

SHE-SPRUC-02270

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MAY 30, 2023
STAGE 2 & FINAL R/W

NON-FEDERAL

CSX TRANSPORTATION

REPLACE DEFICIENT BRIDGE AND INCREASE VERTICAL CLEARANCE OVER CSX TRANSPORTATION. THE PROPOSED BRIDGE WILL BE A 3-SPAN STEEL ROLLED BEAM ON SEMI-INTEGRAL ABUTMENTS AND T-TYPE PIERS. PROJECT TO INCLUDE NECESSARY APPROACH AND INTERSECTION WORK TO ACCOMMODATE THE INCREASE IN VERTICAL PROFILE FOR THE CLEARANCE REQUIREMENTS OVER CSX TRANSPORTATION.


PROJECT EARTH DISTURBED AREA: 1.15 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.05 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 1.20 ACRES

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 THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 8.

APPROVED _____
DATE _____ CITY OF SIDNEY

John W. O'Brien
07


Jack Marchbanks, PhD
Director, Department of Transportation

TITLE SHEET

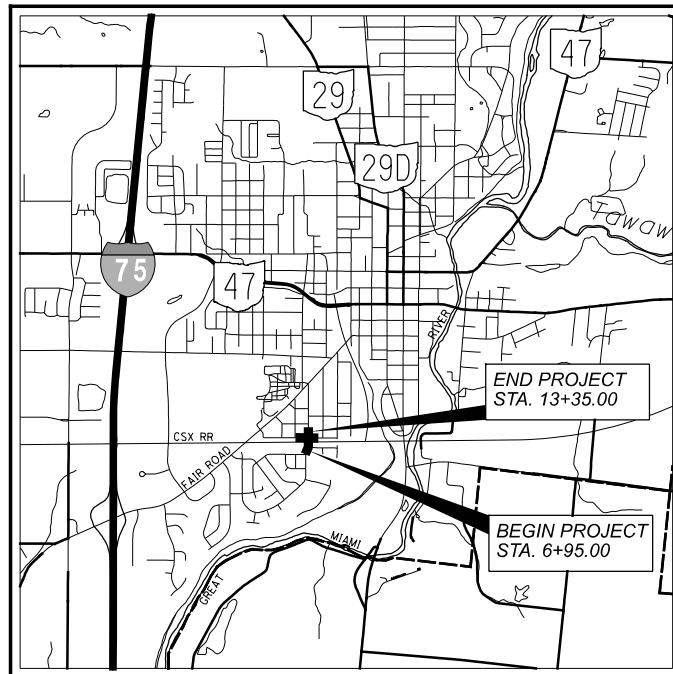
DESIGN AGENCY

DESIGNER
JRE

REVIEWER
AG 05/30/23

PROJECT ID	114201
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MEET	TOTAL
1	72



LOCATION MAP

LATITUDE: 40 °16'26" LONGITUDE: 84 °09'51"



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

DESIGN DESIGNATION

CURRENT ADT (2024)	1000
DESIGN YEAR ADT (2044)	1500
DESIGN HOURLY VOLUME (2044)	150
DIRECTIONAL DISTRIBUTION	0.50
TRUCKS (24 HOUR B&C)	
DESIGN SPEED	25 MPH
LEGAL SPEED	25 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
LOCAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS ADA DESIGN WAIVERS

NONE NONE

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



PLAN PREPARED BY:

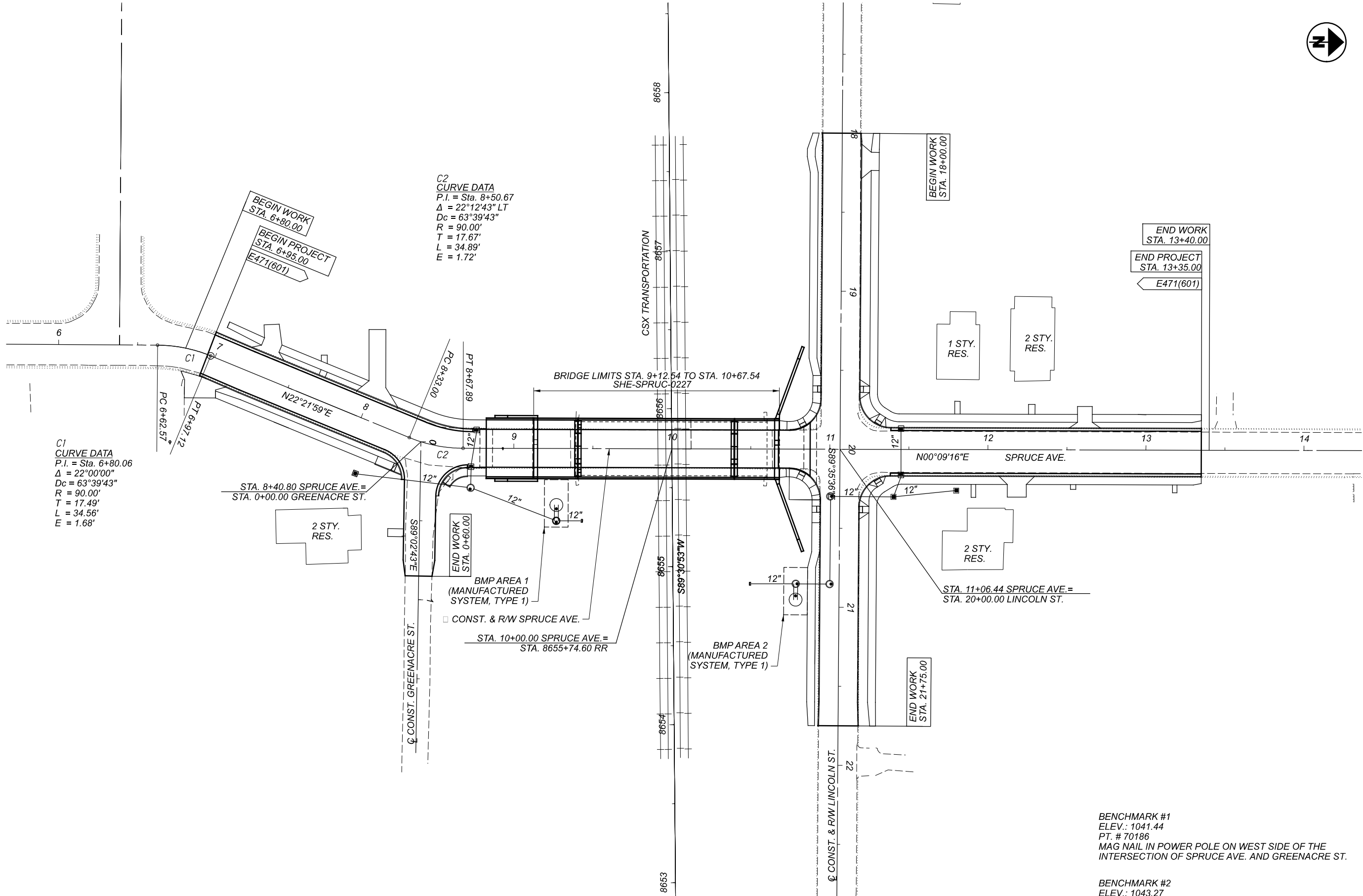


DESIGN AGENCY

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<p>ENGINEER'S SEAL</p> <p>BRIDGE</p>  <p>STATE OF OHIO JOSEPH L. MELLMAN E71911 REGISTERED PROFESSIONAL ENGINEER</p>	
<p>ENGINEER'S SEAL</p> <p>ROADWAY</p>  <p>STATE OF OHIO JOSEPH R. ESPELAGE E-61783 REGISTERED PROFESSIONAL ENGINEER</p>	



SCHEMATIC PLAN

BENCHMARK #1
ELEV.: 1041.44
PT. # 70186
MAG NAIL IN POWER POLE ON WEST SIDE OF THE
INTERSECTION OF SPRUCE AVE. AND GREENACRE ST.

BENCHMARK #2
ELEV.: 1043.27
PT. # 70601
RAIL ROAD SPIKE IN POWER POLE AT THE SOUTHWEST
CORNER OF THE INTERSECTION OF SPRUCE AVE. AND
LINCOLN ST.

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

114201

SHEET

TOTAL

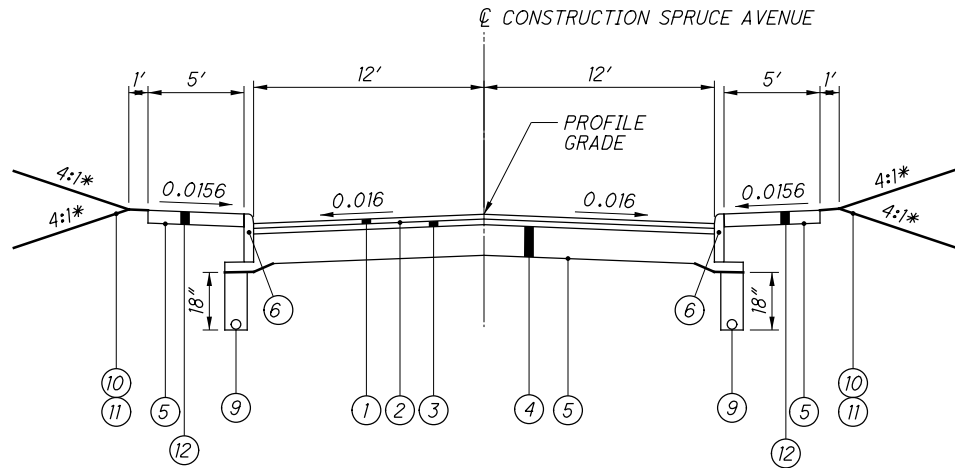
2

72

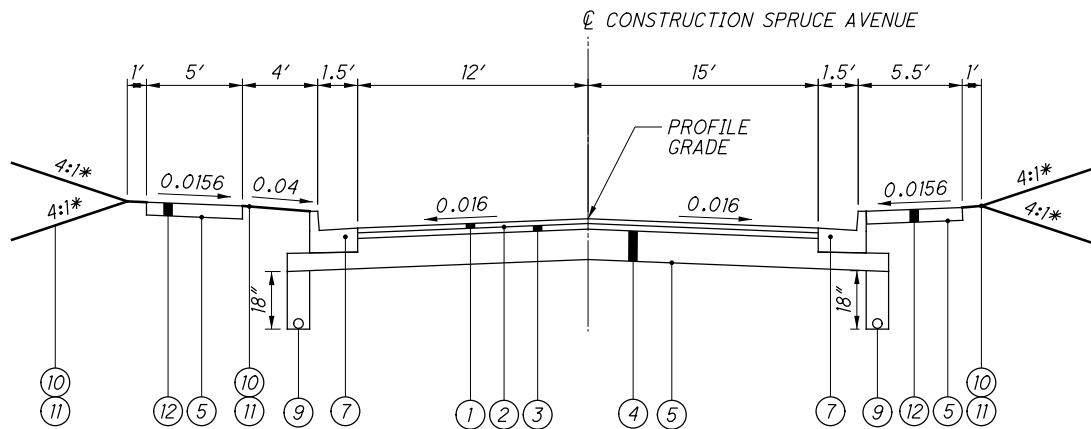
LEGEND

- 1 ITEM 442 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)
- 2 ITEM 407 - NON-TRACKING TACK COAT (APPLIED AT 0.10 GAL/SY)
- 3 ITEM 442 - 2 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)
- 4 ITEM 304 - 9" AGGREGATE BASE
- 5 ITEM 204 - SUBGRADE COMPACTION
- 6 ITEM 609 - CURB, TYPE 6, AS PER PLAN
- 7 ITEM 609 - CURB MISC.: CITY OF SIDNEY CURB AND GUTTER, TYPE 2
- 8 NOT USED

- 9 ITEM 605 - 6" BASE PIPE UNDERDRAINS, 707.31
- 10 ITEM 659 - SEEDING AND MULCHING, CLASS 1
- 11 ITEM 653 - TOPSOIL FURNISHED AND PLACED (3")
- 12 ITEM 608 - 4" CONCRETE WALK, AS PER PLAN
- 13 ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=13")
- 14 ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15")
- 15 ITEM 304 - 6" AGGREGATE BASE
- 16 ITEM 606 - GUARDRAIL, TYPE MGS

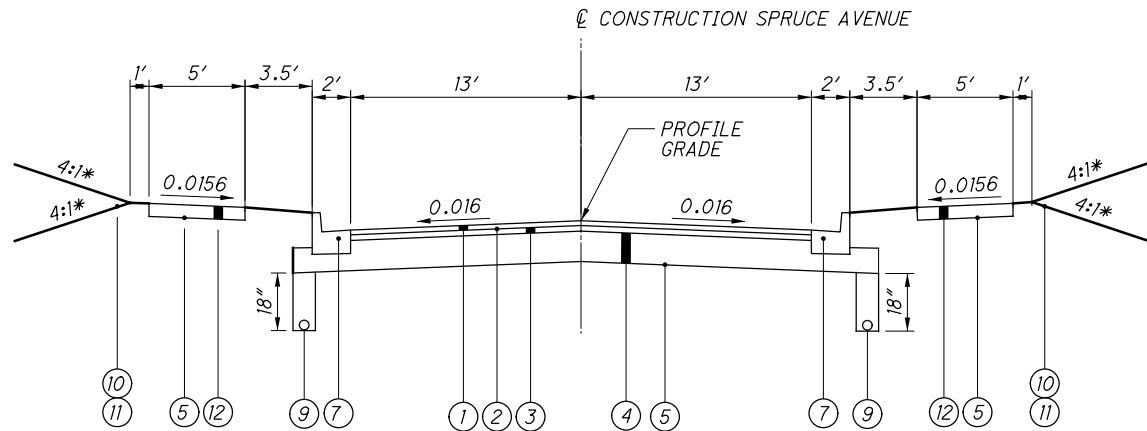


SPRUCE AVENUE FULL DEPTH SECTION (BARRIER CURB)
STA. 8+74.01 TO STA. 8+82.54 (LT)
STA. 8+70.73 TO STA. 8+82.54 (RT)

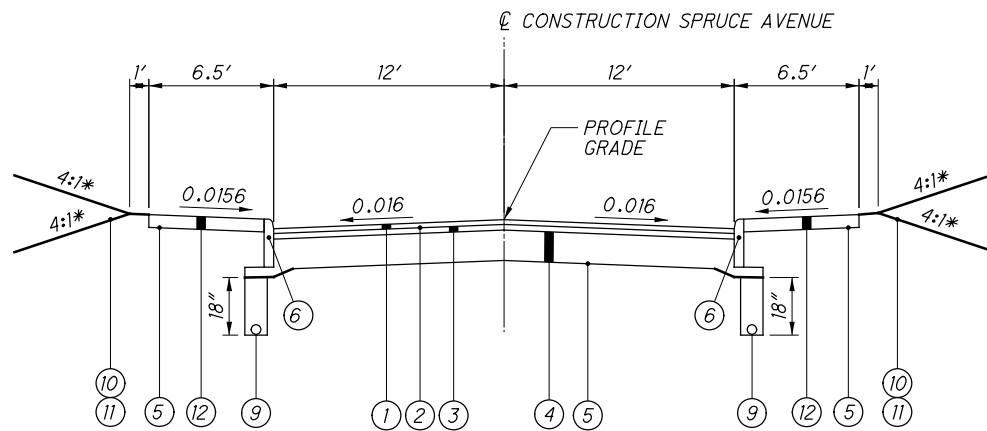


SPRUCE AVENUE FULL DEPTH SECTION (CURB AND GUTTER)
STA. 11+06.44 TO STA. 13+35.00

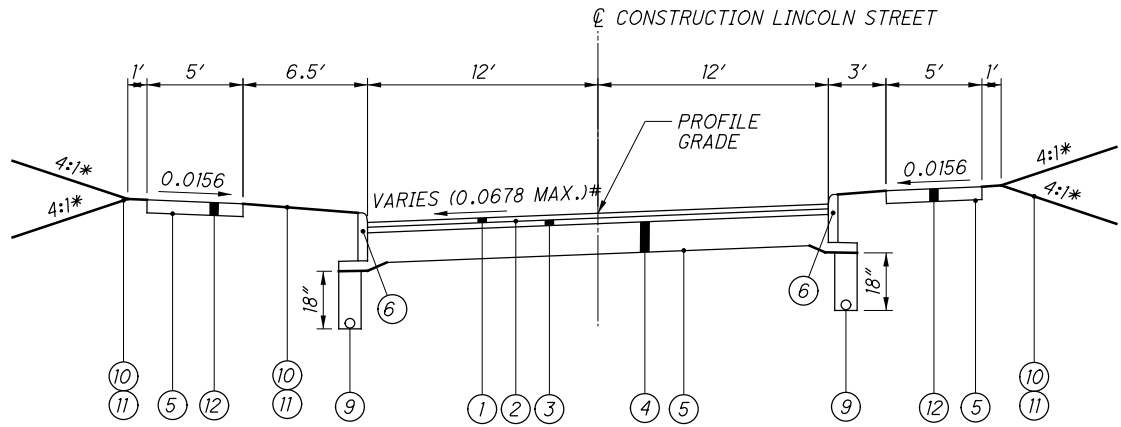
* OR AS SHOWN ON
CROSS SECTIONS



SPRUCE AVENUE FULL DEPTH SECTION (CURB AND GUTTER)
STA. 6+95.00 TO STA. 8+74.01 (LT)
STA. 6+95.00 TO STA. 8+70.73 (RT)

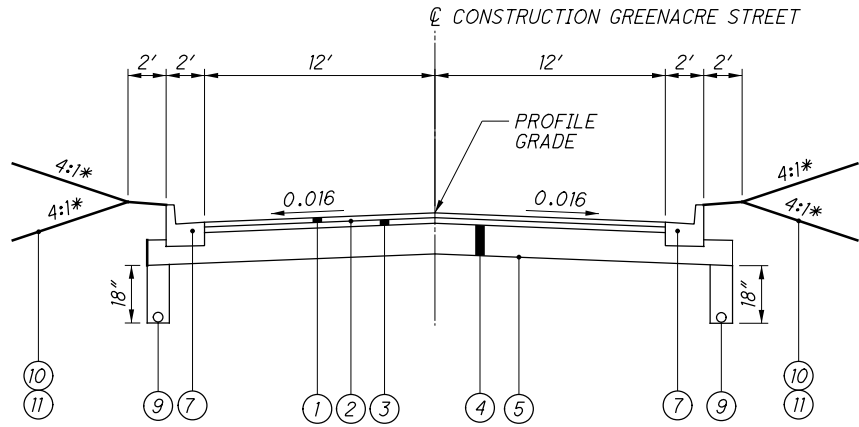


SPRUCE AVENUE FULL DEPTH SECTION (BARRIER CURB)
STA. 10+87.54 TO STA. 11+06.44

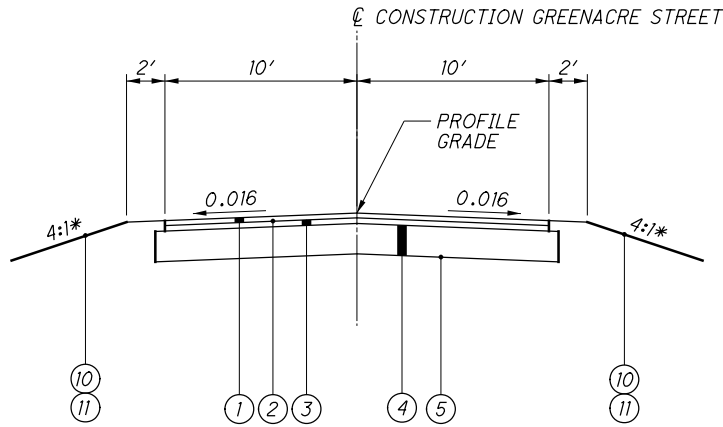


SEE PAVEMENT TRANSITION TABLE

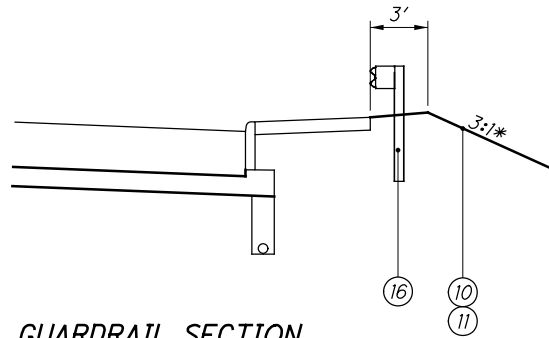
LINCOLN STREET FULL DEPTH SECTION (BARRIER CURB)
STA. 18+00.00 TO STA. 21+75.00



GREENACRE STREET FULL DEPTH SECTION (ROLLED CURB)
STA. 0+10.50 TO STA. 0+34.13 (LT)
STA. 0+10.50 TO STA. 0+24.05 (RT)

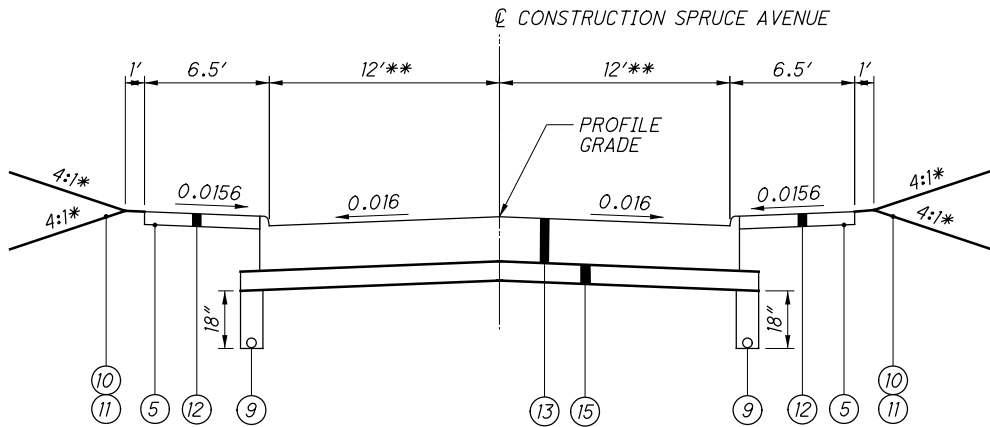


GREENACRE STREET FULL DEPTH SECTION (SHOULDER)
STA. 0+24.05 TO STA. 0+85.00 (LT)
STA. 0+34.13 TO STA. 0+85.00 (RT)



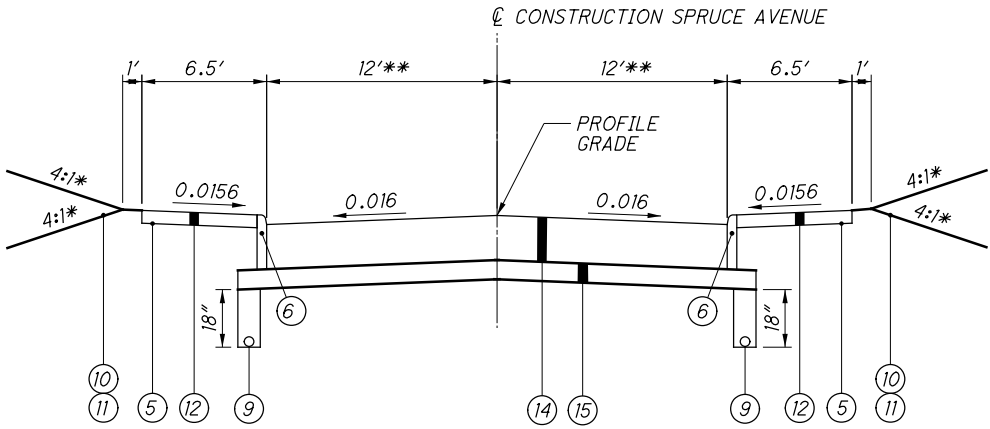
GUARDRAIL SECTION
STA. 8+15.71 TO STA. 8+82.54 (LT)
STA. 8+58.65 TO STA. 8+82.54 (RT)
STA. 10+67.54 TO STA. 19+33.15 (LINCOLN) (LT)
STA. 10+67.54 TO STA. 20+39.34 (LINCOLN) (RT)

BRIDGE LIMITS: STA. 9+12.54 TO STA. 10+67.54



SPRUCE AVENUE APPROACH SLAB SECTION
STA. 8+82.54 TO STA. 9+12.54

* OR AS SHOWN ON CROSS
** WIDTH VARIES AT INTERSECTION



SPRUCE AVENUE APPROACH SLAB SECTION
STA. 10+67.54 TO STA. 10+87.54

* OR AS SHOWN ON CROSS SECTIONS
** WIDTH VARIES AT INTERSECTION

FOR LEGEND, SEE SHEET 3.

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 THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

STORM SEWER:

CITY OF SIDNEY
201 W. POPLAR STREET
SIDNEY, OHIO 45365
UTILITY DIRECTOR
(937) 498-2335

SANITARY AND WATER:

CITY OF SIDNEY
415 S. VANDEMARK ROAD
SIDNEY, OHIO 45365
WILLIAM BLAKELY
WBLAKELY@SIDNEYOH.COM
(937) 498-8251

TELECOMMUNICATIONS:

LUMEN
125 N. MAIN ST.
SIDNEY, OHIO 45365
(937) 498-5105
ATTN: RICK KROGMAN

ELECTRIC:

AES OHIO
1900 DRYDEN ROAD
DAYTON, OHIO 45439
WILLIAM WARD
WILLIAM.WARD@AES.COM
(937) 554-9063

GAS:

CENTERPOINT ENERGY
2345 E. MAIN ST.
DANVILLE, INDIANA 46122
(317) 718-3639
ATTN: PUBLIC PROJECT COOR.
PUBLICPROJECT@
CENTERPOINTENERGY.COM

CABLE TV:

CHARTER COMMUNICATIONS
3691 TURNER ROAD
DAYTON, OHIO 45415
MICHAEL BURNS
(937) 396-8386

NKTELCO

301 W. SOUTH STREET
NEW KNOXVILLE, OHIO 45871
PRESTON MEYER
(419) 753-2457

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 ____ OF THE PLANS 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: TRAVERSE MAG NAIL

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (CORS 2011 ADJUSTMENT)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE NORTH
COMBINED SCALE FACTOR: 1.0000101465
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.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	_____	_____	_____
30"	_____	_____	_____
48"	_____	_____	_____
60"	_____	_____	_____

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET NO. ____.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE PLAN SHEET NO. ____ FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING _____ HOUR.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST	_____ EACH
659, TOPSOIL	_____ CU. YD.
659, SEEDING AND MULCHING	_____ SQ. YD.
659, REPAIR SEEDING AND MULCHING	_____ SQ. YD.
659, INTER-SEEDING	_____ SQ. YD.
659, COMMERCIAL FERTILIZER	_____ TON
659, LIME	_____ ACRES
659, WATER	_____ M. GAL.
659, MOWING	_____ M. SQ.FT.

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.

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE CITY, 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 CIYT.

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.

MANUFACTURED WATER QUALITY STRUCTURE

THIS PLAN UTILIZES MANUFACTURED WATER QUALITY STRUCTURES FOR WATER QUALITY TREATMENT. AREAS HAVE BEEN SHOWN IN THE PLANS FOR PLACEMENT OF AN OFF-LINE SYSTEM. PAYMENT FOR THESE DEVICES SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM 895, MANUFACTURED WATER QUALITY STRUCTURE, TYPE 1.

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

114201

SHEET

5

TOTAL

72

CSX TRANSPORTATION NOTES

REFER TO THE CSX TRANSPORTATION PUBLIC PROJECT INFORMATION MANUAL FOR ADDITIONAL REQUIREMENTS NEEDED FOR WORKING ON/ABOVE/ADJACENT TO CSXT. SPECIFIC SECTIONS THAT PERTAIN TO THIS PROJECT ARE SPECIAL PROVISIONS FOR CONSTRUCTION NEAR CSXT PROPERTY, OVERHEAD BRIDGE CRITERIA, CONSTRUCTION SUBMISSION CRITERIA, AND INSURANCE REQUIREMENTS FOR PUBLIC PROJECTS.

CONTRACTOR ACCESS WILL BE LIMITED TO THE IMMEDIATE PROJECT AREA ONLY. THE CSXT RIGHT-OF-WAY OUTSIDE THE PROJECT AREA MAY NOT BE USED FOR CONTRACTOR ACCESS TO THE PROJECT SITE AND NO TEMPORARY AT-GRADE CROSSINGS WILL BE ALLOWED.

THE CONTRACTOR WILL BE REQUIRED TO ABIDE BY THE PROVISIONS OF THE AGENCY/CSXT CONSTRUCTION AGREEMENT. PERIODICALLY, THROUGHOUT THE PROJECT DURATION, THE CONTRACTOR MAY BE REQUIRED TO MEET, DISCUSS AND, IF NECESSARY, TAKE IMMEDIATE ACTION AT THE DISCRETION OF CSXT PERSONNEL AND/OR THEIR AUTHORIZED REPRESENTATIVE, TO COMPLY WITH PROVISIONS OF THAT AGREEMENT AND THESE SPECIFICATIONS.

IT IS THE RESPONSIBILITY OF THE INDIVIDUAL OWNERS OF WIRELINES, PIPELINES, UTILITIES, ETC TO COORDINATE DIRECTLY WITH CSXT REAL ESTATE AND FACILITIES MANAGEMENT (REFM) GROUP. THIS INCLUDES ALL NEW INSTALLATIONS AND THE ADJUSTMENT, MODIFICATION, REMOVAL OR RETIREMENT IN PLACE OF ALL EXISTING FACILITIES.

THE CONTRACTOR MAY NOT USE CSXT RIGHT-OF-WAY FOR STORAGE OF MATERIALS OR EQUIPMENT DURING CONSTRUCTION WITHOUT PRIOR CSXT APPROVAL. THE CSXT RIGHT-OF-WAY MUST ALWAYS REMAIN CLEAR FOR RAILROAD USE. EQUIPMENT MAY NOT BE POSITIONED TO BLOCK THE RAILROAD ACCESS ROAD, TRACK AREA OR ANY PART OF THE CSXT RIGHT-OF-WAY WITHOUT PRIOR CSXT APPROVAL. ALL MOVEMENTS OF EQUIPMENT WITHIN RAILROAD RIGHT-OF-WAY MUST BE COORDINATED WITH THE RAILROAD FLAGGER.

THE ROADWAY AUTHORITY, OR DESIGNATED CONTRACTOR, SHALL COORDINATE WITH THE RAILROAD WHENEVER THE CONTRACTOR'S WORK ACTIVITIES ARE LOCATED OVER, UNDER OR WITHIN THE RAILROAD'S RIGHT-OF-WAY.

ANY DAMAGE CAUSED BY THE PROJECT WORK TO THE TRACK OR RAILROAD PROPERTY WILL REQUIRE REPAIR IMMEDIATELY UPON NOTIFICATION FROM THE RAILROAD OR THEIR DESIGNATED REPRESENTATIVE. IF THE DAMAGE AFFECTS THE TRACK, TRACK STRUCTURE, RAILROAD FACILITIES, OR TRAIN OPERATIONS AS DETERMINED BY THE RAILROAD, THE REPAIRS WILL BE PERFORMED BY THE RAILROAD AT THE CONTRACTOR'S EXPENSE INCLUDING ALL ASSOCIATED COSTS OF DELAYS TO THE RAILROAD.

DURING TRAIN MOVEMENTS THROUGH THE PROJECT LOCATION, VEHICLES, EQUIPMENT, AND PERSONNEL WILL NOT BE ALLOWED TO OPERATE WITHIN TWENTY-FIVE (25) FEET OF THE TRACK.

CSXT SHALL BE NOTIFIED AT LEAST FIVE (5) DAYS IN ADVANCE OF THE PRE-CONSTRUCTION MEETING.

THE CONTRACTOR SHALL COORDINATE ALL WORK ON, OVER OR ADJACENT TO THE RAILROADS WITHIN THE PROJECT'S LIMITS. THE CONTRACTOR SHALL CONTACT CSX RAILROAD, AT LEAST THIRTY (30) DAYS IN ADVANCE, IN ORDER TO COORDINATE THE NECESSARY WORK. UNDER NO CIRCUMSTANCES SHALL THERE BE ANY WORK WITHIN THE RAILROAD RIGHT-OF-WAY WITHOUT THE PROPER AUTHORIZATION AND/OR FLAG PROTECTION FROM THE RAILROAD.

THE USE OF ACETYLENE GAS IS PROHIBITED FOR USE ON OR OVER CSX PROPERTY. TORCH CUTTING SHALL BE PERFORMED UTILIZING OTHER MATERIALS SUCH AS PROPANE.

CSXT REQUIRES THAT THE CONTRACTOR SUBMIT AND RECEIVE ACCEPTANCE OF A COMPREHENSIVE MEANS & METHODS SUBMITTAL (CSXT CONSTRUCTION SUBMISSION CRITERIA, ISSUED APRIL 2022) DETAILING SCOPE WORK WITHIN CSXT TRACKS OR RIGHT-OF-WAY, OR OTHER WORK WHICH PRESENTS THE POTENTIAL TO AFFECT CSXT PROPERTY OR OPERATIONS TO UNDERTAKING THE WORK.

A. THE CONTRACTOR SHALL SUBMIT A DETAILED PROCEDURE FOR DEMOLITION OF EXISTING STRUCTURES OVER OR ADJACENT TO CSXT'S TRACKS OR RIGHT-OF-WAY. THE PROCEDURE SHALL CLEARLY INDICATE THE CAPACITY OF EQUIPMENT, LOCATION OF EQUIPMENT WITH RESPECT TO THE TRACKS AND THE CALCULATED LIFTS.

B. THE DEMOLITION PROCEDURE MUST BE APPROVED BY CSXT'S CONSTRUCTION ENGINEERING AND INSPECTION REPRESENTATIVE.

C. CSXT'S TRACKS, SIGNALS, STRUCTURES, AND OTHER FACILITIES SHALL BE PROTECTED FROM DAMAGE DURING DEMOLITION OF THE STRUCTURE.

D. DURING DEMOLITION, A PROTECTION SHIELD SHALL BE ERECTED OVER THE TRACK AREA TO CATCH FALLING DEBRIS. THE PROTECTION SHIELD SHALL BE SUPPORTED FROM GIRDERS OR BEAMS. THE PROTECTION SHIELD SHALL BE DESIGNED WITH SUPPORTING CALCULATIONS FOR A MINIMUM OF FIFTY (50) POUNDS PER SQUARE FOOT (PSF) PLUS THE WEIGHT OF THE EQUIPMENT DEBRIS, PERSONNEL, AND OTHER LOADS TO BE CARRIED.

E. LARGE PIECES OF CONCRETE SHALL NOT BE ALLOWED TO FALL ON THE PROTECTION SHIELD.

F. A BALLAST PROTECTION SYSTEM CONSISTING OF GEOFABRIC OR CANVAS SHALL BE PLACED WITHIN THE TRACK STRUCTURE TO KEEP IT FREE FROM FINES. THE SYSTEM SHALL EXTEND ALONG THE TRACK STRUCTURE FOR A MINIMUM OF 25'-0" BEYOND THE LIMITS OF THE DEMOLITION WORK, OR FARTHER IF REQUIRED BY CSXT'S CONSTRUCTION ENGINEERING DESIGNATE.

G. CONTRACTOR SHALL SUBMIT DETAILED PLANS WITH SUPPORTING CALCULATIONS FOR THE PROTECTION SHIELD AND BALLAST PROTECTION SYSTEM FOR APPROVAL PRIOR TO THE START OF DEMOLITION.

H. SUBSTRUCTURE FOUNDATION EXCAVATION AND CONSTRUCTION THAT MAY REQUIRE SHORING OR OTHER PROTECTION OF RAILROAD TRACK(S).

I. INSTALLATION OF PILES AND SHEETING FOR ABUTMENT FOUNDATIONS, PIER FOUNDATIONS, RETAINING WALL FOUNDATIONS, TEMPORARY AND PERMANENT SHORING AND OTHER STRUCTURES ON OR ADJACENT TO CSX'S RIGHT-OF-WAY, THE CONTRACTOR MAY BE REQUIRED TO SUBMIT A DETAILED TRACK MONITORING PROGRAM FOR CSX'S APPROVAL PRIOR TO PERFORMING ANY WORK NEAR CSX'S RIGHT-OF-WAY.

J. CONTRACTOR SHALL VERIFY THE EXISTING TOP OF RAIL ELEVATIONS RELATIVE TO PLAN BENCHMARKS TO ENSURE DESIGNED RAILROAD MINIMUM VERITCAL CLARANCE IS ACHIEVED.

K. BEAM ERECTION AND STABILIZATION OVER RAILROAD RIGHT-OF-WAY. ALL LIFTING EQUIPMENT AND CONNECTION DEVICES SHALL HAVE A CAPACITY FOR 150% OF THE ACTUAL LIFTING LOAD. THE FACTOR OF SAFETY PROVIDED BY THE MANUFACTURER IN THE LIFTING CAPACITY DATA SHALL NOT BE CONSIDERED IN THE 150% REQUIREMENT.

DURING BEAM ERECTION AND PRIOR TO PERMANENTLY INSTALLING ANCHOR DOWELS / TIE RODS, AND CONSTRUCTING CONCRETE DECK, THE CONTRACTOR SHALL FIELD VERIFY THE VERITCAL CLEARANCE OVER EXISTING RAILROAD TRACKS AT EXTERIOR EDGE OF FASCIA BEAMS. THE VERTICAL CLEARANCE SHALL BE MEASURED FROM TOP OF RAILS TO THE LOWEST OBSTRUCTION, WITHIN SIX FEET (6'-0") OF THE TRACK CENTERLINE, IN EITHER DIRECTION.

IF THE MINIMUM VERTICAL CLEARANCE OVER RAILROAD TRACKS IS LESS THAN 23'-1" AT ANY LOCATION, NOTIFY THE ENGINEER FOR FURTHER EVALUATION. THE ENGINEER WILL DETERMINE IF INSTALLING SHIM PLATES AND / OR BEAING LOAD PLATE MODIFICATIONS ARE REQUIRED.

TEMPORARY CONSTRUCTION CLEARANCES (HORIZONTAL & VERTICAL) PROPOSED - FOR EXISTING OR LESS THAN STANDARD CONDITIONS - SHALL BE SUBJECT TO APPROVAL BY CSXT. TYPICALLY REDUCTION IN CONSTRUCTION CLEARANCES ARE NOT PERMITTED.

EXISTING OBSOLETE BRIDGE PIERS SHALL BE REMOVED TO A MINIMUM OF THREE FEET (3'-0") BELOW THE FINISHED GRADE, FINAL DITCH FLOW LINE, OR AS DIRECTED BY THE ENGINEER.

DURING AND AFTER COMPLETION OF CONSTRUCTION, THE OUTSIDE PARTY OR ITS CONTRACTOR SHALL CLEAR CSXT'S DRAINAGE DITCHES OF ALL DEBRIS TO THE SATISFACTION OF CSXT'S CONSTRUCTION MONITORING REPRESENTATIVE.

A WORK SITE SAFETY PLAN THAT INCLUDES A RECOGNITION TO KEEP ALL PERSONNEL FROM FOULING CSXT RAIL OPERATIONS, A FALL PROTECTION PLAN DESCRIBING THE MEASURES TO BE TAKEN WHEN REQUIRED, AND A FIRE PROTECTION PLAN SHALL BE PRESENTED AND ACCEPTED BY CSXT FOR WORK ON, OVER OR ADJACENT CSXT PROPERTY.

ALL WASTE MATERIALS GENERATED BY THIS PROJECT, INCLUDING WASHING WITH CLEANING SOLVENTS, BLASTING, SCRAPING, BRUSHING AND/OR PAINTING OPERATIONS, SHALL BE THE RESPONSIBILITY OF THE AGENCY OR ITS CONTRACTOR, AND SHALL BE CONTAINED, COLLECTED AND PROPERLY DISPOSED OF BY THE STATE OR ITS CONTRACTOR. THE STATE AND ITS CONTRACTOR AGREE TO FULLY COMPLY WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL LAWS, REGULATIONS, STATUTES AND ORDINANCES AT ALL TIMES.

CSXT MAY REQUIRE FULL TIME RAILROAD FLAGGING FOR ANY PROJECT TASKS THAT MAY HAVE THE POTENTIAL TO FOUL THE TRACK OR CAUSE A HAZARD TO TRAIN MOVEMENTS.

CSXT HAS SOLE AUTHORITY TO DETERMINE THE NEED FOR TRACK PROTECTION REQUIRED TO PROTECT ITS OPERATIONS AND PROPERTY. IN GENERAL, TRACK PROTECTION WILL BE REQUIRED WHENEVER CONTRACTOR OR EQUIPMENT ARE, OR ARE LIKELY TO BE, WORKING WITHIN FIFTY (50) FEET OF TRACK OR OTHER TRACK CLEARANCES AS SPECIFIED BY CSXT.

UPON COMPLETION OF THE WORK ON CSXT PROPERTY, THE CONTRACTOR SHALL REQUEST THE OWNER TO ARRANGE A FINAL INSPECTION OF THE PROJECT WITH THE RAILROAD'S PROJECT ENGINEER OR THEIR AUTHORIZED REPRESENTATIVE.

CSXT SHALL BE FURNISHED AS-BUILT DRAWINGS SHOWING ACTUAL OPERATING CLEARANCES AS CONSTRUCTED PRIOR TO PROJECT COMPLETION AND CLOSEOUT.

GENERAL NOTES

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

114201

SHEET

TOTAL

6

72

ITEM 614, MAINTAINING TRAFFIC

THIS PROJECT INVOLVES REPLACEMENT OF THE EXISTING BRIDGE AND ASSOCIATED APPROACH WORK. WORK WILL BE PERFORMED UNDER A DETOUR, WHILE MAINTAINING LOCAL ACCESS.

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.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD 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.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS	7 CALENDAR DAYS
	& < 2 WEEKS	PRIOR TO CLOSURE
CLOSURES	<= 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.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410,	TRAFFIC COMPACTED SURFACE, TYPE A OR B _____ CU. YD.
ITEM 410,	TRAFFIC COMPACTED SURFACE, TYPE C _____ CU. YD.
ITEM 614,	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC _____ CU. YD.
ITEM 616,	WATER _____ M. GAL.

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	_____ M. GAL.
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ITEM 614 - DETOUR SIGNING

THE CONTRACTOR SHALL SUPPLY, ERECT, MAINTAIN AND REMOVE THE DETOUR SIGNING. ROUTE SIGNS DESIGNATED SHALL BE INSTALLED PROR TO THE ROAD BEING CLOSED TO TRAFFIC. PAYMENT SHALL BE FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, PROPER SIGN PLACEMENT AND SIZING, TIMELY ERECTING AND/OR UNCOVERING AND/OR REMOVING SIGNS AND SUPPORTS. FOR DETAILS SEE SHEET

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 DETOUR SIGNING LUMP SUM

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 _____ AND _____. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

MAINTENANCE OF TRAFFIC PHASING

PHASE 1
1. DETOUR SPRUCE AVE. CLOSE SPRUCE AVE. NORTH OF GREENACRE ST. AND SOUTH OF THE LINCOLN ST. INTERSECTION.
MAINTAIN ACCESS TO GREENACRE ST. AND LINCOLN ST.

2. CONSTRUCT BRIDGE OVER CSX RAILROAD.

PHASE 2
1. MAINTAIN DETOUR.

2. CONSTRUCT SPRUCE AVE. SOUTH OF THE BRIDGE, INCLUDING GREENACRE ST. MAINTAIN LOCAL TRAFFIC ALONG SPRUCE AVE. AND GREENACRE ST.

PHASE 3
1. MAINTAIN DETOUR.
CONSTRUCT SPRUCE AVE. NORTH OF BRIDGE TO END PROJECT, INCLUDING INTERSECTION OF LINCOLN ST.

2. OPEN SPRUCE AVE. AND GREENACRE ST. TO TRAFFIC.

PHASE 4
1. CONSTRUCT REMAINING LINCOLN ST.

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

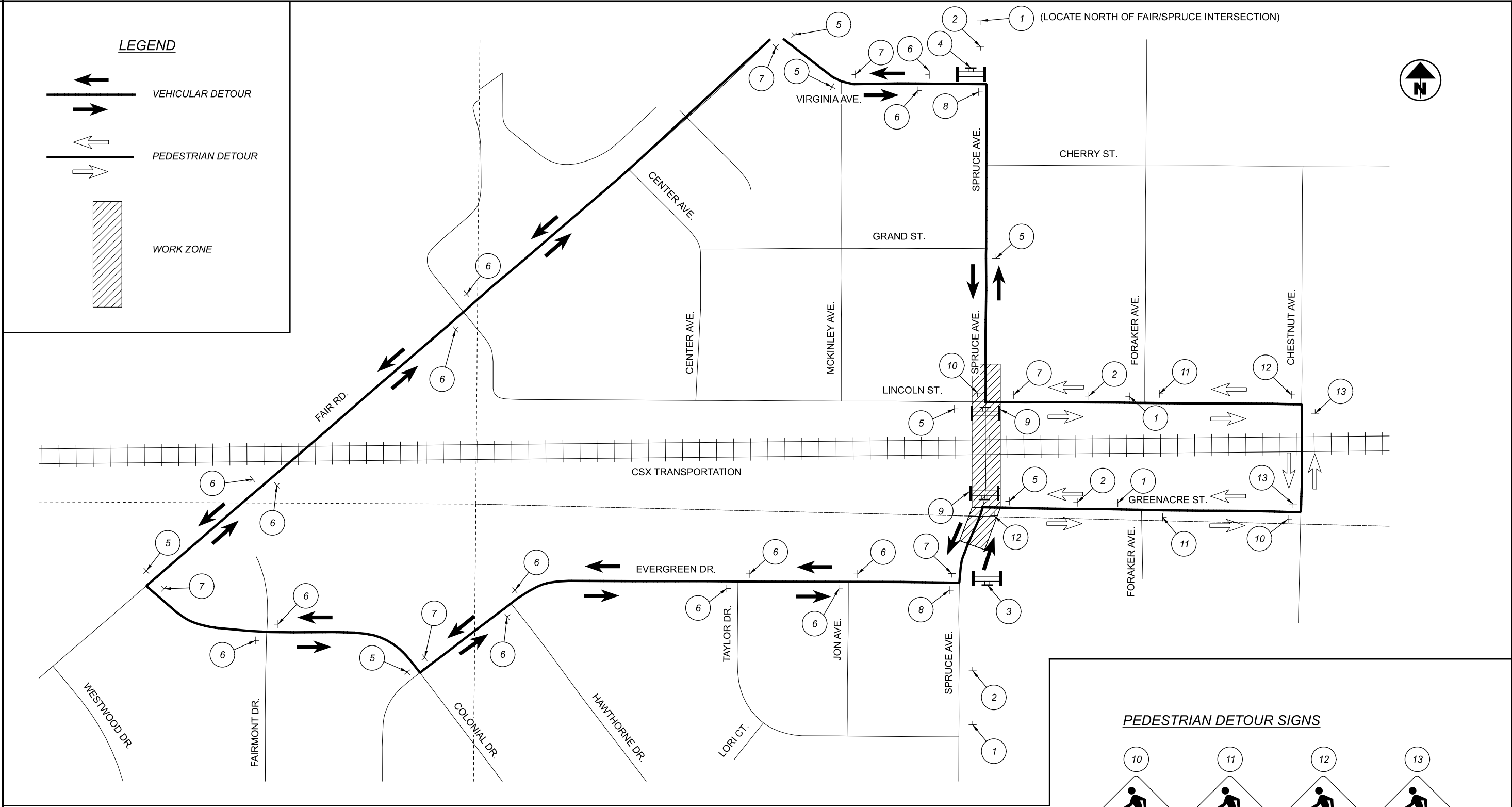
114201

SHEET

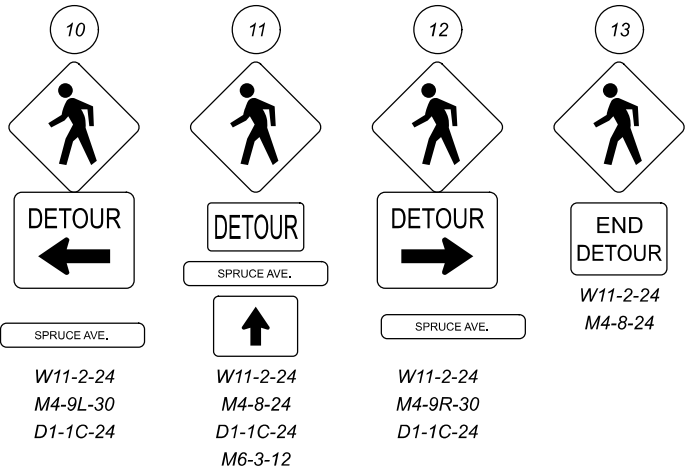
TOTAL

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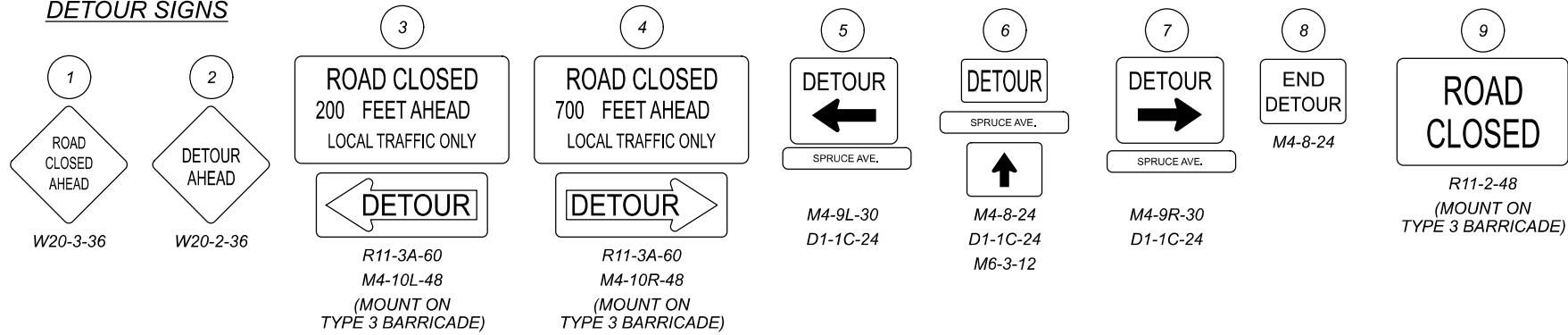
72

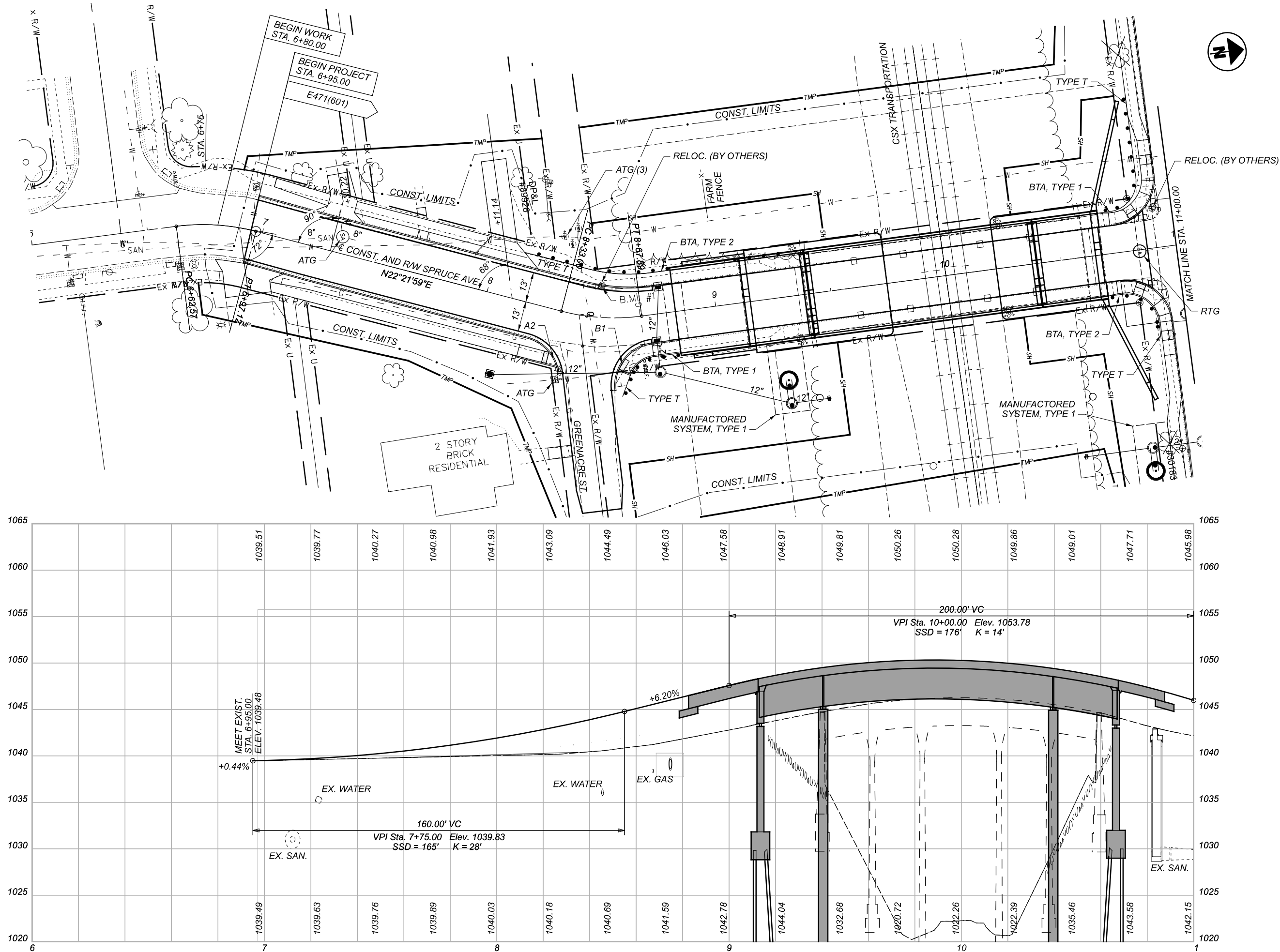


PEDESTRIAN DETOUR SIGNS



DETOUR SIGNS





PLAN AND PROFILE - SPRUCE AVE.
STA. 6+00 TO STA. 11+00

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

DWS 05/30/23

PROJECT ID

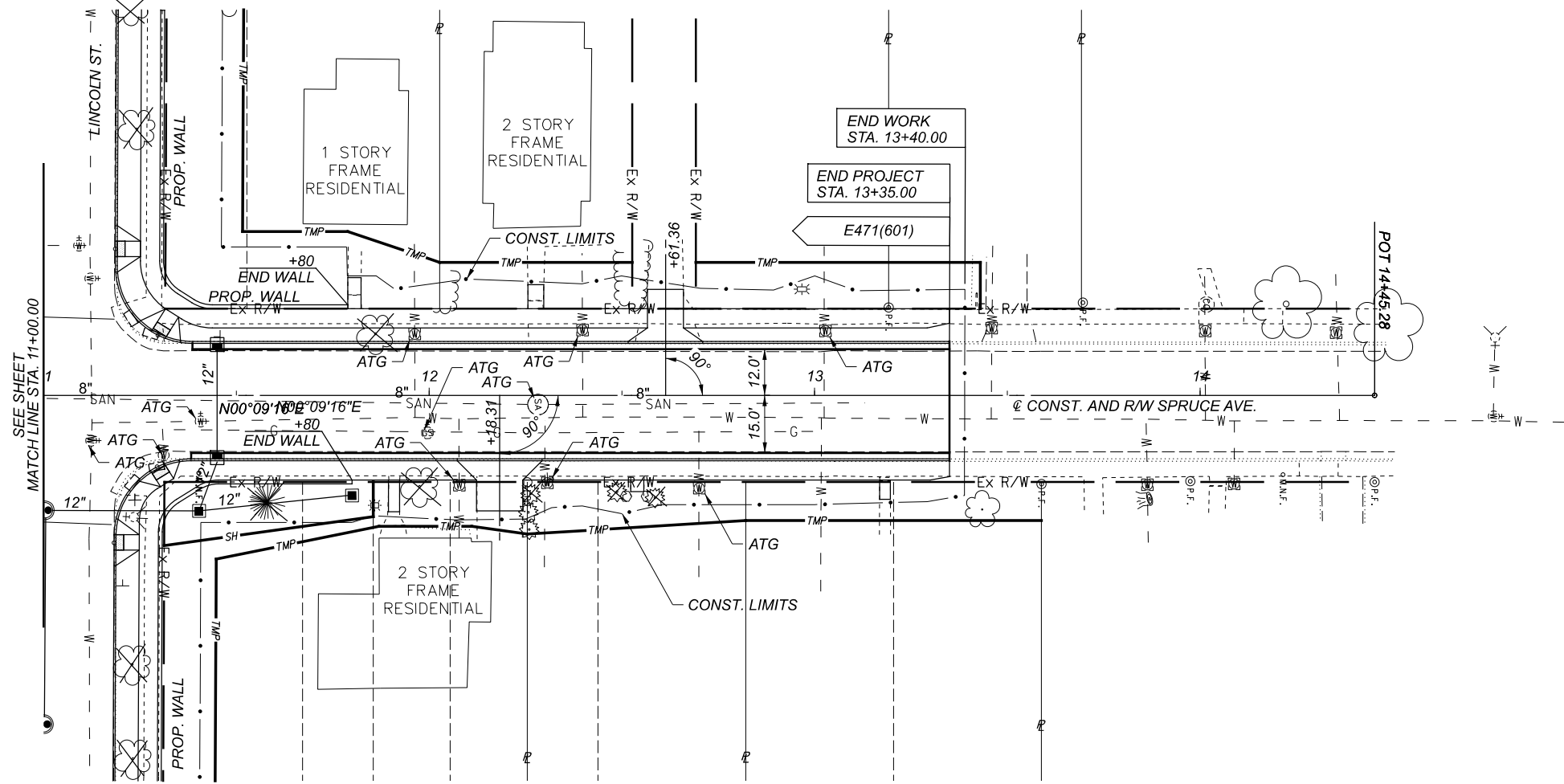
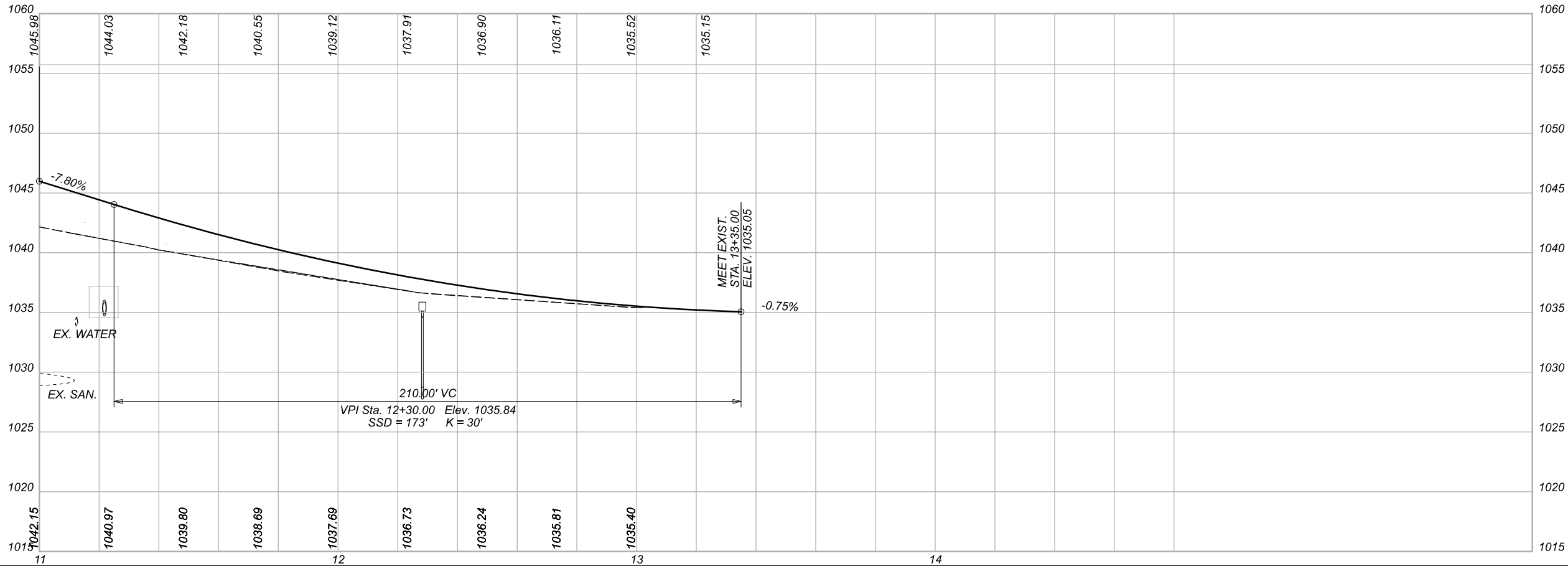
114201

