

**CAMPUS PLANNING, DESIGN & CONSTRUCTION** 

Sixth Avenue and Grant Street • P.O. Box 172760 • Bozeman, Montana 59717-2760 Phone: (406) 994-5413 • Fax: (406) 994-5665

## **ADDENDUM NO. 1 - OUTLINE AND SUMMARY INFORMATION**

Project Name: <u>Campus Fire Hydrant Upgrades</u> Location: Montana State University - Bozeman PPA No.: 22-0574 Date: 12/11/2023

Owner: <u>State of Montana, MSU - Bozeman</u> <u>Plew Building 6<sup>th</sup> and Grant, PO Box 172760</u> Bozeman, Montana 59717-2760

## To: All Plan Holders of Record

The Plans and Specification prepared by <u>Allied Engineering Services, Inc.</u> dated <u>November 17, 2023</u> shall be clarified and added as follow. The bidder proposes to perform all the following clarifications or changes. It is understood that the Base Bid shall include any modification of Work or Additional Work that may be required by reason of the following change or clarifications.

The Bidders are to acknowledge the receipt of this Addendum by inserting its number and date into their Bid Forms. Failure to acknowledge may subject the Bidder to disqualification and rejection of the bid. This Addendum forms part of the Contract Documents as if bound therein and modifies them as follows:

## 1. AMENDMENTS TO THE PROJECT MANUAL

a. Clarification: Builders Risk/Installation insurance ('all risk') under Coverage General Conditions of the Contract for Construction will be waived because the project does not include renovation to buildings or structures.

## 2. AMENDMENTS TO THE DRAWINGS

- a. Clarification: Bollards are still required for all hydrants where feasible, even when hydrants will be located behind curb and gutter. This is noted on Sheet C0.3 under the *Specifications*, item 12.
- b. Clarification: Bids shall include 3 bollards for each hydrant. Special circumstances and conflicts may warrant adjustments to the bollard configuration. A standard detail is provided with detail 3 on sheet C4.2.
- c. Clarification: Construction staking: as noted on Sheet C0.3, under *Specifications* note 9, *Contractor to coordinate with AESI for staking needs. We anticipate stakes will be provided for the proposed hydrant locations and for control. Excessive trips required due to disturbed stakes may be at the cost of the contractor.*
- d. Clarification: Hydrant 68 Tree removal: Bids shall not include removal or disposal of tree near hydrant FH-68. If removal or disposal is required, a change order will be issued to cover the work.
- e. Clarification: Temporary water for buildings is not required. Do not include the cost for temporary water in the cost for the base bid and alternatives. If temporary water is required, a change order will be issued to cover the work.

- f. Additional information: Sheet C0.3: Note 17 added to *Specifications:* Striping or pavement markings disturbed as part of the work shall be replaced.
- g. Additional information: Sheet: C0.3: Note 16 added to Specifications: Where the alignment of the existing and proposed hydrant lead lines do not match, the existing hydrant lead may be abandoned in place to preserve existing pavement and other surface features. The connection at the main must still be removed and the tee capped at the main. Remove existing valve box and other features extending to the surface. Coordinate with MSU and the Engineer for final configuration.
- h. Additional information: Sheet C0.3, Note 18 added to *Specifications:* Do not include the cost for construction dewatering in the cost for the base bid and alternatives. If dewatering is required, a change order will be issued to cover the work.
- i. Clarification: The Contractor will be required to obtain a street cut permit for work in South 11<sup>th</sup> Avenue, specifically for hydrant number 13. The need to obtain street cut permits was noted under the *Specifications* on sheet C0.3, item 11.

## 3. AMENDMENTS TO EQUIPMENT INFORMATION

a. None noted at this time.

## 4. PRE-BID MEETING INFORMATION

a. See attached notes by Megan Sterl, MSU and Rory Romey, Allied Engineering.

## 5. PRIOR APPROVALS

a. None noted.

