



Malvern Water Works

Project No. 25014



ADDENDUM NO. 3 TO THE CONTRACT DOCUMENTS

MALVERN WATER WORKS, MALVERN, AR

25014 MALVERN WASTEWATER IMPROVEMENTS, CONTRACT 3A CHATMAN CREEK AND BURRIS ROAD GRAVITY SEWER (LARGE DIAMETER) AND FORCE MAIN

This Addendum No. 3 issued by Crist Engineers, Inc. is hereby made a part of the Contract Documents to the same extent as though it were originally included therein. Please read the following items and acknowledge receipt of this addendum on the proposal form when submitting bids.

1. Conditional Approved Equal

Engineer's acceptance of pre-approved or approved equal submissions will not relieve Contractor from his responsibility for any deviation from the requirements of the Contract Documents unless Contractor has in writing called Engineer's attention to such deviation at the time of submission and Engineer has given written approval to the specific deviation, nor shall any acceptance by Engineer relieve contractor from responsibility for errors or omissions in pre-approved or approved equal submissions.

a. Section 333400 Force Main Pipe and Fittings, Page 11, 2.6.B.1:

"All interior DI fittings shall be furnished and coated with standard factory applied Protecto 401 Ceramic Epoxy (P401), PermoXCTF coating meeting the amine cured novalac epoxy containing at least 20% by volume of ceramic quartz pigment or approved equal."

2. Contract Documents

b. C-410 Bid Form:

1. Revise quantities as follows:

39	30" SANITITE HP PIPE, CARRIER PIPE	LF	~~294~~ 324	\$	\$
41	30" SANITITE HP PIPE, OPEN CUT (10'+), TYPE 5 BEDDING	LF	~~2,212~~ 2,182	\$	\$
56	42" AUGER BORING, STEEL ENCASEMENT, COMPLETE OR 48" AUGER BORING, STEEL ENCASEMENT, COMPLETE	LF	~~294~~ 324	\$	\$

Bid form will not be reissued, Contractor to revise as identified herein on the bid form prior to submission of the bid package.

c. Document 000110 Table of Contents, Revise to Add Sections:

312319 – Dewatering and Drainage (consisting of 4 pages)

d. Add 312319 – Dewatering and Drainage Addendum No. 3.

3. Plans

a. Sheet C-2 – Addendum No. 1

1. Delete in its entirety and replace with Sheet No. C-2 - Addendum No. 3, attached hereto.

b. Sheet C-18 – Addendum No. 1

1. Delete in its entirety and replace with Sheet No. C-18 - Addendum No. 3, attached hereto.

4. Contractor Questions and Responses

a. Will temporary offices and utilities be required for the Owner or Engineers personnel for this project?

No, offices and utilities will not be required for this Project.

- b. Is there a project-wide requirement that all pipe and fittings (including force main, process piping, vault piping, valves/appurtenances, etc.) must be domestically manufactured?

No.

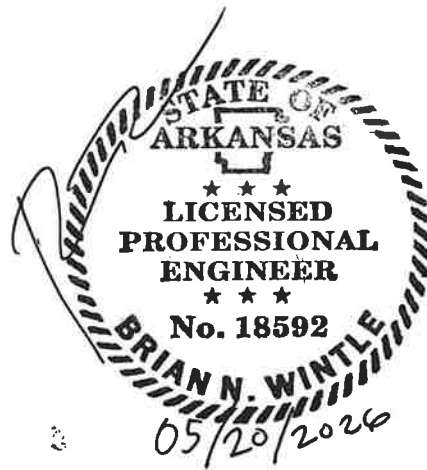
End of Addendum No. 3

All other provisions of the Plans and Contract Documents shall remain in full force and effect.

Issued by CRIST ENGINEERS, INC.



Brian N. Wintle, PE, PhD, BCEE



Please EMAIL this form to Crist Engineers, Inc. at:

abrown@cristengineers.com; mallen@cristengineers.com; bwintle@cristengineers.com

Please call Brian N. Wintle at 501-664-1552 if you have any questions.

The Bidder shall acknowledge receipt of Addendum No. 3 by return EMAIL.

Bidder shall acknowledge Addendum No. 3 on Section 004100 Bid Form (C-410).