SHEET

TOTAL

9 72





PLAN AND PROFILE - SPRUCE AVE.
STA. 11+00 TO STA. 14+00

DESIGN AGENCY



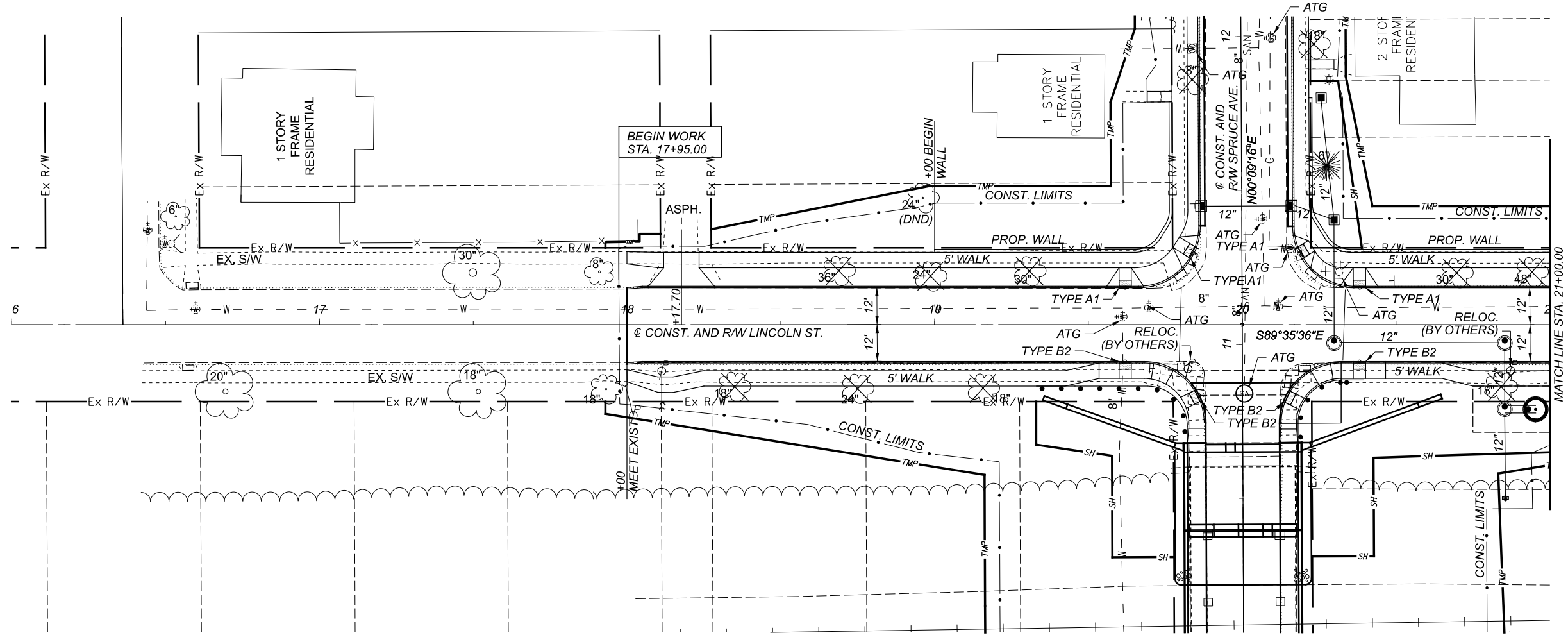
DESIGNER
JRE

REVIEWER
DWS 05/30/23

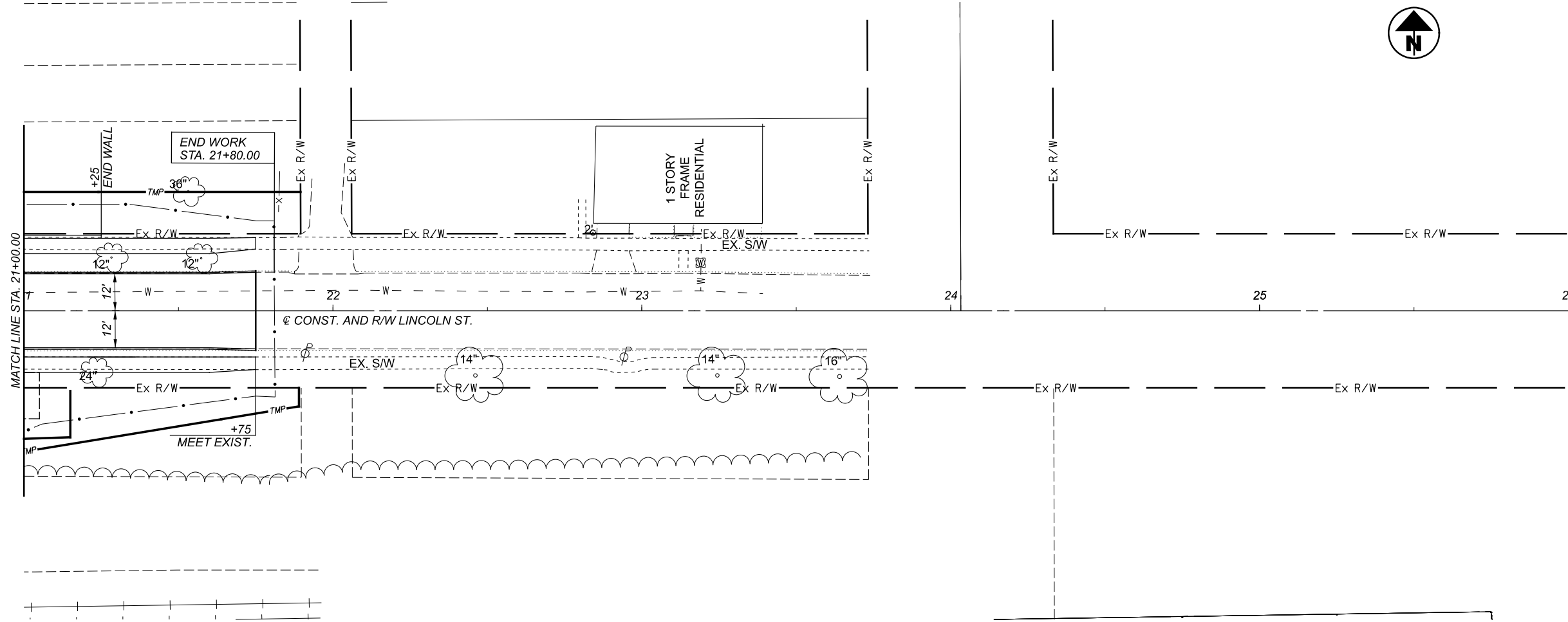
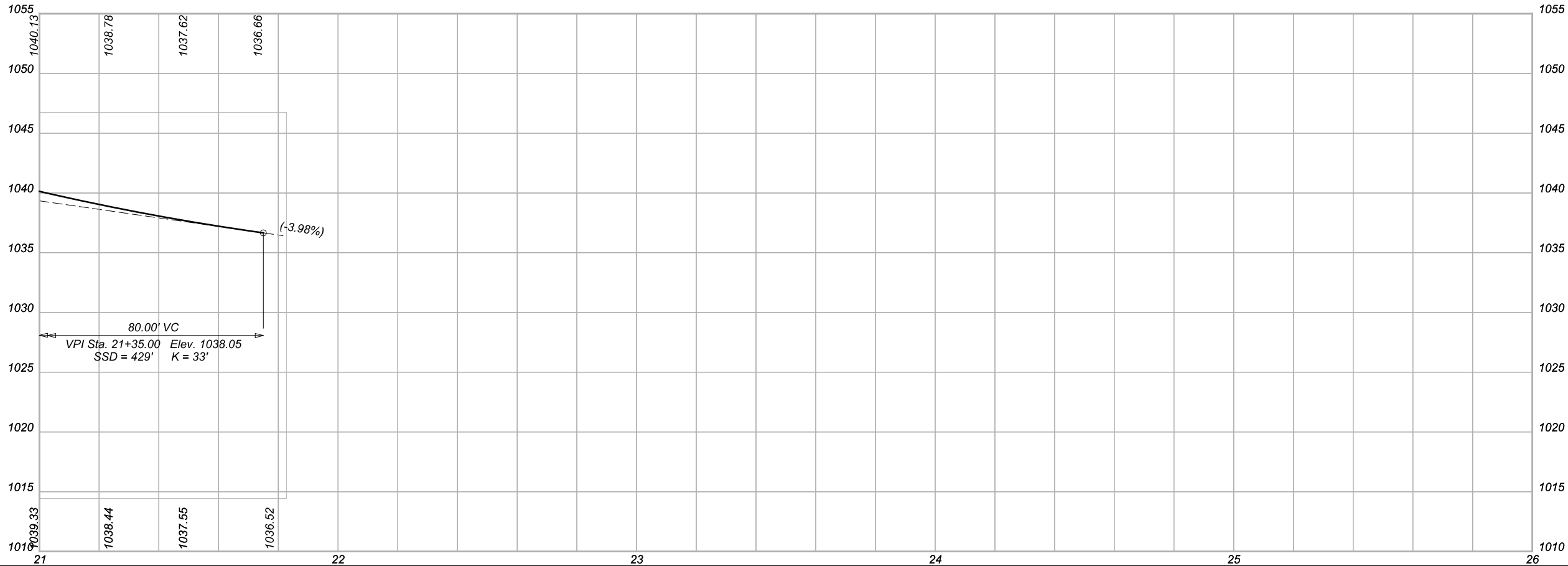
PROJECT ID
114201

SHEET TOTAL
10 72

HORIZONTAL
SCALE IN FEET
0 10 20 40



DESIGNER	
JRE	
REVIEWER	
DWS 05/30/23	
PROJECT ID	
114201	
SHEET	TOTAL
11	72



PLAN AND PROFILE - LINCOLN ST.
STA. 21+00 TO STA. 26+00

DESIGN AGENCY



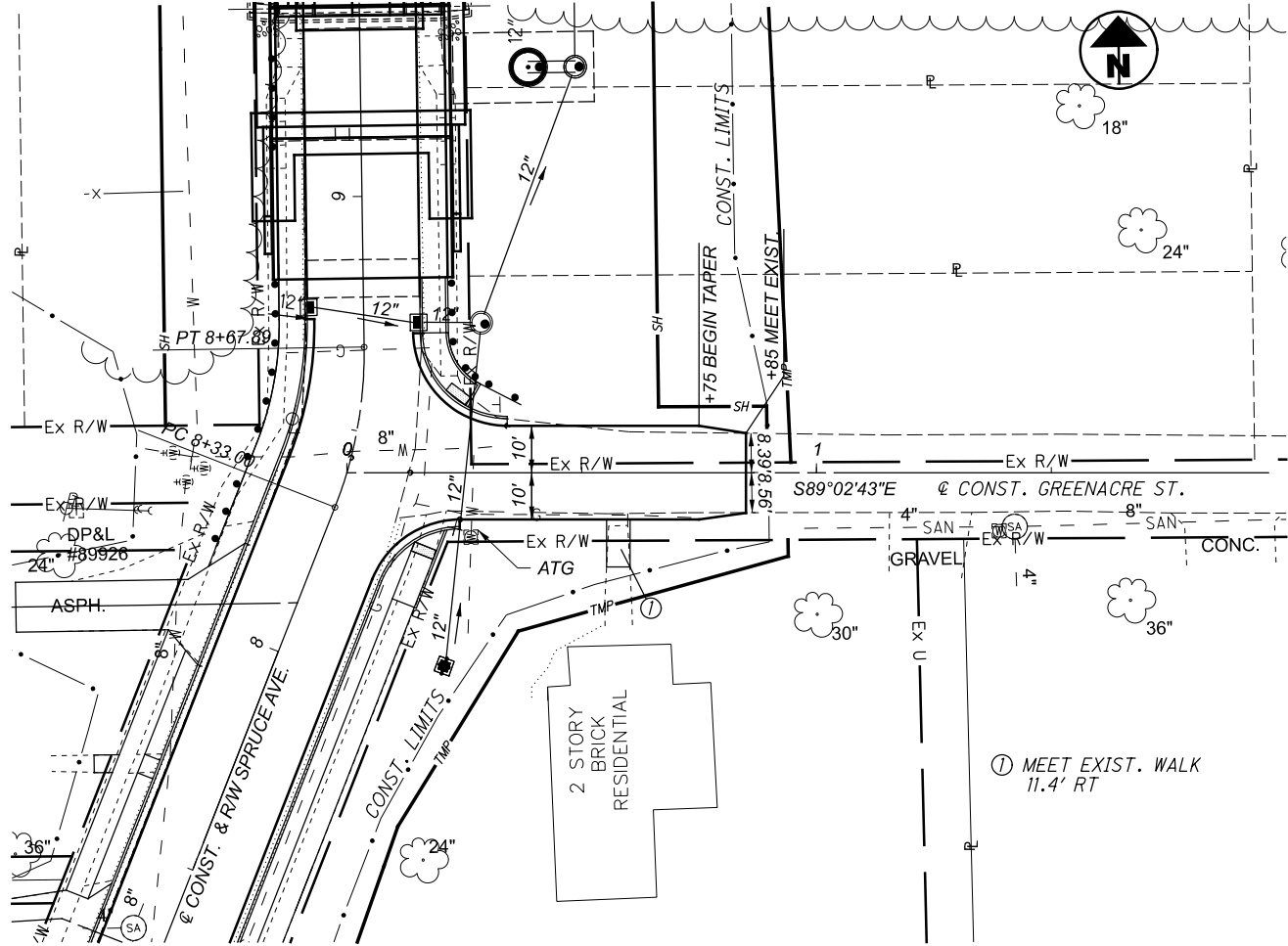
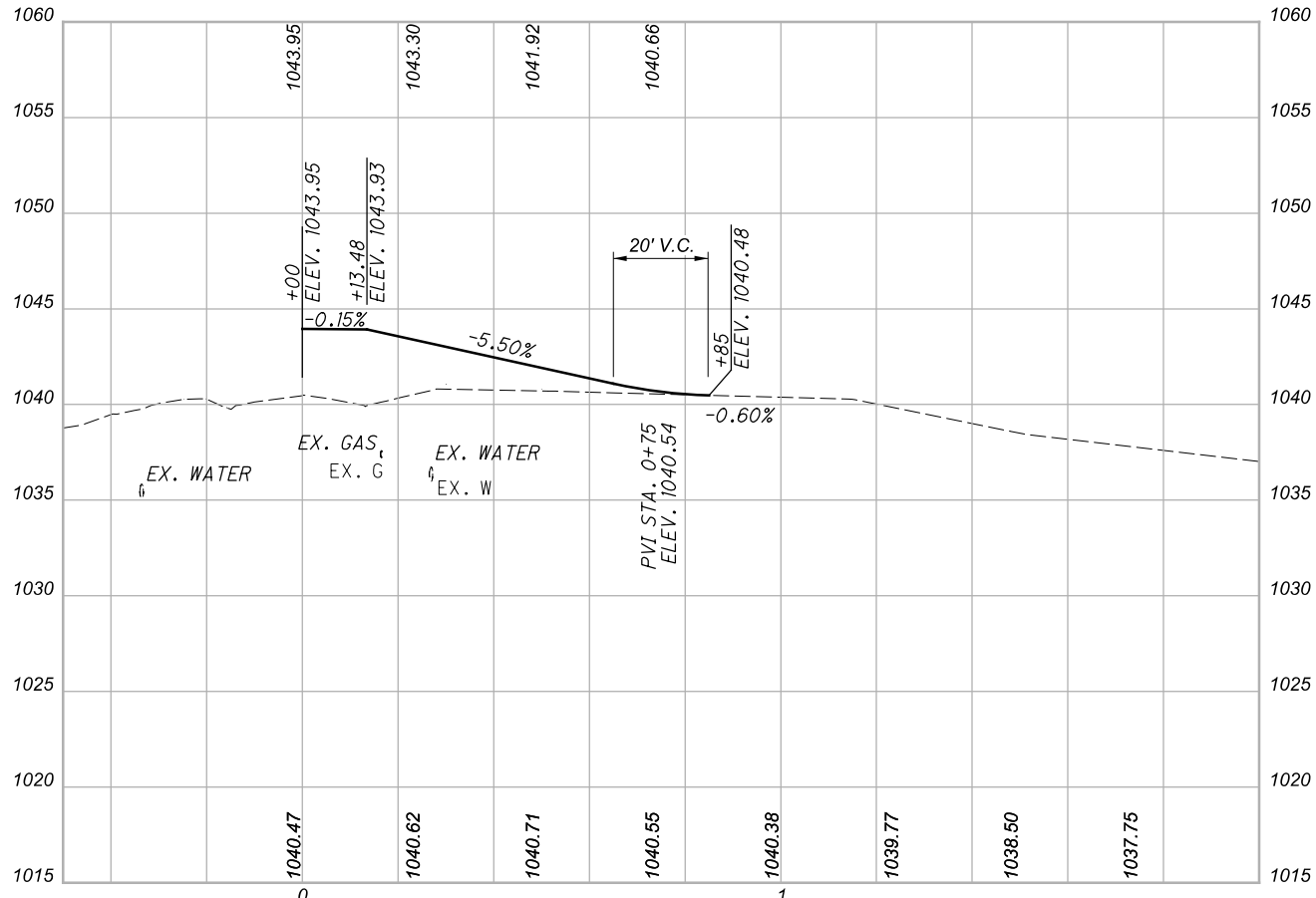
DESIGNER
JRE

REVIEWER
DWS 05/30/23

PROJECT ID
114201

SHEET TOTAL
12 72

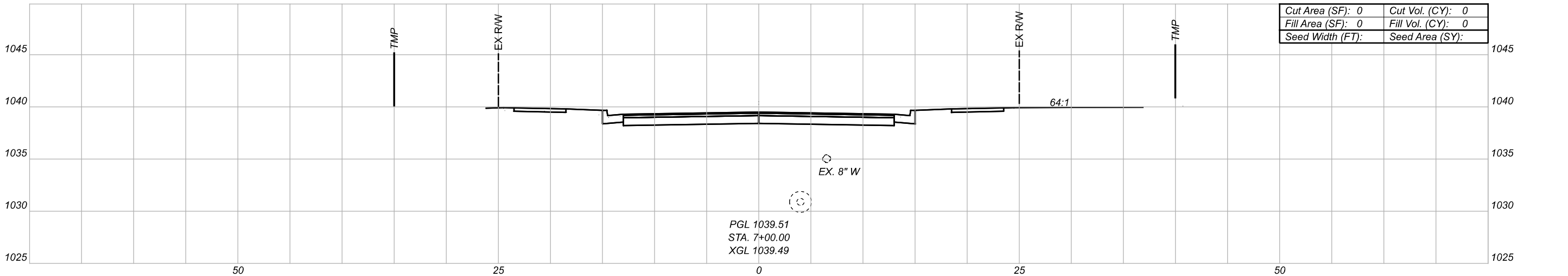
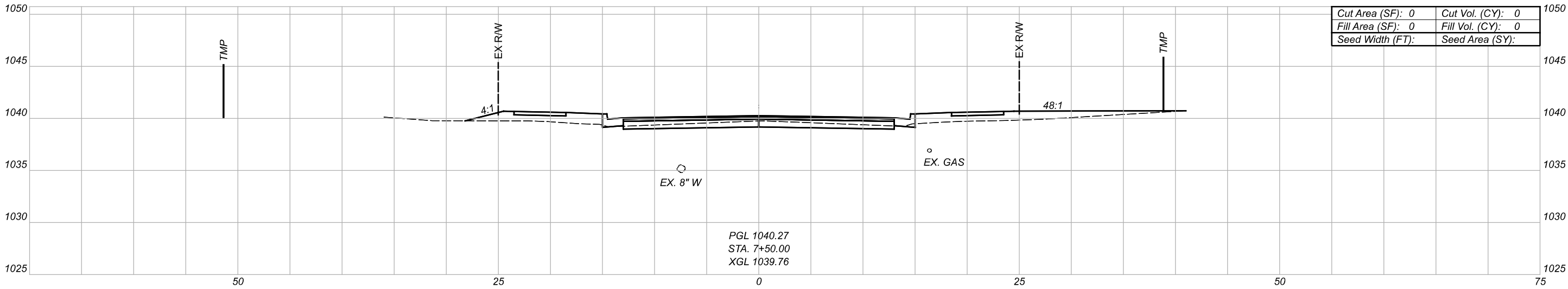
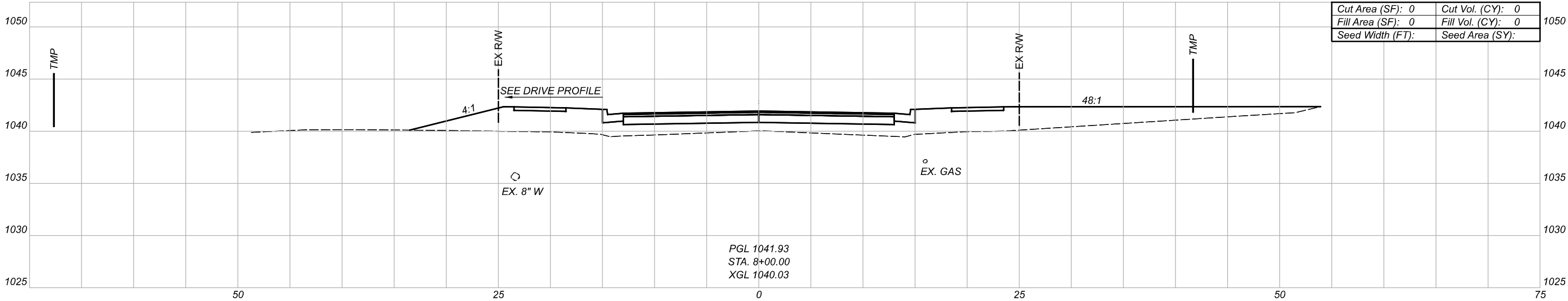
HORIZONTAL
SCALE IN FEET
0 10 20 40



DESIGNER	JRE
REVIEWER	MAG
PROJECT ID	114201
SHEET	13
TOTAL	72

PLAN AND PROFILE-GREENACRE ST.
STA. 0+00 TO STA. 1+50





BEGIN PROJECT
STA. 6+95.00

Sheet Totals		
Seeding	Cut	Fill
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DESIGN AGENCY

DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

114201

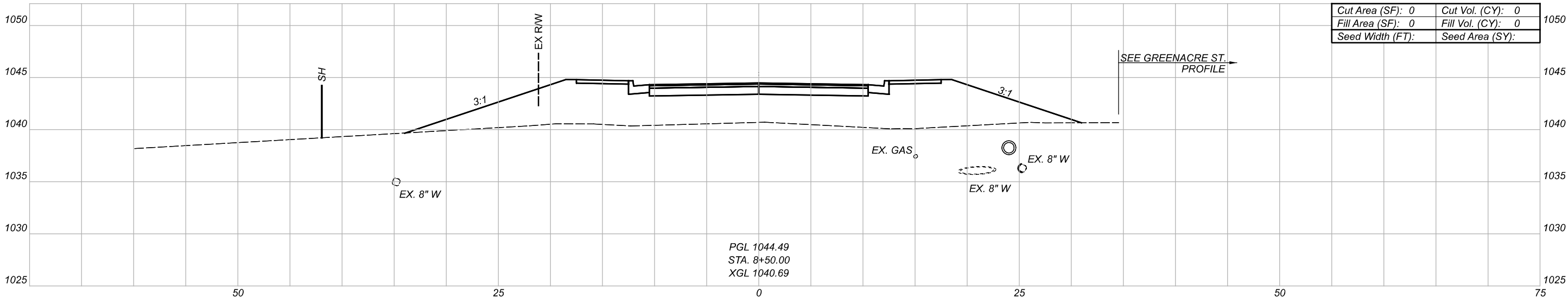
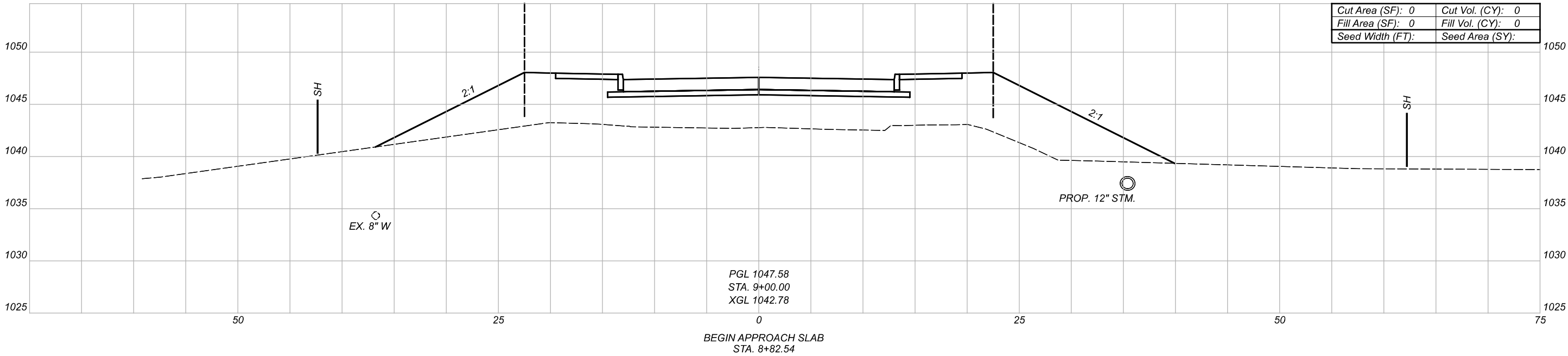
SHEET

14

TOTAL

72

CROSS SECTIONS-SPRUCE AVE.
STA. 7+00 TO STA. 8+00



Sheet Totals		
Seeding	Cut	Fill
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DESIGN AGENCY

DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

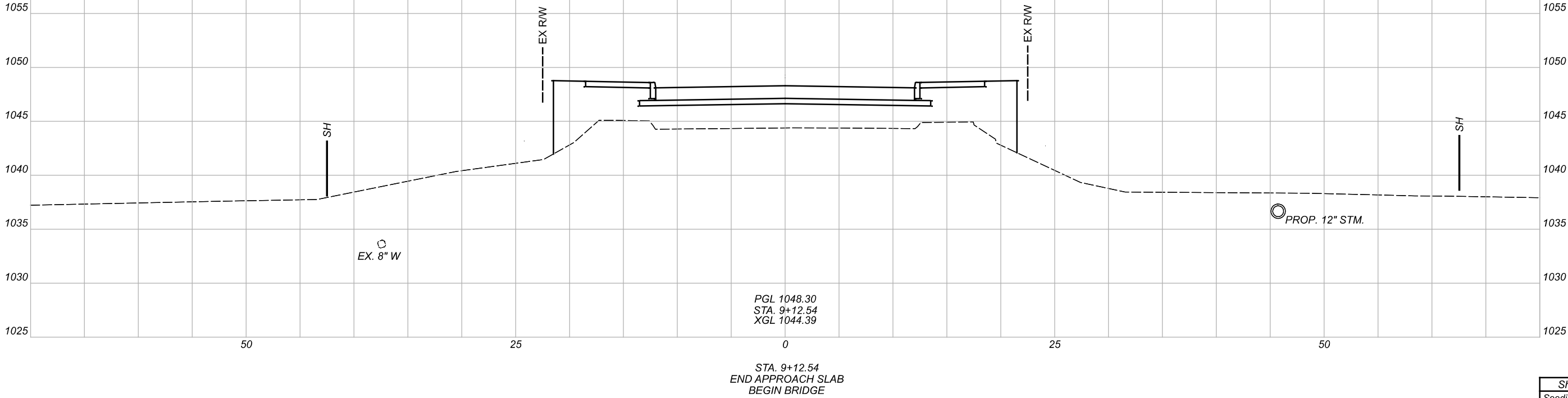
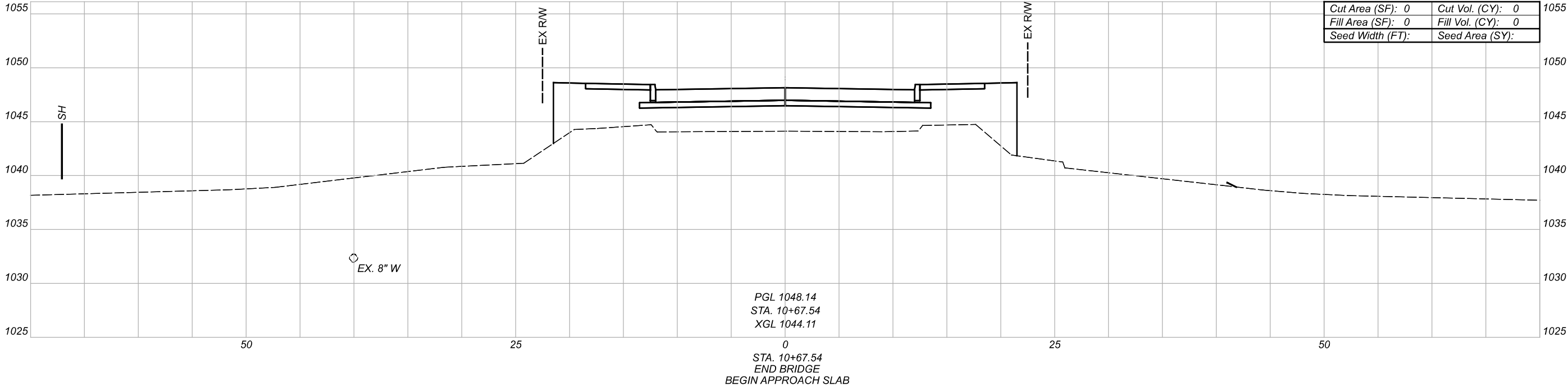
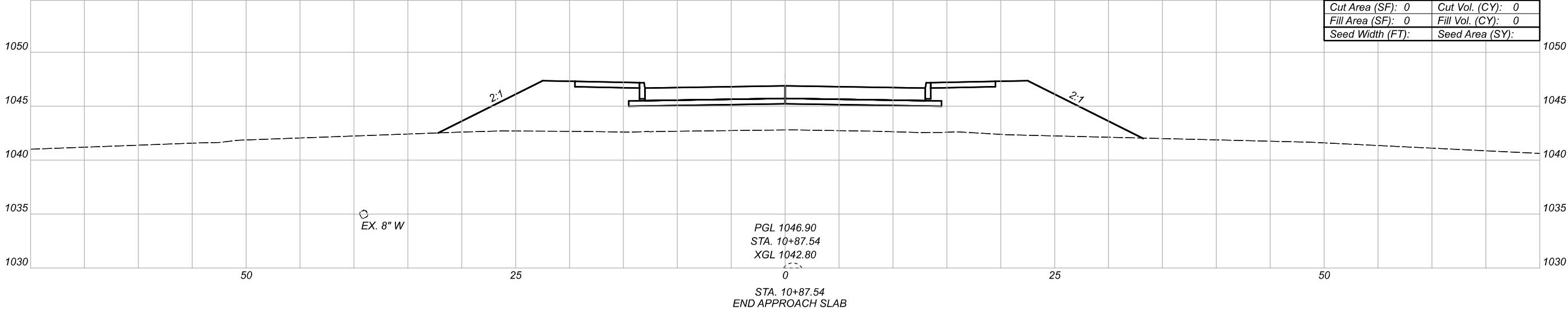
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SHEET


15

TOTAL

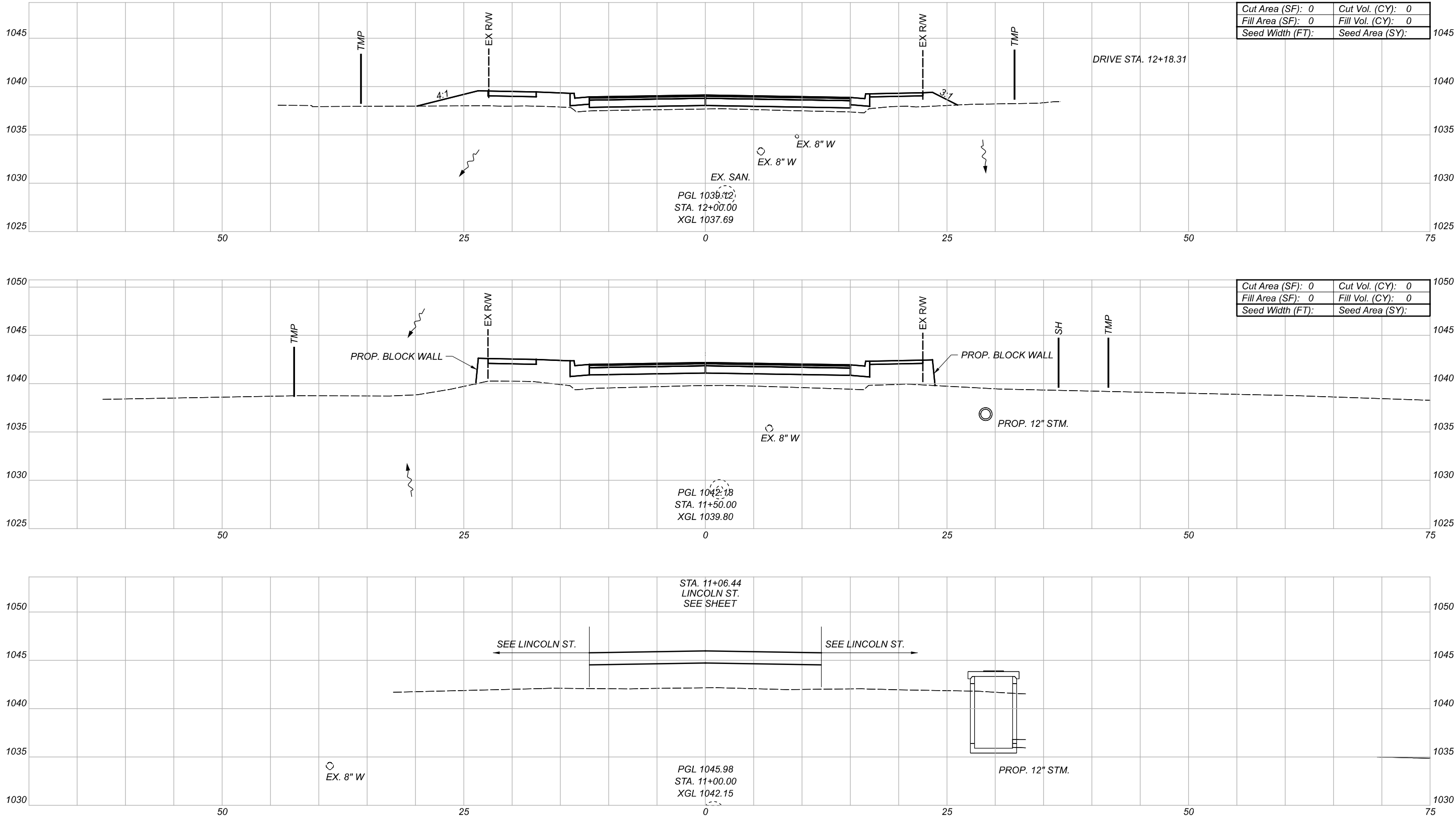
72



CROSS SECTIONS-SPRUCE AVE.
STA. 9+12.54 TO STA. 10+87.54

DESIGN AGENCY

DESIGNER
JRE
REVIEWER
MAG 05/30/23
PROJECT ID
114201
SHEET
16
TOTAL
72

Sheet Totals		
Seeding	Cut	Fill
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CROSS SECTIONS-SPRUCE AVE.
STA. 11+00 TO STA. 12+00

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

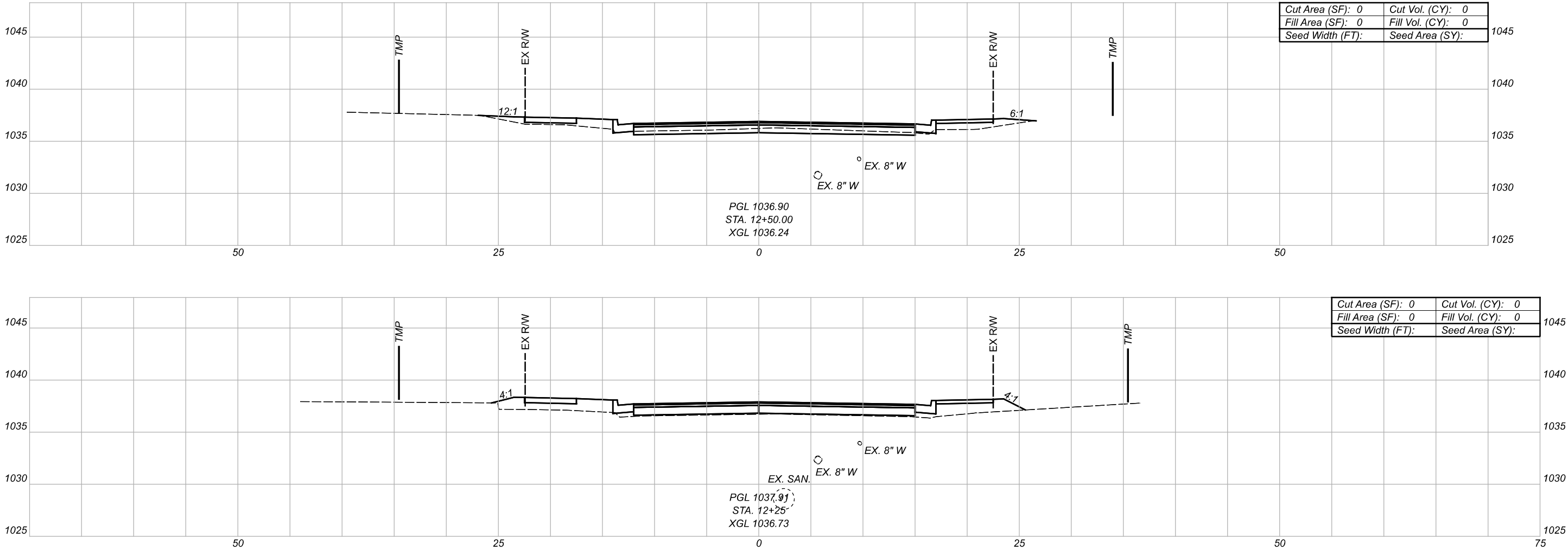
MAG 05/30/23

PROJECT ID

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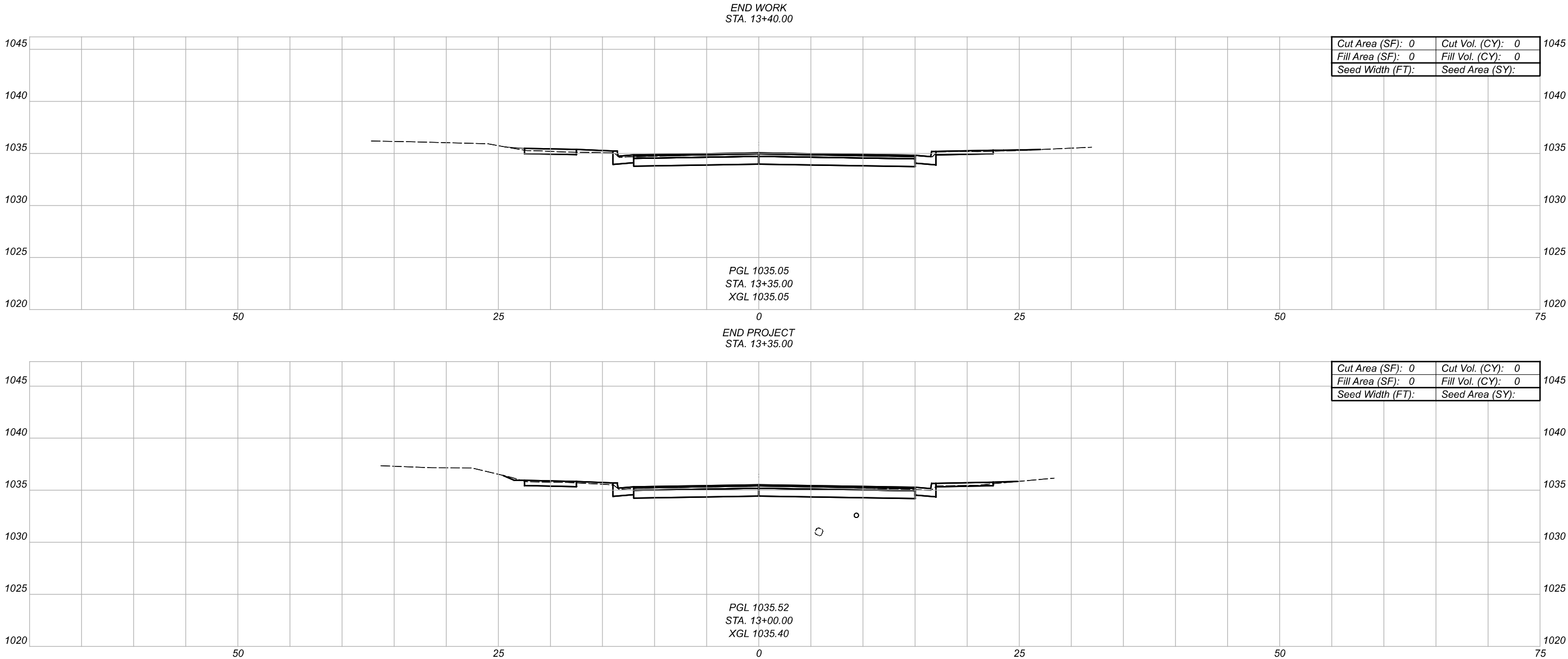
Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
17	72



Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
18	72



CROSS SECTIONS-SPRUCE AVE.
STA. 13+00 TO STA. 13+35

DESIGN AGENCY

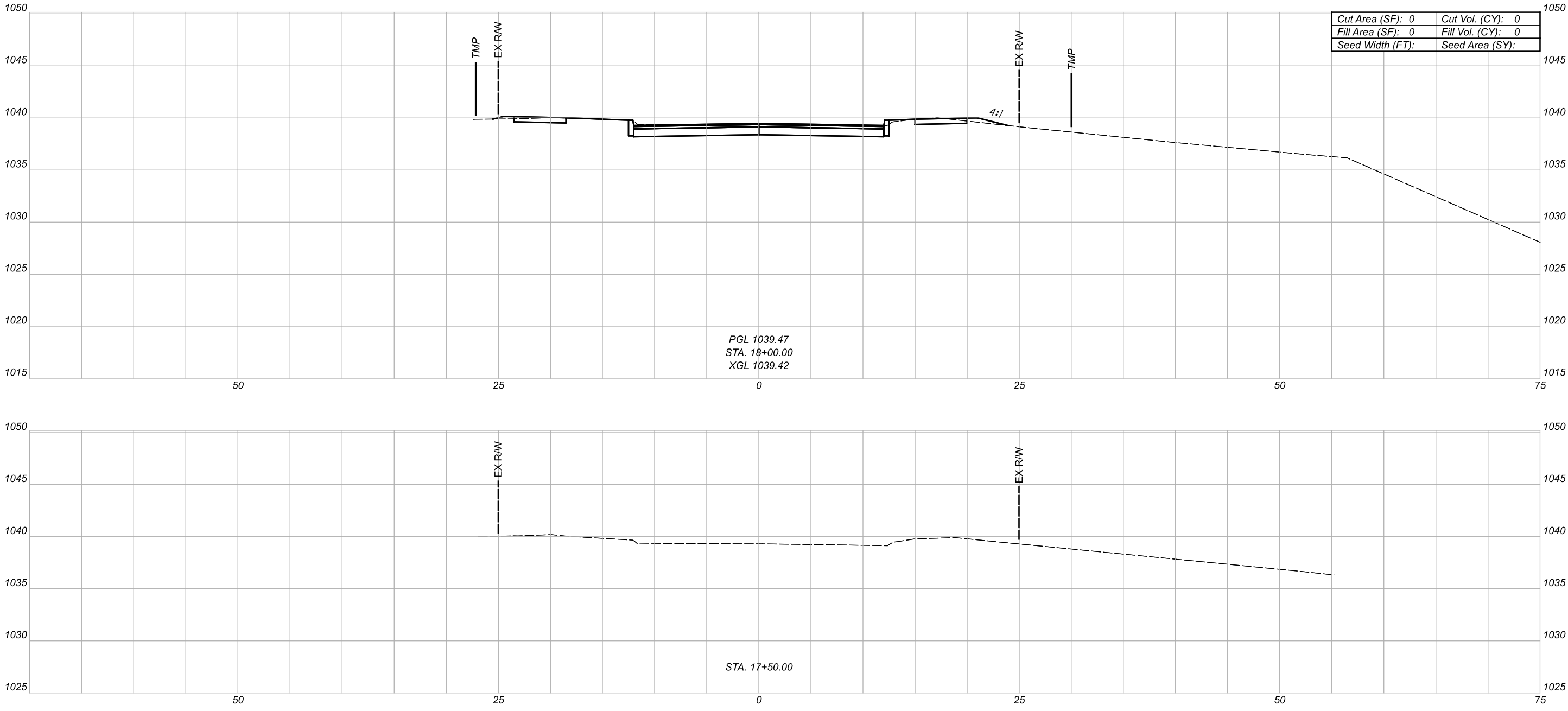


DESIGNER
JRE

REVIEWER
MAG 05/30/23

PROJECT ID
114201


Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
.	.	.	19	72



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Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
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DESIGN AGENCY



DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

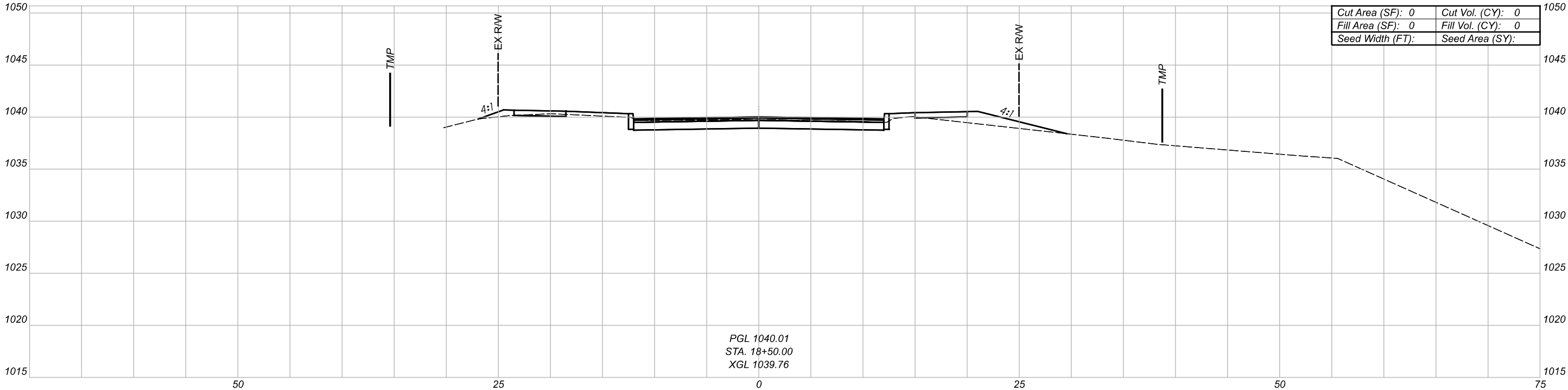
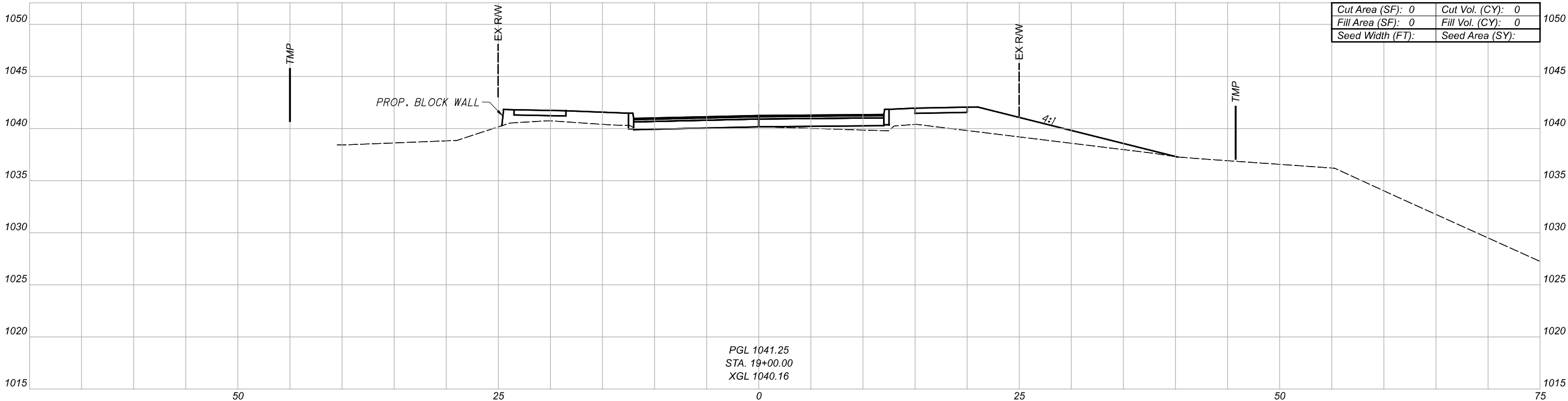
114201

SHEET

20

TOTAL

72



Sheet Totals		
Seeding	Cut	Fill
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CROSS SECTIONS-LINCOLN ST.
STA. 18+50 TO STA. 19+00

