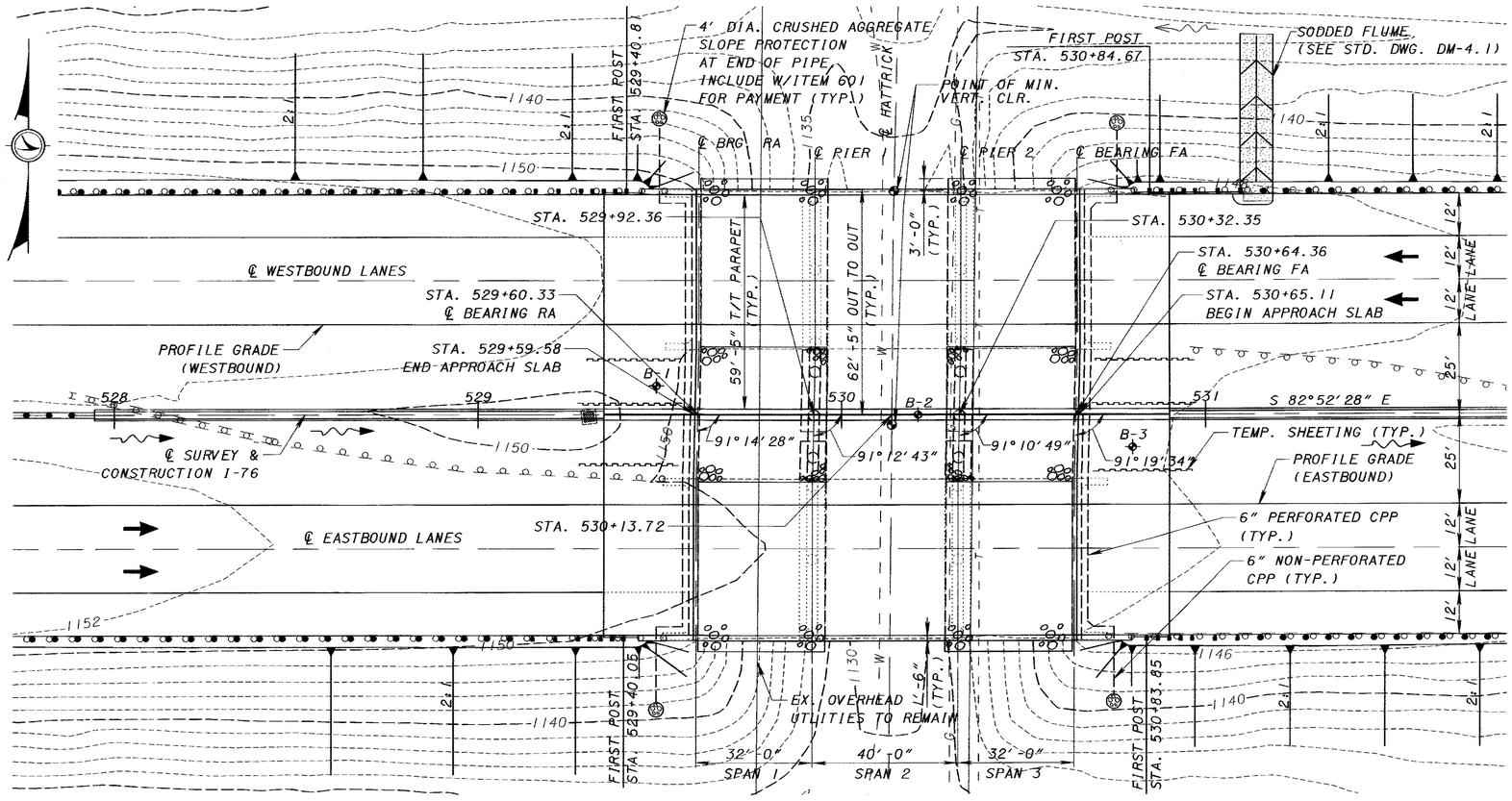


PLAN

B-1 - DENOTES SOIL BORING LOCATION

NOTE:

1. THE EARTHWORK LIMITS SHOWN ARE APPROXIMATE, ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. SODDING, APPROACH SLABS & TERMINAL ASSEMBLIES SHALL BE AS SHOWN ON THE ROADWAY PLANS.

* PORTION OF EXISTING STRUCTURE TO BE REMOVED.

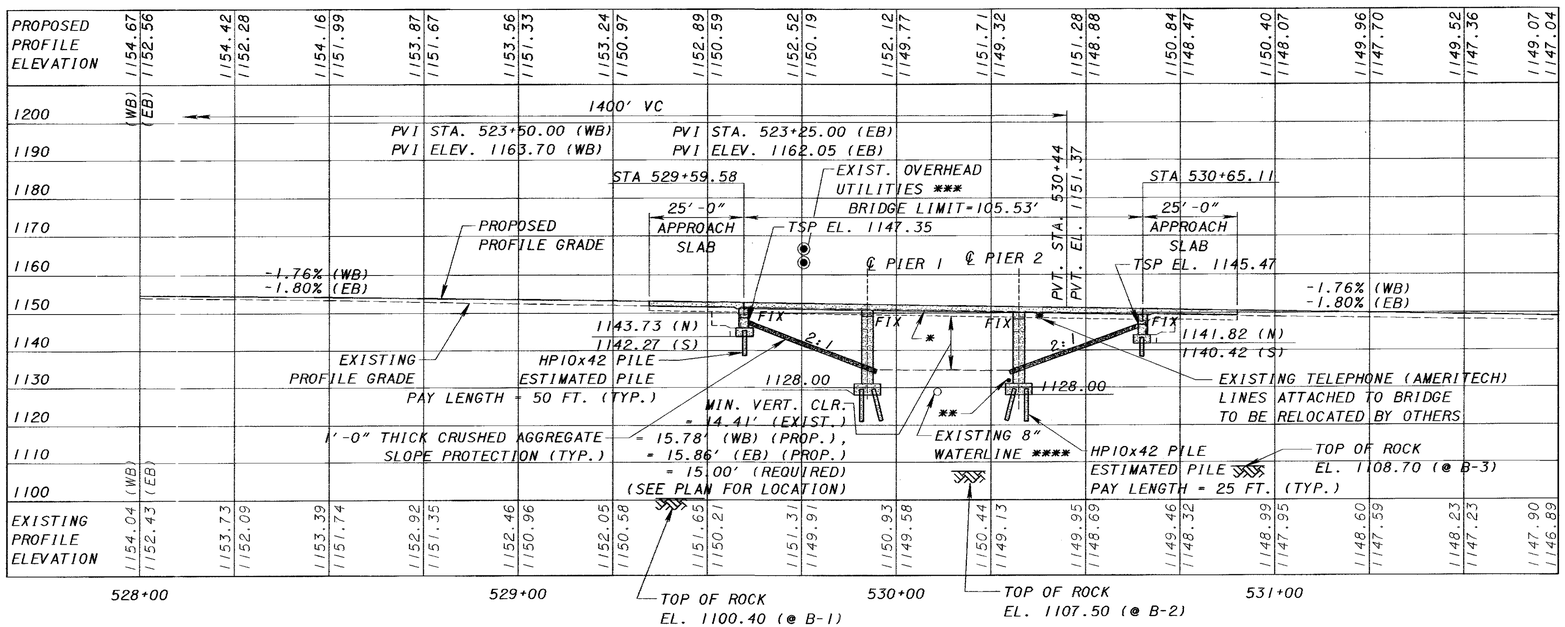
** EXISTING 4" GAS LINE TO BE RELOCATED BY OTHERS.

*** EXIST. OVERHEAD CABLE TV (TIME WARNER) LINES TO BE RELOCATED BY OTHERS. EXIST. OVERHEAD ELECTRIC (OHIO EDISON) LINES TO REMAIN.

**** THE NEW 8" WATERLINE IS PLANNED FOR CONSTRUCTION IN THE FALL OF 2002 BY THE ROOTSTOWN WATER SERVICE COMPANY'S CONTRACTOR. THE LOCATION SHOWN IS PER THEIR DESIGN DRAWING AND IS CONSIDERED APPROXIMATE ONLY. AS-BUILT DATA MAY BE OBTAINED FROM THE WATER COMPANY AFTER THE WATERMAIN IS CONSTRUCTED.

BENCHMARK #1
TOP OF ⅝" IRON PIN ON ℄ I-76 STA. 527+00 ELEV. 1151.58

BENCHMARK #2
TOP OF ⅝" IRON PIN ON ℄ I-76 STA. 532+95.03 ELEV. 1143.96



ELEVATION SHOWN ALONG WESTBOUND PROFILE GRADE
(STRUCTURE SHOWN AT ℄ I-76)

LEGEND

RA = REAR ABUTMENT
FA = FORWARD ABUTMENT
N = NORTH
S = SOUTH
WB = WESTBOUND
EB = EASTBOUND
CPP = CORRUGATED POLYETHYLENE PIPE
TSP = TOP OF SLOPE PROTECTION
TEMP. = TEMPORARY
PROP. = PROPOSED

TRAFFIC DATA I-76

CURRENT ADT (2003)	25760
DESIGN YEAR ADT (2023)	32640
DESIGN YEAR ADTT (2023)	10445

EXISTING STRUCTURE

TYPE: TWIN STRUCTURES-CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE WITH REINFORCED CONCRETE SUBSTRUCTURE

SPAN LENGTHS: 32'-0"±, 40'-0"±, 32'-0"±, C/C BEARINGS

ROADWAY WIDTH: 39'-8"± F/F SAFETY CURBS
42'-0"± F/F PARAPETS

SKEW: NONE

LOADING: CF 2000 (57) ADEQUATE FOR A.A.S.H.O. ALTERNATE LOADING

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: 25'-0" LONG (AS-1-54)

ALIGNMENT: TANGENT

YEAR BUILT: 1965

STRUCTURE FILE NO.: 6702465, 6702554

PROPOSED STRUCTURE

PROPOSED WORK: NEW CONTINUOUS REINFORCED CONCRETE SLAB SUPERSTRUCTURE ON WIDENED SUBSTRUCTURE. REPLACE PORTIONS OF EXISTING ABUTMENTS. NEW APPROACH SLABS.

SPAN LENGTHS: 32'-0", 40'-0", 32'-0", C/C BEARINGS

ROADWAY WIDTH: 59'-5" TOE TO TOE PARAPETS

SKEW: VARIES

LOADING: HS20-44 & ALTERNATE MILITARY LOADING
HS25 - NEW SUPERSTRUCTURE

WEARING SURFACE: MONOLITHIC CONCRETE
FUTURE WEARING SURFACE 60psf

APPROACH SLABS: AS-1-81, 25'-0" LONG

ALIGNMENT: TANGENT

SUPERELEVATION: NONE

COORDINATES: LATITUDE: N 41°06'30"
LONGITUDE: W 81°12'33"

DESIGN AGENCY: THE OSBORN ENGINEERING CO CLEVELAND, OHIO
REVIEWED: GTA, WAD
DATE: 10/18/02
STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG
REVISED:
DESIGNED: SMG
CHECKED: BCK

PORTAGE COUNTY
STA. 529+59.58
STA. 530+65.11

SITE PLAN

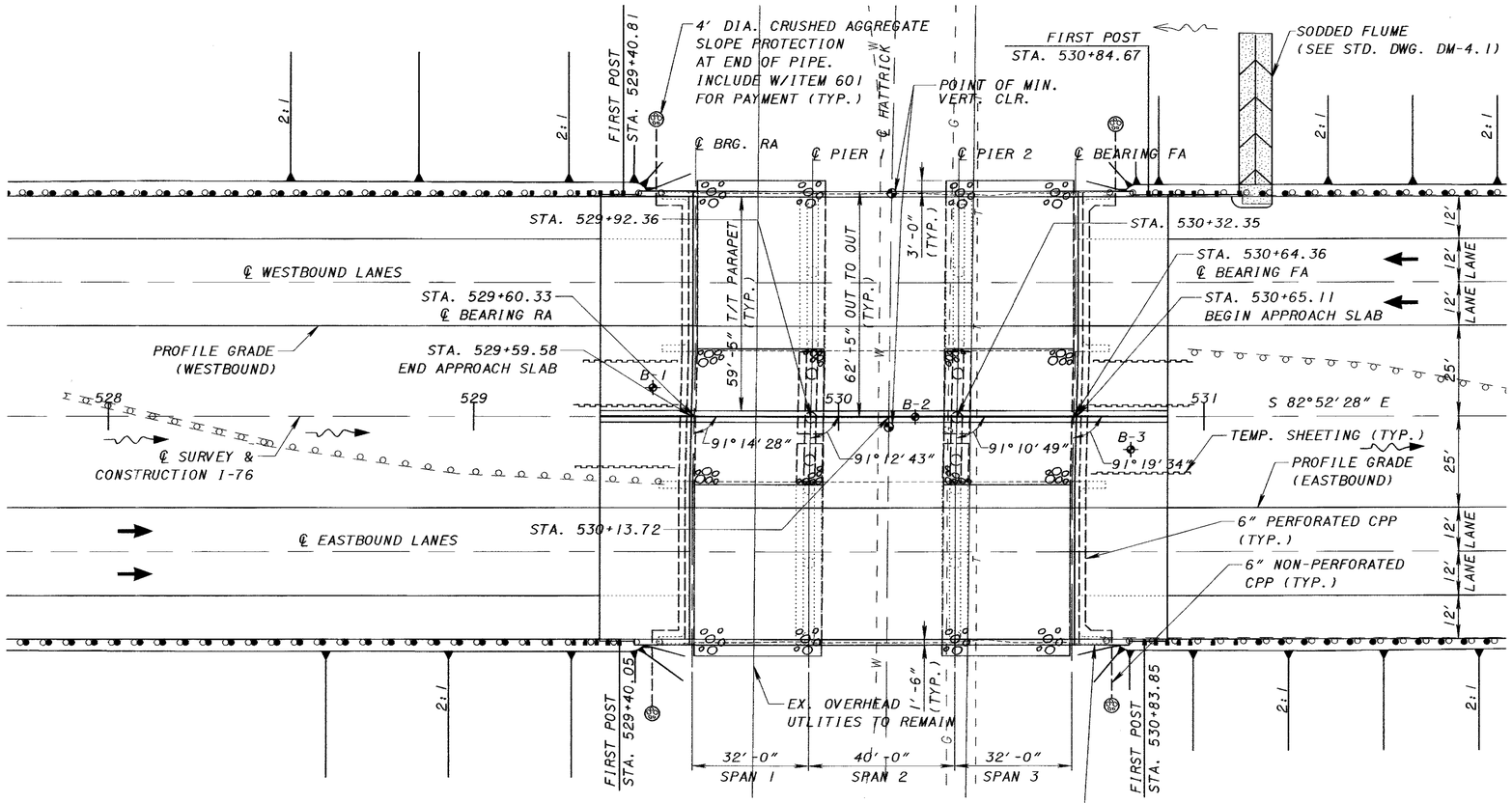
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

1/21

151/187

po076sp1.dgn



PLAN

LEGEND

RA = REAR ABUTMENT
FA = FORWARD ABUTMENT
N = NORTH
S = SOUTH
WB = WESTBOUND
EB = EASTBOUND
CPP = CORRUGATED POLYETHLENE PIPE

SCREED ELEVATIONS

	LEFT STRUCTURE			RIGHT STRUCTURE		
	NORTH GUTTER	CROWNLINE	SOUTH GUTTER	NORTH GUTTER	CROWNLINE	SOUTH GUTTER
℄ BRG. RA	1152.55	1152.92	1152.37	1150.06	1150.61	1150.24
½ SPAN	1152.37	1152.74	1152.19	1149.85	1150.40	1150.03
℄ PIER 1	1152.05	1152.43	1151.88	1149.53	1150.09	1149.71
½ SPAN	1151.77	1152.15	1151.59	1149.22	1149.78	1149.40
℄ PIER 2	1151.22	1151.77	1151.22	1148.83	1149.38	1148.83
½ SPAN	1150.98	1151.53	1150.98	1148.58	1149.13	1148.58
℄ BEARING FA	1150.84	1151.21	1150.66	1148.28	1148.83	1148.46

NOTE:

THE SCREED ELEVATIONS HAVE BEEN ADJUSTED FOR DEAD LOAD DEFLECTIONS DUE TO THE WEIGHT OF DECK CONCRETE AND ARE TO TOP OF DECK ELEVATIONS REQUIRED BEFORE THE CONCRETE DECK IS PLACED.

PROPOSED WORK:

THE PROPOSED WORK CONSISTS OF WIDENING THE EXISTING BRIDGES (L & R) FOR A FUTURE 3RD LANE, INCLUDING RAISING THE EXISTING BRIDGES TO OBTAIN ADEQUATE VERTICAL CLEARANCE AND REHABILITATING THE EXISTING SUBSTRUCTURES.

THE FOLLOWING WORK WILL BE PERFORMED:

- CONSTRUCT WIDENED SUBSTRUCTURE UNITS, INCLUDING FOOTINGS ON PILES, ABUTMENTS AND PIERS.
- INSTALL POROUS BACKFILL W/FILTER FABRIC & CORRUGATED POLYETHYLENE PIPES BEHIND ABUTMENTS & WINGWALLS.
- RAISE EXISTING ABUTMENT & PIER BRIDGE SEATS AND REPLACE WINGWALLS.
- REPAIR THE SPALLS AT THE ABUTMENT BREAST WALLS.
- REPLACE EXISTING REINFORCED CONCRETE SLAB.
- CONSTRUCT WIDENED SUPERSTRUCTURE UNITS, INCLUDING NEW REINFORCED CONCRETE SLAB AND PARAPETS.
- INSTALL NEW PARAPET TRANSITIONS OFF THE BRIDGES.
- SEAL CONCRETE SURFACES OF PARAPETS, ABUTMENTS, WINGWALLS AND PIERS WITH EPOXY-URETHANE SEALER.
- INSTALL NEW APPROACH SLABS.

