PEDESTRIAN BRIDGE OVER SANDY CREEK

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA

OWNER

CITY OF RAVENSWOOD

1 WALL STREET
RAVENSWOOD, WV 26164

KATRENA RAMSEY
304.532.5268
jkramsey@casinternet.net

PROJECT OVERVIEW

BASE BID: REFER TO ALL OTHER ASSOCIATED STRUCTURAL, CIVIL, AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

A. DESIGN, LABOR, MATERIAL, AND DELIVERY ASSOCIATED WITH BRIDGE STRUCTURE, SUBSTRUCTURE, AND SUPERSTRUCTURE.
B. ESTABLISH ELECTRICAL SERVICE AND PROVIDE LIGHTING FOR BRIDGE AS NOTED ON ELECTRICAL PLANS.
C. CUT/FILL AS REQUIRED TO INSTALL PEDESTRIAN BRIDGE AND FILL AT 3:1 TO EXISTING GRADE FROM EDGE OF APPROACH SLAB AS NOTED ON CIVIL PLANS (ASSOCIATED EROSION AND SEDIMENT CONTROL TO BE INCLUDED).
D. INSTALLATION OF REMOVABLE BOLLARDS AT APPROACH SLAB.

ALTERNATES: REFER TO ALL OTHER ASSOCIATED STRUCTURAL, CIVIL, AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

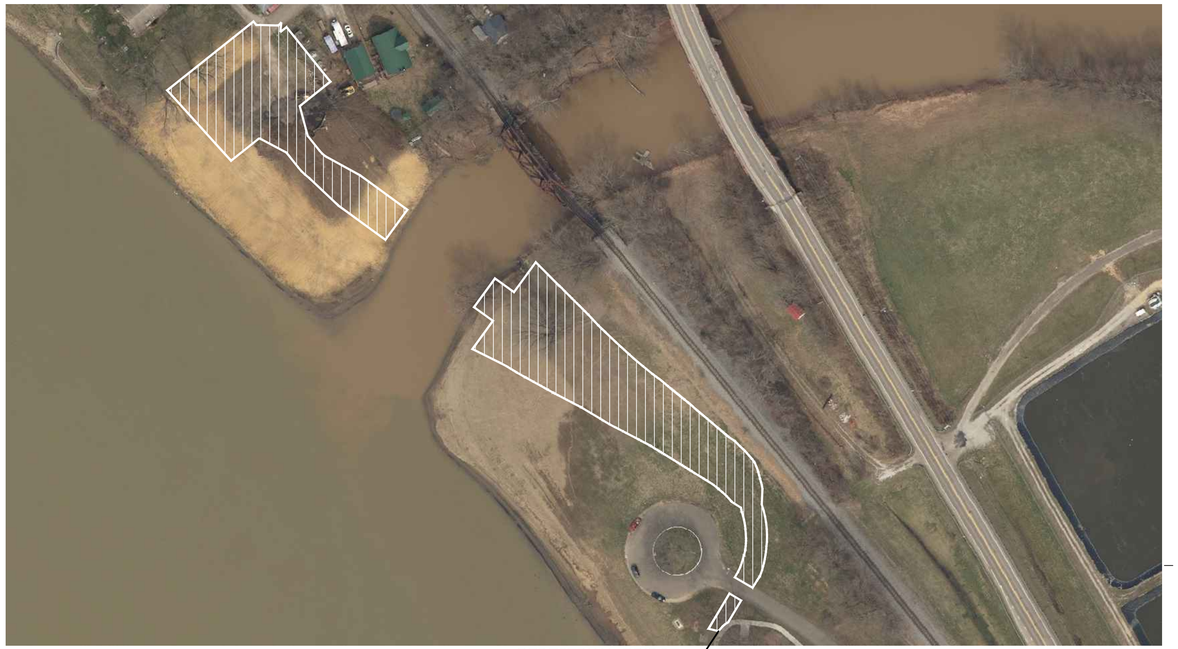
ALTERNATE NO. 1:
A. INCLUDES ALL WORK AS DETAILED IN THE BASE BID.
B. ADDITIONAL FILL UP TO AND INCLUDING THE AGGREGATE BASE COURSE FOR PEDESTRIAN PATH.(ASSOCIATED EROSION AND SEDIMENT CONTROL TO BE INCLUDED).

ALTERNATE NO. 2:
A. INCLUDES ALL WORK AS DETAILED IN THE BASE BID AND ALTERNATE 1.
B. INSTALLATION OF LIGHT POLE BASED, LIGHT POLES, AND ASSOCIATED CONDUIT.
C. EARTHWORK AS REQUIRED TO INSTALL CURBS, SIDEWALK, PAVEMENT, AND DRAINAGE FOR PARKING LOT AND PEDESTRIAN PATH (ASSOCIATED EROSION AND SEDIMENT CONTROL TO BE INCLUDED).
D. STRIPING AND SIGNAGE AS DETAILED ON THE PLANS.

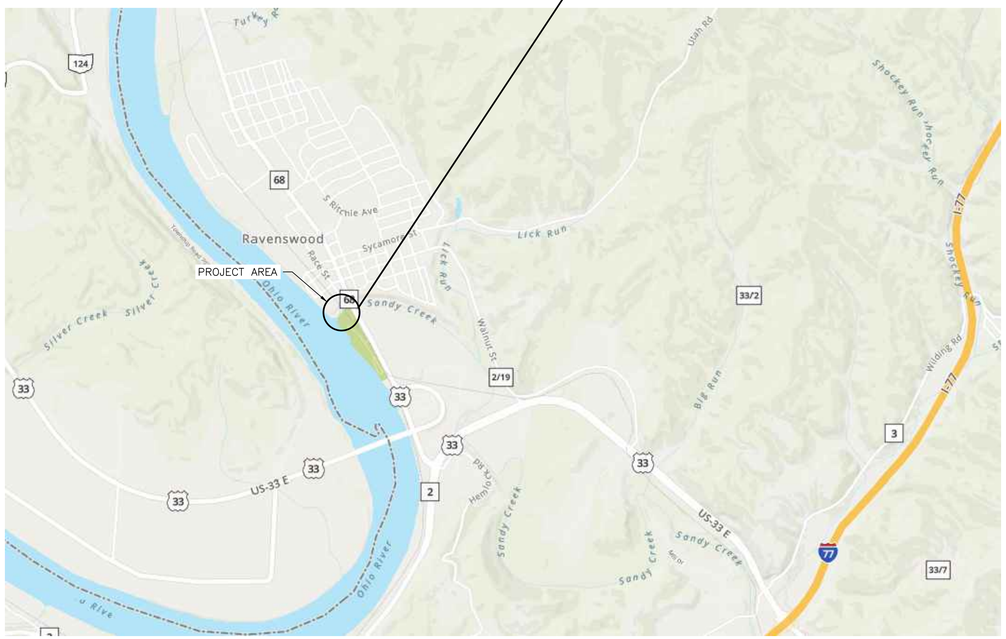
INDEX OF DRAWINGS

REFERENCE DRAWINGS

WVDOT SHT NO. 1500–AS1	APPROACH SLAB LAYOUT
WVDOT SHT NO. 1700–SS1	SLEEPER SLAB LAYOUT
WHEELER SHT 1 OF 4	GENERAL ELEVATION
WHEELER SHT 2 OF 4	SUBSTRUCTURE LAYOUT
WHEELER SHT 3 OF 4	SECTION DETAILS (SPANS 1 & 3)
WHEELER SHT 4 OF 4	SECTION DETAILS (SPAN 2)



PEDESTRIAN BRIDGE
RAVENSWOOD, WEST VIRGINIA



PROJECT LOCATION

STRUCTURAL
REGISTERED PE:

JOSEPH R. TUCKER — REGISTERED — No. 9726 — STATE OF WEST VIRGINIA — PROFESSIONAL ENGINEER

6/12/25
DATE

CIVIL
REGISTERED PE:

RICHARD J. DIESENBERG — REGISTERED — 25691 — STATE OF WEST VIRGINIA — PROFESSIONAL ENGINEER

6/12/25
DATE

ELECTRICAL
REGISTERED PE:

CARL S. HENSON — REGISTERED — No. 14330 — STATE OF WEST VIRGINIA — PROFESSIONAL ENGINEER

6/12/25
DATE

PICKERING ASSOCIATES

Architects • Engineers • Surveyors

11283 Emerson Avenue
Parkersburg, West Virginia 26104

Phone: (304) 464-5305
Fax: (304) 464-4428

ISSUED FOR CONSTRUCTION
JUNE 12, 2025
2226039

A. GOVERNING SPECIFICATIONS

1. THE GOVERNING SPECIFICATIONS FOR THE PROJECT ARE THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD SPECIFICATIONS ROADS AND BRIDGES, ADOPTED 2023 (FROM HERE ON REFERRED TO AS WVDOH) IN CONJUNCTION WITH THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP) STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, CURRENT GUIDELINES ESTABLISHED BY THE AMERICANS WITH DISABILITIES ACT, PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY (PROWAG), DATED JULY 26, 2011, ADA STANDARDS FOR ACCESSIBLE DESIGN, DATED SEPTEMBER, 15, 2010, MANUAL OF RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE RIGHT OF WAY, UTILITY COMPANY REQUIREMENTS, AND THE FOLLOWING MANUALS, LATEST EDITION: WVDOH TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTIONS AND MAINTENANCE OPERATIONS, WVDOH STANDARD DETAILS BOOK VOLUMES I AND II, WVDOH ACCOMMODATION OF UTILITIES ON HIGHWAY RIGHT OF WAY, WVDOH MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHTS-OF-WAY, WVDOH TYPICAL SECTIONS AND RELATED DETAILS, AND THE WVDOH EROSION AND SEDIMENT CONTROL MANUAL. THE CONTRACT DOCUMENTS ARE THE GOVERNING PROVISIONS APPLICABLE TO THE PROJECT.
2. ALL WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE GOVERNING AUTHORITIES HAVING JURISDICTION INCLUDING ALL APPLICABLE CODES, SPECIFICATIONS, STANDARDS, AND GUIDELINES ADOPTED BY SUCH AUTHORITIES.
3. DISCREPANCIES BETWEEN THE PLANS AND VARIOUS CODES, STANDARDS, SPECIFICATIONS, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR REMEDIATION.
4. THE CONTRACT DOCUMENTS SHALL SUPPLEMENT AND AMEND THE GOVERNING SPECIFICATIONS/OTHER REFERENCED SPECIFICATIONS AND SHALL RULE IN CASE OF CONFLICT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER ACQUIRE REFERENCE SPECIFICATIONS OR CONTACT THE ENGINEER CONCERNING HOW TO ACQUIRE SUCH SPECIFICATIONS.

B. PERMITS

1. ALL OUTSTANDING FEDERAL, STATE, AND LOCAL PERMITS ASSOCIATED WITH THE PROJECT SHALL BE OBTAINED. THE COST OF ALL PERMITS SHALL BE INCIDENTAL TO THE PROJECT BID.
2. PROPER PERMIT DOCUMENTATION SHALL BE KEPT ON SITE AT ALL TIMES AND ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RESPECTIVE PERMITS. ALL PERMIT CONDITIONS SHALL PROPERLY COMPLETED (E.G. INSPECTION SCHEDULING).
3. ALL PERMITS SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF WORK.
4. THE ENGINEER SHALL BE RESPONSIBLE FOR PROVIDING PERMIT APPLICATIONS TO THE DEVELOPER/CONTRACTOR, PROVIDING ENGINEERING DATA REQUIRED BY THE PERMIT, AND PROVIDING LIMITED ASSISTANCE WITH APPLICATION COMPLETION. DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR AUTHORITY COORDINATION, COMPLETION OF PERMIT APPLICATIONS, AND PERMIT ACQUISITIONS.

C. INSPECTIONS, SAMPLING, AND TESTING

1. ALL INSPECTIONS, SAMPLING, AND TESTING OF WORK ITEMS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
EXCAVATION, EMBANKMENT, SOIL COMPACTION, SUBGRADE PREPARATION, BACKFILL, AGGREGATE BASE, CONCRETE, AND ASPHALT SHALL BE IN ACCORDANCE WITH THE WVDOH STANDARD SPECIFICATIONS, PROJECT SOILS REPORT, MANUFACTURER SPECIFICATIONS, ACI 301/318, THE PROJECT DOCUMENTS, AND AUTHORITIES HAVING JURISDICTION REQUIREMENTS. INSPECTION, SAMPLING, AND TESTING SHALL BE PERFORMED BY AN INDEPENDENT, CERTIFIED TESTING AGENCY APPROVED BY THE DEVELOPER AND EMPLOYED BY THE CONTRACTOR. ALL RESULTS SHALL BE PROMPTLY REPORTED TO THE ENGINEER. THE DEVELOPER, AT THEIR EXPENSE, MAY ALSO RETAIN A QUALIFIED PROFESSIONAL TO PERFORM INDEPENDENT QUALITY CONTROL/ASSURANCE CHECKS ON THE CONTRACTOR'S WORK. WHERE QC/QA REQUIREMENT CONFLICTS EXIST, PROJECT MANUAL REQUIREMENTS SHALL RULE. WHERE DOH SPECIFICATIONS APPLY, THE CONTRACTOR SHALL PERFORM DUTIES ASCRIBED TO THE "CONTRACTOR" WITH THE DEVELOPER RESERVING THE OPTION TO PERFORM DUTIES SIMILAR OR DIFFERENT TO THOSE ASCRIBED TO THE "DIVISION".

D. MISCELLANEOUS

1. THE INFORMATION SHOWN ON THESE DRAWINGS IS BASED UPON EXISTING DRAWINGS, THE TOPOGRAPHIC SURVEY, MISS UTILITY FIELD MARKS INDICATING THE LOCATION OF BURIED UTILITIES (WITH NO INDICATION OF DEPTHS GIVEN), APPROXIMATE DEPTH INFORMATION PROVIDED BY UTILITY COMPANIES, AND DEVELOPER-PROVIDED INFORMATION,
2. ALL ADJACENT STRUCTURES AND UTILITY SERVICES SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. ALL EXISTING FEATURES (E.G. CURBS, TREES, BUSHES, PAVING, ETC.) DAMAGED BY CONSTRUCTION SHALL BE RESTORED TO A CONDITION SATISFACTORY TO THE DEVELOPER.
3. ALL PHASES OF WORK SHALL BE SUBJECT TO INSPECTION, TESTING AND ACCEPTANCE BY ENGINEER AND/OR DEVELOPER.
4. A SAFE AND ORDERLY WORKSITE SHALL BE MAINTAINED AT ALL TIMES.
5. THE LOADING/UNLOADING AND HAULING OF ALL MATERIALS TO AND FROM THE CONSTRUCTION SITE SHALL BE INCLUDED.
6. ALL CONSTRUCTION WORK RELATED TO THESE DRAWINGS SHALL BE COORDINATED WITH THE DEVELOPER AND OTHER CONTRACTORS THAT MAY BE INVOLVED WITH THE PROJECT.
7. ALL NECESSARY BARRICADING AND FLAGGING SHALL BE PROVIDED IN ORDER TO PROTECT THE SAFETY OF THE WORKERS AND THE GENERAL PUBLIC. TRAFFIC INTERRUPTIONS SHALL BE MINIMIZED AND COORDINATED WITH THE GOVERNING LOCAL AGENCY AND THE WVDOH.

E. WASTE MATERIAL

1. ALL MATERIAL REMOVED AND NOT REUSED IN THE CONSTRUCTION OF THIS PROJECT SHALL BE REMOVED FROM THE PROJECT AND PROPERLY DISPOSED IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITIES.

F. BENCH MARKS

1. BENCH MARK LOCATIONS SHALL BE HELD/PROTECTED THROUGHOUT THE LIFE OF THE PROJECT. IN THE EVENT A BENCH MARK IS DISTURBED, THE BENCH MARK SHALL BE RELOCATED OR REESTABLISHED AS DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE MADE FOR THIS WORK. BENCH MARK NORTHINGS, EASTINGS, ELEVATIONS, AND DESCRIPTIONS SHALL BE REFERENCED ON DRAWING NUMBER C100. THE COORDINATE GRID IS BASED ON THE SURVEY NORTH ARROW SHOWN ON THE PLAN.

G. ACCESS

1. SAFE ACCESS SHALL BE PROVIDED AT ALL TIMES TO THE RESIDENTS AND BUSINESSES AFFECTED BY CONSTRUCTION. ALL ACCESS SHALL BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). ALL TRAFFIC FLOW DISTURBANCES SHALL BE MINIMIZED. ALL DISTURBANCES MUST BE ACCOMPLISHED SAFELY AND IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

H. VERIFICATIONS

1. ALL DIMENSIONS AND SITE CONDITIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

I. UTILITIES

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. ALL EXISTING UTILITIES WITHIN THE WORK AREA SHALL BE FIELD VERIFIED. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING UTILITIES INCLUDING, BUT NOT LIMITED TO, PROVIDING PROTECTIVE MEASURES DURING CONSTRUCTION. CORRECTION OF ANY DAMAGE TO UTILITIES SHALL BE MADE AT NO ADDITIONAL COST TO THE DEVELOPER.
2. UNLESS NOTED OTHERWISE, UTILITY DEPTHS THAT COULD POSE CONFLICTS WITH CONSTRUCTION SHALL BE FIELD LOCATED PRIOR TO COMMENCEMENT OF CONSTRUCTION. DEPTHS SHALL BE RECORDED AND SUBMITTED TO THE ENGINEER FOR POSSIBLE RELOCATION/MODIFICATION DETERMINATION. ALL WORK ASSOCIATED WITH THE RELOCATION OF THESE QUESTIONABLE UTILITIES SHALL BE AS DIRECTED BY THE DEVELOPER (CHANGE ORDER AT TIME OF CONSTRUCTION). ALL ACTIVITIES, TIMING, AND DURATION OF THE UTILITY RELOCATIONS SHALL BE COORDINATED WITH THE DEVELOPER AND THE UTILITY COMPANY INVOLVED.
3. UTILITY LINES PLACED UNDER DRIVES AND PARKING LOTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE TRENCH DETAIL FROM THE WVDOH TYPICAL SECTIONS AND RELATED DETAILS PUBLICATION. BACKFILL FOR UTILITY LINES PLACED UNDER CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH TYPE B TRENCH. TYPE B AND D TRENCHES SHALL BE REFERENCED FOR UTILITY LINES PLACED UNDER EXISTING PAVEMENT.
4. PIPE, CONDUIT, JOINTS, FITTINGS, TYPICAL TRENCH SECTIONS, ETC. SHALL BE IN ACCORDANCE WITH THE RESPECTIVE UTILITY PROVIDER'S SPECIFICATIONS AND REQUIREMENTS.

J. FINAL CLEAN-UP

1. ALL PROPERTY, BOTH PUBLIC AND PRIVATE, WHICH HAS BEEN DAMAGED DURING THE EXECUTION OF THE WORK SHALL BE RESTORED IN AN ACCEPTABLE MANNER. THE SITE SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION.
2. ALL WORK MUST MEET THE ENGINEER'S AND DEVELOPER'S APPROVAL.

K. CLEARING AND GRUBBING

1. ALL AREA WITHIN THE CONSTRUCTION LIMITS SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH ITEM 201001-000. ALL TOPSOIL SHALL BE REMOVED IN ACCORDANCE WITH ITEM 207001-001. STUMPS, ROOTS, AND OTHER VEGETATION SHALL BE DISCARDED AND ALL REMAINING TOPSOIL STOCKPILED FOR USE IN FINISHED GRADING/SEEDING AND MULCHING.

L. REMOVING DRAINAGE STRUCTURES

1. ANY EXISTING DRAINAGE STRUCTURES, HEADWALLS, AND PIPES TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE COST OF THE REMOVAL OF EXISTING PIPES, INLETS, AND HEADWALLS SHALL BE INCIDENTAL TO THE PROJECT AND SHALL INCLUDE REMOVAL, CAPPING, DISPOSAL, AND BACKFILL WITH SUITABLE MATERIAL. NO ADDITIONAL PAYMENT OR MEASUREMENT WILL BE MADE FOR THIS WORK.

M. DRAINAGE

1. WORKING STORM DRAINAGE SYSTEMS THROUGHOUT THE WORK AREAS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE WORKING SYSTEM MAY CONSIST OF THE EXISTING STORM DRAINAGE SYSTEM, THE PROPOSED STORM DRAINAGE SYSTEM, OR A COMBINATION THEREOF. THE SITE SHALL BE GRADED TO DRAIN AND BE MAINTAINED FREE OF PONDING AT ALL TIMES. TEMPORARY DRAINS, SUMPS, PORTABLE PUMPING EQUIPMENT, ETC. SHALL BE UTILIZED AS REQUIRED. MEASURES SHALL BE TAKEN TO MINIMIZE EROSION AND NOT ALTER EXISTING DRAINAGE CONDITIONS WITH RESPECT TO NEIGHBORING AND DOWNSTREAM PROPERTIES.
2. ALL PIPES TO REMAIN SHALL BE CONNECTED TO THE DRAINAGE SYSTEM OR HAVE POSITIVE OUTLET. ALL DRAINAGE OUTLET STRUCTURES SHALL BE FIELD ADJUSTED AS REQUIRED TO MATCH THE EXISTING GROUND AS DIRECTED BY THE ENGINEER. ALL EXISTING DRAINAGE FACILITIES SHALL BE FIELD VERIFIED.
3. THE COST OF ALL MATERIALS AND WORK NECESSARY FOR THE INSTALLATION OF CATCH BASINS, PIPE, ETC. SHALL BE INCIDENTAL TO THE PROJECT. ALL WORK ASSOCIATED WITH PLACEMENT OF STORM PIPE (E.G. TRENCHING, BEDDING, BACKFILL, ETC.) SHALL BE IN ACCORDANCE WITH WVDOH 604 AND THE STANDARD DETAILS BOOK. ALL PIPE LOCATED UNDER PAVEMENT/EXISTING PAVEMENT SHALL BE BACKFILLED/CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE TRENCH DETAIL FROM THE WVDOH TYPICAL SECTIONS AND RELATED DETAILS PUBLICATION.

N. TEMP. SEDIMENT AND EROSION CONTROL AND STORM WATER POLLUTION PREVENTION PLAN

1. ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROL AND STORM WATER POLLUTION PREVENTION ACTIVITIES SHALL BE PROVIDED AS REQUIRED. THE COST OF FURNISHING AND INSTALLING ALL MATERIALS NECESSARY FOR THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. ALL STATE AND FEDERAL REGULATIONS, INCLUDING THE WVDEP STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL AND THE WVDOH EROSION AND SEDIMENT CONTROL MANUAL AND WVDOH 642/652, SHALL BE OBSERVED. IN THE EVENT TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE ORDERED BY THE ENGINEER DUE TO THE CONTRACTOR'S NEGLIGENCE, CARELESSNESS, OR FAILURE TO INSTALL REQUIRED CONTROLS AS PART OF THE WORK SCHEDULE, SUCH WORK SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE DEVELOPER. WHERE APPLICABLE, THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED. ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND. ALL AREAS THAT ARE TO REMAIN DORMANT FOR MORE THAN 14 DAYS, BUT LESS THAN 1 YEAR, SHALL BE STABILIZED WITH ITEM 642004-001, SEED MIXTURE, TEMPORARY WITHIN 4 DAYS OF THE MOST RECENT DISTURBANCE. AREAS THAT ARE TO REMAIN DORMANT FOR MORE THAN 1 YEAR SHALL BE STABILIZED WITH PERMANENT SEEDING AND MULCHING WITHIN 4 DAYS OF THE MOST RECENT DISTURBANCE. MEASURES SHALL BE MAINTAINED/REPLACED AS REQUIRED. DRAWINGS SHALL BE REFERENCED FOR ADDITIONAL INFORMATION.

ALL DISTURBED AREAS OVER 50 FEET AWAY FROM A STREAM THAT ARE TO REMAIN DORMANT FOR MORE THAN 14 DAYS, BUT LESS THAN 1 YEAR, SHALL BE STABILIZED WITH ITEM 207, CONSTRUCTION SEEDING AND MULCHING, WITHIN 4 DAYS OF THE MOST RECENT DISTURBANCE. OTHER SUCH AREAS THAT ARE TO REMAIN DORMANT FOR MORE THAN 1 YEAR SHALL BE STABILIZED WITH PERMANENT SEEDING AND MULCHING WITHIN 4 DAYS OF THE MOST RECENT DISTURBANCE. AREAS WITHIN 50 FEET OF A STREAM SHALL BE STABILIZED WITHIN 2 DAYS. MEASURES SHALL BE MAINTAINED/REPLACED AS REQUIRED.

ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE IMPLEMENTED PRIOR TO LAND DISTURBING ACTIVITIES.

O. WORK STOPPAGE

1. ANY WORK STOPPAGE INCURRED DUE TO THE CONTRACTOR'S NEGLIGENCE OR FAILURE TO COMPLY WITH A MITIGATION ITEM SHALL BE REMEDIED AT NO COST TO THE DEVELOPER.
2. SEDIMENT AND EROSION CONTROL FEATURES SHALL BE OPERATED AND MAINTAINED IN AN ACCEPTABLE CONDITION.
3. WHEN ANY EROSION OR SEDIMENT CONTROL FEATURE HAS REACHED HALF ITS CAPACITY, THE DEVICE SHALL BE CLEANED OUT AND RESTORED TO ITS ORIGINAL CONDITION.
4. A SPILL PREVENTION, CONTROL, AND COUNTERMEASURES (SPCC) PLAN THAT ITEMIZES SPECIFIC MEASURES THAT WILL BE IMPLEMENTED TO PREVENT AND CLEAN UP CHEMICAL AND PETROLEUM PRODUCT SPILLS THAT MAY OCCUR DURING ALL PHASES OF PROJECT CONSTRUCTION SHALL BE PREPARED. FUEL STORAGE AND REFUELING ACTIVITIES, EQUIPMENT MAINTENANCE ACTIVITIES, AND EQUIPMENT WASHING SHALL BE KEPT AT LEAST 500 FEET AWAY FROM ANY PERENNIAL OR INTERMITTENT WATERCOURSE OR WETLAND.

P. SEEDING, FERTILIZING, AND MULCHING

1. UNLESS NOTED OTHERWISE, ALL DISTURBED SOIL AREAS ARE TO BE SEEDED, FERTILIZED, AND MULCHED. SEEDING, FERTILIZING, AND MULCHING WILL BE AS SPECIFIED IN WVDOH 652. AREAS 3:1 OR FLATTER SHALL RECEIVE A TYPE C-2 MIXTURE (DEVELOPER-APPROVED LAWN MIX). AREAS STEEPER THAN 3:1 SHALL RECEIVE A TYPE L MIXTURE. DISTURBED AREAS OVER 50 FEET AWAY FROM A STREAM SHALL BE SEEDED AND MULCHED WITHIN 4 DAYS OF REACHING FINAL GRADE. OTHER SUCH AREAS SHALL BE SEEDED AND MULCHED WITHIN 2 DAYS OF REACHING FINAL GRADE. TESTING WILL NOT BE REQUIRED ON THESE ITEMS PURCHASED FROM A REPUTABLE DEALER. ALL DAMAGES TO PREVIOUSLY SEEDED AREAS SHALL BE REPAIRED.

Q. TREE REMOVAL

1. ALL TREES NOTED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OFF-SITE. TREES SHALL BE SUBSTANTIALLY REMOVED IN THIER ENTIRETY IN ACCORDANCE WITH ITEM 201001-000 AND STRUCTURALLY BACKFILLED WITH SUITABLE MATERIAL. ALL WORK SHALL BE INCIDENTAL TO THE PROJECT.

R. DEMOLITION

1. CONSTRUCTION DEBRIS MAY BE DISPOSED OF ON-SITE, BUT DEMOLITION DEBRIS MUST BE DISPOSED IN AN APPROVED LANDFILL.

S. EARTHWORK

1. SOIL DESIGNATED AS UNSUITABLE (E.G. TOPSOIL) SHALL BY NO MEANS BE USED AS FILL MATERIAL. ALL EXCAVATION AND EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WVDOH 207/211/228, THE PROJECT SOILS REPORT, AND THE PROJECT DOCUMENTS. ALL EARTHWORK SHALL ALSO BE IN DIRECT ACCORDANCE WITH OSHA REQUIREMENTS. TEMPORARY SHORING, TRENCH BOXES, SUMP PUMPS, BORING/JACKING, UNDERPINNING, TIEBACKS, ETC. SHALL BE DESIGNED BY CONTRACTOR AND USED DURING CONSTRUCTION AS REQUIRED.
2. THE CERTIFIED TESTING AGENCY SHALL VERIFY ALL SUBGRADES HAVE BEEN COMPACTED TO AT LEAST 98% OF THE MATERIAL'S MAXIMUM DRY DENSITY (OBTAINED IN ACCORDANCE WITH ASTM STANDARD METHOD D-698), ARE NOT FROZEN, HAVE ALLOWABLE BEARING CAPACITIES OF NO LESS THAN 1500 PSF, AND ARE NEAR OPTIMUM MOISTURE CONTENT (+2%/-3%). IF REQUIRED, THE AGENCY'S GEOTECHNICAL ENGINEER SHALL ALSO RECOMMEND THE LIMITS OF ADDITIONAL EXCAVATION. ALL SUBGRADES SHALL BE INSPECTED BY THE DEVELOPER'S REPRESENTATIVE PRIOR TO PLACEMENT OF EMBANKMENT, AGGREGATE, CONCRETE, ASPHALT, ETC. THE UPPER 12" OF SUBGRADE SOILS DIRECTLY BELOW PAVEMENT BASE STONE SHALL HAVE 100% COMPACTION. IF UNSUITABLE MATERIAL IS FOUND AT THE DRAWING SUBGRADE DEPTHS, ADDITIONAL EXCAVATION SHALL BE REQUIRED UNTIL SUITABLE BASES ARE ENCOUNTERED. ADDITIONAL EXCAVATIONS ARE TO BE BACKFILLED WITH PROPERLY COMPACTED ENGINEERED (CONTROLLED) FILL OR AGGREGATE BASE MATERIAL. THE AGGREGATE BASE SHALL BE ITEM 307001-000 AND BE PLACED ON A SUBGRADE PROPERLY PREPARED IN ACCORDANCE WITH WVDOH 307. UNLESS NOTED OTHERWISE, AGGREGATE BASE SHALL BE PLACED IN MAXIMUM 6" COMPACTED DEPTH LIFTS AND COMPACTED TO AT LEAST 100% PER ASTM D-698 AT OPTIMUM MOISTURE CONTENT. ALTERNATE METHODS AND MATERIALS CORRESPONDING TO SUBGRADE PREPARATION MAY BE REQUIRED DURING CONSTRUCTION. ALTERNATE METHODS MUST BE APPROVED BY THE ENGINEER.
3. THE BID SUM SHALL INCLUDE ALL EARTHWORK AS REQUIRED TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE PROJECT DOCUMENTS. THE UNIT COSTS FOR EARTHWORK (SUBMITTED WITH THE BID FORM) SHALL BE USED TO ADJUST THE CONTRACT SUM BY BEING APPLIED TO SUBSTANTIAL ADDITIONS/DEDUCTIONS IN EXCAVATION/EMBANKMENT RESULTING FROM SCOPE CHANGES AND/OR EXTREME LIMIT DIRECTIVES ORDERED BY THE INSPECTING GEOTECHNICAL ENGINEER AND APPROVED BY THE ENGINEER.
4. EXCESS EXCAVATION NOT REUSED ON SITE SHALL BE RELOCATED AND SPOILED OFF SITE. SPOILS SHALL ONLY BE KEPT ON SITE WHEN SO SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. SPOILS AREAS SHALL BE PROPERLY SCALPED, BENCHED, AND CONSTRUCTED. UNLESS NOTED OTHERWISE, COMPACT IN ACCORDANCE WITH OTHER SITE STRUCTURAL EMBANKMENTS. TOPSOIL AND OTHER UNSUITABLE MATERIAL SHALL BE USED FOR FINISHED GRADING ONLY. SPOILS AREAS SHALL BE SEEDED IN ACCORDANCE WITH THE PROJECT DOCUMENTS.

T. PAVEMENT SUBGRADE

1. TOPSOIL, ORGANIC MATERIAL, AND OTHER UNSUITABLE MATERIAL SHALL BE REMOVED TO THE SUBGRADE DEPTH AT A MINIMUM. ALL EXCAVATION, EMBANKMENT, SUBGRADE PREPARATION, AND AGGREGATE BASE CONSTRUCTION SHALL BE IN ACCORDANCE WITH WVDOH 207/211/228/307, PROJECT SOILS REPORT, AND THE PROJECT DOCUMENTS. THE DEVELOPER HOLDS THE RIGHT TO REQUEST ALL UNSUITABLE SOIL BE STOCKPILED ON SITE OR DISPOSED OF OFF-SITE BY THE CONTRACTOR. THE SUBGRADE SHALL BE INSPECTED PRIOR TO PLACEMENT OF AGGREGATE BASE AND THE UPPER 6" VERIFIED TO CONSIST OF SUITABLE SOIL FREE OF PARTICLES LARGER THAN 3" AND HAVE BEEN COMPACTED TO AT LEAST 100% OF THE MATERIAL'S MAXIMUM DRY DENSITY (OBTAINED IN ACCORDANCE WITH ASTM STANDARD METHOD D-698). UNSUITABLE MATERIAL ENCOUNTERED AT THE SUBGRADE DEPTH SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL OR AGGREGATE BASE AS REQUIRED TO OBTAIN THE PROPER SUBGRADE PREPARATION.

U. CONCRETE

1. ALL CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH EACH ITEM'S RESPECTIVE WVDOH STANDARD SPECIFICATION SECTION. OTHERWISE, CONCRETE SHALL BE CLASS B MODIFIED WITH A 28 DAY STRENGTH OF 4000 PSI, REINFORCING STEEL SHALL BE DEFORMED AND CONFORM TO ASTM A-615 GRADE 60 OR ASTM A-497 GRADE 60, CONCRETE SURFACES SHALL BE LEVEL/SLOPED AS INDICATED AND FINISHED/EDGED PER WVDOH 501.12, AND CONCRETE SHALL BE MOIST CURED PER WVDOH 501.14 (MEMBRANE CURING COMPOUND MUST BE APPROVED).
2. WHERE NOTED, EXPANSION JOINT MATERIAL AND JOINT SEALANTS SHALL BE IN ACCORDANCE WITH THE APPROPRIATE WVDOH STANDARD SPECIFICATION SECTION.
3. ISOLATION JOINT TREATMENT:
USE A PREFORMED EXPANSION JOINT MATERIAL (WVDOH 708.1 OR APPROVED EQUAL) TREATED WITH WAX (OR EQUIVALENT BOND-BREAKER). OUTER FACE OF JOINT MATERIAL TO BE 1/2" FROM SURFACE OF CONCRETE OR MASONRY (1" FOR PAVEMENT) WITH THE SPACE SEALED WITH FLEXIBLE JOINT SEALER (VERTICAL JT. & 1" RETURN: SIKAFLEX 1a; HORIZONTAL JT.: SIKAFLEX 1CSL (OR APPROVED EQUAL)). ALL SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

V. SIDEWALK AND CURB

1. MINIMUM SIDEWALK WIDTH AT ANY OBSTRUCTION SHALL BE 3.00'. SIDEWALK MODIFICATIONS REQUIRED TO MEET THIS MINIMUM WIDTH MUST BE APPROVED BY THE ENGINEER.
2. MATCH EXISTING CURB AND SIDEWALK WITH SMOOTH TRANSITIONS AT TIE-INS.
3. WHERE REQUIRED, TERMINATE CURB WITH STANDARD CURB TAPER (CLASS I/II).
4. TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED IN THE SIDEWALK AT 5' INTERVALS (3/8" DEEP X 1/8" WIDE).
5. TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED IN THE CURB AT 10' INTERVALS (1" DEEP X 1/8" WIDE) AND FILLED WITH JOINT SEALING MATERIAL (WVDOH 708.3). WVDOH 610.3 SHALL BE REFERENCED FOR ADDITIONAL INFORMATION RELATING TO INTEGRAL CONCRETE CURB.
6. UNLESS SHOWN OTHERWISE, SIDEWALK AND CURB SHALL BE SEPARATED IN THE LONGITUDINAL DIRECTION BY 1/4" PREFORMED EXPANSION JOINT MATERIAL (WVDOH 708.1). OUTER FACE OF JOINT MATERIAL SHALL BE 1/2" FROM SURFACE AND THE SPACE SEALED WITH JOINT SEALING MATERIAL (SIKAFLEX 1CSL).
7. SIDEWALK AND CURB SHALL HAVE 3/4" TRANSVERSE EXPANSION JOINTS AT 30' INTERVALS (3/4" PREFORMED EXPANSION JOINT MATERIAL PER WVDOH 708.1). OUTER FACE OF JOINT MATERIAL SHALL BE 1" FROM SURFACE FOR CURB (1/2" FOR SIDEWALK) AND THE SPACE SEALED WITH WVDOH 708.3 JOINT SEALING MATERIAL (SIKAFLEX 1CSL AT SIDEWALK).
8. SIDEWALK SHALL BE SEPARATED FROM BUILDING, COLUMNS, EXISTING CONCRETE, ETC. WITH 1/2" PREFORMED EXPANSION JOINT MATERIAL PER WVDOH 708.1. OUTER FACE OF JOINT MATERIAL SHALL BE 1/2" FROM SURFACE AND THE SPACE SEALED WITH SIKAFLEX 1CSL.
9. WHERE NOTED, EXPANSION JOINT MATERIAL AND JOINT SEALANTS SHALL BE IN ACCORDANCE WITH THE APPROPRIATE WVDOH STANDARD SPECIFICATION SECTION.
10. CONCRETE SURFACES SHALL BE LEVEL/SLOPED AS INDICATED, FINISHED/EDGED PER WVDOH 501.12, AND MOIST CURED PER WVDOH 501.14 (MEMBRANE CURING COMPOUND MUST BE APPROVED).

CIVIL SCOPE ITEMS INCLUDE, BUT MAY NOT BE LIMITED TO:

BASE BID:

1. INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL MEASURES
2. CLEARING AND GRUBBING
3. CONSTRUCT FILL AND CUT AS REQUIRED TO TO INSTALL BRIDGE ABUTMENTS, MSE WALL, AND APPROACH SLABS WITH 3:1 GRADING AS SHOWN ON THE PLANS TO EXISTING GRADE.
4. INSTALLATION OF REMOVABLE BOLLARDS.
5. PERMANENTLY SEED AND MULCH ALL DISTURBED AREAS
6. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AS CONTRIBUTING AREAS ARE STABILIZED.

ALTERNATE 1:

1. ALL WORK AS OUTLINED IN THE BASE BID.
2. ADDITIONAL INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED TO COMPLETE ADDITIONAL GRADING OPERATIONS.
3. CLEARING AND GRUBBING AS REQUIRED TO COMPLETE ADDITIONAL GRADING OPERATIONS.
4. ADDITIONAL FILL TO MATCH PROFILE ON C107 TO TOP OF AGGREGATE BASE COURSE ELEVATION AS DETAILED ON C500.
5. PERMANENTLY SEED AND MULCH ALL DISTURBED AREAS
6. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AS CONTRIBUTING AREAS ARE STABILIZED.

ALTERNATE 2:

1. ALL WORK AS OUTLINED IN THE BASE BID AND ALTERNATE 1.
2. ADDITIONAL INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED TO COMPLETE ADDITIONAL GRADING OPERATIONS.
3. CLEARING AND GRUBBING AS REQUIRED TO COMPLETE ADDITIONAL GRADING OPERATIONS.
4. EARTHWORK AS REQUIRED TO INSTALL CONCRETE CURBING, SIDEWALK, AND ASPHALT FOR PARKING LOT AND PEDESTRIAN PATH.
5. PERMANENTLY SEED AND MULCH ALL DISTURBED AREAS
6. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AS CONTRIBUTING AREAS ARE STABILIZED.

ABBREVIATIONS	
AFC/F/G	ABOVE FINISHED CEILING/ FLOOR/GRADE
ARCH	ARCHITECT(URAL)
BIT	BITUMINOUS
BL	BUILDING LINE
BLDG	BUILDING
BM	BENCH MARK
BOT	BOTTOM
CB	CATCH BASIN
CIP	CAST-IN-PLACE
CL	CENTERLINE
CLR	CLEARANCE
CMU	CONCRETE MASONRY UNIT
CJ	CONSTRUCTION/CONTROL JOINT
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
DBO	DESIGN BY OTHERS
DET	DETAIL
DN	DOWN
D&R	DEMOLISH & REMOVE
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
EXT	EXTERIOR
FDN	FOUNDATION
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FLR	FLOOR
FS	FAR SIDE
FIN	FINISHED
FTG	FOOTING
GA	GAUGE/GAGE
GALV	GALVANIZED
GND	GROUND
HMA	HOT-MIX-ASPHALT
HP	HIGH POINT

ABBREVIATIONS CONT.	
I/	INSIDE OF
ID	INSIDE DIAMETER
INCL	INCLUD(E)(ING)
INS	INSULATION
INT	INTERIOR
INV	INVERT
ISO	ISOLATION
JT	JOINT
LP	LOW POINT
MAS	MASONRY
MFR	MANUFACTURER
MH	MANHOLE
NIC	NOT IN CONTRACT
NS	NEAR SIDE
NTS	NOT TO SCALE
O/	OUTSIDE OF
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD/OVERHANG
OPNG	OPENING
OPP	OPPOSITE
PC	PRECAST
PLC(S)	PLACE(S)
PVMT	PAVEMENT
QTY	QUANTITY
RD	ROOF DRAIN
REINF	REINFORCING
REQD	REQUIRED
RM	ROOM
SCH	SCHEDULE
SECT	SECTION
SP	SPACE
SPEC	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
STR	STRUCTURAL
SW	SIDEWALK
T&B	TOP AND BOTTOM
TBD	TO BE DETERMINED
T/	TOP OF
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
WWF	WELDED WIRE FABRIC

SYMBOL LEGEND

○⬡	FOUNDATION TYPE/MARK NUMBER
XXX ● △XXX	SPOT ELEVATION
▲	BEARING ELEVATION OR TOP SURFACE ELEVATION
◎	MANHOLE
▣	CATCH BASIN
♉	FIRE HYDRANT
↓	GUY WIRE
⊖	COLUMN GRID
☼	LIGHT POLE
-□-	UTILITY POLE
-○-	TELEPHONE POLE
□	POWER POLE
⋈	GAS/WATER VALVE
Ⓦ	WATER METER
Ⓖ	GAS METER
-o|	SIGN
○	CLEAN-OUT
×	POINT
⊕	SOIL BORING/BENCH MARK/TIE-IN/ WORK POINT

LINETYPE LEGEND

————————	EDGE OF PAVEMENT
— — · — — · — —	LOT LINE
——— — — ———	RIGHT-OF-WAY
——— UGT ———	UNDERGROUND TELEPHONE LINE
——— E ———	OH ELECTRIC LINE
——— UGE ———	UNDERGROUND ELECTRIC LINE
— — —SAN— — —	SANITARY SEWER LINE
——— S ———	STORM SEWER LINE
——— G ———	GAS LINE
——— W ———	WATER LINE
——— C ———	COMMUNICATION LINE
— — — — — — —	UNDERDRAIN
— — — — — — —	BREAKLINE OR SLOPE LINE
——— C ———	CONSTRUCTION LIMITS (CUT)
——— F ———	CONSTRUCTION LIMITS (FILL)
———X———	CONSTRUCTION/CONTROL JOINT
━━━━━━━━	EXP/ISO JOINT
━ · · ━ · · ━	BOUNDARY
——— — ———	CENTERLINE
—·—·—·—·—	RAILING
— — — — — — —	MISCELLANEOUS PIPING
━·━·━·━·━	MATCHLINE
— — — —	EXISTING GROUND/GRADE
━ ━ ━ ━	FINISHED GROUND/GRADE
——— LOD ———	LIMIT OF DISTURBANCE

MATERIAL LEGEND

⁘	CONCRETE PAVEMENT
▒	SIDEWALK
⬮	WELL-GRADED STONE/GRAVEL
⠿	DETECTABLE WARNING SURFACE
▨	SOIL
▦	BEDROCK
⁖	GRASS
░	SAND, HMA, OR GYPSUM

REFERENCES

1. PICKERING ASSOCIATES SURVEY (2023)

SECTION AND DETAIL NOTATION

UTILITIES

GAS – MOUNTAINEER GAS (800-834-2070)
WATER – CITY OF RAVENSWOOD (304-532-8211)
SEWER – CITY OF RAVENSWOOD (304-532-8211)
ELECTRIC – MON POWER (888-544-4877)
TELECOMMUNICATION – SUDDENLINK & FRONTIER

AUTHORITY CONTACTS

CITY OF RAVENSWOOD (304-273-2621)
WVDEP DIVISION OF WATER AND WASTE MANAGEMENT (304-926-0499)
WVDHHR BUREAU OF PUBLIC HEALTH (304-558-2971)

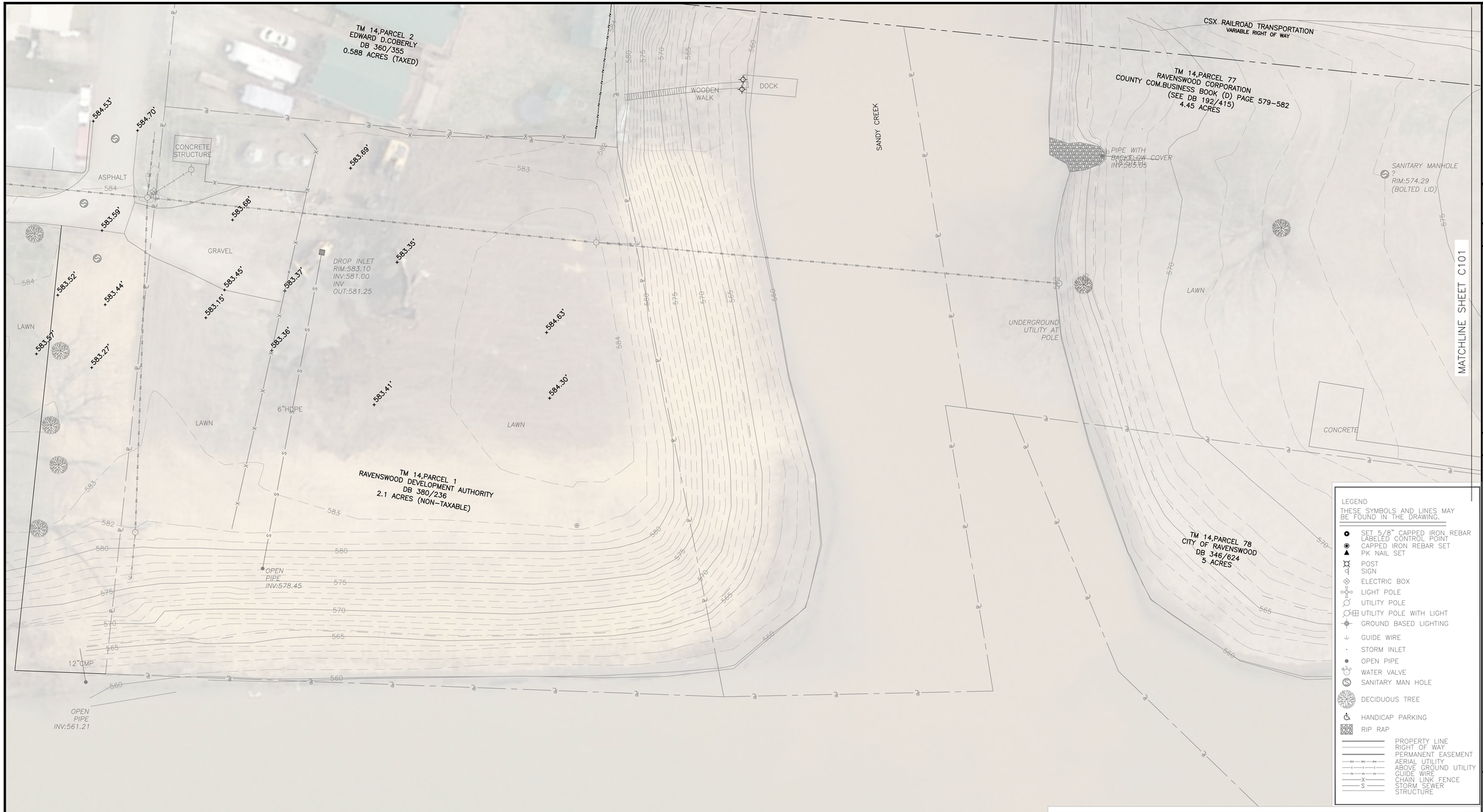
PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description
CITY OF RAVENSWOOD
JACKSON COUNTY, WV
PEDESTRIAN BRIDGE OVER SANDY CREEK
GENERAL NOTES

RICHARD J. DIESENBERG
25691

Project: 2226039
Designed By: RJD
Drawn By: RJD
Approved By: JRT
Scale: N/A
Plot Date: 06/12/25
Revision: 0
Drawing Number:
C000



LEGEND

THESE SYMBOLS AND LINES MAY BE FOUND IN THE DRAWING.