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

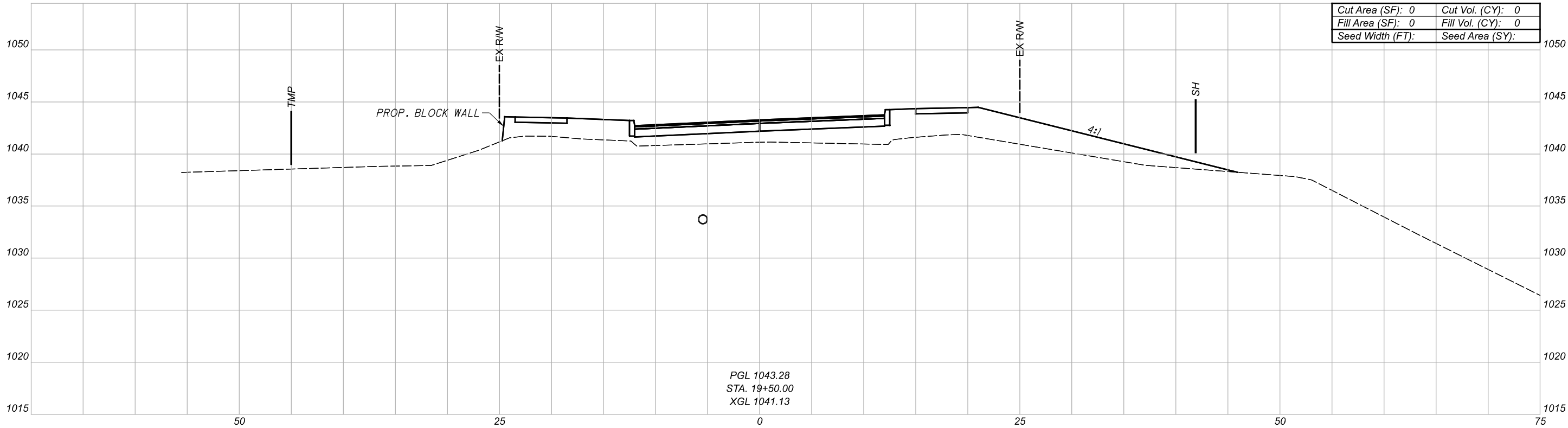
114201

SHEET

21

TOTAL

72



CROSS SECTIONS-LINCOLN ST.
STA. 19+50

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

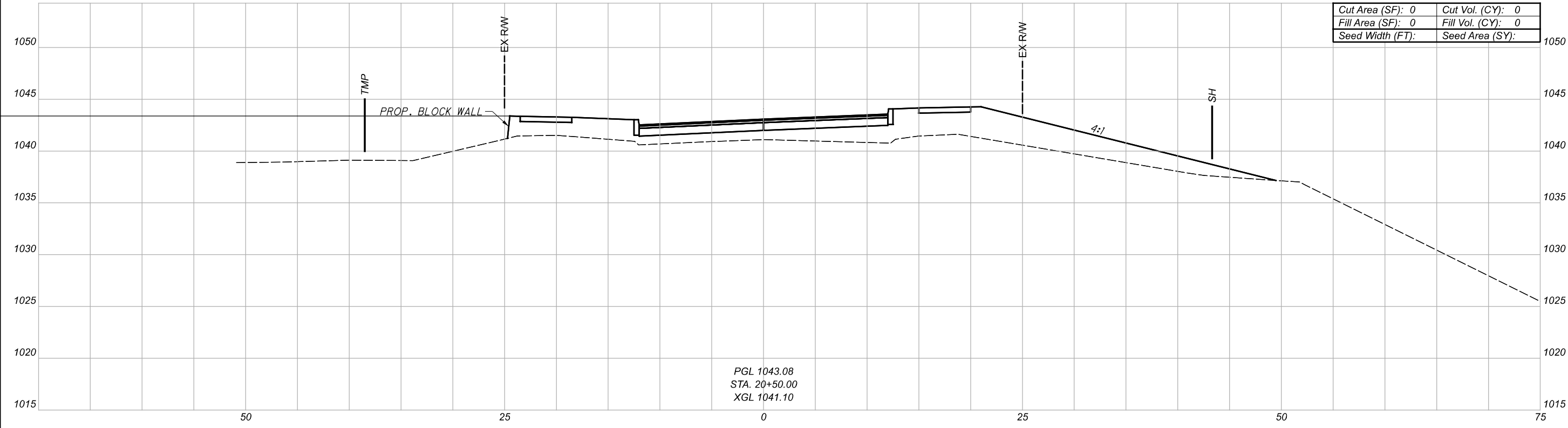
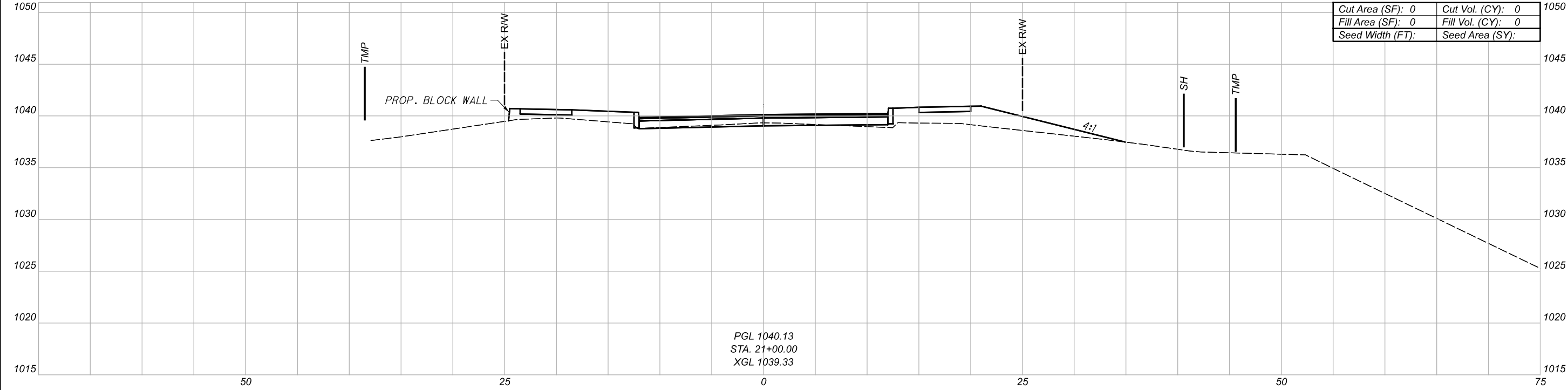
MAG 05/30/23

PROJECT ID

114201

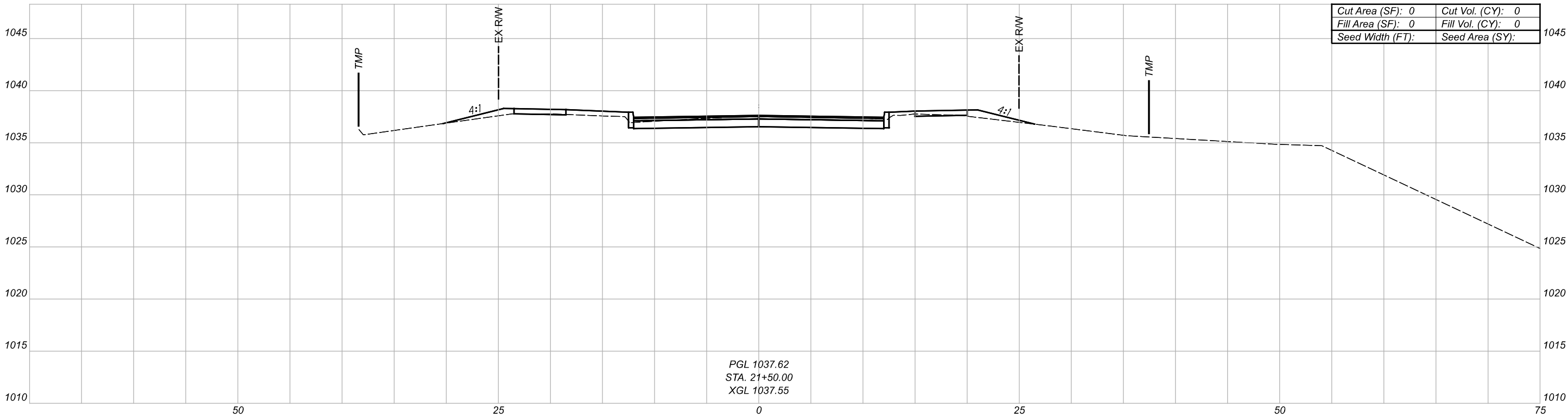
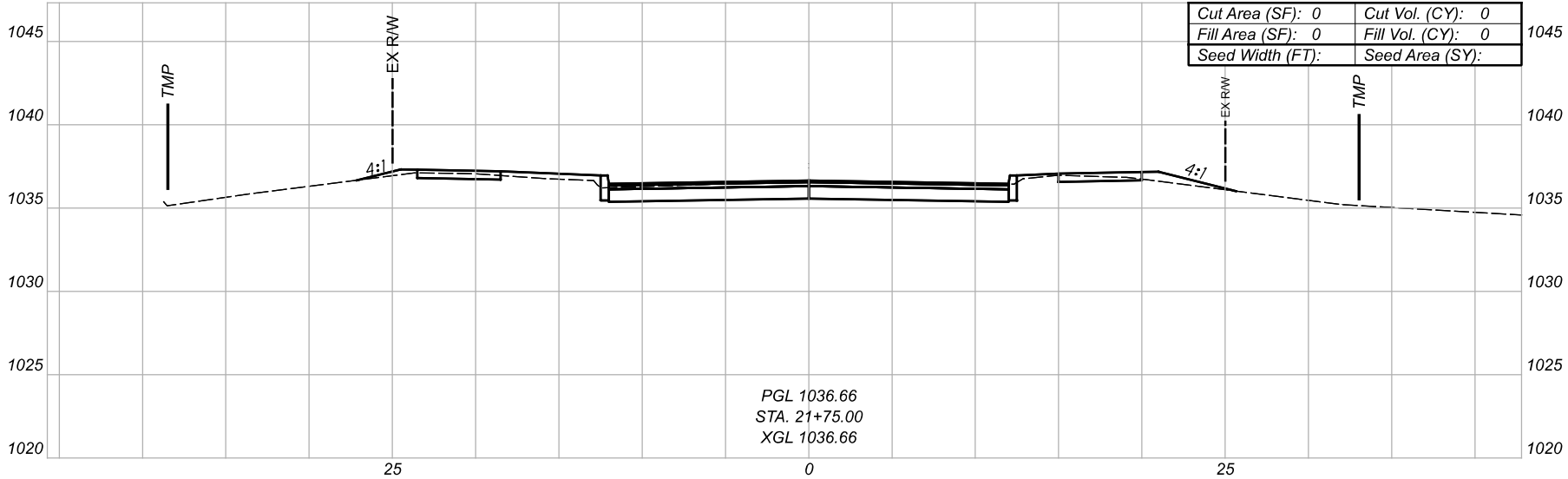
Sheet Totals		
Seeding	Cut	Fill
.	.	.

SHEET	TOTAL
22	72




CROSS SECTIONS-LINCOLN ST.
STA. 20+50 TO STA. 21+00

Sheet Totals		
Seeding	Cut	Fill
.	.	.



Sheet Totals		
Seeding	Cut	Fill
.	.	.

DESIGN AGENCY



DESIGNER

JRE

REVIEWER

MAG 05/30/23

PROJECT ID

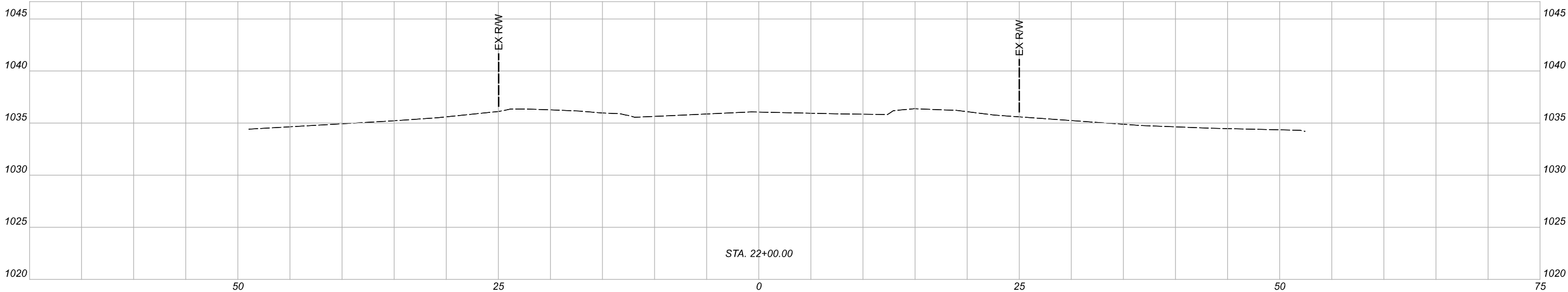
114201

SHEET

24

TOTAL

72



Sheet Totals		
Seeding	Cut	Fill
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SHEET	TOTAL
25	72

DESIGN AGENCY



DESIGNER
JRE

REVIEWER
MAG 05/30/23

PROJECT ID
114201

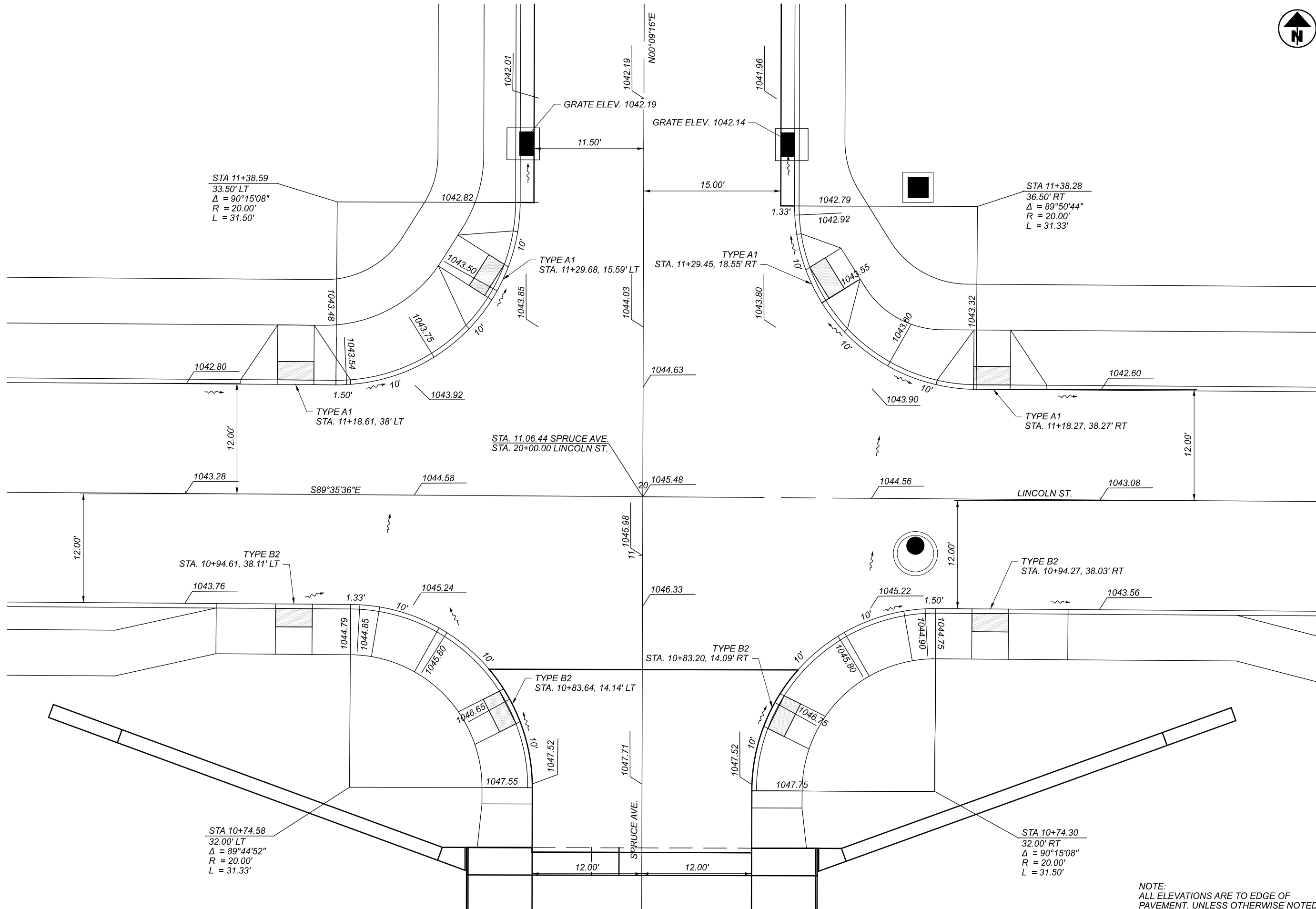
CROSS SECTIONS-LINCOLN ST.
STA. 22+00

PAVEMENT TRANSITION TABLE	
	
DESIGN AGENCY	
JRE	
REVIEWER	
MAG	05/30/23
PROJECT ID	
114201	
SHEET	TOTAL
26	72



NOTE:
ALL ELEVATIONS ARE TO EDGE OF
PAVEMENT, UNLESS OTHERWISE NOTED.





NOTE:
ALL ELEVATIONS ARE TO EDGE OF
PAVEMENT, UNLESS OTHERWISE NOTED.



INTERSECTION DETAIL
SPRUCE AVE. AND LINCOLN ST.



DESIGN AGENCY



DESIGNER

JDO

REVIEWER

MAG 05/30/23

PROJECT ID

114201

SHEET

28

TOTAL

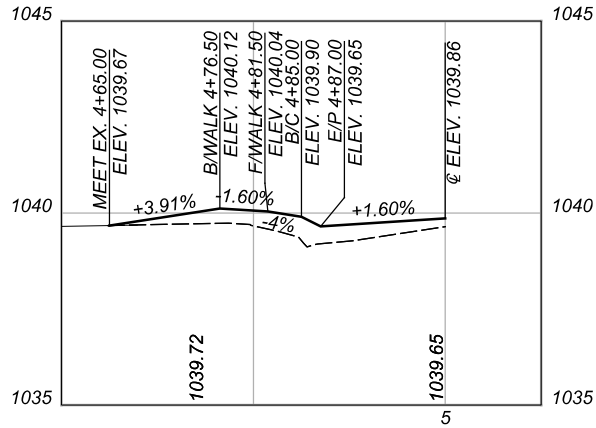
72



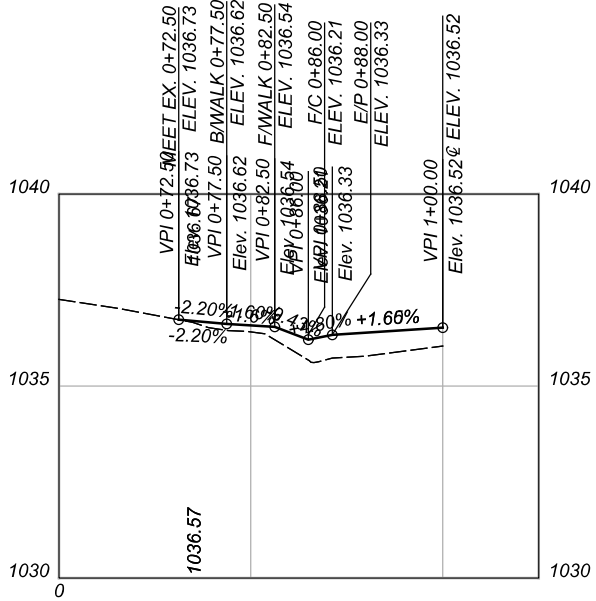
DESIGN AGENCY



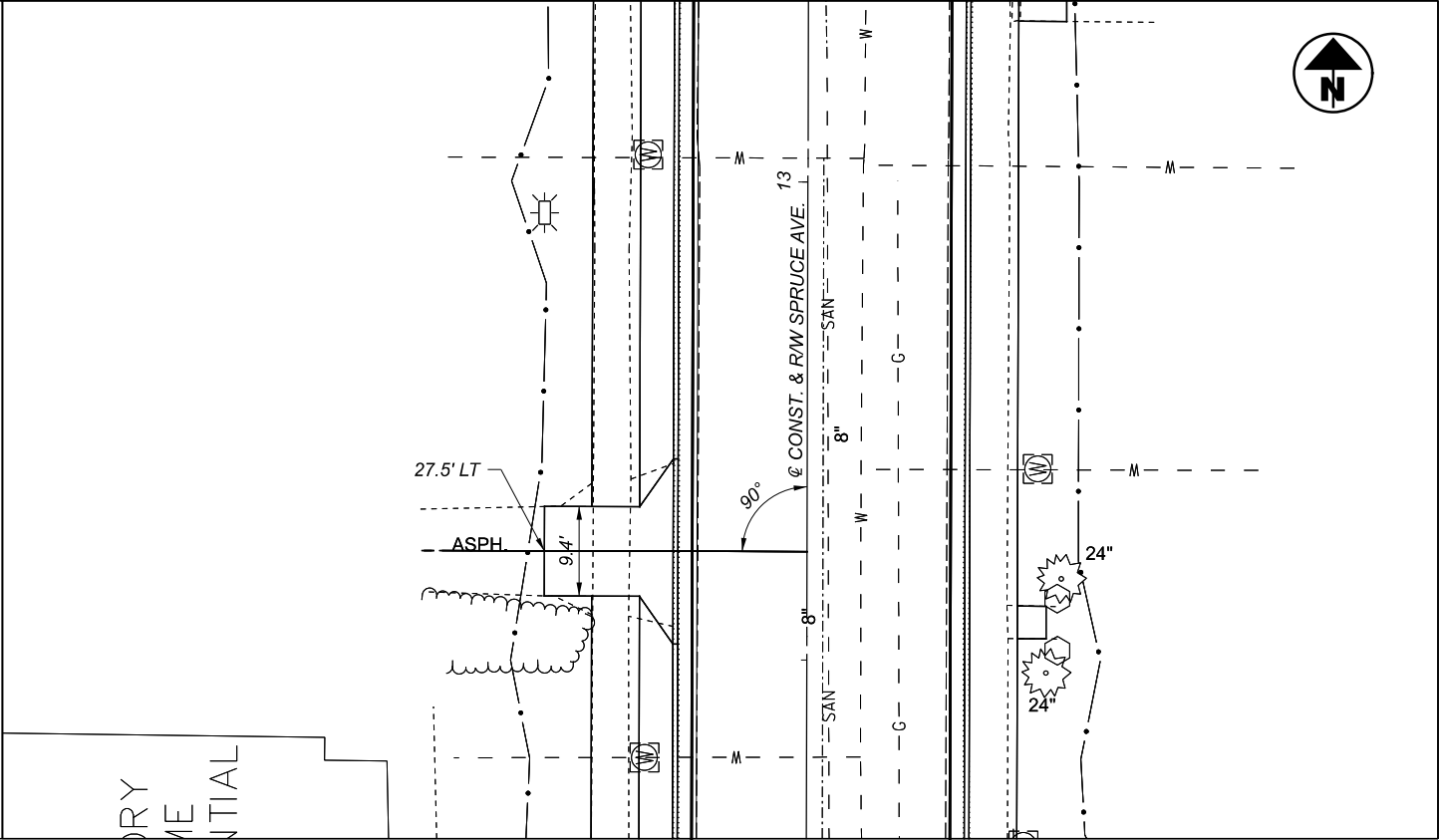
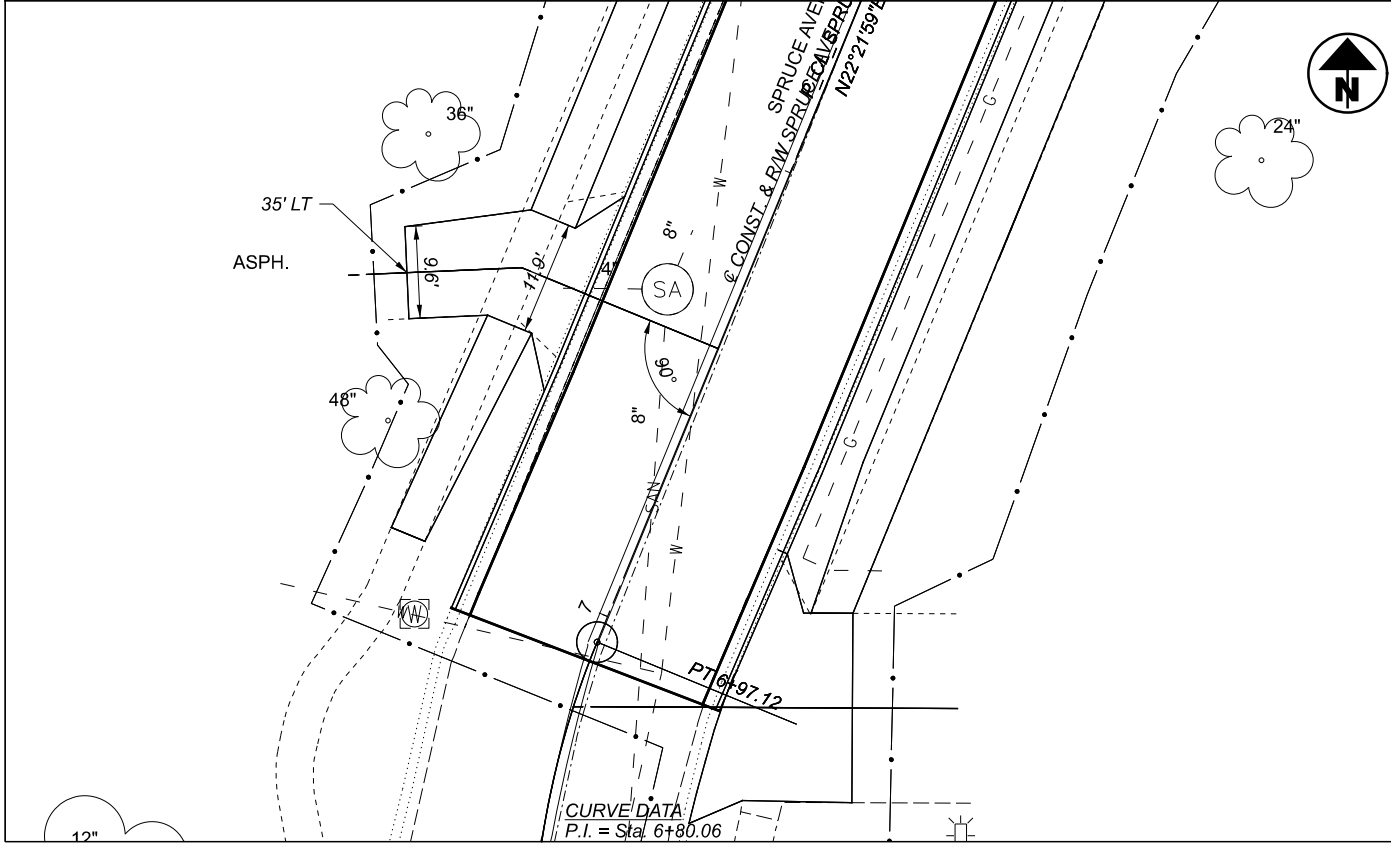
DESIGNER	
JDO	
REVIEWER	
MAG 05/30/23	
PROJECT ID	
114201	
SHEET	TOTAL
29	72



DRIVEWAY STA. 7+30.22 LT.



DRIVEWAY STA. 12+61.36 RT.



DRIVEWAY DETAILS

DESIGN AGENCY



DESIGNER

ARW

REVIEWER

JRE 05/30/23

PROJECT ID

114201

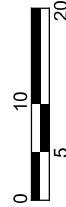
SHEET

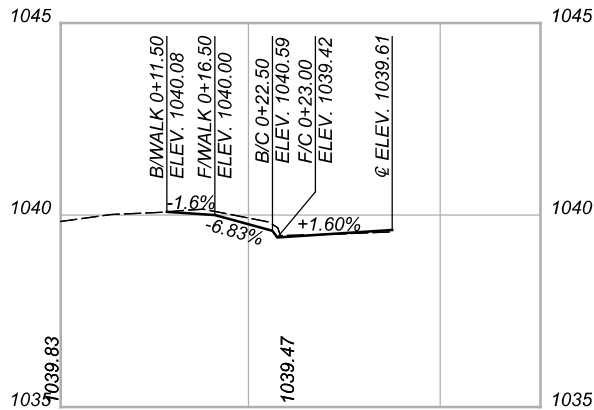
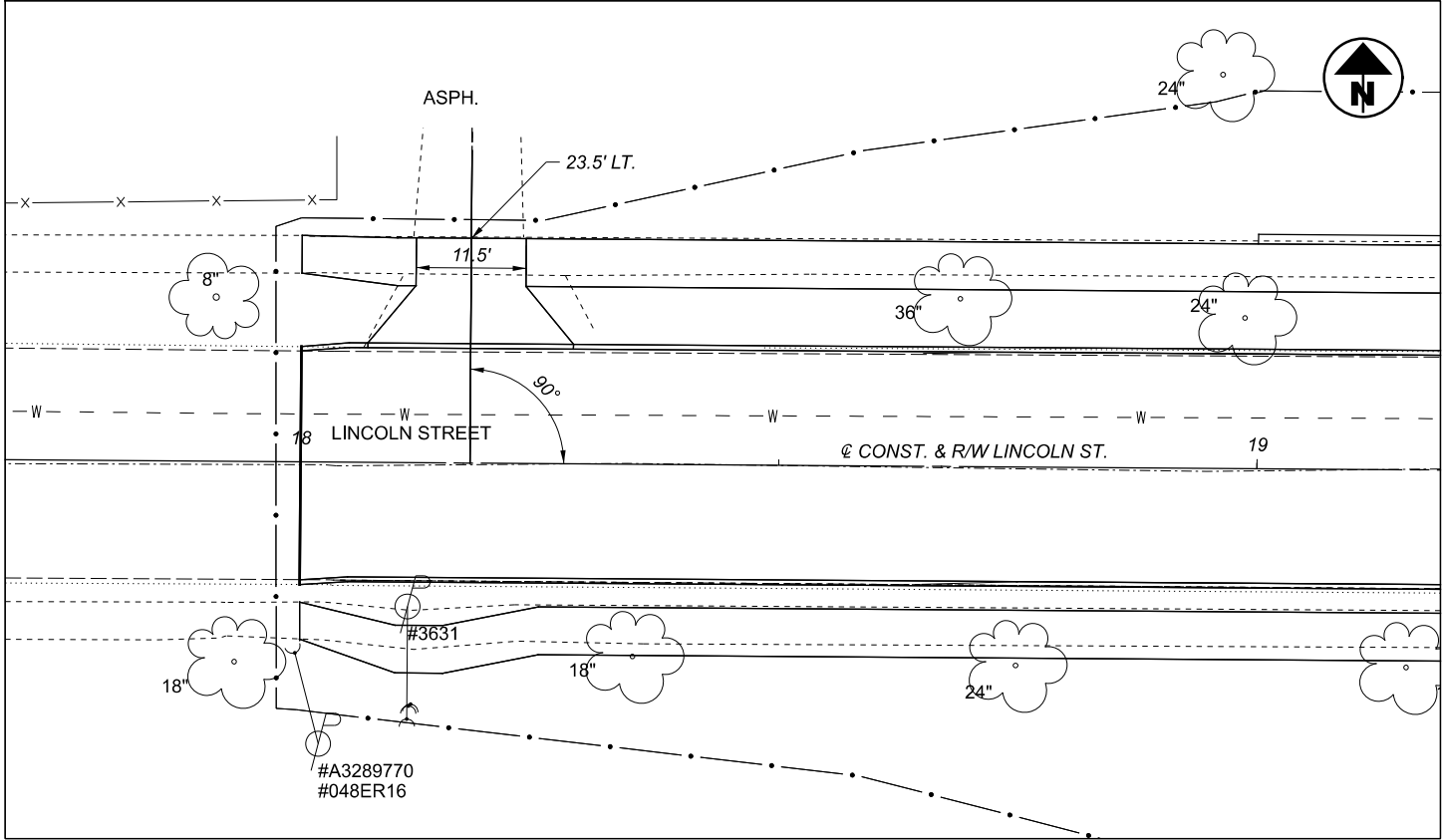
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TOTAL

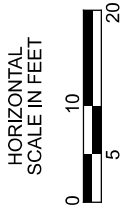
72

HORIZONTAL
SCALE IN FEET





DRIVEWAY STA. 18+17.70 LT.



DRIVEWAY DETAILS

DESIGN AGENCY



DESIGNER

ARW

REVIEWER

JRE 05/30/23

PROJECT ID

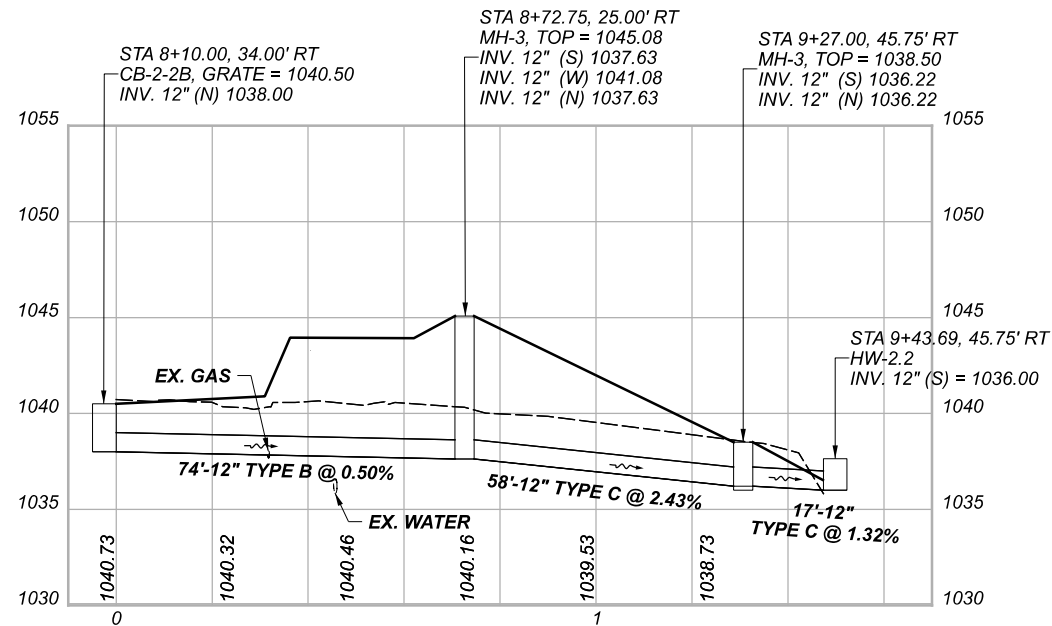
114201

SHEET

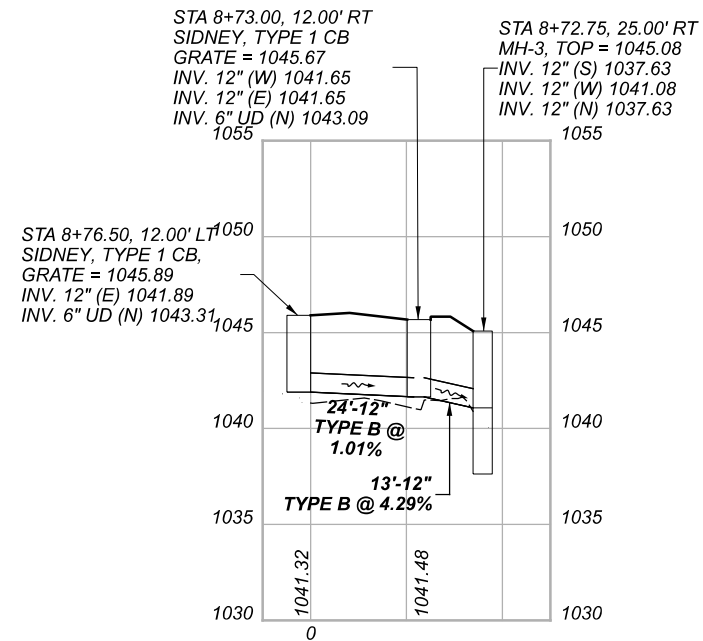
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TOTAL

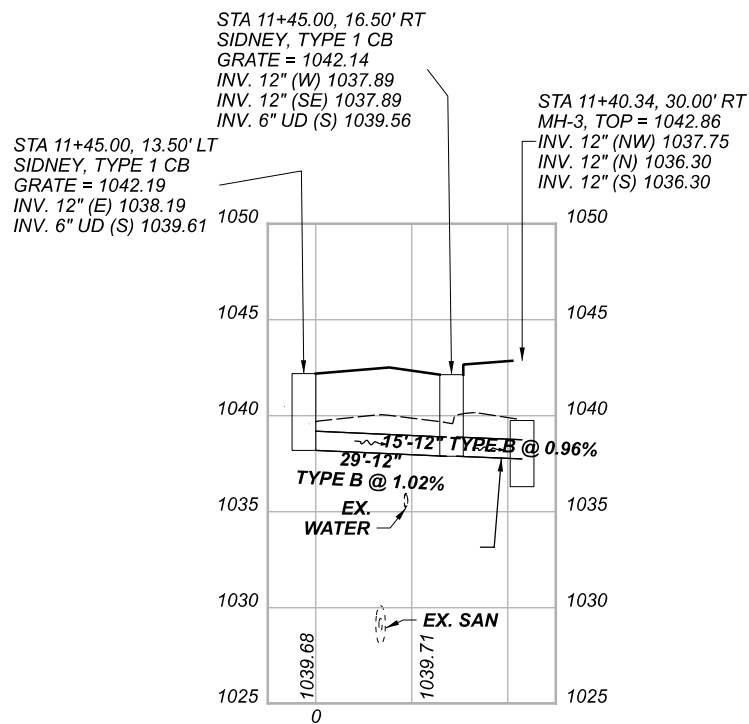
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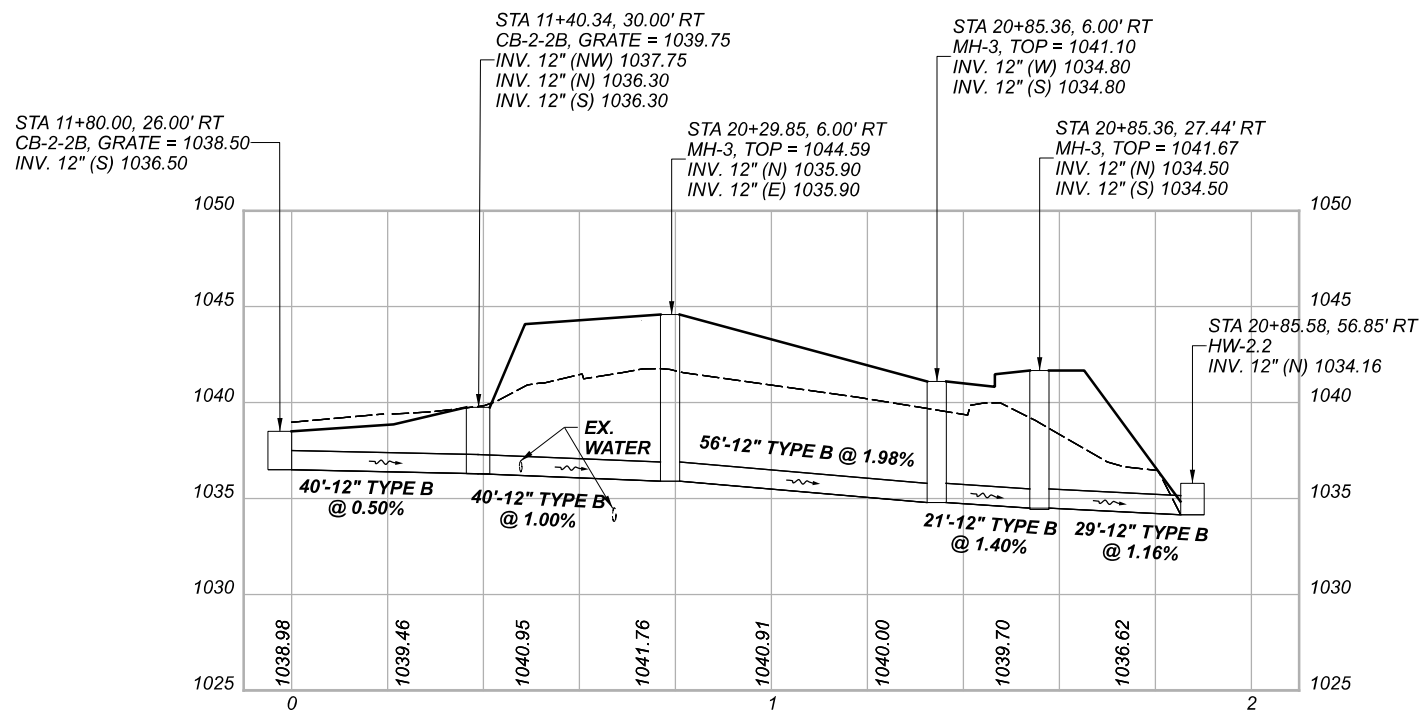
STA. 8+10.00 (SPRUCE) TO STA. 9+43.73 (SPRUCE)



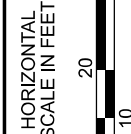
STA. 8+72.75 (SPRUCE) TO STA. 8+76.46 (SPRUCE)



STA. 11+40.34 (SPRUCE) TO STA. 11+45.00 (SPRUCE)



STA. 11+80.00 (SPRUCE) TO STA. 20+85.58 (LINCOLN)



STORM SEWER PROFILES

DESIGN AGENCY



DESIGNER

BMG

REVIEWER

MAG 05/30/23

PROJECT ID

114201

SHEET

32

TOTAL

72

RETAINING WALL GENERAL NOTES

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

ITEM SPECIAL - STRUCTURE MISC.: SEGMENTAL CONCRETE BLOCK RETAINING WALL

1.0 DESCRIPTION

THIS WORK SHALL CONSIST OF FURNISHING DESIGN COMPUTATIONS, SHOP DRAWINGS, MATERIALS, EQUIPMENT AND LABOR TO CONSTRUCT A SEGMENTAL BLOCK RETAINING WALL TO THE LIMITS SHOWN IN THE PLANS.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE PROPOSED WALL BASED ON THE DETAILS SHOWN ON SHEET 35 OF 72.

THE WALL SYSTEM SHALL CONSIST OF A LEVELING PAD, PRECAST CONCRETE BLOCKS (EITHER WET- OR DRY-CAST UNITS), SELECT GRANULAR BACKFILL AND IF REQUIRED BY DESIGN, GEOGRID SOIL REINFORCEMENT.

WALLS SHALL BE GRAVITY TYPE OR GEOGRID REINFORCED DESIGNS. THE WALL MANUFACTURER SHALL BE RESPONSIBLE FOR INTERNAL STABILITY OF EACH WALL DESIGN IN ACCORDANCE WITH THESE SPECIFICATIONS. IF USED, GEOGRID REINFORCEMENT MUST STAY WITHIN PROJECT RIGHT-OF-WAY AND BE COORDINATED WITH OTHER DESIGN ELEMENTS OF THE PROJECT TO AVOID CONFLICTS. ADDITIONAL COMPENSATION WILL NOT BE CONSIDERED IN THE EVENT THE WALL DESIGN CONFLICTS WITH OTHER PLAN ELEMENTS.

WALL BLOCK UNITS SHALL HAVE A MINIMUM BATTER AND BLOCK SPACING, TO PROHIBIT GROWTH OF VEGETATION THROUGH THE FACE OF THE WALL. THE MAXIMUM BATTER SHALL BE 20 DEGREES.

WALL COLOR SHALL BE 'BUFF' OR EQUAL AS APPROVED BY THE CITY. DRY-CAST SEGMENTAL BLOCK UNITS SHALL BE "SPLIT-FACED". WET-CAST SEGMENTAL BLOCK UNITS SHALL HAVE A ROCK PATTERN RELIEF.

2.0 DESIGN CRITERIA

THE SEGMENTAL WALL DESIGN SHALL BE ACCORDING TO THE MOST CURRENT EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND GEOTECHNICAL ENGINEERING CIRCULAR NO. 11 - DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SLOPES. (FHWA-NHI-10-024). THE WALL SUPPLIER SHALL BE RESPONSIBLE FOR ALL INTERNAL STABILITY ASPECTS OF THE WALL DESIGN.

INTERNAL STABILITY DESIGN SHALL INSURE THAT ADEQUATE CAPACITY-DEMAND RATIOS (OR FACTORS OF SAFETY) AGAINST OVERTURNING AND SLIDING ARE PRESENT AT EACH LEVEL OF BLOCK. IF REQUIRED BY DESIGN, GEOGRID REINFORCEMENT SHALL BE UTILIZED AND THE LOADING AT THE BLOCK/GEOGRID REINFORCEMENT CONNECTION AS WELL AS THE FAILURE SURFACE MUST BE INDICATED. THE CALCULATIONS TO DETERMINE THE ALLOWABLE LOAD OF THE GEOGRID REINFORCEMENT AND THE FACTOR OF SAFETY AGAINST PULLOUT SHALL ALSO BE INCLUDED. EXTERNAL LOADS SUCH AS THOSE APPLIED THROUGH STRUCTURE FOUNDATIONS, FROM TRAFFIC, SLOPING SURCHARGE, ETC., SHALL BE ACCOUNTED FOR IN THE INTERNAL STABILITY DESIGN. THE PRESENCE OF ALL APPURTENANCES BEHIND, IN FRONT OF, MOUNTED UPON, OR PASSING THROUGH THE WALL VOLUME SUCH AS DRAINAGE STRUCTURES, UTILITIES, STRUCTURE FOUNDATION ELEMENTS, OR OTHER ITEMS SHALL BE ACCOUNTED FOR IN THE INTERNAL STABILITY DESIGN OF THE WALL.

- A. THE DESIGN SHALL MEET ALL PLAN REQUIREMENTS. THE RECOMMENDATIONS OF THE WALL SYSTEM SUPPLIERS SHALL NOT OVERRIDE THE MINIMUM PERFORMANCE REQUIREMENTS SHOWN HEREIN.
- B. ONE HUNDRED PERCENT OF THE GEOGRID REINFORCEMENT DESIGNED AND PLACED IN THE REINFORCED SOIL ZONE SHALL EXTEND TO AND BE CONNECTED TO THE CONCRETE BLOCKS THROUGH THE USE OF CLEVIS CONNECTORS OR ANOTHER ACCEPTABLE METHOD.

- C. THE CONTRACTOR SHALL INCORPORATE MEANS OF PLACING GEOGRID AROUND OBSTRUCTIONS IN THE REINFORCED SOIL ZONE. THE PROPOSED METHOD OF GEOGRID INSTALLATION AROUND OBSTRUCTIONS SHALL BE OUTLINED CLEARLY IN THE SHOP DRAWINGS.
- D. THE COEFFICIENT OF LATERAL EARTH PRESSURE, KA, AND THE APPLICATION OF THE LATERAL FORCES TO THE REINFORCED SOIL ZONE FOR EXTERNAL STABILITY ANALYSIS SHALL BE COMPUTED USING THE RANKINE METHOD.
- E. FOR SELECT GRANULAR BACKFILL, THE VALUE FOR THE ANGLE OF INTERNAL FRICTION FOR DESIGN PURPOSES SHALL BE AT LEAST 34 DEGREES. THE ANGLE OF INTERNAL FRICTION OF THE BACKFILL BEHIND MECHANICALLY STABILIZED EARTH MASS AND THE FOUNDATION SOILS, UNLESS OTHERWISE NOTED, SHALL ASSUME TO BE 30 DEGREES.
- F. THE ALLOWABLE REINFORCEMENT TENSION FOR POLYMERIC (EXTENSIBLE) GEOGRID REINFORCEMENT SHALL BE BASED ON AASHTO SECTION 11.10 OR 11.11.
- G. THE DESIGN LIFE OF THE WALL SHALL BE 75 YEARS.
- H. THE MINIMUM DEPTH OF EMBEDMENT, MEASURED FROM THE FINISHED GROUND LINE TO THE TOP OF LEVELING PAD SHALL BE AT LEAST 2.5 FEET.
- I. THE MINIMUM THICKNESS OF THE LEVELING PAD SHALL BE AT LEAST 6 INCHES.
- J. GEOGRID REINFORCEMENT, IF UTILIZED, SHALL BE MINIMUM OF 8 FT. IN LENGTH AS MEASURED FROM THE FACE OF THE SEGMENTAL BLOCK WALL FOR ALL WALLS GREATER THAN 5 FT IN HEIGHT. WALLS UNDER 5 FT. IN HEIGHT MAY UTILIZE A GEOGRID LENGTH OF 70% OF THE WALL HEIGHT IF SUPPORTED BY DESIGN CALCULATIONS.
- K. THE WALL HEIGHT FOR DESIGN PURPOSES SHALL BE MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF THE WALL. WHEN THE WALL IS RETAINING A SLOPING SURCHARGE THEN THE WALL HEIGHT SHALL BE DEFINED AS THE EQUIVALENT DESIGN HEIGHT (H) AS SHOWN IN AASHTO 11.10.
- L. THE WALL SYSTEM SHALL ACCOMMODATE UP TO ONE PERCENT DIFFERENTIAL SETTLEMENT IN THE LONGITUDINAL DIRECTION.

3.0 SUBMITTALS

THE WALL SUPPLIER SHALL SUBMIT DOUBLE STAMPED DESIGN COMPUTATIONS AND DOUBLE STAMPED SCALED SHOP DRAWINGS TO THE ENGINEER AT LEAST 30 DAYS PRIOR TO COMMENCEMENT OF WORK. NO WORK OR ORDERING OF MATERIALS FOR THE STRUCTURE SHALL BE DONE BY THE CONTRACTOR UNTIL THE SUBMITTAL HAS BEEN ACCEPTED IN WRITING BY THE ENGINEER. THE SUBMITTAL TO THE ENGINEER SHALL INCLUDE TWO HARD COPIES AND ONE ELECTRONIC COPY IN PDF FORMAT. SCALED SHOP DRAWINGS SHALL BE 11 INCHES BY 17 INCHES IN DIMENSION, CONFORMING TO ODOT PLAN REQUIREMENTS. THE SHOP DRAWINGS SHALL BE DOUBLE STAMPED BY OHIO PROFESSIONAL ENGINEERS AND SHALL INCLUDE ALL DETAILS, DIMENSIONS, QUANTITIES, AND CROSS SECTIONS NECESSARY TO CONSTRUCT THE WALL AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS.

- A. PLAN, ELEVATION, AND CROSS SECTION SHEET(S) FOR EACH WALL SHOWING THE FOLLOWING:
 - 1. A PLAN VIEW OF THE WALL INDICATING THE OFFSET FROM THE CONSTRUCTION CENTERLINE TO THE FIRST COURSE OF BLOCKS AT ALL CHANGES IN HORIZONTAL ALIGNMENT. THESE SHALL BE CALCULATED USING THE OFFSETS TO THE BACK FACE OF THE BLOCK SHOWN ON THE CONTRACT PLANS AND THE SUPPLIERS PROPOSED WALL BATTER. THE PLAN VIEW SHALL INDICATE BOTTOM (AND TOP COURSE OF BLOCK WHEN BATTERED), THE EXCAVATION AND SELECT GRANULAR BACKFILL LIMITS AS WELL AS ANY GEOGRID REINFORCMENT REQUIRED BY THE DESIGN. THE CENTERLINE OF ANY DRAINAGE STRUCTURE OR PIPE BEHIND OR PASSING THROUGH/UNDER THE WALL SHALL ALSO BE SHOWN.
 - 2. AN ELEVATION VIEW OF THE WALL, INDICATING THE ELEVATION AND ALL STEPS IN THE TOP COURSE OF BLOCKS ALONG THE LENGTH OF THE WALL. THE TOP OF THESE BLOCKS SHALL BE AT OR ABOVE THE THEORETICAL TOP OF BLOCK LINE SHOWN ON THE CONTRACT PLANS. THIS VIEW SHALL ALSO SHOW THE STEPS AND PROPOSED TOP OF LEVELING PAD ELEVATIONS AS WELL AS THE FINISHED GRADE LINE AT THE WALL FACE SPECIFIED ON THE CONTRACT PLANS. THESE LEVELING PAD ELEVATIONS SHALL BE LOCATED AT OR BELOW THE THEORETICAL TOP OF LEVELING LINE SHOWN ON THE CONTRACT PLANS. THE LOCATION, SIZE, AND LENGTH OF ANY SOIL REINFORCING CONNECTED TO THE BLOCKS SHALL BE INDICATED.

- 3. TYPICAL CROSS SECTION(S) SHOWING THE LIMITS OF THE SELECT GRANULAR BACKFILL, GEOGRID REINFORCEMENT IF USED IN THE DESIGN. THE RIGHT-OF-WAY LIMITS SHALL BE INDICATED AS WELL AS THE PROPOSED EXCAVATION, TEMPORARY CUT SLOPES, AND THE ELEVATION RELATIONSHIP BETWEEN EXISTING GROUND CONDITIONS AND PROPOSED GRADES.
- 4. ALL GENERAL NOTES REQUIRED FOR CONSTRUCTING THE WALL.
- B. ALL DETAILS FOR THE LEVELING PADS, INCLUDING THE STEPS, SHALL BE SHOWN. THE THEORETICAL TOP OF THE LEVELING PAD SHALL EITHER BE BELOW THE ANTICIPATED FROST DEPTH OR 2.5 FT. BELOW THE FINISHED GRADE LINE AT THE WALL FACE, WHICHEVER IS GREATER; UNLESS OTHERWISE SHOWN ON THE PLANS. THE MINIMUM LEVELING PAD THICKNESS SHALL BE 6 IN.
- C. CAP BLOCKS SHALL BE USED TO COVER THE TOP OF THE STANDARD BLOCK UNITS. THE TOP COURSE OF BLOCKS AND CAP BLOCKS SHALL BE STEPPED TO SATISFY THE TOP OF BLOCK LINE SHOWN ON THE CONTRACT PLANS.
- D. ALL DETAILS OF THE BLOCK AND/OR GEOGRID REINFORCEMENT PLACEMENT AROUND ALL APPURTENANCES LOCATED BEHIND, ON TOP OF, OR PASSING THROUGH THE WALL SHALL BE CLEARLY INDICATED. ANY MODIFICATIONS TO THE DESIGN OF THESE APPURTENANCES TO ACCOMMODATE A PARTICULAR DESIGN ARRANGEMENT SHALL ALSO BE SUBMITTED.
- E. ALL BLOCK TYPES (STANDARD, CAP, CORNER, AND RADIUS TURNING BLOCKS) SHALL BE DETAILED SHOWING ALL DIMENSIONS.
- F. ALL BLOCKS SHALL HAVE ALIGNMENT/CONNECTION DEVICES SUCH AS SHEAR KEYS, LEADING/TRAILING LIPS, OR PINS. THE DETAILS FOR THE CONNECTION DEVICES BETWEEN ADJACENT BLOCKS AND THE BLOCK TO SOIL REINFORCEMENT SHALL BE SHOWN. THE BLOCK SET BACK OR FACE BATTER SHALL BE LIMITED TO 20 DEGREES FROM VERTICAL, UNLESS OTHERWISE SHOWN BY THE PLANS.

