



Legal Counsel.

DINSMORE & SHOHL LLP
255 E. Fifth St., Suite 1900
Cincinnati, OH 45202
www.dinsmore.com

Michael A. Huber
(513) 639-9212 (direct) · (513) 977-8141 (fax)
Michael.Huber@dinsmore.com

June 16, 2025

VIA: ELECTRONIC MAIL

City of Franklin, Ohio
Building & Zoning Division
1 Benjamin Franklin Way
Franklin, OH 45005
Attn: Christina Barry, PE

RE: Final Development Plan (PC 25-60) and Preliminary Plat (PC 25-61) Applications –
Shaker Farms

Applicant's Response to City's Engineering Review Letters dated May 13, 2025

Ms. Barry:

I am in receipt of your letters dated May 13, 2025 (collectively, the "Review Letters") containing the City of Franklin's (the "City") comments to Forestar (USA) Real Estate Development Group Inc.'s ("Applicant") initial Final Development Plan (the "FDP") and Preliminary Plat (the "Plat") applications. Applicant is providing this letter ("Forestar's Response") in order to address the comments made by the City in the Review Letters. Enclosed herewith, please find copies of the FDP and the Plat, which have been revised as indicated below.

For purposes of convenience, Forestar's Response will track and respond to the City's comments in the Review Letters in the order set forth therein:

PC 25-60: Final Development Plan – Shaker Farms, Phases 1, 2 & 3

1. The FDP and the Plat have been revised to match the City's Construction Standards and Specifications typical section for Local Roads.
2. The street sections and utility layouts have been revised in the FDP and the Plat to meet the City's Standard Construction Drawings and Specifications, aside from storm sewer, which remains primarily under the curb per Applicant's discussion with the City on May 28th, 2025.
3. Perimeter sidewalks around amenities and ponds are being constructed as shown on the FDP and the Plat.

PC 25-61: Preliminary Plat – Shaker Farms

1. The FDP and the Plat have been revised to reflect Applicant's suggested street names.
2. A homeowner's association will be formed to maintain all open land and recreational spaces associated with the development. Enclosed herewith please find a draft of the Declaration of Covenants, Conditions and Restrictions for the Shaker Farms Homeowner's Association. No fee in lieu of parkland dedication is necessary here, as Applicant is dedicating more than the requisite amount of open space as parkland to the City, as seen in the FDP and the Plat.
3. The width of all public rights-of-way in the development is 50', per Applicant's discussion with the City on May 28th, 2025.
4. Except as noted above, sanitary sewers, storm sewers, and watermain have been relocated to comply with the City's Standard Construction Drawings and Specifications.

Please do not hesitate to contact me if there are further questions on the above. My client and I look forward to working with the City on this exciting project.

Very truly yours,



Michael A. Huber
Counsel for Forestar

MAH
enclosures
61864652.1

cc: **VIA: ELECTRONIC MAIL**

Jonathan Westendorf (jwestendorf@franklinohio.org)
Amber Copenhaver (acopenhaver@franklinohio.org)
Mark Connor (MarkConnor@forestar.com)
Brad Robbins (BradRobbins@forestar.com)
Braxten Affleck Lutomski (BraxtenLutomski@forestar.com)
Jon Buchanan (jon.buchanan@cesoinc.com)
Justin Elam (justin.elam@cesoinc.com)
Charles E. Baverman III (charlie.baverman@dinsmore.com)

DEVELOPER:
FORESTAR
9292 N. MERIDIAN STREET, SITE 211
INDIANAPOLIS, IN 46260
PHONE: (317) 754-6951

OWNER:
MARY L. WERLINE, ETAL
5764 SHAKER RD.
FRANKLIN OH 45005

SURVEY PROVIDED BY:
CESO, INC.
3601 RIGBY ROAD
MIAMISBURG, OH 45342
PHONE: (937) 435-8584
CONTACT: SEAN BROOKS, P.S.

ENGINEER:
CESO, INC.
3601 RIGBY ROAD, SUITE 300
MIAMISBURG, OH 45342
PHONE: (937) 435-8584
CONTACT: JUSTIN ELAM, P.E.

CONTRACTOR TO VERIFY EXISTING
CONDITIONS PRIOR TO BID AND
CONSTRUCTION.

GOVERNING AGENCIES AND UTILITY COMPANIES:

WATER & SEWER:

CITY OF FRANKLIN
1 BENJAMIN FRANKLIN WAY,
FRANKLIN, OH 45005
PHONE: (937) 746-9921

GAS SERVICE:

DUKE ENERGY
139 E 4TH ST, CINCINNATI, OH 45202
PHONE: (800) 544-6900

ZONING:

CITY OF FRANKLIN
1 BENJAMIN FRANKLIN WAY, FRANKLIN,
OH 45005
PHONE: (937) 746-9921

PHONE SERVICES:

AT&T
1525 GENNTOWN DR A1,
LEBANON, OH 45036
PHONE: (513) 228-2111

ELECTRIC:

DUKE ENERGY
139 E. 4TH ST, CINCINNATI, OH 45202
PHONE: (800) 544-6900

SPECTRUM

4352 YOUNGSTOWN RD SE
WARREN, OH 44484
PHONE: (866) 874-2389

SITE DATA:

ZONING: PUD
TOTAL ACREAGE: 109.50 AC

PHASE 1

AREA: 6.05 AC
SINGLE FAMILY LOTS: 22
OPEN SPACE LOTS: 2
OPEN SPACE AREA: 0.17 AC

PHASE 2

AREA: 15.51 AC
SINGLE FAMILY LOTS: 46
OPEN SPACE LOTS: 2
OPEN SPACE AREA: 4.77 AC

PHASE 3

AREA: 6.10 AC
SINGLE FAMILY LOTS: 38
OPEN SPACE LOTS: N/A
OPEN SPACE AREA: N/A

BUILDING SETBACKS:

FRONT: 25' MIN/
SIDE: 5' 10' TOTAL
REAR: 25' MIN.

BENCHMARKS (NAD 83):

A- CHISELED X ON FIRE HYDRANT BOLT. HYDRANT LOCATED ON THE EAST EDGE OF PAVEMENT
OF SHAKER ROAD NEAR THE NORTHWEST CORNER OF THE SITE.
ELEV = 818.59

B- SPIKE IN A TELEPHONE POLE. POLE LOCATED ON THE WEST EDGE OF PAVEMENT OF SHAKER
ROAD AT THE SOUTHWEST CORNER OF THE INTERSECTION OF MANCHESTER ROAD AND SHAKER
ROAD.
ELEV=861.08

C- SPIKE IN A TELEPHONE POLE. POLE LOCATED ON THE SOUTH EDGE OF PAVEMENT OF
MANCHESTER ROAD.
ELEV=889.37

D- CHISELD X ON FIRE HYDRANT BOLT. HYDRANT LOCATED ON THE WEST EDGE OF PAVEMENT
AND GRAVEL SPLIT. BETWEEN HOUSES #4982 & #4990 ON ACCESS ROAD OFF MANCHESTER
ROAD.
ELEV=863.92

UTILITY DISCLAIMER:

THE UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY
INFORMATION AND/OR EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE
THAT THE UTILITIES LOCATED HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA,
EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT
THAT THE UTILITIES LOCATED ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE
DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM
INFORMATION AVAILABLE.

FLOOD ZONE STATEMENT:

BY INFORMATION PROVIDED BY FEMA FLOOD MAP SERVICE CENTER, THIS PROPERTY
WAS FOUND TO BE LOCATED WITHIN FLOOD ZONE X. AREAS DETERMINED TO BE
OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, BY THE FLOOD INSURANCE
RATE MAP, COMMUNITY PANEL NO. 39165C0018E, WHICH BEARS AN EFFECTIVE DATE
OF DECEMBER 17, 2010

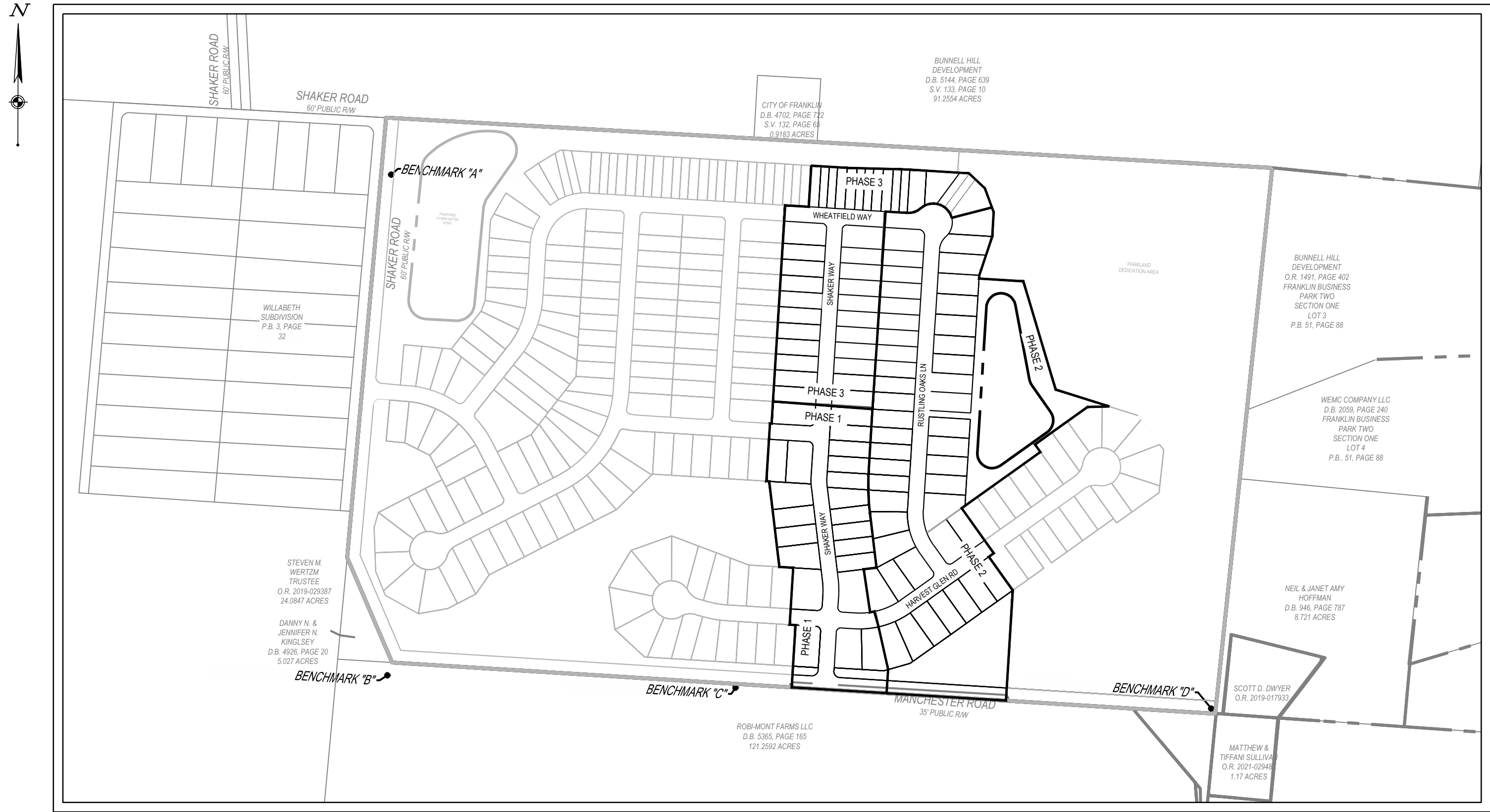
FINAL DEVELOPMENT PLAN

SHAKER FARMS
PHASES 1, 2 & 3

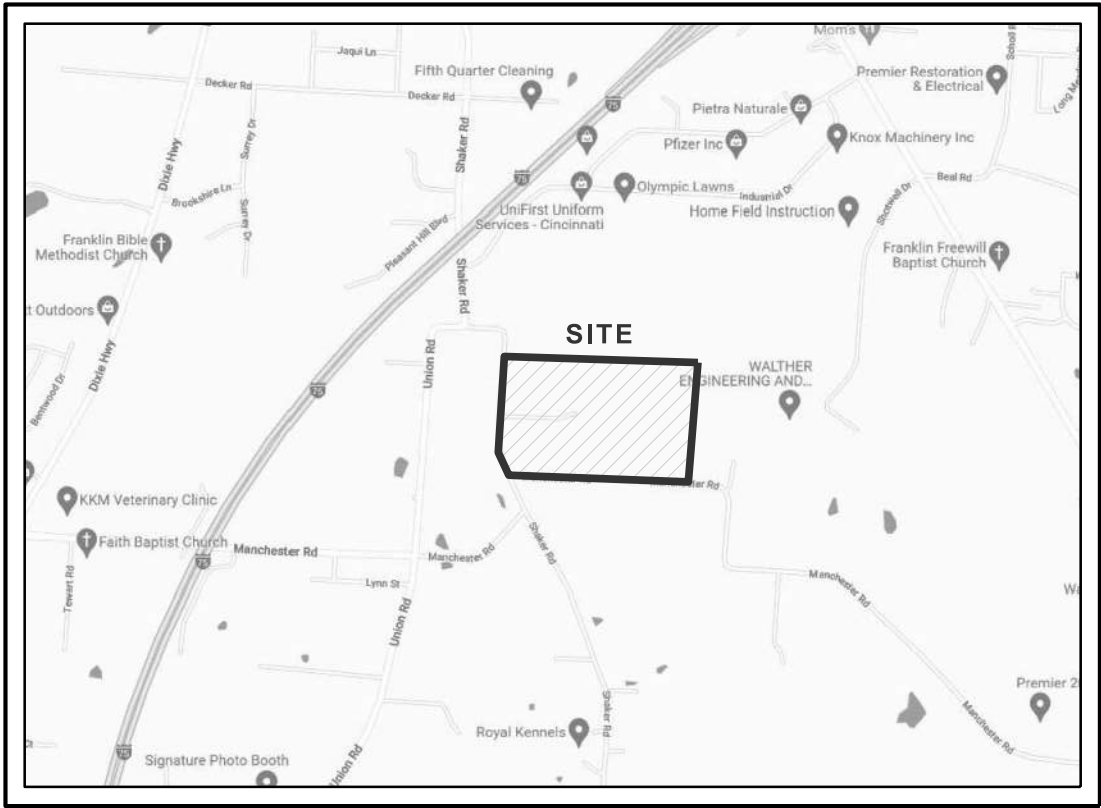
JUNE 13 2025

STATE OF OHIO, COUNTY OF WARREN, CITY OF FRANKLIN

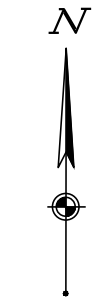
SECTION 35, TOWN 3, RANGE 4 M.Rs.



INDEX MAP
SCALE: 1"=300'

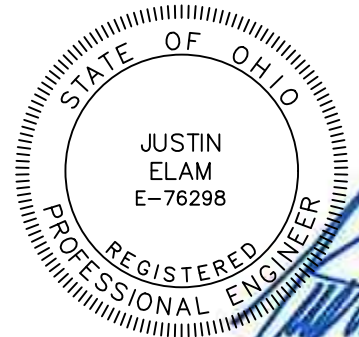


VICINITY MAP
NTS



APPROVED BY:
SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND GENERAL LOCATION OF
THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLAN

CITY OF FRANKLIN DATE



JUSTIN ELAM, P.E.
OHIO RSTERED ENGINEER No. E-76298

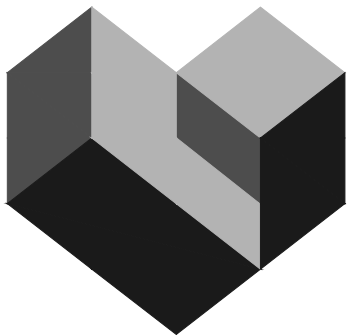
06/16/2025

DATE

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	DETAILS AND NOTES
3	DETAILS AND NOTES
4	DETAILS AND NOTES
5	DETAILS AND NOTES
6	EXISTING CONDITIONS & DEMO
7	EXISTING CONDITIONS & DEMO (2)
8	OVERALL UTILITY PLAN
9	UTILITY PLAN
10	UTILITY PLAN
11	UTILITY OFFSITE CONNECTION PLAN
12	HARVEST GLEN RD PLAN & PROFILE
13	SHAKER WAY PLAN & PROFILE
14	SHAKER WAY PLAN & PROFILE
15	RED BARN LANE PLAN & PROFILE
16	RUSTLING OAKS LN PLAN & PROFILE
17	RUSTLING OAKS LN PLAN & PROFILE
18	WHEATFIELD WAY PLAN & PROFILE
19	OFFSTREET PROFILES
20	OFFSTREET PROFILES
21	OFFSTREET PROFILES
22	OFFSTREET PROFILES
23	OFFSTREET PROFILES
24	OFFSTREET PROFILES
25	OFFSTREET PROFILES
26	OFFSTREET PROFILES
27	OFFSTREET PROFILES
28	GRADING & EROSION CONTROL PLAN - PH I
29	GRADING & EROSION CONTROL PLAN - PH I
30	GRADING & EROSION CONTROL PLAN - PH II
31	GRADING & EROSION CONTROL PLAN - PH II
32	BASIN DETAILS
33	SWPPP NOTES
34	SWPPP DETAILS
35	SWPPP DETAILS
36	LANDSCAPE PLAN
37	SIGNAGE DETAIL
38	PLANTING DETAILS AND NOTES



FORTY- EIGHT (48) HOURS
BEFORE DIGGING IS TO
COMMENCE, THE CONTRACTORS
SHALL NOTIFY THE FOLLOWING
AGENCIES: OHIO UTILITIES
PROTECTION SERVICE AT 811 OR
800-362-2764 AND ALL OTHER
AGENCIES WHICH MIGHT HAVE
UNDERGROUND UTILITIES
INVOLVING THIS PROJECT AND
ARE NONMEMBERS OF STATE
UTILITIES PROTECTION SERVICE



WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Miamisburg, OH 45342
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS
DOCUMENT IS PRELIMINARY AND
IS NOT TO BE USED FOR
CONSTRUCTION OR FOR
PURPOSES OF REPRESENTATION

FORESTAR

SHAKER FARMS
PH 1, 2 & 3

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

© 2025 CESO, INC.

Project Number: 763884

Scale: AS SHOWN

Drawn By: SCR

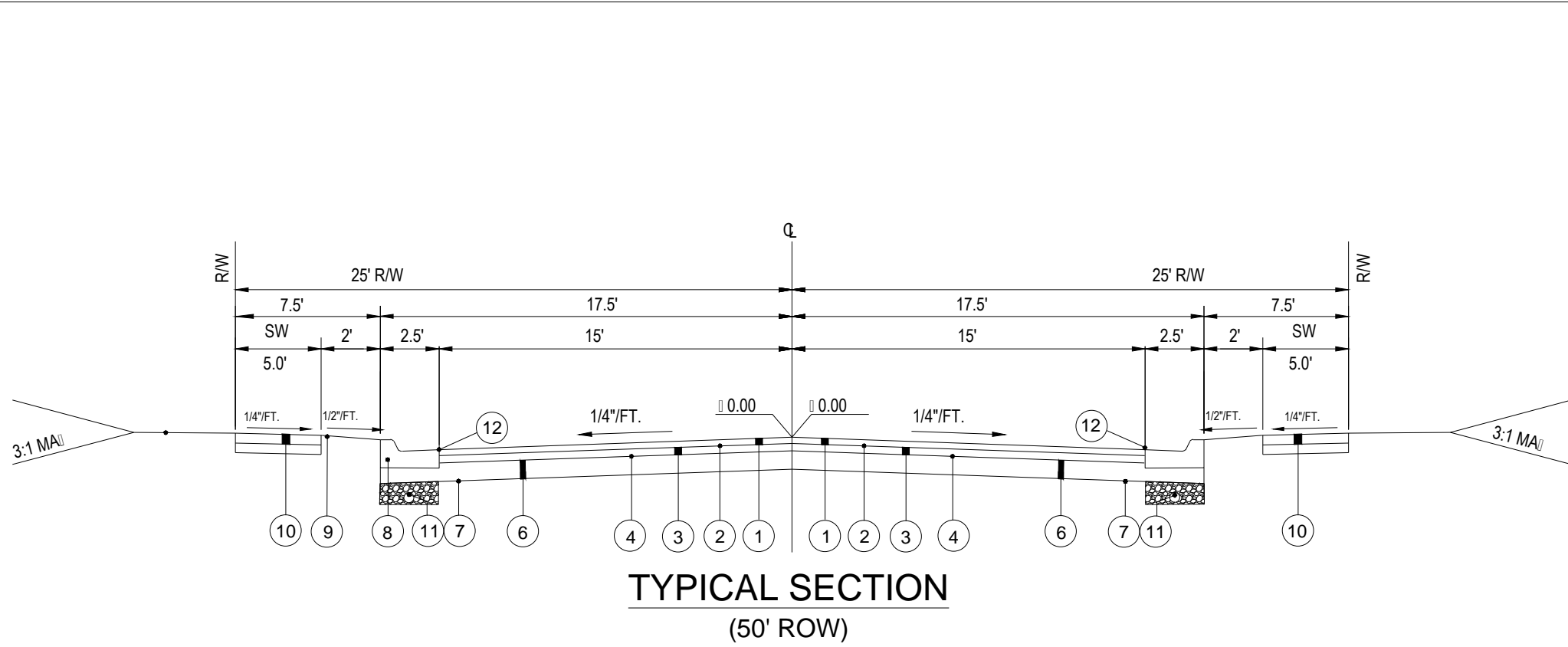
Checked By: JEE

Date: JUNE 16, 2025

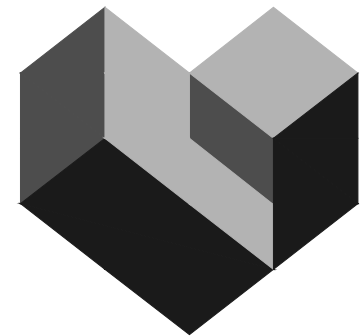
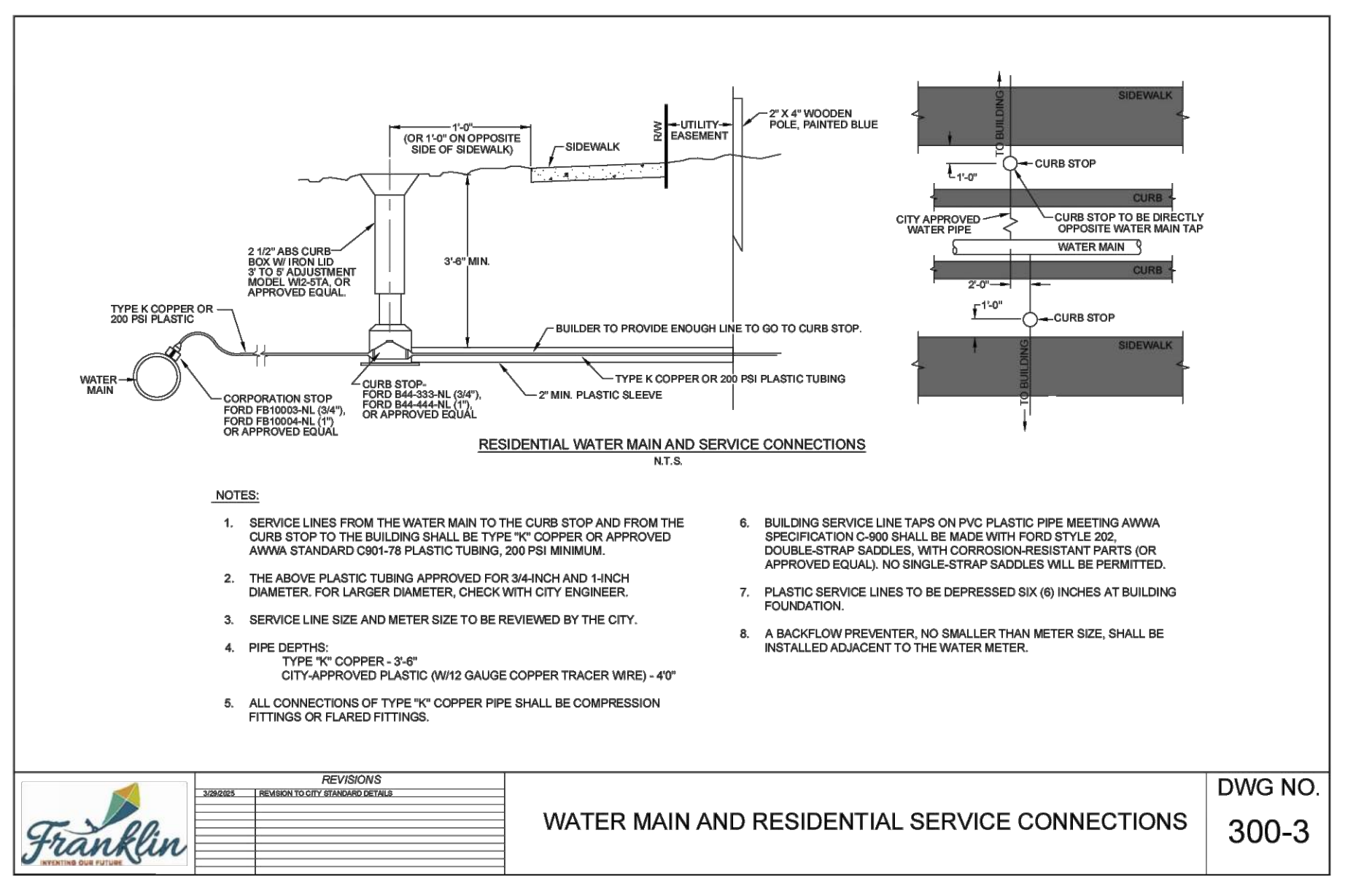
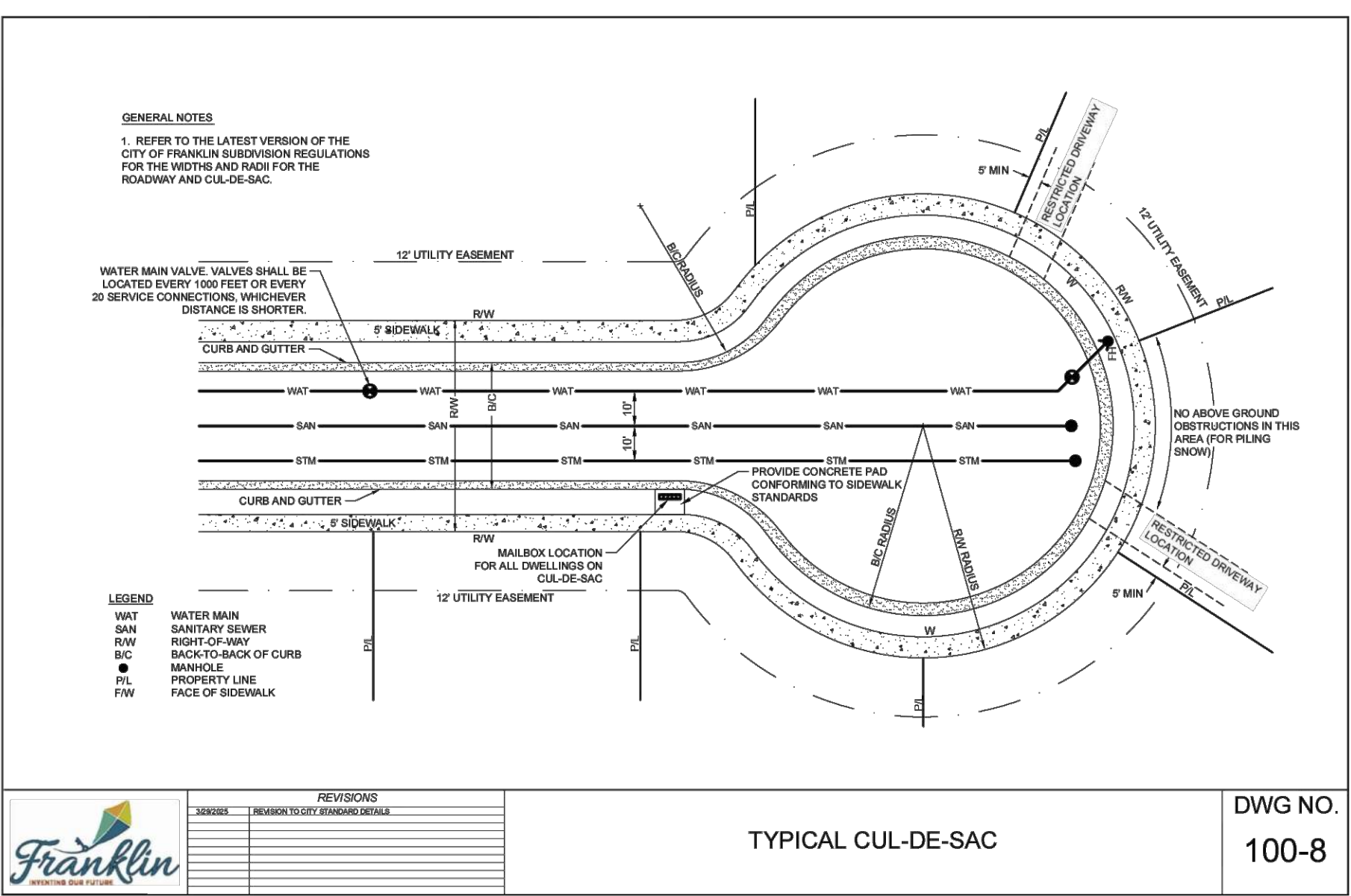
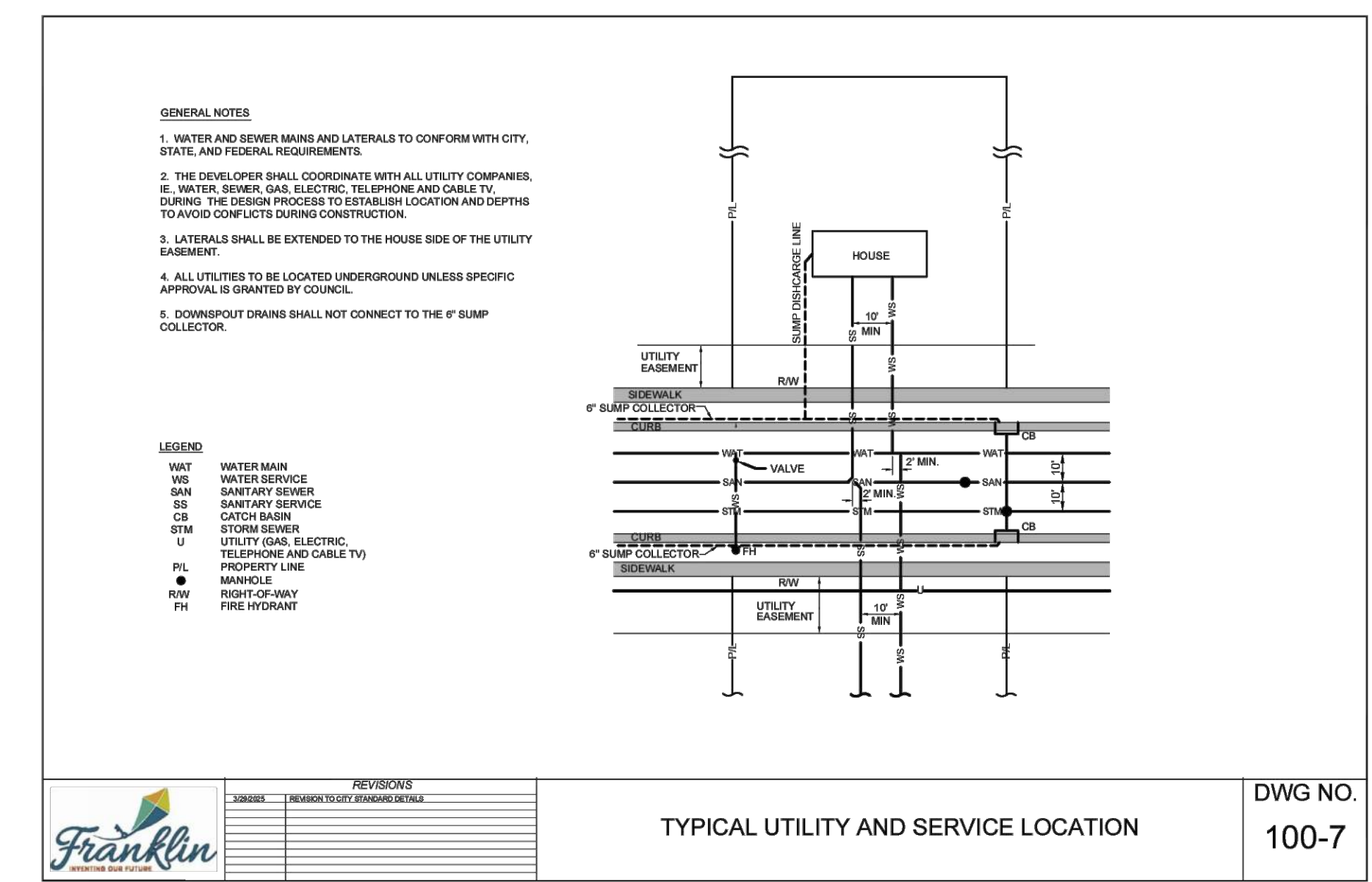
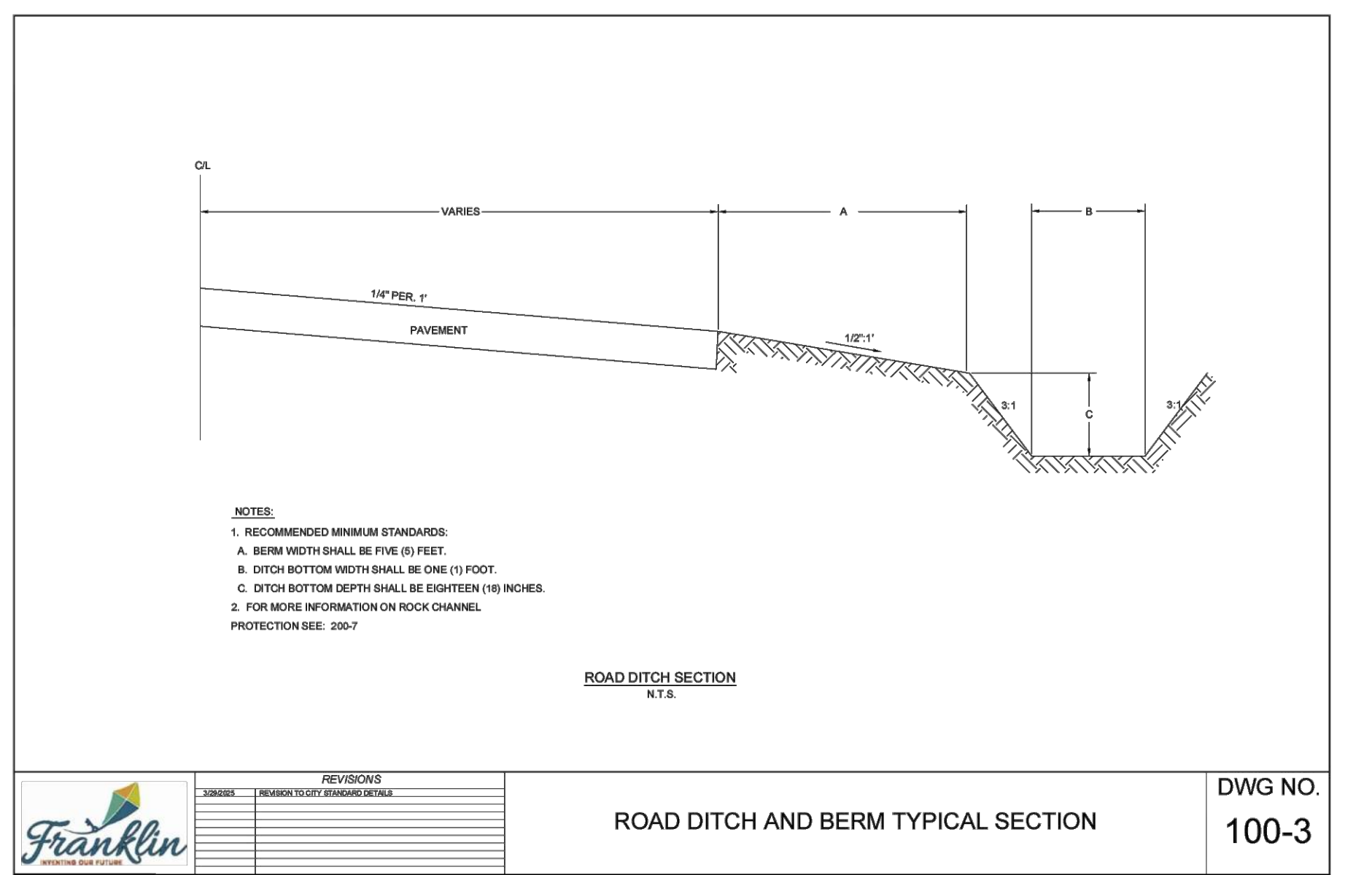
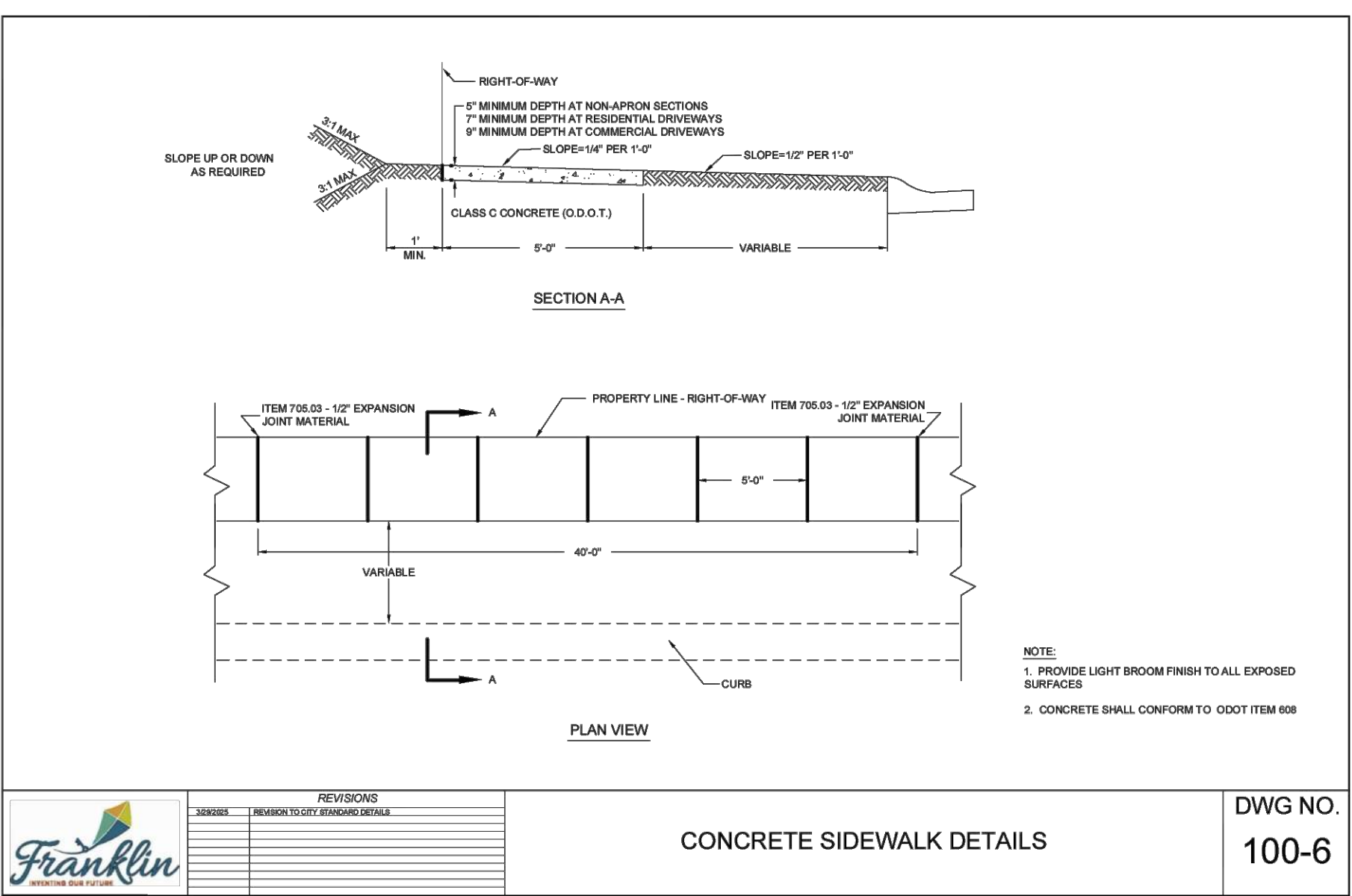
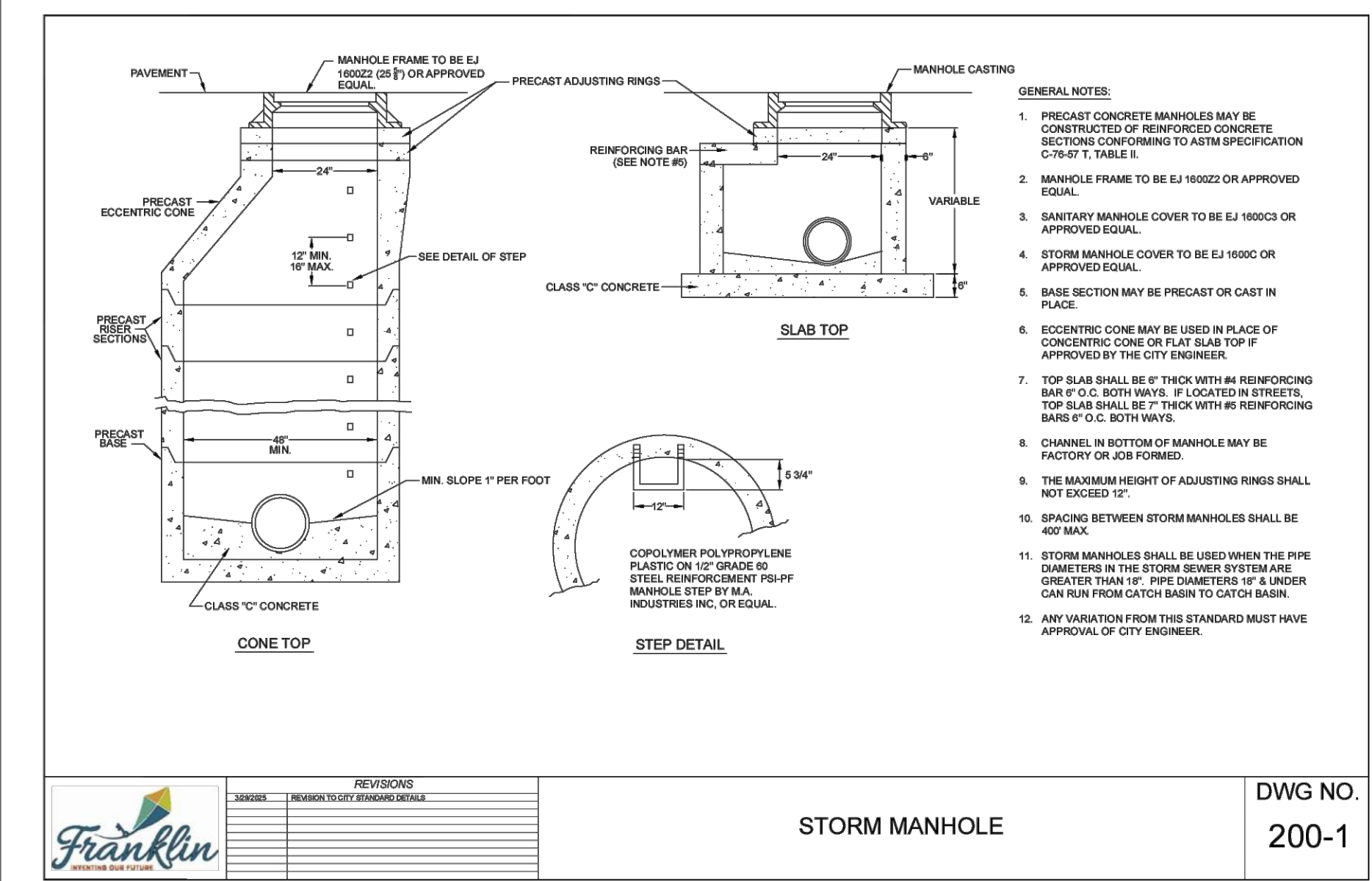
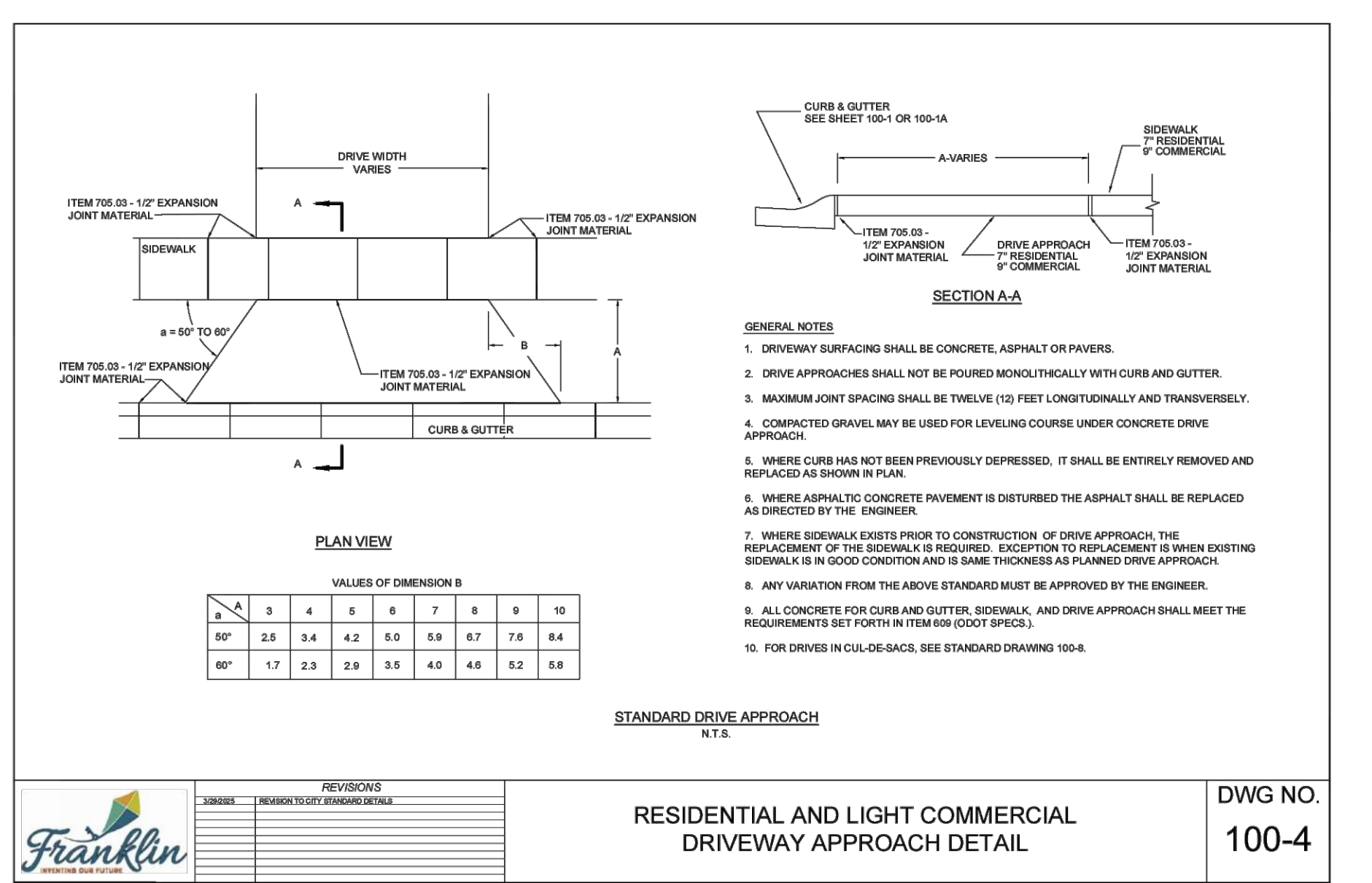
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:

COVER SHEET



- ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE1
- ITEM 407 - ASPHALT TACK COAT @0.1 GAL/S.Y.
- ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
- ITEM 408 - PRIME COAT @0.4 GAL/S.Y.
- ITEM 203 - GRANULAR MATERIAL
- ITEM 304 - CRUSHED AGGREGATE BASE (10" MIN)
- ITEM SPL - WOVEN GEOTEXTILE, MORAFI 600X OR EQUIVALENT, ALL OVERLAPS TO BE 18"
- ITEM 609 - COMBINATION CURB AND GUTTER, ODOT TYPE 3
- ITEM 659 - 6" TOPSOIL PLACED, SEEDING (80% FESCUE, 20% RYE) AND MULCHING.
- ITEM 608 - 4" THICK CONCRETE WALK (7" AT DRIVES AND RAMPS FOR RESIDENTIAL)
- ITEM 605 - 6" RIGID PVC PERFORATED PIPE UNDERDRAIN
- ITEM SPL - 3" WIDE HOT JOINT SEALER WHERE ASPHALT MEETS CURB PER ODOT MATERIAL SPEC 705.04



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR RECORD PURPOSES OF IMPLEMENTATION

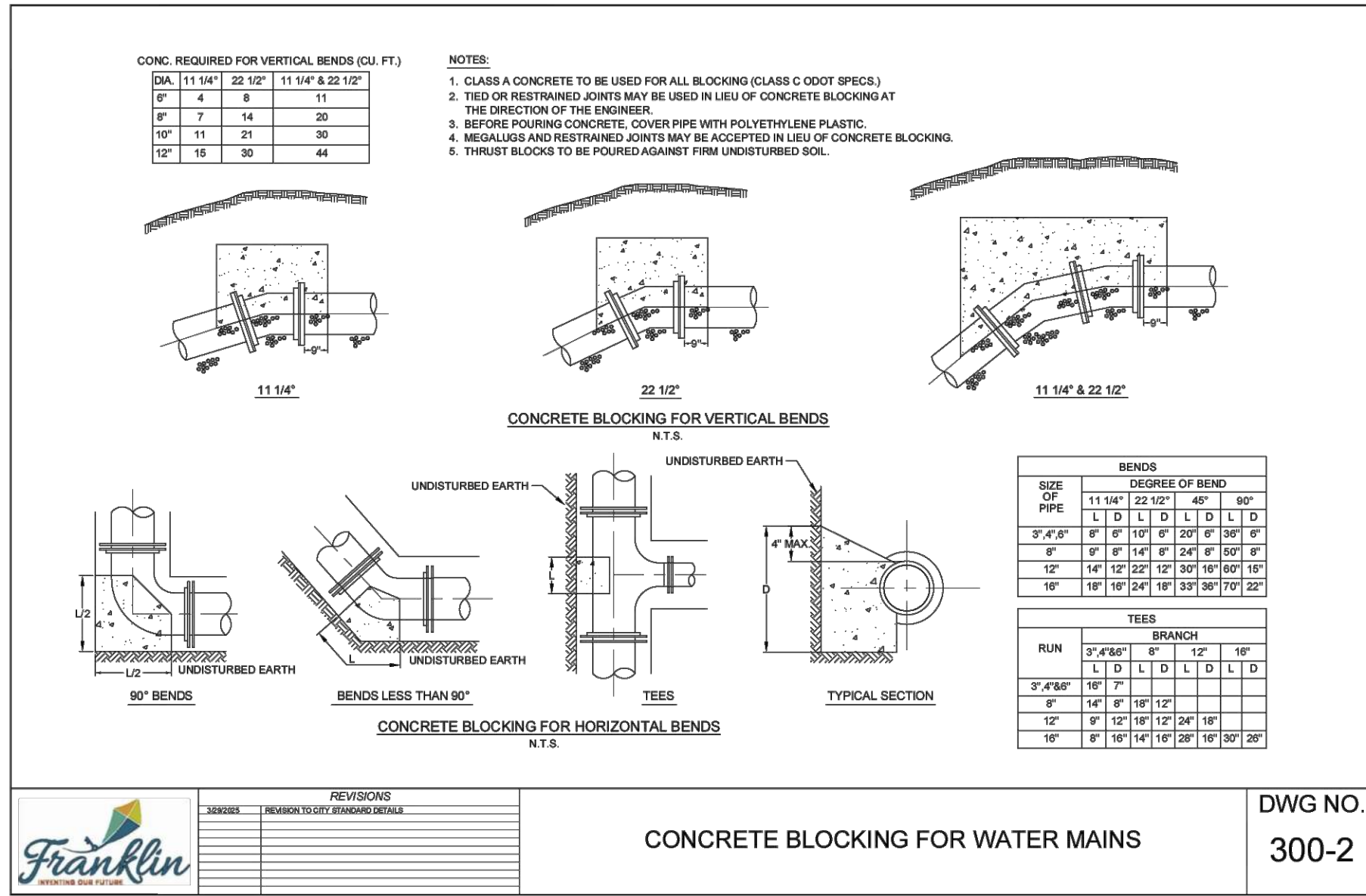
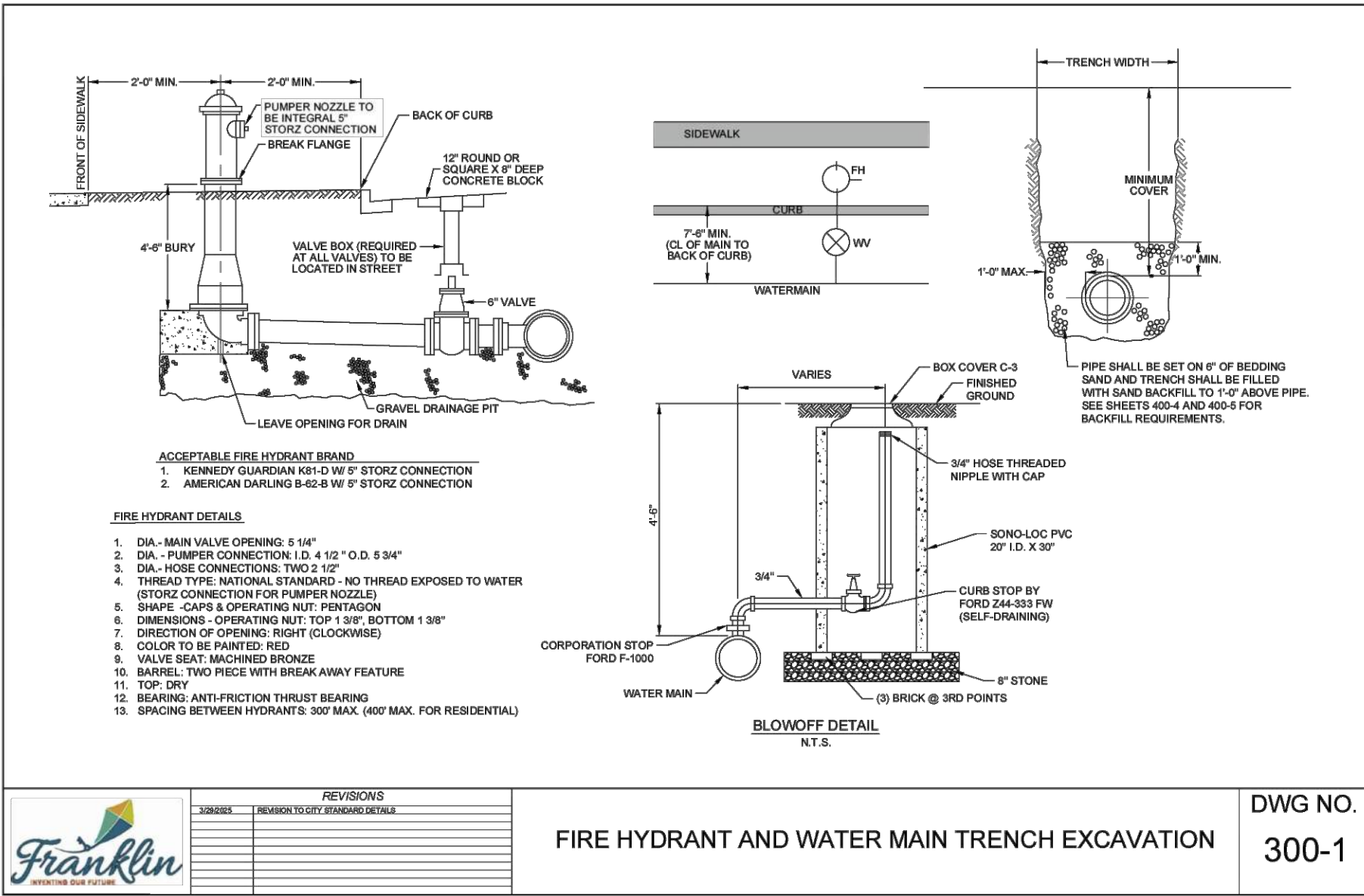
FORESTAR
SHAKER FARMS
PH 1, 2 & 3
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions
ID Description Date

© 2025 CESO, INC.
Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
DETAILS AND NOTES

C:\DOC\Docs\CESO\Forestar Farms\Shaker PH 1, 2 & 3\PLAN COVER SHEET.dwg - 6/13/2025 - Ryan Hopkins



C:\DCA\CDos\CESO\Forestar Shaker Farms\Project Files\ CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\COVER SHEET.dwg - 6/13/2025 - Ryan Hopkins

The Contractor and the Director of Public Works will then check the pipeline between manholes for alignment by means of mandrel testing. If the test shows any misalignment, displaced pipe, or any other defects, the defects designated by the Director of Public Works shall be remedied by the Contractor.

2.6 TESTING

2.6.1 LEAKAGE
The Contractor shall furnish all labor, equipment, and materials which are required to test the sections of the gravity pipeline and manholes for tightness. Either the infiltration test or the hydrostatic test will be ordered by the Director of Public Works. All tests shall be conducted under the supervision of the City.

The Contractor shall determine the locations where excess water is entering or leaving the pipeline. If the amount of leakage exceeds the allowable , the gravity pipeline and/or manholes shall be repaired and retested until the leakage of the system is within the allowable limits as specified. The tests for leakage shall include portions of the service lines to be installed by the Contractor.

All visible leaks shall be repaired by the Contractor whether amount of leakage exceeds the allowable or not.

2.6.2 INFILTRATION TEST
The infiltration test will be conducted on that portion of the pipeline where the top of the pipe at the upper manhole is a minimum of one (1) foot below the level of the ground water table.

The infiltration test shall be made by installing a weir or other measuring device approved by the Director of Public Works in the lower end of the pipeline section to be tested. The incoming pipe or pipes in the upper end of the test section shall be securely sealed. The quantity of ground water infiltrating into the test section shall be measured. The allowable leakage for gravity pipelines shall not exceed one-hundred (100) gallons per day per mile of pipe per inch of pipe diameter.

The following formulae are given for the ease of calculations:
Gallons per Minute Allowed = 0.000131*L*d
Cubic Feet per Second Allowed = 0.00016*L*d
Where L = Length of 100-Foot Stations of Sewer Being Tested and
d = Nominal Diameter in Inches of Sewer Being Tested

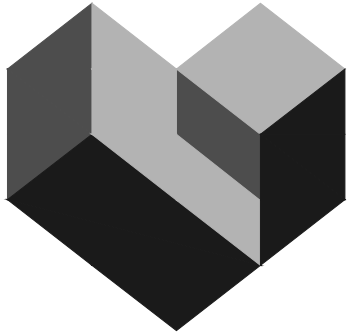
Each size of main sewer pipe shall be tested separately. Each test section shall not exceed 1,000 feet of sewer pipe.

	REVISIONS		CONSTRUCTION SPECIFICATIONS	DWG NO. 1000-11
	NO. REVISION	REMARKS TO CITY: REWARD DETAIL		

2.6.3 EXFILTRATION TEST
The exfiltration test shall be conducted over a twenty (20) minute period. Water for testing shall be supplied by the Contractor. The elevation of the level of water in the manhole and the drop in the level of the water in the upper manhole shall be carefully measured during the duration of the test. The allowable leakage for the hydrostatic test shall not exceed 100 gallons per day per mile of pipe per inch of inside diameter of the pipe tested.

The exfiltration test shall be conducted between two (2) successive manholes. The lower end of the pipeline and all inlet pipes of the upper manhole shall be sealed with pipe stoppers. The span of gravity pipeline to be tested shall be filled with water to a point four (4) feet above the top of the crown of the pipeline in the upper manhole, or the outside water table, whichever is higher. The water shall stand in the pipe and manhole so that absorption can take place if the concrete in the manhole or pipeline is dry.

	REVISIONS		CONSTRUCTION SPECIFICATIONS	DWG NO. 1000-12
	NO. REVISION	REMARKS TO CITY: REWARD DETAIL		



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS
DOCUMENT IS PRELIMINARY OR
INCOMPLETE. NOT TO BE USED FOR
CONSTRUCTION OR RECORDING
PURPOSES OR REPLICATION.

FORESTAR
SHAKER FARMS
PH 1, 2 & 3
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

© 2025 CESO, INC.

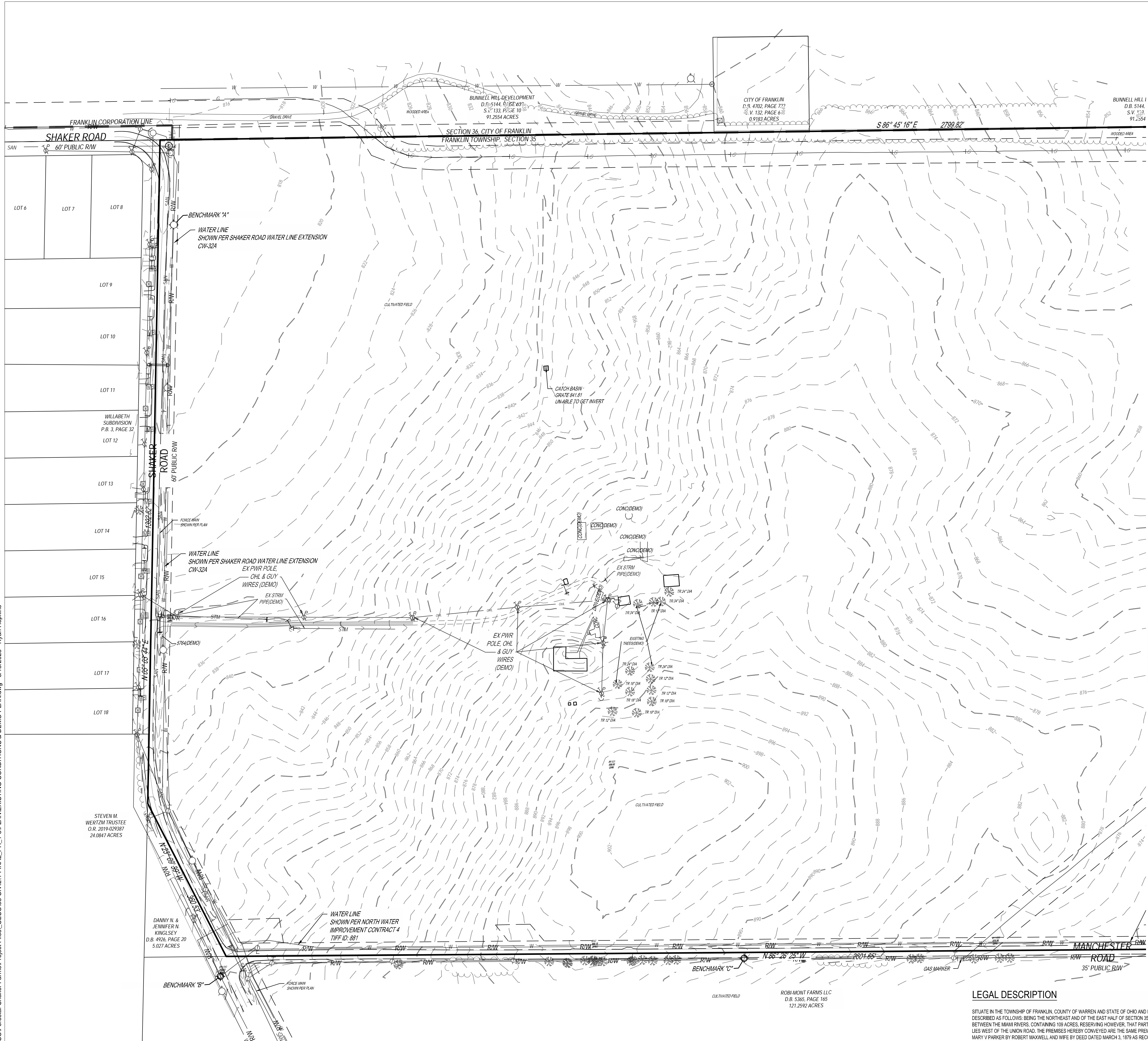
Project Number:	763884
Scale:	AS SHOWN
Drawn By:	SCR
Checked By:	JEE
Date:	JUNE 16, 2025
Issue:	FINAL DEVELOPMENT PLAN

Drawing Title:
DETAILS AND NOTES



FORTY- EIGHT (48) HOURS
BEFORE DIGGING IS TO
COMMENCE, THE CONTRACTORS
SHALL NOTIFY THE FOLLOWING
AGENCIES: OHIO UTILITIES
PROTECTION SERVICE AT 811 OR
800-362-2764 AND ALL OTHER
AGENCIES WHICH MIGHT HAVE
UNDERGROUND UTILITIES
INVOLVING THIS PROJECT AND
ARE NONMEMBERS OF STATE
UTILITIES PROTECTION SERVICE

C:\D:\ACC\Draws\CESO\Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\EXISTING CONDITIONS & DEMO PLAN.dwg - 01/13/2025 - Ryan Hopkins



SYMBOL LEGEND:

- ANCHOR POLE
- INVERT
- CATCH BASIN
- CURB INLET
- STORM MANHOLE
- HYDRANT
- WATER MANHOLE
- WATER VALVE
- WATER METER
- POWER LIGHT POLE
- POWER POLE
- TELEPHONE POLE
- TELEPHONE BOX
- SANITARY MANHOLE
- SIGN
- CABLE BOX
- GUY WIRE

MONUMENT LEGEND:

- IRON PIN FOUND AS NOTED
- 5/8" x 30" IRON PIN WITH "CESO" CAP SE
- MAG NAIL SET
- FENCE POST FOUND
- STONE FOUND
- MAG NAIL FOUND

LINE LEGEND:

- PROPERTY BOUNDARY
- ADJOINER LINE
- SECTION LINE
- FENCE LINE
- RIGHT-OF-WAY LINE
- EXISTING CORPORATION LINE
- OVERHEAD LINES
- WATER LINE
- STORM LINE
- SANITARY LINE
- TREE LINE

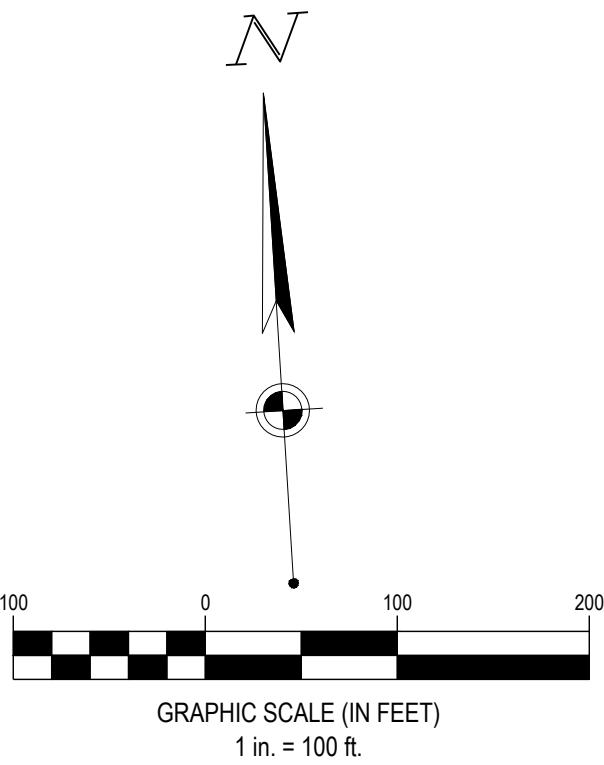
SURVEY NOTES:

- THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION REGARDING RECORD EASEMENTS AND OTHER DOCUMENTS THAT MIGHT AFFECT THE QUALITY OF TITLE TO THE PARCEL SHOWN HEREON WERE OBTAINED THROUGH A CERTIFIED TITLE COMMITMENT CONDUCTED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO: COM-CIN-24-0016-OR WITH A COMMITMENT DATE OF FEBRUARY 5, 2024 AT 8:59 A.M.
- ALL DATA SOURCES, DOCUMENTS AND RECORDS SHOWN HEREON ARE ON FILE IN THE WARREN COUNTY RECORDERS OFFICE LOCATED IN LEBANON, OHIO.
- OCCUPATION IN GENERAL MATCHED THE SURVEY.
- SOURCE DOCUMENTS USED AS SHOWN.
- HORIZONTAL DATUM - U.S. STATE PLANE, NAD83 OHIO SOUTH (3402) ESTABLISHED FROM UTILIZING THE OHIO REAL TIME NETWORK (RTN) PROVIDED BY THE OHIO DEPARTMENT OF TRANSPORTATION. COORDINATES TAKEN TO GROUND AT LATITUDE N39°31'33.82230", LONGITUDE W84°17'44.14211". PRO ECT HEIGHT 754.988' GROUND SCALE FACTOR 1.00009715313252.
- A ZONING REPORT WAS NOT PROVIDED TO THE SURVEYOR AT THE TIME OF THIS SURVEY.
- THERE ARE NO PARKING SPACES ON THE SURVEYED PROPERTY.
- NO DIVISION OR PARTY WALLS OBSERVED ON THE SURVEYED PROPERTY.
- NO EVIDENCE OF RECENT EARTH MOVEMENT, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED ON THE SURVEY PROPERTY AT THE TIME OF THE FIELDWORK.
- NO CHANGES OF STREET RIGHT-OF-WAY LINES WERE PROVIDED TO THE SURVEYOR AT THE TIME OF THIS SURVEY.
- THERE WERE NO EASEMENTS FOR THE ROAD RIGHT-OF-WAYS PROVIDED IN THE TITLE COMMITMENT. RIGHT-OF-WAY LINES ARE SHOWN PER EXISTING SURVEY RECORDS.

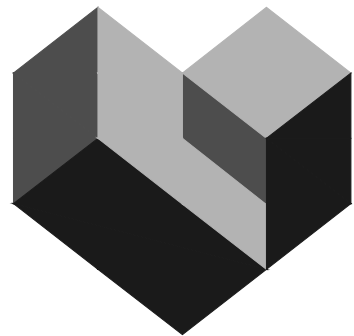
LEGAL DESCRIPTION

SITUATE IN THE TOWNSHIP OF FRANKLIN, COUNTY OF WARREN AND STATE OF OHIO AND BOUNDED AND DESCRIBED AS FOLLOWS: BEING THE NORTHEAST AND OF THE EAST HALF OF SECTION 35, TOWN 3 OF RANGE 4 BETWEEN THE MAH RIVERS, CONTAINING 100 ACRES, RESERVING HOWEVER, THAT PART OF SAID TRACT THAT LIES WEST OF THE UNION ROAD. THE PREMISES HEREBY CONVEYED ARE THE SAME PREMISES CONVEYED TO MARY V PARKER BY ROBERT MAXWELL AND WIFE BY DEED DATED MARCH 3, 1879 AS RECORDED IN DEED BOOK 57, PAGE 22 OF THE RECORDS OF SAID COUNTY, EXCEPTING THAT NO RESERVATION IS MADE FOR A ROAD WAY AS SPECIFIED IN SAID DEED, AND BEING ALSO THE SAME PREMISES CONVEYED TO MARY V PARKER BY SAID MARY V PARKER AND HER HUSBAND BY DEED DATED FEBRUARY 8, 1896, RECORDED IN DEED BOOK 76, PAGE 37 OF THE RECORDS OF SAID COUNTY.

NOTE: PER THE WARREN COUNTY ENGINEERS OFFICE THE LEGAL DESCRIPTION IS INADEQUATE AND MUST BE CORRECTED BEFORE THE NEXT TRANSFER



FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION OR FOR ANY OTHER PURPOSES OF INFORMATION

FORESTAR

**SHAKER FARMS
PH 1, 2 & 3**

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

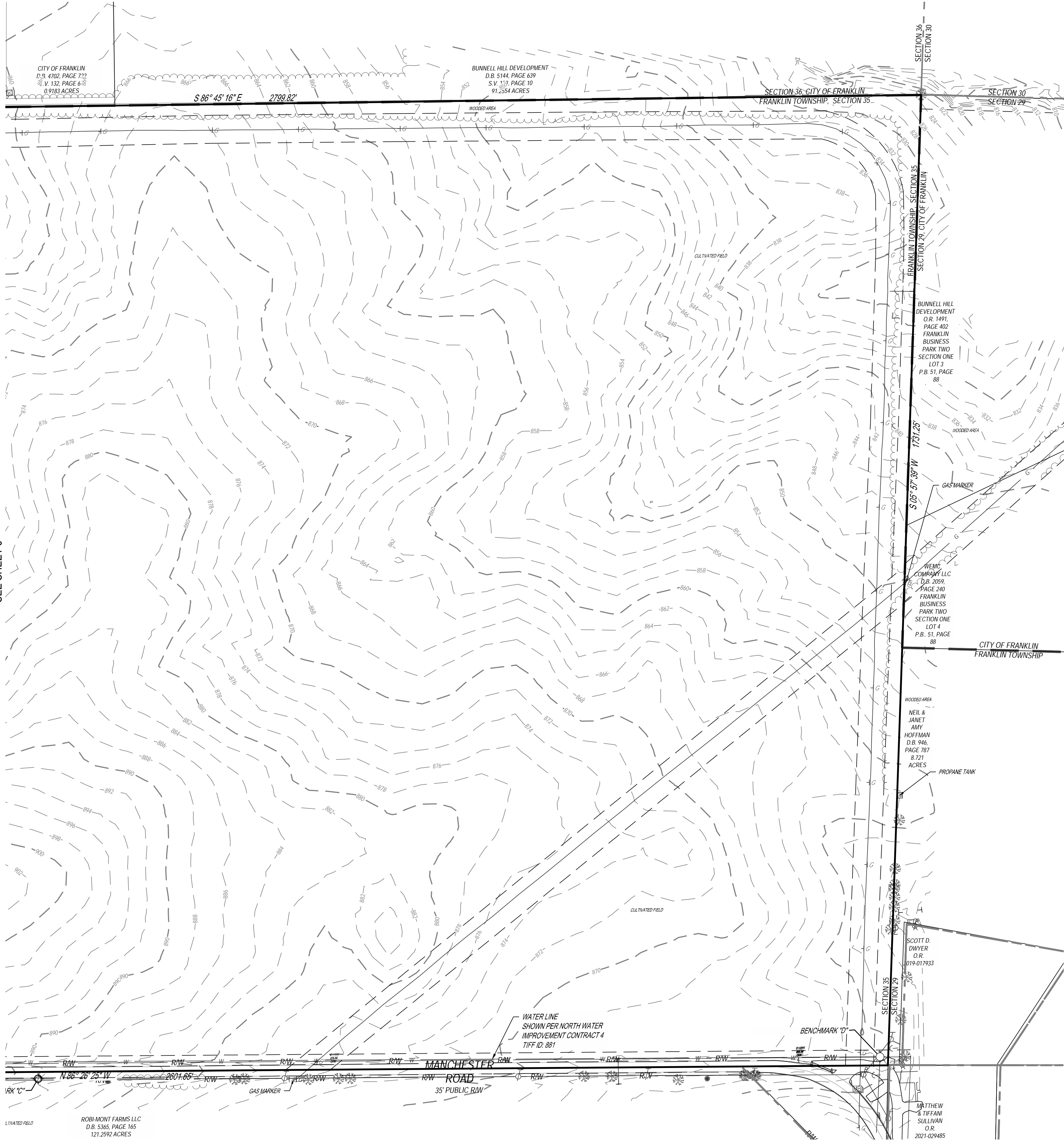
Revisions / Submissions		
ID	Description	Date

© 2025 CESO, INC.
Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
**EXISTING CONDITIONS
& DEMO**

C:\D:\ACCDocs\CESO\FarmShaker\FarmShaker\PH_1_3\PLAN\EXISTING CONDITIONS & DEMO PLAN.dwg - 01/13/2025 - Ryan Hopkins

SEE SHEET 6



SYMBOL LEGEND:

- ANCHOR POLE
- INVERT
- CATCH BASIN
- CURB INLET
- STORM MANHOLE
- HYDRANT
- WATER MANHOLE
- WATER VALVE
- WATER METER
- POWER LIGHT POLE
- POWER POLE
- TELEPHONE POLE
- TELEPHONE BOX
- SANITARY MANHOLE
- SIGN
- CABLE BOX
- GUY WIRE

LINE LEGEND:

- PROPERTY BOUNDARY
- ADJOINER LINE
- SECTION LINE
- FENCE LINE
- RIGHT-OF-WAY LINE
- EXISTING CORPORATION LINE
- OVERHEAD LINES
- WATER LINE
- STORM LINE
- SANITARY LINE
- TREE LINE

MONUMENT LEGEND:

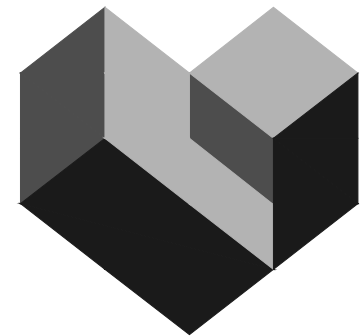
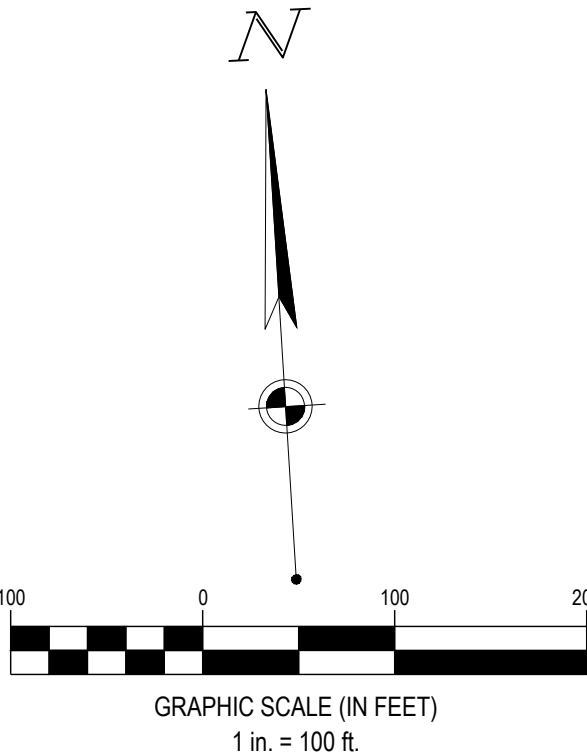
- IRON PIN FOUND AS NOTED
- 5/8" x 30" IRON PIN WITH "CESO" CAP SET
- MAG NAIL SET
- FENCE POST FOUND
- STONE FOUND
- MAG NAIL FOUND

LEGAL DESCRIPTION

SITUATE IN THE TOWNSHIP OF FRANKLIN, COUNTY OF WARREN AND STATE OF OHIO AND BOUNDED AND DESCRIBED AS FOLLOWS: BEING THE NORTHEAST AND OF THE EAST HALF OF SECTION 35, TOWNSHIP 3 OF RANGE 4 BETWEEN THE MIAMI RIVERS, CONTAINING 109 ACRES, RESERVING HOWEVER, THAT PART OF SAID TRACT THAT LIES WEST OF THE UNION ROAD. THE PREMISES HEREBY CONVEYED ARE THE SAME PREMISES CONVEYED TO MARY V PARKER BY ROBERT MAXWELL AND WIFE BY DEED DATED MARCH 3, 1879 AS RECORDED IN DEED BOOK 51, PAGE 22 OF THE RECORDS OF SAID COUNTY, EXCEPTING THAT NO RESERVATION IS MADE FOR A ROAD WAY AS SPECIFIED IN SAID DEED, AND BEING ALSO THE SAME PREMISES CONVEYED TODAIA CLAYTON BY SAID MARY V PARKER AND HER HUSBAND BY DEED DATED FEBRUARY 8, 1896, RECORDED IN DEED BOOK 76, PAGE 37 OF THE RECORDS OF SAID COUNTY. PARCEL NUMBER: 08-35-200-001

NOTE: PER THE WARREN COUNTY ENGINEERS OFFICE THE LEGAL DESCRIPTION IS INADEQUATE AND MUST BE CORRECTED BEFORE THE NEXT TRANSFER

FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR RECORDING PURPOSES OR REPRESENTATION

FORESTAR

SHAKER FARMS
PH 1, 2 & 3

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

© 2025 CESO, INC.

