SET NO.

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS
DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK
APRIL 2025

BOARD OF PUBLIC WORKS

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WATER BOARD

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JOHN GARRETT	MEMBER
DERRICK HOLLOWAY	MEMBER
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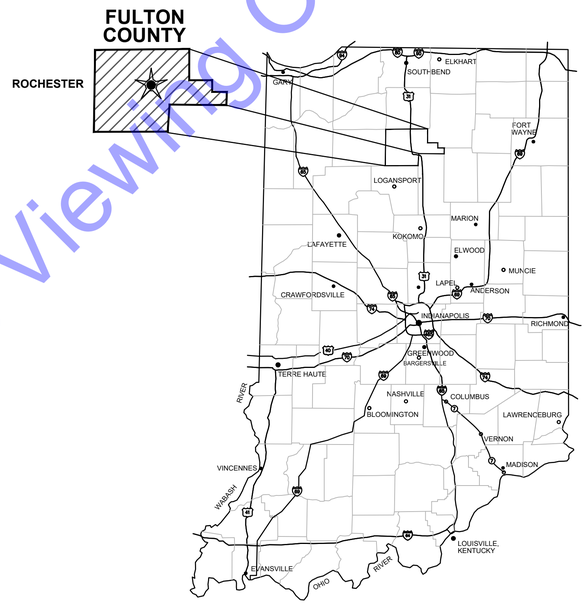
DERRICK HOLLOWAY	WATER SUPERINTENDENT
ANDREW PERKINS	CITY ATTORNEY



GENERAL LOCATION MAP

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QA/QC BY : ALBERT STONG, P.E. — DATE : 3/24/2025

CERTIFIED BY : John Wetzel — DATE : 3/21/2025
JOHN WETZEL, P.E.
INDIANA P.E. No. 19800122

JOHN W. WETZEL — REGISTERED — No. 19800122 — STATE OF INDIANA — PROFESSIONAL ENGINEER

CONTRACT NO. : W24086

File: Z:\SHARED\IN CLIENTS M-Z\ROCHESTER\D W24086 2024-2025 WATER UTILITY IMPRV PROJECT\06 CAD\A CURRENT FILES\1 DRAWINGS\DIV B TANK\01-TITLE SHEET.DWG
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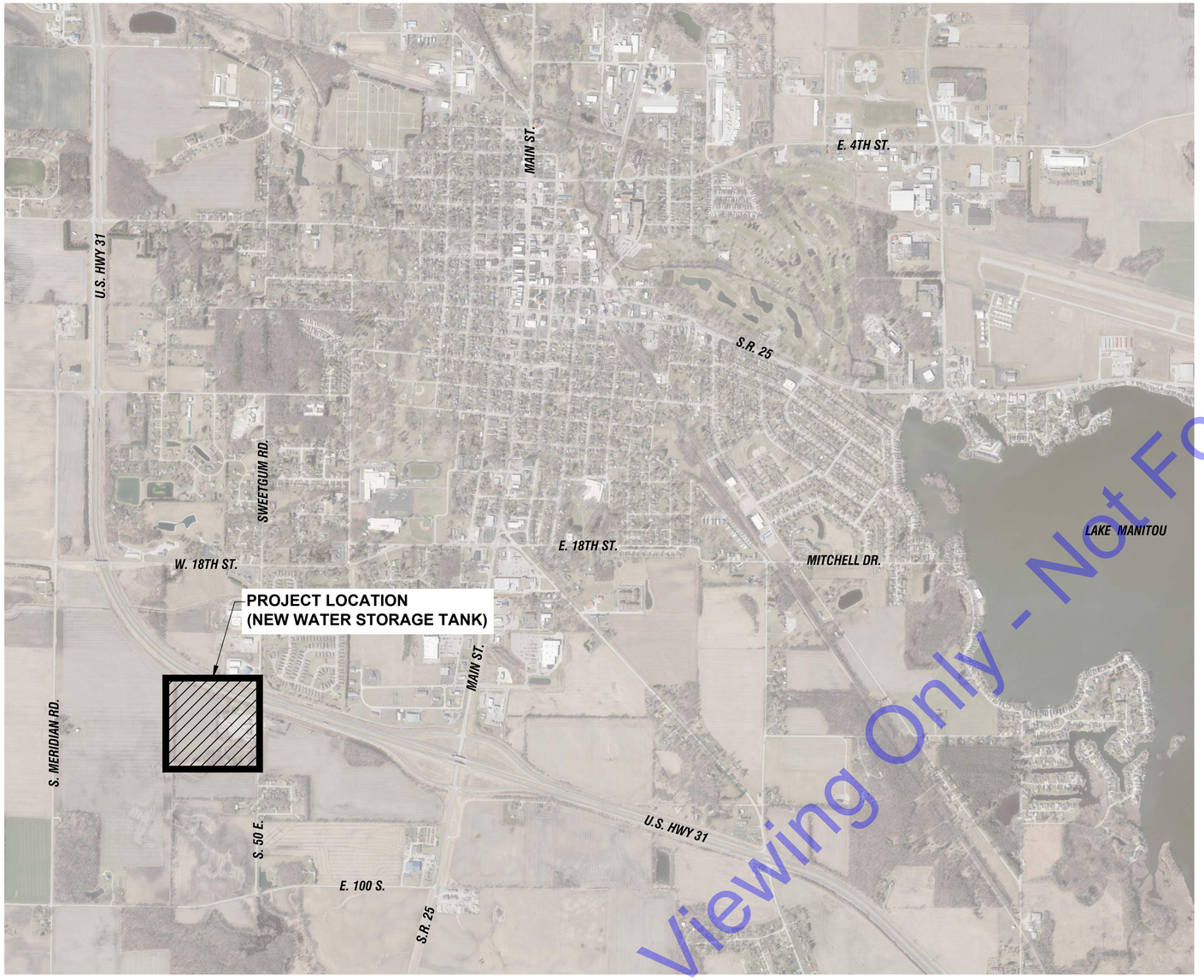

VICINITY MAP

SCALE: 1"=1000'-0"

0' 1000' 2000'

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Signature 3/21/2025 Date

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Designed By:	Drawn By:	Checked By:
JWW	AH	ACS
Issue Date: 4/2/25	Project No: W24086	Scale: AS SHOWN

VICINITY MAP AND DRAWING SET INDEX

Drawing No: **G2**

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GENERAL ABBREVIATIONS

A	AIR
AB	ANCHOR BOLT
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
@	AT
APP.	APPARENT
ATT	AERATION TANK TRANSFER
AUTO	AUTOMATIC
AVG	AVERAGE
B	BAFFLE
BLDG	BUILDING
BM	BENCH MARK
BOT	BOTTOM
BRG	BEARING
CFM	CUBIC FEET PER MINUTE
CL	CENTERLINE
CO	CLEAN OUT
COL/C	COLUMN
CONC	CONCRETE
COP	COPPER
CJ	CONSTRUCTION JOINT
CW	COLD WATER
CY	CUBIC YARD
D	DRAIN
DEC	DECANT
DIA	DIAMETER
DIM	DIMENSION
DI	DUCTILE IRON PIPE
DL	DEAD LOAD
DSPT	DOWN SPOUT
DWG	DRAWING
E	ELECTRICAL CONDUIT
EA	EACH
EF	EACH FACE
EFFL	EFFLUENT
EL	ELEVATION
EW	EACH WAY
EX	EXISTING
EXF	EXHAUST FAN
EXP JP	EXPANSION JOINT
F	FILTER
FCAR	FLANGED COUPLING ADAPTER, RESTRAINED
FD	FLOOR DRAIN
FDN	FOUNDATION
FH	FIRE HYDRANT
FLD	FILTRATE DRAIN
FLG	FLANGE
FL	FLUSHING LINE
FLR	FLOOR
FM	FORCE MAIN
FRP	FIBER REINFORCED PLASTIC
FT	FEET OR FOOT
FTG	FOOTING
FW	FINISHED WATER
G	GAS
GALV	GALVANIZED
GEN	GENERAL
GRD	GROUND OR GRADE
HB	HOSE BIBB
HORIZ	HORIZONTAL
HP	HORSEPOWER
HW	HOT WATER
ID	INSIDE DIAMETER
IJ	ISOLATION JOINT
INV	INVERT
IP	IRON PIN
LAV	LAVATORY
LB	POUND
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LTG	LIGHTING
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MGD	MILLIONS GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM, MINUTE
MJ	MECHANICAL JOINT
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTACT
NO	NORMALLY OPEN
NO.	NUMBER
NPW	NON-POTABLE WATER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPG	OPENING
OPP	OPPOSITE
PB	PULL BOX
PE	POLYETHYLENE EXP. JT.
	MATERIAL
P/L	PROPERTY LINE
POJ	PUSH ON JOINT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PW	POTABLE WATER
R	RECIRULCATION
RAD	RADIUS
RAS	RETURN ACTIVATED SLUDGE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REINF	REINFORCING
REQ'D	REQUIRED
R/W (ROW)	RIGHT-OF-WAY
SAN	SANITARY
SAS	SANITARY SEWER
SCH	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SL	SAMPLE LINE
SOS	STORM SEWER
SP	STOP PLATE
SQ	SQUARE
STD	STANDARD
S STL, SS	STAINLESS STEEL
STL	STEEL
SUP	SUPERNATANT
SY	SQUARE YARD
TOS	TOP OF SLAB
TOW	TOP OF WALL
TW	TERTIARY WATER
TYP	TYPICAL
V	VACUUM OR VALVE
VAR	VARIES
VERT	VERTICAL
W	WEIR
W/	WITH
W/O	WITHOUT
WAS	WASTE ACTIVATED SLUDGE
WC	WATER CLOSET
WH	WATER HEATER
WL	WATER LINE
WWF	WELDED WIRE FABRIC
YH	YARD HYDRANT

GENERAL NOTES

1. ALL PROPERTY AND RIGHT-OF-WAY LINE INFORMATION SHOWN IN DRAWING SET ARE APPARENT AND SHALL NOT BE DEEMED EXACT LOCATIONS, UNLESS OTHERWISE NOTED. INFORMATION WAS OBTAINED VIA "INDIANA ON-LINE" GIS SHAPE FILES.
2. EXISTING UTILITY INFORMATION SHOWN IN DRAWING SET, MEETS "ASCE 36-02" QUALITY LEVEL **"C"**, UNLESS OTHERWISE NOTED.

   UTILITY COORDINATION AND PROJECT DIRECTION OF EXISTING SUBSURFACE UTILITY DATA:

   UTILITY QUALITY LEVEL DESCRIPTIONS:

   UTILITY QUALITY LEVEL A - PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATIONS OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. ACCURACY OF LOCATION MATCHES PROJECT SURVEY TOLERANCE.

   UTILITY QUALITY LEVEL B - INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION SUBSURFACE UTILITIES. THE RELIABILITY OF THIS INFORMATION IS SURVEYED TO PROJECT CONTROL AND SUBJECT TO ACCURACY LEVELS OF THE GEOPHYSICAL TOLERANCE DEFINED BY THE PROJECT.

   UTILITY QUALITY LEVEL C - INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE GROUND UTILITY FEATURES AND CORRELATING QUALITY LEVEL "D" INFORMATION.

   UTILITY QUALITY LEVEL D - INFORMATION DERIVED FROM EXISTING RECORDS OR VERBAL RECOLLECTIONS.
3. CONTRACTOR TO MAINTAIN 10'-0" HORIZONTAL AND 1'-6" VERTIAL SEPARATION BETWEEN SEWERS (INCLUDING SERVICE LATERALS AND WATER MAINS IN ACCORDANCE WITH IDEM REQUIREMENTS UNLESS SPECIFICALLY NOTED IN THE PLANS OTHERWISE). MANHOLES AND WATER MAINS SHALL HAVE MINIMUM 8'-0" SEPARATION UNLESS NOTED IN THE PLANS OTHERWISE.
4. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING FACILITIES NEAR PROPOSED WORK ACTIVITIES. IF UTILITY CONFLICTS OCCUR, CONTRACTOR SHALL NOTIFY RPR PRIOR TO PROCEEDING WITH WORK.

GENERAL PROJECT NOTES

1. LIMITS OF CONSTRUCTION SHALL BE WITHIN EXISTING RIGHT-OF-WAYS UNLESS OTHERWISE NOTED.
2. FOR AREAS OUTSIDE OF EXISTING RIGHT-OF-WAYS, THE CONTRACTOR SHALL CONFINE ALL WORK TO THE LIMITS OF PERMANENT AND TEMPORARY EASEMENTS OR CONSTRUCTION LIMIT BOUNDARIES AS SHOWN ON THE DRAWINGS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING, AT NO ADDITIONAL COST TO THE CITY, TEMPORARY EASEMENTS NEEDED FOR STORAGE, STOCKPILING, ACCESS, OR ANY OTHER REASON, OUTSIDE OF ANY EASEMENTS OR RIGHT-OF-WAY PROVIDED.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRACKED ONTO ANY PUBLIC OR PRIVATE STREETS, PARKING LOTS, OR WALKS. THIS MATERIAL REMOVAL OR SWEEPING OF THE STREETS SHALL BE DONE AS FREQUENTLY AS NECESSARY TO MAINTAIN REASONABLY CLEAN AREAS. THE CONTRACTOR SHALL ALSO CONTROL DUST THROUGH THE USE OF WATERING, APPLICATION OF DUST PALLIATIVE, OR OTHER APPROVED METHODS. NO DIRECT PAYMENT WILL BE MADE FOR ANY SUCH CLEANING WORK OR DUST CONTROL.
5. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS OBTAINED FOR THE PROJECT.
6. THE CONTRACTOR SHALL PRESERVE AND PROTECT PROPERTY MARKERS, SECTION CORNERS, SURVEY MARKS AND BENCHMARKS, SUCH AS STONES, PIPES, OR OTHER MONUMENTS ENCOUNTERED. IF THE CONTRACTOR MUST DISTURB THE PROPERTY MARKERS OR MONUMENTS, THEIR HORIZONTAL AND VERTICAL LOCATION SHALL BE DETERMINED AND RECORDED BY A REGISTERED LAND SURVEYOR AND THE OWNER NOTIFIED BEFORE DISTURBING. ALL PROPERTY MARKERS AND MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RE-ESTABLISHED BY A REGISTERED LAND SURVEYOR.
7. ROADWAY SURFACING AND BASE MATERIALS OR OTHER PROPERTY REMOVED OR DAMAGED, SHALL BE REPLACED OR REPAIRED AS PROVIDED FOR IN THE CONTRACT DOCUMENTS.
8. REGRADE AREAS AS NECESSARY WITHIN THE CONSTRUCTION LIMITS TO ALLOW PROPER DRAINAGE TO EXISTING STORM SEWER STRUCTURES. ANY EXCESS SOIL AND SPOIL MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR OFF-SITE.
9. CONTRACTOR SHALL MAINTAIN A MINIMUM VERTICAL SEPARATION OF 18-INCH BETWEEN ANY EXISTING WATER MAIN AND PROPOSED SEWERS.
10. CONTRACTOR SHALL PLAN CONSTRUCTION ACTIVITIES TO MINIMIZE IMPACT TO LOCAL TRAFFIC, LOCAL TRAFFIC ACCESS, INCLUDING ACCESS TO ALL RESIDENCES AND EMERGENCY VEHICLES MUST BE MAINTAINED AT ALL TIMES SUCH TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE LATEST EDITION OF THE MUTCD AND ALL APPLICABLE INDIANA SUPPLEMENTS.
11. CONTRACTOR SHALL WORK CLOSELY WITH OWNER TO KEEP MAIN ISOLATIONS IMPACT ON WATER CUSTOMERS TO A MINIMUM. EXISTING WATER MAIN SHALL REMAIN IN SERVICE,. ANY NECESSARY TIME OUT OF SERVICE SHALL BE AS ALLOWED BY THE CITY.

HATCHING SYMBOLS

- -CMU WALL (PLAN VIEW) -GRANULAR BACKFILL (PROFILE VIEW)
- - DEMOLITION (CONTRACTOR SHALL REFER TO DETAILED SPECIFICATIONS)
- - GROUT
- - CONCRETE
- - STEEL
- - COMPACTED GRANULAR BACKFILL OR COMPACTED FOUNDATION
- - ABANDONED IN PLACE

DRAWING SET LEGEND

- EXOHT — EXISTING OVERHEAD TELEPHONE LINE
- EXG — EXISTING GAS LINE AND VALVE
- EXW — EXISTING WATER LINE AND VALVE
- EXF/O — EXISTING FIBER OPTIC LINE
- EXOHE — EXISTING OVERHEAD ELECTRIC LINE
- EXBE — EXISTING BURIED ELECTRIC
- NPW — EXISTING NON-POTABLE WATER LINE
- POT — EXISTING POTABLE WATER LINE
- EXBT — EXISTING BURIED TELEPHONE LINE
- X — EXISTING FENCE
- R/W — RIGHT-OF-WAY
- APP. R/W — APPARENT RIGHT-OF-WAY
- APP. P/L — APPARENT PROPERTY LINE
- EDGE OF ROAD
- EDGE OF ROAD WITH CURB
- 785 — EXISTING MAJOR CONTOUR LINE
- EXISTING MINOR CONTOUR LINE
- W — **NEW WATER LINE**
- 785 — **PROPOSED MAJOR CONTOUR LINE**
- 784 — **PROPOSED MINOR CONTOUR LINE**

- AC UNIT
- BOLLARD
- BOULDER / LARGE ROCK
- CL — CENTER LINE MONUMENT
- RW — CENTER LINE MONUMENT
- CONTROL POINT / BENCH MARK
- DRILL HOLE
- MB — MAIL BOX
- FLAG POLE
- POST
- STUMP
- BUSH / HEDGE
- DECIDUOUS TREE
- CONIFEROUS TREE
- SIGN
- UTILITY LOCATE FLAG
- GAS LINE MARKER
- GV — GAS VALVE
- GAS METER
- GUY POLE
- POWER POLE
- LIGHT POLE
- GUY WIRE
- EM — ELECTRIC METER
- ELECTRIC PANEL
- ET — ELECTRIC TRANSFORMER
- HAND HOLE BOX
- FIBER OPTIC MARKER
- TP — TEL/TV PEDESTAL

- T — TELEPHONE MANHOLE
- TELEPHONE LINE MARKER
- TR — TRAFFIC MANHOLE
- WATER LINE MARKER
- W — WATER METER
- VALVE
- IV — IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- FLUSH HYDRANT
- YARD HYDRANT
- WALL SPIGOT
- EXISTING PIPE PLUG
- STORM CATCH BASIN (SQUARE)
- STORM CATCH BASIN (ROUND)
- STORM CURB INLET
- D — STORM MANHOLE
- S — SANITARY MANHOLE
- SV — SANITARY VALVE
- CLEANOUT
- VENT
- **NEW VALVE**
- **NEW FIRE HYDRANT**
- **NEW FLUSH HYDRANT**
- **NEW WET SADDLE AND VALVE BODY**
- **NEW PLUG**
- EN — **NEW LINE STOP**
- **NEW CUT AND CAP**
- **NEW SANITARY MH**

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John Wetzel — Signature — 3/21/2025 Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

Indiana 811 — Know what's below. 811 before you dig. 1-800-382-5544 (IT'S THE LAW)

No.	Submittal / Revision	By	Date

Designed By:	Drawn By:	Checked By:
JWW	AH	ACS
Issue Date: 4/2/25	Project No: W24086	Scale: AS SHOWN

GENERAL ABBREVIATIONS, LEGEND, SYMBOLS, AND NOTES

Drawing No: **G3**

Sheet: 03 OF 53

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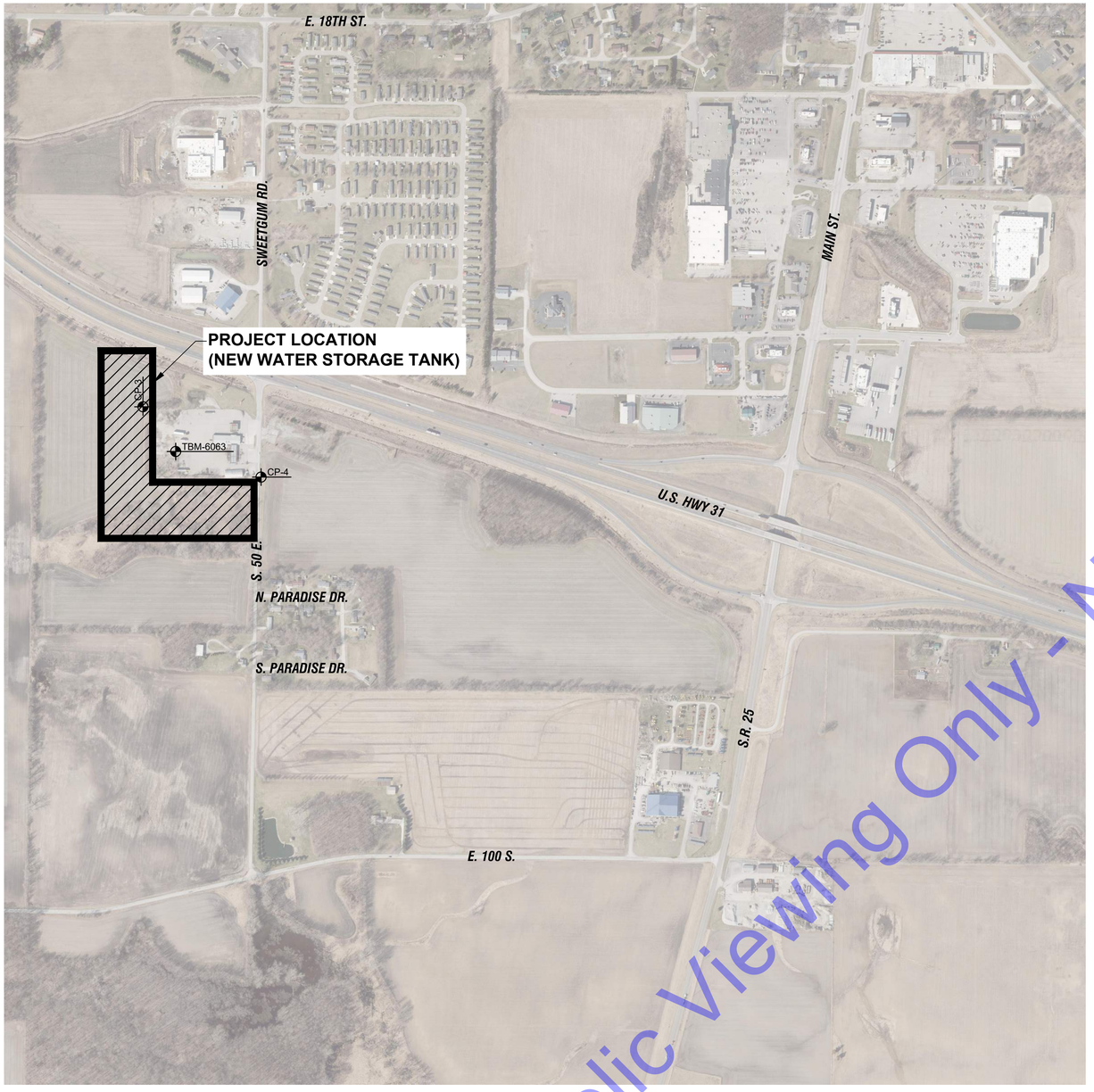

VICINITY MAP

SCALE: 1"=400'-0"

0 400' 800'

CONTROL POINT INFORMATION			
IDENTIFIER	**NORTHING**	**EASTING**	**DESCRIPTION**
CP-3	2112942.1160	171833.4020	CP /CAPRBR
CP-4	2112526.2450	172532.0260	CP /CAPRBR

TEMPORARY BENCHMARK INFORMATION		
IDENTIFIER	**ELEVATION**	**DESCRIPTION**
TBM-6063	790.48	TBM /BOATSPK1.0UP -NSIDE-LP

Project coordinates are based on the following:
HORIZONTAL-US State plane coordinates: NAD83 *(North American Datum)* Indiana West Zone (1302)
VERTICAL- USGS 1988 NAVD (North American Vertical Datum)

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Signature

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SURVEY DATA

Drawing No:
G4
Sheet: 04 OF 53

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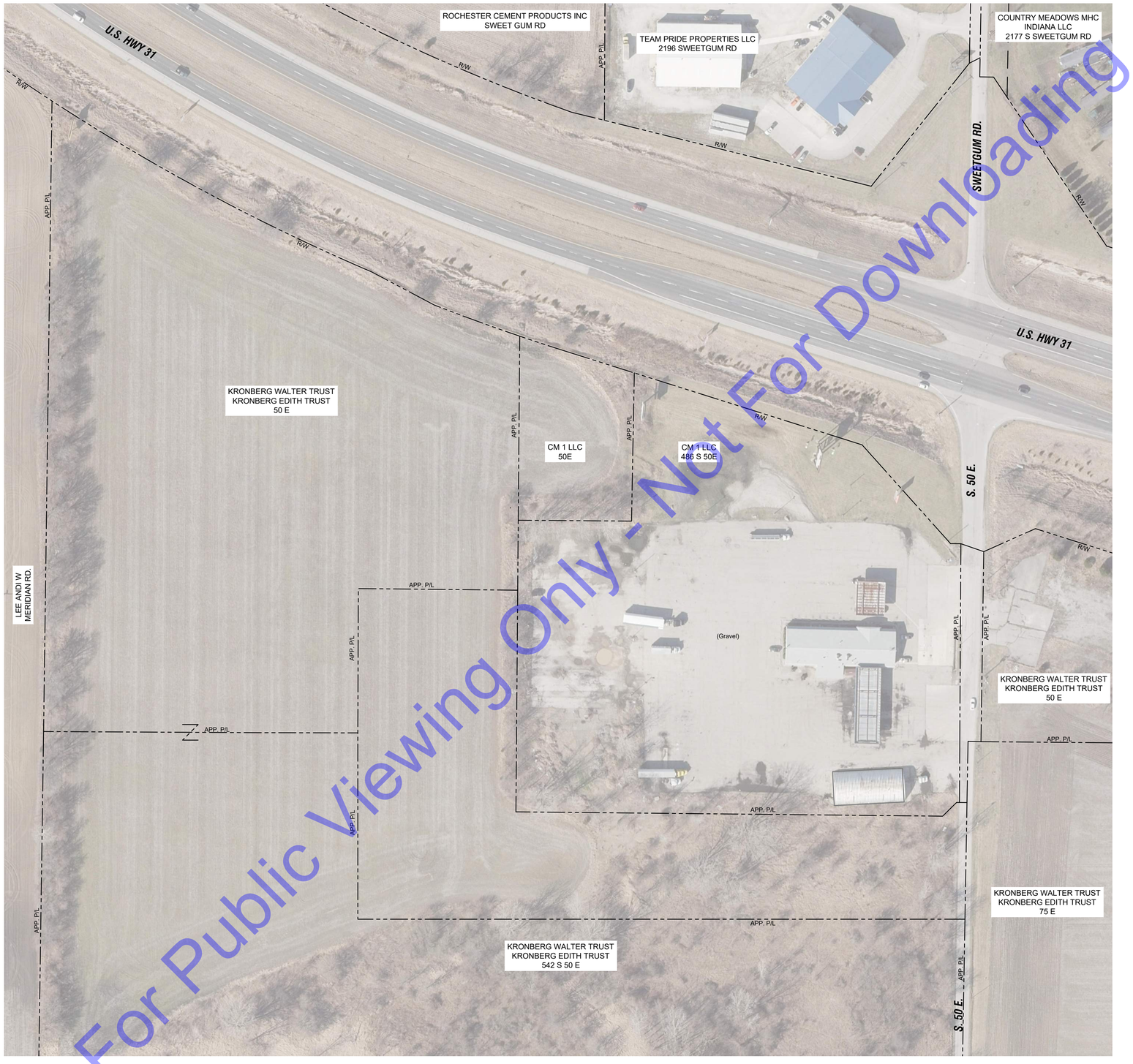

NEW TANK SITE PLAN

SCALE: 1"=80'-0"

0 80' 160'

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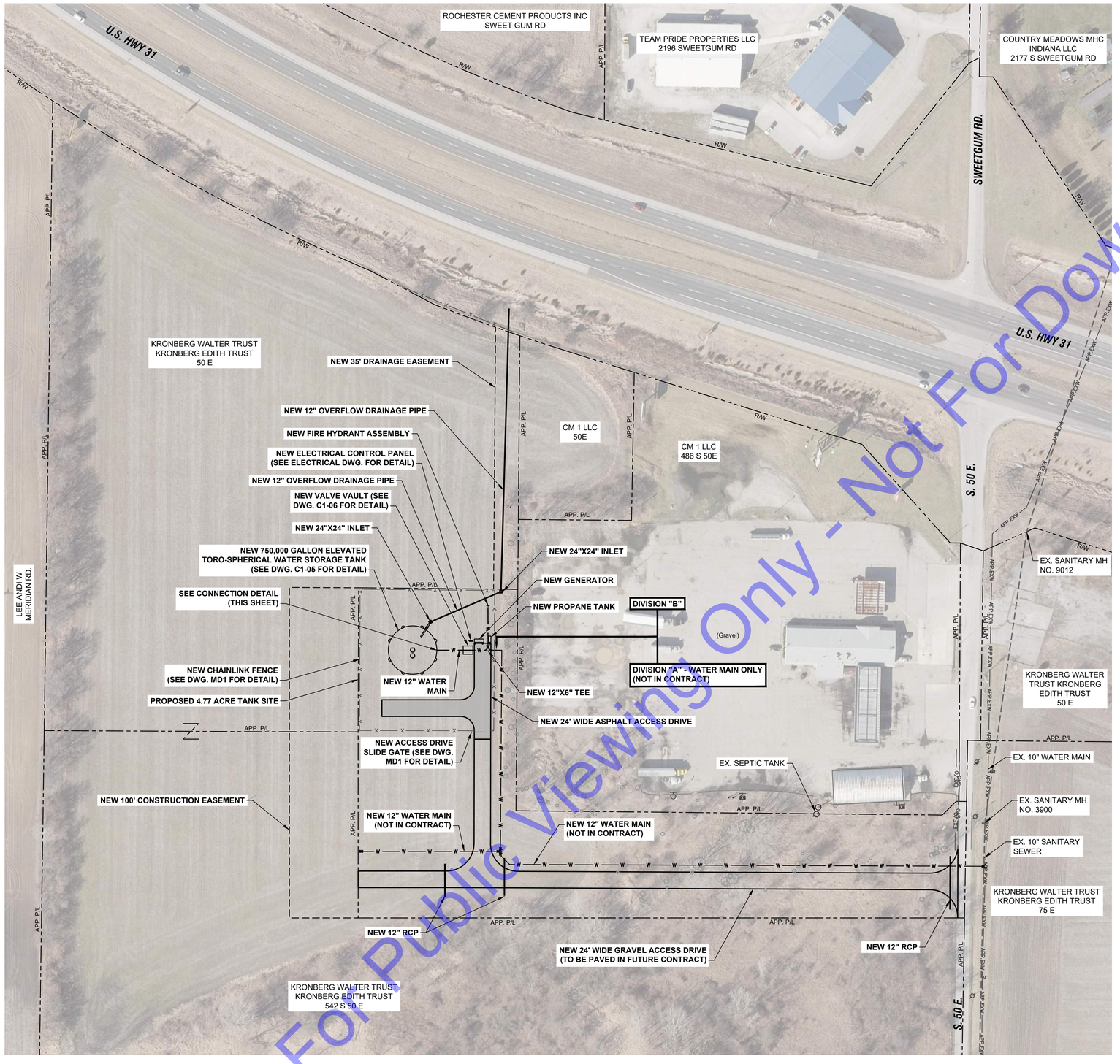
NEW WATER STORAGE TANK SITE PLAN

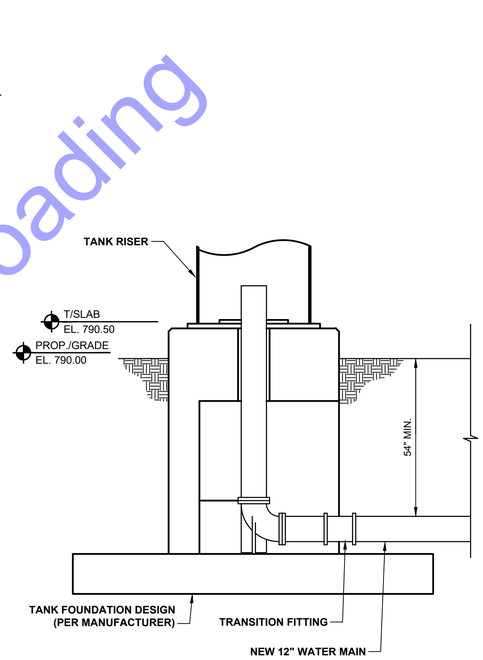
Drawing No:
C1-01
Sheet: 05 OF 53



NEW TANK SITE IMPROVEMENTS PLAN

SCALE: 1"=80'-0"

0 80' 160'



CONNECTION DETAIL

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JOHN W. WETZEL
REGISTERED
No. 19800122
STATE OF INDIANA
PROFESSIONAL ENGINEER

John Wetzel — Signature — 3/21/2025 Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON
ELEVATED STORAGE TANK

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NEW WATER STORAGE TANK SITE IMPROVEMENTS PLAN

Drawing No:
C1-02
Sheet: 06 OF 53

File: Z:\SHARED\IN CLIENTS M-Z\ROCHESTER\D W24086 2024-2025 WATER UTILITY IMPRV PROJECT\06 CAD\A CURRENT FILES\1 DRAWINGS\DIV B TANK\04-SITE PLAN DRAWINGS.DWG
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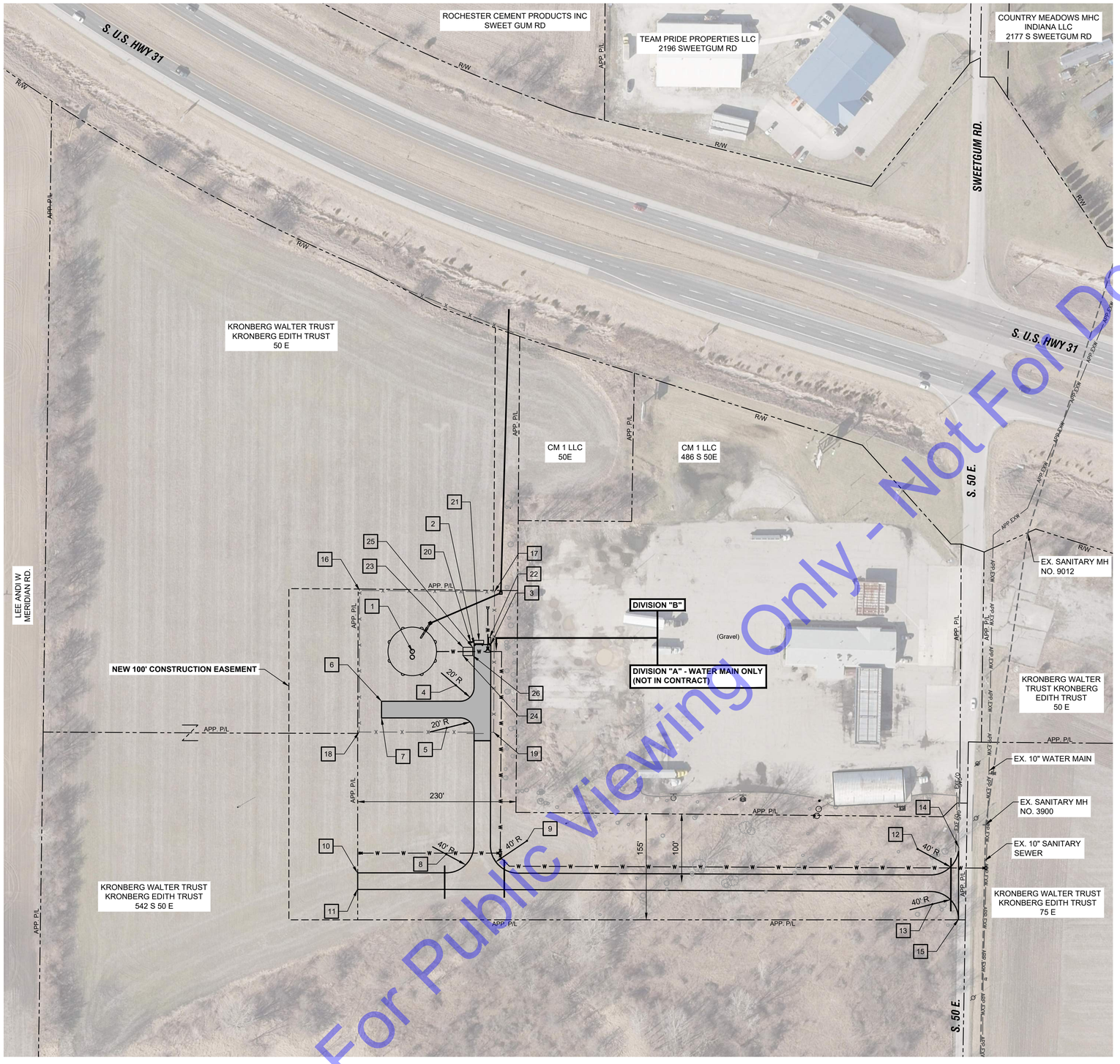

NEW TANK SITE DIMENSIONING PLAN

SCALE: 1"=80'-0"

0 80' 160'

LOCATION KEYNOTES [#]

#	DESCRIPTION	NORTHING	EASTING
1	CENTER OF ELEVATED STORAGE TANK	2112741.2880	1717711.1583
2	ASPHALT DRIVEWAY	2112751.2138	1717773.8522
3	ASPHALT DRIVEWAY	2112751.2153	1718243.3845
4	ASPHALT DRIVEWAY - 20' RADIUS	2112675.1718	1717943.3922
5	ASPHALT DRIVEWAY - 20' RADIUS	2112639.4281	1717944.4550
6	ASPHALT DRIVEWAY	2112671.2618	1717666.7373
7	ASPHALT DRIVEWAY	2112643.4006	1717666.7373
8	GRAVEL DRIVEWAY - 40' RADIUS	2112433.4389	1717881.1334
9	GRAVEL DRIVEWAY - 40' RADIUS	2112432.6856	1718359.9401
10	GRAVEL DRIVEWAY	2112421.8248	1717631.8905
11	GRAVEL DRIVEWAY	2112397.8901	1717631.8905
12	GRAVEL DRIVEWAY - 40' RADIUS	2112430.3720	1724885.5633
13	GRAVEL DRIVEWAY - 40' RADIUS	2112383.0855	1724885.3536
14	GRAVEL DRIVEWAY END OF RADIUS	2112458.7192	1725000.3420
15	GRAVEL DRIVEWAY END OF RADIUS	2112354.8442	1725000.0263
16	FENCE CORNER	2112829.3550	1716351.1226
17	FENCE CORNER	2112827.3775	1718297.7304
18	FENCE CORNER	2112624.9976	1716340.4038
19	FENCE CORNER	2112624.5617	1718284.4367
20	ELECTRICAL CONTROL PANEL	2112755.4228	1717951.1123
21	NEW GENERATOR	2112754.8857	1718071.1874
22	NEW PROPANE TANK	2112757.0551	1718228.8845
23	VALVE VAULT - NW CORNER	2112747.2880	1717842.6742
24	VALVE VAULT - SW CORNER	2112735.2880	1717842.6742
25	VALVE VAULT - NE CORNER	2112747.2880	1717982.6742
26	VALVE VAULT - SE CORNER	2112735.2880	1717982.6742

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REGISTERED
No. 19800122
STATE OF INDIANA
PROFESSIONAL ENGINEER

John Wetzel
Signature

3/21/2025
Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON
ELEVATED STORAGE TANK

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NEW WATER STORAGE TANK SITE DIMENSIONING PLAN

Drawing No:
C1-03
Sheet: 07 OF 53

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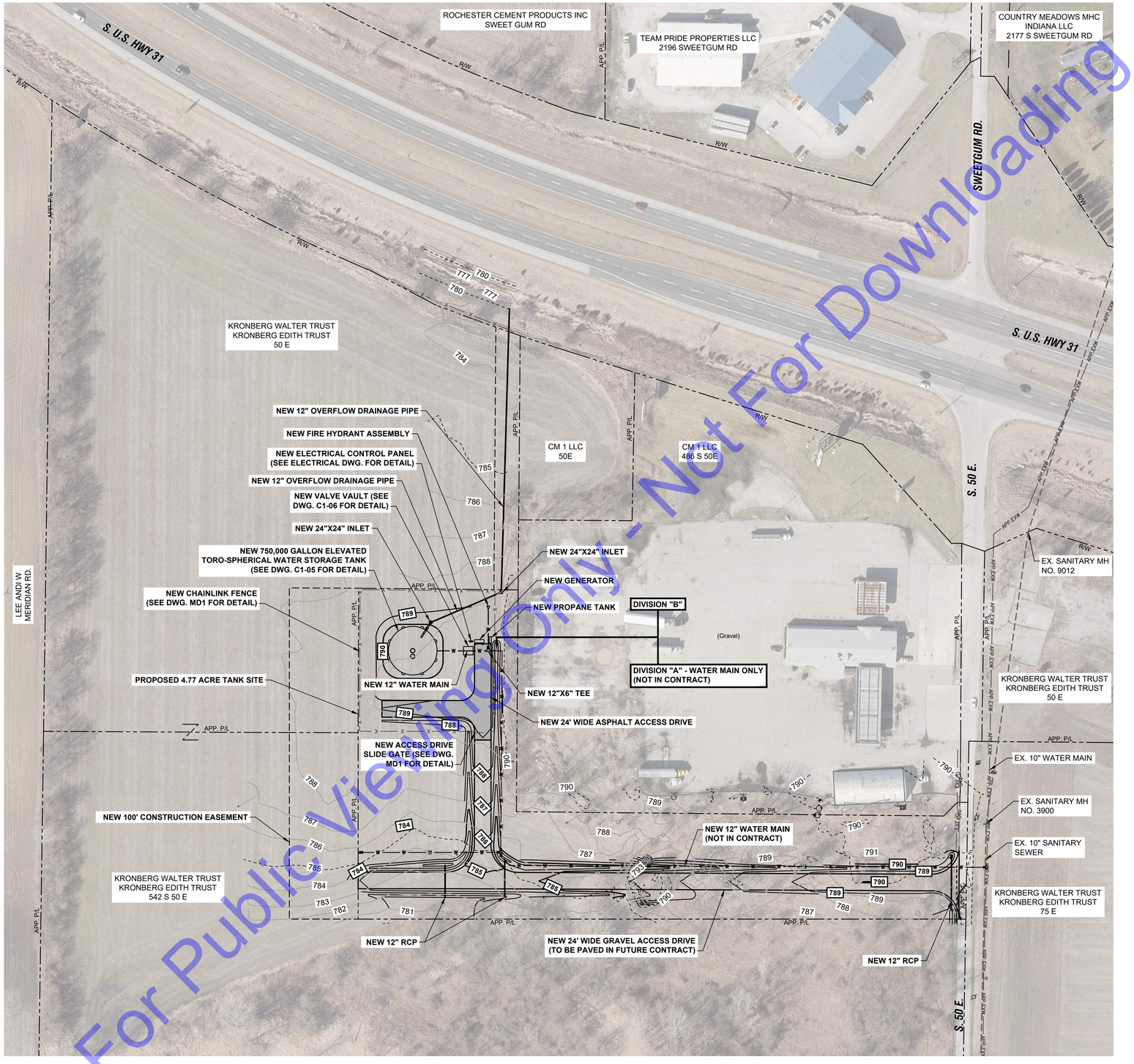