Acknowledged by: _____

Please Print

Please Sign

Organization of Company Name: _____

SECTION 312319

DEWATERING AND DRAINAGE

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Obtain and pay for all permits required for temporary dewatering and drainage. Display and maintain original permits in a prominent location at the site prior to construction of the drainage system.
- B. Furnish the services of a licensed professional engineer, registered in the state in which the project is located, to prepare dewatering and drainage system designs and submittals.
- C. Furnish, install, operate, monitor, maintain and remove temporary dewatering and drainage systems as necessary to lower and maintain groundwater levels below subgrades of excavation to permit construction in-the-dry. Prevent surface water runoff from entering or accumulating in excavation.
- D. Collect and properly dispose of all discharge water from dewatering and drainage systems in accordance with local and State requirements, permits, and any special provisions of Sections 014000 and 015713.
- E. Repair damage caused by dewatering and drainage system operations.
- F. Remove temporary dewatering and drainage systems when no longer needed. Restore all disturbed areas.

1.2 RELATED WORK

- A. Section 013300 – Submittal Procedures
- B. Section 011400 – Work Restrictions
- C. Section 014000 – Special Project Procedures
- D. Section 015713 – Temporary Erosion and Sediment Control
- E. Section 311000 – Site Clearing and Grubbing
- F. Section 312000 – Grading and Earthwork
- G. Section 312300 – Trench and Excavation Safety System

1.3 SUBMITTALS

- A. Submit in accordance with Section 013300 all temporary dewatering and drainage system designs. Dewatering and drainage system designs shall be prepared by a licensed professional engineer, registered in the state in which the Work is located, having a minimum of five years of professional experience in the design and construction of dewatering and drainage systems. Submittal will be for information purposes only. Contractor shall retain responsibility for adequacy and safety of construction means, methods and techniques.
- B. In accordance with Section 013300, submit copies of all required permits prior to installing and operating dewatering and drainage systems.

1.4 DEFINITIONS

- A. Where the phrase "in-the-dry" is used in these specifications, it shall be defined as in situ soil moisture content of no more than two (2) percentage points above the optimum

moisture content for that soil.

1.5 DESIGN AND PERFORMANCE RESPONSIBILITY

- A. The Contractor is responsible for the design and execution of methods for controlling surface water and groundwater.
- B. The Contractor is responsible for repairing damage to properties, buildings or structures, sewers and other utility installations, pavements, and work that may result from dewatering or surface water control operations.
- C. Design review and field monitoring activities by the Owner or the Engineer shall not relieve the Contractor of responsibility for the work.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Where appropriate, pipe for observation wells, if required, shall consist of 1-in. I.D. minimum, Schedule 80 PVC pipe and machine slotted PVC wellpoints, maximum slot size 0.020-in.

PART 3 - EXECUTION

3.1 GENERAL

- A. Control surface water and groundwater such that excavation to final grade is made in-the-dry and bearing soils are maintained undisturbed. Prevent softening, or instability of, or disturbance to, the subgrade due to water seepage.
- B. Provide protection against flotation for all work.
- C. The impact of anticipated subsurface soil/water conditions shall be considered when selecting methods of excavation and temporary dewatering and drainage systems. Where groundwater levels are above the proposed bottoms of excavations, a pumped dewatering system is expected for pre-drainage of the soils prior to excavation to final grade and for maintenance of the lowered groundwater level until construction has been completed to such an extent that the foundation, structure, pipe, conduit, or fill will not be floated or otherwise damaged. Type of dewatering system, spacing of dewatering units, and other details of the work are expected to vary with soil/water conditions at a particular location.
- D. At least two (2) weeks prior to the start of construction in any areas of anticipated dewatering, submit to the Engineer for review a proposed plan for removal of water, a method(s) of excavation, and a method(s) of excavation support. Do not proceed with construction in any of these areas until the initial plan has been reviewed and commented upon by the Engineer. It is expected that the initial plan may require modification to suit any variable soil/water conditions encountered on the construction site.

3.2 SURFACE WATER CONTROL

- A. Control surface water runoff to prevent flow into excavations. Provide temporary measures such as dikes, ditches and sumps.
- B. Collect precipitation or surface runoff in shallow ditches around the perimeter of the excavation, drain to sump, and pump from the excavation to maintain in-the-dry conditions.