DESIGNED SMG
DRAWN SMG
CHECKED BCK
REVISED
REVISED GTA, WAD 10/18/02
DATE
STRUCTURE FILE NUMBER 6702465L, 6702554R
DESIGN AGENCY THE OSBORN ENGINEERING CO CLEVELAND, OHIO

GENERAL PLAN
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

po076gpK.dgn

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET REF. NO.
				LEFT STRUCTURE					
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	G1/66
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING				LUMP	
503	21101	122	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN	34	88			G1/66
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00100	690	FT	STEEL PILES HP 10x42, FURNISHED	330	360			
507	00150	600	FT	STEEL PILES HP10X42, DRIVEN	300	300			
507	92200	120	FT	PREBORED HOLES		120			
509	10000	111353	POUND	EPOXY COATED REINFORCING STEEL	8069	11370	91914		
509	20001	200	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				200	G1/66
510	10000	236	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	216	20			
511	43000	60	CU YD	CLASS C CONCRETE, PIER		60			
511	43500	53	CU YD	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING	53				
512	44400	16	SQ YD	TYPE B WATERPROOFING	16				
517	73200	241	FT	RAILING (DEFLECTOR PARAPET TYPE)	30		211		
518	21200	34	CU YD	POROUS BACKFILL WITH FILTER FABRIC	34				
518	40000	124	FT	6" PERFORATED CORRUGATED PLASTIC PIPE				124	
518	40010	54	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS				54	
526	25001	340	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN				340	G2/66
843	50000	3	SQ FT	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	3				
864	10100	576	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	59	257	260		
894	10000	413	CU YD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY			413		

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET REF. NO.
				RIGHT STRUCTURE					
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	G1/66
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING				LUMP	
503	21101	122	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN	34	88			G1/66
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00100	690	FT	STEEL PILES HP 10x42, FURNISHED	330	360			
507	00150	600	FT	STEEL PILES HP10X42, DRIVEN	300	300			
507	92200	120	FT	PREBORED HOLES		120			
509	10000	111409	POUND	EPOXY COATED REINFORCING STEEL	8241	11254	91914		
509	20001	200	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				200	G1/66
510	10000	236	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	216	20			
511	43000	60	CU YD	CLASS C CONCRETE, PIER		60			
511	43500	56	CU YD	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING	56				
512	44400	16	SQ YD	TYPE B WATERPROOFING	16				
517	73200	241	FT	RAILING (DEFLECTOR PARAPET TYPE)	30		211		
518	21200	35	CU YD	POROUS BACKFILL WITH FILTER FABRIC	35				
518	40000	124	FT	6" PERFORATED CORRUGATED PLASTIC PIPE				124	
518	40010	48	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS				48	
526	25001	340	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN				340	G2/66
843	50000	41	SQ FT	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	41				
864	10100	577	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	57	260	260		
894	10000	413	CU YD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY			413		

NOTES:

1. QUANTITIES FOR THE LEFT STRUCTURE INCLUDE: REAR ABUTMENT, PIER 1 & DECK FOR THE WESTBOUND BRIDGE.
2. QUANTITES FOR THE RIGHT STRUCTURE INCLUDE: FORWARD ABUTMENT, PIER 2 & DECK FOR THE EASTBOUNG BRIDGE.

DESIGN AGENCY
OSBORN ENGINEERING CO.
CLEVELAND, OHIO

REVIEWED 6TA, WAD DATE 10/18/02
STRUCTURE FILE NUMBER 6702465L, 6702554R

DRAWN JFB
REVISED

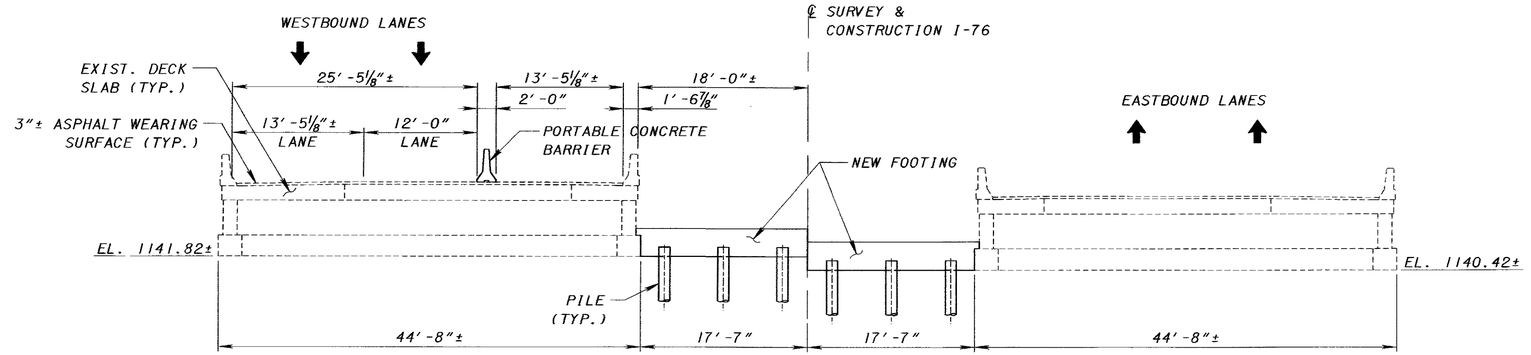
DESIGNED SMG
CHECKED BCK

ESTIMATED QUANTITIES

BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

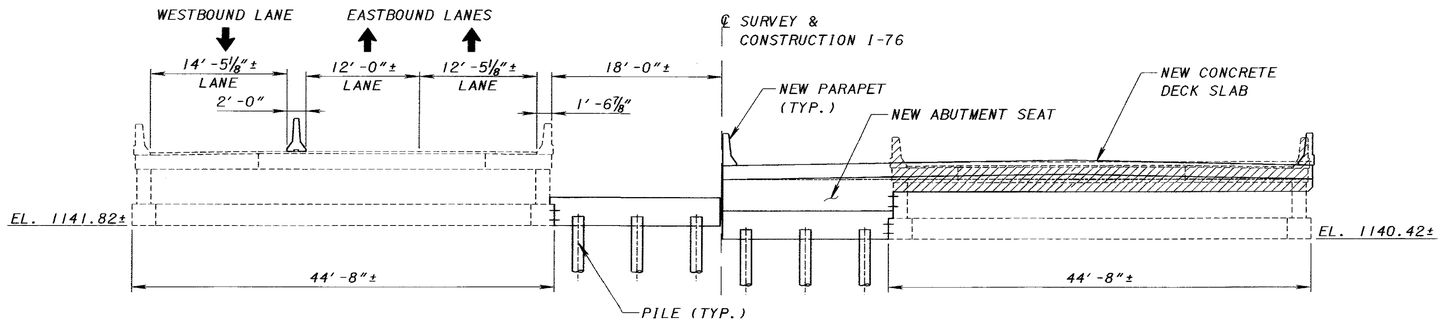
POR-76-9.50

po076eqk.dgn



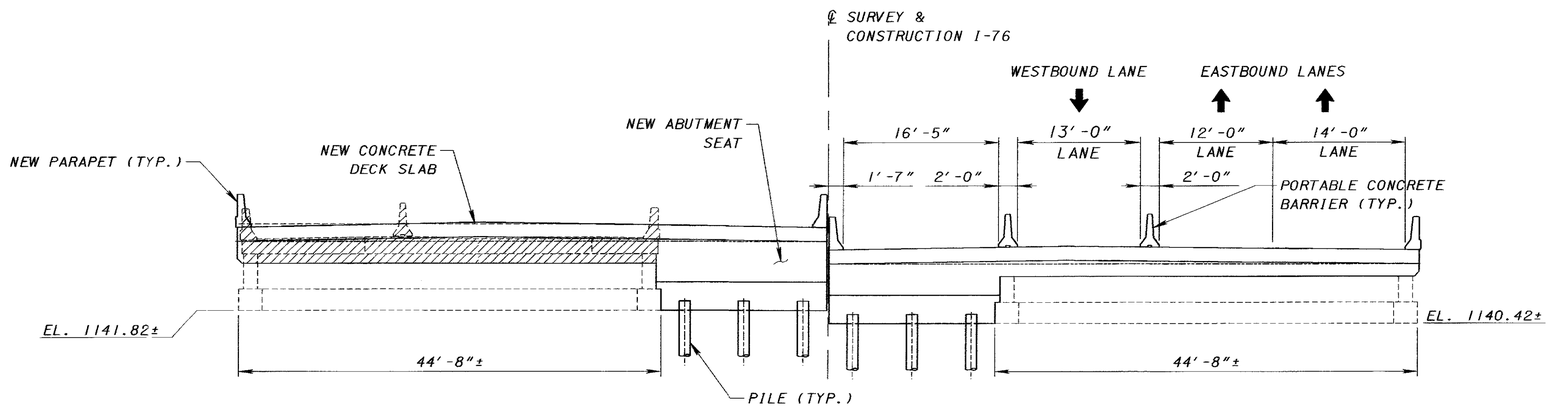
PHASE 1 - ELEVATION

(FORWARD ABUTMENT SHOWN)



PHASE 2 - ELEVATION

(FORWARD ABUTMENT SHOWN)



PHASE 3 - ELEVATION

(FORWARD ABUTMENT SHOWN)

SEQUENCE OF CONSTRUCTION:

PHASE 1 CONSTRUCTION

1. INSTALL PORTABLE CONCRETE BARRIER ON WESTBOUND BRIDGE.
2. INSTALL NEW ABUTMENT PILES.
3. CONSTRUCT NEW ABUTMENT FOOTING.

PHASE 2 CONSTRUCTION

1. MOVE PORTABLE CONCRETE BARRIER TO LOCATION SHOWN ON THE PLANS.
2. MAINTAIN THREE LANES OF TRAFFIC ON WESTBOUND BRIDGE AS SHOWN.
3. REMOVE EXISTING ASHPALT WEARING SURFACE OVERLAY ON EASTBOUND BRIDGE.
4. ON EASTBOUND BRIDGE: REMOVE EXISTING DECK SLAB, PARAPETS, PORTION OF EXISTING ABUTMENT SEAT AND WINGWALLS.
5. ON EASTBOUND BRIDGE: CONSTRUCT NEW ABUTMENT SEAT.
6. ON EASTBOUND BRIDGE: CONSTRUCT NEW REINFORCED CONCRETE DECK SLAB.
7. ON EASTBOUND BRIDGE: CONSTRUCT NEW PARAPETS.

PHASE 3 CONSTRUCTION

1. INSTALL PORTABLE CONCRETE BARRIERS AND MAINTAIN THREE LANES OF TRAFFIC ON EASTBOUND BRIDGE AS SHOWN.
2. REMOVE EXISITNG ASPHALT WEARING SURFACE OVERLAY ON WESTBOUND BRIDGE.
3. ON WESTBOUND BRIDGE: REMOVE EXISTING DECK SLAB, PARAPETS, PORTION OF EXISTING ABUTMENT SEAT, WINGWALLS AND PORTABLE CONCRETE BARRIER.
4. ON WESTBOUND BRIDGE: CONSTRUCT NEW ABUTMENT SEAT.
5. ON WESTBOUND BRIDGE: CONSTRUCT NEW REINFORCED CONCRETE DECK SLAB.
6. ON WESTBOUND BRIDGE: CONSTRUCT NEW PARAPETS.

LEGEND:

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

NOTES:

1. FOR PILE LOCATION SEE FOUNDATION PLAN, SHEET 7/21.
2. FOR ROADWAY PHASE CONSTRUCTION AND ADDITIONAL DETAILS SEE SHEETS 26 THRU 28.
3. FOR ABUTMENT DETAILS SEE SHEETS 10/21 AND 11/21.
4. REAR ABUTMENT WILL BE PAID FOR WITH THE LEFT STRUCTURE. FORWARD ABUTMENT WILL BE PAID FOR WITH THE RIGHT STRUCTURE.
5. ALL PORTABLE CONCRETE BARRIERS SHALL BE PER STD. DWG. PCB-91.

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
SMG	SMG	GTA, WAD	10/18/02
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCK		6702465L, 6702554R	

ABUTMENT - PHASE CONSTRUCTION

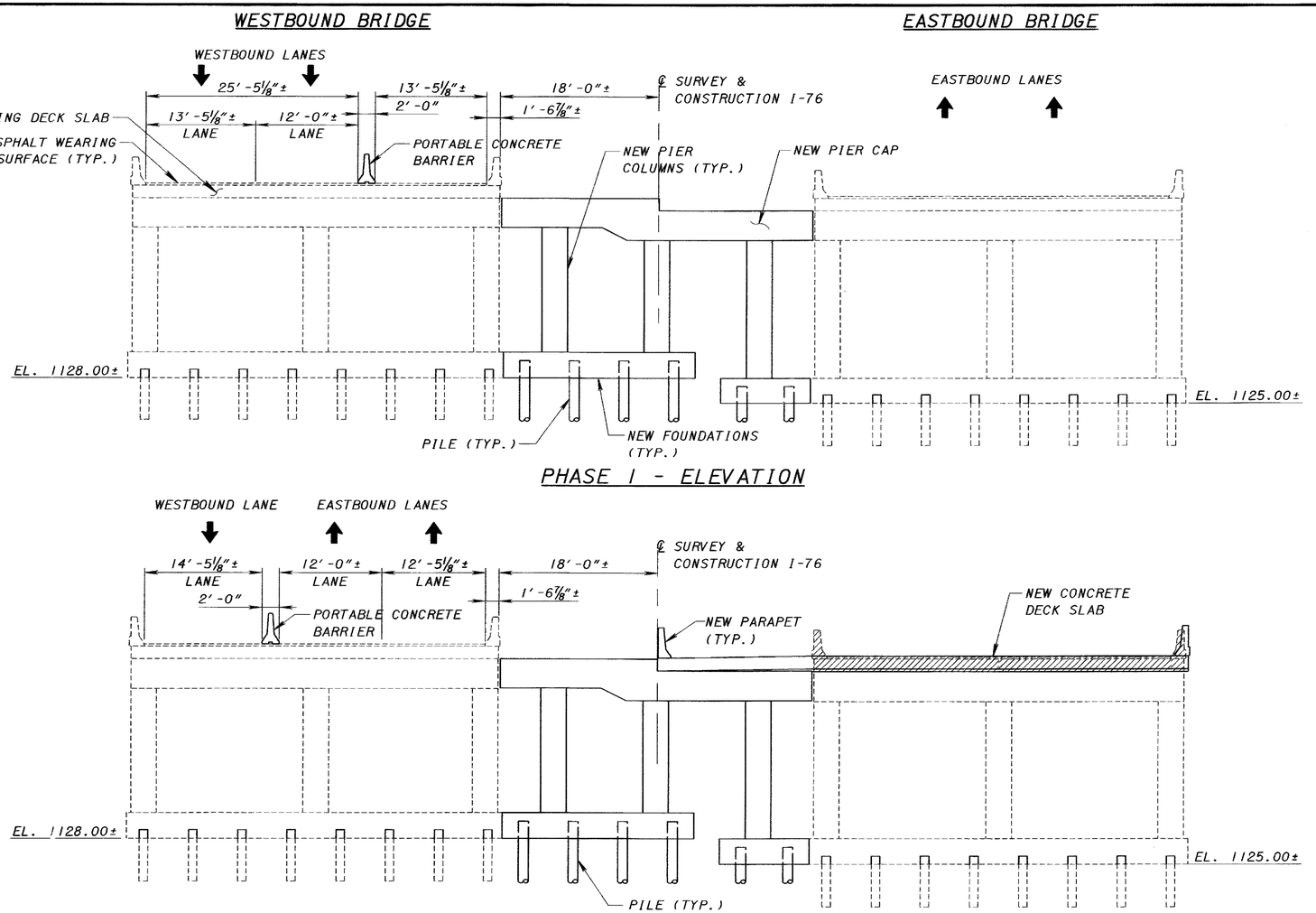
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

4/21

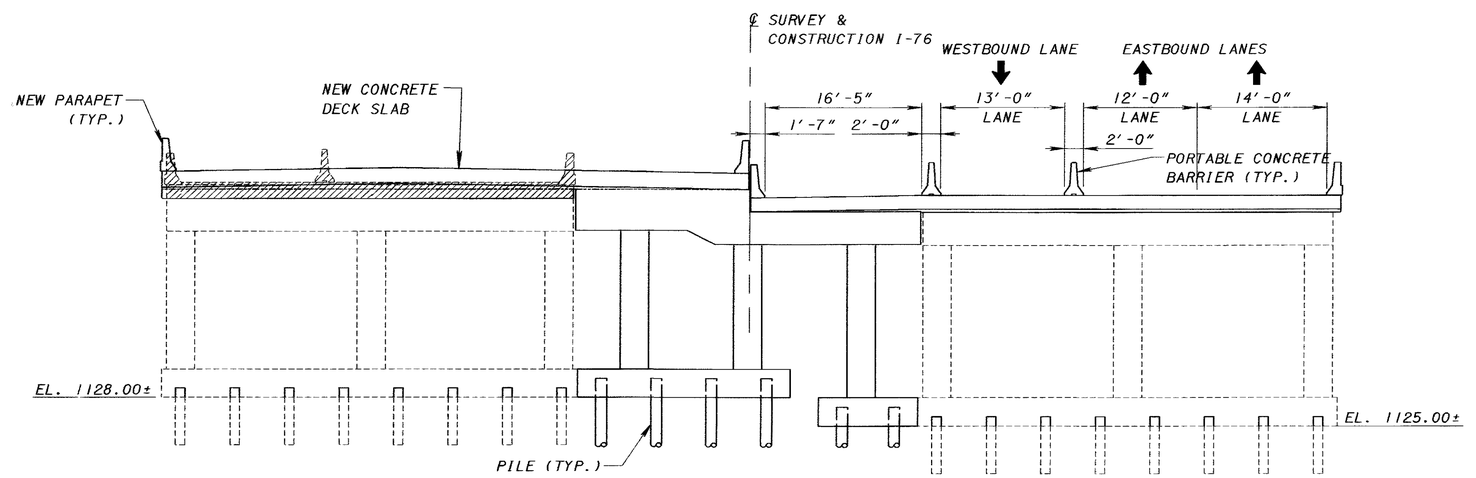
154/187

p0076pck.dgn



PHASE 1 - ELEVATION

PHASE 2 - ELEVATION



PHASE 3 - ELEVATION

SEQUENCE OF CONSTRUCTION:

PHASE 1 CONSTRUCTION

1. INSTALL PORTABLE CONCRETE BARRIER ON WESTBOUND BRIDGE.
2. INSTALL NEW PIER PILES.
3. CONSTRUCT NEW PIER FOUNDATIONS, COLUMNS AND CAP.

PHASE 2 CONSTRUCTION

1. MOVE PORTABLE CONCRETE BARRIER TO LOCATION SHOWN ON THE PLANS.
2. MAINTAIN THREE LANES OF TRAFFIC ON WESTBOUND BRIDGE AS SHOWN.
3. REMOVE EXISTING ASHPALT WEARING SURFACE OVERLAY ON EASTBOUND BRIDGE.
4. ON EASTBOUND BRIDGE: REMOVE EXISTING DECK SLAB AND PARAPETS.
5. ON EASTBOUND BRIDGE: CONSTRUCT NEW REINFORCED CONCRETE DECK SLAB.
6. ON EASTBOUND BRIDGE: CONSTRUCT NEW PARAPETS.

PHASE 3 CONSTRUCTION

1. INSTALL PORTABLE CONCRETE BARRIERS AND MAINTAIN THREE LANES OF TRAFFIC ON EASTBOUND BRIDGE AS SHOWN.
2. REMOVE EXISITNG ASPHALT WEARING SURFACE OVERLAY ON WESTBOUND BRIDGE.
3. ON WESTBOUND BRIDGE: REMOVE EXISTING DECK SLAB, PARAPETS AND PORTABLE CONCRETE BARRIER.
4. ON WESTBOUND BRIDGE: CONSTRUCT NEW PIER SEAT ON EXISTING PIER CAP.
5. ON WESTBOUND BRIDGE: CONSTRUCT NEW REINFORCED CONCRETE DECK SLAB.
6. ON WESTBOUND BRIDGE: CONSTRUCT NEW PARAPETS.

LEGEND:

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

NOTES:

1. FOR ROADWAY PHASE CONSTRUCTION AND ADDITIONAL DETAILS SEE SHEETS 26 THRU 28.
2. FOR PILE PLAN SEE SHEET 7/21 .
3. FOR PIER DETAILS SEE SHEET 14/21 & 15/21.
4. PIER 1 WILL BE PAID FOR WITH THE LEFT STRUCTURE. PIER 2 WILL BE PAID FOR WITH THE RIGHT STRUCTURE.
5. ALL PORTABLE CONCRETE BARRIERS SHALL BE PER STD. DWG. PCB-91.