Project Number: 763884

Scale: AS SHOWN

Drawn By: SCR

Checked By: JEE

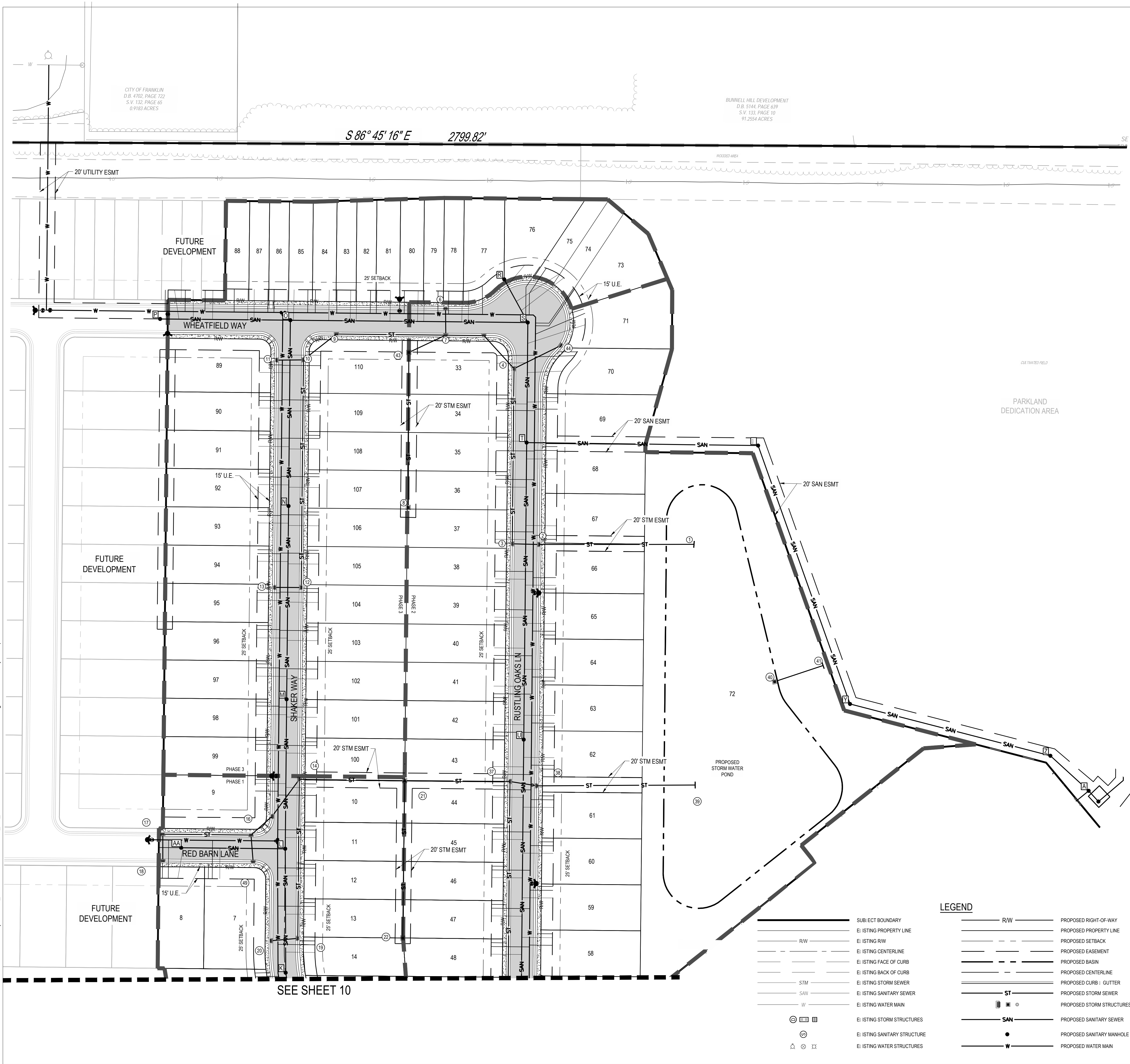
Date: JUNE 16, 2025

Issue: FINAL DEVELOPMENT PLAN

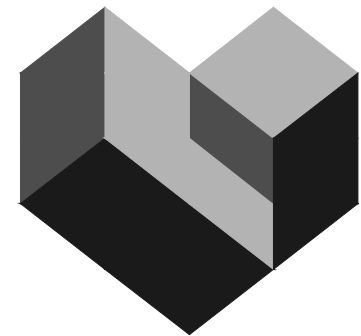
Drawing Title:

EXISTING CONDITIONS
& DEMO PLAN -
EXISTING CONDITIONS
& DEMO (2)

C:\D:\CADD\Drawings\CEISO\Shaker Farms\Project Files\CEISO\03-CIVIL\4-FINAL_PH_1-3\PLAN\OVERALL UTILITY PLAN.dwg - 6/13/2025 - Ryan Hopkins



FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR RECORDING PURPOSES OR REPRESENTATION

FORESTAR

SHAKER FARMS PH 1, 2 & 3

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

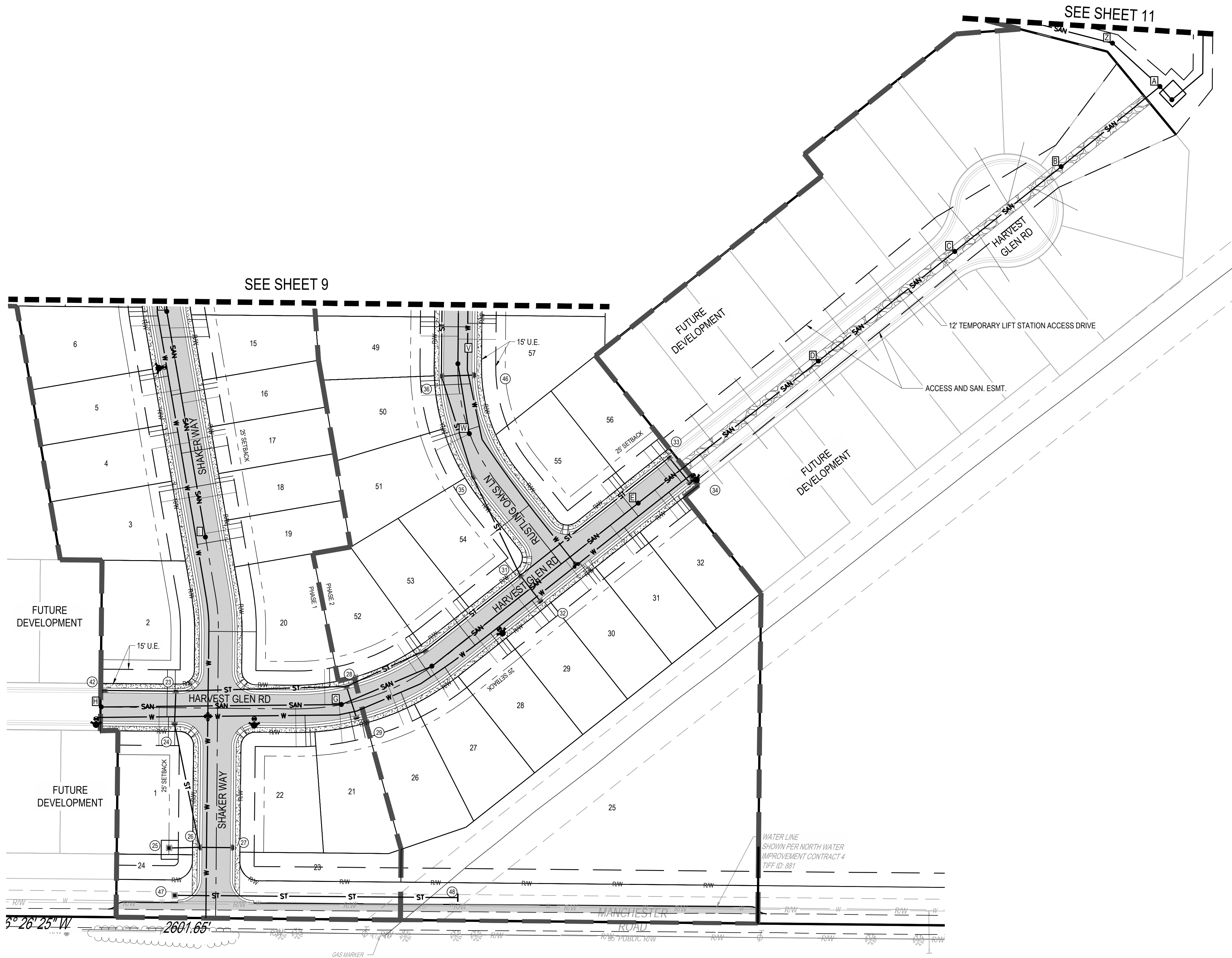
Revisions / Submissions		
ID	Description	Date

© 2025 CESO, INC.

Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
UTILITY PLAN

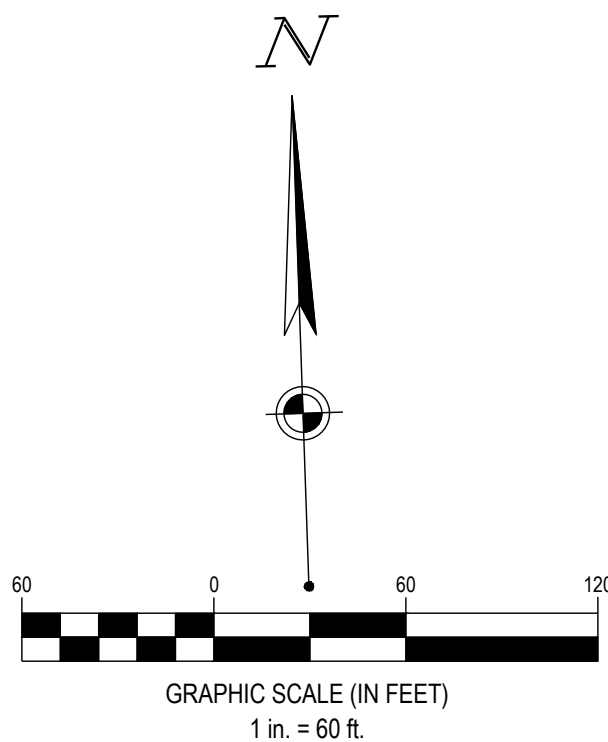
C:\D:\CADD\Drawings\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\OVERALL UTILITY PLAN.dwg - 6/13/2025 - Ryan Hopkins



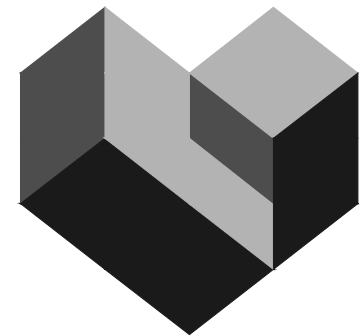
- | | |
|-----|------------------------------|
| --- | SUBJECT BOUNDARY |
| --- | E: ISTING PROPERTY LINE |
| --- | R/W |
| --- | E: ISTING R/W |
| --- | E: ISTING CENTERLINE |
| --- | E: ISTING FACE OF CURB |
| --- | E: ISTING BACK OF CURB |
| --- | STM |
| --- | E: ISTING STORM SEWER |
| --- | SAN |
| --- | E: ISTING SANITARY SEWER |
| --- | W |
| --- | E: ISTING WATER MAIN |
| --- | E: ISTING STORM STRUCTURES |
| --- | E: ISTING SANITARY STRUCTURE |
| --- | E: ISTING WATER STRUCTURES |

LEGEND

- | | | | |
|-----|-----|-----|----------------------------|
| --- | R/W | --- | PROPOSED RIGHT-OF-WAY |
| --- | --- | --- | PROPOSED PROPERTY LINE |
| --- | --- | --- | PROPOSED SETBACK |
| --- | --- | --- | PROPOSED EASEMENT |
| --- | --- | --- | PROPOSED BASIN |
| --- | --- | --- | PROPOSED CENTERLINE |
| --- | --- | --- | PROPOSED CURB & GUTTER |
| --- | --- | --- | PROPOSED STORM SEWER |
| --- | --- | --- | PROPOSED STORM STRUCTURES |
| --- | --- | --- | PROPOSED SANITARY SEWER |
| --- | --- | --- | PROPOSED SANITARY MAINHOLE |
| --- | --- | --- | PROPOSED WATER MAIN |



FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigny Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR RECORDING PURPOSES OR IMPLEMENTATION

FORESTAR

SHAKER FARMS PH 1, 2 & 3

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

© 2025 CESO, INC.

Project Number: 763884

Scale: AS SHOWN

Drawn By: SCR

Checked By: JEE

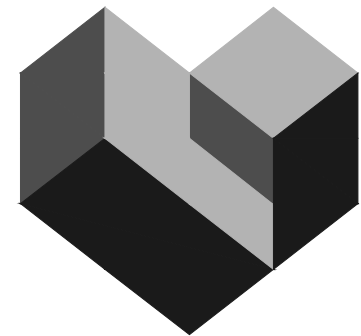
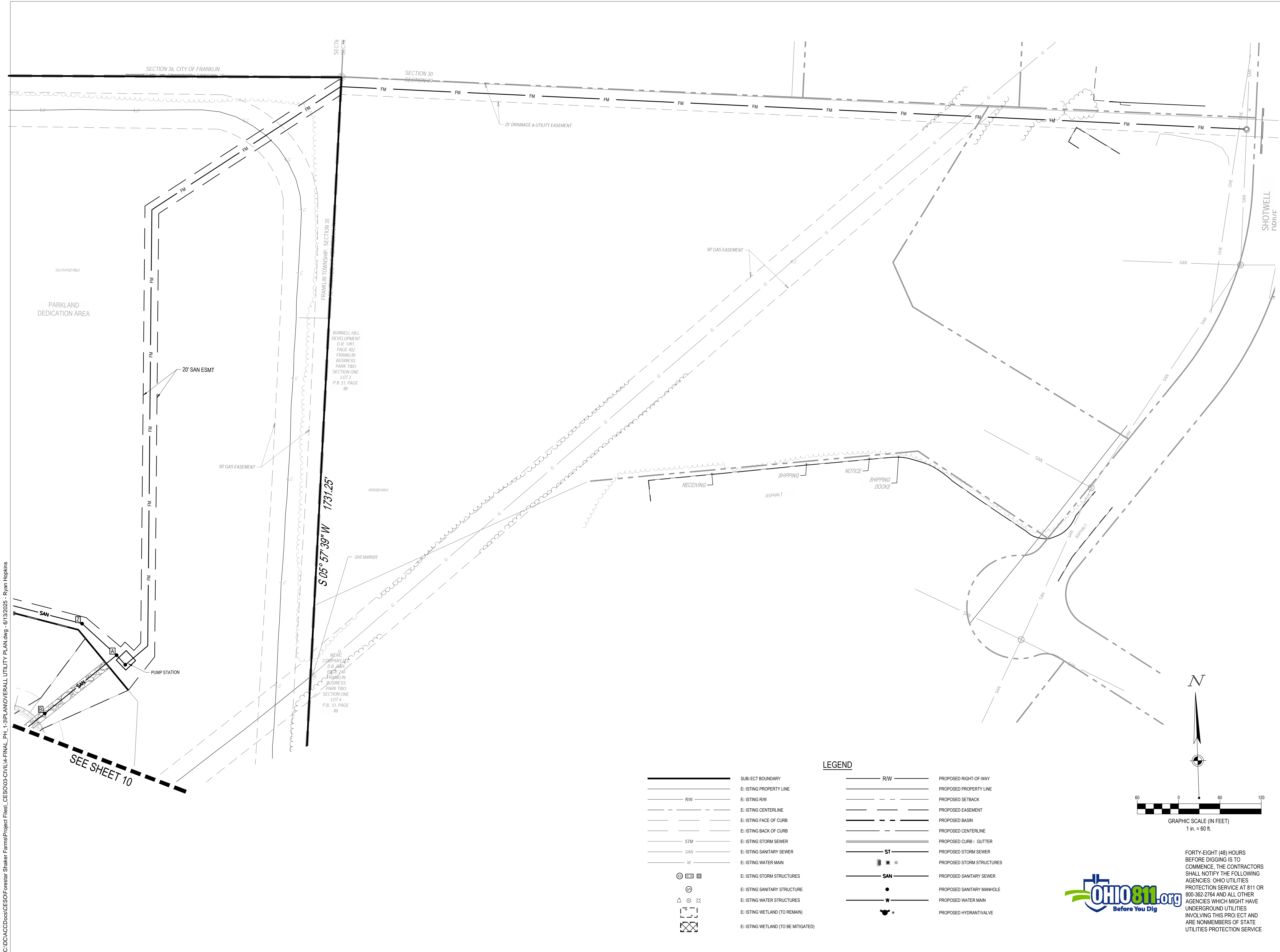
Date: JUNE 16, 2025

Issue: FINAL DEVELOPMENT PLAN

Drawing Title:

UTILITY PLAN

C:\D:\CADD\Drawings\CESO\Forestar Shaker Farms\Project Files\CESO03-CIVIL\FINAL_PH_1-3\PLAN OVERALL UTILITY PLAN.dwg - 6/13/2025 - Ryan Hopkins



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR RECORDING PURPOSES OR IMPLEMENTATION.

FORESTAR

SHAKER FARMS PH 1, 2 & 3

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

© 2025 CESO, INC.

Project Number: 763884

Scale: AS SHOWN

Drawn By: SCR

Checked By: JEE

Date: JUNE 16, 2025

Issue: FINAL DEVELOPMENT PLAN

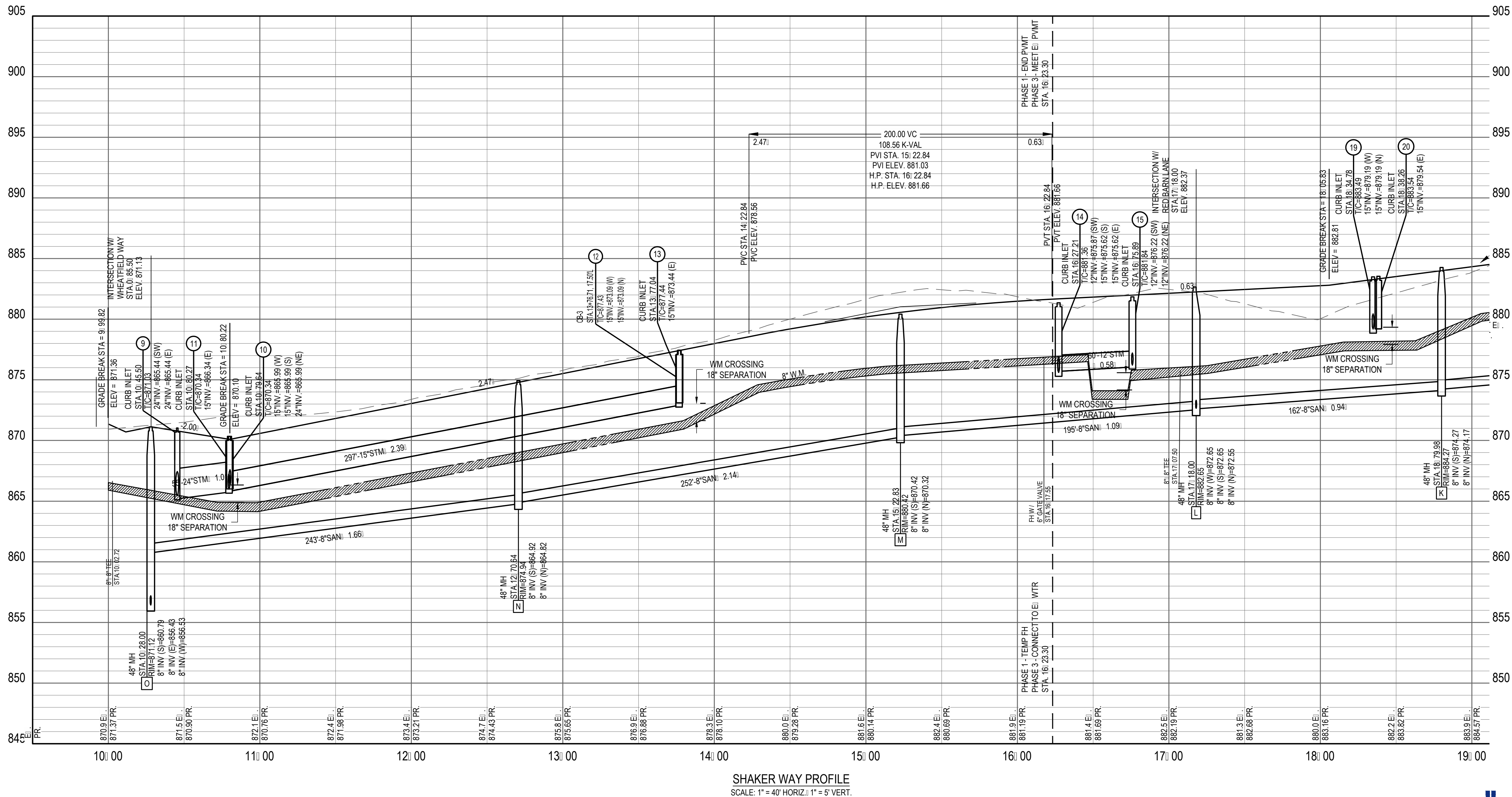
Drawing Title:

**UTILITY OFFSITE
CONNECTION PLAN**



SHAKER FARMS

PH 1, 2 & 3



FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE. THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE

Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
SHAKER WAY PLAN & PROFILE

FORESTAR

SHAKER FARMS PH 1, 2 & 3

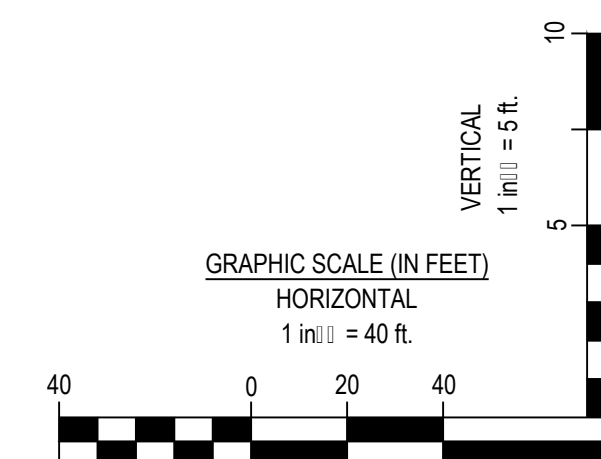
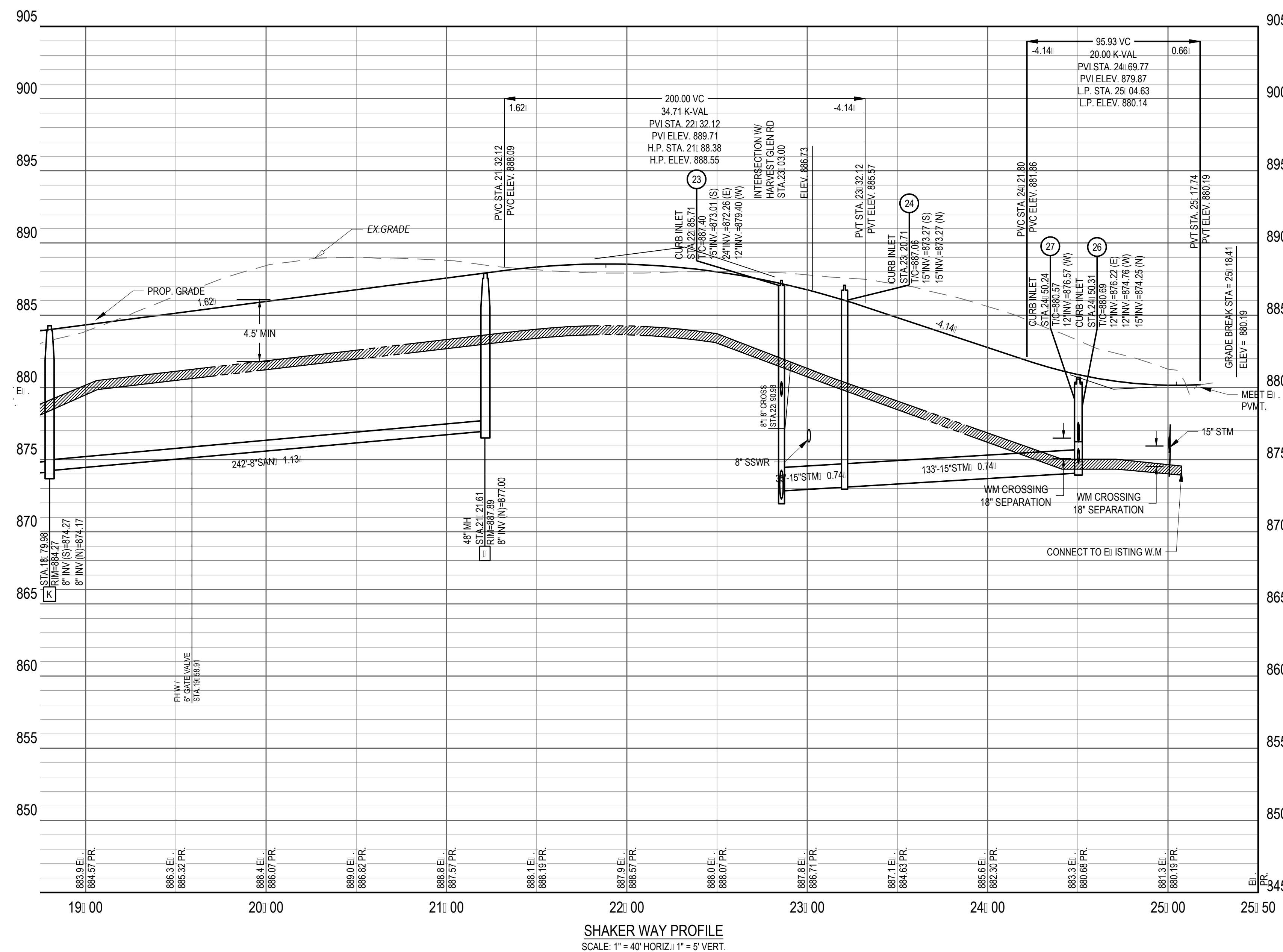
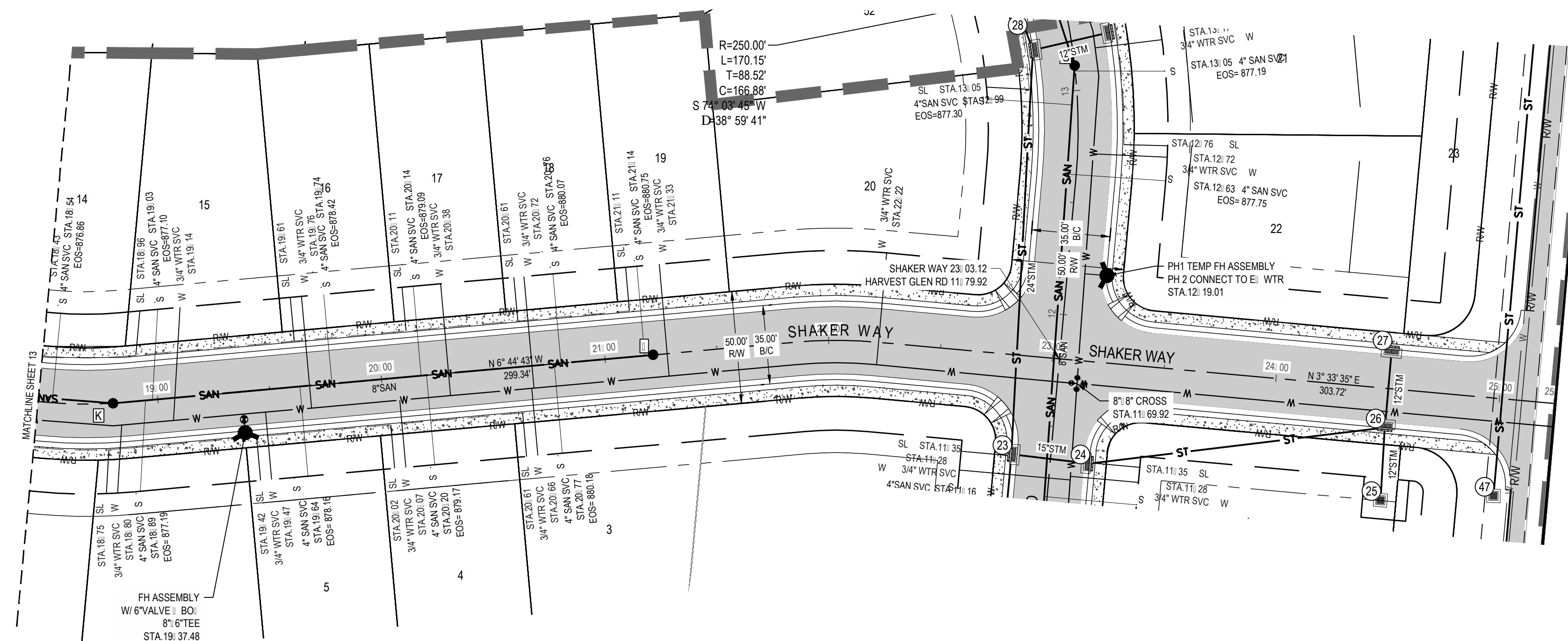
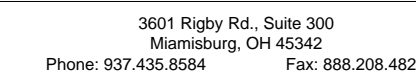
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR RECORD PURPOSES OR INFORMATION.



3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826



FORTY-EIGHT (48) HOURS
BEFORE DIGGING IS TO
COMMENCE, THE CONTRACTORS
SHALL NOTIFY THE FOLLOWING
AGENCIES: **OHIO UTILITIES**
PROTECTION SERVICE AT 811 OR
800-362-2764 AND ALL OTHER
AGENCIES WHICH MIGHT HAVE
UNDERGROUND UTILITIES
INVOLVING THIS PROJECT AND
ARE NONMEMBERS OF STATE
UTILITIES PROTECTION SERVICE



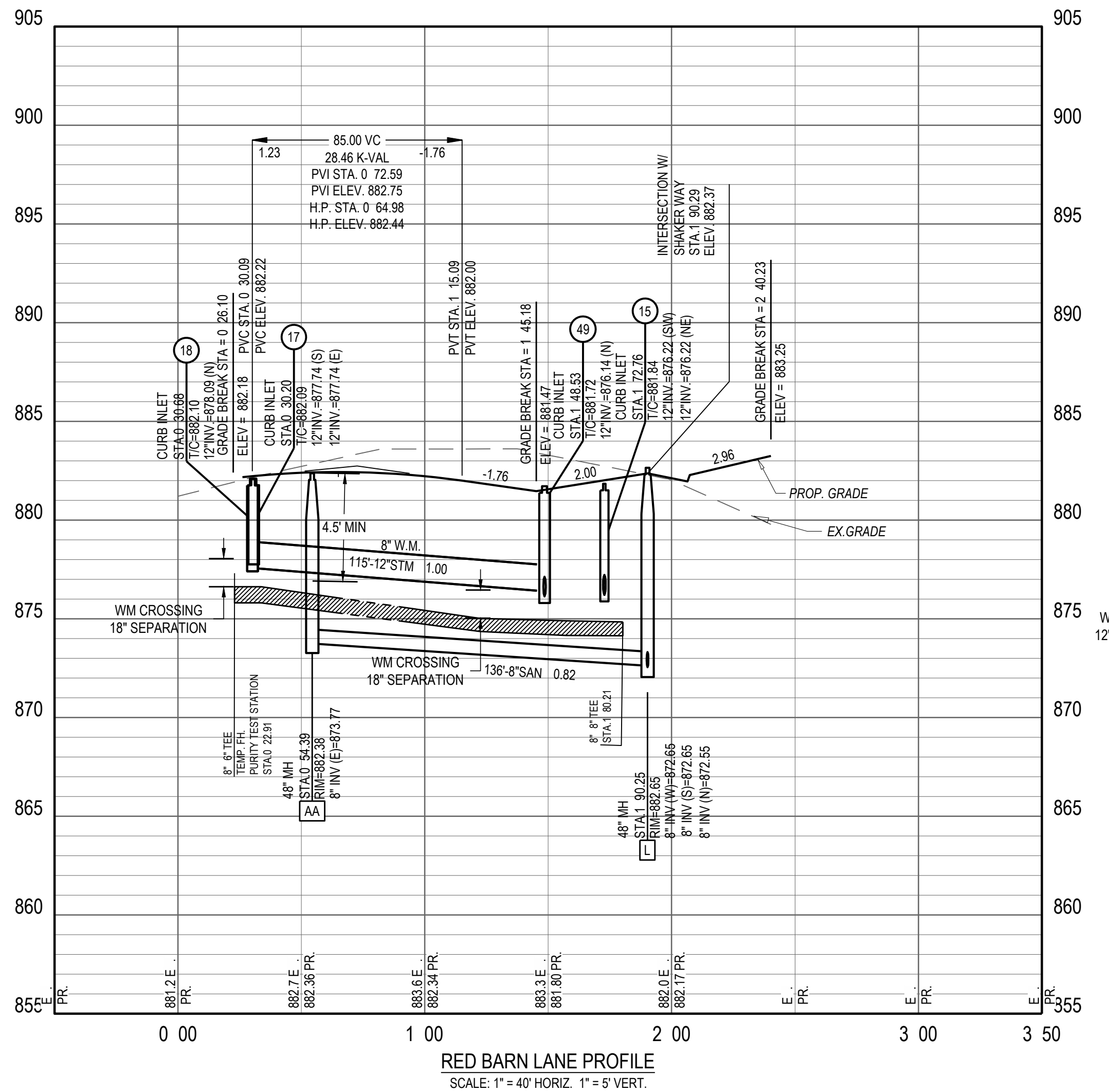
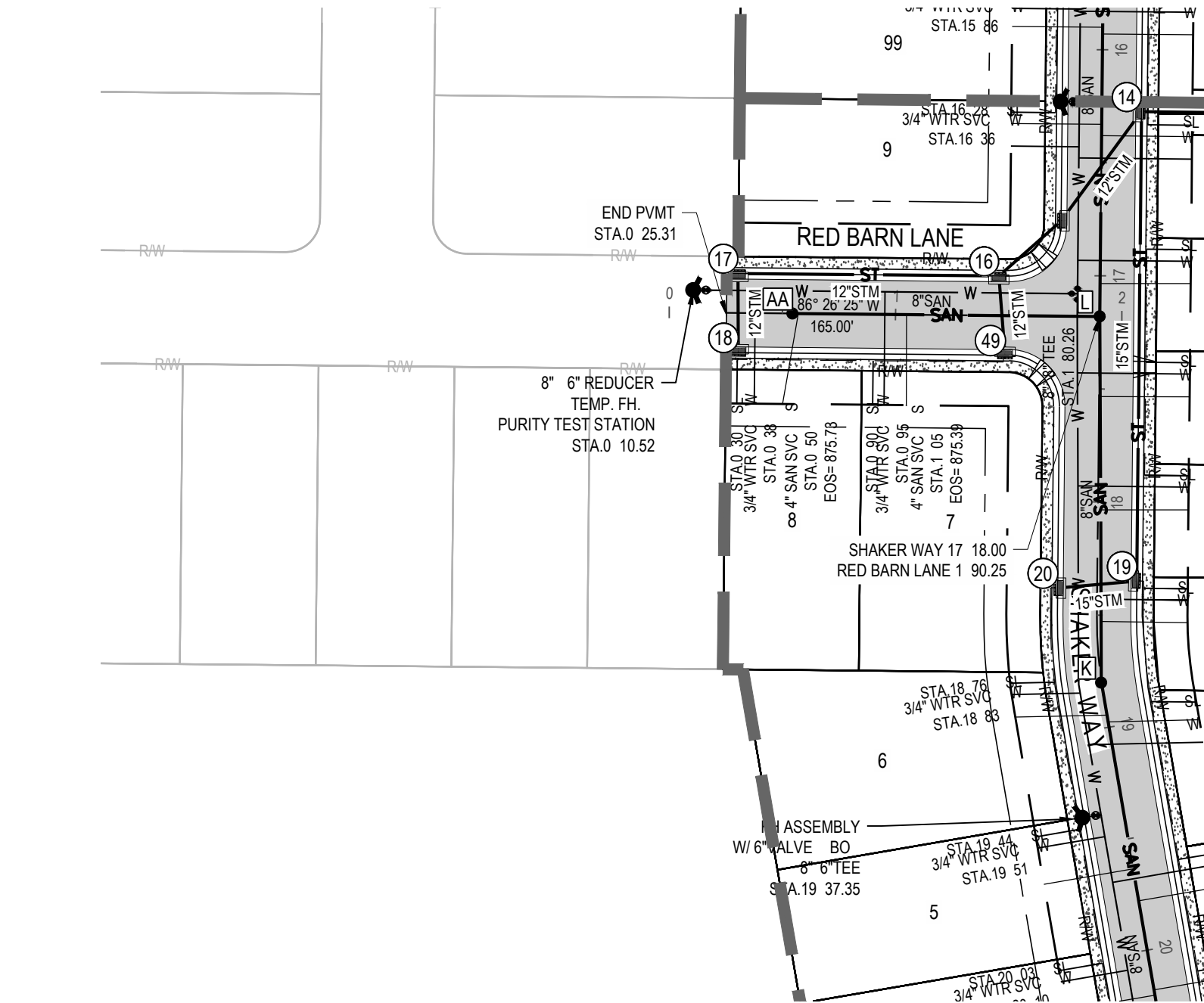
FORESTAR

**SHAKER FARMS
PH 1.2 & 3**

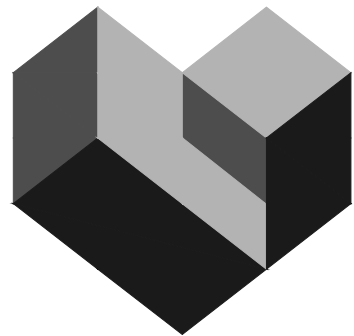
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

[illegible]

Drawing Title:
**SHAKER WAY PLAN &
PROFILE**



FORTY-EIGHT (48) HOURS
BEFORE DIGGING IS TO
COMMENCE, THE CONTRACTORS
SHALL NOTIFY THE FOLLOWING
AGENCIES: OHIO UTILITIES
PROTECTION SERVICE AT 811 OR
800-362-2764 AND ALL OTHER
AGENCIES WHICH MIGHT HAVE
UNDERGROUND UTILITIES
INVOLVING THIS PROJECT AND
ARE NONMEMBERS OF STATE
UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS
DOCUMENT IS PRELIMINARY AND
IS NOT TO BE USED FOR
CONSTRUCTION OR
FOR ANY OTHER
PURPOSES OF INFORMATION

FORESTAR

**SHAKER FARMS
PH 1, 2 & 3**

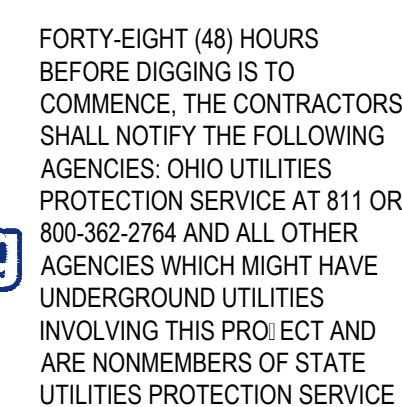
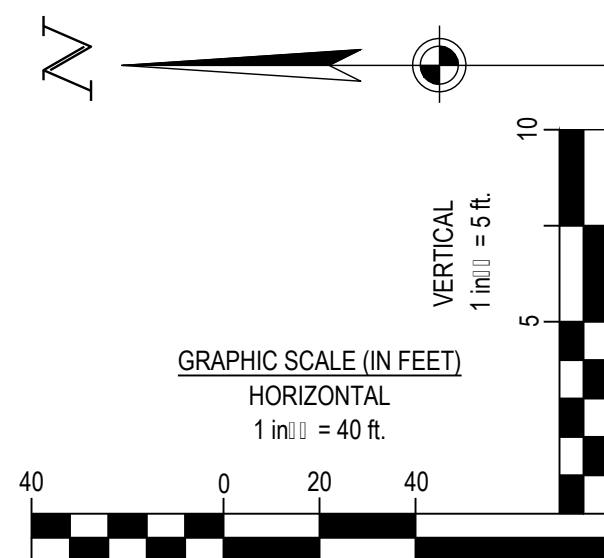
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
**RED BARN LANE PLAN
& PROFILE**

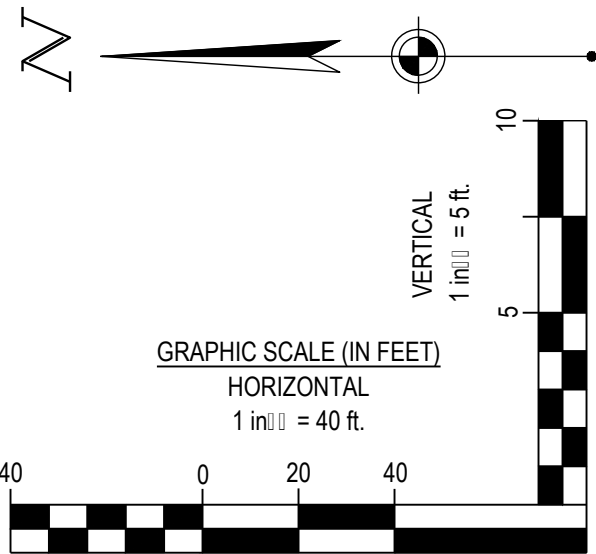
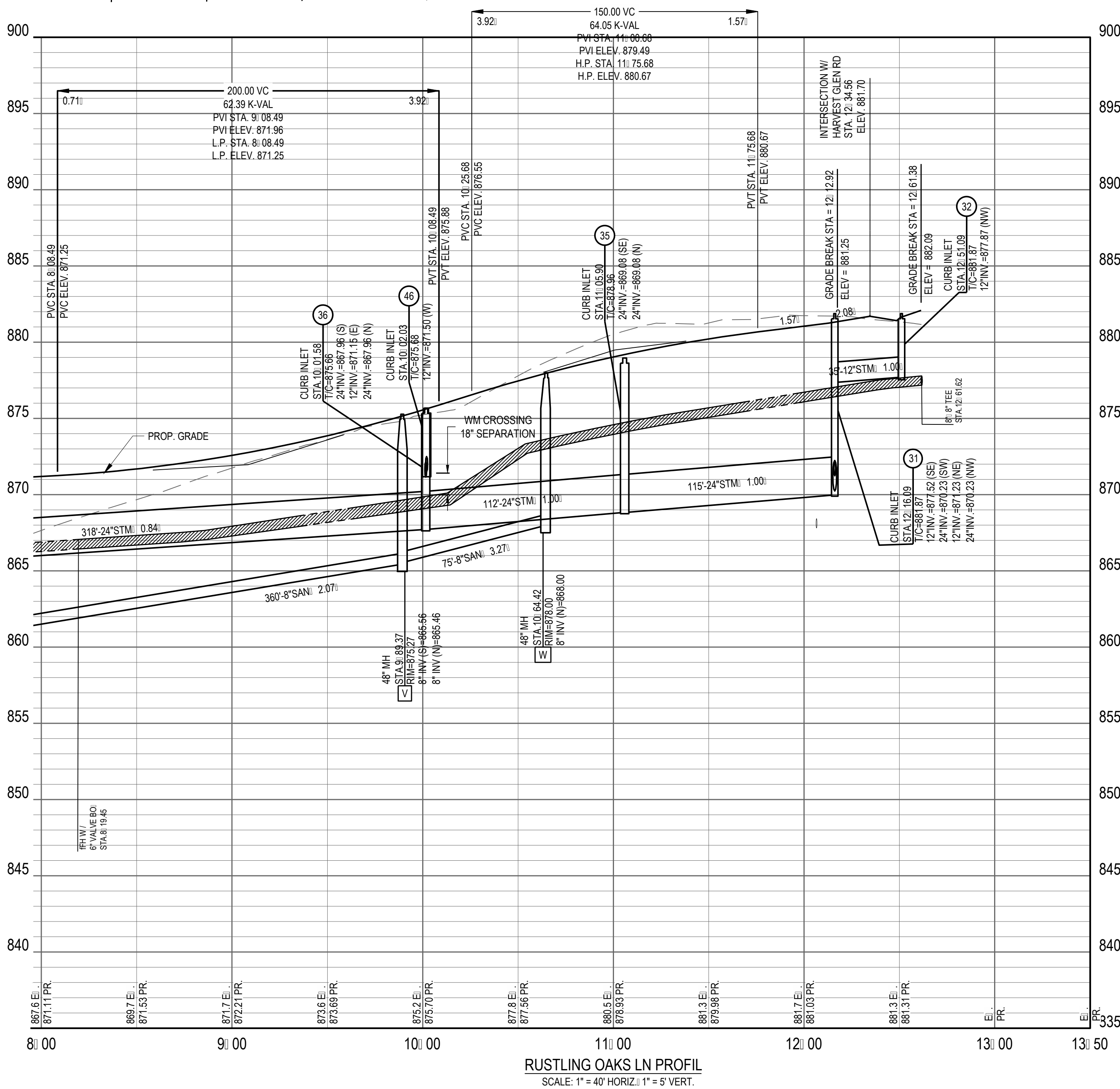
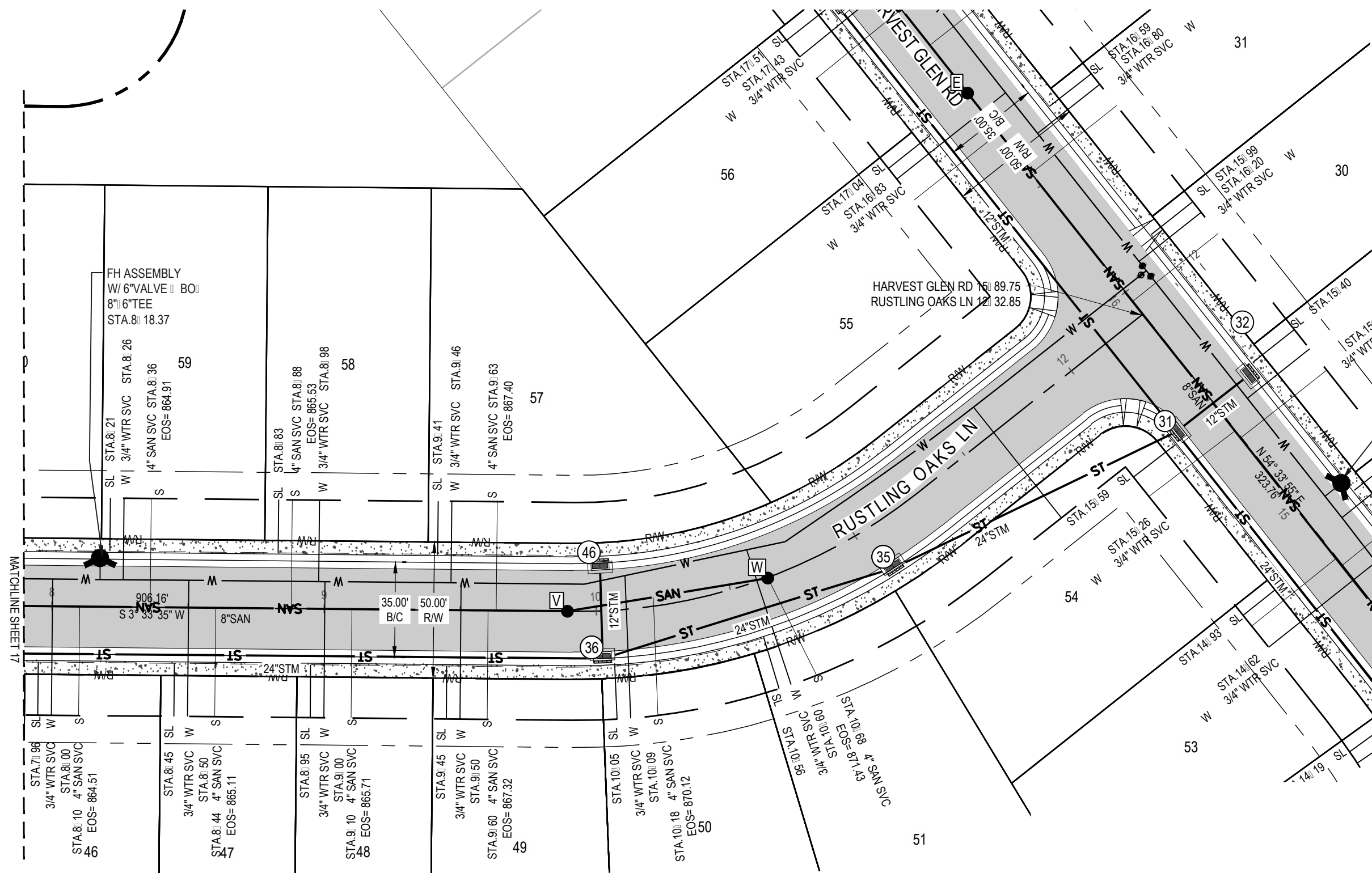


MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

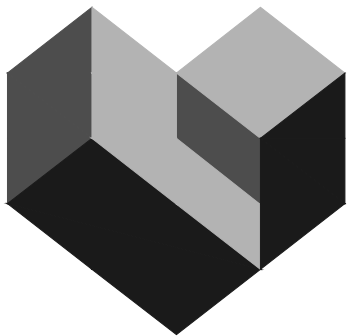
[illegible]

Drawing Title:
RUSTLING OAKS LN
PLAN & PROFILE

C:\DACC\Draws\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\PLAN & PROFILES ST B_C.Dwg - 6/13/2025 - Ryan Hopkins



FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2784 AND ALL OTHER AGENCIES WHICH MIGHT HAVE INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THIS INFORMATION IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT TO BE USED FOR CONSTRUCTION OR IMPLEMENTATION.

