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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

BR-2-15 DATED (REVISED) 7/17/15
VPF-1-90 DATED (REVISED) 7/20/18
CPA-1-08 DATED (REVISED) 7/18/08
SB-1-08 DATED (REVISED) 1/19/18
GSD-1-19 DATED (REVISED) 1/18/19
AS-1-15 DATED (REVISED) 7/17/15

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN LOADING

DESIGN LOADING: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

DESIGN DATA

CONCRETE CLASS (1):
COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS (2):
COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL MINIMUM YIELD STRENGTH 60 KSI

MONOLITHIC WEARING SURFACE

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

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK

ATB-307-0764P (OVER COFFEE CREEK)
- REMOVE EXISTING TRUSS SUPERSTRUCTURE AND REPLACE WITH NEW SINGLE SPAN CONCRETE DECK
- PATCH ALL UNSOUND AREAS OF THE ABUTMENT UNDER ATB-307-0764P AND SEAL WITH NON-EPOXY SEALANT
- SEAL EXPOSED CONCRETE SURFACES OF THE PARAPET WITH NON-EPOXY SEALANT
- CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION
- INSTALL NEW STRUCTURE IDENTIFICATION SIGNS

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS

ALTHOUGH NO TREES OR STUMPS ARE SPECIFICALLY MARKED FOR REMOVAL WITHIN THE PLANS, A LUMP SUM QUANTITY IS INCLUDED IN THE STRUCTURE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS. SCALPING IS NOT REQUIRED FOR THIS ITEM OF WORK. ALL VEGETATION SHALL BE REMOVED WITHIN 15 FEET (OR TO THE R/W LIMITS, WHICHEVER IS CLOSER) OF THE HEADWALLS, ABUTMENTS AND/OR PIERS.

ALL OTHER PROVISIONS AS SET FORTH IN THE CMS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

POROUS BACKFILL, AS PER PLAN

THE TOP 3 FEET OF POROUS BACKFILL AT 18" THICK AND ALL NEOPRENE SHEETING WITHIN THIS LIMIT SHALL BE REPLACED BEHIND THE WINGWALLS AND BACKWALLS AS DIRECTED BY THE PROJECT ENGINEER.

VANDAL FENCE COLOR

THE COLOR OF THE FENCE FABRIC, RAILS, POSTS, PLATES, WIRES, AND ADDITIONAL VISUAL HARDWARE AND CAULK SHALL BE BLACK (FEDERAL COLOR NO. 27038).

STRUCTURE/CULVERT IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (1-H25b) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

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

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:
(ADD LIST OF STRUCTURES HERE)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

ASBESTOS NOTIFICATION

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

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

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

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

OR

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

THE FORM SHALL INCLUDE:

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

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

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

SUBSTRUCTURE CONCRETE REMOVAL

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

STRUCTURE GENERAL NOTES

ATB-307-0764P
OVER COFFEE CREEK

ATB-307-
7.64/19.87
PID No. 105171

2 / 11

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DESIGN AGENCY
ODOT -- DISTRICT 4
CAPITAL PLANNING

DATE
9/14/21
REVIEWED
PF
STRUCTURE FILE NUMBER
0405817

DRAWN
MJA
CHECKED
TJP
REVISOR
MJA

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ADDITIONAL BRIDGE DETAILS FOR
REFERENCE ONLY

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ODOT -- DISTRICT 4
CAPITAL PLANNING