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO
REVIEWED: GTA, WAD — DATE: 10/18/02
STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG — REVISED:
DESIGNED: SMG — CHECKED: BCK

PIER - PHASE CONSTRUCTION

BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

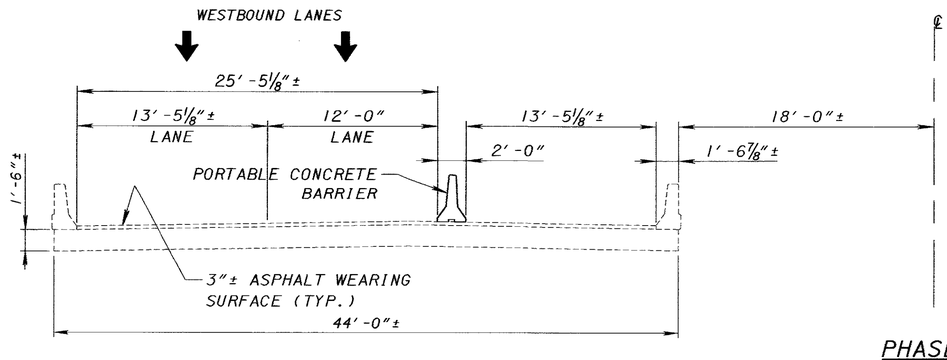
POR-76-9.50

5/21

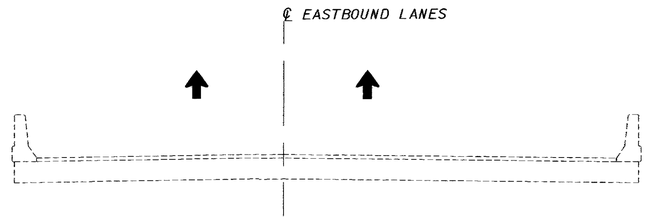
155/187

po076pcL.dgn

WESTBOUND BRIDGE

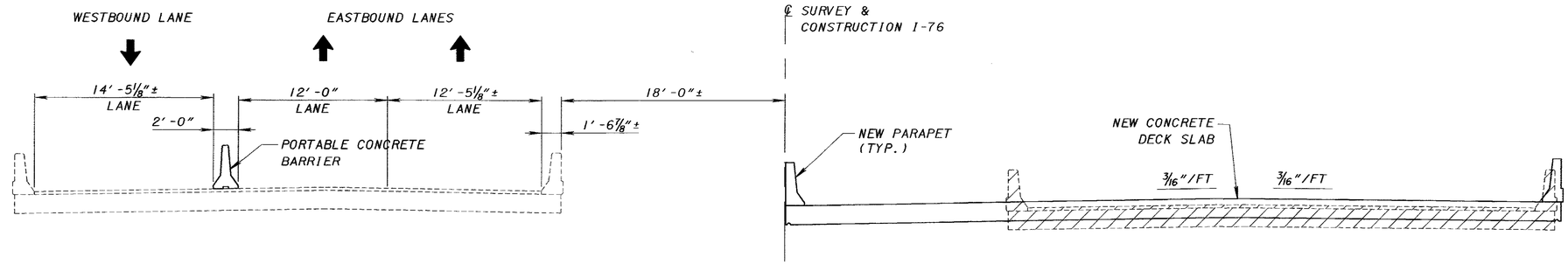


EASTBOUND BRIDGE



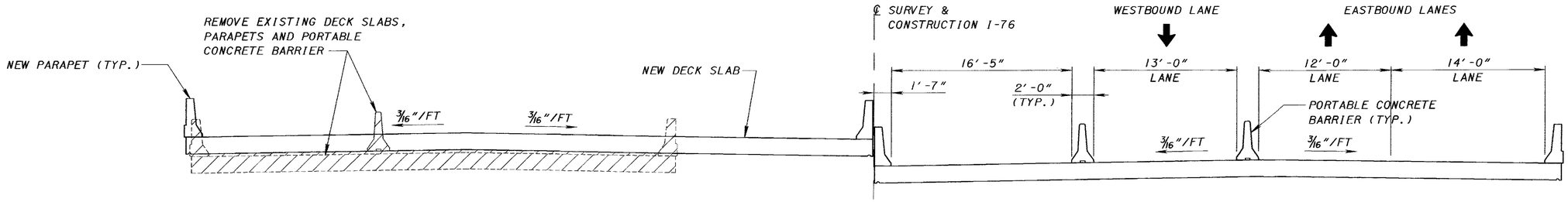
PHASE 1

1. INSTALL PORTABLE CONCRETE BARRIER ON WESTBOUND BRIDGE & MAINTAIN TRAFFIC AS SHOWN.



PHASE 2

1. MOVE PORTABLE CONCRETE BARRIER TO LOCATION SHOWN ON THE PLANS AND MAINTAIN THREE LANES OF TRAFFIC (TWO LANES EASTBOUND & ONE LANE WESTBOUND) ON WESTBOUND BRIDGE.
2. REMOVE EXISTING ASPHALT WEARING SURFACE OVERLAY ON EASTBOUND BRIDGE.
3. REMOVE EXISITNG DECK SLAB & PARAPETS ON EASTBOUND BRIDGE.
4. CONSTRUCT NEW DECK SLAB & PARAPETS ON EASTBOUND BRIDGE.



PHASE 3

1. INSTALL PORTABLE CONCRETE BARRIERS & MAINTAIN THREE LANES OF TRAFFIC AS SHOWN ON EASTBOUND BRIDGE.
2. REMOVE EXISTING ASPHALT WEARING SURFACE OVERLAY ON WESTBOUND BRIDGE.
3. REMOVE EXISTING DECK SLAB, PARAPET, & PORTABLE CONCRETE BARRIERS ON WESTBOUND BRIDGE.
4. CONSTRUCT NEW CONCRETE DECK SLAB & NEW PARAPETS ON WESTBOUND BRIDGE.

NOTES:

1. FOR ROADWAY PHASE CONSTRUCTION AND ADDITIONAL DETAILS SEE SHEET 26 THRU 28.
2. ALL PORTABLE CONCRETE BARRIERS SHALL BE PER STD. DWG. PCB-91.

LEGEND:

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

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO
REVISED: DATE: GTA, WAD 10/18/02
STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG
REVISED:
DESIGNED: SMG
CHECKED: BCK

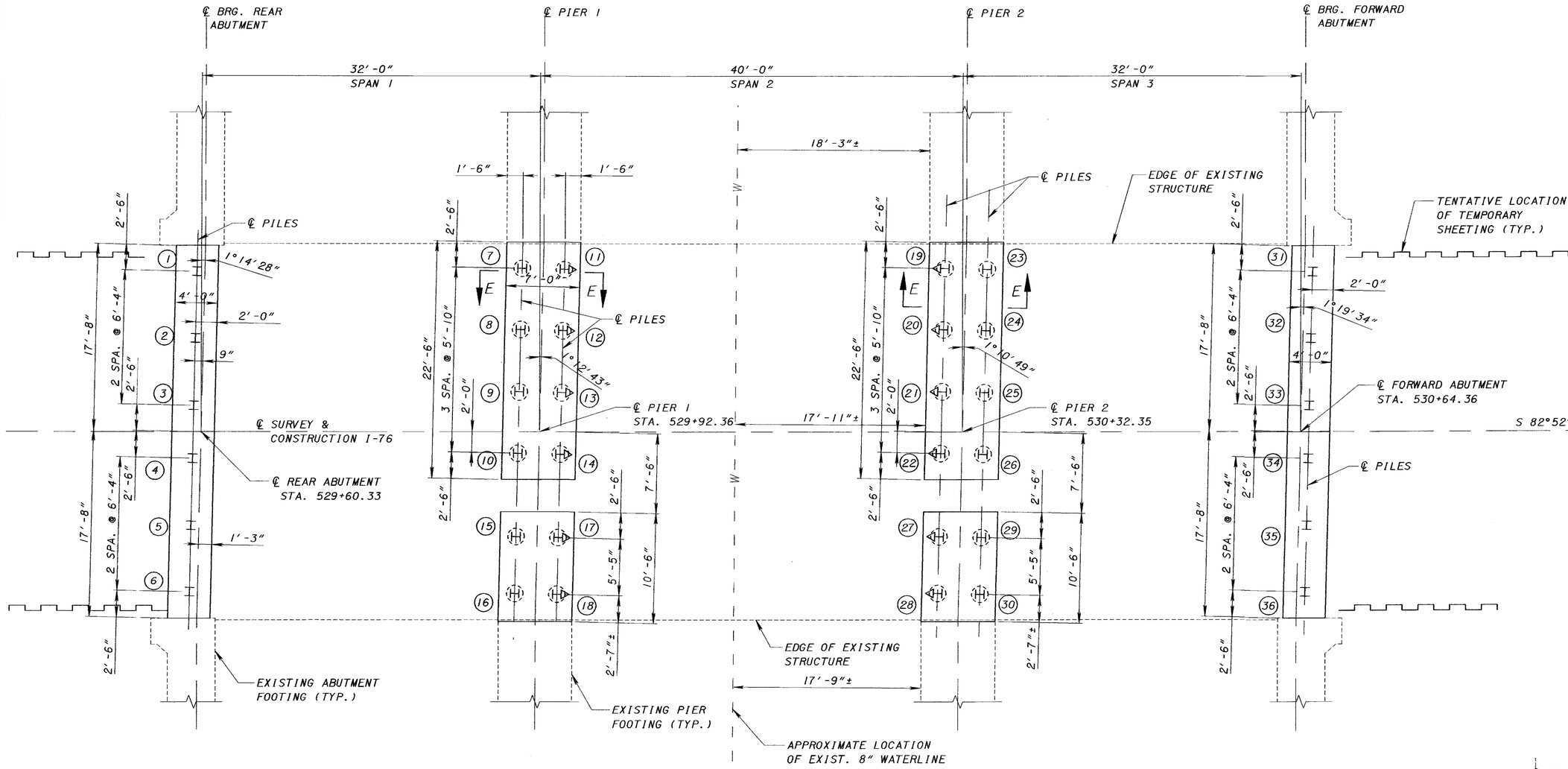
TRANSVERSE SECTION - PHASE CONSTRUCTION
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

6/21

156/187

pa076pcM.dgn



LEGEND

(6) ⊥ VERTICAL PILE WITH PILE NUMBER

(16) ⊢▷ BATTERED PILE (1:4), WITH PILE NUMBER

(I) PREBORE PILE

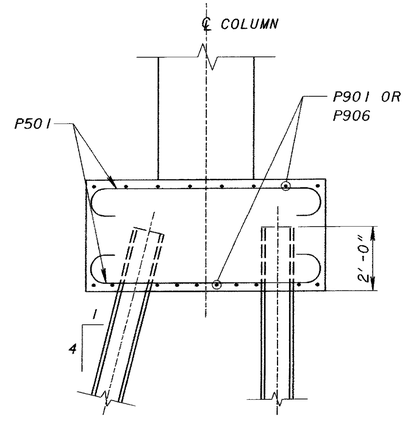
NOTES:

1. PILE NO.'S 7-14 AT PIER 1 SHALL BE PREBORED TO EL. 1118.00
   PILE NO.'S 15-18 AT PIER 1 SHALL BE PREBORED TO EL. 1115.00

2. PILE NO.'S 19-26 AT PIER 2 SHALL BE PREBORED TO EL. 1118.00
   PILE NO.'S 27-30 AT PIER 2 SHALL BE PREBORED TO EL. 1115.00

PILE TABLE

PILE NO.	ESTIMATED PAY LENGTH	PILE TOP CUT-OFF ELEV.	PILE SIZE
1-3	50 FT.	1145.73	HP10x42
4-6	50 FT.	1144.27	HP10x42
7-14	25 FT.	1130.00	HP10x42
15-18	25 FT.	1127.00	HP10x42
19-26	25 FT.	1130.00	HP10x42
27-30	25 FT.	1127.00	HP10x42
31-33	50 FT.	1143.82	HP10x42
34-36	50 FT.	1142.42	HP10x42



SECTION E-E

DESIGN AGENCY
THE OSBORN ENGINEERING CO
CLEVELAND, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
SMG	SMG	GTA, WAD	10/18/02
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCK		6702465L, 6702554R	

FOUNDATION PLAN

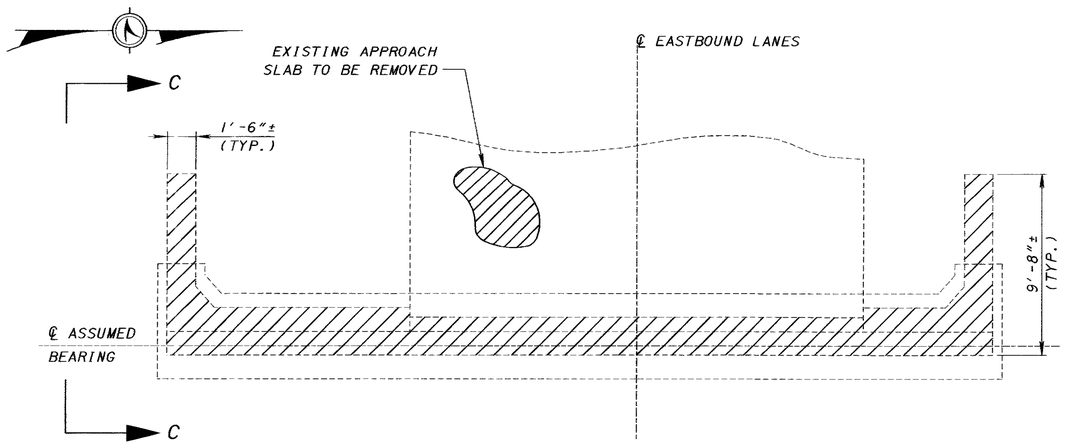
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

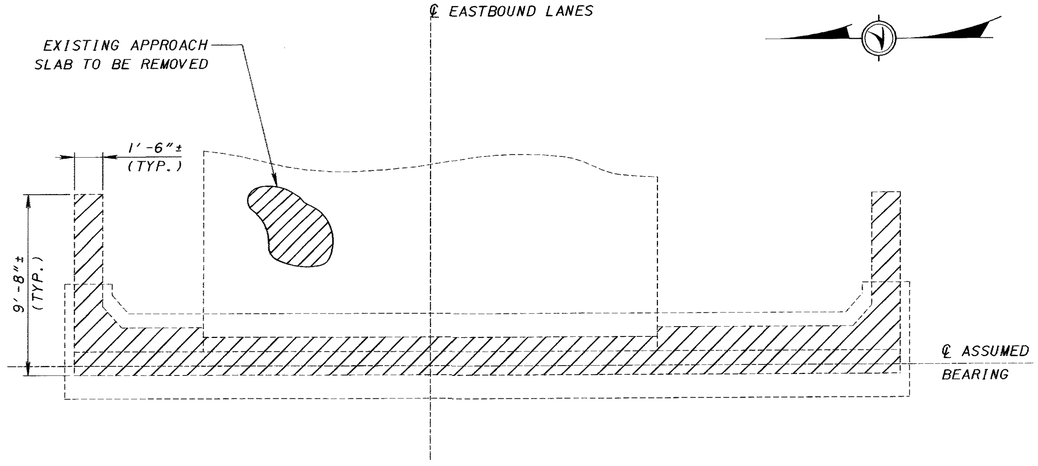
7 / 21

157 / 187

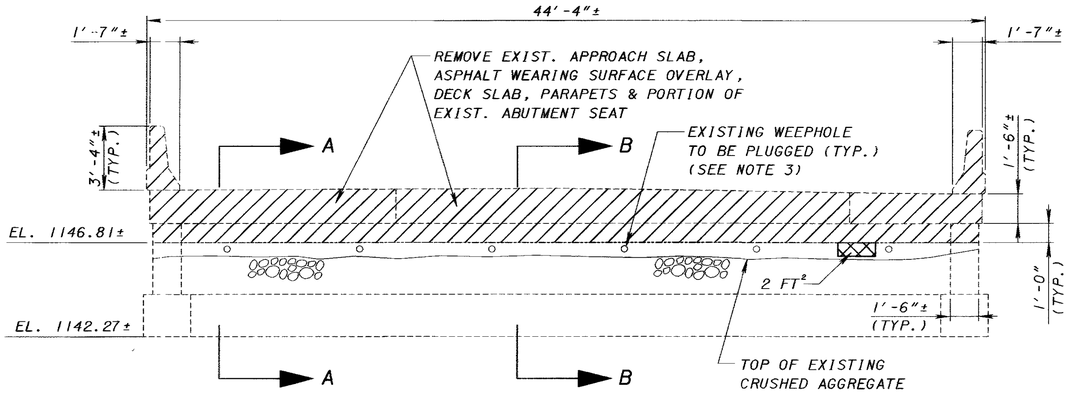
po076fpK.dgn



PLAN

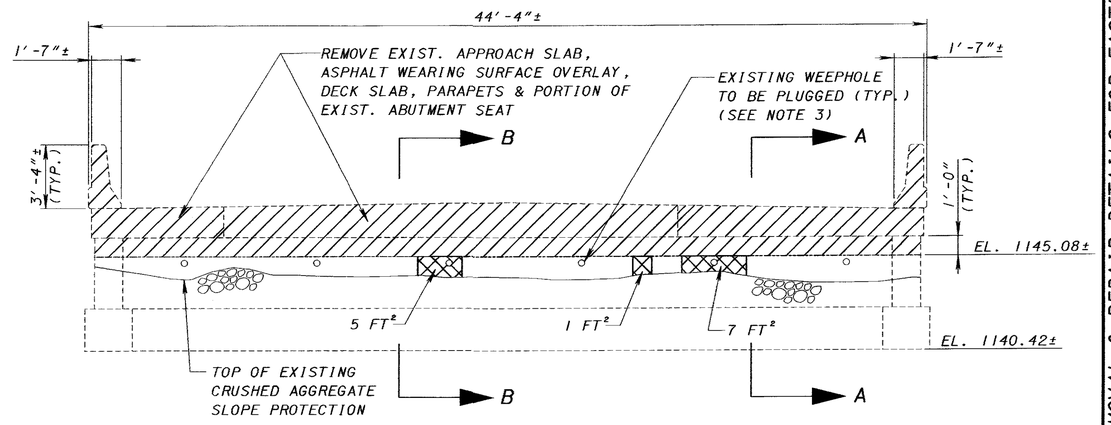


PLAN



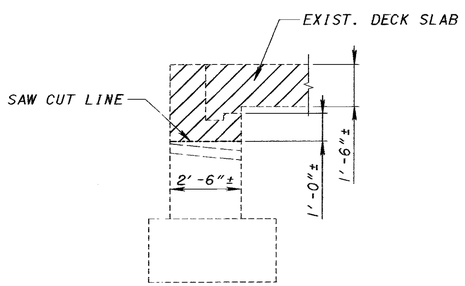
REAR ABUTMENT

(EASTBOUND BRIDGE)

