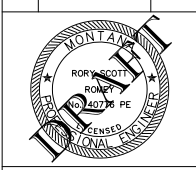


CONSTRUCTION PLANS
GAINES HALL WATER MAIN REPLACEMENT PHASE 2



DRAWN BY: EIJ, COL		
REVIEWED BY: RSR		
REV.	DESCRIPTION	DATE
1	ADDENDUM NO. 1	11/7/24

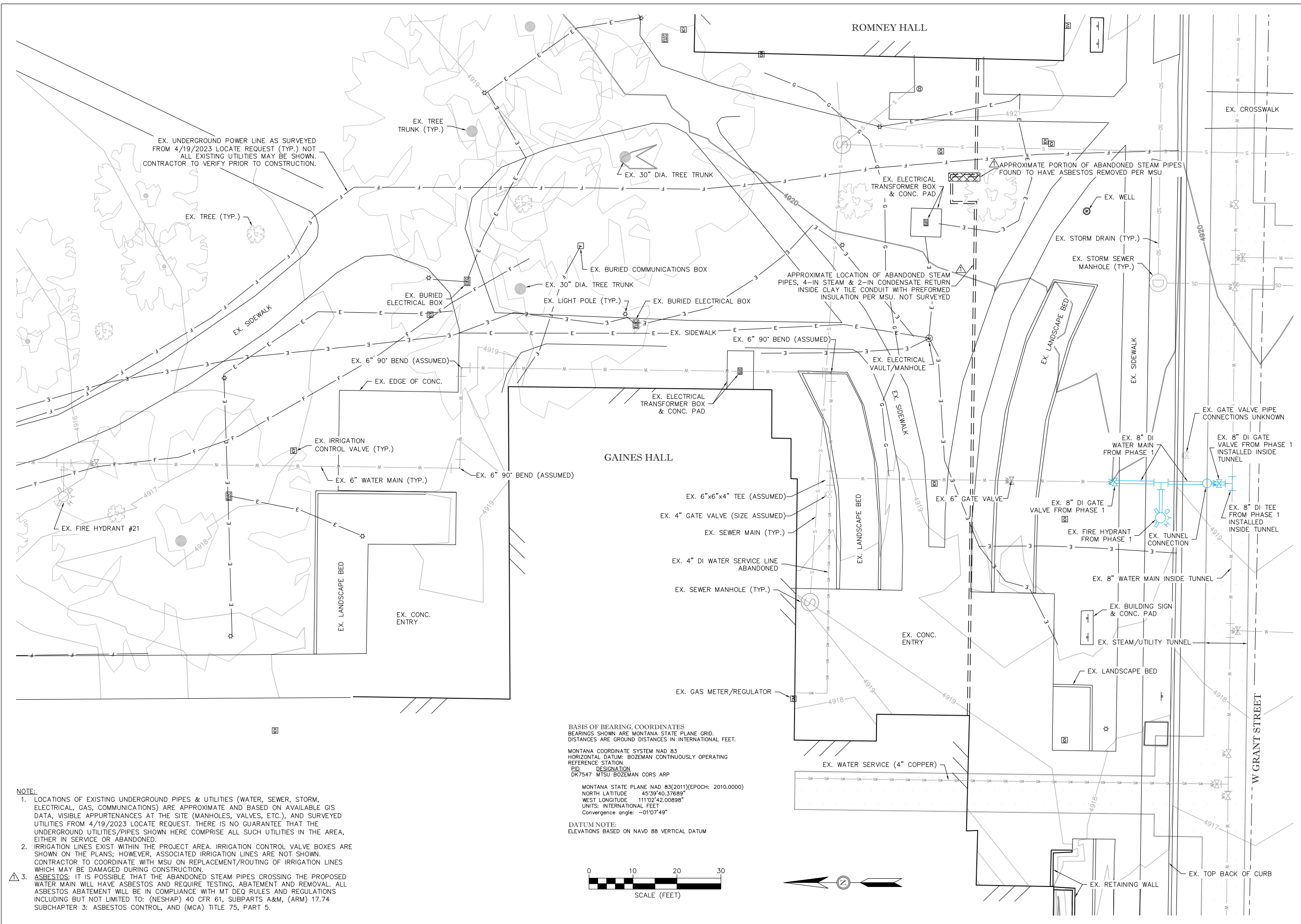


PPA#23-0730
A/E#00-00-00
AESI # 23-022

SHEET TITLE
C1.1

SHEET
EXISTING CONDITIONS

DATE
11/07/2024

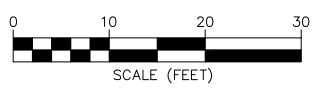


