

**RESOLUTION APPROVING THE DETAILED CONSTRUCTION PLANS FOR THE KINGSVILLE REGIONAL SEWER IMPROVEMENTS PROJECT, KINGSVILLE TOWNSHIP, ACDES**

WHEREAS, Doug Starkey, Director of the Ashtabula County Department of Environmental Services (ACDES), has presented detailed construction plans prepared by CT Consultants, and approved by Ashtabula County Sanitary Engineer, for the Kingsville Regional Sewer Improvements Project, Kingsville Township; and

WHEREAS, The project description is as follows:

Design and construction of a new sewer infrastructure in Kingsville Township, in Ashtabula County.

WHEREAS, Doug Starkey, Director of ACDES, is authorized after plan approval to submit signed drawings to OEPA for Permit to Install (PTI); and

WHEREAS, Doug Starkey, Director of ACDES, recommends approval of these plans; now

THEREFORE, BE IT RESOLVED, by the Board of County Commissioners of the County of Ashtabula, Ohio, that:

**Section 1.** The detailed construction plans for the Kingsville Regional Sewer Improvements Project in Kingsville Township, are hereby approved.

**Section 2.** Those detailed plans shall be filed in the office of the Ashtabula County Sanitary Engineer, in the Department of Environmental Services and kept continuously on file there for inspection by all persons interested therein.

**Section 3.** This Board finds and determines that all formal actions of this Board concerning and relating to the adoption of this resolution were taken in an open meeting of the Board and all deliberations of this Board and of any of its committees that resulted in those formal actions were in meetings open to the public.

**ASHTABULA COUNTY COMMISSIONERS  
CERTIFICATION PAGE**

**Resolution No. 2025-153**

**March 18, 2025**

**RESOLUTION APPROVING THE DETAILED CONSTRUCTION PLANS FOR THE  
KINGSVILLE REGIONAL SEWER IMPROVEMENTS PROJECT, KINGSVILLE  
TOWNSHIP, ACDES**

**Upon the motion of Kathryn L. Whittington, seconded by Casey R. Kozlowski.**

**VOTE:**

**J.P. Ducro IV**

**Aye**

**Casey R. Kozlowski**

**Aye**


**Kathryn L. Whittington**

**Aye**

**CERTIFICATE OF CLERK**

IT IS HEREBY CERTIFIED that the foregoing is a true and correct transcript of a resolution acted upon and duly passed by the Board of County Commissioners of Ashtabula County, Ohio, on the date noted above.

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Crystal Sturgill, Clerk of the Board *Acting*  
Board of County Commissioners  
Ashtabula County, Ohio

# ASHTABULA COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES KINGSVILLE REGIONAL SEWER IMPROVEMENTS KINGSVILLE TOWNSHIP, OHIO ASHTABULA COUNTY

MARCH 2025

**OHIO 811 DESIGN SERIAL NUMBER & UTILITY LIST:**

TICKET A335202975-00A B335201239-00B

- |  |  |  |
|--|--|--|
| <b>OHIO UTILITY PROTECTION SERVICE:</b><br>106 WEST RYEN, ROOM 427<br>YOUNGSTOWN, OHIO 44051<br>(800) 362-2764 | <b>DOMINION ENERGY:</b><br>1201 E 65TH STREET<br>CLEVELAND, OHIO 44103<br>(800) 362-7557 | <b>ENVIRONMENTAL SERVICES:</b><br>36 W. WALNUT STREET<br>JEFFERSON, OHIO 44047<br>(440) 576-3722 PHONE<br>(440) 576-3781 FAX |
| <b>CLEVELAND ELECTRIC ILLUMINATING CO.:</b><br>2210 SOUTH RIDGE ROAD<br>ASHTABULA, OHIO 44004                  | <b>WINDSTREAM COMM.:</b><br>560 TERNES LANE<br>ELYRIA, OHIO 44035<br>(440) 310-7041      | <b>TCI:</b><br>2804 STATE ROAD<br>ASHTABULA, OHIO 44004<br>(440) 998-2148  |
| <b>THE EAST OHIO GAS COMPANY:</b><br>1010 WEST 30TH STREET<br>ASHTABULA, OHIO 44004<br>(440) 992-5100          | <b>AQUA ASHTABULA:</b><br>2905 N BEND ROAD<br>ASHTABULA, OHIO 44004<br>(440) 997-7566    | <b>CITY OF CONNEAUT WATER &amp; SEWER:</b><br>770 LAKE ROAD<br>CONNEAUT, OHIO 44030<br>(440) 593-7437                        |
| <b>CHARTER COMM.:</b><br>2302 METCALF DRIVE, UNIT 26<br>ASHTABULA, OHIO 44004<br>(886) 874-2389                |  |  |

- UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
- THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION



NOTE:  
THE SURVEY SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER PURPOSE



**LOCATION MAP**  
NOT TO SCALE



ENGINEER'S PROJECT No. 232478

**ASHTABULA COUNTY APPROVALS:**

|                     |                        |      |
|---------------------|------------------------|------|
| COUNTY COMMISSIONER | KATHRYN L. WHITTINGTON | DATE |
| COUNTY COMMISSIONER | CASEY R. KOZLOWSKI     | DATE |
| COUNTY COMMISSIONER | J.P. DUCROIX           | DATE |
| DIRECTOR, ACDES     | DOUG STARKEY           | DATE |

**ENGINEER:**

VERDANTAS, INC.  
8150 STERLING COURT  
MENTOR, OH 44060  
(440) 951-9000 PHONE  
(440) 951-7487 FAX



TIMOTHY MCLAUGHLIN

P.E. No. E-83985

3/14/2025  
DATE

|   |                   |                   |                 |                   |                          |     |      |          |      |
|---|-------------------|-------------------|-----------------|-------------------|--------------------------|-----|------|----------|------|
| <b>ASHTABULA COUNTY</b>                       |                   |                   |                 |                   |                          |     |      |          |      |
| <b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b> |                   |                   |                 |                   |                          |     |      |          |      |
| ASHTABULA COUNTY                              | KINGSVILLE, OHIO  |                   |                 |                   |                          |     |      |          |      |
| GENERAL - 00 SERIES                           |                   |                   |                 |                   |                          |     |      |          |      |
| COVER SHEET                                   |                   |                   |                 |                   |                          |     |      |          |      |
| PROJECT NO.<br>232478                         | DATE<br>3/14/2025 | SCALE<br>AS NOTED | DRAWN BY<br>JBS | CHECKED BY<br>TJM | ISSUED FOR<br>PTI REVIEW | NO. | DATE | REVISION | DATE |
| GENERAL<br>00G-01                             | SHEET<br>1        | OF<br>43          |                 |                   |                          |     |      |          |      |



8150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 951-8000



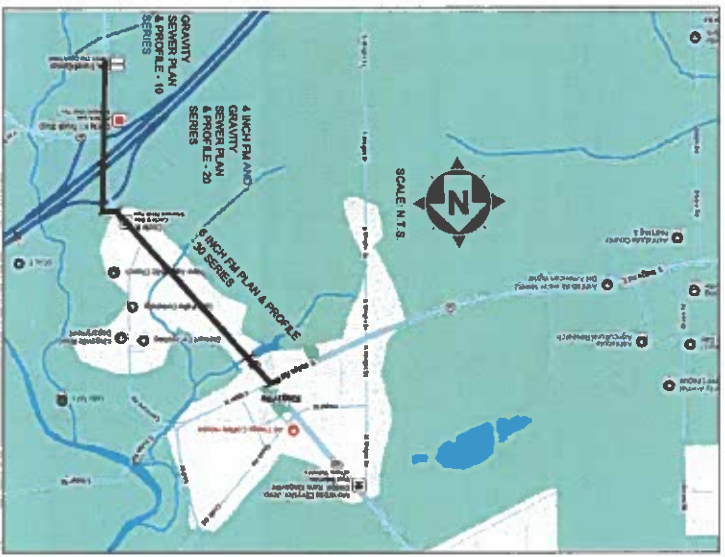
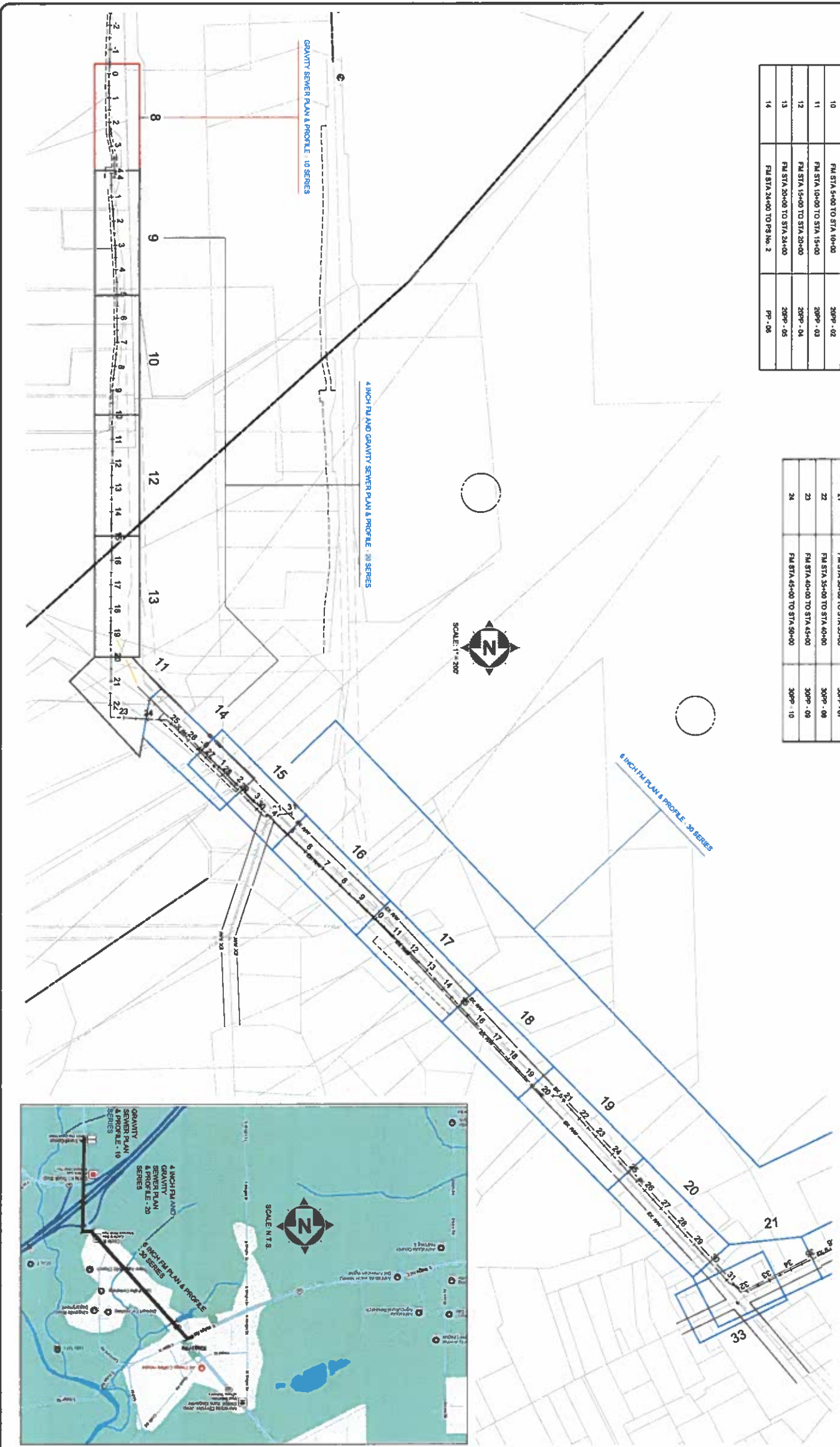


| Sheet List Table |   |
|------------------|---|
| SHEET NUMBER     | SHEET TITLE   |
| 8                | GRAVITY SEWER PLAN & PROFILE - 10 SERIES                |
| 9                | 4 INCH FPM AND GRAVITY SEWER PLAN & PROFILE - 20 SERIES |
| 10               | FPM STA 00+00 TO STA 5+00                               |
| 11               | FPM STA 5+00 TO STA 10+00                               |
| 12               | FPM STA 10+00 TO STA 15+00                              |
| 13               | FPM STA 15+00 TO STA 20+00                              |
| 14               | FPM STA 20+00 TO STA 24+00                              |

| SHEET NUMBER | SHEET TITLE   | Sheet Description |
|--------------|---|-------------------|
| 8            | GRAVITY SEWER PLAN & PROFILE - 10 SERIES                | 10PP - 01         |
| 9            | 4 INCH FPM AND GRAVITY SEWER PLAN & PROFILE - 20 SERIES | 20PP - 01         |
| 10           | FPM STA 00+00 TO STA 5+00                               | 20PP - 02         |
| 11           | FPM STA 5+00 TO STA 10+00                               | 20PP - 03         |
| 12           | FPM STA 10+00 TO STA 15+00                              | 20PP - 04         |
| 13           | FPM STA 15+00 TO STA 20+00                              | 20PP - 05         |
| 14           | FPM STA 20+00 TO STA 24+00                              | 20PP - 06         |

| SHEET NUMBER | SHEET TITLE                                      | Sheet Description |
|--------------|--|-------------------|
| 15           | 6 INCH FPM PLAN & PROFILE - 30 SERIES            | 30PP - 01         |
| 16           | FPM STA 0+00 TO STA 5+00 AND GRAVITY TO PG No. 2 | 30PP - 02         |
| 17           | FPM STA 5+00 TO STA 10+00                        | 30PP - 03         |
| 18           | FPM STA 10+00 TO STA 15+00                       | 30PP - 04         |
| 19           | FPM STA 15+00 TO STA 19+50                       | 30PP - 05         |
| 20           | FPM STA 19+50 TO STA 25+00                       | 30PP - 06         |
| 21           | FPM STA 25+00 TO STA 30+00                       | 30PP - 07         |
| 22           | FPM STA 30+00 TO STA 35+00                       | 30PP - 08         |
| 23           | FPM STA 35+00 TO STA 40+00                       | 30PP - 09         |
| 24           | FPM STA 40+00 TO STA 45+00                       | 30PP - 10         |

| SHEET NUMBER | SHEET TITLE                | Sheet Description |
|--------------|----------------------------|-------------------|
| 25           | FPM STA 50+00 TO STA 55+00 | 30PP - 11         |
| 26           | FPM STA 55+00 TO STA 60+00 | 30PP - 12         |
| 27           | FPM STA 60+00 TO STA 65+00 | 30PP - 13         |
| 28           | FPM STA 65+00 TO STA 70+00 | 30PP - 14         |
| 29           | FPM STA 70+00 TO STA 75+00 | 30PP - 15         |
| 30           | FPM STA 75+00 TO STA 80+00 | 30PP - 16         |
| 31           | FPM STA 80+00 TO STA 85+00 | 30PP - 17         |
| 32           | FPM STA 85+00 TO END       | 30PP - 18         |



|  |  |              |        |
|--|--|--------------|--------|
| ASHTABULA COUNTY                       |  | PROJECT NO.  | 232478 |
| KINGSVILLE REGIONAL SEWER IMPROVEMENTS |  | DATE         | 00G-07 |
| ASHTABULA COUNTY KINGSVILLE, OHIO      |  | GENERAL      |        |
| GENERAL - 00 SERIES                    |  | PROJECT NAME | 00G-07 |
| PLAN & PROFILE LAYOUT INDEX A          |  | SHEET        | 3      |
|  |  | TOTAL SHEETS | 43     |

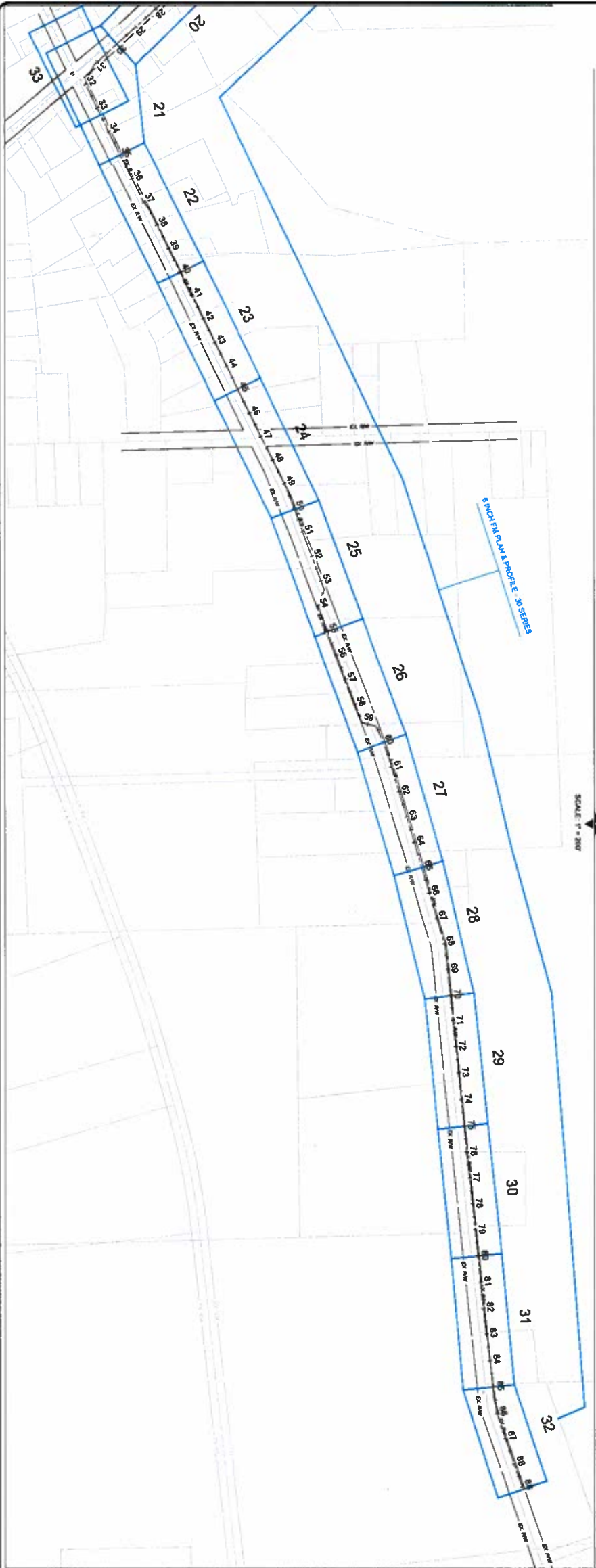
**verdantas**  
 8150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-8000



| REVISION      | NO.      | DATE |
|---------------|----------|------|
| PTI REVIEW    |          |      |
| REVISION DATA | 3/4/2025 |      |
| SCALES        | AS NOTED |      |
| DRAWN BY      | RLM      |      |
| CHECKED BY    | RLM      |      |



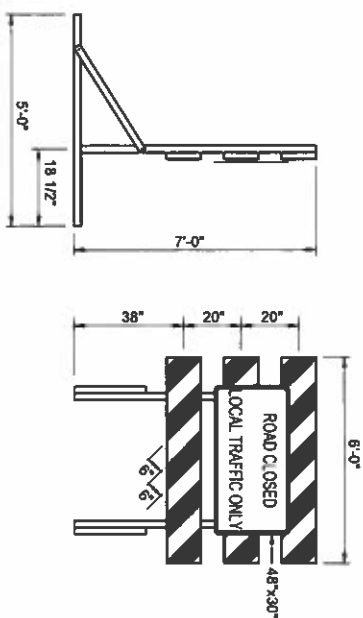
| SHEET NUMBER | SHEET TITLE                       | Sheet Description |
|--------------|-----------------------------------|-------------------|
| 15           | 8 INCH PLAN & PROFILE - 30 SERIES | 30PP - 01         |
| 16           | FM STA 0+00 TO STA 5+00           | 30PP - 02         |
| 17           | FM STA 5+00 TO STA 10+00          | 30PP - 03         |
| 18           | FM STA 10+00 TO STA 15+00         | 30PP - 04         |
| 19           | FM STA 15+00 TO STA 18+50         | 30PP - 05         |
| 20           | FM STA 18+50 TO STA 20+00         | 30PP - 06         |
| 21           | FM STA 20+00 TO STA 25+00         | 30PP - 07         |
| 22           | FM STA 25+00 TO STA 35+00         | 30PP - 08         |
| 23           | FM STA 35+00 TO STA 40+00         | 30PP - 09         |
| 24           | FM STA 40+00 TO STA 45+00         | 30PP - 10         |
| 25           | FM STA 45+00 TO STA 50+00         | 30PP - 11         |
| 26           | FM STA 50+00 TO STA 55+00         | 30PP - 12         |
| 27           | FM STA 55+00 TO STA 65+00         | 30PP - 13         |
| 28           | FM STA 65+00 TO STA 70+00         | 30PP - 14         |
| 29           | FM STA 70+00 TO STA 75+00         | 30PP - 15         |
| 30           | FM STA 75+00 TO STA 80+00         | 30PP - 16         |
| 31           | FM STA 80+00 TO STA 85+00         | 30PP - 17         |
| 32           | FM STA 85+00 TO END               | 30PP - 18         |



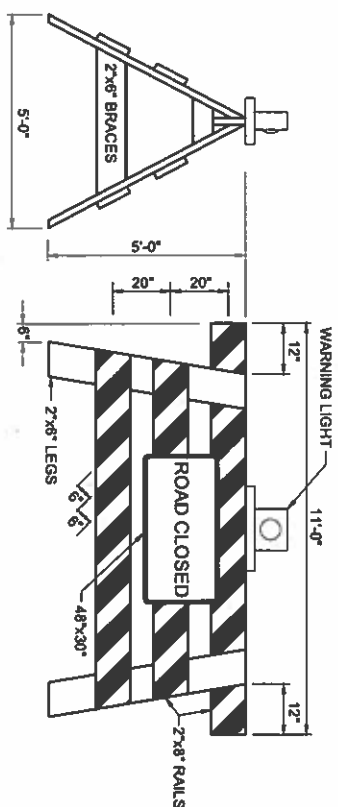
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| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b> |  | PROJECT NO: 232478<br>GENERAL: GENERAL<br>SHEET NAME: 00G-06<br>SHEET: 4 OF 43 | BUILD FOR: PTI REVIEW<br>ISSUE DATE: 3/4/2025<br>SCALE: AS NOTED<br>DESIGNED BY: RLM<br>DRAWN BY: RLM<br>CHECKED BY: RLM | NO. _____<br>REVISION _____<br>DATE _____ | <p>8150 STERLING COURT<br/>         MENTOR, OHIO 44060<br/>         (440) 951-9000</p> |  |
|--|--|--|--|---|--|--|





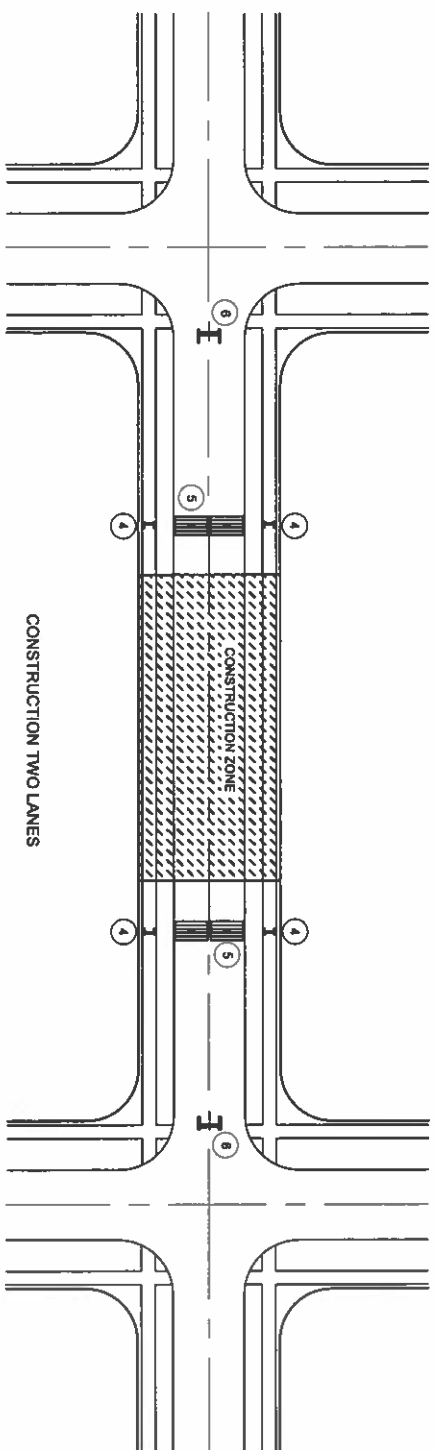


TYPE III PORTABLE CONSTRUCTION BARRICADE

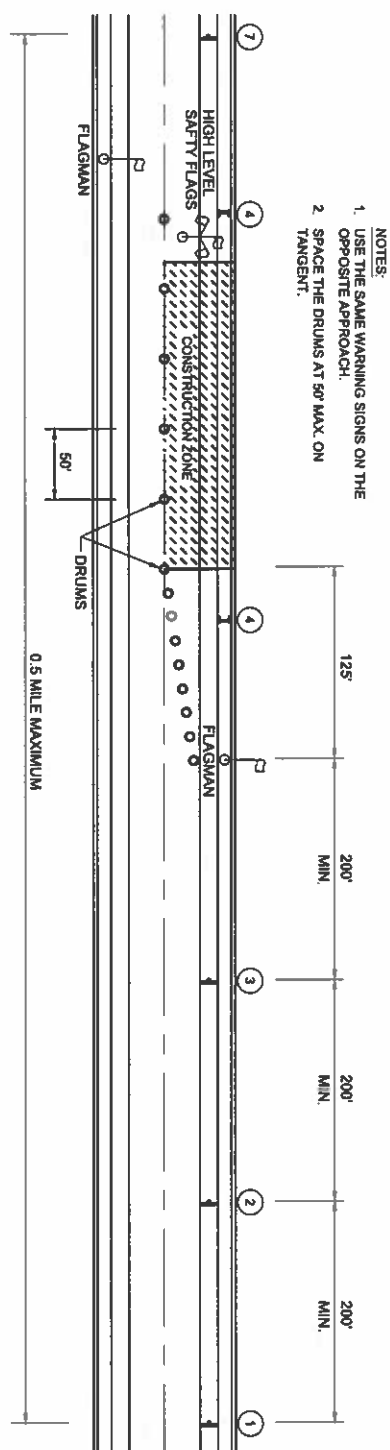


TYPE III DEMOUNTABLE CONSTRUCTION BARRICADE

- A. BARRICADES SHALL BE CONSTRUCTED ACCORDING TO DETAILS SHOWN. WHEN THE ROAD IS CLOSED TO TRAFFIC, BARRICADES SHALL BE USED TO EFFECTIVELY CLOSE THE ENTIRE ROADWAY. THE ENDS OF THE BARRICADE SHALL BE LOCATED BY THE ENGINEER TO EFFECT THE DESIRED CLOSING OF THE ROADWAY.
- B. PAINTING AND REFLECTORIZATION: ALL RAILS OF THE BARRICADES AND GATES SHALL BE REFLECTORIZED WITH ORANGE AND WHITE REFLECTORIZED TYPE "G" SHEETING IN 6" WIDE ALTERNATE STRIPES WHICH SLOPE DOWNWARD TOWARD THE CENTERLINE OF THE ROAD AT AN ANGLE OF 45°. ALL THREE RAILS OF THE ROAD CLOSED BARRICADE SHALL BE STRIPED ON THE SIDE FACING TRAFFIC. ALL GATE RAILS SHALL BE STRIPED ON BOTH SIDES. ALL POSTS, BRACES, GATE LEGS, AND UNSTRIPED RAILS SHALL BE PAINTED WHITE.
- C. TYPE "C" STEADY BURNING BARRICADE WARNING LIGHTS: EACH GATE SHALL BE EQUIPPED WITH A TYPE "C" STEADY BURNING BARRICADE WARNING LIGHT CONSPICUOUSLY VISIBLE AT ALL DISTANCES UP TO 1000' UNDER NORMAL CONDITIONS BETWEEN SUNSET AND SUNRISE DURING THE PERIOD THE ROAD IS CLOSED.
- D. SIGNS: WHERE THE ROAD IS CLOSED TO TRAFFIC BY THE ERECTION OF BARRICADES, "ROAD CLOSED" SIGNS (R-75) SHALL BE MOUNTED ON THE BARRICADES AS SHOWN. WHEN TRAFFIC IS MAINTAINED, A "ROAD CONSTRUCTION AHEAD" SIGN (OW-128) SHALL BE USED ON THE RIGHT SHOULDER ON THE APPROACHES AT THE INTERSECTING STREET IN ADVANCE OF THE PROJECT. WHERE THE SIDEWALK IS CLOSED TO PEDESTRIAN TRAFFIC "SIDEWALK CLOSED" SIGNS SHALL BE ERECTED ACROSS THE WALK AT THE LOCATION SHOWN.

