

Contract Documents & Specifications *Montana State Hospital*

**Lagoon Cleanout and Restoration
A/E # 2011-11-01-05**

Prepared by:
Anderson-Montgomery
Consulting Engineers
Helena, MT

Contract Documents

Set No.

January 2025



**CONTRACT DOCUMENTS
AND SPECIFICATIONS**

Montana State Hospital

Lagoon Restoration/Cleanout Phase 2

January 2025

Prepared By: Adam Eckhart, *P.E.*

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**LAGOON CLEANOUT AND RESTORATION
MONTANA STATE HOSPITAL
WARM SPRINGS, MT
A/E#2011-11-01-05**

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**BIDDING REQUIREMENTS, CONTRACT
FORMS AND CONDITIONS OF THE
CONTRACT**

NOTICE

THE CONTRACTOR WILL BE RESPONSIBLE FOR PAYING THE DEPARTMENT OF LABOR AND INDUSTRY BUILDING CODES BUREAU FOR BUILDING, ELECTRICAL, MECHANICAL AND PLUMBING PERMITS.

CONTACT: BUILDING CODES BUREAU
DEPARTMENT OF LABOR & INDUSTRY
301 SOUTH PARK AVENUE
P O BOX 200517
HELENA MT 59620-0517
(406) 841-2056

INVITATION TO BID

Sealed bids will be received until the closing time of 2:00 p.m. on **FEBRUARY 20, 2025**, and will be publicly opened and read aloud in the offices of the Architecture & Engineering Division, 1500 East Sixth Avenue, P.O. Box 200103, Helena MT 59620-0103, for:
LAGOON CLEANOUT & RESTORATION / MONTANA STATE HOSPITAL / WARM SPRINGS, MT / A&E #2011-11-01-05

Bids shall be submitted on the form provided within the Contract Documents. Contract documents may be obtained at the offices of:

ANDERSON MONTGOMERY CONSULTING ENGINEERS
1064 N. WARREN STREET
HELENA, MT 59601
(406) 449-3303 adam@a-mce.com

An Electronic copy of the Contract Documents will be provided at no cost.

A PRE-BID WALK-THROUGH IS SCHEDULED FOR THURSDAY, FEBRUARY 13, 2025, AT 10:00 A.M. PARTICIPANTS SHOULD MEET AT THE OLD LAGOON CELLS ON THE EAST SIDE OF THE FREEWAY FROM MONTANA STATE HOSPITAL CAMPUS, LOCATED AT 300 GARNET WAY, WARM SPRINGS MT. ATTENDANCE IS STRONGLY RECOMMENDED.

Bids must be accompanied by a bid security meeting the requirements of the State of Montana in the amount of 10% of the total bid. After award, the successful bidder must furnish an approved Performance Security and a Labor & Material Payment Security each in the amount of 100% of the contract.

No bidder may withdraw his bid for at least thirty (30) calendar days after the scheduled time for receipt of bids except as noted in the Instructions to Bidders.

The Owner reserves the right to reject any or all bids and to waive any and all irregularities or informalities and the right to determine what constitutes any and all irregularities or informalities.

The State of Montana makes reasonable accommodations for any known disability that may interfere with an applicant's ability to compete in the bidding and/or selection process. In order for the state to make such accommodations, applicants must make known any needed accommodation to the individual project managers or agency contacts listed in the contract documents. Phone 711 for Montana Relay Service services offered. Persons using TDD may call the Montana Relay Service at 1-800-253-4091.

ARCHITECTURE & ENGINEERING DIVISION
DEPARTMENT OF ADMINISTRATION
STATE OF MONTANA

FRONT PAGE HIGHLIGHTS

Note: This list of items is not an exhaustive or all-inclusive list of the contractor's responsibilities for the project but is provided solely for convenience and reference.

ITEM	REFERENCE	GENERAL CONDITIONS
Prevailing Wage Rates	Article 3.4.4	The Commissioner of The Montana Department of Labor and Industry (DOLI) has established the standard prevailing rate of wages in accordance with 18-2-401 and 18-2-402, MCA.
Warranty	Article 3.5.2	The warranty period shall be defined as commencing with Substantial Completion (or with each Substantial Completion if there is more than one) of the Project, or any portion thereof, and continuing for one (1) calendar year from the date of Final Acceptance of the entire project.
Schedule	Article 3.10	The Contractor's schedule shall be in the "Critical Path Method" and shall be in a form that is acceptable to the Owner and meet all the conditions of 3.10.
Time Limit on Claims	Article 4.3.1.1	Claims by either party must be initiated within 21 calendar days after occurrence of the event giving rise to such claim.
Weather Delays	Article 4.3.5.2	If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the current critical-path scheduled construction activities.
Waiver of Consequential Damages	Article 4.3.6	The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract.
Mediation & Arbitration	Article 4.5 & 4.6	The parties shall endeavor to resolve their Claims by mediation unless the parties mutually agree otherwise. Claims not resolved by mediation shall be decided by arbitration.
Changes	Article 7.1	Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive, or order for a minor change in the Work subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.
Change Order Allowable Costs	Article 7.2.2	As described with a 5% allowance for overhead and a 10% allowance for profit.
Time	Article 8.1.1	Time is of the essence in performance, coordination, and completion of the Work contemplated herein.
Liquidated Damages	Article 8.1.6	The Contractor and his surety shall be liable for and shall pay to the Owner the sums stipulated as liquidated damages for each calendar day of delay until the Work is substantially complete.
Contract Duration/Milestones/Phases	Article 8.1.8	All Work shall reach Substantial Completion by the date(s) listed or within the consecutive calendar days indication after the start date on the written Notice To Proceed.
Applications for Payment	Article 9.3.2	The Owner has thirty-five (35) calendar days after receipt for approval of the Contractor's Pay Request without being subject to the accrual of interest.
Retainage	Article 9.3.7	Until the Work is complete, the Owner will pay 95% of the amount due the Contractor on account of progress payments. If the Work and its progress are not in accordance with all or any part, piece, or portion of the Contract Documents, the Owner may, at its sole discretion and without claim by the Contractor, increase the amount held as retainage to whatever level deemed necessary to effectuate performance and progress of the Work.
Safety & Protection	Article 10	The Contractor shall be solely responsible for initiating, maintaining and supervising all safety, safety precautions, and safety programs in connection with the performance of the Contract.
Indemnification and Insurance Requirements	Article 11	The Contractor shall indemnify the Owner against the Contractor's negligence. The Contractor shall least carry Workers' Comp, General Liability, Automobile/Equipment, and Property (all-risk) Insurance Coverages as identified. State of Montana shall be listed as an additional insured with copy of ENDORSEMENT provided along with certificates of insurance. No waivers of subrogation shall be accepted.
Performance & Payment Bonds	Article 11.7	The Contract shall furnish a Performance Bond in the amount of 100% of the contract price as security for the faithful performance of his contract. The Contractor shall also furnish a Labor and Material Payment Bond in the amount of 100% of the contract price as security for the payment of all persons performing labor and furnishing materials in connection therewith.
Payroll & Basic Records	Article 13.8	Payrolls and basic records pertaining to the project shall be kept on a generally recognized accounting basis and shall be available to the Owner, Legislative Auditor, the Legislative Fiscal Analyst or his authorized representative at mutually convenient times. Accounting records shall be kept by the Contractor for a period of three years after the date of the Owner's Final Acceptance of the Project.

INSTRUCTIONS TO BIDDERS

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2. Viewing of Contract Documents

2.1. The Contract Documents may be viewed at all Montana Plans Exchanges.

3. Contract Documents

3.1. Any question regarding the documents must be directed at the office of the Architect/Engineer:

Anderson Montgomery Consulting Engineers
1064 N. Warren Street
Helena, MT 59601
(406) 449-3303 adam@a-mce.com

4. Visits to Site

4.1. Prospective bidders are requested to contact the following for inspection of the site:

Jenn Robinson
Montana State Hospital
300 Garnet Way
Warm Springs, MT 59756
(406) 693-7020 jennifer.robinson@mt.gov

4.2. Failure to visit site will not relieve the Contractor of the conditions of the contract.

5. Requests for Substitution

5.1. Any requests for product substitution must be made to the Architect/Engineer at least ten (10) calendar days prior to the date of the bid opening for consideration by the Architect/Engineer. Any request for substitution made after this time restriction, including those made after award or during project construction, may be rejected without consideration by either the Architect/Engineer or the Owner.

6. Bids/Proposals

6.1. The bidder shall submit his bid on the Bid Proposal Form furnished with the Contract Documents.

6.2. DO NOT send the Contract Documents with the Proposal.

6.3. If the project is funded by any portion of federal funds, the following may apply: on certain federally funded projects, a "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion" form must be submitted with the bid proposal. If the debarment form is not included within the Construction Documents, federal funds (if included) do not require the form or are not included in the project and the debarment form is not required.

6.3.1. If federal funds are included and require the "Certification," no award may be made to a Contractor or any subcontractor that is federally debarred, suspended or proposed for debarment in accordance with Public Law 103-355, Section 2455 (31 USC 6101) and Executive Order 12689. The Contractor who is awarded this contract shall certify that neither the contractor, its principals, their subcontractors nor their principals: (1) are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from the award of contracts by any federal department or agency; (2) have within a 3-year period preceding any partially or wholly federally funded contract has been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) contract or subcontract; been in violation of federal or state antitrust statutes, or been convicted of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in (2) above; and, (3) have within a 3-year period preceding an award of any partially or wholly federally funded contract, had one or more contracts terminated for cause or default by any federal or state agency.

6.4. Proposals shall be in a sealed envelope and addressed to:

Department of Administration
Architecture & Engineering Division
1500 East Sixth Avenue
P.O. Box 200103
Helena MT 59620-0103

6.5. The envelope shall state that it contains a "BID PROPOSAL" and indicate the following information:

Name of Project:

Location:

A/E Project Number:

Name of Bidder: _____

Acknowledge Addendum Number: __, __, __, __,

6.6. It is the bidder's responsibility to deliver or ensure delivery of the bid proposal to the office of the Architecture & Engineering Division. Proposals received after the scheduled closing time for bids by either the bidder, a delivery service (e.g., Federal Express, U.S. Postal Service, United Parcel Service, etc.), or the state's own mail delivery system, will be rejected. Proposals entitled for consideration must be time-stamped in the Owner's office prior to the closing time for receipt of bids. The official time clock for receipt of bids is the Owner's time and date stamp clock located in the Owner's office. No other clocks, calendars or timepieces are recognized. All bidders are responsible to ensure all bids and email modifications are received in the Owner's office prior to the scheduled closing time.

6.7. If requested on the Bid Proposal Form, any person making a bid to perform the work shall, as a requirement of a responsible bid, set forth the name of each subcontractor specified in the "List

of Subcontractors" which is part of the bid proposal. The bidder shall list only one subcontractor for each such portion of work listed. The bidder whose bid is accepted shall not:

- 6.7.1. Substitute any other subcontractor in place of the subcontractor listed in the original bid, except by specific consent of the Owner. The Owner, at its sole discretion, may grant substitution with consent of the originally listed subcontractor, or in consideration of other factor(s) involved if deemed relevant to the successful performance of the Contract.
 - 6.7.2. Permit any such subcontract to be voluntarily assigned, transferred or allow it to be performed by any party other than the subcontractor listed in the original bid without the consent of the Owner.
- 6.8. Bid Proposals entitled to consideration shall be made in accordance with the following instructions:
- 6.8.1. Made upon form provided.
 - 6.8.2. All blank spaces properly filled.
 - 6.8.3. All numbers stated in both writing and in figures.
 - 6.8.4. Shall contain no additions, conditional or alternate bids, erasures or other irregularities.
 - 6.8.5. Shall acknowledge receipt of all addenda issued.
- 6.9. Bid Proposals entitled to consideration shall be signed by the proper representative of the firm submitting the proposal as follows:
- 6.9.1. The principal of a single owner firm.
 - 6.9.2. A principal of a partnership firm.
 - 6.9.3. An officer of an incorporated firm, or an agent whose signature is accompanied by a certified copy of the resolution of the Board of Directors authorizing that agent to sign.
 - 6.9.4. OR, other persons signing for a single-owner firm or a partnership shall attach a power-of-attorney evidencing his authority to sign for that firm.
- 6.10. UNIT PRICES: When a Bid Proposal Form contains unit prices, any errors discovered in the extension of those unit prices will be corrected by the Owner using the unit price figures. The adjusted extended amount will then be used to determine the correct total bid. Only after the amounts have been checked and adjusted, if necessary, will the valid low bid be determined.
- 6.11. ESTIMATED QUANTITIES: All estimated quantities stipulated in the Bid Proposal and other Contract Documents are approximate and are to be used only as a basis for estimating the probable cost of the work and for the purpose of comparing proposals submitted for the work. It is understood and agreed that the actual amounts of work done, and materials furnished under unit price items may vary from such estimated quantities. The actual quantities will depend on the conditions encountered at the time the work is performed.
- 6.12. Any bidder may modify his bid by email communication only.
- 6.12.1. It is the bidder's responsibility to ensure that the entire modification is received at the bid opening location prior to the scheduled closing time for receipt of bids. The modification shall not reveal the bid price but shall only provide the ADDITION or SUBTRACTION from the original proposal.
 - 6.12.2. The Owner is not responsible for the performance of the State's system or any other factors affecting receipt of the email. Unreadable or difficult-to-read modifications may be rejected at the sole discretion of the Owner.
 - 6.12.3. Changes in the listed subcontractors, if any, shall also be provided.
 - 6.12.4. Bid modifications must be verified by hard copy provided to the Owner within two (2) business days after the bid opening.
 - 6.12.5. Bid modifications shall be directed to and only to email aebids@mt.gov.
 - 6.12.6. All emails shall be date and time stamped on the same time-stamp clock in the Owner's office that is used for receipt of bids in order to be considered valid. The Owner may also use the date and time on the email notification as generated by the State's system. Any date and time indicated on the bidder's computer will not be used in determining time of arrival of the modification.

- 6.13. In the event of a discrepancy on the bid proposal between the written (alpha) numbers and the numeric numbers, the lowest figure will prevail.
- 6.14. The Owner reserves the sole right to reject any or all bids and to waive any irregularities or informalities. The Owner also reserves the sole right to determine what constitutes irregularities or informalities and/or what is material and/or immaterial to the bids received.
- 6.15. Bid results will be posted on the Architecture & Engineering Division website at <https://architecture.mt.gov/>.

7. Bid Security

- 7.1. IF THE PROJECT COST IS LESS THAN \$150,000, AT ITS SOLE DISCRETION THE STATE OF MONTANA MAY OR MAY NOT REQUIRE BID SECURITY (18-2-302 MCA).
- 7.2. All proposals shall be accompanied by a bid security in the amount of 10% of the bid price, as evidence of good faith (18-2-302 MCA).
- 7.3. Bid security shall be in the form of lawful moneys of the United States, cashier's check, certified check, bank money order or bank draft, irrevocable letter of credit, bid bond or bonds payable to the State of Montana (18-2-302 MCA). Original document(s) must be submitted with the bid. Photocopies will not be accepted and will result in rejection of the bid.
- 7.4. If the bidder, to whom a contract is awarded, fails to enter into and execute the proposed contract within fifteen (15) calendar days of award, the bidder shall forfeit the bid security (18-1-204 MCA).
- 7.5. The bid security of unsuccessful bidders will be returned when the contract has been awarded to the successful bidder or when all bids have been rejected (18-1-205 MCA).
- 7.6. Execution of and entering into a contract includes providing all necessary insurance certificates, bonds, signed contract and current copy of the construction contractor registration certificate or registration number.
- 7.7. **NOTE: PER STATE POLICY, IF CASH, CHECK, MONEY ORDER, OR BANK DRAFT ARE PROVIDED AS BID SECURITY, IT WILL BE DEPOSITED IN THE TREASURY. UNSUCCESSFUL BIDDERS WILL HAVE THEIR SECURITY RETURNED UPON CONTRACT AWARD. THE SUCCESSFUL BIDDER'S SECURITY MAY BE RETURNED UPON ISSUANCE OF NOTICE TO PROCEED.**

8. Withdrawal of Bids

- 8.1. Any bidder may withdraw his bid proposal at any time prior to the scheduled closing time for the receipt of bids.
- 8.2. Once the closing time for the receipt of bids is reached, a bid may not be withdrawn for a period of thirty (30) calendar days.
- 8.3. The official time clock for receipt of bids and email modifications is the Owner's time and date stamp clock located in the Owner's office. No other clocks, calendars or timepieces are recognized. All bidders are responsible to ensure all bids and email modifications are received in the Owner's office prior to the scheduled closing time.

9. Interpretation of Contract Documents

- 9.1. Bidders shall promptly notify the Architect/Engineer of any ambiguity, inconsistency, or error which they may discover upon examination of the Contract Documents or of the site and local conditions.
- 9.2. Bidders requiring clarification or interpretation of the Contract Documents shall request, in writing, clarification from the Architect/Engineer at least ten (10) calendar days prior to the date set for receipt of bids.

- 9.3. Any interpretations, corrections, or change in the Contract Documents prior to the bid opening will be made by written addendum issued by the Architect/Engineer. The Architect/Engineer will endeavor to notify all plan holders of any addenda issued but it shall be the responsibility of the individual bidders to insure they have received all addenda prior to the submission of their bid.
- 9.4. All written addenda issued by the Architect/Engineer will become part of the Contract Documents and all bidders shall be bound by such addenda whether or not received and/or acknowledged by the bidder. No oral or telephone modifications of the Contract Documents will be considered or allowed.

10. Award of Bids

- 10.1. All bids received by the stated hour will be opened and publicly read aloud.
- 10.2. The Owner reserves the right to reject any and all bids and to waive any informality or irregularity in any bid received. The Owner reserves the right to determine what constitutes material and/or immaterial informalities and/or irregularities.
- 10.3. The low bid shall be determined on the basis of the lowest Base Bid or the lowest combination of Base Bid and Alternate Bids, accepted in consecutive order.
- 10.4. The Owner shall award such contract to the lowest responsible bidder (18-1-102 MCA).
 - 10.4.1. The Owner may make such investigations as it deems necessary to determine whether or not any or all bidders are responsible.
 - 10.4.2. The term "responsible" does not refer to pecuniary ability only, nor the ability to tender sufficient performance and payment bonds.
 - 10.4.3. The term "responsible" includes, but is not limited to:
 - 10.4.3.1. Having adequate financial resources to perform the contract or the ability to obtain them.
 - 10.4.3.2. Being able to comply with the required delivery, duration, and performance schedule.
 - 10.4.3.3. Having a satisfactory record of integrity and business ethics.
 - 10.4.3.4. Having the necessary organization, experience, accounting, and operational controls.
 - 10.4.3.5. Having the necessary production, construction, technical equipment, and facilities; and,
 - 10.4.3.6. Having the technical skill, ability, capacity, integrity, performance, experience, lack of claims and disputes, lack of actions on bonds, lack of mediations, arbitrations and/or lawsuits related to construction work or performance, and such like.
 - 10.4.4. Bidders shall furnish to the Owner all information and data for this purpose as the Owner may request.
 - 10.4.5. The Owner reserves the right to reject any bid if the investigation or evidence of any Bidder fails to satisfy the Owner that such Bidder is properly and adequately qualified to suitably perform and satisfactorily execute the obligations of the Contract and Work defined in the Contract Documents.
- 10.5. The Owner shall award such contract to the lowest responsible bidder without regard to residency except on a reciprocal basis: a resident bidder will be allowed a preference on a contract against the bid of any non-resident bidder from any state or country that enforces a preference for resident bidders. The preference given to resident bidders of the State of Montana must be equal to the preference given in the other state or country (18-1-102, MCA). This does not apply when prohibited by federal requirements.
- 10.6. The Department of Administration may negotiate deductive changes, not to exceed 15% of the total cost of the project, with the lowest responsible bidder when the lowest responsible bids causes the project cost to exceed the appropriation; or with the lowest responsible bidders if multiple contracts will be awarded on the projects when the total of the lowest responsible bids causes the project cost to exceed the appropriation. A bidder is not required to negotiate his

bid but is required to honor his bid for the time specified in the bidding documents. The Owner may terminate negotiations at any time (18-2-105(8) MCA).

10.7. Receipt of the award does not constitute a contract and no work may begin until a contract signed by all parties is in place.

11. Contract

11.1. The sample Standard Form of Contract between Contractor and Owner, as issued by the Owner, will be used as the contracting instrument and is bound within the Contract Documents.

11.2. The form shall be signed by a proper representative of the bidder as defined above in these instructions.

11.3. The Contractor shall also complete and return federal form W-9 along with the Contract.

11.4. Work under the contract may begin only when the contract is signed by all parties.

12. Performance, Labor and Material Payment Security

12.1. IF THE PROJECT COST IS LESS THAN \$150,000, AT ITS SOLE DISCRETION THE STATE OF MONTANA MAY OR MAY NOT REQUIRE A PERFORMANCE OR LABOR AND MATERIAL PAYMENT SECURITY (18-2-201 MCA).

12.2. THE CONTRACTOR SHALL PROVIDE BOTH SECURITIES FOR THIS PROJECT AS SPECIFIED BELOW, UNLESS SPECIFICALLY DIRECTED THAT THIS REQUIREMENT HAS BEEN WAIVED ELSEWHERE IN THESE DOCUMENTS.

12.3. The Owner shall require the successful bidder to furnish a Performance Bond in the amount of 100% of the contract price as security for the faithful performance of his contract (18-2-201, MCA).

12.4. The Owner shall require the successful bidder to furnish a Labor and Material Payment Bond in the amount of 100% of the contract price as security for the payment of all persons performing labor and furnishing materials in connection therewith (18-2-201 MCA).

12.5. The bonds shall be executed on forms furnished by the Owner. No other forms will be acceptable.

12.6. The bonds shall be signed in compliance with state statutes.

12.7. Bonds shall be secured from a state-licensed bonding company.

12.8. Power of Attorney

12.8.1. Attorneys-in-fact who sign contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

12.8.2. One original copy shall be furnished with each set of bonds.

12.8.3. Others furnished with a set of bonds may be copies of that original.

13. Notice to Proceed

13.1. The successful bidder who is awarded the contract for construction will not be issued a Notice to Proceed until there is a signed Contract, the specified insurance certificates, completed bond forms, federal form W-9, a copy of the bidder's current Construction Contractor Registration Certificate in the Owner's possession. All items are required within fifteen (15) calendar days of contract award made by the Owner. No work may begin until a contract signed by all parties is in place.

14. Laws and Regulations

14.1. The bidders' attention is directed to the fact that all applicable federal and state laws, municipal

ordinances, and the rules and regulations of all authorities having jurisdiction over the project shall apply to the contract throughout and will be deemed to be included in this contract as if bound herein in full.

15. PAYMENTS

- 15.1. NOTICE OF APPROVAL OF PAYMENT REQUEST PROVISION. Per Title 28, Chapter 2, Part 21, this contract allows the Owner to change the number of days to approve a Contractor's payment request. This contract allows the Owner to approve the Contractor's payment request within thirty-five (35) calendar days after it is received by the Owner without being subject to the accrual of interest.

16. BUY SAFE MONTANA PROVISIONS

- 16.1. The successful bidder who is awarded the contract for construction shall provide their incident rate, experience modification ratio (EMR) and loss ratio via the Buy-Safe Montana form with the Award documents.

BID PROPOSAL

LAGOON CLEANOUT & RESTORATION MONTANA STATE HOSPITAL WARM SPRINGS, MONTANA A/E# 2011-11-01-05

TO:
 Director, Department of Administration
 Architecture & Engineering Division
 1500 East Sixth Avenue
 P.O. Box 200103
 Helena, Montana 59620-0103

The undersigned, having familiarized himself with the Contract Documents, site, location, and conditions of the Work as prepared by **ANDERSON MONTGOMERY CONSULTING ENGINEERS, 1064 NORTH WARREN STREET, HELENA MT 59601, 406 449-3303, adam@a-mce.com**; by submission of this Bid Proposal, hereby agrees to complete the Work for the total sum as follows:

<u>BID SCHEDULE</u>					
	<u>BID ITEMS</u>	<u>UNITS</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL</u>
100	Mobilization & Bonds (10% or less of total bid)	LS	1	\$ _____	\$ _____
	<u>Demolition</u>				
102	Fence	LF	4,600	\$ _____	\$ _____
104	Concrete Pipe Supports in Cell 2 & 3	LS	1	\$ _____	\$ _____
106	Cell 2 Influent Structure	LS	1	\$ _____	\$ _____
108	Cell 3 Influent Structure	LS	1	\$ _____	\$ _____
110	Cell 3 Effluent Structure	LS	1	\$ _____	\$ _____
112	Interpond Manhole Structure	EA	1	\$ _____	\$ _____
114	Interpond Piping	LF	1,065	\$ _____	\$ _____
	<u>Lagoon Restoration & Site Work</u>				
116	Cell 1 Dewatering	LS	1	\$ _____	\$ _____
118	Lagoon Sludge Removal & Biosolids Land Application	Dry Ton	1,140	\$ _____	\$ _____
120	Clearing & Grubbing	Acre	90	\$ _____	\$ _____
122	Earthwork Grading	LS	1	\$ _____	\$ _____
124	Land Application Site Restoration & Seeding	Acre	90	\$ _____	\$ _____
126	Surface Restoration & Seeding (Grading Activities)	LS	1	\$ _____	\$ _____
	TOTAL			\$ _____	\$ _____

BASE BID:

(Bid Price in ALPHA notation)

_____ and _____ /100 DOLLARS

\$ _____
(Bid Price in NUMERIC notation)

***Low bid will be awarded on the lump sum amount, not individual unit prices.**

This bidder acknowledges receipt of the following addenda:

ADDENDUM #: _____ Dated: _____

ADDENDUM #: _____ Dated: _____

ADDENDUM #: _____ Dated: _____

Company Name: _____

Signature: _____

Print Name: _____

Title: _____
(verify signatory requirements with Instructions To Bidders, Paragraph 6.9)

Business Address: _____

e-mail Address: _____

Phone #: _____

Fax #: _____

MT Contractor Registration #: _____



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
ARCHITECTURE AND ENGINEERING DIVISION
1500 East Sixth Avenue • P.O. Box 200103 • Helena MT
59620-0103 Phone: 406 444-3104

**STANDARD FORM OF CONTRACT BETWEEN OWNER
AND CONTRACTOR FOR CONSTRUCTION**

THIS CONTRACT IS SUBJECT TO ARBITRATION PURSUANT TO THE UNIFORM ARBITRATION ACT, MCA TITLE 27, CHAPTER 5

This **CONTRACT** is made as of:

DATE

BETWEEN:

FIRM NAME
ADDRESS
CITY, STATE, ZIP
PHONE # / E-MAIL

Hereinafter identified as the "**CONTRACTOR**" and the State of Montana, acting through its Director, Department of Administration, hereinafter identified as the "**OWNER**":

*Department of Administration, State of Montana
P.O. Box 200103, 1500 East Sixth Avenue
Helena, MT 59620-0103*

WITNESSETH that the Contractor and the Owner, for the consideration hereinafter named, agree as follows:

ARTICLE 1 – SCOPE OF WORK

The Contractor shall perform all Work as shown in the Contract Documents entitled:

**LAGOON CLEANOUT & RESTORATION
MONTANA STATE HOSPITAL
WARM SPRINGS, MONTANA
A/E PROJECT #2011-11-01-05**

As prepared by:

**ANDERSON MONTGOMERY CONSULTING ENGINEERS
1064 N. WARREN STREET
HELENA, MT 59601
406 449-3303 adam@a-mce.com**

Hereinafter identified as the "**ARCHITECT/ENGINEER.**"

ARTICLE 2 – TIME OF COMPLETION

As time is of the essence in performance, coordination, and completion of the Work contemplated under this Contract, the Work to be performed shall commence on a date set forth by the Owner in a written "Notice To Proceed" and shall be completed BY:

AUGUST 4, 2025

If the Work is not completed within the time specified, the Owner may assess liquidated damages in the amount of:

THREE HUNDRED AND NO/100 DOLLARS (\$300.00) PER CALENDAR DAY OF DELAY.

ARTICLE 3 – CONTRACT SUM

The Owner shall pay the Contractor for performance of the Work, subject to additions and/or deductions by Change Order or damages as provided in the Contract Documents, the Contract Sum of:

ARTICLE 4 – PROGRESS PAYMENTS

The Owner shall make payments on account in accordance with the Contract Documents as follows: Ninety-Five (95%)

of the portion of the Contract Sum for labor, materials, and equipment incorporated in the Work and for materials suitably stored. The Contractor shall be aware that the Owner has thirty-five (35) calendar days upon receipt in which to make approval and payment without being in violation of statute or being subject to the accrual of interest shall, or the need to make written notice or justification to deny payment in whole or in part. The Contractor shall, within seven (7) calendar days following receipt of payment from the Owner, make payment to subcontractor(s).

ARTICLE 5 – FINAL PAYMENT

Final Payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the Owner to the Contractor when: 1) the Work is completed in accordance with the Contract Documents; 2) the Contract fully performed; 3) a final Form 101, Periodic Estimate for Partial Payment showing the final correct amounts is approved by the Architect/Engineer; 4) a Form 106, "Contractor's Affidavit of Completion, Payment of Debts and Claims, and Release of Liens" is completed and submitted; and 5) a Form 103, "Consent of Surety Company To Final Payment" is completed and submitted.

ARTICLE 6 – CONTRACT DOCUMENTS

The Contract Documents, together with this Contract, form the entire Contract and Agreement between the Contractor and Owner. The Contract Documents, which are totally and completely a part of this Contract as if attached hereto or repeated herein, are enumerated in the General Conditions of the Contract for Construction inclusive of Wage Rates, Reports, and all other items bound with the Specifications and/or Project Manual(s).

ARTICLE 7 – PREVAILING WAGE SCHEDULE

The Contractor and all subcontractors at any tier or level shall, as a minimum, pay the standard prevailing rate of wages schedule (including per diem, fringe benefits for health, welfare, and pension contributions and travel allowance) in effect and as applicable to the district in which the Work is being performed.

ARTICLE 8 – VENUE

In the event of any mediation, arbitration, or litigation concerning any matter or dispute arising out of or related to the Contract, venue shall be the First Judicial District in and for the County of Lewis and Clark, Montana. The Contract shall be interpreted and subject to the laws of the State of Montana.

EXECUTION OF THIS CONTRACT

This Contract is entered into as of the day and year first written above:

Contractor:

Signature

(print name)

Title

Is this company incorporated? Yes _____ No _____

Owner:

**DEPARTMENT OF ADMINISTRATION
STATE OF MONTANA**

RUSS KATHERMAN
Administrator, Architecture & Engineering Division
for the DIRECTOR, DEPARTMENT OF ADMINISTRATION

Date



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
ARCHITECTURE AND ENGINEERING DIVISION
 1500 East Sixth Avenue • P.O. Box 200103 • Helena MT
 59620-0103 Phone: 406 444-3104

PERFORMANCE BOND # _____

KNOW ALL PERSONS BY THESE PRESENTS, that we:

 (Contractor), hereinafter called the Principal, and

 (Surety), a corporation licensed to do business as a surety under the laws of the State of Montana, hereinafter called Surety, are held and firmly bound unto the State of Montana in the full and just sum of:

 to be paid to the State of Montana or its assigns, to which payment we bind ourselves, heirs, executors, administrators, successors and assigns, jointly, severally, firmly by this bond.

WHEREAS, the Principal has entered into a contract with the State of Montana, acting by and through its Director, Department of Administration dated _____ and whereas it is one of the conditions of the award of the contract pursuant to statutes that this bond be executed for the Project entitled:

NOW, THEREFORE, the conditions of this obligation are such that if the above Principal as Contractor shall promptly and faithfully perform all of the provisions of the contract, and all obligations thereunder including the specifications, and any alterations provided for, and shall in a manner satisfactory to the State of Montana, complete the work contracted for including any alterations, and shall save harmless the State of Montana from any expense incurred through the failure of the Contractor to complete the work as specified, then this obligation shall be void; otherwise it shall remain in full force and effect.

The surety hereby waives notice of any extension of time and any alterations made in the terms of the contract, unless the cumulative cost of such alterations cause the total project cost to exceed the original contract sum by more than 10%.

FOR STATE USE ONLY:		
Surety is licensed in MT:	Yes	No
Date Verified:	_____	
Verified By:	_____	
	Architecture & Engineering Div. Department of Administration State of Montana	

Contractor: _____
 Signature _____
 Print Name _____
 Date _____

Surety: _____
 Print Name _____
 Date _____

By: _____
 Attorney-in-Fact, Seal & Signature _____
 Agency _____
 Street Address _____
 Mailing Address _____
 Phone _____ Fax _____



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
ARCHITECTURE AND ENGINEERING DIVISION
 1500 East Sixth Avenue • P.O. Box 200103 • Helena MT
 59620-0103 Phone: 406 444-3104

LABOR & MATERIAL PAYMENT BOND # _____

KNOW ALL PERSONS BY THESE PRESENTS, that we:

 (Contractor), hereinafter called the Principal, and

 (Surety), a corporation licensed to do business as a surety under the laws of the State of Montana, hereinafter called Surety, are held and firmly bound unto the State of Montana in the full and just sum of:

AND 00/100 DOLLARS

to be paid to the State of Montana or its assigns, to which payment we bind ourselves, heirs, executors, administrators, successors and assigns, jointly, severally, firmly by this bond.

WHEREAS, the Principal has entered into a contract with the State of Montana, acting by and through its Director, Department of Administration dated _____ and whereas it is one of the conditions of the award of the contract pursuant to statutes that this bond be executed for the Project entitled:

[PROJECT NAME]
 [AGENCY NAME]
 [A/E PROJECT #]

NOW, THEREFORE, the conditions of this obligation are such that if the above Principal as Contractor shall promptly and faithfully perform all of the provisions of the contract, and all obligations thereunder including the specifications, and any alterations provided for, and shall in a manner satisfactory to the State of Montana, complete the work contracted for including any alterations, and shall save harmless the State of Montana from any expense incurred through the failure of the Contractor to complete the work as specified, then this obligation shall be void; otherwise it shall remain in full force and effect.

The surety hereby waives notice of any extension of time and any alterations made in the terms of the contract, unless the cumulative cost of such alterations cause the total project cost to exceed the original contract sum by more than 10%.

<p>FOR STATE USE ONLY:</p> <p>Surety is licensed in MT: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Date Verified: _____</p> <p>Verified By: _____</p> <p align="center">Architecture & Engineering Div. Department of Administration State of Montana</p>

Contractor: _____
 Signature _____
 Print Name _____
 Date _____

Surety: _____
 Print Name _____
 Date _____

By: _____
 Attorney-in-Fact, Seal & Signature _____
 Agency _____
 Street Address _____
 Mailing Address _____
 Phone _____ Fax _____



STATE OF MONTANA
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1500 East Sixth Avenue • P.O. Box 200103 • Helena MT 59620-0103
Phone: 406 444-3104

ACKNOWLEDGEMENT OF SUBCONTRACTORS

Project Name: _____ A/E #: _____
Location: _____ Date: _____
Contractor: _____
Address: _____

TO: DEPARTMENT OF ADMINISTRATION
ARCHITECTURE AND ENGINEERING DIVISION
1520 EAST SIXTH AVENUE, P.O. BOX 200103
HELENA MT 59620-0103

Listed below are the principal subcontractors proposed on this project. *All subcontracts exceeding \$5,000 are to be listed.*
The Contractor certifies that these subcontractors:

1. Have been advised of the labor standards and provisions applicable to this project.
2. That all provisions incorporated in the Contract between the Owner and the undersigned contractor will be incorporated in the contracts between the Contractor and any Subcontractors.
3. Are competent to accomplish the work subcontracted to them.

NAME AND ADDRESS OF SUBCONTRACTORS	REGISTRATION NO.	TYPE OF WORK



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
ARCHITECTURE AND ENGINEERING DIVISION
1500 East Sixth Avenue • P.O. Box 200103 • Helena MT
59620-0103 Phone: 406 444-3104

CONSENT OF SURETY COMPANY TO FINAL PAYMENT

Project: _____
Location: _____
A/E#: _____

TO: DEPARTMENT OF ADMINISTRATION
ARCHITECTURE AND ENGINEERING DIVISION
1520 EAST SIXTH AVENUE, P.O. BOX 200103
HELENA MT 59620-0103

Contractor: _____ Contract Date: _____

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the (Insert name and address of Surety Company)

on bond of (Insert name and address of Contractor), Surety Company,

, Contractor,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to the Montana Department of Administration, Owner, as set forth in the said Surety Company's bond. The Surety agrees to be bound to the warranty period under the same conditions as the Contractor. The warranty is defined as commencing with Substantial Completion (or with each Substantial Completion if there is more than one) of the Project, or any portion thereof, and continuing for one (1) calendar year from the date of Final Acceptance of the entire project unless otherwise modified in writing as part of the Substantial Completion or Final Acceptance.

IN WITNESS WHEREOF,
the Surety Company has hereunto set its hand this ____ Day of _____, ____

Surety Company

Signature of Authorized Representative

Attest:
(Seal)

Title

A/E #: _____
Change Order #: _____

ITEM NO.	DESCRIPTION/UNIT BREAKDOWN/UNIT COSTS (Indicate Critical Path Schedule impact for each Item)	COST (Indicate + or -)
SUBTOTAL (Labor & Materials) this page only. Carry forward to first page. =		\$ 0.00

A/E #: _____
Change Order #: _____

JUSTIFICATION FOR CHANGE(S) (To be completed by Architect/Engineer):
Describe the details which mandate the change(s).

JUSTIFICATION FOR COST ADJUSTMENT (To be completed by Architect/Engineer):
Describe the basis used to calculate the cost adjustment.

JUSTIFICATION FOR SCHEDULE ADJUSTMENT (To be completed by Architect/Engineer):
Describe the impact of adjustment(s) to the critical path.

APPROVALS

By signature on this change order, the Contractor certifies that this change order is complete and includes all direct costs, indirect costs and consequential items (including additional time, if any) and is free and clear of any and all claims or disputes (including, but not limited to, additional costs, additional time, disruptions, and impacts) in favor of the Contractor, subcontractors, material suppliers, or other persons or entities concerning this change order and on all previously contracted Work and does hereby release the Owner from such.

Approved by Contractor: _____ By: _____ Date: _____

Recommended by
Architect/Engineer: _____ By: _____ Date: _____

Reviewed by Agency: _____ By: _____ Date: _____

Surety Consent: SURETY CONSENT IS REQUIRED IF THE TOTAL AMOUNT OF ALL CHANGE ORDERS (LINE 6) EXCEEDS 10% OF THE ORIGINAL CONTRACT AMOUNT.

The Surety consents to this Contract Change Order and agrees that its bond or bonds shall apply and extend to the Contract as modified or amended per this Change Order. The principal and the Surety further agree that on or after execution of this consent, the penalty of the applicable Performance Bond and Labor & Material Bond is increased by:

_____ (_____)
By One Hundred Percent (100%) of ALL Change Orders

Countersigned by Resident Agent: _____ Date: _____

Surety: _____

Recommended by: A&E Project Manager: _____ Date: _____

Accepted by: Montana Dept. of Administration: _____ Date: _____
Architecture & Engineering Division



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
ARCHITECTURE AND ENGINEERING DIVISION
 1500 East Sixth Avenue • P.O. Box 200103 • Helena MT
 59620-0103 Phone: 406 444-3104

**CONTRACTOR'S AFFIDAVIT OF COMPLETION,
 PAYMENT OF DEBTS AND CLAIMS, AND RELEASE OF LIENS**

Project Name: _____

Location: _____

A/E #: _____

I CERTIFY to the best of my knowledge and belief that all work has been performed and materials supplied in strict accordance with the terms and conditions of the corresponding contract documents between the STATE OF MONTANA, acting by and through its DIRECTOR, DEPARTMENT OF ADMINISTRATION, hereinafter called the Owner, and

_____ hereinafter called the CONTRACTOR, for the above referenced project.

I further certify and declare that all bills for materials, supplies, utilities and for all other things furnished or caused to be furnished by the CONTRACTOR and used in the execution of the contract will be fully paid upon receipt of Final Payment and that there are no unpaid obligations, liens, claims, security interests, encumbrances, liabilities and/or demands of State Agencies, subcontractors, materialmen, mechanics, laborers or any others resulting from or arising out of any work done, caused to be done or ordered to be done by the CONTRACTOR under the contract.

In consideration of the prior and final payments made and all payments made for authorized changes, the CONTRACTOR releases and forever discharges the OWNER from any and all obligations, liens, claims, security interests, encumbrances and/or liabilities arising by virtue of the contract and authorized changes between the parties, either verbal or in writing, and any and all claims and demands of every kind and character whatsoever against the OWNER, arising out of or in any way relating to the contract and authorized changes.

I further certify and agree that the warranty period is defined as commencing with Substantial Completion (or with each Substantial Completion if there is more than one) of the Project, or any portion thereof, and continuing for one (1) calendar year from the date of Final Acceptance of the entire project unless otherwise modified in writing as part of the Substantial Completion or Final Acceptance.

This statement is made for the purpose of inducing the OWNER to make FINAL PAYMENT under the terms of the contract, relying on the truth and statements contained herein.

(Seal)

CONTRACTOR

 (Signature)

 (Title)

Subscribed and sworn to me this _____ Day of _____, _____

(Seal)

NOTARY

Notary Public for the State of Montana
 My Commission Expires:



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
ARCHITECTURE AND ENGINEERING DIVISION
 1500 East Sixth Avenue • P.O. Box 200103 • Helena MT
 59620-0103 Phone: 406 444-3104

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project Name: _____ A&E #: _____
 Project Address: _____ Date: _____
 Project Location: _____
 Agency: _____
 Address: _____
 Contact Name: _____
 Contact #: _____

To: **MONTANA DEPARTMENT OF ADMINISTRATION**
ARCHITECTURE AND ENGINEERING DIVISION
1520 E. SIXTH AVENUE, P.O. BOX 200103
HELENA MT 59620-0103

Architect/Engineer: _____

Contractor: _____ Contract Date: _____
 _____ Contract Award Amount: _____

PROJECT OR DESIGNATED PORTION SHALL INCLUDE:

The work performed under this Contract has been reviewed and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above, which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below is hereby established as: _____

BASIC PROJECT INFORMATION (required by Risk & Tort Defense Division)	NEW	REMODEL/RENOVATION
Total Square Footage	Sq. Ft.	Sq. Ft.
General Construction Material (e.g. masonry, metal panel, wood, etc.)		
Total Construction Cost		
Fire Sprinklers Installed (yes/no)	Yes No	Yes No
Estimated Date of Occupancy (if different from date of Substantial)		
Building Usage:		
Safety Consultation with DLI:	Yes No	Yes No
Additional Comments:		



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59620-0103 Phone: 406 444-3104

REQUEST FOR INFORMATION

Project Name: _____ A/E #: _____
Location: _____ RFI #: _____
Date: _____

To: _____ Attention: _____

From: _____ Attention: _____

Trades Affected: _____

In order to expedite the Work and avoid or minimize delays in the Work the following information is requested. Please return a response by:

Date Sent: _____
Date Received: _____

Information Requested:

Response:

Response Date: _____ Respondent: _____

This RFI is for clarification only. The contractor shall notify the Owner's Representative within 48 hours if he/she feels the response to this RFI constitutes additional work.

Distribution: Owner Architect Engineer
 Agency Contractor Other _____



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ARCHITECTURE AND ENGINEERING DIVISION
 1500 East Sixth Avenue • P.O. Box 200103 • Helena MT
 59620-0103 Phone: 406 444-3104

CERTIFICATE OF FINAL ACCEPTANCE

Project Name: _____ A&E #: _____
 Location: _____ Date: _____

To: **MONTANA DEPARTMENT OF ADMINISTRATION**
ARCHITECTURE AND ENGINEERING DIVISION
1520 E. SIXTH AVENUE, P.O. BOX 200103
HELENA MT 59620-0103

Architect/Engineer: _____

Contractor: _____ Contract Date: _____
 _____ Contract Amount: _____

The Work performed under this Contract has been reviewed and found to be complete and has reached Final Acceptance. The Date of Final Acceptance of the Work is defined as the Date Certified by the Architect/Engineer upon which the Work is fully complete in all aspects, **and** which the Owner accepts the Contractor's work as complete. The Date of Final Acceptance of the Project, or portion thereof designated above, is also the basis for commencement of the DURATION of applicable warranties required by the Contract Documents. The Warranty Period is defined in the Contract Documents as commencing with Substantial Completion(s) and continuing for one (1) calendar year from the Date of Final Acceptance. This date shall correspond to the date of the Architect/Engineer's approval on the final pay application unless otherwise agreed upon in writing. In the event of a disparity between the date of the Architect/Engineer's approval and this form, if no other written agreement exists as to the date of final acceptance, this form shall constitute such agreement and it shall govern as the date of Final Acceptance.

Date of Substantial Completion:	Date of Final Acceptance:	Date of Warranty Expiration:

Notes:

_____	_____	_____
Architect / Engineer	Signature	Date
_____	_____	_____
Contractor	Signature	Date
State of Montana Department of Administration, Architecture and Engineering Division	_____	_____
Owner	Signature	Date



Buy-Safe Montana

_____ submits the following Buy-Safe Montana values for A&E review. For assistance, clarification, or the latest industry average rates, visit: https://www.bls.gov/iif/osheval.htm

Incident Rate: _____

Industry Average Incident Rate: _____

Experience Modification Ratio (EMR): _____

Loss Ratio: _____

Less than Industry Average Incident Rate - Yes No

EMR less than 1.0 - Yes No

Loss ratio less than 100% - Yes No

Is a Comprehensive Safety Consultation Required? Yes No

*If all 3 options are responded to as "No," a consultation is required

Explanation of above average incident rate, EMR greater than 1.0, or loss ratio greater than 100%...

Per 3.1.7 – Buy-Safe Montana. The Owner shall review the Buy-Safe Montana form provided by the Bidder under Articles 16 of the Instructions to Bidders. To promote a safe work environment, the Owner encourages an incidence rate less than the latest average for non-residential building construction for Montana as established by the federal Bureau of Labor Statistics for the prior year; an experience modification rating (EMR) less than 1.0; and a loss ratio of less than 100%. The Contractor with a greater-than-average incidence rate, an EMR greater than 1.0, and a loss ratio of more than 100% shall schedule and obtain a Comprehensive Safety Consultation from the Montana Department of Labor & Industry, Employment Relations Division, Safety Bureau before the Owner grants Substantial Completion of the Work. For assistance in obtaining the Comprehensive Safety Consultation, visit http://erd.dli.mt.gov/safety-health/onsite-consultation.

Name

Signature

Date



GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

(Form Revision Date: November 2023)

ARTICLE 1 – GENERAL PROVISIONS

1.1. BASIC DEFINITIONS

1.1.1. **CONTRACT DOCUMENTS.** The Contract Documents consist of the Contract between Owner and Contractor (hereinafter the “Contract”), Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Contract and Modifications issued after execution of the Contract. A Modification is: (1) a written amendment to the Contract signed by both parties; (2) a Change Order; (3) a Construction Change Directive; or, (4) a written order for a minor change in the Work issued by the Architect/Engineer. The Contract Documents shall include the bidding documents and any alterations made thereto by addenda. In the event of a conflict, discrepancy, contradiction, or inconsistency within the Contract Documents and for the resolution of same, the following order of hierarchy and control shall apply and prevail:

1) Contract; 2) Addenda; 3) Supplementary General Conditions; 4) General Conditions; 5) Specifications; 6) Drawings; 7) Instructions to Bidders; 8) Invitation To Bid; 9) Sample Forms.

1.1.1.1. If a conflict, discrepancy, contradiction, or inconsistency occurs within or between the Specifications and the Drawings, resolution shall be controlled by the following:

1.1.1.1.1. As between figures, dimensions, or numbers given on drawings and any scaled measurements, the figures, dimensions, or numbers shall govern;

1.1.1.1.2. As between large scale drawings and small scale drawings, the larger scale drawings shall govern;

1.1.1.1.3. As between the technical specifications and drawings; the technical specifications shall govern.

1.1.1.1.4. Shop Drawings and Submittals: Shop drawings and other submittals from the Contractor, subcontractors, or suppliers do not constitute a part of the Contract Documents.

1.1.1.2. The Contractor acknowledges, understands and agrees that the Contract Documents cannot be changed except as provided herein by the terms of the Contract. No act(s), action(s), omission(s), or course of dealing(s) by the Owner or Architect/Engineer with the Contractor shall alter the requirements of the Contract Documents and that alteration can be accomplished only through a written Modification process defined herein.

1.1.2. **THE DRAWINGS.** The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, intent, location, and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

1.1.3. **THE SPECIFICATIONS.** The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

1.1.4. **THE CONTRACT.** The entire Contract for Construction is formed by the Contract Documents. The Contract represents the entire, complete, and integrated agreement between the Owner and Contractor.

hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between: (1) the Architect/Engineer and Contractor; (2) the Owner and any Subcontractor, Sub-subcontractor, or Supplier; (3) the Owner and Architect/Engineer; or, (4) between any persons or entities other than the Owner and Contractor. However, the Architect/Engineer shall at all times be permitted and entitled to performance and enforcement of its obligations under the Contract intended to facilitate performance of the Architect/Engineer's duties.

- 1.1.5. THE WORK. The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to completely fulfill the Contract and the Contractor's obligations. The Work may constitute the whole or a part of the Project.
- 1.1.6. THE PROJECT. The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner or by separate contractors.
- 1.1.7. TIME. Time is of the essence in performance, coordination, and completion of the Work contemplated herein. The Owner may suffer damages if the Work is not completed as specified herein. When any duration or time period is referred to in the Contract Documents by days, the first day of a duration or time period shall be determined as the day following the current day of any event or notice starting a specified duration. All durations in the Contract Documents are calendar days unless specifically stated otherwise.

1.2. **CORRELATION, INTER-RELATIONSHIP, AND INTENT OF THE CONTRACT DOCUMENTS**

- 1.2.1. The intent of the Contract Documents is to include all items and all effort necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary and inter-related, and what is required by one shall be as binding as if required by all. Performance by the Contractor shall be required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.
- 1.2.2. Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. It is the Contractor's responsibility to control the Work under the Contract.
- 1.2.3. Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

1.3. **CAPITALIZATION**

- 1.3.1. Terms capitalized in these General Conditions include those which are: (1) specifically defined; and, (2) the titles of numbered articles and identified references to Paragraphs, Subparagraphs and Clauses in the document.

1.4. **INTERPRETATION**

- 1.4.1. In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

1.5. **EXECUTION OF THE CONTRACT AND CONTRACT DOCUMENTS**

- 1.5.1. The Contract shall be signed by the Owner and Contractor. Execution of the Contract by the Contractor constitutes the complete and irrevocable binding of the Contractor and his Surety to the Owner for complete performance of the Work and fulfillment of all obligations. By execution of the Contract, the Contractor acknowledges that it has reviewed and familiarized itself with all aspects of the Contract Documents and agrees to be bound by the terms and conditions contained therein.

- 1.5.2. Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.
- 1.5.3. The Contractor acknowledges that it has taken all reasonable actions necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to: (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, gas, electric power, phone service, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation, topography, and conditions of the ground; and, (5) the character of equipment and facilities needed for performance of the Work. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory geotechnical work done by the Owner, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the action described and acknowledged in this paragraph will not relieve the Contractor from responsibility for properly ascertaining and estimating the difficulty and cost of successfully performing the Work or for proceeding to successfully perform the Work without additional expense to the Owner.
- 1.5.4. The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Owner, nor does the Owner assume responsibility for any understanding reached or representation made by any of its officers, agents, or employees concerning conditions which can affect the Work unless that understanding or representation is expressly stated in the Contract Documents.
 - 1.5.4.1. Performance of any portion of the Work beyond that required for complying with the specifications and all other requirements of the Contract, shall be deemed to be for the convenience of the Contractor and shall be at the Contractor's sole expense.
 - 1.5.4.2. There shall be no increase in the contract price or time allowed for performance which is for the convenience of the Contractor.

1.6. **OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS, AND OTHER INSTRUMENTS OF SERVICE**

- 1.6.1. The Drawings, Specifications and other documents, including those in electronic form, prepared by the Architect/Engineer and the Architect/Engineer's consultants are Instruments of Service through which the Work to be executed by the Contractor is described. The Contractor may retain one record set. Neither the Contractor nor any Subcontractor, Sub-subcontractor or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications and other documents prepared by the Architect/Engineer or the Architect/Engineer's consultants. Unless otherwise indicated, the Architect/Engineer and the Architect/Engineer's consultants shall be deemed the authors of them and will retain all common law, statutory and other reserved rights, in addition to the copyrights except as defined in the Owner's Contract with the Architect/Engineer. All copies of Instruments of Service, except the Contractor's record set, shall be returned or suitably accounted for to the Architect/Engineer upon completion of the Work. The Drawings, Specifications and other documents prepared by the Architect/Engineer and the Architect/Engineer's consultants, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect/Engineer, and the Architect/Engineer's consultants. The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Architect/Engineer and the Architect/Engineer's consultants appropriate to and for use in the execution of their Work under the Contract Documents. All copies made under this authorization shall bear the statutory copyright notice, if any, shown on the Drawings Specifications and other documents prepared by the Architect/Engineer and the Architect/Engineer's consultants. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect/Engineer's or Architect/Engineer's consultants' copyrights or other reserved rights.

- 1.6.2. Owner's Disclaimer of Warranty: The Owner has requested the Architect/Engineer prepare the Contract Documents for the Project which are adequate for bidding and constructing the Project. However, the Owner makes no representation, guarantee, or warranty of any nature whatsoever to the Contractor concerning such documents. The Contractor hereby acknowledges and represents that it has not, does not, and will not rely upon any such representation, guarantee, or warranty concerning the Contract Documents as no such representation, guarantee, or warranty have been or are hereby made.

ARTICLE 2 – THE OWNER

2.1. THE STATE OF MONTANA

- 2.1.1. The Owner is the State of Montana and is the sole entity to be identified as Owner in the Contract and as referred to throughout the Contract Documents as if singular in number.
- 2.1.2. Except as otherwise provided in Subparagraph 4.2.1, the Architect/Engineer does not have authority to bind the Owner. The observations and participations of the Owner or its authorized representative do not alleviate any responsibility on the part of the Contractor. The Owner reserves the right to observe the work and make comment. Any action or lack of action by the Owner shall not be construed as approval of the Contractor's performance.
- 2.1.3. The Owner reserves the right to require the Contractor, all sub-contractors and material suppliers to provide lien releases at any time. The Owner reserves the right to withhold progress payments until such lien releases are received for all work for which prior progress payments have been made. Upon the Owner's demand for lien releases (either verbally or written), the Contractor, all sub-contractors and material suppliers shall provide such releases with every subsequent application for payment through Final Acceptance of the Project.
- 2.1.4. Except for permits and fees, including those required under Subparagraph 3.7.1, which are the responsibility of the Contractor under the Contract Documents, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.
- 2.1.5. Information or services required of the Owner by the Contract Documents shall be furnished by the Owner with reasonable promptness. Any other information or services relevant to the Contractor's performance of the Work under the Owner's control shall be furnished by the Owner after receipt from the Contractor of a written request for such information or services.
- 2.1.6. Unless otherwise provided in the Contract Documents, the Contractor will be furnished electronic copies of Drawings and Specifications as are reasonably necessary for execution of the Work.

2.2. OWNER'S RIGHT TO STOP WORK

- 2.2.1. If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents as required by Paragraph 12.2 or persistently fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated. However, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Subparagraph 6.1.3. The issuance of a stop work order by the Owner shall not give rise to a claim by the Contractor or any subcontractor for additional cost, time, or other adjustment.

2.3. OWNER'S RIGHT TO CARRY OUT THE WORK

- 2.3.1. If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may after such seven-day period give the Contractor a second written notice to correct such deficiencies within a three-day period. If the Contractor within such three-day period after receipt of such second notice fails to commence and continue to correct any deficiencies, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be

issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and increased costs, and compensation for the Architect/Engineer's additional services made necessary by such default, neglect, or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

2.4. **OWNER'S RIGHT TO PERSONNEL**

- 2.4.1. The Owner reserves the right to have the Contractor and/or subcontractors remove person(s) and/or personnel from any and all work on the project with cause but without cost to the Owner. Such requests from the Owner may be made verbally or in writing and may be done directly with the Contractor or indirectly through the Architect/Engineer. Cause may be, but not limited to, any of the following: incompetence, poor workmanship, poor scheduling abilities, poor coordination, disruption to the facility or others, poor management, causes delay or delays, disruption of the Project, will not strictly adhere to facility procedures and Project requirements either knowingly or unknowingly, insubordination, drug/alcohol use, possession of contraband, belligerent acts or actions, etc. The Contractor shall provide replacement person(s) and/or personnel acceptable to the Owner at no cost to the Owner.
- 2.4.2. Any issue or circumstance relating to or resulting out of this clause shall not be construed or interpreted to be interference with or impacting upon the Contractor's responsibilities and liabilities under the Contract Documents.
- 2.4.3. Person(s) and/or personnel who do not perform in accordance with the Contract Documents, shall be deemed to have provided the Owner with cause to have such persons removed from any and all involvement in the Work.
- 2.4.4. The Contractor agrees to indemnify and hold harmless the Owner from any and all causes of action, demands, claims, damages, awards, attorneys' fees, and other costs brought against the Owner and/or Architect/Engineer by any and all person(s) or personnel as a result of actions under this clause.

ARTICLE 3 – THE CONTRACTOR

3.1. **GENERAL**

- 3.1.1. The Contractor is the person or entity identified as such in the Contract and is referred to throughout the Contract Documents as if singular in number. The term "Contractor" means the Contractor or the Contractor's authorized representative.
- 3.1.2. Construction Contractor Registration: The Contractor is required to be registered with the Department of Labor and Industry under 39-9-201 and 39-9-204 MCA prior to the Contract being executed by the Owner. A bidder must demonstrate that it has registered or promises that it will register immediately upon notice of award and prior to the commencement of any work. If the prevailing bidder cannot or does not register in time for the Owner to execute the Contract within fifteen (15) days of the date on the notice of award, the Owner may award, at its sole discretion, to the next lowest responsible bidder who meets this requirement. The Owner will not execute a contract for construction nor issue a Notice to Proceed to a Contractor who is not registered per 39-9-401(a) MCA. It is solely the Contractor's responsibility to ensure that all Subcontractors are registered in accordance with Title 39, Chapter 9, MCA.
- 3.1.3. The Owner's engagement of the Contractor is based upon the Contractor's representations by submission of a bid to the Owner that it:
 - 3.1.3.1. has the requisite skills, judgment, capacity, expertise, and financial ability to perform the Work;
 - 3.1.3.2. is experienced in the type of labor and services the Owner is engaging the Contractor to perform;
 - 3.1.3.3. is authorized, licensed and registered to perform the type of labor and services for which it is being engaged in the State and locality in which the Project is located;

- 3.1.3.4. is qualified, willing and able to perform the labor and services for the Project in the manner and scope defined in the Contract Documents; and,
- 3.1.3.5. has the expertise and ability to provide labor and services that will meet the Owner's objectives, intent and requirements, and will comply with the requirements of all governmental, public, and quasi-public authorities and agencies having or asserting jurisdiction over the Project.
- 3.1.4. The Contractor shall perform the Work in accordance with the Contract Documents.
- 3.1.5. The Contractor shall provide on minimum of a bi-weekly basis the onsite Superintendent's daily reports/logs
- 3.1.6. The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect/Engineer in the Architect/Engineer's administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor.
- 3.1.7. Quality Control (i.e. ensuring compliance with the Contract Documents) and Quality Assurance (i.e. confirming compliance with the Contract Documents) are the responsibility of the Contractor. Testing, observations, and/or inspections performed or provided by the Owner are solely for the Owner's own purposes and are for the benefit of the Owner. The Owner is not liable or responsible in any form or fashion to the Contractor regarding quality control or assurance or extent of such assurances. The Contractor shall not, under any circumstances, rely upon the Owner's testing or inspections as a substitute or in lieu of its own Quality Control or Assurance programs.
- 3.1.8. Buy-Safe Montana Provision: The Owner shall review the Buy-Safe Montana Form provided by the Bidder under Articles 16 of the Instructions to Bidders. To promote a safe work environment, the Owner encourages an incidence rate less than the latest average for non-residential building construction for Montana as established by the federal Bureau of Labor Statistics for the prior year; an experience modification rating (EMR) less than 1.0; and a loss ratio of less than 100%. The Contractor with a greater-than-average incidence rate, an EMR greater than 1.0, and a loss ratio of more than 100% shall schedule and obtain a Comprehensive Safety Consultation from the Montana Department of Labor & Industry, Employment Relations Division, Safety Bureau before the Owner grants Substantial Completion of the Work. For assistance in obtaining the Comprehensive Safety Consultation, visit <http://erd.dli.mt.gov/safety-health/onsite-consultation>.

3.2. REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

- 3.2.1. Since the Contract Documents are complementary and inter-related, before starting each portion of the Work, the Contractor shall carefully study and compare the various Drawings and other Contract Documents relative to that portion of the Work, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions affecting the Work. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents. However, any errors, inconsistencies or omissions discovered by the Contractor shall be reported promptly to the Architect/Engineer as a request for information in such form as the Architect/Engineer may require.
- 3.2.2. Any errors or omissions noted by the Contractor during this review shall be reported promptly to the Architect/Engineer, but it is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents.
- 3.2.3. If the Contractor believes that additional cost or time is involved because of clarifications or instructions issued by the Architect/Engineer in response to the Contractor's notices or requests for information pursuant to Subparagraphs 3.2.1 and 3.2.2, the Contractor shall make Claims as provided in Subparagraphs 4.3.4 and 4.3.5. If the Contractor fails to perform the obligations of Subparagraphs 3.2.1 and 3.2.2, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. The Contractor shall not be liable to the Owner or Architect/Engineer for damages resulting from errors, inconsistencies, or omissions in the Contract Documents or for differences between field measurements or conditions and the Contract Documents

unless the Contractor recognized such error, inconsistency, omission or difference and failed to report it to the Architect/Engineer.

- 3.2.4. Except as otherwise expressly provided in this Contract, the Contractor assumes all risks, liabilities, costs, and consequences of performing any effort or work in accordance with any written or oral order (including but not limited to direction, instruction, interpretation, or determination) of a person not authorized in writing by the Owner to issue such an order.
- 3.2.5. By entering into this Contract, the Contractor acknowledges that it has informed itself fully regarding the requirements of the Drawings and Specifications, the General Conditions, the Supplementary General Conditions, all other documents comprising a part of the Contract Documents and all applicable laws, building codes, ordinances and regulations. Contractor hereby expressly acknowledges, guarantees, and warrants to the Owner that:
 - 3.2.5.1. the Contract Documents are sufficient in detail and scope to enable Contractor to construct the finished project;
 - 3.2.5.2. no additional or further work should be required by Owner at the time of Owner's acceptance of the Work; and,
 - 3.2.5.3. when the Contractor's work is finished and the Owner accepts, the Work will be complete and fit for the purpose intended by the Contract Documents. This acknowledgment and guarantee does not imply that the Contractor is assuming responsibilities of the Architect/Engineer.
- 3.2.6. Sufficiency of Contract Documents: Prior to submission of its bid, and in all events prior to and upon signing the Contract, the Contractor certifies, warrants and guarantees that it has received, carefully reviewed, and evaluated all aspects of the Contract Documents and agrees that said Documents are adequate, consistent, coordinated, and sufficient for bidding and constructing the Work requested, intended, conceived, and contemplated therein.
 - 3.2.6.1. The Contractor further acknowledges its continuing duty to review and evaluate the Contract Documents during the performance of its services and shall immediately notify the Architect/Engineer of any problems, conflicts, defects, deficiencies, inconsistencies, errors, or omissions it discovers in the Contract Documents and the Work to be constructed; and, any variances it discovers between the Contract Documents and applicable laws, statutes, building codes, rules or regulations.
 - 3.2.6.2. If the Contractor performs any Work which it knows or should have known due to its experience, ability, qualifications, and expertise in the construction industry, that involves problems, conflicts, defects, deficiencies, inconsistencies, errors, or omissions in the Contract Documents and the Work to be constructed and, any variances between the Contract Documents and applicable laws, statutes, building codes, rules or regulations, without prior written notification to the Architect/Engineer and without prior authorization to proceed from the Architect/Engineer, the Contractor shall be responsible for and bear the costs and delays (including costs of any delay) of performing such Work and all corrective actions as directed by the Architect/Engineer.
 - 3.2.6.3. Any and all claims resulting from the Contractor's failure, including those of any subcontractor or supplier, to carefully review, evaluate, and become familiar with all aspects of the Contract Documents shall be deemed void and waived by the Contractor.
- 3.2.7. Sufficiency of Site Conditions: Prior to submission of its bid, and in all events prior to and upon signing the Contract, the Contractor certifies, warrants and guarantees that it has visited, carefully reviewed, evaluated, and become familiar with all aspects of the site and local conditions at which the Project is to be constructed. The Contractor agrees that the Contract Documents are an adequate, consistent, coordinated, and sufficient representation of the site and local conditions for the Work.
 - 3.2.7.1. The Contractor has reviewed and become familiar with all aspects with the Site Survey and Geotechnical Report for the Project and has a full understanding of the information provided therein.

