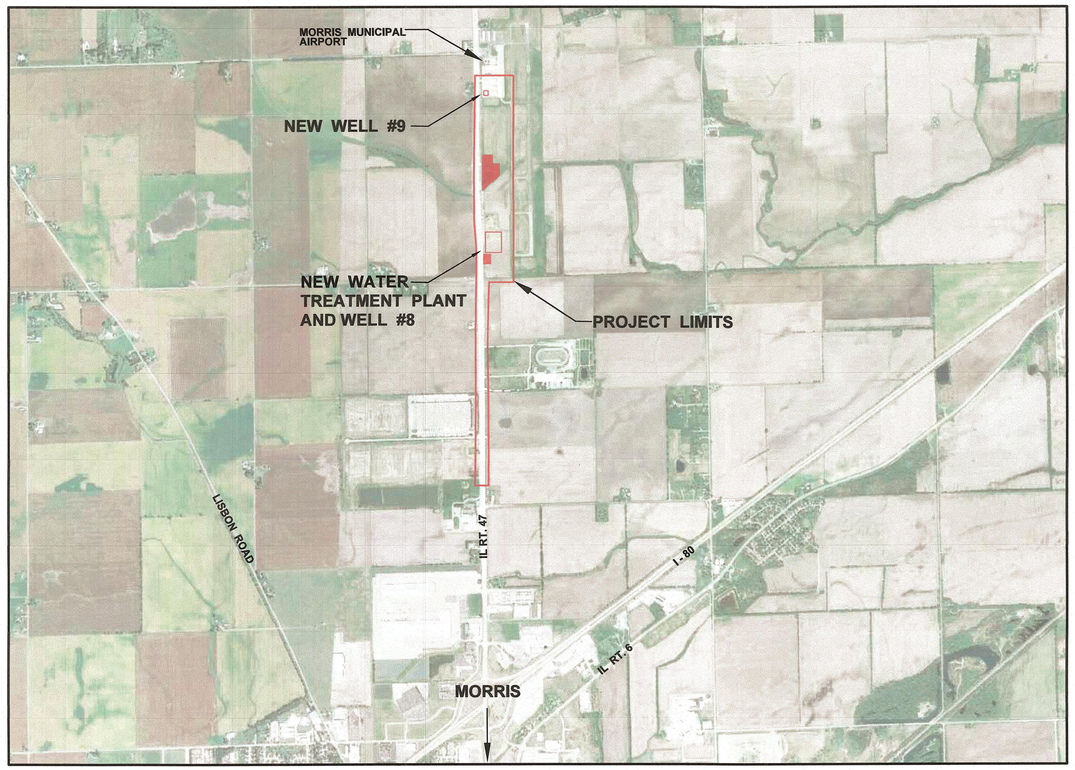
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
GRUNDY COUNTY, IL
2026

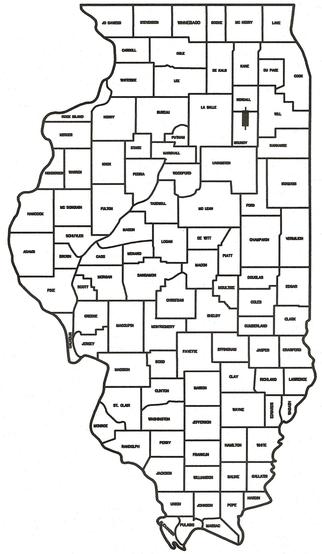
INDEX OF SHEETS:

1. COVER SHEET
2. FLOW SCHEMATIC
3. GENERAL NOTES
4. GENERAL DETAILS (1 OF 2)
5. GENERAL DETAILS (2 OF 2)
6. SITE DETAILS
7. WATER MAIN DETAILS
8. SEWER DETAILS (1 OF 2)
9. SEWER DETAILS (2 OF 2)
10. SITE GRADING & SESC PLAN
11. DRAINAGE DITCH PLAN & PROFILE - STA. 500+00 TO STA. 504+00
12. DRAINAGE DITCH PLAN & PROFILE - STA. 504+00 TO STA. 507+05
13. PAVING & GEOMETRY PLAN
14. ACCESS PLAN
15. YARD PIPING PLAN
16. BLANK
17. AERATION TANK STRUCTURAL DETAILS
18. AERATION TANK DETAILS AND ELEVATION
19. AERATION TANK INTERIOR LAYOUT AND DETAILS
20. BRINE TANK STRUCTURAL DETAILS
21. BRINE TANK PLAN AND DETAILS
22. BRINE TANK PIPING PLAN AND DETAILS
23. BUILDING NORTH AND SOUTH ELEVATIONS
24. BUILDING EAST AND WEST ELEVATIONS
25. BUILDING FOUNDATION PLAN
26. BUILDING FOUNDATION DETAILS
27. TYPICAL BUILDING SECTION AND DETAILS
28. STRUCTURAL NOTES AND DETAILS
29. BUILDING ROOF DETAILS
30. BUILDING ROOF PLAN
31. STRUCTURAL ROOF PLAN
32. BUILDING REFLECTED CEILING PLAN
33. BUILDING LAYOUT PLAN
34. ROOM & DOOR SCHEDULES
35. LAB CABINETRY & INTERIOR DETAILS
36. WASTE PIPING PLUMBING PLAN
37. SUPPLY PIPING PLUMBING PLAN
38. BUILDING HVAC PLAN
39. SOFTENER PIPING DETAILS
40. BUILDING SECTION VIEWS
41. TYPICAL THRU SECTION AND DETAILS
42. OVERHEAD CRANE FRAMING PLAN AND DETAILS
43. CHEMICAL FEED AND RPZ SYSTEM DETAILS
44. SITE ELECTRICAL PLAN
45. SITE CONTROL PLAN
46. CONTROL / INTEGRATION PLAN
47. INTEGRATION AND SCADA SCHEMATIC
48. SINGLE LINE DIAGRAM
49. ELECTRICAL GENERAL POWER PLAN
50. ELECTRICAL LIGHTING PLAN
51. ELECTRICAL PANEL LAYOUT & NOTES
52. BILL OF MATERIALS
53. EATON DETAILS (1 OF 2)
54. EATON DETAILS (2 OF 2)
55. SITE CONTROLS LIST (1 OF 2)
56. SITE CONTROLS LIST (2 OF 2)
57. WATER SYSTEM NETWORK AND DISTRIBUTION
58. TONKA FDA DRAWINGS (1 OF 4)
59. TONKA FDA DRAWINGS (2 OF 4)
60. TONKA FDA DRAWINGS (3 OF 4)
61. TONKA FDA DRAWINGS (4 OF 4)
62. TONKA SOFTENER DRAWINGS (1 OF 2)
63. TONKA SOFTENER DRAWINGS (2 OF 2)
64. TONKA BRINE SKID DETAIL
65. NEW WELL 8 WELL HOUSE AND WELL
66. WELL 9 SITE PLAN
67. NEW WELL 9 WELL HOUSE AND WELL
68. BLANK
69. PLAN & PROFILE - STA. 299+50 TO STA. 310+00
70. PLAN & PROFILE - STA. 310+00 TO STA. 320+00
71. PLAN & PROFILE - STA. 320+00 TO STA. 330+00
72. PLAN & PROFILE - STA. 330+00 TO STA. 342+01
73. PLAN & PROFILE - STA. 100+00 TO STA. 106+00
74. PLAN & PROFILE - STA. 106+00 TO STA. 112+00
75. PLAN & PROFILE - STA. 112+00 TO STA. 118+00
76. PLAN & PROFILE - STA. 118+00 TO STA. 124+00
77. PLAN & PROFILE - STA. 200+00 TO STA. 206+00
78. PLAN & PROFILE - STA. 206+00 TO STA. 212+00
79. PLAN & PROFILE - STA. 212+00 TO STA. 218+00
80. PLAN & PROFILE - STA. 218+00 TO STA. 224+00
81. PLAN & PROFILE - STA. 224+00 TO STA. 230+00
82. PLAN & PROFILE - STA. 230+00 TO STA. 234+50
83. PLAN & PROFILE - STA. 234+50 TO STA. 238+09
84. PLAN & PROFILE - STA. 400+00 TO STA. 403+76

UTILITY SERVICE	CONTACT	TELEPHONE NO.
WATER	WATER DEPT.–DALTON GORDON	(815)–942–2205
ELECTRICAL POWER	ComEd	1–800–892–0123
NATURAL GAS	NI GAS–CARMEN MORALES	(815)–740–1235
TELEPHONE	AT&T–PARIS JOHNSON	(877)–377–4098
CABLE	COMCAST	(815)–942–5589
SANITARY SEWER		



LOCATION MAP



LOCATION OF SECTION INDICATED THUS: –■–

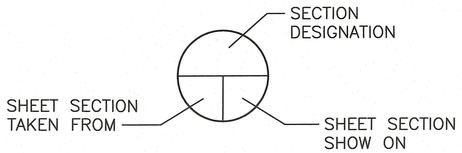
CITY OFFICIALS

CITY MAYOR	CHRIS BROWN
CITY CLERK:	LORI WERDEN
CITY TREASURER:	TERRI KIEF
CITY ALDERMEN:	HERB WYETH DEAN TAMBLING ALEX CLUBB JIM BLACK JAKE DUVICK JULIAN HOUSTON CARRIE HALL SARAH METTILLE

SURVEYOR / ENGINEER:

CHAMLIN & ASSOCIATES, INC.
4152 PROGRESS BLVD
PERU, IL. 61354
PHONE: (815) 223–3344
FAX: (815) 223–3348

THIS PROJECT IS FUNDED WITH FEDERALLY SOURCED FUNDS AND IS SUBJECT TO THE BUILD AMERICA, BUY AMERICA (BABA) ACT. COMPLIANCE WITH THE ACT IS REQUIRED FOR ALL EQUIPMENT AND MATERIALS USED.



SECTION BALLON DETAIL

CALL JULIE TOLL FREE 1–800–892–0123

5.1.2026 date
JORGE L. SANCHEZ
LICENSED PROFESSIONAL ENGINEER NO. 062–055412
STATE OF ILLINOIS
expires 11–30–2027
signature
PROFESSIONAL DESIGN FIRM LICENSE NO. 184–001717

5/1/26 date
LICENSED PROFESSIONAL ENGINEER
ROSS T. BAKER 062–075313
OF ILLINOIS
expires 11–30–2025
signature
PROFESSIONAL DESIGN FIRM LICENSE NO. 184–001717

Chamlin & Associates

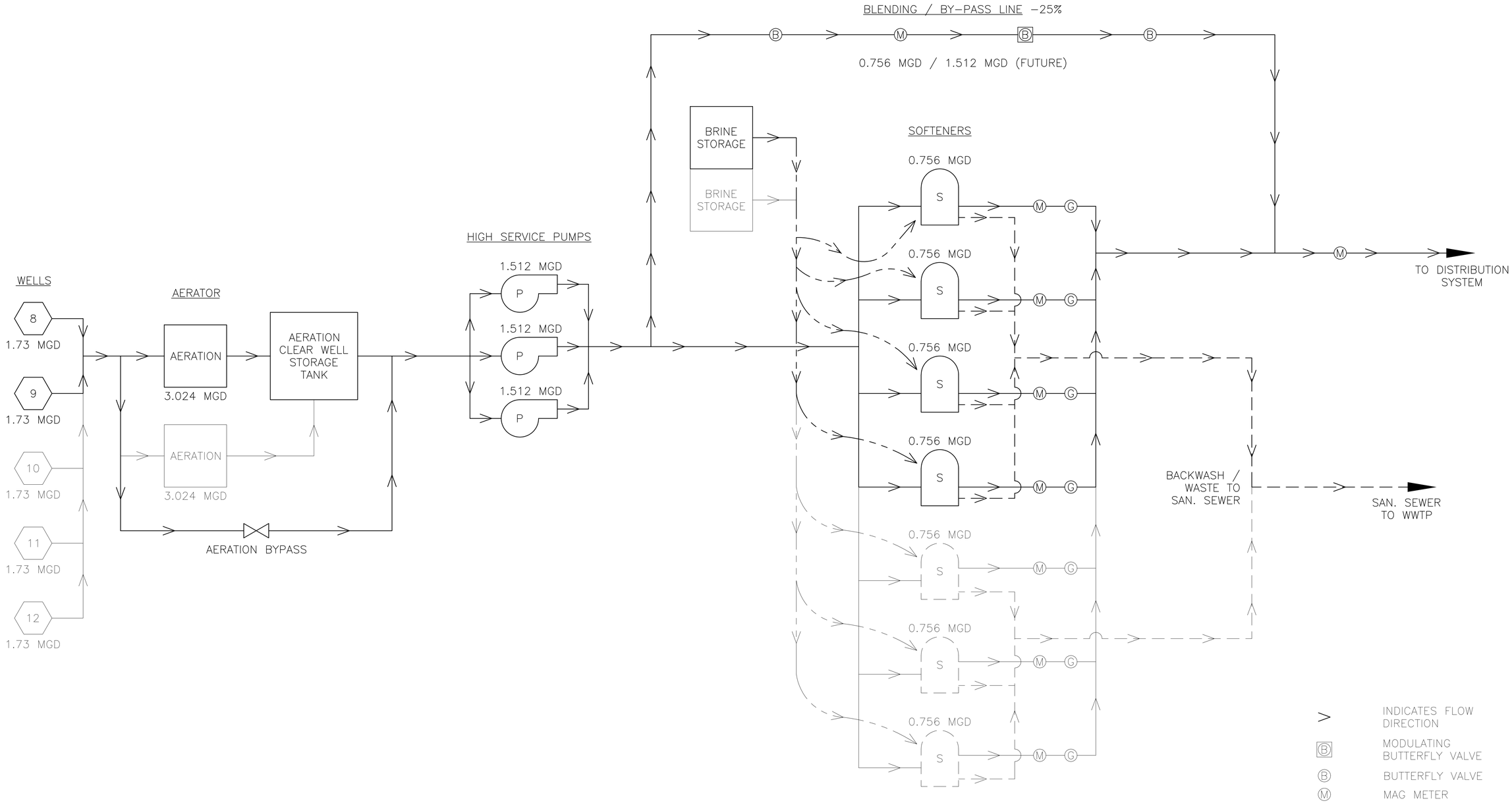
PERU MORRIS
OTTAWA
ILLINOIS

DRAWN BY: JJC	REVISIONS				
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	
DATE: 10/2023					

BIDDING PLANS

CURRENT AS OF: 05/01/2026		
SCALE: AS NOTED	SHEET	1
FILE NO.: 9818.02 Y–	OF	84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\JV\9818-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\001-COVER.dwg Last Modified: Thursday, April 30, 2026 2:13:06 PM Plotted On: Thursday, April 30, 2026 3:40:18 PM by Jonathon Covert



CHAMLIN & ASSOCIATES, INC. © 2023
Drawing Name: C:\Users\VJB\18-25-Morris - New Water Treatment Plant - Design\CAD\NEW WM-PLANS (WORK HERE)\002-FLOW SCHEMATIC.dwg Last Modified: Wednesday, April 22, 2026 11:46:49 AM Plotted On: Friday, May 1, 2026 8:39:24 AM by Faith Pack

DRAWN BY: JJC	REVISIONS			PERU MORRIS	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026	FLOW SCHEMATIC	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	OTTAWA			SCALE: AS NOTED	SHEET 2
DATE: 03/2021					ILLINOIS			FILE NO.: 9818.02 Y-	OF 84

Chamlin & Associates

GENERAL NOTES:

All elevations shown on plans are referenced to North American Vertical Datum of 1988 (NAVD88). All coordinates are NAD 83 State Plane – Illinois East Zone.

The Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction" and Supplemental Specifications and Recurring Special Provisions (latest edition) and the "Standard Specifications for Water and Sewer Construction in Illinois" (latest edition) shall govern applicable portions of this project.

It shall be the responsibility of the Contractor to examine the Plans and Specifications, visit the work site, be informed of the work involved, be informed of federal, state, and local laws, local code requirements, ordinances, rules and regulations, and any other items which may affect the cost and/or time to complete the project. It is the Contractor's responsibility to notify the Engineer should any discrepancies be noticed between the Plans, Specifications, or work site.

The location of existing underground or overhead utilities if shown on the Plans is for the convenience of the Bidder only. The Owner and/or Engineer assumes no responsibility whatsoever with respect to the accuracy or completeness of the information shown. It shall be the responsibility of the Contractor to determine the actual location of all such utilities.

The Contractor shall be responsible for the proper protection of all existing public or private roadways, structures, and utilities prior to the start of construction and shall be responsible for any damage to said roadways, structures, and utilities. Any roadway, structure, or utility that is damaged during construction shall be repaired or replaced by the Contractor at the Contractor's expense.

All field tile lines encountered during construction shall be routed around the site, repaired by the contractor to the satisfaction of the engineer (incidental). The location, depth, and size of any encountered filed tile shall be recorded on the as-built plans.

The Engineer and Owner are not responsible for the construction means, methods, techinques, sequences of procedures, time of performance, programs or for any safety precautions used by the contractor. The contractor is solely responsible for the execution of his/her work in accordance with the contract document and specifications.

When survey control points are set by the Engineer to establish the horizontal and vertical control required for the construction of the various contract items of work, the Engineer shall be responsible for the accuracy of the control points set. The Contractor shall assume full responsibility for all measurements taken or derived by the Contractor from control points set by the Engineer.

The Contractor shall protect and preserve all control points or reference stakes set by the Engineer. Should the Contractor disturb any control point or reference stake without the prior approval of the Engineer, the Engineer may deduct the direct engineering cost incurred in the re-establishment of the control point or reference stake from compensation due the Contractor.

When the owner employs multiple contractors, each contractor shall conduct his/her work so as to not interfere with or hinder the progress or completion of the work being performed by other contractors and/or utility companies. Each contractor shall assume all liability, financial or otherwise, in connection with his/her contract and shall protect and hold harmless the owner and engineer from any and all damages or claims that may arise due to inconvenience, delay, or loss experienced by the contractor caused by the presence and operation of other contractors and/or utility companies working within the limits of the project.

Traffic control shall be in accordance with applicable portions of the Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction" and Supplemental Specifications and Recurring Special Provisions (latest edition) and the latest edition of the "Illinois Manual for Uniform Traffic Control for Streets and Highways". The Contractor shall be solely responsible for use of appropriate Illinois Department of Transportation Highway Standards pertaining to traffic control for the entire duration of the project and solely liable for any accidents, which may occur due to inadequate traffic control.

Unless otherwise provided, traffic control shall be considered incidental to the contract.

All public roadways shall remain open throughout the project unless prior consent is granted by the Illinois Department of Transportation, Grundy County, and/or City of Morris for any Contractor-requested roadway closures. The Contractor shall make arrangements or schedule work so that access to properties within the work site is maintained at all times.

Should hazardous materials be encountered during construction, the Contractor shall immediately notify the Owner or Owner's Representative.

All clean construction demolition debris (CCDD) certification/disposal (if required) shall be the responsibility of the Contractor.

When requested by the Owner, the Engineer shall provide construction inspection to ascertain the work is in substantial conformance with the Contract Documents and with the design intent. The Engineer's undertaking shall not relieve the Contractor from the Contractor's obligation to perform work in conformity with the Plans and Specifications and in a workmanlike manner, shall not make the Engineer an insurer of the Contractor's performance; and shall not impose upon the Engineer any obligation to ensure that the work is performed in a safe manner. The Contractor shall be totally responsible for safety for this project.

The Contractor shall record the vertical and horizontal locations of all pipe bends, valves, manholes, sewer service taps and all additional information necessary for the preparation of "As Constructed" plans. The "As Constructed" plans will be prepared by the Owner or Owner's Representative.

Before acceptance and subsequent final payment, all work shall be inspected and approved by the owner or his representative. Final Payment shall be made only after all of the contractor's work has been approved and inspected.

Where existing utility poles are located in close proximity to excavation work, it shall be contractor's responsibility to make arrangements with the owner of the pole to either brace or relocate the pole prior to excavation work proceeding near the pole.

Handicap parking stalls shall have pavement marking and signage that meets the specifications identified in the Illinois Accessibility Code, latest addition.

STORED MATERIALS AND EQUIPMENT

Construction materials and equipment shall not be stored or parked on public streets or alleys. During any material or equipment loading or unloading activities that may temporarily interfere with traffic, an acceptable detour or applicable traffic control practice per IDOT Standards shall be provided for the duration of the activity.

Excavated material, including suitable material that is intended for adjacent trench backfill or other earth backfill shall not be stored on public streets or alleys. Any waiver from this requirement must be obtained from the City of Morris and approved by the engineer. All excess and unsuitable material shall be removed from the site as soon as possible. Any spillage shall be removed from public roadways, streets, highways, and alleys before they are used by the public, at no additional cost.

The storage of materials shall comply with Article 106.06 of the Standard Specifications for Road and Bridge Construction and applicable section within Standard Specifications for Water and Sewer Main Construction in Illinois. Permissible stockpiled material must be properly protected at the direction of the Engineer, at no additional cost.

The storage of materials and equipment shall be considered INCIDENTAL to the contract, and no additional compensation will be allowed.

SANITARY PROVISIONS

Provide, pay for, and maintain temporary sanitary facilities and enclosures for the use by construction personnel. Provide facilities at time of project mobilization.

The cost of the above described work shall be considered INCIDENTAL to the contract, and no additional compensation will be allowed.

SUBMITTALS

Following issuance of the Notice to Proceed and prior to ordering project materials, Contractor shall submit product data to the Engineer for all major products to be incorporated into the work including but not limited to the following:

- Precast Concrete structures
- Concrete and HMA mix designs
- Course and fine aggregates
- Pipe and tubing
- Fittings, valves, valve boxes, hydrants, and accessories
- Castings

See Technical Specification Book for additional required submittals.

Contractor shall also submit a project progress schedule and a listing of all subcontractors to be used on the project.

Materials shall not be purchased or delivered to the jobsite until the submittals are approved by the Engineer.

PROGRESS CLEANING AND WASTE REMOVAL

Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.

Collect and remove waste materials, debris, and rubbish from site weekly and dispose off-site.

The Contractor will be required to provide daily site cleaning of all streets, sidewalks, and driveways impacted by construction activities.

The cost of the above described work shall be considered INCIDENTAL, included in the contract, and no additional compensation will be allowed.

BARRIERS, ENCLOSURES, AND FENCING

At the end of the construction day, the Contractor will be required to enclose the active construction site (specifically, any open excavations) with, at a minimum, plastic construction netting (i.e. snow fence). The use of a combination of cones, barrels, barricades, caution tape, etc. as the primary enclosure method is not acceptable. Some form of fencing MUST be installed.

Provide barriers to protect vehicular traffic and stored materials from potential damage.

The cost of the above described work shall be considered INCIDENTAL, included in the contract, and no additional compensation will be allowed.

EROSION CONTROL

Soil erosion and sediment control shall be in accordance with applicable portions of the Illinois Urban Manual, latest edition.

Provisions shall be made to minimize the transport of sediment by vehicular traffic from the construction site. All public streets shall be cleaned daily or as directed by the city representative to keep clean of sediment and debris caused by construction activities. Adjacent properties shall be protected from sediment deposition by use of an acceptable erosion control practice such as vegetative buffer strips or sediment barriers. Should an erosion control item not be included as a Bid Item or not be addressed per Special Provision and be determined necessary by the Engineer, those items will be paid for at a pre-approved unit price.

For construction sites with one (1) acre or more of disturbance, all Contractors and Sub-Contractors will be required to certify a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP, if necessary, and all permits pertaining to soil and erosion control will be prepared and submitted by the Owner/Engineer.

It will be the Contractor/Sub-Contractor's responsibility to implement and follow the SWPPP.

Installation, maintenance, and removal of erosion control devices shall be paid for at the lump sum price for erosion control. Contractor shall employ all erosion control devices as shown on the plans, applicable IDOT Roadway Standards, and applicable Illinois Urban Manual Standards. A temporary concrete washout facility shall be constructed as depicted on the plan if concrete trucks will wash out at the work site.

It will be the Contractor/Sub-Contractor's responsibility to implement and follow the SWPPP.

A copy of the Notice of Intent and/or NPDES Permit along with the associated SWPPP shall be provided to The City of Morris.

EARTHWORK

Earth excavation and transportation of suitable materials to embankment locations throughout the limits of the contract, or the excavation, transportation, and disposal of excavated materials shall be done in accordance with IDOT Standard Specifications 202. Furnished excavation, if required, shall consist of excavating suitable materials from a approved location and transporting the materials to various locations throughout the limits of the contract in accordance with IDOT Standard Specifications 204.

This work shall also include excavating and placing topsoil in accordance with IDOT Standard Specifications 211. All disturbed areas not paved or landscaped shall receive 6 inches of top soil. Skinned infields where identified within the plans shall not receive topsoil. Topsoil excavating and placement shall be considered INCIDENTAL, included in the unit bid prices of the contact and no additional compensations will be allowed.

TRENCH BACKFILL

This work shall consist of furnishing aggregate for backfilling all trenches made in the subgrade of a proposed hardscape improvement, and all trenches where the inner edge of the trench is within 2 ft of a proposed hardscape improvement per IDOT Standard Specifications 208. Backfilling with selected granular materials shall be in accordance with Section 550.07 of the IDOT Standard Specifications, method 1 or 3. When trench backfill is used with method 1, lifts shall not exceed 6 inches in depth, loose measurement, and each lift shall be compacted to 90 percent standard lab density by mechanical means. Controlled low-strength material in lieu of granular trench backfill shall NOT be accepted. The following list shall be acceptable granular materials for trench backfill:

- Course Aggregates: CA–6, CA–7, CA–9, CA–10, CA–11 and CA–18
- Fine Aggregates: FA–1, FA–2, FA–5, FA–6, FA–10, and FA–21

Where earth backfill is to be used in trenches more than 2 feet away from existing or proposed hardscapes, the requirement to adhere to one of the backfilling methods listed in Section 550.07 of the IDOT Standard Specifications. Where excavated material is used as trench backfill, no payment for trench backfill will be made and shall be considered INCIDENTAL, included in the unit bid prices of the contract, and no additional compensation will be allowed.

Backfilling for water service lines, whether with selected trench backfill materials or earth backfill, shall not be done in freezing weather nor made with frozen materials.

TOPSOIL EXCAVATION AND PLACEMENT

This work shall also include excavating and placing topsoil in accordance with IDOT Standard Specifications 211. All disturbed areas not paved or landscaped shall receive a minimum of 4 inches of top soil.

All farm areas to be disturbed shall have the entirety of the existing agricultural top soil excavated (18"–24"). Topsoil excavating and placement shall be considered INCIDENTAL, included in the contact and no additional compensations will be allowed.

LANDSCAPE RESTORATION

All disturbed areas not paved or landscaped shall receive seeding, fertilizer nutrients and mulch. Seeding shall be IDOT Class 1A mixture in accordance with section 250 IDOT Standard Specifications. provide 1:1:1 ratio N–P–K fertilizer applied at a total rate of 270 pounds per acre. Mulch shall be Method 3, applied in accordance with Section 251 of the Roadway Specifications. On slopes 3H:1V and steeper, erosion control blanket shall be installed per IDOT Standard Specifications 251.04.

Disturbed areas shall include all bare soils as well as any areas that have been disturbed by incidental construction operations that will require regrading and/or interseeding. Topsoil shall be sourced from onsite temporary stockpile from regrading and excavations. Topsoil shall be placed in accordance with Sections 211 and 212 and seedbed shall be prepared in accordance with Section 250.

IDOT Class 1A Seed: Lawn Mixture

Ky Bluegrass	60 lb/acre
Perennial Ryegrass	20 lb/acre
Red Fescue (Audubon, Sea Link, or Epic)	20 lb/acre
Hard Fescue (Rescue 911, Spartan II, or Reliant IV)	20 lb/acre
Fults Salt Grass 1/ or Salty Alkaligrass	60 lb/acre

LANDSCAPE RESTORATION

All disturbed areas not paved or landscaped shall receive seeding, fertilizer nutrients and mulch. Seeding shall be IDOT Class 1A mixture in accordance with section 250 IDOT Standard Specifications. provide 1:1:1 ratio N–P–K fertilizer applied at a total rate of 270 pounds per acre. Mulch shall be Method 3, applied in accordance with Section 251 of the Roadway Specifications. On slopes 3H:1V and steeper, erosion control blanket shall be installed per IDOT Standard Specifications 251.04.

Disturbed areas shall include all bare soils as well as any areas that have been disturbed by incidental construction operations that will require regrading and/or interseeding. Topsoil shall be sourced from onsite temporary stockpile from regrading and excavations. Topsoil shall be placed in accordance with Sections 211 and 212 and seedbed shall be prepared in accordance with Section 250.

IDOT Class 1A Seed: Lawn Mixture

Ky Bluegrass	60 lb/acre
Perennial Ryegrass	20 lb/acre
Red Fescue (Audubon, Sea Link, or Epic)	20 lb/acre
Hard Fescue (Rescue 911, Spartan II, or Reliant IV)	20 lb/acre
Fults Salt Grass 1/ or Salty Alkaligrass	60 lb/acre

RIPRAP AND FILTER FABRIC

This work shall consist of furnishing and placing bedding materials, a protective course of stone or broken concrete laid as riprap, and installing geotechincal filter fabric on prepared earth surface were indicated on the plans in accordance with Section 281 through 282 of the IDOT Standard Specifications.

SUBGRADE PREPARATION

This work shall consist of preparing the completed earthwork as an unimproved subgrade prior to constructing pavement, structure, shoulders, or appurtenances according to IDOT Standard Specifications 301.

If required, construct aggregate subgrade improvement in accordance with Section 303 of the IDOT Standard Specifications, as added by adoption of BDE Special Provision #2 (80274). Crushed stone and crushed reclaimed asphalt pavement (RAP) may be used as allowed by the Specification Section. Aggregate placement shall be in lifts not to exceed 12". Capping layer shall be 3" thick and shall be CA–6 or CA–10.

The cost of the above described work shall be considered INCIDENTAL, included in the unit bid prices of the contract, and no additional compensation will be allowed.

AGGREGATE BASE COURSE

Areas that will receive PCC or curb and gutter shall have aggregate base course installed in accordance with details shown on the Plans. Prepare areas for base course in accordance with Section 301 of the IDOT Standard Specifications. Aggregate Base Course shall be installed in accordance with Section 351 of the IDOT Standard Specifications. Material allowed shall be either IDOT Gradation CA–6 or CA–10.

AGGREGATE SURFACE COURSE

This work shall consist of furnishing and placing one or more courses of aggregate upon a prepared subgrade where indicated on the plans in accordance with Section 402 of the IDOT Standard Specifications.

HOT–MIX ASPHALT BINDER AND SURFACE COURSE

Construct hot–mix asphalt binder and surface courses in accordance with Section 406 of the IDOT Standard Specifications and the pavement section details shown on the Plans.

MIXTURE USE (S)	HMA SURFACE	HMA LEVELING BINDER	TEMPORARY HMA SURFACE	HMA BASE COURSE
PG GRADE	SPS PG70–28	PG64–22	PG64–22	PG64–22
MAX % RAP/RAS ALLOWABLE**	10%	25%	15%	25%
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 9.5	IL 19.0	IL 9.5	IL 19.0
FRICTION AGGREGATE	MIXTURE C		MIXTURE C	
DENSITY TEST METHOD	NUCLEAR	SATISFACTION OF THE ENGINEER	NUCLEAR	SATISFACTION OF THE ENGINEER

** IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

PORTLAND CEMENT CONCRETE PAVEMENT

Construct reinforced portland cement concrete pavement in accordance with Section 420 of the IDOT Standard Specifications and the pavement section details shown on the Plans. Transverse joint dowel bars shall be in accordance with IDOT Standard Specs 1006.11. Refer to BLR 10–7 Standard for joint layout and spacing. Interrupt panel reinforcement at doweled joints. Welded Wire Reinforcement shall be in accordance with Section 420 and 1006.10 of the IDOT Standard Specifications.

Construct portland cement concrete driveways in accordance with Section 423 of the IDOT Standard Specifications and the details shown on the Plans.

Construct reinforced portland cement concrete sidewalks in accordance with Section 424 of the IDOT Standard Specifications and the sidewalk details shown on the Plans.

STANDARD APERTURE GEOGRID (TX5)

Areas that will receive portland cement concrete or hot mix asphalt pavement install Tensar TX5 or approved equal. Install in accordance with manufacturer instructions. Install 6" minimum aggregate overtop before driving over with mechanical equipment.

BARRIER CONCRETE CURB

Construct barrier concrete curb in accordance with Section 606 of the IDOT Standard Specifications and the details shown on the Plans. Install doweled ¾" expansion joints at 50–ft maximum centers. Dowel bars shall be in accordance with IDOT Standard Specs 1006.11.

DETECTABLE WARNING

This work shall consist of furnishing and placing a surface of truncated domes meeting accessibility standards in accordance with Section 424.09 of the IDOT Standard Specifications.

REMOVAL OF EXISTING PAVEMENT AND APPURTENANCES

This work shall consist of the complete removal of existing pavement, driveway pavement, combination curb and gutter, and sidewalk in accordance with Section 440 of the IDOT Standard Specifications. All existing pavement, including surface courses, base courses, stabilized subbases, and other appurtenances as listed above shall be completely removed as shown on the plans.

STORM SEWER & STRUCTURES

Storm sewer materials shall be to the size and material in accordance with Section 550/1040 of the Roadway Specifications and the Standard Specifications for Water and Sewer Construction in Illinois.

Installation of storm sewers and structures shall be in accordance with the IDOT Standard Specifications for Road and Bridge Construction, latest edition.

Reinforced concrete pipe with bell end and rubber gaskets in accordance with the applicable parts of Section 550 and 1056 of the Roadway Specifications unless otherwise noted. Pipe shall be Ty IV.

All storm sewer pipe, regardless of material type, shall be bedded with a minimum of 6" of crushed stone or rounded aggregate meeting the requirements of CA–5 or CA–7 gradation. The pipe shall be backfilled to at least the center of the pipe with the CA–5 or CA–7 aggregate material. The remainder of the trench shall be backfilled with select excavated material or trench backfill. All unsuitable or unstable material encountered shall be removed and replaced with bedding material meeting the requirements of these Special Provisions.

Drainage structures shall be in accordance with the applicable parts of Section 602 of the Roadway Specifications and Highway Standards.

All inlets shall be supplied with a frame and grate or grate as specified on the plans.

Concrete end sections shall be in accordance with Section 542 of the Roadway Specifications and Highway Standards.

Perform deflection testing on storm sewers in accordance with the Water and Sewer Specifications. Compaction testing in accordance with ASTM D1157, ASTM D698, AASHTO T180, ASTM D2922, and ASTM D3017. When tests indicate work does not meet specified requirements, remove work, replace, and retest.

WATER MAIN & WATER SERVICES

This work shall consist of constructing water mains and water services as shown on the Plans. See Technical Specifications Book for governing materials, standards, and performance requirements.

SANITARY SEWER & STRUCTURES

This work shall consist of constructing sanitary sewer and sanitary structures as shown on the Plans. See Technical Specifications Book for governing materials, standards, and performance requirements.

CHAIN LINK FENCE & GATE

This work shall consist of constructing chain link fence and gates as shown on the Plans. See Technical Specifications Book for governing materials, standards, and performance requirements.

TELESCOPING STEEL SIGN SUPPORT AND BASE

This work shall consist of furnishing and installing telescoping steel sign support for ground-mounted signs per Section 728 of the IDOT Standard Specifications. This work shall also include the furnishing and installing a base for a telescoping steel sign support per Section 731 of the IDOT Standard Specifications.

PAINT PAVEMENT MARKING

Install paint pavement lines and symbols as shown on the Plans and in accordance with Section 780 of the IDOT Standard Specifications. Paint shall be in strict compliance with Section 1095.02 of the IDOT Standard Specifications.

DEWATERING OPERATIONS

Dewatering operations, as required, shall be included as incidental to the cost of construction. See Technical Specifications Book for governing materials, standards, and performance requirements.

EXPLORATORY EXCAVATION

This work shall consist of excavating to locate buried objects or to investigate unknown conditions. All exploratory excavation shall be conduction prior to construction and ordering of materials.

STORM WATER MANAGEMENT FACILITY MAINTENANCE

The City of Morris and/or their assignee shall be responsible for the perpetual maintenance of the proposed storm water management system as shown within these plans. Confined spaces should never be entered without proper training and permits from occupational and safety regulatory agencies. A summary of maintenance activities has been provided below.

General

Regular inspections and routine maintenance of general areas shall be performed on a monthly or as-needed basis. Specific items of concern include:

- Litter and debris shall be controlled
- Landscaped areas shall be maintained with regular mowing and restored with appropriate seeding/vegetation as necessary.
- Accumulated sediment shall be disposed of properly, along with wastes generated during maintenance operations.
- Riprap areas shall be repaired with the addition of new riprap, as necessary, of similar size and shape.
- Roads and parking areas shall be swept, vacuumed and/or washed on a regular basis.

Storm Water Management Facilities

All components of the storm water management facilities shall be checked monthly between March and November and maintained as necessary to ensure proper performance. It is critical that all inflows and outflows to the detention facility are clean and performing as designed. In addition, the design volume of the detention facility shall also be maintained. Inspections for the following specific items should be conducted monthly between March and November:

- Side Slopes/Embankment/Emergency Overflow Structures: Inspect embankments for settlement and erosion, remove any woody growth. Seed and sod eroded areas identified during inspection. Remove obstructions blocking emergency overflow spillway. Hire professional engineer for any embankment breaks for design resolution.
- Vegetated Areas: Regular mowing to control vegetation. Supplement alternative native vegetation if a significant portion has not established (50% of surface area). Reseed with alternative grass species if original grass cover has not successfully established. Check for invasive vegetation, remove where possible. Repair any evidence of grazing, motorbikes, or other vehicles.
- Outlet Control Structure: Inspect restrictor and remove debris if clogged or discharge reduced. Verify condition of trash rack, remove debris as necessary. If trash rack is damaged repair and/or replace. Inspect outlet at downstream end section for erosion and damages, repair and reseed as required. Repair any structural damage to outlet pipes. Repair and reseed any scour or erosion at outlet pipe.
- Detention Volume: Inspect all storm water detention facilities to ensure that the constructed volume for detention is maintained. No sediment, topsoil, or other dumping into the facility shall be allowed.

Storm Water Collection System

Routine inspections shall be performed monthly of all storm water collection systems. The monthly inspection shall occur between March and November and include the following specific areas of concern:

- Storm Inlets/Manholes: Remove accumulated leaves and other debris from grates. Reset covers on as–needed basis. Remove accumulated sediment from bottom of manholes.
- Storm Sewer/Culverts: Visually inspect pipes by removing manhole lids and/or inlet grates, make repairs as necessary. Check for siltation deposits at inlets, outlets, and within the conduit, clean out as necessary. Restore riprap at outfalls if erosion is observed. Replant and reseed any eroded areas.
- Overland Flow Routes: Remove any obstructions that have been placed within drainage paths. Seed and sod eroded areas. Restore damaged or eroded riprap at drainage path outlets. Mow regularly during growing season. Regrade to provide positive drainage as necessary.

Vegetated Areas

- Need for planting, reseeding, or sodding: Supplement alternative native vegetation if a significant portion has not established (50% of the surface area after second growing season). Reseed with alternative grass species if original grass cover has not successfully established. Remove any invasive vegetation. Mow regularly during growing season. Reseed dead or damaged grassy areas with seeding and mulch. Repair any evidence of grazing, motorbikes, or other vehicles.

LEGEND

	EXISTING LOT LINE
	EXISTING RIGHT–OF–WAY
	PROPOSED EASEMENT
	PROPOSED TEMPORARY CONSTRUCTION EASEMENT
x	EXISTING FENCE
	EXISTING CULVERT
G	EXISTING GAS PIPELINE
	EXISTING STORM SEWER
C	EXISTING SANITARY SEWER
	EXISTING TOP/TOE OF SLOPE
FO	FIBER OPTIC
W	EXISTING WATER MAIN
W	PROPOSED WATER MAIN/SERVICE
C	PROPOSED SANITARY SEWER
FM	PROPOSED FORCE MAIN
S	PROPOSED SILT FENCE
	PROPOSED STORM SEWER
RW	PROPOSED RAW WATER MAIN
UE	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED UTILITY MARKER
XXX	EXISTING CONTOUR
	EXISTING UTILITY POLE
	EXISTING GUY WIRE
	EXISTING CATCH BASIN
	EXISTING TELEPHONE BOX
	EXISTING WATER VALVE
	EXISTING SIGN/MARKER
GA	EXISTING GAS VALVE
GP	EXISTING GATE POST
W	EXISTING WATER VALVE
W	EXISTING WELL
CONC	CONCRETE
AGG	AGGREGATE
HMA	ASPHALT

	DRIVEWAY REMOVAL AND REPLACEMENT
	PROPOSED WATER SERVICE SHUT OPF
	EXISTING WATER SERVICE SHUT OFF
	PROPOSED PIPE BOLLARD
	PROPOSED MANHOLE
	EXISTING MANHOLE
	PROPOSED FIRE HYDRANT
	PROPOSED WATER SHUT OFF VALVE
	PROPOSED REDUCER
	EXISTING FIRE HYDRANT
	EXISTING WATER SHUT OFF VALVE
	PROPOSED INLET OR CATCH BASIN
	EXISTING INLET OR CATCH BASIN

BENCHMARKS:

BM 400 – R.R. SPIKE IN POWER POLE FACING WEST 2ND POWER POLE SOUTH OF ENTRANCE NEAR WELL 9 EAST SIDE OF IL – 47

ELEV = 581.29

BM 401 – R.R. SPIKE IN POWER POLE FACING WEST 1ST POWER POLE NORTH OF ENTRANCE NEAR WELL 9 EAST SIDE OF IL–47

ELEV = 584.93

BM 402 – CHISELED SQUARE ON NORTH WEST WINGWALL OF BRIDGE OVER CREEK

ELEV = 574.38

BM 403 – R.R. SPIKE IN POWER POLE FACING WEST 1ST POWER POLE SOUTH OF SARATOGA TOWNSHIP BLDG. EAST SIDE OF IL – 47

ELEV = 562.77

BM 404 – CHISELED SQUARE ON SOUTH WEST WINGWALL OVER CREEK WEST SIDE OF RUN – WAY

ELEV = 564.38

BM 405 – CHISELED "X" ON NORTH WEST CORNER OF WINGWALL OVER CREEK WEST OF RUN – WAY

ELEV = 564.47

BM C – CHISELED SQUARE ON SOUTH WEST WINGWALL OF BRIDGE OVER THE CREEK

ELEV = 573.23

BM D – CHISELED "X" ON SOUTHBOUND IL – 47 SHOULDER BETWEEN THE 6TH AND 7TH CATCH BASIN NORTH OF NELSON RD

ELEV = 566.63

APPLICABLE IDOT HIGHWAY & ILLINOIS URBAN MANUAL STANDARDS

TEMPORARY EROSION CONTROL SYSTEMS	280001–07
PAVEMENT JOINTS	420001–10
PRECAST REINFORCED CONCRETE FLARED END SECTIONS	542301–03
INLET TYPE A	602301–04
INLET TYPE B	602306–03
PRECAST MANHOLE TYPE A 6 FT	602406–11
PRECAST REINFORCED CONCRETE FLAT SLAP TOP	602601–06
MANHOLE STEPS	602701–02
FRAME AND LIDS TYPE 1	604001–05
CONCRETE CURB TYPE B	606001–09
CHAIN LINK FENCE	664001–02
TRAFFIC CONTROL DEVICES	701901–08
TELESCOPING STEEL SIGN SUPPORT	728001–01
BASE FOR TELESCOPING STEEL SIGN SUPPORT	731001–01
TYPICAL PAVEMENT MARKINGS	780001–05
DITCH CHECK (MANUFACTURED)	IUM–514
EROSION CONTROL BLANKET	IUM–530
INLET PROTECTION – PAVED AREAS, DROP PROTECTION	IUM–561D
SILT FENCE PLAN	IUM–620A
SILT FENCE, SPLICING TWO FENCES	IUM–620B(W)
SILT FENCE WITH WIRE SUPPORT	IUM–620A(W)
SOIL STOCKPILE	IUM–627
STABILIZED CONTRUCTION ENTRANCE PLAN	IL–630
TEMPORARY CONCRETE WASHOUT	IUM–654

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\VJV\18-02-Morris New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\003-GENERAL NOTES.dwg Last Modified: Wednesday, April 29, 2026 8:20:34 AM Plotted On: Friday, May 1, 2026 8:40:47 AM by Faith Peck

DRAWN BY: JJC
CHECKED BY: RTB
DATE: 03/2021

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

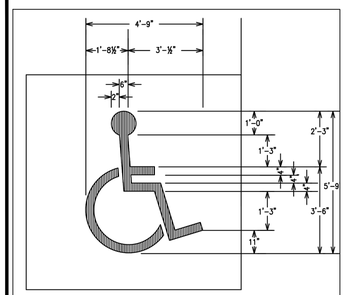
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

GENERAL NOTES

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 3
FILE NO.: 9818.02 Y–
OF 84



HANDICAP SYMBOL DETAIL

ILLINOIS STANDARD
R7-I101P

COLOR	LEGEND AND BORDER	GREEN	REFLECTORIZED
	BACKGROUND	WHITE	REFLECTORIZED

SIGN SIZE	DIMENSIONS				
	A	B	C	D	E
12 X 6	12.00	6.00	1.50	10.00	4.25

SIGN SIZE	SERIES BY LINE	MARGIN	BORDER
	1		
12 X 6	2.5 B	0.375	0.438

All dimensions in inches. Sign not to scale.

Where a fine in excess of $250 is established by an agency in accordance with the statutes, the actual amount of the fine should be shown.

This plate may be mounted directly below the R7-8 sign or combined with that sign on a single 12 inch by 24 inch sign (R7-I101).

Figure 502.6 (b)
Parking Fine Sign

Accessible Parking Signs (for parking lots subject to the Illinois Vehicle Code) shall comply with the R 7-8 sign shown in figure 502.6(a) (U.S. Department of Transportation Standard). Existing signs may remain, but their useful lives shall not be extended by other means than normal maintenance.

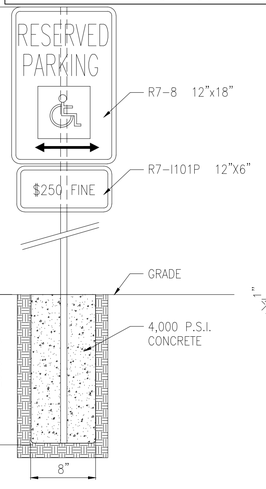
R7-8 NO PARKING

Legend and Border—Pantone 340C
International Symbol of Accessibility—White on Pantone 286 Background
Background—White
Reduce Spacing 80%

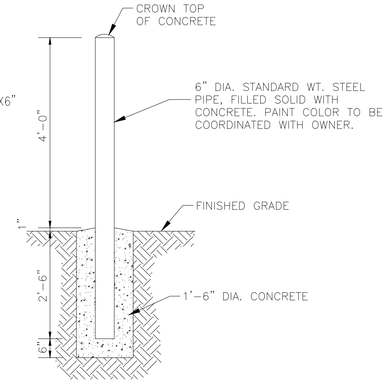
Note:
This is a standard sign and may be ordered from any traffic sign supplier by number.
The arrow may be
- *Omitted if there is only one accessible space.*
- *Made to point in one direction.*
- *Replaced by a range of time such as "9 AM-5 PM" where a part-time restriction exists.*

The sign must be supplemented with the Illinois Standard R7-I101 plate showing the amount of the fine for illegally parking in the reserved accessible space(s).

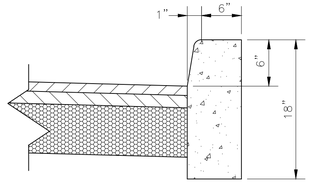
Figure 502.6 (a)
Parking Sign



HANDICAP PARKING SIGN DETAIL
NOT TO SCALE



PIPE BOLLARD
N.T.S.



TYPE B-6 CONCRETE CURB
NOT TO SCALE

CURB GENERAL NOTES

THE BOTTOM SLOPE OF CURB CONSTRUCTED ADJACENT TO PCC SHALL BE THE SAME SLOPE AS SUBBASE WHEN SUBBASE IS OMITTED.

t = THICKNESS OF PAVEMENT.

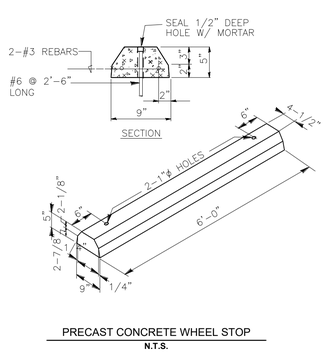
LONGITUDINAL JOINT TIE BARS SHALL BE NO. 6 (NO. 19) AT 36 (900) CENTERS IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON IDOT STANDARD 420001.

A MINIMUM CLEARANCE OF 2 (50) BETWEEN THE END OF THE TIE BAR AND THE BACK OF THE CURB SHALL BE MAINTAINED.

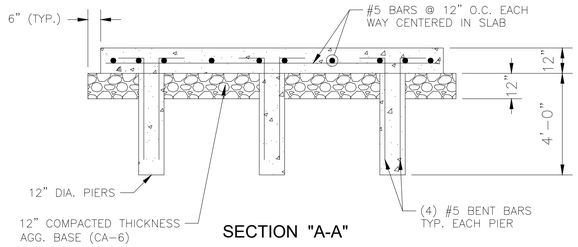
THE DOWEL BARS SHOWN IN CONTRACTION JOINTS WILL ONLY BE REQUIRED FOR MONOLITHIC CONSTRUCTION.

SEE IDOT STANDARD 606301 FOR DETAILS OF CORNER ISLANDS.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

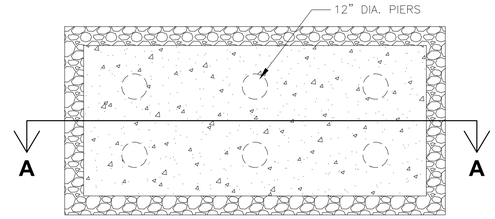


PRECAST CONCRETE WHEEL STOP
N.T.S.

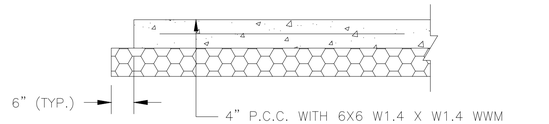


SECTION "A-A"

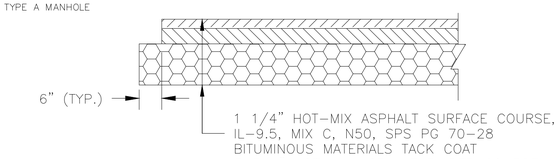
GEN. SET (G-1) BASE DETAIL
N.T.S.



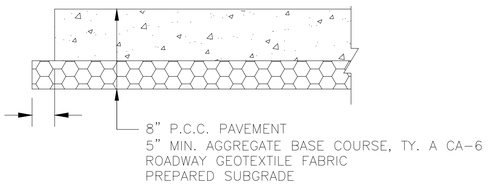
GEN. SET (G-1) BASE DETAIL (TOP VIEW)
N.T.S.



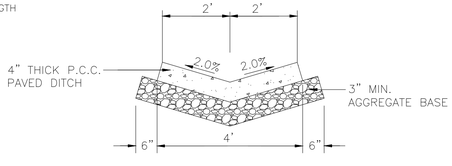
P.C.C. SIDEWALK SECTION
N.T.S.



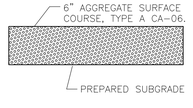
HOT - MIX ASPHALT TYPICAL SECTION
N.T.S.



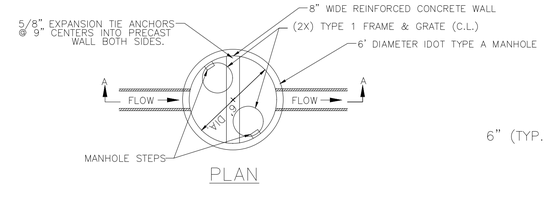
P.C.C. PAVEMENT SECTION
N.T.S.



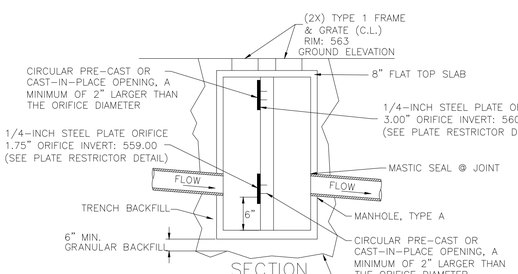
PAVED DITCH DETAIL
NOT TO SCALE



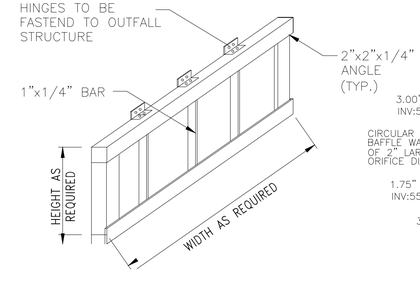
AGGREGATE SURFACE COURSE
NOT TO SCALE



PLAN



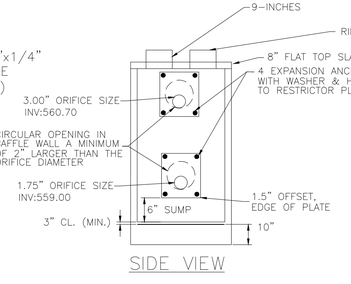
SECTION A – A



1. TRASH GRATE FRAME TO BE FABRICATED OF 2"X2"X1/4" STEEL ANGLE AND WELDED TOGETHER
2. VERTICAL BARS SHALL BE 1"X1/4" STEEL BARS.
3. ALL CUTS SHALL BE SAW CUTS.
4. TRASH RACKS SHALL BE HOT DIPPED GALVANIZED.
5. TRASH RACKS SHALL BE ATTACHED TO STRUCTURE USING 1/2" DIAMETER ANCHOR BOLTS @ MIN 6" SPACING. BOLTS AND HARDWARE TO BE STAINLESS STEEL.
6. ALL HOLES FOR BOLTS SHALL BE 1/16" LARGER THAN BOLT DIAMETER.
7. WIDTH AND HEIGHT OF TRASH RACK TO BE AS REQUIRED.
10. TRASH RACKS TO BE HINGED FOR CLEANING PURPOSES

OUTLET STRUCTURE	OPENING	HEIGHT	WIDTH	BAR SPACING
OCS #1	1.75" ORIFICE	10.5"	10.5"	1.5"
OCS #1	3.00" ORIFICE	10.5"	10.5"	1.5"

ORIFICE TRASH RACK DETAIL
N.T.S.



SIDE VIEW

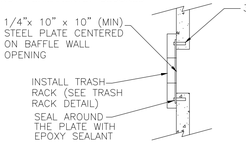
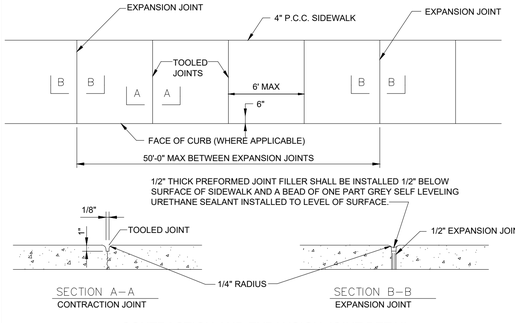


PLATE RESTRICTOR SECTION

NOTES:
1. STRUCTURE AND BAFFLE WALL FABRICATED USING REINFORCED PORTLAND CEMENT CONCRETE.
2. PROVIDE SNOUT TRASH RACK ON BAFFLE WALL'S OUTLET ORIFICE.
3. BAFFLE WALL PERMANENTLY INSTALLED AS PRECAST OR CAST-IN-PLACE
4. CAUTION: 1/4-INCH STEEL PLATE DIMENSIONS TO BEST FIT PROPOSED STRUCTURE.
5. ANCHOR EMBEDMENT SHALL BE 3-INCHES MINIMUM.

OUTLET CONTROL STRUCTURE
N.T.S.



CONTRACTION AND EXPANSION JOINT DETAIL
SCALE: NTS

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\RTB\Desktop\Morris - New Water Treatment Plant - Design\CAD\NEW-WM-PLANS (WORK HERE)\004-GENERAL DETAILS (1 OF 2).dwg Last Modified: Thursday, April 30, 2026 4:48:59 PM Plotted On: Friday, May 1, 2026 8:41:54 AM by: Faith Peck

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 03/2021				

Chamlin & Associates

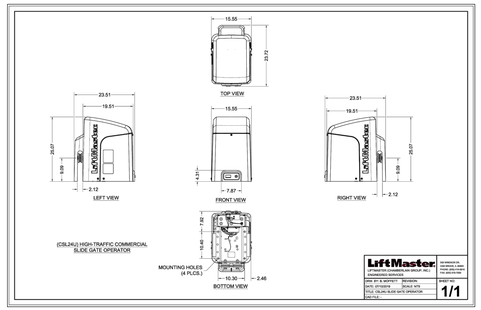
PERU MORRIS
OTTAWA
ILLINOIS

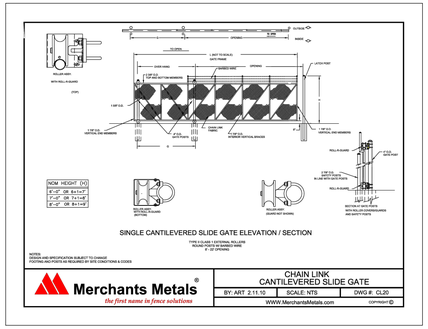
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

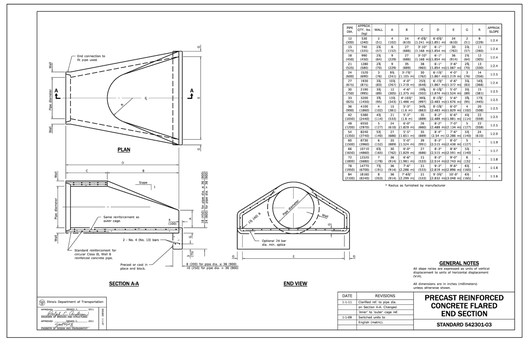
GENERAL DETAILS
(1 OF 2)

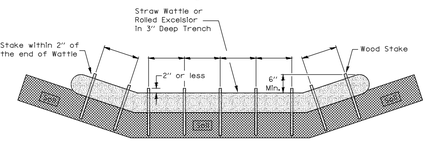
BIDDING PLANS

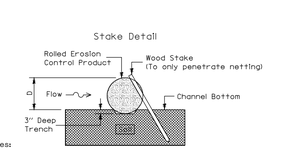
CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 4
FILE NO.: 9818.02 Y-
OF 84





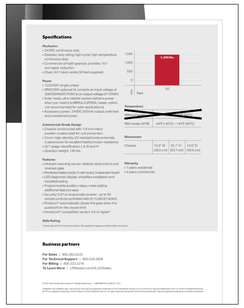






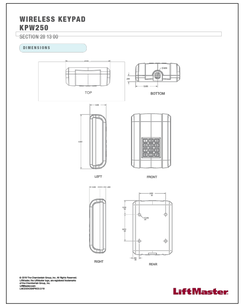
ROLLED DITCH CHECK DETAIL

ILLINOIS URBAN MANUAL DRAWING IUM-514



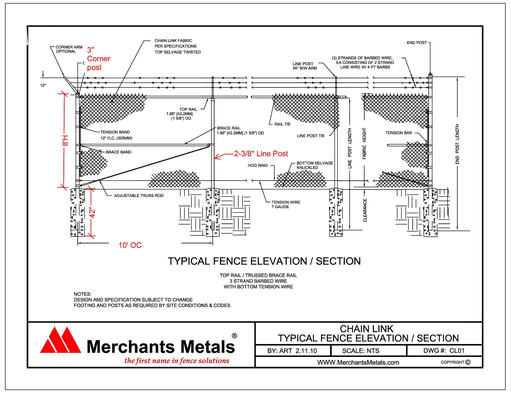
SLIDE GATE OPERATOR DETAIL (OR APPROVED EQUAL)

N.T.S.



ENTRANCE GATE KEYPAD DETAIL (OR APPROVED EQUAL)

N.T.S.



ENTRANCE GATE DETAIL (OR APPROVED EQUAL)

N.T.S.

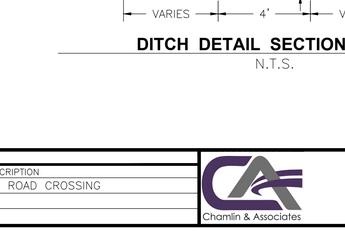
GETTING STARTED WITH SWING AND SLIDE GATE OPERATOR.

Always design, install and maintain safe gate access systems in accordance with UL 325 & ASTM F2200 standards.

- Only install the operator on gates used for vehicular traffic.
- A separate pedestrian entry/exit must be clearly visible to promote pedestrian usage and located so pedestrians do not come in contact with the vehicular gate while it is moving.
- Install two independent' entrapment protection devices protecting each entrapment zone.
- Pickets of a slide gate must be designed or screened to prevent persons from reaching through, or passing through a gate.
- Every Installation is unique. It is the responsibility of the installer to ensure all entrapment zones are protected with a minimum of two independent' entrapment protection devices.
- Beginning August 1, 2018, for a slide gate operator to function, the operator will require a minimum of two independent' monitored safety entrapment protection devices in each direction: two in the open direction, two in the close direction.

'Independent the same type of device shall not be utilized for both entrapment protection devices.

SLIDE GATE SITE LAYOUT GUIDELINES FIGURE 1



SLIDE GATE SPACING GUIDELINES FIGURE 2

Slide Gate Gaps
A gap, measured in the horizontal plane parallel to the roadway, between a fixed stationary object nearest the roadway (such as a gate support post) and the gate frame when the gate is in either the fully open position or the fully closed position, shall not be less than 4" (100 mm). Openings to stationary objects greater than 16 in. from the gate frame shall not be required to comply with this section. Any gap must be protected. Install safety device to protect draw in zone.

SLIDE GATE OPENINGS GUIDELINES FIGURE 3

Openings of a horizontal slide gate must be smaller than 2 1/4" or else be guarded or screened. These design rules apply to both the moving gate as well as the portion of adjacent fence that the gate covers in the open position. See illustrations below.

SWING GATE SITE LAYOUT GUIDELINES FIGURE 4

Base of Swing and Slide Gate FIGURE 5

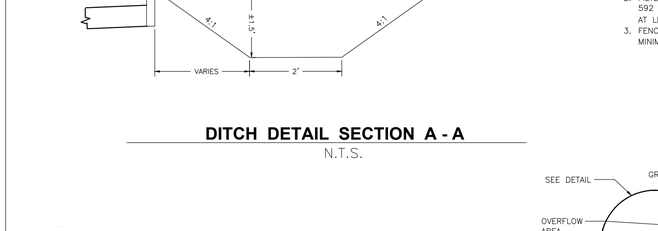
All Gates must have smooth bottom edges, no protrusions should exist. If gate hardware or sensors protrude, they must have smooth surfaces free of any sharp cutting edges that do not exceed ½ inch beyond the base of the gate.

Definitions
Entrapment: The condition when a person is caught or held in this confined area, which increases the risk of injury.
Slide Gate Entrapment Zones: An entrapment zone exists if at any point during travel, the gap between the moving gate and fixed counter opposing edges or surfaces is less than 406 mm (16") in a location up to 1.8 m (6ft.) above grade.

Slide Gate Entrapment Zones: Locations between a moving gate or moving, exposed operator components and a counter opposing edge or surface where entrapment is possible up to 1.8m (6 ft) above grade. Such locations occur if during any point in travel: a) The gap between the bottom of a moving gate and the ground is greater than 101.6mm (4 in) and less than 406mm (16 in); or b) The distance between the center line of the pivot and the end of the wall, pillar, or column to which it is mounted when in the open or closed position exceeds 101.6mm (4 in). Any other gap between a moving gate and fixed counter opposing edges or surfaces or other fixed objects is less than 406mm (16 in) (examples are walls, curbs, berms, or other immovable objects).

The above examples are two of many installation possibilities and are for illustration purposes only.
See device and operator manuals for complete instruction.
Visit DAMSA.com for more information.

LiftMaster

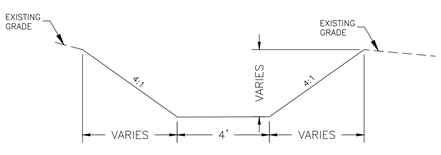


POND TYPICAL SECTION

N.T.S.

DITCH DETAIL SECTION A - A

N.T.S.

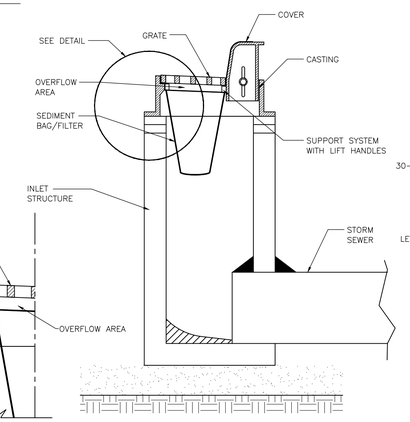


DITCH DETAIL SECTION B - B

N.T.S.

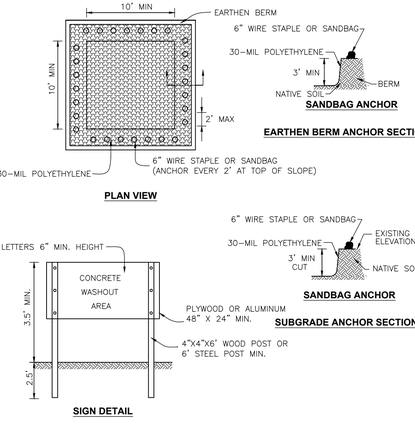
RIGID PIPE INSTALLATION DETAIL

TRENCH DEPTH/PROTECTION	REQUIRED TRENCH WIDTH ON EACH SIDE OF THE PIPE
5 FT (1.5 M) AND LESS, WITHOUT PROTECTION	12 IN. (300 MM)
5 FT (1.5M) AND LESS, WITH PROTECTION	18 IN. (450 MM)
GREATER THAN 5 FT (1.5 M)	18 IN (450 MM)



NOTES:
1. INLET PROTECTION SHALL BE BY EITHER METHOD 1 OR METHOD 2 DESCRIBED ON THIS SHEET.
2. ALL EXISTING INLETS SHALL BE PROTECTED WITHIN THE CONSTRUCTION LIMITS

INLET PROTECTION - METHOD 1
DROP-IN PROTECTION
ILLINOIS URBAN MANUAL DRAWING IUM-561D



NOTES:
1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDEND CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO–THIRDS FULL.

TEMPORARY CONCRETE
WASHOUT FACILITY - EARTHEN TYPE
ILLINOIS URBAN MANUAL DRAWING IUM-654ET

NOTES:
1. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE I OR 2, CLASS I, II, III OR IV AND SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE PLACING OF ROCK.
2. ROCK OR RECLAIMED CONCRETE SHALL MEET ONE OF THE FOLLOWING IDOT COARSE AGGREGATE GRADATIONS: CA-1, CA-2, CA-3 OR CA-4
3. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

ILLINOIS URBAN MANUAL DRAWING IL-630

NOTES:
1. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED AT LOCATIONS INDICATED ON THE DRAWINGS PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. FENCE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
3. FENCE POSTS SHALL BE EITHER STANDARD STEEL POST OR WOOD POST WITH A MINIMUM CROSS–SECTIONAL AREA OF 3.0 SQ. IN.

SILT FENCE PLAN

ILLINOIS URBAN MANUAL DRAWING IL-620

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\KVW\8-C22-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\005-GENERAL DETAILS (2 OF 2).dwg Last Modified: Wednesday, April 29, 2026 11:20:50 AM Plotted On: Friday, May 1, 2026 8:43:44 AM by: Faith Pack

DRAWN BY: CLD	REVISIONS				
CHECKED BY: TRH	LEVEL	BY	DATE	DESCRIPTION	
DATE: 06/2025				REVISED FORCE MAIN AT RAIL ROAD CROSSING	

Chamlin & Associates

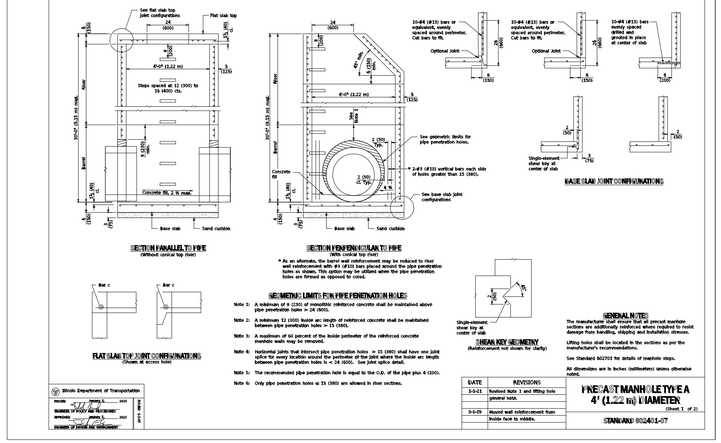
PERU
OTTAWA MORRIS
ILLINOIS

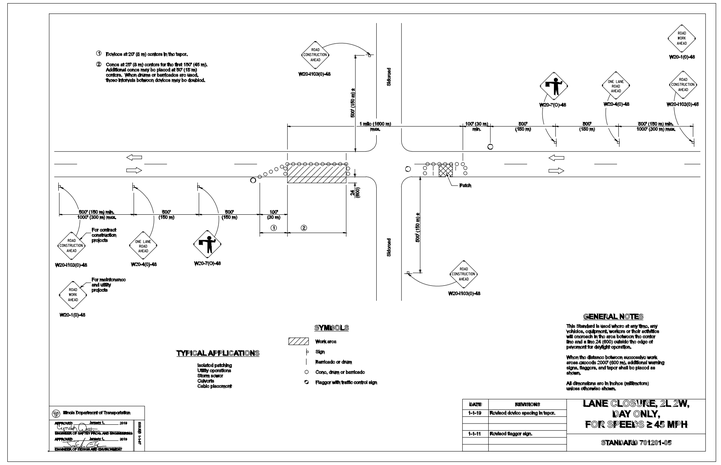
CITY OF MORRIS
NEW WATER TREATMENT PLANT
2026

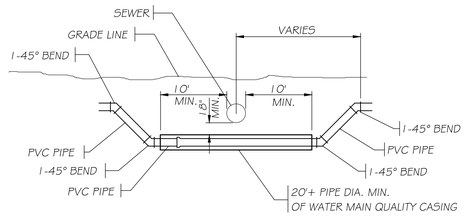
GENERAL DETAILS
(2 OF 2)

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 5
FILE NO.: 9936.02 Y–
OF 84



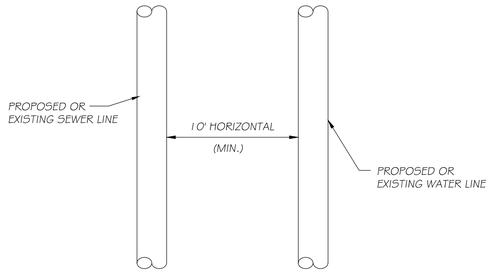

① Division of 20' (6 m) sections in the taper.
② Cones at 20' (6 m) centers for the first 100' (30 m). Additional cones may be placed at 50' (15 m) centers. When drums or barricades are used, from 50 to 100 feet (15 to 30 m) between devices may be desired.
ROAD CONSTRUCTION AHEAD
WD1-102(I)-48
WD1-102(II)-48
WD1-103-48
WD1-110(I)-48
WD1-110(II)-48
WD1-110(III)-48
WD1-110(IV)-48
WD1-110(V)-48
WD1-110(VI)-48
WD1-110(VII)-48
WD1-110(VIII)-48
WD1-110(IX)-48
WD1-110(X)-48
WD1-110(XI)-48
WD1-110(XII)-48
WD1-110(XIII)-48
WD1-110(XIV)-48
WD1-110(XV)-48
WD1-110(XVI)-48
WD1-110(XVII)-48
WD1-110(XVIII)-48
WD1-110(XIX)-48
WD1-110(XX)-48
WD1-110(XXI)-48
WD1-110(XXII)-48
WD1-110(XXIII)-48
WD1-110(XXIV)-48
WD1-110(XXV)-48
WD1-110(XXVI)-48
WD1-110(XXVII)-48
WD1-110(XXVIII)-48
WD1-110(XXIX)-48
WD1-110(XXX)-48
WD1-110(XXXI)-48
WD1-110(XXXII)-48
WD1-110(XXXIII)-48
WD1-110(XXXIV)-48
WD1-110(XXXV)-48
WD1-110(XXXVI)-48
WD1-110(XXXVII)-48
WD1-110(XXXVIII)-48
WD1-110(XXXIX)-48
WD1-110(XL)-48
WD1-110(XLI)-48
WD1-110(XLII)-48
WD1-110(XLIII)-48
WD1-110(XLIV)-48
WD1-110(XLV)-48
WD1-110(XLVI)-48
WD1-110(XLVII)-48
WD1-110(XLVIII)-48
WD1-110(XLIX)-48
WD1-110(L)-48
WD1-110(LI)-48
WD1-110(LII)-48
WD1-110(LIII)-48
WD1-110(LIV)-48
WD1-110(LV)-48
WD1-110(LVI)-48
WD1-110(LVII)-48
WD1-110(LVIII)-48
WD1-110(LIX)-48
WD1-110(LX)-48
WD1-110(LXI)-48
WD1-110(LXII)-48
WD1-110(LXIII)-48
WD1-110(LXIV)-48
WD1-110(LXV)-48
WD1-110(LXVI)-48
WD1-110(LXVII)-48
WD1-110(LXVIII)-48
WD1-110(LXIX)-48
WD1-110(LXX)-48
WD1-110(LXXI)-48
WD1-110(LXXII)-48
WD1-110(LXXIII)-48
WD1-110(LXXIV)-48
WD1-110(LXXV)-48
WD1-110(LXXVI)-48
WD1-110(LXXVII)-48
WD1-110(LXXVIII)-48
WD1-110(LXXIX)-48
WD1-110(LXXX)-48
WD1-110(LXXXI)-48
WD1-110(LXXXII)-48
WD1-110(LXXXIII)-48
WD1-110(LXXXIV)-48
WD1-110(LXXXV)-48
WD1-110(LXXXVI)-48
WD1-110(LXXXVII)-48
WD1-110(LXXXVIII)-48
WD1-110(LXXXIX)-48
WD1-110(XC)-48
WD1-110(XCI)-48
WD1-110(XCII)-48
WD1-110(XCIII)-48
WD1-110(XCIV)-48
WD1-110(XCV)-48
WD1-110(XCVI)-48
WD1-110(XCVII)-48
WD1-110(XCVIII)-48
WD1-110(XCIX)-48
WD1-110(C)-48
WD1-110(CI)-48
WD1-110(CII)-48
WD1-110(CIII)-48
WD1-110(CIV)-48
WD1-110(CV)-48
WD1-110(CVI)-48
WD1-110(CVII)-48
WD1-110(CVIII)-48
WD1-110(CIX)-48
WD1-110(CX)-48
WD1-110(CXI)-48
WD1-110(CXII)-48
WD1-110(CXIII)-48
WD1-110(CXIV)-48
WD1-110(CXV)-48
WD1-110(CXVI)-48
WD1-110(CXVII)-48
WD1-110(CXVIII)-48
WD1-110(CXIX)-48
WD1-110(CXX)-48
WD1-110(CXXI)-48
WD1-110(CXXII)-48
WD1-110(CXXIII)-48
WD1-110(CXXIV)-48
WD1-110(CXXV)-48
WD1-110(CXXVI)-48
WD1-110(CXXVII)-48
WD1-110(CXXVIII)-48
WD1-110(CXXIX)-48
WD1-110(CXXX)-48
WD1-110(CXXXI)-48
WD1-110(CXXXII)-48
WD1-110(CXXXIII)-48
WD1-110(CXXXIV)-48
WD1-110(CXXXV)-48
WD1-110(CXXXVI)-48
WD1-110(CXXXVII)-48
WD1-110(CXXXVIII)-48
WD1-110(CXXXIX)-48
WD1-110(CXL)-48
WD1-110(CXLI)-48
WD1-110(CXLII)-48
WD1-110(CXLIII)-48
WD1-110(CXLIV)-48
WD1-110(CXLV)-48
WD1-110(CXLVI)-48
WD1-110(CXLVII)-48
WD1-110(CXLVIII)-48
WD1-110(CXLIX)-48
WD1-110(CL)-48
WD1-110(CLI)-48
WD1-110(CLII)-48
WD1-110(CLIII)-48
WD1-110(CLIV)-48
WD1-110(CLV)-48
WD1-110(CLVI)-48
WD1-110(CLVII)-48
WD1-110(CLVIII)-48
WD1-110(CLIX)-48
WD1-110(CLX)-48
WD1-110(CLXI)-48
WD1-110(CLXII)-48
WD1-110(CLXIII)-48
WD1-110(CLXIV)-48
WD1-110(CLXV)-48
WD1-110(CLXVI)-48
WD1-110(CLXVII)-48
WD1-110(CLXVIII)-48
WD1-110(CLXIX)-48
WD1-110(CLXX)-48
WD1-110(CLXXI)-48
WD1-110(CLXXII)-48
WD1-110(CLXXIII)-48
WD1-110(CLXXIV)-48
WD1-110(CLXXV)-48
WD1-110(CLXXVI)-48
WD1-110(CLXXVII)-48
WD1-110(CLXXVIII)-48
WD1-110(CLXXIX)-48
WD1-110(CLXXX)-48
WD1-110(CLXXXI)-48
WD1-110(CLXXXII)-48
WD1-110(CLXXXIII)-48
WD1-110(CLXXXIV)-48
WD1-110(CLXXXV)-48
WD1-110(CLXXXVI)-48
WD1-110(CLXXXVII)-48
WD1-110(CLXXXVIII)-48
WD1-110(CLXXXIX)-48
WD1-110(CXC)-48
WD1-110(CXCI)-48
WD1-110(CXCII)-48
WD1-110(CXCIII)-48
WD1-110(CXCIV)-48
WD1-110(CXCV)-48
WD1-110(CXCVI)-48
WD1-110(CXCVII)-48
WD1-110(CXCVIII)-48
WD1-110(CXCIX)-48
WD1-110(CC)-48
WD1-110(CCI)-48
WD1-110(CCII)-48
WD1-110(CCIII)-48
WD1-110(CCIV)-48
WD1-110(CCV)-48
WD1-110(CCVI)-48
WD1-110(CCVII)-48
WD1-110(CCVIII)-48
WD1-110(CCIX)-48
WD1-110(CCX)-48
WD1-110(CCXI)-48
WD1-110(CCXII)-48
WD1-110(CCXIII)-48
WD1-110(CCXIV)-48
WD1-110(CCXV)-48
WD1-110(CCXVI)-48
WD1-110(CCXVII)-48
WD1-110(CCXVIII)-48
WD1-110(CCXIX)-48
WD1-110(CCXX)-48
WD1-110(CCXXI)-48
WD1-110(CCXXII)-48
WD1-110(CCXXIII)-48
WD1-110(CCXXIV)-48
WD1-110(CCXXV)-48
WD1-110(CCXXVI)-48
WD1-110(CCXXVII)-48
WD1-110(CCXXVIII)-48
WD1-110(CCXXIX)-48
WD1-110(CCXXX)-48
WD1-110(CCXXXI)-48
WD1-110(CCXXXII)-48
WD1-110(CCXXXIII)-48
WD1-110(CCXXXIV)-48
WD1-110(CCXXXV)-48
WD1-110(CCXXXVI)-48
WD1-110(CCXXXVII)-48
WD1-110(CCXXXVIII)-48
WD1-110(CCXXXIX)-48
WD1-110(CCXL)-48
WD1-110(CCXLI)-48
WD1-110(CCXLII)-48
WD1-110(CCXLIII)-48
WD1-110(CCXLIV)-48
WD1-110(CCXLV)-48
WD1-110(CCXLVI)-48
WD1-110(CCXLVII)-48
WD1-110(CCXLVIII)-48
WD1-110(CCXLIX)-48
WD1-110(CCL)-48
WD1-110(CCLI)-48
WD1-110(CCLII)-48
WD1-110(CCLIII)-48
WD1-110(CCLIV)-48
WD1-110(CCLV)-48
WD1-110(CCLVI)-48
WD1-110(CCLVII)-48
WD1-110(CCLVIII)-48
WD1-110(CCLIX)-48
WD1-110(CCLX)-48
WD1-110(CCLXI)-48
WD1-110(CCLXII)-48
WD1-110(CCLXIII)-48
WD1-110(CCLXIV)-48
WD1-110(CCLXV)-48
WD1-110(CCLXVI)-48
WD1-110(CCLXVII)-48
WD1-110(CCLXVIII)-48
WD1-110(CCLXIX)-48
WD1-110(CCLXX)-48
WD1-110(CCLXXI)-48
WD1-110(CCLXXII)-48
WD1-110(CCLXXIII)-48
WD1-110(CCLXXIV)-48
WD1-110(CCLXXV)-48
WD1-110(CCLXXVI)-48
WD1-110(CCLXXVII)-48
WD1-110(CCLXXVIII)-48
WD1-110(CCLXXIX)-48
WD1-110(CCLXXX)-48
WD1-110(CCLXXXI)-48
WD1-110(CCLXXXII)-48
WD1-110(CCLXXXIII)-48
WD1-110(CCLXXXIV)-48
WD1-110(CCLXXXV)-48
WD1-110(CCLXXXVI)-48
WD1-110(CCLXXXVII)-48
WD1-110(CCLXXXVIII)-48
WD1-110(CCLXXXIX)-48
WD1-110(CCXC)-48
WD1-110(CCXCI)-48
WD1-110(CCXCII)-48
WD1-110(CCXCIII)-48
WD1-110(CCXCIV)-48
WD1-110(CCXCV)-48
WD1-110(CCXCVI)-48
WD1-110(CCXCVII)-48
WD1-110(CCXCVIII)-48
WD1-110(CCXCIX)-48
WD1-110(CCC)-48
WD1-110(CCCI)-48
WD1-110(CCCII)-48
WD1-110(CCCIII)-48
WD1-110(CCCIV)-48
WD1-110(CCCV)-48
WD1-110(CCCVI)-48
WD1-110(CCCVII)-48
WD1-110(CCCVIII)-48
WD1-110(CCCIX)-48
WD1-110(CCCX)-48
WD1-110(CCCXI)-48
WD1-110(CCCXII)-48
WD1-110(CCCXIII)-48
WD1-110(CCCXIV)-48
WD1-110(CCCXV)-48
WD1-110(CCCXVI)-48
WD1-110(CCCXVII)-48
WD1-110(CCCXVIII)-48
WD1-110(CCCXIX)-48
WD1-110(CCCXX)-48
WD1-110(CCCXXI)-48
WD1-110(CCCXXII)-48
WD1-110(CCCXXIII)-48
WD1-110(CCCXXIV)-48
WD1-110(CCCXXV)-48
WD1-110(CCCXXVI)-48
WD1-110(CCCXXVII)-48
WD1-110(CCCXXVIII)-48
WD1-110(CCCXXIX)-48
WD1-110(CCCXXX)-48
WD1-110(CCCXXXI)-48
WD1-110(CCCXXXII)-48
WD1-110(CCCXXXIII)-48
WD1-110(CCCXXXIV)-48
WD1-110(CCCXXXV)-48
WD1-110(CCCXXXVI)-48
WD1-110(CCCXXXVII)-48
WD1-110(CCCXXXVIII)-48
WD1-110(CCCXXXIX)-48
WD1-110(CCCXL)-48
WD1-110(CCCXLI)-48
WD1-110(CCCXLII)-48
WD1-110(CCCXLIII)-48
WD1-110(CCCXLIV)-48
WD1-110(CCCXLV)-48
WD1-110(CCCXLVI)-48
WD1-110(CCCXLVII)-48
WD1-110(CCCXLVIII)-48
WD1-110(CCCXLIX)-48
WD1-110(CCCL)-48
WD1-110(CCCLI)-48
WD1-110(CCCLII)-48
WD1-110(CCCLIII)-48
WD1-110(CCCLIV)-48
WD1-110(CCCLV)-48
WD1-110(CCCLVI)-48
WD1-110(CCCLVII)-48
WD1-110(CCCLVIII)-48
WD1-110(CCCLIX)-48
WD1-110(CCCLX)-48
WD1-110(CCCLXI)-48
WD1-110(CCCLXII)-48
WD1-110(CCCLXIII)-48
WD1-110(CCCLXIV)-48
WD1-110(CCCLXV)-48
WD1-110(CCCLXVI)-48
WD1-110(CCCLXVII)-48
WD1-110(CCCLXVIII)-48
WD1-110(CCCLXIX)-48
WD1-110(CCCLXX)-48
WD1-110(CCCLXXI)-48
WD1-110(CCCLXXII)-48
WD1-110(CCCLXXIII)-48
WD1-110(CCCLXXIV)-48
WD1-110(CCCLXXV)-48
WD1-110(CCCLXXVI)-48
WD1-110(CCCLXXVII)-48
WD1-110(CCCLXXVIII)-48
WD1-110(CCCLXXIX)-48
WD1-110(CCCLXXX)-48
WD1-110(CCCLXXXI)-48
WD1-110(CCCLXXXII)-48
WD1-110(CCCLXXXIII)-48
WD1-110(CCCLXXXIV)-48
WD1-110(CCCLXXXV)-48
WD1-110(CCCLXXXVI)-48
WD1-110(CCCLXXXVII)-48
WD1-110(CCCLXXXVIII)-48
WD1-110(CCCLXXXIX)-48
WD1-110(CCCXC)-48
WD1-110(CCCXCI)-48
WD1-110(CCCXCII)-48
WD1-110(CCCXCIII)-48
WD1-110(CCCXCIV)-48
WD1-110(CCCXCV)-48
WD1-110(CCCXCVI)-48
WD1-110(CCCXCVII)-48
WD1-110(CCCXCVIII)-48
WD1-110(CCCXCIX)-48
WD1-110(CD)-48
WD1-110(CDI)-48
WD1-110(CDII)-48
WD1-110(CDIII)-48
WD1-110(CDIV)-48
WD1-110(CDV)-48
WD1-110(CDVI)-48
WD1-110(CDVII)-48
WD1-110(CDVIII)-48
WD1-110(CDIX)-48
WD1-110(CDX)-48
WD1-110(CDXI)-48
WD1-110(CDXII)-48
WD1-110(CDXIII)-48
WD1-110(CDXIV)-48
WD1-110(CDXV)-48
WD1-110(CDXVI)-48
WD1-110(CDXVII)-48
WD1-110(CDXVIII)-48
WD1-110(CDXIX)-48
WD1-110(CDXX)-48
WD1-110(CDXXI)-48
WD1-110(CDXXII)-48
WD1-110(CDXXIII)-48
WD1-110(CDXXIV)-48
WD1-110(CDXXV)-48
WD1-110(CDXXVI)-48
WD1-110(CDXXVII)-48
WD1-110(CDXXVIII)-48
WD1-110(CDXXIX)-48
WD1-110(CDXXX)-48
WD1-110(CDXXXI)-48
WD1-110(CDXXXII)-48
WD1-110(CDXXXIII)-48
WD1-110(CDXXXIV)-48
WD1-110(CDXXXV)-48
WD1-110(CDXXXVI)-48
WD1-110(CDXXXVII)-48
WD1-110(CDXXXVIII)-48
WD1-110(CDXXXIX)-48
WD1-110(CDXL)-48
WD1-110(CDXLI)-48
WD1-110(CDXLII)-48
WD1-110(CDXLIII)-48
WD1-110(CDXLIV)-48
WD1-110(CDXLV)-48
WD1-110(CDXLVI)-48
WD1-110(CDXLVII)-48
WD1-110(CDXLVIII)-48
WD1-110(CDXLIX)-48
WD1-110(CDL)-48
WD1-110(CDLI)-48
WD1-110(CDLII)-48
WD1-110(CDLIII)-48
WD1-110(CDLIV)-48
WD1-110(CDLV)-48
WD1-110(CDLVI)-48
WD1-110(CDLVII)-48
WD1-110(CDLVIII)-48
WD1-110(CDLIX)-48
WD1-110(CDLX)-48
WD1-110(CDLXI)-48
WD1-110(CDLXII)-48
WD1-110(CDLXIII)-48
WD1-110(CDLXIV)-48
WD1-110(CDLXV)-48
WD1-110(CDLXVI)-48
WD1-110(CDLXVII)-48
WD1-110(CDLXVIII)-48
WD1-110(CDLXIX)-48
WD1-110(CDLXX)-48
WD1-110(CDLXXI)-48
WD1-110(CDLXXII)-48
WD1-110(CDLXXIII)-48
WD1-110(CDLXXIV)-48
WD1-110(CDLXXV)-48
WD1-110(CDLXXVI)-48
WD1-110(CDLXXVII)-48
WD1-110(CDLXXVIII)-48
WD1-110(CDLXXIX)-48
WD1-110(CDLXXX)-48
WD1-110(CDLXXXI)-48
WD1-110(CDLXXXII)-48
WD1-110(CDLXXXIII)-48
WD1-110(CDLXXXIV)-48
WD1-110(CDLXXXV)-48
WD1-110(CDLXXXVI)-48
WD1-110(CDLXXXVII)-48
WD1-110(CDLXXXVIII)-48
WD1-110(CDLXXXIX)-48
WD1-110(CDXC)-48
WD1-110(CDXCI)-48
WD1-110(CDXCII)-48
WD1-110(CDXCIII)-48
WD1-110(CDXCIV)-48
WD1-110(CDXCV)-48
WD1-110(CDXCVI)-48
WD1-110(CDXCVII)-48
WD1-110(CDXCVIII)-48
WD1-110(CDXCIX)-48
WD1-110(CM)-48
WD1-110(CMI)-48
WD1-110(CMII)-48
WD1-110(CMIII)-48
WD1-110(CMIV)-48
WD1-110(CMV)-48
WD1-110(CMVI)-48
WD1-110(CMVII)-48
WD1-110(CMVIII)-48
WD1-110(CMIX)-48
WD1-110(CMX)-48
WD1-110(CMXI)-48
WD1-110(CMXII)-48
WD1-110(CMXIII)-48
WD1-110(CMXIV)-48
WD1-110(CMXV)-48
WD1-110(CMXVI)-48
WD1-110(CMXVII)-48
WD1-110(CMXVIII)-48
WD1-110(CMXIX)-48
WD1-110(CMXX)-48
WD1-110(CMXXI)-48
WD1-110(CMXXII)-48
WD1-110(CMXXIII)-48
WD1-110(CMXXIV)-48
WD1-110(CMXXV)-48
WD1-110(CMXXVI)-48
WD1-110(CMXXVII)-48
WD1-110(CMXXVIII)-48
WD1-110(CMXXIX)-48
WD1-110(CMXXX)-48
WD1-110(CMXXXI)-48
WD1-110(CMXXXII)-48
WD1-110(CMXXXIII)-48
WD1-110(CMXXXIV)-48
WD1-110(CMXXXV)-48
WD1-110(CMXXXVI)-48
WD1-110(CMXXXVII)-48
WD1-110(CMXXXVIII)-48
WD1-110(CMXXXIX)-48
WD1-110(CMXL)-48
WD1-110(CMXLI)-48
WD1-110(CMXLII)-48
WD1-110(CMXLIII)-48
WD1-110(CMXLIV)-48
WD1-110(CMXLV)-48
WD1-110(CMXLVI)-48
WD1-110(CMXLVII)-48
WD1-110(CMXLVIII)-48
WD1-110(CMXLIX)-48
WD1-110(CML)-48
WD1-110(CMLI)-48
WD1-110(CMLII)-48
WD1-110(CMLIII)-48
WD1-110(CMLIV)-48
WD1-110(CMLV)-48
WD1-110(CMLVI)-48
WD1-110(CMLVII)-48
WD1-110(CMLVIII)-48
WD1-110(CMLIX)-48
WD1-110(CMLX)-48
WD1-110(CMLXI)-48
WD1-110(CMLXII)-48
WD1-110(CMLXIII)-48
WD1-110(CMLXIV)-48
WD1-110(CMLXV)-48
WD1-110(CMLXVI)-48
WD1-110(CMLXVII)-48
WD1-110(CMLXVIII)-48
WD1-110(CMLXIX)-48
WD1-110(CMLXX)-48
WD1-110(CMLXXI)-48
WD1-110(CMLXXII)-48
WD1-110(CMLXXIII)-48
WD1-110(CMLXXIV)-48
WD1-110(CMLXXV)-48
WD1-110(CMLXXVI)-48
WD1-110(CMLXXVII)-48
WD1-110(CMLXXVIII)-48
WD1-110(CMLXXIX)-48
WD1-110(CMLXXX)-48
WD1-110(CMLXXXI)-48
WD1-110(CMLXXXII)-48
WD1-110(CMLXXXIII)-48
WD1-110(CMLXXXIV)-48
WD1-110(CMLXXXV)-48
WD1-110(CMLXXXVI)-48
WD1-110(CMLXXXVII)-48
WD1-110(CMLXXXVIII)-48
WD1-110(CMLXXXIX)-48
WD1-110(CMXC)-48
WD1-110(CMXCI)-48
WD1-110(CMXCII)-48
WD1-110(CMXCIII)-48
WD1-110(CMXCIV)-48
WD1-110(CMXCV)-48
WD1-110(CMXCVI)-48
WD1-110(CMXCVII)-48
WD1-110(CMXCVIII)-48
WD1-110(CMXCIX)-48
WD1-110(CMC)-48
WD1-110(CMCI)-48
WD1-110(CMCII)-48
WD1-110(CMCIII)-48
WD1-110(CMCIV)-48
WD1-110(CMCV)-48
WD1-110(CMCVI)-48
WD1-110(CMCVII)-48
WD1-110(CMCVIII)-48
WD1-110(CMCIX)-48
WD1-110(CMCX)-48
WD1-110(CMCXI)-48
WD1-110(CMCXII)-48
WD1-110(CMCXIII)-48
WD1-110(CMCXIV)-48
WD1-110(CMCXV)-48
WD1-110(CMCXVI)-48
WD1-110(CMCXVII)-48
WD1-110(CMCXVIII)-48
WD1-110(CMCXIX)-48
WD1-110(CMCXX)-48
WD1-110(CMCXXI)-48
WD1-110(CMCXXII)-48
WD1-110(CMCXXIII)-48
WD1-110(CMCXXIV)-48
WD1-110(CMCXXV)-48
WD1-110(CMCXXVI)-48
WD1-110(CMCXXVII)-48
WD1-110(CMCXXVIII)-48
WD1-110(CMCXXIX)-48
WD1-110(CMCXXX)-48
WD1-110(CMCXXXI)-48
WD1-110(CMCXXXII)-48
WD1-110(CMCXXXIII)-48
WD1-110(CMCXXXIV)-48
WD1-110(CMCXXXV)-48
WD1-110(CMCXXXVI)-48
WD1-110(CMCXXXVII)-48
WD1-110(CMCXXXVIII)-48
WD1-110(CMCXXXIX)-48
WD1-110(CMCXL)-48
WD1-110(CMCXLI)-48
WD1-110(CMCXLII)-48
WD1-110(CMCXLIII)-48
WD1-110(CMCXLIV)-48
WD1-110(CMCXLV)-48
WD1-110(CMCXLVI)-48
WD1-110(CMCXLVII)-48
WD1-110(CMCXLVIII)-48
WD1-110(CMC