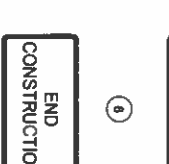
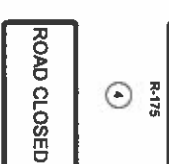


CONSTRUCTION TWO LANES



CONSTRUCTION ONE LANE

- NOTES:
1. USE THE SAME WARNING SIGNS ON THE OPPOSITE APPROACH.
  2. SPACE THE DRUMS AT 90' MAX. ON TANGENT.



|  |  |              |            |    |          |      |
|--|--|--------------|------------|----|----------|------|
| <b>ASHTABULA COUNTY</b>                |  | ISSUED # OR  | PTI REVIEW | NO | REVISION | DATE |
| KINGSVILLE REGIONAL SEWER IMPROVEMENTS |  | REVIS. DATE. | 3/4/2025   |    |          |      |
| ASHTABULA COUNTY KINGSVILLE, OHIO      |  | SCALE:       | AS NOTED   |    |          |      |
| GENERAL - 00 SERIES                    |  | DRAWN BY:    | JBB        |    |          |      |
| MAINTENANCE OF TRAFFIC                 |  | CHECKED BY:  | JBB        |    |          |      |
| PROJECT NO.                            |  |              |            |    |          |      |
| 232478                                 |  |              |            |    |          |      |
| DESIGNER                               |  |              |            |    |          |      |
| GENERAL                                |  |              |            |    |          |      |
| SHEET NO.                              |  |              |            |    |          |      |
| 00G-05                                 |  |              |            |    |          |      |
| SHEET                                  |  |              |            |    |          |      |
| 7                                      |  |              |            |    |          |      |
| OF                                     |  |              |            |    |          |      |
| 43                                     |  |              |            |    |          |      |

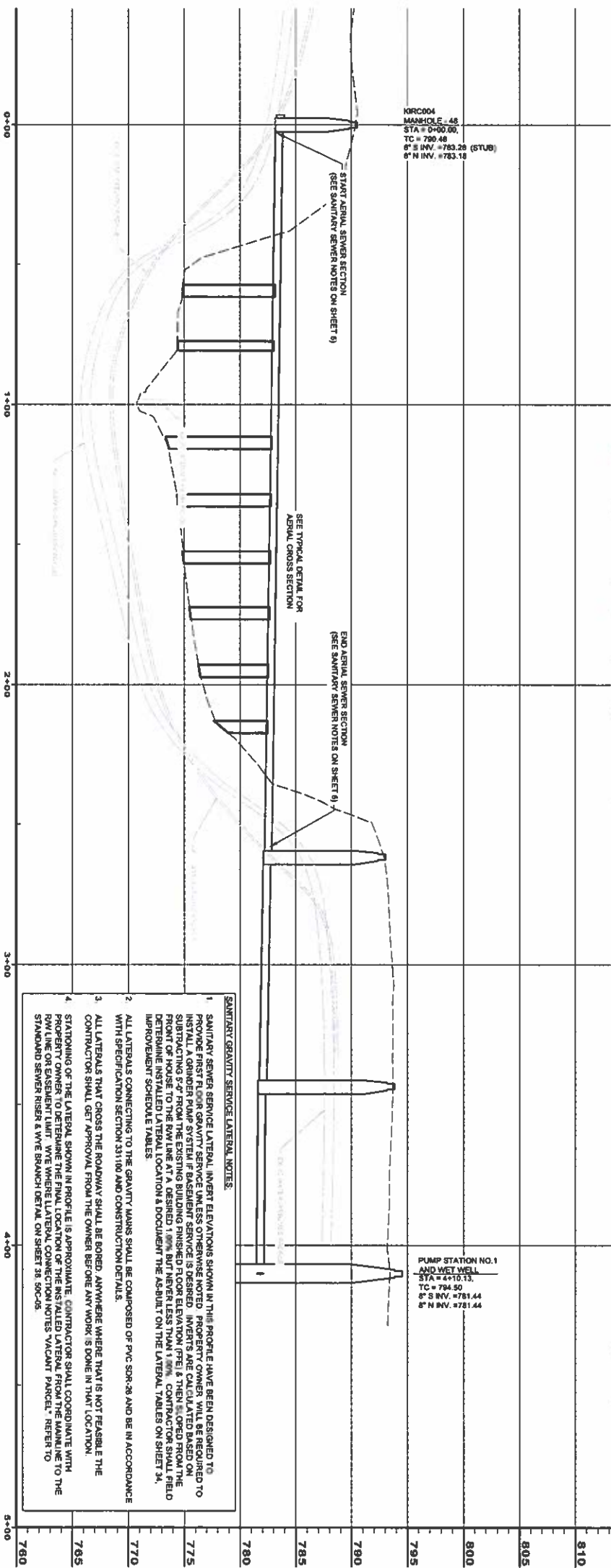
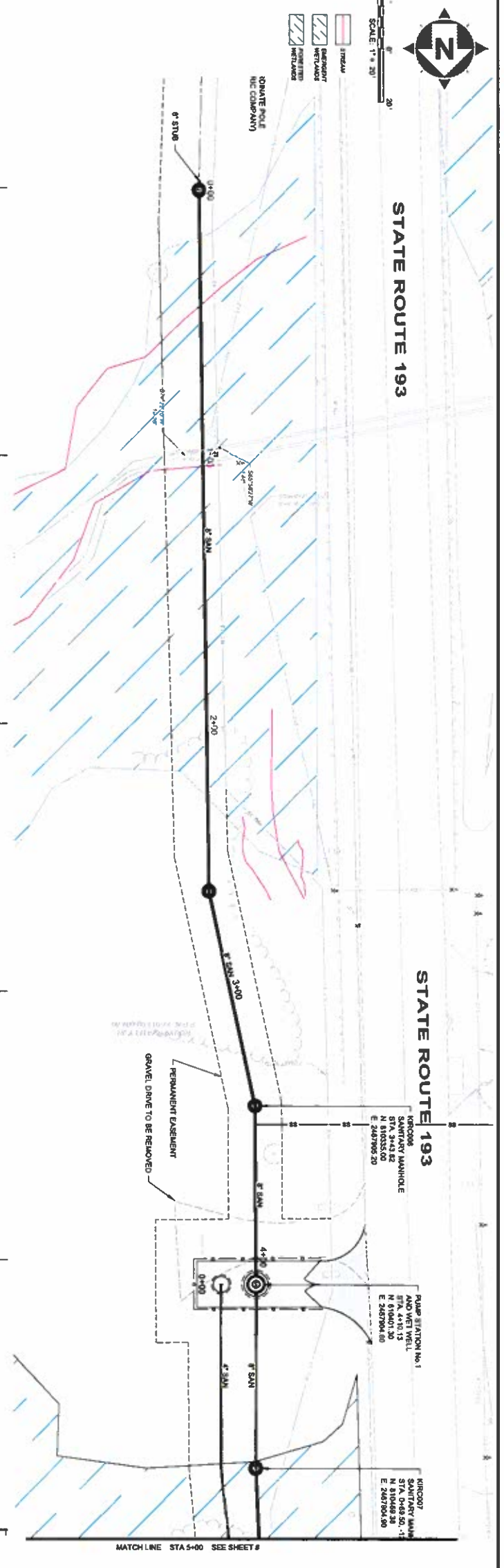
8150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 951-6000

PROFESSIONAL ENGINEER  
STATE OF OHIO  
No. 010101



STATE ROUTE 193

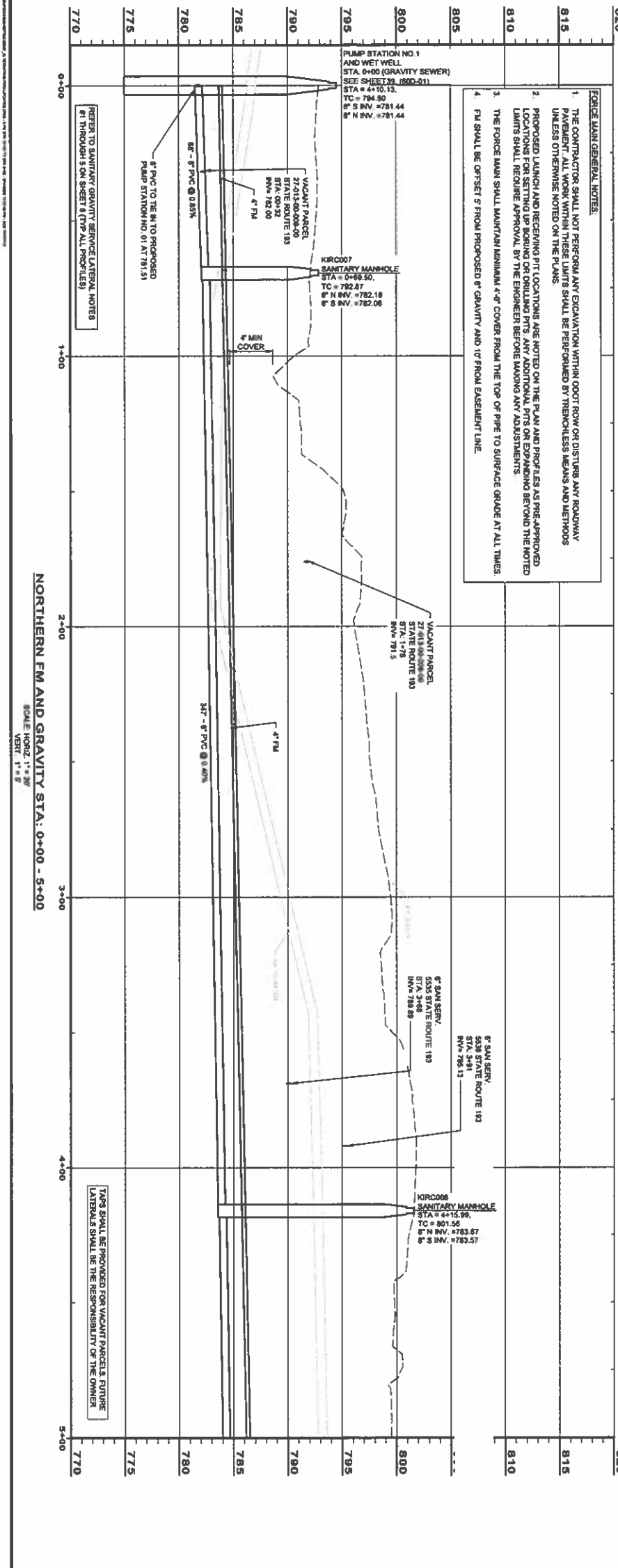
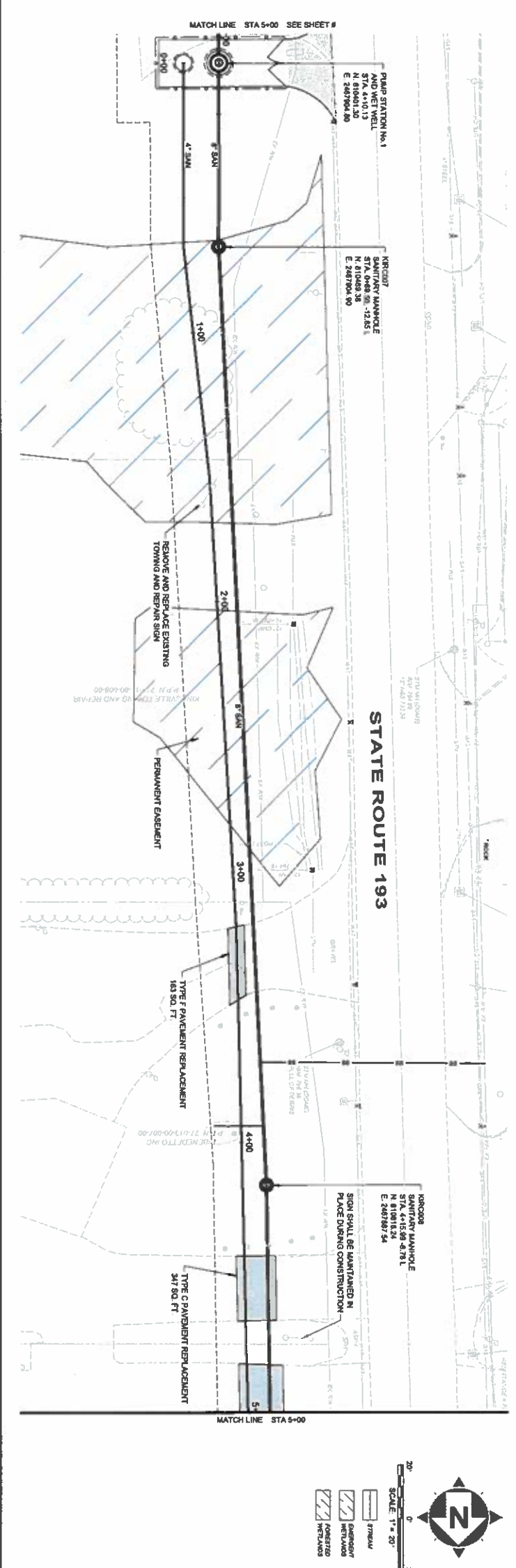
STATE ROUTE 193



SOUTHERN GRAVITY STA: 1+00 - 5+00  
SCALE HORIZ 1" = 20'  
VERT 1" = 5'

- SANITARY GRAVITY SERVICE LATERAL NOTES:**
1. SANITARY SEWER SERVICE LATERAL INVERT ELEVATIONS SHOWN IN THIS PROFILE HAVE BEEN DESIGNED TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF SANITARY SEWER SERVICE LATERALS. CONTRACTOR SHALL VERIFY THE EXISTING FINISHED FLOOR ELEVATION (FFE) IS THEN SLOPED FROM THE FRONT OF HOUSE TO THE RAW LINE AT A DESIRED 1/8" BUT NEVER LESS THAN 1/16". CONTRACTOR SHALL FIELD DETERMINE INSTALLED LATERAL LOCATION & DOCUMENT THE AS-BUILT ON THE LATERAL TABLES ON SHEET 34.
  2. ALL LATERALS CONNECTING TO THE GRAVITY MAINS SHALL BE COMPOSED OF PVC SDR-26 AND BE IN ACCORDANCE WITH SPECIFICATION SECTION 331.160 AND CONSTRUCTION DETAILS.
  3. ALL LATERALS THAT CROSS THE ROADWAY SHALL BE BORED. ANYWHERE WHERE THAT IS NOT FEASIBLE THE CONTRACTOR SHALL GET APPROVAL FROM THE OWNER BEFORE ANY WORK IS DONE IN THAT LOCATION.
  4. STATIONING OF THE LATERAL SHOWN IN PROFILE IS APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER TO DETERMINE THE FINAL LOCATION OF THE INSTALLED LATERAL FROM THE MAINLINE TO THE RAW LINE OR EASEMENT LIMIT. VIVE WHERE LATERAL CONNECTION VACANT PARCEL. REFER TO THE STANDARD SEWER RISER & VIVE BRANCH DETAIL ON SHEET 36 SDC-05.

|   |  |   |  |   |   |
|---|--|---|--|---|---|
| <p><b>ASHTABULA COUNTY</b><br/>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</p>   |  | <p>ISSUED FOR: PFI REVIEW<br/>ISSUE DATE: 3/4/2025<br/>SCALE: AS NOTED<br/>DESIGNED BY: JBB<br/>DRAWN BY: JBB<br/>CHECKED BY: TJM</p> | <p>NO. _____<br/>REVISION _____<br/>DATE _____</p> | <p><b>verdantas</b><br/>8150 STERLING COURT<br/>MENTOR, OHIO 44060<br/>(440) 951-6000</p> | <p>THOMAS M. JACOBSON<br/>REGISTERED PROFESSIONAL ENGINEER<br/>STATE OF OHIO # 0190</p> |
| <p>ASHTABULA COUNTY KINGSVILLE, OHIO<br/>GRAVITY SEWER PLAN &amp; PROFILE - 10 SERIES<br/>SG STA 0+00 TO STA 5+00</p> |  | <p>PROJECT NO: 232478<br/>SHEET NO: 8 OF 43</p>   | <p>CIVIL<br/>10PP - 01</p>                         | <p>DATE: _____</p>  | <p>DATE: _____</p>  |



- FORCE MAIN GENERAL NOTES:**
1. THE CONTRACTOR SHALL NOT PERFORM ANY EXCAVATION WITHIN 600' FROM OR DISTURB ANY ROADWAY PAVEMENT. ALL WORK WITHIN THESE LIMITS SHALL BE PERFORMED BY TRENCHLESS MEANS AND METHODS UNLESS OTHERWISE NOTED ON THE PLANS.
  2. PROPOSED LAUNCH AND RECEIVING PIT LOCATIONS ARE NOTED ON THE PLAN AND PROFILES AS PRE-APPROVED LIMITS FOR SETTING UP BORING OR DRILLING PITS. ANY ADDITIONAL PITS OR EXPANDING BEYOND THE NOTED LIMITS SHALL REQUIRE APPROVAL BY THE ENGINEER BEFORE MAKING ANY ADJUSTMENTS.
  3. THE FORCE MAIN SHALL MAINTAIN A MINIMUM 4'-0" COVER FROM THE TOP OF PIPE TO SURFACE GRADE AT ALL TIMES.
  4. FM SHALL BE OFFSET 5' FROM PROPOSED 6" GRAVITY AND 10' FROM EASEMENT LINE.

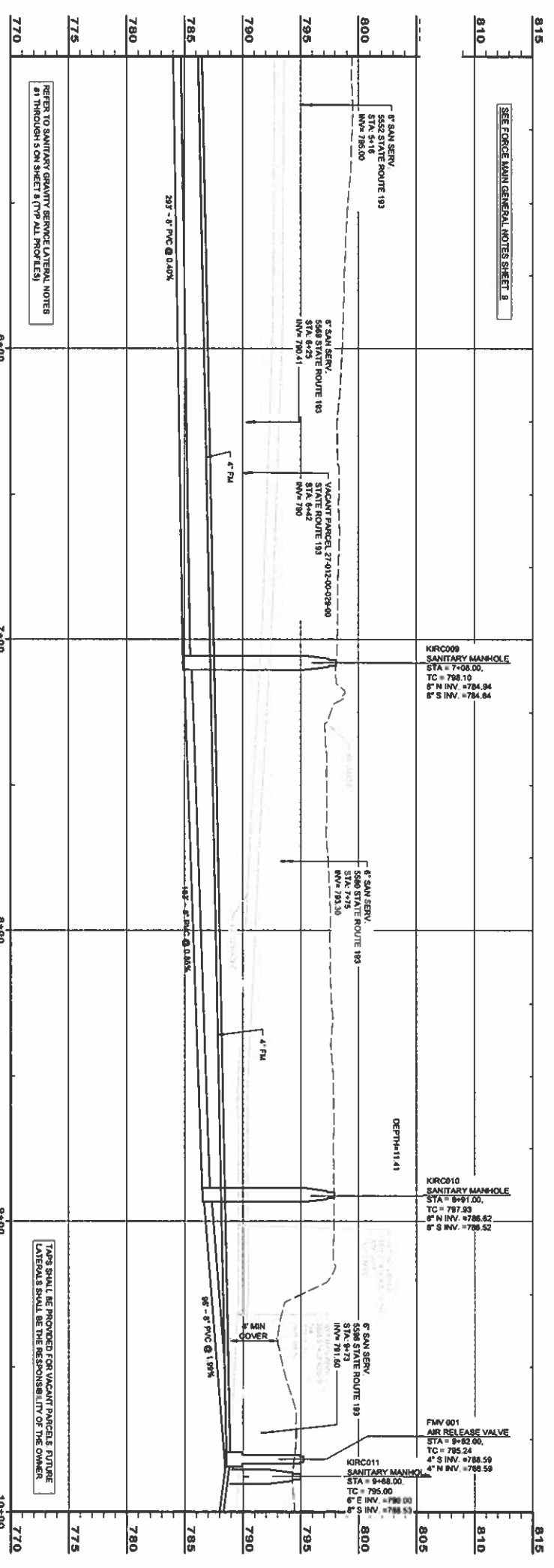
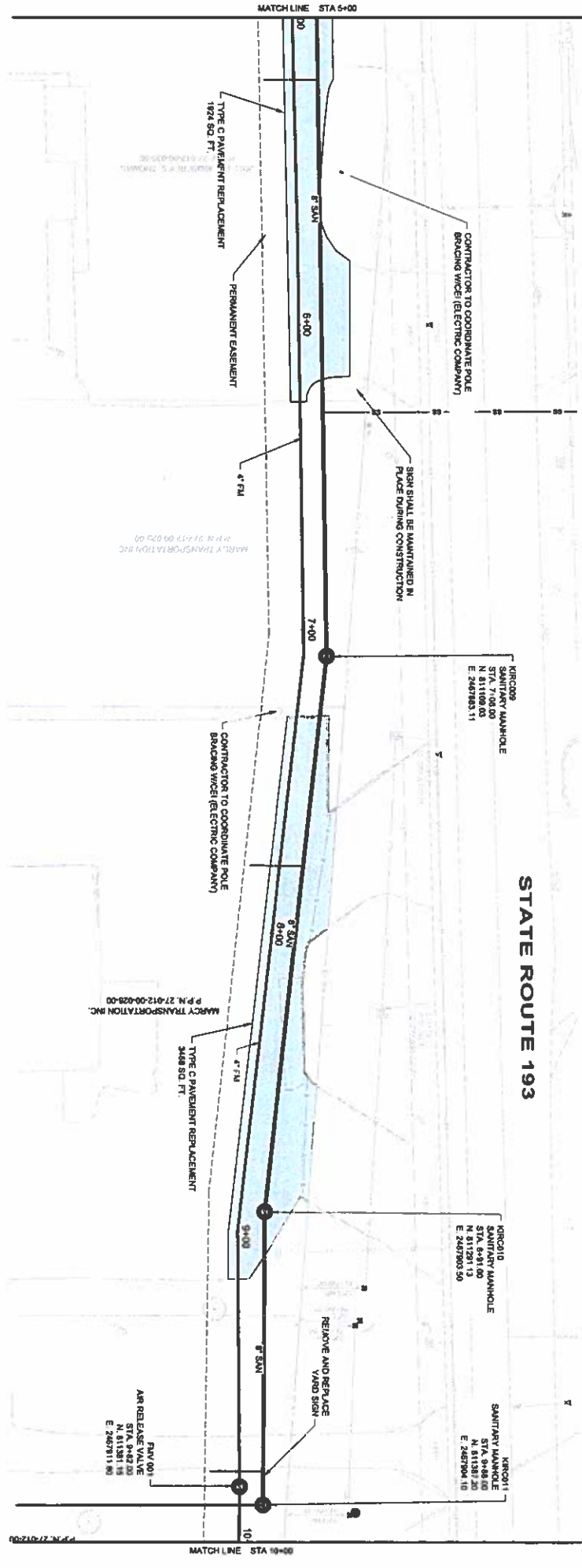
NORTHERN FM AND GRAVITY STA: 0+00 - 5+00  
 SCALE HORIZ: 1" = 20'  
 VERT: 1" = 5'

|  |  |                       |                    |
|--|--|-----------------------|--------------------|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>                             |  | PROJECT NO:<br>232478 | DATE:<br>3/4/2025  |
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE, OHIO</b>   |  | DRAWN BY:<br>JBB      | CHECKED BY:<br>TJM |
| <b>4 INCH FM AND GRAVITY SEWER PLAN &amp; PROFILE - 20 SERIES</b><br><b>FM STA 00+00 TO STA 5+00</b> |  |                       |                    |

6150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-6000



SCALE: 1" = 20'



NORTHERN FM AND GRAVITY 5+00 - 10+00

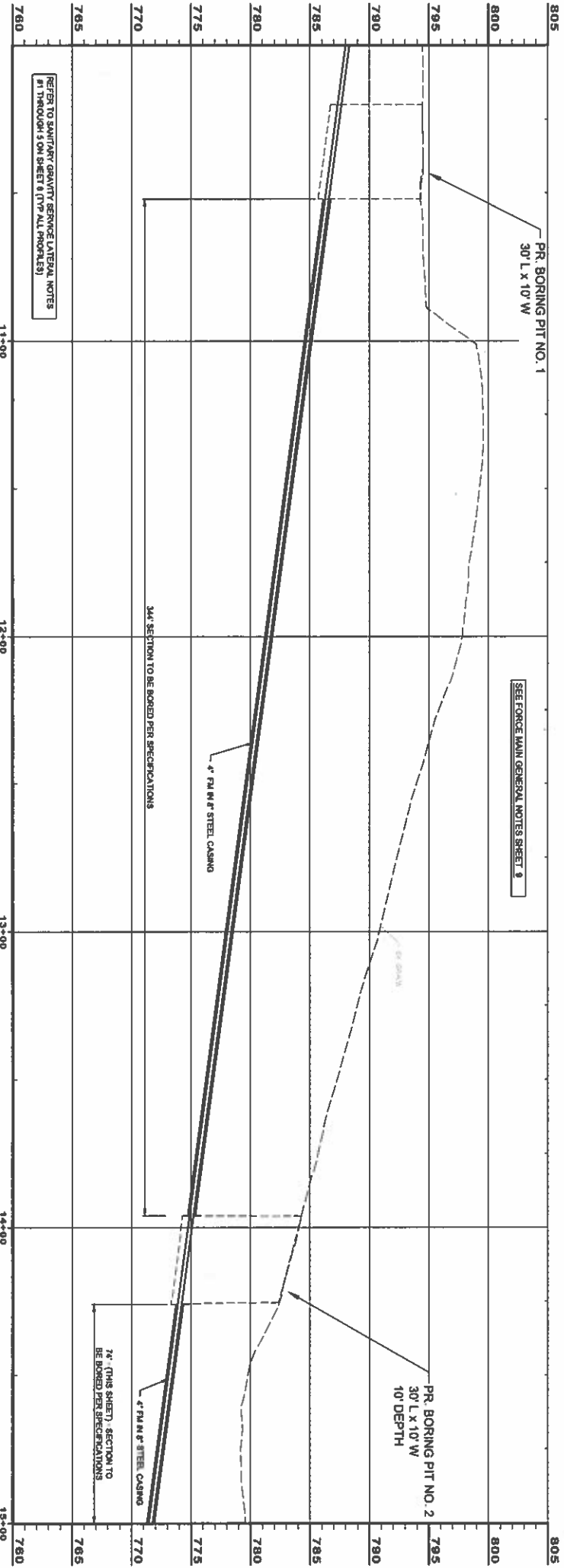
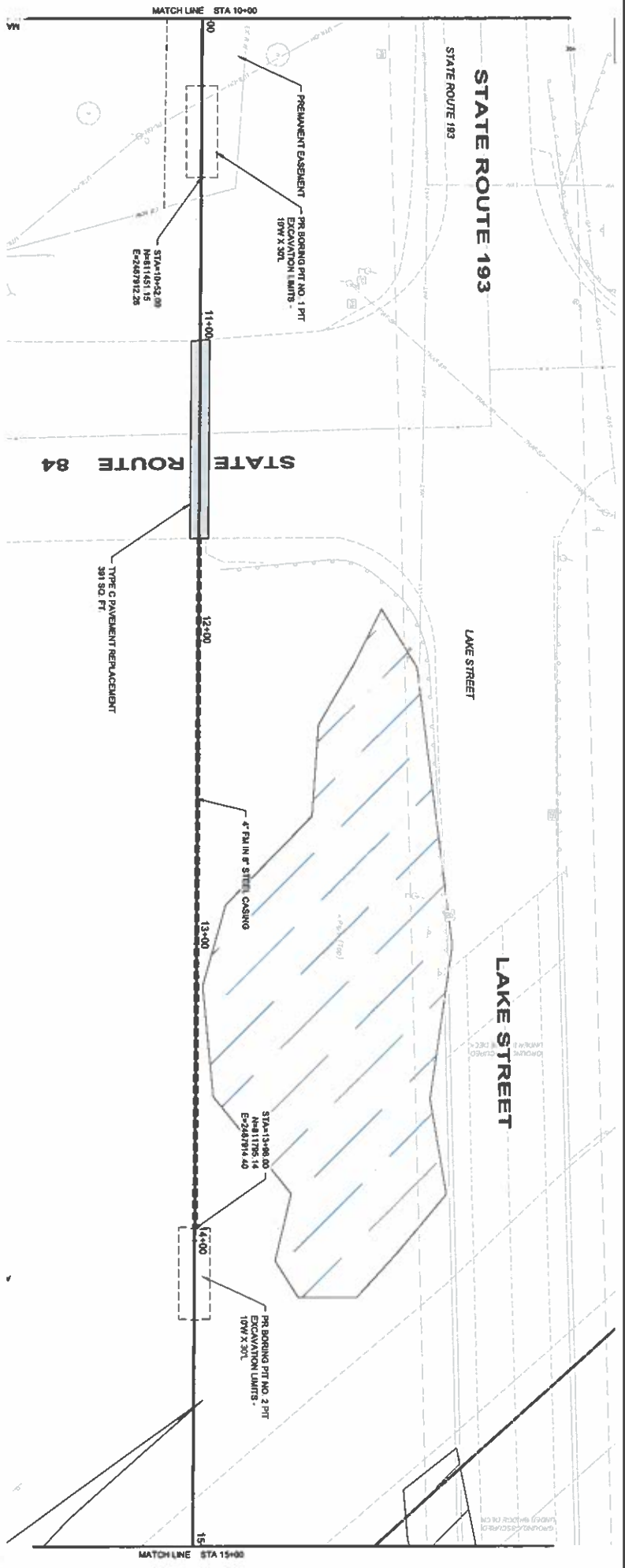
SCALE HORIZ 1" = 20'

VERT 1" = 5'

|  |  |  |  |  |
|--|--|--|--|--|
| <b>ASHTABULA COUNTY</b><br>KINGSVILLE REGIONAL SEWER IMPROVEMENTS  |  | ISSUED FOR: PTI REVIEW<br>NO: [ ]<br>REVISION: [ ]<br>DATE: [ ]  | <p>8150 STERLING COURT<br/>         MENTOR, OHIO 44060<br/>         (440) 951-8000</p> |  |
| ASHTABULA COUNTY KINGSVILLE, OHIO<br><b>4 INCH FM AND GRAVITY SEWER PLAN &amp; PROFILE - 20 SERIES</b><br>FM STA 5+00 TO STA 10+00 |  | AS NOTED<br>DESIGNED BY: JBB<br>DRAWN BY: JBB<br>CHECKED BY: TJM |  |  |