- 3.2.7.2. If the Work involves modifications, renovations, or remodeling of an existing structure(s) or other man-made feature(s), the Contractor certifies, warrants and guarantees that it has reviewed, evaluated, and become familiar with all available as-built and record drawings, plans and specifications, and has thoroughly inspected and become familiar with the structure(s) or man-made feature(s).
- 3.2.7.3. Any and all claims resulting from the Contractor's failure, including those of any subcontractor or supplier, to visit, carefully review, evaluate, and become familiar with all aspects of the site, available geotechnical information, and local conditions at which the Project is to be constructed shall be deemed void and waived by the Contractor.

3.3. **SUPERVISION AND CONSTRUCTION PROCEDURES**

- 3.3.1. The Contractor shall supervise and direct the Work using the Contractor's best skill and attention recognizing that time and quality are of the essence of the Work. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. It is the responsibility of and incumbent upon the Contractor to ensure, confirm, coordinate, inspect and oversee all Work (which is inclusive of but not limited to all submittals, change orders, schedules, workmanship, and appropriate staffing with enough competent and qualified personnel) so that the Work is not impacted in terms of any delays, costs, damages, or additional time, or effort on the part Architect/Engineer or Owner. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect/Engineer and shall not proceed with that portion of the Work without further written instructions from the Architect/Engineer. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Architect/Engineer or Owner as appropriate shall be solely responsible for any resulting loss or damage. The Contractor will be required to: review any specified construction or installation procedure; advise the Architect/Engineer if the specified procedure deviates from good construction practice; to advise the Architect/Engineer if following the procedure will affect any warranties, including the Contractor's general warranty, or of any objections the Contractor may have to the procedure and shall propose any alternative procedure which the Contractor will warrant and guarantee. The Contractor is required to: review any specified construction or installation procedure; advise the Architect/Engineer if the specified procedure deviates from good construction practice; to advise the Architect/Engineer if following the procedure will affect any warranties, including the Contractor's general warranty, or of any objections the Contractor may have to the procedure and to propose any alternative procedure which the Contractor will warrant.
- 3.3.2. The Contractor shall furnish management, supervision, coordination, labor and services that: (1) expeditiously, economically, and properly completes the Work; (2) comply with all requirements of the Contract Documents; and, (3) are performed in a quality workmanlike manner and in accordance with the standards currently practiced by persons and entities performing or providing comparable management, supervision, labor and services on projects of similar size, complexity, cost, and nature to this Project. However, the standards currently practiced within the construction industry shall not relieve the Contractor of the responsibility to perform the Work to the level of quality, detail, and excellence defined and intended by the Contract Documents as interpreted by the Architect/Engineer.
- 3.3.3. All services and labor rendered by the Contractor, including any subcontractors or suppliers, shall be performed under the immediate supervision at the site of persons possessing expertise and the requisite knowledge in the discipline or trade of service being rendered. The Contractor shall maintain such supervision and personnel at all times that the Contractor's personnel, subcontractors, and/or suppliers are at the site. The Contractor shall never be absent from the site during performance of any portion of the Work by any entity under the supervision and direction of the Contractor. Full time attendance by the Contractor from Notice to Proceed through Final Acceptance is an explicit requirement of this Contract.

- 3.3.4. The Contractor shall be responsible to the Owner for acts, damages, errors, and omissions of the Contractor's employees, subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.
- 3.3.5. The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

3.4. **LABOR, WAGES, AND MATERIALS**

- 3.4.1. Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, permits, licenses, goods, products, equipment, tools, construction equipment and machinery, water, heat, all utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work in accordance with the Contract Documents, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- 3.4.2. The Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect/Engineer and in accordance with a Change Order. This opportunity to request substitutions does not negate or waive any requirement for the Contractor to follow a pre-bidding "prior approval" requirement nor obligate the Owner to approve any substitution request.
- 3.4.3. The Contractor shall enforce strict discipline, appropriate behavior, and good order among the Contractor's employees, subcontractors at every tier and level, and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.
- 3.4.4. Prevailing Wages and Montana Residents.
 - 3.4.4.1. The Contractor and all subcontractors at any level or tier of the Work shall give preference to the employment of bona fide Montana residents in the performance of the Work and shall pay the standard prevailing rate of wages, including fringe benefits for health and welfare and pension contributions and travel allowance provisions in effect and applicable to the county or locality in which the work is being performed. (18-2-403, MCA)
 - 3.4.4.2. At least 50% of the workers, as defined by the Department of Labor & Industry (DOLI), must be bona fide Montana residents. (18-2-401, 18-2-402, MCA)
 - 3.4.4.3. Indian Employment Preference within the Boundaries of an Indian Reservation. All contractors that are awarded a state agency construction contract within the exterior boundaries of an Indian Reservation shall extend a hiring preference to qualified Indians as provided herein:
 - 3.4.4.3.1. "State agency" means a department, office, board, bureau, commission, agency, or other instrumentality of the executive or judicial branches of the government of this State. "Indian" means a person who is enrolled or who is a lineal descendent of a person enrolled in an enrollment listing of the Bureau of Indian Affairs or in the enrollment listing of a recognized Indian tribe domiciled in the United States.
 - 3.4.4.3.2. Qualified Indians – Employment Criteria: An Indian shall be qualified for employment in a permanent, temporary, or seasonal position if he or she has substantially equal qualifications for any position and resides on the reservation where the construction contract is to be performed.
 - 3.4.4.3.3. Non-Applicability: The Indian Employment Preference Policy does not apply to a project partially funded with federal-aid money from the United States Department of Transportation or when residency preference laws are specifically prohibited by federal law. It does not apply to independent contractors and their employees, student interns, elected officials, or appointed positions.
 - 3.4.4.4. The Commissioner of The Montana Department of Labor and Industry (DOLI) has established the standard prevailing rate of wages in accordance with 18-2-401 and 18-2-402, MCA. A copy of the Rates entitled "State of Montana, Prevailing Wage Rates" are bound herein. The Commissioner of the Montana DOLI has established the resident requirements in accordance with 18-2-409, MCA. The Contractor and all subcontractors at any level or tier of the Work

shall direct any and all questions concerning prevailing wage and Montana resident issues for all aspects of the Work to DOLI.

- 3.4.4.5. The Contractor and all subcontractors at any tier or level of the Work, and as determined by the Montana DOLI, shall classify all workers in the project in accordance with the State of Montana, Prevailing Wage Rates. In the event the Contractor is unable to classify a worker in accordance with these rates he shall contact DOLI for a determination of the classification and the prevailing wage rate to be paid.
- 3.4.4.6. The Contractor and all subcontractors at any tier or level of the Work shall be responsible for obtaining wage rates for all workers prior to their performing any work on the project. The Contractor is required to pay and insure that its subcontractors at any tier or level and others also pay the prevailing wage determined by the DOLI, insofar as required by Title 18 of the MCA and the pertinent rules and standards of DOLI.
- 3.4.4.7. It is not the responsibility of the Owner to determine who classifies as a subcontractor, sub-subcontractor, material man, supplier, or any other person involved in any aspect of the Work at any tier or level. All such determinations shall be the sole responsibility of the Contractor, subcontractors, sub-subcontractors, material men, suppliers and others involved in the project at any tier or level. The Contractor, subcontractors, sub-subcontractors, material men, suppliers and others involved in the project shall indemnify and hold harmless the Owner from all claims, attorneys' fees, damages and/or awards involving prevailing wage or Montana resident issues. Any changes to wages or penalties for failure to pay the correct wages will be the sole responsibility of the Contractor and/or his subcontractors and no further charges or claims shall be made to the Owner. If the parties mutually agree or an arbitrator or court determines that any change in wages is due and any part is attributable to the Owner, the Owner's sole liability shall be for the amount of wages ordered only and not for other expenses, charges, penalties, overhead, profit or other mark-ups.
- 3.4.4.8. In accordance with 18-2-422(1) MCA, each job classification's standard prevailing wage rate, including fringe benefits, that the contractors and employers shall pay during construction of the project is included herein by both reference to DOLI's "Building" or "Heavy/Highway" schedules and as part of these Contract Documents.
- 3.4.4.9. The Contractor and every employer, including all subcontractors at any tier or level, is required by 18-2-422(2) MCA to maintain payroll records in a manner readily capable of being certified for submission under 18-2-423 MCA, for a period of not less than 3 years after the contractor's, subcontractor's, or employer's completion of work on the project or the Final Acceptance by the Owner, whichever is later.
- 3.4.4.10. Each contractor is required by 18-2-422(3) MCA to post in a visible and accessible location a statement of all wages and fringe benefits in compliance with 18-2-423.
- 3.4.4.11. The contractor and all subcontractors are required by MCA 18-2-417 to make wage rate adjustments for projects with a construction duration exceeding 30 months.

3.5. **WARRANTY AND GUARANTEE**

- 3.5.1. The Contractor warrants to the Owner and Architect/Engineer that materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective and rejected. The Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect/Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- 3.5.2. The Contractor shall and does hereby warrant and guarantee all work, workmanship, and materials for the full warranty period as specified in the Contract Documents. The warranty period shall be defined as

commencing with Substantial Completion (or with each Substantial Completion if there is more than one) of the Project, or any portion thereof, and continuing for one (1) calendar year from the date of Final Acceptance of the entire project by the Owner. The date of Final Acceptance shall be the date of the Architect/Engineer's signature on the final request for payment unless otherwise agreed upon in writing for the entire project or any portion thereof, by the Owner, Architect/Engineer and Contractor.

- 3.5.3. In addition to the one (1) calendar year warranty and guarantee specified in this herein above, the Contractor warrants and guarantees all materials and workmanship for the roofing system for a period of two (2) calendar years from the date of Final Acceptance. This warranty shall cover all labor and materials for roof and roofing finish systems (e.g. flashing, terminations, parapet caps, etc.) repairs from moisture penetration and/or defects in workmanship.
- 3.5.4. Manufacturer and product warranties and guarantees, as provided by the manufacturer or as specified in the Contract Documents, are in addition to the Contractor's warranty.

3.6. **TAXES**

- 3.6.1. The Contractor is responsible for and shall pay all sales, consumer, use, and similar taxes for the Work provided by the Contractor which are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.
- 3.6.2. In compliance with 15-50-206 MCA, the Contractor will have 1% of his **gross** receipts withheld by the Owner from all payments due and sent to the Montana Department of Revenue. Each subcontractor who performs work greater than \$80,000 shall have 1% of its gross receipts withheld by the Contractor and sent to the Montana Department of Revenue. The Contractor shall notify the Department of Revenue on the Department's prescribed form.

3.7. **PERMITS, FEES, AND NOTICES**

- 3.7.1. Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work which are customarily secured after execution of the Contract, including but not limited to, the building permit fee, electrical, plumbing, sewer connection fee and mechanical permit fee, and any required impact fees and which are legally required when bids are received or negotiations concluded.
- 3.7.2. The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authorities applicable to performance of the Work.
- 3.7.3. If the Contractor performs Work knowing it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations, and does so without providing notice to the Architect/Engineer and Owner, the Contractor shall assume responsibility for such Work and shall bear the costs attributable to correction. The Contractor shall be solely responsible to insure that all work it performs is in full compliance with all prevailing and applicable codes and regulations.
- 3.7.4. Incident Reporting: The Contractor shall immediately notify the Owner and Architect/Engineer, both orally and in writing, of the nature and details of all incidents which may adversely affect the quality or progress of the Work, including, but not limited to, union disputes, accidents, delays, damages to Work, and other significant occurrences. Such notices are in addition to any other notices required regarding claims.

3.8. **ALLOWANCES**

- 3.8.1. The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct.
- 3.8.2. Unless otherwise provided in the Contract Documents:
 - 3.8.2.1. allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

3.8.2.2. Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included by the Contractor in the Contract Sum but not in the allowances;

3.8.2.3. whenever costs are more than or less than stated allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect: (1) the difference between actual costs and the allowances under Clause 3.8.2.1; and, (2) changes in Contractor's costs under Clause 3.8.2.2.

3.8.3. Materials and equipment under an allowance shall be selected by the Owner.

3.9. **CONTRACTOR'S PERSONNEL**

3.9.1. The Contractor shall employ competent personnel, supervisors, project managers, project engineers, project superintendent, and all others who shall be assigned to the Work throughout its duration. Contractor's personnel extend to those employed by the Contractor whether at the site or not. The Owner shall have right to review and approve or reject all replacement of Contractor's personnel. All personnel assigned by the Contractor to the Work shall possess the requisite experience, skills, abilities, knowledge, and integrity to perform the Work.

3.9.2. The superintendent and others as assigned shall be in attendance at the Project site during the performance of any and all Work. The superintendent shall represent the Contractor. All communications given to the Contractor's personnel such as the project manager or the superintendent, whether verbal, electronic or written, shall be as binding as if given to the Contractor.

3.9.3. It is the Contractor's responsibility to appropriately staff, manage, supervise and direct the Work which is inclusive of the performance, acts, and actions of his personnel and subcontractors. As such, the Contractor further agrees to indemnify and hold harmless the Owner and the Architect/Engineer, and to protect and defend both from and against all claims, attorneys' fees, demands, causes of action of any kind or character, including the cost of defense thereof, arising in favor of or against the Owner, Architect/Engineer, Contractor, their agents, employees, or any third parties on account of the performance, behavior, acts or actions of the Contractor's personnel or subcontractors.

3.9.4. Prior to the commencement of any work, the Contractor shall prepare and submit a personnel listing and organizational chart in a format acceptable to the Owner which lists by name, phone number (including cell phone), job category, and responsibility the Contractor's key/primary personnel who will work on the Project. The Contractor shall promptly inform the Owner in writing of any proposed replacements, the reasons therefore, and the name and qualifications of any proposed replacements. The Owner shall have the right to reject any proposed replacements without cost or claim being made by the Contractor. The chart shall be provided to the Owner at the time of the pre-construction conference.

3.9.5. The Contractor shall immediately remove for the duration of the Project, any person making an inappropriate racial, sexual, or ethnic comment, statement, joke, or gesture toward any other individual.

3.9.6. The Contractor shall immediately remove for the duration of the Project, any person who is incompetent, careless, disruptive, or not working in harmony with others.

3.10. **CONSTRUCTION SCHEDULES**

3.10.1. The Contractor shall, promptly after being awarded the Contract, prepare and submit for the Owner's and Architect/Engineer's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and per the requirements of the Contract Documents, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work. The Contractor's schedule shall be in the "Critical Path Method" and shall show the Critical Path of the Work in sufficient detail to evaluate the Contractor's progress. A request for time extension by the Contractor will not be allowed unless a change in the Work is approved by the Owner and materially affects the Critical Path. It is the Contractor's responsibility to demonstrate that any time extensions requests materially affect the Critical Path.

- 3.10.2. The Contractor shall prepare and keep current, for the Architect/Engineer's approval, a schedule of submittals which is coordinated with the Contractor's Construction Schedule and allows the Architect/Engineer reasonable time to review submittals.
- 3.10.3. The Contractor shall perform the Work in accordance with the most recent schedule submitted to the Owner and Architect/Engineer.
- 3.10.4. The Contractor's operations (including but not limited to the Contractor's forces employed, sequences of operations, and methods of operation) at all times during the performance of the contract shall be: (a) subject to the review of the Owner or the Architect/Engineer; and, (b) sufficient to insure the completion of the Work within the specified performance period.
- 3.10.5. The Critical Path Method Construction Schedule prepared by the Contractor must be in a form that is acceptable to both the Architect/Engineer and the Owner.
 - 3.10.5.1. The Schedule shall show the estimated progress of the entire Project through the individual time periods allowed for completion of each discipline, trade, phase, section, and aspect of the Work.
 - 3.10.5.2. The Schedule shall show percent complete, progress to date, project work, and projected time to complete the work for all activities. The percent complete and minor schedule changes, including additions of activities, change orders, construction change directives, changes to sequences of activities and significant changes in activity demands must be shown by a revised Schedule. A written report providing details about the changes and what actions are anticipated to get the work completed in the contractual time period shall be submitted with the revised schedule.
 - 3.10.5.3. The Construction Schedule shall include coordinate dates for performance of all divisions of the Work, including shipping and delivery, off-site requirements and tasks, so the Work can be completed in a timely and orderly fashion consistent with the required dates of Substantial Completion and Final Acceptance.
 - 3.10.5.4. The Construction Schedule shall include: (i) the required commencement date, the required dates of Substantial Completion(s) and Final Acceptance for the complete Project and all phases (if any); (ii) any guideline and milestone dates required by the Owner or the Contract Documents; (iii) subcontractor and supplier schedules; (iv) a submittal schedule which allows sufficient time for review and action by the Architect/Engineer; (v) the complete sequence of all construction activities with start and completion dates; and, (vi) required decision dates.
 - 3.10.5.5. By receiving, reviewing, and/or commenting on the Construction Schedule or any portion thereof (including logic and resource loading), neither the Owner or Architect/Engineer assume any of the Contractor's responsibility or liability that the Schedule be coordinated or complete, or for timely and orderly completion of the Work.
 - 3.10.5.6. Receiving, reviewing, and/or commenting on the Schedule, any portion thereof, or any revision thereof, does not constitute an approval, acknowledgement, or acceptance of any duration, dates, milestones, or performance indicated therein.
 - 3.10.5.7. A printout of the Schedule's logic showing all activities is required with the Schedule and with all updates to the Schedule.
- 3.10.6. The Contractor shall review and compare, at a minimum on a weekly basis, the actual status of the Work against its Construction Schedule.
- 3.10.7. The Contractor shall routinely, frequently, and periodically (but not less than monthly) update and/or revise its Construction Schedule to show actual progress of the Work through the date of the update or revision, projected level of completion of each remaining activity, activities modified since the previous update or revision, and major changes in scope or logic. The updated/revised Schedule shall be accompanied by a narrative report which: (1) states and explains any modifications of the critical path, if

any, including any changes in logic; (2) defines problem areas and lists areas of anticipated delays; (3) explains the anticipated impact the change in the critical path or problems and delays will have on the entire Schedule and the completion of the Work; (4) provides corrective action taken or proposed; and, (5) states how problems or delays will be resolved in order to deliver the Work by the required phasing milestones (if any), Substantial Completion(s), and Final Acceptance dates.

- 3.10.8. Delay in Performance: If at any time the Contractor anticipates that performance of the Work will be delayed or has been delayed, the Contractor shall: (1) immediately notify the Architect/Engineer by separate and distinct correspondence of the probable cause and effect of the delay, and possible alternatives to minimize the delay; and, (2) take all corrective action reasonably necessary to deliver the Work by the required dates. Nothing in this paragraph or the Contract Documents shall be construed by the Contractor as a granting by the Architect/Engineer or Owner of constructive acceleration. The results of failure to anticipate delays, or to timely notify the Owner and Architect/Engineer of an anticipated or real delay, are entirely the responsibility of the Contractor whether compensable or not.
- 3.10.9. Early Completion: The Contractor may attempt to achieve Substantial Completion(s) on or before the date(s) required in the Contract. However, such early completion shall be for the Contractor's sole convenience and shall not create any real or implied additional rights to Contractor or impose any additional obligations on the Owner or Architect/Engineer. The Owner will not be liable for nor pay any additional compensation of any kind to the Contractor for achieving Substantial Completion(s) or Final Acceptance prior to the required dates as set forth in the Contract. The Owner will not be liable for nor pay any additional compensation of any kind should there be any cause whatsoever that the Contractor is not able to achieve Substantial Completion(s) earlier than the contractually required dates of Substantial Completion(s) or Final Acceptance.
- 3.10.10. Float in Schedule. Any and all float time in the Contractor's schedule, regardless of the path or activity, shall accrue to the benefit of the Owner and the Work, and not to the Contractor. Float also includes any difference shown between any early completion dates shown on the Contractor's Schedule for any phasing milestone(s), Substantial Completion(s) or Final Acceptance and the dates or durations as required by the Contract Documents.
- 3.10.11. Modification of Required Substantial Completion(s) or Final Acceptance Dates: Modification of the required dates shall be accomplished only by duly authorized, accepted, and approved change orders stating the new date(s) with specificity on the change order form. All rights, duties, and obligations, including but not limited to the Contractor's liability for actual, delay, and/or liquidated damages, shall be determined in relation to the date(s) as modified.

3.11. **DOCUMENTATION AND AS-BUILT CONDITIONS AT THE SITE**

- 3.11.1. The Contractor shall maintain at the site for the Owner one record copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and accurately marked to record current field changes and selections made during construction, and one record copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect/Engineer or Owner at any time and shall be delivered to the Architect/Engineer for submittal to the Owner upon completion of the Work.
- 3.11.2. The Owner shall not be required to process final payment until all documentation and data required by the Contract Documents is submitted to and approved by the Architect/Engineer including, but not limited to, the As-Built Drawings. The Owner will not process any final request for payment until the Architect/Engineer has received and verified that the Contractor has performed the requirements pertaining to the as-built drawings.
- 3.11.3. The as-built drawings shall be neatly and clearly marked during construction to record all deviations, variations, changes, and alterations as they occur during construction along with such supplementary notes and details necessary to clearly and accurately represent the as-built condition. The as-built drawings shall be available at all times to the Owner, Architect/Engineer and Architect/Engineer's consultants.

3.12. **SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

3.12.1. Definitions:

3.12.1.1. Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

3.12.1.2. Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

3.12.1.3. Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

3.12.2. Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required by the Contract Documents the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review by the Architect/Engineer is subject to the limitations of Subparagraph 4.2.7. Informational submittals upon which the Architect/Engineer is not expected to take responsive action may be so identified in the Contract Documents. Submittals which are not required by the Contract Documents may be returned by the Architect/Engineer without action.

3.12.3. The Contractor shall review, approve, and submit to the Architect/Engineer, Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents within sixty (60) calendar days of being issued the Notice To Proceed unless noted otherwise and shall do so in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Any and all items submitted by the Contractor which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor, or in the opinion of the Architect/Engineer, have not been reviewed for compliance by the Contractor even if marked as such, may be returned by the Architect/Engineer without action and shall not result in any accusation or claim for delay or cost by the Contractor. Any submittal that, in the opinion of the Architect/Engineer, is incomplete in any area or detail may be rejected and returned to the Contractor. It is the responsibility of and incumbent upon the Contractor to ensure and confirm that all submittals are complete, accurate, and in conformance to the Contract Documents prior to submission.

3.12.4. By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents and guarantees to the Architect/Engineer and Owner that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

3.12.5. The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect/Engineer. Should the Contractor, Subcontractors or Sub-subcontractors install, construct, erect or perform any portion of the Work without approval of any requisite submittal, the Contractor shall bear the costs, responsibility, and delay for removal, replacement, and/or correction of any and all items, material, and /or labor.

3.12.6. The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect/Engineer's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect/Engineer in writing of such deviation at the time of submittal and: (1) the Architect/Engineer has given written approval to the specific deviation as a minor change in the Work; or, (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect/Engineer's approval thereof.

3.12.7. The Contractor shall direct specific attention, in writing or on re-submitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect/Engineer on previous submittals. In the absence of such written notice the Architect/Engineer's approval of a re-submission shall not apply to such revisions.

- 3.12.8. The Contractor shall not be required to provide professional services which constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect/Engineer will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design 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 the Architect/Engineer. The Owner and the Architect/Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided the Owner and Architect/Engineer have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this subparagraph, the Architect/Engineer will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents but shall be responsible and held liable for review and verification of all performance or design criteria as required by Paragraph 3.2.
- 3.12.9. Unless noted otherwise in the Contract Documents, the Contractor shall submit to the Architect/Engineer within sixty (60) days from the date of the Notice To Proceed electronic copies of all shop/setting drawings, schedules, cut sheets, products, product data, and samples required for the complete Work. Copies shall be reviewed, marked, stamped and approved on each and every copy by the Contractor prior to submission to the Architect/Engineer or they shall be returned without review or action. The Architect/Engineer shall review with reasonable promptness, making corrections, rejections, or other actions as appropriate. The Architect/Engineer's approval or actions on shop/setting drawings, schedules, cut sheets, products, product data, or samples shall not relieve the Contractor from responsibility for, nor deviating from, the requirements of the plans and specifications. Any deviations from the plans and specifications requested or made by the Contractor shall be brought promptly to the attention of the Architect/Engineer.
- 3.12.10. Cost for Re-Submissions: the Contractor is responsible for ensuring that all shop drawings, product data, samples, and submittals contain all information required by the Contract Documents to allow the Architect/Engineer to take action. The costs and expenses to the Architect/Engineer for making exhaustive reviews of each Shop Drawing, Product Data item, sample, or submittal of the Contractor may be billed by the Architect/Engineer directly to the Contractor or, if otherwise agreed by the Owner in writing, may be reimbursed by the Owner to the Architect/Engineer and deducted from the Contractor's contract via change order by the Owner. The Owner will not be liable to the Architect/Engineer for multiple reviews.

3.13. **USE OF SITE**

- 3.13.1. The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.
- 3.13.2. The Contractor shall not damage, endanger, compromise or destroy any part of the Project or the site, including but not limited to work performed by others, monuments, stakes, bench marks, survey points, utilities, existing features or structures. The Contractor shall be fully and exclusively responsible for and bare all costs and delays (including and costs of delay) for any damage, endangerment, compromise, or destruction of any part of the Project or site.

3.14. **CUTTING AND PATCHING**

- 3.14.1. The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.
- 3.14.2. The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

3.15. **CLEAN UP AND SITE CONTROL**

- 3.15.1. The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract during performance of the Work and at the direction of the Owner or Architect/Engineer. At completion of the Work, the Contractor shall remove from and about the Project waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials.
- 3.15.2. If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the cost thereof shall be charged to the Contractor.

3.16. **ACCESS TO WORK**

- 3.16.1. The Contractor shall provide the Owner and Architect/Engineer access to the Work at all times wherever located.

3.17. **ROYALTIES, PATENTS AND COPYRIGHTS**

- 3.17.1. The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect/Engineer harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect/Engineer. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect/Engineer.

3.18. **INDEMNIFICATION**

- 3.18.1. To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect/Engineer, Architect/Engineer's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Paragraph. The Contractor agrees that it will defend, protect, indemnify and save harmless the State of Montana and the Owner against and from all claims, liabilities, demands, causes of action, judgments (including costs and reasonable attorneys' fees), and losses from any cause whatever (including patent, trademark and copyright infringement) except the Owner's sole or partial negligence. This includes any suits, claims, actions, losses, costs, damages of any kind, including the State and Owner's legal expenses, arising out of, in connection with, or incidental to the Contract, but does not include any such suits, claims, actions, losses, costs or damages which are the result of the negligent acts, actions, losses, costs, or damages which are acts, omissions or misconduct of the Owner if they do not arise out of, depend upon or relate to a negligent act, omission or misconduct of the Contractor in whole or in part.
- 3.18.2. In claims against any person or entity indemnified under this Paragraph 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts

they may be liable, the indemnification obligation under Subparagraph 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 4 – ADMINISTRATION OF THE CONSTRUCTION CONTRACT

4.1. THE ARCHITECT/ENGINEER

- 4.1.1. The Architect/Engineer is the person lawfully licensed to practice or an entity lawfully practicing identified as such in the Agreement with the Owner and is referred to throughout the Contract Documents as if singular in number. The term "Architect/Engineer" means the Architect/Engineer's duly authorized representative.
- 4.1.2. Duties, responsibilities and limitations of authority of the Architect/Engineer as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner.
- 4.1.3. If the employment of the Architect/Engineer is terminated, the Owner shall employ a new Architect/Engineer at the sole choice and discretion of the Owner, whose status under the Contract Documents shall be that of the former Architect/Engineer.

4.2. ARCHITECT/ENGINEER'S ADMINISTRATION OF THE CONSTRUCTION CONTRACT

- 4.2.1. The Architect/Engineer will provide administration of the Contract as described in the Contract Documents, and will be an Owner's representative throughout the complete duration of the Project, including the warranty period. The Architect/Engineer will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with the Architect/Engineer Contract.
- 4.2.2. The Architect/Engineer, as a representative of the Owner, will visit the site at intervals appropriate to the stage of the Contractor's operations to: (1) become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed; (2) endeavor to guard the Owner against defects and deficiencies in the Work; and, (3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Owner and Architect/Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Contractor's Work. The Owner and Architect/Engineer will neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences or procedures, for the safety of any person involved in the work, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.
- 4.2.3. The Architect/Engineer will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect/Engineer will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.
- 4.2.4. Communications Facilitating Contract Administration. Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect/Engineer about matters arising out of or relating to the Contract. Communications by and with the Architect/Engineer's consultants shall be through the Architect/Engineer. Communications by and with Subcontractors and material suppliers shall be through the Contractor to the Architect/Engineer. Communications by and with separate contractors shall be through the Owner to the Architect/Engineer.
- 4.2.5. Based on the Architect/Engineer's evaluations of the Contractor's Applications for Payment, the Architect/Engineer will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts. The Contractor is fully aware that the Owner (i.e. the State of Montana) has established a billing cycle for processing payments in Article 9 of these General Conditions. The Contractor and all Subcontractors are subject to all provisions of Title 28, Chapter 2, Part 21 MCA regarding all aspects of the Work.

- 4.2.6. The Architect/Engineer will have authority to reject Work that does not conform to the Contract Documents. Whenever the Architect/Engineer considers it necessary or advisable, the Architect/Engineer will have authority to require inspection or testing of the Work in accordance with the General Conditions and any applicable technical specification requirements, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect/Engineer nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect/Engineer to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.
- 4.2.7. The Architect/Engineer will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect/Engineer's action will be taken with such reasonable promptness as to cause no delay in the Work or in the activities of the Owner, Contractor or separate contractors, while allowing sufficient time in the Architect/Engineer's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect/Engineer's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Paragraphs 3.3, 3.5 and 3.12. The Architect/Engineer's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect/Engineer, of any construction means, methods, techniques, sequences or procedures. The Architect/Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- 4.2.8. The Architect/Engineer will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Paragraph 7.4.
- 4.2.9. The Architect/Engineer will conduct inspections to determine the date or dates of Substantial Completion(s) and the date of Final Acceptance, will receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment upon compliance with the requirements of the Contract Documents.
- 4.2.10. If the Owner and Architect/Engineer agree, the Architect/Engineer will provide one or more project representatives to assist in carrying out the Architect/Engineer's responsibilities. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in the Owner's Agreement with the Architect/Engineer.
- 4.2.11. The Architect/Engineer will interpret and decide matters concerning performance under and requirements of the Contract Documents on written request of either the Owner or Contractor. The Architect/Engineer's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If no agreement is made concerning the time within which interpretations required of the Architect/Engineer shall be furnished in compliance with this Paragraph 4.2, then delay shall not be recognized on account of failure by the Architect/Engineer to furnish such interpretations until 15 days after written request is made for them.
- 4.2.12. Interpretations and decisions of the Architect/Engineer will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and initial decisions, the Architect/Engineer will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will render such interpretations and decisions in good faith.
- 4.2.13. The Architect/Engineer's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.
- 4.2.14. The Architect/Engineer's or Owner's observations or inspections do not alleviate any responsibility on the part of the Contractor. The Architect/Engineer and the Owner reserves the right to observe and inspection

the work and make comment. Action or lack of action following observation or inspection is not to be construed as approval of Contractor's performance.

4.3. **CLAIMS AND DISPUTES**

4.3.1. Definition. A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extensions of time or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes, controversies, and matters in question between the Owner and Contractor arising out of or relating to the Contract. Claims must be initiated by written notice. The responsibility to substantiate Claims shall rest solely with the party making the Claim.

4.3.1.1. Time Limits on Claims. Claims by either party must be initiated within 21 calendar days after occurrence of the event giving rise to such claim. The following shall apply to the initiation of a claim:

4.3.1.1.1. A written notice of a claim must be provided to the Architect/Engineer and the other party within 21 calendar days after the occurrence of the event or the claim is waived by the claiming party and void in its entirety.

4.3.1.1.2. Claims must be initiated by separate, clear, and distinct written notice within the 21 calendar day time frame to the Architect/Engineer and the other party and must contain the notarized statement in Sub-Paragraph 4.3.1.5 when the claim is made by the Contractor. Discussions in any form with the Architect/Engineer or Owner, whether at the site or not, do not constitute initiation of a claim. Notes in project meeting minutes, email correspondence, change order proposals, or any other form of documentation does not constitute initiation of a claim. The written notice must be a separate and distinct correspondence provided in hardcopy to both the Architect/Engineer and Owner and must delineate the specific event and outline the causes and reasons for the claim whether or not cost or time have been fully determined. Written remarks or notes of a generic nature are invalid in their entirety. Comments made at progress meetings, project site visits, inspections, emails, voice mails, and other such communications do not meet the requirement of providing notice of claim.

4.3.1.1.3. Physical Injury or Physical Damage. Should the Owner or Contractor suffer physical injury or physical damage to person or property because of any error, omission, or act of the other party or others for whose acts the other party is legally and contractually liable, claim will be made in writing to the other party within a reasonable time of the first observance of such physical injury or physical damage but in no case beyond 30 calendar days of the first observance. The notice shall provide sufficient detail to enable the other party to investigate the matter. The provisions of this paragraph shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose. In all such cases, the indemnification provisions of the Contract shall be effectual and the Contractor's insurance shall be primary and in full effect.

4.3.1.2. All Claims must contain sufficient justification and substantiation with the written notice or they may be rejected without consideration by the Architect/Engineer or other party with no additional impact or consequence to the Contract Sum, Contract Time, or matter(s) in question in the Claim.

4.3.1.3. If additional compensation is claimed, the exact amount claimed and a breakdown of that amount into the following categories shall be provided with each and every claim:

4.3.1.3.1. Direct costs (as listed in Subparagraph 7.3.9.1 through 7.3.9.5);

4.3.1.3.2. Indirect costs (as defined in Paragraph 7.2.5); and,

4.3.1.3.3. Consequential items (i.e. time extensions, credits, logic, reasonableness, impacts, disruptions, dilution) for the change.

4.3.1.4. If additional time is claimed the following shall be provided with each and every claim:

- 4.3.1.4.1. The specific number of days and specific dates for which the additional time is sought;
- 4.3.1.4.2. The specific reasons, causes, and/or effects whereby the Contractor believes that additional time should be granted; and,
- 4.3.1.4.3. The Contractor shall provide analyses, documentation, and justification of its claim for additional time in accordance with the latest Critical Path Method schedule in use at the time of event giving rise to the claim.

4.3.1.5. With each and every claim, the Contractor shall submit to the Architect/Engineer and Owner a notarized statement containing the following language:

"Under penalty of law (including perjury and/or false/fraudulent claims against the State), the undersigned,

(Name)	(Title)
Of (Company)	(Date)

hereby certifies, warrants, and guarantees that this claim made for Work on this Contract is a true statement of the costs, adjustments and/or time sought and is fully documented and supported under the contract between the parties.

(Signature)	(Date)"
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4.3.2. Continuing Contract Performance.

4.3.2.1. Pending final resolution of a Claim except as otherwise agreed in writing or as provided in Subparagraph 9.7.1 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents on the portion of the Work not involved in a Claim.

4.3.3. Claims for Cost or Time for Concealed or Unknown Conditions.

4.3.3.1. If conditions are encountered at the site which are: (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents; or, (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the observing party shall be given to the other party promptly before conditions are disturbed.

4.3.3.2. The Architect/Engineer will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect/Engineer determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect/Engineer shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in opposition to such determination must be made within 21 days after the date of the Architect/Engineer's decision.

4.3.3.3. If the conditions encountered are materially different, the Contract Sum and Contract Time shall be equitably adjusted, but if the Owner and Contractor cannot agree on an adjustment in the Contract Sum or Contract Time, the adjustment shall be referred to the Architect/Engineer for initial determination, subject to further proceedings pursuant to Paragraph 4.4.

4.3.3.4. Nothing in this paragraph shall relieve the Contractor of its obligation to adequately and sufficiently investigate, research, and examine the site, the site survey, topographical

information, and the geotechnical information available whether included by reference or fully incorporated in the Contract Documents.

4.3.4. Claims for Additional Cost.

4.3.4.1. If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Paragraph 10.6.

4.3.4.2. If the Contractor believes additional cost is involved for reasons including but not limited to: (1) a written interpretation from the Architect/Engineer; (2) an order by the Owner to stop the Work solely for the Owner's convenience or where the Contractor was not at least partially at fault; (3) a written order for a minor change in the Work issued by the Architect/Engineer; (4) failure of payment by the Owner per the terms of the Contract; (5) termination of the Contract by the Owner; or, (6) other reasonable grounds, Claim must be filed in accordance with this Paragraph 4.3.

4.3.5. Claims for Additional Time

4.3.5.1. If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as specified in these General Conditions shall be provided along with the notarized certification. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay for the same event or cause only one Claim is necessary. However, separate and distinct written notice is required for each separate event.

4.3.5.2. Weather Delays:

4.3.5.2.1. If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction activities.

4.3.5.2.2. Inclement or adverse weather shall not be a prima facie reason for the granting of an extension of time, and the Contractor shall make every effort to continue work under prevailing conditions. The Owner may grant an extension of time if an unavoidable delay occurs as a result of inclement/severe/adverse weather and such shall then be classified as a "Delay Day". Any and all delay days granted by the Owner are and shall be non-compensable in any manner or form. The Contractor shall comply with the notice requirements concerning instances of inclement/severe/adverse weather before the Owner will consider a time extension. Each day of inclement/severe/adverse weather shall be considered a separate instance or event and as such, shall be subject to the notice requirements.

4.3.5.2.3. An "inclement", "severe", or "adverse" weather delay day is defined as a day on which the Contractor is prevented by weather or conditions caused by weather resulting immediately there from, which directly impact the current controlling critical-path operation or operations, and which prevent the Contractor from proceeding with at least 75% of the normal labor and equipment force engaged on such critical path operation or operations for at least 60% of the total daily time being currently spent on the controlling operation or operations.

4.3.5.2.4. The Contractor shall consider normal/typical/seasonal weather days and conditions caused by normal/typical/seasonal weather days for the location of the Work in the planning and scheduling of the Work to ensure completion within the Contract Time. No time extensions will be granted for the Contractor's failure to consider and account for such weather days and conditions caused by such weather for the Contract Time in which the Work is to be accomplished.

4.3.5.2.5. A "normal", "typical", or "seasonal" weather day shall be defined as weather that can be reasonably anticipated to occur at the location of the Work for each particular month involved in the Contract Time. Each month involved shall not be

considered individually as it relates to claims for additional time due to inclement/adverse/severe weather but shall consider the entire Contract Time as it compares to normal/typical/seasonal weather that is reasonably anticipated to occur. Normal/typical/seasonal weather days shall be based upon U.S. National Weather Service climatic data for the location of the Work or the nearest location where such data is available.

4.3.5.2.6. The Contractor is solely responsible to document, prepare and present all data and justification for claiming a weather delay day. Any and all claims for weather delay days shall be tied directly to the current critical-path operation or operations on the day of the instance or event which shall be delineated and described on the Critical-Path Schedule and shall be provided with any and all claims. The Contractor is solely responsible to indicate and document why the weather delay day(s) claimed are beyond those weather days which are reasonably anticipated to occur for the Contract Time. Incomplete or inaccurate claims, as determined by the Architect/Engineer or Owner, may be returned without consideration or comment.

4.3.5.3. Where the Contractor is prevented from completing any part of the Work with specified durations or phases due to delay beyond the control of both the Owner and the Contractor, an extension of the contract time or phase duration in an equal amount to the time lost due to such delay shall be the Contractor's sole and exclusive remedy for such delay.

4.3.5.4. Delays attributable to and/or within the control of subcontractors and suppliers are deemed to be within the control of the Contractor.

4.3.5.5. In no event shall the Owner be liable to the Contractor, any subcontractor, any supplier, Contractor's surety, or any other person or organization, for damages or costs arising out of or resulting from: (1) delays caused by or within the control of the Contractor which include but are not limited to labor issues or labor strikes on the Project, federal, state, or local jurisdiction enforcement actions related directly to the Contractor's Work (e.g. safety or code violations, etc.); or, (2) delays beyond the control of both parties including but not limited to fires, floods, earthquakes, abnormal weather conditions, acts of God, nationwide material shortages, actions or inaction by utility owners, emergency declarations by federal, state, or local officials enacted in the immediate vicinity of the project, or other contractors performing work for the Owner.

4.3.6. Claims for Consequential Damages

4.3.6.1. The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

4.3.6.1.1. damages incurred by the Owner for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and,

4.3.6.1.2. damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, income, and for loss of profit.

4.3.6.2. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this waiver of consequential damages shall be deemed to preclude an award of liquidated or actual damages, when applicable, in accordance with the requirements of the Contract Documents.

4.4. **RESOLUTION OF CLAIMS, DISPUTES, AND CONTROVERSIES**

4.4.1. Decision of Architect/Engineer. Claims, including those alleging an error or omission by the Architect/Engineer, shall be referred initially to the Architect/Engineer for decision. A decision by the Architect/Engineer shall be required as a condition precedent to mediation, arbitration or litigation of all Claims between the Contractor and Owner arising prior to the date of Final Acceptance, unless 30 days have passed after the Claim has been referred to the Architect/Engineer with no decision having been rendered by the Architect/Engineer. The Architect/Engineer will not decide disputes between the

Contractor and persons or entities other than the Owner. Any Claim arising out of or related to the Contract, except those already waived in Subparagraphs 4.3.6, 7.2.6, 7.3.8, 9.10.4 and 9.10.5 shall, pending compliance with Subparagraph 4.4.5, be subject to mediation, arbitration, or the institution of legal or equitable proceedings. Claims waived in Subparagraphs 4.3.6, 7.2.6, 7.3.8, 9.10.4, and 9.10.5 are deemed settled, resolved, and completed.

- 4.4.2. The Architect/Engineer will review Claims and within ten (10) days of the receipt of the Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party; (2) reject the Claim in whole or in part; (3) approve the Claim; (4) suggest a compromise; or (5) advise the parties that the Architect/Engineer is unable to resolve the Claim if the Architect/Engineer lacks sufficient information to evaluate the merits of the Claim or if the Architect/Engineer concludes that, in the Architect/Engineer's sole discretion, it would be inappropriate for the Architect/Engineer to resolve the Claim.
- 4.4.3. If the Architect/Engineer requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond within ten (10) days after receipt of such request and shall either provide a response on the requested supporting data, advise the Architect/Engineer when the response or supporting data will be furnished, or advise the Architect/Engineer that no supporting data will be furnished. Upon either no response or receipt of the response or supporting data, the Architect/Engineer will either reject or approve the Claim in whole or in part.
- 4.4.4. The Architect/Engineer will approve or reject Claims by written decision, which shall state the reasons therefore and which shall notify the parties of any change in the Contract Sum or Contract Time or both. The approval or rejection of a Claim by the Architect/Engineer shall be final and binding on the parties but subject to mediation and arbitration.
- 4.4.5. When 30 days have passed upon submission of a Claim without decision or action by the Architect/Engineer, or the Architect/Engineer has rendered a decision or taken any of the actions identified in Subparagraph 4.4.2, a demand for arbitration of a Claim covered by such decision or action must be made within 30 days after the date of expiration of Subparagraph 4.4.1 or within 30 days of the Architect/Engineer's decision or action. Failure to demand arbitration within said 30 day period shall result in the Architect/Engineer's decision becoming final and binding upon the Owner and Contractor whenever such decision is rendered.
- 4.4.6. If the Architect/Engineer renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but shall not supersede arbitration proceedings unless the decision is acceptable to all parties concerned.
- 4.4.7. Upon receipt of a Claim against the Contractor or at any time thereafter, the Architect/Engineer or the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Architect/Engineer or the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.
- 4.4.8. A Claim subject to or related to liens or bonds shall be governed by applicable law regarding notices, filing deadlines, and resolution of such Claim prior to any resolution of such Claim by the Architect/Engineer, by mediation, or by arbitration, except for claims made by the Owner against the Contractor's bonds.

4.5. **MEDIATION**

- 4.5.1. Any Claim arising out of or related to the Contract, except Claims relating to aesthetic effect and except those waived as provided for in Subparagraphs 4.3.6, 7.2.6, 7.3.8, 9.10.4 and 9.10.5 shall, after initial decision by the Architect/Engineer or 30 days after submission of the Claim to the Architect/Engineer, be subject to mediation as a condition precedent to arbitration or the institution of legal or equitable proceedings by either party.
- 4.5.2. The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect and/or those rules specified in the contract documents or separately agreed upon between the parties. Construction Industry Mediation Rule M-2 (filing with AAA)

is void. The parties shall mutually agree upon a mediator who shall then take the place of AAA in the Construction Industry Mediation Rules. The parties must mutually agree to use AAA and no filing of a request for mediation shall be made to AAA by either party until such mutual agreement has been made. Request for mediation shall be filed in writing with the other party to the Contract and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

4.5.3. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

4.6. **ARBITRATION**

4.6.1. Any controversy or Claim arising out of or related to this Contract or the breach thereof shall be settled by arbitration in accordance with the Montana Uniform Arbitration Act (MUAA). To the extent it does not conflict with the MUAA, the Construction Industry Arbitration Rules of the American Arbitration Association shall apply except as modified herein. The parties to the arbitration shall bear their own costs and expenses for participating in the arbitration. Costs of the Arbitration panel shall be borne equally between the parties except those costs awarded by the Arbitration panel (including costs for the arbitration itself).

4.6.2. Prior to the arbitration hearing all parties to the arbitration may conduct discovery subject to the provisions of Montana Rules of Civil Procedure. The arbitration panel may award actual damages incurred if a party fails to provide full disclosure under any discovery request. If a party claims a right of information privilege protected by law, the party must submit that claim to the arbitration panel for a ruling, before failing to provide information requested under discovery or the arbitration panel may award actual damages.

4.6.3. The venue for all arbitration proceedings required by this Contract shall be the seat of the county in which the work occurs or the First Judicial District, Lewis & Clack County, as determined solely by the Owner. Arbitration shall be conducted by a panel comprised of three members with one selected by the Contractor, one selected by the Owner, and one selected by mutual agreement of the Owner and the Contractor.

4.6.4. Any Claim arising out of or related to the Contract, except Claims relating to aesthetic effect and except those waived as provided for in Subparagraphs 4.3.6, 7.2.6, 7.3.8, 9.10.4 and 9.10.5, shall, after decision or action by the Architect/Engineer or 30 days after submission of the Claim to the Architect/Engineer, be subject to arbitration provided a demand for arbitration is made within the time frame provided in Subparagraph 4.4.5. If such demand is not made with the specified time frame, the Architect/Engineer's decision or action is final. Prior to arbitration, the parties shall endeavor to resolve disputes by mediation in accordance with the provisions of Paragraph 4.5.

4.6.5. Claims not resolved by mediation shall be decided by arbitration which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect and/or those rules specified in the Contract Documents or separately agreed upon between the parties. Construction Industry Arbitration Rule R-3 (filing with AAA) is void. The parties shall mutually agree upon an arbitrator or arbitrators who shall then take the place of AAA in the Construction Industry Arbitration Rules. The parties must mutually agree to use AAA and no filing of a demand for arbitration shall be made to AAA by either party until such mutual agreement has been made. The demand for arbitration shall be filed in writing with the other party to the Contract and a copy shall be filed with the Architect/Engineer.

4.6.6. A demand for arbitration shall be made within the time limits specified in Subparagraphs 4.4.5 and in no event shall it be made after the date when institution of legal or equitable proceedings based on such Claim would be barred by the applicable statute of limitations as determined pursuant to Paragraph 13.7.

4.6.7. Pending final resolution of a Claim including arbitration, unless otherwise mutually agreed in writing, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract on Work or amounts not in dispute.

- 4.6.8. **Limitation on Consolidation or Joinder.** Arbitration arising out of or relating to the Contract may include by consolidation or joinder the Architect/Engineer, the Architect/Engineer's employees or consultants, except by written consent containing specific reference to the Agreement and signed by the Architect/Engineer, Owner, Contractor and any other person or entity sought to be joined. No arbitration shall include, by consolidation or joinder or in any other manner, parties other than the Owner, Architect/Engineer, Contractor, a separate contractor as described in Article 6 and other persons substantially involved in a common question of fact or law whose presence is required if complete relief is to be accorded in arbitration. No person or entity other than the Owner, Architect/Engineer, Contractor or a separate contractor as described in Article 6 shall be included as an original third party or additional third party to an arbitration whose interest or responsibility is insubstantial. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.
- 4.6.9. **Claims and Timely Assertion of Claims.** The party filing a demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.
- 4.6.10. **Judgment on Final Award.** The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof. The parties agree that the costs of the arbitrator(s)' compensation and expenses shall be borne equally. The parties further agree that the arbitrator(s) shall have authority to award to either party some or all of the costs and expenses involved, including attorney's fees.

ARTICLE 5 – SUBCONTRACTORS

5.1. DEFINITIONS

- 5.1.1. A Subcontractor is a person or entity who has a direct or indirect contract at any tier or level with the Contractor or any Subcontractor to the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

5.2. AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

- 5.2.1. Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract and in no instance later than (30) days after award of the Contract, shall furnish in writing to the Owner through the Architect/Engineer the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Architect/Engineer will promptly reply to the Contractor in writing stating whether or not the Owner or the Architect/Engineer, after due investigation, has reasonable objection to any such proposed person or entity.
- 5.2.2. The Contractor shall not contract with a proposed person or entity to which the Owner or Architect/Engineer has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.
- 5.2.3. If the Owner or Architect/Engineer has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect/Engineer has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.
- 5.2.4. The Contractor shall not change a Subcontractor, person or entity previously selected if the Owner or Architect/Engineer makes reasonable objection to such substitute. The Contractor shall not change or

substitute for a Subcontractor who was required to be listed on the bid without first getting the approval of the Owner.

- 5.2.5. Buy-Safe Montana Provision: Before commencement of each subcontractor's portion of the Work, the Contractor shall obtain each subcontractor's incidence rate, experience modification rate, and loss ratio. The Contractor shall endeavor--but is not required--to use subcontractors whose incidence rate is less than the latest average for non-residential building construction for Montana as established by the Federal Bureau of Labor Statistics for the prior year; whose experience modification rating (EMR) is less than 1.0; and whose loss ratio is less than 100%. Contractor shall require any of its subcontractors who, based on the safety information that the Contractor obtains, have greater-than-average incidence rate, an EMR greater than 1.0, and a loss ratio of more than 100%, to schedule and obtain a Comprehensive Safety Consultation from the Montana Department of Labor & Industry, Employment Relations Division, Safety Bureau before substantial completion of each such subcontractor's portion of the Work. For assistance in obtaining the Comprehensive Safety Consultation, visit <http://erd.dli.mt.gov/safety-health/onsite-consultation>.

5.3. **SUBCONTRACTUAL RELATIONS**

- 5.3.1. By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect/Engineer. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect/Engineer under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement which may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.
- 5.3.2. Upon written request by the Owner, the Contractor shall require its subcontractors to provide to it performance and payment securities for their portion of the Work in the types and form defined in statute (18-2-201 and 18-2-203 MCA) for all sub-contractual agreements.
- 5.3.3. The Contractor shall prepare a Subcontractors' and Suppliers' chart in CSI division format acceptable to the Owner which lists by name, all contact information, job category, and responsibility the Contractor's Subcontractors (at all tiers or levels) and Suppliers with a pecuniary interest in the Project of greater than \$5,000.00. The Contractor shall not enter into any agreement with any subcontractor or supplier to which the Owner raises a timely objection. The Contractor shall promptly inform the Owner in writing of any proposed replacements, the reasons therefore, and the name and qualifications of any proposed replacements. The Owner shall have the right to reject any proposed replacements without cost or claim being made by the Contractor. The chart shall be provided to the Owner at the time of the pre-construction conference but no less than 30 days after award of the Contract.
- 5.3.4. All Contractors and Subcontractors to this contract must comply with all Montana Department of Labor and Industry requirements, regulations, rules, and statutes.
- 5.3.5. In accordance with 39-51-1104 MCA, any Contractor who is or becomes an employer under the provisions of Title 39, Chapter 51 of Montana Code Annotated, who contracts with any Subcontractor who also is or becomes an employer under the provisions of Title 39, Chapter 51 of Montana Code Annotated, shall withhold sufficient money on the contract to guarantee that all taxes, penalties, and interest are paid upon completion of the contract.

5.3.5.1. It is the duty of any Subcontractor who is or becomes an employer under the provisions of Title 39, Chapter 51 of Montana Code Annotated, to furnish the Contractor with a certification issued by the Montana Department of Labor and Industry, prior to final payment stating that said Subcontractor is current and in full compliance with the provisions of Montana Department of Labor and Industry.

5.3.5.2. Failure to comply shall render the Contractor directly liable for all taxes, penalties, and interest due from the Subcontractor, and the Montana Department of Labor and Industry has all of the remedies of collection against the Contractor under the provisions of Title 39, Chapter 51 of Montana Code Annotated, as though the services in question were performed directly for the Contractor.

5.3.6. In compliance with state statutes (15-50-206 MCA), the Contractor will have the 1% Gross Receipts Tax withheld from all payments. Each "Public Contractor" includes all Subcontractors with contracts greater than \$80,000 each. The Contractor and all Subcontractors will withhold said 1% from payments made to all Subcontractors with contracts greater than \$80,000.00 and make it payable to the Montana Department of Revenue. The Contractor and all Subcontractors shall also submit documentation of all contracts greater than \$80,000.00 to the Montana Department of Revenue on the Department's prescribed form.

5.3.7. Construction Contractor Registration: All Subcontractors at any tier or level are required to be registered with the Department of Labor and Industry under 39-9-201 and 39-9-204 MCA prior to the Contract being executed by the Owner. Subcontractors shall demonstrate to the Contractor that it has registered or promises that it will register immediately upon notice of award and prior to the commencement of any work.

5.4. **CONTINGENT ASSIGNMENT OF SUBCONTRACTS**

5.4.1. Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner provided that:

5.4.1.1. assignment is effective only after termination of the Contract by the Owner for cause pursuant to Paragraph 14.2 and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and Contractor in writing; and,

5.4.1.2. assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

5.4.2. Upon such assignment, if the Work has been suspended for more than 30 days as a result of the Contractor's default, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension. Such adjustment shall be at the expense of the Contractor.

5.4.3. The Contractor shall engage each of its subcontractors and suppliers with written contracts that preserve and protect the rights of the Owner and include the acknowledgement and agreement of each subcontractor and supplier that the Owner is a third-party beneficiary of their sub-contractual and supplier agreements. The Contractor's agreements shall require that in the event of default by the Contractor or termination of the Contractor, and upon request of the Owner, the Contractor's subcontractors and suppliers will perform services for the Owner.

5.4.4. Construction Contractor Registration: All Subcontractors at any tier or level are required to be registered with the Department of Labor and Industry under 39-9-201 and 39-9-204 MCA prior to the Contract being executed by the Owner. Subcontractors shall demonstrate to the Contractor that it has registered or promises that it will register immediately upon notice of award and prior to the commencement of any work.

ARTICLE 6 – CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

6.1. **OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS**

- 6.1.1. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Paragraph 4.3.
- 6.1.2. When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.
- 6.1.3. The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules when directed to do so. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.
- 6.1.4. Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights which apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.

6.2. **MUTUAL RESPONSIBILITY**

- 6.2.1. The Contractor shall afford the Owner and separate contractors reasonable opportunity' for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.
- 6.2.2. If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect/Engineer apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.
- 6.2.3. The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, damage to the Work or defective construction of a separate contractor.
- 6.2.4. The Contractor shall promptly remedy damage wrongfully caused by the Contractor to completed or partially completed construction or to property of the Owner or separate contractors as provided in Paragraph 12.2.
- 6.2.5. The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Subparagraph 3.14.

6.3. **OWNER'S RIGHT TO CLEAN UP**

- 6.3.1. If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect/Engineer will determine the responsibility of those involved and allocate the cost accordingly.

ARTICLE 7 – CHANGES IN THE WORK

7.1. GENERAL

- 7.1.1. Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive, or order for a minor change in the Work subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. Minor changes as ordered by the Architect/Engineer has the definition provided in Paragraph 7.4
- 7.1.2. A Change Order shall be based upon agreement among the Owner, Contractor, and Architect/Engineer; a Construction Change Directive requires agreement by the Owner and Architect/Engineer and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect/Engineer alone.
- 7.1.3. Changes in the Work shall be performed under applicable provisions of the Contract Documents and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.
- 7.1.4. No act, omission, or course of dealing, shall alter the requirement that Change Orders or Construction Change Directives shall be in writing and signed by the Owner, and that Change Orders and Construction Change Directives are the exclusive method for effecting any adjustment to the Contract. The Contractor understands and agrees that neither the Contract Sum nor the Contract Time can be changed by implication, oral agreement, verbal directive, or unsigned Change Order.

7.2. CHANGE ORDERS

- 7.2.1. A Change Order is a written instrument prepared by the Architect/Engineer and signed by the Owner, Contractor and Architect/Engineer, stating their agreement upon all of the following:
 - 7.2.1.1. change in the Work;
 - 7.2.1.2. the amount of the adjustment, if any, in the Contract Sum; and,
 - 7.2.1.3. the extent of the adjustment, if any, in the Contract Time.
- 7.2.2. The cost or credit to the Owner resulting from a change in the Work shall be determined as follows:
 - 7.2.2.1. Per the limitations of this Subparagraph, plus a 5% allowance for overhead and a 10% allowance for profit. The allowances for overhead and for profit are limited to the percentages as specified herein unless they are determined to be unreasonable by the Architect/Engineer (not the Contractor) per Subparagraph 7.3.9 for each Change Order or Construction Change Directive; or,
 - 7.2.2.2. By one of the methods in Subparagraph 7.3.4, or as determined by the Architect/Engineer per Subparagraph 7.3.9, plus a 5% allowance for overhead and a 10% allowance for profit. The allowances for overhead and for profit are limited to the percentages as specified herein unless they are determined to be unreasonable by the Architect/Engineer (not the Contractor) per Subparagraph 7.3.9 for each Change Order or Construction Change Directive.
 - 7.2.2.3. The Contractor's proposed increase or decrease in cost shall be limited to costs listed in Subparagraph 7.3.9.1 through 7.3.9.5.
- 7.2.3. The Contractor shall not submit any Change Order, response to requested cost proposals, or requested changes which are incomplete and do not contain full breakdown and supporting documentation in the following three areas:
 - 7.2.3.1. Direct costs (only those listed in Subparagraph 7.3.9.1 through 7.3.9.5 are allowable);
 - 7.2.3.2. Indirect costs (limited as a percentage on each Change Order per Paragraph 7.2.2); and

7.2.3.3. Consequential items (e.g. time extensions, credits, logic, reasonableness, impacts, disruptions, dilution).

7.2.4. Any Change Order, responses to requested proposals, or requested changes submitted by the Contractor which, in the opinion of the Architect/Engineer, are incomplete, may be rejected and returned to the Contractor without comment. It is the responsibility of and incumbent upon the Contractor to ensure and confirm that all Change Orders, responses to requested proposals, or requested changes are complete prior to submission.

7.2.5. Overhead, applicable to all areas and sections of the Contract Documents, means "Indirect Costs" as referenced in Subparagraph 7.2.3.2. Indirect costs are inclusive of, but not limited to, the following: home office overhead; off-site supervision; home office project management; change order and/or proposal preparation, design, research, negotiation and associated travel; effects of disruption and dilution of management and supervision off-site; time delays; coordination of trades; postage and shipping; and, effective increase in guarantee and warranty durations. Indirect costs applicable to any and all changes in the work, either through Change Order or Construction Change Directive, are limited to the percentage allowance for overhead in Subparagraph 7.2.2.

7.2.6. By signature on any Change Order, the Contractor certifies that the signed Change Order is complete and includes all direct costs, indirect costs and consequential items (including additional time, if any) and is free and clear of all claims or disputes (including, but not limited to, claims for additional costs, additional time, disruptions, and/or impacts) in favor of the Contractor, subcontractors, material suppliers, or other persons or entities concerning the signed change order and on all previously contracted Work and does release the Owner from such claims or demands.

7.2.7. Any and all changes or adjustments to the Contract Time requested or claimed by the Contractor as a result of a Change Order shall require documentation and justification for the adjustment by a Critical Path Method analysis of the Contractor's most recent Critical Path Schedule in use prior to the change. Changes which affect or concern activities containing float or slack time (i.e. not on the critical path) and which can be accomplished within such float or slack time, shall not result in an increase in the Contract Time.

7.2.8. Supervision means on-site, field supervision and not home office overhead, off-site management or off-site supervision.

7.2.9. Labor means those persons engaged in construction occupations as defined in Montana Prevailing Wage Rates for Building Construction or Heavy/Highway as bound in the Contract Documents and does not include design, engineering, superintendence, management, on-site field supervision, home office or other off-site management, off-site supervision, office or clerical work.

7.3. **CONSTRUCTION CHANGE DIRECTIVES**

7.3.1. A Construction Change Directive is a written order prepared by the Architect/Engineer directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

7.3.2. Any and all changes or adjustments to the Contract Time requested or claimed by the Contractor as a result of a Construction Change Directive, shall require documentation and justification for the adjustment by a Critical Path Method analysis of the Contractor's most recent Critical Path Schedule in use prior to the change. Changes that affect or concern activities containing float or slack time (i.e. not on the critical path) and which can be accomplished within such float or slack time shall not result in an increase in the Contract Time.

7.3.3. A Construction Change Directive shall be used in the absence of agreement on the terms of a Change Order.

7.3.4. If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- 7.3.4.1. mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
 - 7.3.4.2. unit prices stated in the Contract Documents or subsequently agreed upon;
 - 7.3.4.3. cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee;
 - 7.3.4.4. By actual cost as shown by the Contractor's and Subcontractor's itemized invoices; or
 - 7.3.4.5. as provided in Subparagraph 7.3.9.
- 7.3.5. Costs shall be limited to the following: cost of materials, including cost of delivery; cost of labor, including social security, old age and unemployment insurance and fringe benefits under collective bargaining agreements; workers' compensation insurance; bond premiums; and rental value of power tools and equipment.
- 7.3.6. Overhead and profit allowances shall be limited on all Construction Change Directives to those identified in 7.2.2.
- 7.3.7. Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect/Engineer of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.
- 7.3.8. A Construction Change Directive signed by the Contractor indicates the agreement of the Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.
- 7.3.9. If the Contractor does not respond or disagrees with the method for adjustment in the Contract Sum in writing within seven (7) calendar days, the method and the adjustment made shall be determined by the Architect/Engineer on the basis of reasonable expenditures and/or savings of those performing the Work directly attributable to the change including, in the case of an increase in the Contract Sum, plus an allowance for overhead and profit as listed under Subparagraph 7.2.2. In such case, and also under Clause 7.3.4.3, the Contractor shall keep and present, in such form as the Architect/Engineer may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Subparagraph 7.3.9 shall be limited to the following:
- 7.3.9.1. costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance as determined by the Prevailing Wage Schedules referenced in the Contract Documents;
 - 7.3.9.2. costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
 - 7.3.9.3. rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
 - 7.3.9.4. costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and
 - 7.3.9.5. additional costs of field supervision and field office personnel directly attributable to the change.
- 7.3.10. The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect/Engineer plus markups in subparagraph 7.2.2. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net change, if any, with respect to that change.

- 7.3.11. Pending final determination of the total cost of a Construction Change Directive to the Owner, amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such cost that remains in dispute, the Architect/Engineer will make an interim determination for purposes of monthly certification for payment for those costs. That determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a claim in accordance with Article 4.
- 7.3.12. When the Owner and Contractor agree with the determination made by the Architect/Engineer concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and shall be recorded by preparation and execution of an appropriate Change Order.