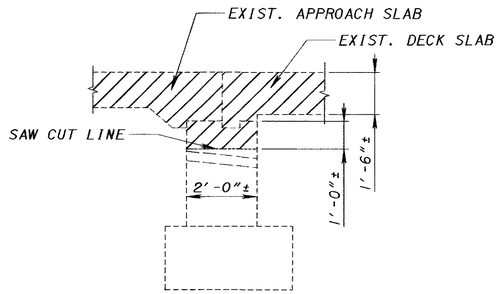


FORWARD ABUTMENT

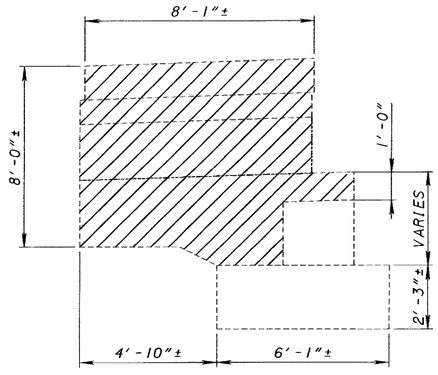
(EASTBOUND BRIDGE)



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

1. THE ABUTMENT WILL BE REMOVED IN PHASES. SEE ABUTMENT PHASE CONSTRUCTION SHEET 4/21 FOR DETAILS ON THE SEQUENCE OF REMOVAL.
2. FOR TABLE OF ESTIMATED REPAIR QUANTITIES SEE SHEET 9/21 .
3. EXISTING WEEPHOLES TO BE PLUGGED WITH CONCRETE. PAYMENT SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

LEGEND:

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

ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR

DESIGN AGENCY
THE OSBORN ENGINEERING CO
CLEVELAND, OHIO

DESIGNED	DRAWN	REVISED	DATE
SMG	SMG	GTA, WAD	10/18/02
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCK		6702465L, 6702554R	

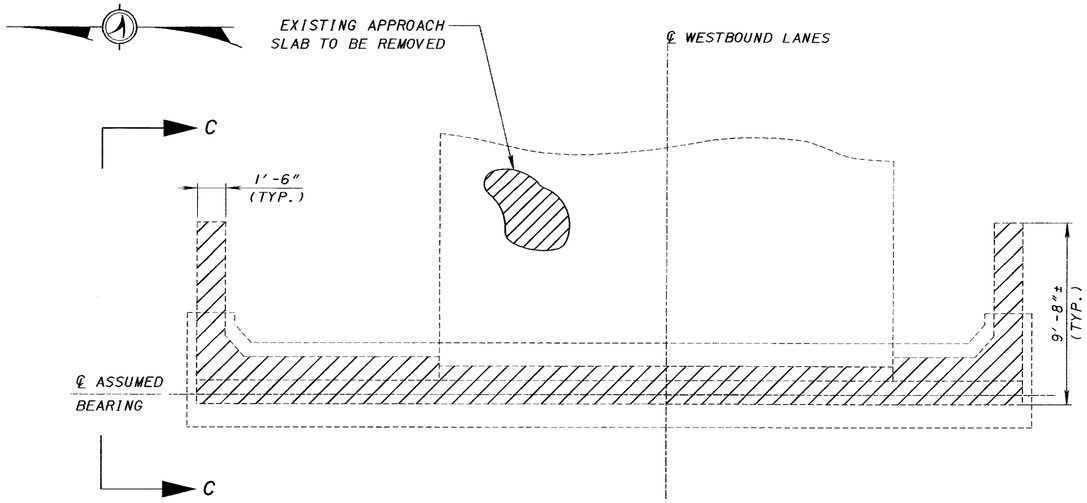
ABUTMENT REMOVAL & REPAIR DETAILS FOR EASTBOUND BRIDGE NO. POR-076-1006 L & R OVER HATTRICK ROAD

POR-76-9.50

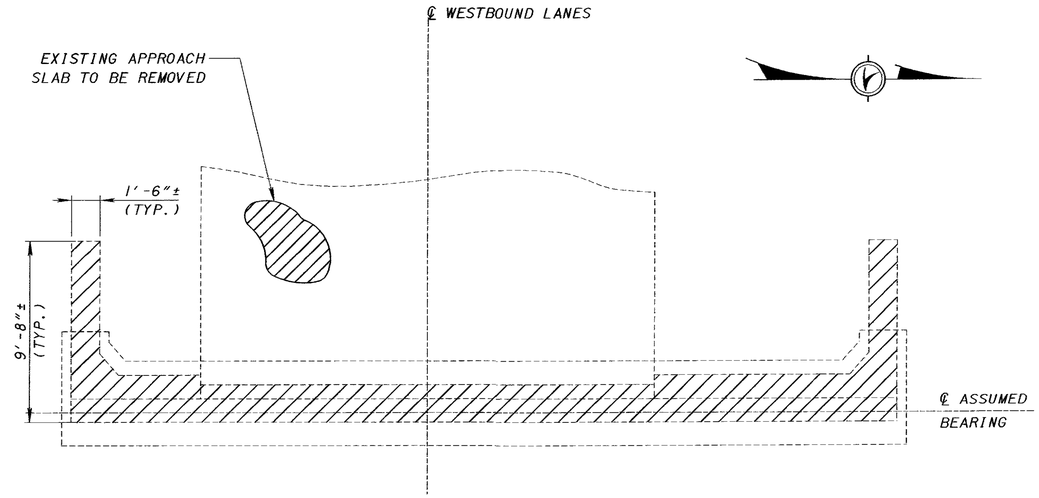
8/21

158
187

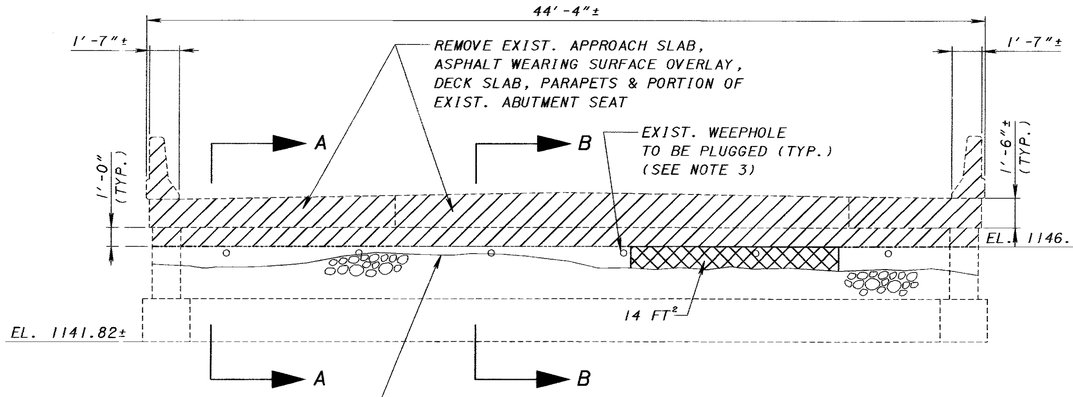
po076fdl.dgn



PLAN

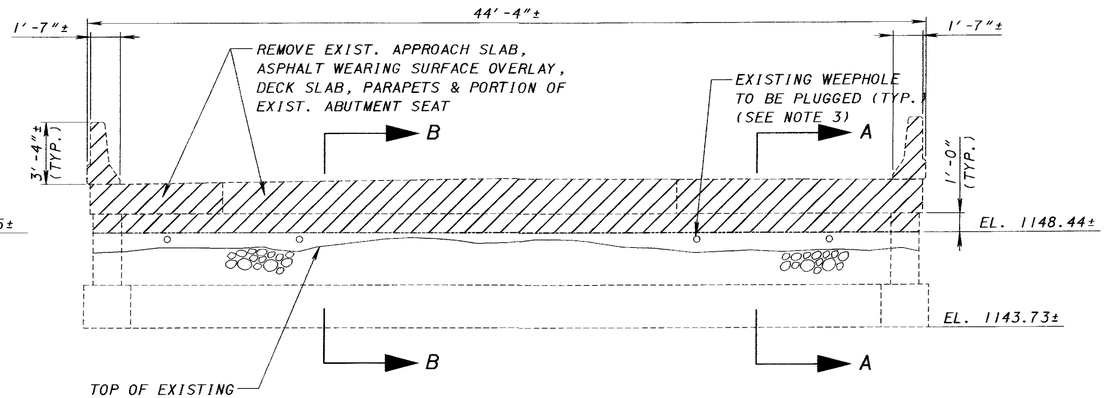


PLAN



FORWARD ABUTMENT

(WESTBOUND BRIDGE)



REAR ABUTMENT

(WESTBOUND BRIDGE)

ESTIMATED REPAIR QUANTITIES					
ITEM	DESCRIPTION	REAR ABUTMENT		FORWARD ABUTMENT	
		MEASURED	ESTIMATED	MEASURED	ESTIMATED
843	PATCHING CONCRETE STRUCTURE WITH TROWELABLE MORTAR	2 FT²	3 FT²	27 FT²	41 FT²

NOTE:

1. THE ABUTMENT WILL BE REMOVED IN PHASES. SEE ABUTMENT PHASE CONSTRUCTION SHEET 4 21 FOR DETAILS ON THE SEQUENCE OF REMOVAL.
2. FOR SECTIONS A-A, B-B AND C-C SEE SHEET 8 21 .
3. EXISTING WEEPHOLES TO BE PLUGGED WITH CONCRETE. PAYMENT SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

LEGEND:

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

ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO

REVIEWED: GTA, WAD | DATE: 10/18/02

STRUCTURE FILE NUMBER: 6702465L, 6702554R

DRAWN: SMG | REVISED:

DESIGNED: SMG | CHECKED: BCK

ABUTMENT REMOVAL & REPAIR DETAILS FOR WESTBOUND

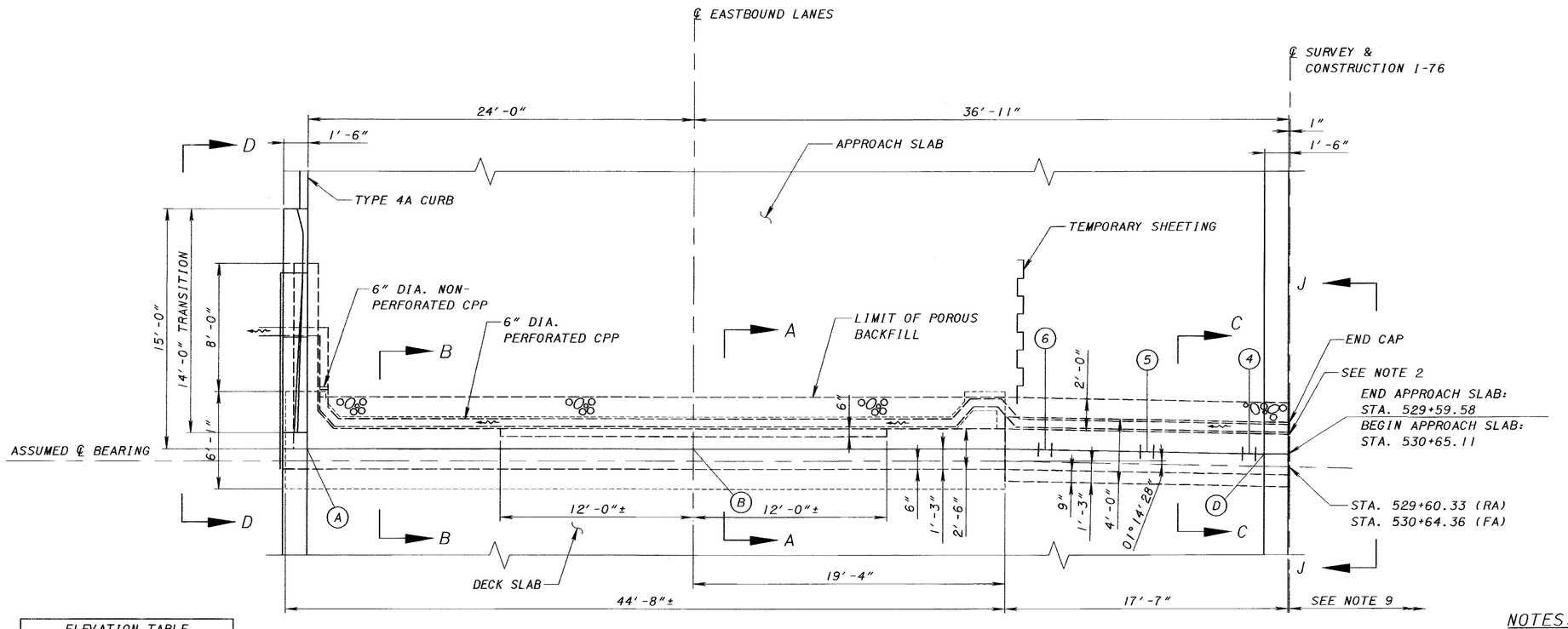
BRIDGE NO. POR-076-1006 L & R OVER HATTRICK ROAD

POR-076-9.50

9 | 21

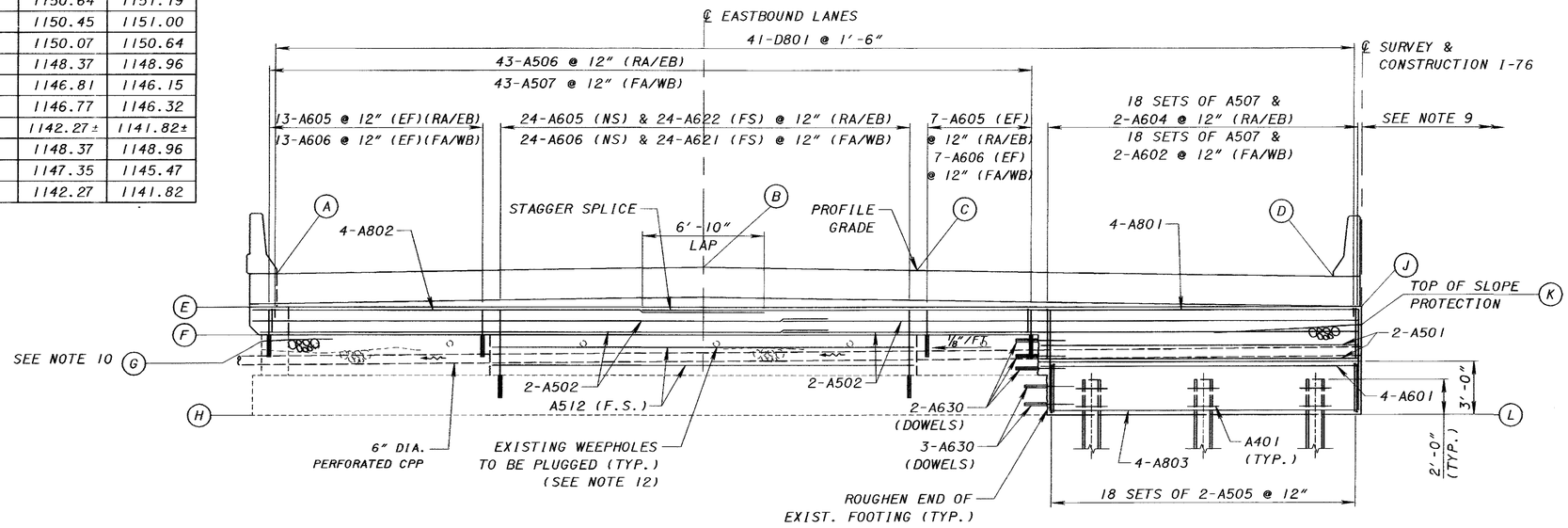
159 | 187

po076fdk.cgn



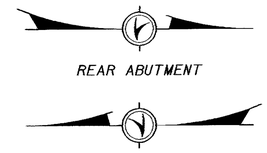
PLAN

ELEVATION TABLE		
	RA/EB	FA/WB
A	1150.26	1150.81
B	1150.64	1151.19
C	1150.45	1151.00
D	1150.07	1150.64
E	1148.37	1148.96
F	1146.81	1146.15
G	1146.77	1146.32
H	1142.27±	1141.82±
J	1148.37	1148.96
K	1147.35	1145.47
L	1142.27	1141.82



ELEVATION

REAR ABUTMENT - EASTBOUND BRIDGE SHOWN
FORWARD ABUTMENT - WESTBOUND BRIDGE SIMILAR



LEGEND:

CPP = CORRUGATED PLASTIC PIPE
E.F. = EACH FACE
F.S. = FAR SIDE
N.S. = NEAR SIDE
RA = REAR ABUTMENT
FA = FORWARD ABUTMENT
WB = WESTBOUND
EB = EASTBOUND

NOTES:

1. THE ABUTMENT WILL BE CONSTRUCTED IN PHASES. SEE ABUTMENT PHASE CONSTRUCTION SHEET 4/21 FOR DETAILS ON THE SEQUENCE OF CONSTRUCTION.
2. INSTALL 3'-0" WIDE TYPE B WATERPROOFING AT CONSTRUCTION JOINT AND INTERFACES WITH EXISTING ABUTMENTS.
3. REINFORCING SPLICE LENGTHS SHALL BE 2'-6" FOR #5 BARS.
4. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE AND LATERALLY AS SHOWN ON THE PLANS.
5. SEE SHEET 12/21 FOR SECTIONS A-A, B-B, C-C & J-J.
6. SEE SHEET 13/21 FOR SECTION D-D.
7. FOR FOUNDATION PLAN SEE SHEET 7/21.
8. FOR DECK REINFORCING SEE SHEETS 16/21 & 17/21.
9. FOR FA/EB AND RA/WB PLAN & ELEVATION SEE SHEET 11/21 .
10. ADD CRUSHED AGGREGATE SLOPE PROTECTION TO ELEVATION SHOWN. PAYMENT SHALL BE INCLUDED WITH ROADWAY ITEM 601 - CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN.
11. DOWEL EMBEDMENT LENGTH SHALL BE 1'-3", UNLESS OTHERWISE NOTED. DOWEL HOLES SHALL BE DRILLED PARALLEL TO A FREE EDGE & CLEAR CONCRETE SURFACE BY AT LEAST 5 INCHES.
12. EXISTING WEEPHOLES TO BE PLUGGED WITH CONCRETE. PAYMENT SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO
REVIEWED: GTA, WAD | DATE: 10/18/02
STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG | REVISED:
DESIGNED: SMG | CHECKED: BCK