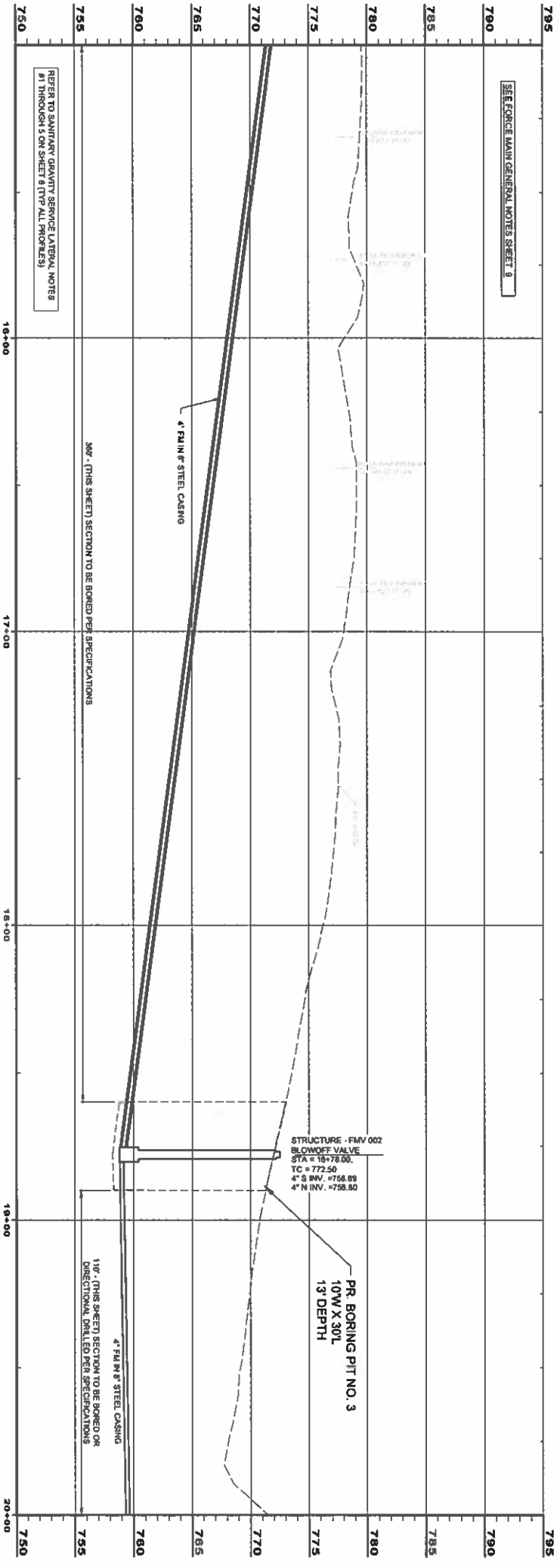
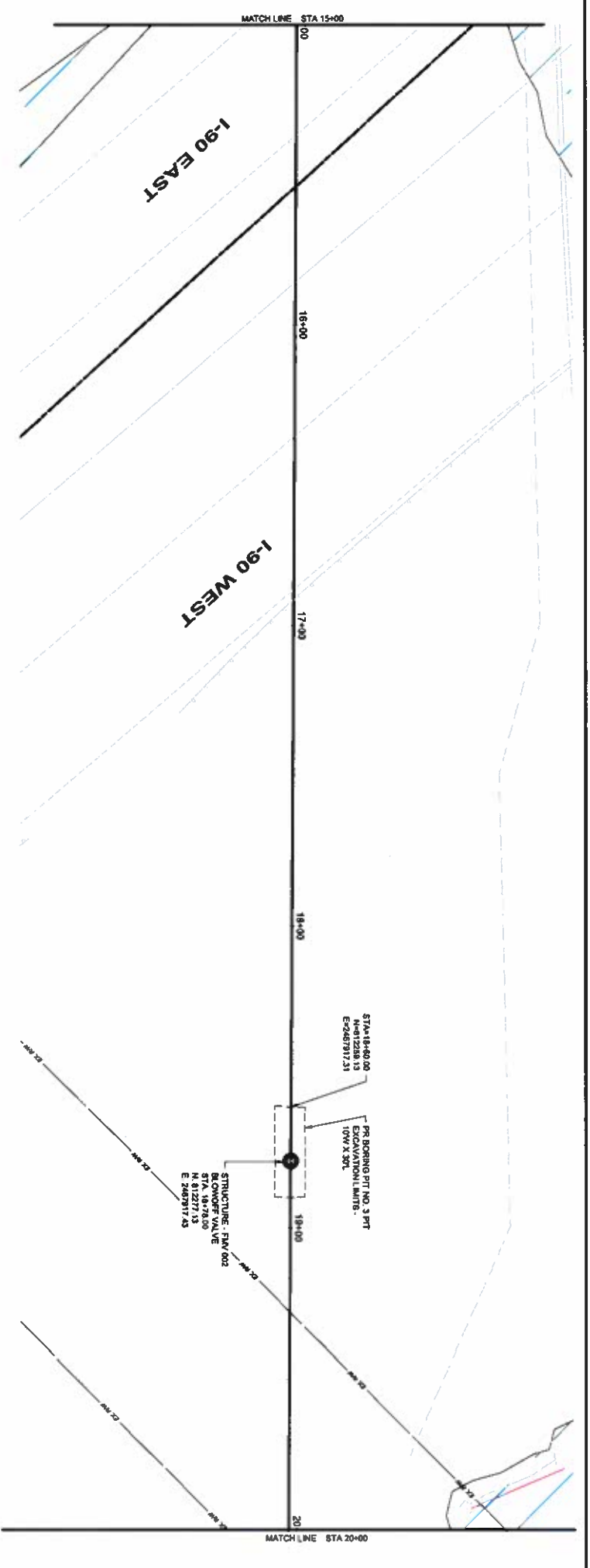
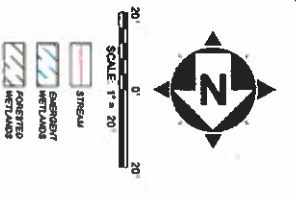
SCALE: 1" = 20'  
 PREPARED METLANDS  
 EXCAVATED METLANDS  
 ASPHALT  
 ASPHALT



NORTHERN FM AND GRAVITY STA: 10+00 - 15+00  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 5'

DATE PLOTTED: 3/11/2025 10:00 AM

| <b>ASHTABULA COUNTY</b><br>KINGSVILLE REGIONAL SEWER IMPROVEMENTS<br>ASHTABULA COUNTY KINGSVILLE, OHIO<br><b>4 INCH FM AND GRAVITY SEWER PLAN &amp; PROFILE - 20 SERIES</b><br>FM STA 10+00 TO STA 15+00 |            | PROJECT NO: 232478<br>SHEET NO: 20PP-03<br>TOTAL SHEETS: 43<br>DATE: 11 | <table border="1"> <thead> <tr> <th>ISSUED FOR:</th> <th>PTI REVIEW</th> <th>NO</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>ISSUE DATE:</td> <td>3/4/2025</td> <td></td> <td></td> <td></td> </tr> <tr> <td>SCALE:</td> <td>AS NOTED</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DESIGNED BY:</td> <td>JBB</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DRAWN BY:</td> <td>JBB</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY:</td> <td>TJM</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | ISSUED FOR: | PTI REVIEW | NO | REVISION | DATE | ISSUE DATE: | 3/4/2025 |  |  |  | SCALE: | AS NOTED |  |  |  | DESIGNED BY: | JBB |  |  |  | DRAWN BY: | JBB |  |  |  | CHECKED BY: | TJM |  |  |  | <p>8150 STERLING COURT<br/>         MENTOR, OHIO 44060<br/>         (440) 951-6000</p> |
|--|------------|---|--|-------------|------------|----|----------|------|-------------|----------|--|--|--|--------|----------|--|--|--|--------------|-----|--|--|--|-----------|-----|--|--|--|-------------|-----|--|--|--|--|
| ISSUED FOR:  | PTI REVIEW | NO  | REVISION   | DATE        |            |    |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |
| ISSUE DATE:  | 3/4/2025   |   |  |             |            |    |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |
| SCALE:   | AS NOTED   |   |  |             |            |    |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |
| DESIGNED BY:   | JBB        |   |  |             |            |    |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |
| DRAWN BY:  | JBB        |   |  |             |            |    |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |
| CHECKED BY:  | TJM        |   |  |             |            |    |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |

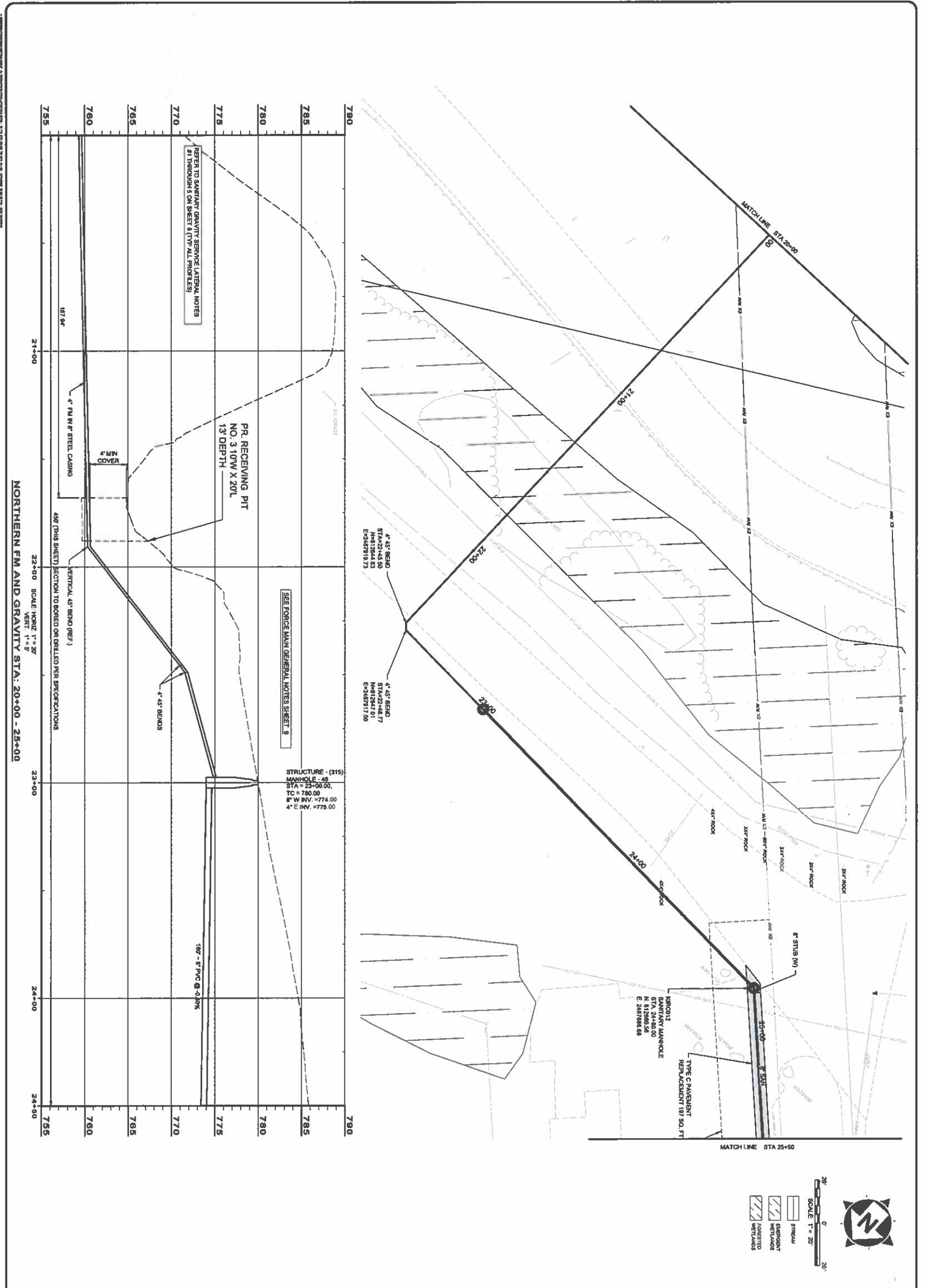


NORTHERN FM AND GRAVITY STA 15+00 - 20+00  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 5'

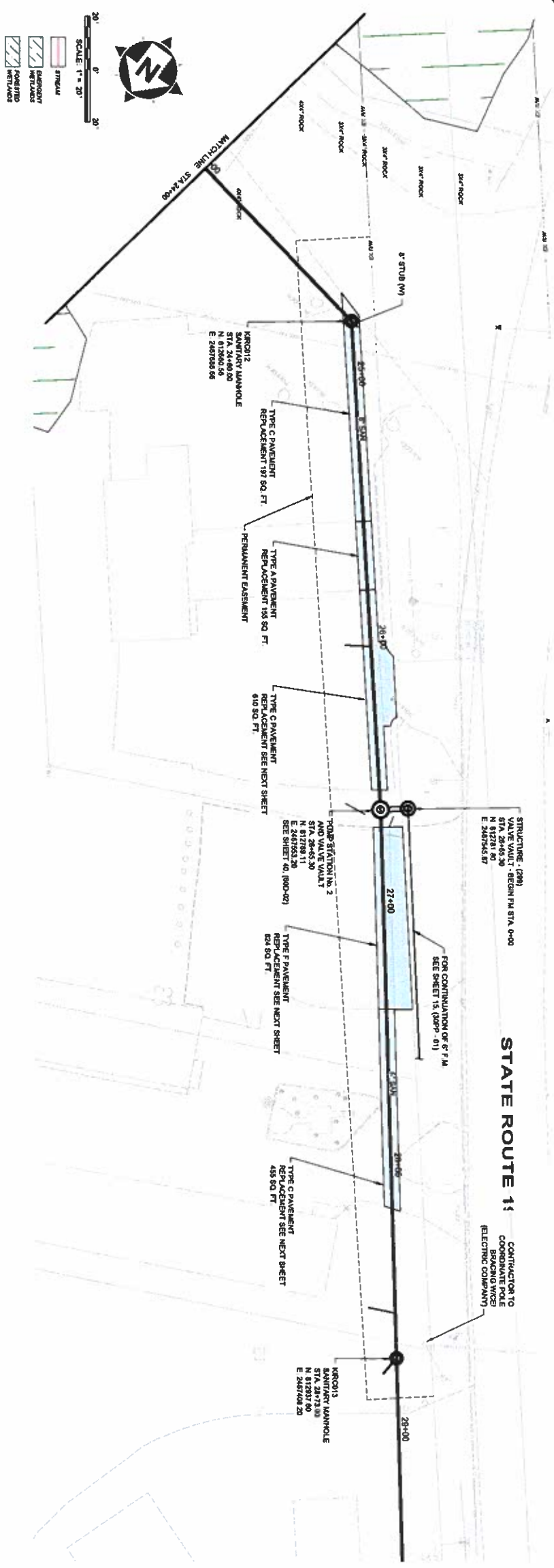
|  |  |                                    |                           |
|--|--|------------------------------------|---------------------------|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b> |  | PREPARED BY: JBB<br>DATE: 3/4/2025 | REVIEWED BY: JBB<br>DATE: |
| PROJECT NO: 232478   |  | SCALE: AS NOTED                    | DATE:                     |
| CIVIL  |  | DRAWN BY: JBB                      | DATE:                     |
| SHEET NAME: 20PP - 04  |  | CHECKED BY: T.B.                   | DATE:                     |
| SHEET NO: 43   |  |                                    |                           |

**ASHTABULA COUNTY**  
**KINGSVILLE, OHIO**  
**4 INCH FM AND GRAVITY SEWER PLAN & PROFILE - 20 SERIES**  
**FM STA 15+00 TO STA 20+00**

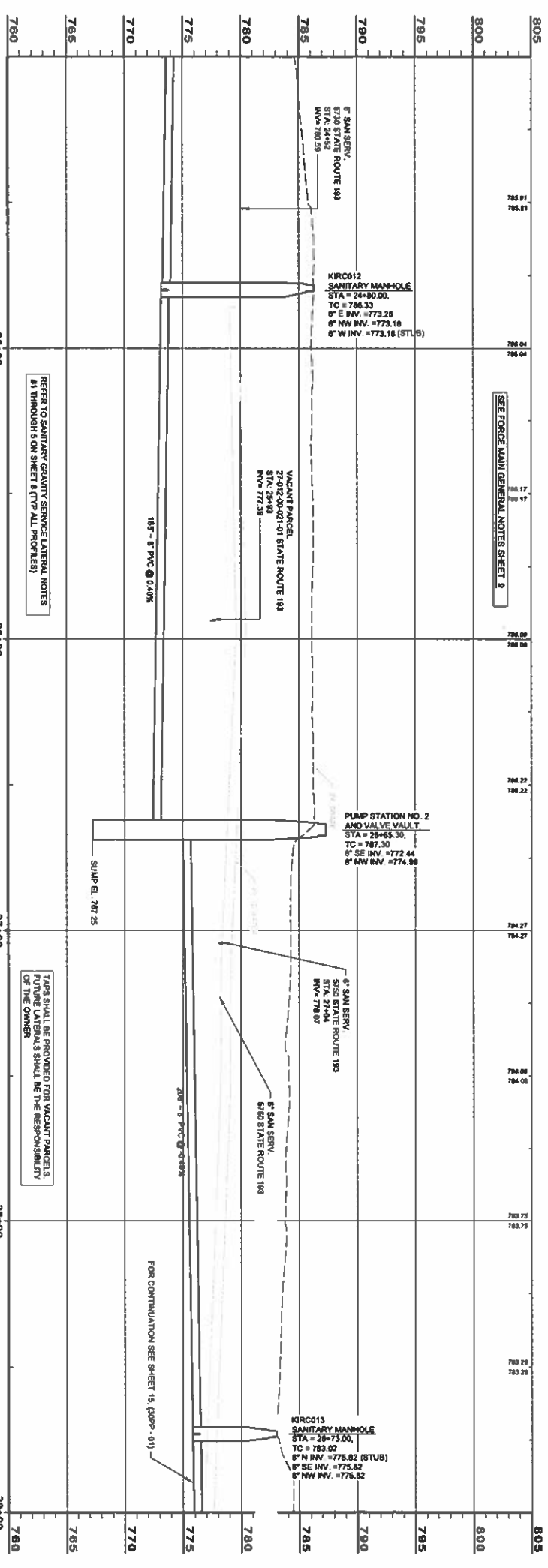
8150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-8000



|  |                 |                        |   |  |
|--|-----------------|------------------------|---|--|
| <b>ASHTABULA COUNTY</b>                                |                 | PROJECT NO. 232478     | <b>verdantas</b><br>8150 STERLING COURT<br>MENTOR, OHIO 44060<br>(440) 951-8000 |  |
| KINGSVILLE REGIONAL SEWER IMPROVEMENTS                 |                 | DATE 2/20/25           |   |  |
| ASHTABULA COUNTY KINGSVILLE, OHIO                      |                 | ISSUED FOR: PTI REVIEW |   |  |
| 4 INCH FM AND GRAVITY SEWER PLAN & PROFILE - 20 SERIES |                 | NO. 13                 |   |  |
| FM STA 20+00 TO STA 24+00                              |                 | SCALE: AS NOTED        |   |  |
|  |                 | DESIGNED BY: JBS       |   |  |
|  |                 | DRAWN BY: JBS          |   |  |
|  |                 | CHECKED BY: TJM        |   |  |
| PROJECT NO. 232478                                     | DATE 2/20/25    |                        |   |  |
| DRAWN BY: JBS  | SCALE: AS NOTED |                        |   |  |
| CHECKED BY: TJM  | DATE 2/20/25    |                        |   |  |
| PROJECT NO. 232478                                     | DATE 2/20/25    |                        |   |  |
| DRAWN BY: JBS  | SCALE: AS NOTED |                        |   |  |
| CHECKED BY: TJM  | DATE 2/20/25    |                        |   |  |



SCALE: 1" = 20'  
 LEGEND:  
 - BARRIERS  
 - ELEVATIONS  
 - ROUGHED  
 - WETLANDS

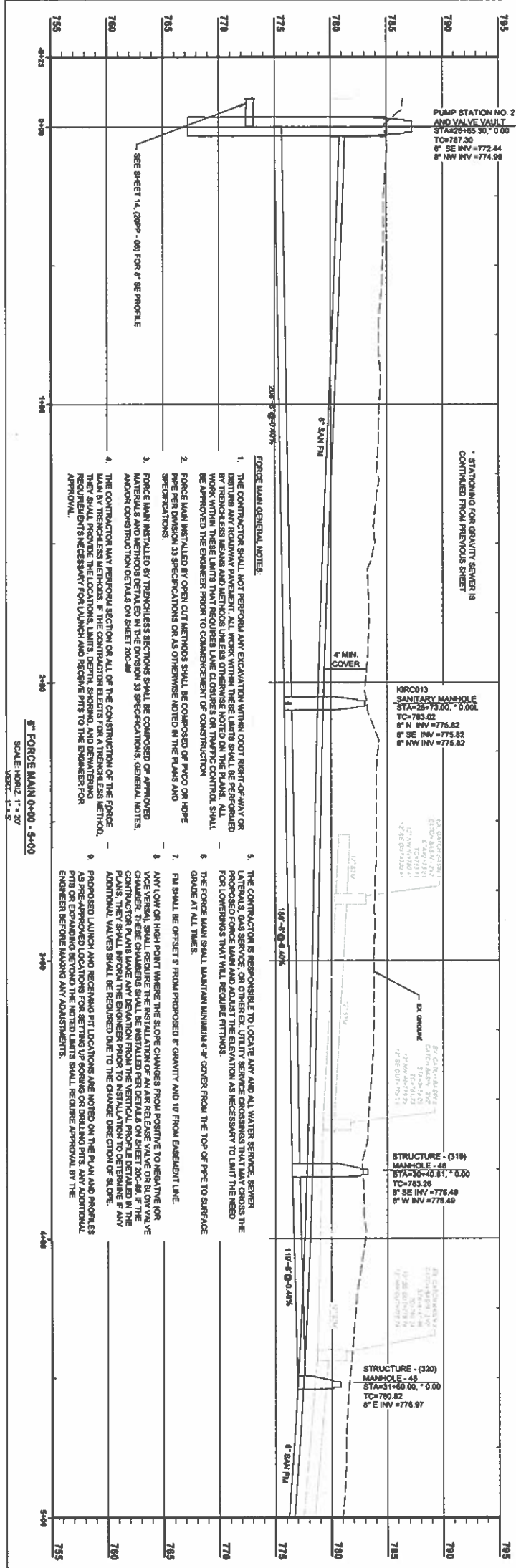
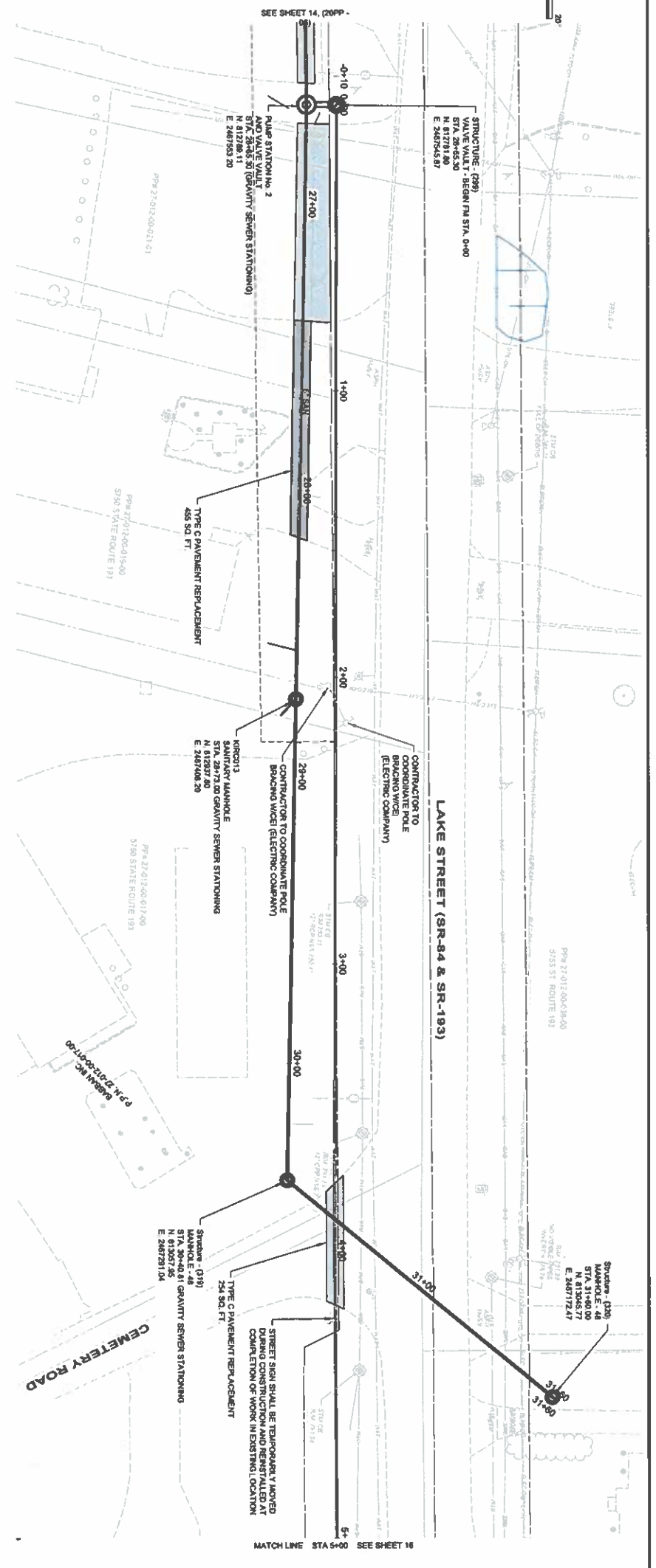


NORTHERN FM AND GRAVITY STA. 25+00 - 29+00

REFER TO SANITARY GRAVITY SERVICE LATERAL NOTES #1 THROUGH 5 ON SHEET 8 (TOP ALL PROFILES)

TAPS SHALL BE PROVIDED FOR VACANT PARCELS. FUTURE LATERALS SHALL BE THE RESPONSIBILITY OF THE OWNER.

|   |  |  |   |
|---|--|--|---|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>  |  | RESULT FOR: <b>PTI REVIEW</b><br>ISSUE DATE: <b>3/4/2025</b><br>SCALE: <b>AS NOTED</b><br>DRAWN BY: <b>JBB</b><br>CHECKED BY: <b>TJM</b> | NO. _____<br>REVISION _____<br>DATE _____ |
| ASHTABULA COUNTY KINGSVILLE, OHIO<br><b>4 INCH FM AND GRAVITY SEWER PLAN &amp; PROFILE - 20 SERIES</b><br><b>FM STA 24+00 TO PS No. 2</b> |  | <b>verdantas</b><br>8150 STERLING COURT<br>MENTOR, OHIO 44060<br>(440) 951-9000  |   |



- FORCE MAIN GENERAL NOTES:**
1. THE CONTRACTOR SHALL NOT REPAIR OR EXCAVATE WITHIN RIGHT-OF-WAY OR DISTURB ANY ROADWAY PAVEMENT. ALL WORK WITHIN THESE LIMITS SHALL BE PERFORMED BY TRENCHLESS MEANS AND METHODS UNLESS OTHERWISE NOTED ON THE PLANS. ALL WORK WITHIN THESE LIMITS SHALL BE DONE IN ACCORDANCE WITH THE CONTROL SHALL BE PROVIDED THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
  2. FORCE MAIN INSTALLED BY OPEN CUT METHODS SHALL BE COMPOSED OF PVC-D OR HDPE SPECIFICATIONS.
  3. FORCE MAIN INSTALLED BY TRENCHLESS METHODS SHALL BE COMPOSED OF APPROVED MATERIALS AND METHODS DETAILED IN THE DIVISION 33 SPECIFICATIONS, GENERAL NOTES, AND/OR CONSTRUCTION DETAILS ON SHEET 300-48.
  4. THE CONTRACTOR MAY REPAIR SECTION OR ALL OF THE CONSTRUCTION OF THE FORCE MAIN BY TRENCHLESS METHODS. IF THE CONTRACTOR ELECTS FOR A TRENCHLESS METHOD, RECORDS WILL BE NECESSARY FOR LAUNCH AND RECOVER PITS TO THE ENGINEER FOR APPROVAL.
  5. THE CONTRACTOR IS RESPONSIBLE TO LOCATE ANY AND ALL WATER SERVICE, SEWER, LATERALS, GAS SERVICE, OR OTHER EX. UTILITY SERVICE CROSSINGS THAT MAY CROSS THE PROPOSED FORCE MAIN AND ADJUST THE ELEVATION AS NECESSARY TO MAINTAIN THE PROPOSED FOR LOWERS THAT WILL REQUIRE FITTINGS.
  6. THE FORCE MAIN SHALL MAINTAIN MINIMUM 4'-0" COVER FROM THE TOP OF PIPE TO SURFACE GRADE AT ALL TIMES.
  7. P.A. SHALL BE OFFSET 3' FROM PROPOSED 8" GRAVITY AND 10' FROM EXISTING LINE. ANY LOW OR HIGH POINT WHERE THE SLOPE CHANGES FROM POSITIVE TO NEGATIVE OR VICE VERSA, SHALL REQUIRE THE INSTALLATION OF AN AIR RELEASE VALVE OR BLOW VALVE CHAMBER. THESE CHAMBERS SHALL BE INSTALLED PER DETAILS ON SHEET 300-48. IF THE CONTRACTOR PLANS TO USE AN AIR RELEASE VALVE OR BLOW VALVE CHAMBER, THE CONTRACTOR SHALL PROVIDE THE LOCATION, LIMITS, DEPTH, PROGRAM, AND DRAWING RECORDS NECESSARY FOR LAUNCH AND RECOVER PITS TO THE ENGINEER FOR APPROVAL.
  8. PROPOSED LAUNCH AND RECOVER PITS LOCATIONS ARE NOTED ON THE PLAN AND PROFILES PITS OR EXPANDING BEYOND THE NOTED LIMITS SHALL REQUIRE APPROVAL BY THE ENGINEER BEFORE MAKING ANY ADJUSTMENTS.

|                         |  |   |  |                         |  |                         |  |                  |  |
|-------------------------|--|---|--|-------------------------|--|-------------------------|--|------------------|--|
| <b>ASHTABULA COUNTY</b> |  | <b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b> |  | <b>ASHTABULA COUNTY</b> |  | <b>KINGSVILLE, OHIO</b> |  | <b>DATE</b>      |  |
| PROJECT NO. 232478      |  | SHEET NO. 30PP-01                             |  | ISSUED FOR: PTI REVIEW  |  | NO.                     |  | REVISION         |  |
| DISCIPLINE: CIVIL       |  | SCALE: 1" = 20'                               |  | ISSUE DATE: 3/4/2025    |  | NO.                     |  | DATE             |  |
| DRAWN BY: REL           |  | CHECKED BY: T.M.                              |  | SCALE: AS NOTED         |  | DESIGNED BY: REL        |  | DRAWN BY: REL    |  |
| CHECKED BY: T.M.        |  | DATE  |  | DESIGNED BY: REL        |  | DRAWN BY: REL           |  | CHECKED BY: T.M. |  |
| DATE                    |  | REVISION                                      |  | NO.                     |  | DATE                    |  | REVISION         |  |