3.3 EXCAVATION DEWATERING

- A. Provide and maintain adequate equipment and facilities to remove promptly and dispose of properly all water entering excavations. Excavations shall be kept in-the-dry, so as to maintain all undisturbed subgrade conditions throughout construction below grade, including backfill and fill placement. It is recommended to keep ground water levels 2-feet below the bottom of the excavation.
- B. Pipe and conduit shall not be installed in water or allowed to be submerged prior to backfilling. Pipe and conduit that becomes submerged shall be removed and the excavation dewatered and restored to proper conditions prior to reinstalling the pipe and conduit.
- C. Excavation for foundations and structures shall be maintained in-the-dry for a minimum of ninety-six (96) hours after concrete placement. In no event shall water be allowed to enter an excavation and rise to cause unbalanced pressure on foundations and structures until the concrete or mortar has set at least twenty-four (24) hours.
- D. Dewatering and drainage operations shall at all times be conducted in such a manner as to preserve the natural undisturbed bearing capacity of the subgrade at the bottom of the excavation. If the subgrade becomes disturbed for any reason, the unsuitable subgrade material shall be removed and replaced with concrete, compacted granular fill, or other approved material to restore the bearing capacity of the subgrade to its original undisturbed condition.

3.4 WELL POINT SYSTEM

- A. As part of the dewatering system, a vacuum wellpoint system may be required around the excavation to dewater granular soils. Each wellpoint and riser pipe shall be surrounded by a sand filter. Sand shall be of such a gradation that, after initial development of wellpoints, the quantity and size of soil particles discharged shall be negligible. The wellpoint system shall be capable of operating continuously under the highest possible vacuum.
- B. The installation of the well point system shall be done under the supervision of a qualified representative of the wellpoint equipment supplier.

3.5 DISPOSAL OF DRAINAGE

- A. All water discharged from temporary dewatering and drainage systems shall be disposed of in accordance with the sedimentation and erosion control plans as specified in Section 015713. Existing or new sanitary sewer systems shall not be used to dispose of drainage unless the written permission of the utility or Owner is obtained.
- B. Dispose of drainage to prevent flow or seepage back into excavated areas. Disposal area shall be approved by the Engineer.