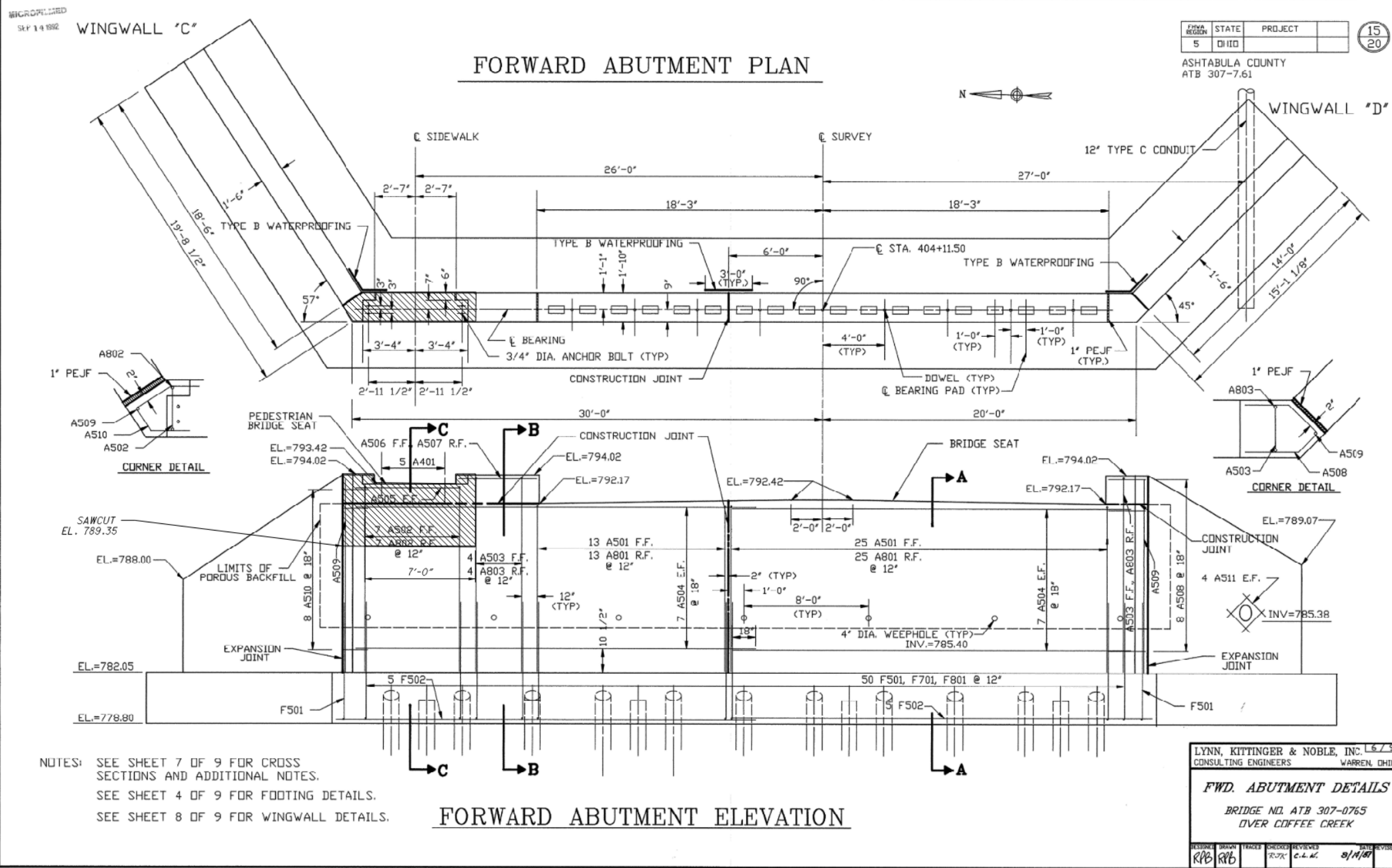
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ABUTMENT REMOVAL DETAILS - FORWARD ABUTMENT
ATB-307-0764P
OVER COFFEE CREEK

ATB-307-
7.64/19.87
PID No. 105171

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FHWA REGION	STATE	PROJECT	
5	OH		

ASHTABULA COUNTY
ATB 307-7.61

15	20
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LYNN, KITTINGER & NOBLE, INC. 6/9 CONSULTING ENGINEERS WARREN, OHIO					
FWD. ABUTMENT DETAILS					
BRIDGE NO. ATB 307-0765 OVER COFFEE CREEK					
DESIGNED RJB	DRAWN RJB	TRACED RJB	CHECKED RJB	REVIEWED C.L.L.	DATE REVISION 9/14/21