ABUTMENT PLAN & ELEVATION (RA/EB & FA/WB)
BRIDGE NO. POR-076-1006 L & R OVER HATTRICK ROAD

POR-76-9.50

10/21

160/187

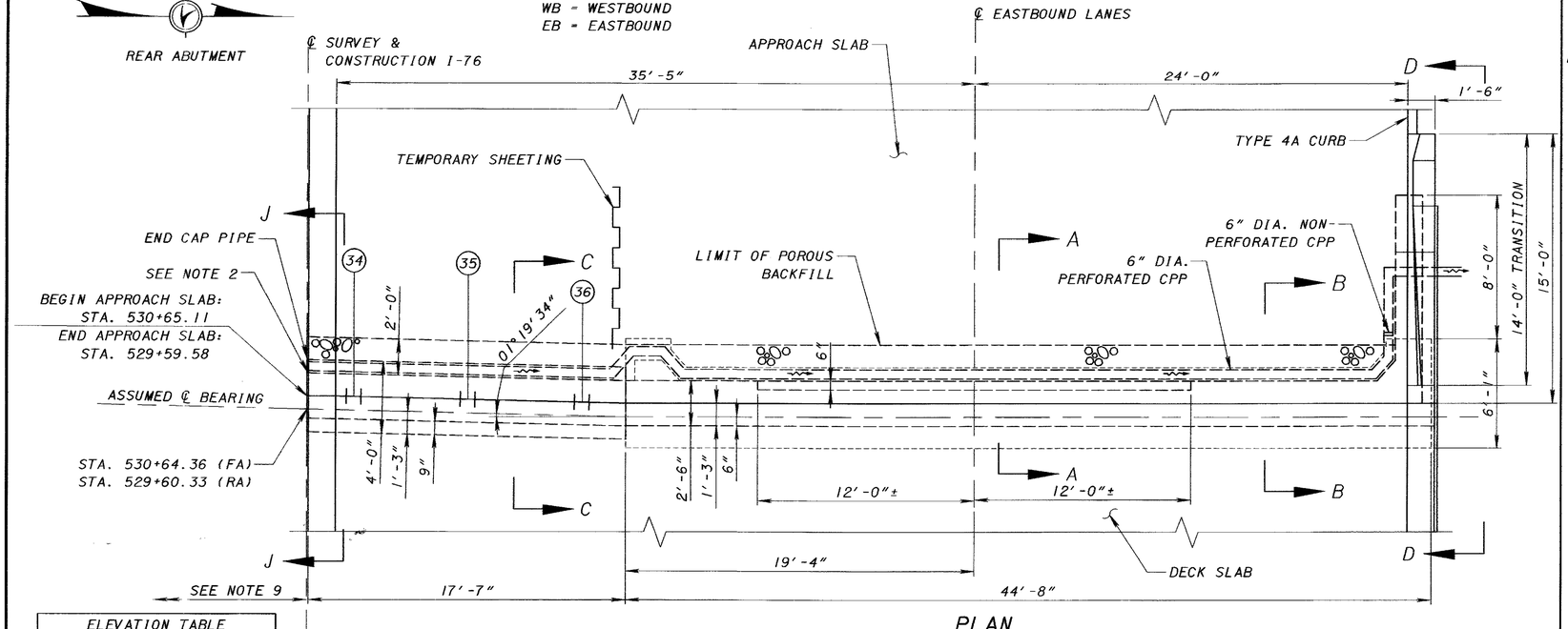
po076rdM.dgn

LEGEND:

CPP = CORRUGATED PLASTIC PIPE
E.F. = EACH FACE
F.S. = FAR SIDE
N.S. = NEAR SIDE
RA = REAR ABUTMENT
FA = FORWARD ABUTMENT
WB = WESTBOUND
EB = EASTBOUND

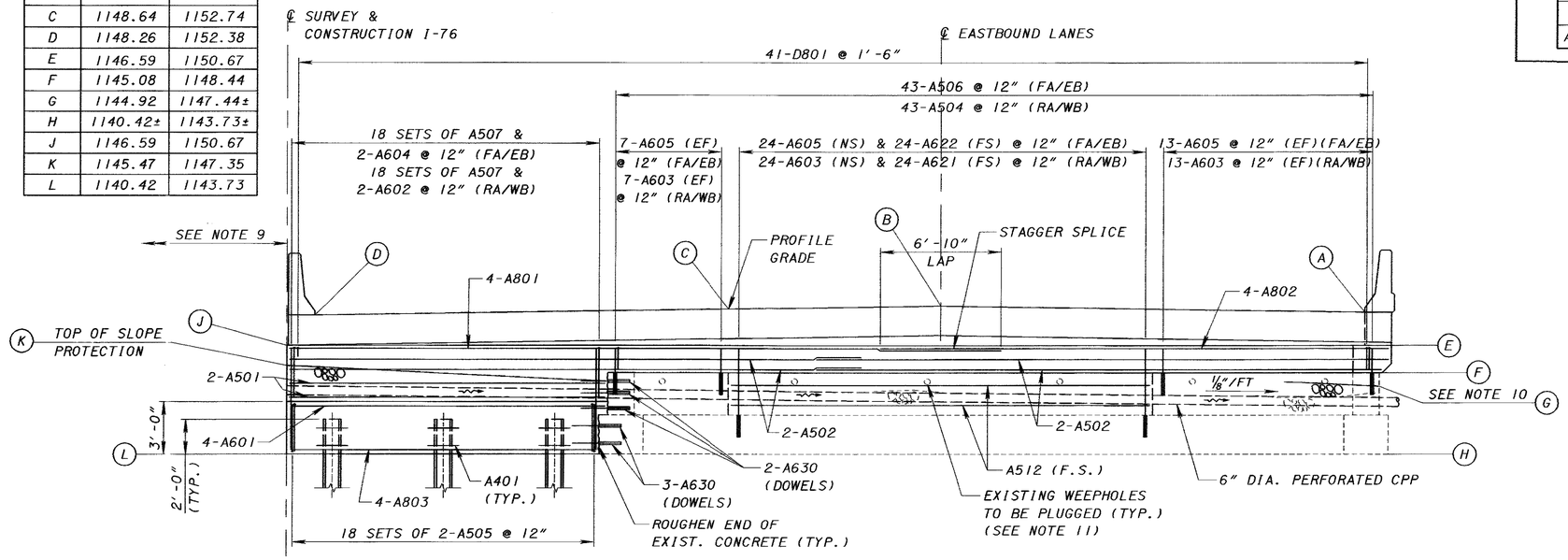
FORWARD ABUTMENT

REAR ABUTMENT



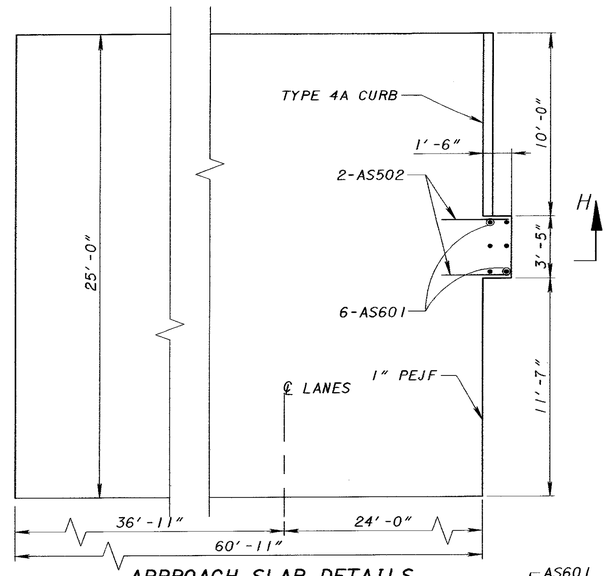
PLAN

ELEVATION TABLE		
	FA/EB	RA/WB
A	1148.45	1152.55
B	1148.83	1152.93
C	1148.64	1152.74
D	1148.26	1152.38
E	1146.59	1150.67
F	1145.08	1148.44
G	1144.92	1147.44±
H	1140.42±	1143.73±
J	1146.59	1150.67
K	1145.47	1147.35
L	1140.42	1143.73



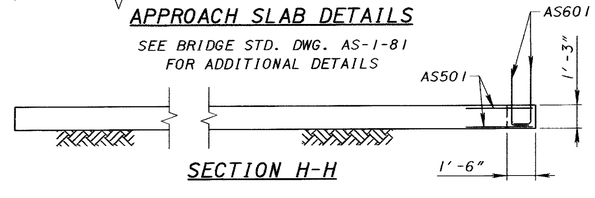
ELEVATION

FORWARD ABUTMENT - EASTBOUND BRIDGE SHOWN
REAR ABUTMENT - WESTBOUND BRIDGE SIMILAR



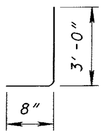
APPROACH SLAB DETAILS

SEE BRIDGE STD. DWG. AS-1-81 FOR ADDITIONAL DETAILS



SECTION H-H

MARK	NUMBER	LENGTH	WEIGHT	TYPE
APPROACH SLAB				
AS501	16	3′-6″	58	STR
AS601	24	3′-9″	135	BT.



AS601

NOTES:

1. THE ABUTMENT WILL BE CONSTRUCTED IN PHASES. SEE ABUTMENT PHASE CONSTRUCTION SHEET 4/21 FOR DETAILS ON THE SEQUENCE OF CONSTRUCTION.
2. INSTALL 3′-0″ WIDE TYPE B WATERPROOFING AT CONSTRUCTION JOINT AND INTERFACES WITH EXISTING ABUTMENTS.
3. REINFORCING SPLICE LENGTHS SHALL BE 2′-6″ FOR #5 BARS.
4. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE AND LATERALLY AS SHOWN ON THE PLANS.
5. SEE SHEET 12/21 FOR SECTIONS A-A, B-B, C-C & J-J.
6. SEE SHEET 13/21 FOR SECTION D-D.
7. FOR FOUNDATION PLAN SEE SHEET 7/21.
8. FOR DECK REINFORCING SEE SHEETS 16/21 & 17/21.
9. FOR RA/EB & FA/WB PLAN & ELEVATION SEE SHEET 10/21.
10. ADD CRUSHED AGGREGATE SLOPE PROTECTION TO ELEVATION SHOWN. PAYMENT SHALL BE INCLUDED WITH ROADWAY ITEM 601-CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN.
11. EXISTING WEEPHOLES TO BE PLUGGED WITH CONCRETE. PAYMENT SHALL BE INCLUDED WITH ITEM 511-CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING.

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO
REVIEWED: GTA, WAD | DATE: 10/18/02
STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG | REVISED:
DESIGNED: SMG | CHECKED: BCK

ABUTMENT PLAN & ELEVATION (FA/EB & RA/WB)

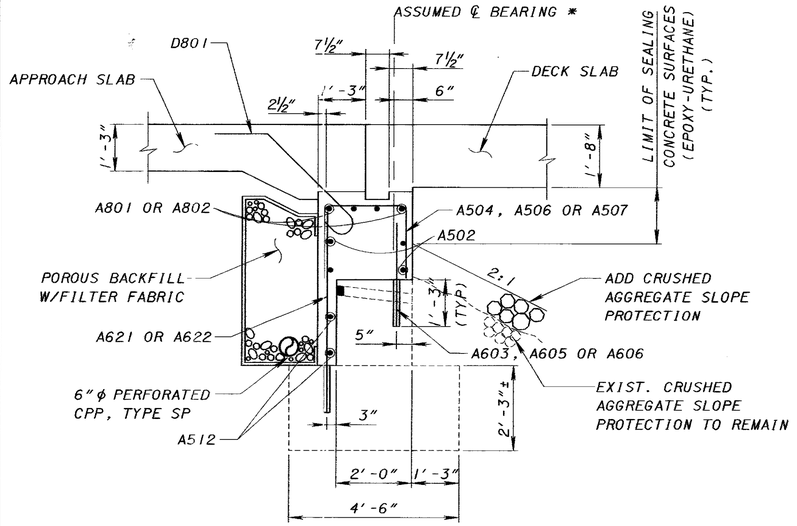
BRIDGE NO. POR-076-1006 L & R OVER HATTRICK ROAD

POR-76-9.50

11/21

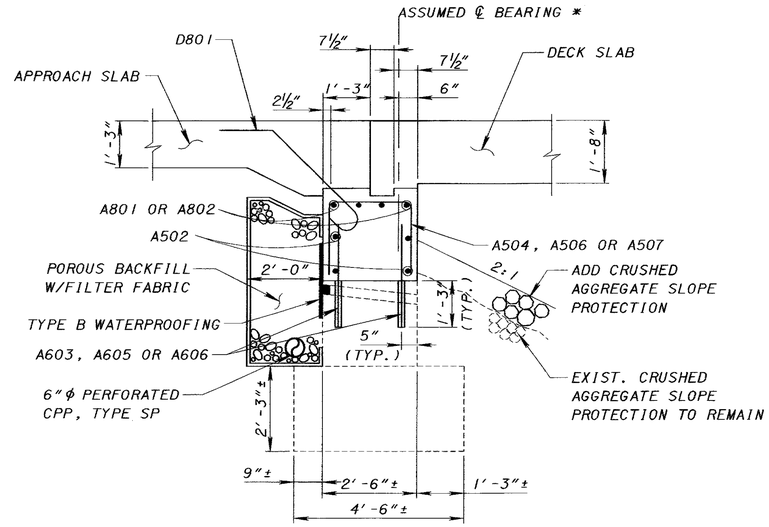
161/187

po076fdM.dgn

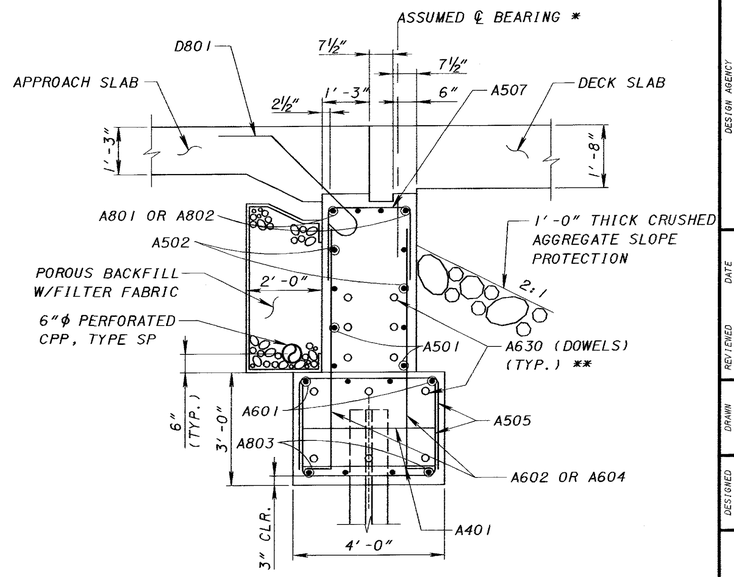


SECTION A-A

* ASSUMED ℄ BEARING TO MATCH EXISTING, AS SHOWN ON THE RECORD PLANS

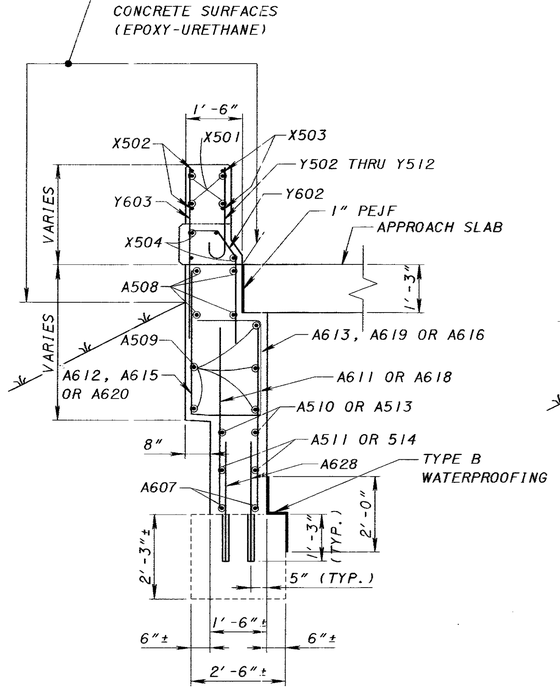


SECTION B-B

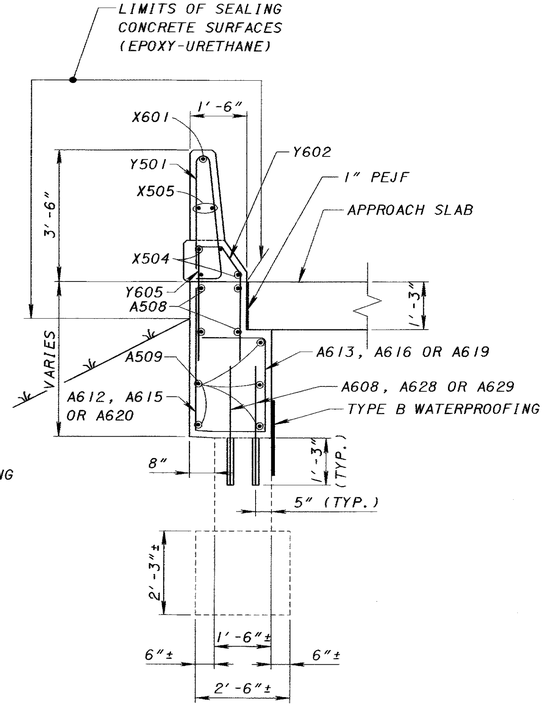


SECTION C-C

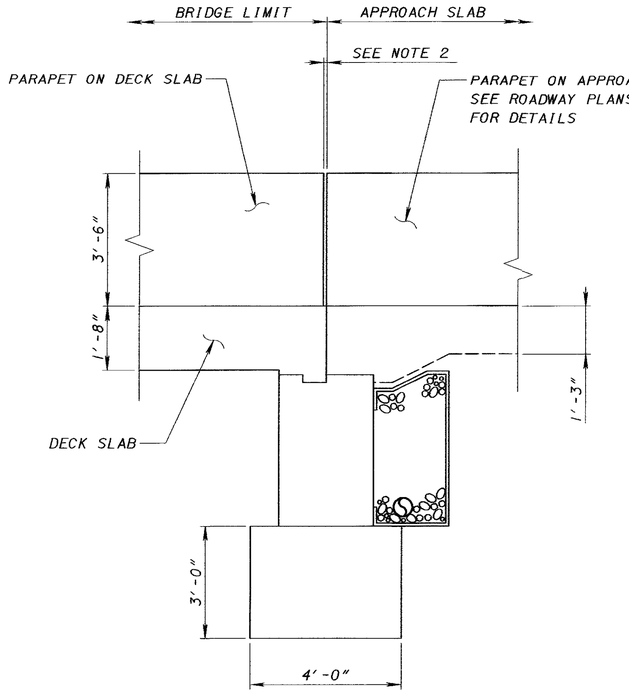
** SEE DETAIL A FOR DOWEL LAYOUT



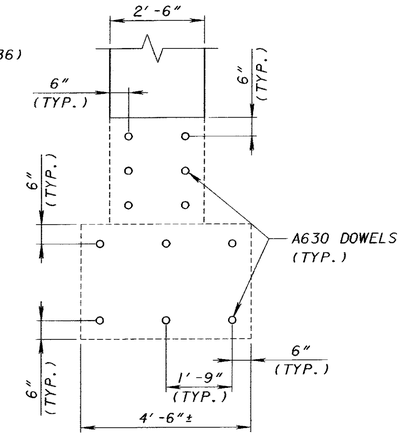
SECTION F-F



SECTION E-E



SECTION J-J



DETAIL A
(DOWEL LAYOUT)

NOTES:

1. FOR ADDITIONAL DETAILS SEE SHEET 13/21.
2. ¼" PREFORMED EXPANSION JOINT FILLER, GRAY SPONGE RUBBER OR GRAY CELLULAR POLY-VINYL CHLORIDE SPONGE. FILLER SHALL CONFORM TO AASHTO M-153, TYPE I, EXCEPT DENSITY OF PVC SPONGER SHALL NOT BE LESS THAT 20 LBS. PER CU. FT. INCLUDE WITH ITEM 517-RAILING (DEFLECTOR PARAPET TYPE) FOR PAYMENT.

