2015. The location of the boring appears on Figure 1 preceding the Subsurface Boring Log in this appendix.

A.2 SAMPLING METHODS

A.2.1 Split-Spoon Samples (SS)

Standard penetration (split-spoon) samples were collected in general accordance with ASTM: D1586. The ASTM test method consists of driving a 2-inch O.D. split-barrel sampler into the in-situ soil with a 140-pound hammer dropped from a height of 30 inches. After an initial set of 6 inches, the number of hammer blows to drive the sampler the next 12 inches is known as the standard penetration resistance or N-value.

In the past, standard penetration N-value tests were performed using a rope and cathead for the lift and drop system. The energy transferred to the split-spoon sampler was typically limited to about 60% of its potential energy due to the friction inherent in that system. That converted energy provided what is known as an N_{60} blow count.

Most drill rigs today incorporate an automatic hammer lift and drop system, which has higher energy efficiency and subsequently results in lower N-values than the traditional N_{60} values. We use a Pile Driving Analyzer (PDA) and an instrumented rod to measure the actual energy generated by the automatic hammer system. The drill rig we used for this project (AET drill rig number 51) has a measured energy transfer ratio of 80%. The N-values reported on the boring logs and the corresponding relative densities and consistencies are from the field blow counts and have not been adjusted to N_{60} values.

A.2.2 Disturbed Samples (DS)/Spin-up Samples (SU)

Sample types described as “DS” or “SU” on the boring logs are disturbed samples, which are taken from the flights of the auger. Because the auger disturbs the samples, possible soil layering and contact depths should be considered approximate.

A.2.3 Sampling Limitations

Unless actually observed in a sample, contacts between soil layers are estimated based on the spacing of samples and the action of drilling tools. Cobbles, boulders, and other large objects generally cannot be recovered from test borings, and they may be present in the ground even if they are not noted on the boring log.

Determining the thickness of “topsoil” layers is usually limited, due to variations in topsoil definition, sample recovery, and other factors. Visual-manual description often relies on color for determination, and transitioning changes can account for significant variation in thickness judgment. Accordingly, the topsoil thickness presented on the log should not be the sole basis for calculating topsoil stripping depths and volumes. If more accurate information is needed relating to thickness and topsoil quality definition, alternate methods of sample retrieval and testing should be employed.

A.3 CLASSIFICATION METHODS

Soil descriptions shown on the boring log are based on the Unified Soil Classification System (USCS). The USCS is described in ASTM: D2487 and D2488. Where laboratory classification tests (sieve analysis or Atterberg Limits) have been performed, accurate classifications per ASTM: D2487 are possible. Otherwise, soil descriptions shown on the boring log are visual-manual judgments. Charts are attached which provide information on the USCS system, the descriptive terminology, and the symbols used on the boring log.

The boring log includes descriptions of apparent geology. The geologic depositional origin of each soil layer is interpreted primarily by observation of the soil samples, which can be limited. Observations of the surrounding topography, vegetation, and development can sometimes aid this judgment.

Geotechnical Field Exploration and Testing

AET Project No. 07-06324

A.4 WATER LEVEL MEASUREMENTS

The ground water level measurements are shown at the bottom of the boring log. The following information appears under “Water Level Measurements” on the log:

- Date and Time of measurement
- Sampled Depth: lowest depth of soil sampling at the time of measurement
- Casing Depth: depth to bottom of casing or hollow-stem auger at time of measurement
- Cave-in Depth: depth at which measuring tape stops in the borehole
- Water Level: depth in the borehole where free water is encountered
- Drilling Fluid Level: same as Water Level, except that the liquid in the borehole is drilling fluid

The true location of the water table at the boring location may be different than the water levels measured in the boreholes. This is possible because there are several factors that can affect the water level measurements in the borehole. Some of these factors include: permeability of each soil layer in profile, presence of perched water, amount of time between water level readings, presence of drilling fluid, weather conditions, and use of borehole casing.

A.5 TEST STANDARD LIMITATIONS

Field and laboratory testing is done in general conformance with the described procedures. Compliance with any other standards referenced within the specified standard is neither inferred nor implied.