ADDITIONAL BRIDGE DETAILS FOR
REFERENCE ONLY

MICROFILMED
SEP 14 1992

FYMA REGION	STATE	PROJECT
5	DHIO	

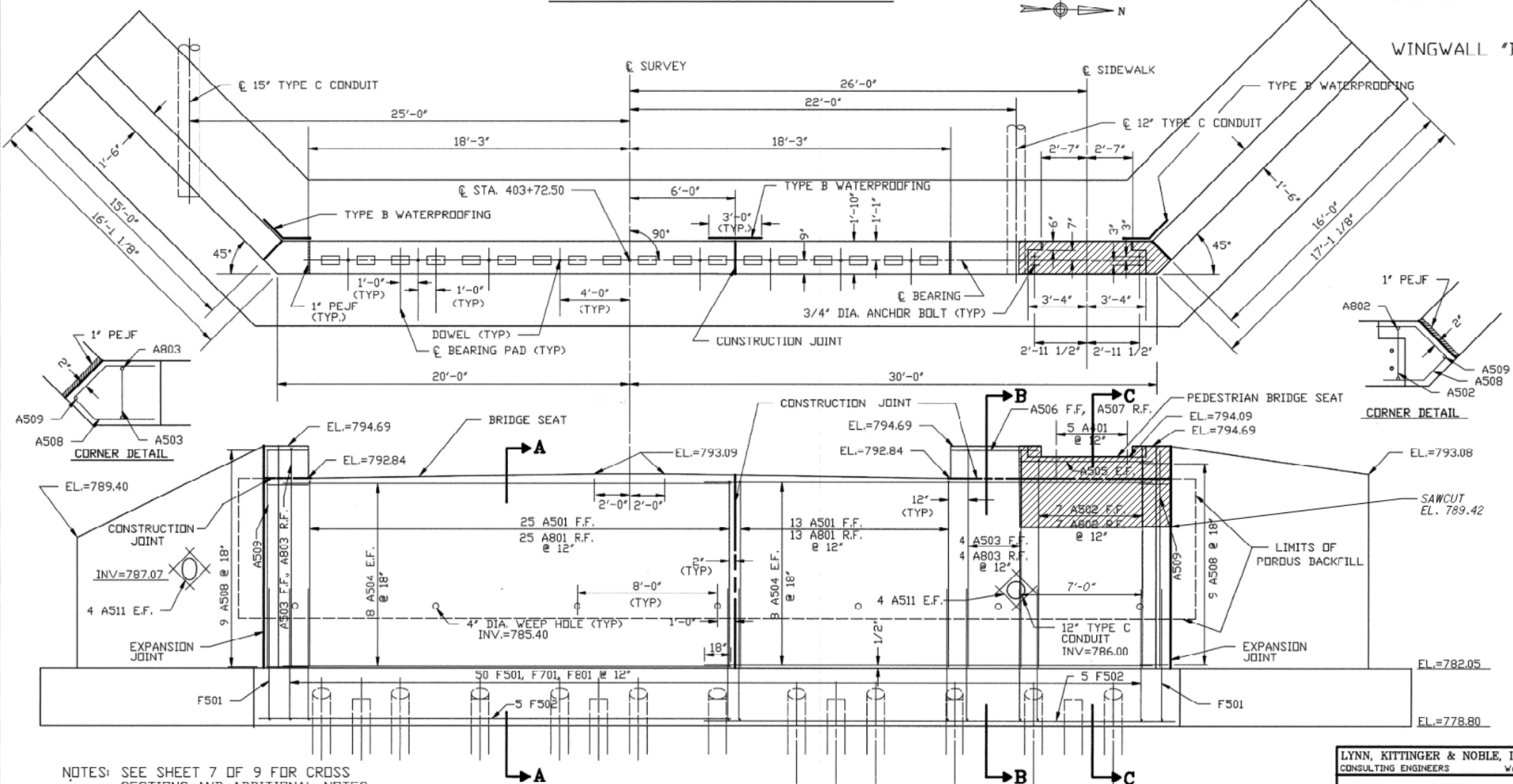
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ASHTABULA COUNTY
ATB 307-7.61

WINGWALL "A"

REAR ABUTMENT PLAN

WINGWALL "B"



NOTES: SEE SHEET 7 OF 9 FOR CROSS
SECTIONS AND ADDITIONAL NOTES.
SEE SHEET 4 OF 9 FOR FOOTING DETAILS.
SEE SHEET 8 OF 9 FOR WINGWALL DETAILS.

REAR ABUTMENT ELEVATION

LYNN, KITTINGER & NOBLE, INC. 1579
CONSULTING ENGINEERS WARREN, OHIO

REAR ABUTMENT DETAILS

BRIDGE NO. ATB 307-0765
OVER COFFEE CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
RJB	RJB		RJK	C.L.L.	8/14/07