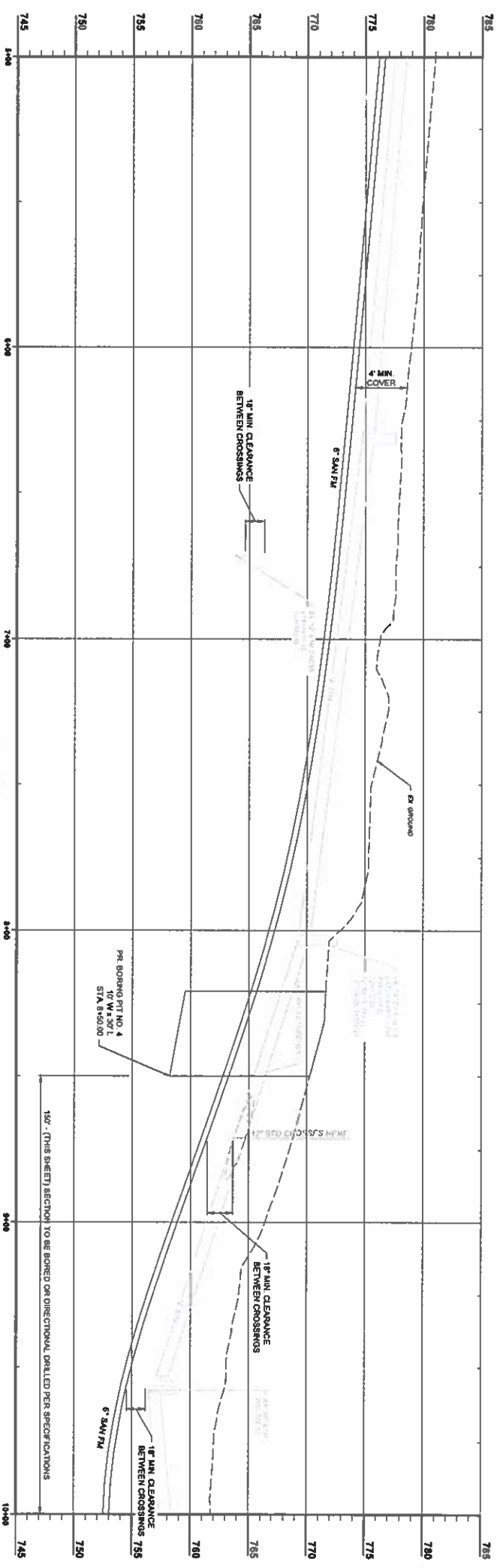
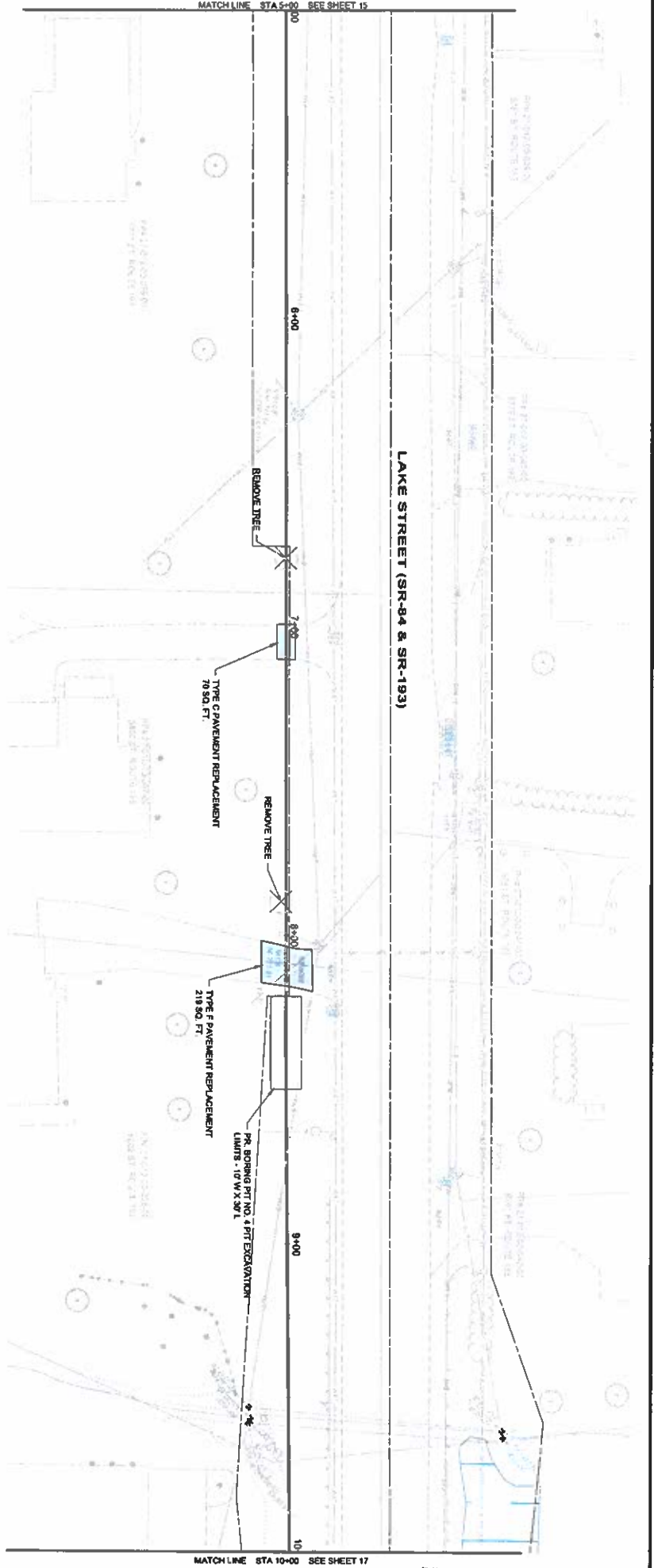
**ASHTABULA COUNTY**

**KINGSVILLE, OHIO**

**6 INCH FM PLAN & PROFILE - 30 SERIES**

**FM STA 0+00 TO STA 5+00 AND GRAVITY TO PS No. 2**

8150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 951-8000



6" FORCE MAIN 5+00 - 10+00  
 SCALE: HORIZ 1" = 20'  
 VERT 1" = 5'

20' 0' 20'  
 SCALE: 1" = 20'

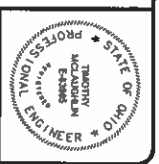
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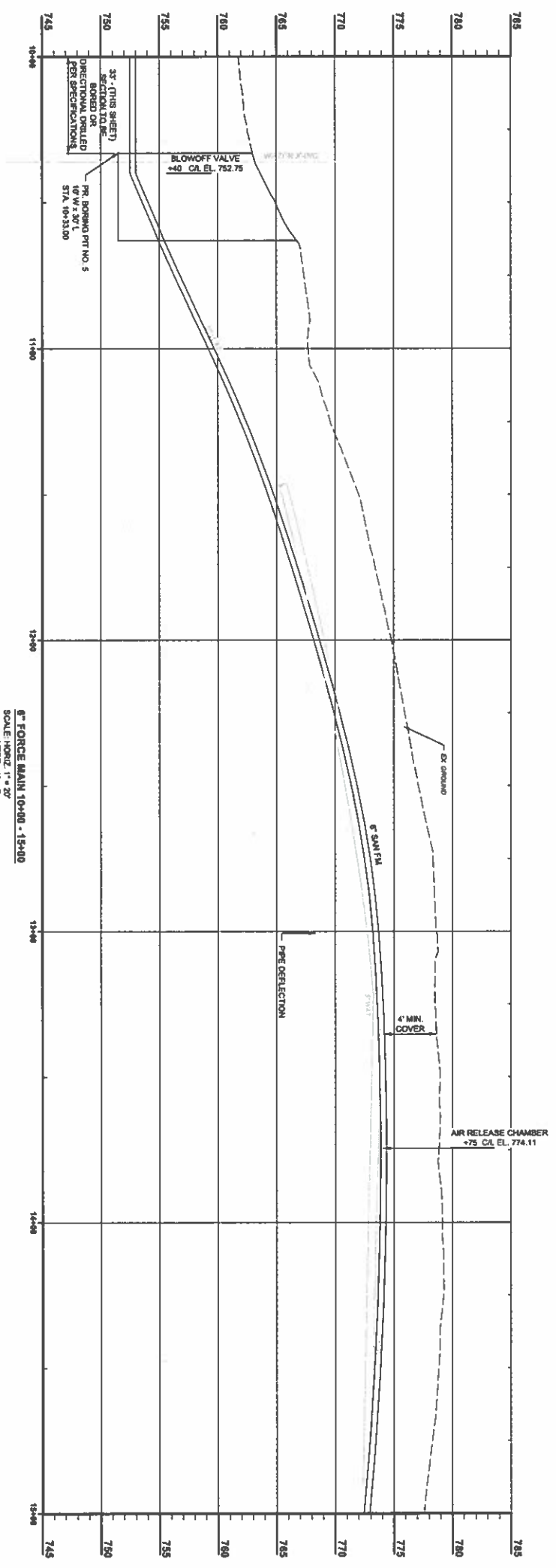
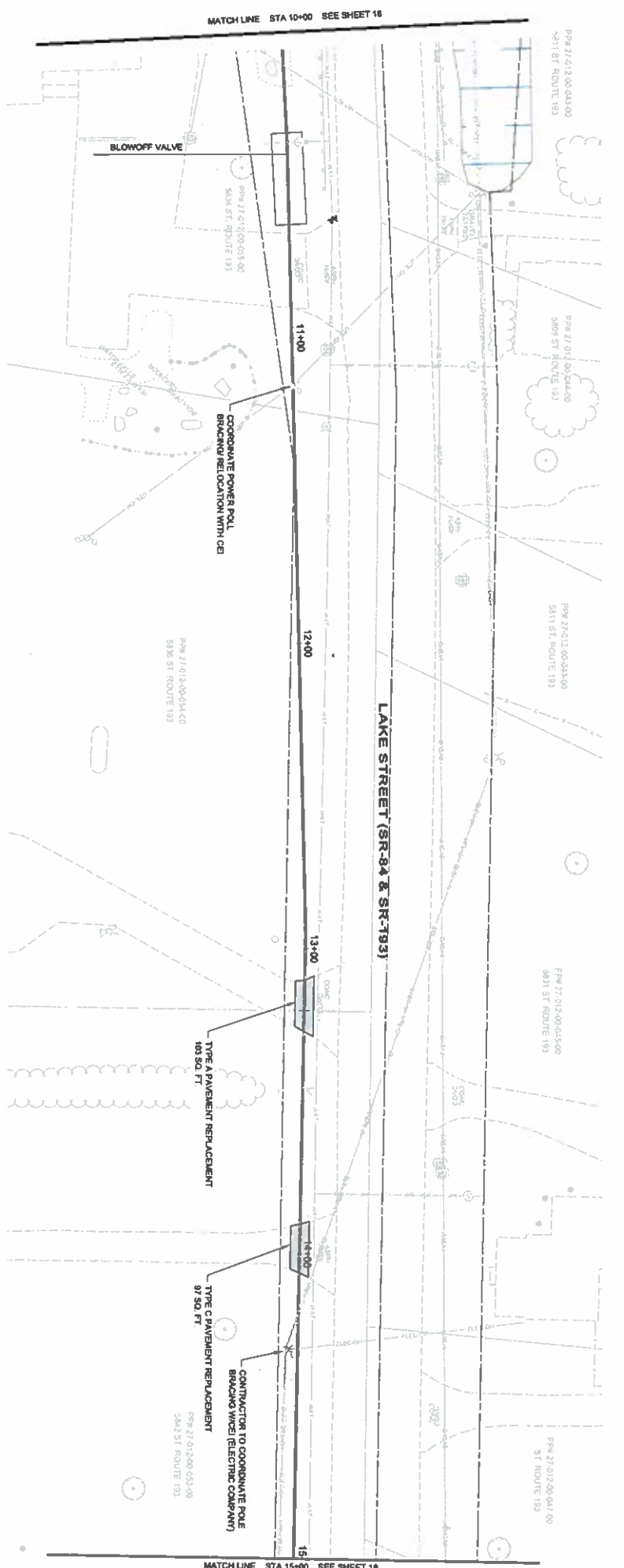
SEE SHEET 15, (30PP - 01) FOR FORCE MAIN GENERAL NOTES

|  |           |             |            |     |          |      |
|--|-----------|-------------|------------|-----|----------|------|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>   |           | ISSUED FOR: | PTI REVIEW | NO. | REVISION | DATE |
|  |           | ISSUE DATE: | 3/4/2025   |     |          |      |
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE, OHIO</b><br><b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b><br><b>FM STA 5+00 TO STA 10+00</b> |           | SCALE:      | AS NOTED   |     |          |      |
|  |           | DRAWN BY:   | REL        |     |          |      |
|  |           | DRAWN BY:   | REL        |     |          |      |
|  |           | CHK'G BY:   | TJM        |     |          |      |
| PROJECT NO.  | 232478    |             |            |     |          |      |
| CONTRACT   |           |             |            |     |          |      |
| CIVIL  |           |             |            |     |          |      |
| SHEET NO.  | 30PP - 02 |             |            |     |          |      |
| TOTAL SHEETS   | 16        |             |            |     |          |      |
|  | 43        |             |            |     |          |      |

**verdantas**

6150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-6000





6" FORCE MAIN 10+00 - 15+00  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 5'

20' 0' 20'  
 SCALE 1" = 20'

STREET  
 SEWER  
 PAVEMENT REPLACEMENT

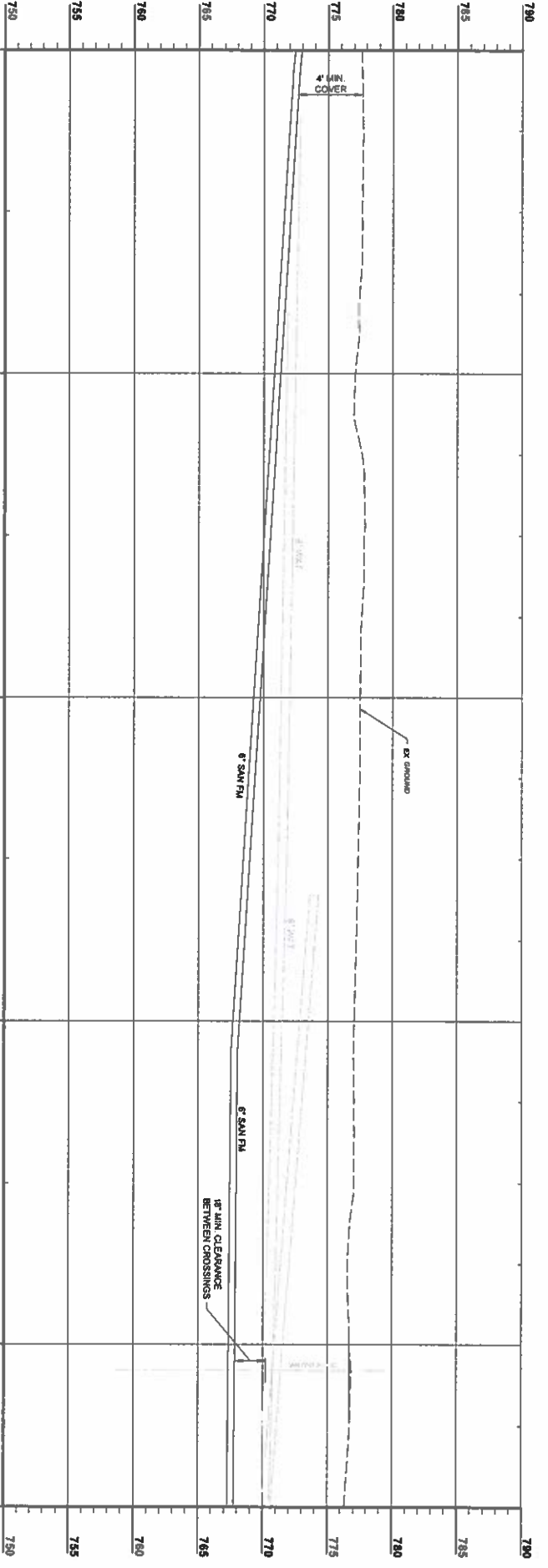
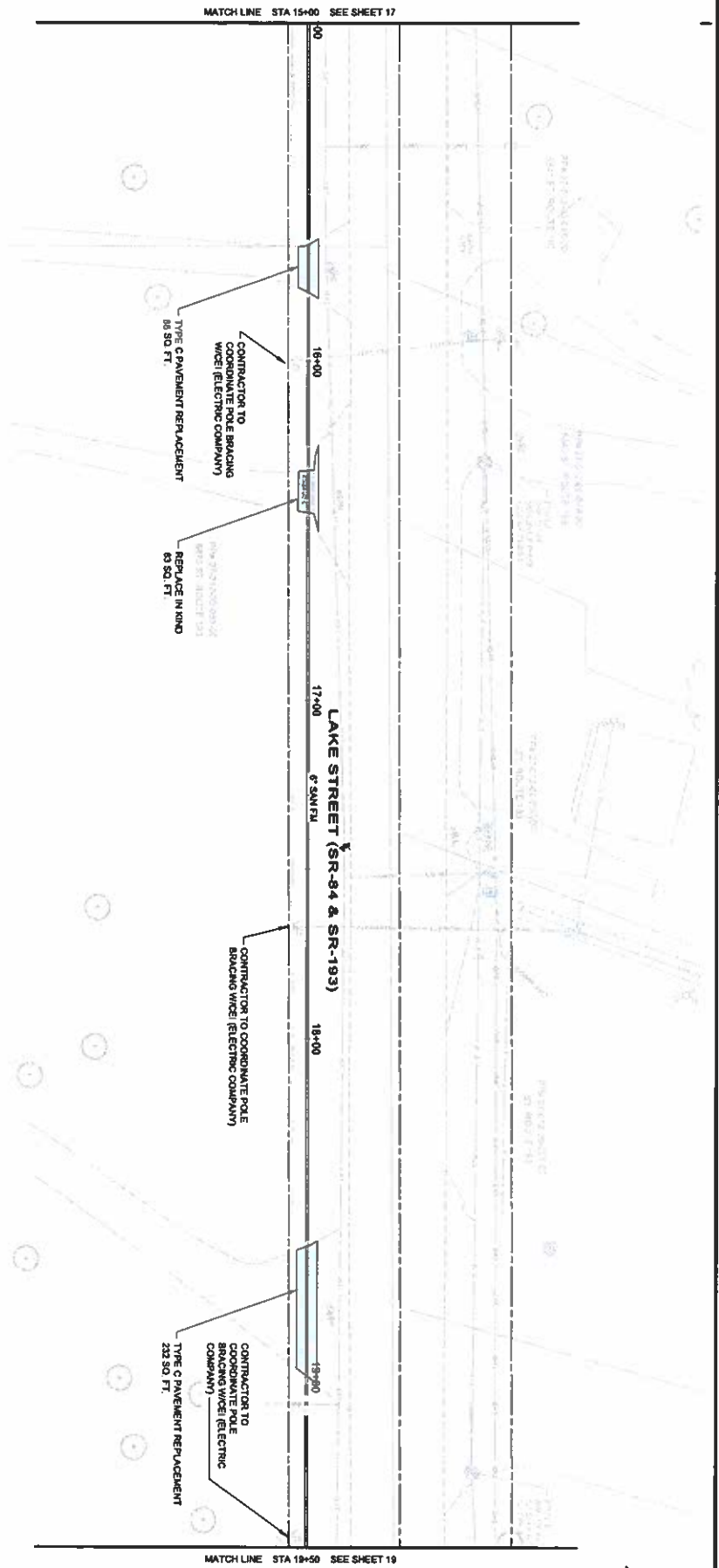
SEE SHEET 15 (APP. 01) FOR FORCE MAIN GENERAL NOTES

|  |  |   |   |
|--|--|---|---|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>     |  | ISSUED FOR: PFI REVIEW<br>ISSUE DATE: 3/4/2025<br>SCALE: AS NOTED | NO. _____<br>REVISION _____<br>DATE _____ |
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE, OHIO</b>                           |  | DESIGNED BY: REL<br>DRAWN BY: REL<br>CHECKED BY: T.J.M.           |   |
| <b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b><br>FM STA 10+00 TO STA 15+00 |  |   |   |

**verdantas**

6150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-0000

PROJECT NO. 2324478  
 DATE 2/23/24  
 CIVIL  
 30PP - 03  
 SHEET 02  
 OF 43



8" FORCE MAIN 15+00 - 19+50  
 SCALE HORIZ 1" = 20'  
 VERT 1" = 5'

20' SCALE 1" = 20'

SEE SHEET 15 (APP - 01) FOR FORCE MAIN GENERAL NOTES

- STREET
- SEWER
- MANHOLE
- WETLAND

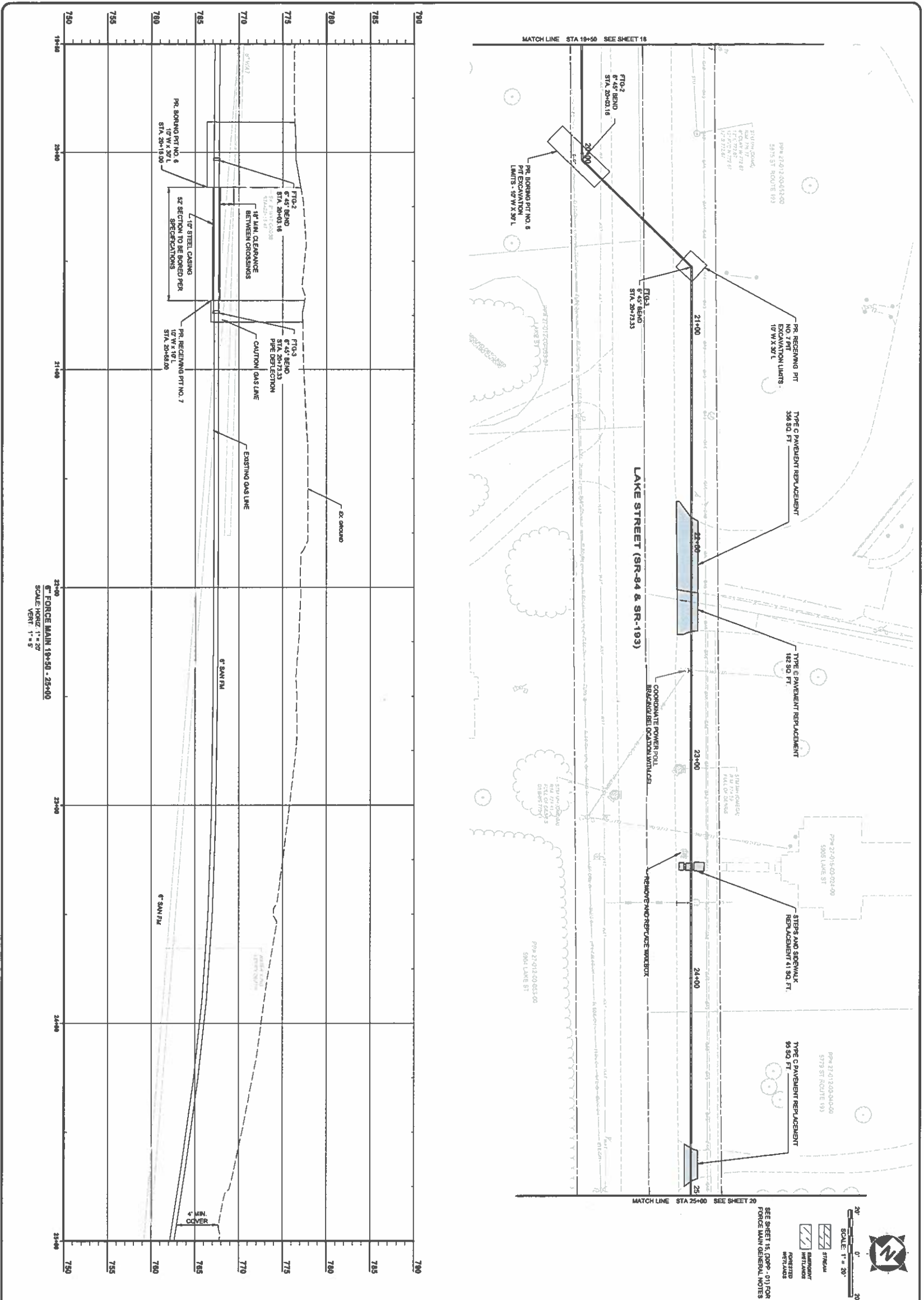
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| ASHTABULA COUNTY                       |                  | PROJECT NO. | 23247B   |
| KINGSVILLE REGIONAL SEWER IMPROVEMENTS |                  | DATE        | 3/4/2025 |
| ASHTABULA COUNTY                       | KINGSVILLE, OHIO | SCALE       | AS NOTED |
| 6 INCH FM PLAN & PROFILE - 30 SERIES   |                  | DESIGNED BY | REL      |
| FM STA 15+00 TO STA 19+50              |                  | DRAWN BY    | REL      |
|  |                  | CHECKED BY  | TJM      |

**verdantas**

6150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-8000



|              |          |
|--------------|----------|
| PROJECT NO.  | 23247B   |
| DATE         | 3/4/2025 |
| SCALE        | AS NOTED |
| DESIGNED BY  | REL      |
| DRAWN BY     | REL      |
| CHECKED BY   | TJM      |
| SHEET NO.    | 18       |
| TOTAL SHEETS | 43       |



**ASHTABULA COUNTY**  
KINGSVILLE REGIONAL SEWER IMPROVEMENTS

**ASHTABULA COUNTY**      **KINGSVILLE, OHIO**

**6 INCH FM PLAN & PROFILE - 30 SERIES**  
FM STA 19+50 TO STA 25+00

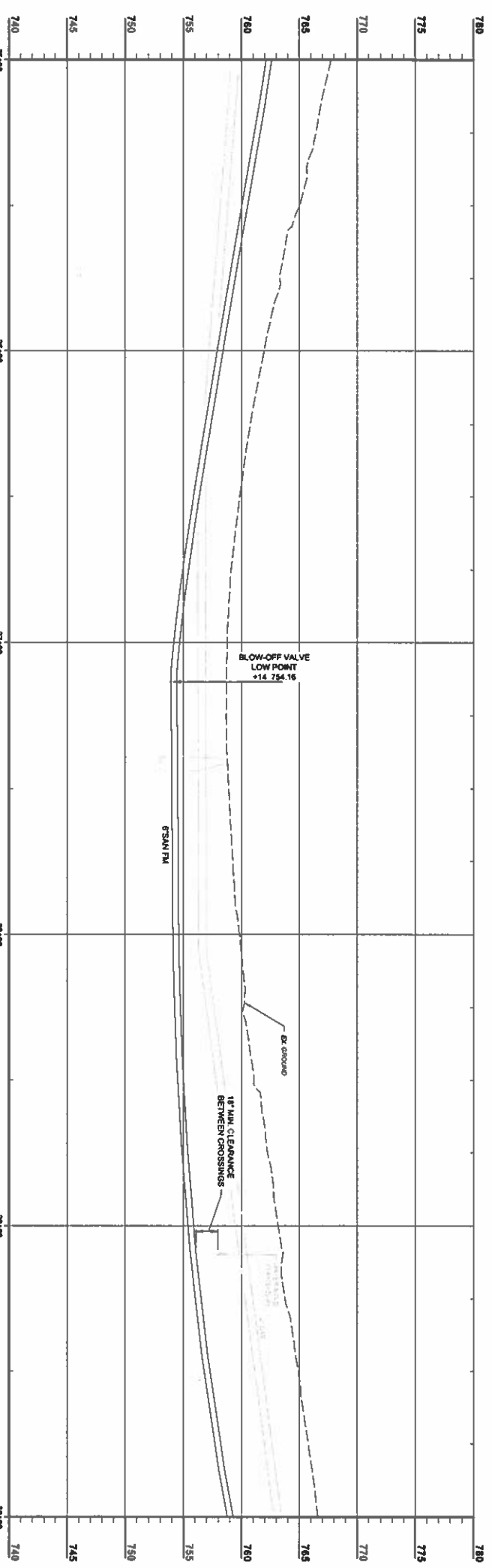
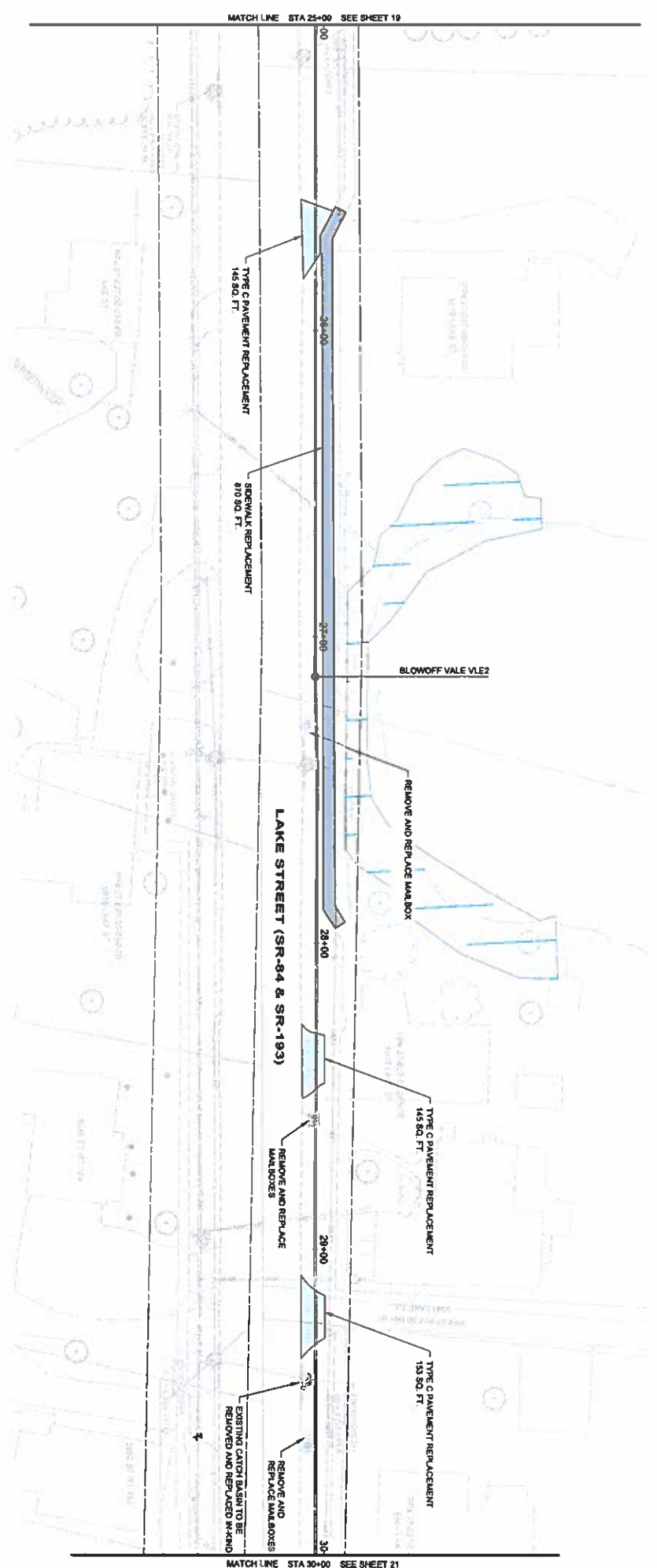
| ISSUED FOR:  | PTN REVIEW | NO | REVISION | DATE |
|--------------|------------|----|----------|------|
| ISSUE DATE:  | 3/1/2025   |    |          |      |
| SCALE:       | AS NOTED   |    |          |      |
| DESIGNED BY: | REL        |    |          |      |
| DRAWN BY:    | REL        |    |          |      |
| CHECKED BY:  | TJM        |    |          |      |