TYPICAL WATER MAIN CROSSING UNDER A SEWER

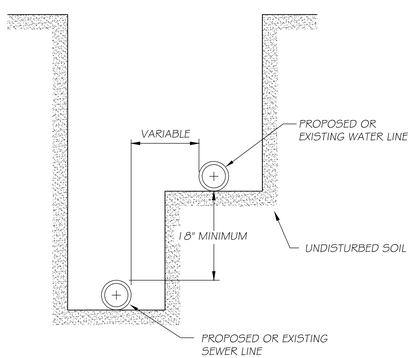
NOT TO SCALE

WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED. SEE SECTION 41-2.01A (1)



PLAN VIEW

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER OR SEWER, DETAILS BELOW SHALL APPLY. SEE SECTION 41-2.01A (2)



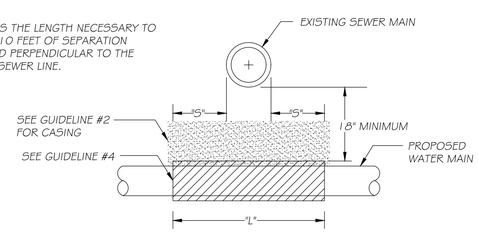
WATER AND SEWER SEPARATION REQUIREMENTS

NOT TO SCALE

GUIDELINES

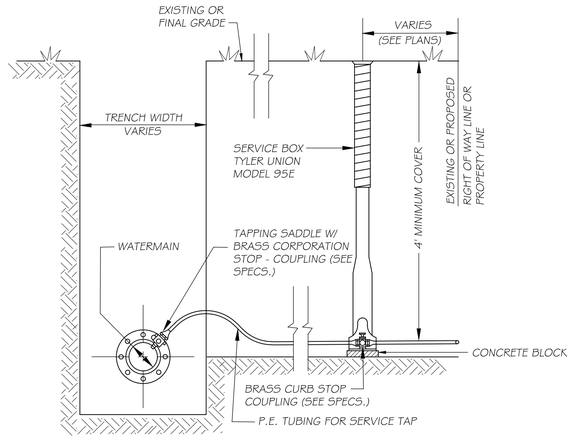
1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.
5. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN CASING AND SEWER.

NOTE
"S" EQUALS THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.

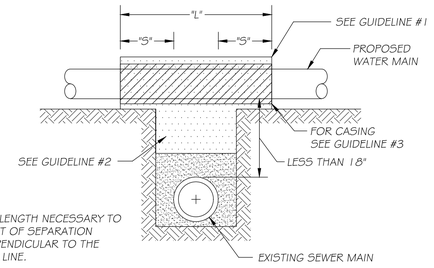


WATER AND SEWER SEPARATION DETAIL

NOT TO SCALE



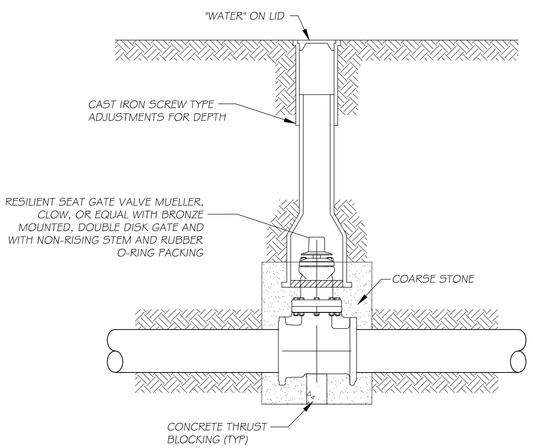
WATER SERVICE COMPLETE



NOTE
"S" EQUALS THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.

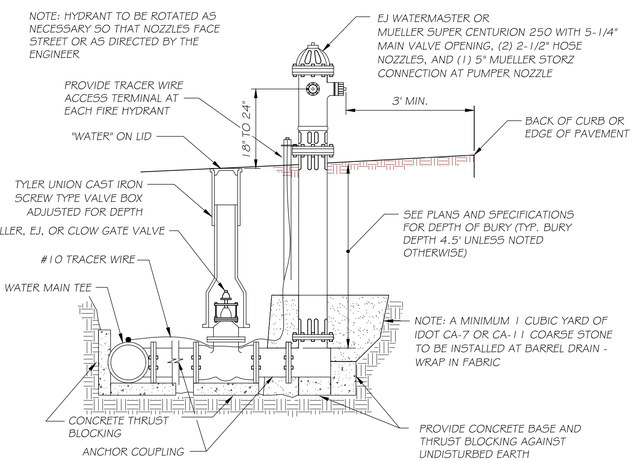
WATER AND SEWER SEPARATION DETAIL

NOT TO SCALE



VALVE BOX DETAIL

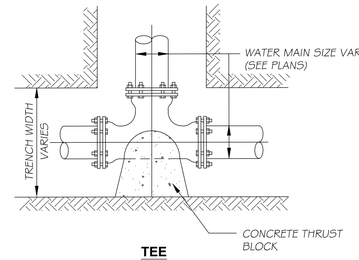
N.T.S.



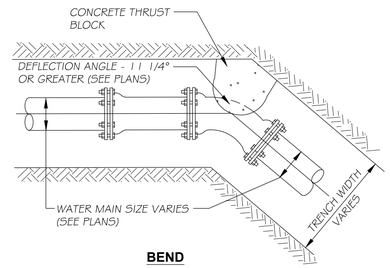
NOTE: CONCRETE BASE AND THRUST BLOCKING SHALL NEITHER BLOCK NOR OBSTRUCT HYDRANT DRAIN.

FIRE HYDRANT DETAIL

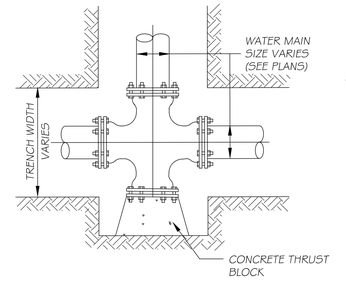
NOT TO SCALE



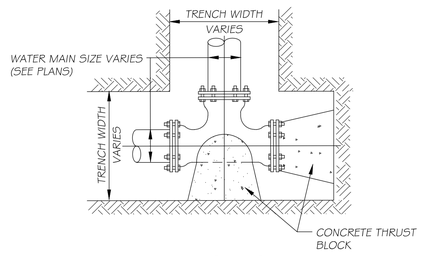
TEE



BEND



CROSS & PLUG



TEE & PLUG

WATER MAIN FITTING BLOCKING DETAILS

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VS\9818-02- Morris-New Water Treatment Plant Design\CAD\VIEW-WM-PLANS (WORK HERE)\007-WATER MAIN DETAILS.dwg Last Modified: Wednesday, April 29, 2026 11:22:01 AM Plotted On: Friday, May 1, 2026 8:47:15 AM by Faith Pack

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

WATER MAIN DETAILS

BIDDING PLANS

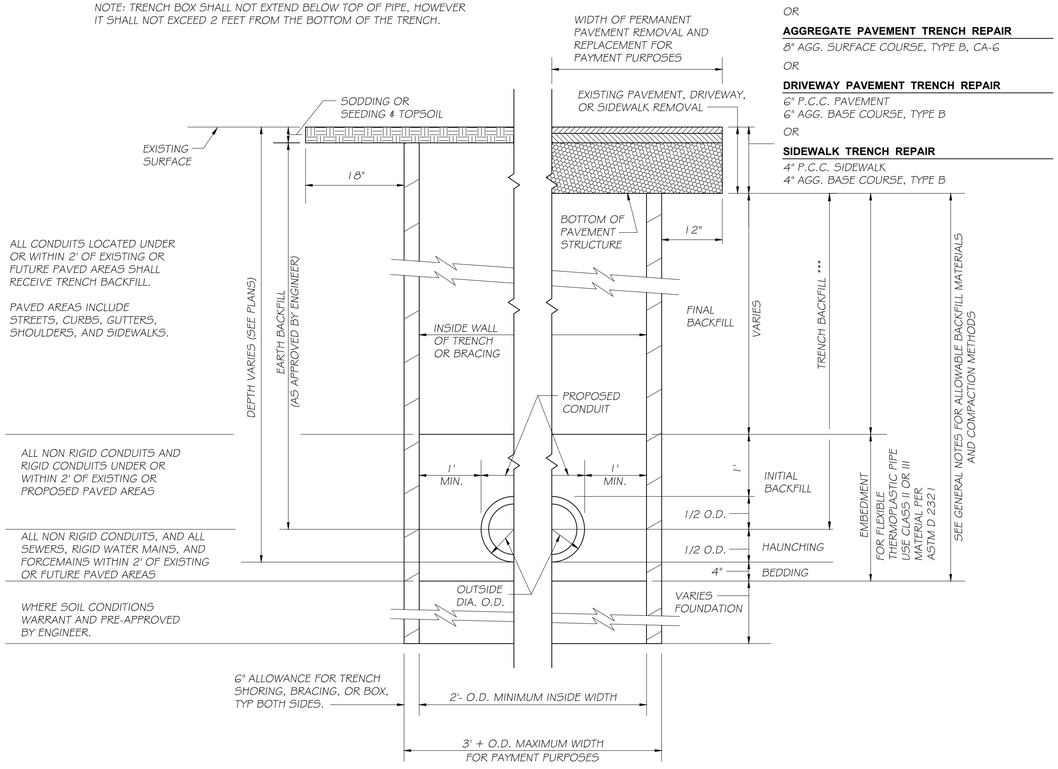
CURRENT AS OF: 05/01/2026

SCALE: AS NOTED | SHEET 7

FILE NO.: 9818.02 Y– | OF 84

NON RIGID CONDUITS ARE DEFINED AS FLEXIBLE THERMOPLASTIC PIPE (PVC) AND/OR CORRUGATED METAL PIPE.

NOTE: TRENCH BOX SHALL NOT EXTEND BELOW TOP OF PIPE, HOWEVER IT SHALL NOT EXCEED 2 FEET FROM THE BOTTOM OF THE TRENCH.



ROADWAY TRENCH REPAIR
8" AGGREGATE BASE COURSE, TY. B, CA-6
BITUMINOUS MATERIALS, PRIME COAT
2" HMA BINDER COURSE, IL 9.5, N50
BITUMINOUS MATERIALS, TACK COAT
2" HMA SURFACE COURSE, IL 9.5, MIX C, N50

OR

AGGREGATE PAVEMENT TRENCH REPAIR
8" AGG. SURFACE COURSE, TYPE B, CA-6

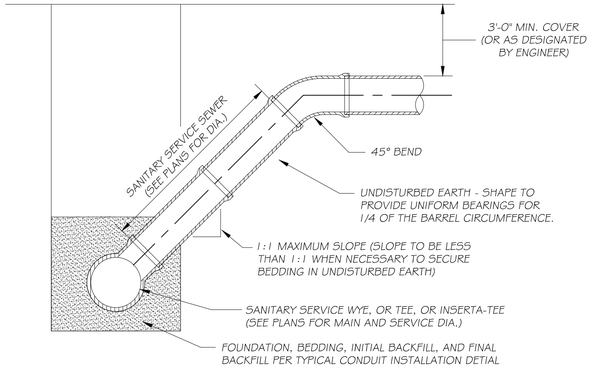
OR

DRIVEWAY PAVEMENT TRENCH REPAIR
6" P.C.C. PAVEMENT
6" AGG. BASE COURSE, TYPE B

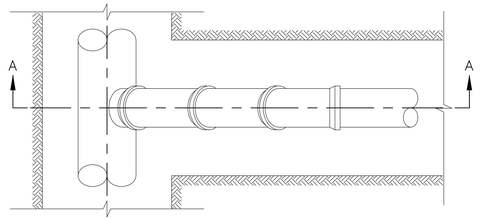
OR

SIDEWALK TRENCH REPAIR
4" P.C.C. SIDEWALK
4" AGG. BASE COURSE, TYPE B

TYPICAL TRENCH DETAIL

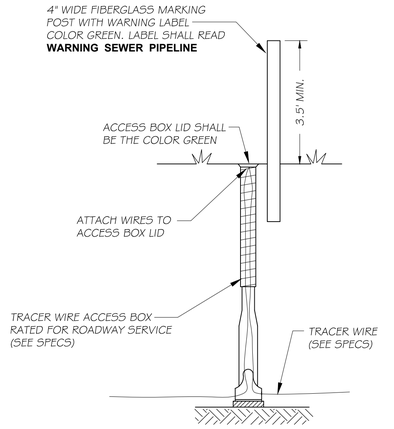


SECTION A-A

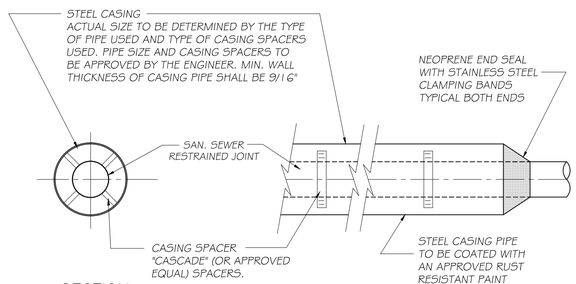


PLAN VIEW

SANITARY SEWER RISER



TRACER WIRE ACCESS BOX DETAIL
N.T.S.

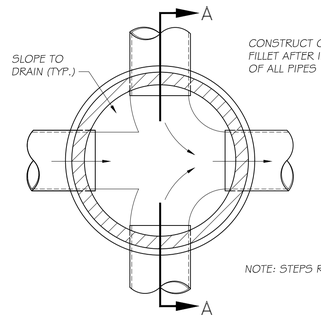


SECTION

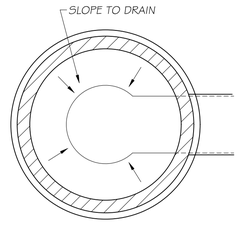
SIDE VIEW

THE NUMBER OF SPACERS REQUIRED PER LENGTH OF PIPE SHALL BE AS RECOMMENDED BY THE PIPE MANUFACTURER OR CASING SPACER MANUFACTURER.

CASING DETAIL
NOT TO SCALE



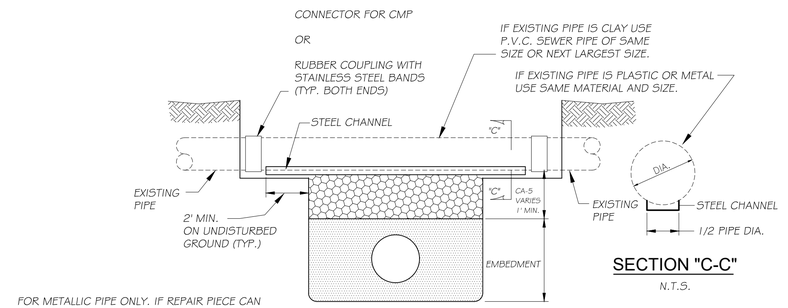
FILLET FOR MULTIPLE PIPES
(APPLIES TO ALL INLETS AND MANHOLES)



FILLET FOR DEAD END OR DROP
(APPLIES TO ALL INLETS AND MANHOLES)

NOTES:

1. EDGE OF PAVEMENT ELEVATION PROVIDED ON THE PLANS IS AT THE CENTER OF THE GRATE AT THE EDGE FURTHEST FROM THE CURB (HIGH SIDE). CONTRACTOR SHALL ADJUST THE GRATE SLOPE TO MATCH THE CONCRETE CURB AND GUTTER (INCIDENTAL).
2. CONTRACTOR SHALL POUR A FILLET IN ALL STORM STRUCTURE BOTTOMS TO SLOPE ALL FLOW TO THE OUTLET.



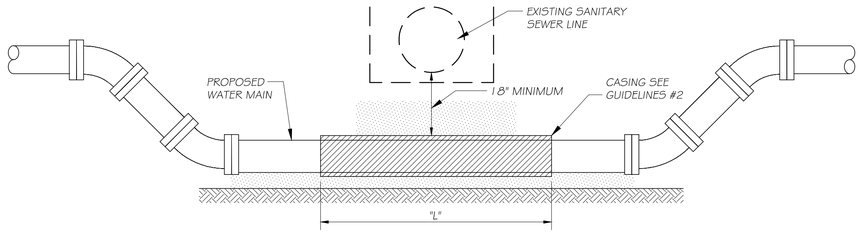
SECTION "C-C"
N.T.S.

FOR METALLIC PIPE ONLY. IF REPAIR PIECE CAN SPAN TRENCH WITHOUT HAVING A JOINT WITHIN TRENCH THE STEEL CHANNEL CAN BE DELETED. HOWEVER THE 2'-0" MIN. BEARING DIST. ON EACH SIDE OF TRENCH SHALL STILL APPLY.

REPAIR OF DAMAGED NONMETALIC FIELD TILE STORM SEWER, SANITARY SEWER, CULVERTS
N.T.S.

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\RTB\82-02 - Morris - New Water Treatment Plant - Design\CAD\NEW IWA PLANS (WORK HERE)\008 - SEWER DETAILS (1 OF 2).dwg Last Modified: Wednesday, April 22, 2026 11:59:39 AM Plotted On: Friday, May 1, 2026 8:48:48 AM by Faith Pick

DRAWN BY: JJC	REVISIONS			PERU MORRIS OTTAWA ILLINOIS	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026	SEWER DETAILS (1 OF 2)	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION				SCALE: AS NOTED	SHEET 8
DATE: 11/2023								FILE NO.: 9818.02 Y–	OF 84



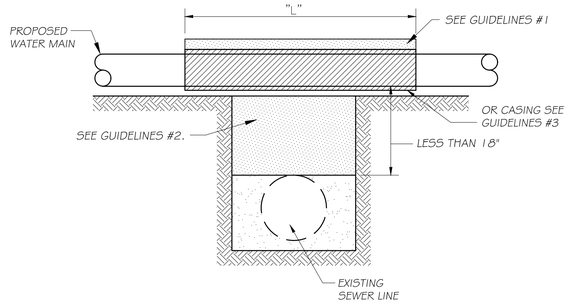
WATER AND SEWER SEPARATION REQUIREMENTS FOR PROPOSED WATERMAIN BELOW EXISTING SANITARY SEWER OR COMBINATION SEWER WITH 18" MINIMUM VERTICAL SEPARATION

GUIDELINES

1. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
2. CONSTRUCT "L" FEET OF STEEL PIPE HAVING A MINIMUM WALL THICKNESS OF 0.375" AND FABRICATED FROM MATERIAL HAVING A MINIMUM YIELD STRENGTH OF 35,000 PSI FOR CASING OF PROPOSED WATERMAIN. PIPE SHALL BE BITUMINOUS COATED IN CONFORMANCE WITH AASHTO M190. SEAL ENDS OF CASING WITH 3,000 PSI NON-SHRINK GROUT.

L = 20' + PIPE O.D.

NOTE: COMPACTION REQUIREMENTS REFER TO 20-2.20B OF THE STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS.



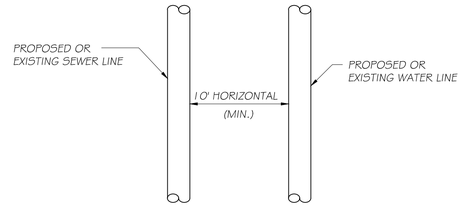
WATER AND SEWER SEPARATION REQUIREMENTS FOR PROPOSED WATERMAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" VERTICAL SEPARATION

GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATERMAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L" FEET.
2. IF SELECT GRANULAR BACKFILL: REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. CONSTRUCT "L" FEET OF STEEL PIPE HAVING A MINIMUM WALL THICKNESS OF 0.375" AND FABRICATED FROM MATERIAL HAVING A MINIMUM YIELD STRENGTH OF 35,000 PSI FOR CASING OF PROPOSED WATERMAIN. PIPE SHALL BE BITUMINOUS COATED IN CONFORMANCE WITH AASHTO M190. SEAL ENDS OF CASING WITH 3000 PSI NON-SHRINK GROUT.
4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATERMAIN CASING AND SEWER.

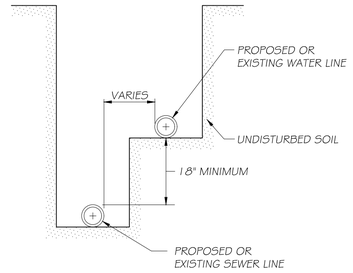
L = 20' + PIPE O.D.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED. SEE SECTION 41-2.01B (1)



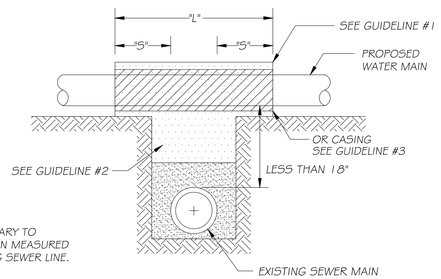
PLAN VIEW

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER (OR SEWER), DETAILS BELOW SHALL APPLY. SEE SECTION 41-2.01B (2)



WATER AND SEWER SEPARATION REQUIREMENTS

NOT TO SCALE



NOTE:
"S" EQUALS THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.

WATER AND SEWER SEPARATION DETAIL

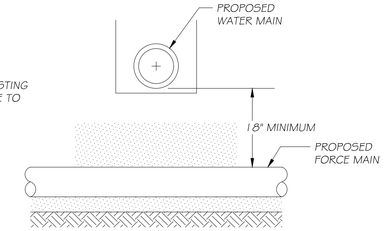
N.T.S.

GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

GUIDELINES

1. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.



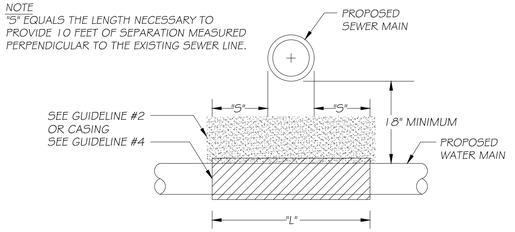
WATER AND SEWER VERTICAL SEPARATION REQUIREMENTS

PROPOSED FORCE MAIN LINE BELOW WATER MAIN WITH 18" MINIMUM VERTICAL SEPARATION

GUIDELINES

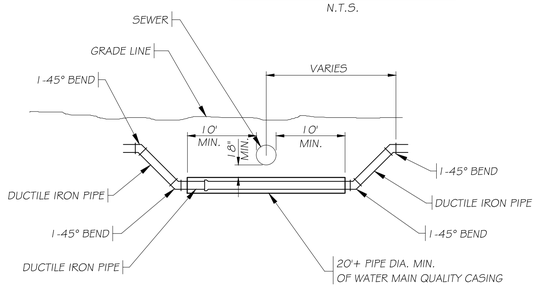
1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.
4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN CASING AND SEWER.

NOTE
"S" EQUALS THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.



WATER AND SEWER SEPARATION DETAIL

N.T.S.



TYPICAL WATER MAIN CROSSING UNDER A SEWER

N.T.S.

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\VA\9818.02- Morris-New-Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\009-SEWER DETAILS (2 OF 2).dwg Last Modified: Wednesday, April 22, 2026 11:59:18 AM Plotted On: Friday, May 1, 2026 8:51:20 AM by Faith Peck

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

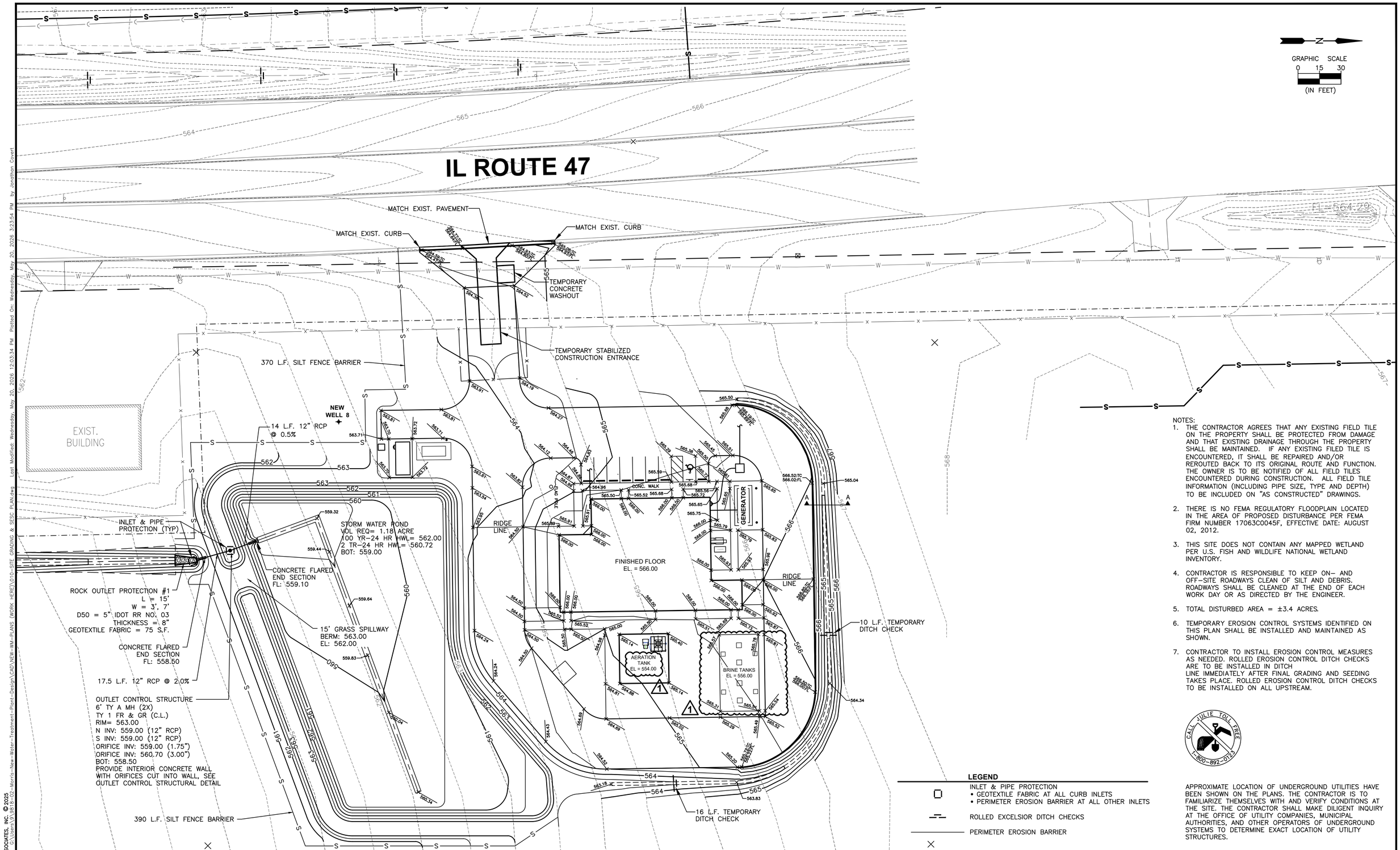
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

SEWER DETAILS (2 OF 2)

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 9
FILE NO.: 9818.02 Y-
OF 84



NOTES:

1. THE CONTRACTOR AGREES THAT ANY EXISTING FIELD TILE ON THE PROPERTY SHALL BE PROTECTED FROM DAMAGE AND THAT EXISTING DRAINAGE THROUGH THE PROPERTY SHALL BE MAINTAINED. IF ANY EXISTING FILED TILE IS ENCOUNTERED, IT SHALL BE REPAIRED AND/OR REROUTED BACK TO ITS ORIGINAL ROUTE AND FUNCTION. THE OWNER IS TO BE NOTIFIED OF ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION. ALL FIELD TILE INFORMATION (INCLUDING PIPE SIZE, TYPE AND DEPTH) TO BE INCLUDED ON "AS CONSTRUCTED" DRAWINGS.
2. THERE IS NO FEMA REGULATORY FLOODPLAIN LOCATED IN THE AREA OF PROPOSED DISTURBANCE PER FEMA FIRM NUMBER 17063C0045F, EFFECTIVE DATE: AUGUST 02, 2012.
3. THIS SITE DOES NOT CONTAIN ANY MAPPED WETLAND PER U.S. FISH AND WILDLIFE NATIONAL WETLAND INVENTORY.
4. CONTRACTOR IS RESPONSIBLE TO KEEP ON- AND OFF-SITE ROADWAYS CLEAN OF SILT AND DEBRIS. ROADWAYS SHALL BE CLEANED AT THE END OF EACH WORK DAY OR AS DIRECTED BY THE ENGINEER.
5. TOTAL DISTURBED AREA = ±3.4 ACRES.
6. TEMPORARY EROSION CONTROL SYSTEMS IDENTIFIED ON THIS PLAN SHALL BE INSTALLED AND MAINTAINED AS SHOWN.
7. CONTRACTOR TO INSTALL EROSION CONTROL MEASURES AS NEEDED. ROLLED EROSION CONTROL DITCH CHECKS ARE TO BE INSTALLED IN DITCH LINE IMMEDIATELY AFTER FINAL GRADING AND SEEDING TAKES PLACE. ROLLED EROSION CONTROL DITCH CHECKS TO BE INSTALLED ON ALL UPSTREAM.

LEGEND

- INLET & PIPE PROTECTION
  - GEOTEXTILE FABRIC AT ALL CURB INLETS
  - PERIMETER EROSION BARRIER AT ALL OTHER INLETS
- ROLLED EXCELSIOR DITCH CHECKS
- PERIMETER EROSION BARRIER

CALL JULIE TOLL FREE 1-800-892-0123

APPROXIMATE LOCATION OF UNDERGROUND UTILITIES HAVE BEEN SHOWN ON THE PLANS. THE CONTRACTOR IS TO FAMILIARIZE THEMSELVES WITH AND VERIFY CONDITIONS AT THE SITE. THE CONTRACTOR SHALL MAKE DILIGENT INQUIRY AT THE OFFICE OF UTILITY COMPANIES, MUNICIPAL AUTHORITIES, AND OTHER OPERATORS OF UNDERGROUND SYSTEMS TO DETERMINE EXACT LOCATION OF UTILITY STRUCTURES.

CHAMLIN & ASSOCIATES, INC., © 2025
Last Modified: Wednesday, May 20, 2026 12:03:34 PM Plotted On: Wednesday, May 20, 2026 3:23:54 PM by: Jonathon Covert
C:\Users\JCOVERT\OneDrive - CHAMLIN & ASSOCIATES, INC\Documents\Projects\Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\010-SITE GRADING & SESC PLAN.dwg

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023	1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

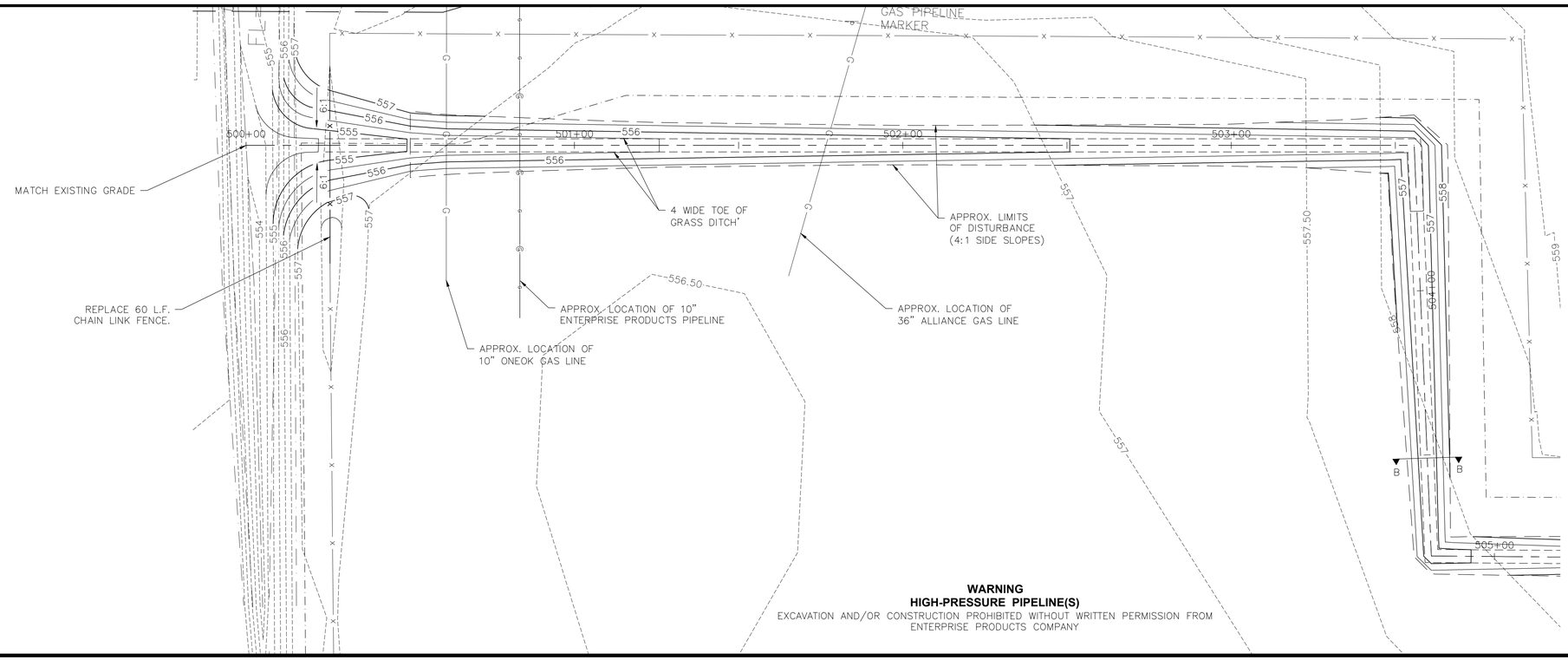
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

GRADING & SESC PLAN

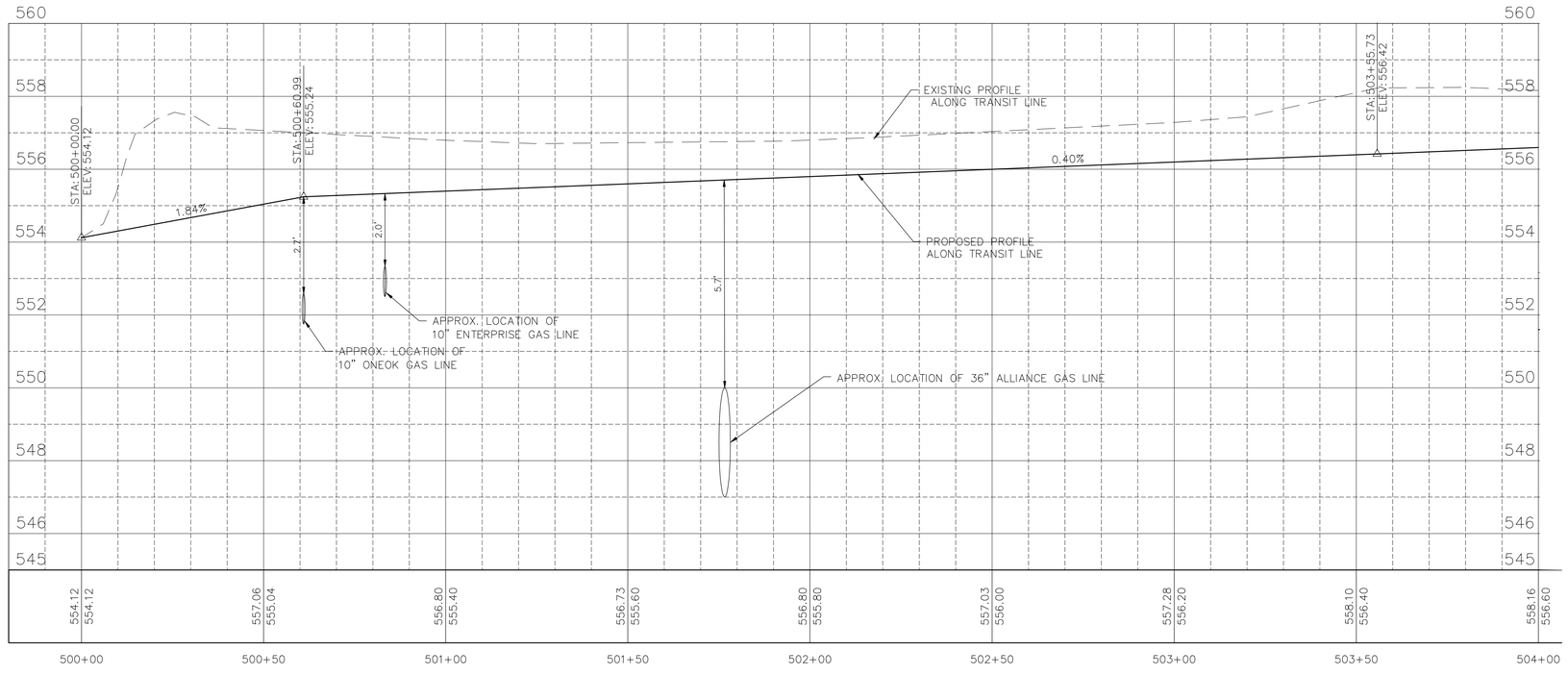
BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 10
FILE NO.: 9818.02 Y-
OF 84



WARNING
HIGH-PRESSURE PIPELINE(S)
EXCAVATION AND/OR CONSTRUCTION PROHIBITED WITHOUT WRITTEN PERMISSION FROM ENTERPRISE PRODUCTS COMPANY

GRAPHIC SCALE
0 10 20
(IN FEET)
2
1
0
(IN FEET)



APPROXIMATE LOCATION OF UNDERGROUND UTILITIES HAVE BEEN SHOWN ON THE PLANS. THE CONTRACTOR IS TO FAMILIARIZE THEMSELVES WITH AND VERIFY CONDITIONS AT THE SITE. THE CONTRACTOR SHALL MAKE DILIGENT INQUIRY AT THE OFFICE OF UTILITY COMPANIES, MUNICIPAL AUTHORITIES, AND OTHER OPERATORS OF UNDERGROUND SYSTEMS TO DETERMINE EXACT LOCATION OF UTILITY STRUCTURES.

DRAWN BY: DS
CHECKED BY: JAA
DATE: 04/2026

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU MORRIS
OTTAWA ILLINOIS

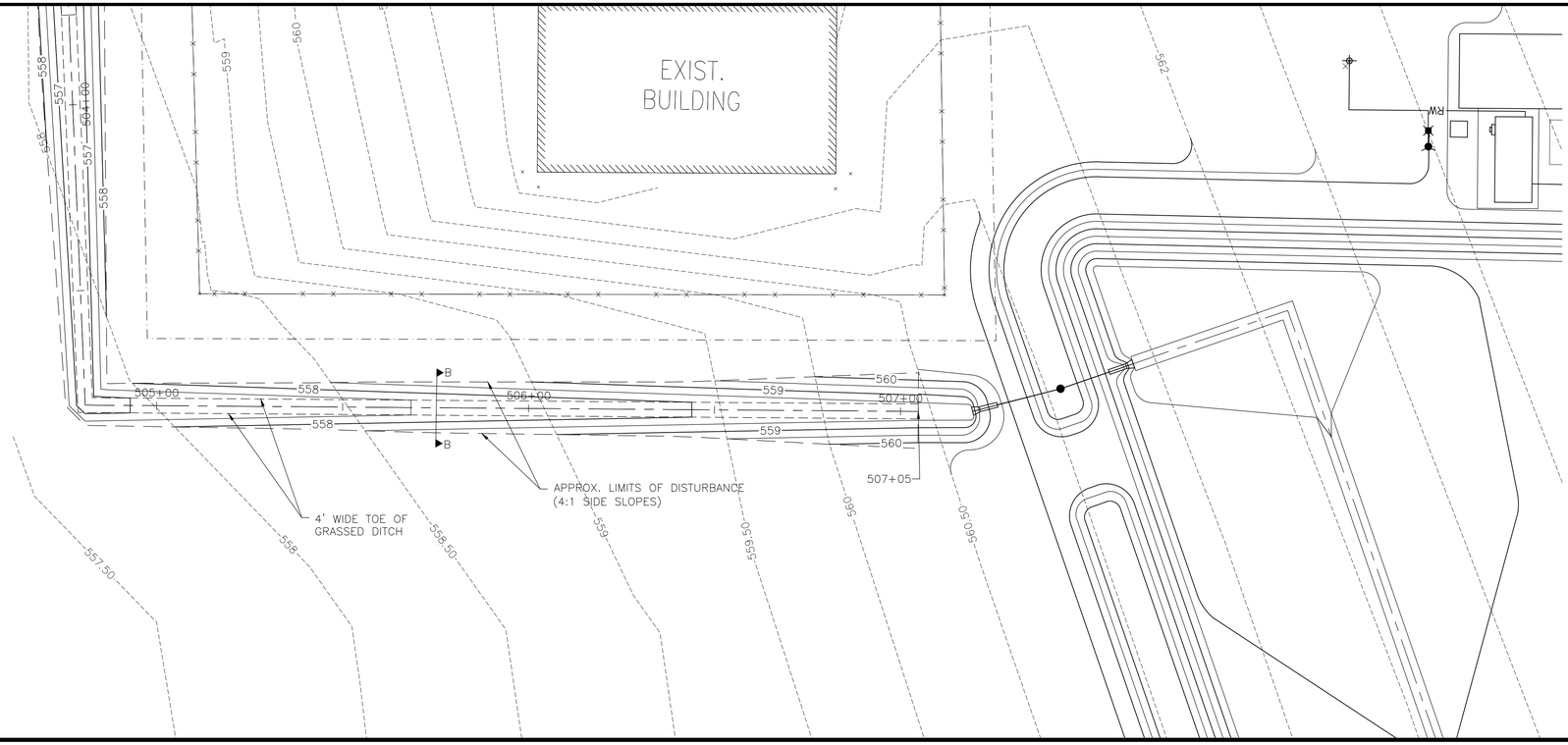
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

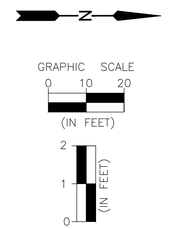
DRAINAGE DITCH PLAN & PROFILE
STA 500+00 TO STA. 504+00

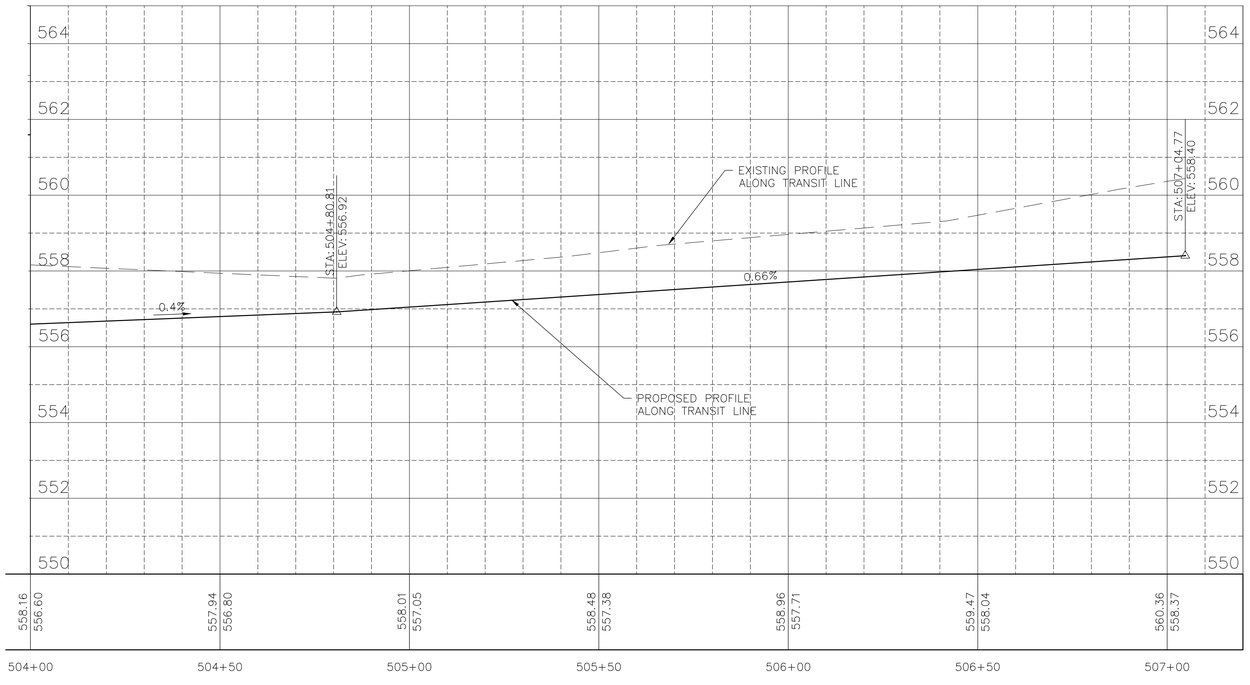
BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: SCALED
SHEET 11
FILE NO.: 9818.02 Y–
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\JAA\9818-02-Morris-New Water Treatment Plant Design\CAD\NEW-WM-PLANS (WORK HERE)\011-DRAINAGE DITCH PP-500-504.dwg Last Modified: Wednesday, April 29, 2026 11:30:01 AM Plotted On: Friday, May 1, 2026 9:00:35 AM by Faith Peck







CALL JULIE TOLL FREE
1-800-892-0123

APPROXIMATE LOCATION OF UNDERGROUND UTILITIES HAVE BEEN SHOWN ON THE PLANS. THE CONTRACTOR IS TO FAMILIARIZE THEMSELVES WITH AND VERIFY CONDITIONS AT THE SITE. THE CONTRACTOR SHALL MAKE DILIGENT INQUIRY AT THE OFFICE OF UTILITY COMPANIES, MUNICIPAL AUTHORITIES, AND OTHER OPERATORS OF UNDERGROUND SYSTEMS TO DETERMINE EXACT LOCATION OF UTILITY STRUCTURES.

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VJB\18-022-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\012-DRAINAGE DITCH PP-504-507+05.dwg Last Modified: Wednesday, April 29, 2026 11:30:52 AM Plotted On: Friday, May 1, 2026 9:01:42 AM by: Faith Peck

DRAWN BY: DS	REVISIONS			
CHECKED BY: JAA	LEVEL	BY	DATE	DESCRIPTION
DATE: 04/2026				

Chamlin & Associates

PERU MORRIS
OTTAWA ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

DRAINAGE DITCH PLAN & PROFILE
STA 504+00 TO STA. 507+05

BIDDING PLANS

CURRENT AS OF: 05/01/2026	
SCALE: SCALED	SHEET 12
FILE NO.: 9818.02 Y–	OF 84

IL ROUTE 47

GRAPHIC SCALE
0 15 30
(IN FEET)

EX. 27" SANITARY SEWER
EX. EDGE OF FARMFIELD
EX. ROW
EX. GRASSED DITCH
EX. 15" STORM SEWER
EX. 12" STORM SEWER
EX. CURB
EX. FIBER LINE
EX. SECITON LINE
BM D
±150' ROW
EX. SIGN
EX 15" STORM SEWER
94.5 L.F. DEPRESSED CURB
STM INLET #5957
RIM= 564.14
NW INV= 560.59 (6" ADS)
N INV= 559.24 (15" PVC)
S INV= 558.93 (15" PVC)
STM INLET #5907
RIM= 564.98
NW INV= 561.33 (6" ADS)
E INV= 560.89 (12" RCP)
STM INLET #5894
RIM= 565.80
NW INV= 562.29 (6" ADS)
E INV= 561.91 (12" RCP)
CONC.
EX. UTILITY POLE (TYP)
CONC.
EX. FIRE HYDRANT
EX. SPEED LIMIT SIGN
STM MH #5908
RIM= 565.60
N INV= 560.51 (12" PVC)
W INV= 560.74 (12" RCP)
S INV= 560.25 (15" PVC)
EX. 12" WATER MAIN
EXIST. BUILDING
EXIST. BUILDING
40' SETBACK LINE
EX. CHAIN LINK FENCE
126.5 L.F. CHAIN LINK FENCE
35' GATE
94.68'
91.24'
NEW WELL 8
15' SETBACK LINE
EXIST. BUILDING
EX. PROPERTY LINE
EX. CHAIN LINK FENCE
15' SETBACK LINE
262.62'
GRASSED DITCH, SEE GRADING PLAN
PAVED DITCH, SEE GRADING PLAN
R20.0'
R55.0'
R5.0'
9'
18'
8'
CONC. WALK
FLAG POLE
GENERATOR
TREATMENT PLANT
AERATION TANK
BRINE TANKS
DUMPSTER PAD
12'
EDGE OF PAVEMENT
35'
315 L.F. B.6 BARRIER CURB
GRASSED DITCH, SEE GRADING PLAN

HATCH LEGEND:

- CONCRETE SIDEWALK/DITCH (2,055 S.F.)
- CONCRETE PAVEMENT (9,800 S.F.)
- HOT-MIX ASPHALT PAVEMENT (32,933.5 S.F.)

BM-D:
CHISELED "X" ON SOUTHBOUND IL-47 SHOULDER BETWEEN THE 6TH AND 7TH CATCH BASIN NORTH OF NELSON RD
ELEV= 566.63

CALL JULIE TOLL FREE 1-800-892-0123

APPROXIMATE LOCATION OF UNDERGROUND UTILITIES HAVE BEEN SHOWN ON THE PLANS. THE CONTRACTOR IS TO FAMILIARIZE THEMSELVES WITH AND VERIFY CONDITIONS AT THE SITE. THE CONTRACTOR SHALL MAKE DILIGENT INQUIRY AT THE OFFICE OF UTILITY COMPANIES, MUNICIPAL AUTHORITIES, AND OTHER OPERATORS OF UNDERGROUND SYSTEMS TO DETERMINE EXACT LOCATION OF UTILITY STRUCTURES.

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\13185-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\013-PAVING & GEOMETRY PLAN.dwg Last Modified: Friday, May 1, 2026 2:16:04 PM Plotted On: Wednesday, May 20, 2026 11:46:12 AM by Jonathan Covert

DRAWN BY:	JJC
CHECKED BY:	RTB
DATE:	11/2023

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

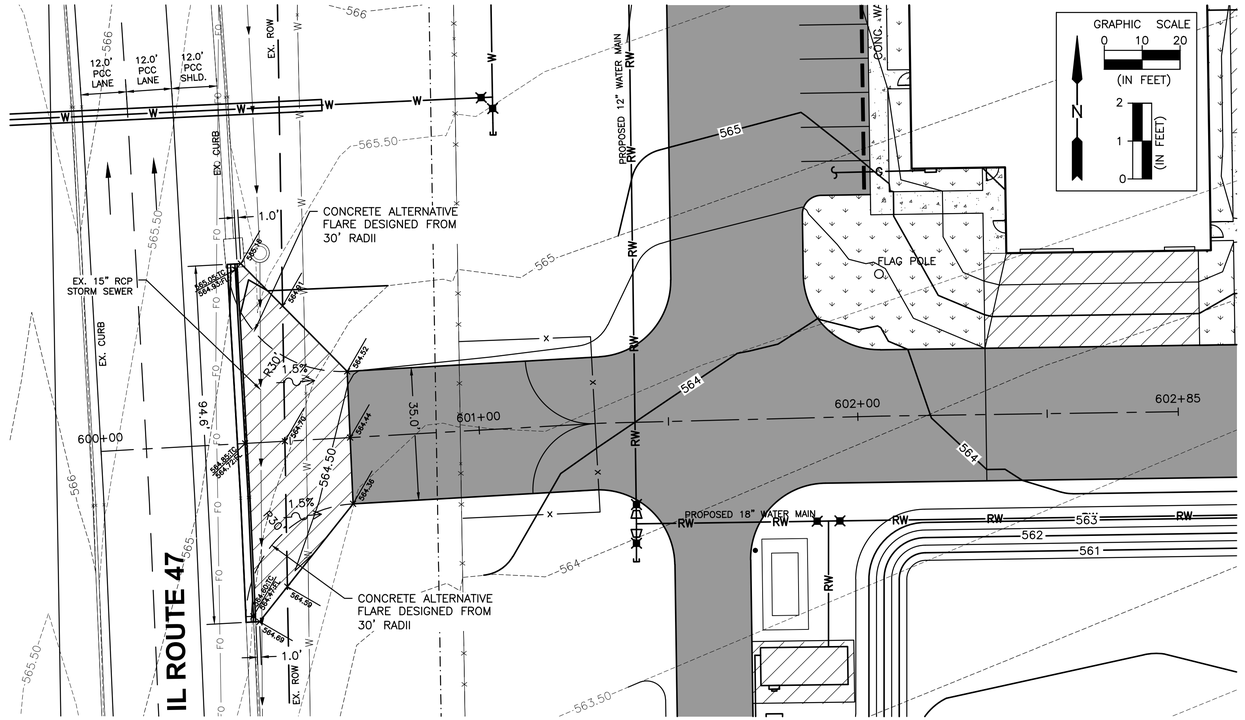
PERU MORRIS
OTTAWA
ILLINOIS

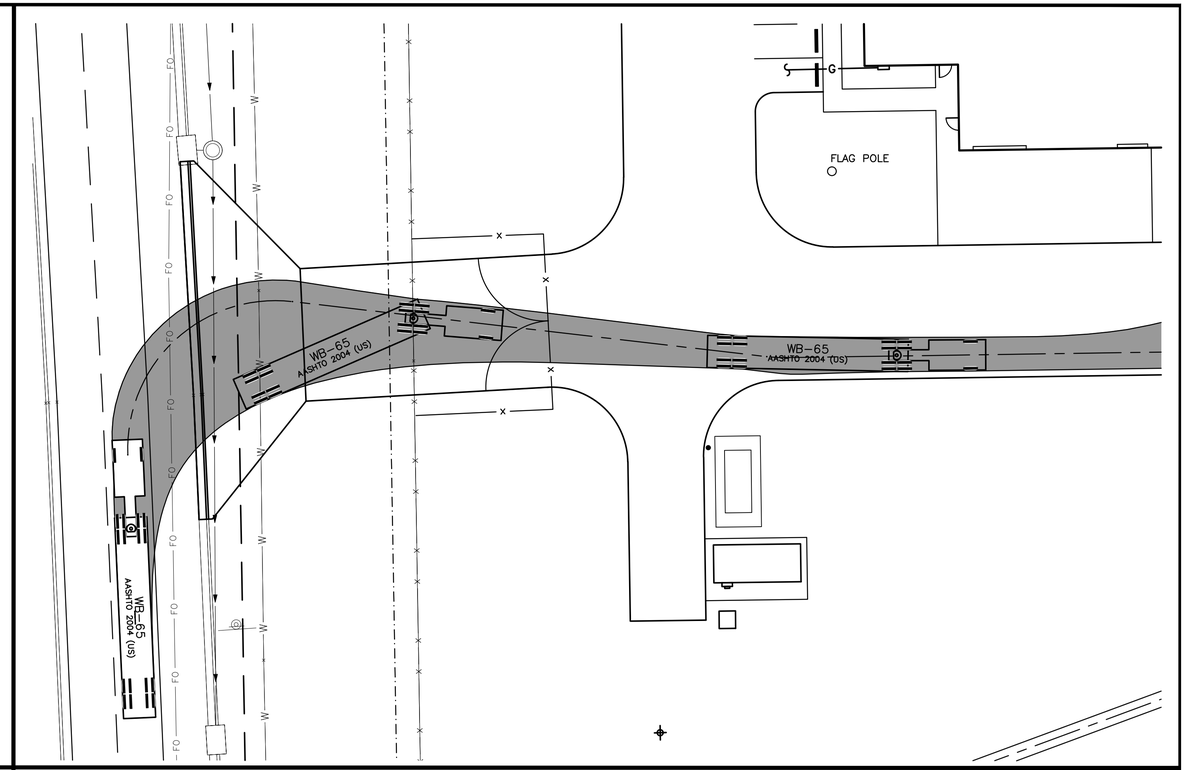
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

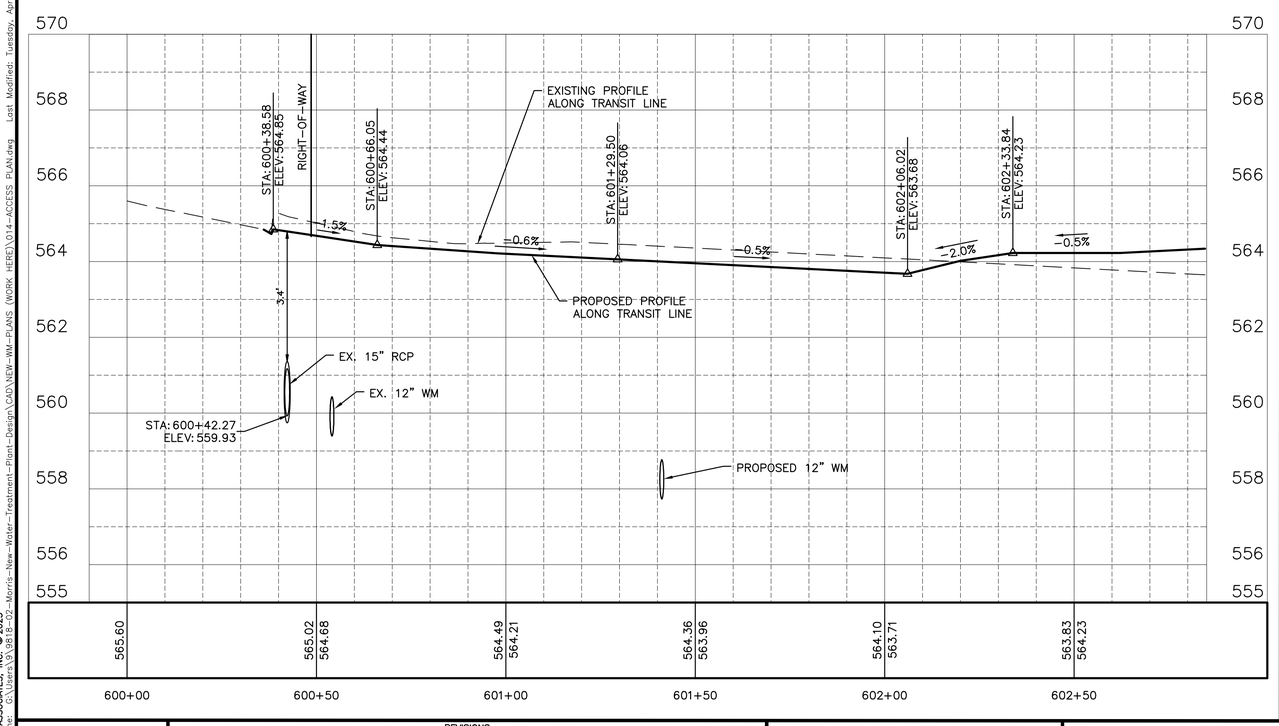
PAVING & GEOMETRY PLAN

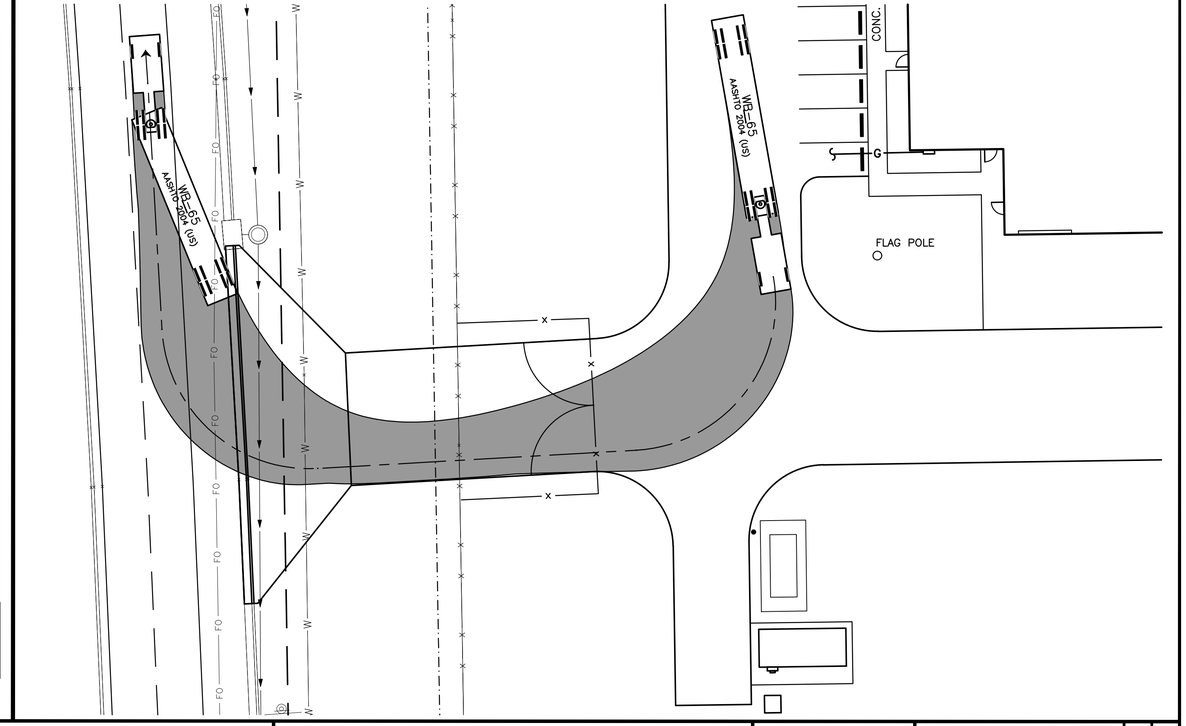
BIDDING PLANS

CURRENT AS OF:	05/01/2026
SCALE:	AS NOTED
SHEET	13
FILE NO.:	9818.02 Y-
OF	84









DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

PERU MORRIS
OTTAWA
ILLINOIS

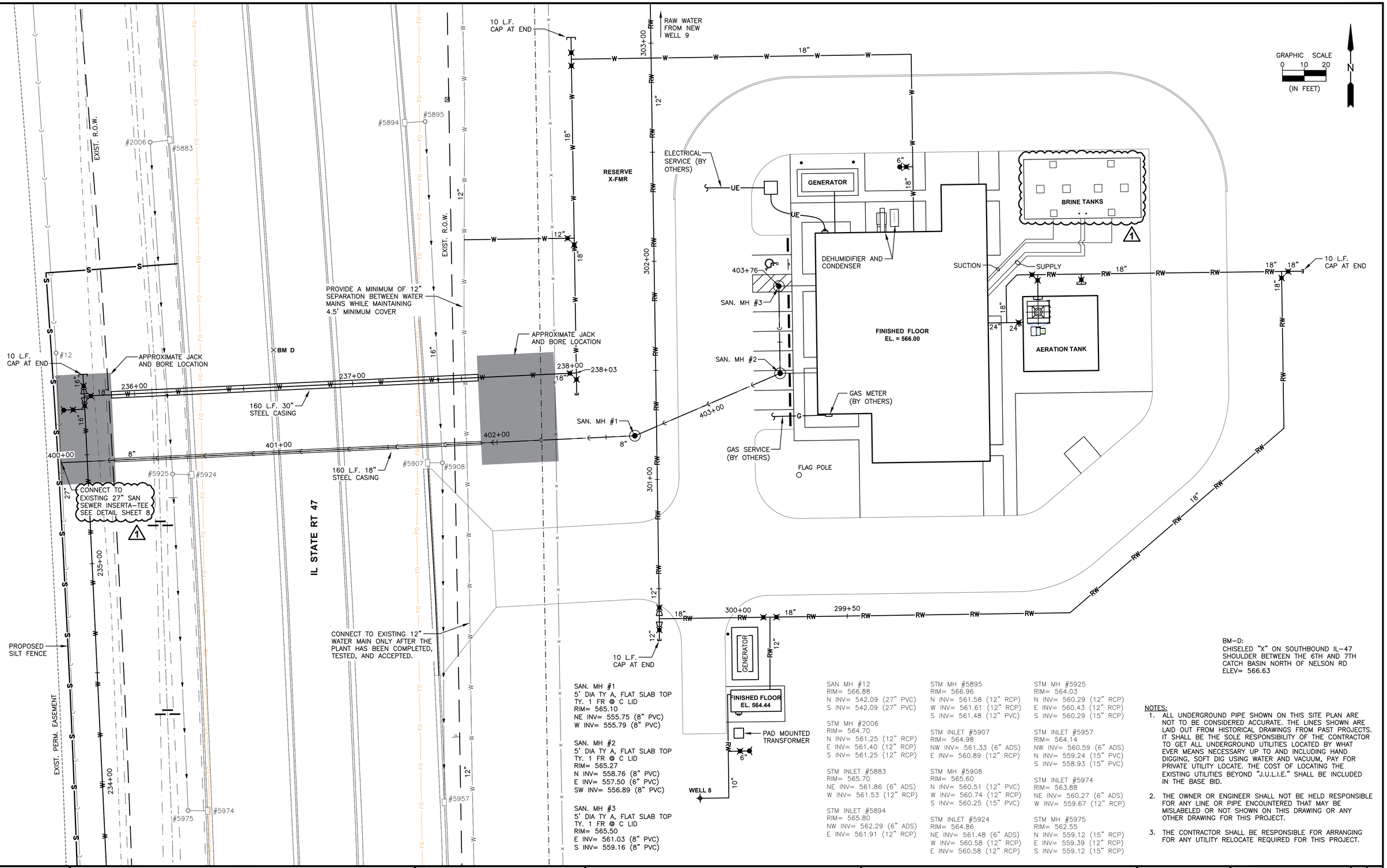
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

ACCESS PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 14
FILE NO.: 9818.02 Y–
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\JJC\9818-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\014-ACCESS PLAN.dwg Last Modified: Tuesday, April 28, 2026 12:00:05 PM Plotted On: Friday, May 1, 2026 2:15:24 PM by Jonathan Covert



SAN. MH #1
5' DIA TY A, FLAT SLAB TOP
TY. 1 FR @ C LID
RIM= 565.10
NE INV= 555.75 (8" PVC)
W INV= 555.79 (8" PVC)

SAN. MH #2
5' DIA TY A, FLAT SLAB TOP
TY. 1 FR @ C LID
RIM= 565.27
N INV= 558.76 (8" PVC)
E INV= 557.50 (6" PVC)
SW INV= 556.89 (8" PVC)

SAN. MH #3
5' DIA TY A, FLAT SLAB TOP
TY. 1 FR @ C LID
RIM= 565.50
E INV= 561.03 (8" PVC)
S INV= 559.16 (8" PVC)

SAN. MH #12
RIM= 566.88
N INV= 542.09 (27" PVC)
S INV= 542.09 (27" PVC)

STM MH #2006
RIM= 564.70
N INV= 561.25 (12" RCP)
E INV= 561.40 (12" RCP)
S INV= 561.25 (12" RCP)

STM INLET #5883
RIM= 565.70
NE INV= 561.86 (6" ADS)
W INV= 561.53 (12" RCP)

STM INLET #5894
RIM= 565.80
NW INV= 562.29 (6" ADS)
E INV= 561.91 (12" RCP)

STM MH #5895
RIM= 566.96
N INV= 561.58 (12" RCP)
W INV= 561.61 (12" RCP)
S INV= 561.48 (12" PVC)

STM INLET #5907
RIM= 564.98
NW INV= 561.33 (6" ADS)
E INV= 560.89 (12" RCP)

STM MH #5908
RIM= 565.60
N INV= 560.51 (12" PVC)
W INV= 560.74 (12" RCP)
S INV= 560.25 (15" PVC)

STM INLET #5924
RIM= 564.86
NE INV= 561.48 (6" ADS)
W INV= 560.58 (12" RCP)
E INV= 560.58 (12" RCP)

STM MH #5925
RIM= 564.03
N INV= 560.29 (12" RCP)
E INV= 560.43 (12" RCP)
S INV= 560.29 (15" RCP)

STM INLET #5957
RIM= 564.14
NW INV= 560.59 (6" ADS)
N INV= 559.24 (15" PVC)
S INV= 558.93 (15" PVC)

STM INLET #5974
RIM= 563.88
NE INV= 560.27 (6" ADS)
W INV= 559.67 (12" RCP)

STM MH #5975
RIM= 562.55
N INV= 559.12 (15" RCP)
E INV= 559.39 (12" RCP)
S INV= 559.12 (15" RCP)

BM–D:
CHISELED "X" ON SOUTHBOUND IL–47 SHOULDER BETWEEN THE 6TH AND 7TH CATCH BASIN NORTH OF NELSON RD
ELEV= 566.63

NOTES:

1. ALL UNDERGROUND PIPE SHOWN ON THIS SITE PLAN ARE NOT TO BE CONSIDERED ACCURATE. THE LINES SHOWN ARE LAID OUT FROM HISTORICAL DRAWINGS FROM PAST PROJECTS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO GET ALL UNDERGROUND UTILITIES LOCATED BY WHAT EVER MEANS NECESSARY UP TO AND INCLUDING HAND DIGGING, SOFT DIG USING WATER AND VACUUM, PAY FOR PRIVATE UTILITY LOCATE. THE COST OF LOCATING THE EXISTING UTILITIES BEYOND "J.U.L.I.E." SHALL BE INCLUDED IN THE BASE BID.
2. THE OWNER OR ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR ANY LINE OR PIPE ENCOUNTERED THAT MAY BE MISLABELED OR NOT SHOWN ON THIS DRAWING OR ANY OTHER DRAWING FOR THIS PROJECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING FOR ANY UTILITY RELOCATE REQUIRED FOR THIS PROJECT.

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023	1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

PERU MORRIS
OTTAWA MENDOTA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

YARD PIPING PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 15
FILE NO.: 9818.02 Y–
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VV\9818-02-Morris-New Water Treatment Plant Design\CAD\VIEW-WM-PLANS (WORK HERE)\015-YARD PIPING PLAN.dwg Last Modified: Wednesday, May 20, 2026 9:35:06 AM Plotted On: Wednesday, May 20, 2026 1:20:45 PM by Jonathon Covert

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VJB18-422-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\016-BLANK.dwg Last Modified: Wednesday, April 22, 2026, 2:23:55 PM Plotted On: Friday, May 1, 2026, 9:09:52 AM by Faith Peck

DRAWN BY: JJC
CHECKED BY: RTB
DATE: 11/2023

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

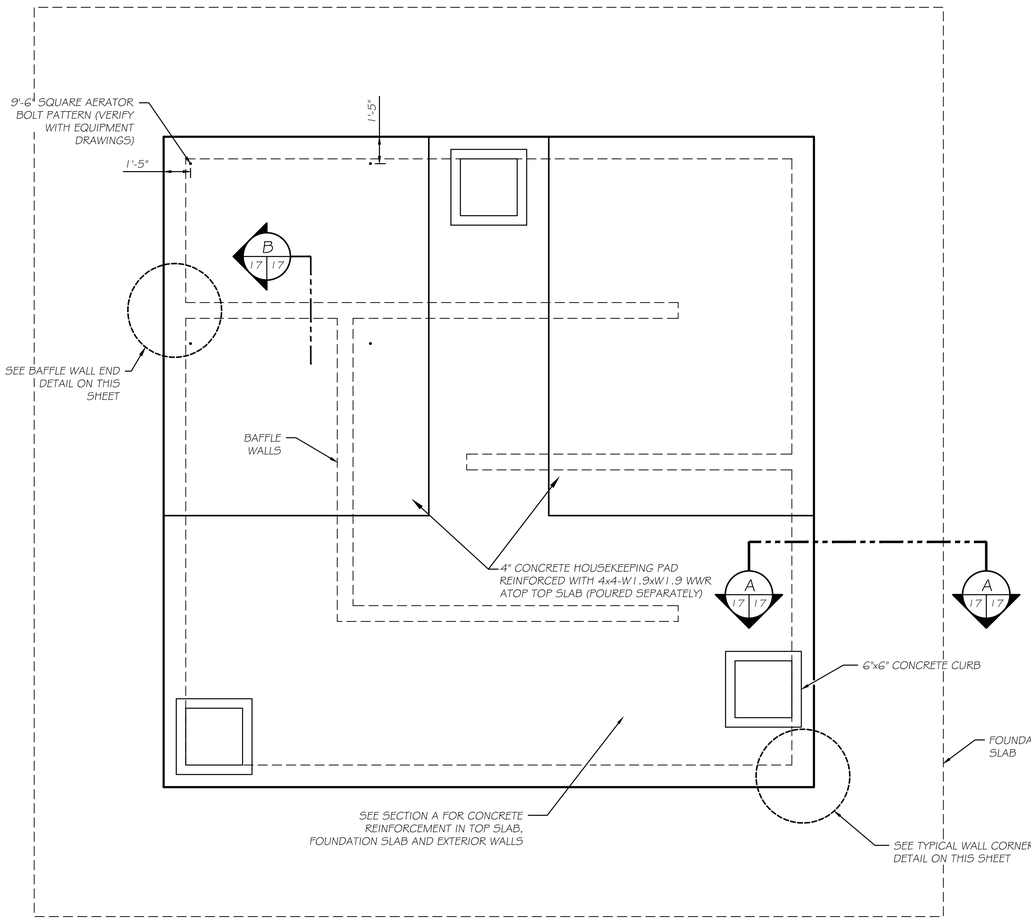
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

THIS SHEET IS
INTENTIONALLY LEFT BLANK

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
FILE NO.: 9818.02 Y–
SHEET 16
OF 84



AERATION TANK STRUCTURAL LAYOUT

N.T.S.