## 6. ATTACHMENTS

- a. Pre-bid meeting attendance list
- b. Pre-Bid meeting notes by Megan Sterl, MSU
- c. Pre-Bid meeting notes by Rory Romey, Allied Engineering
- d. Updated Plan Sheet:
  - i. C0.3 EXISTING HYDRANT SUMMARY & NOTES

# **PRE-BID MEETING SIGN IN SHEET**

Project: MSU Campus Fire Hydrant Upgrades, PPA 22-0574 Organizer: Megan Sterl, Director Engineering & Utilities, 406-994-6544 Location: MSU Plew Building, Room 214

Date:	
11-29-23	
Time:	
9AM	

Name of Attendee	Company	Phone Number	Email
Megan Sterl	MSU	994-6544	megan. sterl compana.edu
SHANG JOSEPH	CENTRAL EXCANATION	307-251 -4433	SHANE, JOSEPH @ CENTRAL AH. COM
Jake Holman	western Municipal	406-208-5094	jhothan@wmc-i.com
Rory Romey	Allied Engineering	406-223-7827	rromey@alliedengineering.com
Coly Tesay	MSU Plumbing.	401-994-2104	Cody. Tebay I Montuna. EDre.
HUS SALTON	msu	406 - 404 - 9901	CHRISTOPHER, SALTER C MONTONA. EDU
KANE URDAHL	MSU	406-580-9399	mitchellordahl@montana.edu
ELHER	May	406 994.7840	EDNARD, HOOK J. P. MONTEND. EDU
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# **PRE-BID MEETING AGENDA & NOTES**

Project:MSU Campus Fire Hydrant Upgrades, PPA 22-0574From:Megan Sterl, Director Engineering & Utilities, 406-994-6544Date:11-29-23Mtg Notes:By Megan Sterl in blue text.

- 1. Recommended Attendees:
  - a. MSU Project Manager: Megan Sterl
  - b. MSU Work Control Cody Tebay, Kane Urdahl
  - c. MSU Safety and Risk Management: Chris Salter, MSU Fire Marshall
  - d. Outside consultants: Rory Romey, Allied Engineering
  - e. Clients: NA
  - f. MSU-ITC:
- 2. Route sign-in sheet. Introductions
- 3. Availability of Contract Documents: MSU website and plans exchange.
- 4. Arrangement of Work:
  - a. Related work being performed by MSU or other contractors. None.
  - b. Owner furnished equipment. None.
  - c. Use of building areas for construction. Generally not applicable. Will identify restroom access during pre-construction.
  - d. Use of campus areas for construction. Contractor responsible for construction fence and secure worksite. Staging areas available and depend on hydrant location. Will confirm staging areas during pre-construction.
- 5. Bidding Considerations:
  - a. Plan review fees paid by owner, permit fees paid by contractor. Project includes work on MSU owned utility systems. The plans and specifications have been reviewed and approved by Montana Department of Environmental Quality.
  - b. Bid opening date, time. 2:00 PM on Tuesday, December 19th, 2023
  - c. Bid Security of 10% of bid for all projects.
  - d. Deadline for Substitution, and Addenda. Substitution requests to Allied by Wednesday 12/6/23 at 5PM. Addenda to MSU by Friday 12/8/23 5PM. Addenda issued 7 days prior to bid date, on or before Tuesday 12/12/23.
  - e. Performance, labor, and material bonds for 100%, for projects over \$150,000.
  - f. State tax of 1% for projects over \$80,000.
  - g. Prevailing wages for projects over \$25,000.
  - h. General liability, Owner protective liability, and property insurance, in MSU name.
  - i. Completion of project: #58, 59, 61, 68 and 73 by July 31, 2024. Others by October 31, 2024.
  - j. Project meetings.