ABUTMENT REMOVAL DETAILS - REAR ABUTMENT

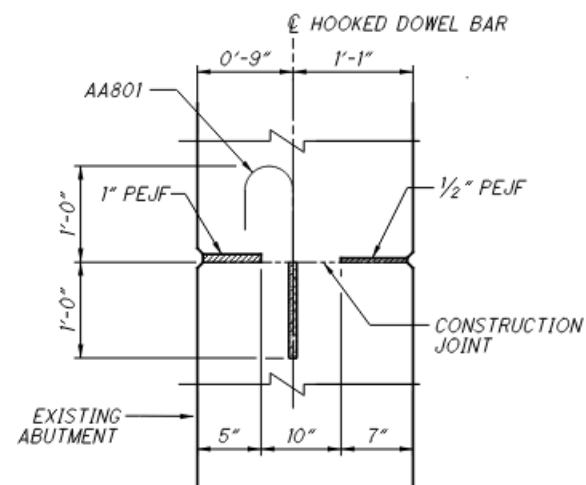
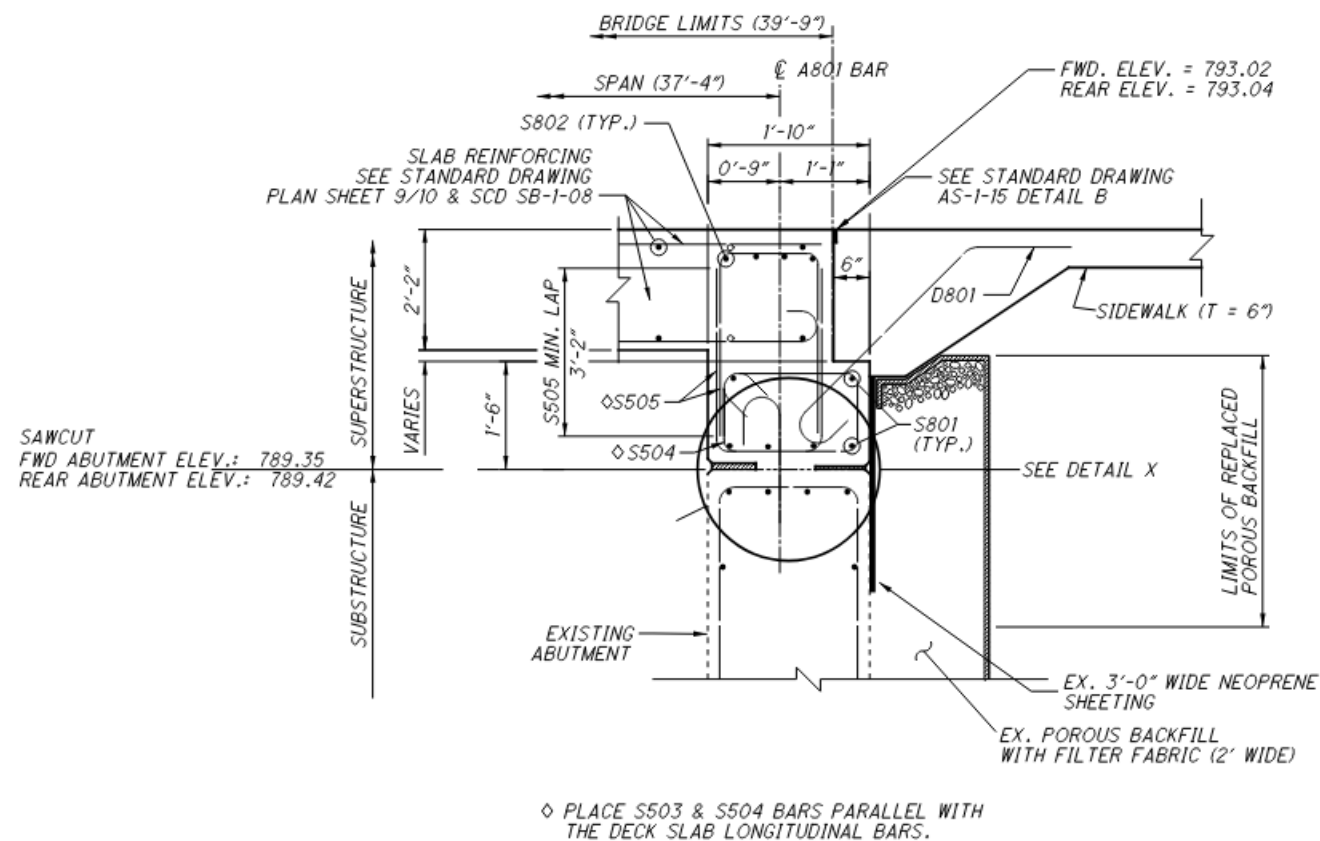
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/// = PORTION OF STRUCTURE REMOVED



DETAIL X

IN LIEU OF PROVIDING THE A801 ANCHOR BARS AS SHOWN
IN DETAIL X, NO. 8 HOOKED DOWEL BARS MAY BE DRILLED
AND GROUTED TO A DEPTH OF 12 INCHES ACCORDING TO
ITEM 510. FURNISH NONSHRINK, NONMETALLIC GROUT,
705.20. ACCURATELY PLACE SUBSTRUCTURE REINFORCING
STEEL TO AVOID INTERFERENCE WITH THE DRILLING OF
DOWEL HOLES.