AERATION TANK BAFFLE WALL DETAIL

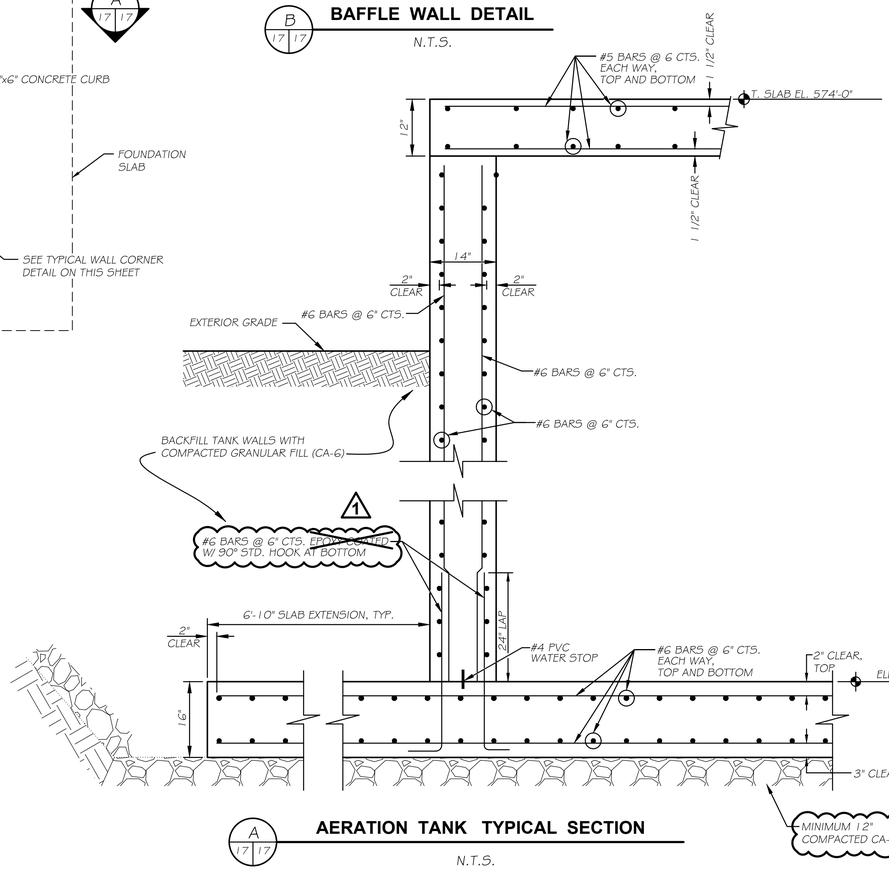
B 17 17

N.T.S.

AERATION TANK EXTERIOR BAFFLE WALL END DETAIL

N.T.S.

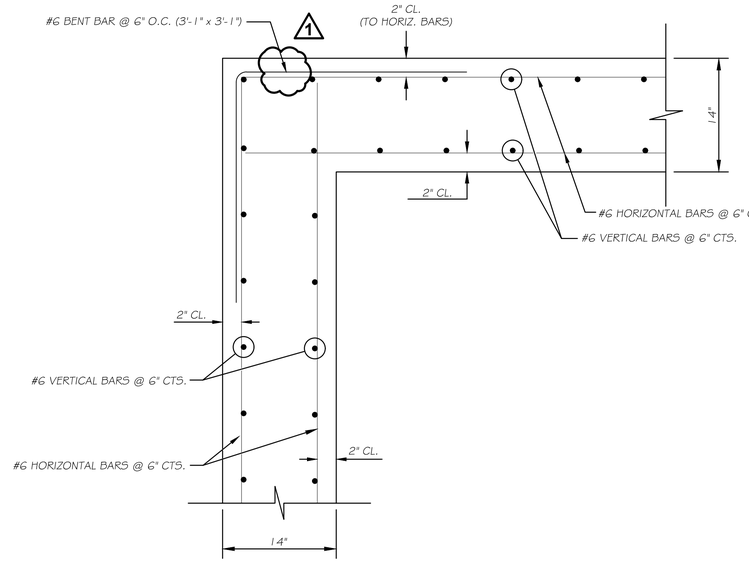
NOTE: INTERIOR BAFFLE WALL END SIMILAR



AERATION TANK TYPICAL SECTION

A 17 17

N.T.S.



TYPICAL WALL CORNER DETAIL

N.T.S.

REQUIRED LAP SPLICE LENGTHS
#4 BARS: 19"
#5 BARS: 24"
#6 BARS: 28"

NOTE: BARS SHALL ONLY BE SPLICED AT LOCATIONS INDICATED ON THE PLANS OR WHERE OTHERWISE APPROVED BY THE ENGINEER
LAP SPLICES ARE ADEQUATE FOR EPOXY COATED BARS

AERATION TANK STRUCTURAL NOTES

- APPLICABLE DESIGN CODES
  - IBC 2015
  - ASCE 7-10
  - ACI 318-14 (TOP SLAB)
  - ACI 350-06 (WALLS & BASE SLAB)
- DESIGN LOADING INFORMATION:
  - DESIGN SOIL EQUIVALENT FLUID PRESSURE: 60 PCF
  - DESIGN LIVE LOAD SURCHARGE: 120 PSF HORIZONTAL PRESSURE
  - AERATOR & PIPING: 28,700 LBS
  - TYPICAL UNIFORM LIVE LOAD: 100 psf ON TOP SLAB
- f'_c = 4,000 PSI
- F_y = 60,000 PSI (EPOXY COATED) 1
- CONCRETE FOR BOTTOM SLAB SHALL BE PLACED IN ONE CONTINUOUS POUR.
- CONCRETE FOR WALLS SHALL BE PLACED IN ONE CONTINUOUS POUR.
- CONCRETE FOR TOP SLAB SHALL BE PLACED IN ONE CONTINUOUS POUR.
- TEMPORARY SHORING SHALL BE PROVIDED FOR THE TOP SLAB INSIDE THE TANK UNTIL SUCH TIME THAT THE TOP SLAB CONCRETE HAS ACHIEVED ITS DESIGN COMPRESSIVE STRENGTH AND SAID STRENGTH HAS BEEN VERIFIED BY TESTING. SHORING CAN THEN BE REMOVED.
- DO NOT BACKFILL AROUND CONCRETE WALLS UNTIL TOP SLAB HAS BEEN POURED AND DESIGN COMPRESSIVE STRENGTH ACHIEVED & VERIFIED BY TESTING.
- FOR ANY HORIZONTAL OR VERTICAL REINFORCEMENT INTERRUPTED BY PIPE PENETRATIONS, ADD ADDITIONAL BARS ON BOTH SIDES OF THE PIPE PENETRATIONS, EACH FACE, EACH DIRECTION OF THE SAME OR LARGER SIZE AS THE INTERRUPTED BAR.
- SEE PIPING PLANS FOR PIPE OPENING LOCATIONS.
- COMPACTED GRANULAR FILL (CA-6) SHALL BE USED AT AREAS EXCAVATED BELOW SLABS AND FOOTINGS. COMPACTION SHALL BE 98% MAXIMUM DRY DENSITY.
- DEWATERING SHALL MAINTAIN WATER TABLE BELOW BOTTOM OF SLAB UNTIL WALLS AND FLOOR SLABS HAVE BEEN POURED AND DESIGN COMPRESSIVE STRENGTH REACHED.
- ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED.
- HORIZONTAL BARS SHALL BE PLACED ON THE SIDE OF VERTICAL BARS INDICATED IN THE DETAILS.

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\KV\9818-02- Morris-New Water Treatment Plant-Design\CAD\VIEW-WM-PLANS (WORK HERE)\017-AERATION TANK STRUCTURAL DETAILS.dwg Last Modified: Wednesday, May 20, 2026 3:34:53 PM Plotted On: Wednesday, May 20, 2026 3:35:04 PM by: Josh Washkowiak

DRAWN BY: JJC	REVISIONS			
	LEVEL	BY	DATE	DESCRIPTION
CHECKED BY: RTB	1	JJC	05/20/26	ADDENDUM No. 1
DATE: 03/2021				

Chamlin & Associates

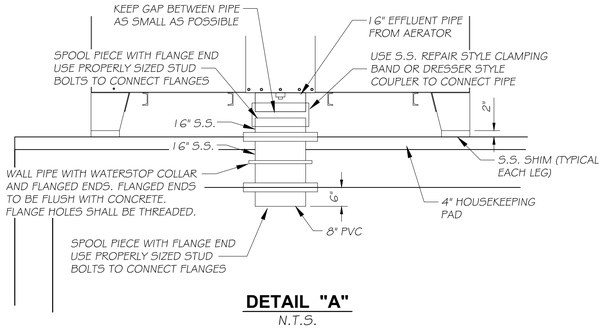
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

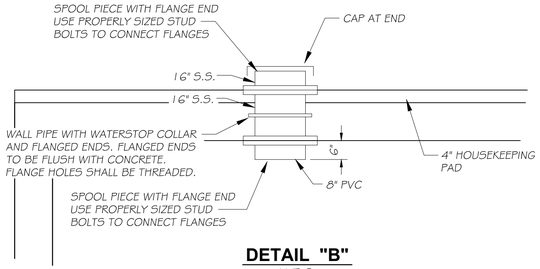
AERATION TANK STRUCTURAL DETAILS

BIDDING PLANS

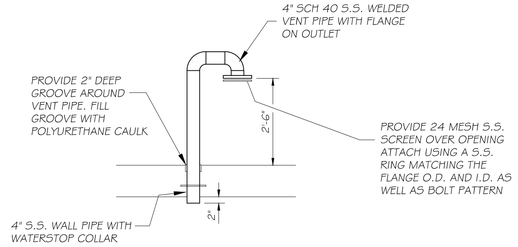
CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 17
FILE NO.: 9818.02 Y–
OF 84



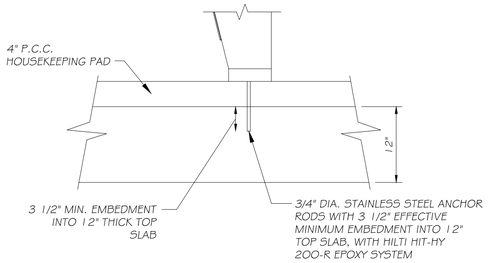
DETAIL "A"
N.T.S.



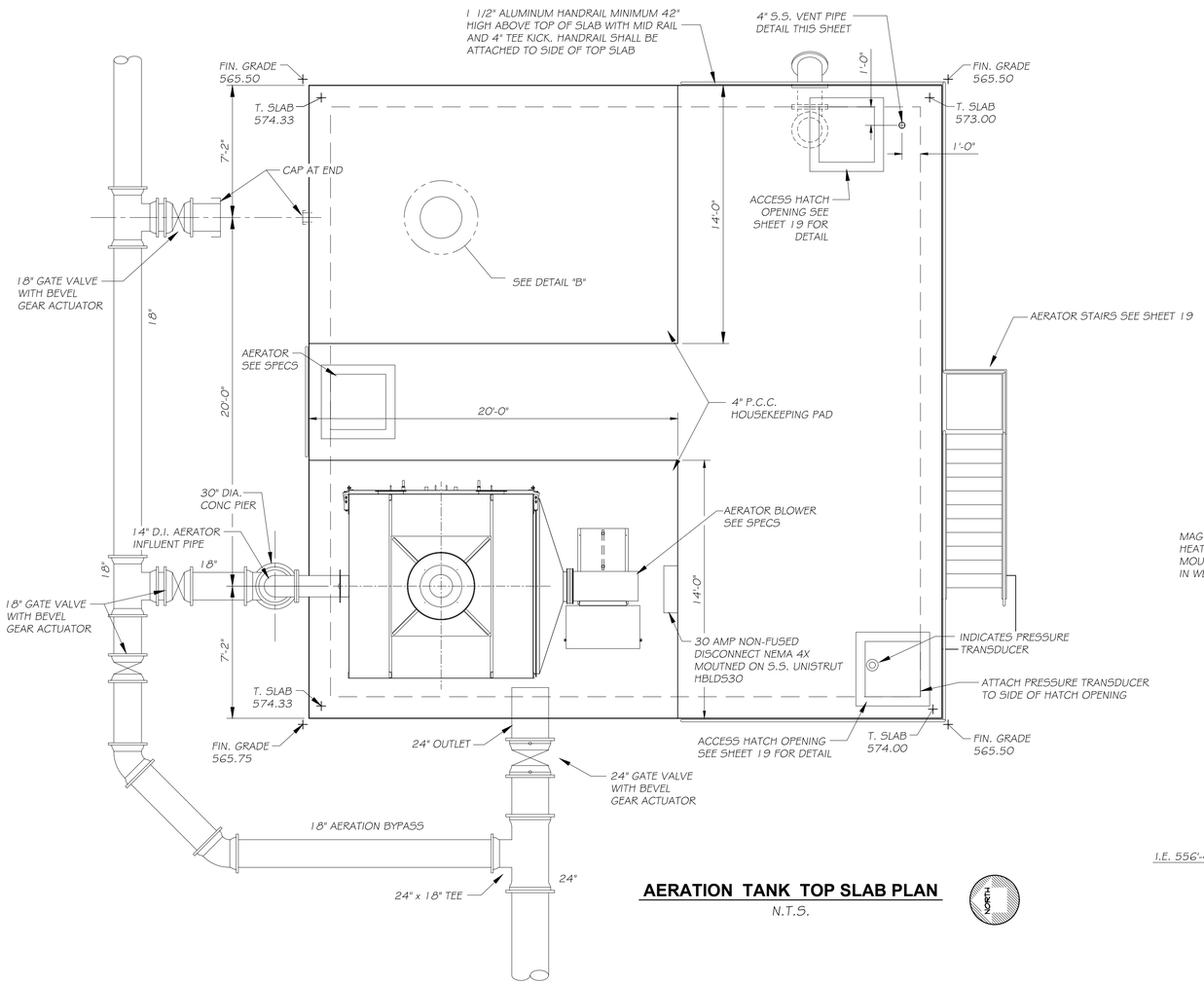
DETAIL "B"
N.T.S.



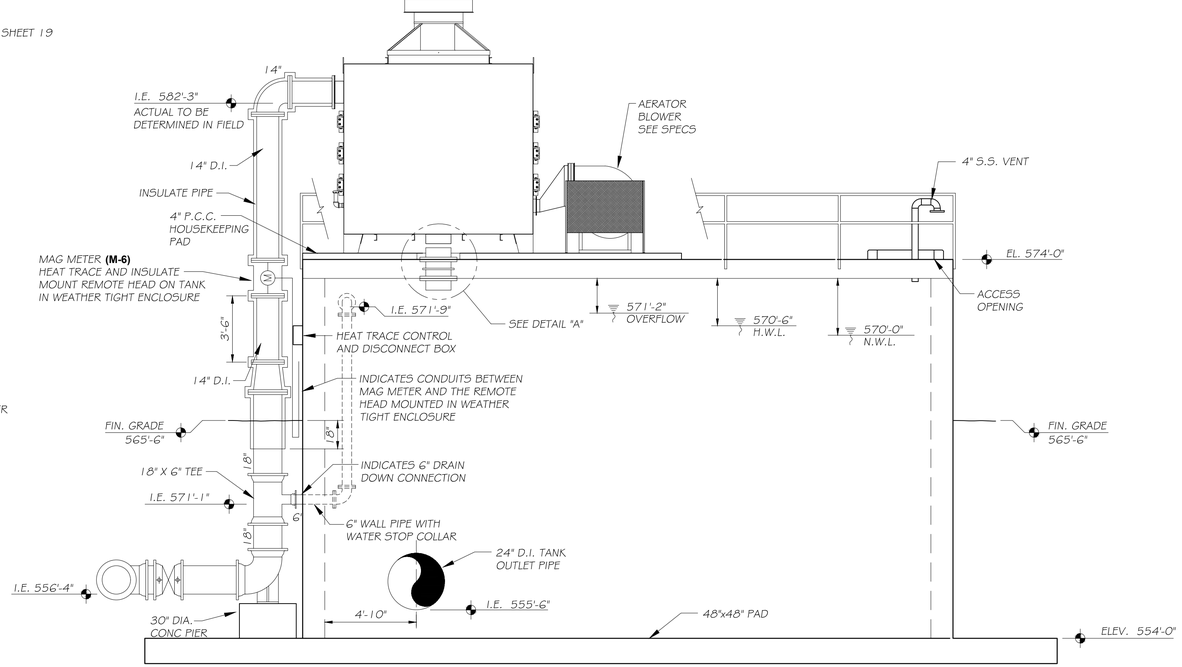
VENT PIPE DETAIL
N.T.S.



AERATOR ANCHORAGE DETAIL
TYPICAL 4 LEGS



AERATION TANK TOP SLAB PLAN
N.T.S.



AERATION TANK ELEVATION
LOOKING EAST
N.T.S.
(STAIRS NOT SHOWN FOR CLARITY)

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\VJW\18-02 - Morris - New Water Treatment Plant - Design\CAD\NEW #N# PLANS (WORK HERE)\018 - AERATION TANK DETAILS AND ELEVATION.dwg Last Modified: Friday, May 1, 2026 8:49:40 AM Plotted On: Friday, May 1, 2026 9:19:56 AM by Faith Pack

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 03/2021				

Chamlin & Associates

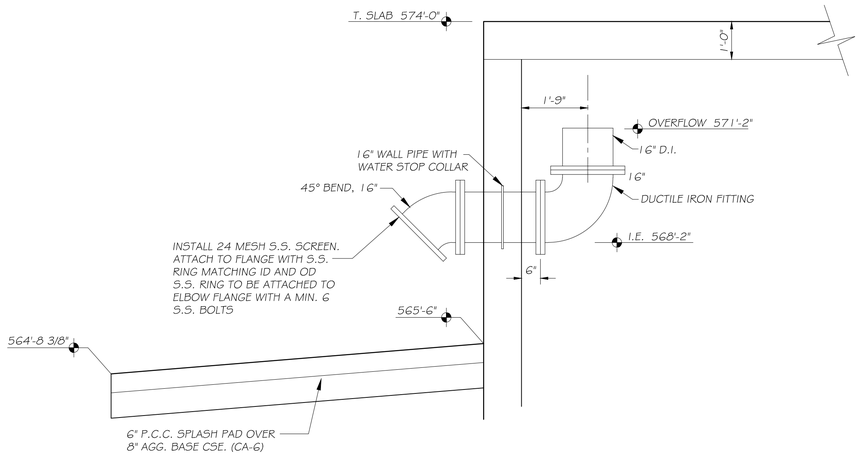
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

AERATION TANK
DETAILS AND ELEVATION

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 18
FILE NO.: 9818.02 Y--
OF 84

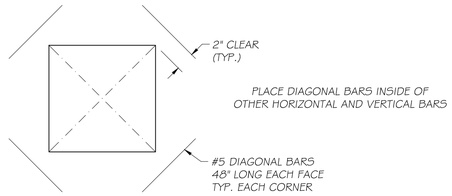


AERATION TANK OVERFLOW DETAIL

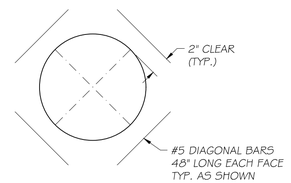
N.T.S.

1

NOTE:
TYPICAL SLAB REINFORCEMENT INTERRUPTED BY OPENINGS SHALL TERMINATE 2" CLEAR FROM THE EDGE OF OPENING. PROVIDE ADDITIONAL REINFORCEMENT ON EACH SIDE OF OPENING EQUAL TO THE NUMBER OF INTERRUPTED BARS AND LAP WITH UNINTERRUPTED REINFORCEMENT AS SPECIFIED.

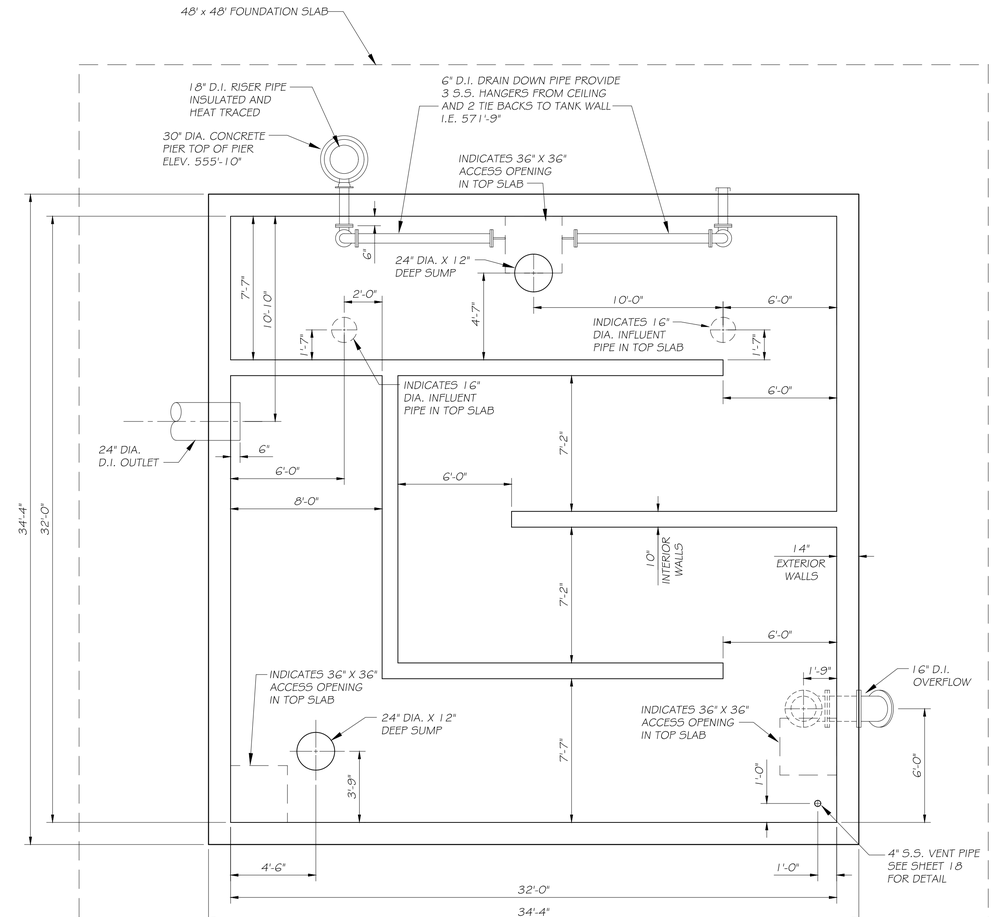


TYPICAL ADDITIONAL REINFORCING REQUIRED AT ALL RECTANGULAR OPENINGS



TYPICAL ADDITIONAL REINFORCING REQUIRED AT ALL PIPE PENETRATIONS

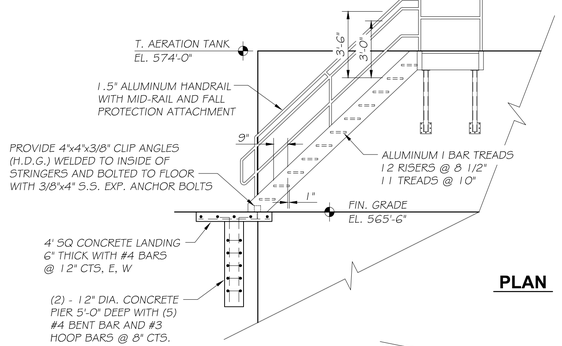
NOTE:
ACCESS HATCH SHALL BE MODEL F1836G36 AS MANUFACTURED BY "HALLIDAY PRODUCTS" OR APPROVED EQUAL.
HATCH SHALL HAVE STAINLESS STEEL ATTACHING HARDWARE, HINGES, AND PAD LOCK LUG.
FRAME SHALL BE 1/4" ALUMINUM, DOOR SHALL BE 1/4" ALUMINUM DIAMOND PLATE WITH NEWPRENE GASKET.
ATTACH TO CONCRETE WITH 3/8" S.S. EXP. ANCHORS HAVING 3" MIN. EMBEDMENT
PROVIDE SILICONE GASKET BETWEEN CONCRETE AND FRAME



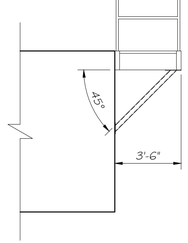
NORTH

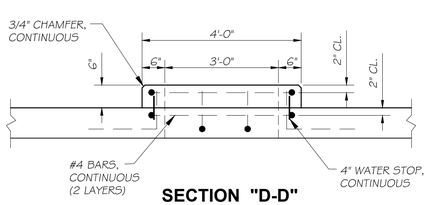
AERATION TANK INTERIOR LAYOUT

N.T.S.



PLAN





SECTION "D-D"

N.T.S.

STAIRWAY NOTES:

EXTERIOR STAIR STRINGERS AND FRAME SHALL BE C10X30 (H.D.G.)

STRINGERS AND FRAME NEXT TO WALL SHALL BE ATTACHED TO THE WALL WITH 1/2" S.S. EXP. ANCHORS. PROVIDE 4 ANCHORS PER STRINGER AND 2 ANCHORS FOR LANDING FRAME HAVING A MIN. 3" EMBEDMENT

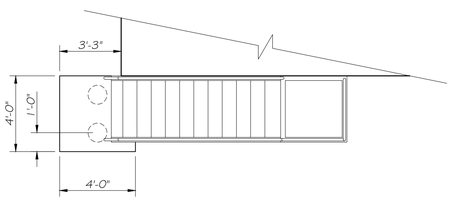
LANDING SUPPORT BRACES SHALL BE 3"x3"x1/4" TUBE (H.D.G.) WITH 5"x10"x3/8" TOP PLATE AND 7"x7"x3/8" WALL END PLATE. PROVIDE (4) 1/2" DIA. S.S. ANCHOR BOLTS FOR WALL END PLATE AND WELD TOP PLATE TO TUBE AND LANDING. 2 SUPPORT BRACES PER LANDING.

METAL STAIRS AND LANDING SHALL BE 36" SQ. BETWEEN HANDRAILS.

STAIRS SHALL BE 36" CLEAR BETWEEN HANDRAILS.

FALL PROTECTION ATTACHMENT SHALL BE LOCATED ON OUTSIDE OF HANDRAIL.

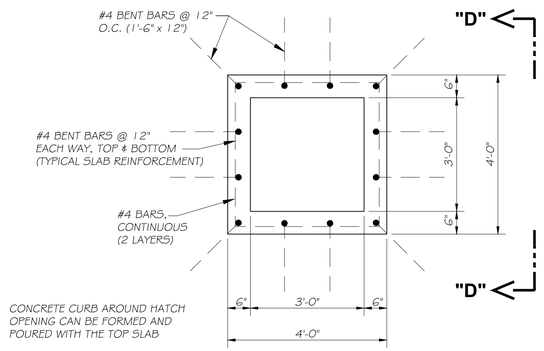
THE LANDING SHALL BE ALUMINUM I-BAR GRATING (19-SGE-4 1-1/2" x 3/16") AND TREADS SHALL BE I-BARS.



SECTIONS

AERATOR STAIR DETAILS

N.T.S.



ACCESS OPENING DETAIL

TYPICAL 4 LOCATIONS
N.T.S.

DRAWN BY: JJC	REVISIONS				
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	
DATE: 03/2021	1	JJW	05/20/26	ADDENDUM No. 1	

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

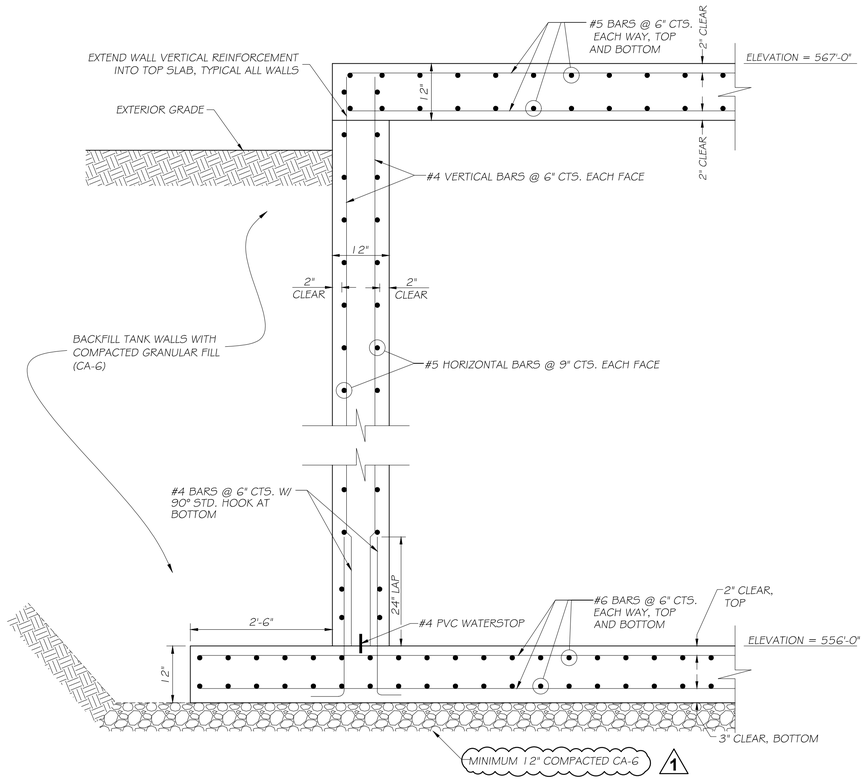
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

AERATION TANK
INTERIOR LAYOUT AND DETAILS

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 19
FILE NO.: 9818.02 Y--
OF 84

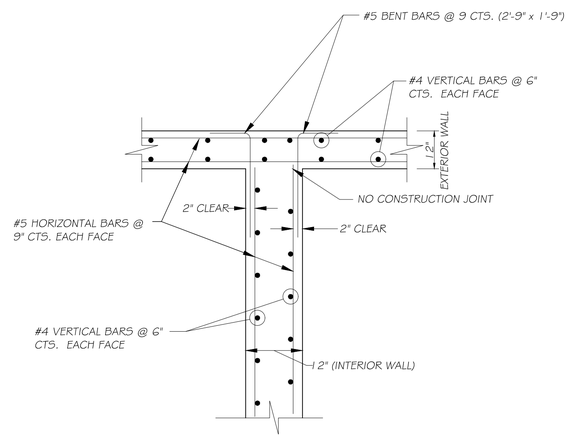
CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\JWW\18-02 - Morris - New Water Treatment Plant - Design\CAD\NEW - WW - PLANS (WORK HERE)\019 - AERATION TANK INTERIOR LAYOUT AND DETAILS.dwg Last Modified: Wednesday, May 20, 2026 3:40:40 PM Plotted On: Wednesday, May 20, 2026 3:41:08 PM by Josh Washkowiak



A 21 | 20

BRINE TANK TYPICAL SECTION

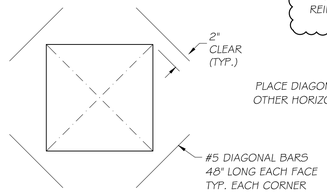
N.T.S.



B 21 | 20

WALL "T" INTERSECTION DETAIL

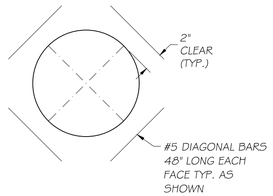
N.T.S.



PLACE DIAGONAL BARS INSIDE OF OTHER HORIZONTAL AND VERTICAL BARS

1 NOTE: TYPICAL SLAB REINFORCEMENT INTERRUPTED BY OPENINGS SHALL TERMINATE 2" CLEAR FROM THE EDGE OF OPENING. PROVIDE ADDITIONAL REINFORCEMENT ON EACH SIDE OF OPENING EQUAL TO THE NUMBER OF INTERRUPTED BARS AND LAP WITH UNINTERRUPTED REINFORCEMENT AS SPECIFIED.

TYPICAL ADDITIONAL REINFORCING REQUIRED AT ALL RECTANGULAR OPENINGS



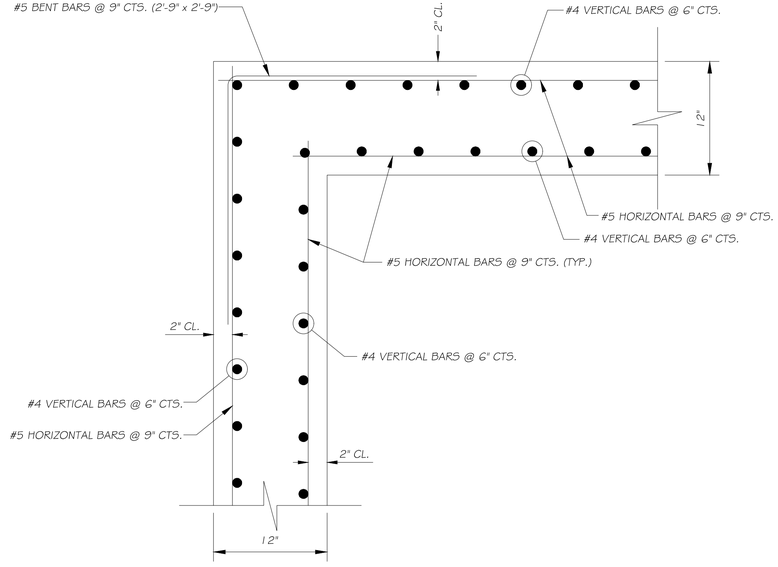
TYPICAL ADDITIONAL DIAGONAL REINFORCING REQUIRED AT ALL PIPE PENETRATIONS

REQUIRED LAP SPLICE LENGTHS
#4 BARS: 17"
#5 BARS: 21"
#6 BARS: 25"

NOTE: BARS SHALL ONLY BE SPLICED AT LOCATIONS INDICATED ON THE PLANS OR WHERE OTHERWISE APPROVED BY THE ENGINEER
LAP SPLICES ARE ADEQUATE FOR EPOXY COATED BARS

BRINE TANK STRUCTURAL NOTES

- APPLICABLE DESIGN CODES: IBC 2015
  ASCE 7-10
  ACI 350-06 (WALLS AND FOUNDATION SLAB)
  ACI 318-14 (TOP SLAB)
- WALL DESIGN LOADS: SOIL EQUIVALENT FLUID PRESSURE: 60 pcf
  LIVE LOAD SURCHARGE: 120 psf HORIZONTAL PRESSURE
- TOP SLAB DESIGN LIVE LOAD: 100 psf
- REQUIRED CONCRETE COMPRESSIVE STRENGTH: 5,000 psi (f'c)
- MAXIMUM WATER TO CEMENT RATIO= 0.40 FOR THIS TANK
- REINFORCING STEEL SHALL MEET ASTM A615 WITH A MINIMUM YIELD STRENGTH (f_y) OF 60 ksi. ALL REINFORCING STEEL FOR THE BRINE TANK SHALL BE EPOXY COATED, STRAIGHT BARS SHALL BE EPOXY COATED PER ASTM A775. BENT BARS SHALL BE EPOXY COATED PER ASTM A934
- CONCRETE FOR THE BOTTOM SLAB SHALL BE PLACED IN ONE CONTINUOUS POUR
- CONCRETE FOR THE WALLS SHALL BE PLACED IN ONE CONTINUOUS POUR
- CONCRETE FOR THE TOP SLAB SHALL BE PLACED IN ONE CONTINUOUS POUR
- TEMPORARY SHORING SHALL BE PROVIDED FOR THE TOP SLAB INSIDE THE TANK UNTIL SUCH TIME THAT THE TOP SLAB CONCRETE HAS ACHIEVED ITS DESIGN STRENGTH AND SAID STRENGTH HAS BEEN VERIFIED BY TESTING. SHORING CAN THEN BE REMOVED.
- DO NOT BACKFILL AROUND CONCRETE WALLS UNTIL TOP SLAB HAS BEEN POURED AND ITS DESIGN COMPRESSIVE STRENGTH HAS BEEN ACHIEVED AND VERIFIED BY TESTING
- FOR ANY HORIZONTAL OR VERTICAL REINFORCEMENT INTERRUPTED BY PIPE PENETRATIONS, ADD ADDITIONAL BARS ON BOTH SIDES OF THE PIPE PENETRATIONS, EACH FACE, EACH DIRECTION, OF THE SAME OR LARGER SIZE AS THE INTERRUPTED BAR.
- SEE PIPING PLANS FOR PIPE OPENING LOCATIONS
- COMPACTED GRANULAR FILL (CA-6) SHALL BE USED AT AREA EXCAVATED BELOW SLABS AND FOOTINGS. COMPACTION SHALL BE TO 98% OF MAXIMUM DRY DENSITY
- DEWATERING SHALL MAINTAIN WATER TABLE BELOW BOTTOM OF SLAB UNTIL WALLS AND FLOOR SLABS HAVE BEEN POURED AND DESIGN COMPRESSIVE STRENGTHS REACHED
- ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED
- HORIZONTAL BARS SHALL BE PLACED ON THE SIDE OF VERTICAL BARS INDICATED IN THE DETAILS



C 21 | 20

TYPICAL WALL CORNER DETAIL

N.T.S.

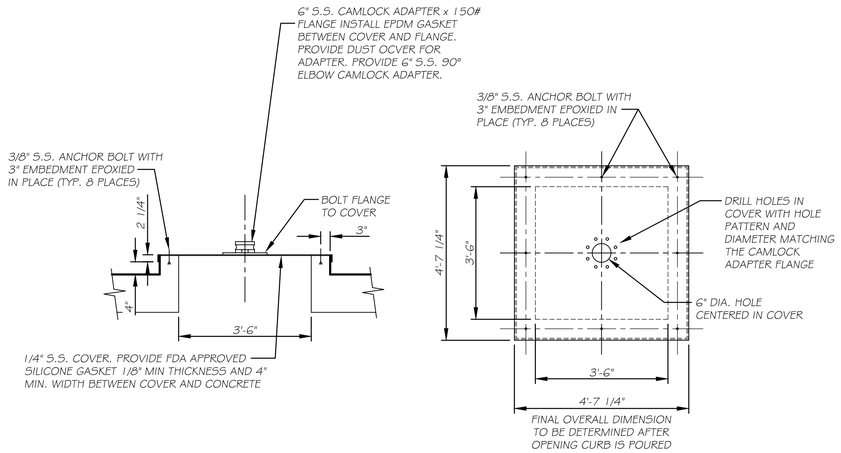
CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\RTB\18-02 - Morris-New Water Treatment Plant Design\CAD\VIEW #M - PLANS (WORK HERE)\2026-BRINE TANK STRUCTURAL DETAILS.dwg Last Modified: Monday, May 4, 2026 2:36:12 PM Plotted On: Wednesday, May 20, 2026 3:39:17 PM by Josh Wasilowski

DRAWN BY: JJW	REVISIONS				PERU MORRIS OTTAWA ILLINOIS
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026
DATE: 04/2026	1	JJW	05/20/26	ADDENDUM No. 1	BRINE TANK STRUCTURAL DETAILS

Chamlin & Associates

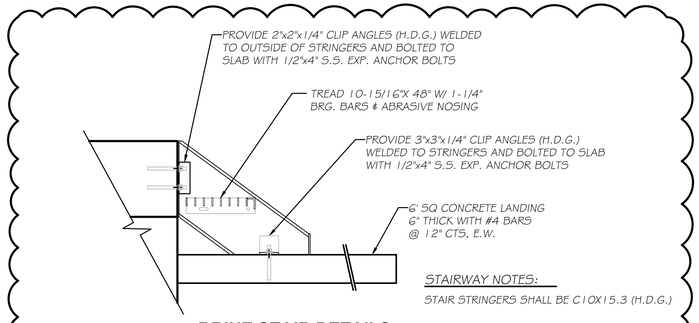
BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 20
FILE NO.: 9818.02 Y-
OF 84



SALT FILL CONNECTION PIPE AND OPENING COVER

TYPICAL 4 LOCATIONS
N.T.S.



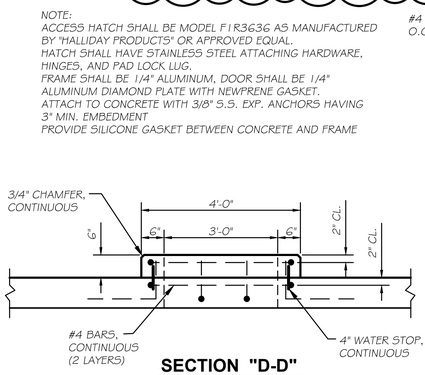
STAIRWAY NOTES:

STAIR STRINGERS SHALL BE C10X15.3 (H.D.G.)

BRINE STAIR DETAILS

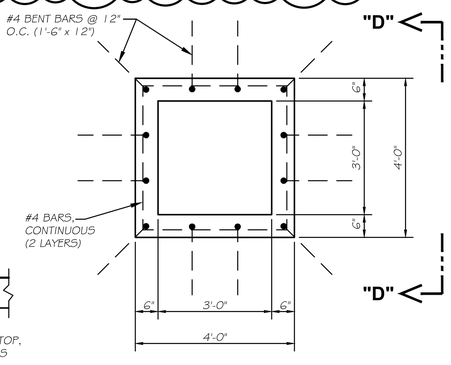
2 LOCATIONS
N.T.S.

NOTE:
ACCESS HATCH SHALL BE MODEL F1R3636 AS MANUFACTURED BY "HALLIDAY PRODUCTS" OR APPROVED EQUAL.
HATCH SHALL HAVE STAINLESS STEEL ATTACHING HARDWARE, HINGES, AND PAD LOCK LUG.
FRAME SHALL BE 1/4" ALUMINUM, DOOR SHALL BE 1/4" ALUMINUM DIAMOND PLATE WITH NEWPRENE GASKET.
ATTACH TO CONCRETE WITH 3/8" S.S. EXP. ANCHORS HAVING 3" MIN. EMBEDMENT
PROVIDE SILICONE GASKET BETWEEN CONCRETE AND FRAME



SECTION "D-D"

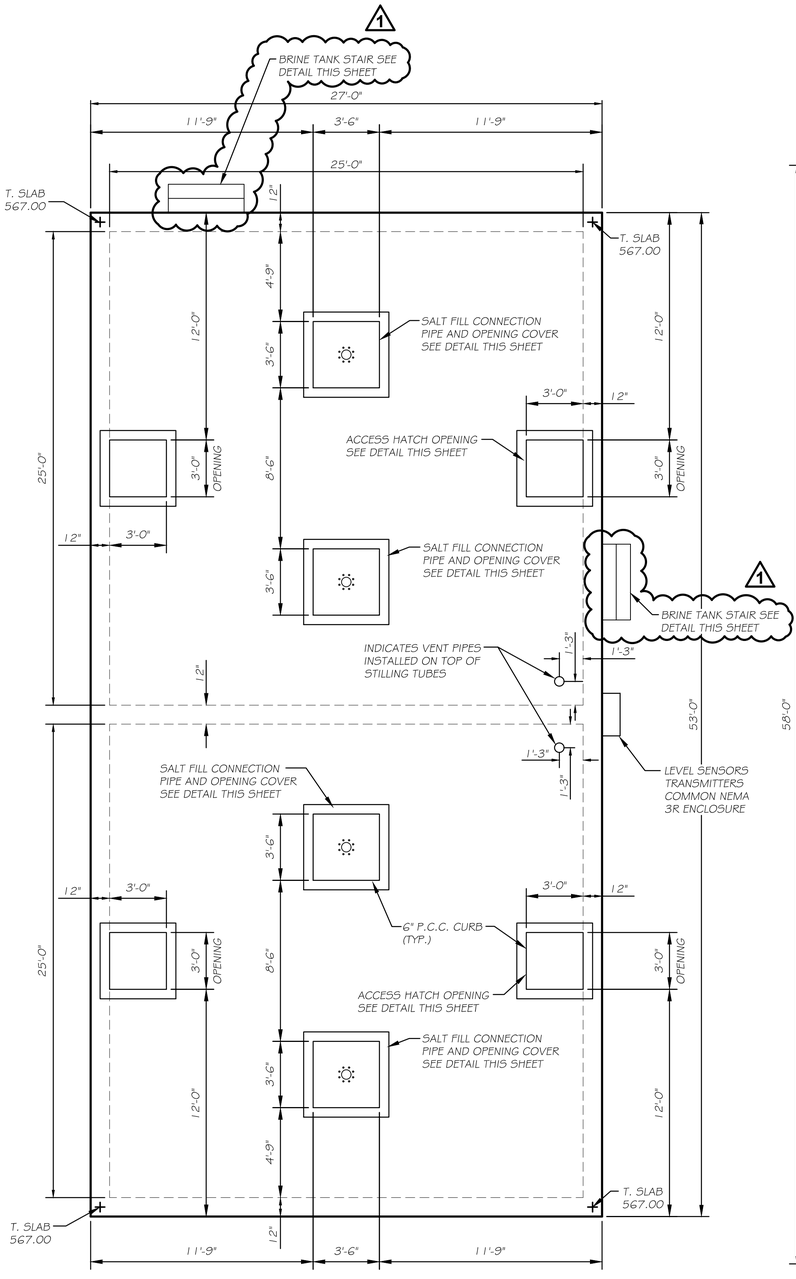
N.T.S.



ACCESS OPENING DETAIL

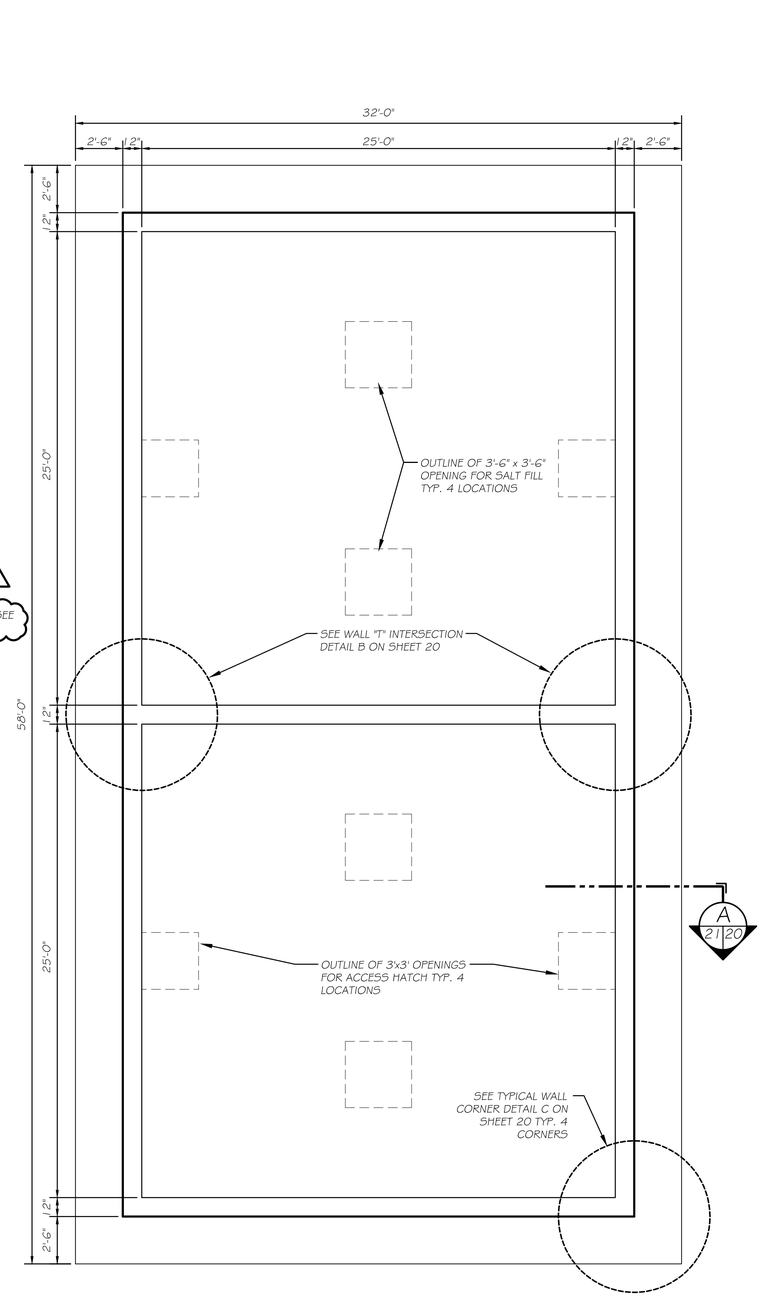
TYPICAL 4 LOCATIONS
N.T.S.

CONCRETE CURB AROUND HATCH OPENING CAN BE FORMED AND POURED WITH THE TOP SLAB



TOP SLAB PLAN

SCALE: 1/4" = 1'-0"



FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\9818-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\021-BRINE TANK PLAN AND DETAILS.dwg Last Modified: Wednesday, May 20, 2026, 9:39:34 AM Plotted On: Wednesday, May 20, 2026, 4:04:50 PM by Jonathon Covert

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 03/2021	1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

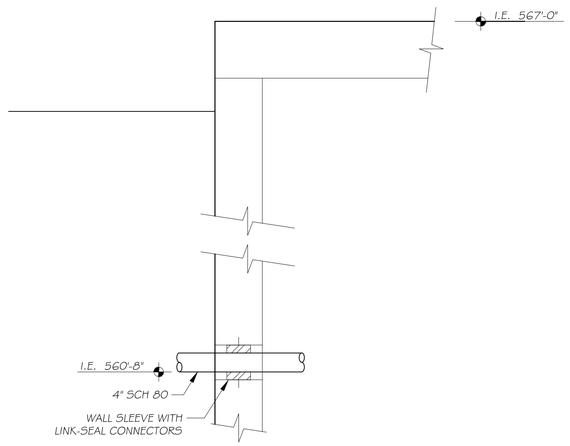
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

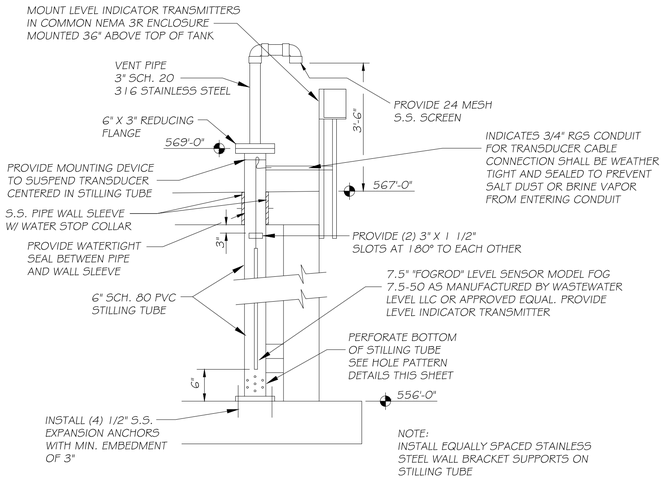
BRINE TANK
PLAN AND DETAILS

BIDDING PLANS

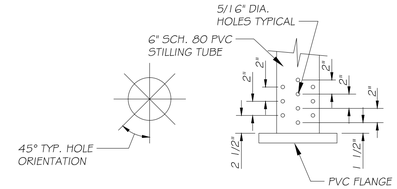
CURRENT AS OF: 05/01/2026	
SCALE: AS NOTED	SHEET 21
FILE NO.: 9818.02 Y–	OF 84



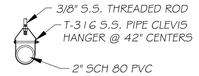
BRINE SUPPLY PIPE DETAIL
N.T.S.



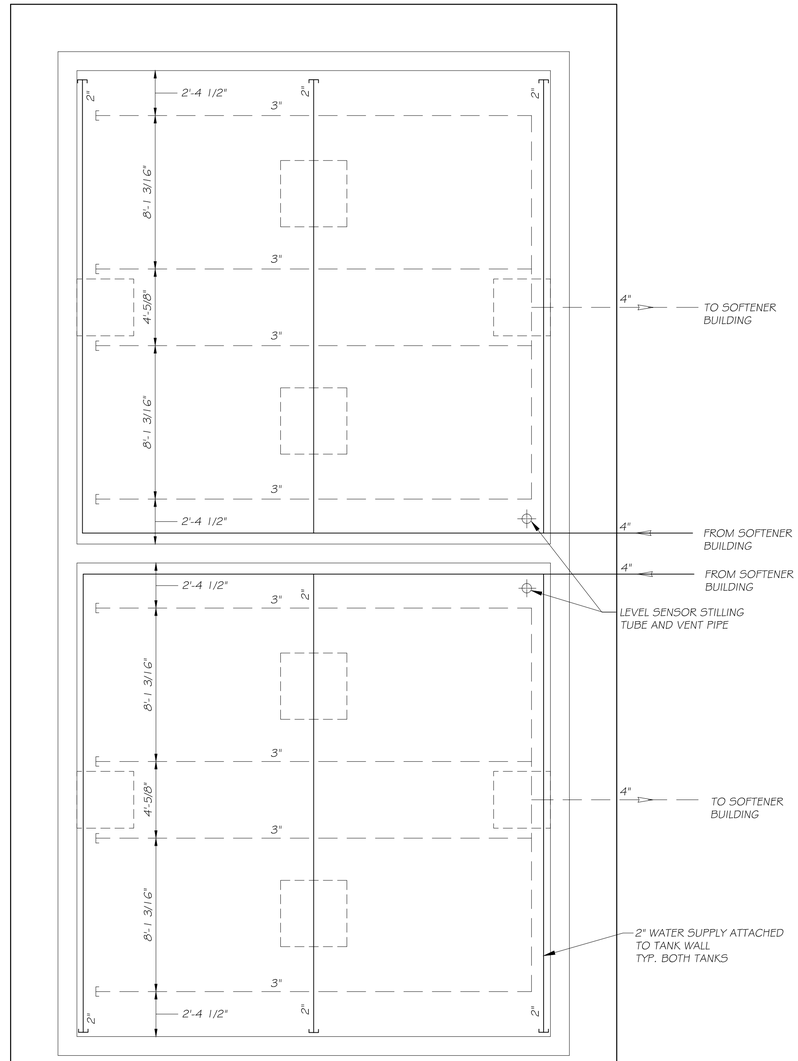
TYPICAL STILLING WELL TUBE AND VENT PIPE DETAIL
N.T.S.



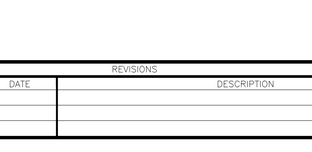
PVC STILLING TUBE HOLE PATTERN DETAILS
N.T.S.



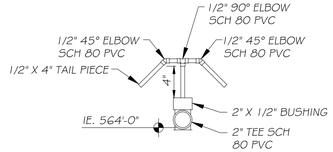
2" SUPPLY PIPE ATTACHMENT DETAIL
N.T.S.



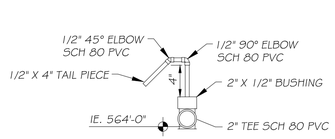
BRINE TANK PIPING PLAN
N.T.S.



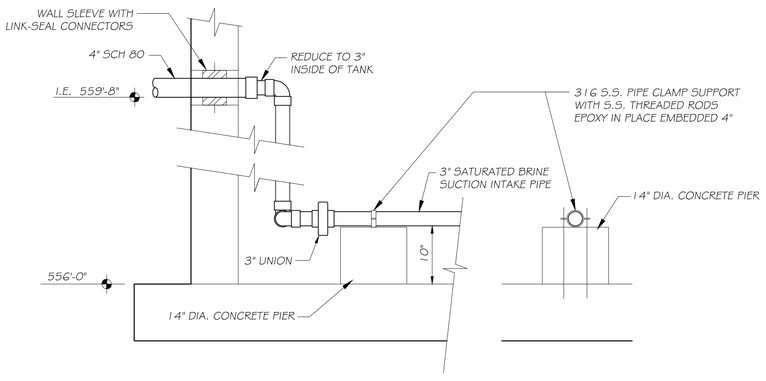
TYPICAL HOLE PATTERN LAYOUT FOR SUCTION HEADERS
N.T.S.



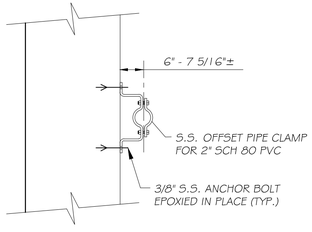
SUPPLY WATER INJECTOR TYPE B
N.T.S.



SUPPLY WATER INJECTOR TYPE A
N.T.S.



SATURATED BRINE SUCTION PIPE DETAIL
N.T.S.



2" SUPPLY PIPE ATTACHMENT DETAIL
N.T.S.

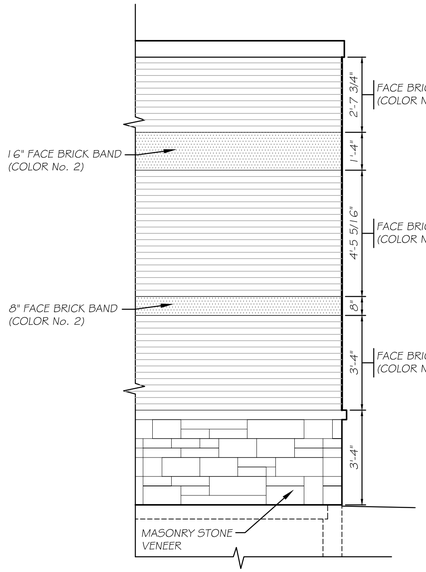
NOTE: PROVIDE PIPE ATTACHMENTS AT 48" CENTERS

CHAMLIN & ASSOCIATES, INC. © 2024
Drawing Name: C:\Users\VJB18-02-Morris - New Water Treatment Plant Design\CAD\NEW WM PLANS (WORK HERE)\022 BRINE TANK PIPING PLAN AND DETAILS.dwg Last Modified: Wednesday, April 29, 2026 1:38:19 PM Plotted On: Friday, May 1, 2026 9:33:40 AM by: Faith Peck

DRAWN BY: JJC	REVISIONS			Chamlin & Associates	PERU MORRIS OTTAWA ILLINOIS
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026
DATE: 03/2021					BRINE TANK PIPING PLAN AND DETAILS

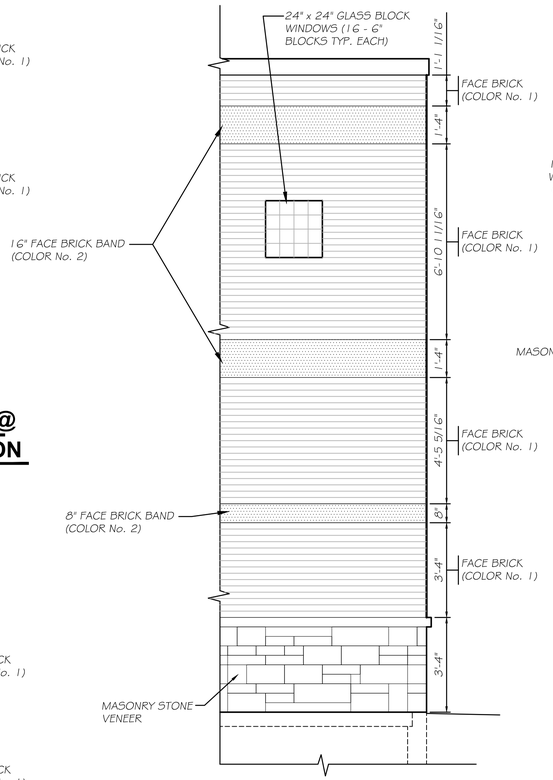
BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 22
FILE NO.: 9818.02 Y–
OF 84



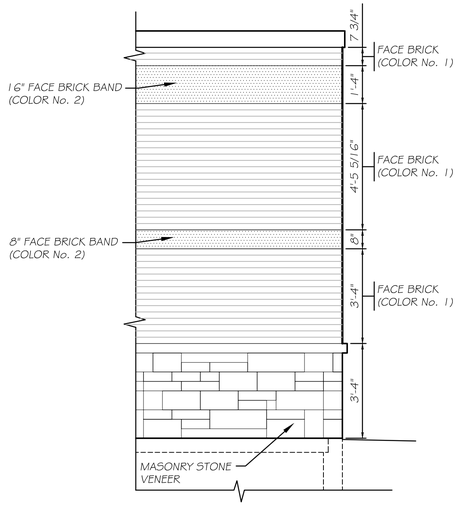
TYPICAL BUILDING WALL DETAIL @ CHEMICAL ROOM BUILDING SECTION

SCALE: 3/8" = 1'-0"



TYPICAL BUILDING WALL DETAIL @ SOFTENER ROOM BUILDING SECTION

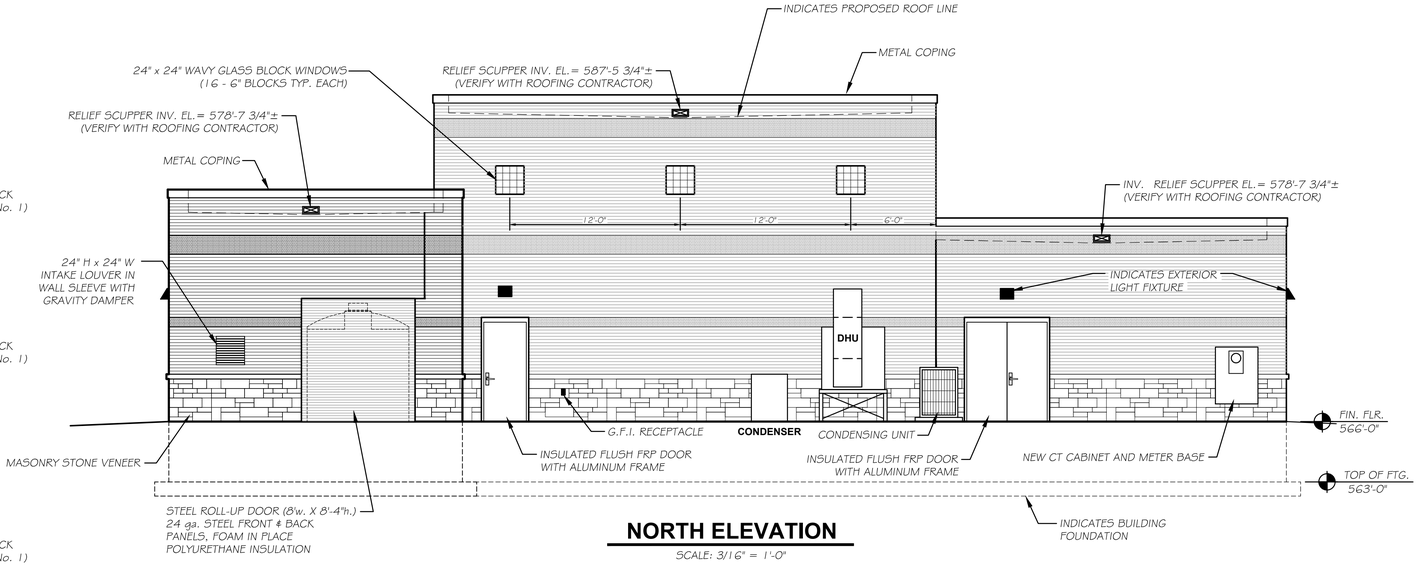
SCALE: 3/8" = 1'-0"



TYPICAL BUILDING WALL DETAIL @ LAB ROOM BUILDING SECTION

SCALE: 3/8" = 1'-0"

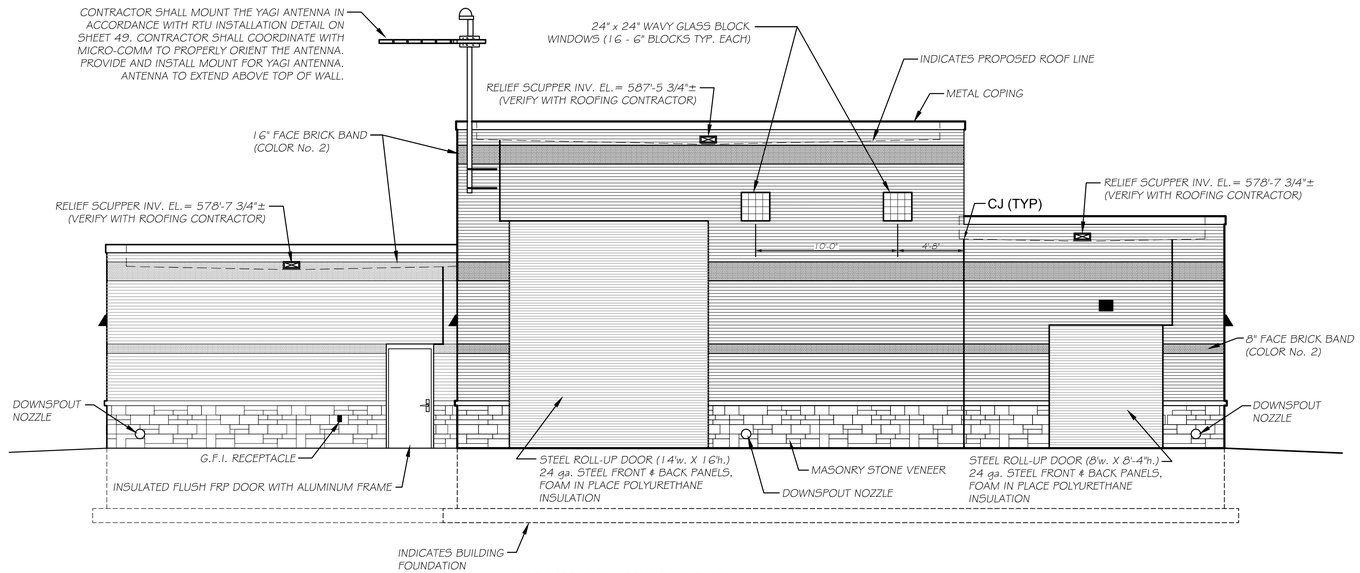
ENTIRE SHEET 1



NORTH ELEVATION

SCALE: 3/16" = 1'-0"

CJ = MASONRY CONTROL JOINT



SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\JJC\18-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-INV-PLANS (WORK HERE)\023-BUILDING NORTH AND SOUTH ELEVATIONS.dwg Last Modified: Wednesday, May 20, 2026 1:54:41 PM Plotted On: Wednesday, May 20, 2026 4:07:28 PM by Jonathon Covert

DRAWN BY: JJC	REVISIONS				
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	
DATE: 03/2021	1	JJC	05/20/26	ADDENDUM No. 1	

Chamlin & Associates

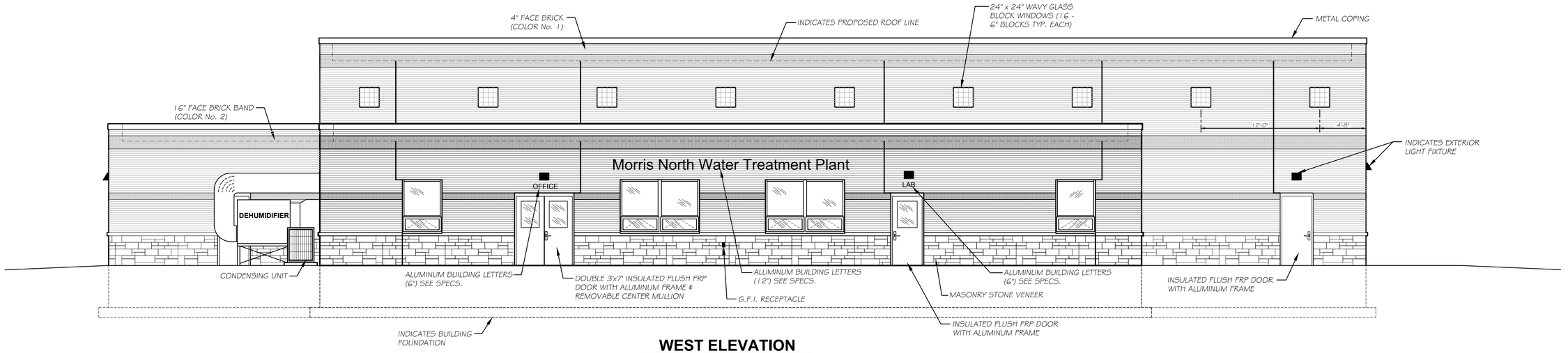
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

BUILDING NORTH AND SOUTH ELEVATIONS

BIDDING PLANS

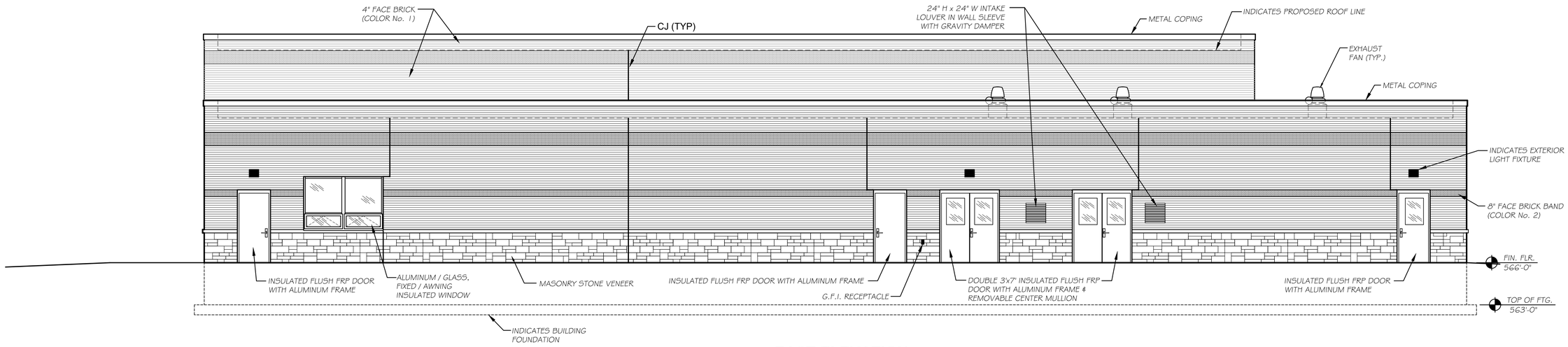
CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 23
FILE NO.: 9818.02 Y–
OF 84



WEST ELEVATION

SCALE: 3/16" = 1'-0"

CJ = MASONRY CONTROL JOINT



EAST ELEVATION

SCALE: 3/16" = 1'-0"

ENTIRE SHEET 1

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\CVS\18-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\024-BUILDING EAST AND WEST ELEVATIONS.dwg Last Modified: Wednesday, May 20, 2026 1:54:42 PM Plotted On: Wednesday, May 20, 2026 4:11:19 PM by Jonathan Covert

DRAWN BY:	JJC
CHECKED BY:	RTB
DATE:	03/2021

REVISIONS

LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

BUILDING EAST AND WEST ELEVATIONS

BIDDING PLANS

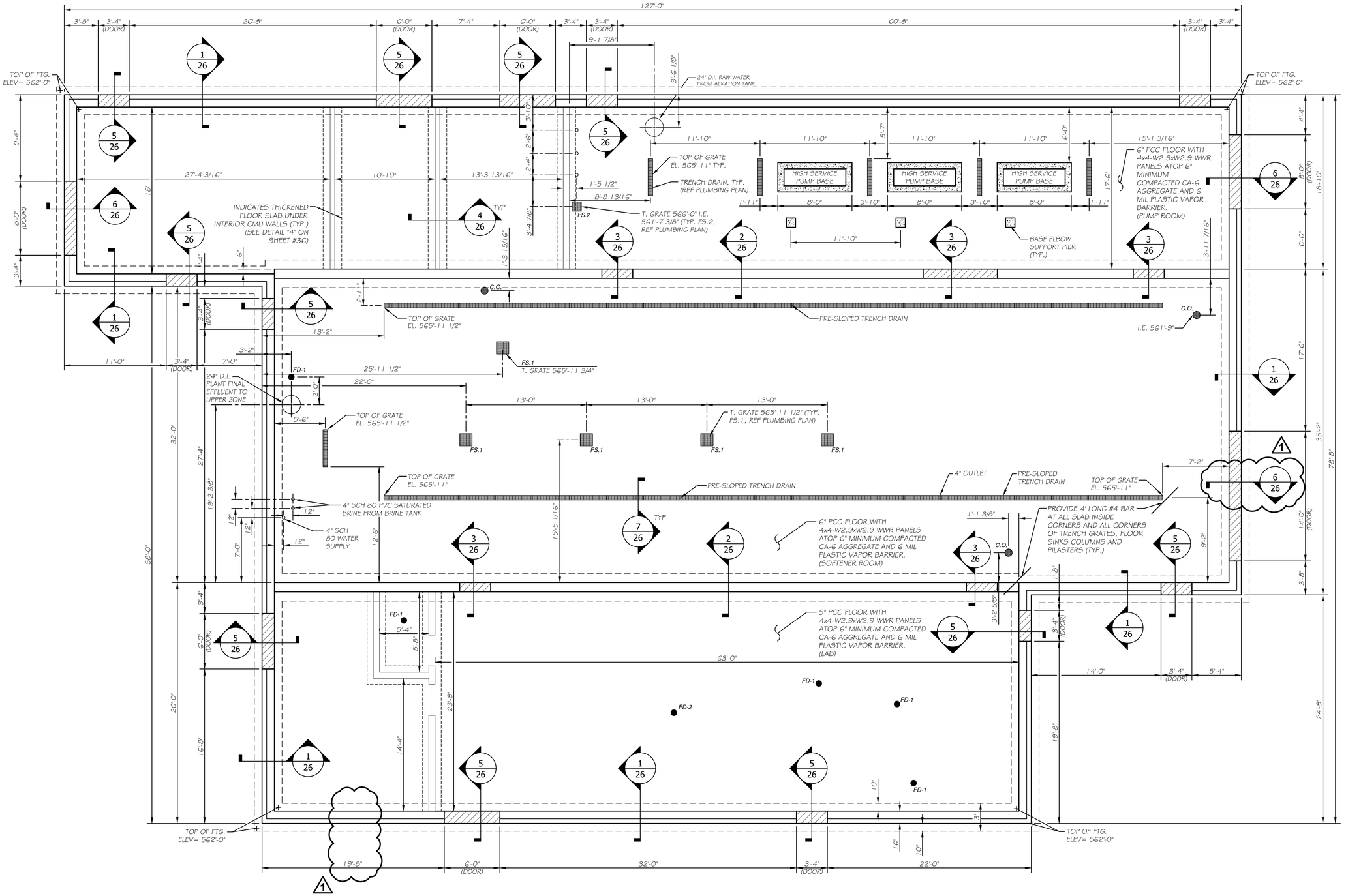
CURRENT AS OF: 05/01/2026

SCALE: AS NOTED

SHEET 24

FILE NO.: 9818.02 Y–

OF 84



FOUNDATION PLAN

SCALE: 3/16"= 1'-0"

NORTH

DRAWN BY: JJC	REVISIONS				
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	
DATE: 03/2021	1	JJC	05/20/26	ADDENDUM No. 1	

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

BUILDING FOUNDATION PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 25
FILE NO.: 9818.02 Y–
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\JJC\18-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\025-BUILDING FOUNDATION PLAN.dwg Last Modified: Wednesday, May 20, 2026 1:54:41 PM Plotted On: Wednesday, May 20, 2026 2:01:28 PM by Jonathon Covert

DESIGN CRITERIA:
1. DESIGN CODES:
   a. IBC 2015
   b. DESIGN LOADS: ASCE 7-10
   c. CONCRETE DESIGN: ACI 318-14
2. IMPORTANCE CATEGORY III
3. ALLOWABLE BEARING PRESSURE OF 2,500 PSF USED FOR FOUNDATION DESIGN PER GEOTECHNICAL REPORT BY CHAMLIN & ASSOCIATES, INC., DATED FEBRUARY 23, 2026.

GENERAL NOTES:
1. DO NOT SCALE DRAWINGS. USE GIVEN DIMENSIONS ONLY. COORDINATE WITH ENGINEER FOR DIMENSIONS NOT SHOWN.
2. CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
3. MAJOR DETAILS HAVE BEEN SHOWN ON THESE DRAWINGS. MINOR DETAILS ARE TO BE WORKED OUT IN THE FIELD.
4. STRUCTURAL DRAWINGS INCLUDE DESIGN REQUIREMENTS AND DIMENSIONS FOR STRUCTURAL INTEGRITY BUT DO NOT SHOW ALL DETAIL DIMENSIONS TO FIT INTRICATE ELECTRICAL AND MECHANICAL DETAILS.
5. CONTRACTOR SHALL PROTECT ALL EXISTING CONDITIONS NOT SPECIFIED FOR DEMOLITION OR MODIFICATION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE PROMPTLY REPAIRED OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE OWNER.
6. CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, EXCAVATIONS, TEMPORARY SHORING AND BRACING.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE LAWS, REGULATIONS AND PERMIT REQUIREMENTS.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE ALL NECESSARY PERMITS TO CONSTRUCT IMPROVEMENTS.
9. INSTALL SPECIFIED PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

EARTHWORK NOTES:
1. SOIL PROPERTIES PER GEOTECHNICAL REPORT:
   a. ALLOWABLE SOIL BEARING PRESSURE: 2,500 PSF
   b. SOIL SUBGRADE MODULUS: 125 PSI/IN (PCI)
2. COEFFICIENT OF FRICTION USED FOR DESIGN:
   a. 0.45 FOR CONCRETE ON COMPACTED AGGREGATE (UNFACTORED)
3. ALL EXCAVATIONS SHALL BE PROPERLY AND SAFELY BACKFILLED.
4. CONTRACTOR SHALL PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM SURFACE WATER AND GROUND WATER.
5. EXTREME CARE SHALL BE EXERCISED WHEN EXCAVATING OR GRADING ADJACENT TO EXISTING STRUCTURES OR IMPROVEMENTS TO NOT DAMAGE OR UNDERMINE FOUNDATIONS, UTILITIES, ETC.
6. ALL FOOTINGS SHALL BE PLACED ON FIRM UNDISTURBED SOIL, OR CONTROLLED COMPACTED CA-06 FILL (CA-11 IF WATER PRESENT), REMOVING ANY EXISTING FILL OR UNSUITABLE SOILS ENCOUNTERED IN FIELD AND AS INSTRUCTED BY GEOTECHNICAL FIELD TECHNICIAN.
7. PRIOR TO CONCRETE REINFORCEMENT PLACEMENT, FOUNDATION SUBGRADE SHALL BE INSPECTED BY QUALIFIED GEOTECHNICAL FIELD TECHNICIAN TO VERIFY FIELD CONDITIONS.
8. FOOTING ELEVATIONS SHOWN ON DRAWINGS SHALL NOT BE VARIED IN THE FIELD WITHOUT PRIOR WRITTEN CONSENT FROM THE ENGINEER.
9. ALL REQUIRED BACKFILL AND UTILITY TRENCH BACKFILL WITHIN THE BUILDING AREAS SHALL BE MECHANICALLY COMPACTED IN 8" MAX LIFTS TO AT LEAST 95% OF MAXIMUM DRY DENSITY BASED ON ASTM D-698 (STANDARD PROCTOR).
10. ALL UNACCEPTABLE MATERIAL AND ORGANIC MATERIAL SHALL BE REMOVED FROM BELOW ALL PROPOSED SLABS-ON-GRADE. THE EXPOSED NATURAL SOIL SHALL BE PROOF-ROLLED WITH GEOTECHNICAL FIELD TECHNICIAN ON SITE TO WITNESS.
11. TOPSOIL REMOVED FROM BUILDING AREAS SHALL BE STOCKPILED FOR RE-SPREADING AROUND PROPOSED STRUCTURES.

STEEL NOTES:
1. NEW STEEL SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

a. ANGLES	ASTM A36
b. WIDE FLANGES	ASTM A992
c. PLATES	ASTM A572
d. HEADED STUDS	ASTM A108, TY B
e. ANCHOR BOLTS	ASTM A1554 GR 36
f. HEAVY HEX NUTS	ASTM A563
g. WASHERS	ASTM F436
h. WELDS	AWS D1.1, 70 KSI YIELD STRENGTH

2. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED.

CAST-IN-PLACE CONCRETE NOTES:
1. CONCRETE SHALL BE READY-MIXED AND CONFORM TO THE FOLLOWING:

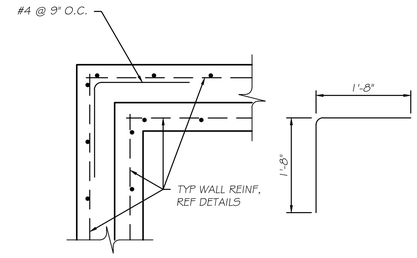
a. CEMENT	ASTM C150 TY I OR II
b. FLY ASH	ASTM C618 TY C OR F
c. FINE AND COARSE AGGREGATE	ASTM C33
d. WATER	POTABLE
e. WATER-REDUCING ADMIXTURE	ASTM C494
f. AIR-ENTRAINING ADMIXTURE	ASTM C260

2. CONCRETE SHALL HAVE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
3. REINFORCING STEEL SHALL BE DEFORMED AND CONFORM TO ASTM A615 GRADE 60.
4. REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH CRSI STANDARDS AND CONCRETE INSTALLED IN ACCORDANCE WITH ACI 301 AND ACI 318.
5. LAP ALL REINFORCEMENT 48 BAR DIAMETERS UNLESS NOTED OTHERWISE ON PLANS.
6. HOT AND COLD WEATHER PLACEMENT SHALL BE IN ACCORDANCE WITH ACI 305R AND ACI 306R, RESPECTIVELY.
7. VERIFY ALLOWABLE BEARING CAPACITY IN FIELD IS AT LEAST 2,500 PSF.
8. MAINTAIN 3" CLEAR COVER AT BOTTOM OF FOOTINGS AND 2" CLEAR COVER AT TOP AND SIDES OF FOOTINGS AND WALLS WITH 2 LAYERS OF REINFORCEMENT.
9. REINFORCEMENT IN SLABS-ON-GROUND SHALL BE CENTERED IN SLAB AND SUSPENDED BY STEEL CHAIRS. ALL REINFORCEMENT SHALL BE TIED.
10. ALL CONSTRUCTION JOINTS SHALL BE CAREFULLY BULKHEADED TO CREATE A STRAIGHT JOINT. DIAMOND DOWEL EMBEDMENT PRODUCT BY PNA CONSTRUCTION TECHNOLOGIES, GLENVIEW, IL, SHALL BE USED AT ALL CONSTRUCTION JOINTS. SLAB REINFORCEMENT SHALL BE TERMINATED AT CONSTRUCTION JOINTS.
11. CURING OF SLABS-ON-GROUND SHALL BE BY METHOD ALLOWED BY IDOT STANDARD SPECIFICATIONS OF ROADS & BRIDGES (ADOPTED 1/1/22) ARTICLE 1020.13.
12. SLABS-ON-GROUND SHALL BE SAWCUT AS SOON AS POSSIBLE USING 'SOFT-SAW'. MAXIMUM SAWCUT SPACING SHALL BE LIMITED TO 16'. MAXIMUM RATIO OF PANEL WIDTH:LENGTH SHALL BE 1.5:1.

