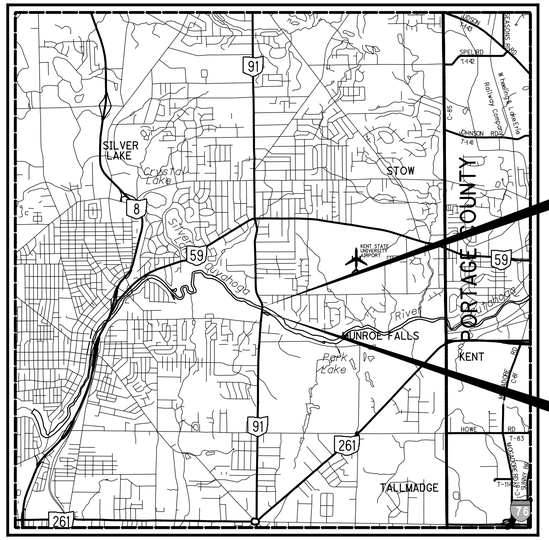
# STATE OF OHIO
# DEPARTMENT OF TRANSPORTATION

# SUM-91-07.89

## CITY OF MUNROE FALLS

## SUMMIT COUNTY




**LOCATION MAP**

LATITUDE: 41° 08' 32" N LONGITUDE: 81° 26' 20" W

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

### DESIGN DESIGNATION

| | S.R. 91 |
|---|---|
| CURRENT ADT (2026) | 14,500 |
| DESIGN YEAR ADT (2046) | 14,500 |
| DESIGN HOURLY VOLUME (2046) | 1,900 |
| DIRECTIONAL DISTRIBUTION | 52% |
| TRUCKS (24 HOUR B&C) | 2% |
| DESIGN SPEED | 40 MPH |
| LEGAL SPEED | 35 MPH |

DESIGN FUNCTIONAL CLASSIFICATION:
03 OTHER PRINCIPAL ARTERIAL (URBAN)
NHS PROJECT ---------- YES

### DESIGN EXCEPTIONS
NONE REQUIRED

### ADA DESIGN WAIVER:
NONE REQUIRED

**UNDERGROUND UTILITIES**
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)


PLAN PREPARED BY:
BG ENGINEERING GROUP, LLC
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016


### INDEX OF SHEETS:


| | |
|---|---|
| TITLE SHEET | P.1 |
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| PLAN AND PROFILE | P.14 - P.16 |
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| STORM SEWER & UNDERDRAIN DETAILS | P.28 - P.29 |
| MISCELLANEOUS DETAILS | P.30 - P.31 |
| TRAFFIC CONTROL | P.32 |
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### FEDERAL PROJECT NUMBER
E210 (465)

### RAILROAD INVOLVEMENT
NONE

### PROJECT DESCRIPTION
THE IMPROVEMENT INCLUDES THE BRIDGE DECK REPLACEMENT OF THE EXISTING BRIDGE (SUM-00091-07.880) ALONG S.R. 91 OVER THE CUYAHOGA RIVER INCLUDING MINOR APPROACH WORK.

### EARTH DISTURBED AREAS

| | |
|---|---|
| PROJECT EARTH DISTURBED AREA: | 0.45 ACRES |
| ESTIMATED CONTRACTOR EARTH DISTURBED AREA: | 0.13 ACRES |
| NOTICE OF INTENT EARTH DISTURBED AREA: | N/A (NOI NOT REQUIRED) |

### 2023 SPECIFICATIONS
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET P.10

Arthur G. Noirot Jr., P.E.
District 04 Deputy Director

Pamela Boratyn
Director, Department of Transportation

### STANDARD CONSTRUCTION DRAWINGS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BP-3.1 | 1-19-24 | MH-3 | 7-19-24 | AS-1-15 | 1-20-23 | MT-97.10 | 7-18-25 | | |
| BP-5.1 | 7-18-25 | | | | | MT-101.60 | 1-17-25 | | |
| | | RM-1.1 | 1-20-23 | BR-2-15 | 7-19-24 | MT-105.10 | 1-17-20 | | |
| CB-3A | 7-19-24 | RM-5.2 | 7-21-23 | | | MT-110.10 | 7-19-13 | | |
| | | | | EXJ-4-87 | 1-19-24 | | | | |
| DM-1.1 | 1-17-25 | | | | | TC-41.20 | 10-18-13 | | |
| DM-1.2 | 1-17-25 | | | GSD-1-19 | 7-19-24 | TC-42.20 | 10-18-13 | | |
| DM-3.1 | 1-18-13 | | | | | TC-52.20 | 1-15-21 | | |
| DM-4.3 | 1-15-16 | | | SBR-1-20 | 7-19-24 | TC-61.30 | 7-19-24 | | |
| DM-4.4 | 1-15-16 | | | | | | | | |
| | | | | | | | | | |
| MGS-2.1 | 7-18-25 | | | | | | | | |
| MGS-3.1 | 7-18-25 | | | | | | | | |
| MGS-4.2 | 7-18-25 | | | | | | | | |
| MGS-5.3 | 7-15-16 | | | | | | | | |
| MGS-6.1 | 1-19-18 | | | | | | | | |

| SUPPLEMENTAL SPECIFICATIONS | | SPECIAL PROVISIONS |
|---|---|---|
| 800 (2023) | 7-18-25 | ASBESTOS |
| 832 | 7-18-25 | SURVEY REPORT |
| 846 | 4-17-15 | 10-19-22 |
| 902 | 7-19-19 | |
| | | WATERWAY PERMIT 10-24-24 |

ENGINEER'S SEAL
FOR ENTIRE PLAN

STATE OF OHIO
RAVINDER GUPTA
E-70880
REGISTERED PROFESSIONAL ENGINEER

TITLE SHEET


DESIGN AGENCY
BG
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016
www.bgenggroup.com


DESIGNER JEP
REVIEWER RG 09-22-25
PROJECT ID 113201
SHEET P.1 TOTAL 62

SUM-91-07.89


MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:18:34 AM USER: jperchinske
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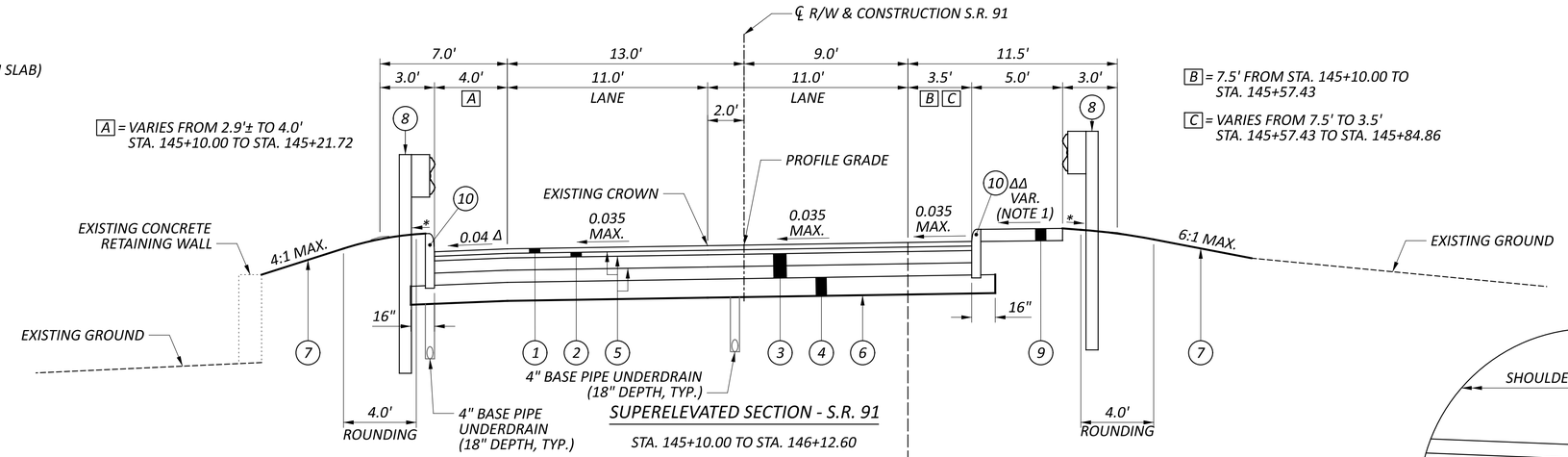
FOR SUPERELEVATION TABLE, SEE SHEET P.27

* = 0.08

** = MATCH PAVEMENT SLOPE

Δ = TRANSITION SHOULDER CROSS SLOPE:
FROM -0.04 TO -0.035 (25.0' BEFORE THE APPROACH SLAB)

ΔΔ = TRANSITION CURB HEIGHT FROM 6" TO 8" IN 5.0'
PRIOR TO THE BEGINNING OF APPROACH SLAB



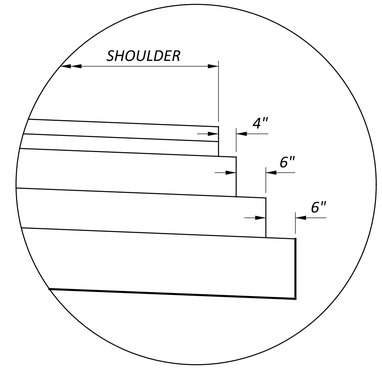

A = VARIES FROM 2.9'± TO 4.0'
STA. 145+10.00 TO STA. 145+21.72

B = 7.5' FROM STA. 145+10.00 TO STA. 145+57.43

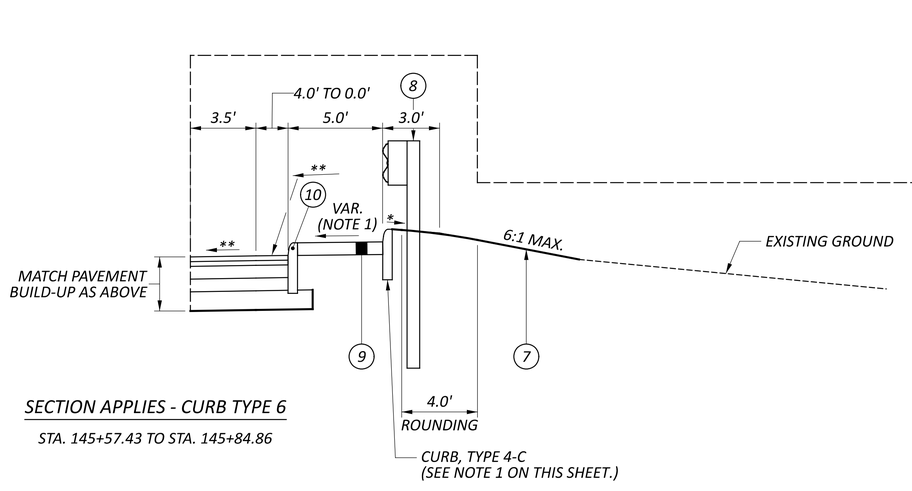
C = VARIES FROM 7.5' TO 3.5'
STA. 145+57.43 TO STA. 145+84.86

## SUPERELEVATED SECTION - S.R. 91

STA. 145+10.00 TO STA. 146+12.60

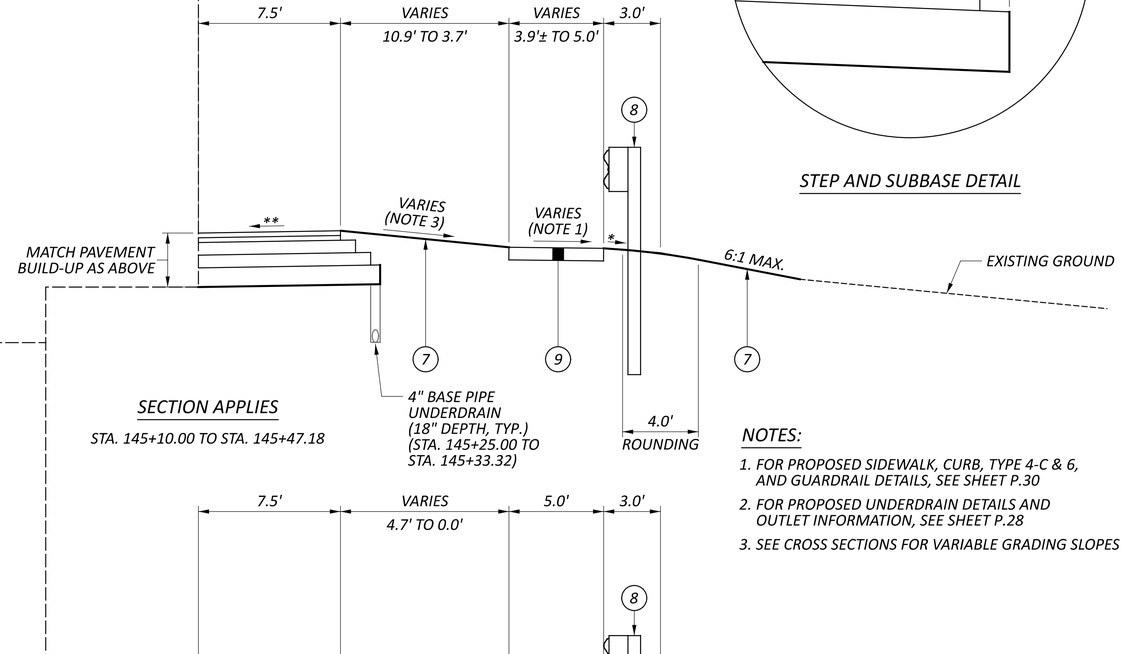



## STEP AND SUBBASE DETAIL



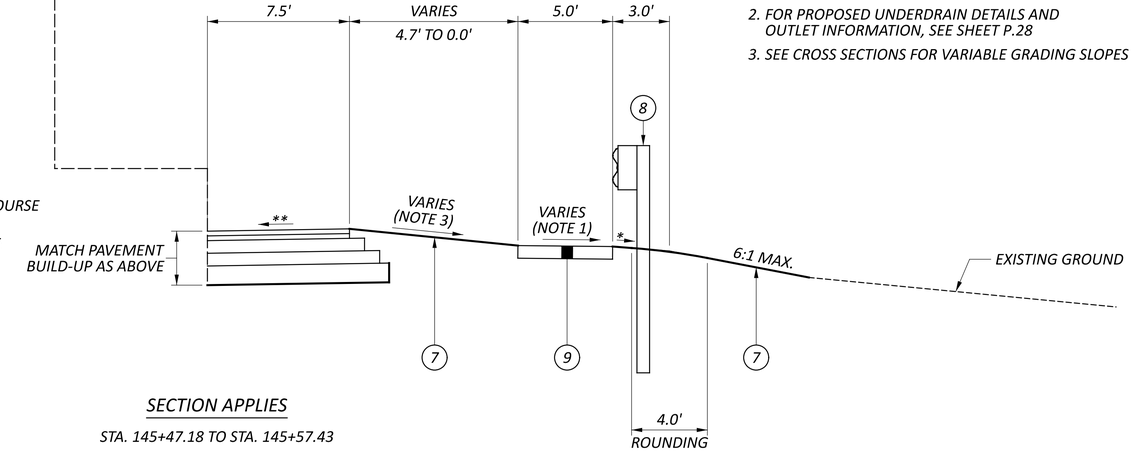

## SECTION APPLIES - CURB TYPE 6

STA. 145+57.43 TO STA. 145+84.86




## SECTION APPLIES

STA. 145+10.00 TO STA. 145+47.18




## SECTION APPLIES

STA. 145+47.18 TO STA. 145+57.43

## NOTES:

1. FOR PROPOSED SIDEWALK, CURB, TYPE 4-C & 6, AND GUARDRAIL DETAILS, SEE SHEET P.30
2. FOR PROPOSED UNDERDRAIN DETAILS AND OUTLET INFORMATION, SEE SHEET P.28
3. SEE CROSS SECTIONS FOR VARIABLE GRADING SLOPES

## LEGEND

1. ITEM 441 - 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22
2. ITEM 441 - 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)
3. ITEM 301 - 8" ASPHALT CONCRETE BASE, PG64-22, (449) (PLACED IN 2 LIFTS)
4. ITEM 304 - 6" AGGREGATE BASE
5. ITEM 407 - NON-TRACKING TACK COAT
6. ITEM 204 - SUBGRADE COMPACTION
7. ITEM 659 - SEEDING AND MULCHING
8. ITEM 606 - GUARDRAIL, TYPE MGS
9. ITEM 608 - 4" CONCRETE WALK
10. ITEM 609 - CURB, TYPE 6
11. ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN
12. ITEM 441 - 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN
13. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.5")

A. 2.5"± ASPHALT CONCRETE SURFACE COURSE
B. 3"± ASPHALT CONCRETE BASE COURSE
C. 8"± AGGREGATE BASE
D. 6"± SUBBASE

TYPICAL SECTIONS

SUM-91-07.89

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DESIGN AGENCY
BG
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP
REVIEWER RG 09-22-25
PROJECT ID 113201
SHEET P.2 TOTAL 62

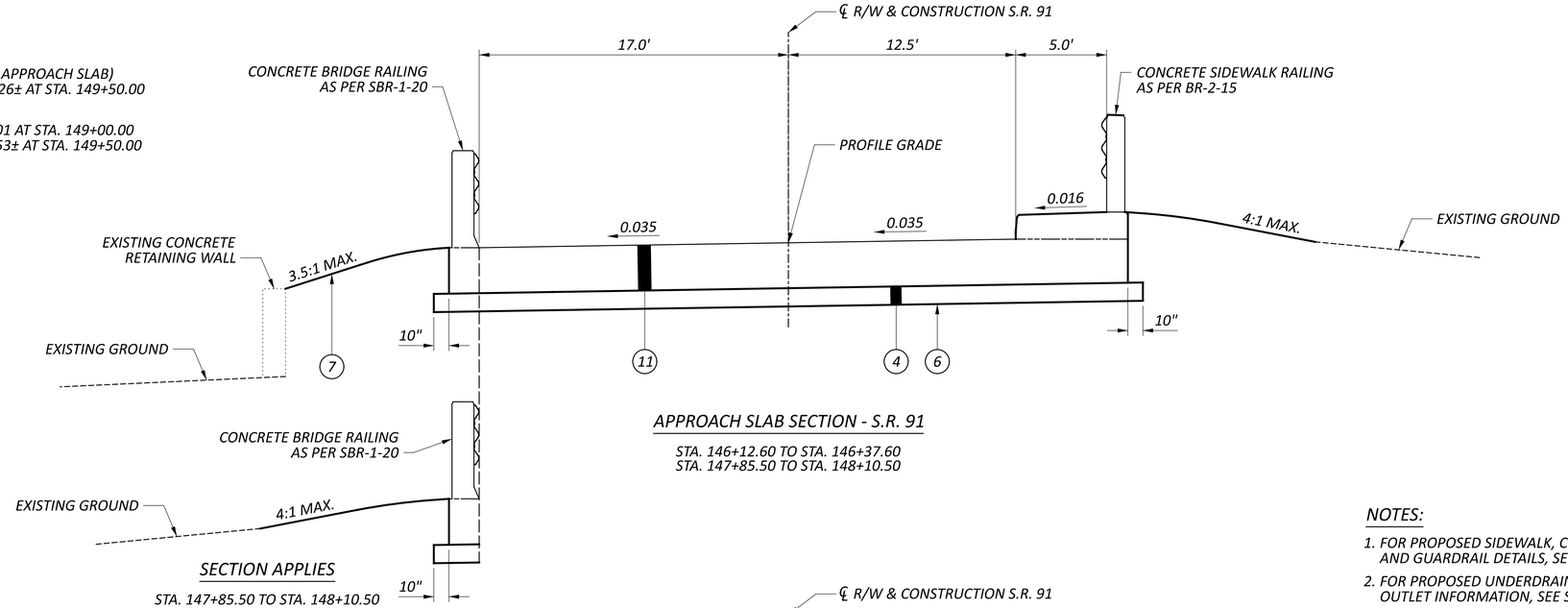
FOR SUPERELEVATION TABLE, SEE SHEET P.27

* = 0.08

FOR LEGEND, SEE SHEET P.2

ΔΔΔ = TRANSITION SHOULDER CROSS SLOPE:
- FROM -0.035 TO -0.04 (25.0' AFTER THE APPROACH SLAB)
- FROM -0.04 AT STA. 149+25.00 TO -0.0426± AT STA. 149+50.00

ΔΔΔΔ = TRANSITION SHOULDER CROSS SLOPE:
- FROM 0.035 AT STA. 148+67.01 TO -0.01 AT STA. 149+00.00
- FROM -0.01 AT STA. 149+25.00 TO .0153± AT STA. 149+50.00




## APPROACH SLAB SECTION - S.R. 91

STA. 146+12.60 TO STA. 146+37.60
STA. 147+85.50 TO STA. 148+10.50



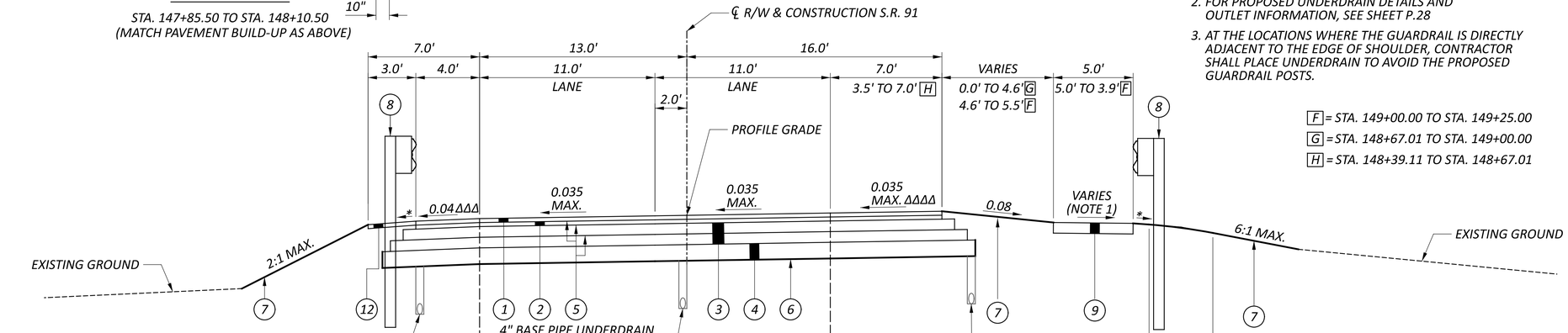

## SECTION APPLIES

STA. 147+85.50 TO STA. 148+10.50
(MATCH PAVEMENT BUILD-UP AS ABOVE)

### NOTES:

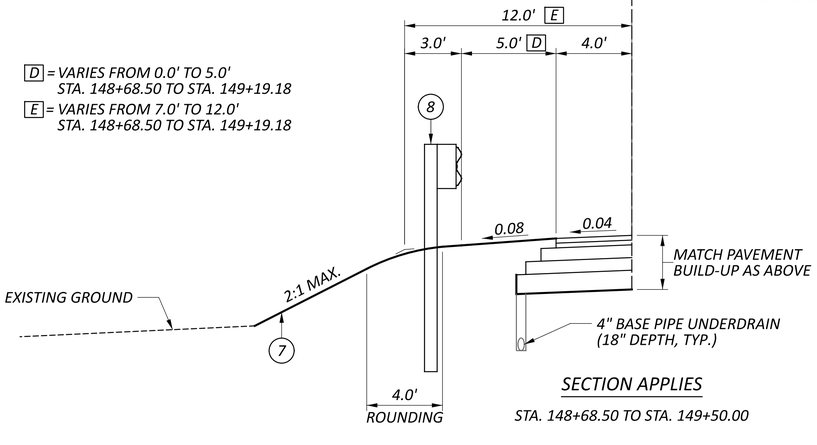
1. FOR PROPOSED SIDEWALK, CURB, TYPE 4-C & 6, AND GUARDRAIL DETAILS, SEE SHEET P.31
2. FOR PROPOSED UNDERDRAIN DETAILS AND OUTLET INFORMATION, SEE SHEET P.28
3. AT THE LOCATIONS WHERE THE GUARDRAIL IS DIRECTLY ADJACENT TO THE EDGE OF SHOULDER, CONTRACTOR SHALL PLACE UNDERDRAIN TO AVOID THE PROPOSED GUARDRAIL POSTS.

[F] = STA. 149+00.00 TO STA. 149+25.00
[G] = STA. 148+67.01 TO STA. 149+00.00
[H] = STA. 148+39.11 TO STA. 148+67.01



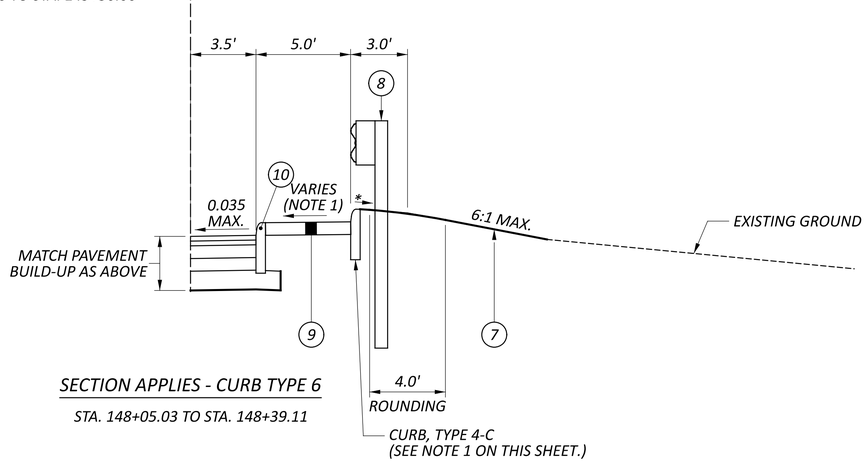

## SUPERELEVATED SECTION - S.R. 91

STA. 148+10.50 TO STA. 149+50.00




## SECTION APPLIES

STA. 148+68.50 TO STA. 149+50.00




## SECTION APPLIES - CURB TYPE 6

STA. 148+05.03 TO STA. 148+39.11

TYPICAL SECTIONS

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REVIEWER
RG 09-22-25

PROJECT ID
113201
SHEET P.3
TOTAL 62

SUM-91-07.89
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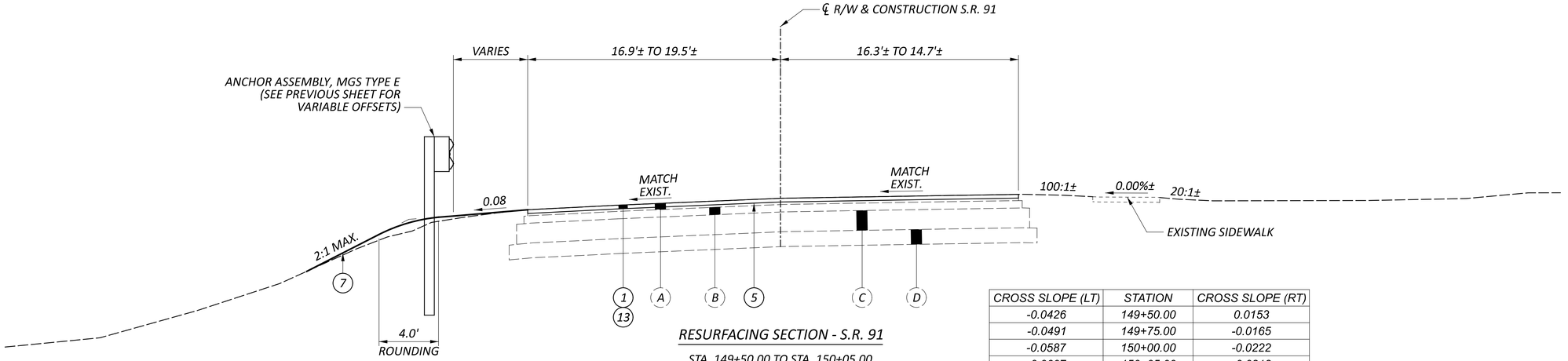
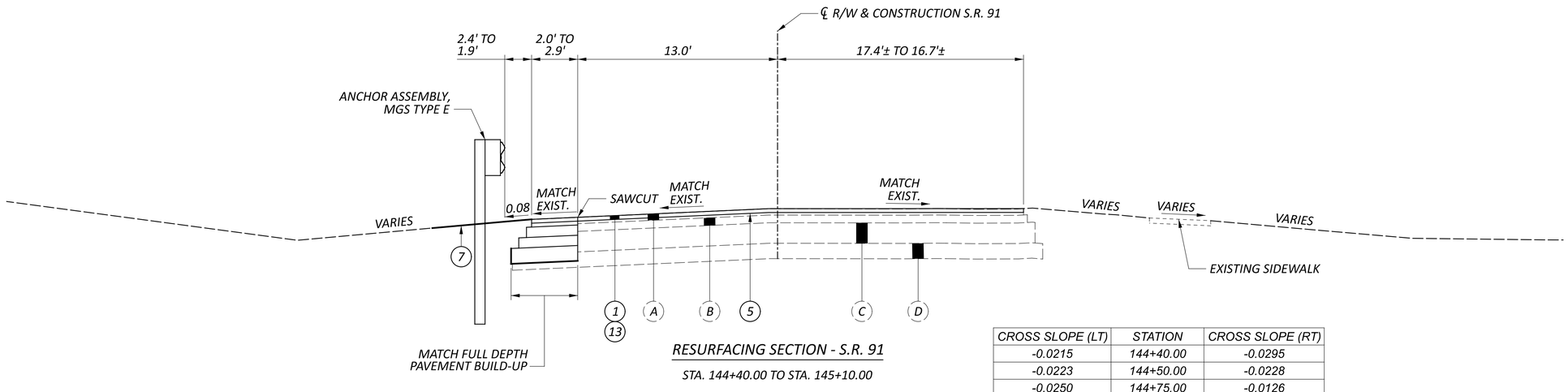
FOR LEGEND, SEE SHEET P..2




RESURFACING SECTION - S.R. 91

STA. 149+50.00 TO STA. 150+05.00

| CROSS SLOPE (LT) | STATION | CROSS SLOPE (RT) |
|---|---|---|
| -0.0426 | 149+50.00 | 0.0153 |
| -0.0491 | 149+75.00 | -0.0165 |
| -0.0587 | 150+00.00 | -0.0222 |
| -0.0607 | 150+05.00 | -0.0218 |




RESURFACING SECTION - S.R. 91

STA. 144+40.00 TO STA. 145+10.00

| CROSS SLOPE (LT) | STATION | CROSS SLOPE (RT) |
|---|---|---|
| -0.0215 | 144+40.00 | -0.0295 |
| -0.0223 | 144+50.00 | -0.0228 |
| -0.0250 | 144+75.00 | -0.0126 |
| -0.0350 | 145+00.00 | -0.0102 |
| -0.0440 | 145+10.00 | -0.0123 |

TYPICAL SECTIONS

SUM-91-07.89

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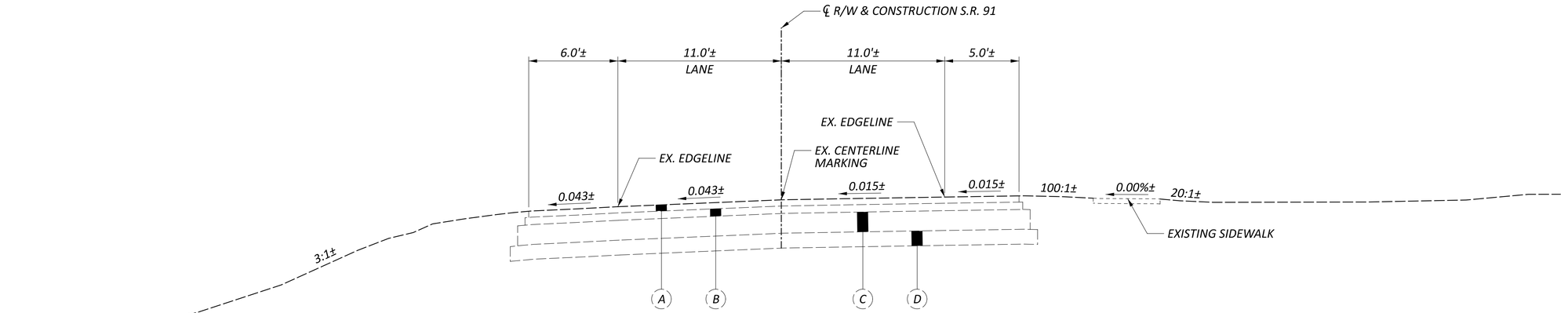
DESIGNER JEP

REVIEWER RG 09-22-25

PROJECT ID 113201

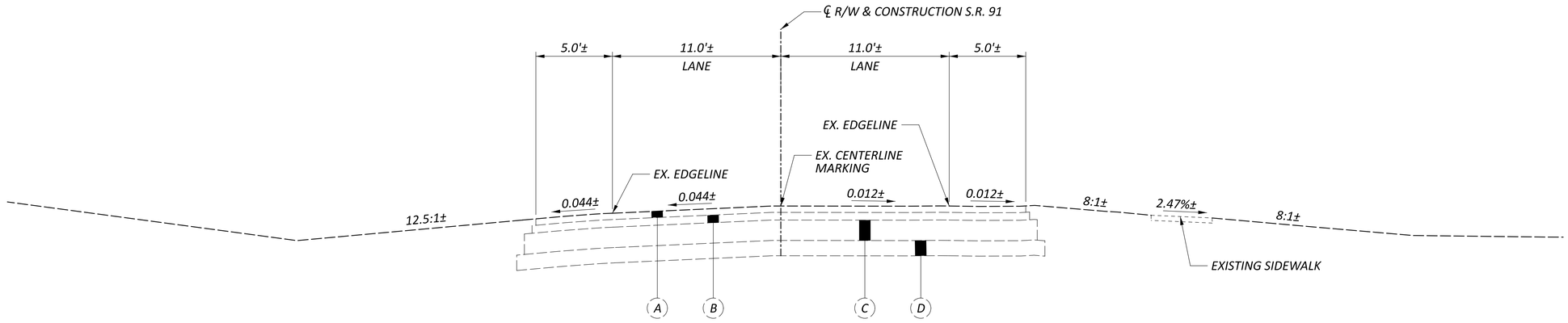
SHEET P.4 TOTAL 62

FOR LEGEND, SEE SHEET P.2




*EXISTING SECTION - S.R. 91*

*NORTH OF PROJECT LIMITS*
*(STA. 150+05.00 TO STA. 150+25.00)*




*EXISTING SECTION - S.R. 91*

*SOUTH OF PROJECT LIMITS*
*(STA. 144+00.00 TO STA. 144+40.00)*

TYPICAL SECTIONS

SUM-91-07.89

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5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER
JEP

REVIEWER
RG 09-22-25

PROJECT ID
113201

SHEET P.5 | TOTAL 62

**ROUNDING**

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN OR ADJACENT TO THE PROJECT CONSTRUCTION LIMITS, TOGETHER WITH THEIR RESPECTIVE OWNERS.

ENBRIDGE GAS OHIO
320 SPRINGSIDE DR
FAIRLAWN, OHIO 44333
330-664-2439
MS. SHELLEY BANAS

OHIO EDISON
1910 W. MARKET ST, BLDG. #1
AKRON, OHIO 44313
MR. JOSH TREGO
330-436-4093 (OFFICE)
330-388-5291 (CELL)

AT&T
THE OHIO BELL TELEPHONE COMPANY
50 W. BOWERY ST, 6TH FLOOR
AKRON, OHIO 44308
MR. CHRIS EMRICH
330-384-3556 (OFFICE)
330-319-5239 (CELL)

CITY OF MUNROE FALLS
43 MUNROE FALLS AVE
MUNROE FALLS, OHIO 44262
MR. JAMES BOWERY
330-688-7491, EXT. 227

SUMMIT COUNTY DEPARTMENT
OF SANITARY SERVICES
1180 S. MAIN STREET, SUITE 201
AKRON, OHIO 44301
MR. ROSS NICHOLSON
330-926-2477 (OFFICE)
MR. MIKE VINAY
330-926-2567 (OFFICE)
330-212-2934 (CELL)
MR. JACOB MORRISON
330-926-2578

LIT FIBER
255 CENTER STREET
SEVILLE, OHIO 44273
MS. TARA KADDOURA
253-370-5800

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

**SURVEYING PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET THIS SHEET FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

| | |
|---|---|
| PROJECT CONTROL | |
| POSITIONING METHOD: | ODOT VRS |
| MONUMENT TYPE: | TYPE B |
| VERTICAL POSITIONING | |
| ORTHOMETRIC HEIGHT DATUM: | NAVD88 |
| GEOID: | GEOID 18 |
| HORIZONTAL POSITIONING | |
| REFERENCE FRAME: | NAD83 (2011) |
| ELLIPSOID: | GRS80 |
| MAP PROJECTION: | LAMBERT CONFORMAL CONIC |
| COORDINATE SYSTEM: | OHIO STATE PLANE, NORTH ZONE |
| COMBINED SCALE FACTOR: | 0.999895705 |
| ORIGIN OF COORDINATE SYSTEM: | (0,0) |

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**CLEARING AND GRUBBING**

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

**ITEM 204 - PROOF ROLLING**

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING 1 HOUR

**SEEDING AND MULCHING**

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

| | |
|---|---|
| 659, TOPSOIL | 88 CY |
| 659, SEEDING AND MULCHING | 796 SY* |
| 659, COMMERCIAL FERTILIZER | 0.11 TON |
| 659, LIME | 0.16 ACRE |
| 659, WATER | 4 MGAL |

* = QUANTITY CARRIED TO SHEET P.26

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

**ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**AIRWAY/HIGHWAY CLEARANCE FOR AIPORTS AND HELIPORTS**

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 100 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
OBSTRUCTION EVALUATION GROUP
10101 HILLWOOD PARKWAY
FORTH WORTH, TX 76177
FAX: (817) 222-5920
HTTP://CEAAA.FAA.GOV

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OH 43235
OHIO.AIRPORT.PROTECTION@DOT.OHIO.GOV

**UNSTABLE OR UNSUITABLE SOILS FOR PAVEMENT STABILIZATION**

THE FOLLOWING ITEMS AND QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO ADDRESS UNSTABLE OR UNSUITABLE SOILS ENCOUNTERED IN THE AREAS OF PAVEMENT CONSTRUCTION:

| | |
|---|---|
| ITEM 204 - EXCAVATION OF SUBGRADE | 11 CY |
| ITEM 204 - GRANULAR MATERIAL, TYPE B | 11 CY |
| ITEM 204 - GEOTEXTILE FABRIC | 34 SY |

**ASPHALT PAVING LIMITATION**

THE CONTRACTOR SHALL NOT ANTICIPATE OR SCHEDULE PLACING ASPHALT (ASPHALT SURFACE COURSE, ASPHALT INTERMEDIATE COURSE, ASPHALT CONCRETE BASE, ETC.) BETWEEN NOVEMBER 1 AND APRIL 1 WHEN SUBMITTING THEIR INITIAL BAR CHART PROGRESS SCHEDULE TO THE DISTRICT CONSTRUCTION ENGINEER (DCE) AS SPECIFIED IN CMS SECTION 108.02A. THIS LIMITATION SHALL ALSO INCLUDE INITIAL BASE LINE SCHEDULES AND ALL UPDATES IF A CPM SCHEDULE IS REQUIRED.

**ITEM SPECIAL - SURVEY CONTROL VERIFICATIONS**

THE CONTRACTOR SHALL PERFORM THIS WORK TO VERIFY THE PROVIDED SURVEY CONTROL. THE CONTRACTOR WILL PERFORM THE VERIFICATION USING ONE OF THE TWO METHODS BELOW DEPENDENT UPON THE CONTRACTOR'S CHOSEN MEANS OF SURVEY CONTROL TO BE USED ON THE PROJECT. THE WORK SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN OHIO LICENSED SURVEYOR.

1) IF USING GPS DEVICES TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL:

a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.

b. PERFORM A SITE CALIBRATION UTILIZING THE AVAILABLE HORIZONTAL AND VERTICAL CONTROL POINTS PROVIDED IN THE PLAN.

c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

2) IF USING CONVENTIONAL SURVEY INSTRUMENTATION TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL:

a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.

b. LOCATE AND OBSERVE ANGLE AND DISTANCE TO ALL AVAILABLE HORIZONTAL CONTROL POINTS PROVIDE IN THE PLAN

c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM.

**CONSTRUCTION NOISE**

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9:00PM AND 7:00AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

**ITEM 605 - UNDERDRAINS**

GEOTEXTILE FABRIC WILL BE USED ON "UNCLASSIFIED", "SHALLOW", "DEEP", "ROCK CUT" AND "BASE" UNDERDRAINS REGARDLESS OF THE TYPE OF SOIL BEING INSTALLED IN.

**ITEM SPECIAL - AS-BUILT CONSTRUCTION RECORD DRAWINGS**

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING PLANS. THE FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION RECORD-DRAWINGS.

THE CONTRACTOR'S VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL RECORD-DRAWING. THE CONTRACTOR'S VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTOR'S PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.

2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE RECORD-DRAWING PLAN IN TERMS OF STATION, OFFSET AND ELEVATION.

3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).

4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.

5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

CONTROL POINTS - GROUND COORDINATES (℄ R/W & CONSTRUCTION S.R. 91)

| CONTROL POINT | STATION (IDENTIFIER) | OFFSET | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|---|---|---|---|---|---|---|
| CP#1 | (CP100) | S.R. 91 (LT) | 538401.428 | 2260141.119 | 1037.03 | 5/8" REBAR & "ODOT" CAP |
| CP#2 | (CP200) | S.R. 91 (LT) | 538372.907 | 2260832.602 | 1034.97 | 5/8" REBAR & "ODOT" CAP |
| CP#3 | 149+92.61 | 31.71' LT | 539718.778 | 2260913.434 | 1009.63 | 5/8" REBAR & "ODOT" CAP |
| CP#4 | (CP400) | S.R. 91 (LT) | 540824.654 | 2260519.998 | 1062.02 | 5/8" REBAR & "ODOT" CAP |
| CP#5 | 149+10.13 | 76.33' RT | 539667.096 | 2261040.322 | 1013.05 | 5/8" REBAR & "GPD" CAP |
| CP#6 | 147+78.24 | 52.19' RT | 539524.388 | 2261039.578 | 1009.76 | 5/8" REBAR & "GPD" CAP |
| CP#7 | 148+29.01 | 73.94' LT | 539558.877 | 2260908.332 | 999.64 | 5/8" REBAR & "GPD" CAP |
| CP#8 | 146+15.28 | 23.18' RT | 539354.916 | 2261012.322 | 1009.42 | 5/8" REBAR & "GPD" CAP |
| CP#9 | 143+59.28 | 23.36' LT | 539106.520 | 2260931.149 | 1010.42 | 5/8" REBAR & "GPD" CAP |

CENTERLINE REFERENCE - GROUND COORDINATES (℄ R/W & CONSTRUCTION S.R. 91)

| STATION | OFFSET | STREET | NORTHING | EASTING | DESCRIPTION |
|---|---|---|---|---|---|
| 143+58.54 | 0.00' | S.R. 91 | 539102.3820 | 2260954.1521 | P.O.T. |
| 145+48.11 | 0.00' | S.R. 91 | 539289.9272 | 2260981.7710 | P.C. |
| 148+56.33 | 48.59' RT | S.R. 91 | 539594.8555 | 2261026.6764 | P.I. |
| 151+44.32 | 0.00' | S.R. 91 | 539868.3600 | 2260884.5741 | P.T. |
| 152+92.59 | 0.00' | S.R. 91 | 539999.9283 | 2260816.2163 | P.O.T. |

GENERAL NOTES

DESIGN AGENCY
BG
www.bgeng group.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP
REVIEWER RG 09-22-25
PROJECT ID 113201
SHEET P.6 TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:05 AM USER: jperchinske
P:\TransportationWorkSets\113201_SUM-91-07.89\400-Engineering\Roadway\Sheets\113201_GN001.dgn

**ENDANGERED SPECIES HABITAT - INDIANA BAT/NORTHERN LONG-EARED BAT:**

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

**INSTREAM WORK RESTRICTIONS:**

THE CONTRACTOR SHALL NOT WORK BELOW THE ORDINARY HIGH WATER MARK OF THE CUYAHOGA RIVER, OR INSTALL, MODIFY, OR REMOVE ANY EXISTING INSTREAM FILLS DURING THE ODNR INSTREAM WORK RESTRICTION PERIOD OF APRIL 15 THROUGH JUNE 30.

**PARK PROTECTIONS:**

BRUST PARK
ACCESS TO BRUST PARK SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR THE TIME NEEDED TO TEMPORARILY OCCUPY THE PROPERTY, WHICH SHALL BE LESS THAN THE TIME NEEDED FOR CONSTRUCTION OF THE PROJECT. TEMPORARY CONSTRUCTION FENCING OR CONES SHALL BE INSTALLED TO PROTECT BRUST PARK USERS FROM CONSTRUCTION ACTIVITIES. APPROPRIATE SIGNAGE SHALL BE INSTALLED TO ALERT USERS OF BRUST PARK OF CONSTRUCTION ACTIVITIES, ACCESS RESTRICTIONS OR CLOSURES, AND TO DIRECT USERS TO SECONDARY ACCESS POINTS. THE CONTRACTOR SHALL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT AND THE DIRECTOR OF PUBLIC SERVICE FOR THE CITY OF MONROE FALLS (JIM BOWERY | JBOWERY@MUNROEFALLS.COM | 330-688-7491) PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

BIKE & HIKE TRAIL.
ACCESS TO BIKE & HIKE TRAIL SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR THE TIME NEEDED TO TEMPORARILY OCCUPY THE PROPERTY, WHICH SHALL BE LESS THAN THE TIME NEEDED FOR CONSTRUCTION OF THE PROJECT. ANY CLOSURES AS A RESULT OF CONSTRUCTION WILL BE LIMITED TO NIGHT WHEN THE TRAIL IS CLOSED TO THE PUBLIC. THE LEG OF THE BIKE & HIKE TRAIL GOING UNDER THE BRIDGE MAY BE CLOSED AS LONG AS THE OTHER TRAIL LEG CROSSING SR 91 IS MAINTAINED FOR USE BY TRAIL USERS. TEMPORARY CONSTRUCTION FENCING OR CONES SHALL BE INSTALLED TO PROTECT BIKE & HIKE TRAIL USERS FROM CONSTRUCTION ACTIVITIES. APPROPRIATE SIGNAGE SHALL BE INSTALLED TO ALERT USERS OF THE BIKE & HIKE TRAIL OF CONSTRUCTION ACTIVITIES, ACCESS RESTRICTIONS OR CLOSURES, AND TO DIRECT USERS TO SECONDARY ACCESS POINTS. THE CONTRACTOR SHALL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT AND SUMMIT METRO PARKS (TRAVIS SAUNIER | 330-754-5589 | TSAUNIER@SUMMITMETROPARKS.ORG) PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

CUYAHOGA RIVER WATER TRAIL.
RECREATIONAL BOATING ACCESS WITHIN THE PROJECT AREA SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES, EXCEPT FOR THE TIME NEEDED FOR TEMPORARY ACCESS RESTRICTIONS ASSOCIATED WITH DEMOLITION AND CONSTRUCTION ACTIVITIES. TEMPORARY ACCESS RESTRICTIONS WILL BE LESS THAN THE TIME NEEDED FOR OVERALL PROJECT CONSTRUCTION AND WILL ONLY OCCUR WHEN CONSTRUCTION ACTIVITIES ARE DEEMED UNSAFE FOR PADDLERS/ BOATERS. THE PROJECT ENGINEER OR CONTRACTOR SHALL NOTIFY ODNR AT KYLA.MAUNZ@DNR.OHIO.GOV, 48 HOURS IN ADVANCE WHEN RESTRICTIONS LASTING LONGER THAN A DAY WILL OCCUR. THE USE OF FLAGGERS OR OTHER MEANS WILL BE USED TO ALERT PADDLERS/BOATERS WHEN SHORT-TERM RESTRICTIONS (E.G. 15-30 MINUTES INTERVALS) ARE NEEDED. THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNAGE, MARKERS, OR BUOYS 300 FEET UPSTREAM AND 300 FEET DOWNSTREAM OF THE PROJECT AREA TO ALERT PADDLERS/BOATERS OF CONSTRUCTION ACTIVITY AND FOR WAYFINDING PURPOSES. THE PROJECT ENGINEER OR CONTRACTOR SHALL NOTIFY ODNR AT KYLA.MAUNZ@DNR.OHIO.GOV, 14 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO ALLOW ODNR TO POST NOTICE OF THE IMPENDING PROJECT CONSTRUCTION ON THE APPROPRIATE ODNR WEBPAGES AND ASSOCIATED ONLINE BOATING MAPS. AS PART OF NOTIFICATION EFFORTS, THE PROJECT ENGINEER SHALL ALSO PROVIDE PLANS THAT INDICATE SIGNAGE LOCATION ALONG THE WATERWAY AND ANY ADDITIONAL PLANNED NOTIFICATION EFFORTS WITH ODNR THAT WILL TAKE PLACE DURING OR AFTER CONSTRUCTION. THE CONTRACTOR SHALL CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE (INCLUDING ACCESS RESTRICTIONS) WITH ODOT AND ODNR PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. IF ON-THE-WATER LAW ENFORCEMENT IS NEEDED DURING ANY PORTION OF THE CONSTRUCTION ACTIVITIES, THE PROJECT ENGINEER OR CONTRACTOR SHALL CONTACT THE ODNR DIVISION OF PARKS AND WATERCRAFT LAW ENFORCEMENT SUPERVISOR (LT. TIMOTHY BOYD AT 330-260- 2448).

**MONUMENT ASSEMBLIES**

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN BELOW.

| | |
|---|---|
| 623, MONUMENT ASSEMBLY, TYPE C<br>STA. 145+48.11, 0.00' CL | 1 EACH |
| 623, RIGHT-OF-WAY MONUMENT, TYPE B<br>STA. 146+15.28, 23.18' RT | 1 EACH |

**DRAINAGE DISCHARGE CONTINUANCE**

FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS. THE LOCATION, TYPE (CONDUIT ORSWALE), SIZE AND GRADE OF THE DRAINAGE DISCHARGE CONTINUANCE WILL BE AGREED TO BY THE ENGINEER

FURNISH AN INSPECTION WELL AT THE RIGHT OF WAY LINE IN ACCORDANCE WITH SCD DM-3.1 FOR EACH DRAINAGE DISCHARGE THAT OUTLETS THROUGH A CURB OPENING, OR INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST IS INCLUDED IN ITEM 611, INSPECTION WELL.

FURNISH A WELL GRADED TRANSITION BETWEEN THE DITCH AND THE SWALE WHEN OUTLETTING A SWALE TO A DITCH. THE COST FOR THE GRADED TRANSITION IS INCLUDED IN ITEM 203, EMBANKMENT, AS PER PLAN.

FURNISH AN EROSION CONTROL PAD AS SHOWN IN SCD DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST FOR THE EROSION CONTROL PAD IS INCLUDED IN ITEM 611, CONDUIT, MISC: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED HOLE OR A CURB SECTION WITH A HOLE WHEN OUTLETTING A CONDUIT THROUGH A CURB OPENING. THE COST OF DRILLING, OR FURNISHING THE CURB SECTION WITH HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED CORE HOLE WHEN OUTLETTING INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE.

DOCUMENTATION
THE CONTRACTOR SHALL FURNISH WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT). THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203,EMBANKMENT, AS PER PLAN.

DRAINAGE DISCHARGE CONTINUANCE REMOVAL
THE ENGINEER MAY REQUIRE THE NEWLY INSTALLED DRAINAGE DISCHARGE CONTINUANCE TO BE REMOVED.

REMOVE THE NEWLY INSTALLED CONDUIT AND ANY EXISTING CONDUIT TO THE RIGHT OF WAY LINE. FOR CONDUIT THAT OUTLETS THROUGH THE CURB RESTORE THE CURB BY FILLING THE HOLE WITH CLASS QC 1 CONCRETE OR REPLACE THE CURB SECTION. FOR CONDUIT THAT OUTLETS TO A STORM SEWER OR DRAINAGE STRUCTURE LEAVE 6 INCHES PROTRUDING OUTSIDE OF THE CONDUIT. PLUG THE PROTRUDING CONDUIT WITH EITHER A MANUFACTURED CAP OR CLASS QC 1 CONCRETE. FOR CONDUIT THAT OUTLETS TO THE DITCH REMOVE THE EROSION CONTROL PAD. RESTORE ALL AREAS AS REQUIRED. PLUG THE EXISTING CONDUIT REGARDLESS OF SIZE AT THE RIGHT OF WAY LINE WITH CLASS QC 1 CONCRETE AND RESTORE ALL AREAS AS REQUIRED. ALL COSTS ARE INCLUDED IN ITEM 202, REMOVAL MISC. CONDUIT.

DAM THE SWALE THAT OUTLETS TO THE DITCH AT THE R/W AS DIRECTED BY THE ENGINEER. ALL COSTS ARE INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN.

REMOVE THE INSPECTION WELL AND RESTORE ALL AREAS AS REQUIRED. THE COST IS INCLUDED IN ITEM 202, REMOVAL MISC. INSPECTION WELL.

CONDUIT MATERIAL TYPES
THE FOLLOWING CONDUIT MATERIAL TYPES ARE PERMITTED:
707.33, 707.41 NON- PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, AND 707.52 SDR35.

PAY ITEMS
EACH OF THE PAY ITEMS LISTED BELOW FOR CONDUIT MISCELLANEOUS TYPES B, C, E AND F FOR DRAINAGE DISCHARGE CONTINUANCE INCLUDE CONDUIT SIZES 2 INCH TO 10 INCH. THERE IS NO COST DIFFERENTIATION FOR SIZE IN THESE PAY ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE DRAINAGE DISCHARGE CONTINUANCE:

| | |
|---|---|
| ITEM 611, INSPECTION WELL | 1 EACH |
| ITEM 611, CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE | 10 FT |
| ITEM 611, CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE | 10 FT |
| ITEM 611, CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE | 10 FT |
| ITEM 202, REMOVAL MISC.: CONDUIT | 30 FT |
| ITEM 202, REMOVAL MISC.: INSPECTION WELL | 1 EACH |
| ITEM 203, EMBANKMENT, AS PER PLAN | 50 CY |

**CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES**

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

**EXISTING SUBSURFACE DRAINAGE**

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

| | |
|---|---|
| ITEM 601, TIED CONCRETE BLOCK MAT, TYPE 1 | 2 SY |
| ITEM 611, 4" CONDUIT, TYPE F | 15 FT |
| ITEM 611, PRECAST REINFORCED CONCRETE OUTLET | 1 EACH |
| ITEM 605, 4" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC | 15 FT |

**BICYCLE SAFE CATCH BASIN GRATE**

MODIFY THE PROPOSED CATCH BASIN BY REPLACING THE STANDARD GRATE WITH A BICYCLE SAFE GRATE. FOR PROPOSED CATCH BASIN, NO. 3A, CONTRACTOR SHALL FURNISH NEENAH NO. R-4859-S OR EJ NO. 5110M3 (00511043) GRATES OR APPROVED EQUALS.

**ITEM 620 – DELINEATOR, POST GROUND MOUNTED, AS PER PLAN**

A GROUND POST MOUNTED DELINEATOR SHALL BE PLACED AT THE OUTLET OF THE UNDERDRAINS WHERE THE OUTLET IS NOT TO A DRAINAGE STRUCTURE (MANHOLE, CATCH BASIN, INLET, ETC.). THE COLOR OF THE REFLECTIVE SHEETING SHALL BE BLUE.