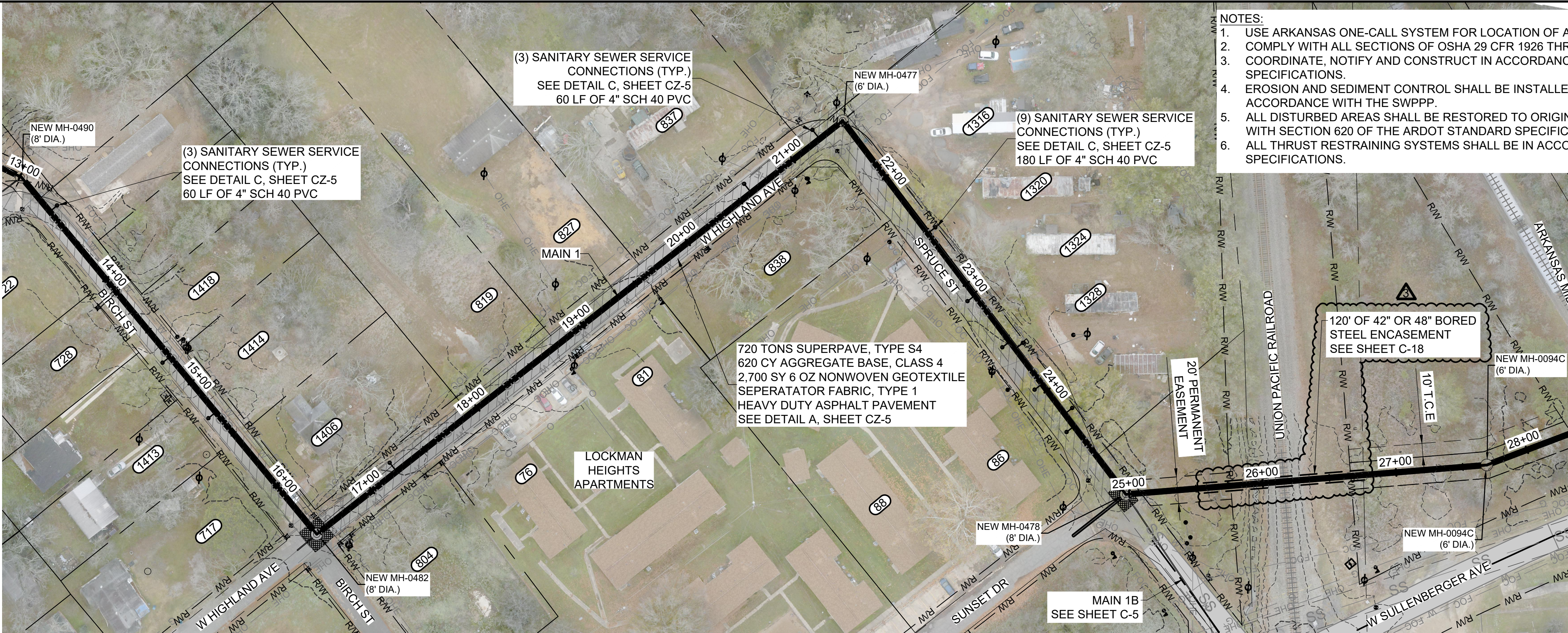
3.6 GROUNDWATER OBSERVATION WELLS

- A. Prior to excavating 10-ft. or more below original grade, install one (1) groundwater observation well at the center, or adjacent to each structure under construction for the purpose of measuring water levels during excavation. The observation well shall consist of a screen, casing and cap, all of approved size and materials of construction. Place observation well in a 2-1/2-in. bore hole, which shall be carried to or below final bottom grade

of the structure. Backfill the annular space surrounding the intake point and the riser pipe with mortar sand. Seal the well top to prevent infiltration from surface water. Locate and install the observations well in such a manner as to insure proper reflection of subsurface water levels adjacent to the well.

- B. Maintain the observation well until the adjacent structure is completed and backfilled. Observe and record daily the groundwater elevation in each observation well. Furnish measurements daily to the Engineer. Redevelop or replace plugged observation wells as necessary to reflect true groundwater levels.

END OF SECTION

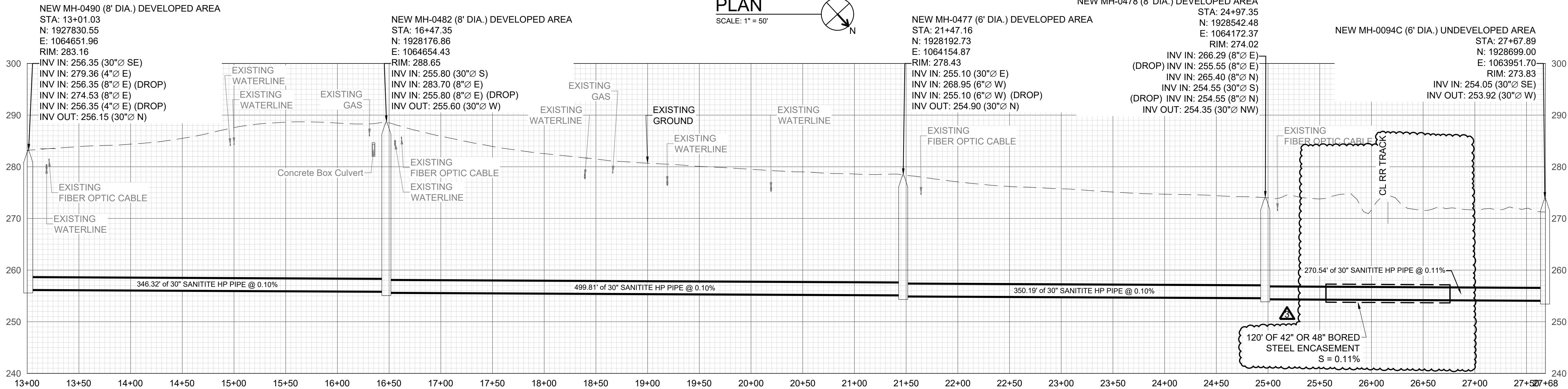
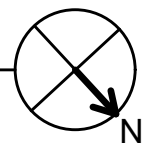


- NOTES:
1. USE ARKANSAS ONE-CALL SYSTEM FOR LOCATION OF ALL BURIED UTILITIES.
 2. COMPLY WITH ALL SECTIONS OF OSHA 29 CFR 1926 THROUGHOUT THE DURATION OF THE PROJECT.
 3. COORDINATE, NOTIFY AND CONSTRUCT IN ACCORDANCE WITH SECTION 014000 OF THE SPECIFICATIONS.
 4. EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED, MONITORED AND MAINTAINED IN ACCORDANCE WITH THE SWPPP.
 5. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL GRADE AND SEEDED IN ACCORDANCE WITH SECTION 620 OF THE ARDOT STANDARD SPECIFICATIONS.
 6. ALL THRUST RESTRAINING SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION 333400 OF THE SPECIFICATIONS.

