

CONSTRUCTION PLANS FOR Riley Park Bridge Replacement Project

300 Apple St. Greenfield, IN 46140

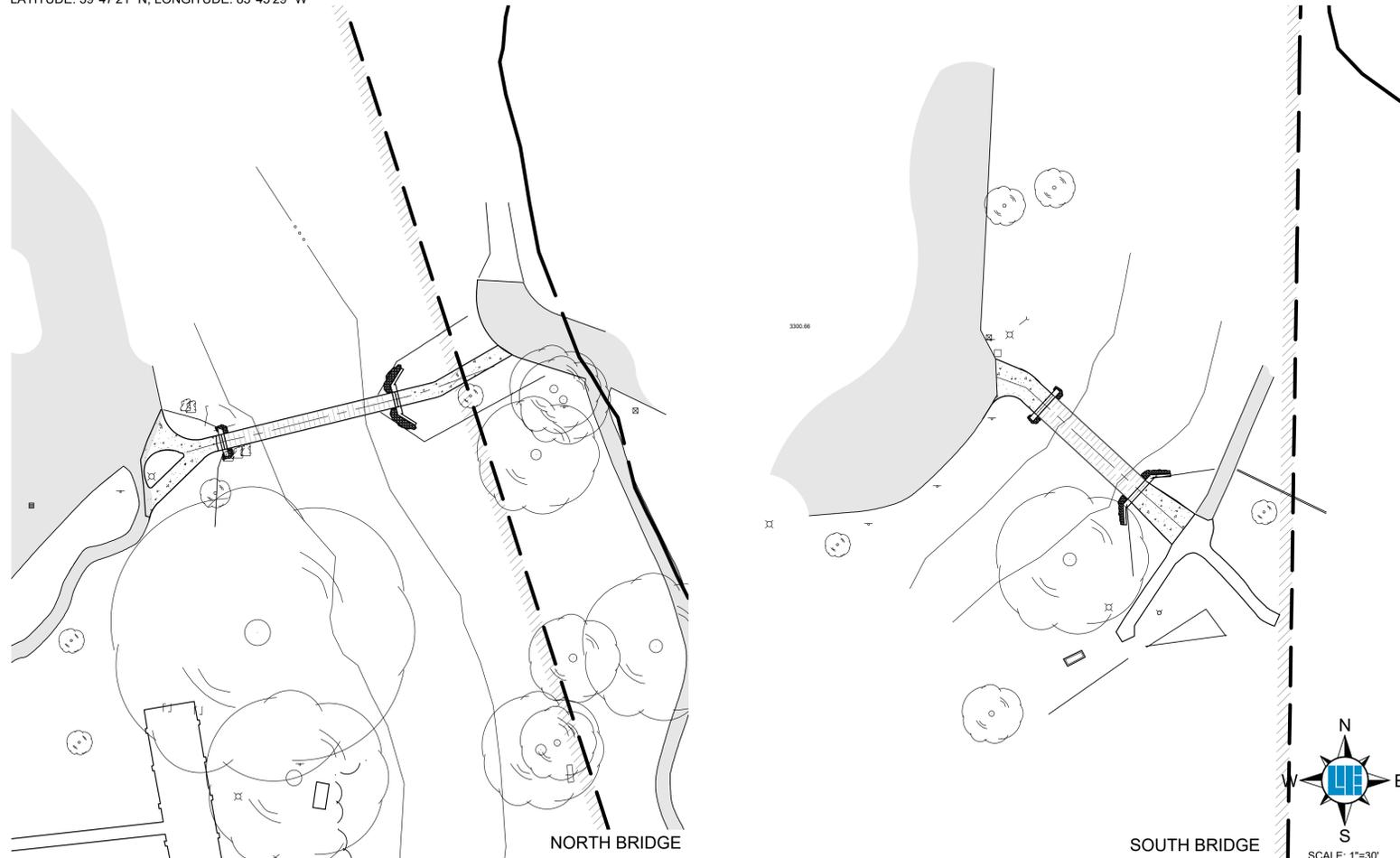
LATITUDE: 39°47'21" N, LONGITUDE: 85°45'29" W



★ PROJECT LOCATION
AREA LOCATION MAP
NO SCALE

GENERAL NOTES:

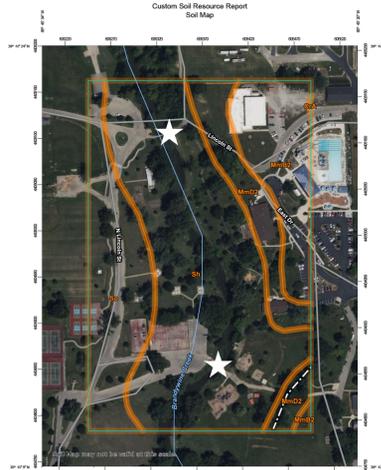
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY AND COORDINATE CONSTRUCTION WITH ALL RESPECTIVE UTILITIES.
- ALL QUANTITIES ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS: FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE A TRENCH SAFETY SYSTEM DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
- IT SHALL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THIS PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
- THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- ANY FIELD TILES ENCOUNTERED DURING EXCAVATION SHALL BE REPAIRED AND CONNECTED TO NEW STORM SEWERS AND POSITIVE DRAINAGE PRESERVED.
- IT SHALL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER TO CONFIRM THAT ALL LANDSCAPE REQUIREMENTS ARE MET AND CONFORM TO APPLICABLE LOCAL STANDARDS.
- THE SITE DOES LIE IN A SPECIAL FLOOD HAZARD AREA AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY - NATIONAL FLOOD INSURANCE PROGRAM, WHEN PLOTTED BY SCALE ON FLOOD INSURANCE RATE MAP #18059C0142D, DATED NOVEMBER 4, 2007.
- BEARINGS, DIMENSIONS AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS & PLAT FOR EXACT INFORMATION.
- THIS SITE DOES NOT CONTAIN WETLANDS AS SHOWN ON THE U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE: GREENFIELD, INDIANA, NATIONAL WETLANDS INVENTORY MAP. NO WETLANDS ARE IMPACTED BY THIS DEVELOPMENT.
- ALL WATER MAINS, HYDRANTS, AND WATER VALVES SHALL BE INSPECTED AND SHALL COMPLY WITH BACKFILL, BEDDING, AND THRUST BLOCK REQUIREMENTS PER GREENFIELD WATER DETAIL SHEETS.



NORTH BRIDGE

SOUTH BRIDGE

SITE MAP
SCALE: 1"=30'



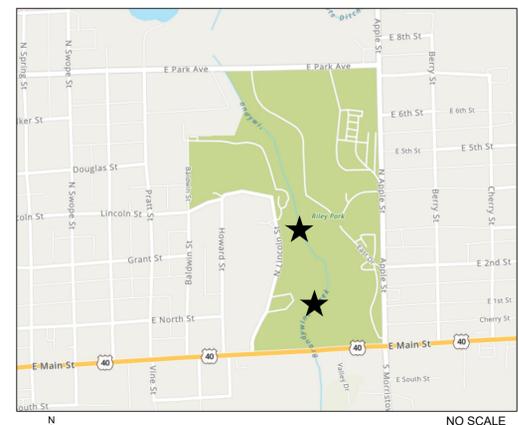
SOILS MAP
NO SCALE

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
C2A	Crosby silt loam, New Castle Ttl. Plain, 0 to 2 percent slopes	0.0	0.0%
Mm02	Miami silt loam, 2 to 6 percent slopes, eroded	3.4	14.7%
Mm02	Miami silt loam, 12 to 18 percent slopes, eroded	2.7	12.0%
Sh	Shoals silt loam, 0 to 2 percent slopes, frequently flooded, very brief duration	12.2	53.6%
So	Sloan silty clay loam	4.5	19.7%
Totals for Area of Interest		22.8	100.0%

SOILS LEGEND

LEGAL DESCRIPTION

Commencing at the point of intersection of the center line of the National Road with the middle dividing line of section thirty-three (33), township sixteen (16) north, range seven (7) east; thence west on the center line of said National Road 575.5 feet to the center of Brandywine creek; thence in a northerly direction following the meanderings of said creek, and in the center thereof to the point of intersection of said center line of said creek with the north line of said National Road; thence west on the north line of the said National Road 640.5 feet to the east line of the first alley east of Howard Street in the city of Greenfield, Indiana; thence north on the said east line of said alley, and continuing north on a line extended north from said east line 1451 feet to the north line of lot number five (5) in Wood, Pratt and Baldwin's First Addition of Out Lots to the town, now city, of Greenfield, Indiana; thence east on the said north line of said lot 403 feet to the center of Brandywine Creek; thence in a southerly direction, following meanderings of said creek, and in the center, thereof to a point 800 feet west and 1433.3 feet north of the point of intersection of the center line of the National Road with the middle dividing line of section thirty-three (33), township sixteen (16) north, range seven (7) east; thence east 800 feet to the middle dividing line of said section thirty-three (33); thence south on the said middle dividing line of said section thirty-three (33) 1433.3 feet to the place of beginning, containing 40.54 acres, more or less.



SITE LOCATION MAP
NO SCALE

Sheet Number	Sheet Title
C001	TITLE
C050	SURVEY NORTH BRIDGE
C051	SURVEY SOUTH BRIDGE
C100	DEMOLITION NORTH BRIDGE
C101	DEMOLITION SOUTH BRIDGE
C200	SWPPP 1 NORTH BRIDGE
C201	SWPPP 1 SOUTH BRIDGE
C203	C203 SWPPP DETAILS
C204	C204 SWPPP DETAILS
C210	SWPPP2 NORTH BRIDGE
C211	SWPPP2 SOUTH BRIDGE
C300	LAYOUT AND MATERIAL PLAN NORTH BRIDGE
C301	LAYOUT AND MATERIAL PLAN SOUTH BRIDGE
C310	GRADING AND DRAINAGE NORTH BRIDGE
C311	GRADING AND DRAINAGE SOUTH BRIDGE
C810	DETAILS
S1	GENERAL NOTES
S2A	FOUNDATION PLAN NORTH BRIDGE
S2B	FOUNDATION PLAN SOUTH BRIDGE
S3	SECTIONS & DETAILS
S4	BRIDGE SECTION
--	50' x 10' STANDARD WOOD DECK PEDESTRIAN BRIDGE
--	70' x 6' STANDARD WOOD DECK PEDESTRIAN BRIDGE

Sheet List Table



BENCHMARK INFORMATION

SITE BM
BENCHMARK DISK "HAN G-1" IN BRIDGE OVER BRANDYWINE CREEK AT US 40, MAIN STREET.
ELEV. 869.75 (NAVD 88)

SITE TBM

TBM #1
IRON PIN SET WITH BLUE CAP STAMPED "CONTROL" LOCATED WEST ±159 FEET FROM THE EDGE OF BRANDYWINE CREEK AND ±16 FEET NORTH FROM THE CONCRETE BRIDGE OVER BRANDYWINE CREEK.
ELEV. 861.37 (NAVD 88)

TBM #2
IRON PIN SET WITH BLUE CAP STAMPED "CONTROL" LOCATED NORTH ±16 FEET FROM THE EDGE OF BRANDYWINE CREEK AND SOUTHWEST ±60 FEET FROM THE CONCRETE BRIDGE OVER BRANDYWINE CREEK.
ELEV. 860.80 (NAVD 88)



PLANS PREPARED FOR
GREENFIELD PARKS AND RECREATION
280 N. APPLE STREET
GREENFIELD, INDIANA 46140
TELEPHONE: (317) 447-4340
CONTACT PERSON: ELLEN KUKER
EMAIL: ekuker@greenfieldin.gov



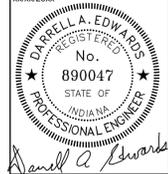
PLANS PREPARED BY
WEIHE ENGINEERS, INC.
10505 N. COLLEGE AVE.
INDIANAPOLIS, INDIANA 46280
TELEPHONE: (317) 846-6611
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ALLAN H. WEIHE, P.E., L.S. - FOUNDER

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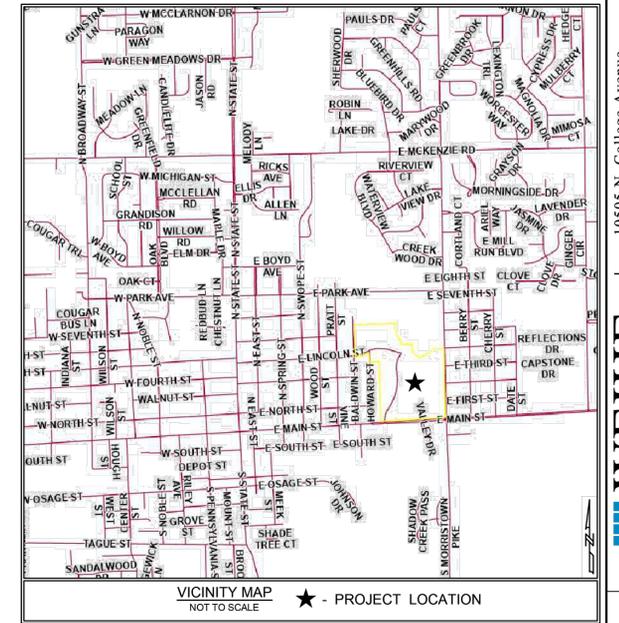
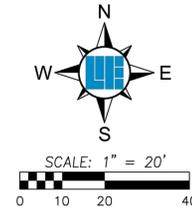
PROJECT NO.	DWG NAME	COORD TITLE	DESIGNER	MARK	DRAWN BY	CHKD BY	DATE
W24.0748							



PREPARED FOR:
Riley Park Bridge Replacement Project
300 Apple St., Greenfield, IN 46140
PROJECT NO. W24.0749
SHEET NO. **C001**



① CURRENT SITE



VICINITY MAP
NOT TO SCALE ★ - PROJECT LOCATION



LEGEND

	FIRE HYDRANT		ASPHALT
	CY ANCHOR		CONCRETE (CONC)
	STREET LIGHT		STONE
	SQUARE INLET	ABBREVIATIONS	
	SIGN	RCP	REINFORCED CONCRETE PIPE
	POST	CPP	CORRUGATED PLASTIC PIPE
	TREE STUMP	INV	INVERT
	BOULDER	LINE TYPES	
	DECIDUOUS TREE		TREE LINE
			GUARD RAIL
			HAND RAIL
			MIXED OR UNIDENTIFIED OVERHEAD UTILITY
			STORM SEWER
			INDEX CONTOUR
			INTERMEDIATE CONTOUR
			EDGE OF WATER

GENERAL NOTES

THE BASIS OF BEARINGS FOR THIS PLAT OF SURVEY IS THE USE OF A STATE PLANE GRID SYSTEM DERIVED FROM THE EAST ZONE OF THE INDIANA STATE PLANE COORDINATE SYSTEM (1301 IN EAST ZONE - N.A.D. 1983), 2011 ADJUSTMENT AS DETERMINED BY RTK GPS MEASUREMENTS UTILIZING TRIMBLE'S VRSNOW RTK NETWORK. ALL MEASUREMENTS SHOWN ON THIS SURVEY ARE GROUND MEASUREMENTS DERIVED FROM GRID COORDINATES AND HAVE US SURVEY FOOT UNITS.

THE VERTICAL DATUM FOR THIS SURVEY WAS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND WAS ESTABLISHED ON TEMPORARY BENCHMARKS AND CONTROL POINTS USING THE ABOVE-MENTIONED OPUS SOLUTION SOLUTIONS FROM THE ABOVE-MENTIONED RTK NETWORK.

THE ACCURACY OF THE FLOOD HAZARD DATA SHOWN ON THIS SURVEY IS SUBJECT TO MAP SCALE UNCERTAINTY AND TO ANY OTHER UNCERTAINTY IN LOCATION OR ELEVATION ON THE REFERENCED FLOOD INSURANCE RATE MAP. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP OF HANCOCK COUNTY, INDIANA, MAP #18059C0142D DATED 12/4/2007, THE SURVEYED PROPERTY LIES WITHIN THE SPECIAL FLOOD HAZARD AREA ZONE "AE", AN AREA WHERE THE BASE FLOOD ELEVATIONS OF THE 1% ANNUAL CHANCE FLOOD HAVE BEEN DETERMINED; THE LIMITS OF SAID ZONES ARE SHOWN HEREON BY SCALE FROM SAID MAP.

SITE BM
BENCHMARK DISK "HAN G-1" IN BRIDGE OVER BRANDYWINE CREEK AT US 40, MAIN STREET.
ELEV. 869.75 (NAVD 88)

SITE TBM

TBM #1
IRON PIN SET WITH BLUE CAP STAMPED "CONTROL" LOCATED WEST ±150 FEET FROM THE EDGE OF BRANDYWINE CREEK AND ±10 FEET NORTH FROM THE CONCRETE BRIDGE OVER BRANDYWINE CREEK.
ELEV. 861.37 (NAVD 88)

TBM #2
IRON PIN SET WITH BLUE CAP STAMPED "CONTROL" LOCATED NORTH ±16 FEET FROM THE EDGE OF BRANDYWINE CREEK AND ±10 FEET FROM THE CONCRETE BRIDGE OVER BRANDYWINE CREEK.
ELEV. 860.80 (NAVD 88)



② CURRENT SITE

10505 N. College Avenue
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weihe.net
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800 | 452 - 6408
317 | 843 - 0546 / fax

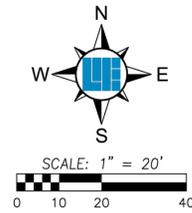
WEIHE ENGINEERS
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PROJECT NO.	W240749
DWG NAME	W240749-TOPO.dwg
FIELD INITIALS	
DRAWN BY	MT
CHECKED BY	MM
DATE	

DATE	
BY	
REVISIONS AND ISSUES	

PREPARED FOR
Riley Park Bridge Replacement Project
28 APPLE STREET GREENFIELD, IN 46140
SURVEY NORTH BRIDGE
SECTION 33, TOWNSHIP16N, RANGE 7E, CENTER TOWNSHIP, HANCOCK COUNTY, INDIANA.

SHEET NO.
C050
PROJECT NO.
W240749



3 CURRENT SITE



4 CURRENT SITE

LEGEND

	FIRE HYDRANT		PHOTO 1 DIRECTION AND PLACEMENT
	GUY ANCHOR		PHOTO 2 DIRECTION AND PLACEMENT
	STREET LIGHT		PHOTO 3 DIRECTION AND PLACEMENT
	SQUARE INLET		PHOTO 4 DIRECTION AND PLACEMENT
	SIGN		
	POST		
	TREE STUMP		
	BOULDER		
	DECIDUOUS TREE		

HATCH PATTERNS

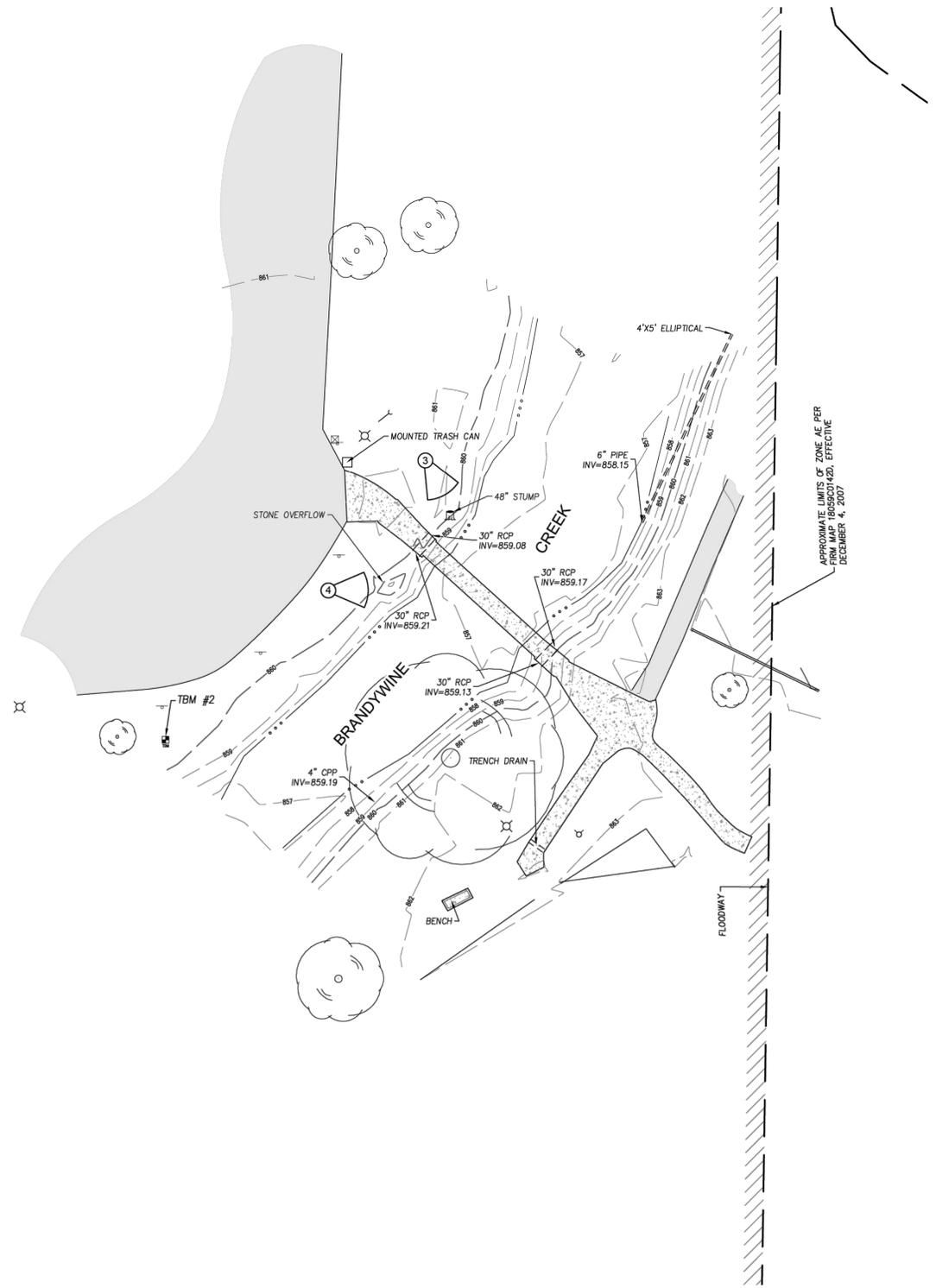
	ASPHALT
	CONCRETE (CONC)
	STONE

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
CPP	CORRUGATED PLASTIC PIPE
INV	INVERT

LINE TYPES

	TREE LINE
	GUARD RAIL
	HAND RAIL
	MIXED OR UNIDENTIFIED OVERHEAD UTILITY
	STORM SEWER
	INDEX CONTOUR
	INTERMEDIATE CONTOUR



U.S. HWY 40

This drawing is not intended to be represented as a retracement or original boundary survey, a road survey, or a Surveyor Location Report.

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PROJECT NO.	W240749
DWG NAME	W240749-TOPO.dwg
FIELD INITIALS	
DRAWN BY	MT
CHECKED BY	MM
DATE	

BY	
DATE	

REVISIONS AND ISSUES	
----------------------	--

DATE	
------	--

PREPARED FOR
Riley Park Bridge Replacement Project
28 APPLE STREET GREENFIELD, IN 46140
SURVEY SOUTH BRIDGE
SECTION 33, TOWNSHIP16N, RANGE 7E, CENTER TOWNSHIP, HANCOCK COUNTY, INDIANA.

SHEET NO.
C051
PROJECT NO.
W240749

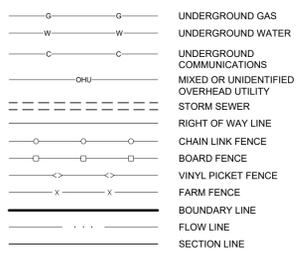
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DATE/TIME: 7/26/2025 8:34:42 AM
PLOT/DWG BY: An Nguyen

LOCATION: H:\2024\W24.0749\Engineering\Design\Sheet\C101.DWG
 DATE/TIME: March 06, 2024 - 11:09am
 PLOTTED BY: kschubert



LEGEND:

- REBAR FOUND
- 5/8" Ø REBAR WITH YELLOW PLASTIC CAP STAMPED "WEIHE ENGR. 0012" SET
- ⊕ HARRISON MONUMENT FOUND
- ⊕ PK OR MAG NAIL FOUND
- ⊕ MAG NAIL WITH WASHER STAMPED "WEIHE ENGR. 0012" SET
- ⊕ STONE FOUND
- ⊕ OTHER MONUMENT
- ⊕ BENCH MARK
- ⊕ TEMPORARY BENCH MARK
- ⊕ WATER VALVE
- ⊕ FIRE HYDRANT
- ⊕ WATER METER
- ⊕ GAS METER
- ⊕ GAS VALVE
- UTILITY POLE
- ⊕ GUY ANCHOR
- ⊕ COMMUNICATIONS JUNCTION BOX
- ⊕ FIBER OPTIC MARKER
- ⊕ COMMUNICATIONS PEDESTAL
- ⊕ BEEHIVE INLET
- ⊕ POST
- ⊕ MAIL BOX
- CMP CORRUGATED METAL PIPE
- RCP REINFORCED CONCRETE PIPE
- PVC POLYVINYL CHLORIDE PIPE
- INV INVERT
- (M) MEASURED DIMENSION
- (D) DEED DIMENSION
- MCSO MARION COUNTY SURVEYOR'S OFFICE



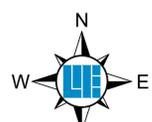
GENERAL DEMOLITION NOTES:

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS OF ALL EXISTING UTILITIES PERTAINING TO THEIR PHASE OF WORK.
- LOCATIONS OF UTILITIES NOTED TO BE REMOVED ARE APPROXIMATE AND SHALL BE RELOCATED, CAPPED AND/OR ABANDONED PRIOR TO CONSTRUCTION.
- ALL DEMOLITION MATERIAL AND SALVAGEABLE MATERIAL ARE THE PROPERTY OF THE DEMOLITION CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFFSITE.
- THE CONTRACTOR SHALL OBTAIN ALL DEMOLITION PERMITS REQUIRED BY LOCAL AND STATE AGENCIES.
- THE CONTRACTOR SHALL REMOVE ALL EXISTING FENCES LOCATED INTERNALLY ON SITE. PERIMETER FENCES TO BE REMOVED ARE TO BE CONFIRMED BY OWNER.
- THE CONTRACTOR SHALL MAINTAIN STREETS FREE AND CLEAR OF SEDIMENT AND DEBRIS.
- ALL EXISTING FIELD TILES ARE TO BE CONNECTED TO THE PROPOSED STORM SYSTEM. CONTACT ENGINEER FOR DIRECTION.



NOTE:

- ONE BRIDGE TO REMAIN OPEN AT ALL TIMES.
- SOUTH BRIDGE TO BE REPLACED FIRST.
- CONTRACTOR TO COORDINATE SPECIFICS OF CONSTRUCTION SEQUENCE WITH OWNER.



