

**Missoula County Public Schools
Missoula, Montana**



Bid Documents

For Construction of:

**BIG SKY HIGH SCHOOL
PARKING LOTS AND PRACTICE FIELD IMPROVEMENTS**

Prepared by:



**1111 East Broadway
Missoula, MT 59802**

Engineer Project Number: 20-04-14

BID SET 5-27-20

BSHS PARKING LOT & PRACTICE FIELD IMPROVEMENTS

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SECTION 00100 INVITATION TO BID

Notice is hereby given that Missoula County Public Schools (MCPS), Missoula, Montana, will accept sealed bids for: Big Sky High School Parking Lots and Practice Field Improvements. Plans and specifications are available at: <http://www.mcpsmt.org/Page/3796>. The bid opening date is June 11, 2020 at 3:45 p.m. (MST) in the District's Business Building located at 915 South Avenue West, Missoula, Montana 59801. No late bids will be accepted.

The site of the work is located at Big Sky High School, 3100 South Ave W, Missoula, MT. Work generally includes removal of existing asphalt and subgrade materials, and reconstruction of parking lots along 31st Ave. Work will include removal and replacement of curb and sidewalk, new ADA improvements, new base course and paving, chip seal, storm drain improvements and incidentals. Work also includes removal of existing sod on existing football practice field areas, topsoil stripping, re-grading, new topsoil installation, and sodding of fields and related work in accordance with the Plans and Specifications.

Each bid or proposal must be accompanied by a Bid Bond payable to MCPS, in an amount not less than ten percent (10%) of the total amount of the bid. Successful Bidders shall furnish approved Performance and Payment Bonds each in the amount of one hundred percent (100%) of the contract amount, along with required Insurance coverage.

The contractor and any of the contractor's subcontractors doing work on this project will be required to obtain registration with the Montana Department of Labor and Industry (DLI) except as listed in MCA 39-9-211. Information on registration can be obtained from the Department of Labor and Industry by calling 1-406-444-7734. The Contractor is required to have registered with the DLI prior to bidding on this project. All laborers and mechanics employed by contractor or subcontractors in performance of this construction work shall be paid wages at rates as may be required by law.

The contractor performing work on the project shall not pay less than the latest Montana Labor Standard Provisions minimum wage as determined by the U.S. Secretary of Labor. A copy of said wage rate is attached as part of the contract documents.

All questions about the meaning or intent of the Contract Documents are to be submitted in writing to Burley McWilliams, Director of Operations and Maintenance at:
bmcwilliams@mcps.k12.mt.us.

Anyone attending any meetings associated with this request who need accommodations for a disability is requested to notify Charlene Hubbard (406-728-2400 x3030) two days in advance to make arrangements for any special accommodations.

Bid opening will be conducted via video/audio call. MCPS will issue call information via addenda to interested bidders.

MCPS reserves the right to waive informalities, to reject any and all bids, and, if all bids are rejected, to re-advertise under the same or new specifications, or to make such an award as in the judgment of its officials best meets MCPS's requirements.

PUBLICATION NOTICE DATES: May 27, 2020; June 3, 2020 (*Missoulian*)

END OF SECTION 00100

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SECTION 00110
NOTICE OF AWARD

Dated _____, 20____

TO: _____
(Bidder)

ADDRESS: _____

PROJECT _____

OWNER'S CONTRACT NO. _____

CONTRACT FOR

(Insert name of Contract as it appears in the Bidding Documents)

You are notified that your Bid dated _____, 20____, for the above Contract has been considered. You are the apparent successful bidder and have been awarded a Contract for

(Indicate total Work, alternates or sections of Work awarded)

The Contract Price of your contract is _____ Dollars (\$_____).

_____ copies of each of the proposed Contract Documents (except Drawings) accompany this Notice of Award. _____ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within fifteen days of the date of this Notice of Award, that is by _____, 20____.

1. Deliver to the OWNER, _____ fully executed counterpart(s) of the Contract Documents. [Each of the Contract Documents must bear your signature on (_____)].
2. Deliver with the executed Contract Documents, the Contract security (Bonds) as specified in the Instructions to Bidders (Article 20), [and] General Conditions (paragraph 5.01) [and Supplementary Conditions (paragraph SC-5.01).]
3. (List other conditions precedent).

Failure to comply with these conditions, within the time specified, will entitle OWNER to consider your bid in default, to annul this Notice of Award and to declare your Bid Security forfeited. Within ten days after you comply with the above conditions, OWNER will return to you one fully executed counterpart of the Contract Documents.

(OWNER)

By _____
(AUTHORIZED SIGNATURE)

(TITLE)

COPY to ENGINEER

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SECTION 00120
NOTICE TO PROCEED

DATED _____, 20__

TO: _____
(Contractor)

ADDRESS: _____

OWNER'S PROJECT NO. _____
PROJECT _____
OWNER'S CONTRACT NO. _____
CONTRACT FOR _____

You are notified that the Contract Time under the above contract will commence to run on __, _____. By that date, you are to start performing your obligations under the Contract Documents. In accordance with the Contract Documents, the date of Substantial Completion is _____.

Before you may start any Work at the site, Paragraph 2.01.B of the General Conditions provides that you must deliver to the OWNER (with copies to ENGINEER) certificates of insurance which you are required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start Work at the site, you must:

Copy to _____

(OWNER)

By _____
(AUTHORIZED SIGNATURE)

(TITLE)

EJCDC No. 1910-22 (1996 Edition)

Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specifications Institute.

**SECTION 00200
INSTRUCTIONS TO BIDDERS**

ARTICLE 1 - DEFINED TERMS

- 1.1 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and the Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:
- A. "Bidder" - The individual or entity who submits a Bid directly to OWNER.
 - B. "Issuing Office" - The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
 - C. "Successful Bidder" - The lowest responsible Bidder submitting a responsive Bid to whom OWNER (on the basis of OWNER's evaluations as hereinafter provided) makes an award.
 - D. "He/His" - Nongender specific pronouns referring to Contractor, Bidder, Engineer, or Owner.

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.1 Complete sets of the Bidding Documents will be electronically provided to contractor. Contractor may review documents at <http://www.mcpsmt.org/Page/3796>, and the Missoula Plans Exchange.
- 2.2 Complete sets of half-size Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.
- 2.4 The Bidding Documents include reference, amendments, and supplements to the Montana Public Works Standard Specifications (MPWSS), Sixth Edition, April 2010. Copies of the MPWSS may be obtained by contacting the Montana Contractors' Association, Inc., located at 1717 11th Ave, P.O. Box 4519, Helena, MT 59604, Phone - (406) 442-4162, Fax - (406) 449-3199.

ARTICLE 3 - QUALIFICATION OF BIDDERS

- 3.1 To demonstrate Bidder's qualifications to perform the Work, within five (5) days of OWNER's request, Bidder shall submit written evidence, such as financial data, previous experience in performing comparable work, present commitments and other such data as may be called for in the Special Provisions.
- 3.2 In determining the lowest responsible Bid, the following elements will be considered: whether the Bidder involved (a) maintains a permanent place of business; (b) has adequate plant and equipment to do the work properly and expeditiously; (c) has a

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suitable financial status to meet obligations incident to the work; and (d) has appropriate technical experience.

- 3.3 Each Bidder may be required to show that former work performed by him has been handled in such a manner that there are no just or proper claims pending against such work. No Bidder will be acceptable if he is engaged on any other work which impairs his ability to finance his contract. The Bidder shall demonstrate his ability by meeting all requirements herein stipulated, if asked for them.

ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA & SITE

4.1 Subsurface and Physical Conditions

A. The Supplemental General Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that the Engineer has used in preparing the Bidding Documents.
2. Those drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities) that the Engineer has used in preparing the Bidding Documents.

- 4.2 Copies of reports and drawings referenced in Paragraph 4.02.A of the General Conditions, not included in this Contract Manual, will be made available by the Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. The Bidder is responsible for any interpretation or conclusion the Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.3 Underground Facilities

- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to the Owner and the Engineer by owners of such Underground Facilities, including the Owner, or others. The Owner and the Engineer do not assume responsibility for the accuracy or completeness thereof unless expressly provided otherwise elsewhere.

4.4 Hazardous Environmental Condition

- A. The Special Provisions identify those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that the Engineer has used in preparing the Bidding Documents.
- B. Copies of reports and drawings referenced in Paragraph 4.03.A of the Supplementary General Conditions, not included in this Contract Manual, will be made available by the Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in the

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Special Provisions have been identified and established in Paragraph 4.06 of the Supplementary Conditions. The Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

- 4.5 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, Underground Facilities and other physical conditions, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in Paragraph 4.06 of the General Conditions.
- 4.6 Upon request, the Owner will provide the Bidder access to the site to conduct such examinations, investigations, explorations, tests, and studies as the Bidder deems necessary for submission of a Bid. The Bidder shall fill and compact all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. The Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.
- A. Reference is made to the Special Provisions for the identification of the general nature of other work that is to be performed at the Site by OWNER or others (such as utilities and other prime contractors) that relates to the Work for which a Bid is to be submitted. On request, the Owner will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such work.
- B. Paragraph 6.13.C of the General Conditions indicates that if an Owner safety program exists, it will be noted in the Special Provisions.
- 4.7 It is the responsibility of each Bidder before submitting a Bid to:
- A. Examine and carefully study the Bidding Documents including any Addenda and the other related data identified in the Bidding Documents;
- B. Visit the Site and become familiar with and satisfy the Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work; including but not limited to those general and local conditions affecting transportation, disposal, handling and storage facilities, availability of labor, water, power, roads, climactic conditions and seasons, physical conditions at the work Sites and project area as a whole, job site topography and ground conditions, equipment and facilities needed preliminary to and during work prosecution;
- C. Become familiar with and satisfy Bidder as to all Federal, State and Local Laws and Regulations that may affect cost, progress, or performance of the Work;
- D. Carefully study all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating

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to existing surface or subsurface structures at or contiguous to the Site (except underground Facilities) which have been identified in the Special Provisions as provided in Paragraph 4.02 of the General Conditions, and carefully study all reports and drawings of a Hazardous Environmental Condition, if any, at the Site which have been identified in the Special Provisions as provided in Paragraph 4.06 of the General Conditions;

- E. Obtain and carefully study (or assume responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;
 - F. Agree at the time of submitting its Bid that no further examinations, investigations, exploration, tests, studies or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
 - G. Become aware of the general nature of the work to be performed by the Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
 - H. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
 - I. Promptly give the Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by the Engineer is acceptable to the Bidders; and
 - J. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.8 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences or procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given the Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in Bidding Documents and the written resolutions thereof by the Engineer are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 - PRE-BID CONFERENCE

- 5.1 N/A

ARTICLE 6 - SITE AND OTHER AREAS

- 6.1 The site, to include rights-of-way and easements, are identified in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by the Contractor. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by the Owner unless otherwise provided in the Bidding Documents.

ARTICLE 7 - INTERPRETATIONS AND ADDENDA

- 7.1 All questions about the meaning or intent of the Bidding Documents are to be submitted to the Owner in writing. Interpretations or clarifications considered necessary by the Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the Engineer as having received the Bidding Documents. Questions received less than five (5) days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.2 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by the Owner or the Engineer.
- 7.3 Any addenda issued during the time of bidding, or forming a part of the Contract Documents loaned to the Bidder for the preparation of his proposal, shall be covered in the Bid and shall be made a part of the Agreement. Receipt of each addendum shall be acknowledged in the Bid. Any Bid in which all issued addenda are not acknowledged will be considered incomplete, non-responsive, and will not be read.

ARTICLE 8 - BID SECURITY

- 8.1 A Bid must be accompanied by Bid Security made payable to the Owner in an amount of ten percent (10%) of Bidder's maximum Bid price and in the form of cash, a cashier's check, certified check, bank money order, or bank draft, in any case drawn and issued by a national banking association located in Montana or by any banking corporation incorporated under the laws of Montana; or a Bid Bond (on a form attached if a form is prescribed) issued by a surety authorized to do business in Montana meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.
- 8.2 The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents and furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within fifteen (15) days after the Notice of Award, the Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of other Bidders whom the Owner believes to have a reasonable chance of receiving the award may be retained by the Owner until the earlier of seven (7) days after the Effective Date of the Agreement or sixty-one (61) days after the Bid opening, whereupon Bid Security furnished by such Bidders will be returned.

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- 8.3 Bid security of other Bidders whom the Owner believes do not have a reasonable chance of receiving the award will be returned within seven (7) days after Bid opening.

ARTICLE 9 - CONTRACT TIMES

- 9.1 The number of days within which, or the dates by which, the Work is to be (a) Substantially Completed and (b) also completed and ready for final payment are set forth in the Bid Form and the Agreement Form.

ARTICLE 10 - LIQUIDATED DAMAGES

- 10.1 Provisions for liquidated damages, if any, are set forth in the Agreement Form.

ARTICLE 11 - SUBSTITUTE AND "OR-EQUAL" ITEMS

- 11.1 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Bidding Documents that a substitute or "or equal" item of material or equipment may be furnished or used by the Contractor if acceptable to the Engineer, application for such acceptance will not be considered by the Engineer until after the Effective Date of the Agreement. The procedure for submission of any such application by the Contractor and consideration by the Engineer is set forth in Paragraphs 6.05 of the General Conditions and may be supplemented in the General Requirements or Special Provisions.

ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 12.1 If the Special Provisions require or the Owner would request the identity of certain Subcontractors, Suppliers, individuals or entities to be submitted to the Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five (5) days after Bid opening submit to the Owner a list of all such Subcontractors, Suppliers, individuals or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by the Owner. If the Owner or the Engineer after due investigation has reasonable objection to any proposed Subcontractor, Supplier, individual or entity the Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.
- 12.2 If the apparent Successful Bidder declines to make any such substitution, the Owner may determine such Bidder to be non-responsive and reject the Bid. Declining to make requested substitution will not constitute grounds for forfeiture of the Bid Security of any Bidder. Any Subcontractor, Supplier, individual or entity so listed and against which the Owner and the Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to the Owner and the Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.
- 12.3 The Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom the Contractor has reasonable objection.

ARTICLE 13 - PREPARATION OF BID

- 13.1 The Bid Form is included with the Bidding Documents; additional copies may be obtained from the Engineer. Bids shall be strictly in accordance with the prescribed form. Any modifications thereof or deviations there from may be considered as sufficient cause for rejection. Bids carrying riders or qualifications to the Bid being submitted may be rejected as irregular.
- 13.2 All blanks on the Bid Form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each Bid item listed therein, or the words "No Bid", "No Change", or "Not Applicable" entered.
- 13.3 Bids by a corporation must be executed in the corporate name by the president or a vice-president or other corporate officer who is authorized to bind the corporation, and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature. The Bid of a corporation which is signed by a person other than a corporate officer must be accompanied by a Power of Attorney showing that person's authority.
- 13.4 A Bid by a partnership shall be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 13.5 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.
- 13.6 A Bid by an individual shall show the Bidder's name and official address.
- 13.7 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.
- 13.8 All signatures are to be in ink and names printed below the signature. The title of the person(s) executing the Bid shall be clearly indicated beneath the signature.
- 13.9 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form). Bids in which all issued addenda are not acknowledged will be considered incomplete, non-responsive, and will not be read.
- 13.10 The address and telephone number for communications regarding the Bid must be shown.
- 13.11 Current Montana Contractor's registration number must be shown.
- 13.12 **Contractor shall print Section 00300, Bid Form, and submit the entire section (00300) with their Bid, along with their executed Bid Bond.**

ARTICLE 14 - BASIS OF BID; EVALUATION OF BIDS

- 14.1 Bids

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- A. Bidders shall submit a Bid on a unit price and/or lump sum basis for each item of Work listed in the Bid Schedule as provided in the Bid Form. The Bid will not be considered unless the Bid Form contains all Unit Prices or lump sum, and alternates as shown on the Bid Form, Bids and totals are shown legibly in their proper locations. The Total Amount of the Bid shall be legibly written and numerically presented in the proper places and the Bid Form shall be manually signed.
- B. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit price Bid for the item. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit price will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

ARTICLE 15 - SUBMITTAL OF BID

- 15.1 Each prospective Bidder is furnished one copy of the Bidding Documents. The Bid Form is to be completed and submitted with the Bid security, if required, along with the following additional documents:
 - A. **Bid Security (Section 00430 of the Project Manual.)**
 - B. **Print and execute Section 00300 in its entirety, to include Addenda acknowledgement and Signature Page, and submit with the Bid.**
- 15.2 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Invitation to Bid and shall be enclosed in an opaque sealed envelope, plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid Security, if required, and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED". A mailed Bid shall be addressed to the address shown in the Invitation to Bid.
- 15.3
 - A. The Bid will not be considered unless accompanied by proper Bid Security in accordance with Article 8 of these Instructions to Bidders.
 - B. Alternative Bids will not be considered unless called for.
 - C. Bids by telephone, telegraph, fax or other telecommunication systems will not be considered.

ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BIDS

- 16.1 Bids may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids as called for in the

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Invitation to Bid. Requests for modification or withdrawal must be written and must be signed in the same manner and by the same person(s) who signed the Bid.

- 16.2 If, within 24 hours after Bids are opened any Bidder files a duly signed written notice with the Owner and promptly thereafter demonstrates to the reasonable satisfaction of the Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, if the Work is rebid or negotiated, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 - OPENING OF BIDS

- 17.1 Bids will be opened at the time set for opening in the Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates (if any) will be made available to Bidders after the opening of Bids. Owner will issue video/audio information for bid opening via Addenda for those bidders that want to listed to bid results.

ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.1 All Bids will remain subject to acceptance for sixty (60) days after the day of the Bid opening, but the Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 - AWARD OF CONTRACT

- 19.1 The Owner reserves the right to reject any and all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. The Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. The Owner also reserves the right to waive all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder. The Owner reserves the right to reject the Bid of any Bidder if the Owner believes it would not be in the best interest of the Project to make an award to that Bidder whether because Bid is not responsive or the Bidder is unqualified, does not meet the performance criteria, or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the Owner.
- 19.2 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of the Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.3 In evaluating Bids, the Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice to Proceed.
- 19.4 In evaluating Bidders, the Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Special Provisions.

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- 19.5 The Owner may conduct such investigations as the Owner deems necessary to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals or entities to perform the Work in accordance with the Contract Documents.
- 19.6 If the Contract is to be awarded, the Owner will award the Contract to the responsible Bidder whose Bid, conforming with all material terms and conditions of the Bidding Documents, is lowest price, in the best interest of the Project, and other factors considered. The Owner reserves the right to accept or reject the Bids, or portions of Bids if denoted in the Bid as separate schedules, and to award more than one Bid or schedule for the same Bid if any of the aforementioned combination of Bids or schedules will be in the best interest of the Owner.
- 19.7 The Owner reserves the right to cancel the award of any Agreement at any time before the complete execution of said Agreement by all parties without any liability against the Owner. Without limiting the foregoing, it is expressly stated that final award of the Contract is contingent upon securing appropriate financing.

ARTICLE 20 - CONTRACT SECURITY

- 20.1 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth the Owner's requirements as to Performance Bond, Payment Bond, and certificates of insurance. When the Successful Bidder delivers the executed Agreement to the Owner, it must be accompanied by such Bonds and insurance.

ARTICLE 21 - SIGNING OF AGREEMENT

- 21.1 When the Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within fifteen (15) days thereafter, Successful Bidder shall sign and deliver (at least five (5) counterparts of) the Agreement and attached documents to the Owner with the required Bonds and certificate of insurance verifying compliance with insurance requirements of the Contract and/or any statutes or ordinances. Within fifteen (15) days thereafter the Owner shall deliver at least one fully signed counterpart to Successful Bidder with a complete set of the Drawings and Specifications.

ARTICLE 22 - STATE LAWS AND REGULATIONS

- 22.1 All applicable laws, ordinances and the rules and regulations of authorities having jurisdiction over construction of the project shall apply to the Contract throughout. State laws and ordinances which the Contractor must comply with, include but are not limited to, those involving workmen's compensation insurance, contractor registration, employment preference to Montana contractors and Montana residents, special fuel user requirements, and gross receipts tax. The Contractor must also comply with all applicable state and federal occupational disease and health and safety laws and regulations.

ARTICLE 23 - NON-COLLUSION

- 24.1 The firm or individual submitting this proposal has not by or through any of its officers, partners, owners, or any other person associated therewith, either directly or

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indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this project, and is not financially interested in or otherwise affiliated in a business way with any other Bidder on this project.

ARTICLE 24 - PRECONSTRUCTION CONFERENCE

- 24.1 Prior to the start of construction, the Owner, Engineer, Contractor, and other interested parties will meet to review the project, the schedule, and related items of the work or contract administration.

ARTICLE 25 - CONTRACTOR'S REGISTRATION AND WORKER'S COMPENSATION REQUIREMENTS

- 25.1 Montana law requires all Contractors to register with the Department of Labor prior to submitting their bid. Forms for registration are available from the Department of Labor and Industry, P.O. Box 8011, 1805 Prospect Ave., Helena, Montana 59604-8011. Information on registration can be obtained by calling 1-406-444-7734. All laborers and mechanics employed by CONTRACTOR or subcontractors in performance of the construction work shall be paid wages at rates as may be required by Federal Law. The Contractor must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex or national origin.

Registration forms and additional information may be obtained by contacting the Montana Department of Labor and Industry, 1805 Prospect Ave., P.O. Box 8011, Helena, MT 59604-8011, or by calling 406-444-0563.

The Contractor must provide certification that workers' compensation insurance will be maintained as required by the Montana Workers' Compensation Act (39-71-101 MCA).

ARTICLE 26 - GROSS RECEIPTS TAX

- 26.1 Pursuant to Section 15-50-206(2)(3), MCA, the governmental agency issuing the contract is required to withhold 1% of all payments due the Contractor and is required to transmit such moneys to the Montana Department of Revenue as part of the public Contractor's license fee. In like fashion, the Contractor is required to withhold 1% from payments to subcontractors.

ARTICLE 27 - TIME FOR BEGINNING WORK AND COMPLETION OF WORK

- 27.1 The construction period for the work is based on calendar days stipulated in the contract documents. The Contractor will be issued a written "Notice to Proceed" following the "Notice of Award" and review and approval of the contract, contract bonds and insurance certificate. Construction calendar day's number one (1) shall be the day stated in the "Notice to Proceed." The project shall be completed within the calendar days stipulated in the contract documents.

ARTICLE 28 - CITY OF MISSOULA LICENSE AND BOND REQUIREMENTS

- 28.1 Any Contractors engaged in public work in the City of Missoula's area of jurisdiction are required to have a license from the City of Missoula based upon the nature of the

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work. A bond is also required for each type of work in the City of Missoula's area of jurisdiction. Licenses are obtainable at the office of the City Treasurer, City Hall, Missoula, Montana.

ARTICLE 31 - OTHER REGULATIONS

- 31.1 The Montana Labor Standards Provisions (Montana Davis Bacon Wage Rates), section 00910 are applicable for this contract. All provisions of Montana State Law relating to Public Works Contracts are applicable for this contract.
- 31.2 Contractors bidding on this project shall have at least one (1) American Concrete Institute (ACI) Certified Flatwork Finisher available, on-site at all times during placement and finishing, on any/all public infrastructure concrete such as curb and gutter, sidewalk, medians, approaches, bus stops, etc. within the City of Missoula.
- 31.3 The Contractor may be required to provide a written statement at the time of execution of the Agreement that they will comply with the COVID-19 work restrictions, procedures and protocols in place by MCPS and the State of Montana for performance of the work.
- 31.4 Contractor shall be required to comply with MCPS Code of Conduct provisions (Attachment A), during the performance of the work.

END OF SECTION

SECTION 00200 - ATTACHMENT A

MCPS CODE OF CONDUCT

RULES OF ON-SITE CONDUCT

MCPS takes the protection and safety of its students and staff very seriously. These Rules of On-Site Conduct apply to all persons or firms engaged in providing on-site work for this project. Failure to abide by these rules may result in the immediate, temporary suspension and/or permanent removal of the offending person or firm from the project, at the sole discretion of the Superintendent and/or the Executive Director of Facilities.

Registered Sex Offenders

No person shall be employed for any on-site portions of this project who is a registered sex offender in any jurisdiction.

Sexual Harassment

Sexual harassment in any form is prohibited. This includes, but is not limited to lewd comments, leering, offensive clothing and whistling.

Firearms

No firearms are allowed on District property at any time, including stored in a vehicle.

Contact and interaction with students

No contact or interaction with students is allowed under any circumstances. If approached by a student you must introduce yourself as a member of the project team and then politely decline to engage in conversation and immediately terminate the contact. Avoid putting yourself in a position where students have direct or unsupervised access to you.

Visual Identification

While working on school grounds, workers will be identified according to procedures established by the Construction Manager.

Tobacco, alcohol and illegal drugs

In accordance with district policy and Montana State Law, no tobacco or vapor products may be used on school property. All tobacco and vapor products must be concealed at all times. No alcohol or illegal drugs are allowed on school property at any time.

Language and Music

Loud or offensive music or language is not allowed, and must be discontinued immediately upon the offending party being notified.

Self-Reporting

If you are accused of any of these violations, or if there is any question about a specific circumstance or situation, immediately report the incident or circumstance to the project superintendent and/or District's Construction Manager, Architect or Engineer.

Situations reported by others:

In the event that an alleged incident is reported to the School District by a student, parent, staff member or any other observer, the named party will be suspended from on-site duties until the issue is fully resolved.

Zero-tolerance policy

The District reserves the right to refuse access to the site of any person either accused or found guilty of a breach of any of the listed rules of conduct.

Accountability

Every person engaged in any on-site work of this project must be issued a copy of these rules and acknowledge, in writing, that they have fully read and understand them. Each employer is required to provide the name and signature of every employee expected to perform work or visit the site. The District reserves the right to spot check any person on the site and to have them immediately removed from District property if their name does not appear on the acknowledgement list.

Owner

Construction Manager

MCPS CODE OF CONDUCT

On-Site Conduct Rules Acknowledgement Sheet

Each sub-contractor is required to provide a current copy of this sheet to the Construction Manager before on-site work begins. Each employee must sign, signifying receipt and understanding of the Rules of On-Site Conduct. The sub-contractor is required to update this list as needed in order to maintain a current list of employees.

Employer _____

[illegible]

Owner

Construction Manager

SECTION 00300
BID FORM

PROJECT IDENTIFICATION:

Big Sky High School Parking Lots and Practice Field Improvements
Missoula, Montana

CONTRACT IDENTIFICATION AND NUMBER:

Big Sky High School Parking Lots and Practice Field Improvements
Missoula County Public Schools
Engineer Project Number: 20-04-14

THIS BID SUBMITTED TO:

Missoula County Public Schools
c/o Burley McWilliams
915 South Avenue West
Missoula, MT 59801

1.01 The undersigned Bidder proposes and agrees if this Bid is accepted, to enter into an Agreement with OWNER to perform and furnish all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

2.01 Bidder accepts all of the terms and conditions of the Bidding Documents. This Bid will remain subject to acceptance for thirty (30) days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.

3.01 In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

- A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged the following Addenda:

Addendum No.

Addendum Date

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been

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identified in the Bidding Documents.

- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of the Work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and the written resolution thereof by ENGINEER is acceptable to Bidder.
- J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

4.01 Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

The BIDDER certifies that no official of the OWNER, ENGINEER, or any member of such official's immediate family, has direct or indirect interest in the pecuniary profits or Contracts of the BIDDER.

5.01 The Bidder will complete the Work in accordance with the Contract Documents for the following price(s).

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UNIT PRICE BID SCHEDULE

Bidder shall include 1% GRT in Unit Prices.

The Bid Schedule is comprised of a Base Bid and two separate, but related, Bid Alternates as follows:

Base Bid: Base bid work includes the parking lot improvements as represented on the plans, along with the practice field regrading, preparation, sod installation, and incidentals as shown the plans.

Bid Alternate 1 – Work includes removal of existing pavement and base section, new crushed base gravel installation paving of access road to the limits shown on the plans.

Bid Alternate 2 – Work includes the removal of additional concrete curb and gutter and sidewalk along the west perimeter of the south parking lot as indicated on the plans.

Bidders shall submit prices for the Base Bid and each of the Bid Alternates and Unit Price requests. Determination of the lowest responsive Bidder will be based on the total of the lowest base bid submitted plus none, all, or any combination of bid alternatives selected by the Owner.