7.4. **MINOR CHANGES IN THE WORK**

- 7.4.1. The Architect/Engineer will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

ARTICLE 8 – TIME

8.1. **DEFINITIONS**

- 8.1.1. Time is of the essence in performance, coordination, and completion of the Work contemplated herein. The Owner may suffer damages if the Work is not completed as specified herein. When any duration or time period is referred to in the Contract Documents by days, the first day shall be determined as the day following the current day of any event or notice starting a specified duration.
- 8.1.2. Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.
- 8.1.3. The date of commencement of the Work is the date established in the NOTICE TO PROCEED AS ISSUED BY THE OWNER.
- 8.1.4. The date the Contractor reaches Substantial Completion is the date certified by the Architect/Engineer in accordance with Paragraph 9.8.
- 8.1.5. The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.
- 8.1.6. Liquidated Damages. The Owner may suffer loss if the project is not substantially complete on the date set forth in the contract documents. The Contractor and his surety shall be liable for and shall pay to the Owner the sums hereinafter stipulated as liquidated damages for each calendar day of delay until the work is substantially complete: **\$300.**
- 8.1.7. The Contractor shall not be charged liquidated or actual damages when delay in completion of the Work is due to:
- 8.1.7.1. Any preference, priority or allocation order issued by the government;
- 8.1.7.2. Unforeseeable cause beyond the control and without the fault or negligence of the Contractor, such as acts of God or of the public enemy, fires, floods, epidemics, quarantine restrictions, freight embargoes, and unusually severe weather. All such occurrences resulting in delay must be documented and approved by Change Order; or,
- 8.1.7.3. Any delays of Subcontractors or suppliers occasioned by any of the causes specified in 8.1.7.1 and 8.1.7.2 of this article.

- 8.1.8. The Contractor is completely obligated and responsible to provide written notice of each day of delay as provided for in Paragraph 4.3.
- 8.1.9. Contract Time. All work shall reach Substantial Completion BY: **AUGUST 4, 2025**. The Owner will issue a written NOTICE TO PROCEED and finalized contract.

8.2. PROGRESS AND COMPLETION

- 8.2.1. Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Contract, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.
- 8.2.2. The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the date on the Notice to Proceed and in no case prior to the effective date of insurance required by Article 11 to be furnished by the Contractor. The date of commencement of the Work shall not be changed by the effective date of such insurance.
- 8.2.3. The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.
- 8.2.4. If the Contractor falls behind the latest construction schedule by more than 14 calendar days through its own actions or inaction, neglect, inexperience, lack of oversight and management of the Work including that of any Subcontractors, written notice to the Owner and Architect/Engineer shall be provided within three (3) days with explanation of how the Contractor intends to get back on schedule. Response to getting back on schedule consists of providing a sufficient number of qualified workers and/or proper materials or an acceptably reorganized schedule to regain the lost time in a manner acceptable to the Owner.

8.3. DELAYS AND EXTENSIONS OF TIME

- 8.3.1. If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect/Engineer, or of an employee of either, or of a separate contractor employed by the Owner, or by changes ordered in the Work, or by fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, or by delay authorized by the Owner pending mediation and arbitration, or by other causes which the Architect/Engineer determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect/Engineer may determine.
- 8.3.2. Claims relating to time shall be made in accordance with applicable provisions of Paragraph 4.3.
- 8.3.3. This Paragraph 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

PAYMENTS AND COMPLETION

9.1. CONTRACT SUM

- 9.1.1. The Contract Sum is stated in the Contract and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

9.2. SCHEDULE OF VALUES

- 9.2.1. Before the first Application for Payment, the Contractor shall submit to the Architect/Engineer a schedule of values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Architect/Engineer may require. This schedule, unless objected to by the Architect/Engineer, shall be used as a basis for reviewing the Contractor's Applications for Payment.

9.3. APPLICATIONS FOR PAYMENT

- 9.3.1. The Contractor shall submit to the Architect/Engineer an itemized Application for Payment for operations completed in accordance with the Schedule of Values. Such application shall be signed and supported by such data substantiating the Contractor's right to payment as the Owner or Architect/Engineer may require, such as copies of requisitions from Subcontractors and material suppliers, and reflecting retainage if provided for in the Contract Documents.
- 9.3.2. NOTICE OF APPROVAL OF PAYMENT REQUEST PROVISION. Per Title 28, Chapter 2, Part 21, this contract allows the Owner to change the number of days to approve a Contractor's payment request. This contract allows the Owner to approve the Contractor's payment request within thirty-five (35) calendar days after it is received by the Owner without being subject to the accrual of interest.
- 9.3.3. As provided in Subparagraph 7.3.11, such applications may include requests for payment on account of changes in the Work which have been properly authorized by Construction Change Directives, or by interim determinations of the Architect/Engineer, but not yet included in Change Orders.
- 9.3.4. Applications for payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay to a Subcontractor or material supplier.
- 9.3.5. Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.
- 9.3.6. The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.
- 9.3.7. Until the work is complete, the Owner will pay 95% of the amount due the Contractor on account of progress payments.
- 9.3.7.1. If the Work and its progress are not in accordance with all or any part, piece, or portion of the Contract Documents, the Owner may, at its sole discretion and without claim by the Contractor, increase the amount held as retainage to whatever level deemed necessary to effectuate performance and progress of the Work, for anticipated repairs, warranties or completion of the Work by the Contractor or through the letting of other contracts. The Contractor will not be entitled to additional costs, expenses, fees, time, and such like, in the event the Owner increases the amount held as retainage due to non-compliance and/or non-performance with all or any part, piece, or portion of the Contract Documents.
- 9.3.7.2. Prior to the first application for payment, the Contractor shall submit the following information on the appropriate forms:
- 9.3.7.2.1. Schedule of Amounts for Contract Payment (Form 100): This form shall contain a breakdown of the labor, material and other costs associated with the various portions of the work and shall be the basis for the progress payments to the Contractor. The use of electronic method shall be in the Owner's format.
- 9.3.7.2.2. Project/Progress Schedule: If no Schedule (or revised Schedule) is provided with each and every Periodic Estimates for Partial Payment, the Architect/Engineer and/or Owner may return the pay request, or hold it, and may choose not pay for any portion of the Work until the appropriate Schedule, indicating all changes, revisions and updates, is provided. No claim for additional costs or interests will

be made by the Contractor or any subcontractor on account of holding or non-payment of the Periodic Estimate for Partial Payment request.

9.3.7.3. Progress Payments

- 9.3.7.3.1. Periodic Estimates for Partial Payment shall be on a form provided by the Owner (Form 101) and submitted to the Architect/Engineer for payment by the Owner. Payment shall be requested for the labor and material incorporated in the work to date and for materials suitably stored, less the aggregate of previous payments, the retainage, and the 1% gross receipts tax.
- 9.3.7.3.2. The Contractor, by submission of any partial pay request, certifies that every request for partial payment is correct, true and just in all respects and that payment or credit had not previously been received. The Contractor further warrants and certifies, by submission of any partial pay request, that all previous work for which payment has been received is free and clear of all liens, disputes, claims, security interests, encumbrances, or causes of action of any type or kind in favor of the Contractor, subcontractors, material suppliers or other persons or entities and does release the Owner from such.
- 9.3.7.3.3. Progress payments do not constitute official acceptance of any portion of the work or materials whether stored on or off-site.
- 9.3.7.3.4. In compliance with 15-50-206 MCA, the Contractor will have 1% of his gross receipts withheld by the Owner from all payments due. Each subcontractor who performs work greater than \$80,000 shall have 1% of its gross receipts withheld by the Contractor. The Contractor shall notify the Department of Revenue on the department's prescribed forms.

9.3.7.4. The Contractor may submit obligations/securities in a form specified in 18-1-301 Montana Code Annotated (MCA) to be held by a Financial Institution in lieu of retainage by the Owner. The Owner will establish the amount that would otherwise be held as retainage. Should the Contractor choose to submit obligations/securities in lieu of retainage, the Owner will require the Financial Institution to execute the Owner's "Account Agreement for Deposit of Obligations Other Than Retainage" (Form 120) prior to submission of any obligations/securities in accordance with 18-1-302 MCA. The Contractor must extend the opportunity to participate in all obligations/securities in lieu of retainage on a pro rata basis to all subcontractors involved in the project and shall be solely responsible for the management and administration of same. The Owner assumes no liability or responsibility from or to the Contractor or Subcontractors regarding the latter's participation.

9.3.7.5. The Contractor shall maintain a monthly billing cycle.

9.4. **CERTIFICATES FOR PAYMENT**

- 9.4.1. The Architect/Engineer will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect/Engineer determines is properly due, or notify the Contractor and Owner in writing of the Architect/Engineer's reasons for withholding certification in whole or in part as provided in Subparagraph 9.5.1. For the purposes of this paragraph regarding certification of payment, electronic mail and/or notes provided through the use of an electronic approval system shall constitute written notice.
- 9.4.2. The issuance of a Certificate for Payment will constitute a representation by the Architect/Engineer to the Owner, based on the Architect/Engineer's evaluation of the Work and the data comprising the Application for Payment, that the Work has progressed to the point indicated and that, to the best of the Architect/Engineer's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect/Engineer. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect/Engineer has: (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work;

(2) reviewed construction means, methods, techniques, sequences or procedures; (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or, (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

9.5. **DECISIONS TO WITHHOLD CERTIFICATION**

9.5.1. The Architect/Engineer may withhold or reject a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect/Engineer's opinion the representations to the Owner required by Subparagraph 9.4.2 cannot be made. If the Architect/Engineer is unable to certify payment in the amount of the Application, the Architect/Engineer will notify the Contractor and Owner as provided in Subparagraph 9.4.1. If the Contractor and Architect/Engineer cannot agree on a revised amount, the Architect/Engineer will promptly issue a Certificate for Payment for the amount for which the Architect/Engineer is able to make such representations to the Owner. The Architect/Engineer may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect/Engineer's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Subparagraph 3.3.4, because of:

9.5.1.1. defective Work not remedied;

9.5.1.2. third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;

9.5.1.3. failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

9.5.1.4. reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

9.5.1.5. damage to the Owner or another contractor;

9.5.1.6. reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or,

9.5.1.7. persistent failure to carry out the Work in accordance with the Contract Documents.

9.5.2. When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

9.5.3. Owner's Right to Refuse Payment: The Architect/Engineer's approval, or partial approval, of the Contractor's request for payment shall not preclude or prevent the Owner from exercising any of its remedies under this Contract. The Owner shall have right to refuse to make payment(s) to the Contractor due to:

9.5.3.1. the Contractor's failure to perform the Work in compliance with the Contract Documents;

9.5.3.2. the Contractor's failure to correct any defective or damaged Work;

9.5.3.3. the Contractor's failure to accurately represent the Work performed in the pay request;

9.5.3.4. the Contractor's performance of its Work at a rate or in a manner that, in the Owner's opinion, is likely to result in the Work, or any portion thereof, to be delayed;

9.5.3.5. the Contractor's failure to use funds previously paid to it by the Owner to pay for the Contractor's Work-related obligations including, but not limited to, subcontractors and suppliers on this Project;

9.5.3.6. claims made, or anticipated by the Owner to be made, against the Owner or its property;

- 9.5.3.7. inclusion in the pay request of any amounts in dispute or part of a claim;
- 9.5.3.8. Damage or loss caused by the Contractor, including its subcontractors and suppliers; or,
- 9.5.3.9. The Contractor's failure or refusal to perform its obligations to the Owner.

9.6. **PROGRESS PAYMENTS**

- 9.6.1. After the Architect/Engineer has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents or the Owner may take any action the Owner deems necessary under Subparagraph 9.5.3.
- 9.6.2. The Contractor shall promptly pay each Subcontractor in accordance with Title 28, Chapter 2, Part 21, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of such Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.
- 9.6.3. The Contractor is prohibited from holding higher amounts in retainage on any Subcontractor than the Owner is holding from the Contractor.
- 9.6.4. The Architect/Engineer will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect/Engineer and Owner on account of portions of the Work done by such Subcontractor.
- 9.6.5. Neither the Owner nor Architect/Engineer shall have an obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.
- 9.6.6. Payment to material suppliers shall be treated in a manner similar to that provided in Subparagraphs 9.6.2, 9.6.3, 9.6.4, and 9.6.5.
- 9.6.7. A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.
- 9.6.8. Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

9.7. **FAILURE OF PAYMENT**

- 9.7.1. If the Owner does not approve payment to the Contractor within thirty-five (35) calendar days after the receipt of a certified Application for Payment, then the Contractor may, upon seven additional days' written notice to the Owner and Architect/Engineer, suspend the Work until payment of the amount owing has been received. Nothing in the Subparagraph shall limit the Owner's rights and options as provided in Subparagraph 9.5.3. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

9.8. **SUBSTANTIAL COMPLETION**

- 9.8.1. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

- 9.8.2. When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect/Engineer a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.
- 9.8.3. Upon receipt of the Contractor's list, the Architect/Engineer will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect/Engineer's Inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect/Engineer. In such case, the Contractor shall then submit a request for another inspection by the Architect/Engineer to determine Substantial Completion.
- 9.8.4. The Contractor shall ensure the project is substantially complete prior to requesting any inspection by the Architect/Engineer so that no more than one (1) inspection is necessary to determine Substantial Completion for all or any portion of the Work. If the Contractor does not perform adequate inspections to develop a comprehensive list as required in Subparagraph 9.8.2 and does not complete or correct such items upon discovery or notification, the Contractor shall be responsible and pay for the costs of the Architect/Engineer's additional inspections to determine Substantial Completion.
- 9.8.5. When the Work or designated portion thereof is substantially complete, the Architect/Engineer will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion and which shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance. After issuance of the Certificate of Substantial Completion, the Contractor shall finish and complete all remaining items within thirty (30) calendar days of the date on the Certificate. The Architect/Engineer shall identify and fix the time for completion of specific items which may be excluded from the thirty (30) calendar day time limit. Failure to complete any items within the specified time frames may be deemed by the Owner as default of the contract on the part of the Contractor.
- 9.8.6. The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety if there are claims or past payment issues, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

9.9. **PARTIAL OCCUPANCY OR USE**

- 9.9.1. The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect/Engineer as provided under Subparagraph 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect/Engineer.
- 9.9.2. Immediately prior to such partial occupancy or use, the Owner, Contractor and Architect/Engineer shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work. Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

- 9.9.3. Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

9.10. **FINAL COMPLETION AND FINAL PAYMENT**

- 9.10.1. Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect/Engineer will promptly make such inspection and, when the Architect/Engineer finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect/Engineer will approve the Contractor's final Certificate for Payment stating that to the best of the Architect/Engineer's knowledge, information and belief, and on the basis of the Architect/Engineer's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect/Engineer's signature on the Contractor's final Certificate for Payment will constitute a further representation that conditions listed in Subparagraph 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.
- 9.10.2. Neither final payment nor any remaining retainage shall become due until the Contractor submits to the Architect/Engineer:
- 9.10.2.1. completed Contractor's Affidavit of Completion, Payment of Debts and Claims, and Release of Liens (Form 106) that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied;
- 9.10.2.2. a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner;
- 9.10.2.3. a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents
- 9.10.2.4. Consent of Surety Company to Final Payment (Form 103); and,
- 9.10.2.5. if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner.
- 9.10.3. The Contractor and his surety accepts and assumes responsibility, liability, and costs for and agrees to defend and hold harmless the Owner for and against any and all actions as a result of the Owner making final payment.
- 9.10.4. By submitting any Application for Payment to the Architect/Engineer the Contractor and his surety certify and declare that all bills for materials, supplies, utilities and for all other things furnished or caused to be furnished by the Contractor and all Subcontractors and used in the execution of the Contract will be fully paid upon receipt of Final Payment and that there are no unpaid obligations, liens, claims, security interests, encumbrances, liabilities and/or demands of State Agencies, subcontractors, suppliers, mechanics, laborers or any others resulting from or arising out of any work done, caused to be done or ordered to be done by the Contractor under the contract.
- 9.10.5. In consideration of the prior payments and the final payment made and all payments made for authorized changes, the Contractor releases and forever discharges the Owner from any and all obligations, liens, claims, security interests, encumbrances and/or liabilities arising by virtue of the contract and authorized changes between the parties, either verbal or in writing, and any and all claims and demands of every kind and character whatsoever against the Owner, arising out of or in any way relating to the contract and authorized changes.
- 9.10.6. The date of Final Payment by the Owner shall constitute Final Acceptance of the Work. The determining date for the expiration of the warranty period shall be as specified in Paragraphs 3.5 and 12.2.2.

- 9.10.7. If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect/Engineer so confirms, the Owner shall, upon application by the Contractor and certification by the Architect/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 for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect/Engineer prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.
- 9.10.8. The making of final payment shall constitute a waiver of Claims by the Owner except those arising from:
- 9.10.8.1. liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- 9.10.8.2. failure of the Work to comply with the requirements of the Contract Documents; or,
- 9.10.8.3. terms of special warranties required by the Contract Documents.
- 9.10.9. Acceptance of final payment by the Contractor, a Subcontractor, or material supplier, shall constitute a waiver of any and all obligations, liens, claims, security interests, encumbrances and/or liabilities against the Owner except those previously made in writing per the requirements of Paragraph 4.3 and as yet unsettled at the time of submission of the final Application for Payment.
- 9.10.10. The Owner's issuance of Final Payment does not constitute a waiver or release of any kind regarding any past, current, or future claim the Owner may have against the Contractor and/or the surety.

ARTICLE 10 – PROTECTION OF PERSONS AND PROPERTY

10.1. SAFETY

- 10.1.1. **Importance of Safety.** The Contractor and all Subcontractors (at any tier or level) recognize that safety is paramount at all times. The Contractor shall perform the work in a safe manner with the highest regard for safety of its employees and all other individuals and property at the work site. Contractor shall maintain its tools, equipment, and vehicles in a safe operating condition and take all other actions necessary to provide a safe working environment for performance of work required under this Contract. The Contractor is solely responsible for the means, methods, techniques, sequences and procedures for coordinating and constructing the Work, including all site safety, safety precautions, safety programs, and safety compliance with OSHA and all other governing bodies.
- 10.1.2. **Particular Safeguards.** (a). The Contractor shall erect and maintain, as required by Paragraphs 10.1.1 and 10.1.3, safeguards for safety and protection, including posting danger signs and other warnings against hazards, installing suitable barriers and lighting, promulgating safety regulations, and providing notification to all parties who may be impacted by the Contractor's operations. (b) When use or storage of explosives or other Hazardous Materials/Substances (defined below) or equipment are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. (c) The Contractor shall not encumber or load or permit any part of the construction site to be encumbered or loaded so as to endanger the safety of any person(s).
- 10.1.3. **Compliance with Safety Laws.** Contractor represents and warrants to Owner that it knows and understands all federal, state and local safety statutes, rules, and regulations (Laws) related to the work under this Contract. Contractor shall comply with these Laws. Contractor shall keep all material data safety sheets on site and available at all times.
- 10.1.4. **Remedy property damage.** The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, a Subcontractor of any tier or level, or anyone employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Paragraph 3.18.

- 10.1.5. **Designation of Safety Representative.** Unless the Contractor designates, in writing to the Owner and the Architect/Engineer, another responsible member of the Contractor's organization as the Safety Representative, the Contractor's superintendent is the Safety Representative. The Safety Representative is defined as that member of the Contractor's organization responsible for all safety under this Contract.
- 10.1.6. **Release/Indemnity of Owner and Architect/Engineer.** The Contractor agrees that the Owner and Architect/Engineer are not responsible for safety at the work site and releases them from all obligations and liability regarding safety at the work site. The Contractor shall indemnify and defend the Owner and the Architect/Engineer against and from all claims, liabilities, fines, penalties, orders, causes of action, judgments, losses, costs and expenses (including but not limited to court costs and reasonable attorney fees), arising from injuries and death to any persons and damage to real and personal property arising from, in connection with, or incidental to Contractor's safety responsibilities under this Contract.

10.2. **HAZARDOUS MATERIALS/SUBSTANCES**

- 10.2.1. "Hazardous Materials/Substances" means any substance: (a) the presence of which requires investigation, or remediation under any federal, state or local statute, rule, regulation, ordinance, order, policy or common law; (b) that is or becomes defined as "hazardous waste," "hazardous substance," pollutant, or contaminant under any federal, state or local statute, rule, regulation, or ordinance or amendments thereto; (c) that is toxic, explosive, corrosive flammable, or otherwise hazardous and is or becomes regulated by any government authority, agency, board, commission or instrumentality of the United States, the state of Montana or any political subdivision thereof; (d) gasoline, diesel fuel or other petroleum hydrocarbons; (e) containing contains polychlorinated biphenyls (PCBs) or asbestos; or (f) the presence of which causes or threatens to cause a nuisance or trespass on the work site or adjacent property.
- 10.2.2. The Contractor is solely responsible for all compliance with all regulations, requirements, and procedures governing Hazardous Materials/Substances at the Work Site or that Contractor brings on the site. The Contractor is solely responsible for remediation, costs, damages, loss, and/or expenses for all Hazardous Materials/Substances brought to the site. The Contractor shall not and is strictly prohibited from purchasing and/or installing any asbestos-containing materials or products as part of the Work. Should the Contractor do so, the Contractor shall be solely responsible for the immediate remediation and all costs, damages, loss, and/or expenses per Paragraphs 10.1.6, 10.2.2, 10.2.3, and 10.2.4.
- 10.2.3. If the Contractor encounters Hazardous Materials/Substances during the course of the Work, whether or not identified in the Contract Documents, Work, the Contractor agrees that:
- 10.2.3.1. Encountering any Hazardous Materials/Substances during performance of the Work does not necessarily mean a change in conditions has occurred, nor is it evidence that the Contractor is due additional Contract Time or an increase in the Contract Sum. If encountering Hazardous Materials/Substances is determined to be a change in conditions to the Contract Documents, Paragraph 4.3 and Article 7 apply in determining any additional compensation or extension of time claimed by the Contractor.
- 10.2.3.2. The Contractor is solely responsible for securing the Work in accordance with this Article 10 involving any Hazardous Materials/Substances against unlawful, unregulated, or improper intrusion, disturbance, or removal. The Contractor shall implement protections and take protective actions throughout the performance of the Work to prevent exposure to workers, occupants, and contamination of the site or area.
- 10.2.3.3. If the Contractor is unable to or fails to properly secure the Work against unlawful, unregulated, or improper intrusion, disturbance, or removal of Hazardous Materials/Substances, the Contractor shall immediately implement protections and take protective actions, up to and including stopping Work in the area or on the item affected, to prevent exposure to workers, occupants, and contamination of the site or area. The Contractor shall immediately notify the Owner and Architect in writing giving details of the failure and the corrective actions taken. If the condition is an emergency and notice cannot be provided in writing, then Contractor shall orally and immediately notify the Owner and Architect/Engineer of the condition followed by a full written explanation. In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss.

10.2.3.4. If the Contractor notifies the Owner and takes precautions in accordance with this Article 10 upon encountering materials/substances suspected of containing asbestos or polychlorinated biphenyls that are unidentified in the Contract Documents, the Owner shall verify if the unidentified material or substance contains asbestos or polychlorinated biphenyls and shall arrange for the removal or other measures as necessary to allow the Contractor to proceed with the Work. The Contract Time may be extended as appropriate if the Work affected is on the critical path and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs as provided in Article 7. Should the Contractor fail to notify the Owner upon encountering asbestos, polychlorinated biphenyls, or materials/substances suspected of containing asbestos or polychlorinated biphenyls, that are unidentified in the Contract Documents, the Contractor is solely responsible for all mitigation in accordance with Paragraphs 10.1.6, 10.2.2, 10.2.3, and 10.2.4.

10.2.4. The Contractor shall indemnify, hold harmless, and defend the Owner from and against all claims, liabilities, fines, penalties, orders, causes of action, judgments, losses, costs and expenses, including but not limited to court costs and reasonable attorneys' fees, arising from, in connection with, or incidental to the Contractor's handling, disposal, encountering, or release of Hazardous Materials/Substances.

10.3. **UTILITIES**

10.3.1. Underground Utilities: Buried utilities, including, but not limited to, electricity, gas, steam, air, water, telephone, sewer, irrigation, broadband coaxial computer cable, and fiber optic cables are very vulnerable and damage could result in loss of service. The telephone, broadband and fiber optic cables are especially sensitive and the slightest damage to these components will result in disruption of the operations of the campus.

10.3.2. "One Call" must be notified by phone and in writing at least 72 hours (3 business days) prior to digging to arrange and assist in the location of buried utilities in the field. (Dial 811). The Contractor shall mark the boundary of the work area. The boundary area shall be indicated with white paint and white flags. In winter, pink paint and flags will be accepted.

10.3.3. After buried utilities have been located, the Contractor shall be responsible for any utilities damaged while digging. Such responsibility shall include all necessary care including hand digging. Contractor's responsibility shall also include maintaining markings after initial locate. The area for such responsibility, unless otherwise indicated, shall extend 24 inches to either side of the marked center line of a buried utility line.

10.3.4. The Contractor's responsibility shall include repair or replacement of damaged utilities. The Contractor will also be responsible for all costs associated with reterminations and recertification.

10.3.5. Any buried utilities exposed by the operations of the Contractor shall be marked on the plans and adequately protected by the Contractor. If any buried utilities not located are exposed, the Contractor shall immediately contact the Owner and the Architect/Engineer. If, after exposing an unlocated buried utility, the Contractor continues digging without notifying Owner and Architect/Engineer and further damages the utility, the Contractor will be fully and solely responsible.

10.3.6. Damage to irrigation systems during seasons of no irrigation that are not immediately and adequately repaired and tested will require the Contractor to return when the system is in service to complete the repair.

10.3.7. In the event of a planned interruption of any existing utility service, the Contractor shall make arrangements with Owner at least 72 hours (3 business days) in advance. Shutdowns of the broadband or fiber optic cables will normally require 5 working days' notice to the Owner. The Contractor shall bear all costs associated with the interruptions and restorations of service.

ARTICLE 11 - INSURANCE AND BONDS

11.1. **CONTRACTOR'S LIABILITY INSURANCE**

- 11.1.1. The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the State of Montana with a rating no less than "A-", such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:
 - 11.1.1.1. claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
 - 11.1.1.2. claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
 - 11.1.1.3. claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
 - 11.1.1.4. claims for damages insured by usual personal injury liability coverage;
 - 11.1.1.5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting there from;
 - 11.1.1.6. claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
 - 11.1.1.7. claims for bodily injury or property damage arising out of completed operations; and,
 - 11.1.1.8. claims involving contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18.
- 11.1.2. The insurance required by Subparagraph 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of the Work until termination of any coverage required to be maintained after final payment.
- 11.1.3. Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These certificates and the insurance policies except Workers Compensation required by this Paragraph 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire at any time prior to Final Acceptance and then not until at least 30 days' prior written notice has been given to the Owner. The Workers Compensation policy will not be canceled or allowed to expire at any time prior to Final Acceptance and then not until at least 30 days' prior written notice has been given to the Owner by the Contractor. If any of the foregoing insurance coverages are required to remain in force after final payment, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 9.10.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.
- 11.1.4. At the request of the Owner, the Contractor shall provide copies of all insurance policies to the Owner.

11.2. **INSURANCE, GENERAL REQUIREMENTS**

- 11.2.1. The Contractor shall maintain for the duration of the contract, at its cost and expense, insurance against claims for injuries to persons or damages to property, including contractual liability, which may arise from or in connection with the performance of the Work by the Contractor, its agents, employees, representatives, assigns, or subcontractors. The Contractor is responsible for all deductibles regardless of policy or level of coverage. The Owner reserves the right to demand, and the Contractor agrees to provide, copies of any and all policies at any time.

- 11.2.2. Hold Harmless and Indemnification: The Contractor shall protect, defend, and save the state, its elected and appointed officials, agents, and employees, while acting within the scope of their duties as such, harmless from and against all claims, liabilities, demands, causes of action, and judgments whatsoever (including the cost of defense and reasonable attorney fees): 1) arising in favor of or asserted by third parties on account of damage to property, personal injury, or death which injury, death, or damage; or, 2) arising out of or resulting from performance or failure to perform, or omissions of services, or in any way results from the negligent acts or omissions of the Contractor, its agents, agents, or subcontractors.
- 11.2.3. Contractor's Insurance: insurance required under all sections herein shall be in effect for the duration of the contract that extends through the warranty period. Insurance required herein shall be provided by insurance policies issued only by insurance companies currently authorized to do business in the state of Montana. No Contractor or Sub-contractor shall commence any Work under this contract until all required insurance has been obtained. During the term of this contract, the Contractor shall, not less than thirty days prior to the expiration date of any policy for which a certificate of insurance is required, deliver to the Owner a certificate of insurance with respect to the renewal insurance policy. The Contractor shall furnish one copy of insurance certificates of insurance herein required, which shall specifically set forth evidence of all coverage required by these contract documents and which shall be signed by authorized representatives of the insurance company or companies evidencing that insurance as required herein is in force with the exception of Workers Compensation and will not be canceled, limited or restricted without thirty days' written notice by certified mail to the contractor and the Owner. The Workers Compensation policy will not be canceled or allowed to expire at any time prior to Final Acceptance and then not until at least 30 days' prior written notice has been given to the Owner by the Contractor. The Contractor shall furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits. Additionally, all certificates shall include the project name and A/E project number.
- 11.2.4. Certificates of Insurance and Endorsements. All certificates of insurance and the additional insured endorsements are to be received by the state prior to issuance of the Notice to Proceed. The contractor is responsible to ensure that all policies and coverages contain the necessary endorsements for the State being listed as an additional insured. The state reserves the right to require complete copies of all insurance policies at any time to verify coverage. The contractor shall notify the state within 30 days of any material change in coverage.

11.3. **WORKERS' COMPENSATION INSURANCE**

- 11.3.1. The Contractor shall carry **Workers' Compensation Insurance**. Such Workers' Compensation Insurance shall protect the Contractor from claims made by his own employees, the employees of any Sub-contractor, and also claims made by anyone directly or indirectly employed by the Contractor or Sub-contractor. The Contractor shall require each Sub-contractor similarly to provide Workers' Compensation Insurance.

11.4. **COMMERCIAL GENERAL LIABILITY INSURANCE**

- 11.4.1. Each Contractor shall carry per occurrence coverage **Commercial General Liability Insurance** including coverage for premises; operations; independent contractor's protective; products and completed operations; products and materials stored off-site; broad form property damage and comprehensive automobile liability insurance with not less than the following limits of liability:

11.4.1.1. **\$1,000,000 per occurrence; aggregate limit of \$2,000,000;**

- 11.4.2. The **Commercial General and Automobile Liability Insurance** shall provide coverage for both bodily injury, including accidental death, sickness, disease, occupational sickness or disease, personal injury liability coverage and property damage which may arise out of the work under this contract, or operations incidental thereto, whether such work and operations be by the Contractor or by any Subcontractor or by anyone directly or indirectly employed by the Contractor or by Sub-contractor, or by anyone for whose acts any of them may be liable. The Contractor shall maintain the liability insurance required herein for a period of not less than one year after final payment or anytime the Contractor goes on to the location of the project.

- 11.4.3. The Contractor's liability insurance policies shall list the STATE OF MONTANA as an additional insured. **AN ADDITIONAL INSURED ENDORSEMENT DOCUMENT SHALL BE SUBMITTED WITH THE CERTIFICATES OF INSURANCE.** The STATE OF MONTANA includes its officers, elected and appointed officials, employees and volunteers and political subdivisions thereof. Should the Contractor not be able to list the state as an additional insured, the Contractor shall purchase a per occurrence Owner's/Contractor's Protective Policy (OCP) with the STATE OF MONTANA as the insured party in the same occurrence and aggregate limits as that indicated above for the Contractor's Commercial General Liability Policy.
- 11.4.4. Property damage liability insurance shall be written without any exclusion for injury to or destruction of any building, structure, wires, conduits, pipes, or other property above or below the surface of the ground arising out of the blasting, explosion, pile driving, excavation, filling, grading or from the moving, shoring, underpinning, raising, or demolition of any building or structure or structural support thereof.
- 11.4.5. The Contractor's insurance coverage shall be PRIMARY insurance as respects the State, its officers, elected and appointed officials, employees and volunteers. Any insurance or self-insurance maintained by the state, its officers, elected and appointed officials, employees and volunteers shall be excess of the Contractor's insurance and shall not contribute to it. NO WAIVERS OF SUBROGATION OR ENDORSEMENTS LIMITING, TRANSFERRING, OR OTHERWISE INDEMNIFYING LIABLE OR RESPONSIBLE PARTIES OF THE CONTRACTOR OR ANY SUBCONTRACTOR WILL BE ACCEPTED.

11.5. **PROPERTY INSURANCE (ALL RISK)**

- 11.5.1. New Construction (for projects involving new construction): At its sole cost and expense, the contractor shall keep the building and all other improvements on the premises insured throughout the term of the agreement against the following hazards:
- 11.5.1.1. Loss or damage by fire and such other risks (including earthquake damage for those areas with a shaking level at 10g or above as indicated on the seismic map, [NEHRP.pdf \(mt.gov\).pdf](#) in an amount sufficient to permit such insurance to be written at all times on a replacement cost basis. This may be insured against by attachment of standard form extended coverage endorsement to fire insurance policies. Certificates of Insurance MUST indicate earthquake coverage if coverage is required per the above referenced map.
- 11.5.1.2. Loss or damage from leakage or sprinkler systems now or hereafter installed in any building on the premises.
- 11.5.1.3. Loss or damage by explosion of steam boilers, pressure vessels, and oil or gasoline storage tanks, or similar apparatus now or hereafter installed in a building or buildings on the premises.
- 11.5.2. Building Renovation (for projects involving building renovation or remodeling):
- 11.5.2.1. The contractor shall purchase and maintain Builder's Risk/Installation insurance on a "special causes of loss" form (so called "all risk") for the cost of the work and any subsequent modifications and change orders. The contractor is not responsible for insuring the existing structure for Builder's Risk/Installation insurance.
- 11.5.2.2. At its sole cost and expense, the contractor shall insure all property construction on the premises throughout the term of the agreement against the following hazards:
- 11.5.2.2.1. Loss or damage by fire and such other risks (including earthquake damage for those areas with a shaking level at 10g or above as indicated on the seismic map at <http://rmtd.mt.gov/Portal/62/aboutus/publications/files/NEHRP.pdf> in an amount sufficient to permit such insurance to be written at all times on a replacement cost basis. This may be insured against by attachment of standard form extended coverage endorsement to fire policies. Certificates of Insurance MUST indicate earthquake coverage if coverage is required per the above referenced map.
- 11.5.2.2.2. Loss or damage from leakage or sprinkler systems now or hereafter installed in any building on the premises.

- 11.5.2.2.3. Loss or damage by explosion of steam boilers, pressure vessels, oil or gasoline storage tanks, or similar apparatus now or hereafter installed in a building or buildings on the premises.

11.6. **ASBESTOS ABATEMENT INSURANCE**

- 11.6.1. If Asbestos Abatement is identified as part of the Work under this contract, the Contractor or any subcontractor involved in asbestos abatement shall purchase and maintain **Asbestos Liability Insurance** for coverage of bodily injury, sickness, disease, death, damages, claims, errors or omissions regarding the asbestos portion of the work ***in addition to*** the CGL Insurance by reason of any negligence in part or in whole, error or omission committed or alleged to have been committed by the Contractor or anyone for whom the Contractor is legally liable.
- 11.6.2. Such insurance shall be in "per occurrence" form and shall clearly state on the certificate that asbestos work is included in the following limits:
- 11.6.2.1. **\$1,000,000 per occurrence; aggregate limit of \$2,000,000.**
- 11.6.3. Asbestos Liability Insurance as carried by the asbestos abatement subcontractor in these limits in lieu of the Contractor's coverage is acceptable provided the Contractor and the State of Montana are named as additional insureds and that the abatement subcontractor's insurance is PRIMARY as respects both the Owner and the Contractor. If the Contractor or any other subcontractor encounters asbestos, all operations shall be suspended until abatement with the associated air monitoring clearances are accomplished. The certificate of coverage shall be provided by the asbestos abatement subcontractor to both the Contractor and the Owner.

11.7. **PERFORMANCE BOND AND LABOR & MATERIAL PAYMENT BOND (BOTH ARE REQUIRED ON THIS PROJECT)**

- 11.7.1. The Contract shall furnish a Performance Bond in the amount of 100% of the contract price as security for the faithful performance of his contract (18-2-201 MCA). The Contractor shall also furnish a Labor and Material Payment Bond in the amount of 100% of the contract price as security for the payment of all persons performing labor and furnishing materials in connection therewith (18-2-201MCA). The bonds shall be executed on forms furnished by the Owner and no other forms or endorsements will be acceptable. The bonds shall be signed in compliance with state statutes (33-17-1111 MCA). Bonds shall be secured from a state licensed bonding company. Power of Attorney is required with each bond. Attorneys-in-fact who sign contract bonds must file with each bond a certified and effectively dated copy of their power of attorney:
- 11.7.1.1. one original copy shall be furnished with each set of bonds.
- 11.7.1.2. Others furnished with a set of bonds may be copies of that original.
- 11.7.2. The Owner reserves the right at any time during the performance of Work to require bonding of Subcontractors provided by the General Contractor. Should this occur, the Owner will cover the direct cost. This shall not be construed as to in any way affect the relationship between the General Contractor and his Subcontractors.
- 11.7.3. Surety must have an endorsement stating that their guarantee of Contractor's performance automatically covers the additional contract time added to a Contractor's contract by Change Order.
- 11.7.4. A change in the Contractor's organization shall not constitute grounds for Surety to claim a discharge of their liability and requires an endorsement from Surety so stating.
- 11.7.5. Except as noted below, the Contractor is required to notify Surety of any increase in the contract amount resulting from a Change Order within 48 hours of signing and submitting a Change Order and shall submit a copy of Surety's written acknowledgment and consent to Owner before a Change Order can be approved. The Surety's written acknowledgment and consent on the Change Order form shall also satisfy this consent requirement.

- 11.7.5.1. Surety consent shall not be required on Change Order(s) which, in the aggregate total amount of all Changes Orders, increase the original contract amount by less than 10%. However, the Contractor is still required to notify Surety of any increase in contract amount resulting from a Change Order(s) within 48 hours of signing and submitting every Change Order.
- 11.7.5.2. Surety is fully obligated to the Owner for the full contract amount, inclusive of all Change Orders, regardless of whether or not written acknowledgement and consent is received and regardless of whether or not the aggregate total of all Change Orders is more or less than 10% of the original contract amount.
- 11.7.5.3. A fax with hard copy to follow of Surety's written acknowledgment and consent is acceptable. If hard copy is not received by Owner before Application for Payment on any portion or all of said Change Order, it will not be accepted by Owner for payment.
- 11.7.6. The Surety must take action within 30 days of notice of default on the part of the Contractor or of any claim on bonds made by the Owner or any Subcontractor or supplier.

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK

12.1. UNCOVERING OF WORK

- 12.1.1. If a portion of the Work is covered contrary to the Architect/Engineer's request or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Architect/Engineer, be uncovered for the Architect/Engineer's examination and be replaced at the Contractor's expense without change in the Contract Time.
- 12.1.2. If a portion of the Work has been covered which the Architect/Engineer has not specifically requested to examine prior to it being covered, the Architect/Engineer may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

12.2. CORRECTION OF WORK

12.2.1. BEFORE OR AFTER SUBSTANTIAL COMPLETION

- 12.2.1.1. The Contractor shall promptly correct Work that fails to conform to the requirements of the Contract Documents or that is rejected by the Architect/Engineer, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections and compensation for the Architect/Engineer's services and expenses made necessary thereby, shall be at the Contractor's expense. The Contractor is responsible to discover and correct all defective work and shall not rely upon the Architect/Engineer's or Owner's observations.
- 12.2.1.2. Rejection and Correction of Work in Progress. During the course of the Work, the Contractor shall inspect and promptly reject any Work that:
 - 12.2.1.2.1. does not conform to the Construction Documents; or,
 - 12.2.1.2.2. does not comply with any applicable law, statute, building code, rule or regulation of any governmental, public and quasi-public authorities, and agencies having jurisdiction over the Project.
- 12.2.1.3. The Contractor shall promptly correct or require the correction of all rejected Work, whether observed before or after Substantial Completion. The Contractor shall bear all costs of correcting such Work, including additional testing, inspections, and compensation for all services and expenses necessitated by such corrective action.

12.2.2. AFTER SUBSTANTIAL COMPLETION AND AFTER FINAL ACCEPTANCE

12.2.2.1. In addition to the Contractor's obligations under Paragraph 3.5, if, within one year after the date of Final Acceptance of the Work or designated portion thereof or after the date for commencement of warranties, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect/Engineer, the Owner may correct it in accordance with Paragraph 2.3.

12.2.2.1.1. The Contractor shall remedy any and all deficiencies due to faulty materials or workmanship and pay for any damage to other work resulting there from, which shall appear within the period of Substantial Completion through one (1) year from the date of Final Acceptance in accordance with the terms and conditions of the Contract and with any special guarantees or warranties provided in the Contract Documents. The Owner shall give notice of observed deficiencies with reasonable promptness. All questions, claims or disputes arising under this Article shall be decided by the Architect/Engineer. All manufacturer, product and supplier warranties are in addition to this Contractor warranty.

12.2.2.1.2. The Contractor shall respond within seven (7) days after notice of observed deficiencies has been given and he shall proceed to immediately remedy these deficiencies.

12.2.2.1.3. Should the Contractor fail to respond to the notice or not remedy those deficiencies; the Owner shall have this work corrected at the expense of the Contractor.

12.2.2.1.4. Latent defects shall be in addition to those identified above and shall be the responsibility of the Contractor per the statute of limitations for a written contract (27-2-208 MCA) starting from the date of Final Acceptance.

12.2.2.2. The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work.

12.2.2.3. The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Paragraph 12.2.

12.2.3. The Contractor shall remove from the site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

12.2.4. The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

12.2.5. Nothing contained in this Paragraph 12.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the one-year period for correction of Work as described in Subparagraph 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

12.3. ACCEPTANCE OF NONCONFORMING WORK

- 12.3.1. If the Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

13.1. GOVERNING LAW

- 13.1.1. The Contract shall be governed by the laws of the State of Montana and venue for all legal proceedings shall be the First Judicial District, Lewis & Clark County.

13.2. SUCCESSORS AND ASSIGNS

- 13.2.1. The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to partners, successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempt to make such assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.3. WRITTEN NOTICE

- 13.3.1. Written notice shall be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

13.4. RIGHTS AND REMEDIES

- 13.4.1. Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.
- 13.4.2. No action or failure to act by the Owner, Architect/Engineer or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

13.5. TESTS AND INSPECTIONS

- 13.5.1. Quality Control (i.e. ensuring compliance with the Contract Documents) and Quality Assurance (i.e. confirming compliance with the Contract Documents) are the responsibility of the Contractor. Testing, observations, and/or inspections performed or provided by the Owner are solely for the Owner's own purposes and are for the benefit of the Owner. The Owner is not liable or responsible in any form or fashion to the Contractor regarding quality control or assurance or extent of such assurances. The Contractor shall not, under any circumstances, rely upon the Owner's testing or inspections as a substitute or in lieu of its own Quality Control or Assurance programs.
- 13.5.2. Tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect/Engineer timely notice of when and where tests and inspections are to be made so that the Architect/Engineer may be present for such procedures. The Owner shall bear costs of tests, inspections or approvals which do not become requirements until after bids are received or negotiations concluded.
- 13.5.3. If the Architect/Engineer, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Subparagraph 13.5.2, the Architect/Engineer will, upon written authorization from the Owner, instruct the Contractor to make

arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect/Engineer of when and where tests and inspections are to be made so that the Architect/Engineer may be present for such procedures. Such costs, except as provided in Subparagraph 13.5.4 shall be at the Owner's expense.

- 13.5.4. If such procedures for testing, inspection or approval under Subparagraphs 13.5.2 and 13.5.3 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Architect/Engineer's services and expenses shall be at the Contractor's expense.
- 13.5.5. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect/Engineer.
- 13.5.6. If the Architect/Engineer is to observe tests, inspections or approvals required by the Contract Documents, the Architect/Engineer will do so promptly and, where practicable, at the normal place of testing.
- 13.5.7. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

13.6. **INTEREST**

- 13.6.1. Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

13.7. **COMMENCEMENT OF STATUTORY LIMITATION PERIOD**

- 13.7.1. As between the Owner and Contractor:

- 13.7.1.1. **Before Substantial Completion.** As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion;
- 13.7.1.2. **Between Substantial Completion and Final Certificate for Payment.** As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and,
- 13.7.1.3. **After Final Payment.** As to acts or failures to act occurring after the relevant date of issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to any Warranty provided under Paragraph 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Paragraph 12.2, or the date of actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

13.8. **PAYROLL AND BASIC RECORDS**

- 13.8.1. Payrolls and basic records pertaining to the project shall be kept on a generally recognized accounting basis and shall be available to the Owner, Legislative Auditor, the Legislative Fiscal Analyst or his authorized representative at mutually convenient times. Accounting records shall be kept by the Contractor for a period of three years after the date of the Owner's Final Acceptance of the Project.

ARTICLE 14 – TERMINATION OR SUSPENSION OF THE CONTRACT

14.1. **TERMINATION BY THE CONTRACTOR**

- 14.1.1. The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:
 - 14.1.1.1. issuance of an order of a court or other public authority having jurisdiction which requires all Work to be stopped; or,
 - 14.1.1.2. an act of government, such as a declaration of national emergency which requires all Work to be stopped.
- 14.1.2. The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in Paragraph 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.
- 14.1.3. If one of the reasons described in Subparagraph 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect/Engineer, terminate the Contract and recover from the Owner payment for Work executed and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, including reasonable overhead and profit but not damages.
- 14.1.4. If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the Owner has persistently failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' written notice to the Owner and the Architect/Engineer, terminate the Contract and recover from the Owner as provided in Subparagraph 14.1.3.

14.2. **TERMINATION BY THE OWNER FOR CAUSE**

- 14.2.1. The Owner may terminate the Contract if the Contractor:
 - 14.2.1.1. persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
 - 14.2.1.2. fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
 - 14.2.1.3. persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or,
 - 14.2.1.4. otherwise is guilty of any breach of a provision of the Contract Documents.
- 14.2.2. When any of the above reasons exist, the Owner, upon certification by the Architect/Engineer that sufficient cause exists to justify such action, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:
 - 14.2.2.1. take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
 - 14.2.2.2. accept assignment of subcontracts pursuant to Paragraph 5.4; and,
 - 14.2.2.3. finish the Work by whatever reasonable method the Owner may deem expedient. Upon request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

- 14.2.3. When the Owner terminates the Contract for one of the reasons stated in Subparagraph 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.
- 14.2.4. If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect/Engineer's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Architect/Engineer, upon application, and this obligation for payment shall survive termination of the Contract.

14.3. SUSPENSION BY THE OWNER FOR CONVENIENCE

- 14.3.1. The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.
- 14.3.2. The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Subparagraph 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent:
 - 14.3.2.1. that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or,
 - 14.3.2.2. that an equitable adjustment is made or denied under another provision of the Contract.

14.4. TERMINATION BY THE OWNER FOR CONVENIENCE

- 14.4.1. The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.
- 14.4.2. Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall:
 - 14.4.2.1. cease operations as directed by the Owner in the notice;
 - 14.4.2.2. take actions necessary, or that the Owner may direct, for the protection and preservation of the Work, and;
 - 14.4.2.3. except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
- 14.4.3. In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination. The Contractor shall provide a full and complete itemized accounting of all costs.

ARTICLE 15 – EQUAL OPPORTUNITY

- 15.1. The Contractor and all Sub-contractors shall not discriminate against any employee or applicant for employment because of race, color, sex, pregnancy, childbirth or medical conditions related to pregnancy or childbirth, political or religious affiliation or ideas, culture, creed, social origin or condition, genetic information, sexual orientation, gender identity or expression, national origin, ancestry, age, disability, military service or veteran status, or marital status, or physical or mental disability and shall comply with all Federal and State laws concerning fair labor standards and hiring practices. The Contractor shall ensure that applicants are employed, and that employees are treated during employment, without regard to race, color, sex, pregnancy, childbirth or medical conditions related to pregnancy or childbirth, political or religious affiliation or ideas, culture, creed, social origin or condition, genetic information, sexual orientation, gender identity or expression, national origin, ancestry, age, disability, military service or veteran status, or marital status, or physical or mental disability.
- 15.2. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and

selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

15.3. The Contractor and all Sub-contractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, sex, pregnancy, childbirth or medical conditions related to pregnancy or childbirth, political or religious affiliation or ideas, culture, creed, social origin or condition, genetic information, sexual orientation, gender identity or expression, national origin, ancestry, age, disability, military service or veteran status, or marital status, or physical or mental disability.

15.4. The contractor shall not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association, and the Contractor shall not discriminate during the term of the contract against a firearm entity or firearm trade association. This section shall be construed in accordance with 30-20-301, MCA.

15.4.1. The provisions of 30-20-301, MCA apply only to a contract that:

15.4.1.1. is between a governmental entity and a company with at least 10 full-time employees; and

15.4.1.2. has a value of at least \$100,000 that is paid wholly or partly from public funds of the governmental entity.

15.4.2. By the signing the contract, the Contractor certifies and affirms:

15.4.2.1. Contractor does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association during the term of this contract; and

15.4.2.2. Contractor will not discriminate against a firearm entity or firearm trade association during the term of this contract.

15.4.3. The contractor's certification is made in compliance with and in reference to 30-20-301, MCA, and the terms defined therein. If the contractor determines the provisions of 30-20-301, MCA don't apply to the contract, the Contractor shall submit a statement set forth in details the basis for such determination.

[END OF GENERAL CONDITIONS]

MONTANA
PREVAILING WAGE RATES FOR HEAVY CONSTRUCTION SERVICES 2025

Effective: January 11, 2025

Greg Gianforte, Governor
State of Montana

Sarah Swanson, Commissioner
Department of Labor & Industry

To obtain copies of prevailing wage rate schedules, or for information relating to public works projects and payment of prevailing wage rates, visit ESD at erd.dli.mt.gov/labor-standards or contact:

Employment Standards Division
Montana Department of Labor and Industry
P. O. Box 8011
Helena, MT 59604
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 erd.dli.mt.gov/labor-standards 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 erd.dli.mt.gov/labor-standards or contact the department at (406) 444-6543.

SARAH SWANSON
Commissioner
Department of Labor and Industry
State of Montana

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A. Date of Publication January 13, 2025

B. Definition of Heavy Construction

The Administrative Rules of Montana (ARM), 24.17.501(4) – (4)(b), states “Heavy construction projects include, but are not limited to, those projects that are not properly classified as either ‘building construction’, or ‘highway construction.’”

Heavy construction projects include, but are not limited to, antenna towers, bridges (major bridges designed for commercial navigation), breakwaters, caissons (other than building or highway), canals, channels, channel cut-offs, chemical complexes or facilities (other than buildings), cofferdams, coke ovens, dams, demolition (not incidental to construction), dikes, docks, drainage projects, dredging projects, electrification projects (outdoor), fish hatcheries, flood control projects, industrial incinerators (other than building), irrigation projects, jetties, kilns, land drainage (not incidental to other construction), land leveling (not incidental to other construction), land reclamation, levees, locks and waterways, oil refineries (other than buildings), pipe lines, ponds, pumping stations (prefabricated drop-in units – not buildings), railroad construction, reservoirs, revetments, sewage collection and disposal lines, sewers (sanitary, storm, etc.), shoreline maintenance, ski tows, storage tanks, swimming pools (outdoor), subways (other than buildings), tipples, tunnels, unsheltered piers and wharves, viaducts (other than highway), water mains, waterway construction, water supply lines (not incidental to building), water and sewage treatment plants (other than buildings) and wells.”

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 Heavy 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, Highway Construction and Nonconstruction Services occupations can be found on the internet at <https://erd.dli.mt.gov/labor-standards/state-prevailing-wage-rates/> 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, Miles City, Missoula and Sidney.”*

I. Zone Pay

Zone pay is not travel pay. ARM, 24.17.103(25), 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(23), 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(19), 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 18-2-418, 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.

S. Proper Classification for Pipefitter and Laborer/Pipelayer Work on Water and Waste Water Treatment Plants The proper classification for the following work is Pipefitter, when it is performed inside a building structure or performed at a location which will later be inside of a building: Joining steel pipe larger than 12 inches in diameter with bolted flange connections that has been pre-fabricated off site and does not require any modification such as cutting, grinding, welding, or other fabrication in order to be installed. All other work previously classified as pipefitter remains in that classification. The proper classification for that work when it is at a location that will always be outside a building is Pipelayer, which is under the Laborer Group 3 classification.

WAGE RATES

BOILERMAKERS

Wage	Benefit
\$35.30	\$34.00

Duties Include:

Construct, assemble, maintain, and repair stationary steam boilers, boiler house auxiliaries, process vessels, pressure vessels and penstocks. Bulk storage tanks and bolted steel tanks.

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Travel and Per Diem:

No travel or per diem established.

BRICK, BLOCK, AND STONE MASONS

Wage	Benefit
\$32.32	\$16.78

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Travel:

0-70 mi. free zone
>70-90 mi. \$60.00/day
>90 mi. \$80.00/day

CARPENTERS

Wage	Benefit
\$36.49	\$17.45

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Zone Pay:

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

CEMENT MASONS AND CONCRETE FINISHERS

Wage	Benefit
\$38.54	\$17.04

Duties Include:

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

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Zone Pay:

0-30 mi free zone
30-60 mi base pay+2.95/hr.
>60 mi base pay+4.75/hr.

CONSTRUCTION EQUIPMENT OPERATORS GROUP 1

Wage	Benefit
\$31.51	\$15.73

Per Diem:
0-75 mi free zone
>75 mi \$70/day

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, Herman Nelson Heater; Mucking Machine; Oiler, All Except Cranes/Shovels; Pumpman.

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 2

Wage	Benefit
\$32.88	\$15.15

Per Diem:
0-75 mi free zone
>75 mi \$70/day

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 Batcher; 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
\$38.00	\$16.35

Per Diem:
0-75 mi. free zone
>75 mi. \$110.00/Day

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 Haul Truck,
Articulating Trucks, Vac Truck.

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 4

Wage	Benefit
\$38.00	\$16.35

Per Diem:
0-75 mi. free zone
>75 mi. \$110.00/Day

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
\$38.00	\$16.35

Per Diem:
0-75 mi. free zone
>75 mi. \$110.00/Day

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
\$40.00	\$16.35

Per Diem:
0-75 mi. free zone
>75 mi. \$110.00/Day

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
\$42.00	\$16.35

Per Diem:
0-75 mi. free zone
>75 mi. \$110.00/Day

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	Benefit
\$23.08	\$11.82

Zone Pay:
0-30 mi. free zone
>30-60 mi. base pay + \$3.05/hr.
>60 mi. base pay + \$4.85/hr.

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CONSTRUCTION LABORERS GROUP 2

Wage	Benefit
\$26.15	\$13.44

Zone Pay:
0-30 mi. free zone
>30-60 mi. base pay + \$3.05/hr.
>60 mi. base pay + \$4.85/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; Riprappet; 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	Benefit
\$26.07	\$13.44

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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Zone Pay:

0-30 mi. free zone
>30-60 mi. base pay + \$3.05/hr.
>60 mi. base pay + \$4.85/hr.

CONSTRUCTION LABORERS GROUP 4

Wage	Benefit
\$26.76	\$11.82

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

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Zone Pay:

0-30 mi. free zone
>30-60 mi. base pay + \$3.05/hr.
>60 mi. base pay + \$4.85/hr.

***Hod Carriers will receive the same amount of travel and/or subsistence pay as bricklayers when requested to travel.

DIVERS

Stand-By	No Rate Established
Diving	No Rate Established

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.

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Zone Pay:

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

DIVER TENDERS

No Rate Established

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.

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Zone Pay:

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

ELECTRICIANS

Wage	Benefit
\$38.86	\$17.84

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.

Per Diem

District 4

>60 mi. \$80.00/day
Per Diem in Big Sky and West Yellowstone \$125/day.

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INSULATION WORKERS - MECHANICAL (HEAT AND FROST)

No Rate Established

Duties Include:

Insulate pipes, ductwork or other mechanical systems.

Travel:

0-30 mi. free zone
>30-40 mi. \$25.00/day
>40-50 mi. \$35.00/day
>50-60 mi. \$45.00/day
>60 mi. \$130.00/day plus

- \$0.56/mi. if transportation is not provided.
- \$0.20/mi. if in company vehicle.

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IRONWORKERS – REINFORCING IRON AND REBAR WORKERS

Wage	Benefit
\$34.83	\$28.07

Travel:
All Districts
0-45 mi. free zone
>45-85 mi. \$100.00/day
>85 mi. \$150.00/day

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.

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IRONWORKERS – STRUCTURAL IRON AND STEEL WORKERS

Wage	Benefit
\$34.83	\$28.07

Travel:
All Districts
0-45 mi. free zone
>45-85 mi. \$100.00/day
>85 mi. \$150.00/day

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.

LINE CONSTRUCTION – EQUIPMENT OPERATORS

No Rate Established

Duties Include:

All work on substations

Travel:
No Free Zone
\$60.00/day

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LINE CONSTRUCTION – GROUNDMAN

Wage	Benefit
\$29.09	\$8.36

Travel:
No Free Zone
\$60.00/day

Duties Include:

All work on substations

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LINE CONSTRUCTION – LINEMAN

Wage	Benefit
\$52.11	\$18.75

Travel:
No Free Zone
\$60.00/day

Duties Include:

All work on substations

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MILLWRIGHTS

Wage	Benefit
\$45.26	\$21.25

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
\$25.00	No Rate Established

Travel and Per Diem:
No travel or per diem established.

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PILE BUCKS

Wage	Benefit
\$36.49	\$14.33

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

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.

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PLUMBERS, PIPEFITTERS, AND STEAMFITTERS

Wage	Benefit
\$45.60	\$21.26

Travel:
District 4
0-70 free zone
>70 mi.
▪ On jobs when employees do not work consecutive days: \$0.55/mi. if employer doesn't provide transportation. Not to exceed two trips.
▪ On jobs when employees work any number of consecutive days: \$110.00/day.

Duties Include:

Assemble, install, alter, and repair pipe-lines or pipe systems that carry water, steam, air, other liquids or gases. Testing of piping systems, commissioning and retro-commissioning. Workers in this occupation may also install heating and cooling equipment and mechanical control systems.

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SPRINKLER FITTERS

No Rate Established

Duties Include:

Duties Include but not limited to any and all fire protection systems: Installation, dismantling, inspection, testing, maintenance, repairs, adjustments, and corrections of all fire protection and fire control systems, including both overhead and underground water mains, all piping, fire hydrants, standpipes, air lines, tanks, and pumps used in connection with sprinkler and alarm systems.

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TRUCK DRIVERS

Pilot Car Driver	No Rate Established	
	Wage	Benefit
Truck Driver	\$31.28	\$9.37

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.

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Travel

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

- 0-60 mi. free zone
- >60-80 mi. \$23.00/day
- >80-100 mi. \$33.00/day
- >100 mi. \$125.00/day + the IRS rate per mile and \$8.92 for every 15 miles traveled for one trip out and one trip back

No travel allowance required when in employer's vehicle except when staying the night.

- >100 mi. \$125.00/day

Zone Pay:

All Districts

- 0-30 mi. free zone
- >30-60 mi. base pay + \$3.05/hr.
- >60 mi. base pay + \$.485/hr.

Special Provision:

Zone pay only applies to the Truck Driver classification. No zone pay was established for Pilot Car Driver.

SPECIAL PROVISIONS

**MONTANA STATE HOSPITAL
LAGOON CLEANOUT AND RESTORATION
SECTION 00 95 10
SPECIAL PROVISIONS**

SP1. CONTRACT DOCUMENTS

The Project Drawings are included as **Appendix A** to the Project Specifications. The CONTRACTOR will be given two (2) copies of the Contract documents (plans and specifications). One set of Contract documents shall be used by the CONTRACTOR for “As Constructed” drawings. One set of Contract documents shall be the CONTRACTOR’s executed copy of the Contract documents.

Additional copies of the Contract documents shall be made available to the CONTRACTOR at a cost of \$150 per set. The CONTRACTOR will be required to have a minimum of one set of plans and specifications at the project site at all times during construction.

SP2. PREBID EXPLORATION/SITE INFORMATION

All Bidders are strongly encouraged to visit the site of the work and conduct all field investigations at their disposal to become acquainted with the nature of the work. Written authorization shall be obtained from the OWNER, utilities, and others who may be directly affected prior to: entering the property; conduction field tests; drilling, boring, excavating, or test pumping. A pre-bid conference will be held, commencing at 10:00 A.M. at the Montana State Hospital old wastewater treatment lagoons in Warm Springs on February 13th, 2025. All bidders are encouraged to attend the pre-bid meeting.

SP3. DRAWINGS

The ENGINEER has identified, to the best of his knowledge, all major objects that may influence construction and has indicated them on the Drawings for bidding purposes only. Because of scale, possible additions, subsurface uncertainties, etc., the CONTRACTOR shall be responsible for verifying in the field the exact locations of objects that may influence his construction operations. The ENGINEER and OWNER shall in no way be held responsible for objects not located exactly as shown on the Drawings or for objects installed subsequent to preparation of the Drawings. Locations of water and sewer lines, services and other utilities are approximate and are not intended to be used as exact locations. The CONTRACTOR must obtain assistance from the appropriate entities in locating their respective utilities during construction.

SP4. SLUDGE SAMPLING REPORT AND TEST RESULTS

Sludge sampling and analysis were completed for this project. **Appendix C** of the contract documents contains the September 2018 *Lagoon Biosolids* Sampling technical memorandum by Anderson Montgomery Consulting Engineers. The biosolids investigations represent the

accumulated biosolids in each cell of the old MSH treatment system as shown by the sampling maps in the memorandum. This data is provided strictly for informational purposes in an effort to provide the contractor with all available information. There is no guarantee that the biosolids conditions portrayed in the memorandum are what currently resides in the cells. The biosolids were tested in August of 2018 and August of 2024 by Energy Laboratories in Helena, MT, the results are included in the memorandum.

SP5. UNSCHEDULED EMPLOYMENT OF THE ENGINEER – LIQUIDATED DAMAGES

Liquidated damages for the unscheduled employment of the ENGINEER and/or Inspector will be assessed against the CONTRACTOR necessitated by the following:

- a. The CONTRACTOR working beyond the specified contract time.
- b. The CONTRACTOR working more than 8 hours per day, (or 40 hours per week if four ten-hour shifts are worked) or on Saturdays, Sundays and federal holidays.
- c. The CONTRACTOR utilizing material, supplies, or equipment that requires the redesign of the project.
- d. The CONTRACTOR destroying or disturbing baselines, benchmarks or reference stakes.
- e. The failure of the CONTRACTOR to maintain acceptable as-built records.
- f. Re-submittal review due to the CONTRACTOR not supplying adequate or correct shop drawings, operation and maintenance manuals, and information on the first submittal.

Liquidated damages for the unscheduled employment of the ENGINEER and/or Inspector shall be determined based on the following hourly rates:

Project Manager	\$135.00/Hour
Project ENGINEER	\$135.00/Hour
Inspector	\$100.00/Hour
Mileage	\$ 0.65/Mile

Out of pocket expenses for materials, equipment, supplies, transportation, and subsistence shall be billed at cost plus ten percent. Liquidated damages for unscheduled employment of the ENGINEER and/or Inspector shall be deducted from monthly progress payments and the final payment as the damages are incurred.

The CONTRACTOR shall reimburse the OWNER for all costs incurred as a result of the CONTRACTOR’s failure to complete the work within the time period specified in the Contract unless modified by a Change in Contract Time. The OWNER shall have one or more representatives observing the work at all times work is taking place. The CONTRACTOR shall reimburse the OWNER for the cost of engineers, architects, attorneys, construction field representatives, and other professionals that are incurred due to the CONTRACTOR’s failure to complete the work within the Contract time period.

SP6. SAFETY

The CONTRACTOR shall be responsible for identifying and meeting all safety standards that are applicable to this project. The ENGINEER, the OWNER or any of their representatives or employees do not work in the capacity of overseeing or enforcing safety on the project. The CONTRACTOR shall hold harmless the OWNER and ENGINEER from any claims made as a result of the CONTRACTOR's responsibilities in this regard. Given the institutional nature of the project area, the maintenance of a safe working area will be a priority. Please refer to the Montana State Hospital Requirements for Construction Contractors provided in these Special Provisions for more information regarding safety on the Hospital Campus.

The CONTRACTOR is responsible for providing safe working conditions for all employees, sub-contractors, inspectors, engineers, OWNERS while on site.

SP7. OFFICE AND TELEPHONE

The CONTRACTOR shall provide the mailing and street address of a local or main office where information related to the project can be delivered or mailed. All communications, drawings, instructions, and other articles will be delivered to the CONTRACTOR's local or main office as appropriate. Communications delivered to either location shall be deemed to have been delivered to the CONTRACTOR. Telephone numbers of the main office and project superintendent shall also be provided.

The CONTRACTOR shall maintain copies of record drawings, specifications, shop drawings, submittals, and all communications pertinent to the performance of the work at the field office and available for use at all times.

The CONTRACTOR will provide a suitable office and restroom facilities as required to support the project and needs of the project superintendent and the contractor's employees.

