CIP - 43 - 89 - 17	OHIO FHWA REGION 5	1/30

OHIO TURNPIKE COMMISSION

JAMES W. SHOCKNESSY OHIO TURNPIKE

CONTRACT CIP-43-89-17

PART I

DECK REPLACEMENT

NORTHWEST ROAD OVER OHIO TURNPIKE - M.P.106.1

SANDUSKY COUNTY, OHIO

DEYO ROAD OVER OHIO TURNPIKE - M.P.107.5

ERIE COUNTY, OHIO

ORIGINAL CONTRACT C-34

NOTE:

THIS CONTRACT IS COMBINED WITH CONTRACT FTP: 43-89-18 & CIP: 43-89-17 (PART 2) TO FORM A SINGLE CONSTRUCTION CONTRACT

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LOCATION MAP

0 1 2 3 4 5 6

SCALE IN MILES

UNDERGROUND UTILITIES
48 HOURS
BEFORE YOU DIG
Call 800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE
NON - MEMBERS MUST BE CALLED DIRECTLY

APPROVED FOR THE OHIO TURNPIKE COMMISSION

BY L. Allan Plain
CHIEF ENGINEER

2-13-89
DATE

REVISED 1-25-90 AS CONSTRUCTED

THE INFORMATION SHOWN HEREON IS INTENDED TO BE COMPLETE AND CORRECT. HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
BP-2	1-11-85	F-1	11-10-83	GR-1	1-11-85	MG-1	7-26-76
BP-3	12-6-76			GR-2B	2-5-82		
BP-5	1-11-85			GR-3	1-21-85		
BP-7	10-1-87			GR-4	2-5-82		

SUPPLEMENTAL PRINTS OF STANDARD BRIDGE DRAWINGS		
BR-1	5-29-79	

Burgess & Niple, Limited
Engineers and Architects

STATE OF OHIO WILLIAM ALLAN CARLSON E-43334 REGISTERED PROFESSIONAL ENGINEER

FOR APPROACH SLAB DETAILS, SEE SHEET 9

NORTHWEST ROAD

EXISTING TYPICAL SECTION

DEYO ROAD

EXISTING TYPICAL SECTION

NORTHWEST ROAD & DEYO ROAD

PROPOSED TYPICAL SECTION
SCALE . 1/4" = 1'-0"

①	404	1¼" ASPHALT CONCRETE, AC-20.	⑥	606 606	GUARDRAIL, TYPE 5 OR GUARDRAIL REBUILT, TYPE 5
②	402	1¾" ASPHALT BASE, AC-20	⑦	609	CONCRETE CURB, TYPE 6
③	301	3" BITUMINOUS AGGREGATE BASE	⑧	408	PRIME COAT (0.35 GAL./SY)
④	SP-310	VARIABLE DEPTH SUBBASE, 6" MINIMUM.			
⑤	SP 310	4" SUBBASE FOR SHOULDERS			

NORTHWEST ROAD & DEYO ROAD

PROPOSED TYPICAL SECTION
FOR RESURFACING
SCALE 1/4" = 1'-0"

①	404	1¼" ASPHALT CONCRETE, AC-20	④	617	AGGREGATE BASE
②	403	ASPHALT BASE, AC-20 (VARIABLE DEPTH, 1" MIN.)	⑤	606 606	GUARDRAIL, TYPE 5 OR GUARDRAIL REBUILT, TYPE 5
③	407	TACK COAT (0.06 GAL./YD.)			

REVISED 1-25-90 AS CONSTRUCTED

THE INFORMATION SHOWN HEREON IS INTENDED TO BE COMPLETE AND CORRECT, HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING.

Burgess & Niple, Limited
Engineers and Architects

2/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

TYPICAL ROADWAY SECTIONS
NORTHWEST AND DEYO
ROADS OVER THE OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TJH			WAC		

GENERAL NOTES

PROPOSED WORK

THE BRIDGES CARRYING NORTHWEST ROAD AND DEYO ROAD TRAFFIC OVER THE TURNPIKE SHALL BE REHABILITATED UNDER THIS CONTRACT. MAJOR WORK TO BE PERFORMED CONSISTS OF:

NORTHWEST ROAD AND DEYO ROAD BRIDGES OVER THE OHIO TURNPIKE

1. REPLACE EXISTING BRIDGE DECKS, PARAPETS, DECK JOINTS, AND ABUTMENT SLABS WITH NEW DECKS, PARAPETS WITH FENCE WHERE SHOWN, SEALED DECK JOINTS AND ABUTMENT SLABS.
2. MAKE THE DECKS COMPOSITE BY ADDING SHEAR STUD CONNECTORS.
3. MAKE REPAIRS TO THE CONCRETE PIERS AND ABUTMENTS.
4. PROVIDE NEW APPROACH SLABS AND PAVEMENT WITH CATCH BASINS.
5. PROVIDE CONCRETE BARRIER PROTECTION AT PIERS 1 AND 3.