BASIS OF BEARING, COORDINATES
 BEARINGS SHOWN ARE MONTANA STATE PLANE GRID.
 DISTANCES ARE GROUND DISTANCES IN INTERNATIONAL FEET.

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

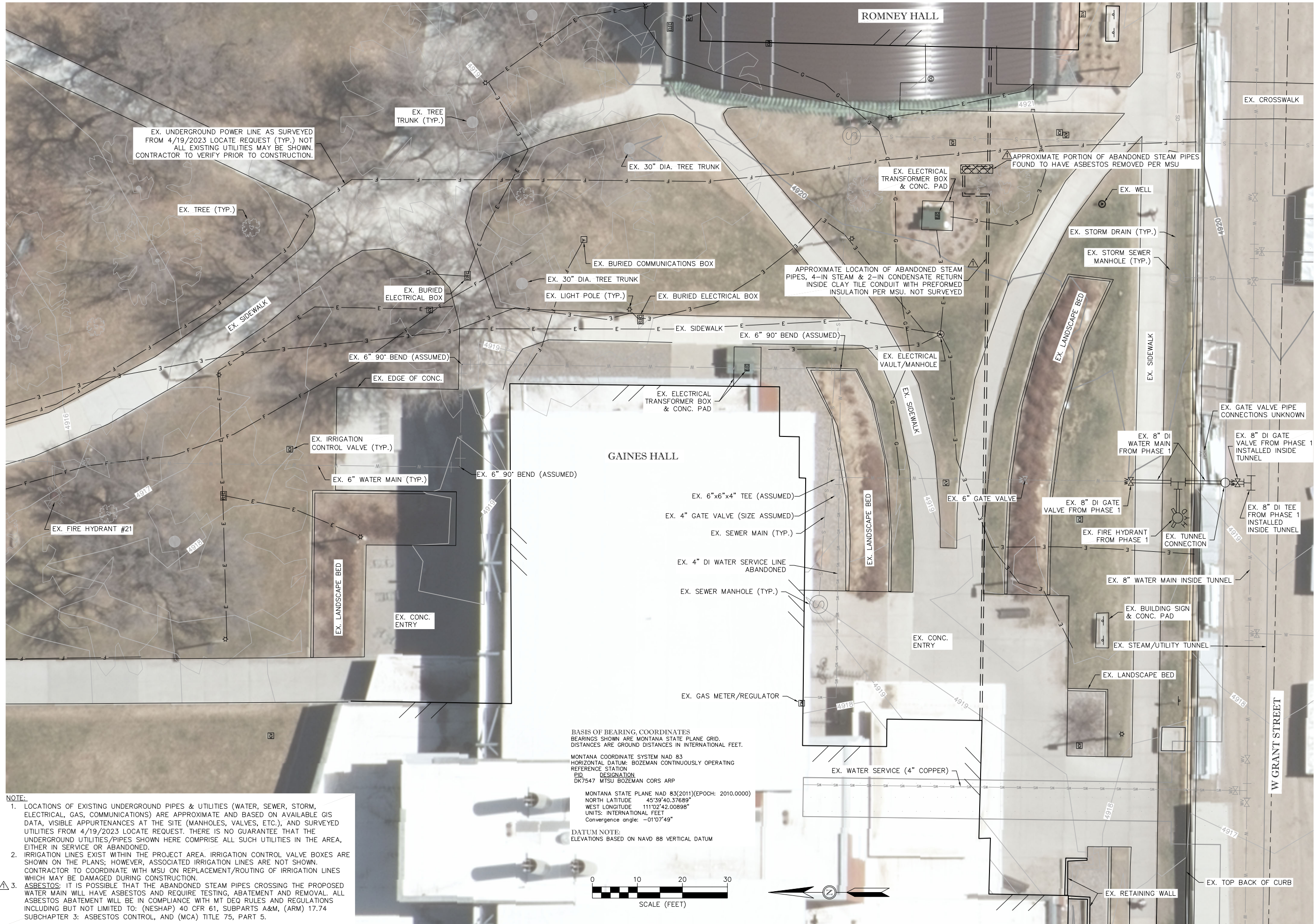
MONTANA STATE PLANE NAD 83(2011)(EPOCH: 2010.0000)
 NORTH LATITUDE 45°39'40.37689"
 WEST LONGITUDE 111°02'42.00898"
 UNITS: INTERNATIONAL FEET
 Convergence angle: -01°07'49"