A.6 SAMPLE STORAGE

Unless notified to do otherwise, we routinely retain representative samples of the soils recovered from the borings for a period of 30 days.

BORING LOG NOTES

DRILLING AND SAMPLING SYMBOLS	
Symbol	Definition
B,H,N:	Size of flush-joint casing
CA:	Crew Assistant (initials)
CAS:	Pipe casing, number indicates nominal diameter in inches
CC:	Crew Chief (initials)
COT:	Clean-out tube
DC:	Drive casing; number indicates diameter in inches
DM:	Drilling mud or bentonite slurry
DR:	Driller (initials)
DS:	Disturbed sample from auger flights
FA:	Flight auger; number indicates outside diameter in inches
HA:	Hand auger; number indicates outside diameter
HSA:	Hollow stem auger; number indicates inside diameter in inches
LG:	Field logger (initials)
MC:	Column used to describe moisture condition of samples and for the ground water level symbols
N (BPF):	Standard penetration resistance (N-value) in blows per foot (see notes)
NQ:	NQ wireline core barrel
PQ:	PQ wireline core barrel
RD:	Rotary drilling with fluid and roller or drag bit
REC:	In split-spoon (see notes) and thin-walled tube sampling, the recovered length (in inches) of sample. In rock coring, the length of core recovered (expressed as percent of the total core run). Zero indicates no sample recovered.
REV:	Revert drilling fluid
SS:	Standard split-spoon sampler (steel; 1d" is inside diameter; 2" outside diameter); unless indicated otherwise
SU	Spin-up sample from hollow stem auger
TW:	Thin-walled tube; number indicates inside diameter in inches
WASH:	Sample of material obtained by screening returning rotary drilling fluid or by which has collected inside the borehole after "falling" through drilling fluid
WH:	Sampler advanced by static weight of drill rod and 140-pound hammer
WR:	Sampler advanced by static weight of drill rod
94mm:	94 millimeter wireline core barrel
▼:	Water level measured in borehole prior to abandonment
▽:	Interim water level measurement or estimated water level based on sample appearance

TEST SYMBOLS	
Symbol	Definition
CONS:	One-dimensional consolidation test
DEN:	Dry density, pcf
DST:	Direct shear test
E:	Pressuremeter Modulus, tsf
HYD:	Hydrometer analysis
LL:	Liquid Limit, %
LP:	Pressuremeter Limit Pressure, tsf
OC:	Organic Content, %
PERM:	Coefficient of permeability (K) test; F - Field; L - Laboratory
PL:	Plastic Limit, %
q _p :	Pocket Penetrometer strength, tsf (<u>approximate</u>)
q _c :	Static cone bearing pressure, tsf
q _u :	Unconfined compressive strength, psf
R:	Electrical Resistivity, ohm-cms
RQD:	Rock Quality Designation of Rock Core, in percent (aggregate length of core pieces 4" or more in length as a percent of total core run)
SA:	Sieve analysis
TRX:	Triaxial compression test
VSR:	Vane shear strength, remoulded (field), psf
VSU:	Vane shear strength, undisturbed (field), psf
WC:	Water content, as percent of dry weight
%-200:	Percent of material finer than #200 sieve

STANDARD PENETRATION TEST NOTES

The standard penetration test consists of driving the sampler with a 140 pound hammer and counting the number of blows applied in each of three 6" increments of penetration. If the sampler is driven less than 18" (usually in highly resistant material), permitted in ASTM:D1586, the blows for each complete 6" increment and for each partial increment is on the boring log. For partial increments, the number of blows is shown to the nearest 0.1' below the slash.

The length of sample recovered, as shown on the "REC" column, may be greater than the distance indicated in the N column. The disparity is because the N-value is recorded below the initial 6" set (unless partial penetration defined in ASTM:D1586 is encountered) whereas the length of sample recovered is for the entire sampler drive (which may even extend more than 18").