- 6. Review drawings and technical specifications.
  - a. Summary on C0.3.
  - **b.** Work on each hydrant is specific, see plan details.
  - c. All hydrants to have bollards installed, see plan details.
- 7. Questions that have been raised since bid documents sent out.
- 8. Open discussion of project and related questions.
  - a. FH-13: Assume street cut permit required through City of Bozeman. Contractor will pay all permit fees.
  - b. FH-13: Assume pipe material is asbestos concrete between hydrant and street. Contractor responsible for testing and abatement.
  - c. FH-56: Remove hydrant and valve box. Pipe to be abandoned to reduce asphalt cutting. See updated plans.
  - d. FH-58: Remove hydrant and valve box. Pipe to be abandoned to reduce asphalt cutting. See updated plans.
  - e. Temporary water: No temporary water required for buildings. Awarded contractor to review construction schedule and plan with MSU. MSU requires 72 hour notification for all building water outages.
  - f. Groundwater dewatering: contractor to assume no groundwater dewatering and no permits. Any required will be handled via change order. Contractor responsible to obtain permit if required.
- 9. Project walk-through. None.
- Encl: List of Attendees, Notes from Meeting



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Project Name:	Campus Fire Hydrant Upgrades			
Project Number:	22-0574 (MSU); 22-133 AESI			
Date and Time:	Wednesday November 29, 2023			
Re:	Pre-Bid Notes - Rory			

## **MEMO DETAILS:**

Rory notes taken from the pre-bid meeting.

- For longer existing hydrant leads crossing through existing pavement, can the existing lead be abandoned in place. Discission: yes, existing hydrant leads can remain in place where hydrants are being relocated to avoid cutting existing pavement to abandon the pipe. The abandonment of the line should still be taken back to the existing main and capped right at the main. Remove the valve box and any surface features from the abandoned line for future clarity.
- 2. Do not include groundwater dewatering in the bid. If dewatering is required it will be covered by a change order.
- 3. Street cut permit (City of Bozeman) should be obtained by the Contractor for work in 11<sup>th</sup> specifically for hydrant 13.
- 4. Wednesday is the deadline for additional addendum items.
- 5. Friday is deadline for AESI to issue the addendum.