DATUM NOTE:
 ELEVATIONS BASED ON NAVD 88 VERTICAL DATUM



- NOTE:**
- LOCATIONS OF EXISTING UNDERGROUND PIPES & UTILITIES (WATER, SEWER, STORM, ELECTRICAL, GAS, COMMUNICATIONS) ARE APPROXIMATE AND BASED ON AVAILABLE GIS DATA, VISIBLE APPURTENANCES AT THE SITE (MANHOLES, VALVES, ETC.), AND SURVEYED UTILITIES FROM 4/19/2023 LOCATE REQUEST. THERE IS NO GUARANTEE THAT THE UNDERGROUND UTILITIES/PIPES SHOWN HERE COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
 - IRRIGATION LINES EXIST WITHIN THE PROJECT AREA. IRRIGATION CONTROL VALVE BOXES ARE SHOWN ON THE PLANS; HOWEVER, ASSOCIATED IRRIGATION LINES ARE NOT SHOWN. CONTRACTOR TO COORDINATE WITH MSU ON REPLACEMENT/ROUTING OF IRRIGATION LINES WHICH MAY BE DAMAGED DURING CONSTRUCTION.
 - ASBESTOS:** IT IS POSSIBLE THAT THE ABANDONED STEAM PIPES CROSSING THE PROPOSED WATER MAIN WILL HAVE ASBESTOS AND REQUIRE TESTING, ABATEMENT AND REMOVAL. 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.

Nov 10, 2024, 12:46pm - Existing Conditions Phase 2.dwg
 C:\Users\rsr\OneDrive\Documents\Projects\2024\11-07-24\WaterMain Replacement\Main\Main.dwg



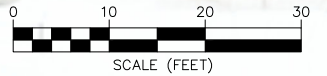
EX. UNDERGROUND POWER LINE AS SURVEYED FROM 4/19/2023 LOCATE REQUEST (TYP.) NOT ALL EXISTING UTILITIES MAY BE SHOWN. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.

APPROXIMATE LOCATION OF ABANDONED STEAM PIPES, 4-IN STEAM & 2-IN CONDENSATE RETURN INSIDE CLAY TILE CONDUIT WITH PREFORMED INSULATION PER MSU. NOT SURVEYED

APPROXIMATE PORTION OF ABANDONED STEAM PIPES FOUND TO HAVE ASBESTOS REMOVED PER MSU

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 BASED ON NAVD 88 VERTICAL DATUM



- NOTE:**
- LOCATIONS OF EXISTING UNDERGROUND PIPES & UTILITIES (WATER, SEWER, STORM, ELECTRICAL, GAS, COMMUNICATIONS) ARE APPROXIMATE AND BASED ON AVAILABLE GIS DATA, VISIBLE APPURTENANCES AT THE SITE (MANHOLES, VALVES, ETC.), AND SURVEYED UTILITIES FROM 4/19/2023 LOCATE REQUEST. THERE IS NO GUARANTEE THAT THE UNDERGROUND UTILITIES/PIPES SHOWN HERE COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
 - IRRIGATION LINES EXIST WITHIN THE PROJECT AREA. IRRIGATION CONTROL VALVE BOXES ARE SHOWN ON THE PLANS; HOWEVER, ASSOCIATED IRRIGATION LINES ARE NOT SHOWN. CONTRACTOR TO COORDINATE WITH MSU ON REPLACEMENT/ROUTING OF IRRIGATION LINES WHICH MAY BE DAMAGED DURING CONSTRUCTION.
 - ASBESTOS:** IT IS POSSIBLE THAT THE ABANDONED STEAM PIPES CROSSING THE PROPOSED WATER MAIN WILL HAVE ASBESTOS AND REQUIRE TESTING, ABATEMENT AND REMOVAL. 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.