232478

30PP - 05

19      43

1150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 851-8000



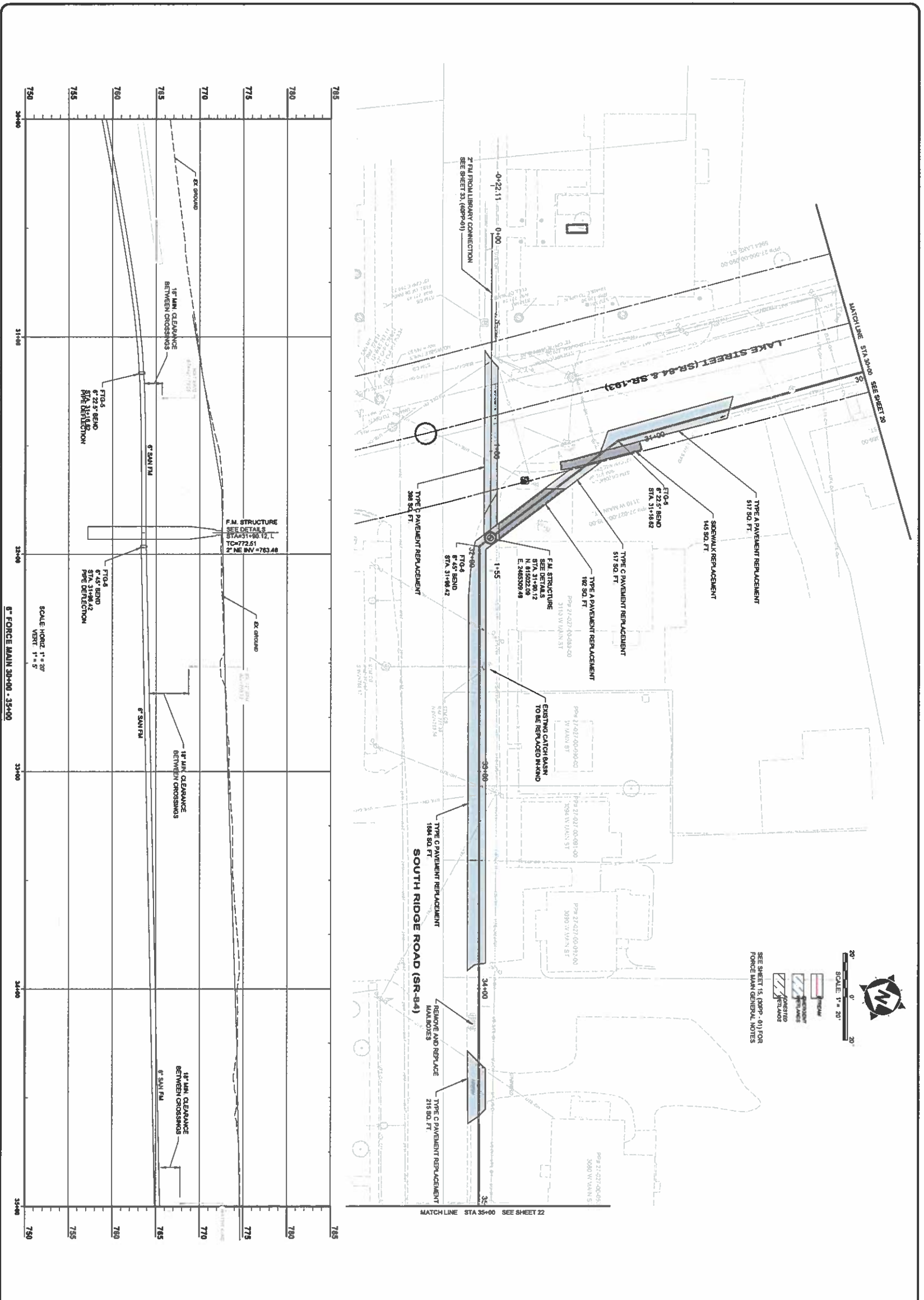
6" FORCE MAIN 25+00 - 30+00  
 SCALE HORIZ 1" = 20'  
 VERT 1" = 5'

SCALE: 1" = 20'  
  
 SEE SHEET 15, 06PP - 01 FOR  
 FORCE MAIN GENERAL NOTES

|  |  |                               |
|--|--|-------------------------------|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>                         |  | PROJECT NO.<br><b>232478</b>  |
| ASHTABULA COUNTY<br><b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b><br>FM STA 25+00 TO STA 30+00 |  | SHEET NO.<br><b>30PP - 06</b> |
| PROJECT NO.<br><b>232478</b>   |  | SHEET NO.<br><b>20</b>        |
| PROJECT NAME<br><b>CIVIL</b>   |  | SHEET NO.<br><b>43</b>        |
| PROJECT NO.<br><b>232478</b>   |  | SHEET NO.<br><b>43</b>        |

| ISSUED FOR   | PTN REVIEW | NO | REVISION | DATE |
|--------------|------------|----|----------|------|
| AS NOTED     |            |    |          |      |
| ISSUE DATE:  | 3/4/2025   |    |          |      |
| SCALE:       | AS NOTED   |    |          |      |
| DESIGNED BY: | REL        |    |          |      |
| DRAWN BY:    | REL        |    |          |      |
| CHKD BY:     | TJM        |    |          |      |

6150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 851-6000

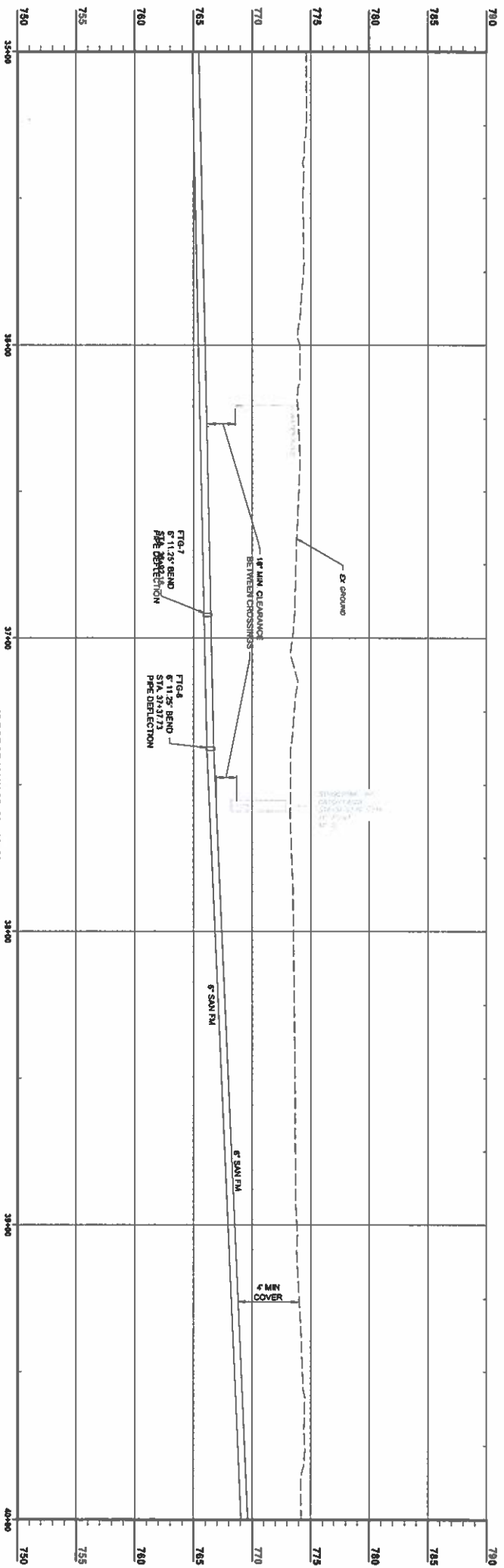
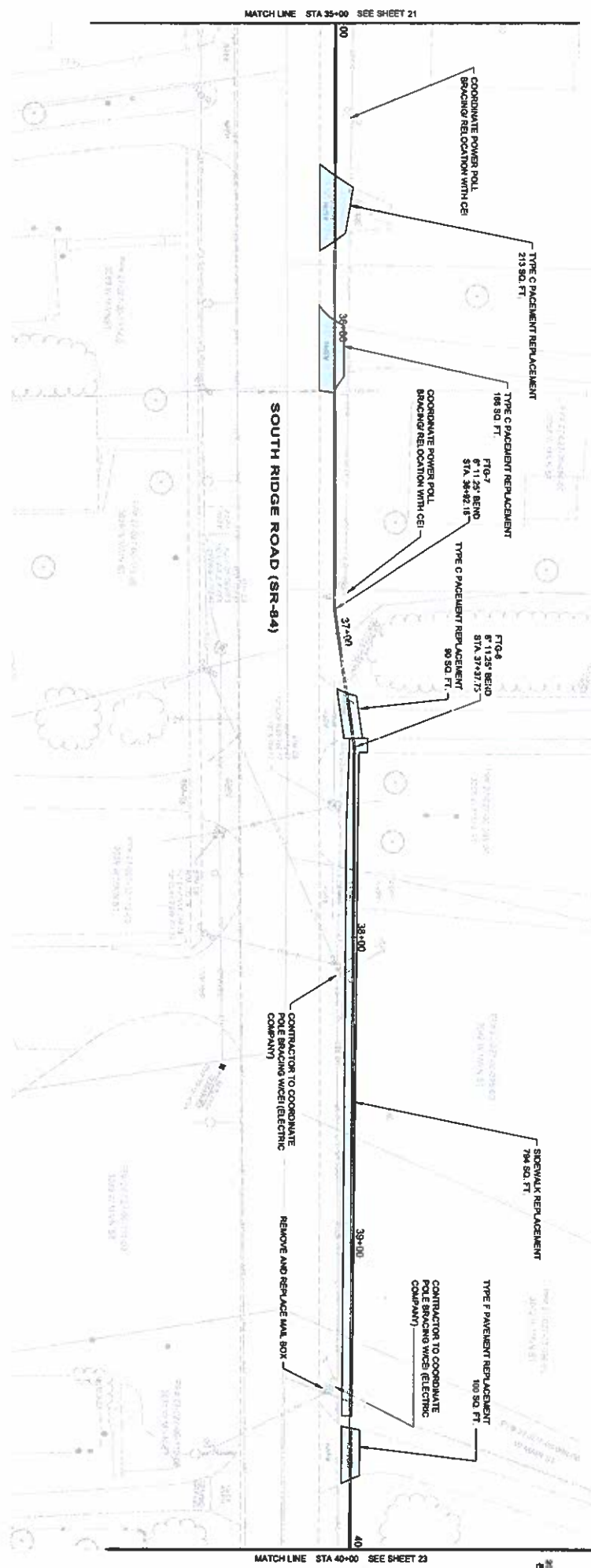


|  |  |                        |    |          |      |
|--|--|------------------------|----|----------|------|
| <b>ASHTABULA COUNTY</b>                |  | ISSUED FOR: PFI REVIEW | NO | REVISION | DATE |
| KINGSVILLE REGIONAL SEWER IMPROVEMENTS |  | ISSUE DATE: 3/4/2025   |    |          |      |
| ASHTABULA COUNTY KINGSVILLE, OHIO      |  | SCALE: AS NOTED        |    |          |      |
| 6 INCH FM PLAN & PROFILE - 30 SERIES   |  | DESIGNED BY: REL       |    |          |      |
| FM STA 30+00 TO STA 35+00              |  | DRAWN BY: REL          |    |          |      |
|  |  | CHECKED BY: T.J.M.     |    |          |      |

**verdantas**

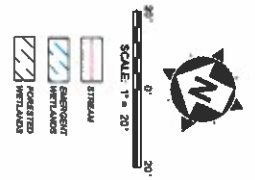
6150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 851-0000

|              |         |       |    |    |    |
|--------------|---------|-------|----|----|----|
| PROJECT NO.  | 232478  | SHEET | 21 | OF | 43 |
| DESIGN TITLE | CIVIL   | DATE  | 07 |    |    |
| PROJECT NAME | 30PP-07 |       |    |    |    |



6" FORCE MAIN 35+00 - 40+00  
SCALE: HORIZ. 1" = 20'  
VERT. 1" = 5'

SEE SHEET 15, (DAPP - 01) FOR  
FORCE MAIN GENERAL NOTES



|   |  |                               |                 |             |
|---|--|-------------------------------|-----------------|-------------|
| <b>ASHTABULA COUNTY</b>                         |  | <b>NO.</b>                    | <b>REVISION</b> | <b>DATE</b> |
| <b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>   |  | <b>ISSUED FOR:</b> PTI REVIEW |                 |             |
| <b>ASHTABULA COUNTY      KINGSVILLE, OHIO</b>   |  | <b>ISSUE DATE:</b> 3/4/2025   |                 |             |
| <b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b> |  | <b>SCALE:</b> AS NOTED        |                 |             |
| <b>FM STA 35+00 TO STA 40+00</b>                |  | <b>DESIGNED BY:</b> REL       |                 |             |
|   |  | <b>DRAWN BY:</b> REL          |                 |             |
|   |  | <b>CHECKED BY:</b> TJM        |                 |             |

**232478**

PROJECT NO.

**CIVIL**

DISCIPLINE

30PP - 08

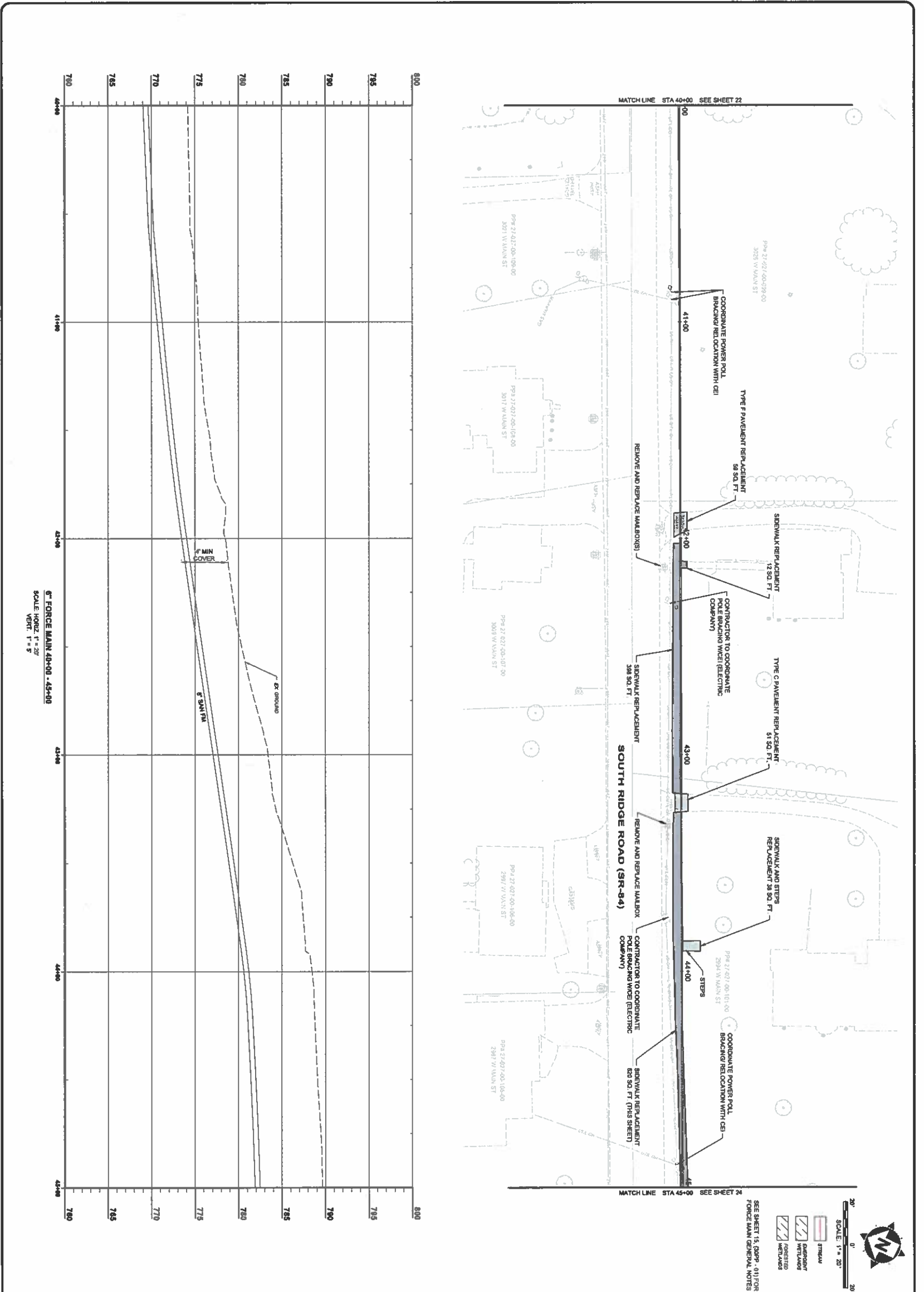
SHEET

22

43

8150 STERLING COURT  
MENTOR, OHIO 44080  
(440) 951-6000

THOMAS J. MINTON  
PROFESSIONAL ENGINEER  
STATE OF OHIO  
LICENSE NO. 95551



**ASHTABULA COUNTY**  
KINGSVILLE REGIONAL SEWER IMPROVEMENTS

ASHTABULA COUNTY      KINGSVILLE, OHIO

**6 INCH FM PLAN & PROFILE - 30 SERIES**  
FM STA 40+00 TO STA 45+00

| ISSUED FOR:  | PTI REVIEW | NO | REVISION | DATE |
|--------------|------------|----|----------|------|
| ISSUE DATE:  | 3/4/2025   |    |          |      |
| SCALE:       | AS NOTED   |    |          |      |
| DESIGNED BY: | REL        |    |          |      |
| DRAWN BY:    | REL        |    |          |      |
| CHECKED BY:  | TJM        |    |          |      |

**verdantas**

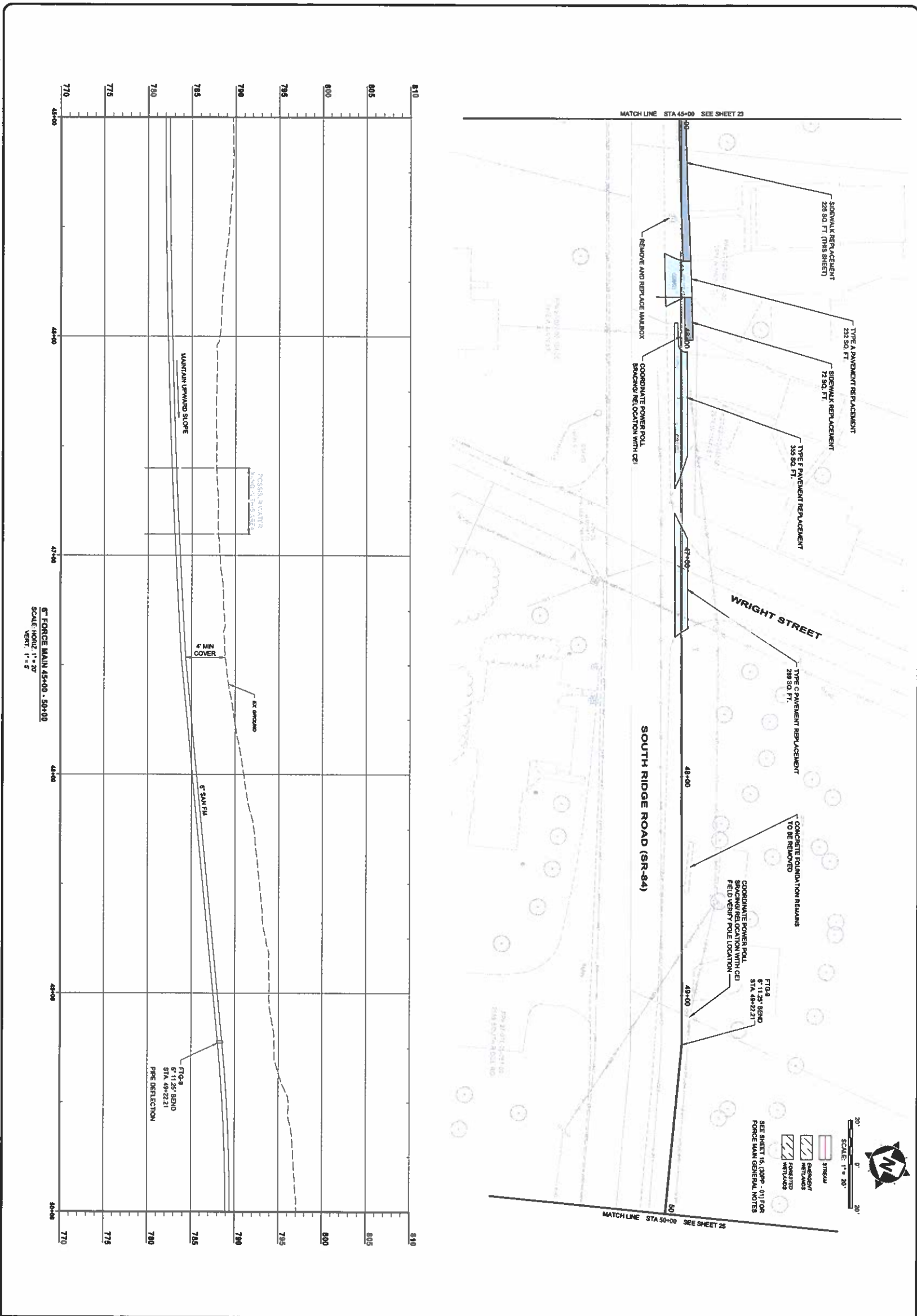
8150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 951-6000

PROJECT NO: 232478  
SHEET NO: 30PP-09  
DATE: 23/43

SEE SHEET 15, 09PP-01 FOR FORCE MAIN GENERAL NOTES

SCALE: 1" = 20'

6" FORCE MAIN 40+00 - 45+00  
SCALE HORIZ. 1" = 20'  
VERT. 1" = 5'



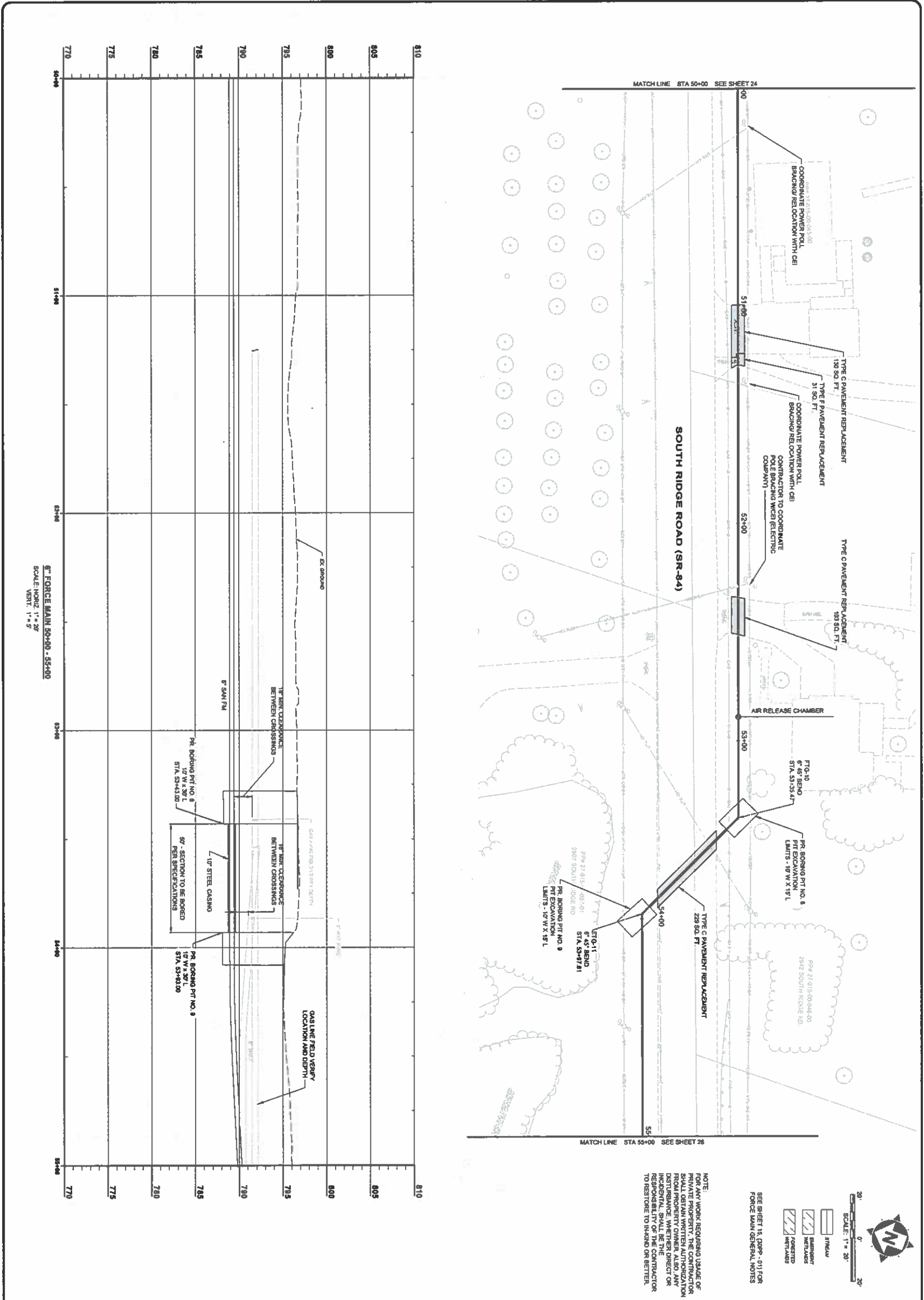
6" FORCE MAIN 45+00 - 50+00  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 5'

|   |  |                               |    |          |      |
|---|--|-------------------------------|----|----------|------|
| <b>ASHTABULA COUNTY</b>                         |  | ISSUED FOR: <b>PTI REVIEW</b> | NO | REVISION | DATE |
| <b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>   |  | ISSUE DATE: 3/4/2025          |    |          |      |
| ASHTABULA COUNTY KINGSVILLE, OHIO               |  | SCALE: AS NOTED               |    |          |      |
| <b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b> |  | DRAWN BY: REL                 |    |          |      |
| <b>FM STA 45+00 TO STA 50+00</b>                |  | CHECKED BY: T.M.              |    |          |      |

**verdantas**

8150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-9000

|             |           |
|-------------|-----------|
| PROJECT NO. | 232478    |
| DRAWN BY    | CIVIL     |
| SHEET NO.   | 30PP - 10 |
| DATE        | 24        |



| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b><br>ASHTABULA COUNTY KINGSVILLE, OHIO<br><b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b><br>FM STA 50+00 TO STA 55+00 | ISSUED FOR: <b>PTI REVIEW</b><br>ISSUE DATE: <b>3/4/2025</b><br>SCALE: <b>AS NOTED</b><br>DESIGNED BY: <b>REL</b><br>DRAWN BY: <b>REL</b><br>CHECKED BY: <b>TJM</b> | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>NO</th><th>REVISION</th><th>DATE</th></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table> | NO | REVISION | DATE |  |  |  |  |  |  |  |  |  | <b>verdantas</b><br>8150 STERLING COURT<br>MENTOR, OHIO 44060<br>(440) 951-9000 |
|---|---|--|----|----------|------|--|--|--|--|--|--|--|--|--|---|
| NO  | REVISION  | DATE   |    |          |      |  |  |  |  |  |  |  |  |  |   |
|   |   |  |    |          |      |  |  |  |  |  |  |  |  |  |   |
|   |   |  |    |          |      |  |  |  |  |  |  |  |  |  |   |
|   |   |  |    |          |      |  |  |  |  |  |  |  |  |  |   |
| PROJECT NO: <b>232478</b><br>CONTRACT NO: <b>30PP - 11</b><br>SHEET NO: <b>25</b> OF <b>43</b>  |   |  |    |          |      |  |  |  |  |  |  |  |  |  |   |