4.0 MATERIALS

THE MATERIALS SHALL MEET THE FOLLOWING REQUIREMENTS:

- A. DRY-CAST CONCRETE BLOCK:
DRY-CAST CONCRETE BLOCK PROPOSED FOR USE SHALL BE PRECAST AND PRODUCED ACCORDING THE REQUIREMENTS OF ASTM C1372 EXCEPT AS FOLLOWS:
 - 1. FLY ASH SHALL BE ACCORDING TO 711.13.
 - 2. GROUND GRANULATED BLAST-FURNACE SLAG SHALL BE ACCORDING TO 711.11.
 - 3. AGGREGATE SHALL BE ACCORDING TO 703.02 AND 703.13, WITH THE EXCEPTION OF GRADATION.
 - 4. TESTING FOR FREEZE-THAW DURABILITY WILL NOT BE REQUIRED. HOWEVER, UNSATISFACTORY FIELD PERFORMANCE AS DETERMINED BY THE DEPARTMENT WILL BE CAUSE TO PROHIBIT THE USE OF THE BLOCK ON DEPARTMENT PROJECTS.
- B. WET-CAST CONCRETE BLOCK:
WET-CAST CONCRETE BLOCK PROPOSED FOR USE SHALL BE PRE-CAST BY A ODOT CERTIFIED PRECASTER IN ACCORDANCE TO SUPPLEMENT 1073. DO NOT START FABRICATION OF THE SEGMENTAL BLOCK UNITS UNTIL THE SHOP DRAWINGS AND DESIGN CALCULATIONS HAVE BEEN ACCEPTED BY THE CITY. PROPORTION THE CONCRETE MIX DESIGN THAT PROVIDES THE MINIMUM COMPRESSIVE STRENGTH OUTLINED IN THE SHOP DRAWINGS WITH THE MINIMUM REQUIREMENTS OF ACI 318. THE CONCRETE AIR CONTENT SHALL MEET THE REQUIREMENTS OFSUPPLEMENT 1073. PERFORM CONCRETE TESTING AS OUTLINED IN SUPPLEMENT 1073.
- C. SELECT GRANULAR BACKFILL:
THE SELECT GRANULAR BACKFILL (SGB) IS DEFINED AS THE MATERIAL PLACED IN THE REINFORCED ZONE BEHIND THE WALL. FOR GRAVITY SEGMENTAL BLOCK WALLS, SGB SHALL BE UTILIZED TO BACKFILL TO GRADE WITHIN THE ZONE DEFINED BY THE EXCAVATION LIMITS ILLUSTRATED IN THE PROJECT PLANS. FURNISH SGB CONFORMING TO 703.17, AGGREGATE MATERIALS FOR ITEM 304, OR 703.11, STRUCTURAL BACKFILL, TYPE 2 AND THE REQUIREMENTS LISTED BELOW:

- 1. DO NOT USE SLAG MATERIALS OR RECYCLED PORTLAND CEMENT CONCRETE.
- 2. ENSURE THAT THE SGB MATERIAL HAS AN INTERNAL FRICTION ANGLE EQUAL TO OR GREATER THAN 34 DEGREES WHEN TESTING ACCORDING TO AASHTO T 236 AND THE FOLLOWING REQUIREMENTS:

- I. OBTAIN A TEST SAMPLE FROM THE PORTION OF THE SGB MATERIAL WHICH PASSES THE NO. 10 SIEVE.
- II. DETERMINE THE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT OF THE TEST SAMPLE ACCORDING TO AASHTO T99, METHOD A.
- III. COMPACT THE SAMPLE FOR DIRECT SHEAR TESTING TO 98 PERCENT OF THE MAXIMUM DRY DENSITY AND WITHIN ONE PERCENT OF THE OPTIMUM MOISTURE CONTENT.
- IV. PERFORM THE DIRECT SHEAR TEST THREE TIMES AT NORMAL STRESSES OF 10, 20 AND 40 POUNDS PER SQUARE INCH (70, 140 AND 280 KPA).
- V. PLOT THE MAXIMUM SHEAR STRESS VERSUS THE NORMAL STRESS FOR EACH TEST. DRAW A STRAIGHT LINE THAT IS BEST FIT TO THE THREE POINTS USING THE LEAST-SQUARES METHOD. DETERMINE THE FRICTION ANGLE BY MEASURING THE ANGLE OF THE BEST FIT LINE FROM THE HORIZONTAL. IF THE INTERNAL FRICTION ANGLE IS LESS THAN 34 DEGREES AND THE SGB HAS A SIGNIFICANT AMOUNT OF MATERIAL RETAINED ON THE NO. 10 SIEVE, THE CONTRACTOR MAY SUBMIT AN ALTERNATE SHEAR TEST PROCEDURE THAT INCLUDES MATERIAL LARGER THAN THE NO. 10 SIEVE IN THE TEST SAMPLE.
- VI. THE AASHTO T 296 TEST WITH PORE PRESSURE MEASUREMENT MAY BE USED IN LIEU OF AASHTO T 236. IF THE VENDOR'S DESIGN USES A FRICTION ANGLE HIGHER THAN 34 DEGREES, AS INDICATED ON THE APPROVED SHOP DRAWINGS, THIS HIGHER VALUE SHALL BE TAKEN AS THE MINIMUM REQUIRED.
- VII. WHEN GEOSYNTHETIC REINFORCING IS USED, THE SGB PH SHALL BE 4.5 TO 9.0 ACCORDING TO AASHTO T 289.
- VIII. AT LEAST 30 DAYS PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE INTERNAL FRICTION ANGLE AND PH TO SHOW THE SELECT FILL MATERIAL MEETS THE SPECIFICATION REQUIREMENTS. HOWEVER, THE PH WILL BE REQUIRED ONLY WHEN GEOSYNTHETIC REINFORCING IS USED. ALL TEST RESULTS SHALL NOT BE OLDER THAN 6 MONTHS. IN ADDITION, A SAMPLE OF SELECT FILL MATERIAL WILL BE OBTAINED FOR TESTING AND APPROVAL BY THE COUNTY.
- IX. WHEN A FINE AGGREGATE IS SELECTED, THE REAR OF ALL SEGMENTAL BLOCK JOINTS SHALL BE COVERED BY A NONWOVEN NEEDLE PUNCH GEOTEXTILE FILTER MATERIAL ACCORDING TO ARTICLE 1080.05 OF THE CMS AND SHALL HAVE A MINIMUM PERMEABILITY ACCORDING TO ASTM D4491 OF 0.008 CM/SEC. ALL FABRIC OVERLAPS SHALL BE 6 IN. (150 MM) AND NON-SEWN. AS AN ALTERNATIVE TO THE GEOTEXTILE, A COARSE AGGREGATE SHALL BE PLACED AGAINST THE BACK FACE OF THE BLOCKS TO CREATE A MINIMUM 12 IN.(300 MM) WIDE CONTINUOUS GRADATION FILTER TO PREVENT THE FINE SGB MATERIAL FROM PASSING THROUGH THE BLOCK JOINTS.

- D. UNIT FILL:
UNIT FILL WITHIN HOLLOW SEGMENTAL RETAINING WALL BLOCKS SHALL BE COMPRISED OF NO. 57 STONE. THE NO. 57 STONE SHALL BE NATURAL CRUSHED CARBONATE STONE. SLAG, RECYCLED ASPHALT PAVEMENT AND RECYCLED CONCRETE ARE PROHIBITED FOR USE AS UNIT FILL.

- E. DRAINAGE MATERIAL:
FURNISH BEDDING AND BACKFILL FOR NON-PERFORATED PIPE CONSISTING OF NATURAL SAND, GRAVEL OR SAND MANUFACTURED FROM STONE CONFORMING TO 703.11, STRUCTURAL BACKFILL TYPE 2, EXCEPT 100 PERCENT OF THE MATERIAL SHALL PASS THROUGH A ¾ INCH (19.0 MM) SIEVE.

FOR PERFORATED PIPE INSTALLED WITHIN THE SGB, THE CONTRACTOR MAY FURNISH FABRIC-WRAPPED PERFORATED PIPE INSTEAD OF WRAPPING FILTER FABRIC AROUND THE PERFORATED PIPE IN THE FIELD. THE FABRIC WRAPPED PERFORATED PIPE MUST COME FROM THE SUPPLIER WITH THE FILTER FABRIC COMPLETELY SURROUNDING THE PIPE AND SECURELY ATTACHED TO THE PIPE. ENSURE THAT THE PIPE AND FILTER FABRIC MEET THE ABOVE REQUIREMENTS. THE COUNTY WILL ACCEPT CERTIFIED TEST DATA FOR THE FILTER FABRIC ON FABRIC-WRAPPED PERFORATED PIPE IN PLACE OF NTPEP TEST DATA.

DESIGN AGENCY



DESIGNER

JML

REVIEWER

AMT 05/30/23

PROJECT ID

114201

SHEET

TOTAL

33

72

F. LEVELING PAD:
THE LEVELING PAD SHALL BE CONSTRUCTED TO THE LINES AND GRADES ILLUSTRATED IN THE PLANS. THE LEVEL PAD SHALL CONSIST OF ODOT 304 MATERIAL AND SHALL CONSIST OF CRUSHED CARBONATE STONE. SLAG, RECYCLED ASPHALT PAVEMENT AND RECYCLED CONCRETE ARE PROHIBITED FOR USE IN THE LEVELING PAD.

G. NATURAL SOIL:
FURNISH A-4A, A-6A, A-6B OR A-7-6 NATURAL SOIL CONFORMING TO THE REQUIREMENTS OF 203.02I. PLACE A MINIMUM OF 12 INCHES OF NATURAL SOIL OVER THE SGB ONCE THE CAP BLOCKS HAVE BEEN INSTALLED. PLACE THE NATURAL SOIL IN A MAXIMUM 6 INCH LOOSE LIFT AND COMPACT TO 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY.

H. GEOGRID REINFORCEMENT
IF GEOGRID REINFORCEMENT IS REQUIRED BY THE ACCEPTED DESIGN, THE CONTRACTOR SHALL SUBMIT A MANUFACTURER'S CERTIFICATION FOR THE GEOGRID REINFORCEMENT PROPERTIES TO DEMONSTRATE THE REINFORCEMENT PROPERTIES MEET OR EXCEED THE VALUES UTILIZED IN THE DESIGN CALCULATIONS. THE GEOGRID REINFORCEMENT SHALL BE MANUFACTURED FROM HIGH DENSITY POLYETHYLENE (HDPE) UNIAXIAL OR POLYPROPYLENE BIAXIAL RESINS OR HIGH TENACITY POLYESTER FIBERS WITH A PVC COATING. THE GEOGRID SHALL BE STORED BETWEEN -20 AND 140 DEGREES FAHRENHEIT. THE FOLLOWING STANDARDS SHALL BE USED IN DETERMINING AND DEMONSTRATING THE GEOGRID REINFORCEMENT CAPACITIES.

1. ASTM D638 TEST METHOD FOR TENSILE PROPERTIES OF PLASTIC.
2. ASTM D1248 SPECIFICATION FOR POLYETHYLENE PLASTICS MOLDING AND EXTRUSION MATERIALS.
3. ASTM D4218 TEST METHOD FOR CARBON BLACK CONTENT IN POLYETHYLENE COMPOUNDS.
4. ASTM D5262 TEST METHOD FOR EVALUATING THE UNCONFINED TENSION CREEP BEHAVIOR OF GEOSYNTHETICS.
5. GG1-STANDARD TEST METHOD FOR GEOGRID RIB TENSILE STRENGTH.
6. GG2-STANDARD TEST METHOD FOR GEOGRID JUNCTION STRENGTH.
7. GG4-STANDARD PRACTICE FOR DETERMINATION OF THE LONG TERM DESIGN STRENGTH OF GEOGRID.
8. GG5-STANDARD PRACTICE FOR EVALUATING GEOGRID PULLOUT BEHAVIOR.

5.0 CONSTRUCTION

5.1 BLOCK DAMAGE
BLOCKS MAY BE REJECTED FOR FAILURE TO MEET ANY OF THE REQUIREMENTS SPECIFIED ABOVE. IN ADDITION, ANY OR ALL OF THE FOLLOWING DEFECTS MAY BE SUFFICIENT CAUSE FOR REJECTIONS:

1. DEFECTS THAT INDICATE IMPERFECT MOLDING.
2. DEFECTS IN THE SPLITTING OPERATION, WHICH RESULT IN INCOMPLETE FRACTURE OF THE UNIT'S FACE.
3. CRACKS OR DEFECTS THAT WILL IMPAIR THE PLACEMENT OF THE UNIT.
4. DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, SUCH AS BROKEN OR CHIPPED CONCRETE.
5. STAINED FORM FACE, DUE TO EXCESS FORM OIL OR OTHER CONTAMINATIONS.
6. SIGNS OF AGGREGATE SEGREGATION.
7. BROKEN OR CRACKED CORNERS.
8. INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH.

THE ENGINEER WILL DETERMINE IF AN ATTEMPT CAN BE MADE TO REPAIR THE DEFECTIVE BLOCK. THE CONTRACTOR OR THE SUPPLIER SHALL MAKE THE REPAIR TO THE SATISFACTION OF THE ENGINEER.

5.2 HANDLING, STORAGE, AND SHIPPING
ALL BLOCKS SHALL BE HANDLED, STORED, AND SHIPPED IN SUCH A MANNER AS TO AVOID CRACKING AND CHIPPING. DO NOT PLACED CHIPPED OR CRACKED BLOCKS WITH THE RETAINING STRUCTURE. DAMAGED BLOCKS WILL BE REJECTED BY THE CITY.

5.3 WALL EXCAVATION
UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH CMS 503 EXCEPT THAT THE LIMITS OF EXCAVATION SHALL BE AS SHOWN IN THE PLANS. EXCAVATION FOR THE RETAINING WALL IS UNCLASSIFIED AND MAY INCLUDE ROCK AND/OR SHALE.

5.4 FOUNDATION PREPARATION
THE FOUNDATION FOR THE STRUCTURE SHALL BE GRADED LEVEL FOR A WIDTH EQUAL TO OR EXCEEDING THE LENGTH OF REINFORCING GEOGRID OR AS SHOWN ON THE PLANS.

PRIOR TO WALL CONSTRUCTION, THE FOUNDATION, IF NOT IN ROCK, SHALL BE LEVELED AND FINISHED WITH A VIBRATORY COMPACTOR. ANY FOUNDATION SOILS FOUND TO BE UNSUITABLE SHALL BE REMOVED AND REPLACED, AS DIRECTED BY THE ENGINEER. REMOVAL OF THE UNSUITABLE SOILS SHALL BE PAID AS ADDITIONAL WORK PER CMS 109, UNLESS SPECIFIED IN THE PLANS. PERFORM SUBGRADE COMPACTION PER 204.03 ACROSS THE ENTIRE WALL BASE, INCLUDING THE LEVELING PAD AREA AND THE ENTIRE REINFORCED ZONE.

5.5 LEVELING PAD CONSTRUCTION
THE LEVELING PAD SHALL BE PLACED TO ACHIEVE A 6" COMPACTED THICKNESS. THE LEVELING PAD SHALL BE COMPACTED USING A VIBRATORY PLATE COMPACTOR WITH A MINIMUM OF 4 PASSES. ADJUST THE PASSES OF THE COMPACTOR AS NEEDED TO PROVIDE A STABLE, NON-YIELDING SURFACE. THE LEVELING PAD MATERIAL SHALL BE PLACED WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT. DENSITY TESTING WILL NOT BE PERFORMED IN THE LEVELING PAD AREA.

5.6 WALL ERECTION
WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES AND SPECIFICATIONS. A COPY OF THE MANUFACTURER'S INSTALLATION PROCEDURES SHALL BE SUPPLIED TO THE DEPARTMENT WITH THE SHOP DRAWINGS.

5.7 SELECT GRANULAR BACKFILL MATERIAL PLACEMENT
SELECT GRANULAR BACKFILL (SGB) MATERIAL PLACEMENT SHALL CLOSELY FOLLOW THE PLACEMENT OF THE SEGMENTAL CONCRETE BLOCKS. AT NO TIME SHALL THERE BE MORE THAN TWO COURSES OF SEGMENTAL BLOCKS ABOVE THE LEVEL OF THE SGB MATERIAL. AT EACH GEOGRID LEVEL, THE SGB MATERIAL SHALL BE ROUGHLY LEVELED AND COMPACTED BEFORE PLACING THE GEOGRID. THE MAXIMUM SGB LIFT THICKNESS SHALL NOT EXCEED 8 INCHES (LOOSE). THE CONTRACTOR SHALL DECREASE THE SGB LIFT THICKNESS IF NECESSARY TO OBTAIN THE SPECIFIED DENSITY.

AT THE END OF EACH DAYS OPERATIONS, THE CONTRACTOR SHALL SHAPE THE LAST LEVEL OF SGB TO RAPIDLY DIRECT RAINWATER RUNOFF AWAY FROM THE FACE OF THE WALL. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.

COMPACT THE SGB TO A MINIMUM OF 98 PERCENT OF THE TEST SECTION MAXIMUM DRY DENSITY. THE MOISTURE CONTENT OF THE SGB MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL NOT BE LESS THAN 3.0 PERCENT DRY OF THE OPTIMUM MOISTURE CONTENT OR NOT GREATER THAN 2.0 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT, AS ESTABLISHED BY THE LABORATORY STANDARD PROCTOR TEST. SGB COMPACTION SHALL BE ACCOMPLISHED WITHOUT DISTURBANCE OR DISTORTION OF THE GEOGRID OR FACING BLOCKS. EACH LIFT OF THE SGB SHALL BE TESTED TO VERIFY DENSITY PRIOR TO PROCEEDING WITH ADDITIONAL WALL CONSTRUCTION.

COMPACTION WITHIN 2 FEET OF THE BACK OF THE BLOCKS SHALL BE ACCOMPLISHED BY REQUIRING AT LEAST 3 PASSES OF A LIGHT MECHANICAL TAMPER. THE MATERIAL PLACED WITHIN 2 FEET OF THE BACK OF THE BLOCK WILL NOT BE TESTED FOR DENSITY.

5.8 REINFORCEMENT PLACEMENT
PLACE THE GEOGRID REINFORCEMENT LAYERS AT THE LOCATIONS AND ELEVATIONS INDICATED IN THE SHOP DRAWINGS. ATTACH THE GEOGRID TO THE SEGMENTAL BLOCK FACING AS INDICATED IN THE SHOP DRAWINGS. FOR GEOGRID REINFORCEMENT, THE ORIENTATION OF THE REINFORCING LAYER SHALL BE SUCH THAT THE MACHINE DIRECTION IS INSTALLED PERPENDICULAR TO THE WALL FACE. THE GEOGRID SHALL BE PULLED TAUT, WITH NO SLACK PRIOR TO THE PLACEMENT OF SELECT GRANULAR BACKFILL. THE GEOGRID SHALL BE KEPT TAUT BY THE USE OF PINS OR STAPLES.

THE GEOGRID ELEMENTS SHALL BE A SINGLE STRIP FROM THE BACK OF THE WALL TO THE DESIGN LENGTH. SPLICING OF THE GEOGRIDS TO OBTAIN THE DESIGN LENGTH IS PROHIBITED.

DAMAGED OR TORN GEOGRIDS ARE PROHIBITED FROM USE WITHIN THE SEGMENTAL RETAINING WALL. IF THE GEOGRID IS DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK AND REPLACE THE ENTIRE DAMAGED STRIP.

6.0 INSPECTION
WALL MANUFACTURER SHALL PROVIDE SUFFICIENT ON-SITE TECHNICAL ASSISTANCE BY A COMPANY REPRESENTATIVE TO ASSURE THAT THE CONTRACTOR AND THE ENGINEER FULLY UNDERSTAND THE CONSTRUCTION PROCEDURES.

THE CONTRACTOR SHALL PROVIDE A SOILS CONSULTANT WHO SHALL BE RESPONSIBLE FOR ENSURING THAT THE SELECT GRANULAR BACKFILL MATERIAL, PLACEMENT AND COMPACTION ARE IN COMPLIANCE WITH THIS NOTE. THE SOILS CONSULTANT MUST THOROUGHLY DOCUMENT PLACEMENT OF ANY REINFORCEMENT UTILIZED TO CONSTRUCT THE SEGMENTAL RETAINING WALL SYSTEM.

THE SOILS CONSULTANT SHALL PROVIDE THE ENGINEER WITH TWO COPIES OF AN INSPECTION REPORT, WHICH CONTAINS THE TESTING RESULTS, DOCUMENTATION OF REINFORCEMENT PLACEMENT, ALL PERTINENT MEASUREMENTS AND THE SOILS CONSULTANTS CONCLUSION.

THE SOILS CONSULTANTS FIELD REPRESENTATIVE SHALL BE A REGISTERED PROFESSIONAL ENGINEER OR WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER. AN OHIO REGISTERED PROFESSIONAL ENGINEER SHALL SIGN THE FINAL INSPECTION REPORT.

7.0 COPING
A PRECAST COPING SHALL BE PROVIDED AT THE TOP OF THE WALL. THE COPING SHALL CONSIST OF SEGMENTAL CAP BLOCKS WITH AN APPROVED ADHESIVE TO FASTEN THE BLOCKS TO THE TOP WALL COURSE. APPLY ADHESIVE OVER 100% OF THE SOLID AREA OF THE WALL BLOCKS IMMEDIATELY BENEATH CAP BLOCKS. COST FOR THE PRECAST COPING, COMPLETE AND IN PLACE, SHALL BE INCLUDED WITH "ITEM SPECIAL -STRUCTURE, MISC.: SEGMENTAL CONCRETE BLOCK RETAINING WALL" FOR PAYMENT.

8.0 METHOD OF MEASUREMENT
THE WALL QUANTITY TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF SQUARE FEET OF FACIAL AREA OF APPROVED SEGMENTAL CONCRETE BLOCK WALL IN PLACE.

8.1 BASIS OF PAYMENT
ITEM SPECIAL "SEGMENTAL CONCRETE BLOCK RETAINING WALL" WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT. THIS WORK SHALL INCLUDE THE INTERNAL STABILITY DESIGN SUBMITTAL, SHOP DRAWING DEVELOPMENT, MANUFACTURING, FURNISHING, AND THE INSTALLATION OF THE SEGMENTAL BLOCK WALL, INCLUDING THE SEGMENTAL CONCRETE BLOCKS, BLOCK CONNECTION PINS, GEOGRID REINFORCEMENT, CAPPING BLOCKS AND ADHESIVE, LEVELING PAD, SELECT GRANULAR BACKFILL, UNIT FILL, NATURAL SOIL AND ALL INCIDENTALS, LABOR AND EQUIPMENT NECESSARY TO COMPLETE THIS ITEM.

GEOTECHNICAL DESIGN PARAMETERS
THE NOMINAL BEARING RESISTANCE FOR THE SEGMENTAL CONCRETE BLOCK RETAINING WALL IS X.X KSF. AN "AT-REST" LATERAL EARTH PRESSURE COEFFICIENT OF 0.5 SHOULD BE USED TO DETERMINE THE LATERAL EARTH PRESSURE AGAINST THE RETAINING WALLS.

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	WALL 1	WALL 2
203	35120		CU YD	GRANULAR MATERIAL, TYPE C		
503	21100		CU YD	UNCLASSIFIED EXCAVATION		
518	39800		FT	4" PERFORATED CORRUGATED PLASTIC PIPE		
518	39900		FT	4" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		
530	50010		SQ FT	RETAINING WALL, MISC.: SEGMENTAL CONCRETE BLOCK RETAINING WALL		

QUANTITIES COMPUTED BY: AMT
QUANTITIES CHECKED BY: JML

DESIGN AGENCY



DESIGNER

JML

REVIEWER

AMT 05/30/23

PROJECT ID

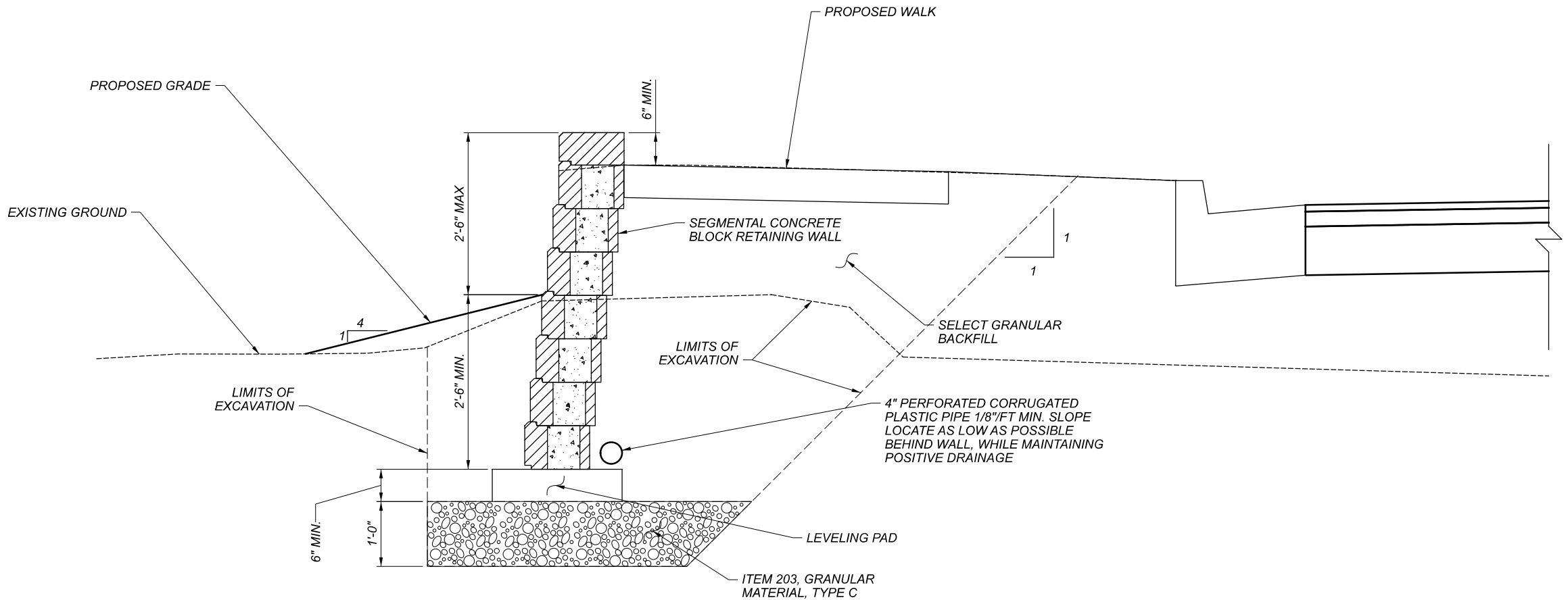
114201

SHEET

34

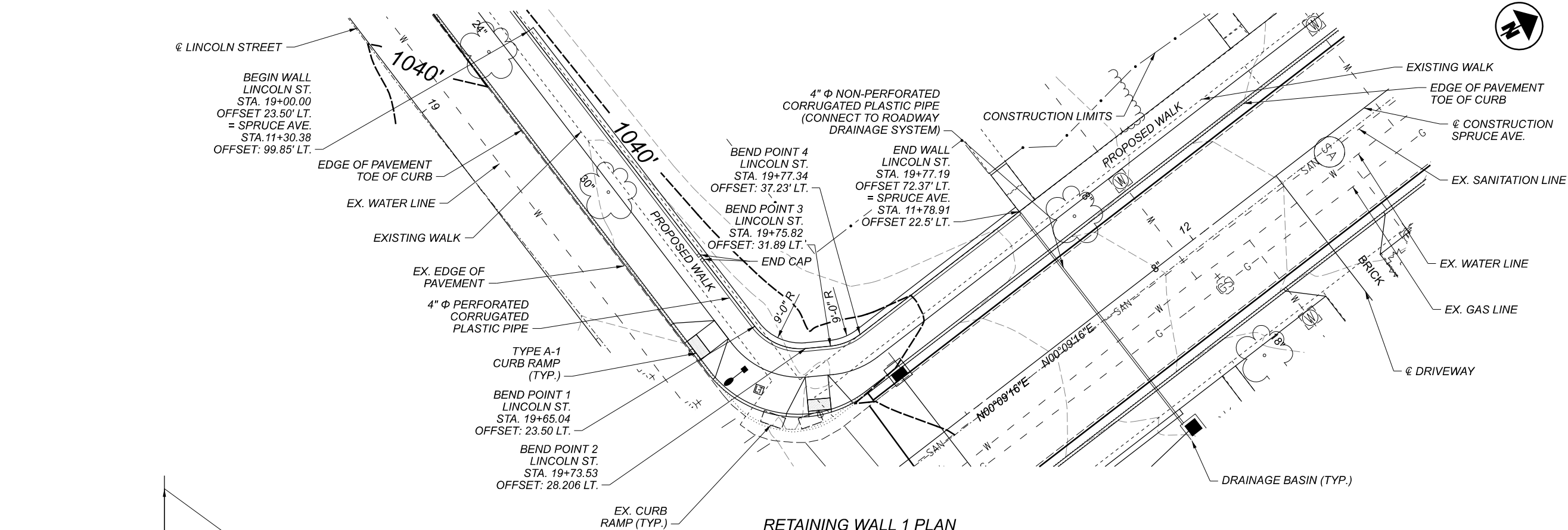
TOTAL

72



SECTION A-A
(TYPICAL WALL SECTION)

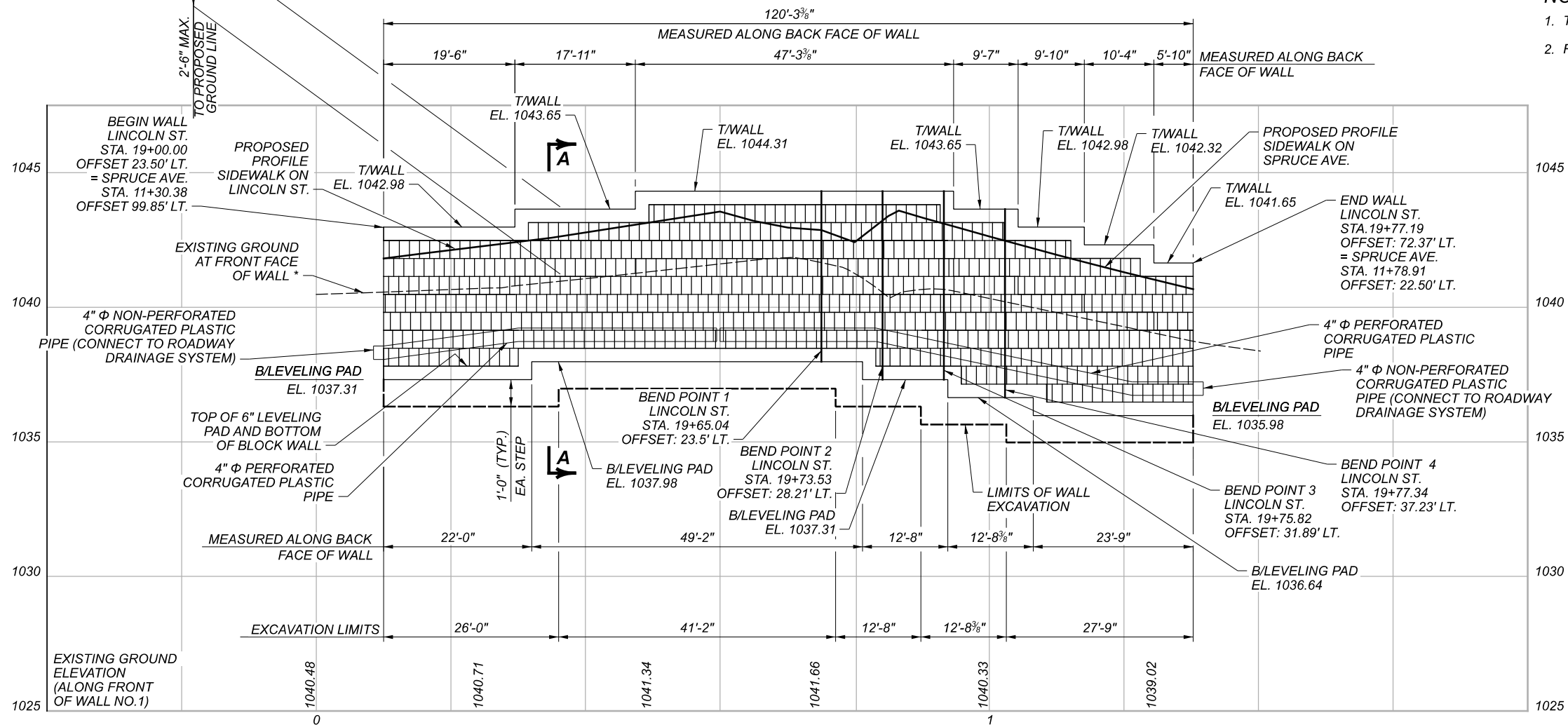
- NOTES:
- 1. FOR GENERAL NOTES, SEE SHEETS 33 AND 34 OF 72.
 - 2. FOR RETAINING WALL PLAN AND PROFILE, FOR WALL 1, SEE SHEET 36 OF 72, OR FOR WALL 2, SEE SHEET 37 OF 72.



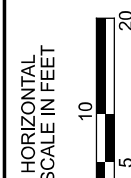
RETAINING WALL 1 PLAN

NOTES:

1. TO REFERENCE SECTION A-A, SEE SHEET 35 OF 72.
2. FOR GENERAL NOTES, SEE SHEETS 33 AND 34 OF 72.

RETAINING WALL 1 PROFILE
(ALONG BACK FACE OF WALL)

* PROPOSED GROUND IN FRONT OF WALL SHALL MATCH EXISTING GROUND, EXCEPT WHERE GRADING IS NEEDED TO MAINTAIN A MAXIMUM 2'-6" EXPOSED FACE OF WALL SEE SECTION A-A.

RETAINING WALL 1 SITE PLAN
SPRUCE AVENUE AND LINCOLN STREET

DESIGN AGENCY



DESIGNER

JML

REVIEWER

AMT 05/30/23

PROJECT ID

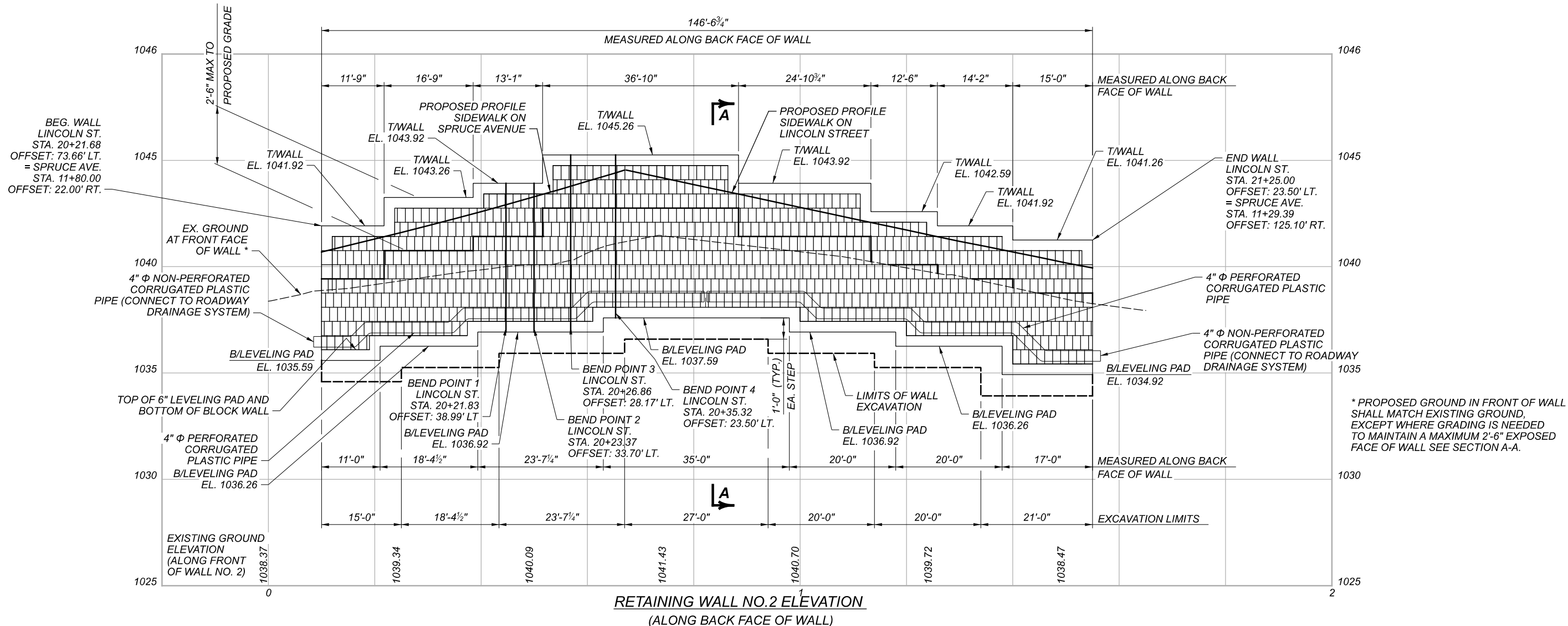
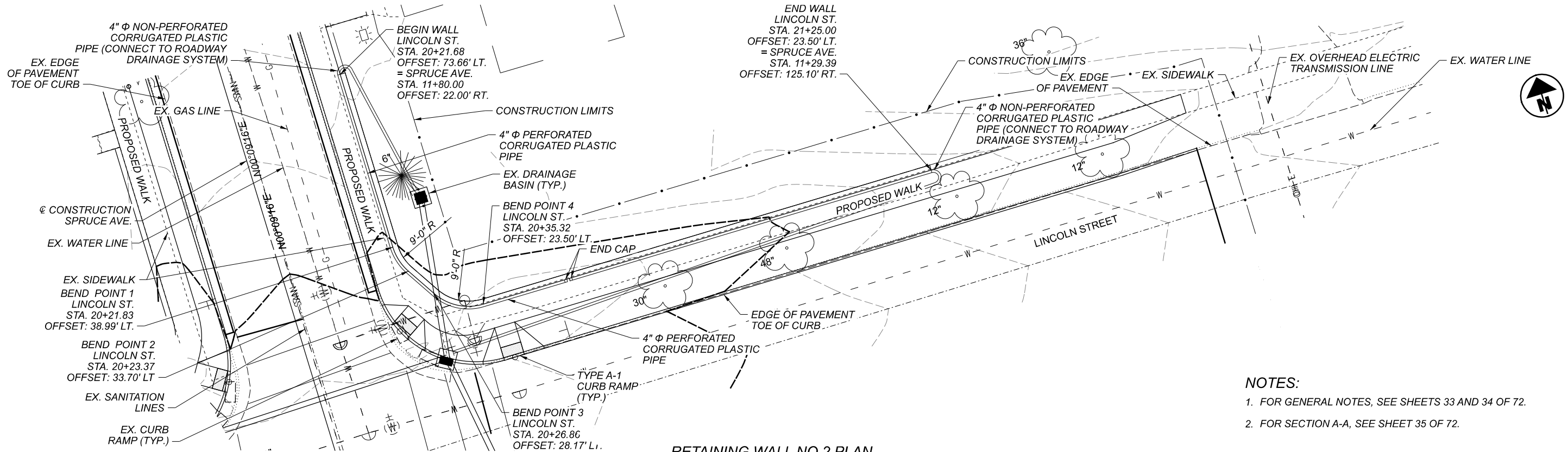
114201

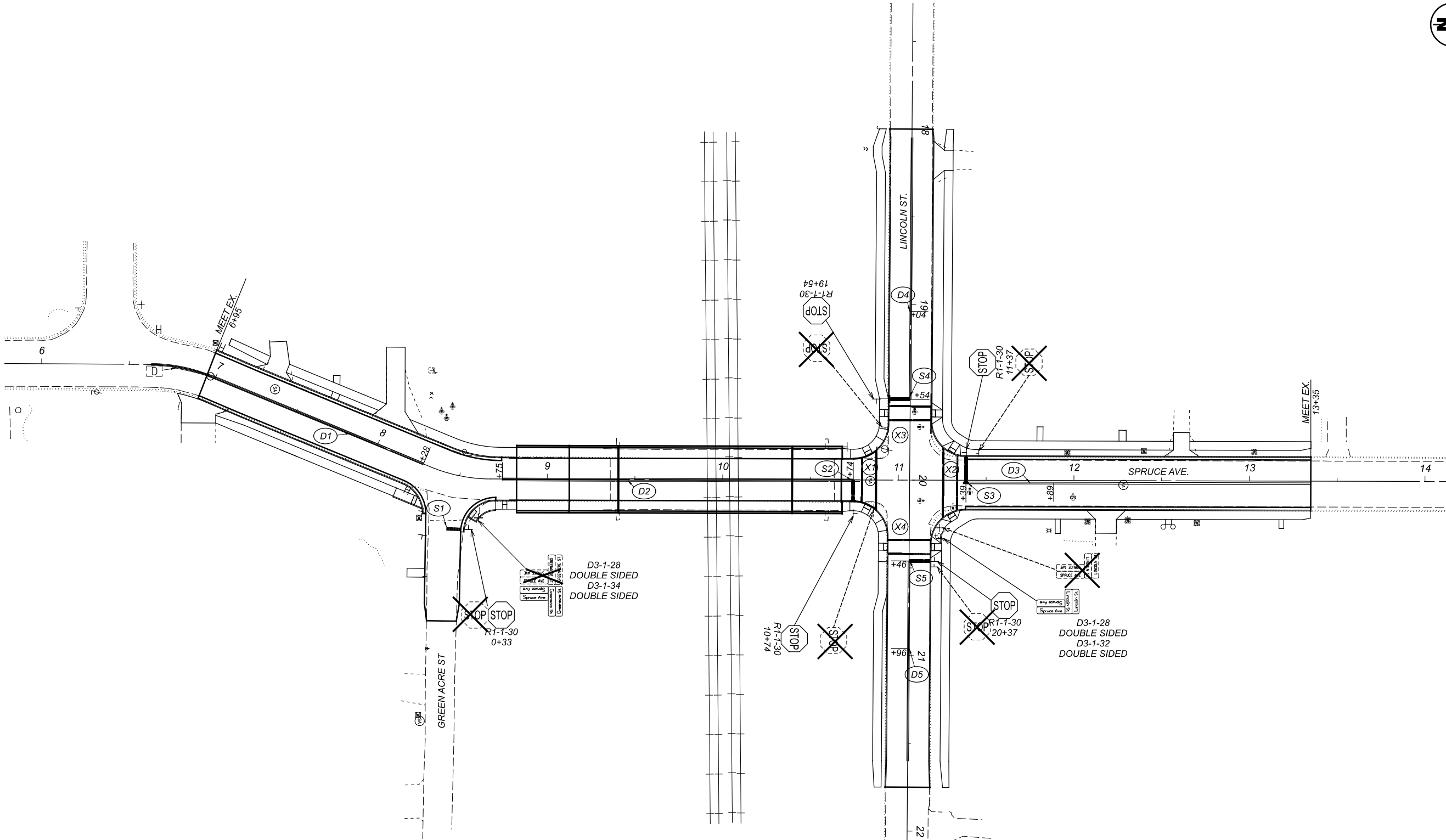
SHEET

36

TOTAL

72





- PAVEMENT MARKING LEGEND
- D = CENTER LINE (DOUBLE SOLID YELLOW)
 - S = STOP LINE (24" WHITE)
 - X = CROSSWALK LINE (12" WHITE)
 - × = PAVEMENT MARKING REMOVAL
 - [] = EXISTING PAVEMENT MARKINGS

- SIGN LEGEND
- [STOP] = EXISTING SIGN TO REMAIN
 - [X STOP] = EXISTING SIGN TO BE REMOVED
 - [STOP] = EXISTING SIGN TO BE RELOCATED
 - [STOP] = PROPOSED SIGN



TRAFFIC CONTROL PLAN

DESIGN AGENCY



DESIGNER

LAS

REVIEWER

JDO 05/30/23

PROJECT ID

114201

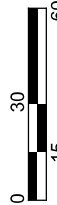
SHEET

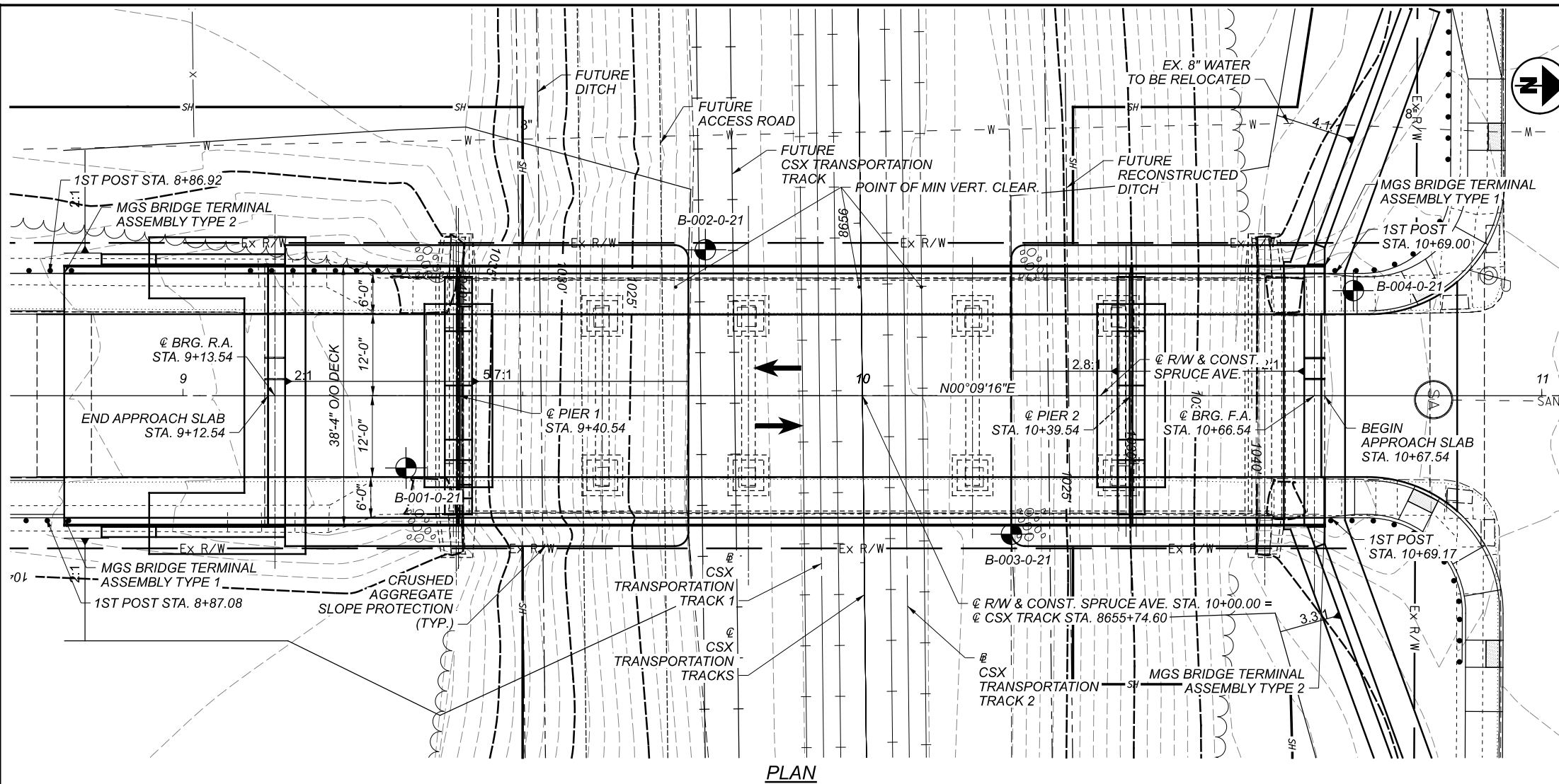
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TOTAL

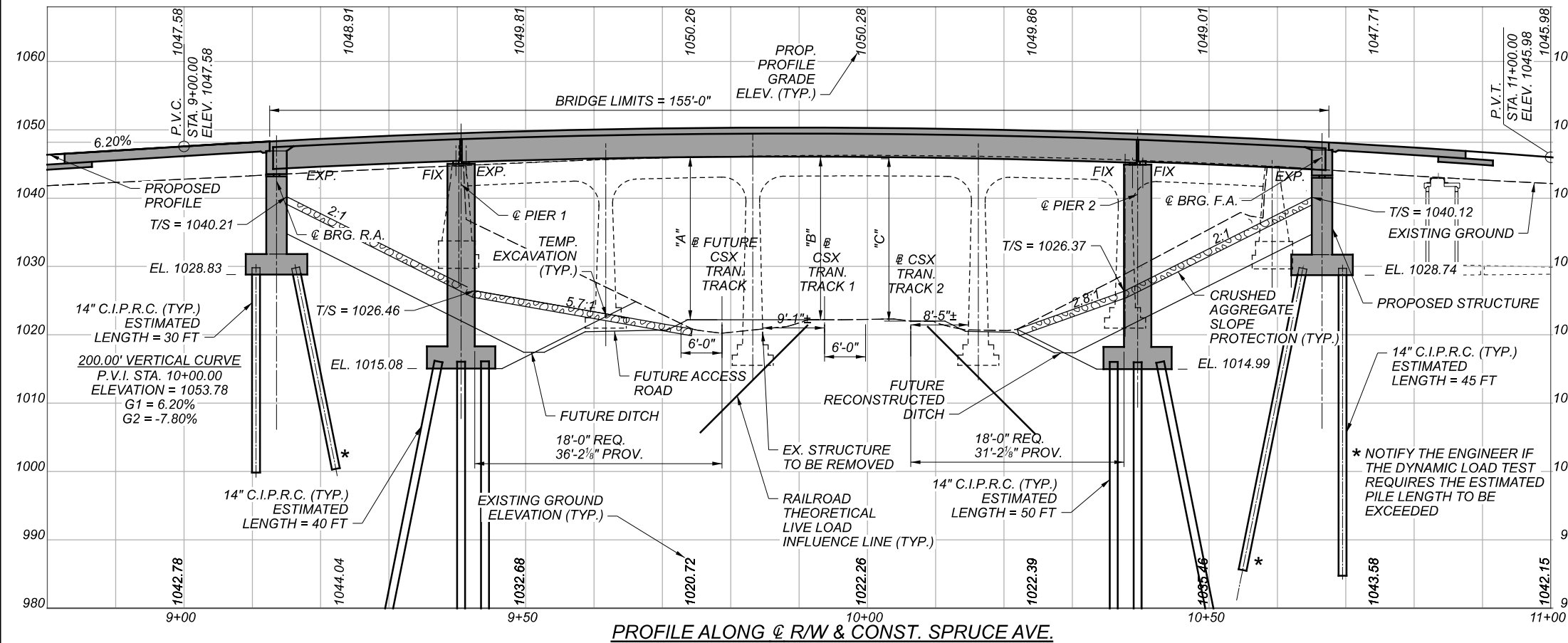
72

HORIZONTAL
SCALE IN FEET





PLAN



PROFILE ALONG @ R/W & CONST. SPRUCE AVE.

BENCHMARK DATA

BM #1 STA.	8+49.73,	ELEV.	1041.44,	OFFSET	13.27',	LT
BM #2 STA.	10+91.80,	ELEV.	1043.27,	OFFSET	17.10',	LT
BM #3 STA.	,	ELEV.	,	OFFSET	,	
BM #4 STA.	,	ELEV.	,	OFFSET	,	

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 2.

NOTES

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
- SEE RAILROAD SUPPLEMENTAL SITE PLAN ON SHEET 2 OF 28 FOR CSX RIGHT-OF-WAY AND ADDITIONAL INFORMATION.

DESIGN TRAFFIC:

2021 ADT = 1,000
2041 ADT = 1,500

LEGEND

◆ PROJECT BORING LOCATION

VERTICAL CLEARANCE

EXISTING	REQUIRED	PROVIDED		
		"A"	"B"	"C"
20'-6"	23'-0"	23'-3 3/4"	23'-6 7/8"	23'-2 1/8"

EXISTING STRUCTURE

TYPE: 5 SPAN CONTINUOUS T-BEAMS
ON INTEGRAL ABUTMENTS AND PIERS

SPANS: 21'-6", 21'-6", 38'-0", 21'-6", 21'-6"

ROADWAY: 24'-0" F/F SAFETY CURB

LOADING: H15

SKEW: NONE

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: NONE

ALIGNMENT: TANGENT

CROWN: 3/16" PER FOOT

STRUCTURE FILE NUMBER: 7561156

DATE BUILT: 1924

DISPOSITION: TO BE REPLACED

PROPOSED STRUCTURE

TYPE: 3-SPAN STEEL ROLLED BEAM ON SEMI-INTEGRAL
ABUTMENTS AND T-TYPE PIERS

SPANS: 26'-3", 97'-6", 26'-3"

ROADWAY: 24'-0" SIDEWALK TOE/TOE PARAPET

LOADING: HL93 AND 60PSF FUTURE WEARING SURFACE

SKEW: NONE

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: 20'-0", 30'-0" LONG (AS-1-15, AS-2-15)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

DECK AREA: 5,956 SF

STRUCTURE FILE NUMBER: 7561157

COORDINATES: LATITUDE 40°16'25.83"

LONGITUDE 84°9'50.83"

SITE PLAN
BRIDGE NO. SHE-SPRUC-0227
STA. 9+32.54 TO STA. 10+67.54

HORIZONTAL
SCALE IN FEET
0 10 20

SFN

7561157

DESIGN AGENCY



DESIGNER CHECKER

JLM AMT

REVIEWER

DWS 05/30/23

PROJECT ID

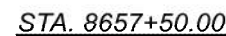
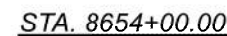
114201

SUBSET TOTAL

1 28

SHEET TOTAL

39 72



LONGITUDE 84°9'50.83"



40	72
----	----

GENERAL NOTES:

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS
REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	1/20/2023
AS-2-15	REVISED	1/20/2023
BR-2-15	REVISED	1/21/2022
EXJ-4-87	REVISED	1/20/2023
GSD-1-19	REVISED	1/15/2021
SICD-1-21	REVISED	1/21/2022
SICD-2-14	REVISED	1/15/2021
VPF-1-90	REVISED	1/20/2023

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE

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

DESIGN LOADING

DESIGN LOADING INCLUDES:
VEHICULAR LIVE LOAD: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ. FT.

DESIGN DATA

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
CONCRETE REINFORCEMENT:
EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI
STRUCTURAL STEEL - ASTM A709 GRADE 50 GALVANIZED - YIELD STRENGTH 50 KSI
STEEL CIP PILES - ASTM A252 GRADE 2 - YIELD STRENGTH 35 KSI

MONOLITHIC WEARING SURFACE

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

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUE IS 279 KIPS PER PILE FOR THE ABUTMENT PILES.
THE ULTIMATE BEARING VALUE IS 329 KIPS PER PILE FOR THE PIER PILES.

REAR ABUTMENT PILES:

14 INCH CIP REINFORCED CONCRETE PIPE PILES 35 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES:

14 INCH CIP REINFORCED CONCRETE PIPE PILES 50 FEET LONG, ORDER LENGTH

PIER 1 PILES:

14 INCH CIP REINFORCED CONCRETE PIPE PILES 45 FEET LONG, ORDER LENGTH

PIER 2 PILES:

14 INCH CIP REINFORCED CONCRETE PIPE PILES 55 FEET LONG, ORDER LENGTH

2 DYNAMIC LOAD TESTING ITEMS

PROVIDE PLAIN CYLINDRICAL CASINGS WITH A MINIMUM PILE WALL THICKNESS OF __ INCH FOR THE CAST-IN-PLACE REINFORCED CONCRETE PILES.

PILE DRIVING

USE A PILE DRIVING HAMMER OF A ____ RATED ENERGY OF ____ FOOT-POUNDS TO INSTALL THE PILES. ENSURE THAT STRESSES IN THE PILES DURING DRIVING DO NOT EXCEED ____ POUNDS PER SQUARE INCH.

CONSTRUCTION CLEARANCE

EXCEPT AS NEEDED FOR REMOVALS, MAINTAIN A CONSTRUCTION CLEARANCE OF 18 FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 23 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6 FEET FROM THE CENTER OF TRACKS, AT ALL TIMES. SEE CSX TRANSPORTATION COORDINATION NOTES FOR ADDITIONAL REQUIREMENTS.

TEMPORARY CONSTRUCTION CLEARANCES (HORIZONTAL AND VERTICAL) PROPOSED - FOR EXISTING OR LESS THAN STANDARD CONDITIONS - SHALL BE SUBJECT TO APPROVAL BY CSX TRANSPORTATION. TYPICALLY REDUCTION IN CONSTRUCTION CLEARANCES ARE NOT PERMITTED.

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 MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.22 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

COORDINATION WITH THE RAILROAD


THE CONTRACTOR SHALL COORDINATE ALL WORK ON, OVER, OR ADJACENT TO THE RAILROAD WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CONTACT THE RAILROAD REPRESENTATIVE LISTED BELOW AT LEAST 30 DAYS IN ADVANCE TO COORDINATE THE NECESSARY WORK. UNDER NO CIRCUMSTANCES SHALL THERE BE ANY WORK PERFORMED WITHIN THE RAILROAD RIGHT OF WAY WITHOUT THE PROPER WRITTEN AUTHORIZATION AND/OR FLAGGING PROTECTION FROM THE RAILROAD.