NOTES:

1. ALL DOWEL HOLES SHALL BE A MINIMUM OF 12" DEEP.
2. ALL EXISTING 1" PEJF EXPOSED ALONG THE WINGWALLS
DURING CONSTRUCTION SHALL BE REPLACED. THIS WORK
SHALL BE INCIDENTAL TO ITEM 512 - CLASS QC2 CONCRETE,
SUPERSTRUCTURE.
3. SEE SCD SB-1-08 AND CPA-1-08 FOR MORE DETAILS

SUPERSTRUCTURE DETAILS

ATB-307-0764P
OVER COFFEE CREEK

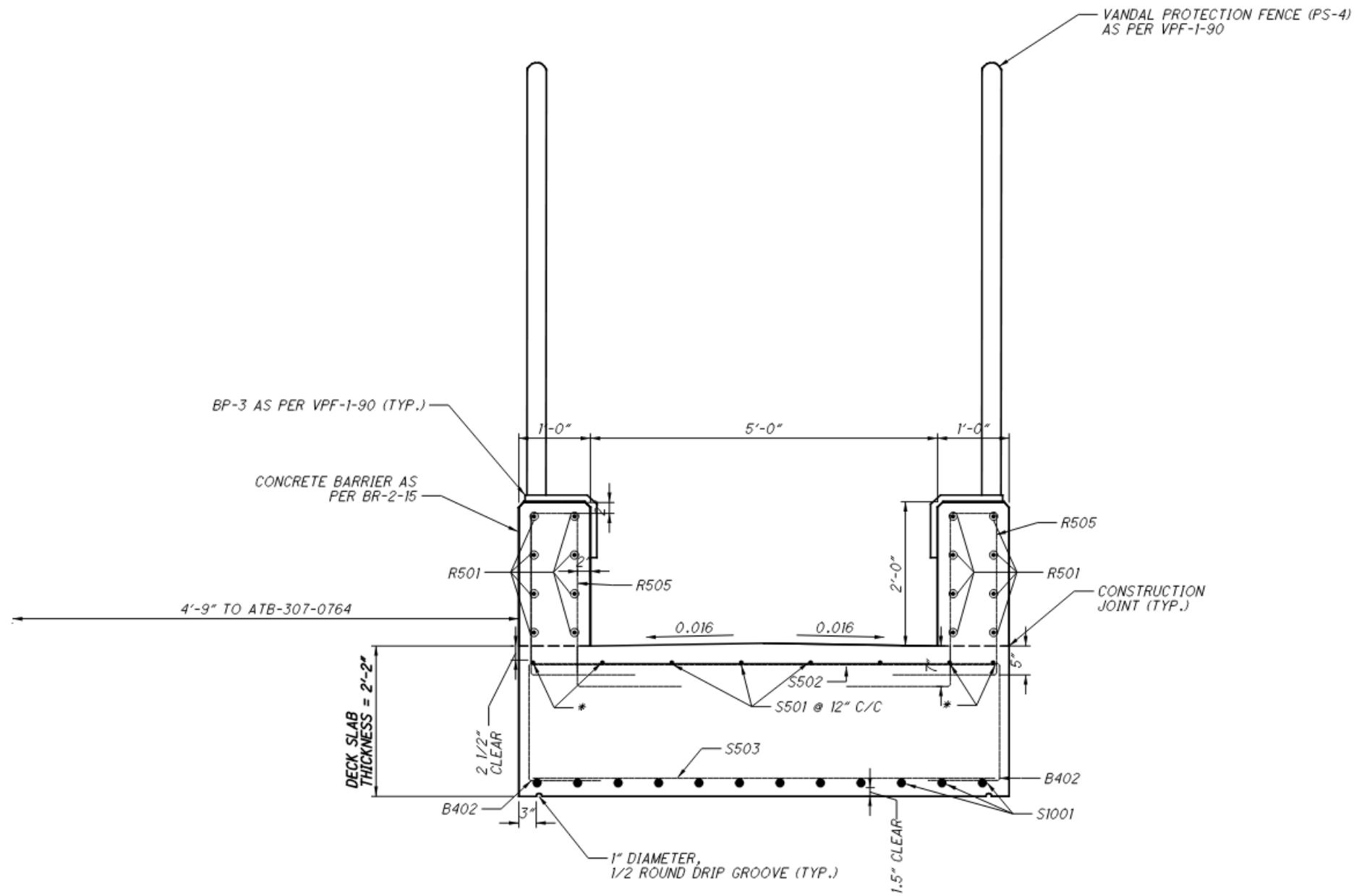
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7.64/19.87
PID No. 105171