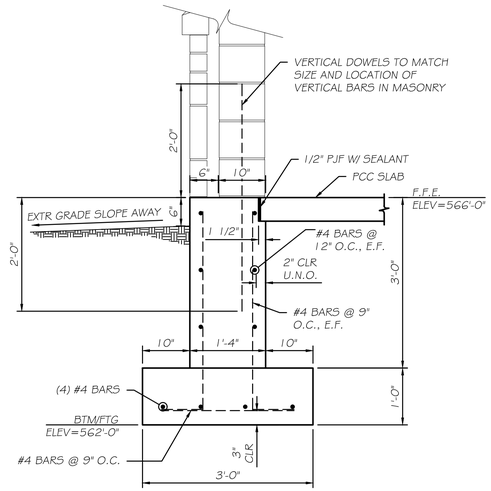
13. MIX DESIGNS:
   a. FOOTINGS, FOUNDATION WALLS:
      i. IN ACCORDANCE WITH IDOT CLASS SI MIX DESIGN AND AS NOTED HEREIN:
      ii. 4,000 PSI 28 DAY COMPRESSIVE STRENGTH (f'c)
      iii. MAXIMUM W/C RATIO 0.44
      iv. SLUMP 2" - 4" (PRIOR TO ADDITION OF WATER-REDUCING ADMIXTURE)
      v. SLUMP 7" MAX (ONLY WITH ADDITION OF WATER-REDUCING ADMIXTURE)
      vi. AIR ENTRAINMENT: 5% - 8%
   b. SLABS-ON-GROUND:
      i. IN ACCORDANCE WITH IDOT CLASS SI MIX DESIGN AND AS NOTED HEREIN:
      ii. 4,000 PSI 28 DAY COMPRESSIVE STRENGTH (f'c)
      iii. MAXIMUM W/C RATIO 0.44
      iv. SLUMP 2" - 4" (PRIOR TO ADDITION OF WATER-REDUCING ADMIXTURE)
      v. SLUMP 5" MAX (ONLY WITH ADDITION OF WATER-REDUCING ADMIXTURE)
      vi. AIR ENTRAINMENT: NONE

SPECIAL INSPECTIONS NOTES:
1. UNLESS NOTED, MATERIALS SHALL CONFORM TO AND TESTS AND INSPECTIONS SHALL BE PERFORMED BY THE APPROVED SPECIAL INSPECTION AGENCY.
2. DUTIES OF THE INSPECTION AGENCY PER 2015 IBC CHAPTER 17:
   a. SUBMIT A PROPOSED TESTING AND INSPECTION PROGRAM TO THE OWNER AND BUILDING OFFICIAL FOR REVIEW AND APPROVAL AT LEAST TWO WEEK PRIOR TO COMMENCEMENT OF WORK.
   b. PERFORM ALL TESTING AND INSPECTION REQUIRED PER APPROVED TESTING AND INSPECTION PROGRAM.
   c. FURNISH INSPECTION REPORT TO THE BUILDING OFFICIAL, THE OWNER, THE ENGINEER AND THE GENERAL CONTRACTOR. THE REPORTS SHALL BE COMPLETED AND FURNISHED WITHIN 48 HOURS OF INSPECTED WORK.
   d. SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTION AGENCY'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
3. CONTINUOUS AND PERIODIC TESTING AND INSPECTION SHALL CONFORM TO:
   a. CONCRETE CONSTRUCTION: PER 2015 IBC TABLE 1705.3.
   b. MASONRY CONSTRUCTION: PER TMS 402/602-13.

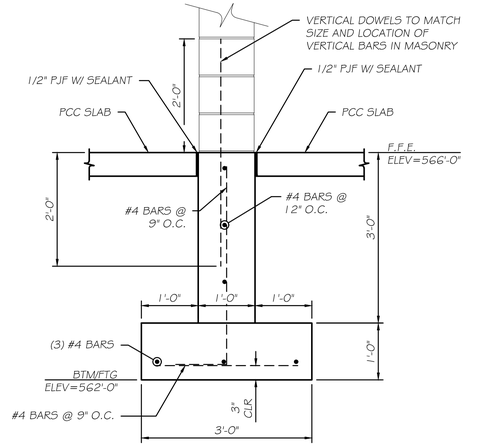
1



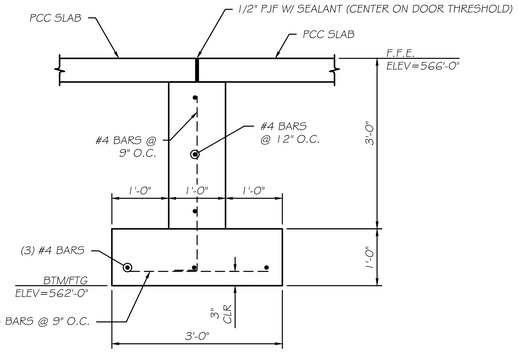
TYPICAL WALL CORNER DETAIL
SCALE: 3/4" = 1'-0"



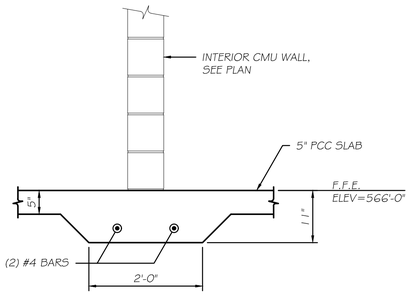
1 TYPICAL WALL FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"



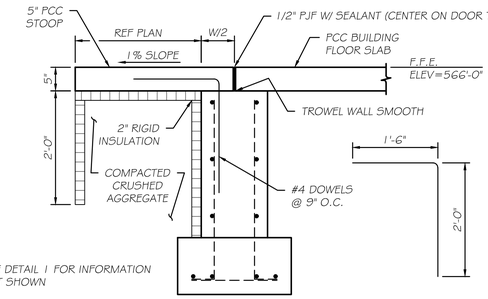
2 TYPICAL WALL FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"



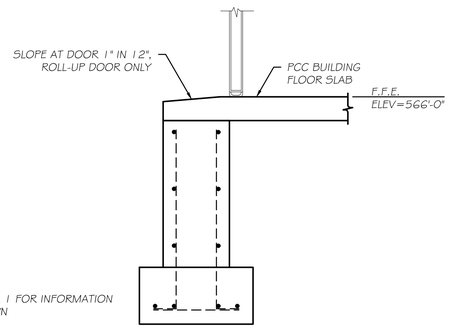
3 TYPICAL WALL FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"



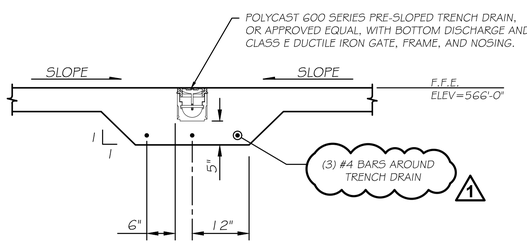
4 TYPICAL THICKENED SLAB DETAIL
SCALE: 3/4" = 1'-0"



5 TYPICAL EXTERIOR STOOP DETAIL
SCALE: 3/4" = 1'-0"



6 TYPICAL EXTERIOR OPENING DETAIL
SCALE: 3/4" = 1'-0"



TYPICAL TRENCH DRAIN & SLAB DETAIL
SCALE: 3/4" = 1'-0"

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: G:\Users\RTB\18-422-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\026-BUILDING FOUNDATION DETAILS.dwg Last Modified: Monday, May 4, 2026 4:17:54 PM Plotted On: Wednesday, May 20, 2026 2:11:58 PM by Jonathon Covert

DRAWN BY:	JJC
CHECKED BY:	RTB
DATE:	06/2024

REVISIONS

LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

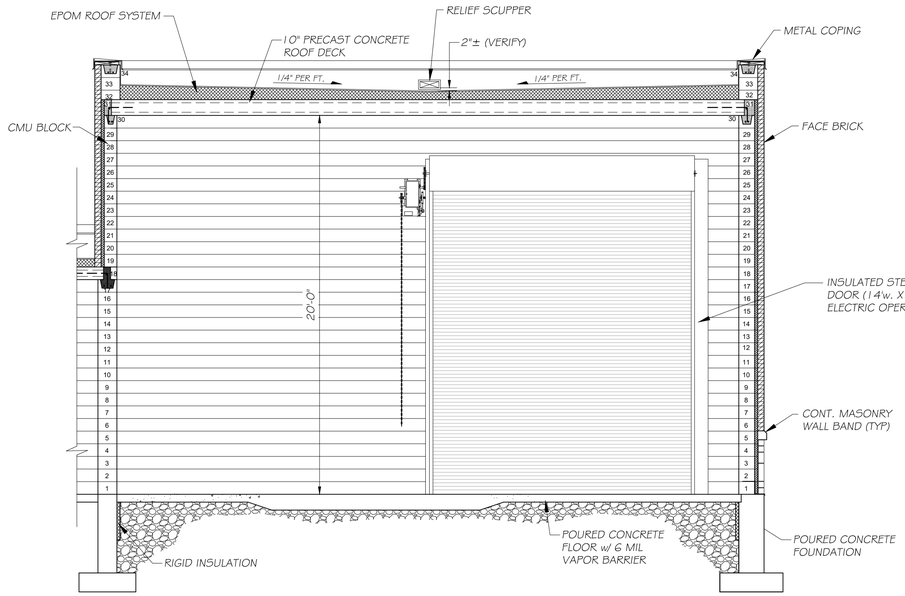
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

WTP BUILDING
FOUNDATION DETAILS

BIDDING PLANS

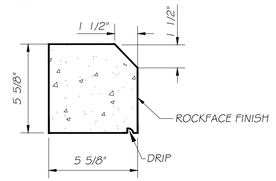
CURRENT AS OF:	05/01/2026
SCALE:	AS NOTED
FILE NO.:	9818.02 Y–
SHEET	26
OF	84



SECTION

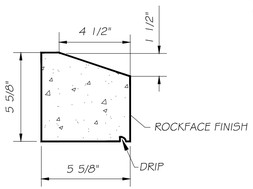
C-C 33|27

SCALE: 1/4"= 1'-0"



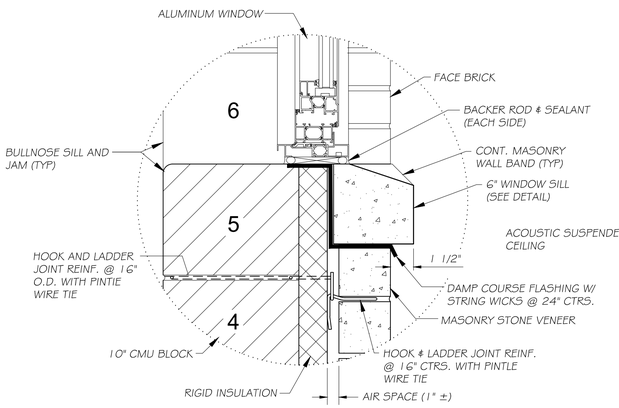
WALL BAND DETAIL

N.T.S.



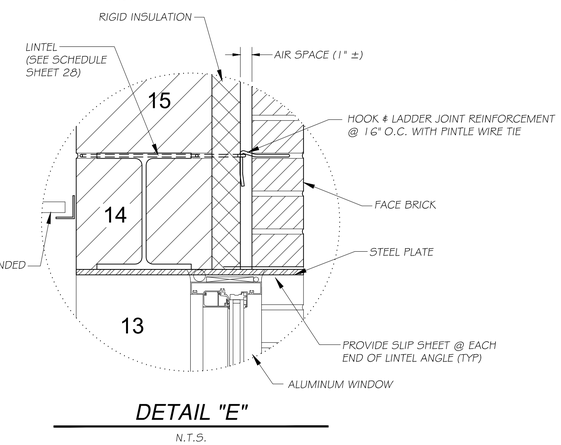
WINDOW SILL DETAIL

N.T.S.



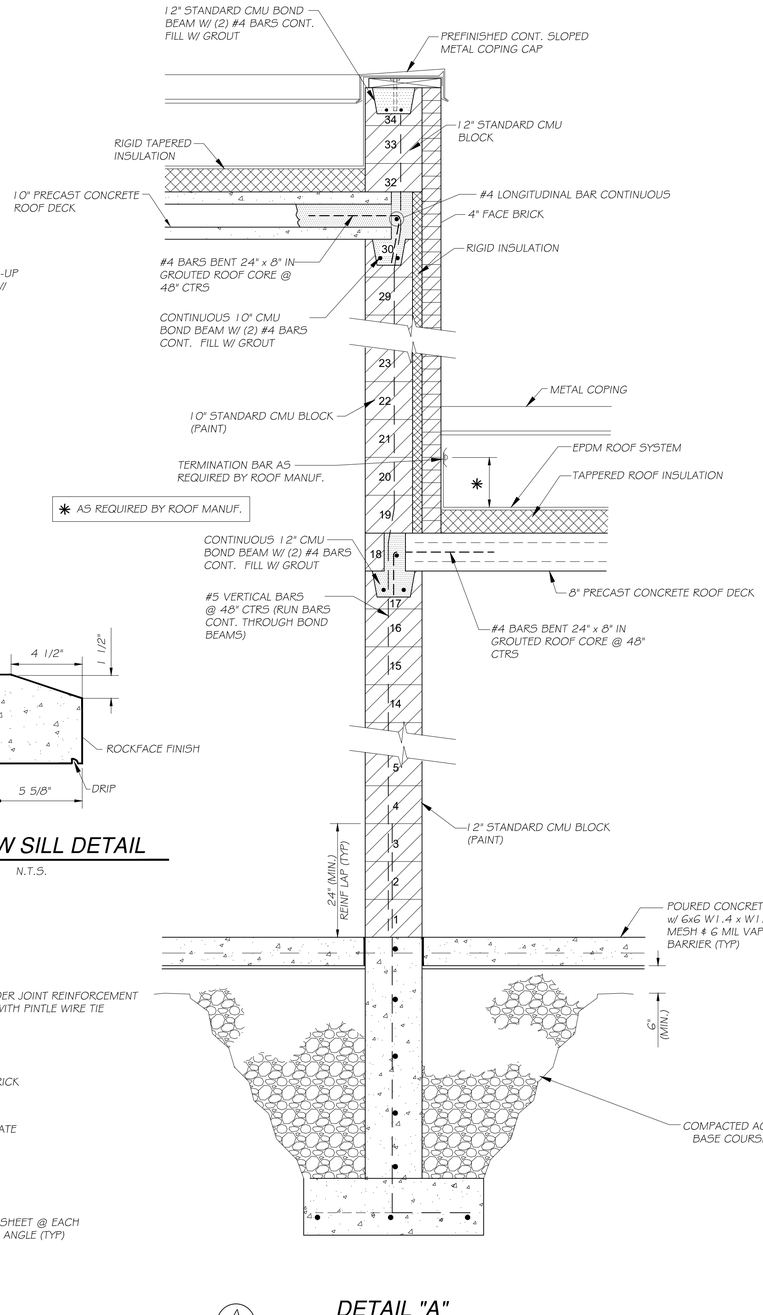
DETAIL "D"

N.T.S.



DETAIL "E"

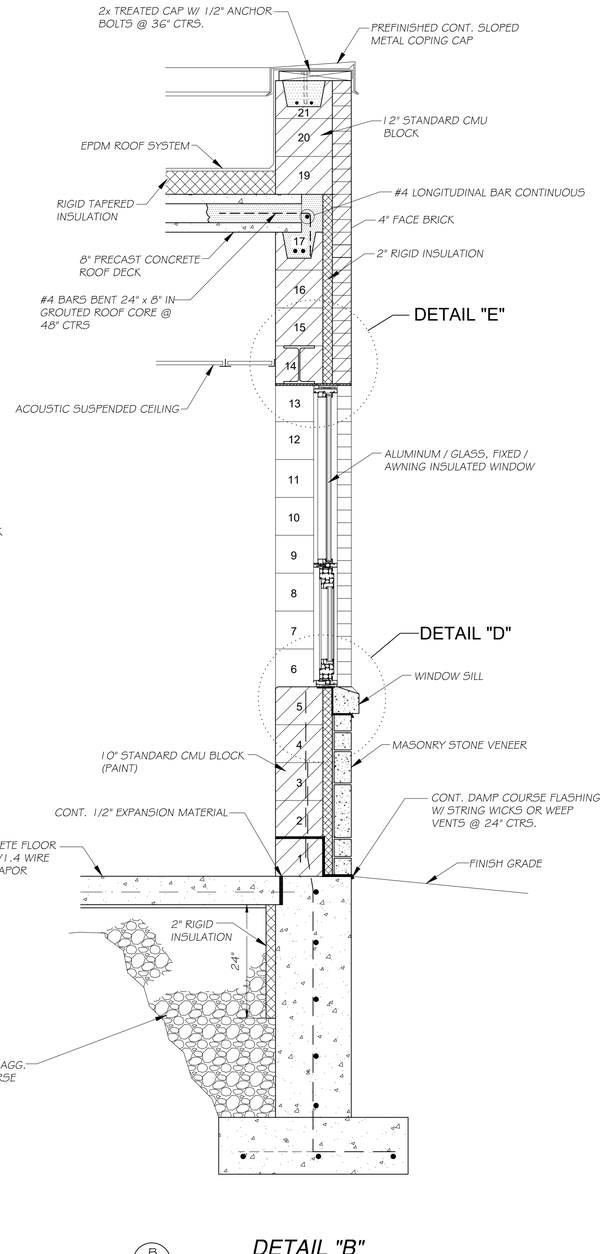
N.T.S.



A 4|27

DETAIL "A"

SCALE: 3/4"= 1'-0"



B 4|27

DETAIL "B"

SCALE: 3/4"= 1'-0"

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: G:\Users\JVB18-02-Morris New Water Treatment Plant-Design\CAD\NEW WW PLANS (WORK HERE)\027 TYPICAL BUILDING SECTION AND DETAILS.dwg Last Modified: Thursday, April 30, 2026 1:26:04 PM Plotted On: Friday, May 1, 2026 9:43:20 AM by Faith Peck

DRAWN BY: GAH	REVISIONS			
CHECKED BY: MJP	LEVEL	BY	DATE	DESCRIPTION
DATE: 7/14/21				

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NEW WATER TREATMENT PLANT
2025

TYPICAL BUILDING SECTION & DETAILS

BIDDING PLANS

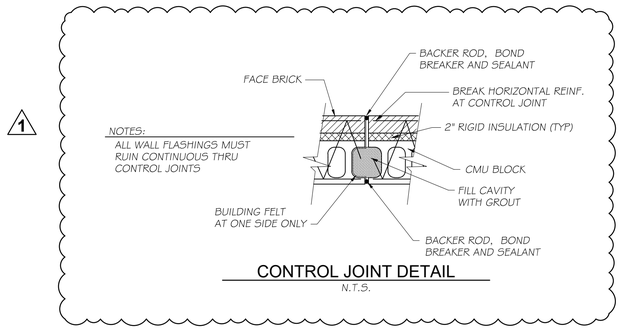
CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 27
FILE NO.: 9818.02 Y–
OF 84

CONCRETE MASONRY UNITS:

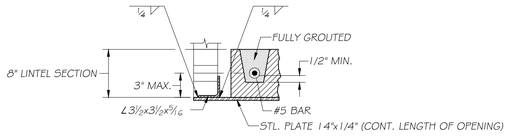
1. CMU SHALL BE NORMAL WEIGHT STANDARD BLOCK UNITS AS PRODUCED BY "ECHELON MASONRY" OR APPROVED EQUAL. CMU'S SHALL CONFORM TO ASTM C-90 WITH A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2,000 psi. UNITS SHALL INCLUDE "DRY BLOCK" WATER REPELLANT, MAX. ABSORPTION OF (7.5%). MORTAR SHALL MATCH BLOCK COLOR AND COMFORM TO ASTM C-270, TYPE M. CONCRETE MASONRY COMPRESSIVE STRENGTH (f'm) SHALL NOT BE LESS THAN 2,000 psi AS DETERMINED BY THE UNIT STRENGTH METHOD.
2. PLACE "HOHMANN & BARNARD" 220 LADDER MESH CMU REINFORCING EVERY SECOND BLOCK COURSE. SIDE RODS & CORSS RODS SHALL BE 9 GAUGE WIRE. MINIMUM LAP LENGTH FOR HORIZONTAL SIDE RODS = 12".
3. FINISHES:
   ALL INTERIOR CMU WALLS SHALL BE PAINTED AS DESCRIBED IN THE SPECIFICATIONS. PROVIDE BLOCKFILL PRIOR TO FINAL PAINT FINISH.
4. PROVIDE SOLID, FLUSH, FINISHED END BLOCKS AT ALL VISIBLE MASONRY OPENINGS (WINDOW AND DOOR JAMBS). NO VERTICAL JOINTS OR CUT BLOCKS SHALL BE ACCEPTED.
5. GROUT FOR MASONRY SHALL CONFORM TO ASTM C476 AND TMS602-16 WITH MINIMUM COMPRESSIVE STRENGTH OF 2,000 psi.
6. PROVIDE SOLID GROUTED CMU BLOCK CORES WITH #5 BARS FULL HEIGHT OF WALL (UNLESS NOTED OTHERWISE), AT 48" CENTERS MEASURED ALONG LENGTH OF WALL PLUS: ON EACH SIDE OF DOOR, WINDOW, OR LOUVER OPENINGS AS WELL AS EACH BUILDING CORNER CORE AND EACH SIDE OF CONTROL JOINT. ALSO SEE ADDITIONAL REINFORCING REQUIREMENTS IN LINTEL DETAILS. PROVIDE CENTERING DEVICE IN CELLS OF CMU TO RECEIVE VERTICAL BARS TO BE SURE BARS REMAIN CENTERED IN THE WALL CORES ("HOHMANN & BERNARD" RB REBAR POSITIONER OR EQUAL).
7. BOND BEAMS AND THEIR REINFORCEMENT SHALL BE CONTINUOUS AROUND CMU WALLS.

JAMB SCHEDULE

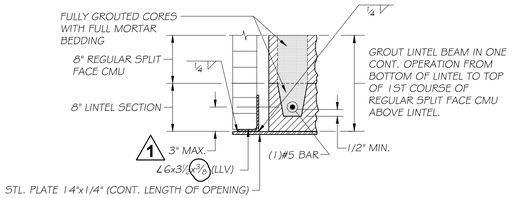
CLEAR OPENING	REMARKS
6'-0" OR LESS	ON EACH SIDE OF OPENING, PROVIDE (2) SOLID GROUTED CMU BLOCK CORES WITH #5 BAR (CENTERED EACH CELL) FULL HEIGHT OF WALL.
10'-0" OR LESS	ON EACH SIDE OF OPENING, PROVIDE (3) SOLID GROUTED CMU BLOCK CORES WITH #5 BARS (CENTERED EACH CELL) FULL HEIGHT OF WALL.
14'-0" OR LESS	ON EACH SIDE OF OPENING, PROVIDE (2) SOLID GROUTED CMU BLOCK CORES WITH (2) #5 BARS (OFFSET EACH CELL) FULL HEIGHT OF WALL. SEE CMU REINFORCEMENT PLACEMENT DETAIL.



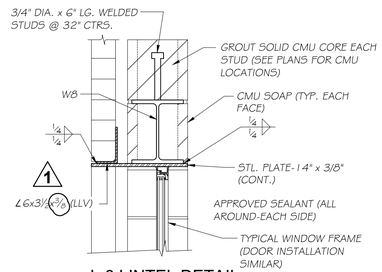
CONTROL JOINT DETAIL
N.T.S.



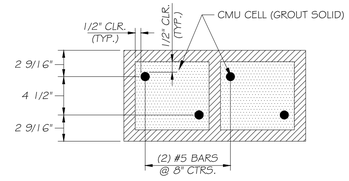
L-1 LINTEL DETAIL
SECTION VIEW
N.T.S.



L-2 LINTEL DETAIL - SECTION VIEW
N.T.S.



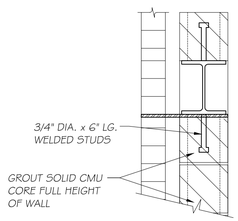
L-3 LINTEL DETAIL
N.T.S.



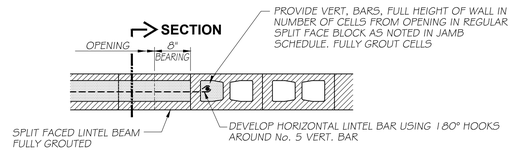
CMU REINFORCEMENT PLACEMENT DETAIL
N.T.S.

LINTEL SCHEDULE

NUMBER	MATERIAL	TYPE	BEARING	MASONRY OPENING	LENGTH	REMARKS
L-1	8" CONC. LINTEL BEAM W/ 1 - #5 BAR	L	8" (MIN.)	VARIES	VARIES	SEE DETAIL L-1 ON THIS SHEET
L-2	16" CONC. LINTEL BEAM W/ 2 - #5 BAR	L	8" (MIN.)	VARIES	VARIES	SEE DETAIL L-2 ON THIS SHEET
L-3	W8 x 28 W/ 14"x 3/8" PLATE AND 3/4" DIA. x 6" LG. WELDED STUDS @ 32" CTRS.	I L	8" (MIN.)	VARIES	VARIES	STEEL SECTION SHALL CONFORM TO ASTM A992 FULLY GROUT CMU CELLS BELOW END BEARING (SEE DETAILS THIS SHEET)



LINTEL END BEARING DETAIL
N.T.S.



CMU LINTEL DETAIL - PLAN VIEW
N.T.S.

Last Modified: Thursday, May 21, 2026 9:58:12 AM Plotted On: Thursday, May 21, 2026 9:59:28 AM by Josh Wroblewski
Drawing Name: G:\Users\JW\9818-02-Morris - New Water Treatment Plant Design\CAD\NEW JWA PLANS (WORK HERE)\028 - STRUCTURAL NOTES AND DETAILS.dwg
CHAMLIN & ASSOCIATES, INC. © 2026

DRAWN BY: JJC
CHECKED BY: RTB
DATE: 02/2026

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION
1	JJW	05/20/26	ADDENDUM No. 1

Chamlin & Associates

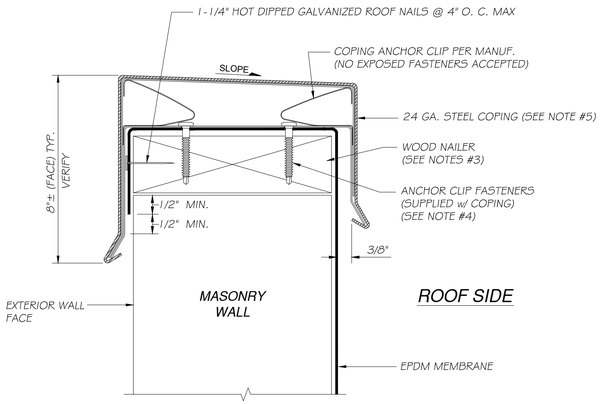
PERU MORRIS
OTTAWA MENDOTA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

STRUCTURAL NOTES AND DETAILS

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 28
FILE NO.: 9818.02 Y–
OF 84

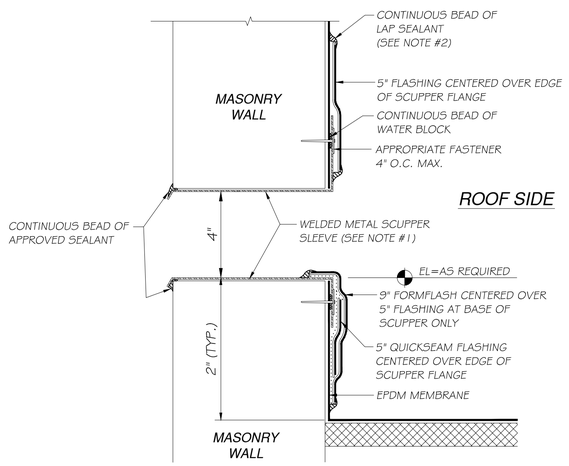


NOTES:

1. REFER TO MANUFACTURER FOR ADDITIONAL INFORMATION AND SPECIFICATIONS .
2. METAL COPING PROVIDED SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH CURRENT SMACNA RECOMMENDATIONS.
3. INSTALL 2x WOOD NAILERS AND VERIFY THEY MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT IN ANY GIVING DIRECTION (SEE PLAN DETAILS FOR ANCHOR TYPE).
4. FASTEN COPING CLEAT AS PER APPROVED BY THE ENGINEER.
5. PROVIDE TAPERED PAINTED STEEL COPING, "PETERSEN ALUMINUM CORP". - "PAC-CLAD" OR APPROVED EQUAL. COLOR TO BE DETERMINED FROM STANDARD COLORS.

TYPICAL BLDG. WALL COPING DETAIL

N.T.S.

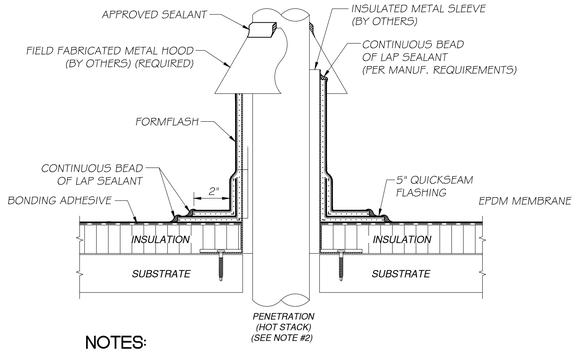


NOTES:

1. SCUPPER MUST BE WELDED WATERTIGHT METAL SLEEVE. ROUND ALL SHEET METAL FLANGE CORNERS. SCUPPER CLEAR OPENING TO BE (4" x 16").
2. APPLY APPROVED LAP SEALANT AROUND ENTIRE PERIMETER OF FLASHING.
3. WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES.

SECTION @ RELIEF SCUPPER

N.T.S.

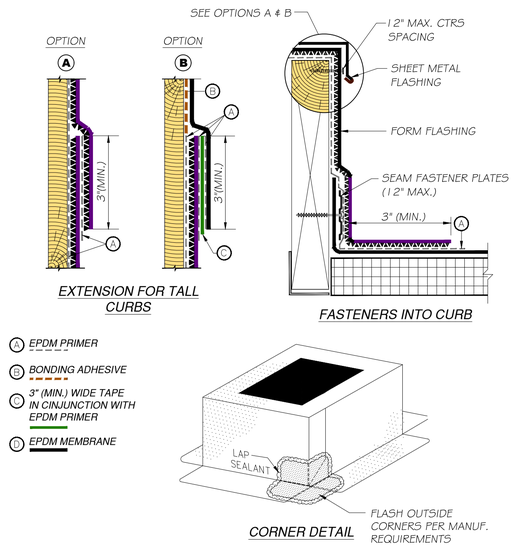


NOTES:

1. REFER TO MANUF. WEBSITE FOR THE MOST CURRENT INFORMATION.
2. PIPE MUST BE ANCHORED TO ENSURE STABILITY.
3. APPLY LAP SEALANT AROUND ENTIRE PERIMETER OF FLASHING. REFER TO MANUF. FOR SEAM EDGE TREATMENT.
4. REFER TO MANUF. FOR VERIFICATION OF INSTALLATION.

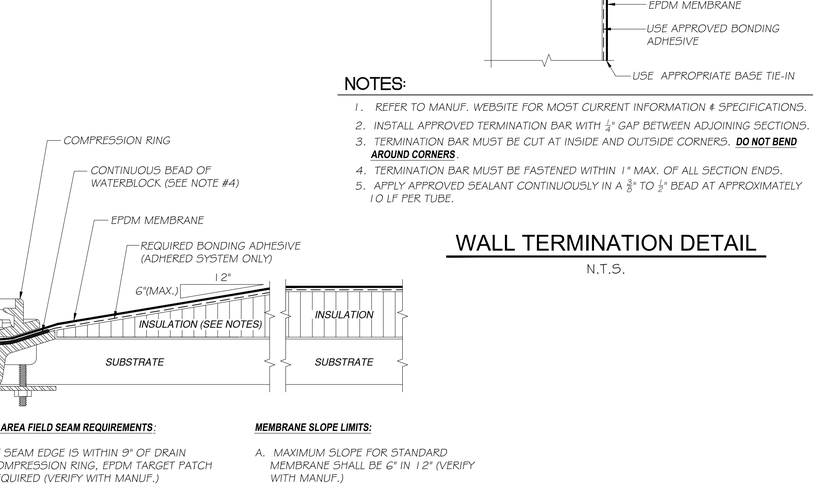
PENETRATION (HOT STACK) WITH FLASHING

N.T.S.



TYPICAL EQUIPMENT CURB DETAIL

N.T.S.

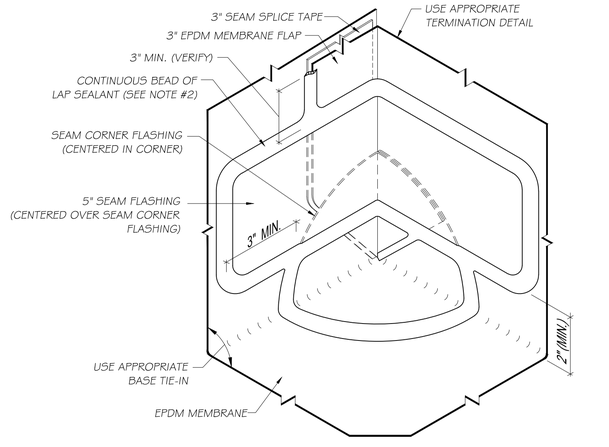


NOTES:

1. REFER TO MANUF. WEBSITE FOR MOST CURRENT INFORMATION & SPECIFICATIONS.
2. INSTALL APPROVED TERMINATION BAR WITH $\frac{1}{4}$" GAP BETWEEN ADJOINING SECTIONS.
3. TERMINATION BAR MUST BE CUT AT INSIDE AND OUTSIDE CORNERS. **DO NOT BEND AROUND CORNERS**.
4. TERMINATION BAR MUST BE FASTENED WITHIN 1" MAX. OF ALL SECTION ENDS.
5. APPLY APPROVED SEALANT CONTINUOUSLY IN A $\frac{3}{8}$" TO $\frac{1}{2}$" BEAD AT APPROXIMATELY 10 LF PER TUBE.

WALL TERMINATION DETAIL

N.T.S.

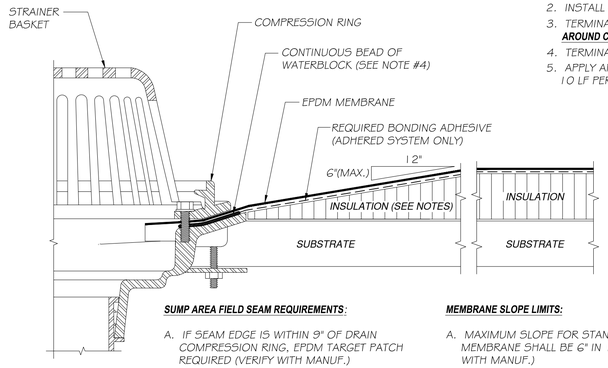


NOTES:

1. REFER TO MANUFACTURER FOR INFORMATION AND SPECIFICATIONS .
2. APPLY LAP SEALANT ON CUT EDGES OF REINFORCED MEMBRANE AND PERIMETER OF SEAM FLASHING AS SHOWN. REFER TO MANUFACTURER FOR SEAM EDGE TREATMENT.
3. REFER TO MANUFACTURER FOR DETAILED INSTALLATION INSTRUCTIONS
4. USE APPROPRIATE PRIMER TO CLEAN AND PRIME EPDM MATING SURFACES PRIOR TO INSTALLATION OF SEAM PRODUCTS.

TYPICAL INSIDE CORNER DETAIL

N.T.S.



SUMP AREA FIELD SEAM REQUIREMENTS:

A. IF SEAM EDGE IS WITHIN 9" OF DRAIN COMPRESSION RING, EPDM TARGET PATCH REQUIRED (VERIFY WITH MANUF.)

B. IF FIELD SEAM EDGE IS WITH IN 9" TO 18" OF DRAIN COMPRESSION RING, INSTALL A LAYER OF 5" QUICKSEAM FLASHING CENTERED OVER SEAM EDGE. 5" QUICKSEAM FLASHING SHALL EXTEND 3" MIN. BEYOND EDGE OF SUMP TAPER AREA (VERIFY WITH MANUF.)

MEMBRANE SLOPE LIMITS:

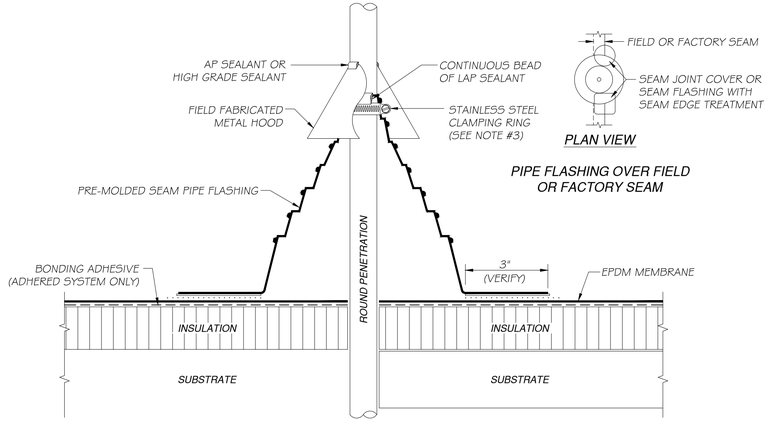
A. MAXIMUM SLOPE FOR STANDARD MEMBRANE SHALL BE 6" IN 12" (VERIFY WITH MANUF.)

NOTES:

1. REFER TO MANUFACTURERS WEBSITE FOR THE MOST CURRENT INFORMATION & SPECIFICATIONS.
2. HOLE IN MEMBRANE SHOULD EXTEND A MINIMUM OF 1/2" BEYOND CLAMPING RING AND SHOULD NOT BE SMALLER THAN THE DIAMETER OF THE LEADER PIPE.
3. INSULATION ADJACENT TO DRAIN TO BE APPROPRIATE INSULATION WITH APPROPRIATE BONDING SURFACE.
4. WATERBLOCK MIN. OF 1/2 OF 10 OZ. TUBE PER 4" DRAIN. USE ADDITIONAL WATERBLOCK FOR LARGER DRAINS.

ROOF DRAIN DETAIL

N.T.S.



NOTES:

1. REFER TO MANUFACTURE FOR INFORMATION AND SPECIFICATIONS.
2. PIPE MUST BE ANCHORED TO ENSURE STABILITY.
3. PRE-MOULDED SEAM PIPE FLASHING MAY BE CUT TO HEIGHT, BUT NO LOWER THAN REINFORCING RING (NO WRINKLES OR FOLDS UNDER CLAMPING RING).
4. APPLY LAP SEALANT BETWEEN PENETRATION AND PRE-MOLDED PIPE FLASHING PRIOR TO INSTALLATION OF CLAMPING RING. REFER TO MANUF. FOR SEAM EDGE TREATMENT.
5. PRE-MOLDED PIPE FLASHING FITS 1" -6" PENETRATIONS SIZES.
6. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F. REFER TO MANUF.

TYPICAL PENETRATION WITH PIPE FLASHING DETAIL

N.T.S.

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\VJB\18-022-Morris-New Water Treatment Plant-Design\CAD\NEW WM-PLANS (WORK HERE)\029-BUILDING ROOF DETAILS.dwg Last Modified: Tuesday, April 28, 2026 2:55:52 PM Plotted On: Friday, May 1, 2026 9:46:40 AM by Faith Pack

DRAWN BY: TH
CHECKED BY: TH
DATE: 11/25

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

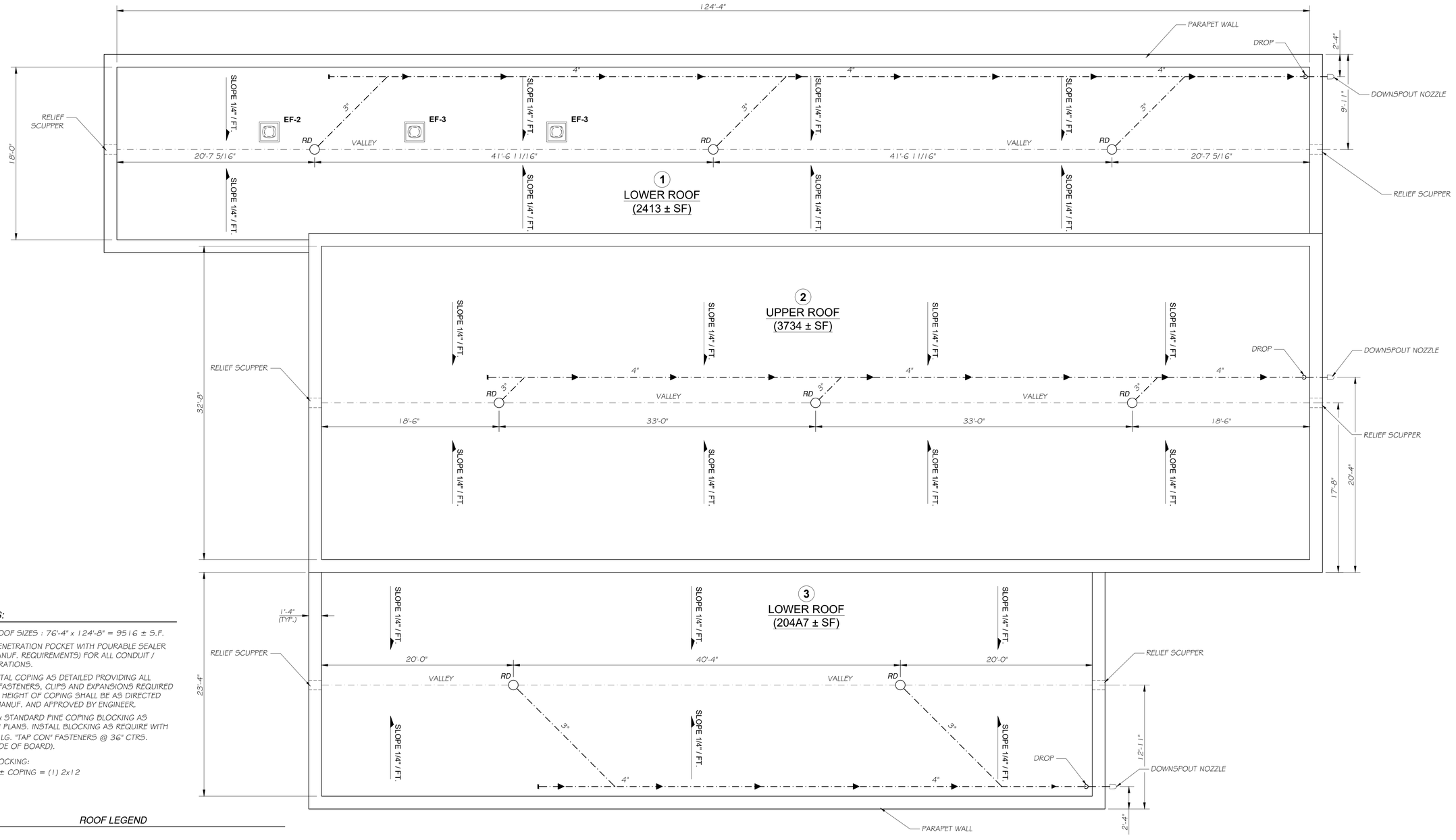
PERU MORRIS
OTTAWA MENDOTA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

ROOF DETAILS

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 29
FILE NO.: 9818.02 Y-
OF 84



NOTES:

1. APPROX. ROOF SIZES : 76'-4" x 124'-8" = 9516 ± S.F.
2. PROVIDE PENETRATION POCKET WITH POURABLE SEALER (AS PER MANUF. REQUIREMENTS) FOR ALL CONDUIT / PIPE PENETRATIONS.
3. INSTALL METAL COPING AS DETAILED PROVIDING ALL REQUIRED FASTENERS, CLIPS AND EXPANSIONS REQUIRED BY MANUF. HEIGHT OF COPING SHALL BE AS DIRECTED BY ROOF MANUF. AND APPROVED BY ENGINEER.
4. PROVIDE 2x STANDARD PINE COPING BLOCKING AS SHOWN ON PLANS. INSTALL BLOCKING AS REQUIRE WITH (2) $\frac{1}{4}$"x 3 $\frac{1}{2}$" LG. "TAP CON" FASTENERS @ 36" CTRS. (1-EACH SIDE OF BOARD).
5. COPING BLOCKING:
   a) 11 $\frac{1}{4}$"± COPING = (1) 2x12

ROOF LEGEND

RD —·—·—	ROOF DRAIN, "ZURN" (Z100 ZA-C) 3" PIPE SIZE WITH NEO-LOC OUTLET. SEE SHEET 29 FOR ROOF DRAIN DETAIL.
DOWNSPOUT NOZZLE	"ZURN" (Z199 ZANB) 4" OUTLET WITH PVC SLIP-ON CONNECTION
EF-2	PLASTEC MODEL R15552P050, OR ENGINEER APPROVED EQUAL, EXHAUST FAN w/ ROOF CURB.
EF-3	PLASTEC MODEL R15556P025, OR ENGINEER APPROVED EQUAL, EXHAUST FAN w/ ROOF CURB.

LAYOUT PLAN

SCALE: 3/16"= 1'-0"

NORTH

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: K:\Users\9818-02-Morris-New Water Treatment Plant-Design\CAD\NEW-MW-PLANS (WORK HERE)\030-BUILDING ROOF PLAN.dwg Last Modified: Thursday, April 30, 2026 9:34:54 AM Plotted On: Friday, May 1, 2026 9:48:02 AM by Faith Peck

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 11/25

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

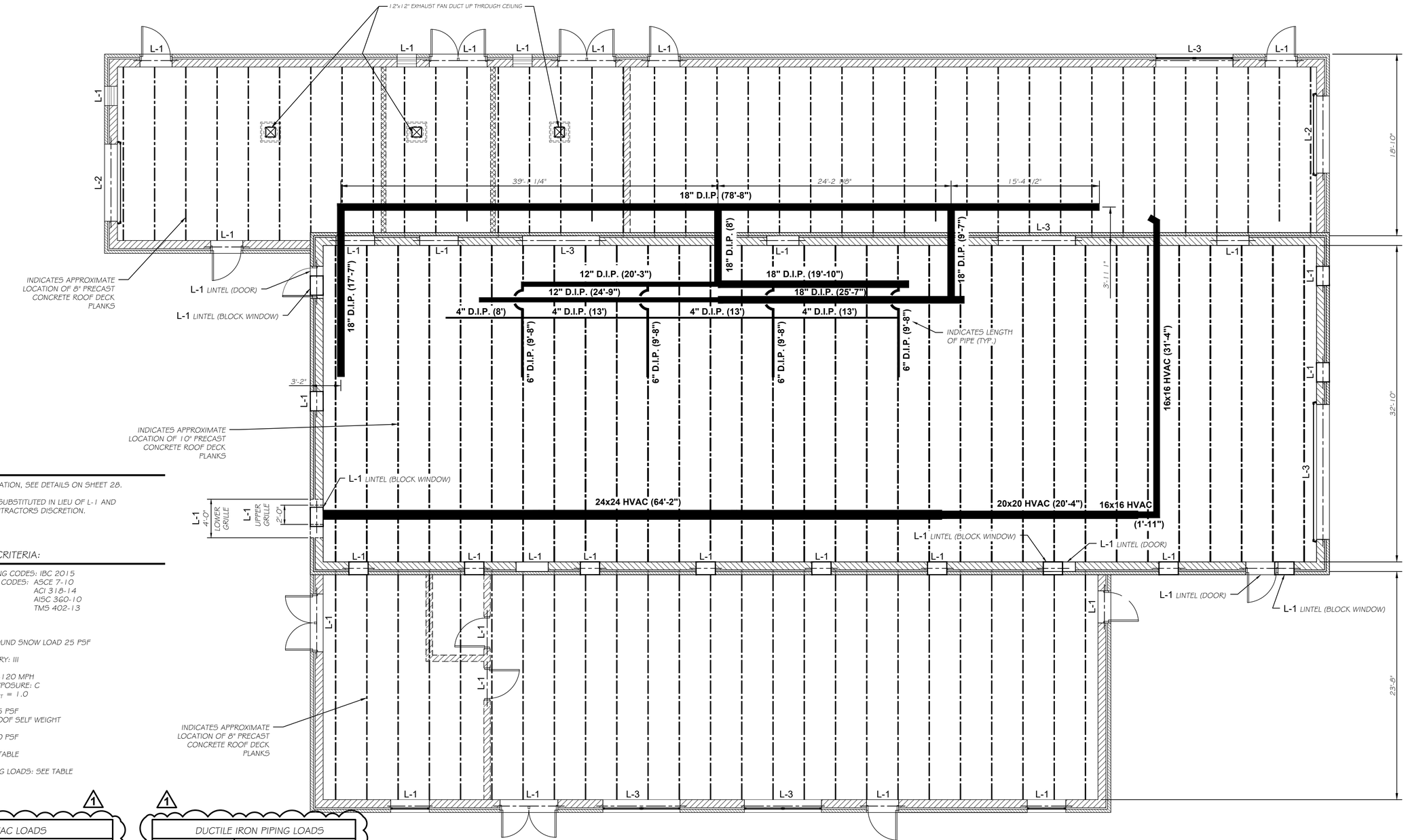
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

ROOF PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 30
FILE NO.: 9818.02 Y-
OF 84



LINTEL NOTES:

- L # - LINTEL DESIGNATION, SEE DETAILS ON SHEET 28.
- L-3 LINTEL MAY BE SUBSTITUTED IN LIEU OF L-1 AND L-2 LINTELS AT CONTRACTORS DISCRETION.

BUILDING DESIGN CRITERIA:

- APPLICABLE BUILDING CODES: IBC 2015
- APPLICABLE DESIGN CODES: ASCE 7-10
  ACI 318-14
  AISC 360-10
  TMS 402-13
- RISK CATEGORY: III
- SNOW LOADS: GROUND SNOW LOAD 25 PSF
- EXPOSURE CATEGORY: III
- WIND LOADS: V-120 MPH
  EXPOSURE: C
  K_{ET} = 1.0
- DEAD LOAD: 25 PSF
  ROOF SELF WEIGHT
- LIVE LOAD: 20 PSF
- HVAC LOADS: SEE TABLE
- DUCTILE IRON PIPING LOADS: SEE TABLE

1

HVAC LOADS	
DUCTWORK SIZE	UNIFORM LINE LOAD (LBS/FT)
24"x24"	9.3
16"x16"	6.2

1

DUCTILE IRON PIPING LOADS	
NOMINAL PIPE SIZE	UNIFORM LINE LOAD (LBS/FT)
4" D.I.P.	20.3
6" D.I.P.	35.3
12" D.I.P.	103.9
18" D.I.P.	203.3

NOTES:
- PRECAST CONCRETE ROOF DECK PLANK MANUFACTURER SHALL USE THE ABOVE UNIFORM PIPE AND HVAC LOADS TO DETERMINE REQUIRED ROOF PLANK DESIGNATION.
- PIPE AND HVAC CENTERLINES DEPICTED ON PLAN VIEW ARE APPROXIMATE. EVALUATE PIPE AND HVAC SUPPORT LOADS 3'± FROM THE INDICATED CENTERLINE FOR GOVERNING ROOF PLANK DESIGN.

STRUCTURAL LAYOUT PLAN

SCALE: 3/16"= 1'-0"

NORTH

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\CVS\18-02-Morris-New Water Treatment Plant-Design\CAD\NEW WW PLANS (WORK HERE)\031 - STRUCTURAL ROOF PLAN.dwg Last Modified: Monday, May 4, 2026 4:29:43 PM Plotted On: Wednesday, May 20, 2026 2:31:51 PM by Jonathon Covert

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 11/25

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

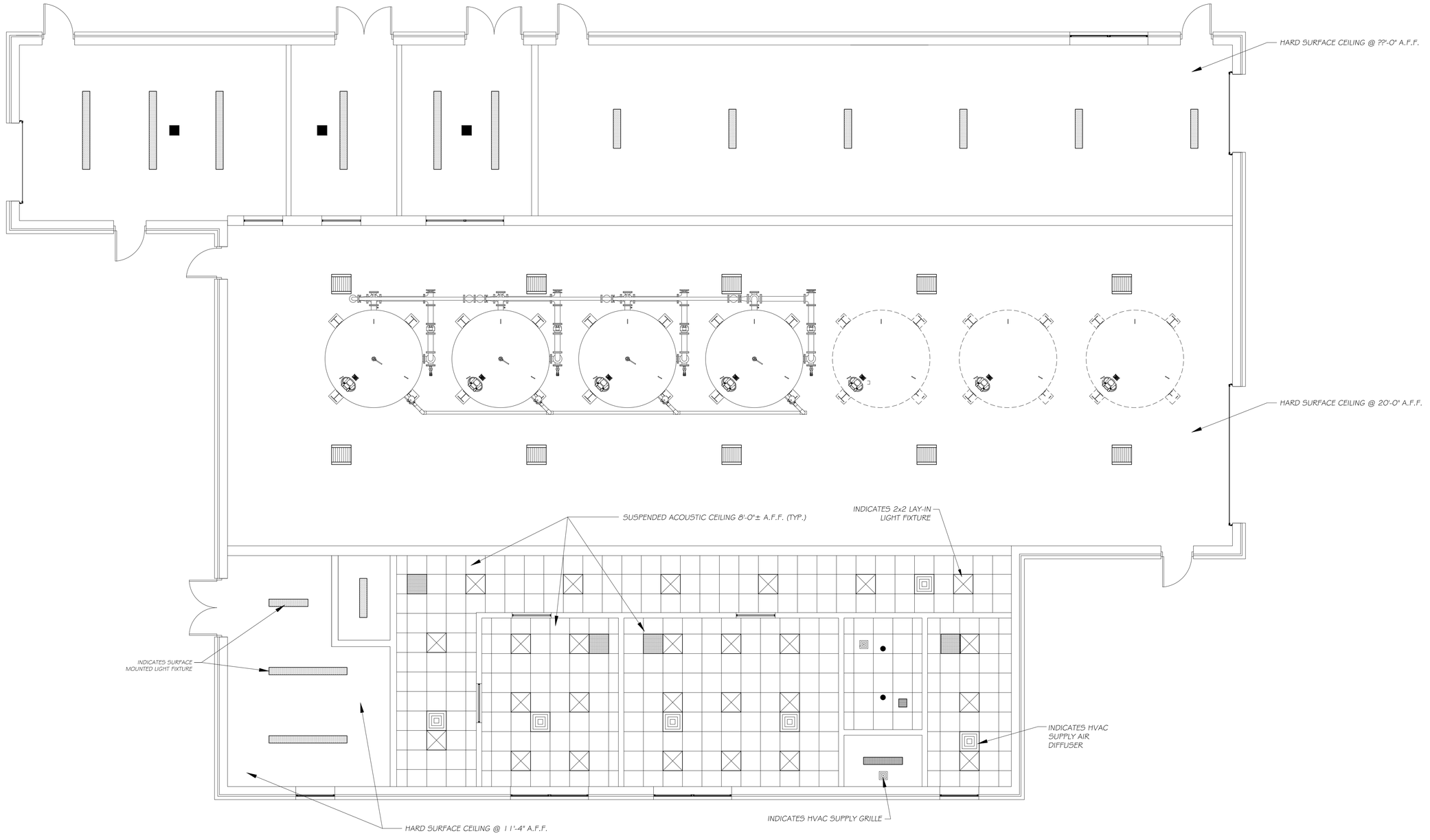
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

STRUCTURAL ROOF PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 31
FILE NO.: 9818.02 Y–
OF 84



REFLECTED CEILING PLAN

SCALE: 3/16"=1'-0"

NORTH

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\JJW\9818.02- Morris- New Water Treatment Plant- Design\CAD\ NEW- HW- PLANS (WORK HERE)\032- BUILDING REFLECTED CEILING PLAN.dwg Last Modified: Thursday, April 30, 2026 9:00:39 AM Plotted On: Friday, May 1, 2026 9:51:54 AM by Faith Pack

DRAWN BY: JJW	REVISIONS				PERU MORRIS OTTAWA ILLINOIS
CHECKED BY: Tim H.	LEVEL	BY	DATE	DESCRIPTION	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026
DATE: 6/2023					REFLECTED CEILING PLAN

Chamlin & Associates

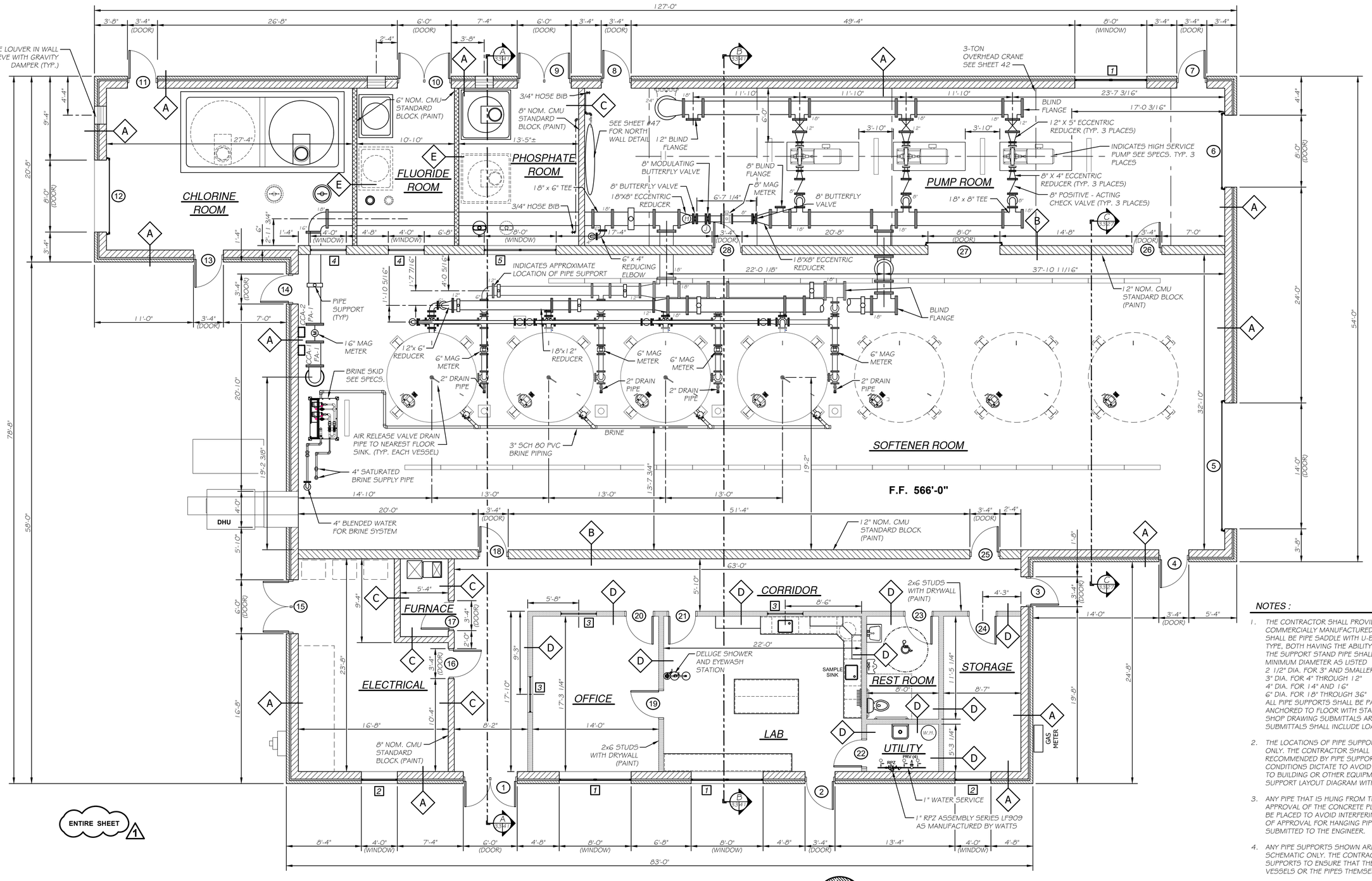
BIDDING PLANS

CURRENT AS OF: 05/01/2026

SCALE: AS NOTED | SHEET 32

FILE NO.: 9818.02 Y- | OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\RTB\9-822-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\033-BUILDING LAYOUT PLAN.dwg Last Modified: Wednesday, May 20, 2026 4:17:00 PM Plotted On: Thursday, May 21, 2026 1:15:26 PM by Jonathon Covert



NOTE:
THE CITY WILL PURCHASE THE SOFTENER VESSELS FOR SCHEDULE PURPOSES. THE CONTRACTOR SHALL COORDINATE DELIVERY, UNLOAD, INSTALLATION, AND PROVIDE ALL WORK NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.

LAYOUT PLAN

SCALE: 3/16"= 1'-0"

NORTH

NOTES :

1. THE CONTRACTOR SHALL PROVIDE PROPERLY SIZED AND SPACED COMMERCIALLY MANUFACTURED PIPE SUPPORTS. THE SUPPORTS SHALL BE PIPE SADDLE WITH U-BOLTS OR FLANGE SUPPORT TYPE, BOTH HAVING THE ABILITY TO BE VERTICALLY ADJUSTED. THE SUPPORT STAND PIPE SHALL BE SCH 40 STEEL HAVING MINIMUM DIAMETER AS LISTED
   2 1/2" DIA. FOR 3" AND SMALLER
   3" DIA. FOR 4" THROUGH 12"
   4" DIA. FOR 14" AND 16"
   6" DIA. FOR 18" THROUGH 36"
   ALL PIPE SUPPORTS SHALL BE PAINTED. SUPPORTS SHALL BE ANCHORED TO FLOOR WITH STAINLESS STEEL ANCHOR BOLTS. SHOP DRAWING SUBMITTALS ARE REQUIRED FOR SUPPORTS. SUBMITTALS SHALL INCLUDE LOADING CAPACITY PER SUPPORT.
2. THE LOCATIONS OF PIPE SUPPORTS SHOWN ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL PROVIDE SUPPORTS WHERE RECOMMENDED BY PIPE SUPPORT MANUFACTURER OR AS FIELD CONDITIONS DICTATE TO AVOID PERSONAL INJURY OR DAMAGE TO BUILDING OR OTHER EQUIPMENT. PROVIDE A TENTATIVE SUPPORT LAYOUT DIAGRAM WITH SHOP DRAWING SUBMITTAL.
3. ANY PIPE THAT IS HUNG FROM THE CEILING SHALL HAVE THE APPROVAL OF THE CONCRETE PLANK MANUFACTURER AND SHALL BE PLACED TO AVOID INTERFERING WITH OTHER TRADES. PROOF OF APPROVAL FOR HANGING PIPE FROM CEILING SHALL BE SUBMITTED TO THE ENGINEER.
4. ANY PIPE SUPPORTS SHOWN ARE TO BE CONSIDERED SCHEMATIC ONLY. THE CONTRACTOR SHALL PROVIDE ENOUGH SUPPORTS TO ENSURE THAT THERE IS NO STRESS ON THE VESSELS OR THE PIPES THEMSELVES.
5. GAPS BETWEEN FLANGES AND ALL LOCATIONS WHERE A GAP EXISTS AT FLANGE HUB/PIPE INTERSECTION SHALL BE CAULKED PRIOR TO PAINTING WITH SONNEBORN NP-1 BY SONNEBORN-CHEM REX., INC., SIKA FLEX 1-A, OR APPROVED EQUAL.

DRAWN BY: JJC	REVISIONS				
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	
DATE: 03/2021	1	JJC	05/20/26	ADDENDUM No. 1	

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

BUILDING LAYOUT PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 33
FILE NO.:9818.02 Y–
OF 84

DOOR SCHEDULE

DOOR No.	TYPE	SIZE	DOOR TYPE		FRAME TYPE		HARDWARE GROUP	REMARKS
			MATERIAL	FINISH	MATERIAL	FINISH		
1	A	(2) 2'-10"± x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	2, (HARDWARE SAME ON EACH DOOR)
2	D	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	
3	C	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	
4	C	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	
5	ROLL-UP	14'-0" W. x 16'-0" H	IM	PRE-FIN	CMU	---	---	
6	ROLL-UP	8'-0" W. x 8'-8" H	IM	PRE-FIN	CMU	---	---	
7	C	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	
8	C	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	
9	A	(2) 2'-10"± x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	2, (HARDWARE SAME ON EACH DOOR)
10	A	(2) 2'-10"± x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	2, (HARDWARE SAME ON EACH DOOR)
11	D	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	
12	ROLL-UP	8'-0" W. x 8'-8" H	IM	PRE-FIN	CMU	---	---	
13	C	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	
14	C	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	1	
15	B	(2) 2'-10"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	2	
16	G	3'-0"x 7'-0"x 1 3/4"	HM	PNT	HM	PNT	4	1
17	G	3'-0"x 7'-0"x 1 3/4"	HM	PNT	HM	PNT	5	
18	E	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	5	
19	H	3'-0"x 7'-0"x 1 3/4"	HM	PNT	HM	PNT	3	
20	H	3'-0"x 7'-0"x 1 3/4"	HM	PNT	HM	PNT	3	
21	H	3'-0"x 7'-0"x 1 3/4"	HM	PNT	HM	PNT	5	
22	G	3'-0"x 7'-0"x 1 3/4"	HM	PNT	HM	PNT	5	
23	G	3'-0"x 7'-0"x 1 3/4"	HM	PNT	HM	PNT	3	
24	G	3'-0"x 7'-0"x 1 3/4"	HM	PNT	HM	PNT	5	
25	E	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	5	
26	F	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	5	
27	ROLL-UP	8'-0" W. x 8'-8" H	IM	PRE-FIN	CMU	---	---	
28	F	3'-0"x 7'-0"x 1 3/4"	IFRP	PRE-FIN	ALUM	PRE-FIN	5	

DOOR SCHEDULE ABBREVIATIONS:
RD = ROLL-UP DOOR
IM = INSULATED METAL
PRE-FIN = PRE-FINISHED
IFRP = INSULATED FRP
ALUM = ALUMINUM
HM = HOLLOW METAL
PM = PREMANUFACTURED
PNT= PAINT

DOOR SCHEDULE REMARKS:
1. ¾ HOUR LABELED DOOR, FRAME & HARDWARE.
2. PROVIDE REMOVABLE CENTER MULLION WITH LOCK.

ROOM FINISH SCHEDULE ABBREVIATIONS:
ACT = 2' x 2' ACCOUSTICAL CEILING TILE
CMU = CONCRETE MASONRY UNITS
DW = DRYWALL
PNT= PAINT
RCB = ROLLED RADIUS INTEGRAL COVE BASE
PC = PRECAST CONCRETE ROOF PLANKS
EPX = EPOXY FLOOR COATING WITH SLIP RESISTANT ADDITIVE

ROOM FINISH SCHEDULE

ROOM NAME	AREA	NORTH WALL		SOUTH WALL		EAST WALL		WEST WALL		FLOOR	BASE	CEILING		CEILING HEIGHT	REMARKS	ROOM NAME
		MATL.	FINISH	MATL.	FINISH	MATL.	FINISH	MATL.	FINISH			MATL.	FINISH			
SOFTENER ROOM	3382 SF	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	EPX	RCB	CONC.	PNT	20'-0"		SOFTENER ROOM
ELECTRICAL ROOM	338 SF	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	EPX	RCB	CONC.	PNT	11'-4"		ELECTRICAL ROOM
FURNACE ROOM	46 SF	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	EPX	RCB	CONC.	PNT	11'-4"		FURNACE ROOM
CORRIDOR	513 SF	CMU	PNT	DW/CMU	PNT	CMU	PNT	DW/CMU	PNT	EPX	RCB	ACT	PM	9'-0"		CORRIDOR
OFFICE	242 SF	DW	PNT	CMU	PNT	CMU	PNT	DW	PNT	EPX	RCB	ACT	PM	9'-0"		OFFICE
LAB	380 SF	DW	PNT	CMU	PNT	CMU	PNT	DW	PNT	EPX	RCB	ACT	PM	9'-0"		LAB
REST ROOM	91 SF	DW	PNT	DW	PNT	DW	PNT	DW	PNT	EPX	RCB	ACT	PM	9'-0"		REST ROOM
UTILITY ROOM	42 SF	DW	PNT	CMU	PNT	CMU	PNT	DW	PNT	EPX	RCB	ACT	PM	9'-0"		UTILITY ROOM
STORAGE	148 SF	DW	PNT	CMU	PNT	CMU	PNT	DW	PNT	EPX	RCB	ACT	PM	9'-0"		STORAGE
CHLORINE ROOM	489 SF	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	EPX	RCB	CONC.	PNT	13'-4"		CHLORINE ROOM
FLUORIDE ROOM	190 SF	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	EPX	RCB	CONC.	PNT	13'-4"		FLUORIDE ROOM
PHOSPHATE ROOM	233 SF	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	EPX	RCB	CONC.	PNT	13'-4"		PHOSPHATE ROOM
PUMP ROOM	1245 SF	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	EPX	RCB	CONC.	PNT	13'-4"		PUMP ROOM

DOOR NOTES:

1. ALL DOORS SHALL HAVE FLOOR OR WALL MOUNTED STOPS (UNLESS APPROVED OTHERWISE).
2. ALL DOOR SETS SHALL INCLUDE HEAVY-DUTY COMMERCIAL GRADE LEVER HANDLES. ALL HARDWARE SHALL BE IN STRICT ACCORDANCE W/ ADA STANDARDS.
3. DOOR LOCKS SHALL BE KEYED AS DESCRIBED IN THE SPECS.
4. ALL EXTERIOR DOORS WITH EXIT DEVICE SHALL FUNCTION AS FOLLOWS:
   A. KEY SHALL OPERATE LATCH. LEVER HANDLE RETRACTS LATCH EXCEPT WHEN LOCKED BY CYLINDER (INSIDE PANIC DEVICE ALWAYS OPERATES LATCH). LATCH DOGGING NOT REQUIRED.
5. ALL EXTERIOR DOOR GLAZING SHALL BE TEMPERED SAFETY GLASS UNLESS NOTED OTHERWISE.

GENERAL NOTES: (FINISHES)

1. ALL INTERIOR C.M.U. WALLS SHALL RECEIVE PAINTED FINISH OF TWO COATS OF HI-BUILD EPOXY COATING (SEE SPECS)
2. ALL METAL DOORS AND FRAMES SHALL RECEIVE TWO FINISH COATS OF HI-BUILD EPOXY OVER FACTORY PRIME COAT. TOP AND BOTTOM OF ALL DOORS SHALL RECEIVE PAINT.

DOOR HARDWARE SCHEDULE

* ALL HARDWARE SHALL BE US32D STAINLESS STEEL BASE METAL W/ SATIN FINISH

GROUP NUMBER — DESCRIPTION

1
- (3) MORTISE TYPE, BUTT HINGES
- INTERIOR PANIC DEVICE, EXTERNAL SURFACE - GROOVED
- EXTERIOR LEVER HANDLE
- EXTERIOR CYLINDER LOCK (CONVENTIONAL WITH STOCK KEYWAY)
- CUSH CLOSER WITH HOLD OPEN
- PERIMETER WEATHER STRIP AND BOTTOM DOOR SWEEP
- ALUMINUM THRESHOLD

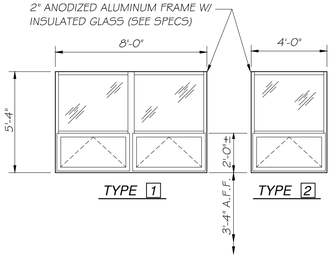
2 RIGHT LEAF
- (3) MORTISE TYPE, BUTT HINGES
- INTERIOR PANIC DEVICE, EXTERNAL SURFACE - GROOVED
- EXTERIOR LEVER HANDLE
- EXTERIOR CYLINDER LOCK (CONVENTIONAL WITH STOCK KEYWAY)
- CUSH CLOSER WITH HOLD OPEN
- PERIMETER WEATHER STRIP AND BOTTOM DOOR SWEEP
- ALUMINUM THRESHOLD

LEFT LEAF
- (3) MORTISE TYPE, BUTT HINGES
- INTERIOR PANIC DEVICE (EXIT ONLY), EXTERNAL SURFACE - GROOVED
- CUSH CLOSER WITH HOLD OPEN
- PERIMETER WEATHER STRIP AND BOTTOM DOOR SWEEP
- ALUMINUM THRESHOLD

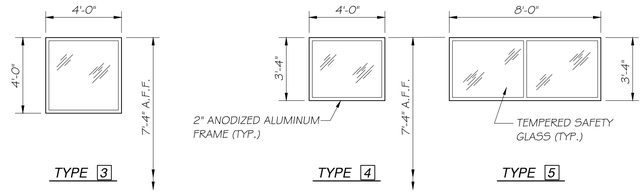
3
- (3) MORTISE TYPE, BUTT HINGES
- LEVER HANDLES (EACH SIDE)
- PRIVACY SET

4
- (3) MORTISE TYPE, BUTT HINGES
- LEVER HANDLES (EACH SIDE)
- PASSAGE SET
- CUSH CLOSER (NO HOLD OPEN)

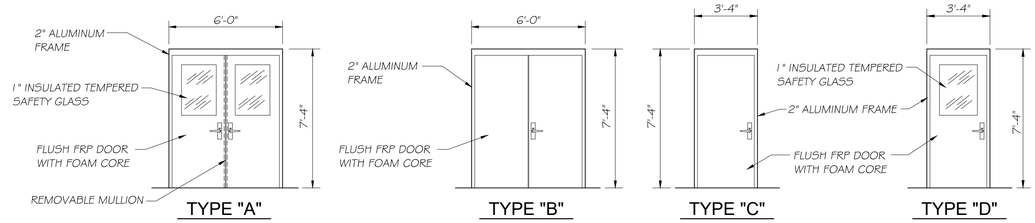
5
- (3) MORTISE TYPE, BUTT HINGES
- LEVER HANDLES (EACH SIDE)
- PASSAGE SET

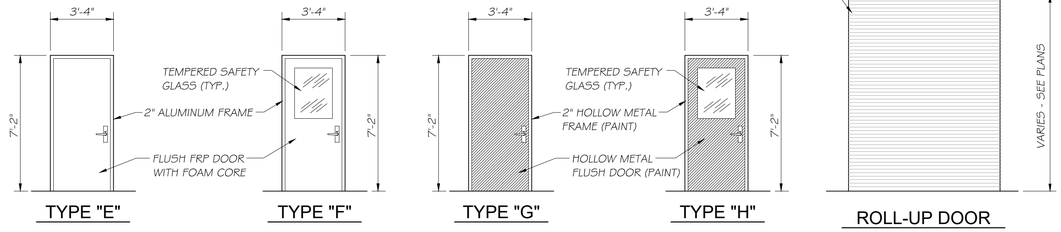


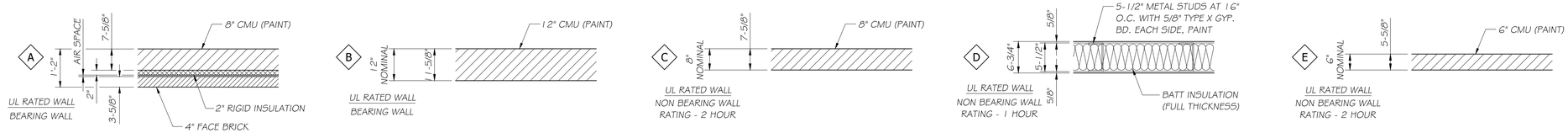
EXTERIOR WINDOWS



VIEWING WINDOWS







CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\KW\18-022-Morris-New Water Treatment Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\034-ROOM & DOOR SCHEDULES.dwg
Last Modified: Wednesday, April 29, 2026 9:14:31 AM Plotted On: Friday, May 1, 2026 9:58:14 AM by Faith Pack

DRAWN BY: TH	REVISIONS				PERU MORRIS OTTAWA ILLINOIS	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026	ROOM & DOOR SCHEDULES	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: TH	LEVEL	BY	DATE	DESCRIPTION					SCALE: AS NOTED	SHEET 34
DATE: 3/21									FILE NO.: 9818.02 Y–	OF 84

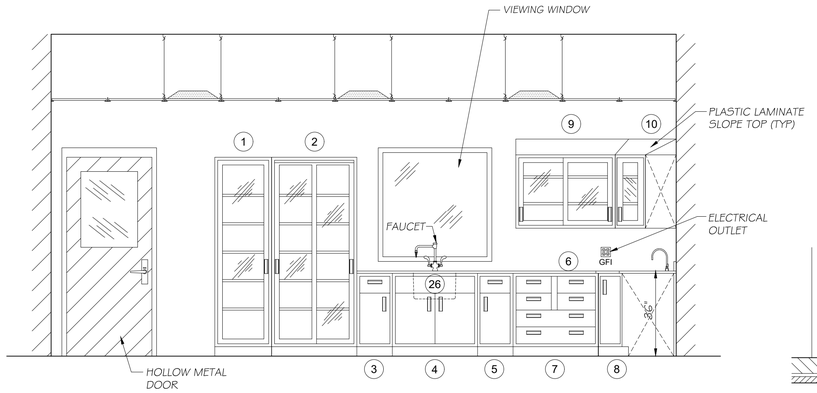
CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\VA\9818-02- Morris- New- Water- Treatment- Plant- Design\CAD\VIEW- JIM- PLANS (WORK HERE)\035- LAB CABINETRY & INTERIOR DETAILS.dwg Last Modified: Monday, April 27, 2026 11:10:42 AM Plotted On: Friday, May 1, 2026 9:59:24 AM by Felix Peck

LABORATORY FURNITURE SCHEDULE

No.	SIZE	UNIT TYPE	DESCRIPTION
1	24" W.x 84" H.x 16" D.	FLOOR CASE FRM. 1-GLS. LEFT HINGED DOOR	FLOOR ENCASEMENT
2	36" W.x 84" H.x 16" D.	FLOOR CASE FRM. GLS. SLD DOORS	FLOOR ENCASEMENT
3	15" W.x 35" H.x 22" D.	1-DRAWER, 1-LEFT HINGED DOOR	STANDING HEIGHT CABINET
4	36" W.x 35" H.x 22" D.	2-DOOR SINK UNIT	STANDING HEIGHT CABINET
5	15" W.x 35" H.x 22" D.	1-DRAWER, 1-RIGHT HINGED DOOR	STANDING HEIGHT CABINET
6		1" THICK, 30" DEEP FLAT, EPOXY RESIN TOP, 4" CURB	EPOXY RESIN TOP
7	36" W.x 35" H.x 22" D.	6-DRAWER BASE UNIT W/ 2 REM. BACK PANELS	STANDING HEIGHT CABINET
8		CORNER BASE UNIT W/ LAZY SUSAN & SGL. RH DOOR	STANDING HEIGHT CABINET
9	42" W.x 30" H.x 13" D.	WALL CASE FRM. GLS. SLD DOORS	WALL HUNG ENCASEMENT
10		CORNER WALL CASE	WALL HUNG ENCASEMENT
11	30" W.x 30" H.x 13" D.	WALL CASE FRM. GLS. SLD DOORS	WALL HUNG ENCASEMENT
12	24" W.x 35" H.x 22" D.	2-DRAWER FILE UNIT W/ REM. BACK PANEL	STANDING HEIGHT CABINET
13	18" W.x 35" H.x 22" D.	1-DRAWER, 1-RIGHT HINGED DOOR	STANDING HEIGHT CABINET
14	24" W.x 35" H.x 22" D.	4-DRAWER BASE UNIT W/ REM. BACK PANEL	STANDING HEIGHT CABINET
15		1" THK, 30" DEEP FLAT, EPOXY RESIN CNR TOP, 4" CURB	EPOXY RESIN CORNER
16	18" W.x 35" H.x 22" D.	2-DRAWER FILE UNIT W/ REM. BACK PANEL	STANDING HEIGHT CABINET
17	48" W.x 35" H.x 22" D.	2-DRAWER, 2-DOOR BASE UNIT W/ 1 SHELF	STANDING HEIGHT CABINET
18		1" THICK, 30" DEEP FLAT, EPOXY RESIN TOP	EPOXY RESIN TOP
19		1" THK, 30" DEEP FLAT, EPOXY RESIN CNR TOP	EPOXY RESIN CORNER
20	18" W.x 29" H.x 22" D.	1-RIGHT HINGED DOOR	SITTING HEIGHT CABINET
(21)	36" W.x 30 1/4" H.	KNEE SPACE PANEL	
22	36" W. x 21 1/2" D.	KNEE SPACE DRAWER & FRAME (2-DRAWER)	KNEE SPACE DRAWER
23	15" W.x 29" H.x 22" D.	3-DRAWER BASE UNIT W/ REM. BACK PANEL	SITTING HEIGHT CABINET
24	36" W.x 29" H.x 22" D.	6-DRAWER BASE UNIT W/ REM. BACK PANEL	SITTING HEIGHT CABINET
25	15" W.x 29" H.x 22" D.	2-DRAWER BASE UNIT (1-FILE UNIT) W/ REM. BACK PANEL	SITTING HEIGHT CABINET
26	18" x 15" x 11" DEEP	EPOXY UNDER MOUNT SINK W/ CORNER DRAIN (COMPLETE)	

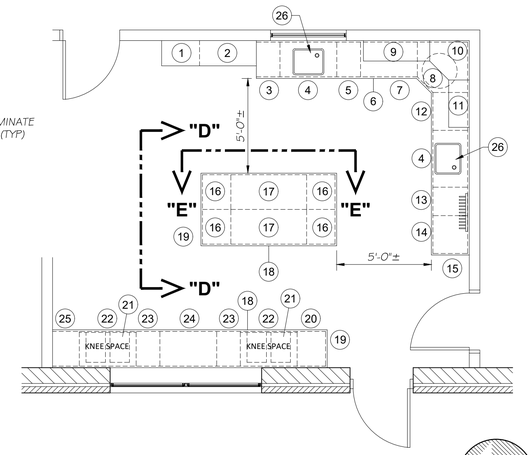
FURNITURE NOTES:

1. PROVIDE REQUIRED SINK OPENING AND FAUCET CUTOUT IN COUNTER TOP.
2. THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL 4" VINYL BASE AT BASE OF ALL CABINETS. COLOR SHALL MATCH ADJACENT WALL BASE.
3. THE CONTRACTOR SHALL USE CABINET PLANS FOR BIDDING AND GENERAL LAYOUT. SHOP DRAWINGS SHALL BE SUBMITTED SHOWING PROPOSED CABINET LAYOUT, APPLICABLE DIMENSIONS, & CABINET UNIT TYPES. THE APPROVED SHOP DRAWING SHALL THEN BECOME THE CONSTRUCTION PLANS.
4. CABINETS SHALL BE CONSTRUCTED OF 18 GA. STEEL FOR SIDE & BACK PANELS AND SHELVES. DRAWER & DOOR FACES SHALL BE 20 GA. STEEL.