BASE BID

Item Number	Description	Quantity	Unit	Unit Price	Total
ADMINISTRATIVE					
1	Mobilization/Bonds	1	LS		
2	Erosion Control	1	LS		
3	Miscellaneous Work	50,000	EA	\$ 1.00	\$ 50,000.00
PARKING LOT IMPROVEMENTS					
4	Asphalt and Base Removal (8" Total Depth)	21,810	SY		
5	Asphalt and Base Removal (9" Total Depth)	2,200	SY		
6	Curb Removal (W/Sawcut)	320	LF		
7	Concrete Removal (W/ Sawcut)	410	SF		
8	Sump Removal	1	EA		
9	Clean Existing Sump	2	EA		
10	Remove Pin Down Curb	1	LS		
11	Remove Median Curb	1	LS		
12	6" Thickness 3/4" Minus Crushed Base Course	24,010	SY		
13	2" Thickness Hot Mix Asphalt Type "B"	21,810	SY		
14	3" Thickness Hot Mix Asphalt Type "B"	2,200	SY		
15	Asphalt Seal Coat	29,045	SY		
16	Type "L" Curb and Gutter	60	LF		
17	Type "B" Curb	545	LF		
18	4" Thickness Concrete Sidewalk	430	SF		
19	Detectable Warning Device	20	SF		
20	4' Diameter Storm Drain Sump (8' Depth)	4	EA		
21	Concrete Median Curb	680	LF		
22	Curb Island Colored/Patterned Concrete	755	SF		
23	3" Thickness Rock Mulch on Geotextile Fabric	2,025	SF		

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Item Number	Description	Quantity	Unit	Unit Price	Total
24	New Sign	8	EA		
25	4" PVC Irrigation Sleeve	510	LF		
26	2" SCH 80 Electrical Sleeve	750	LF		
27	Waterborne Parking Striping	1	LS		
PRACTICE FIELD IMPROVEMENTS					
28	Concrete Removal (W/Sawcut)	690	SF		
29	Remove Shed	1	LS		
30	Remove and Salvage Goal Posts	4	EA		
31	Re-Set Goal Posts	4	EA		
32	Cut and Remove Sod	22,575	SY		
33	Pulverize, Strip and Stockpile Topsoil	2,510	CY		
34	Site Grading	1	LS		
35	Spread Existing Topsoil	2,510	CY		
36	Imported Topsoil	1,375	CY		
37	Imported 1" Thickness Eco Compost Layer	625	CY		
38	Topsoil Preparation	22,525	SY		
39	Sod Supply and Installation	22,525	SY		
40	6" Concrete Thickness with 6" base course	1,170	SF		
41	Install New Concrete Discuss Pad (15'x15') pad with provided rings and sleeves	1	LS		
42	Drainage Trench	660	LF		

BASE BID ESTIMATED PRICE \$ _____
(Figures)

BASE BID ESTIMATED PRICE \$ _____
(Words)

BID ALT 1 - ACCESS ROAD

Item Number	Description	Quantity	Unit	Unit Price	Total
1	Asphalt and Base Removal (9" Total Depth)	550	SY		
2	6" Thickness 3/4" Minus Crushed Base Course	550	SY		
3	3" Thickness Hot Mix Asphalt Type "B"	550	SY		

BID ALTERNATE 1 ESTIMATED PRICE \$ _____
(Figures)

BID ALTERNATE 1 ESTIMATED PRICE \$ _____
(Words)

BID ALT 2 - CURB & GUTTER/SIDEWALK REPLACEMENT SOUTH PARKING LOT

Item Number	Description	Quantity	Unit	Unit Price	Total
1	Curb Removal (W/Sawcut)	230	LF		
2	Concrete Removal (W/ Sawcut)	1,150	SF		
3	Type "L" Curb and Gutter	230	LF		
4	4" Thickness Concrete Sidewalk	1,150	SF		

BID ALTERNATE 2 ESTIMATED PRICE \$ _____
(Figures)

BID ALTERNATE 2 ESTIMATED PRICE \$ _____
(Words)

CONTRACT TIME: FINAL COMPLETION DATE = AUGUST 15, 2020

NOTE: No additional contract time will be provided with the selection of Bid Alternates.

- A. Unit Prices have been computed in accordance with Paragraph 11.03.B. of the General Conditions.
- B. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents.
- C. The undersigned agrees that the unit prices shall govern in checking the Bid, and should a discrepancy exist in the Total Estimated Price and Total Amount of Unit Prices Bid as listed above after extensions are checked and corrections made, if any, the Total Amount of Unit Prices Bid as corrected shall be used in awarding this Contract.
- D. The purpose of the bid alternates is to give the OWNER maximum flexibility in obtaining the greatest possible amount of work within the limits of the funds available. **In determining the lowest responsive Bidder, the OWNER may accept in any order, any, all, or none of the Bid Alternates.**
- E. The OWNER reserves the right to reject any or all bids.

6.01 Bidder agrees that the Work will be substantially completed and ready for final payment in accordance with 14.07 of the General Conditions on or before the dates indicated by Owner.

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6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified above, which shall be stated in the Agreement.

7.01 The following documents are attached to and made a condition of the Bid:

- A. Required Bid security in the amount of 10% of the maximum Bid price including alternates and in the form of a Bid Bond identified in the Instructions to Bidders.
- B. Information Required of Bidder – General Information (form attached).

8.01 The terms used in this Bid with the initial capital letters have the meanings indicated in the Instructions to Bidders, General Conditions, and the Supplementary Conditions.

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SUBMITTED on _____

Montana Contractor's Registration # _____

Employer's Tax ID No. _____

If BIDDER is:

An Individual: _____
(Name typed or printed)

By: _____ (SEAL)
(Individual's Signature)

Doing business as: _____

Business Address: _____

Phone No.: _____ FAX No: _____

A Partnership: _____
(Partnership Name)

By: _____ (SEAL)
(Signature)

(Name, typed or printed)

Business Address: _____

Phone No.: _____ FAX No: _____

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A Corporation: _____ (SEAL)

(Corporation Name)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____

(Signature of person authorized to sign)

Title: _____

Attest: _____ (CORPORATE SEAL)

(Signature of Secretary)

Business Address: _____

Phone No.: _____ FAX No: _____

Date of Qualification To Do Business Is: _____

A Joint Venture: Each Joint Venture Must Sign

Joint Venturer Name: _____ (SEAL)

(Name)

By: _____

(Signature of Joint Venture Partner)

Name: _____

(Name, printed or typed)

Title: _____

Business Address: _____

Phone No.: _____ FAX No: _____

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A Joint Venture: Each Joint Venture Must Sign

Joint Venturer Name: _____ (SEAL)

(Name)

By: _____

(Signature of Joint Venture Partner)

Name: _____

(Name, printed or typed)

Title: _____

Business Address: _____

Phone No.: _____ FAX No: _____

Address of Joint Venture for Receipt of Official Communication:

Address: _____

Phone No.: _____ FAX No: _____

(Each Joint Venture must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

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BID FORM

INFORMATION REQUIRED OF BIDDER

GENERAL INFORMATION

The bidder shall furnish the following information. Failure to comply with this requirement will render the Bid non-responsive and may cause its rejection. Additional sheets shall be attached as required.

(1) Contractor's name and address:

(2) Contractor's telephone number: _____

(3) Contractor's State license No: _____

(4) Number of years as a contractor in construction work of this type: _____

(5) Names and titles of all officers of Contractor's firm, responsible for this project:

(6) Name of person who inspected site of proposed work for your firm:

Name: _____

Date of inspection: _____

(7) Name, address and telephone number of surety company and agent who will provide the required bonds on this contract:

(8) A financial statement, or AIA Document A305 Contractor's Qualification Statement, references, and other information, sufficiently comprehensive to permit an appraisal of Contractor's current financial condition, can be requested by the Owner or Engineer, and must be provided by the Contractor upon request.

END OF SECTION 00300

SECTION 00430 - BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND

Bond Number:

Date:

Penal sum

\$

(Words)

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)

(Seal)

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By:

Signature

By:

Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest:

Signature

Attest:

Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

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SECTION 00500 AGREEMENT FORM

This Agreement is dated as of the ____ day of _____ in the year 2020, by and between the Missoula County Public Schools, hereinafter called "OWNER" and _____, hereinafter called Contractor. Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK

1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work generally includes the following: Work generally includes removal of existing asphalt and subgrade materials, and reconstruction of parking lots along 31st Ave. Work will include removal and replacement of curb and sidewalk, new ADA improvements, new base course and paving, chip seal, storm drain improvements and incidentals. Work also includes removal of existing sod on existing football practice field areas, topsoil stripping, re-grading, new topsoil installation, and sodding of fields and related work in accordance with the Plans and Specifications.

Article 2. THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows: BIG SKY HIGH SCHOOL PARKING LOT & PRACTICE FIELD IMPROVEMENTS.

Article 3. ENGINEER

3.01 The Project has been designed by:

WGM Group, Inc.
1111 E. Broadway
Missoula, MT 59802

who is hereinafter called ENGINEER and who is to act as Owner's representative, assume all duties and responsibilities and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 4. CONTRACT TIME

4.01 Time of the Essence

A. All the time limits for milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Days to Achieve Substantial Completion

A. The Contract Time, specified by Completion Date is: August 15, 2020.

B. The Work will be substantially complete, as defined within the Special Provisions, by the Calendar completion date (as specified above) after the date when the Contract Time commences to run as provided in paragraph 2.03 of the General Conditions.

4.03 Liquidated Damages

- A. Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner One thousand dollars (**\$1,000.00**) for each calendar day that expires after the time specified in Paragraph 4.02 for Substantial Completion until the Work is substantially complete.

Article 5. CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the work in accordance with the Contract Documents an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the quantity of that item that is constructed and accepted. Unit prices are those listed in the Unit Price Schedule of the Bid Form, Section 00300. Estimated quantities used for bidding purposes are not guaranteed, payment will be for actual quantities as determined by ENGINEER or Owner in accordance with Article 9.07 of the General Conditions. Unit prices have been computed as provided in paragraph 11.03 of the General Conditions.

Article 6. PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments:

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the Contract Documents.

6.02 Progress Payments; Retainage

- A. The Owner shall make progress payments in accordance with Article 14 of the General Conditions on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by ENGINEER, once each month during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the number of units of each bid item completed times the bid unit price in the Unit Price Schedule of the Bid Form for that item.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the sum of the unit price items less the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER may determine or OWNER may withhold, in accordance with paragraph 14.02 of the General Conditions.
 - a. The OWNER shall retain five percent (5%) of the amount of each payment until final completion and acceptance of all Work covered by the Contract Documents.
 - b. Retainage will be five percent (5%) of materials and equipment not incorporated in the Work (but delivered, suitably stored and

accompanied by documentation satisfactory to OWNER as provided in paragraph 14.02 of the General Conditions).

2. Upon Substantial Completion and at the OWNER'S discretion, the amount of retainage may be further reduced if requested by the Contractor.
3. Each application for payment shall be accompanied by an executed lien release form from the General Contractor. Upon request and prior to issuing final payment of the project, lien releases must be received from any Subcontractor and Supplier performing work on the project. Lien release shall be in a format acceptable to the Owner.

6.03 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said paragraph 14.07.

Article 7. INTEREST

7.01 Not used. (Interest not allowed on unpaid balance.)

Article 8. CONTRACTOR'S REPRESENTATION

8.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents (including all Addenda) listed in paragraph 9 and the other related data identified in the Bidding Documents.
- B. Contractor has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.
- C. Contractor is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Special Provisions as provided in paragraph 4.02 of the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in the Special Provisions as provided in paragraph 4.06 of the General Conditions. Contractor acknowledges that such reports and drawings are not Contract Documents and may not be complete for Contractor's purposes. Contractor acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site.
- E. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface

and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR including applying the specific means, methods, techniques, sequences and procedures of construction, if any, expressly required by the Contract Documents to be employed by the CONTRACTOR, and safety precautions and programs incident thereto.

- F. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- I. Contractor has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Contractor.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 9. CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. Invitation to Bid (page 1 to 1, inclusive);
 - 2. Instructions to Bidders (pages 1 to 12, inclusive);
 - 3. This Agreement (pages 1 to 8, inclusive);
 - 4. Performance Bond (pages 1 to 2, inclusive);
 - 5. Payment Bond (pages 1 to 2, inclusive);
 - 6. Bid Bond (pages 1 to 2, inclusive);
 - 7. Bid Form (pages 1 to 10, inclusive);
 - 8. General Conditions (pages 1 to 62, inclusive);
 - 9. Supplementary Conditions (pages 1 to 15, inclusive and Appendix A, inclusive);

10. Montana Davis Bacon Wage Rates (Section 00910 – pages 1 to 13, inclusive);
 11. Specifications bearing the title “Montana Public Works Standard Specifications, Sixth Edition, dated April, 2010, as amended”;
 12. Special Provisions and Specifications as listed in the table of contents in the Project Manual
 13. Drawings consisting of sheets bearing the general title: BIG SKY HIGH SCHOOL PARKING LOT AND PRACTICE FIELD
 14. Addenda (numbers _ to _, inclusive);
 15. Exhibits to this Agreement (enumerated as follows):
 - a. Notice To Proceed (pages _ to _, inclusive);
 - b. Notice of Award (pages _ to _, inclusive);
 - b. CONTRACTOR’s Bid (pages _ to _, inclusive);
 16. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Written Amendments;
 - b. Work Change Directives;
 - c. Change Order(s).
- B. The documents listed in paragraph 9.01.A. are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.04 of the General Conditions.

Article 10. MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

10.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, moneys that may come due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

- A. Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal

representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

10.04 Severability

- A. Any provision of part of the Contract Documents held to be void or unenforceable under a Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, the parties hereto have entered into the Agreement by their officers duly authorized as of the_____ day of _____, 2020.

CONTRACTOR
XXXXXXXXXXXXX
XXXXXXXXXXXXX

MISSOULA COUNTY PUBLIC SCHOOLS
915 South Avenue West
Missoula, MT 59801

By:_____
(Signature)

Burley McWilliams
Director of Operations and Maintenance

Title:_____

(Seal of Corporation)

ATTEST:

(Secretary)

ATTEST:

**SECTION 00610
PERFORMANCE BOND**

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address): _____

SURETY (Name and Address of Principal Place of Business): _____

OWNER (Name and Address): _____

CONTRACT

Date: _____

Amount: _____

Description (Name and Location): _____

BOND

Date (Not earlier than Contract Date): _____

Amount: _____

Modifications to this Bond Form: _____

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reversed side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

(Space is provided below for signatures of additional parties, if required.)

SURETY

(Seal)

Surety's Name and Corporate Seal

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

SURETY

(Seal)

Surety's Name and Corporate Seal

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.
2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.
3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 3.1 Owner has notified Contractor and Surety at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default, and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
 - 3.3 Owner has agreed to pay the Balance of the Contract Price to:
 1. Surety in accordance with the terms of the Contract; and
 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
 - 4.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
 - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
6. After Owner has terminated Contractor's right to complete the Contract and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:
 - 6.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;
 - 6.2 Additional legal, design professional and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and
 - 6.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.
7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.
8. Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
10. Notice to Surety, Owner or Contractor shall be mailed or delivered to the address shown on the signature page.
11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
12. Definitions:
 - 12.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
 - 12.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 12.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
 - 12.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone
 Surety Agency or Broker
 Owner's Representative (engineer or other party)

**SECTION 00620
PAYMENT BOND**

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address): _____

SURETY (Name and Address of Principal Place of Business): _____

OWNER (Name and Address): _____

CONTRACT

Date: _____

Amount: _____

Description (Name and Location): _____

BOND

Date (Not earlier than Contract Date): _____

Amount: _____

Modifications to this Bond Form: _____

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reversed side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

SURETY

(Seal)

Surety's Name and Corporate Seal

By: _____

Signature and Title
(Attach Power of Attorney)

Attest: _____

Signature and Title

SURETY

(Seal)

Surety's Name and Corporate Seal

By: _____

Signature and Title
(Attach Power of Attorney)

Attest: _____

Signature and Title

1. Contractor and Surety jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
 - 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits by alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with Contractor:
 1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:
 - 6.1 Send an answer to that Claimant with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2 Pay or arrange for payment of any undisputed amounts.
7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
14. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
15. DEFINITIONS
 - 15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
 - 15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone
 Surety Agency or Broker
 Owner's Representative (engineer or other party)

SECTION 00700

STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

- 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
- 2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other

professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price

or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by

Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property

insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery

against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and

- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or

other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all

court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor

shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. all persons on the Site or who may be affected by the Work;
 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

- a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
- b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
- c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
- d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop

Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 6. any inspection, test, or approval by others; or
 7. any correction of defective Work by Owner.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor,

Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits

and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The

opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
 2. approve the Claim; or
 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on

Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. Contractor agrees that:

- a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
- b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

- c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the

control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.

- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute

resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and

equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the

Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or

- b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or

- d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities

pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. Application for Payment:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's repeated disregard of the authority of Engineer; or
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
 - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SECTION 00810

SUPPLEMENTARY CONDITIONS TO THE GENERAL CONDITIONS

SECTION 00810

SUPPLEMENTARY CONDITIONS TO THE GENERAL CONDITIONS

Delete Section 00810 “SUPPLEMENTARY CONDITIONS TO THE GENERAL CONDITIONS” in its entirety within the Montana Public Works Standard Specifications, Sixth Edition, April 2010, as amended, and replace with the following SUPPLEMENTARY CONDITIONS TO THE GENERAL CONDITIONS.

This contract will be constructed and administered under the requirements of the Montana Public Works Standard Specifications (MPWSS), Sixth Edition, April 2010, and all supplemental documents. These Supplementary Conditions to the General Conditions amend or supplement the Standard General Conditions (Section 00700) of the Construction Contract from the Montana Public Works Standard Specifications, Sixth Edition, April 2010, as amended. The General Conditions are the Engineer’s Joint Council Documents Committee (EJCDC) General Conditions of the Contract (No. C-700, 2007 Edition). All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

SC-1.01 DEFINED TERMS

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions and as follows:

Add the following to the end of paragraph 101.A.2:

“The definition of the word “Contract” is synonymous with the word “Agreement” and is used interchangeably in the Contract Documents.”

Amend 101.A.12 to include as Contract Documents the following:

“...Performance Bond, Payment Bond, Notice of Award, these Supplementary Conditions to the General Conditions, Permits approved and pending...”

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.01 DELIVERY OF BONDS AND EVIDENCE OF INSURANCE

Add the following to Paragraph: 2.01.A

“ENGINEER shall furnish to CONTRACTOR three (3) copies of the Agreement and other Contract Documents bound therewith. CONTRACTOR shall execute the Agreement, insert executed copies of the required Bonds and Power of Attorney and Certificate of Insurance and submit all copies to OWNER. OWNER shall execute all copies and return one (1) copy to the CONTRACTOR, and one copy to ENGINEER.”

Delete the beginning of the first sentence of Paragraph 2.01.B. and replace with the following:

“B. Evidence of Insurance: Before the Owner will execute the Agreement and before any work at the site is started,...”

SC-2.02 COPIES OF DOCUMENTS

Add the following to Paragraph 2.02.A:

“The Contractor shall be furnished five (5) half-size and two (2) full size copies of the plans and Contract documents. Additional (printed) sets are available for \$100.00 each.”

SC-2.03 NOTICE TO PROCEED

Delete the first sentence of Paragraph 2.03A of the General Conditions and insert the following in its place:

“Following the execution of the Agreement by the Owner and the Contractor, written Notice to Proceed with the Work shall be given by the Owner to the Contractor. The Contract Time will commence to run on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the effective date of the agreement.”

SC-2.05 BEFORE STARTING CONSTRUCTION

Add a new paragraph immediately after paragraph 2.05.A.3 of the General Conditions, which is to read as follows:

“2.05.A.4 the Contractor shall submit a preliminary list of construction equipment with hourly rates, owned or rented by the Contractor and all Subcontractors that will be used in the performance of the Work. The equipment list will include information necessary to confirm the hourly rates per Paragraph 11.01.A.5.c of the General Conditions and these Supplementary Conditions including: make, model, and year of manufacture as well as the horse power, capacity or weight, and accessories.”

Add a new paragraph immediately after paragraph 2.05.A.4 of the General Conditions, which is to read as follows:

“2.05.A.5 Where a Contract is awarded on a lump sum basis, the Contractor shall file with the Engineer a balanced price segregation of his lump sum bid into items similar to the various subdivisions of the general and detailed specifications, the sum of which shall equal the lump sum bid. The cost of various materials shall be furnished upon request of the Engineer and such data will then be used as a basis for making progress estimates. Breakdown cost itemized specification section and trade, and distribute cost to individual applicable units and specific series or, identification number, utilize said designation throughout cost breakdown. Provide detailed breakdown for individual yard piping or conduit runs and identify approximate quantities involved to satisfaction of the Engineer. Provide separate breakdown for change order items or items requested. Provide an additional breakdown sheet, equivalent to AIA document G703, showing the tabulation format for stored materials. Submit this sheet each month with the Contractor’s pay request breakdown. The detail and format of cost breakdown and stored materials tabulation sheet shall be fully approved by the Engineer.”

SC-2.07 INITIAL ACCEPTANCE OF SCHEDULES

Delete the first paragraph of 2.07.A in its entirety and insert the following in its place:

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“Prior to the first application for payment all schedules and documents identified in paragraph 2.05.A shall be finalized and acceptable to the Engineer and the Owner. No progress payment shall be made to the Contractor until the schedules are submitted to and acceptable to the Engineer and the Owner as provided below. The progress schedule shall be CPM form or other acceptable format that shows estimated time for each work item, and starting and completion dates for each part of the Work. Acceptance of these schedules and documents by either the Engineer or the Owner will neither impose on the Engineer or the Owner responsibility for the sequencing, scheduling or progress of the Work and will not interfere with or relieve the Contractor from the Contractor’s full responsibility therefore.”

Add the following after Paragraph 2.07.A.3

“The Contractor’s Schedule of Equipment will be acceptable to the Engineer as to form and substance if it provides the necessary information to reference the equipment and establish the hourly rates in accordance with paragraph 11.01.A.5.c.”

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

SC-3.01. INTENT

Add the following paragraphs after paragraph SC-3.01C, which are to read as follows:

- “D. The Specifications may vary in form, format and style. Some specification sections are written in varying degrees of streamlined or declarative style and some sections may be relatively narrative by comparison. Omissions of such words and phrases as “the Contractor shall,” in conformity with “as shown,” or “as specified” are intentional in streamlined sections. Omitted words and phrases shall be supplied by inference. Similar types of provisions may appear in various parts of a section or articles within a part depending on the format of the section. The Contractor shall not take advantage of any variation of form, format or style in making claims for extra Work.
- E. The cross referencing of specification sections under the subparagraph heading “Related Sections include but are not necessarily limited to:” and elsewhere within each specification section is provided as an aid and convenience to the Contractor. The Contractor shall not rely on the cross referencing provided and shall be responsible to coordinate the entire work under the Contract Documents and provide a complete Project whether or not the cross referencing is provided in each section or whether or not the cross referencing is complete.”

Add the following paragraph after paragraph SC-3.03.B.1:

- “2. In resolving conflicts resulting from conflicts, errors or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:
 - a. Agreement
 - b. Specifications
 - c. Drawings
- Within the Specifications, the order of precedence is as follows:
- a. Addenda/Change Orders
 - b. Contractor’s Bid (Bid Form)

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- c. Supplemental General Conditions
- d. Special Provisions
- e. Notice Inviting Bids
- f. Instructions to Bidders
- g. General Conditions
- h. Technical Specifications
- i. Referenced Standard Specifications

With reference to the drawings, the order of precedence is as follows:

- a. Figures govern over scaled dimensions
- b. Detail drawings govern over general drawings
- c. Addenda/change order drawings govern over contract drawings
- d. Contract drawings govern over standard drawings
- e. Contract drawings govern over shop drawings

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

SC-4.01 AVAILABILITY OF LANDS

Add to Paragraph 4.01.C of the General Conditions the following:

“If it is necessary or desirable that the Contractor use land outside of the Owner’s easement or right-of-way, the Contractor shall obtain consent from the property owner and tenant of the land. The Contractor shall not enter for materials delivery or occupy for any other purpose with men, tools, equipment, construction materials, or with materials excavated from the site, any private property outside the designated construction easement boundaries or right-of-way without written permission from the property owner and tenant.”

SC-4.02 SUBSURFACE AND PHYSICAL CONDITIONS

Delete the first sentence of Paragraph 4.02.A and replace with the following:

“A. Reports and Drawings: Appendix A of this Section identifies:

Delete Paragraph 4.02.A.1 and replace with the following:

- “1. The reports, explorations, tests, drawings, etc., if any, of subsurface or physical conditions at or contiguous on the site the Engineer has used in preparing the Contract Documents.

Add the following new paragraphs immediately after Paragraph 4.02.B.3 of the General Conditions:

- “4. Test hole information represents subsurface characteristics to the extent indicated, and only for the point location of the test hole. The Contractor shall make his own interpretation of the character and condition of the materials which will be encountered between test hole locations. It shall be understood that the information provided is not guaranteed to be more than a general indication of the physical conditions likely to be found.

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5. Any aerial photos used to produce the drawings may be dated, and therefore do not represent the actual conditions of the site. It is the Contractor's responsibility to verify existing conditions as required in the Bidders' Examination of Site section of the Instructions to Bidders."

SC-4.03 DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

Add the following to the end of Paragraphs 4.03.A.

"The Contractor to notify the Owner and the Engineer in writing about differing subsurface or physical conditions within 15 days of discovery and before disturbing the subsurface as stated above.

No claim for an adjustment in the contract price or contract times (or Milestones) will be valid for differing subsurface or physical conditions if procedures of this paragraph 4.03 are not followed."

SC-4.04 – UNDERGROUND FACILITIES

Add the following new paragraph immediately after Paragraph 4.04.A.2.

- "3. At least 2 but not more than 10 business days before beginning any excavation, the Contractor shall according to MCA 69-4-501, notify all owners of underground facilities and coordinate the Work with the owners of such underground facilities. The information shown or indicated in the Contract Documents with respect to existing underground facilities is based on information and data obtained from the owners of the facilities without field exploration, and as such, the Owner and the Engineer are not responsible for the accuracy or completeness of such information or data."

SC-4.05 REFERENCE POINTS

Add the following to paragraph 4.05:

"The Owner provided survey and reference points are detailed within the Special Provisions, Section 01050, Field Engineering. The Contractor shall provide all other staking required to complete the project as well as comply with any additional requirements (if any) detailed within Section 01050.

SC-4.06 HAZARDOUS ENVIRONMENTAL CONDITION AT SITE

Change the first sentence of paragraph A. to read as follows:

- "A. Reports and Drawings: The Special Provisions identify those reports..."

ARTICLE 5 – BONDS AND INSURANCE

SC-5.01 PERFORMANCE, PAYMENT, AND OTHER BONDS

Amend Paragraph 5.01.A by striking out the words "one year" and replacing them with the words "two years" as so amended Paragraph 5.01.A remains in effect.

SC-5.02 – 5.06 MCPS INSURANCE REQUIREMENTS

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Delete Sections 5.02 through 5.06 and replace with the following insurance requirements, which are applicable to MCPS projects:

Before commencing work under this contract, the Contractor shall notify the District in writing that the following required insurance has been obtained. The Contractor shall insert the substance of this clause, including this paragraph, in Subcontracts under this contract that require work on a District installation and shall require Subcontractors to provide and maintain the insurance required as described below. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the District upon request.

Contractor shall carry the following insurance and shall provide the District with certificates verifying coverage for the following:

A. Insurance Carrier: Must be rated at least "A- "by A.M. Best Company or acceptable State Fund for Workers Compensation.

B. Workers Compensation: Copy of Contractors Exemption, if applicable and proof of Workers Compensation Insurance. The District may withhold a percentage to cover costs if proof of coverage is not provided.

Workers Compensation - Statutory

Employers Liability Limits - \$1,000,000 Each Accident

\$1,000,000 Disease- Policy Limit

\$1,000,000 Disease- Each Employee

C. Commercial General Liability Insurance: Including Premise & Operations, Personal & Advertising

Injury, Blanket Contractual (no restrictive endorsements such as CG 2139, CG 2426, CG 2294) and Products & Completed Operations.

Limits: \$1,000,000 Each Occurrence

\$2,000,000 Products/Completed

Operations Aggregate : \$2,000,000 General Aggregate

The District shall be named as a **Primary Additional Insured**. The policy will provide an endorsement to provide coverage for the District as an additional insured including **Completed Operations Liability**. The use of the ISO CG 3287 and CG 3290 or its equivalent is acceptable. If the **additional insured endorsement** does not accompany the certificate of insurance, the certificate of insurance must list the form numbers/edition dates for the Additional Insured Endorsement being used and the actual endorsement must be mailed when received. The Additional Insured Endorsement including Products and Completed Operations is required to be maintained for 2 Years upon completion of the project

Waiver of Subrogation in favor of the District.

Per Project Aggregate Endorsement required.

D. Automobile Liability:

Limits: Owned Autos:

\$1,000,000 Each Accident

Hired/Non-Owned Autos: \$1,000,000 Each Accident

E. Umbrella/Excess Liability:

Limits: \$1,000,000 Each Occurrence

F. Districts & Contractors Protective Liability (OCP):

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Limits: \$1,000,000 Each Occurrence

\$2,000,000 Aggregate

Policy will be in the name of the District

- G. Contractor Tools/Equipment: All tools leased, borrowed or owned by the Contractor/Subcontractor will be their responsibility.
- H. Cancellation/Non-Renewal Notice: Minimum of 45 days on Certificate of Insurance.

Builders Risk Insurance will be provided by the District.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

SC-6.02 LABOR; WORKING HOURS

Add the following to Paragraph 6.02.B:

“Regular working hours are defined as weekdays 7:00 A.M. to 7:00 P.M. (unless otherwise specified within the Special Provisions), holidays excluded. Emergency work may be performed without prior permission.”

SC-6.04 PROGRESS SCHEDULE

Delete Paragraph 6.04.A.1 of the General Conditions in its entirety and replace with the following:

- “1. The Contractor shall submit to the Engineer with each application for payment an updated progress schedule reflecting the amount of work completed and adjustments to future work. Such adjustments will be acceptable to the Engineer as providing an orderly progression of the Work to completion within any specified milestones and the Contract Time. No progress payment will be made to the Contractor until the updated schedules are submitted to and acceptable to the Engineer and the Owner. Review and acceptance of progress schedules by the Engineer will neither impose on the Engineer’s responsibility for the sequencing, scheduling or progress of the Work, nor interfere with or relieve the Contractor from the Contractor’s full responsibility therefore.”

SC-6.12 RECORD DOCUMENTS

Insert the following at the end of paragraph 6.12.A:

“The Contractor shall assist the Engineer in preparation of the project record drawings. The Contractor shall provide one (1) person to assist in recording this data if requested by the Engineer.”

Add the following paragraph to the end of paragraph 6.12.A.:

- “B. The Engineer must provide the Owner at the completion of the project, an accurate record of location of all newly constructed items. Throughout the progress of the work, the Contractor shall maintain an accurate record of changes in the Contract Documents. The Contractor shall maintain in a safe

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place at the construction site(s), one record copy of all drawings, specifications, addenda, written amendments, change orders, work directive changes, field orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents, together with all approved samples and a counterpart of all approved shop drawings, will be available to the Engineer for reference. Upon completion of the work, these record documents, samples, and shop drawings will be delivered to the Engineer and the Owner.”