- SET 5/8" CAPPED IRON REBAR LABELED CONTROL POINT
- CAPPED IRON REBAR SET
- PK NAIL SET
- POST
- SIGN
- ELECTRIC BOX
- LIGHT POLE
- UTILITY POLE
- UTILITY POLE WITH LIGHT
- GROUND BASED LIGHTING
- GUIDE WIRE
- STORM INLET
- OPEN PIPE
- WATER VALVE
- SANITARY MAN HOLE
- DECIDUOUS TREE
- HANDICAP PARKING
- RIP RAP
- PROPERTY LINE
- RIGHT OF WAY
- PERMANENT EASEMENT
- AERIAL UTILITY
- ABOVE GROUND UTILITY
- GUIDE WIRE
- CHAIN LINK FENCE
- STORM SEWER
- STRUCTURE

EXISTING CONDITIONS PLAN
SCALE: 1"=20'
0 10 20 40
SCALE: 1"=20'

GENERAL SURVEY NOTES:

UTILITIES:

ANY UTILITIES SHOWN ARE FROM FIELD OBSERVATION ONLY.REVIEW SPECIFIC CONSTRUCTION AREA WITH UTILITY COMPANIES BEFORE CONSTRUCTION.UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS DRAWING.

COORDINATES:

ELEVATIONS BASED UPON OPUS SOLUTION NAVD 1988
COORDINATES BASED UPON OPUS SOLUTION NAD83 WV STATE PLANE COORDINATES SOUTH ZONE

PHOTOGRAMMETRY:

BACKGROUND PHOTO OBTAINED FROM WV SHERIFFS ASSOCIATION 2010-2011 12" IMAGERY AND IS INTENDED FOR SURVEY ORIENTATION ONLY.

LIMITATIONS OF SURVEY:

THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE OPINION AND THEREFORE IS SUBJECT TO ANY STATEMENT OF FACTS REVEALED BY EXAMINATION OF SUCH DOCUMENTS AND IS SUBJECT TO ALL LEGAL RIGHTS OF WAY, EASEMENTS, AND RESTRICTIONS OF RECORD.

NO OPINION IS MADE OR EXPRESSED CONCERNING THE EXISTENCE OF WETLANDS, FLOOD HAZARDS, ENVIRONMENTAL CONDITIONS, HAZARDOUS MATERIALS, UTILITIES, OR ITEMS THAT MAY EFFECT THE USE OF PROPERTY SURVEYED.

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
EXISTING CONDITIONS

RICHARD J. DIESNER P.E. REGISTERED 25894 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0
Drawing Number:
C100

EXISTING CONDITIONS PLAN
SCALE: 1"=20'

0 10 20 40
SCALE: 1"=20'

LEGEND
THESE SYMBOLS AND LINES MAY BE FOUND IN THE DRAWING.

- SET 5/8" CAPPED IRON REBAR LABELED CONTROL POINT
- CAPPED IRON REBAR SET
- PK NAIL SET
- POST
- SIGN
- ELECTRIC BOX
- LIGHT POLE
- UTILITY POLE
- UTILITY POLE WITH LIGHT
- GROUND BASED LIGHTING
- GUIDE WIRE
- STORM INLET
- OPEN PIPE
- WATER VALVE
- SANITARY MAN HOLE
- DECIDUOUS TREE
- HANDICAP PARKING
- RIP RAP
- PROPERTY LINE
- RIGHT OF WAY
- PERMANENT EASEMENT
- AERIAL UTILITY
- ABOVE GROUND UTILITY
- GUIDE WIRE
- CHAIN LINK FENCE
- STORM SEWER
- STRUCTURE

GENERAL SURVEY NOTES:

UTILITIES:

ANY UTILITIES SHOWN ARE FROM FIELD OBSERVATION ONLY.REVIEW SPECIFIC CONSTRUCTION AREA WITH UTILITY COMPANIES BEFORE CONSTRUCTION.UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS DRAWING.

COORDINATES:

ELEVATIONS BASED UPON OPUS SOLUTION NAVD 1988
COORDINATES BASED UPON OPUS SOLUTION NAD83 WV STATE PLANE COORDINATES SOUTH ZONE

PHOTOGRAMMETRY:

BACKGROUND PHOTO OBTAINED FROM WV SHERIFFS ASSOCIATION 2010-2011 12" IMAGERY AND IS INTENDED FOR SURVEY ORIENTATION ONLY.

LIMITATIONS OF SURVEY:

THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE OPINION AND THEREFORE IS SUBJECT TO ANY STATEMENT OF FACTS REVEALED BY EXAMINATION OF SUCH DOCUMENTS AND IS SUBJECT TO ALL LEGAL RIGHTS OF WAY, EASEMENTS, AND RESTRICTIONS OF RECORD.

NO OPINION IS MADE OR EXPRESSED CONCERNING THE EXISTENCE OF WETLANDS, FLOOD HAZARDS, ENVIRONMENTAL CONDITIONS, HAZARDOUS MATERIALS, UTILITIES, OR ITEMS THAT MAY EFFECT THE USE OF PROPERTY SURVEYED.

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

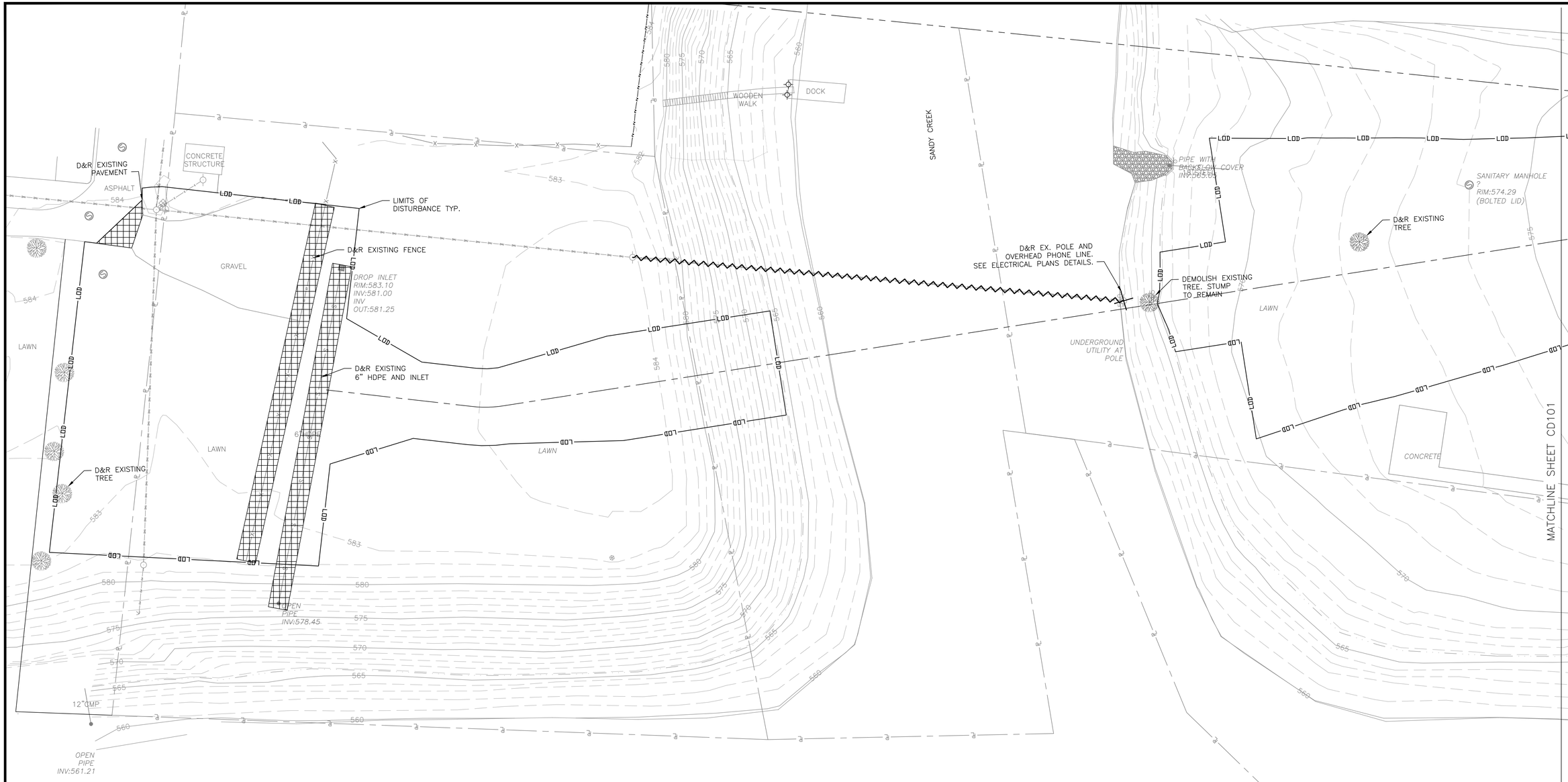
Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
EXISTING CONDITIONS

RICHARD J. DIECKERT
REGISTERED
25691
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0
Drawing Number:
C101



DEMO PLAN

SCALE: 1"=20'

0 10 20 40

SCALE: 1"=20'

NOTE:

1. ALL TREE CUTTING/CLEARING ACTIVITIES TO BE CONDUCTED IN ACCORDANCE WITH THE U.S. FISH AND WILDLIFE SERVICE BAT ROOST TREE PROTOCOLS.
2. NO EXCAVATION IS TO BE CONDUCTED BELOW THE ORDINARY HIGH WATER MARK WITHOUT THE WRITTEN CONSENT OF THE U.S. ARMY CORE OF ENGINEERS.

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

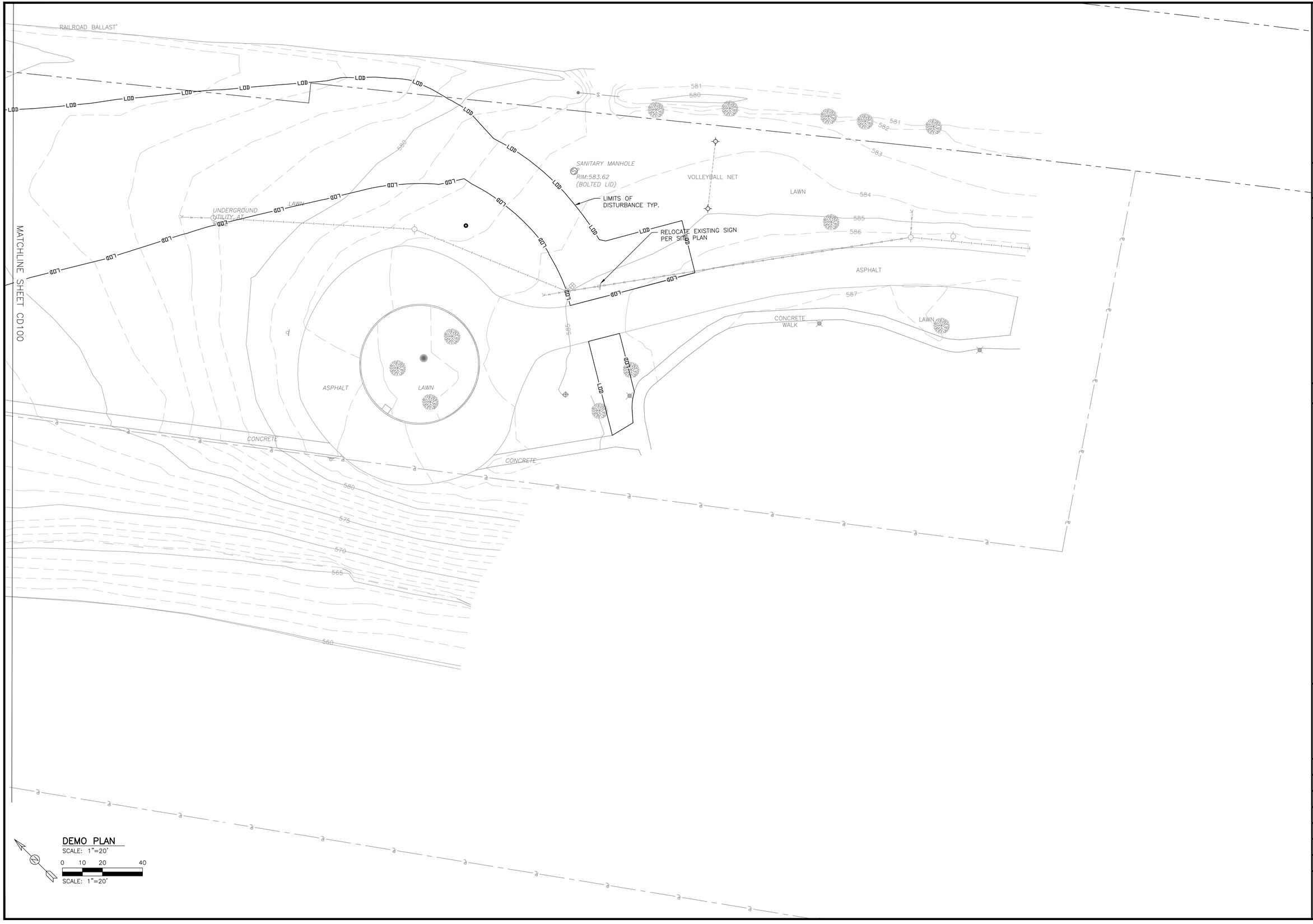
Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
DEMOLITION PLAN

RICHARD J. DIESENER, P.E.
REGISTERED
25634
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0

Drawing Number:
CD100



PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

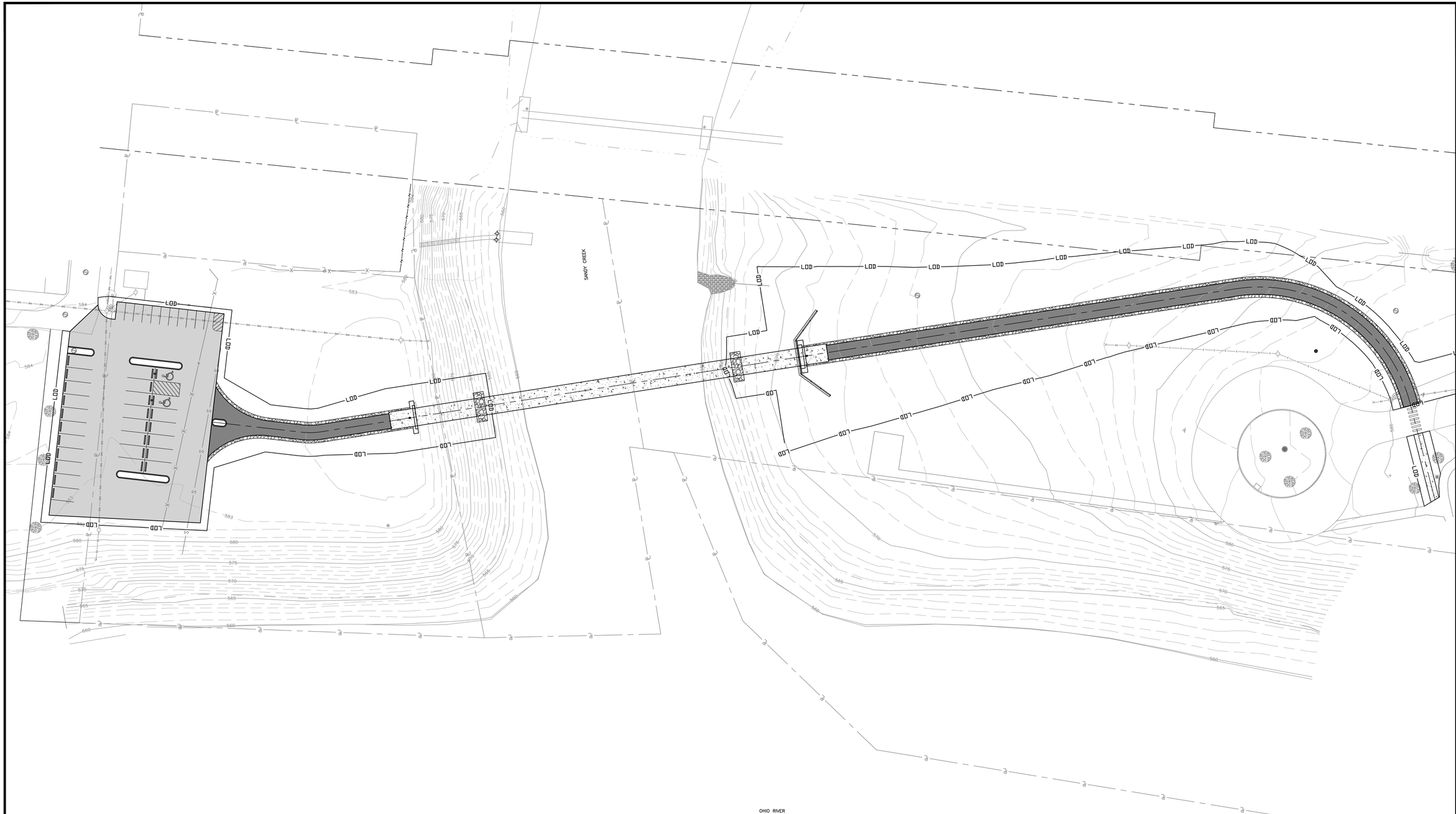
Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
DEMOLITION PLAN

RICHARD J. DIESENBERG
REGISTERED
2691
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0
Drawing Number:
CD101



MASTER SITE PLAN
SCALE: 1"=30'
0 15 30 60
SCALE: 1"=30'

MATERIAL LEGEND

- FULL-DEPTH ASPHALT OVERLAY
- PEDESTRIAN PATH OVERLAY
- AGGREGATE BASE COURSE, CLASS 10

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

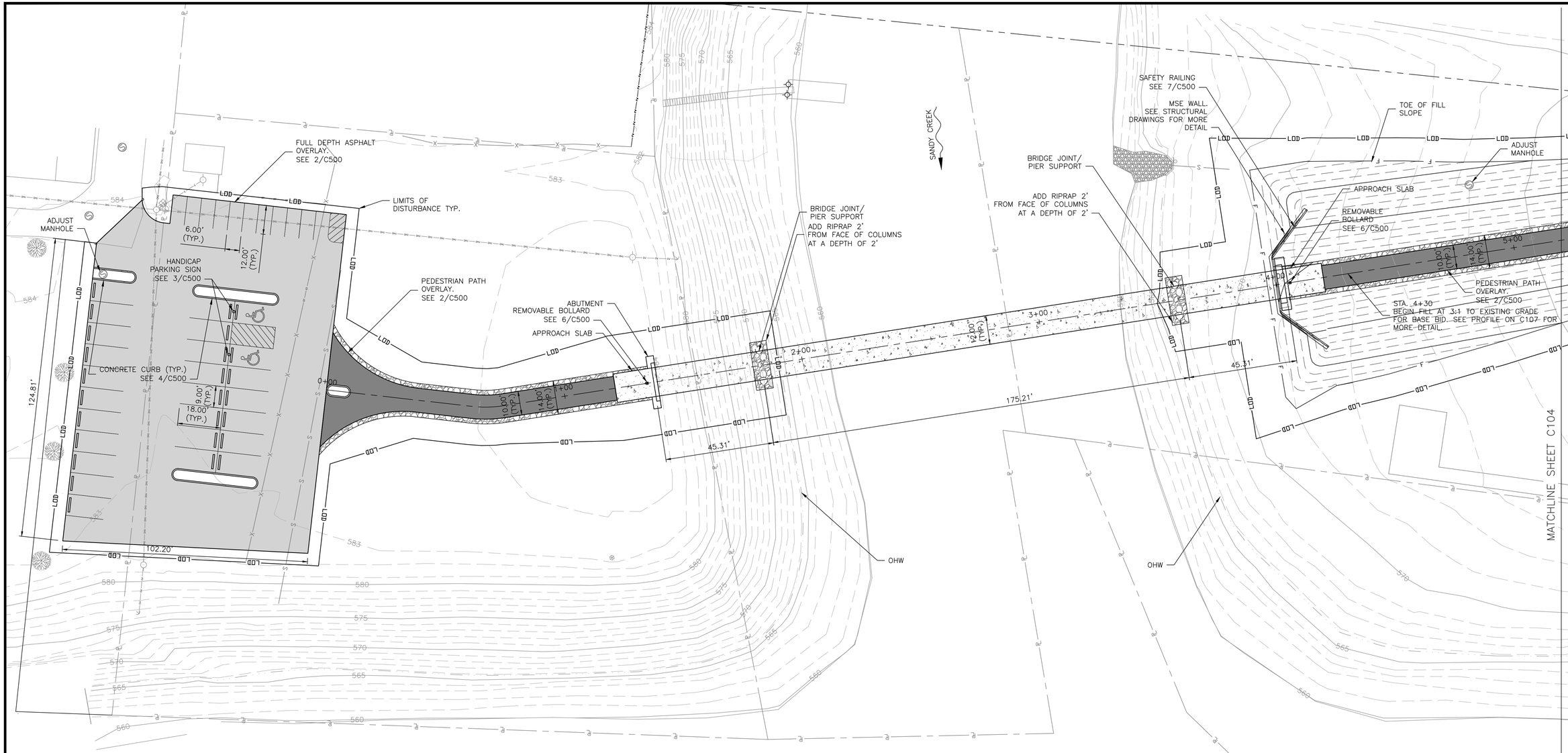
Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
MASTER SITE PLAN

RICHARD J. DIESENBERG
REGISTERED
25691
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 30'
Plot Date: 06/12/25
Revision: 0
Drawing Number:
C102



SITE PLAN
SCALE: 1"=20'

0 10 20 40

SCALE: 1"=20'

MATERIAL LEGEND

- FULL-DEPTH ASPHALT OVERLAY
- PEDESTRIAN PATH OVERLAY
- AGGREGATE BASE COURSE, CLASS 10

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

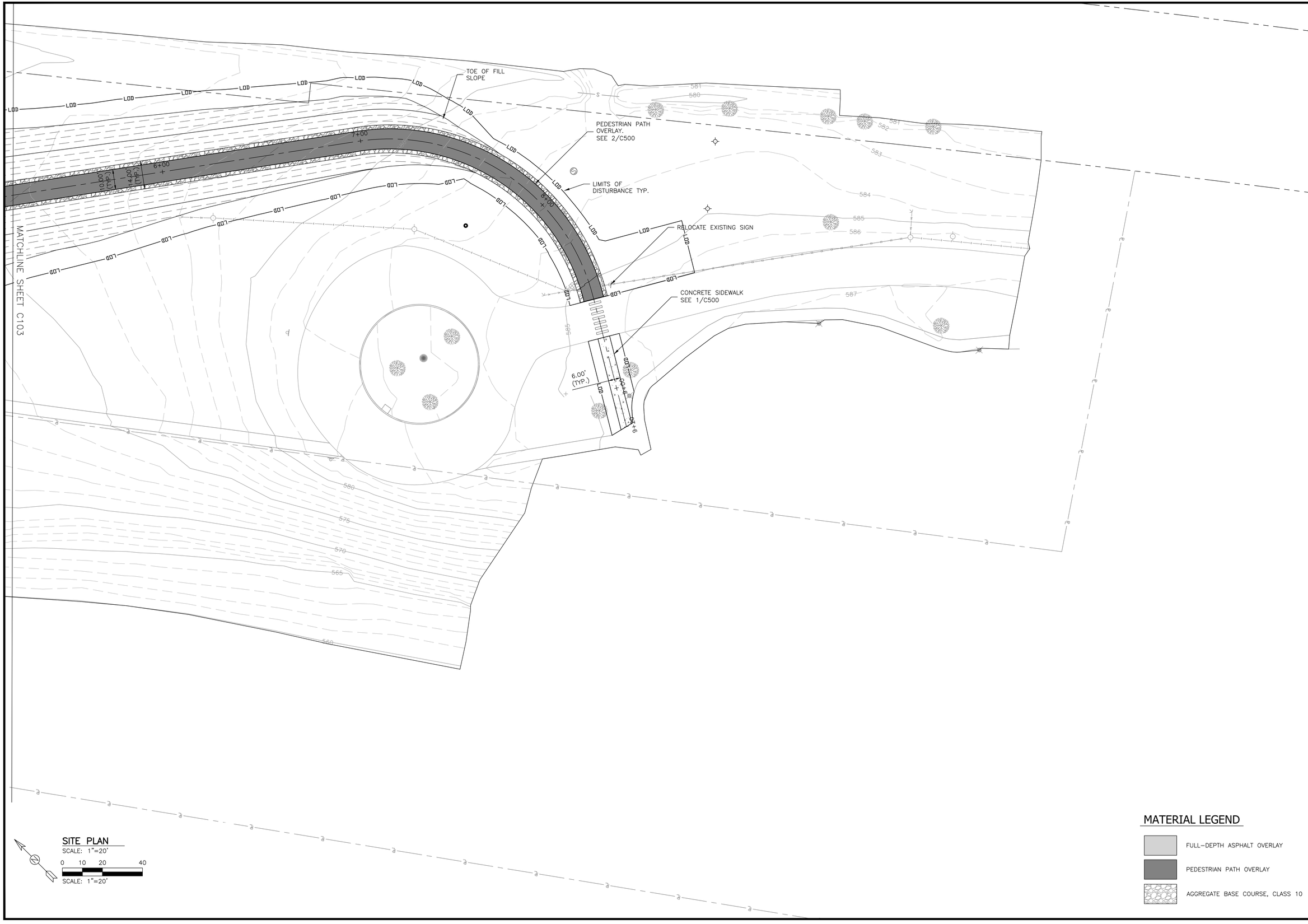
Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
SITE PLAN

RICHARD J. DIESENER, P.E.
REGISTERED
25634
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0

Drawing Number:
C103



SITE PLAN
SCALE: 1"=20'

0 10 20 40
SCALE: 1"=20'

MATERIAL LEGEND

- FULL-DEPTH ASPHALT OVERLAY
- PEDESTRIAN PATH OVERLAY
- AGGREGATE BASE COURSE, CLASS 10

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

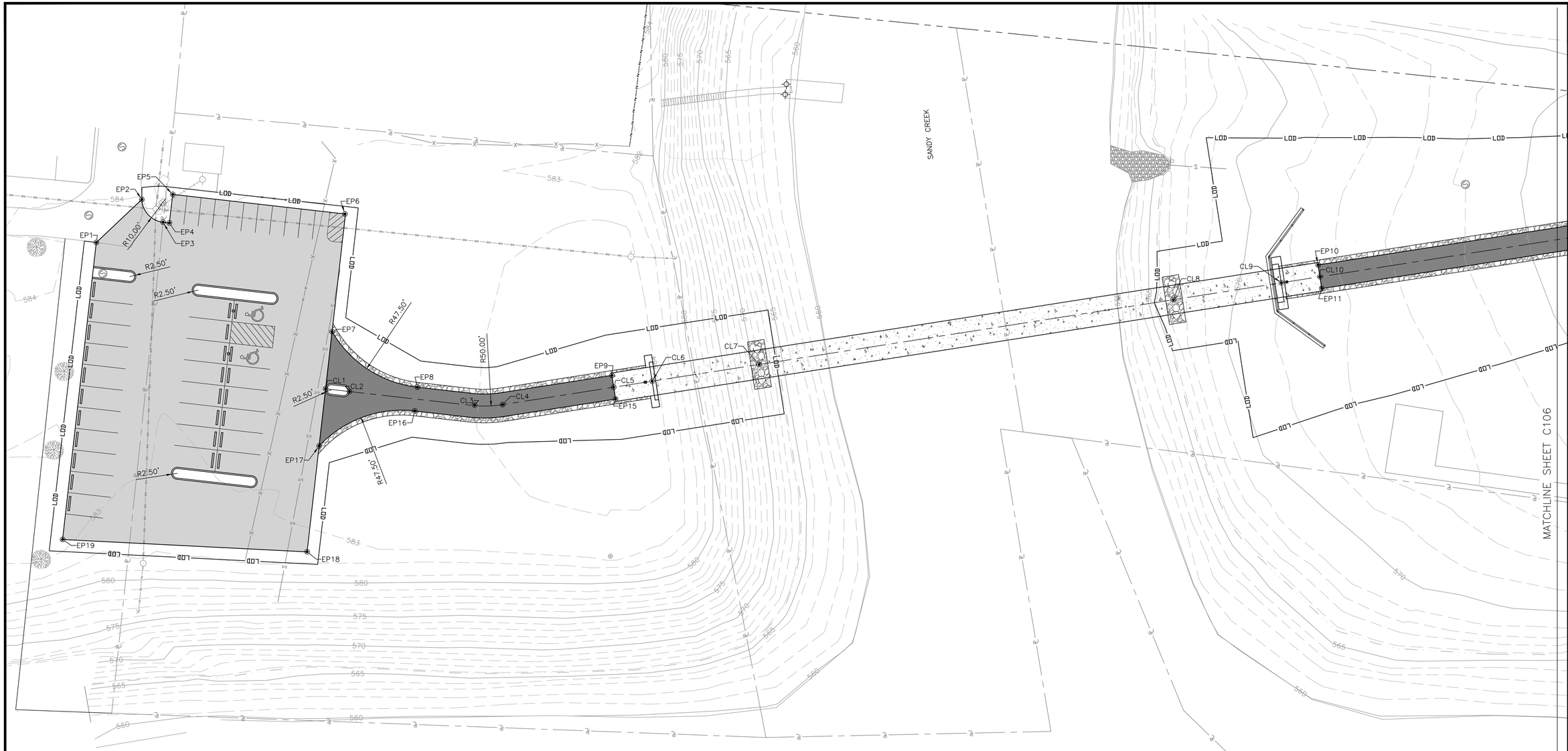
Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
SITE PLAN

RICHARD J. DIESENBERG
REGISTERED
25891
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0

Drawing Number:
C104



GEOMETRIC LAYOUT TABLE

MARK	NORTHING	EASTING	DESCRIPTION
CL1	709586.5128	1751723.4241	CENTERLINE
CL2	709578.6886	1751729.6516	CENTERLINE
CL3	709537.7813	1751762.6094	CENTERLINE
CL5	709529.6132	1751770.9997	CENTERLINE
CL6	709501.9495	1751808.9268	CENTERLINE
CL7	709492.3739	1751822.0549	CENTERLINE

GEOMETRIC LAYOUT TABLE

MARK	NORTHING	EASTING	DESCRIPTION
CL8	709465.7319	1751858.5812	CENTERLINE
CL9	709362.6082	1751999.9643	CENTERLINE
CL10	709335.7203	1752036.8277	CENTERLINE
CL11	709326.0952	1752050.0238	CENTERLINE
EP1	709697.3795	1751698.9480	EDGE PAVEMENT
EP2	709696.6677	1751725.0710	EDGE PAVEMENT

GEOMETRIC LAYOUT TABLE

MARK	NORTHING	EASTING	DESCRIPTION
EP3	709683.6927	1751724.6272	EDGE PAVEMENT
EP4	709681.5927	1751726.2987	EDGE PAVEMENT
EP5	709689.0657	1751735.6877	EDGE PAVEMENT
EP6	709632.4455	1751780.7537	EDGE PAVEMENT
EP7	709601.4589	1751742.2021	EDGE PAVEMENT
EP8	709559.8947	1751751.0008	EDGE PAVEMENT

GEOMETRIC LAYOUT TABLE

MARK	NORTHING	EASTING	DESCRIPTION
EP9	709505.9891	1751811.8732	EDGE PAVEMENT
EP10	709330.1348	1752052.9702	EDGE PAVEMENT
EP14	709322.0556	1752047.0773	EDGE PAVEMENT
EP15	709497.9100	1751805.9804	EDGE PAVEMENT
EP16	709553.6671	1751743.1766	EDGE PAVEMENT
EP17	709571.5667	1751704.6461	EDGE PAVEMENT

GEOMETRIC LAYOUT TABLE

MARK	NORTHING	EASTING	DESCRIPTION
EP18	709543.8296	1751669.7975	EDGE PAVEMENT
EP19	709619.6663	1751601.2890	EDGE PAVEMENT

NOTE: SEE FOLLOWING PAGE FOR HORIZONTAL GEOMETRY REPORT AS IT PERTAINS TO THE PEDESTRIAN PATH ALIGNMENT.

SITE LAYOUT PLAN
SCALE: 1"=20'

0 10 20 40
SCALE: 1"=20'

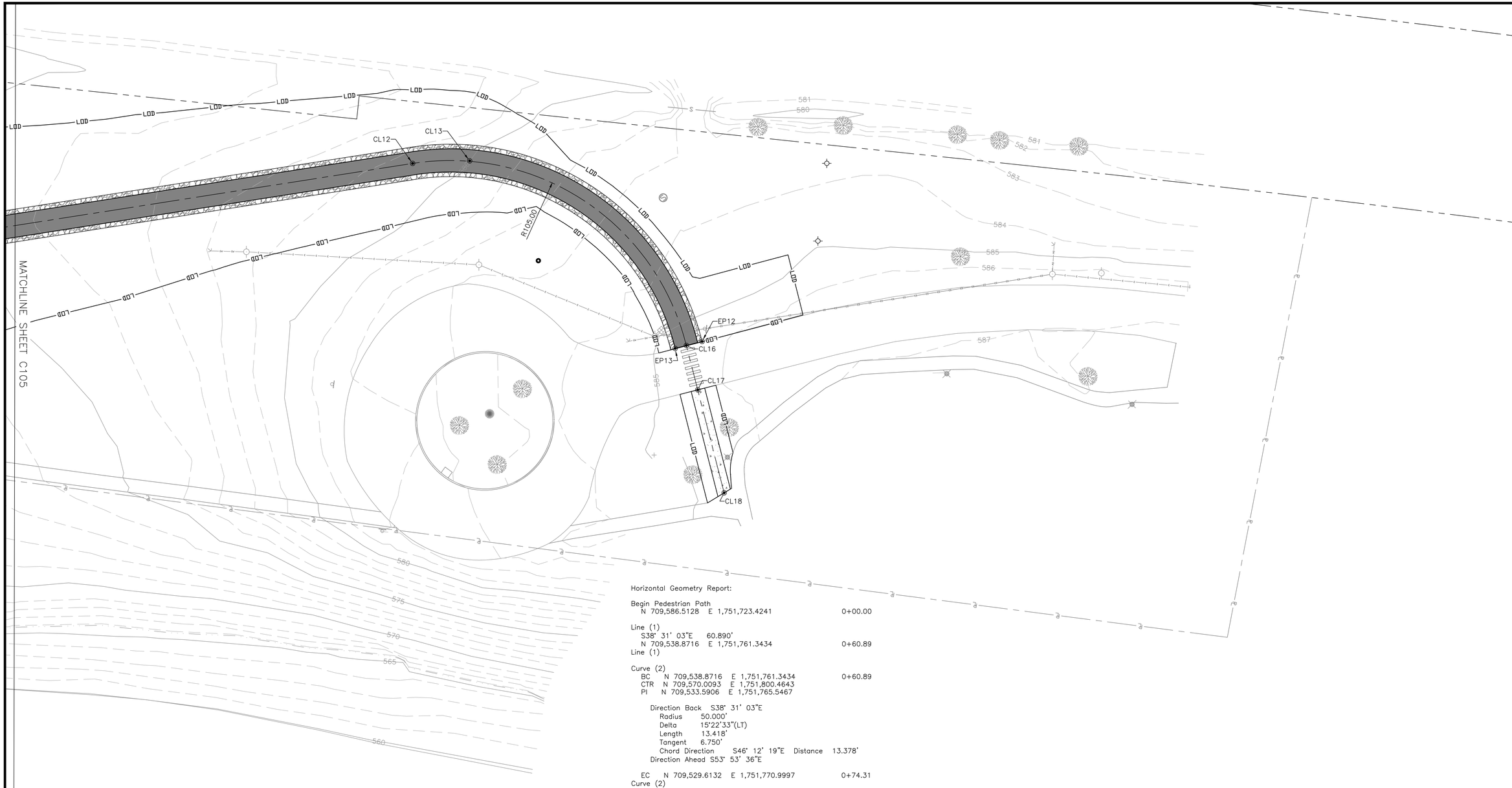
PICKERING ASSOCIATES
Architects • Engineers • Surveyors
1283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description
CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
SITE LAYOUT PLAN

RICHARD J. DIESNER, P.E.
REGISTERED
25631
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0
Drawing Number:
C105



NOTE: SEE PREVIOUS PAGE FOR COORDINATES OF GEOMETRIC POINTS.

SITE LAYOUT PLAN
SCALE: 1"=20'

0 10 20 40
SCALE: 1"=20'

Horizontal Geometry Report:

Begin Pedestrian Path
N 709,586.5128 E 1,751,723.4241 0+00.00

Line (1)
S38° 31' 03"E 60.890'
N 709,538.8716 E 1,751,761.3434 0+60.89
Line (1)

Curve (2)
BC N 709,538.8716 E 1,751,761.3434 0+60.89
CTR N 709,570.0093 E 1,751,800.4643
PI N 709,533.5906 E 1,751,765.5467

Direction Back S38° 31' 03"E
Radius 50.000'
Delta 15°22'33"(LT)
Length 13.418'
Tangent 6.750'
Chord Direction S46° 12' 19"E Distance 13.378'
Direction Ahead S53° 53' 36"E

EC N 709,529.6132 E 1,751,770.9997 0+74.31
Curve (2)

Line (3)
S53° 53' 36"E 623.875'
N 709,161.9689 E 1,752,275.0415 6+98.18
Line (3)

Curve (4)
BC N 709,161.9689 E 1,752,275.0415 6+98.18
CTR N 709,077.1384 E 1,752,213.1669
PI N 709,105.7624 E 1,752,352.1009

Direction Back S53° 53' 36"E
Radius 104.998'
Delta 84°30'13"(RT)
Length 154.859'
Tangent 95.380'
Chord Direction S11° 38' 29"E Distance 141.200'
Direction Ahead S30° 36' 37"W

EC N 709,023.6737 E 1,752,303.5339 8+53.04
Curve (4)

Line (5)
S30° 36' 37"W 66.791'
N 708,966.1898 E 1,752,269.5241 9+19.83
Line (5)

N 708,966.1898 E 1,752,269.5241 9+19.83
End Pedestrian Path

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

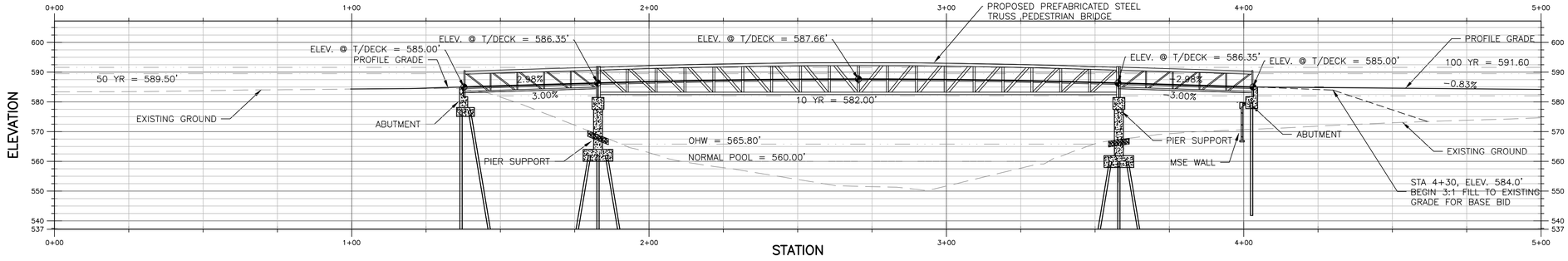
CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
SITE LAYOUT PLAN

RICHARD J. DIESENBERG
REGISTERED
25891
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

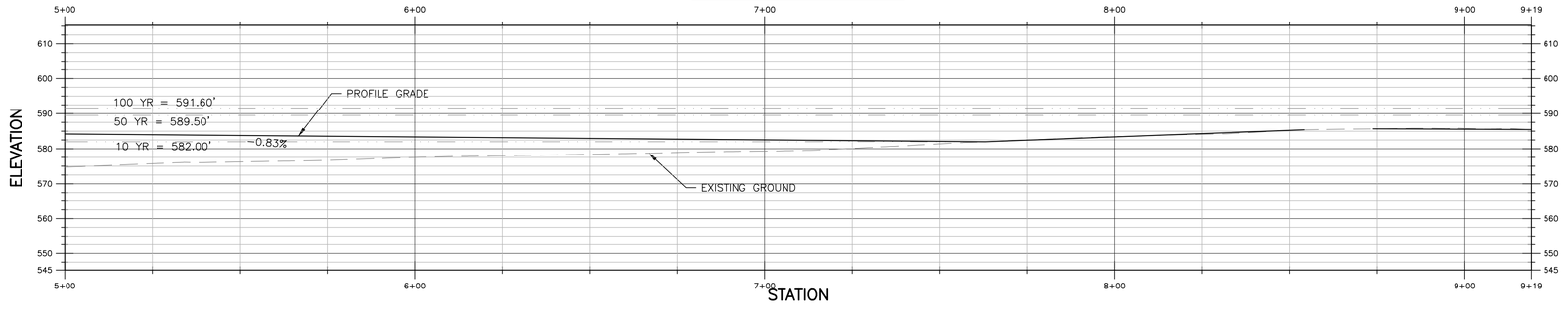
Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0

Drawing Number:
C106

Pedestrian Path PROFILE



Pedestrian Path PROFILE



PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

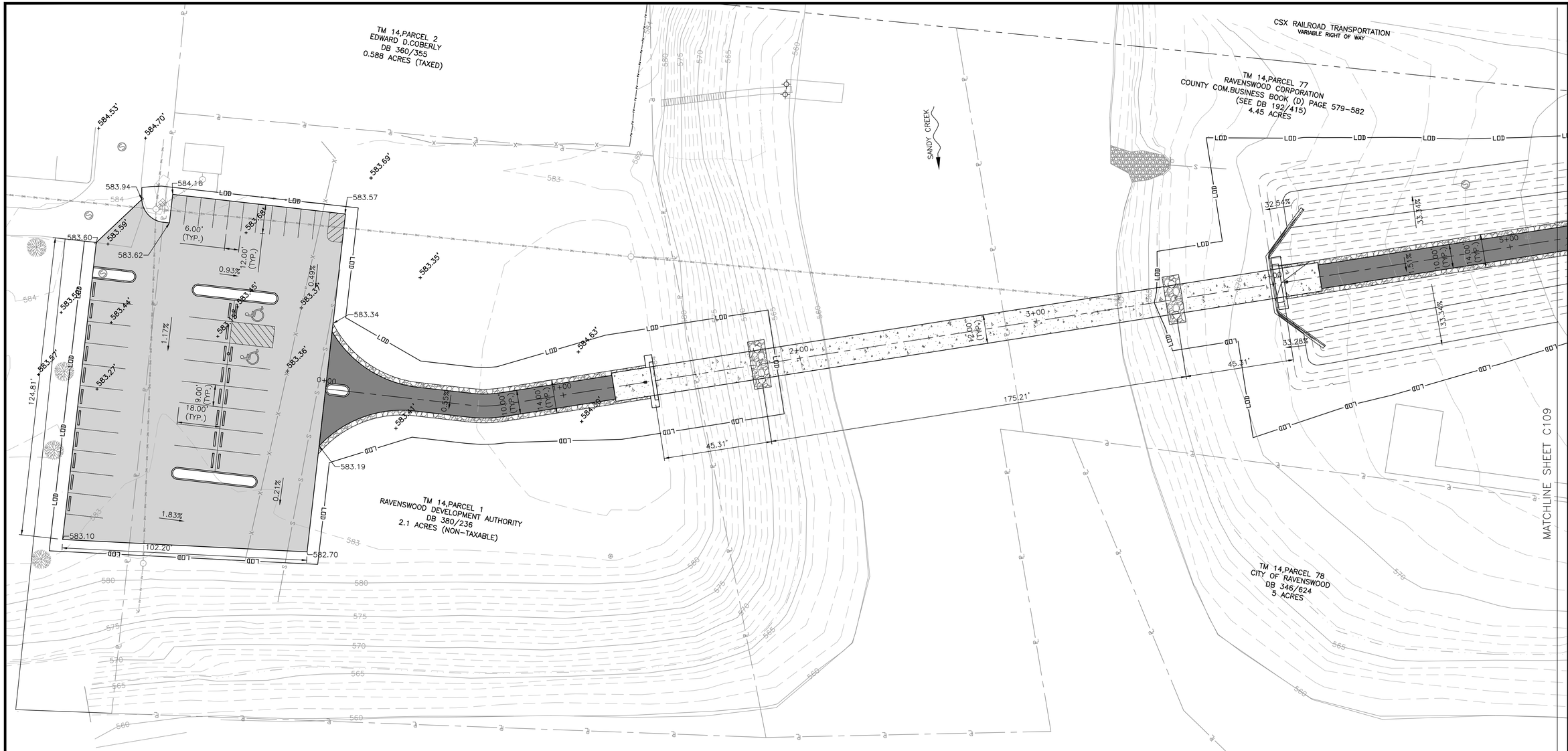
Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
PEDESTRIAN PATH PROFILE

RICHARD J. DIESENBERG
REGISTERED
25894
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0
Drawing Number:
C107



GRADING NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FINISHED SURFACES.
2. EXCESS CUT MATERIAL NOT USED FOR GRADING PURPOSES AS SHOWN ON THESE PLANS SHALL BE REMOVED FROM THE PROJECT SITE.
3. ALL CONTOURS REPRESENT TOP OF FINISHED SURFACE (I.E. TOP OF CONCRETE, TOP OF STONE, ETC).
4. THE FINAL TOP 6" OF SOIL NOT COVERED BY BUILDINGS OR PAVEMENT SHALL BE OF THE TYPE TO ADEQUATELY SUPPORT LAWN TYPE PERMANENT SEEDING.
5. SEDIMENT AND EROSION CONTROL SHOWN ON C109 AND C110 IS FOR POST-CONSTRUCTION AND DOES NOT DEPICT ALL STAGES OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MODIFY OR ADD STORMWATER BMP'S AS NECESSARY TO STAY IN COMPLIANCE WITH THE SITE STORMWATER PERMIT AND WVDEP GENERAL STORMWATER PERMIT SPECIFICATIONS.