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO
DATE REVIEWED: GTA, WAD 10/18/02
STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG
REVISED:
DESIGNED: SMG
CHECKED: BCK

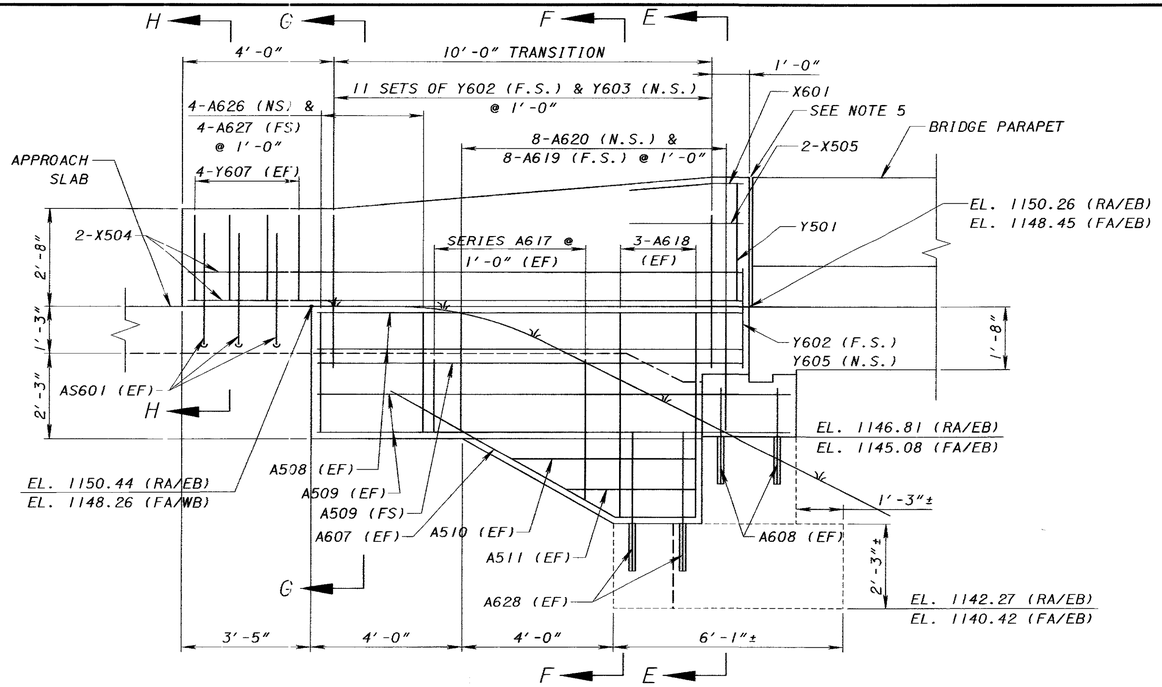
ABUTMENT DETAILS
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

12/21

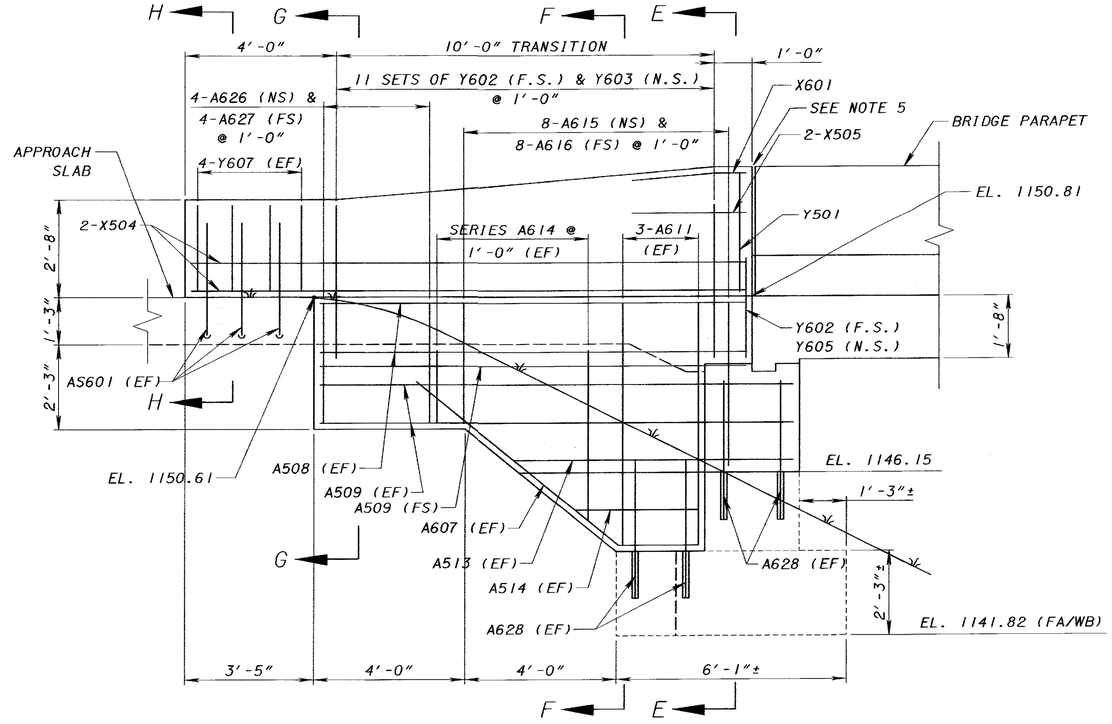
162/187

po076rdL.dgn



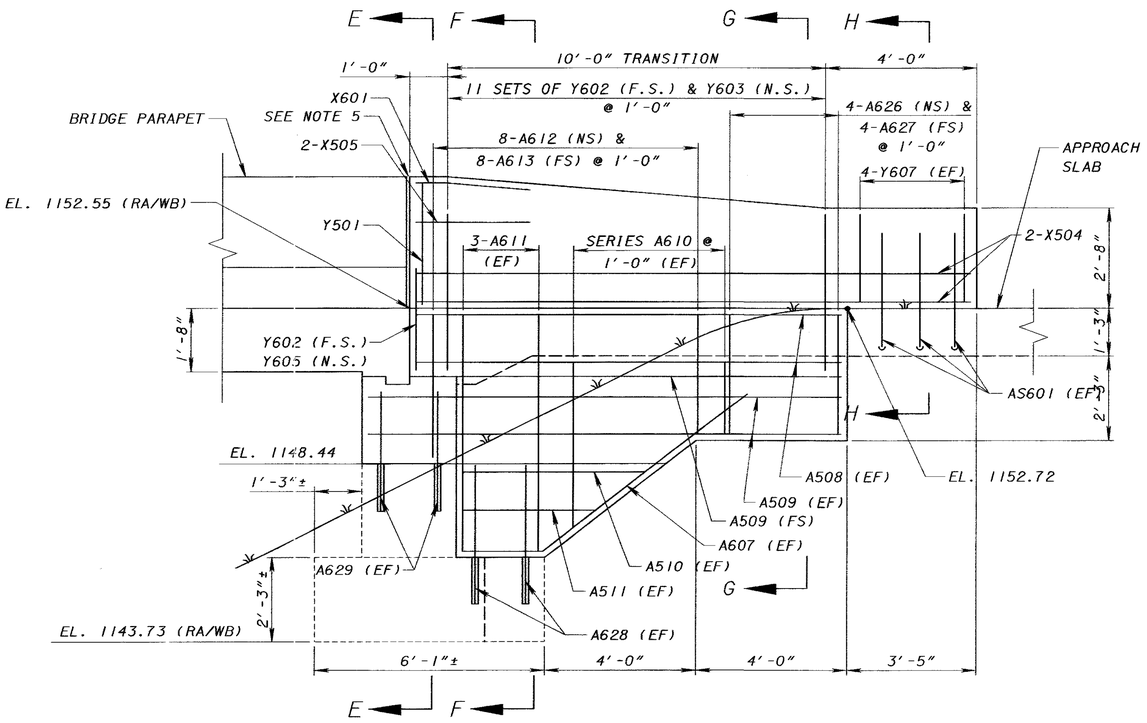
SECTION D-D

REAR ABUTMENT - EASTBOUND (SHOWN)
FORWARD ABUTMENT - EASTBOUND (OPPOSITE)



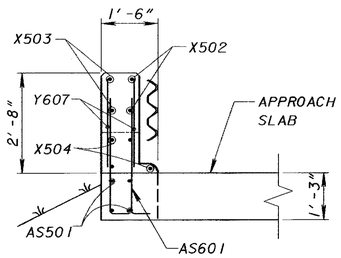
SECTION D-D

FORWARD ABUTMENT - WESTBOUND

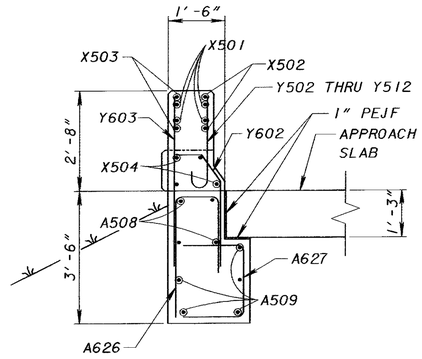


SECTION D-D

REAR ABUTMENT - WESTBOUND



SECTION H-H



SECTION G-G

NOTES:

1. FOR SECTIONS E-E & F-F SEE SHEET 12|21.
2. FOR ADDITIONAL DETAILS OF PARAPET AND PARAPET TRANSITION SEE STANDARD BRIDGE DRAWING BR-1.
3. FOR BRIDGE TERMINAL ASSEMBLY DETAILS SEE STANDARD CONSTRUCTION DRAWING GR-3.1M AND GR-3.2M. FOR TYPE & PAYMENTS SEE ROADWAY PLANS.
4. REBAR IN PARAPET TRANSITION NOT SHOWN FOR CLARIFICATION.
5. 1/4" PREFORMED EXPANSION JOINT FILLER, GRAY SPONGE RUBBER OR GRAY CELLULAR POLY-VINYL CHLORIDE SPONGE. FILLER SHALL CONFORM TO AASHTO M-153, TYPE I, EXCEPT DENSITY OF PVC SPONGER SHALL NOT BE LESS THAN 20 LBS. PER CU. FT. INCLUDE WITH ITEM 517 - RAILING (DEFLECTOR PARAPET TYPE) FOR PAYMENT.

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO
REVISED: 6TA,WAD | DATE: 10/18/02 | STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG | REVISED:
DESIGNED: SMG | CHECKED: BCK

ABUTMENT DETAILS

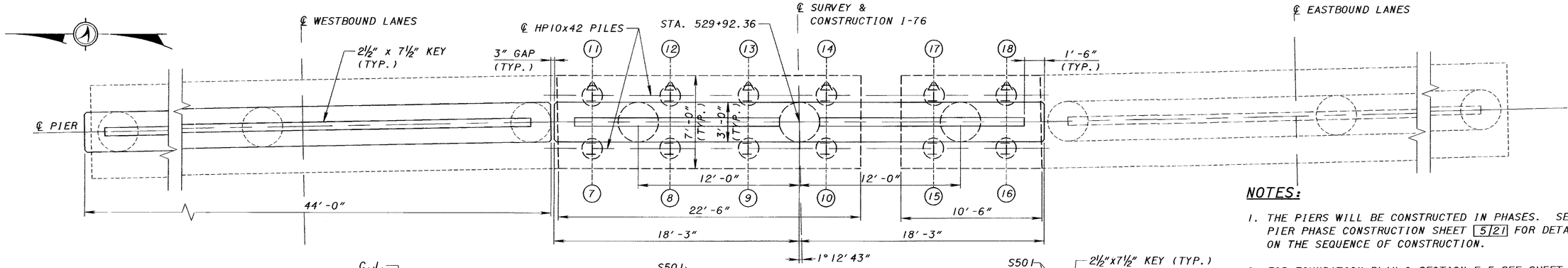
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

13|21

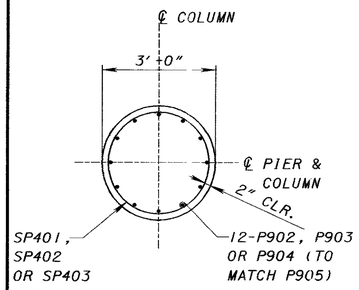
(163/187)

po076raN.dgn

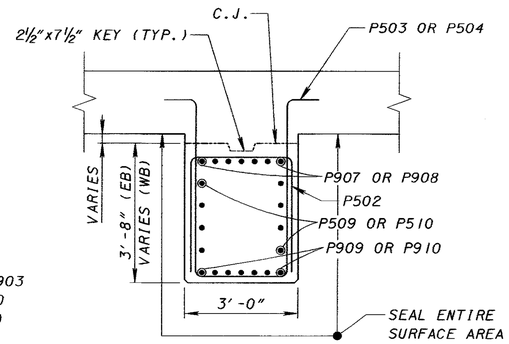


NOTES:

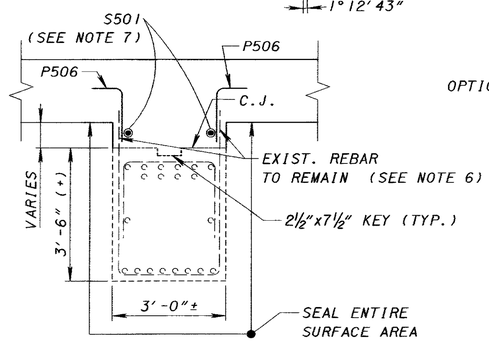
1. THE PIERS WILL BE CONSTRUCTED IN PHASES. SEE PIER PHASE CONSTRUCTION SHEET 5|21 FOR DETAILS ON THE SEQUENCE OF CONSTRUCTION.
2. FOR FOUNDATION PLAN & SECTION E-E SEE SHEET 7|21.
3. CONCRETE SURFACE AREAS SHALL BE SEALED WITH EPOXY URETHANE SEALER.
4. PIER I QUANTITIES WILL BE PAID FOR WITH THE LEFT STRUCTURE.
5. REINFORCING SPLICE LENGTHS SHALL BE 2'-6" FOR #5 BARS, 3'-0" FOR #6 BARS AND 6'-3" FOR #9 BARS.
6. EXISTING REBAR TO REMAIN SHALL BE CUT 1 FT. FROM THE TOP OF THE EXISITNG PIER CAP.
7. HAUNCH REINFORCING SHALL BE CENTERED ON ℄ LANES. FIELD ADJUST AS NECESSARY.



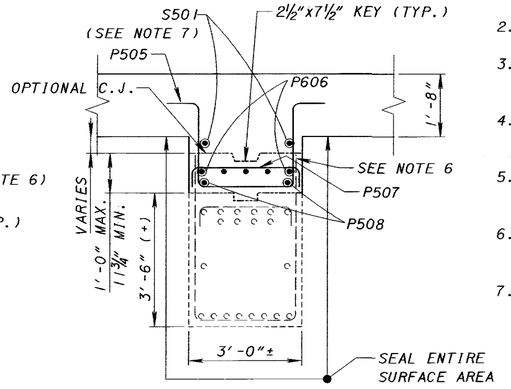
SECTION A-A



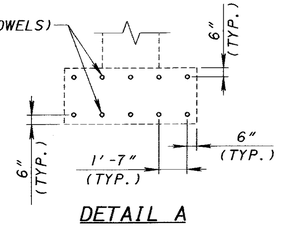
SECTION B-B



SECTION C-C



SECTION D-D



DETAIL A

ELEVATION

DESIGN AGENCY	THE OSBORN ENGINEERING CO CLEVELAND, OHIO
REVIEWED	GTA, WAD
DATE	10/18/02
STRUCTURE FILE NUMBER	6702554L, 6702554R
DRAWN	SMG
REVISED	
DESIGNED	SMG
CHECKED	BCK

PIER PLAN & ELEVATION - PIER I

BRIDGE NO. POR-076-1006 L & R OVER HATTRICK ROAD

POR-76-9.50

14|21

164|187

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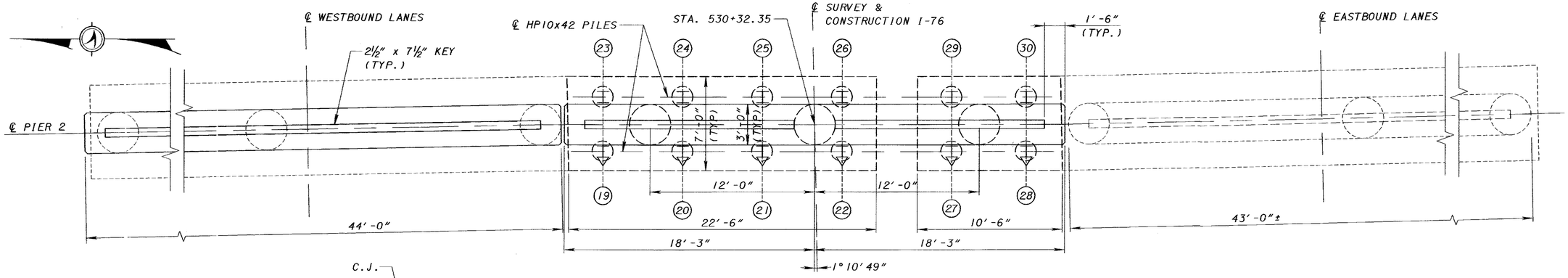
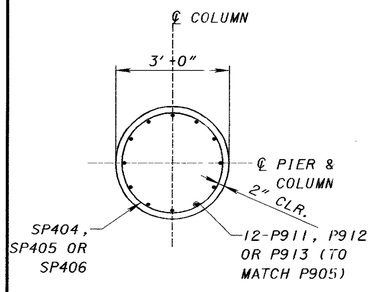
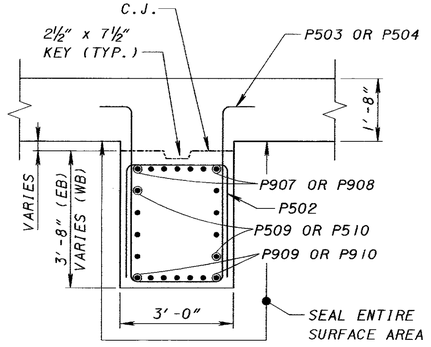
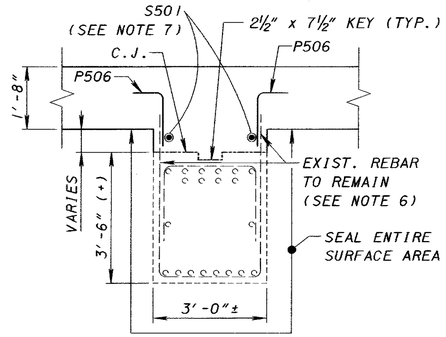