**ITEM 607 – FENCE, MISC.: WOOD FENCE**

CONTRACTOR SHALL INSTALL WOOD FENCE AS PER SCD RM-5.2. FENCE SHALL BE REPLACED AT THE SAME LOCATION AS THE EXISTING. WHEN CONNECTING TO EXISTING FENCE, REPLACE FENCE AT AN EXISTING BUTT JOINT CENTERED ON A POST. CONTRACTOR SHALL NOT CUT AN EXISTING FENCE RAIL THAT IS TO REMAIN IN PLACE.

**REVIEW OF DRAINAGE FACILITIES**

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

**PAVING UNDER GUARDRAIL**

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, LINEAR GRADING, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING 411 ASHPALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:
1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

METHOD B:
1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1(449), UNDER GUARDRAIL, AS PER PLAN.

**SUMMIT COUNTY DEPARTMENT OF SANITARY SEWER SERVICES FACILITIES**

1. ALL SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS (OEPA 3MA00001*BM) OF THE DEPARTMENT OF SANITARY SEWER SERVICES (D.S.S.S.).
2. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED. ORDINANCE NO. 85-656, APPROVED 10/8/85.
3. APPROVAL BY D.S.S.S. CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO THE FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.
4. THE DESIGN ENGINEER CERTIFIES THAT ALL UTILITIES IN EXISTING AND PROPOSED ROADS AND EASEMENTS ARE SHOWN.
5. ALL SANITARY SEWERS SHALL PASS THE AIR ACCEPTANCE TEST PRIOR TO ACCEPTANCE BY D.S.S.S.
6. ALL SANITARY SEWERS SHALL BE VIDEO TAPED BY THE OWNER AND FOUND TO BE FREE OF DEFECTS AND FOREIGN MATTER AND IN PROPER ALIGNMENT PRIOR TO FORMAL ACCEPTANCE BY D.S.S.S.
7. SANITARY SEWER MATERIALS SHALL CONFORM TO D.S.S.S. AND O.E.P.A. STANDARDS.
8. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE EXISTING SEWERAGE SYSTEM RESULTING FROM NON-CONFORMANCE WITH SUMMIT COUNTY STANDARDS OR GENERAL NEGLIGENCE.
9. WHERE INLET AND OUTLET PIPES CONNECT TO MANHOLES, A FLEXIBLE WATERTIGHT JOINT, AS APPROVED BY D.S.S.S., IS REQUIRED.
10. SANITARY SEWER MATERIAL SHALL CONSIST OF PVC SDR-35 MEETING ASTM D3034 WITH JOINTS CONFORMING TO ASTM D3212. *(CHECK STANDARDS FOR APPROVED MATERIAL AND ASTM SECTIONS)*
11. THE OWNER (CONTRACTOR) MUST ALERT THE OHIO UTILITIES PROTECTION SERVICE AT 811 AT LEAST 48 HOURS BEFORE ANY EXCAVATION HAS BEGUN.
12. ALL ROUGH GRADING (WITHIN 6" OF FINISHED GRADE) SHALL BE COMPLETED WITHIN THE RIGHT-OF-WAY PRIOR TO SANITARY SEWER CONSTRUCTION.
13. NO SEWER CONSTRUCTION WILL BE PERMITTED UNTIL SUCH TIME THAT THE PLANS ARE APPROVED BY D.S.S.S. AND THE O.E.P.A. INCLUDING PAYMENT OF REVIEW AND "PERMIT TO INSTALL" FEES REQUIRED BY THE O.E.P.A.
14. ALL SANITARY SEWERS CONTAINED HEREIN ARE TO BE PUBLICLY OWNED AND MAINTAINED.

GENERAL NOTES

DESIGN AGENCY
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DUBLIN, OHIO 43016
www.bgengroup.com

DESIGNER JEP
REVIEWER RG 09-22-25
PROJECT ID 113201
SHEET P.7 TOTAL 62

SUM-91-07.89
MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:06 AM USER: jperchinske
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**ITEM 614, MAINTAINING TRAFFIC**

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330)-786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

2. IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, VARIOUS LOCAL ROUTES MAY BE AFFECTED BY THE CONSTRUCTION ACTIVITIES. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THE OFFICIAL DETOUR ROUTE AND ANY LOCAL ROUTES, AS DETERMINED BY THE ENGINEER, IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER PER 5517.03 OF THE ORC. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE OFFICIAL DETOUR ROUTE AND ANY DAMAGED LOCAL ROUTES SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PROJECT. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED DETOUR ROUTE AND QUALIFYING LOCAL ROUTES.
ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR (441) 300 SY

3. PRIOR TO OPENING TO TRAFFIC, EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED DAYS AS OUTLINED IN THE FLEXIBLE START WINDOW CONTRACT TABLE ON THIS SHEET, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.10THE COMPLETE CLOSURE SHALL COMMENCE ON THE DAY AFTER SCHOOL LETS OUT. A DISINCENTIVE SHALL BE ASSESSED AS PER THE FLEXIBLE START WINDOW CONTRACT TABLE SHOWN IN THESE NOTES.

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

| DAY OF HOLIDAY OR EVENT | TIME ALL LANES MUST BE OPEN TO TRAFFIC |
|---|---|
| SUNDAY | 12:00N FRIDAY THROUGH 6:00 AM MONDAY |
| MONDAY | 12:00N FRIDAY THROUGH 6:00 AM TUESDAY |
| TUESDAY | 12:00N MONDAY THROUGH 6:00 AM WEDNESDAY |
| WEDNESDAY | 12:00N TUESDAY THROUGH 6:00 AM THURSDAY |
| THURSDAY | 12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY |
| FRIDAY | 12:00N THURSDAY THROUGH 6:00 AM MONDAY |
| SATURDAY | 12:00N FRIDAY THROUGH 6:00 AM MONDAY |

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $26.69 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

**ITEM 614, MAINTAINING TRAFFIC (CONTINUED)**

| FLEXIBLE START WINDOW CONTRACT TABLE | | |
|---|---|---|
| **DESCRIPTION OF CRITICAL WORK** | **CALENDAR DAYS TO COMPLETE** | **DISINCENTIVE $ PER DAY** |
| CONSTRUCTION OF SR 91 BRIDGE OVER CUYAHOGA RIVER | 60 | $8,000 |
| ALL WORK ON PROJECT (INCLUDING WORK LISTED ABOVE) | 75 | PER C&MS 108.07 |

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

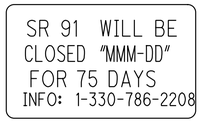
**ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)**

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

| ITEM | DURATION OF CLOSURE | SIGN DISPLAYED TO PUBLIC |
|---|---|---|
| ROAD CLOSURES | > 2 WEEKS | 14 CALENDAR DAYS PRIOR TO CLOSURE |
| | ≥ 12 HOURS & < 2 WEEKS | 7 CALENDAR DAYS PRIOR TO CLOSURE |
| | ≤ 12 HOURS | 2 BUSINESS DAYS PRIOR TO CLOSURE |

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.




W20-H13-60

**DETOUR NOTIFICATION (ODOT, SUMMIT COUNTY ENGINEER'S OFFICE, MUNROE FALLS)**

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-2208) , SUMMIT COUNTY ENGINEER'S OFFICE (330-643-2850), AND MUNROE FALLS (330-688-7491) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID PRICE FOR ITEM 614, DETOUR SIGNING.

**TRAFFIC CONTROL INSPECTOR**

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

**DUST CONTROL**

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 1 MGAL

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

| ITEM | DURATION OF CLOSURE | NOTICE DUE TO PERMITS & PIO |
|---|---|---|
| ROAD CLOSURES | >= 2 WEEKS | 21 CALENDAR DAYS PRIOR TO CLOSURE |
| | > 12 HOURS & < 2 WEEKS | 14 CALENDAR DAYS PRIOR TO CLOSURE |
| | <= 12 HOURS | 4 BUSINESS DAYS PRIOR TO CLOSURE |
| LANE CLOSURES & RESTRICTIONS | >= 2 WEEKS | 14 CALENDAR DAYS PRIOR TO CLOSURE |
| | < 2 WEEKS | 5 BUSINESS DAYS PRIOR TO CLOSURE |
| START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES | N/A | 14 CALENDAR DAYS PRIOR TO IMPLEMENTATION |

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

**MAINTENANCE OF PADDLE CRAFT TRAFFIC**

PADDLE CRAFT TRAFFIC SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROJECT EITHER THROUGH EXISTING RIVER CHANNEL OR THROUGH PORTAGE TRAIL APPROVED BY THE ENGINEER EXCEPT DURING TEMPORARY RIVER CLOSURES FOR PROPOSED CONSTRUCTION ACTIVITIES THAT INCLUDE:

- BRIDGE SUPERSTRUCTURE DEMOLITION
- BRIDGE BEARING, FRAMING, AND POURING OF THE DECK CONCRETE
- BRIDGE ATTACHED UTILITY RELOCATION / SUPPORT

ADEQUATE SIGNING BOTH UPSTREAM AND DOWNSTREAM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE FOLLOWING TYPE SIGNS ARE CONSIDERED TO BE MINIMUM TREATMENT:

1. APPROXIMATELY ONE-QUARTER MILE UPSTREAM, ADVANCED WARNING TYPE SIGNS ON BOTH BANKS;

2. APPROXIMATELY 300 FEET UPSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF PADDLE CRAFT USER ON BOTH BANKS;

3. APPROXIMATELY ONE-QUARTER MILE DOWNSTREAM, ADVANCE WARNING TYPE SIGNS ON BOTH BANKS; AND

4. APPROXIMATELY 300 FEET DOWNSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF PADDLE CRAFT USER ON BOTH BANKS.

THE ABOVE SIGNING SHALL BE MOUNTED IN SUCH A WAY AS TO BE A MINIMUM OF 4 FEET ABOVE THE WATER LEVEL, UNOBSTRUCTED BY TREE BRANCHES, AND PROPERLY ANGLED FOR MAXIMUM VISIBILITY FROM THE MAIN CLEAR CHANNEL. THE METHOD OF SUPPORTING THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. UPON COMPLETION OF THE PROJECT, THE SIGNS AND SUPPORT SYSTEMS SHALL BE COMPLETELY REMOVED FROM THE RIVER CHANNEL. THE CONTRACTOR SHALL NOTIFY LOCAL PADDLE CRAFT LIVERIES USING THIS PORTION OF THE RIVER AT LEAST 10 DAYS PRIOR TO ANY CHANGES AFFECTING PADDLE CRAFT TRAFFIC.

PORTAGE TRAILS IF USED SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR WITH THE LEAST POSSIBLE DISTURBANCE TO THE SURROUNDING AREA. THE TRAIL SHALL BE ADEQUATELY MARKED IN BOTH DIRECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE RIGHT-OF-WAY FOR THE PORTAGE TRAILS IF REQUIRED.

IN THE EVENT PIPES ARE USED TO DIVERT OR CARRY RIVER WATER, BOTH THE INLET AND OUTLET ENDS SHALL BE ADEQUATELY PROTECTED BY GRATES OR FENCE SO THAT PEOPLE OR PADDLE CRAFTS ARE NOT DRAWN THROUGH OR HELD BY THEM.

IF ON-THE-WATER LAW ENFORCEMENT ASSISTANCE IS NEEDED DURING ANY PORTION OF THE DEMOLITION AND CONSTRUCTION, PLEASE CONTACT THE DIVISION OF PARKS AND WATERCRAFT LAW ENFORCEMENT SUPERVISIOR, SCOTT STAUFFER AT: SCOTT.STAUFFER@DNR.STATE.OH.US OR 440-812-3208.

THE RIVER SHALL BE OPEN TO PADDLERS ON WEEKENDS AND HOLIDAYS THROUGHOUT THE PROJECT CONSTRUCTION.

PAYMENT FOR ALL WORK ASSOCIATED WITH THE MAINTENANCE OF PADDLE CRAFT TRAFFIC SHALL BE PAID UNDER THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
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DUBLIN, OHIO 43016

DESIGNER JEP

REVIEWER RG 09-22-25

PROJECT ID 113201

SHEET P.8 TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:08 AM USER: jperchinske
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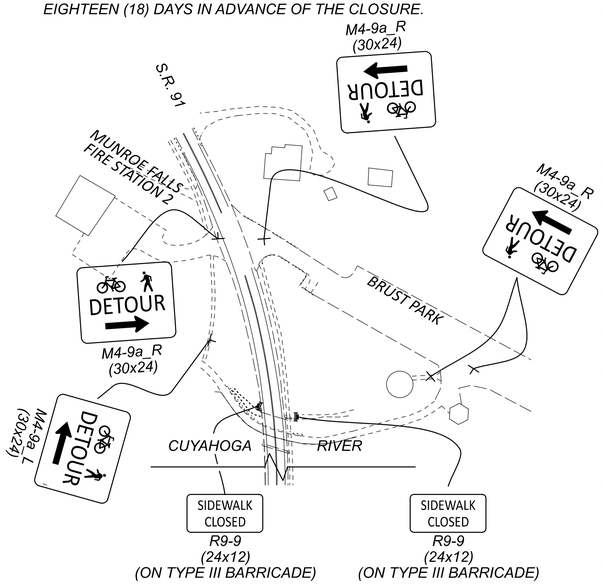
**WORK ABOVE THE BIKE AND HIKE TRAIL**

DURING CONSTRUCTION, BIKE AND HIKE TRAIL TRAFFIC WILL BE RE-ROUTED TO CROSS S.R. 91 INSTEAD OF CROSSING UNDER THE BRIDGE. WHEN WORKING AT NIGHT, THE FLAGGERS WILL ASSIST THE CROSSING TRAFFIC. ALL COSTS ASSOCIATED WITH RE-ROUTING THE TRAFFIC WILL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

PRIOR TO CLOSING THE BIKE AND HIKE TRAIL UNDER THE BRIDGE, THE CONTRACTOR SHALL NOTIFY THE METROPARKS SERVING SUMMIT COUNTY, ADMINISTRATIVE OFFICES, 330-867-5511, AT LEAST EIGHTEEN (18) DAYS IN ADVANCE OF THE CLOSURE.




BIKE AND HIKE TRAIL DETOUR

**ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

**ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)**

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORISTS ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 40 HOUR

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON THIS SHEET. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONTINUED)**

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
9 SNMT ASSUMING 3 PCMS SIGN FOR 3 MONTHS

PCMS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE CONTRACTOR SHALL PLACE THE PCMS AT THE FOLLOWING LOCATIONS:

- NW CORNER OF S.R. 91 / GRAHAM ROAD INTERSECTION
- SE CORNER OF S.R. 91 / EASTWOOD AVENUE INTERSECTION
- WEST OF THE MUNROE FALLS AVENUE / BAILEY ROAD INTERSECTION (LOCATE SIGN ON THE SW CORNER OF THE INTERSECTION)

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
BG
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5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP

REVIEWER RG 09-22-25

PROJECT ID 113201

SHEET P.9 TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:18 AM USER: jperchinske
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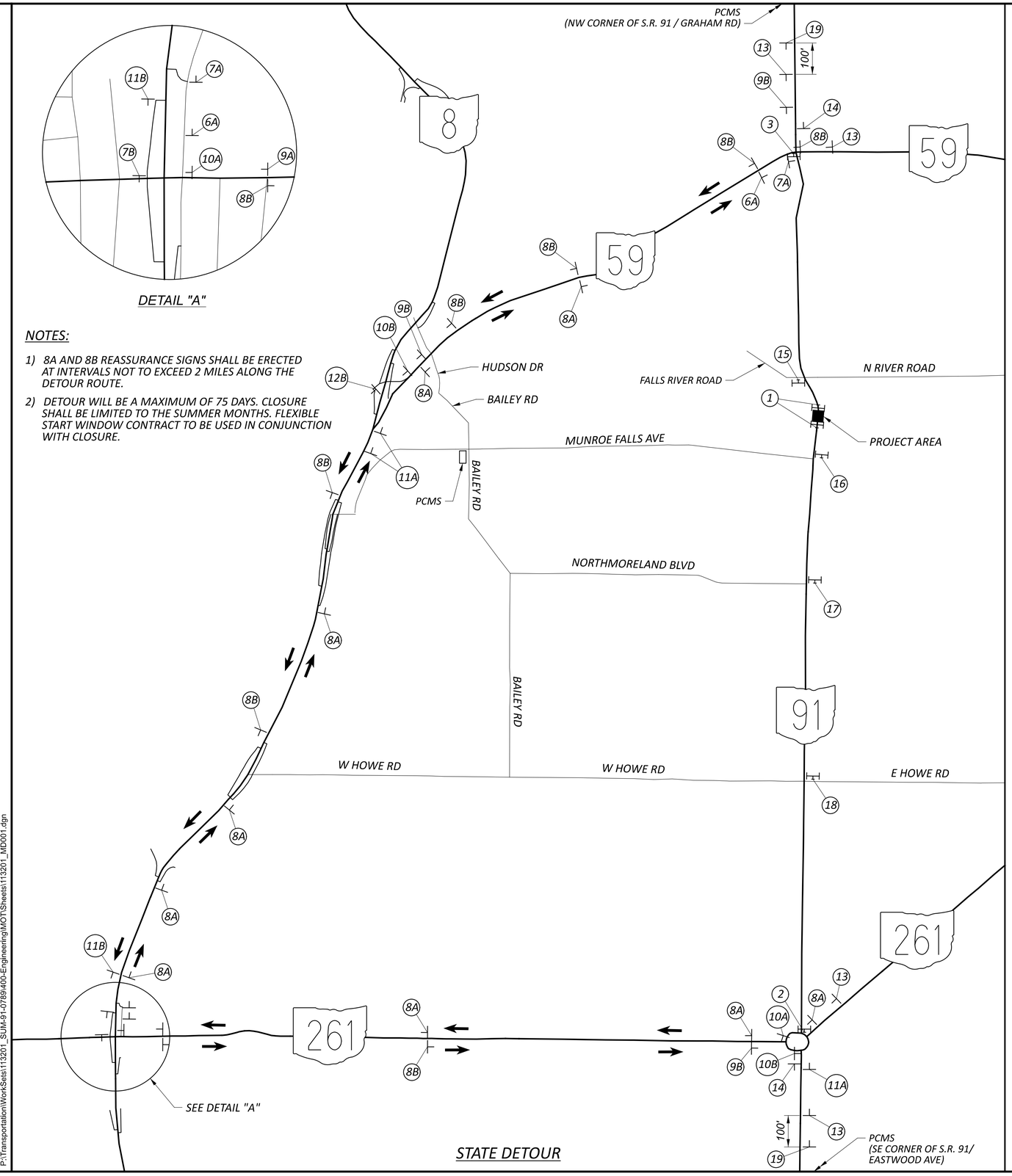
DETAIL "A"

NOTES:

1) 8A AND 8B REASSURANCE SIGNS SHALL BE ERECTED AT INTERVALS NOT TO EXCEED 2 MILES ALONG THE DETOUR ROUTE.
2) DETOUR WILL BE A MAXIMUM OF 75 DAYS. CLOSURE SHALL BE LIMITED TO THE SUMMER MONTHS. FLEXIBLE START WINDOW CONTRACT TO BE USED IN CONJUNCTION WITH CLOSURE.




STATE DETOUR

## LEGEND

- SIGN ON TYPE III BARRICADE
- SIGN ON POST
- (X) SIGN

(1) ROAD CLOSED — R11-2-48

(2) BRIDGE OUT 2.75 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3B-60

DETOUR — M4-10L-48

(3) BRIDGE OUT 1.17 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3B-60

DETOUR — M4-10R-48

(4) BRIDGE OUT 3.55 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3B-60

(5) BRIDGE OUT 0.86 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3B-60

* = SEE NOTE 1 ON THIS SHEET.

(6) (7) (8)* (9) (10) (11) (12)

DETOUR — M4-8-30

(A) OR (B)

91 — M1-5-30-2

M5-1-30 | M6-1-30 | M6-3-30 | M5-1-30 | M6-1-30 | M5-2-30 | M5-2-30

(13) DETOUR AHEAD — W20-2-36

(14) END DETOUR — M4-8A-24

(A) NORTH — M3-1-30

(B) SOUTH — M3-3-30

(15) BRIDGE OUT 0.18 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3B-60

(16) BRIDGE OUT 0.20 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3B-60

(17) BRIDGE OUT 0.76 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3B-60

(18) BRIDGE OUT 1.65 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3B-60

(19) ROAD CLOSED AHEAD — W20-3-36

## TYPICAL SIGN LAYOUT

DETOUR
NORTH
OR
SOUTH
91
M5/6-X-30

# DETOUR PLAN

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:20 AM USER: jperchinske
P:\Transportation\WorkSets\113201_SUM-91-0789\400-Engineering\MOT\Sheets\113201_MD001.dgn

DESIGN AGENCY
BG
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP
REVIEWER RG 09-22-25
PROJECT ID 113201
SHEET P.10 TOTAL 62

| SHEET NUMBER | | | | | | | | | | | PART. | | | ITEM | ITEM EXT | GRAND TOTAL | UNIT | DESCRIPTION | SEE SHEET NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFFICE CALCS | P.6 | P.7 | P.13 | | P.26 | | P.28 | P.29 | | | 01/NHS | 02/NHS | 03/NHS | | | | | | |
| | | | | | | | | | | | | | | | | | | **ROADWAY** | |
| | LS | | | | | | | | | | LS | | | 201 | 11000 | LS | | CLEARING AND GRUBBING | |
| 862 | | | | | | | | | | | 862 | | | 202 | 23000 | 862 | SY | PAVEMENT REMOVED | |
| | | | 1,030 | | | | | | | | 1,030 | | | 202 | 30000 | 1,030 | SF | WALK REMOVED | |
| | | | 117 | | | | | | | | 117 | | | 202 | 32000 | 117 | FT | CURB REMOVED | |
| | | | 318 | | | | | | | | 261 | 57 | | 202 | 35100 | 318 | FT | PIPE REMOVED, 24" DIAMETER AND UNDER | |
| | | | | | | | | | | | | | | | | | | | |
| | | | 540 | | | | | | | | 540 | | | 202 | 38000 | 540 | FT | GUARDRAIL REMOVED | |
| | | | 1 | | | | | | | | 1 | | | 202 | 58100 | 1 | EACH | CATCH BASIN REMOVED | |
| | | | 60 | | | | | | | | 60 | | | 202 | 75000 | 60 | FT | FENCE REMOVED | |
| | | 1 | | | | | | | | | 1 | | | 202 | 98100 | 1 | EACH | REMOVAL MISC.: INSPECTION WELL | P.7 |
| | | 30 | | | | | | | | | 30 | | | 202 | 98200 | 30 | FT | REMOVAL MISC.: CONDUIT | P.7 |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | 356 | | | | | | 356 | | | 203 | 10000 | 356 | CY | EXCAVATION | |
| | | | | | 72 | | | | | | 72 | | | 203 | 20000 | 72 | CY | EMBANKMENT | |
| | | 50 | | | | | | | | | 50 | | | 203 | 20001 | 50 | CY | EMBANKMENT, AS PER PLAN | P.7 |
| 1,162 | | | | | | | | | | | 1,162 | | | 204 | 10000 | 1,162 | SY | SUBGRADE COMPACTION | |
| | 11 | | | | | | | | | | 11 | | | 204 | 13000 | 11 | CY | EXCAVATION OF SUBGRADE | |
| | | | | | | | | | | | | | | | | | | | |
| | 11 | | | | | | | | | | 11 | | | 204 | 30010 | 11 | CY | GRANULAR MATERIAL, TYPE B | |
| | 1 | | | | | | | | | | 1 | | | 204 | 45000 | 1 | HOUR | PROOF ROLLING | |
| | 34 | | | | | | | | | | 34 | | | 204 | 50000 | 34 | SY | GEOTEXTILE FABRIC | |
| | | | 1 | | | | | | | | 1 | | | 209 | 60200 | 1 | STA | LINEAR GRADING | |
| | | | 262.5 | | | | | | | | 262.5 | | | 606 | 15050 | 262.5 | FT | GUARDRAIL, TYPE MGS | |
| | | | | | | | | | | | | | | | | | | | |
| | | | 2 | | | | | | | | 2 | | | 606 | 26150 | 2 | EACH | ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) | P.6 |
| | | | 2 | | | | | | | | 2 | | | 606 | 26550 | 2 | EACH | ANCHOR ASSEMBLY, MGS TYPE T | |
| | | | 4 | | | | | | | | 4 | | | 606 | 35002 | 4 | EACH | MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 | |
| | | | 60 | | | | | | | | 60 | | | 607 | 98000 | 60 | FT | FENCE, MISC.: WOOD FENCE | P.7 |
| | | | 1,000 | | | | | | | | 1,000 | | | 608 | 10000 | 1,000 | SF | 4" CONCRETE WALK | |
| | | | | | | | | | | | | | | | | | | | |
| | | 1 | | | | | | | | | 1 | | | 623 | 38500 | 1 | EACH | MONUMENT ASSEMBLY, TYPE C | |
| | | 1 | | | | | | | | | 1 | | | 623 | 40520 | 1 | EACH | RIGHT-OF-WAY MONUMENT, TYPE B | |
| | LS | | | | | | | | | | LS | | | SPECIAL | 69021000 | LS | | AS-BUILT CONSTRUCTION RECORD DRAWINGS | P.6 |
| | LS | | | | | | | | | | LS | | | SPECIAL | 69098400 | LS | | SURVEY CONTROL VERIFICATIONS | P.6 |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | 2 | | | | | | 2 | | | 4 | | | 601 | 21050 | 4 | SY | **EROSION CONTROL**<br>TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT | |
| | | | 1 | | | | | | | | 1 | | | 601 | 32204 | 1 | CY | ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC | |
| | 88 | | | | | | | | | | 88 | | | 659 | 00300 | 88 | CY | TOPSOIL | |
| | | | | | 796 | | | | | | 796 | | | 659 | 10000 | 796 | SY | SEEDING AND MULCHING | |
| | 0.11 | | | | | | | | | | 0.11 | | | 659 | 20000 | 0.11 | TON | COMMERCIAL FERTILIZER | |
| | | | | | | | | | | | | | | | | | | | |
| | 0.16 | | | | | | | | | | 0.16 | | | 659 | 31000 | 0.16 | ACRE | LIME | |
| | 4 | | | | | | | | | | 4 | | | 659 | 35000 | 4 | MGAL | WATER | |
| | | | | | | | | | | | 7,500 | | | 832 | 30000 | 7,500 | EACH | EROSION CONTROL | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | 15 | | | | | | | | | 15 | | | 605 | 05210 | 15 | FT | **DRAINAGE**<br>4" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC | P.6 |
| | | | | | | | 224 | 319 | | | 543 | | | 605 | 06020 | 543 | FT | 4" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC | P.6 |
| | | 15 | | | | | 10 | 27 | | | 52 | | | 611 | 00406 | 52 | FT | 4" CONDUIT, TYPE F | |
| | | | | | | | 55 | 28 | | | 83 | | | 611 | 00410 | 83 | FT | 4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET | |
| | | | 57 | | | | | | | | | 57 | | 611 | 03300 | 57 | FT | 10" CONDUIT, TYPE C | |
| | | | | | | | | | | | | | | | | | | | |
| | | | 153 | | | | | | | | 153 | | | 611 | 04600 | 153 | FT | 12" CONDUIT, TYPE C | |
| | | | 124 | | | | | | | | 124 | | | 611 | 06100 | 124 | FT | 15" CONDUIT, TYPE C | |
| | | 10 | | | | | | | | | 10 | | | 611 | 97400 | 10 | FT | CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE | P.7 |
| | | 10 | | | | | | | | | 10 | | | 611 | 97400 | 10 | FT | CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE | P.7 |
| | | 10 | | | | | | | | | 10 | | | 611 | 97400 | 10 | FT | CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE | P.7 |
| | | | | | | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | 1 | | | 611 | 98180 | 1 | EACH | CATCH BASIN, NO. 3A | P.7 |
| | | | 3 | | | | | | | | 3 | | | 611 | 99574 | 3 | EACH | MANHOLE, NO. 3 | |
| | | 1 | | | | | | 1 | | | 2 | | | 611 | 99710 | 2 | EACH | PRECAST REINFORCED CONCRETE OUTLET | |
| | | 1 | | | | | | | | | 1 | | | 611 | 99720 | 1 | EACH | INSPECTION WELL | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| 436 | | | | | | | | | | | | | 436 | 254 | 01000 | 436 | SY | **PAVEMENT**<br>PAVEMENT PLANING, ASPHALT CONCRETE (1.5") | |
| 198 | | | | | | | | | | | 198 | | | 301 | 56000 | 198 | CY | ASPHALT CONCRETE BASE, PG64-22, (449) | |
| 191 | | | | | | | | | | | 191 | | | 304 | 20000 | 191 | CY | AGGREGATE BASE | |
| 194 | | | | | | | | | | | 155 | | 39 | 407 | 20000 | 194 | GAL | NON-TRACKING TACK COAT | |
| 54 | | | | | | | | | | | 36 | | 18 | 441 | 70000 | 54 | CY | ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 | |

GENERAL SUMMARY

DESIGN AGENCY
BG
www.bgengroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER
JEP

REVIEWER
RG 09-22-25

PROJECT ID
113201

SHEET P.11 TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:20 AM USER: jperchinske
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| SHEET NUMBER | | | | | | | | | | | PART. | | | ITEM | ITEM EXT | GRAND TOTAL | UNIT | DESCRIPTION | SEE SHEET NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFFICE CALCS | P.8 | P.9 | | P.13 | | P.29 | | P.32 | | | 01/NHS | 02/NHS | 03/NHS | | | | | | |
| 36 | | | | | | | | | | | 36 | | | 441 | 70200 | 36 | CY | ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449) | |
| | | | | 1 | | | | | | | 1 | | | 441 | 70801 | 1 | CY | ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN | P.7 |
| | | | | 72 | | | | | | | 72 | | | 609 | 24510 | 72 | FT | CURB, TYPE 4-C | |
| | | | | 192 | | | | | | | 192 | | | 609 | 26000 | 192 | FT | CURB, TYPE 6 | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | **TRAFFIC CONTROL** | |
| | | | | | | 1 | | | | | 1 | | | 620 | 00501 | 1 | EACH | DELINEATOR, POST GROUND MOUNTED, AS PER PLAN | P.7 |
| | | | | | | | | 8 | | | 8 | | | 626 | 00102 | 8 | EACH | BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL) | |
| | | | | | | | | 10 | | | 10 | | | 626 | 00110 | 10 | EACH | BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) | |
| | | | | | | | | 40 | | | 40 | | | 630 | 02100 | 40 | FT | GROUND MOUNTED SUPPORT, NO. 2 POST | |
| | | | | | | | | 4 | | | 4 | | | 630 | 80100 | 4 | SF | SIGN, FLAT SHEET | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | 2 | | | 2 | | | 630 | 80100 | 2 | SF | SIGN, FLAT SHEET, 730.20 | |
| | | | | | | | | 7.5 | | | 7.5 | | | 630 | 81100 | 7.5 | SF | SIGN ERECTED, FLAT SHEET | |
| | | | | | | | | 3 | | | 3 | | | 630 | 84900 | 3 | EACH | REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL | |
| | | | | | | | | 3 | | | 3 | | | 630 | 85100 | 3 | EACH | REMOVAL OF GROUND MOUNTED SIGN AND REERECTION | |
| | | | | | | | | 4 | | | 4 | | | 630 | 86002 | 4 | EACH | REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | 0.21 | | | 0.21 | | | 646 | 10010 | 0.21 | MILE | EDGE LINE, 6" | |
| | | | | | | | | 0.1 | | | 0.1 | | | 646 | 10200 | 0.1 | MILE | CENTER LINE | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | **STRUCTURES OVER 20 FOOT SPAN** | |
| | | | | | | | | | | | | | | | | | | FOR SUM-00091-07.880 ESTIMATED QUANTITIES | P.38 |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | **MAINTENANCE OF TRAFFIC** | |
| | 300 | | | | | | | | | | 300 | | | 251 | 01000 | 300 | SY | PARTIAL DEPTH PAVEMENT REPAIR (441) | |
| | | 40 | | | | | | | | | 40 | | | 614 | 11110 | 40 | HOUR | LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE | |
| | LS | | | | | | | | | | LS | | | 614 | 12420 | LS | | DETOUR SIGNING | |
| | | 9 | | | | | | | | | 9 | | | 614 | 18601 | 9 | SNMT | PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN | P.9 |
| | 1 | | | | | | | | | | 1 | | | 616 | 10000 | 1 | MGAL | WATER | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | **INCIDENTALS** | |
| | | | | | | | | | | | LS | | | 614 | 11000 | LS | | MAINTAINING TRAFFIC | |
| | | | | | | | | | | | 6 | | | 619 | 16010 | 6 | MNTH | FIELD OFFICE, TYPE B | |
| | | | | | | | | | | | LS | | | 623 | 10000 | LS | | CONSTRUCTION LAYOUT STAKES AND SURVEYING | |
| | | | | | | | | | | | LS | | | 624 | 10000 | LS | | MOBILIZATION | |

GENERAL SUMMARY

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:20 AM USER: jperchinske
P:\Transportation\WorkSets\113201_SUM-91-07.89\400-Engineering\Roadway\Sheets\113201_GG001.dgn

DESIGN AGENCY
BG
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DUBLIN, OHIO 43016

DESIGNER JEP

REVIEWER RG 09-22-25

PROJECT ID 113201

SHEET P.12 TOTAL 62

| REF. NO. | SHEET NO. | STATION TO STATION | SIDE | 202 | | | | | | 209 | 441 | 601 | 606 | | | | 607 | 608 | 609 | | 611 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CATCH BASIN REMOVED | WALK REMOVED | CURB REMOVED | PIPE REMOVED, 24" DIAMETER AND UNDER | GUARDRAIL REMOVED | FENCE REMOVED | LINEAR GRADING | 1.5" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1(449), UNDER GUARDRAIL, AS PER PLAN | ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC (1.0' THICK) | GUARDRAIL, TYPE MGS | ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) | ANCHOR ASSEMBLY, MGS TYPE T | MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 | FENCE, MISC.: WOOD FENCE | 4" CONCRETE WALK | CURB, TYPE 4-C | CURB, TYPE 6 | 10" CONDUIT, TYPE C | 12" CONDUIT, TYPE C | 15" CONDUIT, TYPE C | CATCH BASIN, NO. 3A | MANHOLE, NO. 3 |
| | | | | EACH | SF | FT | FT | FT | FT | STA | CY | CY | FT | EACH | EACH | EACH | FT | SF | FT | FT | FT | FT | FT | EACH | EACH |
| C-1 | P.14 - P.15 | 145+21.72 - 146+16.41 | LT | | | | | | | | | | | | | | | | 18 | 76 | | | | | |
| C-2 | P.14 - P.15 | 145+57.43 - 146+09.88 | RT | | | | | | | | | | | | | | | | | 53 | | | | | |
| C-3 | P.15 | 145+91.01 - 146+06.81 | RT | | | | | | | | | | | | | | | | 18 | | | | | | |
| C-4 | P.15 | 148+02.88 - 148+20.70 | RT | | | | | | | | | | | | | | | | 18 | | | | | | |
| C-5 | P.15 - P.16 | 148+05.03 - 148+67.01 | RT | | | | | | | | | | | | | | | | | 63 | | | | | |
| C-6 | P.15 | 148+18.20 - 148+36.69 | LT | | | | | | | | | | | | | | | | 18 | | | | | | |
| D-1 | P.14 | 144+60.00 | LT | | | | | | | | | | | | | | | | | | | | | | 1 |
| D-2 | P.14 | 144+60.00 | LT | | | | | | | | | | | | | | | | | | | | | | 1 |
| D-3 | P.14 | 145+25.00 | LT | | | | | | | | | | | | | | | | | | | | 1 | | |
| D-4 | P.14 | 145+25.00 | LT | | | | | | | | | | | | | | | | | | | | | | 1 |
| F-1 | P.15 | 147+43.04 - 147+63.34 | LT/RT | | | | | | | | | | | | | | 60 | | | | | | | | |
| GR-1 | P.14 - P.15 | 144+65.82 - 146+17.02 | LT | | | | | | | | | | 75.0 | 1 | | 1 | | | | | | | | | |
| GR-2 | P.14 - P.15 | 145+37.55 - 146+09.41 | RT | | | | | | | | | | 37.5 | | 1 | 1 | | | | | | | | | |
| GR-3 | P.15 - P.16 | 148+02.29 - 148+99.58 | RT | | | | | | | | | | 62.5 | | 1 | 1 | | | | | | | | | |
| GR-4 | P.15 - P.16 | 148+17.61 - 149+83.15 | LT | | | | | | | 1 | 1 | | 87.5 | 1 | | 1 | | | | | | | | | |
| P-1 | P.14 | 143+79.50 - 144+60.00 | LT | | | | | | | | | | | | | | | | | | | 80 | | | |
| P-2 | P.14 | 144+60.00 - 144+60.00 | LT | | | | | | | | | | | | | | | | | | | 8 | | | |
| P-3 | P.14 | 144+60.00 - 145+25.00 | LT | | | | | | | | | | | | | | | | | | | 65 | | | |
| P-4 | P.14 | 145+25.00 - 145+25.00 | LT | | | | | | | | | | | | | | | | | | | | 7 | | |
| P-5 | P.14 - P.15 | 145+25.00 - 146+44.66 | LT | | | | | | | | | 1 | | | | | | | | | | | 117 | | |
| R-1 | P.14 | 143+79.50 - 149+25.00 | LT | | | | 143 | | | | | | | | | | | | | | | | | | |
| R-2 | P.14 - P.15 | 149+25.00 - 146+44.66 | LT | 1 | | | 118 | | | | | | | | | | | | | | | | | | |
| R-3 | P.14 - P.15 | 145+21.72 - 146+40.60 | LT | | | 117 | | | | | | | | | | | | | | | | | | | |
| R-4 | P.14 - P.15 | 145+03.13 - 146+41.33 | LT | | | | | 138 | | | | | | | | | | | | | | | | | |
| R-5 | P.14 - P.15 | 145+18.21 - 146+30.64 | RT | | | | | 114 | | | | | | | | | | | | | | | | | |
| R-6 | P.14 - P.15 | 145+25.00 - 146+32.50 | RT | | 434 | | | | | | | | | | | | | | | | | | | | |
| R-7 | P.15 - P.16 | 147+82.12 - 148+81.26 | RT | | | | | 101 | | | | | | | | | | | | | | | | | |
| R-8 | P.15 - P.16 | 147+93.29 - 149+83.68 | LT | | | | | 187 | | | | | | | | | | | | | | | | | |
| R-9 | P.15 - P.16 | 147+78.30 - 149+25.00 | RT | | 596 | | | | | | | | | | | | | | | | | | | | |
| R-10 | P.15 | 147+43.04 - 147+63.34 | LT/RT | | | | | | 60 | | | | | | | | | | | | | | | | |
| R-11 | P.15 | 146+18.70 - 146+33.60 | RT | | | | 15 | | | | | | | | | | | | | | | | | | |
| R-12 | P.15 | 147+76.30 - 148+17.60 | RT | | | | 42 | | | | | | | | | | | | | | | | | | |
| SAN-1 | P.15 | 146+18.70 - 146+33.60 | RT | | | | | | | | | | | | | | | | | | | | 15 | | |
| SAN-2 | P.15 | 147+76.30 - 148+17.60 | RT | | | | | | | | | | | | | | | | | | | | 42 | | |
| SW-1 | P.14 - P.15 | 145+25.00 - 146+09.68 | RT | | | | | | | | | | | | | | | 411 | | | | | | | |
| SW-2 | P.15 - P.16 | 148+05.25 - 149+25.00 | RT | | | | | | | | | | | | | | | 589 | | | | | | | |
| TOTALS CARRIED TO GENERAL SUMMARY | | | | 1 | 1030 | 117 | 318 | 540 | 60 | 1 | 1 | 1 | 262.5 | 2 | 2 | 4 | 60 | 1000 | 72 | 192 | 57 | 153 | 124 | 1 | 3 |

ROADWAY SUBSUMMARY

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:21 AM USER: jperchinske
P:\Transportation\WorkSets\113201_SUM-91-0789\400-Engineering\Roadway\Sheets\113201_GS001.dgn

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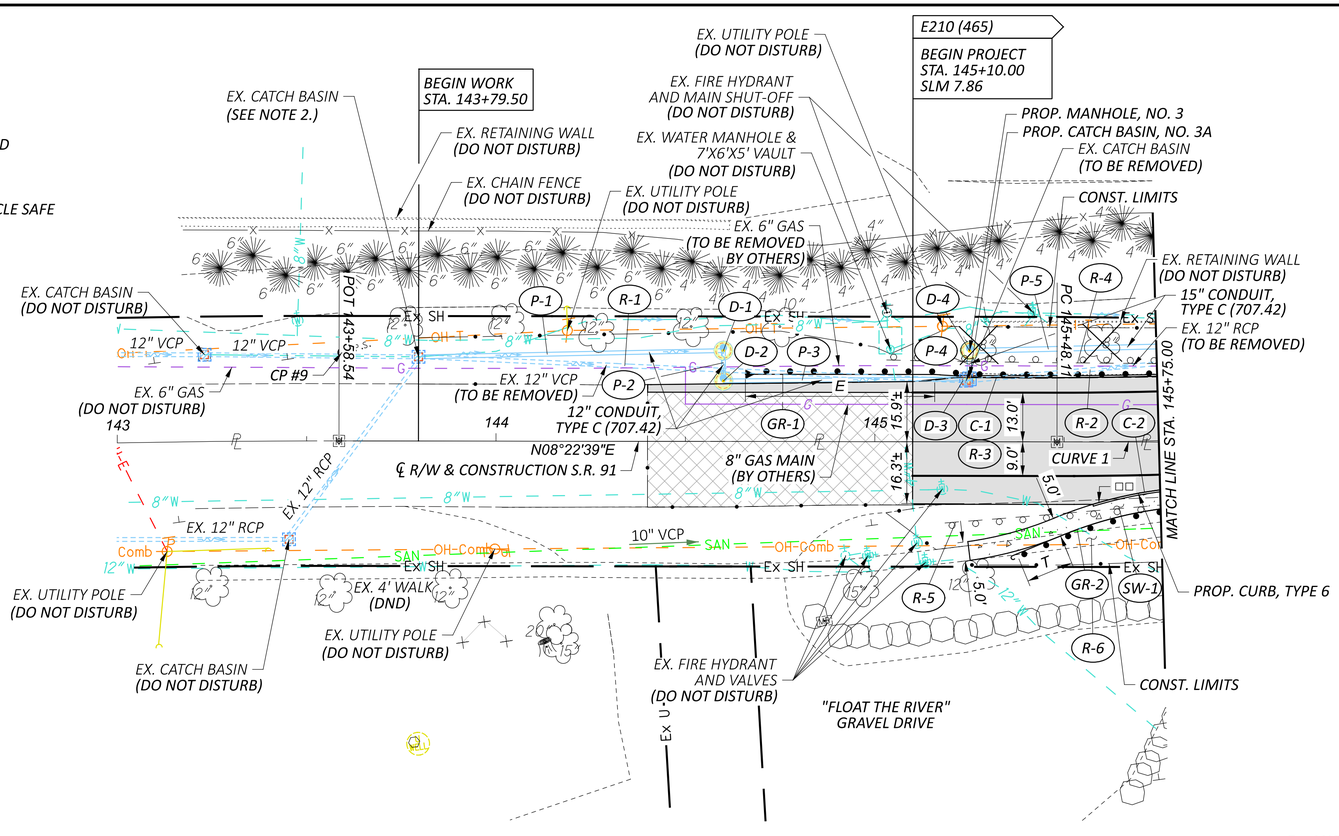
SHEET P.13 | TOTAL 62

| CROSS REFERENCES | |
|---|---|
| SHEET NO. | DESCRIPTION |
| P.17 - P.20 | CROSS SECTIONS |
| P.28 | STORM SEWER & UNDERDRAIN DETAILS |
| P.30 | MISCELLANEOUS DETAILS |

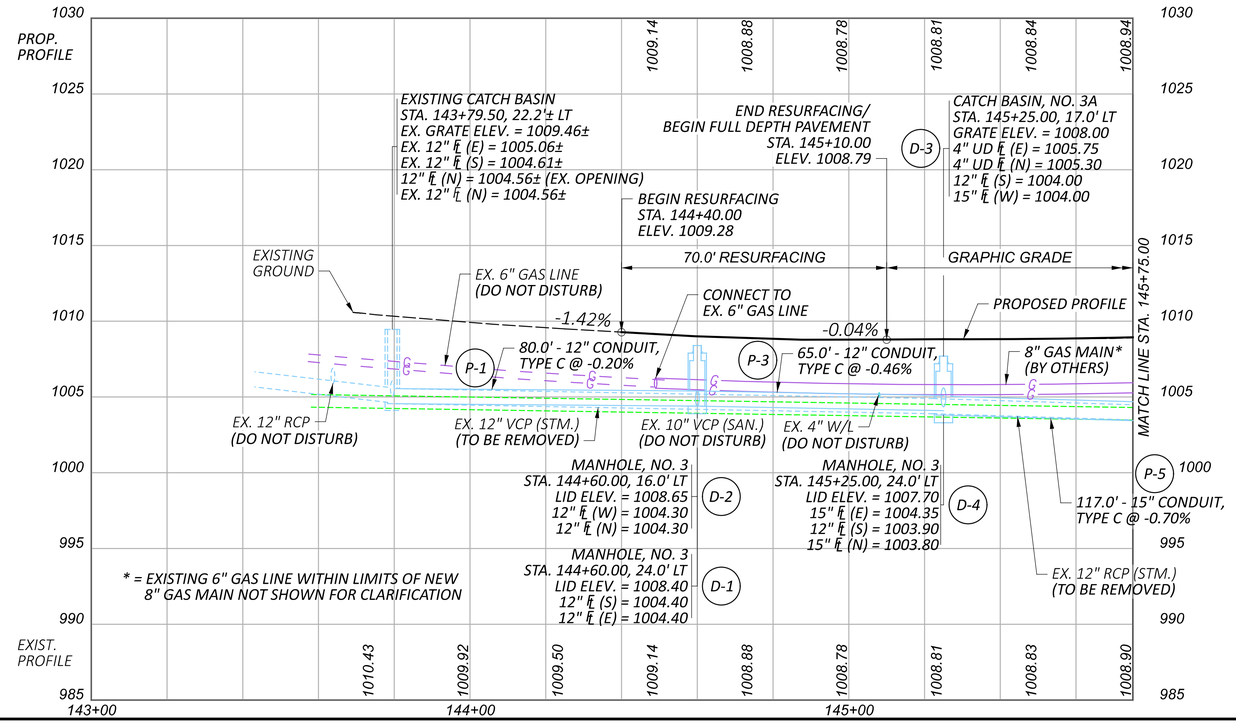
**NOTES:**

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY CROSSINGS PRIOR TO INSTALLING GUARDRAIL POSTS.
2. FOR 12" CONDUIT CONNECTION, SEE CROSS SECTION SHEET P.17
3. CONTRACTOR SHALL INSTALL THE D-1 CATCH BASIN GRATE WITH A BICYCLE SAFE GRATE. SEE GENERAL NOTES FOR DETAILS.




**LEGEND**

- PROPOSED ROADWAY PAVEMENT
- PROPOSED RESURFACING
- PROPOSED SIDEWALK




E = ANCHOR ASSEMBLY, MGS TYPE E
T = ANCHOR ASSEMBLY, MGS TYPE T
□□ = TAPER CURB HEIGHT FROM 0" TO 6" IN 15.0'

CURVE 1 DATA
P.I. = STA. 148+56.33
Δ = 35°49'56" LT
Dc = 06°00'36"
R = 953.35'
T = 308.22'
L = 596.21'
E = 48.59'
eMAX. = 0.035

HORIZONTAL SCALE IN FEET
0 10 20 40

# PLAN AND PROFILE
## STA. 143+00.00 TO STA. 145+75.00

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SHEET P.14 TOTAL 62

SUM-91-07.89

MODEL: Plan [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:24 AM USER: jperchinske
P:\Transportation\WorkSets\1320I_SUM-91-0789\400-Engineering\Roadway\Sheets\1320I_GP001.dgn

| BENCHMARK DATA | |
|---|---|
| BM#1 | STA. 145+91.20<br>27.07' RT<br>ELEV. 1009.92<br>BENCH TIE ON UTILITY POLE<br>ON EAST SIDE OF S.R. 91 |
| BM#2 | STA. 147+87.57<br>55.33' RT<br>ELEV. 1011.26<br>BENCH TIE ON UTILITY POLE<br>ON EAST SIDE OF S.R. 91 |

(A) BEGIN APPROACH SLAB
STA. 146+12.60

(B) END APPROACH SLAB
STA. 148+10.50

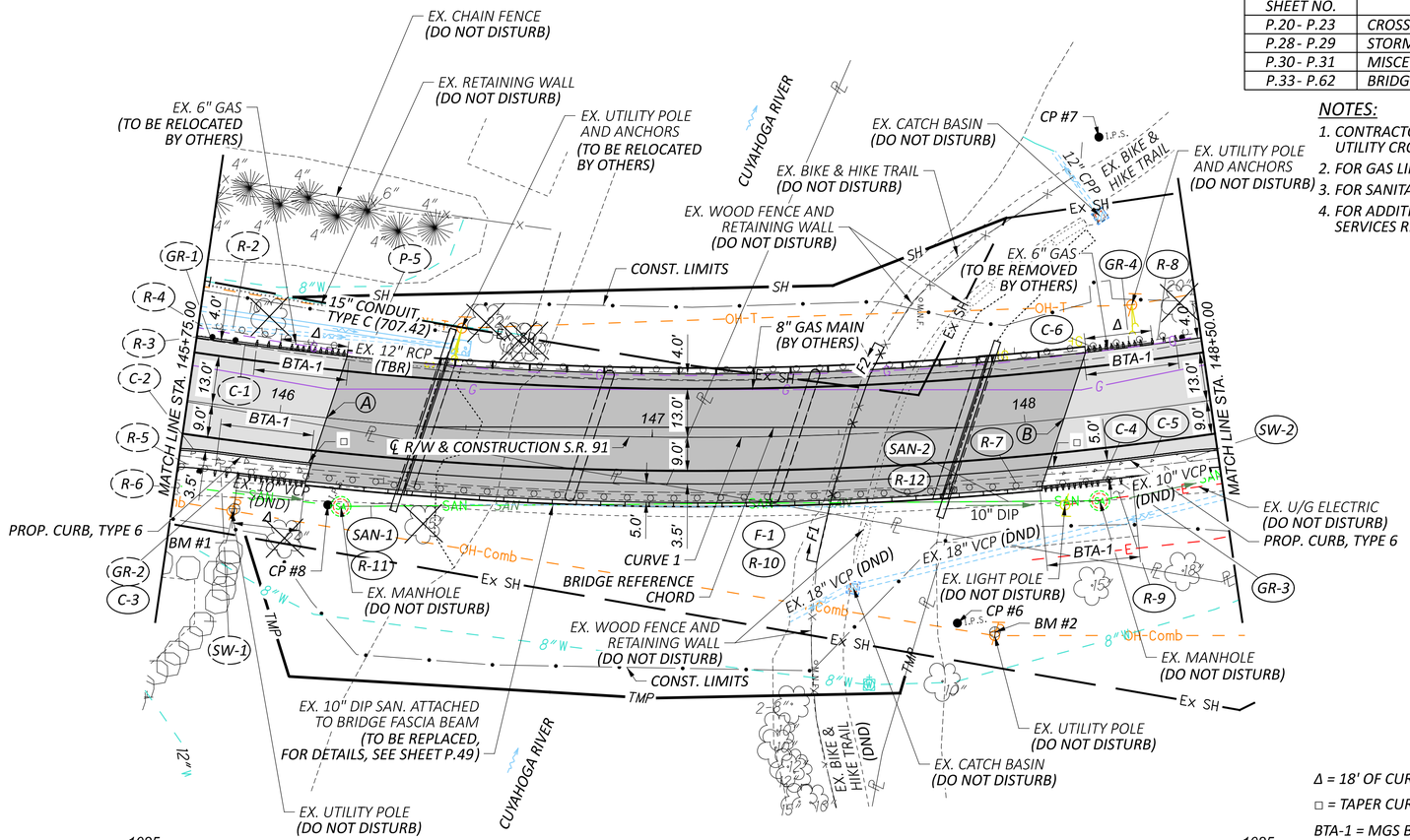
| CROSS REFERENCES | |
|---|---|
| SHEET NO. | DESCRIPTION |
| P.20 - P.23 | CROSS SECTIONS |
| P.28 - P.29 | STORM SEWER & UNDERDRAIN DETAILS |
| P.30 - P.31 | MISCELLANEOUS DETAILS |
| P.33 - P.62 | BRIDGE PLANS |

**NOTES:**

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY CROSSINGS PRIOR TO INSTALLING GUARDRAIL POSTS.
2. FOR GAS LINE RELOCATION DETAILS ON THE BRIDGE, SEE SHEET P.51
3. FOR SANITARY LINE REPLACEMENT DETAILS ON THE BRIDGE, SEE SHEET P.49
4. FOR ADDITIONAL SUMMIT COUNTY DEPARTMENT OF SANITARY SEWER SERVICES REQUIREMENTS AND NOTES, SEE SHEET P.7

**LEGEND**

- PROPOSED ROADWAY PAVEMENT
- PROPOSED BRIDGE
- PROPOSED SIDEWALK




F1 = BEGIN FENCE REMOVAL AND REPLACEMENT
STA. 147+43.04, 34.0' RT

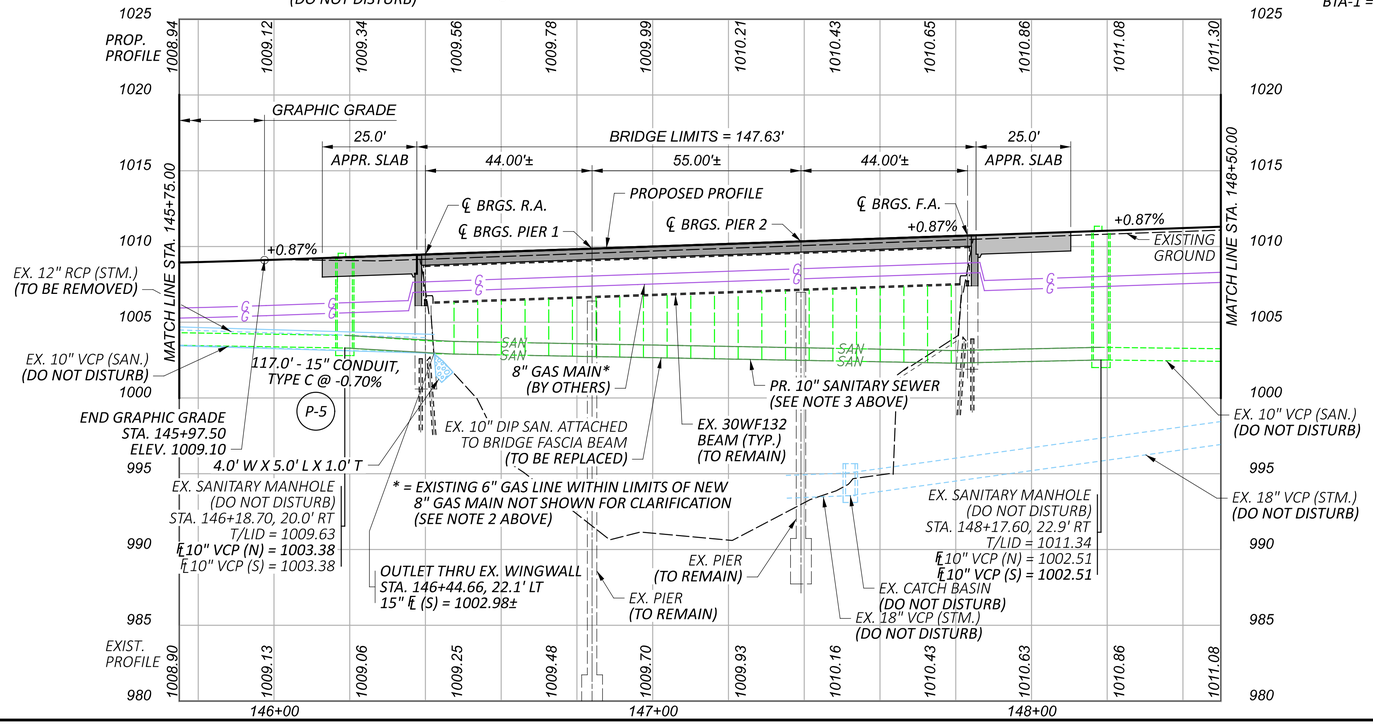
F2 = END FENCE REMOVAL AND REPLACEMENT
STA. 147+63.34, 22.9' LT

Δ = 18' OF CURB, TYPE 4-C AS PER SCD MGS-3.1

□ = TAPER CURB HEIGHT FROM 6" TO 8" IN 5.0'

BTA-1 = MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1

CURVE 1 DATA
P.I. = STA. 148+56.33
Δ = 35°49'56" LT
Dc = 06°00'36"
R = 953.35'
T = 308.22'
L = 596.21'
E = 48.59'
eMAX. = 0.035




HORIZONTAL SCALE IN FEET
0 10 20 40

# PLAN AND PROFILE
# STA. 145+75.00 TO STA. 148+50.00

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SHEET P.15 TOTAL 62

SUM-91-07.89

MODEL: Plan-ISheet PAPERSIZE: 34x22 (In.) DATE: 10/22/2025 TIME: 8:9:25 AM USER: jperchinske
P:\Transportation\WorkSets\SUM-91-0789\400-Engineering\Roadway\Sheets\SUM91_GP001.dgn

| BENCHMARK DATA | |
|---|---|
| BM#3 | STA. 149+15.61<br>42.90' RT<br>ELEV. 1014.41<br>NOTCH CUT ON WEST FH BOLT |

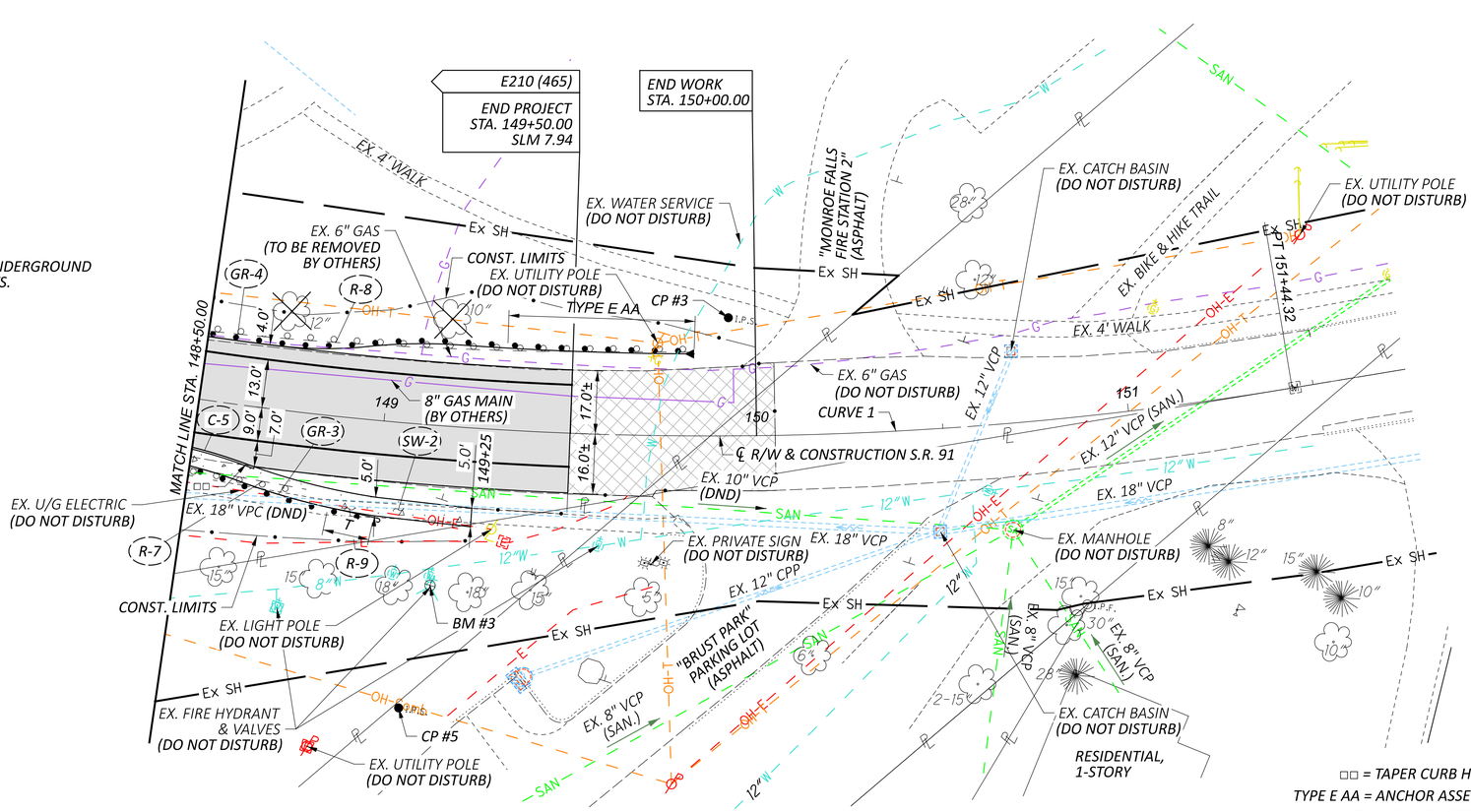
| CROSS REFERENCES | |
|---|---|
| SHEET NO. | DESCRIPTION |
| P.23- P.26 | CROSS SECTIONS |
| P.29 | UNDERDRAIN DETAILS |
| P.30 | MISCELLANEOUS DETAILS |

**NOTES:**

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY CROSSINGS PRIOR TO INSTALLING GUARDRAIL POSTS.