CSX TRANSPORTATION, INC.
MR. DAVID C. CLARK, PE
500 MEIJER DRIVE, SUITE 305
FLORENCE, KY 41042
PHONE (859) 372-6114

ABBREVIATIONS

ABUT. = ABUTMENT
ADT = AVERAGE DAILY TRAFFIC
ADTT = AVERAGE DAILY TRUCK TRAFFIC
A.S. = APPROACH SLAB
APPR. = APPROACH
B = BOTTOM
BRG. = BEARING
C/C = CENTER TO CENTER
C.J. = CONSTRUCTION JOINT
C.I.P. = CAST-IN-PLACE
CL = CENTERLINE
CLR. = CLEAR
C&MS = CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONC. = CONCRETE
CONSTR. = CONSTRUCTION
DIA. = DIAMETER
EF = EACH FACE
EL. = ELEVATION
EQ. = EQUAL
EX. = EXISTING
EXP. = EXPANSION
F.A. = FORWARD ABUTMENT
FF = FAR FACE
F/F = FACE TO FACE
FT. = FEET
FWD. = FORWARD
HWE = HIGH WATER ELEVATION
IN. = INCHES
IN-BET. = IN-BETWEEN
INCR. = INCREMENT
JT. = JOINT
L.F. = LEFT FORWARD
LT. = LEFT
MID. = MIDDLE
MIN. = MINIMUM

NF = NEAR FACE
NB = NORTHBOUND
NO. = NUMBER
NPCPP = NON-PERFORATED CORRUGATED PLASTIC PIPE
O/O = OUT TO OUT
OHWM = ORDINARY HIGH WATER MARK
PCB = PORTABLE CONCRETE BARRIER
PCPP = PERFORATED CORRUGATED PLASTIC PIPE
PEJF = PREFORMED EXPANSION JOINT FILLER
PL = PLATE
PRESS. = PRESSURE
PROP. = PROPOSED
PVI = POINT OF VERTICAL INTERSECTION
R.A. = REAR ABUTMENT
RAD. = RADIUS
RD. = ROAD
REF. = REFERENCE
REQ'D = REQUIRED
RT. = RIGHT
SB = SOUTHBOUND
SER. = SERIES
SHLDR. = SHOULDER
SPA. = SPACES
SQ. = SQUARE
STA. = STATION
STR = STRAIGHT
SUPER. = SUPERSTRUCTURE
T = TOP
TEMP. = TEMPORARY
T&B = TOP AND BOTTOM
T/T = TOE TO TOE
TYP. = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE
VAR. = VARIES
VERT. = VERTICAL
W/ = WITH

SFN	
7561157	
DESIGN AGENCY	
	
DESIGNER	CHECKER
ASA	AMT
REVIEWER	
DWS 05/30/23	
PROJECT ID	
114201	
SUBSET	TOTAL
3	28
SHEET	TOTAL
41	72


BRIDGE ESTIMATED QUANTITIES									
ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	ABUT.	PIER	SUPERSTRUCTURE	GENERAL	SHEET NO.
202	11002		LUMP	STRUCTURE REMOVED, OVER 20 FOOT SPAN					
202	23500		SQ YD	WEARING COURSE REMOVED					
503	11100		LUMP	COFFERDAMS AND EXCAVATION BRACING					
503	21300		LUMP	UNCLASSIFIED EXCAVATION					
505	11100		LUMP	PILE DRIVING EQUIPMENT MOBILIZATION					
507	00600		FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN					
507	00650		FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED					
509	10000		POUND	EPOXY COATED REINFORCING STEEL					
511	33500		EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE					
511	34446		CU YD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK					
511	42012		CU YD	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS					
511	43512		CU YD	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING					
511	46510		CU YD	CLASS QC1 CONCRETE, FOOTING					
512	10050		SQ YD	SEALING OF CONCRETE SURFACES (NON-EPOXY)					
512	10100		SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)					
513	10260		LB	STRUCTURAL STEEL MEMBERS, LEVEL 3					
513	20000		EACH	WELDED SHEAR STUD CONNECTORS					
516	11210		FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL					
516	13600		SQ FT	1" PREFORMED EXPANSION JOINT FILLER					
516	13900		SQ FT	2" PREFORMED EXPANSION JOINT FILLER					
516	14020		FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL					
516	44100		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (13" X 14" X 2.4184") (14" X 15" X 2" LOAD PLATE)					
516	44100		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (13" X 14" X 2.4184") (14" X 21" X 1.5" LOAD PLATE)					
516	44100		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (13" X 19" X 2.4184") (14" X 20" X 2" LOAD PLATE)					
516	44100		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (13" X 19" X 2.4184") (14" X 26" X 2" LOAD PLATE)					
517	75120		FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING)					
518	21200		CU YD	POROUS BACKFILL WITH GEOTEXTILE FABRIC					
518	40000		FT	6" PERFORATED PLASTIC PIPE					
518	40010		FT	6" NON PERFORATED PLASTIC PIPE, INCLUDING SPECIALS					
523	20000		EACH	DYNAMIC LOAD TESTING					
526	15000		SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=13")					
526	25001		SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN					
526	90010		FT	TYPE A INSTALLATION					
601	20000		SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION					
607	39920		FT	VANDAL PROTECTION FENCE, 10' CURVED, COATED FABRIC					

QUANTITIES CALCULATED BY:
QUANTITIES REVIEWD BY:

ESTIMATED QUANTITIES
BRIDGE NO. SHE-SPRUC-0227
SPRUCE AVENUE OVER CSX TRANSPORTATION

SFN
7561157

DESIGN AGENCY



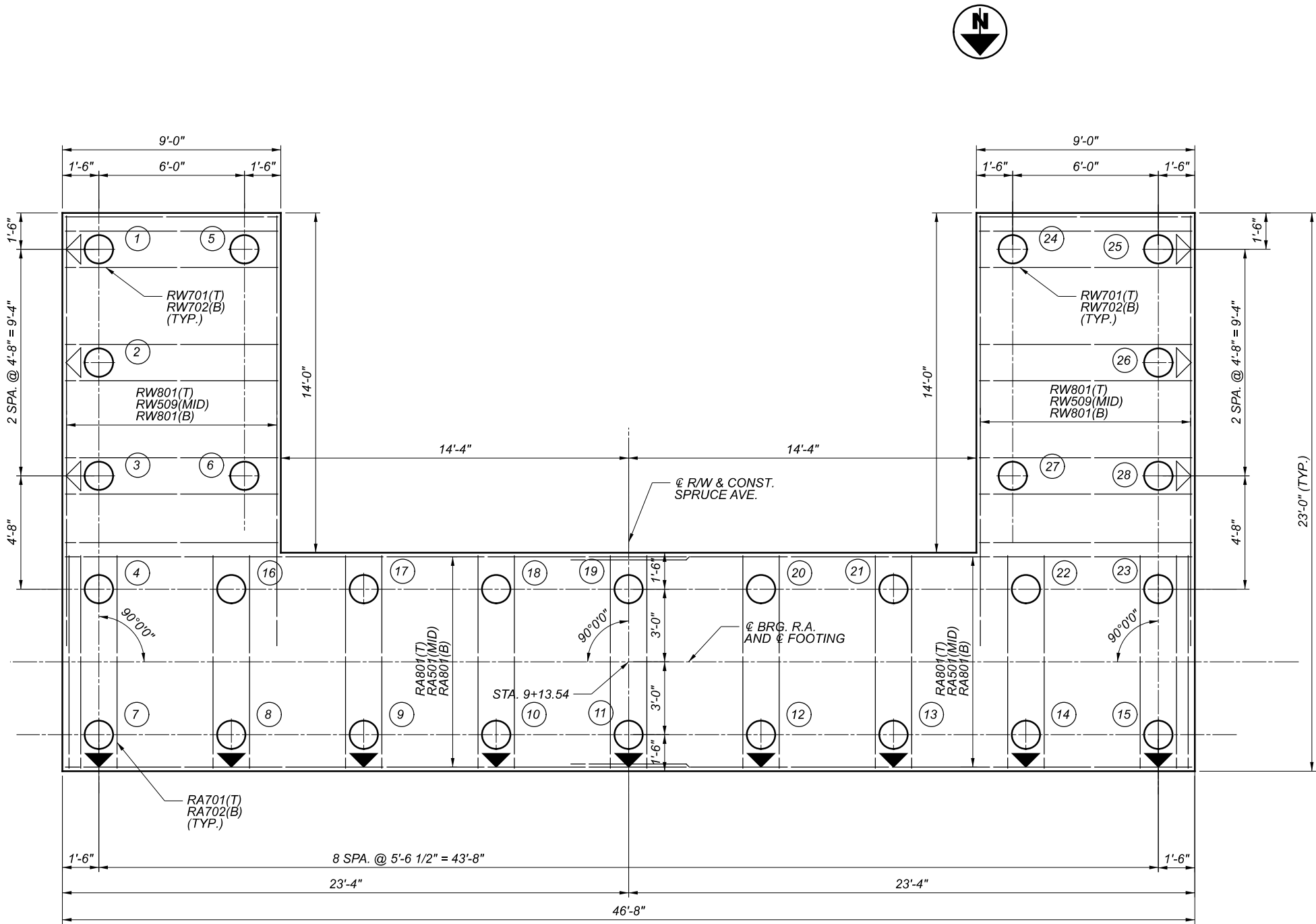
DESIGNER	CHECKER
JLM	AMT

REVIEWER
DWS 05/30/23

PROJECT ID
114201

SUBSET	TOTAL
4	28

SHEET	TOTAL
42	72



REAR ABUTMENT
FOOTING PLAN

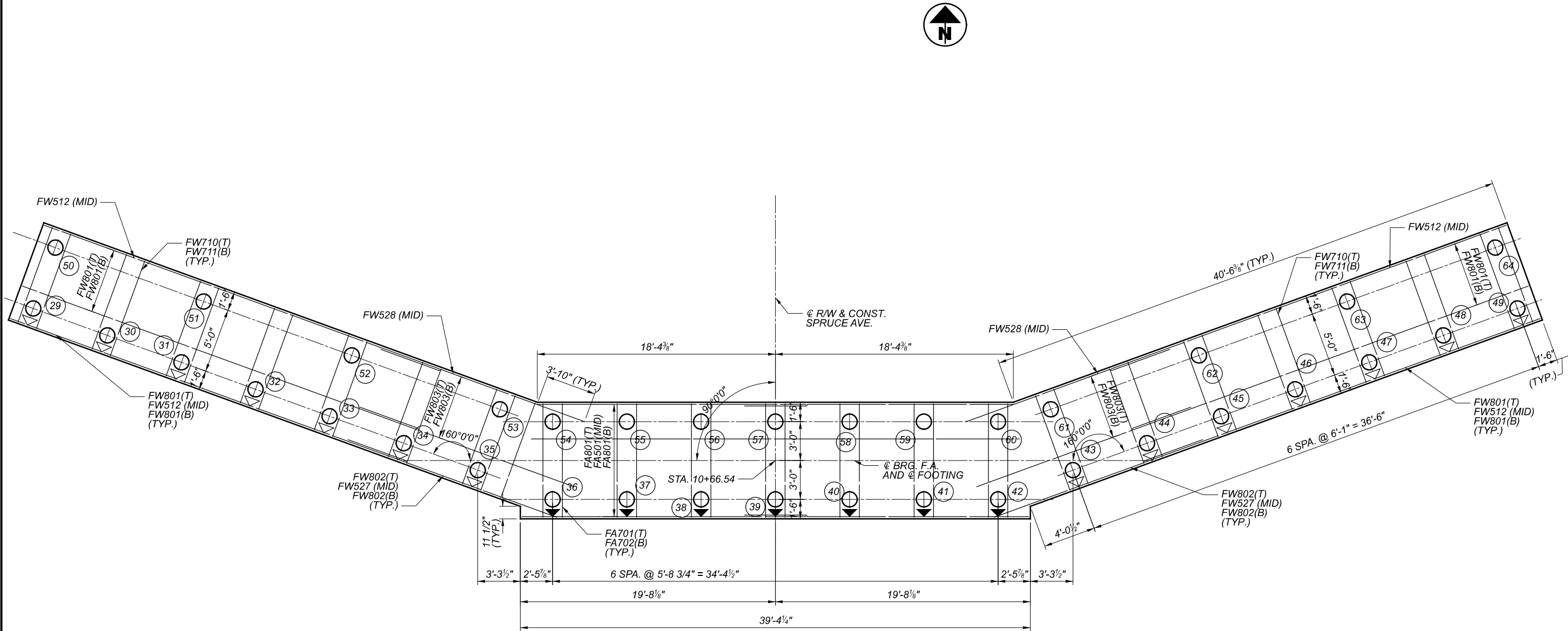
LEGEND

- (X) PILE NUMBER
- 14" C.I.P.R.C. PILE BATTERED AT 5:1
- 14" C.I.P.R.C. PILE BATTERED AT 4:1
- 14" C.I.P.R.C. PILE

MINIMUM LAP LENGTHS

#5 BAR - 2'-5"
#8 BAR - 4'-9"

NOTE:
1. FOR REINFORCING LIST, SEE 28 OF 28.



FORWARD ABUTMENT
FOOTING PLAN

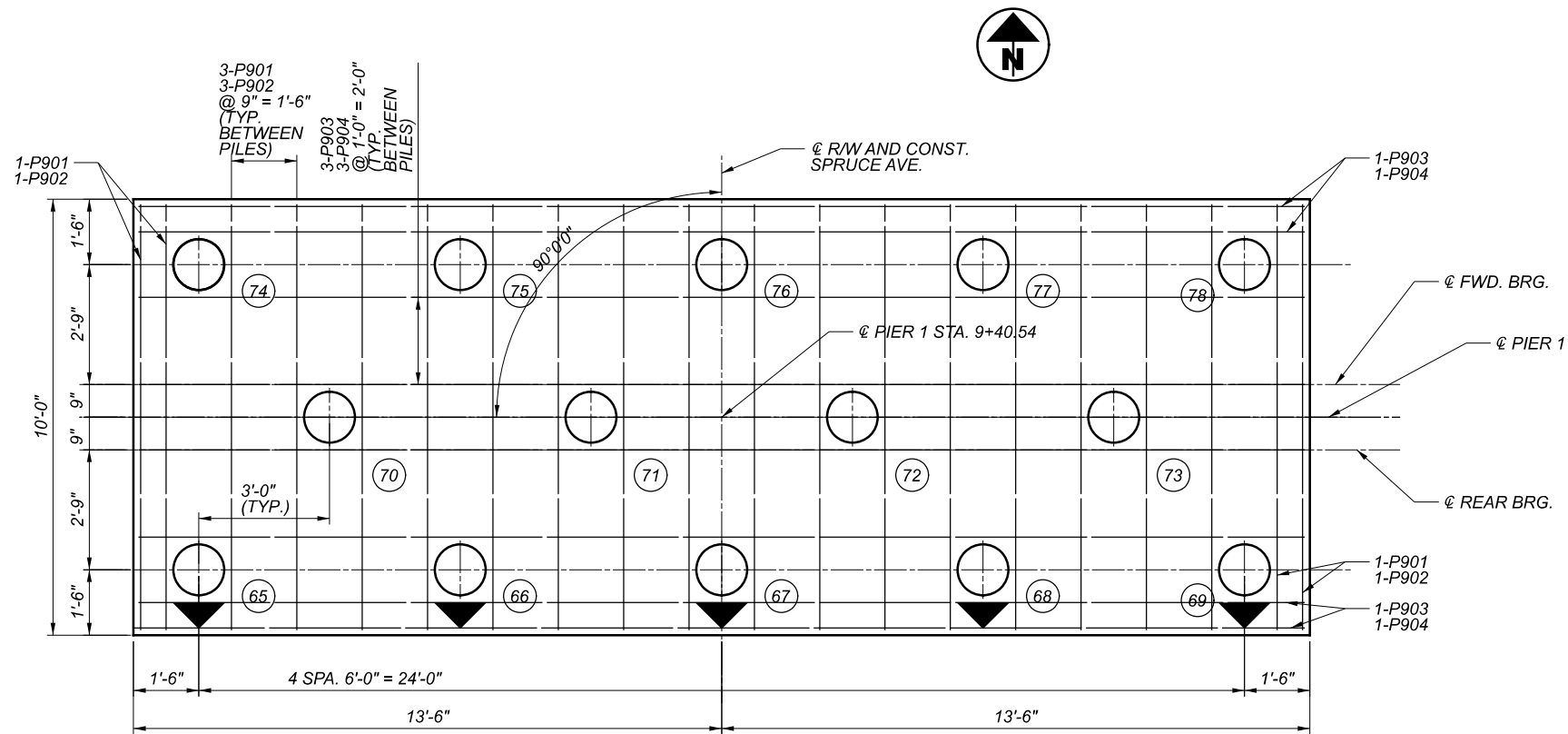
LEGEND

- (X) PILE NUMBER
- 14" C.I.P.R.C. PILE BATTERED AT 5:1
- 14" C.I.P.R.C. PILE BATTERED AT 4:1
- 14" C.I.P.R.C. PILE

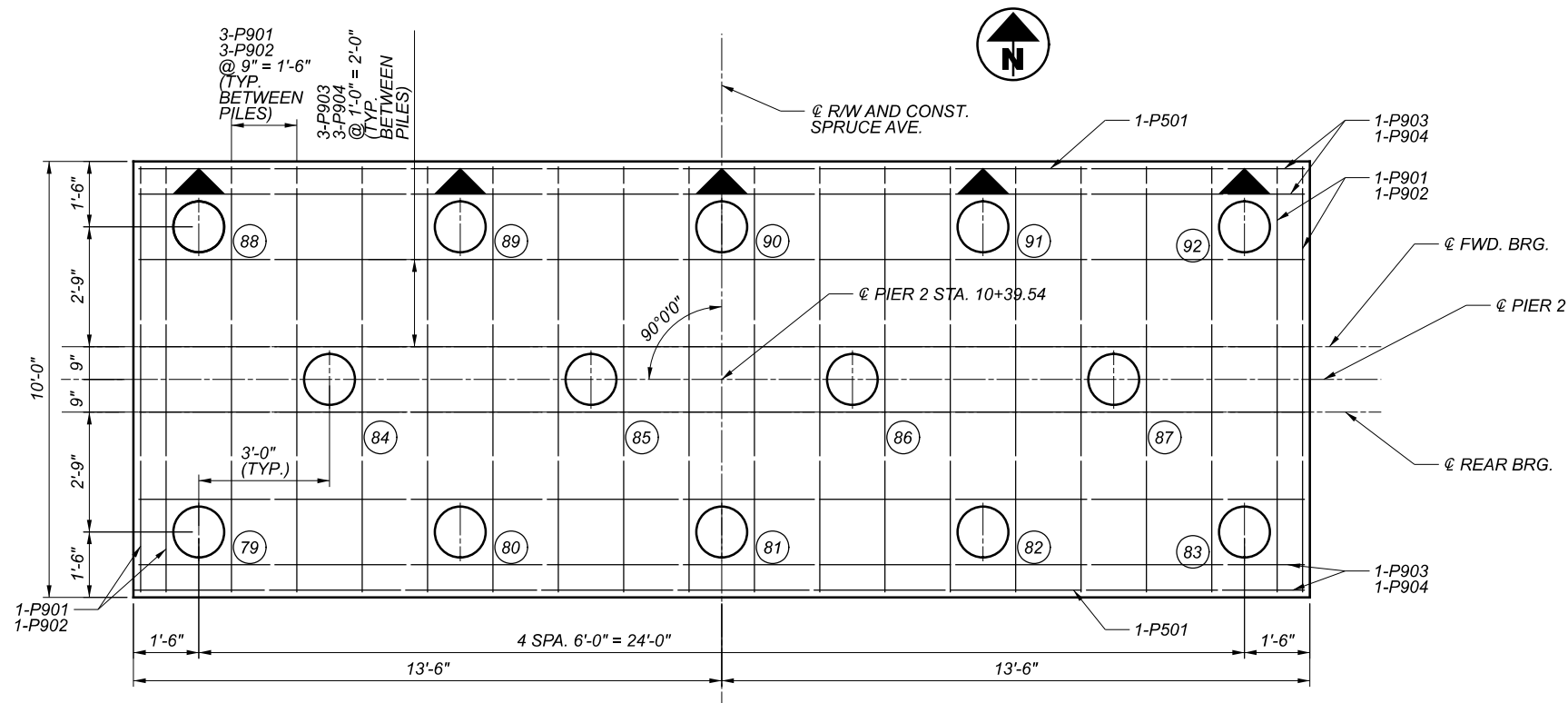
MINIMUM LAP LENGTHS

#5 BAR - 2'-5"
#8 BAR - 4'-9"

NOTE:
1. FOR REINFORCING LIST, SEE SHEET 28 OF 28.



PIER 1 FOOTING PLAN



PIER 2 FOOTING PLAN

LEGEND

- (X) PILE NUMBER
- 14" C.I.P.R.C. PILE BATTERED AT 5:1
- 14" C.I.P.R.C. PILE

MINIMUM LAP LENGTHS

#5 BAR - 2'-5"
#8 BAR - 4'-9"

NOTE:
1. FOR REINFORCING LIST, SEE SHEET 28 OF 28.

SFN
7561157

DESIGN AGENCY



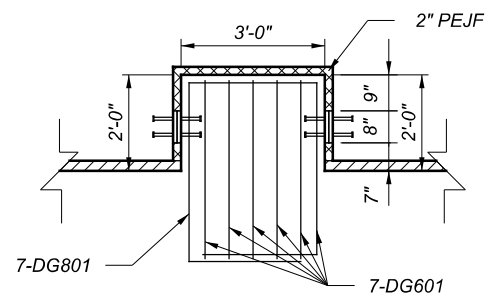
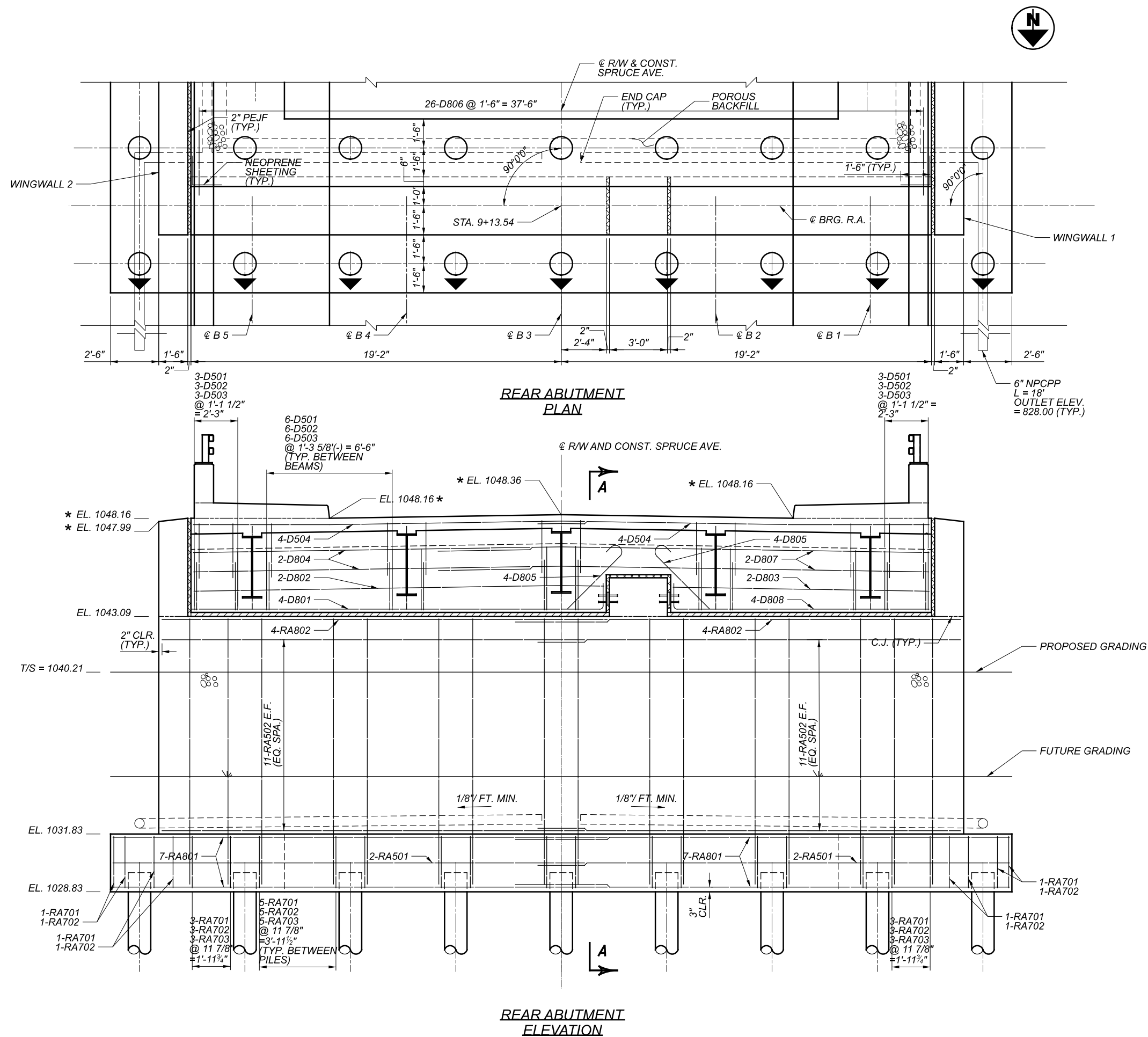
DESIGNER CHECKER
JLM NRP

REVIEWER
DWS 05/30/23

PROJECT ID
114201

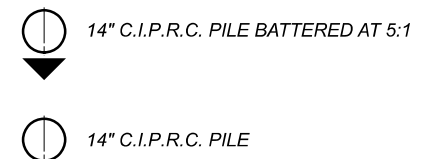
SUBSET TOTAL
7 28

SHEET TOTAL
45 72



* ELEVATION GIVEN AT CENTERLINE OF BEARING

LEGEND

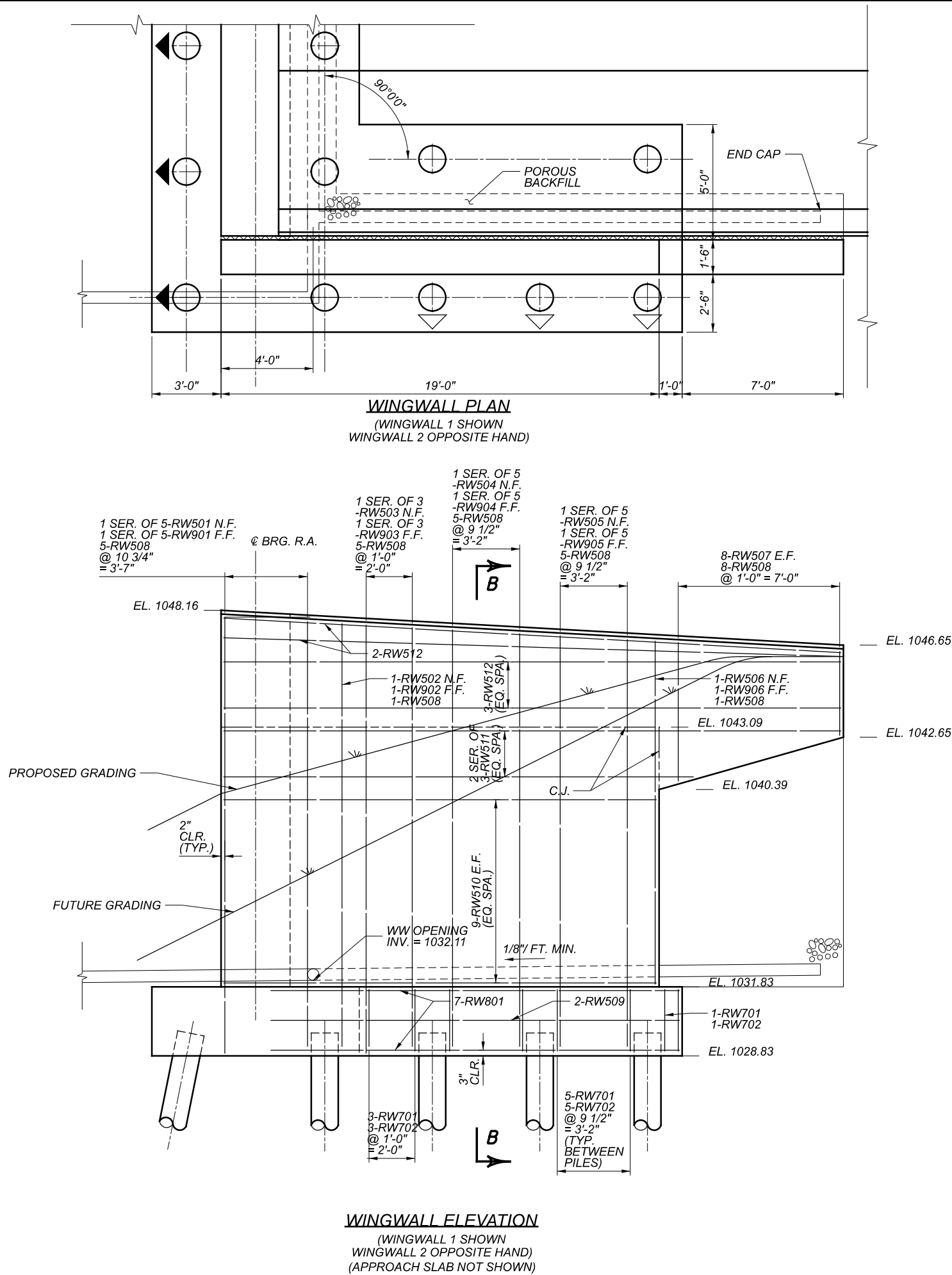


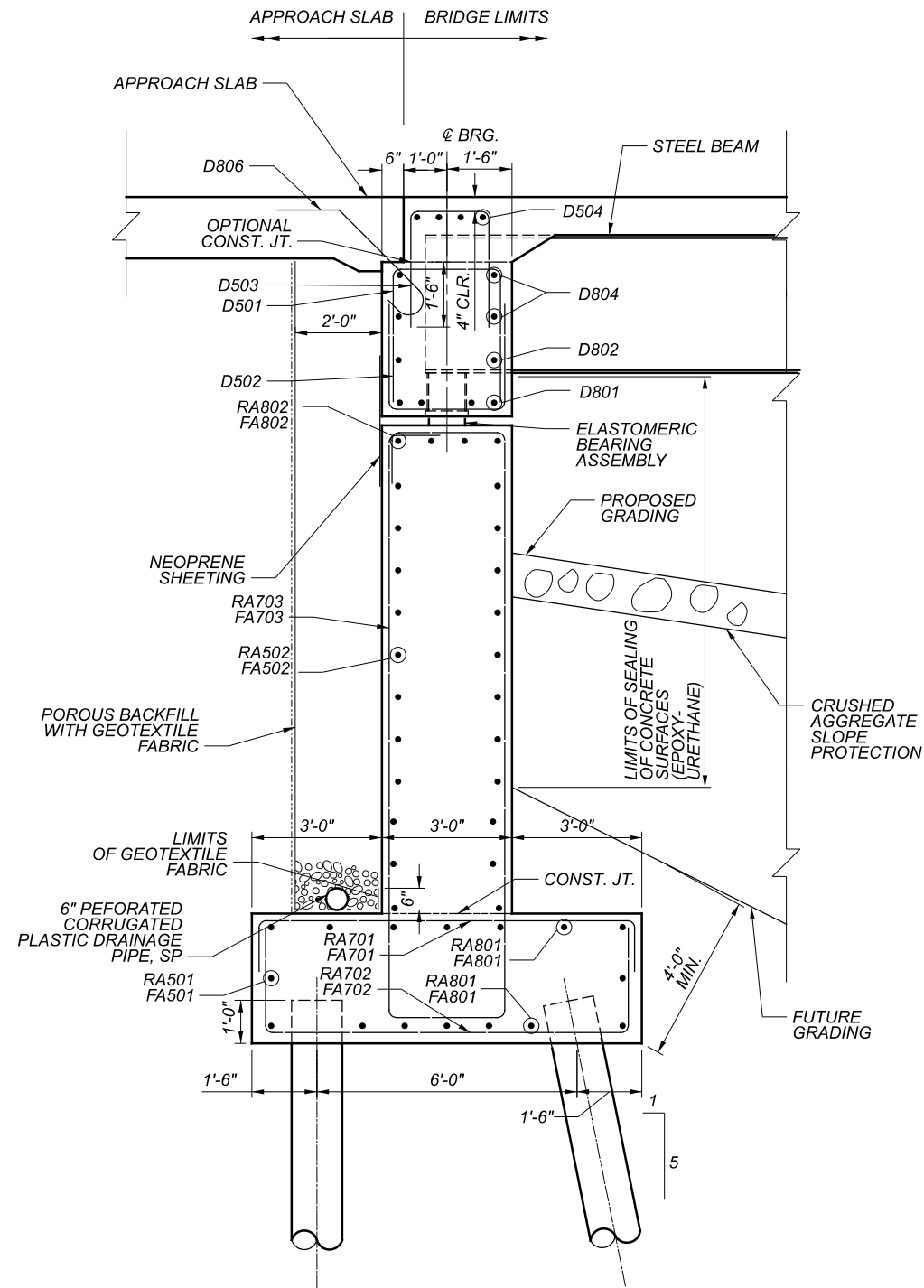
MINIMUM LAP LENGTHS

#5 BAR - 2'-5"
 #8 BAR - 4'-9"

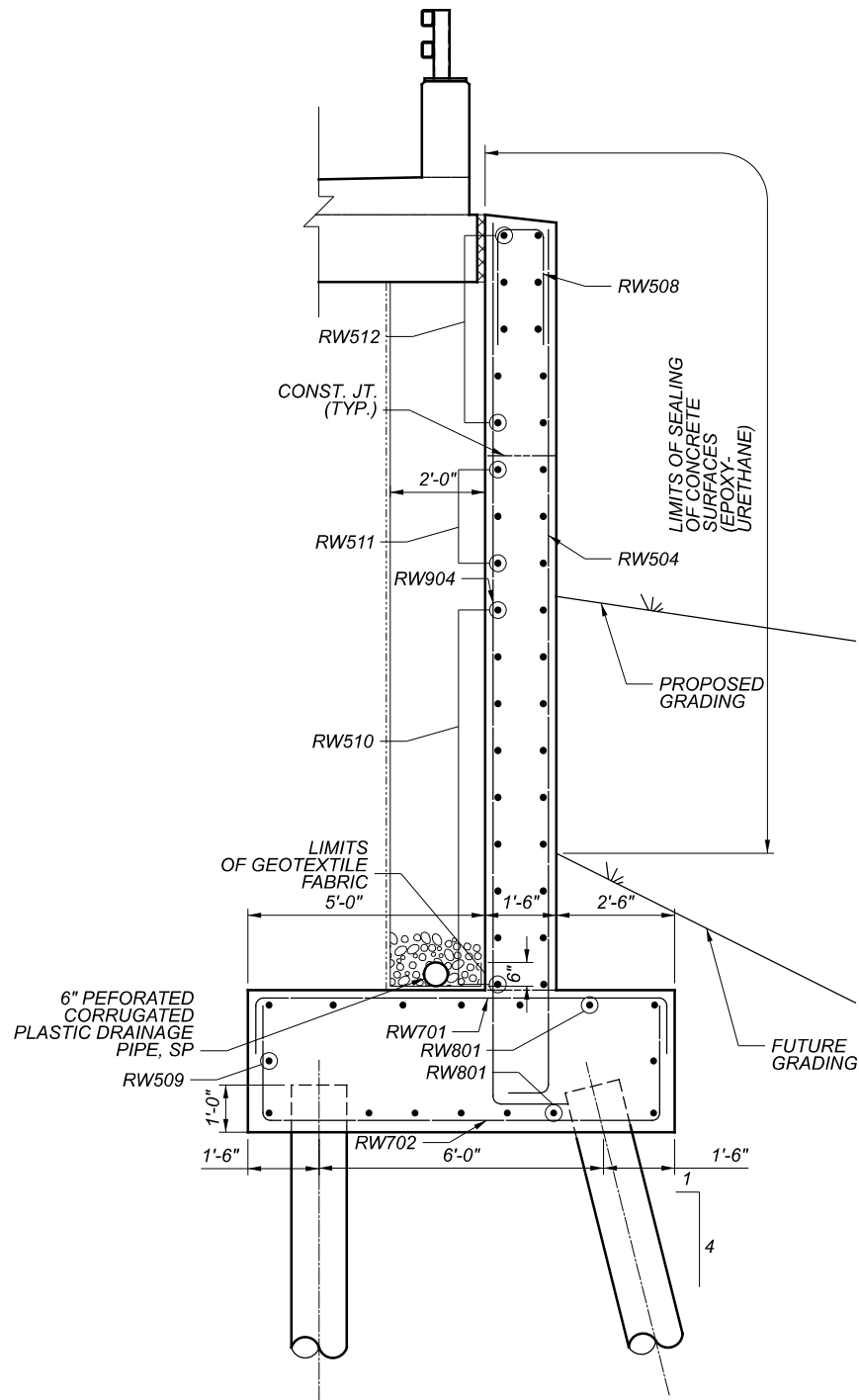
NOTE:

- FOR REINFORCING LIST, SEE SHEET 28 OF 28.
- FOR SECTION A-A, SEE SHEET 10 OF 28.
- FOR WINGWALLS PLAN AND ELEVATION, SEE SHEET 9 OF 28.
- ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON SICD-1-96 FOR STEEL SUPERSTRUCTURES AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

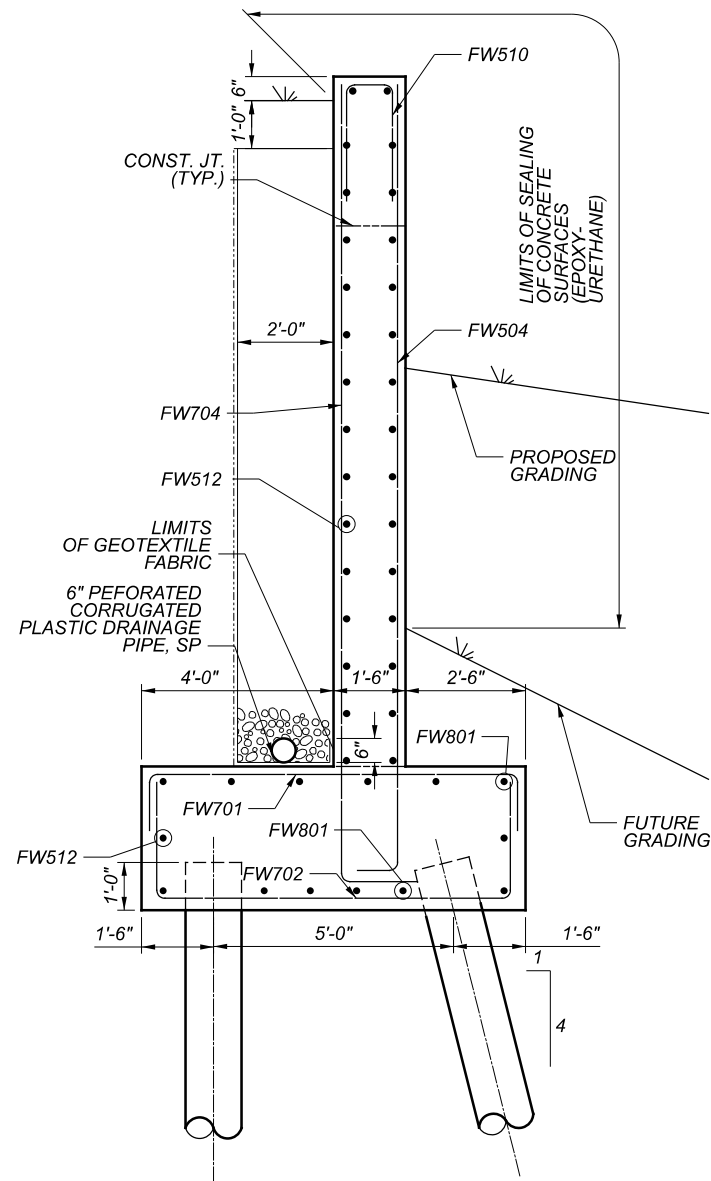




ABUTMENT
TYPICAL SECTION
 (SECTION A-A)

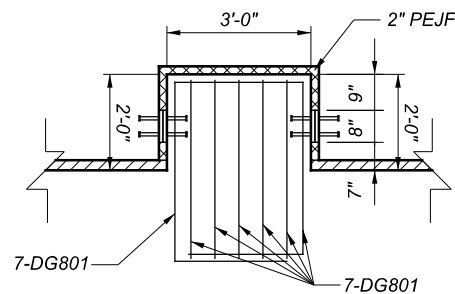
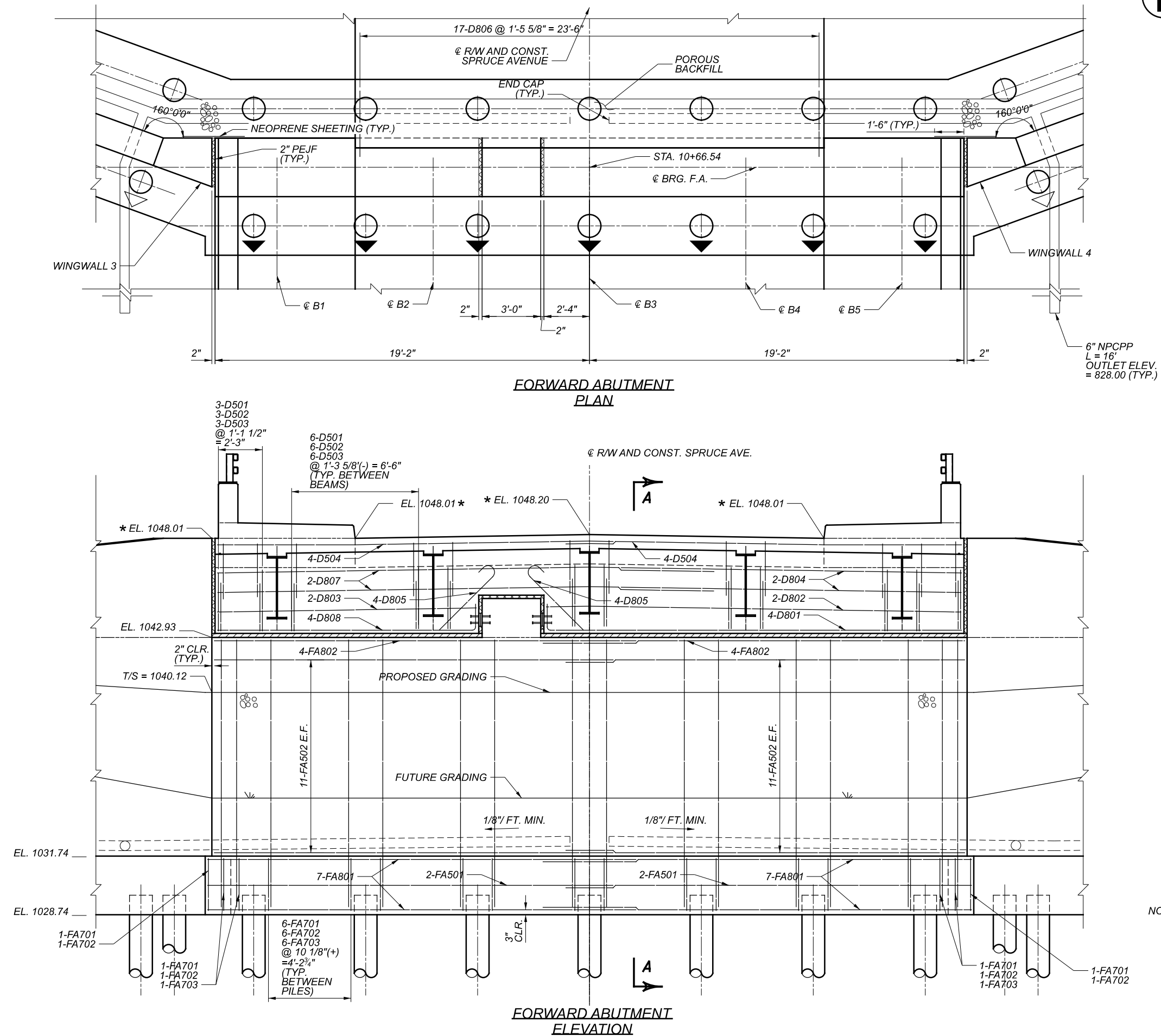


WINGWALL
TYPICAL SECTION
 (SECTION B-B)



WINGWALL
TYPICAL SECTION
 (SECTION C-C)



**DIAPHRAGM GUIDE DETAIL**

* ELEVATION GIVEN AT CENTERLINE OF BEARING

LEGEND

- 14" C.I.P.R.C. PILE BATTERED AT 5:1
- 14" C.I.P.R.C. PILE BATTERED AT 4:1
- 14" C.I.P.R.C. PILE

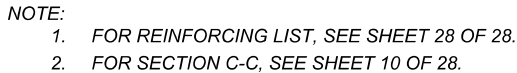
MINIMUM LAP LENGTHS

- #5 BAR - 2'-5"
- #8 BAR - 4'-9"

NOTE:

- FOR REINFORCING LIST, SEE SHEET 28 OF 28.
- FOR SECTION A-A, SEE SHEET 10 OF 28.
- ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASE THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON SICD-1-96 FOR STEEL SUPERSTRUCTURES AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

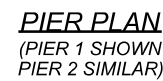






#5 BAR - 2'-5"
#8 BAR - 4'-9"



DESIGNER	CHECKER
JLM	NRP
REVIEWER	
DWS 05/30/23	
PROJECT ID	
114201	
SUBSET	TOTAL
12	28
SHEET	TOTAL
50	72



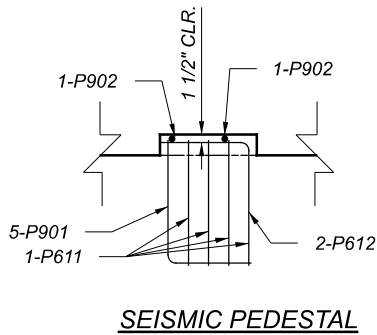
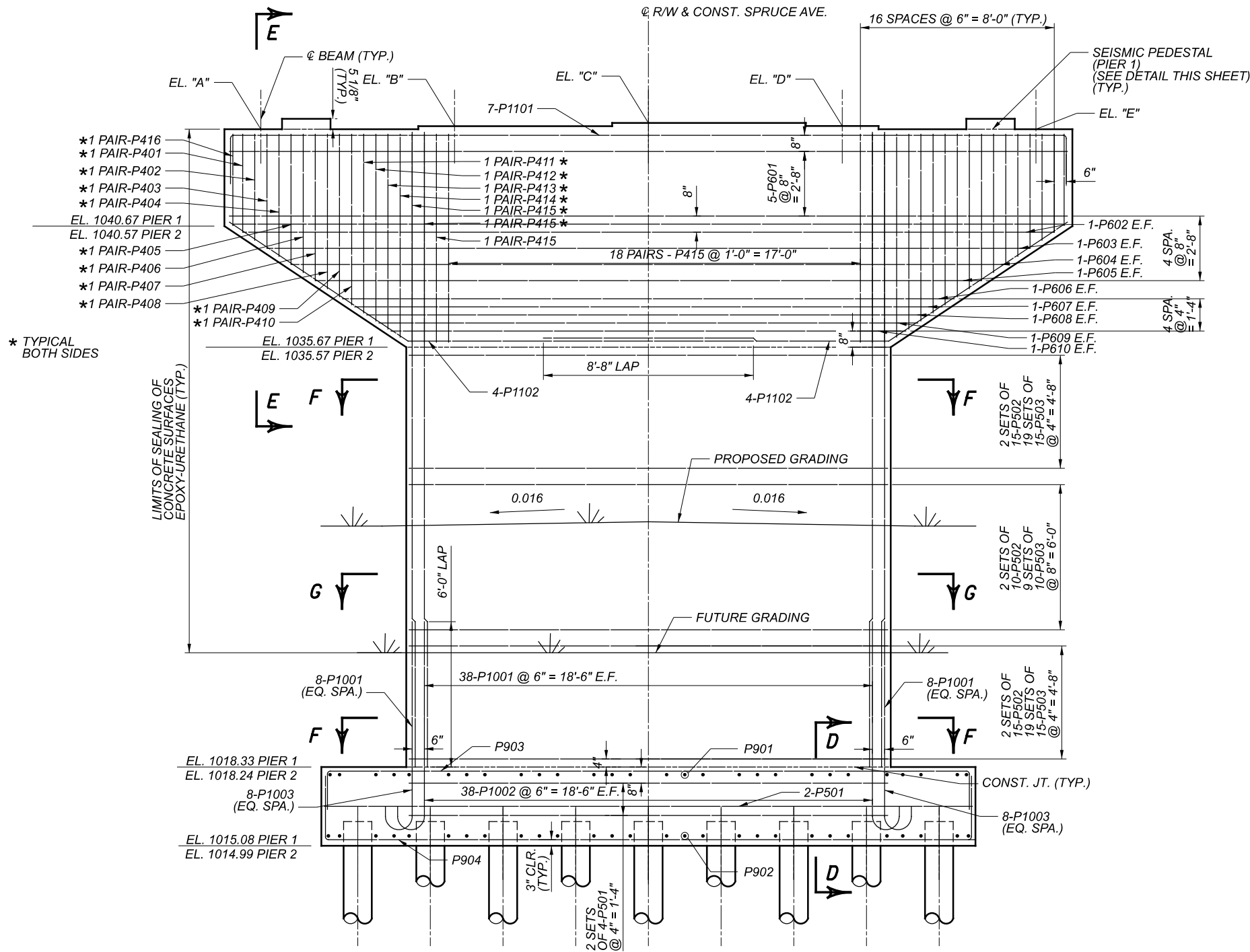
*  14" C.I.P.R.C. PILE BATTERED AT 5:1

 14" C.I.P.R.C. PILE

#5 BAR - 2'-5"

NOTE:

1. FOR REINFORCING LIST, SEE SHEET 28 OF 28.
2. FOR ELEVATION VIEW, SEE SHEET 14 OF 28.

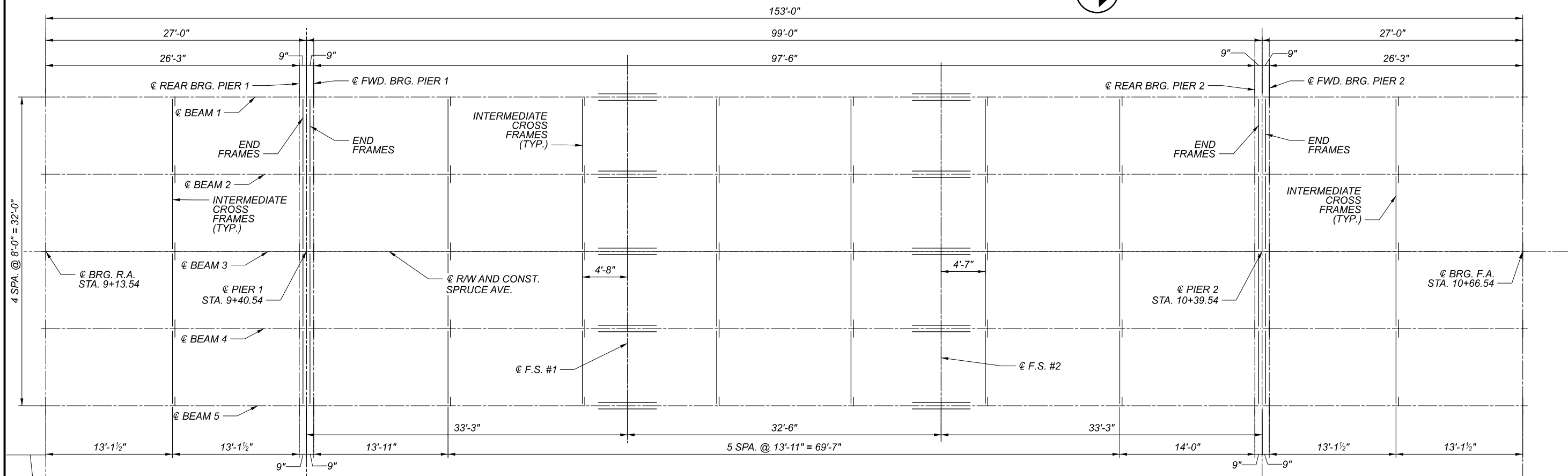


PIER ELEVATION
(PIER 1 SHOWN
PIER 2 SIMILAR)

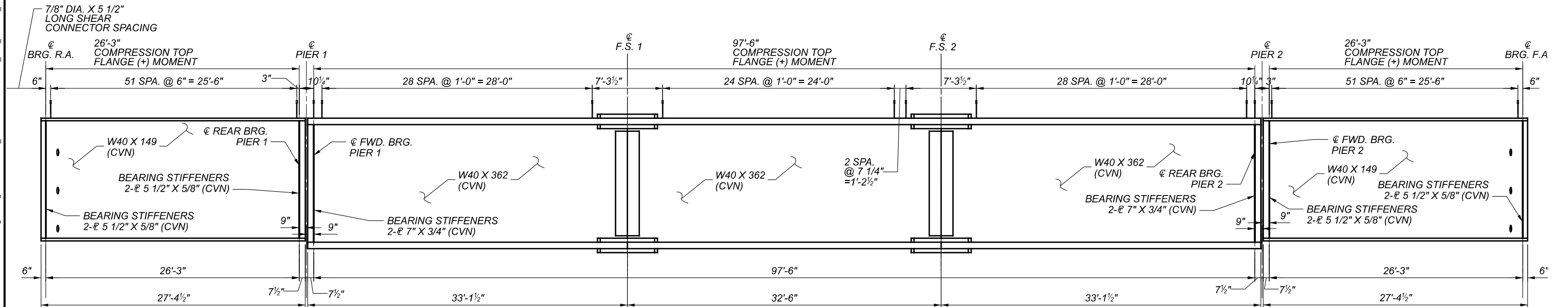
PIER SEAT ELEVATIONS					
LOCATION	"A"	"B"	"C"	"D"	"E"
PIER 1 ELEVATION	1044.67	1044.80	1044.93	1044.80	1044.67
PIER 2 ELEVATION	1044.57	1044.70	1044.82	1044.70	1044.57

MINIMUM LAP LENGTHS
#5 BAR - 2'-5"

- NOTE:
- FOR REINFORCING LIST, SEE SHEET 28 OF 28.
 - FOR SECTIONS D-D THROUGH G-G, SEE SHEET 13 OF 28.
 - BRIDGE SEAT REINFORCEMENT, SETTING ANCHORS: ACCURATELY PLACE CONCRETE REINFORCEMENT IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.



FRAMING PLAN



BEAM ELEVATION

NOTES:

- FOR CROSSFRAME DETAILS AND ENDFRAME DETAILS, SEE SHEET 17 OF 28. FOR FIELD SPICE DETAILS AND BEAM DETAILS, SEE SHEET 16 OF 28.
- WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- 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 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
- REPAIR GALVANIZED COATINGS DAMAGED DURING FABRICATION AND CONSTRUCTION IN ACCORDANCE WITH 516.03 AND 711.02.