SP8. PROJECT RELATED CONTACTS

OWNER: Montana State Hospital
Contact: Jenn Robinson
Telephone: 406-693-7020

ENGINEER: Anderson-Montgomery Consulting Engineers, Inc.
1064 N. Warren
Helena, MT 59601
Contact Person: Adam Eckhart, P.E.
Telephone: 406-449-3303

Utilities: One Call Locators
Telephone: 800-424-5555

Note – Some utilities are privately owned on the MSH Campus

SP9. VERIFICATION OF SIZES AND UNIT QUANTITIES

Sizes, locations and quantities noted in the bid documents are based on survey data, visual observation and other available data. Some changes in quantities may be expected during construction. The contractor will be responsible for documenting the actual quantities used and for ordering the correctly sized materials.

SP10. BUILDING CODES PERMITS

As required, the CONTRACTOR will be responsible for obtaining Construction Permits from Anaconda-Deer Lodge County and Building, Electrical, Mechanical and Plumbing Permits from the Building Codes Bureau, Montana Department of Labor and Industry. The CONTRACTOR shall be responsible for application fees and any costs to implement the permit. The Building Codes contact phone number is (406) 841-2333.

SP11. ENVIRONMENTAL SAMPLING

Contractor must make arrangements with Anaconda Deer Lodge County during excavation but before backfill to collect a soil sample. Contact Carl Nyman, Anaconda Deer Lodge County Superfund Coordinator at 406 563-7019 for information.

SP12. CONSTRUCTION STAKING

The Contractor shall provide construction staking from the Contractor's layouts and the Engineer's control points and coordinates. 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 Engineer for verification and adjustment. Any duplication of work made necessary by failure or neglect on his part to comply with this function shall be done at Contractor's sole expense.

SP13. ENGINEERING, INSPECTIONS, AND TESTING

The Contractor's work will be periodically tested and observed to ensure compliance with the Contract Documents. Complete payment will not be made until the Contractor has demonstrated that the work is complete and has been performed as required. If the Engineer detects a discrepancy between the work and the requirements of the Contract Documents at any time, up to and including final inspection, such work will not be completely paid for until the Contractor has corrected the deficiency.

The Engineer will periodically monitor the construction of work to determine if the work is being performed in accordance with the contract requirements. The Engineer does not have the authority or means to control the Contractor's methods of construction. It is, therefore, the Contractor's responsibility to utilize all methods, equipment, manpower, and other means necessary to assure that the work is installed in compliance with the Drawings and Specifications, and laws and regulations applicable to the work. Any discrepancies noted shall be

brought to the Contractor's attention, who shall immediately correct the discrepancy. Failure of the Engineer to detect a discrepancy will not relieve the Contractor of his ultimate responsibility to perform the work as required.

The Contractor shall inspect the work as it is being performed. Any deviation from the Contract requirements shall be immediately corrected. Prior to any scheduled observation by the Engineer, the Contractor shall again inspect the work and certify to the Engineer that he has inspected the work and it meets the requirements of the Contract Documents. All buried work items shall be inspected by the Engineer prior to backfilling, or may not be considered for payment.

The work will be subject to review by the Owner, whose findings shall be as valid as those of the Engineer. The results of all such observations shall be directed to the Contractor through the Engineer.

Testing Services Provided by the Contractor. The Contractor shall provide the following services at no additional cost to the Owner:

- a. Any field surveys to establish locations, elevations, and alignments as stipulated on the Plans.
- b. Preparation and certification of all required shop drawings and submittals as described in the Supplementary Conditions.
- c. Tests as required by the Contract Documents which include, but are not limited to proctors, pressure tests, compaction tests, concrete testing, and leakage testing. All tests requiring the services of a laboratory to determine compliance with the Contract Documents shall be performed by an independent commercial testing laboratory acceptable to the Engineer. The laboratory shall be staffed with experienced technicians properly equipped, and fully qualified to perform the tests in accordance with the specified standards.
- d. The Contractor shall provide the Engineer with a written schedule indicating dates for specific testing and inspection services to be performed. The schedule shall be updated as required to give the Engineer at least one week's advance notice. The Contractor shall notify the Engineer immediately of any change or shall be subject to pay engineering fees as herein defined.
- e. Maintenance of project record drawings. The project record drawings shall be available for review by the Engineer and Owner at the construction progress meetings.
- f. The Contractor shall arrange for and pay for all tests required not specifically identified below as being performed by the Engineer.

SP14. UNDERGROUND AND OVERHEAD UTILITIES

As noted on the Drawings, underground or overhead utilities are present in certain areas of the project. The CONTRACTOR will be required to locate, expose the utilities and/or stake them out of the trench while completing work in these areas or coordinate the lines relocation prior to construction. There is no guarantee as to the accuracy and completeness of such information shown in the Contract documents and all responsibility for the accuracy and completeness thereof is expressly disclaimed. The CONTRACTOR shall be solely responsible for any damage to underground or overhead utilities due to his operations. The CONTRACTOR shall work closely with the utilities to ensure their criteria are met and no problems result.

All costs associated with construction around, near, under, and/or over underground and overhead utility lines as shown on the contract drawings shall be the responsibility of the CONTRACTOR and included incidental to identified bid payment items. The CONTRACTOR will not be paid specifically for underground utility crossings and parallel underground utilities and the cost of dealing with such shall be included in the total bid amount. The CONTRACTOR will assume full responsibility for any utility conflict cost and repair and to construct within restrictions outlined by the utility company.

All above-ground utilities may not be shown on the plans. It will be the CONTRACTOR's responsibility to field review the magnitude of construction conflict created by the overhead lines and bid this work accordingly. There is no separate pay item for overhead utility conflicts. The CONTRACTOR will need to consider the cost associated with the overhead utilities as a subsidiary cost to the total amount bid.

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, OWNER and ENGINEER are not responsible for the accuracy or completeness of such information or data.

SP15. LOCATION OF EXISTING WATER AND SEWER LINES

The location of the existing water and sewer lines in proximity to the new buried utilities is based on old record drawings. The CONTRACTOR will be required to locate the existing water and sewer mains through exploratory excavation at no additional cost to the project other than that allowed for exploratory work.

SP16. ASBESTOS MATERIALS

There are trace amounts asbestos in the concrete pillars located in Cell 3 but at a level that is considered non-asbestos for MDEQ and EPA.

Contractor will be required to take a 4 hour class (Owner provided) on safe working practices for asbestos handling to receive certification provided by the Owner. Contractor shall coordinate with Engineer/Owner for scheduling.

Contractor will be monitored while handling the concrete pillars. The concrete pillars can be disposed at the landfill as regular construction debris. Oversight costs will be the responsibility of the Owner.

As stipulated under 29 CFR 1926.1101, work practice requirements and prohibitions that must be observed regardless of the exposure levels and the percentage of asbestos in the installed construction materials include, but are not necessarily limited to:

- 29 CFR 1926.1101(g)(1)(ii), which requires: wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in paragraph (g)(8)(ii) of this section.
- 29 CFR 1926.1101(g)(1)(iii), which requires: prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in paragraph (g)(8)(ii)3 of this section apply.
- 29 CFR 1926.1101(g)(3)(i), which prohibits: high-speed abrasive disc saws that are not equipped with point-of-cut ventilator or enclosures with HEPA-filtered exhaust air.
- 29 CFR 1926.1101(g)(3)(ii), which prohibits: compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air.
- 29 CFR 1926.1101(g)(3)(iv), which prohibits: employee rotation as a means of reducing employee exposure to asbestos.

The Asbestos Inspection Report will be located in **Appendix D**

SP17. DEWATERING AND PUMPING OPERATIONS

Installation of the work scheduled under this project may require dewatering operations. Dewatering operations shall be adequate to assure the integrity of the finished project. It is the intent of these specifications that such draining, pumping and dewatering, and cleaning operations shall be the obligation of the Contractor. The Contractor shall provide all necessary piping, as required to remove all surface water, groundwater, leakage, and water from excavations. **No separate pay item is designated for dewatering.** This work will be considered subsidiary to other bid items. Adequate dewatering is defined as the work required to lower the natural groundwater 12” or more below the bottom of excavation in order to get a structurally stable subgrade. If the existing subgrade material is coarse rock and is naturally stable, the 12” depth will not be required.

Any discharge of water during pumping and dewatering operations will be subject to approval of the Montana Department of Environmental Quality. As needed, the CONTRACTOR shall obtain a Construction Dewatering Discharge Permit and/or 318 Authorization from DEQ for discharging effluent from dewatering operations and written approval from the OWNER if discharge is to the sanitary sewer system. If necessary, the Contractor shall make application and secure the Montana Pollutant Discharge Elimination System Application For Authorization To Discharge Under The General Permit For Storm Water Associated With Construction Activity and associated Erosion Control Plan. The Contractor shall be responsible for application fee and any cost to implement the permit. The DEQ contact phone number is (406) 444-3080.

The Contractor shall be responsible for any damages caused to surrounding structures, land and physical features in the area. Contractor will restore any ground that had been eroded to its natural state.

Stabilization – Prior to any embankment/backfill work, subgrades shall be firm, dense, and thoroughly compacted and consolidated and shall be sufficiently stable for equipment or manpower to work. Soil material that has been removed because it is too wet to permit compaction may be stockpiled and removed or spread and allowed to dry. Processing of saturated material will not be directly paid for. If the Contractor chooses to import material in lieu of processing wet materials, Contractor will assume responsibility and expense to do such. Authorization for payable import stabilization will only be per direction of Engineer

SP18. CELL 1 SPECIAL DEWATERING CONDITIONS

Dewatering of Cell 1 does not need an authorization under the General Permit for Construction Dewatering until heavy equipment starts grading in Cell 1. Cell 1 shall be dewatered before grading and other construction activities start in Cell 1. The discharge can occur to the wetlands adjacent to Cell 1. The Contractor shall exercise caution during the initial dewatering to prevent scour and erosion at the outlet of the dewatering apparatus. The Contractor shall monitor the water level in Cell 1 so that the dewatering pumps do not discharge mud/silt when the water level gets low in Cell 1. If dewatering can be completed to a level where construction can start and be completed without additional dewatering, then no permit coverage will be required. The Contractor shall coordinate all dewatering activities with the Engineer and DEQ. The DEQ contacts with knowledge of the Cell 1 dewatering plan are Christopher Romankiewicz and Christine Weaver.

SP19. WEATHER AND/OR SEASONAL SHUTDOWN

While it is desired to complete the work as soon as possible, it is recognized that inclement weather may result in a request for a weather shutdown. The OWNER reserves the right to approve or disapprove any shutdown or extension requests. Should a shutdown be granted for unanticipated conditions, the CONTRACTOR shall close all open excavations, provide for maintaining traffic and provide for protection of public property at the work site. The CONTRACTOR will not be allowed to perform any work during the shutdown period unless prior approval is granted by the OWNER.

SP20. WAGE RATES

State of Montana Prevailing Wage Rates shall be utilized on all work. The appropriate wage rates are included and shall be applied to this project. Contractor shall comply with all applicable wage laws. The Contractor shall maintain weekly payroll reports and have them available for review by the OWNER or ENGINEER, upon request. All required postings and sample forms will be supplied to the Contractor upon request.

SP21. WARRANTY

The CONTRACTOR shall warranty the project for at least one (1) year against defective materials and defective workmanship according to the General Conditions. The project shall not be accepted as substantially complete until ALL project segments are substantially complete. Only one (1) notice of substantial completion and start of warranty will be issued for this project. Warranty period begins upon final acceptance of project.

An eleven (11) month project inspection will be held for the project one (1) year warranty period. The CONTRACTOR, OWNER and ENGINEER will be invited to attend. At the inspections, warranty items will be defined for correction according to the General Conditions.

SP22. CONTRACTOR EXPERIENCE/PERFORMANCE REQUIREMENTS

The Bidder may be required to demonstrate his ability and capability to meet the requirements herein stipulated to complete the project. Unless specifically stated elsewhere in these specifications, all CONTRACTORS, subcontractors, suppliers and equipment manufacturers shall submit written evidence within five (5) days of OWNER's request, prior to contract award the following:

- a. Certification that his/her company(ies) has/have specifically been in the business for products or services which he is bidding.
- b. Number of years in business.
- c. List of three (3) similar projects completed in the last five (5) years and references for those projects. Similar projects shall include construction of pumphouses or similar structures.
- d. Certification of a permanent place of business.
- e. Certification and description of adequate plant, staffing and equipment to do the work properly and expeditiously.
- f. Certification of suitable financial status to meet obligations incident to the work.
- g. Certification of appropriate technical experience.
- h. Certification that no just or proper claims are pending against former work performed.

No Bidder will be acceptable if he is engaged on any other work which impairs his ability to finance this contract. These requirements will also apply to all equipment and materials furnished for the project. The OWNER will use these items in determining the lowest responsible bid.

SP23. NOTICES

Except as noted below, the CONTRACTOR shall notify affected users and the OWNER in writing of service outages a minimum of 24 hours in advance of planned outages, including property access. Provide details such as phone number of project superintendent, date, and times for outage.

Notify the ENGINEER and the OWNER a minimum of 48 hours by telephone in advance of any planned utility outage longer than two hours. Any planned outage must be approved in advance by the OWNER or ENGINEER. Notify the ENGINEER 24 hours in advance of intended excavation or other construction activity. Notify the OWNER and ENGINEER as soon as possible of any unplanned outage, even if the outage is corrected immediately.

SP24. REMOVING, REPLACING AND RELOCATING EXTRANEEOUS ITEMS

The CONTRACTOR may encounter culverts, fences, signs, ditches, sidewalks, curbs, gutters, barricades, etc. during construction that may hinder his operations. Whether on private or public property, the CONTRACTOR shall, at his own expense, remove, replace, and/or relocate these objects as necessary to conduct his operations. CONTRACTOR shall notify OWNER of such item prior to construction and coordinate with OWNER as to methodology required. Objects removed shall be replaced in as good a condition as previously existed, and to the satisfaction of the ENGINEER.

SP25. RESTORATION OF PROPERTY

All property affected by project construction shall be restored to the preexisting condition found prior to project construction. Damaged turf must be fine graded, topsoiled, seeded and protected against erosion. The technical specification for seeding further describes restoration requirements.

SP26. AIR QUALITY COMPLIANCE

Best Management Practices shall be observed by the Contractor to mitigate release of airborne particulates from fugitive dust and vehicle/equipment emissions.

SP27. NOXIOUS WEED DETERRENCE

The Contractor is solely responsible for effective noxious weed deterrence during the course of construction. The Contractor shall thoroughly power-wash all construction equipment and vehicles prior to their entry or re-entry onto the work site(s), including dredges, pumps, hose reels, and ag application machinery. Materials to be brought onto the site shall be cleaned and handled in a manner to avoid introduction of weed remnants or seeds.

SP28. MATERIAL STORAGE SITES

If necessary, the CONTRACTOR shall secure a storage site for material storage on the campus, location to be at the direction of the Facilities Superintendent for the Montana State Hospital. Generally, all construction waste materials will be required to be hauled off site to an approved solid waste disposal site.

SP29. PROVISION OF UTILITIES

Water for construction purposes can be provided by the OWNER, generally from hydrants. The Contractor shall be responsible to ensure that water supplies are not contaminated through use or cross connections including but not limited to an approved backflow preventor. Approval from the Owner and Engineer shall be obtained before using a hydrant.

SP30. STANDARD SPECIFICATIONS AND DRAWING

Where referenced here and elsewhere in the Contract documents, relevant portions of the Montana Public Works Standard Specifications 6th Edition, April 2010 are adopted by reference and become part of the contract documents. The Montana Public Works Standard Specifications Drawings, 6th Edition, April 2010, are included in these project documents by reference.

SP31. PROJECT SCHEDULE

Contract time for the project will be a total of 90 calendar days from the time construction activities begin. Time is of the essence on this project and schedules must be followed to complete construction in a timely manner when groundwater is at the lowest level, typically in the fall. Specific project activities must sequentially occur to allow for completion. The CONTRACTOR must submit a project schedule prior to beginning construction activities on-site with periodic updates as described in Division 1 of the Technical Specifications. The project shall be completed no later than August 4th, 2025.

SP32. BID SCHEDULES AND AWARD

The project will be bid in one (1) base bid schedule for completion of the work. No other work will be bid at this time. Award will be based upon available funding and will be decided upon by the Owner in entirety. Award will be based upon the Total Estimated Bid Price for the Base Bid.

SP33. TRAFFIC PLAN

An approved Traffic Control Plan must be developed outlining procedures to be followed for maintaining typical and emergency traffic around the construction area. The plan must be developed and approved prior to initiating work on the project. Appropriate project planning and scheduling should be utilized by the Contractor to keep impacts to the flow of traffic to a minimum.

SP34. ADDITIONAL EARTHWORK/FILL MATERIAL

Additional material at the end of grading due to a swell factor shall be placed in Cell 1 maintaining the slope from west to east raising the overall elevation of the fill in the cell. Prior to placing the material, the Contractor shall coordinate with the Engineer. If the material cannot be placed in Cell 1, deemed by the Engineer & Owner, the material shall be evenly placed in Cells 2 and 3.

SP35. PROJECT SEQUENCING

This project will require specific sequencing in order to maintain DEQ compliance. The sequencing shall be as follows:

1. Submit a project schedule;
2. Clear and grub the land application site, or arrange with a local landfill to accept the biosolids. Dewater Cell 1;
3. Land apply the biosolids from Cells 2 and 3 per 503 regulations;
4. Complete demolition schedule;
5. Complete grading;
6. Surface restoration.

SP36. MONTANA STATE HOSPITAL – REQUIREMENTS FOR CONSTRUCTION CONTRACTORS

The following conditions apply to construction contractors performing work on the Montana State Hospital Campus at Warm Springs, MT.

- A. Construction Operations: Limited to areas noted on drawings.
- B. Arrange use of site and premises to allow:
Montana State Hospital 24-hour occupancy.
- C. The surrounding grounds within the campus will be occupied during the course of this project. The contractor shall conduct operations accordingly and take all necessary precautions to protect patients and staff from exposure to the dangers associated with the work. Coordination and cooperation with the staff of MSH is of the utmost importance.
 1. The speed limit within the campus is 15 miles per hour. Pedestrians always have the right of way.
 2. Watch for and be careful of all clients (patients) everywhere on campus.
 3. Do **not** give money, tobacco, candy, gum or any other items to anyone.
 4. Keep all vehicles locked at any time the occupants are not in the vehicle.
 5. Remove the keys from the ignition of equipment and vehicles not in use even if standing beside the vehicle. Vehicles and equipment shall not be parked where they will interrupt the flow of traffic or service access.
 6. The use of tobacco products of any type is not allowed on the Montana State Hospital campus. The campus is entirely tobacco free.
 7. All trucks backing up should have the assistance of a guide.
 8. Montana State Hospital will not be responsible for theft or damage of any items.
 9. Do not leave ladders standing unattended.

10. When power tools are not in use they will be unplugged and other tools should be kept where clients cannot get to them.
 11. Exterior areas of work shall be fenced and interior areas of work shall be barricaded to restrict access to these areas by clients and staff.
 12. Work areas shall not be left in a hazardous condition during non-working hours.
 13. All rubbish, chemicals, hazardous materials, etc. are to be secured in a manner to prevent client access at all time.
 14. Temporary or mobile storage facilities of the contractor are to be secured at all times in a manner to prevent access by clients.
 15. The contractor shall take any and all precautions necessary to protect the existing buildings, furnishings and surrounding areas from damage.
 16. Dust control barriers must be set up during construction work or demolition in any occupied building.
 17. The contractor and employees are not to eat or have coffee in the Montana State Hospital dining areas.
 18. Lists of all contractors/subs are to be given to Jenn Robinson, Maintenance Manager 693-7020.
- D. Provide secure access to and from designated work area as required by law and per the requirements of Montana State Hospital:
1. Emergency Building Exits during Construction: Keep all exits required by code open during construction period; Provide temporary exit signs if exit routes are temporarily altered.
 2. Do not obstruct roadways, sidewalks or other public ways without permission.
- E. Existing building spaces may not be used for storage.
- F. Time Restrictions:
1. Limit conduct of interior work to the hours of 8 am to 5 pm.
 2. Limit use of any loud equipment to 8 am to 7 pm.
- G. Utility Outages and Shutdown:
1. Interruption of any utility services must be coordinated through the facility Director. This coordination is to allow the user and the clients' reasonable use of the existing facilities at all times during normal working hours and interfere minimally with the user's and clients' activities.
 2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days' notice to Montana State Hospital and authorities having jurisdiction.
 3. Do not disrupt or shut down utility services without 7 days' notice to Montana State Hospital and authorities having jurisdiction.
 4. Prevent accidental disruption of utility services to other facilities.
- H. Emergency: in case of emergency call **406-693-7440**. This phone is our emergency phone and usually is answered on the first ring.
1. In case of a **Medical emergency** – Anaconda Community Hospital (406-563-8500) is 15 miles away. Call 911 for ambulance. The MSH does have physicians on campus that can help triage the situation until the ambulance arrives. Please call 406-683-7440.

2. In case of **Fire** please call 406-693-7440, the campus is not in the Deer Lodge Fire District, we are under contract with the Opportunity Volunteer Fire Department for immediate response.

END OF SECTION

TECHNICAL SPECIFICATIONS

DIVISION 1

GENERAL REQUIREMENTS

**SECTION 01 11 00
SUMMARY OF WORK**

PART 1 - GENERAL

1.01 PROJECT

- A. Project Name: Montana State Hospital – Lagoon Cleanout and Restoration
(A/E #2011-11-01-05)
- B. Owner's Name: Montana State Hospital, State of Montana
- C. Project Design Team:
 - 1. Anderson-Montgomery Consulting Engineers, Inc.
1064 N. Warren St.
Helena, MT 59601
- D. The Project consists of the following major project elements to be conducted at the old retired wastewater lagoon treatment site in Warm Springs, Montana:
 - a. Biosolids removal from Cells #2 and #3;
 - b. Biosolids land application or disposal;
 - c. Land application site preparation;
 - d. Site reclamation (grading/leveling cell dikes);
 - e. Demolition of existing sewerage piping, manholes, concrete structures, concrete pipe supports, and site fencing;
 - f. Site seeding/restoration.

1.02 TYPE OF CONTRACT

- A. Contract Type: A single prime contract based on a Stipulated Price as described in this Document.

1.03 OWNER OCCUPANCY

- A. Cooperate with the Owner to minimize interference with the operation of existing wastewater conveyance/treatment infrastructure due to demolition and construction activities. It is acknowledged that construction progress will generally take precedence. Coordinate with the Owner and their operations at all times. **Flow through the outfall line shall not be interrupted at any time during construction.**

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. The Contractor shall conduct operations and take all necessary precautions to protect staff from exposure to dangers associated with the Work.
- B. Provide secure access to and from designated work area as required by law and per the requirements of the Owner, see Special Provisions for additional requirements:

1. Do not obstruct roadways, sidewalks, or other public ways without permit.
- C. Existing building spaces may not be used for storage unless specifically authorized by the Owner.
- D. Time Restrictions:
 1. Limit conduct of especially noisy and dusty exterior work to the hours of 8 am to 7 pm or as described in Special Provisions.
- E. Utility Outages and Shutdown:
 1. Interruption of any utility services must be coordinated with the Engineer and MSH staff. This coordination is to allow the reasonable use of the existing facilities at all times during normal working hours and interfere minimally with the Owner's operational activities.
 2. Do not disrupt or shut down utility services without 7 days notice to the Engineer, MSH Staff and authorities having jurisdiction.
 3. **Flow through the outfall line shall not be interrupted at any time during construction.**
 4. Prevent accidental disruption of utility services to other facilities.

1.05 WORK SEQUENCE

1. The Contractor will closely coordinate with the Owner and Engineer before conducting any work that impacts existing facilities. Work sequence and schedule shall be described by the Contractor and reviewed by the Engineer, see the Special Provisions for further sequencing including dewatering of Cell 1.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 11 00

SECTION 01 26 00
CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including general and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.02 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 1 Section "Payment Procedures" for administrative requirements.
 - 2. Division 1 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.03 VARIATIONS IN WORK

- A. Engineer will issue a Field Order authorizing variations in Work, not involving adjustment of the Contract Sum or the Contract Time.

1.04 PROPOSAL REQUESTS

- A. Owner-initiated Proposal Requests: Engineer will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Engineer are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in the Proposal Request after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicated applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Engineer.
1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 4. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 5. Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

1.05 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, the Engineer will issue a Change Order for signatures of Owner and Contractor.
- B. Change Order Form shall be in accordance with the Standard General Conditions Article 7 of these Specifications

1.06 WORK CHANGE DIRECTIVE

- A. Work Change Directive: Engineer may issue a Work Change Directive on EJCDC Document C-940 form – see the Standard General Conditions Article 7 of these specifications. Work Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- B. Work change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- C. Documentation: The Contractor shall maintain detailed records on a time and material basis for work required by the Work Change Directive.
- D. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 26 00

**SECTION 01 27 00
MEASURE AND PAYMENT**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract Documents, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.02 SUMMARY

- A. This Section specifies administrative and procedural requirements for measurement and payment.

1.03 DEFINITIONS

- A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.04 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.
- B. Measure and Payment: The Measurement and Payment sections do not necessarily name all incidental items required to complete the work. The cost of all such incidentals shall be included in the various related items of work. All estimated quantities stipulated in the Bid Forms or other Contract Documents are approximate and are to be used only as a basis for estimating the probable cost of the work and for the purpose of comparing the proposals submitted for the work. It is understood and agreed that the actual amounts of work performed and materials furnished under unit price items may differ from such estimated quantities and the payment for such work and materials shall be based on the actual amount of work done and materials furnished in each case.
- C. If actual amount of work performed and materials furnished under unit price items is different than the estimated amount in the Bid Form, the Contractor shall supply to the Engineer, the necessary information to determine the actual quantity of work performed. Significant discrepancies between actual and estimated quantities for unit price items will be handled in accordance with Articles 10 and 11 of the General Conditions.
- D. List of Bid Items: A list of unit Bid Items is included at the end of this Section.
- E. The Contractor is responsible for providing all necessary tools, equipment, submittals, labor, manpower and incidentals to complete the work as specified.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 LIST OF BID ITEMS

A. Bid Items 100: Mobilization/Bonding Insurance

- 1. Description: This item shall cover the costs of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, permitting, supplies and incidental to the project site; for the establishment of all facilities necessary for the work on the project; THIS ITEM SHALL NOT EXCEED 10% OF THE INDIVIDUAL BID SCHEDULE AMOUNT(S).
- 2. Unit of Measurement: Lump Sum
- 3. Measurement: When the percentage of the original contract amount for each unit shown below is earned, the percentage of the Contract Lump Sum price for MOBILIZATION shown will be paid.

<u>Percentage of Original Contract Amount In-Place</u>	<u>Percentage of Lump Sum Price for Mobilization Earned</u>
5	50
50	75
100	100

- 4. Payment: Payment for MOBILIZATION will be made on the percentage of the contract unit price bid per lump sum as indicated in the Bid Form.

B. Bid Items 102: Fence Demolition

- 1. Description: This item shall consist of demolishing, removing, hauling, and proper disposal of existing barb wire fence as outlined on sheet 4 on the project drawings.
- 2. Unit of Measurement: Lineal Foot
- 3. Measurement: Measurement shall be per lineal foot of fence demolished, removed, hauled and properly disposed of.
- 4. Payment: Payment shall be made at the contract unit price bid per lineal foot as specified in the Bid Form.

C. Bid Items 104: Concrete Pipe Supports in Cell 2 & 3 Demolition

- 1. Description: This item shall consist of demolishing, removing, hauling, and proper disposal of existing concrete pipe supports as outlined on sheets 4 and 5 on the project drawings.
- 2. Unit of Measurement: Lump Sum

3. Measurement: Measurement shall be per lump sum of all concrete pipe supports demolished, removed, hauled and properly disposed of.
4. Payment: Payment shall be made at the contract unit price bid per lump sum as specified in the Bid Form.

D. Bid Items 106: Cell 2 Influent Structure Demolition

1. Description: This item shall consist of demolishing, removing, hauling, and proper disposal of existing concrete influent structure, all components in the structure including but not limited to the slide gates, and all piping from the structure into cell 2 as outlined on sheets 4 and 5 on the project drawings.
2. Unit of Measurement: Lump Sum
3. Measurement: Measurement shall be per lump sum of Cell 2 influent structure and all associated components demolished, removed, hauled and properly disposed of.
4. Payment: Payment shall be made at the contract unit price bid per lump sum as specified in the Bid Form.

E. Bid Items 108: Cell 3 Influent Structure Demolition

1. Description: This item shall consist of demolishing, removing, hauling, and proper disposal of existing concrete influent structure, all components in the structure including but not limited to the casting/lid, and all piping from the structure into cell 3 as outlined on sheets 4 and 5 on the project drawings.
2. Unit of Measurement: Lump Sum
3. Measurement: Measurement shall be per lump sum of Cell 3 influent structure and all associated components demolished, removed, hauled and properly disposed of.
4. Payment: Payment shall be made at the contract unit price bid per lump sum as specified in the Bid Form.

F. Bid Items 110: Cell 3 Effluent Structure Demolition

1. Description: This item shall consist of demolishing, removing, hauling, and proper disposal of existing concrete influent structure, all components in the structure including but not limited to the hatch, all piping from the structure into cell 3, and all discharge piping from the structure as outlined on sheets 4 and 5 on the project drawings.
2. Unit of Measurement: Lump Sum
3. Measurement: Measurement shall be per lump sum of Cell 3 effluent structure and

all associated components demolished, removed, hauled and properly disposed of.

4. Payment: Payment shall be made at the contract unit price bid per lump sum as specified in the Bid Form.

G. Bid Items 112: Interpond Manhole Demolition

1. Description: This item shall consist of demolishing, removing, hauling, and proper disposal of existing concrete interpond manhole structure and all components in the structure including but not limited to the casting/lid as outlined on sheet 4 on the project drawings.
2. Unit of Measurement: Each
3. Measurement: Measurement shall be per each interpond manhole demolished, removed, hauled and properly disposed of.
4. Payment: Payment shall be made at the contract unit price bid per each interpond manhole demolished as specified in the Bid Form.

H. Bid Items 114: Interpond Piping Demolition

1. Description: This item shall consist of demolishing, removing, hauling, and proper disposal of existing interpond piping including valves, valve cans, etc. as outlined on sheet 4 on the project drawings.
2. Unit of Measurement: Lineal Foot
3. Measurement: Measurement shall be per lineal foot of interpond piping demolished, removed, hauled and properly disposed of.
4. Payment: Payment shall be made at the contract unit price bid per lineal foot as specified in the Bid Form

I. Bid Items 116: Cell 1 Dewatering

1. Description: This item shall consist of dewatering cell 1.
2. Unit of Measurement: Lump Sum
3. Measurement: Measurement shall be per lump sum of cell 1 dewatering.
4. Payment: Payment shall be made at the contract unit price bid per lump sum as specified in the Bid Form.

J. Bid Items 118: Lagoon Sludge Removal & Biosolids Land Application

1. Description: This item shall consist of removing and land applying all biosolids from Cell 2 and Cell 3 per 503 regulations including but not limited to all reporting and record keeping.
2. Unit of Measurement: Dry Ton
3. Unit of Measurement: Measurement shall be at the unit price per dry ton of sludge (biosolids) removed and land applied including but not limited to all reporting and record keeping.
 - a. Measurement shall be calculated based on the wet gallons of sludge removed from both cells and land applied, multiplied by the lab-analyzed Total Solids by Weight Percent of daily composite samples taken by the Contractor.
 - b. The Contractor shall maintain a Microsoft Excel spreadsheet tabulating daily starting/stopping quantities of sludge removed, plus percent-solids measured on a daily basis. The spreadsheet shall also show the calculations of Daily Dry Tons removed. The current spreadsheet shall be submitted electronically to the Engineer at the end of each work week and in conjunction with the Contractor's request for payment applications.
4. Payment: Payment shall be made at the contract unit price bid per dry ton removed **and** land applied as specified in the Bid Form. Partial payment will not be made for biosolids removed and stockpiled waiting to be land applied.

K. Bid Items 120: Clearing & Grubbing

1. Description: This item shall consist of clearing and grubbing the land application site per 503 regulations and the specifications in the contract documents in preparation for land application of biosolids.
2. Unit of Measurement: Acre
3. Measurement: Measurement shall be per acre of land cleared and grubbed in accordance of the 503 regulations and specifications.
4. Payment: Payment shall be made at the contract unit price bid per acre as specified in the Bid Form.

L. Bid Items 122: Earthwork Grading

1. Description: This item shall consist of completing all grading work as outlined on sheets 7-10 on the project drawings.
2. Unit of Measurement: Lump Sum

3. Measurement: Measurement shall be per lump sum of grading completed.
4. Payment: Payment shall be made at the contract unit price bid per lump sum as specified in the Bid Form.

M. Bid Items 124: Land Application Site Restoration & Seeding

1. Description: This item shall consist of leveling, contouring and preparing disturbed earthen areas for re-vegetation; furnish/install the native grass seed mix and fertilizer, and monitor germination.
2. Unit of Measurement: Acre
3. Measurement: Measurement shall be per acre of surface restoration as indicated in the Bid Form.
4. Payment: Payment shall be made at the contract unit price bid per acre as specified in the Bid Form.

N. Bid Items 126: Surface Restoration & Seeding (Grading Activities)

1. Description: This item shall consist of leveling, contouring and preparing disturbed earthen areas for re-vegetation where grading activities have commenced; furnish/install the native grass seed mix and fertilizer, and monitor germination.
2. Unit of Measurement: Lump Sum
3. Measurement: Measurement shall be per lump sum of surface restoration as indicated in the Bid Form.
4. Payment: Payment shall be made at the contract unit price bid per lump sum as specified in the Bid Form.

END OF SECTION 01 27 00

**SECTION 01 29 00
PAYMENT PROCEDURES**

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Format and Preparation of Applications.
2. Schedule of Values
3. Submittal Procedures.
4. Substantiating Data.

B. Related Sections include:

1. General Conditions as provided in Contract Forms section of Contract Documents.
2. Section 01 26 00 – Contract Modification Procedures.
3. Section 01 33 00 – Submittal Procedures.
4. Section 01 77 00 – Closeout Procedures.

1.02 FORMAT AND PREPARATION OF APPLICATIONS

A. Utilize: Periodic Estimate for Partial Payment, Form 101 as provided in Contract Forms section of Contract Documents.

B. Preparation

1. Present required information in typewritten form.
2. Execute certification by signature of authorized officer.
3. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored Products.
4. List each authorized Change Order as an extension on Continuation Sheet, listing Change Order number and dollar amount as for an original item of Work.
5. Prepare Application for Final Payment as specified in Section 01 77 00.

1.03 SCHEDULE OF VALUES

A. Submit:

1. Typed schedule of values in format similar to Periodic Estimate for Partial Payment, Form 101. The schedule of values shall be derived directly from the Bid Items included in the Bid Proposal included in the Project Documents.
2. In duplicate within 15 days after date of Owner-Contractor Agreement.
3. See Article 9.2 of the General Conditions.

B. Format:

1. Utilize a spreadsheet format referencing items in the Bid Proposal, suitable for insertion into the Partial Pay Estimate.
2. Identify line items corresponding with number and title of Specification Section.
3. Provide sufficient information regarding means of measurement of quantities or progress completed for verification by Engineer.

C. Identify site mobilization including bonds and insurance separately. **Payment for Mobilization, Bonds and Insurance is limited to 10% or less of the Total Bid Amount.** Payment for mobilization will be based on the percentage of the original contract amount in place as described in the following schedule:

<u>Percentage of Original Contract Amount In-Place</u>	<u>Percentage of Lump Sum Price for Mobilization Earned</u>
5	20
10	50
25	60
65	75
90	90
100	100

D. Payment: Payment for MOBILIZATION will be made on the percentage of the contract unit price bid per lump sum as indicated in the Bid Form.

1. Include within each line item a direct proportional amount of Contractor's overhead and profit.

E. Revise Schedule of Values to list approved Change Orders, and submit with each Application for Payment.

1.04 PROGRESS PAYMENTS

- A. See Article 9 of the General conditions

1.05 SUBMITTAL PROCEDURES

A. Submittals

1. Five (5) copies of each Application for Payment or arrangements for electronic submittal of Payment Application documents can be made.
2. Updated construction schedule with each Application for Payment.
3. Payroll records as required.
4. Payment Periods: As stipulated in the Agreement.
5. Submit with transmittal letter as specified for Submittals in Section 01 33 00.
6. Administrative actions which must precede or coincide with submittal of final application for payment include:

- a. Submit lien waivers, warranties and bonds, and project record documents with final application for payment.
- b. Completion of all work not included in substantial completion as defined in General and Supplementary Conditions.
- c. Completion of project closeout procedures as indicated in Section 01 77 00.
- d. Removal of temporary facilities and services.
- e. Removal of surplus materials, rubbish, or similar elements.
- f. Final cleaning.
- g. Transmittal of project construction record documents to Owner and Engineer.
- h. Consent of surety for final payment.

1.06 SUBSTANTIATING DATA

- A. When Engineer requires substantiating information, submit data justifying dollar amounts in question.
- B. Provide one (1) copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.
- C. Provide copies of invoice(s) for payment of materials stored on-site. Payment will not be made for materials that are not stored on-site or within a bonded warehouse that has been approved by Engineer and Owner.
- D. Contractor shall supply substantiating information in compliance with federal and state requirements for monthly utilization reports and weekly prevailing wage and labor rates for laborers on-site.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 29 00

SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this section.

1.02 SUMMARY

- A. This Section specifies administrative provisions for coordination construction operations on Project including, but not limited to, the following:

- 1. Preconstruction Conference.
- 2. General project coordination procedures.
- 3. Conservation.
- 4. Coordination Drawings.
- 5. Administrative and supervisory personnel.
- 6. Project meetings.

- B. Related Sections include the following:

- 1. Division 1 Section 01 70 00 - Execution Requirements - for procedure for coordinating general installation and field-engineering service, including establishment of benchmarks and control points.
- 2. Division 1 Section 01 77 00 - Closeout Procedures- for coordinating Contract Closeout.
- 3. Division 1 Section 01 32 00 - Construction Progress Documentation - for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.

1.03 COORDINATION

- A. Coordination: Coordinate construction operations included in various Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different specification divisions and sections, that depend on each other for proper installation, connection, and operation.

- 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
- 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
- 3. Make adequate provisions to accommodate items scheduled for later installation.

- B. If necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner, Engineer and separate contractors if coordination of their work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's Construction Schedule.
 - 2. Installation and removal of temporary facilities and controls.
 - 3. Delivery and processing of submittals.
 - 4. Progress meetings.
 - 5. Preconstruction conferences.
 - 6. Project closeout activities.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water and minerals.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.
 - a. All materials salvaged in the project shall become the property of the Owner unless otherwise specified. Material identified as salvage shall be delivered by the Contractor to a suitable storage location as directed by the Engineer.

1.04 SUBMITTALS

- A. Staff Names: At the preconstruction conference submit a list of principal staff assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office and mobile telephone numbers by which Contractor's representatives can be reached immediately. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
 - 1. Post copies of the contact list in temporary field office and by each temporary telephone.

1.05 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.

1.06 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise

indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Engineer of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Engineer, within three days of the meeting.
- B. Preconstruction Conference: Engineer and Owner will schedule a preconstruction conference at the Project site or other convenient location. The meeting shall be conducted by the Engineer who shall review work responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and his superintendent; major subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
 2. Contractor shall bring a written, detailed construction schedule to the preconstruction conference.
 3. Agenda: The Owner, Engineer and Contractor shall discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing.
 - d. Designation of responsible personnel.
 - e. Subcontractor list.
 - f. Testing Responsibilities.
 - g. Procedures for processing field decisions and Change Orders.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the Contract Documents.
 - j. Submittal procedures.
 - k. Preparation of Record Documents.
 - l. Use of the premises.
 - m. Responsibility for temporary facilities and controls.
 - n. Office, work, and storage areas.

- o. Delivery and storage of materials and equipment.
 - p. Security.
 - q. Progress and restoration.
 - r. Working hours.
 - s. Specific County regulations.
 - t. Montana DEQ requirements.
 - u. Specific Montana State Hospital requirements.
- C. Progress Meetings: Conduct progress meetings at regular intervals. Coordinate dates of meetings with preparation of payment requests.
- 1. Attendees: In addition to representatives of the Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Review and correct or approve minutes of previous progress meetings. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Review present and future needs of each entity present, including the following:
 - i. Interface requirements.
 - ii. Sequence of operations.
 - iii. Status of submittals.
 - iv. Deliveries.
 - v. Off-site fabrications.
 - vi. Access.
 - vii. Site utilization.
 - viii. Temporary facilities and controls.
 - ix. Work hours.
 - x. Hazards and risks.

- xi. Progress, restoration and cleanup.
 - xii. Quality and work standards.
 - xiii. Change Orders.
 - xiv. Documentation of information for payment requests.
3. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
- a. Schedule Updating: As needed revise Contractor's construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 31 00

SECTION 01 32 00
CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including, but not limited to, the following:
 - 1. Preliminary Construction Schedule.
 - 2. Contractor's Construction Schedule.
 - 3. Submittals Schedule.
 - 4. Daily construction reports.
- B. Related Sections include the following:
 - 1. Division 1 Section 01 29 00 - Payment Procedures - for submitting the Schedule of Values.
 - 2. Division 1 Section 01 31 00 - Project Management & Coordination - for submitting and distributing meeting and conference minutes.
 - 3. Division 1 Section 01 33 00 – Submittals - for submitting schedules and reports.
 - 4. Division 1 Section 01 40 00 - Quality Requirements - for submitting a schedule of tests and inspections.
 - 5. Division 1 Section 01 77 00 – Closeout Procedures - for submitting digital photographic documentation as part of the Project Record Documents at Project closeout.

1.03 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are activities on the critical path. They must start and finish on the planned start and finish times.
 - 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- B. Event: The starting or ending point of an activity.
- C. Float: The measure of leeway in starting and completing an activity.

1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- D. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- E. Milestone: A key or critical point in time for reference or measurement.
- F. Network Diagram: A graphic diagram of a network schedule, showing activities and activity relationships.
- 1.04 SUBMITTALS
- A. Qualification Data: For firms and persons specified in Section 01 40 00 – Quality Requirements - to demonstrate their capabilities and experience. Include lists of completed project names and addresses, names and address of Engineers and Owners, and other information specified.
 - B. Preliminary Construction Schedule: Submit two printed copies: one a single sheet of reproducible media, and one print.
 - C. Contractor’s Construction Schedule: Submit two printed copies of initial schedule, one reproducible print and one a blue-line or black-line print, large enough to show entire schedule for entire construction period.
 - D. Daily Construction Reports: Submit two copies at monthly intervals.

1.05 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor’s Construction Schedule, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 1. Secure time commitments for performing critical elements of the Work from parties involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.01 CONTRACTOR’S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion.

1. Contract completion date shall not be changed by submission of a schedule that shows an earlier or later completion date. Contract time can only be authorized through the formal Change Order process. See Section 01 26 00 and Standard General Conditions Article 3.10.
 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrications, and delivery.
 3. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittals" in schedule. Coordinate submittal review times in contractor's Construction Schedule with Submittals Schedule.
 4. Startup and Testing Time: Include time for startup and testing.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Engineer's administrative procedures necessary for certification of Substantial Completion.
- B. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
- C. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final completion.

2.02 PRELIMINARY CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule at the preconstruction conference.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for construction.

PART 3 - EXECUTION

3.01 CONTRACTOR'S CONSTRUCTION SCHEDULE UPDATING

- A. At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, order, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate actual completion percentage for each activity.

3.02 CONTRACTOR'S CONSTRUCTION SCHEDULE DISTRIBUTION

- A. Distribute copies of approved schedule to Engineer, Owner, separate testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 32 00

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting shop drawings, Product Data, and other miscellaneous submittals.

1.03 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Engineer's responsive action.
- B. Informational Submittals: Written information that does not require Engineer's approval. Submittals may be rejected for not complying with requirements.

1.04 SUBMITTAL PROCEDURES

- A. General: If needed, electronic copies of CAD Drawings (.dwg) of the Contract Drawings will be provided by Engineer for Seller's use in preparing submittals. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, deliver, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Submittals shall clearly indicate what product is being submitted (highlight, encircle, or otherwise identify) and what specification and section the submittal is applicable to. Each submittal shall contain a single piece of equipment being submitted unless grouping of similar items has been approved by the reviewing engineer.
- C. If the Contractor is submitting on an "or equal", it is the Contractor's responsibility to provide documentation showing how the "or equal" item is equal to or better in performance related specifications. This includes but is not limited to providing cut sheets for both items and a written statement clarifying how the "or equal" item is equal to or better in performance.

- D. Submittals Schedule: Comply with requirements in Section 01 32 00 - Construction Progress Documentation - for list of submittals and time requirements for scheduled performance of related construction activities.
- E. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal.
 - 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with Engineer's review of subsequent submittals. Engineer will advise Seller when a submittal being processed must be delayed to permit coordination with subsequent submittals. Engineer will advise Seller when a submittal being processed must be delayed for coordination.
 - 2. Allow 15 days for processing each resubmittal.
 - 3. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit review and processing.
- F. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a blank second page to record Prime Contractor's review and approval markings and action taken by Engineer.
 - 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Unique identifier, including revision number.
 - i. Number and title of appropriate Specification Section.
- G. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- H. Additional Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
- I. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will discard submittals received from sources other than Contractor.

1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittal, and *deviations from requirement* of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
2. Include certification stating that information submitted complies with requirements of the Contract Documents.
3. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Submittal and transmittal distribution record.
 - i. Remarks.
 - j. Signature of transmitter.
- J. Distribution: Furnish copies of submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- K. Use for Construction: Use only final submittals with mark indicating action taken by Engineer in connection with construction.

PART 2 - PRODUCTS

2.01 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
 1. Number of Copies: Submit one electronic copy (bearing the Contractor's legal signature) of each action submittal, unless otherwise indicated. Engineer will return one electronic copy. Contractor will mark up and retain one returned copy as a Project Record Document.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.

2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Printed performance curves.
 - h. Operational range diagrams.
 - i. Mill reports.
 - j. Standard product operation and maintenance manuals.
 - k. Compliance with recognized trade association standards.
 - l. Compliance with recognized testing agency standards.
 - m. Application of testing agency labels and seals.
 - n. Notation of coordination requirements.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 1. Preparation: Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Design calculations.
 - j. Compliance with specified standards.
 - k. Notation of coordination requirements.

1. Notation of dimensions established by field measurement.
 2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 inches by 11 inches but no larger than 11 by 17 inches unless approved by the Engineer.
- D. Coordination Drawings: Comply with requirements in Section 01 31 00 - Project Management and Coordination.
- E. Contractor's Construction Schedule: Comply with requirements in Section 01 32 00 - Construction Progress Documentation for Construction Manager's action.
- F. Submittals Schedule: Comply with requirements in Section 01 32 00 - Construction Progress Documentation."
- G. Application for Payment: Comply with requirements in Section 01 29 00 - Payment Procedures.
- H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
1. Name, address, and telephone number of entity performing subcontract or supplying products.
 2. Number and title of related Specifications Section(s) covered by subcontract.
 3. Drawing number and detail references, as appropriate, covered by subcontract.

2.02 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specifications Sections.
1. Number of Copies: submit two (2) hard copies and one electronic copy of each informational submittal, unless otherwise indicated. Engineer will not return copies.
 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 3. Test and Inspection Reports: Comply with requirements in 01 40 00 – Quality Requirements.
- B. Contractor's Construction Schedule: Comply with requirements in Section 01 32 00 - Construction Progress Documentation.
- C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and

addressed, names and addresses of Engineers and Owners, and other information specified.

- D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- E. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- F. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- G. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- H. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- I. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements.
- J. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product.
- K. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
- L. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- M. Maintenance Data: Prepare written and graphic instructions and procedure for operation and normal maintenance of products and equipment. Comply with requirements in Section 01 77 00 - Closeout Procedures.
- N. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculation. Include page numbers.
- O. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guideline, and procedures for installing or operating a

product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:

1. Preparation of substrates.
 2. Required substrate tolerance.
 3. Sequence of installation or erection.
 4. Required installation tolerance.
 5. Required adjustments.
 6. Recommendations for cleaning and protection.
- P. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- Q. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance and bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amount of deductibles, if any, and term of the coverage.
- R. Material Safety Data Sheets: Submit information directly to Owner. If submitted to Engineer, Engineer will not review this information but will return it with not action taken.

PART 3 - EXECUTION

3.01 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of

reviewer, date of Seller's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.02 ENGINEER'S ACTION

- A. General: Engineer will not review submittals that do not bear Seller's approval stamp and will return them without action.
- B. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or modifications required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicated action taken, as follows:
 - 1. No Exceptions Noted.
 - 2. Exceptions Noted
 - 3. Returned for Correction.
- C. Informational Submittals: Engineer will review each submittal and will not return it, or will reject and return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.
- D. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 01 33 00

SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor and/or Equipment Supplier of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Documents requirements.
 - 3. Requirements for Contractor/Supplier to provide quality-control services required by Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
 - 1. Section 01 32 00 - Construction Progress Documentation - for developing a schedule of required tests and inspections.
 - 2. Divisions 2 through 16 Technical Sections for specific test and inspection requirements.

1.03 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Engineer.
- C. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.04 SUBMITTALS

- A. Qualification Data: For testing agencies specified in Section 01 40 00 - Quality Requirements - to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Reports: Prepare and submit certified written reports that include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete test or inspection data.
 - 9. Test and inspection results and an interpretation of test results.
 - 10. Ambient conditions at time of sample taking and testing and inspecting.
 - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 - 12. Name and signature of laboratory inspector.
 - 13. Recommendations on retesting and re-inspecting.
- C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.05 QUALITY ASSURANCE

- A. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- B. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- C. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project,

whose work has resulted in construction with a record of successful in-service performance.

- D. **Manufacturer Qualifications:** A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance.
- E. **Testing Agency Qualifications:** An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in those types of tests and inspections to be performed.
- F. **Preconstruction Testing:** Testing agency shall perform preconstruction testing for compliance with specified requirements for performance and test methods.
 - 1. Contractor responsibilities include the following:
 - a. Provide test specimens and assemblies representative of proposed materials and construction. Provide sizes and configurations of assemblies to adequately demonstrate capability of product to comply with performance requirements.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - 2. **Testing Agency Responsibilities:** Submit a certified written report of each test, inspection and similar quality-assurance service to Engineer, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.06 QUALITY CONTROL

- A. **Owner Responsibilities:** Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency or Engineer to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to the Contractor.
- B. **Contractor Responsibilities:** Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.
 - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
 - 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.

3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
 6. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
 7. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
- C. Testing Agency Responsibilities: Cooperate with Engineer and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
 5. Do not perform any duties of Contractor.
- D. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field-curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.

7. Security and protection for samples and for testing and inspecting equipment at Project site.
- E. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 40 00

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Owner-Provided Temporary Utilities.
- B. Contractor-Provided Temporary Utilities.
- C. Security requirements.
- D. Vehicular access and parking.
- E. Waste removal facilities and services.
- F. Field offices.

1.02 OWNER PROVIDED TEMPORARY UTILITIES

- A. Owner will provide the following:
 - 1. Water supply (from hydrant), consisting of connection to Owner's existing water infrastructure. Any damage due to making or maintaining this connection shall be completely repaired with no cost to the Owner.
 - 2. All provisions needed to protect the Owner's water system are the responsibility of the Contractor, including but not limited to backflow prevention devices. There will be no additional payment for equipment required to protect the Owner's water system.
 - 3. The Contractor shall provide a flow meter downstream of the backflow prevention device to quantify the number of gallons utilized on the project.
 - 4. The Contractor will be expected to use Owner provided utilities in a conservative manner.
 - 5. Contractor shall use trigger-operated nozzles for water hoses, to avoid waste of water. If Contractor is found to be wasting water the Owner reserves the right to capture the cost of water per gallon from the Contractor based on the flow meter reading at the rate the Owner pays for water.

1.03 CONTRACTOR-PROVIDED TEMPORARY UTILITIES

- A. Temporary Electrical Services, as required.
- B. Telecommunications Services
 - 1. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization, as needed.
- C. Temporary Sanitary Facilities
 - 1. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.

2. Maintain daily in clean and sanitary condition.

D. Barriers

1. Provide barriers to prevent unauthorized entry to demolition areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from demolition operations.

2. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

E. Fencing – to be provided as directed by the Engineer to maintain security of the construction site.

1.04 SECURITY

A. Coordinate with Owner's security program.

B. Contractor shall lock up all equipment at the end of each workday. The Owner shall not be responsible for loss of equipment or materials.

1.05 VEHICULAR ACCESS AND PARKING

A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.

B. Coordinate access and haul routes with governing authorities and Owner.

C. Provide and maintain access to fire hydrants, free of obstructions.

D. Provide means of removing mud from vehicle wheels before entering streets.

E. Designated existing on-site roads may be used for construction traffic. Coordinate with Construction Manager, Engineer and MSH on-site representative.

F. Provide temporary parking areas to accommodate Contractor personnel.

1.06 WASTE REMOVAL

A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.

B. Provide containers with lids. Remove trash from site at regular intervals.

C. If materials to be recycled or must be stored on-site, provide suitable non-combustible storage areas unless otherwise approved by the authorities having jurisdiction.

1.07 FIELD OFFICES (as needed)

A. Office: Weathertight, with lighting, electrical outlets, heating, ventilating equipment, and equipped with sturdy furniture.

B. Locate offices a minimum distance of 30 feet from existing structures.

1.08 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Final Application for

Payment inspection.

- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 50 00

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following administrative and procedural requirements: selection of products for use in Project: product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include, but are not limited to, the following:
 - 1. Section 01 77 00 - Closeout Procedures - for submitting warranties for contract closeout.
 - 2. Divisions 2 through 46 for specific requirements for warranties on products and installation specified to be warranted.

1.03 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature, that is current as of dated of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are no considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specifications: Where a specific manufacturer's product is named including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

- D. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorse by manufacturer to Owner.
- E. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- F. Reference herein to the name "Contractor" will be considered the same as the name "seller".

1.04 SUBMITTALS

- A. Substitution Request: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and names and addresses of Engineers and owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 - i. Cost information, including a proposal of change, if any, in the Contract Sum.
 - j. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.

- k. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 2. Engineer's Action: If necessary, Engineer will request additional information or documentation for evaluation within one week of receipt of a request for substitution. Engineer will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
 - a. Form of Acceptance: Change Order.
 - b. Use product specified if Engineer cannot make a decision on use of a proposed substitution within time allocated.
- B. Basis-of-Design Product Specifications Submittal: Comply with requirements in Division 1 Section "Submittal Procedures" Show compliance with requirements.
- C. Contractor will be responsible for any project redesign and/or construction costs that may become necessary as a result of the product substitution.

1.05 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss including theft. Comply with manufacturer's written instructions.
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 - 5. Store products to allow for inspection and measurement of quantity or counting of units.
 - 6. Store materials in a manner that will not endanger Project structure.
 - 7. Store products that are subject to damage by the elements, under cover in a watertight enclosure above ground, with ventilation adequate to prevent condensation.

8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
9. Protect stored products from damage.

1.07 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
 1. Refer to Divisions 2 through 46 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 01 33 00 – Submittal Procedure and Section 01 77 00 - Closeout Procedures.

PART 2 - PRODUCTS

2.01 PRODUCT OPTIONS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.
 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures: Procedures for product selection include the following:
 1. Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 - a. Substitutions may be considered unless otherwise indicated.
 2. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 - a. Substitutions may be considered, unless otherwise indicated.

2.02 PRODUCT SUBSTITUTIONS

- A. Timing: Engineer will consider requests for substitution if received within 30 days after the Notice of Award. Requests received after that time may be considered or rejected at discretion of Engineer.
- B. Conditions: Engineer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:
 - 1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducing additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Engineer for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - 2. Requested substitution does not require extensive revisions to the Contract Documents.
 - 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - 4. Substitution request is fully documented and properly submitted.
 - 5. Requested substitution will not adversely affect Contractor's Construction Schedule.
 - 6. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - 7. Requested substitution is compatible with other portions of the Work.
 - 8. Requested substitution has been coordinated with other portions of the Work.
 - 9. Requested substitution provides specified warranty.

2.03 COMPARABLE PRODUCTS

- A. Where products or manufacturers are specified by name, submit the following, in addition to other required submittals, to obtain approval of an unnamed product:
 - 1. Evidence that the proposed product does not require extensive revisions to the Contract Documents;
 - 2. That it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 - 3. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 4. Evidence that proposed product provides specified warranty.

5. List of similar installations for completed projects with project names and addresses and names and addresses of Engineers and owners, if requested.
6. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 60 00

**SECTION 01 70 00
EXECUTION REQUIREMENTS**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. General installation of products.
4. Coordination of Owner-installed products.
5. Progress cleaning.
6. Starting and adjusting.
7. Protection of installed construction.
8. Correction of the Work.

- B. Related Sections include, but are not limited to, the following:

1. Section 01 31 00 - Project Management and Coordination - for procedures for coordinating field engineering with other construction activities.
2. Section 01 33 00 - Submittal Procedures - for submitting surveys.
3. Section 01 77 00 - Closeout Procedures for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.03 SUBMITTALS

- A. Qualification Data: As required, land surveyors must demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of Engineers and Owners, and other information specified.

1.04 QUALITY ASSURANCE

- A. Land Surveyor Qualifications; A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services is necessary for all required legal surveys.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

3.02 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocated existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than two days in advance of propose utility interruptions.
 - 2. Do not proceed with utility interruptions without Engineer's written permission.
- C. Field Measurements: Take field measurements as required to locate and execute the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- D. Space Requirements: Verify space requirements and dimensions of items shown on Drawings.
- E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Engineer. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.03 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on

Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Engineer promptly.

- B. General: As required, engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels.
 - 2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 3. Inform installers of lines and levels to which they must comply.
 - 4. Check the location, level and plumb, of every major element as the Work progresses.
 - 5. Notify Engineer when deviations from required lines and levels exceed allowable tolerances.
 - 6. Close site surveys with an error of closure equal to or less than the standard established by authorities in the surveying discipline.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- D. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Engineer.

3.04 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Engineer. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Engineer before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide

temporary reference points sufficient to locate the Work.

3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

3.05 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 1. Make vertical work plumb and make horizontal work level.
 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produces harmful noise levels.
- F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
- G. Hazardous Materials: Use products, cleaners and installation materials that are not considered hazardous.

3.06 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of material lawfully.
 1. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 1. Remove liquid spills promptly.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

- E. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- F. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortars, oils, putty, and similar materials.
 - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original Condition.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.07 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

3.08 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction.
 - 1. Repair includes replacing defective parts, refinishing damaged surfaces, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

END OF SECTION 01 70 00

**SECTION 01 77 00
CLOSEOUT PROCEDURES**

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Closeout Procedures
 - 2. Substantial Completion
 - 3. Final Completion
 - 4. Certificate of Occupancy
 - 5. Final Cleaning
 - 6. Project Record Documents
 - 7. Spare parts and Maintenance Products
 - 8. Warranties and Bonds
 - 9. Maintenance Service
- B. Related Sections include:
 - 1. Section 01 31 00 – Project Management & Coordination.
 - 2. Section 01 50 00 – Temporary Facilities and Controls.
 - 3. Section 01 78 23 – Operation and Maintenance Data.

1.02 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's review.
- B. Provide submittals to Engineer that are required by governing or other authorities.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- D. Owner will occupy all portions of the Project.

1.03 SUBSTANTIAL COMPLETION

- A. Prior to substantial completion Contractor shall review Contract Documents for items which are not complete or need to yet be completed including submittal of all manuals, and testing reports. Contractor shall make a list of incomplete work, a value of the incomplete work, and reasons why work is incomplete. Contractor shall complete all items required to be completed as part of substantial completion.
- B. Contractor shall provide a written notice to Engineer that the work, or specific portions of the work, is substantially complete and ready for review. If there are any items remaining

to be corrected or completed Contractor shall submit a list of these items along with the notice of substantial completion. Along with the list of items the Contractor should provide a written explanation of why these items are not considered necessary for substantial completion.

- C. Upon receipt of Contractor's notice of substantial completion, Engineer will proceed with inspection for substantial completion.
- D. Following the substantial completion inspection by the Engineer and Engineer's subconsultants, Engineer will either prepare certificate of substantial completion, or notify the Contractor in writing that substantial completion has not been met listing the various reasons.
- E. Contractor shall promptly complete the items required to meet substantial completion and submit a second notice of substantial completion to the Engineer.
- F. Engineer will review the work a second time to determine the status of substantial completion.
- G. When Engineer considers the project to be substantially complete, Engineer will prepare the preliminary certificate of substantial completion along with a substantial completion punch list of items to be completed prior to final payment. Engineer will deliver preliminary certificate and punch list to Owner and consider any objections by the Owner as provided in the Conditions of the Contract.
- H. Upon agreement by Owner and Engineer of substantial completion and punch list items, Engineer will execute and deliver to the Contractor and Owner a final certificate of substantial completion along with substantial completion punch list of items to be completed prior to final payment.
- I. A maximum of two (2) reviews of substantially complete work will be completed by Engineer and Engineer's subconsultants for any one portion of work under the Contract. Should a third or subsequent reviews be necessary the following requirements will be met:
 - 1. Owner will compensate Engineer for additional reviews.
 - 2. Owner will deduct the amount of compensation paid to the Engineer for additional reviews from the payment to the Contractor.
 - 3. Compensation shall be at Engineer's standard hourly rates plus actual cost of reimbursables.

1.04 FINAL COMPLETION

- A. Following substantial completion Contractor shall complete remaining work and items to be corrected as part of substantial completion punch list as well as final cleaning and transferring site to Owner.
- B. When Contractor considers that all work is complete, Contractor shall provide written notice of final completion to Engineer.

- C. Following receipt of final completion certification, Engineer and Engineer's subconsultants shall review the work to verify that the requirements for final completion have been met.
- D. Upon review of work for final completion Engineer will either request the Contractor to make closeout submittals or will notify Contractor that the work is not complete with a list of incomplete or defective work.
- E. Contractor shall promptly take steps to correct all listed deficiencies and incomplete work before sending a second written notice of final completion certification to Engineer.
- F. If final completion was not met following first review, Engineer will review work a second time to determine if the requirements for final completion have been met.
- G. A maximum of two (2) reviews of final complete work will be completed by Engineer and Engineer's subconsultants for any one portion of work under the Contract. Should a third or subsequent reviews be necessary the following requirements will be met:
 - 1. Owner will compensate Engineer for additional reviews.
 - 2. Owner will deduct the amount of compensation paid to the Engineer for additional reviews from the payment to the Contractor.
 - 3. Compensation shall be at Engineer's standard hourly rates plus actual cost of reimbursables.
- H. When Engineer considers all work to be complete in accordance with the Contract Documents, Engineer shall request the Contractor to make closeout submittals.

1.05 CERTIFICATE OF OCCUPANCY

- A. In accordance with State Building Codes, when WORK is complete and ready for occupancy, CONTRACTOR shall contact local building official and request a final building code review for the purposes of obtaining a Certificate of Occupancy for the new Wastewater Treatment Plant.
- B. CONTRACTOR shall, in accordance with Supplementary Conditions submit copy of Certificate of Occupancy with final Application for Payment.

1.06 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains, and foreign substances, polish transparent and glossy surfaces, mop all floors.
- C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- D. Replace filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.

- G. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.07 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, Product Data, and Samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling current and future reference by Owner and Engineer.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish first floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Provide GPS survey during construction for horizontal and vertical locations of all underground piping and utilities at fittings, valves, building connections, pull boxes, junction boxes, manholes, and other appurtenances.
 - 4. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 5. Field changes of dimension and detail.
 - 6. Details not on original Contract drawings.
- G. Submit documents to Engineer with claim for final Application for Payment.

1.08 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra Products in quantities specified in individual

specification sections.

- B. Deliver to Project site and place in location as directed by Owner; obtain receipt prior to final payment.

1.09 WARRANTIES AND BONDS

- A. Provide duplicate notarized copies.
- B. Execute and assemble transferable warranty documents from Subcontractors, suppliers, and manufacturers.
- C. Provide Table of Contents and assemble in D size three ring binders with durable plastic cover.
- D. Submit prior to final Application for Payment.
- E. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance.

1.10 MAINTENANCE SERVICE

- A. Furnish service and maintenance of components during the warranty period.
- B. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- C. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- D. Maintenance service shall not be assigned or transferred to any agent or Subcontractor without prior written consent of the Owner.