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ODOT -- DISTRICT 4
CAPITAL PLANNING

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CHECKED	REVISED	STRUCTURE FILE NUMBER	
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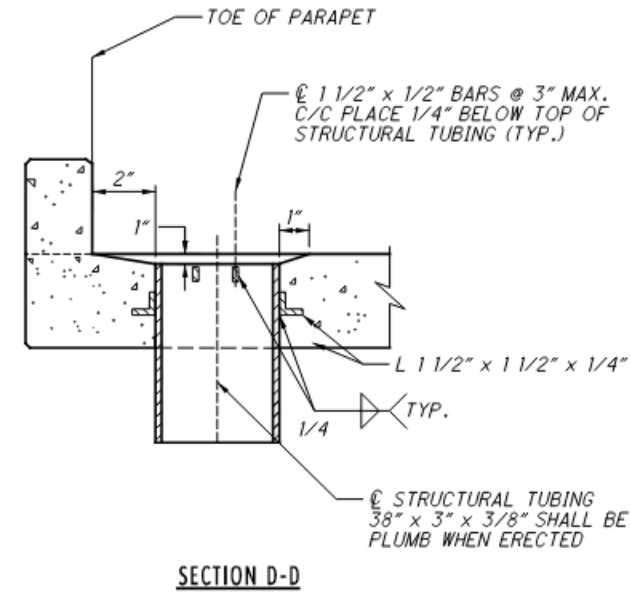
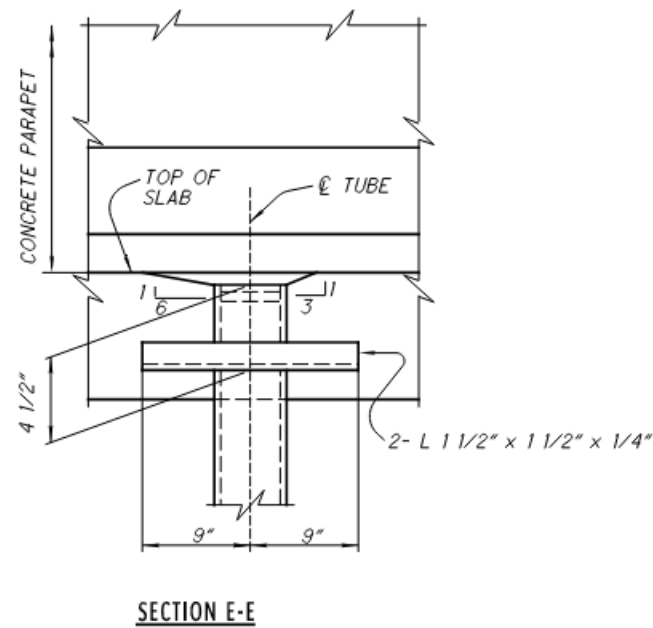
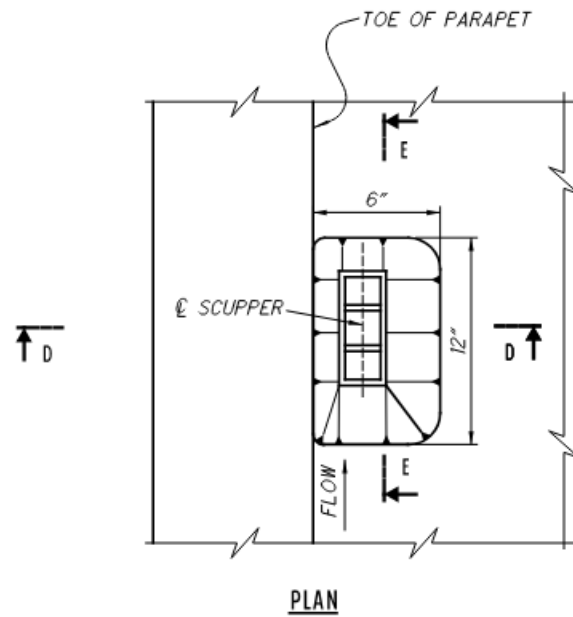
* S501 SPACING VARIES