NEW TANK SITE GRADING PLAN

SCALE: 1"=80'-0"

0 80' 160'

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CITY OF ROCHESTER
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WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON
ELEVATED STORAGE TANK

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NEW WATER STORAGE TANK SITE GRADING PLAN

Drawing No:
C1-04
Sheet: 08 OF 53

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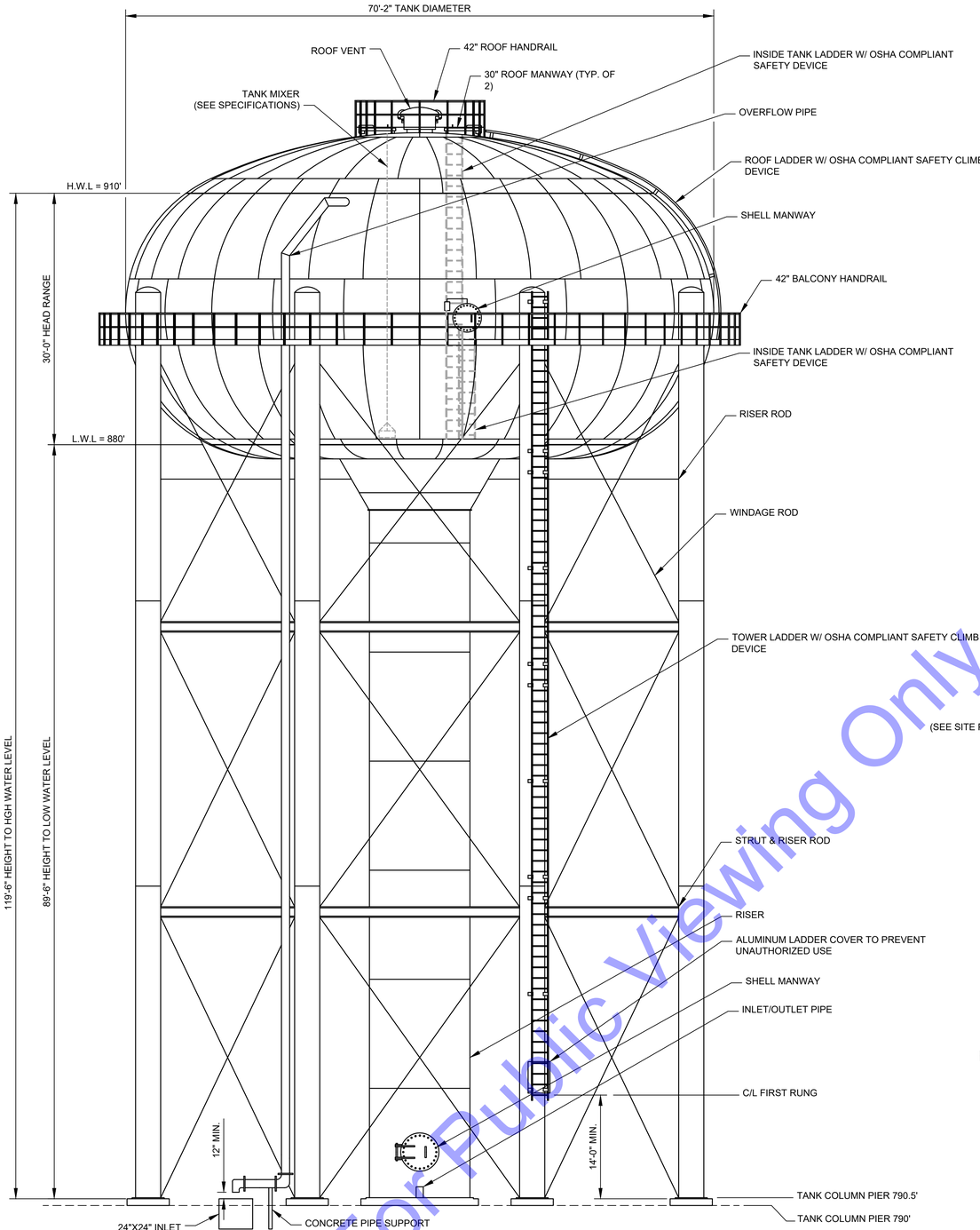


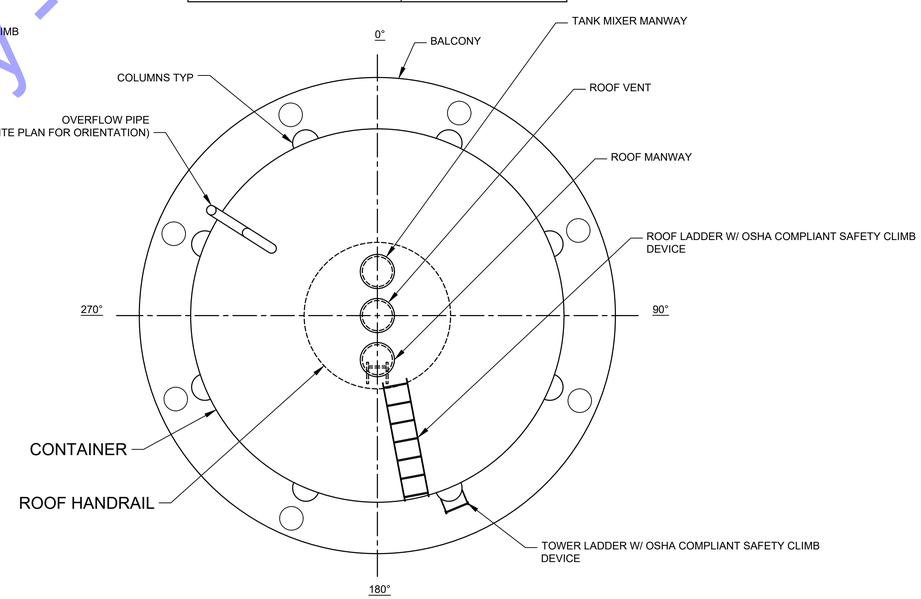
750,000 GALLON ELEVATED TORO-SPHERICAL WATER STORAGE TANK - ELEVATION VIEW

NOT TO SCALE

GENERAL NOTES:

1. ACCESSORIES SHOWN ON ELEVATION DRAWING ARE ROTATED FOR CLARITY.
2. ALL HANDRAILS, PLATFORM LANDINGS, WALKWAYS, LADDERS, AND SAFETY CLIMB DEVICES SHALL CONFORM WITH CURRENT OSHA STANDARDS.
3. SEE PROJECT SPECIFICATIONS FOR SHOP AND FIELD PAINT REQUIREMENT TO SCALE.
4. STERILIZE TANK IN ACCORDANCE WITH AWWA C652-19 AND PROJECT SPECIFICATIONS.
5. OVERFLOW PIPE DISCHARGE SHALL BE EQUIPPED WITH A DUCKBILL CHECK VALVE, INSTALLED A MINIMUM OF 12" ABOVE INLET.
6. FOUNDATION DESIGN BY ELEVATED TANK MANUFACTURER.
7. REFER TO ELECTRICAL DRAWINGS FOR INSTRUMENTATION REQUIREMENTS.
8. CONTRACTOR SHALL MOUNT THE MIXER TO THE ROOF OF THE TANK BASED ON THE MANUFACTURERS WRITTEN INSTRUCTIONS.

NEW ELEVATED TANK (750,000 GALLON)	
TANK DIAMETER	70'-2"
HIGH WATER LEVEL ELEVATION	910'
LOW WATER LEVEL ELEVATION	880'
HEAD RANGE	30'-0"
TANK HEIGHT	119'-6"



750,000 GALLON ELEVATED TORO-SPHERICAL WATER STORAGE TANK - PLAN VIEW

NOT TO SCALE

NOTE:

1. SEE CONNECTION DETAIL ON SHEET C1-02 FOR CONNECTION OF WATER MAIN TO TANK RISER PIPE.

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WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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NEW WATER STORAGE TANK PLAN AND ELEVATION VIEWS

Drawing No: **C1-05**

Sheet: 09 OF 53

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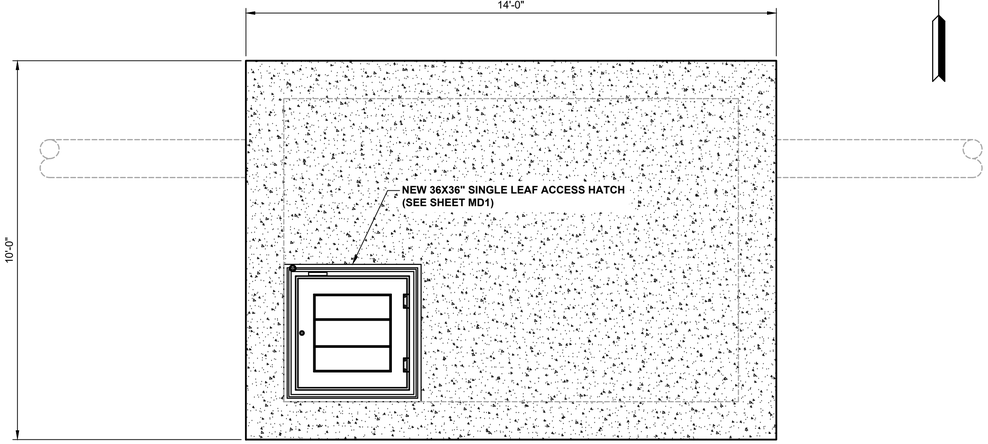
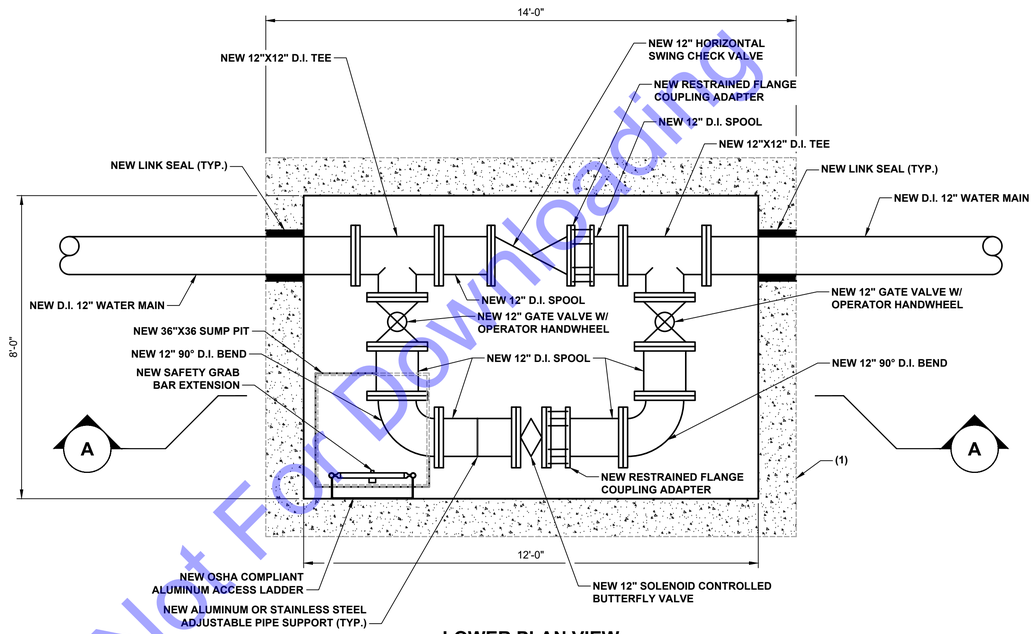


UPPER PLAN VIEW

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

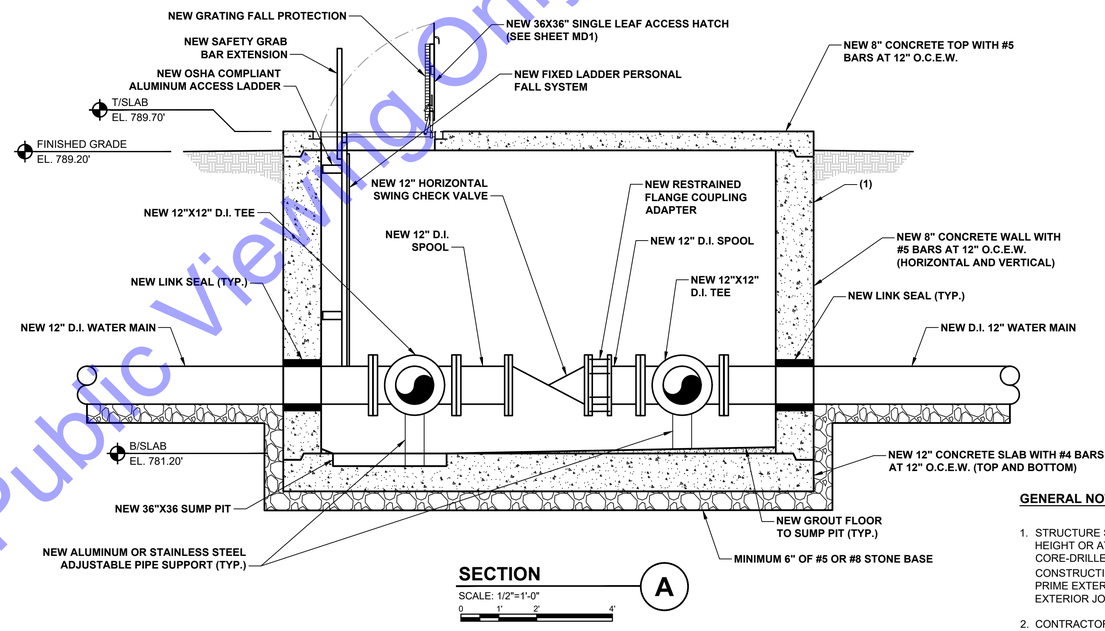
0 1' 2' 4'



LOWER PLAN VIEW

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

0 1' 2' 4'



SECTION A

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

0 1' 2' 4'

GENERAL NOTES:

1. STRUCTURE SHALL BE 2-PIECE PRE-CAST CONCRETE VAULT WITH THE SEAM BEING NEAR MID-WALL HEIGHT OR AT THE TOP OF THE WALL. PENETRATION FOR INLET/OUTLET CONNECTION SHALL BE CORE-DRILLED IN THE FIELD DURING CONNECTION. VERIFY EXACT DEPTH OF EXISTING MAIN PRIOR TO CONSTRUCTION. JOINT SHALL BE SEALED WITH A 1½" PREFORMED BUTYL MASTIC MEETING ASTMC-990. PRIME EXTERIOR JOINTS WITH BITUMINOUS PRIMER PRIOR TO WRAPPING. ALL JOINTS SHALL HAVE EXTERIOR JOINT WRAP MEETING THE REQUIREMENTS OF ASTMC-877, MINIMUM 6" WRAP.
2. CONTRACTOR SHALL HAVE UNIFORM SLOPE ON INFLUENT/EFFLUENT WATER MAIN COMING IN/OUT OF THE METER PIT, NO FITTINGS SHALL BE USED IMMEDIATELY PRIOR/AFTER THE METER PIT TO ADJUST INLET/OUTLET PIPE DEPTH.
3. ALL INTERIOR PIPING SHALL RECEIVE (2) COATS OF 4-6 MILS OF TNEMEC SERIES V69, SHERWIN-WILLIAMS MACROPOXY 646, CARBOLINE CARBOGAURD 890, OR EQUAL AS DESCRIBED IN WM 25.2.
4. ALL FLANGE BOLTS SHALL BE STAINLESS STEEL. USE ANTI-SEIZE THREAD LUBRICANT.
5. ALL INTERIOR PIPING SHALL BE INSULATED.

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FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON
ELEVATED STORAGE TANK

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NEW VALVE VAULT
PLAN AND ELEVATION
VIEWS

Drawing No:
C1-06
Sheet: 10 OF 53

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SECTION A: BASIC PLAN ELEMENTS

A1: INDEX OF THE LOCATION OF REQUIRED PLAN ELEMENTS IN THE CONSTRUCTION PLAN:

THIS DOCUMENT REPRESENTS THE PLAN INDEX. THE CONTENT IS ORGANIZED AROUND THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT CONSTRUCTION STORMWATER GENERAL PERMIT CONSTRUCTION/STORMWATER POLLUTION PREVENTION PLAN DEVELOPMENT GUIDANCE. DETAILS ARE SPECIFIC TO THE CITY OF ROCHESTER WATER UTILITY IMPROVEMENTS PROJECT, DIVISION A AND DIVISION B.

A2: A VICINITY MAP DEPICTING THE PROJECT SITE LOCATION IN RELATIONSHIP TO RECOGNIZABLE LOCAL LANDMARKS, TOWNS, AND MAJOR ROADS:

THIS INFORMATION HAS BEEN INCLUDED AND IS SHOWN IN THE PLANS. A USGS SITE MAP ILLUSTRATING THE APPROXIMATE EXTENT OF THE PROJECT IS ALSO SHOWN IN THE PLANS.

A3: NARRATIVE OF THE NATURE AND PURPOSE OF THE PROJECT:

A CRITICAL CONCERN FOR THE CITY OF ROCHESTER REGARDING THE SOURCE WELLS IS THAT THE AREA NEAR THE WELL FIELD HAS A KNOWN TRICHLOROETHYLENE (TCE) CONTAMINATION DUE TO AN OLD DRY-CLEANING FACILITY. QUARTERLY TESTING ON THE CONTAMINATION PLUME IS PERFORMED TO MONITOR MIGRATION OR LACK THEREOF. IT HAS ALSO BEEN NOTED BY THE OPERATOR OF THE WATERWORKS UTILITY THAT THE CHECK VALVES ON THE WELLS ARE IN NEED OR REPLACEMENT DUE TO THEIR AGE. GIVEN THE LOCATION OF THE EXISTING WELLS, THE CITY WISHES TO EVALUATE NEW LOCATIONS FOR WATER SOURCE.

THIS PROJECT IS SEPARATED INTO TWO DIVISIONS - DIVISION A, THE NEW WASTEWATER TREATMENT FACILITY, AND DIVISION B, THE WATER MAIN EXTENSION, WATER MAIN INSTALLATION, AND HYDRANT REPLACEMENTS. BOTH ARE INCLUDED IN THIS SWPPP.

THE PROPOSED PROJECT IS SHOWN IN THE PLAN SHEETS. THE GENERAL LOCATION OF THE PROJECT IS SHOWN ON A USGS TOPOGRAPHIC MAP IN THE PLANS.

A4: LATITUDE AND LONGITUDE TO THE NEAREST FIFTEEN (15) SECONDS:

THIS APPROXIMATE LATITUDE AND LONGITUDE FOR THE PROJECT SITE IS 41.047426, -86.233400. THIS MARKS THE LOCATION OF THE PROJECT AREA INCLUDED IN DIVISION B. DIVISION A STEMS FROM THIS POINT AND CONTINUES TO THE APPROXIMATE LATITUDE AND LONGITUDE 41.052243, -86.213429 IN A LINEAR FASHION. DIVISION A ALSO INCLUDES IMPROVEMENTS AT APPROXIMATELY 41.059162, -86.198526, AND 41.061279, -86.176764.

A5: LEGAL DESCRIPTION OF THE PROJECT SITE:

THE LOCATION OF THE PLANNING AREA IS T30N R3E 18, T99 R99 33, T30N R3E 7, T30N R3E 9, AND T30N R3E 10. THIS INCLUDES BOTH DIVISIONS A AND B. WORK WILL BE IN ROCHESTER TOWNSHIP.

A6: 11X 17-INCH PLAT SHOWING BUILDING LOT NUMBERS/BOUNDARIES AND ROAD LAYOUT/NAMES:

ALL LOT BOUNDARIES AND ROAD NAMES ARE SHOWN ON THE PLANS. ALL CONSTRUCTION WILL TAKE PLACE IN EXISTING RIGHT OF WAYS, UTILITY EASEMENTS, OR LAND OWNED BY THE CITY. A USGS MAP ILLUSTRATING THE APPROXIMATE EXTENT OF THE PROJECT IS SHOWN IN THE PLANS.

A7: BOUNDARIES OF THE ONE HUNDRED (100) YEAR FLOODPLAINS, FLOODWAY FRINGES, AND FLOODWAYS:

THE FLOODPLAINS, FLOODWAY FRINGES, AND FLOODWAYS LOCATED WITHIN THE PROJECT AREA ARE SHOWN IN **EXHIBIT #1**. NONE OF THE PROPOSED WORK IS WITHIN THE FLOODWAY.

A8: LAND USE OF ALL ADJACENT PROPERTIES:

LAND USE AT THE PROJECT SITE AND THE SURROUNDING AREAS IS SHOWN IN **EXHIBIT #2**. LAND USE IN THE PROJECT SITE IS PRIMARILY CULTIVATED CROPS, DEVELOPED LOW, MEDIUM OR HIGH INTENSITY, AND DEVELOPED OPEN SPACE. LAND USE ADJACENT TO THE PROJECT AREAS INCLUDES CULTIVATED CROPS AND OPEN WATER.

A9: IDENTIFICATION OF A U.S. EPA APPROVED OR ESTABLISHED TMDL:

THE PROJECT AREA IS LOCATED WITHIN THE NEFF DITCH-MUD CREEK (051201060504), ZINK LAKE-TIPPECANOE RIVER (051201060509), AND LAKE MANITOU-MILL CREEK (051201060502) WATERSHEDS. NONE OF THESE WATERSHEDS HAVE LISTED TMDL'S.

A10: NAME(S) OF THE RECEIVING WATER(S):

RECEIVING WATERS INCLUDE RAIN CREEK, LAKE MANITOU, ROBBINS WALTERS DITCH, AND MILL CREEK. RUNOFF FROM THE PROJECT INTO THESE RECEIVING WATERS IS NOT ANTICIPATED; HOWEVER, PROPER MEASURES WILL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE CREEK AND TO PREVENT ANY CONVEYANCE OF SEDIMENT TO ANY OF THE POTENTIAL RECEIVING WATERS.

A11: IDENTIFICATION OF DISCHARGES TO A WATER BODY ON THE CURRENT 303(D) LIST OF IMPAIRED WATERS AND THE POLLUTANT FOR WHICH IT IS IMPAIRED:

LAKE MANITOU, ROBBINS WALTERS DITCH, AND MILL CREEK ARE ALL LISTED ON THE CURRENT 303(D) LIST OF IMPAIRED WATERS. ROBBINS WALTERS DITCH AND MILL CREEK ARE LISTED HAVING IMPAIRED BIOLOGICAL INTEGRITY, WHILE LAKE MANITOU IS IMPAIRED DUE TO THE TOTAL PHOSPHORUS.

RAIN CREEK IS NOT ON THE CURRENT 303(D) LIST OF IMPAIRED WATERS.

A12: SOILS MAP OF THE PREDOMINATE SOIL TYPES:

THE SOILS MAP FOR THIS PROJECT IS SHOWN IN **EXHIBIT #3**. THE SOILS IN THE PROJECT AREA CONSIST MAINLY OF "CRA" "CROSIER LOAM, 0-2% SLOPES" AND "KOA" "KOSCIUSKO-ORMAS COMPLEX, 0-2% SLOPES."

CONSTRUCTION PROJECTS ARE NOT EXPECTED TO HAVE ANY DETRIMENTAL, LONG-TERM IMPACT ON THE SOIL. SHORT-TERM IMPACTS WILL RELATE ONLY TO EXCAVATION ACTIVITIES FOR THE PROPOSED SYSTEM IMPROVEMENTS AND WILL BE MINIMAL. THESE IMPACTS CAN BE MITIGATED USING APPROPRIATE TECHNIQUES FOR EROSION CONTROL AND SURFACE RESTORATION DURING AND AFTER CONSTRUCTION.

SEASONAL WETNESS IS LIKELY TO BE THE MAIN LIMITATION OF THE SOIL IN THE CONSTRUCTION AREA. FOR THIS PROJECT, CONSTRUCTION PROBLEMS ASSOCIATED WITH WET SOILS WILL BE BEST OVERCOME BY COMPLETING OPEN EXCAVATION WORK DURING FAVORABLE CONDITIONS AND COORDINATING WORK ACTIVITIES BASED UPON WEATHER AND SOIL CONDITIONS. UNDER SEVERE SOIL WETNESS CONDITIONS, QUICKLIME MAY BE USED TO HELP DRY WET SOILS FOR SITE ACCESS PURPOSES AND TO REDUCE DOWNTIME. THE DEPTH TO WATER TABLE IN THE PROJECT AREA VARIES SIGNIFICANTLY, FROM 0 CM TO GREATER THAN 200 CM.

A13: IDENTIFICATION AND LOCATION OF ALL KNOWN WETLANDS, LAKES, AND WATER COURSES ON OR ADJACENT TO THE PROJECT SITE (CONSTRUCTION PLAN, EXISTING LAYOUT):

ALL WETLANDS, LAKES, AND WATER COURSES LOCATED WITHIN AND NEARBY THE PROJECT AREA HAVE BEEN IDENTIFIED AND ARE SHOWN IN **EXHIBIT #4** AND **#5**. THE MAJOR WATERWAYS IN THE PROJECT AREA ARE ROBBINS WALTERS DITCH, RAIN CREEK, MILL CREEK AND LAKE MANITOU. STORMWATER DERIVED FLOW WILL NOT DRAIN INTO ANY OF THESE WATERS. THERE IS NO WORK THAT IS PROPOSED IN ANY WETLANDS, ONLY ON RESIDENTIAL PROPERTY AND ROADWAYS NEARBY OR ON LAND OWNED BY THE CITY.

A14: IDENTIFICATION OF ANY OTHER STATE OR FEDERAL WATER QUALITY PERMITS OR AUTHORIZATIONS THAT ARE REQUIRED FOR CONSTRUCTION ACTIVITIES:

THIS PROJECT WILL NOT REQUIRE AN IDEM 401 WQC AS WELL AS NOTIFICATION TO THE USACE. NO DNR CONSTRUCTION IN A FLOODWAY PERMIT IS REQUIRED. ALL WATER QUALITY PERMITS DETERMINED TO BE REQUIRED BY THE PROJECT WILL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.

A15: IDENTIFICATION AND DELINEATION OF EXISTING VEGETATIVE COVER, INCLUDING NATURAL BUFFERS:

LAND USE AT THE PROJECT SITE AND THE SURROUNDING AREAS IS SHOWN IN **EXHIBIT #2**. MOST OF THE LAND USE IN THE PROJECT CONSTRUCTION AREA IS CULTIVATED CROPS, WHILE THE UPSTREAM WATERSHED IS PRIMARILY LOW, MEDIUM OR HIGH INTENSITY DEVELOPED LAND. LAND USE ADJACENT TO THE PROJECT AREA IS CULTIVATED CROPS AND OPEN WATER. A SMALL WOODED AREA ADJACENT TO THE DIVISION B WATER TANK THAT WILL BE DELINEATED TO CONFIRM WETLAND STATUS. ALL OTHER IMPROVEMENTS WILL BE ON RIGHT-OF-WAY AND PREVIOUSLY DEVELOPED LAND.

THIS PROJECT INVOLVES THE INSTALLATION OF WATER MAINS, AN ELEVATED TANK WITH A ACCESS DRIVE, AND HYDRANT REPLACEMENTS WITHIN ROAD RIGHT-OF-WAY, UTILITY EASEMENTS AND CITY OWNED PROPERTY. PROPER TECHNIQUES FOR EROSION CONTROL AND SURFACE RESTORATION, INCLUDING STABILIZATION WITH APPROPRIATE VEGETATIVE COVER, WILL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN DS-12 "TEMPORARY EROSION CONTROL" AND WM-24 "SEEDING AND SODDING," BOTH UNDER SEPARATE ATTACHMENT.

A16: EXISTING SITE TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO SHOW DETAILED DRAINAGE PATTERNS:

A USGS TOPOGRAPHIC MAP IS SHOWN IN THE PLANS. MORE DETAILED CONTOUR LINES ARE ALSO SHOWN ON INDIVIDUAL PLAN SHEETS TO INDICATE DRAINAGE PATTERNS WITHIN THE CONSTRUCTION LIMITS.

A17: LOCATION(S) WHERE RUN-OFF ENTERS THE PROJECT SITE:

A USGS TOPOGRAPHIC MAP IS SHOWN IN THE PLANS. MORE DETAILED CONTOUR LINES ARE ALSO SHOWN ON INDIVIDUAL PLANS SHEETS TO INDICATE DRAINAGE PATTERNS WITHIN THE CONSTRUCTION LIMITS ALONG WITH OVERFLOW PIPING.

A18: LOCATION(S) WHERE RUN-OFF DISCHARGES FROM THE PROJECT SITE PRIOR TO LAND DISTURBANCE:

A USGS TOPOGRAPHIC MAP IS SHOWN IN THE PLANS. MORE DETAILED CONTOUR LINES ARE ALSO SHOWN ON INDIVIDUAL PLAN SHEETS TO INDICATE DRAINAGE PATTERNS WITHIN THE CONSTRUCTION LIMITS ALONG WITH OVERFLOW PIPING.

A19: LOCATION OF ALL EXISTING STRUCTURES ON THE PROJECT SITE:

THE LOCATION OF ALL EXISTING STRUCTURES ON THE PROJECT SITE HAVE BEEN INDICATED IN THE PLANS.

A20: EXISTING PERMANENT RETENTION OR DETENTION FACILITIES, INCLUDING MANMADE WETLANDS, DESIGNED FOR THE PURPOSE OF STORMWATER MANAGEMENT:

THERE ARE NO EXISTING PERMANENT RETENTION OR DETENTION FACILITIES LOCATED WITHIN THE PROJECT AREA(S).

A21: LOCATIONS WHERE STORMWATER MAY BE DIRECTLY DISCHARGED INTO GROUND WATER, SUCH AS ABANDONED WELLS, SINKHOLES, OR KARST FEATURES:

THERE IS ONE WELL LOCATED IN THE DIVISION B PLANNING AREA. MEASURES WILL BE INACTED TO ENSURE NO IMPACT ON THE EXISTING WELL WILL OCCUR. THERE ARE NO SINKHOLES OR KARST FEATURES LOCATED WITHIN THE PROJECT AREA.

A22: SIZE OF THE PROJECT AREA EXPRESSED IN ACRES:

THE TOTAL PROJECT AREA IS APPROXIMATELY 43,211.49 ACRES.

A23: TOTAL EXPECTED LAND DISTURBANCE EXPRESSED IN ACRES:

THE TOTAL EXPECTED LAND DISTURBANCE FOR THE PROJECT IS APPROXIMATELY 9.98 ACRES.

A24: PROPOSED FINAL TOPOGRAPHY:

THE INDIVIDUAL PLAN SHEETS SHOW PROPOSED SITE TOPOGRAPHY AND DRAINAGE PATTERNS.

A25: LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS:

THE PLANS SHOW THE LOCATIONS AND BOUNDARIES OF ALL DISTURBED AREAS/CONSTRUCTION LIMITS.

A26: LOCATIONS, SIZE AND DIMENSIONS OF ALL STORMWATER DRAINAGE SYSTEMS SUCH AS CULVERTS, STORMWATER SEWER, AND CONVEYANCE CHANNEL:

ALL EXISTING STORMWATER SYSTEMS WILL BE PROTECTED AND MAINTAINED DURING CONSTRUCTION. IF DURING CONSTRUCTION ANY DAMAGE IS DONE TO AN EXISTING STORMWATER SYSTEM, DAMAGED STRUCTURES WILL BE EITHER REPAIRED OR REPLACED TO EQUAL OR BETTER CONDITION THAN EXISTING.

A27: LOCATIONS OF SPECIFIC POINTS WHERE STORMWATER AND NON-STORMWATER DISCHARGES WILL LEAVE THE PROJECT SITE:

LOCATIONS WHERE STORMWATER AND NON-STORMWATER DISCHARGES WILL LEAVE THE PROJECT SITE CAN BE SEEN ON THE PLANS VIA TOPOGRAPHIC LINES. CONVEYANCE WILL DIFFER BASED ON THE CONDITIONS SURROUNDING THE STRUCTURE.

A28: LOCATION OF ALL PROPOSED SITE IMPROVEMENTS, INCLUDING ROADS, UTILITIES, LOT DELINEATION AND IDENTIFICATION, PROPOSED STRUCTURES, AND COMMON AREAS:

LOCATIONS OF ALL PROPOSED SITE IMPROVEMENTS, INCLUDING PROPOSED AND EXISTING UTILITIES, STRUCTURES, AND LOT BOUNDARIES, ARE SHOWN ON THE PLANS. NO OFF-SITE CONSTRUCTION IS EXPECTED FOR THIS PROJECT.

A29: LOCATIONS OF ALL ON-SITE AND OFF-SITE SOIL STOCKPILES AND BORROW/W AREAS:

STOCKPILES LEFT INACTIVE FOR SEVEN (7) DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY SEED AND SURROUNDED BY SILT FENCE OR OTHER PERIMETER CONTROLS. ALL STOCKPILES AND BORROW/W AREAS, IF REQUIRED FOR THE PROJECT, WILL BE LOCATED ON-SITE AND THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A PERMIT OR RELEASE FOR PROPER DISPOSAL OF EXCAVATED MATERIALS.

A30: CONSTRUCTION SUPPORT ACTIVITIES THAT ARE EXPECTED TO BE PART OF THE PROJECT:

CONCRETE WASHOUT AREAS, AS INDICATED IN DIVISION B, ARE EXPECTED TO BE PART OF THE PROJECT.

A31: LOCATION OF ANY IN-STREAM ACTIVITIES THAT ARE PLANNED FOR THE PROJECT INCLUDING, BUT NOT LIMITED TO, STREAM CROSSINGS AND PUMP AROUNDS:

NOT APPLICABLE. NO WORK IN STREAMS IS ANTICIPATED.

SECTION B: STORMWATER POLLUTION PREVENTION - CONSTRUCTION

STORMWATER POLLUTION PREVENTION MEASURES SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AUTHORITY AND THE APPLICABLE MS4 STORMWATER QUALITY STANDARDS.

B1: DESCRIPTION OF THE POTENTIAL POLLUTANT GENERATING SOURCES AND POLLUTANTS, INCLUDING ALL POTENTIAL NON-STORMWATER DISCHARGES:

OPERATION	POTENTIAL POLLUTANTS
CLEARING, GRADING, EXCAVATING	SEDIMENT, DEBRIS
SOIL STOCKPILES	SEDIMENT
DEWATERING OPERATIONS	SEDIMENT
PAVING REPAIR	SEDIMENT, DEBRIS
VEHICLE FUELING, MAINTENANCE	OIL, GREASE, FUEL
GENERAL CONSTRUCTION ACTIVITY	TRASH, SANITATION CHEMICALS
PAVEMENT RESTORATION	BITUMINOUS DEBRIS

EXCAVATION, STOCKPILING:

STOCKPILE MANAGEMENT PROCEDURES AND PRACTICES WILL BE IMPLEMENTED TO MINIMIZE OR ELIMINATE THE DISCHARGE OF STOCKPILED MATERIAL (SOIL, TOPSOIL, BASE MATERIAL) FROM ENTERING DRAINAGE SYSTEMS OR SURFACE WATERS.

FOR ANY STOCKPILES OR LAND CLEARING DEBRIS COMPOSED, IN WHOLE OR IN PART, OF SEDIMENT OR SOIL, THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH THE FOLLOWING REQUIREMENTS:

1. LOCATE PILES WITHIN THE DESIGNATED LIMITS OF DISTURBANCE.
2. PROTECT FROM CONTACT WITH STORMWATER USING A TEMPORARY PERIMETER SEDIMENT BARRIER.
3. WHERE PRACTICABLE, PROVIDE COVER OR APPROPRIATE TEMPORARY VEGETATIVE OR STRUCTURAL STABILIZATION TO AVOID DIRECT CONTACT WITH PRECIPITATION OR TO MINIMIZE THE DISCHARGE OF SEDIMENTS.
4. NEVER HOSE DOWN OR SWEEP SOIL OR SEDIMENT ACCUMULATED ON PAVEMENT OR OTHER IMPERVIOUS SURFACES INTO ANY STORMWATER CONVEYANCE, STORM DRAIN INLET, OR SURFACE WATER.
5. TO THE MAXIMUM EXTENT PRACTICABLE, CONTAIN AND SECURELY PROTECT STOCKPILES FROM WIND.

DEWATERING:

EQUIPMENT OPERATORS ARE PROHIBITED FROM DISCHARGING GROUNDWATER OR ACCUMULATED STORMWATER THAT IS REMOVED FROM EXCAVATIONS, TRENCHES, VAULTS, OR OTHER SIMILAR POINTS OF ACCUMULATION, UNLESS SUCH WATERS ARE FIRST EFFECTIVELY MANAGED BY APPROPRIATE CONTROL MEASURES.

EXAMPLES OF APPROPRIATE CONTROL MEASURES INCLUDE TEMPORARY SEDIMENT BASINS OR SEDIMENT TRAPS, SEDIMENT SOCKS, DEWATERING TANKS AND BAGS, OR FILTRATION SYSTEMS (E.G., BAG OR SAND FILTERS) THAT ARE DESIGNED TO REMOVE SEDIMENT. UNCONTAMINATED, NON-TURBID DEWATERING WATER CAN BE DISCHARGED WITHOUT BEING ROUTED TO A CONTROL.

AT A MINIMUM, THE FOLLOWING DISCHARGE REQUIREMENTS MUST BE MET FOR DEWATERING ACTIVITIES:

1. ALLOW NO DISCHARGE OF VISIBLE SEDIMENTS OR SOLIDS.
2. AT ALL POINTS WHERE DEWATERING WATER IS DISCHARGED, UTILIZE VELOCITY DISSIPATION DEVICES.
3. DEWATERING PRACTICES MUST INVOLVE THE IMPLEMENTATION OF APPROPRIATE CONTROL MEASURES AS APPLICABLE (I.E., CONTAINMENT AREAS FOR DEWATERING EARTH MATERIALS, PORTABLE SEDIMENT TANKS AND BAGS, PUMPING SETTLING BASINS, AND PUMP INTAKE PROTECTION).

VEHICLE FUELING:

VEHICLE FUELING SHALL NOT TAKE PLACE WITHIN REGULATED DRAIN AREAS WETLANDS OR BUFFER ZONE AREAS, OR WITHIN 50 FEET OF THE STORM DRAIN SYSTEM. DESIGNATED AREAS SHALL BE DEPICTED ON THE PLANS OR SHALL BE APPROVED BY THE SITE OWNER.

VEHICLE MAINTENANCE AND WASHING SHALL OCCUR OFF-SITE, OR IN DESIGNATED AREAS DEPICTED ON THE PLANS OR APPROVED OF BY THE SITE OWNER. MAINTENANCE OR WASHING AREAS SHALL NOT BE WITHIN REGULATED WETLANDS OR BUFFER ZONE AREAS, OR WITHIN 50 FEET OF THE STORM DRAIN SYSTEM. MAINTENANCE AREAS SHOULD BE CLEARLY DESIGNATED, AND BARRIERS SHOULD BE USED AROUND THE PERIMETER OF THE MAINTENANCE AREA TO PREVENT STORMWATER CONTAMINATION.

CONSTRUCTION VEHICLES SHALL BE INSPECTED FREQUENTLY FOR LEAKS. REPAIRS SHALL TAKE PLACE IMMEDIATELY. DISPOSAL OF ALL USED OIL, ANTIFREEZE, SOLVENTS, AND OTHER AUTOMOTIVE-RELATED CHEMICALS SHALL BE ACCORDING TO APPLICABLE REGULATIONS; AT NO TIME SHALL ANY MATERIAL BE WASHED DOWN THE STORM DRAIN OR INTO ANY ENVIRONMENTALLY SENSITIVE AREA.

AFTER THE SWPPP IS IMPLEMENTED, ALL DISTURBED AREAS WILL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS THROUGH THE ADMINISTRATION OF A SELF-MONITORING PROGRAM. THE PURPOSE OF THE SELF-MONITORING PROGRAM REPORTS, WHICH ARE TO BE COMPLETED BY A TRAINED INDIVIDUAL, IS TO ASSESS THE PERFORMANCE OF POLLUTANT CONTROL MEASURES. BASED ON THESE INSPECTIONS, IT WILL BE DETERMINED IF ADDITIONAL MEASURES ARE NECESSARY TO PREVENT POLLUTANTS FROM LEAVING THE SITE. THE CONTRACTOR WILL BE REQUIRED TO REPAIR, MODIFY, MAINTAIN, OR TAKE ADDITIONAL STEPS AS NECESSARY TO ACHIEVE EFFECTIVE POLLUTANT CONTROL. REFER ALSO TO DS-12, "TEMPORARY EROSION CONTROL" WHICH IS INCLUDED AS A PART OF THE CONSTRUCTION SPECIFICATIONS AND CONTRACT DOCUMENTS FOR THE PROJECT AND IS LOCATED UNDER SEPARATE ATTACHMENT.

B2: STABLE CONSTRUCTION ENTRANCE LOCATIONS AND SPECIFICATIONS:

THE PROJECT DOES REQUIRE CONSTRUCTION ENTRANCE AS SHOWN IN DIVISION B PLAN SHEETS. DIVISION A DOES NOT REQUIRE A CONSTRUCTION ENTRANCE AS THE RIGHT-OF-WAY WILL BE UTILIZED. UPON COMPLETION OF CONSTRUCTION ALL SURFACES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITIONS. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE WILL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE EXISTING SURFACES ACTING AS CONSTRUCTION ENTRANCES/EXITS TO PRE-CONSTRUCTION CONDITIONS. REFER ALSO TO DS-12, "TEMPORARY EROSION CONTROL" FOR STABLE CONSTRUCTION ENTRANCE REQUIREMENTS (UNDER SEPARATE ATTACHMENT).

B3: SPECIFICATIONS FOR TEMPORARY AND PERMANENT STABILIZATION:

TEMPORARY AND PERMANENT SEED SURFACE STABILIZATION WILL BE UTILIZED WHERE NEEDED. SEE DS-12, "TEMPORARY EROSION CONTROL" AND WM-24 "SEEDING AND SODDING" (LOCATED UNDER SEPARATE ATTACHMENT) FOR ADDITIONAL INFORMATION.