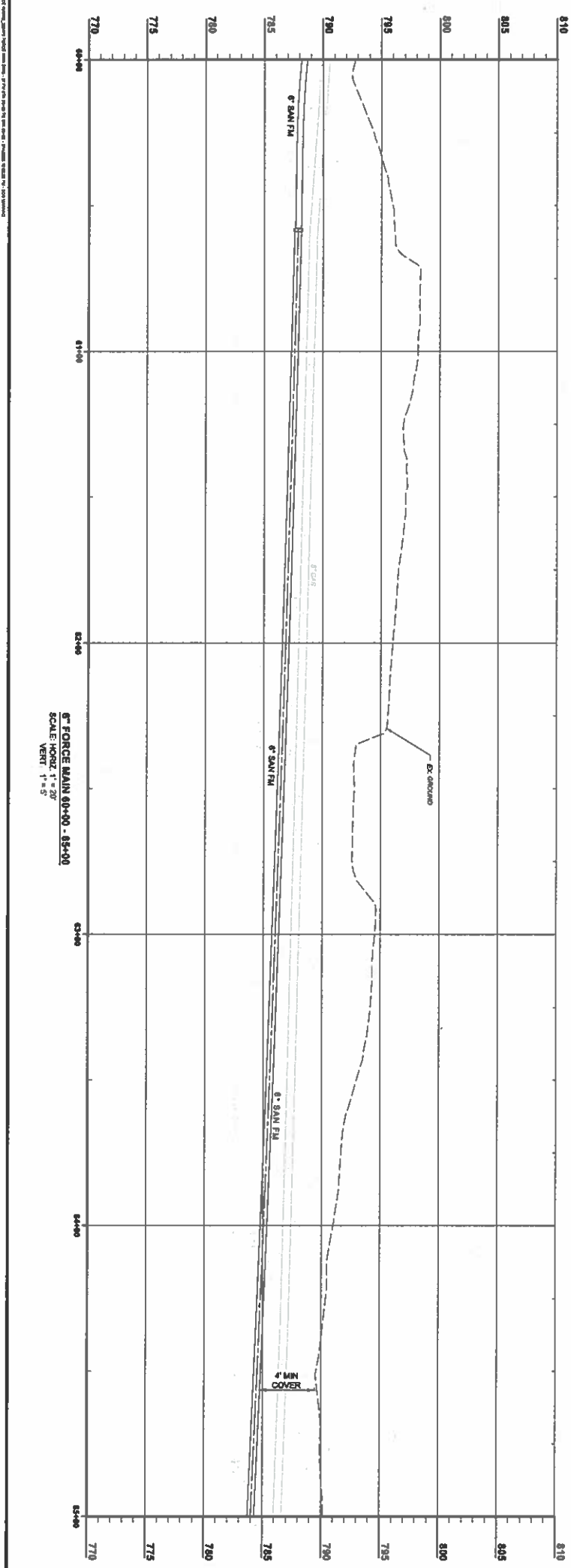
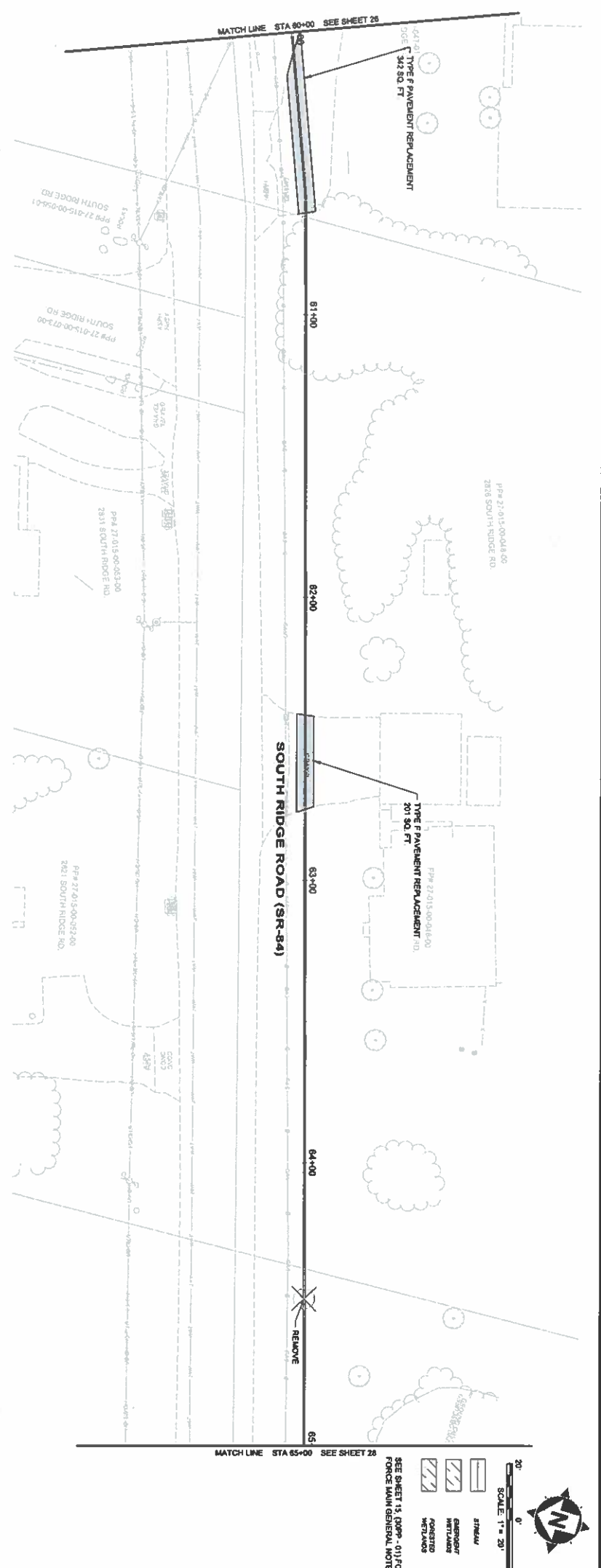
NOTE: FOR ANY WORK REQUIRING USAGE OF PRIVATE PROPERTY, THE CONTRACTOR SHALL NOTIFY THE ADJACENT PROPERTY OWNER, ALSO ANY DISTURBANCE, WHETHER DIRECT OR INDIRECT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE ADJACENT PROPERTY OWNER TO RESOLVE TO HARMING OR BETTER.

SEE SHEET 15, 20PP - 01 FOR FORCE MAIN GENERAL NOTES

SCALE: 1" = 20'  
 HORIZONTAL  
 VERTICAL

MATCH LINE STA 50+00 SEE SHEET 24  
 MATCH LINE STA 55+00 SEE SHEET 26





6" FORCE MAIN 60+00 - 65+00  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 5'

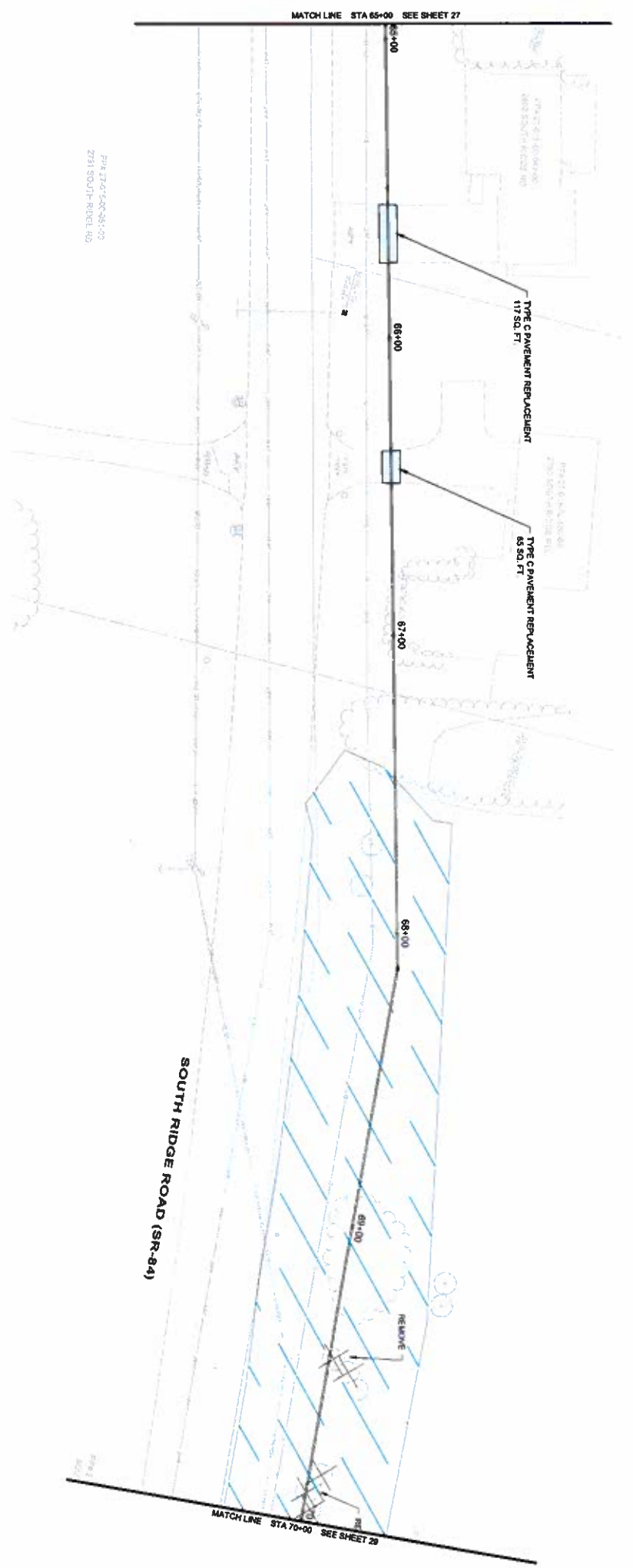
30' SCALE: 1" = 20'

STREAM  
 STRUCTURE  
 PAVEMENT  
 UTILITY MARKERS

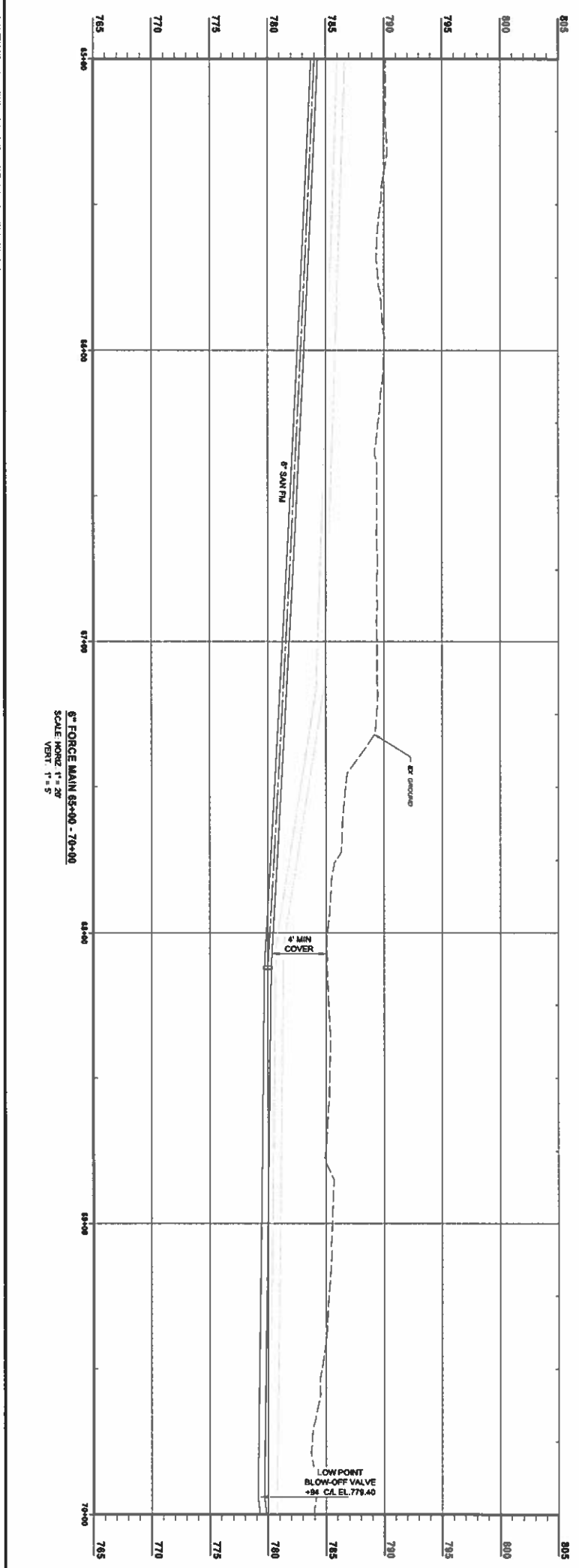
SEE SHEET 15 CORP - 01 FOR FORCE MAIN GENERAL NOTES



|   |  |   |    |          |      |
|---|--|---|----|----------|------|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b><br><b>ASHTABULA COUNTY KINGSVILLE, OHIO</b><br><b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b><br><b>FM STA 60+00 TO STA 65+00</b> |  | ISSUED FOR: PTI REVIEW  | NO | REVISION | DATE |
|   |  | ISSUE DATE: 3M/2025   |    |          |      |
|   |  | SCALE: AS NOTED   |    |          |      |
|   |  | DESIGNED BY: REL  |    |          |      |
|   |  | DRAWN BY: REL   |    |          |      |
|   |  | CHECKED BY: T.M.  |    |          |      |
| PROJECT NO: 232478<br>DESIGNED BY: CIVIL<br>DRAWN BY: 30PP - 13<br>CHECKED BY: 27<br>DATE: 43   |  | <br>8150 STERLING COURT<br>MENTOR, OHIO 44060<br>(440) 951-0000 |    |          |      |
|   |  |   |    |          |      |



Proj: 27-07-CR-08-1-00  
2731 SOUTH RIDGE RD.



6" FORCE MAIN 65+00 - 70+00  
SCALE HORIZ. 1" = 20'  
VERT. 1" = 5'

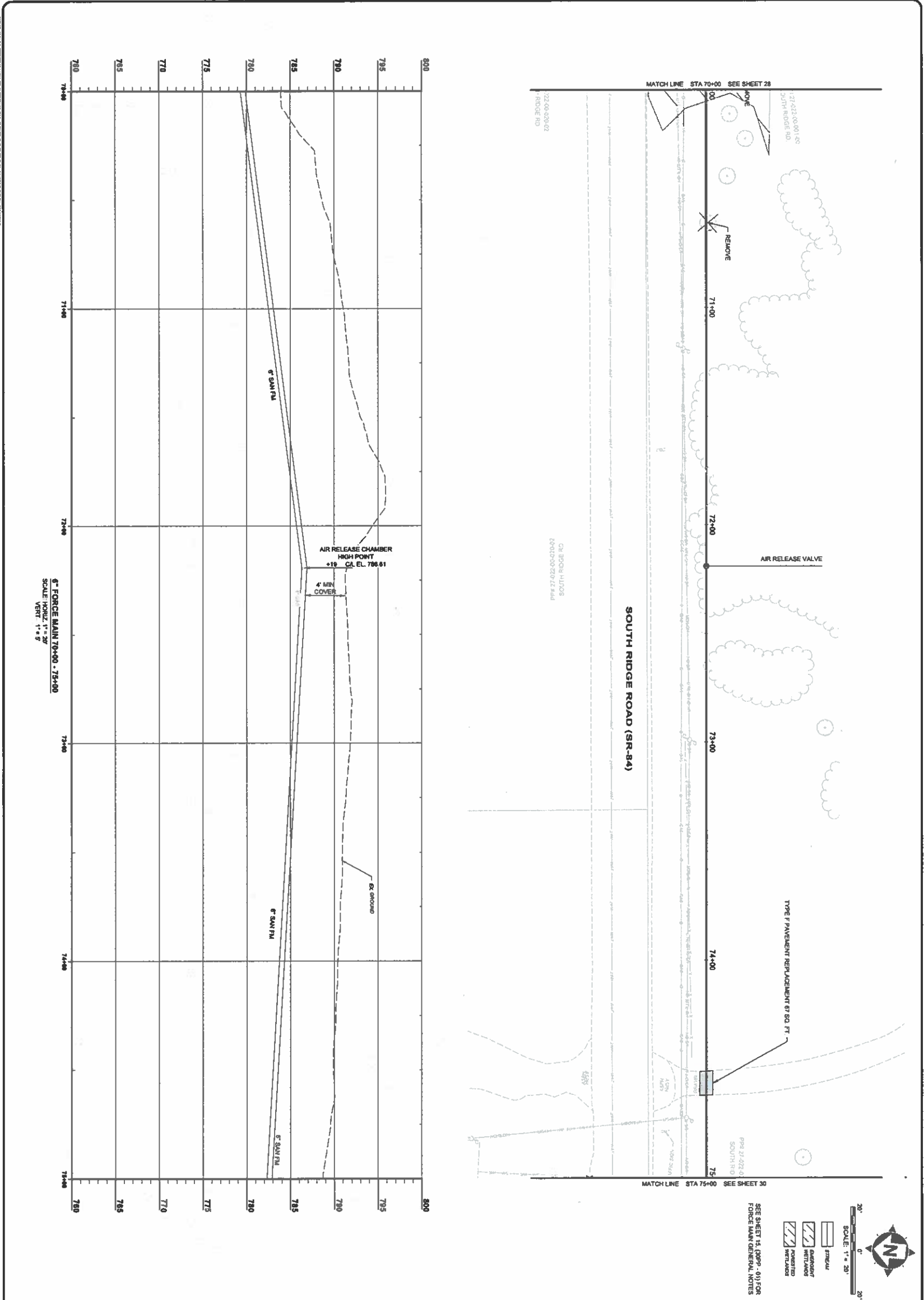
SCALE: 1" = 20'

SEE SHEET 15, 30PP - 01) FOR FORCE MAIN GENERAL NOTES

- EXISTING
- PROPOSED WETLAND
- PROPOSED WETLAND

| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b><br>ASHTABULA COUNTY KINGSVILLE, OHIO<br><b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b><br>FM STA 65+00 TO STA 70+00 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>ISSUED FOR:</th> <th>PTI REVIEW</th> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> <tr> <td>ISSUE DATE:</td> <td>3/4/2025</td> <td></td> <td></td> <td></td> </tr> <tr> <td>SCALE:</td> <td>AS NOTED</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DESIGNED BY:</td> <td>REL</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DRAWN BY:</td> <td>REL</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY:</td> <td>TJM</td> <td></td> <td></td> <td></td> </tr> </table> | ISSUED FOR: | PTI REVIEW | NO.  | REVISION | DATE | ISSUE DATE: | 3/4/2025 |  |  |  | SCALE: | AS NOTED |  |  |  | DESIGNED BY: | REL |  |  |  | DRAWN BY: | REL |  |  |  | CHECKED BY: | TJM |  |  |  | <p>8150 STERLING COURT<br/>MENTOR, OHIO 44060<br/>(440) 951-9000</p> |  |
|---|---|-------------|------------|------|----------|------|-------------|----------|--|--|--|--------|----------|--|--|--|--------------|-----|--|--|--|-----------|-----|--|--|--|-------------|-----|--|--|--|--|--|
| ISSUED FOR:   | PTI REVIEW  | NO.         | REVISION   | DATE |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |  |
| ISSUE DATE:   | 3/4/2025  |             |            |      |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |  |
| SCALE:  | AS NOTED  |             |            |      |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |  |
| DESIGNED BY:  | REL   |             |            |      |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |  |
| DRAWN BY:   | REL   |             |            |      |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |  |
| CHECKED BY:   | TJM   |             |            |      |          |      |             |          |  |  |  |        |          |  |  |  |              |     |  |  |  |           |     |  |  |  |             |     |  |  |  |  |  |

|                                    |    |
|------------------------------------|----|
| 232478<br>CIVIL<br>30PP - 14<br>28 | 43 |
|------------------------------------|----|



|   |  |                             |                 |             |
|---|--|-----------------------------|-----------------|-------------|
| <b>ASHTABULA COUNTY</b>                         |  | <b>NO</b>                   | <b>REVISION</b> | <b>DATE</b> |
| <b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>   |  | <b>ISSUE DATE:</b> 3/4/2025 |                 |             |
| <b>ASHTABULA COUNTY KINGSVILLE, OHIO</b>        |  | <b>SCALE:</b> AS NOTED      |                 |             |
| <b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b> |  | <b>DESIGNED BY:</b> REL     |                 |             |
| <b>FM STA 70+00 TO STA 75+00</b>                |  | <b>DRAWN BY:</b> REL        |                 |             |
|   |  | <b>CHECKED BY:</b> TJM      |                 |             |

**2332478**

CIVIL

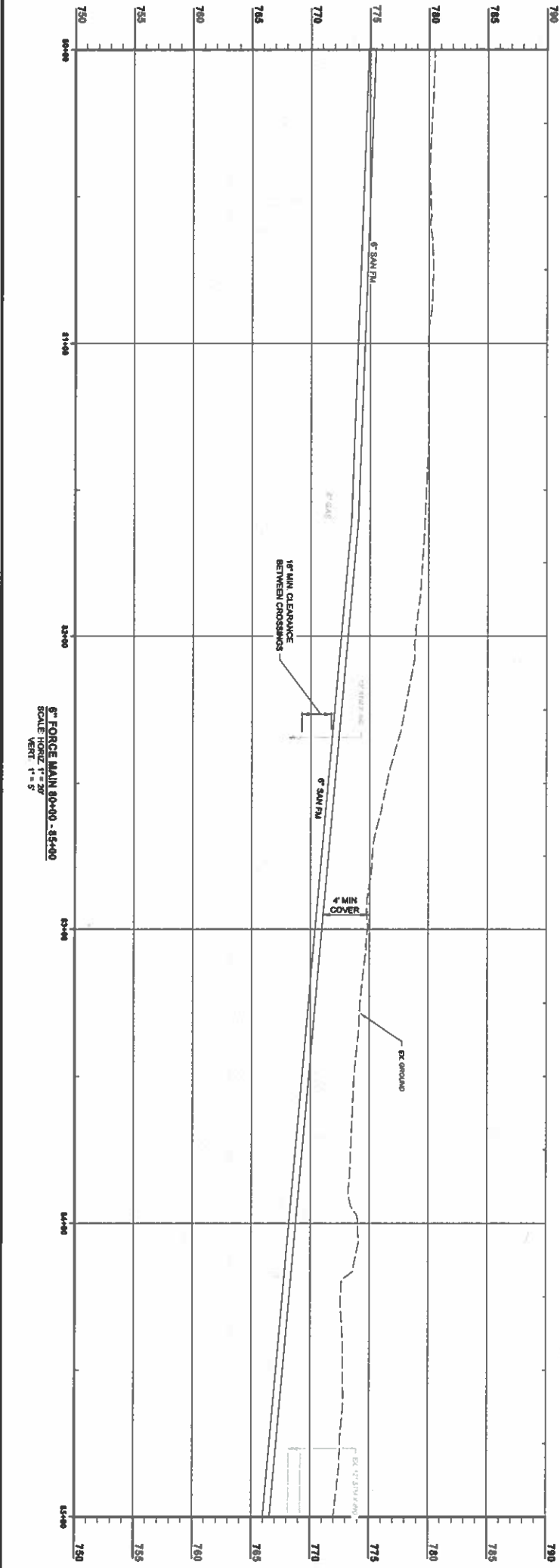
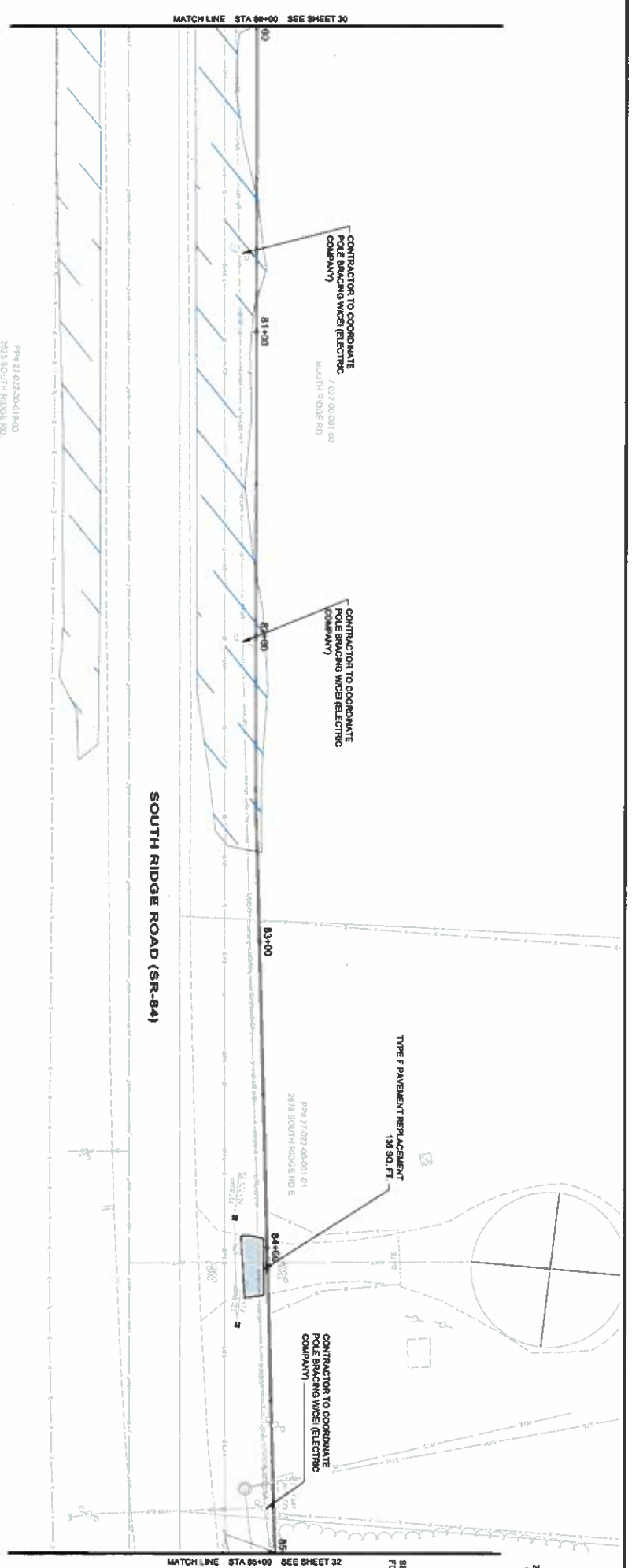
30PP - 15

29 43

8150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 951-8000

STATE OF OHIO  
PROFESSIONAL ENGINEER



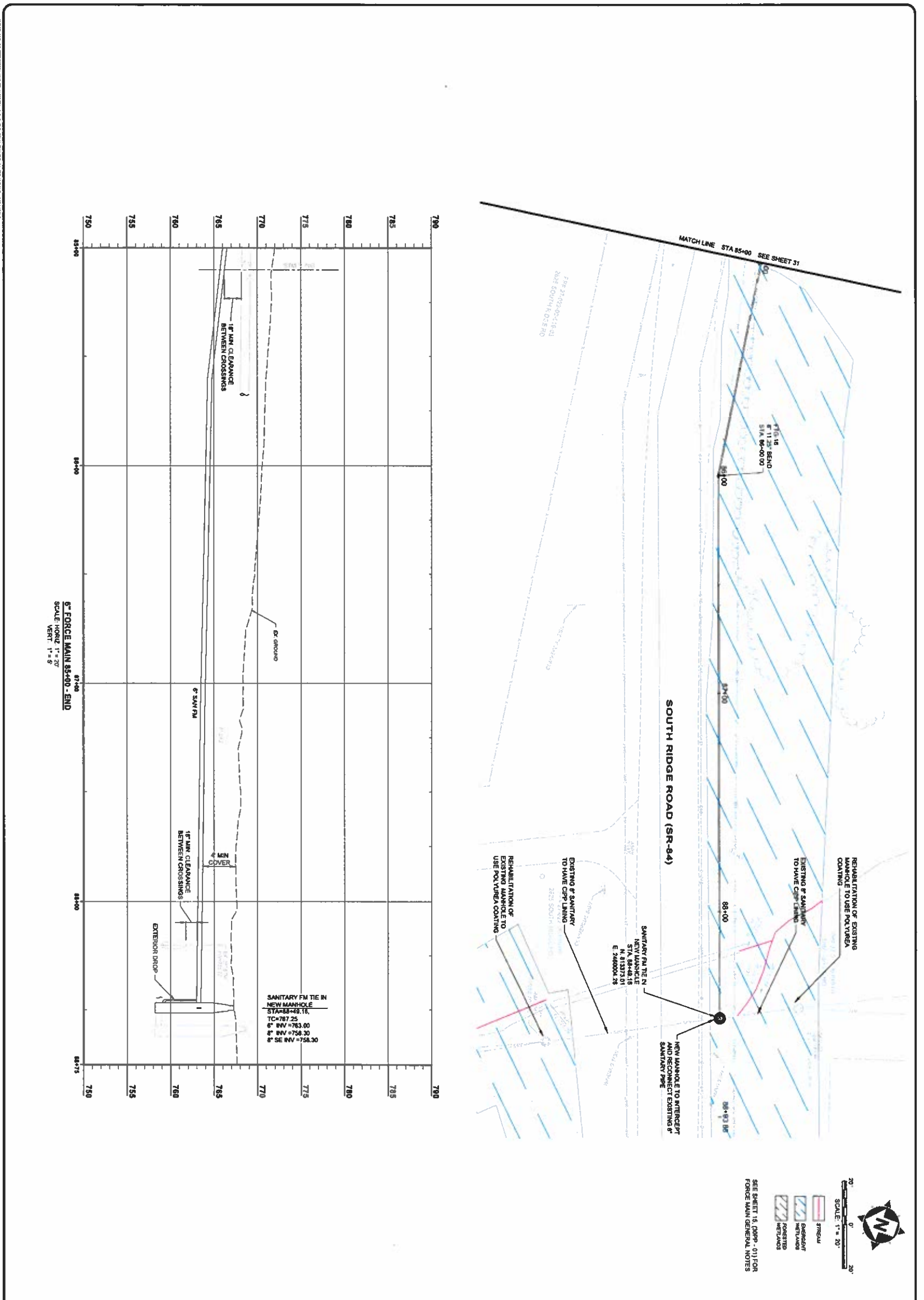


|   |  |                        |    |          |      |
|---|--|------------------------|----|----------|------|
| <b>ASHTABULA COUNTY</b>                         |  | ISSUED FOR: PTI REVIEW | NO | REVISION | DATE |
| <b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>   |  | ISSUE DATE: 3/4/2025   |    |          |      |
| <b>ASHTABULA COUNTY KINGSVILLE, OHIO</b>        |  | SCALE: AS NOTED        |    |          |      |
| <b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b> |  | DESIGNED BY: REL       |    |          |      |
| <b>FM STA 80+00 TO STA 85+00</b>                |  | DRAWN BY: REL          |    |          |      |
|   |  | CHECKED BY: TJM        |    |          |      |