1.11 FINAL ADJUSTMENT OF ACCOUNTS

- A. Contractor shall submit a final statement of accounting to Engineer. Statement shall reflect all adjustments to the contract sum and include the following:
 - 1. Original contract sum.
 - 2. Additions and deductions resulting from:
 - a. All previous change orders
 - b. Allowances
 - c. Unit prices
 - d. Deductions for uncorrected work
 - e. Penalties and bonuses
 - f. Deductions for liquidated damages
 - g. Deductions for multiple reviews
 - h. Other adjustments

3. Total contract sum as adjusted.
 4. Previous payments.
 5. Sum remaining due.
- B. Engineer will prepare a final change order, reflecting approved adjustments to the contract sum which were not previously made by change orders.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 77 00

DIVISION 2

EXISTING CONDITIONS, SITEWORK

SECTION 02 41 00
SITE DEMOLITION, DISPOSAL & SALVAGE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this Section. *Site demolition will include existing sewerage interpond piping (including valves, valve cans, etc.), interpond manholes, concrete influent/effluent structures, concrete pipe supports, and site fencing. Please reference drawings 4 and 5 for additional demolition information.*

1.02 SUMMARY

- A. This Section includes the following (where applicable):
1. Removal and disposal of all construction indicated on the plans or specified in these documents.
 2. Removal and disposal of paving, curbing, sidewalks, driveways, crosswalks, utility structures, piping, below grade foundations, improvements to avoid conflict with new construction, disconnection, capping and removal of utilities no longer in use, pollution control during demolition including noise control and removal and legal disposal of materials.
- B. Related Sections include the following:
1. Division 1 Section "Payment Procedures" for a schedule of unit prices.
 2. Division 32 Section "Landscaping" for finish grading, including placing and preparing topsoil for lawns and plantings.
 3. Division 31 Section "Earthwork" for excavation and embankment, site stripping, grubbing, removing topsoil, and protecting trees to remain.

1.03 SUBMITTALS

- A. Schedule: Submit schedule indicating proposed methods and sequence of operations for selective demolition work to Engineer for review prior to commencement of work. Include coordination for shut-off, capping, and continuation of utility services as required, together with details for dust and noise control protection.
- B. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.
- C. Coordinate with Owner's continuing occupation of portions of existing building, and with Owner's reduced usage of any portion thereof.
- D. Do not disturb the outfall line. Flow from the WWTF shall be uninterrupted throughout the duration of the reclamation project.**
- E. Submit project record documents under provisions of Section 01 77 00.

1.04 REGULATORY REQUIREMENTS

- A. Conform to all applicable codes for worker safety, confined space entry, dust control, and water and sludge discharges and disposal.
- B. Obtain required permits from authorities.
- C. Notify affected utility companies before starting Work and comply with applicable requirements.
- D. Do not close or obstruct roadways except as permitted by Owner. Do not close or obstruct egress width to exits without prior written permission of Owner.
- E. Do not disrupt or compromise effectiveness of WWTF operations without written permission of Owner.
- F. Conform to procedures applicable if hazardous materials or situations discovered.

1.05 PROJECT CONDITIONS

- A. **Dust Control:** The amount of dust resulting from demolition shall be controlled to prevent the spread of dust to occupied portions of the site or building and to avoid creation of a nuisance in the surrounding area. Use of water will not be permitted when it will result in, or create, hazardous or objectionable conditions such as ice, flooding, and pollution.
- B. **Protection of Existing Work:** Before beginning any cutting or demolition work, the Contractor shall carefully survey the existing facilities and examine the plans and specifications to determine the extent of the work. The Contractor shall take all necessary precautions to ensure against damage to existing facilities to remain in place, to be reused, or to remain the property of the Owner, and any damage to such work shall be repaired or replaced as approved by the Engineer at no additional cost to the Owner. The Contractor shall carefully coordinate the work of this section with all other work and construct and maintain shoring, bracing and supports, as required.
- C. **Protection of Outfall Line: The outfall line shall be protected at all times. Interruption of effluent flow from the WWTF through the outfall line and discharge structure shall not be impacted at any time through construction.**
- D. **Protection of Trees and Wetland area:** Trees and Wetland areas which might be damaged during demolition and which are indicated to be left in place shall be protected. Any tree or wetland vegetation designated to remain that is damaged during the Work under this contract shall be replaced to original or better condition.
- E. **Burning:** The use of burning at the project site for the disposal of refuse and debris will not be permitted.
- F. **Condition of Structures:** Owner assumes no responsibility for actual condition of items to be demolished.
 - 1. Conditions existing at time of commencement of contract will be maintained by Owner insofar as practicable. However, variations may occur by Owner's removal and salvage operations prior to start of selective demolition work.

- G. Partial Demolition and Removal: Materials of marketable value that are removed in accordance with the provisions of the Project, but that are not to be possessed by the Owner, shall become the property of the Contractor and shall be removed from the right-of-way. Transport salvaged items from site as they are removed.
 - 1. Storage or sale of removed items on site will not be permitted.
- H. Protections: Provide temporary barricades and other forms of protection as required to protect Owner's personnel and general public from injury due to selective demolition work.
 - 1. Confine Work and stockpiling to within Owner's property or easement as approved by Engineer. Leave undisturbed all street and utility appurtenances not indicated for removal or renovation.
 - 2. Provide protective measures as required to provide free and safe passage of Owner's personnel and general public to and from occupied portions of buildings.
 - 3. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of element to be demolished, and adjacent facilities or work to remain.
 - 4. Protect from damage existing finish work that is to remain in place and becomes exposed during demolition operations.
 - 5. Protect floors with suitable covering when necessary.
 - 6. Construct temporary insulated solid dustproof partitions where required to separate areas where noisy or extensive dirt or dust operations are performed. Equip partitions with dustproof doors and security locks if required.
 - 7. Provide temporary weather protection during interval between demolition and removal of existing construction on exterior surfaces, and installation of new construction to ensure that no water leakage or damage occurs.
 - 8. Maintain, during operation and at completion, pavement removal areas in such condition that they will be well drained at all times.
 - 9. Protect and maintain survey monuments or any construction staking from disturbance during pavement removal.
- I. Damages: Promptly repair damages caused to adjacent facilities by demolition work at no cost to Owner.
- J. Explosives: Use of explosives will not be permitted.
- K. Utility Services: Maintain existing utilities indicated to remain, keep in service, and protect against damage during demolition operations.
- L. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities as acceptable to governing authorities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 INSPECTION

- A. Prior to commencement of selective demolition work, inspect areas in which work will be performed. Photograph existing conditions to structure surfaces, equipment or to surrounding properties which could be misconstrued as damage resulting from selective demolition work; file with Owner's Representative or Engineer prior to starting work.

3.02 PREPARATION

- A. Become familiar with required lines of removal and saw cutting.
- B. Identify underground utilities.
- C. Provide, erect, and maintain adequate barriers and warning lights.
- D. Keep streets, sidewalks, and driveways in usable condition; avoid property owner inconvenience insofar as practicable; do not trespass on private property.
- E. Verify traffic control in place prior to commencement of demolition activities.
- F. Inspect and record existing conditions onsite and at adjacent areas prior to starting construction. Commencement of this Section's Work means acceptance of existing conditions.

3.03 TOLERANCES

- A. Saw cut full depth to achieve a clean break.
- B. If line of removal falls within 2 feet of an existing joint, adjust line of removal to be the existing joint.
- C. Remove entire width of sidewalk if removal width is less than sidewalk width.

3.04 DEMOLITION

- A. General: Remove and legally dispose of paving, curbing, sidewalks, driveways, crosswalks, utility structures, piping, below grade foundations, improvements to avoid conflict with new construction, disconnection, and capping and removal of utilities no longer in use.
 - 1. Demolition of existing structures and piping shall only commence after provisions are made to ensure continuing existing utility services.
- B. Structures: Existing structures indicated shall be completely removed to two feet below finish/final grade. The excavations shall be backfilled and final graded in accordance with other sections of these specifications. Structures located in the existing cell berms shall be removed completely and disposed offsite.
- C. Piping: Existing utilities shall be removed as indicated. When utility lines are encountered that are not indicated on the plans, the Engineer shall be notified. Buried piping may be left in place provided that exposed pipe ends are plugged.

1. Pipes shall be plugged with a low slump concrete the entire diameter of the pipe to a minimum depth of 18 inches.
 2. Lagoon interpond piping shall be removed from the site in its entirety. The piping will not be permitted to be abandoned in place.
- D. Filling: Excavations and other hazardous openings shall be filled in accordance with appropriate sections of these specifications.

3.05 DISPOSAL

- A. General: Upon completion of demolition, all debris shall be disposed of in a legal manner, and the site shall be fine graded to the prevailing adjacent grades and contours.

3.06 SALVAGE

- A. Title to Materials: Title to all materials and equipment to be demolished, excepting Owner salvage and historical items, is vested in the Contractor upon receipt of Notice to Proceed. The Owner will not be responsible for the condition, loss or damage to such property after Notice to Proceed.
- B. Material for Contractor Salvage: Material for salvage shall be stored as approved by the Engineer. Salvage materials shall be removed from Owner's property before completion of the contract. Material for salvage shall not be sold on the site. Salvage material may not be reused in the project without written approval of the Engineer.
- C. Unsalvageable Materials: Materials, other than those permitted to remain in place, shall be disposed of in a legal manner. On-site disposal will not be allowed.

END OF SECTION 02 41 00

DIVISION 31

EARTHWORK

SECTION 31 00 00
EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This work is the excavation, trenching and backfilling for the demolition of structures, utilities, equipment and appurtenances, handling and storing materials for fill and backfill, bracing, shoring, trench protection, subgrade preparation, final grading, site dressing and cleanup.
- B. All fill material will be from on-site. To the extent possible, reuse existing topsoil and other materials excavated from the site.

1.02 RELATED DOCUMENTS

- A. The following documents and specification sections apply directly to this Section:
 - 1. Division 01 – Payment Procedures & Temporary Facilities and Controls
 - 2. Division 02 – Existing Conditions Site Clearing & Existing Conditions Dewatering;
 - 3. Division 31 – Site Clearing;
 - 4. Division 32 – Exterior Improvements;
 - 5. Division 46 – Water & Wastewater Equipment

1.03 DEFINITIONS

- A. Backfill: Soil materials used to fill an excavation.
- B. Excavation: Removal of material encountered above subgrade elevations.
 - 1. Additional Excavation: Excavation below subgrade elevations as directed by Engineer. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 - 2. Bulk Excavation: Excavations more than 10 feet in width and pits more than 30 feet in either length or width.
 - 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated dimensions without direction by Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.
- C. Fill: Soil materials used to raise existing grades. Fill material will be from on-site material.
- D. Structures: Manholes, lagoon interpond piping, concrete pipe supports, lagoon inlet & discharge structures, valves & valve pits, or other man-made stationary features constructed above or below the ground surface.
- E. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

1.04 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by OWNER or others unless permitted in writing by Engineer and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than 48 hours in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Engineer's written permission.
 - 3. Contact utility-locator service for area where Project is located before excavating.
- B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

- A. General: On-site material will be used for fill and/or grading.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect the outfall line, structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.02 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

3.03 EXPLOSIVES

- A. Blasting is not anticipated to be necessary for this project and will not be allowed.

3.04 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavation to subgrade elevations regardless of the character of surface and subsurface conditions encountered, including rock, soil materials, and obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil

materials and rock, notify engineer to determine placement of said material. No additional payment will be made for remedial action due to unsuitable soils.

2. Meet OSHA requirements for excavations (including work performed in pre-existing excavated openings) and excavated material stockpiles. This may require design of temporary slopes and/or shoring by a licensed professional engineer.

3.05 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow materials and satisfactory excavated soil materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.06 FILL

- A. Preparation: Remove vegetation, topsoil, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface before placing fills.
- B. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- C. Place and compact fill material in layers to required elevations.

3.07 MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 4 percent of optimum moisture content.
 1. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
 2. Remove and replace, or scarify and air-dry, otherwise satisfactory soil material that exceeds optimum moisture content by 4 percent and is too wet to compact to specified dry unit weight.

3.08 COMPACTION OF BACKFILLS AND FILLS

- A. Place backfill and fill materials in areas designated on the drawings. Backfill and fill materials shall be installed in a manner that the material can support construction equipment (dozer, excavator, etc.) without settling and or rutting.
 1. Place backfill and fill materials uniformly as designated on the drawings.

3.09 GRADING

- A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cutout soft spots, fill low spots, and trim high spots to comply with required surface

tolerances.

- B. Site Grading: Slope grades to direct water away from the existing outfall line and to prevent ponding where applicable. Finish subgrades to required elevations within the following tolerances:

- 1. Lawn or Unpaved Areas: Plus or minus 1 inch.

3.10 FIELD QUALITY CONTROL

- A. Testing: The Engineer will perform visual field quality-control testing. The Contractor may also engage the services of a qualified testing firm to perform field quality-control testing to verify the Engineer's testing results, at no additional cost to the OWNER.
- B. Allow Engineer to inspect fill material when compaction with heavy equipment has been completed. No visual signs of settling or rutting will be allowed. If settling or rutting are present, the Contractor shall regrade/compact the areas at no additional cost to the Owner.

3.11 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.

3.12 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

END OF SECTION 31 00 00

**SECTION 31 10 00
SITE CLEARING**

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This work includes the identification, preparation, removal, stockpiling, salvage and disposal of existing surface materials at the project site which are impacted by or interfere with construction of the improvements.

1.02 RELATED DOCUMENTS

- A. The following documents and specification sections apply directly to this Section:
 - 1. Drawings and Special Provisions of the Contract;
 - 2. General and Supplementary Conditions;
 - 3. Division 01 - General Requirements;
 - 4. Division 02 - Existing Conditions;
 - 5. Division 31 - Earthwork;

1.03 SUMMARY

- A. This Section includes, but not limited to, the following:
 - 1. Protecting existing trees and vegetation to remain.
 - 2. Removing trees and other vegetation as necessary.
 - 3. Clearing and grubbing.
 - 4. Material stockpiling;
 - 5. Removing above-grade site improvements.
 - 6. Disconnecting, capping or sealing, and abandoning site utilities in place.
 - 7. Disconnecting and removing site utilities.

1.04 MATERIALS OWNERSHIP

- A. Except for materials indicated to be stockpiled or to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from the site.

1.05 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

- B. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- C. Notify utility locator service for area where Project is located before site clearing.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

- A. All soil materials will be from on-site.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Provide erosion-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- C. Locate and clearly flag trees and vegetation to remain or to be relocated.
- D. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.02 TREE PROTECTION

- A. Do not store construction materials, debris, or excavated material within drip line of remaining trees.
- B. Do not permit vehicles, equipment, or foot traffic within drip line of remaining trees.
- C. Do not excavate within drip line of trees, unless otherwise indicated.
- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Engineer.
 - 1. Replace trees that cannot be repaired and restored to full-growth status, as determined by a qualified arborist.

3.03 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 - 1. Owner will arrange to shut off any publicly-owned utilities indicated to be removed.
 - 2. Contractor shall arrange to shut off any privately-owned utilities with utility companies.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Engineer's written permission.

3.04 CLEARING AND GRUBBING

1. Perform Clearing and Grubbing in accordance with 31 11 00.

3.05 SITE GRADING

- A. Rough-grade the site to provide positive drainage away from all construction elements and away from the site in such a manner that no damage to adjacent property will result from runoff.
 1. Project site shall be graded sufficiently smooth to provide access to all elements of construction.

3.06 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove all materials as indicated in the drawings and in accordance with 02 41 00.

3.07 DISPOSAL

- A. Disposal: Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials, including trash and debris, and legally dispose of them off Owner's property unless Contractor has made arrangements for onsite disposal.

END OF SECTION 31 10 00

**SECTION 31 11 00
CLEARING AND GRUBBING**

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Protection of features not designated for removal.
2. Site removals.
3. Disposal of waste materials.

B. Related Sections include:

1. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to work of this section.
2. Division 1 – General Requirement.
3. Division 31 – Earthwork.

1.02 REGULATORY REQUIREMENTS

- A. Conform to applicable codes and regulations for proper disposal of debris.
- B. Conform to applicable codes for worker safety.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Construction Fencing: Construction fencing shall be orange plastic mesh, heavy duty, snow fencing fastened to metal or wood posts.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Verify that existing plant life designated to remain is tagged or identified.
- B. Beginning work of this Section means acceptance of existing conditions.
- C. Identify and furnish an area for storing or placing removed material prior to the commencement of Work in this Section.

3.02 PROTECTION

- A. Locate, identify, and protect utilities that remain from damage.
- B. Protect trees, plant growth, and features designated to remain, as final landscaping.
- C. Protect bench marks, survey control points, and existing structures from damage.
- D. Prevent surface water and subsurface or groundwater from entering excavations, from ponding on prepared subgrades and from flooding site and surrounding area.

- E. Contractor shall repair or replace, to original condition or better, existing structures and improvements, flora, and landscaping damaged or injured during construction operations. Contractor shall understand the sensitive nature of working on or near developed property and shall endeavor to limit injury or damage both inside the limits of construction and outside the limits of construction.
- F. Protect existing trees and other vegetation indicated to remain from unnecessary cutting, breaking, skinning of roots, skinning and bruising of bark, smothering of trees, by stockpiling construction materials or excavated materials within the drip line, excess foot of vehicular traffic, or parking of vehicles within drip line.
- G. Protect wetlands, rivers, streams, and other waters of the state from all construction activities and contamination by erosion and runoff.
- H. Protect areas that have been finish graded from subsequent construction operations, traffic, and erosion. Remove, provide new, and compact as required, material contaminated by erosion and runoff

3.03 CLEARING

- A. Clear areas required for access to site and execution of Work.

3.04 GRUBBING

- A. Shall conform to Montana Department of Transportation (MDT) Standard Specifications for Road and Bridge Construction (2014 edition). Section 201.03.1 shall be followed except as specified below and absolutely no burning will be allowed.
 - 1. Grubbing operations may be completed by removal of stump section or by grinding
 - 2. Remove stumps, logs, roots, and other organic matter located within proposed pavements and structures to the depth indicated:
 - a. Gravel or paved surface: 48” below surface grade.
 - b. Grass areas: 12” below surface grade
 - c. Other structures or utilities: 36” below existing ground or finish grade, whichever is lower.
- B. Depressions resulting from grubbing operations shall be backfilled in accordance with other sections in Division 31.

3.05 DISPOSAL OF WASTE MATERIALS

- A. Remove all clearing and grubbing debris from the site in accordance with the Contract Documents and all permits and regulations. Burning shall not be allowed on Owner’s property.

END OF SECTION 31 11 00

SECTION 31 22 00 GRADING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes general requirements and procedures for site grading including, but not limited to, the following:
 - 1. Rough Grading
 - 2. Finish Grading
- B. Related Sections include:
 - 1. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to work of this section.
 - 2. Division 1 – General Requirement Specification Sections.
 - 3. Division 31 – Earthwork Specification Sections.

1.02 DESCRIPTION

- A. Contractor shall grade the site as shown on the Drawings. Contours and spot elevations indicate finished surface grades.
- B. Construct uniform slopes between contours and spot elevations.
- C. Limits of construction are shown on the Drawings. Excavation, placement of fill, or general grading shall not be allowed outside of the limits of construction where shown on the Drawings.
- D. Materials may be temporarily stockpiled on the site within the limits of construction or where shown on the Drawings.
- E. Protect benchmarks and existing structures that are to remain from damage or displacement.
- F. All earthwork shall be performed in a manner and sequence that will provide drainage and proper erosion control at all times.

1.03 FIELD MEASUREMENTS

- A. Verify that survey benchmark and intended elevations for the Work are as indicated.
- B. Contractor shall utilize a licensed surveyor to provide grading layout, elevations, staking and all necessary offsets.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. All fill material will be from available on-site material as show on the drawings.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Visual inspection shall be completed showing that all areas can support heavy construction equipment without settling and or rutting.
- B. Verify subgrade base has been contoured and compacted.

3.02 PROTECTION

- A. Contractor shall conduct all grading operations within the limits of construction where shown on the Drawings, and within the designated grading limits as shown from contours and spot elevations.
- B. Protect all existing structures, trees, plantings, turf, and other facilities which are not scheduled for removal
- C. Provide proper erosion and sediment control for all grading operation.
- D. Repair disturbed areas and compact to required density prior to further work.
- E. Remove material contaminated by erosion and runoff, provide new material and compact.

3.03 SUBSTRATE PREPARATION

- A. Eliminate uneven areas and low spots.
- B. Remove debris, roots, branches, and stones in excess of 2 inches in size. Remove subsoil contaminated with petroleum products.

3.04 ROUGH GRADING

- A. Uniformly grade areas within limits of grading under this Section, including adjacent transition areas. Smooth finish surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.

3.05 FINISH GRADING

- A. Contractor shall provide the degree of finish grading that will be normally obtainable through the use of suitable equipment operated under favorable conditions and by an experienced operator. Deviations from the required tolerance shall be corrected by the Contractor at no additional cost to the Owner.

3.06 TOLERANCES

- A. Surface of Finish Grading: Plus or minus 1 inch.

END OF SECTION 31 22 00

SECTION 31 23 16
EXCAVATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Requirements for Excavation.
 - 2. Common Excavation.
 - 3. Disposal.
- B. Related Sections:
 - 1. The General Conditions, Supplementary Conditions, and General Requirements apply to work of this section.
 - 2. Division 1 – General Requirements Specification Sections.
 - 3. Division 31 – Earthwork Specification Sections.

1.02 REFERENCES

- A. Montana Public Works Standard Specifications (MPWSS), latest edition.

1.03 DEFINITIONS

- A. Utility: Any buried pipe, duct, conduit, or cable.
- B. Structures: Existing elements and systems.
- C. Prepared Ground Surface: Ground surface after completion of clearing and grubbing, excavation to grade, and scarification.

1.04 SITE CONDITIONS

- A. Contractor shall determine to Contractor's own satisfaction the nature and location of subsurface obstacles and the nature of soil and water conditions which will be encountered during the work.
- B. Contractor may perform additional test borings or other exploratory operations at Contractor's own expense. Contractor shall make arrangements for any additional soils investigation with Owner.
- C. No claim for additional payment will be accepted due to the nature of subsurface conditions in which the work is to be performed.
- D. Do not commence construction of structure foundation until soil test results are confirmed.

1.05 SEQUENCING AND SCHEDULING

- A. Additional excess material shall be stockpiled on-site until placed/graded.
- B. Follow all project sequencing/scheduling as indicated in the Special Provisions of the

Contract Documents.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Stockpile delivered materials and excavated materials at locations approved by Owner until required for backfill or fill. Place, grade, and shape stockpiles for drainage.
- B. Store materials in manner that will not impose additional loading and soil pressure on excavation limits and structures.

1.07 PAYMENT

- A. All earth rock, peat, muck and all other excavation, removal and disposal required; erosion control, sheeting, shoring and bracing; fill and backfill; placement compaction, grading, source quality control testing, and all other work required under this Section shall be considered incidental to the Project and no claim for compensation or extra work will be accepted.
- B. No claim for additional payment will be accepted for excavation and fill for all structures required for removal of unsuitable material of up to three (3) feet below bottom of foundation or one (1) feet below minimum excavation limit required for demolition, whichever results in the greater excavation and fill.
- C. No claim for additional payment will be accepted for repairs made to subgrade due to weather related problems.

1.08 FIELD MEASUREMENTS

- A. Survey benchmarks, control points, and intended elevations for the Work are as shown on the Drawings or will be provided by the Engineer.

1.09 COORDINATION

- A. Coordinate work under provisions of Section 01 31 13.
- B. Verify work associated with lower elevation utilities is complete before placing higher elevation utilities.
- C. Contractor shall excavate for demolition of structures, pipe, and utilities at grades shown on the Drawings.

PART 2 - PRODUCTS

2.01 EXCAVATION MATERIALS

- A. See Sections 31 00 00 for materials specifications.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine project site and conditions under which work of this Section is to be performed.
- B. Visual inspection will take place for all backfill/fill materials. Materials shall be able to support the weight of heavy construction equipment without signs of settling or rutting.

- C. Do not over excavate without authorization from Engineer.

3.02 PREPARATION

- A. Excavations shall comply with the requirements of OSHA 29 CFR, Part 2926, Subpart P, “Excavations and Trenches.” Excavation safety is the responsibility of the Contractor. **NO** excavations greater than 20 feet in depth shall be allowed on this project.
- B. Dry subgrade: Add water, then mix to make moisture content uniform throughout.
- C. Wet subgrade: Aerate material by blading, discing, harrowing, or other methods to hasten drying process.
- D. Excavation support: Install and maintain, as specified in Section 31 41 00, Shoring, as necessary to support sides of excavations and prevent detrimental settlement and lateral movement of existing facilities, adjacent property, and completed Work.

3.03 PROTECTION

- A. Locate existing utilities in areas of work. Protect utilities that are to remain.
- B. Protect structures from damage and from damage caused by groundwater, surface water, flood or floatation forces, lateral movement, settlement, undermining, washout, and other undesirable conditions created by the work.
 - 1. Maintain drainage when drainage ways are obstructed by earthwork and related operations.
- C. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, except when allowed by utility owner and then only after acceptable temporary utility services have been provided.
 - 1. Provide temporary services, complying with Federal, State and local laws and regulations, and as acceptable to Owner, during any interruptions.
- D. Protect areas that have been finish graded from subsequent construction operations, traffic, and erosion.
 - 1. Install erosion control protection along perimeter of unfinished areas.
- E. Maintain full access to structure exits and entrances, fire hydrants, street crossings, sidewalks, and other points designated by Owner to prevent significant interruption of accessibility.
- F. Do not bring explosives on site or use in work.
- G. Maintain excavations and stockpiles to prevent caving, heaving, slides, and increased soil pressures on adjacent and underlying structures.
- H. Repair disturbed areas and compact to required density prior to further work.
- I. Remove material contaminated by erosion and runoff, provide new material and compact.

3.04 COMMON EXCAVATION

- A. Excavate designated areas to the proposed subgrade elevations indicated on the Drawings

to facilitate demolition activities.

- B. Contractor shall advise Engineer immediately if any unsuitable materials are encountered during excavation. Unsuitable materials shall be reasonably separated from unsuitable materials and shall be considered surplus material at no additional cost to the Owner.
- C. If Contractor encounters excess excavation materials which meet the requirements of common fill as specified herein, Contractor may use those materials as common fill. Contractor shall verify with soils testing laboratory suitability of the use of on-site material. All material for the project will be from on-site.

3.05 DISPOSAL

- A. Excess soil, if any exists, shall be graded and blended on the site. Contractor shall remove unsuitable material such as muck, organic matter, trash, and refuse from the site and dispose of said material according to applicable Federal, State, and local regulations. No additional payment will be provided for off-site disposal.

END OF SECTION 31 23 16

SECTION 31 23 21
FILL AND BACKFILL

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes general requirements and procedures for site grading including, but not limited to, the following:
 - 1. Filling, Backfilling, and Compacting.
- B. Related Sections include, but are not limited to:
 - 1. The General Conditions, Supplementary Conditions, and General Requirements apply to work of this section.
 - 2. Division 1 – General Requirements Specification Sections.
 - 3. Division 31 – Earthwork Specification Sections.

1.02 REFERENCES

- A. Montana Public Works Standard Specifications (MPWSS) specifications are referenced for material requirements and specific construction requirements only.

1.03 DESCRIPTION

- A. Limits of construction are shown on the Drawings. Placement of fill shall not be allowed outside the project boundary unless location is authorized by the Owner.
- B. Materials may be temporarily stockpiled on the site within the limits of construction, or where shown on the Drawings.
- C. Excess materials shall be stockpiled on site at locations authorized by Owner.
- D. Protect benchmarks and existing structures that are to remain from damage or displacement.

1.04 DEFINITIONS

- A. Suitable Material: All material will be from on-site.
- B. Structures: Existing and new construction, including all components of the outfall line, all materials deemed for demolition, and other elements.
- C. Relative Compaction:
 - 1. Compaction shall be achieved by means of heavy construction equipment. Visual inspection will be utilized to see that the compacted material can support heavy construction equipment (dozer, excavator, etc.) without settling and or rutting.
- D. Optimum Moisture Content:
 - 1. Soil may need to be moisture conditioned in order to place as fill.
- E. Lift: Loose (uncompacted) layer of material.

- F. Borrow material: Material from required excavations or from designated borrow areas on Site.
- G. Select Backfill Material: Materials available on-site that Engineer determines suitable for specific use.
- H. Imported Material: Materials obtained from sources offsite, suitable for specified use. There shall not be any imported material unless approved by the Engineer.

1.05 SITE CONDITIONS

- A. Contractor shall determine to Contractor's own satisfaction the nature and location of subsurface obstacles and the nature of soil and water conditions which will be encountered during the work.
- B. Contractor may perform test borings or other exploratory operations at Contractor's own expense. Contractor shall make arrangements for any additional soils investigation with Owner.
- C. No claim for additional payment will be accepted due to the nature of subsurface conditions in which the work is to be performed.

1.06 SEQUENCING AND SCHEDULING

- A. Follow all project sequencing/scheduling as indicated in the Special Provisions of the Contract Documents.

1.07 PAYMENT

- A. All excavation, removal, and disposal of earth, peat, muck, and other materials; erosion control; sheeting, shoring, and bracing; fill and backfill, placement, compaction, grading, source quality testing; stockpiling; and all other work under this Section shall be considered incidental to the Project and no claim for additional compensation of extra work will be accepted.
- B. No claim for additional payment will be accepted for excavation and fill for all structures required for removal of unsuitable material of up to three (3) feet below bottom of foundation or one (1) feet below minimum excavation limit required for demolition, whichever results in the greater excavation and fill.
- C. No claim for additional payment will be accepted for repairs made to subgrade due to weather related items.

1.08 FIELD MEASUREMENTS

- A. Verify that survey benchmark, control point, and intended elevations for the Work are as shown on Drawings or will be provided by the Engineer.

1.09 FIELD QUALITY CONTROL

- A. Section 01 40 00 - Quality Control: Field inspection and testing.
- B. If tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest at no additional cost to Owner.

1.10 COORDINATION

- A. Coordinate work under provisions of Section 01 31 00.
- B. Verify work associated with lower elevation utilities is complete before placing higher elevation utilities.
- C. Contractor shall excavate for demolition of structures, pipe, and utilities at grades shown on the Drawings.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Backfill/Fill shall be as indicated on the Construction Drawings.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Notify utility company to locate utilities.
- C. Protect plant life, lawns, and other features remaining as a portion of final landscaping.
- D. Protect benchmarks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- E. Maintain and protect above and below grade utilities that are to remain.
- F. Notify Engineer of any unsuitable materials or poor subgrade conditions.
- G. Dewater excavations during backfilling at no cost to Owner.
- H. Dewater and dry saturated materials suitable for backfill at no cost to Owner.

3.02 STOCKPILING OF MATERIALS

- A. Stockpile material on-site at a location approved by the Engineer.

3.03 FILLING, BACKFILLING, AND COMPACTING

- A. Surface compact excavations prior to installing fill material.
- B. Proof roll subgrade areas, where noted with, as a minimum, a tandem axle dump truck loaded to at least 25-ton weight. Truck shall traverse the structure footprint to detect areas of loose or soft soils. Loose or soft soils shall be defined as soils exhibiting “excessive rutting” from the truck tires (approximately one (1) inch wheel rut depth).
- C. Do not place material on muddy surfaces, frozen ground or on materials containing frost or ice.
- D. Slope grade away from structures minimum 2 inches in 10 feet, unless noted otherwise.
- E. Do not place material on or in water.
- F. Placement and Compaction

1. Place materials in compacted layers of thickness required to obtain compaction. Layers shall not exceed 8 inches in loose depth for cohesive and cohesionless soil material, respectively, compacted by heavy compaction equipment and not more than 8 inches in loose depth for cohesive and cohesionless soil materials.
2. Moisten or aerate each layer to the extent required to obtain the optimum moisture content required for the indicated compaction. Prevent free water from appearing on surface during or subsequent to compaction operations.
3. Place backfill and fill materials in areas designated on the drawings. Backfill and fill materials shall be installed in a manner that the material can support construction equipment (dozer, excavator, etc.) without settling and or rutting.

3.04 COMPACTION REQUIREMENTS

- A. Compact materials installed in a manner that the material can support construction equipment (dozer, excavator, etc.) without settling and or rutting.
- B. Contractor shall re-compact all areas represented by failed visual tests at their own expense.

3.05 TOLERANCES

- A. Finished Grade:
 1. Plus or minus 1 inch, upon completion of settlement in ditches and berm areas.
- B. All areas that receive fill or backfill shall be kept within settlement tolerances through the warranty period.

3.06 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01 50 00.
- B. Reshape and re-compact fills subjected to vehicular traffic during construction.

3.07 SETTLEMENT

- A. The Contractor shall be responsible for all settlement of backfill, fills, and embankments which may occur within the correction period stipulated in the Supplementary Conditions.
- B. The Contractor shall make, or cause to be made, all repairs or replacements made necessary by settlement within 30 days after notice from the Engineer or Owner, or sooner if required by Engineer or Owner, depending on the critical nature of the settlement.

3.08 SCHEDULE

- A. All material will be from on-site.

END OF SECTION 31 23 21

SECTION 31 25 00
EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.01 SUMMARY

- A. Prevention of sedimentation of waterways, wetlands, and storm and sanitary sewers due to construction activities.
- B. Restoration of areas eroded due to insufficient preventative measures.
- C. Related Sections include, but are not limited to:
 - 1. Division 02 – Existing Conditions
 - 2. Division 31 – Earthwork
 - 3. Division 32 – Exterior Improvements
 - 4. Division 33 – Utilities

1.02 REFERENCES

- A. Montana General Permit No. MTR100000 (or its successor), Effective Date October 12, 2009 and Expiration Date January 1, 2013 - Authorization to Discharge under the National Pollutant Discharge Elimination System.
- B. Montana Department of Transportation (MDT) Erosion and Sediment Control Field Manual – Latest Edition
- C. Montana Department of Transportation (MDT) Standard Specifications for Road and Bridge Construction – Latest Edition
- D. Montana General Permit No. MTG070000 (or its successor), Effective Date October 12, 2009 and Expiration Date January 1, 2013 – General Permit for Construction Dewatering.
- E. ASTM D 4355 – Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture, and Heat in a Xenon Arc Type Apparatus; 2005.
- F. ASTM D 4491 – Standard Test Methods for Water Permeability of Geotextiles by Permittivity; 1999a (Reapproved 2004).
- G. ASTM D 4533 – Standard Test Method for Trapezoid Tearing Strength of Geotextiles; 2004.
- H. ASTM D 4632 – Standard Test Method for Grab Breaking Load and Elongation of Geotextiles; 1991 (Reapproved 2003).
- I. ASTM D 4751 – Standard Test Method for Determining Apparent Opening Size of a Geotextile; 2004.
- J. ASTM D 4873 – Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples, 2002.

1.03 SUBMITTALS

- A. Provide product specification sheets for the following erosion control materials to demonstrate that the Contractor's proposed products meet the Contract Document requirements:
 - 1. Fabric proposed for silt fence
 - 2. Fiber Roll
 - 3. Gradation tests for Construction Entrance stone material

PART 2 - PRODUCTS

2.01 SILT FENCE

- A. Silt fence shall be a medium-duty, woven or non-woven polypropylene or polyethylene fabric that lets fluids pass through while trapping soil particles and preventing soil loss. The material shall meet the minimum characteristics of TENAX® silt fence.

2.02 SEDIMENT CONTROL LOGS

- A. Prefabricated sediment control logs (SCR's) Rolls - As shown on Drawings. SCR's shall meet the minimum characteristic of the 12" Stenlog® as manufactured by Erosion Control Blanket/GSI.

2.03 CONSTRUCTION ENTRANCE

- A. Materials as Shown on Drawings.
- B. 3-6 inch Stone
 - 1. Stone shall be angular and shall be comprised of hard, durable mineral materials that have been mechanically processed.
 - 2. Stone shall not be from limestone/dolomite deposits that have thinly bedded strata or strata of a shale nature.
 - 3. Stone gradation shall conform to the following:

SIEVE	PERCENT PASSING (by weight)
6-inch	100
3 ½-inch	50 – 100
3-inch	10 – 75
2-inch	0 – 10
3/8 inch	0 – 1

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine site and identify existing features that contribute to erosion resistance; maintain such existing features to greatest extent possible.

3.02 PREPARATION

- A. The Contractor shall develop a Storm Water Pollution Prevention Plan as required by the Montana Department of Environmental Quality that meets both the State's requirements and the minimum practices shown on the Drawings.
- B. The Contractor shall complete and sign the Notice of Intent and submit to the Montana Department of Environmental Quality.

3.03 PERFORMANCE REQUIREMENTS

- A. Contractor shall comply with all requirements of the Montana Department of Environmental Quality along with all Federal, State, and Local permits and regulations for erosion and sediment control.
 - 1. If erosion or sedimentation occurs due to non-compliance with any of these permits, Contractor shall restore eroded areas at no cost to Owner.
 - 2. If sedimentation beyond permitted thresholds occurs in regulated waterways or wetlands, Contractor shall at no additional cost to the Owner:
 - a. Contact the authorities having jurisdiction;
 - b. Remove deposited sediments to the satisfaction of the Owner and the authorities having jurisdiction;
 - c. Install or correct preventive measures to the satisfaction of the authorities having jurisdiction; and
 - d. Pay any fines or other additional requirements of the authorities having jurisdiction; and
 - e. Meet the Contract schedule for project completion.
- B. Contractor shall not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.
 - 1. Obtain and pay for permits and provide security required by authority having jurisdiction.
- C. Timing of erosion and sediment control practices: As Shown on the Drawings.
- D. Erosion Control: Contractor shall reduce wind, water, and vehicular erosion of soil on project site due to construction activities for this project, consistent with approved permits and following these requirements:
 - 1. Minimum erosion control measures as shown on the Drawings with additional practices implemented as required by the Contractor's SWPPP.
 - 2. Control movement of sediment and soil from temporary stockpiles of soil.
 - 3. Prevent development of ruts due to equipment and vehicular traffic.
 - 4. Provide good site housekeeping.

5. Inspect, repair, maintain, and replace erosion control practices consistent with approved permits and as shown on the Drawings.
- E. Sediment Control: Contractor shall reduce sediment transport off- site due to construction activities for this project, consistent with approved permits and following these requirements:
1. Minimum sediment control measures as shown on the Drawings with additional practices implemented as required by the Contractor's SWPPP.
 2. Reduce windblown soil from leaving the project site.
 3. Reduce tracking of mud onto public roads outside of the site.
 4. Reduce mud and sediment from flowing onto sidewalks and pavements.
 5. Inspect, repair, maintain, and replace sediment control practices consistent with approved permits and as shown on the Drawings.
- 3.04 CLOSE-OUT
- A. Contractor shall file a Notice of Termination with the State following site stabilization that meets the requirements of the General Permit.
 - B. Contractor shall remove and clean up all temporary erosion and sediment control practices as shown on the Drawings. Site disturbance caused by removal of these practices shall be restored consistent with the surface restoration requirements shown on the Drawings. Costs for restoration shall be at Contractor's expense.

END OF SECTION 31 25 00

DIVISION 32

EXTERIOR IMPROVEMENTS

**SECTION 32 90 00
LANDSCAPING**

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes

1. Seeding (also see Section 32 90 19).
2. Fertilizer.
3. Landscape maintenance.
4. Landscape warranty.

B. Related Sections

1. The General Conditions, Supplementary Conditions, and General Requirements apply to work of this section.
2. Division 1 – General Requirements Specification Sections.
3. Division 31 – Earthwork Specification Sections.
4. Division 32 – Exterior Improvements.

1.02 DEFINITIONS

- A. Growing Season: May 1 through September 30
- B. Weeds – Any vegetation that is either not planted or seeded that is within areas to be seeded or planted as part of this Contract.
- C. Planting Bed – Planted areas around the package plant containers, buried concrete tanks, generator pad and the lift station building.
- D. Noxious Weeds – As defined by the MDT Standard Specifications

1.03 REFERENCES

- A. Montana Standard Specifications for Road and Bridge Construction, 2008 edition, referred to as MDT Standard Specifications in this specification section.
- B. General Permit No. MTR100000 (or its successor), Effective Date January 1, 2013 and Expiration Date December 31, 2017 - Authorization to Discharge under the National Pollutant Discharge Elimination System, referred to as the State's Construction General Permit in this specification section.

1.04 SUBMITTALS FOR REVIEW

- A. Section 01 33 00 – Submittal Procedures.
- B. Seed Data: Provide seed testing data and labeling consistent with MDT Standard Specifications.
- C. Proposed seeding equipment and methods.

1.05 SUBMITTALS AT PROJECT CLOSEOUT

- A. Section 01 77 00 – Closeout Procedures for submittals.
- B. Maintenance Data: Include maintenance instructions for all seeding and planting areas including cutting / pruning method and maximum height; types, application frequency, and recommended coverage of fertilizer and/or mulching.

1.06 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies and MDT Standard Specifications for herbicide, insecticide, pesticide, and fertilizer application rates and composition.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. See Section 01 60 00 for product delivery, storage, and handling requirements.
- B. Deliver seed mixture in sealed containers, open or damaged packaging is not acceptable.
- C. For Engineer's field review, each bag of seed delivered to the site shall bear a tag with labeling meeting MDT Standard Specification requirements.
- D. Deliver fertilizer in waterproof bags, labeled according to state law and bearing weight, chemical analysis, name of manufacturer, and warranty of producer.

1.08 SEEDING BED ESTABLISHMENT PERIOD

- A. The Seeding Bed Establishment Period shall begin immediately after installation, with the approval of the Engineer, and continue until:
 - 1. A Notice of Termination can be filed for the State's Construction General Permit, and meeting all the requirements of the State's Construction General Permit; and
 - 2. No single bare area is greater than 36 square feet.
- B. During the Seeding Bed Establishment Period the Contractor shall:
 - 1. Water all seeded areas to maintain an adequate supply of moisture within the root zone. An adequate supply of moisture is the equivalent of one (1) inch of absorbed water per week either through natural rainfall or augmented by periodic watering. Apply water at a moderate rate so as not to displace the mulch or seed flood the plants and turf.
 - 2. Mechanically remove or spot spray noxious weeds prior to reseeding and such that noxious weeds are less than 10 percent of the overall coverage in the Seeding Bed, with no area greater than 100 square feet that is more than 50 percent noxious weed coverage at the end of the Seeding Bed Establishment Period.

PART 2 - PRODUCTS

2.01 SEED

- A. Area surrounding as defined on the project drawings: Seed shall be Premium Sunny Brand Lawn or Classic Shade/Sun Brand Mixtures as provided by Agassiz Seed & Supply or approved equal.

- B. Seed shall meet MDT Standard Specifications, except the following additional provisions shall apply / supersede the MDT Standard Specifications:
 - 1. Seed shall have a minimum 80 percent germination rate and maximum inert matter and other seeds of 4%. Maximum weed seed shall be 0.5 percent.
 - 2. Seed shall be tested within six months prior to date of seeding and conform to latest seed laws of the State of Minnesota. A certified test report shall be submitted to the Engineer at least 21 days before seeding begins.
 - 3. Origin of native species shall be limited to North Dakota, eastern Montana, South Dakota, or western Minnesota.
- C. Temporary cover crop, if used, shall be per MDT Standard Specifications.

2.02 FERTILIZER

- A. Fertilizer shall meet MDT Standard Specifications. In the case where both Class I and Class III seed are applied, the Class III fertilizer will apply.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Kill all weeds prior to planting or seeding.
 - 1. For broad removal of weeds, Contractor shall use disking or mechanical removal.
 - 2. Herbicide shall only be allowed for spot spraying and if the herbicide will not have a detrimental effect on the intended seeded or planted species.
- B. Fill all depressions to provide a smooth grade. Sticks, stones, and other rubbish on the surface shall be raked and removed.
- C. Seeding: Immediately prior to sowing seed, soil shall be loosened to a depth of approximately three (3) inches all areas except slopes steeper than 2 horizontally to 1 vertically, using discs, harrows, or other suitable equipment.
- D. On slopes, the cultivating equipment shall operate in a general direction at right angles to the direction of surface drainage.
- E. On slopes steeper than 2 horizontally to 1 vertically, no loosening of the soil will be required except that created by equipment used in the finishing operations.

3.02 SEEDING BEDS

- A. Seed all disturbed areas designated for revegetation.
- B. Stake out areas to receive different seed mixes.
- C. Seeding Equipment Requirements.
 - 1. The specified seed or seed mixture shall be drilled in uniformly using a grass drill equipped with individually mounted adjustable spring loaded, double disk furrow openers fitted with depth bands and packer wheels. The drill furrow spacing shall not exceed 8 inches. The depth control bands shall be of a size to provide final planting

depth of ½ to ¾ inch. Packer wheels shall have adjustable spring tension and be mounted individually on each furrow opener or be mounted independently with a press wheel situated to follow directly behind each opener. The seed box shall be equipped with a positive feed mechanism which accurately meters free flowing introduced (tame) grasses in a uniform manner and shall have agitators which prevent seed bridging. If chaffy native grasses are part of the specified seed mixture, the seed box shall be equipped with a positive feed picker-wheel mechanism with oversize teeth and augur style agitators which accurately meters the chaffy native grasses either in a mixture or separately in a uniform manner. The seed box shall have baffles or partitions that keep all seeds uniformly mixed during drilling.

2. Other Equipment. Power sprayers, blowers, hydraulic applicators, or broadcasters may be used on slopes steeper than 3:1 or areas too small to be seeded with a drill. The seeding rate shall be at least 120% of the normal rate, and the seed shall be covered by operating a drag harrow and a light packer over the seeded area.
3. Areas will be visually inspected for uniformity of application. Areas which do not reveal adequate and uniform coverage shall be reseeded at the Contractor's expense.

D. Seasonal considerations for seeding shall be implemented per MDT Standard Specifications, Section 708.02C1d.

E. No seed shall be sown when the wind velocity exceeds 15 miles per hour, in standing water, or on frozen ground.

F. Do not sow within 24 hours after a rain event.

3.03 CLEANUP AND PROTECTION

A. During and after landscaping, keep pavements clean and work area in orderly condition.

B. Protect existing improvements from damage from landscaping operations.

C. Contractor shall clean up the site following work and repair any damage caused by landscaping operations, at Contractor's cost.

3.04 MAINTENANCE

A. Contractor shall be responsible for maintenance of the seeding beds for the Seeding Bed Establishment Periods.

3.05 WARRANTY

A. For Seeding Beds:

1. Initial Acceptance:

- a. All seeding beds shall be evaluated for Initial Acceptance after the seeding beds have been covered with the specified seed and the specified soil protection measure (such as erosion control mulch or mat) as shown on the Drawings. Initial Acceptance shall be based on the Contractor providing the Engineer with the specified submittals and a visual inspection by the Contractor and Engineer of the seeding beds.

2. Maintenance:
 - a. Contractor shall maintain the seeding beds, consistent with the Seeding Bed Establishment Period, until Final Acceptance.
 - b. Other maintenance activities may be completed at the Contractor's discretion to meet the Final Acceptance performance criteria. Contractor shall notify the Engineer of planned additional maintenance activities prior to implementation.
3. Final Acceptance:
 - a. Final Acceptance will occur at the end of the Seeding Bed Establishment Period.
 - b. If after a period of ninety (90) growing season days, vegetation coverage does not meet the minimum requirements outlined in the Seeding Bed Establishment Period, Contractor shall re-seed all areas that do not meet the minimum coverage, at Contractor's cost. A new Seeding Bed Establishment Period shall begin, except the maintenance period will be thirty (30) growing season days.

END OF SECTION 32 90 00

SECTION 32 92 19
SEEDING
(Reference MPWSS Section 02910)

All applicable portions of MPW standard specification Section 02910 shall apply with the following additions, deletions and/or modifications.

PART 2 - PRODUCTS

2.01 SEED – Add following:

E. Seed mixtures shall be proportioned as follows:

1. Dryland Seed.

Seed Species or Variety	Seed Mix %	Application Rate
Western Wheatgrass	20%	21 lbs. Per acre
Pryor Slender Wheatgrass	20%	
Crituna Thickspike Wheatgrass	30%	
Sudar Stream Bank Wheatgrass	20%	
Canada Bluegrass	10%	

Note: All seed shall be 98% pure and shall have a germination percentage of 90%. Do not sow immediately following rain, when ground is to dry, or during windy periods. Apply water with fine spray after seeding. Saturate to 3 inches of soil.

2.02 TOPSOIL – Delete entire section

2.04 FERTILIZER – Add the following:

C. Fertilize uniformly across all surfaces at the following rate:

Dryland Grass

Nitrogen 25 lbs/acre

Phosphate 25 lbs/acre

Lawn Grass

Nitrogen 50 lbs/acre

Phosphate 50 lbs/acre

2.06 MULCH – Add the following:

A. Mulch with a loose 1-inch layer of straw as needed.

PART 3 - EXECUTION

3.01 TOPSIOL – Delete entire section

3.05 CARE OF SEEDED AREAS – Add the following:

- D. All weeds including (spotted knapweed, leafy spurge, and all others identified by the State of Montana as non-native) shall be controlled by the Contractor while grass is becoming established and during the full one-year warranty period after the project is complete and accepted by the Owner. Chemical control may be utilized where permitted by State Laws and regulations.

PART 4 - MEASUREMENT AND PAYMENT

DELETE: Entire Section

END OF SECTION 32 92 19

SECTION 32 97 00
RESTORATION OF DISTURBED AREAS

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Restoration of all areas disturbed during construction.
2. Restoration of all items not specifically identified for restoration, but damaged through construction.

B. Related Sections include:

1. The General Conditions, Supplementary Conditions, and General Requirements apply to work of this section.
2. Division 1 – General Requirements Specification Sections.
3. Division 31 – Earthwork.
4. Division 32 – Exterior Improvements.

1.02 REFERENCES

A. Reference Standards include:

1. Montana State Highway Department Standard Specifications for Road and Bridge Construction, latest edition.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Material Sections include:

1. Seed: Per Section 32 92 19.

PART 3 - EXECUTION

3.01 EXECUTION

- A. Observe all surface features requiring protection, removal and replacement, and/or restoration prior to construction.
- B. The Contractor shall be responsible for the preservation of all public and private property and shall protect carefully from disturbance or damage all land monuments and property marks until the Engineer has witnessed or otherwise referenced their location and shall not move them until directed.
- C. The Contractor shall be responsible for all damage or injury to property of any character during the prosecution of the Work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the Work, or at any time due to defective Work or materials, and said responsibility will not be released until the Project

shall have been completed and accepted.

- D. When any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work, or in consequence of the non-execution thereof by the Contractor, he shall restore, at his own expense, such property to the condition similar or equal to that existing before such damage or injury was done by repairing, rebuilding, or otherwise restoring as may be directed or he shall make good such damage or injury in an acceptable manner.

3.02 RESTORATION

- A. Restore all areas disturbed by construction to a condition equal to or better than existed prior to construction.
- B. Replace, restore, repair, or otherwise make good any damage done to any tree, bush, or shrub that is not specifically designated for removal.
- C. Restore items such as culverts, road signs, power poles, sodding, fences, driveways, mailboxes, and like, whether or not specifically identified on the Drawings, to a condition equal to or better than existed before construction.
- D. Replace or repair all concrete or asphalt roads or driveways, removed or damaged during construction with equal or better materials. Replace or repair to match existing conditions.
- E. Stabilize subgrade sufficiently to prevent mixing of granular material with subgrade prior to application of base material.
- F. All damage to streets, driveways, berms, etc. due to the Contractor's construction techniques and equipment shall be repaired at the Contractor's expense prior to final payment.
- G. Remove all excess dirt, concrete, and other debris from work area immediately upon completion of Work and deposit on-site in a disposal area designated by Owner. Contractor shall be required to clean site to the condition prior to the start of construction before final payment will be made.
- H. All restoration shall be completed prior to opening any section of Work.

END OF SECTION 32 97 00

DIVISION 46

WATER & WASTEWATER EQUIPMENT

SECTION 46 06 70
SLUDGE HANDLING & DISPOSAL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and Special Provisions of the Contract, including general and Supplementary Conditions and Division 1 Sections, apply to this Section.

1.02 SUMMARY

- A. The work in this section consists of furnishing all labor, equipment, materials and performing all operations related to removing and disposing biosolids (sewage sludge, sludge) from Treatment Cells #2 & #3. Information pertaining to the quality and quantity of sludge is included in **Appendix C** of these project documents ('Sludge Sampling Report 2018', 'Sludge Sampling Test Results 2024', & 'Pages from Land Application of Sewage Sludge – A Guide for Land Appliers'). A project completed in 2023 included bailing sludge from Cell #1 into Cell #2 and isolating Cell #2 & Cell #3 from the new WWTF. The old cells are no longer receiving nor discharging flow from the new WWTF.
- B. Sludge quality and quantity data is based on measurements taken in August 2018 and August 2024. The estimated volume of wet (in place) sludge within Cell #2 including the sludge from Cell #1 is 1,985 yd³ (712 dry tons) with approximately 42.6% total solids. The estimated volume of wet (in place) sludge within Cell #3 is 960 yd³ (426 dry tons) with approximately 52.8% total solids. Considerable reduction in sludge volume can be expected if the material is dried to a higher solids content through a freeze/thaw cycle.
- C. The Owner and Contractor will work cooperatively to either:
 - 1. Seek authorization from MDEQ to land apply accumulated sludges in accordance with applicable MDEQ and EPA rules. The Owner will be responsible for submitting the MDEQ's General Biosolids Agricultural Application form with the support from the Contractor for completing all forms. The Contractor will be responsible for securing a disposal site, if different from the Contract Documents, and complying with the land application conditions of that form - or;
 - 2. Seek authorization from Deer Lodge County to dispose of accumulated sludges in the local landfill. Applicable federal/state rules regarding non-hazardous & non-liquid wastes will apply.
 - a. The project is designed to land apply the biosolids from Cells #2 and #3. Additional cost to transport and dispose biosolids to a local landfill is the Contractor's responsibility, the Owner shall not be responsible for any additional costs.

1.03 SUBMITTAL

- A. Sludge Disposal Plan: The Contractor shall submit a detailed plan, fully outlining the proposed system of sludge handling, pumping, dewatering and disposal, to the Engineer. No sludge disposal work shall begin until such plan is approved by the Engineer. The plan shall include detailed proposals for the following items:
1. Preparing the disposal site including clearing and grubbing;
 2. Isolating and draining Cell #3;
 3. Dewatering if applicable and removing the residual sludge from Cell #3;
 4. Transporting sludge from Cell #3 to the disposal site;
 5. Equipment to be used for sludge de-watering, transfer and handling;
 6. Application of the sludge to the disposal site and compliance with applicable regulations;
 7. **Land application of sewage sludge must strictly follow 40 CFR Part 503 Standards for use or disposal of sewage sludge;**
 8. Isolating and draining Cell #2;
 9. Dewatering if applicable and removing the residual sludge from Cell #2;
 10. Transporting sludge from Cell #2 to the disposal site;
 11. Equipment to be used for sludge de-watering, transfer and handling;
 12. Application of the sludge to the disposal site and compliance with applicable regulations;
 13. **Land application of sewage sludge must strictly follow 40 CFR Part 503 Standards for use or disposal of sewage sludge;**
 14. Spill response planning, including equipment, personnel, availability, and emergency contacts;
 15. Safety and signage proposed for protection of the Owner and public;
 16. Outline of record-keeping and reporting to demonstrate 503 Regulations compliance at application site;
 17. Application site maintenance and cleanup.

1.04 BIOSOLIDS GOVERNING REGULATIONS

- A. The governing standards for all sludge removal and land application shall be the federal *503 Regulations* – more specifically, *The Standards for the Use or Disposal of Sewage Sludge (Title 40 CFR, Part 503)*. The EPA retains primacy for biosolids management, although other Montana Department of Environmental Quality (MDEQ) regulations and reporting requirements may apply. The Biosolids Coordinator for MDEQ is Michelle Marsh, P.E. (ph: 406/444-5322)

PART 2 - PRODUCTS

2.01 EQUIPMENT

- A. The sludge removal plan shall include a complete listing showing the type and quantity of equipment to be used. The Contractor may use any type of earth moving, compacting, tilling, and pumping equipment, provided the equipment is in satisfactory condition and of such capacity as to fulfill the requirements of this section. The Contractor is solely responsible for the condition of his equipment. Only equipment in good working condition is acceptable. The Engineer assumes no responsibility for the safety of Contractor's equipment. The Engineer reserves the right to periodically inspect all equipment provided by the Contractor and to reject pieces found to be in unsatisfactory condition or doing unsatisfactory work. Leak-proof trucks will be required for overland hauling of all sludge, if applicable.
- B. Equipment, methods, and operations for biosolids removal from Cells #2 and #3 shall be solely and completely at the Contractor's option, subject to the requirements for Submittal review.
- C. Cells #2 and #3 have been isolated from the new WWTF and contain wastewater. The cells may not be able to be fully dewatered due to limited holding capacity of the cells. There is no electrical power on-site, therefore it will be the Contractor's responsibility to plan accordingly. The Contractor will be responsible for providing their own power source at no additional cost to the Owner.
 - 1. Any temporary fuel storage, including cans and barrels, must be kept in/on vehicles or within an impermeable secondary containment while stored.

2.02 FLOWMETER REQUIREMENTS

- A. The Contractor shall provide a calibrated flowmeter on the sludge removal discharge line.
 - 1. Flowmeter shall be a magnetic flowmeter with full or reduced bore, or Doppler ultrasonic external clamp-on meter, rated by the manufacturer for the pipeline size and fluid velocity being used. Straight pipe lengths upstream and downstream of the flowmeter and meter installation shall meet the meter manufacture's recommendations for the rated meter accuracy. Insertion probe or "wand" type meters cannot be used.
 - 2. Flowmeter shall have a manufacturer's rated accuracy of not less than 1.0% at the flow range, liquid medium, and temperature under which it is operated.
 - 3. The Contractor shall provide the Engineer a calibration test of the flowmeter by timing the filling of a container of known volume.
- B. In lieu of flowmeter measurement, if the Contractor is approved to haul sludge rather than pump overland, wet gallonage can be measured by daily "load counts" of tankers performing hauling. If load counts are used, the Contractor shall provide a manufacturers or DOT certification of the liquid volume capacity of

each tanker used.

2.03 SAMPLING TAP

- A. The Contractor shall provide a 1-inch minimum diameter sampling outlet on the discharge piping for purposes of collecting liquid samples for Total Solids testing. The sampling outlet shall have a full-port valve with a quarter-turn lever operator.

PART 3 - EXECUTION

3.01 GENERAL

- A. See the Special Provisions in the Contract Documents for project sequencing/scheduling.
- B. The Contractor shall perform all excavation, pumping, hauling, and land application or disposal of accumulated sludge in Cells #2 and #3 as specified and shown in the contract drawings. Contractor shall be responsible for inspection of the Cells, determination of methods for transferring and disposing of biosolids, regulatory compliance and, if applicable, haul routes to a suitable land application site or landfill. The Contractor shall provide the proper equipment and personnel required to complete the specified work in an efficient and timely manner. All special equipment required for the sludge removal element of the project will be furnished by the Contractor at no additional cost to the Owner.
- C. The Contractor shall maintain a Microsoft Excel spreadsheet tabulating daily starting/stopping quantities of sludge removed, plus percent-solids measured on a daily basis. The spreadsheet shall also show the calculations of Daily Dry Tons removed. The current spreadsheet shall be submitted electronically to the Engineer at the end of each work week and in conjunction with the Contractor's request for payment applications.
- D. The results of analyses performed by Energy Laboratories Inc. in August 2018 and in August of 2024 to determine fecal coliform bacteria, total metals, nitrogen constituents, and percent solids of the sludge are presented in **Appendix C** of the project documents. The analysis indicated that all metal concentrations are below the Ceiling Concentration Limits of Part 503 with the exception of arsenic in Cell #1, which is above the Clean Sludge Concentration Limits. An analysis was completed showing that the application rate with regards to Total Nitrogen required more acreage than Arsenic, therefore the biosolids from all the Cells can be land applied at the agronomic rate with respect to Total Nitrogen for agricultural uptake in accordance with 40 CFR part 503.
- E. Bidder shall make their own interpretations of the data contained in said drawings, and the Contractor shall not be relieved of liability under the contract for any loss sustained as a result of any variance between conditions indicated by or deduced from said data and the actual conditions encountered during the progress of work. The accuracy of the sludge quality data is not guaranteed by the Owner or the Engineer.

- F. Bidders are hereby advised that the sludge may be corrosive and that it may contain disease producing micro-organisms. The Contractor shall therefore plan his work operations accordingly.

3.02 HANDLING AND HAULING OF SLUDGE

- A. Sludge residing in Cells #2 and #3 shall undergo land application or disposal in accordance with the requirements of the site Owner and all applicable regulatory agencies. If the Contractor proposes offsite disposal, refusal of potential sludge application site Owners to accept sludge shall not be the basis for claims by the Contractor and shall not relieve the Contractor of his responsibility to complete the lagoon clean-out work. No sludge shall be brought to Contractor-proposed sites until the Owner, the Engineer, and the appropriate regulatory agencies have reviewed and accepted the site and disposal method. The Contractor shall be responsible for obtaining all required approvals from regulatory agencies prior to sludge application at Contractor-proposed sites. The application of sludge to Contractor-proposed sites shall not result in additional costs to the Owner.
- B. Contractor is hereby advised that sludge transfer, hauling, handling and land application shall be fully coordinated with the Engineer and Owner.
- C. No sludge shall be spilled onto roadways or adjacent properties during transport. In the event that sludge spillage occurs, the Contractor shall promptly clean up the spilled sludge. Any fines assessed for sludge spillage shall be paid by the Contractor at no additional cost to the Owner. All documentation of the spillage shall be provided in a written report to the Engineer including photos of the spillage and photos after the cleanup has been completed.
- D. At the Contractor's option, sludge removed from the Cells may be dewatered on site to reduce haul volumes or facilitate transport. However, sludge dewatering is not required, and is solely at the discretion of the Contractor based on their intended transport and land application methods. If dewatering is elected, the sludge dewatering system must include full capture provisions for filtrate liquid, with piping provisions to return the filtrate to either Cell #2 or Cell #3 or both upon approval from the Engineer.
- E. Finished grade of lagoons following removal of sludge shall be as shown in the contract drawings, see the Special Provisions in the Contract Documents for sequencing/scheduling.
- F. All aspects of the sludge disposal operation shall be conducted in full accordance with the requirements of local, state, and federal regulatory agencies.

3.03 REGULATORY REQUIREMENTS

- A. The Contractor shall be responsible meeting all requirements in 40 CFR Part 503 Standards for the Use or Disposal of Sewage Sludge. These requirements include the following:
 - 1. For a "one-time" land application event, sewage sludge shall be applied at no

more than the agronomic nitrogen uptake rate specific to the type of vegetation that is planted on the land application site after application.

2. Pollutant levels for the regulated metals shall not be exceeded. Note, the sampling results acquired in August 2018 indicate compliance with the heavy metals requirements of 40 CFR §503 with exception to Arsenic from Cell #1, which is now in Cell #2;
3. If land applied, sewage sludge shall be incorporated into the soil in accordance with the Vector Attraction Reduction requirements of 40 CFR §503.
4. All testing required by Part 503 Standards shall be the responsibility of the Contractor. All test results shall be provide to the Engineer and Owner.

3.04 APPLICATION SITE MAINTENANCE AND CLEANUP

- A. Any sludge spilled or accumulating in “pools” on the ground surface must be promptly and fully removed, and deposited with other biosolids awaiting land application.
- B. Per the 503 Standards:
 1. No livestock grazing;
 2. No public access;
 3. No harvest of pastureland grasses.
- C. The Contractor shall maintain a clean and non-hazardous work site to the satisfaction of the Regulatory Agencies, Engineer and/or Owner.
- D. The Contractor shall promptly clean up and properly dispose of all debris, litter, and leftover materials following completion of lagoon cleaning and leave the biosolids application site in conditions meeting the Regulatory Agencies’, Engineer’s, and Owner’s approval.

3.05 REPORTING DATA AND CONTRACTOR’S CERTIFICATION

- A. Reporting data collected and compiled by the Contractor as the biosolids “Applier” under the 503 Regulations shall include, but under those Regulations may not be limited to the following:
 1. Management practice description and Certification.
 2. Site restriction description and Certification.
 3. Vector Attraction Reduction description and Certification.
 4. Scaled drawing delineating exact acreage along with a mathematical acreage tally of land that received biosolids application, and Township/Range/Section/quarter-quarter designation and GPS coordinates of parcel(s) that received biosolids.
 5. Volumetric (liquid) tally of total amount of biosolids applied per land

application parcel, and dry-solids basis tally of total weight of biosolids applied per parcel.

6. Machinery descriptions and all application-calibration records (frequency and results) for equipment used for land application, including documentation of any adjustments made based on calibrations.
- B. The Contractor's Certification to accompany the above Reporting data may use the form from the *Land Application of Sewage Sludge – A Guide for Land Appliers on the Requirements of the Federal Standards for the Use or Disposal of Sewage Sludge, 40CFR Part 503, EPA/831-B-93-002, Dec. 1994*, or similar certification form. For the Contractor's convenience, a copy of the form has been included in **Appendix C**.
- C. The Contractor shall sign and provide the following Certification of 503 Regulations compliance upon completion of the Work. All reports, data and Certification generated by the Contractor shall be provided to the Engineer and to the Owner within 15 days of completion of land application activity, and before payment for the work is made to the Contractor. All reports and data generated by the Contractor shall also be retained by the Contractor for a period of 5 years after completion of land application, as required by federal regulations.