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

CONSTRUCTION PLANS
GAINES HALL WATER MAIN REPLACEMENT PHASE 2



DRAWN BY: EIJ, COL		
REVIEWED BY: RSR		
REV.	DESCRIPTION	DATE
1	ADDENDUM NO. 1	11/7/24



PPA#23-0730
A/E#00-00-00
AESI # 23-022

SHEET TITLE
C1.2

SHEET
EXISTING CONDITIONS W/ AERIAL

DATE
11/07/2024

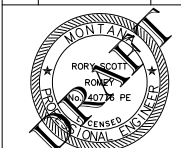
Nov 10, 2024, 12:45 pm - Existing Conditions Phase 2.dwg
 C:\Users\rbjones\OneDrive\Documents\Projects\2024\11-07-24\11-07-24\11-07-24.dwg

GAINES HALL WATER MAIN REPLACEMENT PHASE 2

CONSTRUCTION PLANS



DRAWN BY: EJP, COL		
REVIEWED BY: RSR		
REV.	DESCRIPTION	DATE
1	ADDENDUM NO. 1	11/7/24



PPA#23-0730

A/E#00-00-00

AESI # 23-022

SHEET TITLE

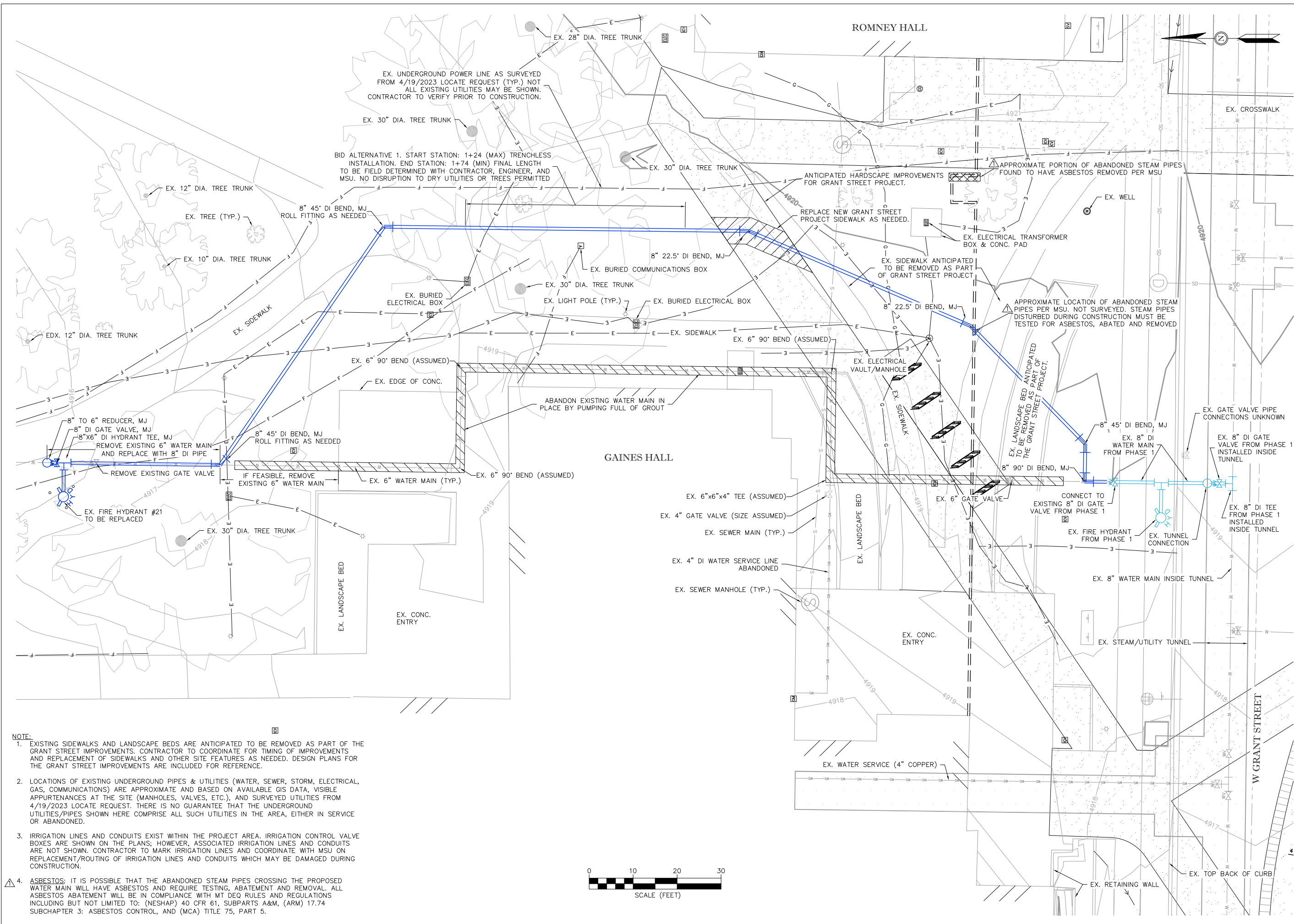
C1.3

SHEET

DESIGN PLAN

DATE

11/07/2024



- NOTE:**
- EXISTING SIDEWALKS AND LANDSCAPE BEDS ARE ANTICIPATED TO BE REMOVED AS PART OF THE GRANT STREET IMPROVEMENTS. CONTRACTOR TO COORDINATE FOR TIMING OF IMPROVEMENTS AND REPLACEMENT OF SIDEWALKS AND OTHER SITE FEATURES AS NEEDED. DESIGN PLANS FOR THE GRANT STREET IMPROVEMENTS ARE INCLUDED FOR REFERENCE.