GRADING PLAN
SCALE: 1"=20'
0 10 20 40
SCALE: 1"=20'

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

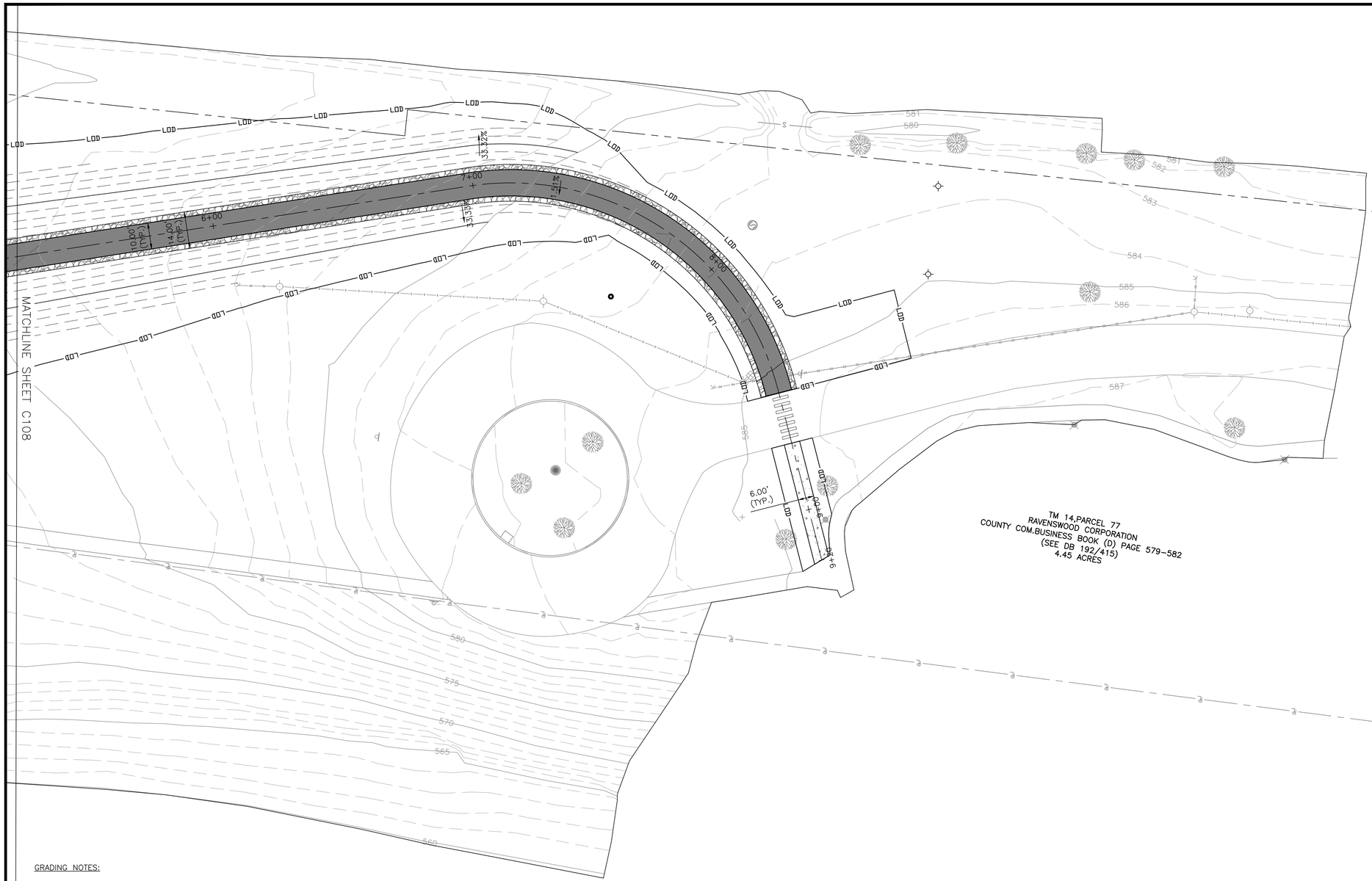
Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
GRADING PLAN

RICHARD J. DIESENER, P.E.
REGISTERED
25631
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 6/12/25
Revision: 1
Drawing Number:
C108



GRADING NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FINISHED SURFACES.
2. EXCESS CUT MATERIAL NOT USED FOR GRADING PURPOSES AS SHOWN ON THESE PLANS SHALL BE REMOVED FROM THE PROJECT SITE.
3. ALL CONTOURS REPRESENT TOP OF FINISHED SURFACE (I.E. TOP OF CONCRETE, TOP OF STONE, ETC).
4. THE FINAL TOP 6" OF SOIL NOT COVERED BY BUILDINGS OR PAVEMENT SHALL BE OF THE TYPE TO ADEQUATELY SUPPORT LAWN TYPE PERMANENT SEEDING.
5. SEDIMENT AND EROSION CONTROL SHOWN ON C109 AND C110 IS FOR POST-CONSTRUCTION AND DOES NOT DEPICT ALL STAGES OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MODIFY OR ADD STORMWATER BMP'S AS NECESSARY TO STAY IN COMPLIANCE WITH THE SITE STORMWATER PERMIT AND WVDEP GENERAL STORMWATER PERMIT SPECIFICATIONS.

GRADING PLAN

SCALE: 1"=20'

0 10 20 40

SCALE: 1"=20'

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

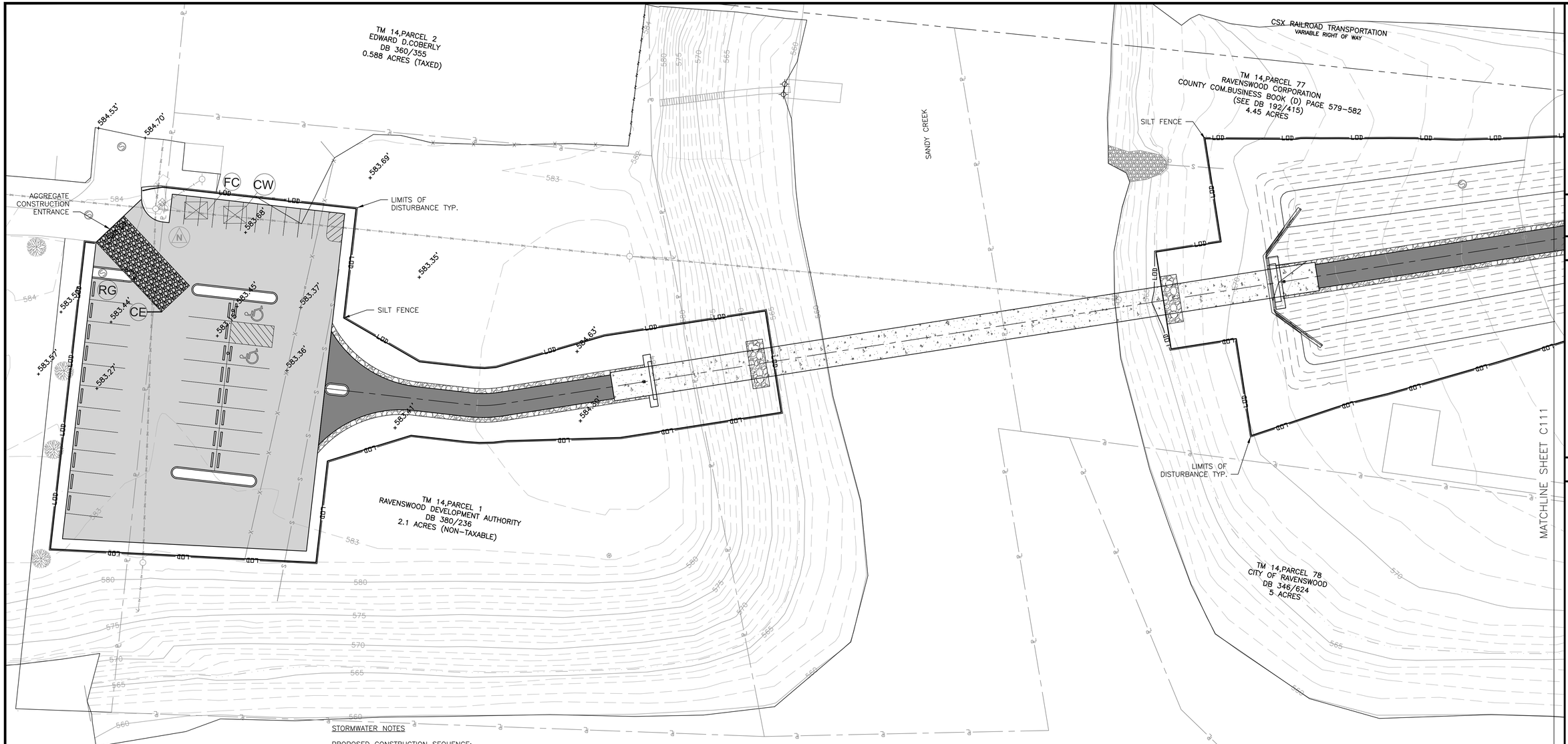
Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
GRADING PLAN

RICHARD J. DIESENBERG
REGISTERED
25891
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0

Drawing Number:
C109



SEDIMENT AND EROSION CONTROL

SCALE: 1"=20'

0 10 20 40

SCALE: 1"=20'

STORMWATER NOTES

PROPOSED CONSTRUCTION SEQUENCE:

- INSTALL PERIMETER SILT FENCE PRIOR TO GRADING AND WITHIN 7 DAYS OF START OF GRUBBING
- CONSTRUCT CONSTRUCTION ENTRANCE
- PROVIDE ADDITIONAL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AS REQUIRED DURING CONSTRUCTION
- DEMO EXISTING CONDITIONS
- CONSTRUCT SITE UTILITIES LOCATED BELOW EXISTING GRADE
- CONSTRUCT BRIDGE PIER AND ABUTMENT SUPPORTS.
- PERFORM FINAL GRADING/PAVING AS SHOWN ON DRAWINGS
- PERMANENTLY SEED AND MULCH ALL DISTURBED AREAS
- REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AS CONTRIBUTING AREAS ARE STABILIZED

1. SILT FENCE SHALL BE PLACED ON LOW-SIDE OF STOCK PILES, CUT AREAS, OR FILL AREAS TO HELP LIMIT SEDIMENT FROM BEING WASHED INTO EXISTING STREETS, LAWNS, DRAINAGE STRUCTURES, AND DRAINAGE WAYS. SECTION 3.27 (SILT FENCE) OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL SHALL BE REFERENCED FOR ADDITIONAL INFORMATION. SILT FENCE SHALL BE CONSTRUCTED, MANUFACTURED, AND MAINTAINED IN ACCORDANCE WITH THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
2. CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL SECTION 3.02. CONSTRUCTION ENTRANCES MUST BE LOCATED WITHIN THE SITE PROPERTY LIMITS AND BE GRAVELED SUFFICIENTLY TO EFFECTIVELY MINIMIZE THE TRACKING OF SEDIMENTS OFF THE SITE. ENTRANCES AND RECEIVING ROADWAYS SHALL BE SWEPT/CLEANED IN A MANNER ACCEPTABLE TO THE ENGINEER AND THE AUTHORITY HAVING JURISDICTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE (NO STANDING WATER) IS ATTAINED THROUGHOUT AND UPON COMPLETION OF THE PROJECT.
4. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH WVDOH AND WVDEP STANDARD DETAILS. WHERE CONFLICTS ARE ENCOUNTERED, THE MOST STRINGENT REQUIREMENT SHALL CONTROL.
5. CEMENT TRUCK WASH-OUT AREAS SHALL BE SURROUNDED BY AN EARTH DIKE AND BE LOCATED AWAY FROM DRAINAGE CHANNELS. THE DIKED AREA SHALL HOLD A VOLUME EQUAL TO 110% OF THE LARGEST TANK. WASHINGS MUST BE CONTAINED ON-SITE UNTIL THEY HARDEN. ALL REMAINING DEBRIS SHALL THEN BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
6. REFUELING, MAINTENANCE, AND STORAGE AREAS SHALL BE LOCATED WITHIN A DIKED AND IMPERVIOUS AREA. TOXIC WASTE AND SPILLAGE MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
7. WHERE POSSIBLE, LEAVE EXISTING VEGETATIVE STRIP ALONG PROPERTY PERIMETER.
8. AT A MINIMUM, INSPECTIONS OF ALL SEDIMENT AND EROSION CONTROLS WILL BE CONDUCTED EVERY 4 DAYS AND WITHIN 24 HOURS OF A RAIN EVENT OF 0.5 INCHES OR GREATER IN 24 HOURS.
9. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE NOTED WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED, BUT IN NO CASE MORE THAN SEVEN DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED.
10. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS CONDITIONS ALLOW.
11. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 14 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED.
12. AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RESEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.
13. ALL STORM INLETS SHALL RECEIVE INLET PROTECTION IN ACCORDANCE WITH WVDEP SEDIMENT & EROSION CONTROL MANUAL SECTION 3.33.

MATERIAL LEGEND

- SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- AGGREGATE CONSTRUCTION ENTRANCE

SWPPP LEGEND

- RG — RAIN GAUGE
- CW — CONCRETE WASHOUT
- CD — CONSTRUCTION DEBRIS DUMPSTER
- FC — FUEL CONTAINMENT DIKE
- CE — CONSTRUCTION ENTRANCE
- N — DEP NOTICE POSTING LOCATION

OHIO RIVER

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	6/12/25

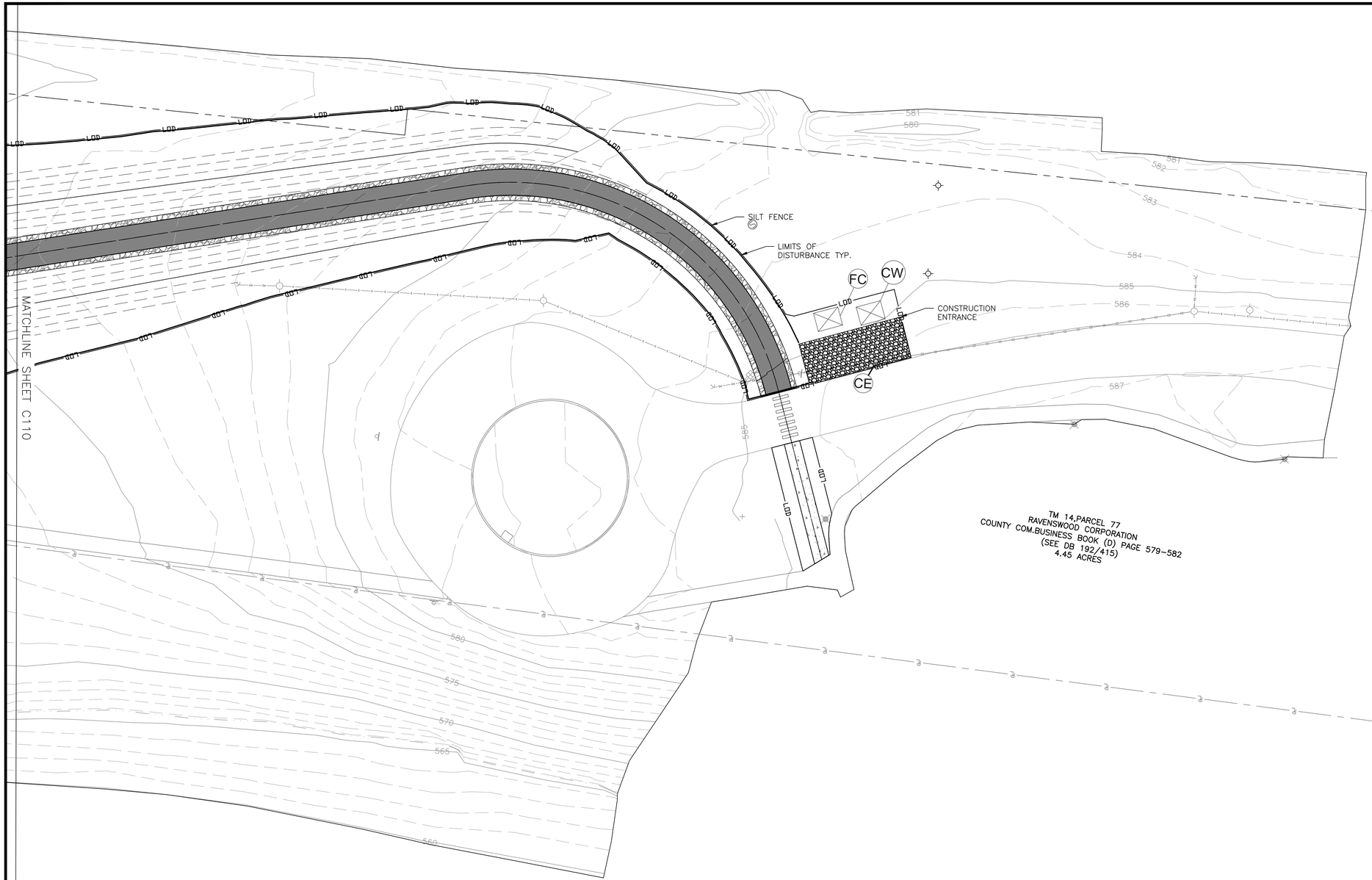
Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
SEDIMENT AND EROSION CONTROL PLAN

RICHARD J. DIESENBERG
REGISTERED
25891
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0

Drawing Number:
C110



SEDIMENT AND EROSION CONTROL
SCALE: 1"=20'

0 10 20 40
SCALE: 1"=20'

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

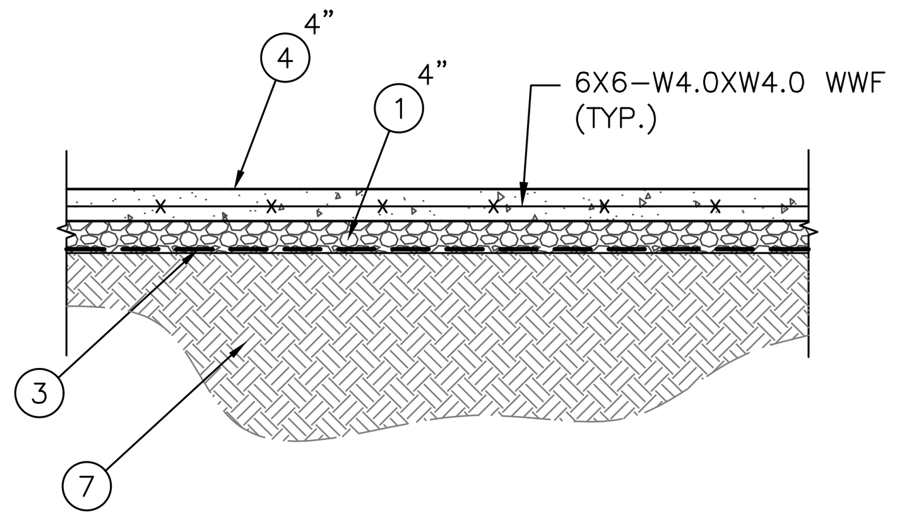
Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
SEDIMENT AND EROSION CONTROL PLAN

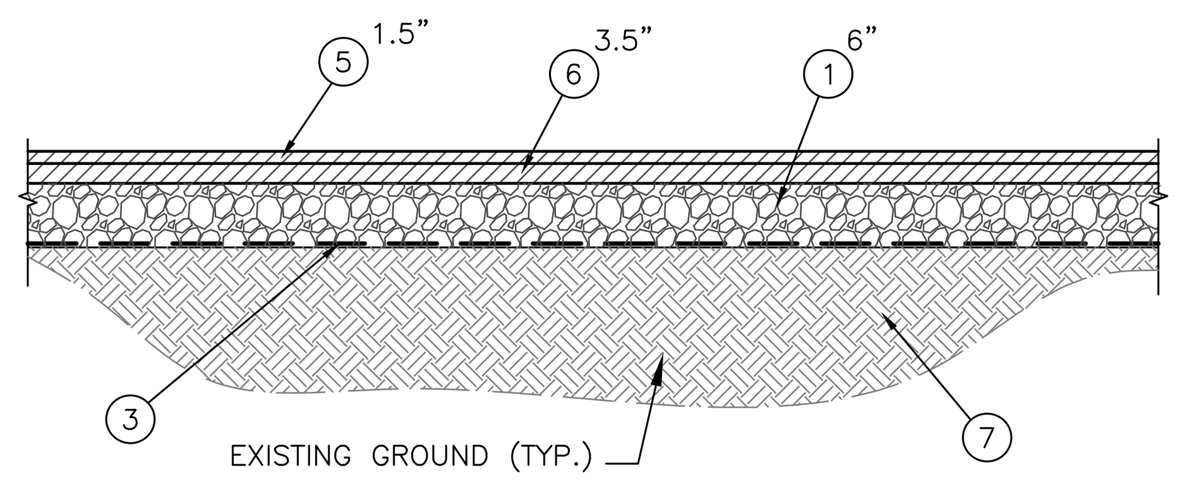
RICHARD J. DIESENBERG
REGISTERED
25891
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: 1" = 20'
Plot Date: 06/12/25
Revision: 0

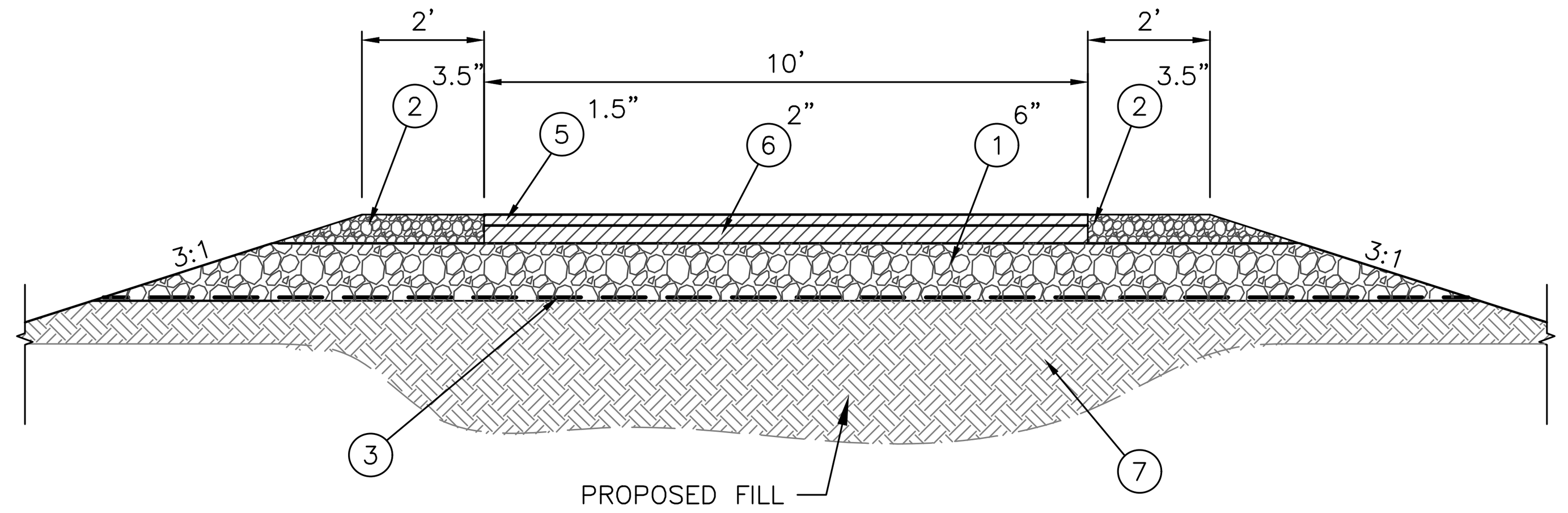
Drawing Number:
C111



1 C500 **CONCRETE SIDEWALK**
SCALE: 1/2"=1'-0"



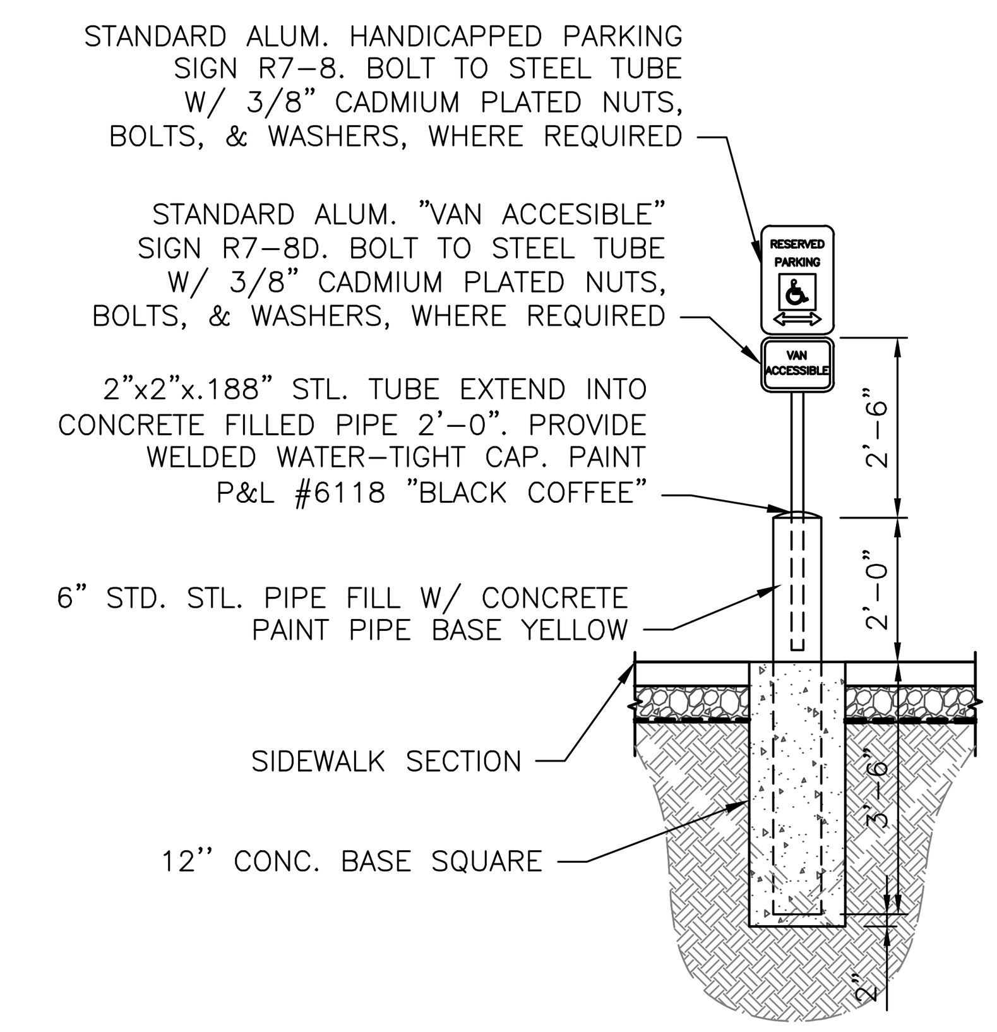
FULL DEPTH ASPHALT



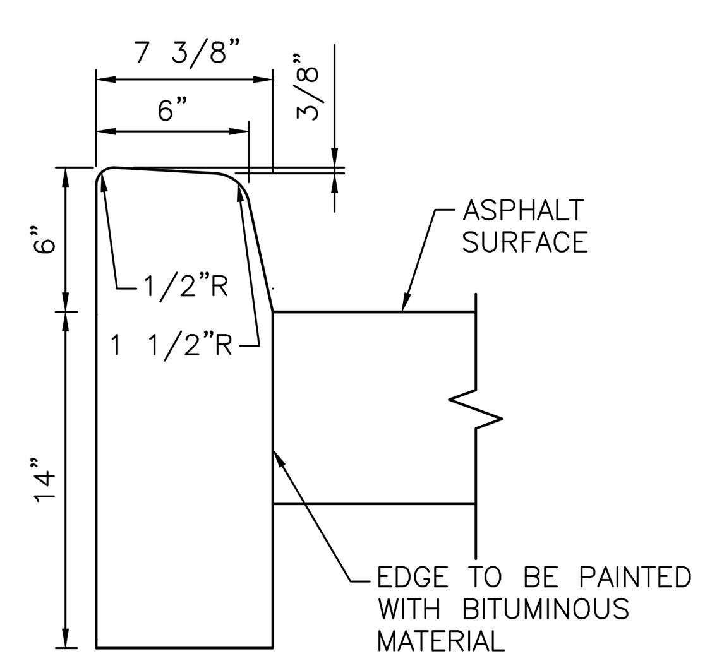
PEDESTRIAN PATH OVERLAY

2 C500 **ASPHALT PAVEMENT**
SCALE: N.T.S.

1. ITEM 307001-000 AGGREGATE BASE COURSE, CLASS 1
2. ITEM 307001-000 AGGREGATE BASE COURSE, CLASS 10
3. ITEM 207034-000 FABRIC FOR SEPARATION
4. ITEM 609001-001 4 INCH CONCRETE SIDEWALK
5. ITEM 401002-020 HOT-MIX ASPHALT WEARING COURSE, STONE OR GRAVEL, TYPE I
6. ITEM 401001-023 HOT-MIX ASPHALT BASE COURSE, STONE OR GRAVEL, TYPE II
7. PROPERLY PREPARED SUBGRADE
8. STANDARD MILLING

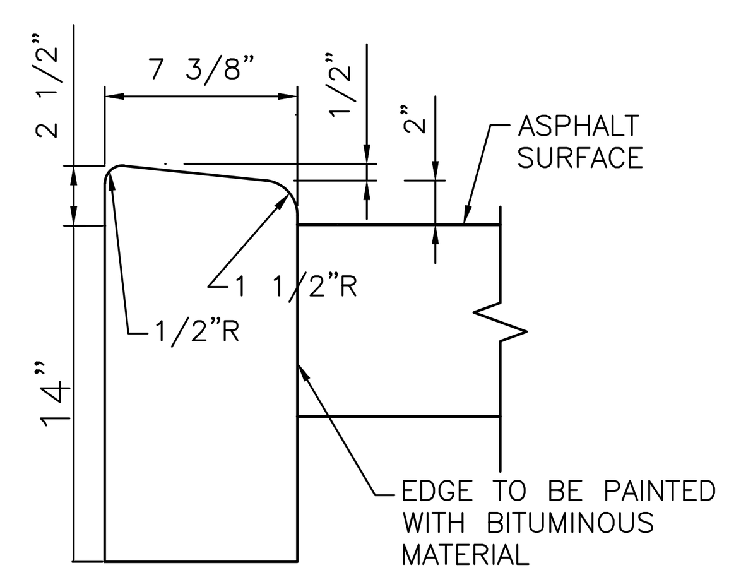


3 C501 **HANDICAP PARKING SIGN DETAIL**
SCALE: N.T.S.



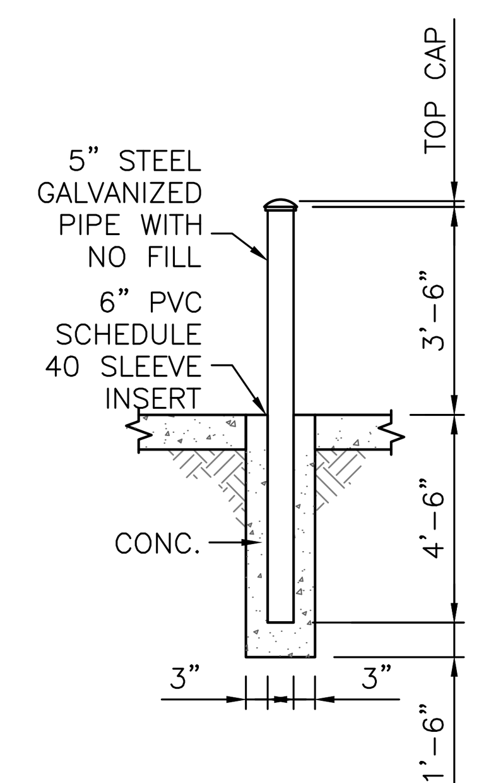
PLAIN CONCRETE CURBING
TYPE I

4 C500 **TYPICAL CURB DETAILS**
SCALE: 1 1/2"=1'-0"

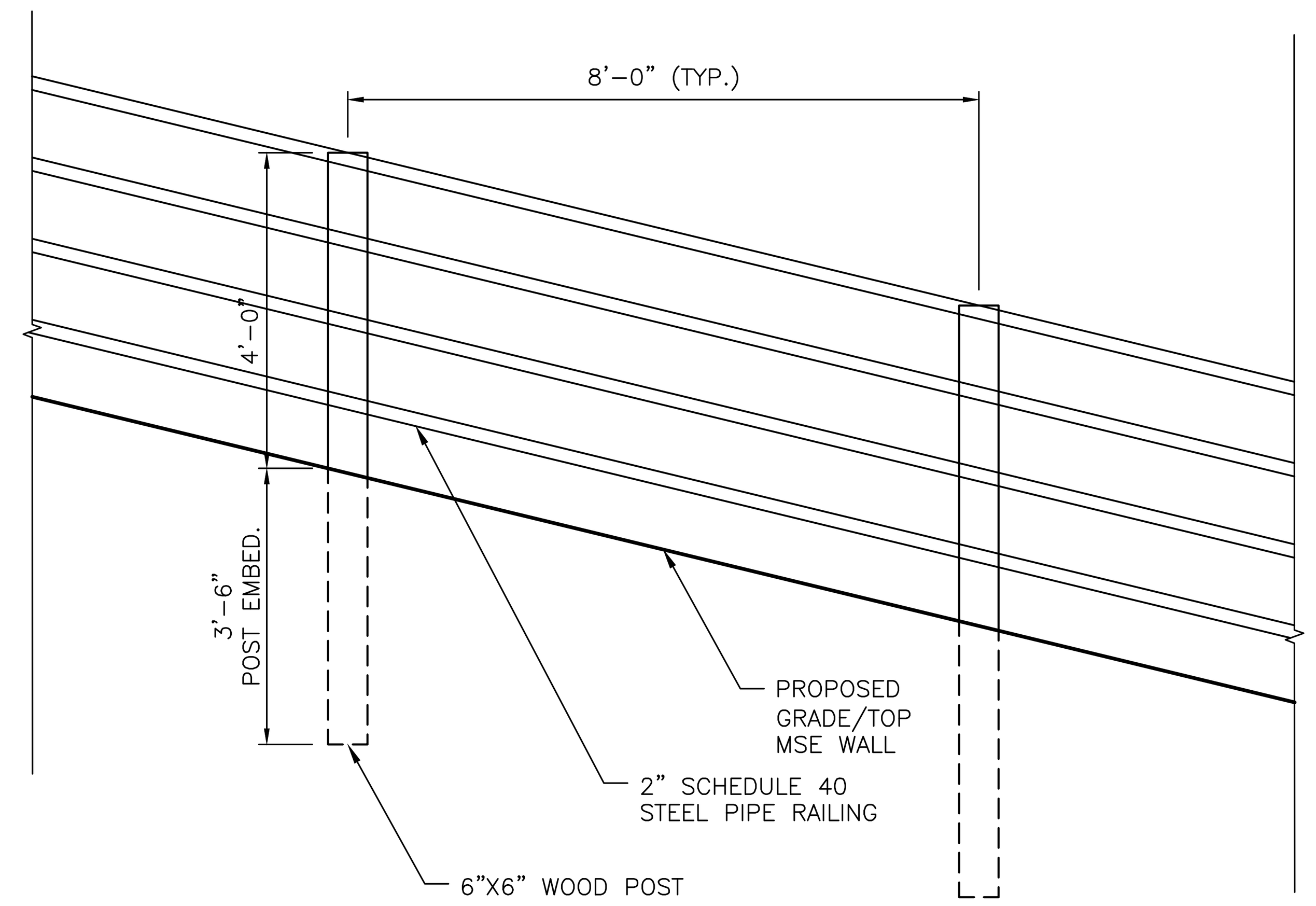


PLAIN CONCRETE CURBING
TYPE IV

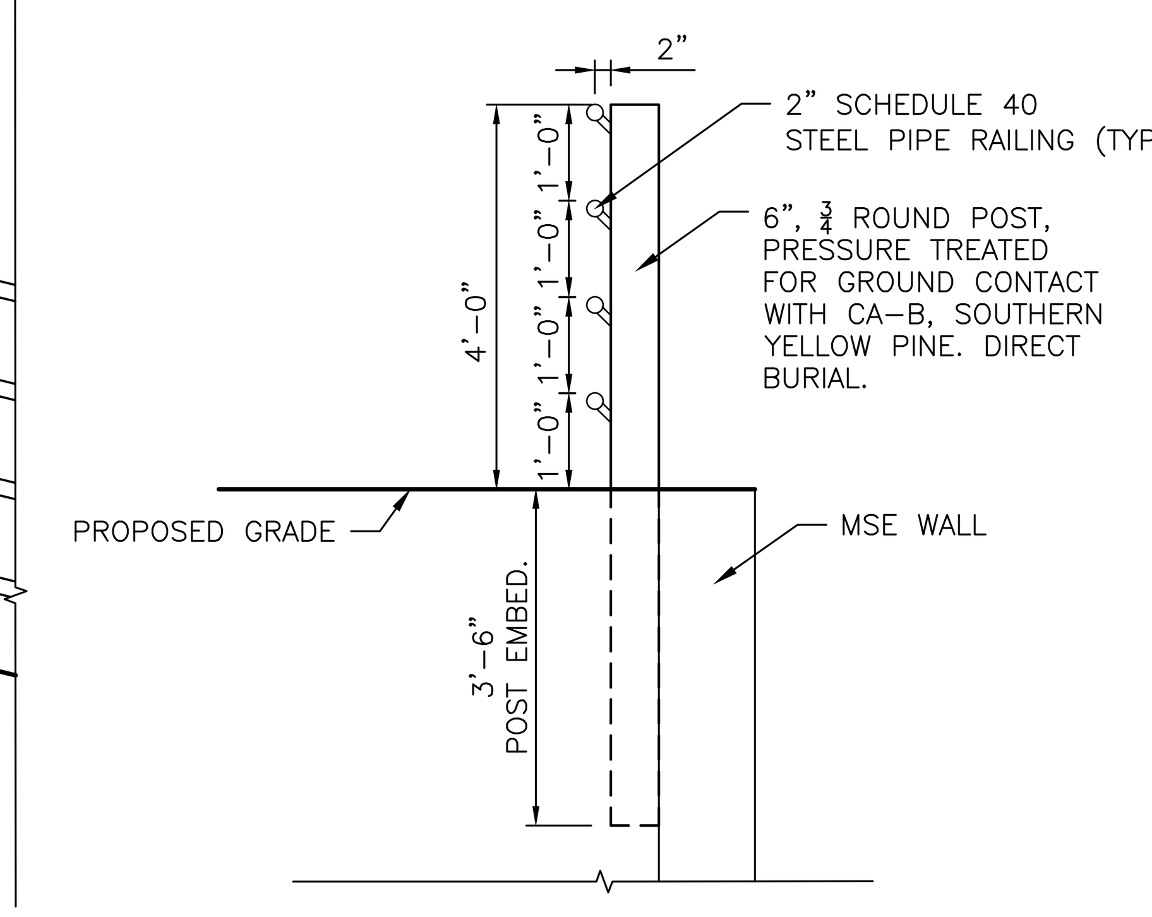
5 C500 **TYPICAL CURB DETAILS**
SCALE: 1 1/2"=1'-0"



6 C500 **REMOVABLE BOLLARD**
SCALE: N.T.S.

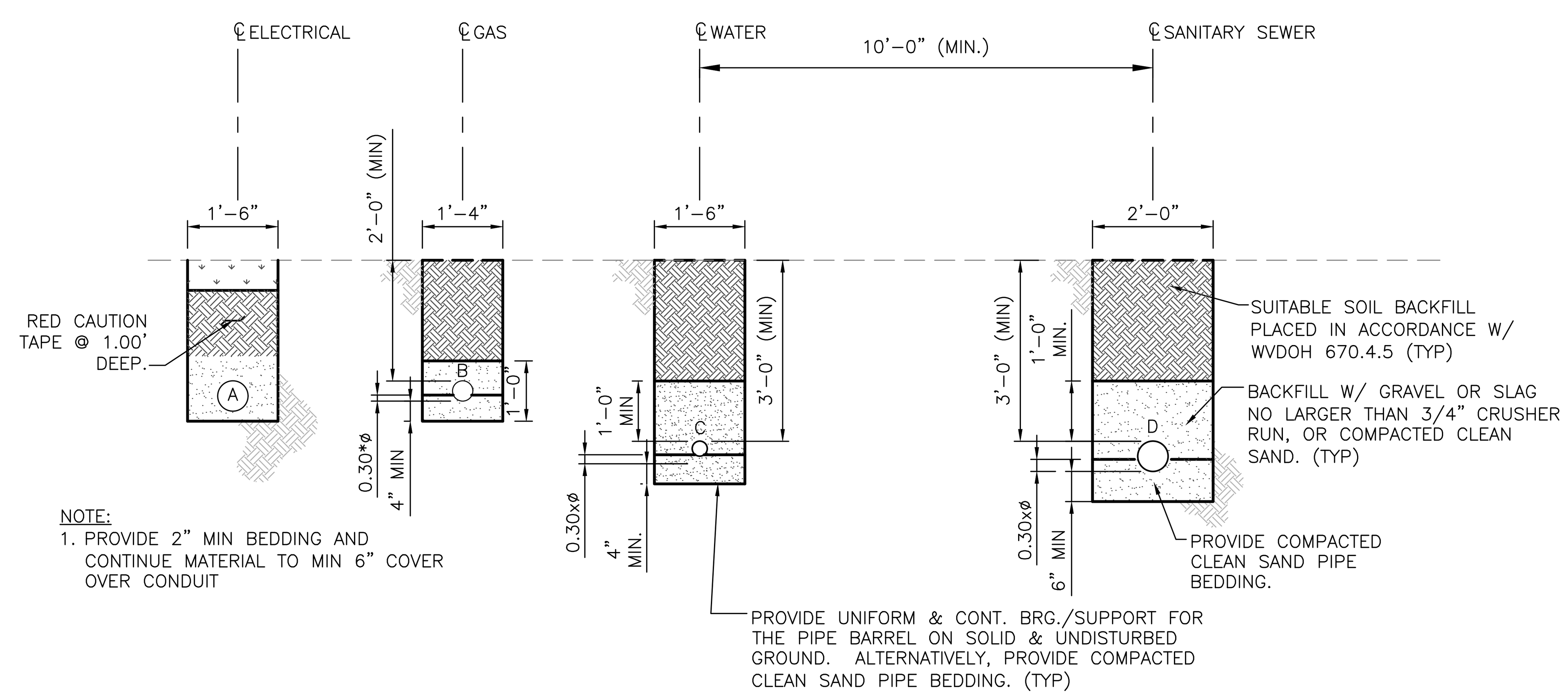


ELEVATION VIEW



SECTION VIEW

7 C500 **SAFETY RAILING IN FILL WALL SECTION**
SCALE: 1/2"=1'-0"



NOTE:
1. PROVIDE 2" MIN BEDDING AND CONTINUE MATERIAL TO MIN 6" COVER OVER CONDUIT

A – ELECTRICAL CONDUIT, SEE ELECTRICAL FOR DETAILS
B – 2" OR 2¼" PE SDR 11 GAS PIPE, 24" MIN. COVER
C – 4" OR 6" PE SDR 11 WATER PIPE, 36" MIN. COVER
D – 4" SDR 35 PVC SANITARY SEWER PIPE, 36" MIN. COVER

8 C500 **TYPICAL UTILITY TRENCHES**
SCALE: 1/2"=1'-0"

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description
CITY OF RAVENSWOOD
JACKSON COUNTY, WEST VIRGINIA
PEDESTRIAN BRIDGE OVER SANDY CREEK
SECTIONS AND DETAILS

RICHARD J. DIESENBERG REGISTERED 25691 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

Project: 2226039
Designed By: RJD
Drawn By: RJD
Checked By: JRT
Scale: AS NOTED
Plot Date: 06/12/25
Revision: 0
Drawing Number:
C500

A. STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):
1500–AS1 DATED/REVISED 05/02/2019
1400–EZ1 DATED/REVISED 05/02/2019
AND TO THE FOLLOWING DESIGN DIRECTIVE:
WVDOT DD–813 DATED/REVISED 09/30/2013

B. DESIGN SPECIFICATIONS:

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9TH EDITION, 2020, THE WVDOT BRIDGE DESIGN MANUAL, 2006 AND LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION, WITH 2015 INTERIM REVISIONS, AND THE WVDOT DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS ROADS AND BRIDGES–ADOPTED 2023.

C. DESIGN LOADING:

DESIGN LOADING: 0.090 KIPS/SQ. FT. OR H10 LOADING
FUTURE WEARING SURFACE (FWS) OF 0.025 KIPS/SQ. FT.
(4) FUTURE UTILITY CONDUITS TO BE SUPPORTED UNDER THE TRUSS FLOOR BEAMS AT 9 PLF EACH.

D. DESIGN DATA:

CONCRETE CLASS B – COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
CONCRETE CLASS K – COMPRESSIVE STRENGTH 4.0 KSI (SUPERSTRUCTURE)
REINFORCING STEEL – MINIMUM YIELD STRENGTH 60 KSI
STEEL PILES – ASTM A572 – YIELD STRENGTH 50 KSI

E. DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL

F. PILES TO BEDROCK:

PILES TO BEDROCK: DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED BY PENETRATING WEAK BEDROCK FOR SEVERAL INCHES TO A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR BY CONTACTING STRONG BEDROCK AND THE PILE RECEIVING AT LEAST 20 BLOWS. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL. INSTEAD OF DRIVING TO REFUSAL, THE CONTRACTOR MAY PERFORM DYNAMIC LOAD TESTING ACCORDING TO C&MS 616 TO ESTABLISH A DRIVING CRITERIA FOR EACH PILE TYPE AND CAPACITY. ESTABLISH THE DRIVING CRITERIA TO ACHIEVE AN ULTIMATE BEARING VALUE THAT IS 1.5 TIMES THE TOTAL FACTORED LOAD GIVEN BELOW FOR THE PILES. PAYMENT FOR DYNAMIC LOAD TESTING PERFORMED AT THE CONTRACTOR'S OPTION IS INCLUDED IN THE UNIT PRICE PAY ITEM FOR PILES DRIVEN.

THE TOTAL FACTORED LOAD IS 380 KIPS PER PILE FOR THE 6 REAR ABUTMENT PILES, 380 KIPS PER PILE FOR THE 20 PIER PILES, AND 380 PER PILE FOR THE 4 FORWARD ABUTMENT PILES.

REAR ABUTMENT PILES:
(6) HP12x53 PILES 60 FEET LONG, ORDER LENGTH
PIER PILES:
(20) HP12x53 PILES 45 FEET LONG, ORDER LENGTH (10 REQ @ EA PIER)
FORWARD ABUTMENT PILES:
(4) HP12x53 PILES 65 FEET LONG, ORDER LENGTH

G. BRIDGE SEAT REINFORCING, SETTING ANCHORS:

BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT AT BOTH ABUTMENTS AND PIERS TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE–SETTING OF BEARING ANCHORS.

H. BATTERED PILES:

BATTERED PILES: THE BLOW COUNT FOR BATTERED PILES SHALL BE THE BLOW COUNT DETERMINED FOR VERTICAL PILES OF THE SAME ULTIMATE BEARING VALUE DIVIDED BY AN EFFICIENCY FACTOR (D). COMPUTE THE EFFICIENCY FACTOR (D) AS FOLLOWS:

$$D = 1-UG / (1+G^2)^{-1}$$

U = COEFFICIENT OF FRICTION, WHICH IS ESTIMATED AT 0.05 FOR DOUBLE–ACTING AIR OPERATING OR DIESEL HAMMERS; 0.1 FOR SINGLE–ACTING AIR OPERATED OR DIESEL HAMMERS; AND 0.2 FOR DROP HAMMERS.
G = RATE OF BATTER (1/3", 1/4", ETC.)

I. PILE SPLICES:

PILE SPLICES: IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN CMS 616.11.2 TO SPLICE STEEL H–PILES, THE CONTRACTOR MAY USE A MANUFACTURED H–PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION
8 WOOD HOLLOW RD. PLAZA 1
PARSIPPANY, NJ 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

J. SPECIAL SPECIFICATIONS FOR PRE–ENGINEERED BRIDGE:

1.0 GENERAL

1.1 THESE SPECIFICATIONS ARE FOR A FULLY ENGINEERED CLEAR 3–SPAN BRIDGE OF WELDED STEEL CONSTRUCTION AND SHALL BE REGARDED AS MINIMUM STANDARDS FOR DESIGN AND CONSTRUCTION.

1.2 THE BRIDGE MANUFACTURER SHALL HAVE BEEN IN THE BUSINESS OF DESIGN AND FABRICATION OF THESE TYPES OF BRIDGES FOR A MINIMUM OF THREE YEARS.

1.3 PROVIDE A LIST OF FIVE SUCCESSFUL PROJECTS, OF SIMILAR CONSTRUCTION, EACH OF WHICH HAS BEEN IN SERVICE AT LEAST TWO YEARS.

1.4 THE BRIDGE MANUFACTURER SHALL BE THE DESIGNER AND FABRICATOR OF THE BRIDGE.

1.5 THE BRIDGE MANUFACTURER SHALL NOT ASSIGN, SUBLET, OR SUBCONTRACT ANY PART OF THE BRIDGE FABRICATION.

1.6 A REGISTERED PROFESSIONAL ENGINEER, CURRENTLY LICENSED TO PRACTICE IN THE STATE OF WEST VIRGINIA, SHALL CERTIFY THE BRIDGE DESIGN AND FABRICATION.