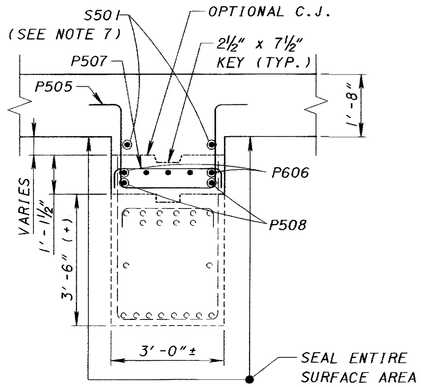
SECTION A-A



SECTION B-B



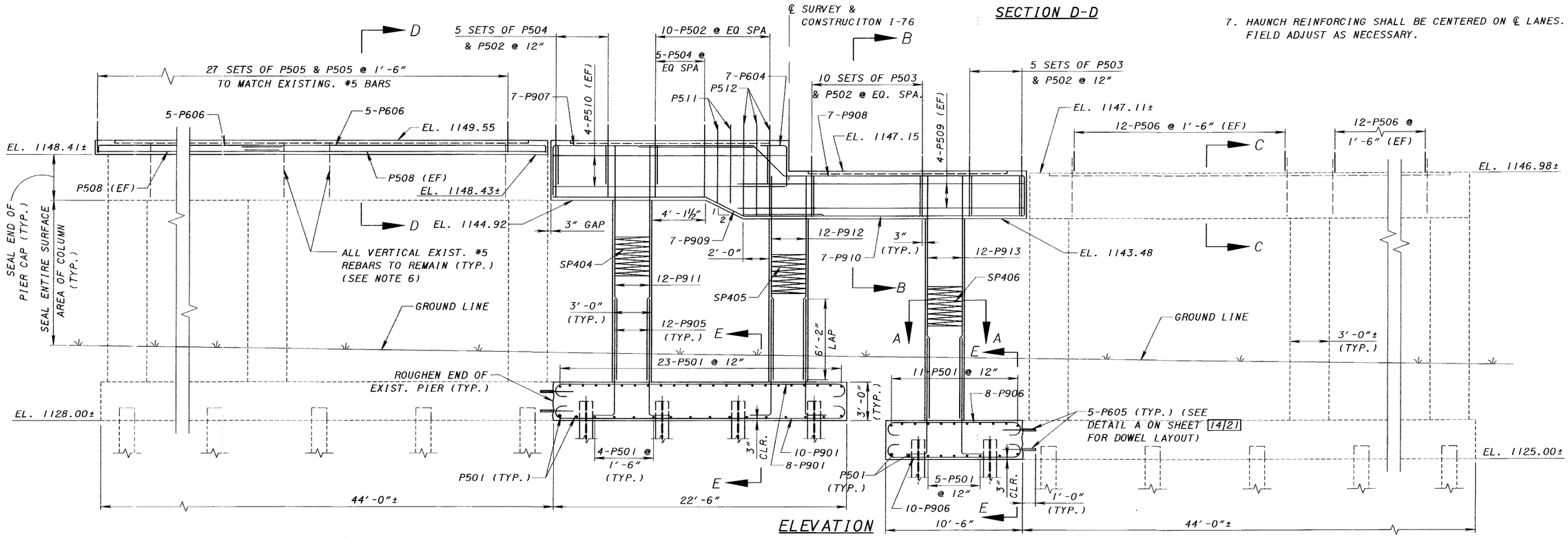
SECTION C-C



SECTION D-D

NOTES:

1. THE PIERS WILL BE CONSTRUCTED IN PHASES. SEE PIER PHASE CONSTRUCTION SHEET 5/21 FOR DETAILS ON THE SEQUENCE OF CONSTRUCTION.
2. FOR FOUNDATION PLAN & SECTION E-E SEE SHEET 7/21.
3. CONCRETE SURFACE AREAS SHALL BE SEALED WITH EPOXY URETHANE SEALER.
4. PIER 2 QUANTITIES WILL BE PAID FOR WITH THE RIGHT STRUCTURE.
5. REINFORCING SPLICE LENGTHS SHALL BE 2'-6" FOR #5 BARS, 3'-0" FOR #6 BARS AND 6'-3" FOR #9 BARS.
6. EXISTING REBAR TO REMAIN SHALL BE CUT 1 FT. FROM THE TOP OF THE EXISITNG PIER CAP.
7. HAUNCH REINFORCING SHALL BE CENTERED ON ℄ LANES. FIELD ADJUST AS NECESSARY.



ELEVATION

p0076pil.dgn

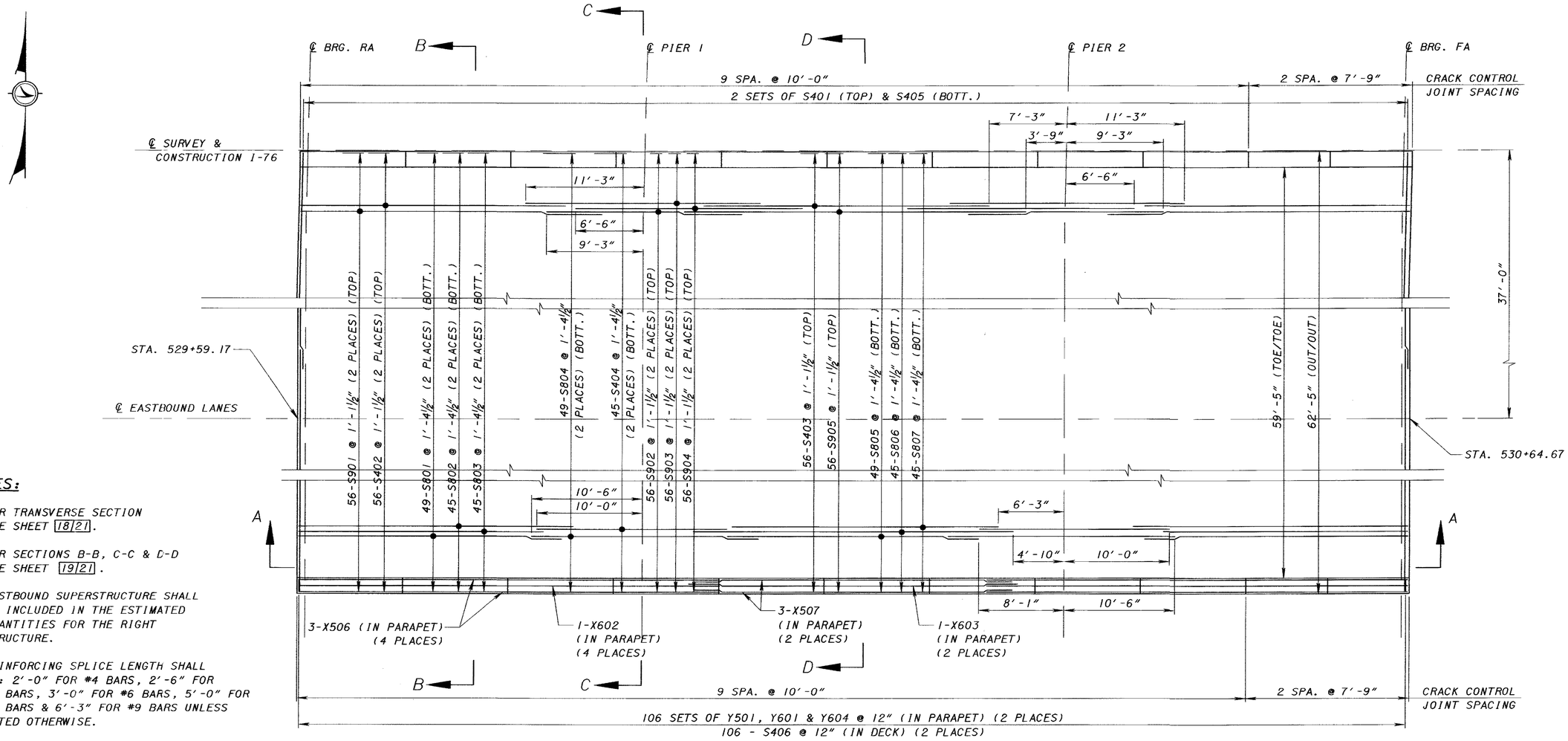
DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO
REVIEWED: GTA, WAD
DATE: 10/18/02
STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG
REVISED:
DESIGNED: SMG
CHECKED: BCK

PIER PLAN & ELEVATION - PIER 2
BRIDGE NO. POR-076-1006 L & R OVER HATTRICK ROAD

POR-76-9.50

15/21

165/187

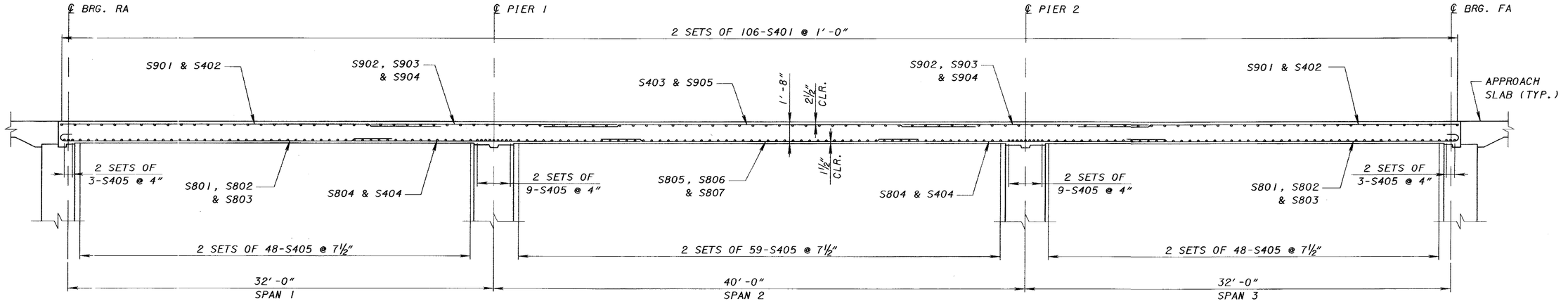


PLAN - EASTBOUND

(BRIDGE NO. POR-76-1006 R)

NOTES:

1. FOR TRANSVERSE SECTION SEE SHEET 18/21.
2. FOR SECTIONS B-B, C-C & D-D SEE SHEET 19/21.
3. EASTBOUND SUPERSTRUCTURE SHALL BE INCLUDED IN THE ESTIMATED QUANTITIES FOR THE RIGHT STRUCTURE.
4. REINFORCING SPLICE LENGTH SHALL BE: 2′-0″ FOR #4 BARS, 2′-6″ FOR #5 BARS, 3′-0″ FOR #6 BARS, 5′-0″ FOR #8 BARS & 6′-3″ FOR #9 BARS UNLESS NOTED OTHERWISE.



SECTION A-A

DESIGN AGENCY: THE OSBORN ENGINEERING CO CLEVELAND, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
SMG	SMG	GTA, WAD	10/18/02
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCK		6702465L, 6702554R	

DECK PLAN - EASTBOUND BRIDGE

BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

16/21

166/187

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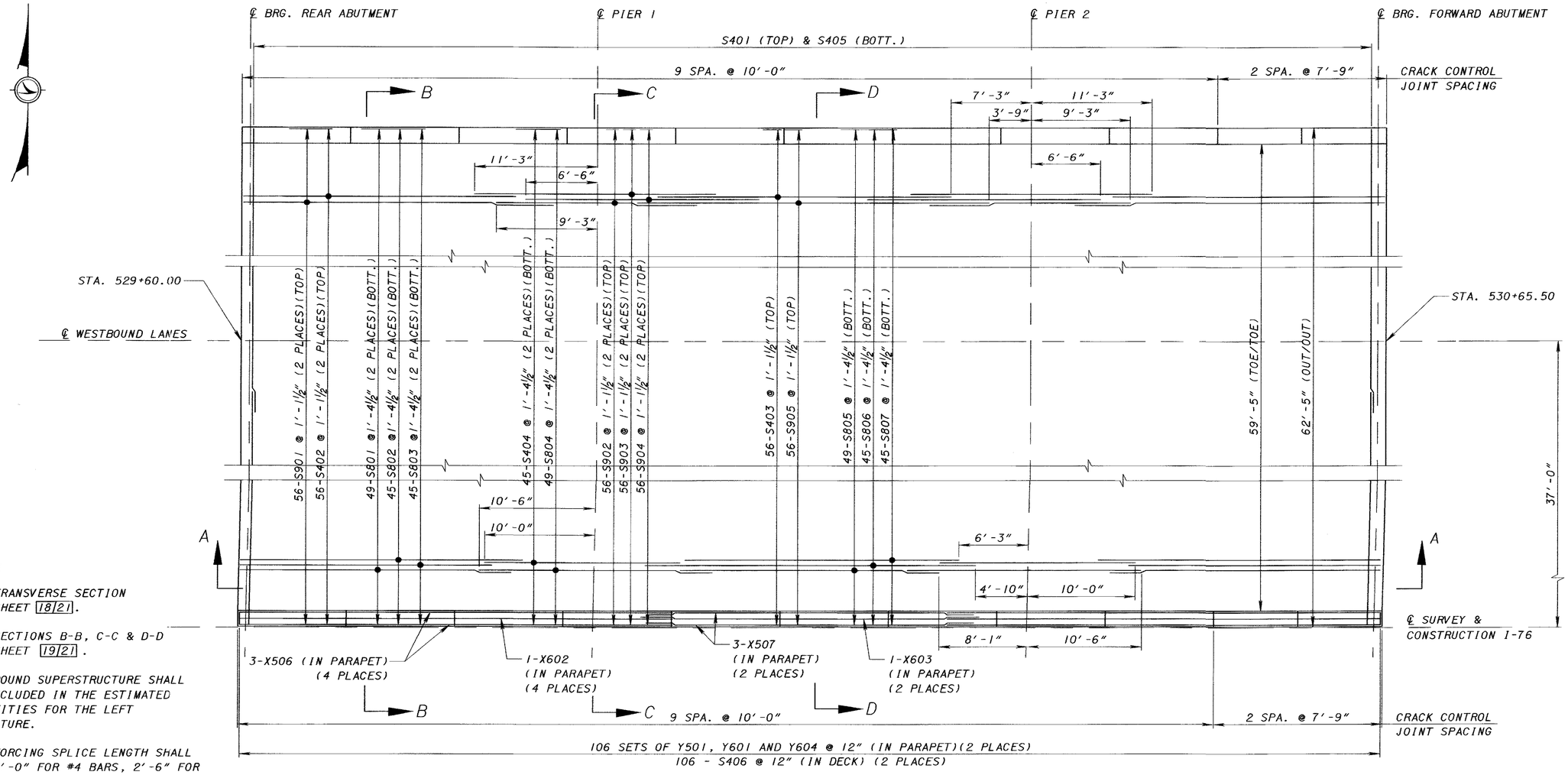
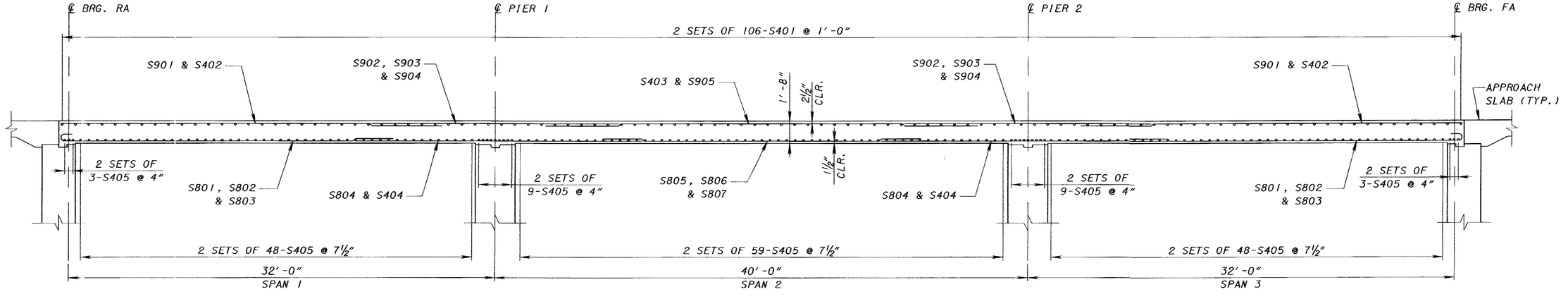


PLAN - WESTBOUND

(BRIDGE NO. POR-76-1006 L)

NOTES:

1. FOR TRANSVERSE SECTION SEE SHEET 18|21.
2. FOR SECTIONS B-B, C-C & D-D SEE SHEET 19|21.
3. WESTBOUND SUPERSTRUCTURE SHALL BE INCLUDED IN THE ESTIMATED QUANTITIES FOR THE LEFT STRUCTURE.
4. REINFORCING SPLICE LENGTH SHALL BE: 2′-0″ FOR #4 BARS, 2′-6″ FOR #5 BARS, 3′-0″ FOR #6 BARS, 5′-0″ FOR #8 BARS AND 6′-3″ FOR #9 BARS UNLESS NOTED OTHERWISE.



SECTION A-A

DESIGNED	DRAWN	REVIEWED	DATE
SMG	SMG	GTA, WAD	10/18/02
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCK		6702465L, 6702554R	

DESIGN AGENCY
THE OSBORN ENGINEERING CO
CLEVELAND, OHIO

DECK PLAN - WESTBOUND BRIDGE

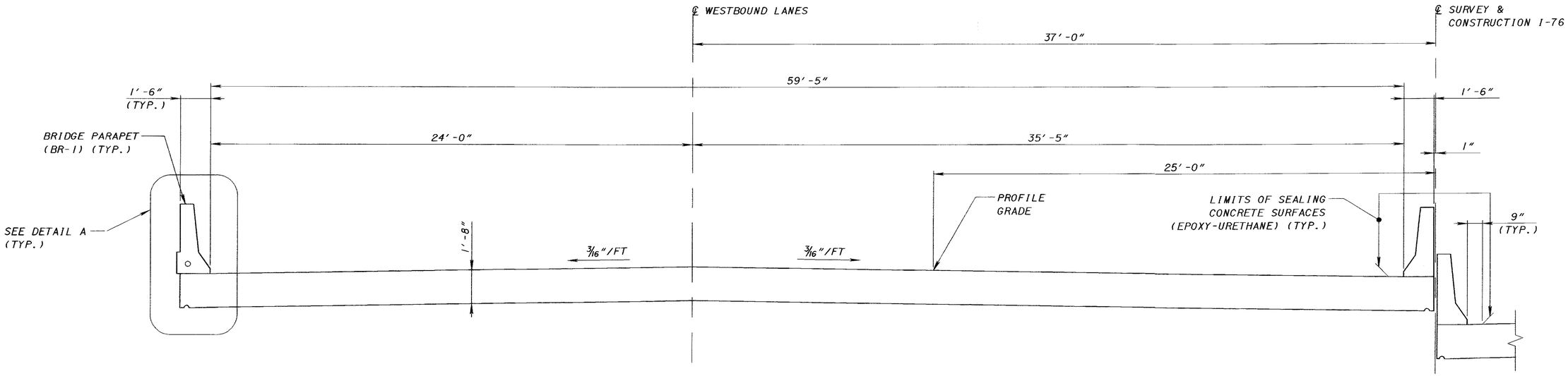
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

17 | 21

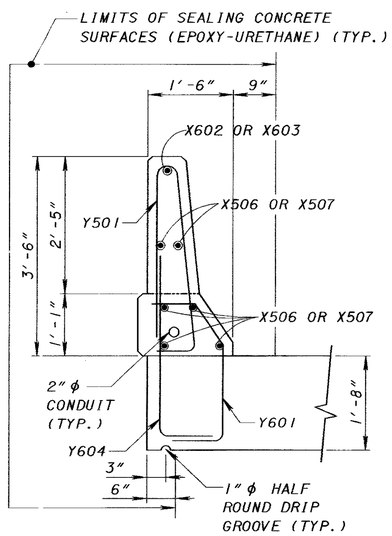
(167 | 187)

p0076tsW.dgn



TRANSVERSE SECTION

WESTBOUND BRIDGE SHOWN
EASTOUND BRIDGE SIMILAR



DETAIL A

NOTES:

1. FOR EASTBOUND DECK PLAN SEE SHEET 16/21.
2. FOR WESTBOUND DECK PLAN SEE SHEET 17/21.
3. REINFORCING NOT SHOWN IN TRANSVERSE SECTION FOR CLARITY. SEE SECTIONS B-B, C-C & D-D FOR DETAILS (SHEET 19/21).
4. 2″ DIA. CONDUIT SHALL CLEAR THE CONSTRUCTION JOINT BY 1″ MINIMUM. INCLUDE WITH ITEM 517 - RAILING (DEFLECTOR TYPE PARAPET) FOR PAYMENT.