FORESTAR

**SHAKER FARMS
PH 1, 2 & 3**

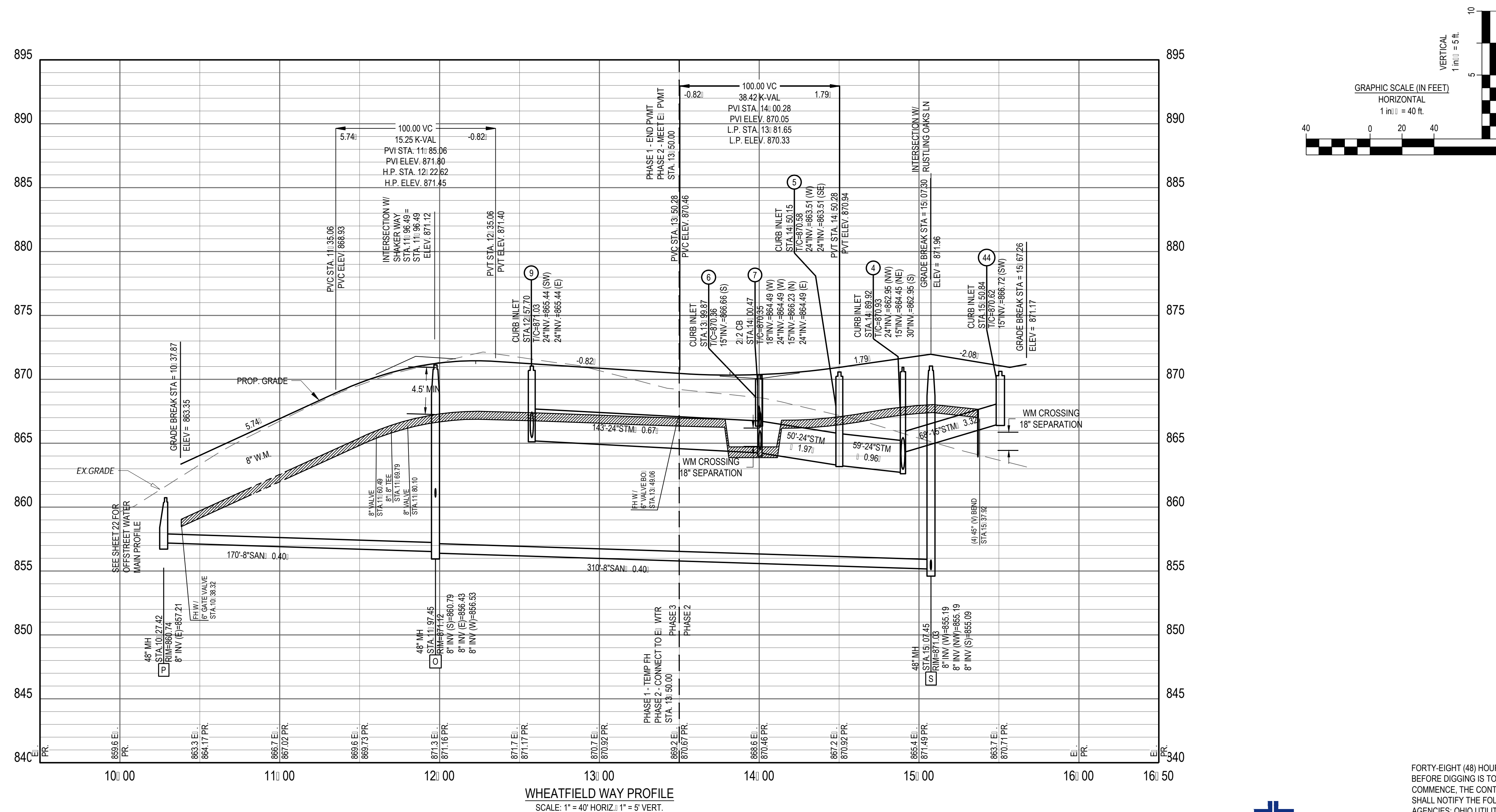
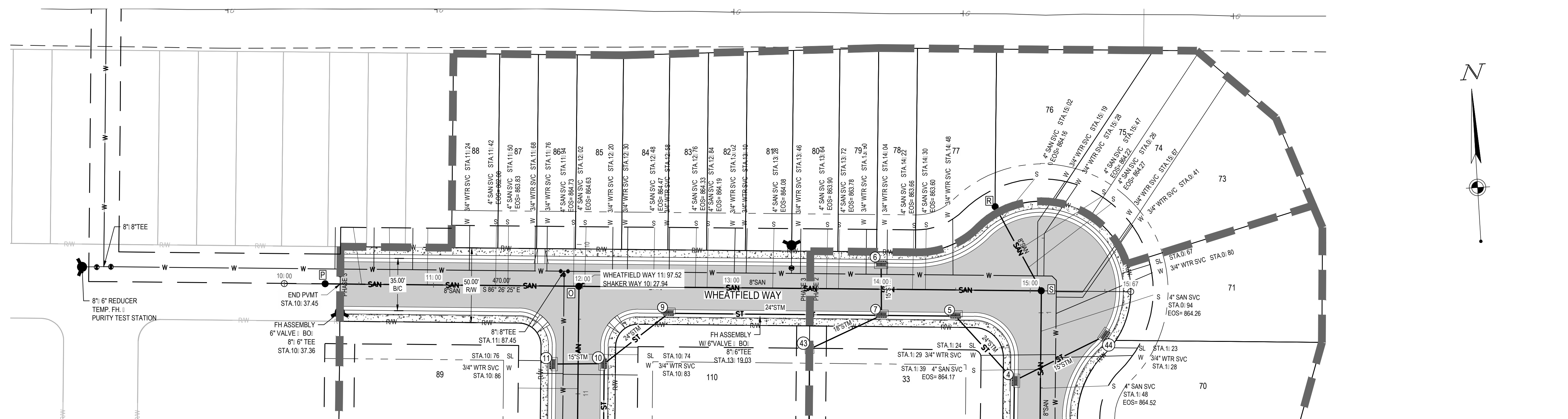
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

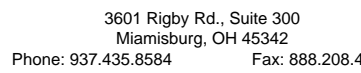
ID	Description	Date
----	-------------	------

Project Number:	763884
Scale:	AS SHOWN
Drawn By:	SCR
Checked By:	JEE
Date:	JUNE 16, 2025
Issue:	FINAL DEVELOPMENT PLAN

Drawing Title:
**RUSTLING OAKS LN
PLAN & PROFILE**



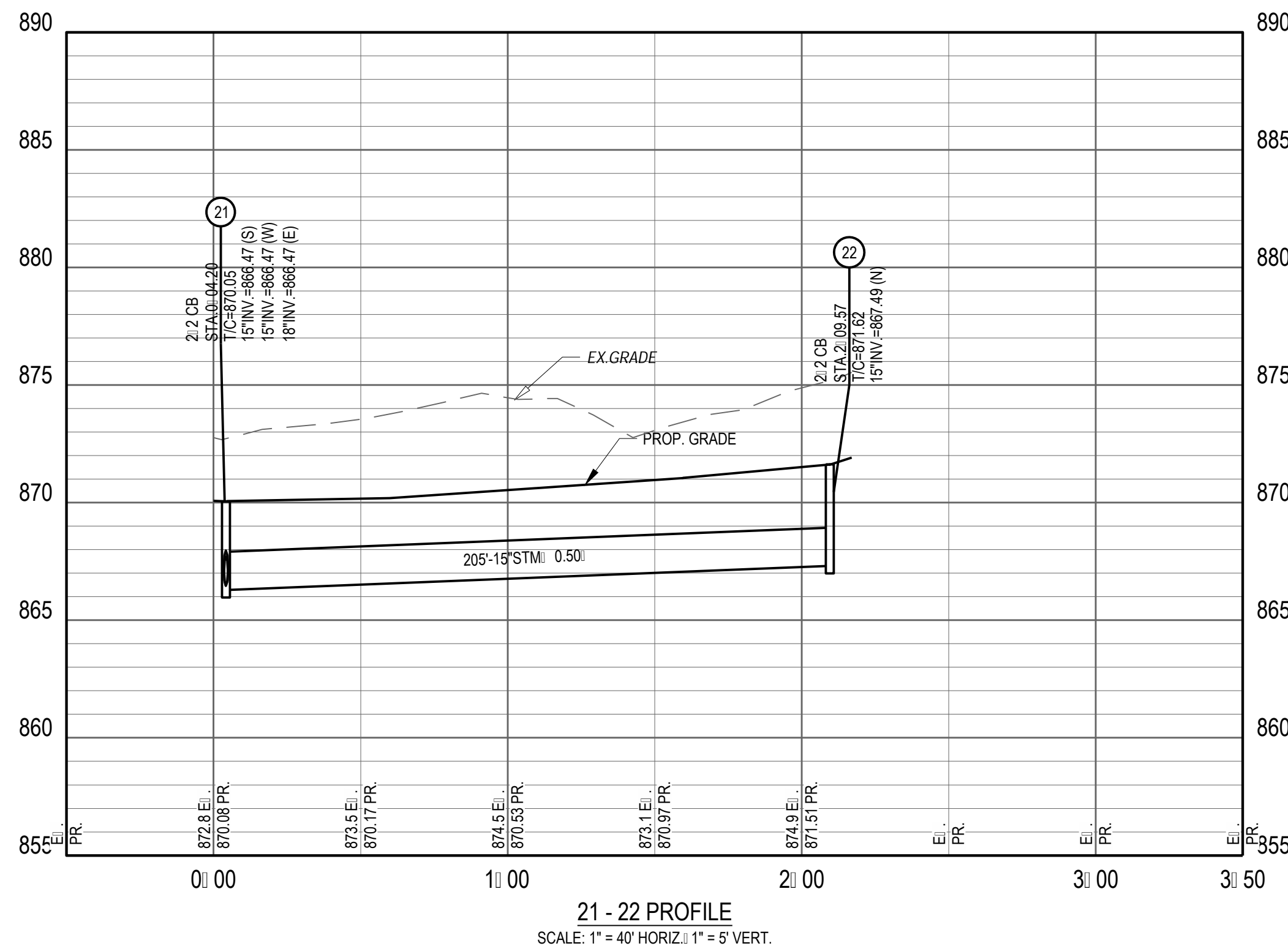
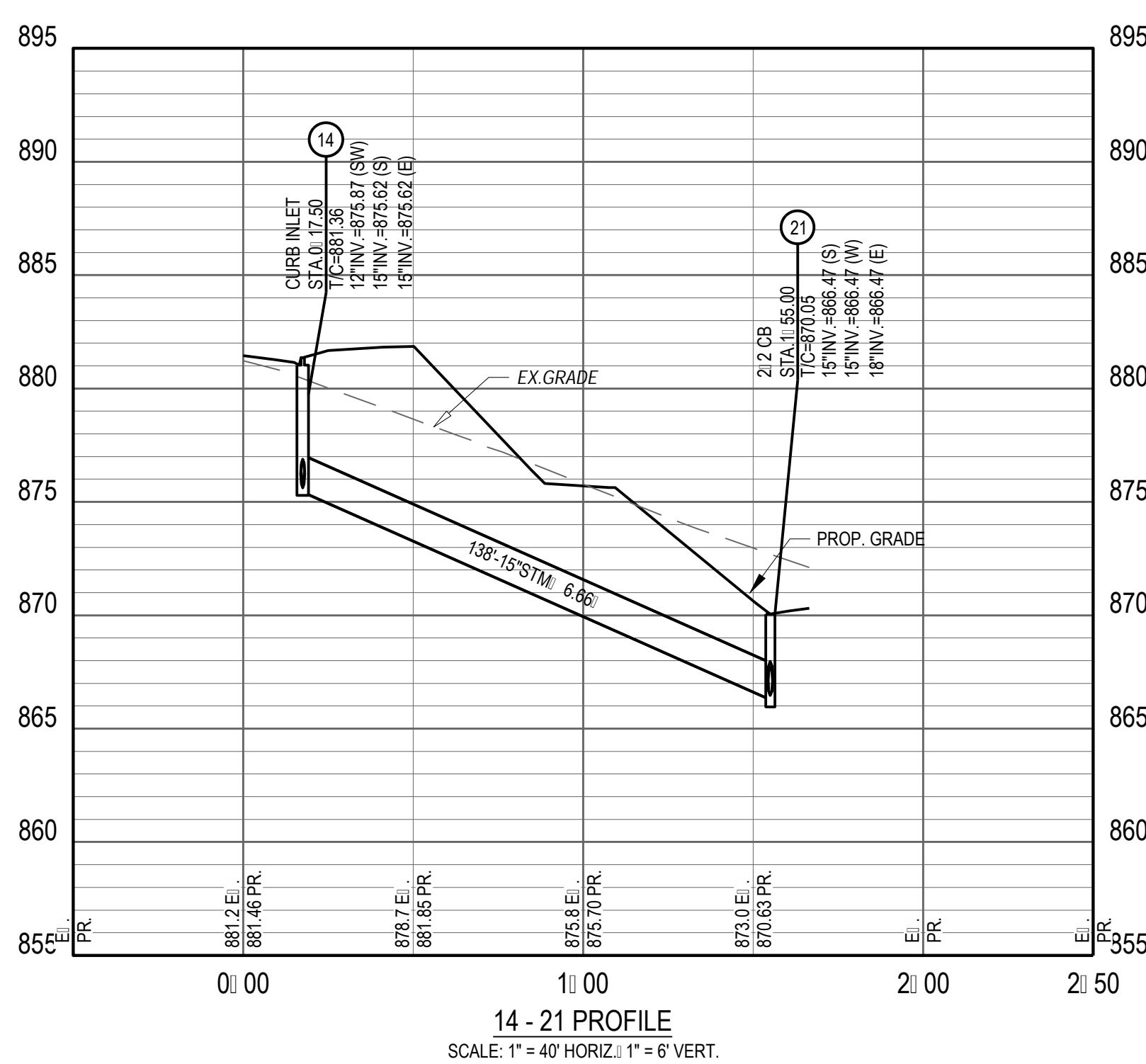
FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

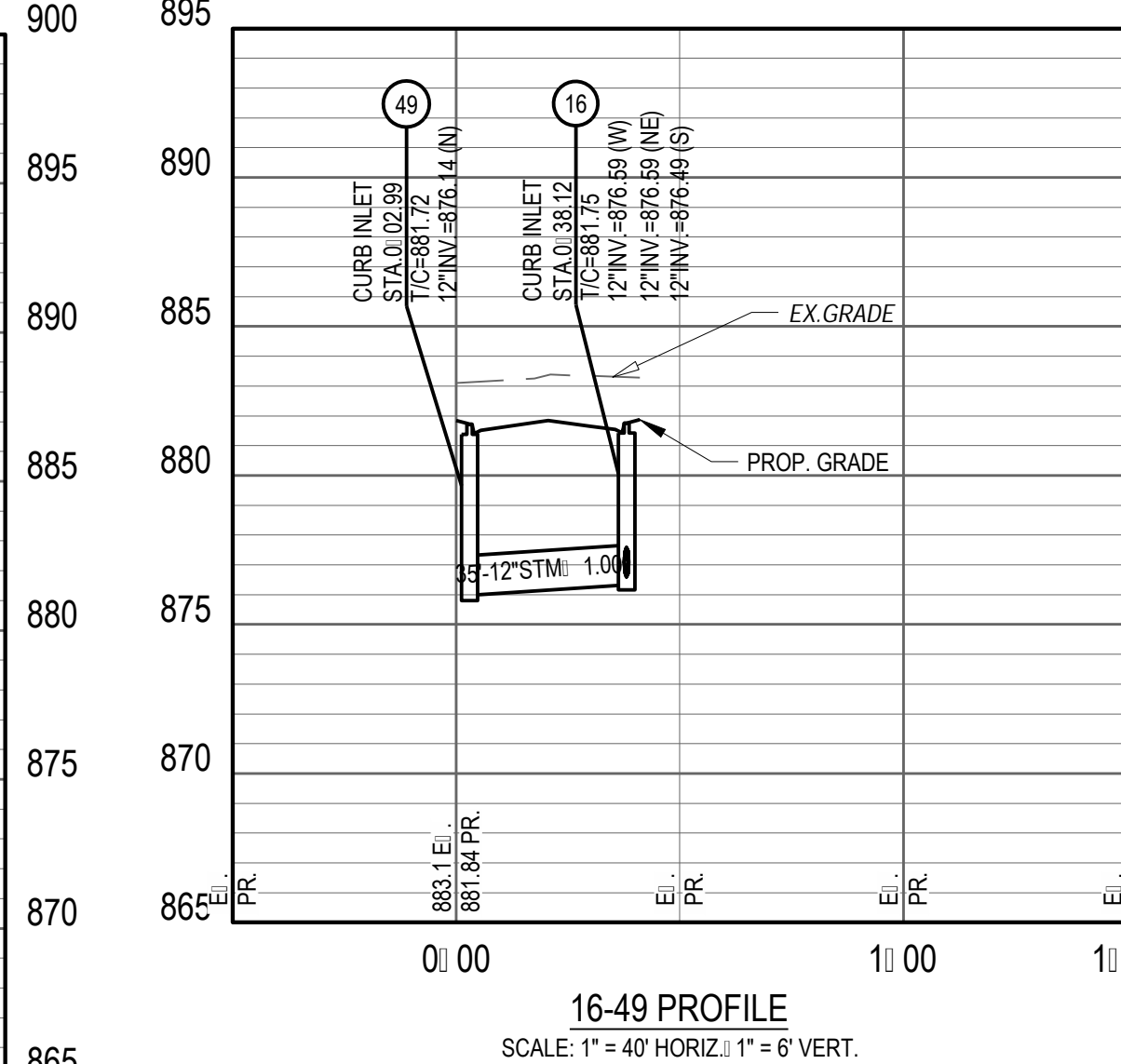
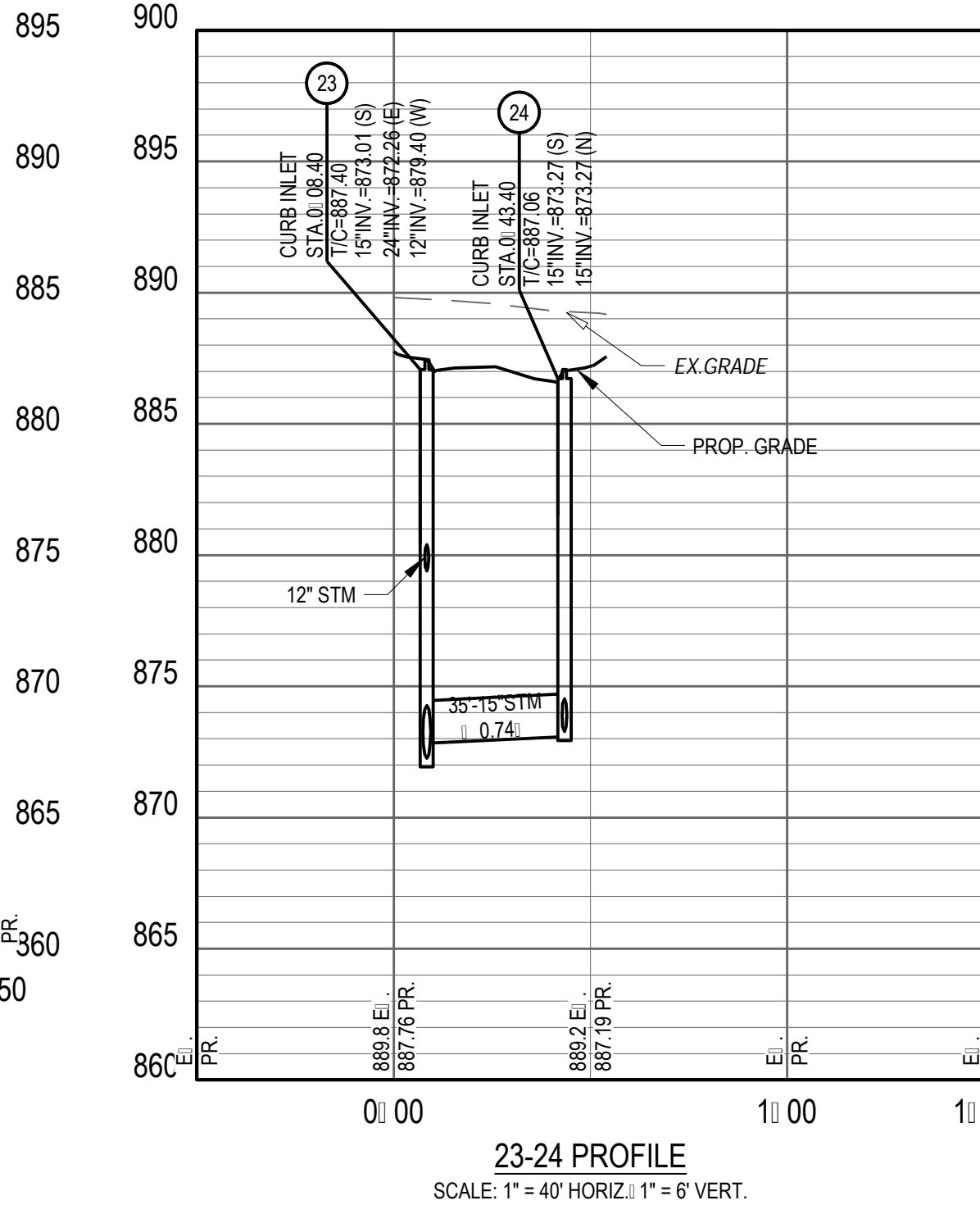
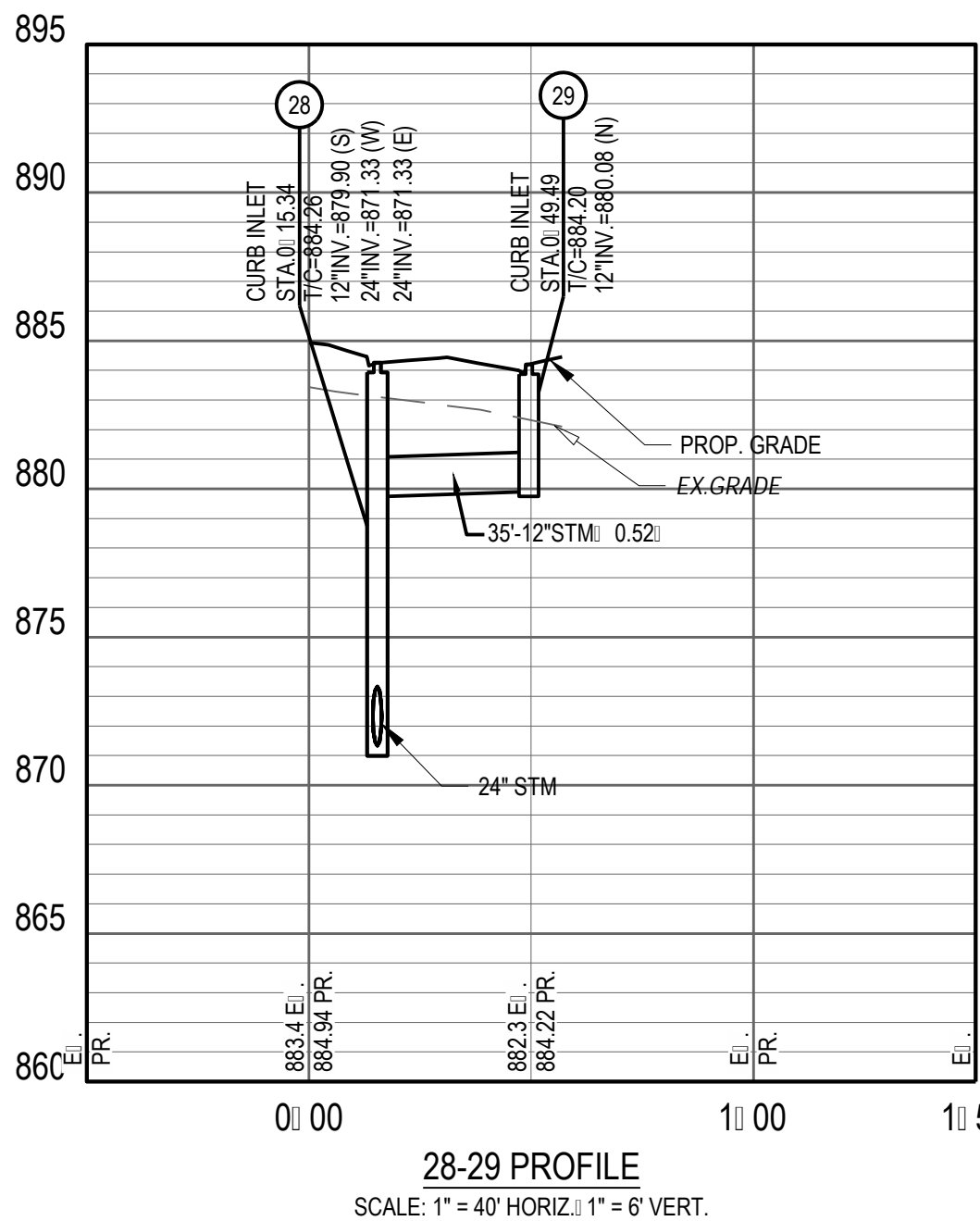
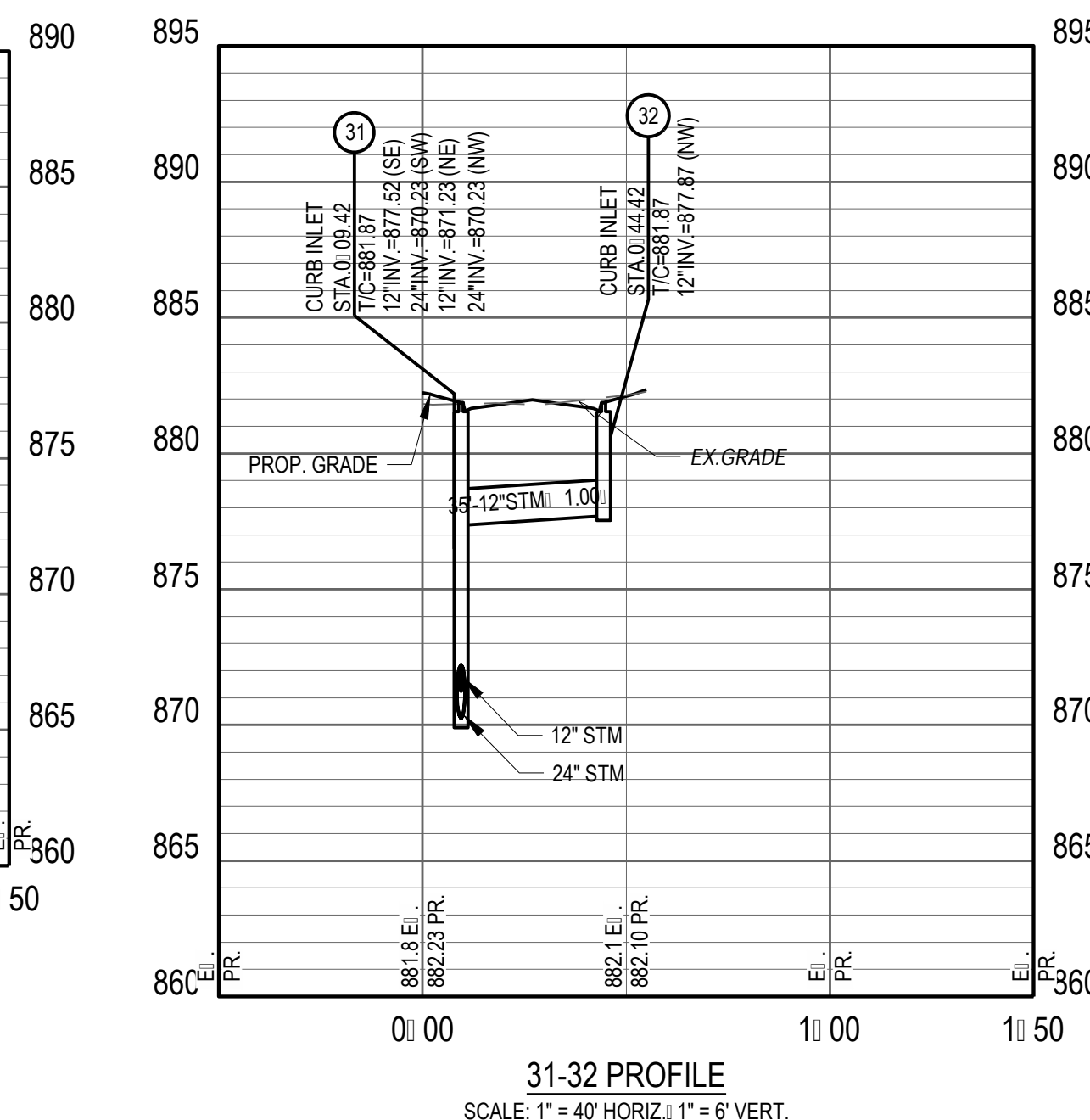
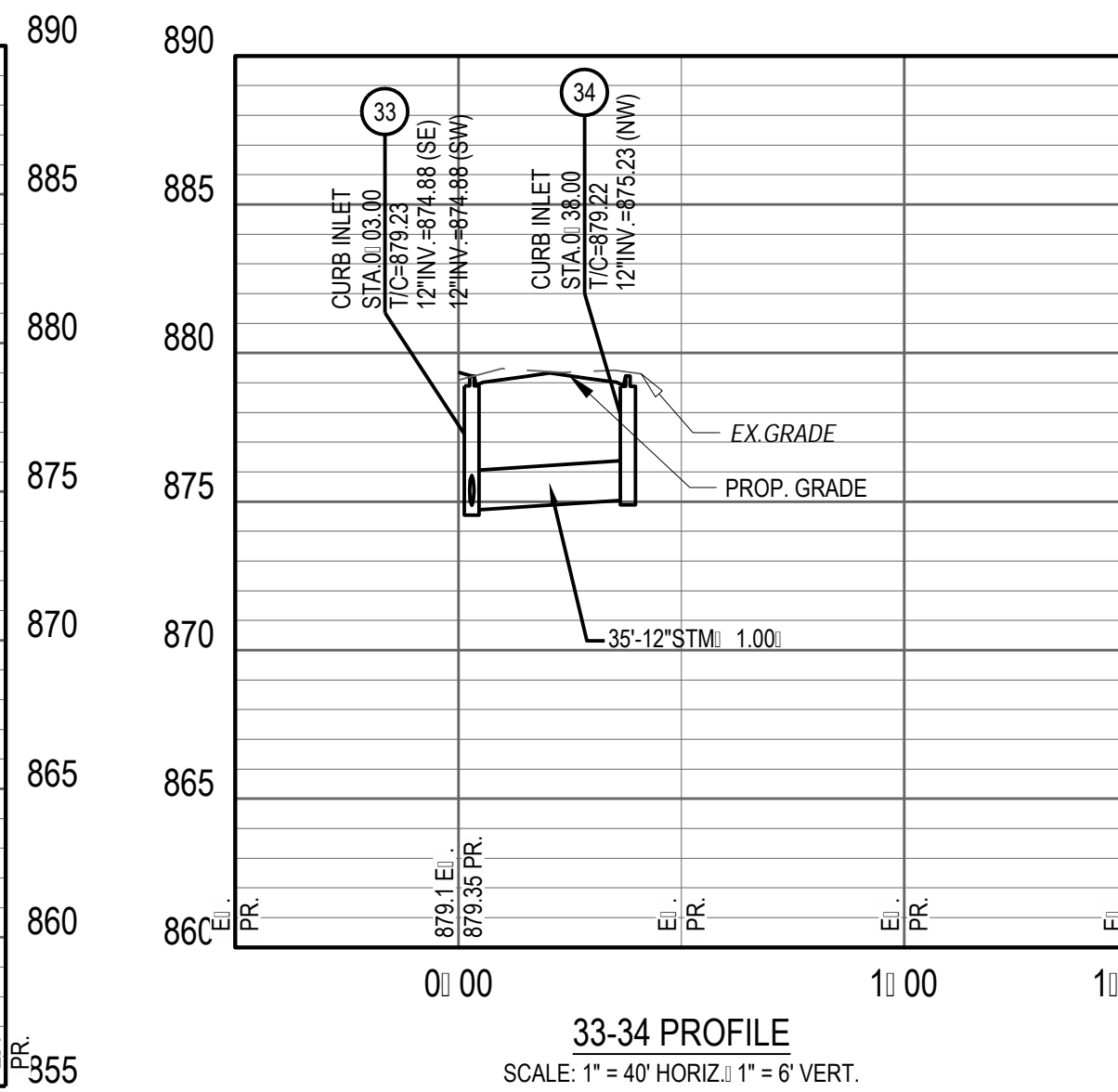
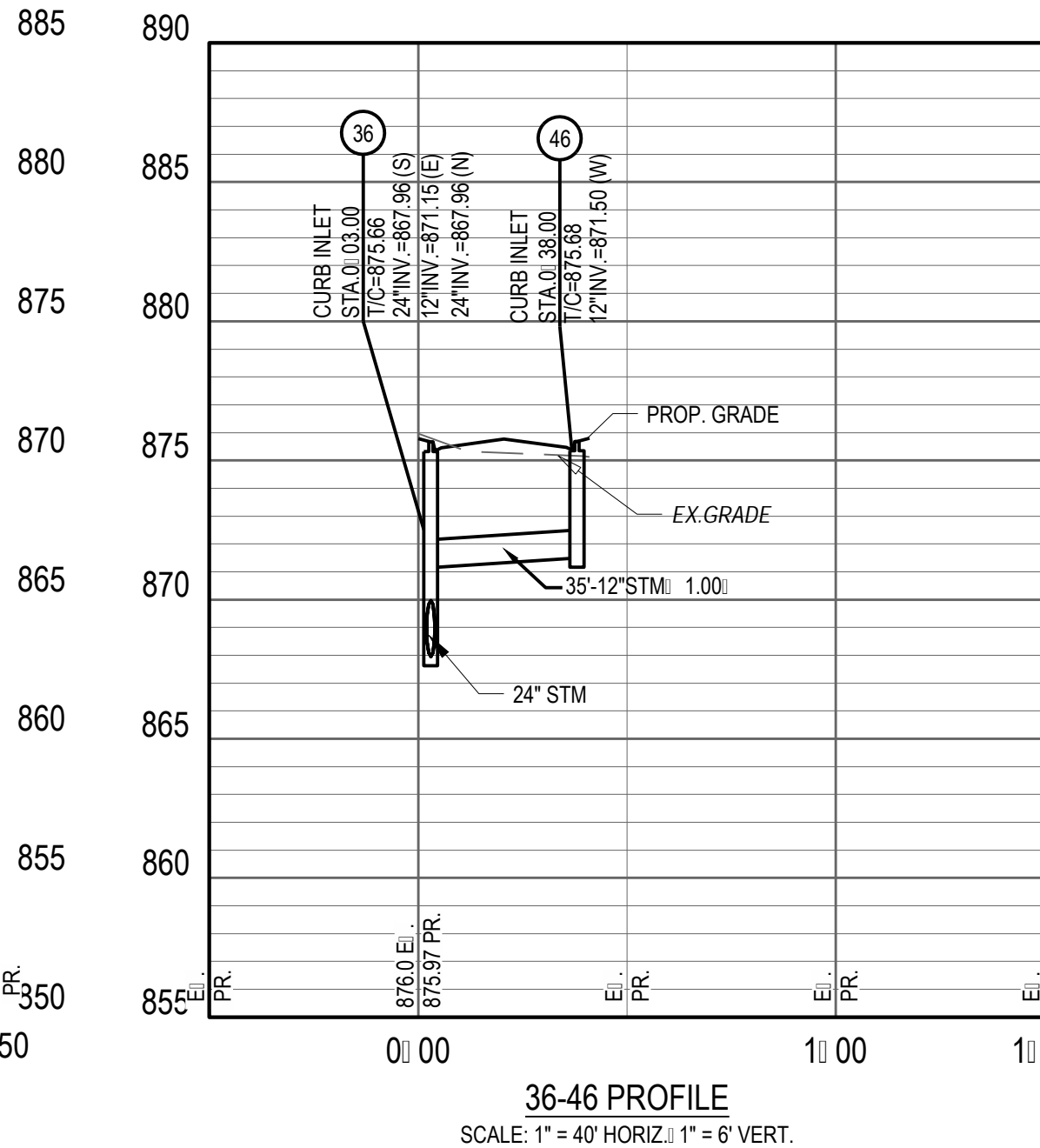
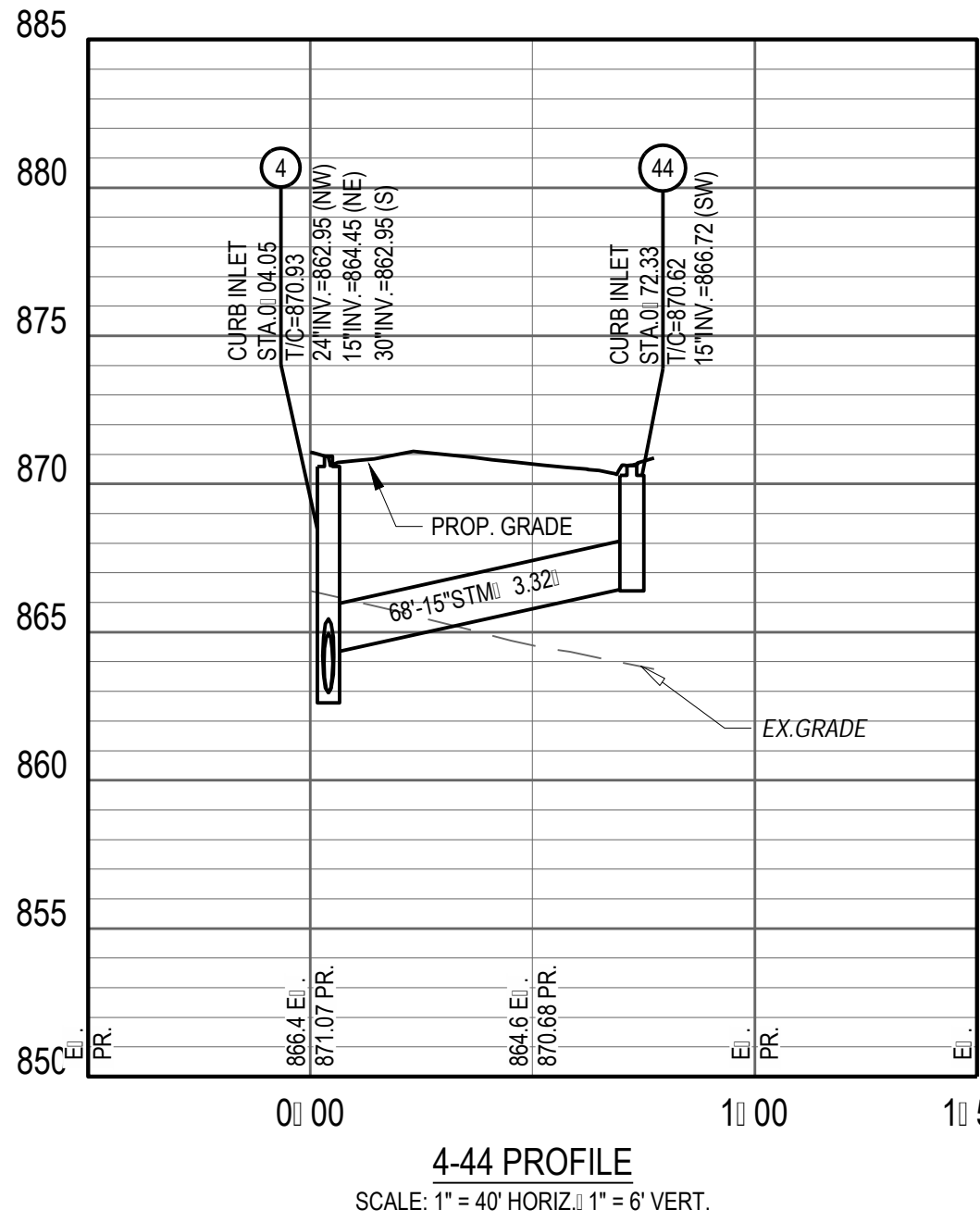
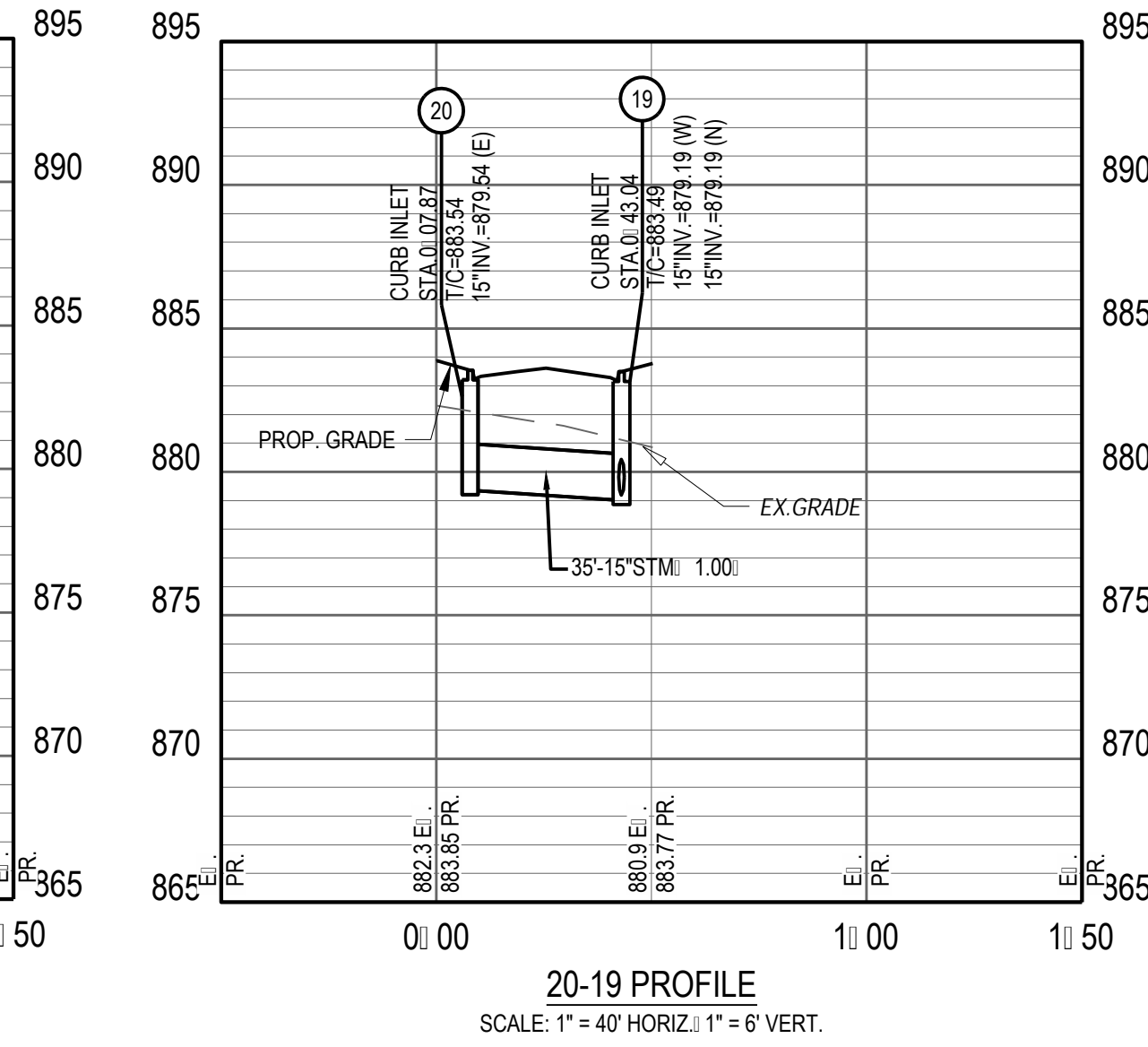
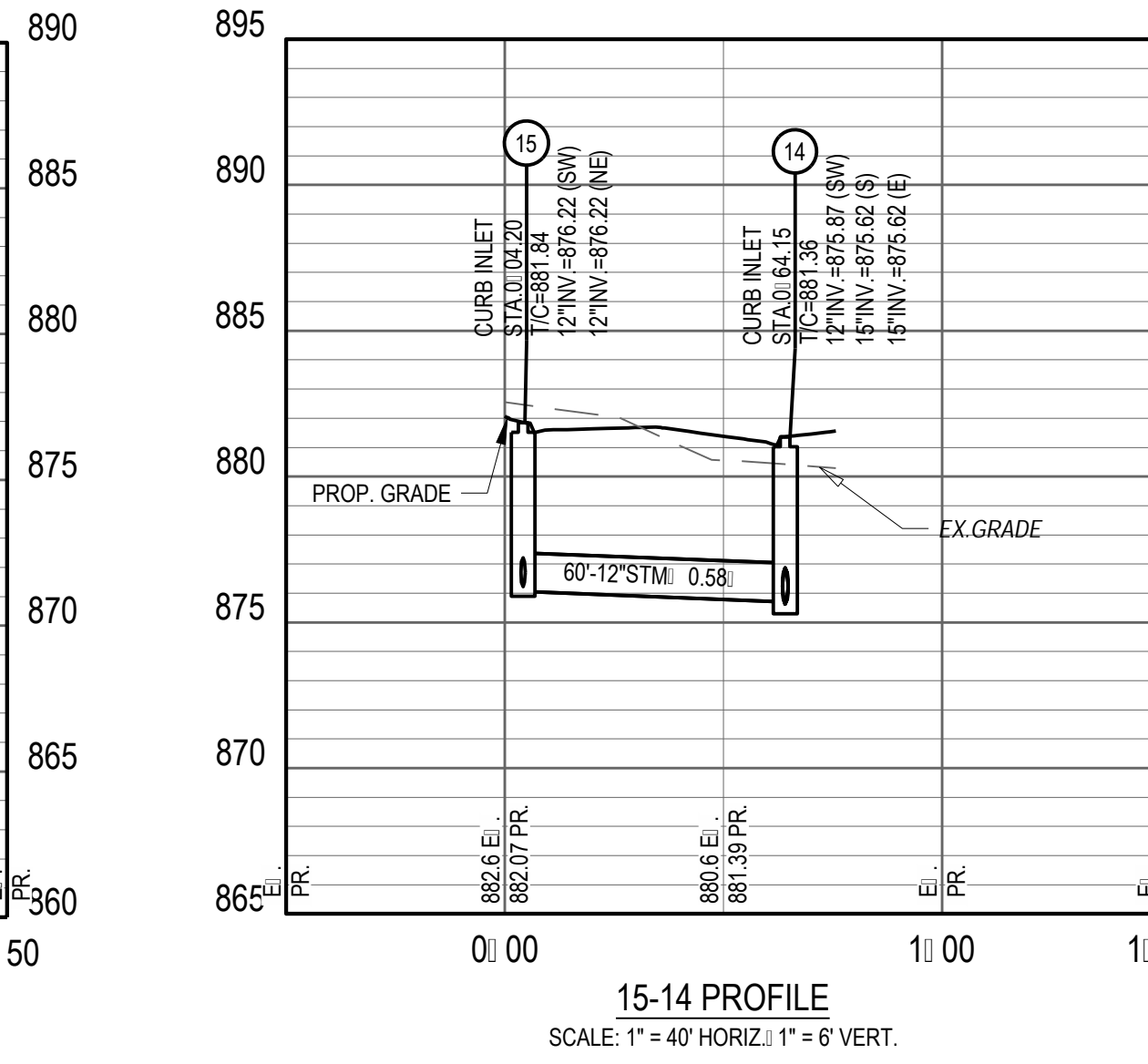
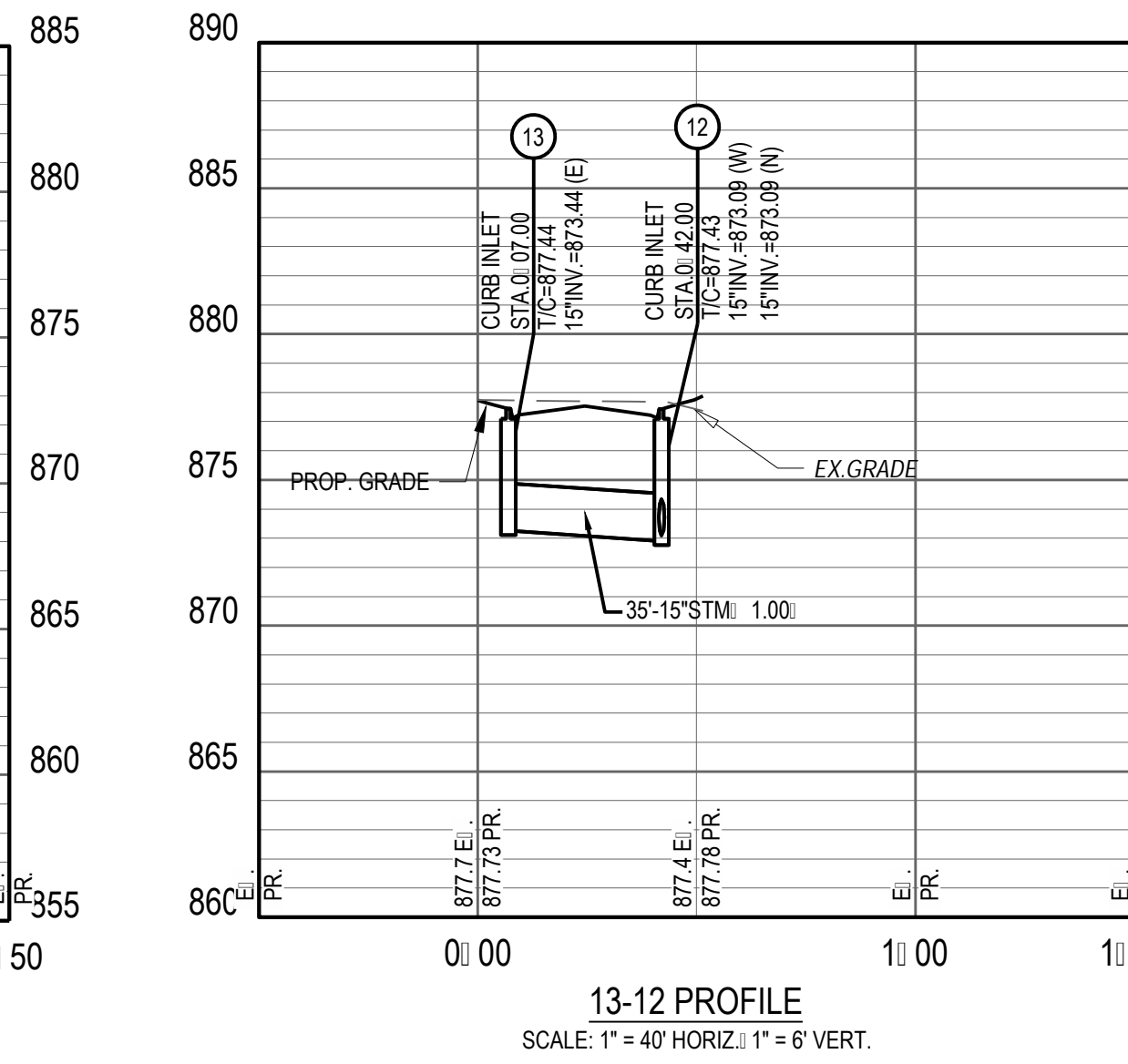
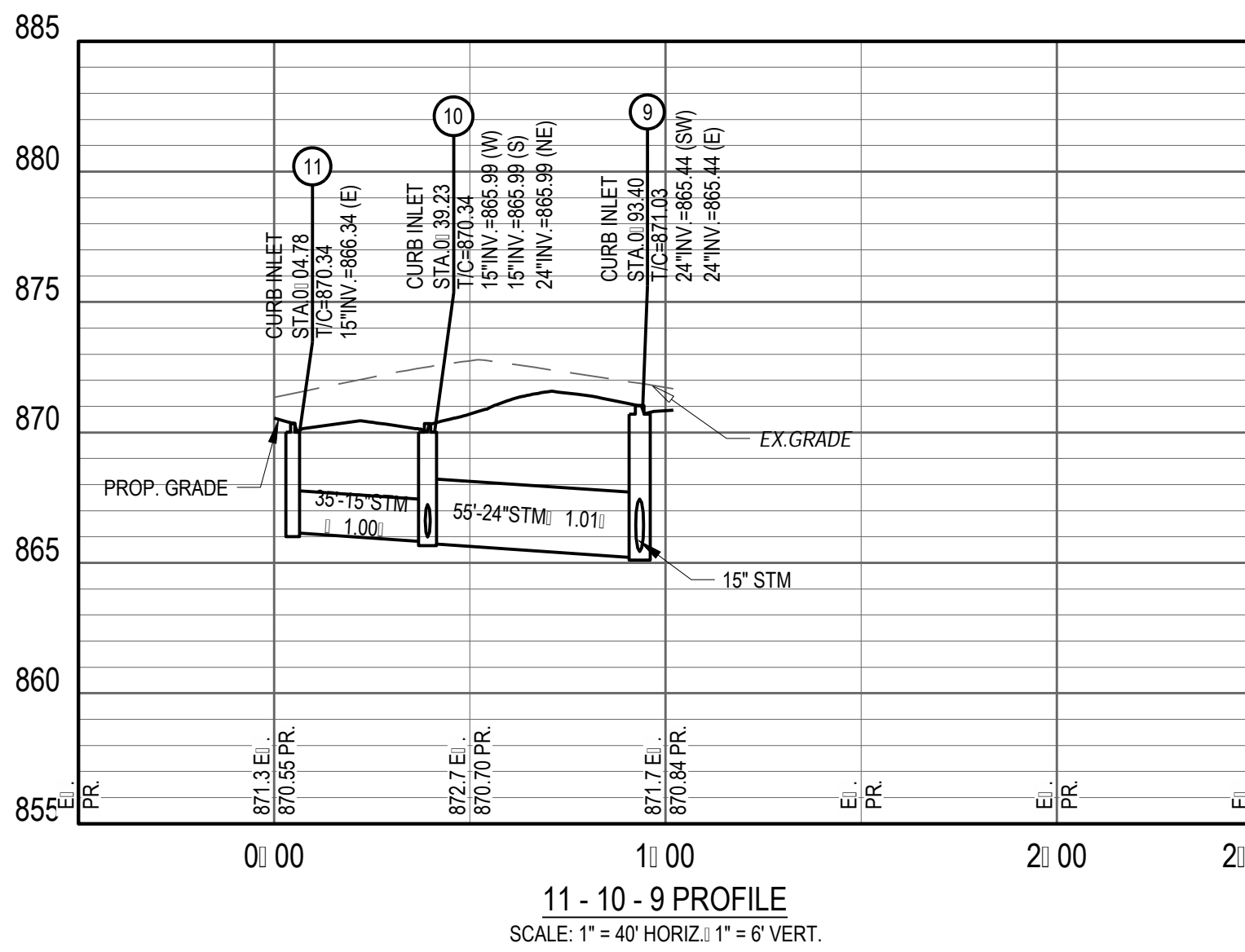
Drawing Title:
OFFSTREET PROFILES