2.0 FEATURES OF DESIGN

2.1 SPAN 1: 45'–0", SPAN 2: 175'–0", SPAN 3: 45'–0" C/C BEARING

2.2 WIDTH: 12'–0" INSIDE FACE OF RUB RAIL TO INSIDE FACE OF RUB RAIL.

2.3 CAMBER: THE BRIDGE SHALL HAVE A VERTICAL CAMBER DIMENSION AT MIDSPAN EQUAL TO 100% OF THE FULL DEAD LOAD DEFLECTION PLUS 1% OF THE FULL LENGTH OF THE BRIDGE.

2.4 MODEL TYPE: THE BRIDGE SHALL BE A HALF–THROUGH TRUSS WITH ARCHED TOP AND FLAT BOTTOM CHORD (MODIFIED BOW TRUSS) WITH ONE DIAGONAL PER PANEL AND PLUMB END VERTICAL MEMBERS. INTERIOR VERTICAL MEMBERS MAY BE EITHER PLUMB OR PERPENDICULAR TO THE CHORD FACES. THERE SHALL BE A TOTAL OF THREE SPANS, EACH OF SIMILAR TRUSS SECTIONS.

2.5 SAFETY RAILS: VERTICAL SAFETY RAILS OR PICKETS SHALL BE PLACED ON THE STRUCTURE TO A MINIMUM HEIGHT OF 4'–6" ABOVE THE DECK SURFACE OR AS SHOWN ON TRUSS SECTIONS. THE PICKETS SHALL BE SPACED SO AS TO PREVENT A 4" SPHERE FROM PASSING THROUGH THE TRUSS. PICKETS MAY BE PLACED ON THE INSIDE OR OUTSIDE OF THE STRUCTURE AT THE BRIDGE FABRICATOR'S OPTION. THE TOP OF THE VERTICAL PICKETS SHALL HAVE A CONTINUOUS CAP ANGLE OR SOME OTHER MEANS TO PREVENT BRIDGE USERS FROM CUTTING OR SCRAPING THEIR HANDS.

THE PICKET SAFETY SYSTEM SHALL BE DESIGNED FOR AN INFILL OF 200 POUNDS, APPLIED HORIZONTALLY AT RIGHT ANGLES, TO A ONE SQUARE FOOT AREA AT ANY POINT IN THE SYSTEM.

2.6 RUB RAIL: STEEL RUB RAILS SHALL BE PLACED AT 3'–6" ABOVE THE DECK SURFACE ON EACH SIDE.

2.7 TOE PLATE: THE BRIDGE SHALL BE SUPPLIED WITH A STEEL TOE PLATE MOUNTED TO THE INSIDE FACE OF BOTH TRUSSES. THE TOE PLATE STEEL MEMBER SHALL BE A MINIMUM OF 4 INCHES HIGH. TOE PLATING SHALL BE A MINIMUM OF 4 INCHES HIGH. TOE PLATING WILL BE WELDED TO THE TRUSS MEMBERS AT A HEIGHT ADEQUATE TO PROVIDE A 2" GAP BETWEEN THE BOTTOM OF THE PLATE AND THE TOP OF THE DECK OR THE TOP OF THE BOTTOM CHORD, WHICHEVER IS HIGHER. THE SPAN OF THE UNSTIFFENED TOE PLATE STEEL MEMBER (FROM CENTER TO CENTER OF SUPPORTS) SHALL NOT EXCEED 10'–0".

2.8 STRUCTURAL STEEL TUBING: IF CHORDS CONSIST OF TUBULAR STEEL MEMBERS, THEY SHALL BE PROVIDED WITH WEEP HOLES AT THE MEMBER'S LOWEST POINT TO DRAIN WATER. WHEN THE COLLECTION OF WATER INSIDE A STRUCTURAL TUBE IS A POSSIBILITY, EITHER DURING CONSTRUCTION OR DURING SERVICE, THE TUBE SHALL BE PROVIDED WITH A DRAIN HOLE AT ITS LOWEST POINT TO LET WATER OUT.

3.0 DESIGN

3.1 THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 7TH EDITION, WITH 2015 AND 2016 INTERIM REVISIONS, THE WVDOT BRIDGE DESIGN MANUAL, 2006 AND THE LRFD DESIGN GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION, WITH 2015 REVISIONS.

3.2 STRUCTURE TO BE DESIGNED FOR H10 VEHICULAR LOADING OR A PEDESTRIAN LIVE LOAD OF 0.090 KIPS/SQ. FT. WHICHEVER PRODUCES THE LARGEST STRESS IN THE MEMBER UNDER CONSIDERATION.

3.3 IN ADDITION TO ANTICIPATED DEAD LOADS, THE STRUCTURE SHALL BE DESIGNED FOR A FUTURE WEARING SURFACE LOAD OF 25 PSF AND (4) FUTURE UTILITY CONDUITS TO BE SUPPORTED UNDER THE TRUSS FLOOR BEAMS AT 9 PLF EACH.

3.4 HORIZONTAL FORCES: THE BRIDGE SHALL BE DESIGNED FOR A WIND LOAD OF 20 POUNDS PER SQUARE FOOT ON THE FULL VERTICAL PROJECTED AREA OF THE BRIDGE AS IF ENCLOSED. THE WIND LOAD SHALL BE APPLIED HORIZONTALLY AT RIGHT ANGLES TO THE LONGITUDINAL AXIS OF THE STRUCTURE.

THE WIND LOADING SHALL BE CONSIDERED BOTH IN THE DESIGN OF THE LATERAL LOAD BRACING SYSTEM AND IN THE DESIGN OF THE TRUSS VERTICAL MEMBERS, FLOOR BEAMS AND THEIR CONNECTIONS.

ADDITIONALLY, THE BRIDGE SHALL BE DESIGNED FOR THE STREAM INUNDATION HORIZONTAL FORCES ASSOCIATED WITH STREAM Q(100)=12,918 CFS AND V(100)=1.83 FT/S.

3.5 THE BRIDGE DESIGNER SHALL TAKE ALL CONSTRUCTION AND ERECTION LOADS INTO CONSIDERATION.

3.6 TOP CHORD/RAILING LOADS
THE TOP CHORD, TRUSS VERTICALS, AND FLOOR BEAMS SHALL BE DESIGNED FOR HORIZONTAL FORCES (PER SECTION 3.4) AND FOR ANY LOADS REQUIRED TO PROVIDE TOP CHORD STABILITY. HOWEVER, IN NO CASE SHALL THE LOAD BE LESS THAN 50 POUNDS PER LINEAL FOOT OR A 200 POUND POINT LOAD, WHICHEVER PRODUCES GREATER STRESSES, APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP CHORD.

3.7 LOAD COMBINATIONS
THE LOADS LISTED HEREIN SHALL BE CONSIDERED TO ACT IN THE FOLLOWING COMBINATIONS, WHICHEVER PRODUCE THE MOST UNFAVORABLE EFFECTS ON THE BRIDGE SUPERSTRUCTURE OR STRUCTURAL MEMBER CONCERNED.

[DL=DEAD LOAD; LL=LIVE LOAD; WL=WIND LOAD; SL=STREAM INUNDATION LOAD; VEH=VEHICLE LOAD]

DL+LL	DL+VEH
DL+WL	DL+SL
DL+LL+WL	DL+LL+SL
DL+VEH+0.3WL	

NOTE: ALLOWABLE STRESSES MAY BE INCREASED 1/3 ABOVE THE VALUES OTHERWISE PROVIDED WHEN PRODUCED BY WIND LOADING, ACTING ALONE OR IN COMBINATION WITH THE DESIGN DEAD AND LIVE LOADS.

3.8 DEFLECTION:
THE VERTICAL DEFLECTION OF THE MAIN TRUSSES DUE TO SERVICE PEDESTRIAN LIVE LOAD SHALL NOT EXCEED 1/400 OF THE SPAN.

THE VERTICAL DEFLECTION OF CANTILEVER SPANS OF THE STRUCTURE DUE TO SERVICE PEDESTRIAN LIVE LOAD SHALL NOT EXCEED 1/300 OF THE CANTILEVER ARM LENGTH.

THE DEFLECTION OF THE FLOOR SYSTEM MEMBERS (FLOOR BEAMS AND STRINGERS) DUE TO SERVICE PEDESTRIAN LIVE LOAD SHALL NOT EXCEED 1/360 OF THEIR RESPECTIVE SPANS.

DEFLECTION LIMITS DUE TO OCCASIONAL VEHICULAR TRAFFIC SHALL NOT BE CONSIDERED.

THE HORIZONTAL DEFLECTION OF THE STRUCTURE DUE TO LATERAL WIND LOADS SHALL NOT EXCEED 1/500 OF THE SPAN UNDER 85 MPH (25 PSF) WIND LOAD.

4.0 MATERIALS

4.1 STEEL

4.1.1 DOMESTIC STEEL USE REQUIREMENTS AS SPECIFIED IN FEDERAL REGULATIONS 23 CFR 635.410 AND THE STATE REQUIREMENTS OF SECTION 106.1.1.5 OF THE WEST VIRGINIA REVISED CODE APPLY TO THIS PROJECT. COPIES OF SECTION 106.1.1.5 OF THE REVISED CODE CAN BE OBTAINED FROM ANY OF THE OFFICES OF THE WEST VIRGINIA DEPARTMENT OF ADMINISTRATIVE SERVICES. THE FIRST SHEET OF STEEL SHOP DRAWINGS SHALL BEAR A SIGNED CERTIFICATION BY THE CONTRACTOR AND FABRICATOR INDICATING THAT NO FOREIGN STEEL IS BEING USED.

4.1.2 UNPAINTED WEATHERING STEEL BRIDGES WHICH ARE NOT TO BE PAINTED SHALL BE FABRICATED FROM HIGH STRENGTH, LOW ALLOY, ATMOSPHERIC CORROSION RESISTANT ASTM A847 COLD FORMED WELDED SQUARE AND RECTANGULAR TUBING AND/OR ASTM A588, OR ASTM A242, ASTM A606 PLATE AND STRUCTURAL STEEL SHAPES (F = 50,000 PSI). THE MINIMUM CORROSION INDEX OF ATMOSPHERIC CORROSION RESISTANT STEEL, AS DETERMINED IN ACCORDANCE WITH ASTM G101, SHALL BE 6.0.

4.1.3 REFER TO ODOT CMS ITEM 516.07 STRUCTURAL STEEL, MISC.: BEARING DEVICES. THE BRIDGE SHALL BE SUPPLIED WITH APPROPRIATE FIXED AND EXPANSION OR SLIDE BEARING DEVICES AS APPROPRIATE TO ACCOMMODATE THERMAL EXPANSION AND CONTRACTION DUE TO TEMPERATURE EXTREMES FROM –30°F TO +110°F. ABUTMENT BEARING DETAILS AND PIER BEARING DETAILS SHALL BE DESIGNED BY PROFESSIONAL ENGINEER WHO IS LICENSED IN ACCORDANCE WITH SECTION 1.6 AND INCLUDED IN SUBMITTALS IN ACCORDANCE WITH SECTION 6.0.

4.1.4 FIELD CONNECTIONS SHALL BE BOLTED EXCEPT WHERE WELDED CONNECTIONS ARE INDICATED ON THE DRAWINGS. BOLTS SHALL CONFORM TO ASTM A325–N, 3/4" DIAMETER, UNLESS NOTED. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36, CONFIGURED AS SHOWN ON THE DRAWINGS WITH WASHER PER AISC STEEL CONSTRUCTION MANUAL FIFTEENTH EDITION TABLE 14–2 UNLESS NOTED OTHERWISE. FIELD WELDS SHALL BE MADE WITH AWS E70XX, LOW HYDROGEN ELECTRODES.

4.1.5 THE FIRST 5'–0" OF EACH BRIDGE END WILL BE PAINTED BELOW DECK WITH A 3–COAT PAINT SYSTEM TO MATCH THE WEATHERING STEEL. PAINT SHALL MEET THE REQUIREMENTS OF WVDOT CMS ITEM 688 AND WILL BE INCLUDED FOR PAYMENT IN THE LUMP SUM BID FOR STRUCTURES: PRE–ENGINEERED TRUSS BRIDGE SUPERSTRUCTURE (HALF–THROUGH TRUSS W/ ARCHED TOP CHORD AND FLAT BOTTOM CHORD, (3) SPAN).

4.2 CONCRETE DECK

4.2.1 THE BRIDGE SHALL BE FURNISHED WITH A STAY–IN PLACE GALVANIZED STEEL FORM DECK SUITABLE FOR POURING A REINFORCED CONCRETE SLAB. THE FORM DECK SHALL BE DESIGNED TO CARRY THE DEAD LOAD OF THE WET CONCRETE, WEIGHT OF FORM DECKING, PLUS A CONSTRUCTION LOAD OF 20 PSF OR A 150 POUND CONCENTRATED LOAD ON A 1'–0" WIDE SECTION OF DECK. WHEN EDGE SUPPORTS ARE USED, DEFLECTION IS LIMITED TO 1/180 OF THE SPAN OR 3/4", WHICHEVER IS LESS. WITHOUT EDGE SUPPORTS, DEFLECTION SHALL BE LIMITED TO 1/180 OF THE SPAN OR 3/8", WHICHEVER IS LESS.

THE FORM DECK SHALL BE EITHER SMOOTH OR COMPOSITE. COMPOSITE DECKING SHALL NOT BE USED AS REINFORCING WHEN DESIGNING FOR CONCENTRATED LOADS (WHEEL LOADS). THE DECKING SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A525 (G60).

5.0 WELDING

WELDING AND WELD PROCEDURE QUALIFICATION TESTS SHALL CONFORM TO THE PROVISIONS OF ANSI/AWS D1.1 "STRUCTURAL WELDING CODE". FILLER METAL SHALL BE IN ACCORDANCE WITH THE APPLICABLE AWS FILLER METAL SPECIFICATION (I.E. AWS A 5.28 FOR THE GMAW PROCESS). FOR EXPOSED, BARE, UNPAINTED APPLICATIONS OF CORROSION RESISTANT STEELS (I.E. ASTM A588 AND A847), THE FILLER METAL SHALL BE IN ACCORDANCE WITH AWS D1.1, SECTION 3.7.3. WELDERS SHALL BE PROPERLY ACCREDITED OPERATORS, EACH OF WHOM SHALL SUBMIT CERTIFICATION OF SATISFACTORILY PASSING AWS STANDARD QUALIFICATION TESTS FOR ALL POSITIONS WITH UNLIMITED THICKNESS OF BASE METAL, HAVE A MINIMUM OF 6 MONTHS EXPERIENCE IN WELDING TUBULAR STRUCTURES AND HAVE DEMONSTRATED THE ABILITY TO MAKE UNIFORM SOUND WELDS OF THE TYPE REQUIRED.

6.0 SUBMITTALS

6.1 SCHEMATIC DRAWINGS, DIAGRAMS AND CALCULATIONS SHALL BE SUBMITTED TO THE CONTRACTOR FOR REVIEW AND APPROVAL AFTER RECEIPT OF ORDER. ALL RELATIVE DESIGN INFORMATION SUCH AS MEMBER SIZES, BRIDGE REACTIONS, AND GENERAL NOTES SHALL BE CLEARLY SPECIFIED ON DRAWINGS. ALL DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER WHO IS LICENSED IN ACCORDANCE WITH SECTION 1.6.

6.2 FURNISH FIVE COPIES OF THE CONTRACTOR ACCEPTED SCHEMATIC DRAWINGS, DIAGRAMS, DESIGN CALCULATIONS AND SHOP DRAWINGS. THE TWO OF THESE COPIES MAY BE IN DIGITAL FORMAT, IF DESIRED.

6.3 ERECTION PLANS AND ASSEMBLY MANUALS SHOULD ACCOMPANY SHOP DRAWINGS.

7.0 FABRICATION

BRIDGE SHALL BE FABRICATED BY A FABRICATOR WHO IS CURRENTLY CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION TO HAVE THE PERSONNEL, ORGANIZATION, EXPERIENCE, CAPABILITY, AND COMMITMENT TO PRODUCE FABRICATED STRUCTURAL STEEL FOR THE CATEGORY "MAJOR STEEL BRIDGES" AS SET FORTH IN THE AISC CERTIFICATION PROGRAM WITH FRACTURE CRITICAL ENDORSEMENT. QUALITY CONTROL SHALL BE IN ACCORDANCE WITH PROCEDURES OUTLINED FOR AISC CERTIFICATION. FOR PAINTED STRUCTURES, THE FABRICATOR MUST HOLD A "SOPHISTICATED PAINT ENDORSEMENT" AS SET FORTH IN THE AISC CERTIFICATION PROGRAM.

8.0 FINISHING

TO HELP ACHIEVE A UNIFORMLY "WEATHERED" APPEARANCE, ALL EXPOSED SURFACES OF STEEL SHALL BE BLAST CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS NO. 6 BRUSH–OFF BLAST CLEANING, SSPC–SP6 LATEST EDITION, AFTER FABRICATION.

9.0 DELIVERY AND ERECTION

TRUSS BRIDGE SUPPLIER TO PROVIDE TECHNICAL ASSISTANCE (A REPRESENTATIVE AT THE PROJECT SITE) DURING TRUSS ERECTION. CONTRACTOR TO MAKE ARRANGEMENTS IN ADVANCE WITH THE TRUSS SUPPLIER.

10.0 METHOD OF MEASUREMENT

10.1 ITEM STRUCTURE, MISC.: PRE–ENGINEERED TRUSS BRIDGE SUPERSTRUCTURE (HALF–THROUGH TRUSS W/ ARCHED TOP CHORD AND FLAT BOTTOM CHORD) SHALL BE PAID FOR ON A LUMP SUM BASIS, COMPLETE IN PLACE, INCLUDING DESIGN, FABRICATION, ERECTION, TECHNICAL ASSISTANCE AT JOB SITE AND ALL APPURTENANCES. ITEM SHALL INCLUDE BRIDGE TRUSSES, FLOOR BEAMS, STRINGERS, GUSSET PLATES, BEARING DEVICES WITH ANCHOR RODS, EXPANSION DEVICES, FLOOR DECK, STRINGERS, GUSSET PLATES, BEARING DEVICES WITH ANCHOR RODS, EXPANSION DEVICES, FLOOR DECK, PAINTING OF THE FIRST 5'–0" OF EACH BRIDGE END, RAILING SYSTEM ON BRIDGE AS SPECIFIED ON PROJECT PLANS, AND ALL BOLTS AND HARDWARE NECESSARY FOR THE INSTALLATION OF THE SUPERSTRUCTURE AND NECESSARY MEANS FOR MAINTENANCE AND INSPECTION.

K. CONCRETE FINISHING:

PROVIDE 3/4" CHAMFER AT CORNERS OF ALL EXPOSED CONCRETE.

L. STRUCTURAL LUMBER

1.0 LUMBER

1.1. UNLESS NOTED OTHERWISE, INTERIOR BEAMS, HEADERS, JOISTS, AND RAFTERS SHALL BE SPRUCE–PINE–FIR NO. 2 OR HEM–FIR NO. 2.

1.2. UNLESS NOTED OTHERWISE, 2X4 OR 2X6 STUDS SHALL BE SPRUCE–PINE–FIR "STUD" GRADE AND MEMBERS 2X8 OR LARGER SHALL BE SOUTHERN–YELLOW–PINE NO. 1.

1.3. EXTERIOR PRESERVATIVE TREATED BEAMS, JOISTS, AND POSTS SHALL BE SOUTHERN–YELLOW–PINE NO. 2.

1.4. ALL DESIGN VALUES PER THE LATEST EDITION OF THE AF&PA NATIONAL DESIGN SPECIFICATIONS. ANY SUBSTITUTIONS SHALL MEET MINIMUM DESIGN VALUES OF ABOVE MEMBERS.

1.5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CHAPTER 23 OF THE IBC.

1.6. CONNECTORS, FASTENERS, ETC. SHALL BE OF A FINISH COMPATIBLE WITH BASE MATERIAL PROPERTIES AND INSTALLED SO AS NOT TO DAMAGE THE MEMBER (E.G. SPLITTING).

2.0 DECKING AND SHEATHING (OSB OR PLYWOOD):

2.1. ROOFS: 5/8" 24/0 APA RATED EXTERIOR GRADE OSB SHEATHING WITH EXTERIOR GLUE AND ONE CLIP MIDWAY BETWEEN EACH SUPPORT EXCEPT TOW EQUALLY–SPACED CLIPS BETWEEN SUPPORTS SPACED 48" O.C.

2.2. FLOORS: 3/4" 0/16 APA RATED PLYWOOD SHEATHING WITH TONGUE–AND–GROOVE PANEL EDGES

2.3. WALLS: 1/2" APA RATED EXTERIOR GRADE OSB WITH HORIZONTAL BLOCKING AT PANEL EDGES

3.0 CONNECTIONS (UNLESS NOTED OTHERWISE):

3.1. JOISTS TO BEAMS: 16 GAGE STANDARD JOIST HANGERS

3.2. TRUSS TO WALL OR RAFTERS TO WALL: STANDARD HURRICANE ANCHORS AT EACH BEARING POINT, SIMPSON H2.5 OR EQUAL

3.3. WOOD MEMBER CONNECTIONS SHALL BE THE MOST STRINGENT OF THE FOLLOWING: DESIGN BY FRAMING MANUFACTURER, CONNECTION SHOWN ON DRAWINGS, OR IN ACCORDANCE WITH IBC TABLE 2304.9.1.

3.4. FASTENERS IN TREATED WOOD SHALL BE HOT–DIPPED GALVANIZED OR STAINLESS STEEL IN ACCORDANCE WITH IBC 2304.9.5.

3.5. SHEAR PANEL FASTENERS SHALL BE IN ACCORDANCE WITH IBC 2305.1.2.1.

3.6. NAILING SCHEDULE: SHALL BE IN ACCORDANCE WITH IBC TABLE 2304.9.1 AS AUGMENTED BY THE PROJECT DOCUMENTS.

4.0 ONE LINE OF SOLID BLOCKING OR CROSS BRIDGING SHALL BE PROVIDED AT 8'–0" O.C. MAX FOR ALL FLOOR JOISTS. SOLID BLOCKING SHALL BE USED AT ALL JOISTS AND RAFTER BEARINGS.

5.0 SOLID BLOCKING SHALL BE PROVIDED AT MID–HEIGHT FOR ALL EXTERIOR STUD WALLS AND INTERIOR BEARING PARTITIONS WHICH ARE NOT SHEATHED EACH SIDE WITH GYPSUM BOARD OR APA–RATED SHEATHING.

6.0 UNLESS NOTED OTHERWISE, SINGLE JACK STUDS SHALL BE USED UNDER BEAM AND HEADER BEARINGS FOR ROUGH OPENINGS UP TO AND INCLUDING 4'–0" AND DOUBLE JACK STUDS SHALL BE USED UNDER BEAM AND HEADER BEARINGS FOR SPANS GREATER THAN 4'–0".

7.0 CONTINUOUS BEAD OF GLUE SHALL BE APPLIED ON JOISTS AND GROOVE OF TONGUE AND GROOVE PANELS.

8.0 BEFORE APPLYING FINISH FLOORING, SET NAILS 1/8" BUT DO NOT FILL, AND SAND LIGHTLY ANY SURFACE ROUGHNESS, PARTICULARLY AT JOINTS AND AROUND WALLS.

9.0 LUMBER: AS REQUIRED BY THE FRAMING MANUFACTURER.

10.0 CONNECTIONS: ALL INTERNAL WALL, LINTEL, FRAMING, ETC. CONNECTIONS SHALL BE DESIGNED BY THE FRAMING MANUFACTURER.

11.0 SPECIFICATIONS AND REFERENCE STANDARDS:
UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION, ERECTION, HANDLING, AND BRACING REQUIREMENTS SHALL BE GOVERNED BY THE LATEST REVISIONS OF THE NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENINGS, TIMBER CONSTRUCTION STANDARDS.

12.0 ALL STUD WALLS, LINTELS, WOOD FRAMING, WOOD SHEAR WALLS, TRUSSES, ETC. SHALL BE DESIGNED BY THE FRAMING MANUFACTURER FOR THE LOADS LISTED IN THE DESIGN VALUES TABLE ON THIS DRAWING. WALLS SHALL BE DESIGNED TO ADEQUATELY RESIST LATERAL FORCES AND TRANSMIT ALL REACTIONS TO THE SUPPORT STRUCTURE.

13.0 FRAMING DESIGNS SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. FRAMING SUBMITTAL SHALL INCLUDE THE FOLLOWING INFORMATION:

13.1 DESIGN INFORMATION FOR THE FRAMING SUPPLIED.

13.2 LAYOUT DRAWINGS INDICATING LOCATION OF SPECIAL FRAMING, LINTELS, SHEAR WALLS, ETC.

13.3 (3) COPIES OF FRAMING DESIGNS AND LAYOUT DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF WEST VIRGINIA.

14.0 ALL WOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH CHAPTER 23 OF THE IBC.

15.0 DOUBLE STUDS SHALL BE LOCATED AT VERTICAL, UNSUPPORTED WALL EDGES.

PICKERING ASSOCIATES
Architects · Engineers · Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description
CITY OF RAVENSWOOD
JACKSON COUNTY, WV
PEDESTRIAN BRIDGE OVER SANDY CREEK
GENERAL STRUCTURAL NOTES

JOSEPH R. TUCKER
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	NTS
Plot Date:	06/12/25
Revision:	0

Drawing Number:
S000

M. MSE WALL NOTES:

1.0 DESCRIPTION

THE REINFORCED EARTH® MECHANICALLY STABILIZED EARTH WALL SHALL CONSIST OF A NON–STRUCTURAL LEVELING PAD, SELECT BACKFILL, PRECAST CONCRETE FACING PANELS, AND SOIL REINFORCEMENT ELEMENTS MECHANICALLY CONNECTED TO EACH FACING PANEL. SOIL REINFORCEMENT SHALL HAVE SUFFICIENT LENGTH, STRENGTH, AND FRICTIONAL RESISTANCE AS REQUIRED BY THE DESIGN.

2.0 WALL SYSTEM SUPPLIER QUALIFICATIONS

MSE WALL SYSTEM (DESIGN, SOIL REINFORCEMENTS, PRECAST FACING PANELS AND ACCESSORIES) SHALL BE SUPPLIED BY A SINGLE ENTITY, TO ENSURE A SINGLE SOURCE OF RESPONSIBILITY, WITH DEMONSTRATED EXPERIENCE IN PROJECTS OF SIMILAR SCOPE AND SIZE WITH THE PROJECT TO BE BID.

MINIMUM SYSTEM EXPERIENCE REQUIREMENTS:

- 100 PROJECTS OF 50,000 SF OR MORE
- 5 PROJECTS IN THE STATE IN WHICH THE PROJECT IS LOCATED
- DEMONSTRATED DURABILITY WITH A MINIMUM OF 15 YEARS OF EXPERIENCE WITH THE SPECIFIC SOIL REINFORCEMENT BEING PROPOSED FOR THE PROJECT.

ENGINEER REQUIREMENTS:

THE ENGINEER OF RECORD (RESPONSIBLE FOR INTERNAL STABILITY DESIGN AND THE DESIGN OF MSE WALL COMPONENTS) EMPLOYED BY THE MSE WALL SYSTEM SUPPLIER SHALL HAVE THE FOLLOWING MINIMUM QUALIFICATIONS:

- VALID P.E. LICENSE IN THE STATE WHICH PROJECT IS LOCATED
- 5 YEARS OF EXPERIENCE IN DESIGNING THE MSE WALL SYSTEM PROPOSED FOR THE PROJECT
- 1 PROJECT OF SIMILAR SIZE AND SCOPE TO THE PROPOSED PROJECT

FIELD REPRESENTATIVE QUALIFICATION:

- 5 YEARS OF EXPERIENCE IN CONSTRUCTING THE MSE WALL SYSTEM BEING PROPOSED FOR THE PROJECT.

2.1 APPROVED WALL SYSTEM SUPPLIER

CONTRACTOR SHALL USE THE FOLLOWING APPROVED MSE WALL SYSTEM SUPPLIER OR APPROVED EQUAL:

REINFORCED EARTH®

THE REINFORCED EARTH COMPANY
12001 SUNRISE VALLEY DRIVE, SUITE 400
RESTON, VA 20191
TEL. (703) 547–8797
EMAIL: INFO@REINFORCEDEARTH.COM

3.0 GENERAL REQUIREMENTS

THE MECHANICALLY STABILIZED EARTH WALL DESIGN SHALL FOLLOW THE GENERAL DIMENSIONS OF THE WALL ENVELOPE SHOWN IN THE CONTRACT PLANS. THE TOP OF LEVELING PAD SHALL BE LOCATED AT OR BELOW THE THEORETICAL LEVELING PAD ELEVATION (AS DETERMINED BY THE MINIMUM WALL EMBEDMENT REQUIREMENTS). THE MINIMUM WALL EMBEDMENT SHALL BE 1 FOOT AS MEASURED TO THE TOP OF LEVELING PAD OR AS SHOWN ON THE PLANS (AND IN ACCORDANCE WITH AASHTO TABLE C11.10.2.2–1), WHICHEVER IS GREATER. THE TOP OF THE FACE PANELS SHALL BE AT OR ABOVE THE TOP OF PANEL ELEVATION SHOWN ON THE PLANS. WHERE COPING OR BARRIER IS UTILIZED, THE WALL FACE PANELS SHALL EXTEND UP INTO THE COPING OR BARRIER A MINIMUM OF 2 INCHES. THE TOP OF THE FACE PANELS MAY BE LEVEL AND STEPPED OR SLOPED TO FOLLOW THE TOP OF WALL LINE NOTED.

4.0 DESIGN REQUIREMENTS

THE DESIGN BY THE WALL SYSTEM SUPPLIER SHALL CONSIDER THE INTERNAL STABILITY OF THE WALL MASS AS OUTLINED BELOW. THE EXTERNAL STABILITY OF THE STRUCTURE, INCLUDING SLOPE STABILITY, BEARING CAPACITY, AND TOTAL AND DIFFERENTIAL SETTLEMENT, IS THE RESPONSIBILITY OF THE OWNER OR THE OWNER'S GEOTECHNICAL ENGINEERING CONSULTANT.

4.1 GEOTECHNICAL DESIGN PARAMETERS

FOR INTERNAL STABILITY DESIGN OF THE WALL, THE FRICTION ANGLE OF THE SELECT BACKFILL USED IN THE REINFORCED FILL ZONE SHALL BE ASSUMED TO BE 34° UNLESS SHOWN OTHERWISE SUBSTANTIATED BY MATERIAL TESTING. IN NO CASE SHALL THE DESIGN FRICTION ANGLE FOR THE SELECT REINFORCED FILL BE GREATER THAN 40°. THE FRICTION ANGLE OF THE FOUNDATION SOILS AND THE RETAINED BACKFILL SHALL BE DETERMINED BY THE OWNER'S GEOTECHNICAL ENGINEERING CONSULTANT AND PROVIDED IN THE PLANS.

4.2 CONNECTIONS

ALL CONNECTIONS SHALL BE POSITIVE, STRUCTURAL CONNECTIONS SUBJECT TO THE SAME METAL LOSS RATES AND ALLOWABLE TENSION REQUIREMENTS AS OUTLINED IN SECTION 4.5. ADEQUACY AND CAPACITY OF PANEL CONNECTIONS SHALL BE DEMONSTRATED BY PROVIDING CONNECTION TEST DATA.

4.3 REINFORCEMENT LENGTH

THE REINFORCEMENT LENGTH DEFINES THE WIDTH OF THE REINFORCED SOIL MASS AND MAY VARY WITH WALL HEIGHT ALONG THE LENGTH OF WALL. FOR WALLS WITH LEVEL SURCHARGE, THE MINIMUM LENGTH EMBEDDED IN THE SOIL SHALL BE 60 PERCENT OF THE FACING HEIGHT, H, OR 6 FEET, WHICHEVER IS GREATER OR AS SPECIFIED OR REQUIRED BY THE GEOTECHNICAL ENGINEER FOR GLOBAL STABILITY.

4.4 STATE OF STRESS AND PULLOUT RESISTANCE

THE LATERAL EARTH PRESSURE TO BE RESISTED BY THE REINFORCEMENTS SHALL BE CALCULATED USING THE APPROPRIATE COEFFICIENT OF EARTH PRESSURE, K, BASED ON THE TYPE OF REINFORCEMENT USED, MULTIPLIED BY VERTICAL SOIL STRESS AT EACH REINFORCEMENT LAYER. THE VERTICAL SOIL STRESS SHALL BE CALCULATED USING THE COHERENT GRAVITY METHOD.

THE SOIL REINFORCEMENT LENGTH SHALL BE SUFFICIENT TO SATISFY THE ABOVE REQUIREMENTS, TO MEET THE SLIDING, OVERTURNING AND PULLOUT FACTORS OF SAFETY, AND TO MEET ANY MINIMUM REINFORCEMENT LENGTHS REQUIRED FOR EXTERNAL STABILITY IF REQUIRED BY THE OWNER.

4.5 ALLOWABLE REINFORCEMENT TENSION

FOR DETERMINATION OF THE ALLOWABLE REINFORCEMENT TENSION, METAL LOSS RATES SHALL BE APPLIED TO EXPOSED SECTIONS OF SOIL REINFORCEMENTS AND CONNECTIONS. METAL LOSS RATES SHALL BE SUBSTANTIATED BY HISTORICAL SAMPLING DATA AND LABORATORY TESTS, AND APPLIED TO THE REINFORCEMENTS FOR THE SPECIFIED DESIGN LIFE OF THE STRUCTURE. FY USED FOR DESIGN SHALL NOT EXCEED 65 KSI.

5.0 SUBMITTALS

THE CONTRACTOR SHALL SUBMIT THE DESIGN CALCULATIONS AND DESIGN DRAWINGS (PREPARED BY THE WALL SUPPLIER) FOR REVIEW BY THE OWNER (OR THE OWNER'S ENGINEER). APPROVAL BY THE OWNER SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.

6.0 MATERIALS

THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS TO PURCHASE THE MATERIALS COVERED BY THIS SECTION, INCLUDING CONCRETE FACING PANELS, REINFORCING STRIPS, ATTACHMENT DEVICES, FASTENERS, JOINT MATERIALS AND ALL NECESSARY INCIDENTALS, FROM THE REINFORCED EARTH COMPANY.

6.1 CONCRETE FACING PANELS

CONCRETE FACING PANELS SHALL HAVE A MINIMUM THICKNESS OF 5½ INCHES AND A MINIMUM CONCRETE COVER ON REINFORCING STEEL OF 1½ INCHES CEMENT SHALL BE TYPES I, II OR III AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M–85. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH AT 28 DAYS 4,000 PSI.

REINFORCING STEEL FOR CONCRETE FACING PANELS SHALL BE DEFORMED REBAR CONFORMING TO AASHTO M31 (ASTM A615), GRADE 60, UNCOATED.

6.2 SOIL REINFORCING AND ATTACHMENT DEVICES

(A) HIGH ADHERENCE (HA) RIBBED REINFORCING STRIPS. RIBBED REINFORCING STRIPS SHALL BE HOT ROLLED FROM BARS TO THE REQUIRED SHAPE AND DIMENSIONS. THEIR PHYSICAL AND MECHANICAL PROPERTIES SHALL CONFORM TO ASTM A–572 GRADE 65 (AASHTO M–223) OR EQUIVALENT. GALVANIZING SHALL CONFORM TO THE REQUIREMENTS OF ASTM–A123 (AASHTO M–111). THE MINIMUM GALVANIZING COATING THICKNESS SHALL BE 2.0 OZ/FT²

(B) HA LADDER REINFORCEMENT, SHALL BE COLD DRAWN STEEL WIRE MILLED TO THE REQUIRED SHAPE AND DIMENSIONS. THE PHYSICAL AND MECHANICAL PROPERTIES SHALL CONFORM TO ASTM A1064/A1064M–17, (AASHTO M 32M/M 32) PLAIN WIRE GR. 65, MINIMUM YIELD 65KSI, TENSILE 75KSI, LONGITUDINAL AND TRANSVERSE WIRES SHALL BE OF EQUAL SIZE. MINIMUM SHEAR STRENGTH OF WELDS SHALL BE 35KSI. CONNECTOR PLATE MATERIAL SHALL COMPLY WITH ASTM A1011/A1011M–15, SS TYPE 1, GR.50 OR HSLAS CLASS 1, GR. 50, MINIMUM YIELD 50KSI, TENSION 65KSI. WELDING SHALL COMPLY WITH PROVISIONS LISTED WITHIN THE LATEST EDITION OF ANSI/AWS D1.1, A5.18

(C) TIE STRIPS. TIE STRIPS SHALL BE SHOP FABRICATED OF HOT ROLLED STEEL CONFORMING TO THE MINIMUM REQUIREMENTS OF ASTM A–1011, GRADE 50 OR EQUIVALENT. GALVANIZING SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF ASTM A–123 (AASHTO M–111) OR ASTM A–153 (AASHTO M–232). THE MINIMUM GALVANIZING COATING THICKNESS SHALL BE 2.0 OZ/FT²

(D) FASTENERS. FASTENERS FOR TIE STRIPS SHALL CONSIST OF HEXAGONAL CAP SCREW BOLTS AND NUTS CONFORMING TO THE MINIMUM REQUIREMENTS OF ASTM A–449 (AASHTO M–164) OR EQUIVALENT. GALVANIZING SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF ASTM A–153 (AASHTO M–232).

ALL PARTS AND REINFORCEMENTS SHALL BE IN THEIR FINAL CONFIGURATION PRIOR TO GALVANIZING.

6.3 SELECT GRANULAR BACKFILL MATERIAL

THE SELECT GRANULAR BACKFILL MATERIAL USED IN THE MECHANICALLY STABILIZED EARTH STRUCTURE SHALL BE REASONABLY FREE FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS AND SHALL CONFORM TO THE FOLLOWING GRADATION LIMITS AS DETERMINED BY AASHTO T–27:

SIEVE SIZE	PERCENT PASSING
4 INCHES	100
3 INCHES	75–100
NO. 200	0–15

THE FRICTION ANGLE OF THE SELECT BACKFILL USED IN THE REINFORCED FILL ZONE SHALL BE 34° MINIMUM, UNLESS SHOWN OTHERWISE ON THE PLANS. THE FRICTION ANGLE SHALL BE DETERMINED BY THE STANDARD DIRECT SHEAR TEST, AASHTO T–236, UTILIZING A SAMPLE OF THE MATERIAL COMPACTED TO 95 PERCENT OF AASHTO T–99, METHODS C OR D (WITH OVERSIZE CORRECTION, AS OUTLINED IN NOTE 7), AT OPTIMUM MOISTURE CONTENT.

IN ADDITION, THE BACKFILL SHALL CONFORM TO ALL OF THE FOLLOWING REQUIREMENTS:

(A) PLASTICITY INDEX –– THE PLASTICITY INDEX (P.I.), AS DETERMINED BY AASHTO T–90, SHALL NOT EXCEED 6.

(B) SOUNDNESS –– THE MATERIAL SHALL BE SUBSTANTIALLY FREE OF SHALE OR OTHER SOFT, POOR DURABILITY PARTICLES. THE MATERIAL SHALL HAVE A MAGNESIUM SULFATE SOUNDNESS LOSS OF LESS THAN 30 PERCENT AFTER FOUR (4) CYCLES, AS DETERMINED BY AASHTO T–104.

(C) ELECTROCHEMICAL REQUIREMENTS –– THE BACKFILL MATERIAL SHALL CONFORM TO THE FOLLOWING ELECTROCHEMICAL REQUIREMENTS:

(D) PROPERTY	REQUIREMENT	APPLICABLE TEST METHODS
RESISTIVITY[1]	MINIMUM 3000 OHM–CM, AT 100% SATURATION	ASTM G–187–12A AASTHO T–288–12
pH	5–10	AASHTO T–289–91 ASTM G–51–95 (2012)
WATER SOLUBLE CHLORIDES[2,3]	≤100 PPM	AASHTO T–291–94 ASTM D–512–12 ASTM D–4327–11
WATER SOLUBLE SULFATES[2,3]	≤200 PPM	AASHTO T–290–95 (2012) ASTM D–516–16 ASTM D–4327–11

1 RESISTIVITY TESTING SHALL BE PERFORMED UP TO AND INCLUDING, BUT NOT EXCEEDING, 100% SOIL SATURATION. NOTE 6 OF AASHTO T–288 (NOTE 5 IN OLDER EDITIONS) SHALL NOT BE USED.

2 IF THE MINIMUM RESISTIVITY EXCEEDS 5000 OHM–CM, AT 100% SATURATION, THE NEED FOR TESTING OF CHLORIDES AND SULFATES IS WAIVED.

3 ASTM D–4327–11 (STANDARD TEST METHOD FOR ANIONS IN WATER BY SUPPRESSED ION CHROMATOGRAPHY) MAY BE USED IN LIEU OF AASHTO T–291/ASTM D–512 AND AASHTO T290/ASTM D–516 FOR DETERMINING THE CONCENTRATION OF WATER SOLUBLE CHLORIDES AND SULFATES.

7.0 CONSTRUCTION REQUIREMENTS

THE CONTRACTOR'S METHOD OF CONSTRUCTION SHALL CLOSELY FOLLOW THE CONSTRUCTION PROCEDURE OUTLINED IN THE CONTRACT DOCUMENTS AND THE SPECIFICATIONS. REFER TO THE REINFORCED EARTH CONSTRUCTION MANUAL FOR GENERAL INFORMATION REGARDING INSTALLATION OF REINFORCED EARTH PRODUCTS.

INSPECTION OF THE METHOD OF CONSTRUCTION IS THE RESPONSIBILITY OF THE OWNER OR THE OWNER'S AGENT. INSPECTION IS NOT THE RESPONSIBILITY OF THE WALL SYSTEM SUPPLIER.

7.1 FOUNDATION PREPARATION

THE FOUNDATION FOR THE STRUCTURE SHALL BE GRADED LEVEL FOR A WIDTH EQUAL TO OR EXCEEDING THE LENGTH OF THE SOIL REINFORCEMENTS (PLUS THE LEVELING PAD WIDTH), OR GREATER AS SHOWN ON THE PLANS. PRIOR TO WALL CONSTRUCTION, THE FOUNDATION, IF NOT IN ROCK, SHALL BE PROOF–ROLLED OR COMPACTED AS DIRECTED BY THE ENGINEER. ANY FOUNDATION SOILS FOUND TO BE UNSUITABLE SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.

AT EACH PANEL FOUNDATION LEVEL, AN UNREINFORCED SMOOTH CONCRETE LEVELING PAD SHALL BE PROVIDED AS SHOWN ON THE PLANS. THE LEVELING PAD SHALL HAVE MINIMUM NOMINAL DIMENSIONS OF 6 INCHES THICKNESS AND 12 INCHES WIDTH, AND SHALL BE CAST USING MINIMUM 2,000 PSI 28–DAY COMPRESSIVE STRENGTH CONCRETE. THE LEVELING PAD SHALL BE CAST TO THE DESIGN ELEVATIONS AS SHOWN ON THE PLANS. ALLOWABLE ELEVATION TOLERANCES ARE +1/8 INCH AND –1/4 INCH FROM THE DESIGN ELEVATION. INSTALLATION OF PANELS MAY PROCEED 12 HOURS AFTER LEVELING PAD CONCRETE HAS BEEN POURED.

7.2 PANEL INSTALLATION

PRECAST CONCRETE PANELS SHALL BE PLACED VERTICALLY WITH THE AID OF A LIGHT CRANE, CONVENTIONAL EXCAVATOR OR OTHER EQUIPMENT SUITABLE FOR SAFELY LIFTING AND PLACING THE PANELS. FOR ERECTION, PANELS SHALL BE HANDLED BY MEANS OF LIFTING DEVICES SET INTO THE UPPER EDGE OF THE PANELS. PANELS SHALL BE PLACED IN SUCCESSIVE HORIZONTAL LIFTS IN THE SEQUENCE SHOWN ON THE PLANS AS BACKFILL PLACEMENT PROCEEDS.

VERTICAL AND HORIZONTAL ALIGNMENT TOLERANCES FOR INSTALLATION OF FACING UNITS SHALL NOT EXCEED 3/4 INCH IN 10 FEET. THE OVERALL VERTICAL INSTALLATION TOLERANCE OF THE WALL (PLUMBNESS FROM TOP TO BOTTOM) SHOULD NOT EXCEED 3/4 INCH PER 10 FEET OF WALL HEIGHT. PANEL JOINT OPENINGS SHALL BE 3/4" +/– 1/4" UNLESS OTHERWISE SPECIFIED IN THE CONSTRUCTION DRAWINGS.

7.3 BACKFILL PLACEMENT

BACKFILL PLACEMENT SHALL CLOSELY FOLLOW ERECTION OF EACH COURSE OF PANELS. BACKFILL SHALL BE PLACED IN SUCH A MANNER AS TO AVOID ANY DAMAGE OR DISTURBANCE TO THE WALL MATERIALS OR MISALIGNMENT OF THE FACING PANELS. ANY WALL MATERIALS WHICH BECOME DAMAGED OR DISTURBED DURING BACKFILL PLACEMENT SHALL BE EITHER REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE OR CORRECTED, AS DIRECTED BY THE ENGINEER. ANY BACKFILL MATERIAL PLACED WITHIN THE REINFORCED SOIL MASS WHICH DOES NOT MEET THE REQUIREMENTS OF THIS SPECIFICATION SHALL BE CORRECTED OR REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED BY THE ENGINEER.

BACKFILL SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T–99, METHOD C OR D (WITH OVERSIZE CORRECTION, AS OUTLINED IN NOTE 7). THE MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORM THROUGHOUT EACH LAYER. BACKFILL MATERIAL SHALL HAVE A PLACEMENT MOISTURE CONTENT UP TO 2% LESS THAN OR EQUAL TO THE OPTIMUM MOISTURE CONTENT. BACKFILL MATERIAL WITH A PLACEMENT MOISTURE CONTENT MORE THAN 2% GREATER THAN THE OPTIMUM MOISTURE CONTENT SHALL BE ALLOWED TO DRY OR REMOVED AND REWORKED UNTIL THE MOISTURE CONTENT IS UNIFORM AND ACCEPTABLE THROUGHOUT THE ENTIRE LIFT. IF 30 PERCENT OR MORE OF THE SELECT GRANULAR BACKFILL MATERIAL IS GREATER THAN 3/4 INCH IN SIZE, AASHTO T–99 IS NOT APPLICABLE. FOR SUCH A MATERIAL, THE ACCEPTANCE CRITERION FOR CONTROL OF COMPACTION SHALL BE EITHER A MINIMUM OF 70 PERCENT OF THE RELATIVE DENSITY OF THE MATERIAL AS DETERMINED BY ASTM D–4253 AND D–4254, OR A METHOD SPECIFICATION BASED ON A TEST COMPACTION SECTION WHICH DEFINES THE TYPE OF EQUIPMENT, LIFT THICKNESS, NUMBER OF PASSES OF THE SPECIFIED EQUIPMENT, AND PLACEMENT MOISTURE CONTENT.

THE FREQUENCY OF SAMPLING OF SELECT GRANULAR BACKFILL MATERIAL, NECESSARY TO ASSURE GRADATION CONTROL THROUGHOUT CONSTRUCTION, SHALL BE AS DIRECTED BY THE ENGINEER.

THE MAXIMUM LIFT THICKNESS AFTER COMPACTION SHALL NOT EXCEED 10 INCHES, REGARDLESS OF THE VERTICAL SPACING BETWEEN LAYERS OF SOIL REINFORCEMENTS. THE CONTRACTOR SHALL DECREASE THIS LIFT THICKNESS, IF NECESSARY, TO OBTAIN THE SPECIFIED DENSITY. PRIOR TO PLACEMENT OF THE SOIL REINFORCEMENTS, THE BACKFILL ELEVATION, AFTER COMPACTION, SHALL BE 2 INCHES ABOVE THE ATTACHMENT DEVICE ELEVATION FROM A POINT APPROXIMATELY 12 INCHES BEHIND THE BACK FACE OF THE PANELS TO THE FREE END OF THE SOIL REINFORCEMENTS, UNLESS OTHERWISE SHOWN ON THE PLANS.