I certify under penalty of law, that the Class B biosolids have been land applied in full accordance with applicable CFR Part 503 Regulations. This determination has been made under my direction and complied with such requirements. I am aware that there are significant penalties for false certification, including the possibility of fine or imprisonment.

Signed: _____

Date: _____

Company: _____

- D. The Contractor shall indemnify, defend, and hold harmless the State of Montana from and against any and all claims, suits, actions, demands, losses, costs, liabilities, and expenses (including remediation costs and reasonable attorney's fees) to the extent such losses result from: (i) Contractor's violation of applicable laws or regulations in effect at the time of biosolids application; or (ii) the negligence or willful misconduct of the Contractor in handling, transportation and application of biosolids on State property. This indemnification shall survive termination of this Contract until the expiration of any applicable statutes of limitations. The State shall promptly notify the Contractor in the event of a third-party claim and the Contractor shall have the right to provide and oversee the defense of such claim and enter into any settlement of such claim at its discretion (holding the State harmless).

END OF SECTION 46 06 70

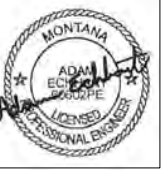
APPENDIX A

Project Drawings

Lagoon Cleanout and Restoration

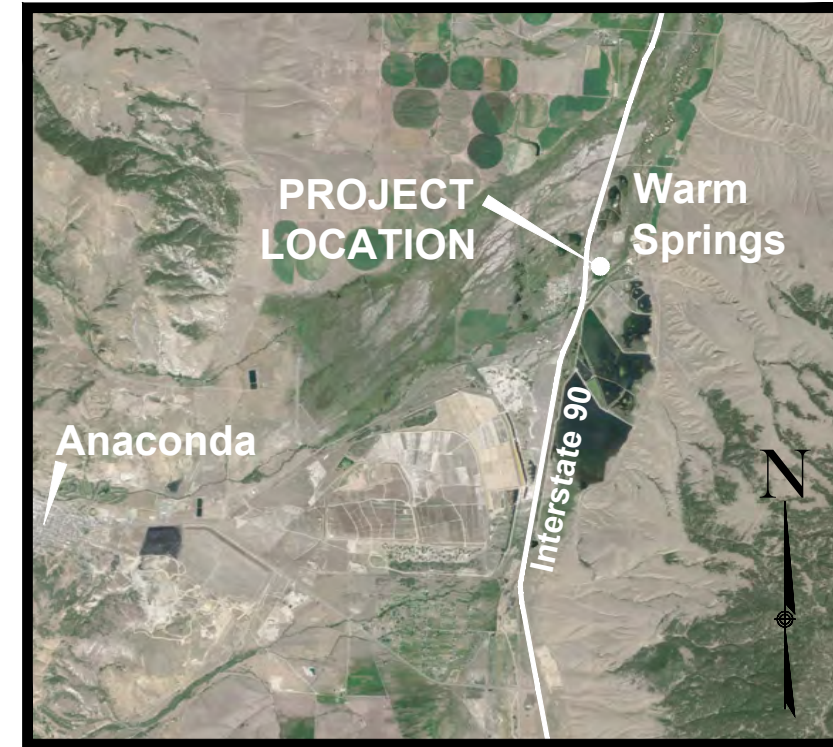
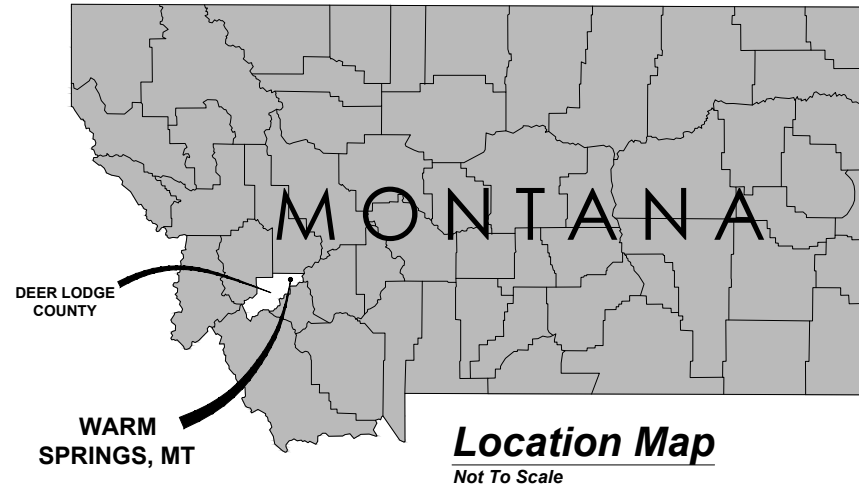
Montana State Hospital - Warm Springs, Montana

A/E #2011-11-01-05



Revision	Date	By
Draft	9/5/24	AE
Final	1/15/25	AE

Revision	Final
Plot Scale	1:2
Drawn By	A. Eckhart, P.E.
Approved By	A. Eckhart, P.E.
Checked By	P. Montgomery, P.E.
Designed By	A. Eckhart, P.E.



Engineer

Anderson-Montgomery
CONSULTING ENGINEERS

1064 N. Warren
Helena, Mt 59601
Phone (406) 449-3303
Fax (406) 449-3304

Owner

State Of
Montana

WORKSCOPE

Prepare Land Application Site (Clearing & Grubbing), Land Apply Biosolids, Demo Existing Piping & Structures, Grading, and Surface Restoration.

PRIMARY CONTACTS

Project Administrator - Architecture and Engineering Division, 1520 E. Sixth Avenue, P.O. Box 200103, Helena, MT 59620 Mark Hines, (406) 444-3331, mhines@mt.gov
 AMCE - Adam Eckhart, (406)449-3303, Adam@a-mce.com
 On Site - Jenn Robinson, (406) 693-7020, Jennifer.Robinson@mt.gov

SHEET INDEX:

1. COVER
2. PROJECT NOTES
3. LOCATION AND SURVEY CONTROL COORDINATES
4. DEMOLITION
5. DEMOLITION PHOTOS
6. LAND APPLICATION SITE PLAN
7. SECONDARY LAND APPLICATION SITE PLAN
8. GRADING PLAN
9. GRADING PLAN SOUTH OF OUTFALL
10. GRADING PLAN NORTH OF OUTFALL
11. EARTHWORK DISPLAY

Project Title

Montana
State Hospital
Lagoon
Cleanout and
Restoration

Sheet Title

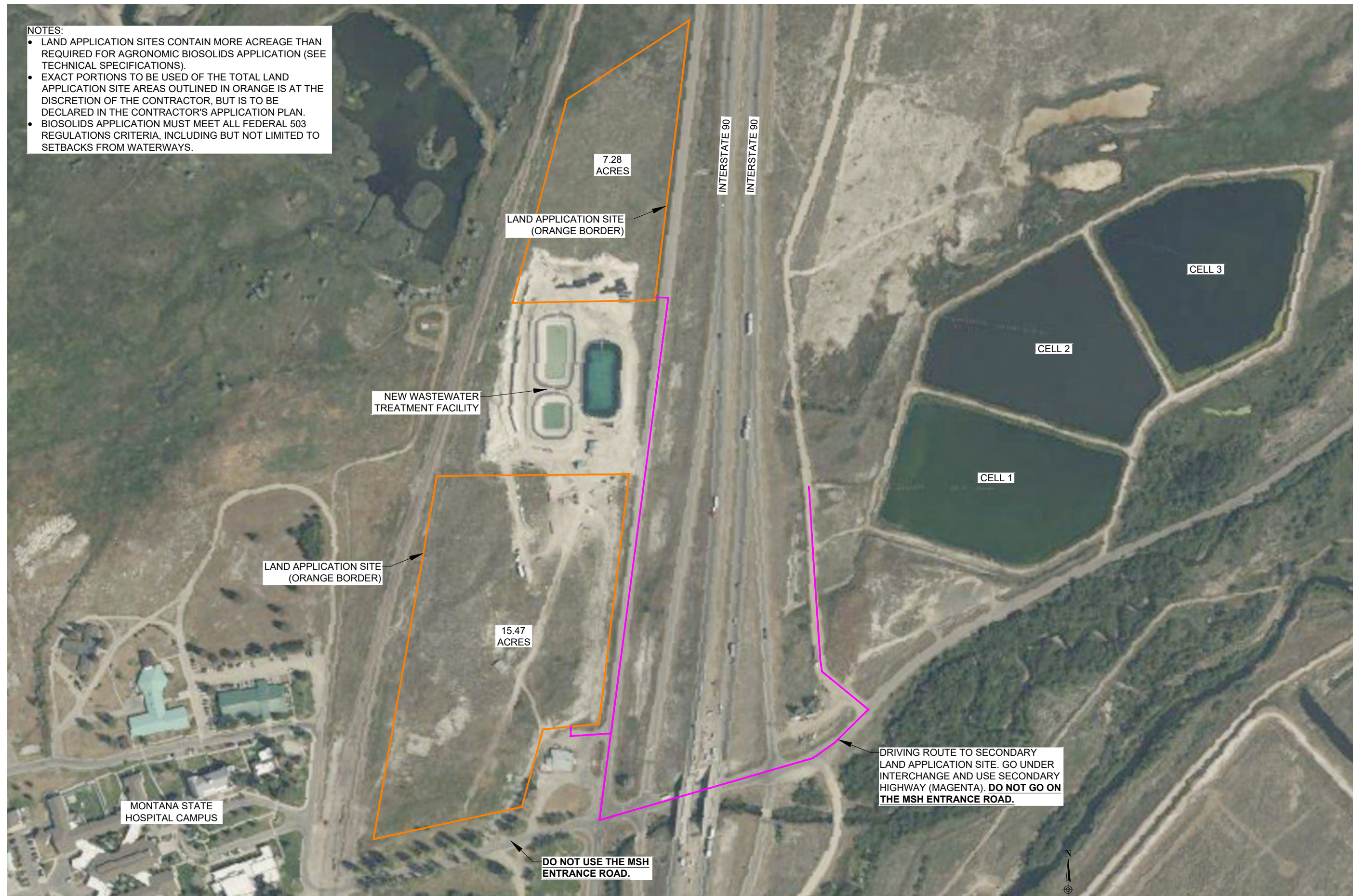
Cover

Sheet

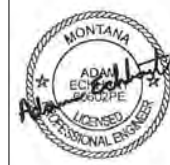
1

X:\MSH - Lagoon Cleanout\DESIGN\DRAWINGS\Sheets\7 - Secondary Land Application Site Plan.dwg SAVED: 8/23/24 PRINTED: 1/15/25 BY: ADAM

- NOTES:**
- LAND APPLICATION SITES CONTAIN MORE ACREAGE THAN REQUIRED FOR AGRONOMIC BIOSOLIDS APPLICATION (SEE TECHNICAL SPECIFICATIONS).
 - EXACT PORTIONS TO BE USED OF THE TOTAL LAND APPLICATION SITE AREAS OUTLINED IN ORANGE IS AT THE DISCRETION OF THE CONTRACTOR, BUT IS TO BE DECLARED IN THE CONTRACTOR'S APPLICATION PLAN.
 - BIOSOLIDS APPLICATION MUST MEET ALL FEDERAL 503 REGULATIONS CRITERIA, INCLUDING BUT NOT LIMITED TO SETBACKS FROM WATERWAYS.



Secondary Land Application Site Plan



Revision	Date	By
Draft	9/5/24	AE
Final	1/15/25	AE

Revision	Final
Plot Scale	1:2
Drawn By	A. Eckhart, P.E.
Approved By	A. Eckhart, P.E.
Checked By	P. Montgomery, P.E.
Designed By	A. Eckhart, P.E.

Engineer

Anderson-Montgomery
CONSULTING ENGINEERS

1064 N. Warren
Helena, Mt 59601
Phone (406) 449-3303
Fax (406) 449-3304

Owner

State Of
Montana

Project Title

Montana
State Hospital
Lagoon
Cleanout and
Restoration

Sheet Title

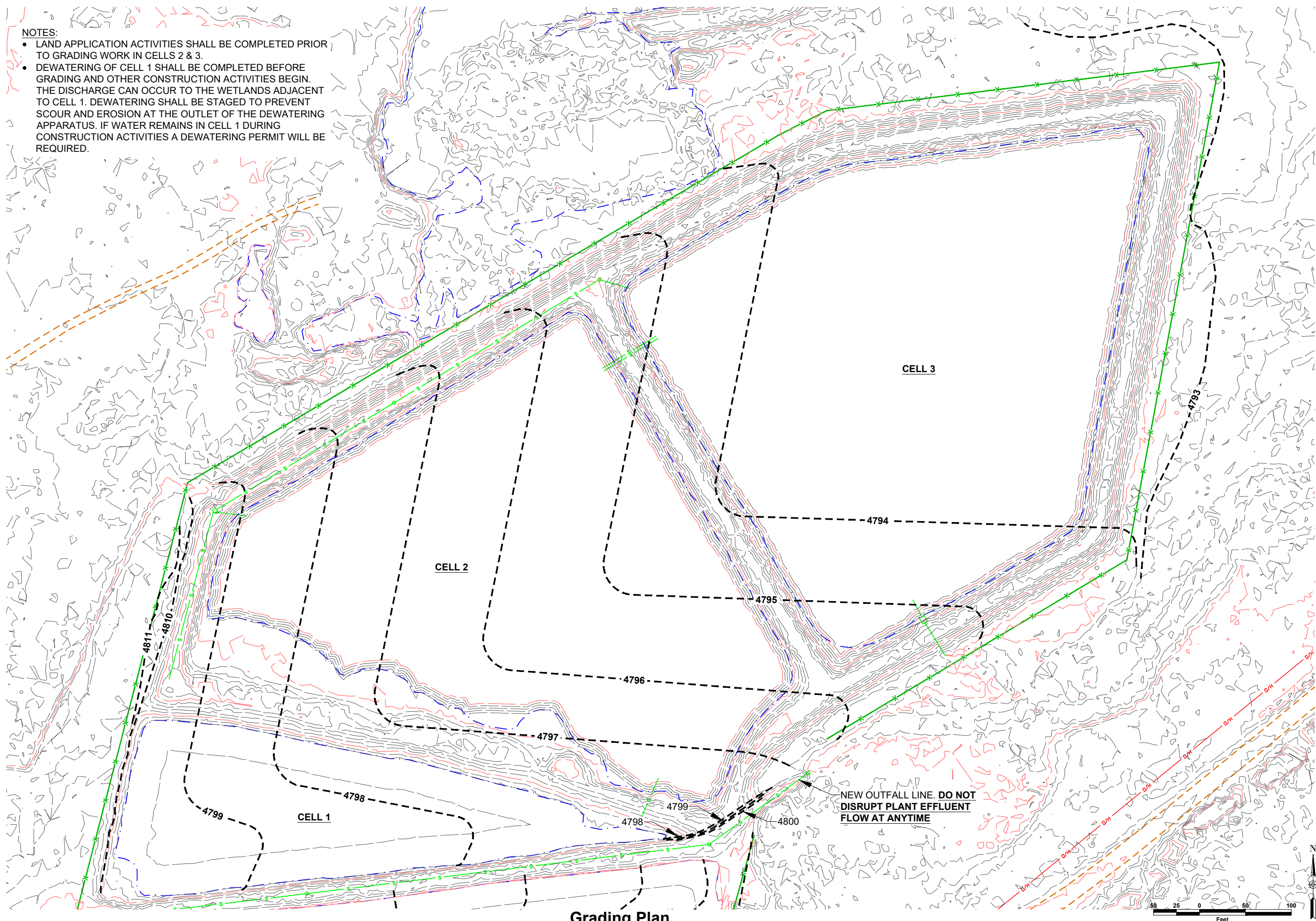
Secondary
Land
Application
Site Plan

Sheet

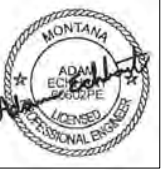
7

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- NOTES:**
- LAND APPLICATION ACTIVITIES SHALL BE COMPLETED PRIOR TO GRADING WORK IN CELLS 2 & 3.
 - DEWATERING OF CELL 1 SHALL BE COMPLETED BEFORE GRADING AND OTHER CONSTRUCTION ACTIVITIES BEGIN. THE DISCHARGE CAN OCCUR TO THE WETLANDS ADJACENT TO CELL 1. DEWATERING SHALL BE STAGED TO PREVENT SCOUR AND EROSION AT THE OUTLET OF THE DEWATERING APPARATUS. IF WATER REMAINS IN CELL 1 DURING CONSTRUCTION ACTIVITIES A DEWATERING PERMIT WILL BE REQUIRED.



Grading Plan



Revision	Date	By
Draft	9/5/24	AE
Final	1/15/25	AE

Revision	Final
Plot Scale	1:2
Drawn By	A. Eckhart, P.E.
Approved By	A. Eckhart, P.E.
Checked By	P. Montgomery, P.E.
Designed By	A. Eckhart, P.E.

Engineer

Anderson-Montgomery
CONSULTING ENGINEERS

1064 N. Warren
Helena, Mt 59601
Phone (406) 449-3303
Fax (406) 449-3304

Owner

State Of
Montana

Project Title

Montana
State Hospital
Lagoon
Cleanout and
Restoration

Sheet Title

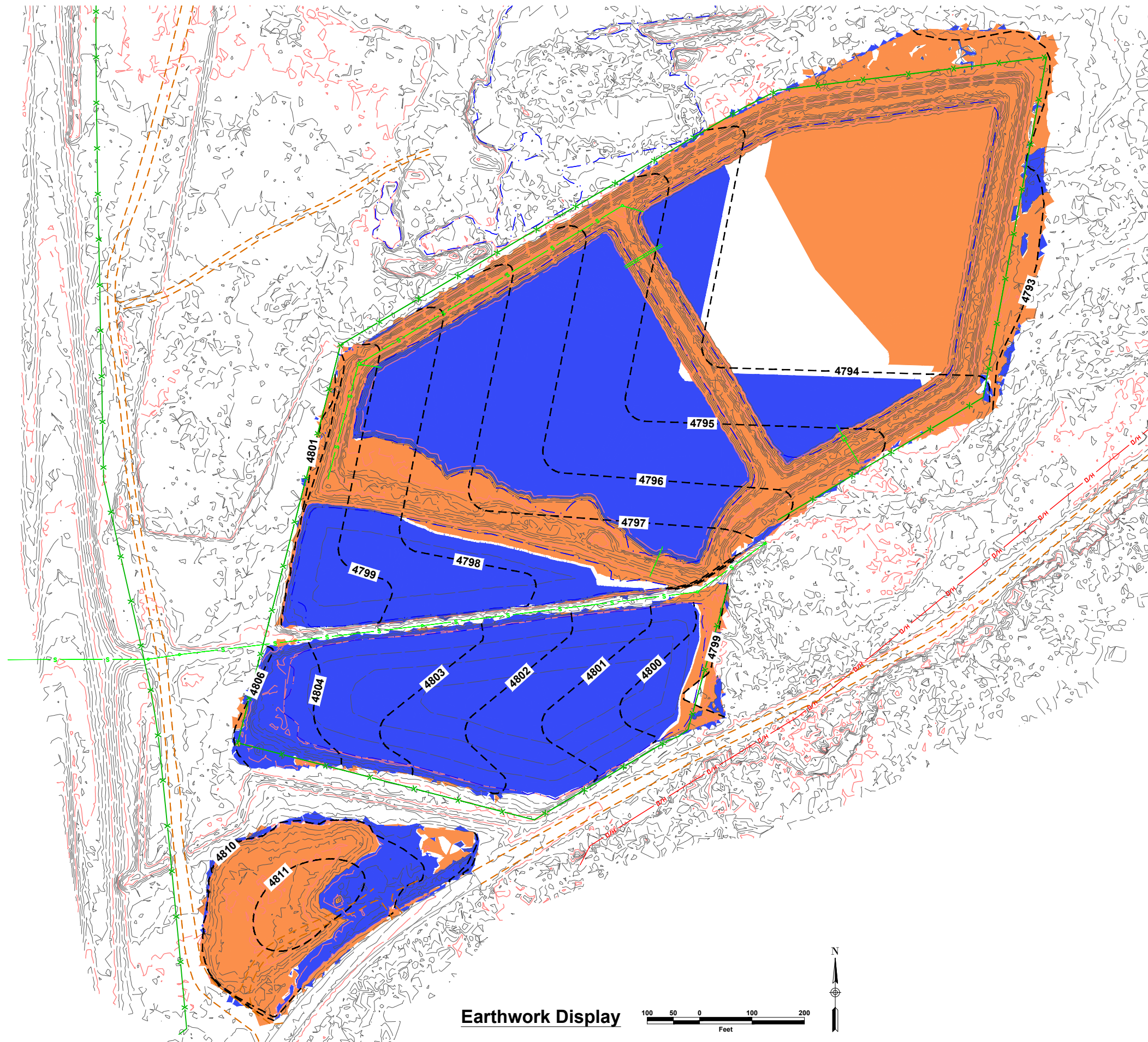
**Grading
Plan
North of
Outfall**

Sheet

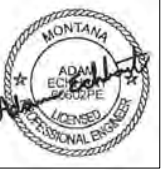
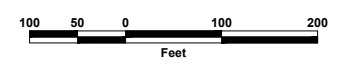
10

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LEGEND:
CUT
FILL




Earthwork Display



Revision	Date	By
Draft	9/5/24	AE
Final	1/15/25	AE

Revision: Final
 Plot Scale: 1:2
 Drawn By: A. Eckhart, P.E.
 Approved By: A. Eckhart, P.E.
 Checked By: P. Montgomery, P.E.
 Designed By: A. Eckhart, P.E.

Engineer

 Anderson-Montgomery
 CONSULTING ENGINEERS
 1064 N. Warren
 Helena, Mt 59601
 Phone (406) 449-3303
 Fax (406) 449-3304

Owner
 State Of
 Montana

Project Title
 Montana
 State Hospital
 Lagoon
 Cleanout and
 Restoration

Sheet Title
 Earthwork
 Display

Sheet
11

APPENDIX B

Construction Permit Forms

AGENCY USE ONLY

PERMIT NO.:	Date Rec'd.:	Amount Rec'd.:	Check No.:	Rec'd By:
-------------	--------------	----------------	------------	-----------



FORM NOI 2012	Notice of Intent (NOI) Storm Water Discharge Associated With Construction Activity MTR100000
--------------------------------	---

The NOI form is to be completed by the owner or operator of construction activity eligible for coverage under the Department's *General Permit for Storm Water Discharges Associated with Construction Activities*. You must print or type legibly; forms that are not legible or are not complete or are unsigned will be returned. You must maintain a copy of the completed NOI form for your records.

Section A - NOI Status (Check one):

New No prior NOI submitted for this site.

Resubmitted Permit Number: MTR10 _____

Renewal Permit Number: MTR10 _____

Modification Permit Number: MTR10 _____ (Discuss Modification in Section I)

Section B – Facility or Site Information (See instruction sheet):

Site Name _____

Site physical address, mailing address at location, or directions to the site _____

Township/Range/Section (optional): _____

Nearest City or Town _____ Zip Code _____ County _____

Latitude _____ Longitude _____

Is this facility or site located on Indian Lands? Yes No

Section C – Applicant (Owner/Operator) Information:

Owner or Operator Name (Organization Formal Name) _____

Mailing Address _____

City, State, and Zip Code: _____

Phone Number _____ Email _____

Is the entity listed above the construction project owner? Yes No

Status of Applicant (Check one) Federal State Private Public Other (specify) _____

Section D – Existing or Pending Permits, Certifications, or Approvals: None

- MPDES _____ RCRA _____
 PSD (Air Emissions) _____ Other _____
 404 Permit (dredge & fill) _____ Other _____

Section E - Standard Industrial Classification (SIC) Codes:

Select at least one SIC code which best reflects the type of construction work.

A. Primary	B. Second
C. Third	D. Fourth

Section F – SWPPP Administrator

Primary:

Name and Title or Position Title _____
Mailing Address _____
City, State, and Zip Code _____
Phone _____ Alternate Phone _____
Email _____

Secondary:

Name and Title or Position Title _____
Mailing Address _____
City, State, and Zip Code _____
Phone _____ Alternate Phone _____
Email _____

Section G – Receiving Surface Water(s):

Storm Water Outfall/Discharge Locations: For each outfall, list latitude and longitude in the decimal degrees format (00.0000; -000.0000) and the name of the receiving waters. **This section must not be left blank and N/A is not acceptable.**

Outfall Number	Latitude	Longitude	Receiving Surface Waters
001			
002			
003			
004			
005			

Map: Attach a USGS topographic quadrangle map extending one mile beyond the property boundaries of the site or activity identified in Section B depicting the facility or activity boundaries, major drainage patterns, and the receiving surface waters stated above.

Section H – Describe the Construction Activity or Project

Please describe the Construction Activity or Project

Please provide a summary of Best Management Practices (BMPs) in the SWPPP

Total site area (acres) _____

Area of Construction Related Disturbance (acres) _____

Estimated Project Start Date _____ Estimated Project Completion Date _____

Estimated Project Final Stabilization Date _____

Does the project discharge to listed impaired waterbody? Yes No

Does the project discharge to a regulated Small Municipal Separate Storm Sewer System (MS4)? Yes No

If yes, please select the receiving regulated Small MS4

If yes, will the SWPPP be submitted to the regulated Small MS4? Yes No

Section I – Supplemental Information (For Permit Modification Only – leave blank except for modification)

Section J – Fee:

NEW PROJECTS:

Indicate the acreage of construction related disturbance indicated in Section H of this NOI form. The fee for new projects includes the application and the annual fee for the calendar year in which the permit authorization is effective.

1-5 acres \$ 900.00

>5-10 acres \$1,000.00

>10-25 acres \$1,200.00

>25-100 acres \$2,000.00

>100 acres \$3,500.00

RESUBMITTAL \$ 500.00

RENEWAL \$ Amount specified in Rule (only required if > four years since date the permit authorization is effective)

MODIFICATION \$ 500.00 (minor modification, only if < six months from date the permit authorization is effective)

Section K - CERTIFICATION

Authorized Signatories: This form must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Applicants Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA]

A. Name (Type or Print)

B. Title (Type or Print)

C. Phone No.

D. Signature

E. Date Signed

The Department will not process this form until all of the requested information is supplied, and the appropriate fees are paid. Return this form and the applicable fee to:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-3080

ATTACHMENT A - Delegation of Authority Form (Parts 3.2. and 4.15.)

This form is for use by permittees under the MPDES "General Permit for Storm Water Discharges Associated with Construction Activity". The owner/operator information and "site name" provided below must be the same as the information provided on the NOI and SWPPP Form. This form can be used for an additional and/or new SWPPP Administrator person/position not identified on the NOI Form.

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the MPDES "General Permit for Storm Water Discharges Associated with Construction Activity" (General Permit), at the _____ construction site. The designee is authorized to sign any reports, Storm Water Pollution Prevention Plan, and all other documents required by the General Permit.

Name of Person or Position: _____

Owner/Operator: _____

Mailing Address: _____

City, State, Zip Code: _____

Phone Number: _____

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Part 4.15. of the General Permit, and that the designee above meets the definition of a "duly authorized representative" as set forth in Part 4.15.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Title: _____

Signature: _____

Date: _____



Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. LEW certifications are submitted through the electronic Notice of Intent (eNOI) system. Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- [List of states, Indian country, and territories where EPA's 2012 Construction General Permit \(CGP\) and Multi-Sector General Permit \(MSGP\) Apply](#)
- [EPA's CGP eNOI System](#)

The period during which small construction sites qualify for the waiver generally occurs during a relatively short time in arid and semi-arid areas. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required.

To use the Rainfall Erosivity Factor Calculator to determine your eligibility for the LEW, you will need your project's location (either latitude/longitude or address) and the estimated start and end dates of construction. The period of construction activity begins at initial earth disturbance and ends with final stabilization.

- [Construction Rainfall Erosivity Waiver Fact Sheet](#)
- [Appendix C of the 2017 CGP – Small Construction Waivers and Instructions](#)

For questions or comments, email EPA's CGP staff at cgp@epa.gov.

Facility Information

- Start Date: 07/23/2018
- End Date: 08/27/2018
- Latitude: 48.458333333333
- Longitude: -114.35222222222

Erosivity Index Calculator Results

An erosivity index value Of **3.17** has been determined for the construction period of **07/23/2018 - 08/27/2018**.

A rainfall erosivity factor of less than 5.0 has been calculated for your site and period of construction. Contact your permitting authority to determine if you are eligible for a waiver from NPDES permitting requirements. If you are covered under EPA's construction general permit then you can use eNOI to submit your low erosivity waiver certification.

If your construction activity extends past the project completion date you specified above, you must recalculate the R factor using the original start date and a new project completion date. If the recalculated R factor is still less than 5.0, a new waiver certification form must be submitted before the end of the original construction period. If the new R factor is 5.0 or greater, the operator must submit a Notice of Intent to be covered by the Construction General Permit before the original project completion date.

[Start Over](#)

AGENCY USE ONLY

PERMIT NO.:

Date Rec'd.:

Rec'd By:



WATER PROTECTION BUREAU

**STORM WATER RAINFALL EROSION WAIVER FORM
for Exclusion from MPDES Permitting for Storm Water
Discharges Associated with Construction Activity**

Important: The attached instructions must be referenced in order to complete this form properly. Please print or type. This Form must be filled out completely. This Form cannot be submitted electronically. This Form can only be used for construction projects initiating construction-related ground disturbance no earlier than March 1st and completing construction work and achieving "final stabilization" no later than November 30th of the same calendar year.

A. Name and Address of Applicant (Owner or Operator):

Applicant (Owner or Operator) Name: _____

Mailing Address: _____

City, State, and Zip Code: _____

Email Address (optional): _____

Phone Number: _____

Who is applying (check): Construction Project Owner Contractor

Contact Person (familiar with facility):

Name: _____

Title: _____ Phone Number: _____

B. Location of the Construction Activity Site:

Street Address or Location Description:

City, State, and Zip Code: _____

County: _____

Site Name of Construction Activity or Facility: _____

Latitude of the Construction Activity Site: _____

Longitude of the Construction Activity Site: _____

C. Briefly Describe the Nature of the Construction Activity:

D. Area of Construction-Related Disturbance at the Construction Activity Site:

E. Indicate the name of the receiving surface water(s): Attach a USGS topographic map showing the construction activity location and receiving surface waters. If storm water from the construction activity site enters a storm sewer system, identify that system and indicate the ultimate named receiving surface water for the storm sewer system.

F. Rainfall Erosivity Factor:

Indicate the determined Rainfall Erosivity Factor, otherwise known as "R Factor", rounded to the nearest tenth of a decimal place (this value must be less than five in order to qualify for the use of this Form): _____

The Department reserves the right to revoke or refuse to grant the waiver based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to state waters.

The Department may not grant waivers for construction sites located in areas where snow cover can exist at the site for extended periods of time, particularly if the construction site will remain active and unstabilized during the snowmelt runoff periods. The Department will make the decision on whether or not a project qualifies for the waiver based on information provided by the permittee, and other sources, such as local government agencies.

Check which one of the following two methods was used to determine the Rainfall Erosivity Factor:

Method #1 - Environmental Protection Agency Website Online Calculator; or

Method #2 - Using Tables & Maps from EPA's Storm Water Phase II Final Rule Fact Sheet 3.1: Low Rainfall Erosivity Waiver (EPA 833-F-00-014, published 01/01/2001)

For all applicants (using either Method #1 or #2), referring to the instructions, please provide the following information which was used in the Rainfall Erosivity Factor determination:

1.	The start date of the construction project.	Start Month / Day / Year
2.	The end date of the construction project (after "final stabilization" is achieved).	End Month / Day / Year
3.	The county the project is located in. If the project is in two or more counties, the county that the majority of the project lies within must be used.	County

For those applicants which used Method #1, please submit an original print-out of the result page (from the website's online R Factor calculator) demonstrating the above provided information, and which indicates the R Factor is below five. If Method #1 was used, Items #4 through #11 below do not need to be completed. For those applicants using Method #2, then items #4 through #11 do need to be completed, and the result indicated in Item #11 is the determining R Factor.

Montana Department of Environmental Quality – Water Protection Bureau
Construction Dewatering General Permit
Daily Log

Construction dewatering activities authorized under the Construction Dewatering General Permit (CDGP, MTG070000) must be monitored in accordance with the CDGP. The permittee is responsible for recording required data on a daily log -- either on the attached form (“Daily Log”) or a site-specific log that includes all the data required by the CDGP.

Records, including the daily log, must be maintained for at least three (3) years and be available for inspection by the Montana Department of Environmental Quality (DEQ). Permittees do not need to submit the logs to the DEQ unless requested.

In addition to the daily log, the permittee must submit completed Discharge Monitoring Reports (DMRs) to DEQ by the 28th of the month following each reporting month, as stated in the CDGP. **Monthly DMRs must be submitted until the Construction Dewatering authorization is terminated whether or not there is a discharge.**

Once dewatering is complete and the permittee determines that authorization to discharge under the CDGP is no longer required, they must submit a request for termination to DEQ. Based on this request, DEQ will terminate the permit authorization and the corresponding requirement to complete the daily log and monthly DMRs.

Specific Instructions for Daily Log:

If no dewatering discharge occurred for any period of record, indicate “no discharge” on the daily log.

Footnotes from Daily Log form:

- 1) Indicate yes for any visual observations of either elevated turbidity or an oil sheen. Visual observation of either parameter triggers the need for the permittee to cease discharging, take a grab sample for analysis, investigate the cause, and address the problem.
- 2) If any turbidity or oil & grease off-site analysis is performed, the permittee is required to maintain records of the date the analysis was performed, the name of the individual who performed the analysis, and what 40 CFR Part 136 analytical technique/method was used [see ARM 17.30.1342(10)(c).] For instance, EPA Method 180.2 is an acceptable method for turbidity, and EPA Method 1664A is an acceptable analysis for oil & grease.
- 3) For any visual observations or numeric turbidity exceedances, the permittee must follow their corrective action plan and include a summary of observations and follow-up actions on additional pages.

Construction Dewatering General Permit - Daily Log

Name of Permittee: _____ Name of Project: _____

MPDES Permit Number: MTG070 _____ **Outfall Number** _____ **Month** _____ **Year** _____
(one form must be filled out per permitted outfall)

Day of Month/ Time	Name / Initials	Discharge Turbidity High ^{(1)?} (Visual - Y/N)	Discharge Turbidity ⁽²⁾ (NTU)	Oil & Grease Sheen (Visual - Y/N) ⁽¹⁾	BMP Failures Observed? (Visual - Y/N)	Corrective Action Report Attached? ⁽³⁾
1/						
2/						
3/						
4/						
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30/						
31/						



WATER PROTECTION BUREAU

Agency Use

Permit No.:

Date Rec'd

Amount Rec'd

Check No.

Rec'd By

FORM
NOI-07

**Notice of Intent Form
Construction Dewatering General Permit
MTG070000**

READ BEFORE COMPLETING THIS FORM:

Before completing this form, the applicant needs to read the Construction Dewatering General Permit (CDGP). Certification of this Notice of Intent (NOI) is certification with the requirements in the CDGP. This NOI must be completed by the owner/operator responsible for construction dewatering activities who are seeking coverage under the CDGP. Please read the attached instructions before completing this form. You must print or type legibly; forms that are not legible, incomplete, or unsigned will be returned. You must maintain a copy of the completed NOI Form for your records.

Section A – Application Status (Check one):

- New - No prior CDGP authorization or authorization request for this project/activity.
- Resubmitted - Permit Number: M T G 0 7 0 ___ ___ ___
- Renewal - Permit Number: M T G 0 7 0 ___ ___ ___
- Modification - Permit Number: M T G 0 7 0 ___ ___ ___ *(Discuss Modification in Section I)*

Section B – Site or Activity Information:

Site Name: _____

Location (site physical address or directions): _____

Nearest City or Town: _____ Zip Code: _____ County: _____

Latitude: _____ Longitude: _____

Township/Range/Section (optional): T _____ / R _____ / S _____

Is this site or activity located on Tribal Lands? No Yes *(If yes, stop and read instructions)*

Standard Industrial Classification (SIC) Codes:

Provide at least one SIC code and description which best reflects the project or activity at the site described above.

Code	A. Primary Description	Code	B. Secondary Description
1		2	

Section C – Applicant (Owner/Operator) Information:

Organizational Formal Name: _____

Mailing Address: _____

City, State, and Zip Code: _____

Contact Name: _____ Title: _____

Phone Number: () _____ Email Address: _____

Section D – Authorized Representative:

In order for future reports, including Discharge Monitoring Reports (DMRs), to be signed by anyone other than the signatory for this NOI, a duly authorized individual(s) or position(s) must be identified. If one is not designated then all reports must be signed by the signatory until such designation is made in writing [ARM 17.30.1323(2)].(Check the appropriate box):

I designate the Contact listed in Section C as a duly authorized individual

Or

I designate the following duly authorized representative for this permit (complete information below):

Name and Title, or Position Title: _____

Company Name (if different than the applicant): _____

Mailing Address: _____

City, State, and Zip Code: _____

Phone Number: () _____ Email Address: _____

Or

No duly authorized representative for this permit is designated at this time.

Section E – Outfalls and Receiving Water(s):

Provide the latitude and longitude to the nearest second for each dewatering outfall. The specified location should be after all treatment and before release to the receiving water. Provide the name of the initial receiving water. If the initial receiving water is unnamed, please also indicate the closest named drainage the receiving water flows into (i.e. unnamed tributary to Clear Creek). Attach additional sheets if necessary for more outfalls.

Each outfall to a different receiving water segment is subject to additional application fees and annual fees.

Outfall No.	Latitude	Longitude	Receiving Surface Waters (Name)
001			
—			
—			
—			
—			
—			
—			
—			

MAP: Attach a USGS topographic map or aerial photo extending one mile beyond the property boundaries of the site or facility/activity identified in Section B depicting the facility or activity boundaries, any treatment area(s), outfall(s), major drainage patterns, and the receiving surface waters stated above.

Map Attached

Section F – Proximity to Contaminated Site(s):

Will construction dewatering for this project occur in or near a known contamination site (SUPERFUND, leaking tank, etc.) or do you suspect the site has contamination? *(See instructions for further guidance)*

- No. *(Proceed with Section G.)*
- Yes: distance from nearest suspected area of contamination to construction dewatering is: _____ feet.
→ **Delineate suspected area of contamination on Section E map, or provide an additional map.**

The permittee must take a pre-discharge sample of the groundwater and/or surface water that is representative of what is proposed for discharge. The sample must be analyzed for any known or suspected pollutants of concern in accordance with 40 CFR 136. The laboratory’s detection level should be able to report at or below Required Reporting Value (RRV) contained in Department Circular DEQ-7. The laboratory results need to be submitted with the NOI.

Copy of Lab Results enclosed. Sample date _____.

If analysis shows contaminants present at concentrations above the RRV, the authorization request for coverage under the CDGP will be denied. If there are no contaminants present at concentrations above the RRV, DEQ will continue to process the request. DEQ may require additional future testing in the authorization letter. **If any testing results show contamination at levels higher than the RRV for any contaminant contained in Circular DEQ-7, the permittee must cease discharge and notify DEQ.**

Section G – Description of Expected Discharge Duration and Mitigation Measures:

Date construction dewatering discharge is anticipated to begin: _____

Date construction dewatering discharge is anticipated to end*: _____

*(*Note that the authorized signatory is required to submit a request for termination after all construction dewatering activity is complete: any authorization that is open into a calendar year is liable for the annual fees for that year).*

Rough estimate of average discharge flow rate [gallons per minute (gpm)] _____ gpm

- Dewatering Plan:** will be completed prior to beginning construction dewatering, and implemented as part of the dewatering project. The Dewatering Plan will be maintained, and available to DEQ for on-site inspection. *(DEQ does not require submittal of this Plan.)*

Dewatering discharge to state surface waters will be controlled by Best Management Practices evaluated in the Dewatering Plan, including *(indicate which of the following will be employed to the extent known):*

- | | |
|---|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | Run-on prevention/diversion |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | Pumping process pretreatment (i.e. filtering sump or submersible pump protection) |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | Directed through vegetated swale prior to discharge |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | Constructed settling pond or structure, including hay bales |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | Dewatering bags |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | Anionic polymer-based flocculants and/or coagulants in accordance with manufacturers specifications <i>(if yes, provide MSDS and specs)</i> |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown | Erosion Control for the discharge, including rip rap or baffles. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Other, <i>describe:</i> |

Section H – Selection of Dewatering Category & Mixing Zone

Outfall _____ (*A separate Section H needs to be completed for each outfall listed in Section E)

Category Selection: The owner/operator selects the following category as representative of the conditions during the period of construction dewatering discharge from this outfall (*PICK ONE CATEGORY PER OUTFALL*):

- A. “Minimal Impact” with discharge to (*also select one of the three subcategories if Category A*):
- A.1 Ephemeral waterbody A.2 Dry intermittent segment A.3 Large river
- B. “Discharge Turbidity Limited to Prevent Impact” – Turbidity effluent limit for discharge to rivers, lakes, wetlands.
- C. “Real-Time Turbidity Demonstration” – Demonstration of no increase above background.

By selecting the appropriate category (above), the owner/operator certifies that they will comply with the effluent limits and monitoring requirements associated with that category for this outfall, as provided in the CDGP. (SEE INSTRUCTIONS IF THE RECEIVING WATER FOR YOUR DISCHARGE IS A-1 or A-CLOSED.)

Mixing Zone (for Categories A.3 and B, only):

A mixing zone for category A.3 (large rivers) or B (variable flows) is granted under ARM 17.30.516(4) for rivers, and ARM 17.30.518(3) for lakes. (*If not A-3 or B-Categories indicate “NA” for this section.*) Indicate the amount of ambient surface water, at the driest time expected for the dewatering activity.

Stream width (at lowest flow expected): _____ ft x 10 = _____ ft mixing zone length

Lake/wetland area (at lowest volume): _____ ft² x 5% = _____ ft² mixing zone area (note: capped at 200 feet radius)

Section H (con’t) – Additional Outfalls Category & Mixing Zone

Outfall _____ (*A separate Section H needs to be completed for each outfall listed in Section E)

Category Selection: The owner/operator selects the following category as representative of the conditions during the period of construction dewatering discharge from this outfall (*PICK ONE CATEGORY PER OUTFALL*):

- A. “Minimal Impact” with discharge to (*also select one of the three subcategories if Category A*):
- A.1 Ephemeral waterbody A.2 Dry intermittent segment A.3 Large river
- B. “Discharge Turbidity Limited to Prevent Impact” – Turbidity effluent limit for discharge to rivers, lakes, wetlands.
- C. “Real-Time Turbidity Demonstration” – Demonstration of no increase above background.

By selecting the appropriate category (above), the owner/operator certifies that they will comply with the effluent limits and monitoring requirements associated with that category for this outfall, as provided in the CDGP. (SEE INSTRUCTIONS IF THE RECEIVING WATER FOR YOUR DISCHARGE IS A-1 or A-CLOSED.)

Mixing Zone (for Categories A.3 and B, only):

A mixing zone for category A.3 (large rivers) or B (variable flows) is granted under ARM 17.30.516(4) for rivers, and ARM 17.30.518(3) for lakes. (*If not A-3 or B-Categories indicate “NA” for this section.*) Indicate the amount of ambient surface water, at the driest time expected for the dewatering activity.

Stream width (at lowest flow expected): _____ ft x 10 = _____ ft mixing zone length

Lake/wetland area (at lowest volume): _____ ft² x 5% = _____ ft² mixing zone area (note: capped at 200 feet radius)

Section I – Additional Information

Section J – CERTIFICATION

Applicant Information: This form must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Applicants Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA].

Certification of this form indicates conformance with the Construction Dewatering General Permit.

Name (Type or Print)

Title (Type or Print)

Phone Number

Signature

Date Signed

DEQ will not process this form until all of the requested information is supplied, and the appropriate fees are paid.

Return this NOI-07 Form and the applicable fee payment to:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-3080

**INSTRUCTIONS FOR
Montana's Construction Dewatering General Permit (MTG070000)
Notice of Intent Form NOI-07**

IMPORTANT A Notice of Intent (NOI) Form will not be considered complete unless you answer every question. If an item does not apply to you, enter "NA" (not applicable) to show that you considered the question. Responses must be self-explanatory and must not refer exclusively to attached maps, plans, or documents. The appropriate fees must accompany this NOI Form. Do not submit these items separately.

Mail the NOI Form and fee to the Montana Department of Environmental Quality (DEQ) address stated on the NOI Form. Forms and additional information on construction dewatering discharges are available from the Water Protection Bureau at (406) 444-3080 or on the DEQ website at: <http://deq.mt.gov/wqinfo/MPDES/ConstructionDewatering.mcp>. Please type or print legibly; NOI Forms that are not legible, incomplete, or unsigned will be returned.

SPECIFIC ITEM INSTRUCTIONS

Section A – Application Status

Check the box that applies and provide the requested information.

- If this activity has not been authorized previously, and you have not previously requested authorization for it, check the box next to "New." DEQ will assign a permit authorization number when you submit the NOI Form. The permit authorization number is a 9-digit code beginning with MTG070 that is unique to your facility or site. If you submitted an NOI Form that the DEQ returns as incomplete the permit authorization number will be written on the upper right hand corner of the NOI Form and on any correspondence sent to you by DEQ.
- If you are resubmitting a NOI Form that DEQ returned to you as deficient or incomplete, check the box next to "Resubmitted."
- If your current discharge authorization is due to expire and you want to maintain coverage, check the box next to "Renewal."
- If there is a change in the facility or site information, check the box next to "Modification."

Please include the permit authorization number for any resubmitted, renewal, or modification applications and on any correspondence with DEQ regarding this site/activity.

Section B – Site or Activity Information

Identify the name of the site or activity that is the source of construction dewatering discharge. The location of the site is the specific area where the activity is physically conducted. Give the address or location and the geographical coordinate information. Sources for geographical coordinate information include: "CWAIC" at <http://deq.mt.gov/wqinfo/CWAIC/default.mcp>, a USGS Topographic Map, GIS, a "GPS" handheld navigation device, or other locational sources. The location may be a physical mailing address or description of how the site may be accessed (PO Boxes are not acceptable).

If the facility or site is located on or within the boundaries of a federally-recognized Tribal Lands DEQ is not the permitting authority. You must contact the Environmental Protection Agency (EPA) Montana's Region 8 Operation Office in Helena at (406) 457-5000.

Nature of the Business or Activity and Standard Industrial Classification Code

List in descending order of significance, the four-digit Standard Industrial Classification SIC code(s) and corresponding description(s) that best describes the activity relative to this location. At least one SIC code and description must be provided.

Indicate only one SIC code in the space provided in each box (i.e., only one primary SIC code). For instance, there are different SIC codes for Building Construction (1521 through 1542), Heavy Construction (1611 through 1629), Excavation (1794), and water well drilling (1781). A complete list of SIC codes can be obtained at <http://www.osha.gov/pls/imis/sicsearch.html> or in paper form from the document entitled "Standard Industrial Classification Manual," Office Management and Budget, 1987.

Section C – Applicant (Owner/Operator) Information

Organizational Formal Name - give the name, as it is legally referred to, of the business, public organization, person, or other entity that owns, operates, controls or supervises the site or activity described in Section B of this form. The permit will be issued to the entity identified in this section (Section C). *The owner or operator assumes all liability for discharges from the site and compliance with the terms and conditions of the permit and applicable regulations.*

Provide information for a contact that can provide further information to DEQ, including on-site visits.

Section D – Authorized Representative

Pursuant to ARM 17.30.1323(2) all reports required by permits and other information requested by DEQ must be signed by the appropriate signatory as described in ARM 17.30.1323(1) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in [ARM 17.30.1323(1)];
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and
3. The written authorization is submitted to DEQ.

In the future, if the authorization made in this NOI is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new written delegation of authorization, including a written letter satisfying the requirements above, must be submitted to DEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.

Any authorized representative shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The Responsible Official can duly authorize the person identified as a contact in Section C or another individual or position name. All reports and DMRs may be submitted under the signature of the 'duly authorized' representative. If the Responsible Official does not duly authorize anyone, all correspondence must come from him/her until a written designation is submitted to DEQ.

Section E – Outfalls and Receiving Waters

Outfalls are defined as "a disposal system through which effluent or waste leaves the facility or site." An outfall location is considered to be a discrete channel, conveyance, structure, or flow path from which discharge leaves the facility after all treatment, prior to discharge into state surface waters.

Water bodies used solely for treating, transporting, or impounding pollutants shall not be considered surface water.

As allowed under ARM 17.30.201(6), multiple outfalls from the same source that have similar effluent characteristics may not be required to pay individual application fees, unless the discharges are to different receiving waters or stream segments, or result in multiple effluent limits or monitoring requirements. For the Construction Dewatering General Permit (CDGP), multiple discharge locations to the same stream segment, or the same receiving waters, can be considered one outfall. Provide the following information in the table on the NOI Form Section E for each outfall that you propose:

1. Assign a number to each outfall starting with 001. For existing permittees, ensure outfall numbers used are consistent with those identified in the past for the same outfall.
2. Provide the latitude/longitude of each outfall. Locations can be derived from a USGS topographic map, “CWAIC” at <http://deq.mt.gov/wqinfo/CWAIC/default.mcp>, GIS, a “GPS” handheld navigation device, or other locational sources. Latitude and longitude must be accurate to the nearest second. However, if the dewatering effluent may be discharged at various points along a given stream segment, provide the mid-point for the receiving water segment on this table and indicate the maximum extent of the discharge as a range in Section J Supplemental Information.
3. Give the name of the initial receiving surface waters that receive the discharge. If the receiving water is unnamed, please also indicate the closest named drainage the receiving water flows into (i.e. unnamed tributary to Clear Creek).
4. Please attach a USGS topographic quadrangle map or USGS-based topographic map or an aerial photo extending one mile beyond the property boundaries of the site or facility/activity identified in Section B depicting the facility or activity boundaries, any dewatering effluent treatment areas, the outfall location(s) and the receiving surface waters stated above.

If additional space is necessary for more outfall locations, attach additional sheets with the requested information. An application fee needs to be included for each identified outfall. If questions develop on identifying these outfalls, call DEQ prior to completing this NOI.

Section F – Proximity to Contaminated Sites

As described in the CDGP, discharge of dewatering effluent that contains contamination from a previous release is not allowed under the CDGP. For due diligence, the applicant must review readily available information to identify known or suspected release sites, including groundwater plumes, that may be in the vicinity of the dewatering. Information sources may include:

- Leaking Underground Storage Tank (LUST) list: <http://deq.mt.gov/LUST/LUSTSites.mcp>
- Abandoned Mine Lands list: <http://deq.mt.gov/AbandonedMines/default.mcp>
- Federal Superfund: <http://deq.mt.gov/FedSuperfund/default.mcp>
- State Superfund: <http://deq.mt.gov/StateSuperfund/findasite.mcp>

If applicant has information that an area of known or suspected contamination is near the dewatering activity, the applicant must take a pre-discharge ground water sample and supply DEQ with a copy of lab results for the pollutants in question. The analyses must be capable of detecting the suspected pollutants down to the Required Reporting Value (RRV) listed in Circular DEQ-7. *If pollutants are found to be in concentrations over their RRV, then dewatering discharge cannot be authorized under the CDGP.*

If all parameters are “nondetect” at levels below the RRV, DEQ will continue to process the request, but may require periodic testing for suspected contaminants for the life of the dewatering project. If contaminants are found in any discharge samples at concentrations above the RRV, the permittee must immediately cease construction dewatering and request to terminate coverage under the CDGP. If the

owner/operator plans to have future dewatering from this location, they need to either apply for coverage under the Petroleum Clean-up General Permit or an individual MPDES permit (unless the discharge is eligible for a short-term exemption from water quality standards as provided for by 75-5-308, MCA).

Section G – Description of Expected Discharge Duration and Mitigation Measures

Please provide the following to the extent known:

- Provide the projected beginning and end dates for the construction dewatering activities at your site. *Please be reminded to submit a written request for termination of this authorization after all dewatering is completed, signed by the Responsible Official.* Authorizations that are not terminated are subject to annual fees accrued for every calendar year.
- Provide an estimate of the expected flow rate of the treated dewatering discharge into state surface waters, after initial purge has been completed, in gallons per minute (gpm). Use engineering assumptions to the extent available. For instance, Caltrans provides a rough estimate of pumping flow rates in their “Field Guide to Construction Site Dewatering,” CTSW-RT-010:

Typical Pump Flow Rates Pump Size (submersible)	Typical Flow Rates*
1.5-inch	90 to 120 gpm
2-inch	90 to 300 gpm
3-inch	300 to 800 gpm
4-inch	400 to 1300 gpm
6-inch	400 to 1800 gpm

- The 2015 CDGP requires each applicant to certify that they will complete and implement a dewatering plan prior to initiating construction dewatering. Select all of the Best Management Practices (BMPs) that you will or might employ to reduce the turbidity/suspended sediment load. The CDGP also requires the applicant to take corrective action for failure of any BMPs.

Section H –Selection of Dewatering Category & Mixing Zones *(for each outfall)*:

Dewatering Category: for each outfall, the applicant needs to review the receiving water – discharge scenario in order to select the representative dewatering category as described in the CDGP and outlined below. *By selecting a category, the applicant acknowledges that they will comply with the applicable effluent limits and monitoring requirements for that category as described in the CDGP.*

A. “Minimal Impact” category – capped at 100 NTU. If Category A is selected, the applicant also needs to indicate which subcategory applies.

A.1. Discharge to an ephemeral waterbody. Ephemeral is defined as ‘a stream or part of a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and whose channel bottom is always above the local water table.’ Ephemeral waterbodies are not considered high quality water; therefore, the applicant is allowed to discharge to them regardless whether they are wet or dry.

A.2 Discharge to a dry intermittent segment. This subcategory includes dry intermittent streams or lakes. Intermittent stream is defined as ‘a stream or reach of a stream that is below the local water table for at least some part of the year, and obtains its flow from both surface run-off and ground water discharge.’ An applicant is allowed to discharge under this subcategory only if the upstream segment is dry. Dewatering discharge must cease if circumstances change and there is ambient water upstream. If the applicant wants to continue to discharge, they need to select a different category and submit a modified NOI.

A.3 Discharge to large rivers. This subcategory includes the eight rivers listed in Department Circular DEQ-12A, Table E-1. The 100 NTU effluent turbidity limit will be protective

because of the good dilution, and typically high background turbidity, associated with these rivers. A mixing zone is applicable for this category.

B. “Discharge Turbidity Limited to Prevent Impact” category – the turbidity in the discharge for authorizations under this category is limited to prevent impact on any high quality water. This category has the most conservative turbidity effluent limits and therefore could apply to any state surface water, other than A-1 and A-closed, regardless of the variability in flow regimes, background turbidity, or applicable turbidity standards. Wetlands are also covered under this category due to the great variability in their sensitivity. Applicants may decide to choose this category to be conservative even if the receiving water segment might be dry in order to ensure uninterrupted operations even if conditions change during their operations.

C. “Real-time Turbidity Demonstration” category – the turbidity in the discharge is limited to below the upstream (ambient) turbidity in order to ensure ‘no increase above background.’

Note: Discharges to the most protected waterbodies, A-Closed and A-1 Classifications, include the following water quality standards under ARM 17.30.621(3)(d) and ARM 17.30.622(3)(d), respectively: “ No increase above naturally occurring turbidity is allowed except as permitted in 75-5-318, MCA” and “ No increase above naturally occurring turbidity or suspended sediment is allowed except as permitted in 75-5-318, MCA.” Therefore, unless permitted otherwise under the 318 Authorization, authorization requests for these waterbodies are limited to either Category A.1 or A.2 (dry waterbodies) or Category C (no greater than background). If the discharge may be to a more protected waterbody and the classification is unknown, applicants can check the regulations under ARM 17.30 Subchapter 6 or the Clean Water Act Information Center (CWAIC) at <http://deq.mt.gov/wqinfo/CWAIC/default.mcpX>.

Mixing Zone: For any discharge under subcategory A.3 (discharge to large rivers) or category B (discharge turbidity limited to prevent impact for variable receiving waters), the applicant needs to provide information to calculate the approved mixing zone at the driest time that will be encountered for the proposed project.

- For flowing water, a mixing zone length based on 10 times the receiving water width will be automatically applied for these dischargers.
- For standing water such as lakes or wetlands, the mixing zone area will be the smaller of 200 feet radius or 5% of the wetted area.
- Other discharges do not need and will not be authorized for mixing zones, and “NA” should be indicated.

Section I– Additional Information

Use this space to provide additional information explaining the basis for a proposed permit modification being submitted, further description of linear projects, etc.

Section J – Certification

The NOI Form certification must be completed by the applicant (owner/operator) responsible for the authorization as identified in Section C, and as described in ARM 17.30.1323. Certification of this NOI is certification that the applicant will comply with the applicable terms of the CDGP.

The NOI-07 Form and other forms for water discharge permitting or authorization are available at DEQ’s website: <http://deq.mt.gov/wqinfo/MPDES/ConstructionDewatering.mcpX>. If you have any questions concerning how to fill out this form, or other forms related to the Montana Pollutant Discharge Elimination System (MPDES) discharge permitting program, please contact DEQ at (406) 444-3080. Mail the package to the address provided in Section J.

AGENCY USE ONLY

PERMIT NO.:	Date Rec'd.:	Amount Rec'd.:	Check No.:	Rec'd By:
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WATER PROTECTION BUREAU

FORM NOT	Notice of Termination Non-Storm Water General Permit Authorizations
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This form is to be submitted when a discharge permit is no longer required or necessary. The Montana Department of Environmental Quality (DEQ) will notify the permittee in writing of the date termination is effective. This form may not be used to request termination of coverage under any storm water general permit. You must type or print legibly; forms that are not legible or are unsigned will be returned. Do not leave blank spaces. It is recommended that you maintain a copy of the completed form for your records.

Section A - Site Information

Permit/Authorization Number: MTG _____

Facility or Site Name: _____

Facility or Site Location (physical address or Township/Range/Section): _____

Facility or Site Mailing Address (if available) _____

Nearest City or Town _____ State _____ Zip Code _____ County _____

Latitude: _____ Longitude: _____

Section B - Owner/Operator (Regulated Entity) Information

Owner/Operator Name: _____

Signatory Name and Position Title: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Email: _____

Section C - Annual Fees

There are no fees associated with terminating permit coverage. However, the permittee is responsible for payment of annual fees for each calendar year in which the discharge is authorized, and annual fees are billed in arrears. You may contact DEQ at (406) 444-3080 to receive an invoice for the outstanding annual fees associated with your effective permit coverage, or one will be mailed to you.

Section D - Required Reports

You are required to comply with all conditions and reporting requirements until notified by DEQ that your general permit authorization is terminated, including submission of Discharge Monitoring Reports.

Section E - Explanation

Indicate the reason for the termination of above referenced permit by checking the most appropriate box, and provide a detailed description in the space provided below:

- Discharge terminated or will be terminated by DATE _____;
- Discharge permanently terminated by connection to a wastewater treatment plant (WWTP);
Date discharge connected or will connect to WWTP: _____
Provide name and MPDES permit number of WWTP: _____
- Other _____

Please provide a detailed explanation in the space below (attach additional pages if needed) of why the permit/authorization is no longer needed. Please refer to the Standard Conditions section of your permit and include any information specified in your permit required for permit termination.

Section F - CERTIFICATION

Permittee Information: This form must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Applicants Must Complete the Following Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA]

A. Name (Type or Print)

B. Title (Type or Print)

C. Phone No.

D. Signature

E. Date Signed

Return this form (NOT) to:

Department of Environmental Quality
Water Protection Bureau
P.O. Box 200901
Helena, MT 59620-0901
(406) 444-3080



**ANACONDA-DEER LODGE COUNTY
ADMINISTRATIVE DEVELOPMENT APPLICATION (ADP)**

(Please Fill Out Entire Application)

**ABSOLUTELY DO NOT BEGIN PROJECT UNTIL ALL PAPERWORK IS FINALIZED AND
PHYSICAL PERMIT HAS BEEN OBTAINED**

Date of Application: _____

Admin. Development Permit #: _____

Permit Received By: _____

Date of Receipt: _____

PROPERTY OWNER CONTACT INFORMATION

Property Owner: _____

Mailing Address: _____ City: _____ State: ____ Zip: _____

Phone/Mobile #: _____ E-Mail: _____

Physical Address of Project Property: _____

CONTRACTOR/DEVELOPER/PERSON DOING THE WORK CONTACT INFORMATION

CONTRACTOR MUST HAVE AN ACTIVE BUSINESS LICENSES IN ANACONDA-DEER LODGE COUNTY

DOES CONTRACTOR HAVE A BUSINESS LICENSE IN ADLC: Yes: ____ No: ____

Year License Last Renewed: _____ License #: _____

Contractor: _____ Self: _____

Mailing Address: _____ City: _____ State: ____ Zip: _____

Phone/Mobile #: _____ E-Mail: _____

General Project Description: _____

More Than One (1) Cu Yd. of Soil Disturbed: Yes ____ No ____

More than Five (5) Cu Yds of Soil Disturbed: Yes ____ No ____

Anticipated Start Date: _____ **Anticipated Completion Date:** _____

I do hereby acknowledge that all information on this application and on the attached plans is true and correct, and that the activity or development permitted will be conducted in full compliance with all ordinances of Anaconda-Deer Lodge County, as well as all state and federal laws. The activity or development will be in full compliance with any and all conditions imposed on the approval of this permit and that the permit and conditions imposed are binding on future owners of the subject property and on future building permits issued for this site.

X _____
Property Owner _____ **Date** _____



**ANACONDA-DEER LODGE COUNTY
ADMINISTRATIVE DEVELOPMENT APPLICATION (ADP)**

(Please Fill Out Entire Application)

**ABSOLUTELY DO NOT BEGIN PROJECT UNTIL ALL PAPERWORK IS FINALIZED AND
PHYSICAL PERMIT HAS BEEN OBTAINED**

PROJECT DESCRIPTION CHECKLIST

DESCRIPTION	YES	NO	ADDITIONAL COMMENTS/REMARKS
Demolition			
Buildings			
Infrastructure (Driveways, Sidewalks, Etc.)			
Trees/Shrubs			
Excavation			
Footings			
Foundation			
Posts/Poles			
Install/Repair Water Line			
Install/Repair Well			
Install/Repair Sewer			
Install/Repair Septic System			
Install/Repair Electric Service			
Install/Repair Gas Line			
Install/Repair Telephone Line (Land Line)			
Other: _____			
Grading			
Access Road			
Driveway			
Sidewalks			
Parking Lot			
Landscaping			
Revegetation			
Sod			
Trees/Shrubs			
Garden for Food			
Irrigation System			
Fencing			
Removed/Installed/Both			
Ground Signs			
Removed/Installed/Both			
Soils			
Will Soil Be Removed From Site?			
If So, Where Will This Be Discarded?			
How Much Soil Will Be Removed?			
Will Soil Be Brought To Site?			
If So, Where Will This Be Obtained?			
How Much Soil Will Be Brought In?			
Additional Comments:			



**ANACONDA-DEER LODGE COUNTY
ADMINISTRATIVE DEVELOPMENT APPLICATION (ADP)**

(Please Fill Out Entire Application)

**ABSOLUTELY DO NOT BEGIN PROJECT UNTIL ALL PAPERWORK IS FINALIZED AND
PHYSICAL PERMIT HAS BEEN OBTAINED**

SITE PLAN DRAWING

DIMENSIONS MUST BE PROVIDED

IF BUILDING PERMIT IS NEEDED, ENGINEERED DRAWINGS WOULD BE ACCEPTED

																																																		<p style="text-align: center;">SAMPLE</p> <p>30' Sidewalk 15' 10' asphalt driveway 12'</p>																			

1 square = _____



**ANACONDA-DEER LODGE COUNTY
ADMINISTRATIVE DEVELOPMENT APPLICATION (ADP)**

(Please Fill Out Entire Application)

**ABSOLUTELY DO NOT BEGIN PROJECT UNTIL ALL PAPERWORK IS FINALIZED AND
PHYSICAL PERMIT HAS BEEN OBTAINED**

CONSENT FOR ACCESS TO PROPERTY FOR THE PURPOSE OF ENVIRONMENTAL SAMPLING

In support of Anaconda-Deer Lodge County's (ADLC) Interim Institutional Controls Program, ADLC would like your consent to collect samples on your property. Please fill out the information below and return with your Administrative Permit Application.