TO REDUCE THE EXTENT OF EXPOSED AREAS AND THE DURATION OF EXPOSURE, CLEARING, GRADING, AND VEGETATIVE RE-STABILIZATION MUST BE PROPERLY TIMED AND COORDINATED. SEEDING AND MULCHING OR TEMPORARY SEEDING WILL BE PERFORMED AS SOON AS PRACTICABLE IN AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION. UNVEGETATED AREAS THAT ARE LEFT IDLE OR SCHEDULED TO BE LEFT UNACTIVE MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITH MEASURES APPROPRIATE FOR THE SEASON TO MINIMIZE EROSION POTENTIAL. STABILIZATION MUST BE INITIATED BY THE END OF THE SEVENTH DAY THE AREA IS LEFT IDLE. THE STABILIZATION ACTIVITY MUST BE COMPLETED WITHIN FOURTEEN (14) DAYS AFTER INITIATION. INITIATION OF STABILIZATION INCLUDES SEEDING AND APPLYING MULCH OR OTHER TEMPORARY SURFACE STABILIZATION METHODS WHERE APPROPRIATE.

B4: SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS:

PROTECTIVE MEASURES FOR AREAS OF CONCENTRATED FLOW WILL INCLUDE TEMPORARY AND PERMANENT VEGETATION, MULCHES, EROSION CONTROL BLANKETS, OR OTHER PRACTICES TO CORRESPOND WITH CONSTRUCTION ACTIVITIES. SEDIMENT CONTROL MEASURES FOR AREAS OF CONCENTRATED FLOW ARE NOT ANTICIPATED AS NECESSARY FOR ANY SPECIFIC AREAS OF THE PROPOSED PROJECT. SEDIMENT CONTROL MEASURES FOR AREAS OF CONCENTRATED FLOW WILL BE PROVIDED AS NEEDED BY THE CONTRACTOR. REFER TO DS-12, "TEMPORARY EROSION CONTROL" (UNDER SEPARATE ATTACHMENT) FOR MORE INFORMATION.

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SOUTH BEND, IN.

JOHN W. WETZEL
REGISTERED
No. 19800122
STATE OF INDIANA
PROFESSIONAL ENGINEER

John Wetzel — Signature
3/21/2025 — Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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No.	Submittal / Revision	By	Date

Designed By:	Drawn By:	Checked By:
4/2/25	AH	4/2/25
Issue Date:	Project No:	Scale:
4/2/25	W24086	AS SHOWN

STORMWATER POLLUTION PREVENTION PLAN

Drawing No:
EC01
Sheet: 11 OF 53

File: Z:\SHARED\IN CLIENTS M-Z\ROCHESTER\W24086 2024-2025 WATER UTILITY IMPRV PROJECT\06 CADD\ CURRENT FILES\1 DRAWINGS\DIV B TANK\03-EROSION CONTROL DRAWINGS.DWG
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SECTION B: STORMWATER POLLUTION PREVENTION - CONSTRUCTION

B5: SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS:

ALL DISTURBED AREAS WHERE RUNOFF WILL BE IN SHEET FLOW CONDITIONS, AND WHICH ARE NOT TO BE DISTURBED FOR SEVEN (7) DAYS OR MORE, SHALL RECEIVE TEMPORARY SEEDING. DISTURBED AREAS SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER LAND DISTURBANCE ACTIVITIES ARE COMPLETED. PERIMETER PROTECTION, SUCH AS SILT FENCE AND INLET PROTECTION, SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS. IN GENERAL, SILT FENCES WILL BE INSTALLED APPROXIMATELY FIVE (5) FEET FROM PROPERTY BOUNDARIES/RIGHT OF WAY BOUNDARIES AS APPLICABLE. INSTALLATION OF SILT FENCES WILL TYPICALLY BE REQUIRED ON THE DOWNSLOPE SIDE OF ALL OPEN TRENCHES EXCAVATED FOR WATER MAIN INSTALLATION. THE PLANS SHOW ADDITIONAL EROSION CONTROL MEASURES PROPOSED FOR THIS PROJECT. REFER TO DS-12, "TEMPORARY EROSION CONTROL" (UNDER SEPARATE ATTACHMENT) FOR MORE DETAIL.

B6: RUNOFF CONTROL MEASURES:

DIVERSION DITCHES, SLOPE DRAINS, OR OTHER SIMILAR STRUCTURES FOR RUNOFF CONTROL ARE NOT ANTICIPATED FOR THIS PROJECT.

B7: STORMWATER OUTLET PROTECTION SPECIFICATIONS:

STORMWATER OUTLETS WILL BE PROVIDED WITH SILT FENCES, EROSION CONTROL BLANKETS, AND TEMPORARY AND PERMANENT SEEDING AS APPLICABLE.

B8: GRADE STABILIZATION STRUCTURE LOCATIONS AND SPECIFICATIONS:

GRADE STABILIZATION WILL BE REQUIRED AS NEEDED DURING CONSTRUCTION. GRADE STABILIZATION REQUIREMENTS ARE ESTABLISHED IN DS-12, "TEMPORARY EROSION CONTROL" (UNDER SEPARATE ATTACHMENT).

SEEDING AND MULCHING OR TEMPORARY SEEDING WILL BE PERFORMED ON AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION. TEMPORARY SEEDING WILL TAKE PLACE AS SOON AS PRACTICABLE AFTER DISTURBED AREAS HAVE BEEN RESTORED TO THEIR REQUIRED GRADE OR HAVE BEEN DISTURBED AND NOT WORKED FOR SEVEN (7) DAYS OR MORE. BIODEGRADABLE MATTING OR NETTING MAY BE USED TO STABILIZE SOILS ON SLOPED AREAS AND SOME RECENTLY PLANTED AREAS TO PROTECT SEEDLINGS UNTIL THEY HAVE BECOME ESTABLISHED.

B9: DEWATERING APPLICATIONS AND MANAGEMENT METHODS:

IF DEWATERING BECOMES NECESSARY ON SITE, THE FOLLOWING METHODS WILL BE USED:

EQUIPMENT OPERATORS ARE PROHIBITED FROM DISCHARGING GROUNDWATER OR ACCUMULATED STORMWATER THAT IS REMOVED FROM EXCAVATIONS, TRENCHES, VAULTS, OR OTHER SIMILAR POINTS OF ACCUMULATION, UNLESS SUCH WATERS ARE FIRST EFFECTIVELY MANAGED BY APPROPRIATE CONTROL MEASURES.

EXAMPLES OF APPROPRIATE CONTROL MEASURES INCLUDE TEMPORARY SEDIMENT BASINS OR SEDIMENT TRAPS, SEDIMENT SOCKS, DEWATERING TANKS AND BAGS, OR FILTRATION SYSTEMS (E.G., BAG OR SAND FILTERS) THAT ARE DESIGNED TO REMOVE SEDIMENT. UNCONTAMINATED, NON-TURBID DEWATERING WATER CAN BE DISCHARGED WITHOUT BEING ROUTED TO A CONTROL.

AT A MINIMUM, THE FOLLOWING DISCHARGE REQUIREMENTS MUST BE MET FOR DEWATERING ACTIVITIES:

1. ALLOW NO DISCHARGE OF VISIBLE SEDIMENT OR SOLIDS.

2. AT ALL POINTS WHERE DEWATERING WATER IS DISCHARGED, UTILIZE VELOCITY DISSIPATION DEVICES.

3. DEWATERING PRACTICES MUST INVOLVE THE IMPLEMENTATION OF APPROPRIATE CONTROL MEASURES AS APPLICABLE (I.E., CONTAINMENT AREAS FOR DEWATERING EARTH MATERIALS, PORTABLE SEDIMENT TANKS AND BAGS, PUMPING SETTLING BASINS, AND PUMP INTAKE PROTECTION).

B10: MEASURES UTILIZED FOR WORK WITHIN WATERBODIES:

WORK WITHIN WATERBODIES IS NOT ANTICIPATED FOR THIS PROJECT.

B11: MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY MEASURE:

THROUGHOUT THE DURATION OF CONSTRUCTION, THE CONTRACTOR SHALL MONITOR AND MANAGE PROJECT CONSTRUCTION AND STORMWATER ACTIVITIES THROUGH THE ADMINISTRATION OF A SELF-MONITORING PROGRAM (SMP). A TRAINED INDIVIDUAL SHALL SUBMIT WEEKLY SMP REPORTS, AND EVENT INSPECTION REPORTS AS REQUIRED WITHIN 24 HOURS OF EVERY ½" RAIN EVENT. INSPECTION WILL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL STRUCTURES TO ENSURE INTEGRITY AND EFFECTIVENESS. INSPECTIONS WILL ALSO BE PROVIDED FOR ALL DISTURBED AREAS THAT HAVE NOT ACHIEVED FINAL STABILIZATION, AND AT ALL POINTS OF DISCHARGE FROM THE CONSTRUCTION SITE. REFER TO DS-12, "TEMPORARY EROSION CONTROL (UNDER SEPARATE ATTACHMENT) FOR REQUIREMENTS REGARDING THE SMP REPORTS AND PROJECT MANAGEMENT LOG.

B12: PLANNED CONSTRUCTION SEQUENCE THAT DESCRIBES THE IMPLEMENTATION OF STORMWATER QUALITY MEASURES IN RELATION TO LAND DISTURBANCE:

A PRE-CONSTRUCTION MEETING WILL BE REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION AND ANY LAND DISTURBANCE ACTIVITY. ATTENDEES TO THE PRE-CONSTRUCTION MEETING WILL INCLUDE REPRESENTATIVES OF THE CONTRACTOR, OWNER, ENGINEER. THE FULTON COUNTY SOIL AND WATER CONSERVATION DISTRICT (SWCD) SHALL BE PROVIDED WITH A 48-HOUR NOTICE PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY. REFER ALSO TO DS-12, "TEMPORARY EROSION CONTROL" (UNDER SEPARATE ATTACHMENT), WHICH IS INCLUDED AS A PART OF THE CONSTRUCTION SPECIFICATIONS AND CONTRACT DOCUMENTS FOR THE PROJECT.

THE NOTICE OF INTENT AND THE LOCATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WILL BE POSTED AT THE JOB SITE. THERE WILL BE FUEL CONTAINMENT AND CONCRETE WASHOUT PROVIDED ON-SITE, IF APPLICABLE.

PROJECT SEQUENCING WILL GENERALLY FOLLOW THE FOLLOWING STEPS:

1. OBTAIN THE NECESSARY PROJECT PERMITS, INCLUDING PERMITS FROM IDEM.
2. NOTIFY THE APPROPRIATE REGULATORY AGENCIES AT LEAST 48 HOURS PRIOR TO THE START OF LAND-DISTURBING ACTIVITY.
3. ESTABLISH THE CONSTRUCTION ENTRANCE IN THE LOCATION(S) INDICATED IN THE E&SC DRAWINGS FOR DIVISION B.
4. INSTALL PERIMETER CONTROL MEASURES (SILT FENCE, ETC.). CLEAR ONLY WHAT IS REQUIRED FOR SUFFICIENT ACCESS AND INSTALLATION OF THE PERIMETER MEASURES.
5. PROCEED WITH CLEARING, GRADING, AND OTHER CONSTRUCTION ACTIVITIES. REGULARLY INSPECT AND MAINTAIN ALL E&SC MEASURES THROUGHOUT ACTIVE CONSTRUCTION.
6. ESTABLISH TEMPORARY SEEDING AS NEEDED THROUGHOUT THE PROJECT PER SPECIFICATIONS.
7. ESTABLISH PERMANENT SEEDING.
8. TEMPORARY E&SC MEASURES ARE ONLY TO BE REMOVED ONCE ALL LAND-DISTURBING ACTIVITY IS COMPLETE AND THE SITE HAS 80% PERMANENT VEGETATIVE COVERAGE. THE CONSTRUCTION ENTRANCE/EXIT MAY BE REMOVED FOR THE PROPOSED ASPHALT DRIVEWAY TO BE INSTALLED.
9. NOTIFY THE APPROPRIATE REGULATORY AGENCIES OF PROJECT COMPLETION. SUBMIT THE NOTICE OF TERMINATION TO CLOSE OUT THE PERMIT.

B13: PROVISIONS FOR EROSION AND SEDIMENT CONTROL ON INDIVIDUAL BUILDING LOTS REGULATED UNDER THE PROPOSED PROJECT:

ALL PROPOSED IMPROVEMENTS ARE BEING MADE ON RIGHT-OF-WAY, UTILITY EASEMENTS, OR LAND OWNED BY THE CITY. THE PROJECT AREA AND INDIVIDUAL AREA EROSION CONTROL IS DEPICTED IN PLANS.

B14: MATERIAL HANDLING AND SPILL PREVENTION AND SPILL RESPONSE PLAN MEETING THE REQUIREMENTS IN 327 IAC 2-6.1:

AS DESCRIBED DS-12, "TEMPORARY EROSION CONTROL" (UNDER SEPARATE ATTACHMENT), THE CONTRACTOR WILL BE REQUIRED TO INSPECT EQUIPMENT REGULARLY TO AVOID UNNECESSARY LEAKS OR SPILLS. THE CONTRACTOR WILL ALSO BE REQUIRED TO PROVIDE SPILL KITS AND EQUIPMENT TO CONTAIN AND CLEAN UP PETROLEUM PRODUCTS OR OTHER UNDESIRABLE SPILLS WHICH MAY OCCUR DURING CONSTRUCTION.

FUELS, OILS, GREASE, OR OTHER PETROLEUM PRODUCTS MUST BE STORED IN APPROPRIATE AND APPROVED AREAS. PREVENTATIVE MAINTENANCE WILL BE REQUIRED FOR ON-SITE EQUIPMENT. HAZARDOUS MATERIALS WILL BE REQUIRED TO BE STORED IN A FIELD TRAILER TO AVOID ANY OUTSIDE STORAGE.

ALL FUEL IS TO BE CONTAINED IN A MOBILE SERVICE TRUCK OR IN THE CONSTRUCTION EQUIPMENT OPERATING ON SITE. SMALL CONTAINERS OF OILS, GREASE, AND RELATED PRODUCTS MAY BE STORED IN THE CONTRACTOR'S CONSTRUCTION TRAILER. THESE ITEMS WILL BE REQUIRED TO BE INSPECTED REGULARLY TO ENSURE PROPER STORAGE AND HANDLING AND TO GUARD AGAINST LEAKAGE. DEFECTIVE CONTAINERS WILL BE REMOVED FROM THE PROJECT SITE IMMEDIATELY.

IF A SPILL DOES OCCUR, SPILL REPORTING AND NOTIFICATION REQUIREMENTS WILL BE UNDERTAKEN IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND STATE REQUIREMENTS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RESPONSE PROCEDURES THAT WILL MINIMIZE GROUNDWATER AND SURFACE WATER IMPACTS.

CONTACT INFORMATION FOR LOCAL AND STATE AGENCIES TO BE CONTACTED IN THE EVENT OF A SPILL ARE AS FOLLOWS:

FULTON COUNTY SOIL & WATER CONSERVATION DISTRICT
1252 E 100 S
ROCHESTER, IN 46975
PHONE: 574-223-3220 EXT. 3

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND QUALITY
EMERGENCY RESPONSE AND SPILL REPORTING SECTION
PHONE: 1-888-233-7745

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER QUALITY
INDIANA GOVERNMENT CENTER NORTH
100 N. SENATE AVENUE, ROOM N1255
INDIANAPOLIS, INDIANA 46204
PHONE: 1-888-233-7745

INDIANA DEPARTMENT OF NATURAL RESOURCES
DISTRICT 4 HEADQUARTERS
PHONE: 765-649-1062

INDIANA DEPARTMENT OF TRANSPORTATION
TRAFFIC MANAGEMENT CENTER
PHONE: 317-899-8690

B15: MATERIAL HANDLING AND STORAGE PROCEDURES ASSOCIATED WITH CONSTRUCTION ACTIVITY:

FUELS, OILS, GREASE, OR OTHER PETROLEUM PRODUCTS MUST BE STORED IN APPROPRIATE AND APPROVED AREAS. PREVENTATIVE MAINTENANCE WILL BE REQUIRED FOR ON-SITE EQUIPMENT. HAZARDOUS MATERIALS WILL BE REQUIRED TO BE STORED IN A FIELD TRAILER TO AVOID ANY OUTSIDE STORAGE.

ALL FUEL IS TO BE CONTAINED IN A MOBILE SERVICE TRUCK OR IN THE CONSTRUCTION EQUIPMENT OPERATING ON SITE. SMALL CONTAINERS OF OILS, GREASE, AND RELATED PRODUCTS MAY BE STORED IN THE CONTRACTOR'S CONSTRUCTION TRAILER. THESE ITEMS WILL BE REQUIRED TO BE INSPECTED REGULARLY TO ENSURE PROPER STORAGE AND HANDLING AND TO GUARD AGAINST LEAKAGE. DEFECTIVE CONTAINERS WILL BE REMOVED FROM THE PROJECT SITE IMMEDIATELY.

CONCRETE WASHOUT AREA LOCATIONS ARE ANTICIPATED AS NECESSARY FOR THIS PROJECT AND HAVE BEEN INCLUDED IN THE DIVISION B EROSION CONTROL SHEET SET.

SECTION C: STORMWATER POLLUTION PREVENTION - POST CONSTRUCTION

C1: DESCRIPTION OF POLLUTANTS AND THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE:

THE FINAL LAND USE IN DIVISION A IS PROPOSED TO CHANGE FROM THE EXISTING. THE NRCS HAS BEEN CONTACTED ABOUT THE CONVERSION OF FARMLAND TO URBAN DEVELOPED LAND. DIVISION B WILL NOT HAVE ANY LAND USE CHANGES. POTENTIAL POST-CONSTRUCTION POLLUTANTS FROM THIS PROJECT INCLUDE SEDIMENT, HYDROCARBONS, AND LITTER.

SEDIMENT POLLUTION IS A RESULT OF EROSION WHICH CAN BE TRIGGERED BY NATURAL CAUSES OR HUMAN ACTIVITY. FOR THIS PROJECT, SEDIMENTATION MAY OCCUR DUE TO RUNOFF FROM EXCAVATED AREAS. SEDIMENT POLLUTION MAY ALSO BE CAUSED BY ON-SITE STORAGE OF EXCAVATED MATERIALS, BACKFILL MATERIALS, AND CONSTRUCTION SPOIL AREAS. HYDROCARBON POLLUTION MAY OCCUR DUE TO LEAKAGE AND SPILLS FROM ITEMS SUCH AS GASOLINE, OIL, GREASE, VEHICLE BRAKE AND TRANSMISSION FLUIDS, ANTIFREEZE, AND COOLANTS. LITTER MAY OCCUR IN PROJECT AREAS DUE TO HUMAN ACTIVITIES AND INCLUDE PLASTIC BAGS, BOTTLES, ALUMINUM CANS, AND OTHER GENERAL GARBAGE.

C2: DESCRIPTION OF PROPOSED POST-CONSTRUCTION STORMWATER QUALITY MEASURES:

POST-CONSTRUCTION MEASURES INCLUDE THE PROPOSED PERMANENT SEEDING. AN IMPERVIOUS SURFACE IS BEING ADDED FOR THE PROJECT BUT WILL HAVE INSIGNIFICANT EFFECTS ON THE RUNOFF RATE COMPARED TO PRE-CONSTRUCTION VALUES. ALL VEGETATED AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WILL BE REQUIRED TO BE RESTORED. REQUIREMENTS FOR PERMANENT SEEDING ARE REFERENCED IN WM-24 "SEEDING AND SODDING" SPECIFICATION.

C3: PLAN DETAILS FOR EACH STORMWATER QUALITY MEASURE:

DETAILS FOR POST-CONSTRUCTION MEASURES ARE SHOWN IN THE PLANS. TEMPORARY EROSION CONTROL MEASURES WILL NOT BE REMOVED UNTIL THE PERMANENT SEEDING HAS BEEN ESTABLISHED. REFER TO DS-12 "TEMPORARY EROSION AND SEDIMENT CONTROL" AND WM-24 "SEEDING AND SODDING".

C4: SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION:

POST-CONSTRUCTION SEQUENCING MEASURES FOR THIS PROJECT WILL BE AS FOLLOWS:

1. TEMPORARY PLANTINGS WILL BE PROVIDED IN CRITICAL AREAS DEVOID OF VEGETATION AND SUBJECT TO EROSION. SUCH TEMPORARY PLANTINGS MAY BE NECESSARY TO PROTECT AN AREA WHEN PREPARING FOR WINTER SHUT DOWN OR TO PROVIDE COVER WHEN PERMANENT SEEDLINGS ARE LIKELY TO FAIL DUE TO AN EXTENDED PERIOD OF HEAT OR DROUGHT.
2. REMOVAL AND CLEANUP OF ALL TEMPORARY EROSION CONTROL MEASURES, INCLUDING SILT FENCE AND EROSION CONTROL BLANKET.
3. THE ENTIRE CONSTRUCTION AREA IS TO BE INSPECTED AND CLEANED, INCLUDING THE COLLECTION AND DISPOSAL OF CONSTRUCTION TRASH AND DEBRIS.
4. PERMANENT SEEDING AND MULCHING WILL BE INSTALLED IMMEDIATELY AFTER ACHIEVING FINAL GRADE OR WITHIN SEVEN (7) DAYS OF INACTIVITY. IF NECESSARY, A TEMPORARY STABILIZATION PRACTICE WILL BE EMPLOYED UNTIL THE NEXT PRIME SEEDING PERIOD.
5. A FINAL SITE INSPECTION WILL TAKE PLACE TO ENSURE THAT ALL REQUIREMENTS OF THE SWPPP, CONSTRUCTION DRAWINGS, AND SUPPORTING DOCUMENTS HAVE BEEN FULFILLED.

C5: MAINTENANCE GUIDELINES FOR PROPOSED POST-CONSTRUCTION WATER QUALITY MEASURES:

VEGETATED AREAS WITHIN THE PROJECT BOUNDARIES MUST BE MAINTAINED ON A REGULAR BASIS DURING THE ACTIVE GR/WING SEASON. MAINTENANCE ACTIVITIES WILL INCLUDE INSPECTION FOR SPARSELY SEEDED AREAS, AND RESEEDING AREAS WHICH HAVE BEEN DAMAGED, OR WHICH HAVE NOT EXHIBITED A SUCCESSFUL AND HARDY STAND OF VEGETAL COVER. FERTILIZATION AND WATERING REQUIREMENTS ARE PROVIDED IN WM-24 "SEEDING AND SODDING".

C6: ENTITY RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE POST-CONSTRUCTION STORMWATER MEASURES:

THE CITY OF ROCHESTER WILL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF POST-CONSTRUCTION STORMWATER MEASURES AFTER THE NOTICE OF TERMINATION (NOT) HAS BEEN RECEIVED BY THE IDEM.

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REGISTERED
No. 19800122
STATE OF INDIANA
PROFESSIONAL ENGINEER

John Wetzel — Signature
3/21/2025 — Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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STORMWATER POLLUTION PREVENTION PLAN

Drawing No:
EC02
Sheet: 12 OF 53

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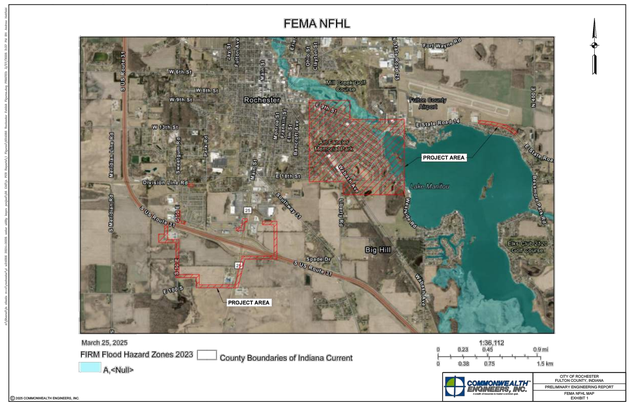
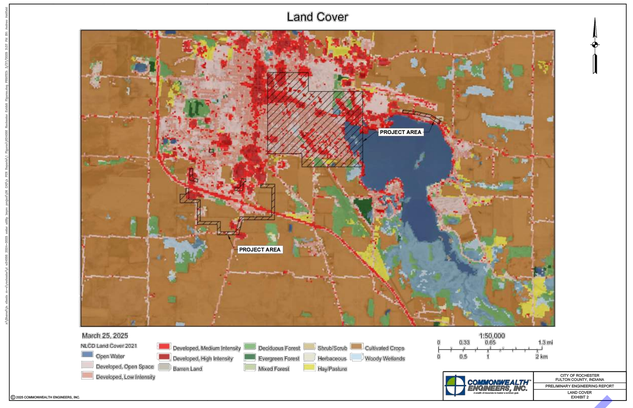
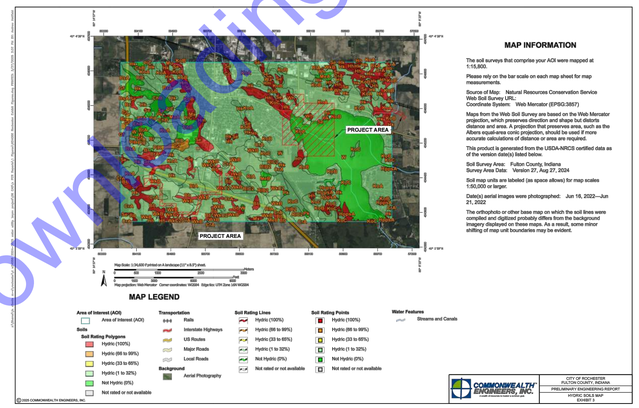


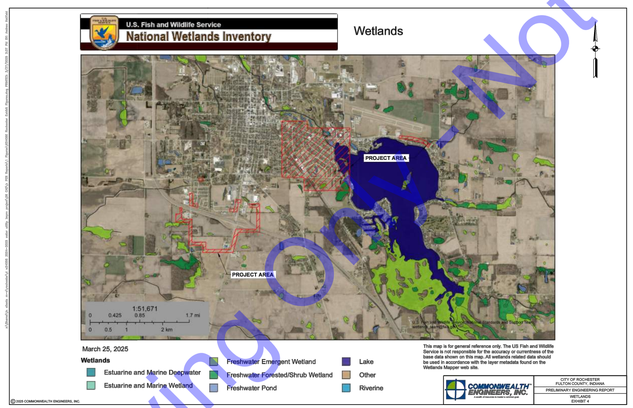
FLOODPLAIN MAP



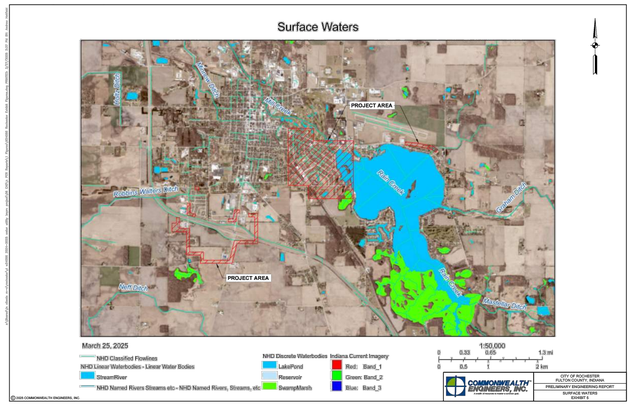
LAND COVER MAP



HYDRIC SOILS MAP



WETLANDS MAP



SURFACE WATERS MAP

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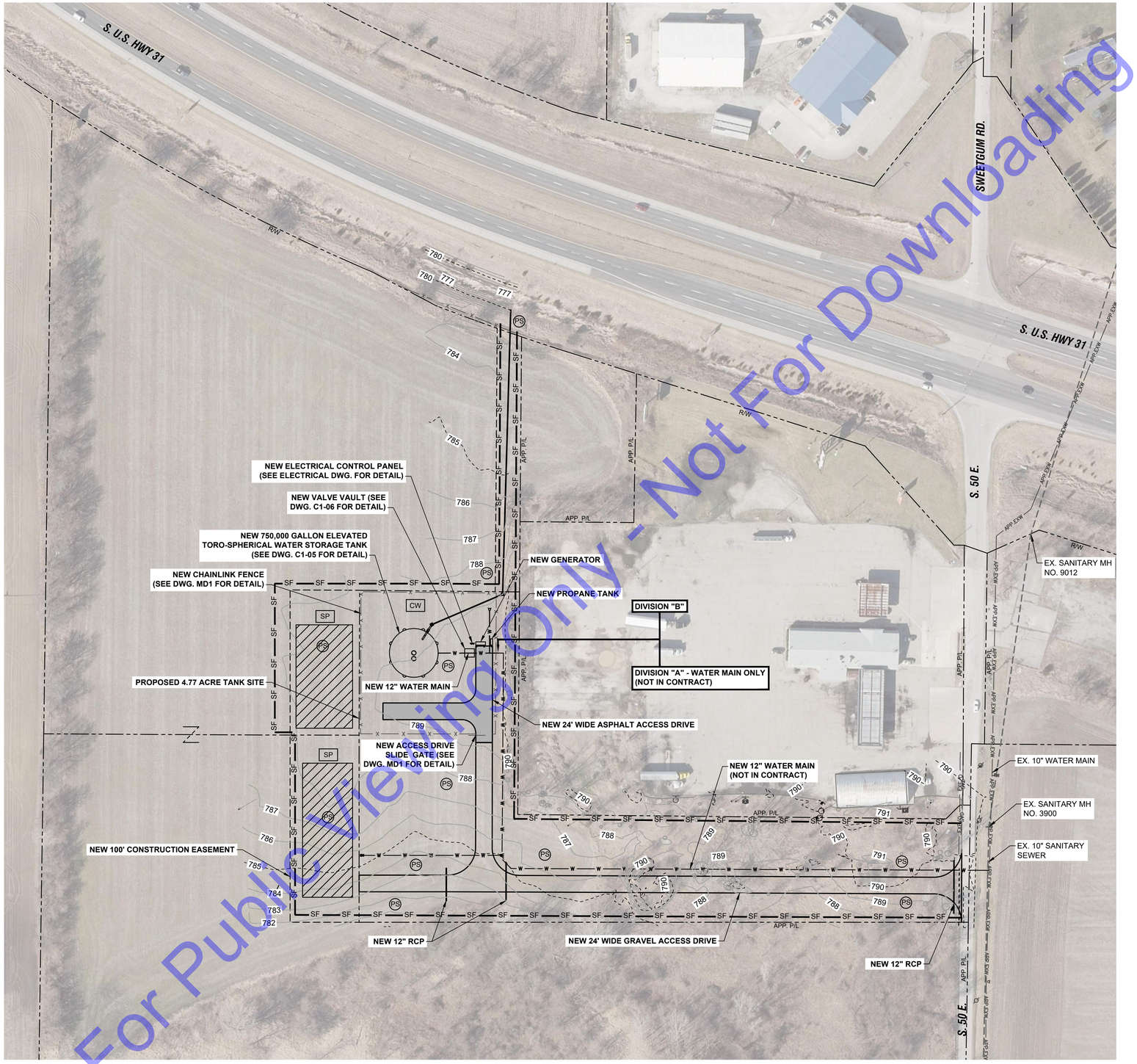
STORMWATER POLLUTION PREVENTION PLAN

Drawing No:
EC03
Sheet: 13 OF 53



SITE PLAN VIEW

SCALE: 1"=80'-0"

0 80' 160'

LEGEND:

- IP — STORM INLET PROTECTION
- PS — PERMANENT SEEDING/MULCHING
- SF — SF — SILT FENCE
- CW — CONCRETE WASHOUT STATION
- SP — STOCK PILE
- STAGING AREAS

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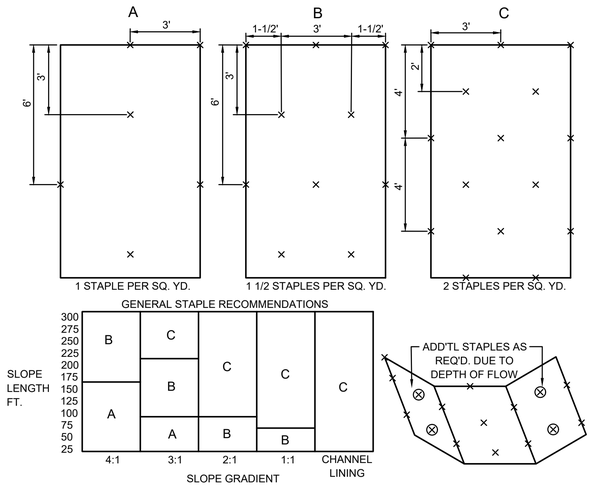
EROSION CONTROL
NEW STORAGE TANK
SITE PLAN

Drawing No:
EC04
Sheet: 14 OF 53



EROSION CONTROL BLANKET

NOT TO SCALE

SPECIFICATIONS

EFFECTIVE LIFE

- THE FUNCTIONAL LIFE OF AN EROSION CONTROL BLANKET IS DEPENDENT ON THE MATERIALS USED.

ANCHORING

- STAPLES, PINS OR STAKES USED TO PREVENT MOVEMENT OR DISPLACEMENT OF BLANKET. (FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR SPECIFIC APPLICATIONS.)

MATERIALS

- ORGANIC (STRAW, EXCELSIOR, WOVEN PAPER, COCONUT FIBER, ETC.) OR SYNTHETIC MULCH INCORPORATED WITH A POLYPROPYLENE, NATURAL FIBER OR SIMILAR NETTING MATERIAL. (THE NETTING MAY BE BIODEGRADABLE, PHOTODEGRADABLE OR PERMANENT.)

  NOTE: SOME EROSION CONTROL BLANKET NETTINGS MAY POSE A THREAT TO CERTAIN SPECIES OF WILDLIFE IF THEY BECOME ENTANGLED IN THE NETTING MATRIX.

- SIX TO 12-INCH STAPLES, PINS, OR STAKES.

INSTALLATION

1. SELECT THE TYPE AND WEIGHT OF EROSION CONTROL BLANKET TO FIT THE SITE CONDITIONS (E.G., SLOPE, CHANNEL, FLOW VELOCITY) PER THE MANUFACTURER'S RECOMMENDATIONS.
2. PREPARE THE SEEDBED, ADD SOIL AMENDMENTS, AND PERMANENTLY SEED THE AREA IMMEDIATELY FOLLOWING SEEDBED PREPARATION.
3. LAY EROSION CONTROL BLANKETS ON THE SEEDED AREA SO THAT THEY ARE IN CONTINUOUS CONTACT WITH THE SOIL WITH EACH UP-SLOPE OR UP-STREAM BLANKET OVERLAPPING THE DOWN-SLOPE OR DOWN-STREAM BLANKET BY AT LEAST EIGHT INCHES, OR FOLLOW MANUFACTURER'S RECOMMENDATIONS.
4. TUCK THE UPPERMOST EDGE OF THE UPPER BLANKETS INTO A CHECK SLOT (SLIT TRENCH), BACKFILL WITH SOIL AND TAMP DOWN. IN CERTAIN APPLICATIONS, THE MANUFACTURER MAY REQUIRE ADDITION CHECK SLOTS AT SPECIFIC LOCATIONS DOWN SLOPE FROM THE UPPERMOST EDGE OF THE UPPER BLANKETS.
5. ANCHOR THE BLANKETS IN PLACE BY DRIVING STAPLES, PINS, OR STAKES THROUGH THE BLANKET AND INTO THE UNDERLYING SOIL. FOLLOW AN ANCHORING PATTERN APPROPRIATE FOR THE SITE CONDITIONS AND AS RECOMMENDED BY THE MANUFACTURER.

MAINTENANCE

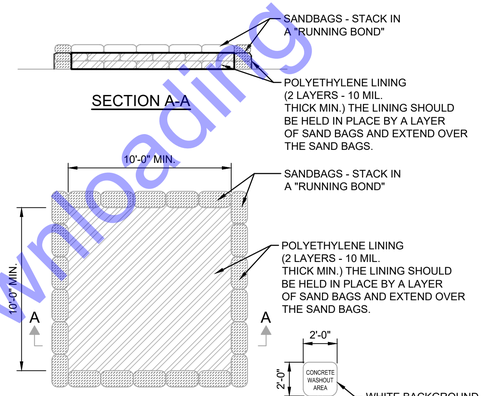
- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- CHECK FOR EROSION OR DISPLACEMENT OF THE BLANKET.
- IF ANY AREA SHOWS EROSION, PULL BACK THAT PORTION OF THE BLANKET COVERING THE ERODED AREA, ADD SOIL AND TAMP, RESEED THE AREA, REPLACE AND STAPLE THE BLANKET.

NOTES

CHANNEL LININGS UTILIZE STAPLE PATTERN "C" WITH ADDITIONAL STAPLES ON SIDE SLOPES AT PROJECTED WATER LINE.

STAPLE PATTERNS APPLY TO ALL NORTH AMERICAN GREEN EROSION CONTROL BLANKETS. STAPLE PATTERNS MAY VARY DEPENDING UPON SOIL TYPE AND AVERAGE RAINFALL.

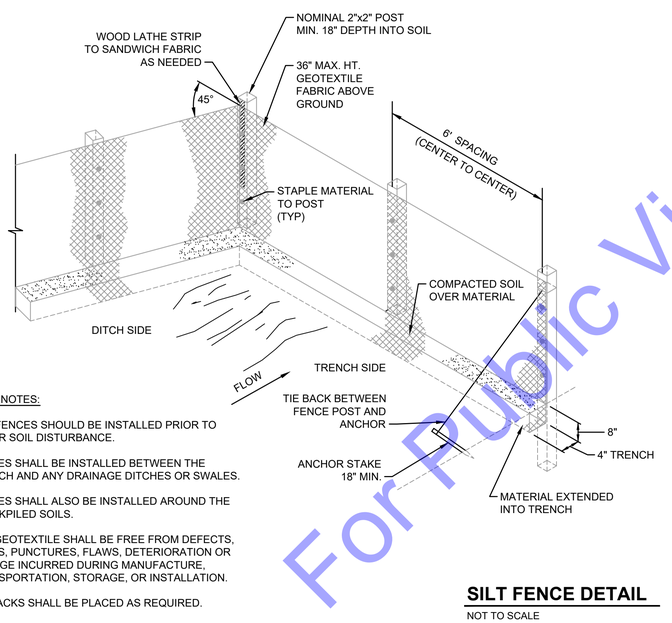
AT SLOPE LENGTHS GREATER THAN 300 FEET OR WHERE DRAINAGE OVER LARGE AREAS IS DIRECTED ONTO THE BLANKETS, STAPLE PATTERN "C" SHOULD BE UTILIZED.



NOTE:
DUE TO SITE CONSTRAINT NOT TO SCALE THE MINIMUM INTERIOR DIMENSION MAY BE ADJUSTED TO FIT THE SITE. THE STRUCTURE'S INTERIOR FOOTAGE OF 100 S.F. MUST BE MAINTAINED AND THE CONTRACTOR SHALL SUBMIT ANY DESIGN ALTERATIONS TO THE ENGINEER. CONCRETE WASHOUT STRUCTURE SHALL BE RE-LOCATED CLOSE TO AREAS RECEIVING CONCRETE, AS CONSTRUCTION PROGRESSES.

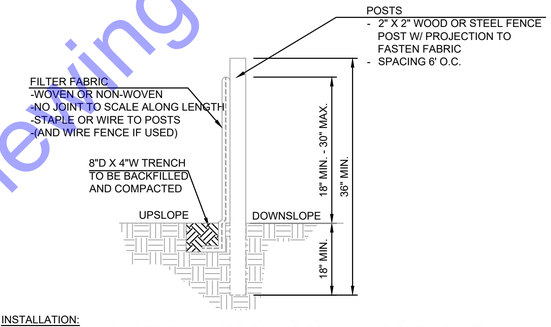
CONCRETE WASHOUT PIT DETAIL

NOT TO SCALE



GENERAL NOTES:

1. SILT FENCES SHOULD BE INSTALLED PRIOR TO MAJOR SOIL DISTURBANCE.
2. FENCES SHALL BE INSTALLED BETWEEN THE TRENCH AND ANY DRAINAGE DITCHES OR SWALES.
3. FENCES SHALL ALSO BE INSTALLED AROUND THE STOCKPILED SOILS.
4. THE GEOTEXTILE SHALL BE FREE FROM DEFECTS, TEARS, PUNCTURES, FLAWS, DETERIORATION OR DAMAGE INCURRED DURING MANUFACTURE, TRANSPORTATION, STORAGE, OR INSTALLATION.
5. TIE BACKS SHALL BE PLACED AS REQUIRED.

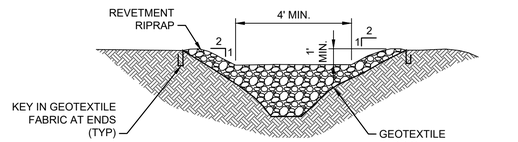


INSTALLATION:
1. THE BOTTOM 1' OF THE FENCE SHALL BE BURIED IN THE TRENCH ON THE UPSLOPE SIDE.
2. FENCE SHALL BE INSTALLED ALONG LEVEL GRADES, NOT ACROSS FLOW CHANNELS.
3. IF OPTIONAL SUPPORT WIRE FENCE IS USED, POST SPACING MAY BE EXTENDED TO 8' O.C.

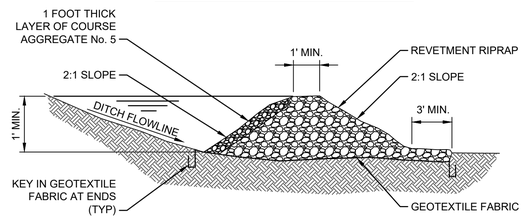
MAINTENANCE:
1. INSPECT SILT FENCE PERIODICALLY (WEEKLY) AND AFTER EACH STORM EVENT.
2. IF FABRIC IS TORN OR DAMAGED OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
3. REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE FENCE, OR IT IS CAUSING THE FABRIC TO BULGE.
4. TAKE CARE NOT TO UNDERMINE THE FENCE DURING SEDIMENT REMOVAL.
5. AFTER THE CONTRIBUTING AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND REMAINING SEDIMENT, BRING THE DISTURBED AREA TO GRADE, AND STABILIZE.

SILT FENCE DETAIL

NOT TO SCALE



SECTION PERPENDICULAR TO FLOWLINE



SECTION PARALLEL TO FLOWLINE

GENERAL NOTES:

1. RIPRAP DITCH CHECK DAMS SHALL BE PLACED SUCH THAT THE TOP OF THE DOWNSTREAM CHECK DAM IS AT THE SAME ELEVATION AS THE TOE OF THE ADJACENT UPSTREAM CHECK DAM.
2. AFTER COMPLETION OF CONTRACT, OR AS REQUESTED BY OWNER, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL ITEMS, REMOVE ALL ACCUMULATED DEPOSITS AND, AS REQUIRED, SEED AND MULCH OR SOD AS REQUIRED TO ESTABLISH AREA TO CONDITION PRIOR TO CONSTRUCTION.