COMPACTION WITHIN 3 FEET OF THE BACK FACE OF THE PANELS SHALL BE ACHIEVED BY AT LEAST THREE (3) PASSES OF A LIGHTWEIGHT (LESS THAN 1000 LBS) MECHANICAL TAMPER, ROLLER OR VIBRATORY SYSTEM. THE LIFT THICKNESS MAY NEED TO BE A REDUCED AS WARRANTED BY THE TYPE OF BACKFILL AND COMPACTION EQUIPMENT USED. CARE SHALL BE EXERCISED IN THE COMPACTION PROCESS TO AVOID MISALIGNMENT OF THE PANELS OR DAMAGE TO THE ATTACHMENT DEVICES. HEAVY COMPACTION EQUIPMENT SHALL NOT BE USED TO COMPACT BACKFILL WITHIN 3 FEET OF THE WALL PANELS.

AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LEVEL OF BACKFILL AWAY FROM THE BACK OF THE PANELS TO DIRECT RUNOFF OF RAINWATER AWAY FROM THE WALL FACE. IN ADDITION, THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.

8.0 METHOD OF MEASUREMENT AND PAYMENT

8.1 MSE WALL MATERIALS

THE UNIT OF MEASUREMENT FOR FURNISHING AND FABRICATING THE MATERIALS FOR THE MSE WALLS, INCLUDING CONCRETE FACING PANELS, SOIL REINFORCEMENTS, ATTACHMENT DEVICES, FASTENERS, BEARING BLOCKS AND SHIMS, JOINT MATERIALS AND INCIDENTALS SHALL BE THE SQUARE FOOT OF WALL SURFACE AREA. THE WALL SURFACE AREA SHALL INCLUDE THE SURFACE AREA OF NOMINAL PANEL JOINT OPENINGS AND WALL PENETRATIONS SUCH AS PIPES AND OTHER UTILITIES. THE QUANTITY TO BE PAID FOR SHALL BE MEASURED ON THE BASIS OF WALL SURFACE AREA SUPPLIED.

PICKERING ASSOCIATES
Architects · Engineers · Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

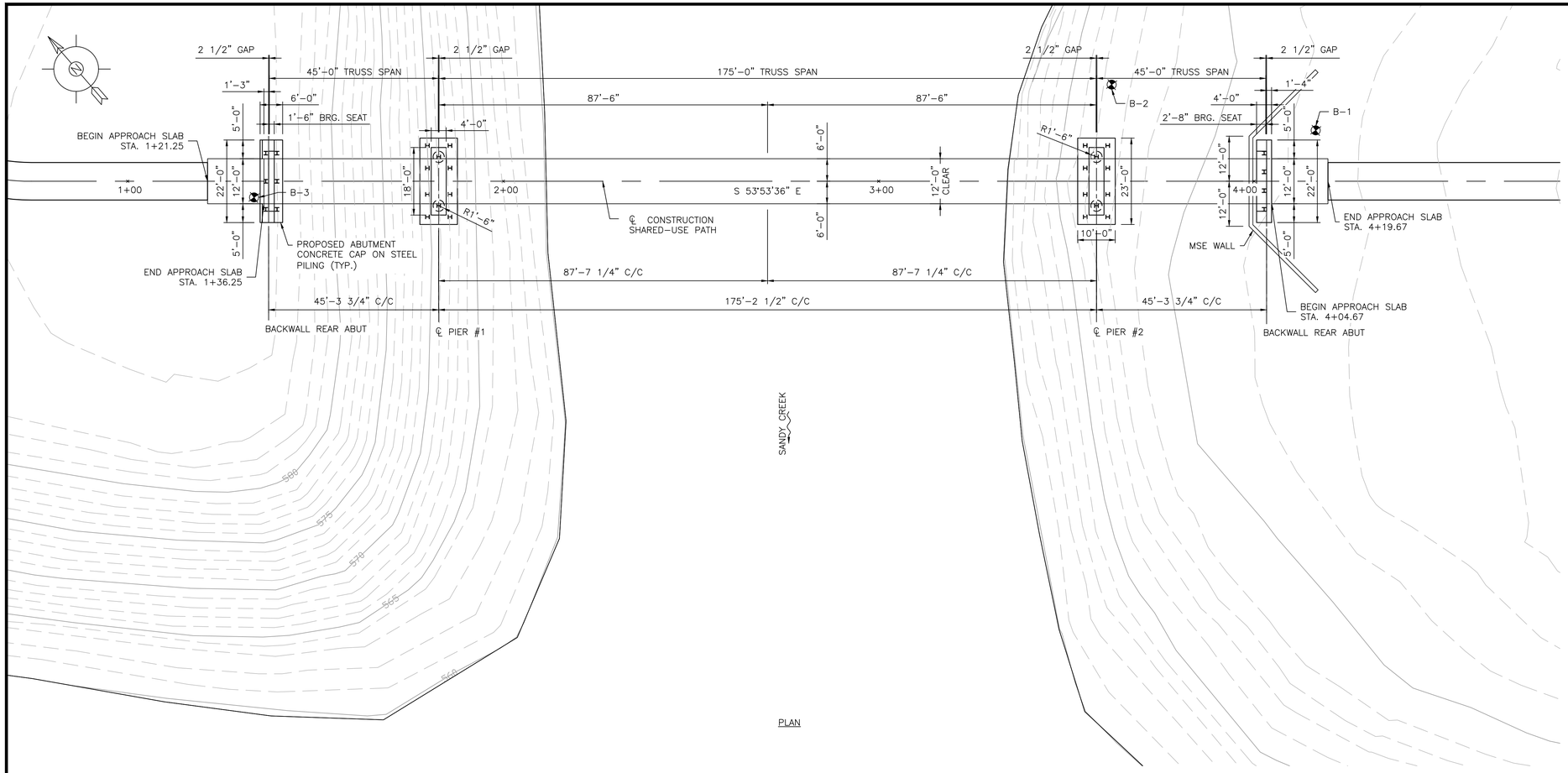
CITY OF RAVENSWOOD
JACKSON COUNTY, WV

PEDESTRIAN BRIDGE OVER SANDY CREEK
MSE WALL NOTES

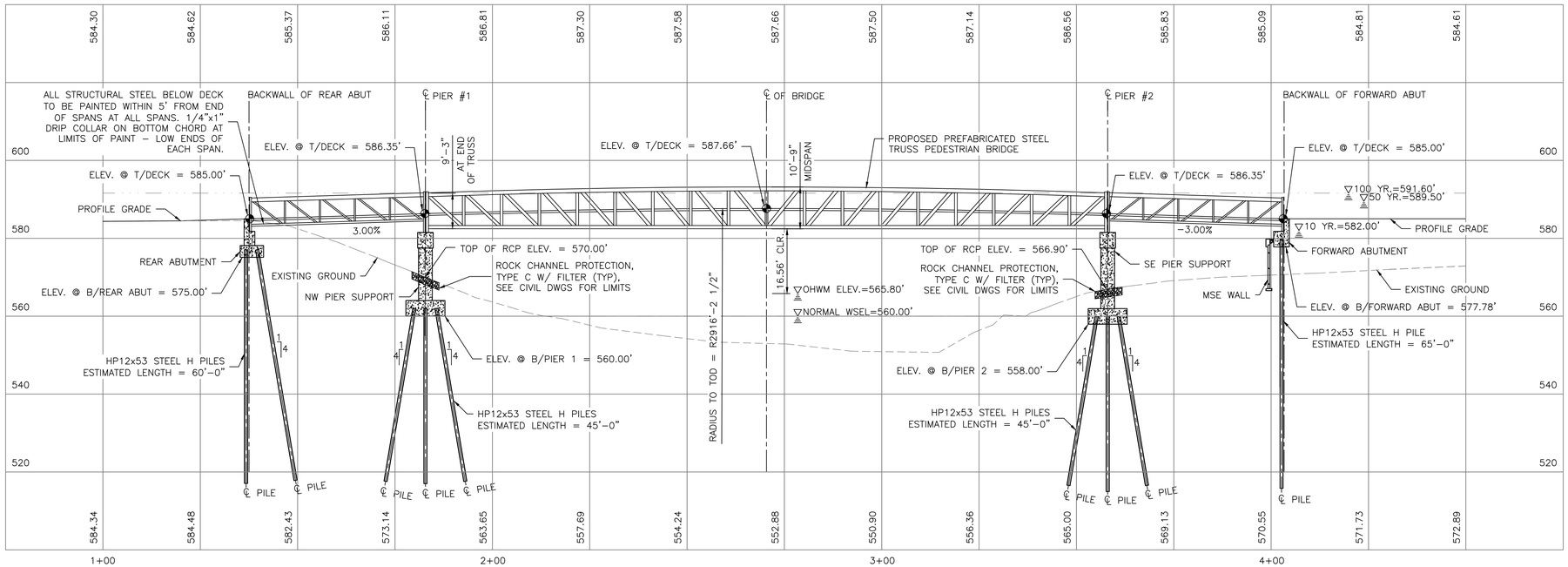
JOSEPH R. TUCKER
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	NTS
Plot Date:	06/12/25
Revision:	0

Drawing Number:
S001



PLAN



PROFILE ALONG ℄ CONSTRUCTION SHARED-USE PATH

NOTES

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

FOR BENCHMARK INFORMATION, SEE SHEET S000.

LEGEND

✥ BORING LOCATION

HYDRAULIC DATA

100 YEAR HW INUNDATES THE STRUCTURE BY 4'-0" AS A RESULT OF OHIO RIVER BACKWATER.

Q(100) = 12,918 CFS V(100) = 1.83 FT/S

WSEL = WATER SURFACE ELEVATION

VERTICAL CURVE INFORMATION:

STATION START:	1+37.29	STATION END:	4+03.13
PVC STATION:	1+82.61	ELEVATION:	586.350'
PVI STATION:	2+70.21	ELEVATION:	588.970'
PVT STATION:	3+57.81	ELEVATION:	586.350'
HIGH POINT:	2+70.21	ELEVATION:	587.660'
GRADE IN:	3.00%	GRADE OUT:	-3.00%
CHANGE:	5.98%	K:	29.292'
CURVE LENGTH:	175.208'	CURVE RADIUS:	2,916.21'
PASSING DIST.:	346.130'	STOPPING DIST.:	198.710'

GEOTECHNICAL REPORT PROVIDED BY:
CTL ENGINEERING OF WEST VIRGINIA, INC.
1091 CHAPLIN ROAD
MORGANTOWN, WV 26501
PHONE: (304) 292-1135
www.ctleng.com

PROPOSED STRUCTURE

TYPE: THREE SPAN PRE-FABRICATED WEATHERING STEEL PEDESTRIAN TRUSS W/ CONCRETE DECK ON CAPPED PILE ABUTMENTS.

SPANS: 1: 45'-0" ; 2: 175'-0" ; 3: 45'-0"

ROADWAY: 12'-0" F/F RUB RAIL

LOADING: 90 PSF LIVE LOAD OR H10 VEHICULAR LIVE LOAD
25 PSF FUTURE WEARING SURFACE
(4) FUTURE 4"ø UTILITY CONDUITS @ 9 PLF EACH

SKEW: NONE

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

ALIGNMENT: TANGENT

CROWN: 0.015 FT/FT

COORDINATES: LATITUDE: 38.94536'N LONGITUDE: -81.76129'W

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

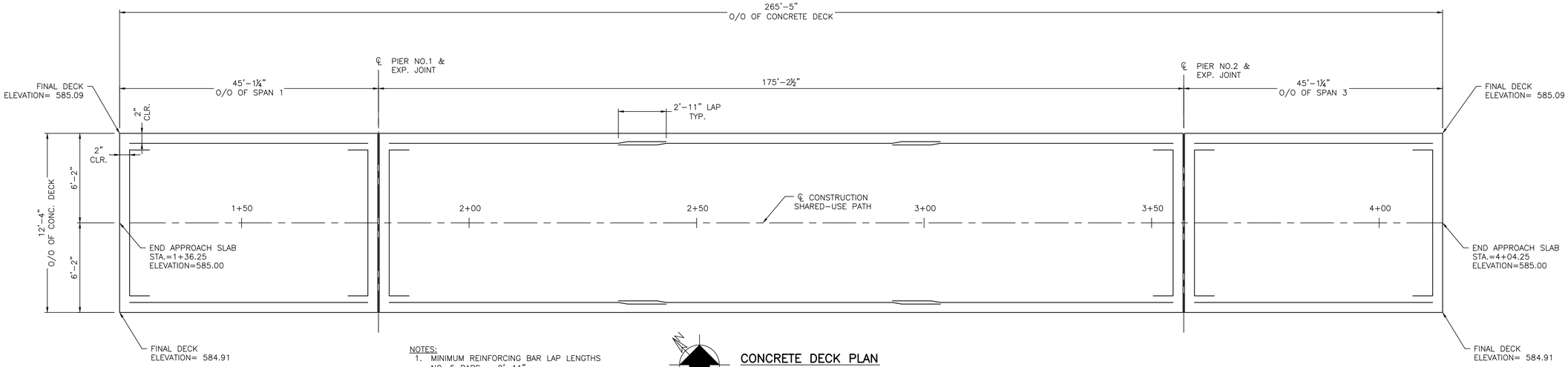
CITY OF RAVENSWOOD
JACKSON COUNTY

PEDESTRIAN BRIDGE OVER SANDY CREEK
SITE PLAN AND PROFILE

JOSEPH R. TUCKER
REGISTERED
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	1/16" = 1'-0"
Plot Date:	06/12/25
Revision:	0

Drawing Number:
S100

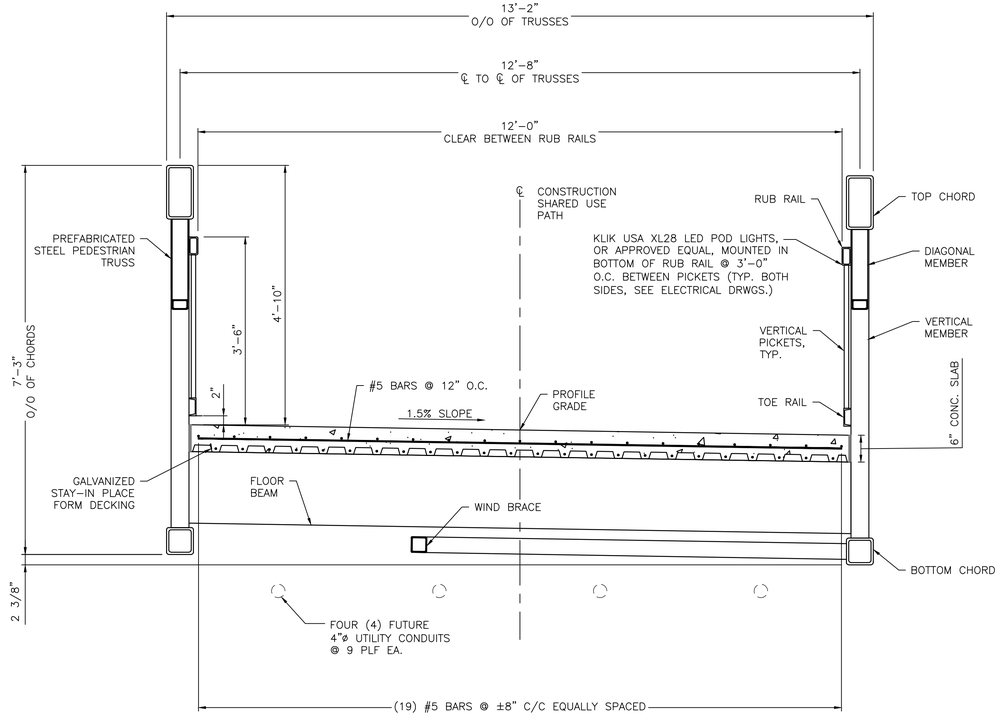


NOTES:

1. MINIMUM REINFORCING BAR LAP LENGTHS NO. 5 BARS = 2'-11"
2. FINAL DECK ELEVATIONS PROVIDED REPRESENT DEAD LOAD DEFLECTIONS HAVE OCCURRED. SCREED ELEVATIONS TO BE DETERMINED UTILIZING ANTICIPATED CAMBER PROVIDED BY PREFABRICATED PEDESTRIAN TRUSS MANUFACTURER.

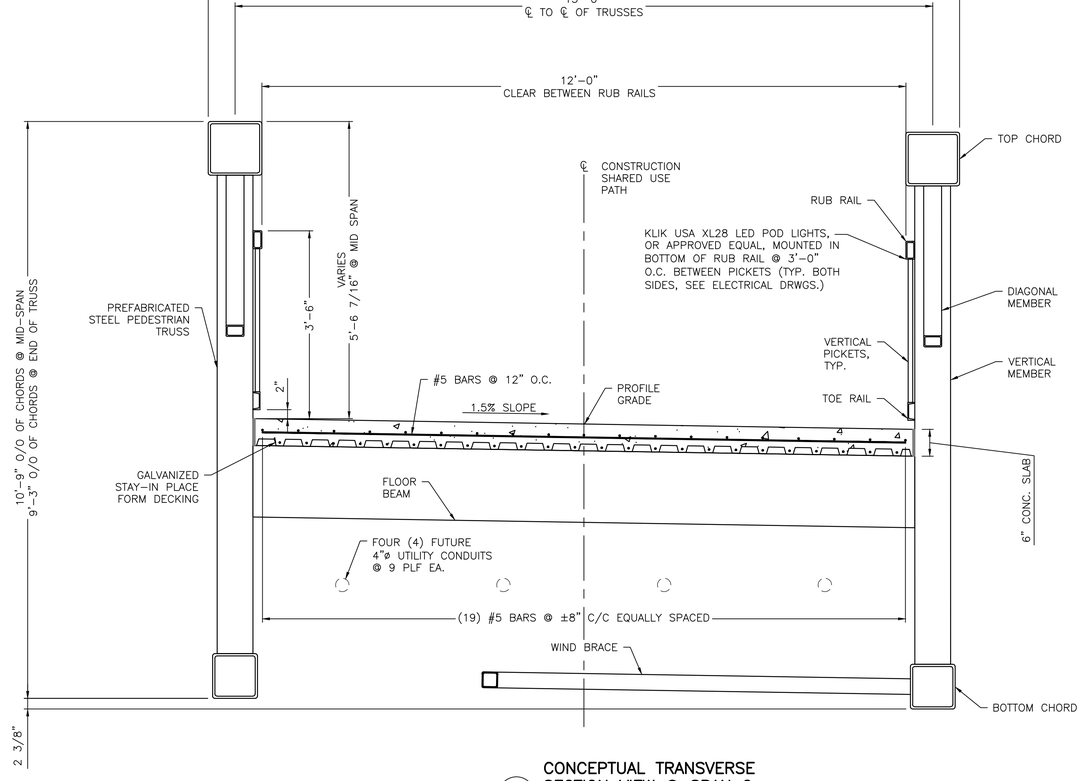
CONCRETE DECK PLAN

SCALE: N.T.S.



CONCEPTUAL TRANSVERSE SECTION VIEW @ SPAN 1 & 3

S200 (A) S200 ACTUAL DETAILED SECTION TO BE PROVIDED BY MANUFACTURER



CONCEPTUAL TRANSVERSE SECTION VIEW @ SPAN 2

S200 (B) S200 ACTUAL DETAILED SECTION TO BE PROVIDED BY MANUFACTURER

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

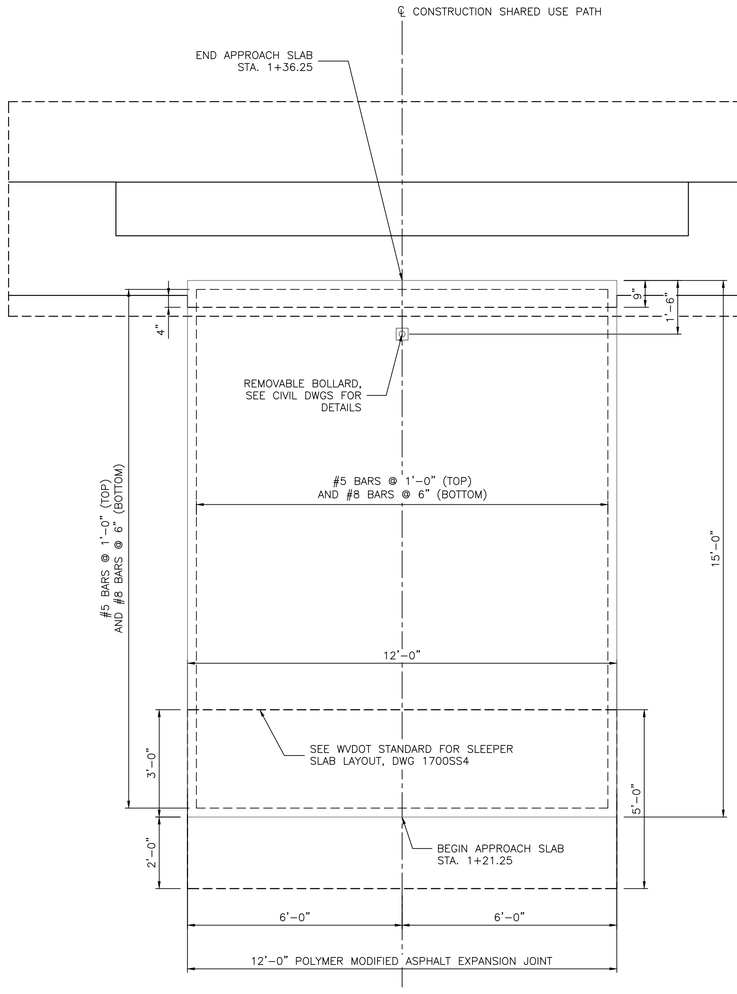
CITY OF RAVENSWOOD
JACKSON COUNTY

PEDESTRIAN BRIDGE OVER SANDY CREEK
CONCRETE DECK PLAN & BRIDGE SECTIONS

JOSEPH R. TUCKER
REGISTERED
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

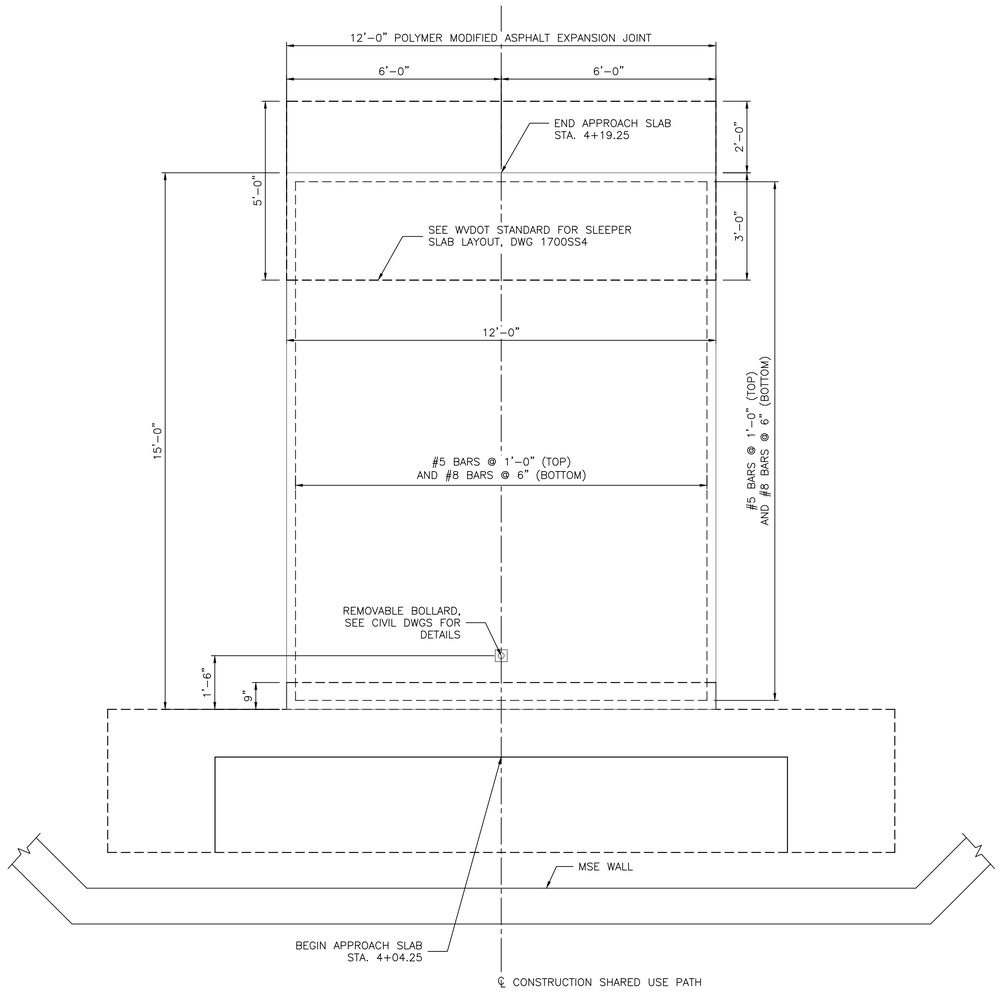
Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	AS NOTED
Plot Date:	06/12/25
Revision:	0

Drawing Number:
S200



REAR APPROACH SLAB PLAN

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



FORWARD APPROACH SLAB PLAN

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

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

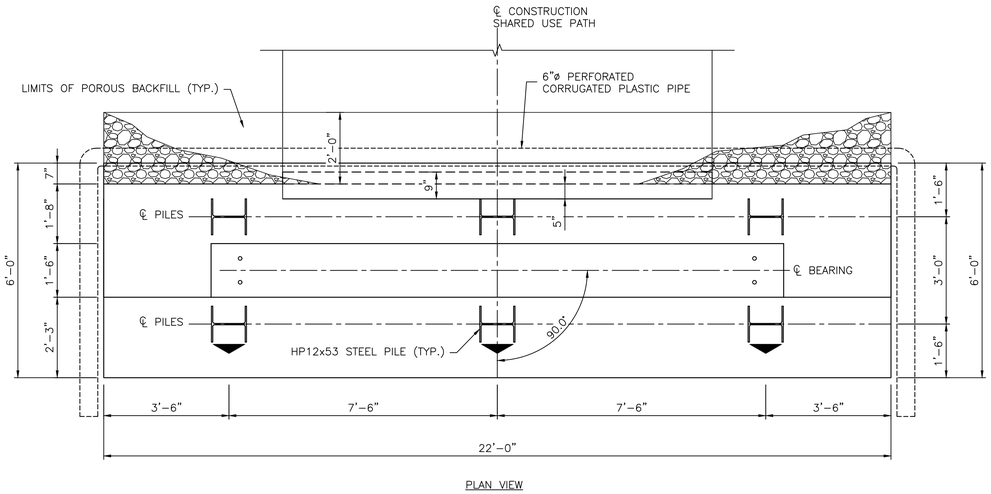
CITY OF RAVENSWOOD
JACKSON COUNTY

PEDESTRIAN BRIDGE OVER SANDY CREEK
APPROACH SLAB DETAILS

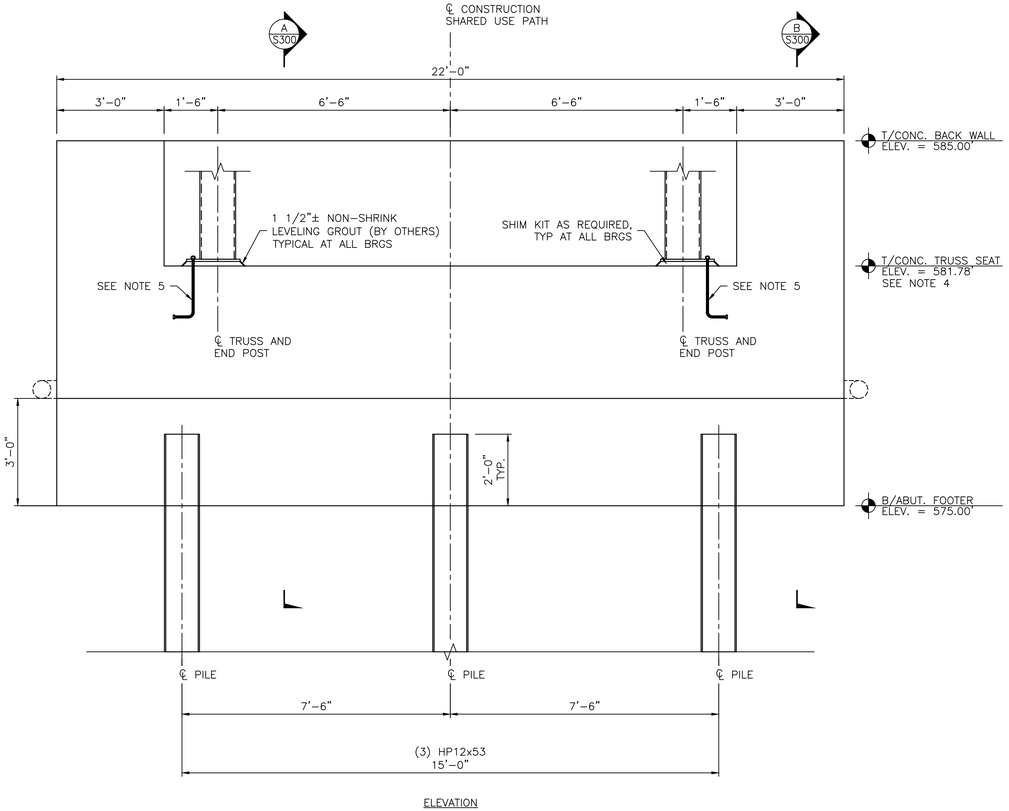
JOSEPH R. TUCKER
REGISTERED
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	1/2" = 1'-0"
Plot Date:	06/12/25
Revision:	0

Drawing Number:
S201



PLAN VIEW



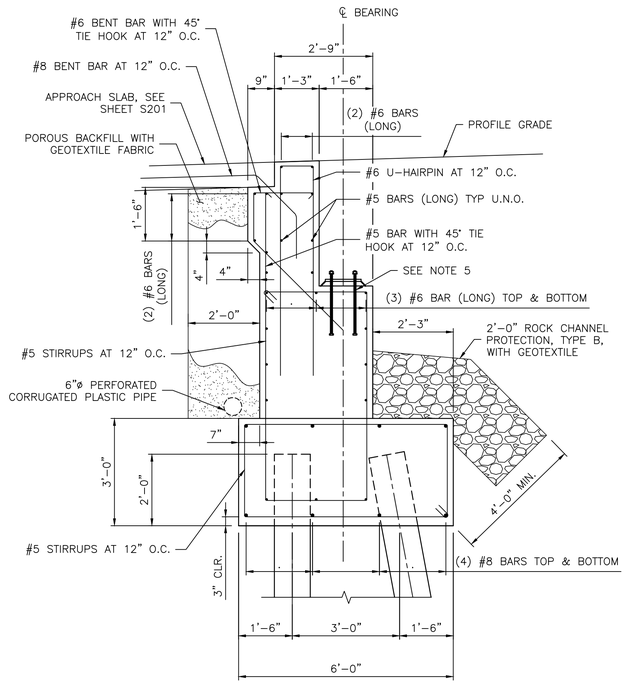
ELEVATION

PLAN AND ELEVATION
SCALE: 1/2" = 1'-0"

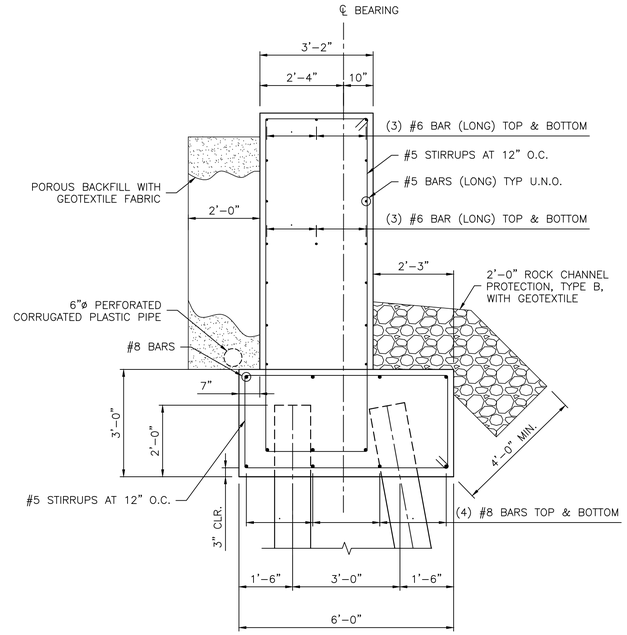
STEEL PILE, BATTERED FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF THE ARROW.

NOTES

1. FOR OTHER ABUTMENT SECTIONS, SEE SHEET S301.
2. MINIMUM BAR LAPS:
   LAP NO. 5 BARS 2'-11"
   LAP NO. 6 BARS 3'-5"
   LAP NO. 8 BARS 5'-9"
3. 6" NON-PERFORATED CORRUGATED POLYETHYLENE PIPE AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN THE PIPE TERMINATION DETAIL ON SHEET S500.
4. CONFIRM BEARING SEAT ELEVATION WITH MANUFACTURER OF PEDESTRIAN BRIDGE.
5. PEDESTRIAN BRIDGE MANUFACTURER SHALL PROVIDE (4) 1"ø x16" LONG WITH STANDARD HOOK GRADE B7 GALVANIZED ANCHOR BOLTS WITH (1) 3" O.D. WASHER AND (2) HEAVY HEX NUTS.
6. SHOP DETAIL AND ERECTION DRAWINGS FOR REINFORCING STEEL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.



A S300 S300 REAR ABUTMENT SECTION
SCALE: 1/2" = 1'-0"



B S300 S300 REAR ABUTMENT SECTION
SCALE: 1/2" = 1'-0"

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

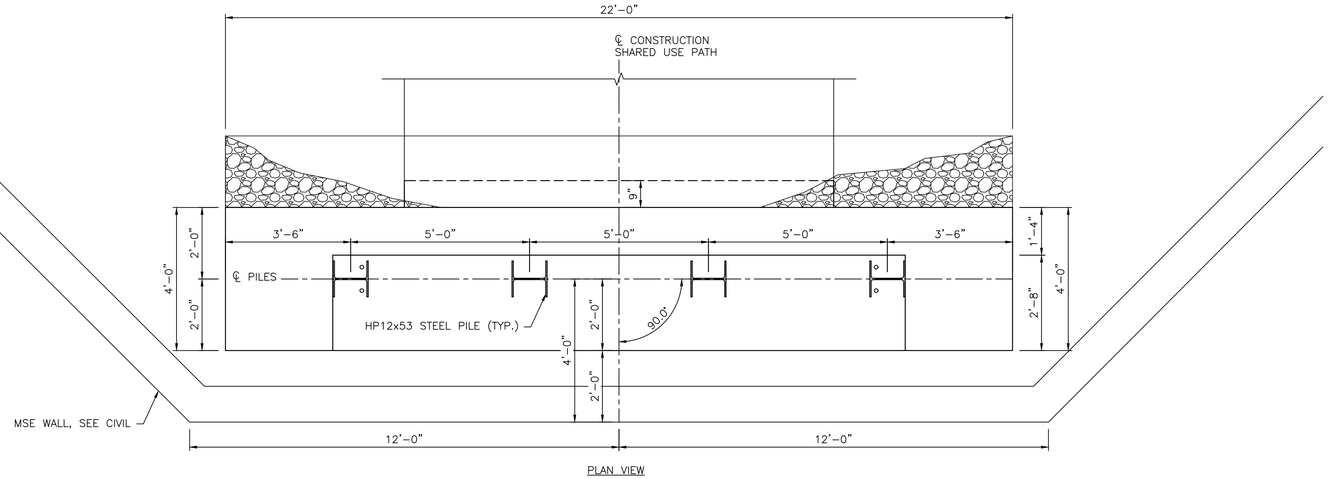
CITY OF RAVENSWOOD
JACKSON COUNTY

PEDESTRIAN BRIDGE OVER SANDY CREEK
REAR ABUTMENT DETAILS

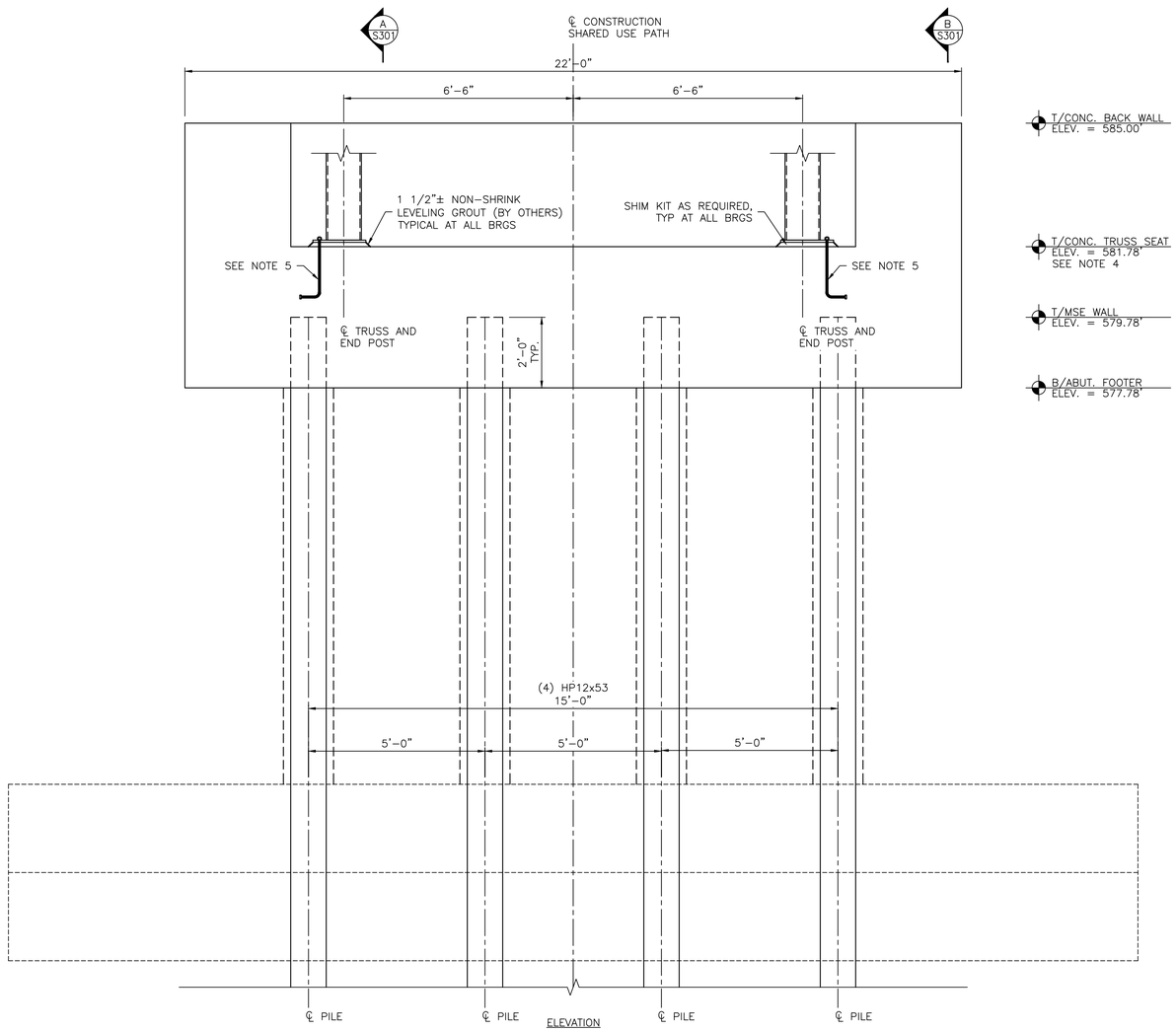
JOSEPH R. TUCKER
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	1/2" = 1'-0"
Plot Date:	06/12/25
Revision:	0

Drawing Number:
S300



PLAN VIEW



ELEVATION

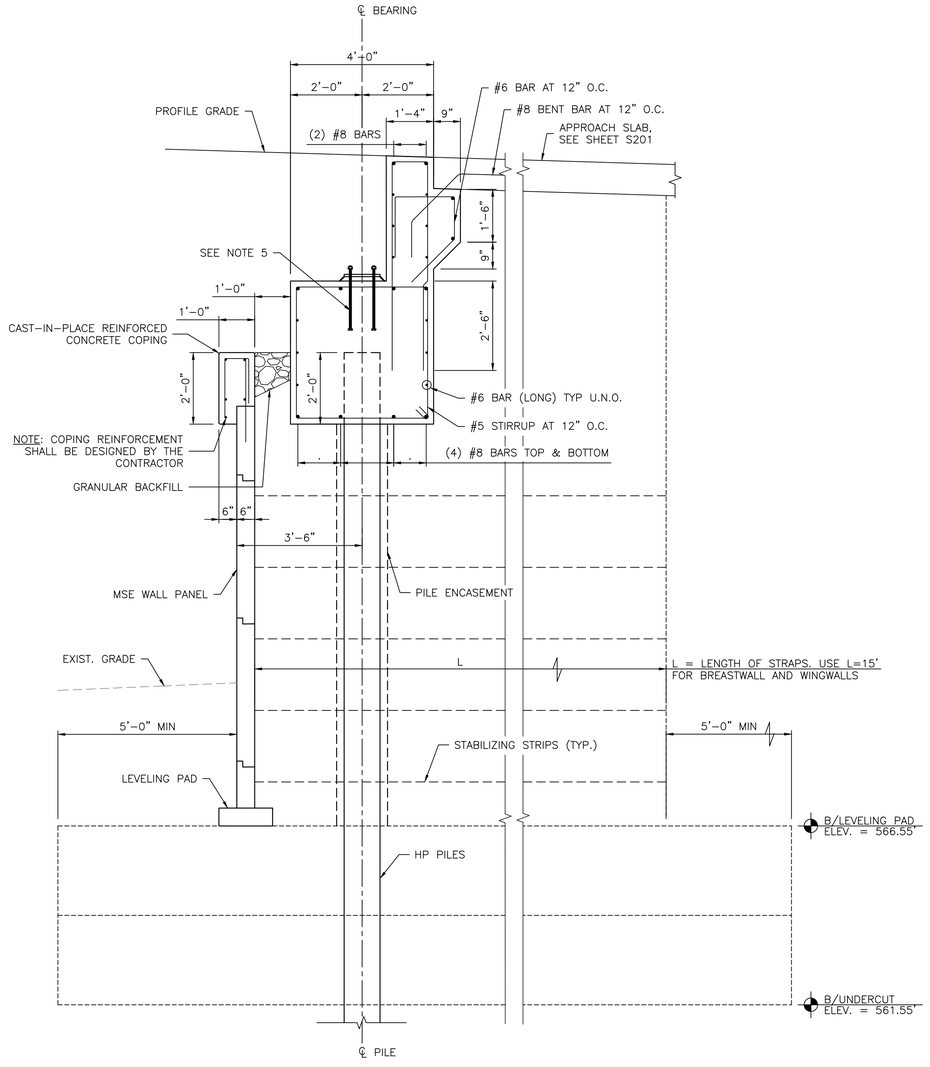
PLAN AND ELEVATION

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

STEEL PILE, BATTERED FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF THE ARROW.

NOTES

1. FOR OTHER ABUTMENT SECTIONS, SEE SHEET S300.
2. MINIMUM BAR LAPS:
   LAP NO. 5 BARS 2'-11"
   LAP NO. 6 BARS 3'-5"
   LAP NO. 8 BARS 5'-9"
3. 6" NON-PERFORATED CORRUGATED POLYETHYLENE PIPE AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN THE PIPE TERMINATION DETAIL ON SHEET S500.
4. CONFIRM BEARING SEAT ELEVATION WITH MANUFACTURER OF PEDESTRIAN BRIDGE.
5. PEDESTRIAN BRIDGE MANUFACTURER SHALL PROVIDE (4) 1"ø x16" LONG WITH STANDARD HOOK GRADE B7 GALVANIZED ANCHOR BOLTS WITH (1) 3" O.D. WASHER AND (2) HEAVY HEX NUTS.
6. SHOP DETAIL AND ERECTION DRAWINGS FOR REINFORCING STEEL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.



S301 (A) S301 FORWARD ABUT. SECTION

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

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY
PEDESTRIAN BRIDGE OVER SANDY CREEK
FORWARD ABUTMENT DETAILS 1

JOSEPH R. TUCKER
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	1/2" = 1'-0"
Plot Date:	06/12/25
Revision:	0

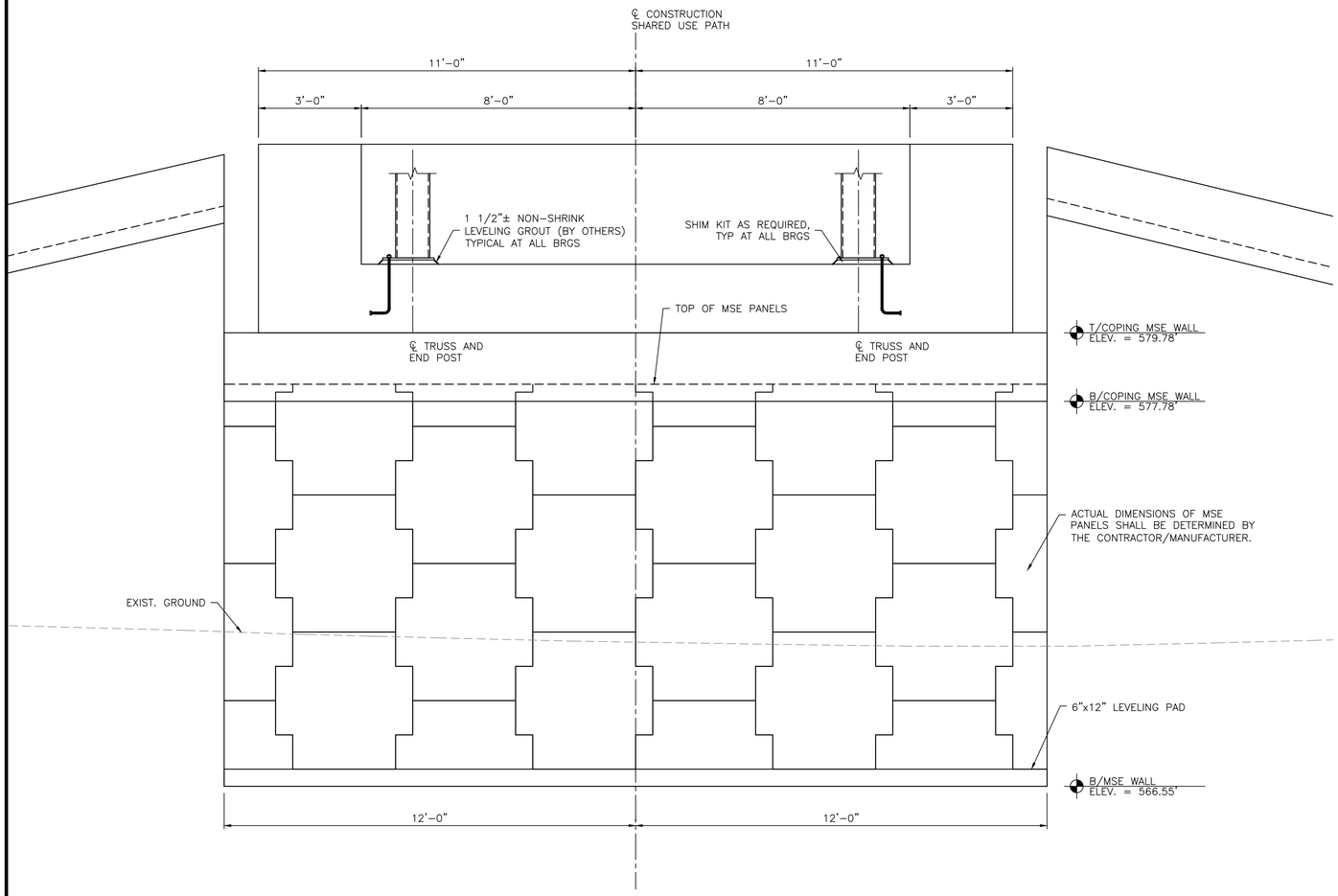
Drawing Number:
S301

STEEL PILE, BATTERED FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF THE ARROW.