SCALE: 1" = 20'
 0 10 20 40



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 weihe.net
 317 | 846 - 6611
 800 | 452 - 6408
 317 | 843 - 0546 fax

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PROJECT NO.:	BY:	DATE:
W24.0749		
DWG NAME:		
C101 DEMO		
DESIGNER:		
MARK		
DRAWN BY:		
GBB		
CHECKED BY:		
MRK		
DATE:		
3/06/2024		

APPROVAL PENDING
 NOT FOR CONSTRUCTION

PREPARED FOR:
Riley Park Bridge Replacement Project
 300 Apple St., Greentfield, IN 46140
DEMOLITION SOUTH BRIDGE
 Part of Section 33, Township 18 North, Range 7 East, Center Township, Hancock County, Indiana

SHEET NO.
C101

PROJECT NO.
 W24.0749

PHASE I EROSION CONTROL (BEFORE MAJOR EARTHWORK)

NOTES:

- THIS PLAN INDICATES EROSION CONTROL MEASURES REQUIRED BEFORE SOIL STRIPPING AND PAD CONSTRUCTION IS TAKING PLACE. COORDINATE WITH SOIL CONSERVATION DISTRICT REPRESENTATIVE FOR ANY OTHER MEASURES REQUIRED DUE TO SITE CONDITIONS.
- THIS PLAN IS TO BE USED FOR STORMWATER POLLUTION PREVENTION PURPOSES ONLY. FOR ANY OTHER INFORMATION SEE SITE CONSTRUCTION PLANS AND DETAILS.
- ALL DISTURBED AREAS THAT WILL BE POTENTIALLY IDLE FOR 7 DAYS OR MORE TO BE STABILIZED (SEEDED, MULCHED, ETC) IMMEDIATELY.
- NO EARTHMOVING MAY TAKE PLACE WITHOUT AN APPROVED STORMWATER POLLUTION PREVENTION PLAN.
- ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES MAY BE REQUIRED IN THE FIELD BY THE MS4 REPRESENTATIVE.
- THERE SHALL BE NO DIRT, DEBRIS OR STORAGE OF MATERIALS IN THE STREETS.
- SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS PRIOR TO ANY EARTHWORK.
- ALL WORK WITHIN THE RIGHT-OF-WAY SHALL MEET CURRENT LOCAL CONSTRUCTION STANDARDS.
- THE CONTRACTOR SHALL PROTECT EXISTING RIGHT-OF-WAY INFRASTRUCTURE AND BE RESPONSIBLE FOR RESTORATION AS NECESSARY.
- IDEM IS THE REVIEW AUTHORITY FOR THE EROSION CONTROL ACTIVITIES REQUIRING CONTACT, PRE-CONSTRUCTION MEETING INVITATION, SELF-MONITORING REPORT DELIVERY TO THEIR MS4 REPRESENTATIVE.
- NOTICE OF THE SCHEDULED DATE FOR COMPLETION OF CONSTRUCTION SHALL BE PROVIDED TO THE MS4 REPRESENTATIVE AT LEAST SEVENTY TWO (72) HOURS PRIOR TO COMPLETION. THE CONTRACTOR OR OWNER WILL SCHEDULE THE FINAL INSPECTION. THE STORM DRAIN AND SITE GRADING PERFORMANCE SURETIES WILL BE RELEASED AFTER SUBMITTAL AND APPROVAL.
- APPROXIMATE CONSTRUCTION SCHEDULE:
START DATE: August, 2025
COMPLETION DATE:
RECEIVING WATERS = Brandywine Creek
- LATITUDE = 39° 47' 21" N, LONGITUDE = 85° 45' 29" W
- HYDROLOGIC UNIT CODE: 051202040302
- PERSON IN CHARGE OF SWPPP IMPLEMENTATION:
GREENFIELD PARKS AND RECREATION
280 N. APPLE STREET
GREENFIELD, INDIANA 46140
TELEPHONE: (317) 447-4340
CONTACT PERSON: ELLEN KUKER
EMAIL: ekuker@greenfieldin.gov
- CONTRACTOR SHALL COMPLY WITH CONDITIONS STATED IN INDIANA DNR PERMIT # FW-33354, EFFECTIVE DATE 01/06/2026. SEE SHEETS C200 AND C201 FOR LIMITS OF THE FLOODWAY.

PRE CONSTRUCTION ACTIVITIES

- CALL THE INDIANA UNDERGROUND PLANT PROTECTION SYSTEMS, INC. ("HOLEY MOLEY") AT 811 TWO WORKING DAYS BEFORE CONSTRUCTION BEGINS TO CHECK THE LOCATIONS OF ANY EXISTING UTILITIES.
- CONTACT THE MS4 STORMWATER DEPARTMENT INSPECTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST 3 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
- CONTACT IDEM AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- INSTALL SILT FENCE AT THE EDGES OF THE PROJECT SITE WHERE THERE IS POTENTIAL FOR ANY STORMWATER RUNOFF AS DENOTED ON THE STORMWATER POLLUTION PREVENTION PLAN. POTENTIAL AREAS ARE IDENTIFIED BASED ON EXISTING TOPOGRAPHY AROUND THE PERIMETER OF THE SITE.
- INSTALL INLET PROTECTION ON ALL EXISTING STORM SEWER STRUCTURES WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT AS INDICATED ON THE PLANS.
- EVALUATE, MARK AND PROTECT IMPORTANT TREES AND ASSOCIATED ROOT ZONES. EVALUATE EXISTING VEGETATION SUITABLE FOR USE AS FILTER STRIPS ALONG THE PERIMETER OF THE SITE.
- INSTALL CONSTRUCTION ENTRANCE IN THE LOCATION SHOWN ON THE PLANS AND PER SPECIFICATIONS.
- ESTABLISH CONSTRUCTION STAGING AREA FOR EQUIPMENT AND VEHICLES AS FAR FROM DETENTION PONDS AND SWALES AS POSSIBLE.
- INSTALL TRASH DUMPSTER, CONCRETE WASHOUT AREA AND PLACE PORT-O-LET AS INDICATED ON THE PLANS.
- ESTABLISH ONSITE LOCATION FOR OWNER/CONTRACTOR PLACEMENT OF APPROVED PLANS, CSQP NOI AND CSQP INSPECTION DOCUMENTS.
- CONTACT THE MS4 REPRESENTATIVE TO CONDUCT INITIAL EROSION INSPECTION BEFORE MASS EARTHWORK.

CONTRACTOR TO COMPLY WITH CONDITIONS OF THE PERMIT OUTLINED WITH FW-33354 AS WELL AS THE CONDITIONS OF SECTION 401 AND 404 GENERAL WATER QUALITY CERTIFICATION UNDER NATIONWIDE PERMIT 14, IDEM NO. 2025-769-30-LDC-NWP, AND CORPS ID NO. LRL-2025-00629-JDE.

CONSTRUCTION SEQUENCING

- THE PURPOSE OF STAGING CONSTRUCTION DURING THE PROJECT IS TO LIMIT THE AMOUNT OF GROUND DISTURBED AT ANY GIVEN TIME AND TO PREVENT SEDIMENT FROM LEAVING THE SITE. THE FOLLOWING SEQUENCE OF CONSTRUCTION SHOULD BE FOLLOWED AS MUCH AS POSSIBLE.
- CLEAR AND STRIP AT POND OUTLET AREAS.
 - INSTALL POND OUTLETS.
 - INSTALL POND MOUNDING AT DOWNSTREAM LOCATIONS STARTING AT DOWNSLOPE SIDES.
 - CONSTRUCT COMPENSATORY STORAGE BASIN. COMPENSATORY STORAGE BASINS SHALL RECEIVE PERMANENT SEED AND EROSION CONTROL BLANKET AS SHOWN ON THE PLANS.
 - CONTINUE SITE CLEARING.
 - STRIP TOPSOIL OR SOIL CONTAINING VEGETATION AND ROOT FIBERS AND PLACE IN TOPSOIL STOCKPILE AREA AS NOTED ON THE PLANS.
 - COMPLETE ALL MASS GRADING REQUIRED. IF LIME OR OTHER SOLID ADDITIVES WILL BE USED TO STABILIZE THE SUBGRADE, APPLY BEFORE ANY STORM SEWER INSTALLATION.
 - INSTALL ALL STORM SEWER SYSTEMS. INSTALL ALL INLET PROTECTION AS EACH INLET IS COMPLETED AS SHOWN ON THE PLANS AND THE DETAIL SHEETS.
 - INSTALL WALKS.
 - INSTALL TEMPORARY SEEDING IN ALL GRADED AREAS THAT WILL NOT BE DISTURBED FOR 7 DAYS OR MORE.
 - FINISH GRADE, PREPARE SEED BED, AND APPLY PERMANENT SEED AND EROSION CONTROL BLANKETS AS SHOWN ON THE PLANS.
 - CLEAN AND MAINTAIN ALL INLET PROTECTION, SILT FENCE, EROSION CONTROL BLANKETS, TEMPORARY SILTATION BASINS AND TEMPORARY SEEDING AREAS UNTIL THE PROJECT IS COMPLETELY BUILT OUT.
 - IF SEEDED AREAS DO NOT PRODUCE A MINIMUM OF 70 PERCENT VEGETATIVE COVER, CONTRACTOR SHALL RE-SEED TO OBTAIN ADEQUATE VEGETATIVE COVER FOR STABILIZATION OF THE SITE.
 - REMOVE ALL TEMPORARY EROSION CONTROL PRACTICES INCLUDING SILT FENCE WHEN ENTIRE SITE HAS REACHED 70 PERCENT VEGETATIVE COVER.

DISTURBED ACREAGE
= 0.10± AC.

EXISTING AREAS
TOTAL SITE = 0.31 AC
(LIMITS OF CONSTRUCTION)

DISTURBED = 0.10 AC

EXISTING IMPERVIOUS = 0.07 AC
EXISTING PERVIOUS = 0.02 AC

PROPOSED IMPERVIOUS = 0.02 AC
PROPOSED PERVIOUS = 0.02 AC

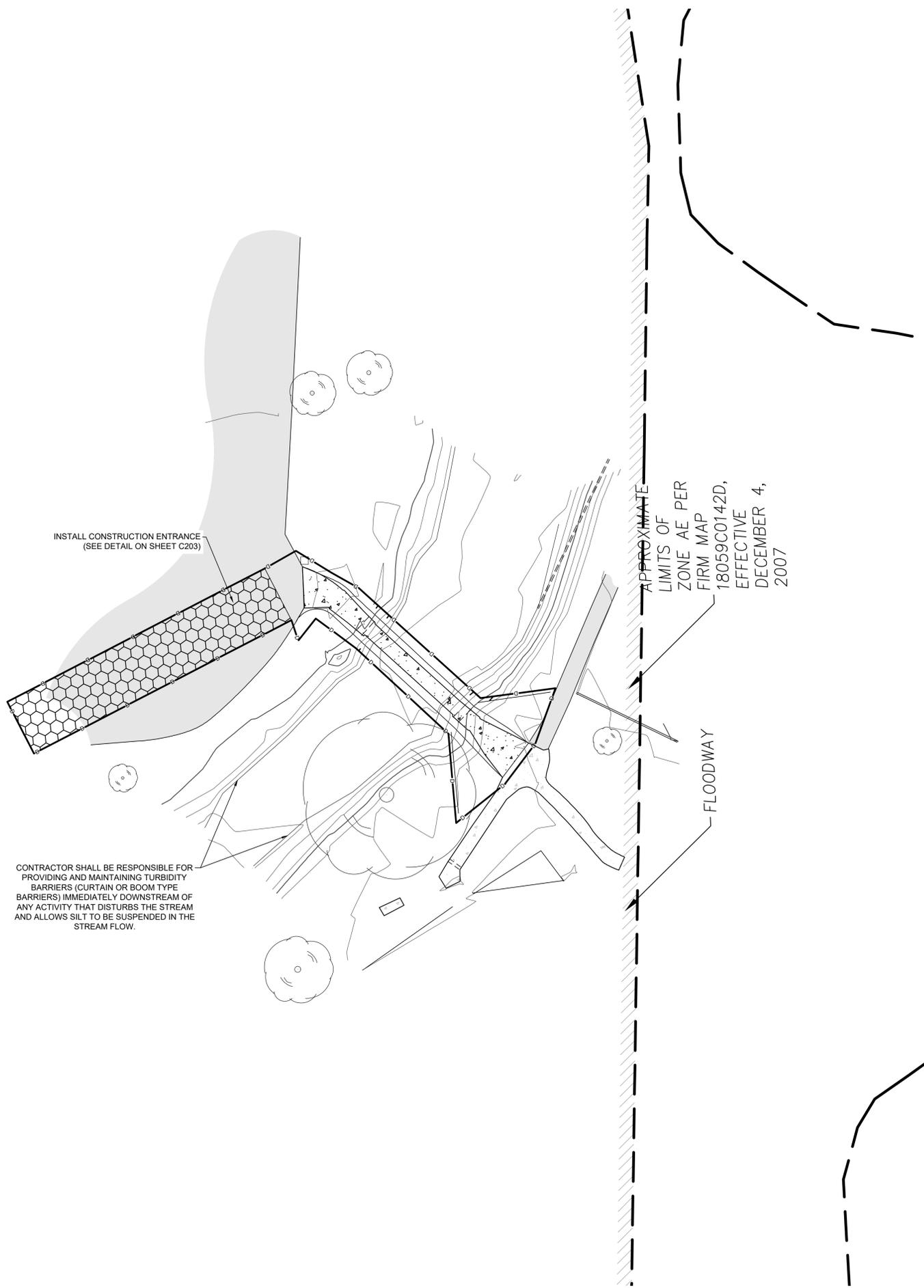
SWPPP PHASE 1 LEGEND

- INLET PROTECTION - USE SUBSURFACE INLET PROTECTION WITH OVERFLOW CAPABILITY (DANDY SAC)
- CONSTRUCTION ENTRANCE
- STAGING AREA
- POSTING AREA - 4" PVC TUBE WITH END CAPS ATTACHED TO PROJECT CONSTRUCTION SIGN TO CONTAIN APPROVED CONSTRUCTION DRAWINGS AND PERMITS FOR INSPECTORS.
- INSTALL COIR LOGS (GRASS AREA) OR SILT DIKES (PAVEMENT AREA) AS SHOWN. CONTRACTOR TO ADD ADDITIONAL MEASURES AS CONSTRUCTION PHASING AND SITE CONDITIONS DICTATE
- CONCRETE WASHOUT
- STOCKPILE AREA (TEMPORARY SEEDING REQUIRED)
- SILT FENCE
- TREE PROTECTION
- ROCK CHECK DAM
- LIMITS OF DISTURBANCE



SCALE: 1" = 20'
0 10 20 40

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Call before you dig.
Within Indiana Call
811 or 800-332-5544
24 Hours a Day, 7 Days a Week.
PER INDIANA STATE LAW IC 8-1-26,
IT IS AGAINST THE LAW TO DIGG
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.



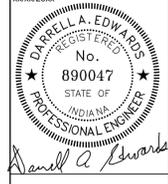
APPROXIMATE
LIMITS OF
ZONE AE PER
FIRM MAP
18059C0142D,
EFFECTIVE
DECEMBER 4,
2007

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Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

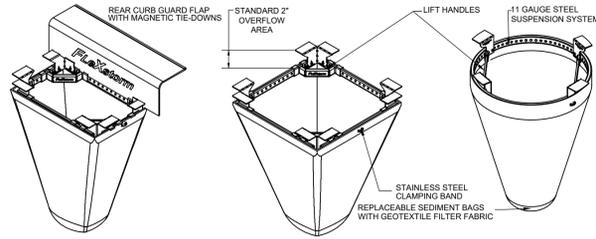
WEIHE ENGINEERS
Land Surveying | Civil Engineering
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Build with confidence.

PROJECT NO.	DATE	BY	REVISIONS AND ISSUES
W24.0748			
DWG NAME:			
CADD SWPPP			
DESIGNER:			
MARK			
DRAWN BY:			
GHB			
CHECKED BY:			
MARK			
DATE:			
SCALE:			



PREPARED FOR:
Riley Park Bridge Replacement Project
300 Apple St., Greenfield, IN 46140
SWPPP1 SOUTH BRIDGE
Part of Section 33, Township 18 North, Range 7 East, Center Township, Hancock County, Indiana

SHEET NO.
C201
PROJECT NO.
W24.0749



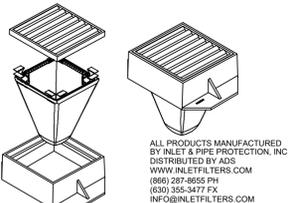
TYPICAL CURB BOX INLET FILTER TYPICAL FLAT / RECTANGULAR / ROLLED CURB INLET FILTER TYPICAL ROUND INLET FILTER

INSTALLATION
 1) REMOVE INLET GRATE.
 2) DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE. ADJUST AS REQUIRED.
 3) REPLACE GRATE.
MAINTENANCE
 1) REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF INLET AFTER EACH STORM EVENT.
 2) AFTER EACH STORM EVENT AND AT WEEKLY INTERVALS.

FLEXSTORM Inlet Filter Specifications

WOVEN Geotextile Sediment Bag Specs (2 ft³ vol)

Material Property	Test Method	Value (ave)
Grab Tensile	ASTM D 4632	255 x 275
Puncture Strength	ASTM D 4833	135 lbs
Trapezoidal Tear	ASTM D 4533	75 lbs
UV Resistance	ASTM D 4355	90%
App Open Size (AOS)	ASTM D 4751	20 sieve
Permittivity	ASTM D 4491	1.5 / sec
Water Flow Rate	ASTM D 4491	200 gpm/sqft
Sediment Removal Efficiency (8% mix)	ASTM D 7351	82%



ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC. DISTRIBUTED BY AQS WWW.INLETFILTERS.COM (866) 287-6655 PH (330) 355-3477 FX INFO@INLETFILTERS.COM

TABLE 1. TEMPORARY SEEDING SPECIFICATIONS

SEED SPECIES	RATE PER ACRE	PLANTING DEPTH	OPTIMUM DATES
WHEAT OR RYE	150 LBS.	1 TO 1 1/2 INCHES	SEPT. 15 - OCT. 30
SPRING OATS	100 LBS.	1 INCH	MARCH 1 - APRIL 15
ANNUAL RYEGRASS	40 LBS.	1/2 INCH	MARCH 1 - MAY 1 AUG. 1 - SEPT. 1
GERMAN MILLET	40 LBS.	1 TO 2 INCHES	MAY 1 - JUNE 1
SUDANGRASS	35 LBS.	1 TO 2 INCHES	MAY 1 - JULY 30
BUCKWHEAT	60 LBS.	1 TO 2 INCHES	APRIL 15 - JUNE 1
CORN (BROADCAST)	300 LBS.	1 TO 2 INCHES	MAY 11 - AUG. 10
SORGHUM	35 LBS.	1 TO 2 INCHES	MAY 1 - JULY 15

1. PERENNIAL SPECIES MAY BE USED AS A TEMPORARY COVER, ESPECIALLY IF THE AREA TO BE SEEDING WILL REMAIN BARE FOR MORE THAN ONE YEAR.
 2. SEEDING DONE OUTSIDE THE OPTIMUM SEEDING DATES INCREASES THE CHANCES OF SEEDING FAILURE. DATES MAY BE EXTENDED OR SHORTENED BASED ON THE LOCATION OF THE PROJECT SITE WITHIN THE STATE.

NOTES
 1. MULCH ALONE IS AN ACCEPTABLE TEMPORARY COVER AND MAY BE USED IN LIEU OF TEMPORARY SEEDING, PROVIDED THAT IT IS APPROPRIATELY ANCHORED.
 2. A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED FLOW.

SEEDING PREPARATION
 1. TEST SOIL TO DETERMINE PH AND NUTRIENT LEVELS.
 2. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST. IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
 3. WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.

SEEDING
 1. SELECT A SEED SPECIES OR AN APPROPRIATE SEED MIXTURE AND APPLICATION RATE FROM TABLE 1.
 2. APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER SEED TO THE DEPTH SHOWN IN TABLE.

NOTES
 1. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRING THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS.
 2. DAILY SEEDING WHEN THE SOIL IS MOST RICH USUALLY MOST EFFECTIVE.
 3. IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.
 4. APPLY MULCH AND ANCHOR IT IN PLACE.

MAINTENANCE
 1. INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
 2. CHECK FOR EROSION OR MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
 3. MONITOR FOR EXCESSIVE DAMAGE AND ADEQUATE COVER (80 PERCENT DENSITY). RESEED, FERTILIZE, AND APPLY A MULCH WHERE NECESSARY.
 4. IF NITROGEN DEFICIENCY IS APPARENT, TOP-DRESS FALL SEEDING WHEAT OR RYE SEEDING WITH 50 POUNDS PER ACRE OF NITROGEN IN FEBRUARY OR MARCH.

REFERENCE IN CHAPTER 7 PAGES 31-33 IN THE INDIANA STORM WATER QUALITY MANUAL.

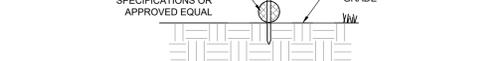
TEMPORARY SEED



INSTALLATION
 1) INSTALL COIR LOG PER THE PLAN LOCATIONS.
 2) CHECK FOR EROSION OR MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
 3) STAKE IN PLACE PER THE ABOVE DETAIL.
 4) IF COIR LOG IS USED ON PAVEMENT THE USE OF SANDBAGS (ON TOP) AT 5' SPACING IS REQUIRED TO SECURE COIR LOGS IN PLACE.

MAINTENANCE
 1) AFTER EACH STORM EVENT AND AT WEEKLY INTERVALS, INSPECT THE COIR LOGS AND LEVEL OF SEDIMENT PRESENT UPSTREAM OF THE LOG.
 2) IF THE SEDIMENT IS 1/2 THE HEIGHT OF THE LOG, REMOVE SEDIMENT AND DISPOSE OF IN AN APPROVED LOCATION.
 3) INSPECT LOG TO ENSURE STORMWATER FLOW IS NOT FLOWING AROUND OR UNDER THE LOG AND FOR ANY DAMAGE.
 4) REPLACE SATURATED OR REPAIR TORN OR DAMAGED LOGS AS REQUIRED.

COIR LOG (FIBER ROLL)



INSTALLATION
 1) LAY OUT THE LOCATION OF THE FENCE SO THAT IT IS PARALLEL TO THE CONTOUR OF THE SLOPE AND AT LEAST 10 FEET BEYOND THE TOE OF THE SLOPE TO PROVIDE A SEDIMENT STORAGE AREA. TURN THE ENDS OF THE FENCE UP SLOPE SUCH THAT THE POINT OF CONTACT BETWEEN THE GROUND AND THE BOTTOM OF THE FENCE END TERMINATES AT A HIGHER ELEVATION THAN THE TOP OF THE FENCE AT ITS LOWEST POINT.
 2) EXCAVATE AN EIGHT-INCH DEEP BY FOUR-INCH WIDE TRENCH ALONG THE ENTIRE LENGTH OF THE FENCE LINE. INSTALLATION BY PLOWING IS ALSO ACCEPTABLE.
 3) INSTALL THE SILT FENCE WITH THE FILTER FABRIC LOCATED ON THE UP-SLOPE SIDE OF THE EXCAVATED TRENCH AND THE SUPPORT POSTS ON THE DOWN-SLOPE SIDE OF THE TRENCH. DRIVE THE SUPPORT POSTS AT LEAST 18 INCHES INTO THE GROUND, TIGHTLY STRETCHING THE FABRIC BETWEEN THE POSTS AS EACH IS DRIVEN INTO THE SOIL. MINIMUM OF 12 INCHES OF THE FILTER FABRIC SHOULD EXTEND INTO THE TRENCH.
 4) LAY THE LOWER FOUR INCHES OF FILTER FABRIC ON THE BOTTOM OF THE TRENCH AND EXTEND IT TOWARD THE UP-SLOPE SIDE OF THE TRENCH.
 5) BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE.

NOTE: IF THE SILT FENCE IS BEING CONSTRUCTED ON-SITE, ATTACH THE FILTER FABRIC TO THE SUPPORT POSTS AND ATTACH WOODEN LATHE TO SECURE THE FABRIC TO THE POSTS. ALLOW FOR AT LEAST 12 INCHES OF FABRIC BELOW GROUND LEVEL. COMPLETE THE SILT FENCE INSTALLATION, FOLLOWING STEPS 1 THROUGH 6 ABOVE.

MAINTENANCE
 INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
 IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY. NOTE: ALL REPAIRS SHOULD MEET SPECIFICATIONS AS OUTLINED WITHIN THIS MEASURE.
 REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, GRADE THE SITE TO BLEND WITH THE SURROUNDING AREA, AND STABILIZE.

REFERENCE IN CHAPTER 7 PAGES 215-221 IN THE INDIANA STORM WATER QUALITY MANUAL.

SEDIMENTATION/SILT FENCE
 (NO SCALE)



INSTALLATION
 1. PLAN TO INSTALL THE SYSTEM.
 2. DEPENDENT UPON THE TYPE OF SYSTEM, EITHER EXCAVATE THE PIT OR INSTALL THE CONTAINMENT SYSTEM.
 3. A BASE SHALL BE CONSTRUCTED AND PREPARED THAT IS FREE OF ROCKS AND OTHER DEBRIS THAT MAY CAUSE TEARS OR PUNCTURES IN THE POLYETHYLENE LINING.
 4. INSTALL THE POLYETHYLENE LINING FOR EXCAVATED SYSTEMS. THE LINING SHOULD EXTEND OVER THE ENTIRE EXCAVATION. THE LINING FOR BERMED SYSTEMS SHOULD BE INSTALLED OVER THE POOLING AREA WITH ENOUGH MATERIAL TO EXTEND THE LINING OVER THE BERM OR CONTAINMENT SYSTEM. THE LINING SHOULD BE SECURED WITH PINS, STAPLES, OR OTHER FASTENERS.
 5. PLACE FLAGS, SAFETY FENCING, OR EQUIVALENT TO PROVIDE A BARRIER TO CONSTRUCTION EQUIPMENT AND OTHER TRAFFIC.
 6. PLACE A NON-COLLAPSING, NON-WATERLOGGING COVER OVER THE WASHOUT FACILITY PRIOR TO A PREDICTED RAINFALL EVENT TO PREVENT ACCUMULATION OF WATER AND POSSIBLE OVERFLOW OF THE SYSTEM (OPTIONAL).
 7. INSTALL SIGNAGE THAT IDENTIFIES CONCRETE WASHOUT AREAS.
 8. POST SIGNS DIRECTING CONTRACTORS AND SUPPLIERS TO DESIGNATED LOCATIONS.
 9. WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS APPROACH PAD FOR CONCRETE WASHOUT SYSTEMS.
 10. USE A 10 MIL. POLYETHYLENE LINED DUMPSTER AS AN ALTERNATE.

CONCRETE WASHOUT
 TYPE "ABOVE GRADE W/ STRAW BALES"
 (NO SCALE)

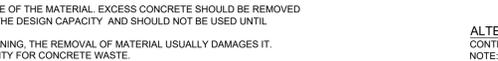


INSTALLATION
 1. UTILIZE AND FOLLOW THE DESIGN IN THE STORM WATER POLLUTION PREVENTION PLAN TO INSTALL THE SYSTEM.
 2. PLAN TO INSTALL THE SYSTEM.
 3. THE ACTUAL LAYOUT DETERMINED IN FIELD.
 4. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMP. CONCRETE WASHOUT FACILITY.
 5. METAL PINS OR STAPLES TO SECURE THE POLYETHYLENE LINING TO THE STRAW BALES.
 6. POLYETHYLENE LINING 10 MIL. EXTENDING OVER BALES.
 7. WOOD OR METAL STAKES (TYP.) - 2 PER BALE.