ROCK CHECK DAM DETAIL

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Signature — Date

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EROSION CONTROL DETAILS

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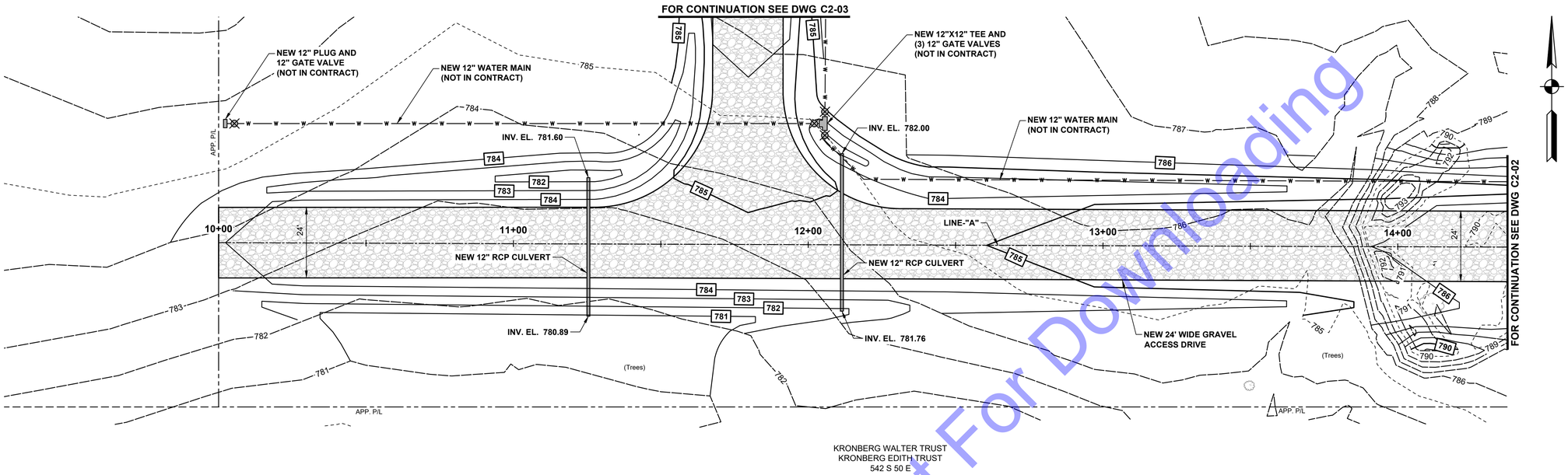
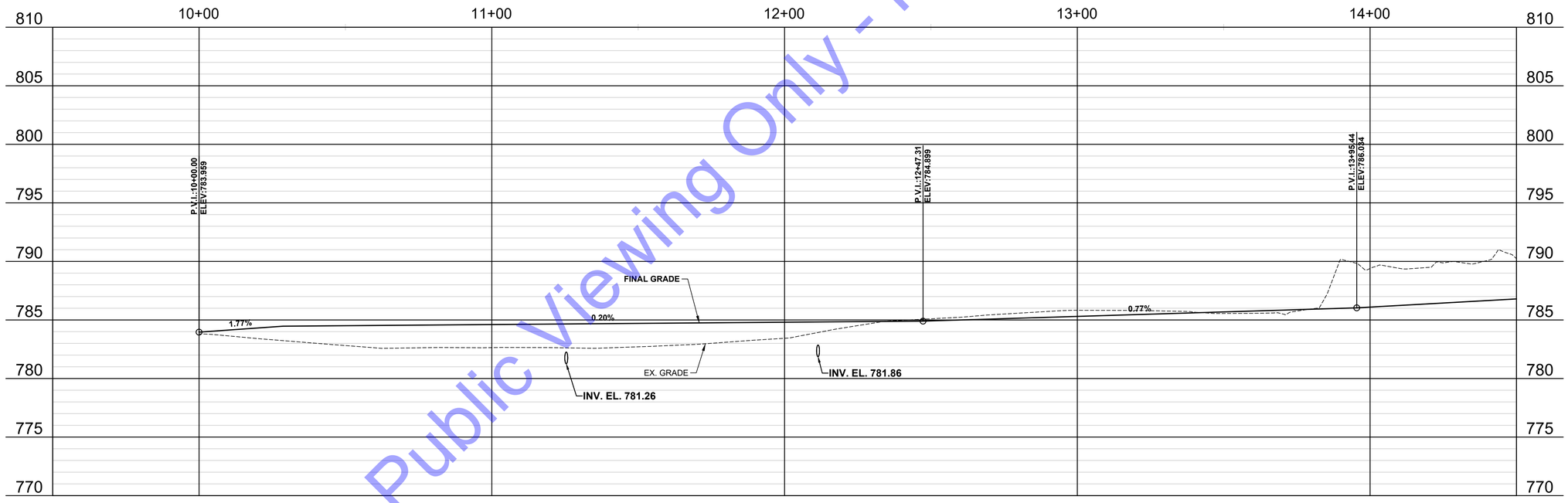
EC05
Sheet: 15 OF 53



PLAN VIEW



PROFILE VIEW

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ACCESS DRIVE PLAN AND PROFILE VIEWS - LINE "A"

Drawing No:
C2-01
Sheet: 16 OF 53

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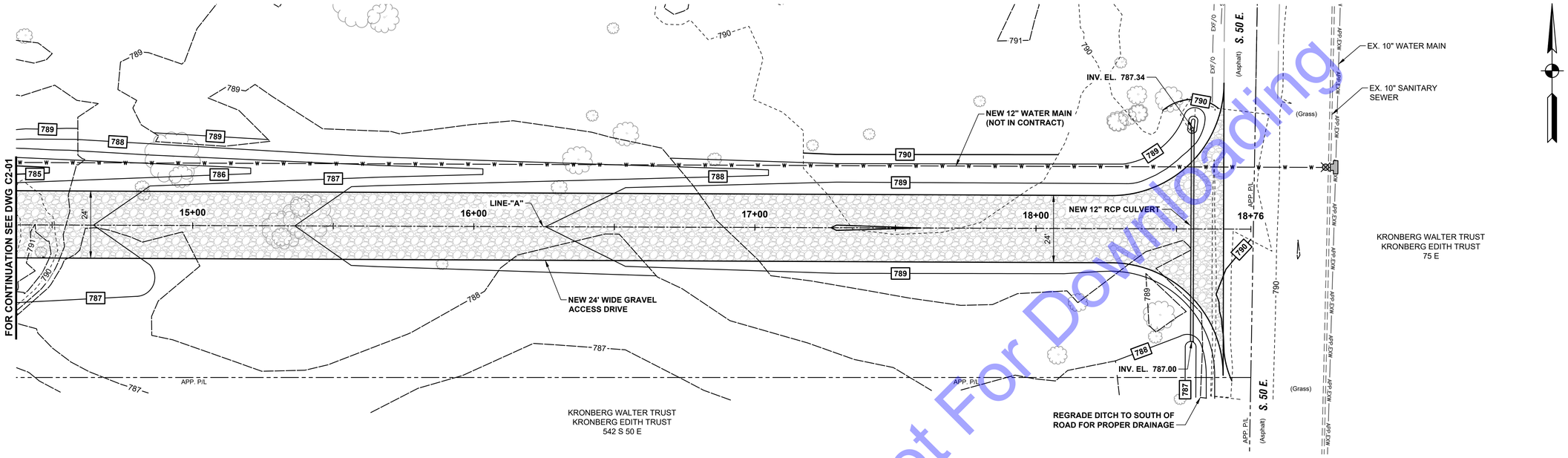
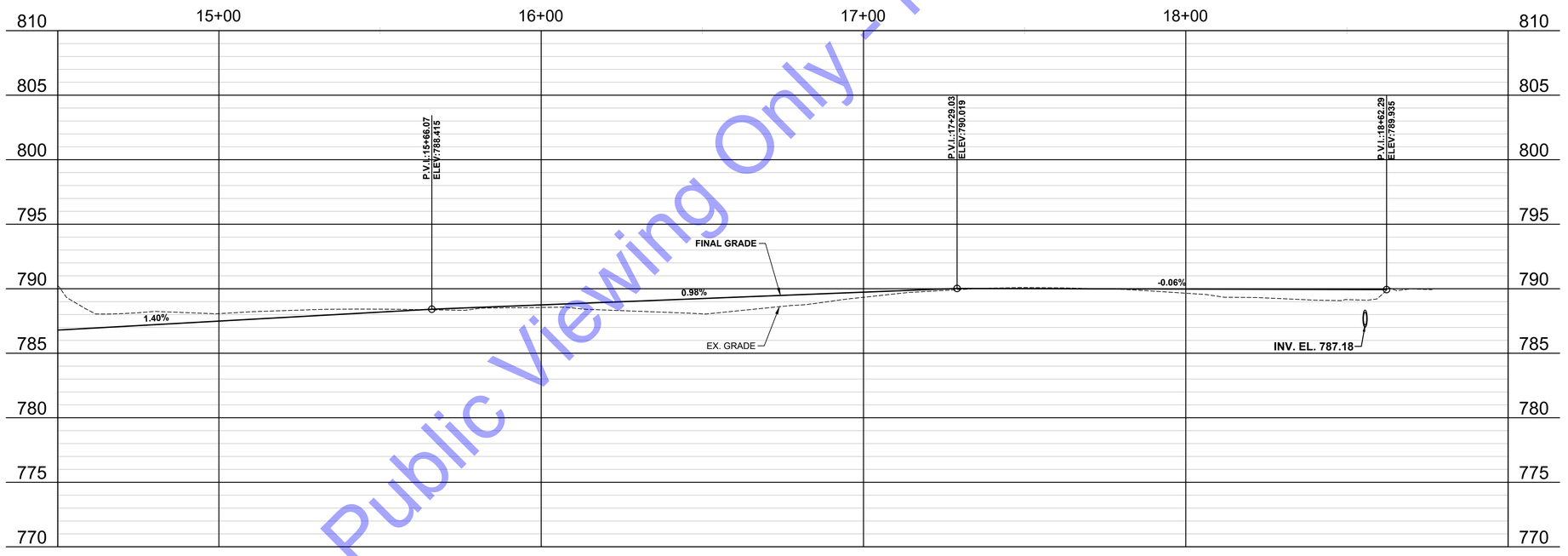


PLAN VIEW



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VERTICAL SCALE: 1"=5'

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ACCESS DRIVE PLAN AND PROFILE VIEWS - LINE "A"

Drawing No: **C2-02**

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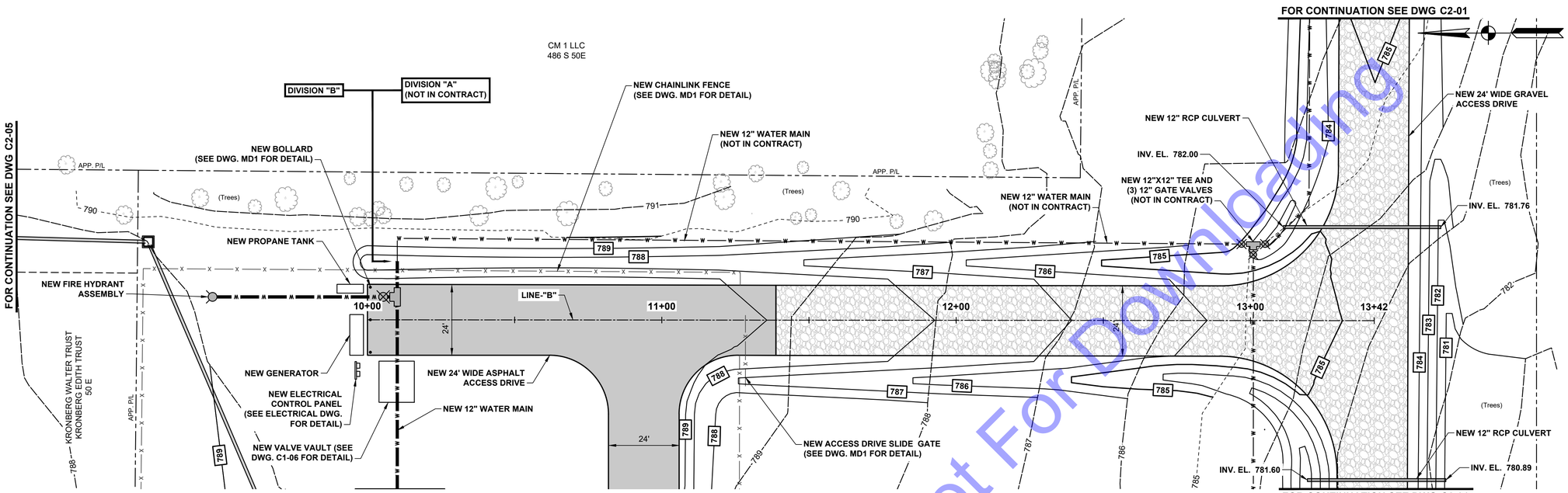
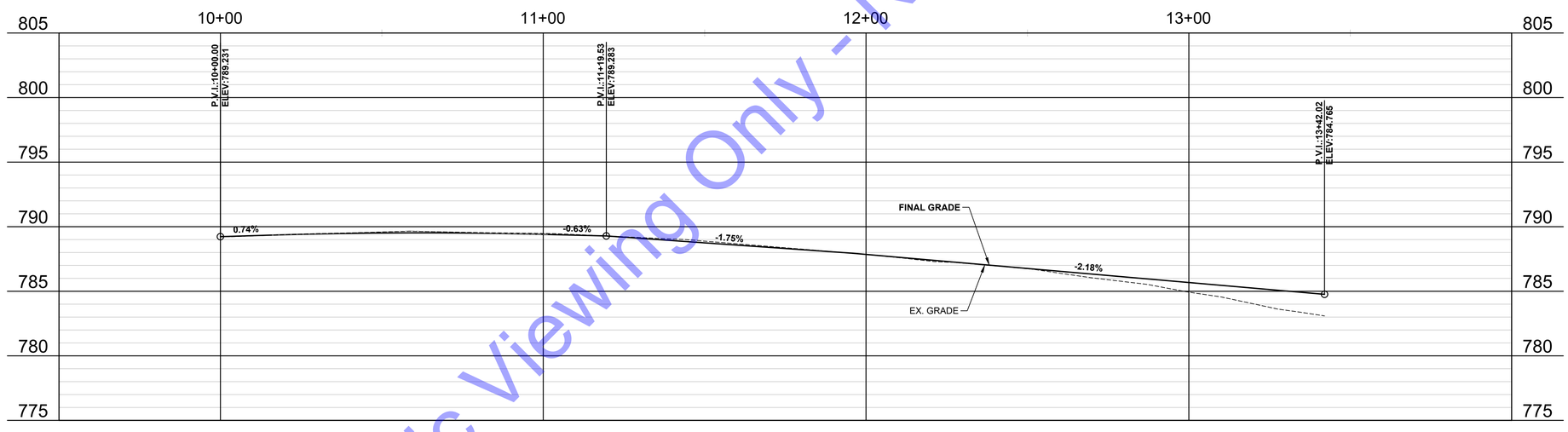


PLAN VIEW



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ACCESS DRIVE PLAN AND PROFILE VIEWS - LINE "B"

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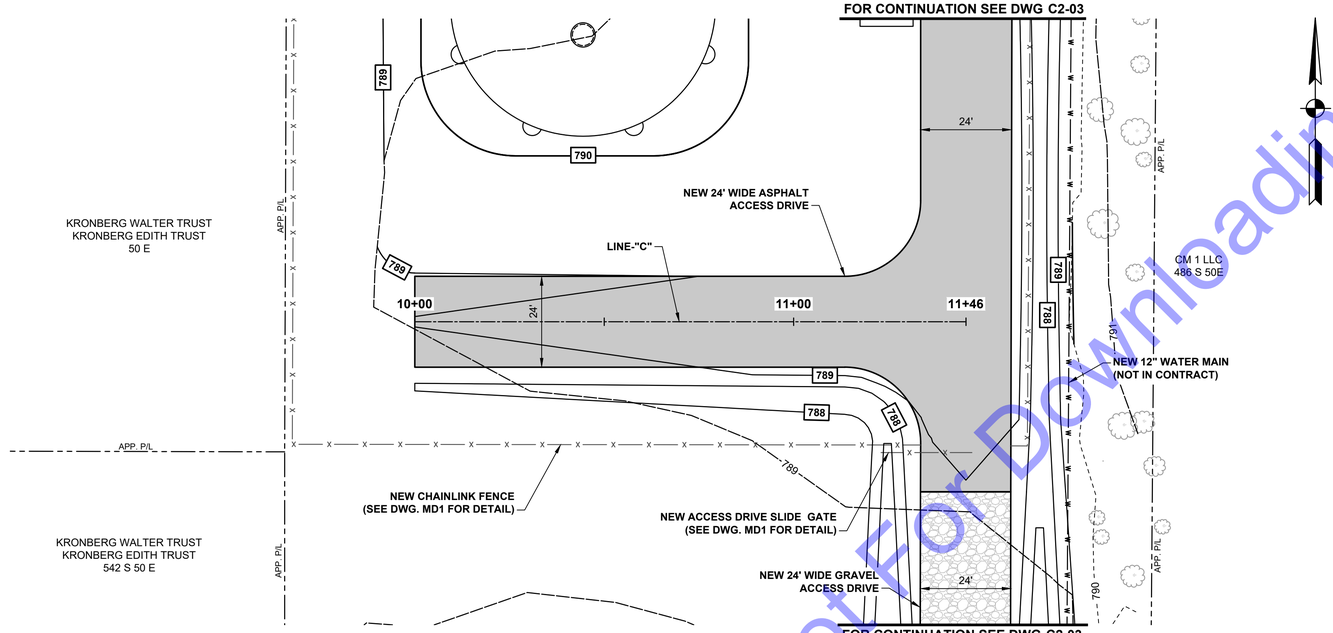
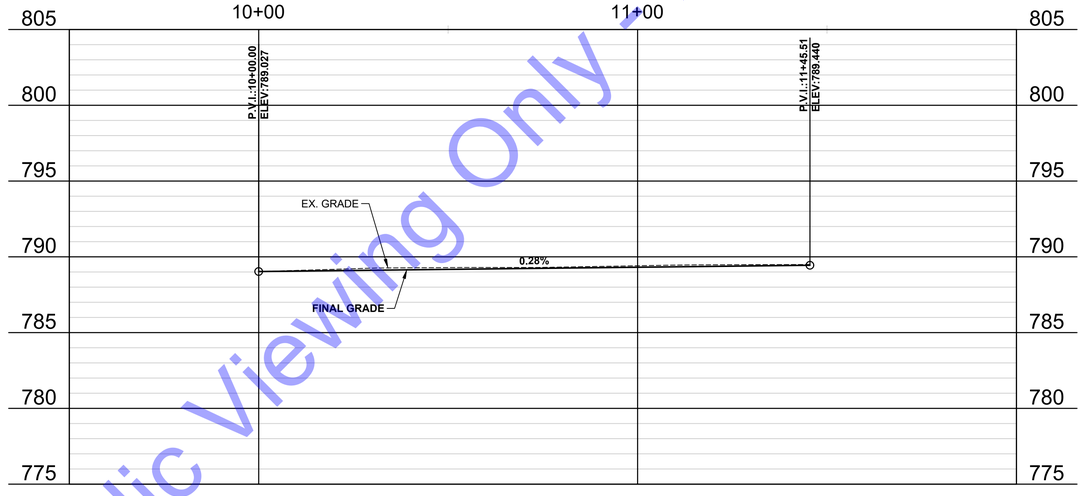


PLAN VIEW



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WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON
ELEVATED STORAGE TANK

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4/2/25	W24086	AS SHOWN

ACCESS DRIVE PLAN AND PROFILE VIEWS - LINE "C"

Drawing No:
C2-04
Sheet: 19 OF 53

File: Z:\SHARED\IN CLIENTS M-Z\ROCHESTER\D W24086 2024-2025 WATER UTILITY IMPRV PROJECT\06 CAD\A CURRENT FILES\1 DRAWINGS\DIV B TANK\06-PLAN AND PROFILE DRAWINGS.DWG
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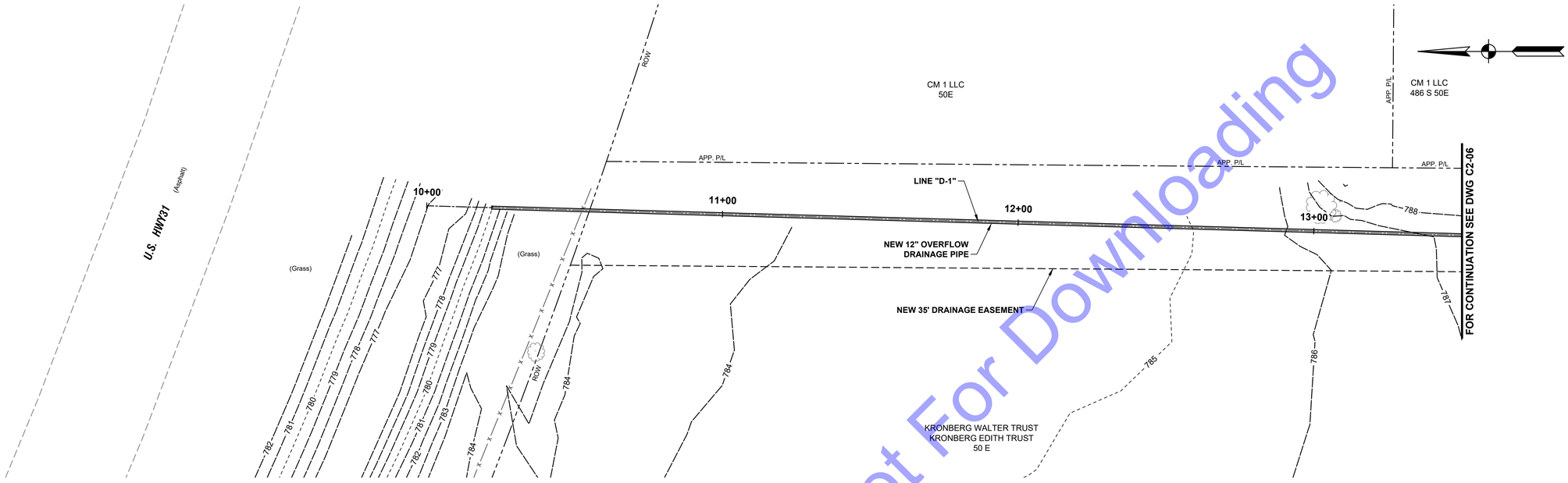
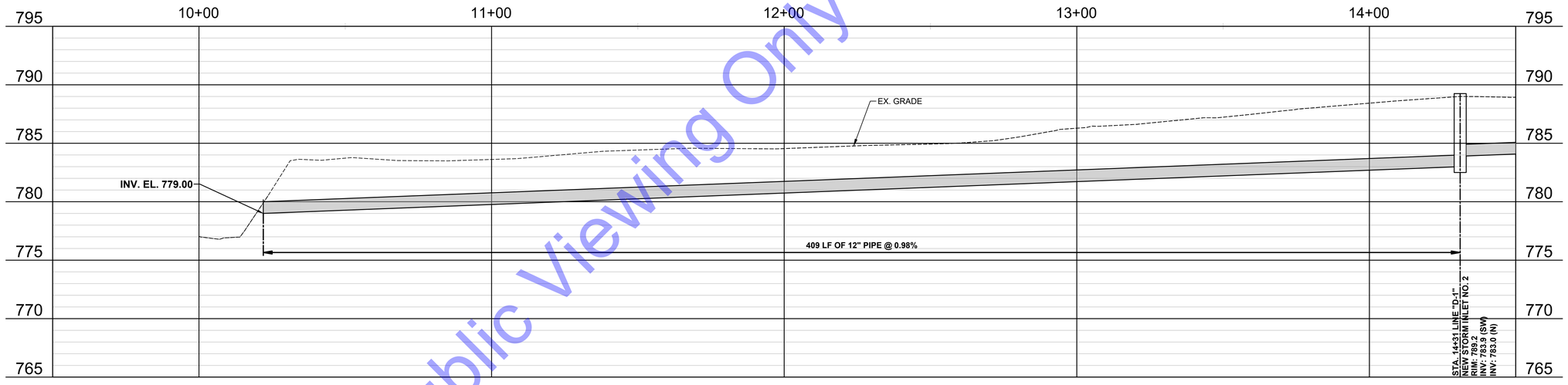


PLAN VIEW



PROFILE VIEW

HORIZONTAL SCALE: 1" = 20'-0"
0 10' 20' 40' 60'

VERTICAL SCALE: 1"=5'
5'
0

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OVERFLOW DRAINAGE PIPE PLAN AND PROFILE VIEWS - LINE "D-1"

Drawing No:
C2-05
Sheet: 20 OF 53

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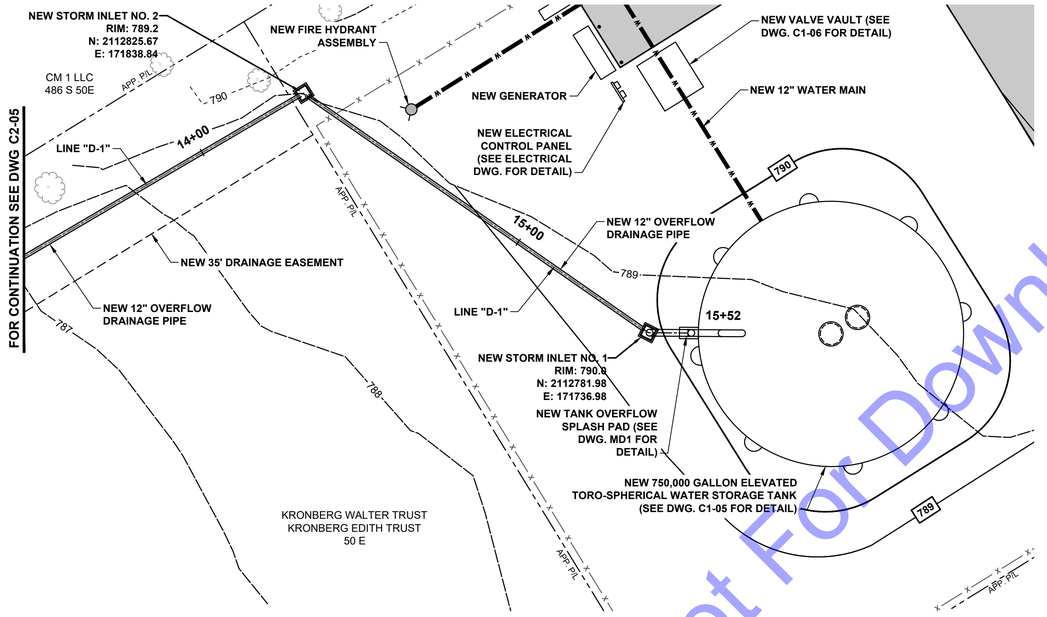
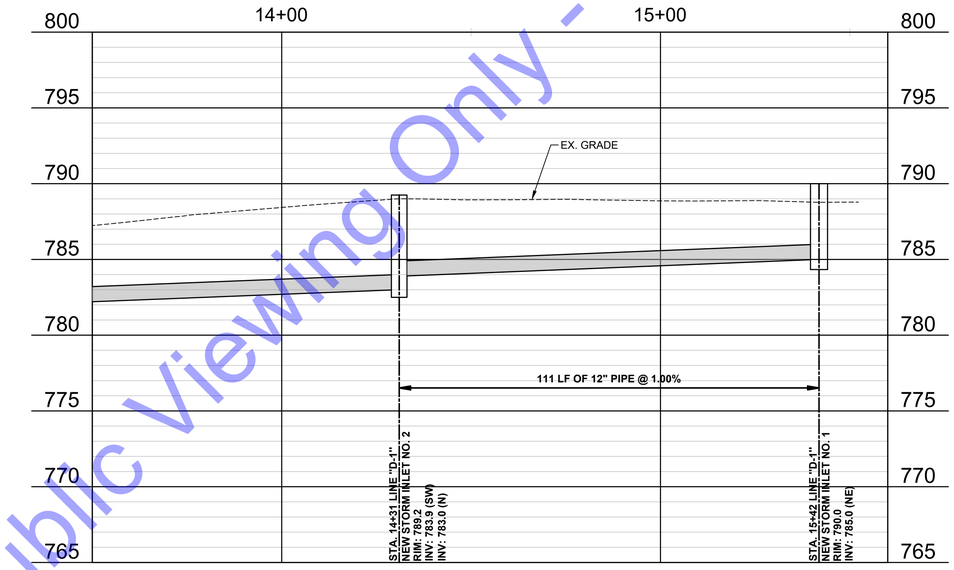


PLAN VIEW



PROFILE VIEW

HORIZONTAL SCALE: 1" = 20'-0"
0 10' 20' 40' 60'

VERTICAL SCALE: 1"=5'
5' 0

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OVERFLOW DRAINAGE PIPE PLAN AND PROFILE VIEWS - LINE "D-1"

Drawing No:
C2-06
Sheet: 21 OF 53

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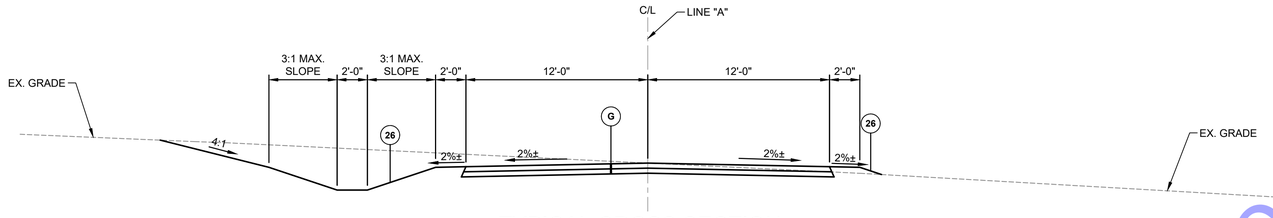
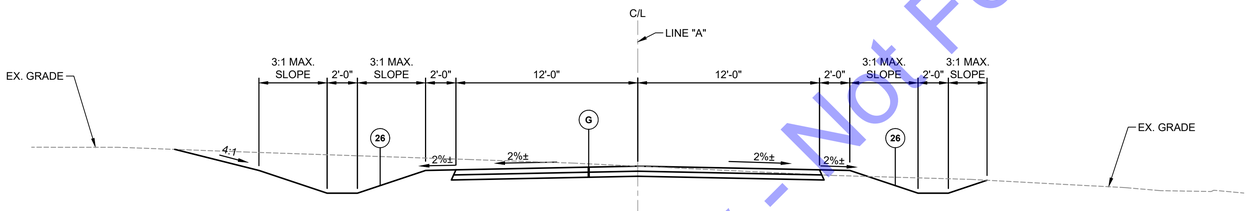


TYPICAL CROSS SECTION
STA. 10+00.00 TO STA. 11+50.00 LINE "A"
Scale: 1"=5'



TYPICAL CROSS SECTION
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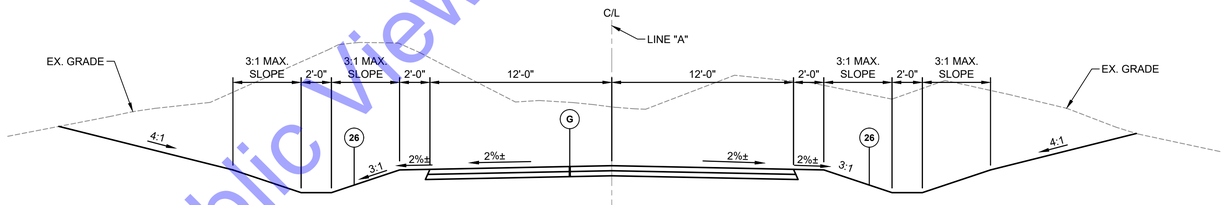
Scale: 1"=5'



TYPICAL CROSS SECTION
STA. 14+00.00 TO 15+00.00 LINE "A"
Scale: 1"=5'

LEGEND:

- (G) GEOTEXTILE FABRIC, 8" OF COMPACTED #53'S IN 2 - 4" LIFTS
- (K) GEOTEXTILE FABRIC, 8" OF COMPACTED #53'S IN 2 - 4" LIFTS, 6" OF ASPHALT - 4" OR 4.5" BASE AND 2" SURFACE
- (26) MULCHED SEEDING, U
- SUBGRADE, TYPE IC

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STATE OF INDIANA
PROFESSIONAL ENGINEER

Signature
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ACCESS DRIVE
TYPICAL CROSS SECTIONS

Drawing No:
TS1
Sheet: 22 OF 53

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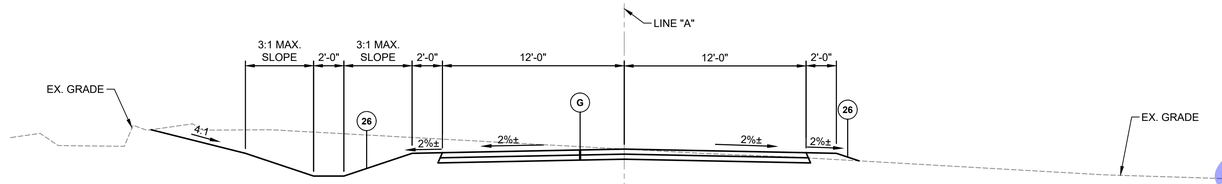

TYPICAL CROSS SECTION
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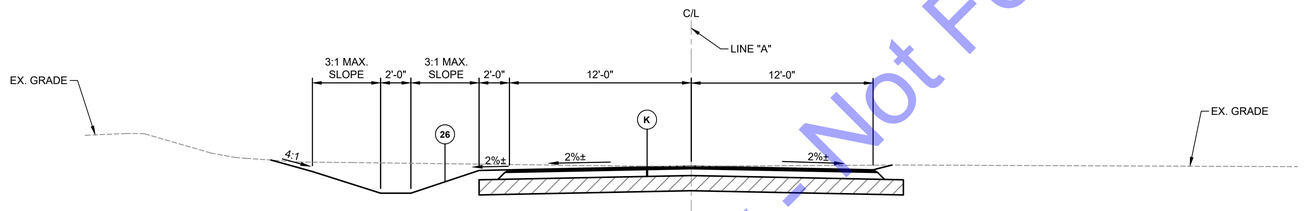
Scale: 1"=5'



TYPICAL CROSS SECTION
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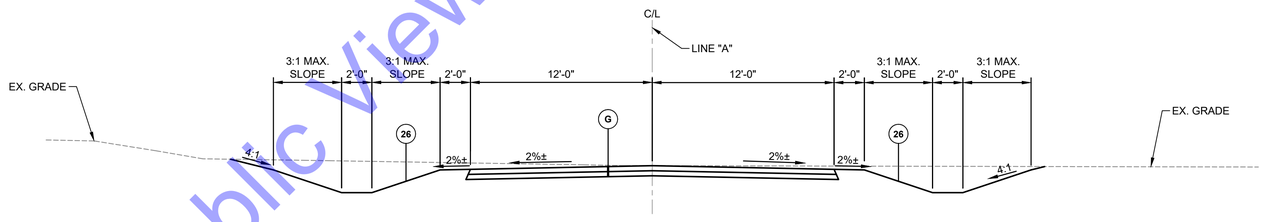
Scale: 1"=5'



TYPICAL CROSS SECTION
STA. 11+25.00 TO STA. 13+00.00 LINE "B"
Scale: 1"=5'

LEGEND:

- (G) GEOTEXTILE FABRIC, 8" OF COMPACTED #53'S IN 2 - 4" LIFTS
- (K) GEOTEXTILE FABRIC, 8" OF COMPACTED #53'S IN 2 - 4" LIFTS, 6" OF ASPHALT - 4" OR 4.5" BASE AND 2" SURFACE
- (26) MULCHED SEEDING, U
- SUBGRADE, TYPE IC

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John Wetzel — Signature
3/21/2025 — Date

CITY OF ROCHESTER
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WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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ACCESS DRIVE TYPICAL CROSS SECTIONS

Drawing No: **TS2**

Sheet: 23 OF 53

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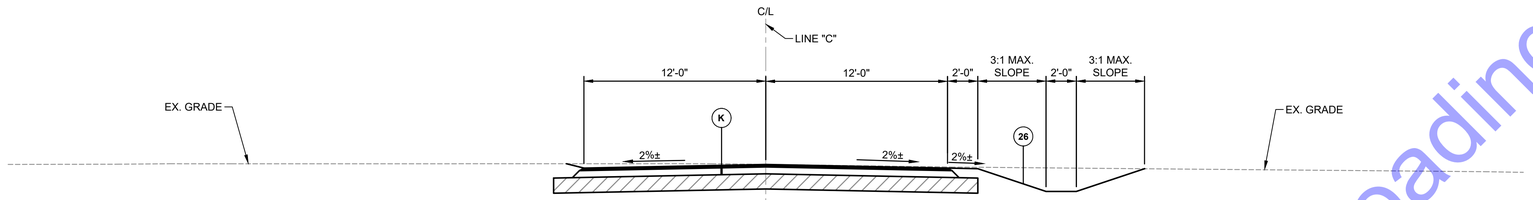

TYPICAL CROSS SECTION

STA. 10+00.00 TO STA. 11+00.00 LINE "C"

Scale: 1"=5'

LEGEND:

- (G) **GEOTEXTILE FABRIC, 8" OF COMPACTED #53'S IN 2 - 4" LIFTS**
- (K) **GEOTEXTILE FABRIC, 8" OF COMPACTED #53'S IN 2 - 4" LIFTS, 6" OF ASPHALT - 4" OR 4.5" BASE AND 2" SURFACE**
- (26) **MULCHED SEEDING, U**
- **SUBGRADE, TYPE IC**

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4/2/25	W24086	AS SHOWN

ACCESS DRIVE TYPICAL CROSS SECTIONS

Drawing No:

TS3

Sheet: 24 OF 53

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CUT/FILL SUMMARY LINE "A", LINE "B" AND LINE "C" TOTAL			
AREA (SQ. FT.)	CUT (CU. YD.)	FILL (CU. YD.)	NET TOTAL (CU. YD.)
74,947	2,028	431	1,597 (CUT)

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
5' 0

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John Wetzel
Signature

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ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS01
Sheet: 25 OF 53

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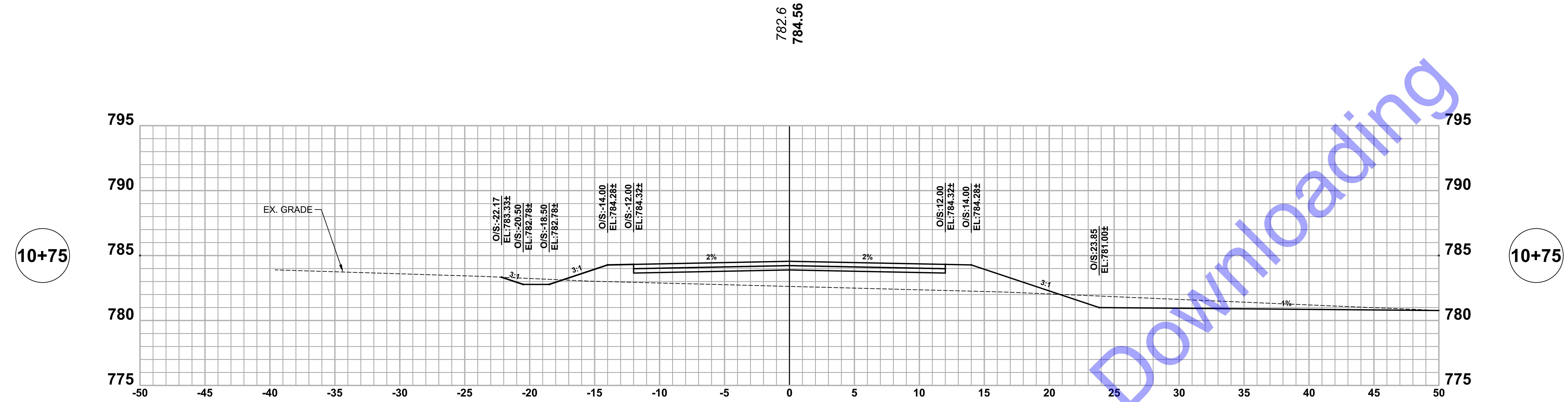

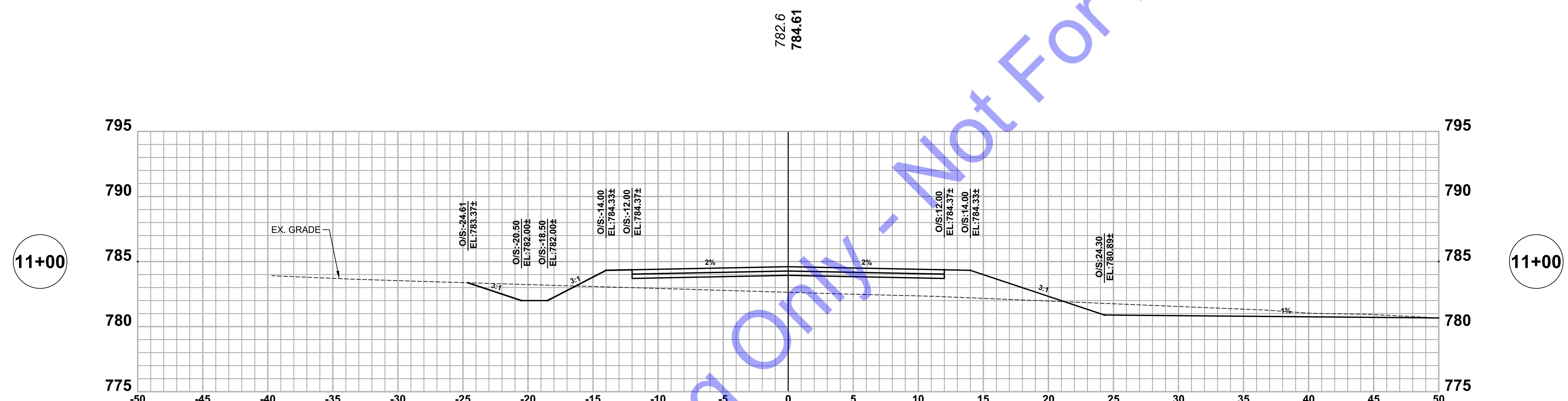

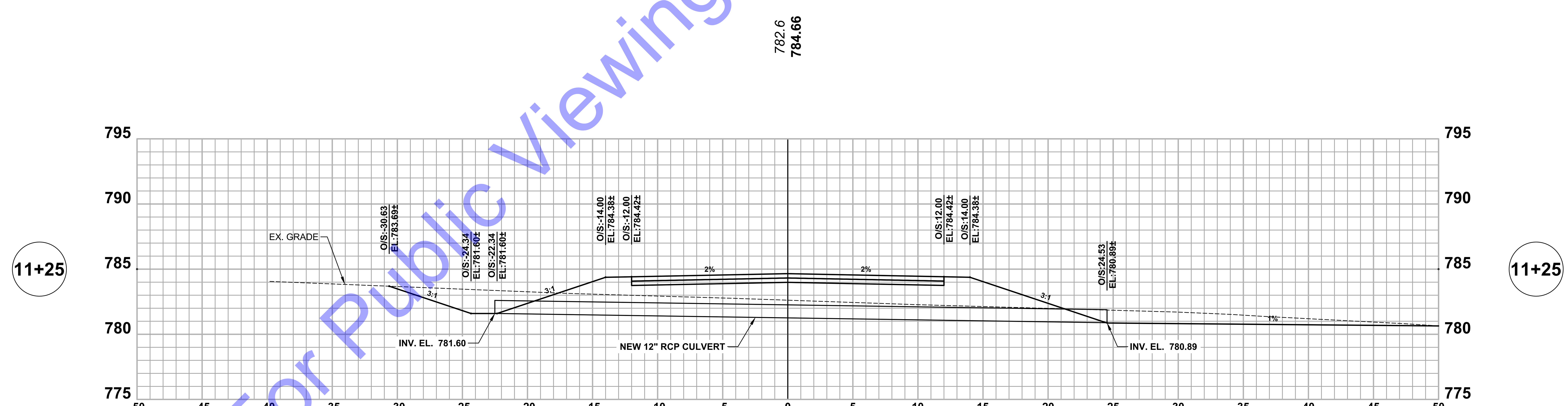

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
0 5'