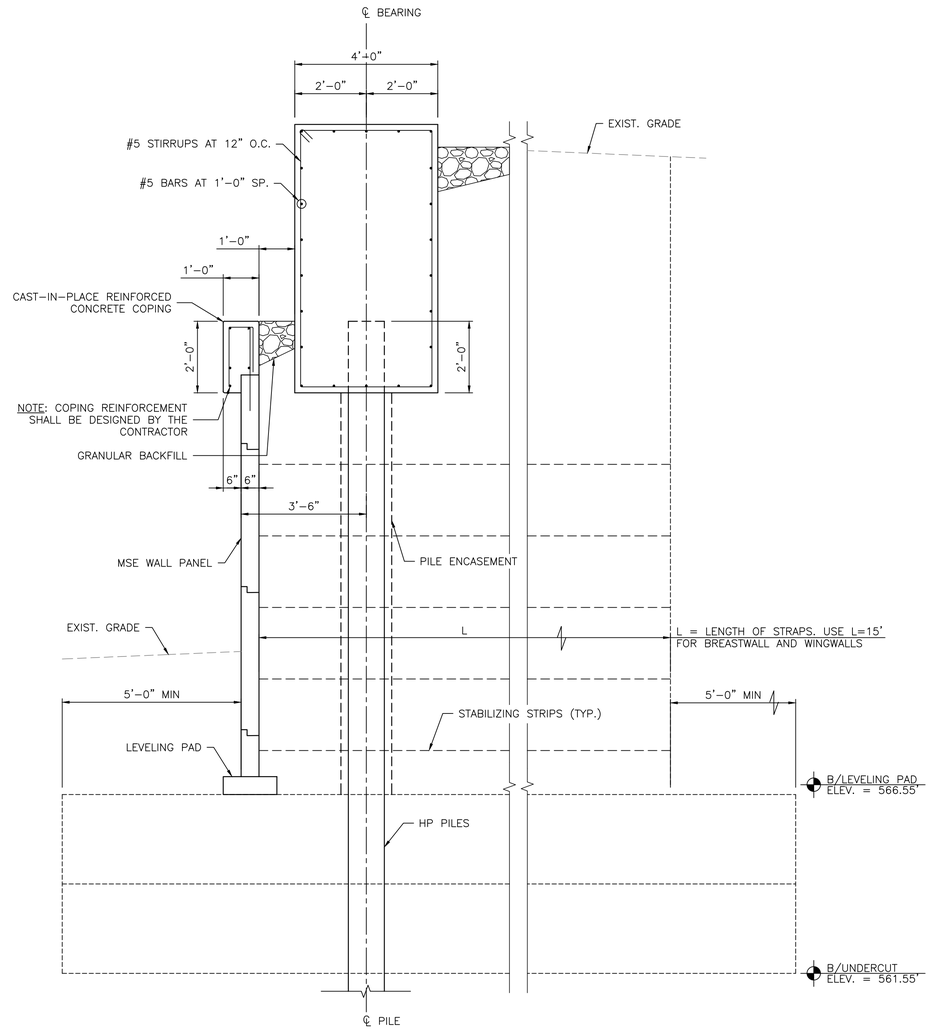
NOTES

1. FOR OTHER ABUTMENT SECTIONS, SEE SHEET S300.
2. MINIMUM BAR LAPS:
   LAP NO. 5 BARS 2'-11"
   LAP NO. 6 BARS 3'-5"
   LAP NO. 8 BARS 5'-9"
3. 6" NON-PERFORATED CORRUGATED POLYETHYLENE PIPE AT ENDS SPLICED TO PERFORATED PIPE AND OUTLET AS SHOWN IN THE PIPE TERMINATION DETAIL ON SHEET S500.
4. CONFIRM BEARING SEAT ELEVATION WITH MANUFACTURER OF PEDESTRIAN BRIDGE.
5. PEDESTRIAN BRIDGE MANUFACTURER SHALL PROVIDE (4) 1"Øx16" LONG WITH STANDARD HOOK GRADE B7 GALVANIZED ANCHOR BOLTS WITH (1) 3" O.D. WASHER AND (2) HEAVY HEX NUTS.
6. SHOP DETAIL AND ERECTION DRAWINGS FOR REINFORCING STEEL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

MSE WALL DESIGN DATA		
REINFORCED SOIL MASS		
FRICTION ANGLE	(ø)	= 34°
SOIL DENSITY	(γ)	= 120 PCF
RETAINED BACKFILL		
FRICTION ANGLE	(ø)	= 28°
SOIL DENSITY	(γ)	= 125 PCF



ELEVATION – MSE BREASTWALL
SCALE: 1/2" = 1'-0"



B S301 S302a FORWARD ABUT. SECTION
SCALE: 1/2" = 1'-0"

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description
CITY OF RAVENSWOOD
JACKSON COUNTY
PEDESTRIAN BRIDGE OVER SANDY CREEK
FORWARD ABUTMENT DETAILS 2

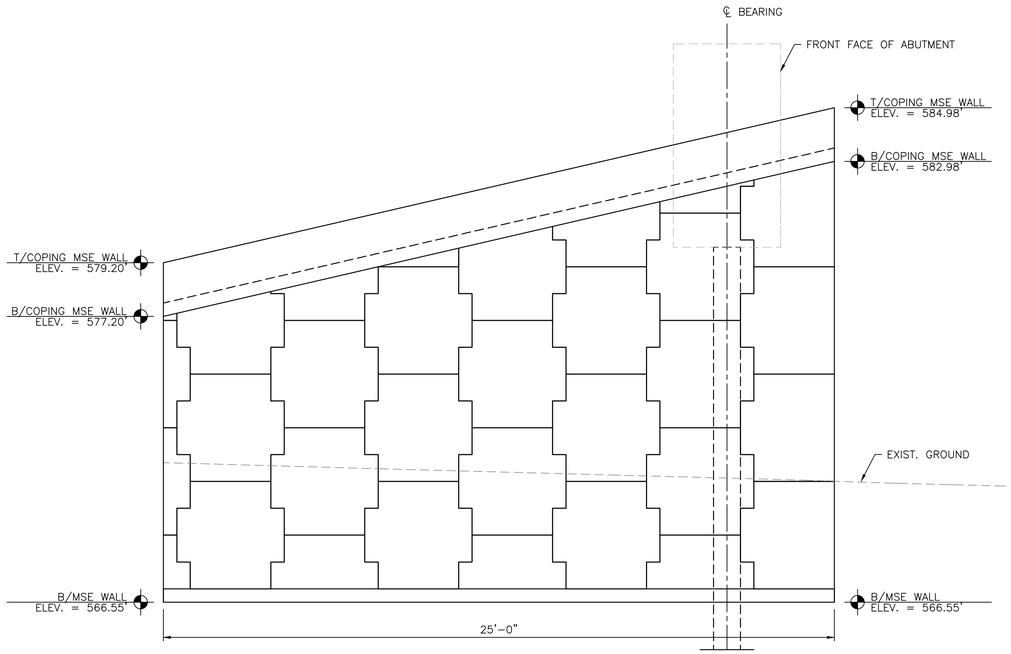
JOSEPH R. TUCKER
REGISTERED
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	1/2" = 1'-0"
Plot Date:	06/12/25
Revision:	0

Drawing Number:
S302a

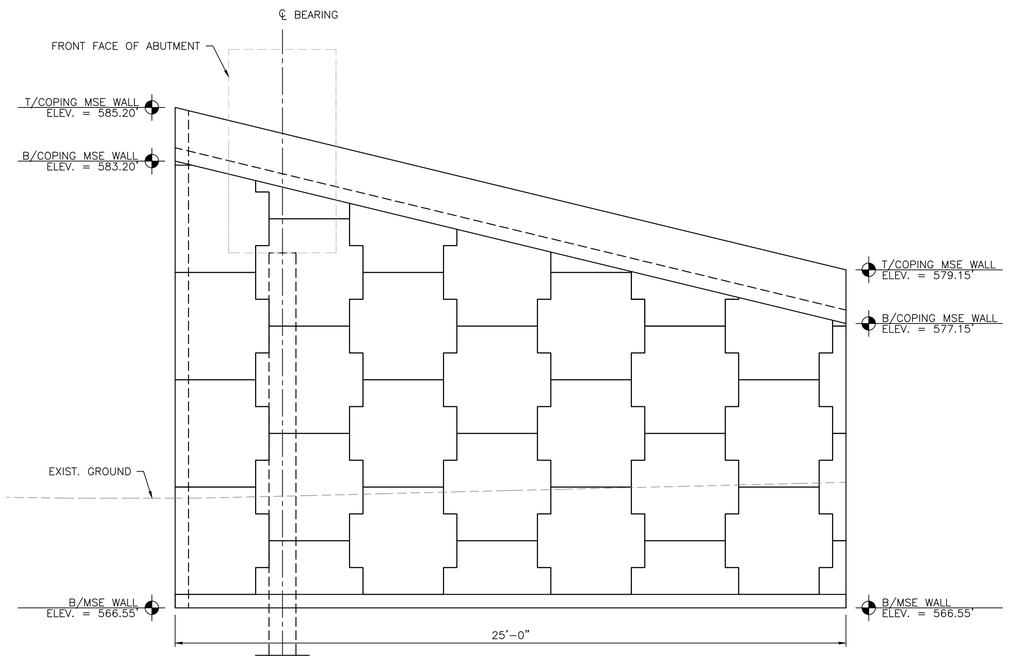
MSE WALL NOTES:

1. SEE SHEET S001 FOR MSE WALL NOTES



ELEVATION – WINGWALL A

SCALE: 3/8" = 1'-0"



ELEVATION – WINGWALL B

SCALE: 3/8" = 1'-0"

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

CITY OF RAVENSWOOD
JACKSON COUNTY

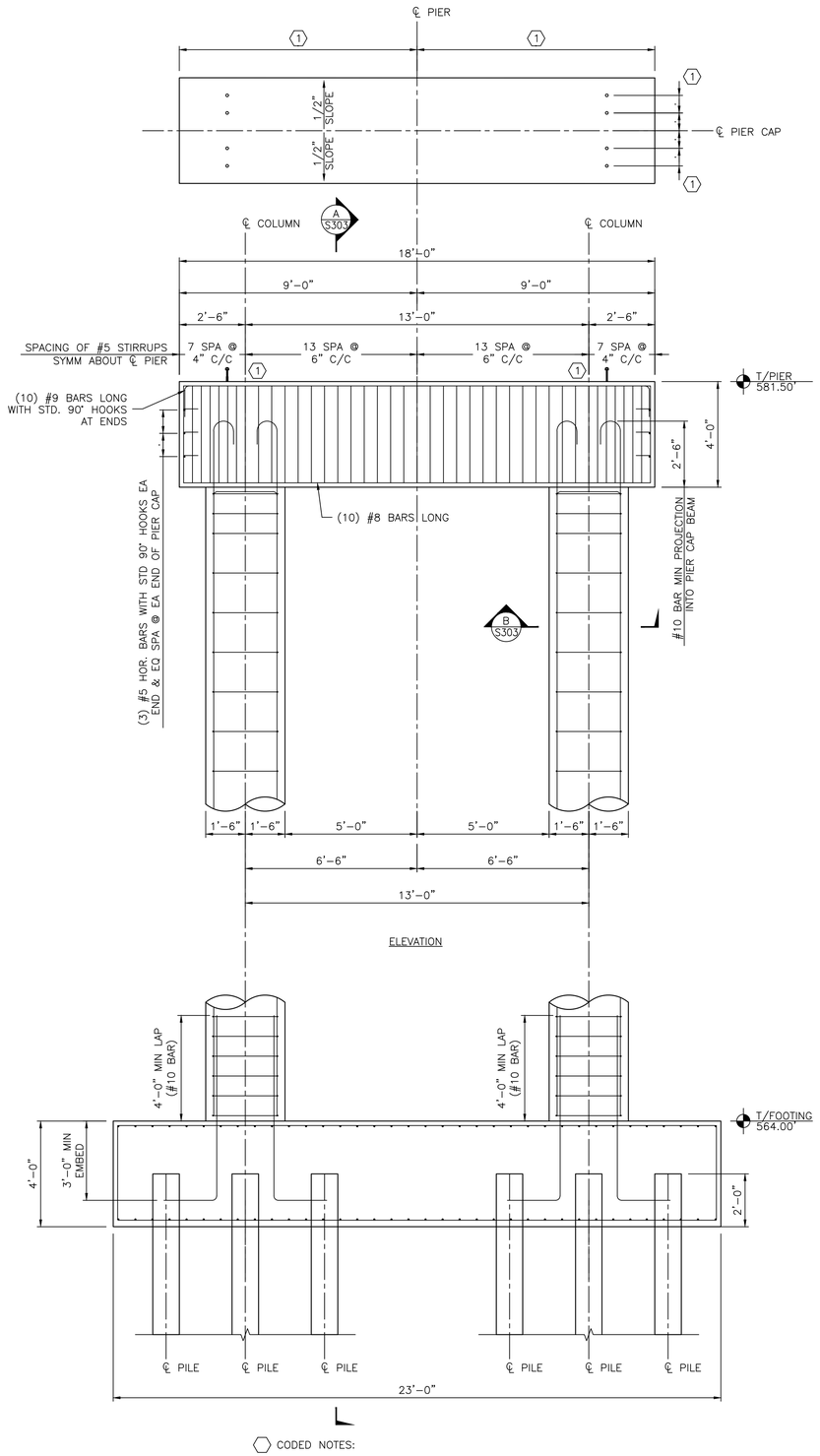
PEDESTRIAN BRIDGE OVER SANDY CREEK
FORWARD ABUTMENT - MSE WINGWALLS

JOSEPH R. TUCKER
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	3/8" = 1'-0"
Plot Date:	06/12/25
Revision:	0

Drawing Number:

S302b

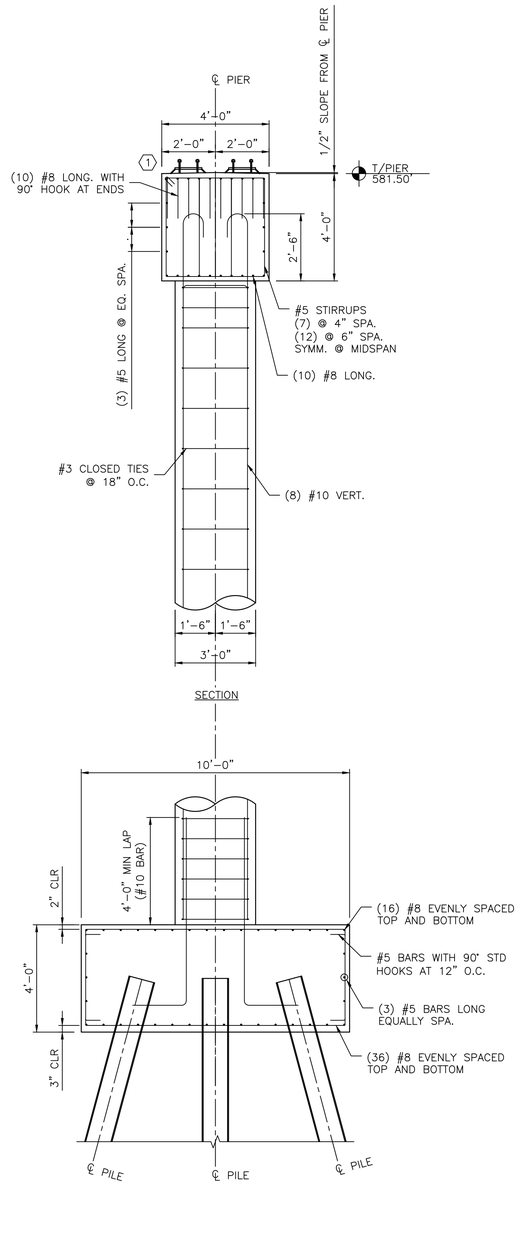


ELEVATION

CODED NOTES:

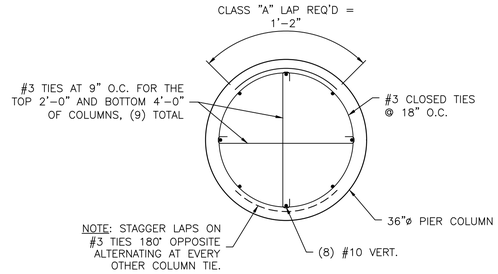
1. PEDESTRIAN BRIDGE MANUFACTURER SHALL PROVIDE (8) 1"ø x 16" LONG WITH STANDARD HOOK GRADE B7 GALVANIZED ANCHOR BOLTS WITH (1) 3" O.D. WASHER AND (2) HEAVY HEX NUTS. EXACT LOCATION AND SPACING OF ANCHOR BOLTS SHALL BE AS SPECIFIED BY PEDESTRIAN BRIDGE MANUFACTURER.

PIER ELEVATION
SCALE: 3/8" = 1'-0"

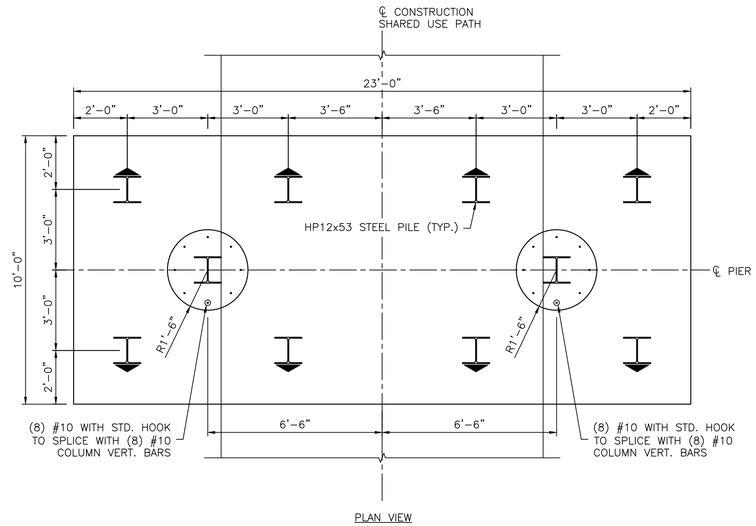


SECTION

A S303 PIER SECTION
SCALE: 3/8" = 1'-0"



B S303 PIER SECTION
SCALE: 3/4" = 1'-0"



PLAN VIEW

PIER FOOTING PLAN
SCALE: 3/8" = 1'-0"

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description

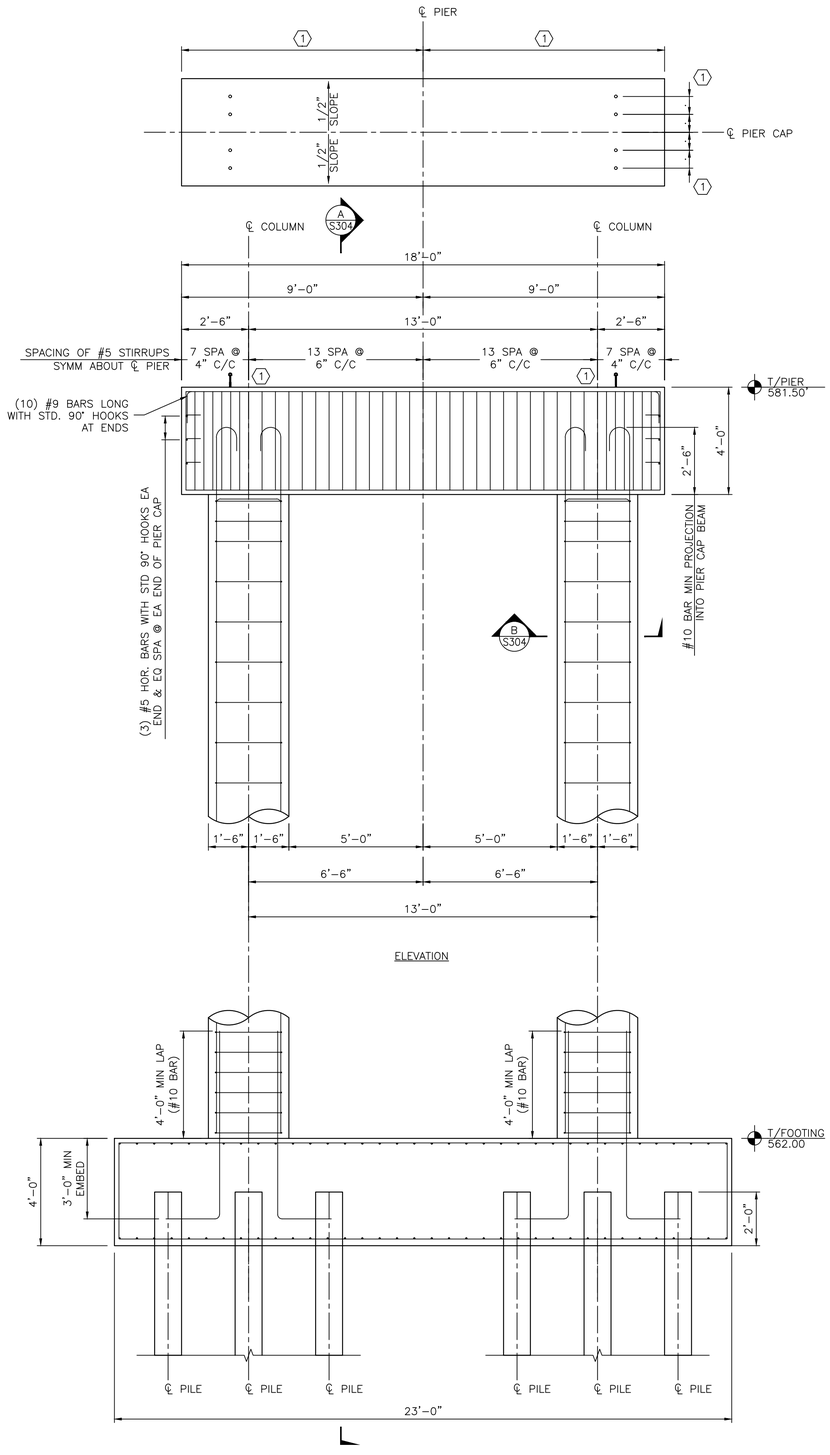
CITY OF RAVENSWOOD
JACKSON COUNTY

PEDESTRIAN BRIDGE OVER SANDY CREEK
PIER NO. 1 DETAILS

JOSEPH R. TUCKER
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	AS NOTED
Plot Date:	06/12/25
Revision:	0

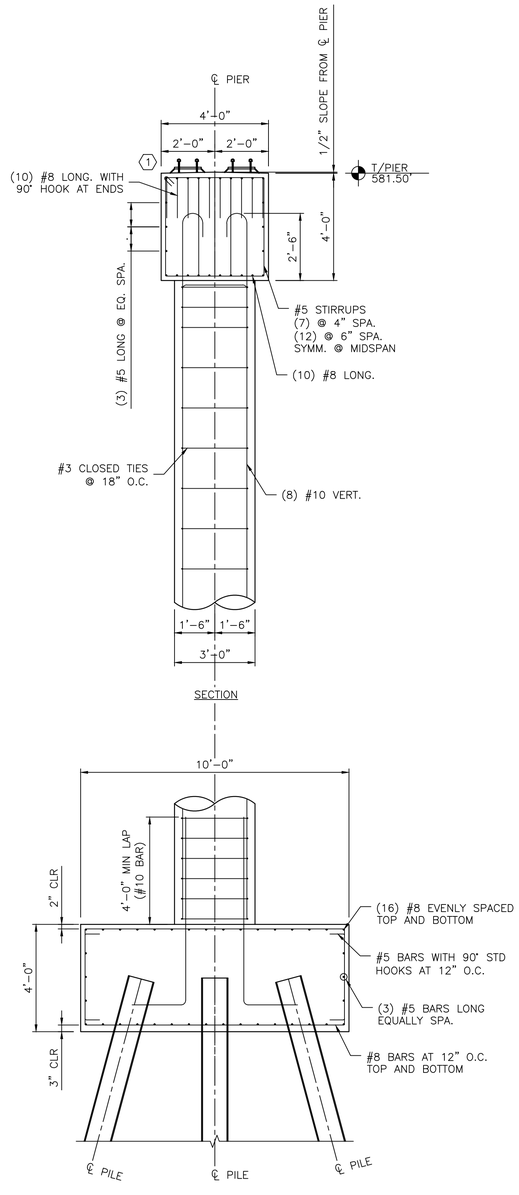
Drawing Number:
S303



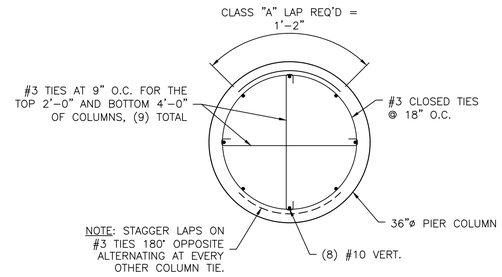
CODED NOTES:

1. PEDESTRIAN BRIDGE MANUFACTURER SHALL PROVIDE (8) 1"ø x16" LONG WITH STANDARD HOOK GRADE B7 GALVANIZED ANCHOR BOLTS WITH (1) 3" O.D. WASHER AND (2) HEAVY HEX NUTS. EXACT LOCATION AND SPACING OF ANCHOR BOLTS SHALL BE AS SPECIFIED BY PEDESTRIAN BRIDGE MANUFACTURER.

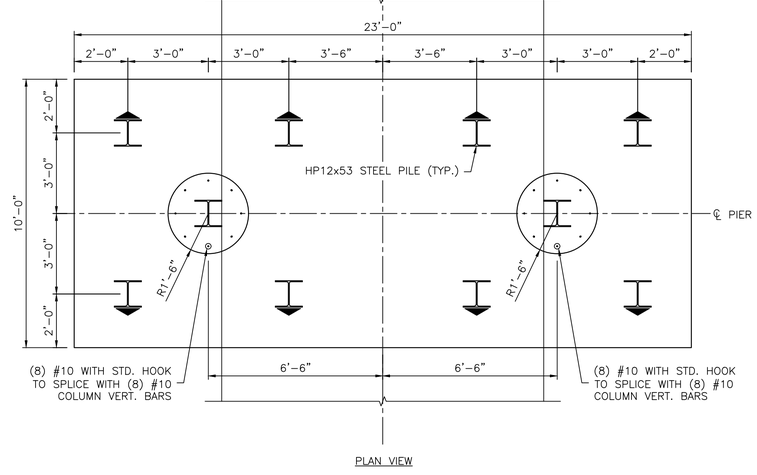
PIER ELEVATION
SCALE: 3/8" = 1'-0"



A S304 PIER SECTION
SCALE: 3/8" = 1'-0"



B S304 PIER SECTION
SCALE: 3/4" = 1'-0"



PIER FOOTING PLAN
SCALE: 3/8" = 1'-0"

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	JRT	06/12/25

Drawing Description
CITY OF RAVENSWOOD
JACKSON COUNTY
PEDESTRIAN BRIDGE OVER SANDY CREEK
PIER NO. 2 DETAILS

JOSEPH R. TUCKER
No. 9726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	ALN
Drawn By:	ALN
Checked By:	JRT
Scale:	AS NOTED
Plot Date:	06/12/25
Revision:	0

Drawing Number:
S304

DIVISION 26 GENERAL REQUIREMENTS

SECTION 260500 COMMON WORK RESULTS FOR ELECTRICAL

THE ELECTRICAL CONTRACTOR SHALL RESPONSIBLE FOR THE DEMOLITION OF SELECTED ELECTRICAL EQUIPMENT AS INDICATED ON THE DRAWINGS AND ALL NECESSARY DEMOLITION ACTIVITIES REQUIRED FOR THIS PROJECT. REMOVE ALL INDICATED DEVICES FEEDER CONDUCTORS AND CONDUITS FROM EQUIPMENT TO SOURCE DISTRIBUTION PANELS. WHERE CONDUCTORS ARE ROUTED WITH OTHER EQUIPMENT NOT SELECTED FOR DEMOLITION, REMOVE CONDUITS TO NEAREST SHARED JUNCTION BOX. REMOVE ALL UNUSED CONDUIT SUPPORT EQUIPMENT. REMOVE ALL ASSOCIATED CONTROL CABLES. PREPARE AREAS FOR NEW ELECTRICAL EQUIPMENT INSTALLATION. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL EQUIPMENT DEMOLITION WITH OWNER AND OTHER CRAFTS.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NEW MATERIALS AND EQUIPMENT AS INDICATED IN THE SCHEDULES ON THE PROJECT DRAWINGS AND ALL ITEMS REQUIRED TO MAKE THE ELECTRICAL SYSTEMS FINISHED AND WORKING SYSTEMS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATIONS ASSOCIATED WITH EQUIPMENT PROVIDE BY OTHERS, AS DIRECTED BY THE OWNER, AND AS INDICATED ON THE PROJECT DRAWINGS.

WORK UNDER THIS CONTRACT CONSISTS OF THE FURNISHING, INSTALLATION, TESTING, AND GUARANTEE OF THE COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN. ALL ELECTRICAL WORK SHOWN AND REQUIRED SHALL BE BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE STATED. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL MINOR ITEMS OBVIOUSLY AND REASONABLY NECESSARY FOR THE COMPLETION OF THE WORK AND MAKE FINAL CONNECTIONS. THE FOLLOWING IS A GENERAL SUMMARY OF WORK INCLUDED, AND IS NOT INTENDED TO BE ALL INCLUSIVE:

A. THE ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY ELECTRICAL DISTRIBUTION, TEMPORARY LIGHTING, AND TEMPORARY GENERAL PURPOSE RECEPTACLES FOR THE AREAS OF CONSTRUCTION AND FOR THE PARTICIPATING CONTRACTORS. ALL TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH NEC ARTICLE 590 – TEMPORARY INSTALLATIONS, AND MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION.
B. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW CONDUIT, WIRING, AND ELECTRICAL CONNECTIONS FOR THE NEW DEVICES AND EQUIPMENT AS INDICATED.
C. THE ELECTRICAL CONTRACTOR SHALL PROVIDE RECORD COPY DOCUMENTATION OF ALL THE NEW ELECTRICAL INSTALLATIONS. THE RECORD COPY DOCUMENTATION SHALL INCLUDE ALL ADJUSTMENTS TO THE EXISTING INSTALLATIONS AFFECTED BY THE NEW CONSTRUCTION.

ALL WORK UNDER THIS CONTRACT SHALL BE GOVERNED BY, AND SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE FOLLOWING CODES OR STANDARDS:

1. THE OWNER
2. STATE FIRE COMMISSION AND OR FIRE MARSHALL.
3. NATIONAL ELECTRICAL CODE (NEC).
4. NATIONAL FIRE CODE AS PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
5. NATIONAL ELECTRICAL SAFETY CODE (NESC).
6. INTERNATIONAL BUILDING CODE (IBC).
7. OTHER STATE, COUNTY, OR APPLICABLE JURISDICTIONAL LAWS, ORDINANCES, OR REGULATIONS.
8. COMPLY WITH ACCEPTED STANDARDS OF WORKMANSHIP AS RECOGNIZED BY THE NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION (NECA) INSTALLATION STANDARDS MANUAL.

THE FINAL INSTALLATION SHALL CONFORM TO THE CURRENT REVISION OF THE NFPA REGULATIONS, AND IEEE STANDARDS, AND ALL MATERIALS UTILIZED SHALL COMPLY WITH APPLICABLE STANDARDS OF NEMA AND ANSI.

ALL ELECTRICAL WORK SHALL BE INSPECTED AND APPROVED BY ALL LOCAL JURISDICTIONAL AUTHORITIES. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR DETERMINATION AND COORDINATION OF PROPER INSPECTIONS AND NOTIFICATION OF ALL JURISDICTIONAL AUTHORITIES UNDER THIS ITEM.

ALL MATERIALS USED FOR THE PROJECT SHALL BE LISTED AND CLASSIFIED BY UNDERWRITERS LABORATORIES, INC. AS SUITABLE FOR PURPOSE SPECIFIED AND INSTALLATION.

THE INSTALLATIONS SHALL BE PERFORMED IN COMPLIANCE WITH OSHA AND SAFE CONSTRUCTION PRACTICES, AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THIS PROVISION.

ALL HANDLING AND DISPOSAL OF REMOVED EQUIPMENT OR REFUSE SHALL COMPLY WITH ALL STATE AND FEDERAL EPA REGULATIONS. DOCUMENTATION OF PROPER DISPOSAL SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION, IN WRITING, PRIOR TO BEING HANDLED OR DISTURBED BY THE ELECTRICAL CONTRACTOR.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW COMPONENTS WHICH HAVE FAULT WITHSTAND CAPABILITY SUITABLE FOR THE INSTALLATION AND WHICH WILL PROVIDE APPROPRIATE PROTECTION FOR ANY NEW EQUIPMENT. IDENTIFY ANY EQUIPMENT COORDINATION PROBLEMS WITH THE ENGINEER.

THE DRAWINGS FOR THE ELECTRICAL WORK ARE COMPLETELY DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK, AND TO INDICATE THE GENERAL ARRANGEMENTS AND LOCATIONS OF EQUIPMENT, OUTLETS, LIGHT FIXTURES, SWITCHES COMMUNICATION DEVICES, ETC. SCALING OF THE DRAWINGS IS NOT SUFFICIENT OR ACCURATE FOR DETERMINING EQUIPMENT LOCATIONS. MAKE ALL NECESSARY FIELD MEASUREMENTS TO ASSURE CORRECT FIT PRIOR TO ORDERING ELECTRICAL EQUIPMENT AND ASSOCIATED MATERIAL.

SECTION 260503 EQUIPMENT WIRING CONNECTIONS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW EQUIPMENT ELECTRICAL CONNECTIONS, THE ELECTRICAL CONTRACTOR SHALL COORDINATE AND MAKE ELECTRICAL CONNECTIONS IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S INSTRUCTIONS. REVIEW SHOP DRAWINGS, PRODUCT DATA, MANUFACTURER'S WIRING DIAGRAMS, MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND EQUIPMENT LOCATION PRIOR TO ROUGH–IN AND ELECTRICAL INSTALLATIONS.

THE ELECTRICAL CONTRACTOR SHALL MAKE CONDUIT CONNECTIONS TO EQUIPMENT USING FLEXIBLE CONDUIT. USE LIQUID–TIGHT FLEXIBLE CONDUIT WITH WATERTIGHT CONNECTORS IN DAMP OR WET LOCATIONS. CONNECT HEAT PRODUCING EQUIPMENT USING WIRE AND CABLE WITH INSULATION SUITABLE FOR TEMPERATURES ENCOUNTERED. PROVIDE RECEPTACLE OUTLET AND ATTACHMENT PLUG TO ACCOMMODATE EQUIPMENT CONNECTIONS, AS INDICATED.

SECTION 260519 LOW–VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW ELECTRICAL WIRE AND CABLE, AND WIRING CONNECTORS AND CONNECTIONS. ELECTRICAL WIRING SHALL BE SINGLE CONDUCTOR STRANDED COPPER WIRE WITH THHN/THWN INSULATION RATED AT 600V.

THE ELECTRICAL CONTRACTOR SHALL ROUTE WIRE AND CABLE AS REQUIRED TO MEET PROJECT CONDITIONS. INSTALL CABLE IN ACCORDANCE WITH THE NECA "STANDARD OF INSTALLATION." USE CONDUCTOR NOT SMALLER THAN 12 AWG FOR POWER AND LIGHTING CIRCUITS. USE CONDUCTOR NOT SMALLER THAN 14 AWG FOR CONTROL CIRCUITS.

SECTION 260526 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT GROUNDING CONDUCTORS AND ELECTRICAL SYSTEM BONDING, AS INDICATED. ALL ELECTRICAL SYSTEM GROUNDING CONDUCTORS AND BONDING SHALL BE INSTALLED IN ACCORDANCE WITH IEEE 142 AND IEEE 1000.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE A SEPARATE, INSULATED CONDUCTOR WITHIN EACH FEEDER. THE GROUNDING CONDUCTOR SHALL BE TERMINATED AT EACH END ON A SUITABLE LUG, BUS, OR BUSHING. THE ELECTRICAL CONTRACTOR SHALL BOND TOGETHER EACH METALLIC RACEWAY, PIPE, DUCT, AND OTHER METAL OBJECTS ASSOCIATED WITH ELECTRICAL EQUIPMENT FRAMES, AND ELECTRICAL EQUIPMENT.

SECTION 260529 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL CONDUIT AND EQUIPMENT SUPPORTS, ANCHORS AND FASTENERS, AND FIRESTOPPING RELATING TO ELECTRICAL WORK AS FOLLOWS:

A. LOCATE AND INSTALL ANCHORS, FASTENERS, AND SUPPORTS IN ACCORDANCE WITH NECA "STANDARD OF INSTALLATION".
   1. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.
   2. DO NOT USE SPRING STEEL CLIPS AND CLAMPS.
   3. OBTAIN PERMISSION FROM THE ENGINEER BEFORE DRILLING OR CUTTING STRUCTURAL MEMBERS.
B. FABRICATE SUPPORTS FROM STRUCTURAL STEEL OR FORMED STEEL MEMBERS. RIGIDLY WELD MEMBERS OR USE HEXAGON–HEAD BOLTS TO PRESENT NEAT APPEARANCE WITH ADEQUATE STRENGTH AND RIGIDITY. USE SPRING LOCK WASHERS UNDER ALL NUTS.
C. INSTALL SURFACE–MOUNTED CABINETS AND PANELBOARDS WITH MINIMUM OF FOUR ANCHORS.
D. IN WET AND DAMP LOCATIONS USE STEEL CHANNEL SUPPORTS TO STAND CABINETS AND PANELBOARDS (1) INCH OFF WALL.
E. USE SHEET METAL CHANNEL TO BRIDGE STUDS ABOVE AND BELOW CABINETS AND PANELBOARDS RECESSED IN HOLLOW PARTITIONS.
F. INSTALL MATERIAL AT FIRE RATED CONSTRUCTION PERIMETERS AND OPENINGS CONTAINING PENETRATING SLEEVES, PIPING, DUCTWORK, CONDUIT AND OTHER ITEMS, REQUIRING FIRESTOPPING. APPLY FIRESTOPPING MATERIAL IN SUFFICIENT THICKNESS TO ACHIEVE REQUIRED FIRE AND SMOKE RATING.

SECTION 260533 RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW CONDUIT, WIREWAYS, OUTLET BOXES, AND PULL AND JUNCTION BOXES TO MEET THE ELECTRICAL SYSTEM REQUIREMENTS. INSTALL CONDUIT AND BOXES IN ACCORDANCE WITH NECA "STANDARD OF INSTALLATION." THE TYPE OF CONDUIT AND BOXES TO BE USED IN VARIOUS LOCATIONS IS AS FOLLOWS;

A. CONCEALED WITHIN INTERIOR WALLS OR ABOVE ACCESSIBLE CEILINGS: EMT, MC AND AC.
B. EXPOSED CONDUIT WHEN SUBJECT TO POSSIBLE PHYSICAL DAMAGE: RMC.
C. EXPOSED CONDUIT WHERE NOT SUBJECT TO POSSIBLE PHYSICAL DAMAGE: EMT.
D. BETWEEN OUTLET BOXES AND/OR PULL BOXES LOCATED ABOVE HUNG OR FURRED CEILINGS: EMT, MC AND AC.
E. WET AND DAMP LOCATIONS: RMC, LFMC AND SCHEDULE 40 PVC.
F. UNDERGROUND LOCTIONS: RMC AND SCHEDULE 40 PVC.
G. CONDUIT MINIMUM SIZE: 3/4 INCH.
H. SHEET METAL OUTLET BOXES: NEMA OS 1, GALVANIZED STEEL.
I. PULL AND JUNCTION BOXES: NEMA OS 1, GALVANIZED STEEL.

MC AND AC CABLES INSTALLED SHALL COMPLY WITH ALL NEC REQUIREMENTS AND SHALL BE LISTED AND RATED FOR THE SPACES AND AREAS WHERE INSTALLED SUCH AS, BUT NOT LIMITED TO, PATIENT CARE SPACES OR HAZARDOUS LOCATIONS.

THE ELECTRICAL CONTRACTOR SHALL VERIFY OUTLET, LIGHT FIXTURE, SWITCH, EQUIPMENT LOCATIONS, CONDUIT ROUTES, AND CONDUIT TERMINATIONS PRIOR TO ROUGH–IN. ARRANGE CONDUIT AND BOX SUPPORTS TO PREVENT MISALIGNMENT DURING WIRING INSTALLATION. THE ELECTRICAL CONTRACTOR SHALL ROUTE CONDUIT THROUGH ROOF OPENINGS FOR PIPING AND DUCTWORK OR THROUGH SUITABLE ROOF JACK WITH PITCH POCKET. GROUND AND BOND ALL CONDUITS AND BOXES.

THE ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHTS AND LOCATION OF OUTLETS AND SWITCHES MOUNTED ABOVE COUNTERS, BENCHES, AND BACKSPLASHES WITH THE ARCHITECTURAL ELEVATIONS. LOCATE JUNCTION BOXES TO ALLOW LUMINAIRES TO BE POSITIONED AS SHOWN ON THE ELECTRICAL PLAN AND ARCHITECTURAL REFLECTED CEILING PLAN.

THE ELECTRICAL CONTRACTOR SHALL INSTALL CONDUIT AND BOXES TO PRESERVE THE FIRE RESISTANCE RATING OF PARTITIONS AND OTHER ELEMENTS.

SECTION 260553 IDENTIFICATION FOR ELECTRICAL SYSTEMS

THE NEW ELECTRICAL DISTRIBUTION EQUIPMENT SHALL HAVE SIGNAGE INDICATING NAME, SOURCE OF POWER, AND MAIN DISCONNECTING MEANS. SIGNAGE SHALL BE ENGRAVED BLACK LETTERING ON WHITE, THREE–LAYER LAMINATED PLASTIC MATERIAL, PERMANENTLY AFFIXED TO THE EQUIPMENT. SECURE NAMEPLATE TO THE EQUIPMENT'S FRONT DOOR SURFACE OF SWITCHBOARDS AND PANELBOARDS. IN ALL AREAS, LABEL EACH CONDUCTOR AT PANELBOARD GUTTERS, PULL BOXES, OUTLET AND JUNCTION BOXES, AND AT EACH LOAD CONNECTION. THE ELECTRICAL CONTRACTOR SHALL UPDATE EXISTING PANEL SCHEDULES PER NEW ARRANGEMENTS AND WIRING.

SECTION 262413 SWITCHBOARDS

THE ELECTRICAL CONTRACTOR SHALL PROVIDED AND INSTALL THE NEW DISTRIBUTION SWITCHBOARDS, AS INDICATED. INSTALL NEW SWITCHBOARDS IN ACCORDANCE WITH NEMA PB 1.1 AND THE NECA "STANDARD OF INSTALLATION."

THE ELECTRICAL CONTRACTOR SHALL FEED ALL SWITCHBOARDS SUPPLY FEEDS WITH CONDUIT AND INDIVIDUAL CONDUCTORS. EM CABLES SHALL BE FOR BRANCH CIRCUITS FOR UTILIZATION EQUIPMENT ONLY.

THE ELECTRICAL CONTRACTOR SHALL GROUND AND BOND EACH SWITCHBOARD. PROVIDE ENGRAVED PLASTIC NAMEPLATE AND TYPE CIRCUIT DIRECTORY FOR EACH NEW SWITCHBOARD.

SECTION 262416 PANELBOARDS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW DISTRIBUTION PANELBOARDS, AS INDICATED. INSTALL EACH NEW PANELBOARD IN ACCORDANCE WITH NEMA PB 1.1 AND THE NECA "STANDARD OF INSTALLATION". ACCEPTABLE PANELBOARD MANUFACTURERS ARE GENERAL ELECTRIC, SQUARE D, OR ENGINEER APPROVED EQUAL.

THE DISTRIBUTION PANELBOARD SHALL BE NEMA PB 1, CIRCUIT BREAKER TYPE WITH COPPER BUS AND COPPER GROUND BUS. THE PANELBOARD SHALL HAVE A MINIMUM INTEGRATED SHORT CIRCUIT RATING OF 22,000 AMPERES RMS SYMMETRICAL FOR 208Y/120 VOLT PANELBOARD, AND 35,000 AMPERES RMS SYMMETRICAL FOR 480Y/277 VOLT PANELBOARD. THE CIRCUIT BREAKERS SHALL BE MOLDED CASE CIRCUIT BREAKERS, NEMA AB 1, WITH INTEGRAL THERMAL AND INSTANTANEOUS MAGNETIC TRIP IN EACH POLE. PROVIDE UL LISTED, TYPE HACR CIRCUIT BREAKERS FOR AIR CONDITIONING EQUIPMENT BRANCH CIRCUITS.

THE ELECTRICAL CONTRACTOR SHALL FEED ALL PANELBOARDS SUPPLY FEEDS WITH CONDUIT AND INDIVIDUAL CONDUCTORS. EM CABLES SHALL BE FOR BRANCH CIRCUITS FOR UTILIZATION EQUIPMENT ONLY.

THE ELECTRICAL CONTRACTOR SHALL GROUND AND BOND EACH PANELBOARD. PROVIDE ENGRAVED PLASTIC NAMEPLATE AND TYPED CIRCUIT DIRECTORY FOR EACH NEW AND ADJUSTED PANELBOARD.

SECTION 262726 WIRING DEVICES

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW WALL SWITCHES, RECEPTACLES, AND DEVICE PLATES, AS INDICATED. INSTALL ALL WIRING DEVICES PLUMB AND LEVEL, AND IN ACCORDANCE WITH THE NECA "STANDARD OF INSTALLATION". INSTALL SWITCHES WITH "OFF" POSITION DOWN. INSTALL WALL DIMMERS TO ACHIEVE FULL RATING SPECIFIED AND INDICATED AFTER DERATING FOR GANGING AS INSTRUCTED BY THE MANUFACTURER. INSTALL GENERAL DUTY RECEPTACLES WITH THE GROUNDING POLE ON TOP.

THE ELECTRICAL CONTRACTOR SHALL NOT SHARE NEUTRAL CONDUCTORS FOR THE ELECTRICAL CIRCUITS. CONNECT EACH WIRING DEVICE GROUNDING TERMINAL TO THE OUTLET BOX WITH A BONDING JUMPER. THE ELECTRICAL CONTRACTOR SHALL OPERATE EACH WALL SWITCH WITH THE CIRCUIT ENERGIZED AND VERIFY PROPER OPERATION. VERIFY THAT EACH RECEPTACLE DEVICE IS ENERGIZED AND TEST EACH RECEPTACLE DEVICE FOR PROPER OPERATION. TEST EACH GFCI RECEPTACLE DEVICE FOR PROPER OPERATION.

THE ELECTRICAL CONTRACTOR SHALL INSTALL DECORATIVE PLATES ON SWITCH, RECEPTACLE, AND BLANK OUTLETS IN FINISHED AREAS. USE JUMBO SIZE PLATES FOR OUTLETS INSTALLED IN MASONRY WALLS. INSTALL GALVANIZED STEEL PLATES ON OUTLET AND JUNCTION BOXES IN UNFINISHED AREAS, ABOVE ACCESSIBLE CEILINGS, AND ON SURFACE MOUNTED OUTLETS. INSTALL PROTECTIVE RINGS ON ACTIVE FLUSH COVER SERVICE FITTINGS.

THE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF OUTLET BOXES WITH THE ARCHITECTURAL ELEVATIONS TO OBTAIN EXACT MOUNTING HEIGHTS SPECIFIED AND INDICATED ON THE DRAWINGS. INSTALL WALL SWITCHES 48 INCHES ABOVE FINISHED FLOOR. INSTALL CONVENIENCE RECEPTACLES 18 INCHES ABOVE FINISHED FLOOR. INSTALL CONVENIENCE RECEPTACLES 6 INCHES ABOVE BACKSPLASH OF COUNTER. INSTALL DIMMER SWITCHES 48 INCHES ABOVE FINISHED FLOOR. INSTALL TELEPHONE JACKS 18 INCHES ABOVE FINISHED FLOOR. INSTALL TELEPHONE JACKS FOR FORWARD–REACH WALL TELEPHONE TO POSITION TOP OF TELEPHONE AT 54 INCHES ABOVE FINISHED FLOOR.

SECTION 262813 FUSES

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW FUSES, AS INDICATED. INSTALL FUSES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL FUSE WITH LABEL ORIENTED SUCH THAT MANUFACTURER, TYPE, AND SIZE ARE EASILY READ. ACCEPTABLE MANUFACTURERS ARE BUSSMAN, GOULD SHAWMUT, LITTLEFUSE OR EQUAL.