MAIN 1 - 0490 TO 0094C

PLAN

SCALE: 1" = 50'



PROFILE

SCALE: H:1" = 50', V: 1" = 10'

REV. NO.	DATE	DRWN	CHKD	REMARKS
2	5/19/26	SBM	MPA	CONFORMED PER ADDENDUM NO. 3
1	5/6/26	SBM	MPA	CONFORMED PER ADDENDUM NO. 1



0 1"
1" = 1"
THIS LINE MEASURES 1" WHEN PLOTTED FULL SIZE

DESIGNED: MPA
DRAFTED: SBM
CHECKED: BNW
DATE: APR 2026



CRIST ENGINEERS, INC.
CONSULTING ENGINEERS

1 EXECUTIVE CENTER COURT
LITTLE ROCK, ARKANSAS 72211
TELEPHONE: (501) 664-1552
FAX: (501) 664-8579
WWW.CRISTENGINEERS.COM

MALVERN, ARKANSAS
SEWER SYSTEM REHABILITATION - PHASE 3
CONTRACT 3A

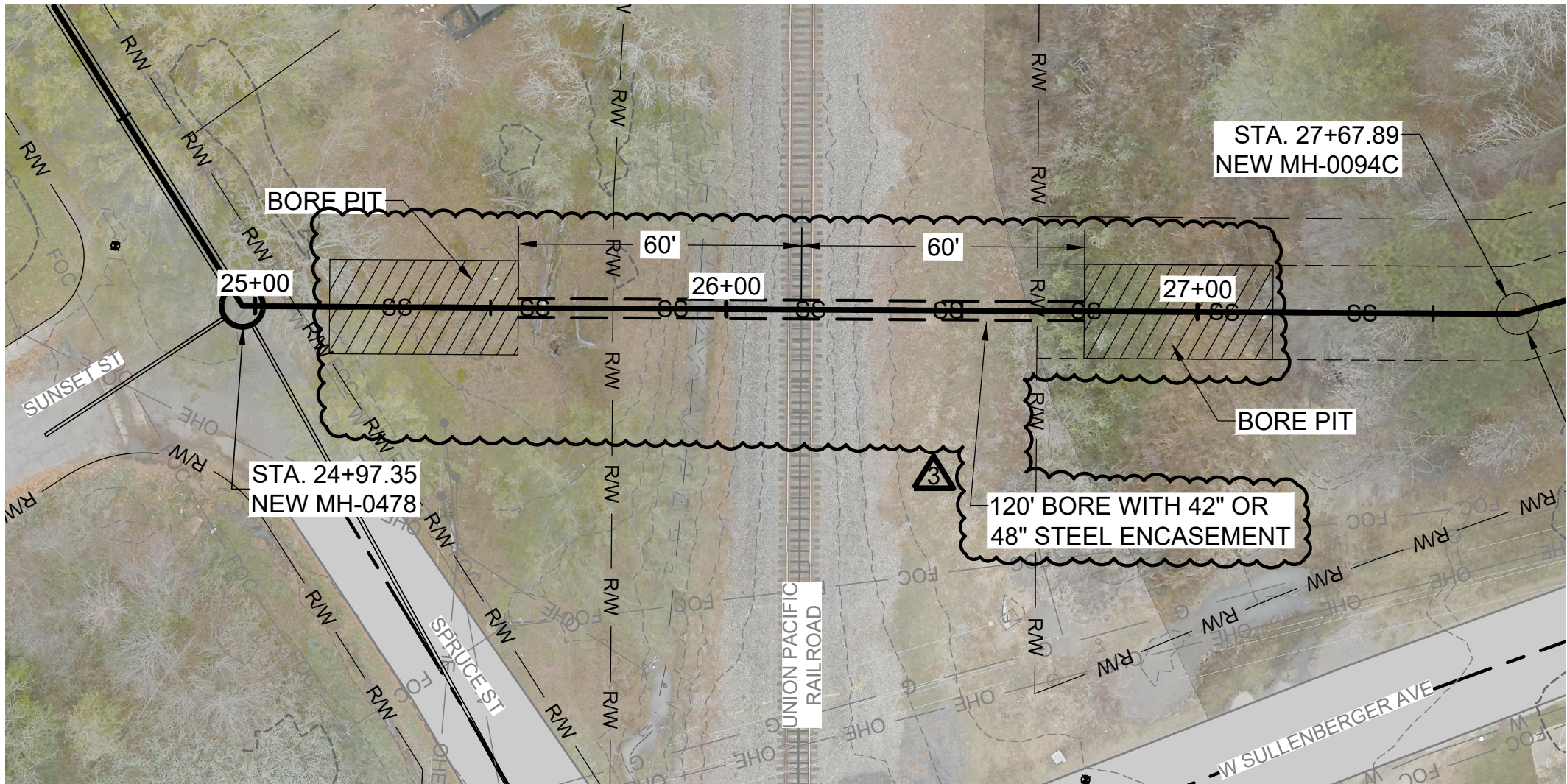
BID SET

MAIN 1 - PLAN & PROFILE - STA. 13+00 TO STA. 28+00

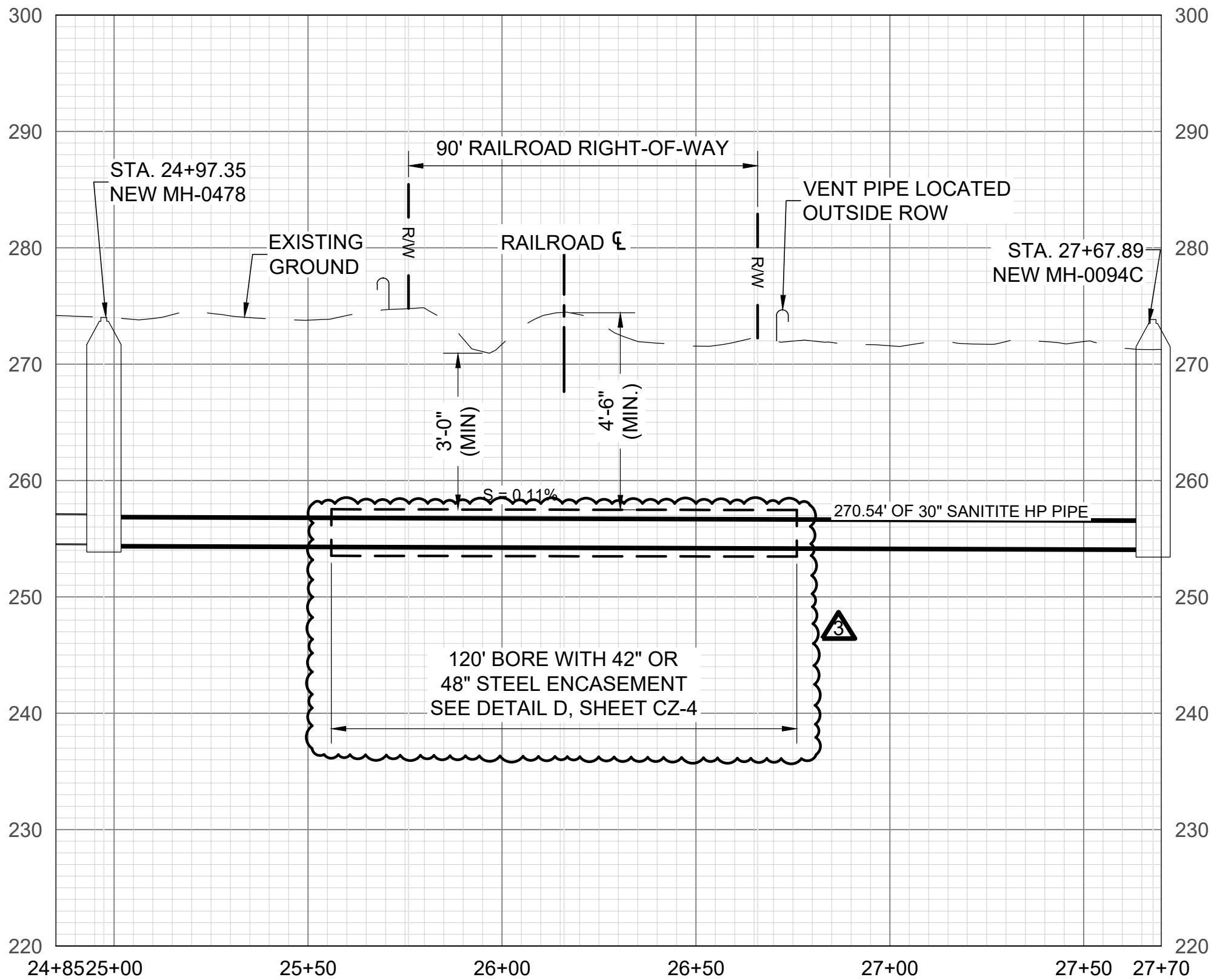
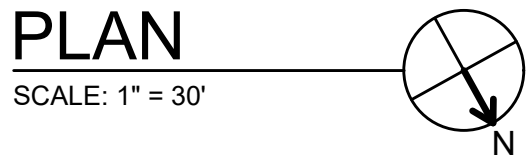
JOB NO.
25014
SHEET NO.
C-2