UNIFIED SOIL CLASSIFICATION SYSTEM

ASTM Designations: D 2487, D2488

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Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A				Soil Classification		Notes	
				Group Symbol	Group Name ^B		
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines ^C	Cu≥4 and 1≤Cc≤3 ^E	GW	Well graded gravel ^F	^A Based on the material passing the 3-in (75-mm) sieve.	
			Cu<4 and/or 1>Cc>3 ^E	GP	Poorly graded gravel ^F	^B If field sample contained cobbles or boulders, or both, add “with cobbles or boulders, or both” to group name.	
	Sands 50% or more of coarse fraction passes No. 4 sieve	Gravels with Fines more than 12% fines ^C	Fines classify as ML or MH	GM	Silty gravel ^{F,G,H}	^C Gravels with 5 to 12% fines require dual symbols:	
			Fines classify as CL or CH	GC	Clayey gravel ^{F,G,H}	GW-GM well-graded gravel with silt	
		Sands with Fines more than 12% fines ^D	Clean Sands Less than 5% fines ^D	Cu≥6 and 1≤Cc≤3 ^E	SW	Well-graded sand ^I	GW-GC well-graded gravel with clay
				Cu<6 and 1>Cc>3 ^E	SP	Poorly-graded sand ^I	GP-GM poorly graded gravel with silt
Fine-Grained Soils 50% or more passes the No. 200 sieve (see Plasticity Chart below)	Silts and Clays Liquid limit less than 50	inorganic	PI>7 and plots on or above “A” line ^J	CL	Lean clay ^{K,L,M}	GP-GC poorly graded gravel with clay	
			PI<4 or plots below “A” line ^J	ML	Silt ^{K,L,M}	^D Sands with 5 to 12% fines require dual symbols:	
		organic	Liquid limit–oven dried <0.75 Liquid limit – not dried	OL	Organic clay ^{K,L,M,N} Organic silt ^{K,L,M,O}	SW-SM well-graded sand with silt	
						SW-SC well-graded sand with clay	
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above “A” line	CH	Fat clay ^{K,L,M}	SP-SM poorly graded sand with silt	
			PI plots below “A” line	MH	Elastic silt ^{K,L,M}	SP-SC poorly graded sand with clay	
		organic	Liquid limit–oven dried <0.75 Liquid limit – not dried	OH	Organic clay ^{K,L,M,P} Organic silt ^{K,L,M,Q}		
Highly organic soil			Primarily organic matter, dark in color, and organic in odor	PT	Peat ^R		

SIEVE ANALYSIS

For classification of fine-grained soils and fine-grained fraction of coarse-grained soils:

Equation of “A”-line
Horizontal at PI = 4 to LL = 25.5.
then PI = 0.73 (LL-20)

Equation of “U”-line
Vertical at LL = 16 to PI = 7.
then PI = 0.9 (LL-8)

Calculation: $C_u = \frac{D_{60}}{D_{10}} = \frac{15}{2.5} = 200$ $C_c = \frac{(D_{60})^2}{D_{10} \times D_{90}} = \frac{2.5^2}{2.5 \times 0.075 \times 15} = 5.6$

Plasticity Chart

For classification of fine-grained soils and fine-grained fraction of coarse-grained soils:

Equation of “A”-line
Horizontal at PI = 4 to LL = 25.5.
then PI = 0.73 (LL-20)

Equation of “U”-line
Vertical at LL = 16 to PI = 7.
then PI = 0.9 (LL-8)

Calculation: $C_u = \frac{D_{60}}{D_{10}} = \frac{15}{2.5} = 200$ $C_c = \frac{(D_{60})^2}{D_{10} \times D_{90}} = \frac{2.5^2}{2.5 \times 0.075 \times 15} = 5.6$

^ECu = D₆₀ /D₁₀, Cc = $\frac{(D_{30})^2}{D_{10} \times D_{60}}$

^FIf soil contains ≥15% sand, add “with sand” to group name.

^GIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^HIf fines are organic, add “with organic fines” to group name.

^IIf soil contains ≥15% gravel, add “with gravel” to group name.

^JIf Atterberg limits plot is hatched area, soils is a CL-ML silty clay.

^KIf soil contains 15 to 29% plus No. 200 add “with sand” or “with gravel”, whichever is predominant.

^LIf soil contains ≥30% plus No. 200, predominantly sand, add “sandy” to group name.

^MIf soil contains ≥30% plus No. 200, predominantly gravel, add “gravelly” to group name.

^NPI≥4 and plots on or above “A” line.