SC-6.13 SAFETY AND PROTECTION

Change Supplementary Conditions in paragraph 6.13.C to Special Provisions.

Add the following new paragraphs to the end of paragraph 6.13.F of the General Conditions:

- “G. It is expressly understood by the parties to this Agreement that the Contractor is solely responsible for initiating, maintaining, and supervising safety precautions and programs in connection with the Work. The right of the Owner and the Engineer to observe or otherwise review the Work and operations shall not relieve the Contractor from any of his covenants and obligations hereunder. The Contractor shall incorporate all safety requirements into his construction progress and work schedules including preconstruction and scheduled monthly safety meetings, posted safety rules, tailgate meetings, and site inspections by safety and other inspectors employed by the Contractor.
- H. The Contractor shall be responsible for and shall take necessary precautions and provide all material and equipment to protect, shore, brace, support and maintain all underground pipes, conduits, drains, sewers, water mains, gas mains, cables, etc., and other underground construction uncovered in the proximity, or otherwise affected by the construction work performed by him. All pavement, surfacing, driveways, curbs, walks, buildings, grass areas, trees, utility poles or guy wires damaged by the Contractor’s operations in the performance of this work shall be repaired and/or replaced to the satisfaction of the Owner, Engineer, and effected property owner at the Contractor’s expense. The Contractor shall also be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property or facility, regardless of location or character, which may be caused by moving, hauling, or otherwise transporting equipment, materials, or men to and from the work or any part of site thereof, whether by him or his subcontractors. The Contractor shall make satisfactory and acceptable arrangements with owner of, or the agency or authority having jurisdiction over, the damaged property or facility concerning its repair or replacement, or payment of costs incurred in connection with said damage.
- I. The Contractor shall conduct his work so as to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, the Contractor shall obtain approval from the governing party and shall, at his own expense, provide and maintain suitable and safe bridges, detours, and other temporary expedients for the accommodation of public and private drives before interfering with them. The provisions for temporary expedients will not be required when the Contractor has obtained permission from the owner and tenant of the private property, or from the authority

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having jurisdiction over public property involved, to obstruct traffic at the designated point.

- J. Safety provisions must be entirely adequate and meet with City or State and Federal regulations to protect the public on these streets and roads.”

SC-6.17. SHOP DRAWINGS AND SAMPLES

Amend Section 6.17 of the General Conditions by striking out the words “review and approval” in all paragraphs with “review for compliance.”

Add the following new paragraph to the end of section 6.17 General Conditions:

- “F. Comply with all additional submittal requirements and procedures, if any, detailed in the Special Provisions.

SC-6.20 INDEMNIFICATION

Add a new paragraph immediately after paragraph 6.20.A of the General Conditions which is to read as follows:

“While the Owner and the Engineer may have the right under this Contract to observe or otherwise review the work, progress and operations of the Contractor, it is expressly understood and agreed that such observation shall not relieve the Contractor from any of its covenants and obligations hereunder.”

ARTICLE 9 – ENGINEER’S STATUS DURING CONSTRUCTION

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-11.01 COST OF THE WORK

11.01.A.1 Before last sentence, add:

“Superintendents off-site are included in overhead and profit of 15% per paragraph 12.01.C.2.A and will not be paid for separately under this paragraph.”

Delete paragraph 11.01.A.5.c of the General Conditions in its entirety and insert the following in its place:

- “c. The Contractor will be paid for the use of equipment at the rental rate listed for such equipment specified in the current edition of the “Rental Rate Blue Book” as published by Machinery Information Division of K-III Directory Corporation, 1735 Technology Drive, Suite 410, San Jose, California 95110, telephone (800) 669-3282. Such rental rate will be used to compute payments for equipment whether the equipment is under the Contractor’s control through direct ownership, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment shall be the rate resulting in the least total cost to the Owner for the total period of use. If it is deemed necessary by the Contractor to use equipment not listed in the foregoing publication, an equitable rental rate for the equipment will be established by the Engineer. The Contractor may furnish

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cost data which might assist the Engineer in the establishment of the rental rate.

- (1) The rental rates paid, as above provided, shall include the cost of fuel, oil, lubrication supplies, small tools, necessary attachments, repairs and maintenance of all kinds, depreciation, storage, insurance, and all incidentals. Operators of equipment will be separately paid for as provided in Article 11.4.1, herein.
- (2) All equipment shall, in the opinion of the Engineer, be in good working condition and suitable for the purpose for which the equipment is to be used.
- (3) Before construction equipment is used on the work, the Contractor shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the Engineer, in duplicate, a description of the equipment and its identifying number.
- (4) Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.
- (5) Individual pieces of equipment or tools having a replacement value of \$100 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore.
- (6) Rental time will not be allowed while equipment is inoperative due to breakdowns.
- (7) Hourly rates for equipment used on an hourly basis, which is maintained on-site for basic project use shall be determined by dividing the monthly Blue Book rate by 176 hours. This has been determined to be the rate resulting in the least total cost to the Owner. If equipment is furnished solely for use on extra work, and is used on an hourly basis, the hourly rate shall be determined by using the Blue Book hourly rate, on a daily basis the daily rate, on a weekly basis the weekly rate, and on a monthly basis the monthly rate.
- (8) Standby time. Equipment that is in operational condition and is standing by with the Engineer's approval while extra work is being performed will be paid for at standby rates as explained in the Introduction of the Blue Book. The standby rate percentage will be applied to the equipment base rate after adjustment for year and region. Standby rates do not include operating costs. Standby rates will be applied immediately when the equipment is no longer in productive operation on the extra work. There is no grace period where full equipment rates are allowed on non-productive equipment or until the standby rates become effective. During periods of suspension of work, pursuant to Article 15.01 herein, or delay of normal work due to a changed condition, idle time of construction equipment will be paid for at standby rates.

EQUIPMENT ON THE WORK. The rental time to be paid for the equipment on the work shall be the time the equipment is in productive operation on the extra work being performed and, in addition, shall include the time required to move the equipment to the location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location, except that moving time will not be paid if the equipment is used on other than the extra work, even though located at the site of the extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made for loading and transporting costs when the equipment is used at the site of the extra work on other than the extra work. The following shall be used in computing the rental time of equipment on the work.

- (a) When hourly rates are listed, any part of an hour less than 30 minutes of operation shall be considered to be 1/2-hour of operation, and any part of an hour in excess of 30 minutes will be considered one hour of operation.
- (b) When daily rates are listed, any part of a day less than 4 hours of operation shall be considered to be 1/2-day of operation. When owner-operated equipment is used to perform extra work to be paid for on a cost-plus basis, the Contractor will be paid for the equipment and operator, as follows:
 - Payment for the equipment will be made in accordance with the provisions in this Article.
 - Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the Contractor to other workers operating similar equipment already on the project, or in the absence of such labor established by collective bargaining agreements for the type of workmen and location of the work, whether or not the operator is actually covered by such an agreement. A labor surcharge will be added to the cost of labor described herein in accordance with the provisions of Article 11.01.A.1, herein, which surcharge shall constitute full compensation for payments imposed by State and Federal laws and all other payments made to or on behalf of workers other than actual wages.
 - To the direct cost of equipment rental and labor, computed as provided herein, will be added the allowances for equipment rental and labor as provided in Article 12.01.C, herein."

SC-11.03 UNIT PRICE WORK

Delete paragraph 11.03.D.1 and D.2 of the General Conditions in their entirety and insert the following in its place:

- "D.1 The total cost of a particular individual item of Unit Price Work amounts to 10% or more of the Contract Price which is the total sum of all schedules (if any), and the variation in the quantity of that particular item of Unit Price

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Work performed by Contractor differs by more than 25% from the estimated quantity of such item indicated in the Agreement; and”

Add the following new paragraph immediately after paragraph 11.03.D of the General Conditions:

- “E. Unless specifically noted otherwise, work required in the plans and specifications which has no measurement and payment item and is not a separate bid item on the bid proposal sheet, is considered incidental to the work and no separate payment will be made. The cost of these portions of the work should be included in other bid items.”

SC-12.03 DELAYS

Add the following new paragraph to the end of Section 12.03.E:

- “F. Time extensions will not be granted for rain, snow, wind, flood, or other natural phenomena of normal intensity for the locality where Work is performed. For purpose of determining extent of delay attributable to unusual weather phenomena, a determination shall be made by comparing the weather for a minimum continuous period of at least one-fourth of the Contract Time involved with the average of the preceding 5-year climatic range during the same time interval based on U.S. Weather Bureau statistics for the locality where the Work is performed.
- G. The Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays attributable to the relocation of utilities. The Contractor shall coordinate all utility relocations with utility providers.”

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

SC-13.01 NOTICE OF DEFECTS

Add the following to paragraph 13.01:

“The express warranty and guarantee shall not be construed to deny the Owner or any other affected person the right to make claim on any applicable warranty implied by law.”

SC-13.03 TESTS AND INSPECTIONS

Add the following to paragraph 13.03.B:

“All quality assurance and compliance testing of work accomplished will be performed by the Owner, or designated representative, at no cost to the contractor (unless otherwise specified), except all tests for work or materials that fail to meet specified requirements shall be borne by the Contractor and shall be deducted from his progress payments. Where specifications require that certain materials are to be tested “in-place” or in final position, if the Contractor desires quality control testing at any stage prior to final position, he shall do so at his own expense.”

SC-13.07 CORRECTION PERIOD

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Amend Paragraph 13.07.A by striking out the words “one year” and replacing them with the words “two years” and as so amended Paragraph 13.07.A remains in effect.

Add the following to the end of Paragraph 13.07:

“See Special Provision 01010 “Summary of Work” for additional details regarding requirements and dates associated with starting the correction period, if any.”

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

SC-14.02.A APPLICATIONS FOR PAYMENTS

Add the following language at the end of paragraph 14.02.A.1 of the General Conditions:

“Payments for materials in storage shall be based only upon the actual cost of the materials and equipment to the Contractor and shall not include any overhead or profit. Bill of Sale, invoice or other document warranting clear title for materials in storage will be waived for the material in storage included in the first progress payment application. However, proof of payment and clear title must be submitted with Application No. 2 for all material included in Application No. 1. Without such documentation amounts paid for materials in storage will be deducted from subsequent payments. Beginning with the second application, all requests for payment for materials in storage shall be accompanied by Bill of Sale, invoice or other document warranting clear title as required above.”

Add the following to Paragraph 14.02.A.3:

“In accordance with state law the Owner may accept deposited securities in lieu of cash retainage. Retainage may be used by the Owner to offset costs for any of the losses enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.d inclusive, 14.02.C.1.a. through 14.02.C.1.d inclusive, or 15.02.A. In addition, retainage may be used by the Owner to protect against loss from failure by the Contractor to complete necessary work and to offset any liquidated damages due the Owner.”

Add a new paragraph after paragraph to 14.02.A.3 to read:

- “4. Each application for progress payment shall be accompanied by the Contractor’s updated progress schedule, shop drawings schedules, procurement schedules, and other data specified herein or reasonably required by the Owner or the Engineer. The Owner reserves the right to require submission of monthly certified payrolls by the Contractor. After the first progress payment which may request payment for materials in storage without proof of payment, the Contractor must submit, with the following months payment request, evidence satisfactory to the Owner that such material has been paid for. Failure to provide this evidence for the first request and subsequent requests will result in withholding from subsequent progress payments the amount requested for materials in storage.
5. Each application for payment shall be accompanied by an executed lien release form from the General Contractor. Upon request and prior to issuing completion of the project, lien releases must be received from any Subcontractor and Supplier performing work on the project. Lien release shall be in a format acceptable to the Owner.”

SC-14.02.C PAYMENT BECOMES DUE

Delete Paragraph 14.02.C of the General Conditions in its entirety and insert the following in its place:

- “1. The Owner will, upon presentation to him of the Contractor’s application for payment with the Engineer’s recommendations, review and act upon said payment request once each month on or about the day of each month stipulated by the Owner at the preconstruction conference. Payment will become due when the Owner approves the application for payment, and when due will be paid by the Owner to the Contractor.”

SC-14.02.D.1.C

Amend the sentence of Paragraph 14.02.D.1.c to read:

“...entitling the Owner to a set-off against the amount recommended, including liquidated damages, or...”

SC-14.03 CONTRACTORS WARRANTY OF TITLE

Add the following at the end of Paragraph 14.03.A of the General Conditions:

“Neither recommendation of any progress payment by the Engineer nor payment by the Owner to the Contractor, nor any use or occupancy of the Work or any part thereof will release the Contractor from complying with the Contract Documents. Specifically, the Contractor shall maintain in accordance with Article 5, property insurance on all Work, materials, and equipment whether incorporated in the project or not and whether included in an application for payment or not, for the full insurable value thereof. Passing title to the Owner for materials and equipment included in an application for payment does not relieve the Contractor of the Contractor’s obligation to provide insurance (including property insurance), as required in Article 5 of the General Conditions and these Supplementary Conditions. All insurance shall remain in effect as provided in Article 5.”

SC-14.05 PARTIAL UTILIZATION

Add the following to Paragraph 14.05.A:

“The Owner has the right to take possession of or use any completed or substantially completed portions of the work at any time, but such taking possession or use will not be deemed an acceptance of any work not completed in accordance with the Contract Documents. The Owner’s use of any facilities so identified in the Contract Documents will not be grounds for extension of the contract time or change in the contract price. The Owner’s use of any facilities not specifically identified in the Contract Documents will be in accordance with conditions agreed to prior to such use, and any extra costs or delays in completion incurred and properly claimed by the Contractor will be equitably adjusted with a Change Order. Facilities substantially completed in accordance with the Contract Documents which are occupied or used by Owner prior to substantial completion of the entire work will be done in accordance with General Conditions 14.04. Guarantee periods for accepted or substantially completed work including mechanical and electrical equipment will commence upon the start of continuous use by the Owner. All tests and instruction of the Owner’s personnel must be satisfactorily completed, and Owner shall assume responsibility for and operation of all facilities occupied or used except as may arise

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through portions of work not yet completed by the Contractor. If the work has been substantially completed and the Engineer certifies that full completion thereof is materially delayed through no fault of the Contractor, the Owner shall, without terminating the Agreement, make payment of the balance due for the portion of the work fully completed and accepted.”

SC-14.06 FINAL INSPECTION

Add the following to Paragraph 14.06.A:

“After the Contractor has remedied all deficiencies to the satisfaction of the Engineer and delivered all construction records, maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, and other documents (all as required by the Contract Documents), the Owner and the Contractor shall be promptly notified in writing by the Engineer that the work is acceptable.”

SC-14.09 WAIVER OF CLAIMS

Add the words “and/or the Engineer” to the first sentence of Paragraph SC-14.09.A.2. after the words “against the Owner.”

ARTICLE 17 - MISCELLANEOUS

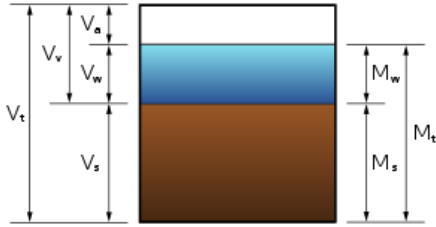
SC-17.01 GIVING NOTICE

Add the following to Paragraph 17.01.A:

“The mailing address for giving notices to the Contractor given in the Agreement is hereby designated as the place to which all notices, letters, and other communication to the Contractor will be mailed or delivered. The mailing address for giving notices to Owner given in the Agreement is hereby designated as the place to which all notices, letters, and other communication to the Owner shall be mailed or delivered. Either party may change his address at any time by an instrument in writing delivered to the Engineer and to other party.”

END OF SECTION

SECTION 00810
APPENDIX A
GEOTECHNICAL REPORT



Lorenzen Soil Mechanics, Inc.

Big Sky High School Parking Areas and North Practice Field Geotechnical Engineering Report Missoula, Montana

Prepared for:
Missoula County Public Schools
915 South Avenue West
Missoula, Montana 59801
&
Hulteng CCM
241 East Alder Street
Missoula, Montana 59802

Prepared by:
Lorenzen Soil Mechanics, Inc.
2720 Palmer Drive, Unit C
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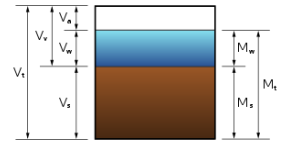
May 20, 2020

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Appendix A. Logs of Test Pit and Testing Results

Appendix B. Photographs



1 INTRODUCTION

Through Hulteng CCM, the Missoula County Public School District has requested Lorenzen Soil Mechanics, Inc. (LSM) to complete a geotechnical evaluation for a reconstruction of the south and the north parking lots and for the regrading of the north practice field at the Big Sky High School campus. WGM Group is the civil engineering firm for this project.

The primary purpose of the investigation was to evaluate the subgrade materials and to use that information to provide a typical section and materials recommendations for the south and north parking lots and to determine the topsoil thickness at the north practice field.

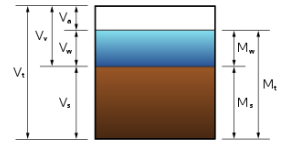
2 SITE EVALUATION

The sites are currently being used for their intended purposes. The south parking lot is for the Big Sky High School staff and visitors and the north parking lot is used for the Big Sky High School students. The north practice field is primarily used for football practice but is also used for track and field throwing events. A middle parking lot also serves high school staff and visitors but is not part of this scope. LSM understands the high school campus opened in 1980 and the parking lots have been left intact with only crack sealing and localized patching completed over the 40-year period.

Geologically, the general area is mapped on the Montana Bureau of Mines and Geology (MBMG) Open File Report 373 '*Geologic Map of the Missoula West 30' x 60' Quadrangle, Montana*', 1998 as River Terrace Deposits (Qat). The Qat materials are characterized as well-rounded cobbles, gravel, and sand in deposits with flat-topped surfaces that are 10 to 30 feet above the present flood plain. Figure 1 depicts a portion of the geologic map and indicates the general location of Big Sky High School. Well logs from near the high school indicate up to 2 feet of topsoil overlying sand and gravel extending down at least 69 feet. The well logs indicated groundwater table ranged from 27 to 30 feet below the ground surface.

A subsurface investigation was conducted May 18th, 2020 in the parking areas and on May 19th in the north practice field. Grant Creek Excavating provided and operated their John Deere 310SG backhoe to complete nine test pits through the pavement asphalt and its base course cushion, and into the subgrade. Each of the test pits were excavated to at least 2 feet. Figures 2 and 3 present the test pit locations. Horizontal coordinates were obtained using a Garmin eTrex Vista[®] HCx GPS unit.

The native materials encountered during the parking lot subsurface investigation appeared to match what was described in the MBMG Open File Report 373 in regards to cobbles, gravel, and sand. The samples did include some silt and clay in the upper profile. The subgrade was primarily poorly graded coarse gravel with silt and sand that included frequent cobble-size particles. The subgrade in some of the test pits did consist of silty clay overlying the poorly graded gravel.



The asphalt thickness tended to be 2 inches thick. The base course was not much more than a 2-inch thick cushion of 3/4-inch minus, crushed gravel. The asphalt surfacing had numerous cracks that included alligator cracking which indicates a subgrade failure. At the Big Sky High School campus site, it was not that the subgrade materials were weak that led to the alligator cracking, but that the subgrade materials tended to be too coarse and likely acted as point loadings to the vehicle traffic. Longitudinal and transverse cracking was prevalent across the asphalt surface. Most of the wider cracks had received a mastic seal. These types of cracks are typically associated with cyclic temperature changes.

On the 19th, LSM returned to the campus to probe and hand-auger the north practice field to determine the topsoil thickness. The topsoil thickness at the north practice field tended to be 4 to 5 inches thick. An Army Corps of Engineers Cone Penetrometer was used to establish the topsoil thickness. The penetrometer is equipped with a dial gauge that registers a 320 psi (46,080 psf) loading upon a full revolution. The probe was pushed to a depth until the dial gauge read 320 psi, which was considered refusal. The probe's depth was measured. A hand-auger was used to verify the topsoil thickness in the first few probings. Gravel was encountered in the hand-auger holes where the probe met its refusal depth. Figure 4 depicts the probe locations and the measured topsoil depths.

The logs of test pits and laboratory testing are presented in Appendix A. Photographs of the test pitting and probing operations and the soil samples are provided in Appendix B.

3 RECOMMENDATIONS

3.1 *Parking Area Typical Sections*

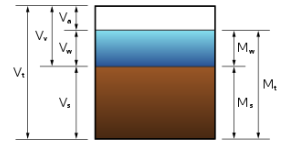
The existing asphalt pavement exhibits a number of alligator, block, transverse, and longitudinal cracking, as well as some patching that is likely associated with underground utilities. The level of cracking is to be expected for pavement surfaces older than 20 years. The underlying gravel and cobbles in the subgrade have allowed the two parking lots to last for the past 40 years. LSM recommends a typical section of:

Asphalt Plant Mix	2 inches
1 1/2-inch Minus Crushed Base Course	6 inches

Depending on the constructability, LSM suggests the existing asphalt and 3/4-inch cushion materials can be re-used by milling the asphalt surfaces and mixing it into the underlying subgrade.

LSM recommends preparing the typical sections by:

1. Grading to the subgrade depth. If silt or clay subgrade is encountered, over-excavate to 1 foot or to native gravels, whichever is less. LSM estimates about 15 percent of the parking lot area will need the 1-foot over-excavation, primarily in the south parking lot. Use the 1 1/2-inch minus crushed base course to backfill the over-excavation.



2. Compacting to a standard relative compaction of at least 95 percent at a moisture content within 2 percent of its optimum moisture content. The subgrade is likely too coarse to have a relevant Proctor moisture/density curve. If so, the maximum dry density can be established in the field by making repeated passes with a vibratory roller compactor having an operating weight of at least 20,000 pounds and a centrifugal force of at least 45,000 pounds.
3. Providing a 6-inch compacted thickness of 1 1/2-inch crushed aggregate base course meeting the gradation in Table 1. Recycled materials such as asphalt and concrete can be blended and used as the base provided they meet the gradation recommendation. In over-excavated areas, the 6-inch thickness may be as much as 18 inches thick.

TABLE 1: 1 1/2" Minus Base Course

Sieve Size	Percent Passing
1 1/2"	100
3/4"	74 - 96
3/8"	40 - 76
No. 4	24 - 60
No. 40	6 - 34
No. 200	0 - 8

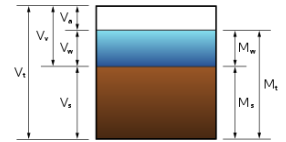
4. Grading the areas to drain the surface water to dry well sumps.
5. Compacting the base course to a standard relative compaction of at least 95 percent.

LSM recommends a performance graded PG 58-28 binder for the asphalt concrete and the plant mix surfacing aggregate meeting the Montana Public Work's gradation presented in Table 2. The gradation bands in Table 2 represent the job mix target limits, which determine the suitability of aggregate. Provide the final job mix target gradation within the specified bands and uniformly graded from coarse to fine, not to vary from the low limit on one sieve to the high limit on the adjacent sieve, or vice-versa. For example, using the 3/8" and No. 4 sieves, a gradation of 73 percent and 48 percent passing their respective sieves is acceptable, 73 percent and 62 percent passing their respective sieves is not.

TABLE 2: Plant Mix Surfacing Gradation

Sieve Size	% Passing Job Mix Target Bands	Job Mix Tolerances
3/4"	100	---
1/2"	83 - 93	+/- 7
3/8"	73 - 87	+/- 7
No. 4	47 - 63	+/- 6
No. 10	32 - 43	+/- 6
No. 40	15 - 25	+/- 5
No. 200	5 - 7	+/- 2

The job mix formula establishes target values. During mix production, the gradations are to fall within the job mix limits presented in Table 2, i.e. if a QA job mix target of 6 has been selected



for the No. 200 sieve and since the tolerance is ± 2 , the job mix gradation for production would be 4 - 8.

Compact the asphalt concrete plant mix surfacing in one lift to an average relative compaction (ASTM D2041) of at least 93 percent, and no individual sample being less than 92 percent.

3.2 North Practice Field

The north practice field will be re-graded and shaped. Fourteen locations were probed with an Army Corps of Engineers Cone Penetrometer to determine the topsoil thickness. Hand-augering was completed on the first few probe locations to confirm the probe depths. The hand-auger and the probe each bottomed on a gravel layer. The gravel can be likened to what was encountered in the parking area test pits. In general, the topsoil thickness tended to be 4 to 5 inches. Visible topographical rises and swales had little bearing on the topsoil thickness. The exception was near the east fence-line where the topsoil was measured at 7 inches thick. Figure 4 presents the topsoil thickness at their specific locations.

3.3 Fresh Concrete and Compaction Inspection Testing Frequency

LSM suggests a testing frequency presented in Table 3 for the parking area subgrade and base course and for concrete curb fresh concrete sampling and testing. The compaction testing frequencies should be regarded as guidelines. More or less frequent testing may be needed as the project progresses.

TABLE 3: Fresh Concrete and Compaction Inspection Testing Frequency

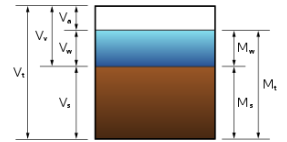
Compaction Testing	
Parking Area Subgrade and Aggregates	1 Test per 2,000 Square Feet
Concrete Testing	
Curb Concrete	1 Test per Day

4 BASIS OF RECOMMENDATIONS

The analyses and recommendations submitted in this report are based upon the subsurface investigation. Often, variations occur within the subgrade, the nature and extent of which do not become evident until additional exploration or construction is conducted.

4.1 Use of Report

This report is for the exclusive use of the Missoula County Public School District, Hulteng CCM, WGM Group and their design team. In the absence of LSM's written approval, LSM makes no representation and assumes no responsibility to other parties regarding this report. The data, analyses, and recommendations may not be appropriate for other structures or purposes. Other parties contemplating other structures or purposes other than what this report was written are directed to contact LSM.

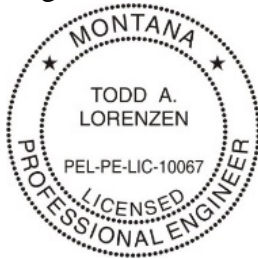


4.2 Level of Care

Services performed by LSM's personnel for this project have been conducted with the level of care and skill ordinarily exercised by members of the profession currently practicing in this area under similar budget and time restraints. No warranty, expressed or implied, is made.

Professional Certification

I hereby certify that this report was prepared by me and that I am a duly Licensed Professional Engineer under the laws of the State of Montana.