 - LOCATIONS OF EXISTING UNDERGROUND PIPES & UTILITIES (WATER, SEWER, STORM, ELECTRICAL, GAS, COMMUNICATIONS) ARE APPROXIMATE AND BASED ON AVAILABLE GIS DATA, VISIBLE APPURTENANCES AT THE SITE (MANHOLES, VALVES, ETC.), AND SURVEYED UTILITIES FROM 4/19/2023 LOCATE REQUEST. THERE IS NO GUARANTEE THAT THE UNDERGROUND UTILITIES/PIPES SHOWN HERE COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
 - IRRIGATION LINES AND CONDUITS EXIST WITHIN THE PROJECT AREA. IRRIGATION CONTROL VALVE BOXES ARE SHOWN ON THE PLANS; HOWEVER, ASSOCIATED IRRIGATION LINES AND CONDUITS ARE NOT SHOWN. CONTRACTOR TO MARK IRRIGATION LINES AND COORDINATE WITH MSU ON REPLACEMENT/ROUTING OF IRRIGATION LINES AND CONDUITS WHICH MAY BE DAMAGED DURING CONSTRUCTION.
 - ASBESTOS:** IT IS POSSIBLE THAT THE ABANDONED STEAM PIPES CROSSING THE PROPOSED WATER MAIN WILL HAVE ASBESTOS AND REQUIRE TESTING, ABATEMENT AND REMOVAL. 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.