NOTES

1. THE CONTRACTOR SHALL PROVIDE ALL DOCUMENTATION, NOTIFICATIONS, OR OTHERWISE IN ACCORDANCE WITH SECTION 014000 OF THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL CONDUCT ALL WORK IN ACCORDANCE WITH THE PERMIT STIPULATIONS, AGREEMENTS, TERMS OF THE EASEMENTS, LETTERS OF NO OBJECTION, OR ANY OTHER DOCUMENT INCLUDED BY REFERENCE OR PROVIDED IN THE APPENDICES.
3. THE DOCUMENTS INCLUDED BY REFERENCE OR PROVIDED IN THE APPENDICES SHALL GOVERN, EXCEPT WHEN OTHER SECTIONS OF THE CONTRACT DOCUMENTS REQUIRE A HIGHER STANDARD THAN THOSE INCLUDED BY REFERENCE OR PROVIDED IN THE APPENDICES, THEN THOSE OTHER SECTIONS SHALL GOVERN.



UNION PACIFIC RAILROAD BORE - MAIN 1

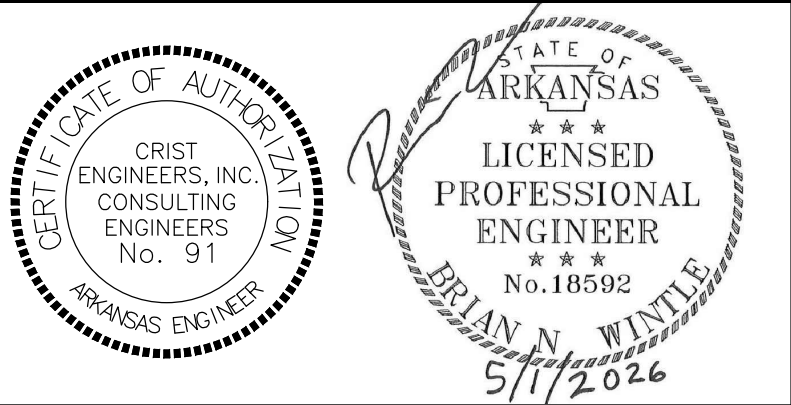


UNION PACIFIC RAILROAD BORE - MAIN 1

PROFILE

SCALE: H-1" = 30'
V: 1" = 10'

REV. NO.	DATE	DRWN	CHKD	REMARKS
2	5/19/26	SBM	MPA	CONFORMED PER ADDENDUM NO. 3
1	5/6/26	SBM	MPA	CONFORMED PER ADDENDUM NO. 1



0 1"
1" = 1"
THIS LINE MEASURES 1" WHEN PLOTTED FULL SIZE

DESIGNED:	MPA
DRAFTED:	SBM
CHECKED:	BNW
DATE:	APR 2026



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MALVERN, ARKANSAS
SEWER SYSTEM REHABILITATION - PHASE 3
CONTRACT 3A

BID SET

UNION PACIFIC - RAILROAD BORE DETAILS - MAIN 1

JOB NO.
25014

SHEET NO.