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Issue Date:	Project No:	Scale:
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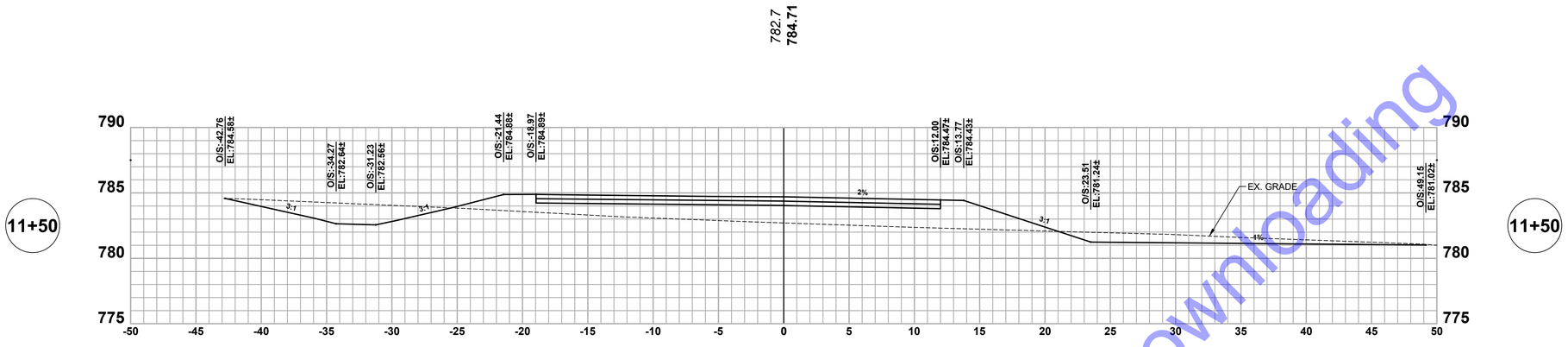
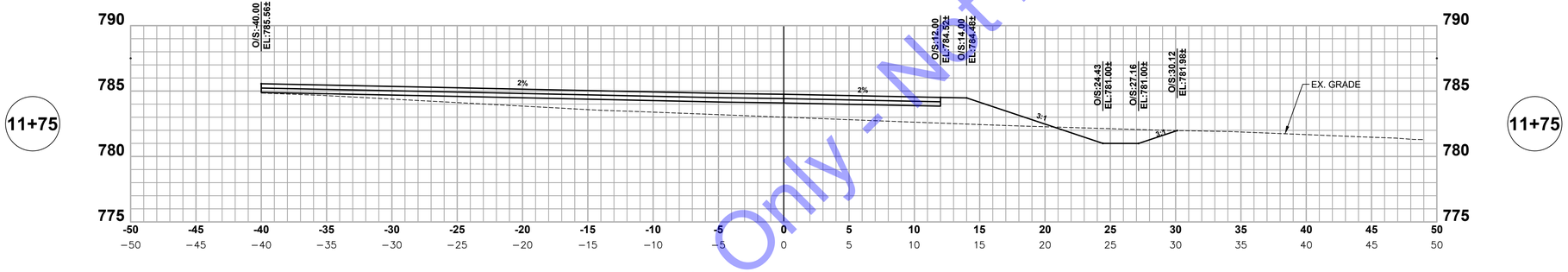
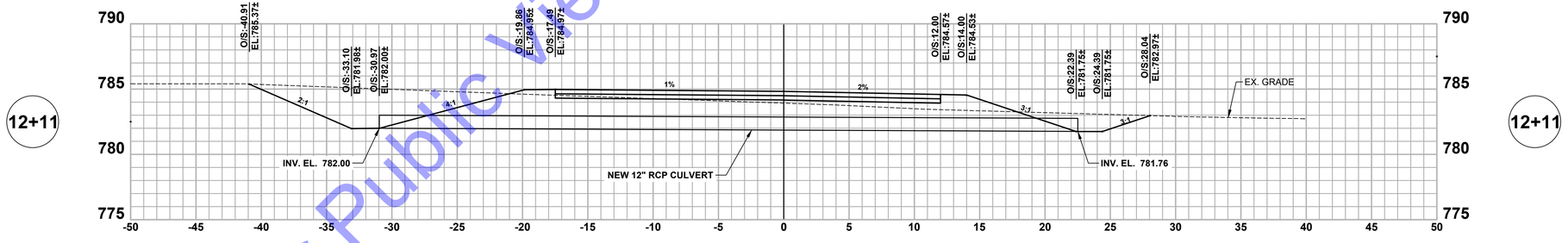
ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS02







HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'
VERTICAL SCALE: 1"=5'
0 5'

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ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS03
Sheet: 27 OF 53

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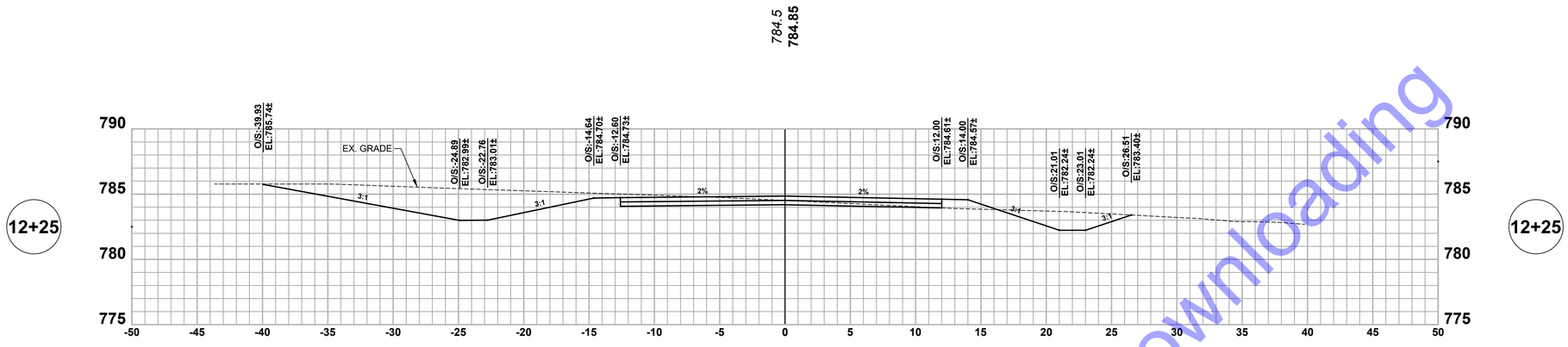

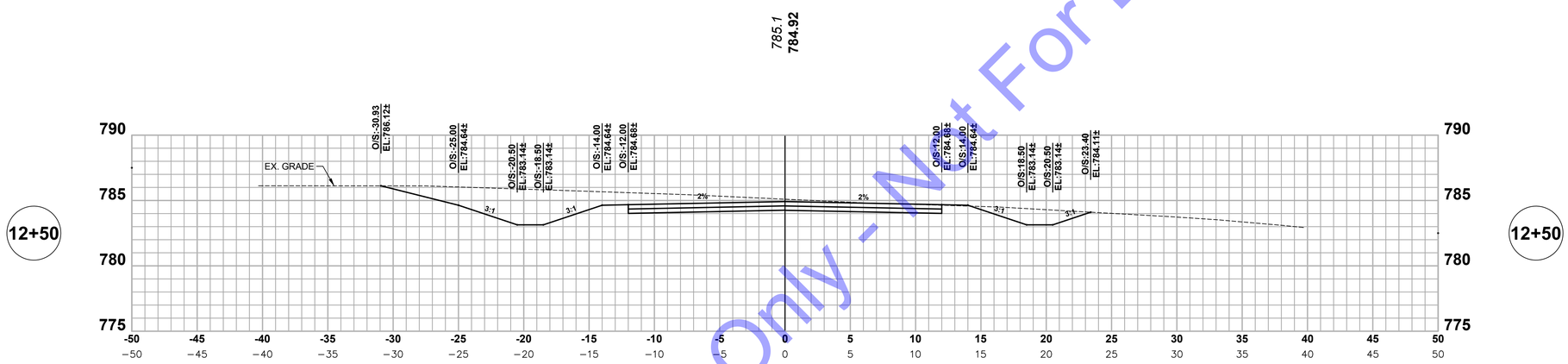

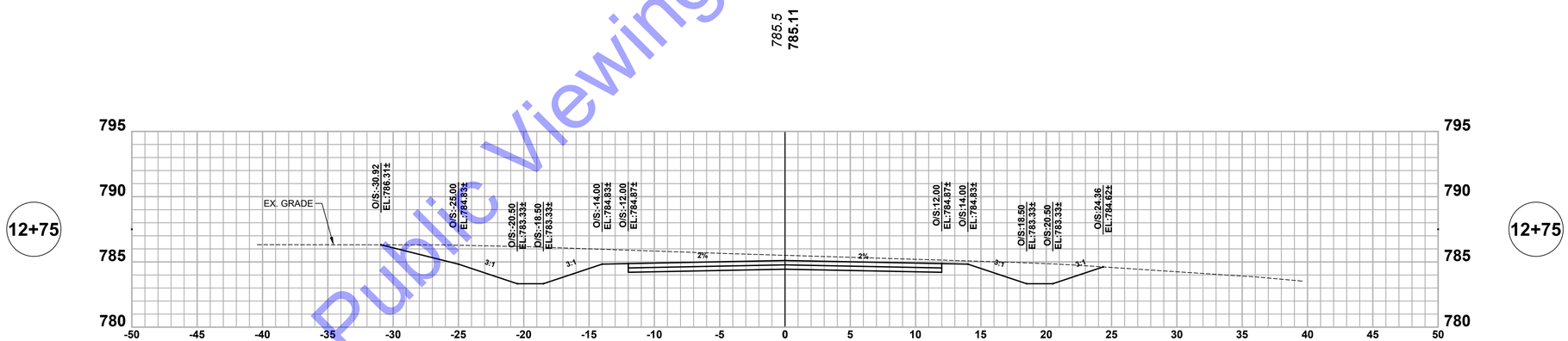

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
5' 0

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No. 19800122
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PROFESSIONAL ENGINEER

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WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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Issue Date:	Project No:	Scale:
4/2/25	W24086	AS SHOWN

ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS04
Sheet: 28 OF 53

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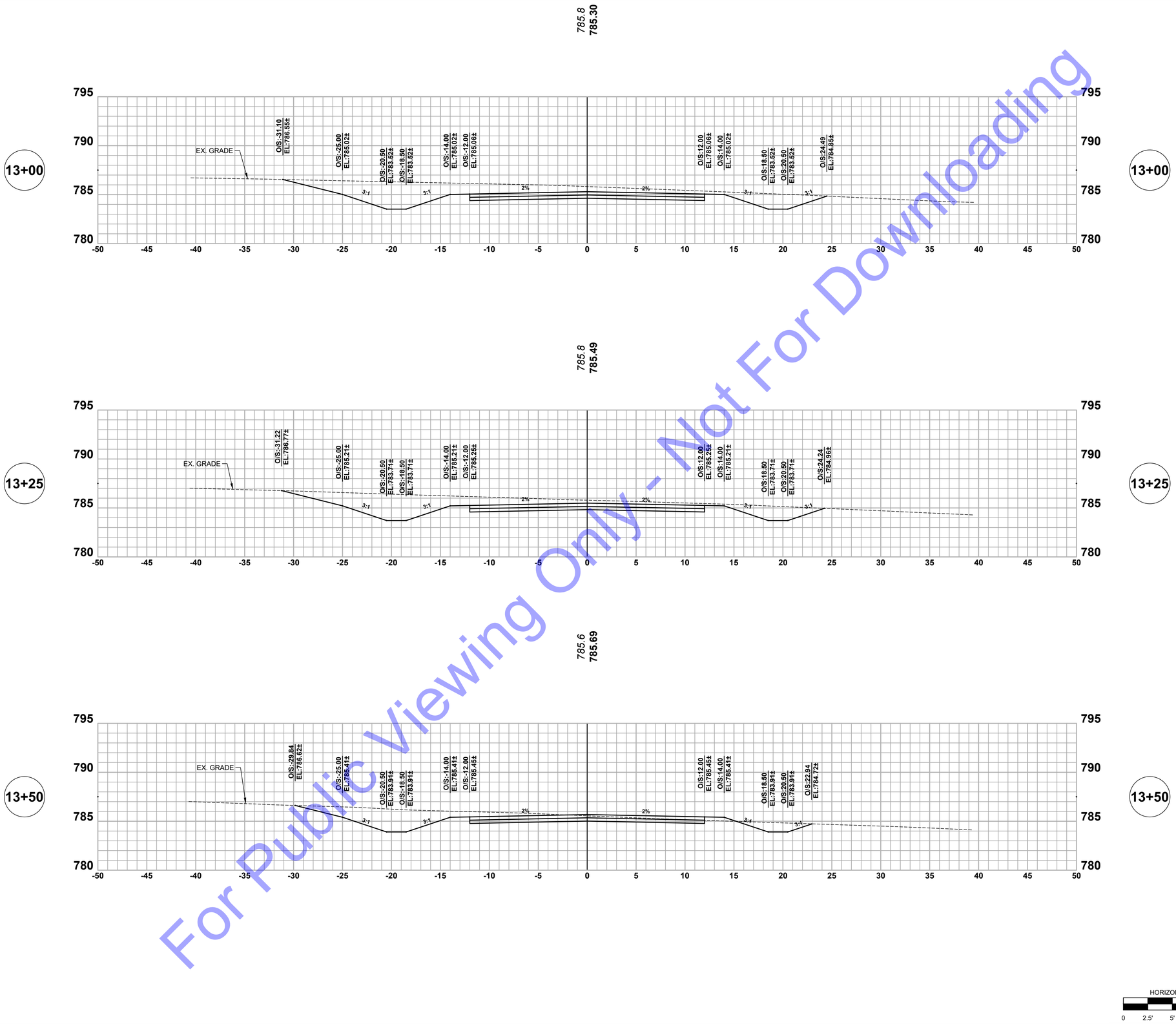

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'
VERTICAL SCALE: 1"=5'
0 5'

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JOHN W. WETZEL
REGISTERED
No. 19800122
STATE OF INDIANA
PROFESSIONAL ENGINEER

John Wetzel
Signature
3/21/2025
Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS05
Sheet: 29 OF 53

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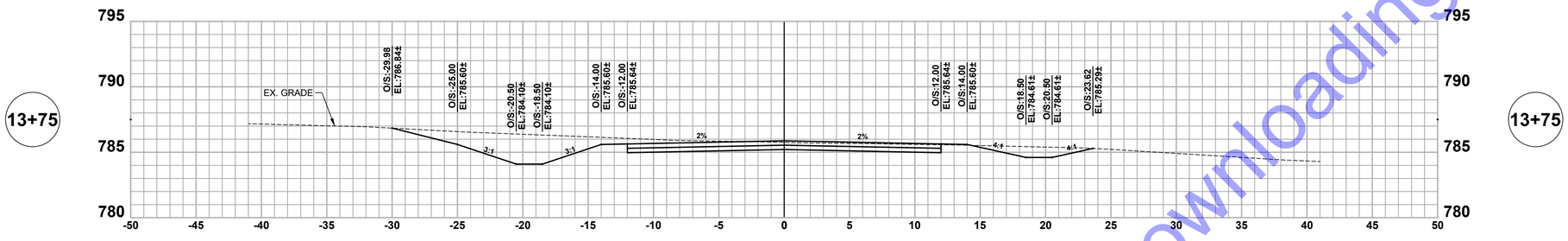

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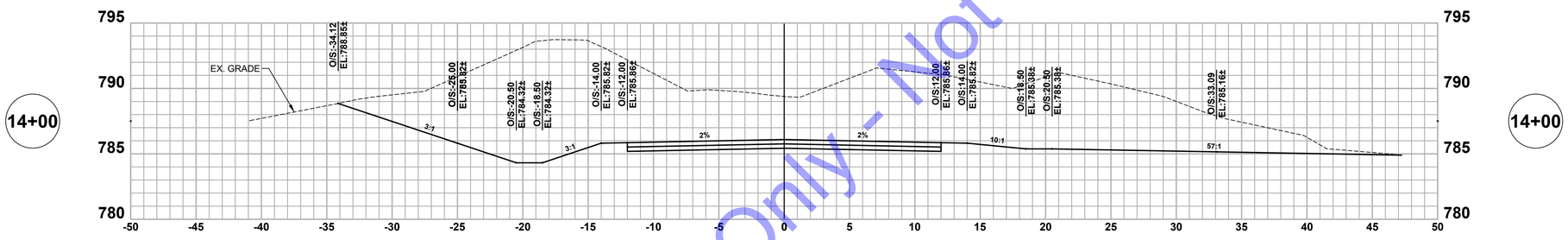

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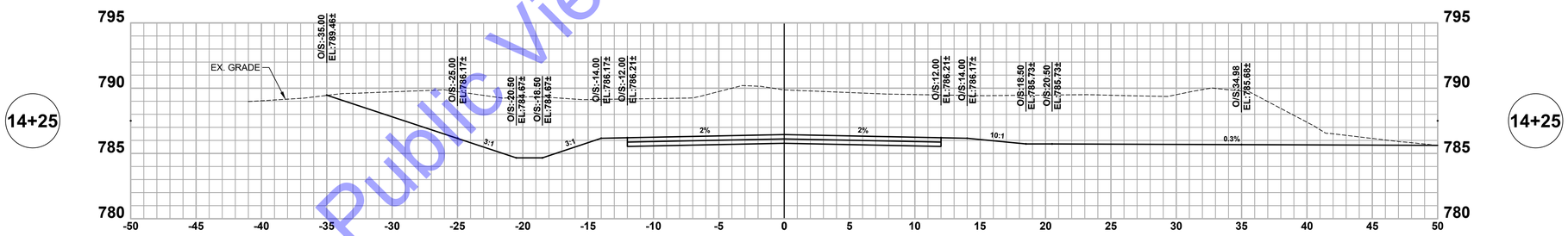

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
5'
0

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DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS06
Sheet: 30 OF 53

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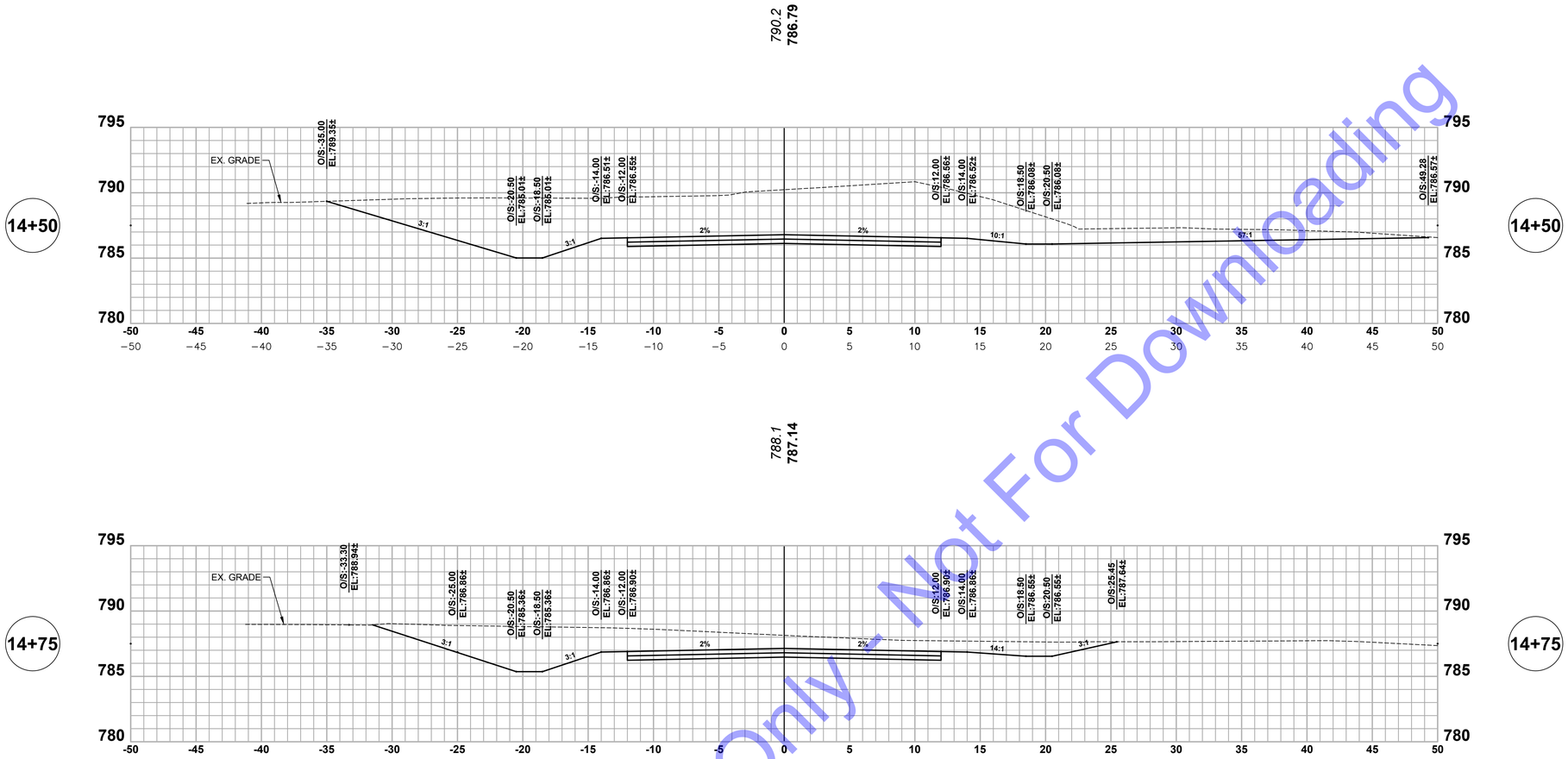

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'
VERTICAL SCALE: 1"=5'
0 5'

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DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS07
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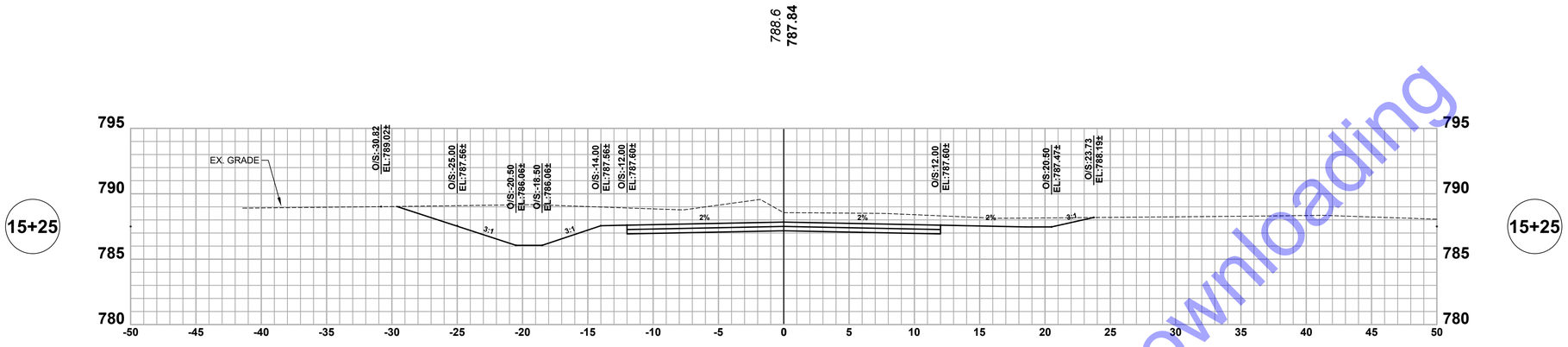

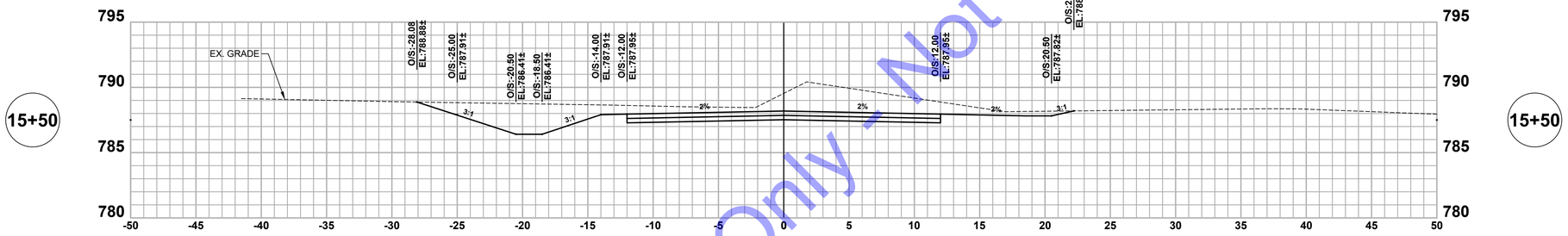

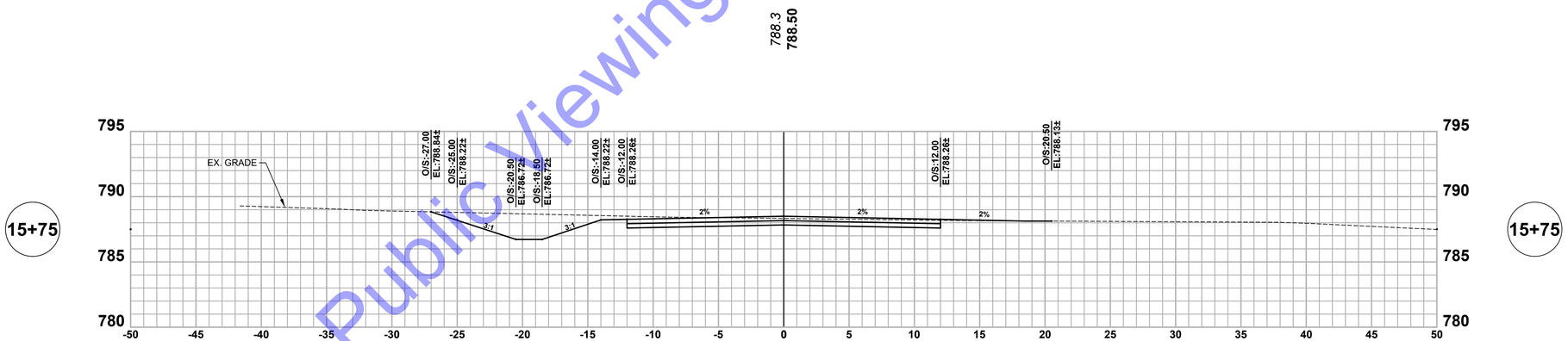

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
5' 0

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Signature
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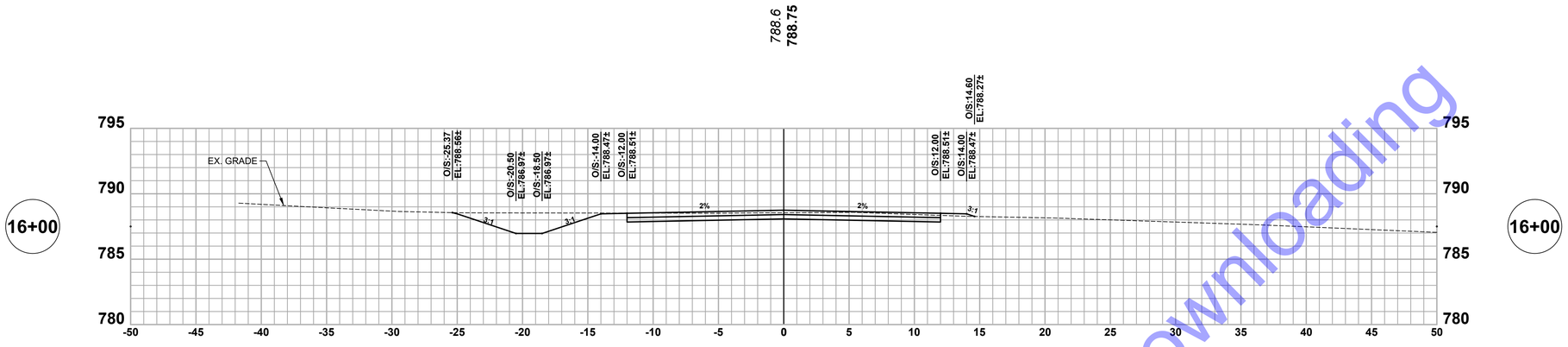
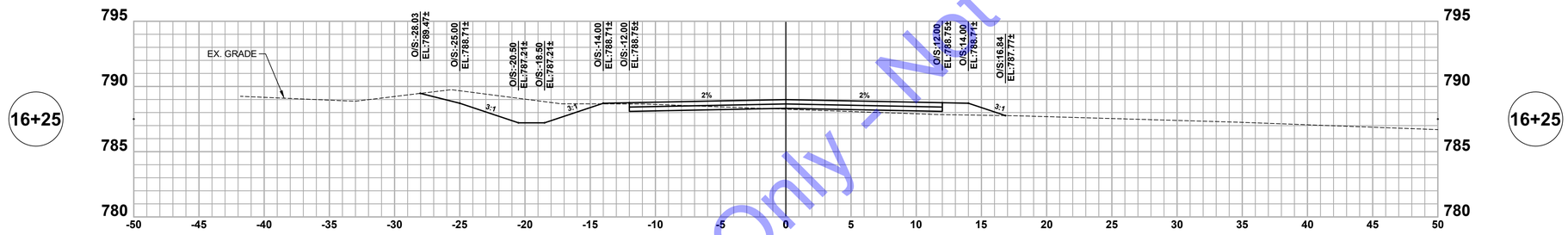
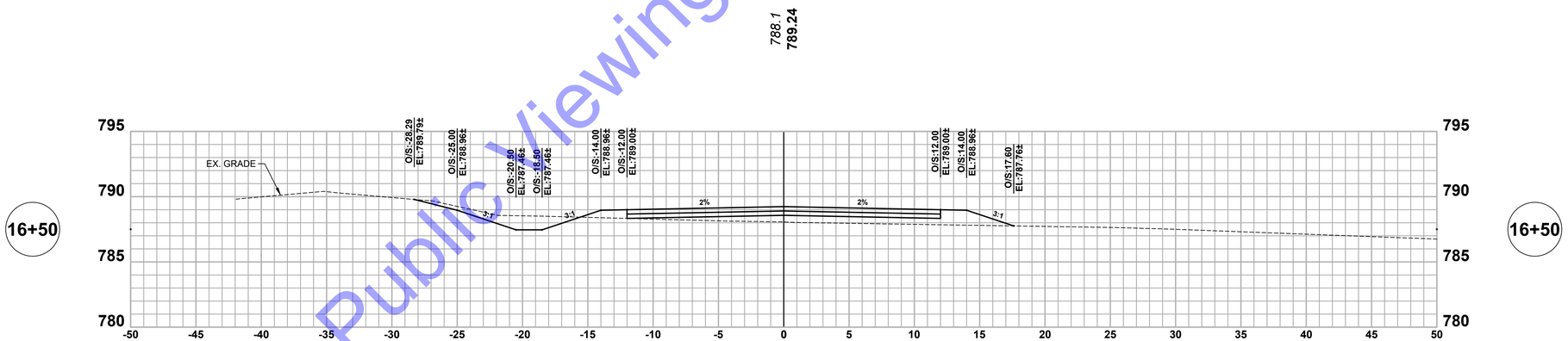
ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS08
Sheet: 32 OF 53







HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
0 5'

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ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS09
Sheet: 33 OF 53

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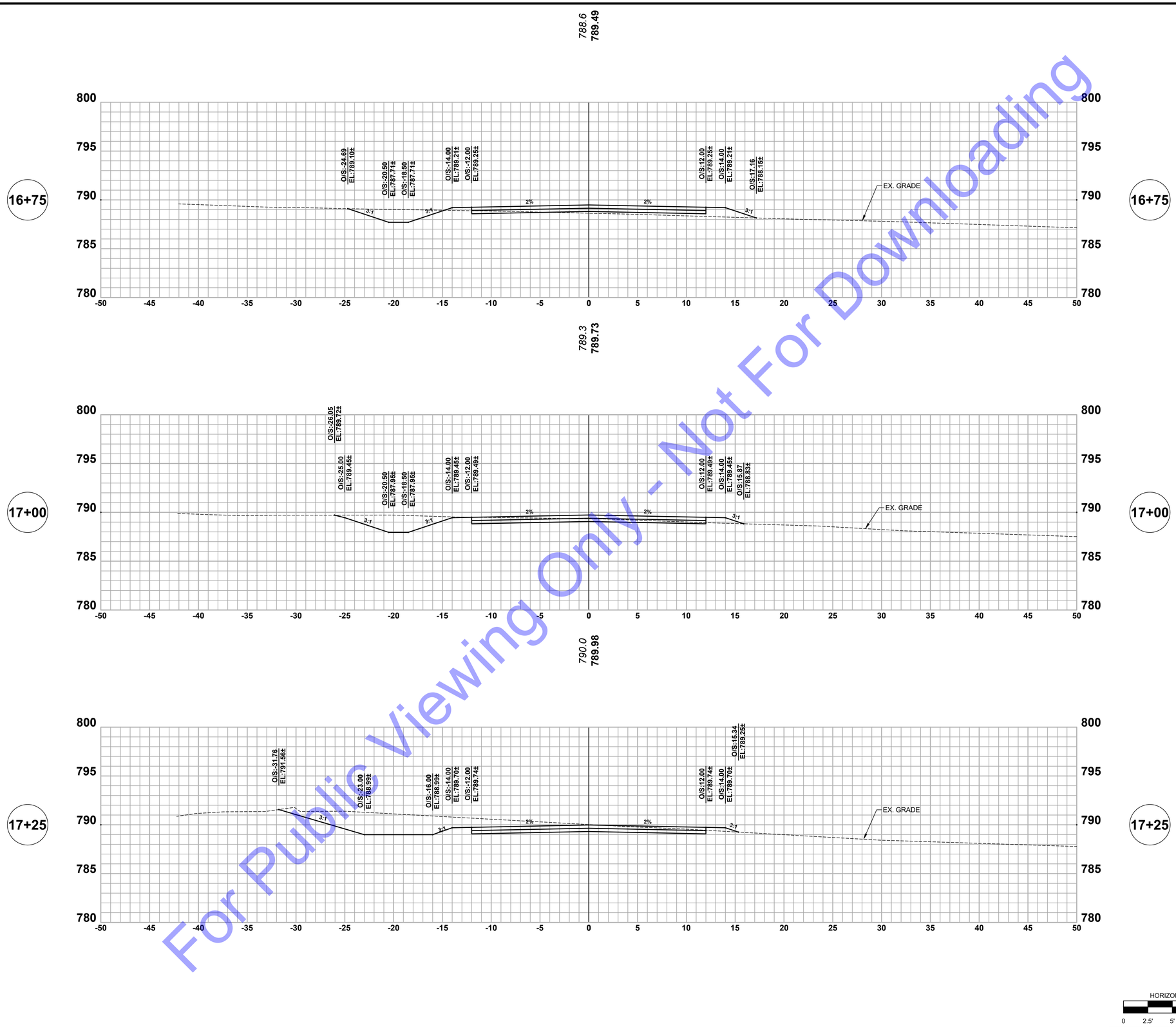

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
0 5'

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WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON
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ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS10
Sheet: 34 OF 53

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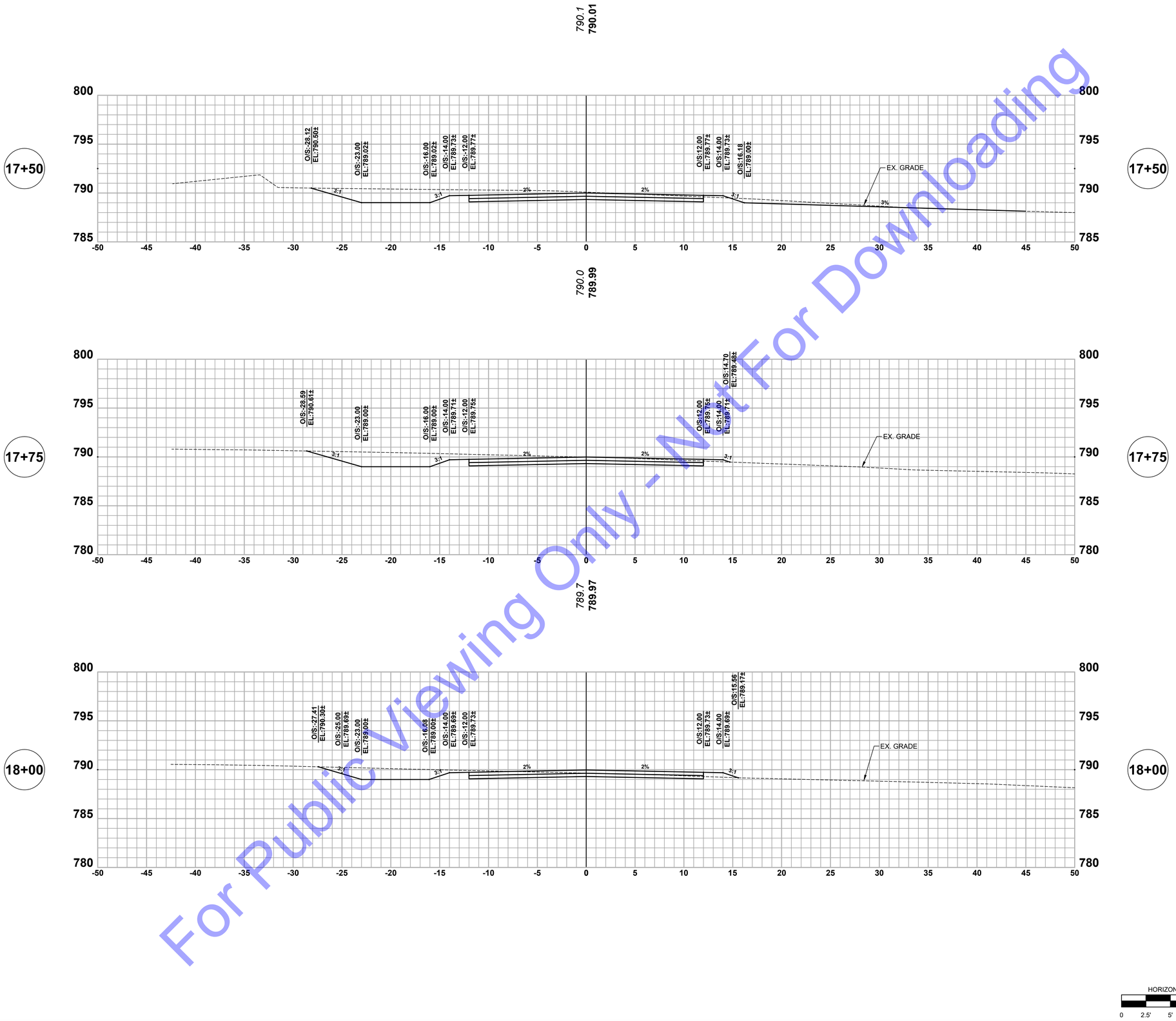

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
5' 0

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JOHN W. WETZEL
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WATER SYSTEM IMPROVEMENTS

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ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS11
Sheet: 35 OF 53

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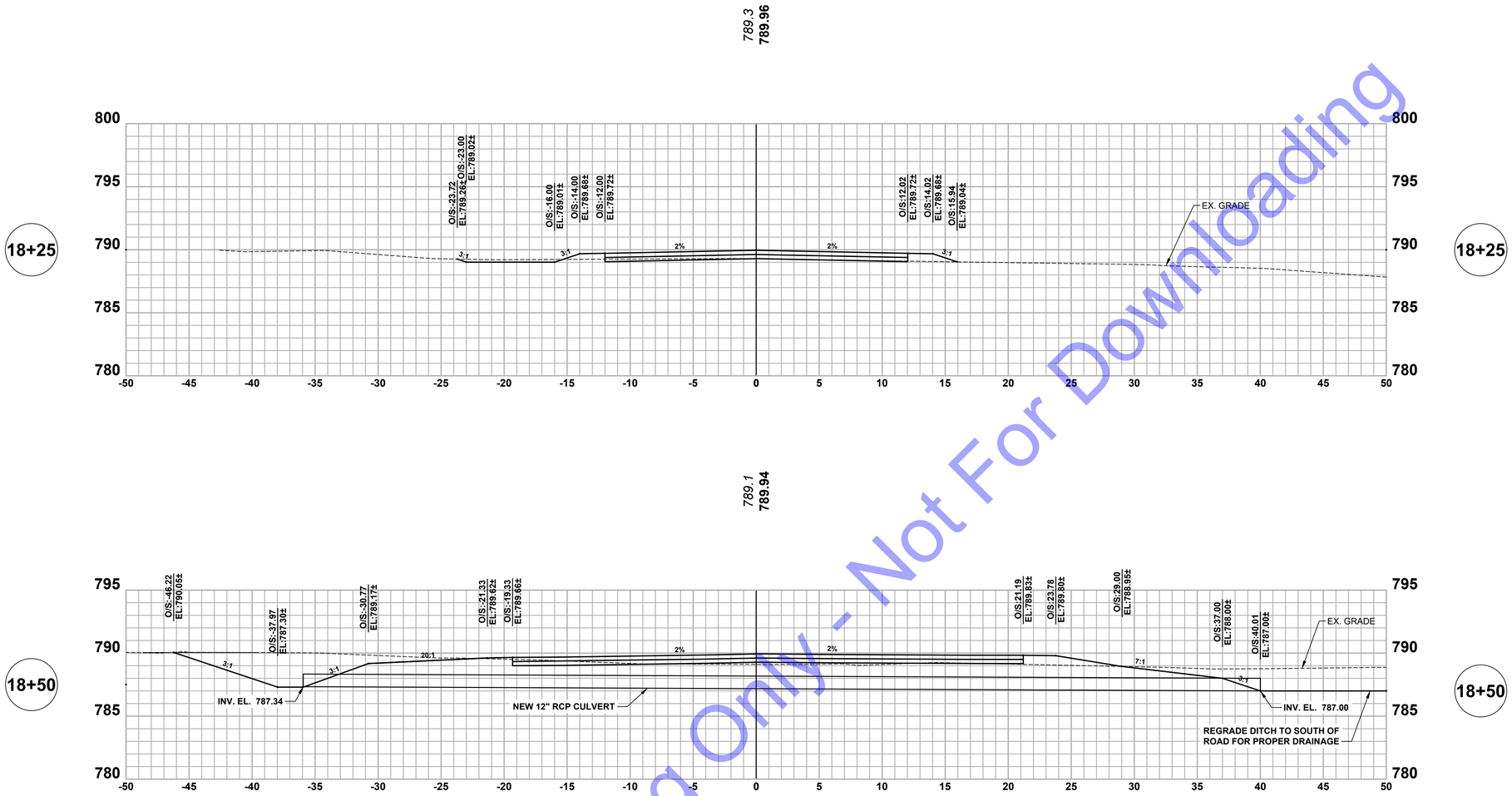