						Н	YDRANT SUMMARY			
EX. HYDRANT #	BID PRIORITY	HYDRANT & AUX VALVE INFO	HYDRANT LEAD ESTIMATED EXISTING INVERT ELEVATION*	EXISTING GROUND ELEVATION AT HYDRANT BASE	FINISHED GRADE ELEVATION AT HYDRANT BASE	ESTIMATED EXISTING HYDRANT HEIGHT**	ANTICIPATED PROPOSED HYDRANT ASSEMBLY HEIGHT (CONTRACTOR TO VERIFY)	REPLACE:	RELOCATE?	
13	ALTERNATE 3	COVERED BY BAG AUX VALVE PRESENT	4914.00	4921.51	MATCH EG	7.5'	7.5'	HYDRANT & AUX VALVE (POTENTIALLY HYDRANT LEAD AS WELL)	-	
<b>22</b> <sup></sup>	ALTERNATE 1	AUX VALVE PRESENT	4887.45	4894.93	MATCH EG	7.5'	7.5'	HYDRANT & AUX VALVE	-	
27	ALTERNATE 1	AUX VAVLE PRESENT	4876.25	4884.53	MATCH EG	8.3'	8.5'	HYDRANT & AUX VALVE (POTENTIALLY HYDRANT LEAD AS WELL)	-	
53	ALTERNATE 1	AUX VALVE PRESENT	4881.91	4888.18	MATCH EG	6.3'	6.5'	HYDRANT & AUX VALVE	-	
55	ALTERNATE 1	AUX VALVE PRESENT	4875.81	4882.57	MATCH EG	6.8'	7.0'	HYDRANT & AUX VALVE	-	
56	ALTERNATE 1	AUX VALVE NOT PRESENT DIRECTLY AT HYDRANT	4877.90	4883.44	. 4883.95	5.5'	6.0'	HYDRANT & AUX VALVE	YES	
58	BASE BID	AUX VALVE NOT PRESENT DIRECTLY AT HYDRANT	4877.47	4883.10	4883.80	5.6'	6.5'	HYDRANT & AUX VALVE	YES	
59	BASE BID	COVERED BY BAG AUX VALVE PRESENT	4874.65	4881.30	MATCH EG	6.6'	6.5'	HYDRANT & AUX VALVE	-	
<b>61</b> ··· · · ·	BASE BID	COVERED BY BAG AUX VALVE PRESENT	4873.78	4880.47	MATCH EG	6.7'	7.0'	HYDRANT & AUX VALVE	-	
62	ALTERNATE 2	AUX VALVE PRESENT AUX VALVE NUT NOT ACCESSIBLE	4877.06	4881.22	4881.46	4.2'	4.5'***	HYDRANT & AUX VALVE	YES	POTHOLE 12" MAIN AT NEW HYDRANT
	ALTERNATE 2	AUX VALVE PRESENT	4874.01	4880.01	4880.04	6.0'	6.0'	HYDRANT & AUX VALVE	YES	
64	ALTERNATE 2	AUX VALVE PRESENT	4871.29	4878.02	MATCH EG	6.7'	7.0'	HYDRANT & AUX VALVE	-	
	ALTERNATE 2	AUX VALVE PRESENT	4870.69	4876.41	4877.44	5.7'	7.0'	HYDRANT & AUX VALVE	YES	
68°	BASE BID	COVERED BY BAG AUX VALVE BOX PRESENT AUX VALVE NUT NOT VISIBLE	4866.79	4873.74	MATCH EG	7.0'	7.0'***	HYDRANT & AUX VALVE	-	POTHOLE EXISTING HYDRANT LEAD TO
72	ALTERNATE 2	AUX VALVE BOX PRESENT AUX VALVE NUT NOT VISIBLE	4861.79	4866.02	MATCH EG	4.2'	4.5'***	HYDRANT & AUX VALVE	-	POTHOLE EXISTING HYDRANT LEAD TO
	BASE BID	COVERED BY BAG AUX VALVE PRESENT	4861.42	4868.12	MATCH EG	6.7'	7.0'	HYDRANT & AUX VALVE	_	

\* EXISTING HYDRANT LEAD INVERTS WERE ESTIMATED BY SURVEYING ELEVATION OF TOP NUT OF AUX VALVES AT EACH HYDRANT. TOP NUT TO INVERT AT AUX VALVES ASSUMED TO BE 21". ALL HYDRANT LEADS ASSUMED TO BE 6" NOMINAL PIPE SIZE.

\*\* ESTIMATED EXISTING HYDRANT HEIGHT DETERMINED BY CALCULATING THE DIFFERENCE BETWEEN THE ESTIMATED EXISTING HYDRANT LEAD INVERT AND THE EXISTING GROUND ELEVATION AT HYDRANT. EXISTING BURY LINES ON HYDRANTS WERE NOT SURVEYED.

\*\*\* TOP NUT OF AUX VALVE WAS NOT ACCESSIBLE TO SURVEY AT THESE HYDRANTS. THEREFORE, THE ANTICIPATED PROPOSED HYDRANT ASSEMBLY HEIGHT IS VERY APPROXIMATE.

### ASSUMPTIONS & ESTIMATES:

- 1. ALL EXISTING HYDRANT LEADS ASSUMED TO BE LEVEL (0% GRADE).
- 2. ALL EXISTING HYDRANT LEADS ASSUMED TO BE CAST IRON PER MSU RECORD DWGS. HOWEVER, MATERIAL MAY VARY.
- 3. EXISTING HYDRANT LEAD INVERTS WERE ESTIMATED BY SURVEYING ELEVATION OF TOP NUT OF AUX VALVES AT EACH HYDRANT. TOP NUT TO INVERT AT AUX VALVES ASSUMED TO BE 21". ALL HYDRANT LEADS ASSUMED TO BE 6" NOMINAL PIPE SIZE.
- 4. ESTIMATED HYDRANT HEIGHT DETERMINED BY CALCULATING THE DIFFERENCE BETWEEN THE ESTIMATED HYDRANT LEAD INVERT AND THE EXISTING GROUND ELEVATION AT HYDRANT. EXISTING BURY LINES ON HYDRANTS WERE NOT SURVEYED.
- 5. ALL SECTIONS OF EXISTING WATER MAINS AT EXISTING HYDRANT TEES ASSUMED TO BE CAST IRON PER MSU RECORD DWGS UNLESS OTHERWISE NOTED (HYDRANTS 13, 22, 72, 73 HAVE VARYING MATERIAL AT EX. TEES PER MSU RECORD DWGS).
- 6. ALL TRENCHES FOR REPLACING HYDRANTS ASSUMED TO BE 4-FT WIDE.