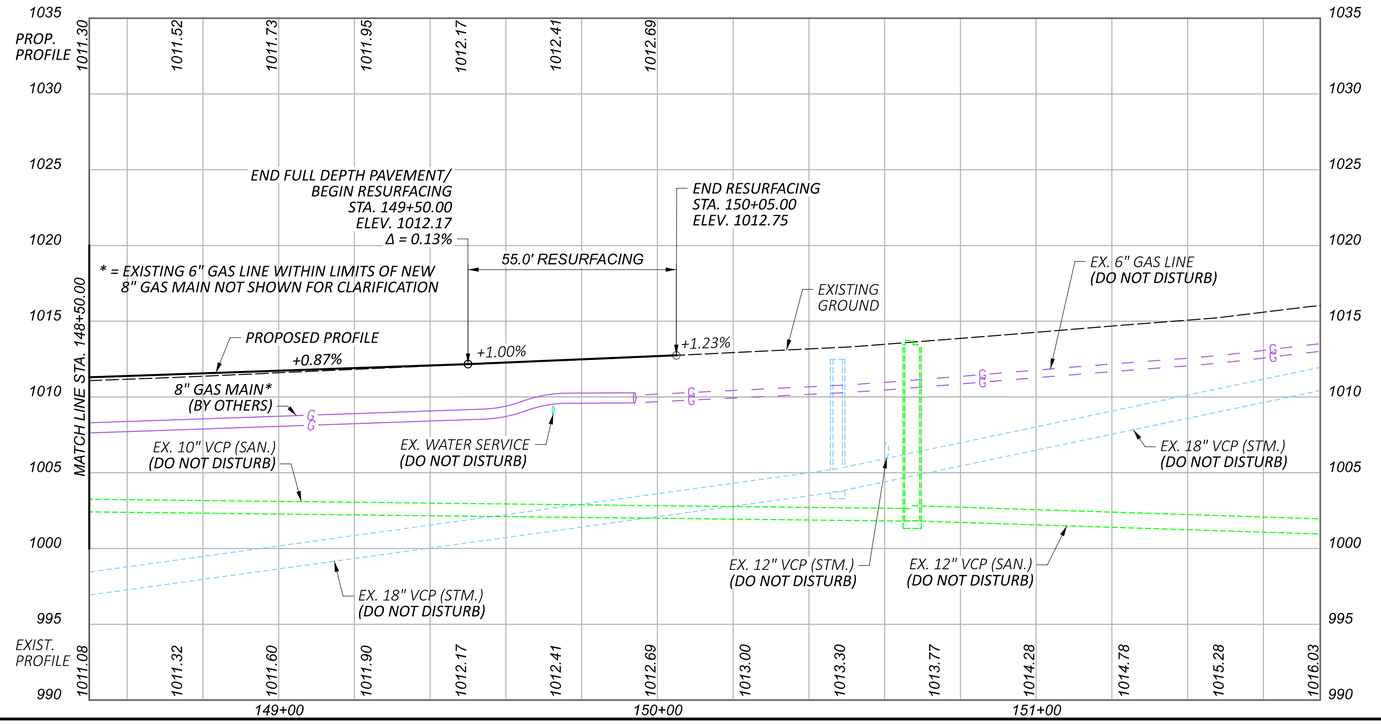
**LEGEND**

- PROPOSED ROADWAY PAVEMENT
- PROPOSED RESURFACING
- PROPOSED SIDEWALK




□□ = TAPER CURB HEIGHT FROM 6" TO 0" IN 15.0'
TYPE E AA = ANCHOR ASSEMBLY, MGS TYPE E
T = ANCHOR ASSEMBLY, MGS TYPE T

CURVE 1 DATA
P.I. = STA. 148+56.33
Δ = 35°49'56" LT
Dc = 06°00'36"
R = 953.35'
T = 308.22'
L = 596.21'
E = 48.59'
eMAX. = 0.035




HORIZONTAL SCALE IN FEET
0 10 20 40

# PLAN AND PROFILE
# STA. 148+50.00 TO STA. 151+75.00

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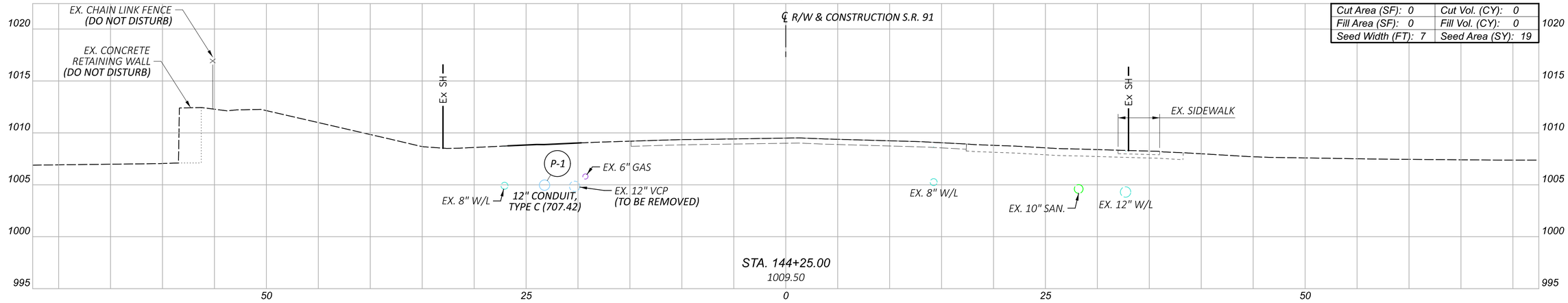
SHEET P.16 TOTAL 62

SUM-91-07.89

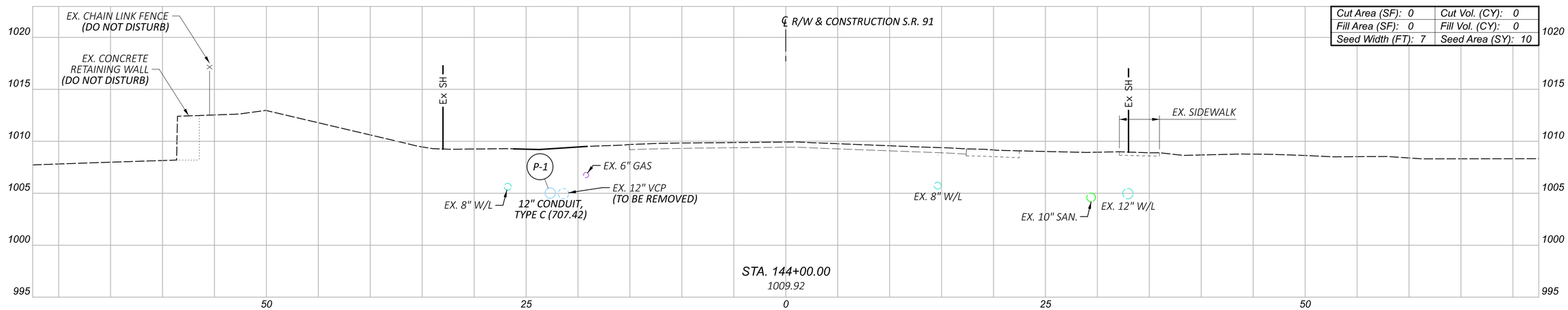
MODEL: Plan-2 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 10/22/2025 TIME: 8:19:26 AM USER: jperchinske
P:\Transportation\Work Sets\1320I_SUM-91-0789\400-Engineering\Roadway\Sheets\1320I_GP001.dgn

BEGIN RESURFACING
1009.28
STA. 144+40.00
1009.28



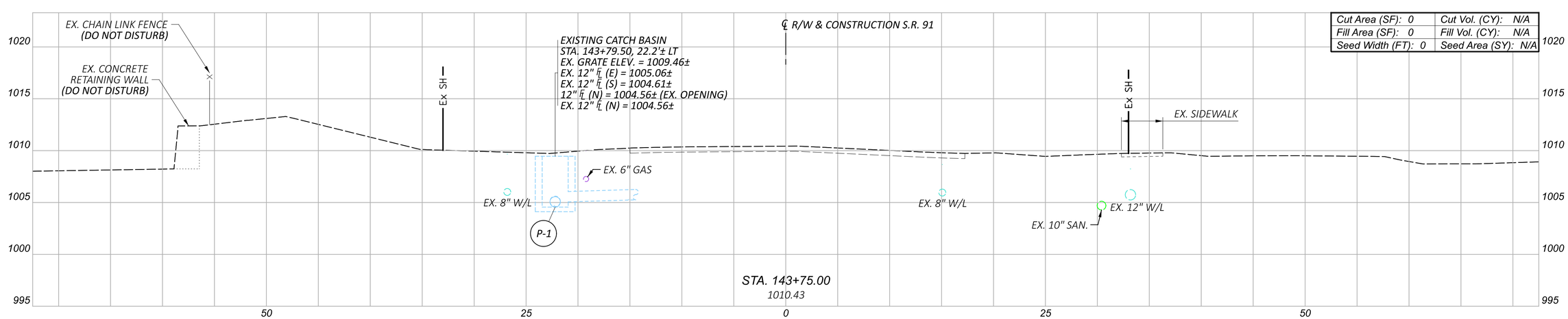

| | |
|---|---|
| Cut Area (SF): 0 | Cut Vol. (CY): 0 |
| Fill Area (SF): 0 | Fill Vol. (CY): 0 |
| Seed Width (FT): 7 | Seed Area (SY): 19 |

STA. 144+25.00
1009.50




| | |
|---|---|
| Cut Area (SF): 0 | Cut Vol. (CY): 0 |
| Fill Area (SF): 0 | Fill Vol. (CY): 0 |
| Seed Width (FT): 7 | Seed Area (SY): 10 |

STA. 144+00.00
1009.92




| | |
|---|---|
| Cut Area (SF): 0 | Cut Vol. (CY): N/A |
| Fill Area (SF): 0 | Fill Vol. (CY): N/A |
| Seed Width (FT): 0 | Seed Area (SY): N/A |

STA. 143+75.00
1010.43

CROSS SECTIONS
STA. 143+75.00 TO STA. 144+25.00

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SHEET P.17 TOTAL 62

Sheet Totals

| Seeding | Cut | Fill |
|---|---|---|
| 29 | 0 | 0 |

SUM-91-07.89

MODEL: I43+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:29 AM USER: jperchinske
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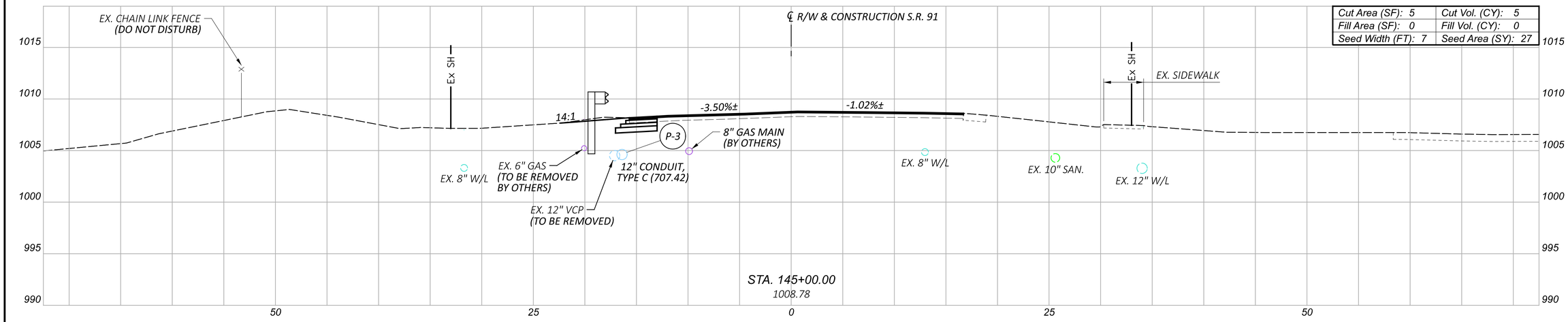
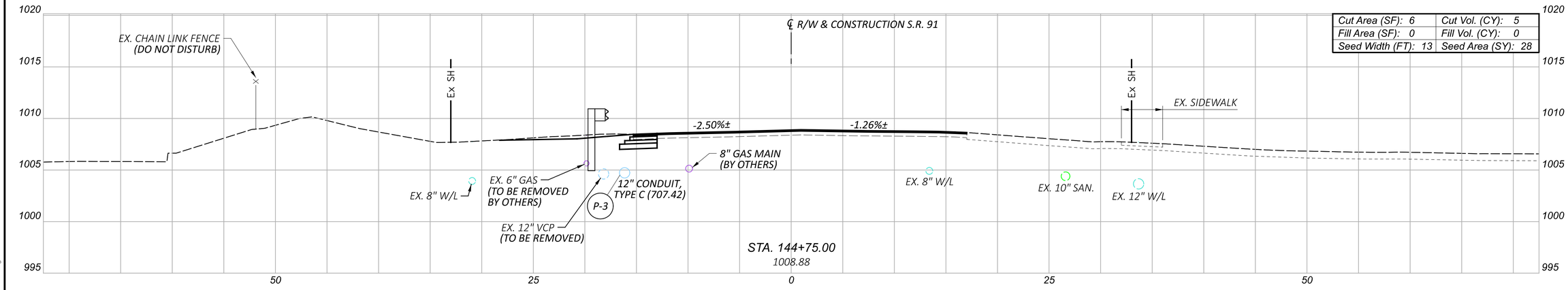


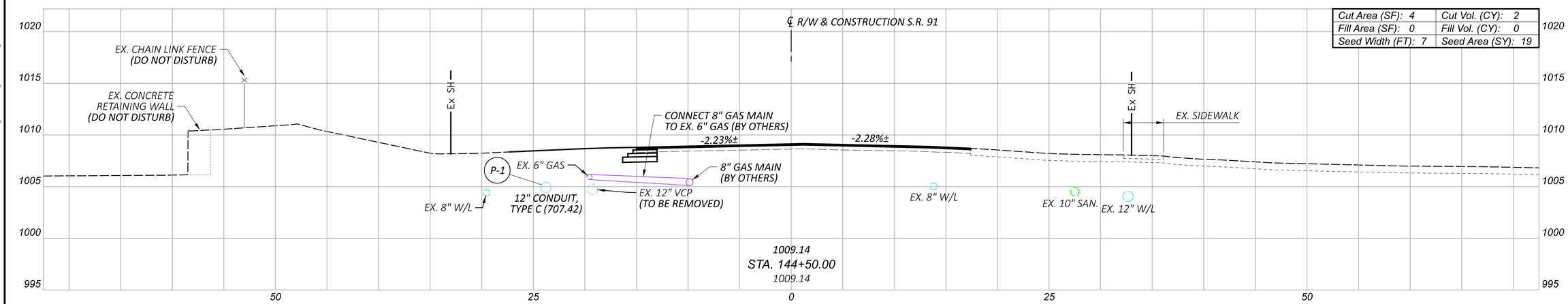

| | |
|---|---|
| Cut Area (SF): 5 | Cut Vol. (CY): 5 |
| Fill Area (SF): 0 | Fill Vol. (CY): 0 |
| Seed Width (FT): 7 | Seed Area (SY): 27 |

STA. 145+00.00
1008.78




| | |
|---|---|
| Cut Area (SF): 6 | Cut Vol. (CY): 5 |
| Fill Area (SF): 0 | Fill Vol. (CY): 0 |
| Seed Width (FT): 13 | Seed Area (SY): 28 |

STA. 144+75.00
1008.88




| | |
|---|---|
| Cut Area (SF): 4 | Cut Vol. (CY): 2 |
| Fill Area (SF): 0 | Fill Vol. (CY): 0 |
| Seed Width (FT): 7 | Seed Area (SY): 19 |

1009.14
STA. 144+50.00
1009.14

# CROSS SECTIONS
## STA. 144+50.00 TO STA. 145+00.00

| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 74 | 12 | 0 |

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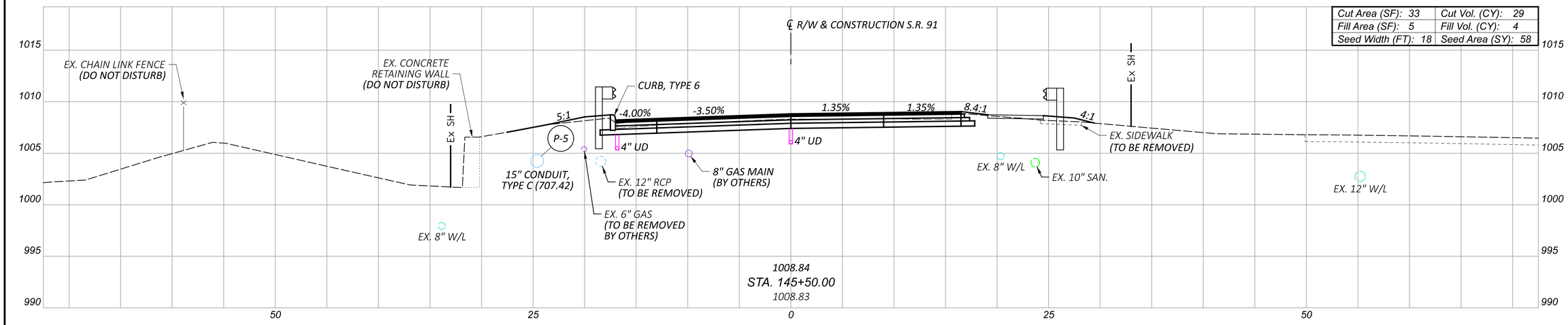
SHEET P.18 TOTAL 62

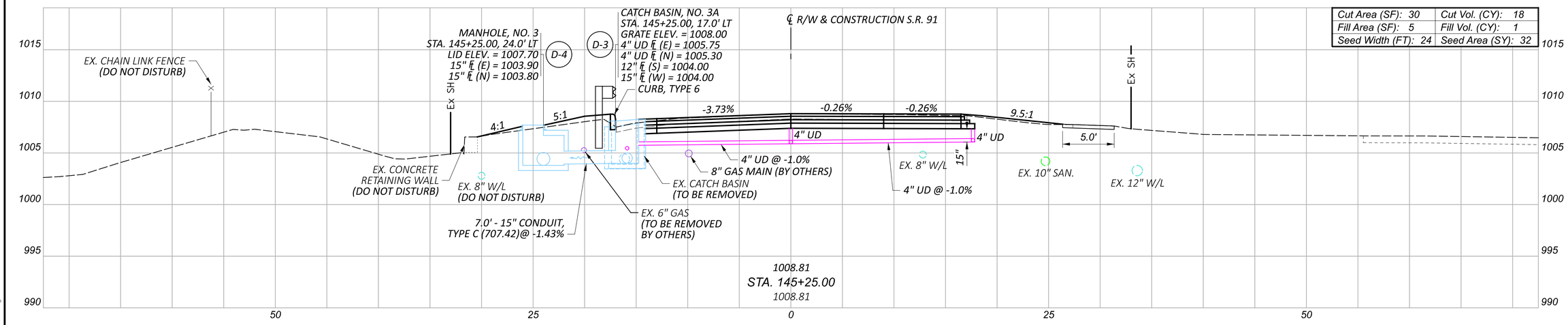
SUM-91-07.89

MODEL: 144+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:30 AM USER: jperchinske
P:\Transportation\WorkSets\1320i_SUM-91-0789\400-Engineering\Roadway\Sheets\1320i_XS00i.dgn

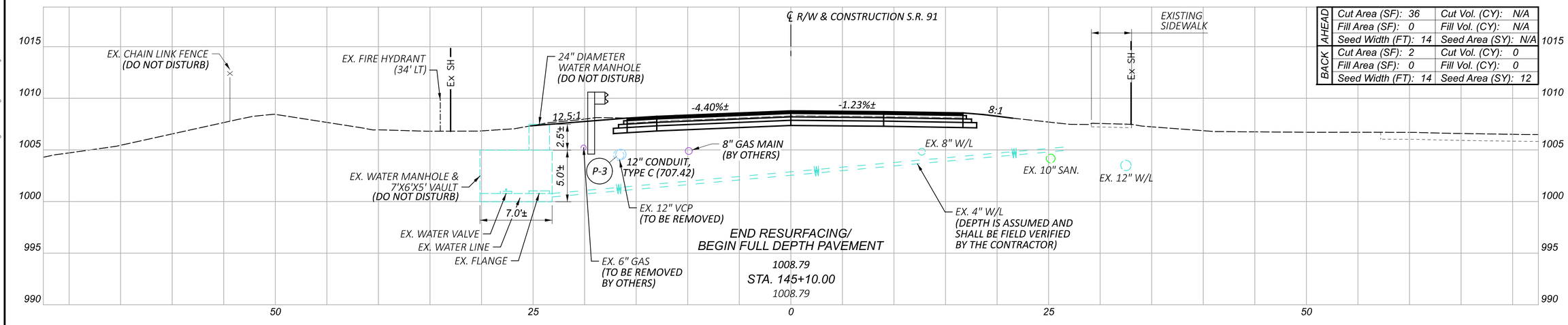
# CROSS SECTIONS
## STA. 145+10.00 TO STA. 145+50.00




| | | | |
|---|---|---|---|
| Cut Area (SF): | 33 | Cut Vol. (CY): | 29 |
| Fill Area (SF): | 5 | Fill Vol. (CY): | 4 |
| Seed Width (FT): | 18 | Seed Area (SY): | 58 |




| | | | |
|---|---|---|---|
| Cut Area (SF): | 30 | Cut Vol. (CY): | 18 |
| Fill Area (SF): | 5 | Fill Vol. (CY): | 1 |
| Seed Width (FT): | 24 | Seed Area (SY): | 32 |




| | | | |
|---|---|---|---|
| AHEAD | Cut Area (SF): 36 | Cut Vol. (CY): | N/A |
| | Fill Area (SF): 0 | Fill Vol. (CY): | N/A |
| | Seed Width (FT): 14 | Seed Area (SY): | N/A |
| BACK | Cut Area (SF): 2 | Cut Vol. (CY): | 0 |
| | Fill Area (SF): 0 | Fill Vol. (CY): | 0 |
| | Seed Width (FT): 14 | Seed Area (SY): | 12 |

| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 102 | 47 | 5 |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SHEET P.19 TOTAL 62

SUM-91-07.89


MODEL: I45+25.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 10/22/2025 TIME: 8:19:30 AM USER: jperchinske
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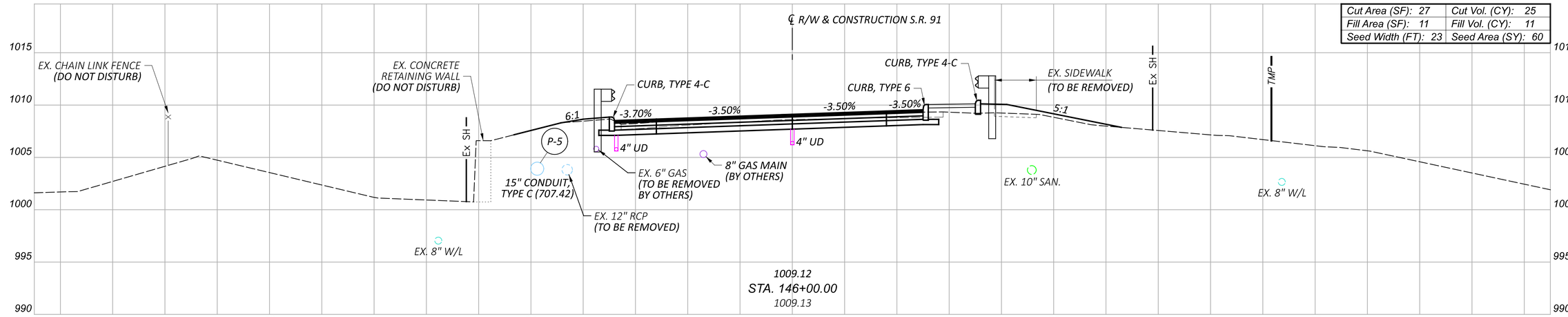
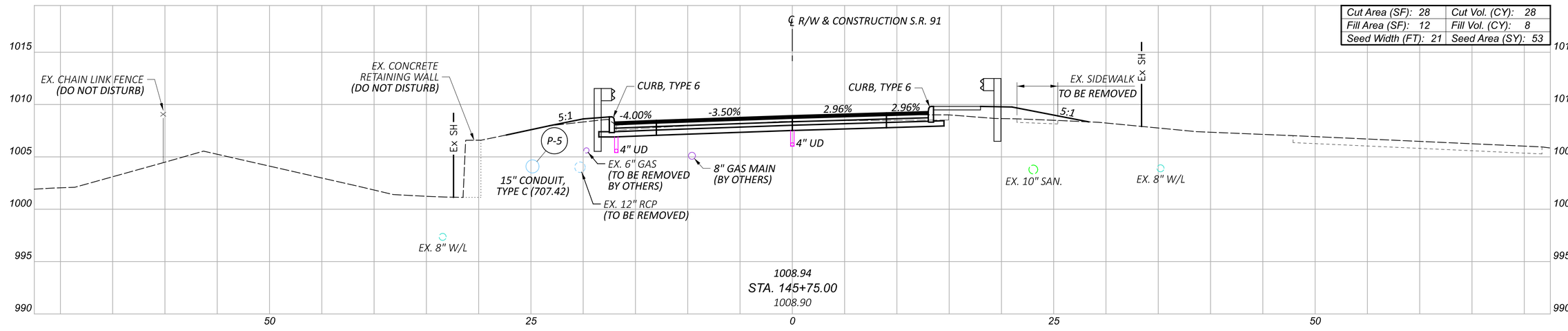



| | |
|---|---|
| Cut Area (SF): 27 | Cut Vol. (CY): 25 |
| Fill Area (SF): 11 | Fill Vol. (CY): 11 |
| Seed Width (FT): 23 | Seed Area (SY): 60 |




| | |
|---|---|
| Cut Area (SF): 28 | Cut Vol. (CY): 28 |
| Fill Area (SF): 12 | Fill Vol. (CY): 8 |
| Seed Width (FT): 21 | Seed Area (SY): 53 |

CROSS SECTIONS
STA. 145+75.00 TO STA. 146+00.00

SUM-91-07.89

MODEL: I45+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:31 AM USER: jperchinske
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REVIEWER
RG 09-22-25

PROJECT ID
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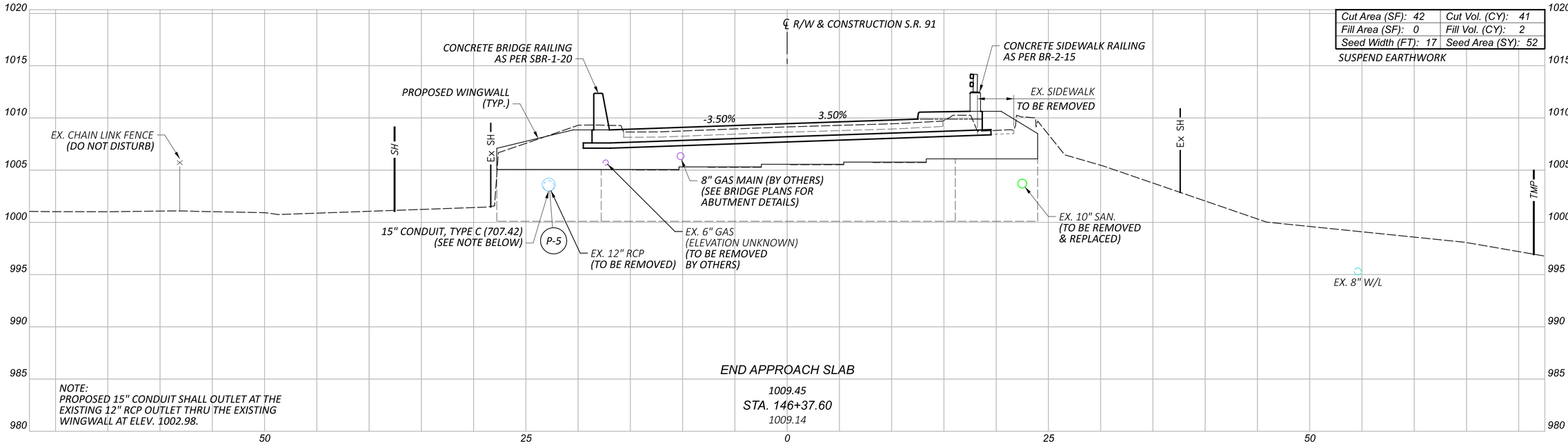
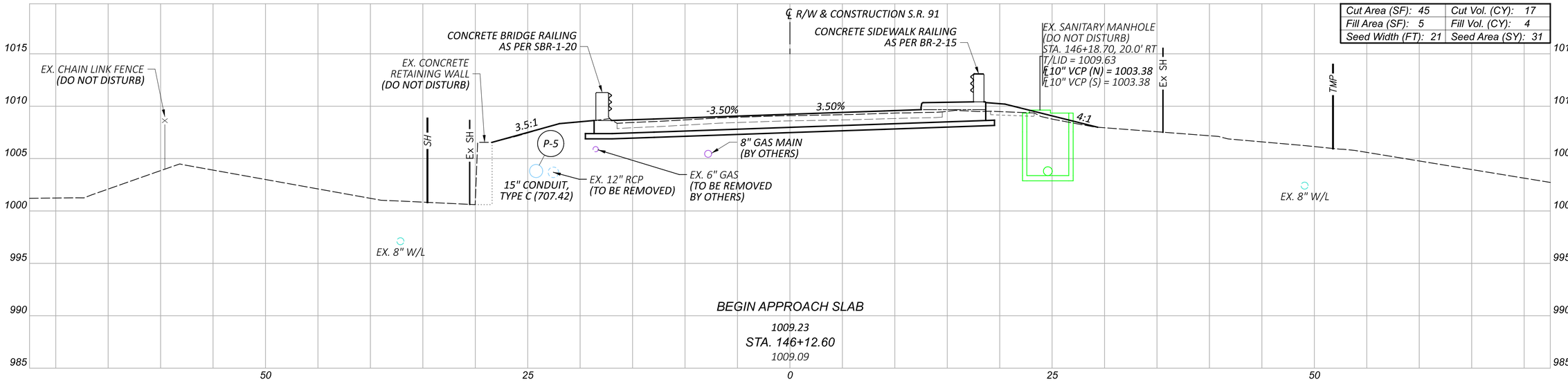
| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 113 | 53 | 19 |

| SHEET | TOTAL |
|---|---|
| P.20 | 62 |




| | |
|---|---|
| Cut Area (SF): 42 | Cut Vol. (CY): 41 |
| Fill Area (SF): 0 | Fill Vol. (CY): 2 |
| Seed Width (FT): 17 | Seed Area (SY): 52 |

SUSPEND EARTHWORK




| | |
|---|---|
| Cut Area (SF): 45 | Cut Vol. (CY): 17 |
| Fill Area (SF): 5 | Fill Vol. (CY): 4 |
| Seed Width (FT): 21 | Seed Area (SY): 31 |

CROSS SECTIONS
STA. 146+12.60 TO STA. 146+37.60

| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 83 | 58 | 6 |

DESIGN AGENCY
BG
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER
JEP

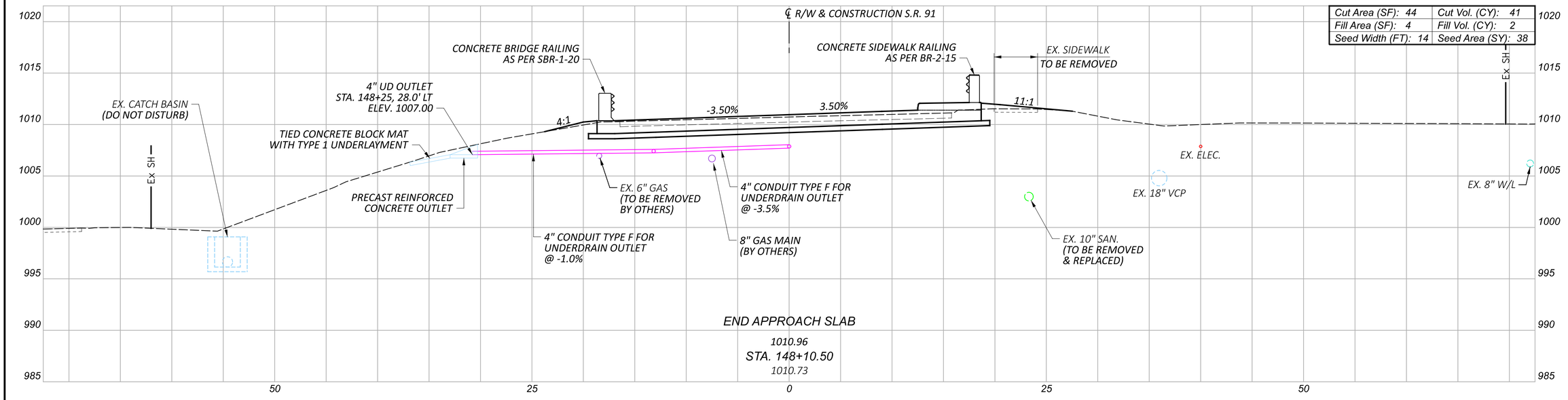
REVIEWER
RG 09-22-25

PROJECT ID
113201

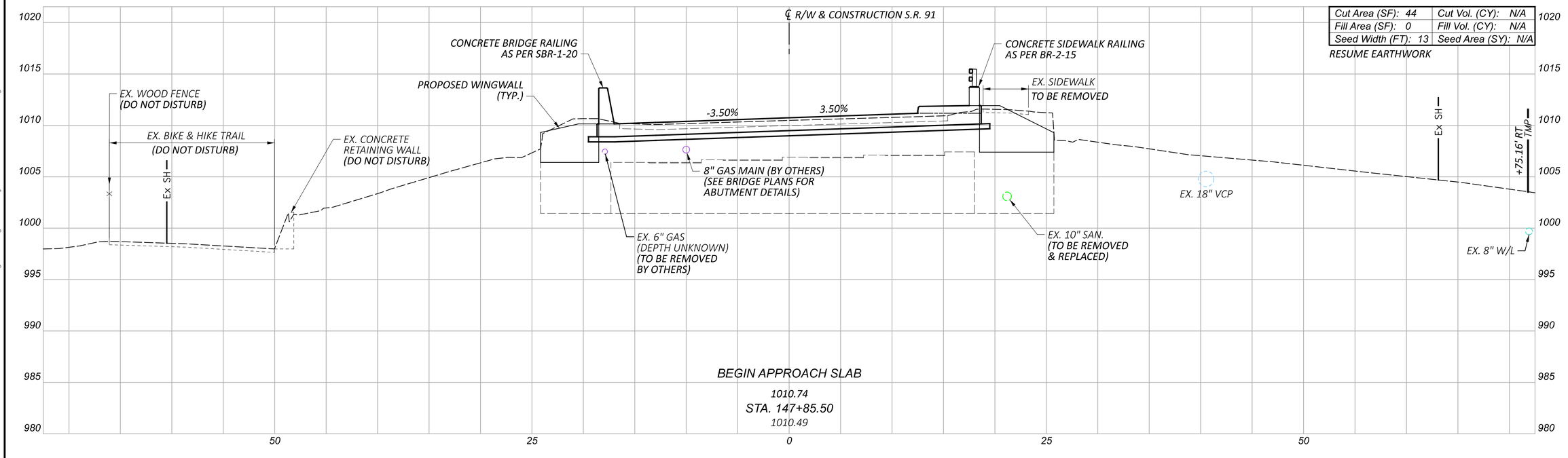
SHEET P.21 TOTAL 62

SUM-91-07.89

MODEL: I46+12.60-I[Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:31 AM USER: jperchinske
P:\Transportation\WorkSets\1320I_SUM-91-0789\400-Engineering\Roadway\Sheets\1320I_XS001.dgn




| | |
|---|---|
| Cut Area (SF): 44 | Cut Vol. (CY): 41 |
| Fill Area (SF): 4 | Fill Vol. (CY): 2 |
| Seed Width (FT): 14 | Seed Area (SY): 38 |




| | |
|---|---|
| Cut Area (SF): 44 | Cut Vol. (CY): N/A |
| Fill Area (SF): 0 | Fill Vol. (CY): N/A |
| Seed Width (FT): 13 | Seed Area (SY): N/A |

RESUME EARTHWORK

# CROSS SECTIONS
## STA. 147+85.50 TO STA. 148+10.50

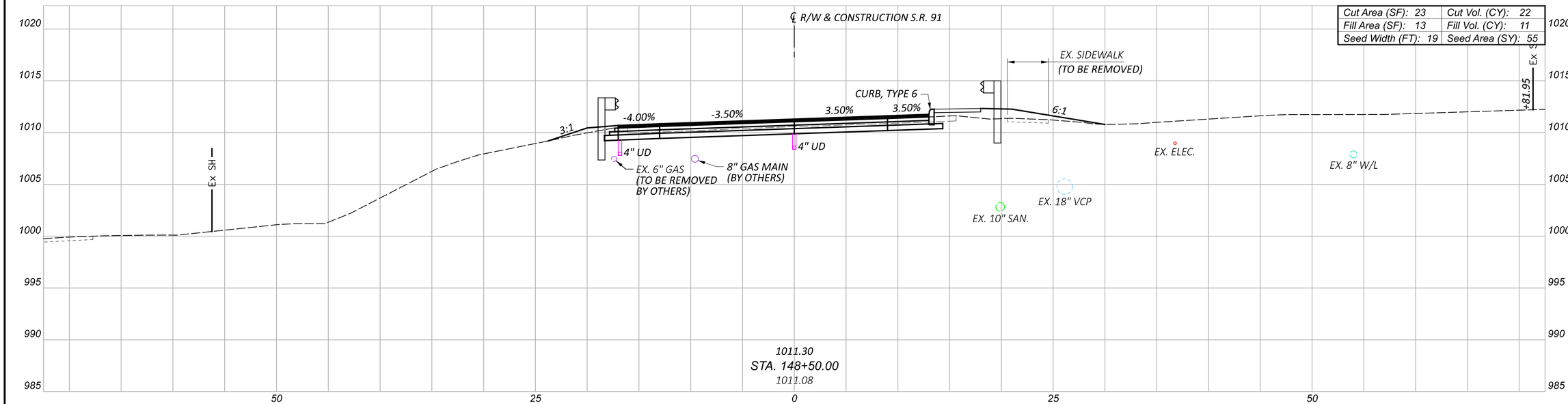
| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 38 | 41 | 2 |

DESIGN AGENCY
BG
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

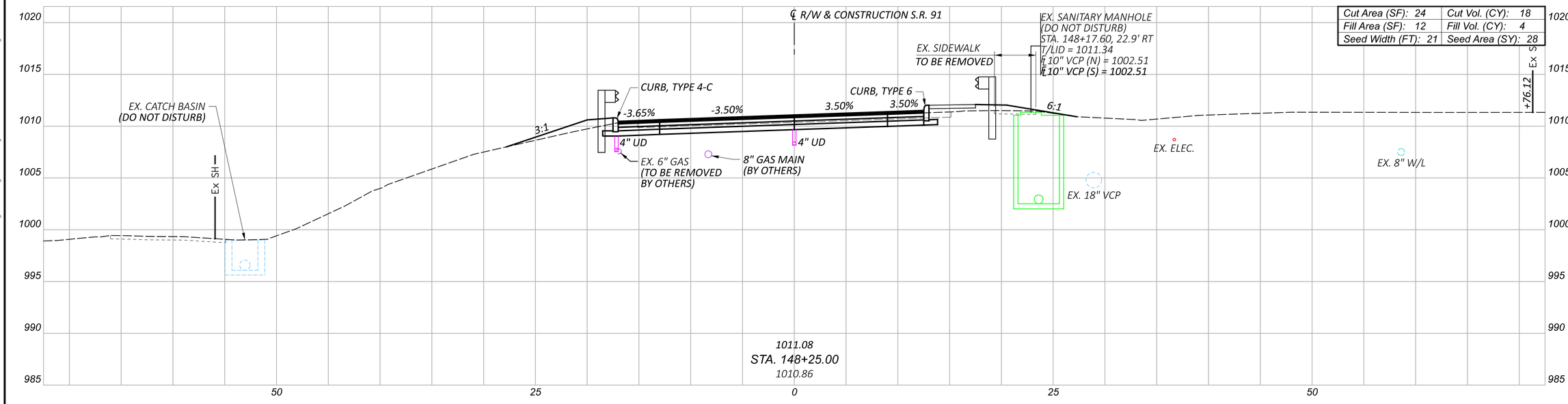
DESIGNER: JEP
REVIEWER: RG 09-22-25
PROJECT ID: 113201
SHEET: P.22
TOTAL: 62

SUM-91-07.89

MODEL: 147+85.50-[Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:31 AM USER: jperchinske
P:\Transportation\WorkSets\1320L_SUM-91-0789\400-Engineering\Roadway\Sheets\1320L_XS001.dgn




| | |
|---|---|
| Cut Area (SF): 23 | Cut Vol. (CY): 22 |
| Fill Area (SF): 13 | Fill Vol. (CY): 11 |
| Seed Width (FT): 19 | Seed Area (SY): 55 |




| | |
|---|---|
| Cut Area (SF): 24 | Cut Vol. (CY): 18 |
| Fill Area (SF): 12 | Fill Vol. (CY): 4 |
| Seed Width (FT): 21 | Seed Area (SY): 28 |

CROSS SECTIONS
STA. 148+25.00 TO STA. 148+50.00

SUM-91-07.89

MODEL: 148+25.00 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:32 AM USER: jperchinske
P:\Transportation\WorkSets\1320L_SUM-91-0789.400-Engineering\Roadway\Sheets\1320L_XS001.dgn

| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 83 | 40 | 15 |

DESIGN AGENCY
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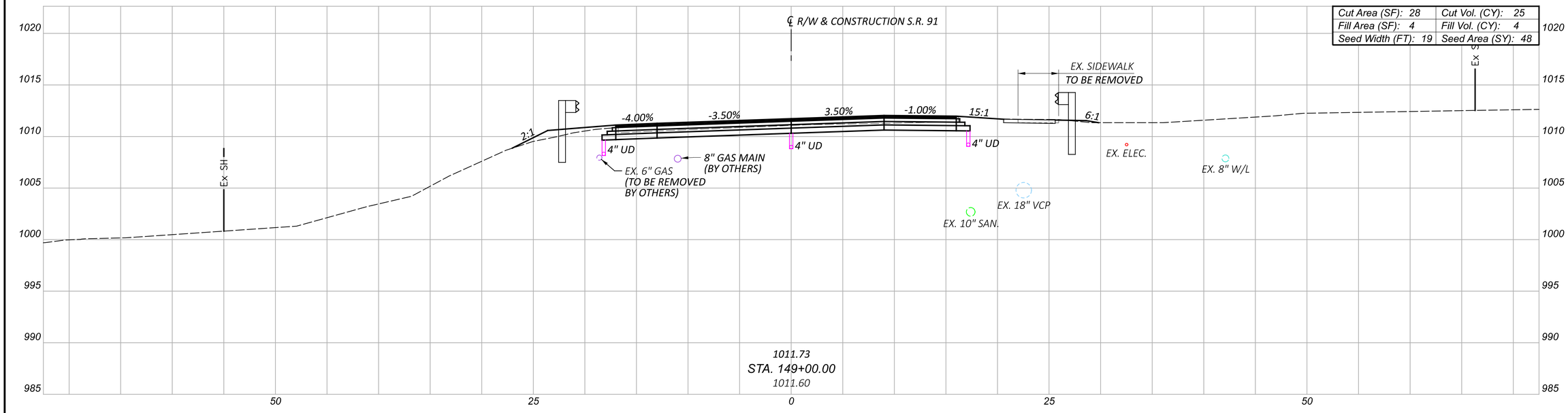
DESIGNER
JEP

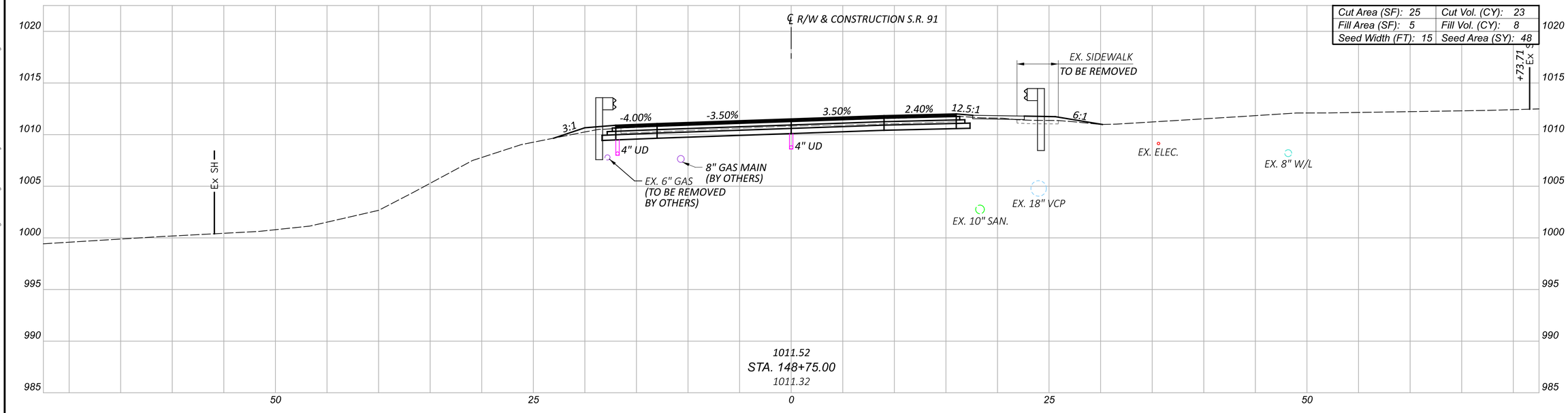
REVIEWER
RG 09-22-25

PROJECT ID
113201

SHEET P.23 TOTAL 62




| | |
|---|---|
| Cut Area (SF): 28 | Cut Vol. (CY): 25 |
| Fill Area (SF): 4 | Fill Vol. (CY): 4 |
| Seed Width (FT): 19 | Seed Area (SY): 48 |




| | |
|---|---|
| Cut Area (SF): 25 | Cut Vol. (CY): 23 |
| Fill Area (SF): 5 | Fill Vol. (CY): 8 |
| Seed Width (FT): 15 | Seed Area (SY): 48 |

CROSS SECTIONS
STA. 148+75.00 TO STA. 149+00.00

SUM-91-07.89

MODEL: 148+75.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 10/22/2025 TIME: 8:19:32 AM USER: jperchinske
P:\Transportation\Worksets\13201_SUM-91-0789\400-Engineering\Roadway\Sheets\13201_XS00.dgn

DESIGN AGENCY
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DUBLIN, OHIO 43016

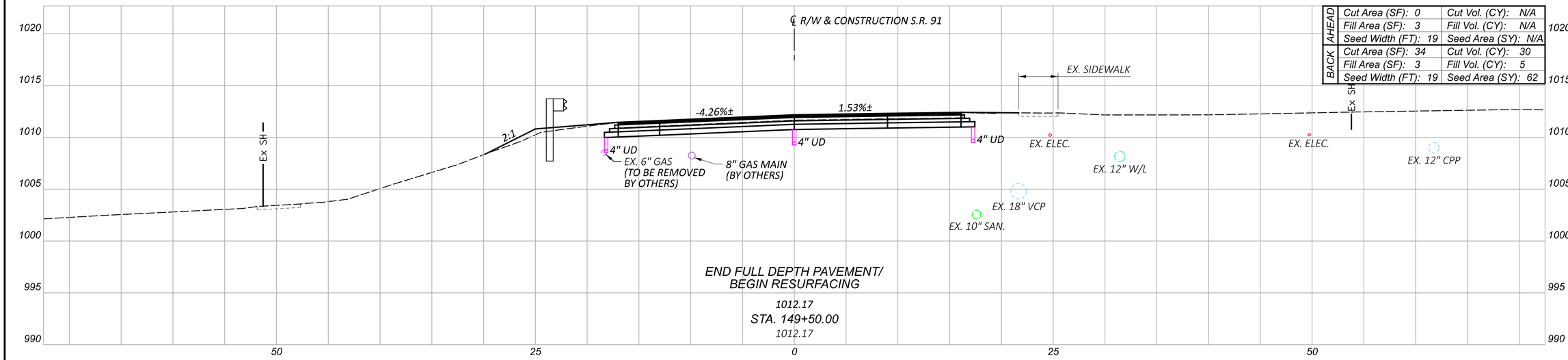
DESIGNER
JEP

REVIEWER
RG 09-22-25

PROJECT ID
113201

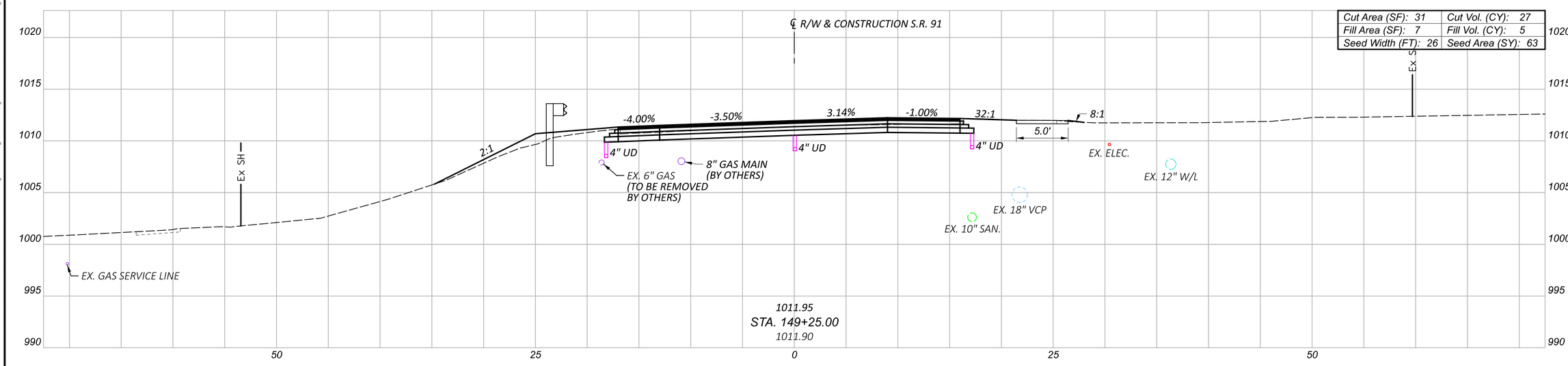
| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 96 | 48 | 12 |

| SHEET | TOTAL |
|---|---|
| P.24 | 62 |




| BACK | | |
|---|---|---|
| | Cut Area (SF): 34 | Cut Vol. (CY): 30 |
| | Fill Area (SF): 3 | Fill Vol. (CY): 5 |
| | Seed Width (FT): 19 | Seed Area (SY): 62 |

| AHEAD | | |
|---|---|---|
| | Cut Area (SF): 0 | Cut Vol. (CY): N/A |
| | Fill Area (SF): 3 | Fill Vol. (CY): N/A |
| | Seed Width (FT): 19 | Seed Area (SY): N/A |




| | | |
|---|---|---|
| Cut Area (SF): 31 | Cut Vol. (CY): 27 | |
| Fill Area (SF): 7 | Fill Vol. (CY): 5 | |
| Seed Width (FT): 26 | Seed Area (SY): 63 | |