I, _____ (printed name), **property owner** of the property located at _____, Anaconda, MT 59711, give my consent for employees and/or representatives of ADLC to access my property for the purpose of collection of soil samples. **I understand that these actions are undertaken by EPA pursuant to its responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601 et seq (also known as Superfund).**

X

Property Owner

Date



**ANACONDA-DEER LODGE COUNTY
ADMINISTRATIVE DEVELOPMENT APPLICATION (ADP)**

(Please Fill Out Entire Application)

**ABSOLUTELY DO NOT BEGIN PROJECT UNTIL ALL PAPERWORK IS FINALIZED AND
PHYSICAL PERMIT HAS BEEN OBTAINED**

ADMINISTRATIVE REVIEW (Staff Use Only)

Legal Description of Property: _____

Geocode: _____

Assessor: _____

This permit will also require:

Building Permit: _____

Demo Permit: _____

Driveway Approach Permit: _____

Well Permit: _____

Septic Permit: _____

Fee Paid: _____

Receipt and/or Check #: _____

Payment Taken By: _____



**ANACONDA-DEER LODGE COUNTY
ADMINISTRATIVE DEVELOPMENT APPLICATION (ADP)**

(Please Fill Out Entire Application)

**ABSOLUTELY DO NOT BEGIN PROJECT UNTIL ALL PAPERWORK IS FINALIZED AND
PHYSICAL PERMIT HAS BEEN OBTAINED**

**ANACONDA-DEER LODGE COUNTY SMELTER SUPERFUND SITE
INSTITUTIONAL CONTROLS/COMMUNITY PROTECTIVE MEASURES PROGRAM**

For Your Information

Incidental Mine Waste Notice

Residents and property owners in Anaconda-Deer Lodge County need to be aware that the area includes many historic mining districts that may contain hazardous waste. These sites include the Anaconda Smelter Superfund and Georgetown Railroad Superfund sites as well as many other abandoned mined areas in the county. If during excavation and development activities you locate potential mine waste or suspicious materials, ADLC recommends you do the following:

- Cease all activities which might expose yourself, others, or your animals to potential waste until an investigation by a qualified professional is conducted and the site is determined to be safe.
- Contact the ADLC Superfund Department at (406) 563-7476 or the ADLC Planning Department at (406-563-4010). In the event, ADLC does not have jurisdiction of the site, you will be directed to the appropriate agency.
- Common smelting waste includes black slag and cinders, pale yellow and orange tailings, white/gray powdery ash material, and rocks with a scaly green deposit on the surface.

If you require further assistance, please contact the ADLC Planning Department at (406) 563-4010. ADLC's Superfund experts as well as other county staff will do their best to either assist you or direct you to the appropriate party for assistance.

Superfund Soil Repository

Some projects in Anaconda-Deer Lodge County may involve contaminated soil that may need to be placed in the Superfund Soil Repository. After reviewing your application, the county and Superfund will determine if special soils handling is required and you will be given written instructions by Superfund on how to handle the soils and they will guide you through the process.

Placement of soil in the repository must be part of an approved Administrative Development Permit and Institutional Controls Work Plan. The Superfund Coordinator (406) 563-7476, must be contacted at least 24 hours in advance of beginning excavation. The repository is generally open Monday through Friday, 7 a.m. to 4 p.m. and some seasonal hours may apply.

Only Superfund-related contaminated soil, mining millings, or smelting waste material may be placed in the repository.

A pre-entry briefing is required prior to placing soil and the Superfund Coordinator must be notified at the beginning and the end of each day's hauling activities.

Personal safety equipment is required for all drivers and passengers.



**ANACONDA-DEER LODGE COUNTY
DEMOLITION PERMIT APPLICATION**
(Please Fill Out Entire Application)

**ABSOLUTELY DO NOT BEGIN PROJECT UNTIL ALL PAPERWORK IS FINALIZED AND
PHYSICAL PERMIT HAS BEEN OBTAINED**

Date of Application: _____

Demolition Permit #: _____

Permit Received By: _____

Date of Receipt: _____

The applicant must fill out Page 1 and sign Page 2. Your permit will not be processed if you do not fill out the required information. Please read all conditions on this application before signing. The property owner and/or licensed contractor must sign and date the application. Each permit requires a separate check processing.

SECTION 1: Property Owner

Name: _____

Street Address: _____

City, State, Zip: _____

Phone/Mobile #: _____

E-Mail: _____

Contractor: _____ **SELF:**

Contractor/Business Name: _____

Street Address: _____

City, State, Zip: _____

Phone/Mobile #: _____

E-Mail: _____

County License #: _____

SECTION 2: Property Information

Location:

Project Address: _____

City, State, Zip: _____

Legal Description:

Section: _____ Township: _____ Range: _____

Block: _____ Lot: _____ COS/Tract#: _____

17-Digit Geocode: _____

Total Area (Square Footage):

Proposed Structure for Demolition: _____ sq ft

Building or Structure Use (please check only one):

- Residential
 - Single Family Duplex Townhouse
 - Multi-Family _____ Units
 - Storage Building Detached Garage
 - Other _____

Commercial/Non-Residential

Previous Use: _____

Proposed Use: _____

Business Name: _____

SECTION 3: UTILITY APPROVAL AND DISCONNECT COMPLETE

ADLC Water/Septic: Disconnected:

Northwestern Energy Electrical: Disconnected:

Northwestern Energy Gas: Disconnected:

Other: _____ Disconnected:

SECTION 4: HISTORICAL PRESERVATION APPROVAL (if applicable)

Is this property in a Historical District? Yes No

Historic Preservation Officer's initials: _____

SECTION 5: JOB DESCRIPTION

Project Description: _____



**ANACONDA-DEER LODGE COUNTY
DEMOLITION PERMIT APPLICATION**
(Please Fill Out Entire Application)

**ABSOLUTELY DO NOT BEGIN PROJECT UNTIL ALL PAPERWORK IS FINALIZED AND
PHYSICAL PERMIT HAS BEEN OBTAINED**

By executing this application, the applicant acknowledges and agrees that:

- The information supplied is true and correct
- The proposed project may be subject to other laws and regulations including, but not limited to, local development standards and flood plain requirements.
- Issuance of a demolition permit is provisional. That is, such permit is conditional on the plan and specifications submitted and approved and does not extend to any changes without the express consent of the Planning Director.
- Demolition of the proposed structure may not be started by any person until a demolition permit is issued.

A COUNTY BUSINESS LICENSE IS REQUIRED FOR ANY CONTRACTOR DOING BUSINESS IN ANACONDA-DEER LODGE COUNTY AND ABSOLUTLY NO BUILDING PERMIT WILL BE ISSUED WITHOUT AN ACTIVE BUSINESS LICENSE

X _____
Signature of Property Owner Date

DEMO PERMIT FEE (\$25.00) (PLANNING USE ONLY)

TOTAL RECEIVED \$ _____ Received by: _____ Check/Receipt # _____

APPENDIX C

Sludge Sampling Report, Test Results and Forms



1064 N. Warren
Helena, Montana 59601
Telephone: (406) 449-3303
FAX: (406) 449-3304

Infrastructure Specialists

Date: 9/26/2018

Technical Memorandum

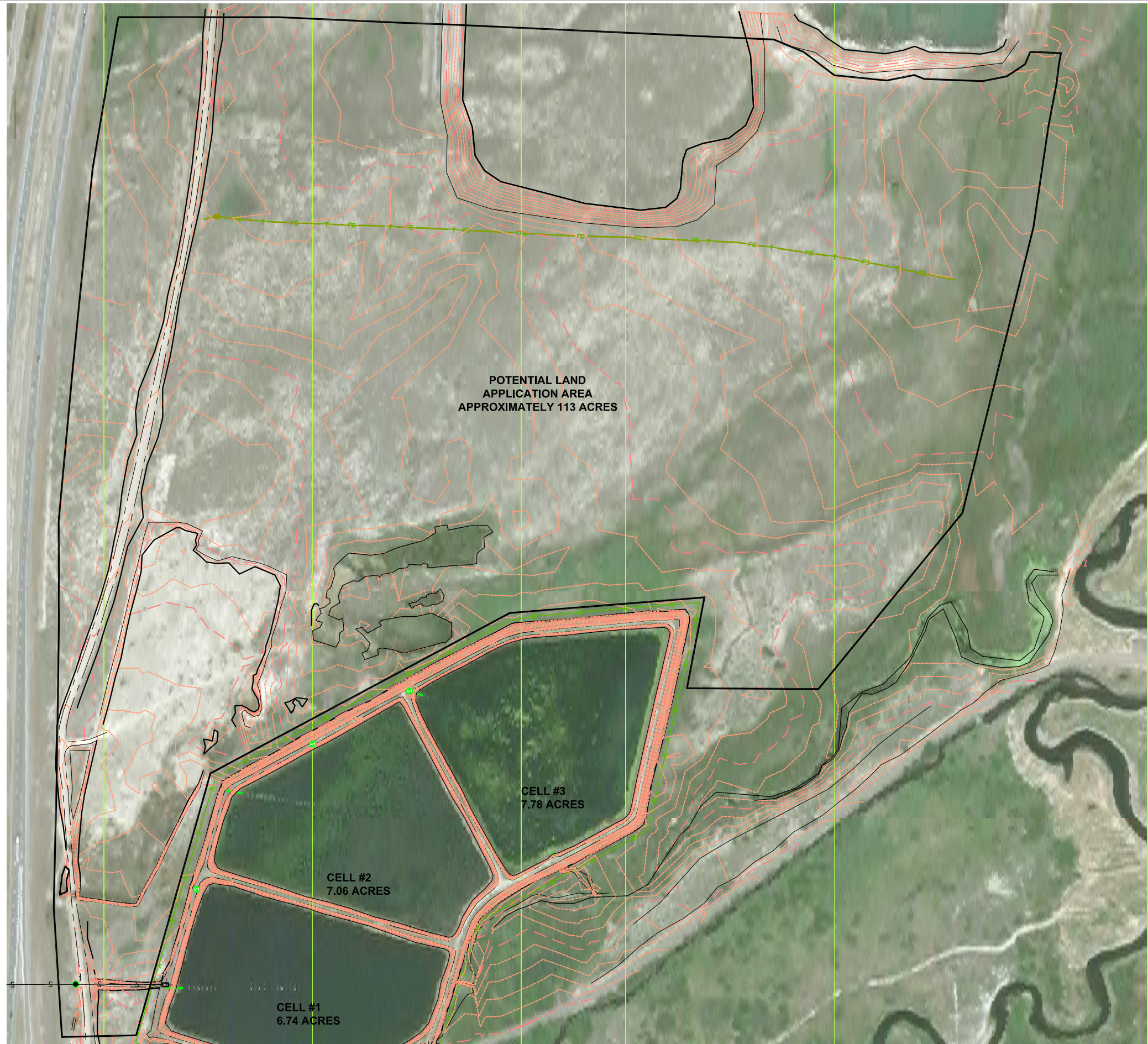
To: Mark Hines, P.E.
A&E Division
Tracey Thun

From: Adam Eckhart, F.E.
Scott Anderson, P.E.
Anderson-Montgomery Consulting Engineers
1064 N. Warren Helena, MT 59601

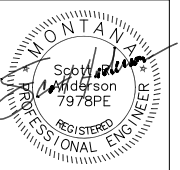
Re: Montana State Hospital – Lagoon Biosolids Sampling

Background: The scope of this Technical Memorandum was to evaluate the biosolids that have accumulated in all three wastewater lagoon cells at the Montana State Hospital (MSH). The existing wastewater treatment facility for the MSH has violated several conditions of their current discharge permit issued by the Montana Department of Environmental Quality. The Montana Pollution Discharge Elimination System (MPDES) discharge permit was renewed January of 2018 and more restrictive standards for ammonia in the effluent discharge are anticipated in the future. New nutrient standards will also be considered in future discharge permits. Significant improvements or replacement of the existing treatment system will be necessary to achieve compliance with the new permit standards. Anderson Montgomery Consulting Engineers (AMCE) completed a Technical Memorandum in June of 2018 evaluating potential Wastewater Treatment Facility Improvements to achieve compliance with the new discharge permit. The results of the study indicated that upgrading the existing lagoon cells and land applying the effluent was the most cost effective alternative from a net present worth standpoint, contingent on availability and suitability of the irrigation site.

Upgrading the 3 lagoon cells for the MSH Wastewater Treatment Facility included removal and disposal of the accumulated biosolids to allow the facility improvements to occur. The existing 113 acre site located immediately north of the lagoon system has been identified as a potential irrigation site as well as a viable option for disposal of biosolids (see **Figure 1**). Land application of biosolids can improve soil structure by the addition of organic material and nutrients. Biosolids sampling was necessary to develop a viable plan for removal and disposal of the material. EPA Part 503 Regulations govern the disposal of wastewater biosolids, considering the bacteriological and chemical quality of the material assessed through a prescribed sampling program. Consequently, AMCE completed biosolids sampling



POTENTIAL LAND APPLICATION SITE



Revision	Date	By
Draft	9-2018	SRA
Final		

Revision: Draft
Plot Scale: 1:2
Drawn By: A. Eckhart
Approved By: S. Anderson, P.E.
Checked By: P. Montgomery, P.E.
Designed By: S. Anderson, P.E.
Project Number:

Engineer

Anderson-Montgomery
CONSULTING ENGINEERS
1064 N. Warren
Helena, MT 59601
Phone (406) 449-3303
Fax (406) 449-3304

Owner

State Of
Montana

Project Title

Montana
State Hospital

Sheet Title

Biosolids
Removal and
Disposal -
Available
Acreage

Sheet

Fig. 1

OF
--

in all 3 cells of the MSH lagoons with the assistance from Roger Skogen from Montana Rural Water Systems.

Biosolids Sampling: On August 21st, AMCE and Roger Skogen completed a composite biosolids sample from all 3 lagoon cells. Utilizing a jon boat with a trolling motor, oars, and a sludge gauge, 16 samples were taken from each cell for a composite metals test and 1 sample was taken from each cell to test for Fecal Coliform. See **Appendix A** for the biosolids sampling location maps. Each sample location was also used to evaluate the biosolids depth, which was later used to quantify the volume of accumulated biosolids in each Cell. During sampling a large amount of trash was encountered in the 1st Cell including rags, towels, underwear, etc. Thick algae plumes were encountered in Cells 2 and 3 during the sampling. The algae created difficulties during sampling as the sludge gauge could not penetrate the algae plume. The composite biosolids samples were tested by Energy Laboratories located in Helena, Montana. Testing was completed to determine if the biosolids characteristics were viable for land application.

Biosolids Volume: Using the data collected during the biosolids sampling an average depth was calculated to estimate the accumulated biosolids volume. **Table 1** provides the results from each cell.

Table 1 - Biosolids Volume

	CELL 1	CELL 2	CELL 3
	Sludge Depth (FT)	Sludge Depth (FT)	Sludge Depth (FT)
	1.3	0.7	0.7
	1.6	0.9	0.5
	1.5	0.8	0.7
	1.4	0.7	0.5
	1.4	0.8	1.1
	1.5	1.3	1.1
	1.2	0.9	1.1
	1.6	1	0.8
	1.3	1.2	0.7
	1.1	0.6	0.8
	1.4	0.9	0.5
	1.4	0.7	0.8
	1.1	1.1	0.7
	1.3	1	0.6
	1.4	0.8	0.7
	1.5	0.9	0.5
Average Depth (FT)	1.4	0.9	0.7
Pond Bottom Area (SF)	293,594	307,534	338,897
Sludge Volume (CF)	363,323	247,372	224,943
Wet Sludge Volume (gal)	2,717,657	1,850,345	1,682,572
Percent Solids	3.18%	7.22%	5.08%
Dry Biosolids (Tons)	360	557	356

(Estimated)

The results follow a typical trend where average biosolids depth diminishes in each cell following the 1st cell. Test results from Energy Laboratories provided the percent solids from each cell allowing AMCE to estimate the dry biosolids tonnage. The dry biosolids tonnage was used by AMCE to determine the required acreage for biosolids removal and disposal.

Chemical Characteristics: Energy Laboratories tested the sludge for the following: metals, total bacteria, fecal Coliform, mercury in solid, moisture, ammonia, nitrate, total kjeldahl nitrogen, percent moisture, total metals digestion, mercury digestion, KCL soil extract, solids content, and soil preparation. The test results can be seen in **Appendix B**. The test results show all metals concentrations are below the Ceiling Concentration Limits of Part 503 with the exception of arsenic in Cell 1 which is above the Clean Sludge Concentration Limits (see **Table 2** below). **Table 2** below provides a comparison of the test results of the MSH biosolids to the Part 503 Biosolids Laws and Regulations.

Table 2 - Sludge Pollutant Concentration Test Results

	CELL 1	CELL 2	CELL 3	Part 503 Biosolids Clean (503.13-3)	Part 503 Biosolids Ceiling (503.13.1)
	Pollutant Concentration mg/kg - dry weight	Pollutant Concentration mg/kg - dry weight	Pollutant Concentration mg/kg - dry weight	Pollutant Concentration Limits mg/kg - dry weight	Pollutant Concentration Limits mg/kg - dry weight
Arsenic	43	37	32	41	75
Cadmium	2	2	1	39	85
Chromium	10	8	6	1,200	3,000
Copper	412	209	142	1,500	4,300
Lead	43	34	28	300	840
Mercury	1.10	0.46	0.46	17	57
Nickel	7	6	5	420	420
Selenium	3	1	Non-Detect	36	100
Zinc	313	238	184	2,800	7,500

Part 503 states that when one or more pollutants exceed the Clean Concentration Limits, but do not exceed the Ceiling Concentration Limits land application can be completed as long as application rates do not exceed the Cumulative Loading Rate Limits (503.13-2) or agronomic application rates with respect to Total Nitrogen.

Part 503.13-2 states that arsenic can be applied at 41 kg of Arsenic per hectare (16.59 kg of Arsenic per acre). Using the information from **Table 1** and Part 503.13-2, AMCE calculated that 0.85 acres are required to land apply the biosolids from Cell 1 without exceeding the Cumulative Loading Rate Limits. AMCE also calculated that 47.8 acres are required to apply all the biosolids from Cell 1 without exceeding the agronomic application rates with respect to Total Nitrogen. Since the agronomic rate requires more acreage than the Cumulative Loading Rate, 47.8 acres will be required to land apply the biosolids from Cell 1.

The pollutants in Cell 2 and 3 do not exceed the Clean Concentration Limits, therefore the biosolids can be land applied following agronomic application rates with respect to Total Nitrogen. Following agronomic application rates with respect to Total Nitrogen, Cells 2 and 3 require 17.7 acres and 31.9 acres respectively. The total acreage required to land apply the biosolids from all three cells is 97.4 acres. There are approximately 113 acres available on the property directly to the north of the lagoons at the MSH, see **Figure 1**. The available property to the north of the lagoons has enough acreage to accept all of the biosolids from the MSH lagoons without exceeding the agronomic application rate with respect to Total Nitrogen. Before land application can occur, the property must be suitably prepared to accept the biosolids.

Biological Characteristics: The regulations in Part 503 designate biosolids as Class B if pathogens are detectable but have been reduced to levels that do not pose a threat to public health and the environment as long as actions are taken to prevent exposure to the biosolids after their use or disposal. When Class B biosolids are land applied, certain restrictions must be met at the application site; other requirements have to be met when Class B biosolids are surface disposed. The land application restrictions allow natural processes to further reduce pathogens in the biosolids before the public has access to the site. The following are the acceptable processes to reduce pathogens for Class B biosolids: Monitoring of Indicator Organisms, Biosolids Treated in a Process to Significantly Reduce Pathogens (PSRP), and Biosolids Treated in a Process Equivalent to a PSRP.

The Monitoring of Indicator Organisms is defined as: Testing for Fecal Coliform density as an indicator for all pathogens. The geometric mean of seven samples shall be less than 2 million MPNs per gram total solids or less than 2 million CFUs per gram of total solids at the time of use or disposal.

Biosolids Treated in a PSRP can be achieved through one of the following:

1. **Aerobic Digestion:** Biosolids are agitated with air or oxygen to maintain aerobic conditions for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 40 days at 20°C and 60 days at 15°C.
2. **Air Drying:** Biosolids are dried on sand beds or on paved or unpaved basins. The biosolids dry for a minimum of 3 months. During 2 of the 3 months, the ambient average daily temperature is above 0°C.
3. **Anaerobic Digestion:** Biosolids are treated in the absence of air for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 15 days at 35°C to 55°C and 60 days at 20°C.
4. **Composting:** Using either the within-vessel, static aerated pile, or windrow composting methods, the temperature of the biosolids is raised to 40°C or higher and maintained for 5 days. For 4 hours during the 5-day period, the temperature in the compost pile exceeds 55°C.
5. **Lime Stabilization:** Sufficient lime is added to the biosolids to raise the pH of the biosolids to 12 after 2 hours of contact.

The biosolids at the MSH meet The Monitoring of Indicator Organisms criteria. The Fecal Coliform test results for Cells 1, 2, and 3 are 2800 CFU/g, 1200 CFU/g, and 1800 CFU/g

respectively. All three cells are well below the 2 million CFU/g criteria; therefore the biosolids at the MSH meet the Class B pathogen requirements for land application.

In addition to the Class B pathogen requirements for land application, Vector Attraction must be reduced by fulfilling one of the requirements laid out in Part 503. The pathogens in biosolids pose a disease risk when they are brought into contact with humans or other susceptible hosts (plants or animals). Vectors, which include flies, mosquitoes, fleas, rodents, and birds, can transmit pathogens to humans and other hosts physically through contact or biologically by playing a specific role in the life cycle of the pathogen. Reducing the attractiveness of biosolids to vectors reduces the potential for transmitting diseases from pathogens in biosolids. **Table 3** below lists the 12 options to meet Vector Attraction Reduction.

Table 3 - Options for Meeting Vector Attraction Reduction

Option 1:	Meet 38% reduction in volatile solids content.
Option 2:	Demonstrate vector attraction reduction with additional anaerobic digestion in a bench-scale unit.
Option 3:	Demonstrate vector attraction reduction with additional aerobic digestion in a bench-scale unit.
Option 4:	Meet a specific oxygen uptake rate for aerobically digested biosolids.
Option 5:	Use aerobic processes at greater than 40°C for 14 days or longer.
Option 6:	Alkali addition under specified conditions.
Option 7:	Dry biosolids with no un-stabilized solids to at least 75% solids.
Option 8:	Dry biosolids with un-stabilized solids to at least 90% solids.
Option 9:	Inject biosolids beneath the soil surface.
Option 10:	Incorporate biosolids into the soil within 6 hours of application to or placement on the land.
Option 11:	Cover biosolids placed on a surface disposal site with soil or other material at the end of each operating day. (Note: Only for surface disposal.)
Option 12:	Alkaline treatment of domestic septage to pH 12 or above for 30 minutes without adding more alkaline material.

Option 10 states that sewage sludge applied to the land surface or placed on an active sewage sludge unit shall be incorporated into the soil within six (6) hours after application to or placement on the land, unless otherwise specified by the permitting authority. Tilling the biosolids into the soil within 6 hours of land applying the biosolids will fulfill the Vector Attraction Reduction requirements from Part 503.

Estimates of Cost: Site preparation includes clearing, grubbing and tilling the entire site. This work is needed for both the disposal of biosolids by tilling into the upper soil profile as well as to prepare the site for irrigation. Costs for this work was included in the June 2018 Technical Memorandum on Wastewater Treatment Alternatives for the MSH. AMCE typically estimates clearing and grubbing at \$0.35 per square yard, equating to \$1694 per acre. AMCE called several contractors around the state to compare their unit prices with the estimate, as shown in **Table 4** below, the estimate used by AMCE is slightly conservative.

Mountain Earthworks said they have a considerable amount of previous farming experience, which is why their estimate is significantly lower than the other contractors.

Table 4 - Clearing & Grubbing

	Unit Price/Acre	Acres	Total
AMCE	\$1,694	113	\$191,422
BJORN Construction	\$1,188	113	\$134,244
Mountain Earthworks	\$150	113	\$16,950
Sandry Construction	\$1,500	113	\$169,500
ICS (Conventional)	\$300	113	\$33,900
ICS (Burning)	\$800	113	\$90,400

From previous projects AMCE developed a cost estimate to land apply the biosolids from all 3 lagoon cells, see **Table 5** below. The cost estimate below includes removal of the biosolids from the cells, land applying the biosolids to the property north of the lagoons and tilling the biosolids into the soil.

Table 5 - Biosolids Removal & Land Application

	Unit Price/CY	CY	Total
Cell 1	\$4.50	13,456	\$60,554
Cell 2	\$4.50	9,162	\$41,229
Cell 3	\$4.50	8,331	\$37,490
		TOTAL:	\$139,273

Conclusions: The 113 acre site located immediately north of the existing MSH wastewater treatment lagoons provides a cost-effective and environmentally sound option for disposal of the estimated volume of biosolids which has accumulated in the treatment lagoons. The addition of nutrients and organic material from the biosolids to the existing soils should improve quality of the local soils to better support agronomic utilization of the site for the irrigation of treated wastewater. The MSH lagoon biosolids meet the Federal Part 503 requirements for Class B Biosolids and the land application restrictions established by the regulatory agency will apply. Land application of the accumulated sludge in all 3 lagoon cells can be completed without exceeding any of the loading rates established in the EPA Part 503 Biosolids Laws and Regulations with proper application techniques. The property directly to the north of the lagoons at the MSH can accommodate the estimated volume of biosolids from all 3 lagoon cells. The biosolids must be tilled into the soil on the disposal site to meet the Vector Attraction Reduction requirements of the 503 regulations. If possible, allowing the wet solids to dewater in the lagoon cells through the staging of construction could significantly lower disposal costs.

The specifications for the land application of biosolids as discussed in this report must be designed by a professional engineer and bid by a general contractor. Plans and specifications for the work must be submitted to the MDEQ for regulatory review.

Thank you for your consideration of this information and please let me know if you have any questions regarding this technical memorandum. I can be contacted at 406-449-3303.

APPENDIX A

MONTANA STATE HOSPITAL

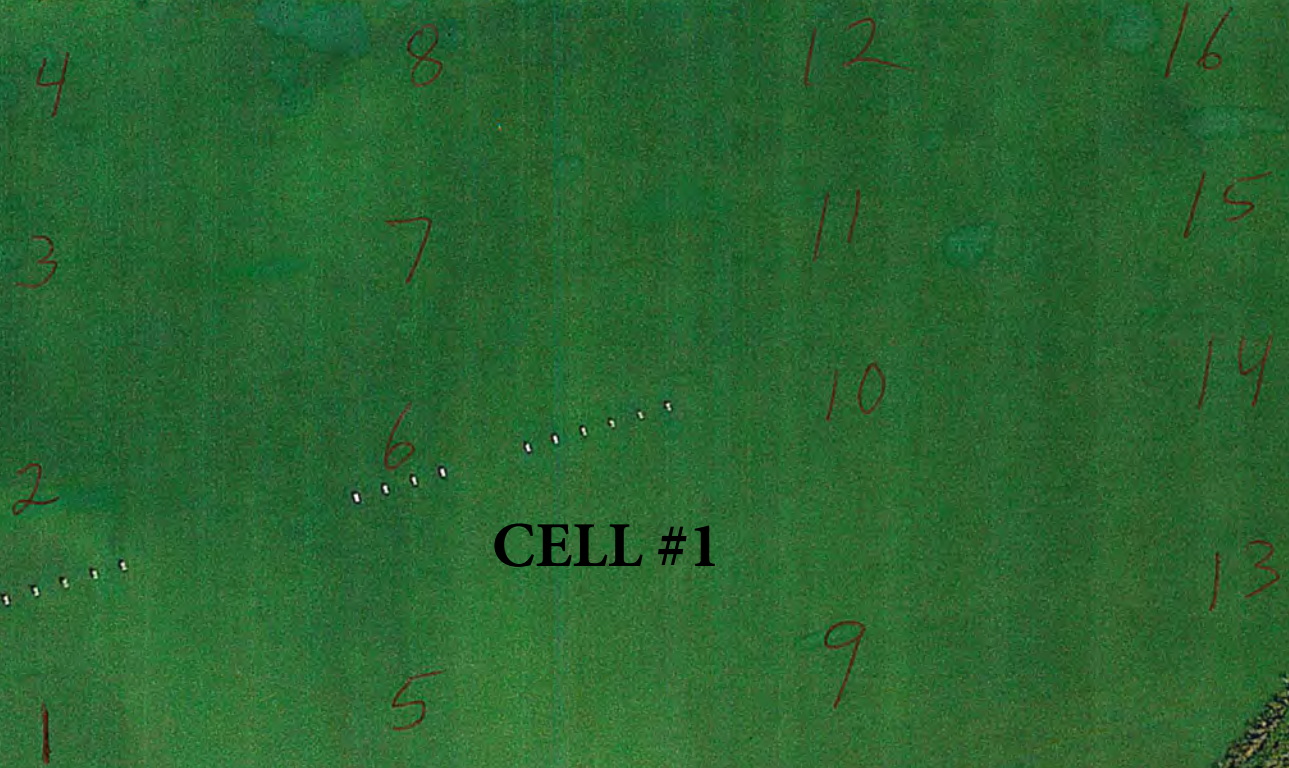
Biosolids Sampling Location Maps



Untitled Map

Write a description for your map.

Legend



Google Earth

© 2018 Google



200 ft

Untitled Map

Write a description for your map.



CELL#2

12
7
11
3 6 10 15
2 5 9 14 16
1 4 8 13



Untitled Map

Write a description for your map.

CELL #3

Handwritten numbers 1 through 16 are arranged in a grid pattern across the green field area of the map.

Google Earth

© 2008 Google



APPENDIX B

MONTANA STATE HOSPITAL

Biosolids Sampling Test Results





ANALYTICAL SUMMARY REPORT

September 10, 2018

Anderson Montgomery Consulting Engineers

1064 North Warren Street

Helena, MT 59601-3413

Work Order: H18080413 Quote ID: H1659 - 503 Analysis

Project Name: MSH-WW-Sludge Sampling

Energy Laboratories Inc Helena MT received the following 3 samples for Anderson Montgomery Consulting Engineers on 8/21/2018 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H18080413-001	Cell 1	08/21/18 8:00	08/21/18	Sludge	Metals by ICP/ICPMS, Total Bacteria, Fecal Coliform-sludge Mercury in Solid By CVAA Moisture Ammonia as N, KCL Extract Nitrate as N, KCL Extract Total Kjeldahl Nitrogen Percent Moisture Total Metals Digestion by SW3050B Mercury Digestion by SW7471B KCL Soil Extract ASA33-3 Solids Content Soil Preparation USDA1
H18080413-002	Cell 2	08/21/18 10:00	08/21/18	Sludge	Metals by ICP/ICPMS, Total Bacteria, Fecal Coliform-sludge Mercury in Solid By CVAA Moisture Ammonia as N, KCL Extract Nitrate as N, KCL Extract Total Kjeldahl Nitrogen Percent Moisture Total Metals Digestion by SW3050B Mercury Digestion by SW7471B KCL Soil Extract ASA33-3 Solids Content
H18080413-003	Cell 3	08/21/18 12:00	08/21/18	Sludge	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:



CLIENT: Anderson Montgomery Consulting Engineer
Project: MSH-WW-Sludge Sampling
Work Order: H18080413

Report Date: 09/10/18

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers
Project: MSH-WW-Sludge Sampling
Lab ID: H18080413-001
Client Sample ID: Cell 1

Report Date: 09/10/18
Collection Date: 08/21/18 08:00
Date Received: 08/21/18
Matrix: Sludge

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MICROBIOLOGICAL							
Bacteria, Fecal Coliform, as Received	<91	CFU/g				A9222 Dmod	08/21/18 00:00 / tjb
Bacteria, Fecal Coliform, Dry Basis	<2800	CFU/g				A9222 Dmod	08/21/18 00:00 / tjb
PHYSICAL CHARACTERISTICS							
Moisture	96.8	wt%		0.2		D2974	08/24/18 17:07 / stp
Solids, Total	3.18	wt%		0.01		A2540 G	08/24/18 17:07 / stp
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	96.8	wt%		0.2		D2974	08/24/18 17:07 / stp
NUTRIENTS							
Ammonia as N, KCL Extract	501	mg/kg-dry	D	20		ASA33-7	08/27/18 13:56 / kmd
Nitrate as N, KCL Extract	8	mg/kg-dry		3		ASA33-8	08/27/18 16:52 / kmd
Total Kjeldahl Nitrogen	26400	mg/kg-dry		310		ASA31-3	09/06/18 14:16 / eli-b
3050 EXTRACTABLE METALS							
Arsenic	43	mg/kg-dry		1		SW6020	08/30/18 15:55 / sld
Cadmium	2	mg/kg-dry		1		SW6020	08/31/18 11:50 / sld
Chromium	10	mg/kg-dry		4		SW6020	08/30/18 15:55 / sld
Copper	412	mg/kg-dry		10		SW6020	08/30/18 15:55 / sld
Lead	43	mg/kg-dry		10		SW6010B	08/31/18 14:59 / sld
Molybdenum	22	mg/kg-dry		1		SW6020	08/31/18 11:50 / sld
Nickel	7	mg/kg-dry		2		SW6020	08/30/18 15:55 / sld
Selenium	3	mg/kg-dry		2		SW6020	08/30/18 15:55 / sld
Zinc	313	mg/kg-dry		20		SW6010B	08/30/18 17:12 / sld
METALS, TOTAL							
Mercury	1.1	mg/kg-dry		0.063		SW7471B	08/29/18 17:20 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers
Project: MSH-WW-Sludge Sampling
Lab ID: H18080413-002
Client Sample ID: Cell 2

Report Date: 09/10/18
Collection Date: 08/21/18 10:00
Date Received: 08/21/18
Matrix: Sludge

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MICROBIOLOGICAL							
Bacteria, Fecal Coliform, as Received	<91	CFU/g				A9222 Dmod	08/21/18 00:00 / tjb
Bacteria, Fecal Coliform, Dry Basis	<1200	CFU/g				A9222 Dmod	08/21/18 00:00 / tjb
PHYSICAL CHARACTERISTICS							
Moisture	92.8	wt%		0.2		D2974	08/24/18 17:07 / stp
Solids, Total	7.22	wt%		0.01		A2540 G	08/24/18 17:07 / stp
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	92.8	wt%		0.2		D2974	08/24/18 17:07 / stp
NUTRIENTS							
Ammonia as N, KCL Extract	147	mg/kg-dry	D	7		ASA33-7	08/27/18 13:57 / kmd
Nitrate as N, KCL Extract	4	mg/kg-dry		1		ASA33-8	08/27/18 16:54 / kmd
Total Kjeldahl Nitrogen	6200	mg/kg-dry		140		ASA31-3	09/07/18 14:41 / eli-b
3050 EXTRACTABLE METALS							
Arsenic	37	mg/kg-dry		1		SW6020	08/30/18 15:56 / sld
Cadmium	2	mg/kg-dry		1		SW6020	08/31/18 11:51 / sld
Chromium	8	mg/kg-dry		2		SW6020	08/30/18 15:56 / sld
Copper	209	mg/kg-dry		4		SW6020	08/30/18 15:56 / sld
Lead	34	mg/kg-dry		6		SW6010B	08/31/18 15:03 / sld
Molybdenum	11	mg/kg-dry		1		SW6020	08/31/18 11:51 / sld
Nickel	6	mg/kg-dry		1		SW6020	08/30/18 15:56 / sld
Selenium	1	mg/kg-dry		1		SW6020	08/30/18 15:56 / sld
Zinc	238	mg/kg-dry		8		SW6010B	08/30/18 17:16 / sld
METALS, TOTAL							
Mercury	0.46	mg/kg-dry		0.050		SW7471B	08/29/18 17:22 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers
Project: MSH-WW-Sludge Sampling
Lab ID: H18080413-003
Client Sample ID: Cell 3

Report Date: 09/10/18
Collection Date: 08/21/18 12:00
Date Received: 08/21/18
Matrix: Sludge

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MICROBIOLOGICAL							
Bacteria, Fecal Coliform, as Received	<91	CFU/g				A9222 Dmod	08/21/18 00:00 / tjb
Bacteria, Fecal Coliform, Dry Basis	<1800	CFU/g				A9222 Dmod	08/21/18 00:00 / tjb
PHYSICAL CHARACTERISTICS							
Moisture	94.9	wt%		0.2		D2974	08/24/18 17:07 / stp
Solids, Total	5.08	wt%		0.01		A2540 G	08/24/18 17:07 / stp
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	94.9	wt%		0.2		D2974	08/24/18 17:07 / stp
NUTRIENTS							
Ammonia as N, KCL Extract	105	mg/kg-dry		5		ASA33-7	08/27/18 13:52 / kmd
Nitrate as N, KCL Extract	ND	mg/kg-dry		2		ASA33-8	08/27/18 16:55 / kmd
Total Kjeldahl Nitrogen	18700	mg/kg-dry		200		ASA31-3	09/06/18 14:16 / eli-b
3050 EXTRACTABLE METALS							
Arsenic	32	mg/kg-dry		1		SW6020	08/30/18 15:58 / sld
Cadmium	1	mg/kg-dry		1		SW6020	08/31/18 11:53 / sld
Chromium	6	mg/kg-dry		2		SW6020	08/30/18 15:58 / sld
Copper	142	mg/kg-dry		5		SW6020	08/30/18 15:58 / sld
Lead	28	mg/kg-dry		8		SW6010B	08/31/18 15:06 / sld
Molybdenum	11	mg/kg-dry		1		SW6020	08/31/18 11:53 / sld
Nickel	5	mg/kg-dry		1		SW6020	08/30/18 15:58 / sld
Selenium	ND	mg/kg-dry		1		SW6020	08/30/18 15:58 / sld
Zinc	184	mg/kg-dry		10		SW6010B	08/30/18 17:20 / sld
METALS, TOTAL							
Mercury	0.46	mg/kg-dry		0.050		SW7471B	08/29/18 17:24 / dck

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 G									Batch: R137793
Lab ID: H18080413-003ADUP	Sample Duplicate								Run: SOIL DRYING OVEN 2_18082 08/24/18 17:07
Solids, Total	5.18	wt%	0.01				2.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA31-3									Batch: B_R306893
Lab ID: H18080413-001BDUP	Sample Duplicate								Run: SUB-B306893 09/06/18 14:16
Total Kjeldahl Nitrogen	33500	mg/kg-dry	310				24	30	
Lab ID: LCS-1809061416	Laboratory Control Sample								Run: SUB-B306893 09/06/18 14:16
Total Kjeldahl Nitrogen	560	mg/kg	10	85	50	150			
Lab ID: H18080413-001B	Sample Matrix Spike								Run: SUB-B306893 09/06/18 09:17
Total Kjeldahl Nitrogen	116000	mg/kg-dry	310	71	70	130			

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA33-7							Analytical Run: FIA203-HE_180827B		
Lab ID: ICV	Initial Calibration Verification Standard								
Ammonia as N, KCL Extract	10.9	mg/kg	2.5	106	90	110			08/27/18 13:41
Lab ID: CCV	Continuing Calibration Verification Standard								
Ammonia as N, KCL Extract	0.508	mg/kg	0.50	102	90	110			08/27/18 13:43
Lab ID: CCV	Continuing Calibration Verification Standard								
Ammonia as N, KCL Extract	0.519	mg/kg	0.50	104	90	110			08/27/18 14:01
Lab ID: CCB	Continuing Calibration Blank								
Ammonia as N, KCL Extract	-0.00402	mg/kg	0.50			0.05			08/27/18 14:02
Method: ASA33-7							Batch: 42861		
Lab ID: MB-42861	Method Blank								
Ammonia as N, KCL Extract	0.2	mg/kg	0.1				Run: FIA203-HE_180827B		08/27/18 13:45
Lab ID: LCS-42861	Laboratory Control Sample								
Ammonia as N, KCL Extract	5.46	mg/kg	0.50	90	70	130	Run: FIA203-HE_180827B		08/27/18 13:46
Lab ID: H18080370-001AMS	Sample Matrix Spike								
Ammonia as N, KCL Extract	97.6	mg/kg	2.8	99	90	110	Run: FIA203-HE_180827B		08/27/18 13:55
Lab ID: H18080460-001ADUP	Sample Duplicate								
Ammonia as N, KCL Extract	101	mg/kg	12				Run: FIA203-HE_180827B	0.2	20 08/27/18 14:00

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: ASA33-8							Analytical Run: FIA203-HE_180827C			
Lab ID: ICV	Initial Calibration Verification Standard									
Nitrate as N, KCL Extract	0.966	mg/kg	1.0	97	90	110			08/27/18 16:44	
Lab ID: CCV	Continuing Calibration Verification Standard									
Nitrate as N, KCL Extract	0.475	mg/kg	1.0	95	90	110			08/27/18 17:01	
Lab ID: CCB	Continuing Calibration Blank									
Nitrate as N, KCL Extract	0.00211	mg/kg	1.0						08/27/18 17:02	
Method: ASA33-8							Batch: 42861			
Lab ID: MB-42861	Method Blank									
Nitrate as N, KCL Extract	0.2	mg/kg	0.1				Run: FIA203-HE_180827C		08/27/18 16:48	
Lab ID: LCS-42861	Laboratory Control Sample									
Nitrate as N, KCL Extract	3.18	mg/kg	1.0	94	70	130	Run: FIA203-HE_180827C		08/27/18 16:49	
Lab ID: H18080370-001AMS	Sample Matrix Spike									
Nitrate as N, KCL Extract	50.0	mg/kg	1.0	92	80	120	Run: FIA203-HE_180827C		08/27/18 16:58	
Lab ID: H18080460-001ADUP	Sample Duplicate									
Nitrate as N, KCL Extract	2.95	mg/kg	1.0				Run: FIA203-HE_180827C	3.8	08/27/18 16:59	

Qualifiers:

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ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D2974									Batch: R137793
Lab ID: H18080413-003ADUP	Sample Duplicate								Run: SOIL DRYING OVEN 2_18082 08/24/18 17:07
Moisture (As Received)	94.8	wt%	0.20				0.1	20	

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Analytical Run: ICP2-HE_180829D
Lab ID: ICV	Initial Calibration Verification Standard								08/30/18 09:13
Zinc	0.783	mg/L	0.010	98	90	110			
Lab ID: CCV	Continuing Calibration Verification Standard								08/30/18 09:17
Zinc	2.45	mg/L	0.010	98	90	110			
Lab ID: CCB	Continuing Calibration Blank								08/30/18 09:29
Zinc	-0.000440	mg/L	0.010						
Lab ID: ICSA	Interference Check Sample A								08/30/18 09:36
Zinc	0.00113	mg/L	0.010		0	0			
Lab ID: ICSAB	Interference Check Sample AB								08/30/18 09:40
Zinc	0.953	mg/L	0.010	95	80	120			
Lab ID: CCV	Continuing Calibration Verification Standard								08/30/18 17:23
Zinc	2.50	mg/L	0.010	100	90	110			
Lab ID: CCB	Continuing Calibration Blank								08/30/18 17:27
Zinc	0.00134	mg/L	0.010						
Method: SW6010B									Batch: 42917
Lab ID: MB-42917	Method Blank								Run: ICP2-HE_180829D
Lead	ND	mg/kg		1					08/30/18 17:01
Zinc	ND	mg/kg		0.6					
Lab ID: LFB-42917	Laboratory Fortified Blank								Run: ICP2-HE_180829D
Lead	49.2	mg/kg	1.1	99	80	120			08/30/18 17:05
Zinc	49.9	mg/kg	1.0	101	80	120			
Lab ID: LCS-42917	Laboratory Control Sample								Run: ICP2-HE_180829D
Lead	109	mg/kg	5.6	104	74.4	108.6			08/30/18 17:08
Zinc	247	mg/kg	3.0	107	75.3	111.7			

Qualifiers:

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QA/QC Summary Report

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Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Analytical Run: ICP2-HE_180831A
Lab ID: ICV	Initial Calibration Verification Standard								08/31/18 11:47
Lead	0.799	mg/L	0.050	100	90	110			
Lab ID: CCV	Continuing Calibration Verification Standard								08/31/18 11:51
Lead	2.74	mg/L	0.050	110	90	110			
Lab ID: ICB	Continuing Calibration Blank								08/31/18 11:55
Lead	-0.000920	mg/L	0.050						
Lab ID: ICSA	Interference Check Sample A								08/31/18 12:02
Lead	0.0130	mg/L	0.050		0	0			
Lab ID: ICSAB	Interference Check Sample AB								08/31/18 12:06
Lead	1.01	mg/L	0.050	101	80	120			
Lab ID: CCV	Continuing Calibration Verification Standard								08/31/18 15:36
Lead	2.45	mg/L	0.050	98	90	110			
Lab ID: CCB	Continuing Calibration Blank								08/31/18 15:40
Lead	0.00927	mg/L	0.050						
Method: SW6010B									Batch: 42917
Lab ID: H18080413-003APDS	Post Digestion/Distillation Spike				Run: ICP2-HE_180831A			08/31/18 15:14	
Lead	325	mg/kg-dry	7.9	85	75	125			
Zinc	505	mg/kg-dry	4.2	92	75	125			
Lab ID: H18080413-003AMS	Sample Matrix Spike				Run: ICP2-HE_180831A			08/31/18 15:18	
Lead	189	mg/kg-dry	8.2	89	75	125			
Zinc	333	mg/kg-dry	4.4	83	75	125			
Lab ID: H18080413-003AMSD	Sample Matrix Spike Duplicate				Run: ICP2-HE_180831A			08/31/18 15:21	
Lead	189	mg/kg-dry	8.5	87	75	125	0.4	20	
Zinc	331	mg/kg-dry	4.5	80	75	125	0.5	20	

Qualifiers:

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QA/QC Summary Report

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Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Analytical Run: ICPMS205-H_180830B
Lab ID: ICV	Initial Calibration Verification Standard								08/30/18 14:13
Arsenic	0.0593	mg/L	0.0010	99	90	110			
Chromium	0.0594	mg/L	0.0010	99	90	110			
Copper	0.0601	mg/L	0.0010	100	90	110			
Nickel	0.0599	mg/L	0.0010	100	90	110			
Selenium	0.0601	mg/L	0.0010	100	90	110			
Lab ID: ICSA	Interference Check Sample A								08/30/18 14:15
Arsenic	0.000148	mg/L	0.0010						
Chromium	0.00133	mg/L	0.0010						
Copper	0.000226	mg/L	0.0010						
Nickel	0.000128	mg/L	0.0010		0	0			
Selenium	0.000134	mg/L	0.0010						
Lab ID: ICSAB	Interference Check Sample AB								08/30/18 14:17
Arsenic	0.0112	mg/L	0.0010	113	70	130			
Chromium	0.0230	mg/L	0.0010	115	70	130			
Copper	0.0215	mg/L	0.0010	108	70	130			
Nickel	0.0214	mg/L	0.0010	107	70	130			
Selenium	0.0107	mg/L	0.0010	107	70	130			
Lab ID: CCV	Continuing Calibration Verification Standard								08/30/18 14:21
Arsenic	0.0504	mg/L	0.0010	101	90	110			
Chromium	0.0504	mg/L	0.0010	101	90	110			
Copper	0.0507	mg/L	0.0010	101	90	110			
Nickel	0.0504	mg/L	0.0010	101	90	110			
Selenium	0.0503	mg/L	0.0010	101	90	110			
Lab ID: CCB	Continuing Calibration Blank								08/30/18 14:25
Arsenic	8.49E-06	mg/L	0.0010						
Chromium	-1.19E-05	mg/L	0.0010						
Copper	-1.21E-06	mg/L	0.0010						
Nickel	-1.99E-06	mg/L	0.0010						
Selenium	8.67E-06	mg/L	0.0010						
Lab ID: CCV	Continuing Calibration Verification Standard								08/30/18 16:14
Arsenic	0.0491	mg/L	0.0010	98	90	110			
Chromium	0.0487	mg/L	0.0010	97	90	110			
Copper	0.0492	mg/L	0.0010	98	90	110			
Nickel	0.0487	mg/L	0.0010	97	90	110			
Selenium	0.0504	mg/L	0.0010	101	90	110			
Lab ID: CCB	Continuing Calibration Blank								08/30/18 16:18
Arsenic	5.79E-06	mg/L	0.0010						
Chromium	-6.04E-06	mg/L	0.0010						

Qualifiers:

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QA/QC Summary Report

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Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW6020		Analytical Run: ICPMS205-H_180830B								
Lab ID: CCB	Continuing Calibration Blank								08/30/18 16:18	
Copper	1.52E-05	mg/L	0.0010							
Nickel	9.91E-06	mg/L	0.0010							
Selenium	2.47E-05	mg/L	0.0010							
Method: SW6020		Batch: 42917								
Lab ID: MB-42917	Method Blank								Run: ICPMS205-H_180830B	08/30/18 15:53
Arsenic	0.05	mg/kg	0.04							
Cadmium	ND	mg/kg	0.02							
Chromium	ND	mg/kg	0.1							
Copper	ND	mg/kg	0.3							
Molybdenum	ND	mg/kg	0.03							
Nickel	ND	mg/kg	0.07							
Selenium	ND	mg/kg	0.07							
Lab ID: LFB-42917	Laboratory Fortified Blank								Run: ICPMS205-H_180830B	08/30/18 16:04
Arsenic	50.3	mg/kg	1.0	101	80	120				
Cadmium	25.8	mg/kg	1.0	104	80	120				
Chromium	50.1	mg/kg	1.0	101	80	120				
Copper	51.7	mg/kg	1.6	104	80	120				
Molybdenum	52.0	mg/kg	1.0	105	80	120				
Nickel	51.2	mg/kg	1.0	103	80	120				
Selenium	49.6	mg/kg	1.0	100	80	120				
Lab ID: H18080413-003APDS1	Post Digestion/Distillation Spike								Run: ICPMS205-H_180830B	08/30/18 16:06
Arsenic	116	mg/kg-dry	1.0	99	75	125				
Cadmium	87.6	mg/kg-dry	1.0	102	75	125				
Chromium	88.8	mg/kg-dry	2.1	97	75	125				
Copper	225	mg/kg-dry	5.4	98	75	125				
Molybdenum	97.0	mg/kg-dry	1.0	102	75	125				
Nickel	89.2	mg/kg-dry	1.3	99	75	125				
Selenium	82.4	mg/kg-dry	1.2	97	75	125				
Lab ID: H18080413-003AMS	Sample Matrix Spike								Run: ICPMS205-H_180830B	08/30/18 16:08
Arsenic	199	mg/kg-dry	1.0	92	75	125				
Cadmium	90.7	mg/kg-dry	1.0	99	75	125				
Chromium	175	mg/kg-dry	2.2	93	75	125				
Copper	292	mg/kg-dry	5.8	83	75	125				
Molybdenum	190	mg/kg-dry	1.0	99	75	125				
Nickel	177	mg/kg-dry	1.4	95	75	125				
Selenium	164	mg/kg-dry	1.3	90	75	125				
Lab ID: H18080413-003AMSD	Sample Matrix Spike Duplicate								Run: ICPMS205-H_180830B	08/30/18 16:10
Arsenic	200	mg/kg-dry	1.0	90	75	125	0.4	20		
Cadmium	93.9	mg/kg-dry	1.0	99	75	125	3.4	20		

Qualifiers:

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QA/QC Summary Report

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Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: 42917
Lab ID: H18080413-003AMSD	Sample Matrix Spike Duplicate								Run: ICPMS205-H_180830B 08/30/18 16:10
Chromium	177	mg/kg-dry	2.2	92	75	125	1.2	20	
Copper	293	mg/kg-dry	5.9	81	75	125	0.3	20	
Molybdenum	197	mg/kg-dry	1.0	100	75	125	3.5	20	
Nickel	180	mg/kg-dry	1.4	94	75	125	2.1	20	
Selenium	169	mg/kg-dry	1.3	91	75	125	2.8	20	

Qualifiers:

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QA/QC Summary Report

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Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW6020							Analytical Run: ICPMS205-H_180831B			
Lab ID: ICV	Initial Calibration Verification Standard								08/31/18 10:20	
Cadmium	0.0293	mg/L	0.0010	98	90	110				
Molybdenum	0.0592	mg/L	0.0010	99	90	110				
Lab ID: ICSA	Interference Check Sample A								08/31/18 10:22	
Cadmium	0.000211	mg/L	0.0010							
Molybdenum	0.900	mg/L	0.0010	113	70	130				
Lab ID: ICSAB	Interference Check Sample AB								08/31/18 10:24	
Cadmium	0.0112	mg/L	0.0010	112	70	130				
Molybdenum	0.912	mg/L	0.0010	114	70	130				
Lab ID: CCV	Continuing Calibration Verification Standard								08/31/18 10:28	
Cadmium	0.0496	mg/L	0.0010	99	90	110				
Molybdenum	0.0491	mg/L	0.0010	98	90	110				
Lab ID: CCB	Continuing Calibration Blank								08/31/18 10:31	
Cadmium	5.37E-07	mg/L	0.0010							
Molybdenum	2.70E-05	mg/L	0.0010							
Lab ID: CCV	Continuing Calibration Verification Standard								08/31/18 12:05	
Cadmium	0.0504	mg/L	0.0010	101	90	110				
Molybdenum	0.0492	mg/L	0.0010	98	90	110				
Lab ID: CCB	Continuing Calibration Blank								08/31/18 12:09	
Cadmium	2.54E-06	mg/L	0.0010							
Molybdenum	6.83E-06	mg/L	0.0010							
Method: SW6020							Batch: 42917			
Lab ID: LCS-42917	Laboratory Control Sample								08/31/18 11:46	
Run: ICPMS205-H_180831B										
Arsenic	181	mg/kg	1.0	92	71.4	105.1				
Cadmium	105	mg/kg	1.0	106	73.9	106.1				
Chromium	121	mg/kg	1.0	103	73.5	108.5				
Copper	135	mg/kg	1.0	99	76.6	108.8				
Molybdenum	131	mg/kg	1.0	103	66.5	103.1				
Nickel	87.5	mg/kg	1.0	101	72.3	105				
Selenium	206	mg/kg	1.0	100	71.2	110.2				

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Report Date: 09/10/18

Project: MSH-WW-Sludge Sampling

Work Order: H18080413

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW7471B									Analytical Run: HGCV201-H_180829A
Lab ID: ICV	Initial Calibration Verification Standard								
Mercury	0.0010	mg/kg	0.50	101	90	110			08/29/18 16:22
Lab ID: CCV	Continuing Calibration Verification Standard								
Mercury	0.0026	mg/kg	0.50	103	90	110			08/29/18 16:24
Lab ID: CCB	Continuing Calibration Blank								
Mercury	-6.1E-06	mg/kg	0.50						08/29/18 16:26
Lab ID: CCV	Continuing Calibration Verification Standard								
Mercury	0.0026	mg/kg	0.50	106	90	110			08/29/18 18:11
Lab ID: CCB	Continuing Calibration Blank								
Mercury	-4.0E-06	mg/kg	0.50						08/29/18 18:13
Method: SW7471B									Batch: 42909
Lab ID: MB-42909	Method Blank								
Mercury	ND	mg/kg	0.003						Run: HGCV201-H_180829A 08/29/18 16:42
Lab ID: LFB-42909	Laboratory Fortified Blank								
Mercury	0.21	mg/kg	0.50	104	80	120			Run: HGCV201-H_180829A 08/29/18 16:44
Lab ID: LCS-42909	Laboratory Control Sample								
Mercury	5.9	mg/kg	0.50	118	71	126.4			Run: HGCV201-H_180829A 08/29/18 16:46
Lab ID: H18080404-001AMS	Sample Matrix Spike								
Mercury	3.3	mg/kg-dry	0.50		80	120			Run: HGCV201-H_180829A 08/29/18 17:04 A
Lab ID: H18080404-001AMSD	Sample Matrix Spike Duplicate								
Mercury	3.3	mg/kg-dry	0.50		80	120	2.5	20	Run: HGCV201-H_180829A 08/29/18 17:06 A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.