Todd Lorenzen, P.E.
Geotechnical Engineer

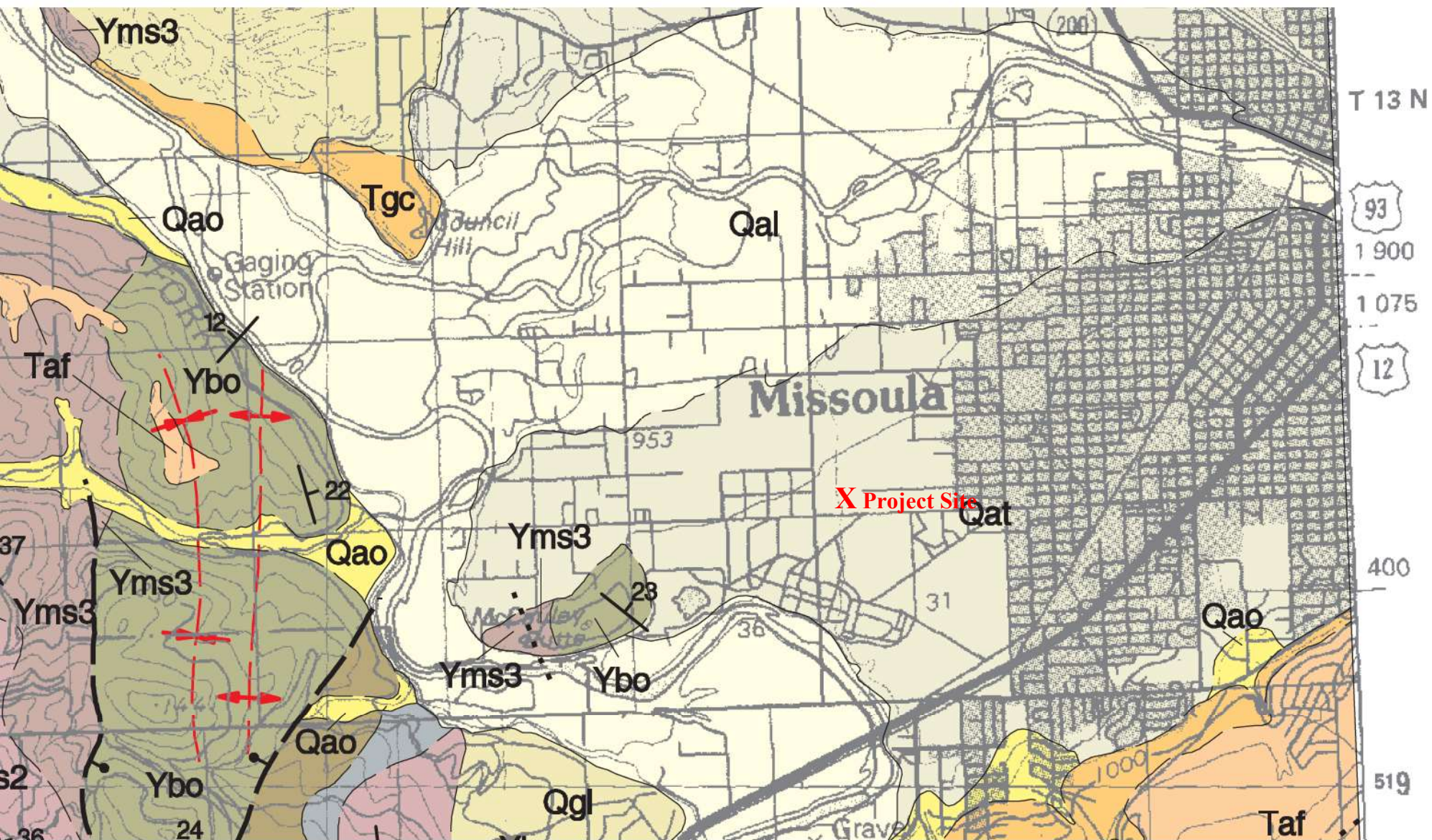


Figure 1: Portion of the MBMG Open File Report 373 for the Gelologic Map of the Missoula West 30' x 60' Quadrangle, 1998; Reed S. Lewis



Figure 2: South Parking Area Test Pit Locations



Figure 3: North Parking Area Test Pit Locations

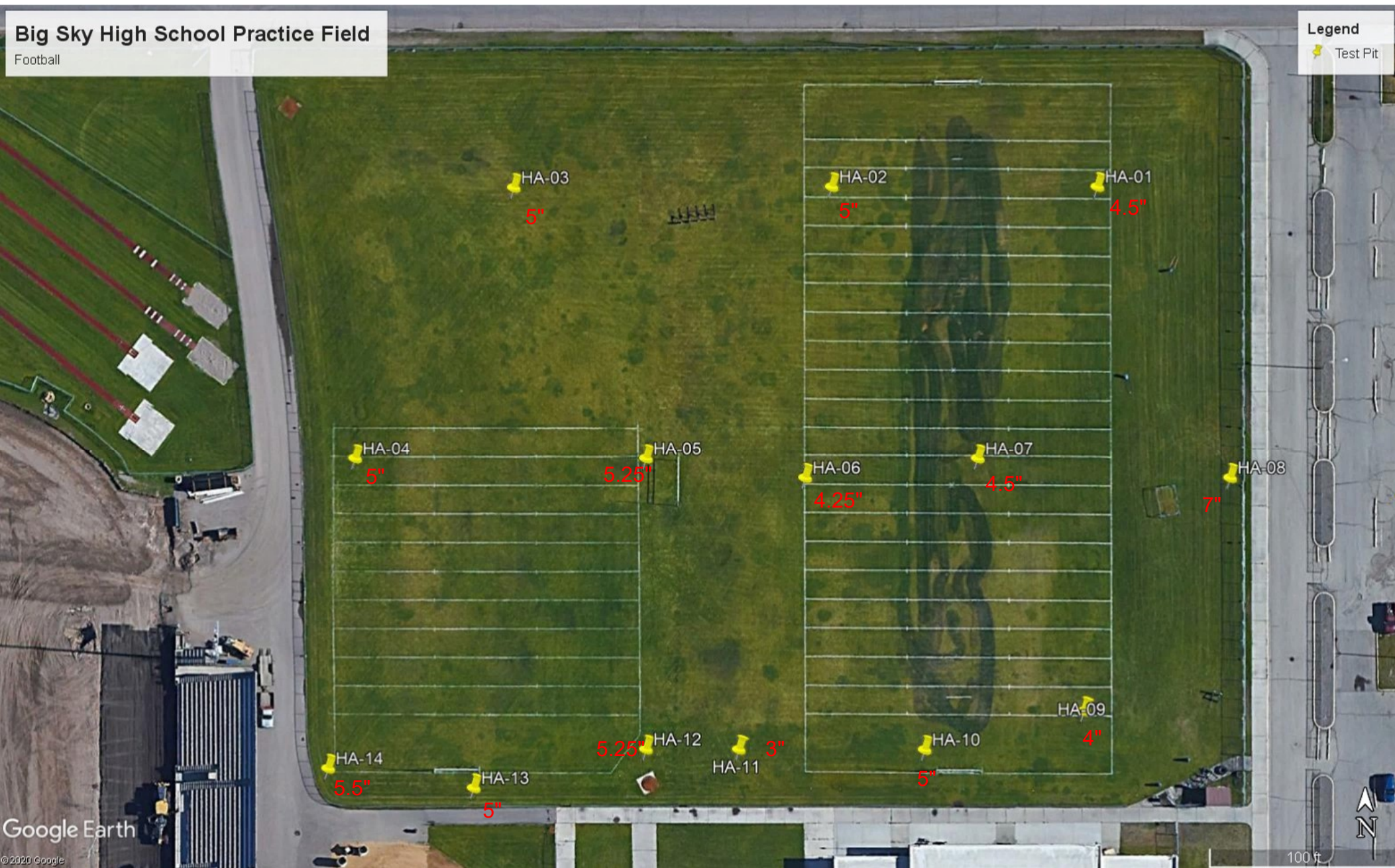
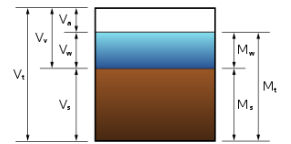












Figure 4: Hand Auger / Probe Locations with Recorded Topsoil Thickness





APPENDIX A. LOGS OF TEST PIT AND TESTING RESULTS

GENERAL NOTES

DRILLING & SAMPLING SYMBOLS:

SS: 	Split Spoon - 1-3/8" I.D., 2" O.D., unless otherwise noted	CA: 	Casing Advancer
ST: 	Thin-Walled Tube - 2" O.D., unless otherwise noted	DA: 	Drill Auger
CB: 	California Sampler - 2" I.D., 2.5" O.D., unless otherwise noted	HA: 	Hand Auger
DB: 	Diamond Bit Coring - 4", NX, unless otherwise noted	RB: 	Rock Bit
BS: 	Bulk Sample or Auger Sample	GS: 	Grab Sample

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value". The field blow counts are reported for each 6-inch interval, or portion thereof if greater than 50 blows are required to advance the full 6-inch interval. For over-sized split spoon samplers, non-standard hammers, or non-standard drop heights, the field penetration values are reported on the bore log. The values must be corrected to obtain the N-value.

WL:	Water Level	WS:	While Sampling	NE:	Not Encountered
WCI:	Wet Cave-In	WD: 	While Drilling		
DCI:	Dry Cave-In	BCR:	Before Casing Removal		
AB:	After Boring	ACR: 	After Casing Removal		

Groundwater table levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater table levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater table levels may not be possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION: Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: gravel or sand. Cobbles and boulders are not part of the USCS system but are included, when present, as percentages. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; depending on their plasticity, they are described as clay or silt. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils are defined on the basis of their consistency.

CONSISTENCY OF FINE-GRAINED SOILS

<u>Unconfined Compressive Strength, Qu, psf</u>	<u>Standard Penetration or N-value (SS) Blows/Ft.</u>	<u>Consistency</u>
< 500	0 - 1	Very Soft
500 - 1,000	2 - 4	Soft
1,001 - 2,000	5 - 8	Medium Stiff
2,001 - 4,000	9 - 15	Stiff
4,001 - 8,000	16 - 30	Very Stiff
8,000 +	30 +	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

<u>Standard Penetration or N-value (SS) Blows/Ft.</u>	<u>California Barrel (CB) Blows/Ft.</u>	<u>Relative Density</u>
0 - 4	0 - 6	Very Loose
5 - 10	7 - 18	Loose
11 - 30	19 - 58	Medium Dense
31 - 50	59 - 98	Dense
50 +	99 +	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL

<u>Descriptive Term(s) of Other Constituents</u>	<u>Percent of Dry Weight</u>
Trace	< 15
With	15 - 30
Modifier	> 30

USCS* GRAIN SIZE TERMINOLOGY

<u>Major Component of Sample</u>	<u>Particle Size</u>
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75 mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

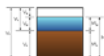
*For AASHTO grain size the #4 sieve is replaced with the #10 sieve

RELATIVE PROPORTIONS OF FINES

<u>Descriptive Term(s) of Other Constituents</u>	<u>Percent of Dry Weight</u>
Trace	< 5
With	5 - 12
Modifiers	> 12

PLASTICITY DESCRIPTION

<u>Term</u>	<u>Plasticity Index</u>
Non-Plastic	0
Slightly	1 - 5
Low	6 - 10
Medium	11 - 20
Highly	21 - 40
Very Highly	> 40



UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A				Soil Classification	
				Group Symbol	Group Name ^B
Coarse Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels	$Cu \geq 4$ and $1 \leq Cc \leq 3$	GW	Well-graded Gravel ^F
		Less than 5% fines	$Cu < \text{and/or } 1 > Cc > 3$	GP	Poorly graded gravel ^F
		Gravels with Fines	Fines classify as ML or MH	GM	Silty Gravel ^{F,G,H}
		More than 12% fines	Fines classify as CL or CH	GC	Clayey Gravel ^{F,G,H}
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands	$Cu \geq 6$ and $1 \leq Cc \leq 3$	SW	Well-graded Sand ^I
		Less than 5% fines	$Cu < 6$ and/or $1 > Cc > 3$	SP	Poorly graded Sand ^I
		Sands with Fines	Fines classify as ML or MH	SM	Silty Sand ^{G,H,I}
		More than 12% fines	Fines classify as CL or CH	SC	Clayey Sand ^{G,H,I}
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid limit less than 50	inorganic	$PI > 7$ and plots on or above "A" line	CL	Lean Clay ^{K,L,M}
			$PI < 4$ or plots below "A" line	ML	Silt ^{K,L,M}
		organic	<u>Liquid limit - oven dried</u> < 0.75	OL	Organic Clay ^{K,L,M,N}
			Liquid limit - not dried		Organic Silt ^{K,L,M,Q}
	Silts and Clays Liquid Limit 50 or more	inorganic	PI plots on or above "A" Line	CH	Fat Clay ^{K,L,M}
			PI plots below "A" line	MH	Elastic Silt ^{K,L,M}
		organic	<u>Liquid limit - oven dried</u> < 0.75	OH	Organic Clay ^{K,L,M,P}
					Liquid limit - not dried
Highly organic soils	Primarily organic matter, dark in color, and organic odor			PT	Peat

^A Based on the material passing the 3-in. (75-mm) sieve

^B If field sample contains cobbles and/or boulders, add "with cobbles or boulders, or both" as necessary to group name.

^C Gravels 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.

^D Sands 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.

$$^E Cu = D_{60} / D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^F If soil contains $\geq 15\%$ sand, add "with sand" to group name.

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

^H If fines are organic, add "with organic fines" to group name.

^I If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

^K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

^L If soil contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.

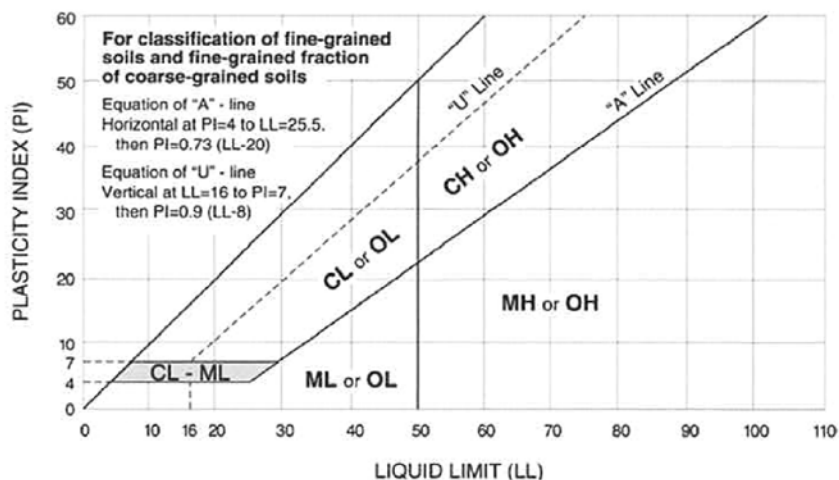
^M If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

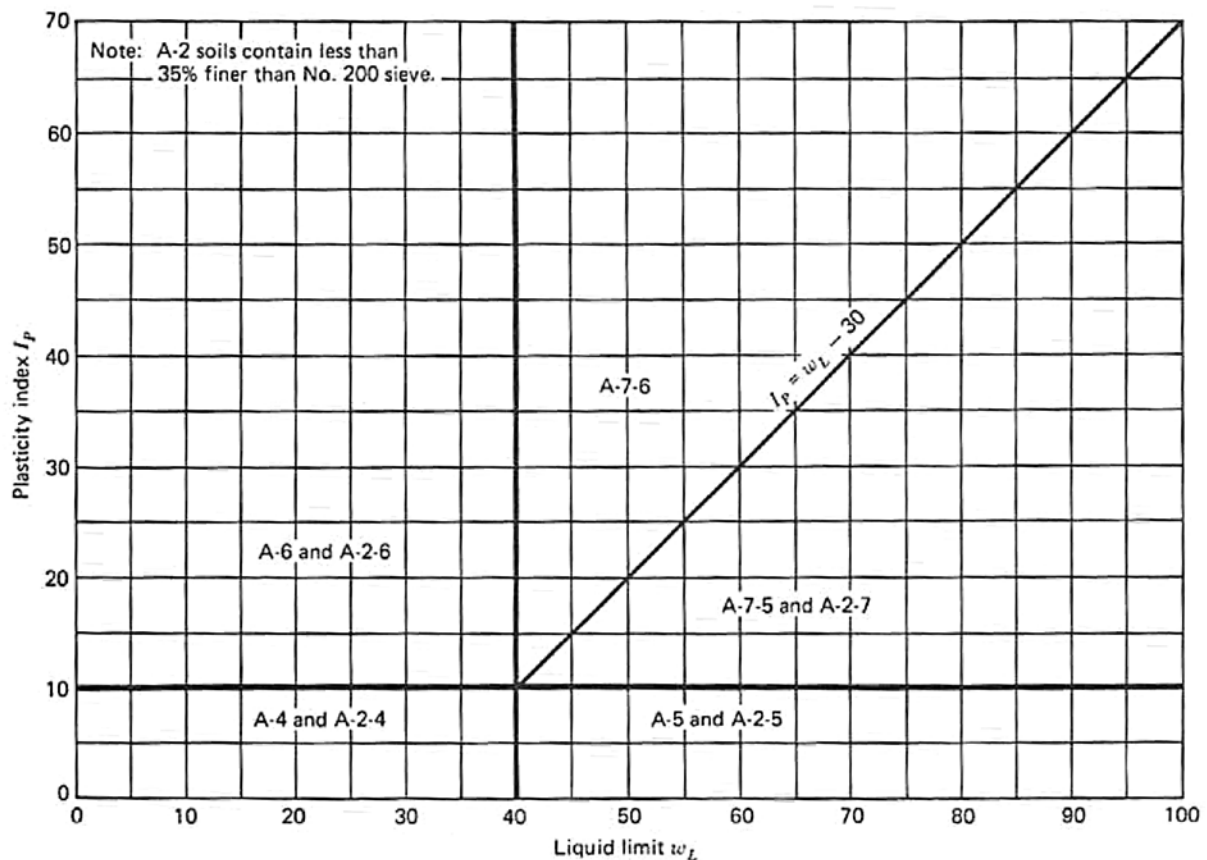
^Q PI plots below "A" line.



AASHTO SOIL CLASSIFICATION SYSTEM

General classification	Granular materials (35 percent or less of total sample passing No. 200)							Silt-clay material (More than 35 percent of total sample passing No. 200)			
Group classification	A-1		A-3	A-2				A-4	A-5	A-6	A-7 ¹
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5 A-7-6
Sieve analysis percent passing No. 10 No. 40 No. 200	50 max 30 max 15 max	50 max 25 max	51 max 10 max	35 max	35 max	35 max	35 max	36 min	36 min	36 min	36 min
Characteristics of fraction passing No. 40 Liquid limit, w_L Plastic Index, I_p	6 max		NP	40 max 10 max	41 min 10 max	40 max 11 min	41 min 11 min	40 max 10 max	41 min 10 max	40 max 11 min	41 min 11 min
Significant constituent materials	gravel and sand		fine sand	silty and clayey gravel and sand				silty soils		clayey soils	

¹ Plasticity index of A-7-5 subgroup is equal to or less than $LL - 30$. Plasticity index of A-7-6 subgroup is greater than $LL - 30$.



Lorenzen Soil Mechanics, Inc.
2720 Palmer Street, Unit C
Missoula, MT 59808
Telephone: 406-830-0633

TEST PIT NUMBER TP-01

PAGE 1 OF 1

CLIENT Missoula County Public Schools District

PROJECT NAME Big Sky HS Parking and North Practice Field

PROJECT NUMBER AQ2020

PROJECT LOCATION Big Sky High School Campus

DATE STARTED 5/18/20 COMPLETED 5/18/20

GROUND ELEVATION _____ TEST PIT SIZE 48 inches

EXCAVATION CONTRACTOR Grant Creek Excavating

GROUND WATER LEVELS:

EXCAVATION METHOD JD 310SG Backhoe

AT TIME OF EXCAVATION --- GW table was not encountered.

LOGGED BY Lorenzen CHECKED BY Lorenzen

AT END OF EXCAVATION --- GW table was not encountered.

NOTES N46° 50' 57.6"; W114° 03' 21.7"

AFTER EXCAVATION ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
					ASPHALT PAVEMENT - 2.5 inches thick. Alligator cracking.
	GB	MC = 8%	GP		(GP) BASE COURSE CUSHION - 2 inches thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; wet; grayish brown (10YR 5/2); no reaction to 10% HCl solution.
					(GP-GM) Poorly Graded GRAVEL with Silt and Sand, frequent Cobbles; rounded to subrounded; moist; very dark grayish brown (10YR 3/2) matrix with some calcium carbonate coatings; strong reaction to 10% HCl solution. Fines have low plasticity.
1					
	GB				
	GB				
2		MC = 6%			

Bottom of test pit at 2.0 feet.

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TEST PIT NUMBER TP-02

PAGE 1 OF 1

CLIENT Missoula County Public Schools District

PROJECT NAME Big Sky HS Parking and North Practice Field

PROJECT NUMBER AQ2020

PROJECT LOCATION Big Sky High School Campus

DATE STARTED 5/18/20 COMPLETED 5/18/20

GROUND ELEVATION _____ TEST PIT SIZE 48 inches

EXCAVATION CONTRACTOR Grant Creek Excavating

GROUND WATER LEVELS:

EXCAVATION METHOD JD 310SG Backhoe

AT TIME OF EXCAVATION --- GW table was not encountered.

LOGGED BY Lorenzen CHECKED BY Lorenzen

AT END OF EXCAVATION --- GW table was not encountered.

NOTES N46° 50' 59.4"; W114° 03' 20.4"

AFTER EXCAVATION ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
					ASPHALT PAVEMENT - 2 inches thick. Alligator cracking.
	GB	MC = 5% Fines = 3%	GP	0.2	
	GB	MC = 14%	SM	0.3	(GP) BASE COURSE CUSHION - 2 inches thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; moist; brown (10YR 5/3); no reaction to 10% HCl solution.
					(SM) Silty SAND; moist; very dark brown (10YR 2/2); no reaction to 10% HCl solution. Fines have low plasticity.
	GB	MC = 15%		0.8	
1					(ML) SILT; damp; light gray (10YR 7/1) and brown (10YR 5/3); strong reaction to 10% HCl solution; low plasticity.
	GB	MC = 17%	ML		
					Surface water was draining into the test pit through pavement cracking.
				1.4	
					(GP) Poorly Graded GRAVEL with Sand, frequent Cobbles; rounded to subrounded; moist; dark brown (10YR 3/3) matrix with some calcium carbonate coatings; strong reaction to 10% HCl solution.
	GB	MC = 3%	GP		
2				2.0	

Bottom of test pit at 2.0 feet.

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 5/20/20 11:40 - C:\USERS\TODD LORENZEN\DOCUMENTS\LORENZEN\BIG SKY HS PARKING & PRACTICE FIELD.GPJ

Lorenzen Soil Mechanics, Inc.
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TEST PIT NUMBER TP-03

PAGE 1 OF 1

CLIENT Missoula County Public Schools District

PROJECT NAME Big Sky HS Parking and North Practice Field

PROJECT NUMBER AQ2020

PROJECT LOCATION Big Sky High School Campus

DATE STARTED 5/18/20 COMPLETED 5/18/20

GROUND ELEVATION _____ TEST PIT SIZE 48 inches

EXCAVATION CONTRACTOR Grant Creek Excavating

GROUND WATER LEVELS:

EXCAVATION METHOD JD 310SG Backhoe

AT TIME OF EXCAVATION --- GW table was not encountered.

LOGGED BY Lorenzen CHECKED BY Lorenzen

AT END OF EXCAVATION --- GW table was not encountered.

NOTES N46° 50' 59.9"; W114° 03' 22.1"

AFTER EXCAVATION ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
					ASPHALT PAVEMENT - 2 inches thick. Alligator cracking. Near patched area.
	GB	MC = 11%	GP	0.2	
				0.3	(GP) BASE COURSE CUSHION - 2 inches thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; wet; brown (10YR 4/3); no reaction to 10% HCl solution.
	GB	MC = 18%			(CL-ML) SILTY CLAY; damp; very dark brown (10YR 2/2) [Clay] and dark grayish brown (10YR 4/2) [Silt]; Silt has a medium reaction to 10% HCl solution, Clay has no reaction to 10% HCl solution; low plasticity.
1			CL-ML		
	GB	MC = 18%			Surface water was draining into the test pit through pavement cracking.
				1.7	
2			GP-GM		(GP-GM) Poorly Graded GRAVEL with Silt and Sand, frequent Cobbles; rounded to subrounded; moist; dark brown (10YR 3/3) matrix with some calcium carbonate coatings; strong reaction to 10% HCl solution. Fines have low plasticity.
	GB	MC = 4%		2.5	

Bottom of test pit at 2.5 feet.

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TEST PIT NUMBER TP-04

PAGE 1 OF 1

CLIENT Missoula County Public Schools District

PROJECT NAME Big Sky HS Parking and North Practice Field

PROJECT NUMBER AQ2020

PROJECT LOCATION Big Sky High School Campus

DATE STARTED 5/18/20 COMPLETED 5/18/20

GROUND ELEVATION _____ TEST PIT SIZE 48 inches

EXCAVATION CONTRACTOR Grant Creek Excavating

GROUND WATER LEVELS:

EXCAVATION METHOD JD 310SG Backhoe

AT TIME OF EXCAVATION --- GW table was not encountered.

LOGGED BY Lorenzen CHECKED BY Lorenzen

AT END OF EXCAVATION --- GW table was not encountered.

NOTES N46° 51' 03.1"; W114° 03' 22.6"

AFTER EXCAVATION ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
					ASPHALT PAVEMENT - 4 inches thick. Some block cracking. Concrete Curb is 11.5 inches thick, no Gutter.
	GB	MC = 5%	GP-GM	0.3	
	GB	MC = 4%	GP-GM	0.4	(GP-GM) BASE COURSE CUSHION - 1 inch thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; moist; brown (10YR 5/3); no reaction to 10% HCl solution.
			GP		(GP) Poorly Graded GRAVEL with Sand - 2-inch minus; moist; very dark grayish brown (10YR 3/2); strong reaction to 10% HCl solution.
1					
	GB	Fines = 1%	GP-GM	1.4	
			GP-GM		(GP-GM) Poorly Graded GRAVEL with Silt and Sand, frequent Cobbles; rounded to subrounded; moist; dark brown (10YR 3/3) matrix with some calcium carbonate coatings; strong reaction to 10% HCl solution. Fines have low plasticity.
2				2.0	

Bottom of test pit at 2.0 feet.

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TEST PIT NUMBER TP-05

PAGE 1 OF 1

CLIENT Missoula County Public Schools District

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PROJECT NUMBER AQ2020

PROJECT LOCATION Big Sky High School Campus

DATE STARTED 5/18/20 COMPLETED 5/18/20

GROUND ELEVATION _____ TEST PIT SIZE 48 inches

EXCAVATION CONTRACTOR Grant Creek Excavating

GROUND WATER LEVELS:

EXCAVATION METHOD JD 310SG Backhoe

AT TIME OF EXCAVATION --- GW table was not encountered.

LOGGED BY Lorenzen CHECKED BY Lorenzen

AT END OF EXCAVATION --- GW table was not encountered.

NOTES N46° 51' 04.5"; W114° 03' 21.4"

AFTER EXCAVATION ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
					ASPHALT PAVEMENT - 2 inches thick. Block cracking.
	GB	MC = 5%	GP	0.2	
				0.3	(GP) BASE COURSE CUSHION - 2 inches thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; moist; brown (10YR 5/3); no reaction to 10% HCl solution.
	GB	MC = 8%	ML		(ML) SILT with Gravel; moist; very dark brown (10YR 2/2); no reaction to 10% HCl solution.
1				1.1	
	GB	MC = 4%	GP-GM		(GP-GM) Poorly Graded GRAVEL with Silt and Sand, frequent Cobbles; rounded to subrounded; moist; dark brown (10YR 3/3) matrix with some calcium carbonate coatings; strong reaction to 10% HCl solution. Fines have low plasticity.
2				2.0	

Bottom of test pit at 2.0 feet.

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 5/20/20 11:40 - C:\USERS\TODD LORENZEN\DOCUMENTS\LORENZEN\SOIL MECHANICS\MCP\BIG SKY PARKING\5.0 DELIVERABLES\BIG SKY HS PARKING & PRACTICE FIELD.GPJ

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TEST PIT NUMBER TP-06

PAGE 1 OF 1

CLIENT Missoula County Public Schools District

PROJECT NAME Big Sky HS Parking and North Practice Field

PROJECT NUMBER AQ2020

PROJECT LOCATION Big Sky High School Campus

DATE STARTED 5/18/20 COMPLETED 5/18/20

GROUND ELEVATION _____ TEST PIT SIZE 48 inches

EXCAVATION CONTRACTOR Grant Creek Excavating

GROUND WATER LEVELS:

EXCAVATION METHOD JD 310SG Backhoe

AT TIME OF EXCAVATION --- GW table was not encountered.

LOGGED BY Lorenzen CHECKED BY Lorenzen

AT END OF EXCAVATION --- GW table was not encountered.

NOTES N46° 51' 05.1"; W114° 03' 23.6"

AFTER EXCAVATION ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
					ASPHALT PAVEMENT - 2.5 inches thick. Block cracking. Concrete Curb is 11.5 inches thick, no Gutter.
	GB	MC = 6%	GP		(GP) BASE COURSE CUSHION - 2 inches thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; moist; brown (10YR 5/3); no reaction to 10% HCl solution.
					(GP-GM) Poorly Graded GRAVEL with Silt and Sand, frequent Cobbles; rounded to subrounded; wet; very dark grayish brown (10YR 3/2) matrix with some calcium carbonate coatings; strong reaction to 10% HCl solution. Fines have low plasticity.
1					
	GB	MC = 10%	GP-GM		
2					

Bottom of test pit at 2.0 feet.

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 5/20/20 11:40 - C:\USERS\TODD LORENZEN\DOCUMENTS\LORENZEN SOIL MECHANICS\BIG SKY PARKING\5.0 DELIVERABLES\BIG SKY HS PARKING & PRACTICE FIELD.GPJ

Lorenzen Soil Mechanics, Inc.
2720 Palmer Street, Unit C
Missoula, MT 59808
Telephone: 406-830-0633

TEST PIT NUMBER TP-07

PAGE 1 OF 1

CLIENT Missoula County Public Schools District

PROJECT NAME Big Sky HS Parking and North Practice Field

PROJECT NUMBER AQ2020

PROJECT LOCATION Big Sky High School Campus

DATE STARTED 5/18/20 COMPLETED 5/18/20

GROUND ELEVATION _____ TEST PIT SIZE 48 inches

EXCAVATION CONTRACTOR Grant Creek Excavating

GROUND WATER LEVELS:

EXCAVATION METHOD JD 310SG Backhoe

AT TIME OF EXCAVATION --- GW table was not encountered.

LOGGED BY Lorenzen CHECKED BY Lorenzen

AT END OF EXCAVATION --- GW table was not encountered.

NOTES N46° 51' 06.0"; W114° 03' 24.2"

AFTER EXCAVATION ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
	GB	MC = 7%	GP		0.1 ASPHALT PAVEMENT - 1 inch thick. Alligator cracking. 0.2 (GP) BASE COURSE CUSHION - 2 inches thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; moist; brown (10YR 5/3); no reaction to 10% HCl solution. Fines are slightly plastic.
	GB	MC = 7%			(GP-GM) Poorly Graded GRAVEL with Silt and Sand, frequent Cobbles; rounded to subrounded; wet; very dark brown (10YR 2/2) matrix with some calcium carbonate coatings; strong reaction to 10% HCl solution. Fines have low plasticity.
1			GP-GM		
2					2.0

Bottom of test pit at 2.0 feet.

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 5/20/20 11:40 - C:\USERS\TODD LORENZEN\DOCUMENTS\LORENZEN SOIL MECHANICS\MP\BIG SKY PARKING\5.0 DELIVERABLES\BIG SKY HS PARKING & PRACTICE FIELD.GPJ

Lorenzen Soil Mechanics, Inc.
2720 Palmer Street, Unit C
Missoula, MT 59808
Telephone: 406-830-0633

TEST PIT NUMBER TP-08

PAGE 1 OF 1

CLIENT Missoula County Public Schools District **PROJECT NAME** Big Sky HS Parking and North Practice Field
PROJECT NUMBER AQ2020 **PROJECT LOCATION** Big Sky High School Campus
DATE STARTED 5/18/20 **COMPLETED** 5/18/20 **GROUND ELEVATION** _____ **TEST PIT SIZE** 48 inches
EXCAVATION CONTRACTOR Grant Creek Excavating **GROUND WATER LEVELS:**
EXCAVATION METHOD JD 310SG Backhoe **AT TIME OF EXCAVATION** --- GW table was not encountered.
LOGGED BY Lorenzen **CHECKED BY** Lorenzen **AT END OF EXCAVATION** --- GW table was not encountered.
NOTES N46° 51' 06.8"; W114° 03' 22.8" **AFTER EXCAVATION** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
					ASPHALT PAVEMENT - 2 inches thick. Block cracking.
	GB	MC = 5%	GP		(GP) BASE COURSE CUSHION - 2 inches thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; moist; brown (10YR 5/3); no reaction to 10% HCl solution.
	GB	MC = 5%			(GP-GM) Poorly Graded GRAVEL with Silt and Sand, frequent Cobbles; rounded to subrounded; wet; very dark brown (10YR 2/2) matrix with some calcium carbonate coatings; coatings have strong reaction to 10% HCl solution, matrix has no reaction to 10% HCl solution. Fines have low plasticity.
1			GP-GM		
2					

Bottom of test pit at 2.0 feet.

