MONTANA STATE UNIVERSITY

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. 2 - OUTLINE AND SUMMARY INFORMATION

Project Name: Campus Fire Hydrant Upgrades
Location: Montana State University - Bozeman
PPA No.: 22-0574
Date: 12/15/2023

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

To: All Plan Holders of Record

*The Plans and Specification prepared by **Allied Engineering Services, Inc.** dated **November 17, 2023** 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. Bid date on the page titled INVITATION TO BID shall be updated: Sealed bids will be received until 2:00PM on **Thursday January 4, 2024**, and will be publicly opened and read aloud in the offices of MSU University Facilities Management, Plew Building, 6th & Grant, Bozeman, Montana for: Campus Fire Hydrant Upgrades, PPA No 22-0574.

2. AMENDMENTS TO THE DRAWINGS

    a. Additional information: Sheet: C0.3: Note 13 Specifications: Bids shall include replacement of all hydrant leads.

3. AMENDMENTS TO EQUIPMENT INFORMATION

    a. None.

4. PRIOR APPROVALS

    a. None.

5. ATTACHMENTS

    a. Updated Plan Sheet:

        i. C0.3 EXISTING HYDRANT SUMMARY & NOTES

HYDRANT 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?	RECOMMENDATIONS
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)	–	
22	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	–	
61	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 LOCATION TO DETERMINE REPLACEMENT HYDRANT HEIGHT
63	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	–	
65	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 DETERMINE REPLACEMENT HYDRANT HEIGHT
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 DETERMINE REPLACEMENT HYDRANT HEIGHT
73	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.

UTILITY NOTES:

1. UNDERGROUND UTILITIES NOT SHOWN IN PROFILE VIEWS.
2. UNDERGROUND UTILITIES SHOWN IN PLAN VIEWS MAY NOT BE ALL INCLUSIVE.
3. 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.
4. CONTRACTOR TO VERIFY ELEVATIONS OF HYDRANT LEADS AND TO DETERMINE APPROPRIATE HYDRANT ASSEMBLY HEIGHT TO MATCH FG AT EACH LOCATION. BURY LINE OF NEW HYDRANTS TO MATCH FG OR EXTEND A MAXIMUM OF 5" ABOVE FG.
5. 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.
6. CONTRACTOR TO VERIFY SIZES AND TYPES OF EXISTING FITTINGS AND PIPES, AND MAKE APPROPRIATE CONNECTIONS.

SPECIFICATIONS:

1. PROJECT SCHEDULE: AS NOTED IN THE TABLE ABOVE ON THIS SHEET, SOME HYDRANTS ARE HIGH PRIORITY THAN OTHERS. THE HYDRANTS 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. CONSTRUCTION INSPECTION AND TESTING: 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. TRAFFIC CONTROL: 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. EXPLORATORY EXCAVATION: 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. CONSTRUCTION STAKING: 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.
11. PERMITS: 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.
13. (△2) HYDRANT LEAD REPLACEMENT: BIDS SHALL INCLUDE REPLACEMENT OF ALL HYDRANT LEADS.
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. ASBESTOS CONCRETE PIPE: 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. (△1) ABANDONMENT OF EXISTING PIPE: 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. (△1) 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. (△1) CONSTRUCTION DE-WATERING: 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.

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

PRELIMINARY - NOT FOR CONSTRUCTION

MONTANA STATE UNIVERSITY

MSU-CPDC
MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

CAMPUS FIRE HYDRANT UPGRADES

ALLIED ENGINEERING SERVICES, INC.
Diverse Projects · Solutions

DRAWN BY: EJF
REVIEWED BY: RSR

REV.	DESCRIPTION	DATE
1	ADDENDUM NO. 1	12/8/23
2	ADDENDUM NO. 2	12/15

MONTANA
RORY SCOTT ROMEY
No. 40776 PE
LICENSED
PROFESSIONAL ENGINEER

PPA#22-0574
A/E#00-00-00
AESI # 22-133

SHEET TITLE
C0.3

SHEET
EXISTING HYDRANT SUMMARY & NOTES

DATE
11-17-2023