FORTY- EIGHT (48) HOURS
 BEFORE DIGGING IS TO
 COMMENCE, THE CONTRACTORS
 SHALL NOTIFY THE FOLLOWING
 AGENCIES: OHIO UTILITIES
 PROTECTION SERVICE AT 811 OR
 800-362-2764 AND ALL OTHER
 AGENCIES WHICH MIGHT HAVE
 UNDERGROUND UTILITIES
 INVOLVING THIS PROJECT AND
 ARE NONMEMBERS OF STATE
 UTILITIES PROTECTION SERVICE

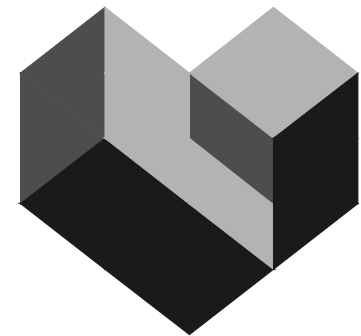


C:\DCI\ACCDocs\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\OFFSTREET PROFILES.dwg - 6/13/2025 - Ryan Hopkins

C:\DACC\Draws\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\OFF-STREET PROFILES.dwg - 6/13/2025 - Ryan Hopkins



FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigny Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE IN ACCORDANCE WITH THE PURPOSES OF INFORMATION.

FORESTAR

SHAKER FARMS PH 1, 2 & 3

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

Project Number: 763884

Scale: AS SHOWN

Drawn By: SCR

Checked By: JEE

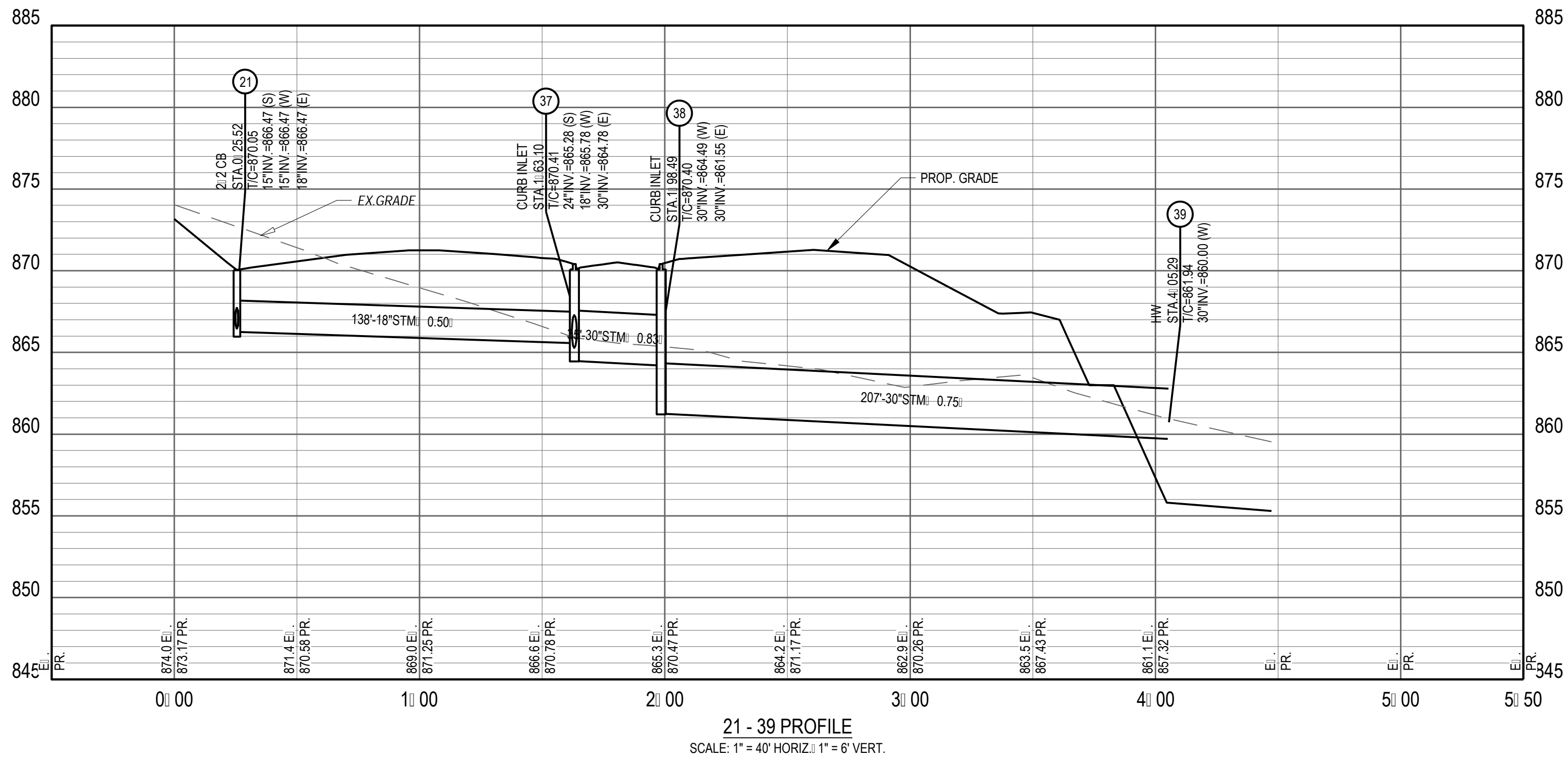
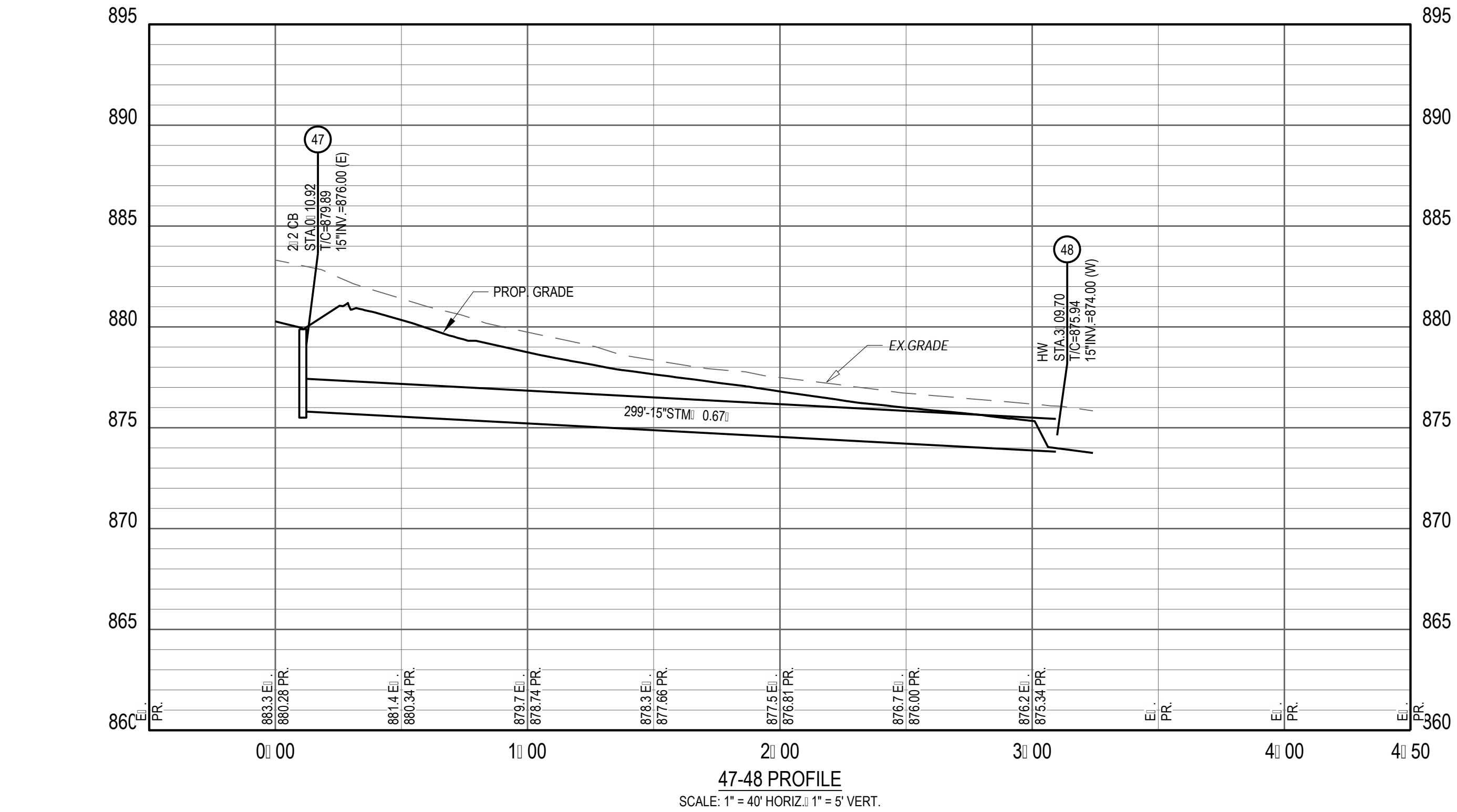
Date: JUNE 16, 2025

Issue: FINAL DEVELOPMENT PLAN

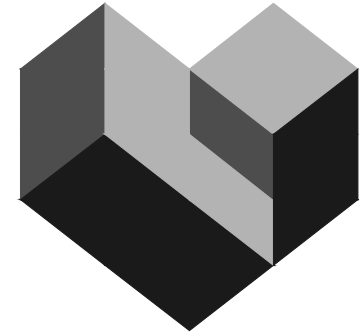
Drawing Title:

OFFSTREET PROFILES

C:\DCA\CDos\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\OFFSTREET PROFILES.dwg - 6/13/2025 - Ryan Hopkins



FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THIS INFORMATION IS PRELIMINARY AND INCOMPLETE. IT IS NOT TO BE USED FOR CONSTRUCTION OR FOR ANY OTHER PURPOSES.

FORESTAR
SHAKER FARMS
PH 1, 2 & 3
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
OFFSTREET PROFILES

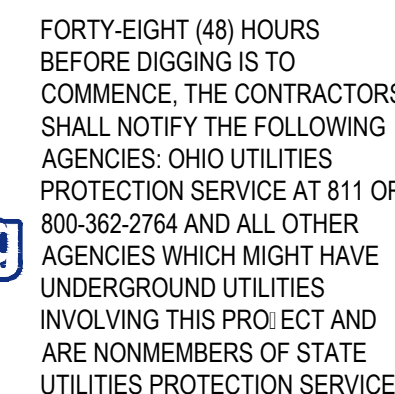


THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE, NOT FOR CONSTRUCTION, RECORDING PURPOSES, OR IMPLEMENTATION.

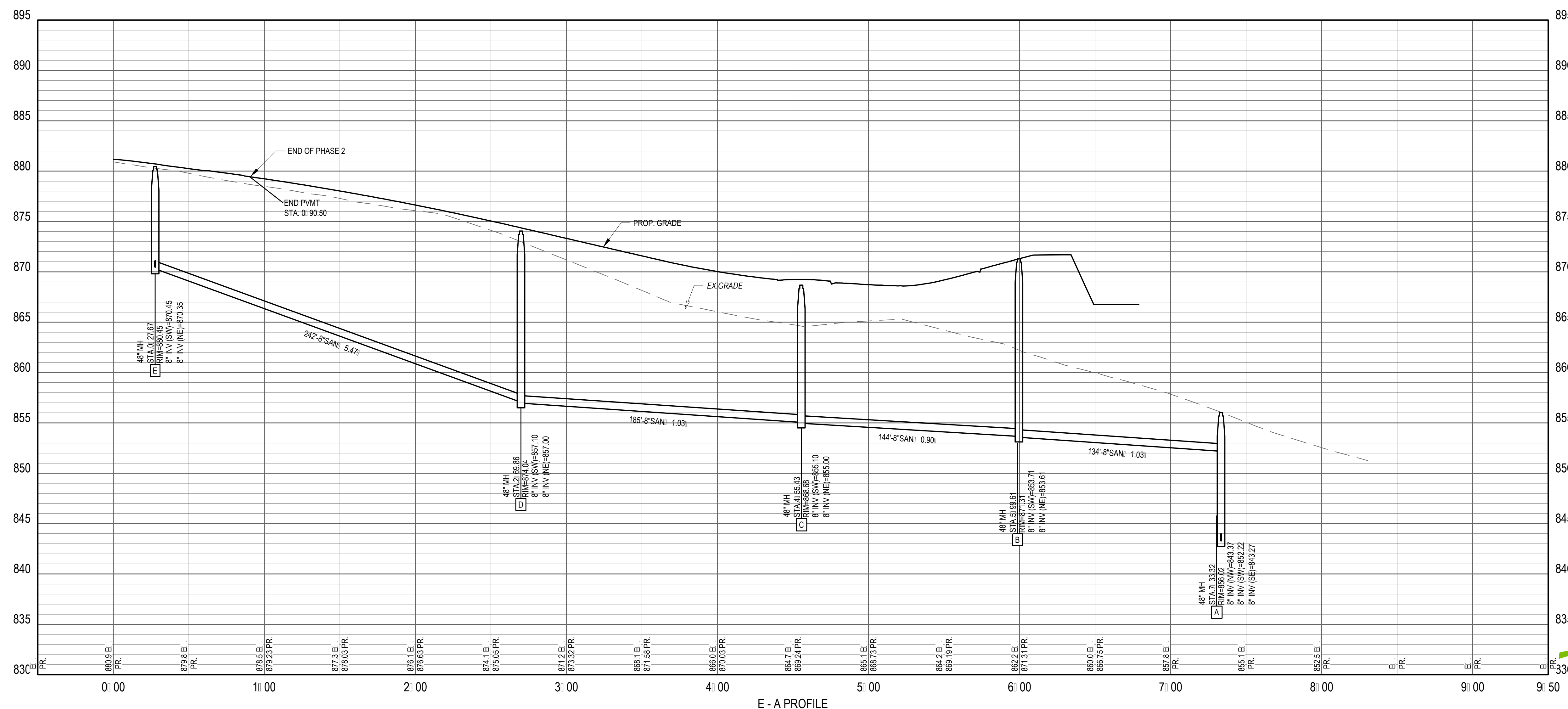
SHAKER FARMS PH 1, 2 & 3

Revisions / Submissions		
ID	Description	Date

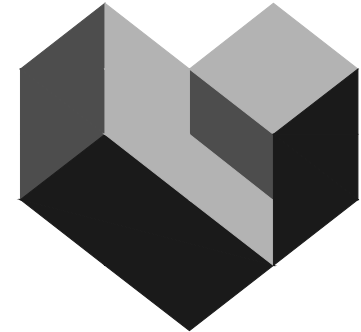
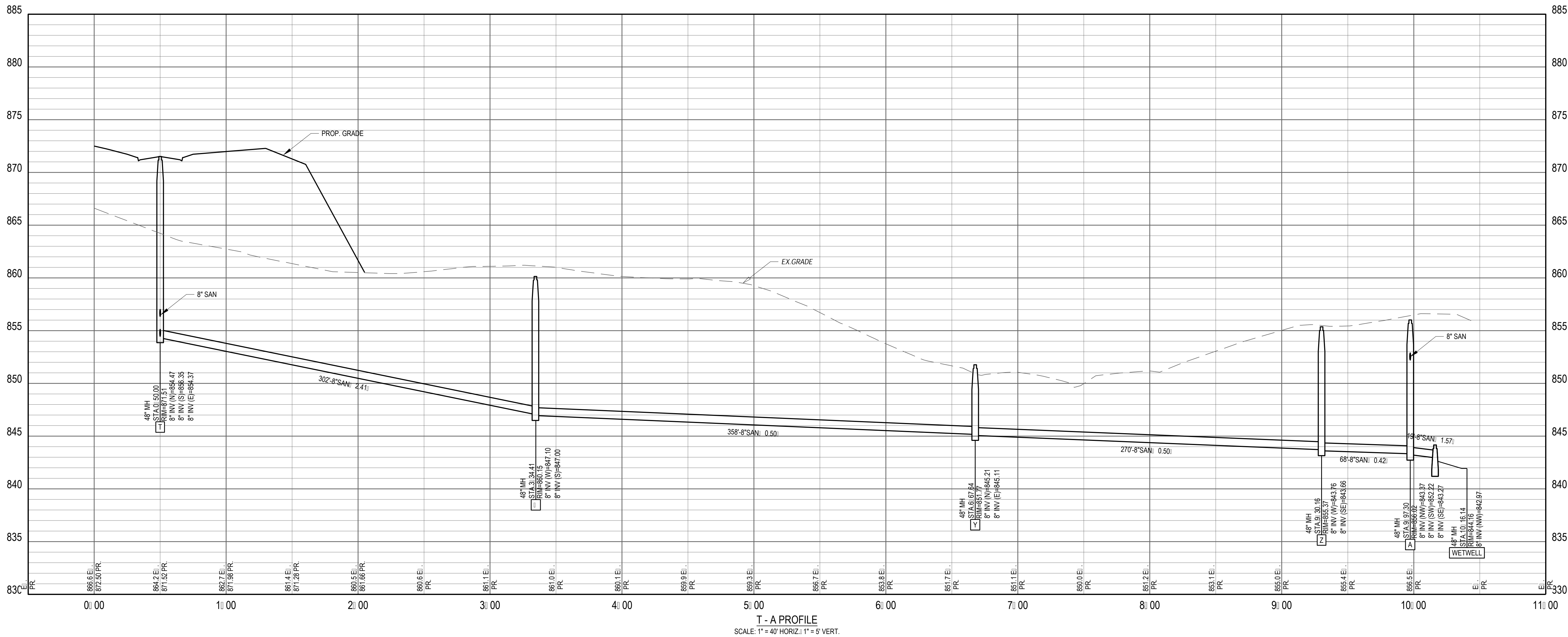
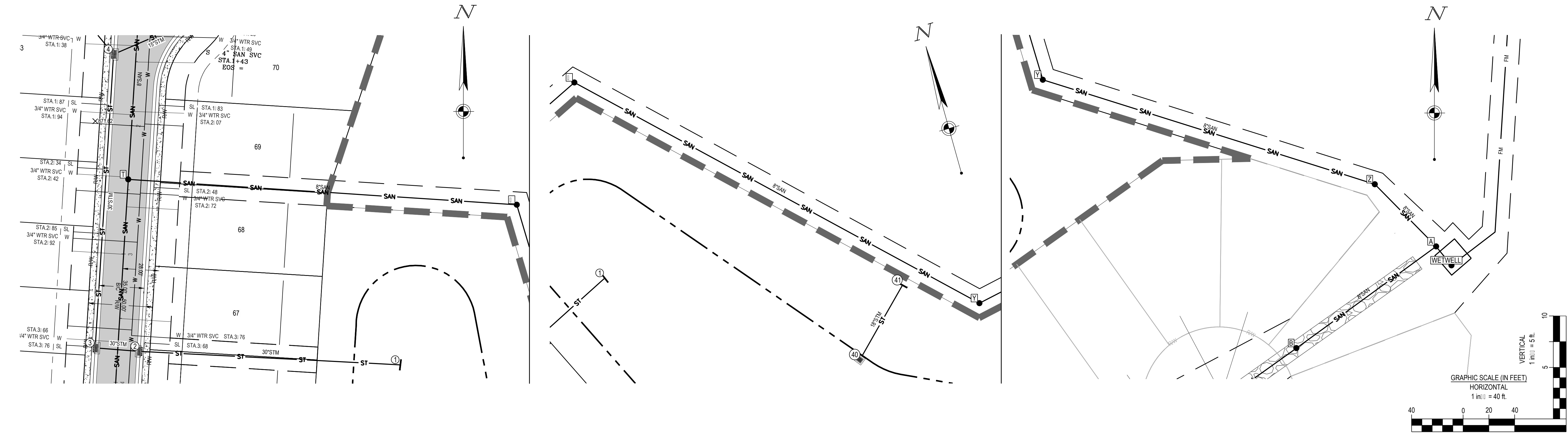
OFFSTREET PROFILES



FORTY- EIGHT (48) HOURS
 BEFORE DIGGING IS TO
 COMMENCE, THE CONTRACTOR
 SHALL NOTIFY THE FOLLOWING
 AGENCIES: OHIO UTILITIES
 PROTECTION SERVICE AT 811 OR
 800-362-2764 AND ALL OTHER
 AGENCIES WHICH MIGHT HAVE
 UNDERGROUND UTILITIES
 INVOLVING THIS PROJECT AND
 ARE NONMEMBERS OF STATE
 UTILITIES PROTECTION SERVICE



C:\D:\ACC\Draws\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\OFFSTREET PROFILES.dwg - 01/13/2025 - Ryan Hopkins



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44880
Phone: 937.435.8584 Fax: 888.208.4826

THIS INFORMATION IS PRELIMINARY AND
INCOMPLETE. IT IS NOT TO BE USED FOR
CONSTRUCTION OR FOR ANY OTHER
PURPOSES WITHOUT THE WRITTEN
CONSENT OF CESO.