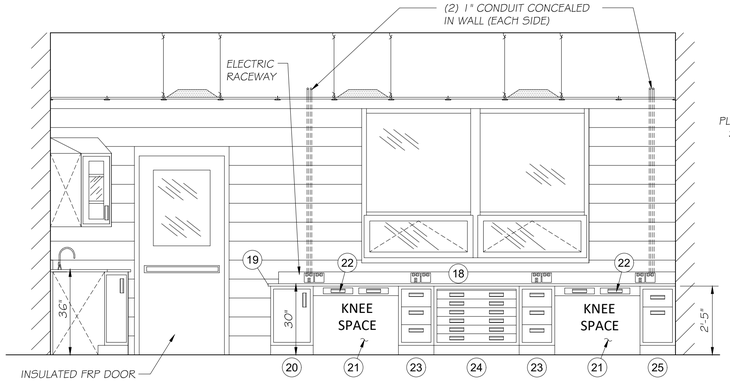
CABINETRY ELEVATION (LOOKING EAST)

SCALE: 3/8"= 1'-0"



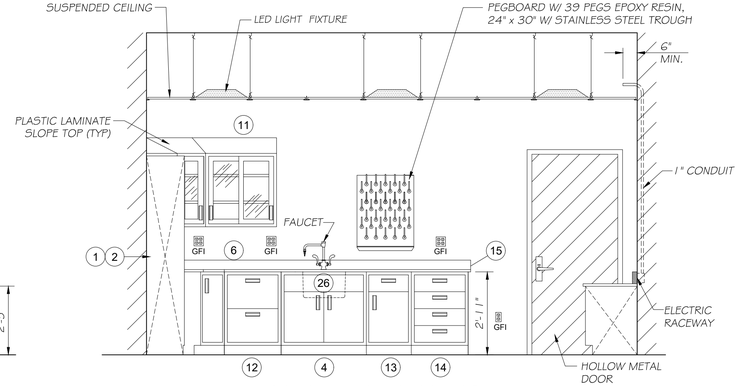
LABORATORY FURNITURE LAYOUT PLAN

SCALE: 1/4"= 1'-0"



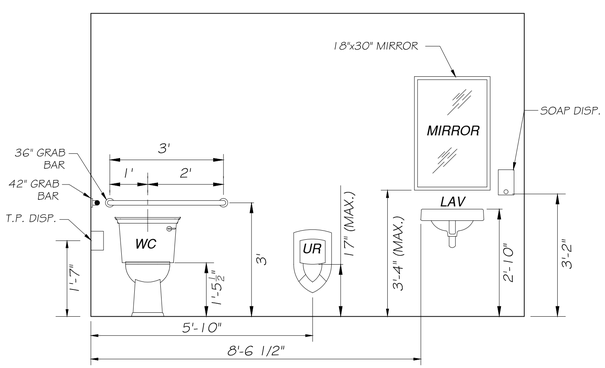
CABINETRY ELEVATION (LOOKING WEST)

SCALE: 3/8"= 1'-0"



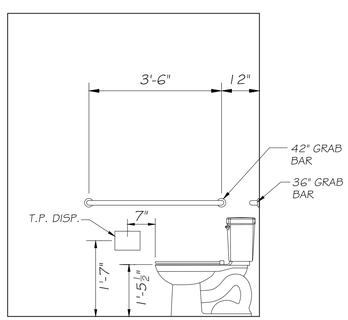
CABINETRY ELEVATION (LOOKING SOUTH)

SCALE: 3/8"= 1'-0"



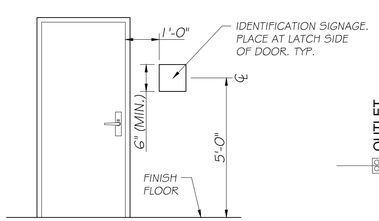
RESTROOM - INTERIOR ELEVATION (LOOKING WEST)

N.T.S.



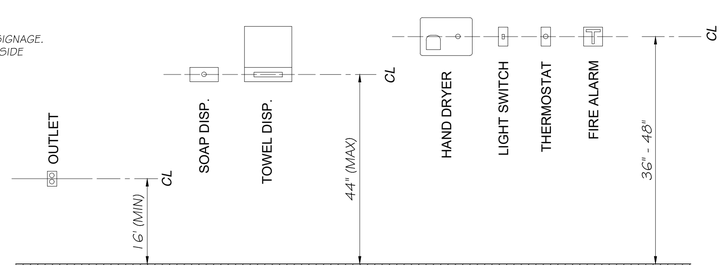
RESTROOM - INTERIOR ELEVATION (LOOKING SOUTH)

N.T.S.



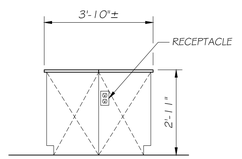
TYPICAL REST ROOM SIGNAGE PLACEMENT

N.T.S.



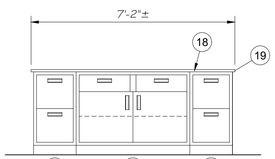
OPERABLE HEIGHT LIMITS

N.T.S.



SECTION "D-D"

SCALE: 3/8"= 1'-0"



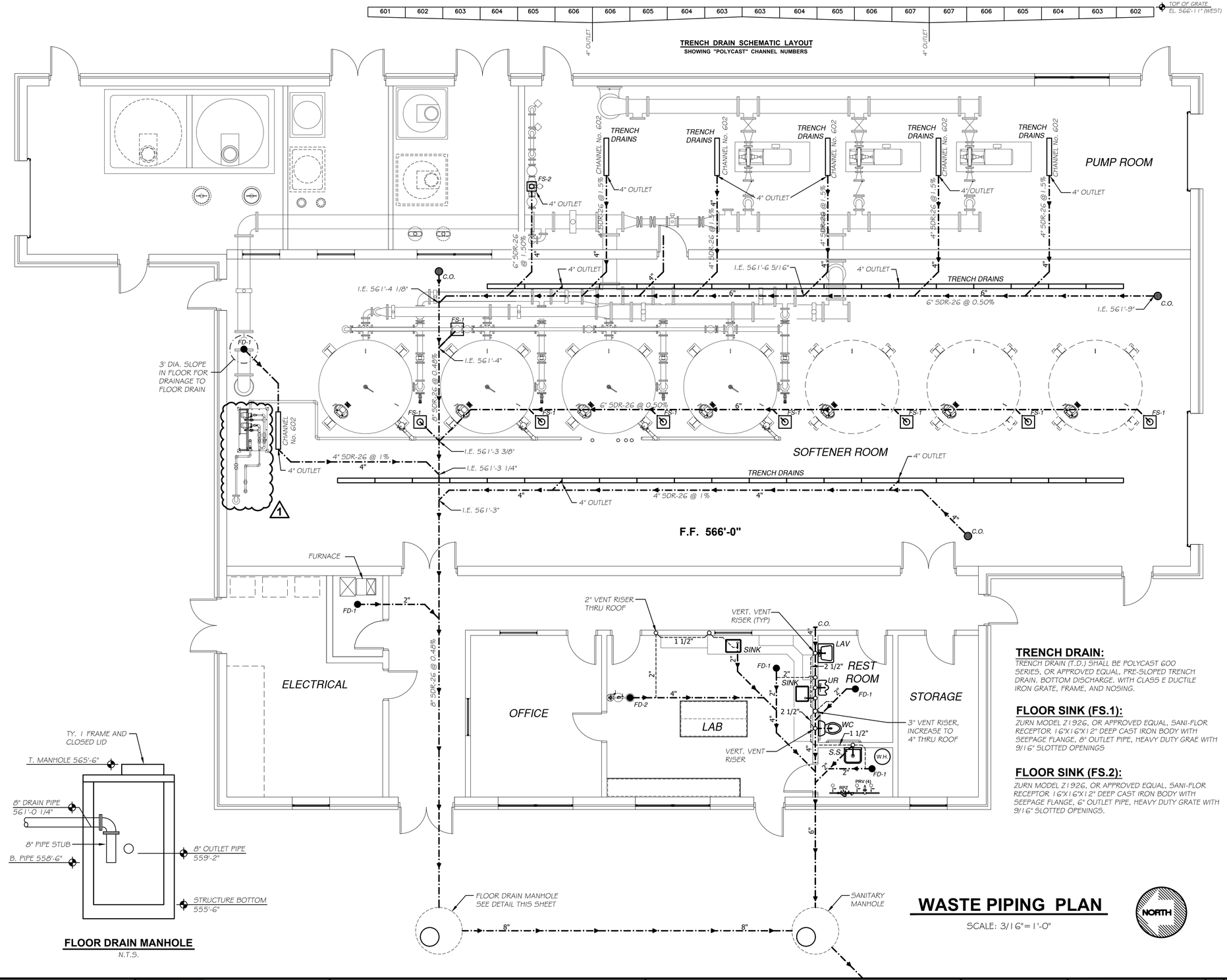
SECTION "E-E"

SCALE: 3/8"= 1'-0"

DRAWN BY: JJW	REVISIONS				PERU MORRIS OTTAWA ILLINOIS	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026	LAB CABINETRY & INTERIOR DETAILS	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: Tim H.	LEVEL	BY	DATE	DESCRIPTION					SCALE: AS NOTED	SHEET 35
DATE: 06/2025									FILE NO.: 9818.02 Y–	OF 84

PLUMBING LEGEND

——·——▶——·——	WASTE PIPE
- - - - - - - - - -	VENT PIPE
——C——	COLD WATER SUPPLY
——H——	HOT WATER SUPPLY
——GAS——	GAS PIPING
——·—·—·——	SAMPLE PIPING
● FD-1	"WADE" No. W-1100-A OR APPROVED EQUAL, 2" CAST IRON FLOOR DRAIN W/ 4" BRONZE TOP. (PROVIDE REQUIRED TRAP AT EACH UNIT)
● FD-2	"WADE" No. W-1100-A OR APPROVED EQUAL, 4" CAST IRON FLOOR DRAIN W/ 8" BRONZE TOP. (PROVIDE REQUIRED TRAP AT EACH UNIT)
C.O. ⊢ OR ● C.O.	CAST IRON CLEAN-OUT BODY W/ CAST BRONZE TOP SECURED TO CASTING W/ SCREWS WHEN INSTALLED IN FINISHED CONCRETE OR PVC CLEAN-OUT WITH SCREW-ON CAP WHEN PLACED IN YARD (UNLESS NOTED OTHERWISE) . PROVIDE WALL CLEANOUT ⊄ ROUND ACCESS COVER WHERE SHOWN.
WC	WATER CLOSET -"AMERICAN STANDARD" "CADET OVATION" (OR APPROVED EQUAL), WHITE VITREOUS CHINA, ELONGATED BOWL, 12" ROUGH-IN, 16 1/2" RIM HEIGHT, 1.6 GPF, W/ OPEN FRONT SEAT (VERIFY LEVER SIDE REQUIRED).
LAV	LAVATORY - "AMERICAN STANDARD" "LUCERNE" (BARRIER FREE), WHITE VITREOUS CHINA WALL HUNG W/ CARRIER, OFFSET DRAIN, ANGLE SUPPLIES WITH STOPS AND "AMERICAN STANDARD" "MONTERREY" LAVATORY FAUCET. PROVIDE APPROVED INSULATED COVERS ON ALL EXPOSED PIPES.
S.S.	SERVICE SINK "AMERICAN STANDARD" OR APPROVED EQUAL MODEL 7692.008 "LAKEWELL" W/ 3" TRAP STAND, STAINLESS STEEL RIM GUARDS AND ENAMELED TRAP WITH STRAINER. PROVIDE WALL HANGER AND"AMERICAN STANDARD" NO. 8354.112 (8") FAUCET WITH CAST BRASS SPOUT WITH BUCKET HOOK, WALL BRACE AND ROUGH CHROME FINISH.
UR	URINAL - "AMERICAN STANDARD" "WASHBROOK" ULTRA HIGH EFFICIENT, 3/4" INLET TOP SPUD, 0.125 TO1.0 gpf FLUSH W/ 3/4" FLUSH VALVE
FS-1 or FS-2	FLOOR SINK - (SEE THIS SHEET FOR SPECS.)
SINK	UNDER COUNTER SINK - (SEE LAB CABINETRY PLAN FOR SPECS.) PROVIDE REQUIRED STRAINER ⊄ PIPING
LAB SINK FAUCET	"CHICAGO FAUCET" MODEL # 786, (8") CTR. DECK MOUNTED, RIGID / SWING GOOSENECK SPOUT, SOFTFLO AERATOR, 4" WRIST BLADE HANDLES, POLISHED CHROME FINISH.
TRENCH DRAINS	TRENCH DRAIN - (SEE THIS PLAN FOR SPECS.)
GRAB BARS	1 1/4" DIA., HEAVY DUTY 304 STAINLESS STEEL, CONCEALED MOUNTED AND STANDARD SATIN FINISH, LENGTH OF GRAB BARS SHALL BE 36" BEHIND W.C. AND 42" ON THE SIDE WALL BY THE WATER CLOSET.
MIRROR	"BOBRICK" MODEL #B-165 24"x 36", 304 STAINLESS STEEL, SATIN FINISH W/ CONCEALED MOUNTING BRACKET. MOUNT AS REQUIRED BY THE ILLINOIS ACCESSIBILITY CODE. (TYP @ EACH LAVATORY)
TOILET PAPER DISPENSER	"BOBRICK" MODEL #7685 SURFACE MOUNTED, SINGLE ROLL, TISSUE DISPENSER WITH CONTROLLED DELIVERY (LOCATE IN THE FIELD PER ADA REQUIREMENTS).
W.H.	"A.O. SMITH" - PROLINE" GPVL-40 (OR APPROVED EQUAL) 40 GAL. GAS WATER HEATER, POWER VENTED, 45 GAL PER HOUR RECOVERY W/ 90° TEMP RISE. PROVIDE RELIEF VALVE DISCHARGE PIPE, ISOLATION VALVES AND THERMAL EXPANSION TANK.
WH-FP	WALL HYDRANT-"ZURN" - Z1321-C STAINLESS FACE W/ ANGLED NOZZLE, AUTOMATIC DRAINING AND ANTI-SIPHON. PROVIDE OPERATING KEY.
SC	SILLCOCK- "NIBCO" MULTI-PURPOSE SHUT OFF VALVE, CAST COPPER WITH ZINC ALLOY HANDWHEEL
LAB SINK FAUCET	"CHICAGO FAUCET" 900 SERIES, NO. 930-317XKCP, SINGLE-HOLE, DECK MOUNTED, RIGID/SWING GOOSENECK SPOUT, ATMOSPHERIC VACUUM BREAKER, ⊄ 4" WRISTBLADE HANDLES.
TEMPERED MIXING VALVES	PROVIDE THERMOSTATIC HIGH-LOW TEMPERED WATER MIXING VALVE AS MANUFACTURED BY BRADLEY, POWERS, OR LAWLER @ RESTROOM LAVATORY.
EM SHOWER	COMBINATION SHOWER AND EYEWASH STATION (SEE SPECS).



FLOOR DRAIN MANHOLE
N.T.S.

TRENCH DRAIN:

TRENCH DRAIN (T.D.) SHALL BE POLYCAST 600 SERIES, OR APPROVED EQUAL, PRE-SLOPED TRENCH DRAIN. BOTTOM DISCHARGE. WITH CLASS E DUCTILE IRON GRATE, FRAME, AND NOSING.

FLOOR SINK (FS.1):

ZURN MODEL Z1926, OR APPROVED EQUAL, SANI-FLOR RECEPTOR 16"X16"X12" DEEP CAST IRON BODY WITH SEEPAGE FLANGE, 8" OUTLET PIPE, HEAVY DUTY GRAE WITH 9/16" SLOTTED OPENINGS

FLOOR SINK (FS.2):

ZURN MODEL Z1926, OR APPROVED EQUAL, SANI-FLOR RECEPTOR 16"X16"X12" DEEP CAST IRON BODY WITH SEEPAGE FLANGE, 6" OUTLET PIPE, HEAVY DUTY GRATE WITH 9/16" SLOTTED OPENINGS.

WASTE PIPING PLAN

SCALE: 3/16"= 1'-0"

NORTH

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VJB 8-22-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\036-WASTE PIPING PLUMBING PLAN.dwg Last Modified: Tuesday, May 19, 2026 10:32:30 AM Plotted On: Wednesday, May 20, 2026 9:40:19 AM by Jonathon Covert

DRAWN BY: JJW	REVISIONS			
CHECKED BY: Tim H.	LEVEL	BY	DATE	DESCRIPTION
DATE: 6/22	1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

WASTE PIPING PLUMBING PLAN

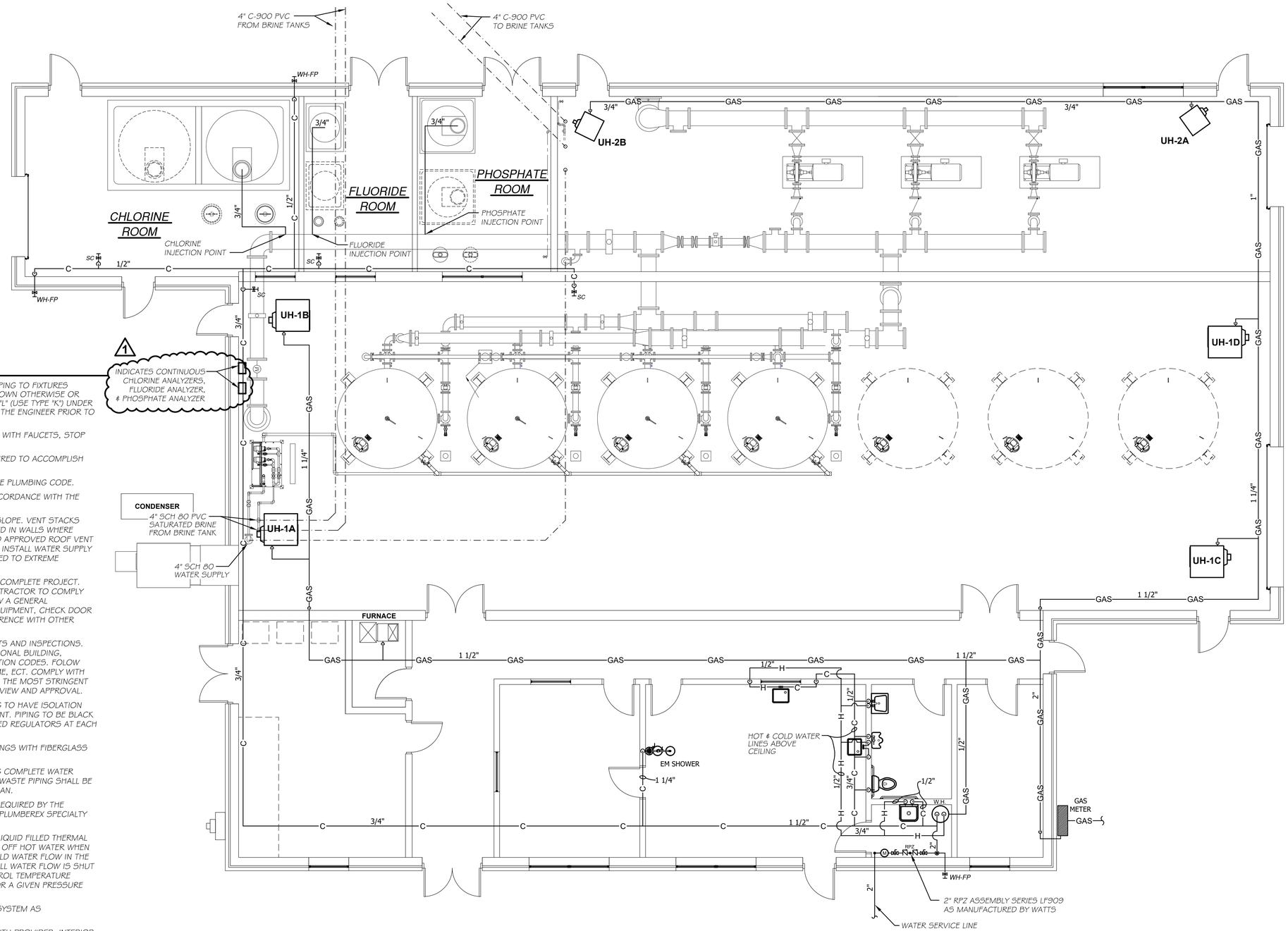
BIDDING PLANS

CURRENT AS OF: 05/01/2026	
SCALE: AS NOTED	SHEET 36
FILE NO.: 9818.02 Y–	OF 84

CHLORING ANALYZER SAMPLE POINT SHALL BE ON THE VERTICAL FINISHED WATER PIPE, A MINIMUM OF 7 LINEAR FEET DOWNSTREAM OF THE CHLORINATION POINT.

THE CHLORINE ANALYZER UNIT SHALL BE WALL-MOUNTED IN THE LOCATION SHOWN. ALL PENETRATIONS IN AND OUT OF THE CHLORINATION ROOM SHALL BE SEALED AND AIRTIGHT.

THE CHLORINE ANALYZER AND SAMPLING POINT SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.



PLUMBING NOTES :

1. CONTRACTOR SHALL PROVIDE ALL HOT & COLD WATER SUPPLY PIPING TO FIXTURES SHOWN. PIPING SHALL BE CONCEALED WITHIN WALLS UNLESS SHOWN OTHERWISE OR APPROVED BY ENGINEER. PIPING SHALL BE COPPER TUBING TYPE "L" (USE TYPE "K") UNDER CONCRETE SLABS). ALL PIPING ROUTING SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
2. FURNISH AND INSTALL INDICATED PLUMBING FIXTURES COMPLETE WITH FAUCETS, STOP VALVES AND TRAPS.
3. PROVIDE VALVES AT ALL FIXTURES AND BRANCH PIPING AS REQUIRED TO ACCOMPLISH INDIVIDUAL FIXTURE ISOLATION THROUGH OUT.
4. PLUMBING SHALL COMPLY WITH THE MOST RECENT ILLINOIS STATE PLUMBING CODE.
5. ALL FIXTURES AND HARDWARE SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE ILLINOIS ACCESSIBILITY CODE AND A.D.A.
6. ALL WASTE & VENT PIPING SHALL BE INSTALLED AT (1/8") PER FT. SLOPE. VENT STACKS SHALL INCREASE, WHERE INDICATED, THRU ROOF & BE CONCEALED IN WALLS WHERE FEASIBLE OR AS APPROVED OTHERWISE. PROVIDE REQUIRED AND APPROVED ROOF VENT FLASHINGS FOR EACH VENT STACK PENETRATION. ALSO, DO NOT INSTALL WATER SUPPLY PIPING WITHIN EXTERIOR WALLS OR WHERE PIPING WILL BE EXPOSED TO EXTREME TEMPERATURES.
7. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND REPRESENT A COMPLETE PROJECT. MODIFICATIONS TO THE WORK SHALL BE PROVIDED BY THIS CONTRACTOR TO COMPLY WITH PROJECT REQUIREMENTS. LOCATIONS OF EQUIPMENT SHOW A GENERAL ARRANGEMENT AND INTENDED FUNCTION. BEFORE INSTALLING EQUIPMENT, CHECK DOOR OPERATIONS AND ALL REQUIRED CLEARANCES TO AVOID INTERFERENCE WITH OTHER TRADES.
8. FOLLOW THE APPLICABLE CODES AND OBTAIN NECESSARY PERMITS AND INSPECTIONS. APPLICABLE CODES INCLUDE, BUT NOT LIMITED TO THE INTERNATIONAL BUILDING, MECHANICAL, FUEL GAS AND INTERNATIONAL ENERGY CONSERVATION CODES. FOLOW INDUSTRY STANDARDS, INCLUDING ASHRAE, SMACNA, ANSI, ASME, ECT. COMPLY WITH ADDITIONAL COUNTY AND STATE OF ILLINOIS APPLICABLE CODES. THE MOST STRINGENT CODE SHALL APPLY. PROVIDE ALL REQUIRED SUBMITTALS FOR REVIEW AND APPROVAL.
9. PROVIDE ALL GAS PIPING, HANGARS AND SUPPORTS. GAS PIPING TO HAVE ISOLATION VALVES, DIRT LEG AND UNIONS (IN THAT ORDER) AT ALL EQUIPMENT. PIPING TO BE BLACK IRON, SCHEDULE 40 WITH THREADED FITTINGS. PROVIDE REQUIRED REGULATORS AT EACH GAS OPERATED EQUIPMENT SPECIFIED.
10. INSULATE ALL ABOVE GROUND HOT/COLD WATER LINES IN BUILDINGS WITH FIBERGLASS WRAP OR FOAM INSULATION.
11. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE WATER SUPPLY AND WASTE PIPING TO ALL AREAS SHOWN ON THE PLAN. WASTE PIPING SHALL BE CONNECTED TO THE SANITARY SERVICE LINE. SEE YARD PIPING PLAN.
12. PROVIDE PIPE SAFETY COVERS FOR SUPPLY & WASTE PIPING AS REQUIRED BY THE ILLINOIS STATE PLUMBING CODE. COVERS SHALL BE MANUF. BY "PLUMBEREX SPECIALTY PRODUCTS, INC." OR APPROVED EQUAL.
13. THE THERMOSTATIC WATER MIXING VALVE SHALL CONSIST OF A LIQUID FILLED THERMAL MOTOR AND PISTON CONTROL MECHANISM WITH POSITIVE SHUT OFF HOT WATER WHEN COLD WATER SUPPLY IS LOST. VALVE ALLOWS A RESTRICTED COLD WATER FLOW IN THE EVENT OF LOSS OR INTERRUPTION OF THE HOT WATER SUPPLY. ALL WATER FLOW IS SHUT OFF IN THE EVENT OF THERMOSTAT FAILURE. VALVE SHALL CONTROL TEMPERATURE WITHIN 3° F±. FROM A LOW FLOW TO A MAXIMUM FLOW RATE FOR A GIVEN PRESSURE DIFFERENTIAL PER THE FLOW CAPACITY CHART.
14. PROVIDE A THERMAL EXPANSION TANK ON EACH WATER HEATER SYSTEM AS MANUFACTURED BY AMTROL OR APPROVED EQUAL.
15. CONTRACTOR SHALL VERIFY REQUIRED GAS PIPE SERVICE SIZE WITH PROVIDER. INTERIOR PIPE SIZES SHOWN ARE BASED ON ASSUMED GAS LOADS, BUT SHALL BE VERIFIED BY CONTRACTOR PRIOR TO INSTALLATION.
16. ALL VENT PIPING SHALL BE PVC SCH 40

SUPPLY PIPING PLAN

SCALE: 3/16"= 1'-0"

NORTH

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\JW\9818-02-Morris-New Water Treatment Plant-Design\CAD\VIEW-WM-PLANS (WORK HERE)\037-SUPPLY PIPING PLUMBING PLAN.dwg
Last Modified: Wednesday, May 20, 2026 9:44:30 AM Plotted On: Thursday, May 21, 2026 1:21:44 PM by Jonathon Covert

DRAWN BY: JJW	REVISIONS			
CHECKED BY: Tim H.	LEVEL	BY	DATE	DESCRIPTION
DATE: 6/22	1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

SUPPLY PIPING PLUMBING PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 37
FILE NO.: 9818.02 Y–
OF 84

"GREENHECK" MODEL ESD-435, 24"x24" LOUVRE AND MODEL EM-30 DAMPER 24"x24" OR APPROVED EQUAL PAINT WITH INDUSTRIAL EPOXY - LIGHT GRAY (TYP. 3 PLACES)

GAS FIRED UNIT HEATERS UH-1 A-D

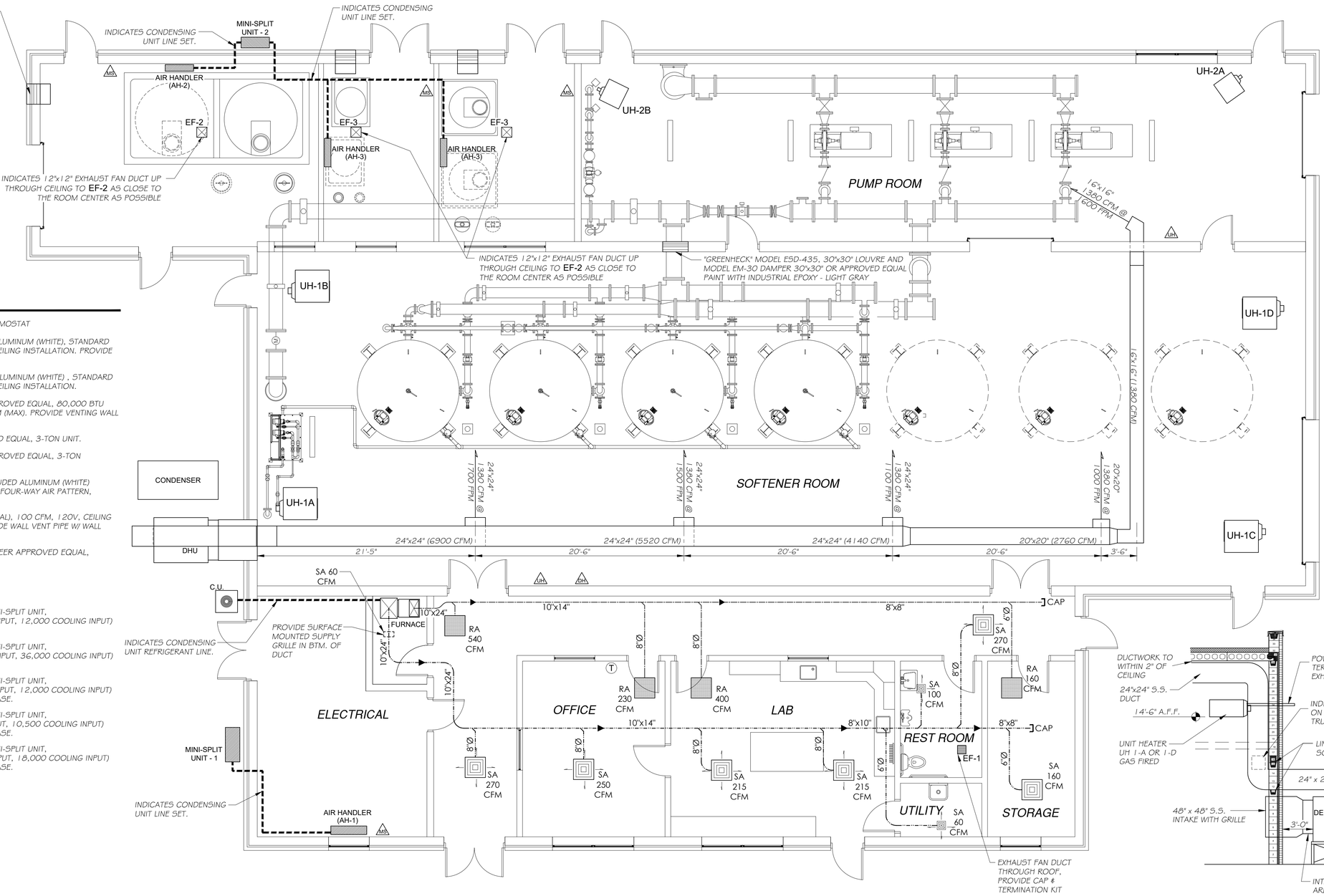
"REZNOR" MODEL UDX-200 OR ENGINEER APPROVED EQUAL. 200,000 BTUH INPUT, 166,000 BTUH OUTPUT
NATURAL GAS, 1/4 HP 120V, WITH OPTIONS
AG2 GAS CONTROLS FOR USE WITH 24V 2 STAGE
GAS VALVE AND 2 STAGE 24V THERMOSTAT
AV2 POWER VENT WITH VENT CAP FOR THROUGH
WALL INSTALLATION
MANUAL SHUT OFF AND UNION
GAS PRESSURE REGULATOR
AC1 ALUMINIZED STEEL HEAT EXCHANGER

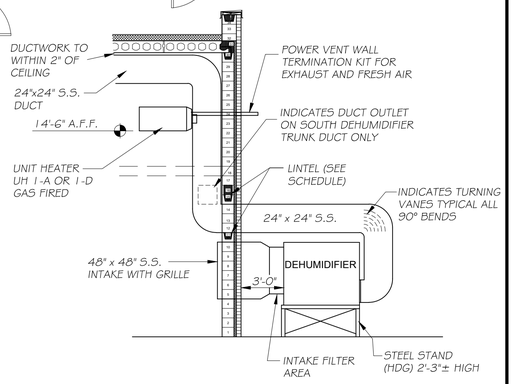
GAS FIRED UNIT HEATERS UH-2 A-B

"REZNOR" MODEL UDX-60 OR ENGINEER APPROVED EQUAL. 60,000 BTUH INPUT, 49,800 BTUH OUTPUT
NATURAL GAS, .06 HP 120V, WITH OPTIONS
AG2 GAS CONTROLS FOR USE WITH 24V 2 STAGE
GAS VALVE AND 2 STAGE 24V THERMOSTAT
AV2 POWER VENT WITH VENT CAP FOR THROUGH
WALL INSTALLATION
MANUAL SHUT OFF AND UNION
GAS PRESSURE REGULATOR
AC1 ALUMINIZED STEEL HEAT EXCHANGER

HVAC LEGEND

T	PROGRAMMABLE (7 DAY) DIGITAL WALL THERMOSTAT
SA	SUPPLY AIR DIFFUSER - SQUARE STAMPED ALUMINUM (WHITE), STANDARD T-BAR MOUNTING FOR LAY-IN SUSPENDED CEILING INSTALLATION. PROVIDE ACCESSIBLE ADJUSTABLE DAMPER AT EACH.
RA	RETURN AIR DIFFUSER - SQUARE STAMPED ALUMINUM (WHITE) , STANDARD T-BAR MOUNTING FOR LAY-IN SUSPENDED CEILING INSTALLATION.
FURNACE	"AMANA" MODEL # AM9596080 4CN OR APPROVED EQUAL, 80,000 BTU (INPUT), SINGLE STAGE, UP-FLOW, 1600 CFM (MAX). PROVIDE VENTING WALL KIT & CONDENSATE DRAINAGE SYSTEM.
C.U.	"AMANA" MODEL # ASX13-036 OR APPROVED EQUAL, 3-TON UNIT.
COIL	"GOODMAN" MODEL # CAUF3636C6 OR APPROVED EQUAL, 3-TON (FITS 21" FURNACE CABINET)
SA	SUPPLY AIR GRILLE - "CARNES" 12"x12" EXTRUDED ALUMINUM (WHITE) MODEL RNCMF (WHITE), SURFACE MOUNTED FOUR-WAY AIR PATTERN, CURVED BLADES
EF-1	EXHAUST FAN - "BROAN" (OR APPROVED EQUAL), 100 CFM, 120V, CEILING EXHAUST FAN. PROVIDE CEILING GRILLE, & SIDE WALL VENT PIPE W/ WALL HOOD.
EF-2	PLASTEC MODEL R1555GP025, OR ENGINEER APPROVED EQUAL, EXHAUST FAN w/ ROOF CURB.
—	DIRECTION OF AIR FLOW
▶	TRANSITION
DUCTLESS MINI-SPLIT (UNIT 1)	"GREE" OR APPROVED EQUAL, DUCTLESS MINI-SPLIT UNIT, SAP12HP230V1R32AO (12,200 HEATING INPUT, 12,000 COOLING INPUT) OUTDOOR UNIT, 208-230V., 1-PHASE.
DUCTLESS MINI-SPLIT (UNIT 2)	"GREE" OR APPROVED EQUAL, DUCTLESS MINI-SPLIT UNIT, MUL36HP230V1R32AO (36,000 HEATING INPUT, 36,000 COOLING INPUT) OUTDOOR UNIT, 208-230V., 1-PHASE.
AIR HANDLER AH-1)	"GREE" OR APPROVED EQUAL, DUCTLESS MINI-SPLIT UNIT, SAP12HP230V1R32AH (12,200 HEATING INPUT, 12,000 COOLING INPUT) INDOOR WALL CASSETTE, 208-230V., 1-PHASE.
AIR HANDLER AH-2)	"GREE" OR APPROVED EQUAL, DUCTLESS MINI-SPLIT UNIT, VIR09HP230V1R32AH (9,100 HEATING INPUT, 10,500 COOLING INPUT) INDOOR WALL CASSETTE, 208-230V., 1-PHASE.
AIR HANDLER AH-3)	"GREE" OR APPROVED EQUAL, DUCTLESS MINI-SPLIT UNIT, VIR18HP230V1R32AH (18,000 HEATING INPUT, 18,000 COOLING INPUT) INDOOR WALL CASSETTE, 208-230V., 1-PHASE.
UH	UNIT HEATER REMOTE DISPLAY TERMINAL
DH	DEHUMIDIFIER REMOTE DISPLAY TERMINAL
MS	MINI SPLIT REMOTE DISPLAY TERMINAL





DEHUMIDIFIER SECTION VIEW
N.T.S.

HVAC NOTES :

1. SUPPLY AIR REGISTERS SHALL BE EXTRUDED ALUMINUM (WHITE) W/ VOLUME DAMPERS AND SHALL HAVE BLOW PATTERN AS REQUIRED FOR PROPER OPERATION. ALL (SA) REGISTERS SHALL BE ADJUSTED TO THE VOLUMES SHOWN ON THE PLANS.
2. ALL SHEET METAL DUCTWORK SHALL BE (24 GAUGE) GALVANIZED WITH NO LINER. DUCT SIZES INDICATED ON PLANS SHALL BE VERIFIED BY CONTRACTOR. ACTUAL DUCT SIZING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. CONTRACTOR SHALL PROVIDE ALL CONTROLS AND CONTROL WIRING FOR HVAC EQUIPMENT SPECIFIED.
4. ELECTRICAL CONTRACTOR SHALL MAKE CONNECTIONS TO DISCONNECT SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.
5. ALL EXPOSED DUCT SHALL BE MOUNTED TIGHT TO BOTTOM TRUSS CORD UNLESS NOTED OTHERWISE AND INSULATED WITH 1" RIGID INSULATION OR 1.5" (3 LB.) FLEXIBLE DUCT WRAP (JOHN MANVILLE-MICROLITE FSK OR APPROVED EQUAL) FOR ALL SUPPLY & RETURN DUCTS.
6. PROVIDE VOLUME DAMPERS ON ALL SUPPLY AIR REGISTERS.
7. VERIFY THAT EQUIPMENT DOES NOT INTERFERE W/ OTHER CONSTRUCTION FIELDS PRIOR TO INSTALLATION TO ASSURE PROPER CLEARANCES.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTING CONDENSATE DRAIN TO WASTE PIPING (IF REQUIED).
9. VERIFY ACTUAL LOUVER / DAMPER SIZE REQUIRED FOR CFM REQUIRED. DO NOT EXCEED 16" HEIGHT AND COORDINATE REQUIRED CLEAR OPENING IN WALL W/ G.C.
10. PROVIDE REQUIRED FIRE DAMPERS IN DUCT, LOUVERS OR GRILLES WHEREVER EQUIPMENT PENETRATES THROUGH MECHANICAL ROOM WALL OR CEILING.
11. CONTRACTOR SHALL PROVIDE REQUIRED GAS PRESSURE REGULATOR FOR EACH PIECE OF GAS-FIRED EQUIPMENT
12. ALL WALL PENETRATIONS SHALL BE SEALED AIRTIGHT AND VAPOR-TIGHT USING CHEMICALLY RESISTANT MATERIALS COMPATIBLE WITH THE CHEMICALS STORED

HVAC LAYOUT PLAN

SCALE: 3/16"=1'-0"

NORTH

DEHUMIDIFIER DHU WITH REMOTE CONDENSERS

"DESERT AIRE" MODEL LW150RNNN4 DEHUMIDIFIER AND MODEL RCDB4VPNN-3041/4PNNA REMOTE AIR COOLED CONDENSER OR ENGINEER APPROVED EQUAL. SUPPLY AIR 6900CFM, EAT: 75° F DB / 61.1° F WB. TOTAL COOLING CAPACITY 160MBH TOTAL SENSIBLE CAPACITY 115.71 MBH. MOISTURE REMOVAL 42.2 LB/HR TOTAL HEAT REJECTION 204 MBH. STANDARD SUPPLY FILTER. 460V/3 PH/60 Hz FOR BOTH DEHUMIDIFIER AND CONDENSER. TEMPERATURE AND R.H. SENSORS TO BE FACTORY INSTALLED IN UNITS. PROVIDE REMOTE DISPLAY TERMINALS

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\DWB 48-02 - Morris - New Water Treatment Plant - Design\CAD\NEW HVAC PLANS (WORK HERE)\038 - BUILDING HVAC PLAN.dwg Last Modified: Thursday, April 30, 2026 9:14:10 AM Plotted On: Friday, May 1, 2026 10:04:52 AM by: Faith Peck

DRAWN BY: G.A.H.
CHECKED BY: D.W.B.
DATE: 6/22

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

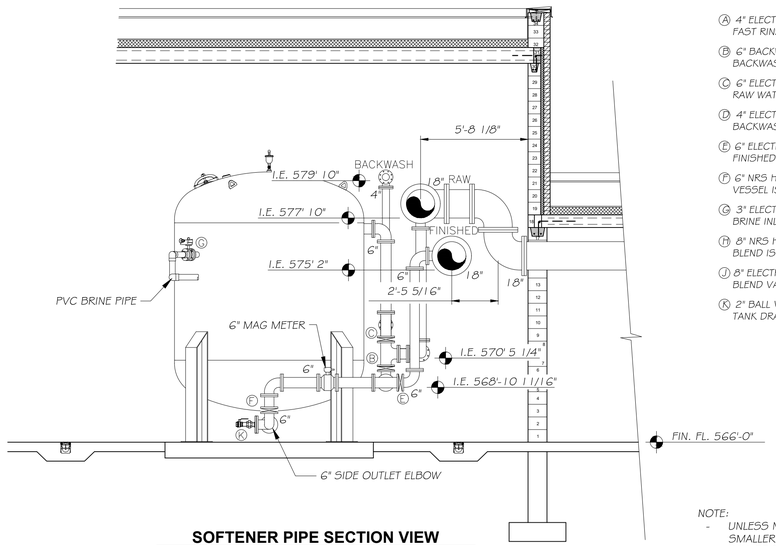
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

HVAC PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 38
FILE NO.: 9818.02 Y-
OF 84



SOFTENER PIPE SECTION VIEW
(LOOKING NORTH)

N.T.S.

Ⓐ 4" ELECTRIC OPERATED BUTTERFLY VALVE
FAST RINSE EFFLUENT

Ⓑ 6" BACKWASH OPERATED BUTTERFLY VALVE
BACKWASH EFFLUENT

Ⓒ 6" ELECTRIC OPERATED BUTTERFLY VALVE
RAW WATER INFLUENT

Ⓓ 4" ELECTRIC OPERATED BUTTERFLY VALVE
BACKWASH EFFLUENT

Ⓔ 6" ELECTRIC OPERATED BUTTERFLY VALVE
FINISHED WATER EFFLUENT

Ⓕ 6" NRS HANDWHEEL OPERATED GATE VALVE
VESSEL ISOLATION VALVE

Ⓖ 3" ELECTRIC OPERATED VALVE
BRINE INLET

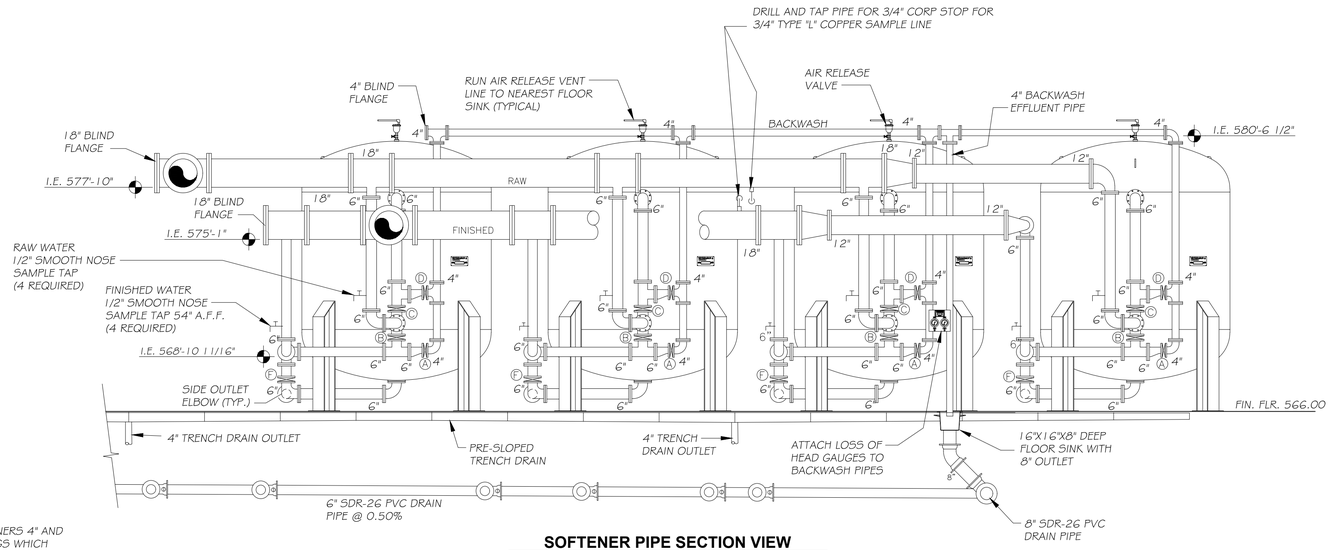
Ⓗ 8" NRS HANDWHEEL OPERATED BUTTERFLY VALVE
BLEND ISOLATION VALVE

Ⓙ 8" ELECTRIC MODULATING BUTTERFLY VALVE
BLEND VALVE

Ⓚ 2" BALL VALVE
TANK DRAIN

NOTE:
- UNLESS NOTED OTHERWISE ALL FACE PIPING FOR SOFTENERS 4" AND SMALLER SHALL BE SCH 80 C.P.V.C. EXCEPT FOR FITTINGS WHICH WILL BE DUCTILE IRON FLANGE JOINT.
- ALL PIPING 6" AND LARGER SHALL BE DUCTILE IRON WITH FLANGE JOINTS
- ALL HORIZONTAL REDUCERS SHALL BE ECCENTRIC STYLE FLANGED JOINT UNLESS NOTED OTHERWISE

GAPS BETWEEN FLANGES AND ALL LOCATIONS WHERE A GAP EXISTS AT FLANGE HUB/PIPE INTERSECTION SHALL BE CAULKED PRIOR TO PAINTING WITH SONNEBORN NP-1 BY SONNEBORN-CHEM REX., INC., SIKA FLEX 1-A, OR APPROVED EQUAL.



SOFTENER PIPE SECTION VIEW
(LOOKING WEST)

N.T.S.

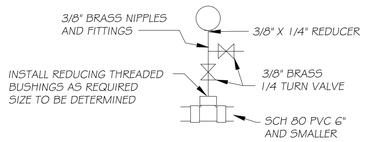
SMOOTH NOSE SAMPLE TAPS

SAMPLE TAPS SHALL BE 1/2"X14 NPT HAVING NO EXTERIOR THREADS ON THE OUTLET END OF TAP. THE TAP SHALL HAVE A CHROME FINISH.

ALL BRASS SHALL BE LOW LEAD

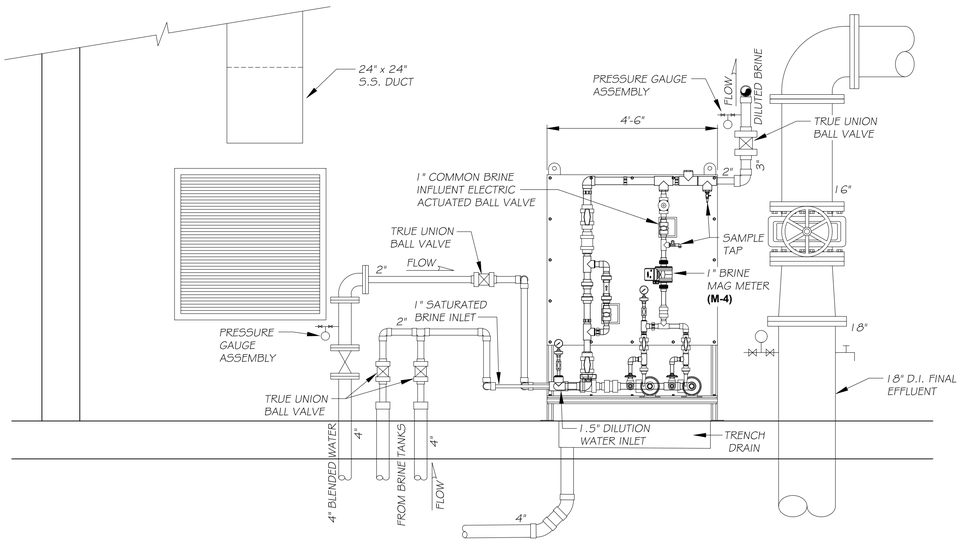
PROVIDE AN ASSEMBLY ON BOTH SUCTION AND DISCHARGE SIDES OF ALL PUMPS

PRESSURE GAUGE BE 4.5" GLYCERIN FILLED



PRESSURE GAUGE ASSEMBLY DETAIL
FOR SCH 80 PVC PIPE

N.T.S.



SECTION VIEW

N.T.S.

PLAN VIEW

N.T.S.

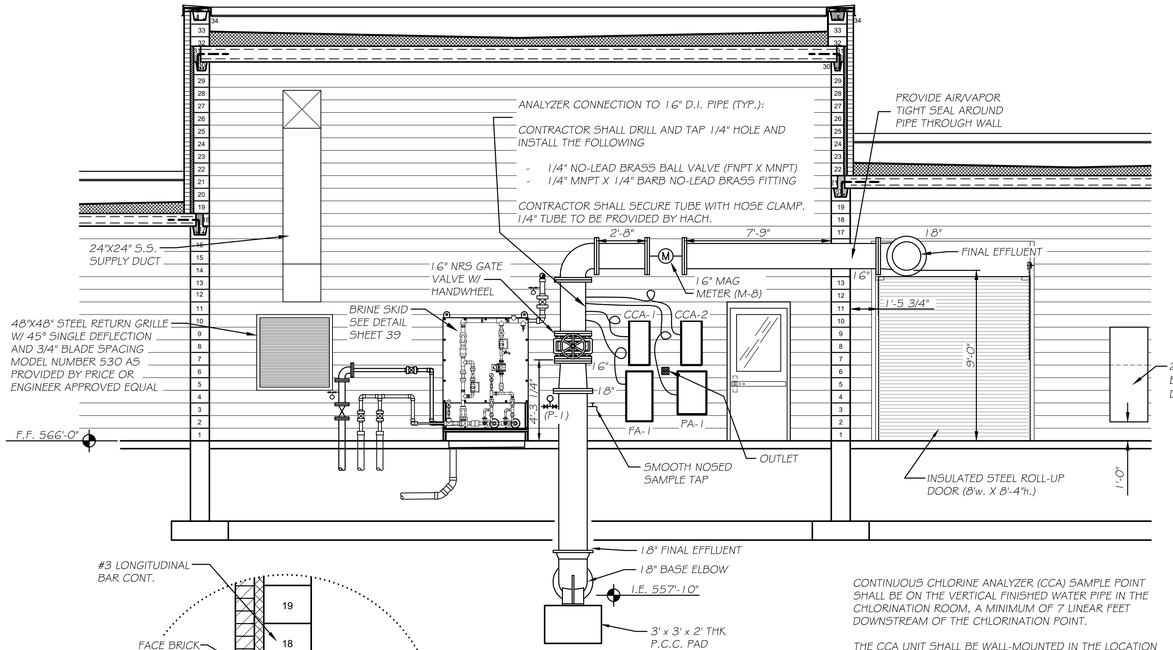
CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\JJC\9818-02-Morris - New Water Treatment Plant Design\CAD\NEW WM PLANS (WORK HERE)\039 - SOFTENER PIPING DETAILS.dwg Last Modified: Thursday, April 30, 2026 9:30:31 AM Plotted On: Friday, May 1, 2026 10:06:02 AM by Faith Rack

DRAWN BY: JJC	REVISIONS				PERU MORRIS OTTAWA ILLINOIS
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026
DATE: 03/2021					SOFTENER PIPING DETAILS

Chamlin & Associates

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
FILE NO.: 9818.02 Y–
SHEET 39
OF 84

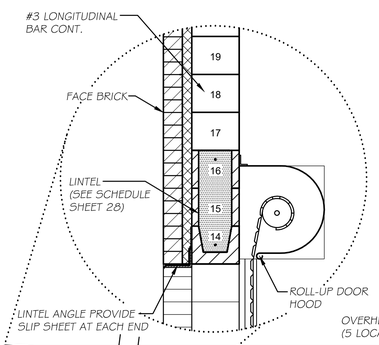


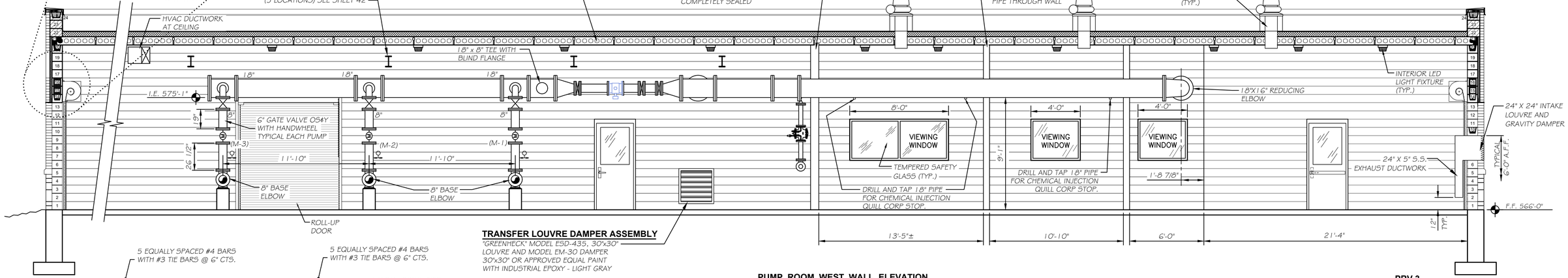
SOFTENER ROOM NORTH WALL ELEVATION
N.T.S.

CONTINUOUS CHLORINE ANALYZER (CCA) SAMPLE POINT SHALL BE ON THE VERTICAL FINISHED WATER PIPE IN THE CHLORINATION ROOM, A MINIMUM OF 7 LINEAR FEET DOWNSTREAM OF THE CHLORINATION POINT.

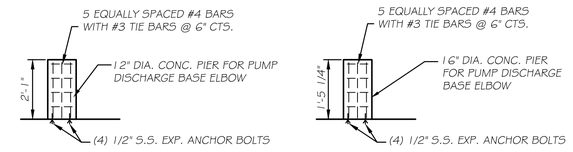
THE CCA UNIT SHALL BE WALL-MOUNTED IN THE LOCATION SHOWN.

THE CCA AND SAMPLING POINT SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.





PUMP ROOM WEST WALL ELEVATION
N.T.S.



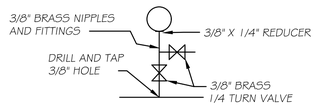
HIGH SERVICE PUMP — **LOWER ZONE FINAL EFFLUENT**

BASE ELBOW SUPPORT PIER
N.T.S.

BASE ELBOWS SHALL BE ANCHOR BOLTED TO CONCRETE PIER

TRANSFER LOUVRE DAMPER ASSEMBLY
"GREENHECK" MODEL ESD-435, 30"x30" LOUVRE AND MODEL EM-30 DAMPER 30"x30" OR APPROVED EQUAL PAINT WITH INDUSTRIAL EPOXY - LIGHT GRAY

1
ENTIRE SHEET

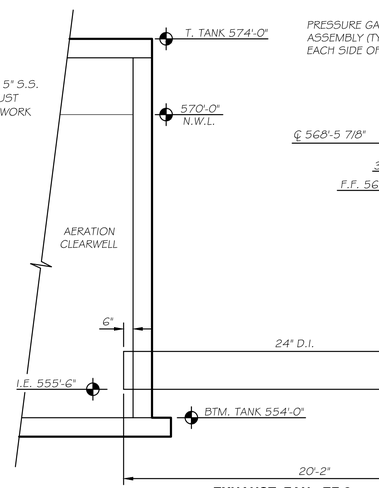


ALL BRASS SHALL BE LOW LEAD

PROVIDE AN ASSEMBLY ON BOTH SUCTION AND DISCHARGE SIDES OF ALL PUMPS

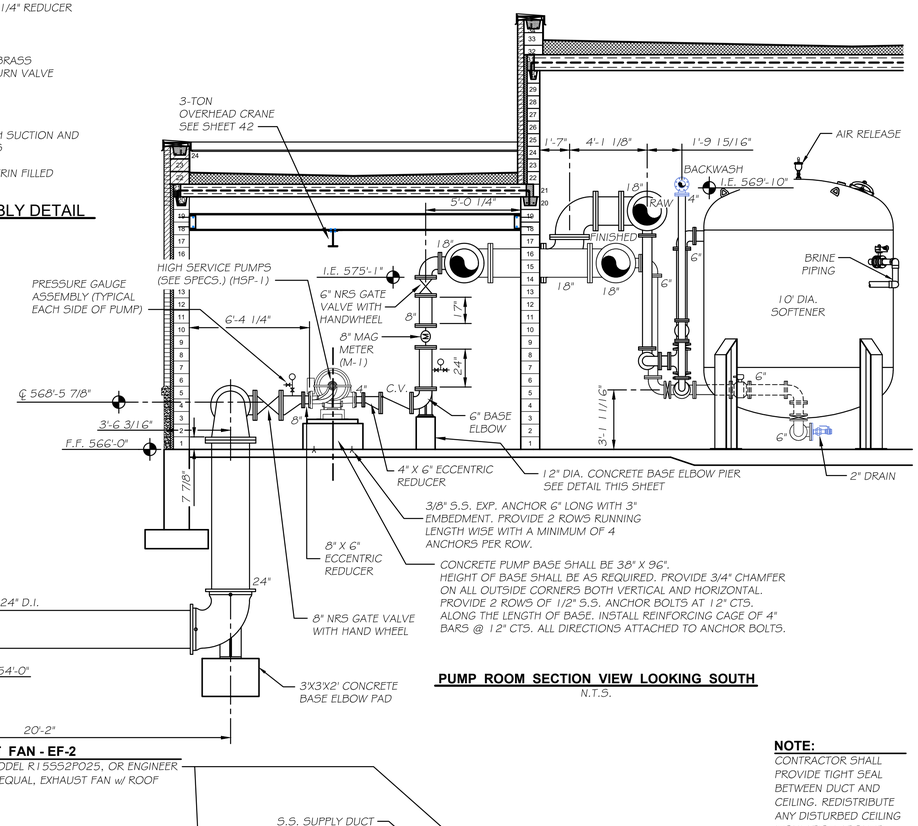
PRESSURE GAUGE BE 4.5" GLYCERIN FILLED

PRESSURE GAUGE ASSEMBLY DETAIL
N.T.S.



EXHAUST FAN - EF-2

PLASTEC MODEL R15552P025, OR ENGINEER APPROVED EQUAL, EXHAUST FAN w/ ROOF CURB.



PUMP ROOM SECTION VIEW LOOKING SOUTH
N.T.S.

NOTE:
CONTRACTOR SHALL PROVIDE TIGHT SEAL BETWEEN DUCT AND CEILING. REDISTRIBUTE ANY DISTURBED CEILING INSULATION AROUND WORK AREA.

PRV 3
MODEL D-40WR 4" PILOT OPERATED PRESSURE REDUCING VALVE AS MANUFACTURED BY RO55 VALVE COMPANY OR ENGINEER APPROVED EQUAL

PRV 4
MODEL 22T DIRECT ACTING 1" PRESSURE REDUCING VALVE AS MANUFACTURED BY RO55 VALVE COMPANY WITH UNIONS AND FNPT CONNECTIONS OR ENGINEER APPROVED EQUAL

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\CV\98.02-Morris-New Water Treatment Plant-Design\CAD\VIEW-WM-PLANS (WORK HERE)\040-BUILDING SECTION VIEWS.dwg Last Modified: Wednesday, May 20, 2026 3:59:28 PM Plotted On: Thursday, May 21, 2026 1:23:28 PM by Jonathon Covert

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 3/21	1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

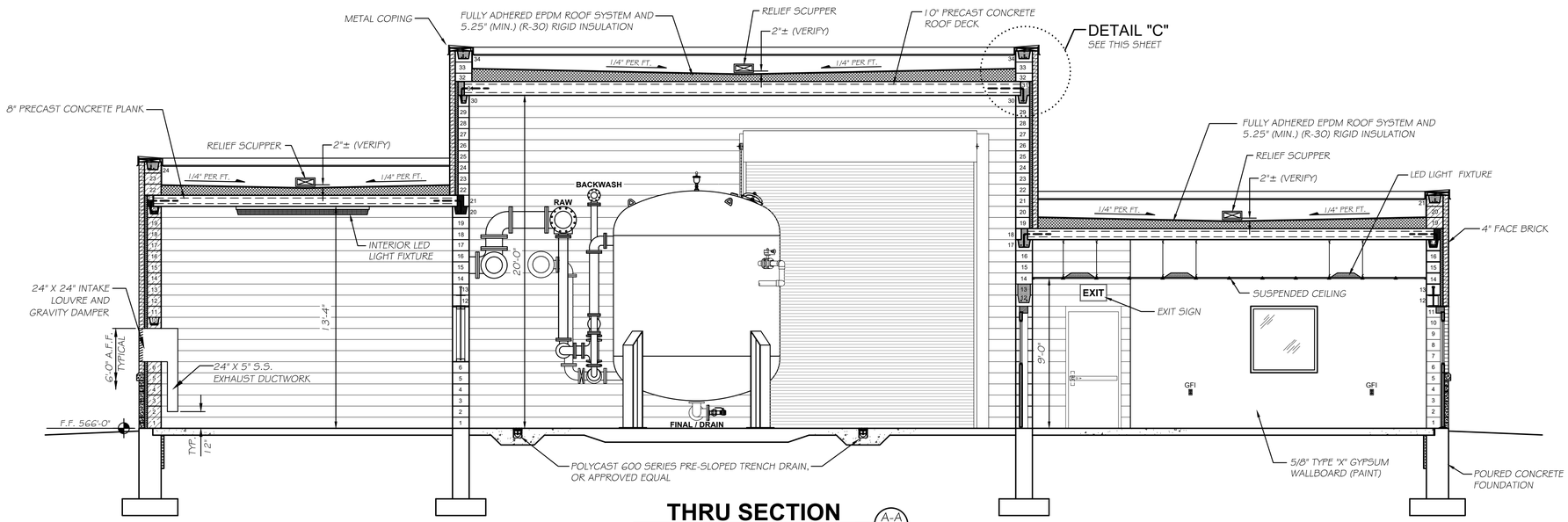
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

BUILDING SECTION VIEWS

BIDDING PLANS

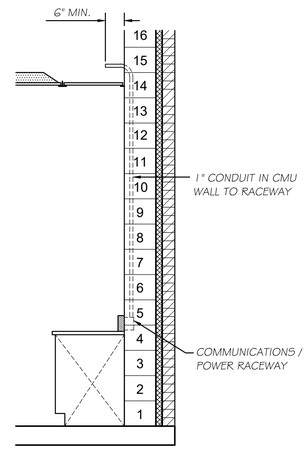
CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 40
FILE NO.: 9818.02 Y–
OF 84



THRU SECTION

SCALE: 1/4"= 1'-0"

A-A 33 41

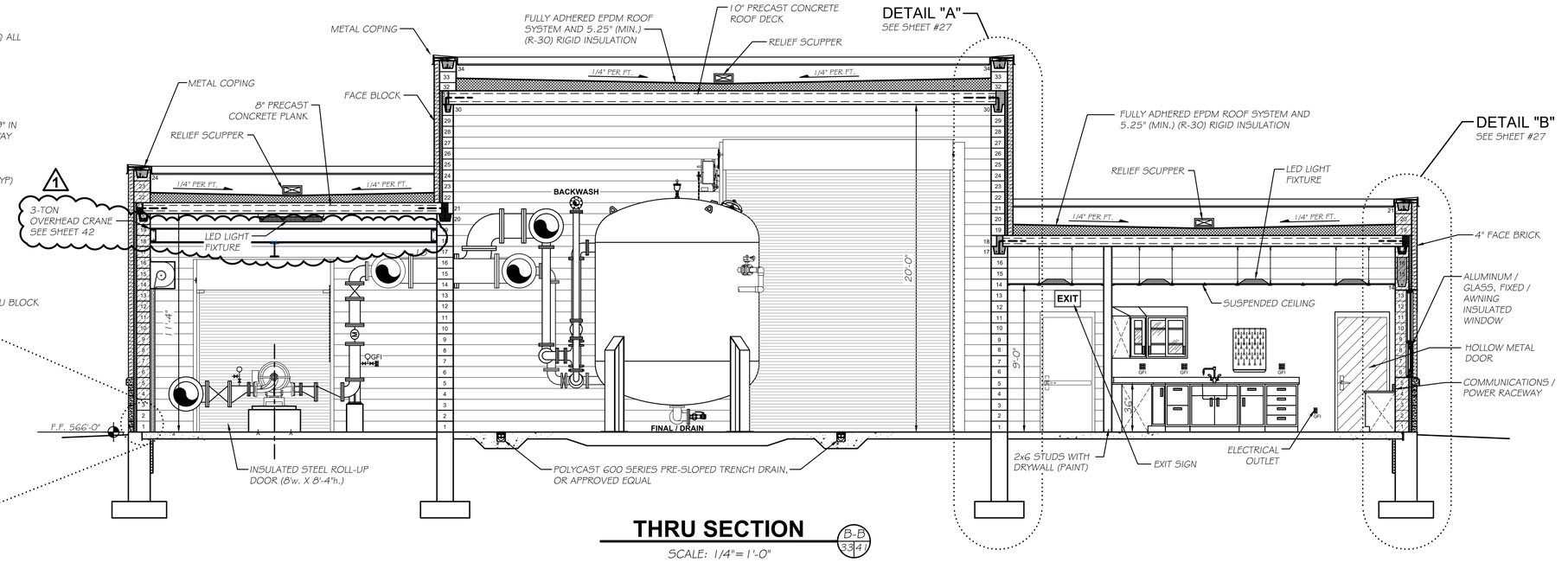


RACEWAY DETAIL

SCALE: 1/2"= 1'-0"

DETAIL "C"

N.T.S.



THRU SECTION

SCALE: 1/4"= 1'-0"

B-B 33 41

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\VS\18-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-HM-PLANS (WORK HERE)\041-TYPICAL THRU SECTION AND DETAILS.dwg Last Modified: Wednesday, May 20, 2026 3:04:07 PM Plotted On: Wednesday, May 20, 2026 3:04:59 PM by Jonathon Covert

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

DRAWN BY: GAH
CHECKED BY: MJP
DATE: 7/14/21

Chamlin & Associates

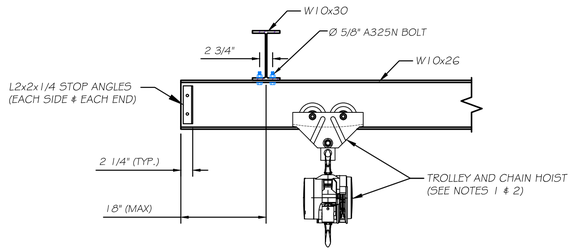
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

TYPICAL THRU SECTION & DETAILS

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 41
FILE NO.: 9818.02 Y–
OF 84



TROLLEY BEAM STOP ANGLES
(TYPICAL EACH END OF TROLLEY BEAM)

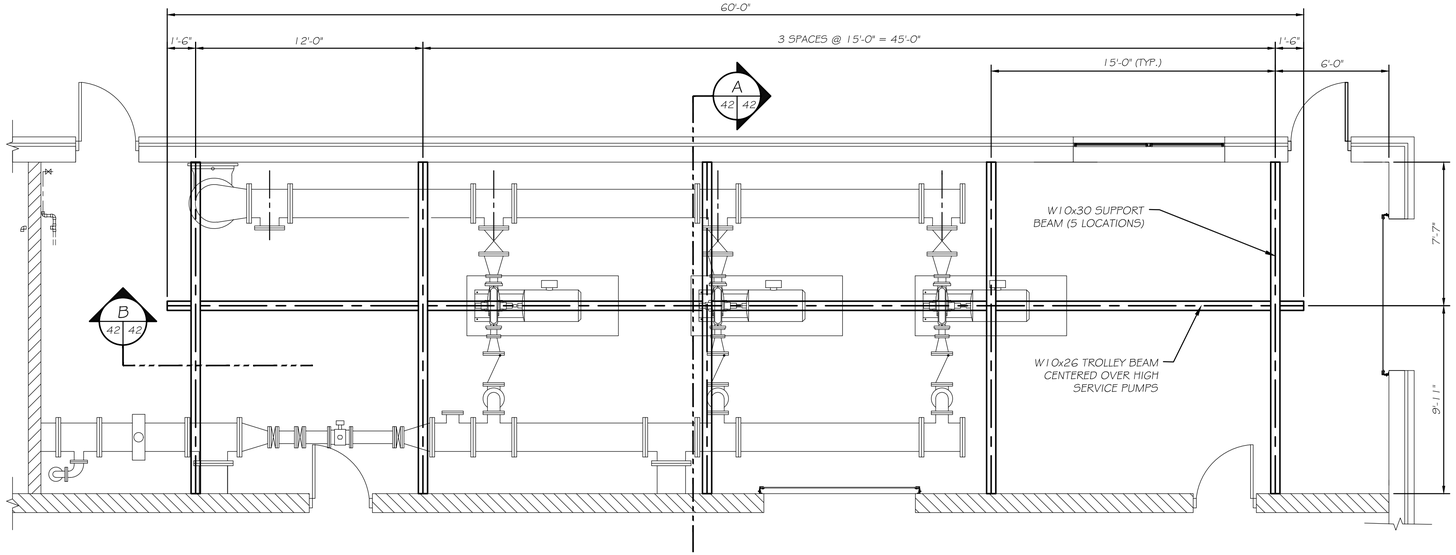
B 42 42

N.T.S.

HOIST NOTES:

1. HAND CHAIN HOIST - "COLUMBUS McKINNON" HURRICANE 360° HAND CHAIN HOIST (OR APPROVED EQUAL), **3 TON CAPACITY,** 10 FT. LIFT HEIGHT.
2. PUSH TROLLEY - "COLUMBUS McKINNON" HTP-3000A, (OR APPROVED EQUAL) **3 TON CAPACITY.**
3. HOIST SHOWN ON PLANS IS AN APPROXIMATE LOCATION. THE EXACT POSITIONING SHALL BE DETERMINED IN FIELD BY PUMP LAYOUT.

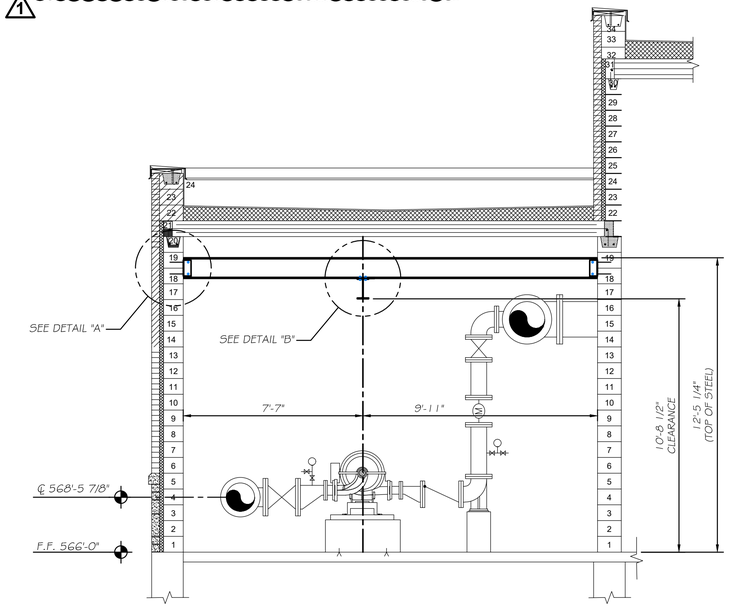
1



PUMP ROOM
PARTIAL LAYOUT PLAN

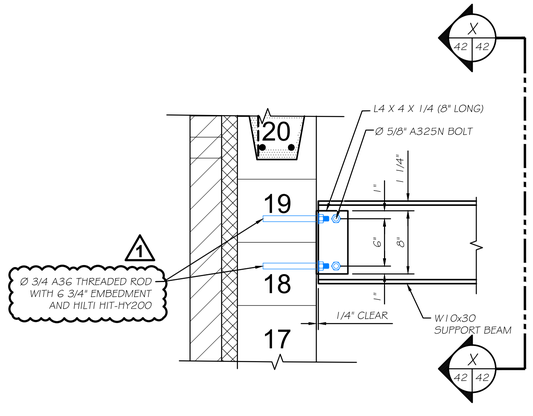
SCALE: 1/4"= 1'-0"

NORTH



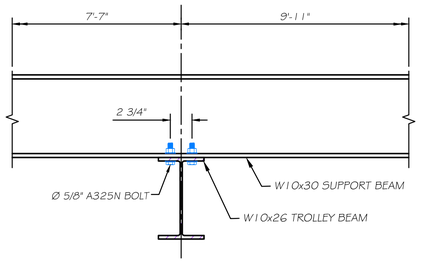
A 42 42 **PUMP ROOM SECTION VIEW LOOKING SOUTH**

N.T.S.



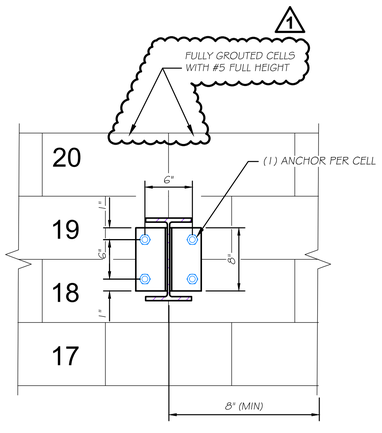
DETAIL "A"

NTS



DETAIL "B"

NTS



X 42 42 **W10x30 CONNECTION TO CMU WALL**

NTS

DRAWN BY: JJC	REVISIONS				PERU MORRIS OTTAWA ILLINOIS
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026
DATE: 11/2023	1	JJC	05/20/26	ADDENDUM No. 1	OVERHEAD CRANE FRAMING PLAN AND DETAILS

Chamlin & Associates

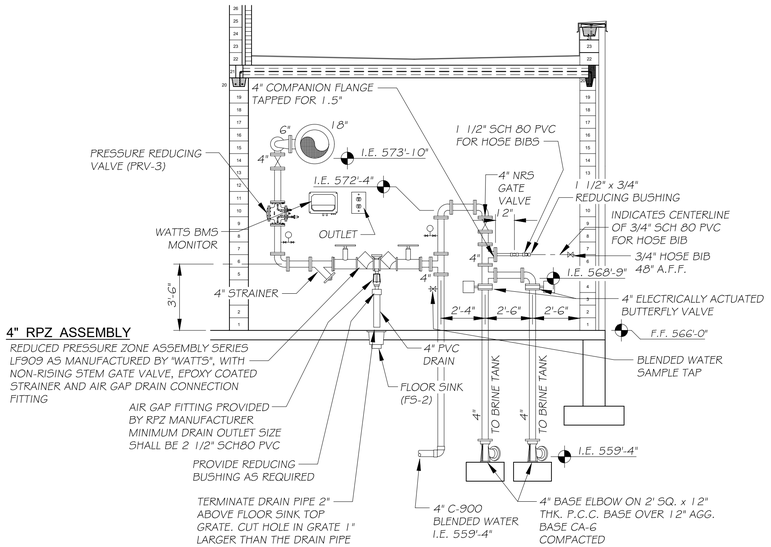
BIDDING PLANS

CURRENT AS OF: 05/01/2026

SCALE: AS NOTED | SHEET 42

FILE NO.: 9818.02 Y– | OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\SV\9818-02-Morris-New-Water-Treatment-Plant-Design\CAD\VIEW-WM-PLANS (WORK HERE)\042-OVERHEAD CRANE FRAMING PLAN AND DETAILS.dwg
Last Modified: Wednesday, May 6, 2026, 9:53:10 AM Plotted On: Wednesday, May 20, 2026, 3:12:27 PM by Jonathan Covert

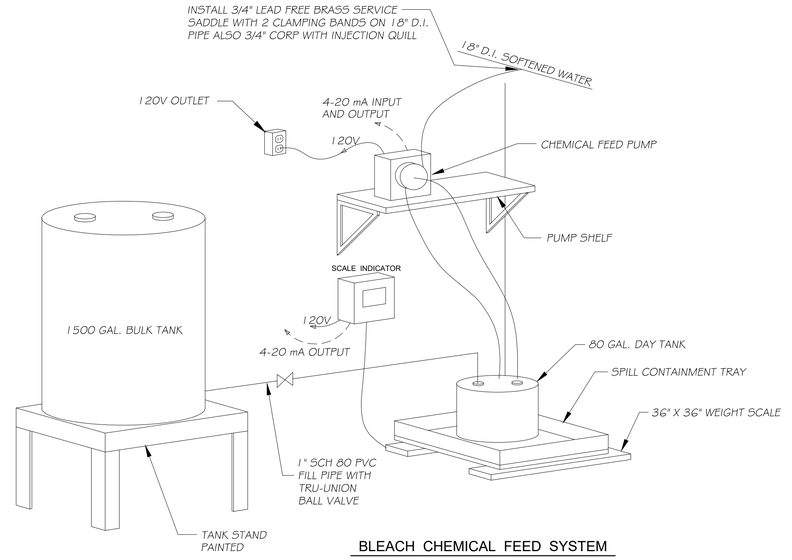


4" RPZ ASSEMBLY

REDUCED PRESSURE ZONE ASSEMBLY SERIES LF909 AS MANUFACTURED BY "WATTS", WITH NON-RISING STEM GATE VALVE, EPOXY COATED STRAINER AND AIR GAP DRAIN CONNECTION FITTING

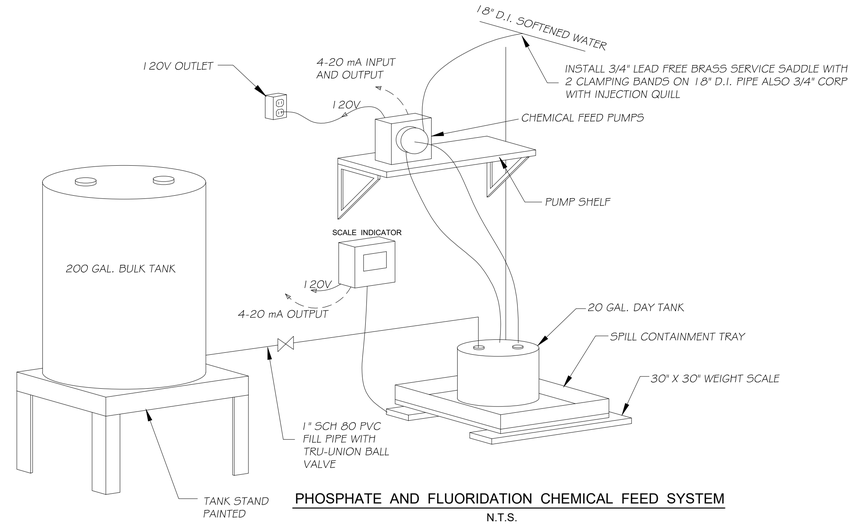
PUMP ROOM NORTH WALL ELEVATION

N.T.S.



BLEACH CHEMICAL FEED SYSTEM

N.T.S.



PHOSPHATE AND FLUORIDATION CHEMICAL FEED SYSTEM

N.T.S.