**verdantas**

6150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 851-9000

|              |           |
|--------------|-----------|
| PROJECT NO.  | 232478    |
| DATE         | 3/4/25    |
| DESIGNED BY  | REL       |
| DRAWN BY     | REL       |
| CHECKED BY   | TJM       |
| SCALE        | 30PP - 17 |
| SHEET NO.    | 31        |
| TOTAL SHEETS | 43        |



6" FORCE MAIN 85+00 - END  
 SCALE HORIZ 1" = 20'  
 VERT 1" = 5'

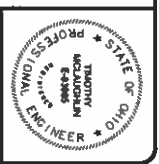
20' 0' 20'  
 SCALE 1" = 20'

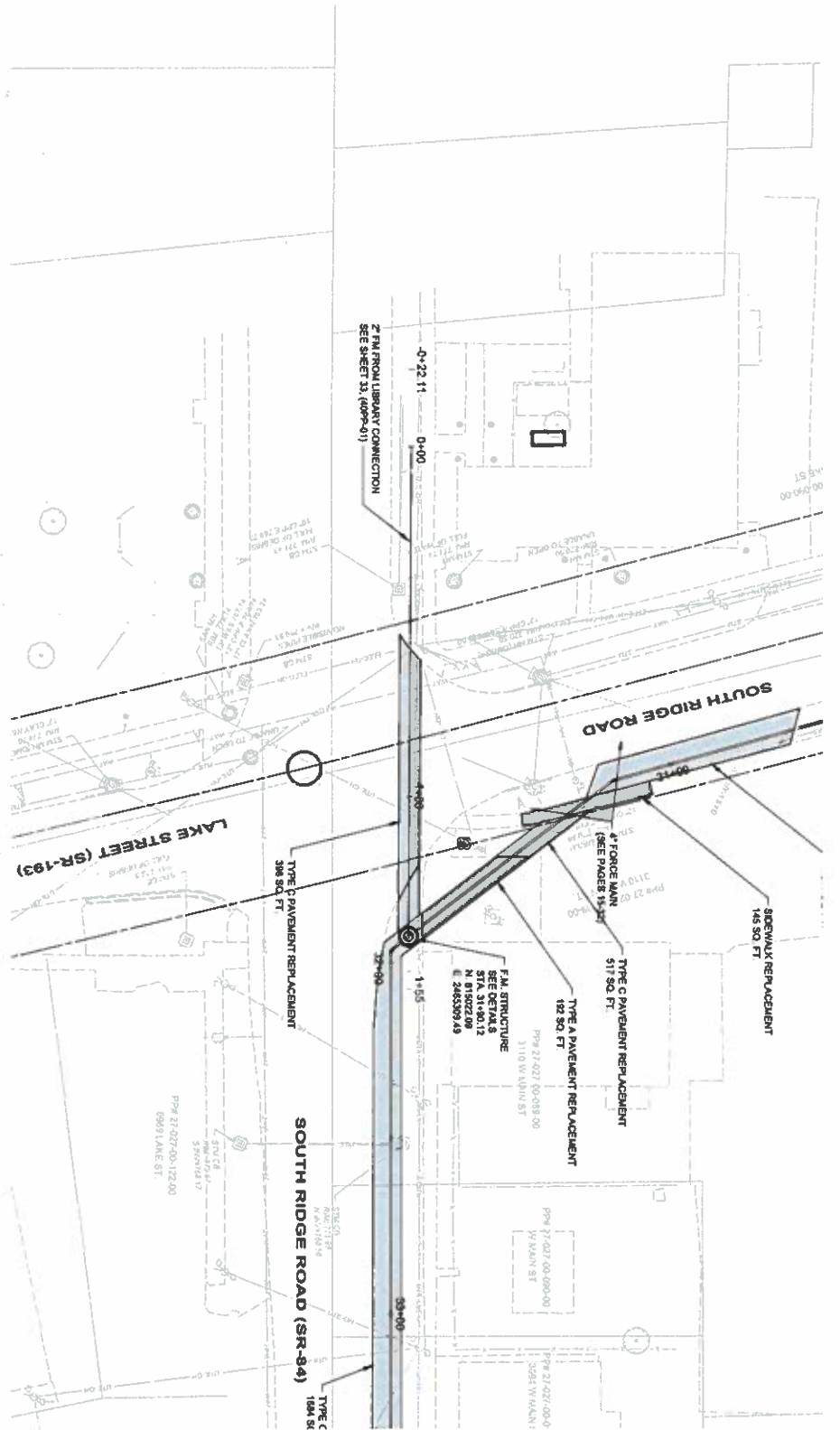
SEE SHEET 15, (OPP - 01) FOR FORCE MAIN GENERAL NOTES

EXISTING MANHOLE  
 PROPOSED MANHOLE  
 EXISTING SANITARY PIPE  
 PROPOSED SANITARY PIPE

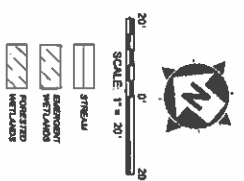
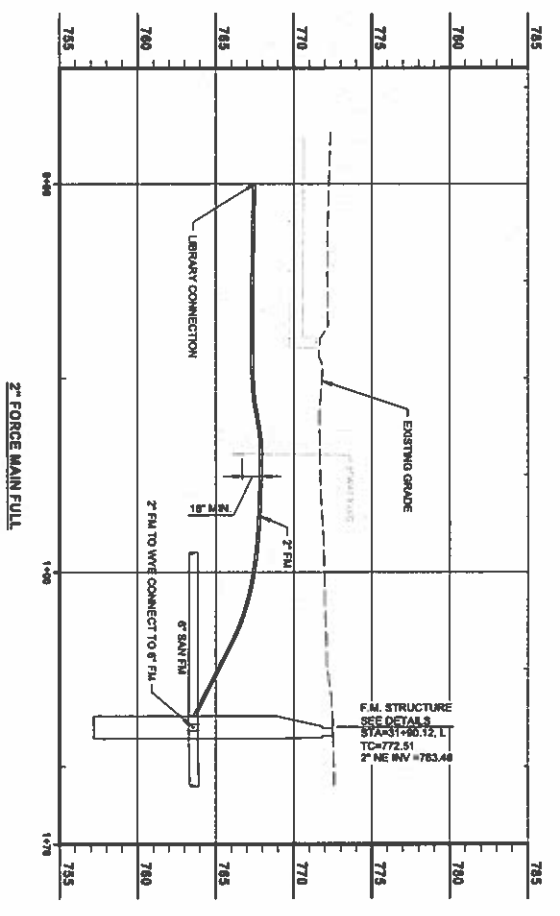
|  |  |   |                               |                          |                           |                               |                          |
|--|--|---|-------------------------------|--------------------------|---------------------------|-------------------------------|--------------------------|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b> |  | PROJECT NO.<br><b>23247B</b>                    | SHEET NO.<br><b>30PP - 18</b> | DATE<br><b>3/4/2025</b>  | NO.<br><b>1</b>           | REVISION<br><b>PTI REVIEW</b> | DATE<br><b>3/4/2025</b>  |
| <b>ASHTABULA COUNTY</b> <b>KINGSVILLE, OHIO</b>                          |  | <b>6 INCH FM PLAN &amp; PROFILE - 30 SERIES</b> |                               | SCALE<br><b>AS NOTED</b> | DESIGNED BY<br><b>REL</b> | DRAWN BY<br><b>REL</b>        | CHECKED BY<br><b>TJM</b> |
| <b>FM STA 85+00 TO END</b>   |  | <b>32</b>                                       |                               | <b>43</b>                |                           |                               |                          |

**verdantas**  
 6150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-8800





- FORCE MAIN GENERAL NOTES:**
1. THE CONTRACTOR SHALL NOT PERFORM ANY EXCAVATION WITHIN 30 FT RIGHT-OF-WAY OR DISTURB ANY ROADWAY PAVEMENT. ALL WORK WITHIN THESE LIMITS THAT REQUIRES LANE CLOSURES OR TRAFFIC CONTROL SHALL BE APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
  2. THE CONTRACTOR MAY PERFORM SECTION OR ALL OF THE CONSTRUCTION OF THE FORCE MAIN BY TRENCHLESS METHODS IF THE CONTRACTOR SUBmits A TRENCHLESS METHOD. THEY SHALL PROVIDE THE LOCATION, LIMITS, DEPTH, SHIELDING, AND DEWATERING REQUIREMENTS NECESSARY FOR LAUNCH AND RECEIVE PITS TO THE ENGINEER FOR APPROVAL.
  3. THE CONTRACTOR IS RESPONSIBLE TO LOCATE ANY AND ALL WATER SERVICE, SEWER, UTILITY, GAS SERVICE, OR OTHER EXISTING UTILITIES PRIOR TO THE PROPOSED FORCE MAIN AND ADJUST THE DESIGN AS NECESSARY TO LIMIT THE NEED FOR LOWERINGS THAT WILL REQUIRE FITTINGS.
  4. THE FORCE MAIN SHALL MAINTAIN MINIMUM 4' COVER FROM THE TOP OF PIPE TO SURFACE GRADE AT ALL TIMES.



**Ohio Utilities Protection Service**  
 811 or 1-800-362-2764  
 Call this number on any service request.  
 Non-emergency work is categorized as "OUPS".



|   |   |  |   |
|---|---|--|---|
| <b>ASHTABULA COUNTY</b><br><b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b>  |   | ISSUED FOR: <b>PTI REVIEW</b><br>ISSUE DATE: <b>3/4/2025</b><br>SCALE: <b>AS NOTED</b> | NO. <b>33</b><br>REVISION <b>43</b><br>DATE |
| <b>ASHTABULA COUNTY</b> KINGSVILLE, OHIO<br><b>2 INCH FM PLAN &amp; PROFILE - 40 SERIES</b><br><b>FORCE MAIN</b>          |   | DESIGNED BY: <b>REL</b><br>DRAWN BY: <b>CAS</b><br>CHECKED BY: <b>TJM</b>              |   |
| PROJECT NO: <b>232478</b><br>DRAWN BY: <b>CNIL</b><br>SHEET NAME: <b>40PP-01</b><br>NO. OF SHEETS: <b>33</b> OF <b>43</b> | <br>8150 STERLING COURT<br>MENTOR, OHIO 44060<br>(440) 851-8000 |  |   |

| NORTHERN GRAVITY & FORCE MAIN SANITARY SEWER SERVICE LATERAL AS-BUILT TABLE |                              |                               |                  |  |                  |
|---|------------------------------|-------------------------------|------------------|--|------------------|
| DESIGNED STATION AT MAIN  | STREET ADDRESS/<br>PARCEL ID | STATION AT MAIN<br>(AS-BUILT) | SLOPE (AS-BUILT) | INVERT OF<br>LATERAL AT MAIN<br>(AS-BUILT) | RISER (AS-BUILT) |
| 06+32   | 5370 STATE RT. 193           |                               |                  |  |                  |
| 3+11  | 5411 STATE RT. 193           |                               |                  |  |                  |
| 4+68  | 5423 STATE RT. 193           |                               |                  |  |                  |
| 10+46   | 5551 STATE RT. 193           |                               |                  |  |                  |

**SOUTHERN GRAVITY - SANITARY LATERAL AS-BUILT TABLE**

| SOUTHERN GRAVITY SANITARY SEWER SERVICE LATERAL AS-BUILT TABLE |                                  |                               |                  |  |                  |
|--|----------------------------------|-------------------------------|------------------|--|------------------|
| DESIGNED STATION AT MAIN                                       | STREET ADDRESS/<br>PARCEL ID     | STATION AT MAIN<br>(AS-BUILT) | SLOPE (AS-BUILT) | INVERT OF<br>LATERAL AT MAIN<br>(AS-BUILT) | RISER (AS-BUILT) |
| 06+32  | VACANT PARCEL<br>27-0135-0000-00 |                               |                  |  |                  |
| 1+18   | VACANT PARCEL<br>27-0135-0000-00 |                               |                  |  |                  |
| 3+68   | 5555 STATE RT. 193               |                               |                  |  |                  |
| 3+91   | 5569 STATE RT. 193               |                               |                  |  |                  |
| 6+25   | 5569 STATE RT. 193               |                               |                  |  |                  |
| 8+42   | VACANT PARCEL<br>27-0135-0000-00 |                               |                  |  |                  |
| 7+75   | 5560 STATE RT. 193               |                               |                  |  |                  |
| 9+73   | 5566 STATE RT. 193               |                               |                  |  |                  |
| 24+52  | 5726 STATE RT. 193               |                               |                  |  |                  |
| 25+93  | VACANT PARCEL<br>27-1200-01-01   |                               |                  |  |                  |
| 27+04  | 5750 STATE RT. 193               |                               |                  |  |                  |
| 27+18  | 5760 STATE RT. 193               |                               |                  |  |                  |

**NORTHERN GRAVITY & FORCE MAIN - SANITARY LATERAL AS-BUILT TABLE**

|   |   |   |  |
|---|---|---|--|
|  |   |    |  |
| 6150 STERLING COURT<br>MENTOR, OHIO 44060<br>(440) 951-8000                           |   | ASHTABULA COUNTY<br>KINGSVILLE REGIONAL SEWER IMPROVEMENTS<br>ASHTABULA COUNTY<br>KINGSVILLE, OHIO<br>GRAVITY SEWER PLAN & PROFILE - 10 SERIES<br>IMPROVEMENT SCHEDULE TABLES |  |
| DESIGNED BY: JBB<br>DRAWN BY: JBB<br>CHECKED BY: TJM                                  | ISSUE DATE: 3/4/2025<br>SCALE: AS NOTED | NO. _____<br>REVISION _____<br>DATE _____   | PROJECT NO: 232478<br>SHEET NO: 500-01<br>SHEET OF: 34 OF 43 |



Small text at the bottom left corner, likely a reference or disclaimer.

| FORCE MAIN VALVE TABLE |                  |          |        |                     |                    |
|------------------------|------------------|----------|--------|---------------------|--------------------|
| NO                     | DESCRIPTION      | W/L STA  | C/L EL | NORTHING (PER PLAN) | EASTING (PER PLAN) |
| VLE-1                  | 4" BLOWOFF VALVE | 6+37.08  | 750.74 | 813367.4391         | 2466947.0175       |
| VLE-2                  | 4" BLOWOFF VALVE | 25+04.28 | 754.32 | 2465651.9628        | 2465651.9628       |
| VLE-3                  | 2" BLOWOFF VALVE | 0+06.99  | 771.26 | 815152.7704         | 2465304.2017       |

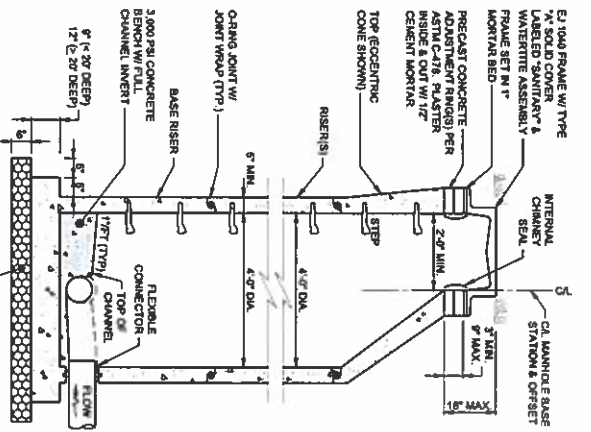
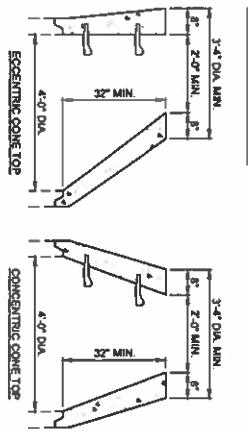
FORCE MAIN VALVE TABLE

| FORCE MAIN FITTING TABLE |                   |          |        |                     |                    |                     |                    |
|--------------------------|-------------------|----------|--------|---------------------|--------------------|---------------------|--------------------|
| NO                       | DESCRIPTION       | W/L STA  | C/L EL | NORTHING (PER PLAN) | EASTING (PER PLAN) | NORTHING (AS BUILT) | EASTING (AS BUILT) |
| FTG-1                    | 4" MI 45° BEND    | 0+21.41  | 770.20 | 812936.5579         | 2467386.7555       |                     |                    |
| FTG-2                    | 4" MI 11.25° BEND | 9+31.21  | 750.74 | 813572.8441         | 2466736.4974       |                     |                    |
| FTG-3                    | 4" MI 45° BEND    | 18+02.57 | 767.52 | 814212.9862         | 2466145.3600       |                     |                    |
| FTG-4                    | 4" MI 45° BEND    | 18+72.75 | 767.46 | 814215.9339         | 2466075.2502       |                     |                    |
| FTG-5                    | 4" MI 11.25° BEND | 25+12.50 | 754.13 | 814690.7134         | 2465646.4491       |                     |                    |
| FTG-6                    | 4" MI 22.5° BEND  | 29+16.03 | 763.66 | 814989.7404         | 2465375.4887       |                     |                    |
| FTG-7                    | 4" MI 45° BEND    | 29+95.83 | 763.66 | 815024.8516         | 2465303.8303       |                     |                    |
| FTG-8                    | 4" MI 11.25° BEND | 34+91.58 | 766.73 | 814804.1893         | 2464859.9071       |                     |                    |
| FTG-9                    | 4" MI 11.25° BEND | 35+37.14 | 767.24 | 814778.4152         | 2464822.3315       |                     |                    |
| FTG-10                   | 4" MI 11.25° BEND | 47+21.62 | 787.75 | 814256.0228         | 2463759.2703       |                     |                    |
| FTG-11                   | 4" MI 11.25° BEND | 58+13.90 | 787.43 | 813866.8146         | 2462738.7112       |                     |                    |
| FTG-12                   | 4" MI 11.25° BEND | 65+67.58 | 780.08 | 813650.6467         | 2462016.7005       |                     |                    |
| FTG-13                   | 4" MI 11.25° BEND | 83+15.09 | 763.82 | 813468.1954         | 2460278.7361       |                     |                    |
| FTG-14                   | 4" MI 11.25° BEND | 84+63.88 | 763.82 | 813419.4491         | 2460138.1602       |                     |                    |
| FTG-15                   | 2" MI 45° BEND    | 0+60.46  | 771.26 | 815118.5122         | 2465263.1557       |                     |                    |
| FTG-16                   | 2" MI 45° BEND    | 0+65.46  | 771.19 | 815113.5324         | 2465262.7067       |                     |                    |
| FTG-17                   | 2" MI 45° BEND    | 1+62.11  | 767.89 | 815039.3341         | 2465324.6347       |                     |                    |
| FTG-18                   | 2" MI 45° BEND    | 1+67.11  | 767.78 | 815034.3543         | 2465324.1857       |                     |                    |

FORCE MAIN FITTING TABLE

|   |                             |   |                    |
|---|-----------------------------|---|--------------------|
|  |                             |                                        |                    |
| 8150 STERLING COURT<br>MENTOR, OHIO 44060<br>(440) 951-8000                           |                             | ASHTABULA COUNTY<br>KINGSVILLE REGIONAL SEWER IMPROVEMENTS<br>GRAVITY SEWER PLAN & PROFILE - 10 SERIES<br>FORCE MAIN TABLES |                    |
| PROJECT NO:<br>232478   | SHEET NO:<br>50C-02         | DATE:<br>3/4/2025   | SCALE:<br>AS NOTED |
| DRAWN BY:<br>CHECKED BY:  | DESIGNED BY:<br>PTI REVIEW: | NO:   | REVISION:          |
| 35  | 43                          |   |                    |

| BASE I.D. | MIN. THICKNESS |
|-----------|----------------|
| 4'-0"     | 5"             |
| 5'-0"     | 5"             |
| 6'-0"     | 5"             |
| 7'-0"     | 7"             |
| 8'-0"     | 8"             |

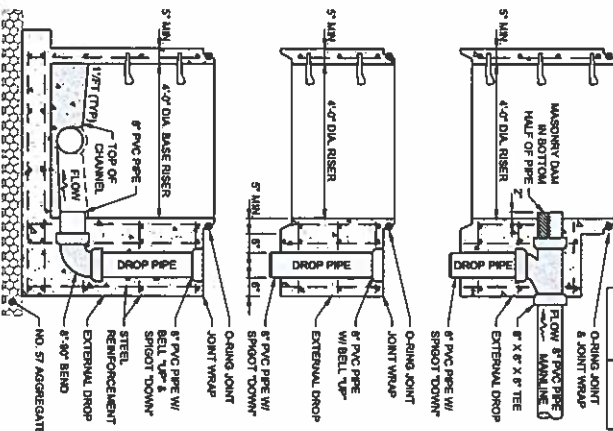


- NOTES:
1. TOP SECTION SHALL BE AN ECCENTRIC CONE. ROTATE CONE TO OFFSET MANHOLE CASTING TO AVOID SPALLS UNDERNEATH AND CURBS. USE FLAT SLAB TOP IF MANHOLE IS LESS THAN 6'-3\"/>
  - 2. CURB JOINT BETWEEN PRECAST MANHOLE SECTIONS SHALL BE RESILIENT WATER-TIGHT GASKET PER ASTM C-443.
  - 3. PRECAST MANHOLE AND REINFORCEMENT SHALL CONFORM TO ASTM C-478.
  - 4. BASE MUST BE PRECAST MONOLITHIC WITH BASE RISER.
  - 5. ALL PIPE OPENINGS MUST BE PRECAST WITH FLEXIBLE CONNECTIONS (2-LOK OR ALONG) PER ASTM C-478.
  - 6. WRAP ALL RISER AND OUTSIDE MANHOLE JOINTS WITH 2\"/>
  - 7. EXTERIOR JOINT WRAP PER ASTM C-477 TYPE II, CONCRETE CS-312.
  - 8. CONCRETE CHANNEL TOP SHALL EXTEND TO FULL HEIGHT OF PIPE. IN THE BASE SECTION, ALL PIPES SHALL HAVE FOAMED LAMBERT'S ALL PRECAST CONCRETE SECTIONS SHALL BE MANUFACTURED AND FINISHED AS BOULDER SECTIONS WITHOUT LEFT HOLES OR HANGERS.
  - 9. ALL PRECAST CONCRETE SECTIONS SHALL BE MANUFACTURED AND FINISHED AS BOULDER SECTIONS WITHOUT LEFT HOLES OR HANGERS.
  - 10. USE REINFORCED PLASTIC MANHOLE STEPS.
  - 11. FIRST STEP SHALL NOT BE MORE THAN 2'-7\"/>
  - 12. MANHOLE MUST PASS A WATERTIGHT TEST PER ASTM C-1244.
  - 13. ANY PRECAST CONCRETE SECTION DAMAGED IN TRANSPORT OR ON-SITE AND WHERE THE WATER TIGHTNESS OF THE SECTION HAS BEEN ADVERSELY AFFECTED SHALL BE REPLACED AND NOT UTILIZED IN THE CONSTRUCTION OF THE MANHOLE.

**PRECAST CONCRETE MANHOLE (SANITARY) DETAIL**

SCALE: NONE

| MANHOLE PIPE DIA. | DROP PIPE DIA. |
|-------------------|----------------|
| 6" - 15"          | 6"             |
| 18" - 24"         | 18"            |
|                   | 24"            |

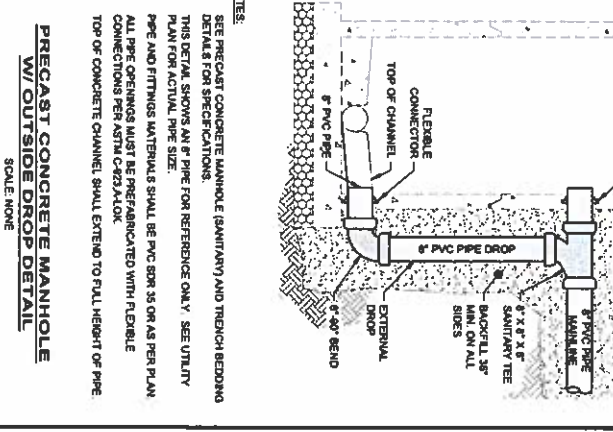


- NOTES:
1. SET PRECAST CONCRETE MANHOLE (SANITARY) DETAIL FOR MANHOLE SPECIFICATIONS, DIMENSIONS, ETC.
  2. THIS DETAIL SHOWS A 4'-0\"/>
  - 3. REFER TO PLAN FOR ACTUAL MANHOLE AND PIPE SIZES, INVERTS, SLOPES, ETC.
  - 4. PIPE AND FITTINGS SHALL BE PVC SDR 35.
  - 5. TOP OF CONCRETE CHANNEL SHALL EXTEND TO FULL HEIGHT OF PIPE.

**PRECAST CONCRETE MANHOLE W/ INTEGRAL DROP CONNECTION DETAIL**

SCALE: NONE

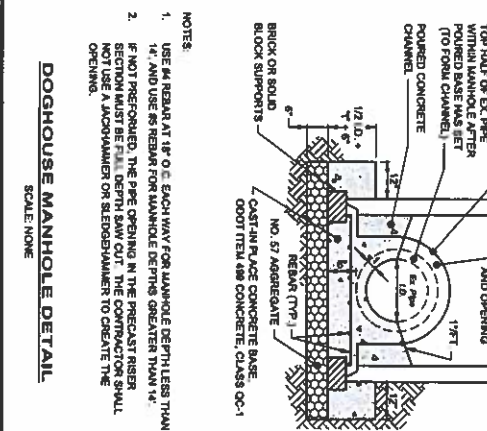
| MANHOLE PIPE DIA. | DROP PIPE DIA. |
|-------------------|----------------|
| 6" - 10"          | 6"             |
| 12" - 24"         | 12"            |
|                   | 24"            |



**PRECAST CONCRETE MANHOLE W/ OUTSIDE DROP DETAIL**

SCALE: NONE

| MANHOLE PIPE DIA. | DROP PIPE DIA. |
|-------------------|----------------|
| 6" - 10"          | 6"             |
| 12" - 24"         | 12"            |
|                   | 24"            |



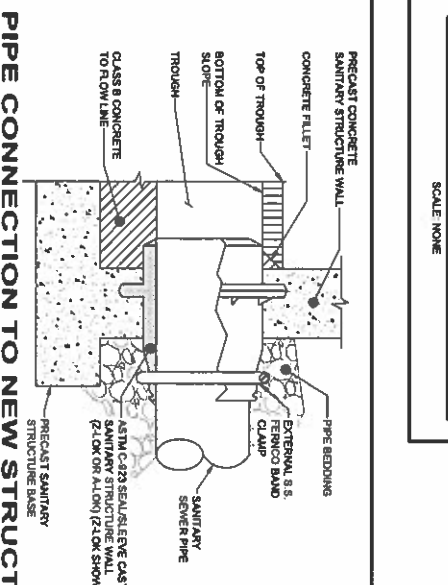
**DOGHOUSE MANHOLE DETAIL**

SCALE: NONE

- NOTES:
1. USE #4 REBAR AT 18" O.C. EACH WAY FOR MANHOLE DEPTHS LESS THAN 14" AND USE #6 REBAR FOR MANHOLE DEPTHS GREATER THAN 14".
  2. IF NOT PREFORMED, THE PIPE OPENING IN THE PRECAST RISER SECTION MUST BE FULL DEPTH SAW CUT. THE CONTRACTOR SHALL NOT USE A MACHINER OR SERRATED SAW TO CREATE THE OPENING.

**TYPICAL MANHOLE STEP DETAIL**

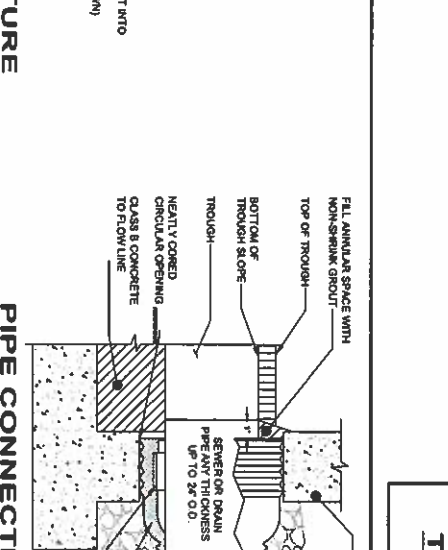
NOT TO SCALE



**PIPE CONNECTION TO NEW STRUCTURE DETAIL**

NOT TO SCALE

CONTRACTOR SHALL REFER TO MANUFACTURER DETAILS AND SPECIFICATIONS FOR SPECIFIC REQUIREMENTS NOT EXPLICITLY NOTED ON THESE DETAILS FOR INSTALLING NEW PIPE INTO AN EXISTING OR NEW PRE-CAST CONCRETE STRUCTURE.