#### SPECIFICATIONS:

- PROJECT SCHEDULE: AS NOTED IN THE TABLE ABOVE ON THIS SHEET, SOME HYDRANTS ARE HIGH PRIORITY THAN OTHERS. THE 1. HYDRAN'TS NOTED AS HIGH PRIORITY SHOULD BE REPLACED FIRST. CONTRACTOR SHALL COORDINATE WITH MSU AND THE ENGINEER FOR TIMING OF HYDRANT REPLACEMENTS. THERE WILL BE SOME FLEXIBILITY FOR TIMING OF REPLACEMENTS.
- 2. <u>CONSTRUCTION INSPECTION AND TESTING</u>: CONSTRUCTION INSPECTION AND TESTING WILL BE PERFORMED BY AESI. THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO DAYS PRIOR TO CONSTRUCTION IN ORDER TO PROVIDE INSPECTION. COORDINATE WITH MSU AND THE ENGINEER FOR TESTING REQUIREMENTS.
- 3. <u>TRAFFIC CONTROL</u>: THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL NECESSARY TRAFFIC CONTROL DURING THE COURSE OF THE PROJECT. ALL ANTICIPATED TRAFFIC CONTROL MEASURES SHALL BE SUBMITTED BY THE CONTRACTOR TO THE PROJECT TEAM AND MUST BE APPROVED BY MSU AND THE PROJECT ENGINEER PRIOR TO ANY CONSTRUCTION ACTIVITY.
- 4. WATER MAIN MATERIAL: ZINC COATED PIPE WITH V-BIO ENHANCED POLYETHYLENE ENCASEMENT IS THE PREFERRED MATERIAL. COORDINATE WITH MSU AND THE ENGINEER FOR PRODUCT AVAILABILITY AND TIMING. IF NECESSARY DUE TO TIMING AND AVAILABILITY, STANDARD CLASS 51 DUCTILE IRON PIPE WITH V-BIO ENHANCED POLYETHYLENE ENCASEMENT MAY BE USED. ALL DUCTILE IRON PIPE AND FITTING ARE TO BE WRAPPED WITH V-BIO ENHANCED POLYTHENE.
- 7. <u>EXPLORATORY EXCAVATION</u>: ENGINEER RECOMMENDS USING A VAC TRUCK TO CONDUCTING EXPLORATORY EXCAVATION TO VERIFY LOCATIONS, ELEVATIONS, AND MATERIAL TYPES OF EXISTING HYDRANT LEADS PRIOR TO CONSTRUCTION. CONTRACTOR TO BACKFILL ANY HOLES OR TRENCHES FROM EXPLORATORY EXCAVATION.
- 8. IRRIGATION: COORDINATE WITH MSU FOR DAMAGE OR IMPACTS TO IRRIGATION LINES OR OTHER INFRASTRUCTURE.
- 9. <u>CONSTRUCTION STAKING</u>: CONTRACTOR TO COORDINATE WITH AESI FOR STAKING NEEDS. WE ANTICIPATE STAKES WILL BE PROVIDED FOR THE PROPOSED HYDRANT LOCATIONS AND FOR CONTROL. EXCESSIVE TRIPS REQUIRED DUE TO DISTURBED STAKES MAY BE AT THE COST OF THE CONTRACTOR.
- 10. MAIN SHUT-DOWNS: ANTICIPATED GATE VALVE LOCATIONS TO BE USED FOR MAIN SHUT-DOWNS ARE SHOWN ON SHEETS C3.0 THROUGH C3.4. COORDINATE WITH MSU AND THE ENGINEER FOR FINAL SHUT-DOWN SECTIONS AND TIMING.