Lorenzen Soil Mechanics, Inc.
2720 Palmer Street, Unit C
Missoula, MT 59808
Telephone: 406-830-0633

TEST PIT NUMBER TP-09

PAGE 1 OF 1

CLIENT Missoula County Public Schools District

PROJECT NAME Big Sky HS Parking and North Practice Field

PROJECT NUMBER AQ2020

PROJECT LOCATION Big Sky High School Campus

DATE STARTED 5/18/20 COMPLETED 5/18/20

GROUND ELEVATION _____ TEST PIT SIZE 48 inches

EXCAVATION CONTRACTOR Grant Creek Excavating

GROUND WATER LEVELS:

EXCAVATION METHOD JD 310SG Backhoe

AT TIME OF EXCAVATION --- GW table was not encountered.

LOGGED BY Lorenzen CHECKED BY Lorenzen

AT END OF EXCAVATION --- GW table was not encountered.

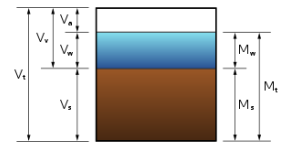
NOTES N46° 51' 07.7"; W114° 03' 20.9"

AFTER EXCAVATION ---

DEPTH (ft)	SAMPLE TYPE NUMBER	TESTS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0					
					ASPHALT PAVEMENT - 2.25 inches thick. Block cracking. Concrete Curb is 11.5 inches thick, no Gutter.
	GB	MC = 6%	GP		(GP) BASE COURSE CUSHION - 2 inches thick, 3/4-inch minus Poorly Graded Gravel with Sand, Crushed; subrounded to subangular; moist; brown (10YR 5/3); no reaction to 10% HCl solution.
					(GP-GM) Poorly Graded GRAVEL with Silt and Sand, frequent Cobbles; rounded to subrounded; wet; very dark brown (10YR 2/2) matrix with some calcium carbonate coatings; coatings have strong reaction to 10% HCl solution, matrix has no reaction to 10% HCl solution. Fines have low plasticity.
1					
	GB	MC = 7%	GP-GM		
2					

Bottom of test pit at 2.0 feet.

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 5/20/20 11:40 - C:\USERS\TODD LORENZEN\DOCUMENTS\LORENZEN SOIL MECHANICS\BIG SKY PARKING\5.0 DELIVERABLES\BIG SKY HS PARKING & PRACTICE FIELD.GPJ



APPENDIX B. PHOTOGRAPHS



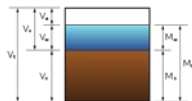
Description: TP-01 Location. View is to the east. Colored paint is from underground utility locators.



Description: TP-01 Location. Alligator and block cracking.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





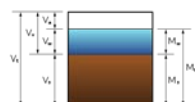
Description: TP-01 Jar sample of crushed base course which is only 2 inches thick. Base course is becoming saturated from surface water seeping through pavement cracks.



Description: TP-01 Surface water seeping into the test pit through the pavement crack.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



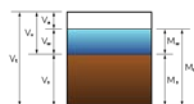


Description: TP-01 Jar sample from 2 feet. Cobbles, gravel, and sand.



Description: TP-01 Excavated to 2 feet.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

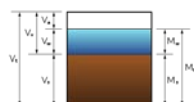


Description: TP-02 Location. Alligator and block cracking. View is to the south.



Description: TP-01 Location. View is to the west.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

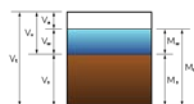


Description: TP-02 Jar sample at 2 inches of the 2-inch thick base course cushion.



Description: TP-02 Asphalt and base course thickness at 2 inches and 2 inches.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

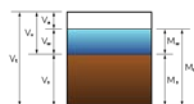


Description: TP-02 Jar sample at 4 inches of the silty clay subgrade.



Description: TP-02 Jar sample at 9 inches in silt.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



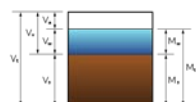
Description: TP-02 Jar sample at 12 inches in silt.



Description: TP-02 Jar sample from 2 feet.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





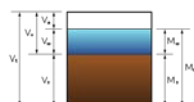
Description: TP-02 Excavated to 2 feet. View is to the southeast.



Description: TP-02 Location from near TP-03 location. Transverse and longitudinal cracking (likely temperature related).

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



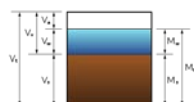


Description: TP-03 Location. Alligator and block cracking. View is to the north.



Description: TP-03 Location. View is to the west.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

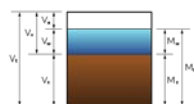


Description: TP-03 Jar sample from 2 inches. Surface water is seeping into the test pit from pavement cracks.



Description: TP-03 Jar sample from 6 inches.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

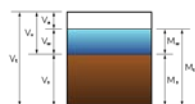


Description: TP-03 Jar sample from 1 foot.



Description: TP-03 Jar sample from 2.5 feet.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



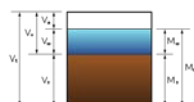
Description: TP-03 Excavated to 2.5 feet.



Description: TP-03 Location. View is to the north. Dry well sump is in the foreground.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





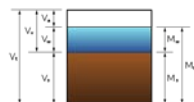
Description: TP-04 Location. View is to the south toward the backhoe at the TP-03 location.



Description: TP-04 Location against curb. View is to the east.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



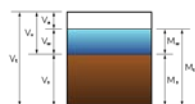


Description: TP-04 Curb exposed.



Description: TP-04 Curb is 11.25 inches thick

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

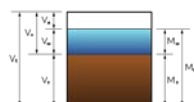


Description: TP-04 Jar sample from 4 inches. The asphalt is 4 inches thick. The cushion is only 1 inch thick. There appears to be 12 inches of 1.5-inch minus base course material below the cushion.

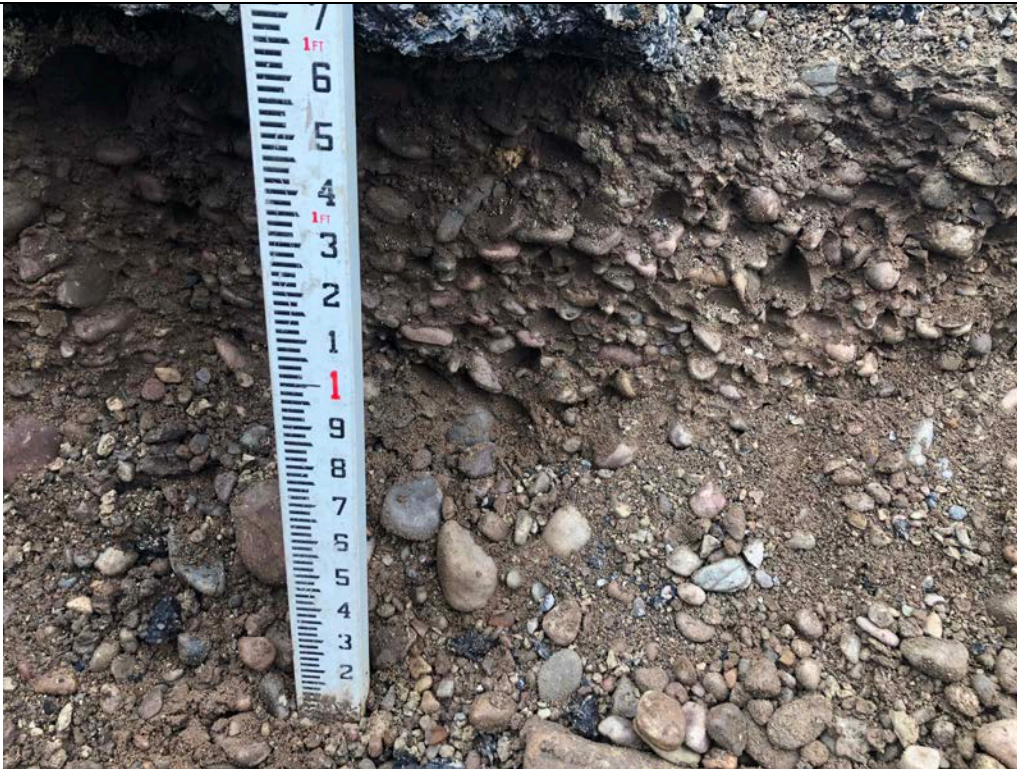


Description: TP-04 Asphalt and cushion thickness overlying apparent 1.5-inch minus base course.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



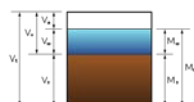
Description: TP-04 Apparent 1.5-inch minus base course overlying native cobbles, gravel, and sand.



Description: TP-04 Bulk sample of apparent 1.5-inch minus material.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



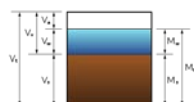


Description: TP-04 Location. View is to the south.



Description: TP-04 Coarser material from 2 feet.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



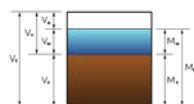
Description: TP-05 Location. View is to the southwest toward the TP-04 location. Block cracking.



Description: TP-05 Location. View is to the southwest.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





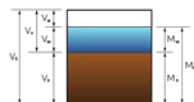
Description: TP-05 Jar sample from 2 inches.



Description: TP-05 Jar sample from 6 inches. Rounded gravels in a silty clay matrix.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



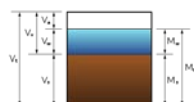


Description: TP-05 Jar sample from 1.2 feet.



Description: TP-05 Location. View is to the west. Block cracking.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



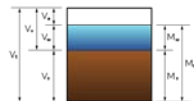
Description: TP-05 Excavated to 2 feet.



Description: TP-06 Location. View is to the east toward TP-05.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



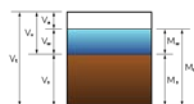


Description: TP-06 Curb exposed is 11 inches thick.



Description: TP-06 Jar sample from 1 foot.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



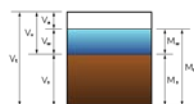
Description: TP-07 Jar sample from 1 inch.



Description: TP-07 Jar sample from 6 inches.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



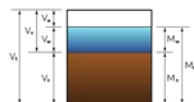


Description: TP-07 Excavated to 2 feet.



Description: TP-08 Location. View is to the southwest toward TP-07. Longitudinal and transverse cracking (likely temperature related).

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

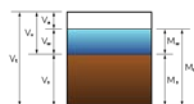


Description: TP-08 Jar sample from 2 inches.



Description: TP-08 Jar sample from 6 inches.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

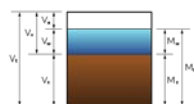


Description: TP-09 Exposed curb is 11.25 inches thick.



Description: TP-09. View is to the west from 31st Avenue.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



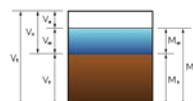
Description: TP-01 Moisture content samples prior to being put into the drying oven.



Description: TP-01 Moisture content samples after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



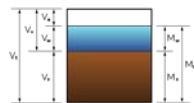


Description: TP-02 Moisture content samples prior to being put into the drying oven.



Description: TP-02 Moisture content samples after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



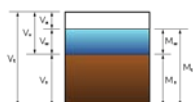
Description: TP-03 Moisture content samples prior to being put into the drying oven.



Description: TP-03 Moisture content samples after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





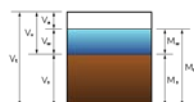
Description: TP-04 Moisture content samples prior to being put into the drying oven.



Description: TP-04 Moisture content samples after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



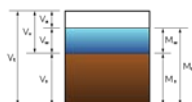


Description: TP-05 Moisture content samples prior to being put into the drying oven.



Description: TP-05 Moisture content samples after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

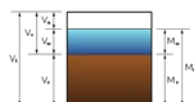


Description: TP-06 Moisture content samples prior to being put into the drying oven.



Description: TP-06 Moisture content samples after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



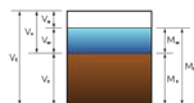
Description: TP-07 Moisture contents prior to being placed into the drying oven.



Description: TP-07 Moisture contents after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





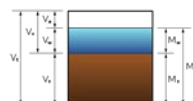
Description: TP-08 Moisture contents prior to being placed into the drying oven.



Description: TP-08 Moisture contents after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





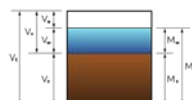
Description: TP-09 Moisture contents prior to being placed into the drying oven.



Description: TP-09 Moisture contents after being taken out of the drying oven.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



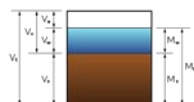


Description: TP-01 Subgrade sample from 1 foot prior to being placed into the drying oven and screened.

Sample has not yet been screened

Description: TP-01 Subgrade sample from 1 foot after being screened.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

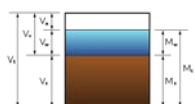


Description: TP-02 Cushion sample from 2 inches prior to being placed into the drying oven and screened.



Description: TP-02 Cushion sample from 2 inches after being screened.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field

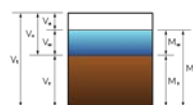


Description: TP-04 Apparent 1.5-inch minus base course prior to being placed into the drying oven and screened.



Description: TP-04 Apparent 1.5-inch minus base course after being screened.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



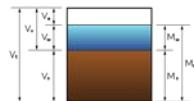
Description: HA-01 Hand-Auger hole and Army Corps of Engineer Cone Penetrometer pushed to 4.5 inches.



Description: HA-01 pushed to 4.5 inches under a 320 psi loading. View is to the east.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





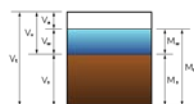
Description: HA-02 Penetrometer was pushed to 5 inches under a 320 psi loading. View is to the south.



Description: HA-03 Penetrometer was pushed to 5 inches under a 320 psi loading. View is to the south.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





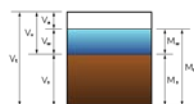
Description: HA-04 Penetrometer was pushed to 5 inches under a 320 psi loading. View is to the west.



Description: HA-05 Penetrometer was pushed to 5.25 inches under a 320 psi loading. View is to the east.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



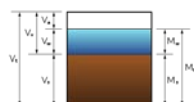


Description: HA-06 Penetrometer was pushed to 4.25 inches under a 320 psi loading. View is to the west.



Description: HA-07 Penetrometer was pushed to 4.5 inches under a 320 psi loading. View is to the north.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



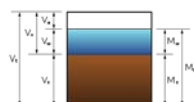
Description: HA-08 Penetrometer was pushed to 7 inches under a 320 psi loading. View is to the east.



Description: HA-09 Penetrometer was pushed to 4 inches under a 320 psi loading. View is to the southwest.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field





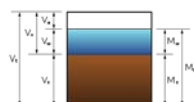
Description: HA-09 Penetrometer was pushed to 4 inches under a 320 psi loading. View is to the east.



Description: HA-10 Penetrometer was pushed to 5 inches under a 320 psi loading. View is to the west.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



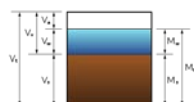


Description: HA-11 Penetrometer was pushed to 3 inches under a 320 psi loading. View is to the west.



Description: HA-12 Penetrometer was pushed to 5.25 inches under a 320 psi loading. View is to the east.

Lorenzen Soil Mechanics, Inc.



Project: Big High School Parking Area and North Practice Field



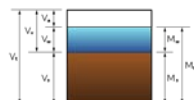
Description: HA-13 Penetrometer was pushed to 5 inches under a 320 psi loading. View is to the south.



Description: HA-14 Penetrometer was pushed to 5.5 inches under a 320 psi loading. View is to the south.

Lorenzen Soil Mechanics, Inc.

Project: Big High School Parking Area and North Practice Field



SECTION 00910

MONTANA PREVAILING WAGE RATE DETERMINATION

PREVAILING WAGE RATES FOR PUBLIC WORKS CONTRACTS IN
MONTANA

MONTANA
PREVAILING WAGE RATES FOR HIGHWAY CONSTRUCTION SERVICES 2020

Effective: January 2, 2020

Steve Bullock, Governor
State of Montana

Galen Hollenbaugh, Commissioner
Department of Labor and Industry

To obtain copies of prevailing wage rate schedules, or for information relating to public works projects and payment of prevailing wage rates, visit ERD at www.mtwagehourbopa.com or contact:

Employment Relations Division
Montana Department of Labor and Industry
P. O. Box 201503
Helena, MT 59620-1503
Phone 406-444-6543

The department welcomes questions, comments, and suggestions from the public. In addition, we'll do our best to provide information in an accessible format, upon request, in compliance with the Americans with Disabilities Act.

MONTANA PREVAILING WAGE REQUIREMENTS

The Commissioner of the Department of Labor and Industry, in accordance with Sections 18-2-401 and 18-2-402 of the Montana Code Annotated (MCA), has determined the standard prevailing rate of wages for the occupations listed in this publication.

The wages specified herein control the prevailing rate of wages for the purposes of Section 18-2-401, et seq., MCA. It is required each employer pay (as a minimum) the rate of wages, including fringe benefits, travel allowance, zone pay and per diem applicable to the district in which the work is being performed as provided in the attached wage determinations.

All Montana Prevailing Wage Rates are available on the internet at www.mtwagehourbopa.com or by contacting the department at (406) 444-6543.

In addition, this publication provides general information concerning compliance with Montana's Prevailing Wage Law and the payment of prevailing wages. For detailed compliance information relating to public works contracts and payment of prevailing wage rates, please consult the regulations on the internet at www.mtwagehourbopa.com or contact the department at (406) 444-6543.

GALEN HOLLENBAUGH
Commissioner
Department of Labor and Industry
State of Montana

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A. Date of Publication January 2, 2020

B. Definition of Highway Construction

The Administrative Rules of Montana (ARM), 24.17.501(3) – (3)(a), states *“Highway construction projects include, but are not limited to, the construction, alteration, or repair of roads, streets, highways, runways, taxiways, alleys, trails, paths, and parking areas, bridges constructed or repaired in conjunction with highway work, and other similar projects not incidental to building construction or heavy construction.*

Highway construction projects include, but are not limited to, alleys, base courses, bituminous treatments, bridle paths, concrete pavement, curbs, excavation and embankment (for road construction), fencing (highway), grade crossing elimination (overpasses or underpasses), guard rails on highways, highway signs, highway bridges (overpasses, underpasses, grade separation), medians, parking lots, parkways, resurfacing streets and highways, roadbeds, roadways, runways, shoulders, stabilizing courses, storm sewers incidental to road construction, street paving, surface courses, taxiways, and trails.”

C. Definition of Public Works Contract

Section 18-2-401(11)(a), MCA defines “public works contract” as *“...a contract for construction services let by the state, county, municipality, school district, or political subdivision or for nonconstruction services let by the state, county, municipality, or political subdivision in which the total cost of the contract is in excess of \$25,000...”*.

D. Prevailing Wage Schedule

This publication covers only Highway Construction occupations and rates in the specific localities mentioned herein. These rates will remain in effect until superseded by a more current publication. Current prevailing wage rate schedules for Building Construction, Heavy Construction and Nonconstruction Services occupations can be found on the internet at www.mtwagehourbopa.com or by contacting the department at (406) 444-6543.

E. Rates to Use for Projects

ARM, 24.17.127(1)(c), states *“The wage rates applicable to a particular public works project are those in effect at the time the bid specifications are advertised.”*

F. Wage Rate Adjustments for Multiyear Contracts

Section 18-2-417, MCA states:

“(1) Any public works contract that by the terms of the original contract calls for more than 30 months to fully perform must include a provision to adjust, as provided in subsection (2), the standard prevailing rate of wages to be paid to the workers performing the contract.

(2) The standard prevailing rate of wages paid to workers under a contract subject to this section must be adjusted 12 months after the date of the award of the public works contract. The amount of the adjustment must be a 3% increase. The adjustment must be made and applied every 12 months for the term of the contract.

(3) Any increase in the standard rate of prevailing wages for workers under this section is the sole responsibility of the contractor and any subcontractors and not the contracting agency.”

G. Fringe Benefits

Section 18-2-412, MCA states:

“(1) To fulfill the obligation...a contractor or subcontractor may:

(a) pay the amount of fringe benefits and the basic hourly rate of pay that is part of the standard prevailing rate of wages directly to the worker or employee in cash;

(b) make an irrevocable contribution to a trustee or a third person pursuant to a fringe benefit fund, plan, or program that meets the requirements of the Employee Retirement Income Security Act of 1974 or that is a bona fide program approved by the U. S. department of labor; or

(c) make payments using any combination of methods set forth in subsections (1)(a) and (1)(b) so that the aggregate of payments and contributions is not less than the standard prevailing rate of wages, including fringe benefits and travel allowances, applicable to the district for the particular type of work being performed.

(2) The fringe benefit fund, plan, or program described in subsection (1)(b) must provide benefits to workers or employees for health care, pensions on retirement or death, life insurance, disability and sickness insurance, or bona fide programs that meet the requirements of the Employee Retirement Income Security Act of 1974 or that are approved by the U. S. department of labor.”

Fringe benefits are paid for all hours worked (straight time and overtime hours). However, fringe benefits are not to be considered a part of the hourly rate of pay for calculating overtime, unless there is a collectively bargained agreement in effect that specifies otherwise.

H. Dispatch City

ARM, 24.17.103(11), defines dispatch city as “...the courthouse in the city from the following list which is closest to the center of the job: Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula.”

I. Zone Pay

Zone pay is not travel pay. ARM, 24.17.103(24), defines zone pay as “...an amount added to the base pay; the combined sum then becomes the new base wage rate to be paid for all hours worked on the project. Zone pay must be determined by measuring the road miles one way over the shortest practical maintained route from the dispatch city to the center of the job.” See section H above for a list of dispatch cities.

J. Computing Travel Benefits

ARM, 24.17.103(22), states “ ‘Travel pay,’ also referred to as ‘travel allowance,’ is and must be paid for travel both to and from the job site, except those with special provisions listed under the classification. The rate is determined by measuring the road miles one direction over the shortest practical maintained route from the dispatch city or the employee's home, whichever is closer, to the center of the job.” See section H above for a list of dispatch cities.

K. Per Diem

ARM, 24.17.103(18), states “ ‘Per diem’ typically covers costs associated with board and lodging expenses. Per diem is paid when an employee is required to work at a location outside the daily commuting distance and is required to stay at that location overnight or longer.”

L. Apprentices

Wage rates for apprentices registered in approved federal or state apprenticeship programs are contained in those programs. Additionally, Section 18-2-416(2), MCA states “...The full amount of any applicable fringe benefits must be paid to the apprentice while the apprentice is working on the public works contract.” Apprentices not registered in approved federal or state apprenticeship programs will be paid the appropriate journey level prevailing wage rate when working on a public works contract.

M. Posting Notice of Prevailing Wages

Section 18-2-406, MCA, provides that contractors, subcontractors, and employers who are “...performing work or providing construction services under public works contracts, as provided in this part, shall post in a prominent and accessible site on the project or staging area, not later than the first day of work and continuing for the entire duration of the project, a legible statement of all wages and fringe benefits to be paid to the employees.”

N. Employment Preference

Sections 18-2-403 and 18-2-409, MCA require contractors to give preference to the employment of bona fide Montana residents in the performance of work on public works contracts.

O. Projects of a Mixed Nature

Section 18-2-408, MCA states:

“(1) The contracting agency shall determine, based on the preponderance of labor hours to be worked, whether the public works construction services project is classified as a highway construction project, a heavy construction project, or a building construction project.

“(2) Once the project has been classified, employees in each trade classification who are working on that project must be paid at the rate for that project classification”

P. Occupations Definitions

You can find definitions for these occupations on the following Bureau of Labor Statistics website:

http://www.bls.gov/oes/current/oes_stru.htm

Q. Welder Rates

Welders receive the rate prescribed for the craft performing an operation to which welding is incidental.

R. Foreman Rates

Rates are no longer set for foremen. However, if a foreman performs journey level work, the foreman must be paid at least the journey level rate.

WAGE RATES

BRICK, BLOCK, AND STONE MASONS

Wage	Benefit
\$28.71	\$14.79

Travel:

0-45 mi. free zone
>45-60 mi. \$32.50/day
>60-90 mi. \$62.00/day
>90 mi. \$75.00/day

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CARPENTERS

Wage	Benefit
\$31.00	\$13.57

Zone Pay:

0-30 mi. free zone
>30-60 mi. base pay + \$4.00/hr.
>60 mi. base pay + \$6.00/hr.

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CEMENT MASONS AND CONCRETE FINISHERS

Wage	Benefit
\$24.87	\$12.64

Duties Include:

Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, or curbs. Align forms for sidewalks, curbs, or gutters.

Zone Pay:

0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 1

Wage	Benefit
\$26.52	\$11.50

This group includes but is not limited to:

Air Compressor; Auto Fine Grader; Belt Finishing; Boring Machine (Small); Cement Silo; Crane, A-Frame Truck Crane; Crusher Conveyor; DW-10, 15, and 20 Tractor Roller; Farm Tractor; Forklift; Form Grader; Front-End Loader, under 1 cu. yd; Oiler, Heavy Duty Drills; Herman Nelson Heater; Mucking Machine; Oiler, All Except Cranes/Shovels; Pumpman.

Zone Pay:

0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 2

Wage	Benefit
\$28.55	\$11.50

Zone Pay:

0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

This group includes but is not limited to:

Air Doctor; Backhoe\Excavator\Shovel, up to and incl. 3 cu. yds; Bit Grinder; Bituminous Paving Travel Plant; Boring Machine, Large; Broom, Self-Propelled; Concrete Travel Batch; Concrete Float & Spreader; Concrete Bucket Dispatcher; Concrete Finish Machine; Concrete Conveyor; Distributor; Dozer, Rubber-Tired, Push, & Side Boom; Elevating Grader\Gradall; Field Equipment Serviceman; Front-End Loader, 1 cu. yd up to and incl. 5 cu. yds; Grade Setter; Heavy Duty Drills, All Types; Hoist\Tugger, All; Hydralift Forklifts & Similar; Industrial Locomotive; Motor Patrol (except finish); Mountain Skidder; Oiler, Cranes\Shovels; Pavement Breaker, EMSCO; Power Saw, Self-Propelled; Pugmill; Pumpcrete\Grout Machine; Punch Truck; Roller, other than Asphalt; Roller, Sheepsfoot (Self-Propelled); Roller, 25 tons and over; Ross Carrier; Rotomill, under 6 ft; Trenching Machine; Washing /Screening Plant

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 3

Wage	Benefit
\$29.41	\$11.50

Zone Pay:

0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

This group includes but is not limited to:

Asphalt Paving Machine; Asphalt Screed; Backhoe\Excavator\Shovel, over 3 cu. yds; Cableway Highline; Concrete Batch Plant; Concrete Curing Machine; Concrete Pump; Cranes, Creter; Cranes, Electric Overhead; Cranes, 24 tons and under; Curb Machine\Slip Form Paver; Finish Dozer; Front-End Loader, over 5 cu. yds; Mechanic\Welder; Pioneer Dozer; Roller Asphalt (Breakdown & Finish); Rotomill, over 6 ft; Scraper, Single, Twin, or Pulling Belly-Dump; YO-YO Cat.

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 4

Wage	Benefit
\$30.10	\$11.50

Zone Pay:
0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

This group includes but is not limited to:
Asphalt/Hot Plant Operator; Cranes, 25 tons up to and incl. 44 tons; Crusher Operator; Finish Motor Patrol; Finish Scraper.

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 5

Wage	Benefit
\$31.44	\$11.50

Zone Pay:
0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

This group includes but is not limited to:
Cranes, 45 tons up to and incl. 74 tons.

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 6

Wage	Benefit
\$32.13	\$11.50

Zone Pay:
0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

This group includes but is not limited to:
Cranes, 75 tons up to and incl. 149 tons; Cranes, Whirley (All).

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 7

Wage	Benefit
\$34.23	\$11.50

Zone Pay:
0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

This group includes but is not limited to:
Cranes, 150 tons up to and incl. 250 tons; Cranes, over 250 tons—add \$1.00 for every 100 tons over 250 tons; Crane, Tower (All); Crane Stiff-Leg or Derrick; Helicopter Hoist.

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CONSTRUCTION LABORERS GROUP 1/FLAG PERSON FOR TRAFFIC CONTROL

Wage
\$20.90

Benefit
\$11.00

Zone Pay:
0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

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CONSTRUCTION LABORERS GROUP 2

Wage
\$23.97

Benefit
\$10.47

Zone Pay:
0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

This group includes but is not limited to:

General Labor; Asbestos Removal; Burning Bar; Bucket Man; Carpenter Tender; Caisson Worker; Cement Mason Tender; Cement Handler (dry); Chuck Tender; Choker Setter; Concrete Worker; Curb Machine-lay Down; Crusher and Batch Worker; Heater Tender; Fence Erector; Landscape Laborer; Landscaper; Lawn Sprinkler Installer; Pipe Wrapper; Pot Tender; Powderman Tender; Rail and Truck Loaders and Unloaders; Riprapper; Sign Erection; Guardrail and Jersey Rail; Spike Driver; Stake Jumper; Signalman; Tail Hoseman; Tool Checker and Houseman and Traffic Control Worker.