SFN

7561157

DESIGN AGENCY



DESIGNER

JLM

SJM

REVIEWER

DWS 05/30/23

PROJECT ID

114201

SUBSET

15

TOTAL

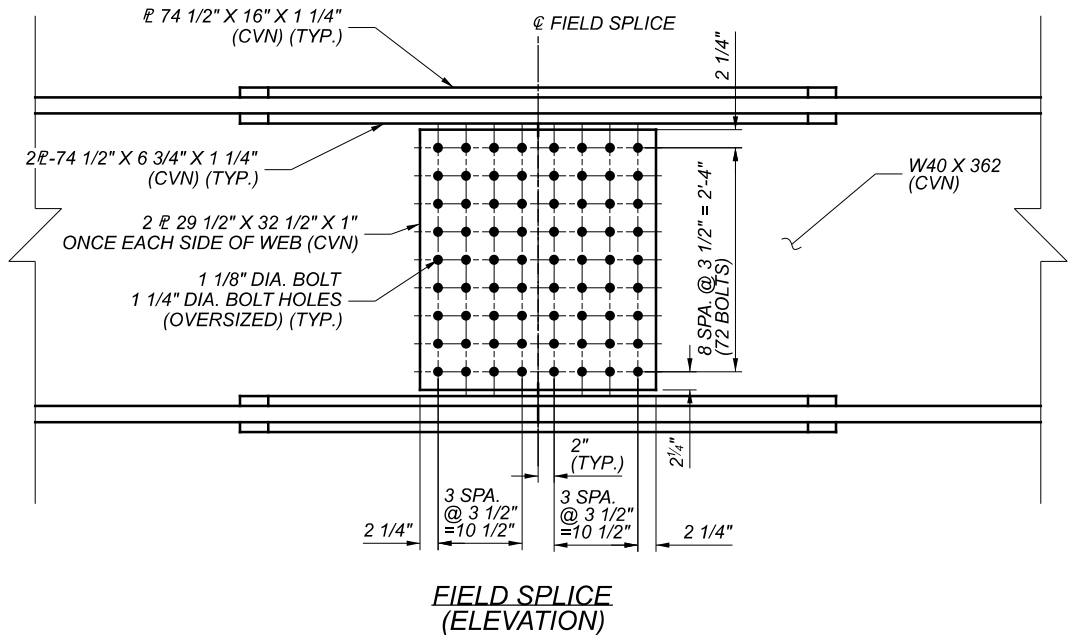
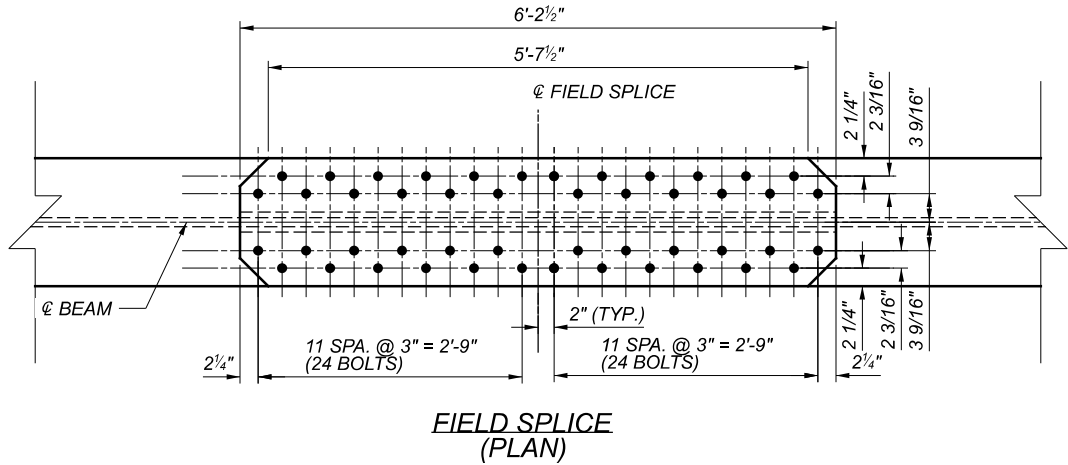
28

SHEET

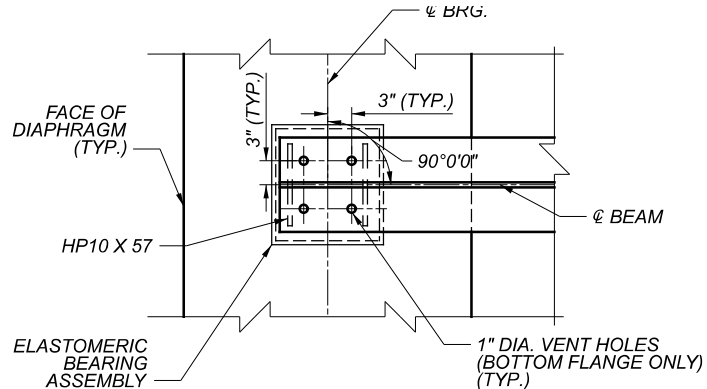
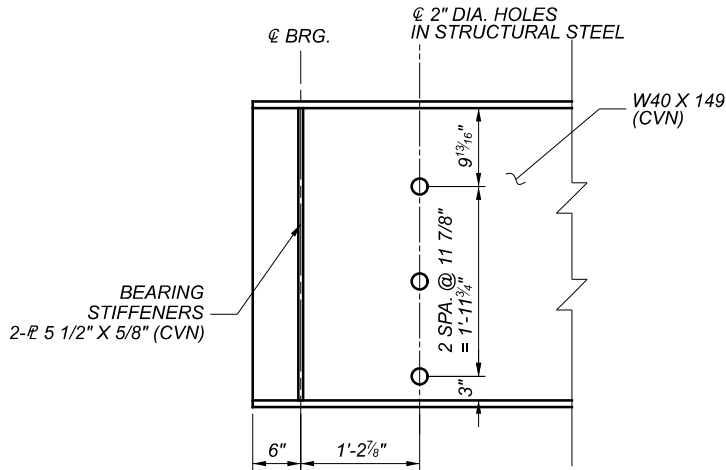
53

TOTAL

72

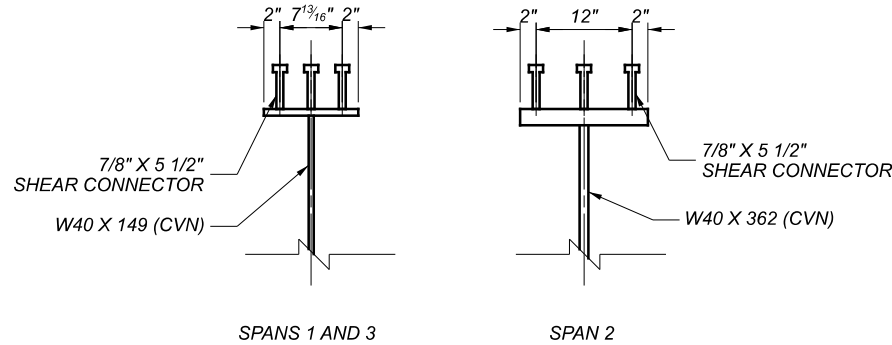


3" STRIP SEAL GLAND		
TEMPERATURE (° F)	DIMENSION "A" (INCHES)	
	PIER 1	PIER 2
30	1 7/8	2
40	1 3/4	2
50	1 11/16	2
60	1 5/8	2
70	1 9/16	2
80	1 1/2	2
90	1 3/8	2

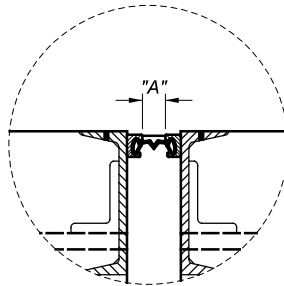


BEAM END DETAIL - ELEVATION

BEAM END DETAIL - PLAN



SHEAR CONNECTOR DETAILS



NOTE:
THE MINIMUM JOINT OPENING (DIMENSION "A") AT TIME OF SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 1 1/2". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE MINIMUM 1 1/2" OPENING.

EXPANSION JOINT DETAILS

FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. EXJ-4-87

NOTES:

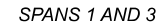
- ALL BOLTED SPLICE FASTENERS ARE 1 1/8" DIAMETER, TYPE 1 HIGH STRENGTH BOLTS, ASTM F3125, GRADE A325 IN OVERSIZED 1 1/4" HOLES.
- CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- PLACE BOLT HEAD ON EXPOSED SIDE OF FASCIA GIRDER.
- FOR FIELD SPLICE LOCATIONS, SEE FRAMING PLAN ON SHEET 15 OF 28.
- ALL STEEL SHALL BE ASTM A709 AND BE CLEANED AND COATED THE SAME AS ATTACHED STRUCTURAL STEEL. GALVANIZE ALL STEEL IN ACCORDANCE WITH 711.02.
- REPAIR GALVANIZED COATINGS DAMAGED DURING FABRICATION AND CONSTRUCTION IN ACCORDANCE WITH 516.03 AND 711.02.
- ALL WELDS NOTED WITHIN THESE DETAILS SHALL BE PERFORMED IN THE SHOP PRIOR TO GALVANIZATION.
- ALL HOLES SHALL BE PRE-DRILLED IN THE SHOP.
- INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF THE BEAMS ON BEARINGS TO ASSURE POSITIVE BEARING IS MAINTAINED.



SPAN 2

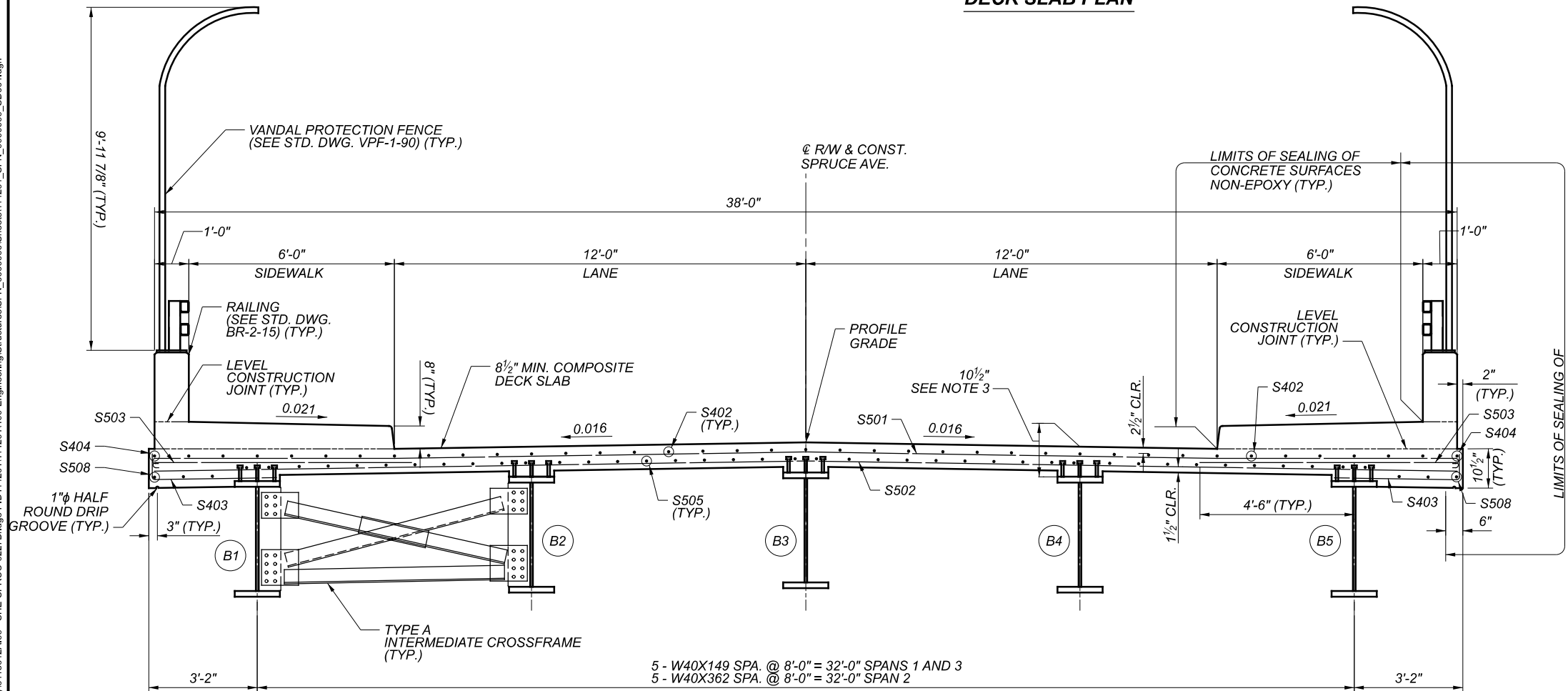


(TYPE A)



1. CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
2. ALL STEEL SHALL BE ASTM A709 AND BE CLEANED AND COATED THE SAME AS ATTACHED STRUCTURAL STEEL. GALVANIZE ALL STEEL IN ACCORDANCE WITH 711.02.
3. REPAIR GALVANIZED COATINGS DAMAGED DURING FABRICATION AND CONSTRUCTION IN ACCORDANCE WITH 516.03 AND 711.02.
4. ALL WELDS NOTED WITHIN THESE DETAILS SHALL BE PERFORMED IN THE SHOP PRIOR TO GALVANIZATION EXCEPT AS NOTED.
5. INSTALL STIFFENERS ACCORDING TO 513. STIFFENERS SHALL BE FILLET WELDED TO THE FLANGE AND WEB ON BOTH SIDES OF THE STIFFENER.

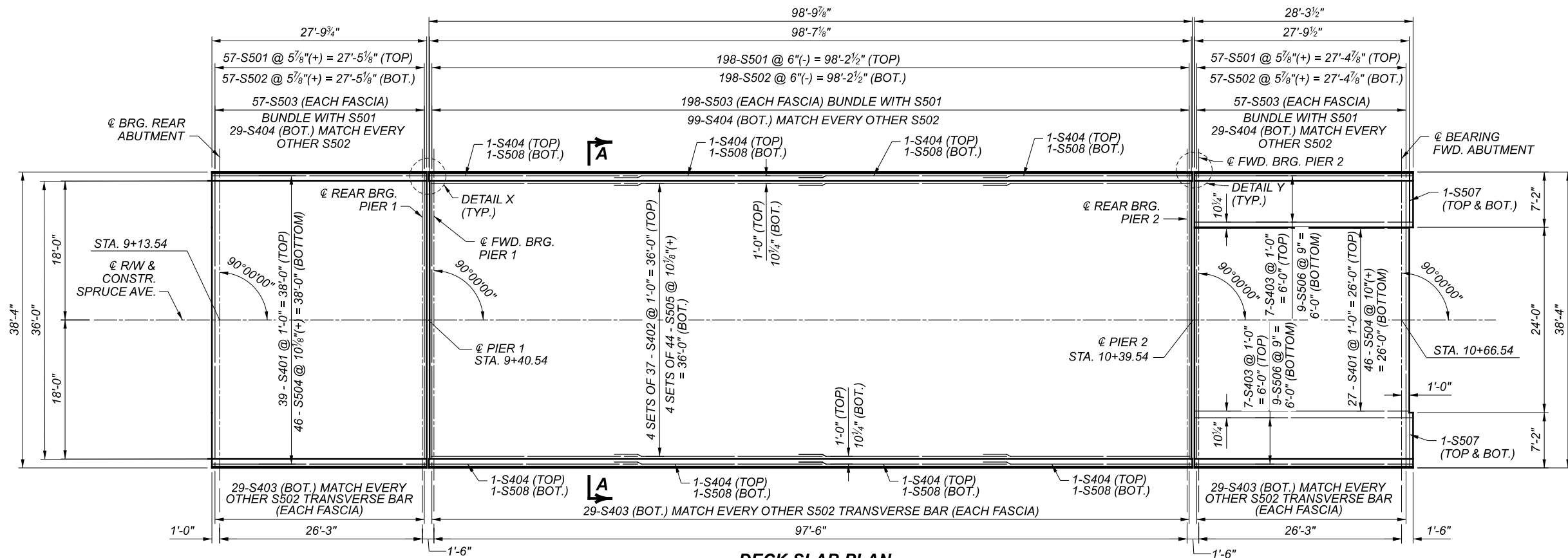
6. ALL HOLES SHALL BE PRE-DRILLED IN THE SHOP. CROSSFRAME HOLES SHALL BE 1 1/8" DIA. HOLES. STIFFENERS HOLES SHALL BE 1" DIA. HOLES.
7. FOR ADDITIONAL DETAILS SEE STANDARD DRAWING GSD-1-19.
8. THE 1/2" THICK PLATE FOR THE ENDFRAMES IS PART OF THE EXPANSION JOINT SYSTEM. SEE STANDARD DRAWING EXJ-4-87 FOR MATERIAL AND COATING REQUIREMENTS.



SECTION A-A

(SPAN 2 SHOWN, SPANS 1 & 3 SIMILAR)

DECK SLAB PLAN



NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3 OF 28.
2. FOR REINFORCING STEEL LIST, SEE SHEET 28 OF 28.
3. 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 HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT FINISHED GRADE.
4. FOR WALK AND PARAPET REINFORCING, SEE SHEET 22 OF 28.
5. FOR DETAIL X&Y, SEE SHEET 27 OF 28.

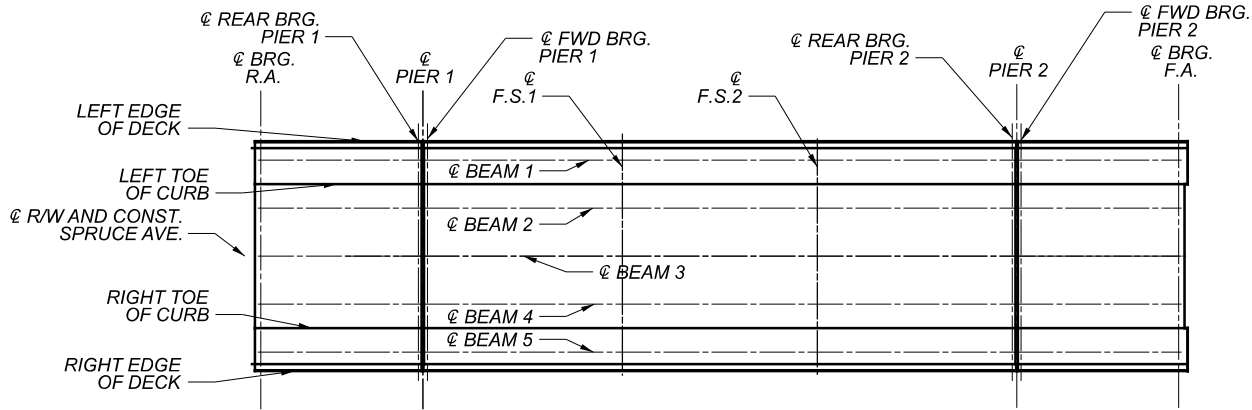
MINIMUM LAP LENGTH

NO. 5 BAR = 2'-5"

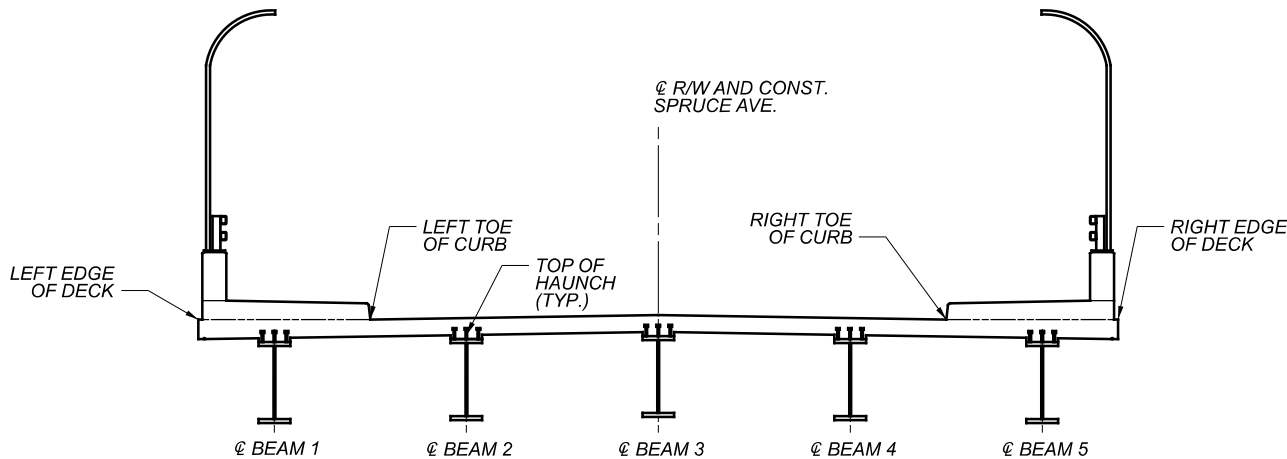


FINAL DECK SURFACE STATIONS AND ELEVATIONS										
	LOCATION	LEFT EDGE OF DECK	CL BEAM 1	LEFT TOE OF CURB	CL BEAM 2	PROFILE GRADE and CL Beam 3	CL Beam 4	RIGHT TOE OF CURB	CL BEAM 5	RIGHT EDGE OF DECK
SPAN 1	CL BRG. R.A.	9+13.54 1048.16	9+13.54 1048.16	9+13.54 1048.16	9+13.54 1048.23	9+13.54 1048.36	9+13.54 1048.23	9+13.54 1048.16	9+13.54 1048.16	9+13.54 1048.16
	0.25	9+20.10 1048.49	9+20.10 1048.49	9+20.10 1048.49	9+20.10 1048.56	9+20.10 1048.68	9+20.10 1048.56	9+20.10 1048.49	9+20.10 1048.49	9+20.10 1048.49
	0.5	9+26.67 1048.79	9+26.67 1048.79	9+26.67 1048.79	9+26.67 1048.86	9+26.67 1048.98	9+26.67 1048.86	9+26.67 1048.79	9+26.67 1048.79	9+26.67 1048.79
	0.75	9+33.23 1049.06	9+33.23 1049.06	9+33.23 1049.06	9+33.23 1049.13	9+33.23 1049.25	9+33.23 1049.13	9+33.23 1049.06	9+33.23 1049.06	9+33.23 1049.06
	CL REAR BRG. PIER 1	9+39.79 1049.30	9+39.79 1049.30	9+39.79 1049.30	9+39.79 1049.36	9+39.79 1049.49	9+39.79 1049.36	9+39.79 1049.30	9+39.79 1049.30	9+39.79 1049.30
SPAN 2	CL FWD BRG. PIER 1	9+41.29 1049.35	9+41.29 1049.35	9+41.29 1049.35	9+41.29 1049.42	9+41.29 1049.54	9+41.29 1049.42	9+41.29 1049.35	9+41.29 1049.35	9+41.29 1049.35
	0.1	9+51.04 1049.64	9+51.04 1049.64	9+51.04 1049.64	9+51.04 1049.70	9+51.04 1049.83	9+51.04 1049.70	9+51.04 1049.64	9+51.04 1049.64	9+51.04 1049.64
	0.2	9+60.79 1049.86	9+60.79 1049.86	9+60.79 1049.86	9+60.79 1049.93	9+60.79 1050.06	9+60.79 1049.93	9+60.79 1049.86	9+60.79 1049.86	9+60.79 1049.86
	0.3	9+70.54 1050.02	9+70.54 1050.02	9+70.54 1050.02	9+70.54 1050.08	9+70.54 1050.21	9+70.54 1050.08	9+70.54 1050.02	9+70.54 1050.02	9+70.54 1050.02
	CL FIELD SPLICE #1	9+73.79 1050.06	9+73.79 1050.06	9+73.79 1050.06	9+73.79 1050.12	9+73.79 1050.25	9+73.79 1050.12	9+73.79 1050.06	9+73.79 1050.06	9+73.79 1050.06
	0.4	9+80.29 1050.11	9+80.29 1050.11	9+80.29 1050.11	9+80.29 1050.17	9+80.29 1050.30	9+80.29 1050.17	9+80.29 1050.11	9+80.29 1050.11	9+80.29 1050.11
	0.5	9+90.04 1050.13	9+90.04 1050.13	9+90.04 1050.13	9+90.04 1050.20	9+90.04 1050.32	9+90.04 1050.20	9+90.04 1050.13	9+90.04 1050.13	9+90.04 1050.13
	0.6	9+99.79 1050.09	9+99.79 1050.09	9+99.79 1050.09	9+99.79 1050.15	9+99.79 1050.28	9+99.79 1050.15	9+99.79 1050.09	9+99.79 1050.09	9+99.79 1050.09
	CL FIELD SPLICE #2	10+06.29 1050.02	10+06.29 1050.02	10+06.29 1050.02	10+06.29 1050.09	10+06.29 1050.22	10+06.29 1050.09	10+06.29 1050.02	10+06.29 1050.02	10+06.29 1050.02
	0.7	10+09.54 1049.98	10+09.54 1049.98	10+09.54 1049.98	10+09.54 1050.04	10+09.54 1050.17	10+09.54 1050.04	10+09.54 1049.98	10+09.54 1049.98	10+09.54 1049.98
	0.8	10+19.29 1049.80	10+19.29 1049.80	10+19.29 1049.80	10+19.29 1049.87	10+19.29 1050.00	10+19.29 1049.87	10+19.29 1049.80	10+19.29 1049.80	10+19.29 1049.80
	0.9	10+29.04 1049.56	10+29.04 1049.56	10+29.04 1049.56	10+29.04 1049.62	10+29.04 1049.75	10+29.04 1049.62	10+29.04 1049.56	10+29.04 1049.56	10+29.04 1049.56
	CL REAR BRG. PIER 2	10+38.79 1049.25	10+38.79 1049.25	10+38.79 1049.25	10+38.79 1049.32	10+38.79 1049.44	10+38.79 1049.32	10+38.79 1049.25	10+38.79 1049.25	10+38.79 1049.25
	CL FWD BRG. PIER 2	10+40.29 1049.20	10+40.29 1049.20	10+40.29 1049.20	10+40.29 1049.26	10+40.29 1049.39	10+40.29 1049.26	10+40.29 1049.20	10+40.29 1049.20	10+40.29 1049.20
	0.25	10+46.85 1048.94	10+46.85 1048.94	10+46.85 1048.94	10+46.85 1049.01	10+46.85 1049.14	10+46.85 1049.01	10+46.85 1048.94	10+46.85 1048.94	10+46.85 1048.94
	0.5	10+53.42 1048.66	10+53.42 1048.66	10+53.42 1048.66	10+53.42 1048.73	10+53.42 1048.85	10+53.42 1048.73	10+53.42 1048.66	10+53.42 1048.66	10+53.42 1048.66
SPAN 3	0.75	10+59.98 1048.35	10+59.98 1048.35	10+59.98 1048.35	10+59.98 1048.41	10+59.98 1048.54	10+59.98 1048.41	10+59.98 1048.35	10+59.98 1048.35	10+59.98 1048.35
	CL BRG. F.A.	10+66.54 1048.01	10+66.54 1048.01	10+66.54 1048.01	10+66.54 1048.07	10+66.54 1048.20	10+66.54 1048.07	10+66.54 1048.01	10+66.54 1048.01	10+66.54 1048.01

NOTE: FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.



PLAN VIEW



SECTION VIEW

SCREED STATIONS AND ELEVATIONS						
	LOCATION	LEFT EDGE OF DECK	LEFT TOE OF CURB	PROFILE GRADE	RIGHT TOE OF CURB	RIGHT EDGE OF DECK
SPAN 1	CL BRG. R.A.	9+13.54 1048.16	9+13.54 1048.16	9+13.54 1048.36	9+13.54 1048.16	9+13.54 1048.16
	0.25	9+20.10 1048.50	9+20.10 1048.50	9+20.10 1048.69	9+20.10 1048.50	9+20.10 1048.50
	0.5	9+26.67 1048.80	9+26.67 1048.80	9+26.67 1048.99	9+26.67 1048.80	9+26.67 1048.80
	0.75	9+33.23 1049.06	9+33.23 1049.06	9+33.23 1049.26	9+33.23 1049.06	9+33.23 1049.06
	CL REAR BRG. PIER 1	9+39.79 1049.30	9+39.79 1049.30	9+39.79 1049.49	9+39.79 1049.30	9+39.79 1049.30
	CL FWD BRG. PIER 1	9+41.29 1049.35	9+41.29 1049.35	9+41.29 1049.54	9+41.29 1049.35	9+41.29 1049.35
SPAN 2	0.1	9+51.04 1049.71	9+51.04 1049.72	9+51.04 1049.91	9+51.04 1049.72	9+51.04 1049.71
	0.2	9+60.79 1050.00	9+60.79 1050.01	9+60.79 1050.20	9+60.79 1050.01	9+60.79 1050.00
	0.3	9+70.54 1050.20	9+70.54 1050.22	9+70.54 1050.41	9+70.54 1050.22	9+70.54 1050.20
	CL Field Splice #1	9+73.79 1050.25	9+73.79 1050.26	9+73.79 1050.46	9+73.79 1050.26	9+73.79 1050.25
	0.4	9+80.29 1050.32	9+80.29 1050.34	9+80.29 1050.53	9+80.29 1050.34	9+80.29 1050.32
	0.5	9+90.04 1050.36	9+90.04 1050.37	9+90.04 1050.57	9+90.04 1050.37	9+90.04 1050.36
	0.6	9+99.79 1050.30	9+99.79 1050.32	9+99.79 1050.51	9+99.79 1050.32	9+99.79 1050.30
	CL Field Splice #2	10+06.29 1050.22	10+06.29 1050.23	10+06.29 1050.42	10+06.29 1050.23	10+06.29 1050.22
	0.7	10+09.54 1050.16	10+09.54 1050.18	10+09.54 1050.37	10+09.54 1050.18	10+09.54 1050.16
	0.8	10+19.29 1049.94	10+19.29 1049.95	10+19.29 1050.14	10+19.29 1049.95	10+19.29 1049.94
	0.9	10+29.04 1049.63	10+29.04 1049.64	10+29.04 1049.83	10+29.04 1049.64	10+29.04 1049.63
	CL REAR BRG. PIER 2	10+38.79 1049.25	10+38.79 1049.25	10+38.79 1049.44	10+38.79 1049.25	10+38.79 1049.25
	CL FWD BRG. PIER 2	10+40.29 1049.20	10+40.29 1049.20	10+40.29 1049.39	10+40.29 1049.20	10+40.29 1049.20
	0.25	10+46.85 1048.95	10+46.85 1048.95	10+46.85 1049.14	10+46.85 1048.95	10+46.85 1048.95
	0.5	10+53.42 1048.67	10+53.42 1048.67	10+53.42 1048.86	10+53.42 1048.67	10+53.42 1048.67
	0.75	10+59.98 1048.35	10+59.98 1048.35	10+59.98 1048.54	10+59.98 1048.35	10+59.98 1048.35
SPAN 3	CL BRG. F.A.	10+66.54 1048.01	10+66.54 1048.01	10+66.54 1048.20	10+66.54 1048.01	10+66.54 1048.01

NOTE: SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

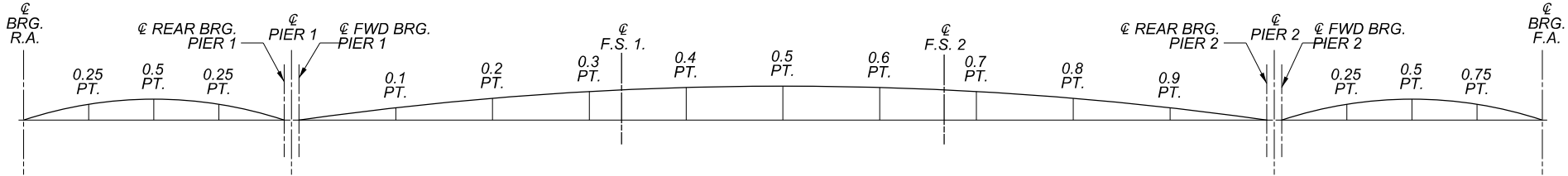
TOP OF HAUNCH STATIONS AND ELEVATIONS						
	LOCATION	CL BEAM 1	CL BEAM 2	PROFILE GRADE and CL BEAM 3	CL BEAM 4	CL BEAM 5
SPAN 1	CL BRG. R.A.	9+13.54 1047.39	9+13.54 1047.52	9+13.54 1047.65	9+13.54 1047.52	9+13.54 1047.39
	0.25	9+20.10 1047.72	9+20.10 1047.85	9+20.10 1047.98	9+20.10 1047.85	9+20.10 1047.72
	0.5	9+26.67 1048.02	9+26.67 1048.15	9+26.67 1048.28	9+26.67 1048.15	9+26.67 1048.02
	0.75	9+33.23 1048.29	9+33.23 1048.42	9+33.23 1048.55	9+33.23 1048.42	9+33.23 1048.29
	CL REAR BRG. PIER 1	9+39.79 1048.53	9+39.79 1048.66	9+39.79 1048.78	9+39.79 1048.66	9+39.79 1048.53
	CL FWD BRG. PIER 1	9+41.29 1048.58	9+41.29 1048.71	9+41.29 1048.83	9+41.29 1048.71	9+41.29 1048.58
SPAN 2	0.1	9+51.04 1048.94	9+51.04 1049.07	9+51.04 1049.20	9+51.04 1049.07	9+51.04 1048.94
	0.2	9+60.79 1049.22	9+60.79 1049.36	9+60.79 1049.49	9+60.79 1049.36	9+60.79 1049.22
	0.3	9+70.54 1049.43	9+70.54 1049.57	9+70.54 1049.70	9+70.54 1049.57	9+70.54 1049.43
	CL Field Splice #1	9+73.79 1049.48	9+73.79 1049.62	9+73.79 1049.75	9+73.79 1049.62	9+73.79 1049.48
	0.4	9+80.29 1049.55	9+80.29 1049.69	9+80.29 1049.82	9+80.29 1049.69	9+80.29 1049.55
	0.5	9+90.04 1049.58	9+90.04 1049.73	9+90.04 1049.86	9+90.04 1049.73	9+90.04 1049.58
	0.6	9+99.79 1049.53	9+99.79 1049.67	9+99.79 1049.80	9+99.79 1049.67	9+99.79 1049.53
	CL Field Splice #2	10+06.29 1049.44	10+06.29 1049.59	10+06.29 1049.71	10+06.29 1049.59	10+06.29 1049.44
	0.7	10+09.54 1049.39	10+09.54 1049.53	10+09.54 1049.66	10+09.54 1049.53	10+09.54 1049.39
	0.8	10+19.29 1049.16	10+19.29 1049.30	10+19.29 1049.43	10+19.29 1049.30	10+19.29 1049.16
	0.9	10+29.04 1048.86	10+29.04 1048.99	10+29.04 1049.12	10+29.04 1048.99	10+29.04 1048.86
	CL REAR BRG. PIER 2	10+38.79 1048.48	10+38.79 1048.61	10+38.79 1048.73	10+38.79 1048.61	10+38.79 1048.48
	CL FWD BRG. PIER 2	10+40.29 1048.43	10+40.29 1048.55	10+40.29 1048.68	10+40.29 1048.55	10+40.29 1048.43
	0.25	10+46.85 1048.18	10+46.85 1048.30	10+46.85 1048.43	10+46.85 1048.30	10+46.85 1048.18
	0.5	10+53.42 1047.89	10+53.42 1048.02	10+53.42 1048.15	10+53.42 1048.02	10+53.42 1047.89
	0.75	10+59.98 1047.58	10+59.98 1047.71	10+59.98 1047.84	10+59.98 1047.71	10+59.98 1047.58
SPAN 3	CL BRG. F.A.	10+66.54 1047.23	10+66.54 1047.36	10+66.54 1047.49	10+66.54 1047.36	10+66.54 1047.23

NOTE: TOP OF HAUNCH ELEVATIONS SHOWN 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.

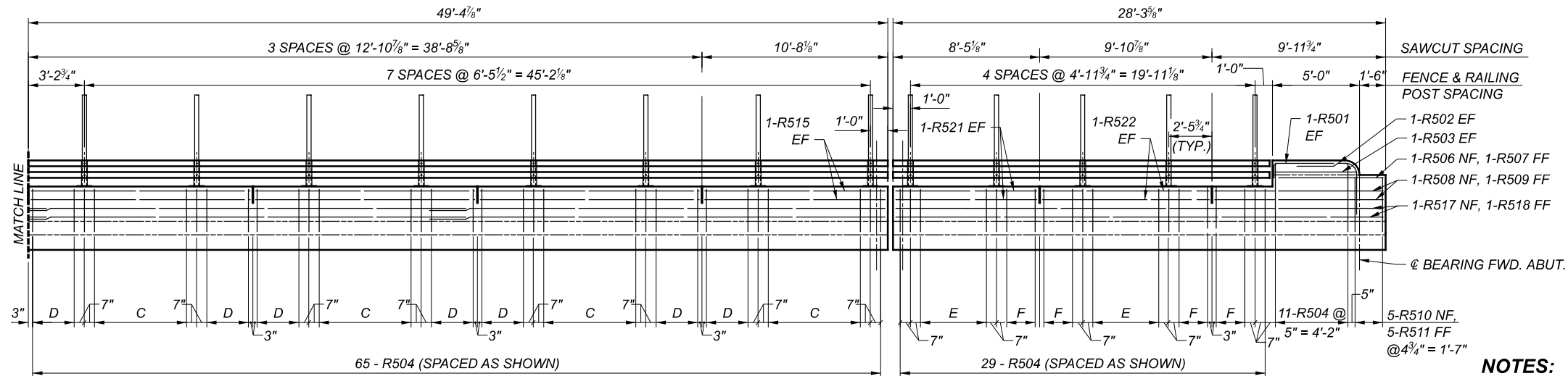
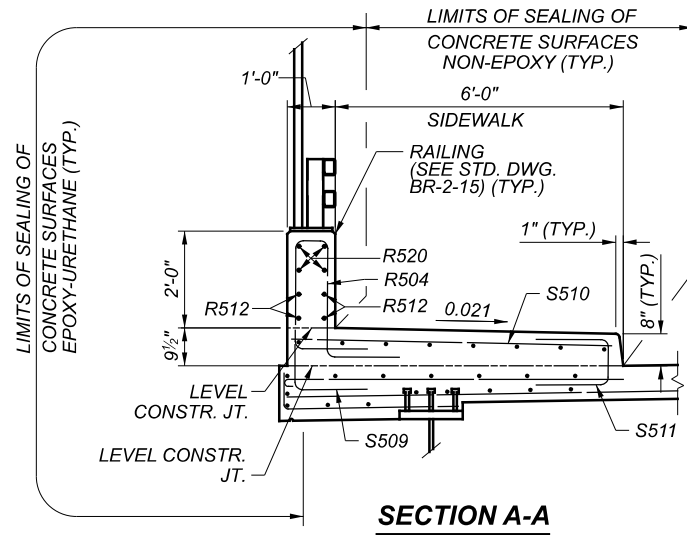
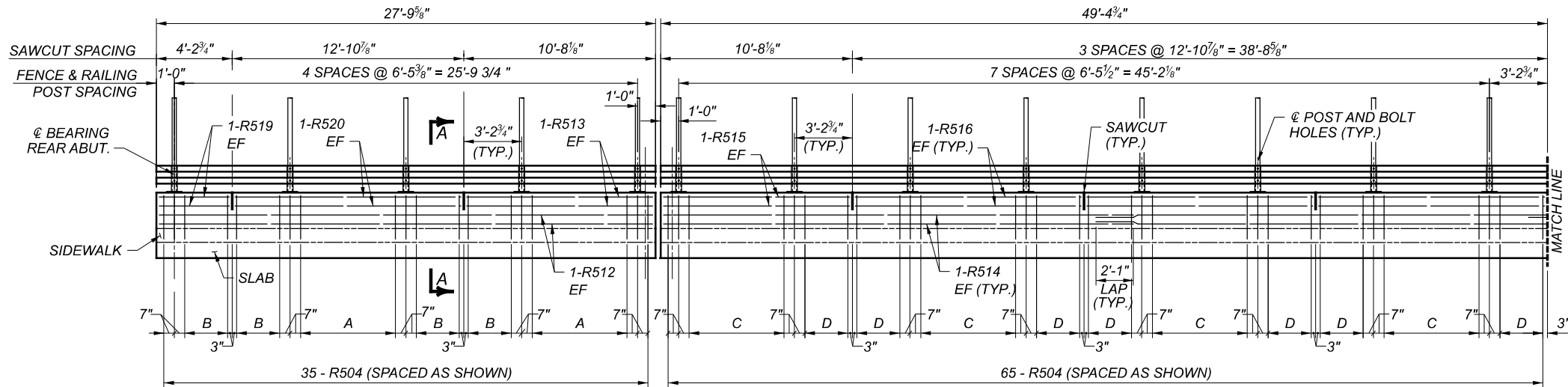
NOTE:
1. FOR PLAN AND SECTION LOCATIONS FOR DECK SURFACE ELEVATIONS SEE SHEET 19 OF 28.

STRUCTURAL STEEL DEFLECTION AND CAMBER TABLE - BEAMS B1 AND B5 (INCHES)																							
	SPAN 1					SPAN 2													SPAN 3				
	CL BRG. R.A.	0.25	0.5	0.75	CL REAR BRG. PIER 1	CL FWD BRG. PIER 1	0.1	0.2	0.3	CL FIELD SPLICE #1	0.4	0.5	0.6	CL FIELD SPLICE #2	0.7	0.8	0.9	CL REAR BRG. PIER 2	CL FWD BRG. PIER 2	0.25	0.5	0.75	CL BRG. F.A.
DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	0	0	$\frac{5}{16}$	$\frac{5}{8}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1	$\frac{15}{16}$	$\frac{7}{8}$	$\frac{13}{16}$	$\frac{5}{8}$	$\frac{5}{16}$	0	0	0	0	0	0
DEFLECTION DUE TO REMAINING DEAD LOAD	0	0	$\frac{1}{16}$	0	0	0	$\frac{13}{16}$	$1\frac{5}{8}$	$2\frac{3}{16}$	$2\frac{5}{16}$	$2\frac{9}{16}$	$2\frac{11}{16}$	$2\frac{9}{16}$	$2\frac{5}{16}$	$2\frac{3}{16}$	$1\frac{5}{8}$	$\frac{13}{16}$	0	0	0	$\frac{1}{16}$	0	0
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{9}{16}$	0	0	$3\frac{9}{16}$	$6\frac{3}{8}$	$8\frac{3}{8}$	$8\frac{7}{8}$	$9\frac{9}{16}$	10	$9\frac{9}{16}$	$8\frac{7}{8}$	$8\frac{3}{8}$	$6\frac{3}{8}$	$3\frac{9}{16}$	0	0	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{9}{16}$	0
TOTAL CAMBER REQUIRED	0	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{9}{16}$	0	0	$4\frac{3}{4}$	$8\frac{9}{16}$	$11\frac{3}{8}$	$12\frac{1}{16}$	$13\frac{1}{8}$	$13\frac{11}{16}$	$13\frac{1}{8}$	$12\frac{1}{16}$	$11\frac{3}{8}$	$8\frac{9}{16}$	$4\frac{3}{4}$	0	0	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{9}{16}$	0

STRUCTURAL STEEL DEFLECTION AND CAMBER TABLE - B2, B3, B4 (INCHES)																							
	SPAN 1					SPAN 2													SPAN 3				
	CL BRG. R.A.	0.25	0.5	0.75	CL REAR BRG. PIER 1	CL FWD BRG. PIER 1	0.1	0.2	0.3	CL FIELD SPLICE #1	0.4	0.5	0.6	CL FIELD SPLICE #2	0.7	0.8	0.9	CL REAR BRG. PIER 2	CL FWD BRG. PIER 2	0.25	0.5	0.75	CL BRG. F.A.
DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	0	0	$\frac{5}{16}$	$\frac{5}{8}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1	$\frac{15}{16}$	$\frac{7}{8}$	$\frac{13}{16}$	$\frac{5}{8}$	$\frac{5}{16}$	0	0	0	0	0	0
DEFLECTION DUE TO REMAINING DEAD LOAD	0	0	$\frac{1}{16}$	0	0	0	$\frac{7}{8}$	$1\frac{11}{16}$	$2\frac{3}{8}$	$2\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{7}{8}$	$2\frac{3}{4}$	$2\frac{1}{2}$	$2\frac{3}{8}$	$1\frac{11}{16}$	$\frac{7}{8}$	0	0	0	$\frac{1}{16}$	0	0
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{9}{16}$	0	0	$3\frac{9}{16}$	$6\frac{3}{8}$	$8\frac{3}{8}$	$8\frac{7}{8}$	$9\frac{9}{16}$	10	$9\frac{9}{16}$	$8\frac{7}{8}$	$8\frac{3}{8}$	$6\frac{3}{8}$	$3\frac{9}{16}$	0	0	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{9}{16}$	0
TOTAL CAMBER REQUIRED	0	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{9}{16}$	0	0	$4\frac{13}{16}$	$8\frac{11}{16}$	$11\frac{9}{16}$	$12\frac{1}{4}$	$13\frac{5}{16}$	$13\frac{7}{8}$	$13\frac{5}{16}$	$12\frac{1}{4}$	$11\frac{9}{16}$	$8\frac{11}{16}$	$4\frac{13}{16}$	0	0	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{9}{16}$	0



CAMBER DIAGRAM

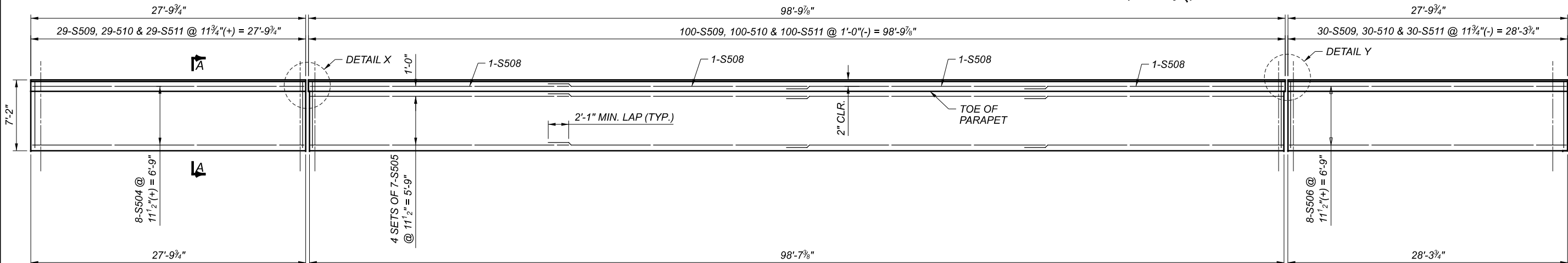


PARAPET ELEVATION

(TYP. BOTH SIDES)
"A" - 6 SPACES @ $10\frac{1}{2}"$ (+) = $5'-3\frac{3}{8}"$
"B" - 3 SPACES @ $9\frac{1}{2}"$ (+) = $2'-4\frac{3}{4}"$
"C" - 6 SPACES @ $10\frac{1}{2}"$ (+) = $5'-3\frac{1}{2}"$
"D" - 3 SPACES @ $9\frac{1}{2}"$ (+) = $2'-4\frac{3}{4}"$
"E" - 4 SPACES @ $11\frac{3}{8}"$ (-) = $3'-9\frac{3}{8}"$
"F" - 3 SPACES @ $10\frac{1}{2}"$ (+) = $2'-7\frac{3}{4}"$
"G" - 2 SPACES @ $9\frac{7}{8}"$ = $1'-7\frac{3}{4}"$

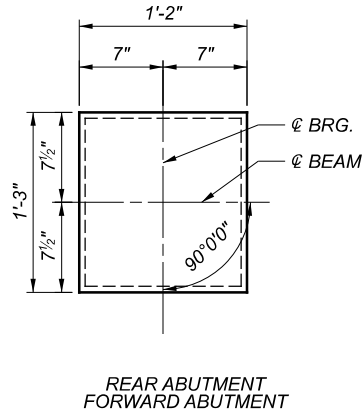
NOTES:

1. SEE STD. DWG. BR-2-15 FOR ADDITIONAL PARAPET DETAILS.
2. SEE STD. DWG. VPF-1-90 FOR VANDAL PROTECTION FENCE DETAIL AT EXPANSION JOINT AND ADDITIONAL DETAILS.
3. FOR REINFORCING STEEL LIST, SEE SHEET 28 OF 28.
4. PAYMENT FOR RAILING REINFORCEMENT IS INCLUDED FOR PAYMENT WITH ITEM 517 RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING).
5. FOR DETAIL X & Y, SEE SHEET 27 OF 28.

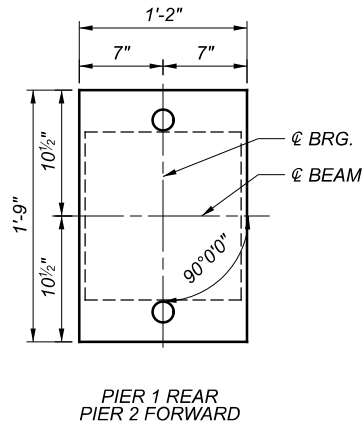


SIDEWALK REINFORCING PLAN

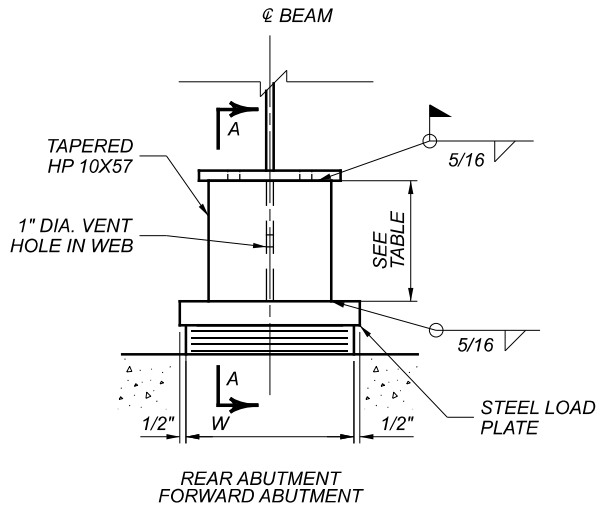
(LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE HAND)



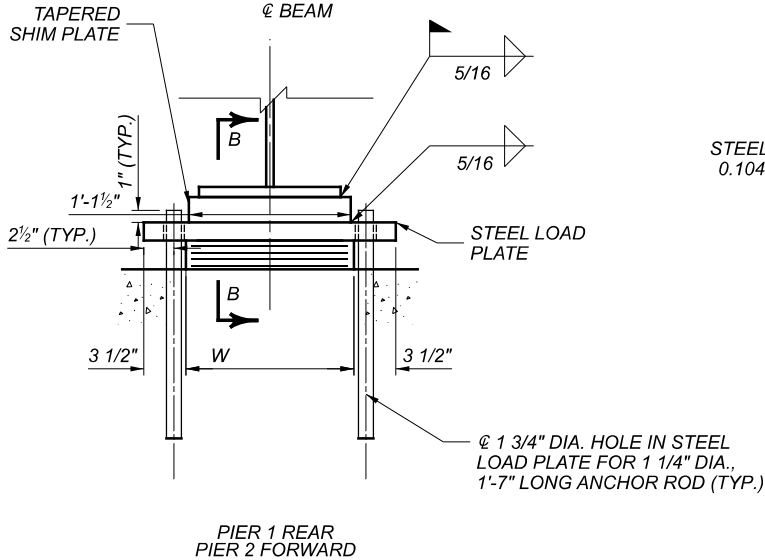
LAMINATED ELASTOMERIC BEARING PLAN VIEW



LAMINATED ELASTOMERIC BEARING PLAN VIEW



LAMINATED ELASTOMERIC BEARING ELEVATION PLAN VIEW

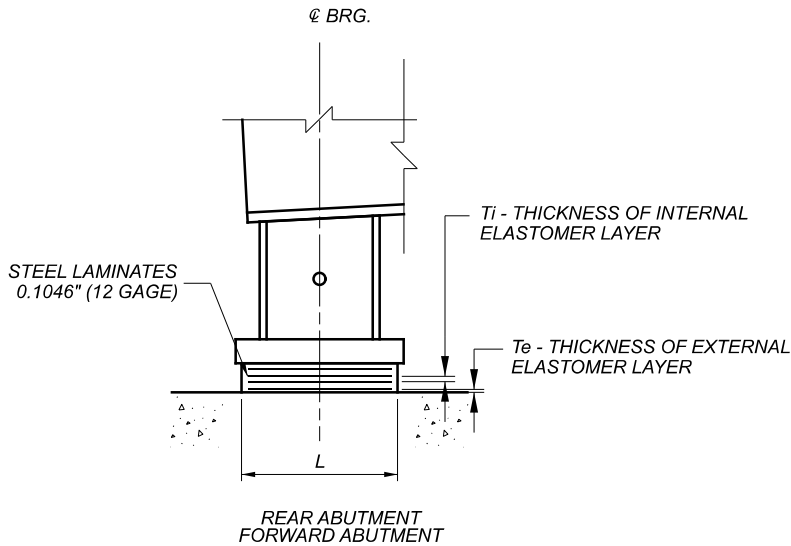


LAMINATED ELASTOMERIC BEARING ELEVATION PLAN VIEW

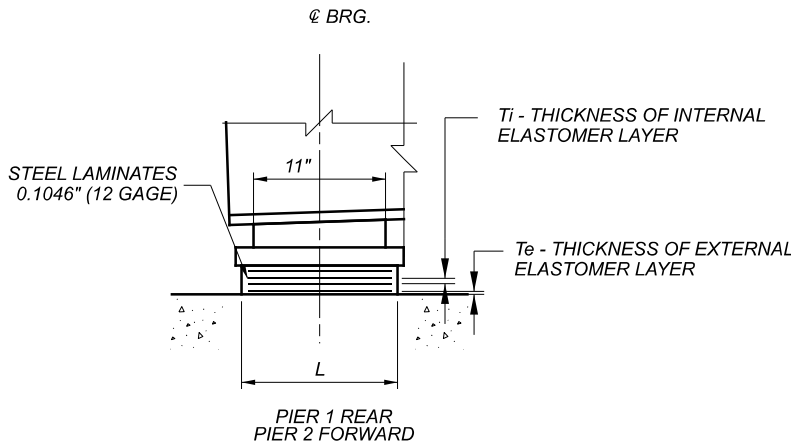
TAPERED H-PILE TABLE (INCHES)						
		CL BEAM 1	CL BEAM 2	CL BEAM 3	CL BEAM 4	CL BEAM 5
R.A.	BACK STA. (A)	6 3/4	8 1/4	9 13/16	8 1/4	6 3/4
	CENTER (C)	7	8 9/16	10 1/16	8 9/16	7
	FWD STA. (B)	7 1/4	8 13/16	10 9/16	8 13/16	7 1/4
F.A.	BACK STA. (A)	7 1/4	8 13/16	10 9/16	8 13/16	7 1/4
	CENTER (C)	7	8 9/16	10 1/16	8 9/16	7
	FWD STA. (B)	6 3/4	8 1/4	9 13/16	8 1/4	6 3/4

TAPERED SHIM PLATE TABLE (INCHES)						
		CL BEAM 1	CL BEAM 2	CL BEAM 3	CL BEAM 4	CL BEAM 5
CL REAR BRG. PIER 1	BACK STA. (D)	1 7/8	1 7/8	1 7/8	1 7/8	1 7/8
	CENTER (E)	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8
	FWD STA. (F)	2 3/8	2 3/8	2 3/8	2 3/8	2 3/8
CL FWD BRG. PIER 2	BACK STA. (F)	2 3/8	2 3/8	2 3/8	2 3/8	2 3/8
	CENTER (E)	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8
	FWD STA. (D)	1 7/8	1 7/8	1 7/8	1 7/8	1 7/8

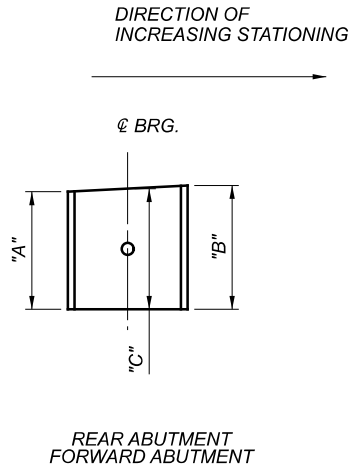
ELASTOMERIC BEARING PAD DATA													
LOCATION	BEARING TYPE	PAD DIMENSIONS							NO. OF STEEL LAMINATES	LOAD PLATE SIZE	REACTIONS (kips)		MAXIMUM DESIGN LOAD (kips)
		L	W	T	Te	NO.	Ti	NO.			DL	LL	
REAR ABUTMENT	EXPANSION	13"	14"	2.4184"	.25 in.	1	.4375 in.	4	4	14" X 15" X 2"	72	55	127
FORWARD ABUTMENT	EXPANSION	13"	14"	2.4184"	.25 in.	1	.4375 in.	4	4	14" X 15" X 2"	72	55	127
PIER 1 REAR	FIX	13"	14"	2.4184"	.25 in.	1	.4375 in.	4	4	14" X 21" X 1.5"	24	55	79
PIER 2 FORWARD	FIX	13"	14"	2.4184"	.25 in.	1	.4375 in.	4	4	14" X 21" X 1.5"	24	55	79



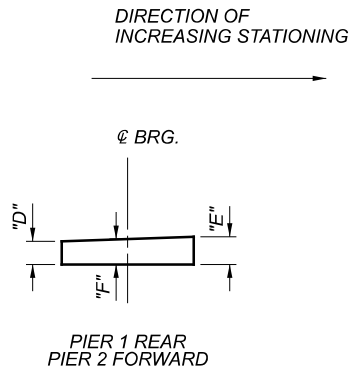
SECTION A-A



SECTION B-B



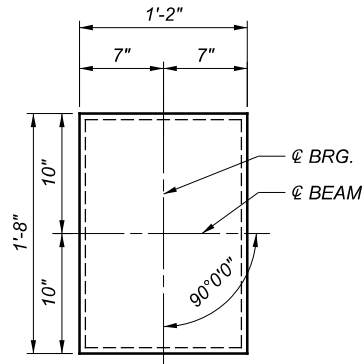
TAPERED HP DETAIL



TAPERED SHIM PLATE DETAIL

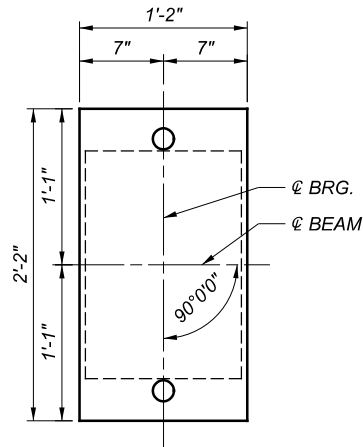
NOTES:

- 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.
- STEEL LOAD PLATES, PEDESTALS, AND SHIM PLATES SHALL MEET THE REQUIREMENTS OF ASTM-A709, GRADE 50 STEEL.
- STEEL LOAD PLATES AND SHIM PLATES SHALL BE CLEANED AND COATED THE SAME AS ATTACHED STRUCTURAL STEEL. GALVANIZE ALL STEEL IN ACCORDANCE WITH 711.02.
- REPAIR GALVANIZED COATINGS DAMAGED DURING FABRICATION AND CONSTRUCTION IN ACCORDANCE WITH 516.03 AND 711.02.
- ALL WELDS NOTED WITHIN THESE DETAILS SHALL BE PERFORMED IN THE SHOP PRIOR TO GALVANIZATION EXCEPT AS NOTED.