LAP LENGTHS SHALL BE
AS SHOWN IN SB-1-08

SEE SCD SB-1-08 & BR-2-15 FOR MORE DETAILS

ATB-307- 7.64/19.87 PID No. 105171	TRANSVERSE SECTIONS ATB-307-0764P OVER COFFEE CREEK				DESIGNED MJA CHECKED TJP	DRAWN MJA REVISED PF	REVIEWED PF STRUCTURE FILE NUMBER 0405817	DATE 9/14/21	DESIGN AGENCY ODOT -- DISTRICT 4 CAPITAL PLANNING
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NOTES

1. REINFORCE THE CONCRETE DECK AT THE TWO SCUPPER CORNERS OPPOSITE THE CURB LINE WITH ONE #4 BAR, 3'-0" LONG ORIENTED AT 45° TO THE SHORT AXIS OF THE SCUPPER AND LOCATED JUST BELOW THE TRANSVERSE BARS IN THE TOP MAT OF STEEL. THESE BARS WILL BE REFERENCED AS S401 (SEE SHEET 10/11)
2. SEE SCD GSD-1-19 FOR MORE DETAILS.

NOTE:

ALL PIPING MATERIAL UNDER THE SCUPPER GRATE
SHALL BE MADE OF PVC

SCUPPER DETAILS
ATB-307-0764P
OVER COFFEE CREEK

ATB-307-
7.64/ 19.87
PID No. 105171

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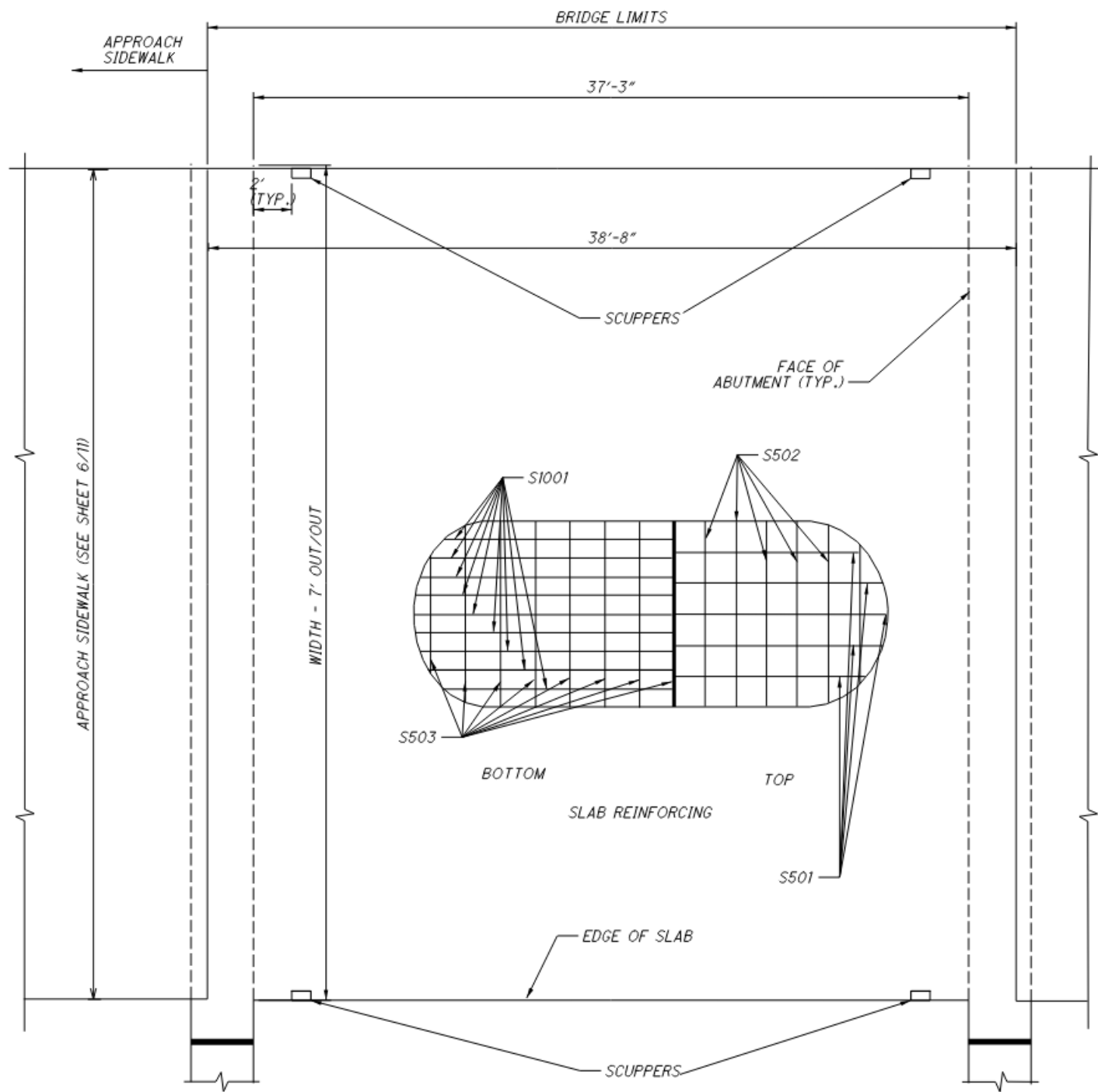
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ODOT -- DISTRICT 4
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9/14/21
STRUCTURE FILE NUMBER
0405817