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\KW\18-022--Morris--New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\043-CHEMICAL FEED AND RPZ SYSTEM DETAILS.dwg Last Modified: Thursday, April 30, 2026 10:05:28 AM Plotted On: Friday, May 1, 2026 10:12:21 AM by Faith Pack

DRAWN BY: JJC
CHECKED BY: RTB
DATE: 03/2021

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

CHEMICAL FEED AND RPZ SYSTEM DETAILS

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 43
FILE NO.:9818.02 Y-
OF 84

GRAPHIC SCALE
0 10 20
(IN FEET)

N

ELECTRICAL SERVICE (BY OTHERS)

UE

X-FMR

GENERATOR

UE

ELECTRICAL METER

BRINE TANKS

HV-1

CONC. WALK

FINISHED FLOOR
EL. = 566.00

AERATION TANK

GAS METER

G

GAS SERVICE (BY OTHERS)

FLAG POLE

IL STATE RTE 47

GENERATOR

ELECTRICAL METER

WELL 8
WELL HOUSE
F.F. 564.44

PAD MOUNTED TRANSFORMER

UE

WELL 8

UE

GENERATOR

UE

WELL 9
WELL HOUSE
F.F. 580.14

PAD MOUNTED TRANSFORMER

ELECTRICAL METER

UE

ELECTRICAL SERVICE (BY OTHERS)

UE

UE

WELL 9

BUILDING

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VJob 98-02- Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WTP-PLANS (WORK HERE)\044-SITE ELECTRICAL PLAN.dwg Last Modified: Friday, May 1, 2026 11:19:04 AM Plotted On: Friday, May 1, 2026 11:27:09 AM by Jonathon Covert

DRAWN BY: JJC	PERU MORRIS	CITY OF MORRIS	SITE ELECTRICAL PLAN
CHECKED BY: RTB	OTTAWA	NORTH WATER TREATMENT PLANT	BIDDING PLANS
DATE: 11/2023	ILLINOIS	2026	CURRENT AS OF: 05/01/2026
	Chamlin & Associates		SCALE: AS NOTED — SHEET 44
			FILE NO.: 9818.02 Y– — OF 84

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

GRAPHIC SCALE
0 10 20
(IN FEET)

N

IL STATE RTE 47

G-1

BRINE TANKS

B-2
B-3

FINISHED FLOOR
EL. = 566.00

CONC. WALK

AERATION TANK

M-6
A-1
A-2
A-3

B-1 HSP-3
M-7 RPZ-1
CCA-1 S-1
FWP-1 CF-1
M-1 S-2
HSP-1 CF-2
M-2 S-3
HSP-2 CF-3
M-3

FLAG POLE

G-2

WL-8M
WL-8

FINISHED FLOOR
EL. = 564.44

WELL 8

ANTENNA LOCATION

WELL 9 SITE

G-3

FINISHED FLOOR
EL. = 580.19

WL-9M
WL-9

WELL 9

BUILDING

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\RTB\E-922-Morris-New Water Treatment Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\045-SITE CONTROL PLAN.dwg Last Modified: Friday, May 1, 2026 11:25:17 AM Plotted On: Friday, May 1, 2026 11:29:53 AM by Jonathon Covert

DRAWN BY:	JJC
CHECKED BY:	RTB
DATE:	11/2023

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

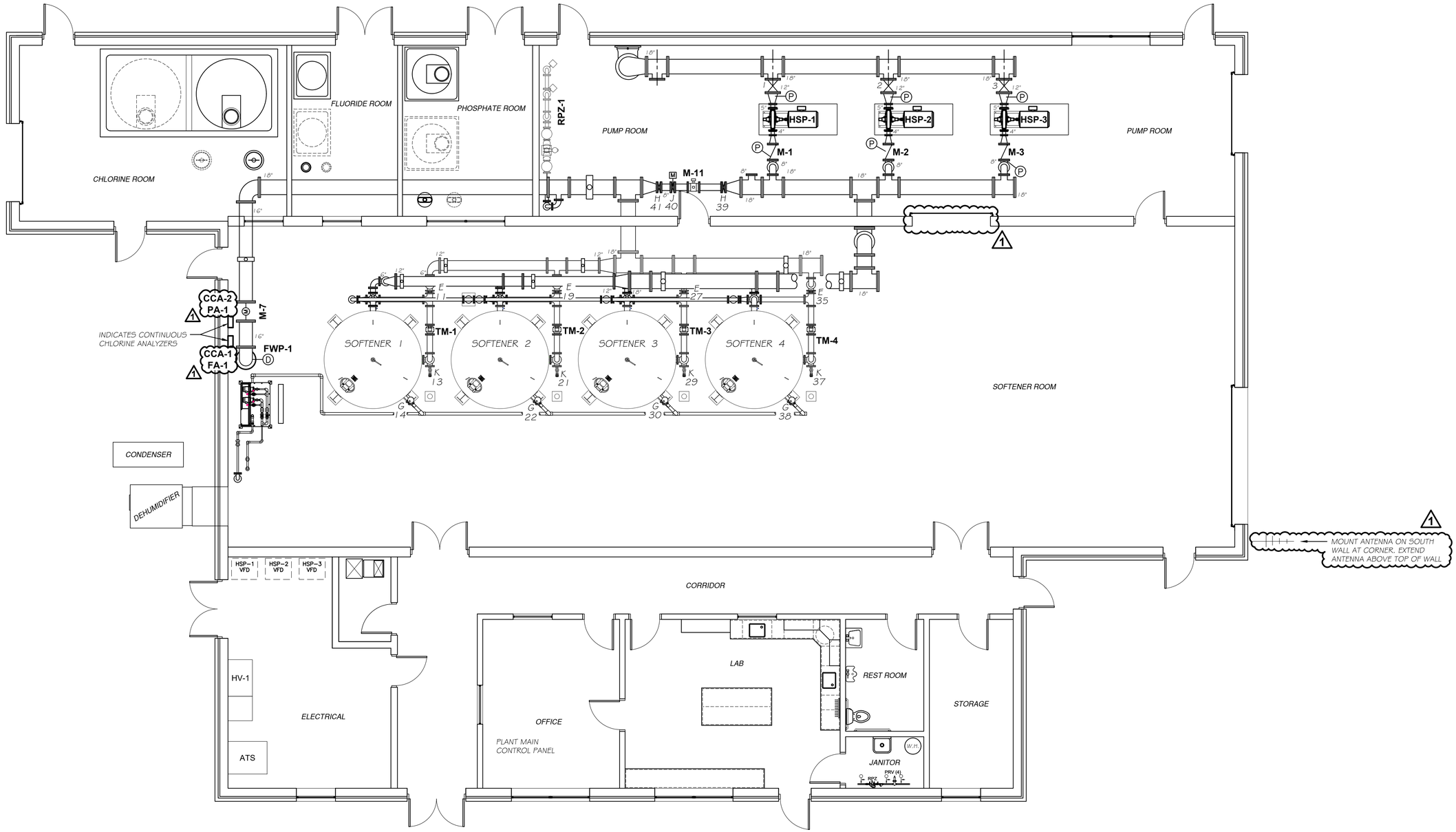
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

SITE CONTROL PLAN

BIDDING PLANS

CURRENT AS OF:	05/01/2026		
SCALE:	AS NOTED	SHEET	45
FILE NO.:	9818.02 Y–	OF	84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\VJS\18-52-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-HVAC-PLANS (WORK HERE)\046-CONTROL-INTEGRATION PLAN.dwg Last Modified: Wednesday, May 20, 2026 3:17:50 PM Plotted On: Thursday, May 21, 2026 1:33:51 PM by Jonathon Covert



CONTROL INTEGRATION PLAN

SCALE: 3/16"= 1'-0"

NORTH

DRAWN BY: JJC	REVISIONS			PERU MORRIS	CITY OF MORRIS	CONTROL / INTEGRATION PLAN	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: RTB	LEVEL 1	BY JJC	DATE 05/20/26	ADDENDUM No. 1	OTTAWA MORTON	NORTH WATER TREATMENT PLANT		SCALE: AS NOTED	SHEET 46
DATE: 03/2021					ILLINOIS	2026		FILE NO.: 9818.02 Y–	OF 84

Chamlin & Associates

A 4" ELECTRIC OPERATED BUTTERFLY VALVE
FAST RINSE EFFLUENT

B 6" BACKWASH OPERATED BUTTERFLY VALVE
BACKWASH EFFLUENT

C 6" ELECTRIC OPERATED BUTTERFLY VALVE
RAW WATER INFLUENT

D 4" ELECTRIC OPERATED BUTTERFLY VALVE
BACKWASH EFFLUENT

E 6" ELECTRIC OPERATED BUTTERFLY VALVE
FINISHED WATER EFFLUENT

F 6" NRS HANDWHEEL OPERATED GATE VALVE
VESSEL ISOLATION VALVE

G 3" ELECTRIC OPERATED VALVE
BRINE INLET

H 8" NRS HANDWHEEL OPERATED BUTTERFLY VALVE
BLEND ISOLATION VALVE

J 8" ELECTRIC MODULATING BUTTERFLY VALVE
BLEND VALVE

K 2" BALL VALVE
TANK DRAIN

WELL 9 SITE ENTRANCE GATE
GATE OPERATOR
TO PLANT SCADA SYSTEM
WELL HOUSE 9
SCADA RTU
METER (M-12)
BREAK IN ALARM
SMOKE ALARM
LOW TEMP ALARM
NO POWER ALARM
VFD
WELL 9

AERATOR
HEAT TRACE CONTROL PANEL
571'-2" OVERFLOW
570'-6" H.W.L.
570'-0" N.W.L.
LEVEL SENSOR (L-1)
AERATION BASIN
24"
TO PLANT SCADA SYSTEM

WELL HOUSE 8
TO PLANT SCADA SYSTEM
SCADA RTU
METER (M-13)
BREAK IN ALARM
SMOKE ALARM
LOW TEMP ALARM
NO POWER ALARM
VFD
WELL 8

PLANT SITE ENTRANCE GATES (2)
GATE OPERATOR
TO PLANT SCADA SYSTEM
STAND-BY GENERATOR
ANNUNCIATOR (MOUNTED IN OFFICE)

HSP 3
HSP 2
HSP 1
VFD
METER (M-3)
METER (M-2)
METER (M-1)

TONKA CONTROL PANEL

BLEND WATER
LOSS OF HEAD PRESSURE GAUGES
BLENDED WATER
METER (M-11)
PRV
RPZ
METER (M-8)

BACKWASH
FINISHED
RAW

SOFTENER 1
SOFTENER 2
SOFTENER 3
SOFTENER 4
METER (TM-1)
METER (TM-2)
METER (TM-3)
METER (TM-4)

METERING PUMP
PLC CONTROLLED OUTLET
SCALE
FLUORIDE DAY TANK
PHOSPHATE DAY TANK
BLEACH DAY TANK
PLC CONTR. CHLORINE GAS DETECTOR
CHLORINE ROOM EXHAUST FAN

PLANT SCADA SYSTEM
BREAK IN ALARM
MOTION SENSORS
SMOKE ALARM

1/2" HDPE SAMPLE LINE TO LAB
TO DRAIN
1" SERVICE TO PLANT FOR DOMESTIC
CONTINUOUS CHLORINE ANALYZER
SAMPLE SINK IN LAB

BRINE EDUCTOR
METER (M-9)
METER (M-10)
PRV

LEVEL SENSOR (L-2)
LEVEL SENSOR (L-3)
H.W.L. 564.25
N.W.L. 563.50
BRINE TANK 1
BRINE TANK 2

TO PLANT SCADA SYSTEM
720'-0" OVERFLOW
LISBON ROAD TOWER
RTE. 80 & 47 TOWER

POSITIVE - ACTING CHECK VALVE
GATE VALVE WITH HANDWHEEL
BALL VALVE
TRU-UNION BALL VALVE
ELECTRICALLY ACTUATED BUTTERFLY VALVE
MODULATING BUTTERFLY VALVE
SMOOTH NOSE SAMPLE TAP
STRAINER
DIGITAL PRESSURE GAUGE ASSEMBLY WITH 4-20 mA OUTPUT. 0 - 200 PSI RANGE
4" DIA. S.S. LIQUID FILLED PRESSURE GAUGE 0 -200 PSI RANGE

NOTE:
CONNECTIONS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY

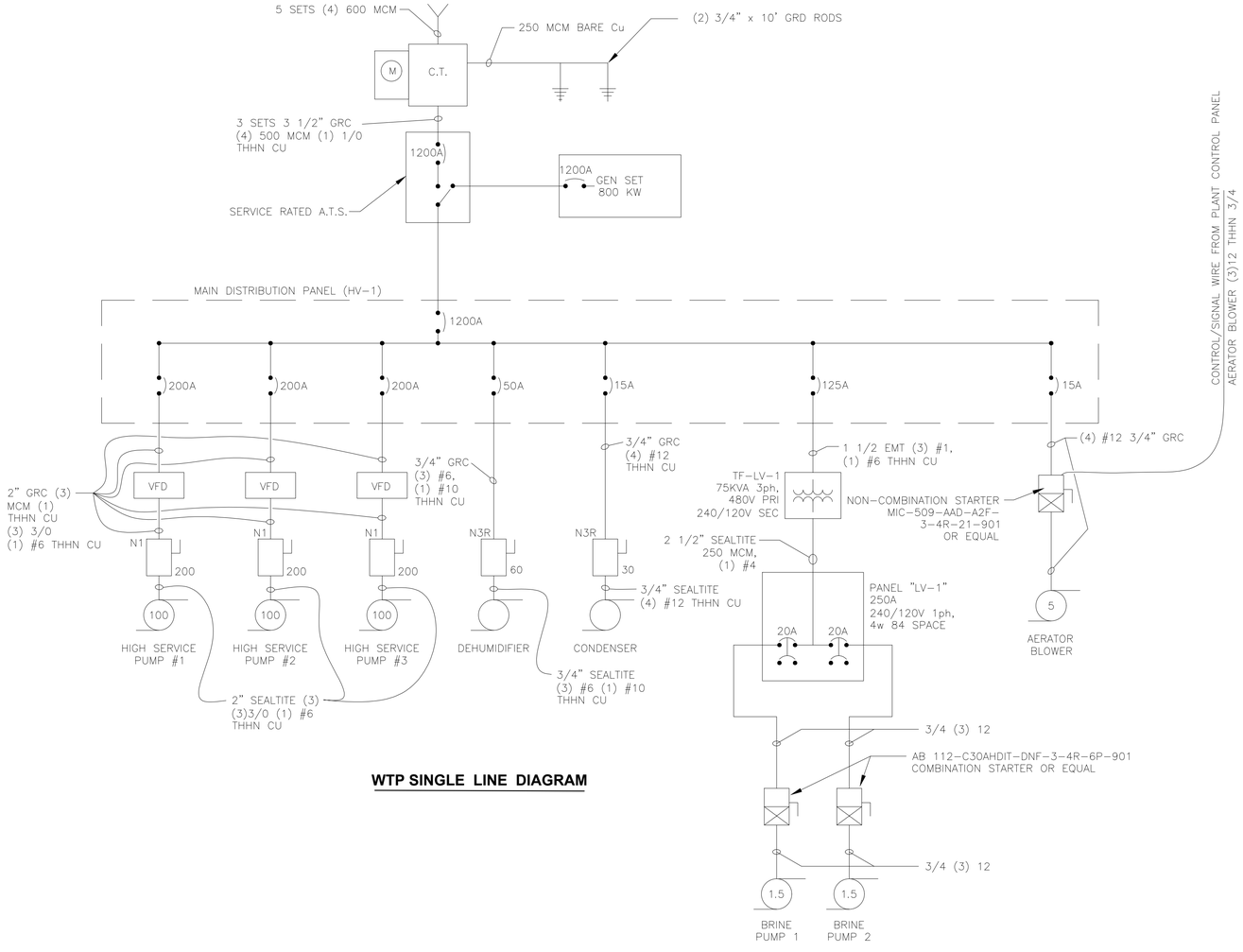
CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VA\9818-02- Morris- New- Water Treatment Plant- Design\CAD\NEW- IFM- PLANS (WORK HERE)\9A7-INTEGRATION AND SCADA SCHEMATIC.dwg Last Modified: Thursday, April 30, 2026 3:12:41 PM Plotted On: Friday, May 1, 2026 10:20:24 AM by: Faith Peck

DRAWN BY: JJC	CITY OF MORRIS	INTEGRATION AND SCADA SCHEMATIC	BIDDING PLANS
CHECKED BY: RTB	NORTH WATER TREATMENT PLANT		CURRENT AS OF: 05/01/2026
DATE: 03/2021	2026		SCALE: AS NOTED · SHEET 47
	PERU MORRIS OTTAWA ILLINOIS		FILE NO.: 9818.02 Y- · OF 84

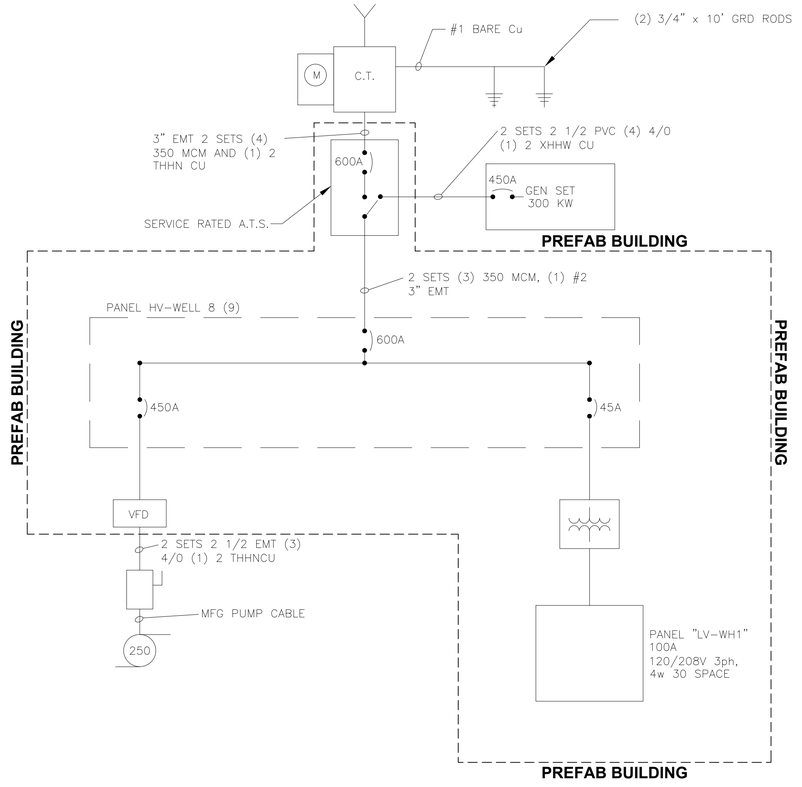
REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates



WTP SINGLE LINE DIAGRAM



WELL HOUSES 8 & 9 SINGLE LINE DIAGRAM

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\KW\18-022-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\048-SINGLE LINE DIAGRAM.dwg Last Modified: Thursday, April 30, 2026 2:59:49 PM Plotted On: Friday, May 1, 2026 10:21:25 AM by Faith Pack

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 2/26

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

SINGLE LINE DIAGRAM

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 48
FILE NO.: 9818.02 Y-
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\9818-02-Morris-New Water Treatment Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\049-ELECTRICAL GENERAL POWER PLAN.dwg Last Modified: Wednesday, May 20, 2026 10:42:56 AM Plotted On: Thursday, May 21, 2026 1:34:43 PM by Jonathon Covert

MINI-SPLIT UNIT - 2
LV-1-24, LV-1-26
48" GFI
LV-1-19
LV-1-20
LV-1-21
LV-1-18
24" GFI WP
UH-2B
LV-1-33
VFD 1
VFD 2
VFD 3
LV-1-46 METER-1
LV-1-46 METER-2
LV-1-46 METER-3
LV-1-31
UH-2A
BMS MONITOR
SHIELDED TWISTED PAIR TO PCP
LV-1-47 METER-11
UH-1B
PHOSPHATE ANALYZER
PCP
LV-1-32
LV-1-17
24" GFI WP
LV-1-47
METER-8
CONTINUOUS CHLORINE ANALYZERS
42" GFI WP
FLUORIDE ANALYZER
TONKA METER-1
TONKA METER-2
TONKA METER-3
TONKA METER-4
LV-1-45
LV-1-36
UH-1D
LV-1-22
LV-1-34
UH-1C
CONDENSER
HV-1
DHU
UH-1A
LP-1-30
(3) 12 THHN 3/4C TO TONKA CP
BRINE PUMP STARTERS
LOCAL DISC
LV-1-50
LV-1-52
LV-1-28
LV-1-27, LV-1-29
C.U.
HSP-1 VFD
HSP-2 VFD
HSP-3 VFD
FURNACE
HVAC DUCTWORK AT CEILING
TONKA CONTROL PANEL
LV-1-37
LV-1-11
LV-1-16
LV-1-15
LV-1-14
LV-1-13
LV-1-12
24" COM
44" GFI
GFI WP
WATER HEATER
LV-1-38
GAS METER
MINI-SPLIT UNIT - 1
LV-1-23, LV-1-25
HV-1
ATS
LV-1
TF-LV1
CUMMINS PART No. OTECSE SERVICE RATED AUTOMATIC TRANSFER SWITCH
LMR 400 TO YAGI ANTENNA
PLANT MAIN CONTROL PANEL
LV-1-39
CUMMINS MODEL C300N6 NATURAL GAS, 800 kW STANT-BY GENERATOR IN WEATHER PROTECTIVE STEEL ENCLOSURE
GEN SET NTS
A.T.S. CONTROLS (4) #12 IN 3/4" C.
A.T.S. POWER 2 SETS (4) 350 MCM (1) 2 IN (2) 3" C.
LP-1 20A 120V CHARGER 20A 208V BLOCK HEATER
SCADA PANEL (7)14 1" PVC
SEE SITE PLAN FOR LOCATION
REMOTE EMERGENCY STOP SWITCH AB 800T-NX114 OR APPROVED EQUAL
C.T. CABINET AND METER BASE IN ACCORDANCE WITH ComEd REQUIREMENTS
(2) 1" CONDUIT IN CMU WALL TO RACEWAY (2 LOCATIONS). SEE SHEET 41 FOR DETAIL
COMMUNICATIONS / POWER RACEWAY (14' LENGTH)

GENERAL POWER LAYOUT PLAN

SCALE: 3/16"= 1'-0"

NORTH

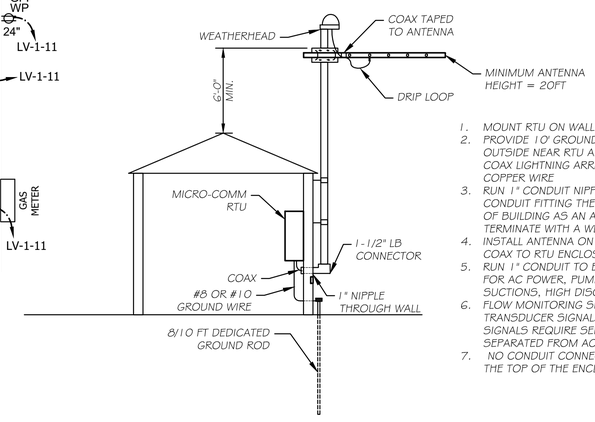
ELECTRICAL NOTES

1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND REPRESENT A COMPLETE PROJECT. MODIFICATIONS TO THE WORK SHALL BE PROVIDED BY THIS CONTRACTOR TO COMPLY WITH PROJECT REQUIREMENTS. LOCATIONS OF EQUIPMENT SHOW A GENERAL ARRANGEMENT AND INTEND FUNCTION. BEFORE INSTALLING EQUIPMENT, CHECK DOOR OPERATIONS AND REQUIRED CLEARANCES TO AVOID INTERFERENCE WITH OTHER TRADES.
2. INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND CONDITIONS FOR WARRANTIES AND GUARANTIES. PROVIDE ACCESSORIES REQUIRED FOR A COMPLETE AND SATISFACTORY INSTALLATION.
3. COMPLY WITH LOCAL AND APPLICABLE CODES. IN THE EVENT OF A CONFLICT, THE MOST STRINGENT SHALL GOVERN. SHOULD A CONFLICT ARISE BETWEEN CONSTRUCTION DOCUMENTS AND APPLICABLE CODES, WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE ENFORCING CODE AUTHORITIES.
4. WIRING SHALL BE #12 THWN / THHN IN 3/4" CONDUIT UNLESS OTHERWISE NOTED.
5. ALL CONDUIT SHALL BE CONCEALED WITHIN WALLS AND CEILINGS WHEREVER POSSIBLE. ANY CONDUIT EXPOSED SHALL BE INSTALLED STRAIGHT & TRUE WITH PROPER FITTINGS AND FASTENERS APPROVED BY ENGINEER. CONDUIT SHALL BE PAINTED TO MATCH SURROUNDING MATERIALS.
6. RECEPTACLES ARE TO BE GROUND FAULT PROTECTED (GFI) UNLESS SHOWN OTEHRWISE.
7. ELECTRICAL CONTRACTOR SHALL VERIFY REQUIRED LOADS FOR EACH CIRCUIT AND EVENLY BALANCE PANEL BUSS BARS ACCORDINGLY.
8. CONTRACTOR SHALL PROVIDE TYPEWRITTEN CIRCUIT NAMEPLATES FOR PANELS AS APPROVED BY ARCHITECT.
9. PROVIDE AND INSTALL DISCONNECT SWITCH FOR HVAC EQUIPMENT.
10. PROVIDE 4 x4 ELECTRICAL BOX AT END OF EACH CONDUIT, BEHIND COMM. / POWER RACEWAY.
11. FOR ALL CONTROL AND POWER CABLES TO THE VALVES AND METERS ON THE FACE PIPING ON THE SOFTENERS, PROVIDE B-LINE ALUMINUM CABLE TRAY SERIES 34A09-12 OR ENGINEER APPROVED EQUAL AND HW150 TRAY CABLE - CONTROL CABLE OR APPROVED EQUAL. CHANGE IN DIRECTIONS SHALL BE MADE USING MANUFACTURED TURNS INCLUDING VERTICAL RISERS AS WELL AS VERTICAL TO HORIZONTAL TRANSITIONS.

1. CONTRACTOR SHALL MOUNT THE YAGI ANTENNA IN ACCORDANCE WITH TYPICAL INDOOR RTU DETAIL ON THIS SHEET. CONTRACTOR SHALL COORDINATE WITH MICRO-COMM TO PROPERLY ORIENT THE ANTENNA. PROVIDE AND INSTALL MOUNT FOR ANTENNA. ANTENNA TO EXTEND ABOVE TOP OF WALL.

TYPICAL MOUNTING OF INDOOR RTU & YAGI ANTENNA

N.T.S.



1. MOUNT RTU ON WALL IN BUILDING AT EYE LEVEL.
2. PROVIDE 10' GROUND ROD AT LOCATION OUTSIDE NEAR RTU AND WIRE TO ANTENNA COAX LIGHTNING ARRESTOR WITH 8/10 GAUGE COPPER WIRE
3. RUN 1" CONDUIT NIPPLE THROUGH WALL TO LB CONDUIT FITTING THEN 1 1/2" CONDUIT UP SIDE OF BUILDING AS AN ANTENNA MAST AND TERMINATE WITH A WEATHERHEAD.
4. INSTALL ANTENNA ON CONDUIT MAST. RUN COAX TO RTU ENCLOSURE THROUGH CONDUIT.
5. RUN 1" CONDUIT TO EXISTING CONTROL PANEL FOR AC POWER, PUMP RUNS (4 CALLS), LOW SUCTIONS, HIGH DISCHARGE, ETC.
6. FLOW MONITORING SIGNALS, PRESSURE TRANSDUCER SIGNALS OR ANY OTHER DC SIGNALS REQUIRE SEPARATE CONDUIT SEPARATED FROM AC SIGNALS.
7. NO CONDUIT CONNECTIONS SHALL BE MADE IN THE TOP OF THE ENCLOSURE

DRAWN BY: JJW	REVISIONS			
CHECKED BY: Tim H.	LEVEL	BY	DATE	DESCRIPTION
DATE: 6/25	1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

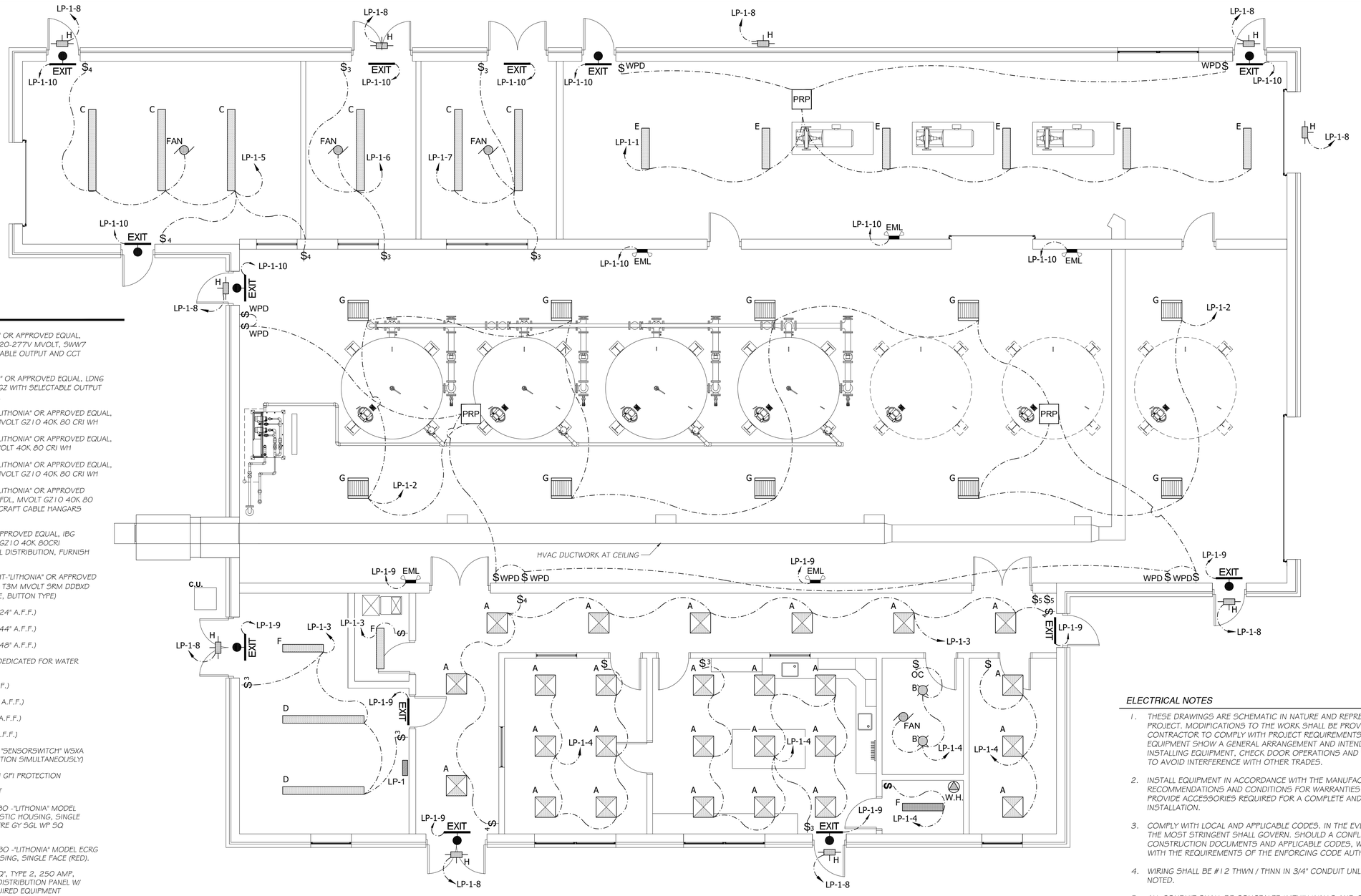
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

ELECTRICAL GENERAL POWER PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 49
FILE NO.: 9818.02 Y–
OF 84



LEGEND

A	LED LIGHT FIXTURE - "LITHONIA" OR APPROVED EQUAL, CPX 2X2 ALO7, FLAT PANEL, 120-277V MVOLT, SWW7 40K 80 CRI SWL WITH SELECTABLE OUTPUT AND CCT WITH 3200LM/4000K
B	6" LED DOWNLIGHT - "LITHONIA" OR APPROVED EQUAL, LDN6 ALO2 SWW1 L06 AR LD WD UGZ WITH SELECTABLE OUTPUT AND CCT WITH 1500LM/4000K.
C	8' LED STRIP LIGHT FIXTURE - "LITHONIA" OR APPROVED EQUAL, CLX L96 10000LM SEF FDL, MVOLT GZ10 40K 80 CRI WH
D	8' LED STRIP LIGHT FIXTURE - "LITHONIA" OR APPROVED EQUAL, CLX L96 8000LM SEF FDL, MVOLT 40K 80 CRI WH
E	4' LED STRIP LIGHT FIXTURE - "LITHONIA" OR APPROVED EQUAL, CLX L48 10000LM SEF FDL, MVOLT GZ10 40K 80 CRI WH
F	4' LED STRIP LIGHT FIXTURE - "LITHONIA" OR APPROVED EQUAL, CLX L48 5000LM SEF FDL, MVOLT GZ10 40K 80 CRI WH WITH ADJUSTABLE AIRCRAFT CABLE HANGARS (FURNACE ROOM ONLY)
G	LED HIGH BAY-"LITHONIA" OR APPROVED EQUAL, IBG 36000LM SEF AFL GND MVLT GZ10 40K 80CRI DWHIBAC120 M100, GENERAL DISTRIBUTION, FURNISH WITH 10' AIRCRAFT CABLES
H	EXTERIOR WALL MOUNTED LIGHT-"LITHONIA" OR APPROVED EQUAL, WDGE2 P1 40K 80CRI T3M MVOLT SRM DDBXD (DARK BRONZE) PE (PHOTO EYE, BUTTON TYPE)
24"	20 AMP DUPLEX RECEPTACLE (24" A.F.F.)
44"	20 AMP DUPLEX RECEPTACLE (44" A.F.F.)
48"	20 AMP DUPLEX RECEPTACLE (48" A.F.F.)
WATER HEATER	20 AMP DUPLEX RECEPTACLE DEDICATED FOR WATER HEATER (VERIFY)
S	SINGLE POLE SWITCH (48" A.F.F.)
S3	THREE WAY POLE SWITCH (48" A.F.F.)
S4	FOUR WAY POLE SWITCH (48" A.F.F.)
SWPD	WALLPOD POLE SWITCH (48" A.F.F.)
SOC	OCCUPANCY SENSOR SWITCH "SENSORSWITCH" WSXA (DUAL RELAY-LIGHT/FAN OPERATION SIMULTANEOUSLY)
WP	WEATHER PROOF OUTLET WITH GFI PROTECTION
	INDICATES ELECTRICAL CIRCUIT
EXIT	EXIT / EMERGENCY LIGHT COMBO -"LITHONIA" MODEL ECRG HO SQ M6, THERMOPLASTIC HOUSING, SINGLE FACE (RED) WITH "LITHONIA" ERE GY SGL WP SQ EXTERIOR REMOTE HEAD
EXIT	EXIT / EMERGENCY LIGHT COMBO -"LITHONIA" MODEL ECRG SQ M6, THERMOPLASTIC HOUSING, SINGLE FACE (RED).
LP-1	PANELBOARD - "SQUARE D" "NQ", TYPE 2, 250 AMP, 4-WIRE, 1-PHASE, 84 SPACE DISTRIBUTION PANEL W/ MAIN BREAKER (PROVIDE REQUIRED EQUIPMENT BREAKERS AS SHOWN ON THE PLANS)
FAN	CEILING EXHAUST FAN
FURNACE	FURNACE BLOWER (SEE HVAC PLAN)
COMM. / POWER RACEWAY	SPLIT POWER/COMMUNICATIONS RACEWAY "WIREMOLD" TYPE AL5200, ALUMINUM COMPLETE W/ COVER, BASE & DIVIDER. INSTALL COMPUTER/TELEPHONE OUTLETS (DATA PORTS) (3-REQUIRED) AND DUPLEX RECEPTACLES.
	EQUIPMENT DISCONNECT
PRP	POWER RELAY PACK - "ACUITYBRANDS" MODEL NPP16, EXTERNAL FAULT PROTECTION, 0-10VDC DIMMING OUTPUT, 120/277VAC WH

LIGHTING LAYOUT PLAN

SCALE: 3/16"=1'-0"

NORTH

ELECTRICAL NOTES

1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND REPRESENT A COMPLETE PROJECT. MODIFICATIONS TO THE WORK SHALL BE PROVIDED BY THIS CONTRACTOR TO COMPLY WITH PROJECT REQUIREMENTS. LOCATIONS OF EQUIPMENT SHOW A GENERAL ARRANGEMENT AND INTEND FUNCTION. BEFORE INSTALLING EQUIPMENT, CHECK DOOR OPERATIONS AND REQUIRED CLEARANCES TO AVOID INTERFERENCE WITH OTHER TRADES.
2. INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND CONDITIONS FOR WARRANTIES AND GUARANTIES. PROVIDE ACCESSORIES REQUIRED FOR A COMPLETE AND SATISFACTORY INSTALLATION.
3. COMPLY WITH LOCAL AND APPLICABLE CODES. IN THE EVENT OF A CONFLICT, THE MOST STRINGENT SHALL GOVERN. SHOULD A CONFLICT ARISE BETWEEN CONSTRUCTION DOCUMENTS AND APPLICABLE CODES, WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE ENFORCING CODE AUTHORITIES.
4. WIRING SHALL BE #12 THWN / THNN IN 3/4" CONDUIT UNLESS OTHERWISE NOTED.
5. ALL CONDUIT SHALL BE CONCEALED WITHIN WALLS AND CEILINGS WHEREVER POSSIBLE. ANY CONDUIT EXPOSED SHALL BE INSTALLED STRAIGHT & TRUE WITH PROPER FITTINGS AND FASTENERS APPROVED BY ENGINEER. CONDUIT SHALL BE PAINTED TO MATCH SURROUNDING MATERIALS.
6. RECEPTACLES ARE TO BE GROUND FAULT PROTECTED (GFI) UNLESS SHOWN OTEHRWISE.
7. ELECTRICAL CONTRACTOR SHALL VERIFY REQUIRED LOADS FOR EACH CIRCUIT AND EVENLY BALANCE PANEL BUSS BARS ACCORDINGLY.
8. CONTRACTOR SHALL PROVIDE TYPEWRITTEN CIRCUIT NAMEPLATES FOR PANELS AS APPROVED BY ARCHITECT.
9. PROVIDE AND INSTALL DISCONNECT SWITCH FOR HVAC EQUIPMENT.

DRAWN BY: JJW	REVISIONS				Chamlin & Associates
CHECKED BY: Tim H.	LEVEL	BY	DATE	DESCRIPTION	PERU MORRIS OTTAWA ILLINOIS
DATE: 6/25					CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026

ELECTRICAL LIGHTING PLAN

BIDDING PLANS

CURRENT AS OF: 05/01/2026

SCALE: AS NOTED | SHEET 50

FILE NO.: 9818.02 Y- | OF 84

CHAMLIN & ASSOCIATES, INC. © 2025

Drawing Name: G:\Users\VA\9818-02 Morris-New Water Treatment Plant Design\CAD\NEW JHM PLANS (WORK HERE)\060-ELECTRICAL LIGHTING PLAN.dwg Last Modified: Thursday, April 30, 2026, 3:02:23 PM Plotted On: Friday, May 1, 2026, 10:30:08 AM by: Faith Peck

PANEL BOARD (LV-1)

250 AMP, 120/240 VOLT, 3-PHASE, 84 SPACE

250

A B C

LIGHTS	20	1	2	20	LIGHTS
LIGHTS	20	3	4	20	LIGHTS
CHEMICAL ROOM 1 FAN AND LIGHTS	20	5	6	20	CHEMICAL ROOM 2 FAN AND LIGHTS
CHEMICAL ROOM 3 FAN AND LIGHTS	20	7	8	20	EXTERIOR WALL LIGHTS
EMERGENCY LIGHTS	20	9	10	20	EMERGENCY LIGHTS
RECEPTACLES	20	11	12	20	RECEPTACLES
RECEPTACLES	20	13	14	20	RECEPTACLES
RECEPTACLES	20	15	16	20	RECEPTACLES
RECEPTACLES	20	17	18	20	RECEPTACLES
CHEMICAL ROOM 1 RECEPTACLES	20	19	20	20	CHEMICAL ROOM 2 RECEPTACLES
CHEMICAL ROOM 3 RECEPTACLES	20	21	22	20	OVERHEAD DOOR
MINI-SPLIT UNIT 1	30	23	24	40	MINI-SPLIT UNIT-2
		25	26		
CONDENSING UNIT	30	27	28	20	FURNACE BLOWER
		29	30	20	UNIT HEATER BLOWER (1A)
UNIT HEATER BLOWER 2A	20	31	32	20	UNIT HEATER BLOWER (1B)
UNIT HEATER BLOWER 2B	20	33	34	20	UNIT HEATER BLOWER (1C)
1 SPARE	20	35	36	20	UNIT HEATER BLOWER (1D)

TONKA CONTROL PANEL	20	37	38	20	WATER HEATER
PLANT CONTROL PANEL	20	39	40	20	AERATOR HEAT TRACE CONTROL PANEL
AERATION BASIN LEVEL SENSOR	20	41	42		
BRINE TANK FOGROD	20	43	44	20	GATE OPERATORS
SOFTENER MAG METERS	20	45	46	20	HIGH SERVICE PUMP MAG METERS
BLEND AND FINISH MAG METERS	20	47	48	20	GENERATOR BATTERY CHARGER
GENERATOR HEATERS	20	49	50	40	BRINE PUMP 1
		51	52	40	BRINE PUMP 2
1 SPARE	20	53	54	20	SPARE
SPARE	20	55	56	20	SPARE
SPARE	20	57	58	20	SPARE
SPARE	20	59	60	20	SPARE
SPARE	20	61	62	20	SPARE
SPARE	20	63	64	20	SPARE
SPARE	20	65	66	20	SPARE
SPARE	20	67	68	20	SPARE
SPARE	20	69	70	20	SPARE
OPEN		69	70		OPEN
OPEN		71	72		OPEN

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\VJB\18-22-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\05-ELECTRICAL PANEL LAYOUT & NOTES.dwg Last Modified: Monday, May 18, 2026 4:11:28 PM Plotted On: Wednesday, May 20, 2026 9:54:53 AM by: Jonathon Covert

DRAWN BY: JJC
CHECKED BY: RTB
DATE: 03/2021

REVISIONS

LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

PERU MORRIS
OTTAWA MORTON
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

ELECTRICAL LIGHTING & POWER PANEL

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 51
FILE NO.: 9818.02 Y–
OF 84

Powering Business Worldwide

Project Name: Morris North WTP and Wells
General Order No:
Bid Date 4/28/2026
Negotiation No: D35F0313X6K1
Alternate No: 0000
Est. Purchase Date: 4/28/2026

Item No.	Qty	Product	Description
	1	Switchboards	Pow-R-Line Xpert Switchboard, Front Access/ Front and Rear Align, Type 1, 480Y/277V 3-Phase 4-Wire, 1200 Copper, Minimum Interrupting Rating: 65kA, Bus Bracing Rating: 65kA, Depth: 30 In

Catalog No XSBAGDNNNNC10MNN5F0B1A2BX
Designation HV-1

Structure 1 **1200 Amp CU Bussed Incoming Pull Section**
Compartment 1 - Blank Cover
Compartment 2 - Blank Cover

Powering Business Worldwide

Project Name: Morris North WTP and Wells
General Order No:
Bid Date 4/28/2026
Negotiation No: D35F0313X6K1
Alternate No: 0000
Est. Purchase Date: 4/28/2026

Structure 2 **1200 Amp CU Distribution Structure (Calculated @ 1200A Chassis Rating)**
Compartment 1 - Breaker 1200A, 3P PDF53M Breaker, [1200A Frame], [100% rated]
PXR20 LSIG Trip Unit Option M no control wiring
Trip Unit Amps 1200A, Sensor 1200A
Compartment 2 - Blank Cover
Compartment 3 - Surge Protective Device (SPD) SPD Series 100kA SPD, Basic w/ Fusible Disconnect
Compartment 4 - Blank Cover
Compartment 5 - Breaker 15A, 3P PDG23M Breaker [225A Frame]
Mechanical (1) #14-1/0
Thermal Mag Trip - Standard
Compartment 6 - Breaker 3P PD2-P
Compartment 7 - Breaker 15A, 3P PDG23M Breaker [225A Frame]
Mechanical (1) #14-1/0
Thermal Mag Trip - Standard
Compartment 8 - Breaker 40A, 3P PDG23M Breaker [225A Frame]
Mechanical (1) #14-1/0
Thermal Mag Trip - Standard
Compartment 9 - Breaker 3P PD2-P
Compartment 10 - Breaker 15A, 3P PDG23M Breaker [225A Frame]
Mechanical (1) #14-1/0
Thermal Mag Trip - Standard
Compartment 11 - Breaker 3P PD2-P
Compartment 12 - Breaker 40A, 3P PDG23M Breaker [225A Frame]
Mechanical (1) #14-1/0
Thermal Mag Trip - Standard
Compartment 13 - Breaker 3P PD2-P
Compartment 14 - Breaker 3P PD2-P
Compartment 15 - Breaker 3P PD3-P
Compartment 16 - Breaker 125A, 3P PDG23M Breaker [225A Frame]
Mechanical (1) #4-4/0
Thermal Mag Trip - Standard
Compartment 17 - Breaker 3P PD2-P
Compartment 18 - Breaker 200A, 3P PDG33M Breaker [400A Frame]
Mechanical (2) 2/0-250 kcmil
PXR10 LSI Trip Unit
Trip Unit Amps 250A, Sensor 250A
Compartment 19 - Breaker 200A, 3P PDG33M Breaker [400A Frame]
Mechanical (2) 2/0-250 kcmil
PXR10 LSI Trip Unit
Trip Unit Amps 250A, Sensor 250A
Compartment 20 - Breaker 200A, 3P PDG33M Breaker [400A Frame]
Mechanical (2) 2/0-250 kcmil
PXR10 LSI Trip Unit
Trip Unit Amps 250A, Sensor 250A

Qty	List of Materials
2	Copper Ground Bus
1	1200 Amp CU Bussed Incoming Pull Section
1	1200 Amp CU Distribution Structure (Calculated @ 1200A Chassis Rating)
18	Mastic Nameplate - White with Black letters
3	Mechanical (2) 2/0-250 kcmil
1	SPD Series 100kA SPD, Basic w/ Fusible Disconnect
1	Mechanical (1) #4-4/0
5	Mechanical (1) #14-1/0
1	1200A, 3P PDF53M Breaker, [1200A Frame], [100% rated], Trip 1200 A, PXR20 LSIG/A
3	200A, 3P PDG33M Breaker [400A Frame], Trip 200 A, PXR10 LSI, (2) 2/0-

Powering Business Worldwide

Project Name: Morris North WTP and Wells
General Order No:
Bid Date 4/15/2026
Negotiation No: D35F0313X6K1
Alternate No: 0000
Est. Purchase Date: 4/15/2026

Qty	List of Materials
1	12d. LED Indicator Emergency Position
1	12g. LED Indicator Normal Source Present
1	12h. LED Indicator Emergency Source Present
1	12i. Source 1 Digitrip-310+ LSIG 1200 Amps
1	14l/m. Source Present (2 Form C)
1	15e/f. Source Position Indication (1 Form C Micro Switch Outputs)
1	15l. Breaker Position Indication (2 Form C)
1	17n. Source 1 Breaker (RG 1600A) with 100% load rating
1	17h. Padlockable Handle Lock Hasp
1	22. Ground Bar
1	23k. Auto Plant Exerciser 1/7/14/28 Day
1	26d. Go To Source 2
1	26h. Normal (S1) Sensing Phase Reversal
1	26j. Normal (S1) Sensing Under-voltage/Under-frequency
1	26k. Normal (S1) Sensing Over-voltage/Over-frequency
1	26l. Normal (S1) Sensing Voltage Unbalance
1	32a. Time Delayed Transition (adjustable - min:sec)
1	35a. Pre-transfer Signal Contacts (1 Form C)
1	36. Load Shed-S2 Inhibit
1	37b. UL 1008 Rated as Suitable for Service Entrance w/Ground Fault
1	42. IBC/CBC Seismic-Qualified
1	48f. MODBUS Communication
1	49c. Multi-Tap Transformer
1	80a. Source 2 Inhibit Contact
1	81a. General Alarm Indication Contact

Item No.	Qty	Product	Description
	1	Transfer Switches	D Frame Contactor: 600 Amps, NEMA Type-1, Fixed Mounted, Service Entrance Rated

System Information: 480/277 Vac, 60hz, 3 Phase, 4 Wire, 3 poles
Transition Mode: Open Transition, Automatic Control w/300 Series Controller
Withstand and Close-On Rating: 65kA

Standard Features: 1a, 2a, 3a, 4a, 5h, 5j, 5k, 5l, 6b, 7a, 8c, 8d, 12c, 12d, 12g, 12h, 14l, 14m, 15e, 15f, 15l, 17h, 22, 23k, 26d, 26h, 26j, 26k, 26l, 32a, 35a, 36, 42, 48f, 49c, 80a, 81a,
Optional Features: 12i, 17n, 37b,

Source 1 Terminals: (4) 4/0-500 CU/AL
Source 2 Terminals: (4) 1/0-750 CU/AL
Load Side Terminals: (4) 1/0-750 CU/AL
Neutral Terminals: (12) 4/0-500 CU/AL

Estimated Freight Charge: $324 each, from El Paso, TX to IL

Catalog No ATC3C5C30600XSU
Designation Well

Qty	List of Materials
1	ATC3C5.3 Poles 600 Amps - UL1008
1	Enclosure - Type-1
1	1a. Time Delay Normal to Emergency Adj. 0-1800 sec
1	2a. Time Delay Engine Start Adj. 0-120 sec
1	3a. Time Delay Emergency to Normal Adj. 0-1800 sec

Powering Business Worldwide

Project Name: Morris North WTP and Wells
General Order No:
Bid Date 4/15/2026
Negotiation No: D35F0313X6K1
Alternate No: 0000
Est. Purchase Date: 4/15/2026

Qty	List of Materials
1	4a. Time Delay Engine Cool-off Adj. 0-1800 sec
1	5h. Emergency (S2) Sensing Phase Reversal
1	5j. Emergency (S2) Sensing Under Voltage/Under Freq
1	5k. Emergency (S2) Sensing Over Voltage/Over Freq
1	5l. Emergency (S2) Sensing Voltage Unbalance
1	6b. Test Pushbutton
1	7a. Time Delay Engine Fail Adj. 0-6 sec
1	8c. Time Delay Bypass Emergency to Normal
1	8d. Time Delay Bypass Normal to Emergency
1	12c. LED Indicator Normal Position
1	12d. LED Indicator Emergency Position
1	12g. LED Indicator Normal Source Present
1	12h. LED Indicator Emergency Source Present
1	12i. Source 1 Digitrip-310+ LSI 600 Amps
1	14l/m. Source Present (2 Form C)
1	15e/f. Source Position Indication (1 Form C Micro Switch Outputs)
1	15l. Breaker Position Indication (2 Form C)
1	17h. Padlockable Handle Lock Hasp
1	17n. Source 1 Breaker (NG 800A) with 100% load rating
1	22. Ground Bar
1	23k. Auto Plant Exerciser 1/7/14/28 Day
1	26d. Go To Source 2
1	26h. Normal (S1) Sensing Phase Reversal
1	26j. Normal (S1) Sensing Under-voltage/Under-frequency
1	26k. Normal (S1) Sensing Over-voltage/Over-frequency
1	26l. Normal (S1) Sensing Voltage Unbalance
1	32a. Time Delayed Transition (adjustable - min:sec)
1	35a. Pre-transfer Signal Contacts (1 Form C)
1	36. Load Shed-S2 Inhibit
1	37a. UL 1008 Rated as Suitable for Service Entrance
1	42. IBC/CBC Seismic-Qualified
1	48f. MODBUS Communication
1	49c. Multi-Tap Transformer
1	80a. Source 2 Inhibit Contact
1	81a. General Alarm Indication Contact

Item No.	Qty	Product	Description
	2	Panelboards	PRL4X, 15 Circuits, 600A, Fully Rated, 480Y/277V 3Ph 4W, Copper Bus, 65kAIC, 600A, 3P PDG33M0600 Main Breaker[Top Fed], Surface Mounted

Catalog No MIA:PDNFNGBTB20A
Designation HV-Well

Qty	List of Materials
1	600A, 3P PDG33M0600 Main Breaker
1	PXR10 Electronic Trip Unit
1	PXR10 Electronic Trip Unit
1	Trip Unit Amps, 600A
1	Trip Unit Amps, 600A
1	45A, 3P PDG23M0045 Branch Breaker
3	3P Frame 2 Branch Provision Only
1	450A, 3P PDG33M0450 Branch Breaker
1	Surge Protective Device, 100 kA SPD Series - Standard, with Fusible Disconnect
1	Copper Main Bus, 600 Amps

Powering Business Worldwide

Project Name: Morris North WTP and Wells
General Order No:
Bid Date 4/15/2026
Negotiation No: D35F0313X6K1
Alternate No: 0000
Est. Purchase Date: 4/15/2026

Qty	List of Materials
1	Sbl. Bolted Al Ground Bar (Al/Cu Cable)
1	Painted Box - ANSI 61
1	Panel Nameplate - White with Black Letters
1	BX3673P Box, Made in America
1	Type 1 Enclosure: BX3673P
1	Standard Covers: Standard Covers

Powering Business Worldwide

Project Name: Morris North WTP and Wells
General Order No:
Bid Date 4/15/2026
Negotiation No: D35F0313X6K1
Alternate No: 0000
Est. Purchase Date: 4/15/2026

Item No.	Qty	Product	Description
	1	Dry Type Transformers	Dry-Type Transformers General Information

Transformer Type: General Purpose Vented
Phase: 3
kVA: 75
Primary Volts: 480
Secondary Volts: 208Y/120
Temperature Rise: 150C with 220C Insulation System
Winding Material: Aluminum
Enclosure Type: NEMA 2 (for N3R, select Weather Shield in Mods tab)
Frequency (Hz): 60
Frame: 942
Wiring Diagram: 280B
Weight (lbs.): 545
Impedance (%): 4.37
UL Listed: Y
Max Practical Inrush (Amps): 250.00
X/R: 1.07
No Load Losses (Watts): 178
Standard Values
K-Factor: 1
TAPS: 2@+2.5%, 4@-2.5%
Sound Reduction (dB): 0
NEMA ST20 Sound Level (dB): 50
DOE 10 CFR Part 431 (2016): Efficient: Y
Infrared Viewing Window: None
Nameplate
Field-Installed Accessories Included
Lug Kit: LKS2 (1PH 50-75KVA or 3PH 75-112.5KV)

Catalog No V48M28T7516
Designation TF-LV

Catalog No	Qty	List of Materials
V48M28T7516	1	75KVA DOE2016 EFF 3PH 480-208Y/120 150C
LKS2	1	TX Lug Kit/1PH 50-75KVA/3PH 75-112.5KVA.

Powering Business Worldwide

Project Name: Morris North WTP and Wells
General Order No:
Bid Date 4/15/2026
Negotiation No: D35F0313X6K1
Alternate No: 0000
Est. Purchase Date: 4/15/2026

Item No.	Qty	Product	Description
	2	Dry Type Transformers	Dry-Type Transformers General Information

Transformer Type: General Purpose Vented
Phase: 3
kVA: 30
Primary Volts: 480
Secondary Volts: 208Y/120
Temperature Rise: 150C with 220C Insulation System
Winding Material: Aluminum
Enclosure Type: NEMA 2 (for N3R, select Weather Shield in Mods tab)
Frequency (Hz): 60
Frame: 940
Wiring Diagram: 280B
Weight (lbs.): 344
Impedance (%): 4.76
UL Listed: Y
Max Practical Inrush (Amps): 204.00
X/R: 0.72
No Load Losses (Watts): 88
Standard Values
K-Factor: 1
TAPS: 2@+2.5%, 4@-2.5%
Sound Reduction (dB): 0
NEMA ST20 Sound Level (dB): 45
DOE 10 CFR Part 431 (2016): Efficient: Y
Infrared Viewing Window: None
Nameplate
Field-Installed Accessories Included
Lug Kit: LKS1 (1PH 15-37.5KVA or 3PH 15-45KVA)

Catalog No V48M28T3016
Designation 81v wells

Catalog No	Qty	List of Materials
V48M28T3016	1	30KVA DOE2016 EFF 3PH 480-208Y/120 150C
LKS1	1	TX Lug Kit/1PH 15-37.5KVA / 3PH 15-45KVA.

Eaton Selling Policy 25-000 applies.

If Eaton and the buyer entity listed on this purchase order have a separate executed written agreement for the products/services herein, then that agreement applies. Otherwise, Eaton's Selling Policy 25000 (https://www.eaton.com/ca/en-gb/support/terms-conditions.html) controls and supersedes all prior correspondence or communications between Eaton and the buyer, and any additional or different terms proposed by the buyer are rejected.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Seller shall not be responsible for any failure to perform, or delay in performance of, its obligations resulting from the COVID-19 pandemic or any future epidemic, and Buyer shall not be entitled to any damages resulting thereof.

Tuesday, April 28, 2026 4:20:37 PM Plotted On: Friday, May 1, 2026 10:33:24 AM by Faith Rock
CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: G:\Users\9818-02-Morris - New Water Treatment Plant Design\CAD\NEW WM PLANS (WORK HERE)\052-BILL OF MATERIALS.dwg Last Modified: Tuesday, April 28, 2026

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 4/26

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

BILL OF MATERIALS

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
FILE NO.: 9818.02 Y–
SHEET 52
OF 84

Switchboard General Information

Pow-R-Line Xpert - Specifications
Quantity: 1
Alignment: Front Access/ Front and Rear Align
Service: 480Y/277V 3-Phase 4-Wire — **Minimum Interrupt Rating: 65 kA**

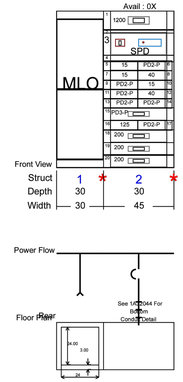
Bus Specifications
Bus Amps: 1200 — **Bus Bracing Rating: 65kA**
Neutral Amps: 1200
Bus Material: Copper — **Heat Test**
Ground Bus Material: Copper Ground Bus Bolted To Frame, (1) #6-350 kcmil Ground Lug

Incoming/Outgoing Information
Incoming Qty & Size: Structure 1 -Terminals, Mechanical, (4) #4-500 kcmil, Bottom

Structure Specifications
Non Service Entrance
Enclosure Type: Type 1
Nameplates: Mastic - White with Black letters

Special Notes / Common Mods

Qty - Description	Catalog Number
Enclosure properties	
Struct #	**Description/Modifications**
1	**Bussed structure with incoming main lugs (Incoming Auxiliary Pull Section)**
2	**Bus connected chassis mounted main device (2000A max) (Main Structure)**



Total of 2 Structures, Total Weight of 1448 Weight-Lbs.
Total of 2 Structures, Total Width of 75 Inches

Structure	1	2				
Ship-Inches	30.00	45.00				
Ship-MM	762	1143				
Wdth-Inches	30.00	45.00				
Wdth-MM	762	1143				
Depth(Inner)-In.	30.00	30.00				
Depth(Inner)-MM	762	762				
Depth(Outer)-In.	30.00	30.00				
Depth(Outer)-MM	762	762				
Height-Inches	90.00	90.00				
Height-MM	2286	2286				
Weight-Lbs.(Est.)	510	938				
Weight-Kg.(Est.)	231	425				

Switchboard Units Information

Str#	Unit	Description/Modifications	Nameplate
1			
		Blank Cover -45 Inches	
		Blank Cover -45 Inches	
2			
	1	Main Breaker - Chassis Mtd-1200A, 3P PDF53M Breaker, [1200A Frame], [100% rated], Trip(Ir) 1200A., PXR20 LSIG/A, 100 % rated, None , Trip Unit Sensor Rating(In): 1200APhase: ABC	MAIN
		Neutral Terminal, None	
	2	Blank Cover -1 X	
	3	Surge Protective Device -SPD Series 100kA SPD, Basic w/ Fusible Disconnect, Connection: Load Side	
	4	Blank Cover -2 X	
	5	Feeder Breaker - Chassis Mtd-15A, 3P PDG23M Breaker [225A Frame], Trip(Ir) 15A., Thermal Mag Terminals, Mechanical, (1) #14-1/0 Phase: ABC	DHU-2 Condenser
		Neutral Terminal, (1) #14-1/0	
	6	Feeder Breaker - Chassis Mtd-3P PD2-P, PROVISIONS FOR BREAKER ONLY Phase: ABC	DHU-2 Condenser
		Neutral Terminal, (1) #6-350 kcmil	
	7	Feeder Breaker - Chassis Mtd-15A, 3P PDG23M Breaker [225A Frame], Trip(Ir) 15A., Thermal Mag Terminals, Mechanical, (1) #14-1/0 Phase: ABC	DHU-1 Condenser
		Neutral Terminal, (1) #14-1/0	
	8	Feeder Breaker - Chassis Mtd-40A, 3P PDG23M Breaker [225A Frame], Trip(Ir) 40A., Thermal Mag Terminals, Mechanical, (1) #14-1/0 Phase: ABC	DHU-1
		Neutral Terminal, (1) #14-1/0	
	9	Feeder Breaker - Chassis Mtd-3P PD2-P, PROVISIONS FOR BREAKER ONLY Phase: ABC	DHU-2
		Neutral Terminal, (1) #6-350 kcmil	
	10	Feeder Breaker - Chassis Mtd-15A, 3P PDG23M Breaker [225A Frame], Trip(Ir) 15A., Thermal	AERATOR

	Mag Terminals, Mechanical, (1) #14-1/0 Phase: ABC	
	Neutral Terminal, (1) #14-1/0	
11	Feeder Breaker - Chassis Mtd-3P PD2-P, PROVISIONS FOR BREAKER ONLY Phase: ABC	Device Nameplate
	Neutral Terminal, (1) #6-350 kcmil	
12	Feeder Breaker - Chassis Mtd-40A, 3P PDG23M Breaker [225A Frame], Trip(Ir) 40A., Thermal Mag Terminals, Mechanical, (1) #14-1/0 Phase: ABC	DHU-2
	Neutral Terminal, (1) #14-1/0	
13	Feeder Breaker - Chassis Mtd-3P PD2-P, PROVISIONS FOR BREAKER ONLY Phase: ABC	Device Nameplate
	Neutral Terminal, (1) #6-350 kcmil	
15	Feeder Breaker - Chassis Mtd-3P PD3-P, PROVISIONS FOR BREAKER ONLY Phase: ABC	Device Nameplate
	Neutral Terminal, (1) #4-500	
16	Feeder Breaker - Chassis Mtd-125A, 3P PDG23M Breaker [225A Frame], Trip(Ir) 125A., Thermal Mag Terminals, Mechanical, (1) #4-4/0 Phase: ABC	TF-LV1 Feeder
	Neutral Terminal, (1) #6-350 kcmil	
17	Feeder Breaker - Chassis Mtd-3P PD2-P, PROVISIONS FOR BREAKER ONLY Phase: ABC	Device Nameplate
	Neutral Terminal, (1) #6-350 kcmil	
18	Feeder Breaker - Chassis Mtd-200A, 3P PDG33M Breaker [400A Frame], Trip(Ir) 200A., PXR10 LSI , Trip Unit Sensor Rating(In): 250A Terminals, Mechanical, (2) 2/0-250 kcmil Phase: ABC	High Service Pump 3
	Neutral Terminal, (2) #6-350 kcmil	
19	Feeder Breaker - Chassis Mtd-200A, 3P PDG33M Breaker [400A Frame], Trip(Ir) 200A., PXR10 LSI , Trip Unit Sensor Rating(In): 250A Terminals, Mechanical, (2) 2/0-250 kcmil Phase: ABC	High Service Pump 2
	Neutral Terminal, (2) #6-350 kcmil	
20	Feeder Breaker - Chassis Mtd-200A, 3P PDG33M Breaker [400A Frame], Trip(Ir) 200A., PXR10 LSI	High Service Pump 1

	, Trip Unit Sensor Rating(In): 250A Terminals, Mechanical, (2) 2/0-250 kcmil Phase: ABC	
	Neutral Terminal, (2) #6-350 kcmil	
14	Feeder Breaker - Chassis Mtd-3P PD2-P, PROVISIONS FOR BREAKER ONLY Phase: ABC	Device Nameplate
	Neutral Terminal, (1) #6-350 kcmil	

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\KWB 8-02-Morris-New-Water-Treatment-Plant-Design\CAD\VIEW-IN\-PLANS (WORK HERE)\063-EATON DETAILS (1 OF 2).dwg Last Modified: Tuesday, April 28, 2026 4:34:39 PM Plotted On: Friday, May 1, 2026 10:35:43 AM by Faith Peck

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 4/26

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

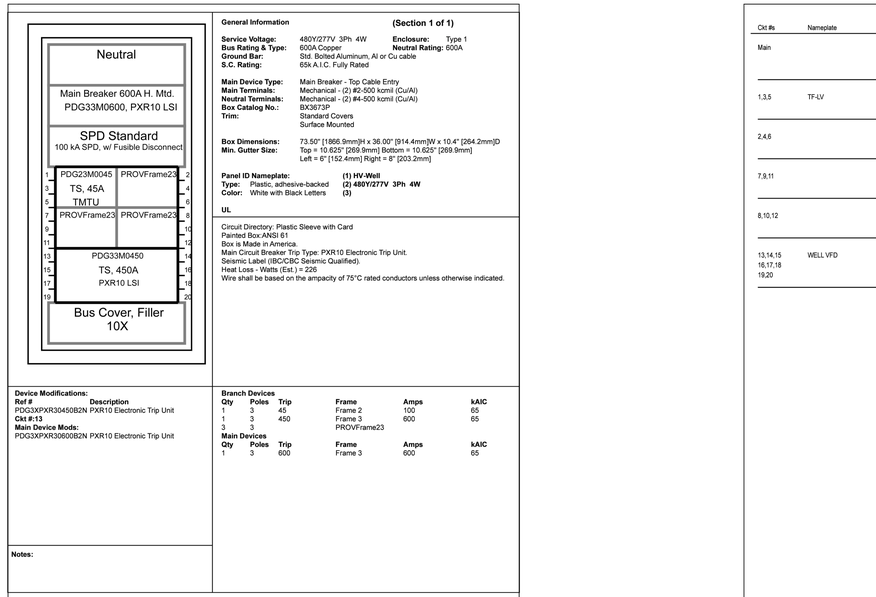
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

EATON DETAILS
(1 OF 2)

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 53
FILE NO.: 9818.02 Y—
OF 84



General Information **(Section 1 of 1)**

Service Voltage: 480Y/277V 3Ph 4W
Bus Rating & Type: 600A Copper
Ground Bar: Std. Bolted Aluminum, Al or Cu cable
S.C. Rating: 65k A.I.C. Fully Rated

Enclosure: Type 1
Neutral Rating: 600A

Main Device Type: Main Breaker - Top Cable Entry
Main Terminals: Mechanical - (2) #2-500 kcmil (Cu/Al)
Neutral Terminals: Mechanical - (2) #4-500 kcmil (Cu/Al)
Box Catalog No.: BX3673P
Trim: Standard Covers
Surface Mounted

Box Dimensions: 73.50" [1866.9mm]H x 36.00" [914.4mm]W x 10.4" [264.2mm]D
Min. Gutter Size: Top = 10.625" [269.9mm] Bottom = 10.625" [269.9mm]
Left = 6" [152.4mm] Right = 8" [203.2mm]

Panel ID Nameplate: **(1) HV-Well**
Type: Plastic, adhesive-backed **(2) 480Y/277V 3Ph 4W**
Color: White with Black Letters **(3)**

UL

Circuit Directory: Plastic Sleeve with Card
Painted Box:ANSI 61
Box is Made in America.
Main Circuit Breaker Trip Type: PXR10 Electronic Trip Unit.
Seismic Label (IBC/CBC Seismic Qualified).
Heat Loss - Watts (Est.) = 226
Wire shall be based on the ampacity of 75°C rated conductors unless otherwise indicated.

Device Modifications:

Ref #	Description
PDG3XPXR30450B2N	PXR10 Electronic Trip Unit
Ckt #:13	
Main Device Mods:	
PDG3XPXR30600B2N	PXR10 Electronic Trip Unit

Notes:

Branch Devices

Qty	Poles	Trip	Frame	Amps	kAIC
1	3	45	Frame 2	100	65
1	3	450	Frame 3	600	65
3	3		PROVFrame23		

Main Devices

Qty	Poles	Trip	Frame	Amps	kAIC
1	3	600	Frame 3	600	65

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

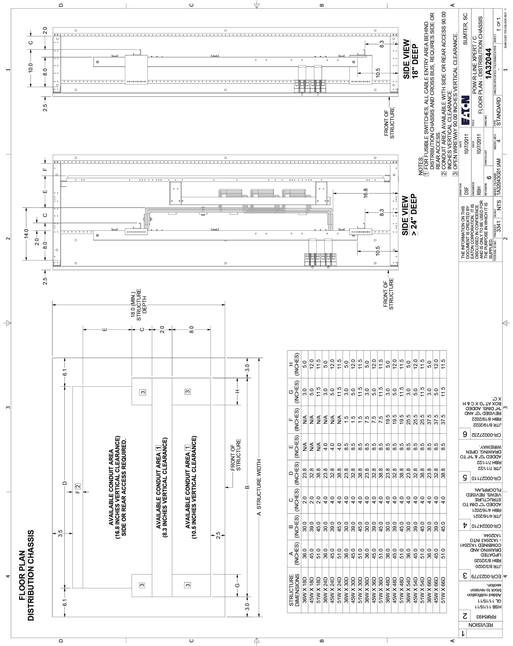
PREPARED BY: Ken Capponi	DATE: 4/15/2026	Eaton	
APPROVED BY:	DATE:	JOB NAME: Morris North WTP and Wells	DESIGNATION: HV-Well
VERSION: 1.0.0.93		TYPE: PRL4X	DRAWING TYPE: Customer Approval
NEG-ALT Number: D35F0313XBK1-0000	REVISION: 0	DWG SIZE: A	G.O.:
ITEM:	SHEET: 1 of 2		

Pow-R-Line4X Device Specifications

Ckt #s	Nameplate	Device	Trip	Terminal	Modifications
Main		PDG33M0600	600	(2) #2-500 kcmil (Cu/Al)	Trip Unit Amps, 600A PXR10 Electronic Trip Unit
1,3,5	TF-LV	PDG23M0045	45	(1) #14-1/0 (Cu/Al)	
2,4,6		PROVFrame23	225	None Available	
7,9,11		PROVFrame23	225	None Available	
8,10,12		PROVFrame23	225	None Available	Trip Unit Amps, 600A
13,14,15 16,17,18 19,20	WELL VFD	PDG33M0450	450	(2) #2-500 kcmil (Cu/Al)	PXR10 Electronic Trip Unit

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

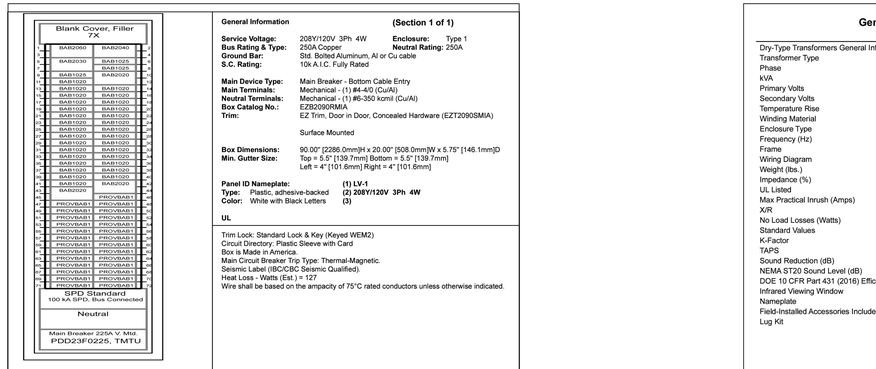
PREPARED BY: Ken Capponi	DATE: 4/15/2026	Eaton	
APPROVED BY:	DATE:	JOB NAME: Morris North WTP and Wells	DESIGNATION: HV-Well
VERSION: 1.0.0.93		TYPE: PRL4X	DRAWING TYPE: Customer Approval
NEG-ALT Number: D35F0313XBK1-0000	REVISION: 0	DWG SIZE: A	G.O.:
ITEM:	SHEET: 2 of 2		



The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

PREPARED BY: Ken Capponi	DATE: 4/15/2026	Eaton	
APPROVED BY:	DATE:	JOB NAME: Morris North WTP and Wells	DESIGNATION: HV-1
VERSION: 1.0.0.93		TYPE: PRL4X	DRAWING TYPE: Customer Approval
NEG-ALT Number: D35F0313XBK1-0000	REVISION: 0	DWG SIZE: A	G.O.:
ITEM:	SHEET: 2 of 2		

GO/NEG-Alt-Date: D35F0313X6K1-0000-4/28/2026	**Job Name:** Morris North WTP and Wells
Item Number:	**Catalog Number:** XSBAGDNNNNC10MNN5F0B1A2B
	Designation: HV-1



General Information **(Section 1 of 1)**

Service Voltage: 208Y/120V 3Ph 4W
Bus Rating & Type: 250A Copper
Ground Bar: Std. Bolted Aluminum, Al or Cu cable
S.C. Rating: 10k A.I.C. Fully Rated

Enclosure: Type 1
Neutral Rating: 250A

Main Device Type: Main Breaker - Bottom Cable Entry
Main Terminals: Mechanical - (1) #4-4/0 (Cu/Al)
Neutral Terminals: Mechanical - (1) #6-350 kcmil (Cu/Al)
Box Catalog No.: EZB2090RMIA
Trim: EZ Trim, Door in Door, Concealed Hardware (EZT2090SMIA)

Surface Mounted

Box Dimensions: 90.00" [2285.0mm]H x 20.00" [508.0mm]W x 5.75" [146.1mm]D
Min. Gutter Size: Top = 5.5" [139.7mm] Bottom = 5.5" [139.7mm]
Left = 4" [101.6mm] Right = 4" [101.6mm]

Panel ID Nameplate: **(1) LV-1**
Type: Plastic, adhesive-backed **(2) 208Y/120V 3Ph 4W**
Color: White with Black Letters **(3)**

UL

Trim Lock: Standard Lock & Key (Keyed WEM2)
Circuit Directory: Plastic Sleeve with Card
Box is Made in America.
Main Circuit Breaker Trip Type: Thermal-Magnetic.
Seismic Label (IBC/CBC Seismic Qualified).
Heat Loss - Watts (Est.) = 127
Wire shall be based on the ampacity of 75°C rated conductors unless otherwise indicated.

Device Modifications:

Ref #	Description

Notes:

Branch Devices

Qty	Poles	Trip	Frame	Amps	kAIC
1	2	60	BAB	100	10
1	2	40	BAB	100	10
1	2	30	BAB	100	10
3	2	20	BAB	100	10
30	1	20	BAB	100	10
3	1	25	BAB	100	10
27			PROVBAB1		

Main Devices

Qty	Poles	Trip	Frame	Amps	kAIC
1	3	225	Frame 2	225	10

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

PREPARED BY: Ken Capponi	DATE: 4/28/2026	Eaton	
APPROVED BY:	DATE:	JOB NAME: Morris North WTP and Wells	DESIGNATION: LV-1
VERSION: 1.0.0.94		TYPE: PRL3X	DRAWING TYPE: Customer Approval
NEG-ALT Number: D35F0313XBK1-0000	REVISION: 0	DWG SIZE: A	G.O.:
ITEM:	SHEET: 1 of 1		

General Information: Dry-Type Distribution Transformers

Dry-Type Transformers General Information	
Transformer Type	General Purpose Vented
Phase	3
kVA	75
Primary Volts	480
Secondary Volts	208Y/120
Temperature Rise	150C with 220C Insulation System
Winding Material	Aluminum
Enclosure Type	NEMA 2 (for N3R, select Weather Shield in Mods tab)
Frequency (Hz)	60
Frame	942
Wiring Diagram	280B
Weight (lbs.)	545
Impedance (%)	4.37
UL Listed	Y
Max Practical Inrush (Amps)	250.00
X/R	1.07
No Load Losses (Watts)	178
Standard Values	
K-Factor	1
TAPS	2@+2.5%, 4@-2.5%
Sound Reduction (dB)	0
NEMA ST20 Sound Level (dB)	50
DOE 10 CFR Part 431 (2016) Efficient	Y
Infrared Viewing Window	None
Nameplate	
Field-Installed Accessories Included	
Lug Kit	LKS2 (1PH 50-75KVA or 3PH 75-112.5KV)

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

PREPARED BY: Ken Capponi	DATE: 4/15/2026	Eaton	
APPROVED BY:	DATE:	JOB NAME: Morris North WTP and Wells	DESIGNATION: TF-LV
VERSION: 1.0.6.0		TYPE: Dry-Type Distribution Transformers	DRAWING TYPE: Customer Appr.
NEG-ALT Number: D35F0313XBK1-0000	REVISION: 0	DWG SIZE: A	G.O.:
ITEM:	SHEET: 1 of 1		

General Information: Dry-Type Distribution Transformers

Dry-Type Transformers General Information	
Transformer Type	General Purpose Vented
Phase	3
kVA	30
Primary Volts	480
Secondary Volts	208Y/120
Temperature Rise	150C with 220C Insulation System
Winding Material	Aluminum
Enclosure Type	NEMA 2 (for N3R, select Weather Shield in Mods tab)
Frequency (Hz)	60
Frame	940
Wiring Diagram	280B
Weight (lbs.)	344
Impedance (%)	4.76
UL Listed	Y
Max Practical Inrush (Amps)	204.00
X/R	0.72
No Load Losses (Watts)	88
Standard Values	
K-Factor	1
TAPS	2@+2.5%, 4@-2.5%
Sound Reduction (dB)	0
NEMA ST20 Sound Level (dB)	45
DOE 10 CFR Part 431 (2016) Efficient	Y
Infrared Viewing Window	None
Nameplate	
Field-Installed Accessories Included	
Lug Kit	LKS1 (1PH 15-37.5KVA or 3PH 15-45KVA)

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

PREPARED BY: Ken Capponi	DATE: 4/15/2026	Eaton	
APPROVED BY:	DATE:	JOB NAME: Morris North WTP and Wells	DESIGNATION: tf-lv wells
VERSION: 1.0.6.0		TYPE: Dry-Type Distribution Transformers	DRAWING TYPE: Customer Appr.
NEG-ALT Number: D35F0313XBK1-0000	REVISION: 0	DWG SIZE: A	G.O.:
ITEM:	SHEET: 1 of 1		

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: Q:\Users\CWB\8-02 - Morris - New Water Treatment Plant Design\CAD\VIEW #M PLANS (WORK #HERE)\054 - EATON DETAILS (2 OF 2).dwg Last Modified: Tuesday, April 28, 2026 4:43:33 PM Plotted On: Friday, May 1, 2026 10:36:48 AM by Faith Peck

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 4/26

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

EATON DETAILS
(2 OF 2)

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 54
FILE NO.: 9818.02 Y–
OF 84

NOTE:
PROVIDE (2) #18 AWG CONDUCTORS FOR EACH "DI" AND "DO" SIGNAL AND (1) SHIELDED TWISTED PAIR FOR EACH "AI" AND "AO" SIGNAL UNLESS OTHERWISE NOTED.

Tag No.	Item	Purpose	Control Panel	Provided By	SIGNAL DESCRIPTION	IO
PCP	**Plant Control Panel**			Micro-Comm		
TCP	**Tonka**		TCP (Tonka Control Panel)	Tonka	ETHERNET TO PLANT CONTROL PANEL	
G-1	Generator		PCP	Micro-Comm	ATS MONITORING	DI
					GENERATOR RUNNING	DI
					GENERATOR FAIL	DI
					FAULT	DI
					ENGINE TEMP	AI
					LOW FUEL	DI
G-2	Generator - Well 8		Well 8 Control Panel	Micro-Comm	ATS MONITORING	DI
					GENERATOR RUNNING	DI
					GENERATOR FAIL	DI
					FAULT	DI
					ENGINE TEMP	AI
					LOW FUEL	DI
G-3	Generator - Well 9		Well 9 Control Panel	Micro-Comm	ATS MONITORING	DI
					GENERATOR RUNNING	DI
					GENERATOR FAIL	DI
					FAULT	DI
					ENGINE TEMP	AI
					LOW FUEL	DI
WCP-8	**Well 8 Control Panel**			Micro-Comm	RADIO	
WL-8M	WELL 8 - Mag Meter	WELL 8 Mag Meter	Well 8 Control Panel	Micro-Comm	FLOW METER	DI
						AI
WL-8	WELL 8 - Variable Frequency Drive	Well 8	Well 8 Control Panel	Micro-Comm	PUMP REQUIRED	DO
					PUMP RUNNING	DI
					PUMP VFD FAULT	DI
					PUMP HOA IN HAND	DI
					PUMP HOA IN AUTO	DI
					PUMP SPEED IN (COMMAND)	AO
					PUMP SPEED OUT (FEEDBACK)	AI
WCP-9	**Well 9 Control Panel**			Micro-Comm	RADIO	
WL-9M	WELL 9 - Mag Meter	WELL 9 Mag Meter	Well 9 Control Panel	Micro-Comm	FLOW METER	DI
						AI
WL-9	WELL 9 - Variable Frequency Drive	Well 9	Well 9 Control Panel	Micro-Comm	PUMP REQUIRED	DO
					PUMP RUNNING	DI
					PUMP VFD FAULT	DI
					PUMP HOA IN HAND	DI
					PUMP HOA IN AUTO	DI
					PUMP SPEED IN (COMMAND)	AO
					PUMP SPEED OUT (FEEDBACK)	AI
	Sodium Hypochlorite					
S-1	Scale		PCP	Micro-Comm	Weight	AI
CF-1	Chem Feed Pump		PCP	Micro-Comm	PUMP REQUIRED	DO
					PUMP RUNNING	DI
					PUMP FAULT	DI
					PUMP SPEED IN (COMMAND)	AO
					PUMP SPEED OUT (FEEDBACK)	AI
	Fluorosilicic acid					
S-2	Scale		PCP	Micro-Comm	Weight	AI
CF-2	Chem Feed Pump		PCP	Micro-Comm	PUMP REQUIRED	DO
					PUMP RUNNING	DI
					PUMP FAULT	DI
					PUMP SPEED IN (COMMAND)	AO
					PUMP SPEED OUT (FEEDBACK)	AI
	Orthophosphate					
S-3	Scale		PCP	Micro-Comm	Weight	AI
CF-3	Chem Feed Pump		PCP	Micro-Comm	PUMP REQUIRED	DO
					PUMP RUNNING	DI
					PUMP FAULT	DI
					PUMP SPEED IN (COMMAND)	AO
					PUMP SPEED OUT (FEEDBACK)	AI
M-6	Aeration Tank Mag Meter		PCP	Micro-Comm	FLOW METER	DI
						AI

1
ENTIRE SHEET

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: G:\Users\9818-432-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\065 - SITE CONTROLS LIST (1 OF 2).dwg Last Modified: Tuesday, May 19, 2026 10:07:42 AM Plotted On: Wednesday, May 20, 2026 9:55:50 AM by Jonathon Covert

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 04/2026

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

PERU
OTTAWA MORRIS
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

SITE CONTROLS LIST
(1 OF 2)

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 55
FILE NO.: 9818.00 Y–
OF 84

NOTE:
PROVIDE (2) #18 AWG CONDUCTORS FOR EACH "DI" AND "DO" SIGNAL AND (1) SHIELDED TWISTED PAIR FOR EACH "AI" AND "AO" SIGNAL UNLESS OTHERWISE NOTED.