^OPI<4 or plots below “A” line.

^PPI plots on or above “A” line.

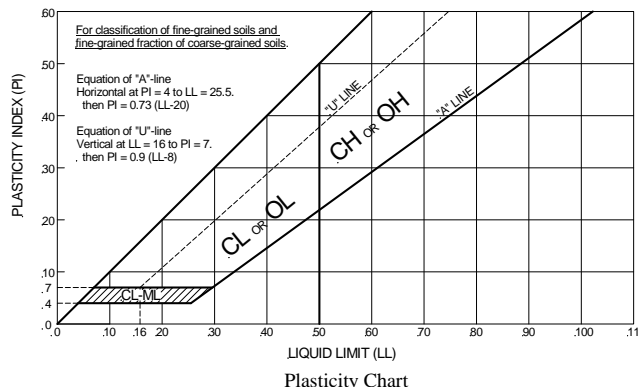
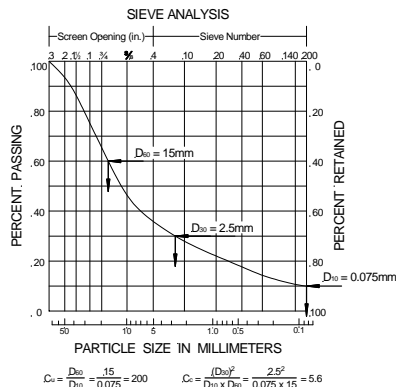
^QPI plots below “A” line.

^RFiber Content description shown below.

Notes
^ABased on the material passing the 3-in (75-mm) sieve.
^BIf field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
^CGravels with 5 to 12% fines require dual symbols:
 GW-GM well-graded gravel with silt
 GW-GC well-graded gravel with clay
 GP-GM poorly graded gravel with silt
 GP-GC poorly graded gravel with clay
^DSands with 5 to 12% fines require dual symbols:
 SW-SM well-graded sand with silt
 SW-SC well-graded sand with clay
 SP-SM poorly graded sand with silt
 SP-SC poorly graded sand with clay

$$^E C_u = D_{60} / D_{10}, \quad C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^FIf soil contains $\geq 15\%$ sand, add "with sand" to group name.
^GIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
^HIf fines are organic, add "with organic fines" to group name.
^IIf soil contains $\geq 15\%$ gravel, add "with gravel" to group name.
^JIf Atterberg limits plot is hatched area, soils is a CL-ML silty clay.
^KIf soil contains 15 to 29% plus No. 200 add "with sand" or "with gravel", whichever is predominant.
^LIf soil contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.
^MIf soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.
^NPI ≥ 4 and plots on or above "A" line.
^OPI < 4 or plots below "A" line.
^PPI plots on or above "A" line.
^QPI plots below "A" line.
^RFiber Content description shown below.