**PIPE CONNECTION TO EXISTING STRUCTURE DETAIL**

NOT TO SCALE

CONTRACTOR SHALL REFER TO MANUFACTURER DETAILS AND SPECIFICATIONS FOR SPECIFIC REQUIREMENTS NOT EXPLICITLY NOTED ON THESE DETAILS FOR INSTALLING NEW PIPE INTO AN EXISTING OR NEW PRE-CAST CONCRETE STRUCTURE.

| NO. | REVISION | DATE |
|-----|----------|------|
|     |          |      |
|     |          |      |
|     |          |      |

|             |            |     |
|-------------|------------|-----|
| DESIGNED BY | PTI REVIEW | NO. |
| REVIEW BY   | 3/4/2025   |     |
| SCALE       | AS NOTED   |     |
| DRAWN BY    | BBB        |     |
| CHECKED BY  | T.M.       |     |

**ASHTABULA COUNTY**  
**KINGSVILLE REGIONAL SEWER IMPROVEMENTS**  
**ASHTABULA COUNTY** KINGSVILLE, OHIO  
**CIVIL - 50 SERIES**  
**CONSTRUCTION DETAILS - 1**

**verdantas**  
 8150 STERLING COURT  
 MENTOR, OHIO 44060  
 (440) 951-8000

**VERDANTAS ENGINEERS & ARCHITECTS**  
 LICENSED PROFESSIONAL ENGINEER  
 LICENSE NO. 9110

36  
 43

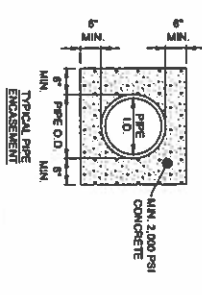
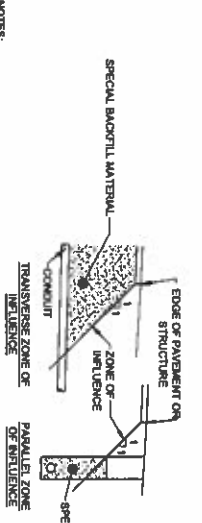
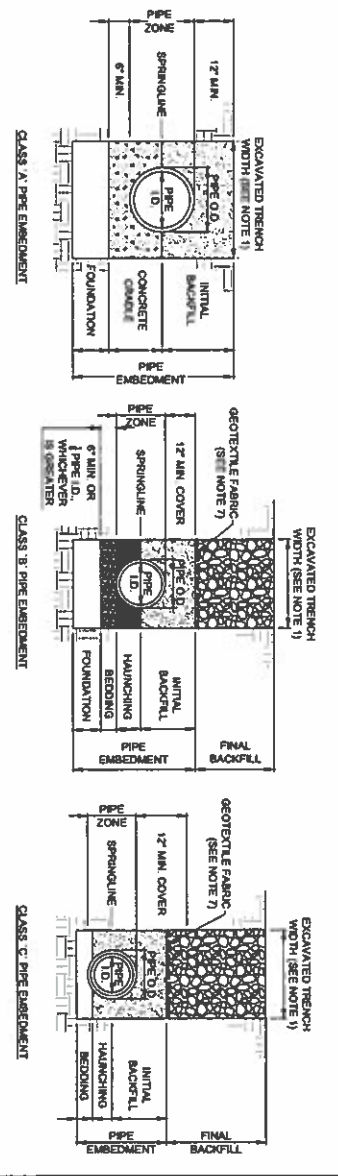


**verdantas**

8150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 851-8000

| NO | REVISION              | DATE     |
|----|-----------------------|----------|
| 1  | ISSUED FOR PFI REVIEW | 3/4/2025 |
| 2  | SCALE AS NOTED        |          |
| 3  | DRAWN BY JBB          |          |
| 4  | CHECKED BY TJM        |          |

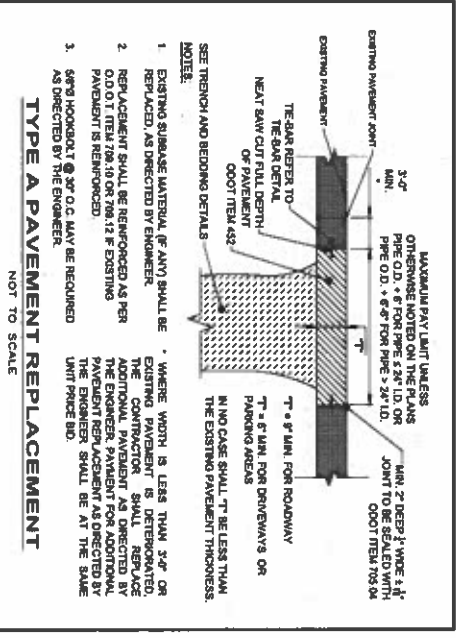
|   |                  |
|---|------------------|
| <b>ASHTABULA COUNTY</b>                       |                  |
| <b>KINGSVILLE REGIONAL SEWER IMPROVEMENTS</b> |                  |
| ASHTABULA COUNTY                              | KINGSVILLE, OHIO |
| <b>CIVIL - 50 SERIES</b>                      |                  |
| <b>CONSTRUCTION DETAILS - 2</b>               |                  |
| PROJECT NO.                                   | 232478           |
| DATE  | 3/4/25           |
| SCALE   | 50C-04           |
| NO.   | 37               |
| DATE  | 4/3              |



- NOTES:**
- MAXIMUM EXCAVATED TRENCH WIDTH: THE MAXIMUM EXCAVATED TRENCH WIDTH FROM THE BOTTOM OF THE TRENCH TO 12" OVER THE TOP OF THE PIPE (WITHIN PIPE EMBEDMENT) SHALL BE O.D. + 24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D. + 48" FOR PIPES FROM 24" I.D. TO 36" I.D. AND O.D. + 48" FOR PIPES SIZES 36" I.D. AND OVER.
  - FOUNDATION: IF REQUIRED FOR THIS PROJECT, AS PER THE GEOTECHNICAL REPORT, THE CONTRACTOR SHALL EXCAVATE AND REPLACE WITH A LAYER OF 8" OF ASPHALT NO. 1 AND NO. 2 CRUSHED LIMESTONE, FOLLOWED BY A LAYER OF 8" OF ASPHALT NO. 57 GRANULAR LIMESTONE.
  - PIPE EMBEDMENT:
    - CLASS A: PIPE EMBEDMENT SHALL BE USED FOR ALL PIPES UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12 INCHES OF PIPE COVER TO THE SUBGRADE. THE CONCRETE SHALL BE IN ACCORDANCE WITH ODOT ITEM 498, CLASS 'C'. THE INITIAL BACKFILL SHALL BE ASPHALT NO. 57 LIMESTONE GRANULAR PIPE EMBEDMENT.
    - CLASS B: CLASS B PIPE EMBEDMENT SHALL BE USED FOR ALL PIPES UNLESS OTHERWISE NOTED ON THE PLAN OR AS DIRECTED BY THE ENGINEER. THE HANDBOOK SHALL BE ASPHALT NO. 57 LIMESTONE GRANULAR PIPE EMBEDMENT IN ALL AREAS OUTSIDE OF PAVEMENT OR STRUCTURES OR THE ZONE OF INFLUENCE. THE INITIAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL, APPROVED BY THE ENGINEER FOR ONE Y REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE. THE INITIAL BACKFILL FOR ALL OTHER PIPES SHALL BE ASPHALT NO. 57 LIMESTONE GRANULAR PIPE EMBEDMENT.
    - CLASS C: CLASS C PIPE EMBEDMENT SHALL ONLY BE USED FOR DUCTILE IRON WATER MAIN, SHORT E ROLL FORCE MAIN OR AS APPROVED BY THE ENGINEER. THE PIPE EMBEDMENT SHALL BE ASPHALT NO. 57 LIMESTONE GRANULAR PIPE EMBEDMENT IN ALL AREAS OUTSIDE OF PAVEMENT OR STRUCTURES OR THE ZONE OF INFLUENCE. THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL, APPROVED BY THE ENGINEER IN ALL AREAS OUTSIDE OF PAVEMENT OR STRUCTURES OR THE ZONE OF INFLUENCE. WHERE ROCK OR SHALE IS ENCOUNTERED, A MINIMUM 6 INCHES OF ASPHALT NO. 57 LIMESTONE GRANULAR PIPE BEDDING OR SAND BEDDING SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
  - FINAL BACKFILL: IN ALL AREAS UNDER PAVEMENT OR STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE FINAL BACKFILL SHALL BE SPECIAL BACKFILL MATERIAL. IN ALL AREAS OUTSIDE OF PAVEMENT OR STRUCTURES OR THE ZONE OF INFLUENCE, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL, APPROVED BY THE ENGINEER. LHM SHALL BE USED IN PLACE OF SPECIAL BACKFILL MATERIAL WHEN TOP OF PIPE IS WITHIN 5' OF PAVEMENT OR WITHIN CITY RIGHT-OF-WAY OR UNLESS INDICATED ON DRAWINGS.
  - PREPARATIONS: ALL TRENCHING, PIPE EMBEDMENT AND BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATION 10000 - EXISTENCE.
  - CLAY TRENCH DAMS: CLAY TRENCH DAMS SHALL BE REQUIRED FOR EACH LATERAL, UPSTREAM OF EVERY MANHOLE, AS SHOWN ON THE DRAWINGS, AND AS DIRECTED BY THE ENGINEER.
  - GEOTEXTILE FABRIC: INSTALL A GEOTEXTILE FABRIC IN ACCORDANCE WITH ODOT ITEM 7128, TYPE A, AFTER ALL INITIAL BACKFILL CONSISTING OF ASPHALT NO. 57 LIMESTONE GRANULAR PIPE EMBEDMENT.
  - TYPICAL PIPE EMBEDMENT, AS PER PLAN OR AS DIRECTED BY THE ENGINEER.

**TRENCHING, EMBEDMENT, AND BACKFILL DETAIL**

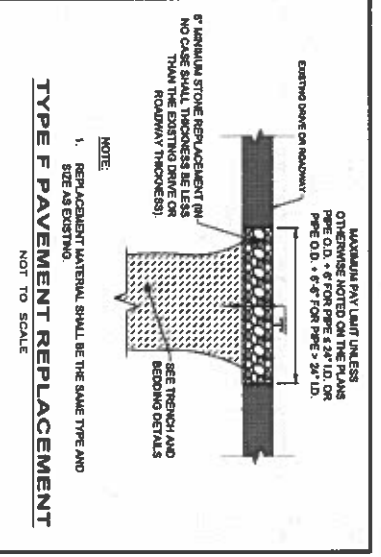
NOT TO SCALE



- NOTES:**
- EXISTING SURFACE MATERIAL (IF ANY) SHALL BE REMOVED AND REPLACED WITH ASPHALT NO. 57 LIMESTONE GRANULAR PIPE EMBEDMENT, AS DIRECTED BY THE ENGINEER.
  - REPLACEMENT SHALL BE REINFORCED AS PER O.D. IT ITEM 708.10 OR 708.12 IF EXISTING PAVEMENT IS REINFORCED.
  - 50% HOODGUT @ 3/4" O.C. MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

**TYPE A PAVEMENT REPLACEMENT**

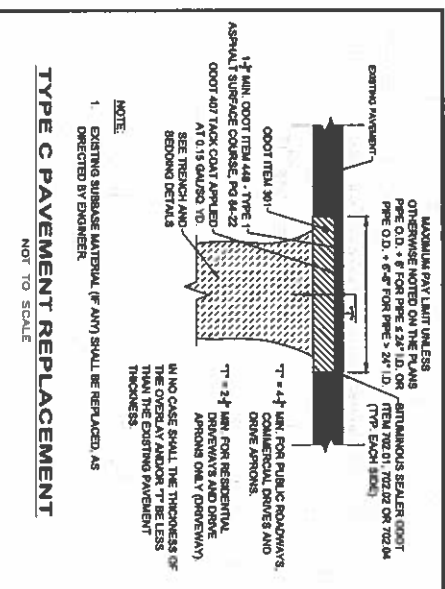
NOT TO SCALE



- NOTES:**
- REPLACEMENT MATERIAL SHALL BE THE SAME TYPE AND SIDE AS EXISTING.

**TYPE F PAVEMENT REPLACEMENT**

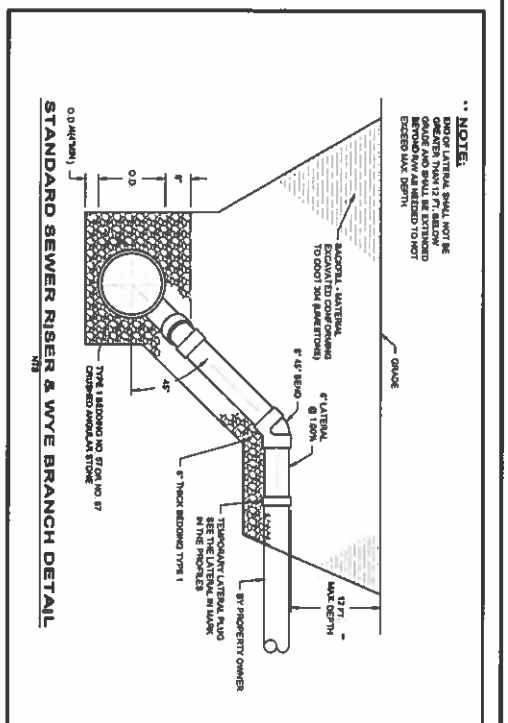
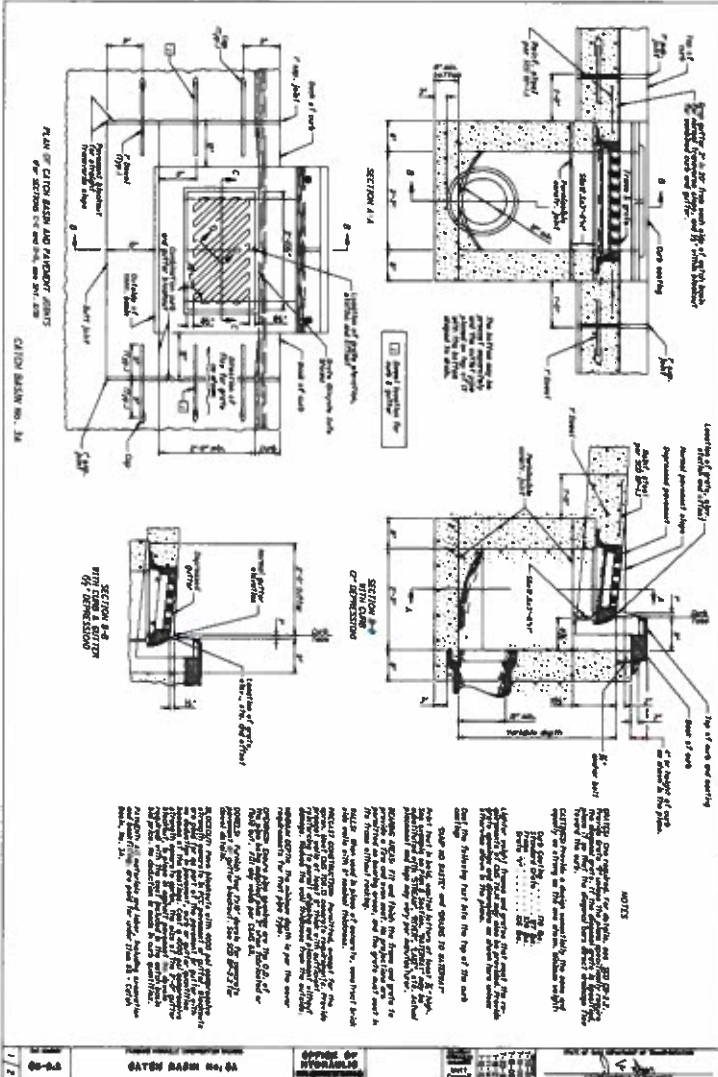
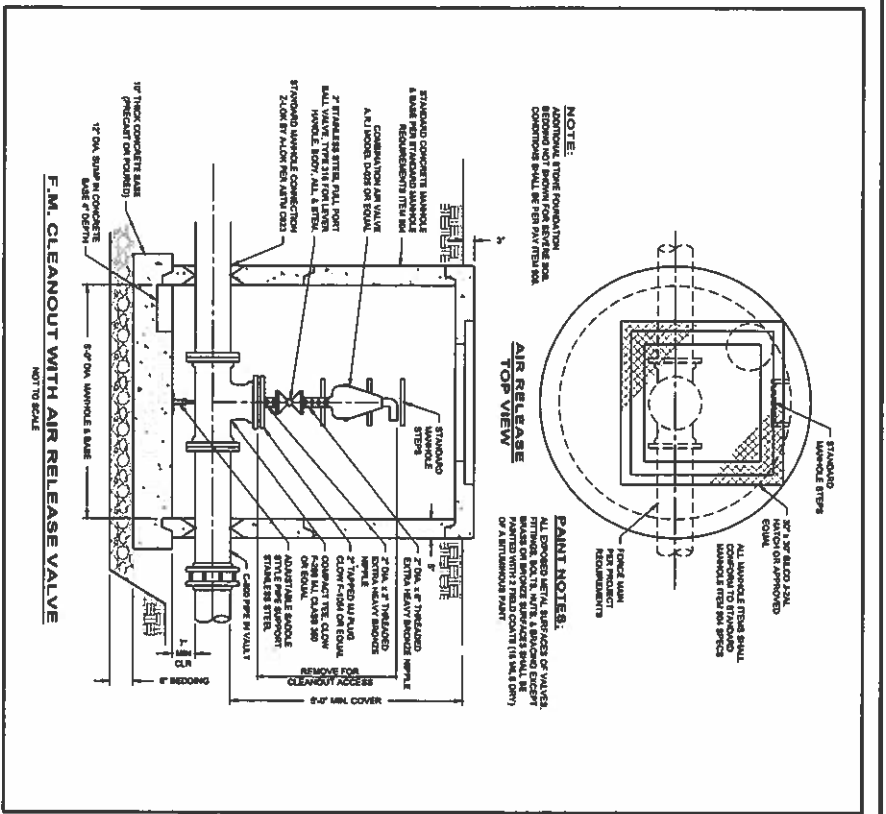
NOT TO SCALE



- NOTES:**
- EXISTING SURFACE MATERIAL (IF ANY) SHALL BE REPLACED AS DIRECTED BY THE ENGINEER.

**TYPE C PAVEMENT REPLACEMENT**

NOT TO SCALE

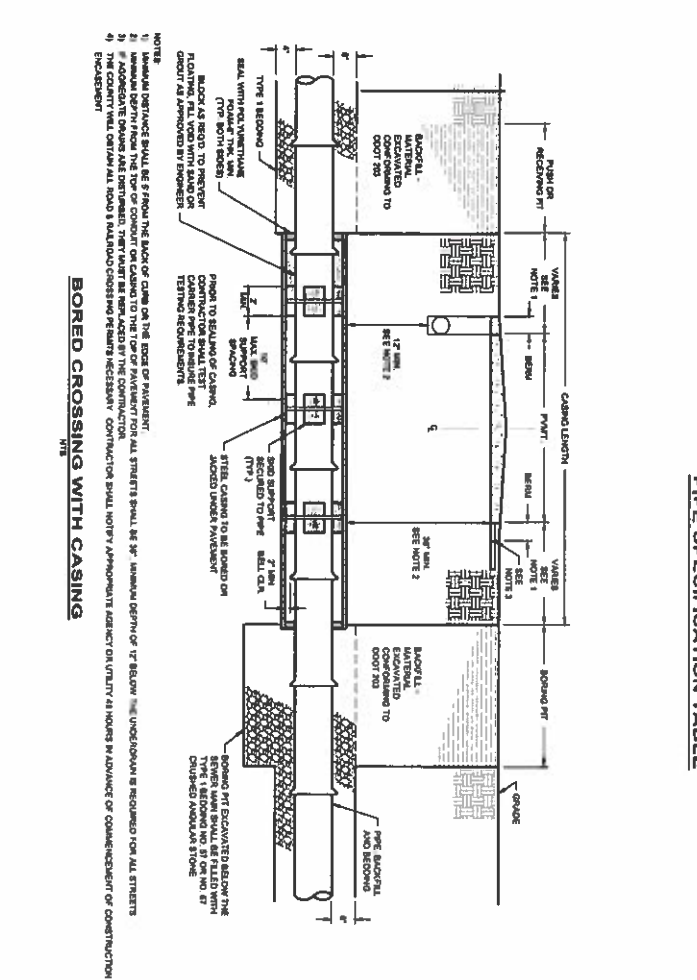


| PIPE SPECIFICATIONS   | MATERIAL             | JOINT       | BEDDING    |
|-----------------------|----------------------|-------------|------------|
| SANITARY SEWER        |                      |             |            |
| PVC SDR-35, 12" - 15" | ASTM D2024           | ASTM D2024  | ASTM D2231 |
| PVC SDR-35, 18" - 24" | ASTM D2024           | ASTM D2024  | ASTM D2231 |
| HDPE                  | ASTM 1248/ASTM D3504 | BUTT FUSION | ASTM D2311 |

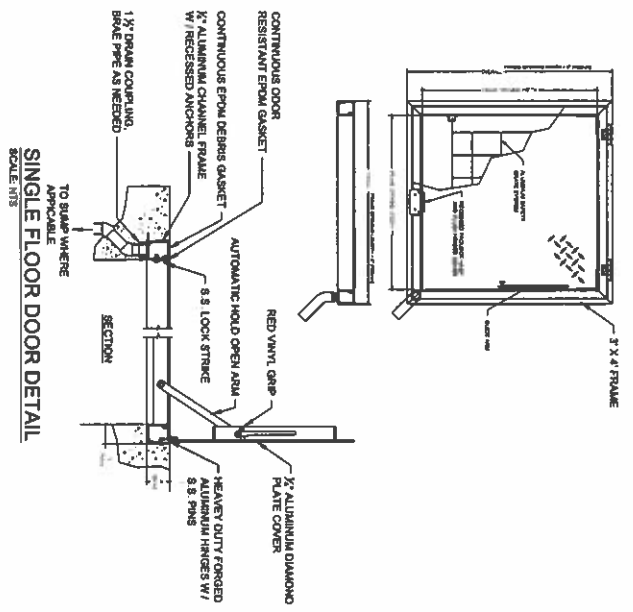
| FORCE MAIN | MATERIAL              | JOINT       | BEDDING    |
|------------|-----------------------|-------------|------------|
| PVC C-900  | AWWA C-900            | ASTM D3139  | ASTM D2311 |
| HDPE       | ASTM A1318/ASTM D3504 | BUTT FUSION | ASTM D2311 |

1. SANITARY SEWER PIPE LESS THAN 12 FT DEPTH BELOW GRADE SHALL BE SDR-35. ALL SANITARY SEWER PIPE GREATER THAN 12 FT DEPTH BELOW GRADE SHALL BE SDR-35.  
 2. IF PIPE ELEVATION VARIES BETWEEN ABOVE & BELOW THE 12 FT THRESHOLD, USE SDR-35 FOR ENTIRE RUN OF PIPE BETWEEN MANHOLES.  
 3. TRACER WIRE FOR NONMETALLIC PIPE IS REQUIRED FOR BOTH SANITARY SEWER AND FORCE MAIN LINES. 2 FOR FORCE MAINS 1 FOR SMALLER USE SDR-35 AND FOR FORCE MAINS & ON LARGER USE SDR-35.

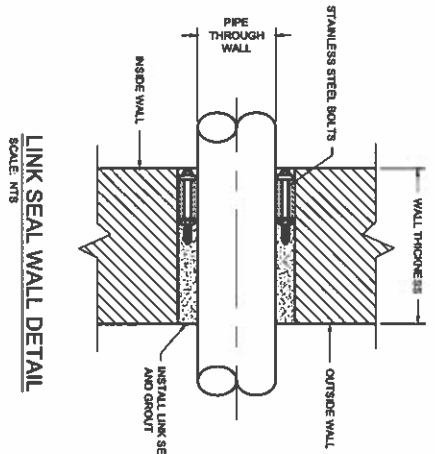




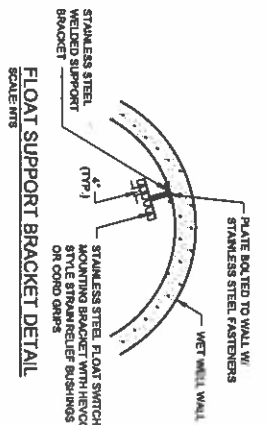




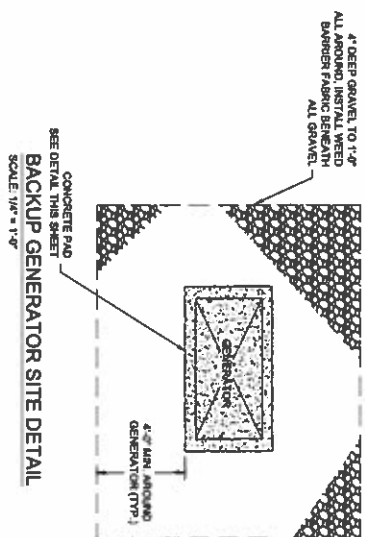
**SINGLE FLOOR DOOR DETAIL**  
SCALE: NTS



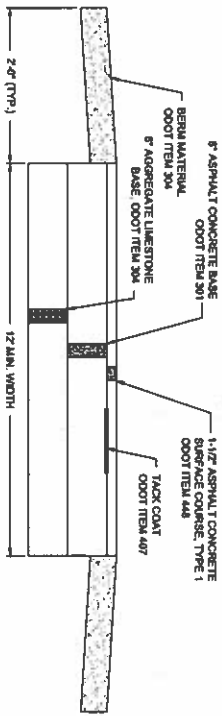
**LINK SEAL WALL DETAIL**  
SCALE: NTS



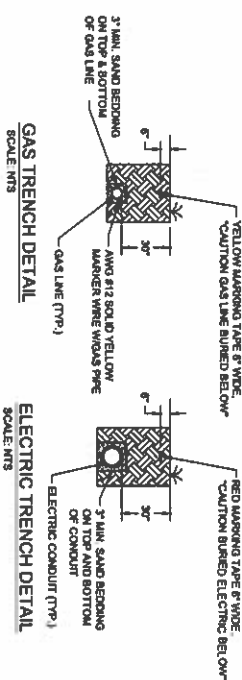
**FLOAT SUPPORT BRACKET DETAIL**  
SCALE: NTS



**BACKUP GENERATOR SITE DETAIL**  
SCALE: 1/4" = 1'-0"

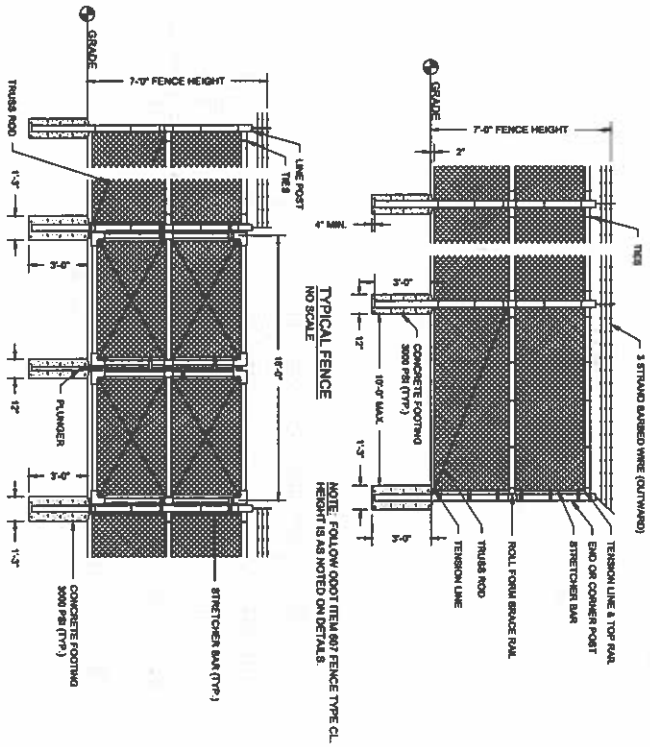


**DRIVEWAY PLACEMENT DETAIL**  
SCALE: NTS



**GAS TRENCH DETAIL**  
SCALE: NTS

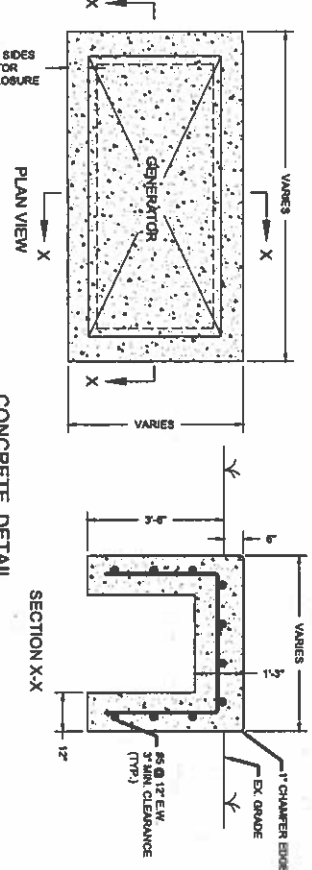
**ELECTRIC TRENCH DETAIL**  
SCALE: NTS



**TYPICAL FENCE**  
NO SCALE

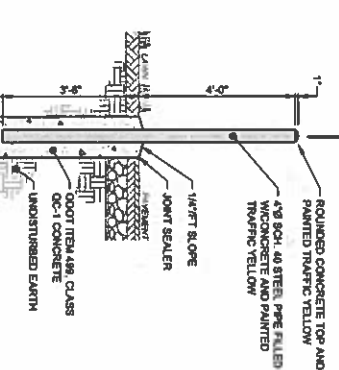
**TYPICAL GATE**  
NO SCALE

**CHAIN LINK FENCE DETAILS**



**CONCRETE DETAIL**  
SCALE: 1/2" = 1'-0"

- CONCRETE NOTES:**
1. CONCRETE PAD MEASUREMENTS TO BE FIELD VERIFIED AND SET BASED ON GENERATOR
  2. CONCRETE PAD AND FOUNDATION CONSTRUCTION SHALL BE MONOLITHIC
  3. REINFORCEMENT REBAR SHALL BE HELD IN PLACE WITH WIRE TIES AND CHAIR SUPPORTS. OTHER MATERIALS AND STOVE SUPPORT ARE PROHIBITED.



**BOLLARD (4\"/>**

| DATE | REVISION | NO | ISSUED FOR | PTI REVIEW |
|------|----------|----|------------|------------|
|      |          |    | 3/4/2025   |            |
|      |          |    | AS NOTED   |            |
|      |          |    | AMM        |            |
|      |          |    | JBB        |            |
|      |          |    | TJM        |            |

**verdantas**

8150 STERLING COURT  
MENTOR, OHIO 44060  
(440) 951-8060



|             |        |
|-------------|--------|
| PROJECT NO. | 232478 |
| PROCESS     | 60D-03 |
| DATE        | 41     |
| NO.         | 43     |

**ASHTABULA COUNTY**  
**KINGSVILLE REGIONAL SEWER IMPROVEMENTS**  
**ASHTABULA COUNTY** KINGSVILLE, OHIO  
**PROCESS - 60 SERIES**  
**STANDARD PUMP STATION DETAILS - 1**