Tag No.	Item	Purpose	Control Panel	Provided By	SIGNAL DESCRIPTION	IO
A-1	Aerator		PCP	Micro-Comm	RUNNING	DI
					REQUIRED	DO
					FAULT	DI
					HOA IN HAND	DI
					HOA IN AUTO	DI
A-2	RADAR	Aerator Level	PCP	Tonka	LEVEL	AI
A-3	FLOAT	Aerator Level	PCP	Tonka	LEVEL	DI
					LEVEL	DI
M-3	Brine Mag Meter		TCP	Tonka	HSP PUMP FLOW METER	DI
						AI
B-1	Brine Skid		TCP		SEE TONKA ELECTRICAL FIELD WIRING DIAGRAM	
B-2	BRINE TANK (FOGROD)		TCP		LEVEL	DI
					LEVEL	DI
					LEVEL	DI
					LEVEL	DI
					LEVEL	DI
B-3	BRINE TANK (FOGROD)		TCP		LEVEL	DI
					LEVEL	DI
					LEVEL	DI
					LEVEL	DI
					LEVEL	DI
M-1	HSP Pump 1 Mag Meter	HSP Pump 1 Mag Meter	PCP	Micro-Comm	HSP PUMP FLOW METER	DI
						AI
HSP-1	Variable Frequency Drive	HSP 1	PCP	Micro-Comm	PUMP REQUIRED	DO
					PUMP RUNNING	DI
					PUMP VFD FAULT	DI
					PUMP HOA IN HAND	DI
					PUMP HOA IN AUTO	DI
					PUMP SPEED IN (COMMAND)	AO
					PUMP SPEED OUT (FEEDBACK)	AI
M-2	HSP Pump 2 Mag Meter	HSP Pump 2 Mag Meter	PCP	Micro-Comm	HSP PUMP FLOW METER	DI
						AI
HSP-2	Variable Frequency Drive	HSP 2	PCP	Micro-Comm	PUMP REQUIRED	DO
					PUMP RUNNING	DI
					PUMP VFD FAULT	DI
					PUMP HOA IN HAND	DI
					PUMP HOA IN AUTO	DI
					PUMP SPEED IN (COMMAND)	AO
					PUMP SPEED OUT (FEEDBACK)	AI
M-3	HSP Pump 3 Mag Meter	HSP Pump 3 Mag Meter	PCP	Micro-Comm	HSP PUMP FLOW METER	DI
						AI
HSP-3	Variable Frequency Drive	HSP 3	PCP	Micro-Comm	PUMP REQUIRED	DO
					PUMP RUNNING	DI
					PUMP VFD FAULT	DI
					PUMP HOA IN HAND	DI
					PUMP HOA IN AUTO	DI
					PUMP SPEED IN (COMMAND)	AO
					PUMP SPEED OUT (FEEDBACK)	AI
RPZ - 1	RPZ	Flood Sensor	PCP	Micro-Comm	Flood	DI
M-7	Finished Water Mag Meter		PCP	Micro-Comm	FLOW METER	DI
						AI
CCA-1	Continuous Chlorine Analyzer - Free		PCP	Micro-Comm		AI
CCA-2	Continuous Chlorine Analyzer - Total		PCP	Micro-Comm		AI
PA-1	Phosphate Analyzer		PCP	Micro-Comm		AI
FA-1	Fluoride Analyzer		PCP	Micro-Comm		AI
FWP-1	Finished Water Pressure Transmitter		PCP	Micro-Comm	FINISHED WATER PRESSURE	AI

1
ENTIRE SHEET

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\VS\9818-02-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\056 - SITE CONTROLS LIST (2 OF 2).dwg Last Modified: Tuesday, May 19, 2026 10:07:42 AM Plotted On: Wednesday, May 20, 2026 9:56:40 AM by Jonathon Covert

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 04/2026

REVISIONS

LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

PERU
OTTAWA MORRIS
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

SITE CONTROLS LIST
(2 OF 2)

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 56
FILE NO.: 9818.00 Y–
OF 84

ADDED FOR WTP PROJECT

Morris Distribution Plan

Lat: 41°21'17"N
Long: 88°25'54"W
Antenna Elevation = 476'
Antenna Direction = 5 Deg

CWWTP

*SCADAView CSX Client

Micro-Comm, Inc. Client
192.168.168.203

Router, Firewall, VPN (by others)

Main Panel

Raw Water Intake 5/03 PLC (by others)

Micro-Comm, Inc 555 PLC
192.168.168.205

Lat: 41°21'23"N
Long: 88°25'50"W
Antenna Elevation = 530'
Antenna #1 Direction = 20 Deg
Antenna #2 Direction = 66 Deg
Antenna #3 Direction = 297 Deg

Old Water Treatment Plant

* Distribution Collection
*SCADAView CSX Server
*Webserver

Micro-Comm, Inc. Server
192.168.1.203
255.255.252.0
DNS
192.168.1.254

Micro-Comm, Inc. 5/03 PLC

WTP Panel

Main Panel

Router, Firewall, VPN (by others)

Tonka Pressure Filter PLC (by others)
192.168.2.98

Micro-Comm, Inc 555 PLC
192.168.2.200
255.255.252.0
DNS
192.168.1.254

Lat: 41°25'0.23"N
Long: 88°25'17.97"W
Antenna Elevation = XXX'
Antenna Direction = XXX Deg

New Water Treatment Plant

*SCADAView CSX Client

Micro-Comm, Inc. Client
192.168.168.XXX

Router, Firewall, VPN (by others)

Main Panel

900mhz Radio

Tonka PLC (by others)

Micro-Comm, Inc 1650 PLC
192.168.168.XXX

Ethernet/IP communication

Lat: 41° 25' 6.71"N
Long: 88° 25' 19.14"W

Well #8

900mhz Radio

Antenna Elevation = XXX'
Antenna Direction = XXX Deg

Lat: 41° 25' 35.32"N
Long: 88° 25' 20.23"W

Well #9

900mhz Radio

Antenna Elevation = XXX'
Antenna Direction = XXX Deg

Lat: 41°22'12"N
Long: 88°24'11"W
Antenna Elevation = 530'
Antenna Direction = 240 Deg

EWWTP

*Web Client

Micro-Comm, Inc. Web Client (by others)

Router, Firewall, VPN (by others)

(by others)

Main Panel

Plant PLC (by others)
192.168.21.xxx

Micro-Comm, Inc 555 PLC
192.168.21.55

**IP scheme to match existing by others

Lat: 41° 23' 37.55"N
Long: 88° 26' 21.05"W

Lisbon Tank

Antenna Elevation = 643'
Antenna Direction = 170 Deg

Lat: 41° 22' 52"N
Long: 88° 25' 5"W

Hidden Lake SLS

Antenna Elevation = 546'
Antenna Direction = 200 Deg

Lat: 41° 24' 48.83"N
Long: 88° 22' 22.29"W

Rt 6 SLS

Antenna Elevation = 546'
Antenna Direction = 230 Deg

Lat: 41° 21' 26"N
Long: 88° 27' 0"W

Hatcher Woods SLS

Antenna Elevation = 525'
Antenna Direction = 60 Deg

Gore Rd. SLS	Walmart SLS	BPS #1	RT 80 Tank	McKinley SLS	Johnson SLS	Washington SLS	Well #6	Well #7	3rd Av Tank	RT 6 Tank	Ashley SLS
Lat: 41°23' 12"N Long: 88° 25' 39"W	Lat: 41° 23' 10"N Long: 88° 25' 8"W	Lat: 41° 22' 578"N Long: 88° 25' 17"W	Lat: 41° 23' 39"N Long: 88° 24' 52"W	Lat: 41° 22' 12"N Long: 88° 25' 10"W	Lat: 41° 22' 0"N Long: 88° 25' 39"W	Lat: 41° 21' 46"N Long: 88° 24' 23"W	Lat: 41° 21' 47"N Long: 88° 26' 11"W	Lat: 41° 21' 27"N Long: 88° 25' 50"W	Lat: 41° 22' 4"N Long: 88° 24' 44"W	Lat: 41° 22' 12"N Long: 88° 27' 5"W	Lat: 41° 22' 52"N Long: 88° 24' 11"W
Antenna Elevation = 560' Antenna Direction = 180 Deg	Antenna Elevation = 543' Antenna Direction = 205 Deg	Antenna Elevation = 553' Antenna Direction = 200 Deg	Antenna Elevation = 601' Antenna Direction = 210 Deg	Antenna Elevation = 543' Antenna Direction = 210 Deg	Antenna Elevation = 520' Antenna Direction = 225 Deg	Antenna Elevation = 520' Antenna Direction = 260 Deg	Antenna Elevation = 515' Antenna Direction = 135 Deg	Antenna Elevation = 501' Antenna Direction = 0 Deg	Antenna Elevation = 580' Antenna Direction = 240 Deg	Antenna Elevation = 601' Antenna Direction = 125 Deg	Antenna Elevation = 550' Antenna Direction = 230 Deg

LEGEND

- WAN Ethernet: Internet Connection
- WAN Ethernet: VPN Tunnel
- LAN Ethernet: Internal Plant Network
- Serial: Serial Communications
- Radio Communications: Distribution Telemetry
- Radio Communications: 900mhz Well Telemetry

Secure Web Clients

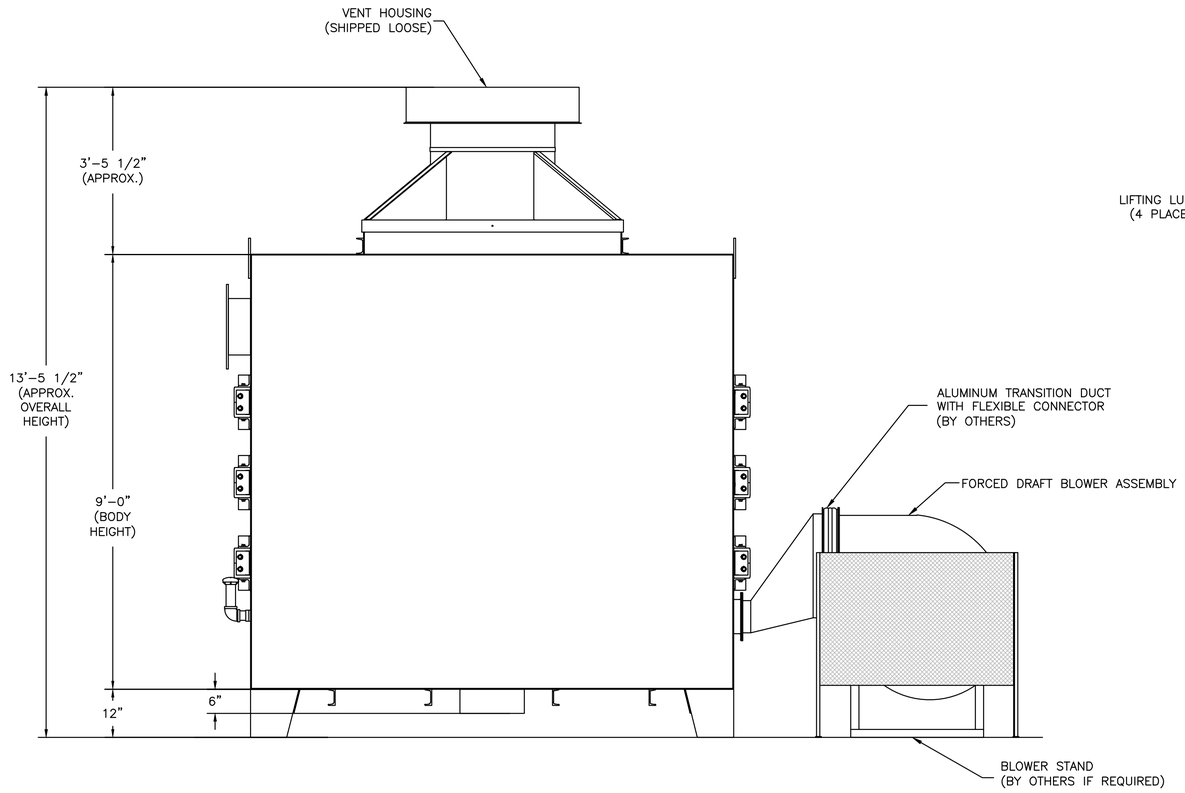
Home PC | Phone | Tablet

NOTE:
CONNECTIONS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\JJW\98-02 - Morris - New Water Treatment Plant - Design\CAD\VIEW - INV - PLANS (WORK HERE)\057 - WATER SYSTEM NETWORK AND DISTRIBUTION.dwg Last Modified: Thursday, April 30, 2026 3:12:48 PM Plotted On: Friday, May 1, 2026 10:42:01 AM by Faith Peck

DRAWN BY: JJW	REVISIONS				PERU OTTAWA MORRIS ILLINOIS	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026	WATER SYSTEM NETWORK AND DISTRIBUTION	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION					SCALE: AS NOTED	SHEET 57
DATE: 04/2026					Chamlin & Associates				FILE NO.: 9818.00 Y–	OF 84

NOTE:
PIPING CONFIGURATION SHOWN ON THIS SHEET IS FOR INFORMATION ONLY



FRONT ELEVATION
SCALE: 3/4"=1'-0"

AERATOR SPECIFICATIONS

NUMBER OF UNITS:
ONE (1)

WATER FLOW RATE:
2,500 GPM

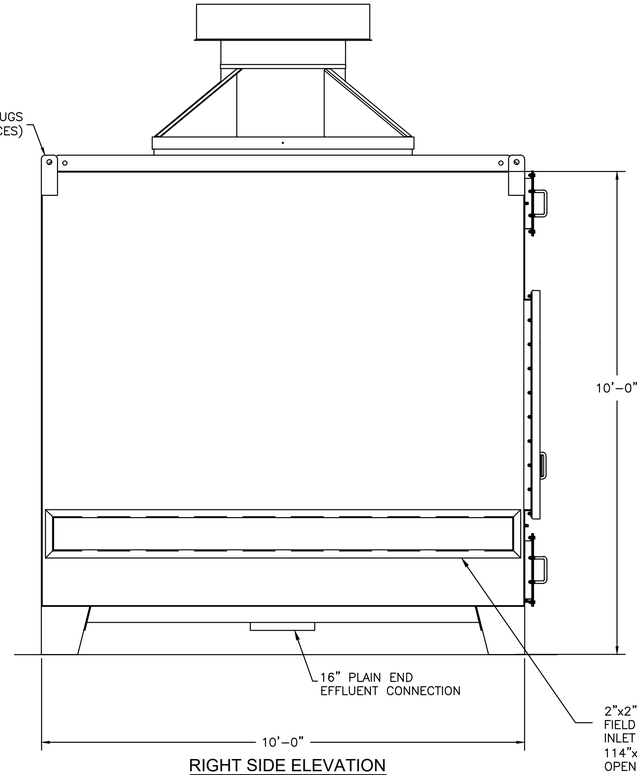
AIR FLOW RATE:
10,000 CFM @ 3/8" STATIC PRESSURE

EXHAUST VENTILATOR:
(1) 3/4 HP, 230/460 VOLT, 3 PHASE, 60Hz, TEFC

BODY CONSTRUCTION:
1/4" THICK ALUMINUM PLATE (TYPE 3003-F OR 3003-H-14)
WITH TYPE 6061-T6 STRUCTURAL MEMBERS

NOTES

1) THE WEIGHT OF THE INTERCONNECTING PIPING MUST NOT BE TRANSMITTED OR SUPPORTED BY THE AERATOR UNIT. PIPING SUPPORTS BY OTHERS.
2) AERATOR BLOWER HOUSING AND AIR INTAKE WILL BE SHIPPED LOOSE FOR INSTALLATION BY OTHERS.
3) AERATOR BLOWER HOUSING MOTOR STARTER MUST BE WIRED TO RUN WITH WELL PUMP. MOTOR STARTER AND CONTACTS BY OTHERS.
4) EXTERIOR OF THE AERATOR TO BE BUFF BLASTED FOR EVEN TEXTURED APPEARANCE.
5) ALL PIPING BY OTHERS UNLESS OTHERWISE NOTED.
6) FLANGES HAVE BOLT HOLES LOCATED ON SPLIT CENTERS WITH THE SAME BOLT PATTERN AS CLASS 125 LB CAST IRON FLANGES.
7) CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL EXTERNAL PIPING CONNECTIONS AND COMPONENTS.
8) THE AERATOR CHAMBER SHALL BE FACTORY TESTED TO INSURE ALL WELDS ARE WATERTIGHT.
9) PROPER EARTH GROUND BY OTHERS.
10) ASSEMBLE CUSTOM BLOWER HOUSING WITH GASKET AND BOLTS. (SHIP AS ONE ASSEMBLY).



RIGHT SIDE ELEVATION
SCALE: 3/4"=1'-0"
(BLOWER NOT SHOWN)

ALL RIGHTS TO MANUFACTURE, COPY, REPRODUCE OR DISPOSE OF THIS DRAWING OR ITS CONTENTS ARE RESERVED UNLESS OTHERWISE SPECIFIED IN WRITING BY KURITA AMERICA INC.

DRAWING SIZE: D
DO NOT SCALE DRAWING

6600 94th Avenue North
Minneapolis, MN 55445
www.kuritaamerica.com

DRAWN BY:	START DATE:	SHEET NUMBER:	REV:
MRR	04/30/2026	1 OF 4	0
PROJECT MGR:	DWG. SCALE:	DRAWING NUMBER:	
AMS	AS NOTED	158259	
APPR. BY:	APPR. DATE:		

FDA
10'-0" SQ.
PROPOSAL DRAWING
MORRIS, IL

PROJECT NUMBER: 20697

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: G:\Users\VJS\18-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\058-TONKA FDA DRAWINGS (1 OF 4).dwg Last Modified: Thursday, April 30, 2026 3:15:47 PM Plotted On: Friday, May 1, 2026 10:58:54 AM by Jonathon Covert

DRAWN BY: JJW	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 04/2026				

Chamlin & Associates

PERU
OTTAWA MORRIS
ILLINOIS

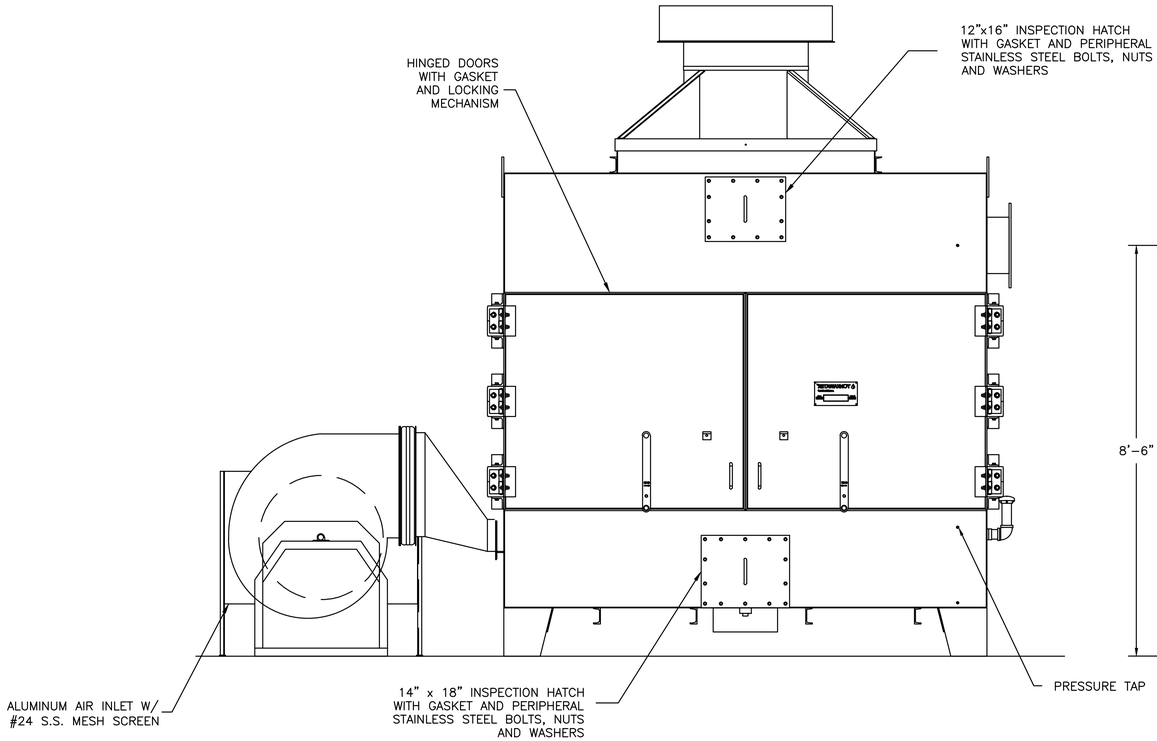
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

TONKA FDA DRAWINGS
(1 OF 4)

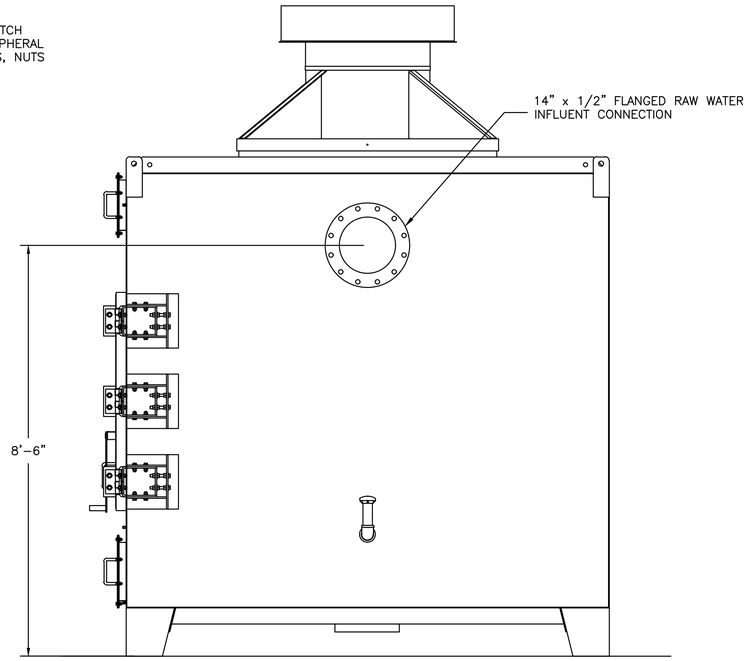
BIDDING PLANS

CURRENT AS OF: 05/01/2026		
SCALE: AS NOTED	SHEET	58
FILE NO.: 9818.00 Y-	OF	84

NOTE:
PIPING CONFIGURATION SHOWN ON THIS SHEET IS FOR INFORMATION ONLY



REAR ELEVATION
SCALE: 3/4"=1'-0"



LEFT ELEVATION OF FRONT VIEW
SCALE: 3/4"=1'-0"

ALL RIGHTS TO MANUFACTURE, COPY, REPRODUCE OR DISPOSE OF THIS DRAWING OR ITS CONTENTS ARE RESERVED UNLESS OTHERWISE SPECIFIED IN WRITING BY KURITA AMERICA INC.

DRAWING SIZE: D

DO NOT SCALE DRAWING

6600 94th Avenue North
Minneapolis, MN 55445
www.kuritaamerica.com

DRAWN BY:	MRR
START DATE:	04/30/2026
PROJECT MGR:	AMS
DWG. SCALE:	AS NOTED
APPR. BY:	
APPR. DATE:	

FDA
10'-0" SQ.
PROPOSAL DRAWING
MORRIS, IL

SHEET NUMBER: 2 OF 4 REV: 0
DRAWING NUMBER: 158259
PROJECT NUMBER: 20697

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: G:\Users\VJS\18-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\059-TONKA FDA DRAWINGS (2 OF 4).dwg Last Modified: Thursday, April 23, 2026 1:25:32 PM Plotted On: Friday, May 1, 2026 11:00:10 AM by Jonathon Covert

DRAWN BY:	JJW
CHECKED BY:	RTB
DATE:	04/2026

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates
PERU
OTTAWA MORRIS
ILLINOIS

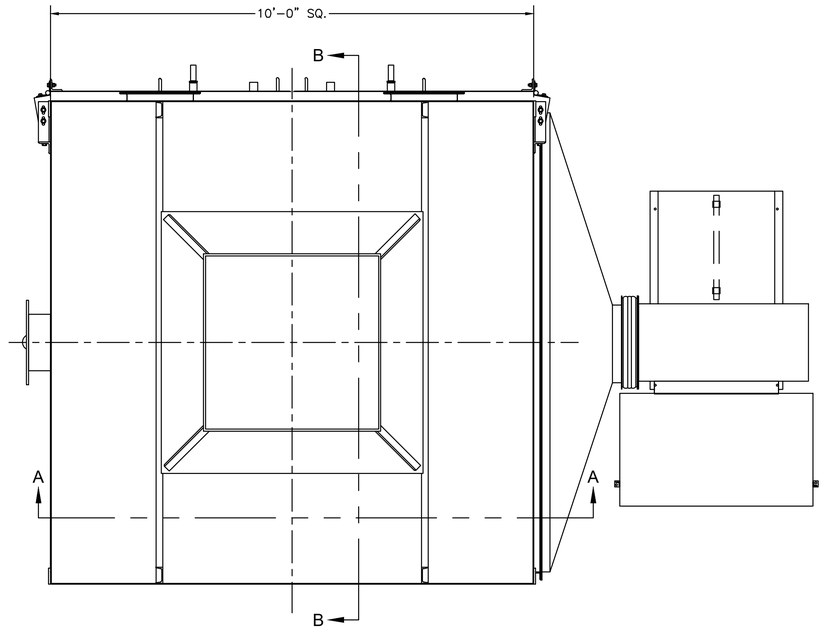
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

TONKA FDA DRAWINGS
(2 OF 4)

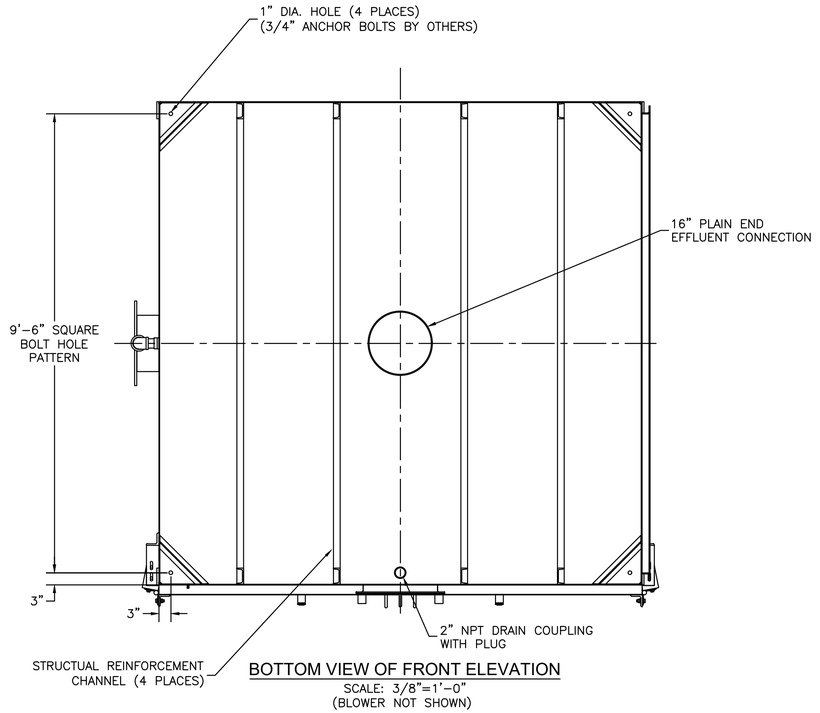
BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
FILE NO.: 9818.00 Y-
SHEET 59
OF 84

NOTE:
PIPING CONFIGURATION SHOWN ON THIS SHEET IS FOR INFORMATION ONLY



PLAN VIEW
SCALE: 3/4"=1'-0"



BOTTOM VIEW OF FRONT ELEVATION
SCALE: 3/8"=1'-0"
(BLOWER NOT SHOWN)

ALL RIGHTS TO MANUFACTURE, COPY, REPRODUCE OR DISPOSE OF THIS DRAWING OR ITS CONTENTS ARE RESERVED UNLESS OTHERWISE SPECIFIED IN WRITING BY KURITA AMERICA INC.

DRAWING SIZE: D

DO NOT SCALE DRAWING

6600 94th Avenue North
Minneapolis, MN 55445
www.kuritaamerica.com

DRAWN BY:	START DATE:
MRR	04/30/2026
PROJECT MGR:	DWG. SCALE:
AMS	AS NOTED
APPR. BY:	APPR. DATE:

FDA
10'-0" SQ.
PROPOSAL DRAWING
MORRIS, IL

SHEET NUMBER: 3 OF 4 REV: 0
DRAWING NUMBER: 158259
PROJECT NUMBER: 20697

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\JJW\98-02-Morris-New Water Treatment Plant-Design\CAD\NEW HWL PLANS (WORK HERE)\060-TONKA FDA DRAWINGS (3 OF 4).dwg Last Modified: Thursday, April 23, 2026 1:25:32 PM Plotted On: Friday, May 1, 2026 11:00:55 AM by Jonathon Covert

DRAWN BY: JJW
CHECKED BY: RTB
DATE: 04/2026

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU
OTTAWA MORRIS
ILLINOIS

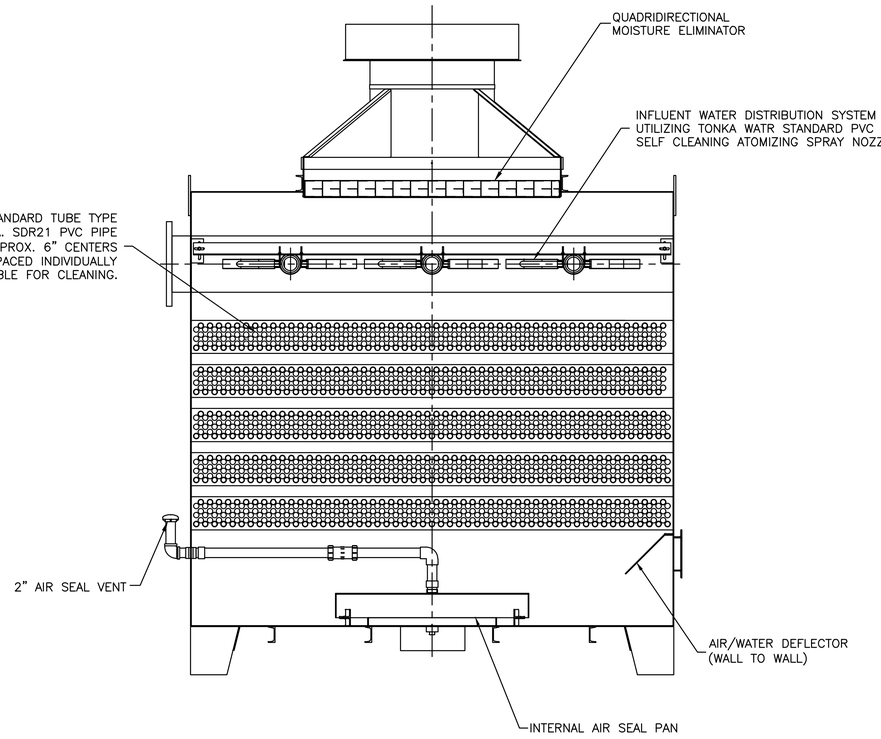
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

TONKA FDA DRAWINGS
(3 OF 4)

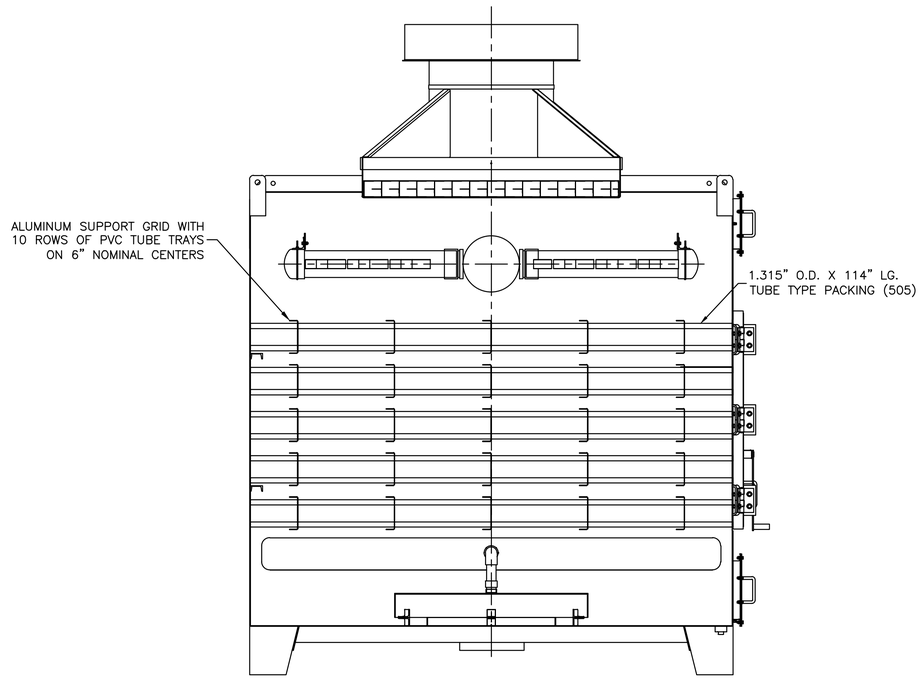
BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 60
FILE NO.: 9818.00 Y–
OF 84

NOTE:
PIPING CONFIGURATION SHOWN ON THIS SHEET IS FOR INFORMATION ONLY



SECTION A-A
SCALE: 3/4"=1'-0"



SECTION B-B
SCALE: 3/4"=1'-0"

DRAWING SIZE: D	ALL RIGHTS TO MANUFACTURE, COPY, REPRODUCE OR DISPOSE OF THIS DRAWING OR ITS CONTENTS ARE RESERVED UNLESS OTHERWISE SPECIFIED IN WRITING BY KURITA AMERICA INC. DO NOT SCALE DRAWING	6600 94th Avenue North Minneapolis, MN 55445 www.kuritaamerica.com
DRAWN BY: MRR · START DATE: 04/30/2026 · PROJECT MGR: AMS · DWG. SCALE: AS NOTED · APPR. BY: · APPR. DATE:	FDA 10'-0" SQ. PROPOSAL DRAWING MORRIS, IL	SHEET NUMBER: 4 OF 4 · REV: 0 · DRAWING NUMBER: 158259 · PROJECT NUMBER: 20697

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\VJS\18-122-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\061-TONKA FDA DRAWINGS (4 OF 4).dwg Last Modified: Thursday, April 23, 2026 1:25:33 PM Plotted On: Friday, May 1, 2026 11:01:57 AM by Jonathon Covert

DRAWN BY: JJW	REVISIONS			PERU
CHECKED BY: RTB	LEVEL / BY / DATE / DESCRIPTION			OTTAWA MORRIS
DATE: 04/2026				ILLINOIS

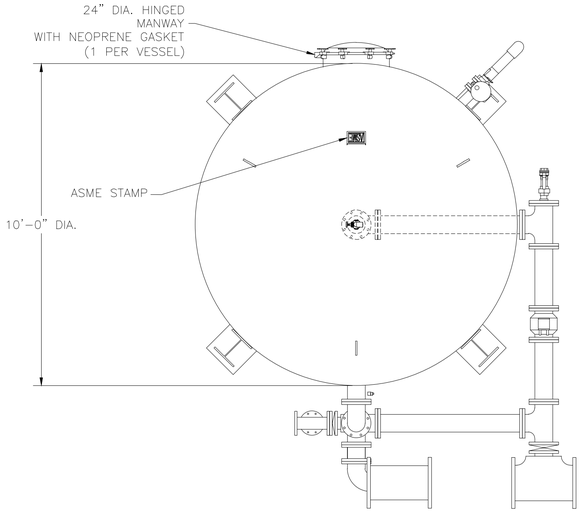
Chamlin & Associates

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

TONKA FDA DRAWINGS
(4 OF 4)

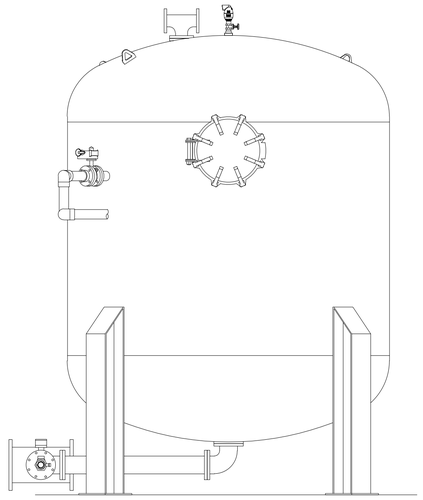
BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED · SHEET 61
FILE NO.: 9818.00 Y- · OF 84



PLAN VIEW

SCALE: 1/2"=1'-0"



REAR ELEVATION

SCALE: 1/2"=1'-0"

RIDION™ SYSTEM SPECIFICATIONS:

TOTAL PLANT FLOW:
2,100 GPM

TREATMENT RATE:
1,575 GPM (5.0 GPM/SQ. FT.)

BYPASS RATE:
525 GPM

VESSEL AREA:
78.5 SQ. FT./SOFTENER

BACKWASH RATE:
393 GPM

BRINE RATE:
83 GPM

SLOW RINSE:
83 GPM

FAST RINSE:
394 GPM

SUPPORT GRAVELS:
4" DEPTH – 3/4" x 1/2" GRADED GRAVEL
4" DEPTH – 1/2" x 1/4" GRADED GRAVEL
4" DEPTH – 1/4" x 1/8" GRADED GRAVEL
3" DEPTH – 0.80 to 1.20 MM TORPEDO SAND

ION EXCHANGE RESIN:
51" BED DEPTH

NUMBER OF SOFTENERS:
FOUR (4)

CONSTRUCTION:
10'-0" DIA. WORKING PRESSURE-100 PSIG
HYDROSTATIC TEST PRESSURE-130 PSIG
ASME CODE

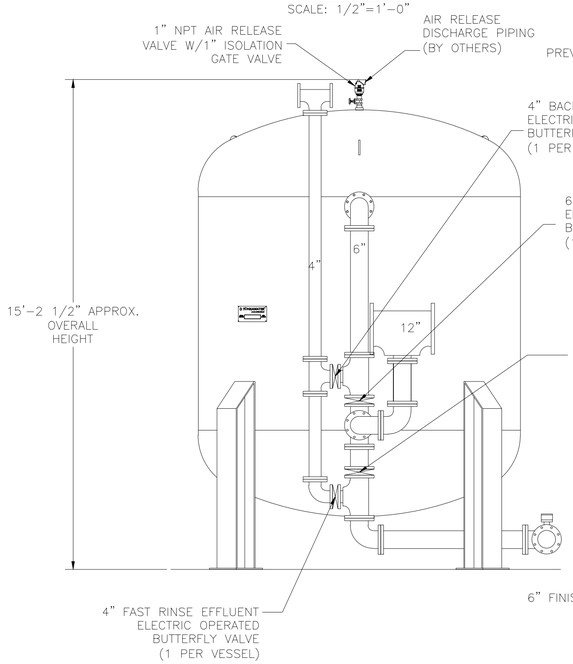
UNDERDRAIN:
TONKA STANDARD PVC HEADER/LATERAL UNDERDRAIN WITH HIGH IMPACT ABS DIFFUSER NOZZLES

PIPE:
SCH. 40 STEEL AND SCH 53 DIP

BRINE AND UNDERDRAIN PIPE:
SCH 80 PVC

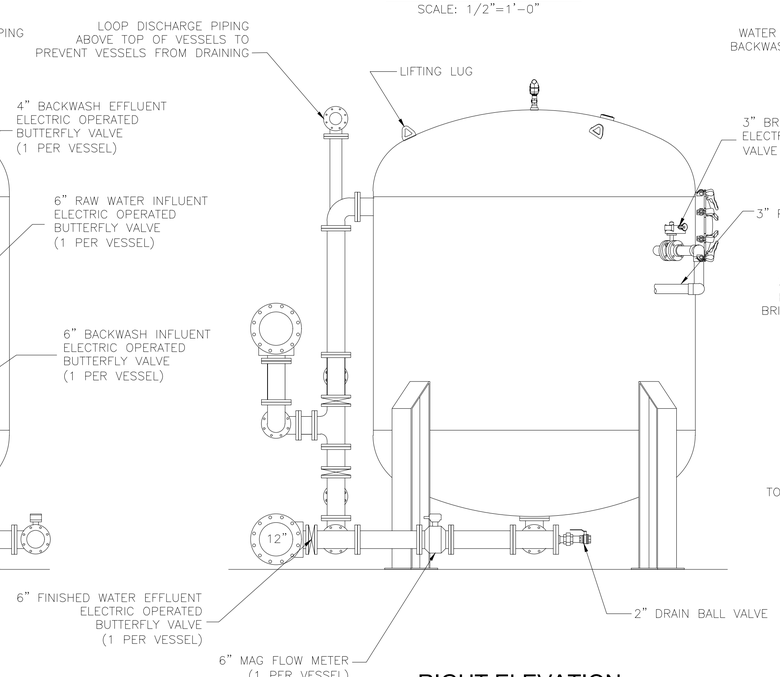
TANK FLANGES:
150 LB. SLIP ON WELD FLANGE.
WELDED ON SPLIT CENTERS.

NOTE:
PIPING CONFIGURATION SHOWN ON THIS SHEET IS FOR INFORMATION ONLY



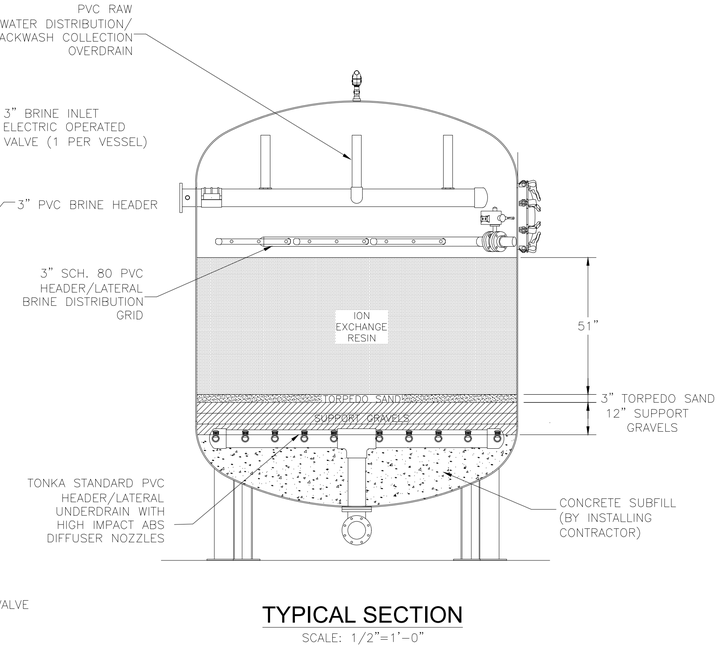
FRONT ELEVATION

SCALE: 1/2"=1'-0"



RIGHT ELEVATION

SCALE: 1/2"=1'-0"



TYPICAL SECTION

SCALE: 1/2"=1'-0"

SINGLE VESSEL DETAILS

ALL RIGHTS TO MANUFACTURE, COPY, REPRODUCE OR DISPOSE OF THIS DRAWING OR ITS CONTENTS ARE RESERVED UNLESS OTHERWISE SPECIFIED IN WRITING BY KURITA AMERICA INC.

DRAWING SIZE: D
DO NOT SCALE DRAWING

6600 94th Avenue North
Minneapolis, MN 55445
www.kuritaamerica.com

DRAWN BY:	MRR
START DATE:	04/15/2026
PROJECT MGR:	AMS
DWG. SCALE:	AS NOTED
APPR. BY:	
APPR. DATE:	

RIDION™ SOFTENER SYSTEM
10'-0" DIA.
PROPOSAL DRAWING
MORRIS, IL

SHEET NUMBER: 1 OF 2 REV: 0
DRAWING NUMBER: 158068
PROJECT NUMBER: 20697

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\JWB\18-02-Morris - New Water Treatment Plant Design\CAD\NEW WM PLANS (WORK HERE)\062 - TONKA SOFTENER DRAWINGS (1 OF 2).dwg Last Modified: Monday, April 27, 2026 11:36:53 AM Plotted On: Friday, May 1, 2026 10:53:54 AM by Faith Rock

DRAWN BY:	JJW
CHECKED BY:	RTB
DATE:	04/2026

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

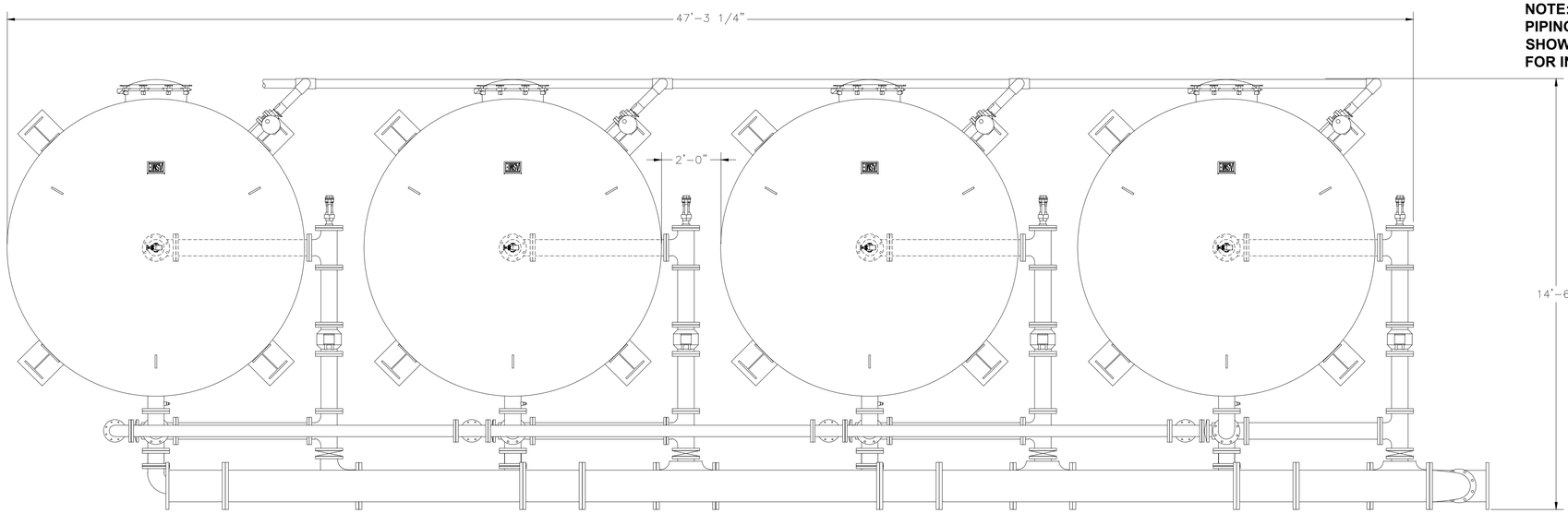
PERU
OTTAWA MORRIS
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

TONKA SOFTENER DRAWINGS
(1 OF 2)

BIDDING PLANS

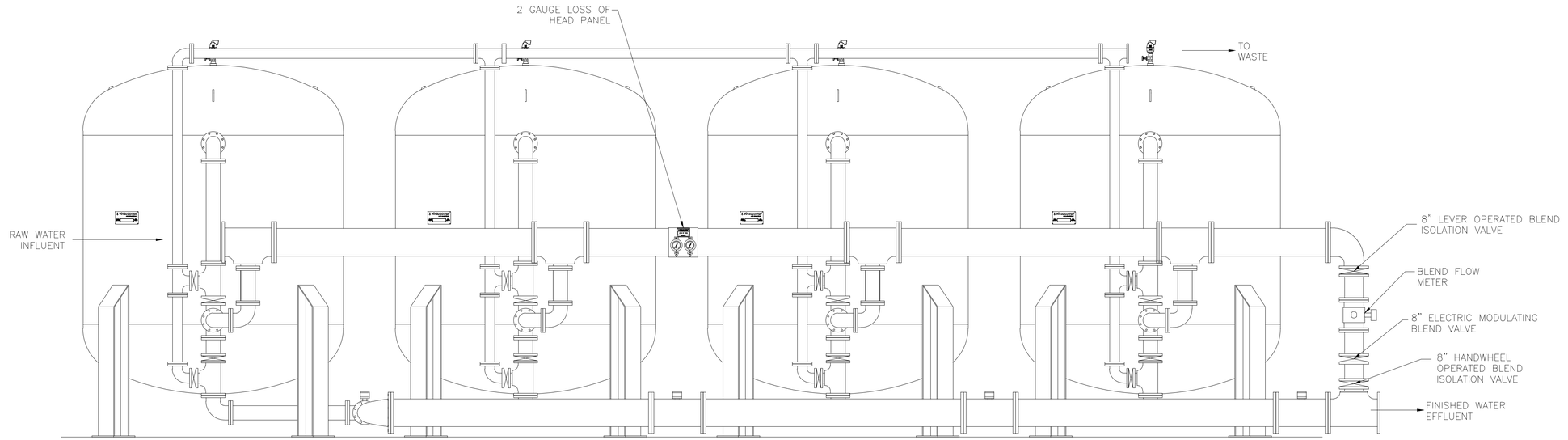
CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
FILE NO.: 9818.00 Y-
SHEET 62
OF 84



NOTE:
PIPING CONFIGURATION SHOWN ON THIS SHEET IS FOR INFORMATION ONLY

PROPOSED PLANT LAYOUT PLAN VIEW

SCALE: 1/2"=1'-0"



PROPOSED PLANT LAYOUT ELEVATION VIEW

SCALE: 1/2"=1'-0"

ALL RIGHTS TO MANUFACTURE, COPY, REPRODUCE OR DISPOSE OF THIS DRAWING OR ITS CONTENTS ARE RESERVED UNLESS OTHERWISE SPECIFIED IN WRITING BY KURITA AMERICA INC.

DRAWING SIZE: D

DO NOT SCALE DRAWING

6600 94th Avenue North
Minneapolis, MN 55445
www.kuritaamerica.com

DRAWN BY:	MRR
START DATE:	04/15/2026
PROJECT MGR:	AMS
DWG. SCALE:	AS NOTED
APPR. BY:	
APPR. DATE:	

RIDION™ SOFTENER SYSTEM
10'-0" DIA.
PROPOSAL DRAWING
MORRIS, IL

SHEET NUMBER: 2 OF 2 | REV: 0
DRAWING NUMBER: 158068
PROJECT NUMBER: 20697

DRAWN BY: JJW	REVISIONS		
CHECKED BY: RTB	LEVEL / BY / DATE / DESCRIPTION		
DATE: 04/2026			

Chamlin & Associates

PERU
OTTAWA MORRIS
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

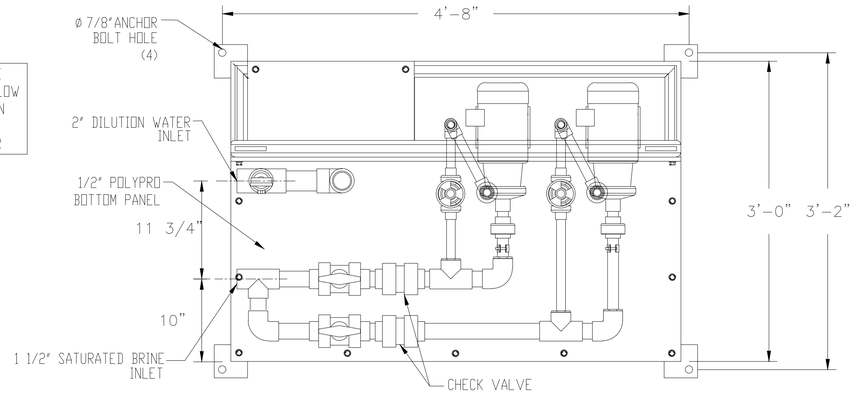
TONKA SOFTENER DRAWINGS
(2 OF 2)

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
FILE NO.: 9818.00 Y–
SHEET 63
OF 84

CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\JJW\9818-02-Morris - New Water Treatment Plant - Design\CAD\NEW WM - PLANS (WORK HERE)\063 - TONKA SOFTENER DRAWINGS (2 OF 2).dwg Last Modified: Monday, April 27, 2026 11:36:52 AM Plotted On: Friday, May 1, 2026 10:55:07 AM by Faith Pack

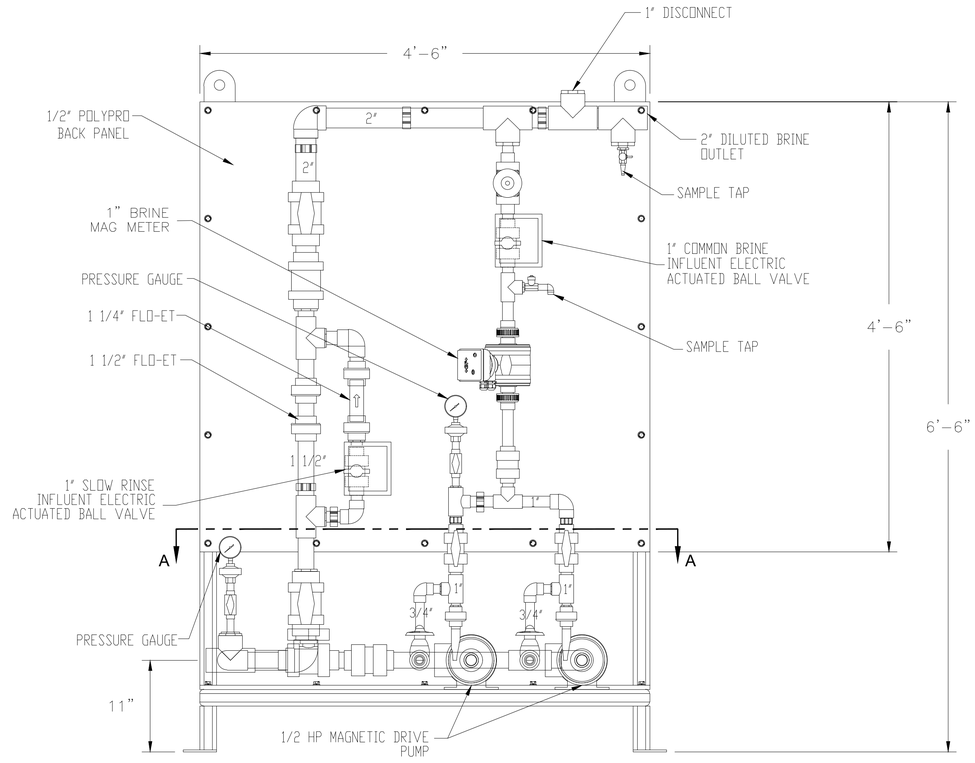
PRESSURE REDUCING VALVE FOR 40 PSI MAX, AND BACKFLOW PREVENTOR IF REQUIRED, ON DILUTION WATER INLET BY INSTALLING CONTRACTOR



SECTION A-A

SCALE: 1 1/2"=1'-0"

NOTE:
PIPING CONFIGURATION SHOWN ON THIS SHEET IS FOR INFORMATION ONLY



FRONT VIEW

SCALE: 1 1/2"=1'-0"

ALL RIGHTS TO MANUFACTURE, COPY, REPRODUCE OR DISPOSE OF THIS DRAWING OR ITS CONTENTS ARE RESERVED UNLESS OTHERWISE SPECIFIED IN WRITING BY KURITA AMERICA INC.

DRAWING SIZE: D

DO NOT SCALE DRAWING

6600 94th Avenue North
Minneapolis, MN 55445

www.kuritaamerica.com

DRAWN BY:	START DATE:	SHEET NUMBER:	REV:
MRR	01/10/2025	1 OF 1	0
PROJECT MGR:	DWG. SCALE:	DRAWING NUMBER:	PROJECT NUMBER:
CPM	NONE	00093943	00005
APPR. BY:	APPR. DATE:		

BRINE DILUTION SKID
STANDARD MEDIUM
GENERAL ARRANGEMENT DRAWING
STANDARD MEDIUM BRINE DILUTION SKID

DRAWN BY: JJW	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 04/2026				

Chamlin & Associates

PERU
OTTAWA MORRIS
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

TONKA BRINE SKID DETAIL

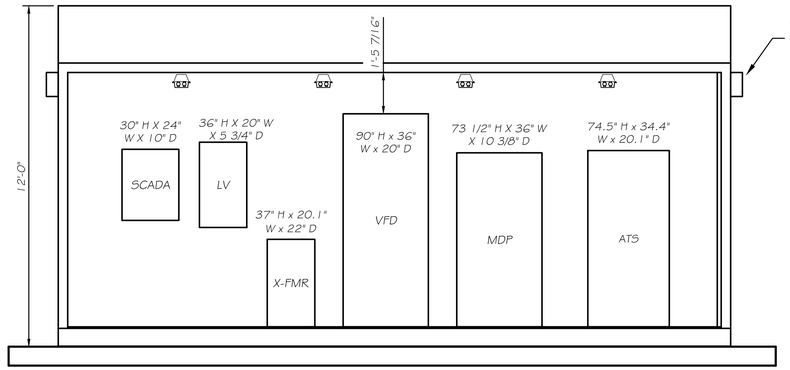
BIDDING PLANS

CURRENT AS OF: 05/01/2026

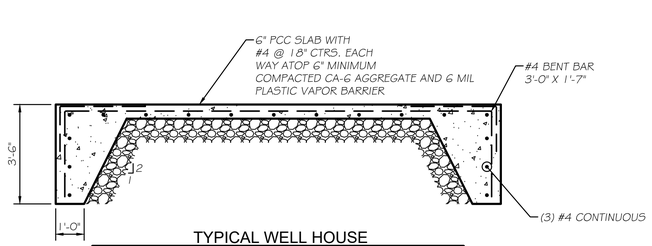
SCALE: AS NOTED | SHEET 64

FILE NO.: 9818.00 Y- | OF 84

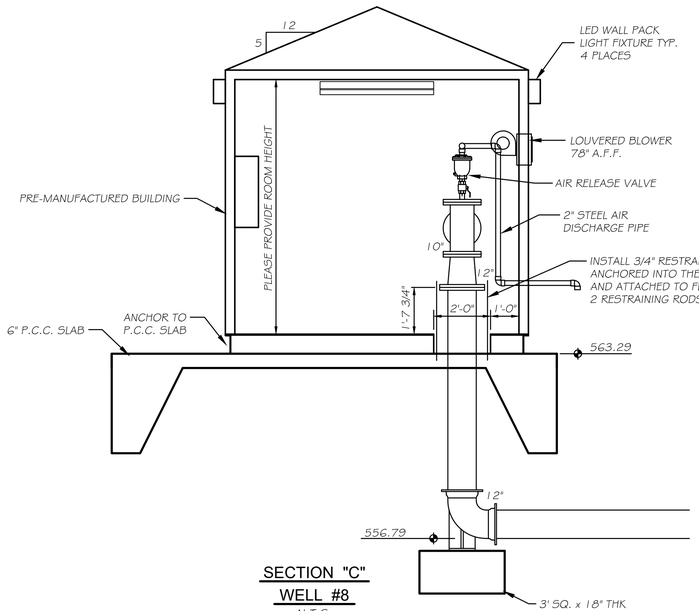
CHAMLIN & ASSOCIATES, INC. © 2026
Drawing Name: C:\Users\JWB18-02-Morris - New Water Treatment Plant - Design\CAD\NEW WM - PLANS (WORK HERE)\064 - TONKA BRINE SKID DETAIL.dwg Last Modified: Thursday, April 23, 2026 1:37:58 PM Plotted On: Friday, May 1, 2026 10:56:03 AM by Faith Rock



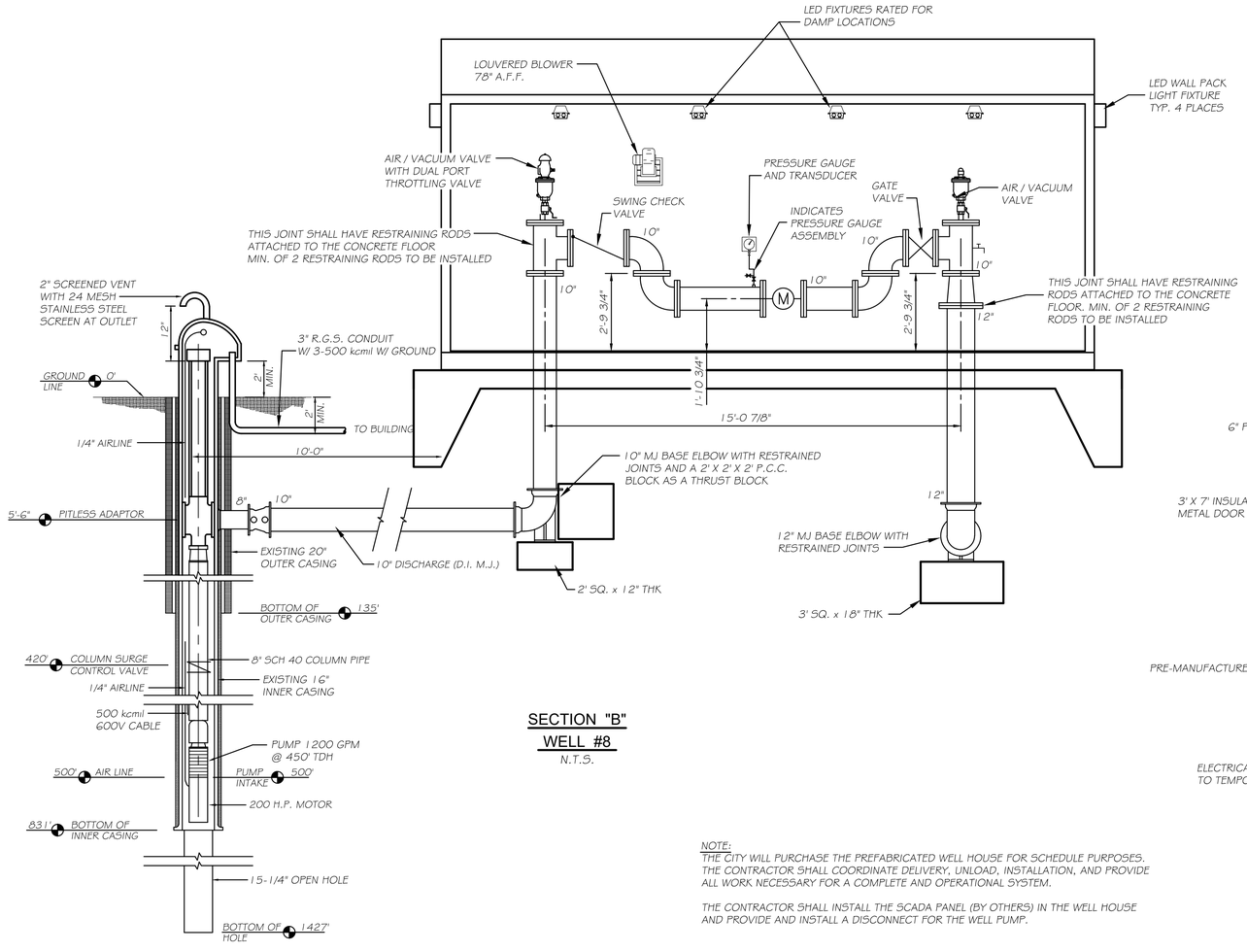
SECTION "A"
WELL #8
N.T.S.



TYPICAL WELL HOUSE
FOUNDATION WALL SECTION
SCALE: 3/8" = 1'-0"



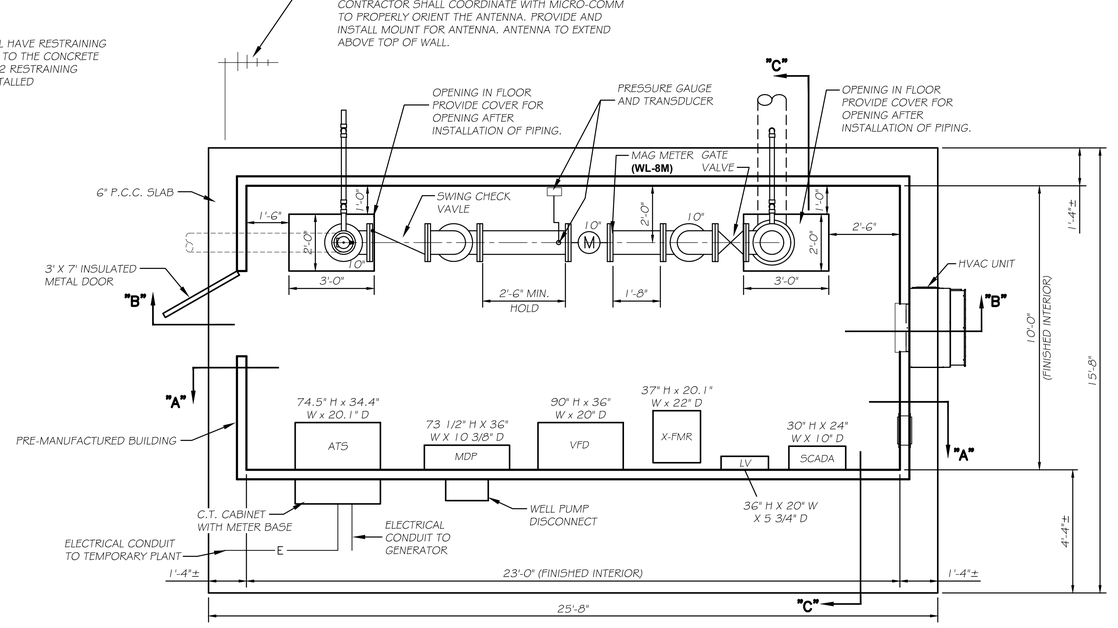
SECTION "C"
WELL #8
N.T.S.



SECTION "B"
WELL #8
N.T.S.

NOTE:
THE CITY WILL PURCHASE THE PREFABRICATED WELL HOUSE FOR SCHEDULE PURPOSES. THE CONTRACTOR SHALL COORDINATE DELIVERY, UNLOAD, INSTALLATION, AND PROVIDE ALL WORK NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.

THE CONTRACTOR SHALL INSTALL THE SCADA PANEL (BY OTHERS) IN THE WELL HOUSE AND PROVIDE AND INSTALL A DISCONNECT FOR THE WELL PUMP.



WELL HOUSE #8
PLAN VIEW
N.T.S.

N

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\RB 8-22-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\085-NEW WELL 8 WELL HOUSE AND WELL.dwg Last Modified: Friday, May 1, 2026 2:03:19 PM Plotted On: Friday, May 1, 2026 2:03:56 PM by Jonathan Covert

DRAWN BY: JJC	CURRENT AS OF: 05/01/2026		
CHECKED BY: RTB	SCALE: AS NOTED	SHEET 65	
DATE: 03/2021	FILE NO.: 9818.02 Y–	OF 84	

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

WELL 8 AND WELL HOUSE
PLAN AND DETAILS

BIDDING PLANS

HATCH LEGEND:

AGGREGATE SURFACE (170 S.F.)

CONCRETE PAVEMENT (1,840 S.F.)

GRAPHIC SCALE 0 10 20 (IN FEET)

N

NOTE:
LOCATION OF FIBER OPTIC LINES IS BASED ON OLD DRAWINGS AND IS NO LONGER ACCURATE.

IL ROUTE 47

EXISTING PROPERTY LINE

EXISTING ROW

LIMITS OF SAWCUT (CLOSEST JOINT)

MANHOLE FRAME TO BE ADJUSTED

MATCH EX. GRADE

342+00

342+06

PROPOSED WELL HOUSE. SEE DETAIL SHEET 67

F.F. 580

EXISTING AIRPORT LOCATION

BUILDING

580

LIMITS OF SAWCUT (CLOSEST JOINT)

WELL 9

341+00

579

578

577

576

575

574

573

EX. STORM OUTLET

340+00

339+00

PROPOSED WM TO SOUTH SITE

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\VJW\98-02 - Morris - New Water Treatment Plant - Design\CAD\NEW WM PLANS (WORK HERE)\066 - WELL 9 SITE PLAN.dwg Last Modified: Friday, May 1, 2026 10:02:51 AM Plotted On: Friday, May 1, 2026 10:58:51 AM by Faith Pack

DRAWN BY: JJC	REVISIONS				
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION	
DATE: 03/2021					

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

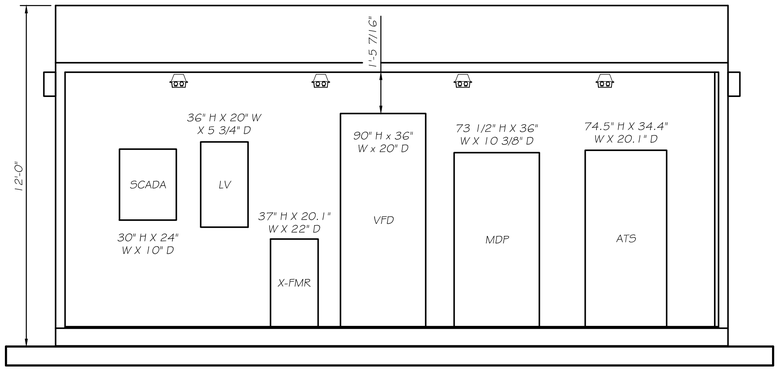
WELL 9
SITE LAYOUT PLAN

BIDDING PLANS

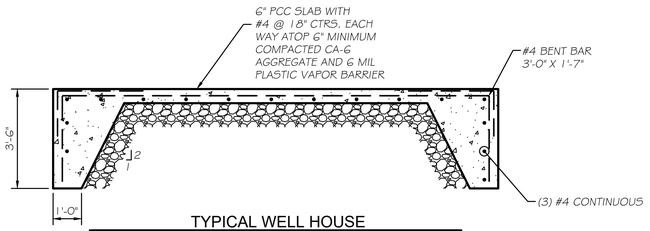
CURRENT AS OF: 05/01/2026

SCALE: AS NOTED | SHEET 66

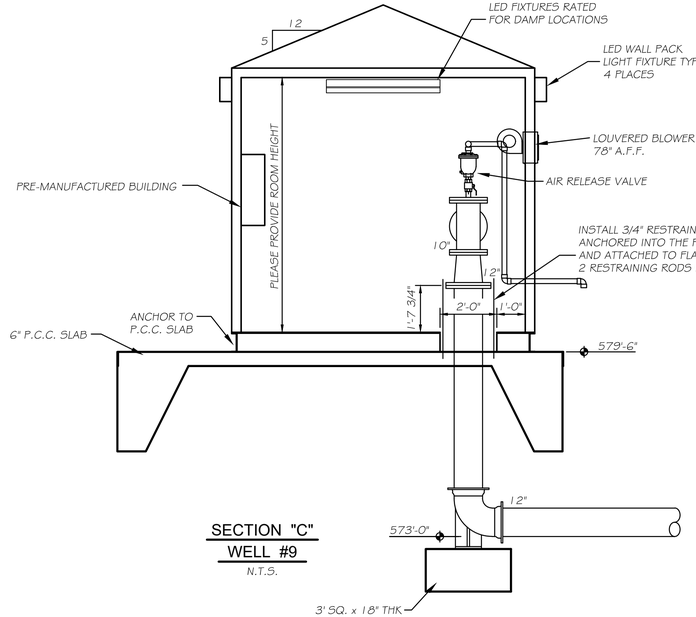
FILE NO.: 9818.02 Y– | OF 84



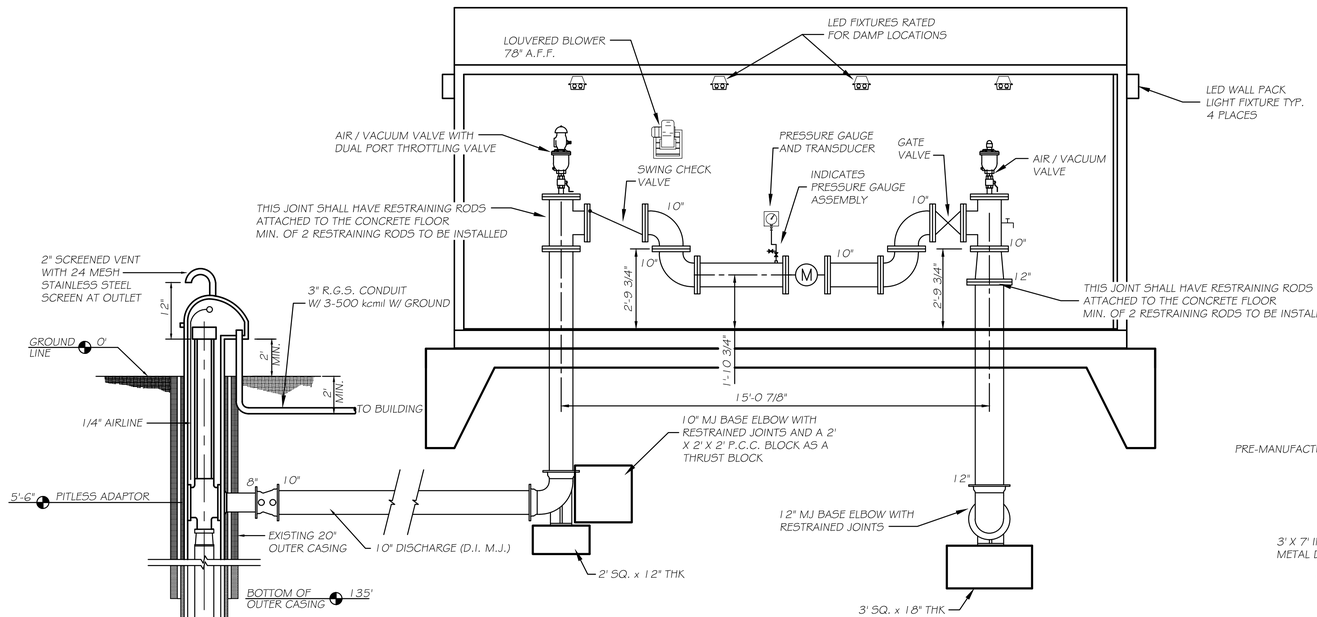
SECTION "A"
WELL #9
N.T.S.



TYPICAL WELL HOUSE
FOUNDATION WALL SECTION
SCALE: 3/8" = 1'-0"



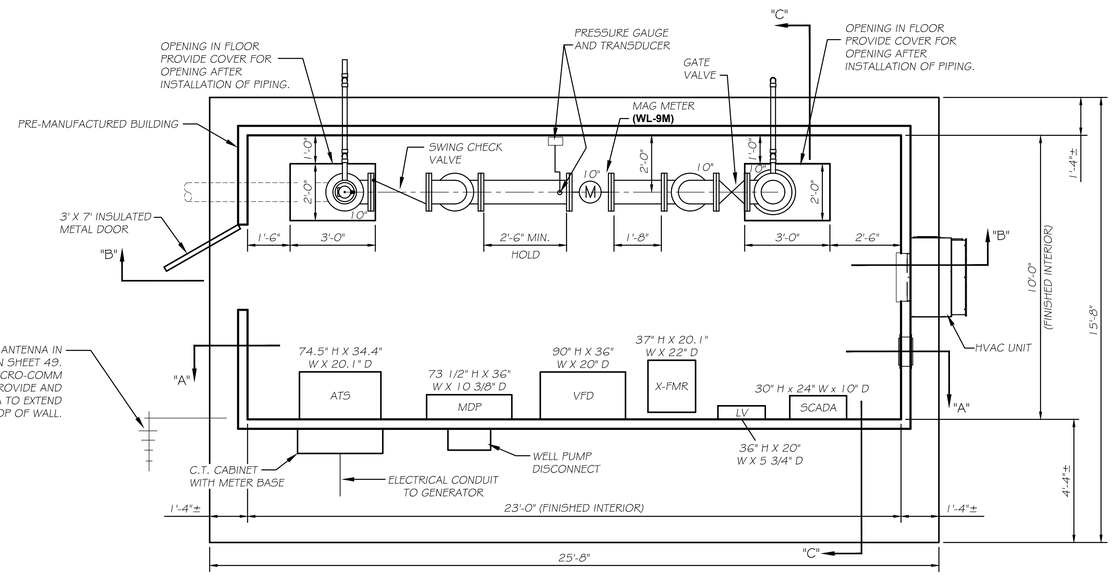
SECTION "C"
WELL #9
N.T.S.



CONTRACTOR SHALL MOUNT THE YAGI ANTENNA IN ACCORDANCE WITH DETAIL ON SHEET 49. CONTRACTOR SHALL COORDINATE WITH MICRO-COMM TO PROPERLY ORIENT THE ANTENNA. PROVIDE AND INSTALL MOUNT FOR ANTENNA. ANTENNA TO EXTEND ABOVE TOP OF WALL.

NOTE:
THE CITY WILL PURCHASE THE PREFABRICATED WELL HOUSE FOR SCHEDULE PURPOSES. THE CONTRACTOR SHALL COORDINATE DELIVERY, UNLOAD, INSTALLATION, AND PROVIDE ALL WORK NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.

THE CONTRACTOR SHALL INSTALL THE SCADA PANEL (BY OTHERS) IN THE WELL HOUSE AND PROVIDE AND INSTALL A DISCONNECT FOR THE WELL PUMP.



WELL HOUSE #9
PLAN VIEW
N.T.S.

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 03/2021				

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

WELL 9 AND WELL HOUSE
PLAN AND DETAILS

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 67
FILE NO.: 9818.02 Y–
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VCAS\18-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\067-NEW WELL 9 WELL HOUSE AND WELL.dwg Last Modified: Friday, May 1, 2026, 2:03:08 PM Plotted On: Friday, May 1, 2026, 2:04:47 PM by Jonathon Covert

CHAMLIN & ASSOCIATES, INC. © 2021
Drawing Name: C:\Users\GAH\9818-02-Morris-New Water Treatment Plant-Design\CAD\NEW-WW-PLANS (WORK HERE)\068-BLANK.dwg Last Modified: Thursday, April 30, 2026 3:28:13 PM Plotted On: Friday, May 1, 2026 11:00:09 AM by Faith Pack

DRAWN BY: SNS
CHECKED BY: GAH
DATE: 03/2021

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

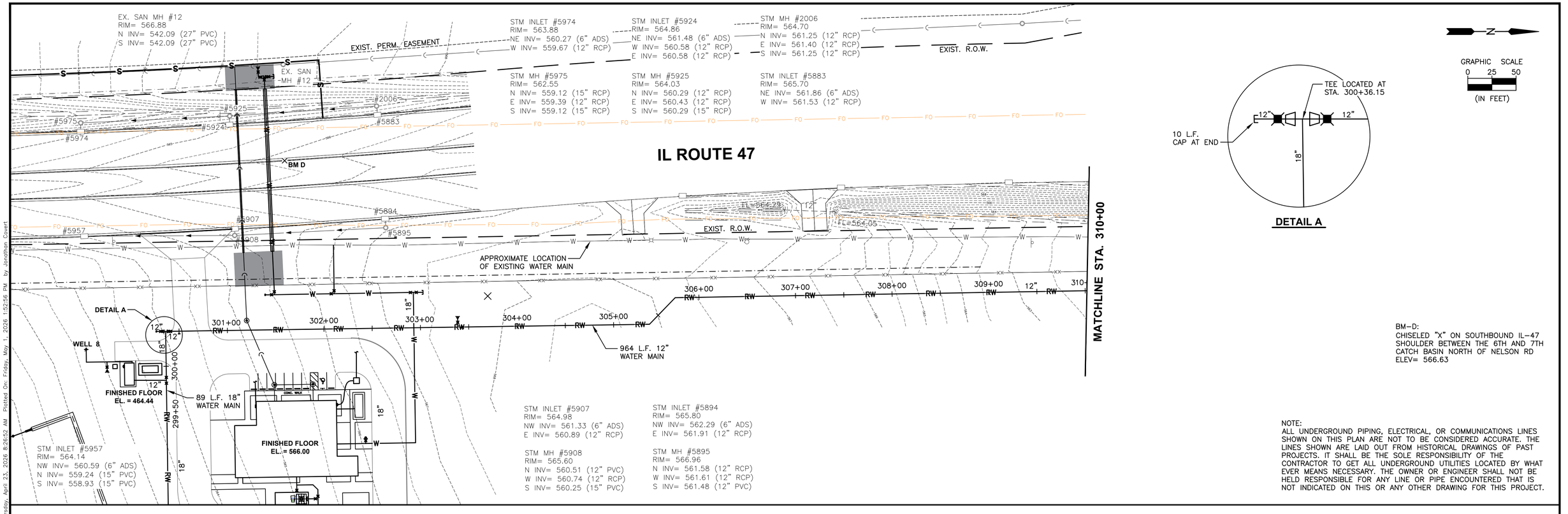
PERU MORRIS
OTTAWA
ILLINOIS

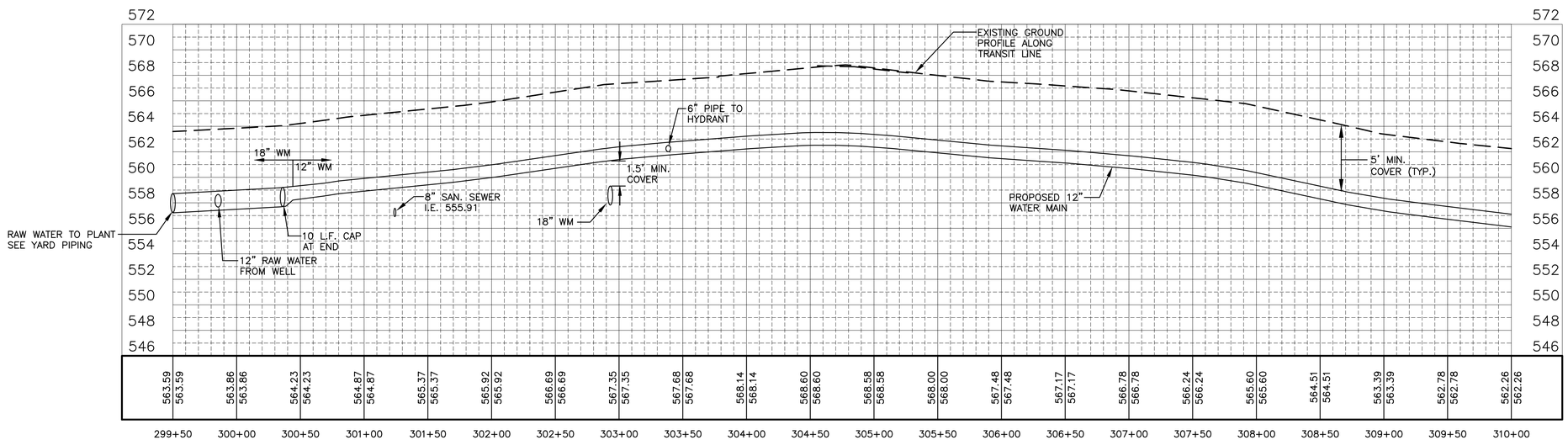
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

THIS SHEET IS
INTENTIONALLY LEFT BLANK

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
FILE NO.: 9818.02 Y–
SHEET 68
OF 84





DRAWN BY: JJC	REVISIONS			PERU MORRIS OTTAWA ILLINOIS	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026	RAW WATER PLAN & PROFILE STA. 299+50 TO STA. 310+00	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION				SCALE: AS NOTED	SHEET 69
DATE: 11/2023								FILE NO.: 9818.02 Y–	OF 84

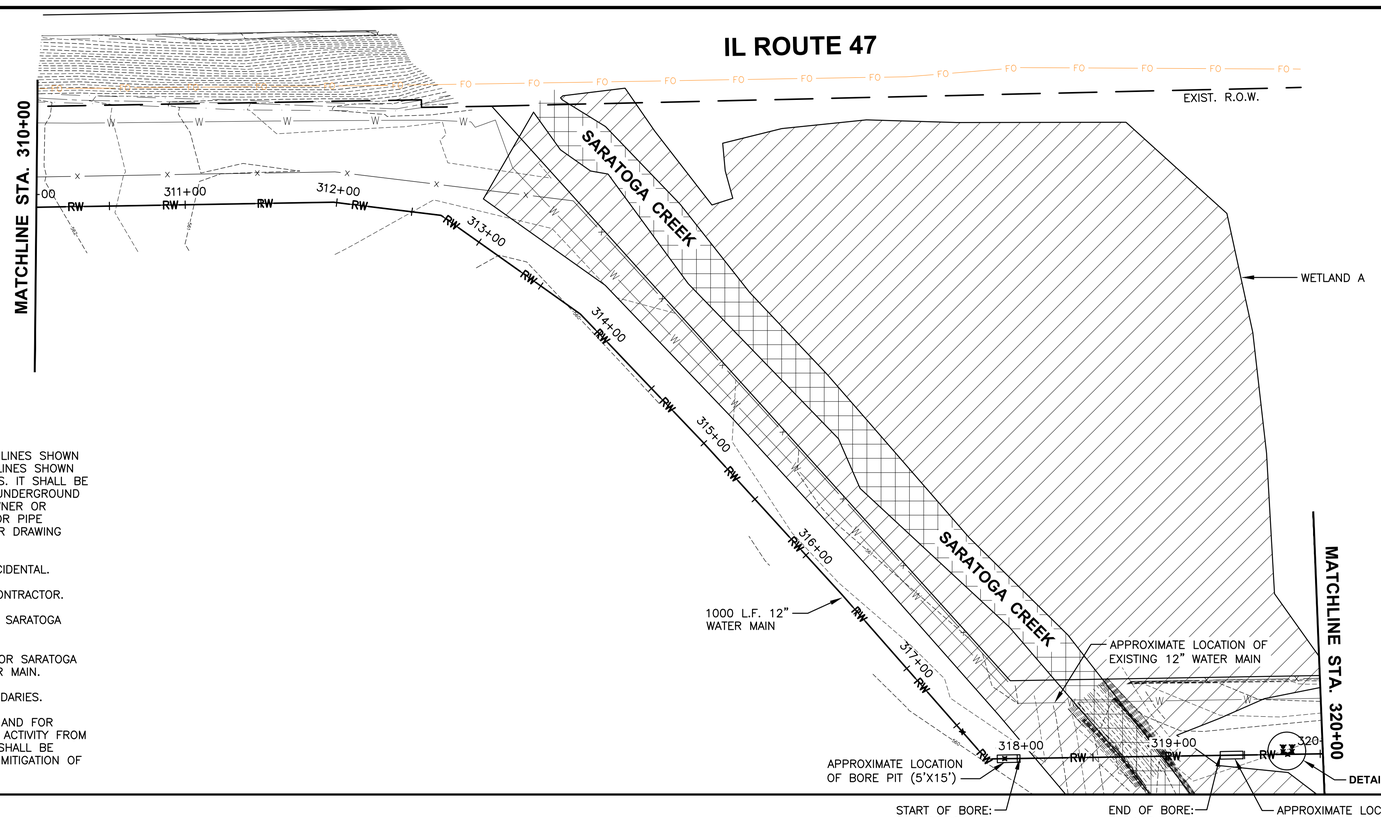
Chamlin & Associates

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\RTB\18-102 - Morris - New Water Treatment Plant - Design\CAD\NEW WM - PLANS (WORK HERE)\089-PP-299+50-310.dwg Last Modified: Thursday, April 23, 2026 8:26:52 AM Plotted On: Friday, May 1, 2026 1:52:56 PM by Jonathan Everett

SARATOGA CREEK WATERWAY

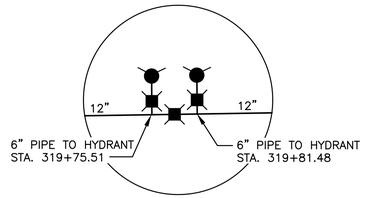
WETLAND AREA

IL ROUTE 47



GRAPHIC SCALE
0 25 50
(IN FEET)

NOTE:
LOCATION OF FIBER OPTIC LINES IS BASED ON OLD DRAWINGS AND IS NO LONGER ACCURATE.



DETAIL B

NOTES:
ALL UNDERGROUND PIPING, ELECTRICAL, OR COMMUNICATIONS LINES SHOWN ON THIS PLAN ARE NOT TO BE CONSIDERED ACCURATE. THE LINES SHOWN ARE LAID OUT FROM HISTORICAL DRAWINGS OF PAST PROJECTS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO GET ALL UNDERGROUND UTILITIES LOCATED BY WHAT EVER MEANS NECESSARY. THE OWNER OR ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR ANY LINE OR PIPE ENCOUNTERED THAT IS NOT INDICATED ON THIS OR ANY OTHER DRAWING FOR THIS PROJECT.

ALL FITTINGS AND APPURTENANCES SHALL BE CONSIDERED INCIDENTAL.