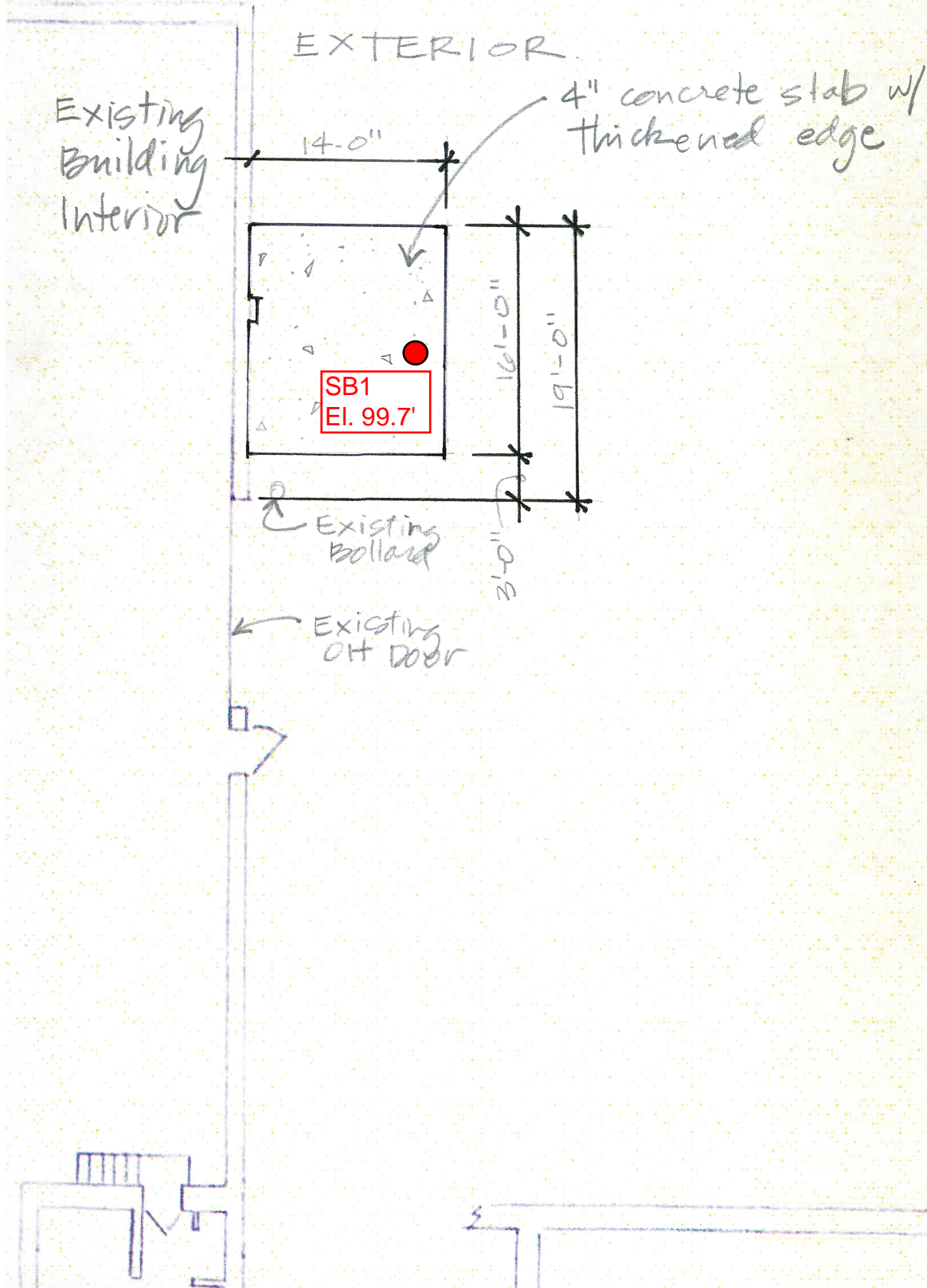


ADDITIONAL TERMINOLOGY NOTES USED BY AET FOR SOIL IDENTIFICATION AND DESCRIPTION

Grain Size		Gravel Percentages		Consistency of Plastic Soils		Relative Density of Non-Plastic Soils	
Term	Particle Size	Term	Percent	Term	N-Value, BPF	Term	N-Value, BPF
Boulders	Over 12"	A Little Gravel	3% - 14%	Very Soft	less than 2	Very Loose	0 - 4
Cobbles	3" to 12"	With Gravel	15% - 29%	Soft	2 - 4	Loose	5 - 10
Gravel	#4 sieve to 3"	Gravelly	30% - 50%	Firm	5 - 8	Medium Dense	11 - 30
Sand	#200 to #4 sieve			Stiff	9 - 15	Dense	31 - 50
Fines (silt & clay)	Pass #200 sieve			Very Stiff	16 - 30	Very Dense	Greater than 50
				Hard	Greater than 30		
Moisture/Frost Condition		Layering Notes		Fiber Content of Peat		Organic/Roots Description (if no lab tests)	
(MC Column)				Fiber Content (Visual Estimate)			
D (Dry):	Absence of moisture, dusty, dry to touch.	Laminations: Layers less than 1/2" thick of differing material or color.		Term		Soils are described as <i>organic</i> , if soil is not peat and is judged to have sufficient organic fines content to influence the soil properties. <i>Slightly organic</i> used for borderline cases.	
M (Moist):	Damp, although free water not visible. Soil may still have a high water content (over "optimum").			Fibric Peat:	Greater than 67%		
W (Wet/ Waterbearing):	Free water visible intended to describe non-plastic soils. Waterbearing usually relates to sands and sand with silt.			Hemic Peat:	33 - 67%		
F (Frozen):	Soil frozen	Lenses: Pockets or layers greater than 1/2" thick of differing material or color.		Sapric Peat:	Less than 33%		
						With roots: Judged to have sufficient quantity of roots to influence the soil properties.	
						Trace roots: Small roots present, but not judged to be in sufficient quantity to significantly affect soil properties.	