### UTILITY NOTES:

- 1. UNDERGROUND UTILITIES NOT SHOWN IN PROFILE VIEWS.
- 2. UNDERGROUND UTILITIES SHOWN IN PLAN VIEWS MAY NOT BE ALL INCLUSIVE.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES REGARDING ALL UTILITY CROSSINGS AND ANY POTENTIAL UTILITY CONFLICTS.

#### GENERAL NOTES:

- 1. GATE VALVES NOT SHOWN IN PROFILE VIEWS.
- 2. AERIAL IMAGERY FROM 2021 CITY OF BOZEMAN.

### CONSTRUCTION NOTES:

- 1. REMOVE AND REPLACE ALL EXISTING HYDRANTS SHOWN ON SHEETS C2.1 THROUGH C2.6 (A TOTAL OF 16 HYDRANTS). SEE DETAIL 4/C4.1. INSTALL NEW AUX VALVE AND VALVE BOX AT EACH HYDRANT AS SHOWN IN DETAIL.
- 2. FINISHED GRADE ELEVATIONS TO MATCH EXISTING GRADE WHEN BACKFILLING AND REPLACING CONCRETE AND ASPHALT
- 3. SEE DETAIL 2/C4.1 FOR TRENCHING AND BACKFILL REQUIREMENTS.
- FG AT EACH LOCATION. BURY LINE OF NEW HYDRANTS TO MATCH FG OR EXTEND A MAXIMUM OF 5" ABOVE FG.
- 6. CONTRACTOR TO VERIFY SIZES AND TYPES OF EXISTING FITTINGS AND PIPES. AND MAKE APPROPRIATE CONNECTIONS.
- 11. <u>PERMITS:</u> CONTRACTOR TO OBTAIN STREET CUT PERMITS THROUGH THE CITY OF BOZEMAN FOR ALL WORK WITHIN PUBLIC STREETS. GROUNDWATER DEWATERING MAY BE REQUIRED. CONTRACTOR TO OBTAIN GROUNDWATER DEWATERING PERMIT.
- 12. BOLLARDS: IN GENERAL, BOLLARDS ARE TO BE INSTALLED AT ALL HYDRANTS WHERE PRACTICAL. COORDINATE WITH MSU AND THE ENGINEER FOR FINAL BOLLARD CONFIGURATIONS.
- HYDRANT LEAD REPLACEMENT: VERIFY CONDITION OF EXISTING HYDRANTS LEADS AND REPLACE AS NEEDED. COORDINATE WITH MSU AND THE ENGINEER.
- 14. HYDRANT LEAD ABANDONMENT: CONTRACTOR TO COORDINATE WITH MSU AND ENGINEER ON MEANS/METHODS OF ABANDONING EXISTING HYDRANT TEES AND/OR TAPPING VALVES. SEE DETAIL 1/C4.1.
- 15. <u>ASBESTOS CONCRETE PIPE</u>: IT IS POSSIBLE THAT AN EXISTING ASBESTOS CONCRETE PIPE MAY BE ENCOUNTERED FOR HYDRANT 13 OR OTHER LOCATIONS. IF THE LINE IS FOUND TO BE ASBESTOS CONCRETE IT SHALL BE REMOVED AND REPLACED. ALL ASBESTOS ABATEMENT WILL BE IN COMPLIANCE WITH MT DEQ RULES AND REGULATIONS INCLUDING BUT NOT LIMITED TO: (NESHAP) 40 CFR 61, SUBPARTS A&M, (ARM) 17.74 SUBCHAPTER 3: ASBESTOS CONTROL, AND (MCA) TITLE 75, PART 5.
- ▲ 16. <u>ABANDONMENT OF EXISTING PIPE</u>: WHERE THE ALIGNMENT OF THE EXISTING AND PROPOSED HYDRANT LEAD LINES DO NOT MATCH, THE EXISTING HYDRANT LEAD MAY BE ABANDONED IN PLACE TO PRESERVE EXISTING EXISTING PAVEMENT AND OTHER SURFACE FEATURES. THE CONNECTION AT THE MAIN MUST STILL BE REMOVED AND THE TEE CAPPED AT THE MAIN. REMOVE EXISTING VALVE BOX AND OTHER FEATURES EXTENDING TO THE SURFACE. COORDINATE WITH MSU AND ENGINEER FOR FINAL CONFIGURATION.
- ▲ 17. EXISTING PAVEMENT, STRIPING, FEATURES: ANY EXISTING CURB AND GUTTER, SIDEWALK, LANDSCAPING, STRIPING, OR SIMILAR FEATURES WHICH ARE DAMAGED OR REMOVED BY THE WORK SHALL BE REPLACED. QUESTIONABLE FEATURES MAY BE COORDINATED WITH MSU DURING CONSTRUCTION.
- ▲ 18. <u>CONSTRUCTION DE-WATERING</u> DO NOT INCLUDE COSTS RELATED TO CONSTRUCTION DEWATERING WITH THE BASE BID OR ALTERNATIVES. IF DEWATERING IS REQUIRED, A CHANGE ORDER WILL BE ISSUED TO COVER THE ADDITIONAL WORK.