SECTION 262818 ENCLOSED CIRCUIT BREAKERS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW ENCLOSED MOLDED–CASE CIRCUIT BREAKERS AS INDICATED. INSTALL ENCLOSED CIRCUIT BREAKERS IN ACCORDANCE WITH THE NECA "STANDARD OF INSTALLATION". LABEL THE ENCLOSED CIRCUIT BREAKER TO INDICATE THE EQUIPMENT SERVED AND ORIENT TOP OF ENCLOSURE 6'–0"AFF. LABEL ENCLOSED CIRCUIT BREAKERS TO INDICATE EQUIPMENT SERVED. ACCEPTABLE MANUFACTURERS ARE GENERAL ELECTRIC AND SQUARE D.

THE ENCLOSED CIRCUIT BREAKERS SHALL BE SHALL BE LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, AND MARKED FOR INTENDED USE. THE ENCLOSED CIRCUIT BREAKERS SHALL COMPLY WITH NEMA AB 1, WITH INTERRUPTING CAPACITY TO MEET AVAILABLE FAULT CURRENTS, AND NEMA KS 1. THE CIRCUIT BREAKERS SHALL BE MOLDED–CASE TYPE WITH INVERSE TIME–CURRENT ELEMENT FOR LOW–LEVEL OVERLOADS, INSTANTANEOUS MAGNETIC TRIP ELEMENT FOR SHORT CIRCUITS, AND ADJUSTABLE MAGNETIC TRIP SETTING.

SECTION 262819 ENCLOSED SWITCHES

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW FUSIBLE AND NON–FUSIBLE SAFETY DISCONNECT SWITCHES, AS INDICATED. INSTALL ENCLOSED SWITCHES IN ACCORDANCE WITH THE NECA "STANDARD OF INSTALLATION." LABEL DISCONNECTS TO INDICATE EQUIPMENT SERVED. ACCEPTABLE MANUFACTURERS ARE GENERAL ELECTRIC AND SQUARE D, OR ENGINEER APPROVED EQUAL.

THE NEW SAFETY DISCONNECT SWITCHES SHALL BE HEAVY–DUTY TYPE, ENCLOSED, LOAD INTERRUPTER KNIFE SWITCH. THE OPERATING HANDLE SHALL BE LOCKABLE IN THE "OFF" POSITION, TYPE NEMA 1 FOR INTERIOR DRY LOCATIONS AND TYPE NEMA 3R FOR EXTERIOR LOCATIONS.

SECTION 265100 INTERIOR LIGHTING

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW INTERIOR LUMINAIRES AND ACCESSORIES, EXIT SIGNS, BALLASTS, AND LAMPS, AS INDICATED. THE NEW LIGHT FIXTURES SHALL BE LISTED AND LABELED BY UNDERWRITERS LABORATORIES, INC. AS SUITABLE FOR THE PURPOSE SPECIFIED AND INSTALLATION LOCATION. INSTALL ACCESSORIES FURNISHED WITH EACH LUMINAIRE.

THE ELECTRICAL CONTRACTOR SHALL INSTALL SUSPENDED LUMINAIRES USING PENDANTS SUPPORTED FROM SWIVEL HANGERS. PROVIDE PENDANT LENGTH REQUIRED TO SUSPEND LUMINAIRE AT INDICATED HEIGHT. INSTALL SURFACE MOUNTED LUMINAIRES AND EXIT SIGNS PLUMB AND ADJUST TO ALIGN WITH BUILDING LINES AND WITH EACH OTHER. FOR EXPOSED GRID CEILINGS, SUPPORT SURFACE MOUNTED LUMINAIRES ON GRID CEILING DIRECTLY FROM BUILDING STRUCTURE. SECURE ALL NEW LUMINAIRE INSTALLATIONS TO PREVENT MOVEMENT.

THE ELECTRICAL CONTRACTOR SHALL CLEAN ELECTRICAL PARTS TO REMOVE CONDUCTIVE AND DELETERIOUS MATERIALS. REMOVE DIRT AND DEBRIS FROM ENCLOSURES. CLEAN PHOTOMETRIC CONTROL SURFACES AS RECOMMENDED BY MANUFACTURER. CLEAN FINISHES AND TOUCH UP DAMAGE. OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR PROPER CONNECTION AND OPERATION. AIM AND ADJUST LUMINAIRES AS DIRECTED. POSITION EXIT SIGN DIRECTIONAL ARROWS AS INDICATED. RELAMP LUMINAIRES THAT HAVE FAILED LAMPS AT SUBSTANTIAL COMPLETION.

SECTION 265600 EXTERIOR LIGHTING

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW EXTERIOR LIGHT FIXTURES, LIGHT FIXTURE LAMPS, ACCESSORIES, LIGHT FIXTURE POSTS, AND LIGHT FIXTURE POLES, AS INDICATED. THE NEW LIGHT FIXTURES SHALL BE LISTED AND LABELED BY UNDERWRITERS LABORATORIES, INC. AS SUITABLE FOR THE PURPOSE SPECIFIED AND INSTALLATION LOCATION. INSTALL ACCESSORIES FURNISHED WITH EACH LIGHT FIXTURE.

THE ELECTRICAL CONTRACTOR SHALL INSTALL POST/POLE MOUNTED LIGHT FIXTURES INCLUDING LAMPS, ALL SOCKETS, REFLECTORS, LENSES, HOUSINGS, AND OTHER COMPONENTS REQUIRED TO POSITION, ENERGIZE, AND PROTECT THE LAMP AND DISTRIBUTE THE LIGHT. PROVIDE AND INSTALL ALL REQUIRED CONDUIT, BOXES, WIRING, CONNECTORS, HARDWARE, POLES, FOUNDATIONS, SUPPORTS, TRIM, ACCESSORIES, ETC. AS NECESSARY FOR A COMPLETE OPERATING SYSTEM. PROVIDE PRODUCTS SUITABLE TO WITHSTAND NORMAL HANDLING, INSTALLATION, AND SERVICE WITHOUT ANY DAMAGE, DISTORTION, CORROSION, FADING, DISCOLORING, ETC.

THE ELECTRICAL CONTRACTOR SHALL INSTALL PRODUCTS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. INSTALL LUMINAIRES SECURELY, IN A NEAT AND WORKMANLIKE MANNER. INSTALL LUMINAIRES PLUMB AND SQUARE AND ALIGNED WITH BUILDING LINES AND WITH ADJACENT LUMINAIRES. BOND PRODUCTS AND METAL ACCESSORIES TO BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR AND POLE BASE GROUND BAR.

DIVISION 27/28 GENERAL REQUIREMENTS

SECTION 270500 COMMON WORK RESULTS FOR COMMUNICATIONS

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL CABLING FOR VOICE AND DATA COMMUNICATIONS AS INDICATED. INSTALL NEW CABLING FOR VOICE AND DATA COMMUNICATIONS IN ACCORDANCE WITH TIA/EIA 568. INSTALL COMMUNICATION PATHWAYS IN ACCORDANCE WITH TIA/EIA 569.

THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONDUIT, OUTLET BOXES, COMMUNICATION WIRING, WIRING SUPPORT, COMMUNICATION OUTLETS, WALL PLATES, AND ASSOCIATED TERMINATIONS AND TESTING. COORDINATE ALL NEW INSTALLATIONS AND RELOCATED INSTALLATIONS WITH THE OWNER.

SECTION 283111 FIRE ALARM

THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW FIRE ALARM AND DETECTION EQUIPMENT, CABLING, TERMINATIONS, AND THE REQUIREMENTS FOR EXTENDING, ADJUSTING, AND RELOCATING THE EXISTING AREA FIRE ALARM AND DETECTION SYSTEM AND EQUIPMENT. ALL WORK SHALL INCLUDE WIRING, CONNECTIONS, AND TECHNICAL SERVICES AS NEEDED TO INTERFACE THE REMAINING AND RELOCATED FIRE ALARM SYSTEM AND EQUIPMENT WITH THE NEW INSTALLATIONS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL WIRING, TERMINATION REQUIREMENTS, AND PROGRAMMING WITH THE MANUFACTURER. ALL NEW AND ADJUSTED INSTALLATIONS SHALL BE TESTED IN ACCORDANCE WITH THE NFPA AND WEST VIRGINIA STATE FIRE COMMISSION.

BIDDING INSTRUCTIONS

1. BASE BID

1.1. ELECTRICAL CONTRACTOR SHALL BID THE ELECTRICAL SERVICE INSTALLATION, LIGHTING CONTROL CIRCUIT AND INSTALLATION OF THE BRIDGE LIGHTING.
1.2. SUPPLY ALL CONDUITS, CONDUCTORS, PANEL, BRIDGE LIGHTS, AND SERVICE ENTRANCE EQUIPMENT REQUIRED FOR ELECTRIC EQUIPMENT OPERATION.
1.3. THE LIGHTING CONTROL CIRCUIT SHALL BE INSTALLED PER THE CONTROL DETAIL ON DRAWING E501. FUTURE LIGHTING CIRCUITS SHALL BE SUPPLIED FORM CONTROLLER.
1.4. SUPPLY ALL EQUIPMENT NECESSARY FOR THE OPERATION OF THE PEDESTRIAN BRIDGE LIGHTING.

2. ALTERNATE 2

2.1. ELECTRICAL CONTRACTOR SHALL BID INSTALLATION OF THE PARKING LOT LIGHT POLES AND FIXTURES. INSTALL ALL CONDUITS AND CONDUCTORS INDICATED.
2.2. PARKING LOT LIGHTING SHALL BE CONTROLLED THROUGH THE LIGHTING CONTROL CIRCUIT INSTALLED IN THE BASE BID.
2.3. ELECTRICAL CONTRACTOR SHALL BID THE INSTALLATION OF THE PEDESTRIAN PATH LIGHTING.
2.4. SUPPLY ALL CONDUITS, CONDUCTORS, AND FIXTURE POLES AND LIGHT FIXTURES.
2.5. ELECTRICAL CONTRACTOR SHALL BID THE PATH FIXTURE POLE BASES.
2.6. PATH LIGHTING SHALL BE CONTROLLED THROUGH THE LIGHTING CONTROL CIRCUIT INSTALLED IN THE BASE BID.

ELECTRICAL ABBREVIATIONS

A	AMP, AMPERE, AMPERAGE
A/V	AUDIO/VISUAL
AC	ARMORED CABLE OR ALTERNATING CURRENT
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ANNC	FIRE ALARM ANNUNCIATOR PANEL
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
C.	COUNTER HEIGHT****
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
COMM	COMMUNICATIONS
COMP	COMPRESSOR
CTRL	CONTROL
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
D	DIMMING
DWG	DRAWING
E	EMERGENCY
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EGC	EQUIPMENT GROUNDING CONDUCTOR
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EXIST, EX.	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FC	FOOT CANDLE(S)
FL	FLOOR
FT	FOOT OR FEET
GEN	GENERATOR
GFCI, GFI	GROUND FAULT CIRCUIT INTERUPPTER
GND	GROUND
HD	HAND DRYER
HOA	HAND–OFF–AUTOMATIC
HP	HORSEPOWER
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT–AMPERE
KW	KILOWATT
LC	LIGHTING CONTACTOR
LT/LTS	LIGHT/LIGHTS
MAX	MAXIMUM
MC	METAL CLAD
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MFGR	MANUFACTURER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NF	NON–FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
OHD	OVERHEAD DOOR
PC	PHOTOCELL
PH	PHASE
REC	RECEPTACLE
REV	REVISION
RM	ROOM
RMC	RIGID METAL CONDUIT
RTU	ROOF TOP UNIT
TEL	TELEPHONE
TV	TELEVISION
TYP	TYPICAL
UC	UNDER COUNTER
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITER'S LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
XMFR	TRANSFORMER

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	CSH	06/12/25

Drawing Description
CITY OF RAVENSWOOD
RAVENSWOOD, WV
PEDESTRIAN BRIDGE
GENERAL ELECTRICAL NOTES AND SPECIFICATIONS

CARL S. HENSON
No. 14330

Project:	2226039
Designed By:	CSH
Drawn By:	EGB
Checked By:	CSH
Scale:	N.T.S.
Plot Date:	06/12/25
Revision:	0

Drawing Number:
E000

ELECTRICAL SYMBOL LEGEND

	ALL ITEMS SHOWN AS DASHED ON DEMOLITION PLANS SHALL BE REMOVED UNLESS NOTED OTHERWISE.
	FLUORESCENT, INCANDESCENT, OR LED TYPE LIGHTING FIXTURES COMPLETE WITH LAMPS. REFER TO LIGHT FIXTURE SCHEDULE FOR DETAILS.
	EXTERIOR POLE–MOUNTED LED FIXTURES
	COORDINATE NUMBER OF FACES AND THE DIRECTIONAL ARROWS, AS REQUIRED. CONNECTION TO THE EXIT LIGHT FIXTURE SHALL BE MADE AHEAD OF THE LOCAL LIGHT SWITCHING CIRCUIT.
	SINGLE AND DOUBLE LED REMOTE HEAD EMERGENCY EGRESS FIXTURES
$	SINGLE POLE, 20A 120/277V SINGLE THROW SWITCH. MOUNT 46" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE.
$3	20A 120/277V THREE–WAY, SINGLE THROW SWITCH. MOUNT 46" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE.
$4	20A 120/277V FOUR–WAY, SINGLE THROW SWITCH. MOUNT 46" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE.
$K	20A 120/277V LOCK TYPE, HUBBELL SINGLE THROW SWITCH. MOUNT 46" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE.
$OS	20A 120/277V SINGLE BUTTON ON/OFF OCCUPANCY SENSOR, MOUNT 46" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE.
OS	CEILING MOUNT OCCUPANCY SENSOR, COORDINATE POWER PACK REQUIREMENTS AND QUANTITIES WITH THE MANUFACTURER.
PC	PHOTOCELL LIGHTING CONTROLLER. NOTE DETAIL DRAWINGS FOR MOUNTING DETAIL.
	DUPLEX GROUNDING TYPE RECEPTACLE, 20A 120V. MOUNT 18" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT. COORDINATE COLOR WITH OWNER.
GFCI	GROUND–FAULT CIRCUIT INTERRUPTER TYPE DUPLEX RECEPTACLE, 20A 120V. MOUNT 18" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT.
TV	DUPLEX GROUNDING TYPE RECEPTACLE, 20A 120V. MOUNT 84" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT.
	TWO (2) DUPLEX GROUNDING TYPE SPECIFICATION GRADE RECEPTACLE, 20A 120V. MOUNT IN COMMON BOX WITH COMMON PLATE 18" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT.
	DUPLEX GROUNDING TYPE RECEPTACLE, 20A, 125V. MOUNT IN FLOOR BOX WITH COMMON PLATE. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT.
	TWO (2) DUPLEX GROUNDING TYPE RECEPTACLES, 20A, 125V. MOUNT IN FLOOR BOX WITH COMMON PLATE. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT.
USB	COMBINATION 3.1A/5VDC USB CHARGERS WITH 20A, 125V DUPLEX GROUNDING TYPE RECEPTACLES. MOUNT IN COMMON BOX WITH COMMON PLATE AT 18" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT.
USB	TWO (2) COMBINATION 3.1A/5VDC USB CHARGERS WITH 20A, 125V DUPLEX GROUNDING TYPE RECEPTACLES. MOUNT IN COMMON BOX WITH COMMON PLATE AT 18" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT.
C	SUBSCRIPT "C" INDICATES DEVICE TO BE MOUNTED 6" ABOVE COUNTERTOP TO CENTERLINE.
R	SUBSCRIPT "R" INDICATES RED DEVICE CONNECTED TO EMERGENCY POWER.
WP	SUBSCRIPT "WP" INDICATES DEVICE INSTALLATION AND ENCLOSURE SHALL BE WEATHER–PROOF
	SPECIAL RECEPTACLE OR FEED. REFER TO DRAWINGS FOR DESCRIPTION.
	480Y/277V, 3ø 4W PANELBOARD. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.
	208Y/120V, 3ø 4W PANELBOARD. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.
	240V, 3ø 3W PANELBOARD. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.
	240/120V, 1ø 3W PANELBOARD. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.
	POINT OF ELECTRICAL CONNECTION TO EQUIPMENT. CONFIRM EQUIPMENT CONNECTION REQUIREMENTS AND ARRANGEMENT PRIOR TO ROUGH–IN. VERIFY EXACT LOCATION WITH ARCHITECTURAL DRAWINGS AND ARCHITECT.
A–2	ELECTRICAL CIRCUIT HOMERUN TO PANEL 'A' CIRCUIT #2 (EXAMPLE). ALL CIRCUIT WIRING SHALL BE (2) –#12 THHN/THWN CONDUCTORS AND (1)–#12 THHN/THWN GROUND CONDUCTOR IN 3/4" EMT, UNLESS NOTED OTHERWISE.
	NON–FUSED HEAVY–DUTY TYPE SAFETY DISCONNECT SWITCH. SIZE, POLES, AND NEMA TYPE AS INDICATED ON ELECTRICAL DRAWINGS.
	FUSED HEAVY–DUTY TYPE SAFETY DISCONNECT SWITCH. SIZE, POLES, FUSE SIZE, AND NEMA TYPE AS INDICATED ON ELECTRICAL DRAWINGS.
	COMBINATION MOTOR STARTER AND HEAVY–DUTY TYPE SAFETY DISCONNECT SWITCH. SIZE, POLES, FUSE SIZE, AND NEMA TYPE AS INDICATED ON ELECTRICAL DRAWINGS.
	STANDARD JUNCTION BOX WITH COVER. LOCATE AND CONNECT AS DIRECTED.
	HUBBEL QUAZITE 11"X18" PG STYLE POLYMER CONCRETE ENCLOSURE.

ELECTRICAL SYSTEM CONTROLS SYMBOL LEGEND

S	CEILING SPEAKER, FLUSH MOUNTED DEVICE. REFER TO DRAWINGS AND/ OR SPECIFICATIONS FOR DETAILS.
C	SECURITY CAMERA, CEILING MOUNTED DEVICE. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR CAMERA LOCATIONS AND/OR DETAILS.
	SECURITY CAMERA, WALL MOUNTED DEVICE. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR CAMERA LOCATIONS AND/OR DETAILS.
WAP	WIRELESS COMMUNICATIONS ACCESS POINT.
T	THERMOSTAT CONTROL JUNCTION BOX. E.C. IS RESPONSIBLE FOR INSTALLATION OF ROUGH–IN BOX AND CONDUIT FOR EQUIPMENT INSTALLATION. VERIFY EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH THE MECHANICAL DRAWINGS AND THE MECHANICAL CONTRACTOR.
	SPEAKER, SURFACE–MOUNTED DEVICE. REFER TO DRAWINGS AND/ OR SPECIFICATIONS FOR DETAILS.
	SINGLE–FACED CEILING/WALL MOUNTED CLOCK. VERIFY EXACT LOCATION WITH THE ARCHITECTURAL DRAWINGS AND ARCHITECT PRIOR TO ROUGH–IN.
PR	ACCESS CONTROL PROXIMITY CARD READER. REFER TO DRAWINGS FOR DETAILS AND SPECIFICATIONS.
RB	ACCESS CONTROL DOOR RELEASE BUTTON. REFER TO DRAWINGS FOR DETAILS AND SPECIFICATIONS.
TV	JUNCTION BOX FOR TELEVISION CABLE OUTLET. MOUNT AT 84" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. PROVIDE 4–11/16" SQUARE BOX WITH SINGLE–GANG PLASTER RING AND PROVIDE 3/4"C WITH PULL STRING FROM BOX TO 1' ABOVE FINISHED CEILING. VERIFY EXACT LOCATION WITH THE ARCHITECTURAL DRAWINGS AND ARCHITECT.
V	RJ45 TELEPHONE SYSTEM OUTLET. MOUNT AT 54" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. PROVIDE 4–11/16" SQUARE BOX WITH SINGLE–GANG PLASTER RING AND PROVIDE 3/4"C WITH PULL STRING FROM BOX TO 1' ABOVE FINISHED CEILING. INSTALL ONE (1) CAT 5e CABLE FROM OUTLET BOX TO COMMUNICATION ROOM AND TERMINATE AS DIRECTED BY THE OWNER. VERIFY EXACT LOCATION WITH THE ARCHITECTURAL DRAWINGS AND ARCHITECT.
T	RJ11 TELEPHONE SYSTEM OUTLET. MOUNT AT 54" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. PROVIDE 4–11/16" SQUARE BOX WITH SINGLE–GANG PLASTER RING AND PROVIDE 3/4"C WITH PULL STRING FROM BOX TO 1' ABOVE FINISHED CEILING. INSTALL ONE (1) CAT 5e CABLE FROM OUTLET BOX TO COMMUNICATION ROOM AND TERMINATE AS DIRECTED BY THE OWNER. VERIFY EXACT LOCATION WITH THE ARCHITECTURAL DRAWINGS AND ARCHITECT.
3	COMMUNICATION SYSTEM OUTLET. MOUNT AT 18" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. PROVIDE 4–11/16" SQUARE BOX WITH SINGLE–GANG PLASTER RING AND PROVIDE 3/4"C WITH PULL STRING FROM BOX TO 1' ABOVE FINISHED CEILING. PROVIDE RJ45 & VOIP JACKS & COVER PLATE WITH FINAL TERMINATIONS AT JACK. INSTALL CAT6 CABLES (UNLESS DESIGNATED OTHERWISE) FROM OUTLET BOX TO COMMUNICATION ROOM AND TERMINATE TO PUNCH–DOWN BLOCK (OR AS DIRECTED BY THE OWNER), LABEL, AND TEST. VERIFY EXACT LOCATION WITH THE ARCHITECTURAL DRAWINGS AND ARCHITECT. TYPICAL TWO COMMUNICATION WIRING (2) DROPS PER OUTLET LOCATION UNLESS OTHERWISE INDICATED BY SUBSCRIPT. (EXAMPLE: "3" INDICATES NUMBER THREE (3) NUMBER OF DROPS TO OUTLET LOCATION.)
	PUSH BUTTON. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.
ES	EMERGENCY STOP PUSH BUTTON. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.
	INTERCOM PAGING SYSTEM. REFER TO DRAWINGS FOR DETAILS AND SPECIFICATIONS.
K	EMERGENCY LOCKDOWN KEYED SWITCH. REFER TO DRAWINGS FOR DETAILS AND SPECIFICATIONS.
	SECURITY MOTION DETECTOR.

FIRE ALARM AND DETECTION SYMBOL LEGEND

	AUDIBLE AND VISUAL SIGNAL. MOUNT AT 82" A.F.F. TO CENTERLINE UNLESS OTHERWISE NOTED.
	VISUAL SIGNAL ONLY. MOUNT AT 82" A.F.F. TO CENTERLINE UNLESS OTHERWISE NOTED.
M	MANUALLY OPERATED PULL STATION MOUNT AT 46" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE.
CO	CARBON MONOXIDE DETECTOR MOUNTED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
S	AUTOMATIC SMOKE DETECTOR, PHOTOELECTRIC TYPE, CEILING MOUNTED.
S/CO	COMBINATION AUTOMATIC SMOKE AND CARBON MONOXIDE DETECTOR TYPE CEILING MOUNTED
D	AUTOMATIC DUCT SMOKE DETECTOR, PHOTOELECTRIC TYPE, CEILING MOUNTED. CONNECT TO EXISTING SECURITY SYSTEM
H	HEAT DETECTOR COMBINATION FIXED TEMP. AND RATE OF RISE, CEILING MOUNTED.
D	FIRE ALARM SYSTEMS MAGNETIC DOOR HOLDER. MOUNT AT 84" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH THE ARCHITECTURAL DRAWINGS AND ARCHITECT.
ANNC	REMOTE ANNUNCIATOR PANEL. MOUNT AT 54" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH THE ARCHITECTURAL DRAWINGS AND ARCHITECT.
FACP	FIRE ALARM CONTROL PANEL. MOUNT AT 54" A.F.F. TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT LOCATION WITH THE ARCHITECTURAL DRAWINGS AND ARCHITECT.
FS	SPRINKLER SYSTEM FLOW SWITCH. FURNISHED AND INSTALLED BY THE FIRE PROTECTION CONTRACTOR, CONNECTED TO THE FIRE ALARM AND DETECTION SYSTEM BY THE ELECTRICAL CONTRACTOR. VERIFY LOCATION AND EXACT QUANTITY WITH THE EQUIPMENT PROVIDER PRIOR TO ROUGH–IN AND ZONE ADDRESSABLE MONITOR MODULE ALLOCATION.
TS	SPRINKLER SYSTEM TAMPER SWITCH. FURNISHED AND INSTALLED BY THE FIRE PROTECTION CONTRACTOR, CONNECTED TO THE FIRE ALARM AND DETECTION SYSTEM BY THE ELECTRICAL CONTRACTOR. VERIFY LOCATION AND EXACT QUANTITY WITH THE EQUIPMENT PROVIDER PRIOR TO ROUGH–IN AND ZONE ADDRESSABLE MONITOR MODULE ALLOCATION.
	PUSH BUTTON. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.
ES	EMERGENCY STOP PUSH BUTTON. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.

ELECTRICAL DEMOLITION NOTES

1. THE GENERAL DEMOLITION NOTES LISTED HERE APPLY TO THE ELECTRICAL DEMOLITION DRAWINGS IN ADDITION TO ANY CODED NOTES INDICATED ON THE DEMOLITION DRAWINGS.
2. AN ATTEMPT HAS BEEN MADE TO SHOW ALL ELECTRICAL ITEMS TO REMAIN OR BE REMOVED. THE ELECTRICAL CONTRACTOR (EC) SHALL FIELD VERIFY EXISTING CONDITIONS AND REMOVE OR RELOCATE ANY ITEM WHICH INTERFERES WITH NEW CONSTRUCTION. THE SCHEDULED DEMOLITION IS BASED ON FIELD OBSERVATIONS AND EXISTING RECORD DOCUMENTS. THE ELECTRICAL CONTRACTOR SHALL REPORT DISCREPANCIES TO THE OWNER OR ENGINEER BEFORE DISTURBING EXISTING INSTALLATIONS.
3. THE ELECTRICAL CONTRACTOR (EC) SHALL DISCONNECT AND REMOVE EXISTING ELECTRICAL DISTRIBUTION EQUIPMENT, ELECTRICAL DEVICES, CONDUIT AND WIRING, AND ALL EQUIPMENT ACCESSORIES IN THE AREA AS INDICATED ON THE DEMOLITION DRAWING. THE ELECTRICAL CONTRACTOR SHALL REMOVE UNUSED CONDUIT AND WIRING TO THE SOURCE OF ELECTRICAL DISTRIBUTION.
4. THE ELECTRICAL CONTRACTOR (EC) SHALL PROTECT ALL EXISTING EQUIPMENT AND EXISTING INSTALLATIONS THAT ARE SCHEDULED TO REMAIN IN SERVICE FROM DAMAGE. REFEED ANY ITEM WHOSE WIRING IS INTERRUPTED DUE TO WORK IN ADJACENT AREAS.
5. THE ELECTRICAL CONTRACTOR (EC) SHALL REMOVE ALL HANGERS AND SUPPORTS SERVING CONDUIT AND WIRE BEING DEMOLISHED. PROVIDE AND/OR ADJUST EXISTING HANGERS TO SUPPORT ANY REMAINING CONDUIT AND WIRE, OR EQUIPMENT ADJACENT TO DEMOLISHED AREAS AND EQUIPMENT.
6. THE ELECTRICAL CONTRACTOR (EC) SHALL REMOVE ALL EXISTING WIRING AND CONDUITS BEING ABANDONED. ABANDONED CONDUITS SHALL BE CUT FLUSH AT CEILINGS AND FLOORS AND BE PROPERLY CLOSED.
7. MAKE ALL ELECTRICAL DEMOLITION SAFE FOR ALL PARTICIPATING CONTRACTORS. PROTECT ALL WIRING AND ELECTRICAL CONNECTIONS THAT REMAIN IN SERVICE FROM DAMAGE.

ELECTRICAL CONSTRUCTION NOTES

1. THE DRAWINGS INDICATE GENERAL ELECTRICAL INSTALLATIONS AND ASSOCIATED EQUIPMENT QUANTITIES. ALL NEW INSTALLATIONS SHALL BE COORDINATED WITH THE OWNER.
2. THE OWNER SHALL BE NOTIFIED IMMEDIATELY OF ANY PRESENCE OF ASBESTOS MATERIAL DISCOVERED DURING CONSTRUCTION. ANY ASBESTOS MATERIAL SHALL BE REMOVED BY OTHERS.
3. ALL BUILDING UTILITIES AND BUILDING STRUCTURES SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. THE ELECTRICAL CONTRACTOR (EC) SHALL BE RESPONSIBLE FOR RESTORING ALL EXISTING FEATURES AND REPAIRING ANY UTILITIES DAMAGED BY CONSTRUCTION TO A CONDITION SATISFACTORY TO THE OWNER.
4. ALL NEW ELECTRICAL INSTALLATIONS SHALL BE DOCUMENTED AND ELECTRICAL PANEL SCHEDULES UPDATED.
5. THE ELECTRICAL DESIGN DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATION OF EQUIPMENT AND DEVICES UNLESS DIMENSIONS ARE GIVEN OR OTHERWISE IMPLIED FOR CLEARANCES. ALL ELECTRICAL EQUIPMENT ARE TO BE INSTALLED ALONG WITH THE GENERAL PLANS. ALL LABOR AND MATERIALS AND OTHER RELATED WORK NECESSARY TO PROVIDE MINOR OFFSETS IN ELECTRICAL WORK AS REQUIRED TO AVOID CONFLICT WITH OTHER WORK OR CLEARANCES SHALL BE INCLUDED IN THE ELECTRICAL BID.
6. THE ELECTRICAL CONTRACTOR (EC) SHALL PROVIDE FIRESEALING OF ALL OPENINGS THROUGH FIRE RATED WALLS AND ASSEMBLIES CREATED BY NEW ELECTRICAL INSTALLATIONS OR THE SCHEDULED REMOVAL OF EXISTING INSTALLATIONS.

SECURITY SYSTEM AND CONTROLS LEGEND

	KEYPAD	ACP	ACCESS CONTROL PANEL
REX	REQUEST–TO–EXIT MOTION SENSOR	SSCP	SECURITY SYSTEM CONTROL PANEL
ES	ELECTRIC STRIKE	HE	VIDEO SERVER
DC	DOOR CONTACT	NODE	NODE
OHDC	OVERHEAD DOOR CONTACT	ELR	EXIT LATCH RETRACTION
CR	CARD READER	PR	AIPHONE INTERCOM & CARD READER

MATERIALS

- FIBER–REINFORCED CONCRETE
- CONCRETE
- CONCRETE MASONRY
- BRICK OR HOT MIX ASPHALT
- WELL–GRADED STONE/GRAVEL
- UNIFORM–GRADED STONE/GRAVEL
- WOOD BLOCKING
- RIGID INSULATION
- BATT INSULATION
- STEEL
- SOIL
- BEDROCK
- SAND
- CARPET (SURFACE)
- HARDWOOD FLOOR (SURFACE)
- WOOD SHEATHING (SURFACE)
- CERAMIC TILE (SURFACE)
- VCT (SURFACE)
- CLAY TILE FLOORING (SURFACE)
- SAND/GYPSUM/HOT MIX ASPHALT (SURFACE)

ANNOTATIONS

- CODED NOTE
- DEMOLITION NOTE
- REVISION TAG
- ELEVATION VIEW REFERENCE TAG
- INTERIOR ELEVATION REFERENCE TAG
- SECTION VIEW REFERENCE TAG
- DETAIL REFERENCE TAG
- CALLOUT AREA FOR VIEW (OPTIONAL)
- ROOM TAG (OFFICE 000)
- LEVEL REFERENCE TAG (FIRST FLOOR EL. 100'–0")
- COLUMN GRID TAG
- BEARING ELEVATION OR TOP SURFACE ELEVATION (100'–0")
- MARK TAG
- SLOPE (12 #)
- NORTH ARROWS (TRUE NORTH, PROJECT NORTH)
- MATCHLINE MXXX — CALLOUT SHEET ON WHICH THE DRAWING CONTINUES
- DRAWING TITLE — SCALE: 1/8"=1'–0"
- DRAWING REFERENCE — DRAWING TITLE — SCALE: 1/4"=1'–0" — DRAWING LOCATION (A / E110 E305) — DRAWING REFERENCE TAG LOCATION
- DETAIL REFERENCE — DRAWING TITLE — SCALE: 1/4"=1'–0" — DETAIL LOCATION (1 / A301 A501) — DETAIL REFERENCE TAG LOCATION

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	CSH	06/12/25

Drawing Description
CITY OF RAVENSWOOD
RAVENSWOOD, WV
PEDESTRIAN BRIDGE
ELECTRICAL SYMBOL LEGEND AND ABBREVIATIONS

CARL S. HENSON REGISTERED No. 14330 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	CSH
Drawn By:	EGB
Checked By:	CSH
Scale:	N.T.S
Plot Date:	06/12/25
Revision:	0

Drawing Number:
E001

PARKING LOT & FOOT BRIDGE
ELECTRICAL PLAN
SCALE: 1" = 240'

GENERAL NOTES:

A. REFER TO DRAWING E000 FOR BIDDING INSTRUCTIONS.

(#) CODED NOTES:

1. ROUTE THE 1 INCH CONDUIT SUPPLYING THE PEDESTRIAN POLE LIGHT FIXTURES TO THE BASE OF THE POLE. INSTALL PER POLE BASE DETAIL INDICATED. CONDUIT SUPPLYING PEDESTRIAN BRIDE LIGHTS SHALL BE ROUTED BYPASSING THE PATH POLE BASE.
2. ROUTE (2) 1 INCH CONDUITS TO THE WEST SIDE OF THE PEDESTRIAN BRIDGE. CONDUIT SHALL ROUTE BRIDGE LIGHTS AND PATH LIGHTING CIRCUITS SEPARATELY. PEDESTRIAN PATH POLE LIGHT CONDUIT SHALL ROUTE UNDER THE BRIDGE TO THE EAST END OF BRIDGE.
3. ROUTE (1) 1 INCH CONDUIT TO PEDESTRIAN PATH POLE LIGHT FIXTURES AS INDICATED.
4. EC SHALL MODIFY THE EXISTING ELECTRICAL SYSTEM TO ADD THE NEW LIGHTING DISTRIBUTION AND CONTROL PANELS. REFER TO DRAWING E501 FOR DETAILS ON MODIFICATIONS.

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	CSH	06/12/25

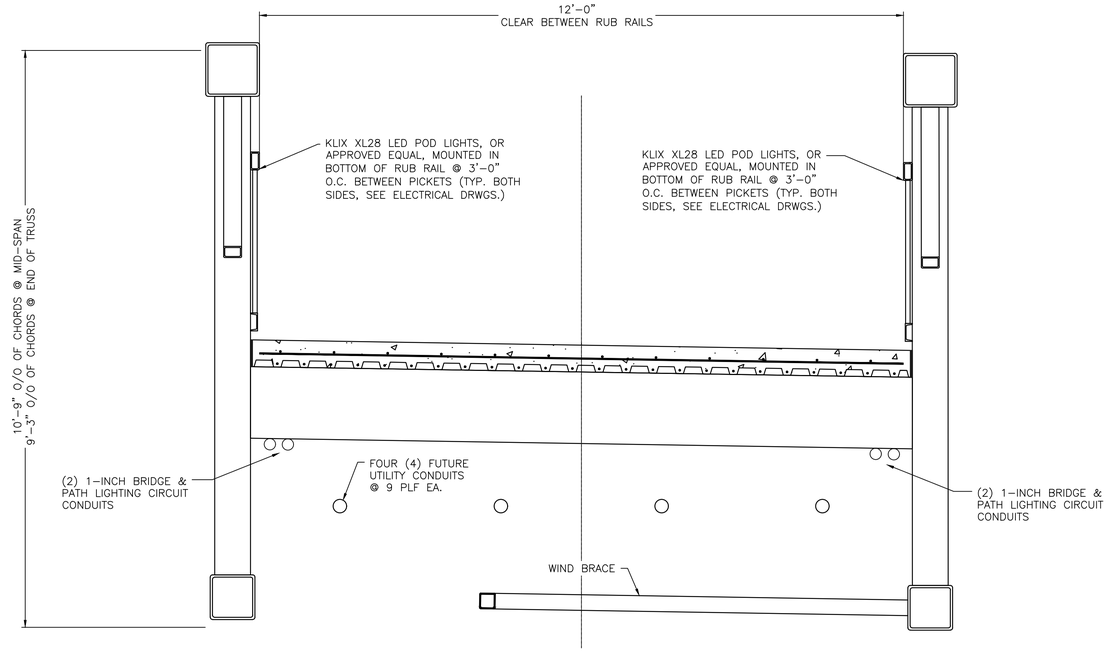
Drawing Description

CITY OF RAVENSWOOD
RAVENSWOOD, WV
PEDESTRIAN BRIDGE
ELECTRICAL SITE PLAN

CARL S. HENSON
REGISTERED
No. 14330
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	CSH
Drawn By:	EGB
Checked By:	CSH
Scale:	AS NOTED
Plot Date:	06/12/25
Revision:	0

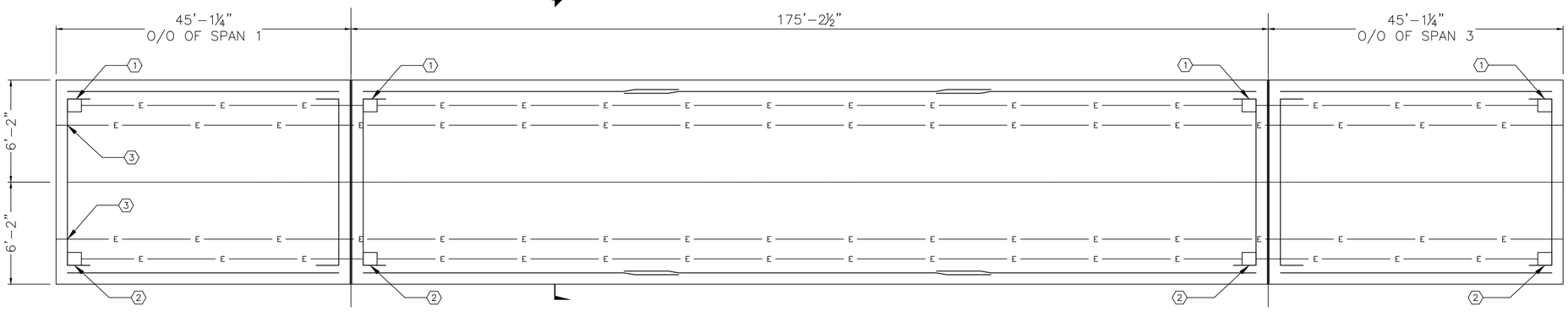
Drawing Number:
E101



A / E102

PEDESTRIAN BRIDGE ELEVATION

SCALE: N.T.S.



N

PEDESTRIAN BRIDGE ELECTRICAL LIGHTING PLAN

SCALE: N.T.S.

GENERAL NOTES:

A. REFER TO DRAWING E000 FOR BIDDING INSTRUCTIONS.
B. EC SHALL INSTALL ALL EQUIPMENT AND MATERIALS NECESSARY TO OPERATE THE 24VDC PEDESTRIAN BRIDGE KLIK LED LIGHTING FIXTURES IN THE RUB RAILS.

(#) CODED NOTES:

1. INSTALL THE PEDESTRIAN BRIDGE POWER SUPPLY (P.S.) ENCLOSURES IN THE POSITION INDICATED UNDER THE BRIDGE WALKWAY. ROUTE THE NORTH SIDE BRIDGE LIGHT CIRCUIT TO THE ENCLOSURE. EACH ENCLOSURE SHALL HAVE (2) 240 VOLT AC TO 24VDC P.S. FOR LED FIXTURES. SUPPLY A MAXIMUM OF 22 LED FIXTURES FORM EACH P.S. REFER TO THE LIGHTING SCHEDULE FOR THE MANUFACTURER'S MODEL NUMBER FOR THE SPECIFIED P.S. & ENCLOSURE.
2. INSTALL THE PEDESTRIAN BRIDGE POWER SUPPLY (P.S.) ENCLOSURES IN THE POSITION INDICATED UNDER THE BRIDGE WALKWAY. ROUTE THE SOUTH SIDE BRIDGE LIGHT CIRCUIT TO THE ENCLOSURE. EACH ENCLOSURE SHALL HAVE (2) 240 VOLT AC TO 24VDC P.S. FOR LED FIXTURES. SUPPLY A MAXIMUM OF 22 LED FIXTURES FORM EACH P.S. REFER TO THE LIGHTING SCHEDULE FOR THE MANUFACTURER'S MODEL NUMBER FOR THE SPECIFIED P.S. & ENCLOSURE.
3. ROUTE PEDESTRIAN PATH LIGHTING CIRCUIT CONDUITS UNDER THE BRIDGE. ROUTE THE THEIR ASSOCIATED NORTH AND SOUTH ROUTES ON DRAWINGS E101 & E103. INSTALL NEMA-4 JUNCTION BOXES FOR PER CABLE INSTALLATION REQUIREMENTS PER NEC.

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	CSH	06/12/25

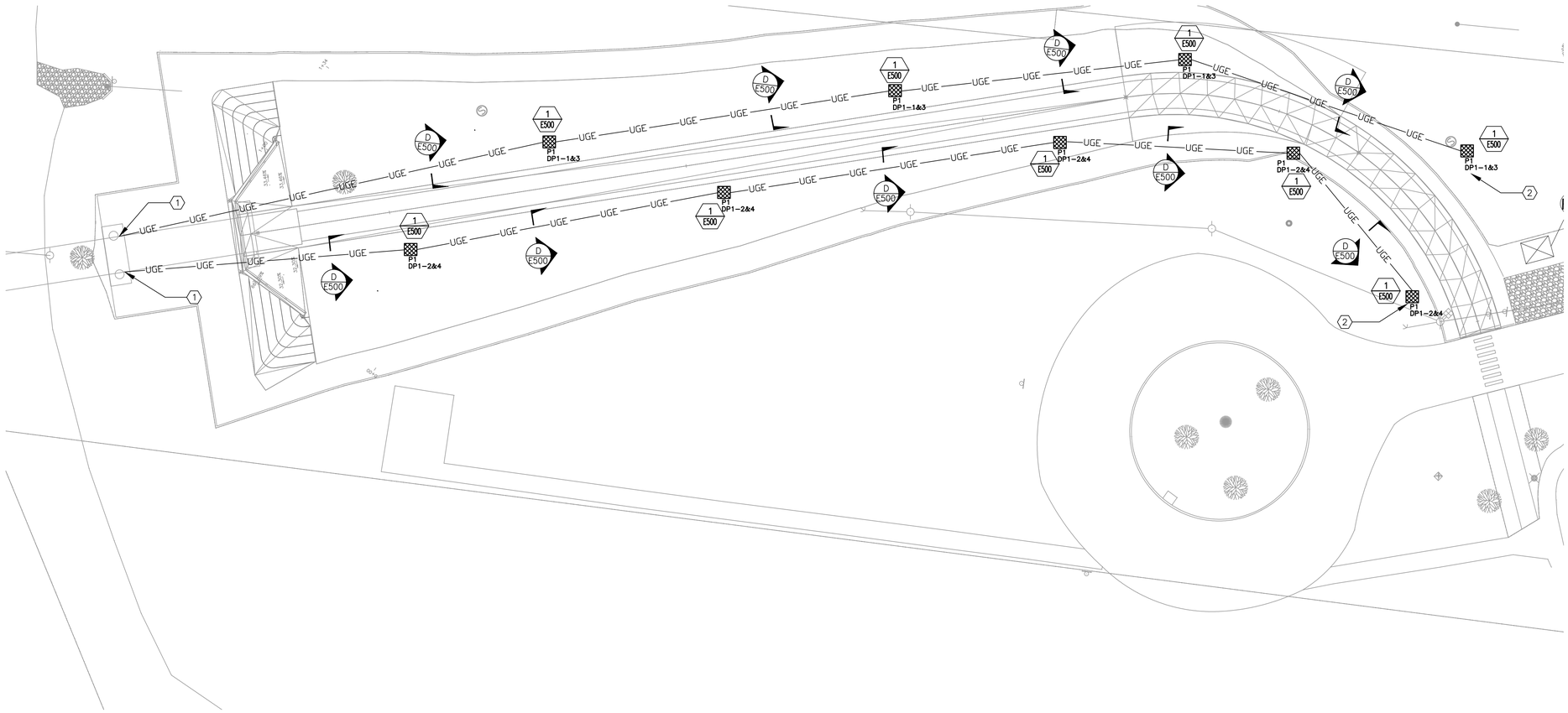
Drawing Description

CITY OF RAVENSWOOD
RAVENSWOOD, WV
PEDESTRIAN BRIDGE
ELECTRICAL SITE PLAN

CARL S. HENSON
REGISTERED
No. 14330
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	CSH
Drawn By:	EGB
Checked By:	CSH
Scale:	AS NOTED
Plot Date:	06/12/25
Revision:	0

Drawing Number:
E102



GENERAL NOTES:

A. REFER TO DRAWING E000 FOR BIDDING INSTRUCTIONS.

(#) CODED NOTES:

1. ROUTE (1) 1 INCH CONDUIT FROM THE EAST END OF THE PEDESTRIAN BRIDGE TO THE PEDESTRIAN LIGHT POLE BASES AS INDICATED.
2. ROUTE (1) 1 INCH CONDUIT FROM THE PATH POLE BASE TO AN IN GROUND JUNCTION BOX. CONDUIT AND BOX SHALL BE FOR EXTENSION OF LIGHTING CIRCUIT.

N

FOOT PATH
ELECTRICAL PLAN
SCALE: 1" = 240'

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	CSH	06/12/25

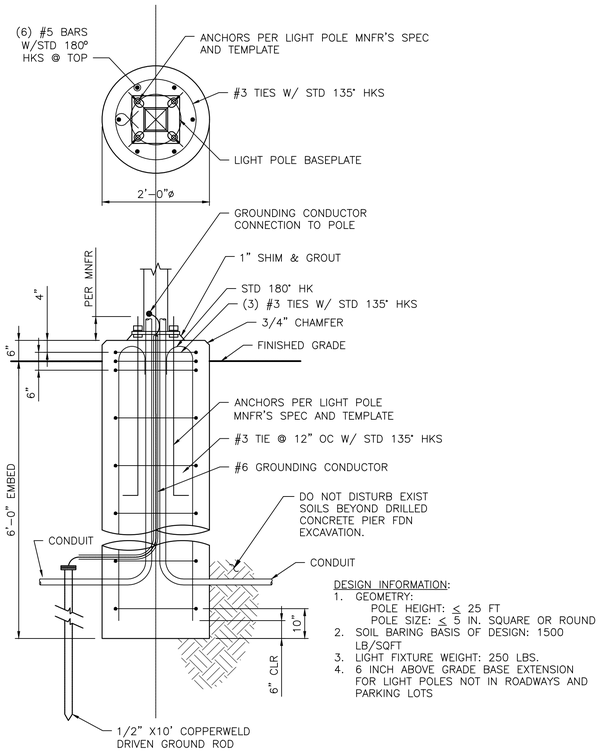
Drawing Description

CITY OF RAVENSWOOD
RAVENSWOOD, WV
PEDESTRIAN BRIDGE
ELECTRICAL SITE PLAN

CARL S. HENSON
REGISTERED
No. 14330
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	CSH
Drawn By:	EGB
Checked By:	CSH
Scale:	AS NOTED
Plot Date:	06/12/25
Revision:	0

Drawing Number:
E103

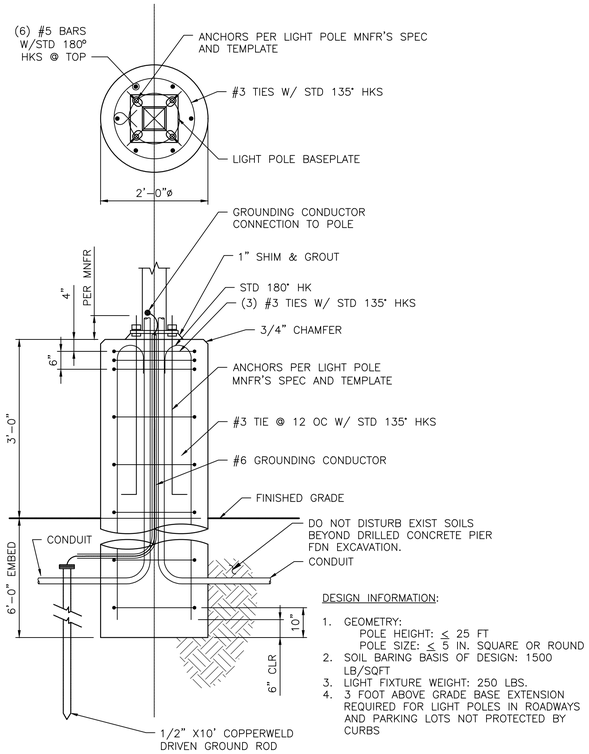


DESIGN INFORMATION:

1. GEOMETRY:
   POLE HEIGHT: ≤ 25 FT
   POLE SIZE: ≤ 5 IN. SQUARE OR ROUND
2. SOIL BARING BASIS OF DESIGN: 1500 LB/SQFT
3. LIGHT FIXTURE WEIGHT: 250 LBS.
4. 6 INCH ABOVE GRADE BASE EXTENSION FOR LIGHT POLES NOT IN ROADWAYS AND PARKING LOTS

AT GRADE LIGHT POLE FOUNDATION

1 / E500 SCALE: N.T.S.