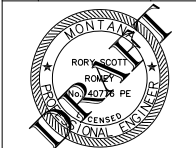


GAINES HALL WATER MAIN REPLACEMENT PHASE 2

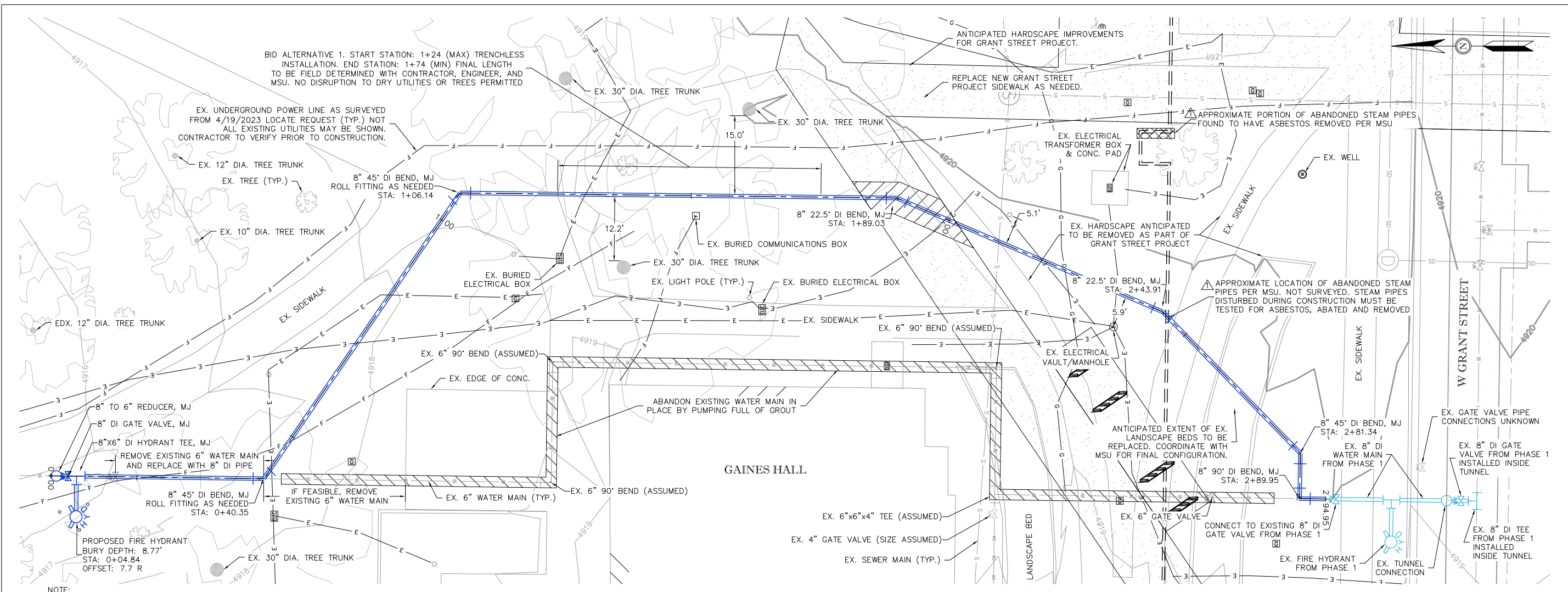


DRAWN BY: EJP, COL
REVIEWED BY: RSR

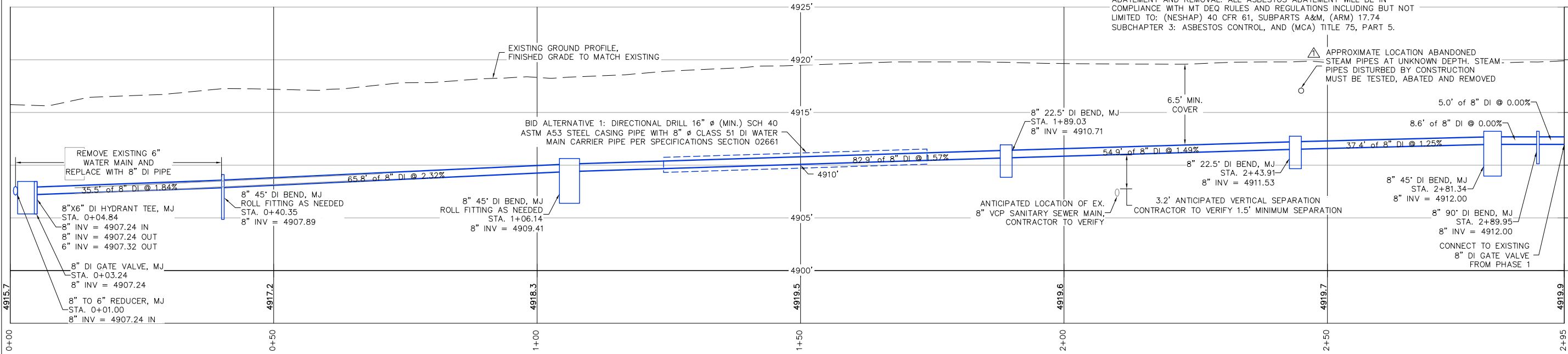
REV.	DESCRIPTION	DATE
1	ADDENDUM NO. 1	11/7/24