RECOMMENDATIONS
NT LOCATION TO DETERMINE REPLACEMENT HYDRANT HEIGHT
TO DETERMINE REPLACEMENT HYDRANT HEIGHT
TO DETERMINE REPLACEMENT HYDRANT HEIGHT

4. CONTRACTOR TO VERIFY ELEVATIONS OF HYDRANT LEADS AND TO DETERMINE APPROPRIATE HYDRANT ASSEMBLY HEIGHT TO MATCH CONTRACTOR TO INSULATE HYDRANT LEADS IN ALL LOCATIONS WHERE 6.5' OF COVER IS NOT MET. INSULATION TYPE TO SATISFY COB MODS TO MPWSS IN SECTION 02660, 2.15.A. INSULATION TO BE INSTALLED PER DETAIL 3/C4.1.

> BASIS OF BEARING, COORDINATES BEARINGS SHOWN ARE MONTANA STATE PLANE GRID. DISTANCES ARE GROUND DISTANCES IN INTERNATIONAL FEET.

MONTANA COORDINATE SYSTEM NAD 83 HORIZONTAL DATUM: BOZEMAN CONTINUOUSLY OPERATING REFERENCE STATION PID DESIGNATION DK7547 MTSU BOZEMAN CORS ARP

MONTANA STATE PLANE NAD 83(2011)(EPOCH: 2010.0000) NORTH LATITUDE 45:39'40.37689" WEST LONGITUDE 111'02'42.00898" UNITS: INTERNATIONAL FEET Convergence angle: -01°07'49" DATUM NOTE: ELEVATIONS ARE BASED ON NAVD 88 VERTICAL DATUM

MONTANA STATE UNIVERSITY MSU-CPDC MONTANA STATE UNIVERSITY BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665 S E 2 GR FIR 2  $\boldsymbol{\mathcal{O}}$ AMPU FOR CONSTRUCTION 2 9 H NOT **RELIMINARY -**٦ì DRAWN BY: EJF REVIEWED BY BSB REV. DESCRIPTION DATE ADDENDUM NO. 1 12/8/23 SON TAN RORY SCOT ROMEY PPA#22-0574 A/E#00-00-00 AESI # 22-133 SHEET TITLE C0.3 SHEET EXISTING HYDRANT SUMMARY & NOTES DATE 11-17-2023