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'
VERTICAL SCALE: 1"=5'
0 5'

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ROADWAY CROSS SECTIONS - LINE "A"

Drawing No:
CS12
Sheet: 36 OF 53

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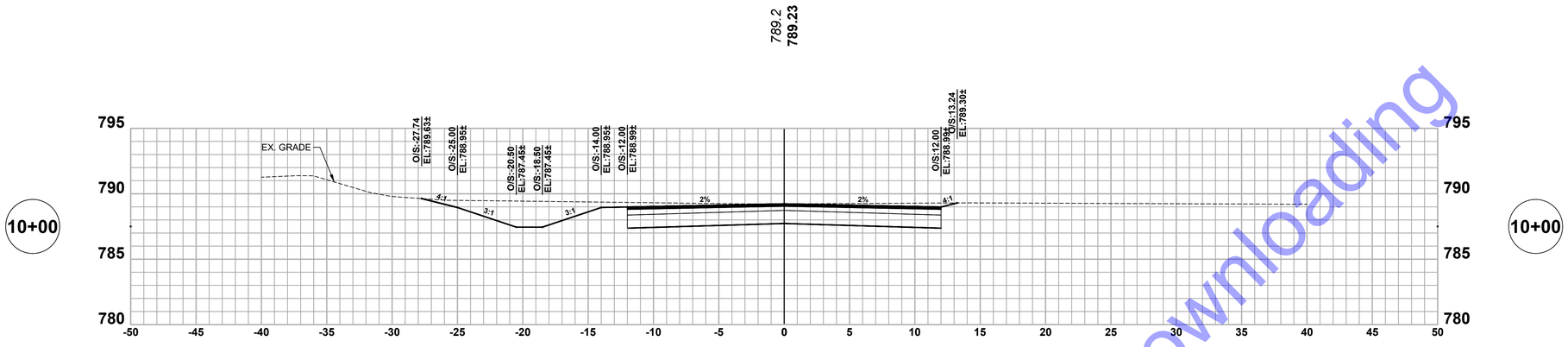

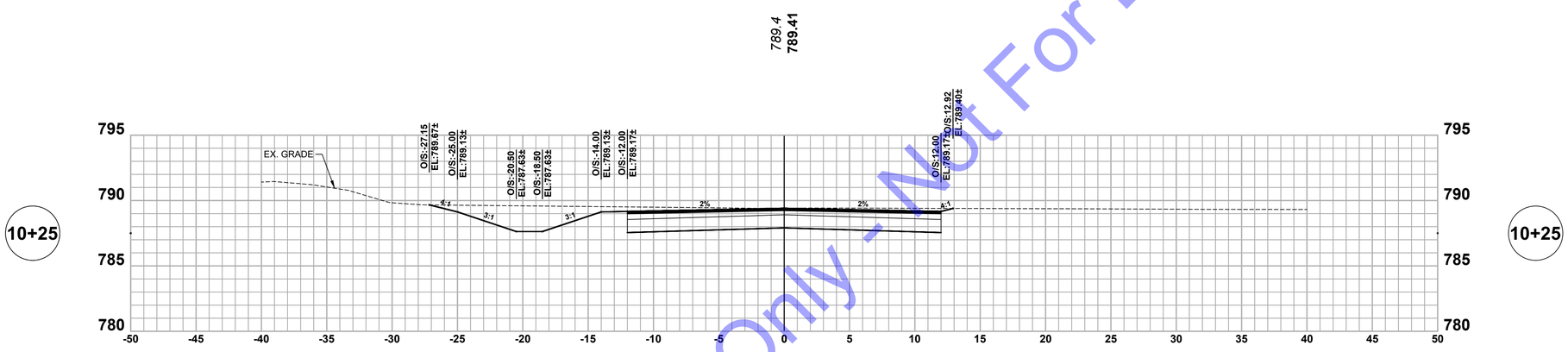

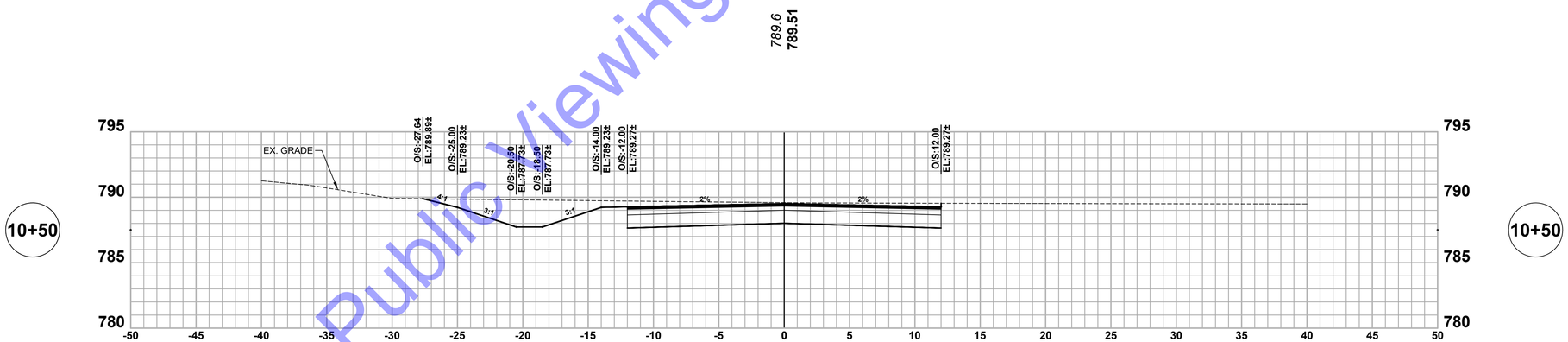

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
5' 0

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ROADWAY CROSS SECTIONS - LINE "B"

Drawing No:
CS13
Sheet: 37 OF 53

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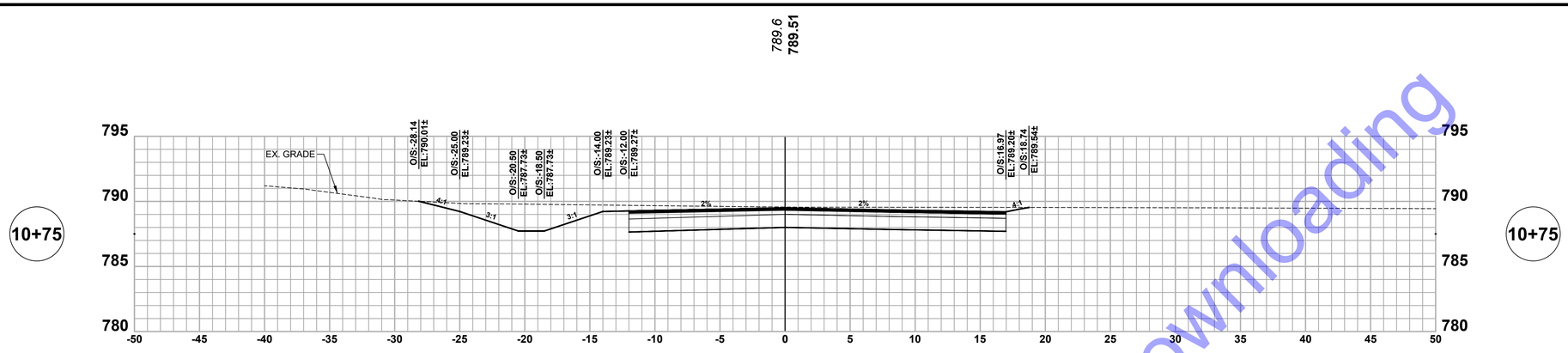

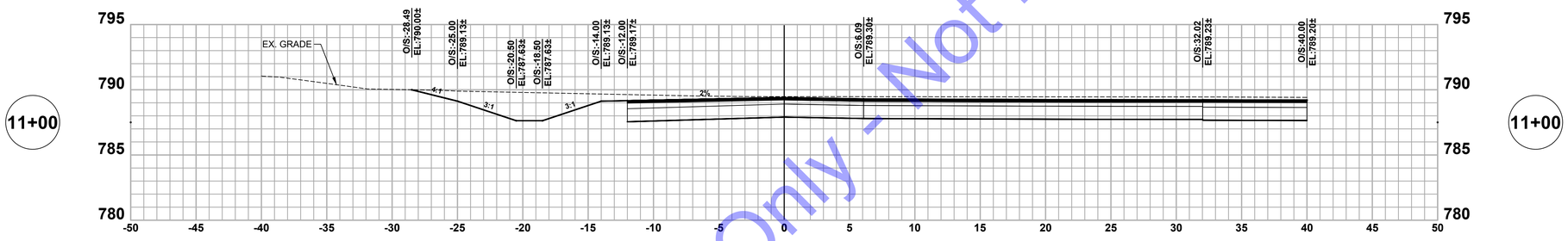

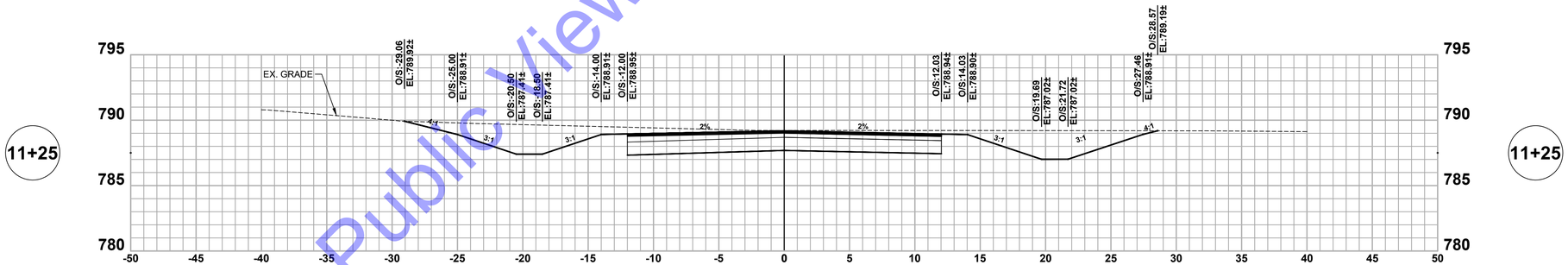

HORIZONTAL SCALE: 1" = 5'-0"
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VERTICAL SCALE: 1"=5'
5' 0

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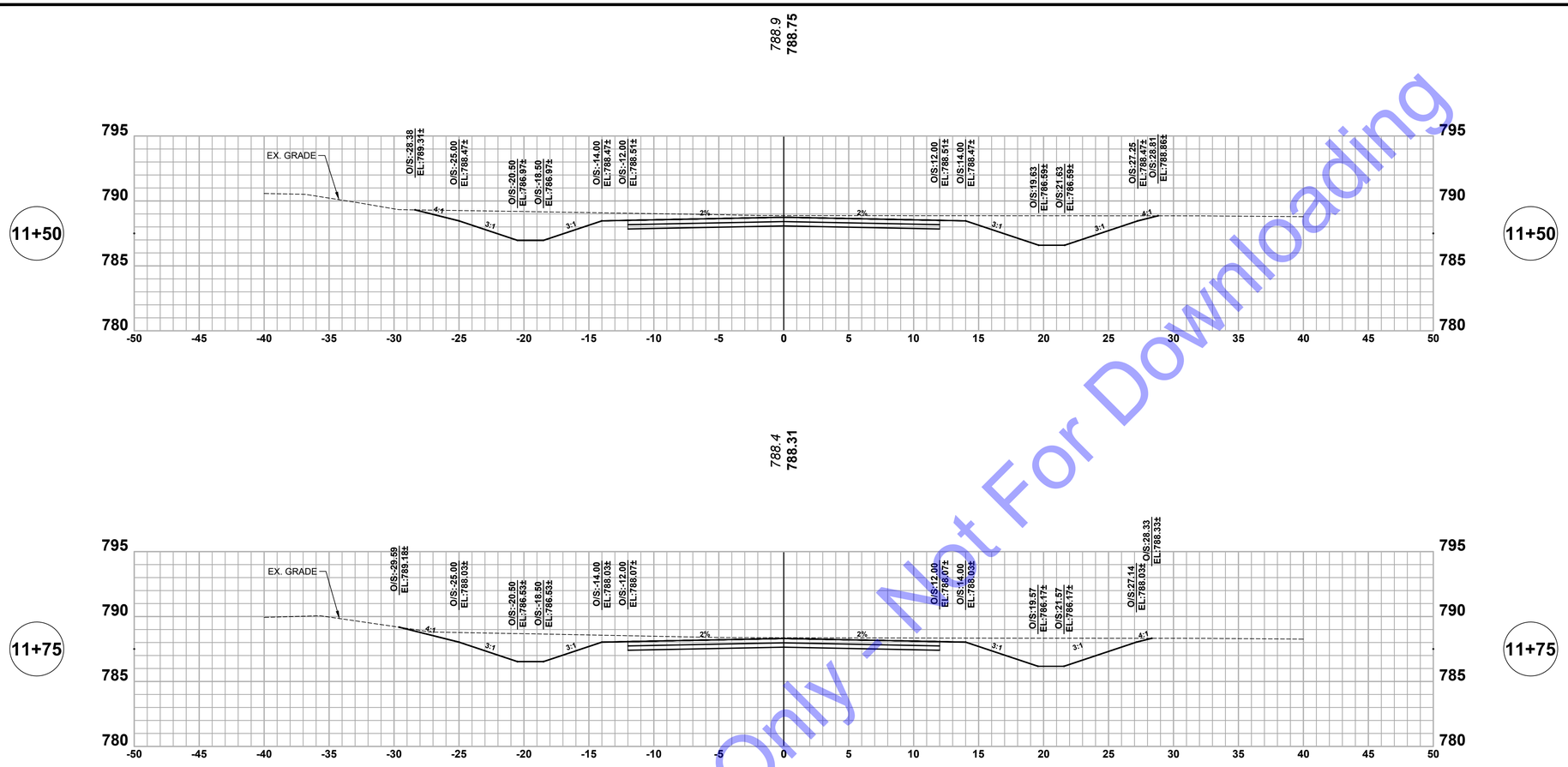
Issue Date: 4/2/25	Project No: W24086	Scale: AS SHOWN

ROADWAY CROSS SECTIONS - LINE "B"

Drawing No:
CS14
Sheet: 38 OF 53



HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'
VERTICAL SCALE: 1"=5'
0 5'

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ROADWAY CROSS SECTIONS - LINE "B"

Drawing No:
CS15
Sheet: 39 OF 53

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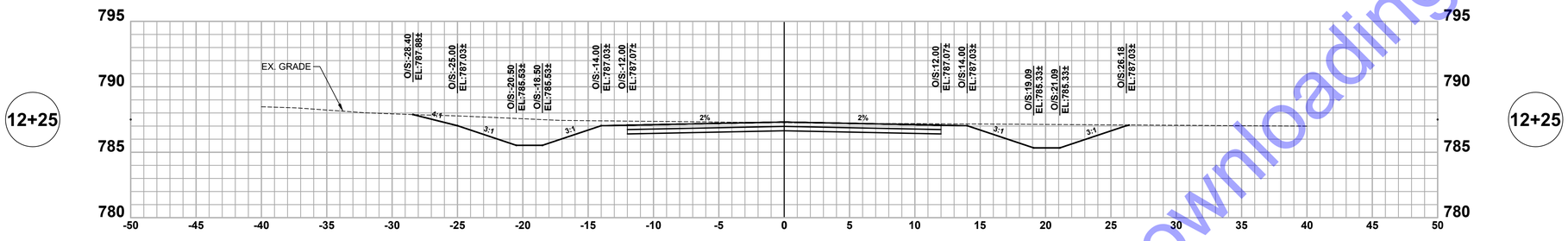

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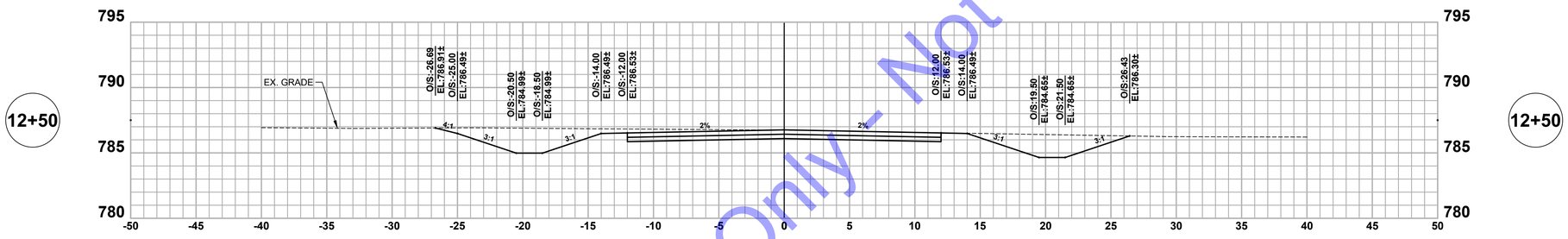

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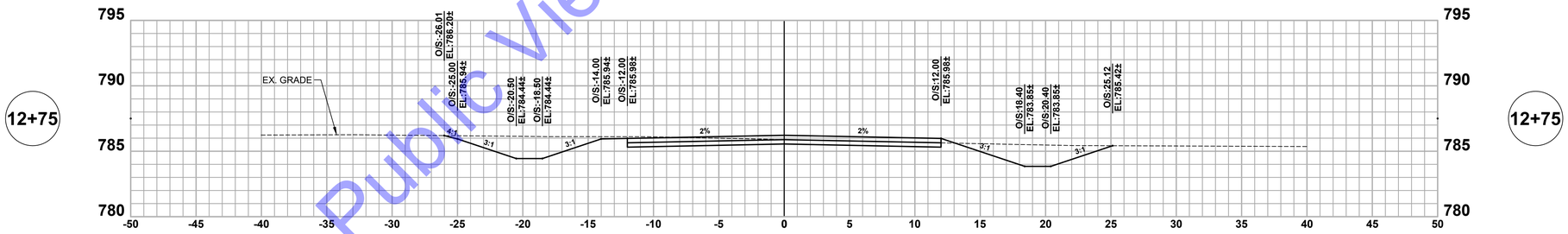

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'
VERTICAL SCALE: 1"=5'
5' 0

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JOHN W. WETZEL REGISTERED No. 19800122 STATE OF INDIANA PROFESSIONAL ENGINEER

Signature 3/21/2025 Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

Indiana 811 Know what's below. 811 before you dig. 1-800-382-5544 (ITS THE LAW)

No.	Submittal / Revision	By	Date

Designed By:	Drawn By:	Checked By:
JWW	AH	ACS
Issue Date:	Project No:	Scale:
4/2/25	W24086	AS SHOWN

ROADWAY CROSS SECTIONS - LINE "B"

Drawing No:
CS16
Sheet: 40 OF 53

File: Z:\SHARED\IN CLIENTS M-Z\ROCHESTER\D W24086 2024-2025 WATER UTILITY IMPRV PROJECT\06 CADA CURRENT FILES\1 DRAWINGS\DIV B TANK\06-CROSS SECTION DRAWINGS.DWG
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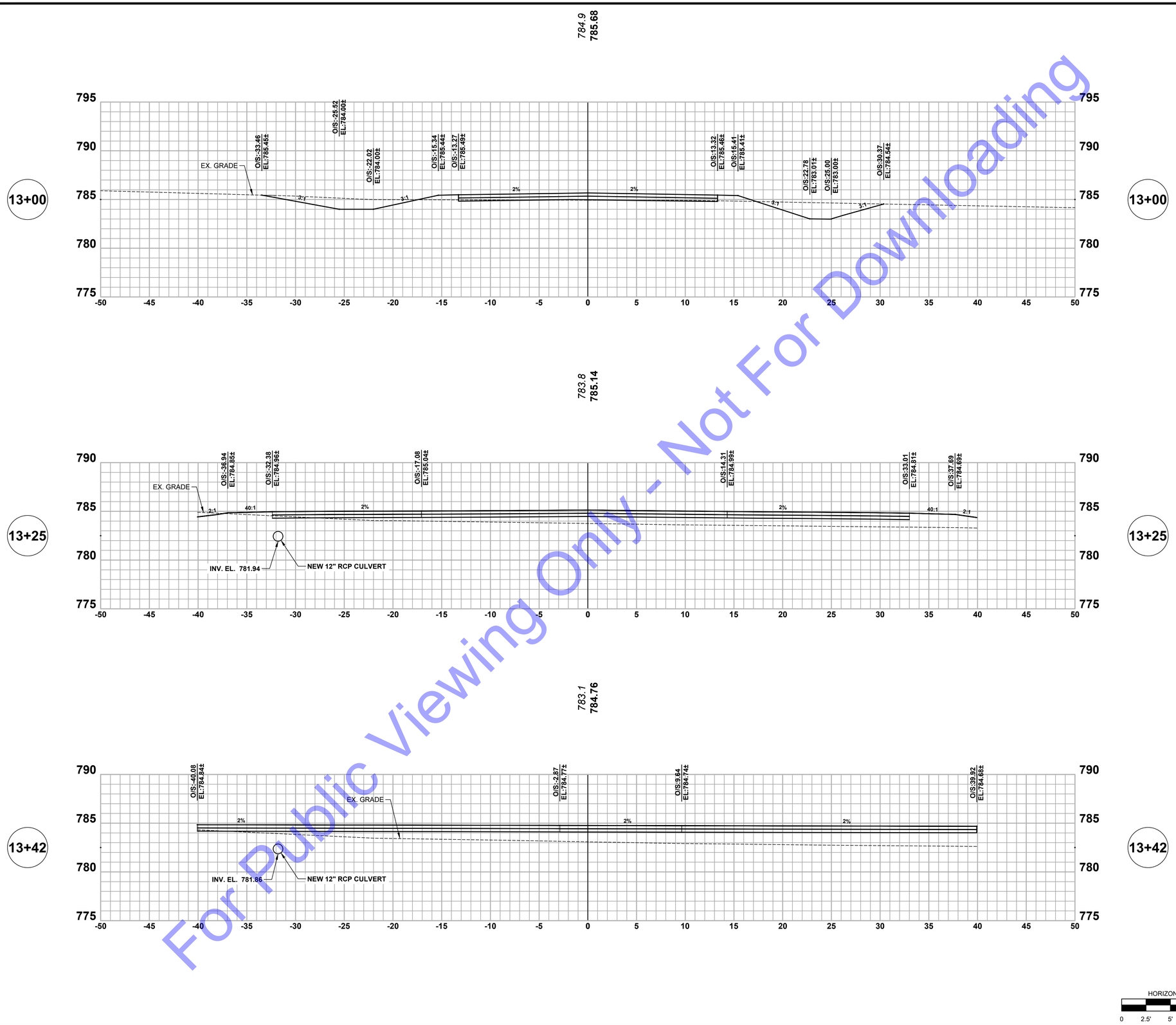

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'
VERTICAL SCALE: 1"=5'
0 5'

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ROADWAY CROSS SECTIONS - LINE "B"

Drawing No:
CS17
Sheet: 41 OF 53

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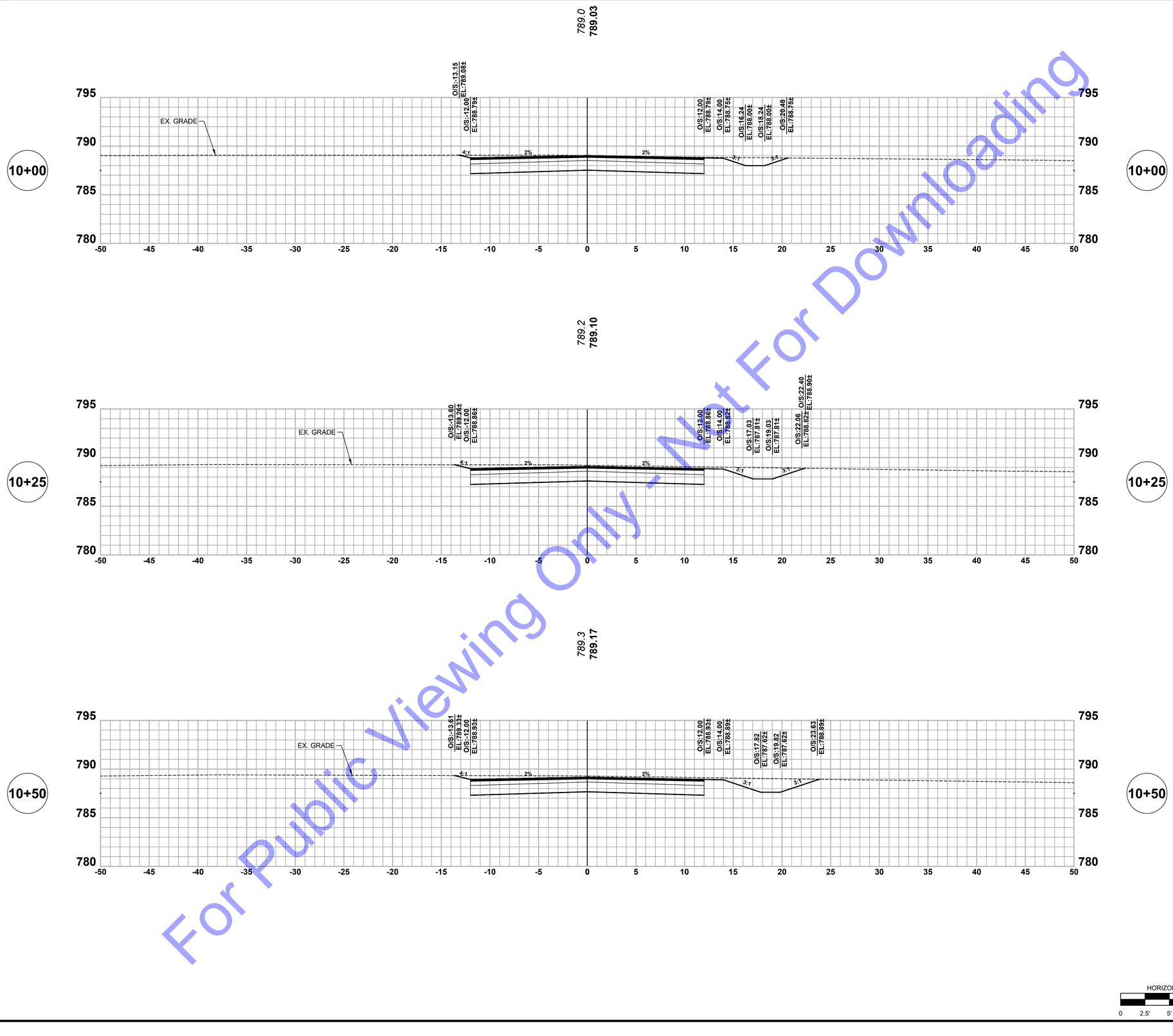

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Issue Date:	Project No:	Scale:
4/2/25	W24086	AS SHOWN

ROADWAY CROSS SECTIONS - LINE "C"

Drawing No:
CS18
Sheet: 42 OF 53

File: Z:\SHARED\IN CLIENTS M-Z\ROCHESTERD W24086 2024-2025 WATER UTILITY IMPRV PROJECT\06 CADA CURRENT FILES\1 DRAWINGS\DIV B TANK\08-CROSS SECTION DRAWINGS.DWG
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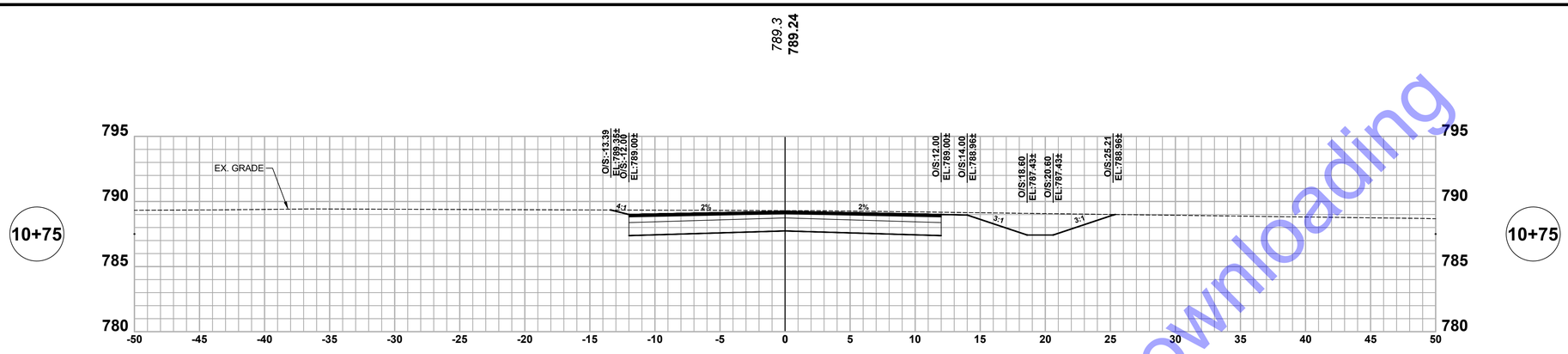

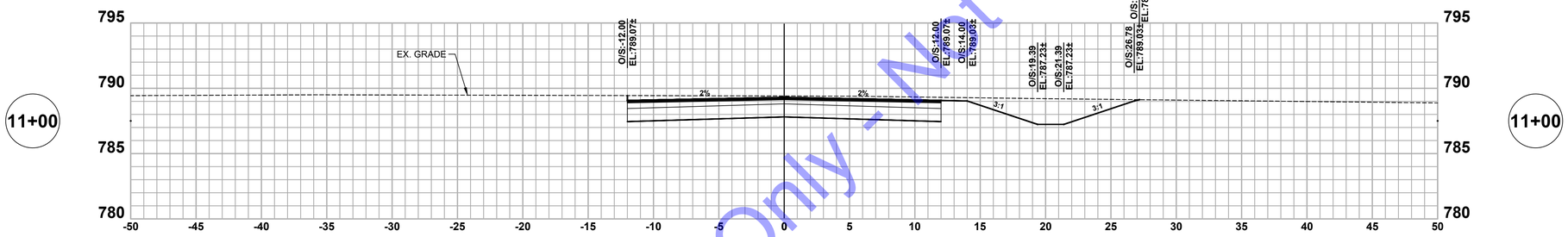

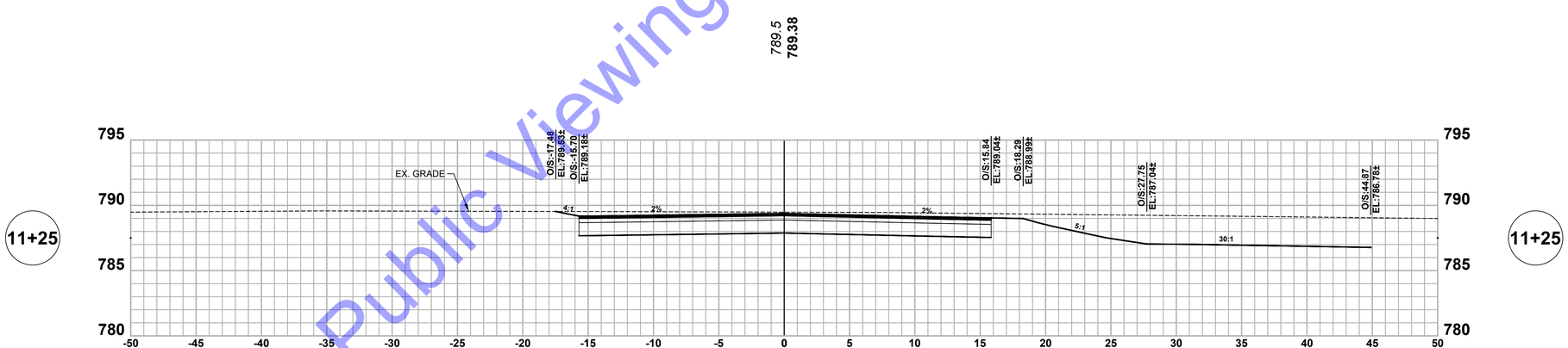

HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
5' 0

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STATE OF INDIANA
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John Wetzel
Signature

3/21/2025
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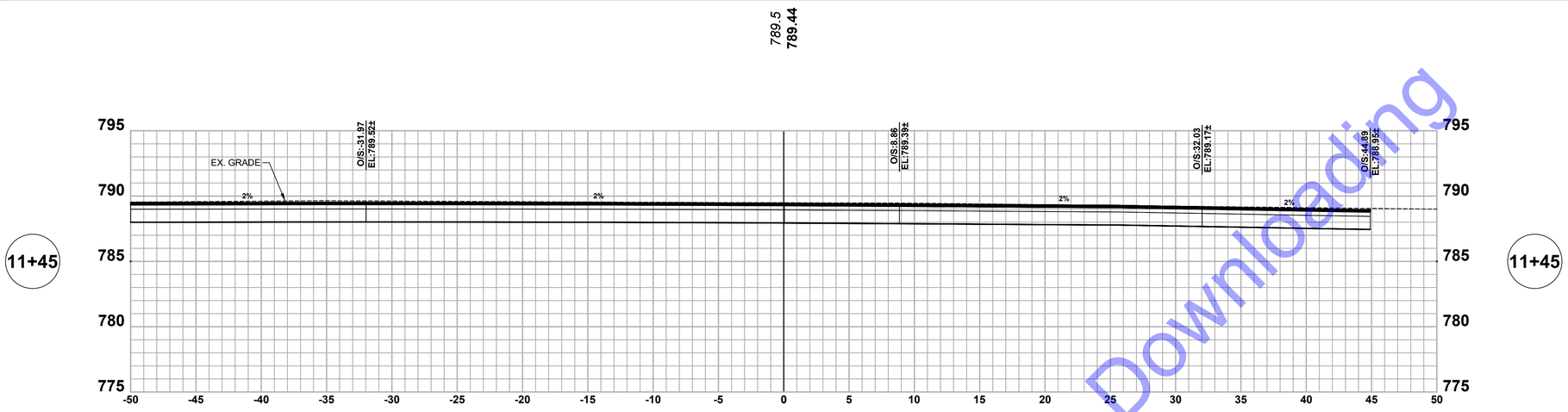
Issue Date:	Project No:	Scale:
4/2/25	W24086	AS SHOWN

ROADWAY CROSS SECTIONS - LINE "C"

Drawing No:
CS19
Sheet: 43 OF 53



HORIZONTAL SCALE: 1" = 5'-0"
0 2.5' 5' 10' 20'

VERTICAL SCALE: 1"=5'
5'
0

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ROADWAY CROSS SECTIONS - LINE "C"

Drawing No:
CS20
Sheet: 44 OF 53

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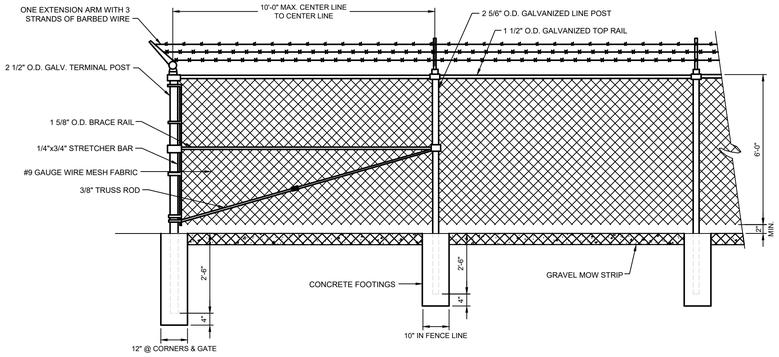
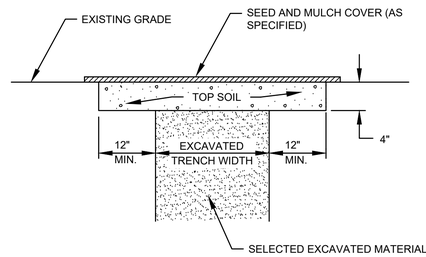


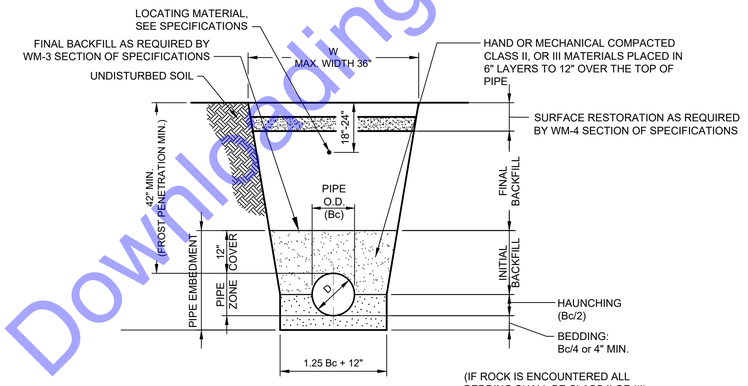
CHAIN LINK FENCE DETAIL

NOT TO SCALE



SURFACE RESTORATION DETAIL FOR GRASS AREAS

NOT TO SCALE



W= MAX. ALLOWABLE TRENCH WIDTH FOR PIPE SHALL NOT TO EXCEED 30 INCHES 4" THOUGH 8" PIPE. 36" FOR 8" THROUGH 12" PIPE
D= PIPE DIAMETER (INTERNAL)
Bc= PIPE DIAMETER (EXTERNAL)

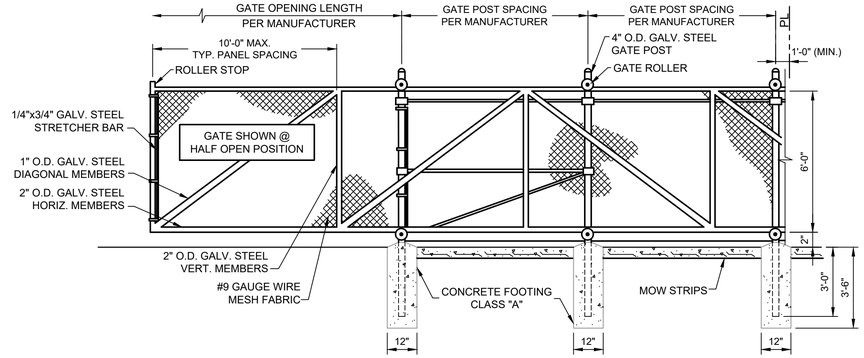
APPLICATION	BEDDING & HAUNCHING INITIAL BACKFILL	FINAL BACKFILL
GRASSY AREA OR NEW PAVED AREAS	CLASS I, OR II MATERIAL (REFER TO WORKMANSHIP & MATERIALS SPECIFICATIONS	SELECTED EXCAVATED MATERIAL
PAVEMENT AREA OR ANY AREA SUBJECT TO VEHICULAR TRAFFIC	CLASS I, II, OR III MATERIAL (REFER TO WORKMANSHIP & MATERIALS SPECIFICATIONS	COMPACTED GRANULAR MATERIAL

NOTES:

1. INITIAL BACKFILL STOPS AT A POINT 12" ABOVE THE TOP OF THE PIPS BACKFILLING ABOVE THIS POINT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND AS REQUIRED BY HEREIN
2. BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL BE CLASS I, II, OR III MATERIALS ACCORDING TO THE THE WORKMANSHIP AND MATERIALS SPECIFICATIONS
3. WORK FALLING UNDER THE JURISDICTION OF THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) SHALL UTILIZE COMPACTED GRANULAR BACKFILL MATERIAL FOR INITIAL AND FINAL BACKFILL ANYWHERE WITHIN 12 FEET OF THE EDGE OF PAVEMENT.
4. WORK NOT FALLING UNDER THE JURISDICTION OF INDOT SHALL UTILIZE COMPACTED GRANULAR BACKFILL MATERIAL FOR INITIAL AND FINAL BACKFILL ANYWHERE WITHIN 5 FEET OF THE EDGE OF PAVEMENT.
5. CONTRACTOR SHALL UTILIZE SPECIFIC SURFACE RESTORATION DETAILS FOR MINIMUM WIDTH REQUIREMENTS.

TRENCH DETAIL FOR WATER MAIN

NOT TO SCALE

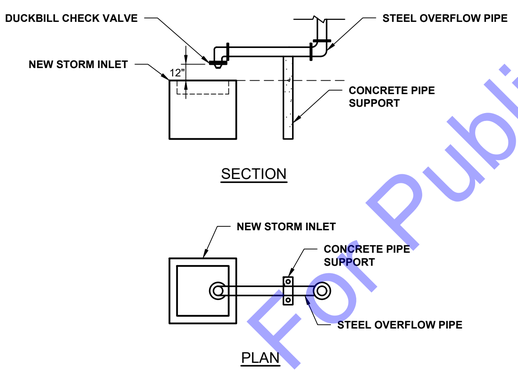


NOTE:
SEE SITE PLAN FOR GATE LOCATION. EACH SLIDE GATE TO OPERATE CLOSING OFF HALF OF THE ROADWAY. FINAL GATE DIMENSIONING PER GATE MANUFACTURER

CONTRACTOR TO COORDINATE LOCKING SYSTEM BETWEEN OWNER AND GATE MANUFACTURER TO ASSURE PROPER HARDWARE IS PROVIDED FOR THIS GATE.