FORESTAR

SHAKER FARMS PH 1, 2 & 3

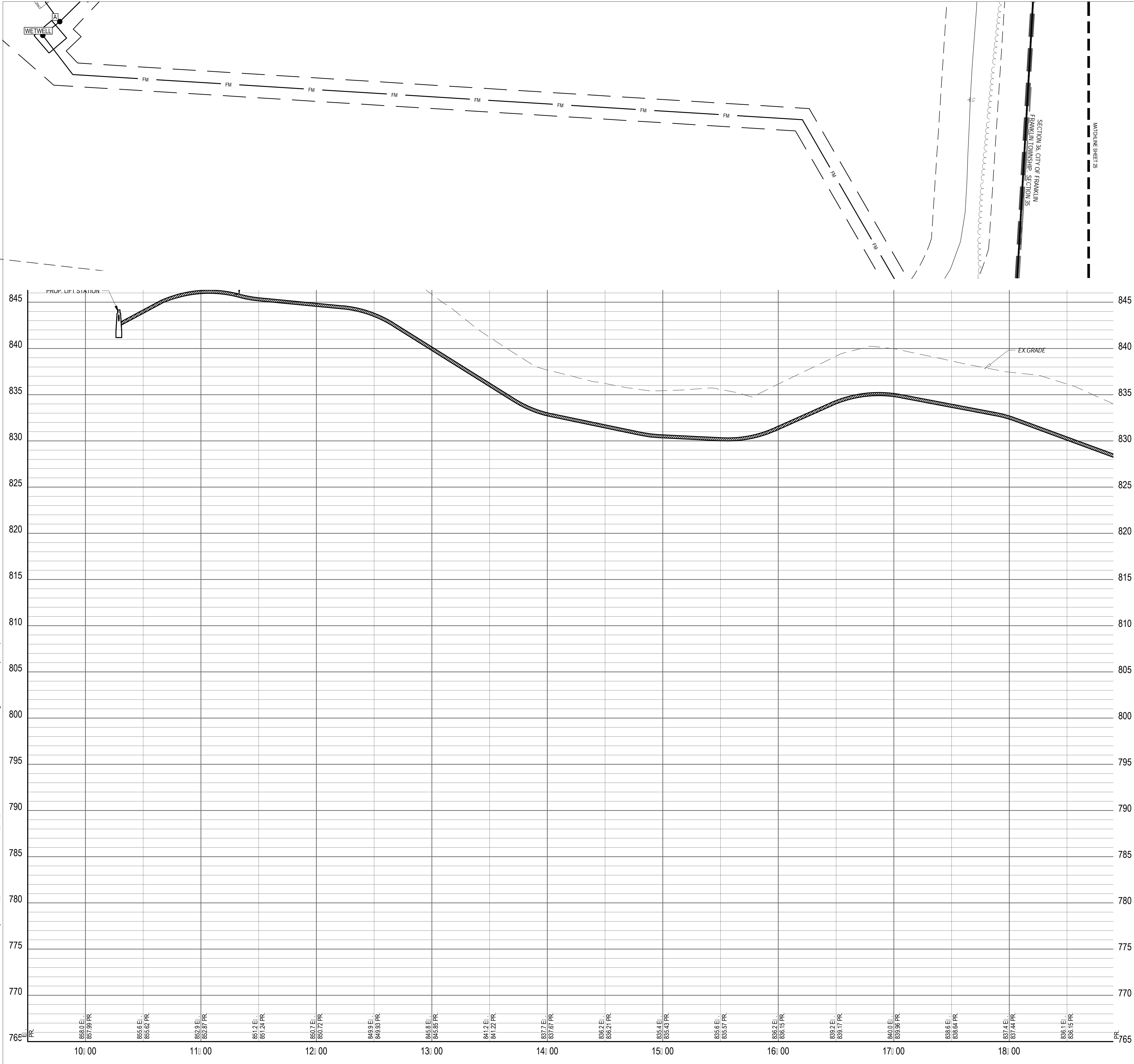
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

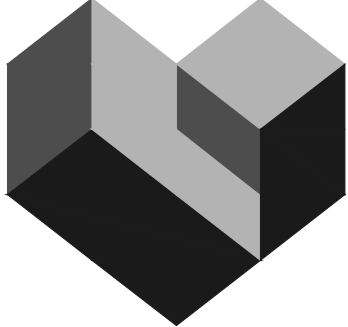
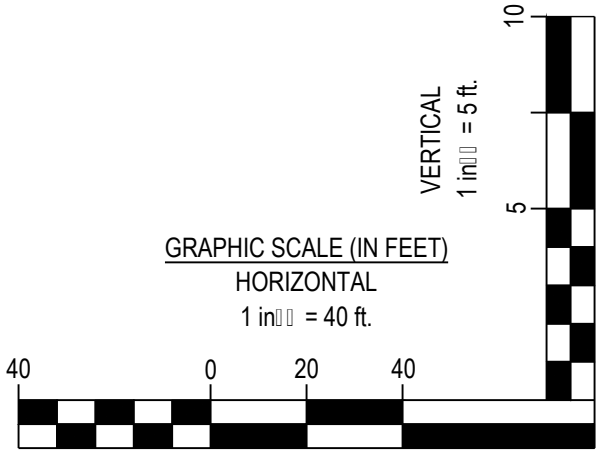
Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
OFFSTREET PROFILES

C:\DCA\CDos\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_L1-3\PLAN\OFFSTREET PROFILES.dwg - 01/13/2025 - Ryan Hopkins



FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR RECORDING PURPOSES OR IMPLEMENTATION

FORESTAR

SHAKER FARMS PH 1, 2 & 3

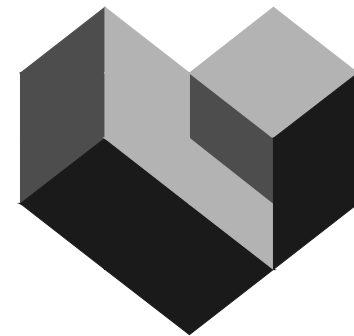
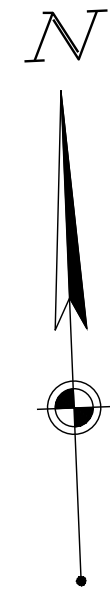
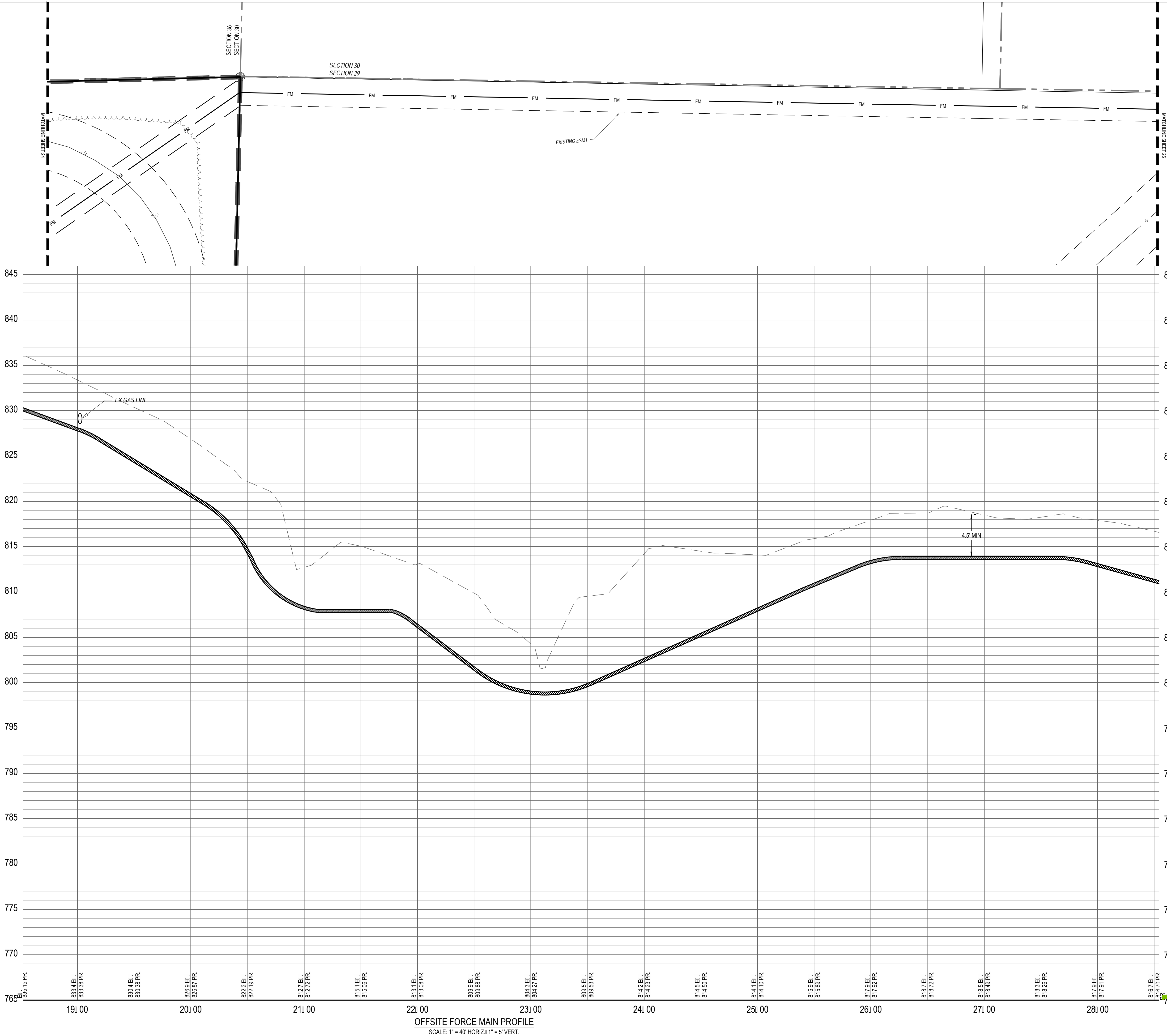
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
OFFSTREET PROFILES

C:\DCA\CDos\CESO\Forestar Shaker Farms\Project Files\ CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\OFFSTREET PROFILES.dwg - 6/13/2025 - Ryan Hopkins



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS
DOCUMENT IS PRELIMINARY OR
INCOMPLETE. IT IS NOT TO BE
USED FOR CONSTRUCTION OR FOR
PURPOSES OF REPRESENTATION.

FORESTAR

**SHAKER FARMS
PH 1, 2 & 3**

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

Project Number: 763884

Scale: AS SHOWN

Drawn By: SCR

Checked By: JEE

Date: JUNE 16, 2025

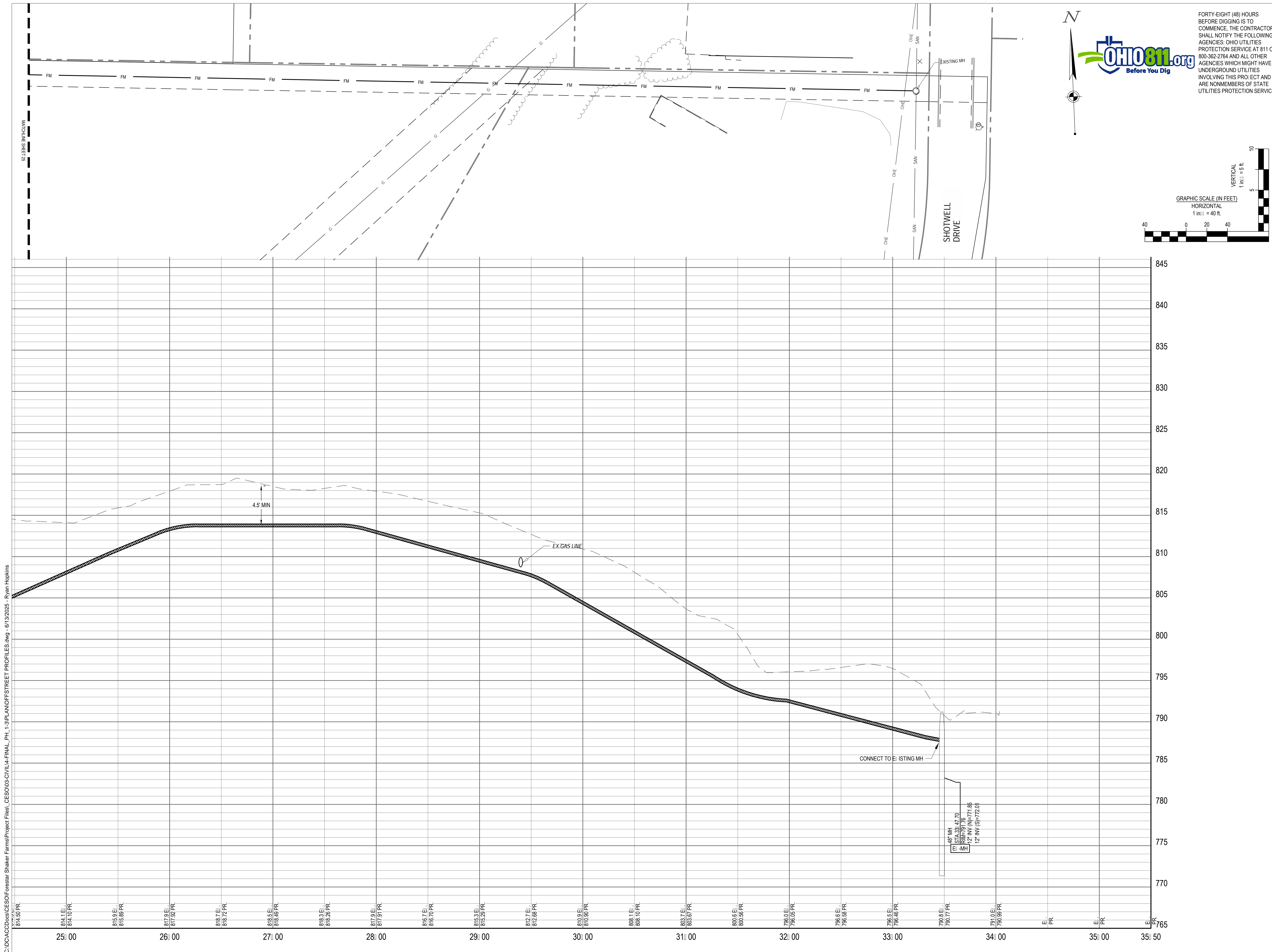
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:

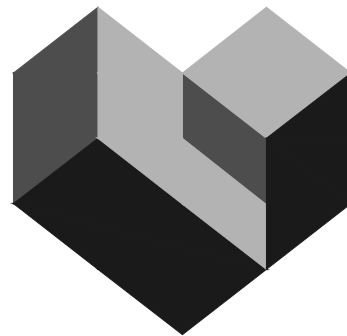
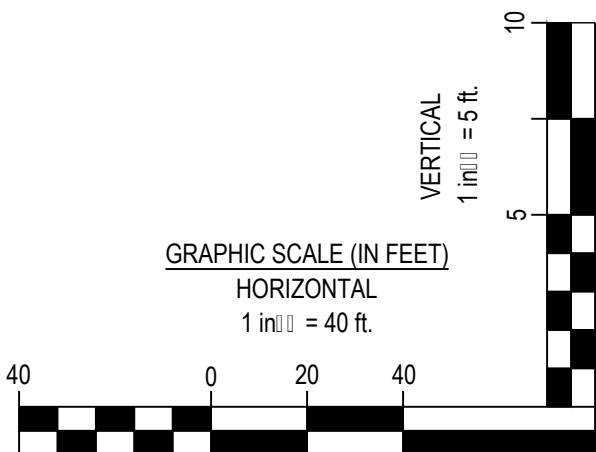
OFFSTREET PROFILES

FORTY-EIGHT (48) HOURS
BEFORE DIGGING IS TO
COMMENCE, THE CONTRACTORS
SHALL NOTIFY THE FOLLOWING
AGENCIES: OHIO UTILITIES
PROTECTION SERVICE AT 811 OR
800-362-2764 AND ALL OTHER
AGENCIES WHICH MIGHT HAVE
UNDERGROUND UTILITIES
INVOLVING THIS PROJECT AND
ARE NONMEMBERS OF STATE
UTILITIES PROTECTION SERVICE





FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



3601 Rigby Rd., Suite 300
Miamisburg, OH 45342
Phone: 937.435.8584 Fax: 888.208.4826



SHAKER FARMS

PH 1, 2 & 3

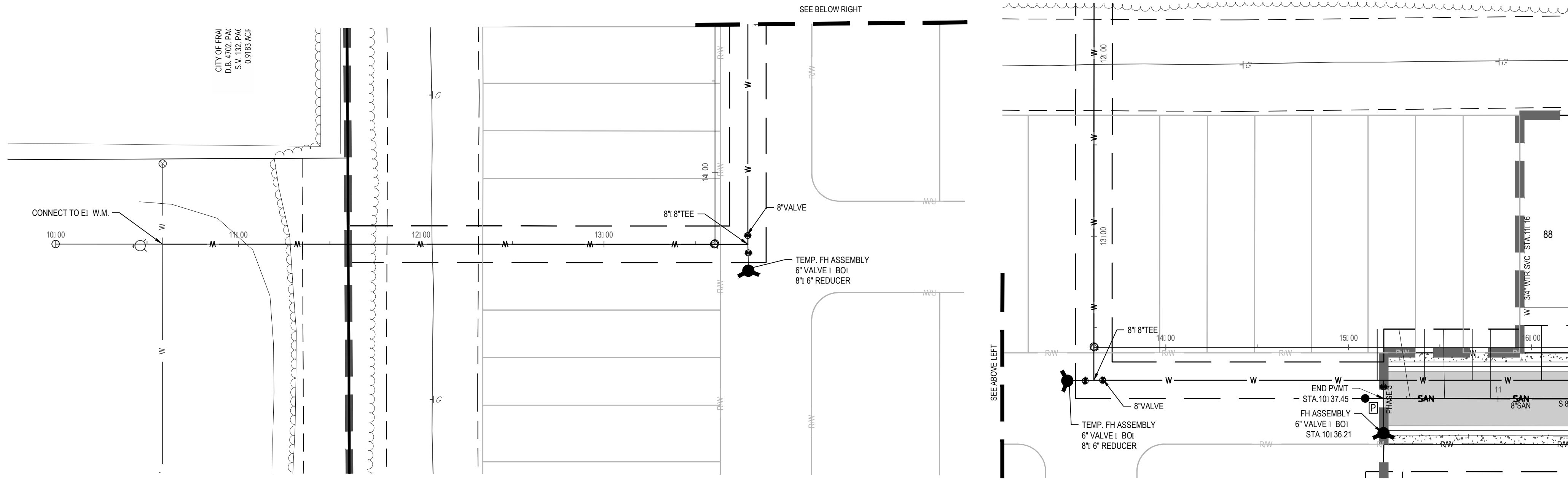
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

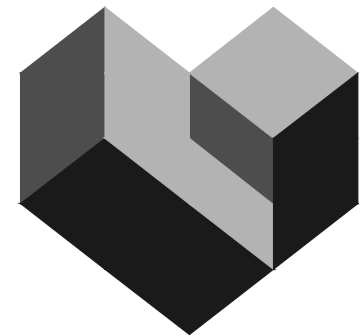
Project Number:	763884
Scale:	AS SHOWN
Drawn By:	SCR
Checked By:	JEE
Date:	JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN	

Drawing Title:
OFFSTREET PROFILES

C:\D:\ACC\Draws\CESO\Farmers\Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\OFFSTREET PROFILES.dwg - 6/13/2025 - Ryan Hopkins

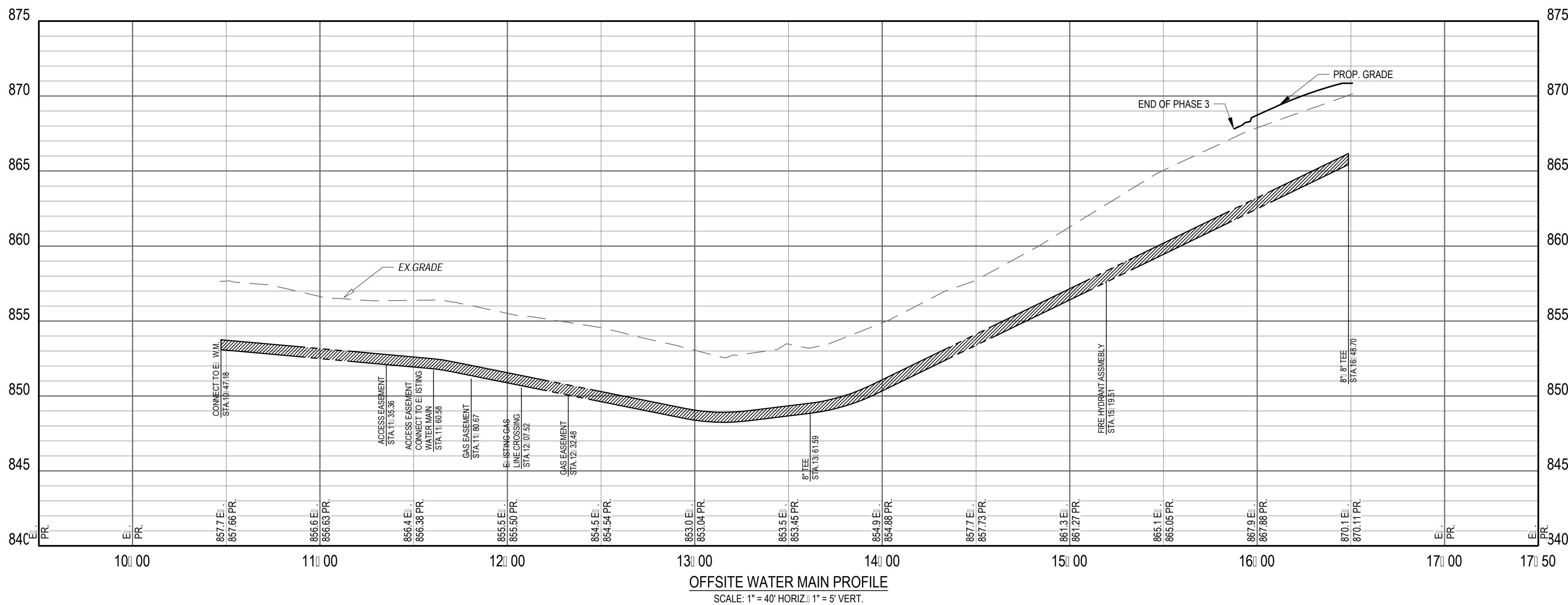
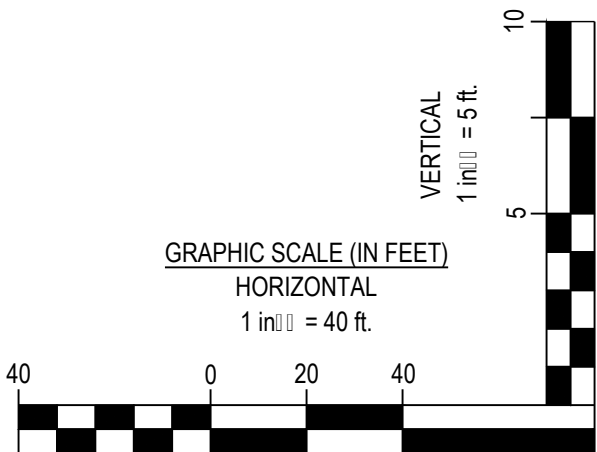


FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 800-362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826



FORESTAR

SHAKER FARMS PH 1, 2 & 3

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

Project Number: 763884

Scale: AS SHOWN

Drawn By: SCR

Checked By: JEE

Date: JUNE 16, 2025

Issue: FINAL DEVELOPMENT PLAN

Drawing Title:

OFFSTREET PROFILES

C:\D:\ACC\Draws\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\FINAL_PH_1-3\PLAN\GRADING PLAN.dwg - 6/13/2025 - Ryan Hopkins



LEGEND

- | | |
|--|-------------------------------------|
| | EI ISTING INDEI CONTOUR |
| | EI ISTING INTERMEDIATE CONTOUR |
| | SUBJECT BOUNDARY LINE |
| | EI ISTING PROPERTY LINE |
| | EI ISTING RW |
| | EI ISTING CENTERLINE |
| | EI ISTING TREE LINE |
| | EI ISTING INTERMITTENT STREAM |
| | EI ISTING EASEMENT |
| | EI ISTING EDGE OF PAVEMENT |
| | EI ISTING FACE OF CURB |
| | EI ISTING BACK OF CURB |
| | EI ISTING STORM SEWER |
| | EI ISTING SANITARY SEWER |
| | EI ISTING WATER MAIN |
| | EI ISTING STORM STRUCTURES |
| | EI ISTING SANITARY SEWER MANHOLE |
| | EI ISTING WATER STRUCTURES |
| | EI ISTING CABLE BOX |
| | EI ISTING STRUCTURE |
| | EI ISTING WETLAND (TO REMAIN) |
| | EI ISTING WETLAND (TO BE MITIGATED) |
| | PROPOSED INDEI CONTOUR |
| | PROPOSED INTERMEDIATE CONTOUR |
| | PROPOSED PHASE LINE |
| | PROPOSED RIGHT-OF-WAY |
| | PROPOSED PROPERTY LINE |
| | PROPOSED SETBACK |
| | PROPOSED EASEMENT |
| | PROPOSED BASIN |
| | PROPOSED CENTERLINE |
| | PROPOSED CURB - GUTTER |
| | PROPOSED STORM SEWER |
| | PROPOSED STORM STRUCTURES |
| | PROPOSED SANITARY SEWER |
| | PROPOSED SANITARY SEWER MANHOLE |
| | PROPOSED WATER LINE |
| | PROPOSED WATER HYDRANT/VALVE |
| | SIDEWALK |
| | ASPHALT |
| | FLOOD ROUTING |
| | BUILDER'S SWALE |
| | PROPOSED TOP OF CASTING |
| | PROPOSED SPOT ELEVATION |
| | PROPOSED LOW POINT |
| | PROPOSED HIGH POINT |

×TC=902.75
×905.25
×LP=903.58
×HP=912.17



THE INFORMATION ON THIS
DOCUMENT IS PRELIMINARY OR
INCOMPLETE AND NOT FOR
CONSTRUCTION OR RECORDING
PURPOSES OF INFORMATION

FORESTAR

SHAKER FARMS
PH 1, 2 & 3

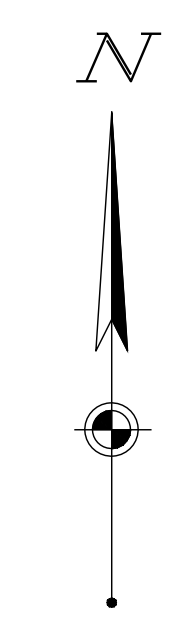
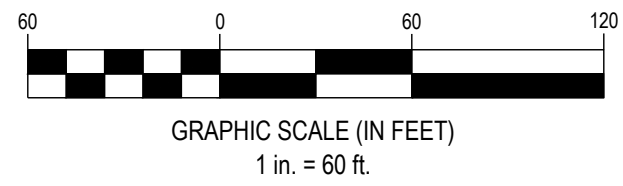
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

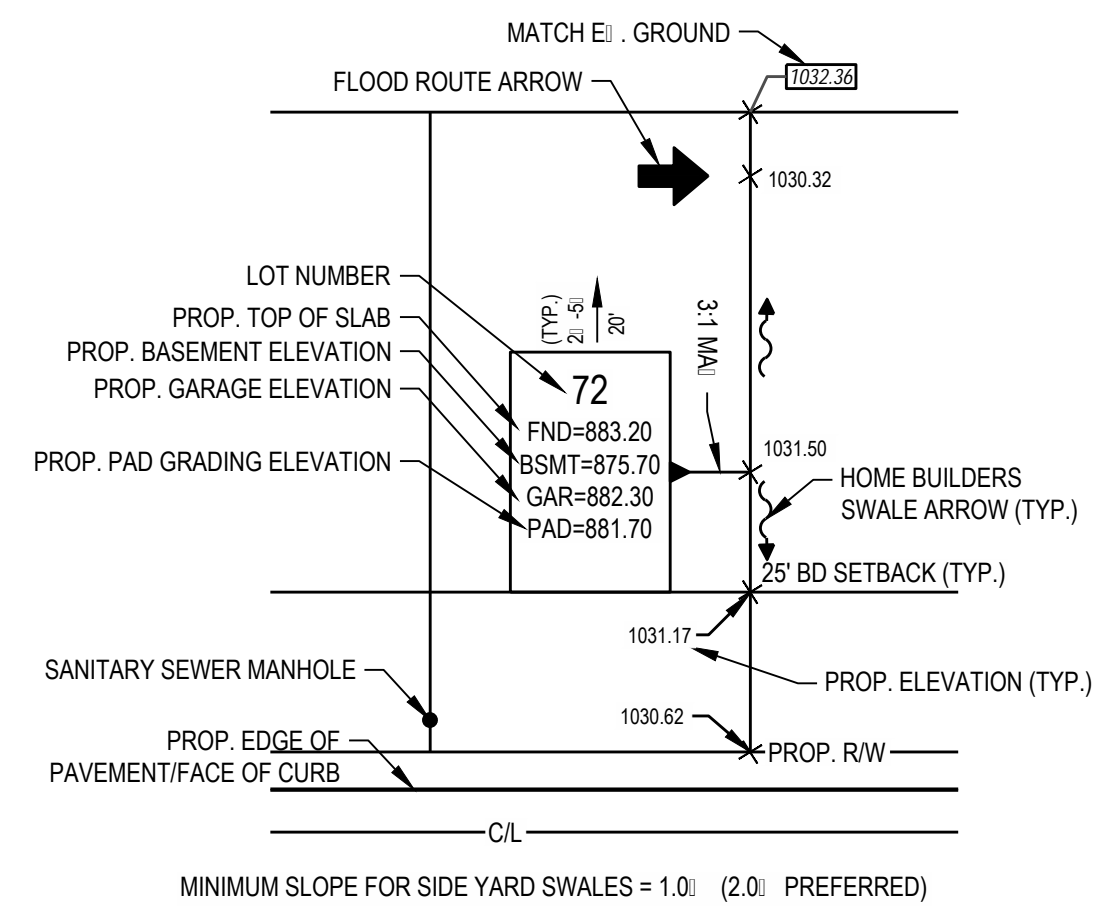
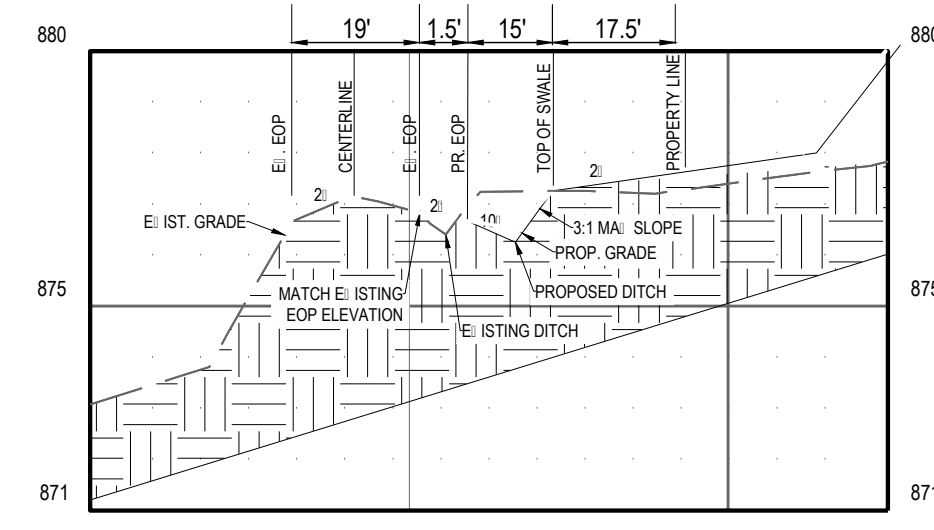
Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
**GRADING & EROSION
CONTROL PLAN - PH I**

C:\DACC\Draws\CESO\Forestar Shaker Farms\Project Files\CESO03-CIVIL4-FINAL_PH_1-3\PLAN\GRADING PLAN.dwg - 6/13/2025 - Ryan Hopkins



LEGEND	
	EI EXISTING INDEX CONTOUR
	EI EXISTING INTERMEDIATE CONTOUR
	SUB-ECT BOUNDARY LINE
	EI EXISTING PROPERTY LINE
	EI EXISTING R/W
	EI EXISTING CENTERLINE
	EI EXISTING TREE LINE
	EI EXISTING INTERMITTENT STREAM
	EI EXISTING EASEMENT
	EI EXISTING EDGE OF PAVEMENT
	EI EXISTING FACE OF CURB
	EI EXISTING BACK OF CURB
	EI EXISTING STORM SEWER
	EI EXISTING SANITARY SEWER
	EI EXISTING WATER MAIN
	EI EXISTING STORM STRUCTURES
	EI EXISTING SANITARY SEWER MANHOLE
	EI EXISTING WATER STRUCTURES
	EI EXISTING CABLE BOX
	EI EXISTING STRUCTURE
	EI EXISTING WETLAND (TO REMAIN)
	EI EXISTING WETLAND (TO BE MITIGATED)
	PROPOSED INDEX CONTOUR
	PROPOSED INTERMEDIATE CONTOUR
	PROPOSED PHASE LINE
	PROPOSED RIGHT-OF-WAY
	PROPOSED PROPERTY LINE
	PROPOSED SETBACK
	PROPOSED EASEMENT
	PROPOSED BASIN
	PROPOSED CENTERLINE
	PROPOSED CURB - GUTTER
	PROPOSED STORM SEWER
	PROPOSED STORM STRUCTURES
	PROPOSED SANITARY SEWER
	PROPOSED SANITARY SEWER MANHOLE
	PROPOSED WATER LINE
	PROPOSED WATER HYDRANT/VALVE
	SIDEWALK
	ASPHALT
	FLOOD ROUTING
	BUILDER'S SWALE
	PROPOSED TOP OF CASTING
	PROPOSED SPOT ELEVATION
	PROPOSED LOW POINT
	PROPOSED HIGH POINT



- NOTES
1. MAI IMUM SLOPE AWAY FROM THE HOUSE IS 3:1.
 2. EROSION CONTROL PRACTICES SHALL BE INSTALLED BEFORE ANY MAI OR SOIL DISTURBANCE.
 3. ESTABLISH VEGETATION IN ALL BARE AREAS AS PER OEPA N.P.D.E.S. REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR N.P.D.E.S. INSPECTION DURING CONSTRUCTION PERIOD.
 4. SPOTS SHOWN AT CURB ARE TOP OF CURB ELEVATIONS UNLESS OTHERWISE NOTED.
 5. CONTRACTOR SHALL FIELD VERIFY ALL EI EXISTING ELEVATIONS AND INVERTS PRIOR TO THE START OF CONSTRUCTION.



THE INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR RECORDING PURPOSES OR INFORMATION.

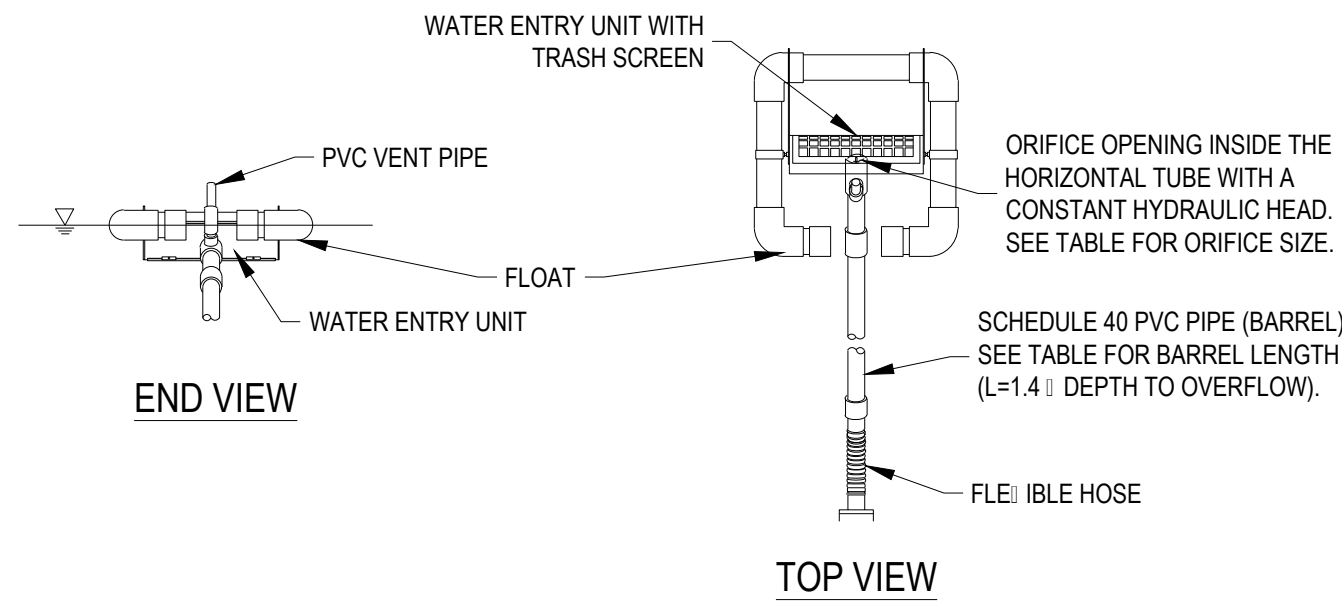
FORESTAR
**SHAKER FARMS
PH 1, 2 & 3**
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
**GRADING & EROSION
CONTROL PLAN - PH II**

C:\DCA\CDos\CESO\Forestar Shaker Farms\Project Files\ CESO\03-CIVIL\4-FINAL PH 1-3\PLAN\SWPPP.dwg - 6/13/2025 - Ryan Hopkins



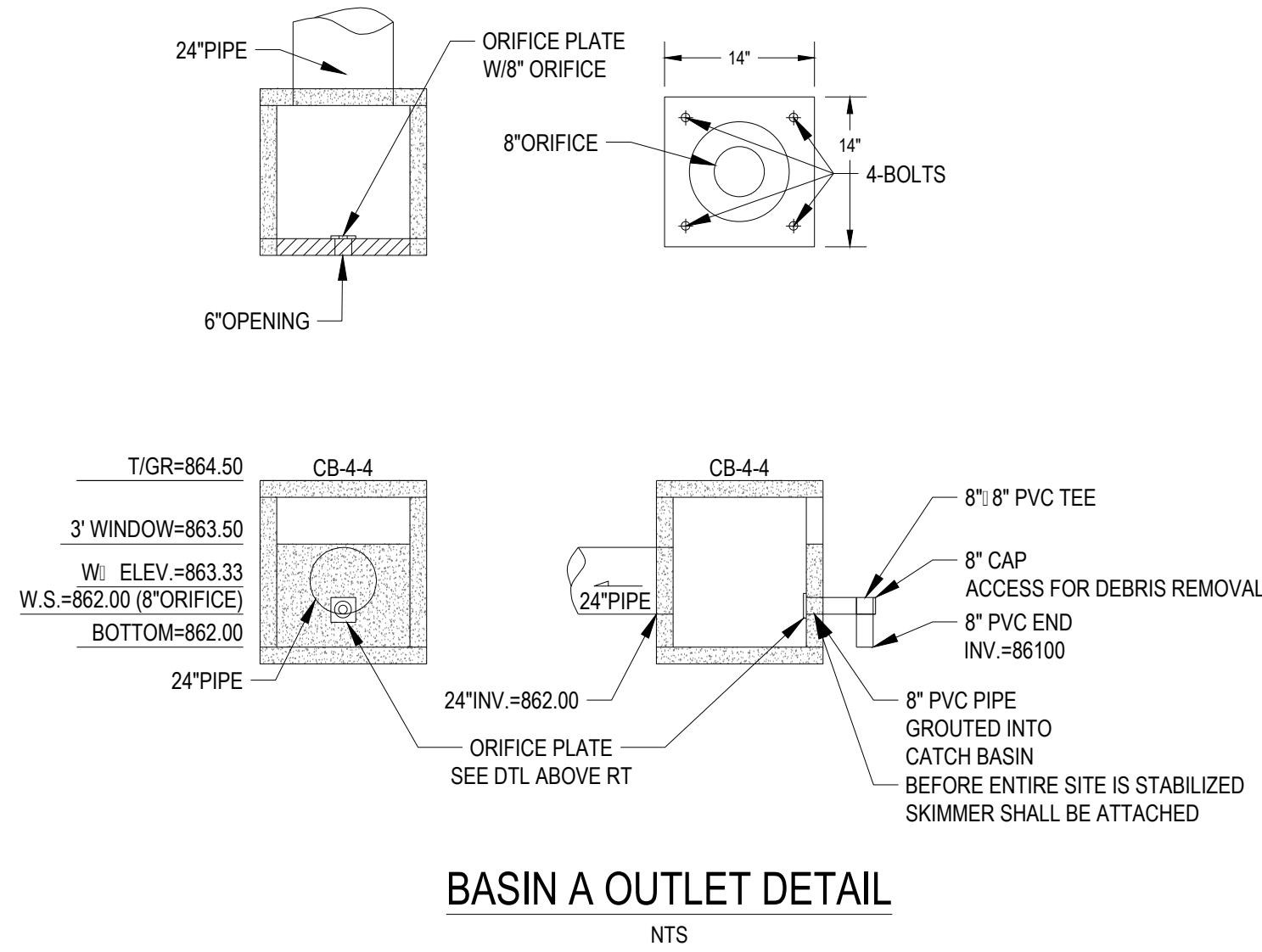
BASIN #	VOLUME (CF)	DAYS TO DRAIN	SKIMMER SIZE (IN.)	BARREL LENGTH (FT.)	ORIFICE RADIUS (IN.)
BASIN A	48492	2	4	4	0.9000

- NOTES:
1. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
 2. USE FAIRCLOTH SKIMMER OR APPROVED OTHER.

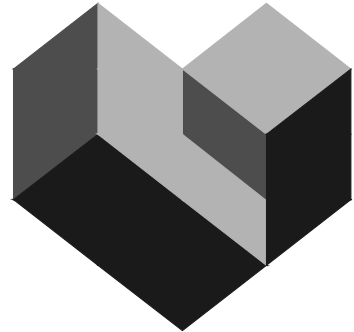
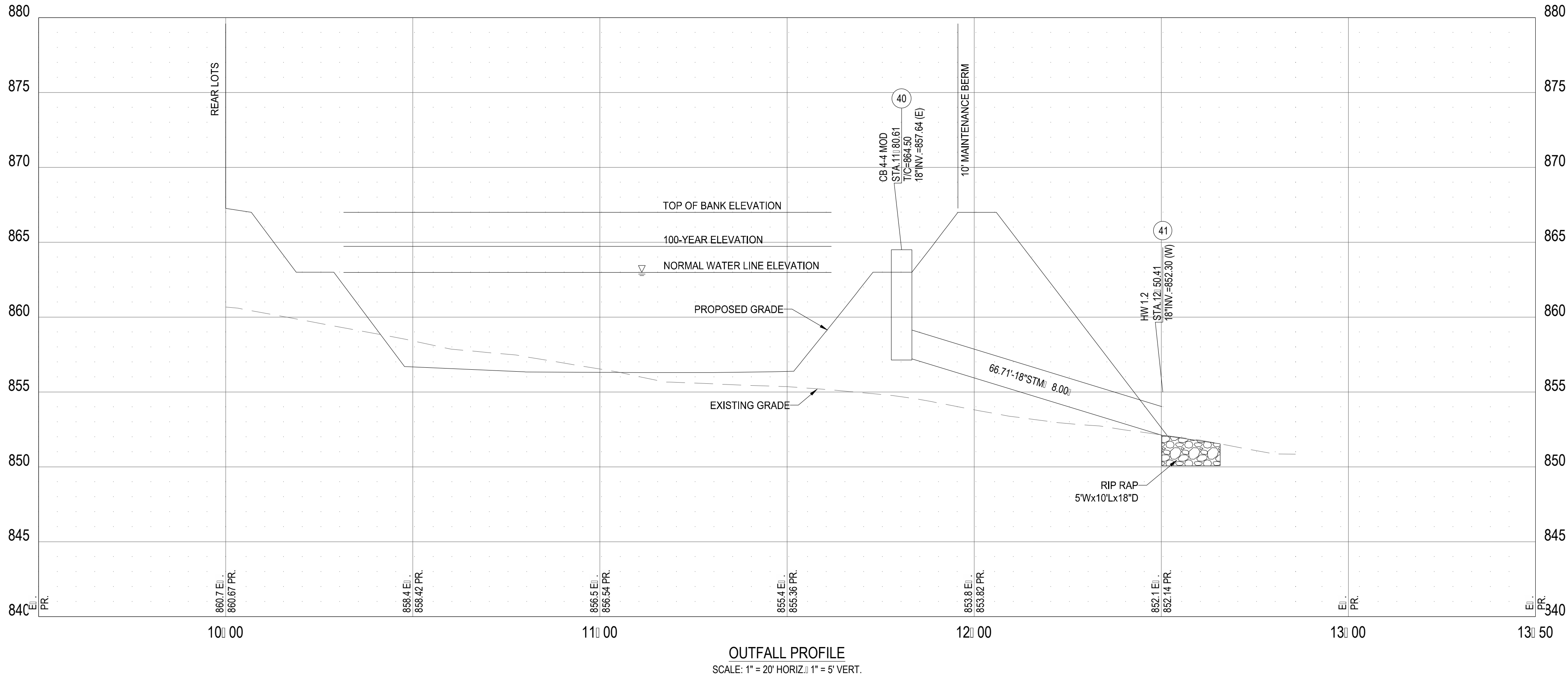
SEDIMENT BASIN SKIMMER

NTS

SEDIMENT CONTROL VOLUMES									
POND	DRAINAGE AREA (AC)	DISTURBED AREA (AC)	REQUIRED DEWATERING ZONE VOLUME (CF)	REQUIRED SEDIMENT ZONE VOLUME (CF)	PROVIDED DEWATERING ZONE VOLUME (CF)	PROVIDED SEDIMENT ZONE VOLUME(CF)	DEWATERING ZONE (FT)	SEDIMENT STORAGE ZONE (FT)	BOTTOM (FT)
BASIN A	26.94	26.94	48,492	26,940	285,190	261,172	862.00 - 865.00	856.50 - 862.00	856.50



TYPICAL MAINTENANCE ACTIVITIES FOR BASINS		
SCHEDULE	INSPECTION ITEM	ACTIVITY
MONTHLY	INLET/OUTLET STRUCTURE - SIDE SLOPES	- DO NOT FERTILIZE VEGETATION SURROUNDING BASIN. - MOW SIDE SLOPES.
ANNUALLY (AND AFTER LARGE STORM EVENTS)	INLET/OUTLET STRUCTURE - SIDE SLOPES	- REMOVE ACCUMULATED SEDIMENT AND DEBRIS FROM INLET AND OUTLET STRUCTURES.
BI-ANNUALLY	STORMWATER BASIN	- CHECK FOR SIGNS OF EUTROPHIC CONDITIONS (ALGAE BUILD-UP). - NOTE SIGNS OF HYDROCARBON BUILD-UP, REMOVE APPROPRIATELY.
ANNUALLY (AND AFTER LARGE STORM EVENTS)	STORMWATER BASIN	- INSPECT FOR DAMAGE, PAYING PARTICULAR ATTENTION TO THE OUTLET CONTROL STRUCTURE. - MONITOR SEDIMENT ACCUMULATION IN THE FACILITY. - EVALUATE TO ENSURE INLET AND OUTLET DEVICES ARE FREE OF DEBRIS AND ARE OPERATIONAL. - INSPECT FOR INVASIVE VEGETATION IF WETLAND COMPONENTS INCLUDED.
ANNUALLY	STORMWATER BASIN SEDIMENT ACCUMULATION	- MONITOR SEDIMENT ACCUMULATIONS, AND REMOVE SEDIMENT WHEN THE POOL VOLUME HAS BECOME REDUCED SIGNIFICANTLY (25% OF PERMANENT POOL VOLUME LOST), OR THE POND BECOMES EUTROPHIC.
ANNUALLY	BASIN EMBANKMENT	- REPAIR UNDERCUTTERODED AREAS AND STABILIZE.
ANNUALLY (AND AFTER LARGE STORM EVENTS)	STORM SEWER SYSTEM	- REMOVE DEBRIS FROM THE SEWER SYSTEM TO ENSURE POSITIVE FLOW TO THE BASIN.