Figure 1 - Approximate Boring Location
Toolhouse Building Addition
40th Avenue West
Duluth, Minnesota
AET Project No. 07-06324
June 2, 2015

Brine Tank Enclosure
12 DEC 2014








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SUBSURFACE BORING LOG

AET JOB NO: **07-06324**

LOG OF BORING NO. **SB1 (p. 1 of 1)**

PROJECT: **Toolhouse Addition; 40th Avenue West; Duluth, MN**

DEPTH IN FEET	SURFACE ELEVATION: <u>99.7</u>		GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS						
	MATERIAL DESCRIPTION							WC	DD	LL	PL	q _p		
1	BITUMINOUS PAVEMENT, deteriorated		FILL	20	M		SS	12	12					
2	FILL, silty sand with gravel, dark brown													
3	FILL, a mixture of organic to slightly organic sandy clay, silty sand with gravel, a little brick, and sand, dark brown and brown													
4	FILL, slightly organic sand lean clay, a little gravel, dark brown													
5														
6														
7	FILL, a mixture of fat clay, organic to slightly organic lean clay with sand, a little gravel, trace roots, reddish brown and dark brown													
8														
9														
10														
11														
12														
13														
14	FAT CLAY, reddish brown, stiff (CH)		LACUSTRINE	9		SS	6	38					2.5	
15														
16														
17			COARSE ALLUVIUM	35	M/W		SS	12	35					3
18	SAND a little gravel, fine to medium grained, brown, wet, medium dense													
19														
20														
21														
22														
23														
24														
25														
26														
END OF BORING AT 26.0 FEET Boring backfilled with bentonite grout														

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
0-24½'	3.25" HSA	5/7/15		26.0	24.5	20.0		15.0	
BORING COMPLETED: 5/7/15									
DR: LA LG: KH Rig: 51									

Report of Geotechnical Exploration and Review

Toolhouse Building Addition

40th Avenue West; Duluth, Minnesota

June 2, 2015

AET Project No. 07-06324

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Appendix B

AET Project No. 07-06324

Geotechnical Report Limitations and Guidelines for Use

Geotechnical Report Limitations and Guidelines for Use

AET Project No. 07-06324

B.1 REFERENCE

This appendix provides information to help you manage your risks relating to subsurface problems which are caused by construction delays, cost overruns, claims, and disputes. This information was developed and provided by ASFE¹, of which, we are a member firm.

B.2 RISK MANAGEMENT INFORMATION

B.2.1 Geotechnical Services are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared solely for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. And no one, not even you, should apply the report for any purpose or project except the one originally contemplated.

B.2.2 Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

B.2.3 A Geotechnical Engineering Report is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typically factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, always inform your geotechnical engineer of project changes, even minor ones, and request an assessment of their impact. Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.

B.2.4 Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. Do not rely on a geotechnical engineering report whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. Always contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

¹ ASFE, 8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 : www.asfe.org

Geotechnical Report Limitations and Guidelines for Use

AET Project No. 07-06324

B.2.5 Most Geotechnical Findings Are Professional Opinions

Site exploration identified subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ, sometimes significantly, from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

B.2.6 A Report's Recommendations Are Not Final

Do not overrely on the construction recommendations included in your report. Those recommendations are not final, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

B.2.7 A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

B.2.8 Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

B.2.9 Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, but preface it with a clearly written letter of transmittal. In the letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need to prefer. A prebid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

B.2.10 Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their report. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. Read these provisions closely. Ask questions. Your geotechnical engineer should respond fully and frankly.

B.2.11 Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a geoenvironmental study differ significantly from those used to perform a geotechnical study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Unanticipated environmental problems have led to numerous project failures. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. Do not rely on an environmental report prepared for someone else.