CROSS SECTIONS
STA. 149+25.00 TO STA. 149+50.00

| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 125 | 57 | 10 |

DESIGN AGENCY
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DESIGNER
JEP

REVIEWER
RG 09-22-25

PROJECT ID
113201

SHEET P.25 | TOTAL 62

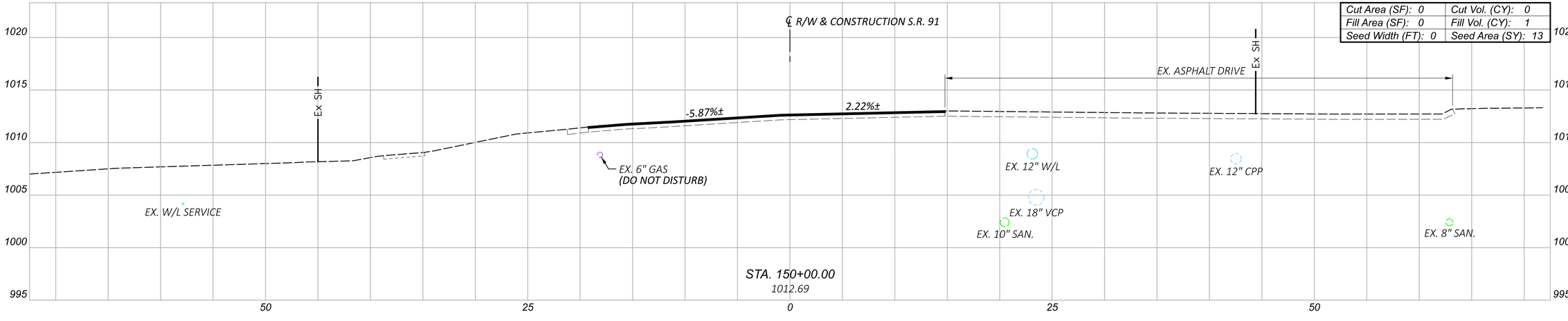
SUM-91-07.89

MODEL: 149+25.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 10/22/2025 TIME: 8:19:32 AM USER: jperchinske
P:\Transportation\WorkSets\1320i_SUM-91-0789.400-Engineering\Roadway\Sheets\1320i_XS001.dgn

| CROSS SECTION TOTALS | | | |
|---|---|---|---|
| SHEET | S/M (SY) | CUT (CY) | FILL (CY) |
| P.17 | 29 | 0 | 0 |
| P.18 | 74 | 12 | 0 |
| P.19 | 102 | 47 | 5 |
| P.20 | 113 | 53 | 19 |
| P.21 | 83 | 58 | 6 |
| P.22 | 38 | 41 | 2 |
| P.23 | 83 | 40 | 15 |
| P.24 | 96 | 48 | 12 |
| P.25 | 125 | 57 | 10 |
| P.26 | 53 | 0 | 3 |
| TOTAL | 796 | 356 | 72 |

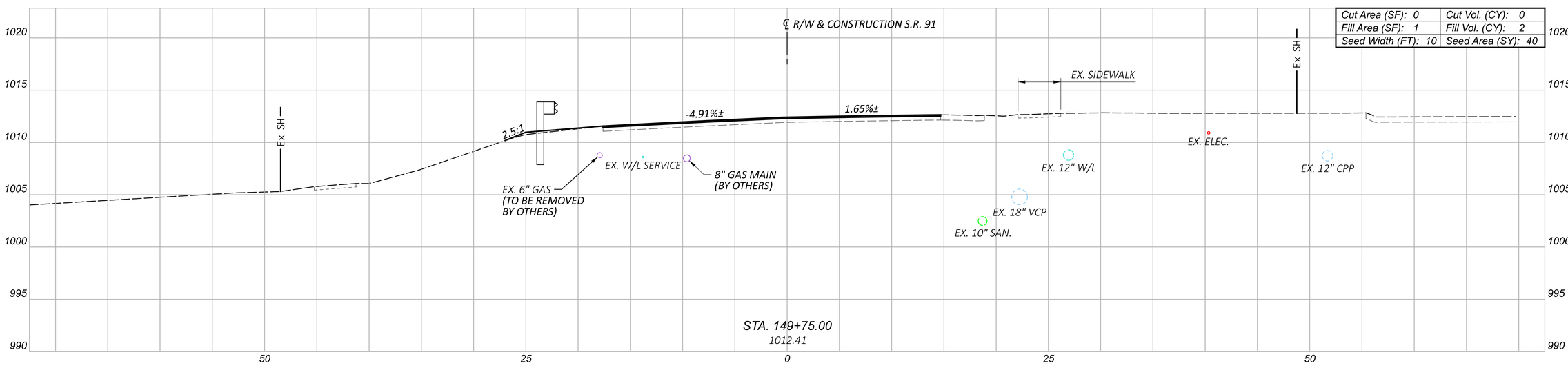
(TOTALS CARRIED TO THE GENERAL SUMMARY)

END RESURFACING
1012.75
STA. 150+05.00
1012.75




| Cut Area (SF): 0 | Cut Vol. (CY): 0 |
|---|---|
| Fill Area (SF): 0 | Fill Vol. (CY): 1 |
| Seed Width (FT): 0 | Seed Area (SY): 13 |

STA. 150+00.00
1012.69




| Cut Area (SF): 0 | Cut Vol. (CY): 0 |
|---|---|
| Fill Area (SF): 1 | Fill Vol. (CY): 2 |
| Seed Width (FT): 10 | Seed Area (SY): 40 |

STA. 149+75.00
1012.41

CROSS SECTIONS
STA. 149+75.00 TO STA. 150+00.00

| Sheet Totals | | |
|---|---|---|
| Seeding | Cut | Fill |
| 53 | 0 | 3 |


DESIGN AGENCY
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DESIGNER
JEP

REVIEWER
RG 09-22-25

PROJECT ID
113201

SHEET P.26 TOTAL 62

SUM-91-07.89


MODEL: I49+75.00 (Sheet) PAPERSIZE: 34x22 (In) DATE: 10/22/2025 TIME: 8:09:33 AM USER: jperchinske
P:\Transportation\WorkSets\I320_SUM-91-0789\400-Engineering\Roadway\Sheets\I320_XS001.dgn

## SUPERELEVATION TABLE

PI STA. 148+56.33 Dc = 6° 00' 36"

| LEFT SIDE | | | | | CENTERLINE CONTROL | | RIGHT SIDE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EDGE ELEVATION | TRANSITION RATE | ELEVATION CORRECTION | CROSS SLOPE | WIDTH | S.R. 91 STATION | PROFILE GRADE | WIDTH | CROSS SLOPE | ELEVATION CORRECTION | TRANSITION RATE | EDGE ELEVATION | REMARKS |
| 1007.71 | 172:1 | -0.57 | -0.0440 | 13.00 | 145+10.00 | 1008.79 | 9.00 | -0.0123 | -0.11 | 172:1 | 1008.68 | MATCH EX. |
| 1008.71 | | -0.48 | -0.0373 | 13.00 | 145+25.00 | 1008.81 | 9.00 | -0.0026 | -0.02 | | 1008.79 | |
| 1008.71 | | -0.46 | -0.0355 | 13.00 | 145+29.09 | 1008.81 | 9.00 | 0.0000 | 0.00 | | 1008.81 | |
| 1008.71 | | -0.46 | -0.0350 | 13.00 | 145+30.17 | 1008.81 | 9.00 | 0.0007 | 0.01 | | 1008.82 | |
| 1008.38 | | -0.46 | -0.0350 | 13.00 | 145+48.11 | 1008.83 | 9.00 | 0.0123 | 0.11 | | 1008.94 | P.C. |
| 1008.39 | | -0.46 | -0.0350 | 13.00 | 145+50.00 | 1008.84 | 9.00 | 0.0135 | 0.12 | | 1008.96 | |
| 1008.49 | | -0.46 | -0.0350 | 13.00 | 145+75.00 | 1008.94 | 9.00 | 0.0296 | 0.27 | | 1009.21 | |
| 1008.54 | | -0.46 | -0.0350 | 13.00 | 145+83.40 | 1008.99 | 9.00 | 0.0350 | 0.32 | | 1009.31 | F.S. |
| 1008.67 | | -0.46 | -0.0350 | 13.00 | 146+00.00 | 1009.12 | 9.00 | 0.0350 | 0.32 | | 1009.44 | |
| 1008.89 | | -0.46 | -0.0350 | 13.00 | 146+25.00 | 1009.34 | 9.00 | 0.0350 | 0.32 | | 1009.66 | |
| 1009.11 | | -0.46 | -0.0350 | 13.00 | 146+50.00 | 1009.56 | 9.00 | 0.0350 | 0.32 | | 1009.88 | |
| 1009.33 | | -0.46 | -0.0350 | 13.00 | 146+75.00 | 1009.78 | 9.00 | 0.0350 | 0.32 | | 1010.10 | |
| 1009.54 | | -0.46 | -0.0350 | 13.00 | 147+00.00 | 1009.99 | 9.00 | 0.0350 | 0.32 | | 1010.31 | |
| 1009.76 | | -0.46 | -0.0350 | 13.00 | 147+25.00 | 1010.21 | 9.00 | 0.0350 | 0.32 | | 1010.53 | |
| 1009.98 | | -0.46 | -0.0350 | 13.00 | 147+50.00 | 1010.43 | 9.00 | 0.0350 | 0.32 | | 1010.75 | |
| 1010.20 | | -0.46 | -0.0350 | 13.00 | 147+75.00 | 1010.65 | 9.00 | 0.0350 | 0.32 | | 1010.97 | |
| 1010.41 | | -0.46 | -0.0350 | 13.00 | 148+00.00 | 1010.86 | 9.00 | 0.0350 | 0.32 | | 1011.18 | |
| 1010.63 | | -0.46 | -0.0350 | 13.00 | 148+25.00 | 1011.08 | 9.00 | 0.0350 | 0.32 | | 1011.40 | |
| 1010.85 | | -0.46 | -0.0350 | 13.00 | 148+50.00 | 1011.30 | 9.00 | 0.0350 | 0.32 | | 1011.62 | |
| 1011.07 | | -0.46 | -0.0350 | 13.00 | 148+75.00 | 1011.52 | 9.00 | 0.0350 | 0.32 | | 1011.84 | |
| 1011.28 | | -0.46 | -0.0350 | 13.00 | 149+00.00 | 1011.73 | 9.00 | 0.0350 | 0.32 | | 1012.05 | |
| 1011.45 | | -0.46 | -0.0350 | 13.00 | 149+19.43 | 1011.90 | 9.00 | 0.0350 | 0.32 | 172:1 | 1012.22 | |
| 1011.50 | | -0.46 | -0.0350 | 13.00 | 149+25.00 | 1011.95 | 9.00 | 0.0314 | 0.28 | | 1012.23 | |
| 1011.57 | | -0.46 | -0.0350 | 13.00 | 149+32.97 | 1012.02 | 9.00 | 0.0263 | 0.24 | | 1012.26 | |
| 1011.71 | 172:1 | -0.55 | -0.0426 | 13.00 | 149+50.00 | 1012.17 | 9.00 | 0.0153 | 0.14 | | 1012.35 | MATCH EX. |

*ACTUAL DESIGN = eMAX 0.035 (MATCHES EXISTING)*
*ACTUAL DESIGN SPEED = 40 MPH*

SUPERELEVATION TABLE

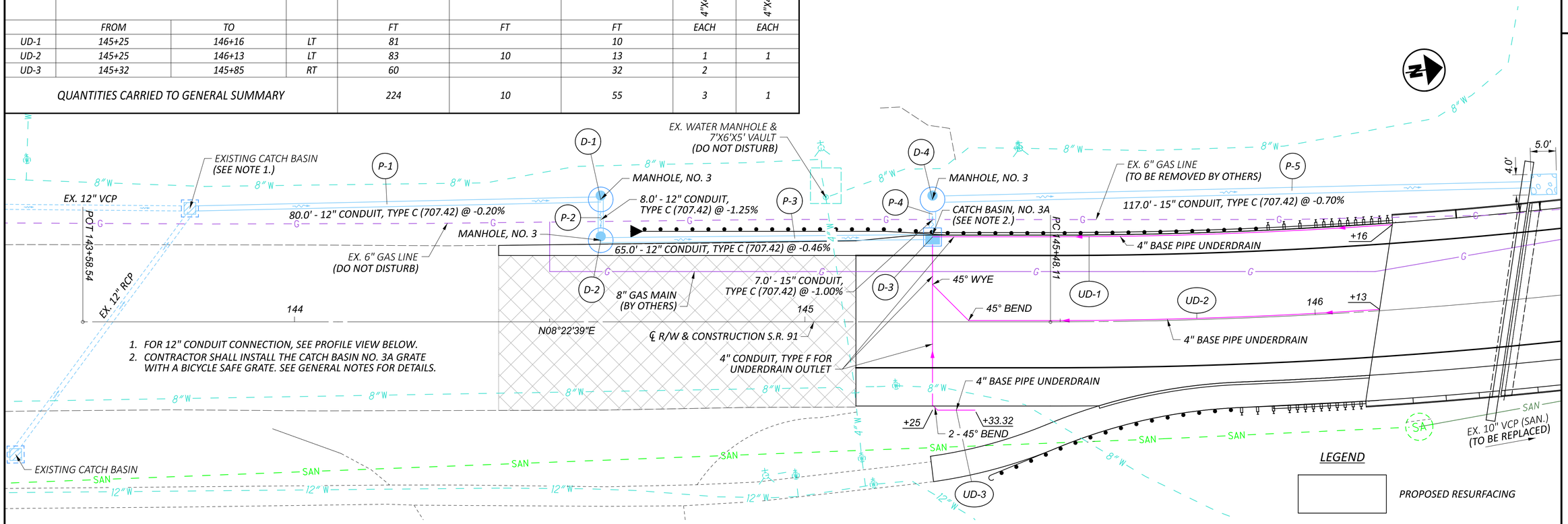
DESIGN AGENCY
BG
www.bgengroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER RG
REVIEWER GTB 09-22-25
PROJECT ID 113201
SHEET P.27 TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:33 AM USER: jperchinske
P:\Transportation\WorkSets\113201_SUM-91-0789\400-Engineering\Roadway\Sheets\113201_GE001.dgn

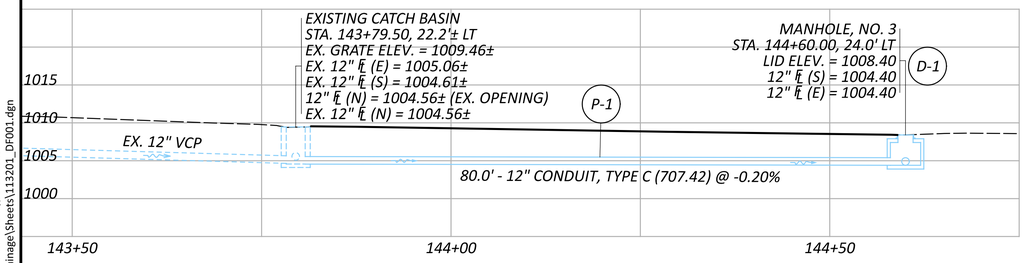
| REF. | STATION | | SIDE | 605 | 611 | | BENDS AND BRANCHES FOR INFORMATION ONLY | |
|---|---|---|---|---|---|---|---|---|
| | | | | 4" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC | 4" CONDUIT, TYPE F | 4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET | 4"X45° BEND | 4"X45° WYE |
| | FROM | TO | | FT | FT | FT | EACH | EACH |
| UD-1 | 145+25 | 146+16 | LT | 81 | | 10 | | |
| UD-2 | 145+25 | 146+13 | LT | 83 | 10 | 13 | 1 | 1 |
| UD-3 | 145+32 | 145+85 | RT | 60 | | 32 | 2 | |
| QUANTITIES CARRIED TO GENERAL SUMMARY | | | | 224 | 10 | 55 | 3 | 1 |

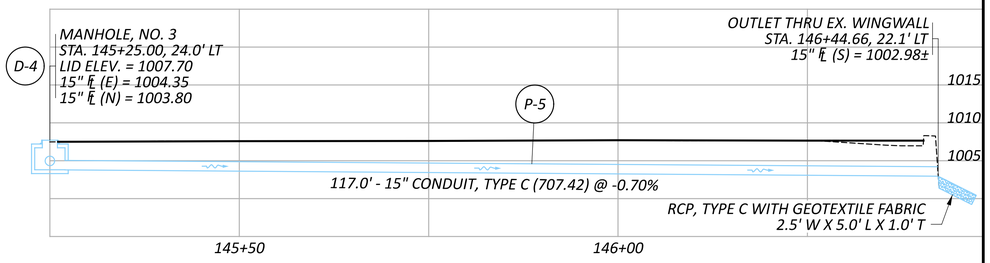


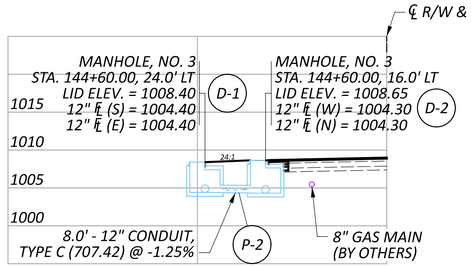

1. FOR 12" CONDUIT CONNECTION, SEE PROFILE VIEW BELOW.
2. CONTRACTOR SHALL INSTALL THE CATCH BASIN NO. 3A GRATE WITH A BICYCLE SAFE GRATE. SEE GENERAL NOTES FOR DETAILS.

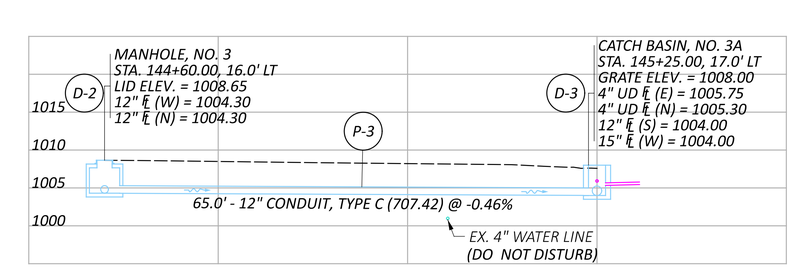
**LEGEND**

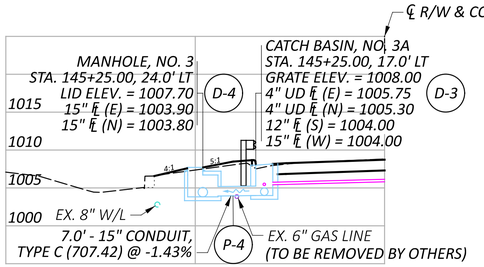
PROPOSED RESURFACING




HORIZONTAL SCALE IN FEET
0 5 10 20

# STORM SEWER AND UNDERDRAIN DETAILS
## STA. 143+79.50 TO STA. 146+44.66, STA. 145+25.00 (SOUTH OF BRIDGE)

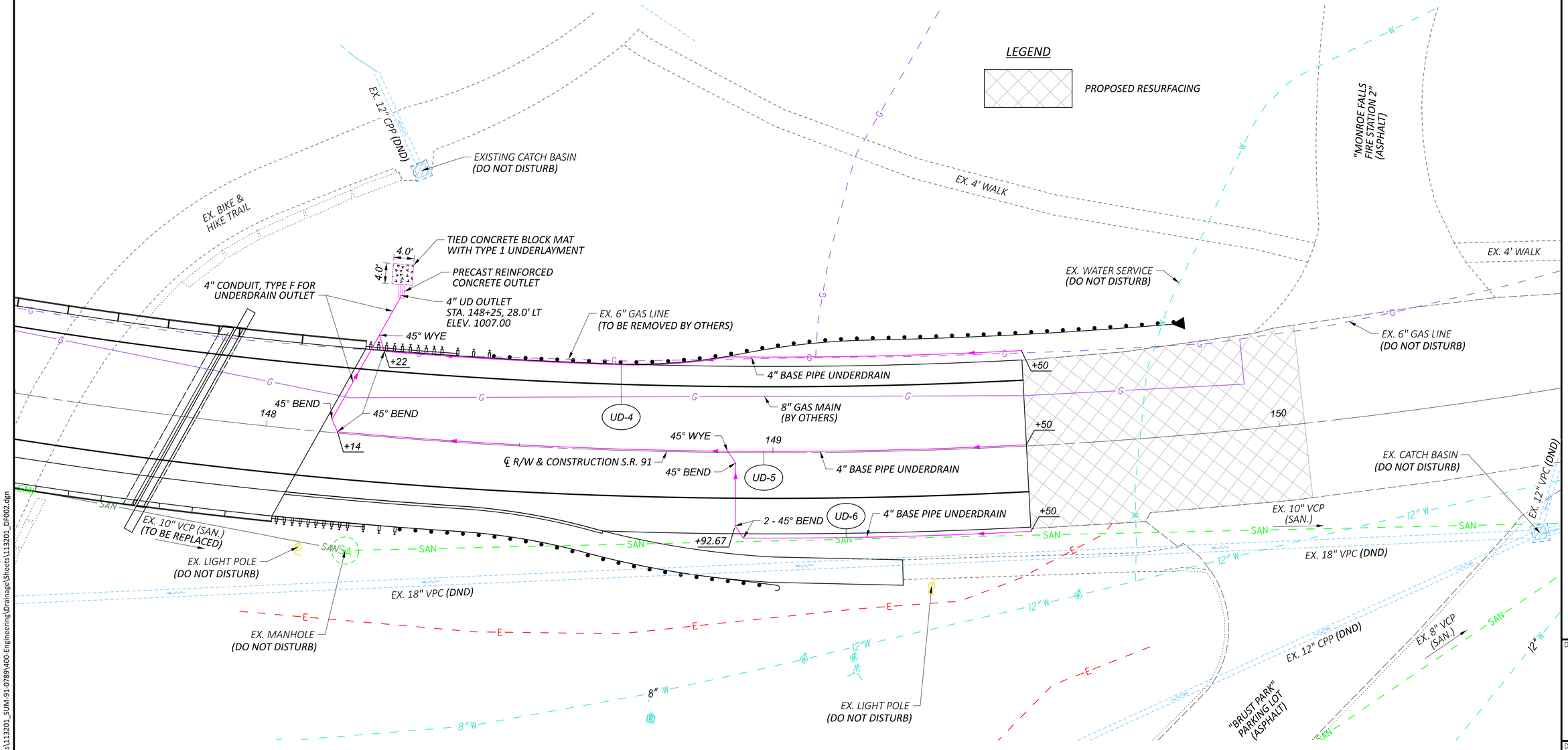
DESIGN AGENCY
BG
www.bgeggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP
REVIEWER RG 09-22-25
PROJECT ID 113201
SHEET P.28 TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:34 AM USER: jperchinske
P:\Transportation\WorkSets\113201_SUM-91-0789\400-Engineering\Drainage\Sheets\113201_DF001.dgn

| REF. | STATION | | SIDE | 601 | 605 | 611 | | | 620 | BENDS AND BRANCHES FOR INFORMATION ONLY | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT | 4" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC | 4" CONDUIT, TYPE F | 4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET | PRECAST REINFORCED CONCRETE OUTLET | DELINEATOR POST GROUND MOUNTED, AS PER PLAN | 4"X45° BEND | 4"X45° WYE |
| | FROM | TO | | SY | FT | FT | FT | EACH | EACH | EACH | EACH |
| UD-4 | 148+22 | 149+50 | LT | | 126 | 5 | | | | 1 | 1 |
| UD-5 | 148+14 | 149+50 | LT | 2 | 136 | 5 | 28 | 1 | 1 | 2 | |
| UD-6 | 148+93 | 149+50 | RT | | 57 | 17 | | | | 3 | 1 |
| QUANTITIES CARRIED TO GENERAL SUMMARY | | | | 2 | 319 | 27 | 28 | 1 | 1 | 6 | 2 |




HORIZONTAL SCALE IN FEET
0 5 10 20

# UNDERDRAIN DETAILS (NORTH OF BRIDGE)

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:35 AM USER: jperchinske
P:\Transportation\WorkSets\113201_SUM-91-0789\400-Engineering\Drainage\Sheets\113201_DF002.dgn


DESIGN AGENCY
BG
www.bgrpgroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016


DESIGNER JEP
REVIEWER RG 09-22-25
PROJECT ID 113201
SHEET P.29 TOTAL 62

L.O.N. PROVIDED = 137.50'

L.O.N. REQUIRED = 25.0'

SH

MANHOLE, NO. 3
STA. 145+25, 24.0' LT

EX. RETAINING WALL
(DO NOT DISTURB)

Ex SH

BEGIN GUARDRAIL, TYPE MGS TAPER
145+15.85,
17.75' LT

BEGIN CURB, TYPE 6
145+21.72,
17.0' LT

END GUARDRAIL, TYPE MGS TAPER
145+38.29,
17.00' LT

CONST. LIMITS

15" CONDUIT, TYPE C

BEGIN MGS BTA-1
145+91.57
17.0' LT

END CURB, TYPE 6
BEGIN CURB, TYPE 4-C
145+97.95
17.0' LT

FIRST POST
146+15.45,
17.0' LT

END CURB, TYPE 4-C
146+16.41
17.0' LT

AA, MGS TYPE E

BEGIN AA, MGS TYPE E
STA. 144+65.82, 17.75' LT

15" CONDUIT, TYPE C

CONTRACTOR SHALL INSTALL GUARDRAIL POSTS TO AVOID CONFLICT WITH PROPOSED CATCH BASIN, NO. 3A.

12" CONDUIT, TYPE C

145+15.82
17.75' LT

CATCH BASIN, NO. 3A
STA. 145+25, 17.0' LT

146+14.32
17.0' LT

END MGS BTA-1
146+17.02
17.0' LT

4.0'

4.0'

25.0'

TRANSITION SHLDR. CROSS SLOPE FROM 0.040 TO 0.035

15.0'

TRANSITION SHLDR. CROSS SLOPE FROM -0.043± TO -0.04

+25

+10 4.40%±

+25 3.73%

+30.17 3.50%

PC 145+48.11 3.50% +50

+75 3.50%

+00 3.50%

+25 3.50%

END APPROACH SLAB
STA. 146+37.60

13.0'

13.0'

145+10.00

145+57.43

146

℄ R/W & CONSTRUCTION S.R. 91

CURVE 1

BEGIN APPROACH SLAB
STA. 146+12.60

+10 1.23%

+25 0.26%

+29.09 0.00%

+50 1.35%

+75 2.96%

+83.40 3.50%

9.0'

9.0'

+00 3.50%

+25 3.50%

145+75.00
12.6' RT
EL. 1009.31

146+00.00
12.5' RT
EL. 1009.56

146+04.95
12.5' RT

+00 3.50%

Δ

+10 1.23%

+25 0.26%

+29.09 0.00%

+50 1.35%

+57.43 1.83%

7.5'

TAPER CURB HEIGHT
0" TO 6" IN 15'

+75 2.96%

145+84.86
12.5' RT
EL. 1009.44

3.5'

5.0'

+75 0.00%

+00 1.60%

1.60%

END CURB, TYPE 6
146+09.88
12.5' RT

BEGIN CURB,TYPE 6
145+57.43, 16.5' RT
EL. 1009.16

145+47.18
20.2' RT

R = 110.0'

R = 105.0'

37.5'

BEGIN MGS BTA-1
145+84.86
17.5' RT

BEGIN CURB, TYPE 4-C
145+90.91,
17.5' RT

FIRST POST
146+07.88,
17.5' RT

END CURB, TYPE 4-C
146+08.82,
17.5' RT

SA

END MGS BTA-1
146+09.41
17.5' RT

145+24.60,
26.3' RT
EL. 1007.78±

1.1'

5.0'

3.08%

R = 93.5'

R = 98.5'

1.56%

5.0'

AA, MGS TYPE T

145+49.08
24.8' RT

EX. SIDEWALK

CONST. LIMITS

Δ = TAPER CURB HEIGHT
6" TO 8" IN 5.0'

145+25.21,
31.3' RT
EL. 1007.61±

145+37.55
29.6' RT

L.O.N. REQUIRED = 37.50'

L.O.N. PROVIDED = 62.50'

LEGEND

PROPOSED RESURFACING

CURVE 1 DATA
P.I. = STA. 148+56.33
Δ = 35°49'56" LT
Dc = 06°00'36"
R = 953.35'
T = 308.22'
L = 596.21'
E = 48.59'
eMAX. = 0.035

HORIZONTAL SCALE IN FEET
0 2.5 5 10

# MISCELLANEOUS DETAILS SOUTH OF BRIDGE

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:37 AM USER: jperchinske
P:\Transportation\WorkSets\1320I_SUM-91-0789.400-Engineering\Roadway\Sheets\1320I_GM001.dgn

DESIGN AGENCY
BG
www.bgengroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP

REVIEWER RG 09-22-25

PROJECT ID 113201

SHEET P.30 TOTAL 62

HORIZONTAL SCALE IN FEET
0 2.5 5 10

L.O.N. PROVIDED = 150.0'
L.O.N. REQUIRED = 50.0'
EX. 2
BEGIN MGS BTA-1 148+17.61 17.0' LT
FIRST POST 148+19.14, 17.0' LT
END CURB, TYPE 4-C 148+36.69, 17.0' LT
END MGS BTA-1 148+43.06 17.0' LT
CONST. LIMITS
25.0'
25.0'
12.5'
AA, MGS TYPE E
END AA, MGS TYPE E 149+83.15, 22.00' LT
149+19.18 22.0' LT
149+31.97 22.0' LT
148+93.81 19.5' LT
R = 143.5'
R = 110.0'
148+68.50 17.0' LT
BEGIN CURB, TYPE 4-C 148+18.20, 17.0' LT
148+20.44 17.0' LT
25.0'
TRANSITION SHLDR. CROSS SLOPE FROM -0.035 TO -0.040
4.0'
4.0'
+25 25.0'
TRANSITION SHLDR. CROSS SLOPE FROM -0.04 TO -0.0426±
END APPROACH SLAB STA. 148+10.50
148
149
℄ R/W & CONSTRUCTION S.R. 91
BEGIN CURB, TYPE 6 148+05.03, 12.5' RT
BEGIN CURB, TYPE 4-C 148+02.88, 17.5' RT
148+09.96 12.5' RT
148+39.11
148+67.01
9.0'
9.0'
33.0'
TRANSITION SHLDR. CROSS SLOPE FROM 0.035 TO -0.01
25.0'
TRANSITION SHLDR. CROSS SLOPE FROM -0.01 TO 0.0153±
148+39.11 12.5' RT EL. 1011.64
148+50.00 13.0' RT EL. 1011.75
R = 130.0'
TPR.CURB HEIGHT 6" TO 0" IN 15'
7.0'
3.5'
148+64.46 15.4' RT EL. 1011.96
R = 125.0'
12.5'
25.0'
R = 175.0'
149+00.00 20.6' RT EL. 1011.68
R = 180.0'
25.0'
149+25.00 21.5' RT EL. 1011.98±
149+25.00 26.4' RT EL. 1011.98±
EX. SIDEWALK
5.0'
1:1
BEGIN MGS BTA-1 148+02.29 17.8' RT
FIRST POST 148+03.82, 17.5' RT
END CURB, TYPE 4-C 148+20.70, 17.5' RT
END MGS BTA-1 148+26.83 17.5' RT
148+39.11 17.5' RT
148+63.43 20.3' RT
END CURB, TYPE 6 148+67.01, 16.0' RT EL. 1012.01
AA, MGS TYPE T
148+87.49 24.5' RT
148+99.58 26.0' RT
L.O.N. REQUIRED = 12.5'
CONST. LIMITS
L.O.N. PROVIDED = 87.5'
3.50% +25
3.50% +50
3.50% +75
3.50% +00
3.50% +25
3.50% +32.97
3.50% +19.43
3.14% +25
2.40% +75
0.00% +92.67
1.00% +00
1.00% +00
1.56% +25
0.00% +50
1.60% +75
1.60% +00
0.00%

Δ = TAPER CURB HEIGHT
6" TO 8" IN 5.0'

CURVE 1 DATA
P.I. = STA. 148+56.33
Δ = 35°49'56" LT
Dc = 06°00'36"
R = 953.35'
T = 308.22'
L = 596.21'
E = 48.59'
eMAX. = 0.035

MISCELLANEOUS DETAILS
NORTH OF BRIDGE

DESIGN AGENCY
BG
www.bgeinggroup.com
5960 MILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP
REVIEWER RG 09-22-25
PROJECT ID 113201
SHEET P.31 TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:38 AM USER: jperchinske
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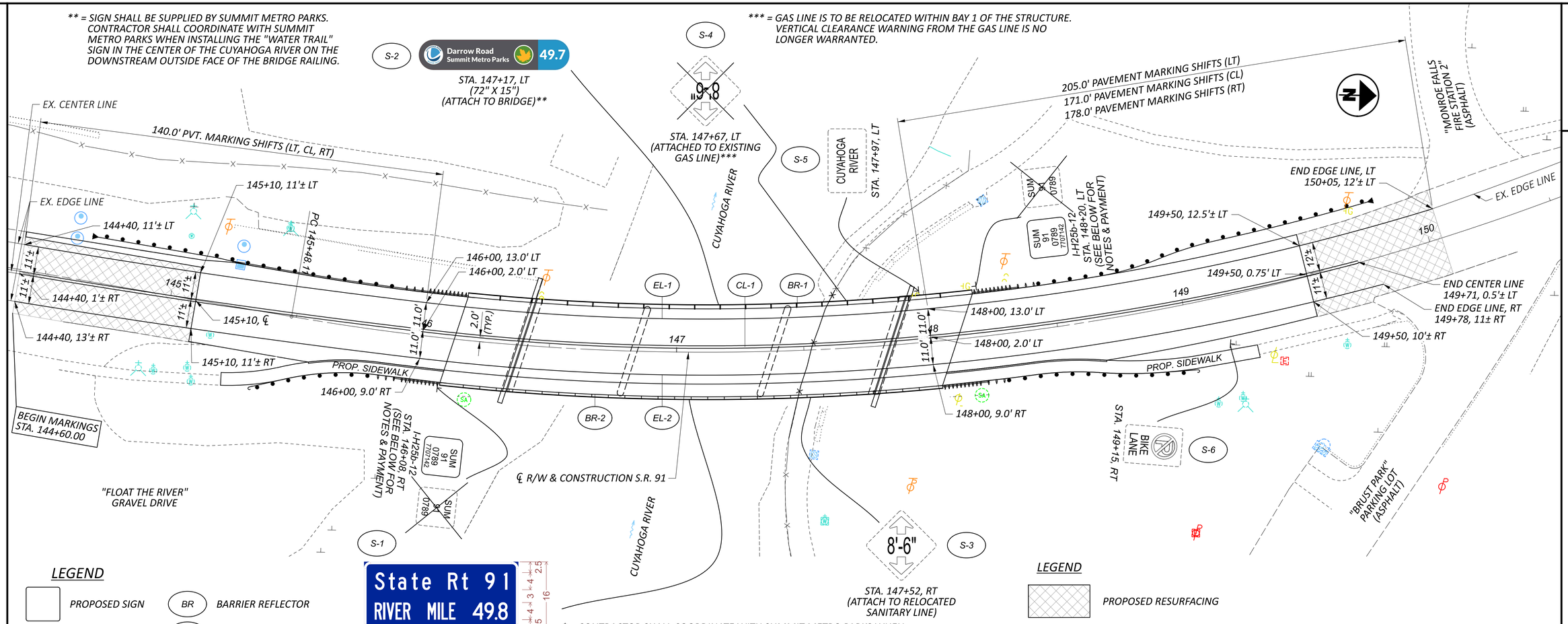


## STRUCTURE IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25b) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES: "SUM 91 0789".

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH AND CARRIED TO THE TRAFFIC CONTROL SUBSUMMARY ON THIS SHEET:

| | |
|---|---|
| ITEM 630 – SIGN, FLAT SHEET, 730.20 | 2.0 SF |
| ITEM 630 – GROUND MOUNTED SUPPORT, NO. 2 POST | 15.0 FT |
| ITEM 630 – REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL | 2 EACH |
| ITEM 630 – REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL | 2 EACH |

| SHEET NO. | REFERENCE NO. | STATION TO STATION | | | SIDE | CODE | SIZE (INCHES) | 626 | | 630 | | | | | | 646 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL) | BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL) | GROUND MOUNTED SUPPORT, NO. 2 POST | SIGN, FLAT SHEET | SIGN ERECTED, FLAT SHEET | REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL | REMOVAL OF GROUND MOUNTED SIGN AND REERECTION | REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL | EDGE LINE, 6" | CENTER LINE (DOUBLE, SOLID) |
| | | | | | | | | EACH | EACH | FEET | SF | SF | EACH | EACH | EACH | MILE | MILE |
| P.32 | BR-1 | 144+66 | - | 149+84 | LT | | | 4 | 6 | | | | | | | | |
| P.32 | BR-2 | 145+37 | - | 149+00 | RT | | | 4 | 4 | | | | | | | | |
| P.32 | CL-1 | 144+40 | - | 149+71 | CL | | | | | | | | | | | | 0.10 |
| P.32 | EL-1 | 144+40 | - | 150+05 | LT | | | | | | | | | | | 0.11 | |
| P.32 | EL-2 | 144+40 | - | 149+78 | RT | | | | | | | | | | | 0.10 | |
| P.32 | S-1 | 147+05 | | | RT | CUSTOM | (36X16) | | | | 4.0 | | | | | | |
| P.32 | S-2 | 147+17 | | | LT | CUSTOM | (72"X15") | | | | | 7.5 | | | | | |
| P.32 | S-3 | 147+52 | | | RT | | | | | | | | | 1 | | | |
| P.32 | S-4 | 147+67 | | | LT | | | | | | | | 1 | | | | |
| P.32 | S-5 | 147+97 | | | LT | | | | | 12.5 | | | | 1 | 1 | | |
| P.32 | S-6 | 149+15 | | | RT | | | | | 12.5 | | | | 1 | 1 | | |
| TOTALS CARRIED TO GENERAL SUMMARY | | | | | | | | 8 | 10 | 25.0 | 4.0 | 7.5 | 1 | 3 | 2 | 0.21 | 0.10 |

TRAFFIC CONTROL PLANS

DESIGN AGENCY
BG
www.bgengroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP

REVIEWER RG 09-22-25

PROJECT ID 113201

SHEET P.32 TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:40 AM USER: jperchinske
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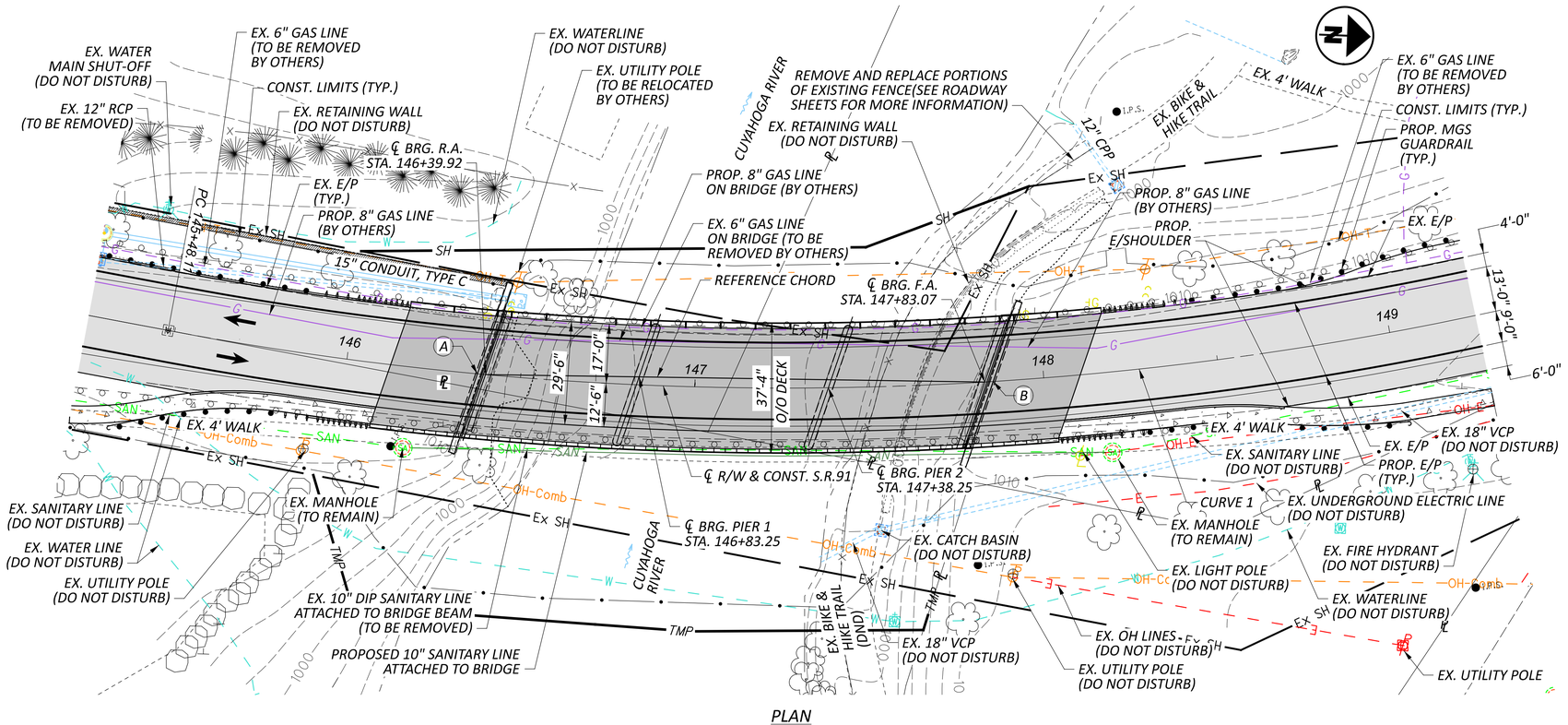
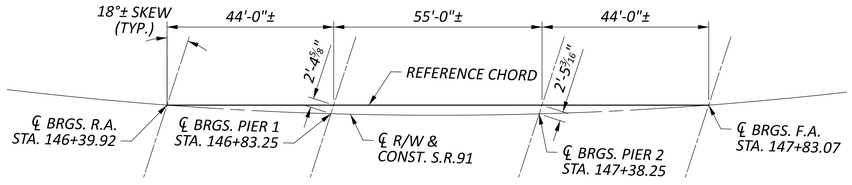



PLAN

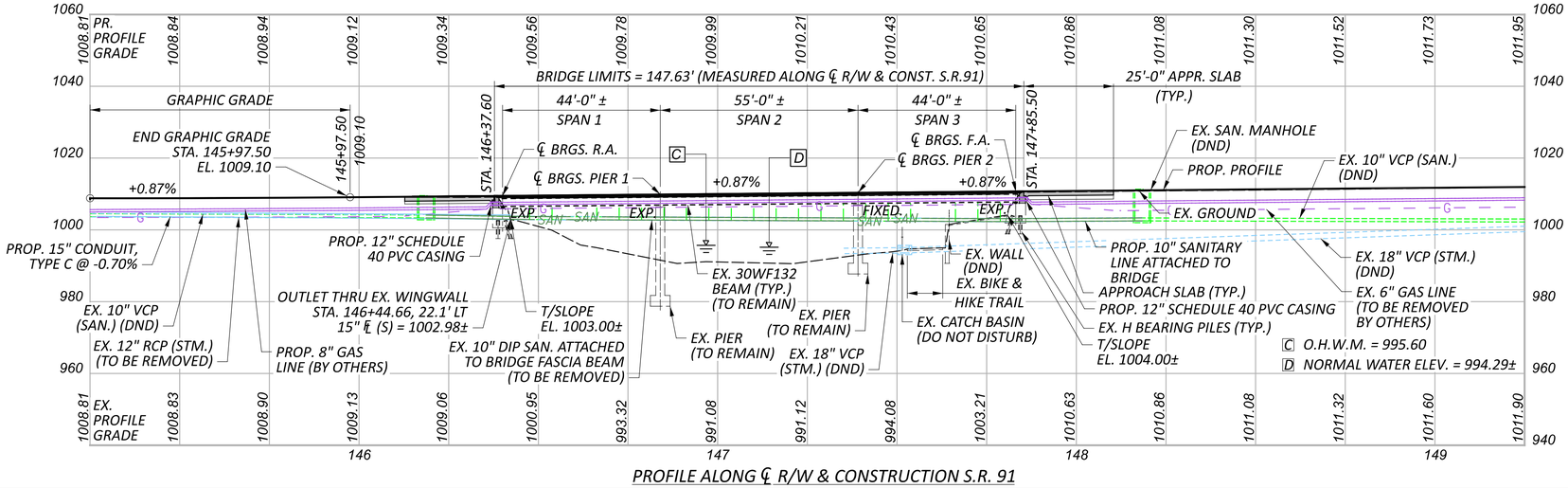
(A) - END APPR. SLAB STA. 146+37.60

(B) - BEGIN APPR. SLAB STA. 147+85.50




CURVE 1 DATA
P.I. = STA. 148+56.33
Δ = 35°49'56" LT
Dc = 06°00'36"
R = 953.35'
T = 308.22'
L = 596.21'
E = 48.59'

REFERENCE CHORD LAYOUT




PROFILE ALONG ℄ R/W & CONSTRUCTION S.R. 91

## BENCHMARK DATA

| | | | | | | |
|---|---|---|---|---|---|---|
| BM #1 STA. | 145+91.20, | ELEV. | 1009.92, | OFFSET | 27.07', | RT. |
| BM #2 STA. | 147+87.57, | ELEV. | 1011.26, | OFFSET | 55.33', | RT. |

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET P.15 , P.16 OF 62.

## NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:

2026 ADT = 14,500 2026 ADTT = 290
2046 ADT = 14,500 2046 ADTT = 290
DIRECTIONAL DISTRIBUTION = 52.4%

## LEGEND

- PROP. PAVEMENT
- PROP. SUPERSTRUCTURE
- EXISTING RETAINING WALL

## PROPOSED WORK

1. REMOVE ENTIRE DECK, PORTIONS OF ABUTMENT AND PIERS, BEARINGS, ABUTMENT BACKWALLS, PORTION OF WINGWALLS, EXPANSION JOINTS, AND APPROACH SLABS.
2. CONSTRUCT NEW PORTIONS OF ABUTMENTS AND WINGWALLS. INSTALL NEW ABUTMENT AND PIER BEARINGS.
3. CONSTRUCT NEW DECK, SIDEWALK, BRIDGE RAILING, SLEEPER SLABS, AND APPROACH SLABS.
4. SEAL ALL NEW CONCRETE SURFACES.

## EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUPERSTRUCTURE ON CONCRETE ABUTMENTS & WALL PIERS.

SPANS: 44'-0"±,55'-0"±,44'-0"± C/C BEARINGS
ROADWAY: 30'-0" F/F SAFETY CURB
LOADING: CF400 (57)
SKEW: 18° L.F.
WEARING SURFACE: 3.1" BITUMINOUS ASPHALT
APPROACH SLABS: AS-1-54 (25' LONG)
ALIGNMENT: 6° CURVE
SUPERELEVATION: 0.035 FT/FT
STRUCTURE FILE NUMBER: 7707142
DATE BUILT: 7/1/1963
DISPOSITION: TO BE REHABILITATED

## PROPOSED STRUCTURE

TYPE: 3-SPAN EXISTING STEEL BEAM WITH NEW COMPOSITE CONCRETE DECK ON CONCRETE ABUTMENTS & WALL PIERS.

SPANS: 44'-0"±, 55'-0"±, 44'-0"± C/C OF BEARINGS ALONG REF. CHORD CONST. S.R. 91
ROADWAY: 29'-6" TOE CURB/TOE BARRIER
SUPERSTRUCTURE LOADING: HL93 AND 60 PSF FUTURE WEARING SURFACE
SUBSTRUCTURE LOADING: CF400 (57)
SKEW: 18°± L.F.
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: 25'-0" LONG (AS-1-15)
ALIGNMENT: 6°00'36" CURVE LEFT
SUPERELEVATION: 0.035 FT./FT.
DECK AREA: 5522 SF
COORDINATES: LATITUDE 41° 08' 31.71" N
LONGITUDE 81° 26' 19.76" W

HORIZONTAL SCALE IN FEET
0 10 20 40

SITE PLAN
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeng group.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| CCJ | RG |

REVIEWER GTB 02-25-25
PROJECT ID 113201
SUBSET 1 TOTAL 30
SHEET P.33 TOTAL 62

SUM-91-07.89

MODEL: Plan [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:42 AM USER: jperchinske
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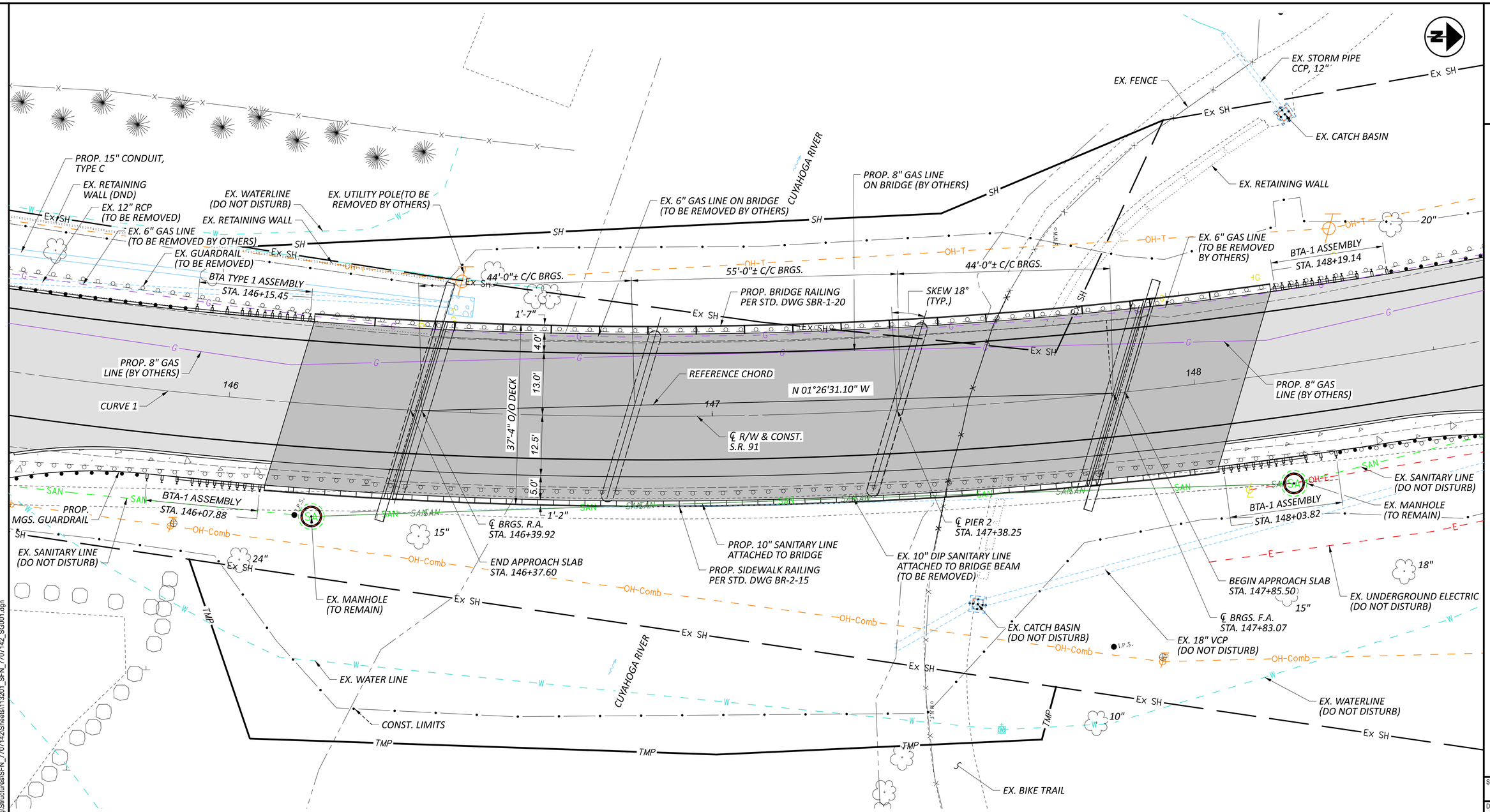


GENERAL PLAN

CURVE 1 DATA
P.I. = STA. 148+56.33
Δ = 35°49'56" LT
Dc =06°00'36"
R = 953.35'
T = 308.22'
L = 596.21'
E = 48.59'

HORIZONTAL SCALE IN FEET
0 5 10 20

# GENERAL PLAN

BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeng group.com
3960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| CCJ | RG |

REVIEWER
GTB 02-25-25

PROJECT ID
113201

| SUBSET | TOTAL |
|---|---|
| 2 | 30 |

| SHEET | TOTAL |
|---|---|
| P.34 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:19:44 AM USER: jperchinske
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## STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

| | | |
|---|---|---|
| AS-1-15 | REVISED | 01/20/2023 |
| BR-2-15 | DATED | 07/19/2024 |
| EXJ-4-87 | REVISED | 01/19/2024 |
| GSD-1-19 | DATED | 07/19/2024 |
| SBR-1-20 | REVISED | 07/19/2024 |

REFER TO THE FOLLOWING SPECIFICATIONS:

| | | |
|---|---|---|
| 800 | DATED | 07/18/2025 |

## DESIGN SPECIFICATIONS:

ALL NEW COMPONENTS OF THIS STRUCTURE CONFORM TO THE 9TH EDITION OF THE "LFRD BRIDGE DESIGN SPECIFICATION" OPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9th EDITION, 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

## DESIGN LOADING INCLUDES:

| | |
|---|---|
| DECK: | VEHICULAR LIVE LOAD: HL-93<br>FUTURE WEARING SURFACE (FWS) OF 0.06 KIPS/SQ.FT. |
| EXISTING BEAMS: | LOAD RATED WITH VEHICULAR LIVE LOAD: HL-93<br>FUTURE WEARING SURFACE (FWS) OF 60 KIPS/SQ.FT. |
| EXISTING SUBSTRUCTURE: | VEHICULAR LIVE LOAD: CF-400 (57)<br>FUTURE WEARING SURFACE (FWS) OF 0.00 KIPS/SQ.FT. |
| EXISTING FOUNDATION: | VEHICULAR LIVE LOAD: CF-400 (57)<br>FUTURE WEARING SURFACE (FWS) OF 0.00 KIPS/SQ.FT. |

## DESIGN DATA:

CONCRETE, QC/QA CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE, CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
CONCRETE REINFORCEMENT - EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI (ABUTMENT, DECK, BRIDGE RAILING, APPROACH SLAB, SIDEWALK)
GFRP REINFORCEMENT (BRIDGE RAILING)
EXISTING STRUCTURAL STEEL - ASTM A709, GRADE 33, MINIMUM YIELD STRENGTH 33 KSI
PROPOSED STRUCTURAL STEEL - ASTM A709, GRADE 50, MINIMUM YIELD STRENGTH 50 KSI

## OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.0 HAS BEEN ASUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE MANUAL.

## MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

## MAINTENANCE OF TRAFFIC:

FOR INFORMATION OF TRAFFIC PLANS, SEE ROADWAY SHEETS.

## UTILITIES:

FOR UTILITY NOTES, SEE ROADWAY SHEETS.

## EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

## INSPECTION OF EXISTING STRUCTURAL STEEL:

THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THE WELDS, PLATES AND BEAMS ARE FREE OF DEFECTS AND CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER'S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO C&MS 511.07, BUT IT WILL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE DEPARTMENT WILL PAY FOR THE COST ASSOCIATED WITH THIS INSPECTION WITH ITEM 511-CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

## DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHING WITH A MAXIMUM WHEEL LOAD OF 2.26 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA BEAM TO THE FACE OF THE SAFETY HANDRAIL OF 65".

## ASBESTOS NOTIFICATION:

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST INSPECTED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION;

THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE STRUCTURE.

THE DEPARTMENT HAS PROVIDED A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM (PARTIALLY COMPLETED) AND THE ASBESTOS INSPECTION REPORT IN THE REFERENCE FILES FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OEPA AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. ONLINE SUBMISSION IS AVAILABLE AT http://www.epa.ohio.gov/asbestos AND IS ENCOURAGED OR, THE CONTRACTOR SHALL SUBMIT IT TO ONE OF THE ADDRESSES BELOW

ASBESTOS PROGRAM
OHIO EPA, DAPC
P.O. BOX 1049
COLUMBUS, OH 43216-1049

OR

ASBESTOS PROGRAM
OHIO EPA, DAPC
50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43215

THE FORM SHALL INCLUDE:

1. THE CONTRACTORS NAME AND ADDRESS
2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE STRUCTURE DEMOLITION AND/OR RENOVATION
3. DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHODS BE USED
4. ALL NECESSARY FEES

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED NOTIFICATION OF DEMOLITION AND RENOVATION FORM TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 – PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

## GAS LINE SUPPORT INSTALLATION NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL PIPE SUPPORT LOCATIONS AND ALL OTHER DIMENSIONS BEFORE PERFORMING ANY WORK.
2. PIPE SUPPORT LOCATIONS SHALL ADHERE TO THE FOLLOWING:
   - 2.1. DISTANCE BETWEEN SUPPORTS SHALL NOT EXCEED 11'-0" BY GREATER THAN 0'-6".
   - 2.2. PIPE SUPPORTS SHALL BE INSTALLED AT 14 LOCATIONS ALONG THE LENGTH OF THE BRIDGE. WITHOUT WRITTEN DOCUMENTATION APPROVAL FROM THE ENBRIGE GAS OHIO REPRESENTATIVE IN CHARGE, THE QUANTITY OF PIPE SUPPORTS INSTALLED SHALL NOT BE LESS THAT THE QUANTITY SPECIFIE HERE.
   - 2.3. PIPE SUPPORTS SHALL BE ADJUSTED FOR EACH CROSSFRAME ALONG THE TOP ANGLE SLOTTED HOLE TO KEEP THE PIPELINE STRAIGHT ACROSS THE BRIDGE (SEE FRAMING PLAN). MAX 2' OFFSET FROM MIDPOINT TO AVOID DIAGONAL BRACE INTERFERENCE.
3. NON-CONDUCTIVE ROLLER HANGER SUPPORTS AND ALL ASSOCIATED HARDWARE NEEDED TO INSTALL SUPPORTS WILL BE PURCHASED FROM LB&A BY ENBRIDGE GAS OHIO AND SUPPLIED TO THE CONTRACTOR.
4. THE PVC CASING SHALL BE INSTALLED BY THE CONTRACTOR THROUGH THE PROPOSED BACKWALL AND EXTENDED 6" BEHIND THE ABUTMENT BACKWALLS IN ORDER TO ACCOMODATE LINK-SEAL AND END SEAL. PVC PIPE CAN BE CUT TO LENGTH BY ENBRIDGE CONTRACTOR, IF EXCESS REMAINS AFTER SEALS ARE INSTALLED.
5. GAS MAINS AND SUPPORTS ARE DESIGNED FOR PHEUMATIC TESTING. IF HYDROTESTING IS REQUIRED, PLEASE CONSULT ENBRIDGE GAS OHIO PRIOR TO INSTALLATION.
6. ALL PIPE SUPPORT STEEL WILL BE HOT DIPPED GALVANIZED BY THE SUPPLIER PRIOR TO BEING SHIPPED TO THE SITE.
7. ANY DAMAGE TO THE HOT DIPPED GALVANIZED COATING, FIELD CUTS, OR WELDS SHALL BE REPAIRED WITH A COATING OF ZINC RICH PAINT MANUFACTURED BY ZRC, OR APPROVED EQUAL, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS, IN ORDER TO RESTORE FULL INTEGRITY OF THE PROTECTIVE GALVANIZED COATING. THE COST OF THIS WORK SHALL BE AT THE CONTRACTORS EXPENSE.
8. ENBRIDGE GAS SHALL INSTALL THE GAS MAIN AFTER THE CONTRACTOR HAS INSTALLED THE SUPPORTS. THE CONTRACTOR SHALL COORDINATE WITH ENBRIDGE GAS FOR THIS WORK.
9. HOLES/SLOTS FOR PIPE SUPPORTS SHOULD BE PROVIDED BY BRIDGE FABRICATOR. IF DRILLING HOLES IN CROSSFRAME MEMBERS IS REQUIRED, ADHERE TO THE FOLLOWING:
   - 9.1. EDGE DISTANCE FROM CENTER OF DRILLED HOLE TO EDGE OF CONNECTED PART SHALL BE NO LESS THAN 7/8".
   - 9.2. DISTANCE FROM CENTER OF DRILLED HOLE TO FACE OF PERPENDICULAR LEG OF ANGLE SHALL BE 1".
   - 9.3. IF CONTRACTOR IS DRILLING NEW HOLE, REPLACE THE SPECIFICED CORROSION RESISTANT COATING.
10. THE REMOVAL OF EXISTING HANGERS/OVERHANG BRACKETS SUPPORTING THE GAS LINE AND INTERMEDIATE CROSS FRAMES ARE PAID UNDER THE LUMP SUM ITEM 513 - STRUCTURAL STEEL, MISC.: GAS MAIN SUPPORTS. THE LIMITS OF REMOVAL PAID FOR UNDER THIS ITEM ARE FROM THE BACK OF BACKWALL OF THE REAR ABUTMENT TO THE BACK OF THE FORWARD ABUTMENT.
11. PROPOSED CROSSFRAMES HAVE BEEN DESIGNED FOR PROPOSED GAS MAIN AND HANGER SUPPORTS.

GENERAL NOTES (1 OF 3)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
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DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
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| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

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SUM-91-07.89

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**ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:**

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, CONCRETE BRIDGE RAILINGS, METAL RAILINGS, DECK JOINTS, END CROSSFRAME GUSSET PLATES, SCUPPERS, PORTIONS OF EXISTING BACKWALLS AND WINGWALLS, ABUTMENT & PIER BEARINGS, POROUS BACKFILL, AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, CROSSFRAMES, ETC.). THIS ITEM INCLUDES TAKING SURVEY SHOTS OF THE BOTTOM BEAM FLANGES BEFORE AND AFTER DECK REMOVAL AND CALCULATING THE REQUIRED ITEMS TO DETERMINE THE SCREED AND TOP OF HAUNCH ELEVATIONS. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS:
BEFORE DECK SLAB CUTTING BEGINS, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF THE DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF THE EDGES OF THOSE MEMBERS. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF CONCRETE REINFORCMENT IN THE DECK SLAB. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS:
THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL BEAM), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G. FINISHING MACHINE, FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NOT COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS:
REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS: AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

CUT LINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING CONCRETE REINFORCEMENT, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING STEEL REINFORCEMENT DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL:
REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE DEPARTMENT WILL NOT PERMIT HYDRAULIC HOE-RAM TYPE HAMMERS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

**ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (CONTD.):**

MEASUREMENT & PAYMENT:
THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

**ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN:**

DOWEL BARS SHALL BE INSTALLED USING NONSHRINK, NONMETALLIC GROUT PER 510 AND ACI 335.4. ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE DOWEL HOLE SHALL BE LOCATED WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER) PRIOR TO DRILLING THE HOLES. IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, THE DOWEL HOLE SHALL BE MOVED TO EITHER SIDE OF THE EXISTING BAR. ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN.

**ITEM 513 - STRUCTURAL STEEL, MISC.: END CROSS FRAME RETROFIT:**

ALL REQUIREMENTS OF C&MS 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN S1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE IN ACCORDANCE WITH C&MS 501.06, TO THE ENGINEER. PROVIDE THE ENGINEER "AS-BUILT" DRAWINGS ACCORDING TO C&MS 513.06 EXCEPT C&MS 501.04 DOES NOT APPLY. UPON RECEIPT OF THE ENGINEER'S ACCEPTANCE, SUPPLY A COPY OF THE DRAWINGS, ACCORDING TO S1002, TO THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

THE FOLLOWING MEMBERS ARE INCLUDED IN THE LUMP SUM ITEM 513: STRUCTURAL STEEL, MISC.: END CROSS FRAME RETROFIT. ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 513 - STRUCTURAL STEEL, MISC.: END CROSS FRAME RETROFIT.

**ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT:**

THE PROPOSED FINISH COAT SHALL MATCH THE COLOR OF THE EXISTING BRIDGE. THE CONTRACTOR SHALL PROVIDE PAINTED SAMPLES IN THE FIELD FOR COMPARISION TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING ANY MATERIAL.

**ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:**

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, DAMAGE TO THE SUPERSTRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

**ITEM 530 - SPECIAL STRUCTURES: BYPASS PUMPING**

1.01 SUMMARY
THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REDUCE/ CONTROL OR ELIMINATE FLOWS VIA BYPASS PUMPING, CHASES, FUMING OR OTHER APPRIATE METHODS THROUGH A SEGMENT OR SEGMENTS OF PIPE, OR STRUCTURE DESIGNATED FOR INSPECTION AND/OR REHABILITATION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTROLLING AND MAINTAINING ALL SEWAGE FLOWS WITHIN THE SYSTEM WHILE CONDUCTING WORK. PLUGGING OF ANY SEWER LINE SHALL NOT BE PERMITTED WITHOUT BYPASS PUMPING.

1.02 SUBMITTALS
THE CONTRACTOR SHALL PROVIDE, FOR THE ENGINEER'S RECORD A METHOD OF REDUCING/ CONTROLLING THE SEWAGE FLOW THAT WILL INCLUDE BUT NOT LIMITED TO:
1. A RECOMMENDED SEQUENCE OF OPERATIONS.
2. SKETCHES OR DRAWINGS SHOWING LOCATIONS OF THE BYPASS SEWER AND CONSTRUCTION PROCEDURES FOR CROSSING STREETS, EXCAVATIONS FOR BENCHING ALONG WITH SUPPORTMETHODS, ALL REQUIRED PERMIT INFORMATION, APPLICATIONS, FEES, ETC., TO OBTAIN ACCESS TO THE STREETS WHEN REQUIRED BY THE BYPASS METHOD SELECTED BY THE CONTRACTOR.
3. KEY OPERATIONAL FACTORS, (I.E. MAXIMUM FLOW ELEVATIONS UPSTREAM OF DAMS, PUMP SIZES AND FLOW RATES.)
4. LOCATIONS OF MANHOLES FROM WHICH SEWAGE IS TO BE PUMPED, LOCATIONS OF RECEIVING MANHOLES, AND NEW MANHOLES.
5. A CONTINGENCY PLAN TO PREVENT DAMAGE DURING HIGH FLOWS.
6. METHOD OF HANDLING TRAFFIC WHERE STREETS ARE TO BE EXCAVATED.

THE CONTRACTOR SHALL SUBMIT A COPY OF ALL PROPERTY OWNER/RESIDENT NOTIFICATIONS TO THE ENGINEER PRIOR TO NOTIFICATION DISTRIBUTION PER SECTION 1.03 B.

1.03 PREPARATION
A. RIGHT OF ENTRY. WHEN PRIVATE PROPERTY MUST BE CROSSED FOR BYPASS PUMPING THE CONTRACTOR SHALL OBTAIN WRITTEN RIGHT OF ENTRY (ROE) SIGNED BY THE PROPERTY OWNER. THE ROE SHALL DESCRIBE THE EXTENT OF WORK, ITEM TO BE RESTORED, WARRANTY AND SCHEDULE. A SIGNED COPY OF THE ROE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO COMMENCING WORK. THE COST FOR OBTAINING THE RIGHT OF ENTRY AND ASSOCIATED RESTORATION WORK SHALL BE INCLUDED IN THE UNIT BID PROCESS FOR BYPASS PUMPING. NECESSARY TREE REMOVAL SHALL BE PAID FOR UNDER BID ITEM 3, CLEARING AND GRUBBING.

B. THE CONTRACTOR SHALL PROVIDE 48-HOUR PRIOR WRITTEN NOTIFICATION TO ALL PROPERTY OWNERS AND OR RESIDENTS WHOSE SEWER LATERAL WILL BE AFFECTED BY THE DIVERSION OF FLOW IN THE SEWER. THE NOTICE SHALL CLEARLY STATE THE APPROXIMATE TIME WHEN SEWAGE CANNOT BE RECEIVED AS WELL AS WHEN THE SEWER WILL BE AVAILABLE AGAIN FOR RECEIVING SEWAGE, AND THE PURPOSE OF THE WORK. IT SHALL ALSO BE ADVISE ALL AFFECTED CUSTOMERS AGAINST WATER USAGE UNTIL THE SEWER LINE IS PLACED BACK IN SERVICE, AND SHALL CLEARLY STATE THE POTENTIAL CONSEQUENCES OF THE USE OF RESIDENTIAL WASTEWATER GENERATING FACILITIES DURING THE TIME WHEN THE BUILDING SEWER SERVICE WILL BE OUT OF SERVICE (I.E. SEWER BACK UP).

1.04 INSTALLATION
A. THE BYPASS SHALL BE MADE BY PLUGGING AN EXISTING UPSTREAM MANHOLE, IF NECESSARY, AND PUMPING THE SEWAGE INTO A DOWNSTREAM MANHOLE OR ADJACENT SYSTEM APPROVED BY THE ENGINEER. WHEN REQUIRED, THE CONTRACTOR SHALL ALSO BYPASS LATERALS BY PUMPING FROM A CLEANOUT. IF A NEW CLEANOUT IS REQUIRED, IT SHALL BE INSTALLED PER COUNTY DETAILS. ALL PUMPS AND TEMPORARY BYPASS SEWER PIPING SHALL BE OF ADEQUATE CAPACITY AND SIZE TO HANDLE THE PEAK FLOW AND ANY NECESSARY DEWATERING. BYPASS PIPING MUST BE FUSED HDPE OR APPROVED EQUAL. THE BYPASS PUMPING SHALL NOT PROHIBIT ACCESS WHEN CROSSING PRIVARE ACCESS DRIVES OR PUBLIC STREETS AND SHALL EITHER HAVE TEMPORARY PAVEMENT OR BE SECURELY PLATED. THE BYPASS SEWER MAY BE LAID OVER GROUND IN ALL OTHER INSTANCES. THE BYPASS SHALL BE A HEADER FOR ALL BYPASS AND DEWATERING PUMPING. CHECK VALVES AHALL BE PLACED AHEAD OF ALL PUMPING CONNECTIONS.

B. THE CONTRACTOR MAY SUGGEST ALTERNATE ROUTING OR METHODS OF CONTROLLING THE SEWAGE, BUT, SHALL SUBMIT THEIR RECOMMENDATIONS TO THE ENGINEER IN WRITING COMPLETE WITH SKETCHES OR DRAWINGS SHOWING LOCATIONS OF THE BYPASS SEWER AND CONSTRUCTION PROCEDURES FOR CROSSING STREETS, EXCAVATIONS FOR BENCHING ALONG WITH SUPPORT METHODS, ALL REQUIRED PERMIT INFORMATION, APPLICATIONS, FEES, ETC. THE ENGINEER WILL REVIEW THE PROPOSED ALTERATIONS TO ENSURE THAT THE RECEIVING SEWERS CAN ACCEPT THE FLOW AND THAT NO ACCESS OR STREET INTERFERENCE IS CREATED. NEITHER THE CITY NOR THE ENGINEER WILL BE RESPONSIBLE FOR DAMAGES DUE TO HIGH FLOWS.

C. ALL COMMERCIAL ESTABLISHMENTS SHALL BE PROVIDED WITH TEMPORATY SEWER SERVICE. THE MEANS AND METHODS SHALL BE COORDINATED WITH THE MANAGERS AND AFFECTED RESIDENTS.

D. UNDER NO CIRCUMSTANCES WILL THE DUMPING OF RAW SEWAGE ON PRIVATE PROPERTY, STREETS AND ROADS BE ALLOWED NOR WILL SURCHARGING OF THE SEWERS BE ALLOWED DUE TO INSUFFICIENT PUMPING.

GENERAL NOTES (2 OF 3)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
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| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

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SUM-91-07.89

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## ITEM 530 - SPECIAL STRUCTURES: BYPASS PUMPING (CONTD.)

1.05 REPAIR/RESTORATION

A. SITE RESTORATION. THE CONTRACTOR SHALL BE AWARE OF THE CONDITIONS AT EACH SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TREES, SHRUBBERY, LANDSCAPING, STRUCTURES, FENCES, MAIL BOXES, DRIVEWAYS, CURBS, SIDEWALKS, PAVEMENTS, ETC. THE CONTRACTOR SHALL VIDEOTAPE ALL RIGHT OF ENTRY (ROE) AREAS PRIOR TO USE. ALL PRE-CONSTRUCTION CONDITIONS SHALL BE FULLY RESTORED AS CLOSE TO ITS ORIGINAL CONDITION AS PRACTICABLE.

WHEN WORKING ON PRIVATE PROPERTY, THE CONTRACTOR SHALL OBTAIN ACKNOWLEDGEMENT-OF-COMPLETION (AOC) FROM THE PROPERTY OWNER THAT WORK WAS COMPLETED IN ACCORDANCE WITH THE ROE AGREEMENT. NO PAYMENT FOR THIS WORK WILL BE MADE UNTIL THE COPY OF AOC IS SUBMITTED TO THE ENGINEER.

1.06 FIELD QUALITY CONTROL

A. RECORD ONLY PERMITS. WHEN A NEW CLEANOUT OR OTHER ADDITIONS TO A PRIVATE LATERAL ARE REQUIRED FOR BYPASS PUMPING, THE INSPECTOR SHALL COMPLETE A RECORD ONLY PERMIT FOR THAT LATERAL WHICH SHALL DOCUMENT ALL CHANGES OR ADDITIONS.

1.07 CLEANING

A. PURGING. AFTER ALL CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED THE CONTRACTOR SHALL PURGE THE BYPASS SEWER SYSTEM OF ALL SEWAGE BEFORE DISCONNECTING THE PUMPS AND PIPING WITH WATER. ALL WATER USED FOR PURGING THE BYPASS SYSTEM SHALL EITHER BE COLLECTED AND DISPOSED OF OFFSITE OR ROUTED INTO THE SANITARY SEWER. UNDER NO CIRCUMSTANCES WILL THE DUMPING OF RAW SEWAGE ON PRIVATE PROPERTY, STREETS AND ROADS BE ALLOWED DUE TO PURGING THE SYSTEM.

1.08 PROTECTION

A. PRECAUTIONS SHALL BE TAKEN TO ENSURE THAT BYPASS PUMPING AND FLOW CONTROL OPERATIONS SHALL NOT CAUSE FLOODING OR DAMAGE TO PUBLIC OR PRIVATE PROPERTIES. IN THE EVENT FLOODING OR DAMAGE OCCURS, THE CONTRACTOR SHALL MAKE PROVISIONS TO CORRECT SUCH DAMAGE AT NO ADDITIONAL COST TO THE CITY. THE CONTRACTOR SHALL BE RESPONSIVLE FOR ANY DAMAGES TO PUBLIC OR PRIVATE PROPERTY OVERFLOWS FROM ...

B. ANY BYPASS HOSES OR DEVICES NEEDED FOR THIS WORK SHALL NOT BE PLACED BELOW THE ELEVATION OF THE BOTTOM BEAM OF THE BRIDGE.

1.09 PUMPING RATES

THE ESTIMATED FLOW RATES TO BE PUMPED ARE AS FOLLOWS:

AVERAGE FLOW RATE = 14 GAL/MIN
PEAK FLOW RATE = 35 GAL/MIN
RAINGALL FLOW RAE = 70 GAL/MIN

1.10 PAYMENT

ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED FOR THIS WORK SHALL BE INCLUDED UNDER ITEM 530- SPECIAL STRUCTURES: BYPASS PUMPING.

## ABBREVIATIONS:

ABUT. - ABUTMENT
ADT - AVERAGE DAILY TRAFFIC
ADTT - AVERAGE DAILY TRUCK TRAFFIC
APPR. - APPROACH
B - BOTTOM
BM - BENCHMARK
BOT. OR BTM. - BOTTOM
BRGS. - BEARINGS
□ - CENTERLINE
C/C - CENTER TO CENTER
C.J. - CONSTRUCTION JOINT
CLR. - CLEAR
CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONC. - CONCRETE
CONSTR. - CONSTRUCTION
DIA. - DIAMETER
DIM. - DIMENSION
DWG. - DRAWING
E.F. - EACH FACE
EL. OR ELEV. - ELEVATION
E/P - EDGE OF PAVEMENT
EQ. - EQUAL
EST. - ESTIMATED
EX. - EXISTING
F.A. - FORWARD ABUTMENT
F/F - FACE TO FACE
F.F. - FAR FACE
FT. - FOOT OR FEET
FWD. - FORWARD
HW - HIGH WATER
IN. - INCH
INT. - INTEGRAL
JT. - JOINT
LT. - LEFT
MAX. - MAXIMUM
MIN. - MINIMUM
MISC. - MISCELLANEOUS
N.F - NEAR FACE
NO. - NUMBER
N.P.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
OHWM - ORDINARY HIGH WATER MARK
O/O - OUT TO OUT
P.C.P.P. - PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
PG - PROFILE GRADE
PROP. - PROPOSED
PSF - POUNDS PER SQUARE FOOT
P.V.I. - POINT OF VERTICAL INTERSECTION
Q - FLOW RATE
R - RADIUS
R.A. - REAR ABUTMENT
RCP - ROCK CHANNEL PROTECTION
REQD. - REQUIRED
RT. - RIGHT
R/W - RIGHT OF WAY
SER. - SERIES
SHLDR - SHOULDER
SPA. - SPACE OR SPACES
STA. - STATION
STD. - STANDARD
STR - STRAIGHT
T - TOP
T&B - TOP & BOTTOM
TBR - TO BE REMOVED
TEMP. - TEMPORARY
T.O.S. OR T/S - TOP OF SLOPE
T/T - TOE TO TOE
TYP. - TYPICAL
U.N.O. - UNLESS NOTED OTHERWISE
VAR. - VARIES
V - VELOCITY

GENERAL NOTES (3 OF 3)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

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DESIGN AGENCY
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DUBLIN, OHIO 43016

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|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 5 | 30 |

| SHEET | TOTAL |
|---|---|
| P.37 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 0.8636x0.5588 (m) DATE: 10/22/2025 TIME: 8:19:59 AM USER: jperchinske
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| ITEM | EXTENSION | 01/NHS | 02/NHS | 03/NHS | GRAND TOTAL | UNIT | DESCRIPTION | ABUT. | SUPER. | GEN. | REFERENCE SHEET NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 202 | 11203 | LS | | | LS | | PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN | | | LS | 4, 9 |
| 202 | 22900 | 67 | | | 67 | SY | APPROACH SLAB REMOVED | | | 67 | |
| 202 | 23500 | 627 | | | 627 | SY | WEARING COURSE REMOVED | | | 627 | |
| | | | | | | | | | | | |
| 503 | 11100 | LS | | | LS | | COFFERDAMS AND EXCAVATION BRACING | | | LS | |
| 503 | 21100 | 117 | | | 117 | CY | UNCLASSIFIED EXCAVATION | 117 | | | |
| | | | | | | | | | | | |
| 509 | 10000 | 77439 | | | 77,439 | LB | EPOXY COATED STEEL REINFORCEMENT | 3703 | 73736 | | |
| 509 | 25000 | 1,459 | | | 1,459 | LB | UNCOATED STEEL REINFORCEMENT | 1459 | | | |
| 509 | 30020 | 10,399 | | | 10,399 | FT | NO. 4 DEFORMED GFRP REINFORCEMENT | | 10399 | | |
| | | | | | | | | | | | |
| 510 | 10001 | 260 | | | 260 | EA | DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN | 260 | | | 4 |
| | | | | | | | | | | | |
| 511 | 34447 | 176 | | | 176 | CY | CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN | | 176 | | 3 |
| 511 | 34451 | 29 | | | 29 | CY | CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN | | 29 | | 28 |
| 511 | 44111 | 28 | | | 28 | CY | CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN | 28 | | | 10 |
| | | | | | | | | | | | |
| 512 | 10050 | 123 | | | 123 | SY | SEALING OF CONCRETE SURFACES (NON-EPOXY) | | 123 | | |
| 512 | 10100 | 479 | | | 479 | SY | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) | 111 | 368 | | |
| 512 | 33000 | 34 | | | 34 | SY | TYPE 2 WATERPROOFING | 34 | | | |
| | | | | | | | | | | | |
| 513 | 20000 | 2,235 | | | 2,235 | EA | WELDED STUD SHEAR CONNECTORS | | 2,235 | | |
| 513 | 21000 | 5 | | | 5 | EA | TRIMMING OF BEAM END | | 5 | | |
| 513 | 90000 | 288 | | 532 | 820 | LB | STRUCTURAL STEEL, MISC.: END CROSS FRAME RETROFIT | | 820 | | 4, 23 |
| 513 | 95020 | | | LS | LS | | STRUCTURAL STEEL, MISC.: GAS MAIN SUPPORTS | | LS | | 3, 9, 19 |
| 513 | 95020 | | LS | | LS | | STRUCTURAL STEEL, MISC.: SANITARY SEWER | | LS | | 9, 10, 12, 17 |
| | | | | | | | | | | | |
| 514 | 00100 | | LS | LS | LS | | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL | | LS | | |
| 514 | 00200 | LS | LS | LS | LS | | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT | | LS | | |
| 514 | 00300 | LS | LS | LS | LS | | FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT | | LS | | |
| 514 | 00400 | LS | LS | LS | LS | | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT | | LS | | 4 |
| 514 | 00504 | 1 | 4 | 4 | 9 | MNHR | GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL | | 9 | | |
| 514 | 10000 | 1 | 2 | 2 | 5 | EA | FINAL INSPECTION REPAIR | | 5 | | |
| | | | | | | | | | | | |
| 516 | 11210 | 81 | | | 81 | LF | STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL | | 81 | | |
| 516 | 13900 | 13 | | | 13 | SF | 2" PREFORMED EXPANSION JOINT FILLER | 13 | | | |
| 516 | 44101 | 10 | | | 10 | EA | ELASTOMERIC BEARING WITH INTERNAL LAMINATES (13.75"X13.75"X2.77") AND LOAD PLATE (NEOPRENE), AS PER PLAN | | 10 | | 15 |
| 516 | 44201 | 5 | | | 5 | EA | ELASTOMERIC BEARING WITH INTERNAL LAMINATES (10.75"X11.5"X3.58") AND LOAD PLATE (NEOPRENE), AS PER PLAN | 5 | | | 15 |
| 516 | 44301 | 5 | | | 5 | EA | ELASTOMERIC BEARING WITH INTERNAL LAMINATES (10.75"X11.5"X1.91") AND LOAD PLATE (NEOPRENE), AS PER PLAN | 5 | | | 15 |
| 516 | 47001 | 1 | | | LS | | JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN | 1 | | | 4 |
| | | | | | | | | | | | |
| 517 | 75121 | 195 | | | 195 | FT | RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING), AS PER PLAN | | 195 | | 28 |
| | | | | | | | | | | | |
| 518 | 21200 | 44 | | | 44 | CY | POROUS BACKFILL WITH GEOTEXTILE FABRIC | 44 | | | |
| 518 | 40000 | 102 | | | 102 | FT | 6" PERFORATED CORRUGATED PLASTIC PIPE | 102 | | | |
| 518 | 40011 | 34 | | | 34 | FT | 6" NON-PERFORATED CORRUGATED PLASTIC PIPE INCLUDING SPECIALS, AS PER PLAN | 34 | | | 13 |
| | | | | | | | | | | | |
| 526 | 25011 | 208 | | | 208 | SY | REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN | | | 208 | 28 |
| | | | | | | | | | | | |
| 530 | 00200 | | LS | | LS | | SPECIAL - STRUCTURES: BYPASS PUMPING | | | LS | 4, 5 |
| | | | | | | | | | | | |
| 625 | 33000 | 1 | | | 1 | EA | STRUCTURE GROUNDING SYSTEM | | | 1 | |
| | | | | | | | | | | | |

ESTIMATED QUANTITIES
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER
GTB 02-25-25

PROJECT ID
113201

| SUBSET | TOTAL |
|---|---|
| 6 | 30 |

| SHEET | TOTAL |
|---|---|
| P.38 | 62 |

SUM-91-07.89

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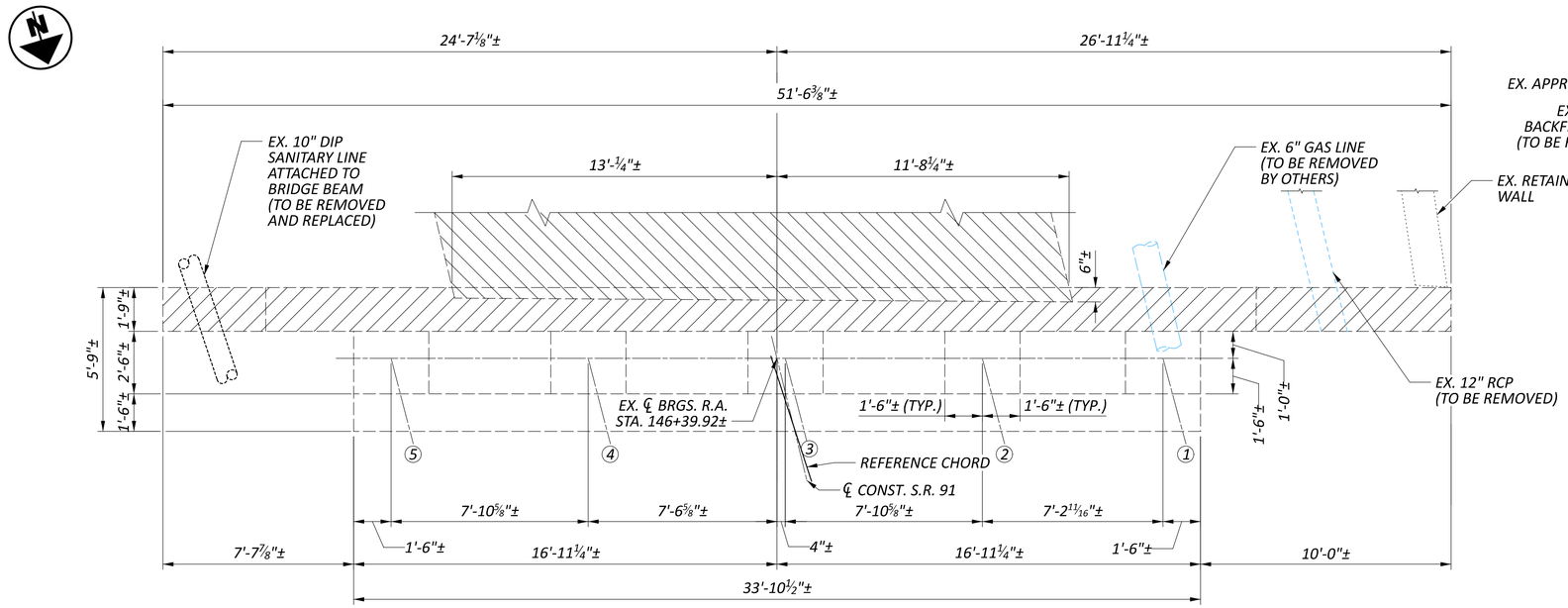
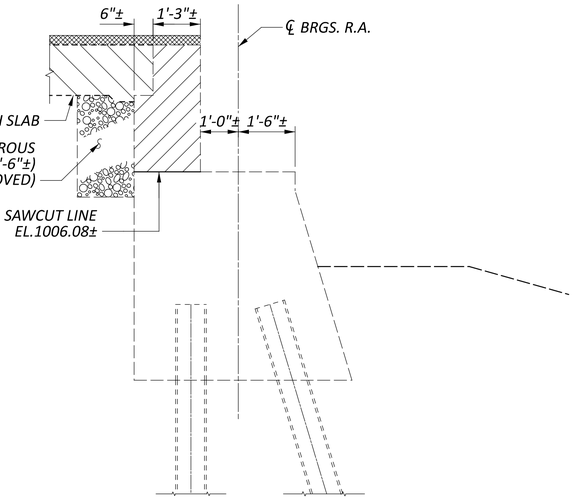


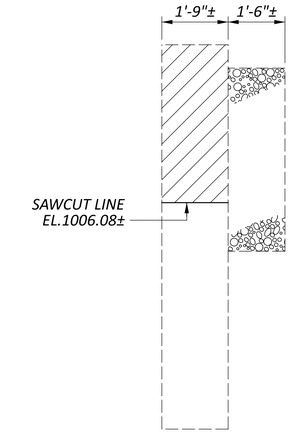

## REAR ABUTMENT REMOVAL PLAN



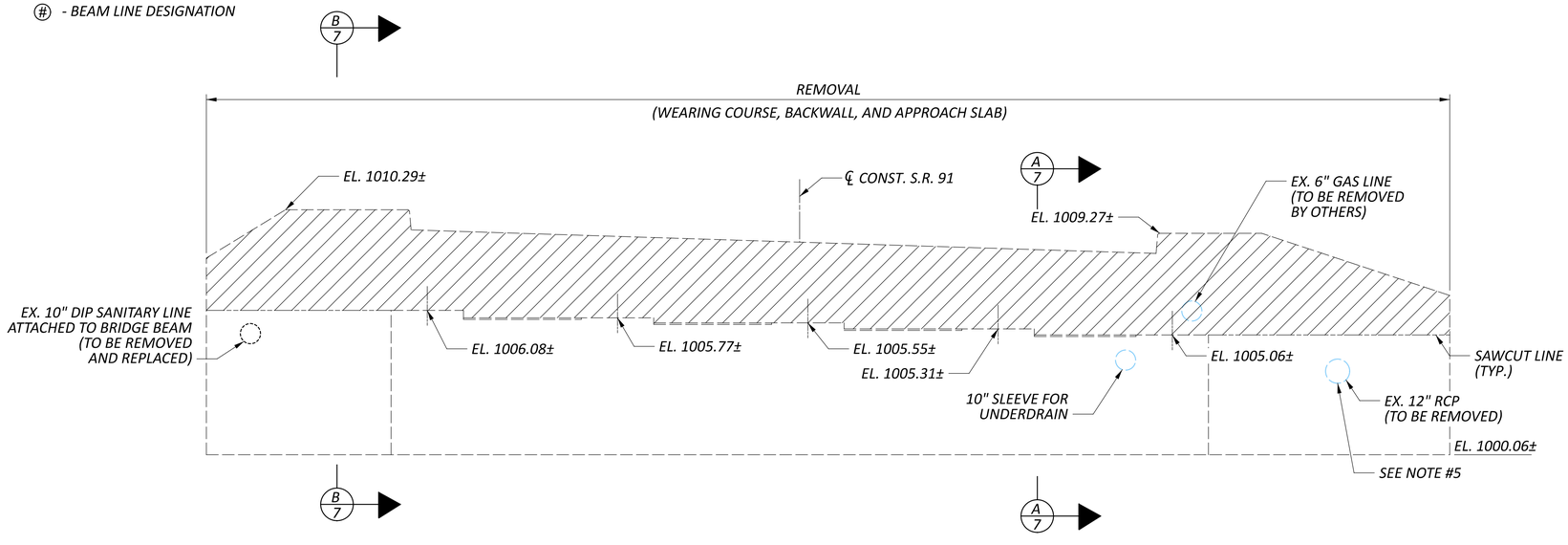

A/7 REAR ABUTMENT REMOVAL SECTION

*LEGEND:*

- *INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN*
- *INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - APPROACH SLAB REMOVED*
- *ASPHALT WEARING COURSE REMOVED*
- (#) *BEAM LINE DESIGNATION*




B/7 REAR ABUTMENT REMOVAL SECTION




## REAR ABUTMENT REMOVAL ELEVATION

*(ALONG ℄ BRGS. R.A.)*

*NOTES:*

1. *THE REMOVAL LIMITS SHOWN ARE THE MINIMUM AMOUNT NECESSARY TO PERFORM THE PROPOSED WORK. ANY ADDITIONAL REMOVAL PERFORMED BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER PRIOR TO STARTING REMOVAL. ALL ADDITIONAL REMOVAL SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO THE DEPARTMENT.*
2. *CUT ALL EXISTING REINFORCING STEEL AT REMOVAL LINES AS DIRECTED BY PLANS.*
3. *DIMENSIONS AND ELEVATIONS SHOWN ARE PER THE EXISTING STRUCTURE PLANS OR AS OBSERVED IN THE FIELD AND SHALL BE CONSIDERED APPROXIMATE.*
4. *EXISTING PILES NOT SHOWN FOR CLARITY.*
5. *CHISEL OUTLINE OF EXISTING CONDUIT HOLE IN ABUTMENT TO ACCEPT PROPOSED 15" TYPE C CONDUIT.*

REAR ABUTMENT REMOVAL DETAILS
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142
DESIGN AGENCY
BG
www.bgeng group.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016
DESIGNER RG | CHECKER CCJ
REVIEWER GTB 02-25-25
PROJECT ID 113201
SUBSET 7 | TOTAL 30
SHEET P.39 | TOTAL 62

SUM-91-07.89

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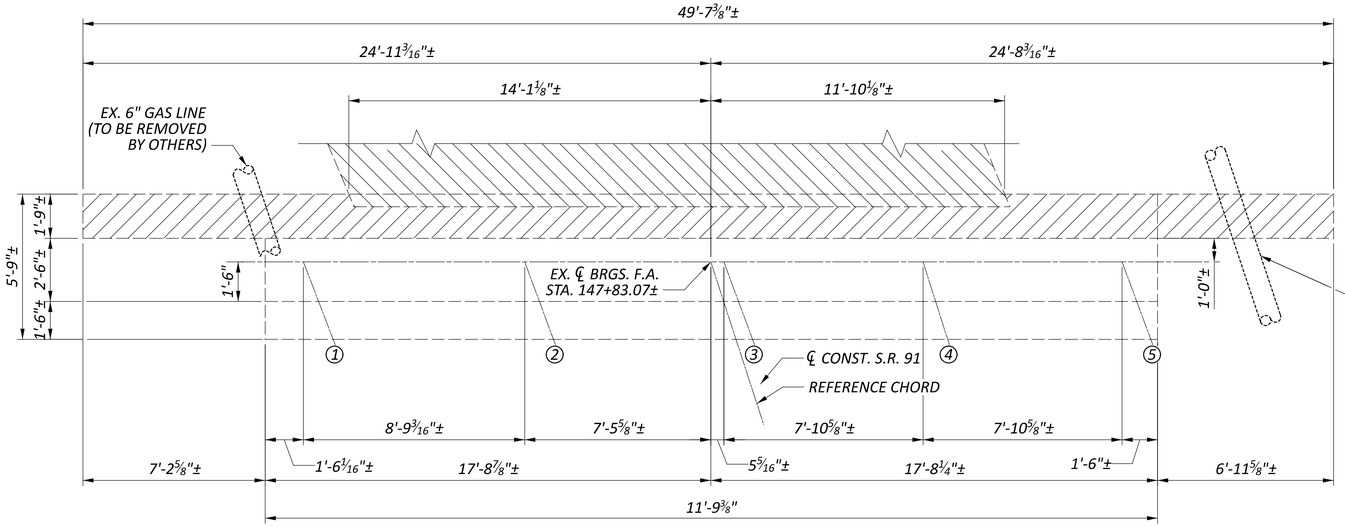
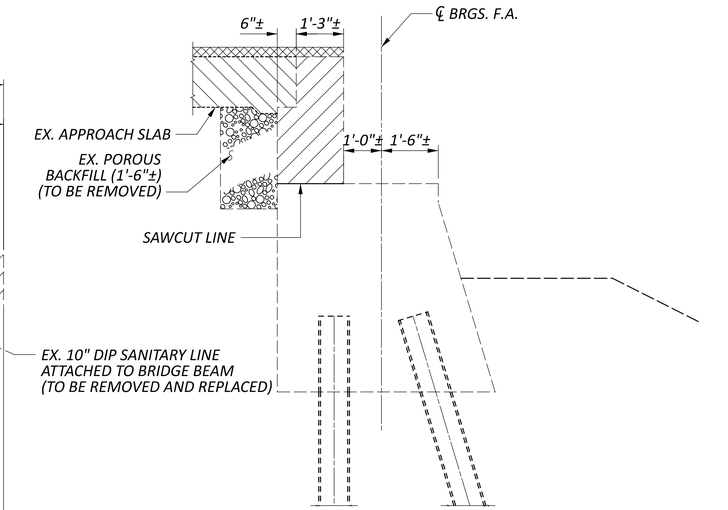


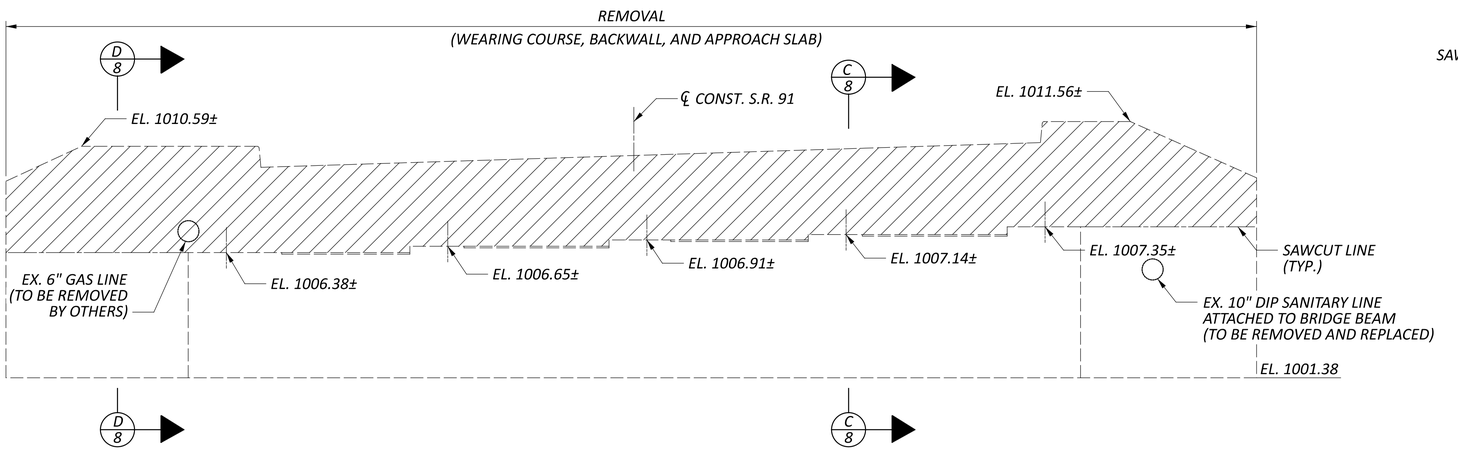

## FORWARD ABUTMENT REMOVAL PLAN




C/8 FORWARD ABUTMENT REMOVAL SECTION

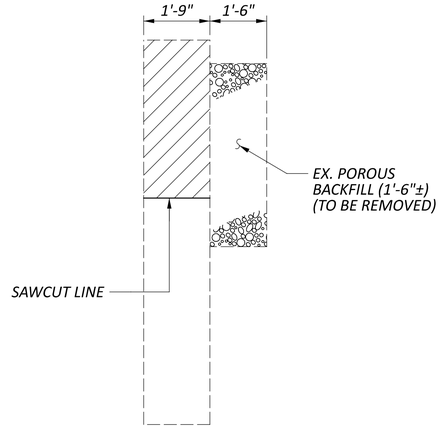
**LEGEND:**

- INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
- INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - APPROACH SLAB REMOVED
- ASPHALT WEARING COURSE REMOVED
- (#) - BEAM LINE DESIGNATION




## FORWARD ABUTMENT ABUTMENT ELEVATION

(ALONG ℄ BRGS. F.A.)




D/8 FORWARD ABUTMENT REMOVAL SECTION

**NOTES:**

1. THE REMOVAL LIMITS SHOWN ARE THE MINIMUM AMOUNT NECESSARY TO PERFORM THE PROPOSED WORK. ANY ADDITIONAL REMOVAL PERFORMED BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER PRIOR TO STARTING REMOVAL. ALL ADDITIONAL REMOVAL SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO THE DEPARTMENT.
2. CUT ALL EXISTING REINFORCING STEEL AT REMOVAL LINES AS DIRECTED BY PLANS.
3. DIMENSIONS AND ELEVATIONS SHOWN ARE PER THE EXISTING STRUCTURE PLANS OR AS OBSERVED IN THE FIELD AND SHALL BE CONSIDERED APPROXIMATE.
4. EXISTING PILES NOT SHOWN FOR CLARITY.

# FORWARD ABUTMENT REMOVAL DETAILS
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
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5960 WILCOX PLACE, SUITE C
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REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 8 | 30 |

| SHEET | TOTAL |
|---|---|
| P.40 | 62 |

SUM-91-07.89

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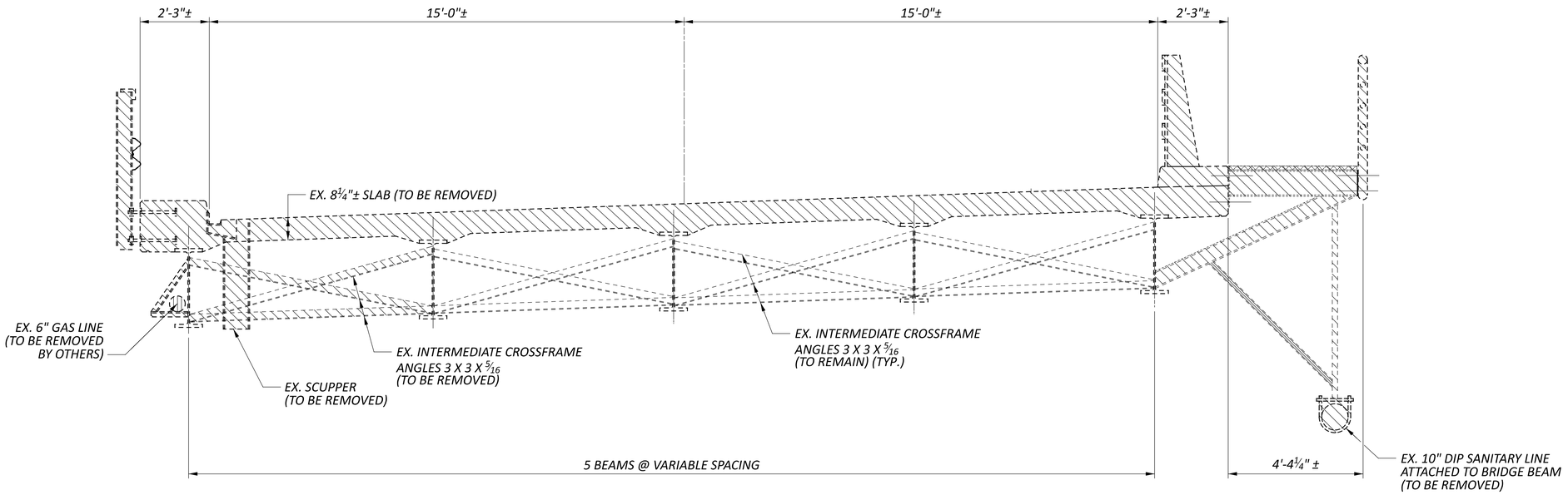


## EXISTING BRIDGE REMOVAL DETAILS

**LEGEND:**

- PORTION TO BE REMOVED BY CONTRACTOR
- PORTION TO BE REMOVED BY OTHERS

**NOTES:**

1. THE REMOVAL OF EXISTING HANGERS/OVERHANG BRACKETS SUPPORTING THE GAS LINE AND INTERMEDIATE CROSS FRAMES ARE PAID UNDER ITEM 513- STRUCTURAL STEEL, MISC.: GAS MAIN SUPPORTS. THE LIMITS OF REMOVAL PAID FOR UNDER THIS ITEM ARE FROM THE BACK OF BACKWALL OF THE REAR ABUTMENT TO THE BACK OF THE FORWARD ABUTMENT.
2. THE REMOVAL OF EXISTING SANITARY LINE AND THE HANGERS SUPPORTING THE SANITARY LINE ARE PAID UNDER ITEM 513- STRUCTURAL STEEL, MISC.: SANITARY SEWER. THE LIMITS OF REMOVAL PAID FOR UNDER THIS ITEM ARE FROM THE BACK OF BACKWALL OF THE REAR ABUTMENT TO THE BACK OF BACKWALL OF THE FORWARD ABUTMENT.
2. THE REMOVAL OF EXISTING DECK, BRIDGE BARRIER AND SIDEWALK IS PAID UNDER ITEM 202 : PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
3. THE EXISTING DECK SHALL NOT BE REMOVED UNTIL A SANITARY BYPASS LINE HAS BEEN ESTABLISHED.

SUPERSTRUCTURE REMOVAL DETAILS
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgenggroup.com
5960 MILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 9 | 30 |

| SHEET | TOTAL |
|---|---|
| P.41 | 62 |

SUM-91-07.89

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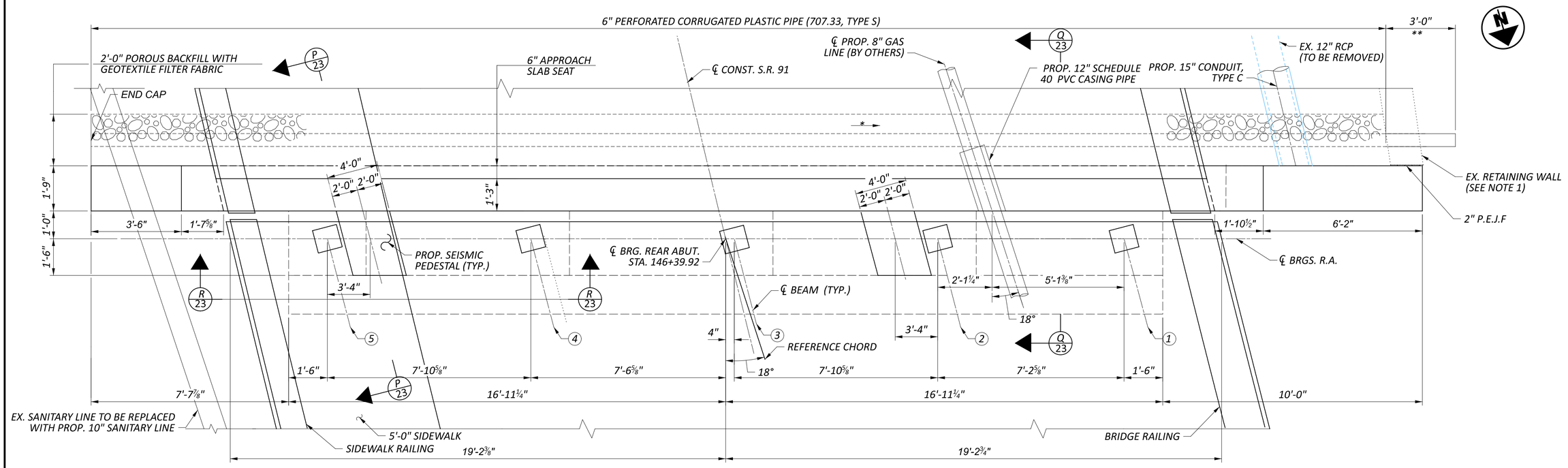
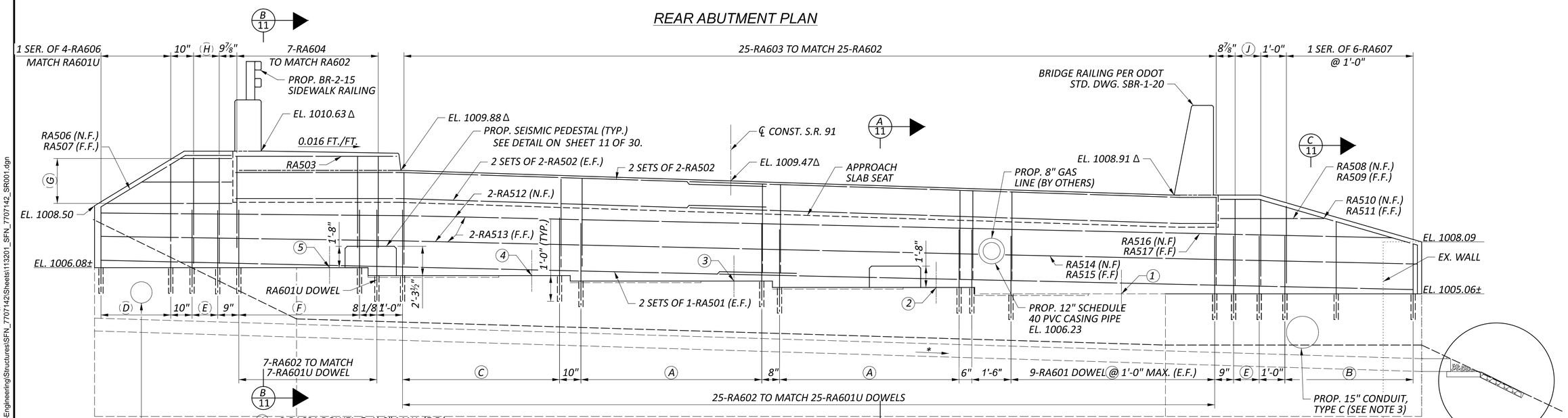



## REAR ABUTMENT PLAN




## REAR ABUTMENT ELEVATION

### LEGEND:

- (#) - BEAM DESIGNATION
- * - MINIMUM SLOPE OF PIPE IS ⅛"/FT.
- ** - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE INCLUDING SPECIAL (707.33, TYPE S)
- Δ - ELEVATION ALONG ℄ BRGS.