ALTERNATE
 CONTRACTOR MAY USE A LINED (10 MIL. POLYETHYLENE) DUMPSTER FOR CONCRETE WASHOUT. NOTE: DUMPSTER IS TO BE USED FOR CONCRETE WASHOUT ONLY. NO CONSTRUCTION WASTE OR DEBRIS SHALL BE ALLOWED TO PREVENT TEARING OF THE LINER.

MAINTENANCE
 1. INSPECT DAILY AND AFTER EACH STORM EVENT FOR LEAKS, SPILLS, TRACKING OF SOIL BY EQUIPMENT, AND THE POLYETHYLENE LINING FOR FAILURE.
 2. ONCE CONCRETE WASTES HARDEN, REMOVE AND DISPOSE OF THE MATERIAL. EXCESS CONCRETE SHOULD BE REMOVED WHEN THE WASHOUT SYSTEM REACHES 50 PERCENT OF THE DESIGN CAPACITY AND SHOULD NOT BE USED UNTIL PROPERLY CLEANED OUT.
 3. PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING. THE REMOVAL OF MATERIAL USUALLY DAMAGES IT.
 4. REPAIR OR ENLARGE AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE.
 5. IF LIQUIDS DO NOT EVAPORATE IT MAY BE NECESSARY TO VACUUM OR REMOVE THE LIQUIDS AND DISPOSE OF THEM IN AN ACCEPTABLE METHOD.
 6. WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED THEY SHALL BE CLOSED AND HOLES, DEPRESSIONS AND OTHER DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND STABILIZED.

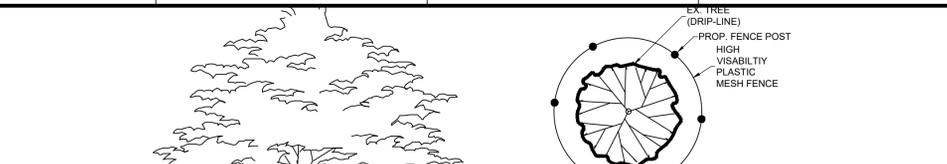
TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD
 (NO SCALE)



INSTALLATION
 1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
 2. GRADE THE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE.
 3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
 4. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.
 5. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
 6. TOP-DRESS THE DRIVE WITH WASHED AGGREGATE (INDOT CA NO. 53).
 7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

MAINTENANCE
 INSPECT DAILY.
 RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
 TOP-DRESS WITH CLEAN AGGREGATE AS NEEDED.
 IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.
 FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.

REFERENCED IN CHAPTER 7 PAGE 22 AND 23 IN INDIANA STORM WATER QUALITY MANUAL.



TREE PRESERVATION DETAIL
 (NO SCALE)

NOTE: AVOIDING DAMAGE DURING CONSTRUCTION
 THE SUREST WAY TO PROTECT TREES THAT ARE TO BE SAVED IS TO:
 1. WORK WITH THE BUILDER TO LOCATE AND MARK WITH FLAGGING AND/OR SIGNS ALL CONSTRUCTION ROADS, PARKING PLACES FOR WORKERS, AND AREAS FOR STORAGE OF BUILDING MATERIALS, GRAVEL, AND SOIL.
 2. WORK WITH THE UTILITY CONTRACTORS TO STAKE OUT THE EXACT LOCATION OF TRENCHES.
 3. ERECT PHYSICAL BARRIERS AROUND ALL "SAVED" TREES OR, BETTER YET, AROUND GROUPS OF TREES, NEAR THE CONSTRUCTION ACTIVITY.
 4. EXTEND BARRIERS AS FAR AS POSSIBLE BEYOND DRIPLINE.

MAXIMUM LOAD SLOPE AND DISTANCE FOR WHICH A SILT FENCE IS APPLICABLE

LOAD SLOPE	MAX. DISTANCE ABOVE FENCE
LESS THAN 2%	100 FT.
2 TO 5%	75 FT.
5 TO 10%	50 FT.
10 TO 20%	25 FT.
MORE THAN 20%	15 FT.

POSTS: STEEL T OR U TYPE, OR 2"x2" HARD WOOD POST
 FENCE: WOVEN WIRE, 14-1/2 GA., 6" MAX. MESH OPENING
 FABRIC: IN ACCORDANCE WITH ASTM D 6461 LATEST EDITION.



INSTALLATION
 1) INSTALL COIR LOG PER THE PLAN LOCATIONS.
 2) CHECK FOR EROSION OR MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
 3) STAKE IN PLACE PER THE ABOVE DETAIL.
 4) IF COIR LOG IS USED ON PAVEMENT THE USE OF SANDBAGS (ON TOP) AT 5' SPACING IS REQUIRED TO SECURE COIR LOGS IN PLACE.

MAINTENANCE
 1) AFTER EACH STORM EVENT AND AT WEEKLY INTERVALS, INSPECT THE COIR LOGS AND LEVEL OF SEDIMENT PRESENT UPSTREAM OF THE LOG.
 2) IF THE SEDIMENT IS 1/2 THE HEIGHT OF THE LOG, REMOVE SEDIMENT AND DISPOSE OF IN AN APPROVED LOCATION.
 3) INSPECT LOG TO ENSURE STORMWATER FLOW IS NOT FLOWING AROUND OR UNDER THE LOG AND FOR ANY DAMAGE.
 4) REPLACE SATURATED OR REPAIR TORN OR DAMAGED LOGS AS REQUIRED.

COIR LOG (FIBER ROLL)



INSTALLATION
 1) LAY OUT THE LOCATION OF THE FENCE SO THAT IT IS PARALLEL TO THE CONTOUR OF THE SLOPE AND AT LEAST 10 FEET BEYOND THE TOE OF THE SLOPE TO PROVIDE A SEDIMENT STORAGE AREA. TURN THE ENDS OF THE FENCE UP SLOPE SUCH THAT THE POINT OF CONTACT BETWEEN THE GROUND AND THE BOTTOM OF THE FENCE END TERMINATES AT A HIGHER ELEVATION THAN THE TOP OF THE FENCE AT ITS LOWEST POINT.
 2) EXCAVATE AN EIGHT-INCH DEEP BY FOUR-INCH WIDE TRENCH ALONG THE ENTIRE LENGTH OF THE FENCE LINE. INSTALLATION BY PLOWING IS ALSO ACCEPTABLE.
 3) INSTALL THE SILT FENCE WITH THE FILTER FABRIC LOCATED ON THE UP-SLOPE SIDE OF THE EXCAVATED TRENCH AND THE SUPPORT POSTS ON THE DOWN-SLOPE SIDE OF THE TRENCH. DRIVE THE SUPPORT POSTS AT LEAST 18 INCHES INTO THE GROUND, TIGHTLY STRETCHING THE FABRIC BETWEEN THE POSTS AS EACH IS DRIVEN INTO THE SOIL. MINIMUM OF 12 INCHES OF THE FILTER FABRIC SHOULD EXTEND INTO THE TRENCH.
 4) LAY THE LOWER FOUR INCHES OF FILTER FABRIC ON THE BOTTOM OF THE TRENCH AND EXTEND IT TOWARD THE UP-SLOPE SIDE OF THE TRENCH.
 5) BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE.

NOTE: IF THE SILT FENCE IS BEING CONSTRUCTED ON-SITE, ATTACH THE FILTER FABRIC TO THE SUPPORT POSTS AND ATTACH WOODEN LATHE TO SECURE THE FABRIC TO THE POSTS. ALLOW FOR AT LEAST 12 INCHES OF FABRIC BELOW GROUND LEVEL. COMPLETE THE SILT FENCE INSTALLATION, FOLLOWING STEPS 1 THROUGH 6 ABOVE.

MAINTENANCE
 INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
 IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY. NOTE: ALL REPAIRS SHOULD MEET SPECIFICATIONS AS OUTLINED WITHIN THIS MEASURE.
 REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, GRADE THE SITE TO BLEND WITH THE SURROUNDING AREA, AND STABILIZE.

REFERENCE IN CHAPTER 7 PAGES 215-221 IN THE INDIANA STORM WATER QUALITY MANUAL.

SEDIMENTATION/SILT FENCE
 (NO SCALE)



INSTALLATION
 1. PLAN TO INSTALL THE SYSTEM.
 2. DEPENDENT UPON THE TYPE OF SYSTEM, EITHER EXCAVATE THE PIT OR INSTALL THE CONTAINMENT SYSTEM.
 3. A BASE SHALL BE CONSTRUCTED AND PREPARED THAT IS FREE OF ROCKS AND OTHER DEBRIS THAT MAY CAUSE TEARS OR PUNCTURES IN THE POLYETHYLENE LINING.
 4. INSTALL THE POLYETHYLENE LINING FOR EXCAVATED SYSTEMS. THE LINING SHOULD EXTEND OVER THE ENTIRE EXCAVATION. THE LINING FOR BERMED SYSTEMS SHOULD BE INSTALLED OVER THE POOLING AREA WITH ENOUGH MATERIAL TO EXTEND THE LINING OVER THE BERM OR CONTAINMENT SYSTEM. THE LINING SHOULD BE SECURED WITH PINS, STAPLES, OR OTHER FASTENERS.
 5. PLACE FLAGS, SAFETY FENCING, OR EQUIVALENT TO PROVIDE A BARRIER TO CONSTRUCTION EQUIPMENT AND OTHER TRAFFIC.
 6. PLACE A NON-COLLAPSING, NON-WATERLOGGING COVER OVER THE WASHOUT FACILITY PRIOR TO A PREDICTED RAINFALL EVENT TO PREVENT ACCUMULATION OF WATER AND POSSIBLE OVERFLOW OF THE SYSTEM (OPTIONAL).
 7. INSTALL SIGNAGE THAT IDENTIFIES CONCRETE WASHOUT AREAS.
 8. POST SIGNS DIRECTING CONTRACTORS AND SUPPLIERS TO DESIGNATED LOCATIONS.
 9. WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS APPROACH PAD FOR CONCRETE WASHOUT SYSTEMS.
 10. USE A 10 MIL. POLYETHYLENE LINED DUMPSTER AS AN ALTERNATE.

CONCRETE WASHOUT
 TYPE "ABOVE GRADE W/ STRAW BALES"
 (NO SCALE)

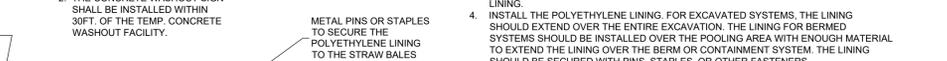


INSTALLATION
 1. UTILIZE AND FOLLOW THE DESIGN IN THE STORM WATER POLLUTION PREVENTION PLAN TO INSTALL THE SYSTEM.
 2. PLAN TO INSTALL THE SYSTEM.
 3. THE ACTUAL LAYOUT DETERMINED IN FIELD.
 4. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMP. CONCRETE WASHOUT FACILITY.
 5. METAL PINS OR STAPLES TO SECURE THE POLYETHYLENE LINING TO THE STRAW BALES.
 6. POLYETHYLENE LINING 10 MIL. EXTENDING OVER BALES.
 7. WOOD OR METAL STAKES (TYP.) - 2 PER BALE.

ALTERNATE
 CONTRACTOR MAY USE A LINED (10 MIL. POLYETHYLENE) DUMPSTER FOR CONCRETE WASHOUT. NOTE: DUMPSTER IS TO BE USED FOR CONCRETE WASHOUT ONLY. NO CONSTRUCTION WASTE OR DEBRIS SHALL BE ALLOWED TO PREVENT TEARING OF THE LINER.

MAINTENANCE
 1. INSPECT DAILY AND AFTER EACH STORM EVENT FOR LEAKS, SPILLS, TRACKING OF SOIL BY EQUIPMENT, AND THE POLYETHYLENE LINING FOR FAILURE.
 2. ONCE CONCRETE WASTES HARDEN, REMOVE AND DISPOSE OF THE MATERIAL. EXCESS CONCRETE SHOULD BE REMOVED WHEN THE WASHOUT SYSTEM REACHES 50 PERCENT OF THE DESIGN CAPACITY AND SHOULD NOT BE USED UNTIL PROPERLY CLEANED OUT.
 3. PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING. THE REMOVAL OF MATERIAL USUALLY DAMAGES IT.
 4. REPAIR OR ENLARGE AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE.
 5. IF LIQUIDS DO NOT EVAPORATE IT MAY BE NECESSARY TO VACUUM OR REMOVE THE LIQUIDS AND DISPOSE OF THEM IN AN ACCEPTABLE METHOD.
 6. WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED THEY SHALL BE CLOSED AND HOLES, DEPRESSIONS AND OTHER DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND STABILIZED.

TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD
 (NO SCALE)



INSTALLATION
 1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
 2. GRADE THE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE.
 3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
 4. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.
 5. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
 6. TOP-DRESS THE DRIVE WITH WASHED AGGREGATE (INDOT CA NO. 53).
 7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

MAINTENANCE
 INSPECT DAILY.
 RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
 TOP-DRESS WITH CLEAN AGGREGATE AS NEEDED.
 IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.
 FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.

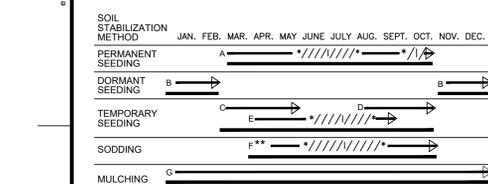
REFERENCED IN CHAPTER 7 PAGE 22 AND 23 IN INDIANA STORM WATER QUALITY MANUAL.

TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD
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 FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.



SEASONAL SOIL PROTECTION CHART

A = KENTUCKY BLUEGRASS* 40 LBS/ACRE; CREEPING RED FESCUE 40 LBS/ACRE; PLUS 2 TONS STRAW MULCH/ACRE, OR ADD ANNUAL RYEGRASS 20 LBS/ACRE.
 B = KENTUCKY BLUEGRASS* 60 LBS/ACRE; CREEPING RED FESCUE 60 LBS/ACRE; PLUS 2 TONS STRAW MULCH/ACRE, OR ADD ANNUAL RYEGRASS 30 LBS/ACRE.
 C = SPRING OATS 3 BUSH/ACRE.
 D = WHEAT OR RYE 2 BUSH/ACRE.
 E = ANNUAL RYEGRASS 40 LBS/ACRE.
 F = SOD (BLEND 3 IMPROVED VARIETIES).
 G = STRAW MULCH 2 TONS/ACRE.

*1/2" IRRIGATION NEEDED DURING JUNE, JULY, AND/OR SEPTEMBER.
 *IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.
 *KENTUCKY BLUEGRASS BLEND OF 3 IMPROVED VARIETIES.

SWPPP INFORMATION SIGN
 INDIANA - (NO SCALE)



SWPPP INFORMATION SIGN
 INDIANA - (NO SCALE)

INSTALLATION
 1) REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF INLET AFTER EACH STORM EVENT.
 2) AFTER EACH STORM EVENT AND AT WEEKLY INTERVALS.

MAINTENANCE
 1) REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF INLET AFTER EACH STORM EVENT.
 2) AFTER EACH STORM EVENT AND AT WEEKLY INTERVALS.

TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD
 (NO SCALE)



INSTALLATION
 1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
 2. GRADE THE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE.
 3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
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 5. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
 6. TOP-DRESS THE DRIVE WITH WASHED AGGREGATE (INDOT CA NO. 53).
 7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

MAINTENANCE
 INSPECT DAILY.
 RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
 TOP-DRESS WITH CLEAN AGGREGATE AS NEEDED.
 IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.
 FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.

REFERENCED IN CHAPTER 7 PAGE 22 AND 23 IN INDIANA STORM WATER QUALITY MANUAL.

TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD
 (NO SCALE)



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 2. GRADE THE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE.
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PHASE II EROSION CONTROL (AFTER MAJOR EARTHWORK)

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- INLET PROTECTION (DANDY SACKS AND WIRE SILT FENCES) FOR PROPOSED STRUCTURES (SEE CITY STANDARD DETAILS).
- PROPOSED INLET PROTECTION (DANDY SACKS AND WIRE SILT FENCES) FOR EXISTING STRUCTURES REQUIRED. (SEE CITY STANDARD DETAILS)
- PERMANENT SEEDING (USE PLANTING CHART) AT A MINIMUM, MULCH IS REQUIRED.
- EROSION CONTROL BLANKET - USE SC150BN BIO-NET AS SUPPLIED BY NORTH AMERICAN GREEN OR APPROVED EQUAL.
- PERMANENT SEEDING - SEDGE MEADOW MIX FROM SPENCE RESTORATION NURSERY (OR APPROVED EQUAL)
- SHEET FLOW PROTECTION
- SWALE
- CONSTRUCTION LIMITS
- RIPRAP
- LOCATION WHERE STORMWATER LEAVES SITE
- ROCK CHECK DAM

DISTURBED ACREAGE
= 0.21± AC.

POST CONSTRUCTION SEQUENCING

THE PURPOSE OF THE POST CONSTRUCTION PHASE IS TO IDENTIFY AND MAINTAIN ALL POST CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) STRUCTURES THUS REDUCING RUNOFF AND CONTROLLING POLLUTANTS. THE FOLLOWING SEQUENCING SHOULD BE FOLLOWED AS MUCH AS POSSIBLE.

- DISTRIBUTE POST CONSTRUCTION BMP OPERATIONS AND MAINTENANCE MANUAL (O&M MANUAL) TO OWNER AND HOME OWNERS ASSOCIATION. THE O&M MANUAL IDENTIFIES AND LOCATES THE BMP STRUCTURE FOR THE OWNER.
- STORMWATER DRY DETENTION BASIN BMP OWNERS MUST ROUTINELY INSPECT BMP TO VERIFY THAT ALL BMP COMPONENTS ARE FUNCTIONING AS DESIGNED AND ARE NOT IN DANGER OF FAILING. ALL BMP NEED MAINTENANCE TO FUNCTION AS WATER QUALITY ENHANCEMENTS. MAINTENANCE CAN RANGE FROM DREDGING SEDIMENT OUT OF THE TREATMENT AREA TO MOWING GRASS.
- BMP OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE BMP AND ANY COSTS ASSOCIATED WITH MAINTAINING THE BMP.
- BMP OWNER SHALL KEEP THE BMP FREE FROM LITTER AND WOODY GROWTH. REFER TO THE INSPECTION AND MAINTENANCE GUIDELINES FOR FURTHER CLARIFICATION.
- SEDIMENT THAT COLLECTS IN THE BMP SHALL BE REMOVED WHEN IT ADVERSELY AFFECTS THE ABILITY OF THE BMP TO PERFORM AS A WATER QUALITY CONTROL DEVICE.

PERMANENT SEEDING NOTES

GRADING
1. GRADE THE SITE TO ACHIEVE PROPOSED GRADES AND POSITIVE DRAINAGE. ADD TOPSOIL TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION.

SEEDBED PREPARATION
1. TEST SOIL TO DETERMINE PH AND NUTRIENT LEVELS.
2. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST AND WORK INTO THE UPPER TWO TO FOUR INCHES OF SOIL. IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
3. TILL THE SOIL TO OBTAIN A UNIFORM SEEDBED. USE A DISK OR RAKE, OPERATED ACROSS THE SLOPE, TO WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL.

SEEDING
OPTIMUM SEEDING DATES: MARCH 1 TO MAY 10 OR AUGUST 10 TO SEPTEMBER 30

PERMANENT SEEDING DONE BETWEEN MAY 10 TO AUGUST 10 - SHALL BE IRRIGATED. SEEDING OUTSIDE OR BEYOND OPTIMUM SEEDING DATES IS STILL POSSIBLE WITH THE UNDERSTANDING THAT RESEEDING OR OVERSEEDING SHALL BE REQUIRED IF ADEQUATE SURFACE COVER IS NOT ACHIEVED. RESEEDING OR OVERSEEDING CAN BE EASILY ACCOMPLISHED IF THE SOIL SURFACE REMAINS WELL PROTECTED WITH MULCH.

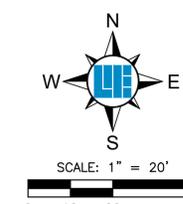
- APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER THE SEED TO A DEPTH OF ONE-FOURTH TO ONE-HALF INCH. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRING THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS. (IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.)
- MULCH ALL SEEDING AREAS AND USE APPROPRIATE METHODS TO ANCHOR THE MULCH IN PLACE. USE EROSION CONTROL BLANKETS ON SLOPING AREAS AND CONVEYANCE CHANNELS. REFER TO SWPPP PLANS EROSION CONTROL BLANKET SPECIFICATIONS.

MAINTENANCE

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS UNTIL THE VEGETATION IS SUCCESSFULLY ESTABLISHED.
- CHARACTERISTICS OF A SUCCESSFUL STAND INCLUDE VIGOROUS DARK GREEN OR BLuishGREEN SEEDLINGS WITH A UNIFORM VEGETATIVE COVER DENSITY OF 90 PERCENT OR MORE.
- CHECK FOR EROSION OR MOVEMENT OF MULCH.
- REPAIR DAMAGED, BARE, GULLIED, OR SPARSELY VEGETATED AREAS AND THEN FERTILIZE, RESEED, AND APPLY AND ANCHOR MULCH.
- IF PLANT COVER IS SPARSE OR PATCHY, EVALUATE THE PLANT MATERIALS CHOSEN, SOIL FERTILITY, MOISTURE CONDITION, AND MULCH APPLICATION; REPAIR AFFECTED AREAS EITHER BY OVERSEEDING OR PREPARING A NEW SEEDBED AND RESEEDING. APPLY AND ANCHOR MULCH ON THE NEWLY SEEDING AREAS.
- IF VEGETATION FAILS TO GROW, TEST SOIL TO DETERMINE SOIL PH OR NUTRIENT DEFICIENCY PROBLEMS. (CONTACT YOUR SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE.)
- IF ADDITIONAL FERTILIZATION OR SOIL AMENDMENTS ARE NEEDED TO GET A SATISFACTORY STAND, DO SO ACCORDING TO SOIL TEST RECOMMENDATIONS.
- ADD FERTILIZER THE FOLLOWING GROWING SEASON. FERTILIZE ACCORDING TO SOIL TEST RECOMMENDATIONS.
- FERTILIZE TURF AREAS ANNUALLY. APPLY FERTILIZER IN A SPLIT APPLICATION. FOR COOL-SEASON GRASSES, APPLY ONE-HALF OF THE FERTILIZER IN LATE SPRING AND ONE HALF IN EARLY FALL. FOR WARM-SEASON GRASSES, APPLY ONE-THIRD IN EARLY SPRING, ONE-THIRD IN LATE SPRING, AND THE REMAINING ONE-THIRD IN MIDDLE SUMMER.

SEDGE MEADOW SEED MIX		
BOTANICAL NAME	COMMON NAME	OZ./ACRE
PERMANENT GRASSES/SEDGES/RUSHES:		
CAREX COMOSA	BRISTLY SEDGE	1.0
CAREX CRISTATELLA	CRESTED SEDGE	1.0
CAREX FRANKII	FRANK'S SEDGE	2.0
CAREX GRANULARIS	MEADOW SEDGE	2.0
CAREX HYSTERICINA	PORCUPINE SEDGE	2.0
CAREX LURIDA	LURID SEDGE	2.0
CAREX TRIBULOIDES	POINTED OVAL SEDGE	1.0
CAREX VULPINOIDEA	FOX SEDGE	3.0
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	64.0
GLYCERIA STRIATA	FOWL MANNA GRASS	2
LEERSIA ORYZOIDES	RICE CUT GRASS	2
PANICUM VIRGATUM	SWITCHGRASS	2
SCIRPUS ATROVIRENS	DARK GREEN BULRUSH	1
SPARTINA PECTINATA	PRAIRIE CORDGRASS	1
	TOTAL	86.0
FORBES & SHRUBS:		
ANGELICA ATROPURPUREA	ANGELICA	2
ASCLEPIAS INCARNATA	SWAMP MILKWEED	1
BOLTONIA LATISQUAMA	FALSE ASTER	2
EUPATORIUM PERFOLIATUM	BONASET	1
EUTROCHUM MACULATUM	SPOTTED JOE-PYE WEED	1
HELENIUM AUTUMNALE	AUTUMN SNEEZEWEED	3
LIATRIS SPICATA	DENSE BLAZING STAR	1
LOBELIA CARDINALIS	CARDINAL FLOWER	0.25
LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	0.25
MIMULUS RINGENS	MONKEY FLOWER	0.5
OLIGONEURON RIDDELLII	RIDDELL'S GOLDENROD	1.00
PENSTEMON DIGITALIS	FOXGLOVE BEARDTONGUE	1.00
PHYCANTHEMUM VIRGINIANUM	MOUNTAIN MINT	0.5
RUBRIBECKIA FULGIDA SPECIOSA	SHOWY BLACK-EYED SUSAN	2.0

HIBISCUS MOSCHEUTOS	SWAMP ROSE MALLOW	2.0
RUBRIBECKIA SUBTOMENTOSA	SWEET BLACK-EYED SUSAN	2.0
SENNA HEBCARPA	WILD SENNA	2.0
SILPHIUM INTERGRIFOLIUM	ROSWINEED	2.0
SILPHIUM PERFOLIATUM	CUPPLANT	2.0
SILPHIUM TEREBINTHINACEUM	PRAIRIE DOCK	2.0
SOLIDAGO PATULA	SWAMP GOLDENROD	1.0
SYMPHYOTRICHUM FIRNUM	SHINING ASTER	0.5
SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.5
SYMPHYOTRICHUM PUNICEUM	SWAMP ASTER	0.5
VERBENA HASTATA	BLUE VERVAIN	1.0
VERNONIA FASCICULATA	SMOOTH IRONWEED	1.0
VERONICASTRUM VIRGINICUM	CULVER'S ROOT	0.5
ZIZIA AUREA	GOLDEN ALEXANDERS	0.5
	TOTAL	34



10505 N. College Avenue
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PROJECT NO.	BY	DATE	REVISIONS AND ISSUES
W24.0748			
DWG NAME: C210 SWPPP2			
DESIGNED BY: MARK			
DRAWN BY: GHB			
CHECKED BY: MARK			
DATE: 03/03/2024			

Daniel A. Edwards

PREPARED FOR:
Riley Park Bridge Replacement Project

300 Apple St., Greentfield, IN 46140

SWPPP2 NORTH BRIDGE

Part of Section 33, Township 16 North, Range 7 East, Center Township, Hancock County, Indiana

SHEET NO.
C210

PROJECT NO.
W24.0749

PHASE II EROSION CONTROL (AFTER MAJOR EARTHWORK)

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- SHEET FLOW PROTECTION
- SWALE
- CONSTRUCTION LIMITS
- RIPRAP
- LOCATION WHERE STORMWATER LEAVES SITE
- ROCK CHECK DAM

DISTURBED ACREAGE
= 0.10 ± AC.