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CONSTRUCTION LABORERS GROUP 3

Wage
\$24.19

Benefit
\$10.47

Zone Pay:
0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

This group includes but is not limited to:

Concrete Vibrator; Dumpman (Grademan); Equipment Handler; Geotextile and Liners; High-Pressure Nozzleman; Jackhammer (Pavement Breaker) Non-Riding Rollers; Pipelayer; Posthole Digger (Power); Power Driven Wheelbarrow; Rigger; Sandblaster; Sod Cutter-Power and Tamper.

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CONSTRUCTION LABORERS GROUP 4

Wage	Benefit
\$25.18	\$10.47

This group includes but is not limited to:

Hod Carrier***; Water Well Laborer; Blaster; Wagon Driller; Asphalt Raker; Cutting Torch; Grade Setter; High-Scaler; Power Saws (Faller & Concrete); Powderman; Rock & Core Drill; Track or Truck Mounted Wagon Drill and Welder incl. Air Arc.

Zone Pay:

0-25 mi. free zone
>25-50 mi. base pay + \$2.50/hr.
>50 mi. base pay + \$3.00/hr.

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DIVERS

	Wage	Benefit
Stand-By	\$41.23	\$16.88
Diving	\$82.46	\$16.88

Depth Pay (Surface Diving)

0-20 ft.	free zone
>20-100 ft.	\$2.00 per ft.
>100-150 ft.	\$3.00 per ft.
>150-220 ft.	\$4.00 per ft.
>220 ft.	\$5.00 per ft.

Diving In Enclosures

0-25 ft.	free zone
>25-300 ft.	\$1.00 per ft.

Zone Pay:

0-30 mi. free zone
>30-60 mi. base pay + \$4.00/hr.
>60 mi. base pay + \$6.00/hr.

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DIVER TENDERS

Wage	Benefit
\$40.23	\$16.88

The tender shall receive 2 hours at the straight time pay rate per shift for dressing and/or undressing a Diver when work is done under hyperbaric conditions.

Zone Pay:

0-30 mi. free zone
>30-60 mi. base pay + \$4.00/hr.
>60 mi. base pay + \$6.00/hr.

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ELECTRICIANS

Wage	Benefit
\$34.08	\$14.91

Travel:

No mileage due when traveling in employer's vehicle.

The following travel allowance is applicable when traveling in employee's vehicle:

0-18 mi. free zone
>18-60 mi. federal mileage rate/mi.
>60 mi. \$75.00/day

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IRONWORKERS - STRUCTURAL STEEL AND REBAR PLACERS

Wage	Benefit
\$28.00	\$26.40

Duties Include:

Structural steel erection; assemble prefabricated metal buildings; cut, bend, tie, and place rebar; energy producing windmill type towers; metal bleacher seating; handrail fabrication and ornamental steel.

Travel:

0-45 mi. free zone
>45-60 mi. \$40.00/day
>60-100 mi. \$65.00/day
>100 mi. \$85.00/day

Special Provision:

When the employer provides transportation, travel will not be paid. However, when an employee is required to travel over 70 miles one way, the employee may elect to receive the travel pay in lieu of the transportation.

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LINE CONSTRUCTION – EQUIPMENT OPERATORS

Wage	Benefit
\$35.04	\$16.45

Travel:

No Free Zone
\$60.00/day

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LINE CONSTRUCTION – GROUNDMAN

Wage	Benefit
\$27.36	\$15.60

Travel:

No Free Zone
\$60.00/day

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LINE CONSTRUCTION – LINEMAN

Wage	Benefit
\$45.74	\$17.60

Travel: No Free Zone \$60.00/day

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MILLWRIGHTS

Wage	Benefit
\$32.00	\$13.57

Zone Pay: 0-30 mi. free zone >30-60 mi. base pay + \$4.00/hr. >60 mi. base pay + \$6.00/hr.

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PAINTERS

Wage	Benefit
\$28.00	\$10.30

Zone Pay: 0-25 mi. free zone >25-50 mi. base pay + \$2.50/hr. >50 mi. base pay + \$3.00/hr.

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PILE BUCKS

Wage	Benefit
\$31.00	\$13.57

Duties Include:

Set up crane; set up hammer; weld tips on piles; set leads; insure piles are driven straight with the use of level or plum bob. Give direction to crane operator as to speed, and direction of swing. Cut piles to grade.

Zone Pay: 0-30 mi. free zone >30-60 mi. base pay + \$4.00/hr. >60 mi. base pay + \$6.00/hr.

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TRUCK DRIVERS

	Wage	Benefit
Pilot Car Driver	\$22.39	\$11.00
Truck Driver	\$28.06	\$10.16

Truck drivers include but are not limited to:

Combination Truck and Concrete Mixer and Transit Mixer; Dry Batch Trucks; Distributor Driver; Dumpman; Dump Trucks and similar equipment; Dumpster; Flat Trucks; Lumber Carriers; Lowboys; Pickup; Powder Truck Driver; Power Boom; Serviceman; Service Truck/Fuel Truck/Tireperson; Truck Mechanic; Trucks with Power Equipment; Warehouseman, Partsman, Cardex and Warehouse Expeditor; Water Trucks.

Zone Pay:

All Districts

0-25 mi. free zone

>25-50 mi. base pay + \$2.50/hr.

>50 mi. base pay + \$.300/hr.

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**SECTION 01000
DIVISION 1 - GENERAL REQUIREMENTS**

This contract will be constructed and administered under the requirements of the Montana Public Works Standard Specifications (MPWSS), Sixth Edition, April 2010, as Amended, and all supplemental documents contained herein. The Montana Public Works Standard Specifications are included in their entirety, as applicable, and as modified, amended, added, or replaced as follows:

01010	SUMMARY OF WORK (<i>MPWSS, as amended</i>)
01030	PERMITS (<i>Added Section</i>)
01041	PROJECT COORDINATION (<i>Added Section</i>)
01045	MISCELLANEOUS WORK (<i>Added Section</i>)
01047	MOBILIZATION AND PREPARATORY WORK (<i>Added Section</i>)
01050	FIELD ENGINEERING (<i>MPWSS, as amended</i>)
01300	SUBMITTALS (<i>MPWSS, as amended</i>)
01400	CONTRACTOR QUALITY CONTROL AND OWNER QUALITY ASSURANCE (<i>MPWSS, as amended</i>)

SECTION 01010
SUMMARY OF WORK (*MPWSS, as amended*)

DELETE SECTION 01010 "SUMMARY OF WORK" IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:

PART 1: GENERAL

1.1 SUMMARY

- A. PROJECT LOCATION: The site of the work is located at Big Sky High School, 3100 South Ave W, Missoula, Montana.
- B. General work included in this section:
 - 1. Furnish all labor, materials, and equipment required in accordance with provisions of the Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work may not be specifically indicated, furnish and install all miscellaneous items incidental to or necessary.
- C. Related sections include but are not necessarily limited to:
 - 1. Division 0 – Bidding Requirements, Contract Forms, and Conditions of the Contract.
 - 2. Division 1 – General Requirements.
 - 3. Division 2 – Site Work
 - 4. Division 3 – Concrete

1.2 WORK COVERED BY CONTRACT

- A. The Work generally includes removal of existing asphalt and subgrade materials, and reconstruction of parking lots along 31st Ave. Work will include removal and replacement of curb and sidewalk, new ADA improvements, new base course and paving, chip seal, storm drain improvements and incidentals. Work also includes removal of existing sod on existing football practice field areas, topsoil stripping, re-grading, new topsoil installation, and sodding of fields and related work in accordance with the Plans and Specifications.

1.3 CONTRACTOR'S USE OF PREMISES

- A. The project will be constructed within existing property, right-of-ways, easement, or construction permit areas where indicated on the plans. The Contractor shall confine his construction operations to the

immediate vicinity of the location shown on the plans and shall use due care in placing construction tools, equipment, excavated materials, and supplies, so as to cause the least possible damage to property and interference with traffic and property. The placing of such tools, equipment, and materials shall be subject to the approval of the Engineer.

The Contractor shall limit his use of the work areas and easements for Work and storage. The Contractor assumes full responsibility for the protection and safekeeping of products and materials the Contractor has stored on the work site. Contractor shall move any stored products, or materials, under the Contractor's responsibility, which interfere with operations of other contractors working within the property. Contractor shall obtain and pay for the use of any additional storage or work areas if needed for the Contractor operations. The Contractor shall confine all materials storage, equipment storage and employee and subcontractor parking to the areas legally acquired. The Contractor shall not store materials or equipment, nor shall employees of the Contractor or subcontractors park automobiles in a manner that hinders public access or safety. The Contractor shall restore any areas used for materials storage, trailers, offices, equipment storage, or employee and subcontractor parking to their original condition or better.

1.4 WORK SEQUENCE – PROJECT PHASING

- A. General: Construct work in stages to allow for uninterrupted public access during construction to the extent possible. Coordinate construction schedule and operations, to include traffic control, with the Engineer. The Contractor shall plan, schedule, and coordinate his construction operations and activities in a manner that will facilitate the progress of the work included in these Contract Documents, while minimizing disruption and inconvenience of any businesses owners, landowners, and general public.
- B. The Contractor shall develop and submit to the Owner and Engineer for approval an initial baseline construction schedule at, or prior to, the pre-construction conference. The schedule must be submitted in Critical Path Method, and breakdown the work for each phase to outline all construction activities associated with the project. The schedule shall indicate major milestones. The Contractor shall submit for approval the initial baseline construction schedule, make all necessary correction and revisions, and work to have the baseline schedule approved by the Owner within 15 days of the Notice To Proceed. Progress payments may be withheld or construction activities may not be allowed to proceed on the site until the baseline schedule has been approved.

Contract performance shall be monitored by comparing an activities completion of the progress schedule against the approved baseline schedule. The Contractor shall submit a progress schedule at regular

intervals, determined by the Owner, indicating the progress made during the period, the activities started or completed during the interval, percentage complete for each activity, and the activities expected to be worked on during the next interval. A progress schedule shall be updated by the Contractor for review and discussion at the progress meetings. The progress schedule shall show the baseline schedule bars underneath the progress bar to indicate performance.

The Contract completion dates cannot be altered without an approved change order. An executed change order may allow the additions or deletions of certain durations and activities. Additional time may be allowed for activities on the critical path only. It shall be understood that additional time, if any, is allowed for certain activities only, and may or may not impact the completion date.

- C. The Contractor shall coordinate all activities with the Engineer, Owner, landowners, and utility companies associated with the Project, and with any other contractors working within the Project limits. If the Contractor does not achieve any critical dates as listed below, the Owner shall have the authority to stop all other work on the Project until such critical work has been completed. The contractor shall have no claim for additional time or cost associated with such stoppage of work to complete the critical work item.

Listed below is a summary of the general project phasing, and includes an overall summary of the work to be performed and milestones that must be met by the Contractor. Critical schedule constraints are provided in **bold** lettering. Work elements shown are not necessarily on a critical path and may be done simultaneously. Critical work elements shown are not necessarily complete and others may occur as the Work proceeds. The Contractor shall submit a detailed work sequence schedule to accomplish the Work in accordance with the General Conditions and these Special Provisions. The Contractor shall sequence all work to comply with critical dates and sequencing listed below. The Owner will perform any activities that are underlined, if any. All other activities shall be performed by the Contractor as part of the approved work sequence schedule. Refer to the Special Provisions for detailed specifications and conditions associated with each major area of work.

1. **Contractor shall submit schedule of construction as required by the specifications and special provisions for approval. Contractor shall work closely with the Engineer and MCPS School District in development of construction phasing for coordination with irrigation Contractor.**
2. **Contractor shall secure all permits, to include SWPPP permit, prior to the start of construction.**

3. Contractor shall install any BMP's for storm water management prior to the start of construction.
 4. Contractor shall begin work on the practice field improvements immediately upon Notice to Proceed. Practice field stripping, grading, and topsoil placement will be a critical item for MCPS. Contractor shall have field completed and topsoil installed by July 15th. July 16th, MCPS Irrigation Contractor will be scheduled to begin irrigation system improvements within the practice field area. Irrigation contractor shall be completion on or before August 1. Contractor shall coordinate final grading and sod installation beginning on or near August 1. Contractor shall be responsible for sod supply. MCPS school district will provide volunteers to assist with sod installation, assuming Contractor will have large rolls installed by sod supplier.
 5. The Contractor shall be required to coordinate the parking lot improvements with the MCPS Irrigation Contractor. New main line irrigation supply will be installed under new portion of the parking lots by trenching or directionally drilling. Irrigation contractor will be present at the preconstruction meeting to coordinate project schedules.
 6. Contractor shall meet the completion date indicated within the Agreement Form.
- D. SEQUENCING: Sequences other than those specified above will be considered by the Owner and Engineer, provided they afford a benefit to MCPS convenience, and follow the general guidelines provide within the special provisions. Owner and Engineer shall have final approval of phasing plan.
- E. Work Hours: Work outside the regular working hours, including night work and weekends, will not be allowed without prior approval of the MCPS and City of Missoula (if outside noise ordinance), with evidence that it is in the interest of public convenience and timely completion of the project. No additional payment or contract time will be allowed if a variance is required.

1.5 DUST CONTROL

- A. The Contractor shall be required to provide dust control throughout the duration of the Project. The Contractor shall use due diligence to water excavated materials, haul roads, etc. to the extent warranted to minimize dust impacts. All costs associated with dust control, including supply of water, shall be incidental to the work.

1.6 SUBSTANTIAL COMPLETION

- A. All work associated with this project shall be Substantially Complete with all roadways open to traffic by the date, or within the number of Calendar days set forth in the Agreement. For the purposes of establishing when the project is Substantially Complete and suitable for its intended purpose, all components and work elements described in Paragraph 1.2 shall be complete as outlined within the specifications.
- B. Final Completion of total project: Additional work elements that shall be completed for Final Project Completion, and are not required for Substantial Completion, include:
 - 1. Any required repairs to the Contractor staging and storage areas.
 - 2. Final punchlist items specifically allowed by the Engineer.

1.7 WARRANTY PERIOD

- A. The two-year warranty period will commence with the issuance of Substantial Completion.

1.8 REGULATORY REQUIREMENTS

- A. The CONTRACTOR shall comply with all Federal, State, and local laws, regulations, codes, and ordinance applicable to the Work.
- B. References in the Contract Documents to local codes shall mean City of Missoula, Montana.
- C. Other standards and codes that apply to the Work are designated in the Specifications.

1.9 ACCESS BY ENGINEER, OWNER AND OWNER'S REPRESENTATIVES

- A. Authorized representatives of the Engineer and Owner shall at all times have access to the Work where it is in preparation or progress. The Contractor shall provide proper facilities for access and inspection.

1.10 PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. All pavement, surfacing, landscaping, driveways, curbs, walks, buildings, utility poles and boxes, guy wires, sprinkler systems, irrigation systems, fences, signs, and other surface or subsurface structures removed or damaged by construction operations, shall be restored to their original condition as determined and approved by the Engineer (unless shown otherwise on the plans). All replacements shall be made with new materials.

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- B. Protect, shore, brace, support, and maintain underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by construction operations.
- C. Restore to their original condition, pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations.
- D. Use new materials for replacements of all damaged items.
- E. Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, and other public or private property, regardless of location or character, that may be caused by transporting equipment, materials, or workers to or from the Work or any part or site thereof, whether by Contractor or Contractor's subcontractors or suppliers.
- F. Make satisfactory and acceptable arrangements with the owner of, or the agency or authority having jurisdiction over, any damaged property concerning its repair, replacement, or payment of costs incurred in connection with the damage.
- G. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
- H. In areas where the Contractor's operations are adjacent to or near a utility and such operations may cause damage that might result in expense, loss, and inconvenience, the operation shall be suspended until all arrangements necessary for the protection thereof have been made by the Contractor.
- I. Notify all utility offices that may be affected by the construction operation at least 48 hours in advance. Before exposing any utility, the utility having jurisdiction shall grant permission and may oversee the operation. Should service of any utility be interrupted due to the Contractor's operation, the proper authority shall be notified immediately. Contractor shall cooperate with the said authority in restoring the service as promptly as possible and shall bear any costs incurred.
- J. Contractor shall be solely responsible for the repairs to existing irrigation systems, and all such costs such be the contractors responsibility. Contractor shall coordinate such repairs with the landowners, and all repairs must be approved to landowners satisfaction.
- K. All expenses associated with protection of public and private property shall be considered incidental to the project.

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PART 2: PRODUCTS - NOT USED

PART 3: EXECUTION - NOT USED

PART 4: MEASUREMENT AND PAYMENT - NOT USED

END OF SECTION

SECTION 01030
PERMITS (*Added Section*)

PART 1: GENERAL

1.1 DESCRIPTION

- A. This section specifies the requirements for securing and complying with all local, state, and federal regulations required for the project. CONTRACTOR shall be responsible for obtaining all permits, licenses, bonds, insurance, etc., detailed within the Contract Documents or required by any Local, State, or Federal regulations unless specifically stated within the Contract Documents that Owner will provide. Contractor will be responsible to acquire all permits necessary and to pay charges for such, unless otherwise specified.
- B. Project permits will include SWPPP submittal fees as specified in Section 02270, and any applicable City of Missoula permits.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

PART 4: MEASUREMENT AND PAYMENT

4.1 PERMITS

- A. CONTRACTOR shall be required to obtain all permits necessary to complete the project other than those identified to be secured and paid for by OWNER. There shall be no separate measurement and payment for permits, and all costs shall be included in other bid items.

END OF SECTION 01030

SECTION 01041
PROJECT COORDINATION (*MPWSS, as amended*)

DELETE SECTION 01041 "PROJECT COORDINATION" IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:

PART 1: GENERAL

1.1 DESCRIPTION

- A. This section specifies the requirements for coordinating, communicating, and sequencing the work under the Contract Documents with public and private parties.

1.2 PROJECT COORDINATION

- A. **MCPS IRRIGATION CONTRACTOR:** Installation of practice field irrigation system shall be coordinated with the Big Sky High School Irrigation System project contractor, which will be advertised separately on May 27, 2020. The existing irrigation within the practice fields will be demolished, the site re-graded and topsoiled, and prepared for sod installation. Once topsoil installation and grading complete, irrigation contractor will have approximately two weeks to complete mainline, valves, lateral, and head installation and final restoration. The irrigation work is anticipated to begin July 16th for this work item with completion required no later than August 1, 2020. Contractor shall coordinate schedule with Irrigation contractor during the preconstruction meeting.

Contractor shall coordinate with MCPS Irrigation contractor for main line installation within or adjacent to the parking lot improvements along 31st Ave. While the majority of the new main installation will be within landscaped areas, work may require trenching through areas of the parking lots once the asphalt has been removed. The main line installation within the parking lot areas is anticipated for early July.

- B. **UTILITY COORDINATION:** Project work must be coordinated with the utility companies when working near existing facilities. Under no circumstances will a delay in coordination or working around utility facilities be considered as justification for additional compensation or additional extension of time. The Contractor shall be responsible to coordinate all bracing of utilities as shown on the plans or as needed during construction.

The Contractor's attention is directed to the utility facilities shown on the plans. Work around the numerous utilities, which exist on this project, that are in the vicinity of required work. Contact the respective utility representative prior to conducting any work in this vicinity.

- C. **CONSTRUCTION MEETINGS:** The Contractor shall be required to attend weekly construction meetings with the Owner and the Engineer.

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Location and dates of these meetings shall be determined at the Preconstruction meeting. These meetings will be conducted to discuss the Contractor's schedule, progress, and to coordinate construction issues.

1.3 SANITARY FACILITIES

- A. Provide sanitary facilities as required by law and regulations. Not less than one (1) each (men and women) facility for every ten (10) employees of Contractor and Subcontractors at site. Service, clean, and maintain facilities and enclosures. Do not use Owner's facilities. Provide wash facilities for men and women.

1.4 TEMPORARY UTILITIES

- A. **POWER:** Contractor shall arrange for and provide all required power. All power for lighting, operation of the Contractor's plant or equipment, or any other use by the Contractor, shall be provided by the Contractor at his sole cost and expense.

WATER: Contractor to provide all water required for construction purposes unless otherwise indicated. Contractor to provide all drinking water required by personnel. The Contractor will be responsible for providing the water required for executing the work, including any water necessary to complete backfill operations, grading, and dust control.

1.5 SITE CONDITION SURVEY

- A. The Contractor shall conduct a thorough pre-construction site condition survey(s) of all critical portions of the project. The purpose of the survey(s) is to clearly document existing site conditions prior to construction. The site surveys will be conducted within the established easements and property for the project and adjacent off-site property or right-of-way.

The surveys will include, as a minimum, video and/or photograph documentation of the following:

1. Roadways used to access the site or haul materials and equipment to the site.
2. Work areas, including actual work sites, materials processing and stockpiling areas, access corridors, disposal areas, and staging areas.
3. Any work completed by other contractors at the site that will be connected to or otherwise affected by the Work.
4. Alleys and streets, driveways, sidewalks, curb and gutter, and buildings that might be affected by the Work.

5. All landscaping and any special improvements adjacent to construction limits.

All documentation will include running date and time and audio narrative where required. Copies will be made available to the Engineer prior to commencement of construction. All surveys will be taken prior to construction activity, with every effort being made to be no more than three weeks before commencement of any major construction activities.

PART 3: EXECUTION

3.1 UNDERGROUND UTILITIES AND STRUCTURES

- A. CONTRACTOR shall be required to contact the local one-call agency to verify the location of all underground utilities. Pipelines and other existing underground installations and structures in the vicinity of the work to be done hereunder are indicated on the plans according to information available. The ENGINEER and the OWNER do not guarantee the accuracy of such information. The CONTRACTOR shall be required to verify and locate all other pipelines and other existing underground installations and structures in the vicinity of the work prior to beginning excavation.

Except where otherwise specified, any delay or extra cost to the CONTRACTOR caused by pipelines or other underground structures or obstructions not shown by the plans, or found in locations different from those indicated, shall not constitute a claim for extra work, additional payment or damages.

- B. All utilities, when encountered, shall be supported, shored, and protected wherever exposed in the trench or other excavation. Any existing utility that is damaged during excavation shall be immediately repaired at the CONTRACTOR's expense. All potholing of existing utilities required to perform the work shall be at the CONTRACTOR's expense.

PART 4: MEASUREMENT AND PAYMENT

4.1 PROJECT COORDINATION AND COMMUNICATION

- A. Include all costs associated with coordination and project communications in other items of work included in the contract. No claims or change orders for extra work will be made for issues relating to project coordination. No separate payment will be made for project coordination or communications.

END OF SECTION 01041

SECTION 01045
MISCELLANEOUS WORK (*Added Section*)

PART 1: GENERAL

1.1 DESCRIPTION

- A. The item "Miscellaneous Work" is included in the contract for any minor work and/or material which may be encountered during construction, but which is not addressed elsewhere in the contract.
- B. Miscellaneous work will be measured by the respective unit for material and/or work performed as directed in writing by the Engineer.

PART 2: PRODUCTS - NOT USED

PART 3: EXECUTION - NOT USED

PART 4: MEASUREMENT AND PAYMENT

4.1 PAYMENT

- A. Payment for Miscellaneous Work, measured as provided above, will be at agreed prices or on a force account basis. The number of units in dollars set in the contract is an estimated amount only, which may be adjusted up or down by the Engineer in accordance with the needs of the project. Use of this item is at the sole discretion of the Engineer and is not guaranteed to be used. If this item is not used, there will be no payment to the Contractor for this item.

END OF SECTION

SECTION 01047
MOBILIZATION AND PREPARATORY WORK (*Added Section*)

PART 1: GENERAL

1.1 DESCRIPTION

- A. Mobilization/de-mobilization and preparatory work will include allowance for performance and payment bond costs, insurance costs, permits, move-in costs, and other preparatory costs.

PART 2: PRODUCTS - NOT USED

PART 3: EXECUTION - NOT USED

PART 4: MEASUREMENT AND PAYMENT

4.1 PAYMENT

- A. Measurement and payment for mobilization/de-mobilization and preparatory work will be made at the lump-sum price listed in the contract for "Mobilization". Progress payments for mobilization and preparatory work will be made as follows:
 - 1. 25 percent of the lump sum bid price shall be paid when the Contractor has moved equipment on-site and begun construction activities (during standard pay application cycle).
 - 2. 50 percent of the lump sum bid price shall be paid when 25 percent of the contract amount (exclusive of the mobilization bid item) has been completed.
 - 3. 75 percent of the lump sum bid price shall be paid when 50% of the contract amount (exclusive of the mobilization bid item) has been completed.
 - 4. 100 percent of the lump sum bid price shall be paid when 75% of the contract amount (exclusive of the Mobilization bid item) has been completed.
 - 5. Progress payments for mobilization/de-mobilization and preparatory work will be subject to retainage as provided by the General Conditions of the specifications.

END OF SECTION

SECTION 01050
FIELD ENGINEERING (*MPWSS, as amended*)

PART 1: GENERAL

1.1 ENGINEERING SURVEYS

Delete Paragraphs A - D in their entirety and replace with the following:

- “A. All work will be done to the lines, grades, and elevations shown on the plans.
- B. The Engineer will be responsible for initial layout and construction staking, utilizing the Engineer’s existing field control and coordinate data. Dimensions and elevations indicated in layout of work shall be verified by the Contractor. Discrepancies between Drawings, Specifications, and existing conditions shall be referred to the Engineer for adjustments before work affected is performed.
- C. The Contractor shall keep the Engineer informed, a reasonable time (5 days) in advance of the times and places at which he wishes to do work, so the horizontal and vertical control point may be established and any checking deemed necessary by the Engineer may be done with reasonable notice to the Engineer and minimum delay to the Contractor.
- D. The following construction staking will be provided by the Owner. All other construction staking and layout is the responsibility of the Contractor (such as blue-topping, signing and striping layout).
 - 1. Benchmarks and control points as shown on the Plans.
 - 2. Stake or paint demolition limits as determined adequate by Engineer.
 - 3. Storm sewer - Two (2) offset stakes to structures such as manholes, sumps, inlets, etc.,
 - 4. Curb - offset line to top back of curb (TBC), to include PC, PT and RP points, at 25’ spacing typical, or closer as determined by the Engineer.
 - 5. Offset stakes at edge of field for general grading layout, and trench drain.
- E. Prior to commencing work, the Contractor shall carefully compare and check all drawings, each with the other that in any way affects the location or elevation of the work to be executed by him, and should any discrepancy be found, he shall immediately report the same to the

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Engineer for verification and adjustment. Any duplication of work made necessary by failure and neglect on his part to comply with this function shall be done at his sole expense.

- F. The Contractor shall be responsible to protect and preserve the established construction staking provided by the Owner until such staking is determined, by both Engineer and Contractor, to no longer be necessary to complete the work. Any restaking required due to Contractor destroying or disturbing construction staking shall be replaced by Engineer at a rate of \$170.00/hr for a 2-man survey crew, and billed to the Contractor.”

1.2 STREET MONUMENTS AND PROPERTY CORNERS

Add the following paragraph:

- “C. The Contractor shall be responsible to protect and preserve the established reference points and property monuments as described in GC 4.05. Any restaking required due to Contractor destroying or disturbing baselines benchmarks, monuments, or reference stakes shall be billed to the Contractor at a rate of \$170.00/hr for a 2-man survey crew.”

END OF SECTION

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SECTION 01300

SUBMITTALS (*MPWSS, as amended*)

PART 1: GENERAL

Add the following:

1.2 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

~~“B.F.~~ Review all shop drawings prior to submittal in accordance to Article 6.17 of the Standard General Conditions. ~~“Complete and submit form 01301, Submittal Form, with all shop drawings and submittals.”~~

~~“F.G.~~ Shop drawings and submittals shall be submitted for the following:

- Asphalt Concrete Mix Designs
- Concrete Mix Designs, cure, colored concrete information, seal
- Detectable Warning Panels
- Electrical and Irrigation Sleeves
- Street Signs and Posts
- Waterborne Paint
- Asphalt Seal Coat
- Geotextile Fabric
- Topsoil Source
- Sod Source
- Other items as requested by the Engineer

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Storm System Components:

- ~~Storm Pipe~~
- ~~Manholes Structures~~
- ~~Castings & Lids~~
- ~~Flared End~~
- ~~Stormwater Quality Unit~~
- ~~Detectable Warning Tape~~
- ~~Trench Backfill~~
- ~~Pipe Bedding~~
- ~~Geotextile Fabrics~~
- ~~¾" Minus Crushed Base Course~~
- ~~3" Minus Crushed Sub-Base Course~~
- ~~3"-9" D50 Riprap Material~~
- ~~Erosion Control Devices~~

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~~Asphalt Concrete Mix Design~~

~~Concrete Mix Design~~

- ~~Structural Concrete~~

~~City Truncated Domes~~

- ~~60"x24" Replaceable Tactile Warning Tile, Brick Red in color or equivalent~~

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— MDT Detectible Warning Devices
● — Cast Iron
○ — Standard
○ — Radial
Grass Seed Mix
Street Trees
Electrical Conduit with Pull Rope
Parking Lot Electrical Wire (2#8, 1#8 GND)
Street Light Bases
Parking Lot Light Bases
Parking Lot Light
● — Pole
● — Lamp
● — Equipment
Street Signs
Parking Lot Signs
Electrical Service Member Assembly
Pull Box
Epoxy Striping Paint"

END OF SECTION 01300

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SECTION 01400
CONTRACTOR QUALITY CONTROL AND OWNER QUALITY ASSURANCE
(MPWSS, as amended)

PART 1: GENERAL

Delete paragraph 1.1 in its entirety and replace with the following:

"1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and quality assurance services are required to verify compliance with requirements specified or indicated. These services do not relieve contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Owner provided quality assurance testing does not limit contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Where services are indicated as contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - 3. Testing and inspecting requested by contractor and not required by the Contract Documents are contractor's responsibility.