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- NOTES:
1. SEE SB-1-08 FOR MORE DETAILS
 2. NOT DRAWN TO SCALE



DECK REBAR LAYOUT PLAN

ATB-307-0764P
OVER COFFEE CREEK

ATB-307-
7.64/19.87
PID No. 105171

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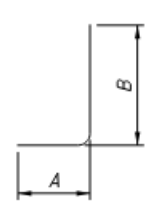
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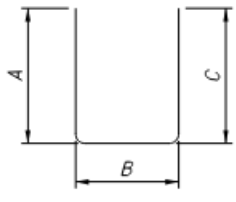
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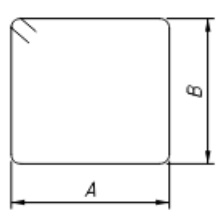
MARK	NUMBER				LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS				
	REAR ABUT	FWD ABUT	SUPER	TOTAL				A	B	C	D	E
S401			4	4	3'-0"	9	STR					
B402			82	82	8'-6"	466	2	5'-9"	1'-9"	1'-0"		
S501			8	8	43'-3"	361	STR					
S502			41	41	6'-8"	266	STR					
S503			48	48	6'-8"	334	STR					
S504			12	12	2'-6"	32	3	1'-4"	1'-2"			
S505			24	24	7'-8"	192	2	3'-2"	1'-4"	3'-2"		
S801			22	22	6'-8"	392	STR					
S1001			12	12	41'-3"	2130	16	41'-3"				
R501			16	16	43'-3"	722	STR					
R505			82	82	7'-10"	670	30	3'-0"	8"	2'-5"	2'-3"	
	SUPERSTRUCTURE SUB-TOTAL					5594						
A801*	8	8		16	2'-11"	125	16	2'-0"				
D801	6	6		12	4'-5"	142	18	2'-5"	1'-0"	1'-0"		
	ABUTMENT SUB-TOTAL					267						
	GRAND TOTAL					5861						



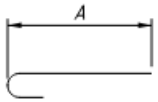
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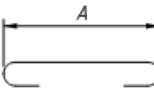
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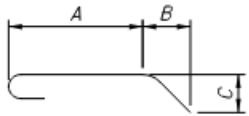
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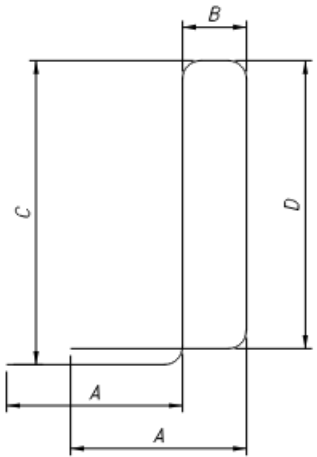
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TYPE-17



TYPE-18



TYPE-30

THE BAR NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHEN FOUR DIGITS ARE USED INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD" WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL IS TO BE EPOXY COATED.

BARS DENOTED WITH * REQUIRE DOWEL HOLES

B402: SEE SCD SB-1-08

REINFORCING SCHEDULE
ATB-307-0764P
OVER COFFEE CREEK

ATB-307-
7.64/19.87
PID No. 105171

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