POST CONSTRUCTION SEQUENCING

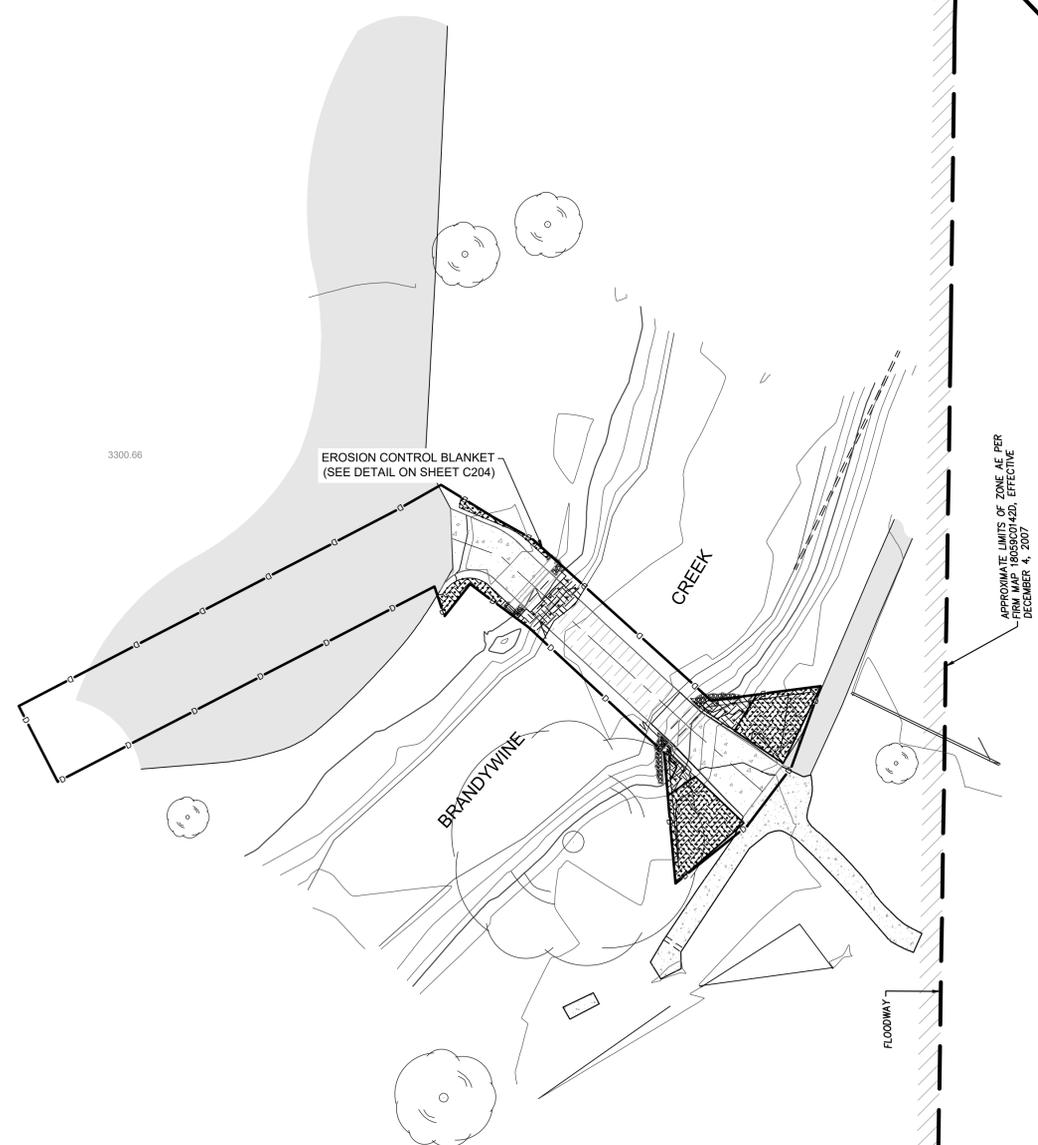
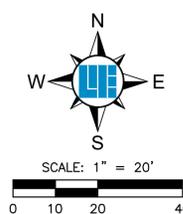
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CAREX HYSTERICINA	PORCUPINE SEDGE	2.0
CAREX LURIDA	LURID SEDGE	2.0
CAREX TRIBULOIDES	POINTED OVAL SEDGE	1.0
CAREX VULPINOIDEA	FOX SEDGE	3.0
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	64.0
GLYCERIA STRIATA	FOWL MANNA GRASS	2
LEERSIA ORYZOIDES	RICE CUT GRASS	2
PANICUM VIRGATUM	SWITCHGRASS	2
SCIRPUS ATROVIRENS	DARK GREEN BULRUSH	1
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HELENIUM AUTUMNALE	AUTUMN SNEEZEWEED	3
LIATRIS SPICATA	DENSE BLAZING STAR	1
LOBELIA CARDINALIS	CARDINAL FLOWER	0.25
LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	0.25
MIMULUS RINGENS	MONKEY FLOWER	0.5
OLIGONEURON RIDDELLII	RIDDELL'S GOLDENROD	1.00
PENSTEMON DIGITALIS	FOXGLOVE	1.00
PHYCANTHEMUM VIRGINIANUM	MOUNTAIN MINT	0.5
RUDBECKIA FULGIDA SPECIOSA	SHOWY BLACK-EYED SUSAN	2.0

HIBISCUS MOSCHEUTOS	SWAMP ROSE MALLOW	2.0
RUDBECKIA SUBTOMENTOSA	SWEET BLACK-EYED SUSAN	2.0
SENNA HEBECARPA	WILD SENNA	2.0
SILPHIUM INTERGRIFOLIUM	ROSWINEED	2.0
SILPHIUM PERFOLIATUM	CUPPLANT	2.0
SILPHIUM TEREBINTHINACEUM	PRAIRIE DOCK	2.0
SOLIDAGO PATULA	SWAMP GOLDENROD	1.0
SYMPHYOTRICHUM FIRNUM	SHINING ASTER	0.5
SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.5
SYMPHYOTRICHUM PUNICEUM	SWAMP ASTER	0.5
VERBENA HASTATA	BLUE VERVAIN	1.0
VERNONIA FASCICULATA	SMOOTH IRONWEED	1.0
VERONICA STRUM VIRGINICUM	CULVER'S ROOT	0.5
ZIZIA AUREA	GOLDEN ALEXANDERS	0.5
	TOTAL	34



LOCATION: IN 2024 W24.0749 Engineering/Design/Construction SWPPP 2.44
DATE/TIME: January 21, 2024 - 3:01pm
PROJECT: B1 - Hudson

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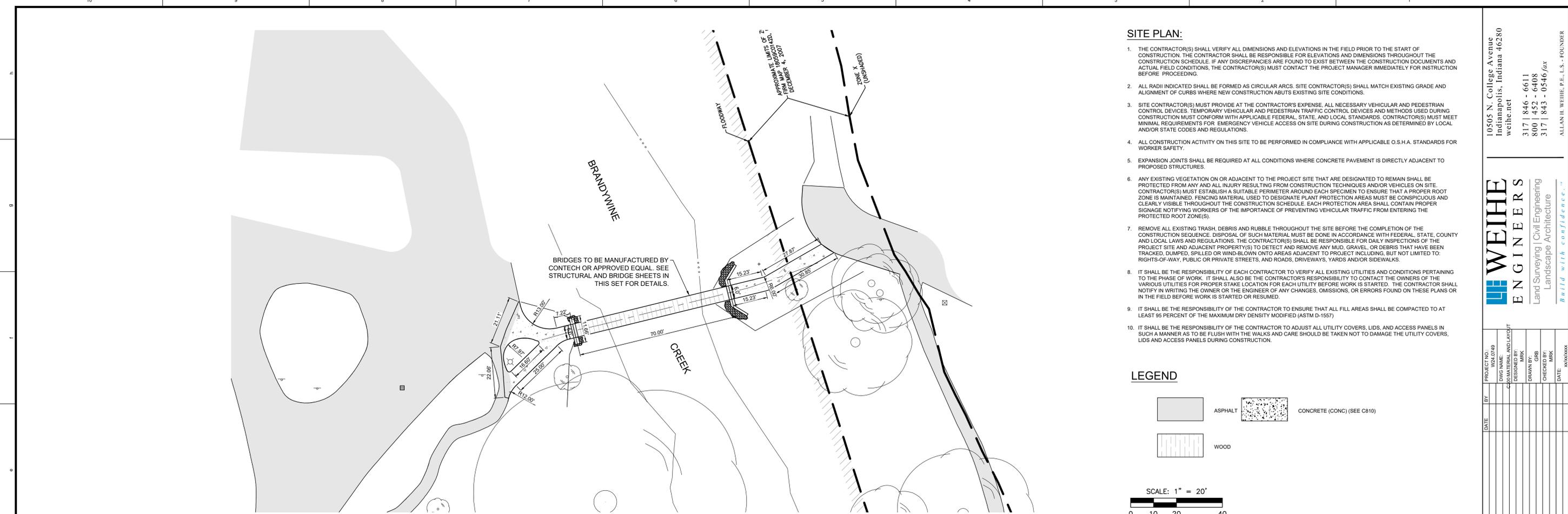
PROJECT NO.	BY	DATE
W24.0749		
C211 SWPPP2		
DESIGNED BY: MKK		
DRAWN BY: GHB		
CHECKED BY: MKK		
DATE: 10/20/2024		

REVISIONS AND ISSUES
xxxx/20xx



PREPARED FOR:
Riley Park Bridge Replacement Project
300 Apple St., Greentfield, IN 46140
SWPPP2 SOUTH BRIDGE
Part of Section 33, Township 16 North, Range 7 East, Center Township, Hancock County, Indiana

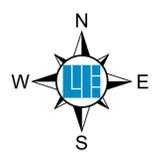
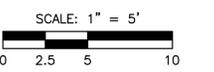
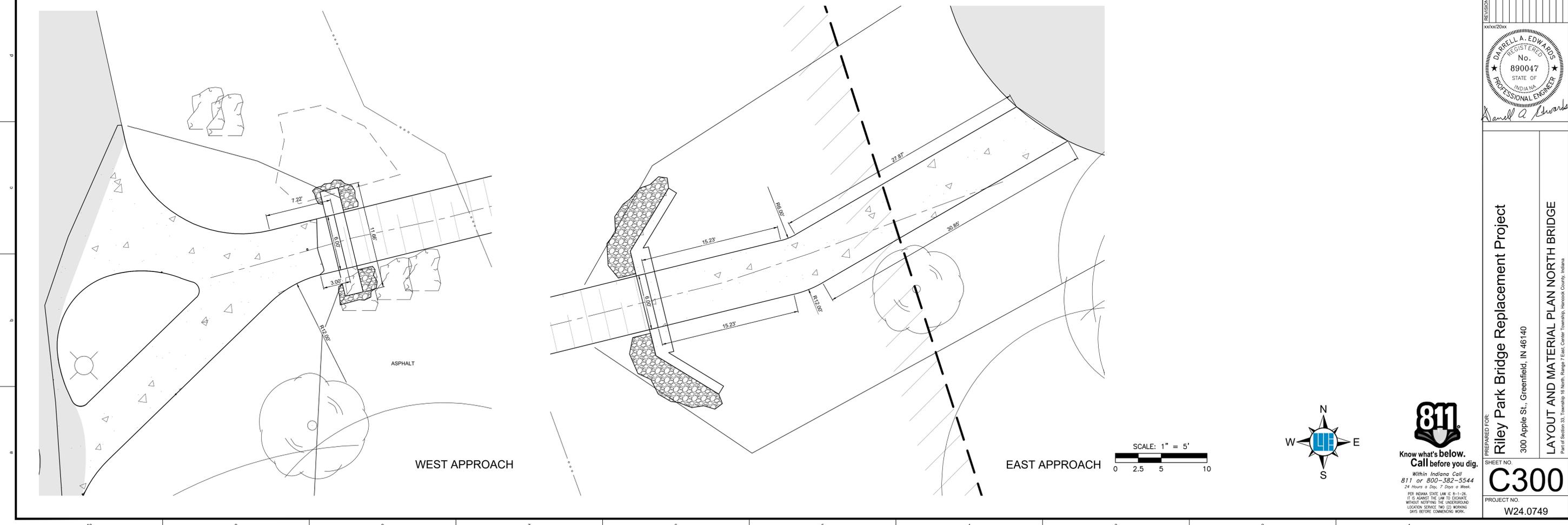
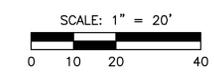
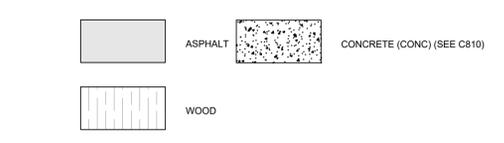
SHEET NO.
C211
PROJECT NO.
W24.0749



SITE PLAN:

1. THE CONTRACTOR(S) SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ELEVATIONS AND DIMENSIONS THROUGHOUT THE CONSTRUCTION SCHEDULE. IF ANY DISCREPANCIES ARE FOUND TO EXIST BETWEEN THE CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR(S) MUST CONTACT THE PROJECT MANAGER IMMEDIATELY FOR INSTRUCTION BEFORE PROCEEDING.
2. ALL RADII INDICATED SHALL BE FORMED AS CIRCULAR ARCS. SITE CONTRACTOR(S) SHALL MATCH EXISTING GRADE AND ALIGNMENT OF CURBS WHERE NEW CONSTRUCTION ABUTS EXISTING SITE CONDITIONS.
3. SITE CONTRACTOR(S) MUST PROVIDE AT THE CONTRACTOR'S EXPENSE, ALL NECESSARY VEHICULAR AND PEDESTRIAN CONTROL DEVICES. TEMPORARY VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL DEVICES AND METHODS USED DURING CONSTRUCTION MUST CONFORM WITH APPLICABLE FEDERAL, STATE, AND LOCAL STANDARDS. CONTRACTOR(S) MUST MEET MINIMAL REQUIREMENTS FOR EMERGENCY VEHICLE ACCESS ON SITE DURING CONSTRUCTION AS DETERMINED BY LOCAL AND/OR STATE CODES AND REGULATIONS.
4. ALL CONSTRUCTION ACTIVITY ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS FOR WORKER SAFETY.
5. EXPANSION JOINTS SHALL BE REQUIRED AT ALL CONDITIONS WHERE CONCRETE PAVEMENT IS DIRECTLY ADJACENT TO PROPOSED STRUCTURES.
6. ANY EXISTING VEGETATION ON OR ADJACENT TO THE PROJECT SITE THAT ARE DESIGNATED TO REMAIN SHALL BE PROTECTED FROM ANY AND ALL INJURY RESULTING FROM CONSTRUCTION TECHNIQUES AND/OR VEHICLES ON SITE. CONTRACTOR(S) MUST ESTABLISH A SUITABLE PERIMETER AROUND EACH SPECIMEN TO ENSURE THAT A PROPER ROOT ZONE IS MAINTAINED. FENCING MATERIAL USED TO DESIGNATE PLANT PROTECTION AREAS MUST BE CONSPICUOUS AND CLEARLY VISIBLE THROUGHOUT THE CONSTRUCTION SCHEDULE. EACH PROTECTION AREA SHALL CONTAIN PROPER SIGNAGE NOTIFYING WORKERS OF THE IMPORTANCE OF PREVENTING VEHICULAR TRAFFIC FROM ENTERING THE PROTECTED ROOT ZONE(S).
7. REMOVE ALL EXISTING TRASH, DEBRIS AND RUBBLE THROUGHOUT THE SITE BEFORE THE COMPLETION OF THE CONSTRUCTION SEQUENCE. DISPOSAL OF SUCH MATERIAL MUST BE DONE IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL LAWS AND REGULATIONS. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR DAILY INSPECTIONS OF THE PROJECT SITE AND ADJACENT PROPERTY(S) TO DETECT AND REMOVE ANY MUD, GRAVEL, OR DEBRIS THAT HAVE BEEN TRACKED, DUMPED, SPILLED OR WIND-BLOWN ONTO AREAS ADJACENT TO PROJECT INCLUDING, BUT NOT LIMITED TO: RIGHTS-OF-WAY, PUBLIC OR PRIVATE STREETS, AND ROADS, DRIVEWAYS, YARDS AND/OR SIDEWALKS.
8. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO THE PHASE OF WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES FOR PROPER STAKE LOCATION FOR EACH UTILITY BEFORE WORK IS STARTED. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNER OR THE ENGINEER OF ANY CHANGES, OMISSIONS, OR ERRORS FOUND ON THESE PLANS OR IN THE FIELD BEFORE WORK IS STARTED OR RESUMED.
9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL FILL AREAS SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY MODIFIED (ASTM D-1557)
10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST ALL UTILITY COVERS, LIDS, AND ACCESS PANELS IN SUCH A MANNER AS TO BE FLUSH WITH THE WALKS AND CARE SHOULD BE TAKEN NOT TO DAMAGE THE UTILITY COVERS, LIDS AND ACCESS PANELS DURING CONSTRUCTION.

LEGEND



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PROJECT NO.	DATE	BY	REVISIONS AND ISSUES
W24.0749			
DRWG NAME			
CAD MATERIAL AND LAYOUT			
DESIGNER			
MARK			
DRAWN BY			
GHB			
CHECKED BY			
MARK			
DATE			
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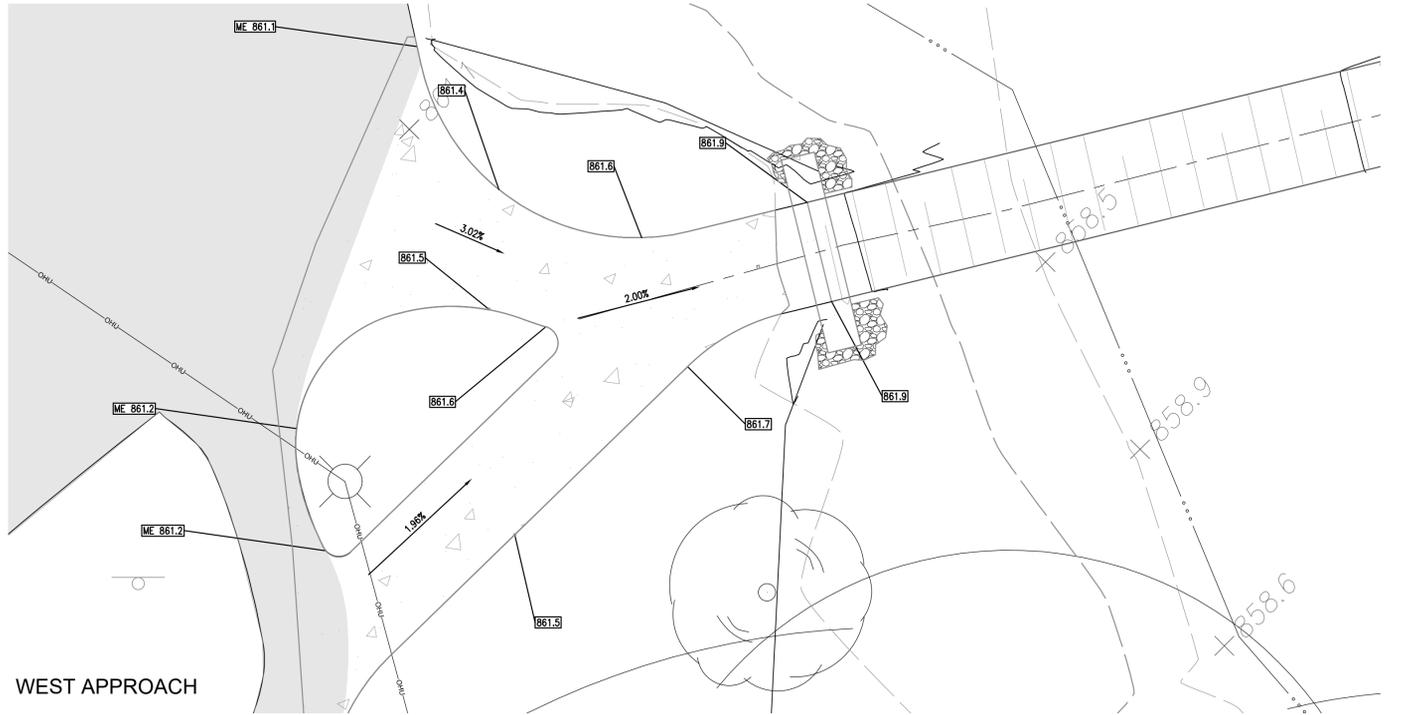
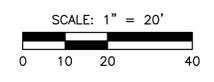
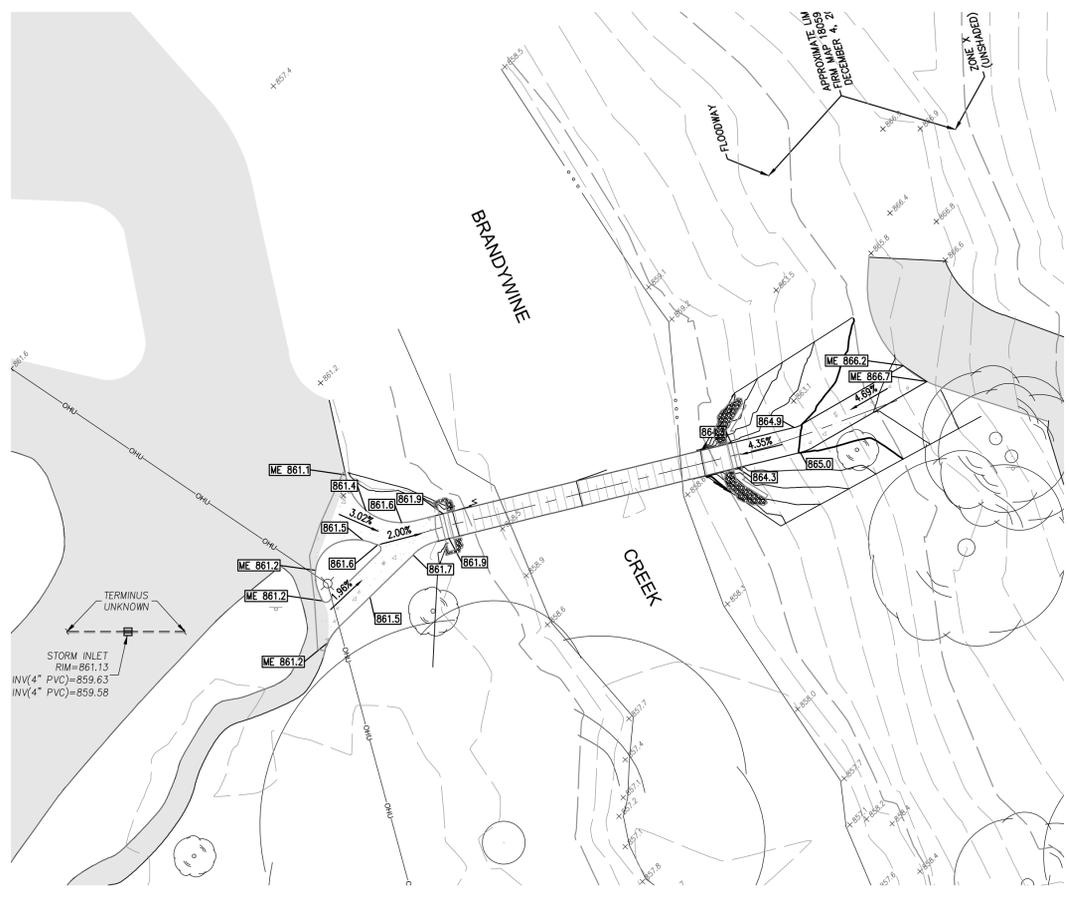
PREPARED FOR:
Riley Park Bridge Replacement Project
300 Apple St., Greentfield, IN 46140
LAYOUT AND MATERIAL PLAN NORTH BRIDGE
Part of Section 33, Township 18 North, Range 7 East, Center Township, Hancock County, Indiana

SHEET NO.
C300

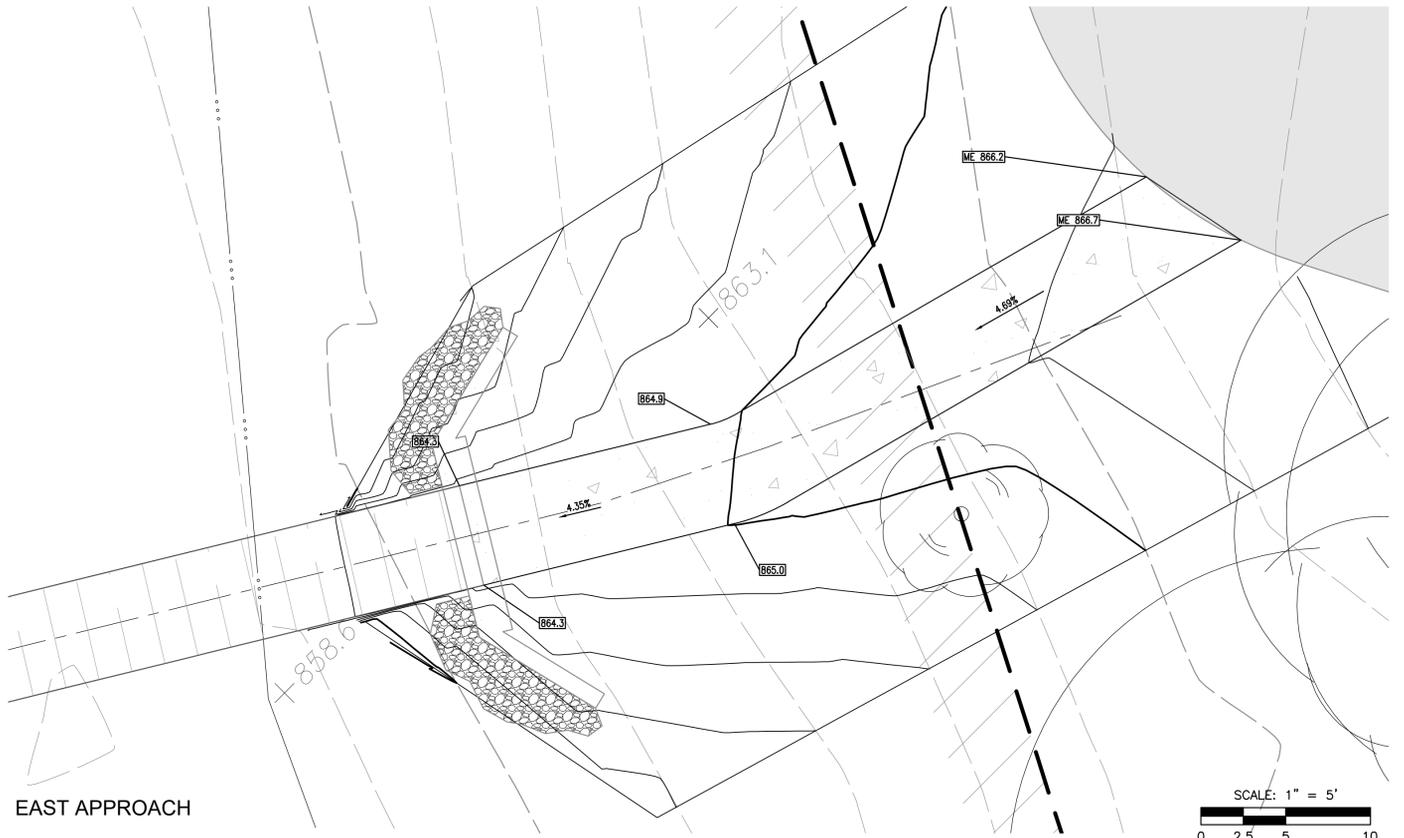
PROJECT NO.
W24.0749

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DATE/TIME: January 21, 2024 - 10:11pm
PLOTTER: B1 - hp4500

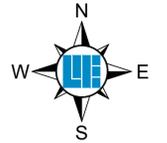
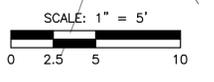
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 DATE/TIME: January 21, 2026 - 3:01pm
 PLOTTER: B1 - hp4540



WEST APPROACH



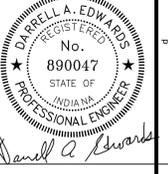
EAST APPROACH



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			W24.0749	C310 GRADING AND DRAINAGE					



PREPARED FOR:
Riley Park Bridge Replacement Project
 300 Apple St., Greentfield, IN 46140
GRADING AND DRAINAGE NORTH BRIDGE
 Part of Section 33, Township 18 North, Range 7 East, Center Township, Hancock County, Indiana

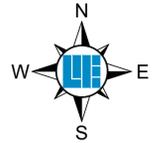
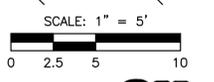
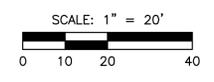
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C310

PROJECT NO.
 W24.0749

LOCATION: H:\2024\W24.0749\Engineering\Mapa\C311\GRADING AND DRAINAGE.dwg
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			DWG NAME
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			DESIGNER
			MARK
			DRAWN BY
			GHB
			CHECKED BY
			MRK
			DATE
			3/20/2026

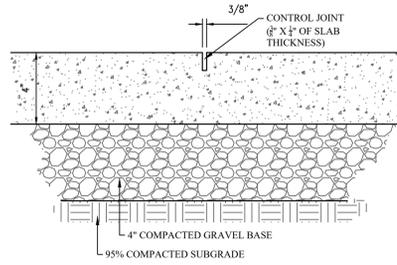


PREPARED FOR:
Riley Park Bridge Replacement Project
 300 Apple St., Greentfield, IN 46140
GRADING AND DRAINAGE SOUTH BRIDGE
 Part of Section 33, Township 18 North, Range 7 East, Center Township, Hancock County, Indiana

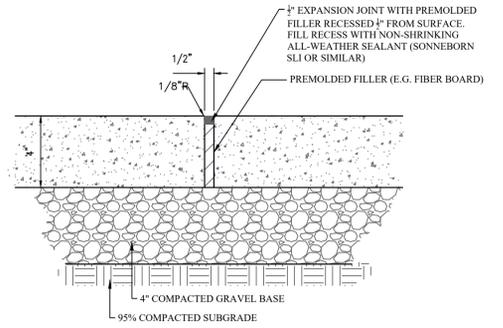
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C311

PROJECT NO.
 W24.0749

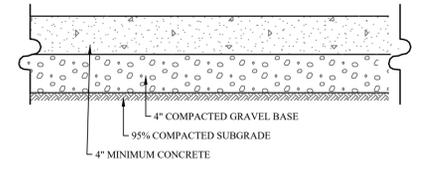
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1 CONTROL JOINT DETAIL
 Scale: N.T.S.