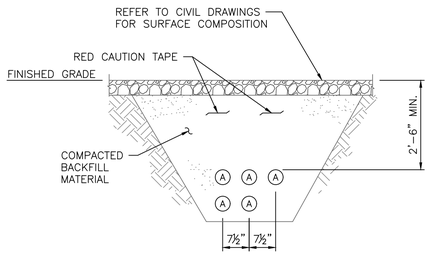


DESIGN INFORMATION:

1. GEOMETRY:
   POLE HEIGHT: ≤ 25 FT
   POLE SIZE: ≤ 5 IN. SQUARE OR ROUND
2. SOIL BARING BASIS OF DESIGN: 1500 LB/SQFT
3. LIGHT FIXTURE WEIGHT: 250 LBS.
4. 3 FOOT ABOVE GRADE BASE EXTENSION REQUIRED FOR LIGHT POLES IN ROADWAYS AND PARKING LOTS NOT PROTECTED BY CURBS

ABOVE GRADE LIGHT POLE FOUNDATION

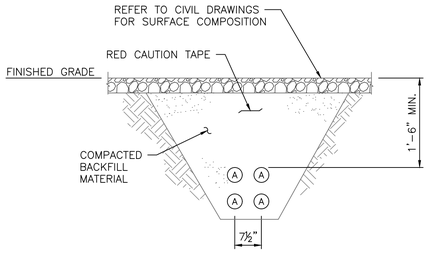
2 / E500 SCALE: N.T.S.



(A)– 1" SCHEDULE 40 PVC CONDUIT

FIVE–CONDUIT UNDERGROUND ELECTRICAL CONDUIT DUCT BANK

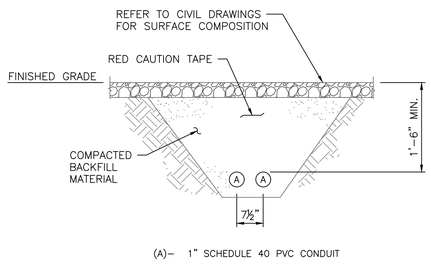
A / E500 SCALE: N.T.S.



(A)– 1" SCHEDULE 40 PVC CONDUIT

FOUR–CONDUIT UNDERGROUND ELECTRICAL CONDUIT DUCT BANK

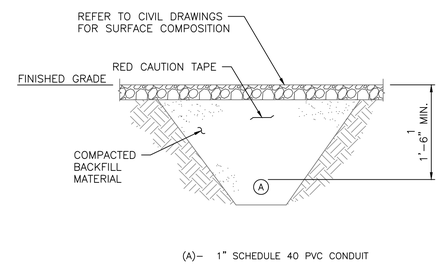
B / E500 SCALE: N.T.S.



(A)– 1" SCHEDULE 40 PVC CONDUIT

TWO–CONDUIT UNDERGROUND ELECTRICAL CONDUIT DUCT BANK

C / E500 SCALE: N.T.S.



(A)– 1" SCHEDULE 40 PVC CONDUIT

ONE–CONDUIT UNDERGROUND ELECTRICAL CONDUIT DUCT BANK

D / E500 SCALE: N.T.S.

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	CSH	06/12/25

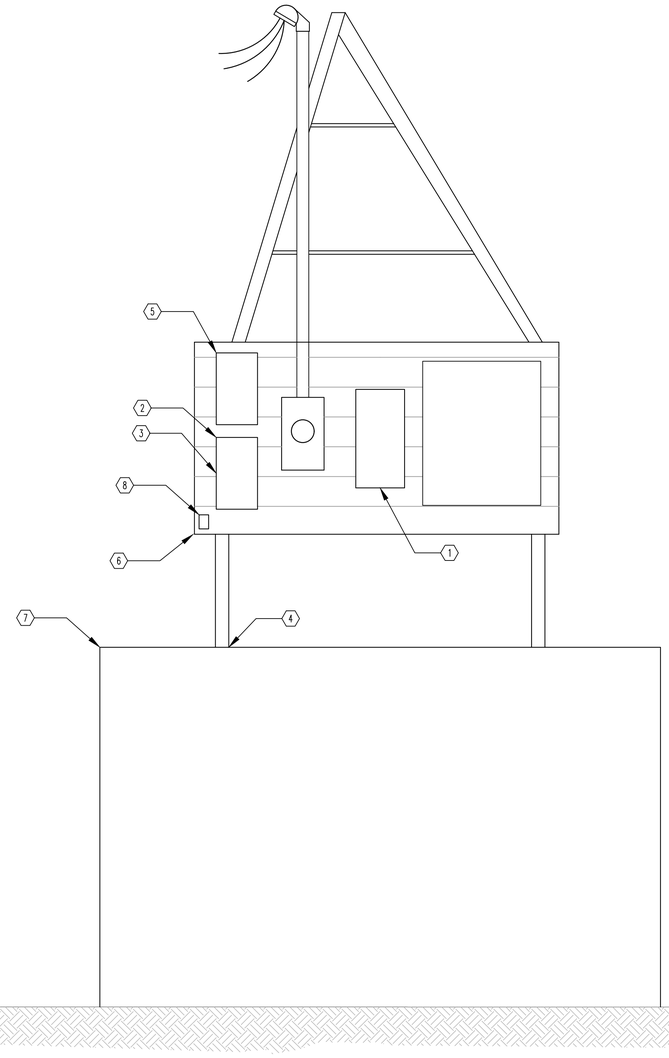
Drawing Description

CITY OF RAVENSWOOD
RAVENSWOOD, WV
PEDESTRIAN BRIDGE
ELECTRICAL DETAILS, ELEVATIONS & SECTIONS CUTS

CARL S. HENSON REGISTERED No. 14330 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

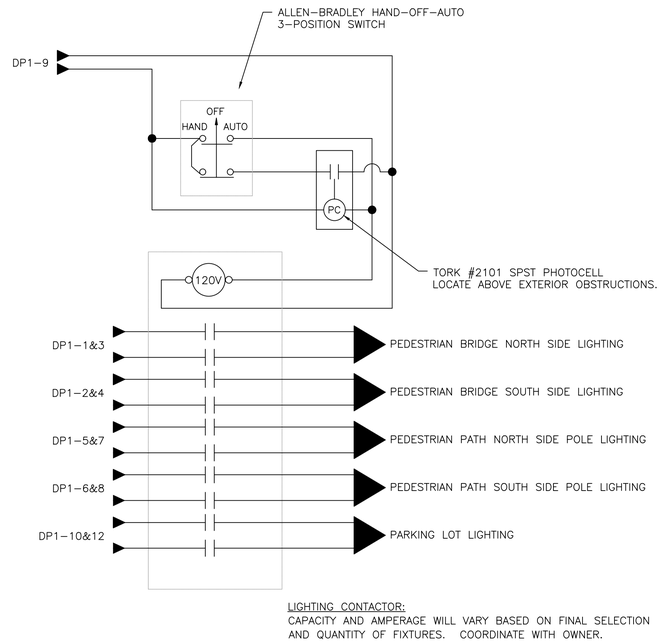
Project:	2226039
Designed By:	CSH
Drawn By:	EGB
Checked By:	CSH
Scale:	AS NOTED
Plot Date:	06/12/25
Revision:	0

Drawing Number:
E500



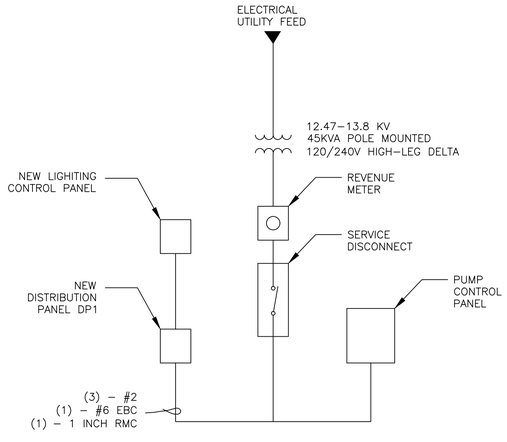
1 E501 LIFT STATION EAST VIEW
ELECTRICAL ELEVATION
SCALE: N.T.S.

MOUNT ALLEN–BRADLEY HAND–OFF–AUTO
3–POSITION SWITCH IN A NEMA 1 HINGED COVER
ENCLOSURE, INCLUDE LEGEND MARKER FOR SWITCH.



LIGHTING CONTACTOR:
CAPACITY AND AMPERAGE WILL VARY BASED ON FINAL SELECTION AND QUANTITY OF FIXTURES. COORDINATE WITH OWNER.

2 E501 EXTERIOR PHOTOCELL LIGHTING
CONTROL/CONTACTOR DETAIL
SCALE: N.T.S.



3 E501 ADDED EQUIPMENT
ELECTRICAL ONE–LINE
SCALE: N.T.S.

CODED NOTES:

1. EC SHALL INSTALL THE INDICATED FEED FORM THE LOAD SIDE OF THE DISCONNECT SWITCH TO PANEL DP1. FEED SHALL BE A 120/240–VOLT SINGLE–PHASE FEED. EC SHALL NOTE THE HIGH–LEG OF THE INCOMING SERVICE AND NOT UTILIZE THIS PHASE IN FEEDING DP1. MAKE ALL MODIFICATIONS TO DISCONNECT REQUIRED FOR FEED. REFER TO DETAIL 3/E501 FOR FEEDER SIZE. FEED SHALL BE 3–METERS MAXIMUM IN LENGTH FROM DISCONNECT PER NEC.
2. EC SHALL INSTALL A NEW 120/240–VOLT SINGLE–PHASE 3–WIRE PANEL TO FEED NEW LIGHTING CIRCUITS. PURCHASE AND INSTALL ALL CIRCUIT BREAKERS LISTED ON PANEL SCHEDULE DP1. WEATHER–PROOF ALL CONDUIT PENETRATIONS. GROUND NEUTRAL & GROUND BUS PER NEC & ELECTRICAL UTILITY REQUIREMENTS.
3. EC SHALL PURCHASE AND INSTALL A TYPE 1 SURGE PROTECTION DEVICE (SPD) IN ACCORDANCE WITH NEC ARTICLE 242. DEVICE SHALL HAVE A MINIMAL CIRCUIT INTERRUPT RATING OF 5KA. PROVIDE DEVICE IN WETHER–PROOF ENCLOSURE AS REQUIRED. INSTALL SPD ON LINE SIDE OF MAIN CIRCUIT BREAKER.
4. EC SHALL INSTALL A #6 BARE SOLID COPPER GROUNDING BONDING JUMPER FROM THE NEW DISTRIBUTION PANEL TO THE EXISTING GROUNDING ELECTRODES. THE BONDING JUMPER SHALL BE BONDED TO THE GROUND BUS OF THE DISTRIBUTION PANEL DP1. SECURE THE BONDING JUMPER TO THE EXISTING PUMP STATION STRUCTURE.
5. EC SHALL PURCHASE, FABRICATE, AND INSTALL THE EXTERIOR LIGHTING CONTROL PANEL AS INDICATED. MOUNT CONTROL PANEL TO ELECTRICAL SERVICE UTILITY POLE. ORIENTATE THE PHOTO CELL SOUTH FOR LIGHTING OPERATION. PANEL SHALL BE NEMA–4X. H–O–A SWITCH SHALL BE MOUNTED INSIDE THE PANEL. SIZE PANEL TO ENCOMPASS ALL MATERIAL NECESSARY FOR CIRCUIT OPERATION. REFER TO DETAIL 2/E501 FOR SCHEMATIC DIAGRAM.
6. EC SHALL CONSTRUCT A METAL STAND ON THE ROOF OF THE EXISTING LIFT STATION PUMP HOUSE TO MOUNT THE NEW SERVICE, PANEL DP1, AND THE LIGHTING CONTROL ENCLOSURE ABOVE THE 100–YEAR FLOOD PLANE. STRUCTURE SHALL BE CONSTRUCTED OF GALVANIZED STEEL. ROUTE ALL CONDUITS FROM PANE DP1 TO THE LIGHTING CONTROLLER. ROUTE ALL CONDUITS FOR FOR LIGHTING CIRCUITS UNDERGROUND AS INDICATED ON DRAWINGS.
7. EC SHALL REPLACE THE EXISTING WOODEN ACCESS PLATFORM AND STAIRS. NEW PLATFORM SHALL PROVIDE A MINIMAL OF 3 FEET OF ACCESS TO ALL ELECTRICAL EQUIPMENT PER NEC REQUIREMENTS. ACCESS PLATFORM SHALL EXTEND THE COMPLETE WIDTH OF THE LIFT STATION EAST SIDE. PROVIDE SAFETY RAILS ON ELEVATED PLATFORM. MODIFY THE EXISTING FENCE GATE AS REQUIRED. FOR NEW ACCESS PLATFORM STAIRS. CONSTRUCT PLATFORM PER STRUCTURAL LUMBER SPECIFICATION ON DRAWING S000.
8. INSTALL A 120–VOLT 20–AMP GFCI RECEPTACLE AND WEATHERPROOF COVER IN THE POSITION INDICATED. REFER TO DP1 PANEL SCHEDULE FOR CIRCUIT BREAKER. FEED SHALL BE (2) – #12 & #12 EGC IN 3/4 INCH RMC.

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	CSH	06/12/25

Drawing Description
CITY OF RAVENSWOOD
RAVENSWOOD, WV
PEDESTRIAN BRIDGE
ELECTRICAL DETAILS, ELEVATIONS & SECTIONS CUTS

CARL S. HENSON REGISTERED No. 14330 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	CSH
Drawn By:	EGB
Checked By:	CSH
Scale:	N.T.S.
Plot Date:	06/12/25
Revision:	0

Drawing Number:
E501

EXTERIOR LIGHT FIXTURE SCHEDULE

DESIGNATION	FIXTURE	DESCRIPTION	BASIS OF DESIGN										NOTES/COMMENTS
			LAMP TYPE	TEMP	CRI	LUMENS	VOLTAGE	WATTS	DIMMING	MOUNTING	MFGR.	MODEL	
P1	A	EXTERIOR LED, MULTI–VOLT, DIMMABLE LED, ON 15FT SQUARE POLE	LED	40K	70	5145/ FIXTURE	120–277	61/ FIXTURE	0–10V	12FT SQUARE POLE	STERNBERG LIGHTING	PT–1190ALED–5P–16L–40–T3 –MDL014–A–PEC–FHD–BKT	POLE SHALL BE A STERNBERG LIGHTING MODEL: 3900 RIGHMOND SERIES NUMBERR 39–12–FP4–.125–GFI–BK NOTE 6.
P2	B	EXTERIOR LED GENERAL PURPOSE AREA LIGHT FIXTURE MULTI–VOLT, FOUR LIGHT FIXTURES PER POLE. FUSING PROVIDED PER FIXTURE, POLE 30FT 5 INCH SQUARE	LED	50K	80	35,809/ FIXTURE	120–277	266/ FIXTURE 1064 TOL.	0–10V	30FT SQUARE POLE	LITHONIA	RSX3–LED–P3–50K–R4–MVOLT –SPA–PE–DF–EGS–DDBXD	FIXTURES SHALL HAVE SPLITFITER MOUNTS LIGHT POLES SHALL HAVE (4) FIXTURES PER POLE. NOTE 3, NOTE 4
P3	C	MINIMALIST POINT SOURCE LED FOR HOLLOW METAL STRUCTURES, VOLTAGE 24 VDC,	LED	40K	–	157	24 VDC	2.5/ FIXTURE	0–10V	MOUNTED IN HANDRAIL	KLIK USA	LPXL–28–F00–40K–2.5–A–FLD –ANO	FIXTURES MOUNTED IN HANDRAIL PRE–DRILLED HOLES. POWER SUPPLIES NOTE 7 BOXES NOTE 8

FIXTURE SCHEDULE NOTES

1.0 NA = NOT APPLICABLE

2. MULT = MULTI VOLTAGES 120 – 277 VOLTS

3. POLE SHALL BE A LITHIONIA MODEL SSS–30–5G–XXX–XXXX/xy–DDBXD, EC SHALL COORDINATE WITH THE MOUNTING REQUIREMENTS FOR FIXTURES.

4. LIGHT FIXTURE MOUNTING BRACKET SHALL BE LITHONIA MODEL SBS38–DDBXD

5. NOT USED

6. FUSE BLOCK LOCATED IN BASE OF LIGHT POLE.

7. POWER SUPPLIES, KLIK USA MODEL#, LP096WPRITRNDIM

8. BOXES, HAMMOND MANUFACTURING#, EJ1486, ANSI 61 GRAY, NEMA–4 CONSTRUCTION, SUPPLY WITH BACK–PANEL

GENERAL NOTES:

A. LIGHTING FIXTURE SUBSTITUTIONS PER THE APPROVAL OF THE OWNER AND ENGINEER.

(#) CODED NOTES:

1. EC SHALL INSTALL NEW DISTRIBUTION PANEL PER SCHEDULE. PANEL BASIS OF DESIGN IS GE MODEL TM1212RCU WITH TGK24 EQUIPMENT GROUND KIT. SUBSTITUTIONS PERMITTED.

(1)

PANEL DESIG:	DP1			VOLTAGE:	240/120V 1PH 3W
LOCATION:	PARK			FED FROM:	SERVICE DISCONNECT
MOUNTING:	SURFACE			MAIN BREAKER SIZE:	100–AMP
NO. OF CKTS:	22			PANEL BUS SIZE:	125–AMP

ALL PHASES TO BE BALANCED WITHIN 7% USING ACTUAL CONNECTED LOAD

LOAD DESCRIPTION	(VA)	WIRE SIZE	CB/P	CKT. NUM.		CKT. NUM.	CB/P	WIRE SIZE	(VA)	LOAD DESCRIPTION
LGTS. PEDESTRIAN BRIDGE EAST SIDE LEDS	256	#8	20/2	01	*–––	02	20/2	#8	256	LGTS. PEDESTRIAN BRIDGE WEST SIDE LEDS
				03	–––*	04				
LGTS. PEDESTRIAN PATH EAST SIDE POLES	366	#8	20/2	05	*–––	06	20/1	#8	366	LGTS. PEDESTRIAN PATH WEST SIDE POLES
				07	–––*	08	20/1			
LGTS. CONTROL CIRCUIT	150	#12	20/1	09	*–––	10	20/1	#10	2128	LGTS. PARKING LOT POLES FIXTURES
RECP.	180	#12	20/1	11	–––*	12	20/1			
–	–	–	20/1	13	*–––	14	20/1	–	–	–
–	–	–	20/1	15	–––*	16	20/1	–	–	–
–	–	–	20/1	17	*–––	18	20/1	–	–	–
–	–	–	20/1	19	–––*	20	20/1	–	–	–
–	–	–	20/1	21	*–––	22	20/1	–	–	–

N.E.C. Connected Load Summary

Lighting:	3.37 KVA	Motors:	– KVA		
Recept:	0.36 KVA	Heating:	– KVA		
Equipment:	0.15 KVA	Total:	3.88 KVA	16.7.4 Amps	

Breaker Options (if used)

AS – Powerlink "AS" breaker
LO – Lock–On Device
GF – GND Fault CKT Interrupter
QO – Standard "QOB" Bolt–On Bkr.
HR–HACR Rated Circuit Breaker

PANEL DP1 SCHEDULE

SCALE: N.T.S.

PICKERING ASSOCIATES
Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428

Rev.	Description	By	Date
0	ISSUED FOR CONSTRUCTION	CSH	06/12/25

Drawing Description

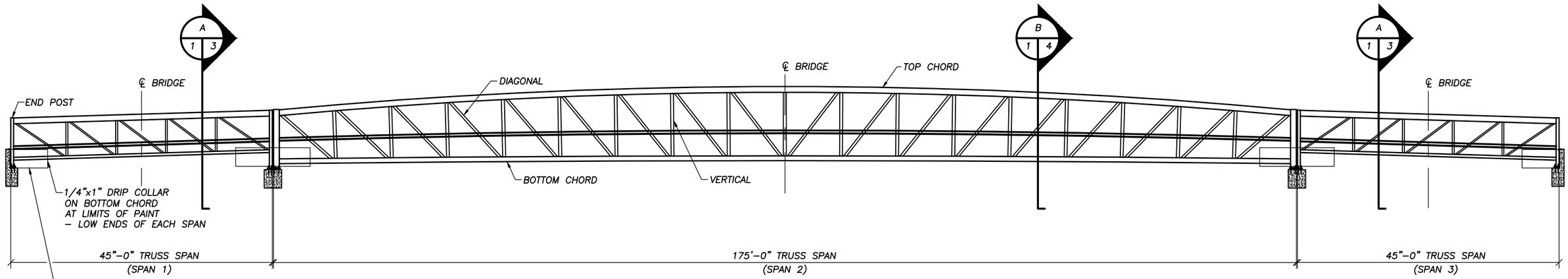
CITY OF RAVENSWOOD
RAVENSWOOD, WV
PEDESTRIAN BRIDGE
ELECTRICAL SCHEDULES & TABLES

CARL S. HENSON REGISTERED No. 14330 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

Project:	2226039
Designed By:	CSH
Drawn By:	EGB
Checked By:	CSH
Scale:	N.T.S.
Plot Date:	06/12/25
Revision:	0

Drawing Number:
E600

INFORMATION ONLY



A/1 **ELEVATION**
RAILING NOT SHOWN
(SCHEMATIC)

BRIDGE SPAN REACTIONS (SPANS 1 & 3)

COMBINE REACTIONS AS PER LOCAL OR GOVERNING BUILDING CODES AS REQUIRED
+ DOWNWARD LOAD
– UPWARD LOAD

LOAD	P lbs	H lbs	L lbs
DEAD	19,000		
UNIFORM LIVE	12,000		
VEHICLE	12,200		
WIND		7,400	2,200
WINDWARD	–7,700		
LEEWARD	3,000		
STREAM	–8,700	1,200	
THERMAL			3,800

"P" – VERTICAL LOAD EACH BASE PLATE (4 PER BRIDGE SPAN)
"H" – HORIZONTAL LOAD EACH FOOTING (2 PER BRIDGE SPAN)
"L" – LONGITUDINAL LOAD EACH BASE PLATE (4 PER BRIDGE SPAN)

BRIDGE SPAN REACTIONS (SPAN 2)

COMBINE REACTIONS AS PER LOCAL OR GOVERNING BUILDING CODES AS REQUIRED
+ DOWNWARD LOAD
– UPWARD LOAD

LOAD	P lbs	H lbs	L lbs
DEAD	77,100		
UNIFORM LIVE	47,000		
VEHICLE	12,800		
WIND		31,400	9,400
WINDWARD	–31,900		
LEEWARD	13,500		
STREAM	–34,000	5,000	
THERMAL			15,400

"P" – VERTICAL LOAD EACH BASE PLATE (4 PER BRIDGE SPAN)
"H" – HORIZONTAL LOAD EACH FOOTING (2 PER BRIDGE SPAN)
"L" – LONGITUDINAL LOAD EACH BASE PLATE (4 PER BRIDGE SPAN)

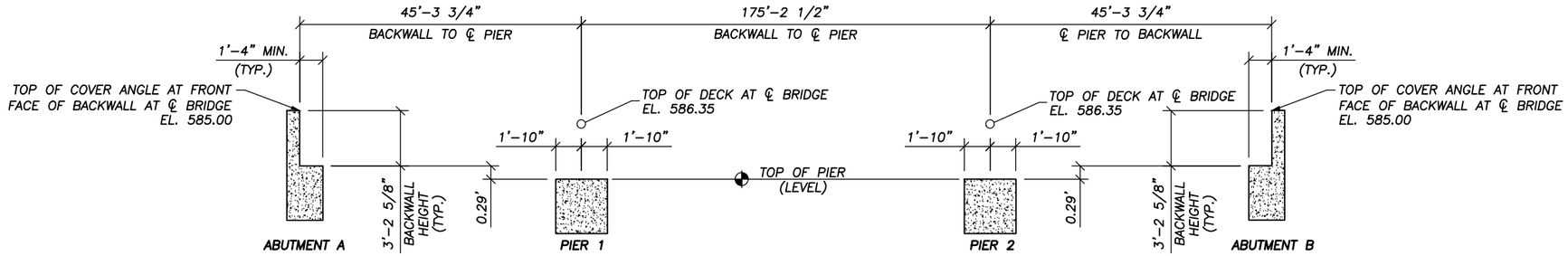
DO NOT SCALE DRAWINGS

SHEET TITLE:
GENERAL ELEVATION
45'–0" & 175'–0" PEDESTRIAN BRIDGES
12'–0" WALKWAY

PRELIM

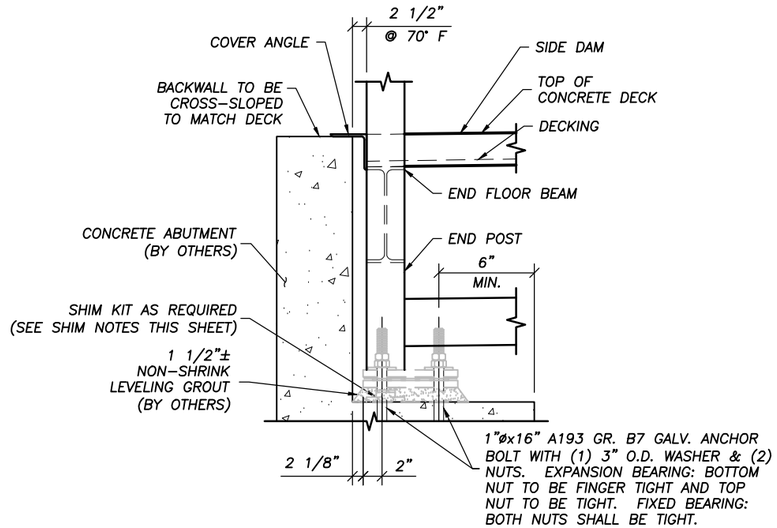
Wheeler
9531 West 78th Street – Suite 100
Eden Prairie, MN 55344
952–929–7854
info@wheeler1892.com
wheeler1892.com

DATE: 7/17/2023		TRACKING NO. T23590	SHEET NO.
CHK: DNC	DWN: OVG	ORDER NO.	1 OF 4

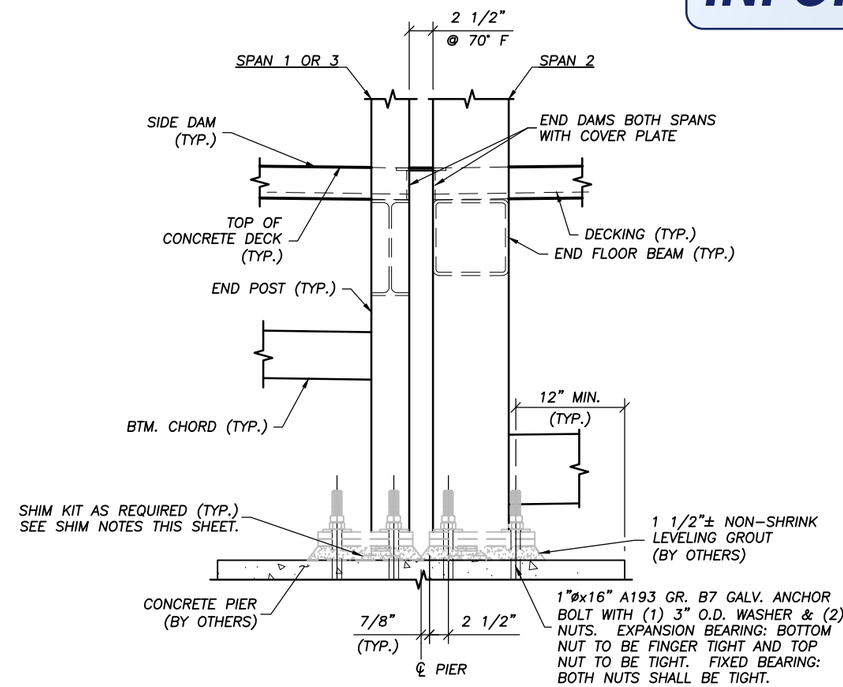


A/2 **SUBSTRUCTURE LAYOUT**
(BY OTHERS)
(SCHEMATIC)

INFORMATION ONLY



B/2 **ABUTMENT BEARING DETAIL**
(BY OTHERS)
(SCHEMATIC)



C/2 **PIER BEARING DETAIL**
(BY OTHERS)
(SCHEMATIC)

DO NOT SCALE DRAWINGS

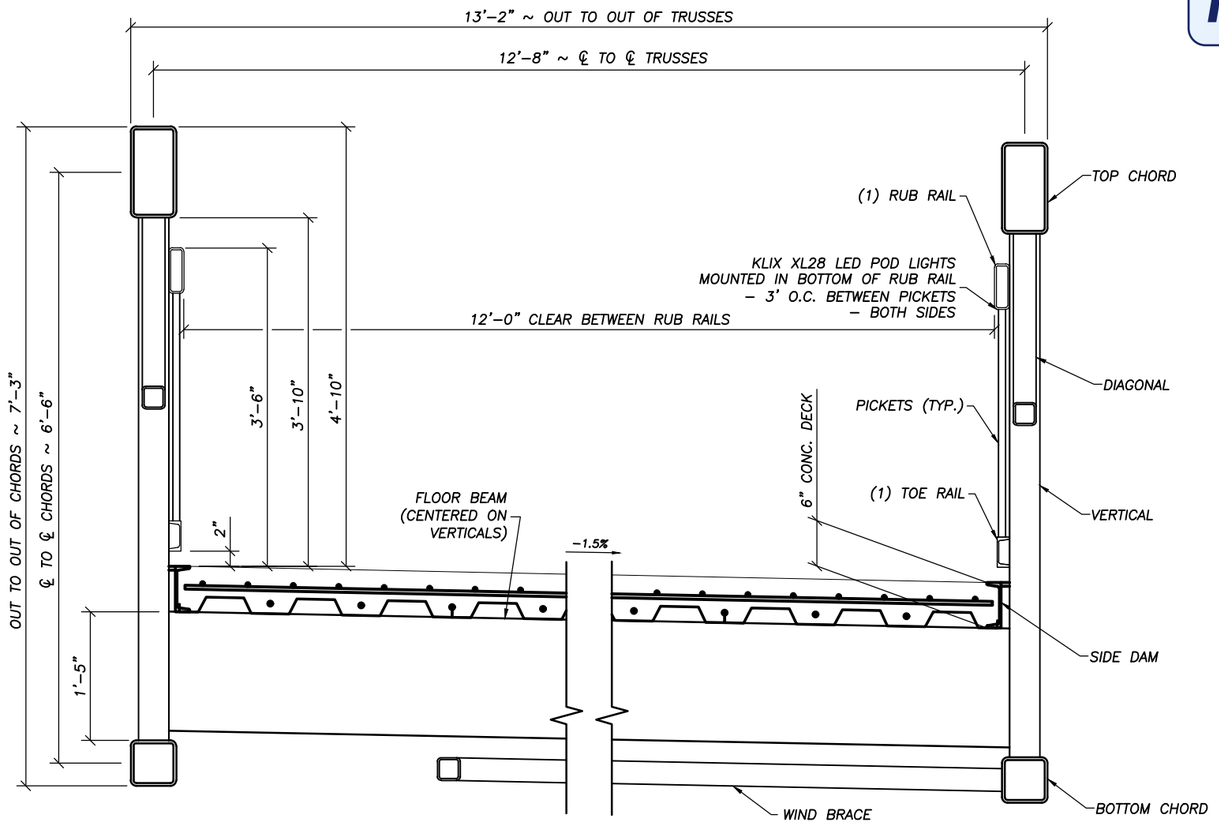
SHEET TITLE:
SUBSTRUCTURE LAYOUT
45'-0" & 175'-0" PEDESTRIAN BRIDGES
12'-0" WALKWAY

PRELIM

Wheeler
9531 West 78th Street – Suite 100
Eden Prairie, MN 55344
952-929-7854
info@wheeler1892.com
wheeler1892.com

DATE: 7/17/2023		TRACKING NO. T23590	SHEET NO. 2 OF 4
CHK: DNC	DWN: OVG	ORDER NO.	

INFORMATION ONLY



A / 1 | 3

TYPICAL SECTION VIEW
SPANS 1 & 3
(SCHEMATIC)

DO NOT SCALE DRAWINGS

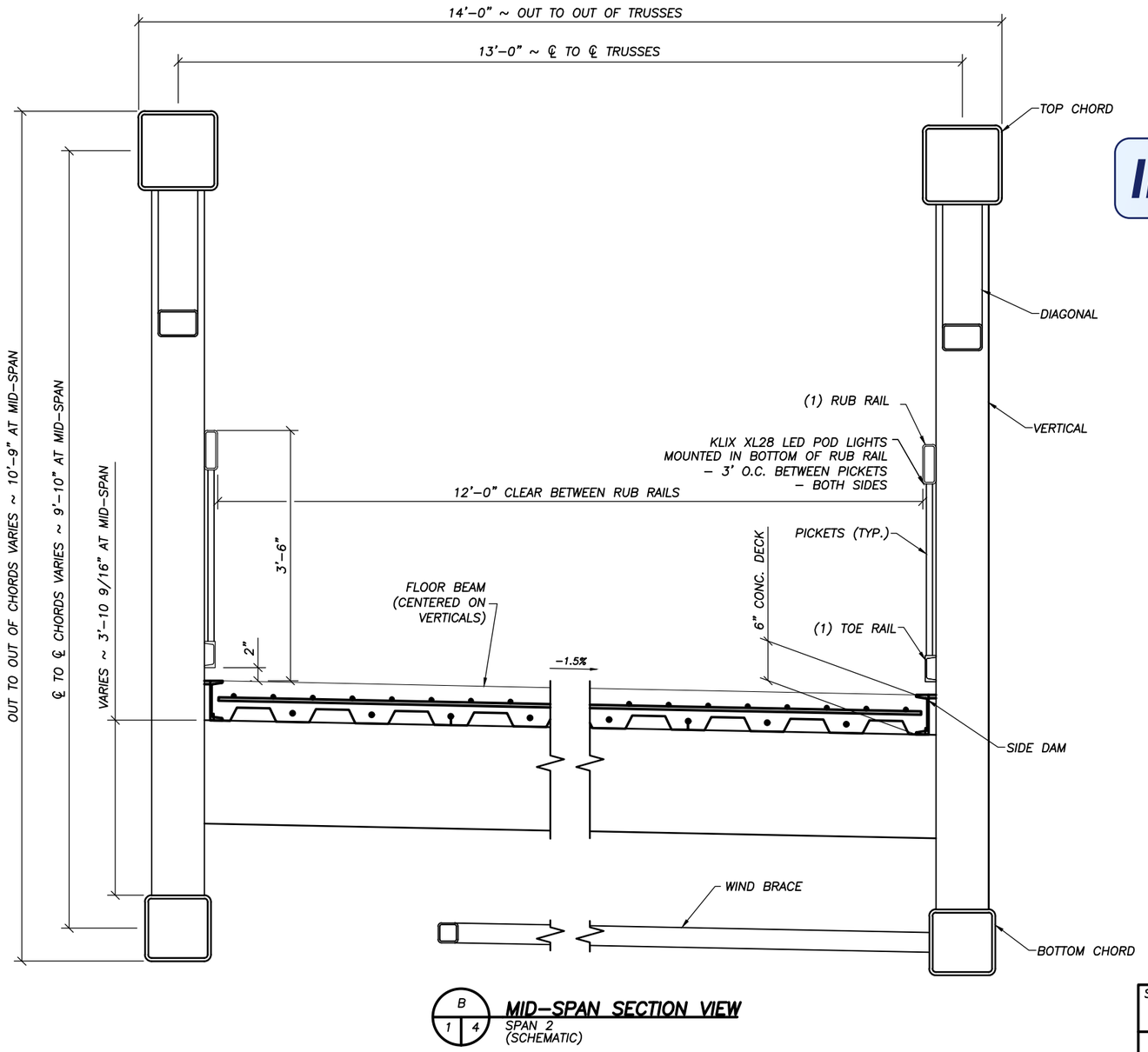
SHEET TITLE:
SECTION DETAILS (SPANS 1 & 3)

45'–0" & 175'–0" PEDESTRIAN BRIDGES
12'–0" WALKWAY

PRELIM

Wheeler
9531 West 78th Street – Suite 100
Eden Prairie, MN 55344
952–929–7854
info@wheeler1892.com
wheeler1892.com

DATE: 7/17/2023		TRACKING NO. T23590	SHEET NO. 3 OF 4
CHK: DNC	DWN: OVG	ORDER NO.	



B / 1 4

MID–SPAN SECTION VIEW
SPAN 2
(SCHEMATIC)

INFORMATION ONLY

DO NOT SCALE DRAWINGS

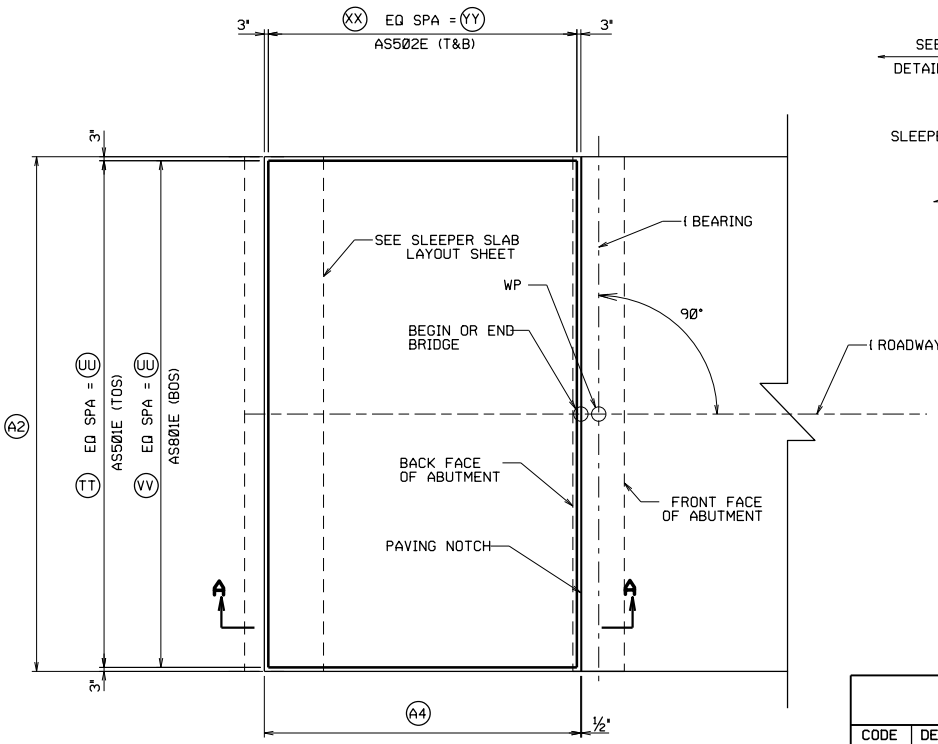
SHEET TITLE:
SECTION DETAILS (SPAN 2)

45'–0" & 175'–0" PEDESTRIAN BRIDGES
12'–0" WALKWAY

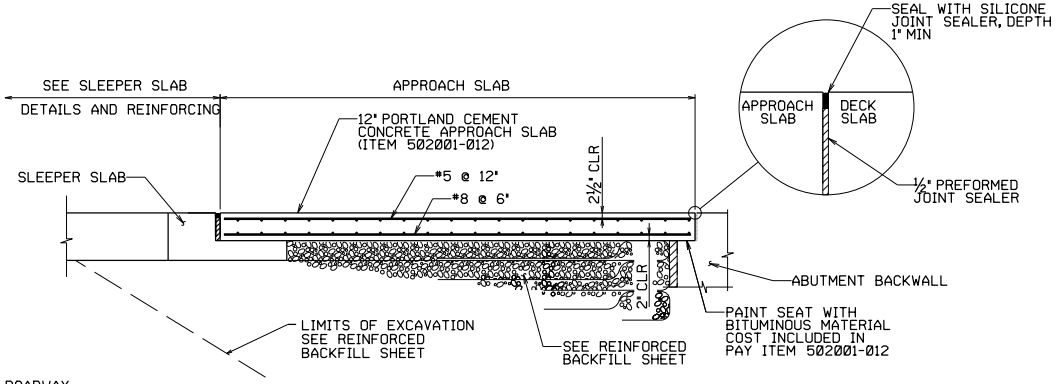
PRELIM

Wheeler
9531 West 78th Street – Suite 100
Eden Prairie, MN 55344
952–929–7854
info@wheeler1892.com
wheeler1892.com

DATE: 7/17/2023		TRACKING NO. T23590	SHEET NO. 4 OF 4
CHK: DNC	DWN: OVG	ORDER NO.	



APPROACH SLAB PLAN



SECTION A-A

DECK CONTROL DIMENSIONS		
CODE	DESCRIPTION	DIMENSION
A2	OVERALL WIDTH	12'-0"
A4	APPROACH SLAB LENGTH	15'-0"

REBAR CONTROL DIMENSIONS		
CODE	DESCRIPTION	DIMENSION
TT	NUMBER OF EQUAL SPACES FOR TOP LONGITUDINAL REBAR	13
UU	DISTANCE OF TOP AND BOTTOM LONGITUDINAL REBAR	11'-6"
VV	NUMBER OF EQUAL SPACES FOR BOTTOM LONGITUDINAL REBAR	29
XX	NUMBER OF EQUAL SPACES FOR TOP AND BOTTOM TRANSVERSE REBAR	15
YY	DISTANCE OF TOP AND BOTTOM TRANSVERSE REBAR	14'-6"

BILL OF REINFORCING STEEL			
LONGITUDINAL STEEL			
MARK	TYPE	NUMBER	LENGTH
AS501E	STR	13	14'-6"
AS801E	STR	29	14'-6"
TRANSVERSE STEEL			
MARK	TYPE	NUMBER	LENGTH
AS502E	STR	32	11'-6"

NOT TO SCALE

ADDITIONAL DETAILS NEEDED	
SERIES	SHEET NUMBER
1700	
1710	

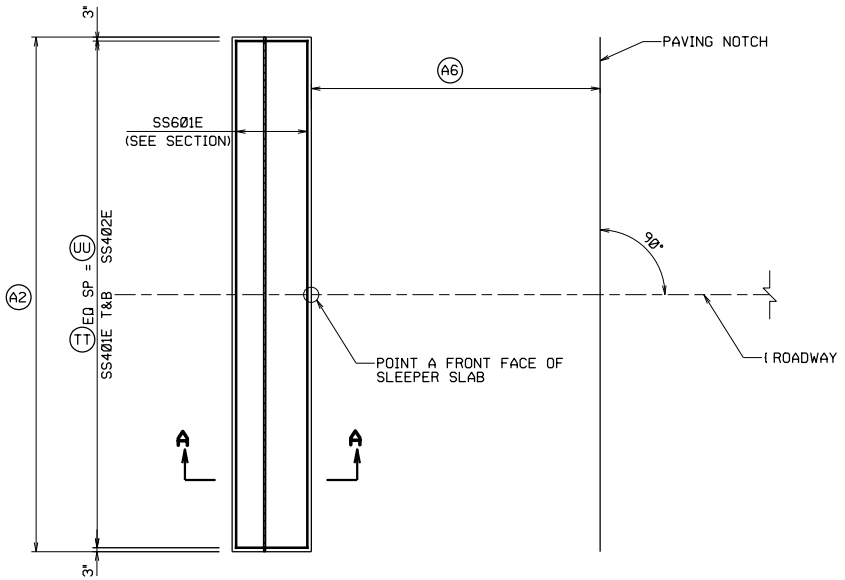
PRINT DATE
14-JUL-2020 06:26

NO.	REVISION	DATE	BY

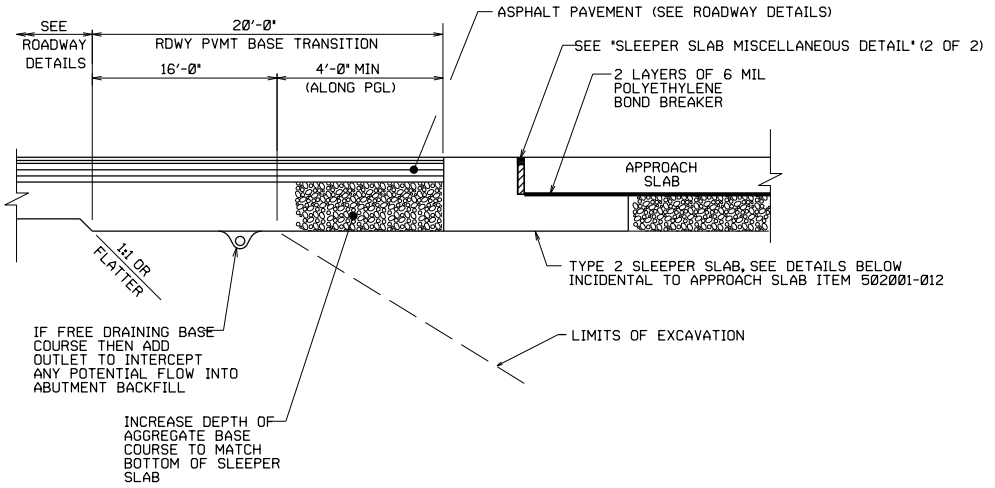
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DESIGNED	DATE	CHECKED	DATE
DRAWN	DATE	REVIEWED	DATE

STANDARD BRIDGE PLANS
APPROACH SLAB LAYOUT NO SKEW
SHEET NUMBER ___1500AS1_____



SLEEPER SLAB

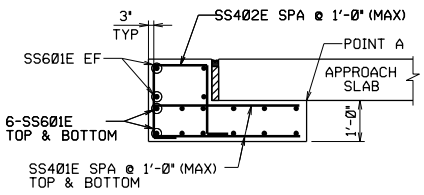


TYPE 2 SLEEPER SLAB WITH ASPHALT ROADWAY APPROACH

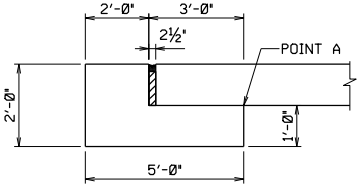
DECK CONTROL DIMENSIONS		
CODE	DESCRIPTION	DIMENSION
A2	OVERALL WIDTH	12'-0"
A6	LENGTH FROM PAVING NOTCH TO FRONT FACE OF SLEEPER SLAB	N/A

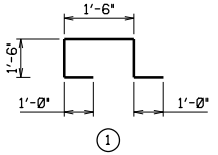
REBAR CONTROL DIMENSIONS		
CODE	DESCRIPTION	DIMENSION
TT	NUMBER OF EQUAL SPACES FOR TOP LONGITUDINAL REBAR	13
UU	DISTANCE OF TOP AND BOTTOM LONGITUDINAL REBAR	11'-6"

BILL OF REINFORCING STEEL			
MARK	TYPE	NUMBER	LENGTH
SS401E	STR	13	4'-6"
SS402E	1	13	6'-6"
SS601E	STR	16	11'-6"



SECTION A-A





BAR TYPE

NOT TO SCALE

ADDITIONAL DETAILS NEEDED	
SERIES	SHEET NUMBER
1500	
1700	1700SS4

PRINT DATE
14-JUL-2020 06:26

NO.	REVISION	DATE	BY

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DESIGNED	DATE	CHECKED	DATE
DRAWN	DATE	REVIEWED	DATE

STANDARD BRIDGE PLANS
SLEEPER SLAB LAYOUT
NO SKEW (1 OF 2)
SHEET NUMBER ___1Z00SS1_____