(A) = 8-RA601 DOWEL @ 1'-0" MAX. (E.F.)
(B) = 6-RA601 DOWEL @ 1'-0" MAX. (E.F.)
(C) = 7-RA601 DOWEL @ 1'-0" MAX. (E.F.)
(D) = 4-RA601 DOWEL @ 10" MIN. (E.F.)
(E) = 2-RA601 DOWEL @ 1'-0" MAX.(E.F.)
(F) = 6-RA601 DOWEL @ 11" MIN. (E.F.)
(G) = 1 SER. OF 3-RA504 (N.F.) & 1SER. OF 3-RA505 (F.F) @ 10"
(H) = 2-RA605 MATCH RA601U
(J) = 2-RA608 MATCH RA601U

NOTES:

1. DRILL THROUGH THE EXISTING RETAINING WALL TO DRAIN THE PROPOSED 6" PERFORATED PIPE.
2. THE EXISTING OPENING IN THE ABUTMENT FOR THE SANITARY LINE SHALL BE UTILIZED FOR THE PROPOSED SANITARY LINE. ADDITIONAL CONCRETE SHALL BE REMOVED AS NECESSARY FOR PROPER FIT-UP OF THE 15" PVC SLEEVE. THE INVERT FOR THE PROPOSED SANITARY LINE SHALL MATCH THAT OF THE EXISTING LINE. AFTER PLACEMENT OF THE SANITARY LINE THRU THE ABUTMENT CONTRACTOR TO GROUT SPACE BETWEEN THE SANITARY LINE AND THE ABUTMENT IN ITS ENTIRETY INCLUDING BUT NOT LIMITED TO BOTH THE ENTRANCE AND EXIT OF THE SANITARY LINE USING ITEM 510 NON-SHRINKING GROUT. ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 513 STRUCTURAL STEEL, MISC.:SANITARY SEWER.
3. THE EXISTING OPENING IN THE ABUTMENT FOR THE 12" RCP SHALL BE UTILIZED FOR THE PROPOSED 15" CONDUIT TYPE C. ADDITIONAL CONCRETE SHALL BE REMOVED AS NECESSARY FOR PROPER FIT-UP. THE INVERT FOR THE PROPOSED CONDUIT SHALL MATCH THAT OF THE EXISTING LINE. AFTER PLACEMENT OF THE CONDUIT THRU THE ABUTMENT CONTRACTOR TO GROUT SPACE BETWEEN THE CONDUIT AND THE ABUTMENT IN ITS ENTIRETY INCLUDING BUT NOT LIMITED TO BOTH THE ENTRANCE AND EXIT OF THE PIPE USING ITEM 510 NON-SHRINKING GROUT. ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 511 CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN.

| BEAM SEAT ELEVATIONS @ ℄ BEARING | | | | | |
|---|---|---|---|---|---|
| BEAM LINE DESIGNATION | 1 | 2 | 3 | 4 | 5 |
| R.A. | 1005.06± | 1005.31± | 1005.56± | 1005.77± | 1006.08± |

REAR ABUTMENT PLAN AND ELEVATION
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142
DESIGN AGENCY
BG
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016
DESIGNER RG | CHECKER CCJ
REVIEWER GTB 02-25-25
PROJECT ID 113201
SUBSET 10 | TOTAL 30
SHEET P.42 | TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:18 AM USER: jperchinske
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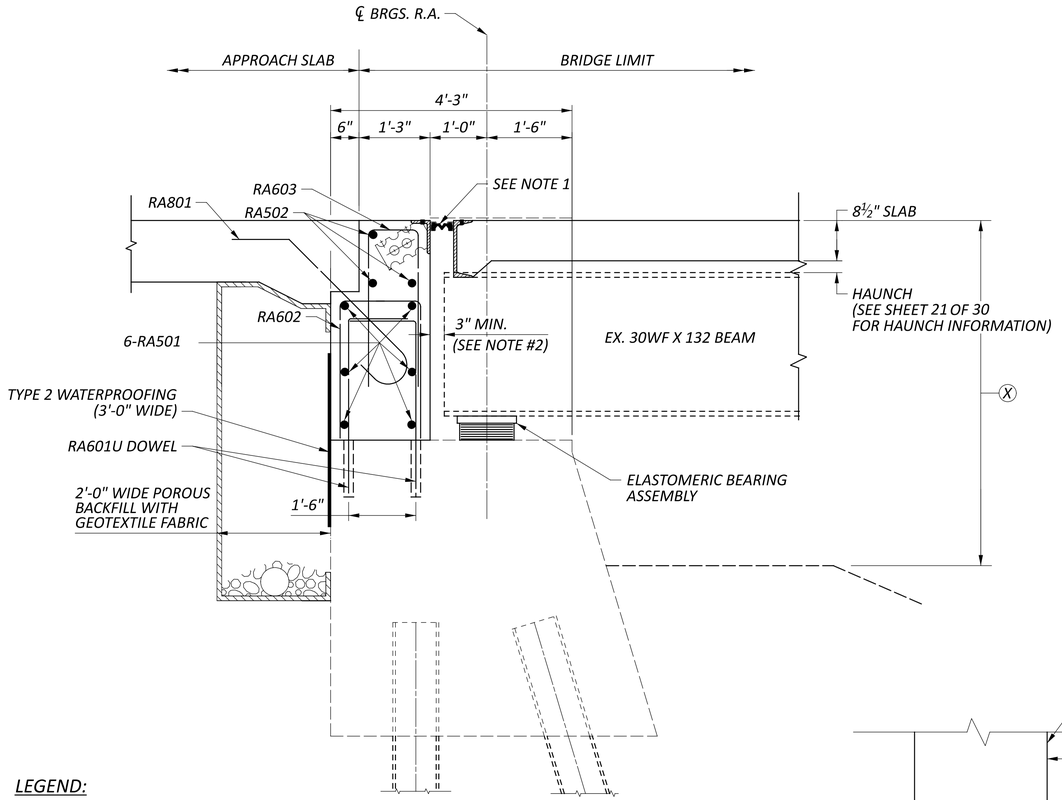
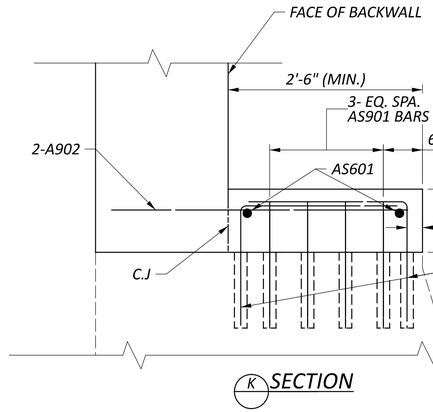
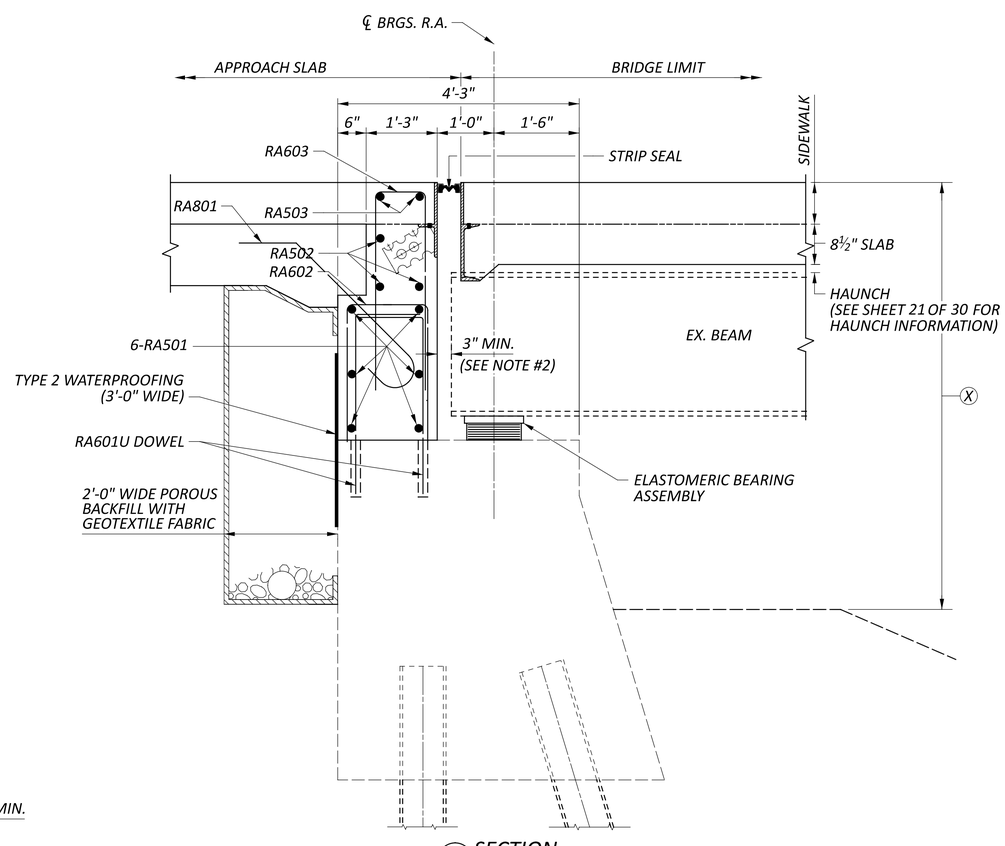


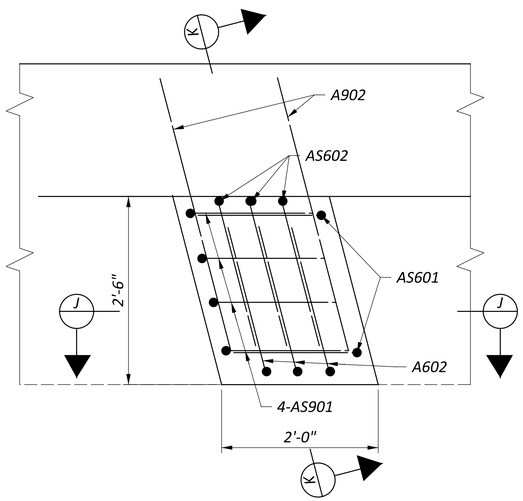

A 10 SECTION



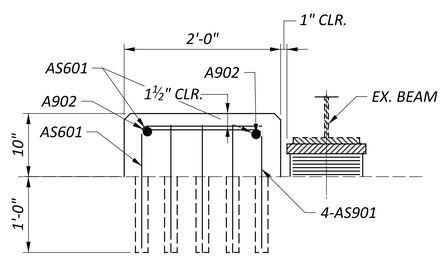

K SECTION



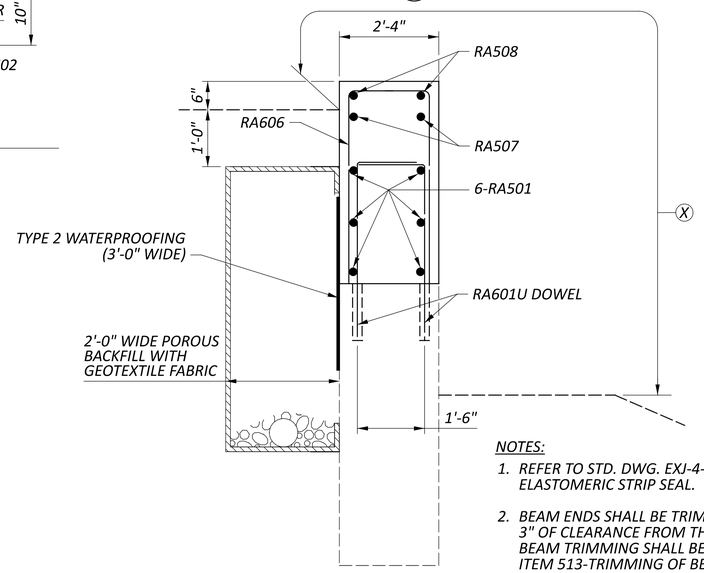

B 10 SECTION




SEISMIC PEDESTAL PLAN




J SECTION




C 10 SECTION

LEGEND:

X - SEALING OF CONCRETE SURFACES (EPOXY URETHANE)

NOTES:

1. REFER TO STD. DWG. EXJ-4-87 FOR DETAILS OF ELASTOMERIC STRIP SEAL.
2. BEAM ENDS SHALL BE TRIMMED AS NECESSARY TO ENSURE 3" OF CLEARANCE FROM THE PROPOSED BACKWALL. THE BEAM TRIMMING SHALL BE CONSIDERED INCIDENTAL TO ITEM 513-TRIMMING OF BEAM END.
3. SEE GAS LINE ATTACHMENT AT REAR AND FORWARD AUBTMENTS DETAIL ON SHEET 13 / 30 .

# REAR ABUTMENT DETAILS
## BRIDGE NO. SUM-00091-07.880
## S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
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| RG | CCJ |

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PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 11 | 30 |

| SHEET | TOTAL |
|---|---|
| P.43 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:20 AM USER: jperchinske
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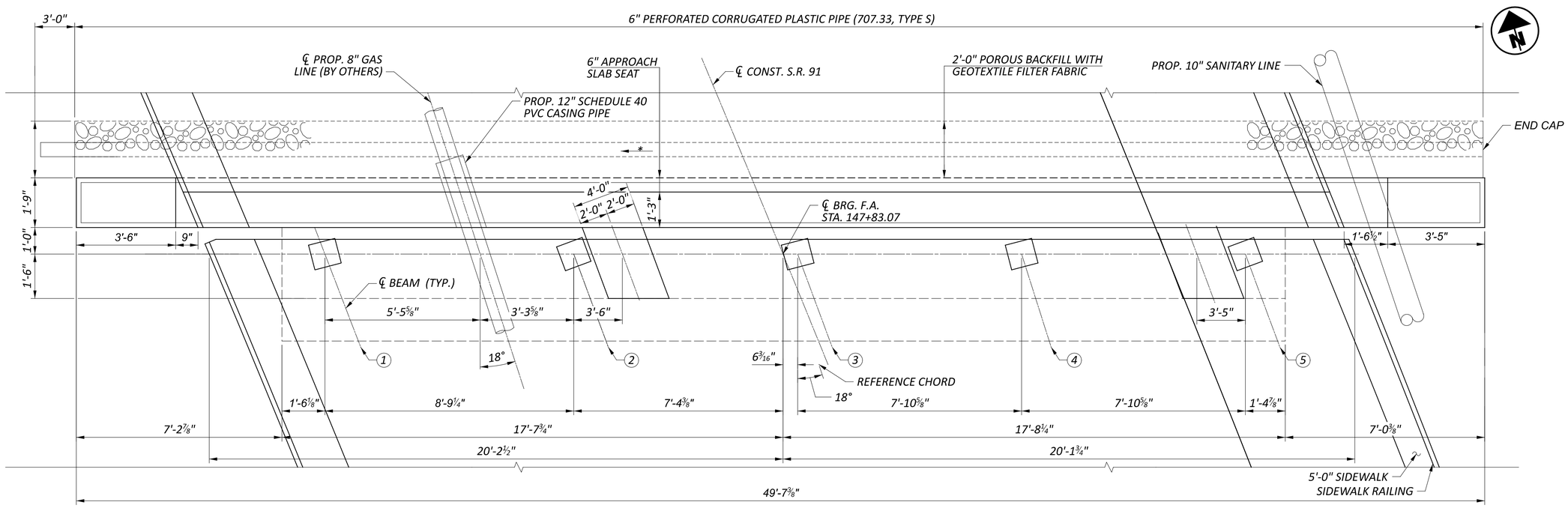
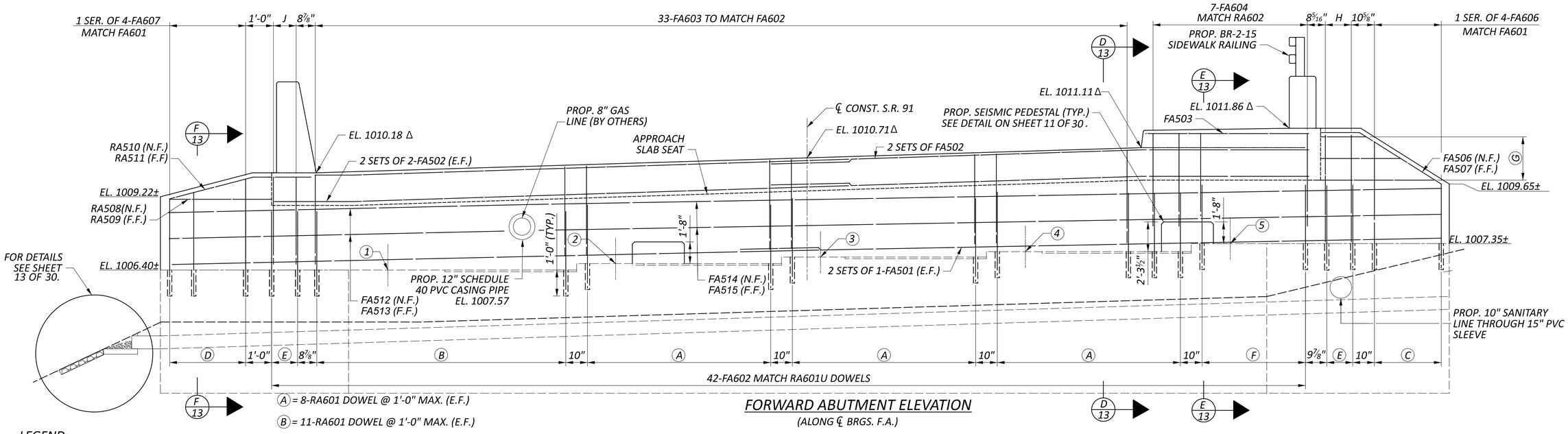



## FORWARD ABUTMENT PLAN




## FORWARD ABUTMENT ELEVATION

(ALONG ℄ BRGS. F.A.)

### LEGEND:

- (#) - BEAM DESIGNATION
- * - MINIMUM SLOPE OF PIPE IS ⅛"/FT.
- ** - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE INCLUDING SPECIALS (707.33, TYPE S)
- Δ - ELEVATION ALONG ℄ BRGS.

(A) = 8-RA601 DOWEL @ 1'-0" MAX. (E.F.)
(B) = 11-RA601 DOWEL @ 1'-0" MAX. (E.F.)
(C) = 4-RA601 DOWEL @ 11" MAX. (E.F.)
(D) = 4-RA601 DOWEL @ 1'-0" MIN. (E.F.)
(E) = 2-RA601 DOWEL @ 1'-0" MAX.(E.F.)
(F) = 5-RA601 DOWEL @ 1'-0" MIN. (E.F.)
(G) = 1 SER. OF 3-FA504 (N.F.) & 1SER. OF 3-FA505 (F.F) @ 10"
(H) = 2-FA605 MATCH RA601U
(J) = 2-FA608 MATCH RA601U

BEAM SEAT ELEVATIONS @ ℄ BEARING

| BEAM LINE DESIGNATION | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| R.A. | 1006.40± | 1006.65± | 1006.91± | 1007.14± | 1007.35± |

NOTES:

1. THE EXISTING OPENING IN THE ABUTMENT FOR THE SANITARY LINE SHALL BE UTILIZED FOR THE PROPOSED SANITARY LINE. ADDITIONAL CONCRETE SHALL BE REMOVED AS NECESSARY FOR PROPER FIT-UP OF THE 15" PVC SLEEVE. THE INVERT FOR THE PROPOSED SANITARY LINE SHALL MATCH THAT OF THE EXISTING LINE. AFTER PLACEMENT OF THE SANITARY LINE THRU THE ABUTMENT CONTRACTOR TO GROUT SPACE BETWEEN THE SANITARY LINE AND THE ABUTMENT IN ITS ENTIRETY INCLUDING BUT NOT LIMITED TO BOTH THE ENTRANCE AND EXIT OF THE SANITARY LINE USING ITEM 510 NON-SHRINKING GROUT. ALL MATERIAL, LABOR, AND EQUIPMENT SHALL BE CONSIDERED INCIDENTAL TO ITEM 513 STRUCTURAL STEEL, MISC.: SANITARY SEWER.

FORWARD ABUTMENT PLAN AND ELEVATION
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142
DESIGN AGENCY
BG www.bgeng group.com 5960 WILCOX PLACE, SUITE C DUBLIN, OHIO 43016
DESIGNER RG | CHECKER CCJ
REVIEWER GTB 02-25-25
PROJECT ID 113201
SUBSET 12 | TOTAL 30
SHEET P.44 | TOTAL 62

SUM-91-07.89

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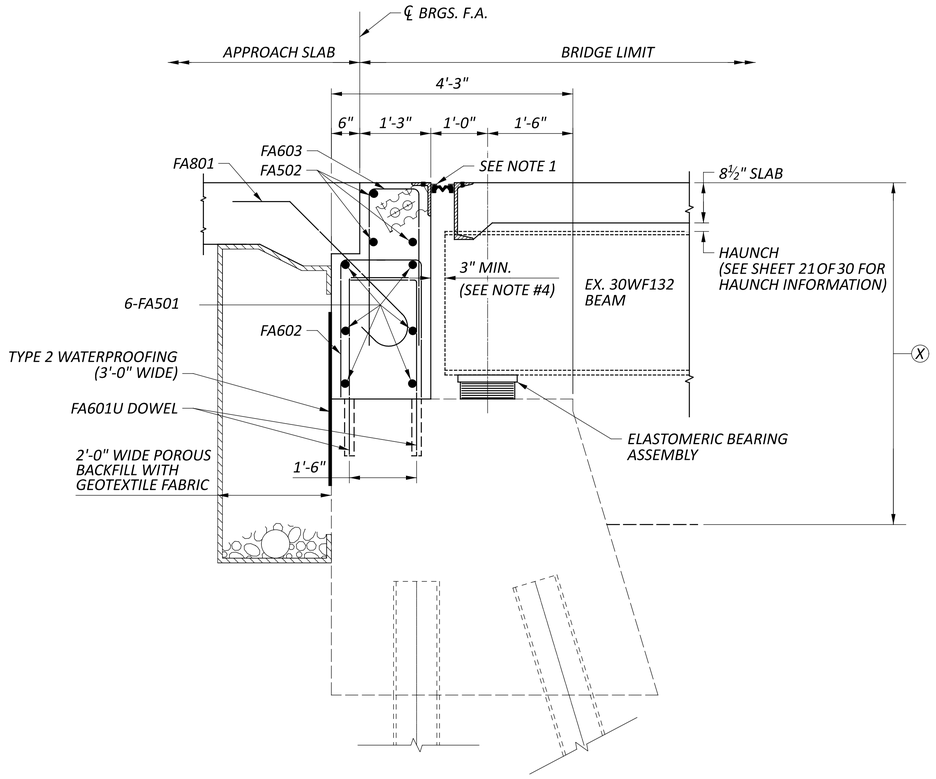
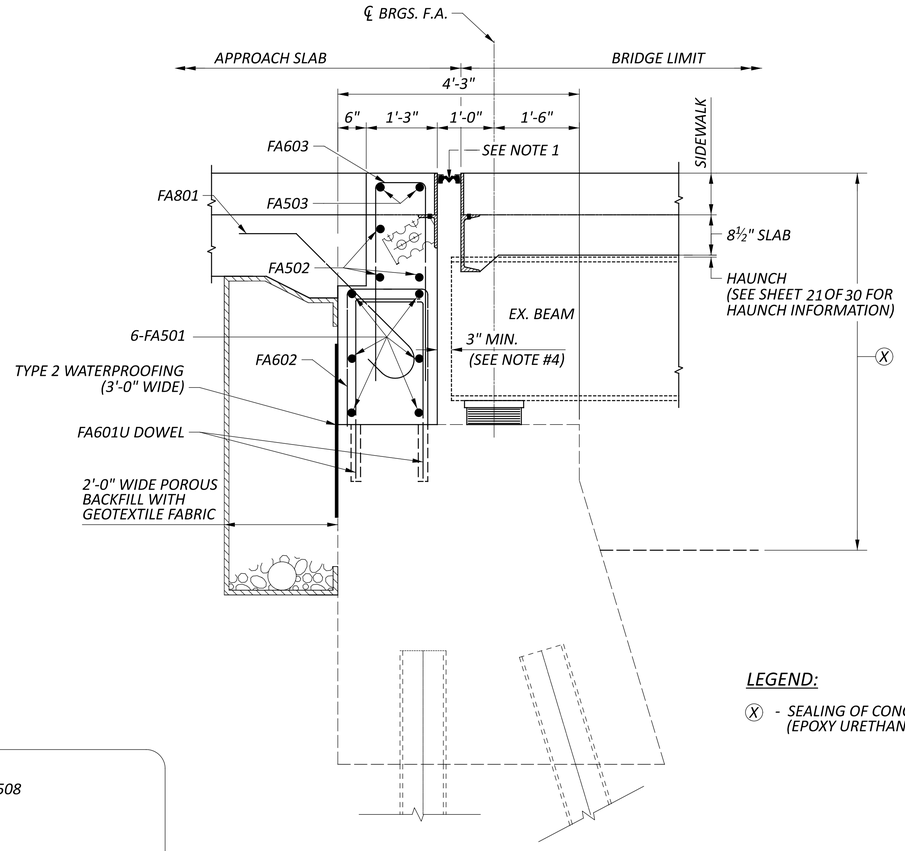
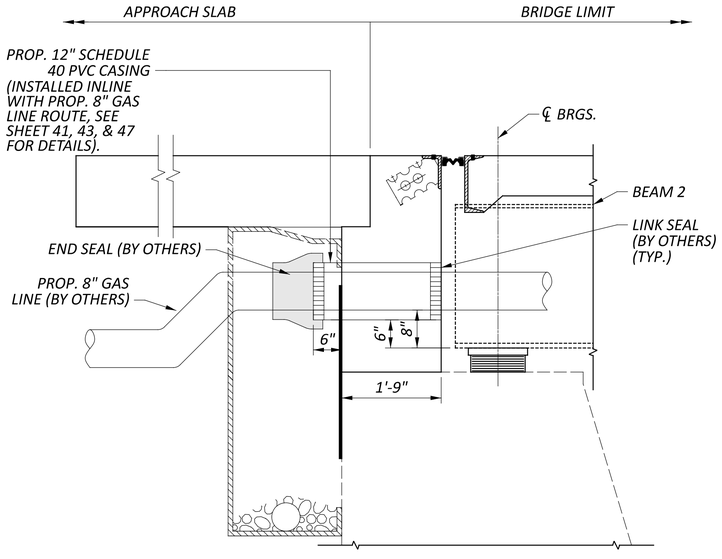
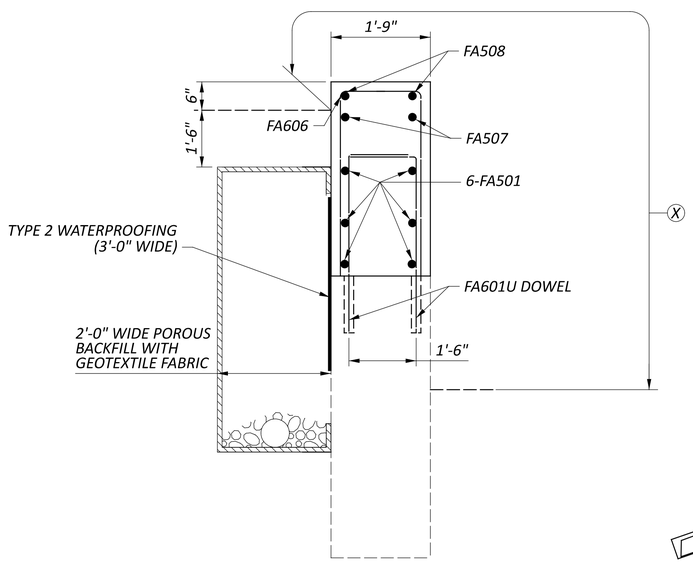



D/12 SECTION

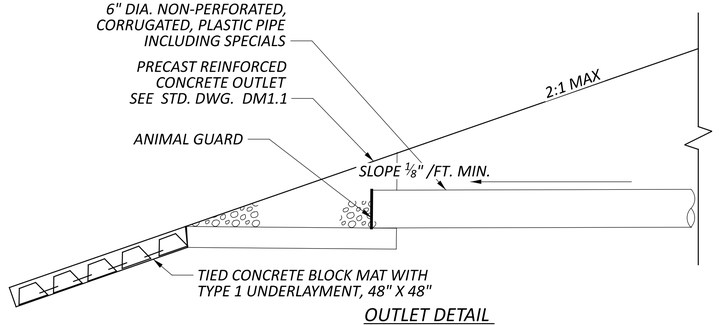



E/12 SECTION




F/12 SECTION




OUTLET DETAIL
(SEE NOTE 2)

## GAS LINE ATTACHMENT AT REAR AND FORWARD ABUTMENTS

**LEGEND:**

- END SEAL
- LINK SEAL

**LEGEND:**

X - SEALING OF CONCRETE SURFACES (EPOXY URETHANE)

**NOTES:**

1. REFER TO STD. DWG. EXJ-4-87 FOR DETAILS OF ELASTOMERIC STRIP SEAL.
2. PRECAST REINFORCED CONCRETE OUTLET AND TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT, PER ODOT STD. DWG. DM-1.1, ANIMAL GUARD, AND DRILLING THROUGH EXISTING WALL AT REAR ABUTMENT SHALL BE INCLUDED FOR PAYMENT WITH ITEM 518 - 6" NON-PERFORATED, CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN FOR PAYMENT.
3. BEAM ENDS SHALL BE TRIMMED AS NECESSARY TO ENSURE 3" OF CLEARANCE FROM THE PROPOSED BACKWALL. THE BEAM TRIMMING SHALL BE CONSIDERED INCIDENTAL TO ITEM 513-TRIMMING OF BEAM END.

FORWARD ABUTMENT DETAILS
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

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REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 13 | 30 |

| SHEET | TOTAL |
|---|---|
| P.45 | 62 |

SUM-91-07.89

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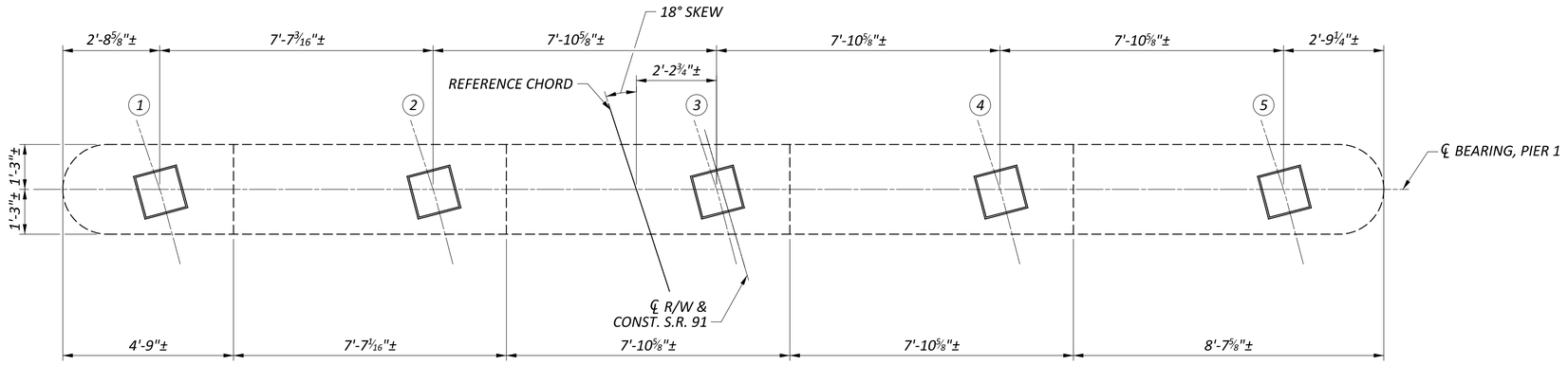
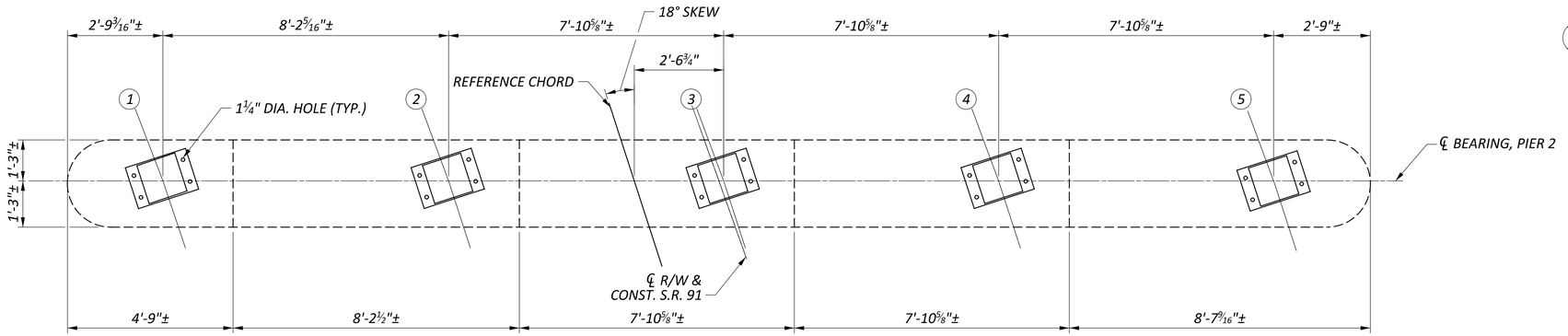
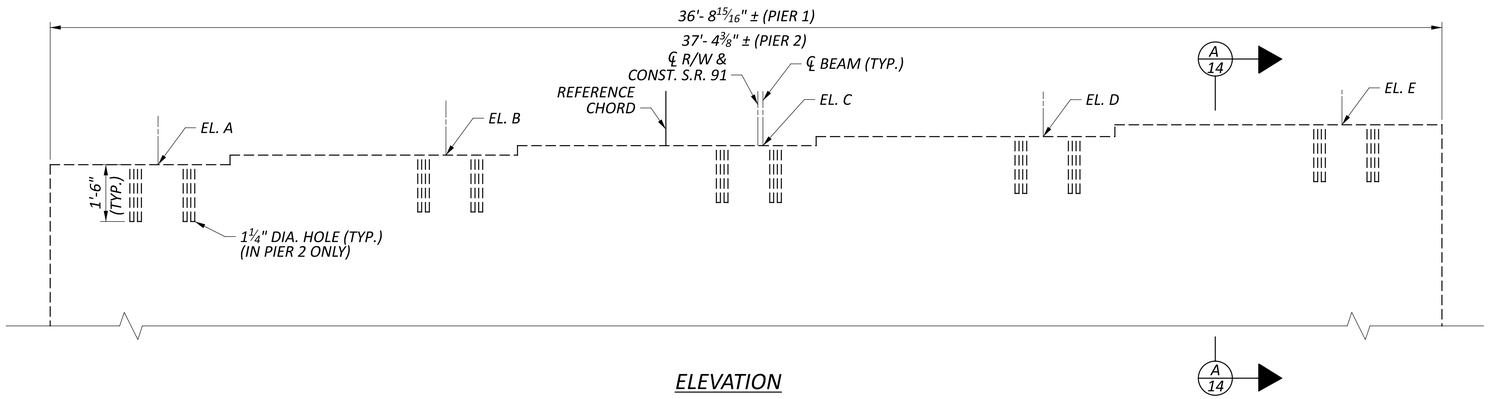
| ELEVATION TABLE | | | | | |
|---|---|---|---|---|---|
| | EL. A | EL. B | EL. C | EL. D | EL. E |
| PIER 1 | 1005.34± | 1005.53± | 1005.86± | 1006.1± | 1006.38± |
| PIER 2 | 1006.02± | 1006.23± | 1006.45± | 1006.68± | 1006.94± |



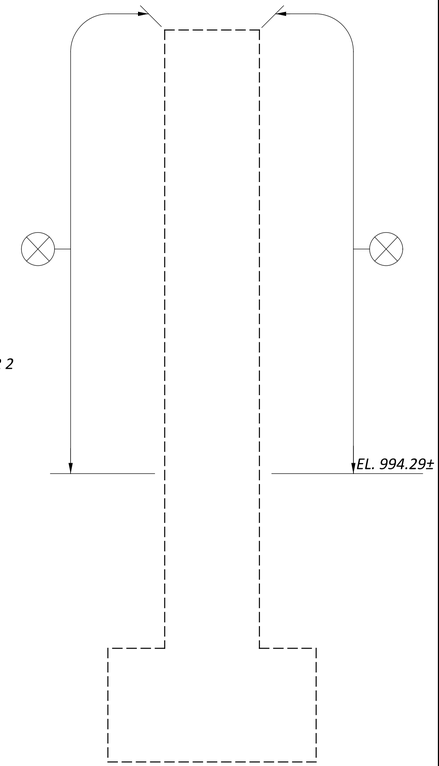

PIER 1 PLAN




PIER 2 PLAN




ELEVATION




A 14 SECTION

⊗ - SEALING OF CONCRETE SURFACES (EPOXY URETHANE)

NOTES

1. SEE SHEET 15 OF 30 FOR BEARING SKEW ANGLES

PIER DETAILS
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

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REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 14 | 30 |

| SHEET | TOTAL |
|---|---|
| P.46 | 62 |

SUM-91-07.89

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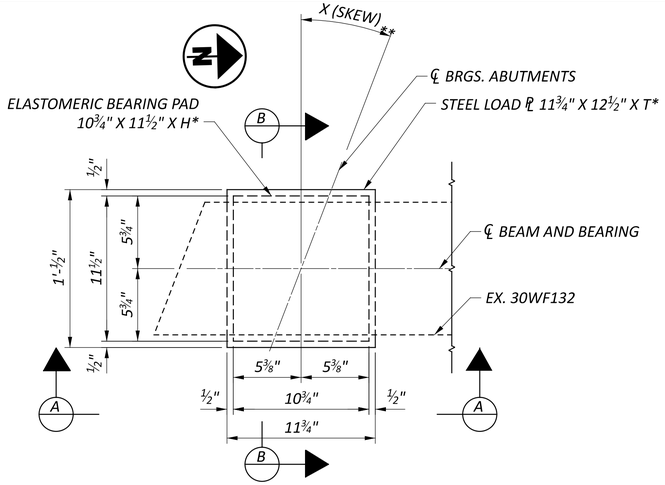
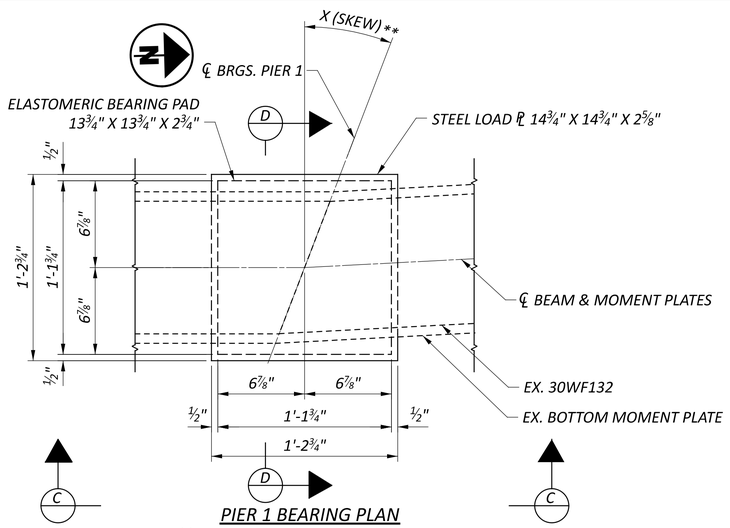


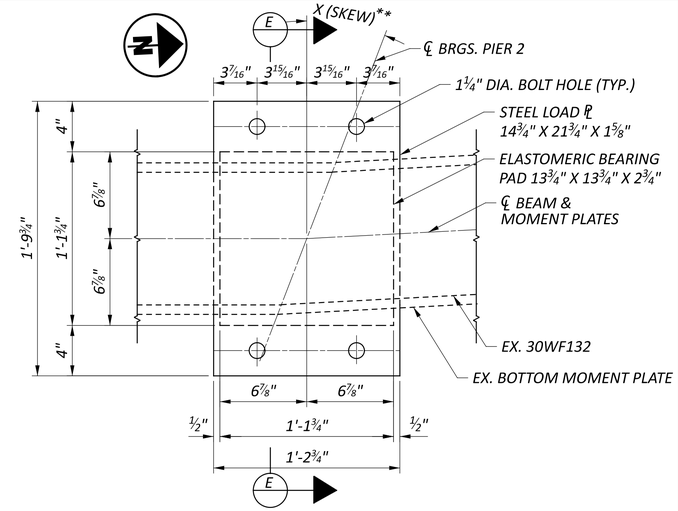

## ABUTMENT BEARING PLAN

*(REAR ABUTMENT SHOWN: FORWARD ABUTMENT OPPOSITE HAND)*
** SEE TABLE 1 FOR PLATE THICKNESS & ELASTOMERIC PAD HEIGHT*
*** SEE TABLE 2 FOR SKEW ANGLE X*



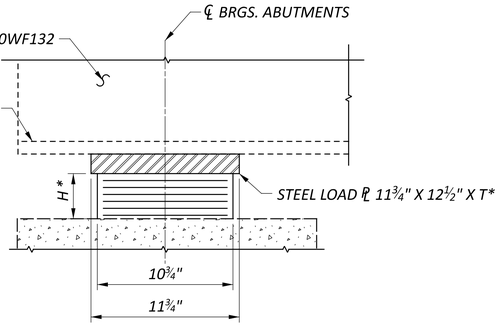

## PIER 1 BEARING PLAN

*** SEE TABLE 2 FOR SKEW ANGLE X.*



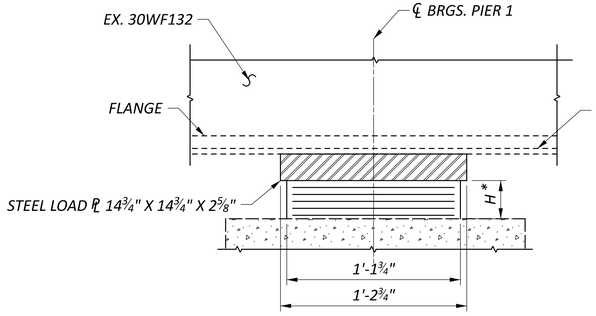

## PIER 2 BEARING PLAN

*** SEE TABLE 2 FOR SKEW ANGLE X.*



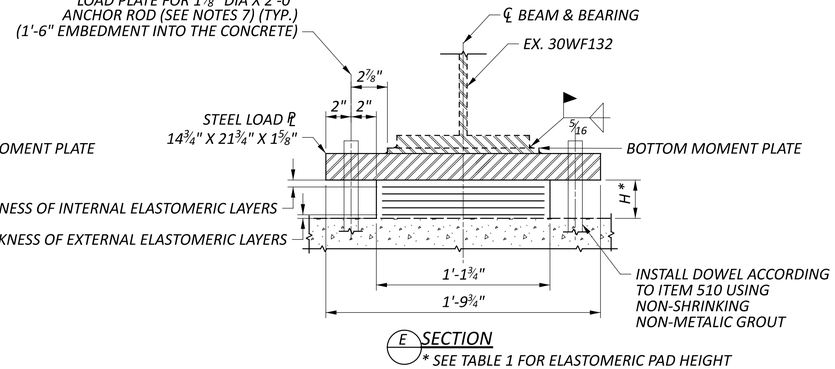

## A SECTION

** SEE TABLE 1 FOR PLATE THICKNESS & ELASTOMERIC PAD HEIGHT*



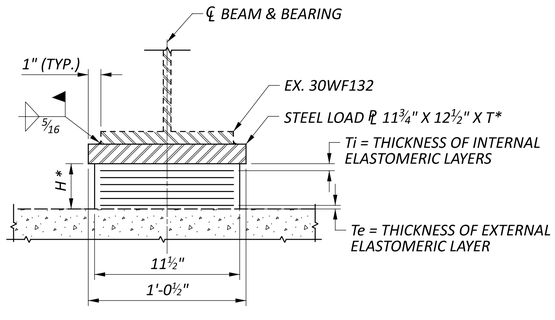

## C SECTION

** SEE TABLE 1 FOR ELASTOMERIC PAD HEIGHT*



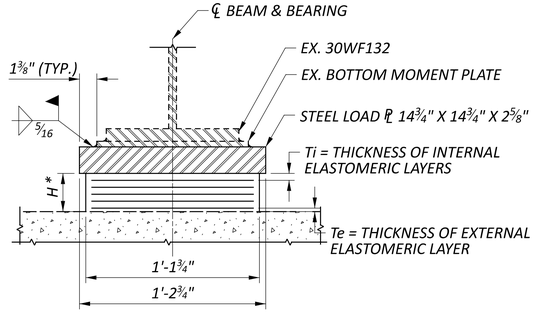

## E SECTION

** SEE TABLE 1 FOR ELASTOMERIC PAD HEIGHT*




## B SECTION

** SEE TABLE 1 FOR PLATE THICKNESS & TABLES 1 & 3 FOR ELASTOMERIC PAD HEIGHT*




## D SECTION

** SEE TABLE 1 FOR ELASTOMERIC PAD HEIGHT*

*TABLE 1-BEARING SCHEDULE*

| LOCATION | BEARING TYPE | NO. OF BEARINGS | ELASTOMERIC BEARING PAD SIZE | NO. OF STEEL LAMINATES 0.1046" THICK (12 GAGE) | INTERNAL LAYERS | | EXTERNAL LAYERS | | STEEL LOAD PLATE SIZE | UNFACTORED DESIGN LOADS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | DEAD LOADS IN KIPS | LIVE LOAD IN KIPS | TOTAL LOAD IN KIPS |
| | | | L X W X H | | Ti | NO. | Te | NO. | L X W X T | | | |
| REAR ABUTMENT | EXP. | 5 | 10.75"X11.5"X3.58" | 6 | 0.45" | 6 | 0.25" | 1 | 11.75"X12.50"X1.55" | 24.9 | 52.4 | 77.2 |
| PIER 1 | EXP. | 5 | 13.75"X13.75"X2.77" | 5 | 0.4" | 5 | 0.25" | 1 | 14.75"X14.75"X2.60" | 85.7 | 98.3 | 184.0 |
| PIER 2 | FIXED | 5 | 13.75"X13.75"X2.77" | 5 | 0.4" | 5 | 0.25" | 1 | 14.75"X21.75"X1.60" | 85.7 | 98.3 | 184.0 |
| FORWARD ABUTMENT | EXP. | 5 | 10.75"X11.5"X1.91" | 3 | 0.45" | 3 | 0.25" | 1 | 11.75"X12.50"X3.22" | 24.9 | 52.4 | 77.2 |

*TABLE 2 - BEAM SKEW ANGLE (X)*

| LOCATION | BEAM 1 | BEAM 2-5 |
|---|---|---|
| REAR ABUTMENT | 15°15.06'± | 14°46.09'± |
| PIER 1 | 15°15.06'± | 14°46.09'± |
| PIER 2 | 18°15.14'± | 17°40.10'± |
| FORWARD ABUTMENT | 21°18.00'± | 20°36.64'± |

*TABLE 3 - BEARING HEIGHT (IN.)*

| LOCATION | H |
|---|---|
| REAR ABUTMENT | 3.58 |
| PIER 1 | 2.77 |
| PIER 2 | 2.77 |
| FORWARD ABUTMENT | 1.91 |

## NOTES:

1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
2. LOAD PLATES: THE STEEL LOAD PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50 AND SHALL BE BOUND TO THE ELASTOMER BY VULCANIZATION DURING THE MOLDING PROCESS.
3. BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS (BEARING, LOAD PLATES, ANCHOR RODS, ETC.), LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL ELASTOMERIC BEARINGS. PAYMENT WILL BE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN AS LISTED UNDER THE ESTIMATED QUANTITIES.
4. MARKINGS: ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
5. PAINTING: THE LOAD PLATES SHALL BE PAINTED IN ACCORDANCE WITH ITEM 514 AND C&MS 708. PAYMENT FOR PAINTING PLATES TO BE INCLUDED WITH ITEM 516, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.
6. DESIGN LOAD: TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE. LOADS SHOWN ARE SERVICE LOADS WITHOUT LOAD FACTORS AND IMPACT FACTORS INCLUDED.
7. PROVIDE UNTHREADED ASTM F1554 GRADE 105 ANCHOR BOLTS.