2 EXPANSION JOINT DETAIL
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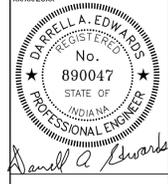


3 CONCRETE PAVEMENT DETAIL
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DWG NAME:	C810 DETAILS
DESIGNED BY:	MRK
DRAWN BY:	GBB
CHECKED BY:	MRK
DATE:	xx/xx/20xx



PREPARED FOR:
Riley Park Bridge Replacement Project
 300 Apple St., Greenfield, IN 46140
 DETAILS
 Part of Section 33, Township 18 North, Range 7 East, Center Township, Hancock County, Indiana

SHEET NO.
C810

PROJECT NO.
 W24.0749



GENERAL NOTES

FOUNDATIONS

- FOR DETAILS OF SUBSURFACE CONDITIONS, REFER TO SOILS REPORT PREPARED BY PATRIOT ENGINEERING AND ENVIRONMENTAL, # 24-1911-016 DATED 02/04/25.
- PREPARE ALL AREAS OF THE SITE SUPPORTING THE STRUCTURE BY REMOVING ALL TOPSOIL, EXISTING FILL, ORGANIC MATERIAL, OR FROZEN WET, SOFT, LOOSE OR OTHERWISE UNSUITABLE MATERIALS.
- ALL BACKFILL PLACED AGAINST CONCRETE WALLS SHALL BE A WELL-GRADED, FREE-DRAINING, GRANULAR MATERIAL APPROVED BY THE TESTING AGENCY.
- REMOVE ANY UNSUITABLE MATERIAL ENCOUNTERED AND REPLACE WITH A PROPERLY COMPACTED GRANULAR MATERIAL.
- THE TESTING AGENCY SHALL VERIFY THAT THE SOIL BEARING CAPACITY IS ACCEPTABLE AT 8'-0" INTERVALS ALONG FOOTINGS AT THE INDICATED BEARING ELEVATIONS.
- GRANULAR FILL MATERIAL SHALL BE A "PIT RUN GRAVEL" AS IT OCCURS IN A NATURAL STATE WITH NO LUMPS OF CLAY OR ROCKS LARGER THAN 2" IN DIAMETER. IT MUST CONFORM TO THE FOLLOWING GRADATIONS: 10 TO 40 PERCENT SAND, 40 TO 80 PERCENT GRAVEL, AND 0 TO 15 PERCENT CLAY. OBTAIN FROM A BORROW PIT APPROVED BY THE OWNER AND THE TESTING AGENCY.
- PLACE ALL GRANULAR FILL MATERIAL IN LAYERS NOT EXCEEDING 6" IN LOOSE THICKNESS. MECHANICALLY COMPACT EACH LAYER TO AT LEAST THE REQUIRED MINIMUM DRY DENSITY. CONTACT GEOTECHNICAL ENGINEER FOR COMPACTION METHODS AND FIELD QUALITY CONTROL REQUIREMENTS.
- FOOTINGS NOT SUPPORTED BY ENGINEERED FILL SHALL BEAR ON FIRM, UNDISTURBED MATERIAL. IF UNSUITABLE MATERIAL IS ENCOUNTERED REESTABLISH THE BEARING ELEVATION OF THE FOOTING BY LOCALIZED UNDERCUTTING AND FILLING WITH SUITABLE ENGINEERED FILL OR CONCRETE AS RECOMMENDED BY THE TESTING AGENCY.
- ENGINEERED FILL SHALL BE CLEAN, WELL GRADED, AND FREE DRAINING IN ITS COMPACTED STATE.
- COMPACT ALL GRANULAR FILL BENEATH PAVEMENTS AND OVER FOOTINGS TO 95 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. INCREASE THE COMPACTION REQUIREMENTS FOR ENGINEERED FILL SUPPORTING FOOTINGS TO 97 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. COMPACT ALL BACKFILL NOT SUPPORTING SLABS, PAVEMENT, OR FOOTINGS TO 90 PERCENT MODIFIED MAXIMUM DRY DENSITY, ASTM D-1557. PLACEMENT AND COMPACTION OF FILL SHALL BE OVERSEEN BY THE TESTING AGENCY.
- PLACE FOOTINGS THE SAME DAY EXCAVATIONS ARE OPENED. IF THIS IS NOT POSSIBLE, ADEQUATELY PROTECT THE EXPOSED MATERIAL IN THE BASES OF THE FOOTING EXCAVATIONS FROM ANY DETRIMENTAL CHANGE IN CONDITION SUCH AS FROST, DISTURBANCE, RAIN, OR FREEZING. SURFACE RUNOFF SHALL NOT BE ALLOWED TO ENTER THE EXCAVATIONS.
- THE FOLLOWING CRITERIA MUST BE MET BEFORE PLACING BACKFILL BEHIND THE ABUTMENTS:
 - THE CONCRETE FOUNDATION WALLS AND FOOTINGS MUST REACH 70% OF THEIR 28 DAY COMPRESSIVE STRENGTH.

CONCRETE

- THE MIXING, HANDLING, PLACING, AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH THE ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318).
- ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 301, ACI 318 AND ACI 306. DO NOT PLACE DURING RAIN, SLEET, OR SNOW WITHOUT ADEQUATE PROTECTION. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
- CONTRACTOR SHALL FURNISH A MIX DESIGN FOR EACH CLASS OF CONCRETE SPECIFIED.
- PROVIDE ADEQUATE TESTING AND REPORTS, FOR ALL CLASSES OF CONCRETE FROM AN APPROVED TESTING LABORATORY.

STRENGTH TESTS

 - DURING THE PROGRESS OF THE WORK, TAKE SAMPLES OF CONCRETE FOR STRENGTH TESTS IN ACCORDANCE WITH ASTM C172.
 - MAKE AND CURE A MINIMUM OF 4 CYLINDERS IN ACCORDANCE WITH ASTM C31 FOR EACH 500 CUBIC YARDS OF CONCRETE, EACH 3000 SQUARE FEET OF SURFACE AREA FOR SLABS, AND EACH CLASS OF CONCRETE PLACED IN A DAY'S WORK.
 - TEST EACH GROUP OF 4 CYLINDERS IN ACCORDANCE WITH ASTM C39. TWO OF THESE CYLINDERS SHALL BE FIELD CURED AND TESTED AT 7 DAYS OR JUST BEFORE ANTICIPATED TIME OF FORM REMOVAL. THE OTHER TWO CYLINDERS SHALL BE LABORATORY CURED AND TESTED AT 28 DAYS.
 - A STRENGTH TEST IS THE AVERAGE OF THE STRENGTHS OF TWO CYLINDERS FROM THE SAME SAMPLE OF CONCRETE AND TESTED AT 28 DAYS.
 - THE STRENGTH LEVEL OF AN INDIVIDUAL CLASS OF CONCRETE WILL BE CONSIDERED SATISFACTORY IF EACH STRENGTH TEST EQUALS OR EXCEEDS THE SPECIFIED COMPRESSIVE STRENGTH.
 - IF THE STRENGTH LEVEL OF AN INDIVIDUAL CLASS OF CONCRETE IS FOUND TO HAVE UNSATISFACTORY COMPRESSIVE STRENGTH, CONDUCT CORE TESTING IN ACCORDANCE WITH ASTM C42, IMPACTOMETER TESTING, OR LOAD TESTING ON THE AREA OF CONCRETE IN QUESTION AS REQUIRED BY THE ENGINEER. IF SUCH ADDITIONAL TESTING DOES NOT PRODUCE ACCEPTABLE RESULTS, CORRECTIVE MEASURES WILL BE REQUIRED TO ENSURE STRUCTURAL ADEQUACY.

SLUMP TESTS

 - MAKE ONE SLUMP TEST IN ACCORDANCE WITH ASTM C143 WITH EACH GROUP OF 4 CYLINDERS.
 - WHEN CONCRETE IS PUMPED, MAKE THE SLUMP TEST AT THE POINT OF DISCHARGE.
 - KEEP A SLUMP CONE AVAILABLE AT THE SITE FOR ADDITIONAL TESTING AS REQUIRED.

AIR CONTENT TESTS

 - MAKE ONE AIR CONTENT TEST IN ACCORDANCE WITH ASTM C173 OR ASTM C231 WITH EACH GROUP OF 4 CYLINDERS FOR AIR-ENTRAINED CONCRETE MIXES AT POINT OF DISCHARGE.

REJECTION OF CONCRETE

 - ANY CONCRETE THAT DOES NOT MEET THE SPECIFIED REQUIREMENTS FOR AIR-ENTRAINMENT OR SLUMP, SHALL NOT BE PLACED UNTIL CORRECTIVE MEASURES HAVE BEEN TAKEN, AND THE CONCRETE HAS BEEN RE-TESTED TO INDICATE COMPLIANCE.
 - THE CONSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR REJECTION OF CONCRETE.
- PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CORNERS OF CONCRETE.
- FORM TIES SHALL BE FACTORY FABRICATED, ADJUSTABLE LENGTH, SNAP-OFF, AND DESIGNED TO PREVENT FORM DEFLECTION AND SPALLING OF CONCRETE UPON REMOVAL. THE METAL AFTER BREAKING SHOULD BE AT LEAST 1" FROM THE FACE OF THE WALL. TIES SHALL NOT BE FITTED WITH LOGS, CONES OR WASHERS TO ACT AS SPREADERS WITHIN THE FORMS WHICH WILL LEAVE A HOLE LARGER THAN 7/8" IN DIAMETER OR A SHALLOW SURFACE DEPRESSION.
- FLY ASH MEETING ASTM C618 TYPE C WITH MAXIMUM LOSS ON IGNITION OF 15 PERCENT AND THE MAXIMUM AMOUNT RETAINED WHEN WET-SIEVED ON NO. 325 SIEVE OF 30 PERCENT, MAY BE USED AS A POUND-FOR-POUND SUBSTITUTE FOR CEMENT WITH A MAXIMUM OF 20 PERCENT BY WEIGHT.
- ALL CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH SOIL SHALL BE AIR ENTRAINED.

CONCRETE SCHEDULE

CLASS	28 DAY COMPRESSIVE STRENGTH	AIR CONTENT	CONCRETE PLACEMENT
A	4000 PSI	6% ± 1%	ABUTMENTS

- NOTES:**
- ANY CONCRETE NOT INDICATED IN THE SCHEDULE SHALL BE CLASS A.

CONCRETE MIX PROPORTIONING

- CLASS A CONCRETE:
 - COMPRESSIVE STRENGTH AT 28 DAYS: 4000 PSI.
 - MINIMUM CEMENT CONTENT: 517 LB/CU YD.
 - MAXIMUM WATER-CEMENT RATIO: 0.48.
 - AIR CONTENT: 6 ± 1 PERCENT.
 - HIGH RANGE WATER-REDUCING ADMIXTURE REQUIRED.

REINFORCING STEEL

- ALL REINFORCING STEEL BENDS, HOOKS, LAP SPLICES, AND MINIMUM CONCRETE COVER SHALL CONFORM TO THE ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) UNLESS OTHERWISE INDICATED.
- ALL REINFORCING STEEL SHALL BE SUPPORTED AND SECURED AGAINST DISPLACEMENT IN ACCORDANCE WITH CONCRETE REINFORCING STEEL INSTITUTE'S "MANUAL OF STANDARD PRACTICE".
- SLAB BOLSTERS, HIGH CHAIRS, BEAM BOLSTERS, AND ALL OTHER ACCESSORIES IN CONTACT WITH THE FORMS FOR EXPOSED CONCRETE, BOTH INTERIOR AND EXTERIOR, SHALL BE PLASTIC TIPPED. SUCH ACCESSORIES SHALL HAVE TURNED-UP LEGS.
- DETAILS OF FABRICATION AND PLACING OF REINFORCEMENT NOT SHOWN ON THESE PLANS SHALL FOLLOW THE CURRENT ISSUE OF THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" AS ADOPTED BY THE AMERICAN CONCRETE INSTITUTE.
- ALL CONCRETE REINFORCEMENT MATERIALS SHALL BE NEW, FREE FROM RUST, AND COMPLYING WITH THE FOLLOWING REFERENCE STANDARDS:
 - ALL REINFORCING BARS (EXCEPT AS NOTED BELOW) ASTM A-615, GRADE 60
 - STIRRUPS AND TIE BARS: ASTM A-615, GRADE 60
- THE SHOP DRAWINGS FOR REINFORCING STEEL SHALL INCLUDE 1/4" SCALE ELEVATIONS OF ALL CONCRETE WALLS, BEAMS, AND ALL SECTIONS REQUIRED TO MAKE CLEAR THE LOCATION OF THE REINFORCING STEEL. ALL DETAILS OF REINFORCING STEEL FABRICATION AND PLACEMENT SHALL CONFORM TO ACI "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315) AND "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" (ACI 315R) UNLESS OTHERWISE INDICATED.
- CONCRETE REINFORCING SHALL HAVE THE FOLLOWING PROTECTION:
 - CONCRETE POURED AGAINST FORMS.....3" CLEAR
 - CONCRETE POURED IN FORMS BUT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:
 - FOOTINGS.....1-1/2" CLEAR
 - WALLS.....1-1/2" CLEAR (#6 BARS AND SMALLER), 2" CLEAR (#6 BARS AND LARGER).
- PROVIDE CLASS B TENSION LAP SPLICES FOR ALL HORIZONTAL WALL REINFORCEMENT UNLESS OTHERWISE INDICATED.
- SPREAD REINFORCING STEEL AROUND SMALL OPENINGS AND SLEEVES IN SLABS AND WALLS WHERE POSSIBLE AND WHERE BAR SPACING WILL NOT EXCEED 1.5 TIMES THE NORMAL SPACING. DISCONTINUE BARS AT OPENINGS WHERE NECESSARY AND PROVIDE AN AREA OF REINFORCEMENT EQUAL TO THE INTERRUPTED REINFORCEMENT, IN FULL LENGTH BARS, DISTRIBUTING ONE- HALF TO EACH SIDE OF THE OPENING. WHERE TEMPERATURE REINFORCING IS INTERRUPTED, ADD (2) - #4 X OPENING DIMENSION + 32" AT THE BOTTOM OF THE OPENING AT EACH FACE. PROVIDE (2) - #4 X 32" DIAGONAL BARS IN BOTH FACES AT EACH CORNER OF OPENINGS LARGER THAN 12" IN ANY DIRECTION. (HOOK IF REQUIRED).

COORDINATION WITH OTHER TRADES

- THE GENERAL CONTRACTOR SHALL COORDINATE AND CHECK ALL DIMENSIONS RELATING TO THE BRIDGE STRUCTURE, THE ROAD STRUCTURE, GUARDRAILS, UTILITIES, ETC.. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK IN THE AREA UNDER QUESTION.

EXISTING CONDITIONS

- VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND CONDITIONS BEFORE PROCEEDING WITH NEW CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK IN THE AREA UNDER QUESTION.
- PREVENT UNDERMINING OF THE FOUNDATIONS OF EXISTING STRUCTURES, AS REQUIRED.

DESIGN DATA

- SOILS INFORMATION :**
ALLOWABLE NET BEARING PRESSURE:
WALL FOOTINGS 1,500 PSF (ASSUMED)
SEE FDN. NOTES FOR ADD'L INFO.
- CONCRETE :**
COMPRESSIVE STRENGTH SEE CONCRETE SCHEDULE
- REINFORCING STEEL :**
SEE REINFORCING STEEL NOTE 5

- DESIGN CODE**
2012 INTERNATIONAL BUILDING CODE AS ADOPTED BY THE STATE OF INDIANA WITH AMENDMENTS
AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES (LATEST EDITION)
AASHTO GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES (LATEST EDITION)

- DESIGN LOADS:**
BRIDGE LOADS PER SUPPORT POINT

NORTH BRIDGE (70'-0" SPAN, 6'-0" WIDE)	
DEAD LOAD	4,325 lbs VERTICAL (41.2 PSF)
UNIFORM LIVE LOAD	9,450 lbs VERTICAL (90 PSF)
VEHICLE LOAD	5,000 lbs VERTICAL (ONE 4,000 lbs VEHICLE)
WIND UPLIFT	7.0.D. lbs VERTICAL
WIND	±7.0.D. lbs VERTICAL
	T.B.D. lbs LATERAL
SEISMIC	T.B.D. lbs LONGITUDINAL
	±T.B.D. lbs VERTICAL
	T.B.D. lbs LATERAL
	T.B.D. lbs LONGITUDINAL
FLOOD	±T.B.D. lbs VERTICAL
	T.B.D. lbs LATERAL
SOUTH BRIDGE (50'-0" SPAN, 10'-0" WIDE)	
DEAD LOAD	3,800 lbs VERTICAL (30.4 PSF)
UNIFORM LIVE LOAD	11,250 lbs VERTICAL (90 PSF)
VEHICLE LOAD	5,000 lbs VERTICAL (ONE 10,000 lbs H5 VEHICLE)
WIND UPLIFT	-4,000 lbs VERTICAL (WINDWARD)
WIND	-1,333 lbs VERTICAL (LEEWARD)
	±2,010 lbs VERTICAL
	5,545 lbs LATERAL
SEISMIC	1,330 lbs LONGITUDINAL
	±T.B.D. lbs VERTICAL
	T.B.D. lbs LATERAL
	T.B.D. lbs LONGITUDINAL
FLOOD	±T.B.D. lbs VERTICAL
	T.B.D. lbs LATERAL

WIND LOADS (ASCE/SEI 7-10):

BASIC WIND SPEED	115 MPH
EXPOSURE	C
RISK CATEGORY	II
G _{cp}	±0.0
q _z	24.46 psf
VERTICAL WIND LOAD (p _v)	25.0 psf
HORIZONTAL WIND LOAD (p _h)	36.4 psf

- SEISMIC LOADS:**
- | | |
|--|--------------|
| SEISMIC ZONE | 1 |
| OCCUPANCY CATEGORY | OTHER BRIDGE |
| MAPPED SPECTRAL RESPONSE COEFFICIENTS | |
| SS | 0.145 |
| S1 | 0.081 |
| SITE CLASS | C |
| SPECTRAL RESPONSE COEFFICIENTS | |
| S _{DS} | 0.116 |
| S _{D1} | 0.092 |
| SEISMIC DESIGN CATEGORY | B |
| BASIC SEISMIC FORCE RESISTING SYSTEM: | |
| WALL-TYPE PIERS | |
| SEISMIC RESPONSE COEFFICIENT (C _m) | 0.098 |
| RESPONSE MODIFICATION FACTOR (R) | 2.0 |

PRE-FABRICATED STEEL BRIDGES

- NEW PRE-FABRICATED STEEL BRIDGES TO BE CONTINENTAL TRUSS BRIDGE, CONNECTOR STYLE WITH UNDERHUNG FLOOR BEAMS, OR KEYSTONE TRUSS BRIDGE (PER PLAN) MANUFACTURED BY CONTECH ENGINEERED SOLUTIONS OR APPROVED EQUAL.
- PRE-FABRICATED STEEL BRIDGE SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS", THE AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, AND THE 2014 INDIANA BUILDING CODE. THE MOST RESTRICTIVE REQUIREMENTS SHALL BE FOLLOWED WHERE THERE ARE CONFLICTING REQUIREMENTS.
- PRE-FABRICATED STEEL BRIDGE SHALL BE DESIGNED FOR THE DESIGN LOADS INDICATED ON THESE DRAWINGS.
- PRE-FABRICATED STEEL BRIDGE TO HAVE THE FOLLOWING FEATURES:
 - WEATHERING STEEL FINISH
 - HORIZONTAL SAFETY RAILS
 - PRESSURE TREATED WOOD DECK
 - PIPE WOOD RUB RAIL
 - WEATHERING STEEL TOE PLATE
- PRE-FABRICATED STEEL BRIDGE MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED, NOR OTHERWISE ALTERED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- SUBMIT COMPLETE SHOP DRAWINGS FOR THE PRE-FABRICATED STEEL BRIDGE SHOWING MEMBER SIZES, MATERIAL GRADES, CAMBER, DIMENSIONS, DESIGN LOADINGS, SUPPORT CONDITIONS AND REACTIONS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF INDIANA.
- GENERAL DESIGN AND GEOMETRY:
 - EXPRESS TRUSS CONNECTOR STYLE:
 - THE TRUSS STYLE SHALL BE "CONNECTOR". THE VERTICAL TRUSSES SHALL BE DESIGNED SUCH THAT THE TOP AND BOTTOM CHORD MEMBERS ARE PARALLEL FOR THE ENTIRE LENGTH OF BRIDGE. THE INTERIOR VERTICALS OF THE TRUSSES SHALL BE PERPENDICULAR TO THE TOP FACE OF THE BOTTOM CHORD AND THE END VERTICALS OF THE TRUSSES SHALL BE PLUMB. TRUSSES SHALL BE LAID OUT SUCH THAT DIAGONALS SHALL BE AT AN ANGLE OF 30-DEGREES OR MORE WITH RESPECT TO THE BOTTOM CHORD.
 - THE VERTICAL TRUSS SHALL USE A SINGLE-DIAGONAL, PRATT CONFIGURATION, WHERE ALL THE DIAGONALS ARE IN TENSION FOR GRAVITY LOADS.
 - THE BRIDGE SHALL UTILIZE AN H-SECTION CONFIGURATION WHERE THE ENDS OF THE FLOOR BEAMS ARE WELDED ONLY TO THE INTERIOR FACE OF THE VERTICALS. THE DISTANCE FROM THE TOP OF DECK TO THE BOTTOM OF THE BOTTOM CHORD SHALL BE DETERMINED BY THE BRIDGE MANUFACTURER DURING FINAL DESIGN.
 - THE TOP OF THE TOP CHORD SHALL NOT BE LESS THAN 48" ABOVE THE DECK (MEASURED FROM THE HIGH POINT OF THE DECK). NOTE THAT THIS DIMENSION MAY BE EXCEEDED DUE TO TRUSS HEIGHT REQUIREMENTS FOR STRUCTURAL DEFLECTION AND VIBRATION REQUIREMENTS.
 - KEYSTONE TRUSS: STANDARD TRUSS CONFIGURATION BY CONTECH.
- PRE-FABRICATED STEEL BRIDGE TO BE CAMBERED FOR 1.5X THE DEAD LOAD. SLOPE OF BRIDGE ALONG ITS LENGTH WHEN IN PLACE SHALL NOT EXCEED 8.33% (ADA REQUIREMENTS).
- DESIGN DEFLECTIONS OF PRE-FABRICATED STEEL BRIDGE TO BE LIMITED AS FOLLOWS:
 - THE VERTICAL DEFLECTION OF THE BRIDGE DUE TO THE UNFACTORED PEDESTRIAN LIVE LOADING SHALL NOT EXCEED 1/360 OF THE SPAN LENGTH.
 - THE HORIZONTAL DEFLECTION OF THE BRIDGE UNDER UNFACTORED WIND LOADING SHALL NOT EXCEED 1/360 OF THE SPAN LENGTH.
- VIBRATION OF THE STRUCTURE SHALL NOT CAUSE DISCOMFORT OR CONCERN TO THE USERS OF THE BRIDGES. TO ASSURE THIS, THE FUNDAMENTAL FREQUENCY (F) OF THE PEDESTRIAN BRIDGE IN THE VERTICAL DIRECTION, WITHOUT LIVE LOAD, SHALL BE GREATER THAN 3.0 HERTZ (HZ) TO AVOID THE FIRST HARMONIC. THE FUNDAMENTAL FREQUENCY OF THE PEDESTRIAN BRIDGE IN THE LATERAL DIRECTION, SHALL BE GREATER THAN 1.3 HZ. IF THE FUNDAMENTAL FREQUENCY CANNOT SATISFY THESE LIMITATIONS, THEN THE BRIDGE SHOULD BE PROPORTIONED SUCH THAT EITHER OF THE FOLLOWING CRITERIA ARE SATISFIED:

$$F > 2.85 * LN(180/W)$$

OR

$$W > 180 * \epsilon[-(0.35 * F)] / \text{WHERE } W \text{ IS THE WEIGHT OF THE BRIDGE IN KIPS AND } F \text{ IS THE FUNDAMENTAL FREQUENCY IN THE VERTICAL DIRECTION IN HZ.}$$
- ALL MEMBERS OF THE TRUSS AND DECK SUPPORT SYSTEM SHALL BE FABRICATED FROM SQUARE OR RECTANGULAR HOLLOW STRUCTURAL SHAPES (HSS), WITH THE EXCEPTION THAT FLOOR BEAMS MAY BE WIDE FLANGE SHAPES. ALL OPEN ENDS OF END POSTS AND FLOOR SUPPORT BEAMS SHALL BE CAPPED. DRAIN HOLES SHALL BE PROVIDED FOR ALL SECTIONS AT THE LOW POINT OF THE MEMBER THAT MAY BECOME FILLED WITH WATER. ALL BRIGMS SHALL BE FABRICATED USING A847 FOR HSS SECTIONS AND A588 FOR STRUCTURAL SHAPES AND PLATES. MINIMUM NOMINAL THICKNESS OF PRIMARY HOLLOW STRUCTURAL SHAPES SHALL BE 1/4". ROLLED SHAPES SHALL HAVE A MINIMUM THICKNESS OF 1/4"
- STRUCTURAL BOLTS USED TO FIELD SPLICE OR CONNECT ALL MAIN MEMBERS SHALL BE ASTM F3125 GRADE A325 TYPE 3 (WEATHERING). THE NUTS FOR THESE STRUCTURAL BOLTS SHALL BE ASTM A563 TYPE 3 (WEATHERING).
 - BOLTS USED FOR THE CONNECTION OF A WOOD RUB RAIL SHALL BE 18-8 OR 316 STAINLESS STEEL, 1/4" DIAMETER CARRIAGE BOLTS.
 - SCREWS FOR THE ATTACHMENT OF WOOD DECK SHALL BE STEEL, 5/16" DIAMETER, SIX LOBE DRIVE, SELF-TAPPING SCREWS. THE SCREWS SHALL HAVE FLAT HEADS FOR THE SCREWS IN THE WOOD AND ROUND HEADS FOR THE SCREWS ON THE EDGE COVER. THE SCREWS SHALL HAVE A PROTECTIVE COATING THAT WILL PREVENT CORROSION DUE TO CONTACT WITH TREATED WOOD AND ENVIRONMENTAL EXPOSURE.
- SAFETY RAILS:
 - SAFETY RAIL SYSTEM SHALL BE PLACED ON THE INSIDE OF THE STRUCTURE, SPACED SO AS TO PREVENT A 4 INCH SPHERE FROM PASSING THROUGH THE SIDE TRUSS FOR THE FULL HEIGHT OF THE SIDE TRUSS, OR 48 INCHES, WHICHEVER IS LESS. THE TOP OF THE TOP CHORD MAY BE CONSIDERED THE TOP OF THE RAIL SYSTEM.
 - RAILS SYSTEM SHALL CONSIST OF HORIZONTAL RAILS. RAILS SHALL BE 1 1/2 X 1 1/2 X 1/8 PLACED AT A 45-DEGREE ORIENTATION WITH BOTH LEGS WELDED TO TRUSS VERTICALS. THE RAILS SHALL BE WELDED TO THE OUTSIDE OF THE STRUCTURE WITH A MAXIMUM UNSUPPORTED LENGTH OF 7'-0". IF THE TRUSS VERTICAL SPACING IS GREATER THAN THE MAXIMUM UNSUPPORTED LENGTH, MID-BAY SUPPORTS SHALL BE PROVIDED.
 - EACH ELEMENT OF THE PEDESTRIAN RAIL SYSTEM SHALL BE DESIGNED TO SUPPORT A UNIFORMLY APPLIED LOAD OF 50 POUNDS PER LINEAL FOOT, BOTH TRANSVERSELY AND VERTICALLY, ACTING SIMULTANEOUSLY. IN ADDITION, EACH LONGITUDINAL ELEMENT SHALL BE DESIGNED TO SUPPORT A CONCENTRATED LOAD OF 200 POUNDS, WHICH WILL ACT SIMULTANEOUSLY WITH THE ABOVE UNIFORM LOADS AT ANY POINT AND IN ANY DIRECTION AT THE TOP OF THE LONGITUDINAL ELEMENT.
 - THE POSTS OF THE PEDESTRIAN RAIL SYSTEM SHALL BE DESIGNED FOR A CONCENTRATED LOAD APPLIED AT EITHER THE CENTER OF GRAVITY OF THE UPPER LONGITUDINAL ELEMENT OR 60" ABOVE THE TOP OF THE WALKWAY, WHICHEVER IS LESS. THIS CONCENTRATED LOAD SHALL BE EQUAL TO 200 POUNDS PLUS 0.05 TIMES THE POST SPACING IN FEET
- TOE PLATES SHALL BE STEEL PLATE OR CHANNEL SHAPE SECTION, 4" HIGH WITH THE PLATE OR CHANNEL WELDED DIRECTLY TO THE INSIDE FACE OF THE TRUSS VERTICALS. THE MAXIMUM UNSUPPORTED LENGTH SHALL BE 7'-0". IF THE VERTICAL SPACING IS GREATER THAN THE MAXIMUM UNSUPPORTED LENGTH, MID-BAY SUPPORTS SHALL BE PROVIDED. WHEN THE ENDS OF THE TOE PLATES NEAR THE END OF THE BRIDGE ARE NOT COVERED BY THE END VERTICALS, THEY SHALL BE CAPPED AND GROUND SMOOTH. THE BOTTOM OF THE TOE PLATE SHALL BE PLACED 2" ABOVE THE FINISHED HEIGHT OF THE DECK. ALL SEAMS OF THE TOE PLATES SHALL BE FULLY WELDED TO GIVE THE APPEARANCE OF A CONTINUOUS MEMBER. WELDED JOINTS MUST BE LOCATED AT A SUPPORT MEMBER.
- PRESSURE TREATED WOOD DECK:
 - DECK TO BE COMPRISED OF TRANSVERSE WOOD PLANKS ATTACHED TO LONGITUDINAL STEEL STRINGERS THAT ARE ATTACHED TO THE FLOOR BEAMS
 - THE WOOD DECK TIMBER PLANKS SHALL BE SELECT STRUCTURAL SOUTHERN YELLOW PINE AND MEET ALL APPLICABLE REQUIREMENTS AS SPECIFIED BY THE SOUTHERN PINE INSPECTION BUREAU. THE TIMBER PLANKS SHALL BE SURFACED 4 SIDES (S4S) AND SHALL BE PRESSURE TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION. THE TREATMENT SHALL MEET AWPA U1 UCA4 GROUND CONTACT. ACCEPTABLE TREATMENTS ARE MICRONIZED COPPER AZOLE (MCA) TO A 0.15 POUNDS PER CUBIC FOOT RETENTION OR TO REFUSAL OR EQUAL. ALLOWABLE BENDING STRESSES SHALL BE AS DETERMINED FOR WET CONDITION, AS OUTLINE IN ANS I 505.
 - DECK PLANKS SHALL BE SECURED UTILIZING 5/16" FLAT HEAD SELF-TAPPING SCREWS. EACH PLANK SHALL HAVE ENOUGH SCREWS TO ADEQUATELY SECURE THE PLANK TO THE STRINGERS AND PREVENT CLIPPING AND TWISTING OF THE BOARD. SCREWS SHALL HAVE ADEQUATE EDGE DISTANCE TO PREVENT SPLITTING AND CRACKING. THE END EDGES OF THE DECK PLANKS SHALL INCLUDE A COVER PLATE OR ANGLE TO HIDE THE PLANK ENDS FROM THE BRIDGE USER OR BE PRECISION END CUT SUCH THAT THE ENDS ARE ALL WITHIN 1/16" FROM PLANK TO PLANK. DECK PLANKS SHALL BE PLACED TIGHT TOGETHER WITH NO GAPS.
 - DECK PLANKS SHALL BE SIZED TO SUPPORT THE LOADS SPECIFIED IN THESE NOTES.
 - EACH DECK PLANK SHALL BE DESIGNED TO SUPPORT THE MAXIMUM WHEEL LOAD FROM THE DESIGN VEHICLE. DISTRIBUTION TO OTHER PLANKS WILL ONLY BE ALLOWED IF THOSE PLANKS ARE DONKLED TOGETHER OR IF THE TIRE CONTACT WHEEL LENGTH IS LONGER THAN THE WIDTH OF THE PLANK. THE TIRE CONTACT AREA WILL BE CALCULATED AS 0.01 TIMES THE WHEEL LOAD. THE WHEEL WIDTH TRANSVERSE TO THE DIRECTION OF TRAFFIC, IS 2.5 TIMES THE WHEEL LENGTH. THE WHEEL WIDTH IS CALCULATED AS FOLLOWS:

$$\text{THE WHEEL WIDTH (IN INCHES) IS } \sqrt{\text{WHEEL LOAD IN POUNDS}}$$
 - PLANK SHALL BE CHECKED FOR BOTH SHEAR AND MOMENT, AND MEET ALL ALLOWABLE STRESSES AS PER NDS.

PRE-FABRICATED STEEL BRIDGES (CONT.)

- RUB RAILS SHALL BE PROVIDED AT A HEIGHT OF 3'-6" FROM TOP OF THE DECK TO THE TOP OF RUB RAIL. RUB RAILS SHALL BE NOMINAL 5/4X6 IPE HARDWOOD. IF THE VERTICAL SPACING EXCEEDS 7'-0" THEN MID-BAY SUPPORTS MUST BE PROVIDED. RUB RAILS SHALL BE SUPPLIED S4S. ALL EXPOSED SURFACES SHALL BE SMOOTH WITH NO EXPOSED SHARP EDGES. RUB RAILS SHALL BE ATTACHED USING TWO 1/4" DIAMETER CARRIAGE BOLTS WITH LOCK NUTS AT EACH ATTACHMENT. ATTACHMENT SHALL BE TO A STRUCTURAL ANGLE WELDED DIRECTLY TO THE SIDE OF THE VERTICAL. WHERE A SEAM OCCURS BETWEEN TWO ADJACENT PIECES OF RUB RAIL, TWO STRUCTURAL ANGLES SHALL BE USED, ONE ON EACH SIDE OF THE TRUSS VERTICAL.
- THE GAP BETWEEN THE END OF THE BRIDGE DECK AND THE BACK WALL OF THE FOUNDATION SYSTEM BE SIZED TO ACCOMMODATE BRIDGE MOVEMENTS DUE TO THERMAL EXPANSION OF THE BRIDGE OVER THE DESIGN TEMPERATURE RANGE. THE GAPS SHALL BE COVERED WITH A STEEL COVER WHICH ATTACHES TO THE BRIDGE AND EXTENDS OVER THE GAP AND ONTO THE TOP OF THE FOUNDATION SYSTEM BACK WALL. THE STEEL COVER SHALL HAVE ITS EDGES ROUNDED OR BEVELED AT A 45-DEGREE ANGLE. A COMPRESSION SEAL SIZED FOR MOVEMENT AND RATED FOR PEDESTRIAN TRAFFIC MAY BE USED IN PLACE OF THE STEEL COVER.
- BEARINGS:
 - BEARING TYPE AND SIZE SHALL BE DESIGNED BY THE BRIDGE MANUFACTURER BASED ON ANTICIPATED LOADS AND MOVEMENTS.
 - THE DESIGN TEMPERATURE RANGE WILL BE SITE SPECIFIC AND WILL BE DETERMINED PER AASHTO LRFD ARTICLE 3.12.2.
 - THE BRIDGE WILL BE SUPPLIED WITH A LOWER SETTING PLATE. THIS SETTING PLATE SHALL BE LEVELLED AND SHIMMED TO THE PROPER ELEVATION. THE SPACE BETWEEN THE LOWER SURFACE OF THE SETTING PLATE AND THE FOUNDATION SURFACE SHALL BE FILLED WITH A NON-SHRINK GROUT CAPABLE OF ACHIEVING A MINIMUM COMPRESSIVE STRENGTH EQUAL TO OR GREATER THAN THE STRENGTH OF THE FOUNDATION CONCRETE. THE COST OF THE LEVELING, SHIMMING, AND NON-SHRINK GROUT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WELDING:
 - WELDING PROCEDURES AND WELD QUALIFICATION TEST PROCEDURES SHALL CONFORM TO THE PROVISIONS OF AWS D1.1. FILLER METAL SHALL BE IN ACCORDANCE WITH THE APPLICABLE AWS FILLER METAL SPECIFICATION AND SHALL MATCH THE CORROSION PROPERTIES OF THE BASE METAL.
 - WELDERS SHALL BE QUALIFIED FOR EACH PROCESS AND POSITION USED WHILE FABRICATING THE BRIDGE. QUALIFICATION TESTS SHALL BE IN ACCORDANCE WITH AWS D1.1. ALL WELD QUALIFICATIONS AND RECORDS SHALL BE KEPT IN ACCORDANCE WITH THE FABRICATOR'S QUALITY ASSURANCE MANUAL WHICH HAS BEEN APPROVED AND AUDITED BY AISC AS THE BASIS FOR CERTIFICATION.
 - THE BRIDGE MANUFACTURER SHALL EMPLOY AT LEAST TWO CERTIFIED WELD INSPECTORS (CWI), WITH ENDORSEMENT BY AWS QCI. AT LEAST ONE CWI SHALL BE PRESENT DURING THE COMPLETE FABRICATION OF THE BRIDGE. THE CWI SHALL PROVIDE WRITTEN DOCUMENTATION THAT THE BRIDGE HAS BEEN FABRICATED IN ACCORDANCE WITH THESE NOTES AND THE APPROVED DESIGN DRAWINGS.
 - ALL WELDS WITHIN THE STRUCTURE, SHALL BE VISUALLY INSPECTED FOR CONFORMANCE TO SIZE, UNDER CUT, PROFILE AND FINISH.
 - ALL SHOP SPLICES OF MAIN TRUSS MEMBERS SHALL BE MAGNETIC PARTICLE TESTED.
- SHOP SPLICES:
 - SHOP SPLICES FOR MAIN TRUSS MEMBERS SHALL BE FULL PENETRATION WELDS ALL AROUND THE PERIMETER OF THE MEMBER. THESE SHOP SPLICES SHALL BE PERFORMED USING A FULL PERIMETER BACKING PLATE. AFTER WELDING OF THE SHOP SPLICES, THE WELD SHALL BE GROUND SMOOTH TO MATCH THE PERIMETER OF THE MEMBER. GRINDING THESE WELDS SMOOTH IS REQUIRED AND WILL BE GROUND FOR REJECTION OF THE BRIDGE UPON DELIVERY IF NOT COMPLETED.
 - SHOP SPLICES FOR ALL HORIZONTAL RAIL COMPONENTS TO BE LOCATED AT THE CENTERLINE OF THE TRUSS VERTICALS. EACH END WELDED TO THE TRUSS VERTICAL AND SEAL WELDED TOGETHER. EXPOSED SURFACE OF THE SEAL WELDS AS SEEN FROM THE DECK SHALL BE GROUND SMOOTH.
 - SHOP SPLICES FOR ALL HORIZONTAL STRINGERS TO BE LOCATED AT THE CENTERLINE OF THE FLOOR BEAMS, EACH END WELDED TO THE FLOOR BEAM AND SEAL WELDED TOGETHER.
- BOLTED SPLICES:
 - FOR SHIPPING PURPOSES, THE BRIDGE MAY BE FABRICATED IN SECTIONS. SECTIONS SHALL BE FIELD ASSEMBLED USING BOLTED CONNECTIONS. NO FIELD WELDING OF MEMBERS SHALL BE ALLOWED.
 - THE CHORD MEMBERS OF THE BRIDGE SHALL BE BOLTED SUCH THAT AT LEAST TWO FACES OF THE MEMBER ARE BOLTED. THIS IS TO PROVIDE REASONABLE FORCE DISTRIBUTION AROUND THE PERIMETER OF THE MEMBER. BOLTED SPLICES SHALL BE DESIGNED AND FABRICATED SUCH THAT THE HEAD OF THE BOLT AND WASHER ARE THE ONLY ITEM EXPOSED. NO THROUGH-BOLTING OF THE MEMBER IS ALLOWED. THE NUTS OF THE FASTENER CANNOT BE WELDED TO THE INTERNAL SPLICE PLATE AND SHALL BE HELD IN PLACE WITH A NUT CAPTURE SYSTEM PER PATENT US 10,267,345 B2 OR EQUAL.
 - THE DIAGONALS AND BRACE DIAGONALS SHALL BE BOLTED UTILIZING A THROUGH-BOLT SYSTEM WITH PLATES ON THE EXTERIOR FACES OF THE MEMBERS. AN INTERNAL STIFFENING PLATE IS REQUIRED TO KEEP THE MEMBER FROM CRUSHING DURING THE BOLT TIGHTENING PROCESS.
 - ALL BOLTED CONNECTIONS ARE CONSIDERED TO BE PRE-TENSIONED OR SLIP-CRITICAL CONNECTIONS. ALL BOLTS ARE TO BE PRE-TENSIONED PER THE REQUIREMENTS OF SECTION 8.2 OF THE SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS. RECOMMENDED TIGHTENING METHOD OF ALL STRUCTURAL BOLTS SHALL BE TURN-OF-THE-NUT PRE-TENSIONING.
- QUALITY CONTROL:
 - THE BRIDGE SHALL BE FABRICATED IN A SHOP OWNED BY THE BRIDGE MANUFACTURER. THIS FACILITY SHALL HAVE UP TO DATE QUALITY CERTIFICATION BY AISC AS CERTIFIED BRIDGE FABRICATOR - ADVANCED (MAJOR) WITH FRACTURE CRITICAL ENDORSEMENT AND COMPLEX COATING ENDORSEMENT (P1-ENCLOSED OR P2-COVERED).
 - MATERIAL CERTIFICATIONS SHALL BE AVAILABLE FOR REVIEW FOR ALL MATERIALS WITHIN THE BRIDGE. TRACEABILITY OF HEAT NUMBERS IS REQUIRED FOR ALL STRUCTURAL STEEL.
 - DOCUMENTATION SHOWING THE PERFORMANCE OF ALL CRITICAL QUALITY CHECKS SHALL ALSO BE MADE AVAILABLE FOR REVIEW BY THE ENGINEER OR OWNER.
- WARRANTY:
 - THE BRIDGE MANUFACTURER SHALL WARRANT, AT THE TIME OF DELIVERY, THAT IT HAS CONVEYED GOOD TITLE TO ITS STEEL STRUCTURE, FREE OF LIENS AND ENCUMBRANCES CREATED BY THE BRIDGE MANUFACTURER, AND THAT ITS STEEL STRUCTURE IS FREE OF DEFECTS IN DESIGN, MATERIAL AND WORKMANSHIP. THIS WARRANTY SHALL BE VALID FOR A PERIOD OF ONE (1) YEAR FROM THE EARLIER DATE OF DELIVERY OR 60 DAYS AFTER FINAL FABRICATION IS COMPLETE. DURABLE TROPICAL HARDWOOD DECKING AND HARDWOOD ATTACHMENTS SHALL CARRY A ONE (1) YEAR WARRANTY AGAINST ROT, TERMITE DAMAGE, OR FUNGAL DECAY. THIS WARRANTY SHALL SPECIFICALLY EXCLUDE ALL SOFTWOOD AND DECKING MATERIAL SUCH AS TREATED SOUTHERN YELLOW PINE, DOUGLAS FIR AND WOOD THERMOPLASTIC COMPOSITE LUMBER (E.G. TREX). PAINT, GALVANIZING AND OTHER SPECIAL COATINGS, IF WARRANTED, SHALL BE WARRANTED BY THE COATING MANUFACTURER IN ACCORDANCE WITH THEIR WARRANTY PROVISIONS AND ARE NOT COVERED UNDER THE BRIDGE MANUFACTURER'S WARRANTY.
 - THIS WARRANTY SHALL NOT COVER DEFECTS IN THE STEEL STRUCTURE CAUSED BY ABUSE, MISUSE, OVERLOADING, ACCIDENT, IMPROPER INSTALLATION, MAINTENANCE, ALTERATION, OR ANY OTHER CAUSE NOT EXPRESSLY WARRANTED. THIS WARRANTY SHALL NOT COVER DAMAGE RESULTING FROM OR RELATING TO THE USE OF ANY KIND OF DE-ICING MATERIAL. THIS WARRANTY SHALL BE VOID UNLESS OWNER'S RECORDS ARE SUPPLIED THAT SHOW COMPLIANCE WITH THE MINIMUM GUIDELINES SPECIFIED IN THE IN THE BRIDGE MANUFACTURER'S INSPECTION AND MAINTENANCE PROCEDURES.
 - REPAIR, REPLACEMENT, OR ADJUSTMENT, IN WARRANTY MANUFACTURER'S SOLE DISCRETION, SHALL BE THE EXCLUSIVE REMEDY FOR ANY DEFECTS UNDER THIS WARRANTY. THIS WARRANTY SHALL EXCLUDE LIABILITY FOR ANY INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES.
- BRIDGE MANUFACTURER'S DESIGN PROFESSIONAL AND SUBMITTALS:
 - THE BRIDGE MANUFACTURER SHALL HAVE, AS A DIRECT EMPLOYEE, AN ENGINEER WHO IS EXPERIENCED IN BRIDGE DESIGN TO BE IN RESPONSIBLE CHARGE OF ALL ENGINEERING RELATED TASK AND DESIGN. THE ENGINEER SHALL HAVE A MINIMUM OF 10 YEARS OF EXPERIENCE IN BRIDGE DESIGN AND BE A CURRENTLY LICENSED CIVIL OR STRUCTURAL PROFESSIONAL ENGINEER IN THE STATE OF (INSERT NAME OF STATE WHERE BRIDGE WILL BE LOCATED) AND SHALL BE THE ENGINEER WHO WILL SEAL AND SIGN THE PLANS.
 - ENGINEERING DRAWINGS, 11X17 FORMAT, SHALL BE PREPARED AND SUBMITTED TO THE CONTRACTOR OR OWNER FOR THEIR REVIEW AFTER RECEIPT OF THE ORDER. SUBMITTAL DRAWINGS SHALL BE UNIQUE DRAWINGS, PREPARED TO ILLUSTRATE THE SPECIFIC PORTION OF THE BRIDGE BEING FABRICATED. ALL RELATIVE DESIGN INFORMATION SUCH AS MEMBER SIZE, ASTM/AASHTO MATERIAL SPECIFICATION, DIMENSIONS NECESSARY TO FABRICATE AND REQUIRED WELDING SHALL BE CLEARLY SHOWN ON THE DRAWINGS. DRAWINGS SHALL HAVE REFERENCED DETAILS AND SHEET NUMBERS. ALL DRAWINGS SHALL BE STAMPED, SIGNED AND DATED BY THE BRIDGE MANUFACTURER'S DESIGN PROFESSIONAL.
 - STRUCTURAL CALCULATIONS FOR THE DESIGN OF THE BRIDGE SUPERSTRUCTURE SHALL BE PREPARED BY THE BRIDGE MANUFACTURER AND SUBMITTED FOR REVIEW AFTER RECEIPT OF THE ORDER. CALCULATIONS SHALL INCLUDE COMPLETE DESIGN, ANALYSIS AND CODE CHECKS FOR THE CONTROLLING MEMBERS, CONNECTIVITY AND SUPPORT CONDITIONS, TRUSS STABILITY CHECKS, DECK DESIGN, DEFLECTION CHECKS, BEARINGS AND ALL SPLICES.



CERTIFIED BY :

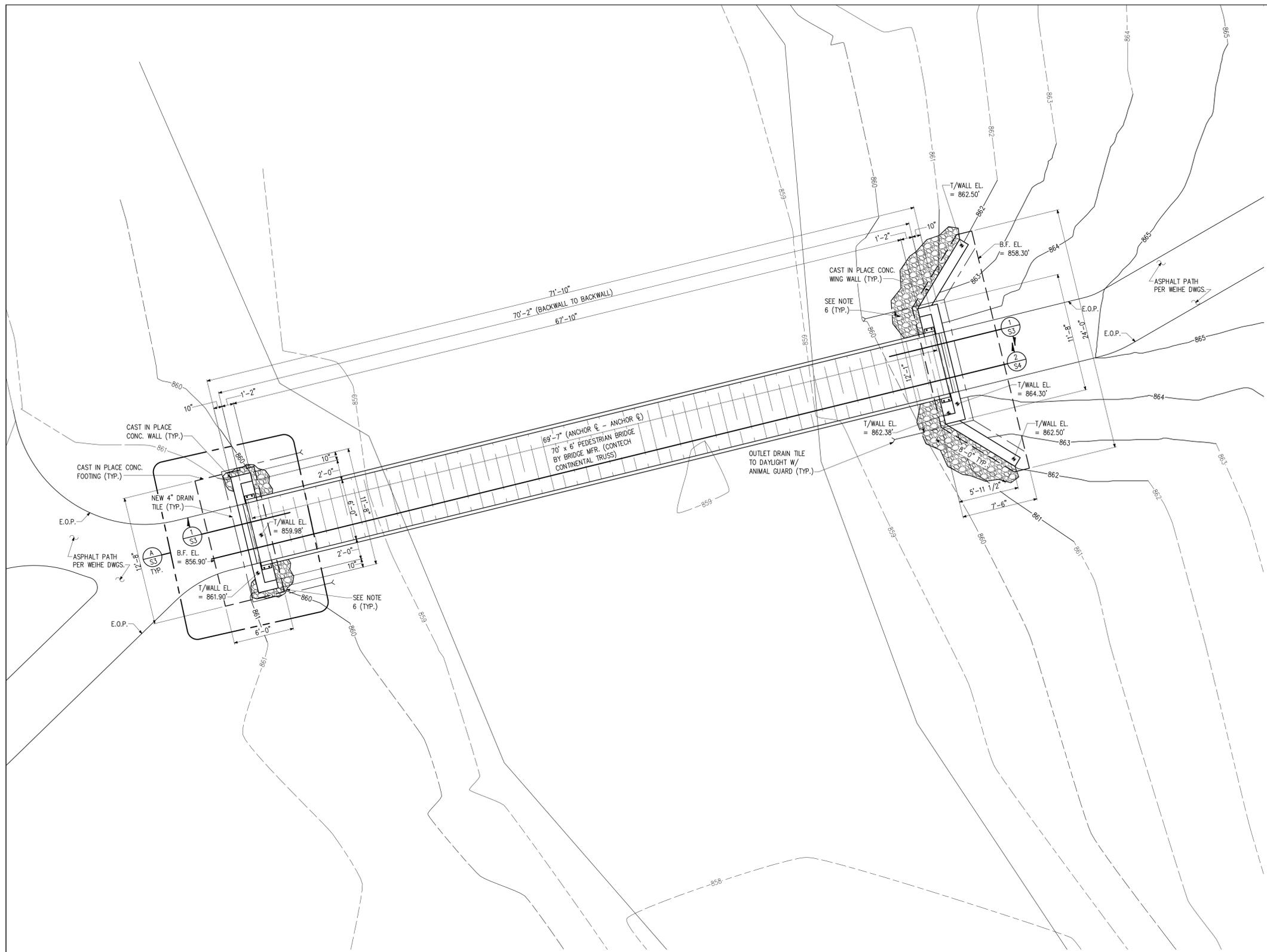
Matthew J. Cava

03-03-26

PROJECT FOR

WEIHE ENGINEERS, INC.
10505 N. COLLEGE AVE.
INDIANAPOLIS, IN 46280

REVISIONS	REMARKS



NORTH BRIDGE FOUNDATION PLAN



1" = 5'-0"

PLAN NOTES

1. SEE GENERAL NOTES ON DRAWING S1 AND TYPICAL DETAILS ON DRAWING S3 FOR ADDITIONAL INFORMATION.
2. ALL DIMENSIONS AND ELEVATIONS NOTED ON THE PLAN AND SECTIONS SHALL BE COORDINATED WITH THE SITE DEVELOPMENT DRAWINGS BY WEIHE ENGINEERING AND THE BRIDGE DRAWINGS BY THE BRIDGE MANUFACTURER AND FIELD VERIFIED PRIOR TO THE BEGINNING NEW CONSTRUCTION AND FABRICATION OF ANY NEW MATERIALS. CONTACT THE ENGINEER IF ANY DISCREPANCIES ARE NOTED.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WITH ANY EXCAVATION WORK. IF A UTILITY IS LOCATED WHERE NEW FOUNDATIONS ARE PROPOSED THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH ANY WORK IN THE AREA UNDER QUESTION.
4. PREPARE ALL SUBSURFACE STRATA PER PROJECT GEOTECHNICAL REPORT # 24-1911-01G 02/04/25 BY PATRIOT ENGINEERING AND ENVIRONMENTAL, INC.
5. SEE WEIHE ENGINEERING DRAWINGS FOR PATH AND GRADING DETAILS.
6. CONCRETE FOUNDATION SHALL HAVE RIPRAP SURROUND FOR EROSION CONTROL. AVERAGE STONE SIZE SHALL BE 6". MINIMUM THICKNESS OF RIPRAP TO BE 12". GEOTEXTILE TO BE POLYFELT TS700 OR APPROVED EQUAL. MATCH RIPRAP TO SLOPE OF FINISH GRADE.
7. * T/WALL EL. = 8XX.XX' INDICATES SPOT ELEVATION
 - 8XX.XX - INDICATES CONTOUR PER SITE DEVELOPMENT DRAWINGS
8. B.F. EL. INDICATES BOTTOM OF FOOTING ELEVATION.
9. T/WALL EL. INDICATES TOP OF CONCRETE WALL ELEVATION.
10. PROVIDE WALL REINFORCEMENT AT ALL WALL BENDS (DOWEL INTERSECTING WALLS) PER DETAIL B ON DRAWING S3.