Work Order Receipt Checklist

Anderson Montgomery Consulting
Engineers

H18080413

Login completed by: Jessica C. Smith

Date Received: 8/21/2018

Reviewed by: BL2000\rtooke

Received by: abc

Reviewed Date: 8/23/2018

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	16.2°C No Ice - From Field		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

IDs on jars are Cell 1, Cell 2 and Cell 3 -IDs on COC are Montana State Hospital Lagoons. Used IDs from samples. No collection time on samples. Used time from COC. Sample Cell 1 for Fecal Coliform Bacteria was received past the EPA 8 hr holding time but within the 24 hr holding time allowed by the MT DEQ. Called client to verify that Cell 1 was taken at 8:00, Cell 2 was 10:00 and Cell 3 was 12:00. JCS 08/21/2018



ANALYTICAL SUMMARY REPORT

September 16, 2024

Anderson Montgomery Consulting Engineers
1064 North Warren Street
Helena, MT 59601-3413

Work Order: H24080811

Project Name: MSH Sludge Sample 2024

Energy Laboratories Inc Helena MT received the following 2 samples for Anderson Montgomery Consulting Engineers on 8/22/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H24080811-001	Cell 2	08/22/24 12:20	08/22/24	Sludge	Metals by ICP/ICPMS, Total Bacteria, Fecal Coliform-sludge Mercury in Solid By CVAA Ammonia as N, KCL Extract Nitrate as N, KCL Extract Nitrogen, Total Kjeldahl Percent Moisture Total Metals Digestion by SW3050B Mercury Digestion by SW7471B KCL Soil Extract ASA33-3 TKN prep E351.2 Solids Content
H24080811-002	Cell 3	08/22/24 12:10	08/22/24	Sludge	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



CLIENT: Anderson Montgomery Consulting Engineer
Project: MSH Sludge Sample 2024
Work Order: H24080811

Report Date: 09/16/24

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers
Project: MSH Sludge Sample 2024
Lab ID: H24080811-001
Client Sample ID: Cell 2

Report Date: 09/16/24
Collection Date: 08/22/24 12:20
Date Received: 08/22/24
Matrix: Sludge

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MICROBIOLOGICAL							
Bacteria, Fecal Coliform, as Received	<20	CFU/g	DH	20		A9222 Dmod	08/23/24 11:14 / eli-b
Bacteria, Fecal Coliform, Dry Basis	<47	CFU/g	DH	47		A9222 Dmod	08/23/24 11:14 / eli-b
PHYSICAL CHARACTERISTICS							
Moisture	65.5	wt%		0.2		D2974	08/22/24 14:59 / ctf
Solids, Total	42.6	wt%		0.01		A2540 G	08/27/24 12:59 / eli-b
NUTRIENTS							
Ammonia as N, KCL Extract	76	mg/kg-dry		7		ASA33-7	09/13/24 14:05 / JAR
Nitrate as N, KCL Extract	9	mg/kg-dry		1		ASA33-8	09/14/24 15:08 / JAR
Nitrogen, Kjeldahl, Total as N	18100	mg/kg-dry		100		E351.2	09/04/24 16:03 / JAR
METALS, TOTAL - EPA SW846							
Arsenic	59	mg/kg-dry		2		SW6020	08/29/24 22:43 / slj
Cadmium	2.3	mg/kg-dry		0.5		SW6020	08/29/24 22:43 / slj
Chromium	15	mg/kg-dry		2		SW6020	08/30/24 21:12 / slj
Copper	412	mg/kg-dry		10		SW6020	08/29/24 22:43 / slj
Lead	45	mg/kg-dry		6		SW6020	08/29/24 22:43 / slj
Mercury	1.3	mg/kg-dry		0.11		SW7471B	08/28/24 15:02 / eli-b
Molybdenum	22	mg/kg-dry		3		SW6020	08/29/24 22:43 / slj
Nickel	12	mg/kg-dry		4		SW6020	08/29/24 22:43 / slj
Selenium	2	mg/kg-dry		1		SW6020	08/30/24 21:12 / slj
Zinc	310	mg/kg-dry		40		SW6020	08/29/24 22:43 / slj

Report Definitions:
 RL - Analyte Reporting Limit
 QCL - Quality Control Limit
 D - Reporting Limit (RL) increased due to sample matrix
 MCL - Maximum Contaminant Level
 ND - Not detected at the Reporting Limit (RL)
 H - Analysis performed past the method holding time



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers
Project: MSH Sludge Sample 2024
Lab ID: H24080811-002
Client Sample ID: Cell 3

Report Date: 09/16/24
Collection Date: 08/22/24 12:10
Date Received: 08/22/24
Matrix: Sludge

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MICROBIOLOGICAL							
Bacteria, Fecal Coliform, as Received	<20	CFU/g	DH	20		A9222 Dmod	08/23/24 11:20 / eli-b
Bacteria, Fecal Coliform, Dry Basis	<38	CFU/g	DH	38		A9222 Dmod	08/23/24 11:20 / eli-b
PHYSICAL CHARACTERISTICS							
Moisture	41.0	wt%		0.2		D2974	08/22/24 14:59 / ctf
Solids, Total	52.8	wt%		0.01		A2540 G	08/27/24 12:59 / eli-b
NUTRIENTS							
Ammonia as N, KCL Extract	216	mg/kg-dry		8		ASA33-7	09/13/24 14:15 / JAR
Nitrate as N, KCL Extract	9	mg/kg-dry		1		ASA33-8	09/14/24 15:09 / JAR
Nitrogen, Kjeldahl, Total as N	12300	mg/kg-dry		110		E351.2	09/04/24 16:04 / JAR
METALS, TOTAL - EPA SW846							
Arsenic	43	mg/kg-dry		1		SW6020	08/29/24 22:49 / slj
Cadmium	3.2	mg/kg-dry		0.5		SW6020	08/29/24 22:49 / slj
Chromium	17	mg/kg-dry		9		SW6020	08/29/24 22:49 / slj
Copper	347	mg/kg-dry		6		SW6020	08/29/24 22:49 / slj
Lead	67	mg/kg-dry		4		SW6020	08/29/24 22:49 / slj
Mercury	1.1	mg/kg-dry		0.10		SW7471B	08/28/24 15:03 / eli-b
Molybdenum	19	mg/kg-dry		2		SW6020	08/29/24 22:49 / slj
Nickel	11	mg/kg-dry		2		SW6020	08/29/24 22:49 / slj
Selenium	1.1	mg/kg-dry		0.6		SW6020	08/30/24 21:20 / slj
Zinc	648	mg/kg-dry		30		SW6020	08/29/24 22:49 / slj

Report Definitions:
 RL - Analyte Reporting Limit
 QCL - Quality Control Limit
 D - Reporting Limit (RL) increased due to sample matrix
 MCL - Maximum Contaminant Level
 ND - Not detected at the Reporting Limit (RL)
 H - Analysis performed past the method holding time



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 G										Batch: B_R427910
Lab ID: B24081879-001A DUP		Sample Duplicate					Run: SUB-B427910			08/27/24 12:59
Moisture		33.8	wt%	0.20				1.2	10	
Lab ID: B24081879-001A DUP		Sample Duplicate					Run: SUB-B427910			08/27/24 12:59
Solids, Total		66.2	wt%	0.01				0.6	10	
Lab ID: MBLK_MOISTHZW240		Method Blank					Run: SUB-B427910			08/27/24 12:59
Moisture		100	wt%	0.01						
Lab ID: MBLK_MOISTHZW240		Method Blank					Run: SUB-B427910			08/27/24 12:59
Solids, Total		ND	wt%	0.01						

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA33-7								Analytical Run: FIA203-HE_240913A		
Lab ID: ICV		Initial Calibration Verification Standard								09/13/24 13:02
Ammonia as N, KCL Extract		1.07	mg/kg-dry	0.50	107	90	110			
Method: ASA33-7								Batch: 73686		
Lab ID: MB-73686		Method Blank					Run: FIA203-HE_240913A			09/13/24 13:11
Ammonia as N, KCL Extract		0.4	mg/kg-dry	0.1						
Lab ID: LCS-73686		Laboratory Control Sample					Run: FIA203-HE_240913A			09/13/24 13:33
Ammonia as N, KCL Extract		13.3	mg/kg-dry	0.50	93	70	130			
Lab ID: H24080811-001AMS		Sample Matrix Spike					Run: FIA203-HE_240913A			09/13/24 14:07
Ammonia as N, KCL Extract		227	mg/kg-dry	8.0	104	80	120			
Lab ID: H24080811-001AMSD		Sample Matrix Spike Duplicate					Run: FIA203-HE_240913A			09/13/24 14:08
Ammonia as N, KCL Extract		218	mg/kg-dry	8.0	98	80	120	4.1	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: ASA33-8										Analytical Run: SEAL AA500_240914A	
Lab ID: CCV		Continuing Calibration Verification Standard								09/14/24 15:02	
Nitrate as N, KCL Extract		1.04	mg/kg-dry	1.0	104	90	110				
Lab ID: ICV		Initial Calibration Verification Standard								09/14/24 13:15	
Nitrate as N, KCL Extract		1.1	mg/kg-dry	1.0	106	90	110				
Method: ASA33-8										Batch: 73686	
Lab ID: MB-73686		Method Blank								Run: SEAL AA500_240914A	09/14/24 14:32
Nitrate as N, KCL Extract		0.6	mg/kg-dry	0.2							
Lab ID: LCS-73686		Laboratory Control Sample								Run: SEAL AA500_240914A	09/14/24 14:34
Nitrate as N, KCL Extract		11.9	mg/kg-dry	1.0	115	70	130				
Lab ID: H24080870-001AMS		Sample Matrix Spike								Run: SEAL AA500_240914A	09/14/24 14:42
Nitrate as N, KCL Extract		12.6	mg/kg-dry	1.0	110	80	120				
Lab ID: H24080697-001ADUP		Sample Duplicate								Run: SEAL AA500_240914A	09/14/24 14:55
Nitrate as N, KCL Extract		18.4	mg/kg-dry	1.0				1.4	30		

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D2974								Batch: PMOIST_240822_A		
Lab ID: H24080814-001A DUP		Sample Duplicate			Run: SOIL DRYING OVEN 2_24082			08/22/24 14:59		
Moisture		28.2	wt%	0.20				11	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E351.2								Analytical Run: SEAL AA500_240904A			
Lab ID: ICV		Initial Calibration Verification Standard								09/04/24 14:22	
Nitrogen, Kjeldahl, Total as N		10.2	mg/kg-dry	25	102	90	110				
Lab ID: CCV								Continuing Calibration Verification Standard			
Nitrogen, Kjeldahl, Total as N		9.52	mg/kg-dry	25	95	90	110			09/04/24 15:42	
Method: E351.2								Batch: 73624			
Lab ID: MB-73624		Method Blank								09/04/24 15:51	
Nitrogen, Kjeldahl, Total as N		ND	mg/kg-dry	20						Run: SEAL AA500_240904A	
Lab ID: LCS-73624								Laboratory Control Sample			
Nitrogen, Kjeldahl, Total as N		2310	mg/kg-dry	25	93	70	130			09/04/24 15:52	
Lab ID: H24080656-005Bms								Sample Matrix Spike			
Nitrogen, Kjeldahl, Total as N		806	mg/kg-dry	32	70	70	130			09/04/24 15:58	
Lab ID: H24080805-001Adup								Sample Duplicate			
Nitrogen, Kjeldahl, Total as N		30500	mg/kg-dry	190				11	30	09/04/24 16:01	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020		Analytical Run: ICPMS205-H_240829C								
Lab ID: ICV	8	Initial Calibration Verification Standard							08/29/24 13:29	
Arsenic		0.0626	mg/L	0.0010	104	90	110			
Cadmium		0.0314	mg/L	0.0010	105	90	110			
Chromium		0.0626	mg/L	0.0010	104	90	110			
Copper		0.0641	mg/L	0.0010	107	90	110			
Lead		0.0607	mg/L	0.0010	101	90	110			
Molybdenum		0.0602	mg/L	0.0010	100	90	110			
Nickel		0.0635	mg/L	0.0010	106	90	110			
Zinc		0.0645	mg/L	0.0013	107	90	110			
Lab ID: ICSA	8	Interference Check Sample A							08/29/24 13:40	
Arsenic		ND	mg/L	0.0010						
Cadmium		ND	mg/L	0.0010						
Chromium		0.00132	mg/L	0.0010						
Copper		ND	mg/L	0.0010						
Lead		ND	mg/L	0.0010						
Molybdenum		0.818	mg/L	0.0010	102	70	130			
Nickel		ND	mg/L	0.0010		0	0			
Zinc		ND	mg/L	0.0013						
Lab ID: ICSAB	8	Interference Check Sample AB							08/29/24 13:46	
Arsenic		0.0101	mg/L	0.0010	101	70	130			
Cadmium		0.00999	mg/L	0.0010	100	70	130			
Chromium		0.0217	mg/L	0.0010	109	70	130			
Copper		0.0194	mg/L	0.0010	97	70	130			
Lead		ND	mg/L	0.0010		0	0			
Molybdenum		0.821	mg/L	0.0010	103	70	130			
Nickel		0.0201	mg/L	0.0010	101	70	130			
Zinc		0.0114	mg/L	0.0013	115	70	130			
Lab ID: CCV	8	Continuing Calibration Verification Standard							08/29/24 22:22	
Arsenic		0.0514	mg/L	0.0010	103	90	110			
Cadmium		0.0513	mg/L	0.0010	103	90	110			
Chromium		0.0515	mg/L	0.0010	103	90	110			
Copper		0.0522	mg/L	0.0010	104	90	110			
Lead		0.0503	mg/L	0.0010	101	90	110			
Molybdenum		0.0515	mg/L	0.0010	103	90	110			
Nickel		0.0515	mg/L	0.0010	103	90	110			
Zinc		0.0507	mg/L	0.0013	101	90	110			

Method: SW6020		Batch: 73602								
Lab ID: MB-73602	9	Method Blank							Run: ICPMS205-H_240829C 08/29/24 22:28	
Arsenic		ND	mg/kg	0.2						
Cadmium		ND	mg/kg	0.02						
Chromium		ND	mg/kg	1						
Copper		ND	mg/kg	0.7						
Lead		ND	mg/kg	0.4						

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										
Batch: 73602										
Lab ID: MB-73602	9	Method Blank				Run: ICPMS205-H_240829C		08/29/24 22:28		
Molybdenum		ND	mg/kg	0.2						
Nickel		ND	mg/kg	0.3						
Selenium		ND	mg/kg	0.1						
Zinc		ND	mg/kg	3						
Lab ID: LCS-73602	9	Laboratory Control Sample				Run: ICPMS205-H_240829C		08/29/24 22:31		
Arsenic		162	mg/kg	1.0	86	66.4	104			
Cadmium		96.6	mg/kg	1.0	101	79.2	121			
Chromium		109	mg/kg	4.9	97	72.5	115			
Copper		122	mg/kg	3.5	92	73.9	113			
Lead		102	mg/kg	2.1	101	71.6	128			
Molybdenum		120	mg/kg	1.0	98	61.3	124			
Nickel		79.1	mg/kg	1.3	95	70.6	116			
Selenium		187	mg/kg	1.0	95	72.3	111			
Zinc		234	mg/kg	15	105	83.1	125			
Lab ID: LFB-73602	9	Laboratory Fortified Blank				Run: ICPMS205-H_240829C		08/29/24 22:34		
Arsenic		50.7	mg/kg	1.0	102	80	120			
Cadmium		26.5	mg/kg	1.0	107	80	120			
Chromium		52.2	mg/kg	5.0	105	80	120			
Copper		53.5	mg/kg	3.6	108	80	120			
Lead		51.1	mg/kg	2.2	103	80	120			
Molybdenum		53.3	mg/kg	1.1	108	80	120			
Nickel		53.5	mg/kg	1.3	108	80	120			
Selenium		48.1	mg/kg	1.0	97	80	120			
Zinc		52.2	mg/kg	15	105	80	120			
Lab ID: H24080805-001ADIL	9	Serial Dilution				Run: ICPMS205-H_240829C		08/29/24 22:40		
Arsenic		9.30	mg/kg-dry	6.6		0	0			
Cadmium		1.08	mg/kg-dry	1.1		0	0			
Chromium		49.9	mg/kg-dry	42		0	0			
Copper		368	mg/kg-dry	31		0	0	4.9		
Lead		23.7	mg/kg-dry	18		0	0			
Molybdenum		ND	mg/kg-dry	8.9		0	0			
Nickel		36.6	mg/kg-dry	11		0	0			
Selenium		9.04	mg/kg-dry	5.8		0	0			
Zinc		714	mg/kg-dry	130		0	0			
Lab ID: H24080811-001ADIL	9	Serial Dilution				Run: ICPMS205-H_240829C		08/29/24 22:46		
Arsenic		65.1	mg/kg-dry	11		0	0			
Cadmium		2.71	mg/kg-dry	1.8		0	0			
Chromium		ND	mg/kg-dry	72		0	0			
Copper		438	mg/kg-dry	52		0	0			
Lead		46.2	mg/kg-dry	31		0	0			
Molybdenum		22.0	mg/kg-dry	15		0	0			
Nickel		ND	mg/kg-dry	19		0	0			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

N - Analyte concentration was not sufficiently high to calculate a Relative Percent Difference (RPD) for the serial dilution test

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										
Batch: 73602										
Lab ID:	H24080811-001ADIL	9	Serial Dilution							
							Run: ICPMS205-H_240829C			08/29/24 22:46
Selenium		ND	mg/kg-dry	9.8		0	0	10		
Zinc		351	mg/kg-dry	220		0	0	10		N
Lab ID:	H24080805-001APDS1	9	Post Digestion/Distillation Spike							
							Run: ICPMS205-H_240829C			08/29/24 22:52
Arsenic		51.3	mg/kg-dry	1.3	102	75	125			
Cadmium		46.5	mg/kg-dry	1.0	108	75	125			
Chromium		91.2	mg/kg-dry	8.5	102	75	125			
Copper		387	mg/kg-dry	6.1		75	125			A
Lead		49.4	mg/kg-dry	3.7	76	75	125			
Molybdenum		54.3	mg/kg-dry	1.8	113	75	125			
Nickel		78.8	mg/kg-dry	2.2	105	75	125			
Selenium		49.8	mg/kg-dry	1.2	100	75	125			
Zinc		689	mg/kg-dry	26		75	125			A
Lab ID:	H24080805-001AMS	9	Sample Matrix Spike							
							Run: ICPMS205-H_240829C			08/29/24 22:55
Arsenic		93.5	mg/kg-dry	1.4	98	75	125			
Cadmium		46.7	mg/kg-dry	1.0	105	75	125			
Chromium		132	mg/kg-dry	8.8	96	75	125			
Copper		471	mg/kg-dry	6.4		75	125			A
Lead		80.1	mg/kg-dry	3.8	72	75	125			S
Molybdenum		99.0	mg/kg-dry	1.9	106	75	125			
Nickel		122	mg/kg-dry	2.3	100	75	125			
Selenium		93.5	mg/kg-dry	1.2	98	75	125			
Zinc		694	mg/kg-dry	27		75	125			A
Lab ID:	H24080805-001AMSD	9	Sample Matrix Spike Duplicate							
							Run: ICPMS205-H_240829C			08/29/24 22:58
Arsenic		93.4	mg/kg-dry	1.3	101	75	125	0	20	
Cadmium		46.4	mg/kg-dry	1.0	108	75	125	0.6	20	
Chromium		141	mg/kg-dry	8.5	110	75	125	6.2	20	
Copper		454	mg/kg-dry	6.1		75	125	3.7	20	A
Lead		79.4	mg/kg-dry	3.7	74	75	125	0.8	20	S
Molybdenum		96.0	mg/kg-dry	1.8	106	75	125	3.0	20	
Nickel		124	mg/kg-dry	2.2	107	75	125	1.7	20	
Selenium		90.4	mg/kg-dry	1.2	98	75	125	3.3	20	
Zinc		756	mg/kg-dry	26		75	125	8.6	20	A
Lab ID:	H24080811-001APDS1	9	Post Digestion/Distillation Spike							
							Run: ICPMS205-H_240829C			08/29/24 23:01
Arsenic		132	mg/kg-dry	2.2	103	75	125			
Cadmium		77.6	mg/kg-dry	1.0	106	75	125			
Chromium		91.6	mg/kg-dry	14	106	75	125			
Copper		490	mg/kg-dry	10		75	125			A
Lead		118	mg/kg-dry	6.3	102	75	125			
Molybdenum		101	mg/kg-dry	3.0	112	75	125			
Nickel		87.2	mg/kg-dry	3.8	106	75	125			
Selenium		72.5	mg/kg-dry	2.0	99	75	125			
Zinc		377	mg/kg-dry	44		75	125			A

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

S - Spike recovery outside of advisory limits

A - Analyte level was greater than four times the spike level - in accordance with the method, percent recovery is not calculated
N - Analyte concentration was not sufficiently high to calculate a Relative Percent Difference (RPD) for the serial dilution test

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: SW6020		Analytical Run: ICPMS206-H_240830B									
Lab ID: ICV	2	Initial Calibration Verification Standard							08/30/24 14:39		
Chromium		0.0600	mg/L	0.0010	100	90	110				
Selenium		0.0612	mg/L	0.0010	102	90	110				
Lab ID: ICSA	2	Interference Check Sample A							08/30/24 14:52		
Chromium		0.00128	mg/L	0.0010							
Selenium		ND	mg/L	0.0010							
Lab ID: ICSAB	2	Interference Check Sample AB							08/30/24 15:00		
Chromium		0.0209	mg/L	0.0010	105	70	130				
Selenium		0.00995	mg/L	0.0010	99	70	130				
Lab ID: CCV	2	Continuing Calibration Verification Standard							08/30/24 20:44		
Chromium		0.0483	mg/L	0.0010	97	90	110				
Selenium		0.0497	mg/L	0.0010	99	90	110				
Method: SW6020		Batch: 73602									
Lab ID: MB-73602	9	Method Blank							Run: ICPMS206-H_240830B		08/30/24 20:52
Arsenic		ND	mg/kg	0.7							
Cadmium		ND	mg/kg	0.04							
Chromium		ND	mg/kg	0.7							
Copper		ND	mg/kg	0.6							
Lead		ND	mg/kg	0.5							
Molybdenum		ND	mg/kg	0.3							
Nickel		ND	mg/kg	0.5							
Selenium		ND	mg/kg	0.3							
Zinc		ND	mg/kg	2							
Lab ID: LCS-73602	9	Laboratory Control Sample							Run: ICPMS206-H_240830B		08/30/24 20:56
Arsenic		152	mg/kg	1.0	81	66.4	104				
Cadmium		94.8	mg/kg	1.0	99	79.2	121				
Chromium		97.2	mg/kg	1.0	86	72.5	115				
Copper		111	mg/kg	1.0	84	73.9	113				
Lead		100	mg/kg	1.0	99	71.6	128				
Molybdenum		111	mg/kg	1.0	91	61.3	124				
Nickel		72.2	mg/kg	1.0	87	70.6	116				
Selenium		189	mg/kg	1.0	96	72.3	111				
Zinc		221	mg/kg	2.3	99	83.1	125				
Lab ID: LFB-73602	9	Laboratory Fortified Blank							Run: ICPMS206-H_240830B		08/30/24 21:00
Arsenic		46.1	mg/kg	1.0	93	80	120				
Cadmium		25.7	mg/kg	1.0	104	80	120				
Chromium		45.3	mg/kg	1.0	92	80	120				
Copper		47.7	mg/kg	1.0	96	80	120				
Lead		47.9	mg/kg	1.0	97	80	120				
Molybdenum		49.4	mg/kg	1.0	100	80	120				
Nickel		47.2	mg/kg	1.0	95	80	120				
Selenium		47.8	mg/kg	1.0	96	80	120				

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020 Batch: 73602										
Lab ID: LFB-73602	9	Laboratory Fortified Blank								
Zinc		46.5	mg/kg	2.3	94	80	120			
Run: ICPMS206-H_240830B 08/30/24 21:00										
Lab ID: H24080805-001ADIL	9	Serial Dilution								
Arsenic		ND	mg/kg-dry	13		0	0		10	
Cadmium		1.07	mg/kg-dry	1.0		0	0		10	N
Chromium		45.5	mg/kg-dry	13		0	0		10	N
Copper		337	mg/kg-dry	11		0	0	4.9	10	
Lead		23.1	mg/kg-dry	8.3		0	0		10	N
Molybdenum		6.11	mg/kg-dry	4.6		0	0		10	N
Nickel		34.2	mg/kg-dry	8.2		0	0		10	N
Selenium		8.32	mg/kg-dry	5.9		0	0		10	N
Zinc		650	mg/kg-dry	39		0	0	4.8	10	
Run: ICPMS206-H_240830B 08/30/24 21:08										
Lab ID: H24080811-001ADIL	9	Serial Dilution								
Arsenic		55.6	mg/kg-dry	11		0	0		10	N
Cadmium		2.40	mg/kg-dry	1.0		0	0		10	N
Chromium		15.4	mg/kg-dry	11		0	0		10	N
Copper		404	mg/kg-dry	9.1		0	0	8.6	10	
Lead		42.6	mg/kg-dry	7.1		0	0		10	N
Molybdenum		19.7	mg/kg-dry	3.9		0	0		10	N
Nickel		15.6	mg/kg-dry	7.0		0	0		10	N
Selenium		ND	mg/kg-dry	5.0		0	0		10	
Zinc		299	mg/kg-dry	33		0	0		10	N
Run: ICPMS206-H_240830B 08/30/24 21:16										
Lab ID: H24080805-001APDS1	9	Post Digestion/Distillation Spike								
Arsenic		86.2	mg/kg-dry	2.5	94	75	125			
Cadmium		87.8	mg/kg-dry	1.0	104	75	125			
Chromium		120	mg/kg-dry	2.5	92	75	125			
Copper		392	mg/kg-dry	2.1	86	75	125			
Lead		87.5	mg/kg-dry	1.7	81	75	125			
Molybdenum		91.4	mg/kg-dry	1.0	102	75	125			
Nickel		112	mg/kg-dry	1.6	95	75	125			
Selenium		90.3	mg/kg-dry	1.2	98	75	125			
Zinc		681	mg/kg-dry	7.9		75	125			A
Run: ICPMS206-H_240830B 08/30/24 21:24										
Lab ID: H24080805-001AMS	9	Sample Matrix Spike								
Arsenic		87.3	mg/kg-dry	2.6	91	75	125			
Cadmium		45.5	mg/kg-dry	1.0	102	75	125			
Chromium		121	mg/kg-dry	2.6	90	75	125			
Copper		437	mg/kg-dry	2.2	134	75	125			S
Lead		91.7	mg/kg-dry	1.7	82	75	125			
Molybdenum		89.6	mg/kg-dry	1.0	96	75	125			
Nickel		113	mg/kg-dry	1.7	93	75	125			
Selenium		93.6	mg/kg-dry	1.2	98	75	125			
Zinc		659	mg/kg-dry	8.2		75	125			A
Run: ICPMS206-H_240830B 08/30/24 21:29										

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

S - Spike recovery outside of advisory limits

A - Analyte level was greater than four times the spike level - in accordance with the method, percent recovery is not calculated
N - Analyte concentration was not sufficiently high to calculate a Relative Percent Difference (RPD) for the serial dilution test



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Anderson Montgomery Consulting Engineers

Work Order: H24080811

Report Date: 09/16/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW7471B										Analytical Run: SUB-B427898
Lab ID: ICV		Initial Calibration Verification Standard								08/28/24 14:44
Mercury		0.0020	mg/kg	0.10	98	90	110			
Lab ID: CCV		Continuing Calibration Verification Standard								08/28/24 14:46
Mercury		0.0025	mg/kg	0.10	100	90	110			
Method: SW7471B										Batch: B_192578
Lab ID: MB-192578		Method Blank								08/28/24 14:48
Mercury		ND	mg/kg	0.008						Run: SUB-B427898
Lab ID: LCS3-192578		Laboratory Control Sample								08/28/24 14:49
Mercury		0.20	mg/kg	0.10	98	80	120			Run: SUB-B427898
Lab ID: B24081634-001AMS3		Sample Matrix Spike								08/28/24 14:52
Mercury		0.23	mg/L	0.10	96	80	120			Run: SUB-B427898
Lab ID: B24081634-001AMSD3		Sample Matrix Spike Duplicate								08/28/24 14:54
Mercury		0.23	mg/L	0.10	95	80	120	1.6	20	Run: SUB-B427898

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



Work Order Receipt Checklist

Anderson Montgomery Consulting Engineers

H24080811

Login completed by: Jessica C. Smith

Date Received: 8/22/2024

Reviewed by: wjohnson

Received by: RAT

Reviewed Date: 8/31/2024

Carrier name: Hand Deliver

Shipping container/cooler in good condition? Yes [x] No [] Not Present []
Custody seals intact on all shipping container(s)/cooler(s)? Yes [] No [] Not Present [x]
Custody seals intact on all sample bottles? Yes [] No [] Not Present [x]
Chain of custody present? Yes [x] No []
Chain of custody signed when relinquished and received? Yes [x] No []
Chain of custody agrees with sample labels? Yes [x] No []
Samples in proper container/bottle? Yes [x] No []
Sample containers intact? Yes [x] No []
Sufficient sample volume for indicated test? Yes [x] No []
All samples received within holding time? Yes [x] No []
Temp Blank received in all shipping container(s)/cooler(s)? Yes [x] No [] Not Applicable []
Container/Temp Blank temperature: 10.2°C On Ice
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4"). Yes [] No [] No VOA vials submitted [x]
Water - pH acceptable upon receipt? Yes [] No [] Not Applicable [x]

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

No analysis requested on COC, Used associated bottle order provided by client for analyses. jcs 08222024



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BOTTLE ORDER 48909



SHIPPED Anderson Montgomery
Consulting Engineers



To report an issue with this order, view Safety Data Sheets, or let us know how we are doing, scan here or go to energylab.com/contact-us

Contact: Paul Montgomery
1064 North Warren Street
Helena MT 59601
Phone: (406) 449-3303
Project: 503

Order Created by: Wanda J. Johnson
Shipped From: Helena, MT
Ship Date: 8/6/2024
VIA: PickUp

Bottle Size/Type	Bottles Per Samp	Method	Tests	Critical Hold Time	Preservative	Notes	Num of Samp
------------------	------------------	--------	-------	--------------------	--------------	-------	-------------

503 Analysis-Fecal MF (2 Sets)

1 Liter Clear Glass Wide Mouth	1	SW3050 B SW7471B SW7471B E351.2 ASA33-7 ASA33-8 D2974 A2540 G E6010.20 A2540 G ASA31-3 ASA33-3	Total Metals Digestion by SW3050B Mercury in Solid By CVAA Mercury Digestion by SW7471B Nitrogen, Total Kjeldahl Ammonia as N, KCL Extract Nitrate as N, KCL Extract Percent Moisture Solids Content Metals by ICP/ICPMS, Total Moisture TKN prep E351.2 KCL Soil Extract ASA33-3	8.00 hrs			1
8 oz Clear Glass, Wide-Mouth	1	A9222 Dmtd	Bacteria, Fecal Coliform-sludge				1

Comments

BO#: 48909

HNO3 - Nitric Acid H2SO4 - Sulfuric Acid NaOH - Sodium Hydroxide

ZnAc - Zinc Acetate HCl - Hydrochloric Acid H3PO4 - Phosphoric Acid

We strongly suggest that the samples are shipped the same day as they are collected.

Material Safety Data Sheets(MSDS) Available @ EnergyLab.com ->Services -> MSDS Sheets

Corrosive Chemicals: Nitric, Sulfuric, Phosphoric, Hydrochloric Acids and Sodium Hydroxide. Zinc Acetate is a skin irritant.

Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

Part II — To Be Completed by LAND APPLIERS of Sewage Sludge

A. If the pollutant levels in the sewage sludge do not meet the pollutant concentration limits in Table 3, then the land applier must record and retain the following information which should be given to the land owner.

1. Location of land application site _____
2. Number of hectares where the sludge was applied _____
3. Date and time bulk sewage sludge was applied _____
4. Amount of bulk sludge applied _____
5. Record the amount of each metal and nitrogen applied in pounds per acre or kilogram per hectare.

Units	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Zinc	Nitrogen

B. If a Class B pathogen reduction alternative was used (see Part I), then the following site restrictions must be met. Please check the boxes if any of the site restrictions apply.

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the following waiting period:
 - a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sludge.
 - b. If harvested parts are below the land surface and the sludge sat on top of the soil for 4 months before the field was plowed, wait to harvest for 20 months after the initial application of sludge.
 - c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest for 38 months after the initial application.
2. Feed crops cannot be harvested for 30 days after application of the sludge.
3. Animals cannot graze on the land for 30 days after application of the sludge.
4. If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
5. Public access to land with a high potential (parks, playgrounds, golf courses) for public exposure will be restricted for 1 year after the application of the sludge.
6. Public access to land with a low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

C. If the preparer did not perform vector attraction reduction options (see Part I), then either option 9 or 10 must be performed by the land applier. Please indicate if option 9 or 10 was performed. Check appropriate box.

- Option 9—Subsurface Injection Option 10—Incorporated (plowed) into the Soil N/A

D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name and Official Title (<i>type or print</i>)	B. Area Code and Telephone Number
C. Signature	D. Date Signed

APPENDIX D

Asbestos Report



January 6, 2025

Mr. Mark Hines
State of Montana Department of Administration
Architecture & Engineering Division
1500 East 6th Avenue
Helena, Montana 59620

Delivered via email: mhines@mt.gov

SUBJECT: Pre-Demolition Asbestos Inspection Report
Lagoon Cleanout/Restoration Phase 2
Cells 2 and 3
Montana State Hospital
Warm Springs, Montana
Tetra Tech Project No. 117-001251-24001

Dear Mr. Hines:

August 22, 2024, and November 26 and 27, 2024, Tetra Tech, Inc. (Tetra Tech) conducted a pre-demolition asbestos inspection at the above-referenced site. Based on correspondence with you before the commencement of the project, Tetra Tech was instructed to inspect for suspect asbestos-containing materials (ACM) for future demolition purposes. Details of our inspection are provided below.

PRE-DEMOLITION ASBESTOS INSPECTION

The pre-demolition asbestos inspection was conducted in accordance with the Administrative Rules of Montana (ARM) 17.74.354, using the currently recognized standard protocol developed under the National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Asbestos Hazard Emergency Response Act (AHERA), as administered by the State of Montana Department of Environmental Quality (MDEQ).

Tetra Tech technicians Mr. Todd Schneider collected samples of suspect ACM on August 22, 2024, and Mr. Rylee Prinz collected suspect ACM samples on November 26 and 27, 2024. Both are MDEQ Accredited Asbestos Inspectors and their MDEQ Inspector Accreditations are provided in **Attachment A**.

The bulk samples that were collected on August 22, 2024, were shipped, along with the completed chain of custody (COC) documentation to Crisp Analytical of Carrollton, Texas, and bulk samples that were collected on November 26 and 27, 2024, were shipped, along with the completed COC documentation to Eurofins of Mount Laurel, New Jersey for the analysis of asbestos fibers by polarized light microscopy (PLM) using U.S. Environmental Protection Agency (EPA) Methods described in 40 CFR Part 763 Appendix E Subpart E (Interim and EPA 600/R-93 / 116 (Improved)). A copy of the laboratory analysis reports and COCs is provided in **Attachment B**.

A summary of the ACM identified to contain greater than 1% asbestos is provided in **Table 1**. Approximate sample collection locations are provided in **Figure 1**.

TETRA TECH

7100 Commercial Avenue Suite 4, Billings, MT 59101
Tel +1. 406.248.9161 | Fax +1. 406.248.9282 | tetrattech.com

Table 1. Summary of ACM

HA Number	Material Description and Location	Percent Asbestos	Material Type	NESHAP Category
August 22, 2024				
Cell 3				
M18.4	White surface compound on gray concrete – Pillar 1 and 2	2.25% Chrysotile ^{1,2}	Miscellaneous	Category II Non-Friable

HA = Homogeneous Area Number, NESHAP = National Emission Standard for Hazardous Air Pollutants, 1 = HA further analyzed by PLM Point Count, and 2 = Additional samples were collected of the suspect ACM for more definitive results due to possible cross-contamination by Tetra Tech or the laboratory

A summary of the suspect ACMs identified to contain 1% or less asbestos is provided in **Table 2**. Approximate sample collection locations are provided in **Figure F-01** and approximate material locations are provided in **Figure F-02**

Table 2. Summary of Materials Containing 1% or Less Asbestos

Sample Number	HA Material Description and Location	Percent Asbestos
November 26 and 27, 2024		
Cell 3		
C3-M18.1A	Gray concrete – Pillars 1 through 28	<0.25% Chrysotile
C3-M18.2A		<0.25% Chrysotile
C3-M18.3A		<0.25% Chrysotile
C3-M18.4A		<0.25% Chrysotile
C3-M18.5A		<0.25% Chrysotile
C3-M18.6A		<0.25% Chrysotile
C3-M18.7A		<0.25% Chrysotile
C3-M18.8A		<0.25% Chrysotile
C3-M18.9A		<0.25% Chrysotile
C3-M18.10A		<0.25% Chrysotile
C3-M18.11A		<0.25% Chrysotile
C3-M18.12A		<0.25% Chrysotile
C3-M18.13A		<0.25% Chrysotile
C3-M18.14A		<0.25% Chrysotile
C3-M18.15A		<0.25% Chrysotile
C3-M18.16A		<0.25% Chrysotile
C3-M18.17A		<0.25% Chrysotile
C3-M18.18A		<0.25% Chrysotile

C3-M18.19A		<0.25% Chrysotile
C3-M18.20A		<0.25% Chrysotile
C3-M18.21A		<0.25% Chrysotile
C3-M18.22A		<0.25% Chrysotile
C3-M18.23A		<0.25% Chrysotile
C3-M18.24A		<0.25% Chrysotile
C3-M18.25A		<0.25% Chrysotile
C3-M18.26A		<0.25% Chrysotile
C3-M18.27A		<0.25% Chrysotile
C3-M18.28A		<0.25% Chrysotile
C3-M18.29A, B, C	Gray concrete – Gate Control	<0.25% Chrysotile
C3-S1.1A, B, C	Plaster surfacing – Pillar 1	<0.25% Chrysotile
C3-S1.2A, B, C	Plaster surfacing – Pillar 2	<0.25% Chrysotile
C3-S1.3A, B, C, D, E	Plaster surfacing – throughout the pillars	<0.25% Chrysotile

HA: Homogeneous Area and <= Less Than

Sample M18.4 identified in **Table 1** which exceeded applicable state and federal regulations of greater than 1% asbestos was resampled on November 26 and 27, 2024. PLM laboratory analytical results of resampled materials confirmed that asbestos was present in concentrations less than the applicable MDEQ and EPA regulatory levels.

Based on the asbestos concentration associated with the analysis of the resampled materials identified in **Table 1** and materials identified in **Table 2**, they are not regulated by the EPA or MDEQ. However, Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1926.1001) state that if asbestos-containing material containing 1% or less asbestos is to be removed by construction personnel, the employer shall provide awareness training, written respirator protection program, respirators, and negative exposure assessment would apply for any disturbance activities associated with these materials. Accordingly, Tetra Tech recommends that individuals engaging in the disturbance or removal of these materials utilize asbestos safe work practices as specified within 29 CFR 1926.1101. As stipulated under 29 CFR 1926.1101, work practice requirements and prohibitions that must be observed regardless of the exposure levels and the percentage of asbestos in the installed construction materials include, but are not necessarily limited to:

- 29 CFR 1926.1101(g)(1)(ii), which requires: wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in paragraph (g)(8)(ii) of this section.
- 29 CFR 1926.1101(g)(1)(iii), which requires: prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in paragraph (g)(8)(ii)3 of this section apply.
- 29 CFR 1926.1101(g)(3)(i), which prohibits: high-speed abrasive disc saws that are not equipped with point-of-cut ventilator or enclosures with HEPA-filtered exhaust air.

- 29 CFR 1926.1101(g)(3)(ii), which prohibits: compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air.
- 29 CFR 1926.1101(g)(3)(iv), which prohibits: employee rotation as a means of reducing employee exposure to asbestos.

Following the completion of removal, a visual inspection should be conducted.

The following suspect ACMs sampled from the site were found not to contain asbestos by laboratory analysis:

Cell 2

- Gray concrete located on influence (M18.1A, B, C)
- Gray concrete located on pillars 1 and 2 (M18.2A, B, C)
- Gray concrete located on pillars 1 through 29 (C2-M18.1A through 29A – total of 29 samples)
- Gray concrete associated with the gate control (C2-M18.3A, B, C)
- Plaster surfacing associated with concrete pillars 1-29 (C2-S1.1A, B, C, D, E, F, G)

Cell 3

- Gray concrete located on influence (M18.3A, B, C)
- Gray concrete located on Effluent (M18.5A, B, C)

LIMITATIONS

Our opinions are intended exclusively for use by the State of Montana Department of Administration. The scope of services performed by Tetra Tech may not be appropriate to satisfy the needs of other users, and any use or re-use of this document, or the findings presented herein is prohibited and at the sole risk of the user. No additions or deletions are permitted without the express written consent of Tetra Tech. Furthermore, the opinions presented herein are limited by the requested scope of services and the site conditions existing at the time of our investigation. Therefore, our opinions and recommendations may not apply to future site conditions which we have not had the opportunity to evaluate.

It has been a pleasure assisting you with this project. If you have any questions or need additional information, please contact me in our Tetra Tech Billings, Montana office at (406) 248-9161.

Respectfully submitted,

TETRA TECH

Roger W. Herman, Jr.

Roger W. Herman, Jr.
Asbestos, Lead & IH Services Manager

Figures

Attachment A – MDEQ Inspector Accreditations

Attachment B – Laboratory Analytical Reports and COCs

I:\H-M\MONTANA ARCHITECT AND ENGINEERING DEPT\117-001251-24001 - MSH Lagoon Ph 2 ASB\05-Deliverables\Final\Montana A&E_Lagoon Cleanout-Restoration Phase 2_Pre-Demo Asbestos Inspection Report.docx


FIGURES



LEGEND

Black text are samples collected on August 22, 2024

Blue text are samples collected on November 26 and 27, 2024


 TETRA TECH www.tetrattech.com 7100 Commercial Ave, Suite 4 Billings, Montana 59101 PHONE: 406-248-9161 FAX: 406-248-9282	CELLS 2 AND 3 PRE-DEMOLITION ASBESTOS INSPECTION SAMPLE COLLECTION LOCATIONS STATE OF MONTANA DEPARTMENT OF ADMINISTRATION ARCHITECTURE & ENGINEERING DIVISION LAGOON CLEANOUT/RESTORATION PHASE 2 WARM SPRINGS, MONTANA	Project No.: 117-743546-24001 Designed By: N/A Drawn By: RP Checked By: RWH
	F-01	Copyright Tetra Tech

Not To Scale



LEGEND

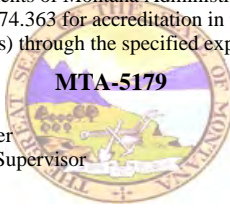
● ● <0.25% Chrysotile Asbestos

 TETRA TECH www.tetrattech.com 7100 Commercial Ave, Suite 4 Billings, Montana 59101 PHONE: 406-248-9161 FAX: 406-248-9282	CELLS 2 AND 3		Project No.: 117-743546-24001
	PRE-DEMOLITION ASBESTOS INSPECTION <1% ACM LOCATIONS STATE OF MONTANA DEPARTMENT OF ADMINISTRATION ARCHITECTURE & ENGINEERING DIVISION LAGOON CLEANOUT/RESTORATION PHASE 2 WARM SPRINGS, MONTANA		Designed By: N/A Drawn By: N/A Checked By: RWH
F-02			Copyright Tetra Tech

ATTACHMENT A
MDEQ Inspector Accreditations

TODD SCHNEIDER

has met the requirements of Montana Administrative Rule 17.74.362 and/or 17.74.363 for accreditation in the following asbestos occupation(s) through the specified expiration date(s).



Asbestos Inspector
Management Planner
Project Contractor/Supervisor

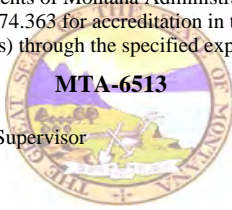
06/13/2025
11/17/2024
11/16/2024

MT DEQ Asbestos Control Program

TODD SCHNEIDER
1705 BUTTE AVE
HELENA MT 59601

RYLEE S PRINZ

has met the requirements of Montana Administrative Rule 17.74.362 and/or 17.74.363 for accreditation in the following asbestos occupation(s) through the specified expiration date(s).



Asbestos Inspector
Project Contractor/Supervisor

08/23/2025
07/19/2025

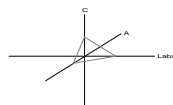
MT DEQ Asbestos Control Program

RYLEE S PRINZ
5814 TWINS WAY #2
BILLINGS MT 59101

ATTACHMENT B
Laboratory Analytical Reports and COCs

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798



CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Tetra Tech, Inc.

7100 Commercial Ave Suite 4
Billings, Montana 59101

Customer Project: 117-001251-24001, MSH Lagoon Clean
Reference #: CAL24086652AS Date: 08/30/24

Analysis and Method

Summary of polarized light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved)). The sample is first viewed with the aid of a stereomicroscope. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are performed. Calibrated liquid refractive oils are used as liquid mounting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjunction with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may contain trace amounts of actinolite/tremolite. When not detected by PLM, these samples should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may contain a regulated asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Since allowable variation in quantification of samples close to 1% is high, <1% may be reported. Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos or "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses or hold a degree in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one these disciplines is preferred, but not required. Extensive in-house training programs are used to augment the educational background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235
AIHA LAP, LLC Laboratory #102929

Overview of Project Sample Material Containing Asbestos

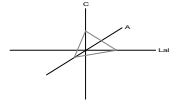
Customer Project:		117-001251-24001, MSH Lagoon Cleanout			CA Labs Project #: CAL24086652AS	
Laboratory Sample # Sample ID	Layer #	Analysts	Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types	
72515	M18.4A	M18.4A-1	Concrete/ white surfaced off- white finishing compound	2% Chrysotile	white surfaced off-white finishing compound	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate	pe - perlite	fg - fiberglass	pa - palygorskite (clay)
gypsum - gypsum	qu - quartz	mw - mineral wool	
bi - binder		wo - wollastinite	
or - organic		ta - talc	
ma - matrix		sy - synthetic	
mi - mica		ce - cellulose	
ve - vermiculite		br - brucite	
ot - other		ka - kaolin (clay)	

This report relates to the items tested as received. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.



Polarized Light Asbestiform Materials Characterization

Customer Info: Tetra Tech, Inc. 7100 Commercial Ave Suite 4 Billings, Montana 59101	Attn:	Customer Project: 117-001251-24001, MSH Lagoon Cleanout Turnaround Time: 5 Days	CA Labs Project #: CAL24086652AS Date: 8/30/2024 Samples Rec'd: 8/23/24 10:30AM Date Of Sampling: 8/22/2024 Purchase Order #:
Phone #	406-248-9161		
Fax #	406-248-9282		

Laboratory Sample ID	Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo-geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
72506	M18.1A		M18.1 A-1	Concrete/ gray concrete	y	None Detected		100% qu,ca
72507	M18.1B		M18.1 B-1	Concrete/ gray concrete	y	None Detected		100% qu,ca
72508	M18.1C		M18.1 C-1	Concrete/ gray concrete	y	None Detected		100% qu,ca
72509	M18.2A		M18.2 A-1	Concrete/ gray concrete	y	None Detected		100% qu,ca
72510	M18.2B		M18.2 B-1	Concrete/ gray concrete	y	None Detected		100% qu,ca
72511	M18.2C		M18.2 C-1	Concrete/ gray concrete	y	None Detected		100% qu,ca
72512	M18.3A		M18.3 A-1	Concrete/ gray concrete	y	None Detected		100% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

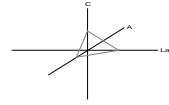
Jose Matute
Analyst

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze

C.T. Rasmussen
Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested



Polarized Light Asbestiform Materials Characterization

Customer Info: Tetra Tech, Inc. 7100 Commercial Ave Suite 4 Billings, Montana 59101	Attn:	Customer Project: 117-001251-24001, MSH Lagoon Cleanout Turnaround Time: 5 Days	CA Labs Project #: CAL24086652AS Date: 8/30/2024 Samples Rec'd: 8/23/24 10:30AM Date Of Sampling: 8/22/2024 Purchase Order #:
Phone # 406-248-9161			
Fax # 406-248-9282			

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
72513	M18.3B		M18.3 B-1	Concrete/ gray concrete	y	None Detected	100% qu,ca	
72514	M18.3C		M18.3 C-1	Concrete/ gray concrete	y	None Detected	100% qu,ca	
72515	M18.4A		M18.4 A-1	Concrete/ white surfaced off-white finishing compound	n	2% Chrysotile	98% qu,mi,bi,ca	
72515			M18.4 A-2	gray concrete	y	None Detected	100% qu,ca	
72516	M18.4B		M18.4 B-1	Concrete/ white surfaced off-white finishing compound		Positive Stop		
72516			M18.4 B-2	gray concrete	y	None Detected	100% qu,ca	
72517	M18.4C		M18.4 C-1	Concrete/ white surfaced off-white finishing compound		Positive Stop		

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

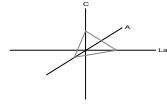
Jose Matute
Analyst

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3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze

Technical Manager
Tanner Rasmussen

6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

Senior Analyst
Julio Robles



Polarized Light Asbestiform Materials Characterization

Customer Info: Tetra Tech, Inc. 7100 Commercial Ave Suite 4 Billings, Montana 59101	Attn:	Customer Project: 117-001251-24001, MSH Lagoon Cleanout Turnaround Time: 5 Days	CA Labs Project #: CAL24086652AS Date: 8/30/2024 Samples Rec'd: 8/23/24 10:30AM Date Of Sampling: 8/22/2024 Purchase Order #:
Phone #	406-248-9161		
Fax #	406-248-9282		

Laboratory Sample ID	Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo-geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
72517				M18.4 C-2 gray concrete	y	None Detected		100% qu,ca
72518	M18.5A			M18.5 A-1 Concrete/ gray concrete	y	None Detected		100% qu,ca
72519	M18.5B			M18.5 B-1 Concrete/ gray concrete	y	None Detected		100% qu,ca
72520	M18.5C			M18.5 C-1 Concrete/ gray concrete	y	None Detected		100% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
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C.T. Rasmussen
Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

Polarized Light Asbestiform Materials Point Count
Laboratory Analysis Report - Point Count

Analysis and Method

Point counting was performed on a polarized light microscope with a calibrated reticle according to the revised NESHAP method of November 20, 1990 (Federal Register, V.55, N.224, 11/20/90). Original asbestos content of bulk materials was determined using procedures outlined in the interim method (40 CFR part 763, Appendix E to subpart E) and AHERA method (EPA-600/R-93/116). Samples were prepared using HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion staining / becke line method.

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one of these disciplines is preferred, but not required. Extensive in-house training programs are used to augment education background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. This report is not covered by the scope of NVLAP accreditation. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Customer Info:

Tetra Tech, Inc.
7100 Commercial Ave Suite 4
Billings, Montana 59101

Attn:

Phone # 406-248-9161
Fax # 406-248-9282

Customer Project:

117-001251-24001, MSH
Lagoon Cleanout

Turnaround Time:

5 Days

CA Labs Project #:

CAL24086652AS

Date: 08/30/24

Samples Rec'd: 8/23/24 10:30AM

Date Of Sampling: 08/22/24

Purchase Order #:

Laboratory Sample ID	Sample #	Layer #	Analysts Physical Description of Subsample	Homo-geneous (Y/N)	Point Counted % / Asbestos Type
72515	M18.4A	4A-1	Concrete/ white surfaced off-white finishing compound	n	2.25% Chrysotile

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

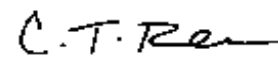
AIHA LAP, LLC Laboratory #102929

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples. All samples received in good condition unless noted.

Approved Signatories:



Jose Matute
Analyst



Tanner Rasmussen
Technical Manager

Julio Robles
Senior Analyst



TETRA TECH

CHL 24086652

7100 Commercial Avenue Suite 4

Billings, Montana 59101

Phone: 406.248.9161 Fax 406.248.9282

CONTACT INFORMATION

COMPANY: Tetra Tech, Inc. Phone: 406.248.9161
 Primary Contact Todd Schneider Phone / Email: Todd.Schneider@tetratech.com cell - (406) 437-9850
 Additional Contact Roger W. Herman, Jr. Phone / Email: roger.herman@tetratech.com cell - 406.670.4844
 Sampler Name(s) Todd Schneider Sampler Signature(s) *Todd Schneider*
 Date of Inspection 8-22-2024

PROJECT INFORMATION

Client Montana State Project Name MSH Lagoon Clean out
 Project Location Montana State Hospital Project Number 117-001251-24001

PLM INSTRUCTIONS

- PLM EPA 600/R-93/116 PLM CARB 435 (rock/soil) TEM CHATFIELD TEM NOB 198.4 TEM CARB 435 (rock/soil)
- PLM Point Count, PC 400 Points (All samples greater than 0%, but less than 2%)
- Multi-Layered Samples:
 - Analyze and Report All Separable Layers per EPA 600 Only Analyze sepecifically noted layer
- Analyze Until Positive Stop by Material Type as Noted

TURNAROUND TIME

- 10 Day 5 Day 3 Day 2 Day 1 Day Same Day Rush Results by:

Relinquished By	Date & Time	VIA	Received By	Date & Time
<i>Todd Schneider</i>	8-22-2024 1700	FEDEX		

10:30AM

AUG 23 2024

Handwritten signature

CHAIN OF CUSTODY -BULK ASBESTOS-

PROJECT INFORMATION

 Project Name MSH Lagoon Clean out

 Project Number 117-001251-24001

Project Identifier

Bulk Sample #	HA ID	Sample Material Description	Material Location	Notes
m18.1 A	m18.1	concrete	cell 2 influence	
B	⊥	⊥	⊥ ⊥	
C	⊥	⊥		
m18.2 A	m18.2	concrete	cell 2 Piers 2	unsafe for other piers
B	⊥	⊥	⊥ ⊥ 2	
C	⊥	⊥	⊥ 1	
m18.3 A	m18.3	concrete	cell 3 influence	
B	⊥	⊥	⊥ ⊥	
C	⊥	⊥		
m18.4 A	m18.4	concrete	cell 3 Piers 1	unsafe for other piers
B	⊥	⊥	⊥ ⊥ 1	
C	⊥	⊥	⊥ 2	
m18.5 A	m18.5	concrete	cell 3 Effluent	
B	⊥	⊥	⊥ ⊥	
C	⊥	⊥		

10:30AM

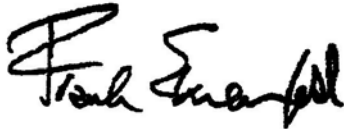
AUG 23 2024


Report for:

Roger Herman
Tetra Tech - Billings, MT
7100 Commercial Ave, Suite 4
Billings, MT 59101

Regarding: Eurofins EPK Built Environment Testing, LLC
Project: 117-001251-24001 - MSH Lagoon Cleanout & Restoration
EML ID: 3871825

Approved by:



Approved Signatory
Frank Ehrenfeld

Dates of Analysis:
Asbestos PLM (Layer %): 12-11-2024

Service SOPs: Asbestos PLM (Layer %) (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Eurofins EPK Built Environment Testing, LLC ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-11-2024

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
C2 M 18.1. Grey Concrete; Pillar 1 19169729-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.2. Grey Concrete; Pillar 2 19169730-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.3. Grey Concrete; Pillar 3 19169731-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.4. Grey Concrete; Pillar 4 19169732-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.5. Grey Concrete; Pillar 5 19169733-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.6. Grey Concrete; Pillar 6 19169734-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.7. Grey Concrete; Pillar 7 19169735-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.8. Grey Concrete; Pillar 8 19169736-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.9. Grey Concrete; Pillar 9 19169737-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.10. Grey Concrete; Pillar 10 19169738-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.11. Grey Concrete; Pillar 11 19169739-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.12. Grey Concrete; Pillar 12 19169740-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.13. Grey Concrete; Pillar 13 19169741-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.14. Grey Concrete; Pillar 14 19169742-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.15. Grey Concrete; Pillar 15 19169743-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

Comments:

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

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‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-11-2024

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
C2 M 18.16. Grey Concrete; Pillar 16 19169744-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.17. Grey Concrete; Pillar 17 19169745-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.18. Grey Concrete; Pillar 18 19169746-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.19. Grey Concrete; Pillar 19 19169747-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.20. Grey Concrete; Pillar 20 19169748-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.21. Grey Concrete; Pillar 21 19169749-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.22. Grey Concrete; Pillar 22 19169750-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.23. Grey Concrete; Pillar 23 19169751-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.24. Grey Concrete; Pillar 24 19169752-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.25. Grey Concrete; Pillar 25 19169753-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.26. Grey Concrete; Pillar 26 19169754-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.27. Grey Concrete; Pillar 27 19169755-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.28. Grey Concrete; Pillar 28 19169756-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.29. Grey Concrete; Pillar 29 19169757-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.30A. Grey Concrete; Gate Control 19169758-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

Comments:

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration Date of Receipt: 12-04-2024
 Date of Report: 12-11-2024

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
C2 M 18.30B. Grey Concrete; Gate Control 19169759-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 M 18.30C. Grey Concrete; Gate Control 19169760-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 S 1.1A. Plaster Surfacing; Throughout all the Pillars 19169761-1	Layer 1 White Plaster Surfacing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 S 1.1B. Plaster Surfacing; Throughout all the Pillars 19169762-1	Layer 1 White Plaster Surfacing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 S 1.1C. Plaster Surfacing; Throughout all the Pillars 19169763-1	Layer 1 White Plaster Surfacing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 S 1.1D. Plaster Surfacing; Throughout all the Pillars 19169764-1	Layer 1 White Plaster Surfacing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 S 1.1E. Plaster Surfacing; Throughout all the Pillars 19169765-1	Layer 1 White Plaster Surfacing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

Comments:

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-11-2024

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
C2 S 1.1F. Plaster Surfacing; Throughout all the Pillars 19169766-1(cont.)	Layer 1 White Plaster Surfacing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
C2 S 1.1G. Plaster Surfacing; Throughout all the Pillars 19169767-1	Layer 1 White Plaster Surfacing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

Comments:

Analyst(s): Maxamillian Roselli

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-11-2024

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

PROJECT ANALYST AND SIGNATORY REPORT

Project Analyst



Analyst: Maxamillian Roselli

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7100 Commercial Avenue Suite 4
 Billings, Montana 59101
 Phone: 406.248.9161 Fax 406.248.9282

CONTACT INFORMATION

COMPANY: Tetra Tech, Inc. **Phone:** 406.248.9161
Primary Contact Roger W. Herman, Jr. **Phone / Email:** roger.herman@tetratech.com cell - 406.670.4844
Additional Contact Rylee Prinz **Phone / Email:** RYLEE.PRINZ@tetratech.com cell - (541) 863-2234
Sampler Name(s) Rylee Prinz **Sampler Signature(s)** *Rylee Prinz*
Date of Inspection: 11/27/24

PROJECT INFORMATION

Client State of Montana **Project Name** MSH Lagoon Cleanout & Restoration
Project Location Warm Springs, Montana **Project Number** 117-001251-24001

PLM INSTRUCTIONS

003871825

PLM EPA 600/R-93/116 PLM CARB 435 (rock/soil) TEM CHATFIELD TEM NOB 198.4 TEM CARB 435 (rock/soil)

PLM Point Count, PC 400 Points (All samples greater than 0%, but less than 2%)

Multi-Layered Samples:

Analyze and Report All Separable Layers per EPA 600 Only Analyze sepecifically noted layer

Analyze Until Positive Stop by Material Type as Noted

RECEIVED

DEC - 1 2 24

ATL - BY

TURNAROUND TIME

10 Day 5 Day 3 Day 2 Day 1 Day Same Day Rush Results by:

Relinquished By	Date & Time	VIA	Received By	Date & Time
<i>Rylee Prinz</i>	11/27/24 15:00	FEDEX		



CHAIN OF CUSTODY -BULK ASBESTOS-

PROJECT INFORMATION

Project Name MSH Lagoon Cleanout & Restoration
Project Identifier C2

Project Number 117-

Bulk Sample #	HA ID	Sample Material Description	Material Location	Notes
A	C2 M 18.1	Grey Concrete	Pillar 1	
A	C2 M 18.2	Grey Concrete	Pillar 2	
A	C2 M 18.3	Grey Concrete	Pillar 3	
A	C2 M 18.4	Grey Concrete	Pillar 4	
A	C2 M 18.5	Grey Concrete	Pillar 5	
A	C2 M 18.6	Grey Concrete	Pillar 6	
A	C2 M 18.7	Grey Concrete	Pillar 7	
A	C2 M 18.8	Grey Concrete	Pillar 8	
A	C2 M 18.9	Grey Concrete	Pillar 9	
A	C2 M 18.10	Grey Concrete	Pillar 10	
A	C2 M 18.11	Grey Concrete	Pillar 11	
A	C2 M 18.12	Grey Concrete	Pillar 12	
A	C2 M 18.13	Grey Concrete	Pillar 13	
A	C2 M 18.14	Grey Concrete	Pillar 14	
A	C2 M 18.15	Grey Concrete	Pillar 15	
A	C2 M 18.16	Grey Concrete	Pillar 16	
A	C2 M 18.17	Grey Concrete	Pillar 17	
A	C2 M 18.18	Grey Concrete	Pillar 18	
A	C2 M 18.19	Grey Concrete	Pillar 19	
A	C2 M 18.20	Grey Concrete	Pillar 20	
A	C2 M 18.21	Grey Concrete	Pillar 21	
A	C2 M 18.22	Grey Concrete	Pillar 22	
A	C2 M 18.23	Grey Concrete	Pillar 23	
A	C2 M 18.24	Grey Concrete	Pillar 24	
A	C2 M 18.25	Grey Concrete	Pillar 25	
A	C2 M 18.26	Grey Concrete	Pillar 26	
A	C2 M 18.27	Grey Concrete	Pillar 27	
A	C2 M 18.28	Grey Concrete	Pillar 28	
A	C2 M 18.29	Grey Concrete	Pillar 29	



CHAIN OF CUSTODY -BULK ASBESTOS-

PROJECT INFORMATION

Project Name MSH Lagoon Cleanout & Restoration
 Project Identifier C2

Project Number 117-

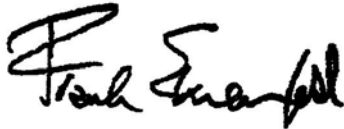
Bulk Sample #	HA ID	Sample Material Description	Material Location	Notes
A B C	C2 M 18. 30	Grey Concrete	Gate Control	
A B C D E F G	C2 S 1.1	Plaster Surfacing	Throughout all the pillars	

Report for:

Roger Herman
Tetra Tech - Billings, MT
7100 Commercial Ave, Suite 4
Billings, MT 59101

Regarding: Eurofins EPK Built Environment Testing, LLC
Project: 117-001251-24001 - MSH Lagoon Cleanout & Restoration
EML ID: 3871800

Approved by:



Approved Signatory
Frank Ehrenfeld

Dates of Analysis:

Asbestos-EPA 400 point count: 12-18-2024

Service SOPs: Asbestos-EPA 400 point count (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EB-AS-S-1262)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested.

Eurofins EPK Built Environment Testing, LLC ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.1A Grey Concrete; Pillar 1		
Total Points Counted:	400		
Lab ID-Version‡:	19253448-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.1B Grey Concrete; Pillar 1		
Total Points Counted:	400		
Lab ID-Version‡:	19253449-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.1C Grey Concrete; Pillar 1		
Total Points Counted:	400		
Lab ID-Version‡:	19253450-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All samples were received in acceptable condition unless otherwise noted. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration Date of Receipt: 12-04-2024

Restoration Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.2A Grey Concrete; Pillar 2		
Total Points Counted:	400		
Lab ID-Version‡:	19253451-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.2B Grey Concrete; Pillar 2		
Total Points Counted:	400		
Lab ID-Version‡:	19253452-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.2C Grey Concrete; Pillar 2		
Total Points Counted:	400		
Lab ID-Version‡:	19253453-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.3 Grey Concrete; Pillar 3		
Total Points Counted:	400		
Lab ID-Version‡:	19253454-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.4 Grey Concrete; Pillar 4		
Total Points Counted:	400		
Lab ID-Version‡:	19253455-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.5 Grey Concrete; Pillar 5		
Total Points Counted:	400		
Lab ID-Version‡:	19253456-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.6 Grey Concrete; Pillar 6		
Total Points Counted:	400		
Lab ID-Version‡:	19253457-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.7 Grey Concrete; Pillar 7		
Total Points Counted:	400		
Lab ID-Version‡:	19253458-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.8 Grey Concrete; Pillar 8		
Total Points Counted:	400		
Lab ID-Version‡:	19253459-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration Date of Receipt: 12-04-2024

Restoration Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.9 Grey Concrete; Pillar 9		
Total Points Counted:	400		
Lab ID-Version‡:	19253460-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.10 Grey Concrete; Pillar 10		
Total Points Counted:	400		
Lab ID-Version‡:	19253461-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.11 Grey Concrete; Pillar 11		
Total Points Counted:	400		
Lab ID-Version‡:	19253462-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration Date of Receipt: 12-04-2024
 Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.12 Grey Concrete; Pillar 12		
Total Points Counted:	400		
Lab ID-Version‡:	19253463-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.13 Grey Concrete; Pillar 13		
Total Points Counted:	400		
Lab ID-Version‡:	19253464-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.14 Grey Concrete; Pillar 14		
Total Points Counted:	400		
Lab ID-Version‡:	19253465-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.15 Grey Concrete; Pillar 15		
Total Points Counted:	400		
Lab ID-Version‡:	19253466-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.16 Grey Concrete; Pillar 16		
Total Points Counted:	400		
Lab ID-Version‡:	19253467-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.17 Grey Concrete; Pillar 17		
Total Points Counted:	400		
Lab ID-Version‡:	19253468-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.18 Grey Concrete; Pillar 18		
Total Points Counted:	400		
Lab ID-Version‡:	19253469-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.19 Grey Concrete; Pillar 19		
Total Points Counted:	400		
Lab ID-Version‡:	19253470-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.20 Grey Concrete; Pillar 20		
Total Points Counted:	400		
Lab ID-Version‡:	19253471-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.21 Grey Concrete; Pillar 21		
Total Points Counted:	400		
Lab ID-Version‡:	19253472-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.22 Grey Concrete; Pillar 22		
Total Points Counted:	400		
Lab ID-Version‡:	19253473-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.23 Grey Concrete; Pillar 23		
Total Points Counted:	400		
Lab ID-Version‡:	19253474-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.24 Grey Concrete; Pillar 24		
Total Points Counted:	400		
Lab ID-Version‡:	19253475-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.25 Grey Concrete; Pillar 25		
Total Points Counted:	400		
Lab ID-Version‡:	19253476-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.26 Grey Concrete; Pillar 26		
Total Points Counted:	400		
Lab ID-Version‡:	19253477-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

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Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.27 Grey Concrete; Pillar 27		
Total Points Counted:	400		
Lab ID-Version‡:	19253478-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.28 Grey Concrete; Pillar 28		
Total Points Counted:	400		
Lab ID-Version‡:	19253479-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.29A Grey Concrete; Gate Control Location		
Total Points Counted:	400		
Lab ID-Version‡:	19253480-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 M18.29B Grey Concrete; Gate Control Location		
Total Points Counted:	400		
Lab ID-Version‡:	19253481-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 M18.29C Grey Concrete; Gate Control Location		
Total Points Counted:	400		
Lab ID-Version‡:	19253482-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 S1.1A Plaster Surfacing; Pillar 1		
Total Points Counted:	400		
Lab ID-Version‡:	19253483-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration Date of Receipt: 12-04-2024

Restoration Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 S1.1B Plaster Surfacing; Pillar 1		
Total Points Counted:	400		
Lab ID-Version‡:	19253484-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 S1.1C Plaster Surfacing; Pillar 1		
Total Points Counted:	400		
Lab ID-Version‡:	19253485-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 S1.2A Plaster Surfacing; Pillar 2		
Total Points Counted:	400		
Lab ID-Version‡:	19253486-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration Date of Receipt: 12-04-2024
 Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 S1.2B Plaster Surfacing; Pillar 2		
Total Points Counted:	400		
Lab ID-Version‡:	19253487-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 S1.2C Plaster Surfacing; Pillar 2		
Total Points Counted:	400		
Lab ID-Version‡:	19253488-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 S1.3A Plaster Surfacing; Throughout the Rest of the Pillars		
Total Points Counted:	400		
Lab ID-Version‡:	19253489-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration Date of Receipt: 12-04-2024

Restoration Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 S1.3B Plaster Surfacing; Throughout the Rest of the Pillars		
Total Points Counted:	400		
Lab ID-Version‡:	19253490-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 S1.3C Plaster Surfacing; Throughout the Rest of the Pillars		
Total Points Counted:	400		
Lab ID-Version‡:	19253491-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Location:	C3 S1.3D Plaster Surfacing; Throughout the Rest of the Pillars		
Total Points Counted:	400		
Lab ID-Version‡:	19253492-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout & Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

Location:	C3 S1.3E Plaster Surfacing; Throughout the Rest of the Pillars		
Total Points Counted:	400		
Lab ID-Version‡:	19253493-1		
Sample Layers	Asbestos Type	Asbestos Points Counted	Asbestos Concentration (%)
Gray Concrete	Chrysotile	0	< 0.25
Layer Totals:		0	NA

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Client: Tetra Tech - Billings, MT

C/O: Roger Herman

Re: 117-001251-24001 - MSH Lagoon Cleanout &
Restoration

Date of Receipt: 12-04-2024

Date of Report: 12-18-2024

ASBESTOS POINT COUNT REPORT

PROJECT ANALYST AND SIGNATORY REPORT

Project Analyst



Analyst: Ellen Smith

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CONTACT INFORMATION

COMPANY: Tetra Tech, Inc. **Phone:** 406.248.9161
Primary Contact: Roger W. Herman, Jr. **Phone / Email:** roger.herman@tetratech.com cell - 406.670.4844
Additional Contact: Rylee Prinz **Phone / Email:** RYLEE.PRINZ@tetratech.com cell - (541) 863-2234
Sampler Name(s): Rylee Prinz **Sampler Signature(s):** *Rylee Prinz*
Date of Inspection: 11/26/24

PROJECT INFORMATION

Client: State of Montana **Project Name:** MSH Lagoon Cleanout & Restoration
Project Location: Warm Springs, Montana **Project Number:** 117-001251-24001

PLM INSTRUCTIONS

- PLM EPA 600/R-93/116 PLM CARB 435 (rock/soil) TEM CHATFIELD TEM NOB 198.4 TEM CARB 435 (rock/soil)
- PLM Point Count, PC 400 Points (All samples greater than 0%, but less than 2%)
- Multi-Layered Samples: Only Analyze sepecifically noted layer
- Analyze and Report All Separable Layers per EPA 600
- Analyze Until Positive Stop by Material Type as Noted

TURNAROUND TIME

- 10 Day 5 Day 3 Day 2 Day 1 Day Same Day Rush Results by:

Relinquished By	Date & Time	VIA	Received By	Date & Time
<i>Rylee Prinz</i>	11/27/24 14:05	FEDEX		

Handwritten notes and signatures:
DEC - 1 2024
[Signature]



003871800



PROJECT INFORMATION

Project Name MSH Lagoon Cleanup & Restoration

Project Number 117-



003871800

Bulk Sample #	HA ID	Sample Material Description	Material Location	Notes
A	C3 M 18.1	Grey Concrete	Pillar 1	
B	C3 M 18.2	Grey Concrete	Pillar 2	
C	C3 M 18.3	Grey Concrete	Pillar 3	
A	C3 M 18.4	Grey Concrete	Pillar 4	
A	C3 M 18.5	Grey Concrete	Pillar 5	
A	C3 M 18.6	Grey Concrete	Pillar 6	
A	C3 M 18.7	Grey Concrete	Pillar 7	
A	C3 M 18.8	Grey Concrete	Pillar 8	
A	C3 M 18.9	Grey Concrete	Pillar 9	
A	C3 M 18.10	Grey Concrete	Pillar 10	
A	C3 M 18.11	Grey Concrete	Pillar 11	
A	C3 M 18.12	Grey Concrete	Pillar 12	
A	C3 M 18.13	Grey Concrete	Pillar 13	
A	C3 M 18.14	Grey Concrete	Pillar 14	
A	C3 M 18.15	Grey Concrete	Pillar 15	
A	C3 M 18.16	Grey Concrete	Pillar 16	
A	C3 M 18.17	Grey Concrete	Pillar 17	
A	C3 M 18.18	Grey Concrete	Pillar 18	
A	C3 M 18.19	Grey Concrete	Pillar 19	
A	C3 M 18.20	Grey Concrete	Pillar 20	
A	C3 M 18.21	Grey Concrete	Pillar 21	
A	C3 M 18.22	Grey Concrete	Pillar 22	
A	C3 M 18.23	Grey Concrete	Pillar 23	
A	C3 M 18.24	Grey Concrete	Pillar 24	
A	C3 M 18.25	Grey Concrete	Pillar 25	
A	C3 M 18.26	Grey Concrete	Pillar 26	



**CHAIN OF CUSTODY
-BULK ASBESTOS-**

PROJECT INFORMATION

Project Name MSH Lagoon Cleanout & Restoration

Project Number 117-

Project Identifier C3

Bulk Sample #	HA ID	Sample Material Description	Material Location	Notes
A	C3 M 18.27	Grey Concrete	Pillar 27	
A	C3 M 18.28	Grey Concrete	Pillar 28	
A	C3 M 18.29	Grey Concrete	Gate Control location	
B				
C				
A	C3 S 1.1	Plaster surfacing	Pillar 1	
B				
C				
A	C3 S 1.2	Plaster surfacing	Pillar 2	
B				
C				
D				
E	C3 S 1.3	Plaster surfacing	Throughout the rest of the pillars	