Add the following paragraphs:

"1.3 LABORATORY TESTS

- A. The CONTRACTOR will employ and pay for the services of an independent testing laboratory to perform specified laboratory testing of materials and equipment where the technical specifications specifically obligate the CONTRACTOR to provide the services:
- B. The OWNER will employ and pay for the services of an independent testing laboratory to perform soils, concrete, and asphalt testing for determining compliance with the specifications. The contractor shall cooperate with the laboratory to facilitate the execution of its required services.

1.4 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel and provide access to work.
- B. Secure and deliver to the laboratory adequate quantities of

representative samples of materials proposed to be used and that require testing.

- C. Provide to the Engineer the preliminary mix proposed to be used for concrete, asphalt, and other material mixes that require control by the testing laboratory.
- D. Provide samples of materials proposed to be used for backfill of structures or piping for determination of moisture density relationship.
- E. Furnish copies of product test reports as required.
- F. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- G. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
- H. Coordinate testing services with laboratory and the Engineer. Understand all requirements of project testing and ensure all testing complete prior to completion of the Project.”

PART 3: EXECUTION

3.1 GENERAL

Add the following paragraphs:

- “E. The OWNER shall provide (and the CONTRACTOR shall ensure all required testing has been scheduled) nuclear density testing for trench backfill and surfacing materials. (i.e. all base gravels, asphaltic concrete, or gravel surfacing), core samples and Marshall Tests of asphalt surface courses, and required concrete testing. The CONTRACTOR will provide the OWNER with all the necessary moisture/density curves for all the density testing on this project. The CONTRACTOR will be required to utilize the services of an independent and certified testing laboratory for all proctors of materials to be imported off site. The CONTRACTOR shall reimburse the OWNER the cost of the testing for each FAILED “trench backfill and/or surface” density test.
- F. The CONTRACTOR shall work with the ENGINEER to schedule all field

testing. The CONTRACTOR shall notify laboratory representative and the ENGINEER as to the dates and times of all testing. The CONTRACTOR shall coordinate with the ENGINEER the requirements of the Project and ensure all testing is complete to meet Project Specifications. The CONTRACTOR shall provide all required materials, labor, equipment, water, and power required for testing. CONTRACTOR shall review and understand the minimum testing requirements herein, and ensure all required testing has been performed.

G. The CONTRACTOR shall perform:

1. Initial moisture/density proctor curves for all bedding, gravel bases, and asphaltic concrete surfacing performed by an independent laboratory. The maximum density curve shall be current (within the last 12 months). Moisture/density proctor curves shall be determined in accordance with AASHTO T99 or ASTM D698. CONTRACTOR shall provide a sieve analysis for subbase, base, bedding, and surfacing materials. This gradation shall be current within the last 12 months. Sieve analysis shall be completed in accordance with AASHTO T11 and AASHTO T27.
2. The CONTRACTOR shall perform these quality-control services: Provide concrete and asphalt mix designs. Concrete and asphalt mix designs shall be current (within the last 12 months). CONTRACTOR shall also provide a sieve analysis for base course, and surfacing materials, gradations shall be current within the last 12 months.
3. The CONTRACTOR shall make provisions for the OWNER/ENGINEER and testing agency to access the work at all times.

H. Related requirements specified elsewhere:

1. Inspection and testing required by laws, ordinances, rules, regulations, orders, or approvals of public authorities: Conditions of the Contract.
2. Certification of products: The respective section of Specifications.
3. Test, adjust, and balance equipment: The respective sections of Specifications.
4. Field tests required and standards for testing: The respective Specification sections.

I. All tests shall be performed in the presence of the ENGINEER.

- J. Repair all materials that fail during testing at CONTRACTOR's expense.

3.2 MINIMUM TESTING REQUIREMENTS

- A. Inspection and testing shall be in accordance with the current edition of the Montana Public Works Standard Specifications and these specifications. All testing results shall be submitted and reviewed by the ENGINEER prior to the installation of subsequent material installation (i.e. base material tested and approved prior to paving). The following quality assurance procedures will be provided by Owner.
- B. Earthwork and Trenching
 - 1. Field samples shall be taken of the base and cushion materials and pipe bedding materials (if required), and a sieve analysis run to compare to the approved gradation. A minimum of 1 field sieve analysis shall be performed for the base material, and 1 for each type of pipe bedding (if applicable) per construction phase.
 - 2. The OWNER shall provide in place field density tests. In place density tests for subgrade, sub base course, base course, and pipe bedding material for all areas of earthwork shall, as a minimum, be required for the recompacted subgrade, and the first lift of each subsequent course to set a pattern of compaction. In place density tests, at a minimum, shall be provided at intervals of 1 test per 2,000 SY for subgrade to set the proof rolling pattern, 1 test per every 1,000 SY for crushed aggregate course. The ENGINEER has the right to require additional testing if, in the opinion of the ENGINEER, test data is not sufficient to compare conformance to the specifications for the overall project.
 - a. In-place field density tests for quality control shall meet AASHTO T191 (ASTM D1556), Sand Cone Method; or by AASHTO T310 (ASTM D6938) Nuclear Densometer Methods.
 - b. Re-test all failing areas at CONTRACTOR's expense. Any failing test area must be re-tested and shown to meet testing requirements or associated work will be rejected.
 - c. At the direction of the ENGINEER, provide necessary equipment and labor to excavate and replace materials for test holes up to 2 feet deep into the compacted backfill to allow testing below the surface of any layers covered without inspection and approval.

C. Asphalt

1. OWNER will provide a minimum of 6 core samples of asphalt surface courses to check in place density and compacted depth. The ENGINEER will determine core sample locations. The cores are 4-inch (10 cm) diameter. Materials and acceptance tests will be made by the OWNER's testing agency to determine the CONTRACTOR's compliance with the specifications. All results shall be provided to the ENGINEER for approval. The OWNER shall furnish certified results of a Marshall Test showing the bulk specific gravity determination, stability and flow data, and density and void analysis. OWNER shall complete a Field Marshall test during each day of paving, or a minimum of two Field Marshalls for the Project.
2. Materials failing to meet the tests specified may be retested if approved and as directed by the ENGINEER. The CONTRACTOR shall pay the costs of any required re-testing for acceptance purposes. Re-testing will be performed by the CONTRACTOR's testing agency unless otherwise approved by the ENGINEER. If there is a dispute, a third party testing firm may be retained by the contractor for additional retesting for the ENGINEER's review and consideration.
3. The costs of the following tests are at CONTRACTOR's expense:
 - a. Initial aggregate quality tests
 - b. Job-Mix Formula
 - c. Any tests the CONTRACTOR requires to control his crushing, screening or other construction operations
 - e. All retesting of failing tests as provided above.
4. Correct all pavement composition, field density, or thickness, deficiencies at CONTRACTOR'S expense.
5. The field density and thickness of the pavement is determined by measuring the cores tested. The actual thickness must be no less than 1/4-inch (6.5 mm) from the specified thickness.
6. When the measurement of any core is less than the plan thickness by more than the allowable deviation, the actual thickness of the pavement in this area may be determined by taking additional cores at intervals parallel to the centerline in each direction from the affected location. Continue in each direction until a core is found which is not deficient by more than the allowable deviation. The ENGINEER will evaluate areas found

deficient in thickness and determine which areas warrant removal. Remove and replace the areas with asphaltic concrete of the thickness shown on the plans. Additional coring is considered as re-testing of failing areas.

7. Pavement thickness will be a minimum thickness as shown on the plans, with a maximum tolerance of ¼-inch. The ENGINEER has the right to reject all pavement that does not meet the minimum thickness requirements, and these sections shall be removed and replaced at no cost to the OWNER. The ENGINEER also has the right to reduce the unit price of the material represented by the cores by the same percentage that the cored thickness is less than plan thickness (i.e., less than the minimum thickness within tolerance, 2¾ inches). If the core thickness is less than the tolerance provide, the material represented by the core will be removed and replaced at no cost to the OWNER.

D. Concrete

1. OWNER to provide concrete testing by an ACI Grade I or equivalent certified testing technician.
 - a. Materials
 1. The OWNER or their representative must have access to the ready mix production facility for review of material production.
 - b. Standard Slump Tests
 1. A slump test shall also be made each time that strength specimens are made. Slump tests are performed meeting ASTM C143 "Method of Test for the Slump of Portland Cement Concrete".
 - c. Compression Tests
 1. A minimum of three specimens, 4 inch diameter, shall be made and tested for every concrete placement. Mold and test one set of test cylinders for every 50 yards of concrete per given class of concrete. On a given project, if the total volume of concrete is such that frequency of testing required above would generate less than 2 strength tests for a given class of concrete, make tests from at least 2 randomly selected batches or from each batch if fewer than 2 batches are used. Cure these cylinders under laboratory conditions except that additional test cylinders cured entirely under field conditions

- may be required by the ENGINEER to check the adequacy of curing and protection of the concrete.
2. Take samples for strength tests in accordance with ASTM C172.
 3. Mold test cylinders and laboratory-cure in accordance with ASTM C31. Test cylinders in accordance with ASTM C39, entitled "Method of Test for Compressive Strength of Cylindrical Concrete Specimens", ASTM C39, using an independent testing laboratory, as approved by the ENGINEER.
 4. Of each of the 3 cylinders taken for a pour, test 1 for information strength at 7 days and test 2 for acceptance strength at 28 days. To meet this specification, average strength of two cylinders from the same sample, tested at 28 days or the specified earlier age, is required for each strength test. Strength level of an individual class of concrete is considered satisfactory if both of the following requirements are met:
 - i. The average of all sets of 3 consecutive tests equal or exceed the specified strength.
 - ii. No individual strength test (average of two cylinders) falls below specified strength by more than 500 psi (3400 kPa).
 5. Cure field cured cylinders under field conditions meeting Section 7.4 of "Method of Making and Curing Concrete Test Specimens in the Field" (ASTM C31).
 6. Mold field cured test cylinders at the same time and from the same samples as laboratory cured test cylinders. Improve procedures for protecting and curing concrete when strength of field cured cylinders at the test age designated for measuring specified strength is less than 85 percent of that of companion laboratory cured cylinders. When laboratory cured cylinder strengths are appreciably higher than the specified strength, field cured cylinder strengths need not exceed the specified strength by more than 500 psi (3400 kPa) even though the 85 percent criterion is met.

7. The strengths of any specimens cured on the job are to indicate the adequacy of protection and curing of the concrete and may be used to determine when the forms may be stripped, shoring removed or the structure placed in service. When the strengths of the job cured specimens are below those specified above, the CONTRACTOR must improve the procedures for protecting and curing the concrete.
 8. When concrete fails to meet the requirements above or when tests of field cured cylinders indicate deficiencies in protection and curing, the OWNER's representative may order tests on the hardened concrete under Chapter 17.3 of ACI-301-84 or order load tests in Chapter 20 of the ACI Building Code (ACI 318-83) for that portion of the structure where the questionable concrete has been placed. In the event the load or core tests indicate that the structure is unsatisfactory, make all modifications as directed by the OWNER to make the structure sound.
- d. Air Content Tests
1. The OWNER shall during each strength test, check the air content by either the "Method of Test for Air Content of Freshly Mixed Concrete by the Pressure Method" (ASTM C23 1), "Method of Test for Air Content of Freshly Mixed Concrete by the Volumetric Method" (ASTM C173) or "Method of Test for Unit Weight, Yield and Air Content (Gravimetric) of Concrete" (ASTM C138)
- e. Temperature
- a) Test hourly when air temperature is 40°F (4°C) and below, and when 80°F (27°C) and above; and each time a set of compression test specimens is made."

PART 4: MEASUREMENT AND PAYMENT

4.1 PAYMENT FOR TESTING

Delete Paragraph B in its entirety and replace with the following paragraphs:

- "B. The OWNER will pay field soil and surfacing density tests and any concrete or asphalt quality assurance tests on the Project.

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- C. Costs of corrective action, costs of "failing" soils and/or concrete or asphalt tests, cost of testing associated with establishment of mix design and initial material Proctor tests base course and bedding material are the sole responsibility of the CONTRACTOR.
- D. Other testing: Required testing, testing procedures, reports, certificates, and costs associated with all phases of securing required satisfactory test information which may be required by individual sections of Specifications or Drawings are the full responsibility of the CONTRACTOR."

END OF SECTION

**SECTION 02000
DIVISION 2 - SITE WORK**

This contract will be constructed and administered under the requirements of the Montana Public Works Standard Specifications (MPWSS), Sixth Edition, April 2010, as Amended, and all supplemental documents contained herein. The Montana Public Works Standard Specifications are included in their entirety, as applicable, and as modified, amended, added, or replaced as follows:

- 02112 REMOVAL OF EXISTING PAVEMENT, CONCRETE CURB, SIDEWALK, DRIVEWAY AND/OR STRUCTURES (*MPWSS, as amended*)
- 02230 STREET EXCAVATION, BACKFILL AND COMPACTION (*MPWSS, as amended*)
- 02235 CRUSHED BASE COURSE (*MPWSS, as amended*)
- 02270 SOIL EROSION AND SEDIMENT CONTROL (*Added Section*)
- 02502 ASPHALT PRIME AND/OR TACK COAT (*MPWSS, as amended*)
- 02504 ASPHALT SEAL COAT (*Added Section*)
- 02510 ASPHALT CONCRETE PAVEMENT (*MPWSS, as amended*)
- 02528 CONCRETE CURB AND GUTTER (*MPWSS, as amended*)
- 02529 CONCRETE SIDEWALKS, DRIVEWAYS, APPROACHES, CURB TURN FILLETS, VALLEY GUTTERS AND MISCELLANEOUS NEW CONCRETE CONSTRUCTION (*MPWSS, as amended*)
- 02581 PAVEMENT MARKINGS AND MARKERS (*MPWSS, as amended*)
- 02585 STREET SIGNS (*Added Section*)
- 02720 STORM DRAINAGE SYSTEMS (*MPWSS, as amended*)
- 02900 PRACTICE FIELD GRADING, EXCAVATION AND PREPARATION (*Added Section*)
- 02905 TOPSOIL, SOIL AMENDMENTS, and SOD (*Added Section*)

SECTION 02112
REMOVAL OF PAVEMENT, CONCRETE, CURB, SIDEWALKS,
DRIVEWAY, AND/OR STRUCTURES (*MPWSS, as amended*)

PART 3: EXECUTION

Add the following:

“3.2 CUTTING OF PORTLAND CEMENT CONCRETE OR ASPHALT

- A. Concrete areaways, curbs, driveways, pavements, sidewalks, and slabs will be cut in a manner and the extent specified herein or as directed by the Engineer. The outer edge of all cuts through concrete items will be sawn through to a depth of not less than thirty (30) percent of the total thickness by means of a power driven concrete saw. All cuts will be in a straight line perpendicular or parallel to the centerline of the excavation unless approved by the Engineer.

Concrete and asphalt items encountered when excavating will be removed to a width of 12 inches greater than the width of the trench. Where the cut line is less than 4 feet from the edge of the existing pavement, remove and replace the entire pavement section between the trench and edge of pavement unless otherwise approved by the Engineer.

- B. Asphaltic surface cutting will be done with a power-driven saw to the same requirements cited above. An excavator may use a backhoe bucket in removal of asphaltic surface; square cutting of asphaltic surface to follow backfill operation, with area to be square cut marked by the Engineer.
- C. Whenever an excavator is required to remove curb or sidewalk to perform the work, they will be allowed to, and required to reinstall such curbs and sidewalks to match existing:
1. The concrete curb and sidewalk replacement work will conform to all City standards and regulations and concrete forms will be inspected before placement of concrete.
 2. The excavator will indicate on the excavation permit application their intention to perform any concrete curb or sidewalk replacement in the public right-of-way.
 3. The excavation permit will serve as a permit to remove and replace concrete curb and sidewalk within the limits of the excavation work authorized by the excavation permit.
- D. All saw cutting is incidental to the work performed and will not be paid separately.

PART 4: MEASUREMENT AND PAYMENT

Delete Paragraphs 4.1 through 4.4 in their entirety and add the following:

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4.1 ASPHALT AND CONCRETE REMOVAL

- A. Removal and disposal of asphalt concrete pavement and concrete is measured and paid under the following items:

"Asphalt and Base Removal"	SY
(Per the thickness indicated)	
"Curb Removal"	LF
"Concrete Removal"	SF

- B. All items paid for by the square foot, square yard, or lineal foot shall be paid at the same price regardless of thickness of material being removed (unless thickness is specified). Items shall be staked for removal by the Engineer, and measured for payment based on the staked location per the plans. The quantities listed in the Bid Form are final and will not be adjusted unless a change is made to the plan line and grades and approved by the engineer. Removals in excess of the staked location per the Contractor's discretion shall not be measured for payment, which also includes replacement in those excess locations. Payment shall include all labor, equipment, materials, and incidentals (such as sawcutting) to complete the removals.

4.2 MISCELLANEOUS REMOVALS

- A. Miscellaneous structures requiring removal, or removal and replacement, to include landscaping items, items to be relocated or transplanted, surfacing or structures, or any additional appurtenant work as required or as shown on the plans shall not be paid for directly, (unless listed in the proposal) and shall be considered incidental to other items of the work. All costs for miscellaneous removals, including but not limited to, all excavation, trenching, backfill and compaction as required, suitable borrow material for compaction, loading, hauling, and removal from site, any dumping fees, labor, equipment, material, and incidentals required to complete removals as called for on the plans or as may be incidental to the work are to be included in the unit price for other bid items, complete and in place."
- B. The following are additional removal items that will be paid for directly with the units indicated below. All quantities listed in the Bid Form are final unless the Engineer directs a change.

"Sump Removal" (see section 02720)	EA
"Remove Shed"	LS
"Remove and Salvage Goal Posts"	EA

4.3 RE-SET GOAL POSTS

- A. Reset goal posts shall be paid for per the Each as listed in the proposal. Two goal posts removed from the project site will be reset on the west practice field. The east practice field will have the old stadium goal posts re-set. These posts are located on the property. Contractor shall remove the existing concrete foundation from the goal posts prior to setting. Goal posts shall be set in 36" diameter by 48" depth concrete foundation. A photo of the existing posts is included for Contractor's review.



END OF SECTION

SECTION 02230
STREET EXCAVATION, BACKFILL, AND COMPACTION (*MPWSS, as amended*)

PART 1: GENERAL

1.3 DENSITY CONTROL TESTING

B. LABORATORY MAXIMUM DENSITY AND OPTIMUM MOISTURE

Delete Paragraph 1. in its entirety and replace with the following:

- “1. Quality assurance tests will be made by the OWNER for each onsite natural soil. The CONTRACTOR shall provide the maximum density curve and optimum moisture content for all material supplied including any Imported Borrow Excavation (if any). Refer to section 01400 for testing requirements and procedures.”

Add the following sections:

“1.4 PARKING LOT GRADING

- A. Contractor shall be responsible for the removal and excavation of existing asphalt and base material to the thickness called for on the plans.
- B. Parking lot excavation shall also include any incidentals shown on the plans for removal or demolition, and any incidentals items requiring removals to complete the project.
- C. Reference specification Section 02905 for practice field excavation, grading and preparatory work.

1.5 EXISTING IRRIGATION SYSTEM

- A. Contractor shall be responsible to protect in place any existing irrigation system components, with the exception of those components called out for demolition. Contractor shall be responsible to carefully work around any sprinkler heads and valve boxes. Contractor shall be responsible to make any adjustment to existing sprinkler system and adjust all head and valve boxes to finish grade upon completion of final grading.”

PART 3: EXECUTION

Delete paragraph 3.1 in its entirety and replace with the following:

“3.1 CLEARING, GRUBBING AND REMOVALS

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- A. Perform clearing and grubbing and removals as required to complete the project improvements. Backfill with approved on site materials from excavation all voids remaining from clearing, grubbing and removals. Properly dispose of all Clearing and Grubbing materials off site.”

Delete paragraph 3.5 in its entirety and replace with the following:

“3.5 DISPOSAL OF EXCAVATED MATERIAL

- A. Disposal
 - 1. Dispose of all materials associated with clearing, grubbing and removals off the project site in accordance with all applicable state and local regulations. Locate and provide suitable disposal areas.
- B. Excavated Materials
 - 1. With the exception of those materials that will be reused, all materials generated from excavation per the plan line and grades of the typical sections for the project parking lot improvements, and excavated materials associated with general items such as utility trenching shall be hauled off site and properly disposed of.”

Add the following sections:

“3.11 WATERING

- A. The CONTRACTOR shall be responsible for providing the water required for executing all work including, but not limited to, any water needed to comply with optimum moisture content for embankment, dust control, and any additional requirements.”

PART 4: MEASUREMENT AND PAYMENT

Delete paragraphs 4.1-4.3 in their entirety and replace with the following:

“4.1 EXCAVATION ABOVE SUBGRADE

- A. Measurement and payment for excavation above subgrade shall be included in the SY quantity listed on the Proposal for asphalt and base removal. All costs associated with this work shall be included in other items of work for which they are associated.”

4.2 SUBEXCAVATION/REPLACEMENT BELOW SUBGRADE

Add the following to paragraph 2.

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- “c. Subexcavation shall be measured and paid for per the Cubic Yard as listed in the proposal for Over-Excavation. Payment shall be measured based upon the measured quantity determined in the field by the Engineer.”

4.3. EMBANKMENT IN PLACE

Delete paragraph 3. and replace with the following:

- “3. Payment shall be made per the Cubic Yard for “3” Minus Pit Run as listed in the proposal. Payment shall be based upon the measured quantity determined the field by the Engineer.”

END OF SECTION

SECTION 02235
CRUSHED BASE COURSE (*MPWSS, as amended*)

PART 1: GENERAL

1.4 MATERIAL SUBMITTALS

Delete the last sentence of paragraph 1.

PART 2: PRODUCTS

2.2 CRUSHED BASE MATERIAL

Delete “recycled concrete and/or asphalt” within paragraph A.

2.3 GRADATION

Add the following to the end of paragraph A:

“The material furnished shall meet the requirements of the ¾ inch minus gradation.”

Add the following paragraph:

“F. The material fractured face count shall be greater than 35, and the L.A. Abrasion shall be less than 35.”

PART 4: MEASUREMENT AND PAYMENT

Delete 4.1, 4.2, and 4.3 in their entirety and replace with the following:

“4.1 CRUSHED BASE COURSE

- A. This item shall be measured and paid for by the square yard basis as shown on the typical sections on the plans for new asphalt construction. Payment shall be made under ¾” Minus Crushed Base Course for the thickness listed in the proposal, and shall constitute full compensation for furnishing, loading, hauling, spreading, blending, shaping, watering, and compacting the sub-base course material, and for all tools, labor and incidentals necessary to complete this item. The quantity listed in the bid form shall be final unless the Engineer approves a change to the plan lines and grades.
- B. Crushed base course used for other items of work, to include all concrete foundation material for curb and gutter, sidewalk, and any other miscellaneous items shall not be paid for directly, and shall be considered incidental to other items of the work for which it is associated.”

END OF SECTION

SECTION 02270
SOIL EROSION AND SEDIMENT CONTROL (*Added Section*)

PART 1: GENERAL

1.1 SUMMARY

A. STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES

1. The Contractor is responsible for creating and filing a Notice of Intent (NOI) Form and Storm Water Pollution Prevention Plan (SWPPP) for this project under the Montana Pollutant Discharge Elimination System (MPDES) with the Montana Water Quality Division for storm water associated with construction activities. All fees associated with this permit application and any subsequent annual fees will be paid for by the Contractor.
2. The Contractor shall be required to comply with all requirements of the 2018 "General Permit for Storm Water Discharges Associated with Construction Activity" (General Permit). The CONTRACTOR shall review and have an understanding of the SWPPP and its intent for mitigating erosion and sediment control. The Contractor is responsible for installing, maintaining and preserving all erosion control measures for the Project in conformance with the SWPPP and any Montana Department of Environmental Quality (DEQ) regulations related to storm water discharge. The Contractor shall be responsible for performing all Monitoring, Reporting, and Records Retention Requirements as indicated within the General Permit. The Contractor shall be responsible to make any necessary changes to the SWPPP to prevent damage as a result of storm water runoff from this site using Best Management Practices (BMP's).
3. The Contractor must have a copy of the NOI Receipt Confirmation Letter from DEQ providing coverage to discharge storm water under the General Permit, a copy of the SWPPP, and copies of the Contractor's reporting documentation on site at all times during construction. The Contractor is solely responsible for any and all damages and/or fines that may result from runoff from this site during the duration of this contract. The Contractor shall provide all monitoring and reporting records to the Engineer and Owner. The Contractor shall submit all monitoring reports within two (2) days after completion of the report. Additionally, the Contractor shall keep a copy of their updated SWPPP map on site at all times, and this map shall show all current locations of BMP's on the project.
4. The Contractor shall be responsible to maintain all erosion control measures throughout the warranty period. Once final stabilization of the Project is complete, the Contractor shall be

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responsible to remove erosion control measures, such as silt fencing, that are no longer necessary to contain sediment. The Contractor shall notify the Engineer, prior to the end of the warranty period, when such erosion control measures will be removed, and this work shall be considered an item covered by the Project warranty.

5. Any penalties due to non-compliance with the General Permit requirements shall be the responsibility of the Contractor.
6. The Contractor is responsible to submit Notice of Termination (NOT) form when the construction activity is complete and the site has achieved final stabilization.

1.2 QUALITY ASSURANCE

A. Referenced standards:

1. Erosion control standards: "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" by the U.S. Department of Agriculture, Soil Conservation Service, College Park, Maryland.

B. Requirements of regulatory agencies:

1. Comply with all applicable requirements of local, state, and federal agencies.
2. Comply with the State of Montana DEQ, Water Quality Act 75-5-318 MCA.

C. The temporary erosion control plan should consider staging of construction and should address movement of sedimentation fences as construction progresses, temporary seeding and use of mulch, netting, sod, etc.

PART 2: PRODUCTS

2.1 GENERAL

- A. Products used for Erosion Control and Best Management Practices shall be in conformance with local, state, and federal standards and approved by the Engineer.

PART 3: EXECUTION

3.1 EROSION CONTROL MEASURES

- A. The Contractor shall comply with all requirements of the SWPPP and General Permit. The Contractor shall monitor the site per the General

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Permit and make any changes to the SWPPP to add or amend the erosion control measures. The following general guidelines shall be used to control erosion:

1. Route existing surface runoff and underground drainage within the project area to sediment basins, and pipe the flow to the nearest catch basin before final discharge.
2. Divert surface waters that would otherwise enter the project area to prevent their contamination.
3. Minimize the area of unprotected soil.
4. Stabilize exposed soil as soon as practical.
5. Trap transported sediments before entering the state water bodies.
6. Incorporate permanent erosion control features as need to control sediment from leaving the site.
7. Reseed disturbed areas as soon as practical.
8. Inspect regularly especially after rainstorms per the monitoring requirements.
9. Repair or replace any damaged or missing items.
10. Minimize disturbance to any existing vegetation (grass and trees).

3.2 INLET PROTECTION

- A. The Contractor shall protect all inlets during the course of construction and until final surfacing is complete with approved erosion control measures.

PART 4: MEASUREMENT AND PAYMENT

4.1 EROSION CONTROL

- A. Measurement and Payment for creating and filing all documentation required under the MPDES for storm water associated with construction activities, associated fees and all work associated with soil erosion and sediment control shall be at the Lump Sum price included in the Proposal for "Erosion Control". This item shall include all installation, maintenance, and removal (if required) of all sediment control structures and BMP's included in the SWPPP and on the plans, and necessary to comply with local, state, and federal standards. This work shall also include any work associated with monitoring and reporting for permit compliance.

END OF SECTION

SECTION 02502
ASPHALT PRIME AND/OR TACK COAT (*MPWSS, as amended*)

PART 2: PRODUCTS

2.1 GENERAL

Delete paragraph A in its entirety and replace with the following:

- “A. Furnish asphalt material grade and type as specified below meeting the requirements of Table 1 and Table 2 in this Section. Use asphalt materials as follows:

<u>Type and Grade</u>	<u>Use</u>
Emulsified Asphalt, SS-1 or SS-1h	Asphalt Tack Coat”

PART 4: MEASUREMENT AND PAYMENT

Add the following:

“4.4 PAYMENT

- A. No separate measurement or payment will be made for this item. Payment for this work will be incidental to other pay items.”

END OF SECTION

SECTION 02504
ASPHALT SEAL COAT (*Added Section*)

PART 1: GENERAL

1.1 DESCRIPTION

- A. This Work is to furnish and install emulsion sealer and crack fill on existing asphaltic concrete paving as described in Contract Documents.

1.2 REFERENCES

- A. The current publications listed below form a part of this specification.
 - 1. ASTM D977-03 - Standard Specifications for Emulsion Asphalt
 - 2. ASTM D2397-02 - Standard Specifications for Cationic Emulsified Asphalt

1.3 SUBMITTALS

- A. Product Data: Provide Manufacturer's literature and installation instructions for Engineers review and approval prior to installation.
- B. Quality Assurance/Control:
 - 1. Provide following information on at least five projects of similar size in area of the Project where sealer has been applied in the last 5 years.
 - a. Project names and addresses
 - b. Date of installation
 - c. Name of maintenance supervisor or owner

1.4 PROJECT CONDITIONS

- A. Project Environment Requirements:
 - 1. Apply sealer at ambient and surface temperatures of 50 degree F and rising or per manufacturer's recommendations.
 - 2. Do not apply sealer over wet pavement or when precipitation is imminent or forecast for at least 24 hours following application.
 - 3. Do not apply sealer over newly laid asphalt paving. Apply only on asphalt paving that has cured for 4 weeks minimum and per manufacturer's recommendations.

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4. Newly pavement surfaces shall be free of residual oils or chemicals associated with the placement of new asphalt pavement.
5. Aged pavement surfaces shall be cleaned and prepared as recommended in this specification under PART 3 of this specification.