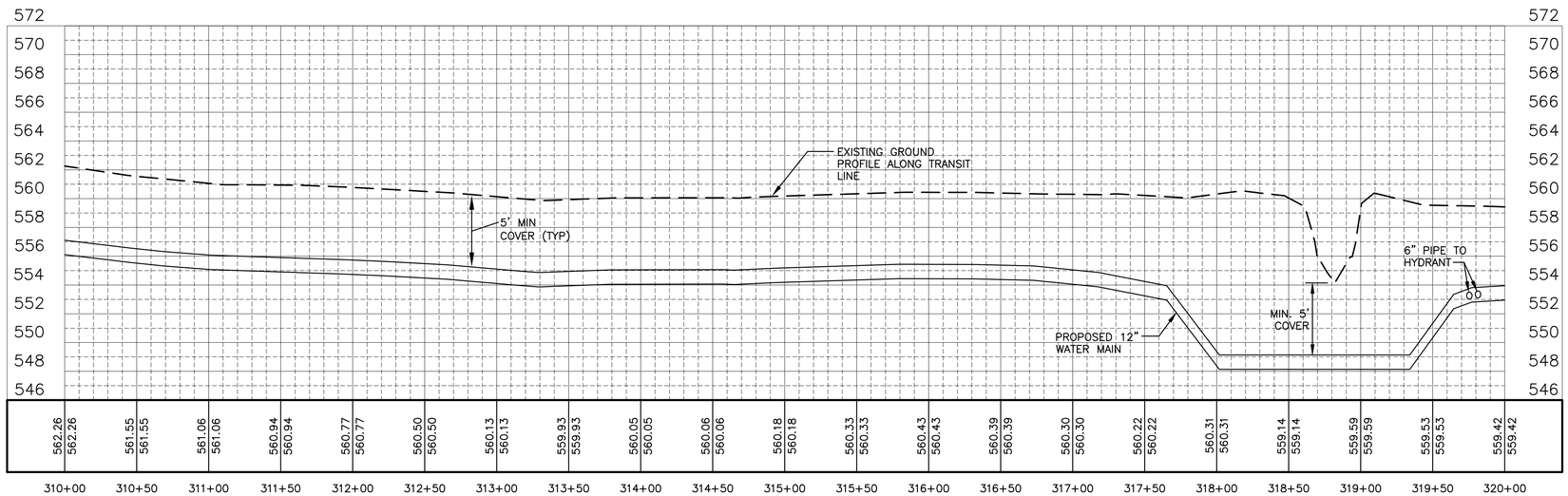
CREEK BOTTOM ELEVATION TO BE DETERMINED IN FIELD BY CONTRACTOR.

THE WATER MAIN AND ALL UTILITIES CROSSING WETLANDS AND SARATOGA CREEK SHALL BE INSTALLED VIA TRENCHLESS METHODS.

NO CONSTRUCTION ACTIVITY MAY OCCUR WITHIN "WETLAND A" OR SARATOGA CREEK, OTHER THAN TRENCHLESS INSTALLATION OF THE WATER MAIN.

BORING PITS SHALL BE LOCATED OUTSIDE THE WETLAND BOUNDARIES.

CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL AND FOR PREVENTION OF ALL SPILLS OR RUNOFF FROM CONSTRUCTION ACTIVITY FROM ENTERING WETLANDS OR SARATOGA CREEK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH CLEANUP OR MITIGATION OF SPILLS OR RUNOFF TO THE WETLANDS AND SARATOGA CREEK.



CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\VJob 18-02- Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\070-PP- 310-320.dwg Last Modified: Friday, May 1, 2026 8:45:28 AM Plotted On: Friday, May 1, 2026 2:06:39 PM by Lilly Pawelczyk

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

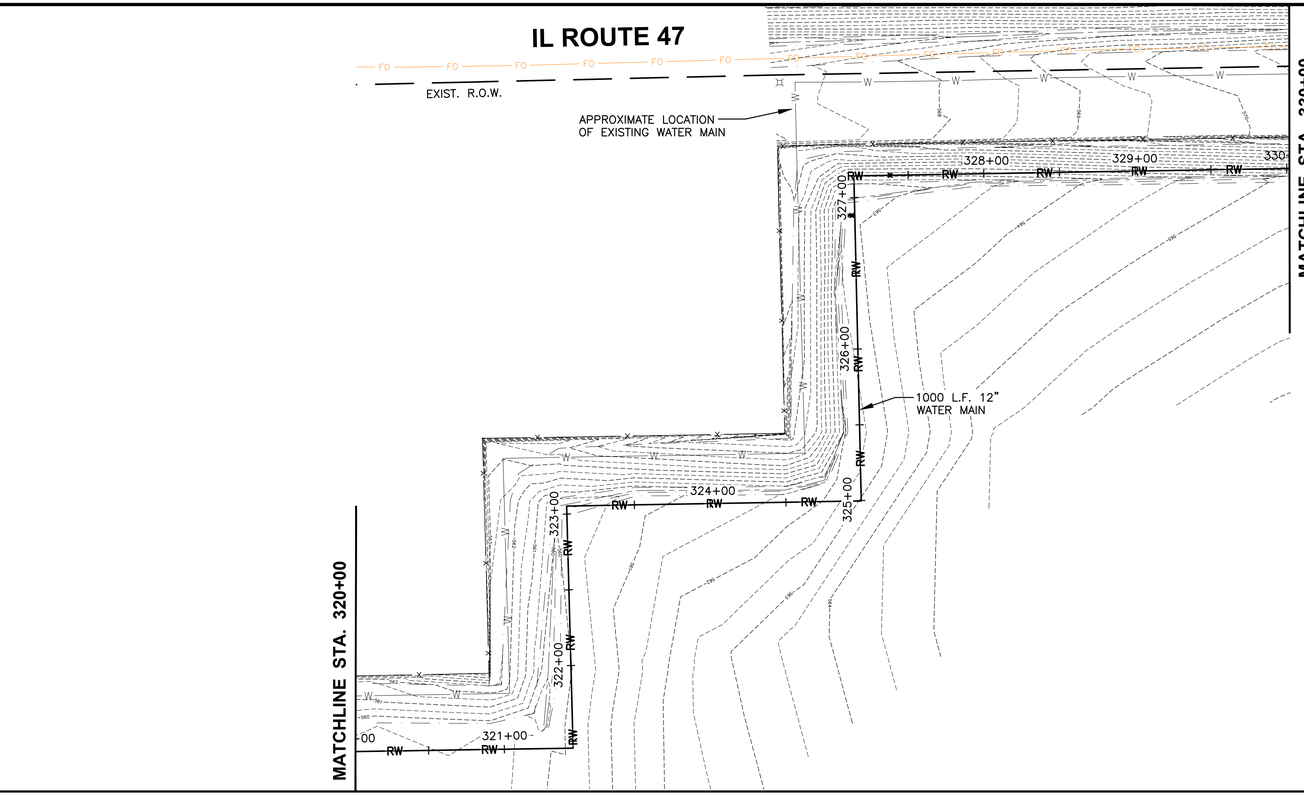
PERU MORRIS
OTTAWA
ILLINOIS

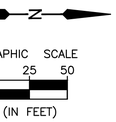
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

RAW WATER PLAN & PROFILE
STA. 310+00 TO STA. 320+00

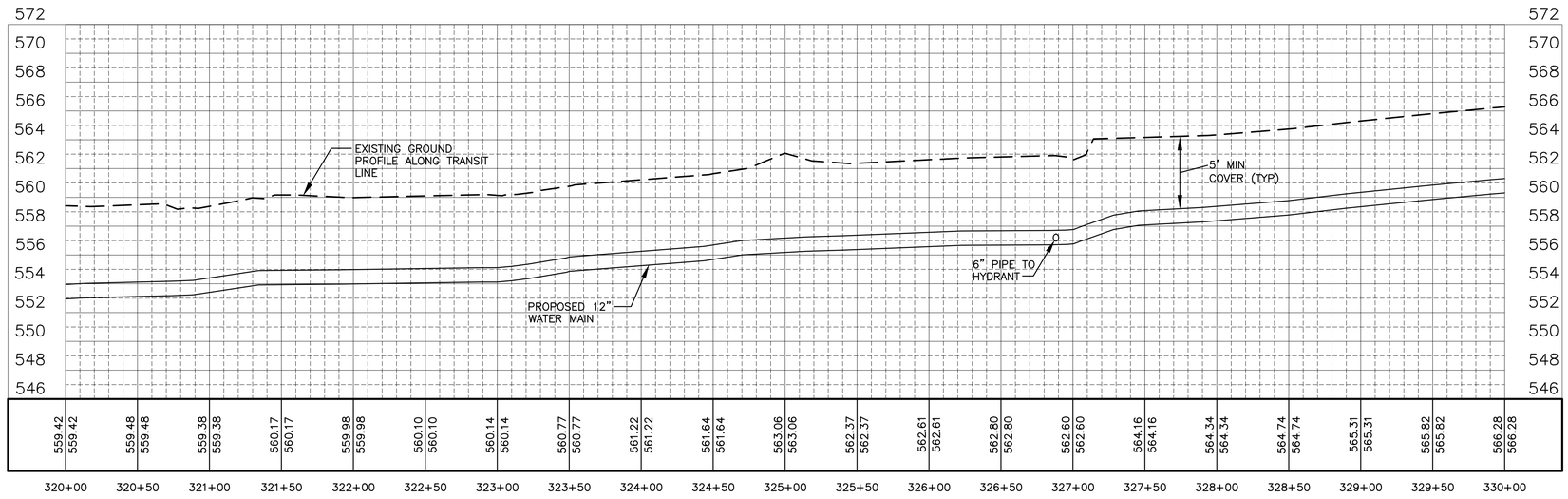
BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 70
FILE NO.: 9818.02 Y–
OF 84





NOTE:
ALL UNDERGROUND PIPING, ELECTRICAL, OR COMMUNICATIONS LINES SHOWN ON THIS PLAN ARE NOT TO BE CONSIDERED ACCURATE. THE LINES SHOWN ARE LAID OUT FROM HISTORICAL DRAWINGS OF PAST PROJECTS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO GET ALL UNDERGROUND UTILITIES LOCATED BY WHAT EVER MEANS NECESSARY. THE OWNER OR ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR ANY LINE OR PIPE ENCOUNTERED THAT IS NOT INDICATED ON THIS OR ANY OTHER DRAWING FOR THIS PROJECT.



CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\VMS18-422-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\071-PP-320-330.dwg Last Modified: Wednesday, April 22, 2026 4:32:58 PM Plotted On: Friday, May 1, 2026 2:08:51 PM by: Lilly Pawlczyk

DRAWN BY: JJC	
CHECKED BY: RTB	
DATE: 11/2023	

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

RAW WATER PLAN & PROFILE
STA. 320+00 TO STA. 330+00

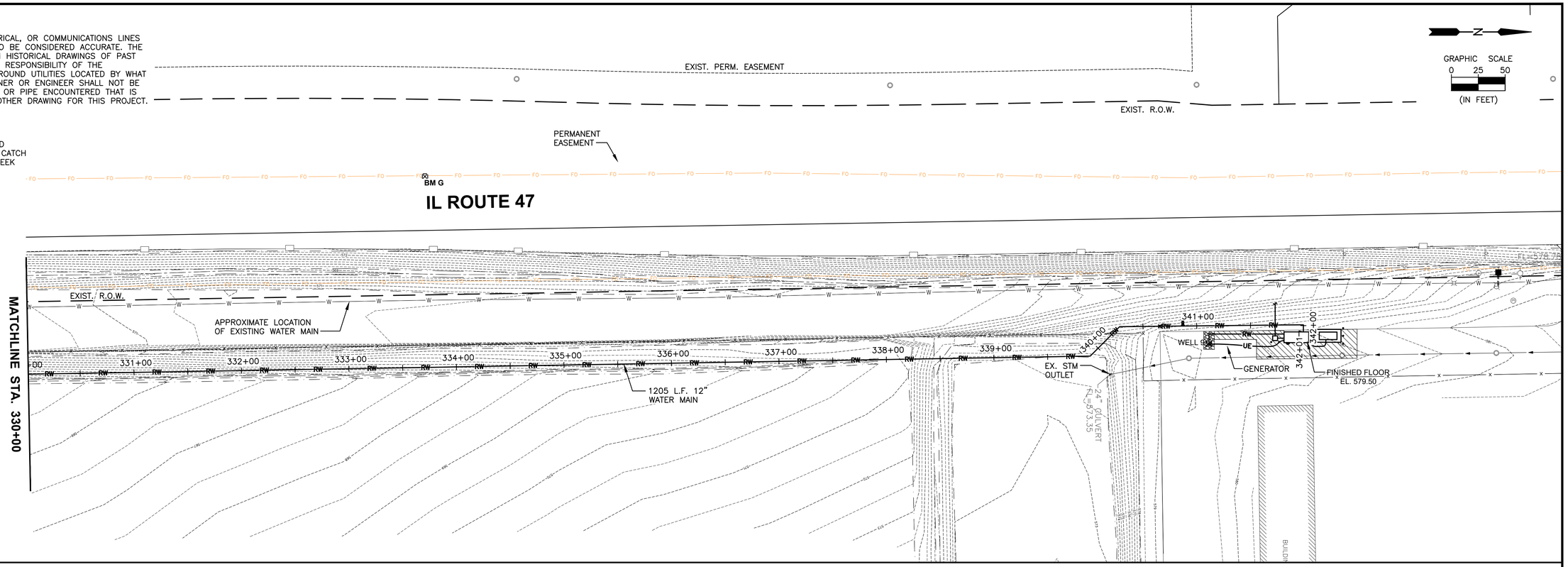
BIDDING PLANS

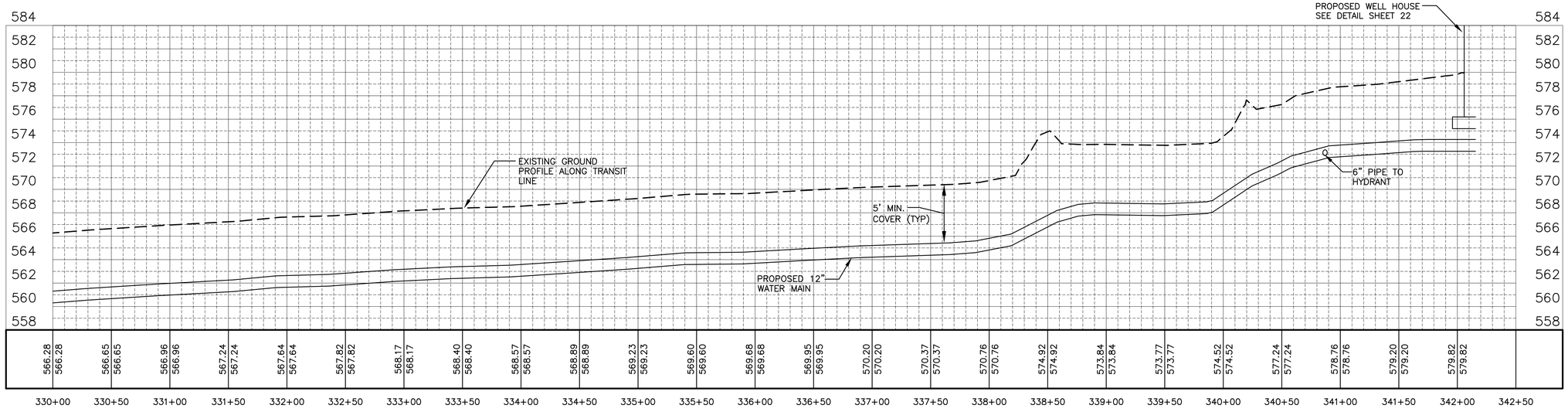
CURRENT AS OF: 05/01/2026	
SCALE: AS NOTED	SHEET 71
FILE NO.: 9818.02 Y–	OF 84

NOTE:
ALL UNDERGROUND PIPING, ELECTRICAL, OR COMMUNICATIONS LINES SHOWN ON THIS PLAN ARE NOT TO BE CONSIDERED ACCURATE. THE LINES SHOWN ARE LAID OUT FROM HISTORICAL DRAWINGS OF PAST PROJECTS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO GET ALL UNDERGROUND UTILITIES LOCATED BY WHAT EVER MEANS NECESSARY. THE OWNER OR ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR ANY LINE OR PIPE ENCOUNTERED THAT IS NOT INDICATED ON THIS OR ANY OTHER DRAWING FOR THIS PROJECT.

BM–G:
CHISELED SQUARE ON SOUTHBOUND IL–47 SHOULDER NEAR THE 11TH CATCH BASIN NORTH OF BRIDGE OVER CREEK
ELEV= 574.39

GRAPHIC SCALE
0 25 50
(IN FEET)





DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

RAW WATER PLAN & PROFILE
STA. 330+00 TO STA. 342+01

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 72
FILE NO.: 9818.02 Y–
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\9818-02-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\072-PP-330-342-01.dwg Last Modified: Wednesday, April 22, 2026 4:32:43 PM Plotted On: Friday, May 1, 2026 2:10:23 PM by Lilly Pawelczyk

STM INLET #1775
RIM= 553.93

STM INLET #1790
RIM= 553.16

STM INLET #1799
RIM= 552.88

STM INLET #1800
RIM= 552.23
E INV= 549.63 (18" RCP)

STM INLET #1836
RIM= 553.63

STM INLET #1856
RIM= 554.28

SAN MH #1768
RIM= 553.87

STM MH #1780
RIM= 551.71
NW INV= 549.61 (6" PVC)
NE INV= 549.31 (18")

SAN MH #1781
RIM= 551.56
N INV= 532.66 (28" PVC)
S INV= 532.56 (28" PVC)

SAN MH #1801
RIM= 553.36
W INV= 532.61 (18" PVC)
N INV= 531.96 (18" PVC)
S INV= 531.80 (18" PVC)

N

GRAPHIC SCALE
0 10 20
(IN FEET)

WETLANDS AREA

+00.0
10.6' LT.

+61.9
16.6' LT.

+96.7
16.6' LT.

+67.9
10.6' LT.

+90.7
10.6' LT.

+00.0
14.1' LT.

SILT FENCE (TYP.)

EXIST. R.O.W.

MINIMUM 3' EAST OF SANITARY SEWER TYP.

#1801 #1800 #1799 #1790 #1836 #1781 #1780 #1775 #1768 #1856

GAS MARKER

100+00 101+00 102+00 103+00 104+00 105+00 106

STA. 100+16.7, 0.0' LT.
16" VALVE & VALVE BOX

STA. 100+05.0, 0.0' LT.
45° BEND, 16" WM

STA. 100+13.5, 0.0' LT.
45° BEND, 16" WM

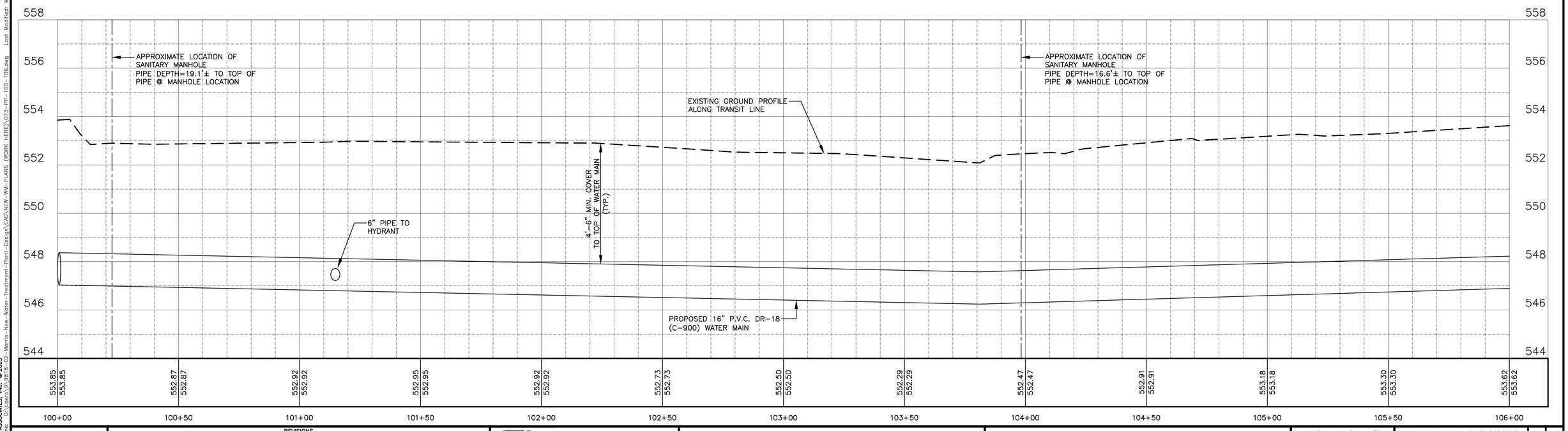
STA. 100+00.0, 0.0' LT.
CONNECT TO EXIST. 12" WM

STA. 101+14.8, 0.0' LT.
6" HYDRANT W/ AUX
VALVE & VALVE BOX

600 L.F. 16" P.V.C. DR-18
(C-900) WATER MAIN

IL ROUTE 47

MATCHLINE STA. 106+00



CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\RTB\18-422-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\073-PP-100-106.dwg Last Modified: Wednesday, April 22, 2026 3:24:51 PM Plotted On: Friday, May 1, 2026 11:40:20 AM by Jonathon Covert

DRAWN BY: JJC	
CHECKED BY: RTB	
DATE: 11/2023	

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU MORRIS
OTTAWA MORTON
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

PLAN & PROFILE
STA. 100+00 TO STA. 106+00

BIDDING PLANS

CURRENT AS OF: 05/01/2026	
SCALE: AS NOTED	SHEET 73
FILE NO.: 9818.02 Y-	OF 84

SAN MH #1923
RIM= 554.52
N INV= 549.78 (8" PVC)
W INV= 549.80 (8" PVC)

SAN MH #1938
RIM= 553.89
N INV= 533.89 (12" PVC)
S INV= 533.99 (24" PVC)

SAN MH #1971
RIM= 551.26
NW INV= 549.51 (14" PVC)
E INV= 549.61 (14" RCP)

SAN MH #1977
RIM= 551.59
NW INV= 550.19 (8" PVC)
E INV= 548.84 (14" PVC)

STM MH #2047
RIM= 557.08
S INV= 551.53 (12" RCP)
W INV= 552.53 (24" RCP)
NE INV= 550.80 (24" RCP)

STM MH #2056
RIM= 556.71
W INV= 552.46 (12" IRON)
E INV= 552.06 (24" RCP)

SAN MH #2105
RIM= 554.59
N INV= 534.54 (28" PVC)
S INV= 534.50 (28" PVC)

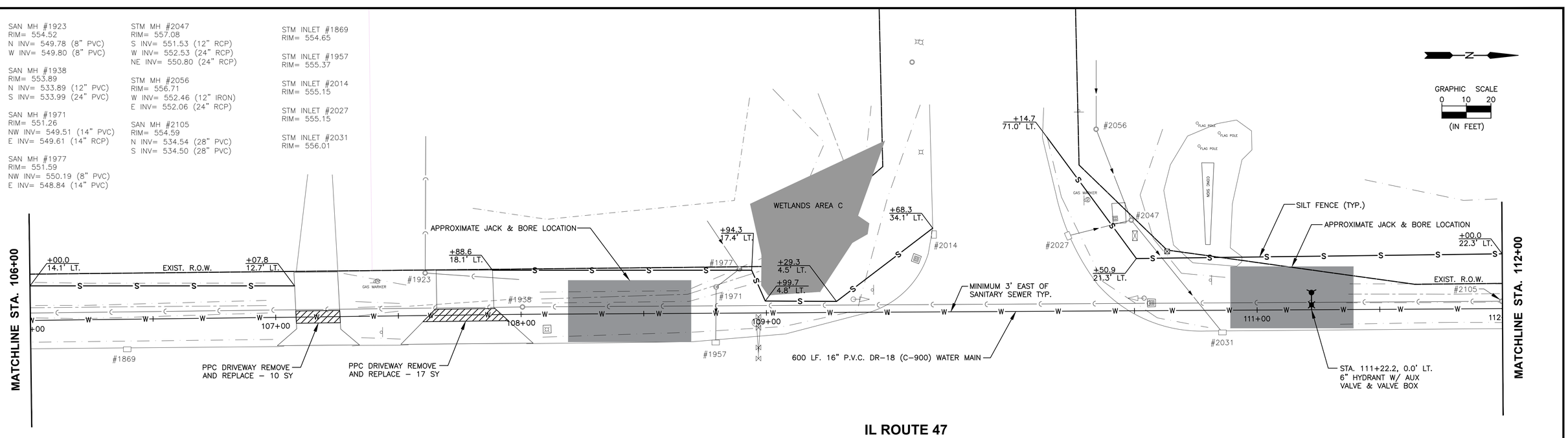
STM INLET #1869
RIM= 554.65

STM INLET #1957
RIM= 555.37

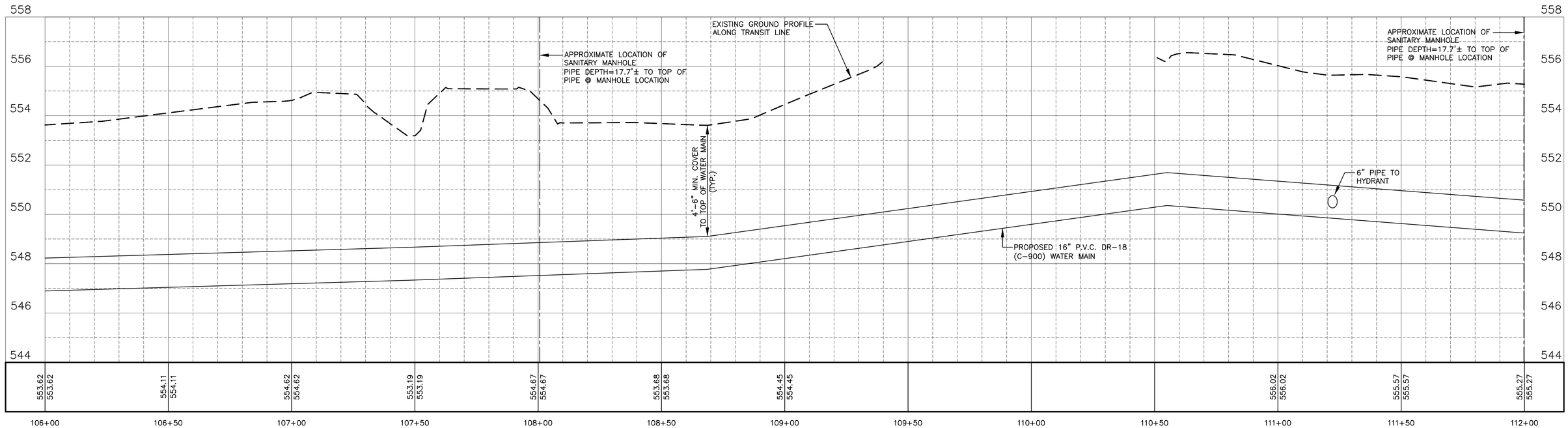
STM INLET #2014
RIM= 555.15

STM INLET #2027
RIM= 555.15

STM INLET #2031
RIM= 556.01



IL ROUTE 47



DRAWN BY: JJC	REVISIONS			PERU MORRIS OTTAWA MORTON ILLINOIS	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026	PLAN & PROFILE STA. 106+00 TO STA. 112+00	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION				SCALE: AS NOTED	SHEET 74
DATE: 11/2023								FILE NO.: 9818.02 Y–	OF 84

Chamlin & Associates

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\CVS\18-422-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\074-PP-106-112.dwg Last Modified: Wednesday, April 22, 2026 3:24:50 PM Plotted On: Friday, May 1, 2026 11:46:17 AM by Jonathon Covert

STM INLET #2120
RIM= 555.49

STM INLET #2130
RIM= 555.10

STM INLET #2149
RIM= 554.82

STM INLET #2160
RIM= 554.83

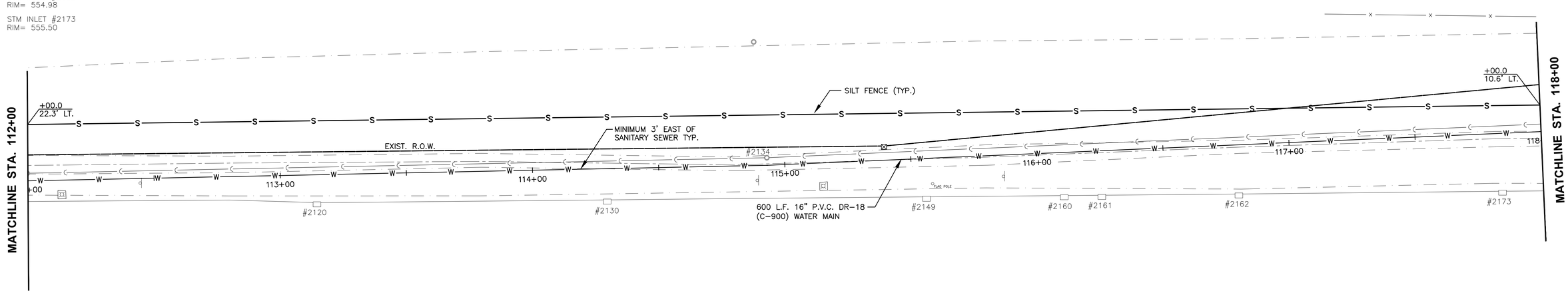
STM INLET #2161
RIM= 554.85

STM INLET #2162
RIM= 554.98

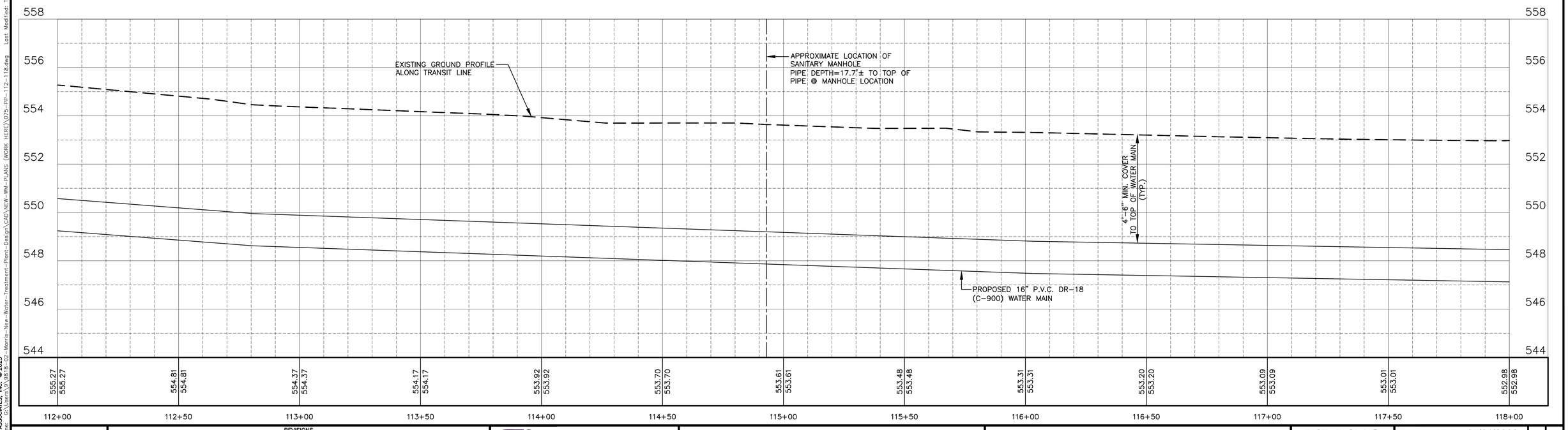
STM INLET #2173
RIM= 555.50

SAN MH #2134
RIM= 554.57
N INV= 535.22 (28" PVC)
S INV= 535.29 (28" PVC)

GRAPHIC SCALE
0 10 20
(IN FEET)



IL ROUTE 47



DRAWN BY: JJC	REVISIONS		
CHECKED BY: RTB	LEVEL / BY / DATE / DESCRIPTION		
DATE: 11/2023			

Chamlin & Associates

PERU MORRIS
OTTAWA MORTON
ILLINOIS

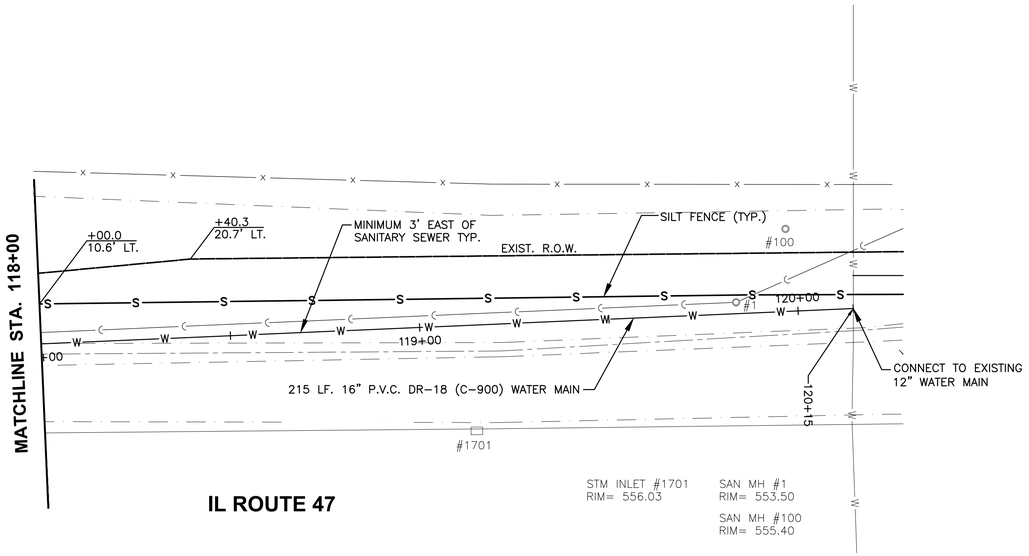
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

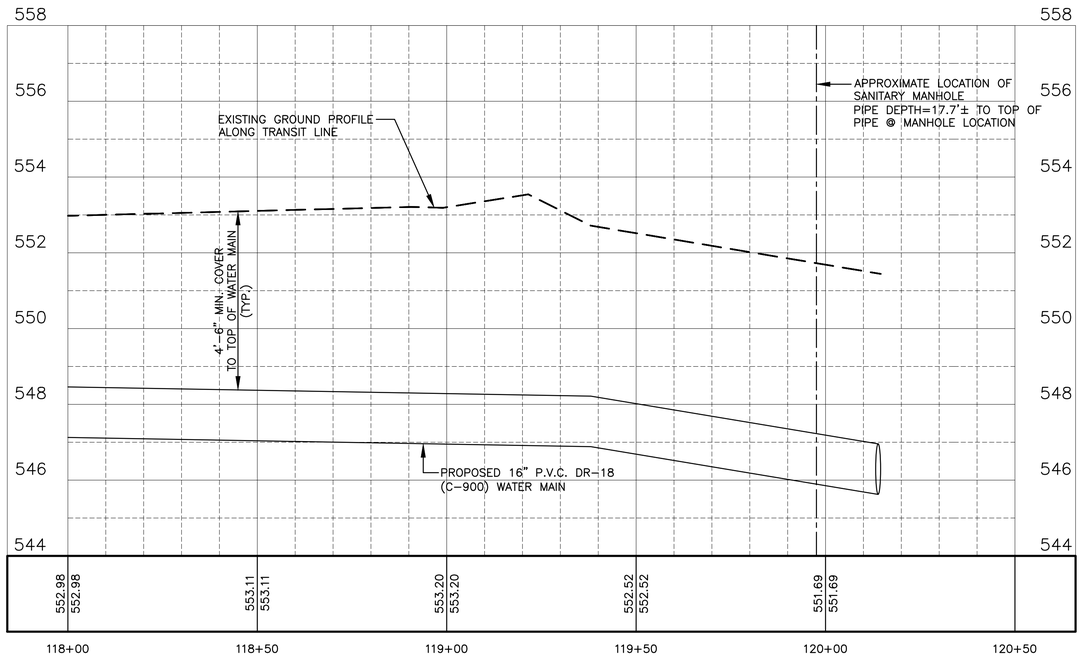
PLAN & PROFILE
STA. 112+00 TO STA. 118+00

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 75
FILE NO.: 9818.02 Y–
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\9818-22-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\075-PP-112-118.dwg Last Modified: Thursday, April 23, 2026 9:46:50 AM Plotted On: Friday, May 1, 2026 11:49:08 AM by Jonathon Covert





GRAPHIC SCALE
0 10 20
(IN FEET)

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

PERU MORRIS
OTTAWA MORTON
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

PLAN & PROFILE
STA. 118+00 TO STA. 124+00

BIDDING PLANS

CURRENT AS OF: 05/01/2026	
SCALE: AS NOTED	SHEET 76
FILE NO.: 9818.02 Y-	OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\9818-42-Morris-New Water Treatment Plant Design\CAD\NEW-WM-PLANS (WORK HERE)\076-PP-118-124.dwg Last Modified: Thursday, April 23, 2026 9:47:00 AM Plotted On: Friday, May 1, 2026 11:50:33 AM by Jonathon Covert

SAN MH #2
RIM= 551.95

SAN MH #3
RIM= 553.53

N

GRAPHIC SCALE
0 10 20
(IN FEET)

STA. 200+00.0, 0.0' LT.
CONNECT TO EXIST. 12" WM

+30.5
27.3' LT.

SILT FENCE (TYP.)

+00.0
18.9' LT.

EXIST. PERM. EASEMENT

#2

#3

201+00

202+00

203+00

204+00

205+00

206

+0.0
5.0' RT.

EXIST. R.O.W.

FL=549.48

STA. 200+52.5, 0.0' LT.
6" HYDRANT W/ AUX
VALVE & VALVE BOX

600 LF. 16" P.V.C. DR-18 (C-900) WATER MAIN

STA. 200+39.7, 0.0' LT.
22.5° BEND, 16" WM

STA. 200+14.7, 0.0' LT.
22.5° BEND, 16" WM

42"X78" BOX CULVERT

#2195

#6709

#6703

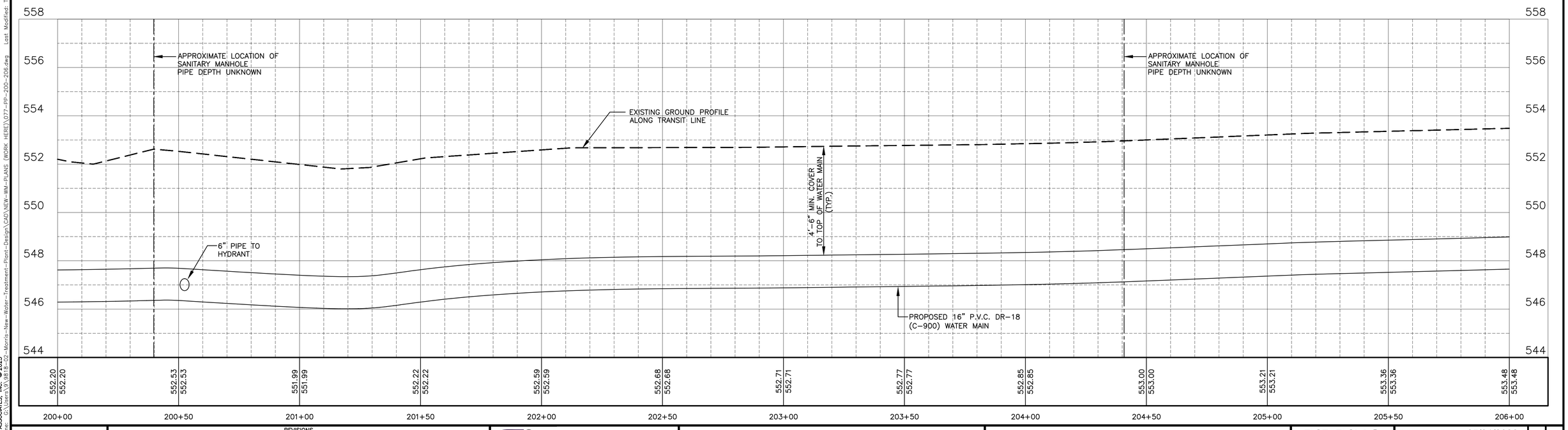
STM. INLET #2195
RIM= 556.78

STM. INLET #6709
RIM= 556.50

STM. INLET #6703
RIM= 556.11

MATCHLINE STA. 206+00

IL ROUTE 47



CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\9818-02-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\077-PP-200-206.dwg Last Modified: Thursday, April 23, 2026 9:49:31 AM Plotted On: Friday, May 1, 2026 11:56:29 AM by Jonathon Covert

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

PERU MORRIS
OTTAWA MORTON
ILLINOIS

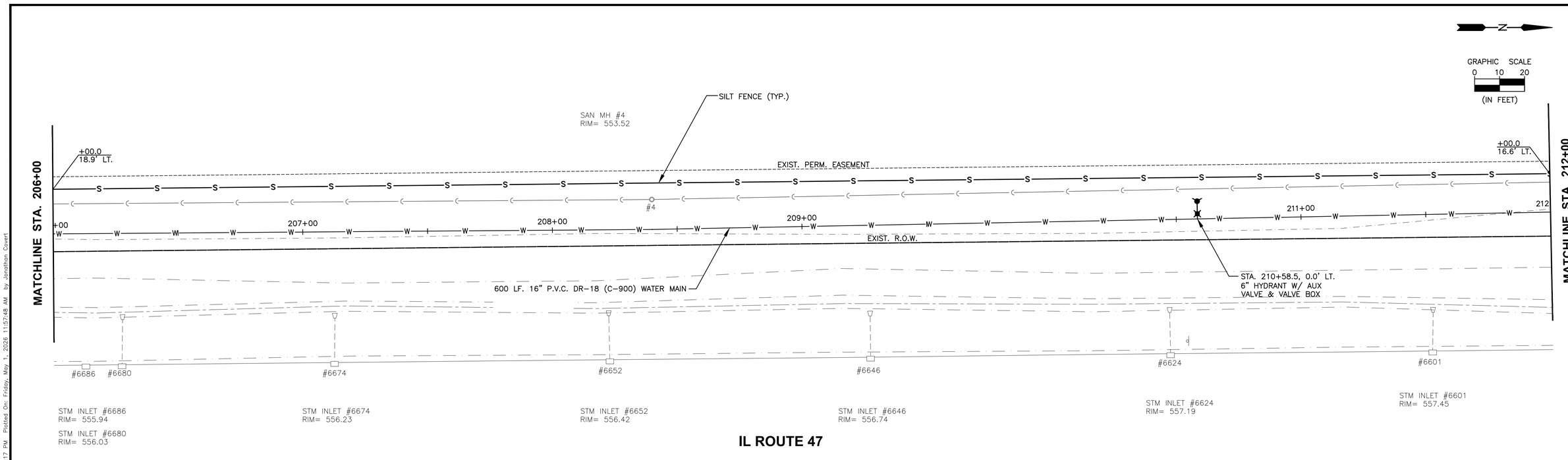
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

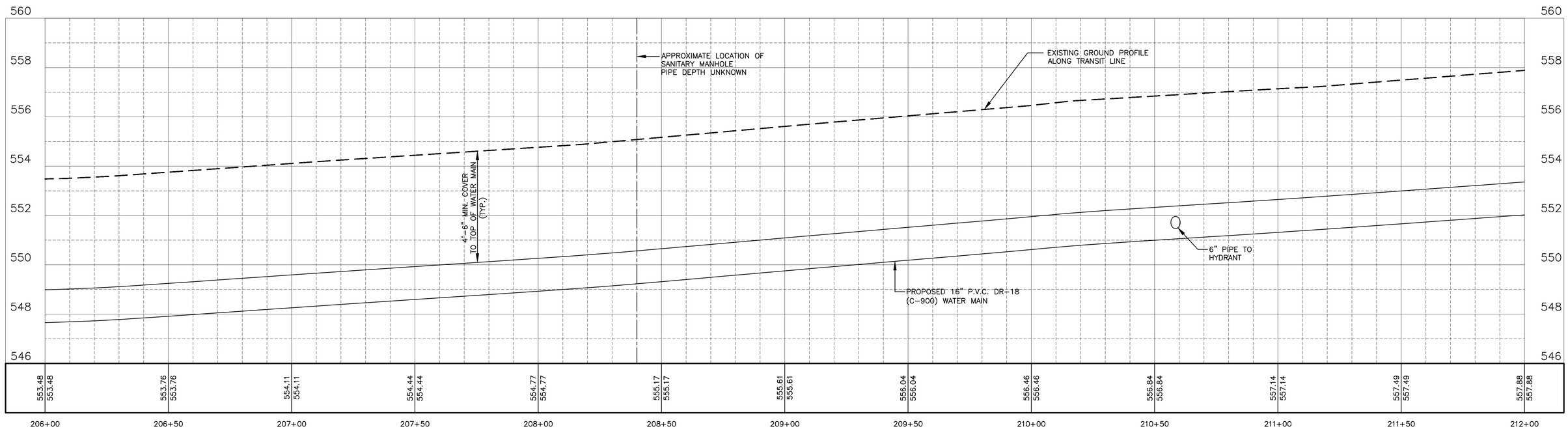
PLAN & PROFILE
STA. 200+00 TO STA. 206+00

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 77
FILE NO.: 9818.02 Y-
OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\CVS\18-422-Morris-New Water Treatment Plant Design\CAD\NEW-WM-PLANS (WORK HERE)\078-PP-206-212.dwg Last Modified: Wednesday, April 22, 2026 3:37:17 PM Plotted On: Friday, May 1, 2026 11:57:48 AM by Jonathon Covert





DRAWN BY: JJC	REVISIONS			PERU MORRIS OTTAWA MORTON ILLINOIS	CITY OF MORRIS NORTH WATER TREATMENT PLANT 2026	PLAN & PROFILE STA. 206+00 TO STA. 212+00	BIDDING PLANS	CURRENT AS OF: 05/01/2026	
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION				SCALE: AS NOTED	SHEET 78
DATE: 11/2023								FILE NO.: 9818.02 Y-	OF 84

Chamlin & Associates

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\9818-422-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\079-PP-212-218.dwg Last Modified: Thursday, April 23, 2026 10:08:23 AM Plotted On: Friday, May 1, 2026 11:59:13 AM by Jonathon Covert

SAN MH #5
RIM= 553.52

SAN MH #6
RIM= 558.87

SAN MH #7
RIM= 559.21
N INV= 539.69 (28" PVC)
S INV= 539.61 (28" PVC)

GRAPHIC SCALE
0 10 20
(IN FEET)

MATCHLINE STA. 212+00

MATCHLINE STA. 218+00

+00.0
15.4' LT.

SILT FENCE (TYP.)

EXIST. PERM. EASEMENT

EXIST. R.O.W.

GAS MARKER

600 L.F. 16" P.V.C. DR-18
(C-900) WATER MAIN

STA. 215+19.18, 0.0' LT.
45° BEND, 16" WM

STA. 215+55.33, 0.0' LT.
45° BEND, 16" WM

STA. 217+86.42, 0.0' LT.
45° BEND, 16" WM

STA. 217+56.59, 0.0' LT.
45° BEND, 16" WM

+00.0
19.0' LT.

TELEPHONE

PPC DRIVEWAY REMOVE
AND REPLACE - 13 SY

#5 #6 #7

#6594 #6580 #6564 #6533 #6492

STM INLET #6594
RIM= 557.83

STM INLET #6580
RIM= 558.26

STM INLET #6564
RIM= 558.53

STM INLET #6533
RIM= 558.87

STM INLET #6492
RIM= 559.44

IL ROUTE 47

564 562 560 558 556 554 552 550

APPROXIMATE LOCATION OF SANITARY MANHOLE PIPE DEPTH UNKNOWN

APPROXIMATE LOCATION OF SANITARY MANHOLE PIPE DEPTH UNKNOWN

APPROXIMATE LOCATION OF SANITARY MANHOLE PIPE DEPTH UNKNOWN

APPROXIMATE LOCATION OF TELEPHONE MANHOLE DEPTH UNKNOWN

EXISTING GROUND PROFILE ALONG TRANSIT LINE

4'-6" MIN. COVER TO TOP OF WATER MAIN (TYP.)

PROPOSED 16" P.V.C. DR-18
(C-900) WATER MAIN

557.88	558.23	558.54	558.65	558.61	558.68	558.73	558.57	558.75	559.47	559.38	558.89	559.04
557.88	558.23	558.54	558.65	558.61	558.68	558.73	558.57	558.75	559.47	559.38	558.89	559.04

212+00 212+50 213+00 213+50 214+00 214+50 215+00 215+50 216+00 216+50 217+00 217+50 218+00

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

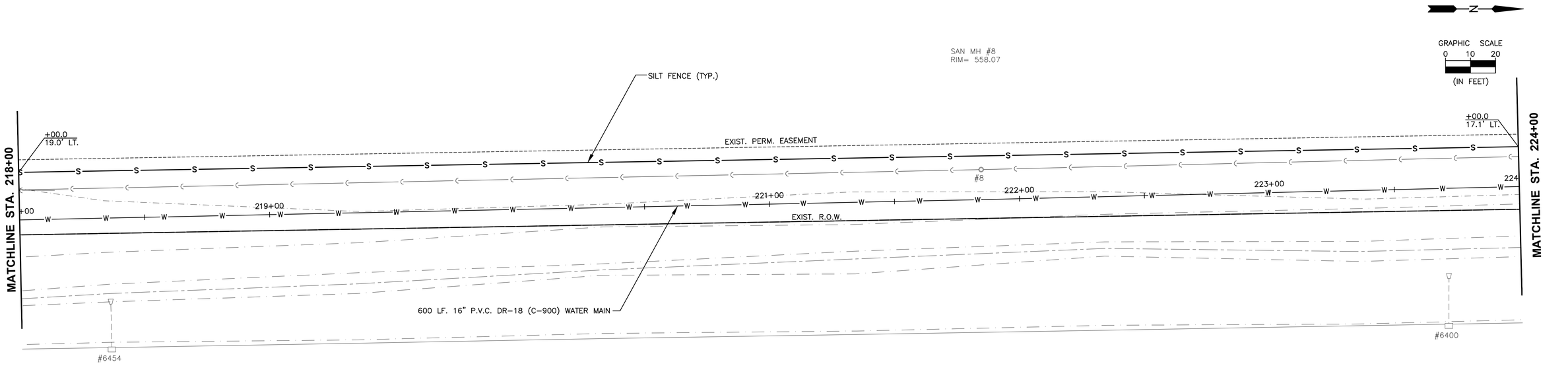
PERU MORRIS
OTTAWA MORTON
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

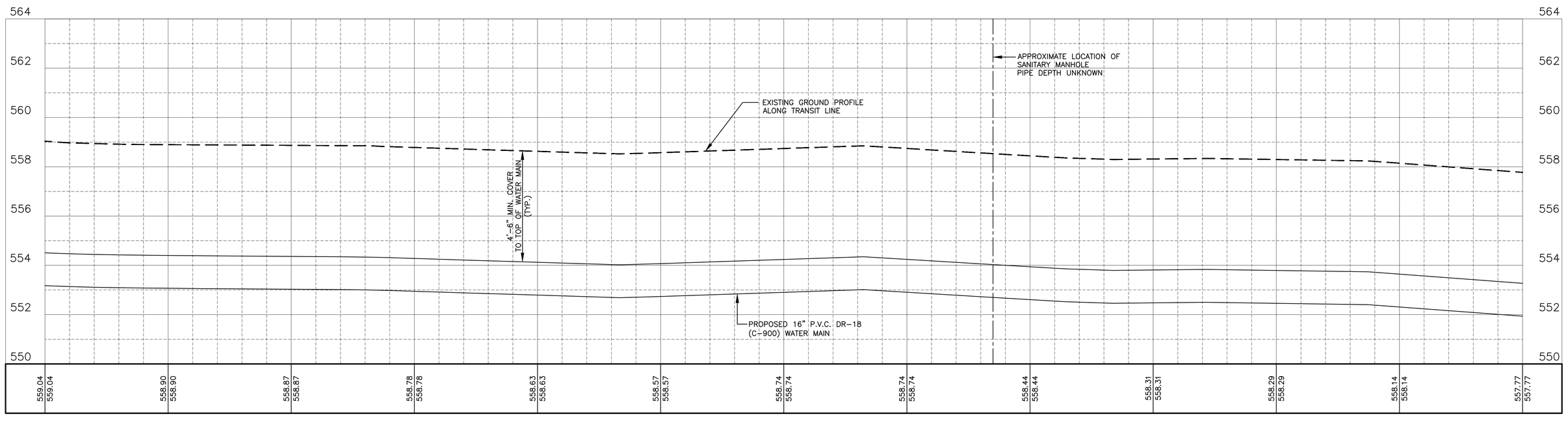
PLAN & PROFILE
STA. 212+00 TO STA. 218+00

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
FILE NO.: 9818.02 Y-
SHEET 79
OF 84



IL ROUTE 47



CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\KMS\18-432-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\080-PP-218-224.dwg Last Modified: Thursday, April 23, 2026 10:28:30 AM Plotted On: Friday, May 1, 2026 12:20:44 PM by Jonathon Covert

DRAWN BY: JJC	
CHECKED BY: RTB	
DATE: 11/2023	

REVISIONS

LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates

PERU MORRIS
OTTAWA MORTON
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

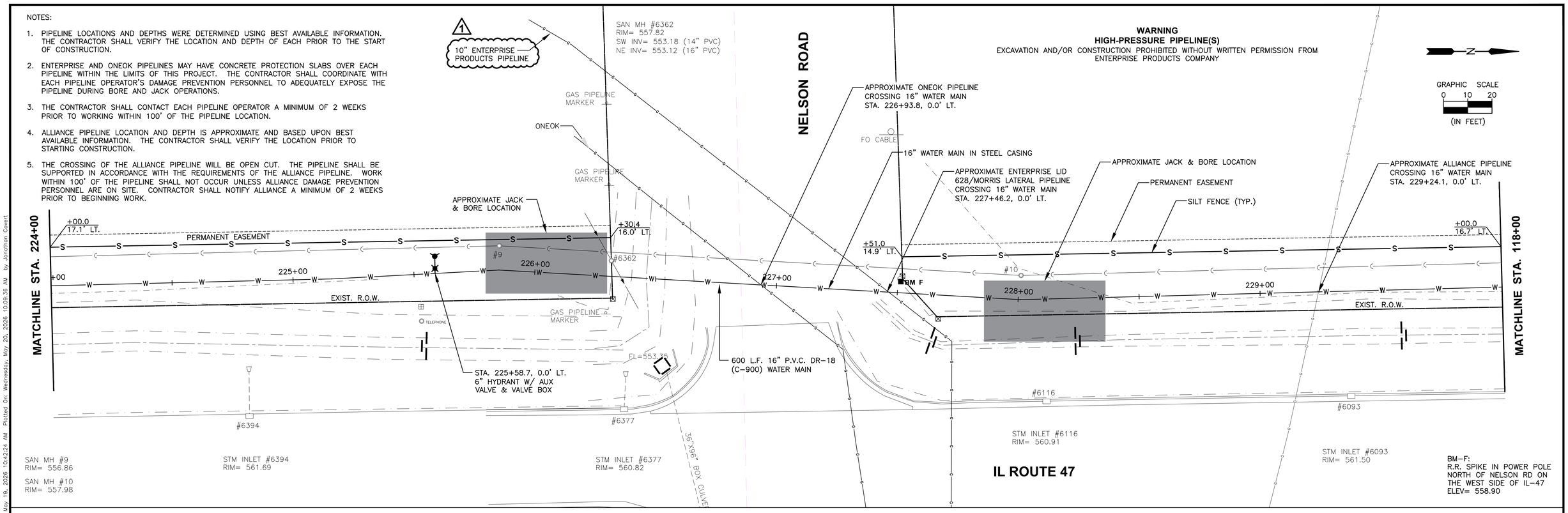
PLAN & PROFILE
STA. 218+00 TO STA. 224+00

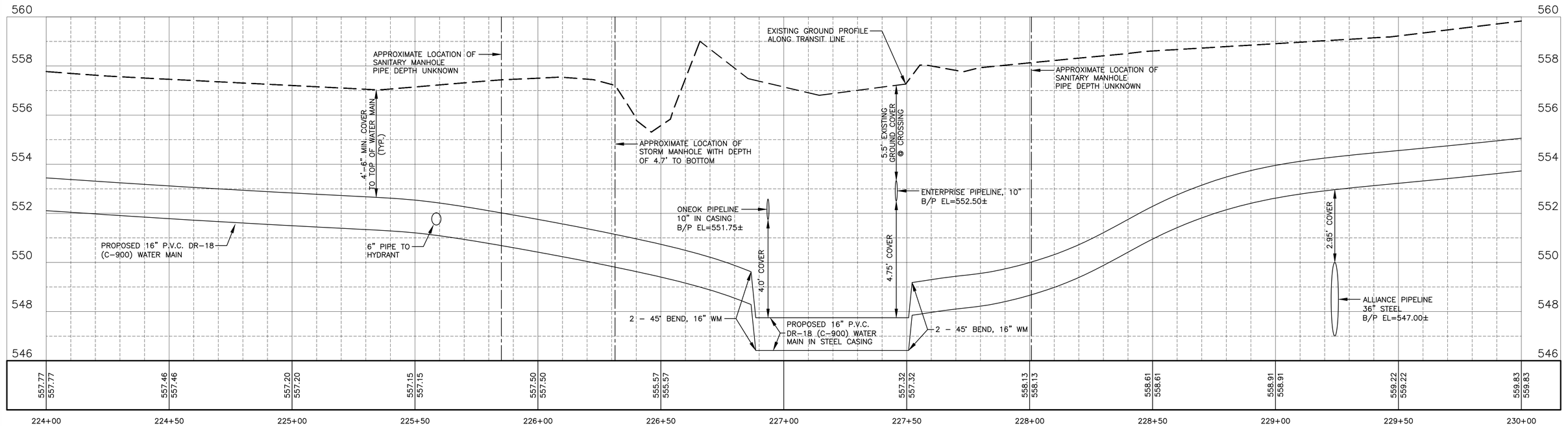
BIDDING PLANS

CURRENT AS OF: 05/01/2026	
SCALE: AS NOTED	SHEET 80
FILE NO.: 9818.02 Y-	OF 84

NOTES:

1. PIPELINE LOCATIONS AND DEPTHS WERE DETERMINED USING BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EACH PRIOR TO THE START OF CONSTRUCTION.
2. ENTERPRISE AND ONEOK PIPELINES MAY HAVE CONCRETE PROTECTION SLABS OVER EACH PIPELINE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE WITH EACH PIPELINE OPERATOR'S DAMAGE PREVENTION PERSONNEL TO ADEQUATELY EXPOSE THE PIPELINE DURING BORE AND JACK OPERATIONS.
3. THE CONTRACTOR SHALL CONTACT EACH PIPELINE OPERATOR A MINIMUM OF 2 WEEKS PRIOR TO WORKING WITHIN 100' OF THE PIPELINE LOCATION.
4. ALLIANCE PIPELINE LOCATION AND DEPTH IS APPROXIMATE AND BASED UPON BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE LOCATION PRIOR TO STARTING CONSTRUCTION.
5. THE CROSSING OF THE ALLIANCE PIPELINE WILL BE OPEN CUT. THE PIPELINE SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ALLIANCE PIPELINE. WORK WITHIN 100' OF THE PIPELINE SHALL NOT OCCUR UNLESS ALLIANCE DAMAGE PREVENTION PERSONNEL ARE ON SITE. CONTRACTOR SHALL NOTIFY ALLIANCE A MINIMUM OF 2 WEEKS PRIOR TO BEGINNING WORK.





CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\CVS\18-02-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\08-PP-224-230.dwg Last Modified: Tuesday, May 19, 2026 10:42:24 AM Plotted On: Wednesday, May 20, 2026 10:09:36 AM by Jonathon Covert

DRAWN BY:	JJC
CHECKED BY:	RTB
DATE:	11/2023

REVISIONS

LEVEL	BY	DATE	DESCRIPTION
1	JJC	05/20/26	ADDENDUM No. 1

Chamlin & Associates

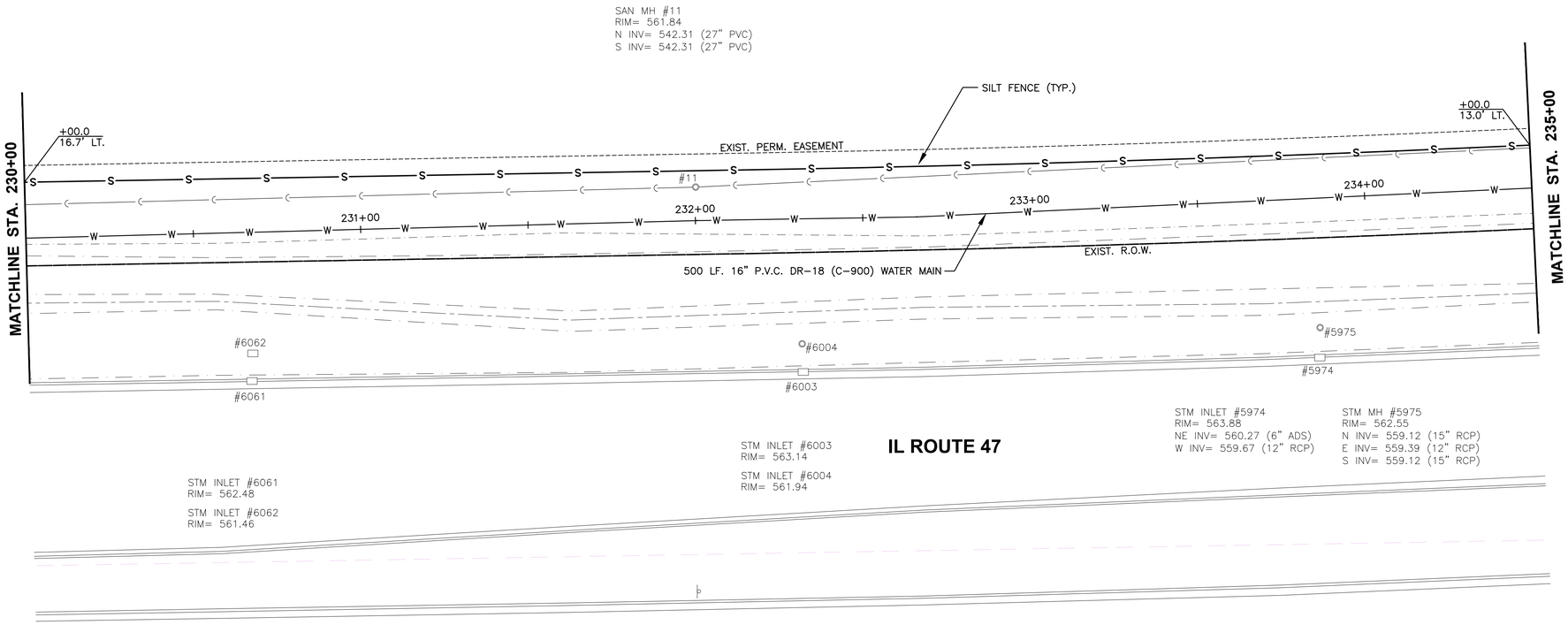
PERU MORRIS
OTTAWA MORTON
ILLINOIS

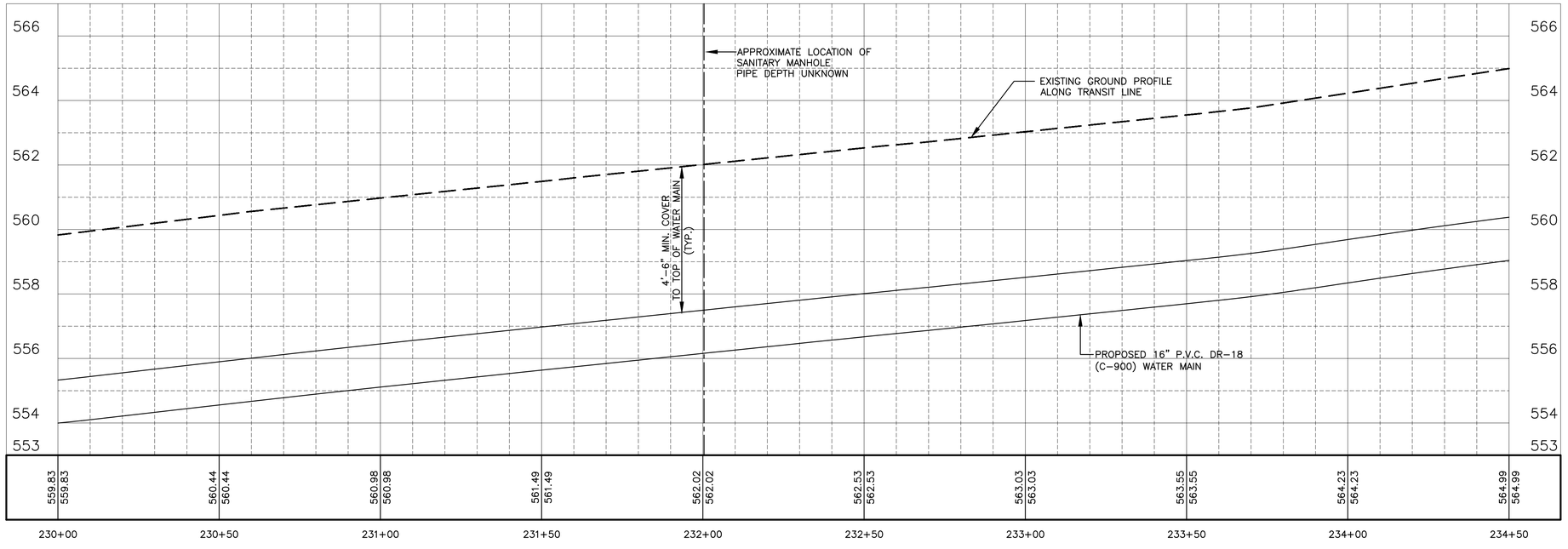
CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

PLAN & PROFILE
STA. 224+00 TO STA. 230+00

BIDDING PLANS

CURRENT AS OF:	05/01/2026
SCALE:	AS NOTED
SHEET	81
FILE NO.:	9818.02 Y-
OF	84





GRAPHIC SCALE
0 10 20
(IN FEET)

DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

PERU MORRIS
OTTAWA MORTON
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

PLAN & PROFILE
STA. 230+00 TO STA. 234+50

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED | SHEET 82
FILE NO.: 9818.02 Y- | OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: C:\Users\RTB\9818-02-Morris-New Water Treatment Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\082-PP-230-234+50.dwg Last Modified: Wednesday, April 22, 2026 4:26:05 PM Plotted On: Friday, May 1, 2026 1:21:35 PM by Jonathon Covert

SAN MH #12
RIM= 566.88
N INV= 542.09 (27" PVC)
S INV= 542.09 (27" PVC)

STM INLET #5907
RIM= 564.98
NW INV= 561.33 (6" ADS)
E INV= 560.89 (12" RCP)

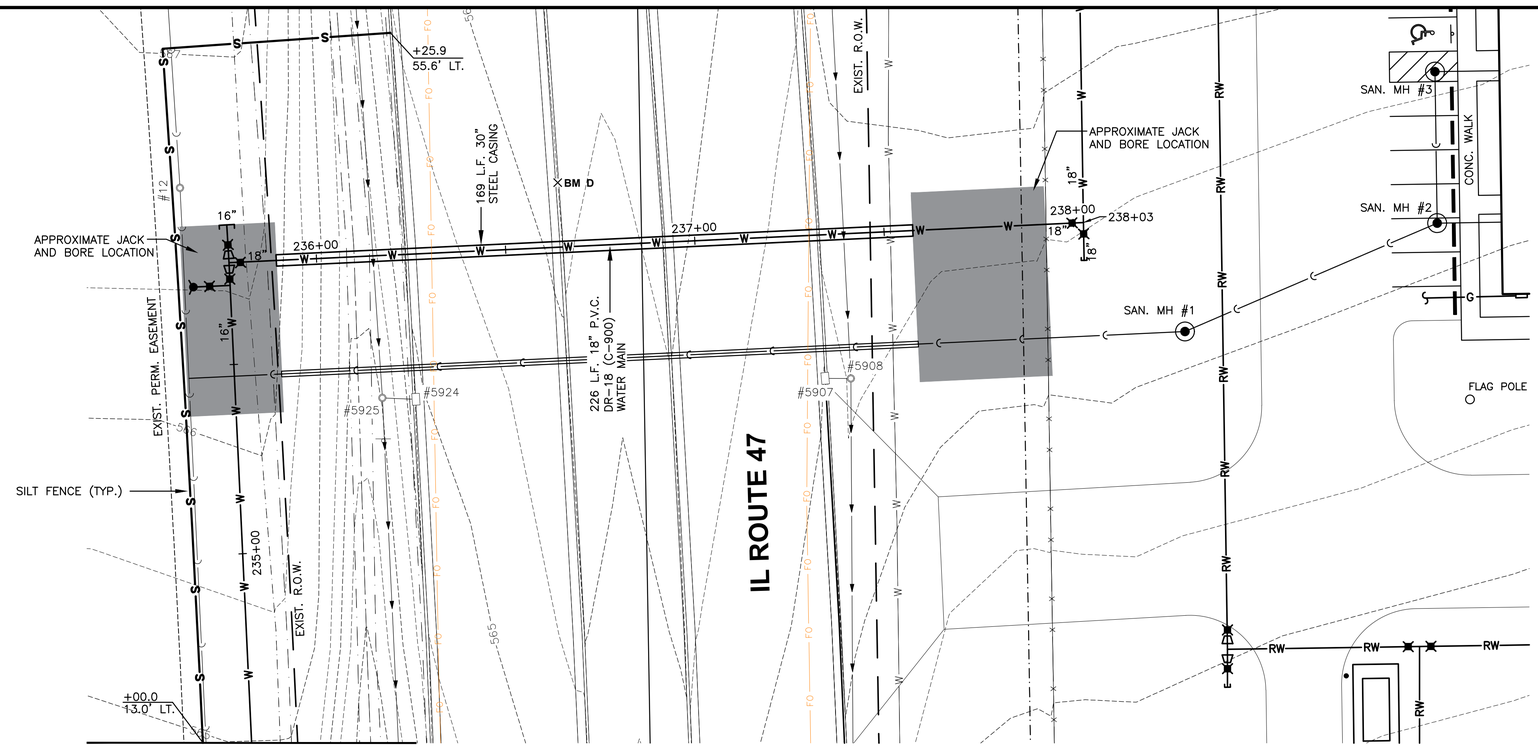
STM MH #5908
RIM= 565.60
N INV= 560.51 (12" PVC)
W INV= 560.74 (12" RCP)
S INV= 560.25 (15" PVC)

STM INLET #5924
RIM= 564.86
NE INV= 561.48 (6" ADS)
W INV= 560.58 (12" RCP)
E INV= 560.58 (12" RCP)

STM MH #5925
RIM= 564.03
N INV= 560.29 (12" RCP)
E INV= 560.43 (12" RCP)
S INV= 560.29 (15" RCP)

BM-D:
CHISELED "X" ON SOUTHBOUND IL-47
SHOULDER BETWEEN THE 6TH AND 7TH
CATCH BASIN NORTH OF NELSON RD
ELEV= 566.63

NOTE:
ALL UNDERGROUND PIPING, ELECTRICAL, OR COMMUNICATIONS LINES SHOWN ON THIS PLAN ARE NOT TO BE CONSIDERED ACCURATE. THE LINES SHOWN ARE LAID OUT FROM HISTORICAL DRAWINGS OF PAST PROJECTS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO GET ALL UNDERGROUND UTILITIES LOCATED BY WHAT EVER MEANS NECESSARY. THE OWNER OR ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR ANY LINE OR PIPE ENCOUNTERED THAT IS NOT INDICATED ON THIS OR ANY OTHER DRAWING FOR THIS PROJECT.



MATCHLINE STA. 234+50

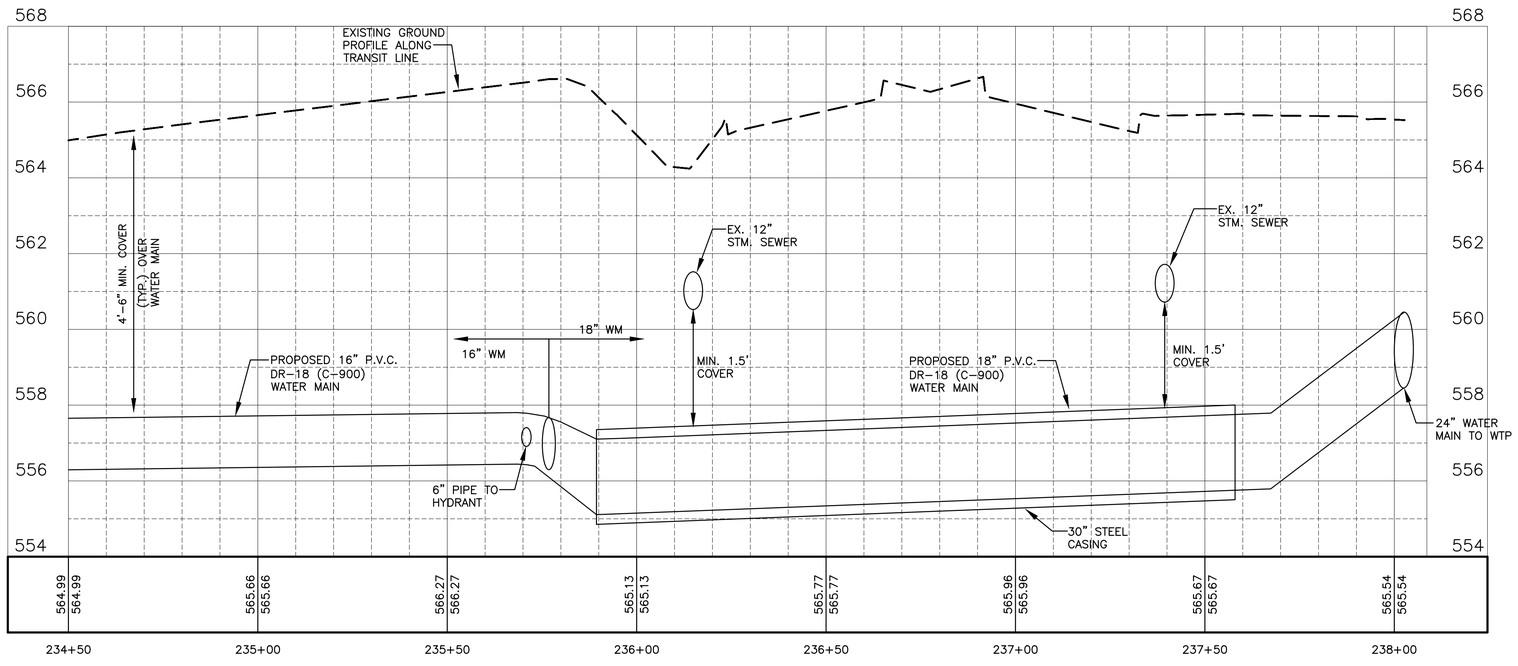
GRAPHIC SCALE
0 10 20
(IN FEET)

N

SAN. MH #1
5' DIA TY A, FLAT SLAB TOP
TY. 1 FR @ C LID
RIM= 565.10
NE INV= 555.75 (8" PVC)
W INV= 555.79 (8" PVC)

SAN. MH #2
5' DIA TY A, FLAT SLAB TOP
TY. 1 FR @ C LID
RIM= 565.27
N INV= 558.76 (8" PVC)
E INV= 557.50 (6" PVC)
SW INV= 556.89 (8" PVC)

SAN. MH #3
5' DIA TY A, FLAT SLAB TOP
TY. 1 FR @ C LID
RIM= 565.50
E INV= 561.03 (6" PVC)
S INV= 559.16 (8" PVC)



DRAWN BY: JJC	REVISIONS			
CHECKED BY: RTB	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/2023				

Chamlin & Associates

PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

PLAN & PROFILE
STA. 234+50 TO STA. 238+03

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED | SHEET 83
FILE NO.: 9818.02 Y- | OF 84

CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\9818-02-Morris-New Water Treatment Plant Design\CAD\NEW WM PLANS (WORK HERE)\083- PP- 234+50-238+09.dwg Last Modified: Thursday, April 23, 2026 10:29:29 AM Plotted On: Friday, May 1, 2026 1:28:18 PM by Jonathon Covert

NOTE:
COVER OVER EXISTING WATER MAIN IS UNKNOWN

ALL UNDERGROUND PIPING, ELECTRICAL, OR COMMUNICATIONS LINES SHOWN ON THIS PLAN ARE NOT TO BE CONSIDERED ACCURATE. THE LINES SHOWN ARE LAID OUT FROM HISTORICAL DRAWINGS OF PAST PROJECTS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO GET ALL UNDERGROUND UTILITIES LOCATED BY WHAT EVER MEANS NECESSARY. THE OWNER OR ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR ANY LINE OR PIPE ENCOUNTERED THAT IS NOT INDICATED ON THIS OR ANY OTHER DRAWING FOR THIS PROJECT.

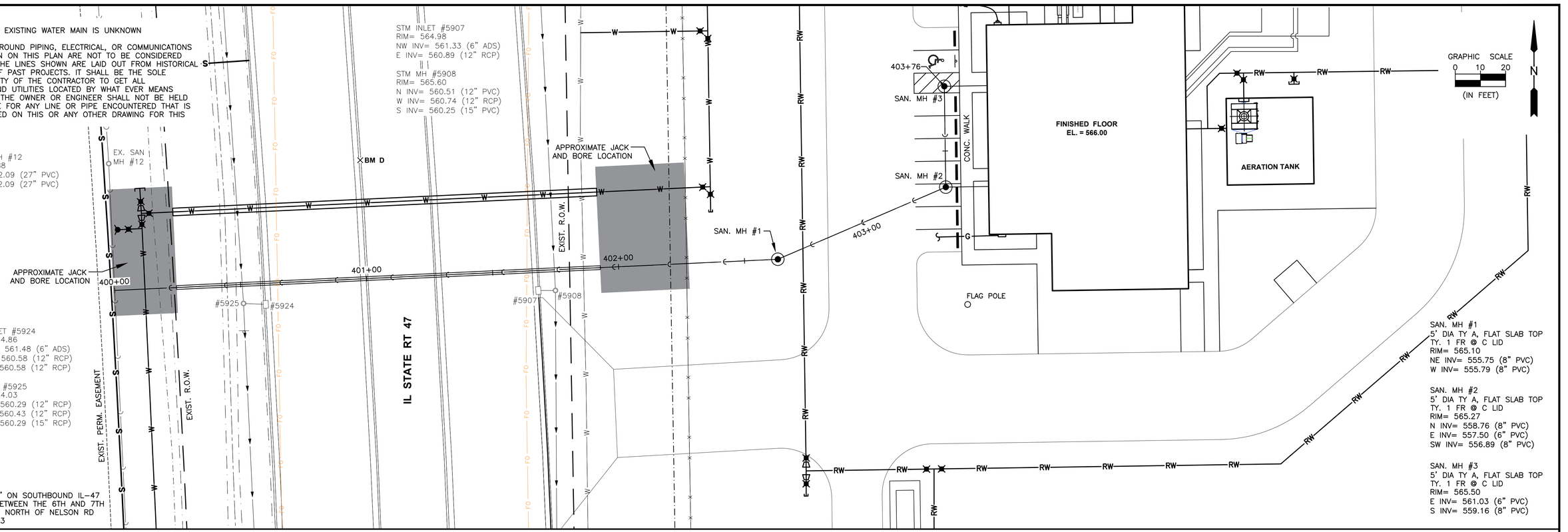
EX. SAN MH #12
RIM= 566.88
N INV= 542.09 (27" PVC)
S INV= 542.09 (27" PVC)

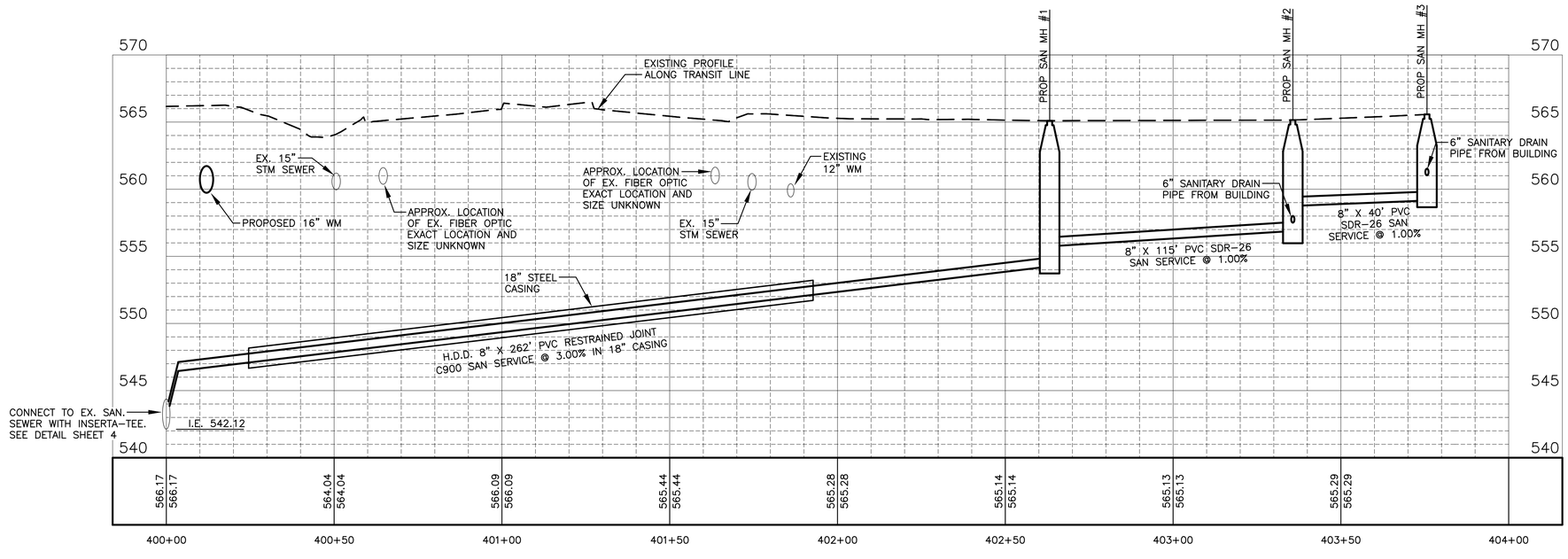
STM INLET #5907
RIM= 564.98
NW INV= 561.33 (6" ADS)
E INV= 560.89 (12" RCP)
STM MH #5908
RIM= 565.60
N INV= 560.51 (12" PVC)
W INV= 560.74 (12" RCP)
S INV= 560.25 (15" PVC)

STM INLET #5924
RIM= 564.86
NE INV= 561.48 (6" ADS)
W INV= 560.58 (12" RCP)
E INV= 560.58 (12" RCP)

STM MH #5925
RIM= 564.03
N INV= 560.29 (12" RCP)
E INV= 560.43 (12" RCP)
S INV= 560.29 (15" RCP)

BM-D:
CHISELEC "X" ON SOUTHBOUND IL-47 SHOULDER BETWEEN THE 6TH AND 7TH CATCH BASIN NORTH OF NELSON RD
ELEV= 566.63





CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: G:\Users\9818-402-Morris-New-Water-Treatment-Plant-Design\CAD\NEW-WM-PLANS (WORK HERE)\084-PP-400-403+76.dwg Last Modified: Friday, April 24, 2026 10:49:28 AM Plotted On: Friday, May 1, 2026 1:36:52 PM by Jonathon Covert

DRAWN BY: JJC
CHECKED BY: RTB
DATE: 11/2023

REVISIONS			
LEVEL	BY	DATE	DESCRIPTION

Chamlin & Associates
PERU MORRIS
OTTAWA
ILLINOIS

CITY OF MORRIS
NORTH WATER TREATMENT PLANT
2026

SAN. SEWER PLAN & PROFILE
STA. 400+00 TO STA. 402+62

BIDDING PLANS

CURRENT AS OF: 05/01/2026
SCALE: AS NOTED
SHEET 84
FILE NO.: 9818.02 Y-
OF 84