# BEARNG DETAILS
# BRIDGE NO. SUM-00091-07.880
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PROJECT ID 113201

| SUBSET | TOTAL |
|---|---|
| 15 | 30 |

| SHEET | TOTAL |
|---|---|
| P.47 | 62 |

SUM-91-07.89

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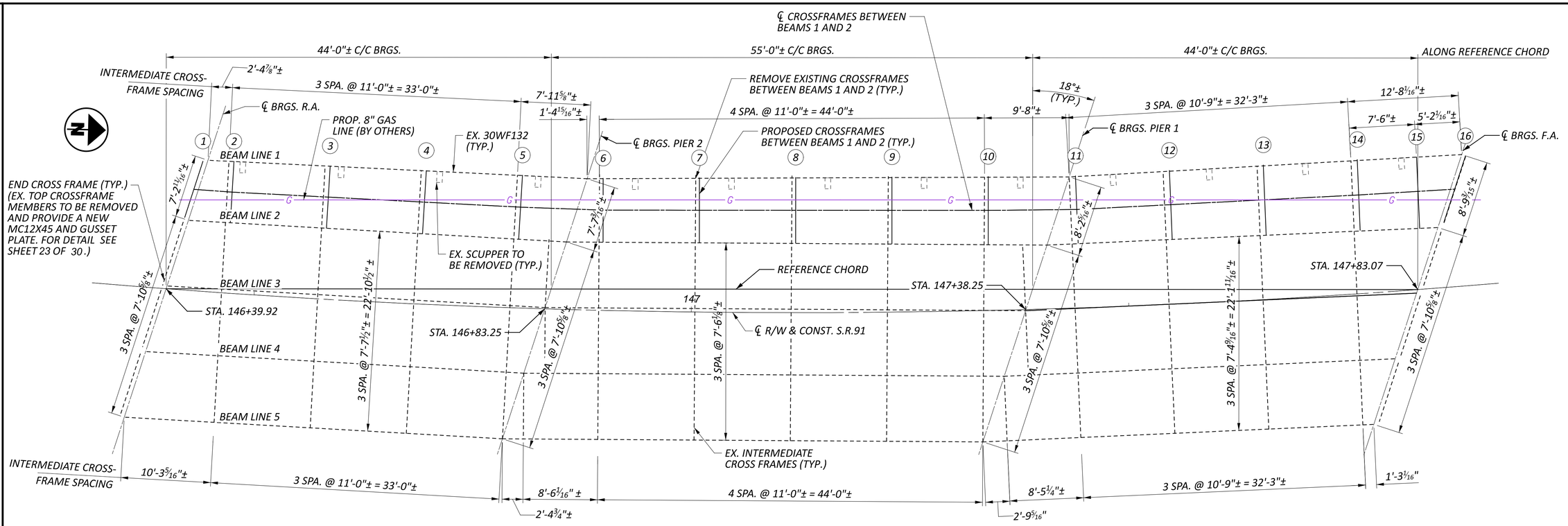
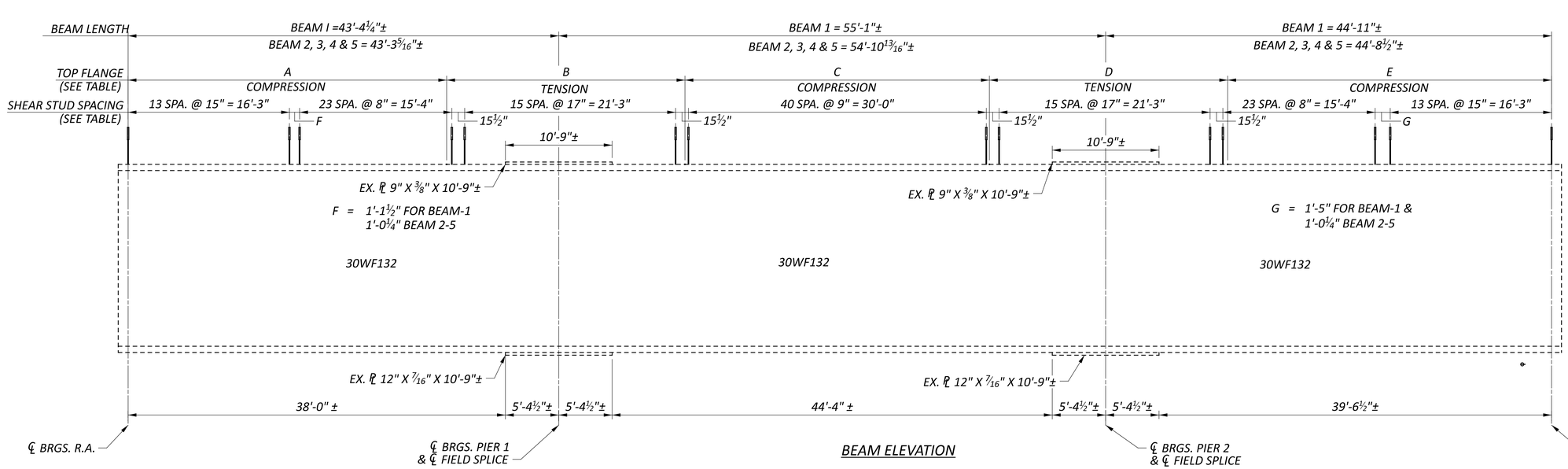



FRAMING PLAN

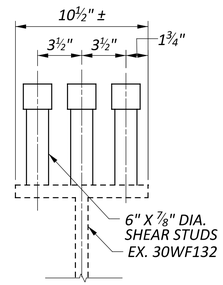
NOTES:

1. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST ¼" FOR THICKNESS UP TO ¾" OR ⅝" FOR GREATER THAN ¾" THICK.

| TOP FLANGE COMPRESSION/TENSION ZONE | | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| BEAM-1 | 32'-2½" | 24'-1" | 30'-9" | 24'-1" | 32'-3" |
| BEAM 2-5 | 32'-1" | 24'-1" | 30'-8" | 24'-0" | 32'-1" |




BEAM ELEVATION




SHEAR STUD DETAIL

FRAMING PLAN AND BEAM ELEVATION
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

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DUBLIN, OHIO 43016

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|---|---|
| RG | CCJ |

REVIEWER GTB 02-25-25

PROJECT ID 113201

| SUBSET | TOTAL |
|---|---|
| 16 | 30 |

| SHEET | TOTAL |
|---|---|
| P.48 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:24 AM USER: jperchinske
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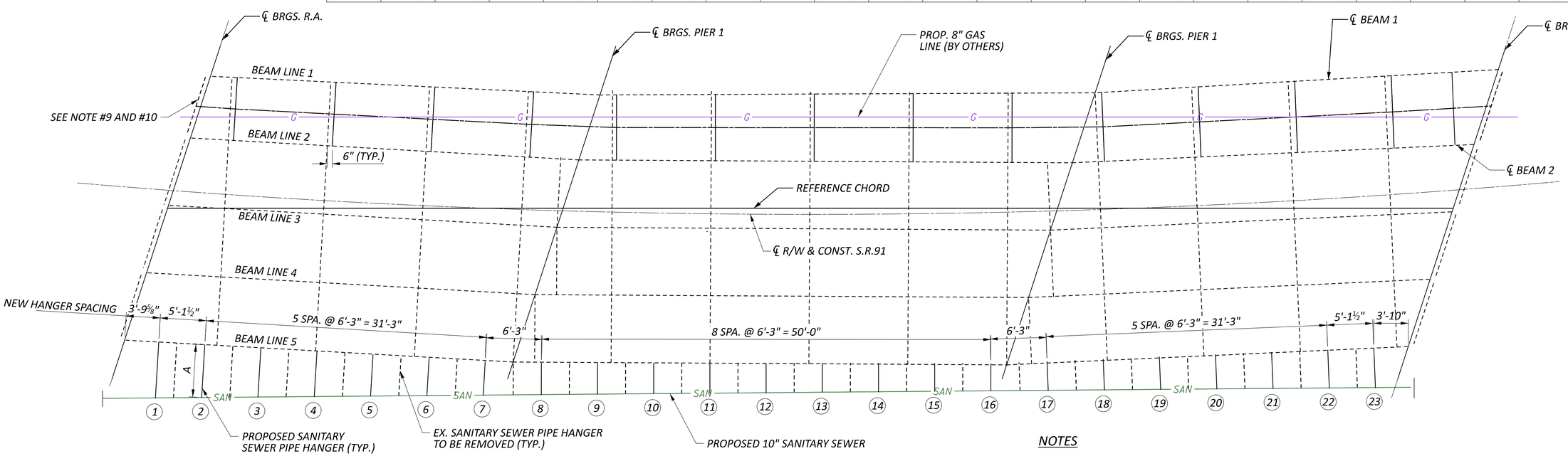
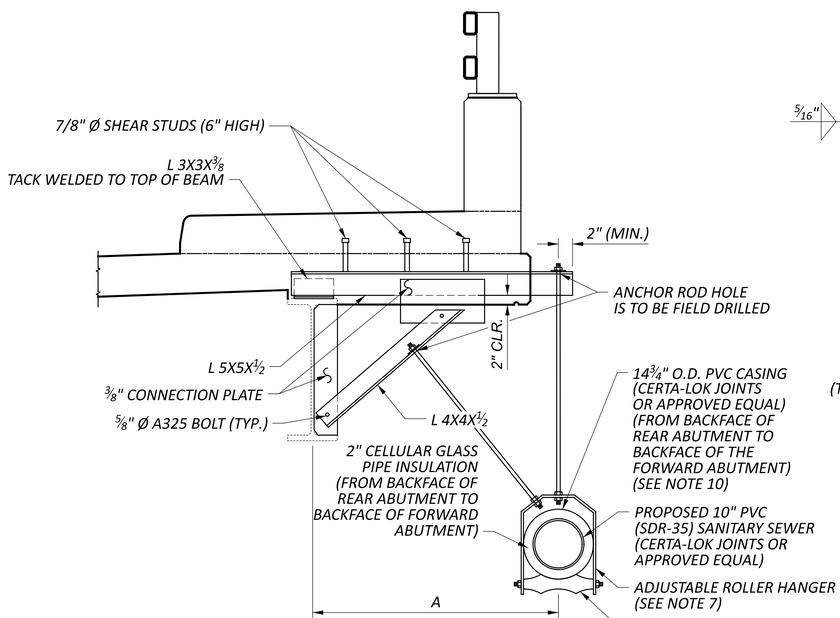
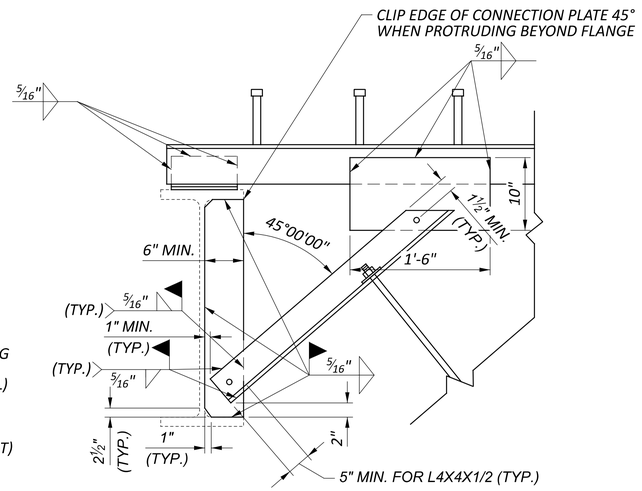
| DIMENSION "A" TABLE (FEET) | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HANGER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| A | ±6'-2 ½" | ±5'-10 5/16" | ±5'-5 ¼" | ±5'-0 ⅛" | ±4'-7 1/16" | ±4'-1 13/16" | ±3'-8 ¾" | ±3'-5 ¾" | ±3'-5 3/16" | ±3'-4 7/16" | ±3'-3 ¾" | ±3'-3" | ±3'-2 ¼" | ±3'-1 11/16" | ±3'-0 15/16" | ±3'-0 ¼" | ±3'-2 ⅜" | ±3'-4 13/16" | ±3'-7 3/16" | ±3'-9 ⅝" | ±4'-0 ⅛" | ±4'-2 ½" | ±4'-4 9/16" |




## UTILITY SUPPORT FRAMING PLAN




## SANITARY SEWER SUPPORT DETAIL




## SANITARY SEWER SUPPORT CONNECTION DETAILS

### NOTES

1. THE EXISTING SANITARY LINE SHALL REMAIN IN SERVICE DURING CONSTRUCTION UTILIZING BYPASS PUMPING BETWEEN THE MANHOLE ON THE NORTH AND SOUTH SIDES OF THE BRIDGE. THE TEMPORARY BYPASS PUMPING LINE SHALL BE SUPPORTED ON THE BRIDGE.
2. ALL FACES OF THE PROPOSED STRUCTURAL SUPPORT SYSTEM (INCLUDING ANGLES AND CONNECTION PLATES) SHALL BE PAINTED UTILIZING THE THREE-COAT PAINT SYSTEM PER C&MS 514.
3. THE CONTRACTOR SHALL REMOVE EXISTING SANITARY LINE, REMOVE EXISTING SANITARY LINE SUPPORT, CONSTRUCT ALL PROPOSED STRUCTURAL SUPPORTS, CONSTRUCT ALL PROPOSED HANGERS, CONSTRUCT THE 10" SANITARY LINE, CONSTRUCT THE 2" CELLULAR GLASS PIPE INSULATION, AND CONSTRUCT THE 14" PVC CASING PIPE. ALL EQUIPMENT, LABOR, AND MATERIAL NECESSARY FOR THIS WORK FROM THE BACKFACE OF THE REAR ABUTMENT TO THE BACKFACE OF THE FORWARD ABUTMENT SHALL BE INCLUDED UNDER ITEM 513-STRUCTURAL STEEL, MISC.: SANITARY SEWER. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.
4. ADJUST ELEVATION AND HORIZONTAL POSITION OF THE PIPE TO PROVIDE A CONSTANT SLOPE FROM THE REAR ABUTMENT TO FORWARD ABUTMENT LOCATIONS.
5. ALL PIPE HANGER SUPPORT STEEL WILL BE HOT DIPPED GALVANIZED BY THE SUPPLIER PRIOR TO BEING SHIPPED TO THE SITE.
6. ANY DAMAGE TO THE HOT DIPPED GALVANIZED COATING, FIELD CUTS, OR WELDS SHALL BE REPAIRED WITH A COATING OF ZINC RICH PAINT MANUFACTURED BY ZRC, OR APPROVED EQUAL, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS, IN ORDER TO RESTORE FULL INTEGRITY OF THE PROTECTIVE GALVANIZED COATING. THE COST OF THIS WORK SHALL BE AT THE CONTRACTORS EXPENSE.
7. NON-CONDUCTIVE HANGER MOUNTED PIPE ROLLER, ADJUSTABLE ROLLER HANGER AND ALL HARDWARE SHALL BE MANUFACTURED BY THE FOLLOWING OF AN APPROVED EQUAL:

   LB&A, INC.
   P.O. BOX 540
   WESTTOWN, PA, 19395

   AFTER THE SELECTION OF THE ADJUSTABLE ROLLER HANGER AND HARDWARE AND AFTER THE FIELD VERIFICATION OF THE 'A' DIMENSION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH SUFFICIENT DETAIL FOR APPROVAL.
8. CONTRACTOR SHALL VERIFY PIPE SIZE PRIOR TO ORDERING MATERIALS.
9. THE CONTRACTOR SHALL PROVIDE TEMPORARY BLOCKING AND HORIZONTAL SUPPORT, AS NECESSARY DURING CONSTRUCTION. THIS TEMPORARY SUPPORT, IF NEEDED, SHALL BE CONSIDERED INCIDENTAL TO ITEM 513-STRUCTURAL STEEL, MISC.: GAS MAIN SUPPORTS.
10. THE CONTRACTOR SHALL OFFSET THE CERTA-LOK (OR APPROVED EQUAL) JOINT BELL ENDS SO AS TO NOT COINCIDE WITH THE ROLLER HANGERS.
11. DIMENSION 'A' SHALL BE FIELD VERIFIED PRIOR TO ORDERING MATERIALS.
12. THE FASCIA (SEE SHEET 17/30 ABOVE FOR LIMITS) OF BEAM #5 SHALL BE PAINTED UTILIZING THE THREE-COAT PAINT SYSTEM PER C&MS 514.
13. SEE SHEET P.6/62 FOR SUMMIT COUNTY DEPARTMENT OF SANITARY SEWER DEPARTMENT OF SANITARY SEWER SERVICES FACILITIES NOTES.
14. THE 4X4X1/2 STRUT SHALL NOT BE INSTALLED UNTIL AFTER THE DECK IS POURED AND HAS CURED.

# PROPOSED SANITARY PIPE AND GAS LINE HANGER DETAILS
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SUM-91-07.89


MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:25 AM USER: jperchinske
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SFN 7707142

DESIGN AGENCY
BG
www.bgengroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

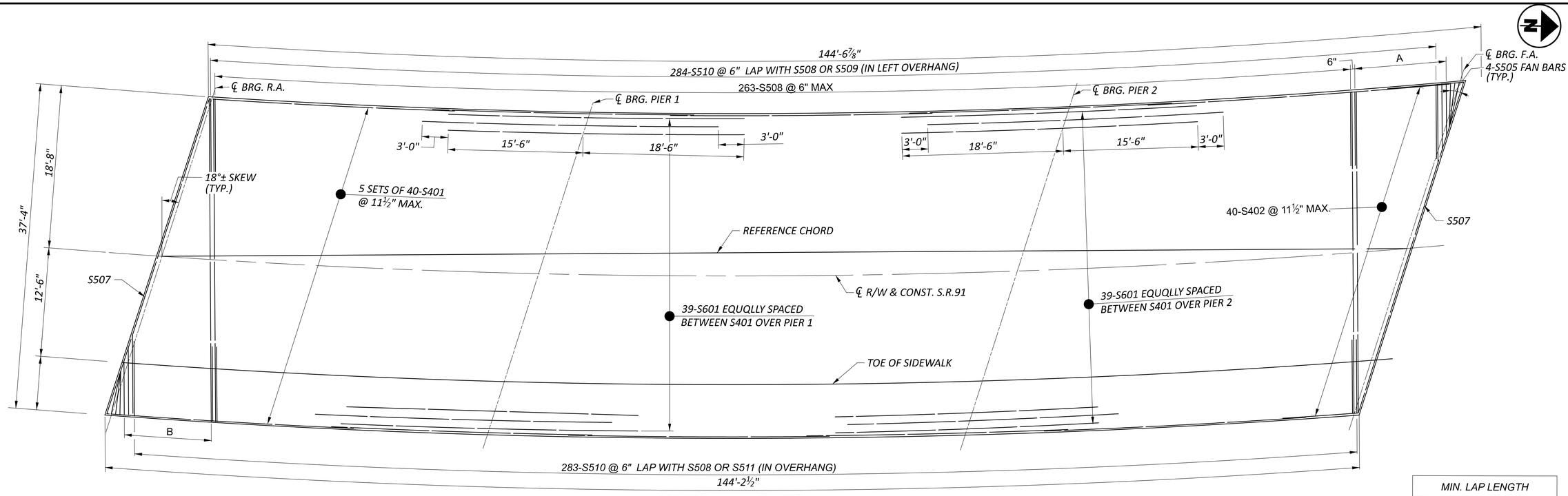
| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 17 | 30 |

| SHEET | TOTAL |
|---|---|
| P.49 | 62 |




DECK PLAN - TOP MAT REINFORCING

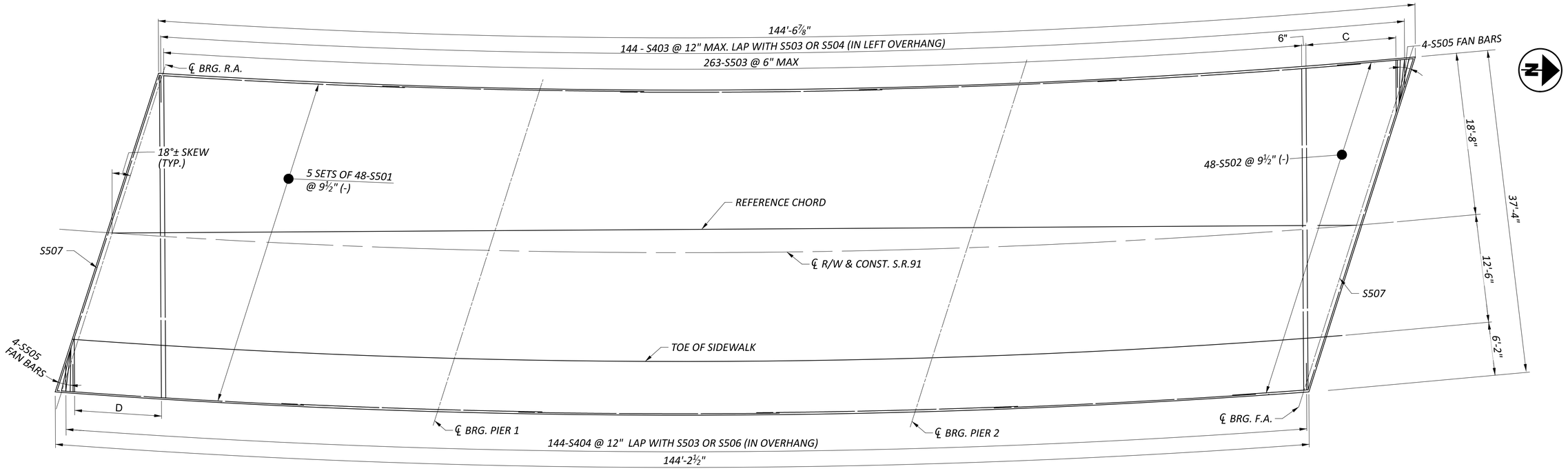
| MIN. LAP LENGTH | |
|---|---|
| #4 BARS | 1'-11" |
| #5 BARS | 3'-1" |

A = 1 SER. OF 22-S509

B = 1 SER. OF 21-S511

C = 1 SER. OF 22-S504

D = 1 SER. OF 21-S506




DECK PLAN - BOTTOM MAT REINFORCING

DECK REINFORCING PLAN
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeriggroup.com
6960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 18 | 30 |

| SHEET | TOTAL |
|---|---|
| P.50 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:26 AM USER: jperchinske
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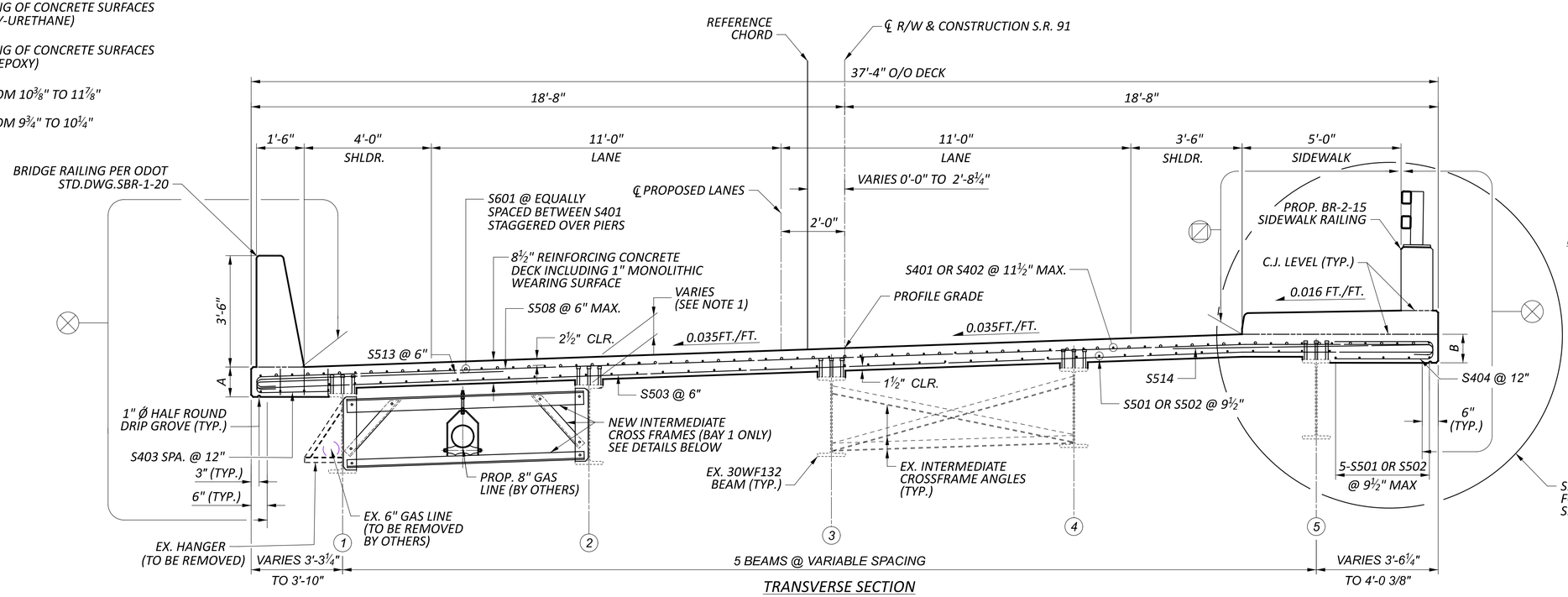
## LEGEND:

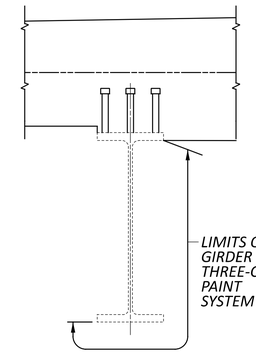
- (#) - EXISTING BEAM LINE DESIGNATION
- (⊗) - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
- (▨) - SEALING OF CONCRETE SURFACES (NON-EPOXY)

A = VARIES FROM 10⅜" TO 11⅞"

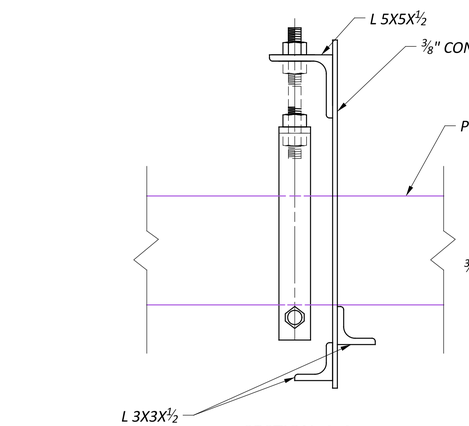
B = VARIES FROM 9¾" TO 10¼"



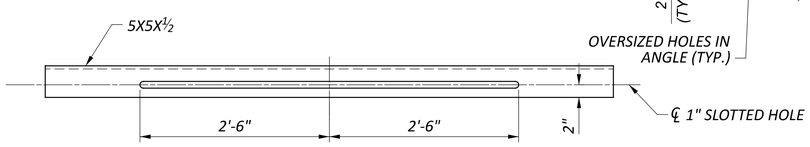

TRANSVERSE SECTION
(LOOKING UPSTATION)



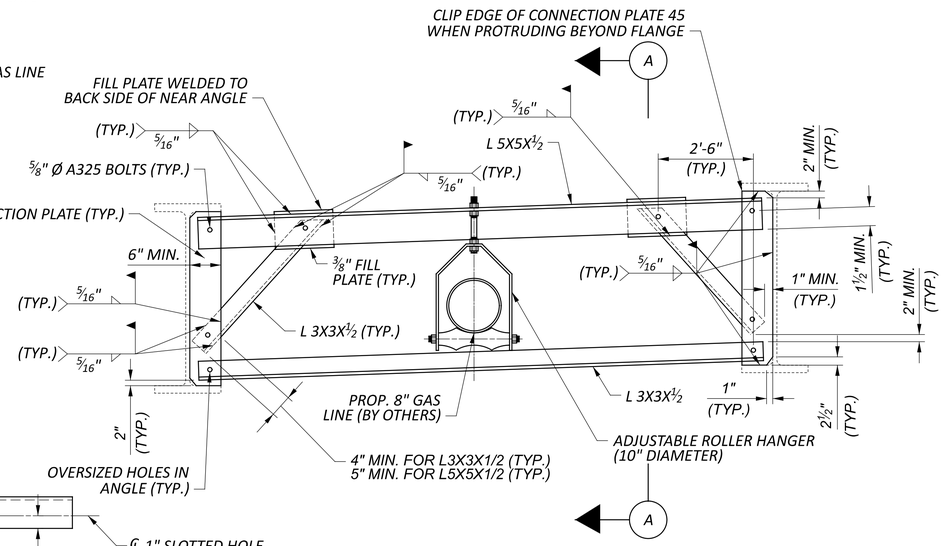

FASCIA BEAM COATING LIMITS




SECTION A-A




TOP ANGLE PLAN VIEW




GAS LINE INTERMEDIATE-CROSSFRAME DETAIL

## NOTES :

1. DECK SLAB CONCRETE QUANTITY:
   THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES THICKNESSES FROM VARIABLE HAUNCH TABLE ON SHEET 21 OF 30 , AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THE HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

   THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE TOP OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS.
2. ALL FACES OF THE PROPOSED CROSSFRAMES AND CONNECTION PLATES SHALL BE PAINTED UTILIZING THE THREE-COAT PAINT SYSTEM PER C&MS 514.
3. THE CONTRACTOR SHALL REMOVE THE EXISTING CROSSFRAMES BETWEEN BEAM #1 AND BEAM #2, REMOVE THE EXISTING GASLINE SUPPORTS, CONSTRUCT THE PROPOSED CROSSFRAMES BETWEEN BEAM #1 AND BEAM #2, CONSTRUCT THE GAS LINE SUPPORTS (TO BE PROVIDED BY ENBRIDGE GAS), AND INSTALL A 12" SCHEDULE 40 PVC SLEEVE THROUGH THE BACKWALLS. ALL EQUIPMENT, LABOR, AND MATERIAL NECESSARY FOR THIS WORK SHALL BE INCLUDED UNDER ITEM 513-STRUCTURAL STEEL, MISC.: GAS MAIN SUPPORTS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.
4. SEE SHEET 5 OF 30 FOR ADDITIONAL NOTES.
5. REFER TO STD. DWG. BR-2 FOR MORE DETAILS OF SIDEWALK RAILING.
6. THE BAY BETWEEN BEAM #1 AND #2 SHALL BE SPOT PAINTED (TO REPAIR ANY PAINT DAMAGED WITH THE REMOVAL OF THE EXISTING CROSSFRAMES OR THE INSTALLATION OF THE PROPOSED CROSSFRAMES) UTILIZING THE THREE-COAT PAINT SYSTEM PER C&MS 514 AFTER INSTALLATION OF THE NEW GAS LINE.
7. ANY DAMAGE TO THE HOT DIPPED GALVANIZED COATING, FIELD CUTS, OR WELDS SHALL BE REPAIRED WITH A COATING OF ZINC RICH PAINT MANUFACTURED BY ZRC, OR APPROVED EQUAL, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS, IN ORDER TO RESTORE FULL INTEGRITY OF THE PROTECTIVE GALVANIZED COATING.
8. THE SUPPORTS FOR THE PROPOSED GAS LINE SHALL BE PLACED IN A MANNER THAT ALLOWS FOR A STRAIGHT VERTICAL AND HORIZONTAL ALIGNMENT BETWEEN THE ABUTMENTS.
9. THE FASCIA (SEE DETAIL ABOVE FOR LIMITS) OF BEAM #1 SHALL BE PAINTED UTILIZING THE THREE-COAT PAINT SYSTEM PER C&MS 514.

TRANSVERSE SECTION
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeng group.com
6960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER GTB 02-25-25

PROJECT ID 113201

| SUBSET | TOTAL |
|---|---|
| 19 | 30 |

| SHEET | TOTAL |
|---|---|
| P.51 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:27 AM USER: jperchinske
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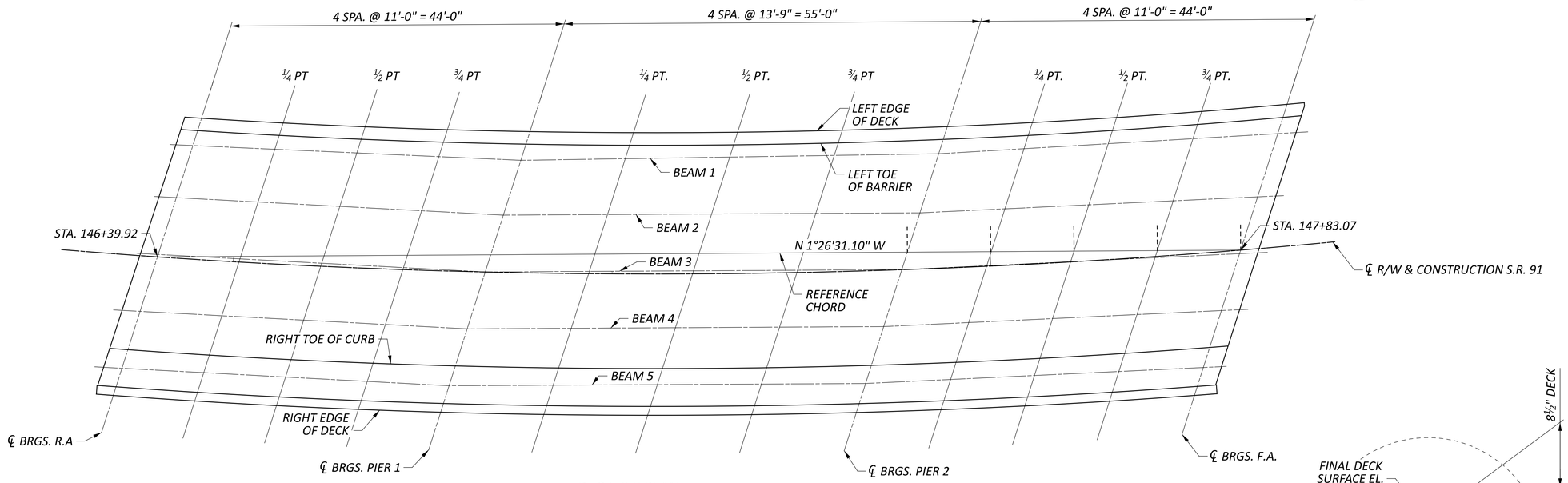
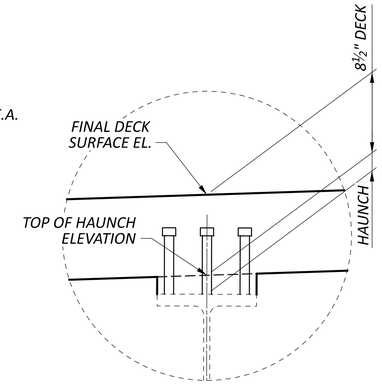
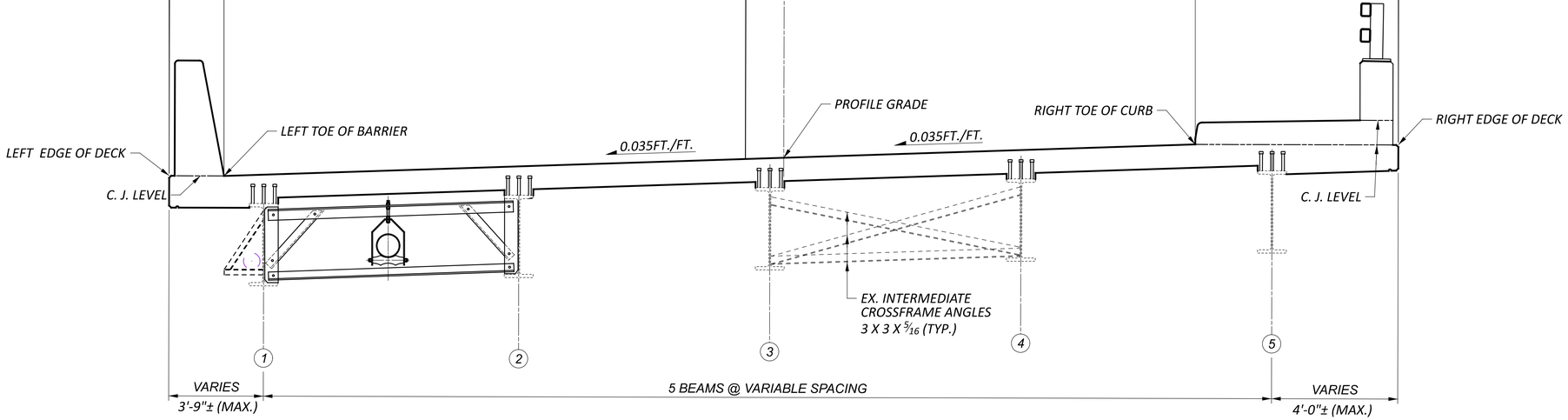



DECK KEY PLAN




DECK HAUNCH DETAIL




TRANSVERSE SECTION
(LOOKING UPSTATION)

DECK KEY PLAN
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeneggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 20 | 30 |

| SHEET | TOTAL |
|---|---|
| P.52 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:27 AM USER: jperchinske
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| FINISHED DECK ELEVATIONS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOCATION | DESCRIPTION | CL BRG, RA | ¼ SPAN 1 | ½ SPAN 1 | ¾ SPAN 1 | CL BRG, PIER 1 | ¼ SPAN 2 | ½ SPAN 2 | ¾ SPAN 2 | CL BRG, PIER 2 | ¼ SPAN 3 | ½ SPAN 3 | ¾ SPAN 3 | CL BRG,FA |
| LEFT DECK EDGE | STATION | 146+44.57 | 146+55.63 | 146+66.69 | 146+77.76 | 146+88.82 | 146+77.88 | 146+66.93 | 146+55.98 | 146+45.03 | 146+81.32 | 147+17.60 | 147+53.89 | 147+90.18 |
| | FINAL DECK ELEVATION | 1008.91 | 1009.01 | 1009.11 | 1009.20 | 1009.30 | 1009.20 | 1009.11 | 1009.01 | 1008.92 | 1009.23 | 1009.55 | 1009.87 | 1010.18 |
| LEFT TOE OF BARRIER | STATION | 146+44.14 | 146+55.19 | 146+66.23 | 146+77.27 | 146+88.32 | 147+02.34 | 147+16.37 | 147+30.39 | 147+44.42 | 147+55.86 | 147+67.30 | 147+78.74 | 147+90.18 |
| | FINAL DECK ELEVATION | 1008.91 | 1009.01 | 1009.10 | 1009.20 | 1009.30 | 1009.42 | 1009.54 | 1009.66 | 1009.78 | 1009.88 | 1009.98 | 1010.08 | 1010.18 |
| BEAM LINE 1 | STATION | 146+43.64 | 146+54.59 | 146+65.72 | 146+76.71 | 146+87.67 | 147+01.77 | 147+15.82 | 147+29.81 | 147+43.73 | 147+55.19 | 147+66.61 | 147+77.98 | 147+89.29 |
| | FINAL DECK ELEVATION | 1008.98 | 1009.07 | 1009.14 | 1009.26 | 1009.36 | 1009.47 | 1009.59 | 1009.71 | 1009.84 | 1009.94 | 1010.04 | 1010.14 | 1010.25 |
| BEAM LINE 2 | STATION | 146+41.89 | 146+52.84 | 146+63.76 | 146+74.64 | 146+85.48 | 146+99.43 | 147+13.33 | 147+27.16 | 147+40.91 | 147+52.23 | 147+63.51 | 147+74.73 | 147+85.89 |
| | FINAL DECK ELEVATION | 1009.21 | 1009.30 | 1009.40 | 1009.50 | 1009.60 | 1009.71 | 1009.83 | 1009.96 | 1010.09 | 1010.19 | 1010.29 | 1010.39 | 1010.50 |
| BEAM LINE 3 | STATION | 146+40.00 | 146+50.86 | 146+61.70 | 146+72.49 | 146+83.25 | 146+97.09 | 147+10.88 | 147+24.60 | 147+38.24 | 147+49.48 | 147+60.67 | 147+71.80 | 147+82.88 |
| | FINAL DECK ELEVATION | 1009.46 | 1009.55 | 1009.64 | 1009.74 | 1009.85 | 1009.96 | 1010.07 | 1010.20 | 1010.32 | 1010.42 | 1010.52 | 1010.62 | 1010.73 |
| CENTERLINE R/W & CONSTRUCTION S.R. 91 (PROFILE GRADE) | STATION | 146+39.92 | 146+50.75 | 146+61.59 | 146+72.42 | 146+83.25 | 146+97.00 | 147+10.75 | 147+24.49 | 147+38.24 | 147+49.45 | 147+60.65 | 147+71.86 | 147+83.07 |
| | FINAL DECK ELEVATION | 1009.47 | 1009.56 | 1009.66 | 1009.75 | 1009.85 | 1009.97 | 1010.09 | 1010.20 | 1010.32 | 1010.42 | 1010.52 | 1010.62 | 1010.71 |
| BEAM LINE 4 | STATION | 146+38.15 | 146+48.92 | 146+59.67 | 146+70.38 | 146+81.05 | 146+94.79 | 147+08.46 | 147+22.08 | 147+35.62 | 147+46.77 | 147+57.87 | 147+68.92 | 147+79.91 |
| | FINAL DECK ELEVATION | 1009.71 | 1009.80 | 1009.89 | 1009.99 | 1010.09 | 1010.20 | 1010.31 | 1010.43 | 1010.56 | 1010.65 | 1010.75 | 1010.85 | 1010.96 |
| RIGHT TOE OF SIDE WALK | STATION | 146+36.92 | 146+47.60 | 146+58.28 | 146+68.96 | 146+79.64 | 146+93.20 | 147+06.75 | 147+20.30 | 147+33.85 | 147+44.89 | 147+55.93 | 147+66.97 | 147+78.01 |
| | FINAL DECK ELEVATION | 1009.88 | 1009.97 | 1010.07 | 1010.16 | 1010.25 | 1010.37 | 1010.49 | 1010.61 | 1010.72 | 1010.82 | 1010.92 | 1011.01 | 1011.11 |
| BEAM LINE 5 | STATION | 146+36.32 | 146+47.01 | 146+57.67 | 146+68.30 | 146+78.89 | 146+92.52 | 147+06.09 | 147+19.59 | 147+33.03 | 147+44.11 | 147+55.11 | 147+66.08 | 147+76.99 |
| | FINAL DECK ELEVATION | 1009.88 | 1009.97 | 1010.06 | 1010.15 | 1010.25 | 1010.36 | 1010.48 | 1010.60 | 1010.72 | 1010.81 | 1010.91 | 1011.00 | 1011.10 |
| RIGHT DECK EDGE | STATION | 146+35.46 | 146+46.07 | 146+56.68 | 146+67.29 | 146+77.90 | 146+91.36 | 147+04.81 | 147+18.27 | 147+31.73 | 147+42.69 | 147+53.65 | 147+64.61 | 147+75.57 |
| | FINAL DECK ELEVATION | 1009.868 | 1009.960 | 1010.052 | 1010.145 | 1010.237 | 1010.354 | 1010.471 | 1010.588 | 1010.705 | 1010.801 | 1010.896 | 1010.991 | 1011.087 |

| SCREED ELEVATIONS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOCATION | DESCRIPTION | CL BRG, RA | ¼ PT | ½ PT | ¾ PT | CL BRG, PIER 1 | ¼ PT | ½ PT | ¾ PT | CL BRG, PIER 2 | ¼ PT | ½ PT | ¾ PT | CL BRG, FA |
| LEFT EDGE OF SLAB | STATION | 146+44.57 | 146+55.63 | 146+66.69 | 146+77.76 | 146+88.82 | 146+77.88 | 146+66.93 | 146+55.98 | 146+45.03 | 146+81.32 | 147+17.60 | 147+53.89 | 147+90.18 |
| | ELEVATION | 1008.91 | 1009.03 | 1009.14 | 1009.21 | 1009.30 | 1009.22 | 1009.13 | 1009.03 | 1008.92 | 1009.24 | 1009.57 | 1009.88 | 1010.18 |
| PROFILE GRADE | STATION | 146+44.14 | 146+55.19 | 146+66.23 | 146+77.27 | 146+88.32 | 147+02.34 | 147+16.37 | 147+30.39 | 147+44.42 | 147+55.86 | 147+67.30 | 147+78.74 | 147+90.18 |
| | ELEVATION | 1008.91 | 1009.02 | 1009.13 | 1009.21 | 1009.30 | 1009.43 | 1009.56 | 1009.67 | 1009.78 | 1009.89 | 1010.00 | 1010.10 | 1010.18 |
| RIGHT EDGE OF SLAB | STATION | 146+40.41 | 146+51.27 | 146+62.12 | 146+72.98 | 146+83.84 | 146+97.62 | 147+11.40 | 147+25.18 | 147+38.96 | 147+50.19 | 147+61.42 | 147+72.65 | 147+83.89 |
| | ELEVATION | 1009.40 | 1009.51 | 1009.62 | 1009.69 | 1009.78 | 1009.91 | 1010.04 | 1010.15 | 1010.26 | 1010.37 | 1010.47 | 1010.57 | 1010.65 |

| TOP OF HAUNCH ELEVATIONS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOCATION | DESCRIPTION | CL BRG, RA | ¼ PT SPAN 1 | ½ PT SPAN 1 | ¾ PT SPAN 1 | CL BRG, PIER 1 | ¼ PT SPAN 2 | ½ PT SPAN 2 | ¾ PT SPAN 2 | CL BRG, PIER 2 | ¼ PT SPAN 3 | ½ PT SPAN 3 | ¾ PT SPAN 3 | CL BRG, FA |
| BEAM 1 | STATION | 146+43.64 | 146+54.59 | 146+65.72 | 146+76.71 | 146+87.67 | 147+01.77 | 147+15.82 | 147+29.81 | 147+43.73 | 147+55.19 | 147+66.61 | 147+77.98 | 147+89.29 |
| | TOP OF HAUNCH ELEV. | 1008.27 | 1008.37 | 1008.46 | 1008.56 | 1008.66 | 1008.78 | 1008.90 | 1009.02 | 1009.13 | 1009.24 | 1009.34 | 1009.45 | 1009.54 |
| BEAM 2 | STATION | 146+41.89 | 146+52.84 | 146+63.76 | 146+74.64 | 146+85.48 | 146+99.43 | 147+13.33 | 147+27.16 | 147+40.91 | 147+52.23 | 147+63.51 | 147+74.73 | 147+85.89 |
| | TOP OF HAUNCH ELEV. | 1008.50 | 1008.61 | 1008.72 | 1008.80 | 1008.89 | 1009.02 | 1009.14 | 1009.26 | 1009.38 | 1009.49 | 1009.60 | 1009.70 | 1009.79 |
| BEAM 3 | STATION | 146+40.00 | 146+50.86 | 146+61.70 | 146+72.49 | 146+83.25 | 146+97.09 | 147+10.88 | 147+24.60 | 147+38.24 | 147+49.48 | 147+60.67 | 147+71.80 | 147+82.88 |
| | TOP OF HAUNCH ELEV. | 1008.75 | 1008.86 | 1008.97 | 1009.04 | 1009.14 | 1009.26 | 1009.39 | 1009.50 | 1009.62 | 1009.72 | 1009.83 | 1009.93 | 1010.02 |
| BEAM 4 | STATION | 146+38.15 | 146+48.92 | 146+59.67 | 146+70.38 | 146+81.05 | 146+94.79 | 147+08.46 | 147+22.08 | 147+35.62 | 147+46.77 | 147+57.87 | 147+68.92 | 147+79.91 |
| | TOP OF HAUNCH ELEV. | 1009.00 | 1009.11 | 1009.22 | 1009.29 | 1009.38 | 1009.50 | 1009.63 | 1009.74 | 1009.85 | 1009.95 | 1010.06 | 1010.16 | 1010.25 |
| BEAM 5 | STATION | 146+36.32 | 146+47.01 | 146+57.67 | 146+68.30 | 146+78.89 | 146+92.52 | 147+06.09 | 147+19.59 | 147+33.03 | 147+44.11 | 147+55.11 | 147+66.08 | 147+76.99 |
| | TOP OF HAUNCH ELEV. | 1009.17 | 1009.27 | 1009.38 | 1009.45 | 1009.54 | 1009.67 | 1009.79 | 1009.90 | 1010.01 | 1010.11 | 1010.22 | 1010.31 | 1010.39 |

| VARIABLE HAUNCH TABLE | | | | | |
|---|---|---|---|---|---|
| BEAM | 1 | 2 | 3 | 4 | 5 |
| SPAN 1 MINIMUM HAUNCH (IN) | 3.11 | 2.66 | 2.84 | 2.91 | 1.40 |
| SPAN 1 MAXIMUM HAUNCH (IN) | 3.31 | 2.84 | 2.86 | 3.36 | 1.62 |
| SPAN 1 AVERAGE THICKNESS FOR QUANTITY CALCULATIONS (IN) | 3.21 | 2.75 | 2.85 | 3.14 | 1.51 |
| SPAN 2 MINIMUM HAUNCH (IN) | 2.27 | 2.27 | 1.90 | 1.90 | 1.06 |
| SPAN 2 MAXIMUM HAUNCH (IN) | 3.31 | 2.66 | 2.84 | 2.91 | 1.40 |
| SPAN 2 AVERAGE THICKNESS FOR QUANTITY CALCULATIONS (IN) | 2.79 | 2.47 | 2.37 | 2.41 | 1.23 |
| SPAN 3 MINIMUM HAUNCH (IN) | 1.88 | 2.27 | 1.90 | 1.90 | 1.06 |
| SPAN 3 MAXIMUM HAUNCH (IN) | 2.27 | 2.31 | 2.51 | 2.53 | 1.33 |
| SPAN 3 AVERAGE THICKNESS FOR QUANTITY CALCULATIONS (IN) | 2.08 | 2.29 | 2.21 | 2.22 | 1.20 |

NOTES:

1. FOR DECK KEY PLAN AND TOP OF HAUNCH DETAIL SEE SHEET 20 OF 30 .
2. FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.
2. SCREED ELEVATIONS REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
3. TOP OF HAUNCH ELEVATIONS REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

SCREED, HAUNCH AND FINISHING DECK ELEVATIONS
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER RG | CHECKER CCJ
REVIEWER GTB 02-25-25
PROJECT ID 113201
SUBSET 21 | TOTAL 30
SHEET P.53 | TOTAL 62

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:28 AM USER: jperchinske
P:\TransportationWorkSets\113201_SUM-91-0789400-Engineering\Structures\SFN_7707142\Sheets\113201_SFN_7707142_SD003.dgn

| LOCATION | | | CL BRG., R.A. | ¼ PT, SPAN 1 | ½ PT, SPAN 1 | ¾ PT, SPAN 1 | CL BRG., PIER 1 | ¼ PT, SPAN 2 | ½ PT, SPAN 2 | ¾ PT, SPAN 2 | CL BRG., PIER 2 | ¼ PT, SPAN 3 | ½ PT, SPAN 3 | ¾ PT, SPAN 3 | CL BRG., F.A. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEAM 1 | A | FINAL DECK ELEV. | 1008.98 | 1009.07 | 1009.14 | 1009.26 | 1009.36 | 1009.47 | 1009.59 | 1009.71 | 1009.84 | 1009.94 | 1010.04 | 1010.14 | 1010.25 |
| | B | BOTTOM OF FLANGE ELEV. (BEFORE REMOVAL) * | | | | | | | | | | | | | |
| | C | BOTTOM OF FLANGE ELEV. (AFTER REMOVAL) * | | | | | | | | | | | | | |
| | D | REBOUND * | | | | | | | | | | | | | |
| | E | WEIGHT OF EXISTING DECK | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.12 | 1.12 | 1.12 | 1.12 | 1.02 | 1.02 | 1.02 | 1.02 |
| | F | WEIGHT OF PROPOSED DECK | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.69 | 0.69 | 0.69 | 0.69 | 0.61 | 0.61 | 0.61 | 0.61 |
| | G | DECK DEFLECTION * | | | | | | | | | | | | | |
| | H | DECK THICKNESS | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| | J | SCREED ELEVATION * | | | | | | | | | | | | | |
| | K | TOP OF HAUNCH ELEV. * | | | | | | | | | | | | | |
| BEAM 2 | A | FINAL DECK ELEV. | 1009.21 | 1009.30 | 1009.40 | 1009.50 | 1009.60 | 1009.71 | 1009.83 | 1009.96 | 1010.09 | 1010.19 | 1010.29 | 1010.39 | 1010.50 |
| | B | BOTTOM OF FLANGE ELEV. (BEFORE REMOVAL) * | | | | | | | | | | | | | |
| | C | BOTTOM OF FLANGE ELEV. (AFTER REMOVAL) * | | | | | | | | | | | | | |
| | D | REBOUND * | | | | | | | | | | | | | |
| | E | WEIGHT OF EXISTING DECK | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.07 | 1.07 | 1.07 | 1.07 | 1.05 | 1.05 | 1.05 | 1.05 |
| | F | WEIGHT OF PROPOSED DECK | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.82 | 0.82 | 0.82 | 0.82 | 0.81 | 0.81 | 0.81 | 0.81 |
| | G | DECK DEFLECTION * | | | | | | | | | | | | | |
| | H | DECK THICKNESS | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| | J | SCREED ELEVATION * | | | | | | | | | | | | | |
| | K | TOP OF HAUNCH ELEV. * | | | | | | | | | | | | | |
| BEAM 3 | A | FINAL DECK ELEV. | 1009.46 | 1009.55 | 1009.64 | 1009.74 | 1009.85 | 1009.96 | 1010.07 | 1010.20 | 1010.32 | 1010.42 | 1010.52 | 1010.62 | 1010.73 |
| | B | BOTTOM OF FLANGE ELEV. (BEFORE REMOVAL) * | | | | | | | | | | | | | |
| | C | BOTTOM OF FLANGE ELEV. (AFTER REMOVAL) * | | | | | | | | | | | | | |
| | D | REBOUND * | | | | | | | | | | | | | |
| | E | WEIGHT OF EXISTING DECK | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.07 | 1.07 | 1.07 | 1.07 | 1.05 | 1.05 | 1.05 | 1.05 |
| | F | WEIGHT OF PROPOSED DECK | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.82 | 0.82 | 0.82 | 0.82 | 0.81 | 0.81 | 0.81 | 0.81 |
| | G | DECK DEFLECTION * | | | | | | | | | | | | | |
| | H | DECK THICKNESS | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| | J | SCREED ELEVATION * | | | | | | | | | | | | | |
| | K | TOP OF HAUNCH ELEV. * | | | | | | | | | | | | | |
| CL R/W & CONSTRUCTION S.R. 91 | | PROFILE GRADE ELEVATION | 1009.47 | 1009.56 | 1009.66 | 1009.75 | 1009.85 | 1009.97 | 1010.09 | 1010.20 | 1010.32 | 1010.42 | 1010.52 | 1010.62 | 1010.71 |
| BEAM 4 | A | FINAL DECK ELEV. | 1009.71 | 1009.80 | 1009.89 | 1009.99 | 1010.09 | 1010.20 | 1010.31 | 1010.43 | 1010.56 | 1010.65 | 1010.75 | 1010.85 | 1010.96 |
| | B | BOTTOM OF FLANGE ELEV. (BEFORE REMOVAL) * | | | | | | | | | | | | | |
| | C | BOTTOM OF FLANGE ELEV. (AFTER REMOVAL) * | | | | | | | | | | | | | |
| | D | REBOUND * | | | | | | | | | | | | | |
| | E | WEIGHT OF EXISTING DECK | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.07 | 1.07 | 1.07 | 1.07 | 1.05 | 1.05 | 1.05 | 1.05 |
| | F | WEIGHT OF PROPOSED DECK | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.82 | 0.82 | 0.82 | 0.82 | 0.81 | 0.81 | 0.81 | 0.81 |
| | G | DECK DEFLECTION * | | | | | | | | | | | | | |
| | H | DECK THICKNESS | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| | J | SCREED ELEVATION * | | | | | | | | | | | | | |
| | K | TOP OF HAUNCH ELEV. * | | | | | | | | | | | | | |
| BEAM 5 | A | FINAL DECK ELEV. | 1009.88 | 1009.97 | 1010.06 | 1010.15 | 1010.25 | 1010.36 | 1010.48 | 1010.60 | 1010.72 | 1010.81 | 1010.91 | 1011.00 | 1011.10 |
| | B | BOTTOM OF FLANGE ELEV. (BEFORE REMOVAL) * | | | | | | | | | | | | | |
| | C | BOTTOM OF FLANGE ELEV. (AFTER REMOVAL) * | | | | | | | | | | | | | |
| | D | REBOUND * | | | | | | | | | | | | | |
| | E | WEIGHT OF EXISTING DECK | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.15 | 1.15 | 1.15 | 1.15 | 1.18 | 1.18 | 1.18 | 1.18 |
| | F | WEIGHT OF PROPOSED DECK | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.63 | 0.63 | 0.63 | 0.63 | 0.66 | 0.66 | 0.66 | 0.66 |
| | G | DECK DEFLECTION * | | | | | | | | | | | | | |
| | H | DECK THICKNESS | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| | J | SCREED ELEVATION * | | | | | | | | | | | | | |
| | K | TOP OF HAUNCH ELEV. * | | | | | | | | | | | | | |

** - TO BE COMPLETED BY CONTRACTOR AS FOLLOWS (SEE NOTE 3)*

*D=C-B*

*G=D X (F/E)*

*J=A+G*

*K=A+G-H*

## NOTES:

1. *PAYMENT FOR SURVEY SHOTS AND COMPLETION OF TABLE TO BE INCLUDED WITH ITEM 202-PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.*
2. *FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.*
3. *THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND WITHIN THE DECK ELEVATION TABLE PROCEDURE.*

# SCREED AND TOP OF HAUNCH ELEVATIONS
## BRIDGE NO. SUM-00091-07.880
## S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 22 | 30 |

| SHEET | TOTAL |
|---|---|
| P.54 | 62 |

SUM-91-07.89

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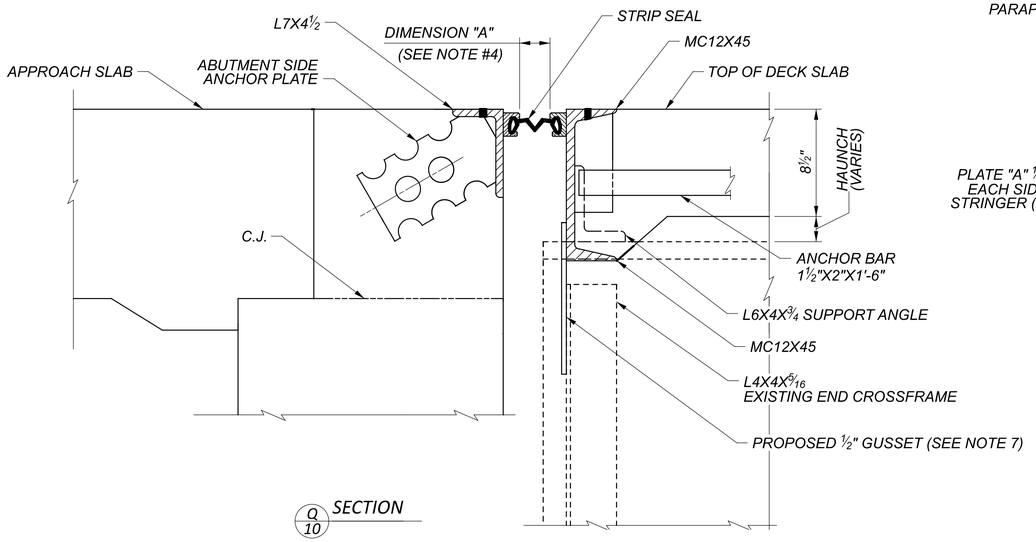


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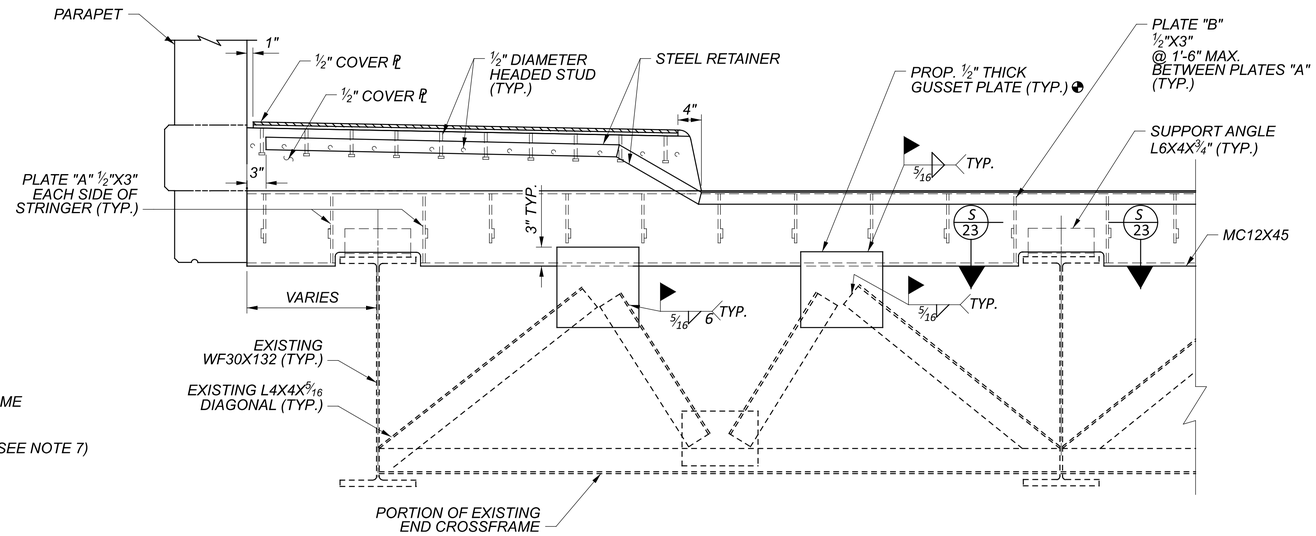


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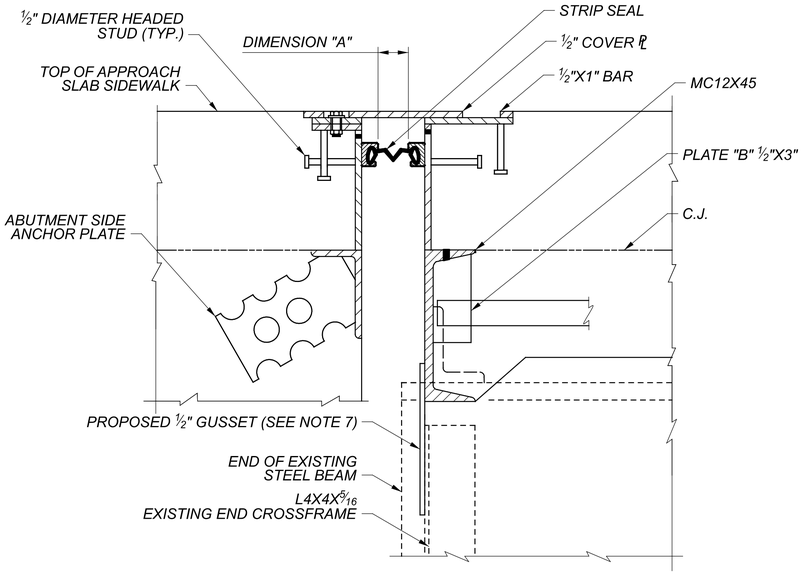


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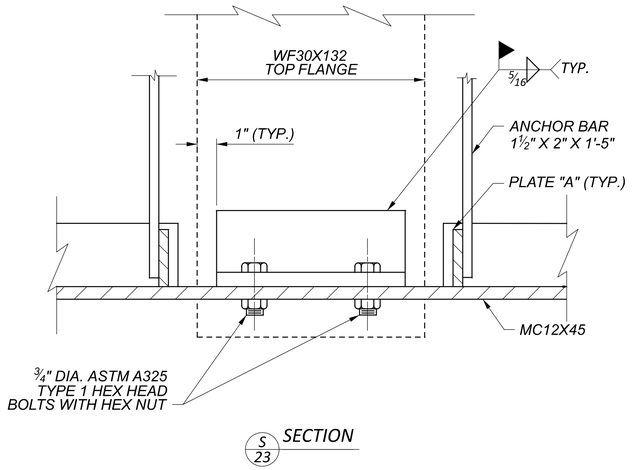
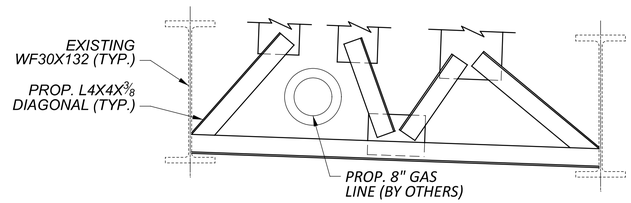
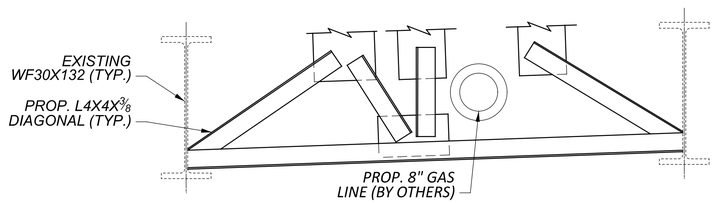



S/23 SECTION




REAR ABUTMENT UTILITY END CROSS FRAME SCHEMATIC

(FOR INFORMATION ONLY, ACTUAL DIMENSIONS TO BE DETERMINED IN FIELD)




FORWARD ABUTMENT UTILITY END CROSS FRAME SCHEMATIC

(FOR INFORMATION ONLY, ACTUAL DIMENSIONS TO BE DETERMINED IN FIELD)

| TOTAL THERMAL EXPANSION (-30°F TO 120°F) | |
|---|---|
| REAR ABUTMENT (IN) | 1.10 |
| FORWARD ABUTMENT (IN) | 0.49 |

LEGEND:

℄ - INCLUDED WITH EXPANSION JOINT FOR COATING AND PAYMENT.