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Manningsburg, OH 43042
Phone: 937.435.8584 Fax: 888.208.4826

THIS INFORMATION IS PRELIMINARY AND
INCOMPLETE. IT IS NOT TO BE USED FOR
CONSTRUCTION OR RECORDING
PURPOSES OR REPRESENTATION.

FORESTAR

**SHAKER FARMS
PH 1, 2 & 3**

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

© 2025 CESO, INC.

Project Number: 763884

Scale: AS SHOWN

Drawn By: SCR

Checked By: JEE

Date: JUNE 16, 2025

Issue: FINAL DEVELOPMENT PLAN

Drawing Title:

BASIN DETAILS

SITE DATA

OWNER: MARY L. WERLINE, ETAL
5764 SHAKER RD.
FRANKLIN OH 45005

DEVELOPER: FORESTAR (USA) REAL ESTATE INC.
2221 E. LAMAR BLVD, SUITE 790
ARLINGTON, TX 76006

PLAN DESIGNER: CESO, INC.
3601 RIGBY ROAD, STE 300
MIAMISBURG, OHIO 45342

DEVELOPMENT NAME AND DESCRIPTION:
SHAKER FARMS PHASE 1-3 IS A LOW DENSITY RESIDENTIAL SUBDIVISION THAT WILL CONSIST OF 106 SINGLE FAMILY HOMES.

SITE ACREAGE:
26.94 TOTAL ACRES WILL BE DISTURBED BY CONSTRUCTION.

RUNOFF COEFFICIENT:
PRE-CONSTRUCTION RUNOFF COEFFICIENT, C=0.40
POST-CONSTRUCTION RUNOFF COEFFICIENT, C=0.50

IMPERVIOUS AREA:
PRE-CONSTRUCTION - 0 ACRE, 0%
POST-CONSTRUCTION - 9.43 ACRE, 35.0%

PRIOR LAND USE
THE SITE WAS PREVIOUSLY OCCUPIED BY A COMBINATION OF DENSE WOODS AND MEADOWS.

SOIL TYPES:

Map unit symbol	Map unit name	Rating	Acres to AD	Percent of AD
CL	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-1	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-2	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-3	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-4	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-5	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-6	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-7	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-8	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-9	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-10	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-11	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-12	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-13	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-14	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-15	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-16	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-17	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-18	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-19	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-20	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-21	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-22	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-23	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-24	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-25	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-26	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-27	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-28	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-29	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-30	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-31	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-32	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-33	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-34	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-35	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-36	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-37	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-38	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-39	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-40	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-41	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-42	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-43	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-44	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-45	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-46	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-47	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-48	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-49	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-50	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-51	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-52	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-53	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-54	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-55	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-56	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-57	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-58	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-59	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-60	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-61	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-62	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-63	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-64	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-65	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-66	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-67	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-68	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-69	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-70	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-71	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-72	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-73	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-74	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-75	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-76	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-77	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-78	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-79	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-80	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-81	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-82	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-83	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-84	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-85	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-86	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-87	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-88	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-89	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-90	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-91	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-92	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-93	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-94	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-95	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-96	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-97	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-98	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-99	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%
CL-100	CLAYEY SILT CLAY - 10-15% CLAY - 10-15% SILT	10	0.4	1.5%

ADJACENT AREAS:
THE SITE IS BOUND BY DEVELOPED SINGLE FAMILY HOMES TO THE WEST, UNDEVELOPED LAND TO THE NORTH, COMMERCIAL BUILDING TO THE EAST, AND THE SITE IS NORTH OF MANCHESTER ROAD AND WEST OF SHAKER ROAD.

STORM WATER MANAGEMENT:
THE SITE DRAINS TO AN EXISTING UNNAMED TRIBUTARY THAT OUTLETS INTO THE GREAT MIAMI RIVER WEST OF THE SITE.

SEQUENCE OF CONSTRUCTION

1. INSTALL CONSTRUCTION ENTRANCE, HAZARDOUS WASTE STORAGE AREA, VEHICLE REFUELING AREA, AND CONCRETE WASH PIT.
2. CLEAR & GRUB SITE
3. CONSTRUCT BASINS
4. ROUGH GRADE SITE
5. CONSTRUCT SANITARY, DISTURBING TRENCH AREA ONLY
6. INSTALL STORM & WATER LINE, PLACING INLET PROTECTION AS INLETS ARE CONSTRUCTED
7. GRADE STREETS FIXING INLET PROTECTION AS NEEDED
8. PAVE STREETS
9. FINAL GRADE LOTS
10. SEED & MULCH ALL DISTURBED AREAS
11. REMOVE ALL EROSION CONTROL PRACTICES

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT:

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS, AND IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

SWPPP NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED ACCORDING TO: SWPPP AND DETAIL PLANS; ACCORDING TO THE LATEST OHIO EPA AUTHORIZATION FOR CONSTRUCTION ACTIVITY UNDER THE "NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)"; ANY AND ALL REQUIRED PERMITS, REPORTS, AND RELATED DOCUMENTS. SEE OHIO EPA PERMIT NO. OHCO00005 FOR SWPPP RULES AND REGULATIONS. ALL CONTRACTORS AND SUBCONTRACTORS MUST BECOME FAMILIAR WITH ALL OF THE ABOVE.
2. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AND GRADE CHANGES TO THE SITE AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
3. CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE MAXIMUM EXTENT POSSIBLE OR AS REQUIRED BY THE GENERAL PERMIT. EVERY EFFORT SHALL BE MADE TO PRESERVE THE NATURAL RIPARIAN SETBACK ADJACENT TO STREAMS OR OTHER SURFACE WATER BODIES.
4. SEDIMENT STRUCTURE AND PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING WITHIN SEVEN (7) DAYS FROM THE START OF CLEARING AND GRUBBING, AND SHALL CONTINUE TO FUNCTION UNTIL THE SLOPE DEVELOPMENT AREA IS RESTABILIZED. SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED FOR OVER 14 DAYS.
5. TEMPORARY SOIL STABILIZATION OF DISTURBED AREAS BY MEANS OF TEMPORARY VEGETATION, MULCHING, GEOTEXTILES, AND PRESERVATION OF EXISTING VEGETATION, AND OTHER APPROVED TECHNIQUES TO BE APPLIED AS FOLLOWS:
 - WITHIN TWO (2) DAYS OF ANY AREA WITHIN 50 FEET OF A STREAM NOT AT FINAL GRADE REMAINING DORMANT FOR OVER FOURTEEN (14) DAYS.
 - WITHIN SEVEN (7) DAYS OF ANY AREA THAT WILL BE DORMANT FOR MORE THAN FOURTEEN (14) DAYS. PRIOR TO THE ONSET OF WINTER WEATHER FOR AREAS THAT WILL BE IDLE OVER WINTER. FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST SEVEN (7) DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR INDIVIDUALS.
6. PERMANENT SOIL STABILIZATION OF DISTURBED AREAS BY MEANS OF VEGETATION, LANDSCAPE TYPE MULCHING, MATTING, SOD, RIP RAP, AND OTHER APPROVED LANDSCAPING TECHNIQUES TO BE APPLIED AS FOLLOWS:
 - WITHIN SEVEN (7) DAYS OF ANY AREA THAT WILL BE DORMANT FOR ONE (1) YEAR OR MORE.
 - WITHIN TWO (2) DAYS OF ANY AREA WITHIN 50 FEET OF A STREAM AT FINAL GRADE.
 - WITHIN SEVEN (7) DAYS FOR ANY OTHER AREA AT FINAL GRADE.
7. TEMPORARY SEEDING, MULCHING, AND FERTILIZER SPECIFICATIONS:
 - SEEDING: ANNUAL RYEGRASS AT 2.02 #/1,000 S.F.
 - MULCHING: STRAW MATERIAL SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT A RATE OF TWO (2) TON/ACRE, OR 90-100 POUNDS PER 1,000 S.F. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND NOXIOUS WEEDS. MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICAL MEANS. FROM NOVEMBER 01 THRU MARCH 15 INCREASE THE RATE OF STRAW MULCH TO THREE (3) TON/ACRE.
 - FERTILIZER: APPLY FERTILIZER AT HALF THE RATE OF PERMANENT APPLICATION AND AS PER STATE DOT SPECIFICATIONS. IF PROJECT CONDITIONS PREVENT FERTILIZING THE SOIL, THEN THIS ITEM MAY BE WAIVED.
8. PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS.
9. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION. ALL SLOPES 3:1 OR GREATER THAN 3:1 SHALL BE FERTILIZED, SEEDDED, AND CURLEX BLANKETS BY AMERICAN EXCELSIOR COMPANY, NORTH AMERICAN GREEN, INC. OR AN APPROVED EQUAL AS SPECIFIED IN THE PLANS SHALL BE INSTALLED ON THE SLOPES.
10. OHIO EPA SWPPP REGULATIONS REQUIRES THAT A SEDIMENT TRAP OR POND BE SIZED TO PROVIDE AT LEAST 104 CUBIC YARDS (67 CY FOR DEWATERING AND 37 CY FOR SEDIMENT STORAGE) OF STORAGE PER ACRE OF TOTAL CONTRIBUTING AREA. MAXIMUM DEPTH OF SEDIMENT SETTLING POND SHALL BE EQUAL OR LESS THAN 5-FEET WITH A LENGTH TO WIDTH RATIO GREATER THAN OR EQUAL TO 2:1)
11. OUTLET STRUCTURES IN SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT MUST BE REMOVED FROM BASINS AND OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 40% (APPROXIMATELY ONE-HALF OF POND DEPTH).
12. NO SOLID (OTHER THAN SEDIMENT) OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORM WATER RUNOFF.
13. ALL TOXIC WASTES, HAZARDOUS WASTES AND NON-SEDIMENT POLLUTANTS MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES. WASH OUT OF CEMENT TRUCKS SHOULD OCCUR IN DESIGNATED PIT OR DIKED AREAS, WHERE WASHINGS CAN BE REMOVED AND PROPERLY DISPOSED OFF SITE WHEN THEY HARDEN. STORAGE TANKS SHOULD ALSO BE LOCATED IN PIT OR DIKED AREAS. IN ADDITION, SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CLEAN AND CONTAIN FUEL AND CHEMICAL SPILLS MUST BE KEPT ON SITE. NO TOXIC OR HAZARDOUS WASTES SHALL BE DISPOSED INTO STORM DRAINS, SEPTIC TANKS OR BY BURYING, BURNING OR MIXING THE WASTES.
14. CONTAINERS SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL.
15. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DISPOSED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE SITE THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
16. BRICKS, HARDENING CONCRETE AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATERS OF THE STATE.
17. CLEAN CONSTRUCTION WASTES THAT WILL BE DISPOSED INTO THE PROPERTY SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.
18. ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE 3714. CONSTRUCTION DEBRIS MAY BE DISPOSED OF ON-SITE, BUT DEMOLITION DEBRIS MUST BE DISPOSED IN AN OHIO EPA APPROVED LANDFILL. ALSO, MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE 3745-20).
19. AREA SHALL BE DESIGNATED FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, OR CONCRETE, THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREA.
20. EQUIPMENT FUELING & MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY, THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREA.
21. A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE-GROUND STORAGE TANK OF 660 GALLONS OR MORE, TOTAL ABOVE-GROUND STORAGE OF 1,330 GALLONS OR BELOW-GROUND STORAGE OF 4,200 GALLONS OF FUEL.
22. ALL DESIGNATED CONCRETE CHUTE OR WASHOUT AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS OR OTHER STORMWATER DRAINAGE AREAS.
23. THERE IS A POTENTIAL FOR HIGH GROUND WATER AT THIS SITE. CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND IMPLEMENTING A PLAN TO CONTROL BOTH SURFACE AND GROUND WATER DURING THE COURSE OF CONSTRUCTION.
24. DISCHARGE OF WATER WITH POTENTIAL SEDIMENT FROM THE SITE SHALL BE THROUGH A FILTER BAG, SUMP PIT OR OTHER SEDIMENT REMOVAL DEVICE.
25. ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED IN AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSDFs).
26. IF THE SITE CONTAINS CONTAMINATED SOIL, THE FOLLOWING SHALL BE USED TO PREVENT CONTAMINATION FROM BEING RELEASED:
 1. BERMS, TRENCHES AND PITS TO COLLECT CONTAMINATED RUNOFF AND PREVENT DISCHARGES.
 2. PUMPING RUNOFF INTO A SANITARY SEWER (WITH PRIOR APPROVAL OF THE SANITARY SYSTEM OPERATOR) OR INTO A CONTAINER FOR TRANSPORT TO AN APPROPRIATE TREATMENT/DISPOSAL FACILITY.
 3. COVERING AREAS OF CONTAMINATION WITH TARPS OR OTHER METHODS THAT PREVENT STORM WATER FROM COMING INTO CONTACT WITH THE MATERIAL.

SWPPP NOTES (CONT.)

27. IN THE EVENT OF AN ACCIDENTAL SPILL, IMMEDIATE ACTION WILL BE UNDERTAKEN BY THE GENERAL CONTRACTOR TO CONTAIN AND REMOVE THE SPILLED MATERIAL. ALL HAZARDOUS MATERIALS, INCLUDING CONTAMINATED SOIL AND LIQUID CONCRETE WASTE, WILL BE DISPOSED OF BY THE CONTRACTOR IN THE MANNER SPECIFIED BY FEDERAL, STATE AND LOCAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. AS SOON AS POSSIBLE, THE SPILL WILL BE REPORTED TO THE APPROPRIATE AGENCIES. AS REQUIRED UNDER THE PROVISIONS OF THE CLEAN WATER ACT, ANY SPILL OR DISCHARGE ENTERING WATERS OF THE UNITED STATES WILL BE PROPERLY REPORTED. THE GENERAL CONTRACTOR WILL PREPARE A WRITTEN RECORD OF ANY SPILL AND ASSOCIATED CLEAN-UP ACTIVITIES OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF 1 GALLON OR REPORTABLE QUANTITIES, WHICH EVER IS LESS.
28. THE CONTRACTOR SHALL CONTACT THE OHIO EPA AT 800.282.9378, THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE IN THE EVENT OF A PETROLEUM SPILL (>25 GALLONS) OR THE PRESENCE OF SHEEN.
29. OPEN BURNING IS NOT PERMITTED ON THE SITE.
30. DUST CONTROL USING APPROVED MATERIALS MUST BE PERFORMED AT ALL TIMES. DUST SUPPRESSANTS SHALL NOT BE APPLIED NEAR CATCH BASINS FOR STORM SEWERS OR OTHER DRAINAGE WAYS. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS PROHIBITED.
31. APPROPRIATE MEASURES MUST BE TAKEN TO ENSURE THAT ALL PROPER AIR POLLUTION PERMITS ARE OBTAINED.
32. PROCESS WASTEWATERS (EQUIPMENT WASHING, LEACHATE ASSOCIATED WITH ON-SITE WASTE DISPOSAL AND CONCRETE WASH-OUTS) SHALL BE COLLECTED AND DISPOSED OF PROPERLY.
33. SANITARY AND WATER PTI FORMS SHALL BE FILED WITH THE OHIO EPA AS REQUIRED.
34. PROTECTED STORAGE AREAS SHALL BE USED FOR INDUSTRIAL AND CONSTRUCTION MATERIALS IN ORDER TO MINIMIZE THE EXPOSURE OF SUCH MATERIALS TO STORMWATER.
35. ALL CONTROL MEASURES STATED IN THE SWPPP SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE SITE IS ACHIEVED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED BY A QUALIFIED PERSON IN ACCORDANCE TO THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED ACCORDING TO THE FOLLOWING:
36. INSPECTIONS OF BMPS SHALL BE PERFORMED BY QUALIFIED PERSONS PROVIDED BY THE PERMITTEE AND THE INSPECTION LOGS ARE TO BECOME A PART OF THIS PLAN. INSPECTIONS RECORDS SHALL BE SIGNED BY THE INSPECTOR AND WILL BE KEPT FOR 3 YEARS AFTER THE NOTICE OF TERMINATION IS SUBMITTED.
37. INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE IN EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD, FROM THE BEGINNING OF CONSTRUCTION THROUGH THE FINAL INSPECTION PRIOR TO THE NOTICE OF TERMINATION.
38. NON-SEDIMENT POND BMPS TO BE REPAIRED WITHIN 3 DAYS OF INSPECTION AND SEDIMENT POND BMPS WITHIN 10 DAYS OF INSPECTION. BMPS NOT MEETING THE INTENDED FUNCTION SHALL BE REPLACED WITHIN 10 DAYS OF INSPECTION. MISSING BMPS SHALL BE INSTALLED WITHIN 10 DAYS OF INSPECTION.
39. IF THE SITE IS STABILIZED AND WILL BE DORMANT FOR A LONG PERIOD OF TIME, LESS FRE

C:\DOC\Docs\CESO\Forestar Farms\Project Files\CESO\03-CIVIL4-FINAL_PH_1-3\PLAN\SWPPP.dwg - 6/13/2025 - Ryan Hopkins

Specifications
for
Mulching

1. Mulch and other appropriate vegetative practices shall be applied to disturbed areas within 7 days of grading if the area is to remain dormant (undisturbed) for more than 21 days or on areas and portions of the site which can be brought to final grade.

2. Mulch shall consist of one of the following:
 - Straw - Straw shall be unrotted small grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The straw mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 sq. ft. sections and place two 45-lb. bales of straw in each section.
 - Hydroseeders - Wood cellulose fiber should be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
 - Other - Acceptable mulches include mulch mattings and rolled erosion control products applied according to manufacturer's recommendations or wood mulch/chips applied at 10-20 tons/ac.

3. Mulch Anchoring - Mulch shall be anchored immediately to minimize loss by wind or runoff. The following are acceptable methods for anchoring mulch.
 - Mechanical - Use a disk, crimper, or similar type tool set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but be left generally longer than 6 inches.
 - Mulch Nettings - Use according to the manufacturer's recommendations, following all placement and anchoring requirements. Use in areas of water concentration and steep slopes to hold mulch in place.
 - Synthetic Binders - For straw mulch, synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petrosel, Terra Tack or equal may be used at rates recommended by the manufacturer. All applications of Synthetic Binders must be conducted in such a manner where there is no contact with waters of the state.
 - Wood Cellulose Fiber - Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.

Specifications
for
Small Construction Site Controls

1. Preexisting vegetation shall be retained on idle portions of the building lot for as long as construction operations allow. Clearing shall be done so only active working areas are bare.

2. Temporary seed and/or mulch shall be applied to areas, such as stockpiles and rough graded areas, that are bare and not actively being worked. This shall apply to areas that will not be reworked for 21 days or more.

3. Stockpiles created from basement excavation and grading shall be situated away from streets, swales, or other waterways and shall be seeded and/or mulched immediately.

4. Silt fence or other sediment barriers shall control sheet flow runoff from the building lot. These shall not be constructed in channels or areas of concentrated flow. Other sediment controls such as sediment traps and
- inlet protection shall also be used as needed to control sediment runoff. Sediment control practices shall be inspected weekly after storm events, and maintained in good working condition.
5. Construction vehicle access shall be limited to one route, to the greatest extent practical. The access shall be gravel or crushed rock underlain with geotextile.
6. Mud tracked onto streets or sediment settled around curb inlet protection shall be removed daily or as needed to prevent it from accumulating. It shall be removed by shoveling and scraping and shall NOT be washed off paved surfaces or into storm drains. Sediment removed shall be placed where it will not be subject to erosion or concentrated runoff.

Specifications
for
Temporary Seeding

Seeding Dates	Species	Lb./1000 ft2	Lb./Acre
March 1 to August 15	Oats	3	128 (4 Bushel)
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Perennial Ryegrass	1	40
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Annual Ryegrass	1.25	55
	Perennial Ryegrass	3.25	142
	Creeping Red Fescue	0.4	17
	Kentucky Bluegrass	0.4	17
August 16th to November	Oats	3	128 (3 bushel)
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Wheat	3	112 (2 bushel)
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Perennial Ryegrass	1	40
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Annual Ryegrass	1.25	40
	Perennial Ryegrass	3.25	40
	Creeping Red Fescue	0.4	40
	Kentucky Bluegrass	0.4	40
November 1 to Feb. 29	Use mulch only or dormant seeding		

Note: Other approved species may be substituted.

1. Structural erosion and sediment control practices such as diversions and sediment traps shall be installed and stabilized with temporary seeding prior to grading the rest of the construction site.

2. Temporary seed shall be applied between construction operations on soil that will not be graded or reworked for 21 days or greater. These idle areas shall be seeded within 7 days after grading.

3. The seedbed should be pulverized and loose to ensure the success of establishing vegetation. Temporary seeding should not be postponed if ideal seedbed preparation is not possible.
4. Soil Amendments—Temporary vegetation seeding rates shall establish adequate stands of vegetation, which may require the use of soil amendments. Base rates for lime and fertilizer shall be used.
5. Seeding Method—Seed shall be applied uniformly with a cyclone spreader, drill, cultipacker seeder, or hydroseeder. When feasible, seed that has been broadcast shall be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used, the seed and fertilizer will be mixed on-site and the seeding shall be done immediately and without interruption.

Specifications
for
Temporary Seeding

Mulching Temporary Seeding

1. Applications of temporary seeding shall include mulch, which shall be applied during or immediately after seeding. Seedings made during optimum seeding dates on favorable, very fine soil conditions may not need mulch to achieve adequate stabilization.

2. Materials:
 - Straw—If straw is used, it shall be unrotted small-grain straw applied at a rate of 2 tons per acre or 90 lbs./1,000 sq. ft. (2-3 bales)
 - Hydroseeders—If wood cellulose fiber is used, it shall be used at 2000 lbs./ ac. or 46 lb./1,000-sq.-ft.
 - Other—Other acceptable mulches include mulch mattings applied according to manufacturer's recommendations or wood chips applied at 6 ton/ ac.
3. Straw Mulch shall be anchored immediately to minimize loss by wind or water. Anchoring methods:
 - Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but left to a length of approximately 6 inches.
 - Mulch Netting—Netting shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
 - Synthetic Binders—Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petrosel, Terra Tack or equivalent may be used at rates recommended by the manufacturer.
 - Wood-Cellulose Fiber—Wood-cellulose fiber binder shall be applied at a net dry wt. of 750 lb./ac. The wood-cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal.

Specifications
for
Permanent Seeding

Site Preparation

1. Subsoiler, plow, or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on erip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.

2. The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.

3. Topsoil shall be applied where needed to establish vegetation.
- From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
- From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.
- Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.
- Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.

Seedbed Preparation

1. Lime—Agricultural ground limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 pounds per 1,000-sq. ft. or 2 tons per acre.

2. Fertilizer—Fertilizer shall be applied as recommended by a soil test. In place of a soil test, fertilizer shall be applied at a rate of 25 pounds per 1,000-sq. ft. or 1000 pounds per acre of a 10-10-10 or 12-12-12 analysis.

3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 inches. On sloping land, the soil shall be worked on the contour.
1. Mulch material shall be applied immediately after seeding. Dormant seeding shall be mulched. 100% of the ground surface shall be covered with an approved material.
2. Materials
 - Straw—If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons per acre or 90 pounds (two to three bales) per 1,000-sq. ft. The mulch shall be spread uniformly by hand or mechanically applied so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq.-ft. sections and spread two 45-lb. bales of straw in each section.
 - Hydroseeders—If wood cellulose fiber is used, it shall be applied at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
 - Other—Other acceptable mulches include rolled erosion control mattings or blankets applied according to manufacturer's recommendations or wood chips applied at 6 tons per acre.

Seeding Dates and Soil Conditions

- Seeding should be done March 1 to May 31 or August 1 to September 30. If seeding occurs outside of the above-specified dates, additional mulch and irrigation may be required to ensure a minimum of 80% germination. Tillage for seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.
1. Seedings should not be made from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for "Dormant Seeding":

Dormant Seedings

1. Seedings should not be made from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for "Dormant Seeding":

Straw and Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

- Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 inches.

• Mulch Netting—Netting shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.

• Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacture or at the rate of 160 gallons per acre.
- Synthetic Binders—Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petrosel, Terra Tack or equivalent may be used at rates specified by the manufacturer.
- Wood Cellulose Fiber—Wood cellulose fiber shall be applied at a net dry weight of 750 pounds per acre. The wood cellulose fiber shall be mixed with water with the mixture containing a maximum of 50 pounds cellulose per 100 gallons of water.

Irrigation

Permanent seeding shall include irrigation to establish vegetation during dry weather or on adverse site conditions, which require adequate moisture for seed germination and plant growth.

Irrigation rates shall be monitored to prevent erosion and damage to seeded areas from excessive runoff.

Seed Mix	Seeding Rate		Notes:
	Lbs./acre	Lbs./1,000 Sq. Feet	
General Use			
Creeping Red Fescue	20-40	1/2-1	For close mowing & for waterways with <2.0 ft/sec velocity
Domestic Ryegrass	10-20	1/4-1/2	
Kentucky Bluegrass	20-40	1/2-1	
Tall Fescue	40-50	1-1 1/4	
Turf-type (dwarf) Fescue	90	2 1/4	
Steep Banks or Cut Slopes			
Tall Fescue	40-50	1-1 1/4	
Crown Vetch	10-20	1/4-1/2	Do not seed later than August
Tall Fescue	20-30	1/2-3/4	
Flt Fesc	20-25	1/2-3/4	Do not seed later than August
Tall Fescue	20-30	1/2-3/4	
Road Ditches and Swales			
Tall Fescue	40-50	1-1 1/4	
Turf-type (Dwarf) Fescue	90	2 1/4	
Kentucky Bluegrass	5	0.1	
Lawns			
Kentucky Bluegrass	100-120	2	For shaded areas
Perennial Ryegrass		2	
Kentucky Bluegrass	100-120	2	
Creeping Red Fescue		1-1/2	

Note: Other approved seed species may be substituted.

Specifications
for
Additional Construction Site Pollution Controls

1. Construction personnel, including subcontractors who may use or handle hazardous or toxic materials, shall be made aware of the following general guidelines regarding disposal and handling of hazardous and construction wastes:
 - Prevent spills
 - Use products up
 - Follow label directions for disposal
 - Remove lids from empty bottles and cans when disposing in trash
 - Recycle wastes whenever possible

• Don't pour into waterways, storm drains or onto the ground

• Don't pour down the sink, floor drain or septic tanks

• Don't bury chemicals or containers

• Don't burn chemicals or containers

• Don't mix chemicals together
2. Containers shall be provided for the proper collection of all waste material including construction debris, trash, petroleum products and any hazardous materials used on-site. Containers shall be covered and not leaking. All waste material shall be disposed of at facilities approved for that material. Construction Demolition and Debris (CD&D) waste must be disposed of at an Ohio EPA approved CD&D landfill.
3. No construction related waste materials are to be buried on-site. By exception, clean fill (bricks, hardened concrete, soil) may be utilized in a way which does not encroach upon natural wetlands, streams or floodplains or result in the contamination of waters of the state.
4. Handling Construction Chemicals. Mixing, pumping, transferring or other handling of construction chemicals such as fertilizer, lime, asphalt, concrete drying compounds, and all other potentially hazardous materials shall be performed in an area away from any watercourse, ditch or storm drain.
5. Equipment Fueling and Maintenance, oil changing, etc., shall be performed away from watercourses, ditches or storm drains, in an area designated for that purpose. The designated area shall be equipped for recycling oil and catching spills. Secondary containment shall be provided for all fuel oil storage tanks. These areas must be inspected every seven days and within 24 hrs. of a 0.5 inch or greater rain event to ensure there are no exposed materials which would contaminate storm water. Site operators must be aware that Spill Prevention Control and Countermeasures (SPCC) requirements may apply. An SPCC plan is required for sites with one single above ground tank of 660 gallons or more, accumulative above ground storage of 1330 gallons or more, or 42,000 gallons of underground storage. Contaminated soils must be disposed of in accordance with Item 8.
6. Concrete Wash Water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance. A sump or pit with no potential for discharge shall be constructed if needed to contain concrete wash water. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged. For small projects, truck chutes may be rinsed away from any water conveyances.
7. Spill Reporting Requirements: Spills on pavement shall be absorbed with sawdust or kitty litter and disposed of with the trash at a licensed sanitary landfill. Hazardous or industrial wastes such as most solvents, gasoline, oil-based paints, and cement curing compounds require special handling. Spills shall be reported to Ohio EPA (1-800-282-9378). Spills of 25 gallons or more of petroleum products shall be reported to Ohio EPA, the local fire department, and the Local Emergency Planning Committee within 30 min. of the discovery of the release. All spills which contact waters of the state must be reported to Ohio EPA.
8. Contaminated Soils. If substances such as oil, diesel fuel, hydraulic fluid, antifreeze, etc. are spilled, leaked, or released onto the soil, the soil should be dug up and disposed of at licensed sanitary landfill or other approved petroleum contaminated soil remediation facility. (not a construction/demolition debris landfill). Note that storm water run off associated with contaminated soils are not be authorized under Ohio EPA's General Storm Water Permit associated with Construction Activities.
9. Open Burning. No materials containing rubber, grease, asphalt, or petroleum products, such as tires, auto parts, plastics or plastic coated wire may be burned (OAC 3745-19). Open burning is not allowed in restricted areas, which are defined as: 1) within corporation limits; 2) within 1000 feet outside a municipal corporation having a population of 1000 to 10,000; and 3) a one mile zone outside of a corporation of 10, 000 or more. Outside of restricted areas, no open burning is allowed within a 1000 feet of an inhabited building on another property. Open burning is permissible in a restricted area for: heating tar, welding, smudge pots and similar occupational needs, and heating for warmth or outdoor barbecues. Outside of restricted areas, open burning is permissible for landscape or land-clearing wastes (plant material, with prior written permission from Ohio EPA), and agricultural wastes, excluding buildings.
10. Dust Control or dust suppressants shall be used to prevent nuisance conditions, in accordance with the manufacturer's specifications and in a manner, which prevent a discharge to waters of the state. Sufficient distance must be provided between applications and nearby bridges, catch basins, and other waterways. Application (excluding water) may not occur when rain is imminent as noted in the short term forecast. Used oil may not be applied for dust control.
11. Other Air Permitting Requirements: Certain activities associated with construction will require air permits including but not limited to: mobile concrete batch plants, mobile asphalt plants, concrete crushers, large generators, etc. These activities will require specific Ohio EPA Air Permits for installation and operation. Operators must seek authorization from the corresponding district of Ohio EPA. For demolition of all commercial sites, a Notification for Restoration and Demolition must be submitted to Ohio EPA to determine if asbestos corrective actions are required.
12. Process Waste Water/Leachate Management. Ohio EPA's Construction General Permit only allows the discharge of storm water and does not include other waste streams/discharges such as vehicle and/or equipment washing, on-site septic leachate concrete wash outs, which are considered process wastewaters. All process wastewaters must be collected and properly disposed at an approved disposal facility. In the event, leachate or septage is discharged; it must be isolated for collection and proper disposal and corrective actions taken to eliminate the source of waste water.
13. A Permit to Install (PTI) is required prior to the construction of all centralized sanitary systems, including sewer extensions, and sewerage systems (except those serving one, two, and three family dwellings) and potable water lines. Plans must be submitted and approved by Ohio EPA. Issuance of an Ohio EPA Construction General Storm Water Permit does not authorize the installation of any sewerage system where Ohio EPA has not approved a PTI.



THE INFORMATION ON THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION OR PURPOSES OF REGULATION

FORESTAR
SHAKER FARMS
PH 1, 2 & 3
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

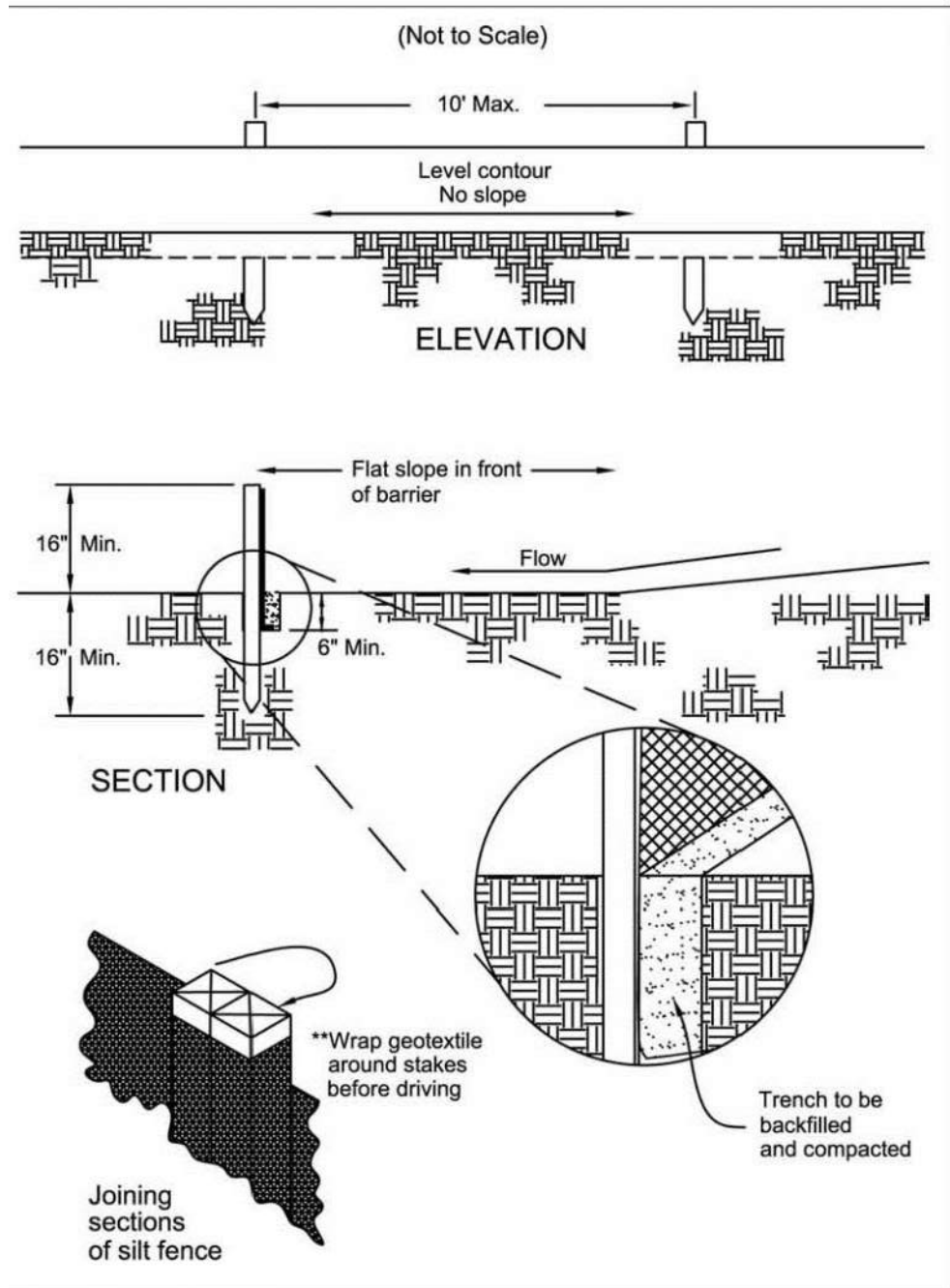
Revisions / Submissions		
ID	Description	Date
© 2025 CESO, INC.		
Project Number:	763884	
Scale:	AS SHOWN	
Drawn By:	SCR	
Checked By:	JEE	
Date:	JUNE 16, 2025	
Issue:	FINAL DEVELOPMENT PLAN	

Drawing Title:
SWPPP DETAILS



C:\D:\CADD\Drawings\CESO\Forestar Shaker Farms\Project Files\CESO\03-CIVIL\4-FINAL_PH_1-3\PLAN\SWPPP.dwg - 6/13/2025 - Ryan Hopkins

Specifications
for
Silt Fence



1. Silt fence shall be constructed before upslope land disturbance begins.
 2. All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions that may carry small concentrated flows to the silt fence are dissipated along its length.
 3. Ends of the silt fences shall be brought upslope slightly so that water ponded by the silt fence will be prevented from flowing around the ends.
 4. Silt fence shall be placed on the flattest area available.
 5. Where possible, vegetation shall be preserved for 5 feet (or as much as possible) upslope from the silt fence. If vegetation is removed, it shall be reestablished within 7 days from the installation of the silt fence.
 6. The height of the silt fence shall be a minimum of 16 inches above the original ground surface.
 7. The silt fence shall be placed in an excavated or sliced trench cut a minimum of 6 inches deep. The trench shall be made with a trencher, cable laying machine, slicing machine, or other suitable device that will ensure an adequately uniform trench depth.
 8. The silt fence shall be placed with the stakes on the downslope side of the geotextile. A minimum of 8 inches of geotextile must be below the ground surface. Excess material shall lay on the bottom of the 6-inch deep trench. The trench shall be backfilled and compacted on both sides of the fabric.
 9. Seams between sections of silt fence shall be applied together only at a support post with a minimum 6-in. overlap prior to driving into the ground. (see details).
 10. Maintenance—Silt fence shall allow runoff to pass only as diffuse flow through the geotextile. If runoff over-tops the silt fence, flows under the fabric or around the fence ends, or in any other way allows a concentrated flow discharge, one of the following shall be performed, as appropriate: 1) the layout of the silt fence shall be changed, 2) accumulated sediment shall be removed, or 3) other practices shall be installed.
- Sediment deposits shall be routinely removed when the deposit reaches approximately one-half of the height of the silt fence.
- Silt fences shall be inspected after each rainfall and at least daily during a prolonged rainfall. The location of existing silt fence shall be reviewed daily to ensure its proper location and effectiveness. If damaged, the silt fence shall be repaired immediately.

Criteria for silt fence materials

1. Fence post –The length shall be a minimum of 32 inches. Wood posts will be 2-by-2-in. nominal dimensioned hardwood of sound quality. They shall be free of knots, splits and other visible imperfections, that will weaken the posts. The maximum spacing between posts shall be 10 ft. Posts shall be driven a minimum 16 inches into the ground, where possible. If not possible, the posts shall be adequately secured to prevent overturning of the fence due to sediment/water loading.
2. Silt fence fabric – See chart below.

Table 6.3.2 Minimum criteria for Silt Fence Fabric (0007, 2002)

FABRIC PROPERTIES	VALUES	TEST METHOD
Minimum Tensile Strength	120 lbs. (535 N)	ASTM D 4632
Maximum Elongation at 60 lbs	50%	ASTM D 4632
Minimum Puncture Strength	50 lbs (220 N)	ASTM D 4833
Minimum Tear Strength	40 lbs (180 N)	ASTM D 4533
Apparent Opening Size	≤ 0.84 mm	ASTM D 4751
Minimum Permittivity	1X10 ⁻² sec. ⁻¹	ASTM D 4491
UV Exposure Strength Retention	70%	ASTM G 4355

BELOW GRADE

ABOVE GRADE WITH WOOD PLANKS

ABOVE GRADE W/ HAYBALES

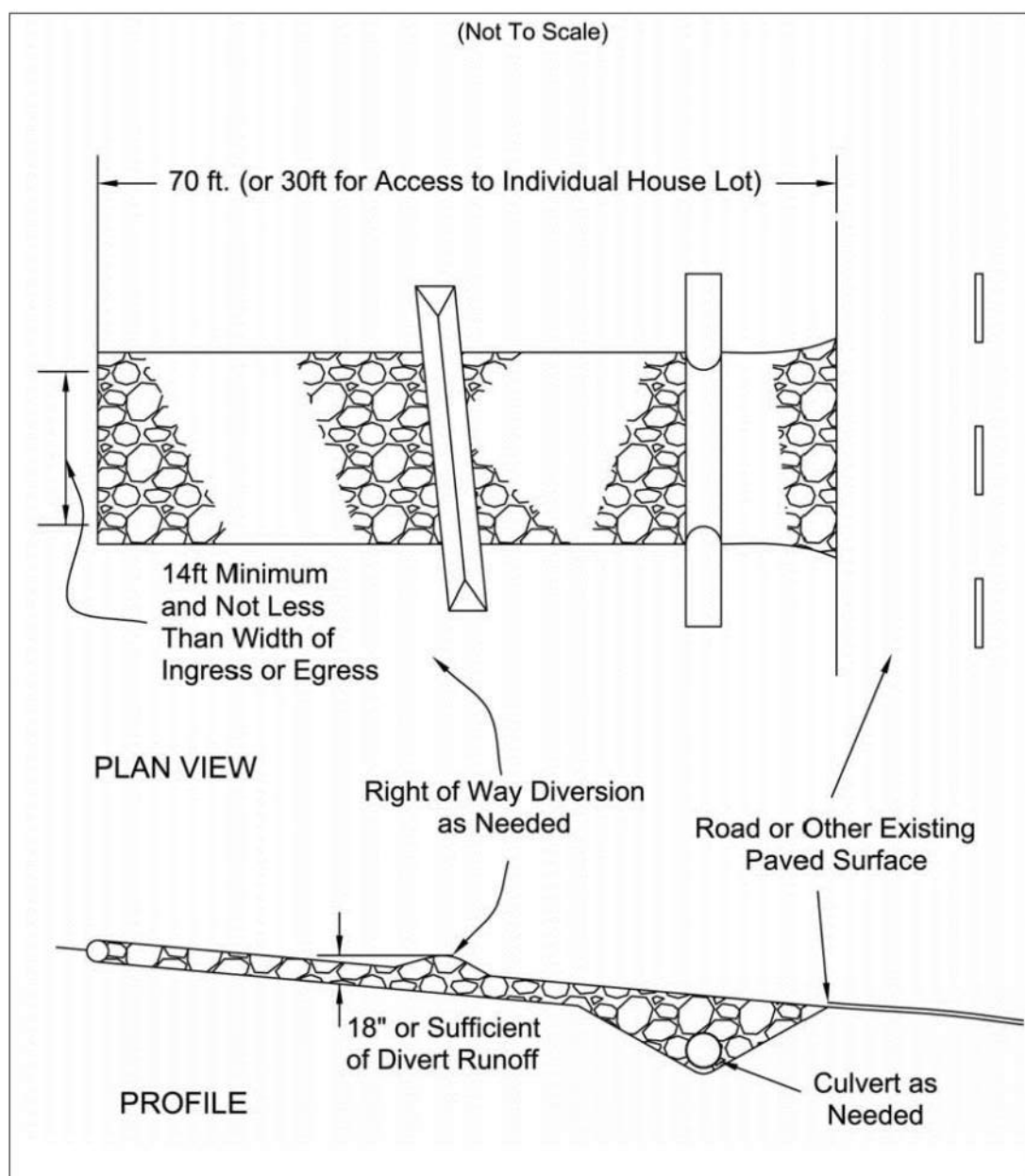
NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING BUT NOT LIMITED TO OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.