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO
DATE: REVISED 6TA, WAD 10/18/02
STRUCTURE FILE NUMBER: 6702465L, 6702554R
DRAWN: SMG
REVISED:
DESIGNED: SMG
CHECKED: BCK

TRANSVERSE SECTION
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

18/21

168/187

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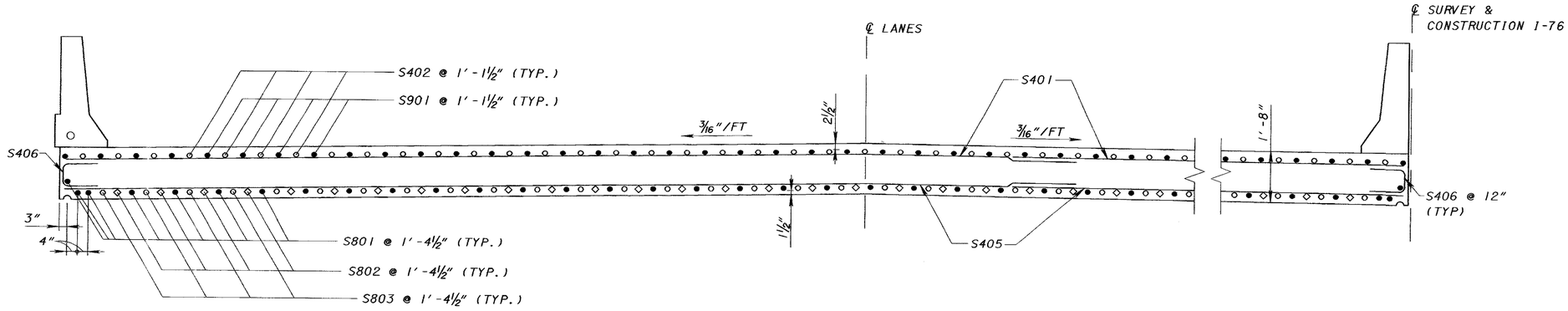
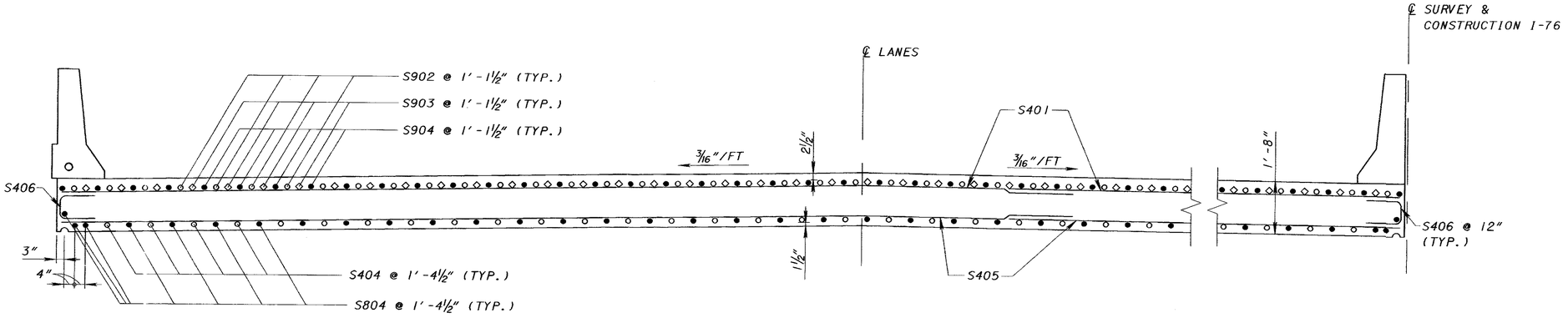
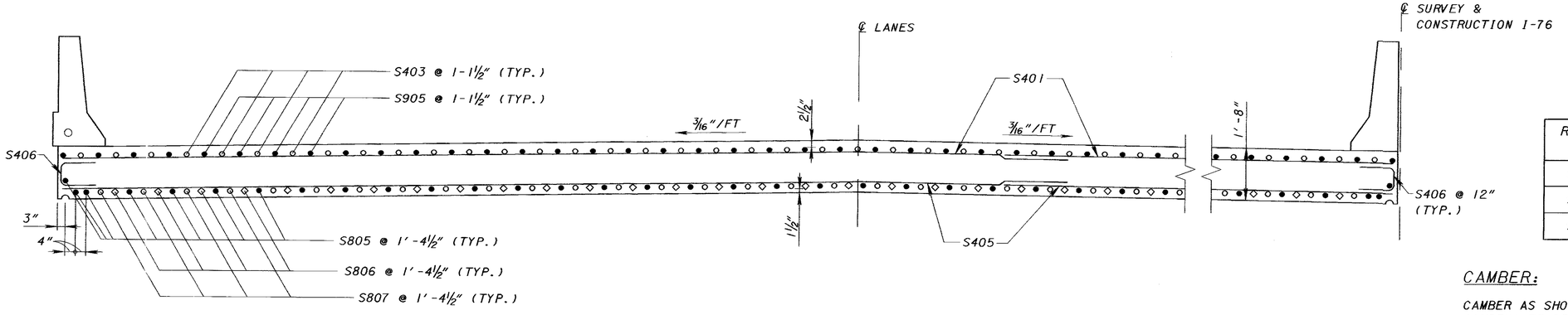


SECTION B-B



SECTION C-C



SECTION D-D

REQUIRED DEAD LOAD CAMBER AT MID SPAN	
SPAN 1	½"
SPAN 2	½"
SPAN 3	½"

NOTE:

1. FOR ADDITIONAL DETAILS & NOTES SEE BRIDGE STD. DWG. CS-1-93.

CAMBER:

CAMBER AS SHOWN IN THE TABLE SHALL BE PROVIDED TO COMPENSATE DEAD LOAD DEFLECTIONS IN ADDITION TO ANY CAMBER REQUIRED FOR CONFORMANCE WITH THE PROFILE OF THE HIGHWAY.

ALLOWANCE SHALL BE MADE FOR THE DEFLECTION OF ANY FALSE-WORK MEMBERS SUPPORTING THE ACTUAL CONCRETE PLACEMENT.

DESIGN AGENCY
THE OSBORN ENGINEERING CO
CLEVELAND, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
SMG	SMG	GTA, WAD	10/18/02
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCK		6702465L, 6702554R	

SLAB DETAILS
BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

19/21

169/187

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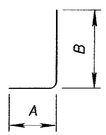
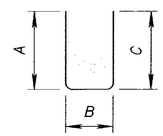
MARK	NUMBER REAR	NUMBER FWD	LENGTH	WEIGHT (REAR)	WEIGHT (FWD)	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
ABUTMENTS													
D801	82	82	5'-6"	1204	1204	18	3'-4"	1'-0"	1'-0"				
A401	12	12	10'-11"	88	88	3	3'-6"	1'-9"					
A501	8	8	17'-9"	148	148	STR							
A502	16	16	32'-4"	540	540	STR							
A503	NOT	USED											
A504	43		5'-0"	224		2	1'-8"	2'-0"	1'-8"				
A505	72	72	8'-3"	620	620	2	2'-6"	3'-6"	2'-6"				
A506	43	43	4'-0"	179	179	2	1'-2"	2'-0"	1'-2"				
A507	36	79	7'-1"	266	584	2	2'-5"	2'-0"	2'-5"				
A508	8	8	11'-3"	94	94	STR							
A509	10	10	12'-6"	130	130	STR							
A510	4	2	4'-8"	19	10	STR							
A511	4	2	3'-6"	15	7	STR							
A512	4	4	23'-8"	99	99	STR							
A513		2	7'-4"		15	STR							
A514		2	3'-3"		7	STR							
A601	8	8	17'-9"	213	213	STR							
A602	36	36	7'-2"	388	388	1	10"	6'-6"					
A603	64		3'-3"	312		STR							
A604	36	36	6'-4"	342	342	1	10"	5'-8"					
A605	64	64	2'-7"	248	248	STR							
A606		64	3'-10"		368	STR							
A607	4	4	8'-11"	54	54	19	6'-10"	1'-8"	1'-3"				
A608	4	4	2'-6"	15	15	STR							
A609	NOT	USED											
A610	2 SERIES OF 4		2'-0" / 4'-4"	38		STR							9 1/4"
A611	6	6	4'-9"	43	43	STR							
A612	8		5'-2"	62		1	3'-8"	1'-8"					
A613	8		3'-11"	47		1	1'-8"	2'-5"					
A614		2 SERIES OF 4	2'-0" / 4'-6"		39	STR							10"
A615		8	5'-8"		68	1	4'-2"	1'-8"					
A616		8	4'-6"		54	1	1'-8"	3'-0"					
A617	2 SERIES OF 4	2 SERIES OF 4	2'-1" / 3'-10"	36	36	STR							7"
A618	6	6	3'-11"	35	35	STR							
A619	8	8	3'-3"	39	39	1	1'-8"	1'-9"					
A620	8	8	4'-6"	54	54	1	3'-0"	1'-8"					
A621	24	24	5'-9"	207	207	STR							
A622	24	24	4'-11"	177	177	STR							
A623	NOT	USED											
A624	NOT	USED											
A625	NOT	USED											
A626	8	8	6'-0"	72	72	2	3'-2"	1'-2"	2'-0"				
A627	8	8	4'-8"	56	56	2	1'-7"	1'-10"	1'-7"				
A628	8	12	3'-8"	44	66	STR							
A629	4		3'-2"	19		STR							
A630	24	24	2'-9"	99	99	STR							
A801	8	8	40'-0"	854	854	STR							
A802	8	8	29'-0"	619	619	STR							
A803	8	8	17'-3"	368	368	STR							
TOTAL WEIGHT (REAR ABUTMENT) =				8069									
TOTAL WEIGHT (FWD. ABUTMENT) =					8241								

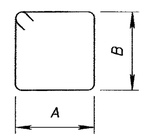
MARK	NUMBER PIER 1	NUMBER PIER 2	LENGTH	WEIGHT PIER 1	WEIGHT PIER 2	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
PIERS													
SP401	1		14'-11"	250		27	4 1/2"	2'-6"					
SP402	1		13'-5"	225		27	4 1/2"	2'-6"					
SP403	1		16'-5"	275		27	4 1/2"	2'-6"					
SP404		1	14'-2"		238	27	4 1/2"	2'-6"					
SP405		1	12'-9"		214	27	4 1/2"	2'-6"					
SP406		1	15'-9"		264	27	4 1/2"	2'-6"					
P501	59	59	7'-10"	482	482	17	6'-8"						
P502	30	30	8'-5"	263	263	2	3'-0"	2'-8"	3'-0"				
P503	15	15	13'-1"	205	205	6	2'-8"	4'-8"	10"				
P504	10	10	14'-11"	156	156	6	2'-8"	5'-7"	10"				
P505	27	27	8'-5"	237	237	6	2'-8"	2'-4"	10"				
P506	48	48	2'-2"	108	108	1	10"	1'-6"					
P507	27	27	3'-7"	101	101	2	7"	2'-8"	7"				
P508	6	6	23'-1"	144	144	STR							
P509	8	8	22'-0"	184	184	STR							
P510	8	8	17'-11"	149	149	STR							
P511	2	2	15'-5"	32	32	6	2'-8"	5'-10"	10"				
P512	3	3	17'-5"	54	54	6	2'-8"	6'-10"	10"				
P601	NOT	USED											
P602	NOT	USED											
P603	NOT	USED											
P604	7	7	6'-0"	63	63	1	3'-0"	3'-2"					
P605	20	20	2'-6"	75	75	STR							
P606	10	10	23'-9"	357	357	1	7"	23'-4"					
P901	18	18	24'-6"	1499	1499	17	22'-0"						
P902	12		18'-7"	758		STR							
P903	12		16'-3"	663		STR							
P904	12		19'-3"	785		STR							
P905	36	36	10'-3"	1255	1255	1	1'-7"	8'-11"					
P906	18	18	12'-6"	765	765	17	10'-0"						
P907	7	7	20'-6"	488	488	1	3'-10"	17'-0"					
P908	7	7	33'-1"	787	787	29	8'-8"	2'-4"	2'-4"	18'-6"	3'-0"		
P909	7	7	20'-10"	496	496	28	11'-8"	2'-11"	6'-0"	1'-5"			
P910	7	7	21'-6"	512	512	STR							
P911		12	17'-11"		731	STR							
P912		12	15'-7"		636	STR							
P913		12	18'-7"		758	STR							
TOTAL WEIGHT (PIER 1) =				11370									
TOTAL WEIGHT (PIER 2) =					11254								



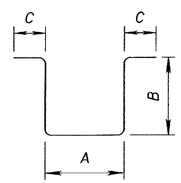
TYPE-1



TYPE-2

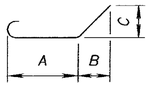


TYPE-3



TYPE-6

TYPE-17



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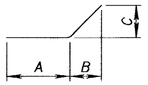
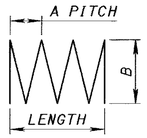
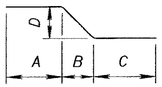


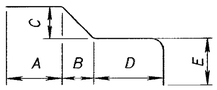
TYPE-19



TYPE-27



TYPE-28



TYPE-29

NOTE:

1. FOR NOTES SEE SHEET 21/21.

DESIGN AGENCY: THE OSBORN ENGINEERING CO, CLEVELAND, OHIO

REVIEWED: GTA, WAD — DATE: 10/18/02

STRUCTURE FILE NUMBER: 6702465L, 6702554R

DRAWN: SMG — REVISED:

DESIGNED: SMG — CHECKED: BCK

REINFORCING SCHEDULE

BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

POR-76-9.50

20/21

170/187

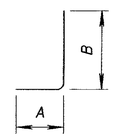
po076rlK.dgn

MARK	NUMBER WB	NUMBER EB	LENGTH	WEIGHT (WB)	WEIGHT (EB)	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
SUPERSTRUCTURE													
S401	212	212	32'-0"	4532	4532	STR							
S402	112	112	25'-1"	1877	1877	STR							
S403	56	56	27'-0"	1010	1010	STR							
S404	90	90	18'-0"	1082	1082	STR							
S405	358	358	32'-0"	7653	7653	STR							
S406	212	212	3'-6"	496	496	2	1'-3"	1'-2"	1'-3"				
S501	4	4	16'-0"	67	67	STR							
S801	98	98	25'-10"	6760	6760	16	24'-11"						
S802	90	90	26'-11"	6468	6468	16	26'-0"						
S803	90	90	24'-1"	5787	5787	16	23'-2"						
S804	98	98	21'-6"	5626	5626	STR							
S805	49	49	23'-10"	3118	3118	STR							
S806	45	45	30'-4"	3645	3645	STR							
S807	45	45	25'-3"	3034	3034	STR							
S901	112	112	28'-7"	10885	10885	STR							
S902	112	112	18'-6"	7045	7045	STR							
S903	112	112	22'-3"	8473	8473	STR							
S904	112	112	21'-6"	8187	8187	STR							
S905	56	56	32'-5"	6172	6172	STR							
	TOTAL WEIGHT (WB) =			91914									
	TOTAL WEIGHT (EB) =				91914								

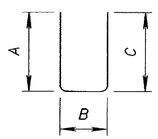
MARK	NUMBER WB	NUMBER EB	LENGTH	WEIGHT (WB)	WEIGHT (EB)	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
PARAPET													
X501	8	8	10'-0"	83	83	STR							
X502	4	4	5'-8"	24	24	25	1'-10"	2'-5"	1'-4¼"	1½"	5"		
X503	4	4	5'-8"	24	24	STR							
X504	8	8	14'-8"	122	122	STR							
X505	4	4	3'-0"	13	13	STR							
X506	24	24	40'-0"	1001	1001	STR							
X507	12	12	30'-2"	378	378	STR							
X601	2	2	3'-0"	9	9	19	2'-3"	10"	¾"				
X602	4	4	40'-0"	240	240	STR							
X603	2	2	31'-2"	94	94	STR							
Y501	214	214	7'-1"	1581	1581	23	8"	3'-3"	3'-0"			1½"	
Y502	2	2	3'-10"	8	8	16	3'-3"						
Y503	2	2	3'-9"	8	8	16	3'-2"						
Y504	2	2	3'-8"	8	8	16	3'-1"						
Y505	2	2	3'-7"	7	7	16	3'-0"						
Y506	2	2	3'-6"	7	7	16	2'-11"						
Y507	2	2	3'-5"	7	7	16	2'-10"						
Y508	2	2	3'-4"	7	7	16	2'-9"						
Y509	2	2	3'-3"	7	7	16	2'-8"						
Y510	2	2	3'-2"	7	7	16	2'-7"						
Y511	2	2	3'-1"	6	6	16	2'-6"						
Y512	2	2	3'-0"	6	6	16	2'-5"						
Y601	212	212	3'-10"	1221	1221	14	10½"	1'-8½""	8½"	6"	9"		
Y602	24	24	3'-8"	132	132	13	2'-3"	8½"	6"	8"			
Y603	22	22	4'-6"	149	149	STR							
Y604	212	212	3'-11"	1247	1247	1	11"	3'-2"					
Y605	2	2	2'-10"	9	9	STR							
Y606	NOT USED												
Y607	16	16	2'-4"	56	56	STR							

NOTES:

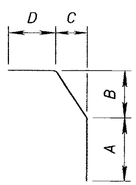
1. ALL REINFORCING SHALL BE EPOXY COATED.
2. ALL BAR DIMENSIONS ARE OUT TO OUT UNLESS OTHERWISE NOTED.
3. ALL BARS OF A GIVEN SERIES VARY BY A CONSTANT AMOUNT.
4. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE: A501 IS A NO. 5 BAR.
5. A = ABUTMENT
   P = PIERS
   S = SUPERSTRUCTURE
   X, Y = PARAPETS
6. SPIRAL REINFORCEMENT: THE LENGTH SHOWN IN THE REINFORCING SCHEDULE FOR THE SPIRAL BARS IS THE DISTANCE FROM THE FOOTING TO THE BOTTOM LAYER OF PIER CAP REINFORCING. FOUR STEEL CHANNELS, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LBS. PER FOOT OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS BASED ON 0.80 LBS PER FOOT WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED SPIRAL WEIGHT.
7. CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 10 FEET) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE SHAFT. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 3 INCH CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORTS) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.



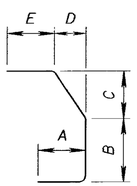
TYPE-1



TYPE-2

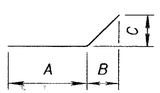


TYPE-13

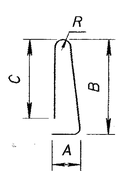


TYPE-14

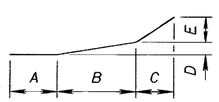
TYPE-16



TYPE-19



TYPE-23



TYPE-25

DESIGN AGENCY: THE OSBORN ENGINEERING CO CLEVELAND, OHIO

DATE: REVIEWED GTA, WAD 10/18/02

STRUCTURE FILE NUMBER: 6702465L, 6702554R

DRAWN: SMG REVISED

DESIGNED: SMG CHECKED: BCK

REINFORCING SCHEDULE

BRIDGE NO. POR-076-1006 L & R
OVER HATTRICK ROAD

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21 / 21

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