PART 2: PRODUCTS

2.1 MATERIALS

A. Sealer

1. Asphalt Emulsion: Meet requirements of ASTM D 977, Grade SS-1h or ASTM D 2397, Grade CSS-1h.
2. Weight per Gallon Liter: 10 lbs One kg minimum.
3. Residual Asphalt: 20 percent minimum by weight.
4. Mineral inert Fillers: 35 percent maximum by weight.
5. Water: 40 percent maximum by weight.
6. Latex Additive: Add at plant a rate of 2.0 parts latex to 100 parts asphalt emulsion.

B. Aggregate:

1. Clean sand free of silt, clay, salts, and organic matter, and meeting following grading requirements:

<u>Sieve</u>	<u>Percent of Weight Passing</u>
No. 16	100
No. 30	15-85
No. 50	2-10
No. 100	0-2

PART 3: EXECUTION

3.1 PREPARATION

- A. Protection: Protect signs, posts, street lamp posts, trees, shrubs, and tops of curb and gutters from being discolored by splashing asphaltic material.
- B. Surface Preparation:

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1. Plane or grid off existing painted lines, grease or oil patches, and spillage of any material that has adhered to pavement and will prevent adherence of the new seal coat.
2. Surface must be clean and free from all loose material and dirt. Remove grass along edge of pavement to find true edge of pavement. Power blowers, mechanical sweeping devices and push brooms are acceptable cleaning methods.
3. Seal areas damaged by oil or grease in accordance with Manufacturer's recommendations.

3.2 SEAL COAT APPLICATION

- A. Do not apply sealer until completion of crack filling as specified in Section 3.3, if applicable.
- B. Follow Sealer Manufacturer's recommendations in regard to fogging of substrate, priming of substrate, and dilution of sealer.
- C. Apply sealer using power driven machine that continually mixes sealer, water, and sand.
- D. Apply two coats minimum. Apply addition coats if necessary to attain manufacturer's recommended coverage. Allow 24 hours between coats.
- E. Application Rate: 0.35 gal per sq yd 2L per sq m minimum.

3.3 CRACK FILLING

- A. Hot Applied Crack Sealant/Filling
 1. Cracks must be free from dust, dirt, vegetation and moisture. Clean cracks with mechanical wire brush followed by a compressed air heat lance to remove loose debris and moisture.
 2. Fill all cracks 1/8" to 1" wide with either hot poured elastomeric parking lot grade crack sealant or approved equal.
 3. Apply heated crack sealant using a pump and wand system or a pour pot.
 4. Contractor shall refer to Manufacturer's Product Data Sheet for more detailed application instructions.

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3.4 PROTECTION

- A. Keep traffic off freshly applied sealer for 24 hours minimum or per manufacturer's recommendation.
- B. Do not apply paint striping to freshly applied sealer for 24 hours minimum or per manufacturer's recommendation.

PART 4: MEASUREMENT AND PAYMENT

4.1 ASPHALT SEAL COAT - SQUARE YARD

- A. Asphalt seal coat will be measured by the square yard basis as listed in the proposal. Payment shall include all labor, equipment, materials and incidentals to complete seal coat operations as specified. The square yard unit listed on the bid form shall be final unless the Engineer approves a change to the plan line and grade.

END OF SECTION

SECTION 02510
ASPHALT CONCRETE PAVEMENT (*MPWSS, as amended*)

PART 2: PRODUCTS

2.2 PLANT MIX AGGREGATES

Add the following sentence to the end of paragraph E.:

“The use of reclaimed asphalt pavement shall only be allowed with prior approval of the Engineer and Owner.”

Add the following sentence to the end of paragraph I:

“The gradation for this Project will be Type B.”

2.3 ASPHALT BINDER MATERIAL

Add the following sentence to the end of Paragraph A.:

“Use (PGAB) PG 58-28, unless otherwise approved by Engineer.”

2.5 COMPOSITION OF MIXES

A. General

Add the following:

“5. Current job mix is defined as a mix design done within the last 12 months in which no change in material sources or amounts has been made.”

PART 3: EXECUTION

3.29 PAVEMENT AND MATERIAL TESTING REQUIREMENTS

Add the following:

“G. The Contractor shall schedule core samples in compliance with Section 01400 prior to seal coat operations. The location of the core will be specified by the Engineer.

H. Pavement thickness will be a minimum as indicated on the plans, with a maximum tolerance of ¼-inch. The ENGINEER has the right to reject all pavement that does not meet the minimum thickness requirements, and these sections shall be removed and replaced at no cost to the OWNER. The ENGINEER also has the right to reduce the unit price of the material represented by the cores by the same percentage that the cored

thickness is less than plan thickness (i.e., less than the minimum thickness within tolerance, 2¾ inches for 3" thickness, etc.). If the core thickness is less than 75% of plan, the material represented by the core will be removed and replaced at no cost to the OWNER.

PART 4: MEASUREMENT AND PAYMENT

4.2 SQUARE YARD BASIS

A. Asphalt Concrete Pavement

Add the following to item 1:

"The quantity listed in the bid form was computed from the plan lines and grades for the asphalt required to construct new track surface area and other areas as indicated on the plans. The square yard asphalt quantity listed in the Bid Form is final, and will not be adjusted unless a change is made to the plan line and grades approved by the Engineer."

END OF SECTION

SECTION 02528
CONCRETE CURB AND GUTTER *(MPWSS as amended)*

PART 1: GENERAL

1.1 DESCRIPTION

Delete Paragraph B. in its entirety and replace with the following:

- B. Refer to the Details on the Drawings and the most recent versions of City of Missoula Standard Drawings for applicable details.

Add the following section:

“1.3 CERTIFIED FLATWORK FINISHER

- A. Contractor shall have at least one (1) American Concrete Institute (ACI) Certified Flatwork Finisher available on-site at all times during placement and finishing of concrete.”

PART 2: PRODUCTS

2.1 STRUCTURAL CONCRETE

Delete paragraph A. in its entirety and replace with the following:

- “A. Furnish structural concrete meeting the requirements of Section 03310, STRUCTURAL CONCRETE. Concrete for use within the City of Missoula right-of-way shall be Portland cement with a minimum cement content of 564 lb/cy. No fly ash or slag will be accepted in the mix without written approval from the City. All concrete shall be cured meeting current City of Missoula requirements.”

Delete Section 2.5 in its entirety and replace with the following:

“2.5 CURING AND PROTECTIVE COATING MATERIALS

- “A. Curing Concrete: Contractor shall utilize a concrete curing compound on all concrete surfaces.

CURING COMPOUND: Clear spray Applied Membrane Forming Liquid conforming to ASTM C309-81, Type 1. Curing compound shall not reduce bonding or adhesion of finish materials applied to concrete surfaces.

1. Water-Based Acrylic Membrane Curing compound: ASTM C309, Type I, Class B.
 - a. Provide material that has a maximum volatile

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- organic compound (VOC) rating of 350 g/L.
 - b. Available Products: Subject to compliance with requirements, products that may be incorporated into the work include, but are not limited to the following:
 - Highseal, Conspec Marketing and Mfg. Co.
 - Sealco - VOC, Cormix Construction Chemicals
 - Safe Cure and Seal, Dayton Superior Corp.
- 2. Evaporation Control: Monomolecular film-forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss.
 - a. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:
 - Aquafilm, Conspec Marketing and Mfg. Co.
 - Eucobar, Euclid Chemical Co.
 - E-Con, L&M Construction Chemicals, Inc.”

PART 3: EXECUTION

3.2 FOUNDATION PREPARATION

- C. Change “3 inches” to “4 inches.”

3.3 FORMS

Add the following sections:

- “E. The contractor shall verify that all sidewalk, laydowns, driveways, and miscellaneous concrete construction meet applicable Federal, State, and local ADA standards prior to pouring concrete.”

Add the following section:

“3.12 LAYDOWNS AND MODIFIED CURB

- A. Form driveway laydowns and any modified curb sections as indicated on the plans, or as designated by the Engineer. The Engineer will mark locations in the field prior to the Contractor starting the curb work. There will be no separate measurement and payment for this work.

PART 4: MEASUREMENT AND PAYMENT

Delete section 4.1 in its entirety, and replace with the following.

“4.1 CURB AND GUTTER, “B” CURB, and MISC CURBING

- A. Curbing, to include Type “L”, Type “B”, or median curb shall be measured and paid for by the linear foot of curbing, in place, at the contract unit price as listed in the bid form. Price and payment is full compensation for all materials, curing of concrete, all pre-molded mastic material for expansion joints, contraction joints, foundation materials and incidentals as required within the specifications and shown on the details, all equipment, tools, labor, and for the performance of all work and incidentals necessary to complete the item. The linear foot measurement is the horizontal distance measured along the centerline of the curb.

END OF SECTION

SECTION 02529
CONCRETE SIDEWALKS, DRIVEWAYS, APPROACHES, CURB TURN FILLETS,
VALLEY GUTTERS, AND MISCELLANEOUS NEW CONCRETE CONSTRUCTION
(MPWSS as amended)

PART 1: GENERAL

1.2 REFERENCES

Delete Paragraph A. in its entirety and replace with the following:

“A. Refer to applicable details on the plans.”

Add the following section:

“1.3 CERTIFIED FLATWORK FINISHER

A. Contractor shall have at least one (1) American Concrete Institute (ACI) Certified Flatwork Finisher available on-site at all times during placement and finishing of concrete.”

PART 2: PRODUCTS

2.1 STRUCTURAL CONCRETE

Delete paragraph A. in its entirety and replace with the following:

“A. Furnish structural concrete meeting the requirements of Section 03310, STRUCTURAL CONCRETE. Concrete for use on the project shall be Portland cement with a minimum cement content of 564 lb/cy. No fly ash or slag will be accepted in the mix. All concrete shall be cured as specified below.”

Delete Section 2.5 in its entirety and replace with the following:

“2.5 CURING AND PROTECTIVE COATING MATERIALS

“A. Curing Concrete: Contractor shall utilize a concrete curing compound on all concrete surfaces.

CURING COMPOUND: Clear spray Applied Membrane Forming Liquid conforming to ASTM C309-81, Type 1. Curing compound shall not reduce bonding or adhesion of finish materials applied to concrete surfaces.

1. Water-Based Acrylic Membrane Curing compound: ASTM C309, Type I, Class B.

- a. Provide material that has a maximum volatile organic compound (VOC) rating of 350 g/L.
- b. Available Products: Subject to compliance with

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requirements, products that may be incorporated into the work include, but are not limited to the following:

- Highseal, Conspec Marketing and Mfg. Co.
- Sealco - VOC, Cormix Construction Chemicals
- Safe Cure and Seal, Dayton Superior Corp.

2. Evaporation Control: Monomolecular film-forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss.

- a. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

- Aquafilm, Conspec Marketing and Mfg. Co.
- Eucobar, Euclid Chemical Co.
- E-Con, L&M Construction Chemicals, Inc.”

Add the following sections:

“2.6 DETECTABLE WARNING SURFACES

- A. Furnish Detectable Warning Surfaces (DWS) at all new or repaired curb ramps or other areas as may be designated on the plans. Each DWS shall match the width of the ramp or as detailed on the plans, and extend a minimum of 2 feet back behind the curb.
- B. Furnish DWS meeting City of Missoula STD Drawing 100 and comprised of the following approved material, consistent throughout the project:
 - a. Cast iron natural (rusting to red) domes - Hunton Precast or approved equivalent.

2.7 COLOR AND PATTERN

- A. Provide full depth, integrally colored, patterned concrete for curb island caps where shown on the plans.
 1. Base color is to closely match the existing colored concrete adjacent to the school building at the south parking lot.
 2. Release agent is to be “Medium Grey” or approved equivalent.
 3. Pattern is to be similar to existing stamp pattern of colored concrete adjacent to the school building at the south parking lot.

PART 3: EXECUTION

3.2 FOUNDATION PREPARATION

- B. Change “3 inches” to “4 inches or 6 inches as detailed on the plans.”

3.3 FORMS

Add the following paragraphs

- “C. Contractors shall check with the Engineer prior to any pour. Verification will be made as to correctness of forms prior to any ordering of concrete.
- D. The contractor shall verify that all sidewalk, laydowns, driveways, and miscellaneous concrete construction meet applicable Federal, State, and local ADA standards prior to pouring concrete.”

Add the following sections:

“3.12 DETECTABLE WARNING SURFACES

- A. Detectable warning surfaces shall be installed per the manufacturer recommendations. Cast detectable warning panels the full width of the curb ramp in 6” thick concrete, with a maximum depth of 3 inches behind the back of curb in conformance with City of Missoula standard detail 100.

3.13 SEALING

- A. Following the curing period all concrete (with exception of curbing) shall be sealed to protect from the detrimental effects of exposure to deicer and road salts. Sealer shall have a minimum life of 2 years and shall be submitted to and approved by the engineer. Sealer shall be a silane based product such as Dayton Superior J-29 or approved equivalent.
- B Surface Preparation: New concrete must be cured a minimum of 28 days. If a membrane forming cure is used it will not be compatible and will have to be removed. Concrete surfaces should be clean, free of dirt, oil, grease and other contaminants. The surface must be sufficiently porous to allow immediate penetration of sealer. A good test is to place a few drops of sealer or water onto the clean surface. The sealer or water droplets should be immediately absorbed into the surface.
- C Application – per manufacturers recommendations.

PART 4: MEASUREMENT AND PAYMENT

Delete Paragraphs 4.1, 4.2, 4.3, 4.4, and 4.5 in their entirety and replace with the following:

“4.1 4” THICKNESS CONCRETE SIDEWALK

- A. 4” Thickness concrete sidewalk shall be measured and paid for by the square foot, as listed in the Bid Form. Payment is full compensation for

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all material, excavation, foundation material, backfill, forming, curing of concrete, sealing, jointing, equipment, tools and labor, and for work and incidentals necessary to complete this item.

4.2 6" THICKNESS CONCRETE

- A. 6" Thickness concrete shall be used where indicated on the plans for future concrete building pad areas. This item is measured and paid for by the square foot price for "6" Thickness Concrete w/ 6" Base Course", and payment is full compensation for all material, excavation, foundation material, backfill, forming, curing of concrete, sealing, jointing, equipment, tools and labor, and for work and incidentals necessary to complete this item.

4.3 CONCRETE DISCUSS PAD

- A. 6" thickness concrete with 6" thickness $\frac{3}{4}$ " base course shall be used for the new discuss pad. Contractor shall coordinate with MCPS who will supply new metal ring insert for discuss pad. MCPS will also provide sleeves to be installed within concrete perimeter for discuss cage. Contractor shall coordinate all installation with MCPS maintenance staff. Payment shall be full compensation for all material, excavation, foundation material, backfill, forming, curing of concrete, sealing, jointing, equipment, tools and labor, and for work and incidentals necessary to complete this item.

4.4 CURB ISLAND COLORED/PATTERNED CONCRETE

- A. This item is measured and paid for by the square foot price for "4" Thick Colored/Patterned Concrete Sidewalk" and payment is full compensation for all material, excavation, backfill, foundation material, curing and sealing of concrete, equipment, tools and labor, and for work and incidentals necessary to complete this item as shown on the Plans.

4.5 DETECTABLE WARNING SURFACE

- A. This item is measured and paid for by the square foot price for "Detectable Warning Surface". Payment is full compensation for all materials, equipment, tools, labor, and incidentals necessary to complete this item in place.

END OF SECTION

SECTION 02581
PAVEMENT MARKINGS AND MARKERS (*MPWSS as amended*)

PART 1: GENERAL

Delete paragraph 1.1 in its entirety and replace with the following:

“1.1 DESCRIPTION

- A. This work includes surface preparation and application of waterborne paint for lines and symbols as described on the plans and within these specifications.”

PART 4: MEASUREMENT AND PAYMENT

4.1 GENERAL - DELETE

Add the following:

“4.1 GENERAL

- A. Pavement marking paint for traffic lines, words, and symbols shall be paid for per the Lump Sum price of Striping as indicated on the Bid Form.
- B. Work associated with layout of striping, any removal of temporary pavement markings, or tabbing of markings, shall not be paid for directly and shall be considered incidental to the work. Contractor shall be responsible for all striping layout. Coordinate layout with the Engineer prior to final striping.”

END OF SECTION

SECTION 02585
STREET SIGNS (*Added Section*)

PART 1: GENERAL

1.1 DESCRIPTION

- A. This work involves removing, replacing, and providing new street signs as shown on the plans.

PART 2: PRODUCT

2.1 STREET SIGNS, POSTS, AND BASES

- A. Provide signs in conformance with City of Missoula Standard Drawing 274 and meeting the most current version, revision, and supplement for sign material(s), size, thickness, shape, color(s), message, symbology, and reflectivity within the Manual of Uniform Traffic Control Devices (MUTCD).
- B. Provide sign posts and bases in conformance with City of Missoula Standard Drawing 270.

PART 3: EXECUTION

3.1 INSTALLATION

- A. Install signs in accordance with the City of Missoula Standard Drawings 270 and 276.
- B. All traffic sign installation must be coordinated with the Engineer prior to placement and installation of the sign.

PART 4: MEASUREMENT AND PAYMENT

4.1 SIGNS

- A. Street signs shall be measured and paid for by each sign and post assembly installed. Payment for each new sign installed shall include all materials, labor, and equipment required to install the sign including foundation, post, sign face(s) and mounting bracket(s). Additional payment shall not be made for multiple sign faces included on a single sign installation. Payment shall be made per the each for "NEW SIGN" as indicated on the Bid Form."

END OF SECTION

SECTION 02720
STORM DRAIN SYSTEMS (*MPWSS as amended*)

PART 1: GENERAL

1.4 STANDARD DRAWINGS

Add the following:

"Project standard details per the plans."

PART 2: PRODUCTS

2.2 PIPE MATERIALS

Change "Standard Drawings Details" to "Details on the plans" in the first sentence of Section E. MANHOLES a.1.

Delete Paragraph d. In its entirety and replace with the following:

"d. FRAMES AND COVERS

1. Furnish frames and covers meeting City of Missoula standards as shown on the drawings or in the specifications."

PART 3: EXECUTION

3.1 PIPE AND SERVICE LINE INSTALLATION

E. TOLERANCES

Add the following:

"These variations in tolerance will be allowed provided that such variation does not result in a level or reverse sloping invert.

Add the following:

"F. BEDDING

1. The trench shall be excavated to a depth equal to or greater than that required for minimum bedding. Then bedding material conforming to Section 02221 shall be placed, shaped, and compacted per specifications."

Add the following paragraphs:

"3.6 4' DIAMETER STORM DRAIN SUMPS

- A. Construct storm drain sump sections to the specified plan dimensions (4' diameter). The Contractor shall review the soil conditions during excavation to ensure the 3" - 6" drain rock is a minimum of 2' into native gravelly material with the depth of sump called for on details.

PART 4: MEASUREMENT AND PAYMENT

Add the following paragraphs:

"4.5 4' DIAMETER STORM DRAIN SUMP

- A. Storm Drain Sumps shall be measured and paid for by the Each, for the number of storm drain sumps installed, complete in place, at the contract unit price listed in the proposal for "4' Diameter Storm Drain Sump". Measurement and payment shall include all material as shown on the details, including but not limited to the precast concrete structure (regardless of depth), excavation and drain rock, drainage fabric, adjustment rings, and all other material, labor, equipment, and incidentals to complete the item.

4.6 SUMP REMOVAL

- A. Payment shall be made per the each as listed in the proposal for "Sump Removal". Payment shall be full compensation for the complete removal of the related storm drain structure (sump), to include abandonment of any piping, and the backfill of resulting voids meeting the specifications for material and compaction requirements (95% Minimum compaction). Payment shall be full compensation for all labor, equipment, tools, and incidentals to complete removal.

4.7 DRAINAGE TRENCH

- A. Measurement and payment for Drainage Trench shall be per the lineal foot as listed on the Bid Form. Payment shall include all labor, equipment, materials, and incidentals to complete drainage trench in place per the details on the plans."

END OF SECTION

SECTION 02900
PRACTICE FIELD GRADING, EXCAVATION AND PREPARATION
(Added Section)

PART 1: GENERAL

1.1 DESCRIPTION

- A. This section includes all labor, equipment, and materials for removing existing grass, pulverizing topsoil, stripping topsoil, completion of site excavation and spreading of existing topsoil.

PART 2: PRODUCTS

2.1 GENERAL

- A. Coordinate with MCPS for new discuss ring for pouring into new concrete pad, underground sleeves for installation within concrete pad for discuss cage, and location of existing goal posts to be re-set on east practice field.
- B. Coordinate with MCPS for salvage or existing irrigation components such as heads, valves, and valve boxes prior to demolition of irrigation system.
- C. Coordinate with MCPS for storage location of unused goal posts.

PART 3: EXECUTION

3.1 SOD REMOVAL

- A. Contractor shall be required to cut minimum of 1" depth of existing grass with a sod cutter. Sod shall be removed and properly disposed of off site.

3.2 PULVERIZATION

- A. Once existing sod has been cut and removed, Contactor shall pulverize existing topsoil to a minimum of 5" depth to pulverize existing root system and organic material. Contractor shall plan minimum of 2 passes with Meri crusher machine, 4 passes with use of pulverizing equipment (pug mill) , or up to 15 passes with an approved farm disc to obtain a 1.5" minus particle size. Other equipment may be used if approved by the Engineer.

3.3 STRIP TOPSOIL

- A. Upon completion of pulverization, strip and stockpile topsoil on site for reuse.

3.4 SITE GRADING

- A. Contractor shall grade site subgrade to the lines and grades as indicated on the plans. A laser-equipped grader shall be used for

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subgrade preparation with a tolerance of ½" for subgrade preparation.

- B. The intent of the site grading is to balance the earthwork on site to eliminate the need for import or haul off. Engineer will work with the Contractor to adjust grading as needed to balance the subgrade site preparation.
- C. When surface or subsurface conditions detrimental to plant growth is encountered, such as rubble, fill, paving, adverse drainage conditions, or obstructions, the Contractor shall be responsible for notifying the Engineer before proceeding with planting operations in the area of concern. The Contractor shall also notify the Engineer of circumstances which are detrimental to site drainage resulting from final grading.

3.5 REDISTRIBUTE TOPSOIL

- A. Once subgrade preparation is complete, Contractor shall re-distribute existing topsoil to 4" minimum depth across the grading area. Topsoil distribution shall be completed with laser-equipped grader with a tolerance of ¼" for final grading.

Note: Football field areas as shown on the plans will receive an additional 4" of material (3" imported topsoil mixed with 1" organic compost, see Section 02905).

3.6 IRRIGATION COORDINATION

- A. As indicated within Section 01400 Project Coordination, Contractor shall work with MCPS irrigation Contractor to install field irrigation system. It is anticipated that irrigation contractor will perform trenching or irrigation system after initial topsoil redistribution has been completed, to use finished grade for setting heads and valve boxes. Contractor shall coordinate schedule with irrigation contractor. Contractor shall be required to complete final topsoil installation and finished grading once irrigation has been installed.

PART 4: MEASUREMENT AND PAYMENT

4.1 GENERAL

- A. Field grading, excavation, and field preparation items are measured and paid for at the unit bid price for the completed and accepted quantities under the following:

<u>Pay Item</u>	<u>Pay Unit</u>
Cut and Remove Sod	Square Yard
Pulverize, Strip and Stockpile topsoil	Cubic Yard

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Site Grading

Lump sum

Spread Existing Topsoil

Cubic Yard

- B. Payment indicated to include complete compensation for all labor, equipment, materials, and incidentals required for the completion of the work in accordance with the plans and specifications.

END OF SECTION

SECTION 02905
TOPSOIL, SOIL AMENDMENTS AND SOD (*Added Section*)

PART 1: GENERAL

1.1 DESCRIPTION

- A. This section includes ground surface preparation, furnishing and installation of topsoil, furnishing of compost and soil amendment operations, and supply and installation of sod for practice field improvements.

PART 2: PRODUCTS

2.1 TOPSOIL

- A. Provide topsoil in accordance with Missoula Park and Rec Design Manual, 2018 Edition pages 61-63. Provide soil report submittal from Contractor's proposed source for approval to engineer prior to delivery.

Missoula Parks and Rec manual can be found at the following location:

<http://www.ci.missoula.mt.us/DocumentCenter/View/41022/Missoula-Parks-and-Recreation-Design-Manual-2018-Edition-?bidId=>

2.2 ORGANIC COMPOST

- A. Provide Class A compost from Garden City Compost or approved sources.

2.3 SOD

- A. Contractor shall supply certified weed-free Kentucky bluegrass sod for the project. Submit grass seed mix and supplier information for review and approval prior to ordering sod.
- B. Coordinate sod supply immediately upon Award of the project to secure product and quantity for project.

PART 3: EXECUTION

3.1 TOPSOIL

- A. Place a minimum on 3 inches imported topsoil on the football practice field areas as shown on the plans, over a minimum 4 inch thickness of existing topsoil.

3.2 COMPOST LAYER/TOPSOIL PREPARATION

- A. Once topsoil has been placed, furnish and place a 1" thickness of compost over the entire practice field area. Amend soil by mixing compost layer into upper 4 inches of topsoil by the use of pulverizing equipment, harrowing, or other approved method to effectively blend compost into topsoil.
- B. Complete final grading with laser guided equipment to a tolerance of ¼" of finished grade.

3.3 SOD INSTALLATION

- A. Clear the areas to be sodded of all debris, vegetation, clumps, rocks, and other material determined by the Engineer to be detrimental to the preparation of sod bed. Harrow, rake, or work the area by other suitable methods, into a smooth, even sod bed. Assure the prepared topsoil surface is firm enough to prevent settlement of sod once installed.
- B. Adjust existing irrigation system and sprinkler heads to finish grade prior to sod installation. Perform any irrigation repairs and verify system is functional prior to sod installation.
- C. After installation of topsoil, if soil has been compacted, loosen soil to complete an adequate bed for sod installation. An ideal bed is topsoil lightly compacted until an average person leaves a foot print .25 to .5 inches deep in the soil.
- D. Order large rolls to be placed by sod manufacturer. **MCPS will coordinate volunteer labor for sod installation** for stretching, cutting, patching, and final placement. Provide a minimum of one-week notice prior to sod delivery for coordination of labor.

3.4 CARE OF SOD AREAS

- A. Keep the sod areas moist to assure continued growth. Coordinate irrigation of newly installed sod with project Owner.
- B. Protect all sodded areas from traffic or pedestrian use with warning barricades or other Engineer approved methods.
- C. Maintain the sodded areas, coordinating required watering with irrigation contractor until the roots have firmly established. Prevent weeds and other undesirable vegetation from establishing in the sodded area. Coordinate maintenance of sodded area with project Owner and maintenance staff.
- D. Replace any sodded areas which have died or been damaged by

construction activities. Replace such areas to meet the contract requirements. Sod shall be warranted by Contractor until final acceptance by MCPS.

PART 4: MEASUREMENT AND PAYMENT

4.1 GENERAL

- A. Imported topsoil, imported compost, topsoil preparation, and sod supply and installation items are measured and paid for at the unit bid price for the completed and accepted quantities under the following:

<u>Pay Item</u>	<u>Pay Unit</u>
Imported Topsoil	Cubic Yard
Imported Compost Layer	Cubic Yard
Topsoil Preparation	Square Yards
Sod Supply and Installation	Square Yards

- B. Payment indicated to include complete compensation for all labor, equipment, materials, and incidentals required for the completion of the work in accordance with the plans and specifications.

END OF SECTION

SECTION 03000
DIVISION 3 - CONCRETE

This contract will be constructed and administered under the requirements of the Montana Public Works Standard Specifications (MPWSS), Sixth Edition, April 2010, as Amended, and all supplemental documents contained herein. The Montana Public Works Standard Specifications are included in their entirety, as applicable, and as modified, amended, added, or replaced as follows:

03310 STRUCTURAL CONCRETE (*MPWSS, as amended*)

SECTION 03310

STRUCTURAL CONCRETE (*MPWSS as amended*)

PART 1: GENERAL

Add the following paragraph:

“1.3 Standards and Specifications

A. City of Missoula

1. All concrete supply, installation, and finishing (to include curing), shall comply with the latest City of Missoula standards and specifications.

PART 2: PRODUCTS

2.2 COMPOSITION OF CONCRETE

B. Performance and Design Requirements

1. Replace Table 2.1 – Minimum Cement Content Requirements with the following:

“All concrete supplied on the project shall have a minimum cement content of 564 lb/yd³ unless otherwise approved by the Engineer, and maximum H₂O/cement ratio of 0.45 as the concrete will be exposed to freezing and thawing and possibly the presence of deicing chemicals.”

4. Replace Table 2.2 – Total Air Content of Concrete for Minimum Cement Content Requirements with the following:

“All concrete supplied on the project shall have a TOTAL AIR CONTENT of 6.5 percent, +/- 1 ½ percent tolerance”

Delete Section 4.c in its entirety and replace with the following:

“c. Furnish the compressive strength and the water-cement or water cementitious, material ratio of concrete for each portion of the work as specified in the Contract documents.

- 1) Cement content shall be 6-sack only, with no allowance for fly ash, pozzolan, or slag without written approval of the Engineer.
- 2) Strength requirements are based on the 28-

day compressive strength determined on 6" x 12" cylindrical specimens, or other approved specimens per testing standards, made and tested under ASTM C31 and C39 respectively."

PART 3: EXECUTION

3.5 CURING CONCRETE

Add the following paragraph to E.2 Impervious Membrane Curing

- "e. All concrete shall be cured in conformance with the latest City of Missoula standards. Reference sections 02528 and 02529 for current standards and allowable curing products and applications."

3.7 TESTING

- A. Add the following sentence:

"The frequency of testing specified in this section may be reduced or increased at the sole discretion of the ENGINEER."

END OF SECTION