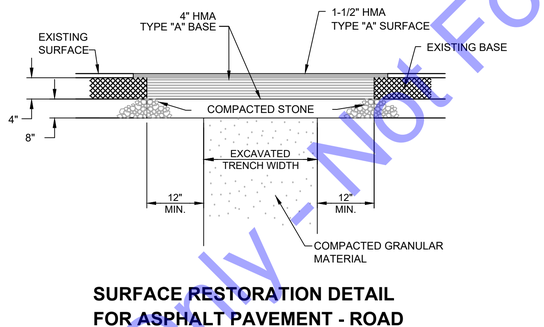
CHAIN LINK ROLL FENCE GATE DETAIL

NOT TO SCALE



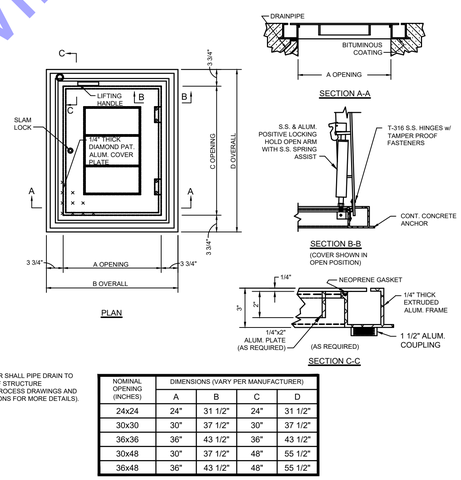
TANK OVERFLOW PIPE AND STORM INLET - DETAIL

NOT TO SCALE



SURFACE RESTORATION DETAIL FOR ASPHALT PAVEMENT - ROAD

NOT TO SCALE

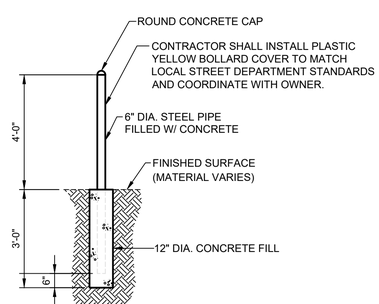


NOTE:
CONTRACTOR SHALL PIPE DRAIN TO EXTERIOR OF STRUCTURE (REFER TO PROCESS DRAWINGS AND SPECIFICATIONS FOR MORE DETAILS).

NOMINAL OPENING (INCHES)	DIMENSIONS (VARY PER MANUFACTURER)			
	A	B	C	D
24x24	24"	31 1/2"	24"	31 1/2"
30x30	30"	37 1/2"	30"	37 1/2"
36x36	36"	43 1/2"	36"	43 1/2"
30x48	30"	37 1/2"	48"	55 1/2"
36x48	36"	43 1/2"	48"	55 1/2"

TYPICAL SINGLE LEAF ACCESS HATCH DETAIL

NOT TO SCALE



BOLLARD DETAIL

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John Wetzel — Signature — 3/21/2025 Date

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MISCELLANEOUS DETAILS

Drawing No:
MD1
Sheet: 45 OF 53

File: Z:\SHARED\IN CLIENTS M-Z\ROCHESTER\D W24086 2024-2025 WATER UTILITY IMPRV PROJECT\06 CAD\A CURRENT FILES\1 DRAWINGS\DIV B TANK\0-MISCELLANEOUS DETAILS.DWG
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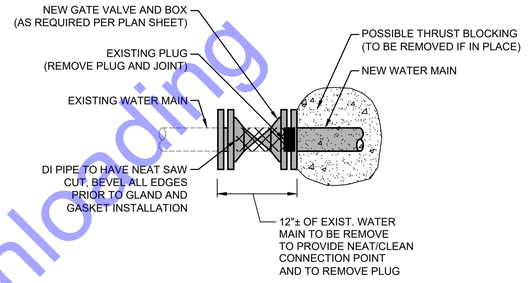
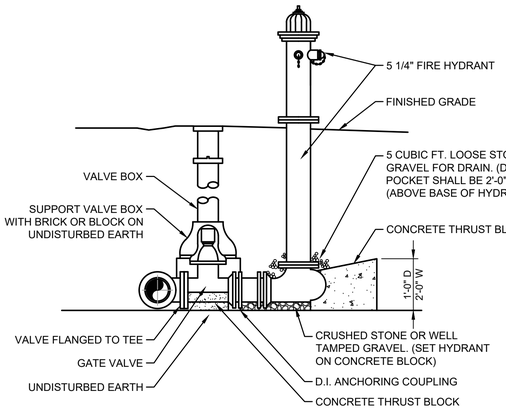


TYPE "C" CONNECTION TO EXISTING WATER MAIN

NOT TO SCALE



FIRE HYDRANT DETAIL

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REGISTERED
No. 19800122
STATE OF INDIANA
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Signature 3/21/2025 Date

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MISCELLANEOUS DETAILS

Drawing No: **MD2**

Sheet: 46 OF 53

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PROCESS AND INSTRUMENTATION DIAGRAM LEGEND

INSTRUMENT TAG IDENTIFICATION

COMPONENT DESIGNATOR

AREA 035D: BUILDING OR PROCESS AREA NUMBER

TAG TYPE P: FIRST LETTER, SEE ISA TABLE BELOW
AH: SUCCEEDING LETTERS, SEE ISA TABLE BELOW

TAG NUMBER 12: P&ID NUMBER
3: LOOP NUMBER
4: EQUIPMENT NUMBER
A: DEVICE LETTER IF MULTIPLE DEVICES

TAG FUNCTION HOA: TAG FUNCTION ABBREVIATION, SEE LISTING AT RIGHT

(QUANTITY) (2): TOTAL NUMBER OF DEVICES WHERE MORE THAN ONE DEVICE IS REQUIRED. DEVICE NUMBERS ARE SEQUENTIAL BEGINNING WITH THE TAG NUMBER SHOWN. IF QUANTITY IS NOT SHOWN, THEN ONE DEVICE ONLY IS REQUIRED.

COMPONENT DESIGNATOR SEE LISTING AT RIGHT

PLC POINT TYPE

ANALOG INPUT	▲
ANALOG OUTPUT	▼
DISCRETE INPUT	△
DISCRETE OUTPUT	▽
NETWORK CONNECTION	⧗

TAG FUNCTION ABBREVIATIONS

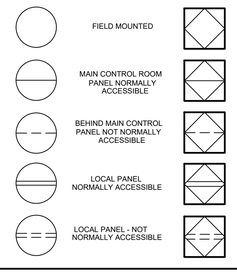
ALT ALTERNATE
C CLOSED(C)
CM COMPUTER-MANUAL
DIFF DIFFERENCE OR DIFFERENTIAL
DO DISSOLVED OXYGEN
F FAIL
F(X) CHARACTERIZED
FOR FOWARD-STOP(OFF)-REVERSE(MAINTAINED CONTACT)
FSR FOWARD-STOP-REVERSE(MOMENTARY CONTACT)
HOA HAND-OFF-AUTOMATIC(MAINTAINED CONTACT)
HOR HAND-OFF-REMOTE(MAINTAINED CONTACT)
II CURRENT TO CURRENT
IP CURRENT TO PNEUMATIC
LL LEAD-LAG(MAINTAINED CONTACT)
LOE LOSS OF ECHO(ULTRASONIC SENSOR FAILURE)
LOR LOCAL-OFF-REMOTE(MAINTAINED CONTACT)
LOS LOCKOUT STOP(LOCKABLE IN "STOP" POSITION MOMENTARY CONTACT)
L/R LOCAL/REMOTE(MAINTAINED CONTACT)
MA MANUAL-AUTOMATIC(MAINTAINED CONTACT)
MOA MANUAL-OFF-AUTOMATIC(MAINTAINED CONTACT)

O OPEN
OA OFF-AUTOMATIC
OCA OPEN-CLOSE-AUTOMATIC(MAINTAINED CONTACT)
OC OPEN-CLOSE(D)(MAINTAINED CONTACT)
OSC OPEN-STOP-CLOSE(MOMENTARY CONTACT SPRING RETURN TO CENTER POSITION)
00 ON-OFF(MAINTAINED CONTACT)
OOA ON-OFF-AUTOMATIC(MAINTAINED CONTACT)
OOR ON-OFF-REMOTE(MAINTAINED CONTACT)
R RUN
SBL SLUDGE BLANKET INTERFACE LEVEL
SP SPEED POT
SQRT SQUARE ROOT
SS START-STOP
SSA START-STOP-AUTOMATIC
SSL START-STOP-LOCK (LOCKABLE IN "STOP" POSITION. MOMENTARY CONTACT)
SUM SUMMMATION
VIB VIBRATION
X MULTIPLY

FWD FOWARD
REV REVERSE
F/R FOWARD/REVERSE(MOTOR STARTER COILS)
ESTP ESTOP(EMERGENCY STOP)
SPD (SPEED POT)
SUSP SUSPEND
ALRT ALERT
RSET RESET
STRT START

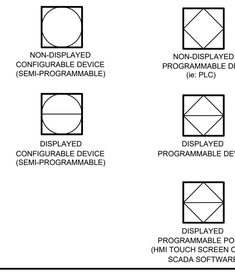
TAG SYMBOLS

HORIZONTAL BAR SYMBOLS FOR PHYSICAL MOUNTING OF DEVICE



CONTROL AND I/O DEVICES DISPLAY

[ADD APPROPRIATE HORZ. BAR(S)]



INSTRUMENT SOCIETY OF AMERICA TABLE

LETTER	FIRST LETTER(S)		SUCCEEDING LETTER(S)		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM(W. LOGGING)	ANNUNCIATE	
B	BURNER COMBUSTION		USERS CHOICE(*)	USERS CHOICE(*)	USERS CHOICE(*)
C	USERS CHOICE(*)			CONTROL	CLOSE
D	USERS CHOICE(*)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT		
F	FLOW RATE	RATIO			FEEDBACK
G	USERS CHOICE(*)		GLASS		
H	HAND (MANUAL)				HIGH
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME OR SCHEDULE	TIME RATE OF CHANGE	KEYPAD(DATA ENTRY)	CONTROL STATION	
L	LEVEL		LIGHT(PILOT)		LOW
M	MOTOR	MOMENTARY			MONITORING
N	USERS CHOICE(*)		USERS CHOICE(*)	USERS CHOICE(*)	USERS CHOICE(*)
O	USERS CHOICE(*)		ORIFICE		
P	PRESSURE OR VACUUM		POINT TEST CONNECTION		
Q	QUANTITY	INTEGRATE			
R	RADIATION		RECORD, TREND, LOG		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSIT	
U	UNIVERSAL/MULTIVARIABLE(*)		MULTIFUNCTION(*)	MULTIFUNCTION(*)	MULTIFUNCTION(*)
V	VIBRATION		VALUE	VALVE	
W	WEIGHT, FORCE, TORQUE		WELL	W	
X	UNCLASSIFIED(*)	X AXIS	UNCLASSIFIED(*)	UNCLASSIFIED(*)	UNCLASSIFIED(*)
Y	EVENT, STATE	Y AXIS		RELAY OR COMPUTE(*)	
Z	POSITION, DIMENSION	Z AXIS		DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

(*) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL

SPECIAL CASES:
ETM - ELAPSED TIME METER
JBX - JUNCTION BOX
NDX - INDEX #
MS - MOTOR STARTER
MOR - MOTOR OVERLOAD RELAY
MPR - MOTOR PROTECTION RELAY

CONDUIT NOTES

PVC SCHEDULE 40 BELOW GRADE.

RIGID ALUMINUM OR PVC COATED RGS CONDUIT ABOVE GRADE OUTDOORS.

RIGID ALUMINUM OR PVC COATED RGS CONDUIT IN CLASSIFIED AND CORROSIVE SPACES.

NO CONDUIT SHALL BE RAN ON TOP OF A DECK, ON A WALKWAY, OR IN AN AREA THAT MAY POSE A TRIP HAZARD. NO CONDUIT SHALL BE RAN ABOVE A DECK, ABOVE A WALKWAY, OR IN AN AREA THAT IS COMMONLY TRAVELED. ALL CONDUIT IN SUCH AREAS SHALL BE COORDINATED WITH THE OWNER/ENGINEER AND SHALL BE RAN BELOW GRADE OR IN THE CONCRETE DECKING OR PAD. CONDUIT RAN IN CONCRETE DECKING OR PAD SHALL BE AVOIDED WHEN POSSIBLE. IF CONDUIT IS TO BE ROUTED IN A STRUCTURAL CONCRETE DECK, PAD, WALL, ETC. IT SHALL BE COORDINATED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. CONDUIT RAN IN CONCRETE CAN IMPACT THE STRUCTURAL INTEGRITY OF CONCRETE. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFORM TO ANY REQUIREMENTS REQUIRED OF THE STRUCTURAL ENGINEER TO ACCOMMODATE THE INTEGRITY OF THE INSTALLATION AT NO COST TO THE OWNER. FOR A CONDUIT EMBEDDED IN CONCRETE TO BE CONSIDERED IT MUST BE THE ONLY REASONABLE SOLUTION AS DETERMINED BY THE ENGINEER. ALL PROPOSED INSTALLATIONS MUST COMPLY WITH ACI 318 AND BE ENGINEER APPROVED.

ALL UNDERGROUND CONDUITS SHALL BE SEALED AT BOTH ENDS.

NO CONDUIT PENETRATIONS ON THE TOP OF ANY OUTDOOR PANELS/ENCLOSURES.

EMT IS ACCEPTABLE IN CONDITIONED ELECTRICAL ROOMS AND OFFICE/BREAK AREAS ONLY. EMT SHALL BE TRANSITIONED PRIOR TO EXITING NON CORROSIVE SPACES. EMT SHALL NOT BE USED WHEN IT CAN BE EXPOSED TO ANY CORROSIVE GASES.

CONTROL WIRING REQUIREMENTS

EACH ANALOG INPUT REQUIRES AN 18/2 TWISTED SHIELDED PAIR IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

EACH ANALOG OUTPUT REQUIRES AN 18/2 TWISTED SHIELDED PAIR IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

EACH DISCRETE INPUT REQUIRES 2 #14's IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

EACH DISCRETE OUTPUT REQUIRES 2 #14's IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

CONTROL WIRING OF THE SAME TYPE MAY BE COMBINED INTO THE SAME CONDUIT. EXAMPLES: TWO 4-20MA ANALOG SIGNALS MAY BE COMBINED, TWO 24VDC DISCRETE SIGNALS MAY BE COMBINED, AND TWO 120VAC DISCRETE SIGNALS MAY BE COMBINED.

NOTE: INSTRUMENTS AND CABLE SHALL BE AS REQUIRED BY THE INSTRUMENT MANUFACTURER.

INSTRUMENT POWER

INSTRUMENTS REQUIRING 120 VAC:

1. MAGNETIC FLOW METERS
2. TURBIDITY TRANSMITTERS
3. pH TRANSMITTERS
4. ORP TRANSMITTERS
5. DO TRANSMITTERS
6. ULTRASONIC LEVEL TRANSMITTERS
7. ULTRASONIC FLOW TRANSMITTERS
8. INFLUENT AND EFFLUENT SAMPLERS

NOTE: THIS LIST IS PROVIDED AS A REFERENCE AND IS NOT ALL INCLUSIVE. COORDINATE WITH THE GENERAL CONTRACTOR AND THE EQUIPMENT SUPPLIERS FOR DETAILED WIRING REQUIREMENTS OF INSTRUMENTS, SENSORS, AND EQUIPMENT.

ELECTRICAL GENERAL NOTES

(GENERAL NOTES APPLICABLE TO ALL ELECTRICAL SHEETS)

1. CONTRACTOR SHALL EXAMINE NOT ONLY PLANS AND SPECIFICATIONS FOR ELECTRICAL AND INSTRUMENTATION, BUT PLANS AND SPECIFICATIONS FOR OTHER RELATED SECTIONS. VISIT THE SITE TO BECOME ACQUAINTED WITH ALL PROJECT CONDITIONS INCLUDING EXISTING CONDITIONS. EXECUTION OF CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. LATE CLAIMS FOR LABOR AND MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE WILL NOT BE RECOGNIZED.
2. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INCLUDE EVERY DETAIL OF REQUIRED CONSTRUCTION, EQUIPMENT, AND MATERIALS. PROVIDE ALL MATERIALS AND WORK NOT SPECIFICALLY MENTIONED, SHOWN, OR CAN BE REASONABLY INFERRED ON THE DRAWINGS BUT WHICH ARE NECESSARY TO FULLY COMPLETE THE WORK.
3. WHEN SUBSTITUTING OTHER EQUIPMENT, MATERIALS, AND PRODUCTS THAN SPECIFIED IN THE CONTRACT DOCUMENTS, INCLUDE IN PRICING ALL COSTS FOR OTHER DESIGN CHANGES TO THE PROJECT (ALL DIVISIONS) WHICH WILL RESULT FROM USE OF THE SUBSTITUTED ITEM(S).
4. REVIEW THE CONTRACT DOCUMENTS OF OTHER DIVISIONS, AND COORDINATE ELECTRICAL AND CONTROL WORK WITH THE WORK OF OTHER DISCIPLINES TO AVOID CONFLICTS AND INTERFERENCE.
5. UPON COMPLETION OF THE WORK REQUIRED UNDER THIS CONTRACT, PROVIDE TYPED UPDATED DIRECTORY WITHIN DOOR OF EACH AFFECTED PANELBOARD. LEAVE "SPARE" BREAKERS IN "OFF" POSITION.
6. ALL MOUNTING HEIGHTS INDICATED ON DRAWINGS ARE TO CENTERLINE, UON.
7. PROVIDE LIGHTING FIXTURES COMPATIBLE WITH CEILING CONSTRUCTION. COORDINATE WITH ARCHITECTURAL ROOM FINISH SCHEDULES.
8. IN AREAS HAVING FINISHED CEILINGS, LOCATE CEILING-MOUNTED ELECTRICAL DEVICES AND FIXTURES ACCORDING TO ARCHITECTURAL REFLECTED CEILING PLAN. DO NOT INSTALL CEILING-MOUNTED SMOKE DETECTORS WITHIN 4 FEET OF HVAC SUPPLY DIFFUSERS.
9. IN ELECTRICAL AND MECHANICAL EQUIPMENT SPACES, COORDINATE EXACT LOCATIONS OF LIGHTING FIXTURES WITH CONDUIT BANKS, DUCTWORK, PIPING, STRUCTURE, SUPPORTS, AND OTHER OBSTRUCTIONS. LOCATE FIXTURES SUCH THAT DIALS, GAUGES, METERS, ETC. ARE PROPERLY ILLUMINATED.
10. DO NOT USE ANY LIGHTING FIXTURE AS A RACEWAY FOR CONDUCTORS NOT SERVING THAT PARTICULAR FIXTURE.
11. CONNECT BATTERY-OPERATED EMERGENCY LIGHTING UNITS AND EXIT SIGNS HAVING BATTERY BACK-UP TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND NEC SUCH THAT FAILURE OF CIRCUIT TRANSFERS UNIT FROM NORMAL TO EMERGENCY MODE, CAUSING LAMPS TO RE-ENERGIZE.
12. DO NOT INSTALL OUTLET BOXES BACK-TO-BACK IN NON-RATED PARTITIONS. OFFSET AND SEAL, SIMILAR TO REQUIREMENTS FOR RATED PARTITIONS, TO MINIMIZE SOUND TRANSMISSION.
13. COORDINATE ROUTING OF ALL LARGE CONDUITS (2" DIA AND LARGER) AND PULL BOX LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION TO AVOID CONFLICTS AND TO GUARANTEE REQUIRED CLEARANCE AND ACCESSIBILITY OF ELECTRICAL AND OTHER SYSTEMS.
14. COORDINATE WITH OWNER OR OWNER'S SELECTED VENDOR PRIOR TO ROUGH-IN FOR EXACT LOCATIONS OF SPECIAL PURPOSE OUTLETS DEDICATED TO SPECIFIC EQUIPMENT. VERIFY REQUIRED NEMA CONFIGURATION OF ALL SUCH OUTLETS.
15. PROVIDE APPROPRIATE PULL WIRE IN EACH EMPTY SYSTEMS CONDUIT INCLUDED IN THIS PROJECT.
16. INCLUDE GREEN-INSULATED GROUNDING CONDUCTOR SIZED PER 2002 NEC TABLE 250-122 WITH ALL BRANCH CIRCUIT CONDUCTORS SERVING LIGHTING FIXTURES, RECEPTACLES, MECHANICAL OR OTHER DEVICES INSTALLED AT OR BELOW 8'-0".
17. MATCH A.I.C. RATINGS AND OTHER CHARACTERISTICS OF EXISTING DEVICES IN PANELBOARD WHEN ADDING BREAKERS TO EXISTING PANELBOARDS.
18. ALL WORK SHALL BE IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE - LATEST EDITION ADOPTED BY INDIANA, THE INDIANA CODE AMENDMENT, LOCAL/MUNICIPAL CODE, AND THE AUTHORITIES HAVING JURISDICTION.
19. ALL CONNECTIONS TO EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATION SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, NOT LESS THAN 12" IN LENGTH, NOR GREATER THAN 36" IN LENGTH.
20. ALL CONDUIT PENETRATIONS SHALL BE SEALED WITH APPROPRIATE CONDUIT SEALING MATERIAL.
21. ALL CABLE SIZES SHALL UTILIZE COPPER CONDUCTORS.
22. FIELD VERIFY LOCATIONS OF BUILDING EXPANSION JOINTS WHEN ROUTING CONDUIT. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL BE INSTALLED WITH THE EXPANSION FITTINGS. EXPANSION FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC AND MANUFACTURERS WRITTEN RECOMMENDATIONS.
23. FEEDERS FROM PANELBOARDS BACK TO MAIN SWITCHBOARD, BETWEEN AUTO TRANSFER SWITCHES AND THEIR SOURCES/LOADS, BETWEEN DRY TRANSFORMERS AND THEIR SOURCES/LOADS ARE NOT INDICATED. FEEDERS ARE PART OF THE WORK, AND SHALL BE SIZED AS INDICATED ON THE LINE DIAGRAM.
24. HOMERUNS SHALL NOT BE COMBINED IN A RACEWAY UNLESS SHOWN ON THE CONTRACT DRAWINGS. SINGLE PHASE BRANCH CIRCUIT HOMERUNS MAY BE COMBINED AT THE CONTRACTORS DISCRETION NOT GREATER THAN (3) PHASE CONDUCTORS, NEUTRAL CONDUCTORS, AND A GROUNDING CONDUCTOR.
25. EACH SINGLE PHASE BRANCH CONDUCTOR SHALL HAVE A DEDICATED NEUTRAL BACK TO THE PANEL.
26. ALL PENETRATIONS BELOW GRADE SHALL USE LINK SEALS.
27. WHERE LOW VOLTAGE (CONTROL) CABLING IS ALLOWED TO BE INSTALLED WITHOUT A RACEWAY, IT SHALL BE SUPPORTED NOT EXCEEDING INTERVALS OF 48", AND NOT MORE THAN 6" FROM THE CABINETS, BOXES, FITTINGS, OUTLETS, RACKS, FRAMES AND TERMINALS.
28. ALL MOUNTING HARDWARE INCLUDING NUTS, BOLTS, SCREWS, WASHERS, ETC. SHALL BE STAINLESS STEEL.
29. MOUNT JUNCTION BOXES AND DISCONNECT SWITCHES ON STAINLESS STEEL UNISTRUT.
30. ALL UNISTRUT, MOUNTING BRACKETS AND SUPPORTING STRUCTURES SHALL BE STAINLESS STEEL.
31. DO NOT MIX CONTROL AND POWER CONDUCTORS IN THE SAME CONDUIT. DO NOT MIX DISCRETE AND ANALOG CONTROL CONDUCTORS IN THE SAME CONDUIT.
32. ADJUSTABLE SPEED DRIVES (ASD) LINE AND LOAD WIRE SHALL BE RUN IN SEPARATE RACEWAYS.
33. CONTRACTOR SHALL COORDINATE WITH HEAT TRACE MANUFACTURER DURING BIDDING AND CONSTRUCTION AND SHALL PROVIDE ALL CONDUIT, WIRING, AND CIRCUITS AS REQUIRED. HEAT TRACE SHALL BE PROVIDED/INSTALLED COMPLETE. ALL HEAT TRACE IS REQUIRED TO BE GFI PROTECTED.
34. CONTRACTOR SHALL NOT COMBINE POWER FEEDS FOR THREE PHASE LOADS.
35. THE BELOW LOCATIONS ARE WHERE GFCI OUTLETS ARE REQUIRED:
    - 35.1. KITCHENS: ALL KITCHEN OUTLETS.
    - 35.2. BATHROOMS: GFCI OUTLETS ARE REQUIRED IN BATHROOMS NEAR THE SINK.
    - 35.3. GARAGES: GFCI OUTLETS ARE REQUIRED IN GARAGES THAT HAVE SINKS.
    - 35.4. BASEMENTS: UNFINISHED BASEMENTS REQUIRE AT LEAST ONE GFCI OUTLET.
    - 35.5. OUTDOOR SPACES: GFCI OUTLETS ARE REQUIRED IN OUTDOOR AREAS THAT ARE ACCESSIBLE OR AT GRADE LEVEL.
    - 35.6. LAUNDRY ROOMS: ALL LAUNDRY ROOM OUTLETS.
    - 35.7. CRAWL SPACES: GFCI OUTLETS ARE REQUIRED IN CRAWL SPACES WHERE MECHANICAL EQUIPMENT IS LOCATED.
    - 35.8. UTILITY ROOMS: ALL UTILITY ROOM OUTLETS.
36. LIMIT CAT 6E INSTALLATION TO 230' MAXIMUM DISTANCE. CONTRACTOR SHALL FURNISH AND INSTALL FIBER OPTIC CABLE AND MEDIA CONVERTERS IF CONDUIT ROUTING EXCEEDS CAT 6E LIMITS.

LEGEND

SYMBOL	DESCRIPTION	MTG HGT AFF TO CL, UON
▭ ☐ ○	OPEN LIGHTING FIXTURE SYMBOLOGY DENOTING FIXTURES CONNECTED TO NORMAL POWER: FIXTURE TYPE DETERMINES MOUNTING.	-----
⧄ ⊘	SINGLE DIAGONAL LIGHTING FIXTURE SYMBOLOGY DENOTING FIXTURES CONNECTED TO CRITICAL OR EQUIPMENT BRANCH (OR EMERGENCY POWER), UON: FIXTURE TYPE DETERMINES MOUNTING.	-----
⊠ ⊗	DOUBLE DIAGONAL LIGHTING FIXTURE SYMBOLOGY DENOTING FIXTURES CONNECTED TO LIFE SAFETY BRANCH (OR EMERGENCY POWER), UON: FIXTURE TYPE DETERMINES MOUNTING.	-----
	BATTERY POWERED EMERGENCY LIGHTING UNIT	7'-6"
⊗	EXIT SIGN: ARROWS DENOTE DIRECTIONAL INDICATING CHEVRON RQMTS, SHADING DENOTES FACE(S) ORIENTATION.	-----
◑	WALLWASH OR OTHER DIRECTIONALLY ADJUSTABLE/AIMABLE FIXTURE: OPEN SIDE DENOTES ORIENTATION. TYPE DETERMINES MOUNTING.	-----
▽ ▽ ▽	TRACK LIGHTING FIXTURE: TYPE DETERMINES MOUNTING.	-----
o☐ o○	POLE-MOUNTED SITE LIGHTING FIXTURE: TYPE DETERMINES MTG.	-----
◁	FLOOD LIGHTING FIXTURE: TYPE DETERMINES MOUNTING.	-----
PC	PHOTO-CELL	-----
XX	ALL FIXTURES IN THIS SPACE SHALL BE SAME TYPE INDICATED, U.O.N.	
S	SINGLE-POLE TOGGLE SWITCH	3'-10"
$	SINGLE-POLE TOGGLE SWITCH: SLASH DENOTES ESSENTIAL POWER SYSTEM CONNECTION - TYPICAL FOR ALL SWITCHES.	3'-10"
OS_W	DUAL TECHNOLOGY, WALL MNTD OCCUPANCY SENSOR WITH MANUAL OVERRIDE SWITCH	3'-10"
OS_C	DUAL TECHNOLOGY, CEILING MNTD OCCUPANCY SENSOR WITH REMOTE MANUAL OVERRIDE SWITCH	
S_{OR}	SINGLE-POLE REMOTE OVERRIDE SWITCH FOR CEILING MNTD OCCUPANCY SENSOR	3'-10"
S_D	DIMMER SWITCH	3'-10"
S_D3	THREE-WAY DIMMER SWITCH	3'-10"
S_P	SINGLE-POLE TOGGLE SWITCH WITH PILOT LIGHT	3'-10"
S_M	SINGLE-POLE MOTOR-RATED TOGGLE SWITCH DISCONNECT	3'-10"
S_T	SINGLE-POLE OR DOUBLE-POLE MANUAL MOTOR STARTER WITH MELTING ALLOY ELEMENTS FOR THERMAL OVERLOAD PROTECTION	3'-10"
S_{IR}	OCCUPANCY SENSOR SWITCH	3'-10"
S_{IT}	INTERVAL TIMER RESET AND CONTROL SWITCH	3'-10"
S_J	JOG SWITCH	3'-10"
▣	MUSHROOM HEAD TYPE PUSHBUTTON STATION	5'-0"
P	AUTO DOOR CONTROL PUSHPLATE	-----
S_V	VARIABLE INTENSITY CONTROLLER INCLUDED WITH OWNER-FURNISHED-CONTRACTOR-INSTALLED SURGICAL LIGHTING FIXTURE	5'-0"
S_{LV}	LOW VOLTAGE CONTROL SWITCH	3'-10"
WS	FACTORY SUPPLIED WALL CONTROLLER FOR CEILING MOUNTED LIGHT-INSTALLED BY ELECTRICAL CONTRACTOR	3'-10"
⊖	120V DUPLEX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
⊖	120V DUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT INSTALL AT SAME HEIGHT AS SWITCHES IF NO HEIGHT IS INDICATED	ABOVE COUNTER
⊕	120V QUADRUPLEX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
⊕	120V QUADRUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT INSTALL AT SAME HEIGHT AS SWITCHES IF NO HEIGHT IS INDICATED	ABOVE COUNTER
⊖	120V SINGLE RECEPTACLE, AMP RATING (IF OTHER THAN 20A) SHOWN: STANDARD MOUNTING HEIGHT, OR OTHER HEIGHT AS NOTED	1'-6", UON
⊖ GFCI	120V GFCI DUPLEX RECEPTACLE, STANDARD MOUNTING HEIGHT	1'-6"
⊕	120V GFCI QUADRUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT INSTALL AT SAME HEIGHT AS SWITCHES IF NO HEIGHT IS INDICATED	ABOVE COUNTER
◐	120V GFCI DUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT INSTALL AT SAME HEIGHT AS SWITCHES IF NO HEIGHT IS INDICATED	ABOVE COUNTER
⊖	SINGLE RECEPTACLE (OTHER THAN 120V), VOLTAGE, AMP RATING, NEMA CONFIGURATION, AND MOUNTING HEIGHT AS NOTED	-----
⊟	RECPTACLE OR J-BOX CONNECTION FOR X-RAY VIEWER: VERIFY CONNECTION RQMTS WITH UNIT FURNISHED PRIOR TO ROUGH-IN	-----
⊙	120V DUPLEX RECEPTACLE IN FLUSH FLOOR-MOUNTED BOX	-----
TP	TELE-POWER POLE	-----
H	HALON DUMP STATION	-----
F	FIRE ALARM MANUAL PULL STATION	3'-10"
FK	FIRE ALARM MANUAL PULL STATION, KEY-OPERATED	3'-10"
D	FIRE ALARM CEILING-MOUNTED SMOKE DETECTOR	-----
H	FIRE ALARM CEILING-MOUNTED HEAT DETECTOR	-----
D_S	FIRE ALARM SUPPLY AIR DUCT-MOUNTED SMOKE DETECTOR	-----
D_R	FIRE ALARM RETURN AIR DUCT-MOUNTED SMOKE DETECTOR	-----
DR◁	FIRE ALARM PROJECTED BEAM SMOKE DETECTOR - RECEIVER	AS NOTED
DT◁	FIRE ALARM PROJECTED BEAM SMOKE DETECTOR - TRANSMITTER	AS NOTED
Y	FIRE ALARM CONNECTION TO SPRINKLER SYSTEM VALVE STATUS SWITCH (TAMPER SWITCH)	-----
FS	FIRE ALARM CONNECTION TO SPRINKLER SYSTEM WATER FLOW SWITCH	-----
F○	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE-CHIME & STROBE	6'-8"
F◁	FIRE ALARM AUDIO/VISIUAL NOTIFICATION DEVICE-HORN & STROBE	6'-8"
F	FIRE ALARM VISUAL ONLY NOTIFICATION DEVICE - STROBE LIGHT	6'-8"
FS FS	FIRE ALARM SPEAKER: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
FH◁	FIRE ALARM HORN, WALL-MOUNTED	AS NOTED
RI RI	DUCT SMOKE DETECTOR ALARM REMOTE INDICATOR LIGHT: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
SAI SAI	DUCT SMOKE DETECTOR ALARM REMOTE INDICATOR LIGHT AND TEST SWITCH: CEILING-MOUNTED, WALL-MOUNTED	6'-8"
Z	FIRE ALARM ZONE ADDRESSABLE MODULE	-----
I	FIRE ALARM INDIVIDUAL ADDRESSABLE MODULE	-----
◆	FIRE ALARM ELECTRO-MAGNETIC DOOR HOLDER	6'-4"
FR	FIRE RELAY	-----
ID	DESK MOUNTED INTERCOM	-----
IW	WALL MOUNTED INTERCOM	-----
$\$_X$	EXPLOSION PROOF SWITCH	3'-10"
$\$_3$	3 WAY SWITCH	3'-10"
$\$_4$	4 WAY SWITCH	3'-10"
$\$_{WP}$	NEMA 4X SWITCH	3'-10"

PUMP AND METER LEGEND

SYMBOL	DESCRIPTION
M	MAGNETIC FLOW METER
	SONIC FLOW METER
	CENTRIFUGAL PUMP
	LOBE PUMP
	PERISTALTIC PUMP
	SUBMERSIBLE PUMP
	GRINDER PUMP

LEGEND

ABBREVIATIONS

ABV	ABOVE	IG	ISOLATED GROUND
AFF	ABOVE FINISHED FLOOR	MON	MONITOR
ACLG	ABOVE FINISHED CEILING	MTG	MOUNTING
BFC	BELOW FINISHED CEILING	MV	MULTI-VIEWER
C	CRITICAL BRANCH OR EMERG PWR-RED DEVICE & PLATE, UON.	MW	MICROWAVE OVEN
CL	CENTER-LINE	NEC	NATIONAL ELECTRICAL CODE
CLG	CEILING-MOUNTED	OCPD	OVERCURRENT PROTECTIVE DEVICE
COF	COFFEE MAKER	OFCI	OWNER-FURNISHED-CONTRACTOR-INSTALLED
COP	COPIER	OFE	OWNER-FURNISHED EQUIPMENT
CTR	COUNTER	PRT	PRINTER
ECB	ENCLOSED CIRCUIT BREAKER	PTS	PNEUMATIC TUBE STATION
EMER	EMERGENCY	Q	EQUIP BRANCH OR EMERG PWR-RED DEVICE & PLATE, UON.
EWC	ELECTRIC WATER COOLER	REF	REFRIGERATOR
EWH	ELECTRIC WATER HEATER	RQMTS	REQUIREMENTS
FAX	FACSIMILE MACHINE	T	TAMPERPROOF DEVICE
FBO	FURNISHED BY OTHERS	TSP	TWISTED SHIELDED PAIR
GFCI	GROUND FAULT CIRCUIT INTERRUPT-ING - PERSONNEL PROTECTION	UON	UNLESS OTHERWISE NOTED
GFI	GROUND FAULT INTERRUPTING - EQUIPMENT PROTECTION	UCR	UNDER-COUNTER REFRIGERATOR
HGT	HEIGHT	WP	WEATHERPROOF
FPMR	FUSED PER MANUFACTURE'S RECOMMENDATIONS		

SYMBOL	DESCRIPTION	MTG HGT AFF TO CL, UON
	EXPOSED RACEWAY	-----
	RACEWAY CONCEALED IN OR ABOVE CEILINGS AND WITHIN WALLS	-----
	BRANCH CIRCUIT RACEWAY CONCEALED IN OR BELOW FLOOR SLAB OR BELOW GRADE	-----
	FEEDER RACEWAY CONCEALED BELOW FLOOR SLAB OR BELOW GRADE	-----
	LIGHTNING PROTECTION CABLING	-----
	HOMERUN RACEWAY: NUMBER OF ARROWHEADS DENOTES NUMBER OF CIRCUITS.	-----
—○	RACEWAY TURNING UP AS VIEWED FROM THE LOAD	-----
—●	RACEWAY TURNING DOWN AS VIEWED FROM THE LOAD	-----
—●—	RACEWAY VERTICAL RISER WITH HORIZONTAL CONTINUATION AT TWO LEVELS SHOWN	-----
	CAPPED RACEWAY	-----
	GENERAL LIGHTING OR OUTLET CIRCUIT - MAY BE DAISY CHAINED	
J	JUNCTION BOX	AS NOTED
◩	ENCLOSED BREAKER	
	FUSIBLE SAFETY SWITCH (AMP RATING, POLES, FUSE SIZE, AND NEMA ENCLOSURE TYPE IF OTHER THAN 1 NOTED)	-----
	NON-FUSIBLE SAFETY SWITCH (AMP RATING, POLES, AND NEMA ENCLOSURE TYPE IF OTHER THAN 1 NOTED)	-----
⊠	COMBINATION MAGNETIC ACROSS-THE-LINE STARTER WITH MOTOR CIRCUIT PROTECTOR (NEMA STARTER SIZE NOTED)	-----
▩	CONTROL PANEL FURNISHED INTEGRAL TO EQUIPMENT (SINGLE-POINT ELECTRICAL CONNECTION REQUIRED)	-----
	MOTOR	-----
	FLEXIBLE CONDUIT CONNECTION	-----
▬ ▬	SURFACE- OR FLUSH-MOUNTED LIGHTING/RECEPTACLE PANELBOARD	-----
▨	POWER DISTRIBUTION PANELBOARD	-----
T T	DRY TYPE TRANSFORMER	-----
XXX	MISCELLANEOUS SYSTEMS PANEL OR CABINET: REFER TO ABBREVIATIONS.	-----

NOTE !! ALL ABBREVIATIONS, NOTES, AND SYMBOLS SHOWN ON THIS DRAWING DO NOT NECESSARILY APPEAR IN THIS SET OF CONTRACT DOCUMENTS. REFER ONLY TO THOSE THAT APPLY.

MOTOR CONTROLLER LEGEND

SYMBOL	DESCRIPTION
⊠ MS	ACROSS THE LINE MOTOR STARTER
☐ SS	SOFT STARTER
☐ VFD	VARIABLE FREQUENCY DRIVE
MS ⊠	ACROSS THE LINE MOTOR STARTER WITH INTEGRAL DISCONNECT
SS ☐	SOFT STARTER WITH INTEGRAL DISCONNECT
VFD ☐	VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT

LIGHTING LEGEND

SYMBOL	DESCRIPTION
○	FIXTURE WITH STANDARD BALLAST.
●	FIXTURE WITH STANDARD BALLAST AND EMERGENCY BALLAST.

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TOBY LEE CHURCH
No. 11300603

Signature 3/31/2025
Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON
ELEVATED STORAGE TANK

Indiana 811
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No.	Submittal / Revision	By	Date

Designed By:	Drawn By:	Checked By:
DS	DS	TLC
Issue Date:	**Project No:**	**Scale:**
----	W24086	AS SHOWN

ELECTRICAL LEGENDS
AND SCHEDULES

Drawing No:
E0-0

Sheet: 47 OF 53

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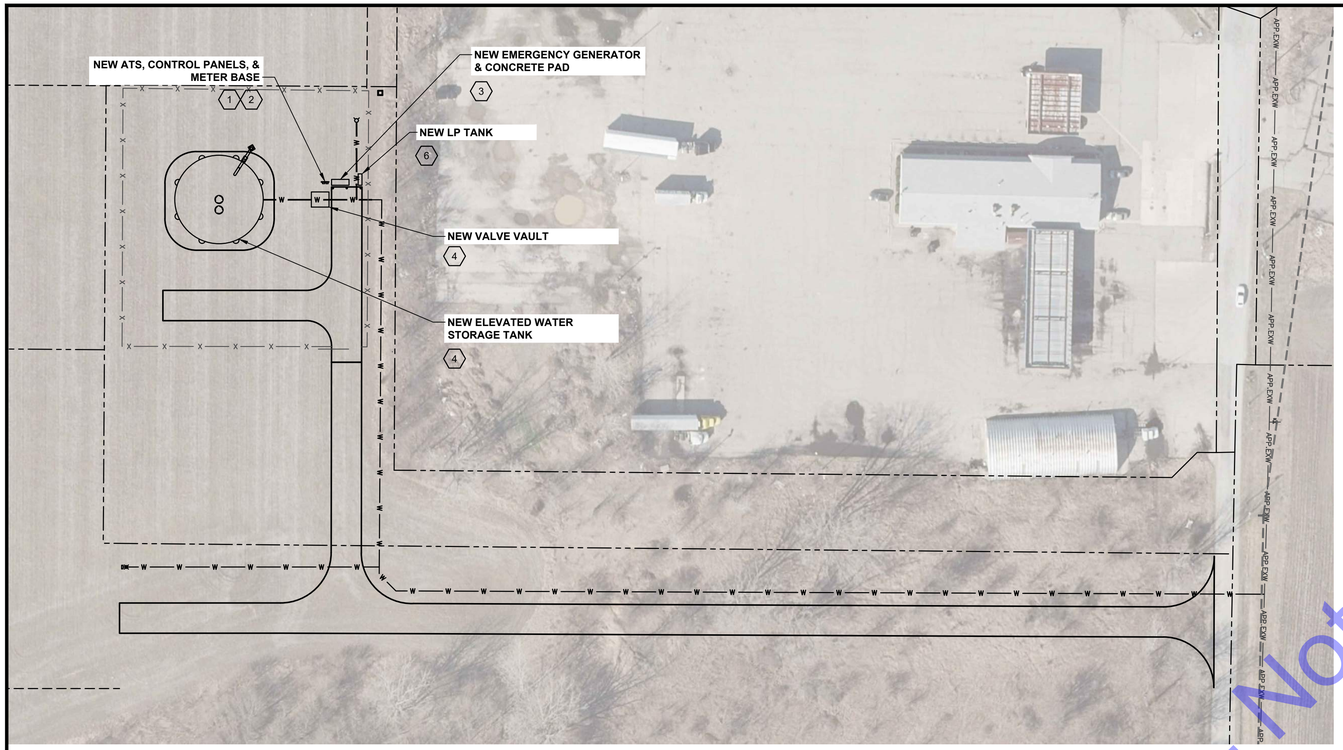


NEW TANK SITE IMPROVEMENTS PLAN

SCALE: 1"=60'-0"

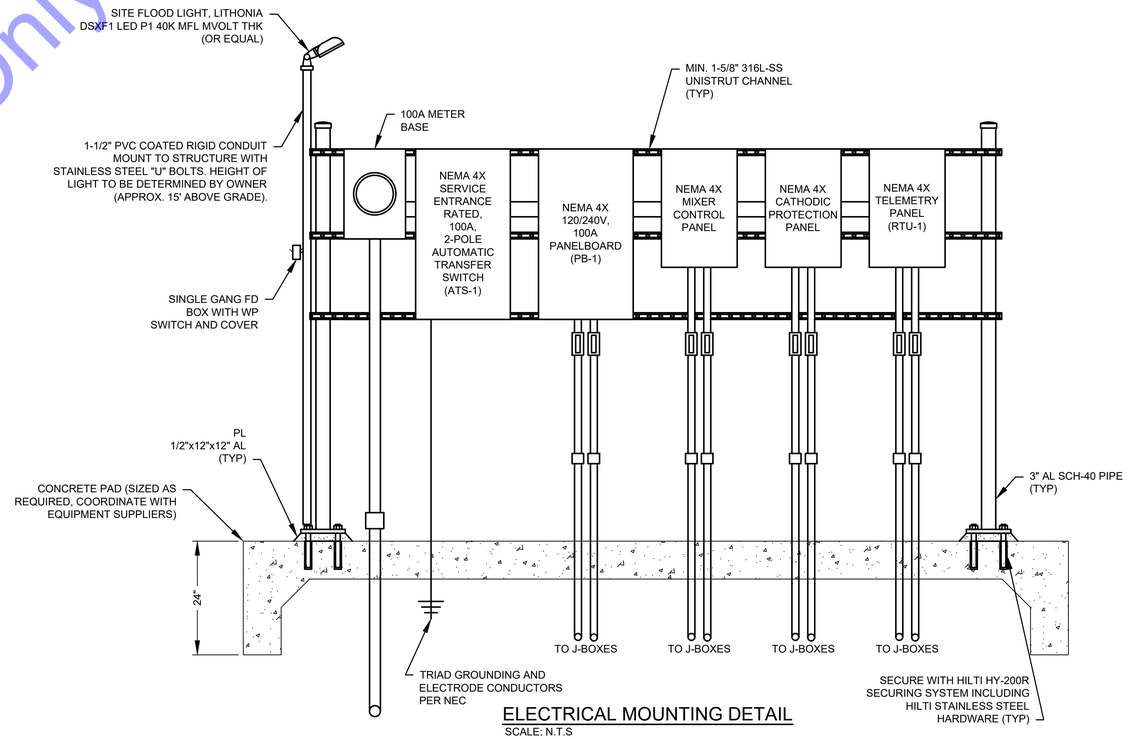
0 60' 120'

1. SEE E0.0 FOR PROJECT CONDUIT REQUIREMENTS.
2. THE CONTRACTOR IS RESPONSIBLE FOR WIRE SIZE BASED UPON CONDUIT ROUTING AND LENGTH OF FINAL WIRE RUN. THE CONTRACTOR SHALL SIZE WIRE BASED UPON A MAXIMUM 3% VOLTAGE DROP. THE CONTRACTOR IS RESPONSIBLE FOR ANY COSTS INCURRED BY INCREASED WIRE SIZE.
3. THE CONTRACTOR SHALL EXAMINE NOT ONLY PLANS AND SPECIFICATIONS FOR ELECTRICAL AND INSTRUMENTATION, BUT PLANS AND SPECIFICATIONS FOR OTHER RELATED SECTIONS. VISIT THE SITE TO BECOME ACQUAINTED WITH ALL PROJECT CONDITIONS INCLUDING EXISTING CONDITIONS EXECUTION OF CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. CLAIMS FOR LABOR, MATERIAL, OR TIME EXTENSIONS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE WILL NOT BE RECOGNIZED, REFER TO PROCESS AND STRUCTURAL DRAWINGS FOR ADDITIONAL DETAILS REGARDING BURIED EQUIPMENT.