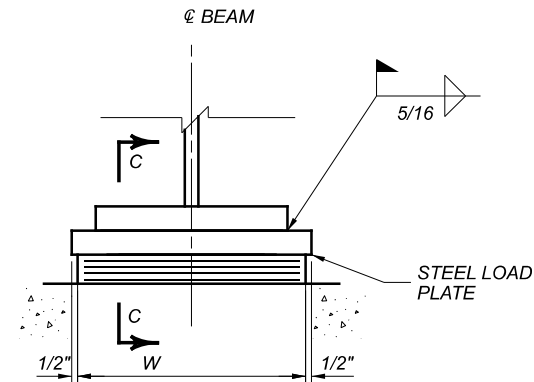
PIER 1 FORWARD

LAMINATED ELASTOMERIC BEARING PLAN VIEW



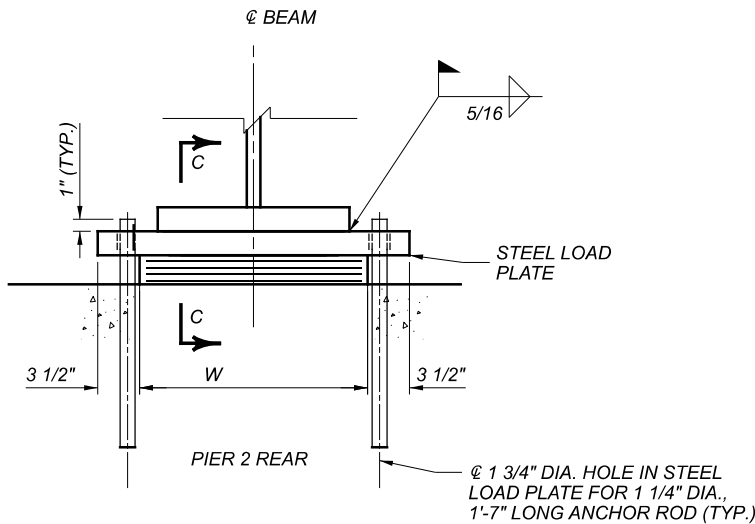
PIER 2 REAR

LAMINATED ELASTOMERIC BEARING PLAN VIEW



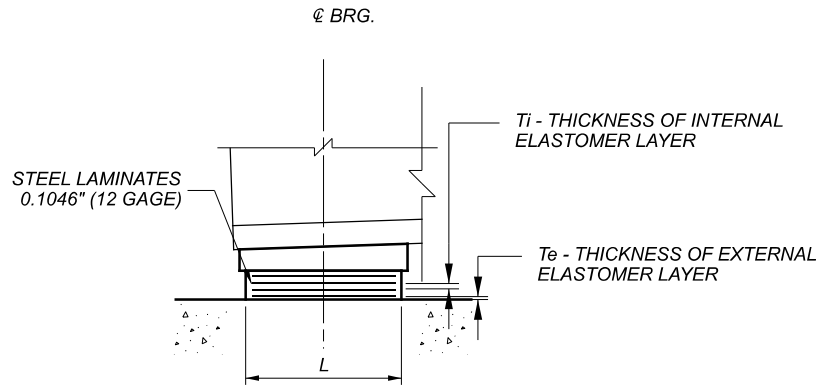
PIER 1 FORWARD

LAMINATED ELASTOMERIC BEARING ELEVATION PLAN VIEW



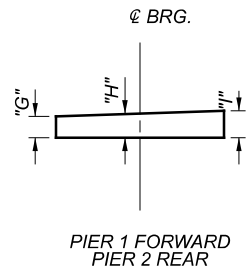
PIER 2 REAR

LAMINATED ELASTOMERIC BEARING ELEVATION PLAN VIEW



PIER 1 FORWARD
PIER 2 REAR

SECTION C-C



PIER 1 FORWARD
PIER 2 REAR

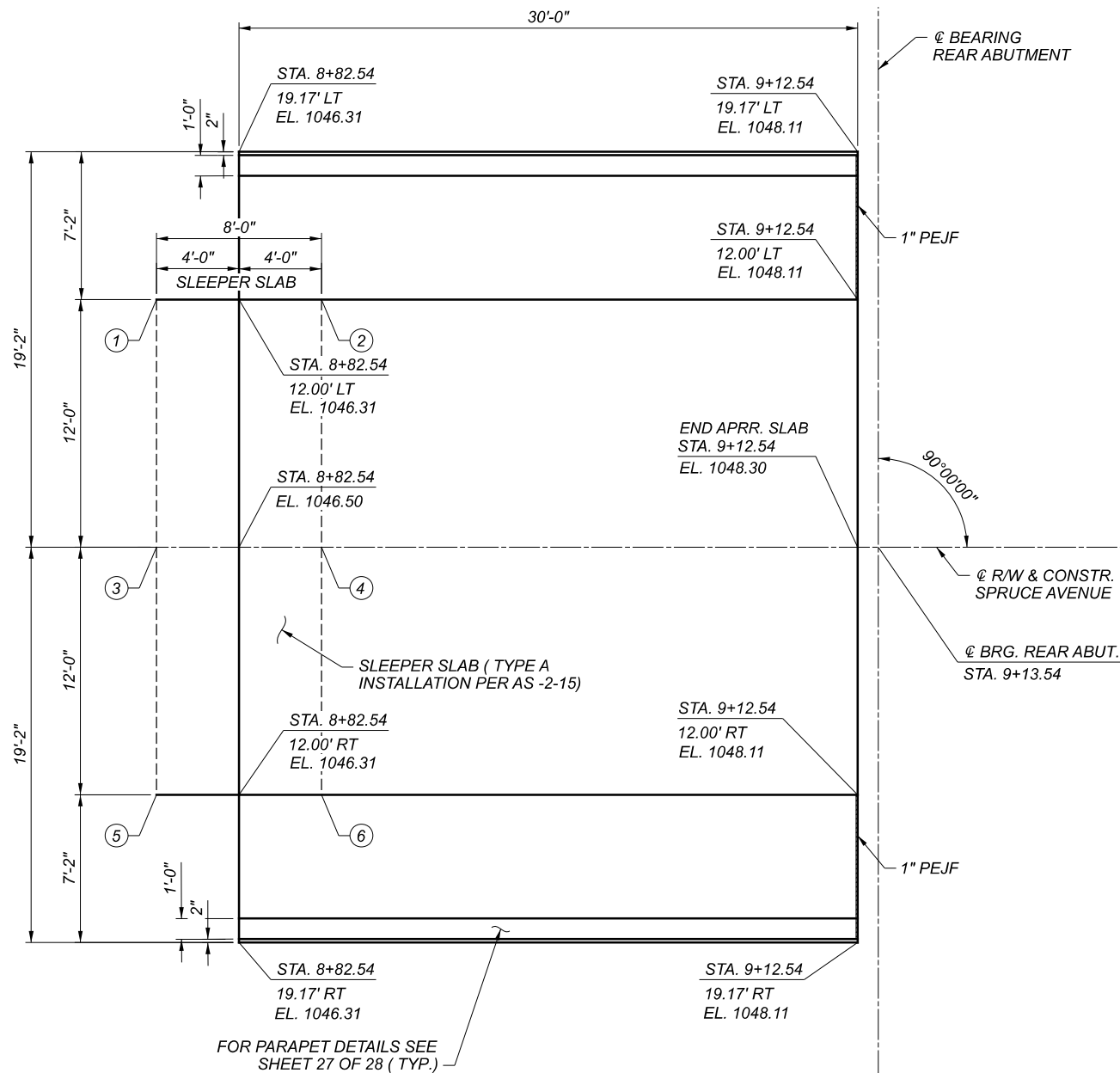
TAPERED LOAD PLATE DETAIL

TAPERED LOAD PLATE TABLE (INCHES)						
		CL BEAM 1	CL BEAM 2	CL BEAM 3	CL BEAM 4	CL BEAM 5
CL FWD BRG. PIER 1	BACK STA. (G)	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4
	CENTER (H)	2	2	2	2	2
CL REAR BRG. PIER 2	FWD STA. (I)	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4
	BACK STA. (I)	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4
	CENTER (H)	2	2	2	2	2
	FWD STA. (G)	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4

ELASTOMERIC BEARING PAD DATA													
LOCATION	BEARING TYPE	PAD DIMENSIONS							NO. OF STEEL LAMINATES	LOAD PLATE SIZE	REACTIONS (kips)		MAXIMUM DESIGN LOAD (kips)
		L	W	T	Te	NO.	Ti	NO.			DL	LL	
PIER 1 FORWARD	EXPANSION	13"	19"	2.4184"	.25 in.	1	.4375 in.	4	4	14" X 20" X 2" (TAPERERED)	100	115	215
PIER 2 REAR	FIX	13"	19"	2.4184"	.25 in.	1	.4375 in.	4	4	14" X 26" X 2" (TAPERERED)	100	115	215

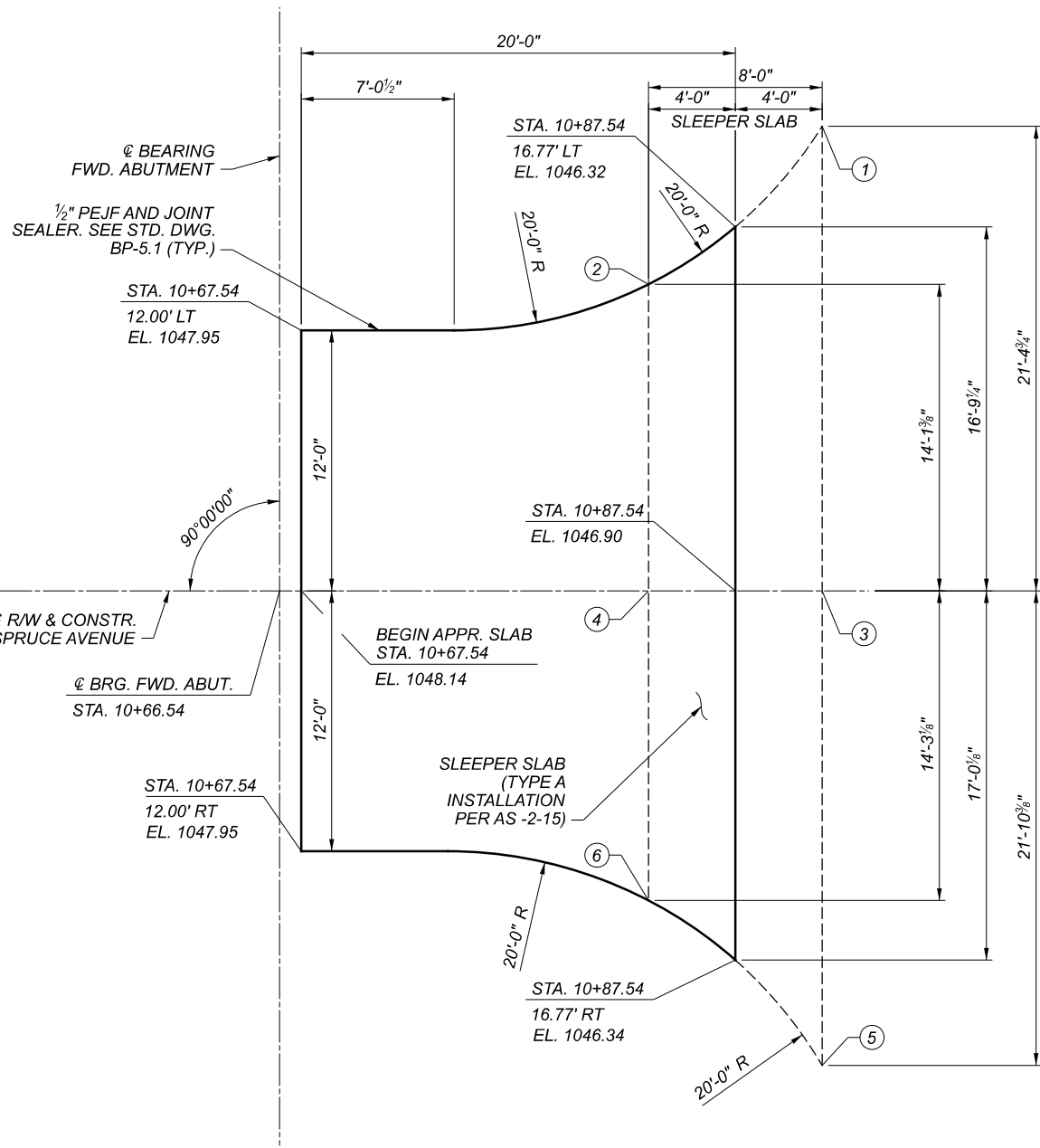
NOTES:

- 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.
- STEEL LOAD PLATES, PEDESTALS, AND SHIM PLATES SHALL MEET THE REQUIREMENTS OF ASTM-A709, GRADE 50 STEEL.
- STEEL LOAD PLATES AND SHIM PLATES SHALL BE CLEANED AND COATED THE SAME AS ATTACHED STRUCTURAL STEEL. GALVANIZE ALL STEEL IN ACCORDANCE WITH 711.02.
- REPAIR GALVANIZED COATINGS DAMAGED DURING FABRICATION AND CONSTRUCTION IN ACCORDANCE WITH 516.03 AND 711.02.
- ALL WELDS NOTED WITHIN THESE DETAILS SHALL BE PERFORMED IN THE SHOP PRIOR TO GALVANIZATION EXCEPT AS NOTED.



REAR APPROACH SLAB PLAN

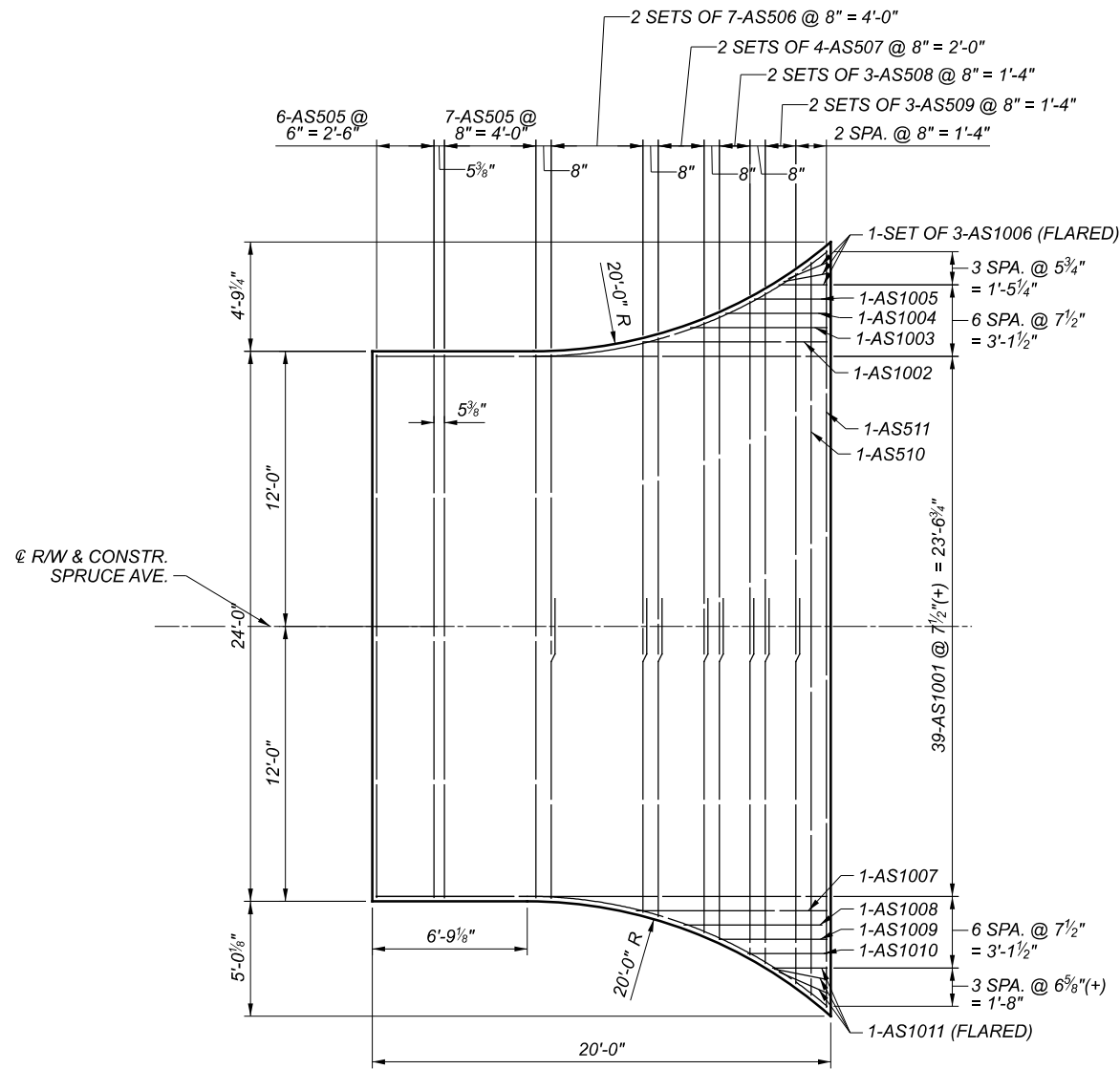
SLEEPER SLAB TOP SURFACE ELEVATION		
	REAR	FORWARD
1	8+78.54	10+91.54
	1044.64	1044.72
2	8+86.54	10+83.54
	1045.14	1045.64
3	8+78.54	10+91.54
	1044.83	1045.53
4	8+86.54	10+83.54
	1045.33	1046.09
5	8+78.54	10+91.54
	1044.64	1044.67
6	8+86.54	10+83.54
	1045.14	1045.72



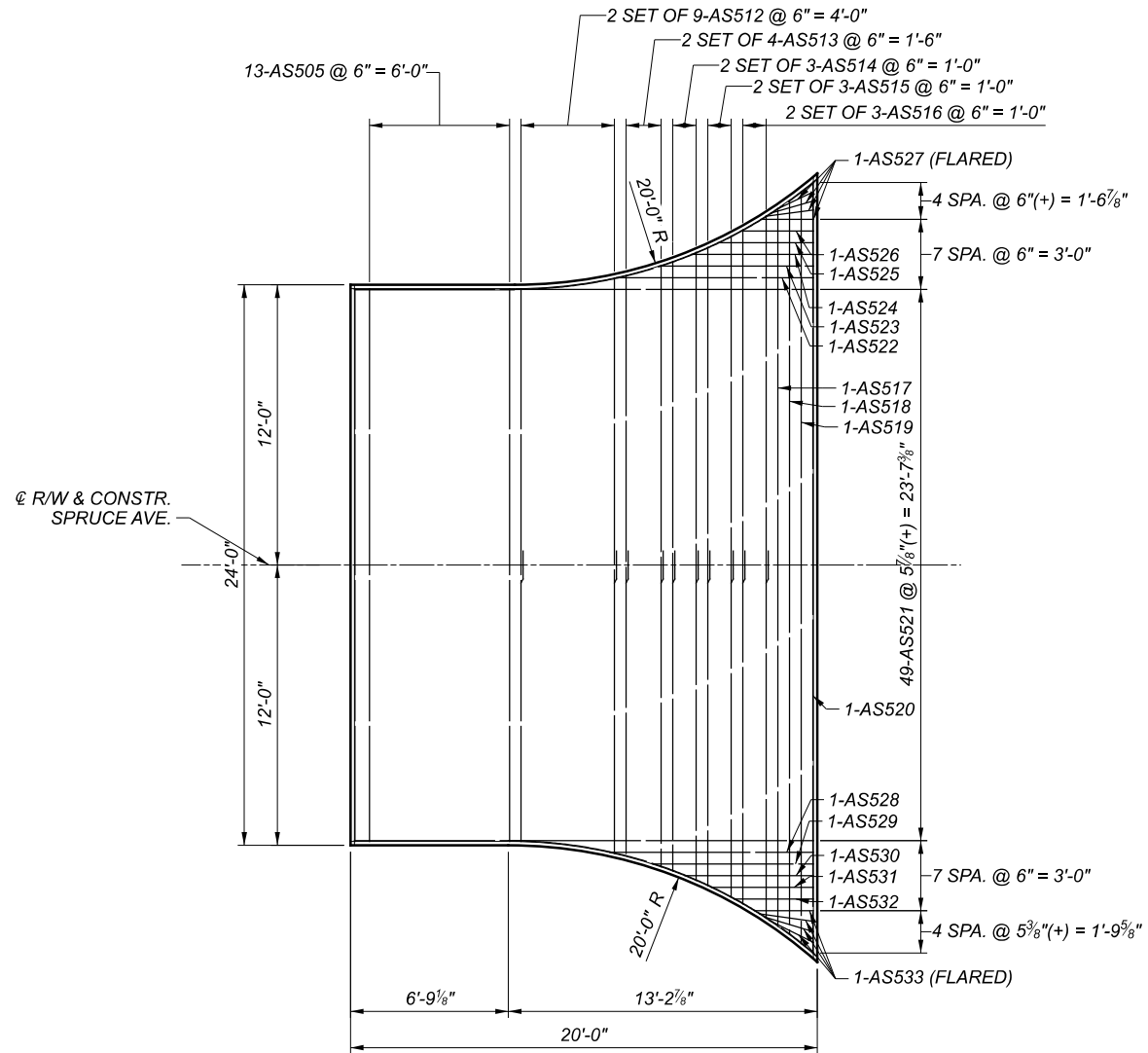
FORWARD APPROACH SLAB PLAN

NOTES:

- 1- FOR GENERAL NOTES, SEE SHEET 3 OF 28.
2- FOR ADDITIONAL DETAILS, SEE STANDARD DRAWING AS-1-15, AS-2-15, AND BR-2-15.



FORWARD APPROACH SLAB
(BOTTOM REINFORCING)



FORWARD APPROACH SLAB
(TOP REINFORCING)

MINIMUM LAP LENGTHS

NO. 5 BAR = 2'-5"

NOTES

- SEE STANDARD DRAWING AS-1-15 FOR ADDITIONAL APPROACH SLAB DETAILS.
- PAYMENT FOR REINFORCING IS INCLUDED FOR PAYMENT WITH ITEM 526 REINFORCED CONCRETE APPROACH SLABS (T=13").
- FOR REAR APPROACH SLAB REINFORCING, SEE STANDARD DRAWING AS-1-15.





(REAR LEFT SHOWN,
REAR RIGHT SIMILAR)

"A" - 2 SPACES @ $11\frac{1}{8}"(-)$ = $1'-10\frac{1}{8}"$
"B" - 5 SPACES @ $10"(-)$ = $4'-2\frac{1}{4}"$



(REAR LEFT SHOWN,
REAR RIGHT SIMILAR)

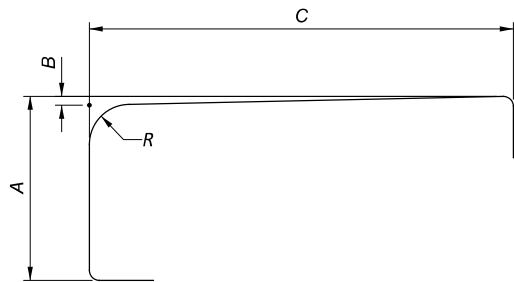


(DETAIL Y SIMILAR BUT MIRRORED)

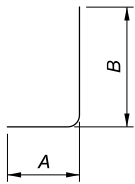
TEMPERATURE (° F)	DIMENSION "B" (INCHES)	
	PIER 1	PIER 2
30	3 ³ / ₄	3 ¹ / ₂
40	3 ⁵ / ₈	3 ¹ / ₂
50	3 ⁹ / ₁₆	3 ¹ / ₂
60	3 ¹ / ₂	3 ¹ / ₂
70	3 ⁷ / ₁₆	3 ¹ / ₂
80	3 ³ / ₈	3 ¹ / ₂
90	3 ¹ / ₄	3 ¹ / ₂

NOTES:

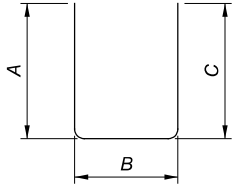
1. RAILING CONCRETE AND REINFORCEMENT ON APPROACH SLABS ARE INCLUDED FOR PAYMENT WITH ITEM 526, REINFORCED CONCRETE APPROACH SLAB (T = 15"), AS PER PLAN.
2. SIDEWALK CONCRETE AND REINFORCING ARE INCLUDED FOR PAYMENT WITH ITEM 526 REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN.
3. SEE STD. DWG. EXJ-4-87 FOR MORE DETAILS.

[illegible]

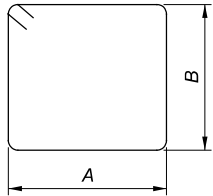
TYPE-31



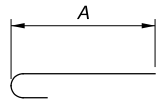
TYPE-1



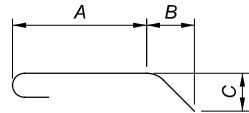
TYPE-2



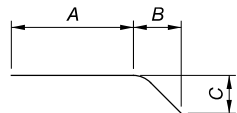
TYPE-3



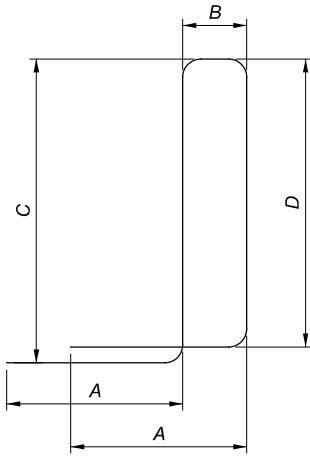
TYPE-16



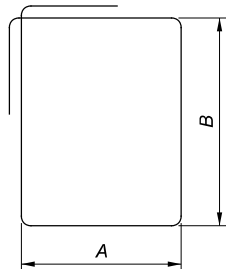
TYPE-18



TYPE-19



TYPE-30



TYPE-33

NOTES:

1. ALL REINFORCING STEEL BARS SHALL BE EPOXY COATED.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. RADIUS DIMENSION "R" IS TO THE OUTSIDE OF THE BAR.
4. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER.
5. ALL REINFORCING CLEARANCES ARE 2" UNLESS OTHERWISE NOTED IN THE PLANS.

PROJECT DESCRIPTION

THIS PROJECT, SHE-SPRUC-022709, INVOLVES REPLACEMENT OF A BRIDGE THAT SPANS OVER A CSX RAILROAD, BETWEEN LINCOLN STREET AND GREENACRE STREET IN SIDNEY, SHELBY COUNTY, OHIO. THE EXISTING BRIDGE IS 125 FEET IN LENGTH AND CONSISTS OF A 5-SPAN, ARCHED-REINFORCED CONCRETE I-BEAM SUPERSTRUCTURE ON REINFORCED CONCRETE COLUMN-TYPE PIERS AND REINFORCED CONCRETE ABUTMENTS. THE EXISTING BRIDGE WILL BE REPLACED BY A NEW 3-SPAN, STEEL ROLLED BEAM ON SEMI-INTEGRAL ABUTMENTS AND T-TYPE PIERS. ADDITIONALLY, THE VERTICAL PROFILE ON THE BRIDGE WILL BE RAISED 1.25 FEET TO INCREASE VERTICAL CLEARANCE OVER THE CSX RAILROAD TO THE REQUIRED 23 FEET.

GEOLOGY

BASED ON THE GEOLOGIC MAP PUBLISHED BY THE OHIO GEOLOGICAL SURVEY, THE SITE LIES IN THE SOUTHERN OHIO LOAMY TILL PLAIN WITH PREDOMINATELY GROUND MORaine TOPOGRAPHY AND OUTWASH UNDERLAIN BY SILURIAN AND ORDOVICIAN AGE BEDROCK. INFORMATION OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) WEBSITE ALSO INDICATED THAT NO KNOWN ABANDONED MINE WAS RECORDED IN THE VICINITY OF THE SITE AREA. "KNOWN AND PROBABLE KARST IN OHIO" MAP PUBLISHED BY ODNR INDICATES THAT THERE ARE EXISTING SINK HOLES RECORDED WITHIN APPROXIMATELY TEN TO FIFTEEN MILES FROM THE PROJECT SITE.

RECONNAISSANCE

PSI PERSONNEL MARKED THE BORING LOCATIONS IN THE FIELD WITH THE AID OF A HAND-HELD GARMIN GPS UNIT, CONTACTED OHIO UTILITY PROTECTION SERVICES (OUPS), AND COORDINATED DRILLING SERVICES WITH THE CLIENT, CSX REPRESENTATIVES AND THE CITY OF SIDNEY. DURING OUR FIELD ACTIVITIES, A FLAGMAN WITH CSX WAS WITH PSI DURING DRILLING OF THE PIER BORINGS. ADDITIONALLY, THE CITY OF SIDNEY TEMPORARILY CLOSED THE ROAD AND PROVIDED ROAD CLOSURE SIGNS FOR THE ABUTMENT BORINGS.

SUBSURFACE EXPLORATION

THE FIELD EXPLORATION WAS PERFORMED IN ACCORDANCE WITH APPLICABLE ASTM SPECIFICATIONS AND BASIC ODOT SGE (CURRENT EDITION) TYPE E1 BORINGS. FOUR (4) SOIL TEST BORINGS WERE COMPLETED AS PART OF THE SUBSURFACE EXPLORATION, INCLUDING ONE BORING AT EACH PIER LOCATION DRILLED BETWEEN MAY 17TH AND MAY 19TH, 2021 AND ONE BORING AT EACH ABUTMENT DRILLED BETWEEN MAY 19TH AND MAY 21ST, 2021. THE BORINGS WERE DRILLED WITH A CME 45C TRACK-MOUNTED DRILL RIG, USING 3 1/4 INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE HOLES THROUGH THE SUBSURFACE. DISTURBED SOIL SAMPLES WERE OBTAINED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (ASTM D-1586) AT 2.5 TO 5.0 FOOT INTERVALS FOR THE FULL DEPTH OF THE BORINGS.

EXPLORATION FINDINGS

AT TEST BORINGS B-001-0-21 AND B-004-0-21, ASPHALT UNDERLAIN BY AGGREGATE BASE MATERIAL WAS ENCOUNTERED. THE ASPHALT THICKNESS WAS APPROXIMATELY 4 TO 8 INCHES AND THE AGGREGATE BASE THICKNESS RANGED FROM 7 TO 10 INCHES. AT TEST BORINGS B-002-0-21 AND B-003-0-21, RAILROAD BALLAST/BASE MATERIAL WAS ENCOUNTERED. THE RAILROAD BALLAST/BASE THICKNESS WAS APPROXIMATELY 12 INCHES AT BOTH BORINGS.

UNDERLYING THE SURFACE MATERIALS AT THE BORINGS, FILL MATERIAL WAS ENCOUNTERED. THE FILL MATERIAL EXTENDED TO DEPTHS RANGING FROM 2.5 TO 6.6 FEET BELOW THE EXISTING GRADE. THE FILL MATERIAL CONSISTED OF VARIABLE MATERIAL INCLUDING, SILTY CLAY (A-6b), SANDY SILT (A-4a), COARSE AND FINE SAND (A-3a), AND GRAVEL (A-1-a). SOME OF THE FILL MATERIALS CONTAINED CINDERS, BRICK FRAGMENTS, ASPHALT FRAGMENTS AND BROKEN TILE. THE FILL MATERIAL EXHIBITED MOISTURE CONTENTS RANGING FROM 11 TO 54 PERCENT.

IN SOIL TEST BORING B-001-0-21, OVERBURDEN SOILS (BELOW THE FILL MATERIALS) INCLUDED SILT AND CLAY (A-6a), SANDY SILT (A-4a), COARSE AND FINE SAND (A-3a), GRAVEL WITH SAND (A-1-b), AND GRAVEL WITH SAND, SILT AND CLAY (A-2-6). THE STANDARD PENETRATION TEST VALUES ("N60"-VALUES) FOR THE NATURAL SOILS RANGED FROM 6 BLOWS PER FOOT TO 50 BLOWS PER 2 INCHES OF PENETRATION (SPLIT-SPOON REFUSAL). GROUNDWATER WAS OBSERVED AT A DEPTH OF APPROXIMATELY 11.5 FEET BELOW EXISTING GRADES DURING DRILLING OPERATIONS.

IN SOIL TEST BORING B-002-0-21, OVERBURDEN SOILS (BELOW THE FILL MATERIALS) INCLUDED SILT AND CLAY (A-6a), SANDY SILT (A-4a), COARSE AND FINE SAND (A-3a), GRAVEL (A-1-a), GRAVEL WITH SAND, SILT AND CLAY (A-2-6), AND SILTY CLAY (A-6b). THE STANDARD PENETRATION TEST VALUES ("N60"-VALUES) FOR THE NATURAL SOILS RANGED FROM 4 BLOWS PER FOOT TO 50 BLOWS PER 5 INCHES OF PENETRATION (SPLIT-SPOON REFUSAL). GROUNDWATER WAS OBSERVED AT A DEPTH OF APPROXIMATELY 13 FEET BELOW EXISTING GRADES DURING DRILLING OPERATIONS.

IN SOIL TEST BORING B-003-0-21, OVERBURDEN SOILS (BELOW THE FILL MATERIALS) INCLUDED SANDY SILT (A-4a), SILT AND CLAY (A-6a), AND GRAVEL (A-1-a). THE STANDARD PENETRATION TEST VALUES ("N60"-VALUES) FOR THE NATURAL SOILS RANGED FROM 9 BLOWS PER FOOT TO 50 BLOWS PER 4 INCHES OF PENETRATION (SPLIT-SPOON REFUSAL). GROUNDWATER WAS OBSERVED AT A DEPTH OF APPROXIMATELY 17.8 FEET BELOW EXISTING GRADES DURING DRILLING OPERATIONS.

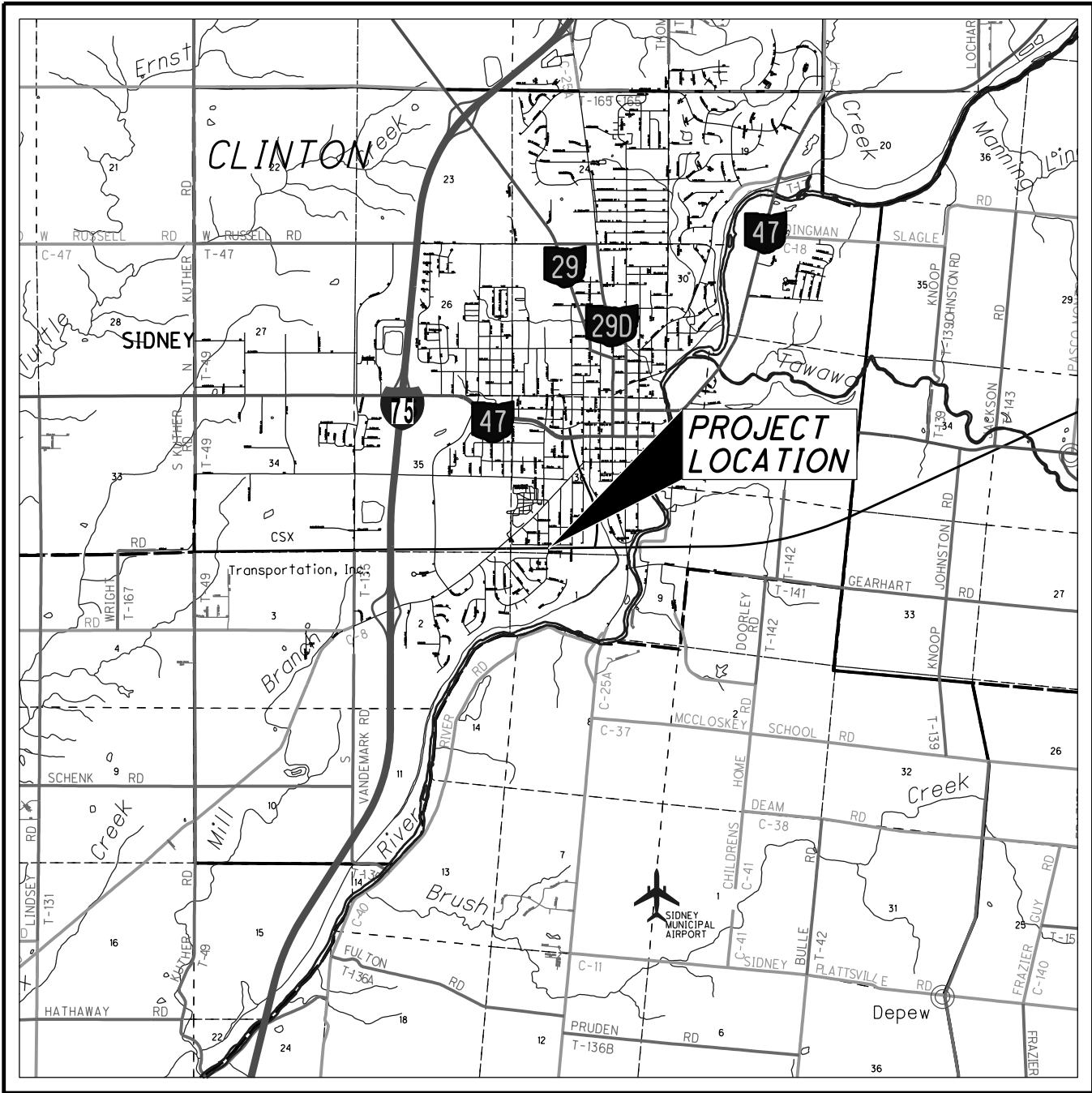
IN SOIL TEST BORING B-004-0-21, OVERBURDEN SOILS (BELOW THE FILL MATERIALS) INCLUDED SILTY CLAY (A-6b), SANDY SILT (A-4a), SILT AND CLAY (A-6a), SILT (A-4b), AND GRAVEL (A-1-a). THE STANDARD PENETRATION TEST VALUES ("N60"-VALUES) FOR THE NATURAL SOILS RANGED FROM 4 BLOWS PER FOOT TO 50 BLOWS PER 6 INCHES OF PENETRATION (SPLIT-SPOON REFUSAL). GROUNDWATER WAS OBSERVED AT A DEPTH OF APPROXIMATELY 13.5 FEET BELOW EXISTING GRADES DURING DRILLING OPERATIONS.

SPECIFICATIONS

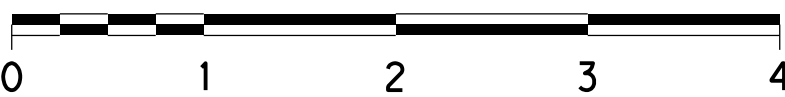
THIS GEOTECHNICAL EXPLOARATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLOARATIONS, DATED JANUARY 2021.

LEGEND

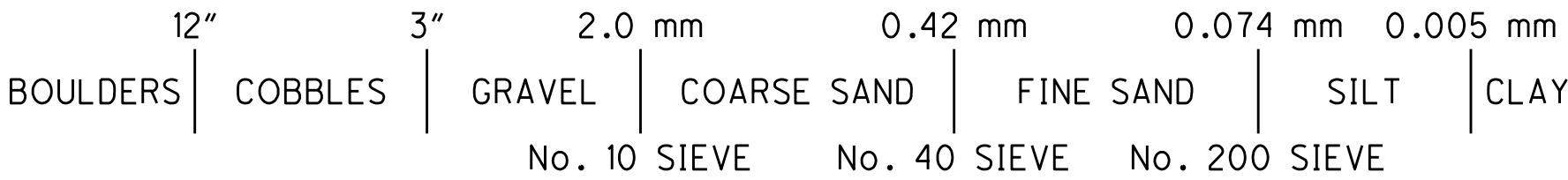
	DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
	GRAVEL AND/OR STONE FRAGMENTS	A-1-a	0	4
	GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	0	1
	COARSE AND FINE SAND	A-3a	0	3
	GRAVEL AND/OR STONE FRAGMENTS WITH SAND, SILT AND CLAY	A-2-6	0	2
	SANDY SILT	A-4a	14	29
	SILT	A-4b	1	0
	SILT AND CLAY	A-6a	3	15
	SILTY CLAY	A-6b	1	5
		TOTAL	19	59
	PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		
	BORING LOCATION - PLAN VIEW.			
	DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
WC	INDICATES WATER CONTENT IN PERCENT.			
N60	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.			
X/Y/Z	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X= NUMBER OF BLOWS FOR FIRST 6 INCHES. Y= NUMBER OF BLOWS FOR SECOND 6 INCHES. Z= NUMBER OF BLOWS FOR THIRD 6 INCHES.			
W—	INDICATES FREE WATER ELEVATION.			
●	INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.			
⊖	INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25 % OR GREATER THAN 19 % WITH A WET APPEARANCE.			
*	INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.			
SS	INDICATES A SPLIT SPOON SAMPLE.			
NP	INDICATES A NON-PLASTIC SAMPLE.			



LOCATION MAP
SCALE IN MILES



PARTICLE SIZE DEFINITIONS



RECON. - PSI --/--/--
DRILLING - PSI 5/17/21 - 5/21/21
DRAWN - HRJ 10/1/21
REVIEWED - AS 10/4/21

PID NO.

114201

STRUCTURE FOUNDATION EXPLORATION
BR. NO. SHE-SPRUC-0227 OVER CSX RAILROAD

SHE-SPRUC-02.27

DESIGN AGENCY

INTERTEK-PSI

5599 WEBSTER STREET
DAYTON, OHIO 45414

STANDARD 000T SOIL BORING LOG (8.5 X 11) - OH DOT.C0T - 9/27/21 10:44 - \\PSRPROD02\BENTLEY\GINT\PROJECTS\0105 000T DAYTON-OH\01051704.GPJ

PROJECT: SHE-SPRUCE-02.27			DRILLING FIRM / OPERATOR:			PSI / J.E.		DRILL RIG:		CME 45C (350574)		STATION / OFFSET:				9+33, 11' RT.				EXPLORATION ID																					
TYPE: BRIDGE			SAMPLING FIRM / LOGGER:			PSI / C.W.		HAMMER:		CME AUTOMATIC		ALIGNMENT:				ROADWAY CENTERLINE				B-001-0-21																					
PID: 114201 SFN:			DRILLING METHOD:			3.25" HSA		CALIBRATION DATE: 8/18/20		8/18/20		ELEVATION: 1045.0 (MSL) EOB:				75.0 ft.				PAGE																					
START: 5/20/21 END: 5/21/21			SAMPLING METHOD:			SPT		ENERGY RATIO (%): 86.8		SPT/ RQD		N60		REC (%)		SAMPLE ID		HP (tsf)		WC		1 OF 1																			
MATERIAL DESCRIPTION AND NOTES						ELEV.		DEPTHS		GR		CS		FS		SI		CL		LL		PL		PI		WC		ODOT CLASS (a)		HOLE SEALED											
4" ASPHALT	10" GRAVEL BASE MATERIAL						1045.0	1		2		6		72		SS-1		0.75		-		-		-		-		24		A-6a (V)											
							1044.7	2		2		2		2		2		2		2		2		2		2		2		2		2		2							
	MEDIUM STIFF, BROWN, SILTY CLAY, LITTLE SAND, MOIST , FILL						1043.8	3		4		9		78		SS-2		2.75		-		-		-		-		11		A-4a (V)											
							1042.0	4		4		4		4		4		4		4		4		4		4		4		4		4		4							
	STIFF, BROWN, SANDY SILT, SOME CLAY, DAMP , FILL						1039.5	5		6		12		83		SS-3		-		-		-		-		-		21		A-3a (V)											
							1038.4	7		7		7		7		7		7		7		7		7		7		7		7		7		7							
	MEDIUM DENSE, DARK BROWN/BLACK, COARSE AND FINE SAND, TRACE GRAVEL, TRACE CLAY, WITH CINDERS AND BRICK FRAGMENTS, MOIST , FILL						1037.0	8		5		16		89		SS-5		1.50		-		-		-		-		17		A-4a (V)											
							1035.0	9		9		9		9		9		9		9		9		9		9		9		9		9		9							
	VERY STIFF, BROWN, SANDY SILT, LITTLE CLAY, MOIST						1033.5	10		11		2		6		78		SS-6		-		-		-		-		20		A-3a (V)											
							1032.0	12		12		12		12		12		12		12		12		12		12		12		12		12		12							
	HARD, BROWN, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP						1029.0	13		14		3		21		9		3.50		-		-		-		-		13		A-4a (V)											
							1027.6	15		15		15		15		15		15		15		15		15		15		15		15		15		15							
	VERY STIFF, GRAYISH-BROWN, SANDY SILT, AND GRAVEL, SOME CLAY, DAMP						1024.0	16		17		4		7		23		83		3.50		-		-		-		12		A-4a (V)											
							1019.0	18		18		18		18		18		18		18		18		18		18		18		18		18		18							
	MEDIUM DENSE, GRAY, GRAVEL WITH SAND, LITTLE SILT, TRACE CLAY, WET						1012.5	19		20		7		22		72		SS-9		3.50		46		15		16		14		9		10		A-1-b (V)							
							1006.0	21		21		21		21		21		21		21		21		21		21		21		21		21		21		21					
	VERY STIFF TO HARD, GRAY, SILT AND CLAY, SOME SAND, TRACE SAND, LITTEL GRAVEL, DAMP TO MOIST						1001.0	22		23		4		29		89		SS-10		4.50		19		7		13		28		33		26		14		12		A-6a (6)			
							997.0	24		24		24		24		24		24		24		24		24		24		24		24		24		24		24		24		24	
	HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP						1000.0	25		26		8		35		78		SS-11		1.50		-		-		-		-		18		A-6a (V)									
							992.0	27		27		27		27		27		27		27		27		27		27		27		27		27		27		27		27			
	VERY STIFF, GRAY, SILT AND CLAY, LITTLE SAND, TRACE GRAVEL, DAMP						1000.0	28		29		9		45		83		SS-12		4.50		-		-		-		-		11		A-4a (V)									
							997.0	30		30		30		30		30		30		30		30		30		30		30		30		30		30		30		30			
	HARD, GRAY, SILT AND CLAY, SOME SAND, TRACE GRAVEL, MOIST						1001.0	31		32		10		30		78		SS-13		3.75		35		8		13		33		27		23		14		9		13		A-4a (5)	
							997.0	33		33		33		33		33		33		33		33		33		33		33		33		33		33		33		33		33	
	HARD, GRAY, SILT AND CLAY, SOME SAND, LITTLE GRAVEL, DAMP						997.0	34		35		4		14		44		SS-15		1.00		18		15		21		11		-		-		-		10		A-2-6 (V)			
							992.0	36		36		36		36		36		36		36		36		36		36		36		36		36		36		36		36		36	
	HARD, GRAY, SILT AND CLAY, SOME SAND, LITTLE GRAVEL, DAMP						992.0	37		38		6		41		78		SS-16		4.50		-		-		-		-		-		-		-		-		17		A-6a (V)	
							997.0	39		39		39		39		39		39		39		39		39		39		39		39		39		39		39		39		39	
	HARD, GRAY, SILT AND CLAY, SOME SAND, DAMP						992.0	40		41		50		77		33		SS-17		1.00		18		19		14		18		31		27		15		12		13		A-6a (3)	
							997.0	42		42		42		42		42		42		42		42		42		42		42		42		42		42		42		42		42	
	HARD, GRAY, SILT AND CLAY, SOME SAND, DAMP						992.0	43		44		26		33		97		100		4.50		-		-		-		-		-		-		-		-		10		A-6a (V)	
							997.0	45		45		45		45		45		45		45		45		45		45		45		45		45		45		45		45		45	
	HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP						977.0	46		47		31		137		89		SS-20		4.50		-		-		-		-		-		-		-		11		A-6a (V)			
							970.0	48		48		48		48		48		48		48		48		48		48		48		48		48		48		48		48		48	
	HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP						977.0	49		50		24		50/2"		100		SS-21		4.50		10		12		24		29		25		20		12		8		10		A-4a (4)	
							970.0	51		51		51		51		51		51		51		51		51		51		51		51		51		51		51		51		51	
	HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP						970.0	52		53		45		92		22		1.50		-		-		-		-		-		-		-		-		13		A-4a (V)			
							970.0	54		54		54		54		54		54		54		54		54		54		54		54		54		54		54		54		54	

PROJECT: SHE-SPRUCE-02.27			DRILLING FIRM / OPERATOR:			PSI / J.E.		DRILL RIG: CME 45C (350574)		STATION / OFFSET:				9+80, 21' LT.		EXPLORATION ID							
TYPE: BRIDGE			SAMPLING FIRM / LOGGER:			PSI / C.W.		HAMMER: CME AUTOMATIC		ALIGNMENT: ROADWAY CENTERLINE						B-002-0-21							
PID: 114201 SFN:			DRILLING METHOD:			3.25" HSA		CALIBRATION DATE: 8/18/20		ELEVATION: 1019.9 (MSL) EOB: 55.0 ft.						PAGE							
START: 5/17/21 END: 5/17/21			SAMPLING METHOD:			SPT		ENERGY RATIO (%): 86.8		LAT / LONG: 40.273900, -84.164200						1 OF 1							
MATERIAL DESCRIPTION AND NOTES			ELEV.	DEPTH	SPT / RQD	N60	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (gi)	HOLE SEALED			
12" RAILROAD BASE/BALLAST			1019.9	1018.9	1																		
					2	3	2	6	67	SS-1	1.50												
					3																		
					4	1	2	4	6	SS-2	-												
					5																		
LOOSE, BLACK, SANDY SILT, TRACE CLAY, WITH CINDERS, MOIST , FILL			1017.4	6	3	3	9	83	SS-3	1.50													
				7	3	3																	
				8																			
				9	2	3	12	78	SS-4	3.25													
				10	5																		
SOFT, GRAY, SILT AND CLAY, LITTLE SAND, MOIST			1014.4	11	3	5	19	39	SS-5	4.00													
				12	8																		
				13																			
				14	4	9	33	78	SS-6	-													
				15	14																		
MEDIUM DENSE, GRAY, COARSE AND FINE SAND, TRACE GRAVEL, TRACE CLAY, MOIST			1006.9	16	13	17	59	78	SS-7	-													
				17	24																		
				18																			
				19	14	17	42	72	SS-8	4.50													
				20	12																		
DENSE, GRAY, GRAVEL WITH SAND, SILT, AND CLAY, WET			1003.9	21	4	8	27	89	SS-9	3.75													
				22	11																		
				23																			
				24	4	9	33	89	SS-10	4.00													
				25	14																		
VERY STIFF TO HARD, GRAY, SILTY CLAY, LITTLE SAND, TRACE GRAVEL, DAMP			993.9	26	8	50/5"	-	100	SS-11	4.50													
				27																			
				28																			
				29	18	33	120	100	SS-12	4.50													
				30	50																		
HARD, GRAY, SANDY SILT, SOME CLAY, LITTLE GRAVEL, MOIST			991.9	31																			
				32																			
				33																			
				34	33	50	-	83	SS-13	-													
				35																			
HARD, GRAY, SILT AND CLAY, SOME SAND, DAMP			986.9	36																			
				37																			
				38																			
				39	30	46	146	78	SS-14	4.50													
				40	55																		
HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP			977.9	41																			
				42																			
				43																			
				44	31	51	-	83	SS-15	4.00													
				45																			
			964.9	46																			
				47																			
				48																			
				49	21	36	114	94	SS-16	4.50													
				50	43																		
				51																			
				52																			
				53																			
				54	18	28	90	100	SS-17	4.50													
				55	34																		
NOTES: NONE																							
ABANDONMENT METHODS, MATERIALS, QUANTITIES:																							
NOT RECORDED																							

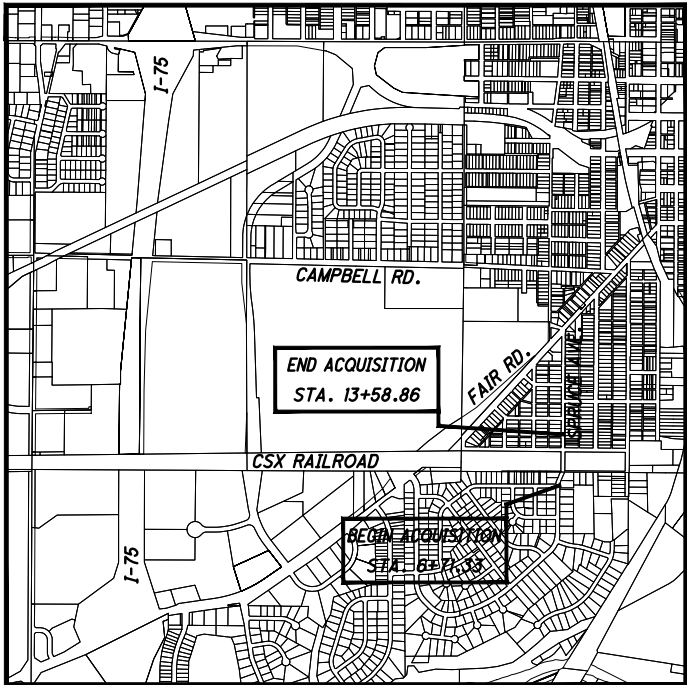
STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DDT.CDT - 9/27/21 10:44 - \\PSRPROD\BWM2\BENTLEY\GINT\PROJECTS\0105 ODOT DAYTON-OH\01051704.GPJ

STANDARD 0001 SOIL BORING LOG (8.5 X 11) - - OH DOT.GDT - - 9/27/21 10:44 - - \\PSIPRODDDBW02\BENTLEY_GINT\PROJECTS\0105 0001 DAYTON-OH\01051704.GPJ

NOT RECORDED

PROJECT: SHE-SPRUCE-02.27			DRILLING FIRM / OPERATOR:			PSI / J.E.		DRILL RIG:		CME 45C (350574)		STATION / OFFSET:				10+72, 15' LT.				EXPLORATION ID												
TYPE: BRIDGE			SAMPLING FIRM / LOGGER:			PSI / C.W.		HAMMER:		CME AUTOMATIC		ALIGNMENT: ROADWAY CENTERLINE				70.0 ft.				B-004-0-21												
PID: 114201 SFN:			DRILLING METHOD:			3.25" HSA		CALIBRATION DATE: 8/18/20		ELEVATION: 1045.0 (MSL) EOB:		1045.0 (MSL) EOB:				70.0 ft.				PAGE												
START: 5/19/21 END: 5/20/21			SAMPLING METHOD:			SPT		ENERGY RATIO (%): 86.8		LAT / LONG:		40.274100, -84.164200				40.274100, -84.164200				1 OF 1												
MATERIAL DESCRIPTION AND NOTES						ELEV.	DEPTHS		SPT/ RQD	N60	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (a)	HOLE SEALED								
8" ASPHALT	7" GRAVEL BASE MATERIAL						1045.0		1																							
							1044.3		2	5	3	9	67	SS-1	2.50																	
							1043.8		3																							
							1042.0		4	0	1	4	39	SS-2	1.00																	
							1039.5		5																							
STIFF, GRAY AND BROWN, SILTY CLAY, TRACE SAND, TRACE GRAVEL, MOIST								6																								
								1043.8	7	1	4	12	83	SS-3	3.50																	
								1042.0	8																							
								1035.0	9	2	3	12	83	SS-4	2.00																	
								1035.0	10																							
VERY STIFF, BROWN, SANDY SILT, AND CLAY, LITTLE GRAVEL, DAMP TO MOIST								11																								
								1029.0	12	13	9	23	78	SS-5	4.50																	
								1027.0	13																							
								1024.5	14	6	4	20	6	SS-6	-																	
								1024.5	15																							
VERY STIFF, GRAY, SILT AND CLAY, LITTLE SAND, DAMP								16																								
								1029.0	17	4	5	20	83	SS-7	4.50																	
								1027.0	18																							
								1024.5	19	0	6	19	83	SS-8	1.75																	
								1024.5	20																							
VERY STIFF, GRAY, SANDY SILT, SOME CLAY, LITTLE GRAVEL, MOIST								21																								
								1022.0	22	4	4	16	78	SS-9	4.00																	
								1022.0	23																							
								1022.0	24	2	4	13	78	SS-10	2.00																	
								1022.0	25																							
DENSE, GRAY, GRAVEL, SOME SAND, TRACE SILT, TRACE CLAY, WET								26																								
								1007.0	27	2	3	10	78	SS-11	1.25																	
								1007.0	28																							
								1007.0	29	2	3	10	78	SS-12	1.25																	
								1007.0	30																							
HARD, GRAY, SANDY SILT, SOME CLAY, LITTLE GRAVEL, MOIST TO DAMP								31																								
								1003.0	32																							
								1003.0	33																							
								1003.0	34	1	3	10	83	SS-13	2.00																	
								1003.0	35																							
HARD, GRAY, SANDY SILT, SOME CLAY, LITTLE GRAVEL, MOIST TO DAMP								36																								
								1003.0	37																							
								1003.0	38																							
								1003.0	39	10	13	36	89	SS-14	-																	
								1003.0	40																							
HARD, GRAY, SANDY SILT, SOME CLAY, LITTLE GRAVEL, MOIST TO DAMP								41																								
								1003.0	42																							
								1003.0	43																							
								1003.0	44	6	10	35	94	SS-15	4.50																	
								1003.0	45																							
HARD, GRAY, SANDY SILT, SOME GRAVEL, SOME CLAY, MOIST								46																								
								983.0	47																							
								983.0	48	8	12	56	78	SS-16	4.50																	
								983.0	49																							
								983.0	50																							
HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP								51																								
								979.0	52																							
								979.0	53																							
								979.0	54	21	39	117	89	SS-17	4.50																	
								979.0	55																							
HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP								56																								
								975.0	57																							
								975.0	58																							
								975.0	59	13	16	55	100	SS-18	3.00																	
								975.0	60																							
HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP								61																								
								975.0	62																							
								975.0	63																							
								975.0	64	48		-	58	SS-19	-																	
								975.0	65																							
HARD, GRAY, SANDY SILT, SOME CLAY, TRACE GRAVEL, DAMP								66																								
								975.0	67																							
								975.0	68																							
								975.0	69	31	40	123	100	SS-20	4.50																	
								975.0	70																							

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DDT.CDT - 9/27/21 10:44 - \\PSRPROD\BWM2\BENTLEY\GINT\PROJECTS\0105 ODOT DAYTON-OH\01051704.GPJ



LATITUDE: 40° 16' 26" N LONGITUDE: 84° 09' 51" W
NOT TO SCALE

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

UNDERGROUND UTILITIES

Contact Two Working Days
Before You Dig


Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

CONVENTIONAL SYMBOLS

County Line	-----	Ditch / Creek (Ex)	-----
Township Line	-----	Ditch / Creek (Pr)	-----
Section Line	-----	Tree Line (Ex)	~~~~~
Corporation Line	----- or -----	Ownership Hook Symbol	⌋, Example
Fence Line (Ex)	----- (Pr)	Property Line Symbol	⌋, Example
Center Line	-----	Break Line Symbol	⌋, Example
Right of Way (Ex)	-----	Tree (Pr)	⊗, Tree (Ex)
Right of Way (Pr)	-----	Shrub (Ex)	⊗, Shrub (Remove)
Standard Highway Ease.(Ex)	-----	Evergreen (Ex)	⊗, Stump
Temporary Right of Way	-----	Evergreen (Remove)	⊗, Stump (Remove)
Channel Ease. (Pr)	-----	Wetland (Pr)	⊗, Grass (Pr)
Utility Ease. (Ex)	-----	Aerial Target	⊗, Mailbox (Pr)
Railroad	----- or -----	Post (Ex)	⊗, Telephone Marker (Ex)
Guardrail (Ex)	----- (Pr)	Light (Ex)	⊗, Fire Hydrant (Ex)
Construction Limits	-----	Water Meter (Ex)	⊗, Water Valve (Ex)
Edge of Pavement (Ex)	-----	Utility Valve Unknown (Ex.)	⊗
Edge of Pavement (Pr)	-----	Telephone Pole (Ex)	⊗, Power Pole (Ex)
Edge of Shoulder (Ex)	-----	Light Pole (Ex)	⊗
Edge of Shoulder (Pr)	-----		

RIGHT OF WAY
LEGEND SHEET
SHE-SPRUC-02270

CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO

INDEX OF SHEETS:

LEGEND SHEET	1
CENTERLINE SURVEY PLAT	2
PROPERTY MAP	3
SUMMARY SHEET	4-5
RIGHT OF WAY PLAN	6-11
RAILROAD PLAT	12

UTILITY OWNERS

STREETS AND STORM SEWER
CITY OF SIDNEY
201 W. POPLAR STREET
SIDNEY, OHIO 45365
(937) 498-2335

SANITARY AND WATER
CITY OF SIDNEY
415 S. VANDEMARK ROAD
SIDNEY, OHIO 45365
UTILITY DIRECTOR
WILLIAM BLAKELY
(937) 498-8152

GAS
CENTERPOINT ENERGY
2345 E. MAIN ST.
DANVILLE, INDIANA 456122
ATTN: PUBLIC PROJECT COORD.
(317) 718-3639

ELECTRIC
AES OHIO
1900 DRYDEN ROAD
DAYTON, OHIO 45439
WILLIAM GOURLEY
(937) 311-4061

TELECOMMUNICATION
LUMEN
125 N. MAIN STREET
SIDNEY, OHIO 45415
RICK KROGMAN
(937) 498-5105

CHARTER COMMUNICATION
3691 TURNER ROAD
DAYTON, OHIO 45415
MICHAEL BURNS
(937) 396-8386

NKTELCO
301 W. SOUTH STREET
NEW KNOXVILLE, OHIO 45871
PRESTON MEYER
(419) 753-2457

NOTE:

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

UTILITIES ARE SHOWN AS FOUND ON THESE STEPS IN RESPONSE TO OUPS TICKETS:
B107100073-00B 3/12/2021
B107100074-00B 3/12/2021
B107100075-00B 3/12/2021

PROJECT DESCRIPTION

REPLACE DEFICIENT BRIDGE AND INCREASE VERTICAL CLEARANCE OVER CSX TRANSPORTATION. THE PROPOSED BRIDGE WILL BE A 3-SPAN STEEL ROLLED BEAM ON SEMI-INTEGRAL ABUTMENTS AND T-TYPE PIERS. PROJECT TO INCLUDE NECESSARY APPROACH AND INTERSECTION WORK TO ACCOMMODATE THE INCREASE IN VERTICAL PROFILE FOR THE CLEARANCE REQUIREMENTS OVER THE CSX RR.