Strata Creek Engineering, Inc.
 7725 WOODLAND DRIVE, SUITE 200
 INDIANAPOLIS, INDIANA 46276
 (317) 297-2910
 FAX (317) 297-2942
 www.sceindy.com

CERTIFIED BY :

Matthew L. Lowe
 03-03-26

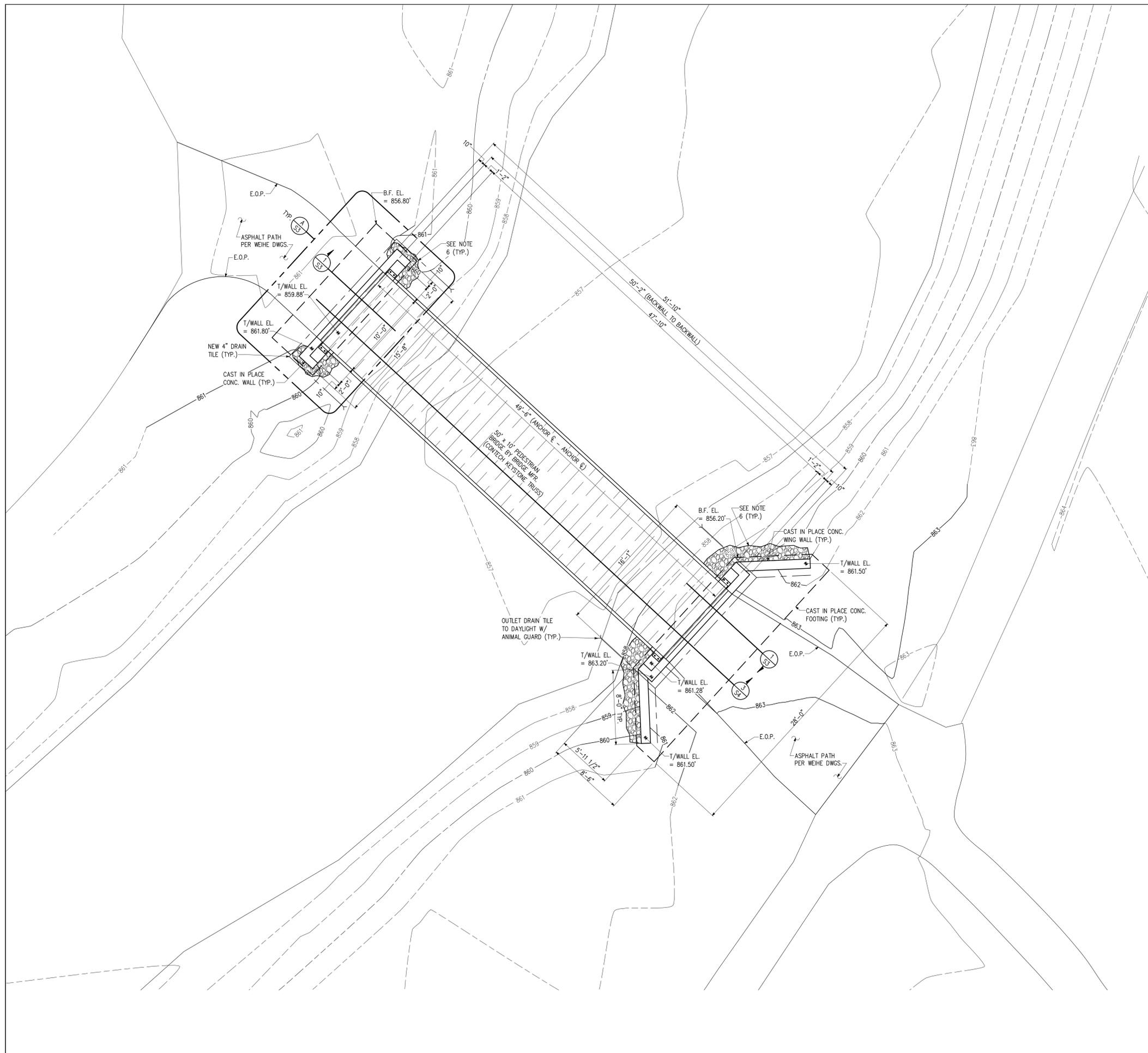
PROJECT FOR
WEIHE ENGINEERS, INC.
 10505 N. COLLEGE AVE.
 INDIANAPOLIS, IN 46280

REVISIONS		REMARKS
NO.	DATE	

DRAWN BY : TJS	DESIGNED BY : TJS
CHECKED BY : MLD	DATE : 03-03-26
SCE JOB NO. 24414	SCALE AS NOTED

DRAWING TITLE
**RILEY PARK, GREENFIELD, IN
 NEW PEDESTRIAN BRIDGES
 NORTH BRIDGE
 FOUNDATION PLAN**

SHEET NUMBER
S2A



SOUTH BRIDGE FOUNDATION PLAN

1" = 5'-0"



PLAN NOTES

- SEE GENERAL NOTES ON DRAWING S1 AND TYPICAL DETAILS ON DRAWING S3 FOR ADDITIONAL INFORMATION.
- ALL DIMENSIONS AND ELEVATIONS NOTED ON THE PLAN AND SECTIONS SHALL BE COORDINATED WITH THE SITE DEVELOPMENT DRAWINGS BY WEIHE ENGINEERING AND THE BRIDGE DRAWINGS BY THE BRIDGE MANUFACTURER AND FIELD VERIFIED PRIOR TO THE BEGINNING NEW CONSTRUCTION AND FABRICATION OF ANY NEW MATERIALS. CONTACT THE ENGINEER IF ANY DISCREPANCIES ARE NOTED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WITH ANY EXCAVATION WORK. IF A UTILITY IS LOCATED WHERE NEW FOUNDATIONS ARE PROPOSED THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH ANY WORK IN THE AREA UNDER QUESTION.
- PREPARE ALL SUBSURFACE STRATA PER PROJECT GEOTECHNICAL REPORT # 24-1911-01G 02/04/25 BY PATRIOT ENGINEERING AND ENVIRONMENTAL, INC.
- SEE WEIHE ENGINEERING DRAWINGS FOR PATH AND GRADING DETAILS.
- CONCRETE FOUNDATION SHALL HAVE RIPRAP SURROUND FOR EROSION CONTROL. AVERAGE STONE SIZE SHALL BE 6". MINIMUM THICKNESS OF RIPRAP TO BE 12". GEOTEXTILE TO BE POLYFELT TS700 OR APPROVED EQUAL. MATCH RIPRAP TO SLOPE OF FINISH GRADE.
- T/WALL EL. INDICATES SPOT ELEVATION
 * = 8XX.XX'
 - 8XX - - INDICATES CONTOUR PER SITE DEVELOPMENT DRAWINGS
- B.F. EL. INDICATES BOTTOM OF FOOTING ELEVATION.
- T/WALL EL. INDICATES TOP OF CONCRETE WALL ELEVATION.
- PROVIDE WALL REINFORCEMENT AT ALL WALL BENDS (DOWEL INTERSECTING WALLS) PER DETAIL B ON DRAWING S3.

Star Creek Engineering, Inc.
 7725 WOODLAND DRIVE, SUITE 200
 INDIANAPOLIS, INDIANA 46276
 (317) 297-5610
 FAX (317) 297-2942
 www.sceindy.com

CERTIFIED BY :

MATTHEW L. LOWE
 REGISTERED
 No. 10403326
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

Matthew Lowe

03-03-26

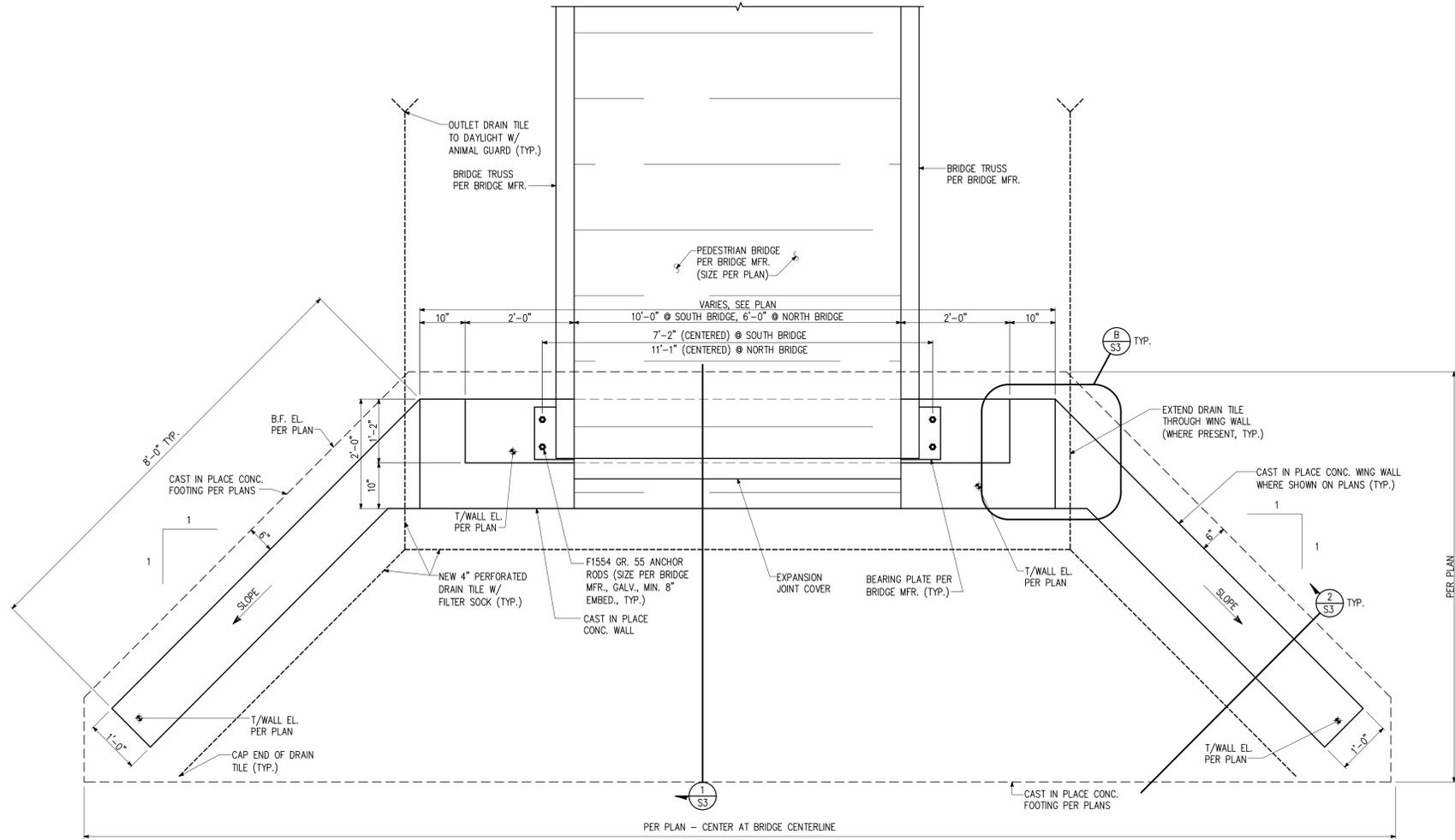
PROJECT FOR
WEIHE ENGINEERS, INC.
 10505 N. COLLEGE AVE.
 INDIANAPOLIS, IN 46280

NO.	DATE	REVISIONS	REMARKS

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 CHECKED BY : MLD DATE : 03-03-26
 SCE JOB NO. 24414 SCALE AS NOTED

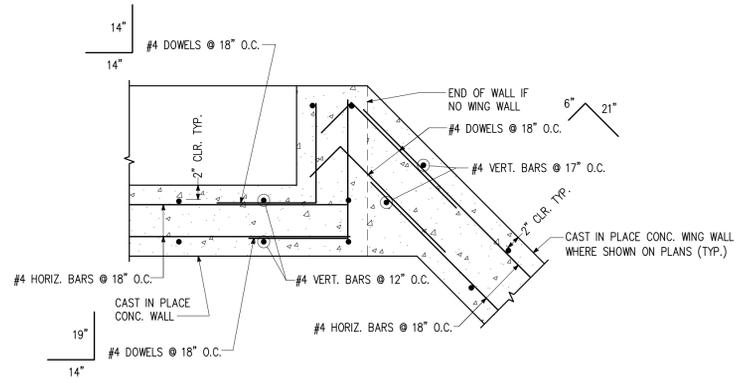
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**RILEY PARK, GREENFIELD, IN
 NEW PEDESTRIAN BRIDGES
 SOUTH BRIDGE
 FOUNDATION PLAN**

SHEET NUMBER
S2B

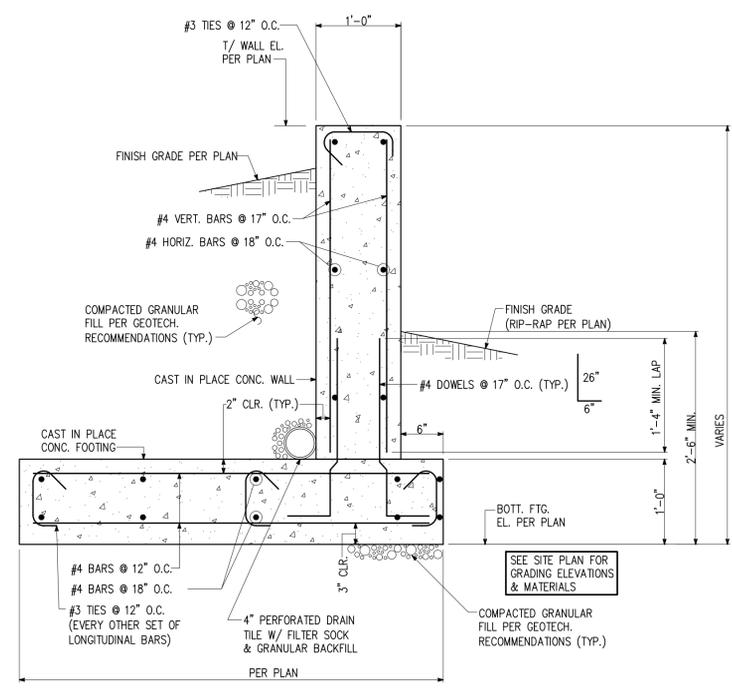


PLAN DETAIL A
 3/4" = 1'-0" S2A,S2B

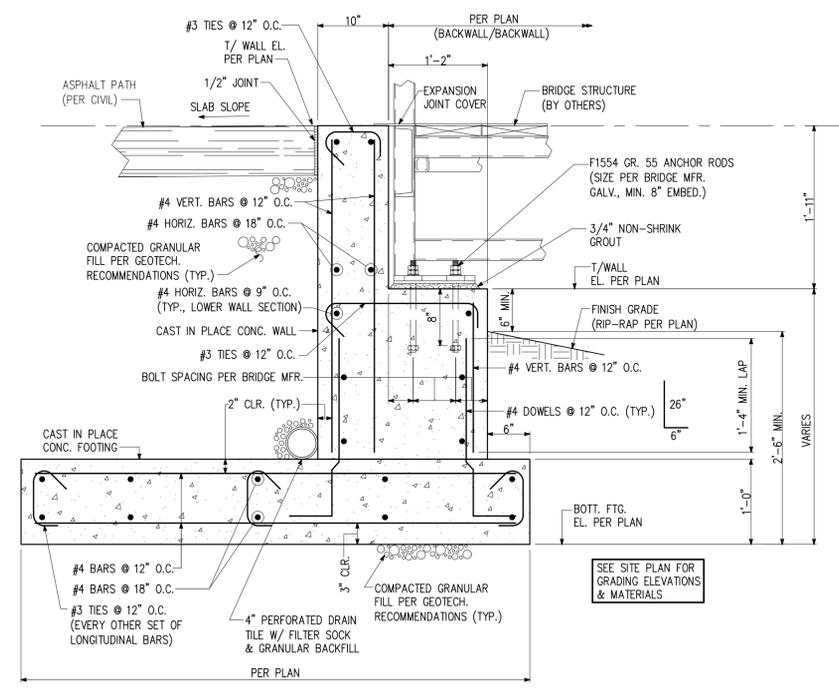
SEE WEIHE ENGINEERING DRAWINGS FOR GRADING AND PAVEMENT



DETAIL B
 1" = 1'-0" S3



SECTION 2
 1" = 1'-0" S3



SECTION 1
 1" = 1'-0" S2A,S2B,S3

NO.	DATE	REVISIONS	REMARKS

DRAWN BY: TJS	DESIGNED BY: TJS
CHECKED BY: MLO	DATE: 03-03-26
SCE JOB NO. 24414	SCALE: AS NOTED

DRAWING TITLE
**RILEY PARK, GREENFIELD, IN
 NEW PEDESTRIAN BRIDGES
 SECTIONS & DETAILS**

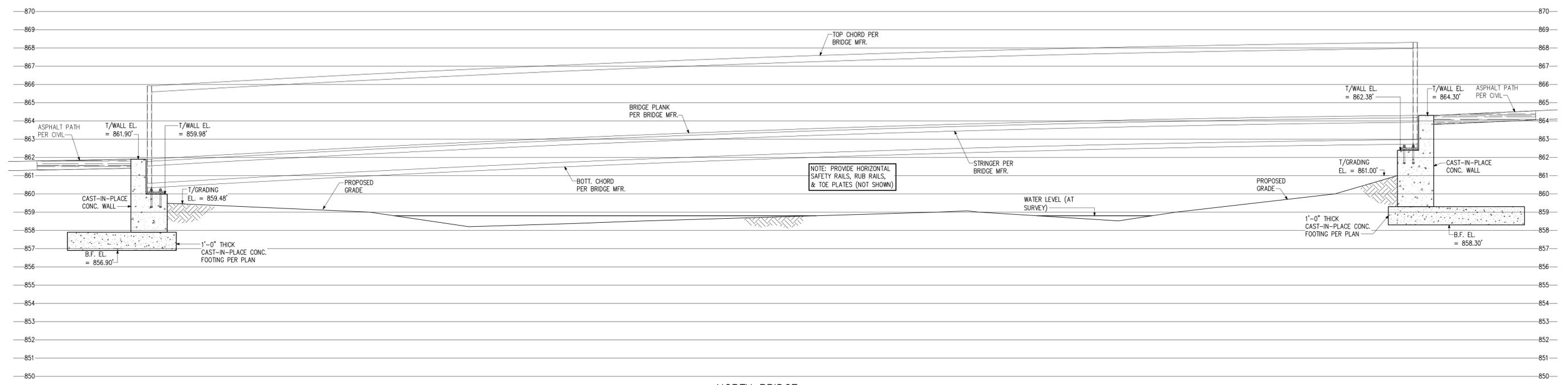
SHEET NUMBER
S3

NO.	DATE	REVISIONS	REMARKS

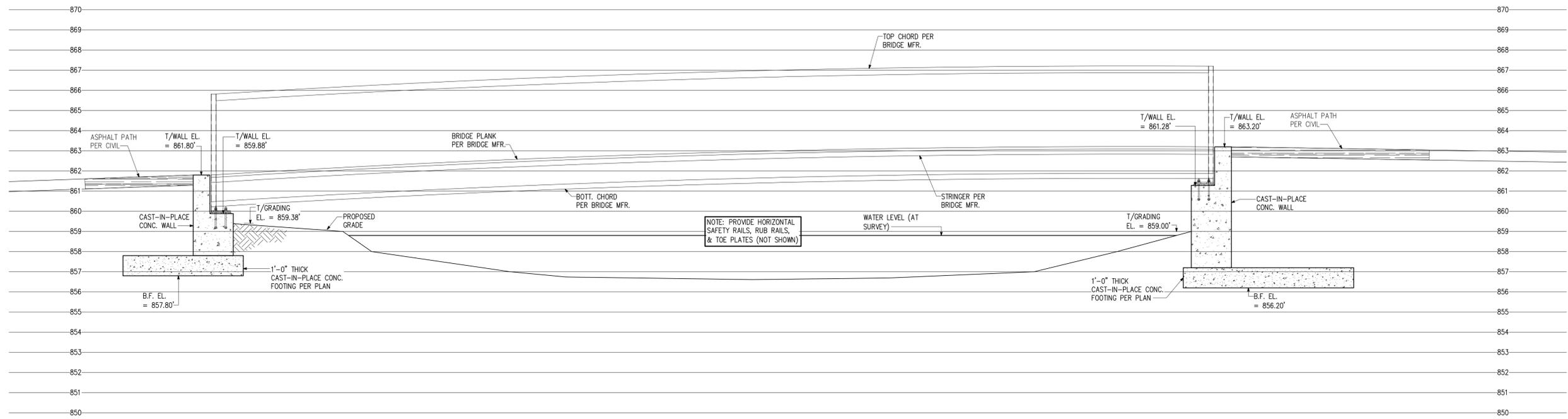
DRAWN BY: TJS	DESIGNED BY: TJS
CHECKED BY: MLD	DATE: 03-03-26
SCE JOB NO. 24414	SCALE: AS NOTED

DRAWING TITLE
**RILEY PARK, GREENFIELD, IN
 NEW PEDESTRIAN BRIDGES
 BRIDGE SECTION**

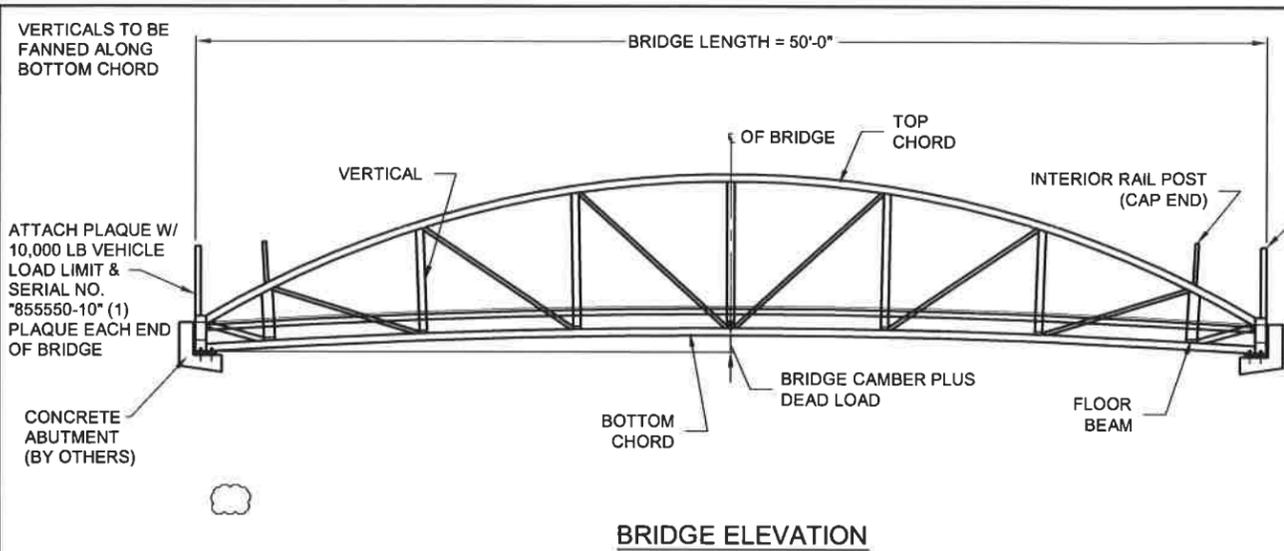
SHEET NUMBER
S4



NORTH BRIDGE
 SECTION **2**
 3/8" = 1'-0" S2A

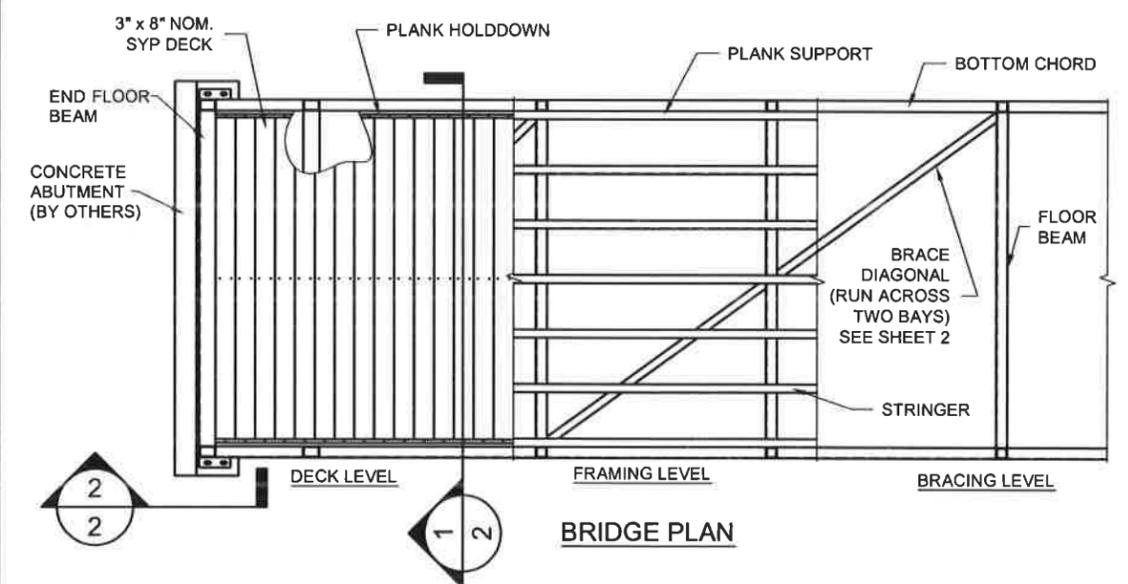


SOUTH BRIDGE
 SECTION **3**
 3/8" = 1'-0" S2B



BRIDGE ELEVATION

PEDESTRIAN RAIL NOT SHOWN FOR DRAWING CLARITY. FABRICATOR TO INCLUDE STANDARD PEDESTRIAN RAIL INCLUDING SAFETY RAIL, RUB RAIL, AND TOE RAIL. SPACING OF SAFETY SYSTEM TO PRODUCE OPENING OF LESS THAN 4".