ELECTRICAL NOTES

1. THE CONTRACTOR SHALL COORDINATE WITH FULTON COUNTY REMC TO INSTALL NEW 120/240 VAC, 1-PHASE, 100-AMP SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL AND LABOR NOT PROVIDED BY UTILITY. THE CONTRACTOR SHALL COORDINATE WITH UTILITY DURING BIDDING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR BUT NOT LIMITED TO; INSTALLATION AND PROVISION OF PRIMARY CONDUIT, SECONDARY CONDUIT AND WIRE, CONCRETE TRANSFORMER PAD AND CT CABINET AS REQUIRED.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW NEMA 4X 120/240 VAC, 1-PHASE, 100-AMP, SERVICE ENTRANCE RATED, 2-POLE AUTOMATIC TRANSFER SWITCH (ATS-1).
3. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 20 KW NATURAL GAS GENERATOR. THE CONTRACTOR SHALL FURNISH AND INSTALL POWER/CONTROL CONDUITS AND WIRE FROM NEW GENERATOR TO NEW ATS. NEW GENERATOR PAD TO BE INSTALLED BY CONTRACTOR.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW POWER CONDUIT AND WIRE TO FEED HEAT TRACE AND SOLENOID VALVE INSIDE NEW VALVE VAULT. REFER TO ELECTRICAL DRAWING E3-0 FOR ADDITIONAL DETAILS.
5. COORDINATE WITH THE CONTRACTOR AND EQUIPMENT SUPPLIERS WHEN SELECTING THE CIRCUIT BREAKER SIZES TO ENSURE PROPER SIZING. BREAKERS SHALL HAVE THE CAPABILITY OF MEANS OF LOCK OUT TAG OUT.
6. LP GAS LINE SYSTEM TO NEW GENERATOR:
   1. PROVIDE 120 GALLON LP TANK WITH PRECAST CONCRETE PAD.
   2. CONTRACTOR SHALL INCLUDE ALL COSTS ASSOCIATED WITH EXCAVATION WORK REQUIRED TO INSTALL THIS GAS LINE SYSTEM.
   3. CONTRACTOR SHALL COORDINATE ALL WORK ASSOCIATED WITH THIS GAS LINE INSTALLATION WITH THE INSTALLATION OF ALL GENERATOR AND AUTOMATIC TRANSFER SWITCH ELECTRICAL CONDUITS. REFER TO COMPLETE PROJECT DRAWINGS AND SPECIFICATIONS FOR OTHER DETAILS AND REQUIREMENTS.
   4. SEPARATION BETWEEN THE ELECTRICAL CONDUITS AND NATURAL GAS LINE SHALL MEET OR EXCEED ALL FEDERAL, STATE, LOCAL, AND UTILITY CODES AND REGULATIONS.

Panel Name:	PB-1				Panel Amperage:	100A
Voltage & Phase:	120/240V 1-Phase				Panel A.I.C. Rating:	10kAIC
Mounting:	Surface				Other:	MCB/100A
Description	Brk	Phase			Brk	Description
MIXER PANEL	20	1	A	2	20	HEAT TRACE
CATHODIC PROTECTION PANEL	20	3	B	4	20	HEAT TRACE
TELEMETRY PANEL (RTU-1)	20	5	A	6	20	SITE LIGHT
GENERATOR ANCILLARY DEVICES	20	7	B	8	20	LIGHT POLE RECEPTACLE
GENERATOR ANCILLARY DEVICES	20	9	A	10	20	SPARE
VALVE	20	11	B	12	20	SPARE
SPARE	20	13	A	14	20	SPARE
SPARE	20	15	B	16	20	SPARE
SPARE	20	17	A	18	20	SPARE
SPARE	20	19	B	20	20	SPARE



ELECTRICAL MOUNTING DETAIL

SCALE: N.T.S

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CITY OF ROCHESTER
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WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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ELECTRICAL SITE PLAN

Drawing No: **E1-0**

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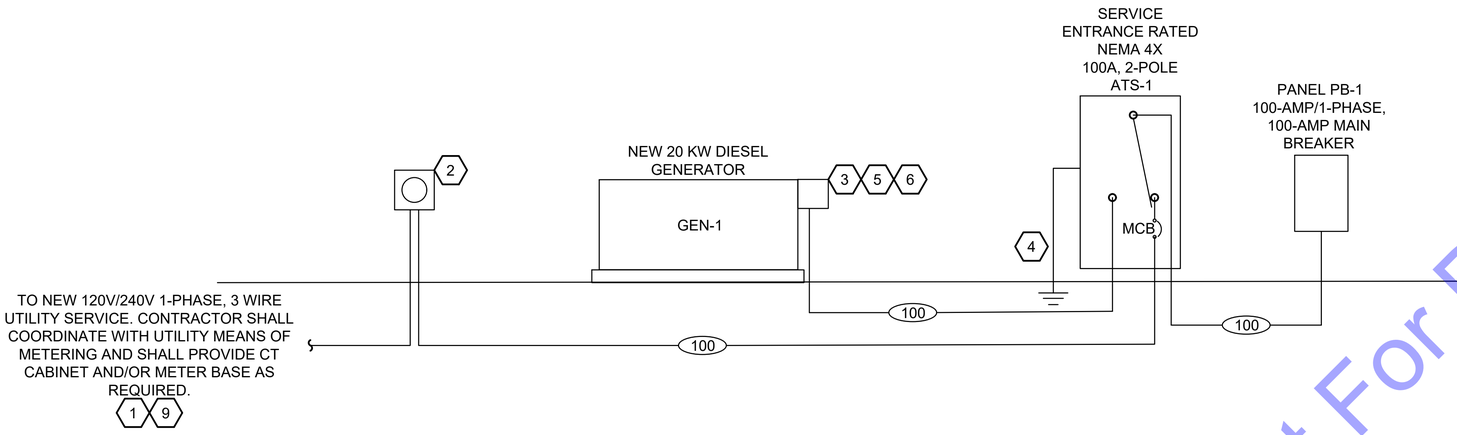


Load Wiring Schedule		
	Copper Wire	
Type #:	Quantity and Wire Size	Conduit
20	3 #12's & #12 Ground	3/4"
30	3 #10's & #10 Ground	3/4"
50	3 #8's & #10 Ground	3/4"
60	3 #6's & #8 Ground	3/4"
80	3 #4's & #8 Ground	1"
100	3 #2's & #6 Ground	1.5"
125	3#1's & #6 Ground	1.5"
150	3 - 2/0 & #6 Ground	2"
200	3 - 3/0 & #6 Ground	2"
225	3 - 4/0 & #4 Ground	2.5"
250	3 #250MCM & #4 Ground	3"
300	3 #350MCM & #3 Ground	3"
350	3 #500MCM & #3 Ground	4"
400	3 #500MCM & #3 Ground	4"

GENERATOR

MINIMUM RATED CAPACITY: 20 kW

BASIS OF DESIGN: MANUFACTURER: CUMMINS — MODEL: CUMMINS C20 N6 OR EQUAL MEETING SPECIFICATIONS

RATED VOLTAGE: 120/240 1-PHASE/3-WIRE

ENCLOSURE RATING: SEE SPECIFICATIONS — FUEL TYPE: LP

FUEL TANK CAPACITY: 24 HOURS

SEE SPECIFICATIONS FOR ADDITIONAL FEATURES

AUTOMATIC TRANSFER SWITCH

TRANSFER SWITCH TYPE: AUTOMATIC — CURRENT RATING: 100A

RATED VOLTAGE: 120/240 1-PHASE/3-WIRE — # OF POLES: 2

NEUTRAL CONFIGURATION: SOLID — IN-SYNC TRANSFER: YES

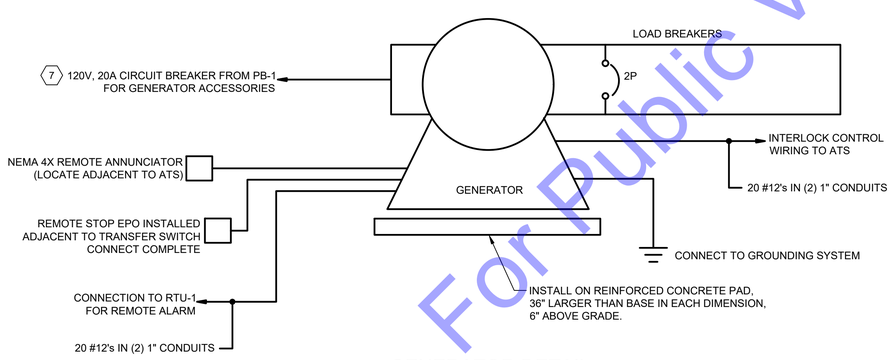
MAIN CIRCUIT BREAKER: 100A — GROUND FAULT ON MAIN: NO

SERVICE ENTRANCE RATED: YES — REMOTE ANNUNCIATION: YES

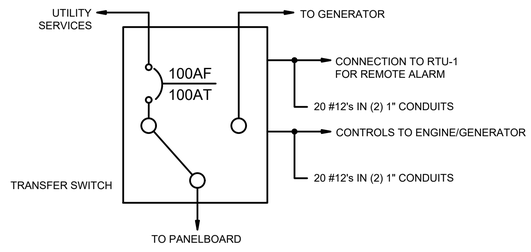
BY-PASS/ISOLATION: NO — NEC LOAD BRANCH: 702 — KAIC: 42

SEE SPECIFICATIONS FOR ADDITIONAL FEATURES

NEMA RATING: 4X — CYCLE RATING: 3



GENERATOR DETAIL



AUTOMATIC TRANSFER SWITCH

GENERAL NOTES:

REFER TO E0.0 FOR PROJECT CONDUIT REQUIREMENTS.

CONTRACTOR SHALL EXAMINE NOT ONLY PLANS AND SPECIFICATIONS FOR ELECTRICAL AND INSTRUMENTATION, BUT PLANS AND SPECIFICATIONS FOR OTHER RELATED SECTIONS. VISIT THE SITE TO BECOME ACQUAINTED WITH ALL PROJECT CONDITIONS INCLUDING EXISTING CONDITIONS. EXECUTION OF CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. CLAIMS FOR LABOR, MATERIAL, OR TIME EXTENSIONS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE WILL NOT BE RECOGNIZED.

PLAN NOTES

1. THE CONTRACTOR IS TO COORDINATE WITH FULTON COUNTY REMC TO INSTALL NEW 120/240 VAC, 1-PHASE, 100-AMP SERVICE.
2. ELECTRICAL CONTRACTOR TO PROVIDE METER BASE/CT CABINET AND MOUNTING AS REQUIRED BY LOCAL UTILITY. COORDINATE DURING BIDDING AND CONSTRUCTION.
3. PROVIDE GENERATOR INTEGRAL CIRCUIT BREAKER TO PROVIDE MEANS OF CURRENT PROTECTION AND DISCONNECTION AT THE GENERATOR.
4. PROVIDE TRIAD GROUNDING SYSTEM.
5. COORDINATE WITH GENERATOR AND ATS SUPPLIER/MANUFACTURER FOR WIRING REQUIREMENTS DURING BIDDING AND CONSTRUCTION.
6. DO NOT BOND NEUTRAL TO GROUND AT GENERATOR. VERIFY THAT THE NEUTRAL TO GROUND IS NOT BONDED AT GENERATOR BY THE GENERATOR MANUFACTURER. NEUTRAL TO BE BONDED TO GROUND AT AUTOMATIC TRANSFER SWITCH ONLY.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE GENERATOR SUPPLIER/MANUFACTURER FOR POWER REQUIREMENTS TO THE ANCILLARY DEVICES. ANCILLARY POWER REQUIREMENTS VARY BETWEEN GENERATOR MANUFACTURES. ALL COSTS ASSOCIATED WITH PROVIDING ANCILLARY POWER TO THE GENERATOR SHALL BE BY THE CONTRACTOR.
8. COORDINATE WITH UTILITY DURING BIDDING AND CONSTRUCTION ON TRANSFORMER TYPE (POLE MOUNTED TRANSFORMERS OR PAD MOUNT TRANSFORMER) FOR NEW UTILITY FEED.
9. ATS SHALL BE DESIGNED FOR FRONT ACCESS AND LIMITED TO ONE SIDE ACCESS.

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TOBY LEE CHURCH
REGISTERED
No. 11300603
STATE OF INDIANA
PROFESSIONAL ENGINEER
Signature 3/31/2025 Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

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ELECTRICAL RISER DIAGRAM

Drawing No:
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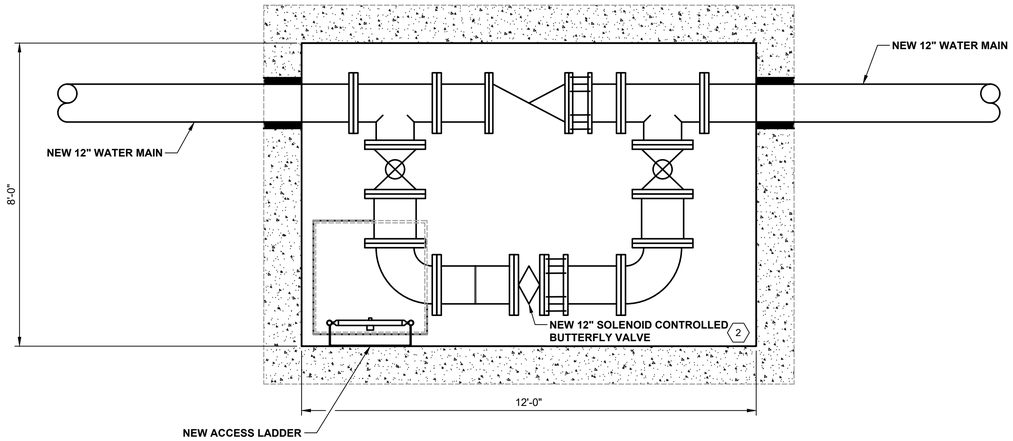


1 NEW VALVE VAULT LOWER PLAN VIEW

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

0 1' 2' 4'

GENERAL NOTES:

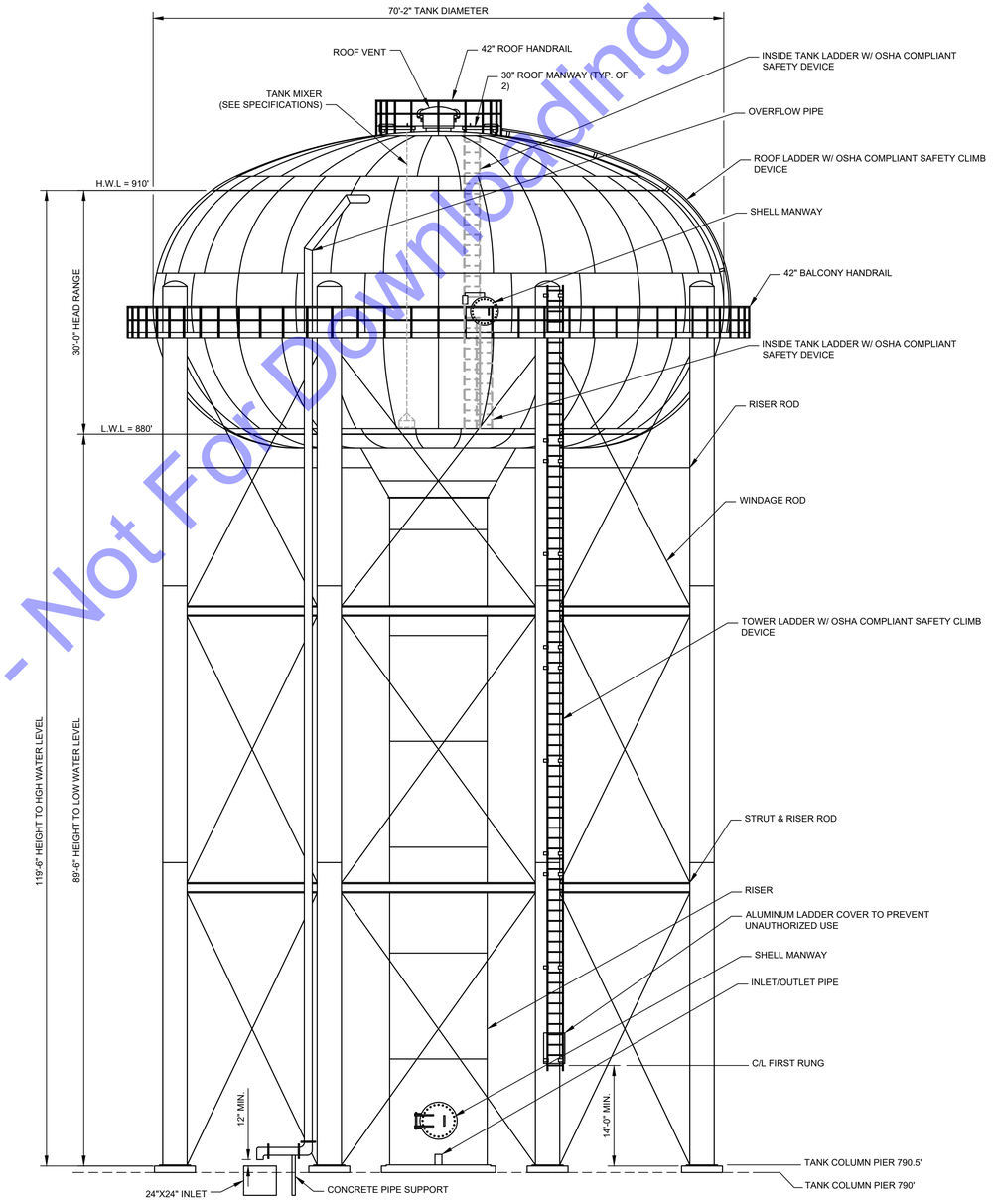
REFER TO E0.0 FOR PROJECT CONDUIT REQUIREMENTS.

GRIDBEE MIXERS IS THE BASIS OF DESIGN, COORDINATE DURING BIDDING AND CONSTRUCTION WITH MANUFACTURES FOR DETAILS ON MIXER INSTALLATION AND INTERLOCK WIRING REQUIREMENTS. REFER TO THE MIXER SPECIFICATION FOR FURTHER DETAIL.

RUN CONDUIT/WIRE UP TO TOP OF THE TANK ADJACENT TO LADDER. CONDUIT SHALL NOT IMPEDE CLIMBING OF LADDER IN ANY MANNER. CONDUIT SHALL EXTEND THROUGH TOP OF TANK THROUGH SEALED TANK PENETRATION FITTING TO MIXER J-BOX.

PLAN NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL HEAT TRACING FOR ALL EXPOSED PIPING AND VALVES IN VALVE VAULT. THE CONTRACTOR SHALL FURNISH POWER CONDUIT AND WIRING FROM PANELBOARD 1 (PB-1) TO NEW HEAT TRACE. HEAT TRACE SHALL BE COVERED WITH 2" INSULATION WRAPPED IN AN ALUMINUM JACKET. THE CONTRACTOR SHALL COORDINATE WITH HEAT TRACE SUPPLIER/MANUFACTURER DURING BIDDING AND CONSTRUCTION AND SHALL PROVIDE ALL CONDUIT, WIRING, AND CIRCUITS REQUIRED. HEAT TRACE SHALL BE PROVIDED/INSTALLED COMPLETE.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL POWER/CONTROL CONDUIT AND WIRING FROM PANELBOARD 1 (PB-1) TO NEW MOTORIZED VALVE. POWER AND CONTROL WIRING SHALL BE IN SEPARATE CONDUITS. REFER TO ELECTRICAL DRAWING E5-0 FOR ADDITIONAL DETAILS.



750,000 GALLON ELEVATED TORO-SPHERICAL WATER STORAGE TANK - ELEVATION VIEW

NOT TO SCALE

NEW ELEVATED TANK (750,000 GALLON)	
TANK DIAMETER	70'-2"
HIGH WATER LEVEL ELEVATION	910'
LOW WATER LEVEL ELEVATION	880'
HEAD RANGE	30'-0"
TANK HEIGHT	119'-6"

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NEW VALVE VAULT AND ELEVATED TANK ELECTRICAL PLAN

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Requirements
GS Series

Hatch Requirement

A 12 inch (305 mm) diameter hatch opening is required to fit the GS Mixer through.

Power Requirement

120 VAC, 20 amp GFCI protected service and means of quick power disconnect recommended.

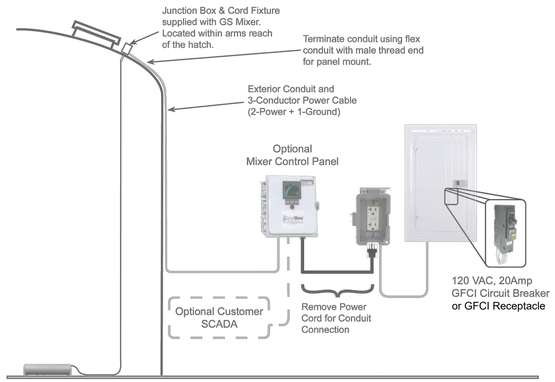
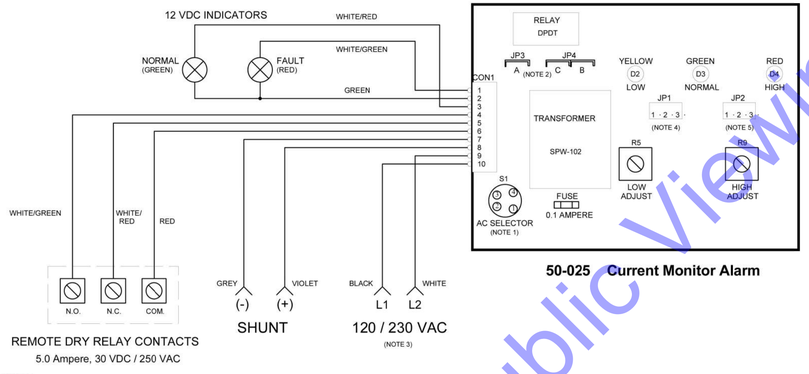


Figure 1: *Typical GS Placement*

RATING					FULL LOAD		MAXIMUM LOAD		WINDING (1) RES. IN OHMS	EFFICIENCY %		POWER FACTOR %		LOCKED ROTOR AMPS	KVA CODE
HP	KW	VOLTS	HZ	S.F.	(2) AMPS	WATTS	(2) AMPS	WATTS	M=MAIN RES. S=START RES.	F.L.	S.F.	F.L.	S.F.		
1/2	0.37	115	60	1.6	7.9	910	9.8	1120	1.4-2.0	42	54	99	99	28	H

Service Entrance to Motor - Maximum Length In Feet Based on Service Factor Amps, and 5% Voltage Drop														
Motor Rating			60° C and 75° C Insulation - AWG Copper Wire Size											
Volts	HP	kW	14	12	10	8	6	4	3	2	1	0	00	000	0000
115	1/2	0.37	100	160	250	390	620	960	1190	1460	1780	2160	2630	3140	3770



50-025 Current Monitor Alarm

NOTES:

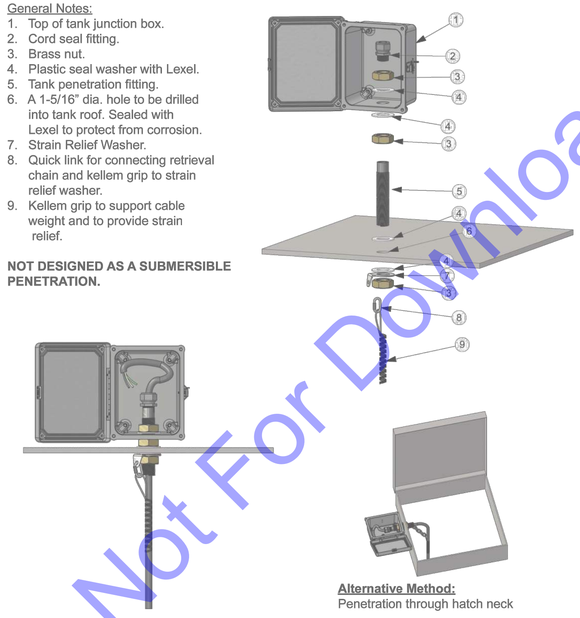
1. AC SELECT SWITCH/JUMPER FOR CORRECT INPUT VOLTAGE TO THE ALARM BOARD AS FOLLOWS:
   FOR 115 VAC: SELECT 115 ON THE SWITCH OR JUMPER 1-2 & 3-4.
   FOR 230 VAC: SELECT 230 ON SWITCH OR JUMPER 2-3 ONLY.
2. JP3/4: JUMPER "A" & "B" FOR +12 VDC LAMPS, JUMPER "C" FOR 115 VAC LAMPS.
   JP4: JUMPER "C" FOR 115 VAC LAMPS, CONNECT 115 VAC TO TB1-2.
   JP4: JUMPER "C" FOR TWO SETS OF DRY CONTACTS.
3. FOR USE WITH 115 OR 230 VAC INPUT ONLY.
   CONSULT FACTORY FOR TRANSFORMER KITS FOR USE WITH OTHER AC INPUT VOLTAGES.
4. J1: JUMPER 1-2 FOR CONTINUOUS MODE , JUMPER 2-3 FOR FLASHING MODE.
5. JP2: JUMPER 1-2 FOR NORMAL MODE, JUMPER 2-3 FOR INVERTED MODE.

TOP OF TANK

GS Series

General Notes:
1. Top of tank junction box.
2. Cord seal fitting.
3. Brass nut.
4. Plastic seal washer with Lexel.
5. Tank penetration fitting.
6. A 1-5/16" dia. hole to be drilled into tank roof. Sealed with Lexel to protect from corrosion.
7. Strain Relief Washer.
8. Quick link for connecting retrieval chain and kellem grip to strain relief washer.
9. Kellem grip to support cable weight and to provide strain relief.

NOT DESIGNED AS A SUBMERSIBLE PENETRATION.



Alternative Method:
Penetration through hatch neck

GENERAL NOTES:

MIXER TO BE INSTALLED AT THE NEW ELEVATED STORAGE TANK.

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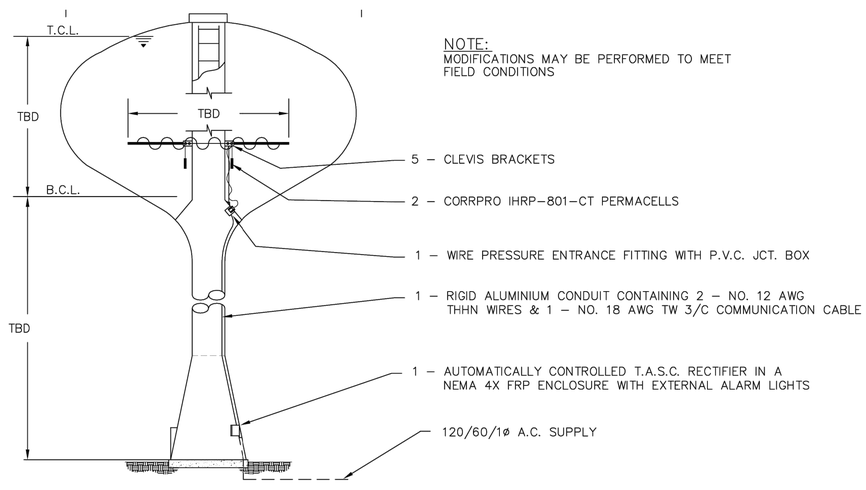
RUN CONDUIT/WIRE UP TO TOP OF THE TANK ADJACENT TO LADDER. CONDUIT SHALL NOT IMPEDE CLIMBING OF LADDER IN ANY MANNER. CONDUIT SHALL EXTEND THROUGH TOP OF TANK THROUGH SEALED TANK PENETRATION FITTING TO MIXER J-BOX.

CORRPRO CATHODIC PROTECTION IS THE BASIS OF DESIGN. COORDINATE DURING BIDDING AND CONSTRUCTION WITH MANUFACTURERS FOR DETAILS ON CATHODIC PROTECTION INSTALLATION AND INTERLOCK WIRING REQUIREMENTS. REFER TO THE CATHODIC PROTECTION SPECIFICATION FOR FURTHER DETAILS.



NOTE:
MODIFICATIONS MAY BE PERFORMED TO MEET FIELD CONDITIONS

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WATER SYSTEM IMPROVEMENTS

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TANK MIXER AND CATHODIC PROTECTION ELECTRICAL AND WIRING DETAILS

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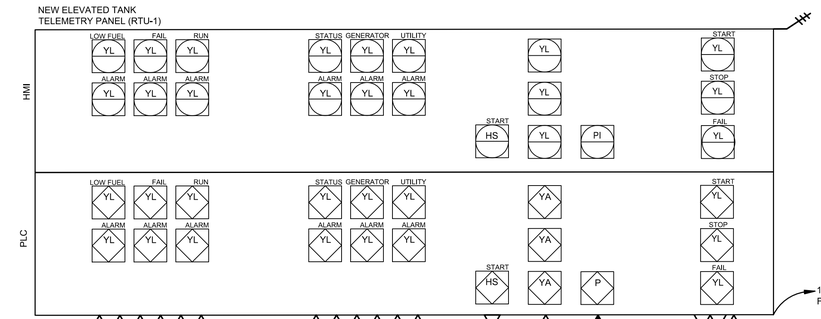

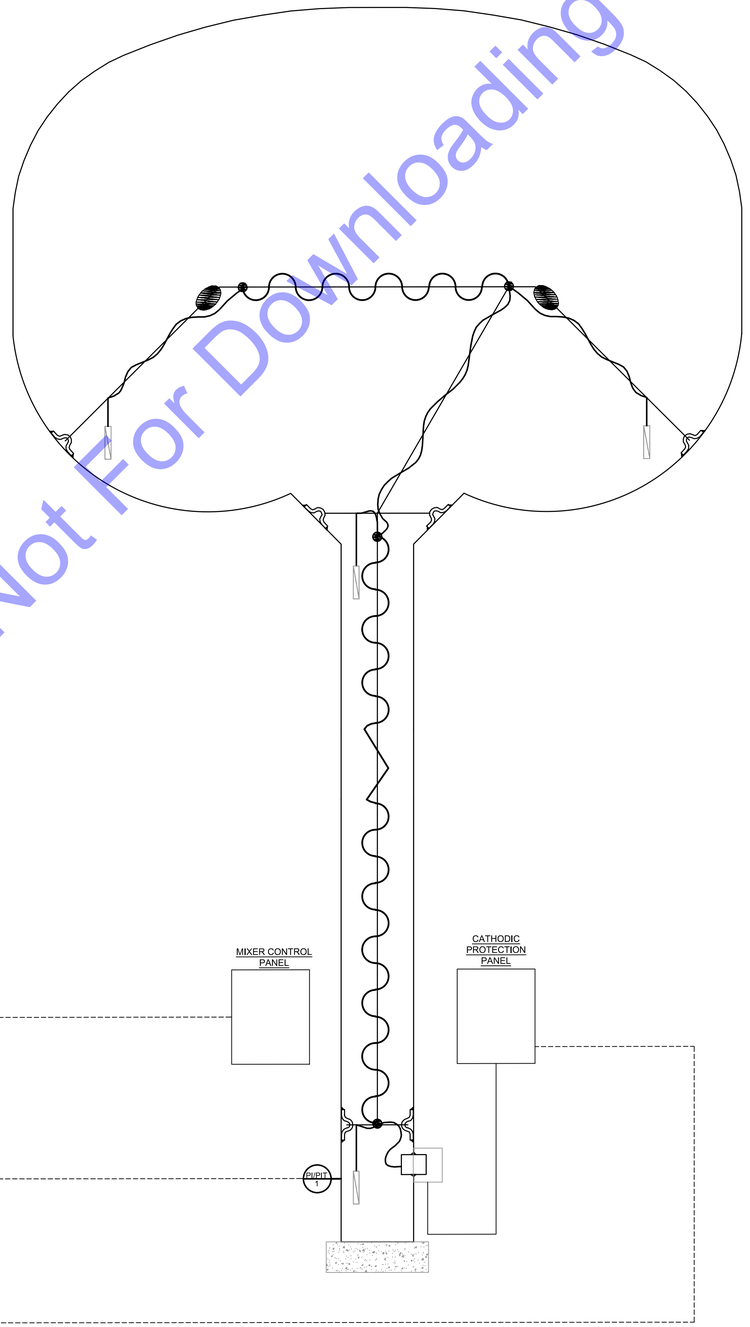

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PROCESS AND INSTRUMENTATION DRAWING

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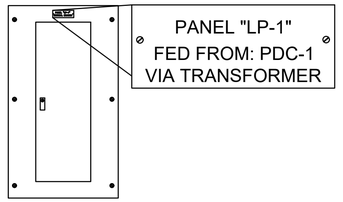
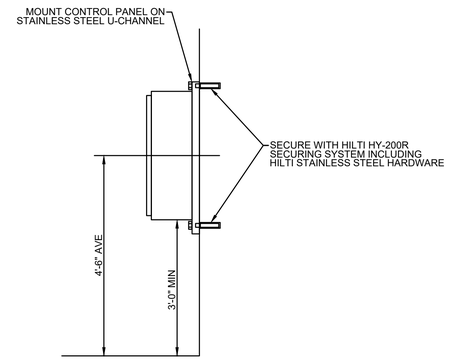


NOTE:
ALL PANELBOARDS INVOLVED IN THIS PROJECT SHALL BE IDENTIFIED BY THE PANEL NAME AND SOURCE OF THE PANEL'S POWER. REFER TO THE SPECIFICATIONS FOR COLORS AND ADDITIONAL REQUIREMENTS.

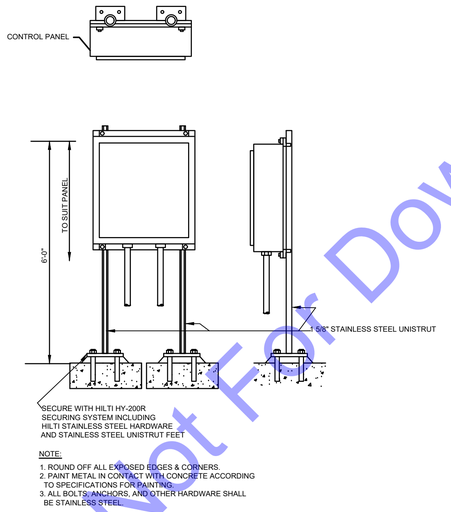
PANELBOARD IDENTIFICATION

NOT TO SCALE



WALL MOUNT CONTROL PANEL INSTALLATION

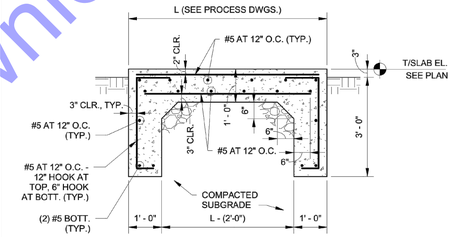
NOT TO SCALE



NOTE:
1. ROUND OFF ALL EXPOSED EDGES & CORNERS.
2. PAINT METAL IN CONTACT WITH CONCRETE ACCORDING TO SPECIFICATIONS FOR PAINTING.
3. ALL BOLTS, ANCHORS, AND OTHER HARDWARE SHALL BE STAINLESS STEEL.

UNISTRUT MOUNT SMALL PANEL

NOT TO SCALE

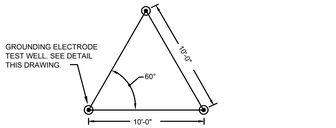


SECTION

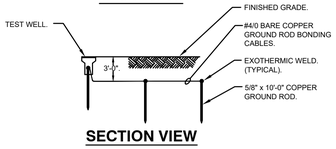
NOTES:
1. SEE PROCESS DRAWINGS FOR EQUIPMENT PAD LOCATION, DIMENSIONS AND ELEVATIONS.
2. TOP OF EQUIPMENT PAD SHALL BE FLAT AND LEVEL.
3. COORDINATE EQUIPMENT PADS WITH THE SELECTED MECHANICAL/ELECTRICAL CONTRACTORS.

GENERATOR/EQUIPMENT PAD DETAIL

NOT TO SCALE



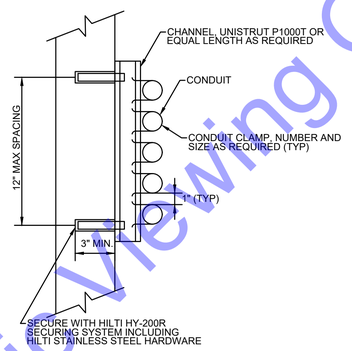
PLAN VIEW



SECTION VIEW

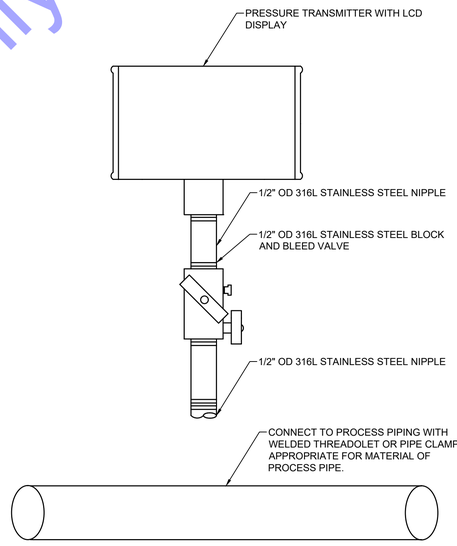
GROUNDING ELECTRODE SYSTEM

NOT TO SCALE



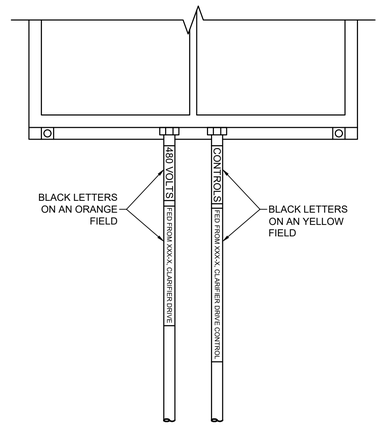
WALL MOUNTED CONDUIT RACK

NOT TO SCALE



PRESSURE TRANSMITTER DETAIL

NOT TO SCALE



CONDUIT IDENTIFICATION

NOT TO SCALE

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INDIANAPOLIS, IN. (2)
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BOWLING GREEN, KY.
SOUTH BEND, IN.

TOBY LEE CHURCH
REGISTERED
No. 11300603
STATE OF INDIANA
PROFESSIONAL ENGINEER

Signature 3/31/2025 Date

CITY OF ROCHESTER
FULTON COUNTY, INDIANA

WATER SYSTEM IMPROVEMENTS

DIVISION "B" - NEW 750,000 GALLON ELEVATED STORAGE TANK

Indiana 811
Know what's below. 811 before you dig.
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(ITS THE LAW)

No.	Submittal / Revision	By	Date

Designed By:	Drawn By:	Checked By:
DS	DS	TLC
Issue Date:	Project No:	Scale:
----	W24086	AS SHOWN

ELECTRICAL DETAILS

Drawing No:
E6-0
Sheet: 53 OF 53

File: Z:\SHARED\IN CLIENTS IN-Z\ROCHESTER\D W24086 2024-2025 WATER UTILITY IMPRV PROJECT\06 CADX MECH-ELECT\DV B TANK1 DRAWINGS\ROCHESTER_DIV_B_ELECTRICAL_DRAWINGS.DWG
Saved: 4/1/2025 2:58:51 PM Plotted: 4/2/2025 12:20:35 PM Current User: Andrew Hatfield LastSavedBy: JWhatley