CONCRETE WASHOUT

NTS

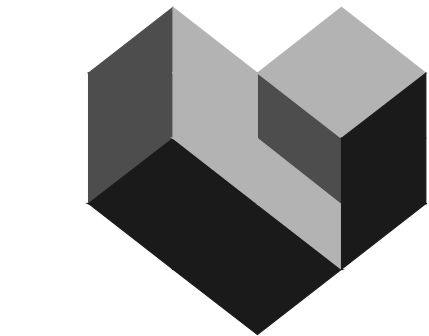
Specifications
for
Construction Entrance



1. Stone Size—ODOT # 2 (1.5-2.5 inch) stone shall be used, or recycled concrete equivalent.
2. Length—The Construction entrance shall be as long as required to stabilize high traffic areas but not less than 70 ft. (exception: apply 30 ft. minimum to single residence lots).
3. Thickness -The stone layer shall be at least 6 inches thick for light duty entrances or at least 10 inches for heavy duty use.
4. Width -The entrance shall be at least 14 feet wide, but not less than the full width at points where ingress or egress occurs.
5. Geotextile -A geotextile shall be laid over the entire area prior to placing stone. It shall be composed of strong rot-proof polymeric fibers and meet the following specifications:
6. Timing—The construction entrance shall be installed as soon as is practicable before major grading activities.
7. Culvert -A pipe or culvert shall be constructed under the entrance if needed to prevent surface water from flowing across the entrance or to prevent runoff from being directed out onto paved surfaces.
8. Water Bar -A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces.
9. Maintenance -Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
10. Construction entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction-site shall be restricted from muddy areas.
11. Removal—the entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent roadway or entrance.

Figure 7.4.1

Geotextile Specification for Construction Entrance	
Minimum Tensile Strength	200 lbs.
Minimum Puncture Strength	80 psi.
Minimum Tear Strength	50 lbs.
Minimum Burst Strength	320 psi.
Minimum Elongation	20%
Equivalent Opening Size	ECS < 0.8 mm.
Permittivity	1x10 ⁻³ cm/sec.



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Mansfield, OH 44842
Phone: 937.435.8584 Fax: 888.208.4826

THIS INFORMATION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION OR FOR ANY OTHER PURPOSES.

FORESTAR

**SHAKER FARMS
PH 1, 2 & 3**

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID Description Date

© 2025 CESO, INC.

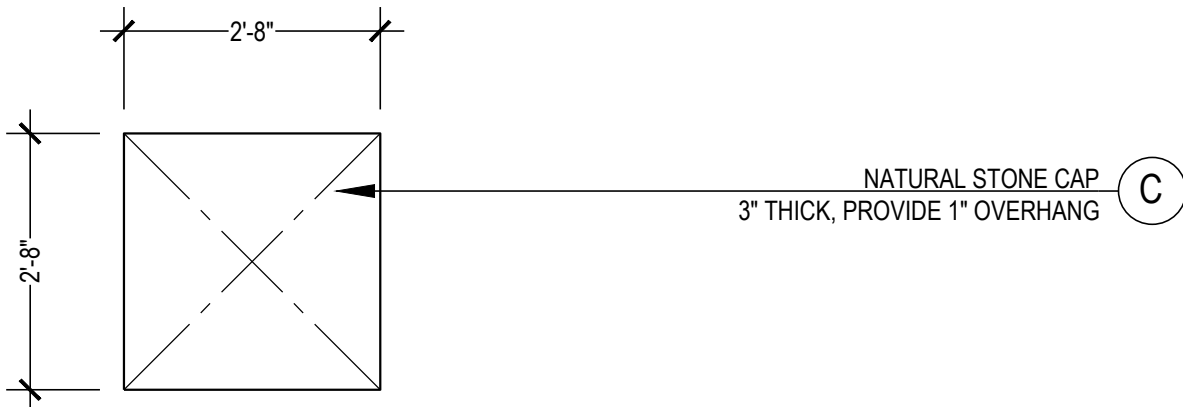
Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 16, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:

**SWPPP - 34 SWPPP
DETAILS**

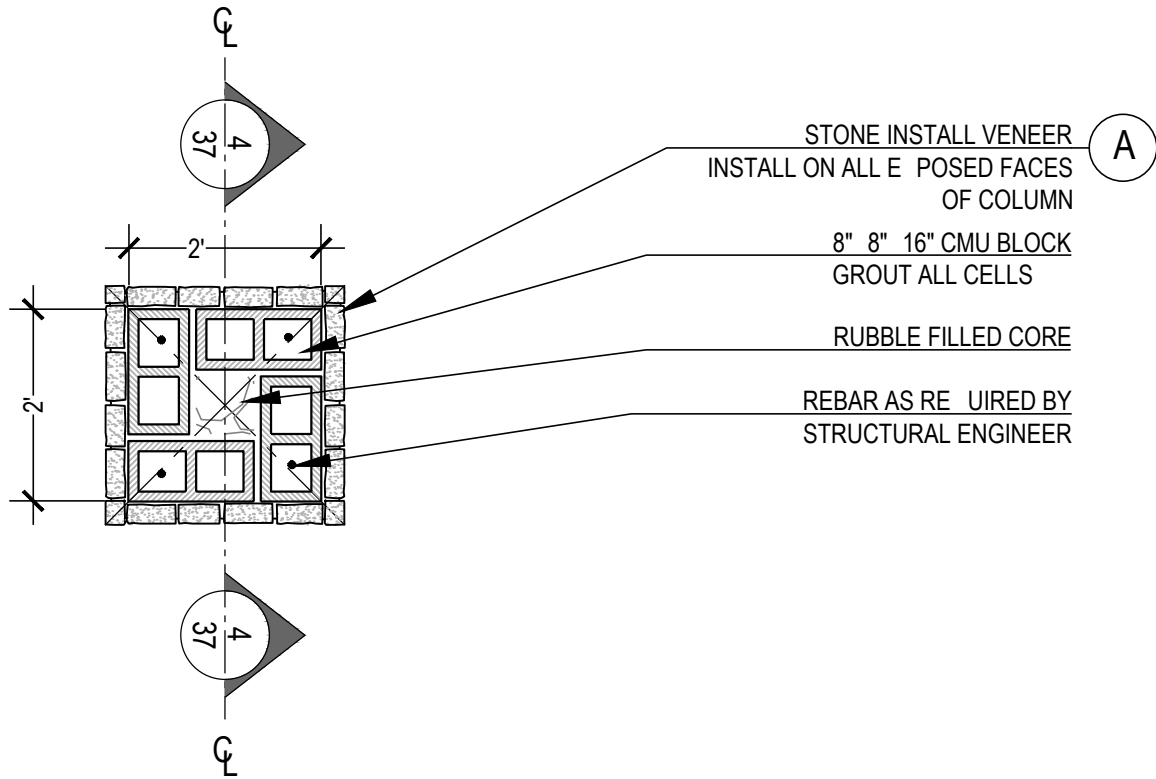


C:\DC\ACCDocs\CESO\Forestar Shaker Farms\Project Files\CESO06-LA_PLAN.dwg - 6/12/2025 - Jeff Lape



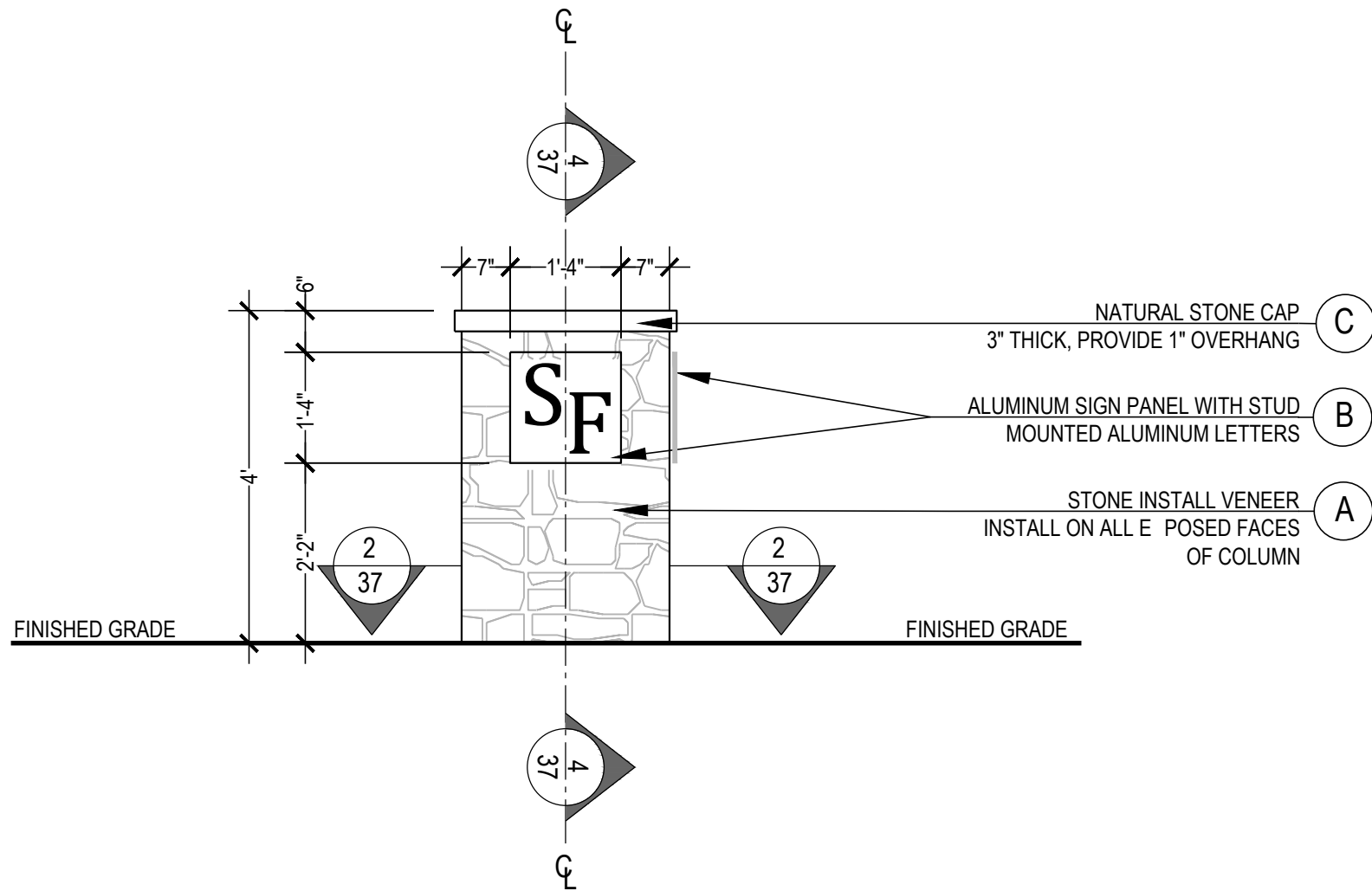
1 MARKER COLUMN - PLAN

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



2 MARKER COLUMN - PLAN SECTION

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



3 MARKER COLUMN - ELEVATION

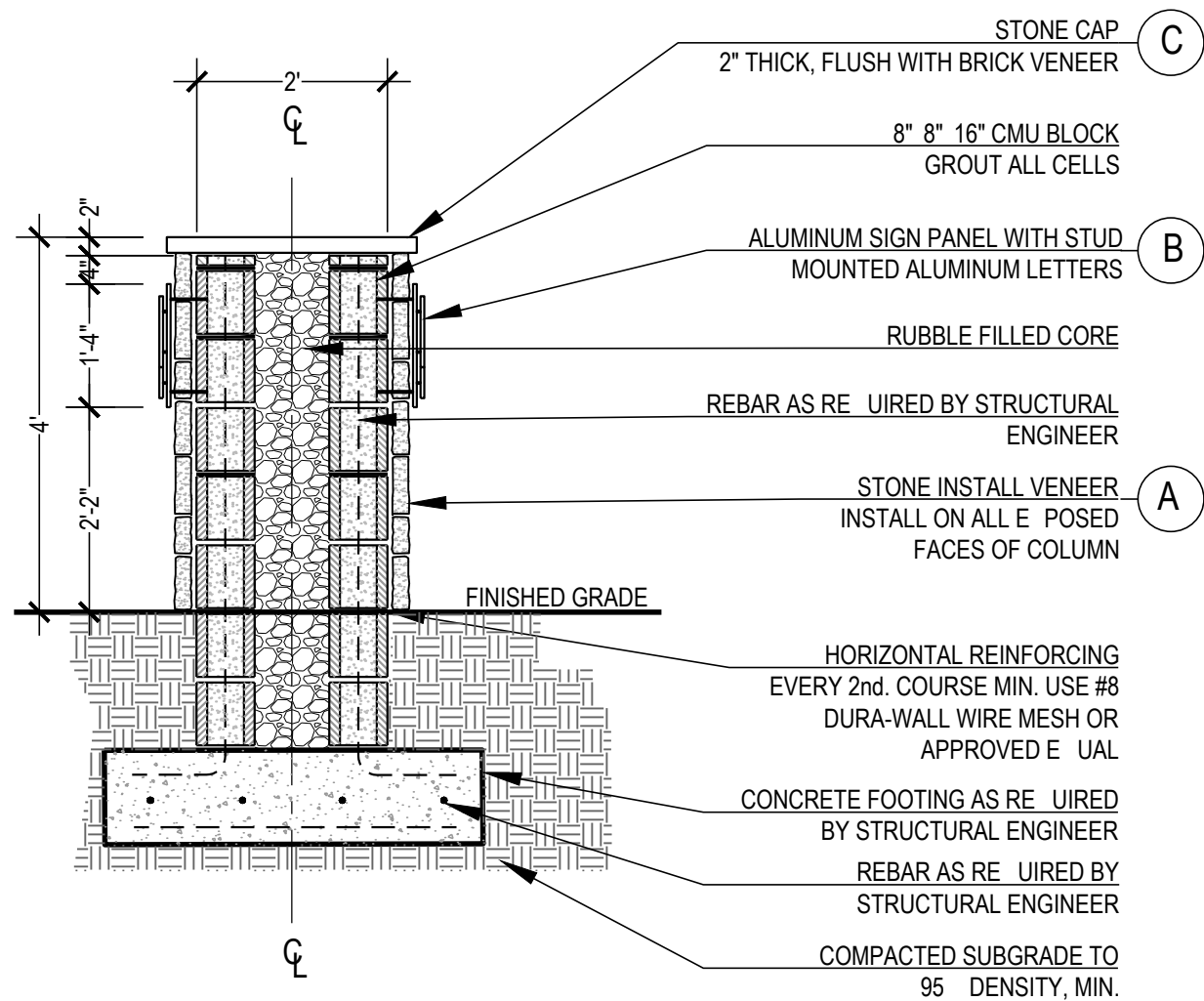
SCALE: 1/2"=1'-0"

STRUCTURAL NOTE: DESIGN AND DETAILS HAVE NOT BEEN REVIEWED BY STRUCTURAL ENGINEER. MONUMENT WILL NOT BE ACCEPTED BY OWNER IF BUILT WITHOUT SEALED DRAWINGS FROM STRUCTURAL ENGINEER.

HARDSCAPE SCHEDULE LEGEND AND NOTES:

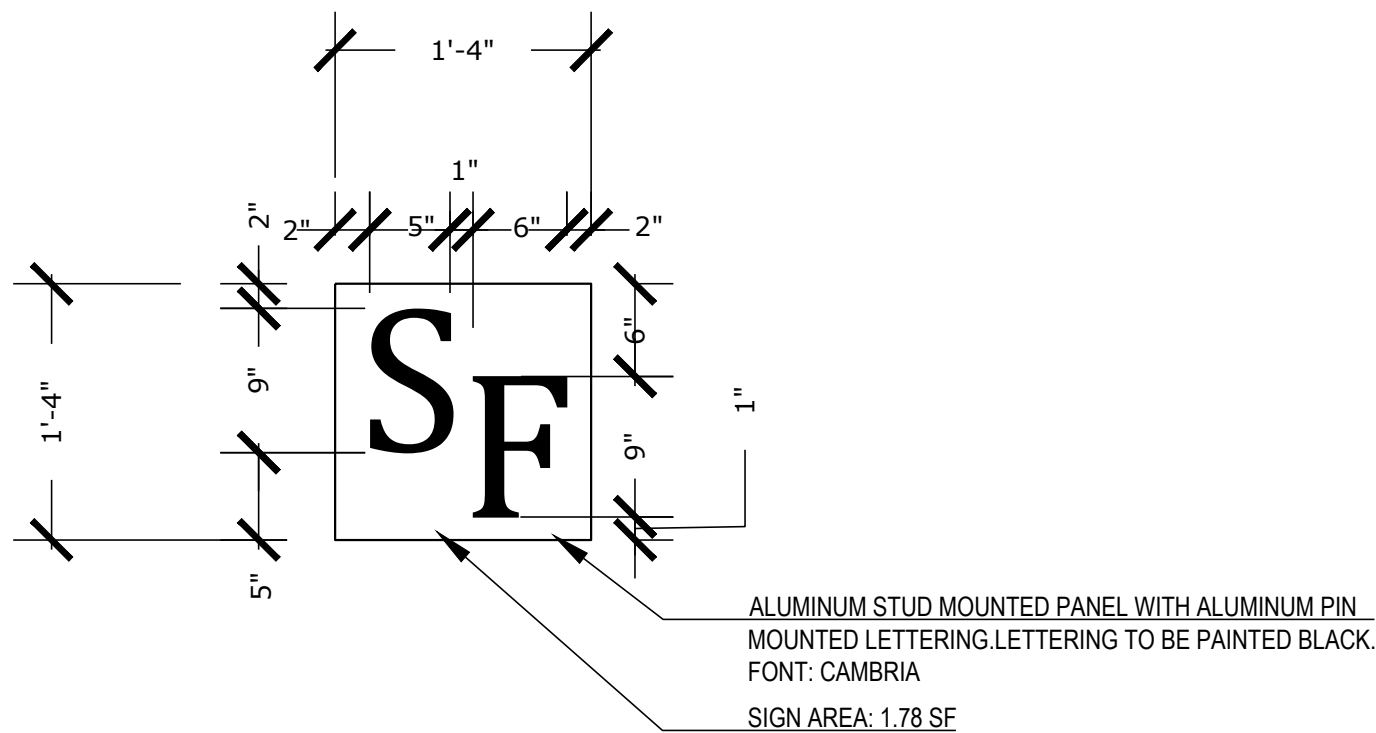
- A** MANUFACTURED STONE VENEER
MFG: CENTURION
STYLE: FIELDSTONE
COLOR: PENNSYLVANIA
- B** NATURAL STONE CAP
COLOR: CRAB ORCHARD
- C** WHITE ALUMINUM PLATE
MOUNTED 1" OFF MANUFACTURED
STONE FACE WITH METAL DOWELS

1. ACTUAL STRUCTURAL DESIGN AND DETAIL TO BE PROVIDED BY STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION. MONUMENT WILL NOT BE ACCEPTED BY OWNER UNTIL CONTRACTOR HAS RECEIVED SEALED PLANS FROM STRUCTURAL ENGINEER. CONTRACTOR IS RESPONSIBLE TO INCLUDE STRUCTURAL ENGINEERING SERVICES WITHIN THEIR SCOPE.
2. CONTRACTOR IS RESPONSIBLE TO SUBMIT A SAMPLE OF ALL SUBSTITUTIONS, WITH ALL PROPOSED MATERIALS AND COLOR INCLUDING BUT NOT LIMITED TO NATURAL STONE CAP, STONE VENEER, BRICK VENEER, MORTAR COLOR, POWDER COATED ALUMINUM, TREX, AND/OR STUCCO FINISH. COLOR TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PURCHASING OR CONSTRUCTION.
3. SIGN CONTRACTOR IS RESPONSIBLE TO SUBMIT SHOP DRAWINGS OF THE SIGN INCLUDING LETTER FONT, STYLE, COLOR AND ATTACHMENT METHOD TO SIGN WALL TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
4. CONTACT LANDSCAPE ARCHITECT ONCE MONUMENTS HAVE BEEN STAKED IN THE FIELD FOR FINAL APPROVAL AND DISCUSSION TO DETERMINE FINISHED GRADE ELEVATION.
5. SOIL UNDERNEATH ALL FOOTINGS SHOULD REMAIN UNDISTURBED. IF DISTURBED THEN COMPACT STRUCTURAL FILL TO 95% OF PROCTOR COMPACTION USING LIFTS UNTIL DESIRED ELEVATION IS ACHIEVED. 2000 PSF MIN BEARING OR STRUCTURAL ENGINEER RECOMMENDATION.
6. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI OR STRUCTURAL ENGINEER RECOMMENDATION.
7. ALL CMU FILL SHALL BE 3000 PSI GROUT (TYP. OF ALL)



4 MARKER COLUMN - SECTION

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



5 SIGN - DETAIL

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



THIS INFORMATION ON THIS DOCUMENT IS PRELIMINARY OR INCOMPLETE AND NOT FOR CONSTRUCTION OR IMPLEMENTATION.

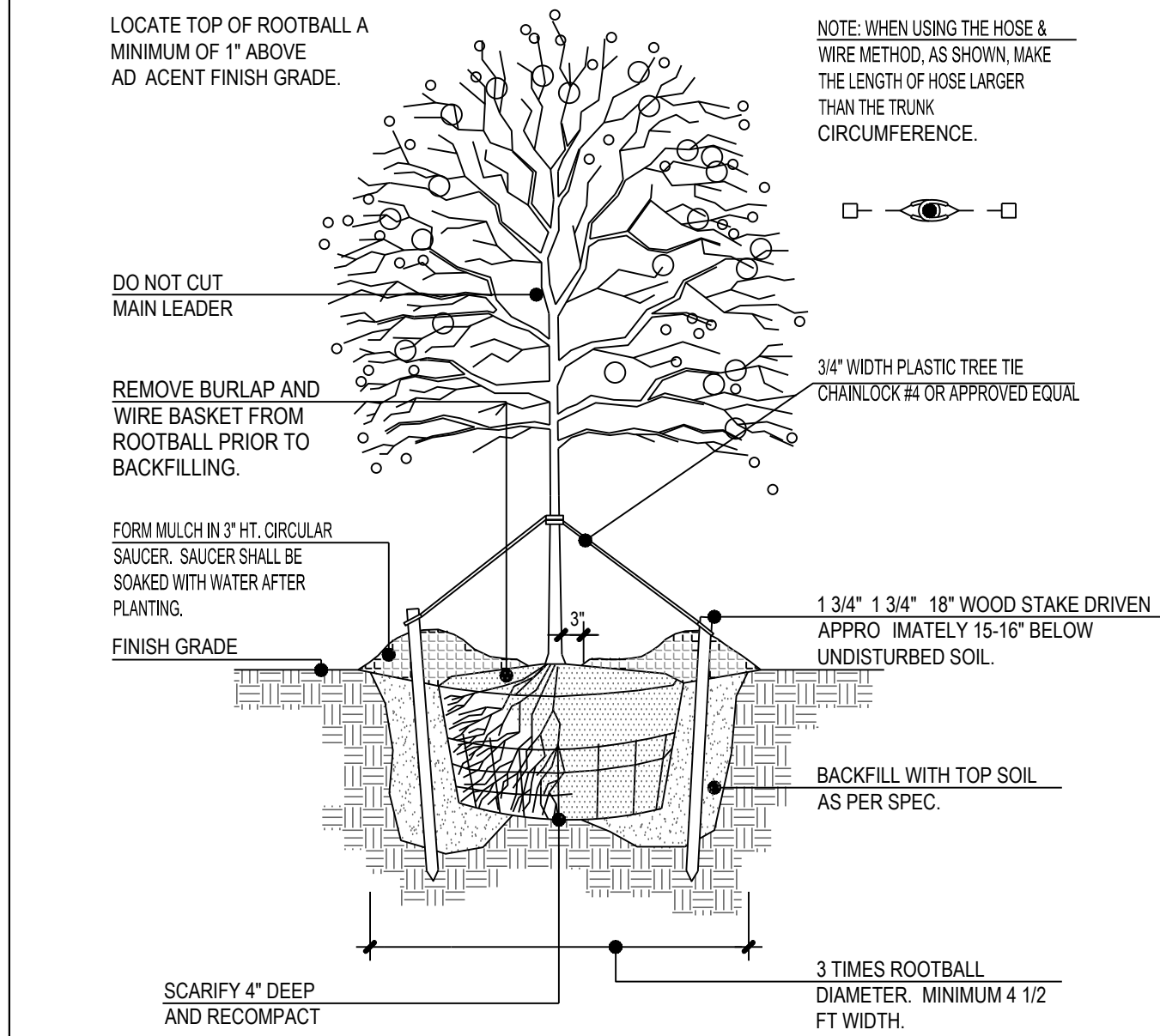
FORESTAR
SHAKER FARMS
PH 1, 2 & 3
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions

ID	Description	Date
----	-------------	------

763884
AS SHOWN
JAL
JAL
JUNE 16, 2025
FINAL DEVELOPMENT PLAN

SIGNAGE DETAIL



1) DECIDUOUS TREE STAKING

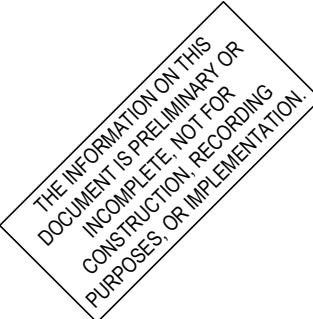
N.T.S

GENERAL NOTES: LANDSCAPE PLAN

1. CONTRACTOR TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL E LISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY LOCATE SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
2. SITE CONDITIONS BASED UPON SURVEY PROVIDED BY OWNER. CONTRACTOR TO FIELD VERIFY E LISTING CONDITIONS BY DETAILED INSPECTION PRIOR TO SUBMITTING BID AND BEGINNING CONSTRUCTION.
3. REFER TO SITE CIVIL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND COORDINATE WORK WITH OTHER SITE RELATED DEVELOPMENT DRAWING AS NEEDED.
4. REESTABLISH E LISTING TURF IN AREAS DISTURBED BY GRADING OR UTILITY TRENCHING, INCLUDING AREAS IN RIGHT-OF-WAY, TO MATCH E LISTING SPECIES.
5. CONTRACTOR SHALL E AMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
6. CONTRACTOR TO REPORT ALL DAMAGES TO E LISTING CONDITIONS AND INCONSISTENCIES WITH PLANS TO LANDSCAPE ARCHITECT.
7. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN ALL LANDSCAPE BEDS AND ALL LAWN AREAS.
8. CONTRACTOR TO FINE GRADE AND ROCK-HOUND ALL TURF AREAS PRIOR TO SEEDING, TO PROVIDE A SMOOTH AND CONTINUUAL SURFACE, FREE OF IRREGULARITIES (BUMPS OR DEPRESSIONS) E TRANEOUS MATERIAL OR DEBRIS.
9. REMOVE E LISTING WEEDS FROM PRO ECT SITE PRIOR TO THE ADDITION OF ORGANIC AMENDMENTS AND FERTILIZER. APPLY AMENDMENTS AND FERTILIZER AS NEEDED.
10. QUANTITIES SHOWN ARE INTENDED TO ASSIST CONTRACTOR IN EVALUATING THEIR OWN TAKE OFFS AND ARE NOT GUARANTEED AS ACCURATE REPRESENTATIONS OF E URED MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS BID. QUANTITIES AS E URED BY THE PLANS AND SPECIFICATIONS. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER LABELED ON THE PLANT LEGEND AND THE QUANTITY OF GRAPHIC SYMBOLS SHOWN, THE GREATER QUANTITY SHALL GOVERN.
11. COORDINATE LANDSCAPE INSTALLATION WITH INSTALLATION OF UNDERGROUND SPRINKLER AND DRAINAGE SYSTEMS.
12. ALL SIZES AND QUALITY OF PLANT MATERIAL SHALL MEET THE MINIMUM SPECIFICATIONS OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014). THE LANDSCAPE CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN SIZE AS INDICATED IN THE PLANT SCHEDULE UNLESS OTHERWISE SPECIFIED ON THE PLAN SET. ALL PLANTS THAT DO NOT MEET THE SIZE AND SPECIFICATIONS SET FORTH IN THE AMERICAN STANDARD FOR NURSERY STOCK WILL BE RE ECTED BY LANDSCAPE ARCHITECT AT NO COST TO OWNER.
13. ONCE PRO ECT IS AWARDED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL PLANT MATERIAL IN THE SIZE SPECIFIED ON PLAN PRIOR TO INSTALLATION. IN THE EVENT THE PLANT MATERIAL IS NOT AVAILABLE IN THE SIZE SPECIFIED, THE CONTRACTOR SHALL INSTALL LARGER AT NO COST TO OWNER.
14. THE LANDSCAPE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ALL PLANT MATERIAL SUBSTITUTIONS FROM THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. PLANT SUBSTITUTIONS WITHOUT PRIOR WRITTEN APPROVAL THAT DO NOT COMPLY WITH THE DRAWINGS AND SPECIFICATIONS MAY BE RE ECTED BY THE LANDSCAPE ARCHITECT AND REPLACED BY CONTRACTOR AT NO COST TO THE OWNER.
15. PRIOR TO MOBILIZATION THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT, IN WRITING, IF HE/SHE BELIEVES ANY OF THE PLANT MATERIAL IDENTIFIED ON THE PLAN MAY NOT BE SUITABLE FOR THE SITE OR MAY DIE. SUBSTITUTION REQUESTS WILL BE GRANTED BY THE LANDSCAPE ARCHITECT PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. IF NOTIFICATION IS NOT GIVEN TO THE LANDSCAPE ARCHITECT ALL PLANTING WHICH FAILS TO GROW (E CEPT FOR DEFECTS RESULTING FROM LACK OF ADE QUATE MAINTENANCE AS DETERMINED BY THE OWNER, NEGLIGENCE, OR VANDALISM) SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S E PENSE.
16. WHERE PROPOSED TREE LOCATIONS OCCUR UNDER E LISTING OVERHEAD UTILITIES OR CROWD E LISTING TREES, NOTIFY LANDSCAPE ARCHITECT TO AD JUST TREE LOCATIONS.
17. ALL PLANT MASSES TO BE TOP DRESSED WITH MULCH AS SPECIFIED IN PLANT SCHEDULE. SPREAD UNIFORMLY IN DEPTH OVER THE PLANTING BEDS AS DELINEATED ON THE PLANS UNLESS OTHERWISE NOTED.
18. BED EDGE TO BE NO LESS THAN 12" AND NO MORE THAN 18" FROM OUTER EDGE OF PLANT MATERIAL BRANCHING WHERE GROUND-COVER OCCURS, PLANT TO LIMITS OF AREA AS SHOWN.
19. ALL PLANTS SHALL BE GUARANTEED FOR 1 YEAR AFTER SUBSTANTIAL COMPLETION OCCURS AND FINAL ACCEPTANCE BY OWNER.
20. LANDSCAPE MAINTENANCE PERIOD BEGINS IMMEDIATELY AFTER THE COMPLETION OF ALL PLANTING OPERATIONS AND WRITTEN ACCEPTANCE FROM THE OWNER AND LANDSCAPE ARCHITECT. MAINTAIN TREES, SHRUBS, LAWNS, AND OTHER PLANTS AS PER THE PRO ECT MANUAL AND/OR WRITTEN SPECIFICATIONS, IF APPLICABLE. LANDSCAPE MAINTENANCE IS THE LANDSCAPING CONTRACTORS RESPONSIBILITY UNTIL FINAL ACCEPTANCE BY THE OWNER.
21. ALL LANDSCAPE MAINTENANCE SHALL BE IN ACCORDANCE WITH LOCAL GOVERNING STANDARDS.
22. REFER TO PRO ECT MANUAL OR WRITTEN SPECIFICATIONS, IF AVAILABLE, FOR ADDITIONAL REQUIREMENTS.

SOIL PLANTING MIXTURE (MIX ON-SITE)

1. THE LANDSCAPE CONTRACTOR SHALL FURNISH FROM THEIR SOURCE A GOOD CLEAN, NATIVE SOIL WHICH SHALL MEET THE APPROVAL OF THE OWNER'S REPRESENTATIVE. THIS SOIL SHALL BE USED FOR THE PLANTING MIXTURE AS FOLLOWS:
- A. ONE PART COMPOST/MANURE PLANTING MIXTURE TO TWO PARTS OF NATIVE SOIL
 - B. ONE PART NATIVE SOIL
2. SOILS WITHIN PLANTING AREAS MUST BE SUITABLE FOR PROPOSED PLANTED MATERIAL. SOILS WITH REGARD TO: pH, SOIL TEXTURE, SOIL STRUCTURE, AND SEASONAL HIGH WATER TABLE. THE CONTRACTOR SHALL ANALYZE EXISTING SOILS LOCATED IN PROXIMITY TO PROPOSED PLANT MATERIAL AND BE RESPONSIBLE TO AMEND THE SOIL TO OBTAIN ESSENTIAL REQUIREMENTS NECESSARY FOR THE ESTABLISHMENT AND GROWTH OF PLANT LIFE. LANDSCAPE CONTRACTOR TO PROVIDE SOILS REPORT AND APPROPRIATE RECOMMENDATIONS PRIOR TO INSTALLATION TO OWNER'S REPRESENTATIVE FOR REVIEW. FAILURE TO PROVIDE REPORT MAY RESULT IN PLANT MATERIAL BEING REJECTED BY OWNER'S REPRESENTATIVE AND REPLACED AT NO COST TO OWNER.
3. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO PLANTING, WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, POOR PLANTING SOIL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS.



FORESTAR

SHAKER FARMS

PH 1, 2 & 3

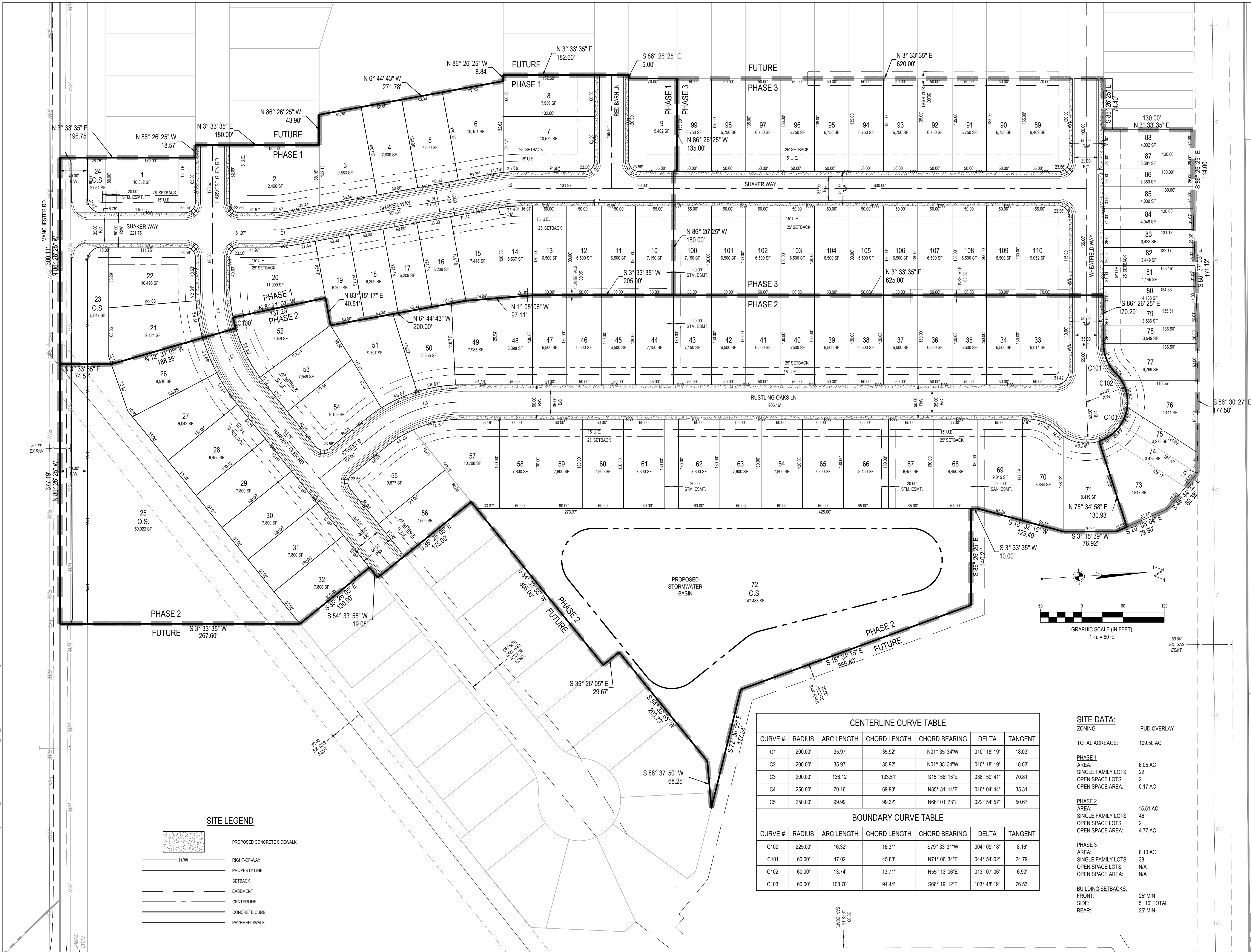
MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

763884
AS SHOWN
JAL
JAL
JUNE 16, 2025
FINAL DEVELOPMENT PLAN

PLANTING DETAILS AND NOTES

C:\DACC\Draws\CESO\Forestar Shaker Farms\Project Files\CESO03-CIVIL\FINAL_PH_1-3\PLAN\SITE PLAN.dwg - 6/13/2025 - Justin Elam

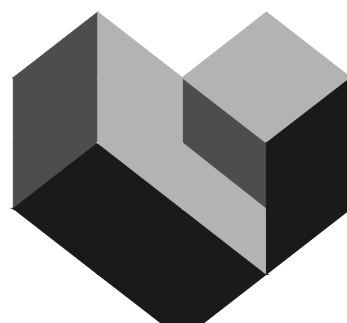


SITE LEGEND	
	PROPOSED CONCRETE SIDEWALK
	RIGHT-OF-WAY
	PROPERTY LINE
	SETBACK
	EASEMENT
	CENTERLINE
	CONCRETE CURB
	PAVEMENT/WALK

CENTERLINE CURVE TABLE						
CURVE #	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA	TANGENT
C1	200.00'	35.97'	35.92'	N01° 35' 34"W	010° 18' 19"	18.03'
C2	200.00'	35.97'	35.92'	N01° 35' 34"W	010° 18' 19"	18.03'
C3	200.00'	136.12'	133.51'	S15° 56' 15"E	038° 59' 41"	70.81'
C4	250.00'	70.16'	69.93'	N85° 31' 14"E	016° 04' 44"	35.31'
C5	250.00'	99.99'	99.32'	N66° 01' 23"E	022° 54' 57"	50.67'

BOUNDARY CURVE TABLE						
CURVE #	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA	TANGENT
C100	225.00'	16.32'	16.31'	S79° 33' 31"W	004° 09' 18"	8.16'
C101	60.00'	47.02'	45.83'	N71° 06' 34"E	044° 54' 02"	24.79'
C102	60.00'	13.74'	13.71'	N55° 13' 06"E	013° 07' 06"	6.90'
C103	60.00'	108.70'	94.44'	S66° 19' 12"E	103° 48' 19"	76.53'

SITE DATA:	
ZONING:	PUD OVERLAY
TOTAL ACREAGE:	109.50 AC
PHASE 1	
AREA:	6.05 AC
SINGLE FAMILY LOTS:	22
OPEN SPACE LOTS:	2
OPEN SPACE AREA:	0.17 AC
PHASE 2	
AREA:	15.51 AC
SINGLE FAMILY LOTS:	46
OPEN SPACE LOTS:	2
OPEN SPACE AREA:	4.77 AC
PHASE 3	
AREA:	6.10 AC
SINGLE FAMILY LOTS:	38
OPEN SPACE LOTS:	N/A
OPEN SPACE AREA:	N/A
BUILDING SETBACKS:	
FRONT:	25' MIN
SIDE:	5', 10' TOTAL
REAR:	25' MIN.



CESO
WWW.CESOINC.COM

3601 Rigby Rd., Suite 300
Miamisburg, OH 45342
Phone: 937.435.8584 Fax: 888.208.4826

THE INFORMATION ON THIS
DOCUMENT IS PREPARED BY OR
FOR THE ENGINEER OR ARCHITECT
AND IS NOT TO BE USED FOR
CONSTRUCTION OR RECORDING
PURPOSES WITHOUT THE
ENGINEER'S OR ARCHITECT'S
APPROVAL.

FORESTAR

SHAKER FARMS PH 1, 2 & 3

MANCHESTER ROAD AND SHAKER ROAD
FRANKLIN, OH

Revisions / Submissions		
ID	Description	Date

© 2025 CESO, INC.

Project Number: 763884
Scale: AS SHOWN
Drawn By: SCR
Checked By: JEE
Date: JUNE 13, 2025
Issue: FINAL DEVELOPMENT PLAN

Drawing Title:
SITE PLAN