BRIDGE PLAN

GENERAL NOTES

- DESIGN PROCEDURE IS IN ACCORDANCE WITH "STANDARD SPECIFICATION FOR HIGHWAY BRIDGES", 2014 (7TH EDITION) & "GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES", 2009 (INCLUDING 2015 INTERIM REVISIONS) BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).
- BRIDGE MEMBERS ARE FABRICATED FROM HIGH STRENGTH, LOW ALLOY, ENHANCED ATMOSPHERIC CORROSION RESISTANT ASTM A847 COLD-FORMED WELDED SQUARE AND RECTANGULAR TUBING, AND ASTM A588, ASTM A606, OR ASTM A709-50W PLATE AND STRUCTURAL SHAPES (FY=50,000 PSI).
- BRIDGE DECKING NOMINAL 3-INCH THICK SELECT STRUCTURAL SOUTHERN YELLOW PINE (FB=2,300 PSI MIN.). TIMBER DECK MATERIAL SHALL BE TREATED WITH ALKALINE COPPER QUATERNARY (ACQ) TO A 0.4 PCF RETENTION OR TO REFUSAL OR AZOLE BIOCIDE (MCA) TO A 0.06 PCF RETENTION OR TO REFUSAL.
- THE GAS METAL ARC WELDING PROCESS OR FLUX CORED ARC WELDING PROCESS WILL BE USED. WELDING TO BE IN ACCORDANCE WITH AWS D1.1.
- ALL TOP AND BOTTOM CHORD SHOP SPLICES TO BE COMPLETE PENETRATION TYPE WELDS. WELD BETWEEN TOP CHORD AND END VERTICAL SHALL BE AS DETAILED.
- UNLESS OTHERWISE NOTED, WELDED CONNECTIONS SHALL BE FILLET WELDS (OR HAVE THE EFFECTIVE THROAT OF A FILLET WELD) OF A SIZE EQUAL TO THE THICKNESS OF THE LIGHTEST GAGE MEMBER IN THE CONNECTION. WELDS SHALL BE APPLIED AS FOLLOWS:
 - A. BOTH ENDS OF VERTICALS, DIAGONALS, AND FLOOR BEAMS SHALL BE WELDED ALL AROUND.
 - B. BRACE DIAGONALS WILL BE WELDED ALL AROUND.
 - C. MISCELLANEOUS NON-STRUCTURAL MEMBERS (DEFINED AS MEMBERS WITH CONNECTION WELDS NOT SPECIFICALLY DETAILED) WILL BE STITCH WELDED TO THEIR SUPPORTING MEMBERS, BUTT WELDED AT SHOP SPLICE LOCATIONS, AND ARE TO BE EXEMPT FROM THE REQUIREMENTS OF AWS D1.1.
- BRIDGE DESIGN WAS ONLY BASED ON COMBINATIONS OF THE FOLLOWING LOADS WHICH WILL PRODUCE MAXIMUM CRITICAL MEMBER STRESSES.
 - A. 90 PSF UNIFORM LIVE LOADING ON THE FULL DECK AREA OR ONE 10,000 LB VEHICLE LOAD. THE LOAD SHALL BE DISTRIBUTED AS A FOUR-WHEEL VEHICLE WITH 80% OF THE LOAD ON THE REAR WHEELS. THE WHEEL TRACK WIDTH OF THE VEHICLE SHALL BE 5'-0" AND THE WHEEL BASE SHALL BE 8'-6". THE VEHICLE SHALL BE POSITIONED SO AS TO PRODUCE THE MAXIMUM STRESSES IN EACH MEMBER, INCLUDING DECKING.
 - B. 35 PSF WIND LOAD ON THE FULL HEIGHT OF THE BRIDGE, AS IF ENCLOSED.
 - C. 20 PSF UPWARD FORCE APPLIED AT THE WINDWARD QUARTER POINT OF THE TRANSVERSE BRIDGE WIDTH (AASHTO 3.8.2).
- CLEANING: ALL EXPOSED SURFACES OF STEEL SHALL BE CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACES PREPARATION SPECIFICATIONS NO. 7 BRUSH-OFF BLAST CLEANING. SSPC-SP7-LATEST EDITION. EXPOSED SURFACES IS DEFINED AS THOSE VISIBLE FROM THE DECK AND FROM THE OUTSIDE OF THE STRUCTURE. FLOOR BEAMS, BRACE DIAGONALS AND THE INSIDE AND BOTTOM OF DECK SUPPORT WILL NOT BE BLAST CLEANED.
- MINIMUM MATERIAL THICKNESS OF 1/4" ON ALL STRUCTURAL MEMBERS.

CAUTION:
 WE ARE PROVIDING A WOOD DECK ON THIS STRUCTURE IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR THE CONTRACT DOCUMENTS. BE AWARE THAT MOST PEDESTRIAN BRIDGE LIABILITY CLAIMS ARE STATISTICALLY SLIP AND FALL CLAIMS. IT IS THE OWNER'S RESPONSIBILITY TO KEEP THE DECK FREE FROM SLIP OR TRIP HAZARDS DUE TO CUPPING, SPLITS, GAPS AND SMOOTH SURFACES.

CONTECH
PROPOSAL
 DRAWING



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MARK	DATE	REVISION DESCRIPTION	BY

50'-0" x 10'-0"
 RILEY PARK
 PEDESTRIAN BRIDGE
 GREENFIELD, IN

CONTECH
 ENGINEERED SOLUTIONS LLC
 www.conteches.com
 8301 State Highway 28 North, Almarora, MI 48308
 800-326-3047 313-452-7000 313-452-7007 FAX

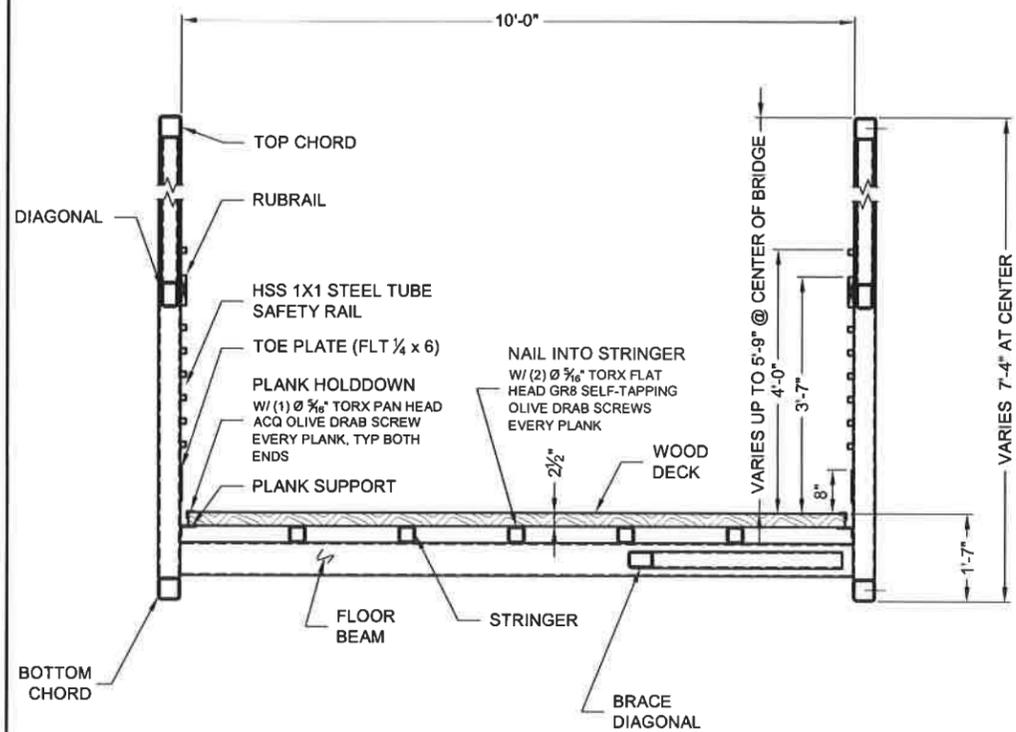
CONTINENTAL
 BRIDGE

DATE: 1/26/2026

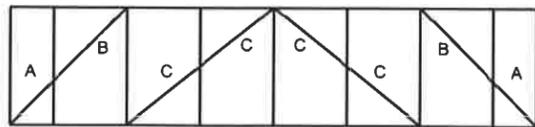
DESIGNED: XXX	DRAWN: DJB
CHECKED: XXX	APPROVED: XXX
PROJECT No: 855550	SEQUENCE No: 010
SHEET: 1 OF 2	

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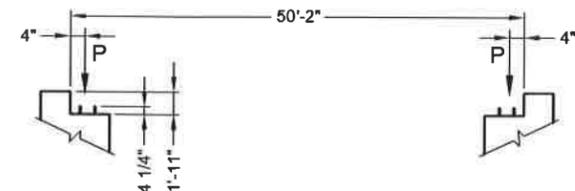
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1
1
BRIDGE SECTION



BRACE DIAGONAL LAYOUT

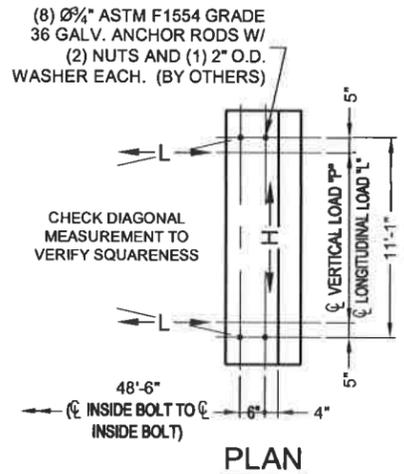


ANCHOR BOLT ELEVATION

COMBINE REACTIONS AS PER LOCAL OR GOVERNING BUILDING CODES AS REQUIRED

BRIDGE REACTIONS	+ DOWNWARD LOAD - UPWARD LOAD		
	P (LBS)	H (LBS)	L (LBS)
DEAD LOAD	3,800		
UNIFORM LIVE LOAD	11,250		
VEHICLE LOAD	5,000		
WIND UPLIFT 20 PSF	-4,000		
	-1,333		
WIND	±2,010	5,545	
THERMAL			1,330

P* - VERTICAL LOAD EACH BASE PLATE (4 PER BRIDGE)
H* - HORIZONTAL LOAD EACH FOOTING (2 PER BRIDGE)
L* - LONGITUDINAL LOAD EACH BASE PLATE (4 PER BRIDGE)
BRIDGE LIFTING WEIGHT: 15,500 LBS



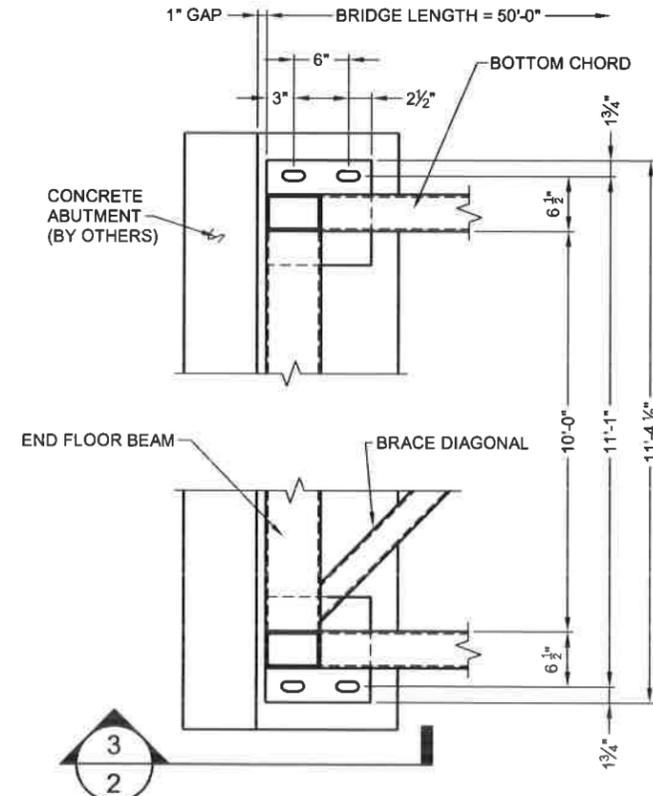
PLAN

SHOP NOTE:
MIDBAY SUPPORTS REQUIRED FOR SAFETY SYSTEM, USE FLT 1" x 1/2"

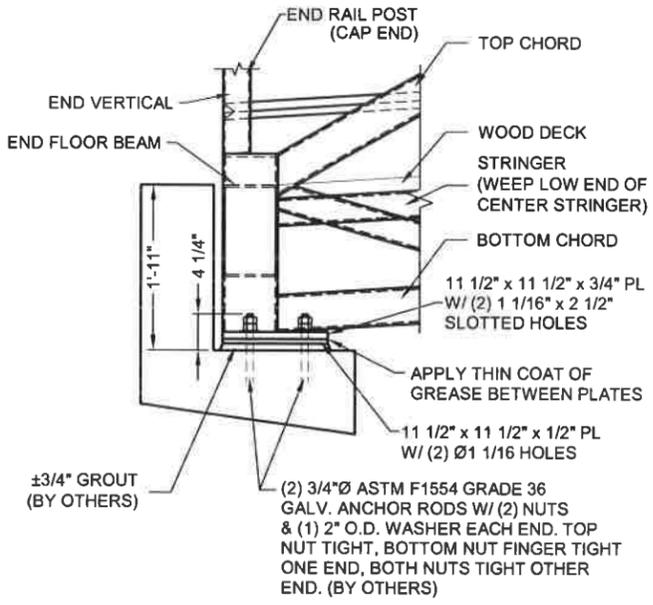
SPACING OF SAFETY SYSTEM PRODUCES OPENINGS OF LESS THAN 4" UP TO 48" ABOVE THE DECK SURFACE.

QUALITY ASSURANCE NOTES

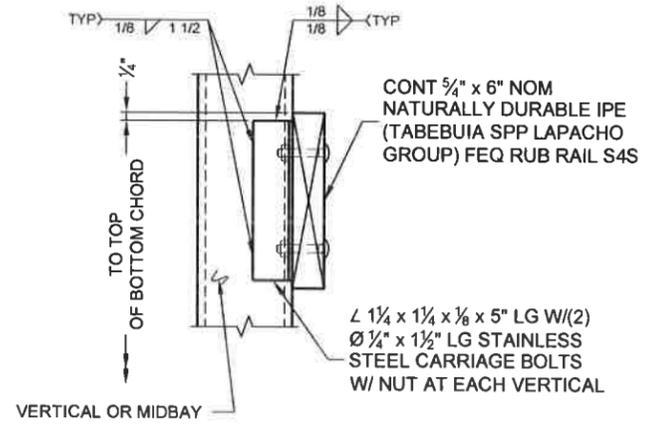
1. ALL WELDS TO BE VISUALLY INSPECTED.



2
1
PLAN VIEW - BEARING ASSEMBLY



3
2
SIDE VIEW - BEARING ASSEMBLY



X
X
RUB RAIL DETAIL

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MARK	DATE	REVISION DESCRIPTION	BY

50'-0" x 10'-0"
RILEY PARK
PEDESTRIAN BRIDGE
GREENFIELD, IN

CONTECH
ENGINEERED SOLUTIONS LLC
www.conteches.com
8001 Slaus Highway 25 North, Alexandria, MI 48009
800-325-2047 320-552-7500 320-552-7097 FAX

CONTINENTAL
BRIDGE

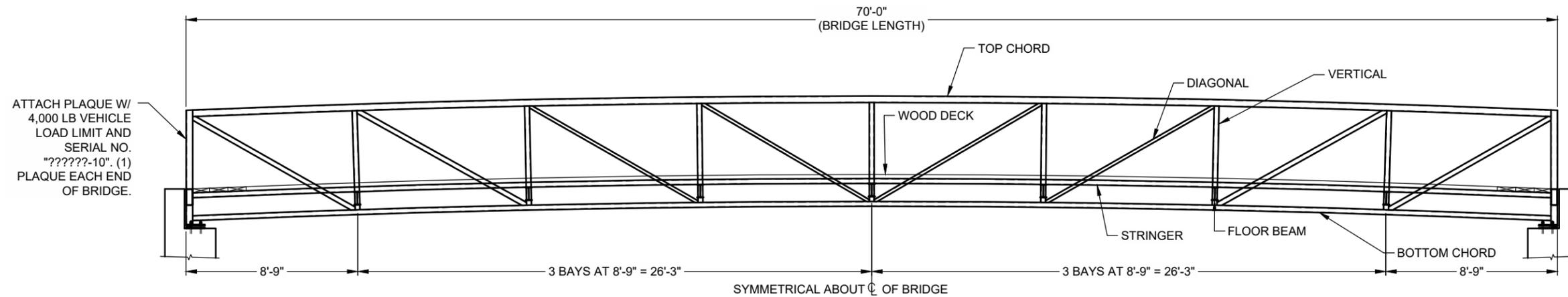
DATE: 1/26/2026

DESIGNED: XXX	DRAWN: DJB
CHECKED: XXX	APPROVED: XXX
PROJECT No.: 855550	SEQUENCE No.: 010
SHEET: 2	OF 2

CONTECH
PROPOSAL
DRAWING



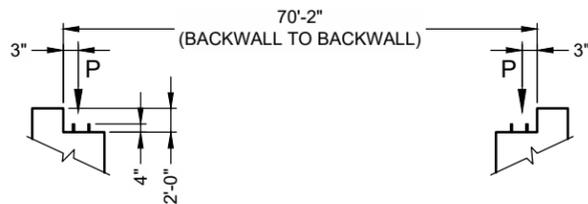
P:\ENGINEERING\AASHTO EXPRESS\70' BRIDGES\6' WOOD DECK\70' X 6' WOOD H SALES.DWG 2/4/2019 11:55 AM



BRIDGE ELEVATION

GENERAL NOTES

- DESIGN STRESSES ARE IN ACCORDANCE WITH "STANDARD SPECIFICATION FOR HIGHWAY BRIDGES" & "GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES" BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) 2009.
- BRIDGE MEMBERS ARE FABRICATED FROM HIGH STRENGTH, LOW ALLOY, ENHANCED ATMOSPHERIC CORROSION RESISTANT ASTM A847 COLD-FORMED WELDED SQUARE AND RECTANGULAR TUBING, AND ASTM A588, ASTM A606, OR ASTM A242 PLATE AND STRUCTURAL SHAPES (F_y=50,000 PSI).
- BRIDGE DECKING NOMINAL 3 x 12 SELECT STRUCTURAL FIR (F_b=1,400 PSI min.) OR 3 x 10 SOUTHERN YELLOW PINE (F_b=1,300 PSI min.). ALKALINE COPPER QUATERNARY (ACQ) TO A 0.4 PCF RETENTION OR TO REFUSAL OR AZOLE BIOCIDES (MCA) TO A 0.06 PCF RETENTION OR TO REFUSAL.
- THE GAS METAL ARC WELDING PROCESS OR FLUX CORED ARC WELDING PROCESS WILL BE USED. WELDING TO BE IN ACCORDANCE WITH AWS D1.1.
- ALL TOP AND BOTTOM CHORD SHOP SPLICES TO BE COMPLETE PENETRATION TYPE WELDS. WELD BETWEEN TOP CHORD AND END VERTICAL SHALL BE AS DETAILED.
- UNLESS OTHERWISE NOTED, WELDED CONNECTIONS SHALL BE FILLET WELDS (OR HAVE THE EFFECTIVE THROAT OF A FILLET WELD) OF A SIZE EQUAL TO THE THICKNESS OF THE LIGHTEST GAGE MEMBER IN THE CONNECTION. WELDS SHALL BE APPLIED AS FOLLOWS:
 - A. BOTH ENDS OF VERTICALS, DIAGONALS, AND FLOOR BEAMS SHALL BE WELDED ALL AROUND.
 - B. BRACE DIAGONALS WILL BE WELDED ALL AROUND.
 - C. MISCELLANEOUS NON-STRUCTURAL MEMBERS WILL BE STITCH WELDED TO THEIR SUPPORTING MEMBERS.
- BRIDGE DESIGN WAS ONLY BASED ON COMBINATIONS OF THE FOLLOWING LOADS WHICH WILL PRODUCE MAXIMUM CRITICAL MEMBER STRESSES.
 - A. 90 PSF UNIFORM LIVE LOADING ON THE FULL DECK AREA OR ONE 4,000 LB VEHICLE LOAD. THE LOAD SHALL BE DISTRIBUTED AS A FOUR-WHEEL VEHICLE WITH 50% OF THE LOAD ON THE REAR WHEELS. THE WHEEL TRACK WIDTH OF THE VEHICLE SHALL BE 2'-8" AND THE WHEEL BASE SHALL BE 4'-0". THE VEHICLE SHALL BE POSITIONED SO AS TO PRODUCE THE MAXIMUM STRESSES IN EACH MEMBER, INCLUDING DECKING.
 - B. 35 PSF WIND LOAD ON THE FULL HEIGHT OF THE BRIDGE, AS IF ENCLOSED.
 - C. 20 PSF UPWARD FORCE APPLIED AT THE WINDWARD QUARTER POINT OF THE TRANSVERSE BRIDGE WIDTH (AASHTO 3.15.3).
- CLEANING: ALL EXPOSED SURFACES OF STEEL SHALL BE CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACES PREPARATION SPECIFICATIONS NO. 7 BRUSH-OFF BLAST CLEANING. SSPC-SP7-LATEST EDITION.
- MINIMUM MATERIAL THICKNESS OF 1/4" ON ALL STRUCTURAL MEMBERS.



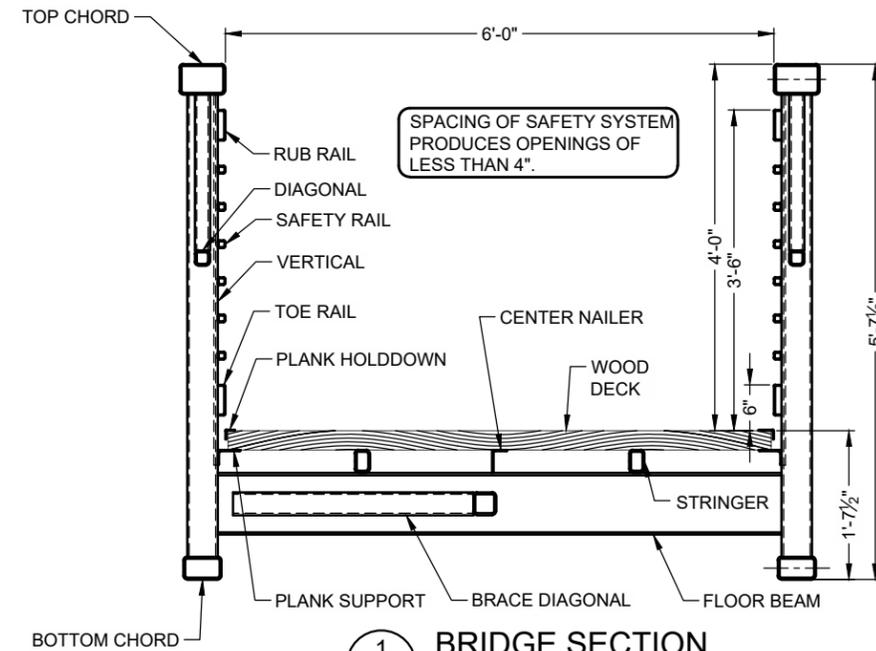
ANCHOR BOLT ELEVATION

COMBINE REACTIONS AS PER LOCAL OR GOVERNING BUILDING CODES AS REQUIRED

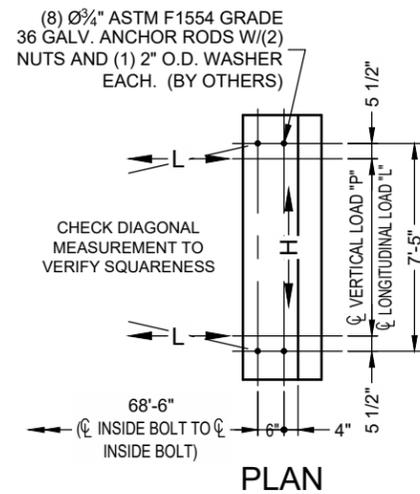
BRIDGE REACTIONS	+ DOWNWARD LOAD - UPWARD LOAD		
	P (LBS)	H (LBS)	L (LBS)
DEAD LOAD	4,375		
UNIFORM LIVE LOAD	9,450		
VEHICLE LOAD	2,000		
WIND UPLIFT 20 PSF	-3,590		
WIND LEEWARD	-1,197		
WIND	±3,610	6,895	
THERMAL			660

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

BRIDGE LIFTING WEIGHT: 17,500 LBS



BRIDGE SECTION



PLAN

CONTECH
CONTRACT
 DRAWING



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MARK	DATE	REVISION DESCRIPTION	BY

70'-0" x 6'-0"
STANDARD WOOD DECK
PEDESTRIAN BRIDGE
 CITY, STATE

CONTECH
 ENGINEERED SOLUTIONS LLC
 www.conteches.com
 6301 State Highway 28 North, Alexandria, MN 56008
 800-328-2047 320-852-7500 320-852-7067 FAX

EXPRESS

DATE:	8/20/2014
DESIGNED:	DRAWN:
CHECKED:	APPROVED:
PROJECT No.:	SEQUENCE No.:
SHEET:	10
1 OF 3	