PLANS PREPARED BY:

FIRM NAME: CHOICE ONE ENGINEERING
R/W DESIGNER: BRIAN H. BARHORST
R/W REVIEWER: WESLEY D. GOUBEAUX
FIELD REVIEWER: WESLEY D. GOUBEAUX
PRELIMINARY FIELD REVIEW DATE: 06-15-2021
TRACINGS FIELD REVIEW DATE: _____
OWNERSHIP UPDATED BY: W.D.G.
DATE COMPLETED: 5-18-2023
PLAN COMPLETION DATE: 05/23/2023

STRUCTURE KEY

COMMERCIAL
RESIDENTIAL
RESIDENTIAL OUT BUILDING

LEGEND

SH = STANDARD HIGHWAY EASEMENT
T = TEMPORARY EASEMENT

I, WESLEY D. GOUBEAUX, P.S. 8254, HAVE CONDUCTED A SURVEY OF THE EXISTING CONDITIONS FOR THE CITY OF SIDNEY IN MAY, 2021. THE RESULTS OF THAT SURVEY ARE CONTAINED HEREIN.

I HAVE DETERMINED THE LOCATIONS OF THE EXISTING PROPERTY LINES FOR PROPERTY TAKES CONTAINED HEREIN. I HAVE CALCULATED THE PROPOSED PROPERTY LINES, GROSS TAKE, PRESENT ROADWAY OCCUPIED (PRO), NET TAKE AND NET RESIDUES, AS WELL AS PREPARED THE LEGAL DESCRIPTIONS NECESSARY TO ACQUIRE THESE PARCELS AS SHOWN HEREIN.

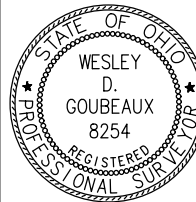
AS A PART OF THIS PROJECT, I HAVE SET MONUMENTS AT THE PROPOSED PROPERTY CORNERS, SECTION CORNERS AND OTHER POINTS AS SHOWN HEREIN. HOWEVER, ITEM 604 MONUMENT ASSEMBLIES, ITEM 604 REFERENCE MONUMENTS AND CENTERLINE MONUMENTS SHALL BE INSTALLED BY THE CONSTRUCTION CONTRACTOR AS SPECIFIED IN THE PLANS. ALL CENTERLINE MONUMENTS AND RIGHT-OF-WAY MONUMENTS SET AND/OR RESET BY THE CONTRACTOR'S SURVEYOR WILL INCLUDE A CAP AS PER STANDARD CONSTRUCTION DRAWING RM-1.1 AND BEAR THE SURVEYOR'S OHIO REGISTRATION NUMBER AND/OR NAME OR COMPANY NAME. THIS WORK WILL BE DONE IN ACCORDANCE WITH OAC 4733-37 AS CITED BELOW.

ALL OF MY WORK CONTAINED HEREIN WAS CONDUCTED IN ACCORDANCE WITH OHIO ADMINISTRATIVE CODE 4733-37 COMMONLY KNOWN AS MINIMUM STANDARDS FOR BOUNDARY SURVEY IN THE STATE OF OHIO UNLESS SO NOTED.


THE WORDS I AND MY AS USED HEREIN ARE TO MEAN EITHER MYSELF OR SOMEONE WORKING FOR ME UNDER MY DIRECT CONTROL OR SUPERVISION.

BY WESLEY D. GOUBEAUX, P.S. #8254
DATE

SURVEYORS SEAL



DESIGN AGENCY



CHOICE ONE ENGINEERING

DESIGNER

BHB

REVIEWER

WDG

PROJECT ID

114201

SUBSET TOTAL

RW.1 RW.12

BASIS FOR EX. R/W

THE EXISTING CENTERLINE ALIGNMENT AND RIGHT-OF-WAY WIDTHS WERE DETERMINED USING VARIOUS SUBDIVISION PLATS FOR THE CITY OF SIDNEY AND LISTED BELOW:

GLENNOVA ADDITION, PB 3-6
WAGNER SUBDIVISION OF OL 106-108, PB 3-138
WAGNER SUBDIVISION OF OL 109-110, PB 3-163
SPRUCE HAVEN ADDITION, PB 5-100
RAILROAD R/W AND TRACK MAP V41-61
CITY OF SIDNEY ORDINANCE 721, 1923

ADDITIONAL RESOURCES INCLUDE VARIOUS PLAT OF SURVEYS ON FILE AT SHELBY COUNTY OFFICES AND DEEDS AS SHOWN ON R/W DETAIL SHEETS

THE STATIONING FOR SPRUCE AVENUE AND LINCOLN STREET WAS ASSUMED AND FOR PROJECT USE ONLY.

THE STATIONING FOR RAILROAD BASED ON RAILROAD TRACK MAP V41-61, HELD INTERSECTION OF RAILROAD AND SPRUCE AVENUE AS 8655+74.60.

THE PROPOSED RIGHT-OF-WAY SHALL BE REFERENCED TO THE CENTERLINE OF RIGHT-OF-WAY.

SHE-SPRUC-02270

CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO

CURVE #1
P.I. STA. 6+80.06
Δ = 22° 00' 00" (RT)
Dc = 63° 39' 43"
R = 90.00'
T = 17.49'
L = 34.56'
CH = 34.35'
C.B. = N11°21'59" E

CURVE #2
P.I. STA. 8+50.67
Δ = 22° 12' 43" (LT)
Dc = 63° 39' 43"
R = 90.00'
T = 17.67'
L = 34.89'
CH = 34.67'
C.B. = N11°15'38" E

PROPOSED MONUMENT TABLE					
SPRUCE AVE. & CONSTR. AND R/W		PROJECT ADJUSTED GROUND COORDINATES SEE SURVEY CERTIFICATION		MONUMENTS TO BE SET WITH CONSTRUCTION	DESCRIPTION
STATION	OFFSET	NORTH (Y)	EAST (X)	MONUMENT ASSEM.	
6+97.12	0.00'	225374.9359	1504106.2562	1	MONUMENT BOX ASSEMBLY TO BE SET
8+33.00	0.00'	225500.5900	1504157.9608	1	MONUMENT BOX ASSEMBLY TO BE SET
8+67.89	0.00'	225534.5948	1504164.7313	1	MONUMENT BOX ASSEMBLY TO BE SET
11+06.44	0.00'	225773.1425	1504165.3745	1	MONUMENT BOX ASSEMBLY TO BE SET
TOTAL TO GENERAL SUMMARY				4	

PLAN PREPARED BY:



440 E. HOEWISHER ROAD ■ SIDNEY, OHIO 45365 ■ 937.497.0200
8959 GLENDALE MILFORD ROAD, SUITE 1 LOVELAND, OHIO 46140 513.239.8554

www.CHOICEONEENGINEERING.com

RECEIVED _____, 20____
RECORDED _____, 20____
PLAT BOOK _____, PAGE _____

SHELBY COUNTY RECORDER

TABLE OF EXISTING MONUMENTATION						
NO.	ROADWAY	STATION	DISTANCE FROM & OF SURVEY		DESCRIPTION	PROJECT ADJUSTED GROUND COORDINATES
			LEFT	RIGHT		NORTHING EASTING
1	SPRUCE AVE.	3+25.47		25.04'	IRON PIN FOUND	225004.0150 1504122.3670
2	SPRUCE AVE.	4+16.51		25.00'	IRON PIN FOUND	225095.0470 1504122.9100
3	SPRUCE AVE.	6+18.41		24.79'	IRON PIN FOUND	225296.9480 1504123.9950
4	SPRUCE AVE.	10+81.54	22.50'		CONC. RAILROAD MON. FD	225748.3020 1504142.8050
5	SPRUCE AVE.	10+81.15		22.56'	CONC. RAILROAD MON. FD	225747.7900 1504187.8620
6	LINCOLN ST.	21+90.33	24.69'		IRON PIN FOUND	225796.4850 1504355.8750
7	SPRUCE AVE.	12+25.48		22.55'	IRON PIN FOUND	225892.1230 1504188.2480
8	SPRUCE AVE.	13+19.22	22.80'		IRON PIPE FOUND	225985.9810 1504143.1510
9	SPRUCE AVE.	13+58.87		23.03'	IRON PIPE FOUND	226025.5110 1504189.0830
10	SPRUCE AVE.	14+45.28	22.50'		IRON PIPE FOUND	226111.9230 1504188.7880
100	SPRUCE AVE.	8+66.78		19.32'	TRAV MAG NAIL FOUND	225533.1950 1504184.0350
101	SPRUCE AVE.	6+64.29	23.19'		TRAV MAG NAIL FOUND	225343.5800 1504076.3300
102	SPRUCE AVE.	8+62.14		278.26'	TRAV MAG NAIL FOUND	1504442.1770 225510.3300
103	SPRUCE AVE.	11+40.29	20.13'		TRAV MAG NAIL FOUND	225806.9350 1504185.5960
104	SPRUCE AVE.	14+21.53		20.57'	TRAV MAG NAIL FOUND	226088.1760 1504186.7910
105	LINCOLN ST.	22+50.66	23.39'		TRAV MAG NAIL FOUND	225794.7560 1504416.1910
106	LINCOLN ST.	16+47.17	23.05'		TRAV MAG NAIL FOUND	225798.6950 1503812.7170
TOTAL TO GENERAL SUMMARY						5

MONUMENT LEGEND

- I.P.F. IRON PIN FOUND
- M.N.F. MAG NAIL FOUND
- ⊙ P.F. IRON PIPE FOUND
- ⊙ RAILROAD CONC. MON. FD.
- M.N.S. MAG NAIL SET
- I.P.S. 5/8" IRON PIN WITH CAP SET
- ⌈ MONUMENT BOX W/1P FOUND

SURVEYING PARAMETERS

THE FOLLOWING VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS WERE USED FOR ALL SURVEYING ON THIS PROJECT:

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: TRAVERSE MAG NAIL

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 18

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83 (CORS 2011 ADJUSTMENT)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: NORTH ZONE
COMBINED SCALE FACTOR: 1.0000101465
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. USE THE FOLLOWING CONVERSION FACTOR:
1 METER = 3.280833333 U.S. SURVEY FT.

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I HAVE DETERMINED THE LOCATIONS OF THE EXISTING PROPERTY LINES FOR PROPERTY TAKES CONTAINED HEREIN. I HAVE CALCULATED THE PROPOSED PROPERTY LINES, GROSS TAKE, PRESENT ROADWAY OCCUPIED (PRO), NET TAKE AND NET RESIDUES, AS WELL AS PREPARED THE LEGAL DESCRIPTIONS NECESSARY TO ACQUIRE THESE PARCELS AS SHOWN HEREIN.

AS A PART OF THIS PROJECT, I HAVE SET MONUMENTS AT THE PROPOSED PROPERTY CORNERS, SECTION CORNERS AND OTHER POINTS AS SHOWN HEREIN. HOWEVER, ITEM 604 MONUMENT ASSEMBLIES, ITEM 604 REFERENCE MONUMENTS AND CENTERLINE MONUMENTS SHALL BE INSTALLED BY THE CONSTRUCTION CONTRACTOR AS SPECIFIED IN THE PLANS. ALL CENTERLINE MONUMENTS AND RIGHT-OF-WAY MONUMENTS SET AND/OR RESET BY THE CONTRACTOR'S SURVEYOR WILL INCLUDE A CAP AS PER STANDARD CONSTRUCTION DRAWING RM-1.1 AND BEAR THE SURVEYOR'S OHIO REGISTRATION NUMBER AND/OR NAME OR COMPANY NAME. THIS WORK WILL BE DONE IN ACCORDANCE WITH OAC 4733-37 AS CITED BELOW.

ALL OF MY WORK CONTAINED HEREIN WAS CONDUCTED IN ACCORDANCE WITH OHIO ADMINISTRATIVE CODE 4733-37 COMMONLY KNOWN AS MINIMUM STANDARDS FOR BOUNDARY SURVEY IN THE STATE OF OHIO UNLESS SO NOTED.

THE WORDS I AND MY AS USED HEREIN ARE TO MEAN EITHER MYSELF OR SOMEONE WORKING FOR ME UNDER MY DIRECT CONTROL OR SUPERVISION.

BY _____
WESLEY D. GOUBEAUX, P.S. #8254

DATE _____

HORIZONTAL
SCALE IN FEET
0 50 100 200

CENTERLINE PLAT
SHE-SPRUC-02270

DESIGN AGENCY



CHOICE ONE ENGINEERING

DESIGNER

BHB

REVIEWER

WDG

PROJECT ID

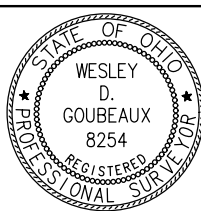
114201

SUBSET

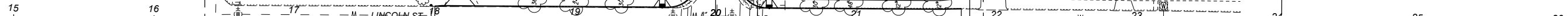
TOTAL

RW.2 RW.12

SURVEYORS SEAL



-
- This is a detailed street map of Lincoln, Nebraska, showing the intersection of Lincoln St. and 15th St. The map is oriented with North at the top. Lincoln St. runs horizontally across the middle of the page. 15th St. runs vertically on the left side, intersecting Lincoln St. The map shows several blocks of Lincoln St. with lot numbers and building footprints. The intersection of 15th St. and Lincoln St. is clearly marked. The map is labeled with '15' at the top left, '16' at the top center, '17' at the top right, and '18' at the bottom center. The map is also labeled with '15th ST' and 'LINCOLN ST'.



**CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO**

WAGNER SUBDIVISION
OF OL 109 & 110
PB 3-163

L.R. WAGNER'S SUBDIVISION
OF OL 109 & 110
PB 3-163

 RESIDENTIAL OUT BUILDING

* DENOTES RIGHT OF WAY ENCROACHMENT

ALL STATIONING IS FROM CENTERLINE OF
RIGHT-OF-WAY UNLESS OTHERWISE NOTED.

			BIB	
			REVIEWER	
			WDG	
			PROJECT ID	
			114201	
			SUBSET	TOTAL
			RW.3	RW.12
REV.	DATE	DESCRIPTION		
PLAN COMPLETION DATE:			05/23/2023	



PROPERTY MAP
SHE-SPRUC-02270

TOTAL NUMBER OF:
12 OWNERSHIPS
18 PARCELS
0 TOTAL TAKES

0 OWNERSHIPS WITH STRUCTURES INVOLVED

GRANTEE:

ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF THE CITY OF SIDNEY UNLESS OTHERWISE SHOWN.

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE
ALL AREAS IN ACRES

* DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			INSTRUMENT								LEFT	RIGHT			BOOK	PAGE
1-10	NOT USED												LOCAL ↑			
11T	AMY C. STRATTON	6-7	OR 1007-3	01-2601101.021	0.284 (C)									GRADING		
				01-2601101.022	0.227 (C)											
				TOTAL	0.227 (C)	0.000	0.789	0.000	0.789	NO						
12T	DANNY L. MURRAY AND LINDA K. MURRAY	6-7	OR 2230-186	01-2601126.002	0.343 (C)	0.000	0.014	0.000	0.014	NO				GRADING		
13T	CLARABELLE M. KERBER	6-7	OR 2306-5953	01-2601126.001	0.320 (C)	0.000	0.055	0.000	0.055	NO				GRADING		
14-SH1	CSX TRANSPORTATION	6-7,10-12	DB 111-92	01-1836501.009		0.000	0.105	0.000	0.105	NO						
			DB 111-90													
			DB 111-93													
14-SH2		6-7,10-12	DB 109-595			0.000	0.045	0.000	0.045	NO						
14-SH3		6-7,10-12	DB 109-595			0.000	0.032	0.000	0.032	NO						
14-SH4		6-7,10-12	DB 111-118			0.000	0.056	0.000	0.056	NO						
14-T1		6-7,10-12	DB 111-118			0.000	0.231	0.000	0.231	NO				GRADING		
			DB 111-91													
			DB 111-92													
			DB 111-90													
			DB 111-93													
14-T2		6-7,10-12	DB 109-595			0.000	0.287	0.000	0.287	NO				GRADING		
			DB 111-33													
15T	SHARON L. MARTIN	6-7,10-11	OR 1182-240	01-1836358.013	0.172 (C)											
				01-1836358.014	0.072 (C)											
				TOTAL	0.244 (C)	0.000	0.079	0.000	0.079	NO				GRADING		
16T	RUTH WILKINS STONE	8-9	OR 2046-257	01-1836358.012	0.172	0.000	0.014	0.000	0.014	NO				GRADING		
													LOCAL ↓			

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION FROM COMMENCEMENT OF CONSTRUCTION.

(C) = CALCULATED AREA


LEGEND

SH = STANDARD HIGHWAY EASEMENT
T = TEMPORARY EASEMENT

REV.	DATE	DESCRIPTION
FIELD REVIEW BY: BHB		DATE: 6-15-2021
OWNERSHIP VERIFIED BY: WDG		DATE: 5-18-2023
PLAN COMPLETION DATE: 05/23/2023		

CHOICE ONE ENGINEERING	
DESIGNER BHB	
REVIEWER WDG	
PROJECT ID 114201	
SUBSET RW.4	TOTAL RW.12

DESIGN AGENCY



CHOICE ONE ENGINEERING

DESIGNER BHB

REVIEWER WDG

PROJECT ID 114201

SUBSET RW.4 | TOTAL RW.12

c:\project\Shelby\Sidney\she-sid-2105spruceavenuebridgesurvey\114201RS.dwg 25-May-23 10:19 AM

ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF THE
CITY OF SIDNEY UNLESS OTHERWISE SHOWN.

SUMMARY SHEET 2 OF 2

* DENOTES RIGHT OF WAY ENCROACHMENT

SUMMARY OF ADDITIONAL RIGHT OF WAY

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION FROM COMMENCEMENT OF CONSTRUCTION.

(C) = CALCULATED AREA

SH = STANDARD HIGHWAY EASEMENT
T = TEMPORARY EASEMENT



CHOICE ONE ENGINEERING

DESIGNER

BHB

REVIEWER
WDG

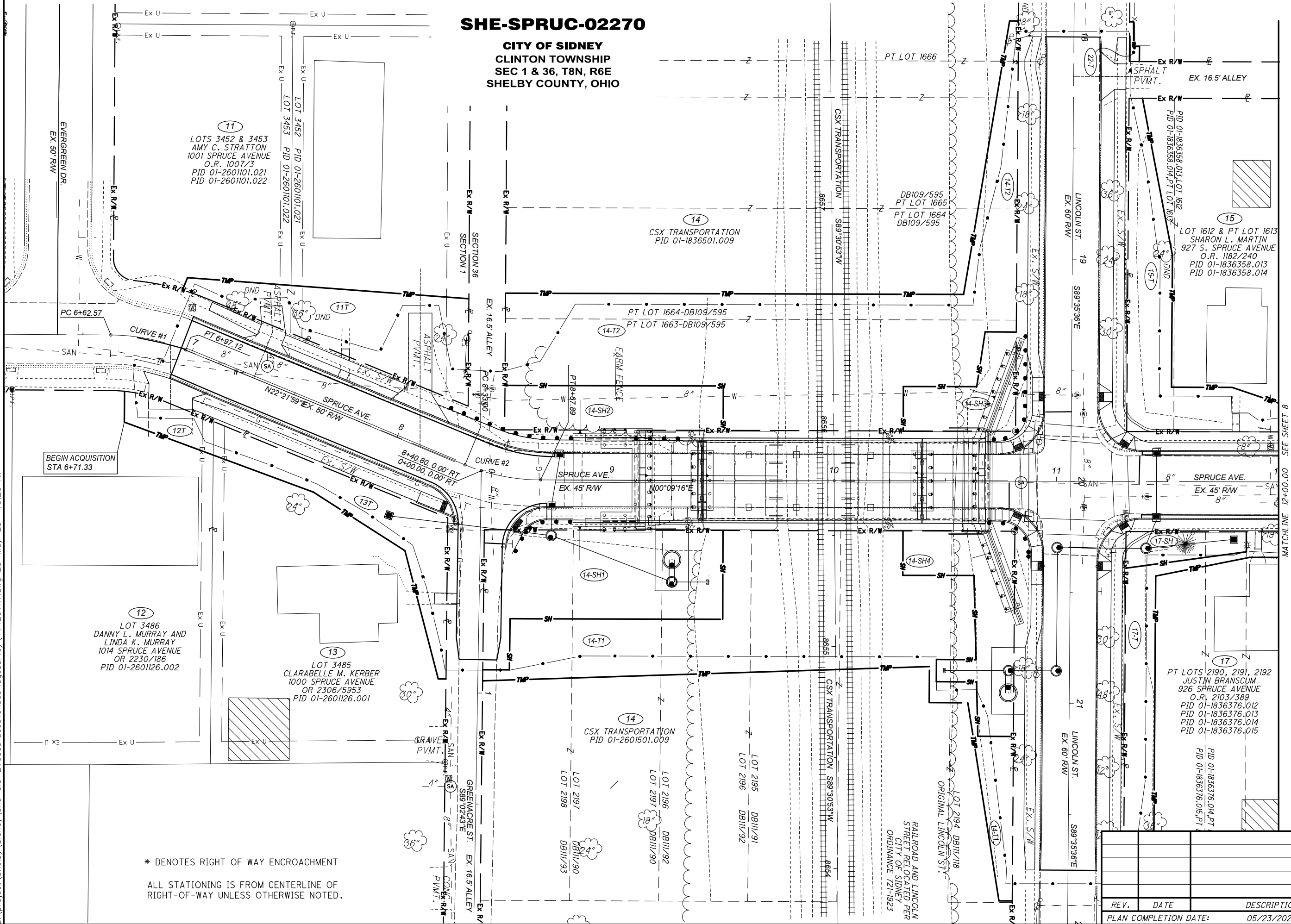
WBG
PROJECT ID

114201

SUBSET	TOTAL
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RW.5	RW.12
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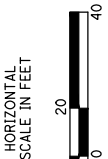
© 2006 The Authors



* DENOTES RIGHT OF WAY ENCROACHMENT
ALL STATIONING IS FROM CENTERLINE OF
RIGHT-OF-WAY UNLESS OTHERWISE NOTED.

SHE-SPRUC-02270

**CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO**



**RIGHT OF WAY TOPO SHEET
STA. 7+00 to STA. 12+00**

DESIGN AGENCY



CHOICE ONE ENGINEERING

DESIGNER

BHB

REVIEWER

WDG

PROJECT ID

114201

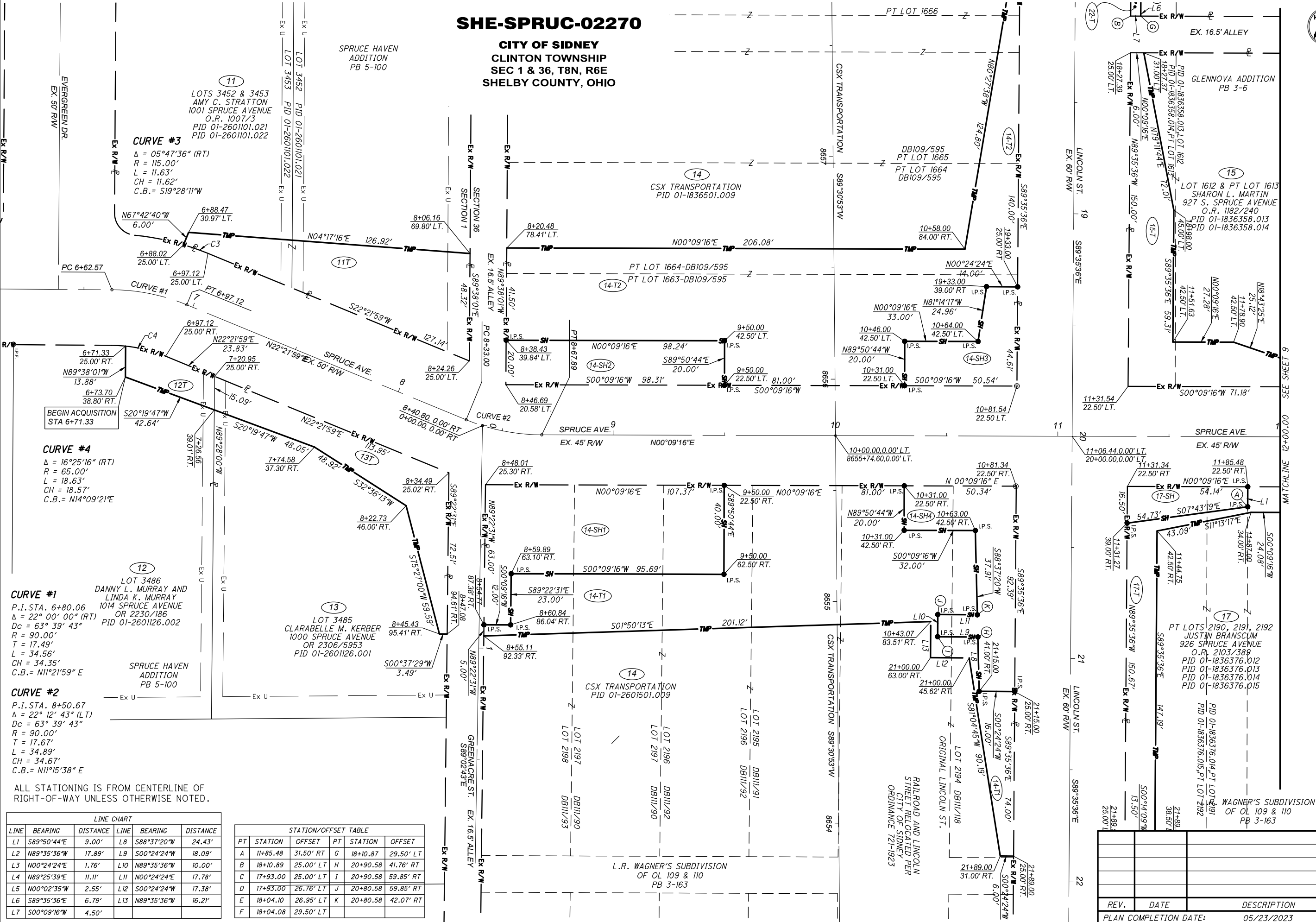
SUBSET TOTAL

RW.6 RW.12

REV.	DATE	DESCRIPTION
PLAN COMPLETION DATE:		05/23/2023

SHE-SPRUC-02270

CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO



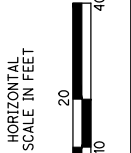
CURVE #1
P.I. STA. 6+80.06
 $\Delta = 22^\circ 00' 00''$ (RT)
 $Dc = 63^\circ 39' 43''$
 $R = 90.00'$
 $T = 17.49'$
 $L = 34.56'$
 $CH = 34.35'$
 $C.B. = N11^\circ 21' 59'' E$

CURVE #2
P.I. STA. 8+50.67
 $\Delta = 22^\circ 12' 43''$ (LT)
 $Dc = 63^\circ 39' 43''$
 $R = 90.00'$
 $T = 17.67'$
 $L = 34.89'$
 $CH = 34.67'$
 $C.B. = N11^\circ 15' 38'' E$

ALL STATIONING IS FROM CENTERLINE OF RIGHT-OF-WAY UNLESS OTHERWISE NOTED.

LINE CHART					
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	S89°50'44"E	9.00'	L8	S88°37'20"W	24.43'
L2	N89°35'36"W	17.89'	L9	S00°24'24"W	18.09'
L3	N00°24'24"E	1.76'	L10	N89°35'36"W	10.00'
L4	N89°25'39"E	11.11'	L11	N00°24'24"E	17.78'
L5	N00°02'35"W	2.55'	L12	S00°24'24"W	17.38'
L6	S89°35'36"E	6.79'	L13	N89°35'36"W	16.21'
L7	S00°09'16"W	4.50'			

STATION/OFFSET TABLE					
PT	STATION	OFFSET	PT	STATION	OFFSET
A	11+85.48	31.50' RT	G	18+10.87	29.50' LT
B	18+10.89	25.00' LT	H	20+90.58	41.76' RT
C	17+93.00	25.00' LT	I	20+90.58	59.85' RT
D	17+93.00	26.76' LT	J	20+80.58	59.85' RT
E	18+04.10	26.95' LT	K	20+80.58	42.07' RT
F	18+04.08	29.50' LT			

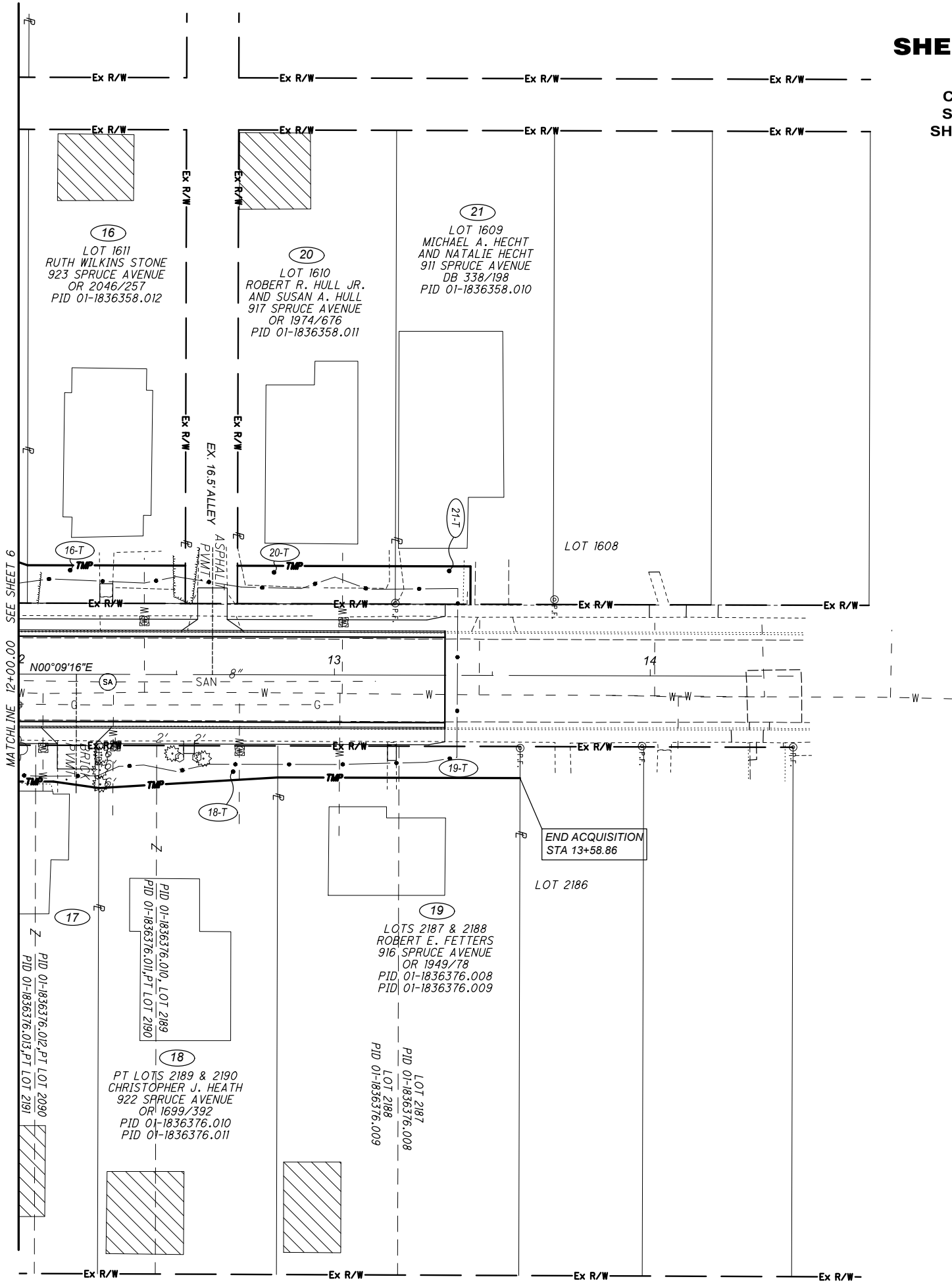


RIGHT OF WAY BOUNDARY SHEET
STA. 7+00 to STA. 12+00

DESIGN AGENCY	
CHOICE ONE ENGINEERING	
DESIGNER	
BHB	
REVIEWER	
WDG	
PROJECT ID	
114201	
SUBSET	TOTAL
RW.7	RW.12

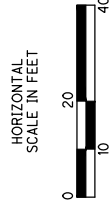
REV.	DATE	DESCRIPTION
PLAN COMPLETION DATE: 05/23/2023		

* DENOTES RIGHT OF WAY ENCROACHMENT
ALL STATIONING IS FROM CENTERLINE OF
RIGHT-OF-WAY UNLESS OTHERWISE NOTED.



SHE-SPRUC-02270

CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO



RIGHT OF WAY TOPO SHEET
STA. 12+00 to STA. 14+00

DESIGN AGENCY



CHOICE ONE ENGINEERING

DESIGNER

BHB

REVIEWER

WDG

PROJECT ID

114201

SUBSET TOTAL

RW.8 RW.12

REV.	DATE	DESCRIPTION
PLAN COMPLETION DATE: 05/23/2023		

A horizontal scale bar labeled "HORIZONTAL SCALE IN FEET" with markings at 0, 10, 20, and 40. The bar is divided into alternating black and white segments.

DESIGN AGENCY



CHOICE ONE ENGINEERING

DESIGNER

BHB

REVIEWER

PROJECT ID

14201

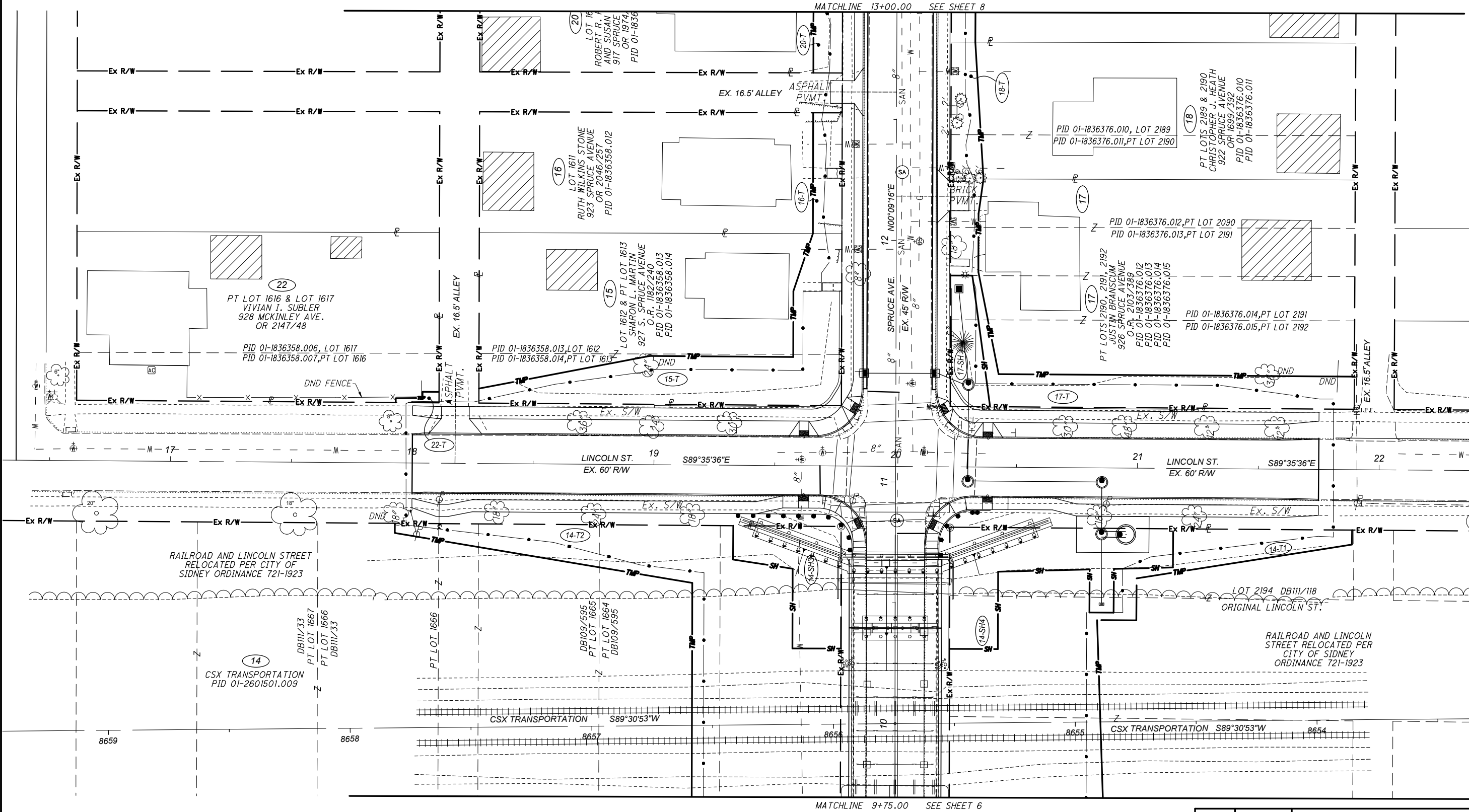
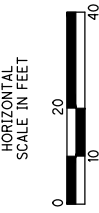
SUBSET	TOTAL
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9 | RW

REV.	DATE	DESCRIPTION
PLAN COMPLETION DATE:		05/23/2023

SHE-SPRUC-02270

CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO



* DENOTES RIGHT OF WAY ENCROACHMENT

ALL STATIONING IS FROM CENTERLINE OF
RIGHT-OF-WAY UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
PLAN COMPLETION DATE: 05/23/2023		

SUBSET	TOTAL
RW.10	RW.12

RIGHT OF WAY TOPO SHEET
STA. 17+00 to STA. 22+00

DESIGN AGENCY



CHOICE ONE ENGINEERING

DESIGNER

BHB

REVIEWER

WDG

PROJECT ID

114201

SUBSET

RW.10


TOTAL

RW.12

**CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO**



HORIZONTAL
SCALE IN FEET

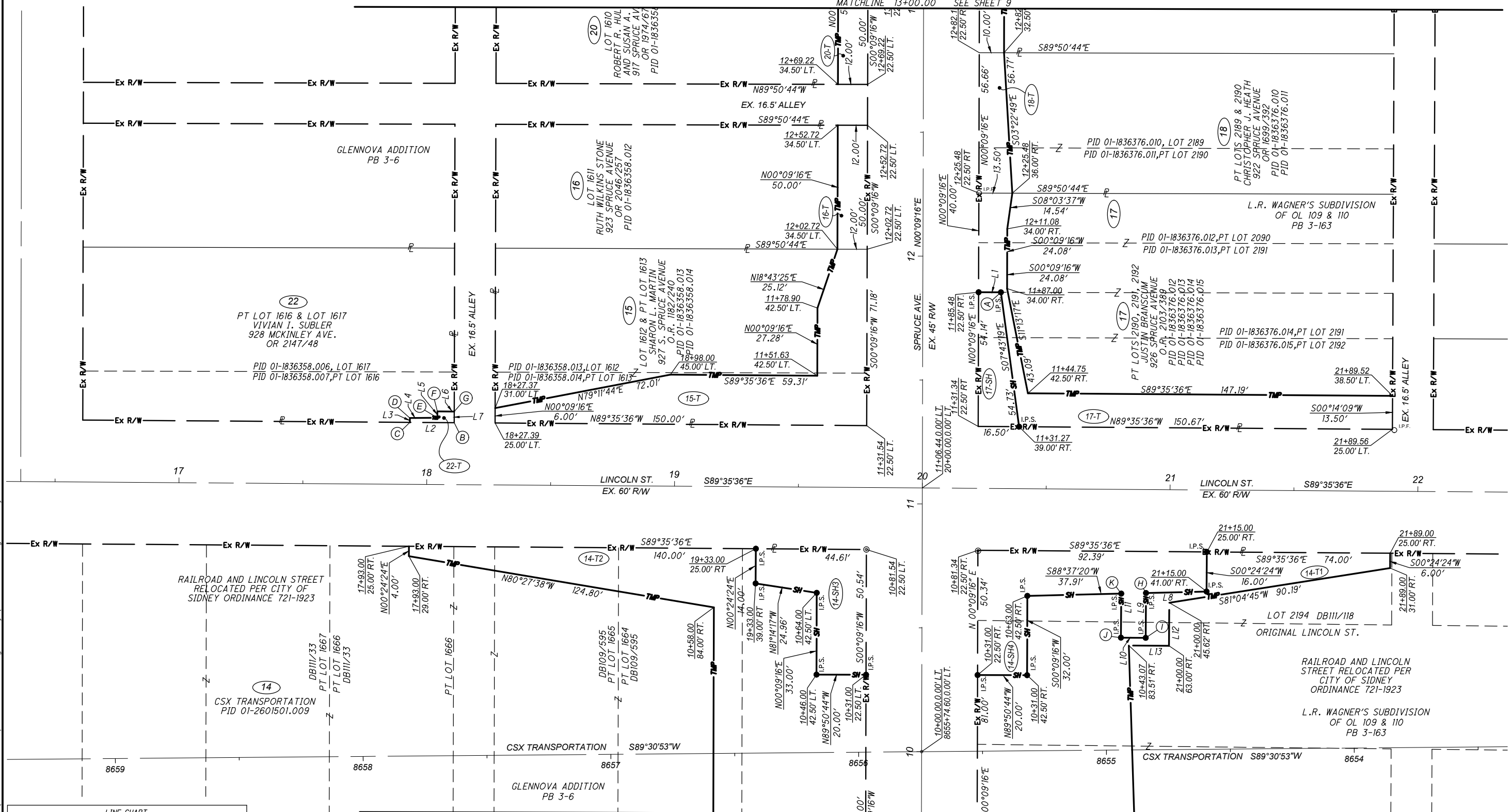


RIGHT OF WAY BOUNDARY SHEET
STA. 17+00 to STA. 22+00



BHB
REVIEWER
WDG
PROJECT ID
114201
SET TOTAL
V.11 | RW.12

REV.	DATE	DESCRIPTION
PLAN COMPLETION DATE:		05/23/2023



ALL STATIONING IS FROM CENTERLINE OF
RIGHT-OF-WAY UNLESS OTHERWISE NOTED.

LINE CHART						
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE	
L1	S89°50'44"E	9.00'	L8	S88°37'20"W	24.43'	
L2	N89°35'36"W	17.89'	L9	S00°24'24"W	18.09'	
L3	N00°24'24"E	1.76'	L10	N89°35'36"W	10.00'	
L4	N89°25'39"E	11.11'	L11	N00°24'24"E	17.78'	
L5	N00°02'35"W	2.55'	L12	S00°24'24"W	17.38'	
L6	S89°35'36"E	6.79'	L13	N89°35'36"W	16.21'	
L7	S00°09'16"W	4.50'				

PT	STATION	OFFSET	PT	STATION	OFFSET
A	11+85.48	31.50' RT	G	18+10.87	29.50' LT
B	18+10.89	25.00' LT	H	20+90.58	41.76' RT
C	17+93.00	25.00' LT	I	20+90.58	59.85' RT
D	17+93.00	26.76' LT	J	20+80.58	59.85' RT
E	18+04.10	26.95' LT	K	20+80.58	42.07' RT
F	18+04.08	29.50' LT			

SHE-SPRUC-02270

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SHE-SPRUC-02270

CITY OF SIDNEY
CLINTON TOWNSHIP
SEC 1 & 36, T8N, R6E
SHELBY COUNTY, OHIO

RAILROAD AND LINCOLN STREET
RELOCATED PER CITY OF
SIDNEY ORDINANCE 721-1923

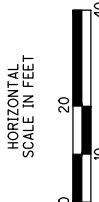
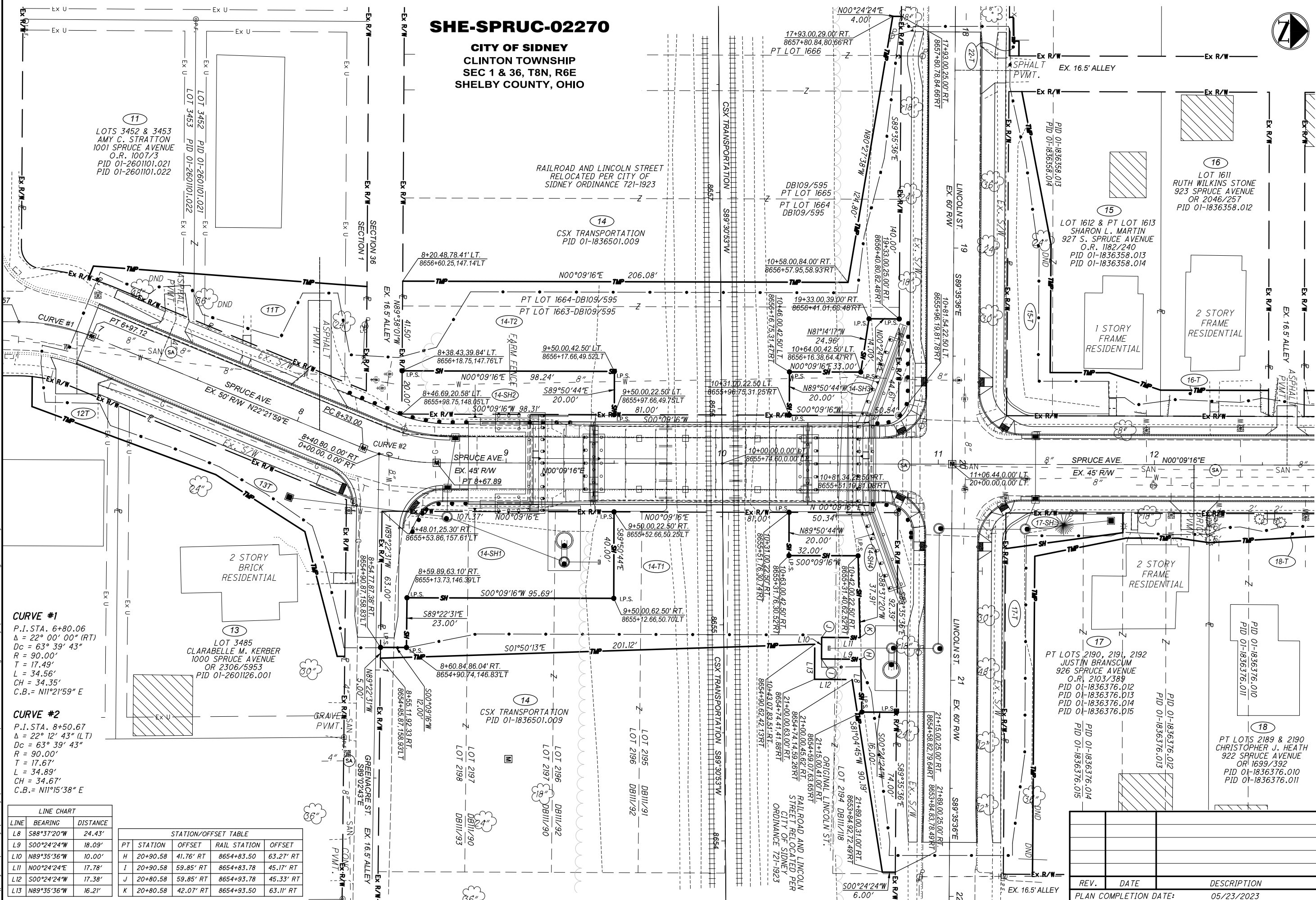
CSX TRANSPORTATION
PID 01-1836501.009

CURVE #1
P.I. STA. 6+80.06
 $\Delta = 22^\circ 00' 00''$ (RT)
 $Dc = 63^\circ 39' 43''$
 $R = 90.00'$
 $T = 17.49'$
 $L = 34.56'$
 $CH = 34.35'$
 $C.B. = N11^\circ 21' 59'' E$

CURVE #2
P.I. STA. 8+50.67
 $\Delta = 22^\circ 12' 43''$ (LT)
 $Dc = 63^\circ 39' 43''$
 $R = 90.00'$
 $T = 17.67'$
 $L = 34.89'$
 $CH = 34.67'$
 $C.B. = N11^\circ 15' 38'' E$

LINE CHART		
LINE	BEARING	DISTANCE
L8	S88°37'20"W	24.43'
L9	S00°24'24"W	18.09'
L10	N89°35'36"W	10.00'
L11	N00°24'24"E	17.78'
L12	S00°24'24"W	17.38'
L13	N89°35'36"W	16.21'

STATION/OFFSET TABLE				
PT	STATION	OFFSET	RAIL STATION	OFFSET
H	20+90.58	41.76' RT	8654+83.50	63.27' RT
I	20+90.58	59.85' RT	8654+83.78	45.17' RT
J	20+80.58	59.85' RT	8654+93.78	45.33' RT
K	20+80.58	42.07' RT	8654+93.50	63.11' RT



RAILROAD PLAT

DESIGN AGENCY



CHOICE ONE ENGINEERING

DESIGNER

BHB

REVIEWER

WDG

PROJECT ID

114201

SUBSET

TOTAL

RW.12

RW.12

REV.	DATE	DESCRIPTION
PLAN COMPLETION DATE:		05/23/2023