PPA#23-0730
A/E#00-00-00
AESI # 23-022
SHEET TITLE
C2.1
SHEET
WATER MAIN PLAN & PROFILE
DATE
11/07/2024

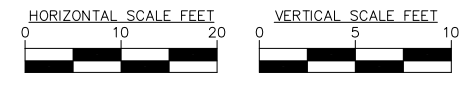


WATER MAIN - PLAN VIEW



WATER MAIN - PROFILE VIEW

- NOTES:**
- EXISTING WATER MAIN ELEVATIONS ARE APPROXIMATE AND WERE ESTIMATED BY SURVEYING ELEVATION OF TOP NUT OF VALVES WHERE THEY EXIST. TOP NUT TO INVERT AT VALVES ASSUMED TO BE 21". ALL EXISTING WATER MAIN WITHIN REPLACEMENT AREA IS ASSUMED TO BE 6" NOMINAL PIPE SIZE UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO VERIFY SIZES, MATERIAL, AND ELEVATIONS OF EXISTING FITTINGS AND PIPES, AND MAKE APPROPRIATE CONNECTIONS.
 - UNDERGROUND DRY UTILITIES ARE NOT SHOWN IN PROFILE VIEWS.
 - 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.
 - SEE SPECIFICATIONS ON CO.3 FOR PIPE MATERIAL REQUIREMENTS. ALL WATER MAIN TO BE ENCASED WITH V-BIO ENHANCED POLYETHYLENE.
 - REFER TO 3/C3.2 FOR JOINT RESTRAINT TABLE.
- BID ALTERNATIVE A. TRENCHLESS INSTALLATION:**
- TRENCHLESS INSTALLATION SHALL UTILIZE 16" Ø (MIN.) STEEL CASING PIPE AND 8" Ø CLASS 51 DI CARRIER PIPE WITH RESTRAINED JOINT INTEGRAL BELL.
 - TRANSITIONS BETWEEN PIPE TYPE SHALL BE INCIDENTAL TO THE WORK.
 - CONTRACTOR SHALL MAKE EVERY EFFORT TO PULL TRACER WIRE BACK THROUGH WITH PIPE.
 - START AND END STATIONS OF TRENCHLESS INSTALLATION INDICATE THE MINIMAL EXTENTS OF INSTALLATION WHERE NO SURFACE DISRUPTION IS ALLOWED. CONTRACTOR SHALL LOCATE PITS AS NEEDED OUTSIDE OF THE BOUNDS OF THESE STATIONS AS NECESSARY TO COMPLETE THE WORK.
 - CONTRACTOR SHALL PROVIDE SUBMITTAL DETAILING PROPOSED METHODS, MATERIALS, AND PLAN FOR TRENCHLESS INSTALLATION PRIOR TO THE PRE-CONSTRUCTION MEETING.
 - SEE PROJECT SPECIFICATIONS MANUAL SECTION 02661 FOR ADDITIONAL TRENCHLESS INSTALLATION REQUIREMENTS.
- NOTE: ACTUAL EXTENT OF IMPROVEMENTS MAY VARY BASED ON CONDITION OF THE EXISTING WATER MAIN. COORDINATE WITH AESI & MSU DURING EXCAVATION FOR EXTENT OF IMPROVEMENTS.**
- NOTES:**
- SAW-CUT EXISTING SIDEWALKS AT EXISTING JOINTS. THIS MAY REQUIRE A LARGER SAW-CUT THAN WHAT IS SHOWN.
 - COORDINATE WITH MSU FOR REMOVAL AND REPLACEMENT OF LANDSCAPE BEDS AND IRRIGATION IMPROVEMENTS.



11/07/2024 12:46pm - Water Main Plan & Profile - Phase 2.dwg
 C:\Users\ejp\OneDrive\Documents\2023\23-022 Water Main Replacement\Drawings\C2.dwg