NOTES:

1. SEE STANDARD DRAWING EXJ-4-87 FOR MORE EXPANSION JOINT INFORMATION AND DETAILS.
2. SEE STD. BRIDGE DWG. GSD-1-19 FOR DETAILS OF END CROSSFRAMES AND GUSSET PLATES.
3. END CROSSFRAME MEMBERS AND PLATES SHALL BE ADJUSTED IN THE FIELD TO ENSURE ADEQUATE ROOM FOR THE PROPOSED 8" GAS LINE.
4. DIMENSION "A" TO BE DETERMINED BY THE MANUFACTURER.
5. THE CONTRACTOR SHALL REMOVE THE EXISTING END CROSSFRAMES BETWEEN BEAM #1 AND BEAM #2. THE CONTRACTOR SHALL INSTALL THE CROSSFRAME BOTTOM CHORD, DIAGONALS, AND GUSSET PLATES. ALL EQUIPMENT, LABOR, AND MATERIAL NECESSARY FOR THIS WORK SHALL BE INCLUDED UNDER ITEM 513-STRUCTURAL STEEL, MISC.: END CROSS FRAME RETROFIT.
6. ALL PROPOSED STEEL FOR END CROSSFRAMES SHALL BE PAINTED UTILIZING THE THREE-COAT PAINT SYSTEM PER C&MS 514.
7. ALL EQUIPMENT, LABOR, AND MATERIAL NECESSARY FOR THIS WORK SHALL BE INCLUDED UNDER ITEM 513-STRUCTURAL STEEL, MISC.: END CROSS FRAME RETROFIT.

ABUTMENT DECK JOINT DETAILS
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgenggroup.com
5980 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 23 | 30 |

| SHEET | TOTAL |
|---|---|
| P.55 | 62 |

SUM-91-07.89

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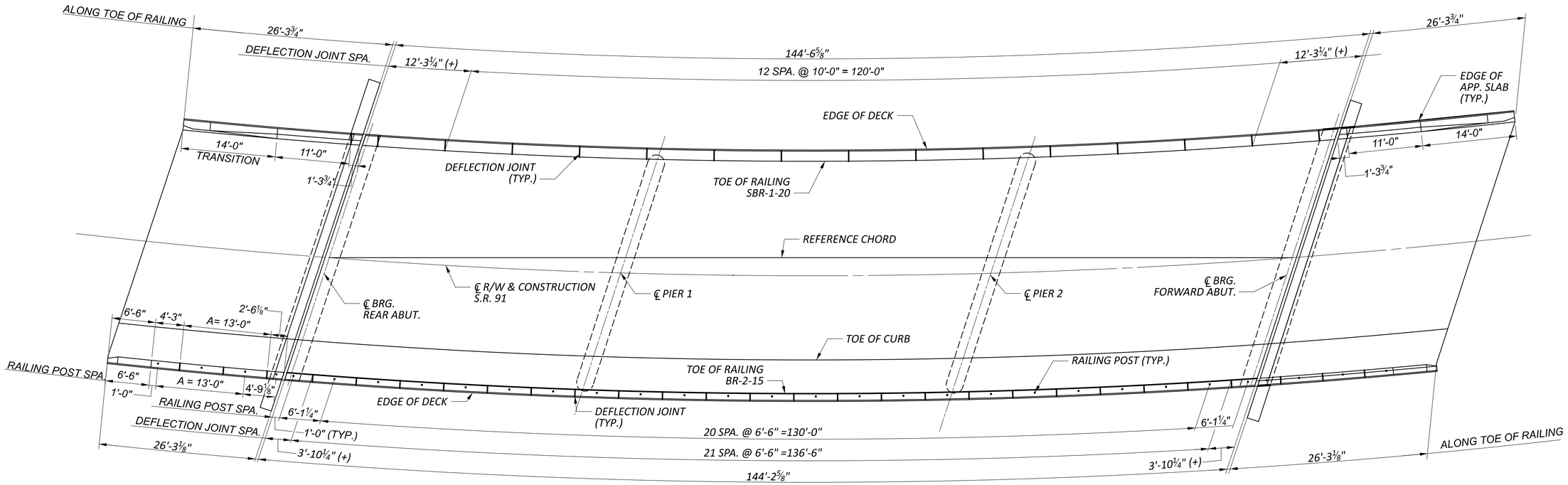
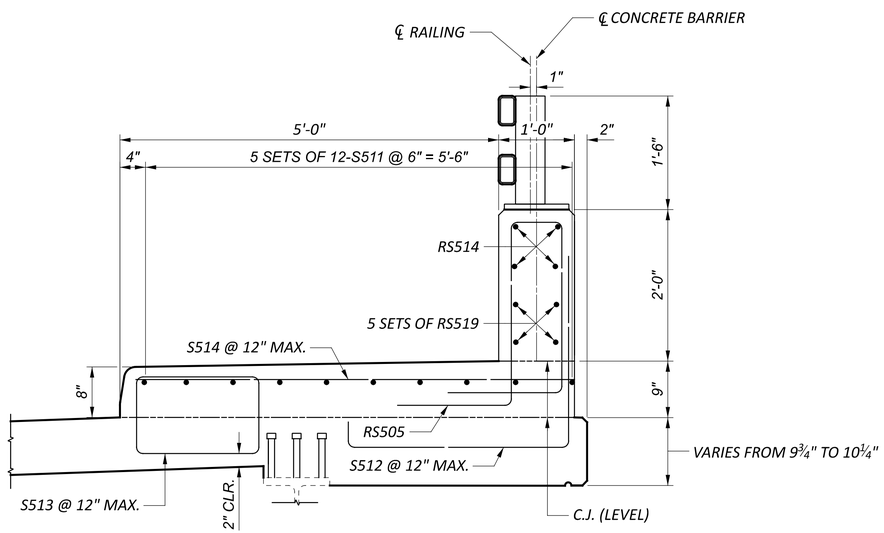



PLAN




SIDEWALK SECTION

NOTES:

1. FOR ADDITIONAL BARRIER DETAILS, SEE STD. BR-2-15 & SBR-1-20.

BRIDGE RAILING DETAILS (1 OF 3)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 24 | 30 |

| SHEET | TOTAL |
|---|---|
| P.56 | 62 |

SUM-91-07.89

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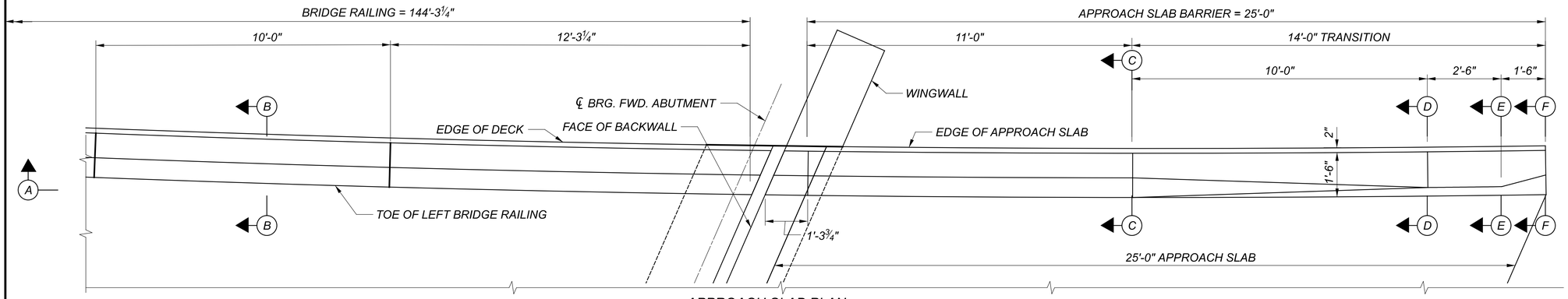
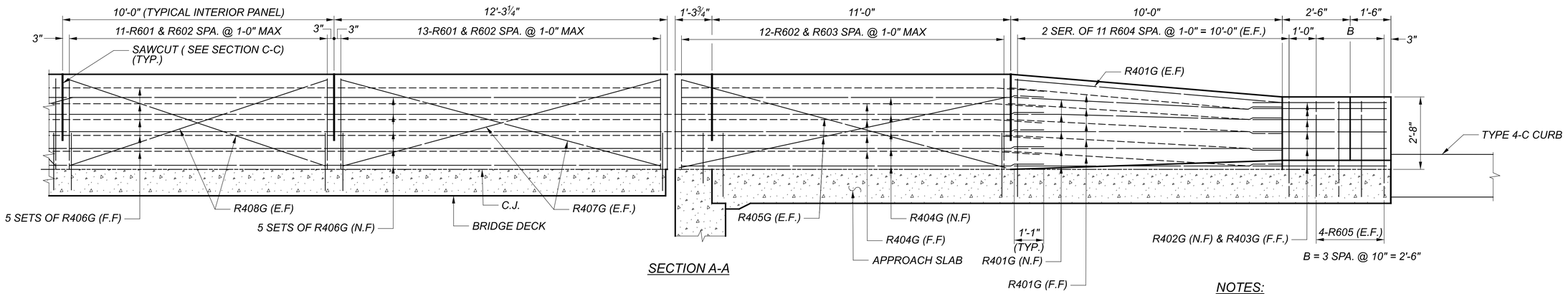



## APPROACH SLAB PLAN

(LEFT FORWARD APPROACH RAILING SHOWN)
LEFT REAR APPROACH SLAB RAILING SIMILAR

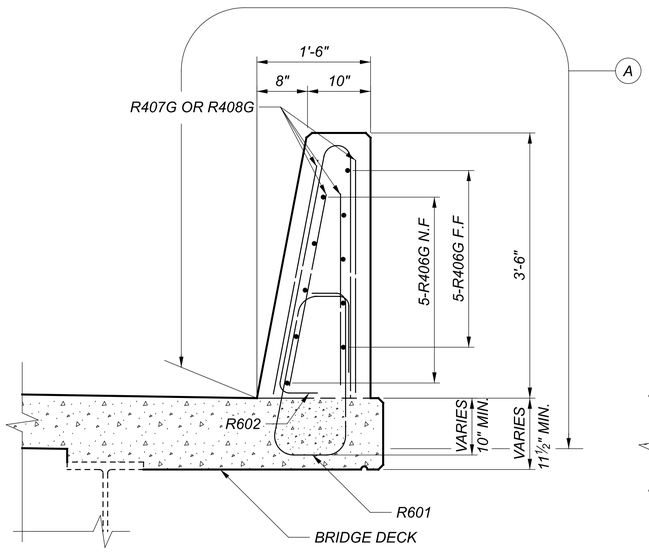



## SECTION A-A

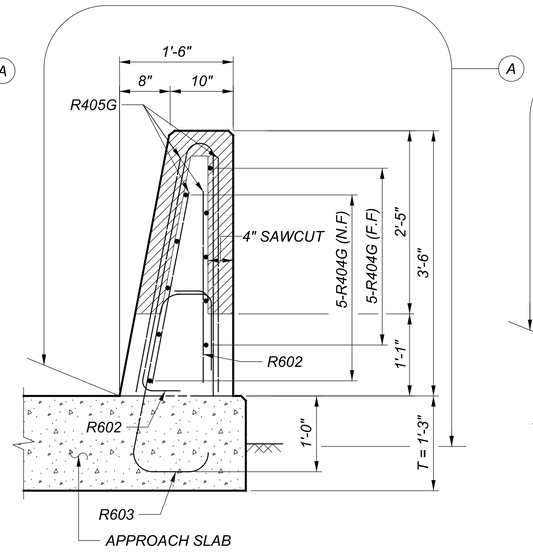
### NOTES:

1. FOR ADDITIONAL BARRIER DETAILS, SEE SHEET STD. DWG. SBR-1-20

(A) SEALING OF CONCRETE SURFACES (EPOXY URETHANE)

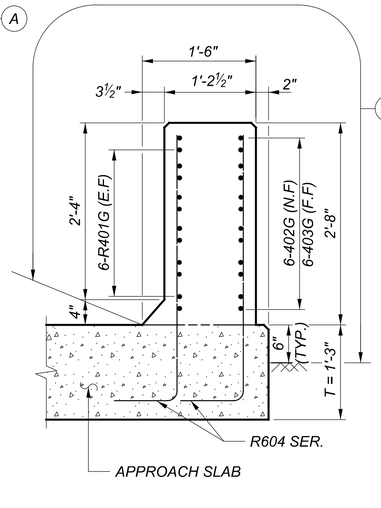



## SECTION B-B




## SECTION C-C

(SECTION THROUGH SAWCUT)

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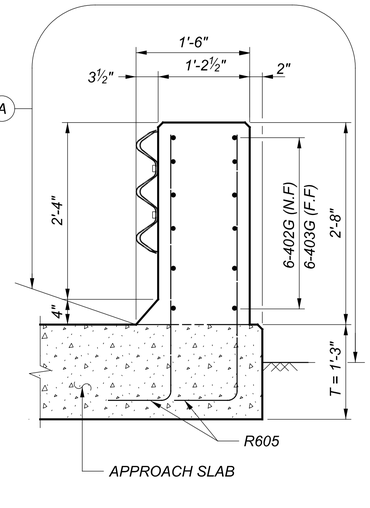
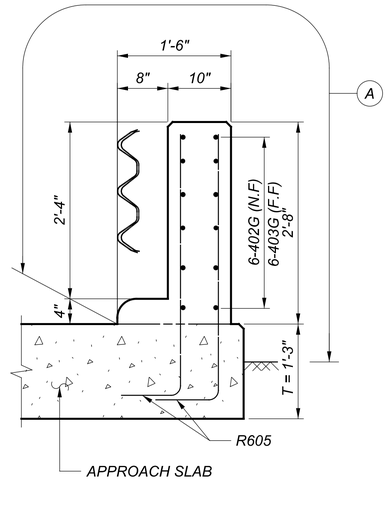



## SECTION E-E




## SECTION F-F

BRIDGE RAILING DETAILS (2 OF 3)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:31 AM USER: jperchinske
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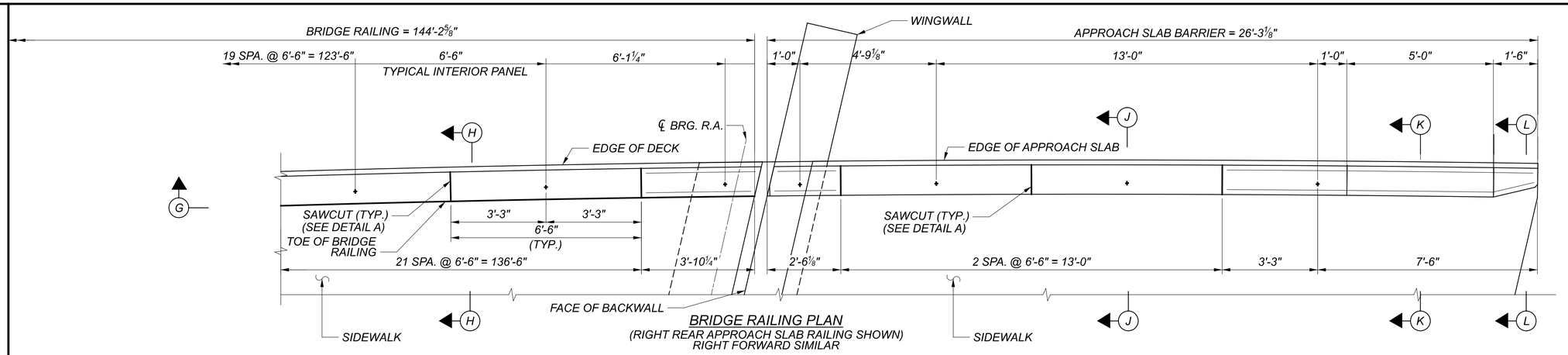
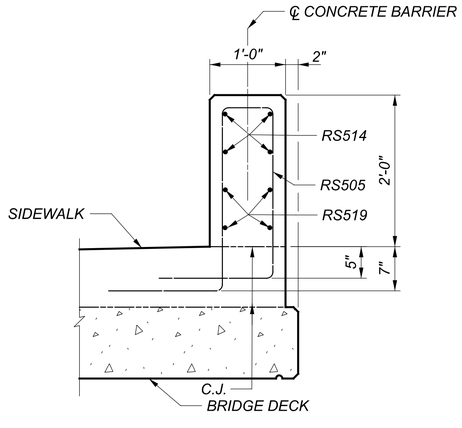
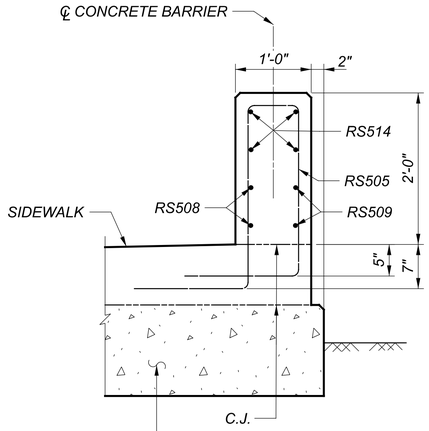
| | |
|---|---|
| SFN | 7707142 |
| DESIGN AGENCY | BG 6960 WILCOX PLACE, SUITE C DUBLIN, OHIO 43016 www.bgeriggroup.com |
| DESIGNER | RG |
| CHECKER | CCJ |
| REVIEWER | GTB 02-25-25 |
| PROJECT ID | 113201 |
| SUBSET | 25 |
| TOTAL | 30 |
| SHEET | P.57 |
| TOTAL | 62 |

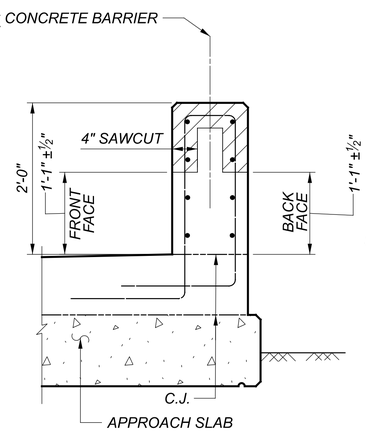


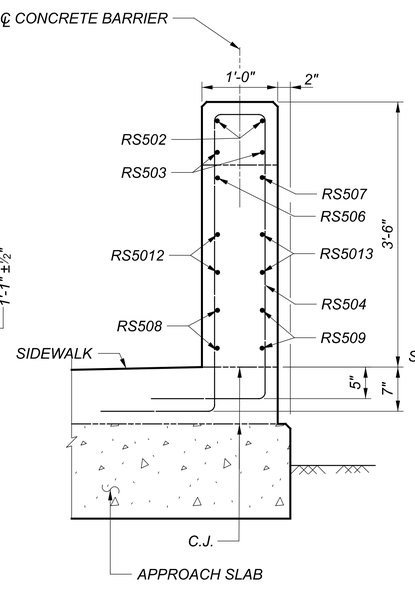

SECTION G-G
(RAILING NOT SHOWN)



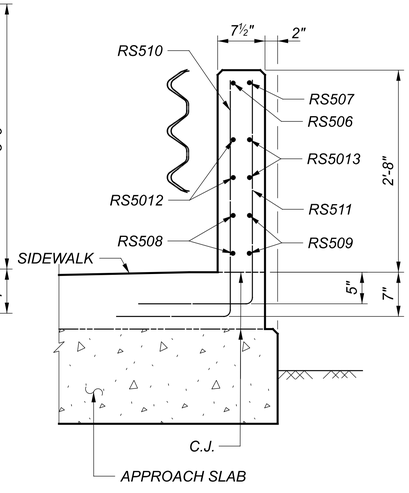

SECTION J-J




DETAIL A
(SECTION THROUGH SAWCUT)




SECTION K-K




SECTION L-L

NOTES:

1. FOR ADDITIONAL BARRIER DETAILS, SEE STD. BR-2-15.
2. FOR LIMITS OF SEALING OF CONCRETE SURFACES SEE SHEET 19 OF 30.

BRIDGE RAILING DETAILS (3 OF 3)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:32 AM USER: jperchinske
P:\Transportation\WorkSets\113201_SUM-91-07789\400-Engineering\Structures\SFN_7707142\Sheets\113201_SFN_7707142_SA003.dgn

SFN 7707142

DESIGN AGENCY
BG
www.bgeringroup.com
6960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

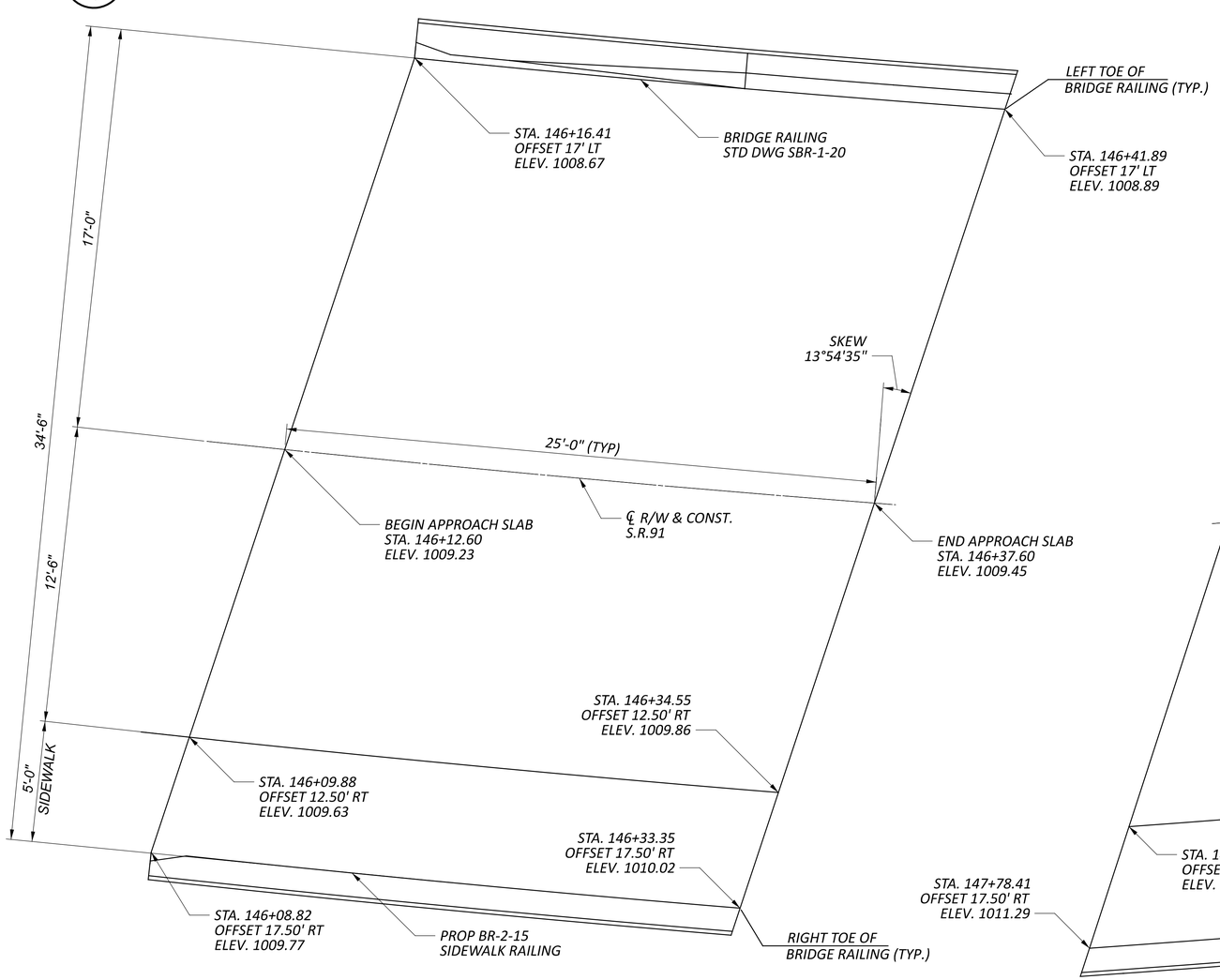
| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

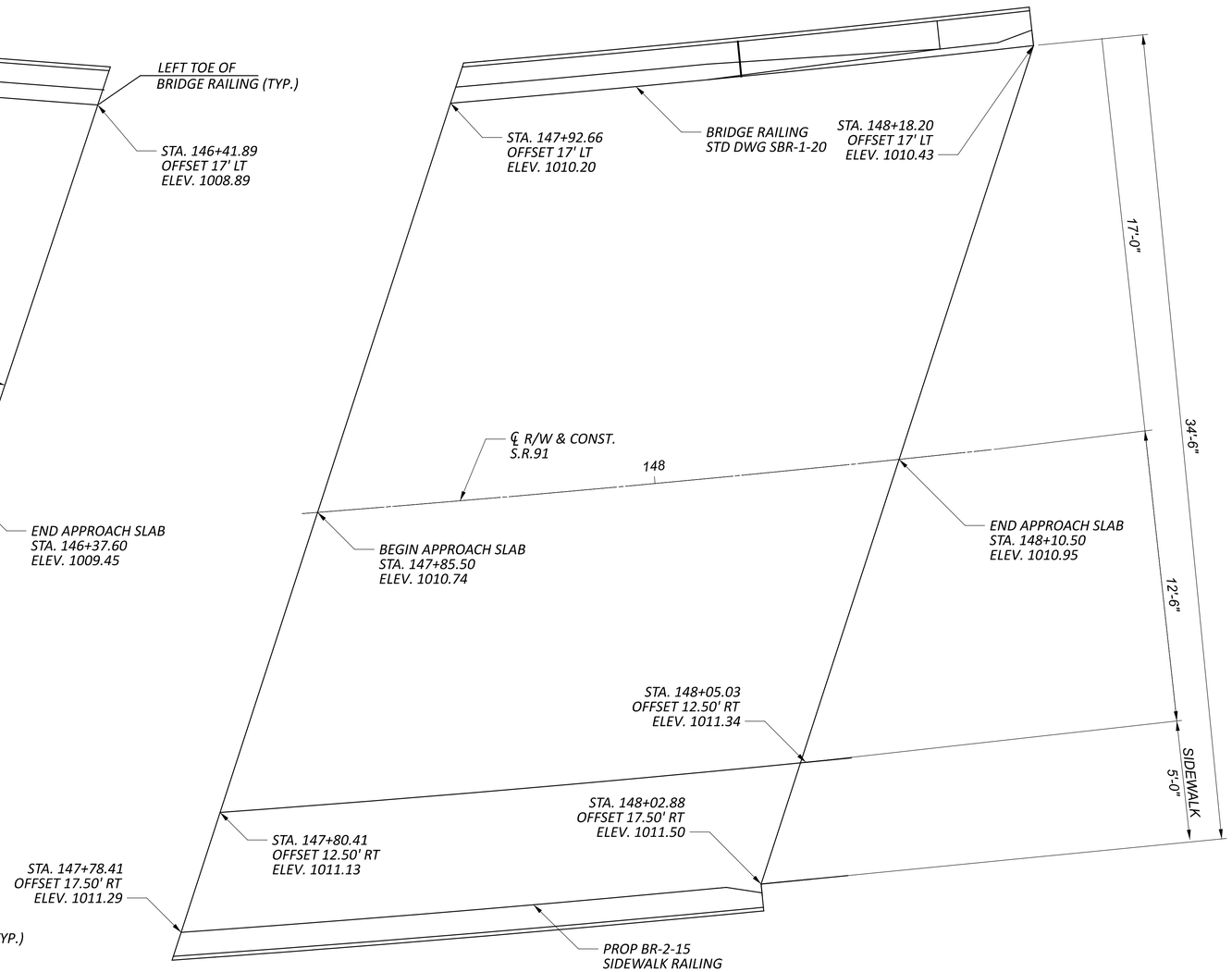
PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 26 | 30 |

| SHEET | TOTAL |
|---|---|
| P.58 | 62 |




REAR APPROACH SLAB




FORWARD APPROACH SLAB

*NOTES:*

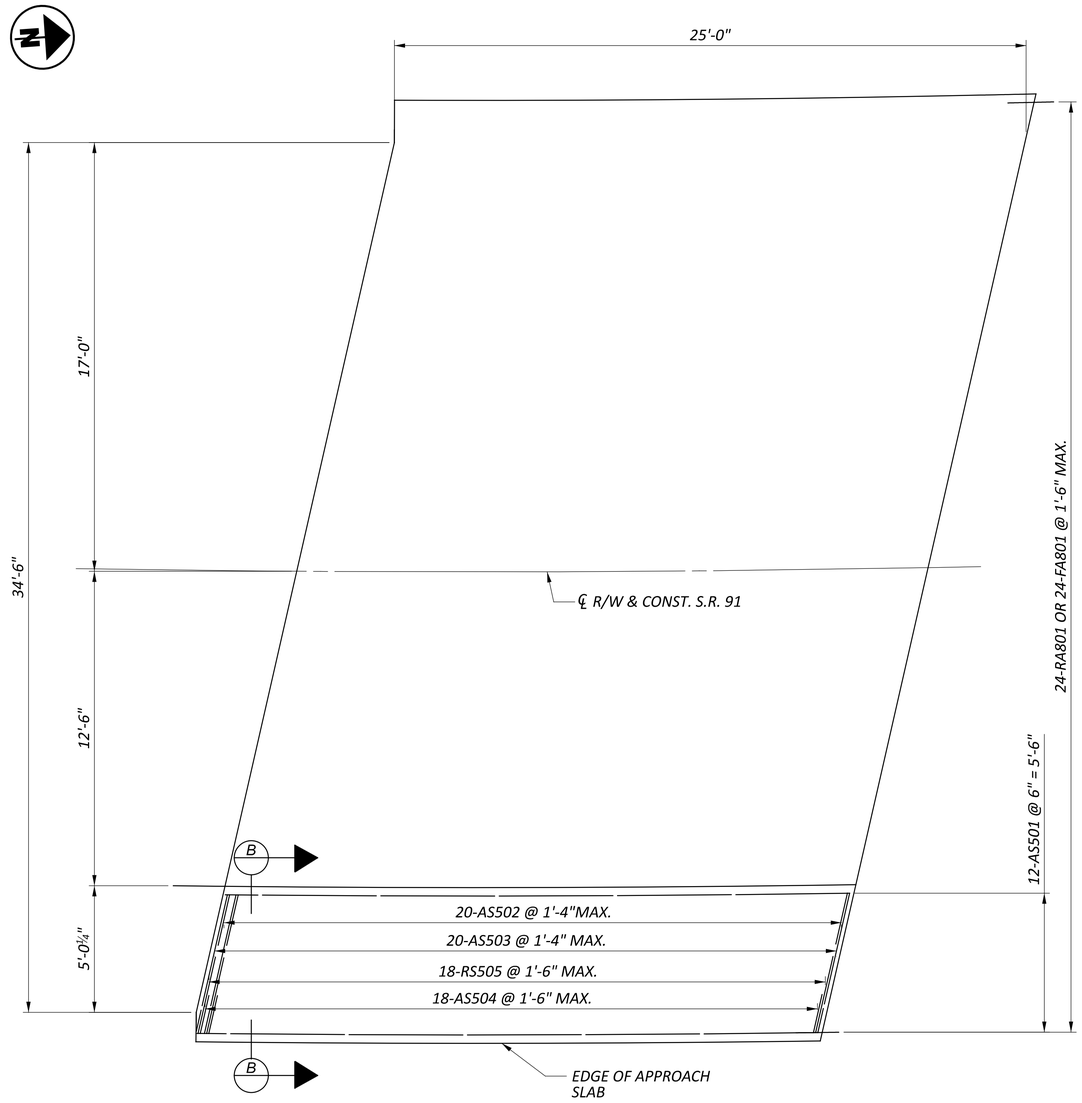
1. *FOR ADDITIONAL APPROACH SLAB DETAILS INCLUDING DIMENSION A, SEE ODOT STANDARD DRAWING AS-1-15.*
2. *FOR BARRIER ELEVATIONS, SEE SHEET 25 AND 26 .*

# APPROACH SLAB DETAILS (1 OF 2)
# BRIDGE NO. SUM-00091-07.880
# S.R. 91 OVER CUYAHOGA RIVER

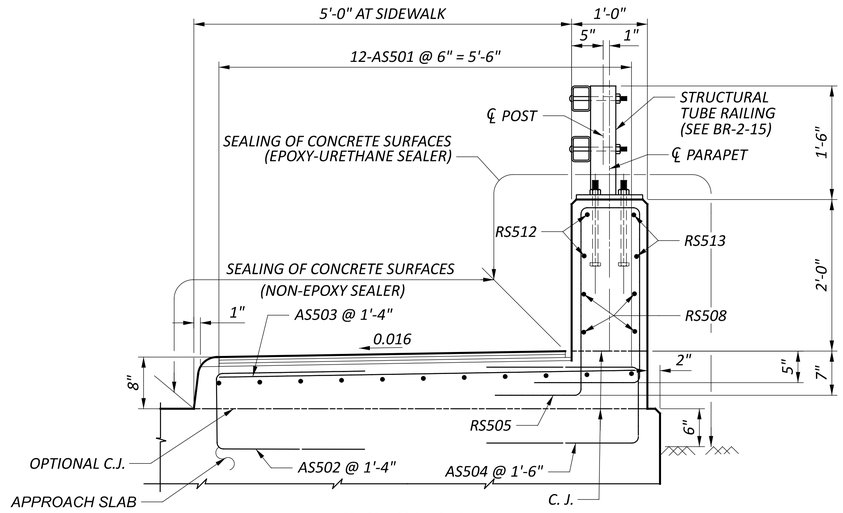
SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:33 AM USER: jperchinske
P:\TransportationWorkSets\113201_SUM-91-07.89\400-Engineering\Structures\SFN_7707142\Sheets\113201_SFN_7707142_SM001.dgn

| | |
|---|---|
| SFN | 7707142 |
| DESIGN AGENCY | BG 6960 WILCOX PLACE, SUITE C DUBLIN, OHIO 43016 www.bgeng group.com |
| DESIGNER | RG |
| CHECKER | CCJ |
| REVIEWER | GTB 02-25-25 |
| PROJECT ID | 113201 |
| SUBSET | 27 |
| TOTAL | 30 |
| SHEET | P.59 |
| TOTAL | 62 |



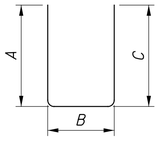

## APPROACH SLAB
(REAR SHOWN, FORWARD SIMILAR)




## SECTION B-B

| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS A | B | C | D | E | R | INC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **APPROACH SLABS (60 KSI, EPOXY COATED)** | | | | | | | | | | | |
| AS501 | 24 | 24'-5" | 611 | STR | | | | | | | |
| AS502 | 40 | 4'-9" | 198 | 2 | 2'-0" | 1'-0" | 2'-0" | | | | |
| AS503 | 40 | 5'-6" | 229 | STR | | | | | | | |
| AS504 | 36 | 4'-9" | 178 | 2 | 2'-0" | 1'-0" | 2'-0" | | | | |
| | | SUBTOTAL | 1,216 * | | | | | | | | |

* TO BE PAID FOR WITH ITEM 526 REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN




## TYPE 2

### NOTES:

1. FOR ADDITIONAL APPROACH SLAB DETAILS, SEE ODOT STANDARD DRAWING AS-1-15.
2. FOR BARRIER ELEVATIONS, SEE SHEET 25 AND 26 OF 30.
3. THE CONCRETE FOR THE BRIDGE RAILING MOUNTED ON THE APPROACH SLABS SHALL BE PAID FOR UNDER ITEM 511, CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN. THE CONCRETE AND STEEL RAILING FOR THE SIDEWALK BARRIER MOUNTED ON THE APPROACH SLABS SHALL BE PAID FOR UNDER ITEM 517- RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING), AS PER PLAN. THE APPROACH SLAB CONCRETE (INCLUDING APPROACH SLAB SIDEWALK) AND REINFORCING STEEL (INCLUDING APPROACH SLAB SIDEWALK REINFORCING STEEL) FOR THE APPROACH SLAB SHALL BE PAID FOR UNDER ITEM 526, REINFORCED CONCRETE AND APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN.
4. AS503 REINFORCEMENTS SHALL BE PLACED PARALLEL TO CENTERLINE OF ROADWAY.
5. NON STANDARD APPROACH SLAB REINFORCEMENT BARS ARE SHOWN IN THE TABLE. FOR THE REGULAR APPROACH SLAB REINFORCEMENT, REFER TO AS-1-15 AND AS-2-15.

APPROACH SLAB DETAILS (2 OF 2)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeng group.com
6960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER GTB 02-25-25

PROJECT ID 113201

| SUBSET | TOTAL |
|---|---|
| 28 | 30 |

| SHEET | TOTAL |
|---|---|
| P.60 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:34 AM USER: jperchinske
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| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS A | B | C | D | E | R | INC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **REAR ABUTMENT (60 KSI, EPOXY COATED)** | | | | | | | | | | | |
| RA501 | 4 | 27'-2" | 113 | STR | | | | | | | |
| RA502 | 6 | 20'-5" | 128 | STR | | | | | | | |
| RA503 | 2 | 5'-6" | 11 | STR | | | | | | | |
| RA504 | 1 SER. OF 3 | 1'-9" TO 4'-11" | 10 | STR | | | | | | | 1'-7" |
| RA505 | 1 SER. OF 3 | 1'-4" TO 4'-6" | 9 | STR | | | | | | | 1'-7" |
| RA506 | 1 | 5'-5" | 6 | 19 | 1'-7" | 3'-3" | 2'-0" | | | | |
| RA507 | 1 | 5'-0" | 5 | 19 | 1'-2" | 3'-3" | 2'-0" | | | | |
| RA508 | 1 | 4'-4" | 5 | STR | | | | | | | |
| RA509 | 1 | 4'-9" | 5 | STR | | | | | | | |
| RA510 | 1 | 8'-1" | 8 | 19 | 1'-8" | 6'-2" | 1'-9" | | | | |
| RA511 | 1 | 8'-5" | 9 | 19 | 2'-0" | 6'-2" | 1'-9" | | | | |
| RA512 | 2 | 33'-6" | 70 | STR | | | | | | | |
| RA513 | 2 | 34'-0" | 71 | STR | | | | | | | |
| RA514 | 2 | 15'-10" | 33 | STR | | | | | | | |
| RA515 | 2 | 16'-3" | 34 | STR | | | | | | | |
| RA516 | 2 | 14'-10" | 31 | STR | | | | | | | |
| RA517 | 2 | 15'-3" | 32 | STR | | | | | | | |
| | | | | | | | | | | | |
| RA602 | 32 | 5'-9" | 276 | 2 | 2'-4" | 1'-5" | 2'-4" | | | | |
| RA603 | 25 | 6'-7" | 247 | 2 | 3'-0" | 11" | 3'-0" | | | | |
| RA604 | 7 | 7'-11" | 83 | 2 | 3'-8" | 11" | 3'-8" | | | | |
| RA605 | 2 | 9'-5" | 28 | 2 | 4'-2" | 1'-5" | 4'-2" | | | | |
| RA606 | 1 SER. OF 4 | 9'-1" TO 5'-7" | 44 | 2 | 4'-0" TO 2'-3" | 1'-5" | 4'-0" TO 2'-3" | | | | Incr A = 7" Incr C = 7" |
| RA607 | 1 SER. OF 6 | 6'-7" TO 7'-9" | 65 | 2 | 2'-9" TO 3'-4" | 1'-5" | 2'-9" TO 3'-4" | | | | Incr A = 1 3/8" Incr C = 1 3/8" |
| RA608 | 2 | 8'-3" | 25 | 2 | 3'-7" | 1'-5" | 3'-7" | | | | |
| | | | | | | | | | | | |
| RA801 | 24 | 4'-11" | 315 | 18 | 2'-9" | 1'-0" | 1'-0" | | | | |
| | | SUBTOTAL | 1,663 | | | | | | | | |
| **REAR ABUTMENT (60 KSI, BLACK BAR)** | | | | | | | | | | | |
| RA601 | 108 | 4'-7" | 743 | 1 | 1'-5" | 3'-4" | | | | | |
| | | SUBTOTAL | 743 | | | | | | | | |

| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS A | B | C | D | E | R | INC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RAILING (60 KSI, EPOXY COATED)** | | | | | | | | | | | |
| RS501 | 4 | 4'-1" | 17 | 1 | 3'-5" | 10" | | | | | |
| RS502 | 4 | 6'-2" | 26 | 40 | 3'-5" | 2'-11" | | | | 7 ½" | |
| RS503 | 4 | 4'-7" | 19 | STR | | | | | | | |
| RS504 | 11 | 10'-10" | 124 | 30 | 1'-6" | 8" | 3'-11" | 3'-9" | | | |
| RS505 | 243 | 7'-10" | 1,985 | 30 | 1'-6" | 8" | 2'-5" | 2'-3" | | | |
| RS506 | 2 | 6'-4" | 13 | 19 | 4'-10" | 1'-5" | 5" | | | | |
| RS507 | 2 | 6'-2" | 13 | STR | | | | | | | |
| RS508 | 4 | 26'-0" | 108 | 19 | 24'-6" | 1'-5" | 5" | | | | |
| RS509 | 4 | 25'-9" | 107 | STR | | | | | | | |
| RS510 | 10 | 4'-5" | 46 | 1 | 1'-6" | 3'-1" | | | | | |
| RS511 | 10 | 4'-3" | 44 | 1 | 1'-6" | 2'-11" | | | | | |
| RS512 | 4 | 10'-6" | 44 | 19 | 9'-0" | 1'-5" | 5" | | | | |
| RS513 | 4 | 10'-5" | 43 | STR | | | | | | | |
| RS514 | 84 | 6'-2" | 540 | STR | | | | | | | |
| RS515 | 4 | 2'-1" | 9 | STR | | | | | | | |
| RS516 | 4 | 1'-11" | 8 | STR | | | | | | | |
| RS517 | 4 | 3'-6" | 15 | STR | | | | | | | |
| RS518 | 4 | 3'-8" | 15 | STR | | | | | | | |
| RS519 | 20 | 32'-5" | 676 | STR | | | | | | | |
| | | SUBTOTAL | 3,852 | | | | | | | | |

| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS A | B | C | D | E | R | INC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **FORWARD ABUTMENT (60 KSI, EPOXY COATED)** | | | | | | | | | | | |
| FA501 | 12 | 26'-2" | 328 | STR | | | | | | | |
| FA502 | 6 | 27'-2" | 170 | STR | | | | | | | |
| FA503 | 2 | 20'-5" | 43 | STR | | | | | | | |
| FA504 | 1 SER. OF 3 | 1'-9" TO 4'-10" | 10 | STR | | | | | | | 1'-6 ½" |
| FA505 | 1 SER. OF 3 | 2'-4" TO 5'-2" | 12 | STR | | | | | | | 1'-5" |
| FA506 | 1 | 5'-0" | 5 | 19 | 1'-5" | 3'-1" | 1'-11" | | | | |
| FA507 | 1 | 5'-9" | 6 | 19 | 2'-2" | 3'-1" | 1'-11" | | | | |
| FA508 | 1 | 4'-0" | 4 | STR | | | | | | | |
| FA509 | 1 | 3'-5" | 4 | STR | | | | | | | |
| FA510 | 1 | 3'-11" | 4 | 19 | 8" | 3'-2" | 10" | | | | |
| FA511 | 1 | 3'-4" | 3 | STR | | | | | | | |
| FA512 | 2 | 13'-0" | 27 | STR | | | | | | | |
| FA513 | 2 | 12'-6" | 26 | STR | | | | | | | |
| FA514 | 2 | 34'-10" | 73 | STR | | | | | | | |
| FA515 | 2 | 35'-4" | 74 | STR | | | | | | | |
| | | | | | | | | | | | |
| FA602 | 42 | 6'-5" | 405 | 2 | 2'-8" | 1'-5" | 2'-8" | | | | |
| FA603 | 33 | 6'-7" | 326 | 2 | 3'-0" | 11" | 3'-0" | | | | |
| FA604 | 7 | 7'-11" | 83 | 2 | 3'-8" | 11" | 3'-8" | | | | |
| FA605 | 2 | 9'-5" | 28 | 2 | 4'-2" | 1'-5" | 4'-2" | | | | |
| FA606 | 1 SER. OF 4 | 9'-1" TO 5'-3" | 43 | 2 | 4'-0" TO 2'-1" | 1'-5" | 4'-0" TO 2'-1" | | | | Incr A = 7 5/8" Incr C = 7 5/8" |
| FA607 | 1 SER. OF 4 | 8'-9" TO 6'-3" | 45 | 2 | 3'-10" TO 2'-7" | 1'-5" | 3'-10" TO 2'-7" | | | | Incr A = 5" Incr C = 5" |
| FA608 | 1 | 4'-0" | 6 | STR | | | | | | | |
| | | | | | | | | | | | |
| FA801 | 24 | 4'-11" | 315 | 18 | 2'-9" | 1'-0" | 1'-0" | | | | |
| | | SUBTOTAL | 2,040 | | | | | | | | |
| **FORWARD ABUTMENT (60 KSI, BLACK BAR)** | | | | | | | | | | | |
| FA601 | 104 | 4'-7" | 716 | 1 | 1'-5" | 3'-4" | | | | | |
| | | SUBTOTAL | 716 | | | | | | | | |

REINFORCING LIST (1 OF 2)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER
GTB 02-25-25

PROJECT ID
113201

| SUBSET | TOTAL |
|---|---|
| 29 | 30 |

| SHEET | TOTAL |
|---|---|
| P.61 | 62 |

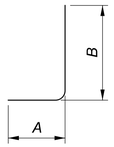
SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:20:48 AM USER: jperchinske
P:\1Transportation\WorkSets\113201_SUM-91-07\89\400-Engineering\Structures\SFN_7707142\Sheets\113201_SFN_7707142_SL001.dgn

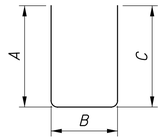
| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS A | B | C | D | E | R | INC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DECK (60 KSI, EPOXY COATED)** | | | | | | | | | | | |
| S401 | 200 | 30'-0" | 4,008 | STR | | | | | | | |
| S402 | 40 | 3'-10" | 102 | STR | | | | | | | |
| S403 | 144 | 6'-10" | 657 | 2 | 3'-3" | 6" | 3'-3" | | | | |
| S404 | 144 | 6'-3" | 601 | 2 | 3'-0" | 5" | 3'-0" | | | | |
| | | | | | | | | | | | |
| S501 | 300 | 30'-0" | 9,387 | STR | | | | | | | |
| S502 | 60 | 9'-8" | 605 | STR | | | | | | | |
| S503 | 263 | 37'-0" | 10,149 | STR | | | | | | | |
| S504 | 1 SER. OF 22 | 37'-0" TO 6'-0" | 493 | STR | | | | | | | 1'-5 ¾" |
| S505 | 16 | 5'-0" | 83 | STR | | | | | | | |
| S506 | 1 SER. OF 21 | 6'-3" TO 37'-0" | 474 | STR | | | | | | | 1'-6 ½" |
| S507 | 4 | 38'-0" | 159 | STR | | | | | | | |
| S508 | 263 | 38'-2" | 10,469 | 17 | 37'-0" | | | | | | |
| S509 | 1 SER. OF 22 | 6'-7" TO 37'-7" | 507 | 16 | 6'-0" TO 37'-0" | | | | | | 1'-5 ¾" |
| S510 | 572 | 17'-1" | 10,192 | 16 | 16'-6" | | | | | | |
| S511 | 1 SER. OF 21 | 6'-9" TO 37'-7" | 486 | 16 | 6'-2" TO 37'-0" | | | | | | 1'-6 ½" |
| S512 | 144 | 4'-10" | 726 | 1 | 2'-0" | 3'-0" | | | | | |
| S513 | 144 | 6'-0" | 901 | 3 | 1'-6" | 1'-2" | | | | | |
| S514 | 144 | 5'-6" | 826 | STR | | | | | | | |
| | | | | | | | | | | | |
| S601 | 78 | 34'-0" | 3,983 | STR | | | | | | | |
| | | SUBTOTAL | 54,808 | | | | | | | | |

| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS A | B | C | D | E | R | INC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SUPERSTRUCTURE BRIDGE RAILING (60 KSI, EPOXY COATED)** | | | | | | | | | | | |
| R601 | 686 | 7'-0" | 7,213 | 23 | 6" | 3'-3" | 3'-3" | | | 2" | |
| R602 | 638 | 7'-1" | 6,788 | 38 | 2'-2" | | | | | | |
| R603 | 48 | 7'-8" | 553 | 38 | 2'-5" | | | | | | |
| R604 | 4 SER. OF 11 | 4'-4" TO 5'-2" | 314 | 1 | 1'-0" | 3'-6" TO 4'-4" | | | | | 1" |
| R605 | 32 | 4'-4" | 208 | 1 | 1'-0" | 3'-6" | | | | | |
| | | SUBTOTAL | 15,076 | | | | | | | | |

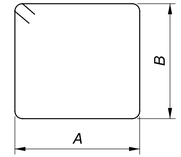
| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TOTAL LENGTH | TYPE | DIMENSIONS A | B | C | D | E | R | INC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SUPERSTRUCTURE BRIDGE RAILING (GFRP REINFORCING BARS)** | | | | | | | | | | | | |
| R401G | 264 | 10'-0" | - | 2640'-0" | STR | | | | | | | |
| R402G | 24 | 6'-10" | - | 164'-0" | 25 | 2'-6" | 2'-5" | 1'-5" | 1'-6" | 5" | | |
| R403G | 24 | 5'-1" | - | 122'-0" | STR | | | | | | | |
| R404G | 44 | 12'-1" | - | 531'-8" | STR | | | | | | | |
| R405G | 16 | 11'-0" | - | 176'-0" | STR | | | | | | | |
| R406G | 220 | 30'-0" | - | 6600'-0" | STR | | | | | | | |
| R407G | 16 | 10'-4" | - | 165'-4" | STR | | | | | | | |
| | | SUBTOTAL | | 10399'-0" | NO. 4 GFRP DEFORMED BARS | | | | | | | |



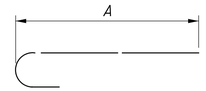
TYPE-1



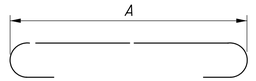
TYPE 2



TYPE-3



TYPE 16



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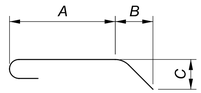

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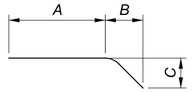

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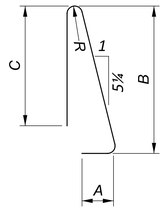

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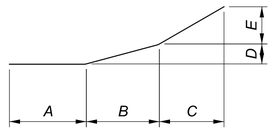

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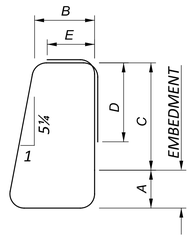

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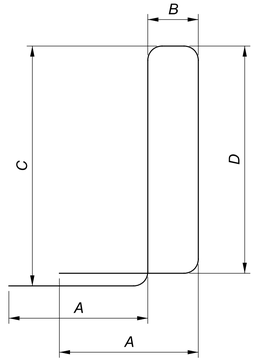

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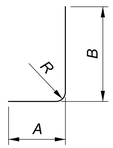

TYPE-40

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3 OF 30.

2. THE LETTER PREFIX INDICATES BAR LOCATION. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE TWO DIGITS WHEN FOUR DIGITS ARE USED INDICATES BAR SIZE NUMBER. ALL REINFORCING IS ASSUMED EPOXY COATED UNLESS OTHERWISE INDICATED BY A LETTER SUFFIX. IF A LETTER SUFFIX IS PROVIDED, IT INDICATES BAR OR BAR COATING TYPE. EXAMPLE: S601

   S: THE LOCATION OF THE BARS IN THE STRUCTURE (SUPERSTRUCTURE)
   6: BAR SIZE DIMENSION NO. 6
   01: SEQUENCE NUMBER

   THE FOLLOWING IS A LIST OF BAR LOCATION PREFIXES:
   DG: DIAPHRAGM GUIDE
   S: SUPERSTRUCTURE
   R: RAILING (GFRP)
   RS: RAILING (EPOXY COATED)
   RA: REAR ABUTMENT
   FA: FORWARD ABUTMENT
   AS: APPROACH SLAB

3. BAR DIMENSIONS ARE SHOWN OUT-TO-OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. STRAIGHT BARS ARE INDICATED BY "STR."

REINFORCING LIST (2 OF 2)
BRIDGE NO. SUM-00091-07.880
S.R. 91 OVER CUYAHOGA RIVER

SFN 7707142

DESIGN AGENCY
BG
www.bgeringroup.com
8960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

| DESIGNER | CHECKER |
|---|---|
| RG | CCJ |

REVIEWER: GTB 02-25-25

PROJECT ID: 113201

| SUBSET | TOTAL |
|---|---|
| 30 | 30 |

| SHEET | TOTAL |
|---|---|
| P.62 | 62 |

SUM-91-07.89

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/22/2025 TIME: 8:21:02 AM USER: jperchinske
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