LOCATION OF GUARDRAIL

THE LOCATIONS OF GUARDRAIL RUNS, AS SHOWN IN THESE PLANS, ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

WHERE GUARDRAIL IS REPLACED ON LOCAL ROADS, THE SHOULDER AREA SHALL BE GRADED AS SHOWN IN THE TYPICAL ROADWAY SECTION BEFORE INSTALLATION OF THE NEW GUARDRAIL.

CONDUIT END TREATMENT

IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE ROCK CHANNEL PROTECTION.

TEMPORARY FENCE

AT DESIGNATED BRIDGE APPROACHES, THE CONTRACTOR SHALL ERECT A TEMPORARY FENCE AT LOCATIONS DIRECTED BY THE ENGINEER. THE TEMPORARY FENCE WITH GATES SHALL BE AS PER THE SPECIAL PROVISION-607.

EXISTING FENCE

ANY EXISTING RIGHT-OF-WAY FENCE THAT IS REMOVED BY THE CONTRACTOR TO PERFORM ANY WORK ITEM, SHALL BE REBUILT BY THE CONTRACTOR TO EQUAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OHIO TURNPIKE COMMISSION.

PAINTING

THIS QUANTITY SHALL BE USED TO PERFORM PAINTING OF EXISTING STRUCTURAL STEEL DESCRIBED IN THE SPECIFICATIONS AS DIRECTED BY THE ENGINEER.

ITEM SP514- FIELD PAINTING OF EXISTING STRUCTURAL STEEL

EXPANSION BEARINGS

THIS ITEM SHALL BE USED TO REMOVE BEARINGS AND BEARING PLATES FROM THE PIER SEATS TO PERFORM CONCRETE PATCHING ON THE PIER SEATS. THE NUMBER OF BEARINGS TO BE REMOVED SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

ITEM SP524B - RESETTING EXPANSION BEARING DEVICES - 24 EACH

UTILITIES NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UTILITY FACILITY SHOWN ON THE PLANS.

THE OWNERS OF UNDERGROUND UTILITY FACILITIES SHALL, WITHIN FORTY-EIGHT HOURS, EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK, OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.

LITEL COMMUNICATIONS CORP. FIBER OPTIC CABLE

ADJACENT TO
THE MEDIAN SHOULDER OF THE WESTBOUND TURNPIKE LANES IS BURIED A FIBER OPTIC CABLE. EXTREME CARE MUST BE TAKEN BY THE CONTRACTOR TO PRESERVE AND PROTECT THIS DUCT DURING ALL PHASES OF CONSTRUCTION. ANY EXCAVATION IS THIS AREA FOR ANY REASON IS NOT TO BE PERFORMED WITHOUT LITEL FIRST LOCATING THE CABLE. AFTER THE CABLE HAS BEEN LOCATED BY LITEL, THE CONTRACTOR SHALL EXCAVATE TO WITHIN 12 INCHES OF THE CABLE DEPTH AS PROVIDED. LITEL REPRESENTATIVES WILL THEN HAND DIG TO EXPOSE THE CABLE.

LITEL CORPORATION SHALL BE NOTIFIED A MINIMUM OF TWO DAYS PRIOR TO ANY EXCAVATION OVER THEIR LINES AND/OR LOCATING THE CABLE.

*THE FOLLOWING SHALL BE CONTACTED FOR LOCATING THE CABLE:

JAYARAM BORAIAH
OFFICE: (419) 884-0400
HOME: (419) 756-6773

UTILITY OWNERSHIP

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT.

TELECOMMUNICATIONS: SEE NOTE *
(FIBER OPTIC CABLE)

ELECTRIC — OHIO EDISON COMPANY
2502 WEST PERKINS AVENUE
SANDUSKY, OHIO 44870

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THE PROJECT.

REVISED 1-28-90 AS CONSTRUCTED
THE INFORMATION SHOWN HEREON IS INTENDED TO BE COMPLETE AND CORRECT, HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

Burgess & Niple, Limited
Engineers and Architects
3/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

GENERAL NOTES

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
R.M.H.			W.A.C.		

B&N RE 4139-7135

CALC BY	DATE	CHKD BY	DATE
T.J.M.	1-12-89	K.M.H.	1-12-89

CIP - 43 - 89 - 17
PART 1

OHIO
FHWA REGION 5

GENERAL SUMMARY

ITEM	SHEET NUMBER 5	7		12							ITEM	EXT	TOTAL	UNIT	DESCRIPTION
103.05											103.05		LUMP	SUM	PREMIUM FOR PERFORMANCE BOND AND PAYMENT BOND
202	1149	1563									202		2712	L.F.	GUARDRAIL REMOVED
202	1040	125									202		1165	L.F.	GUARDRAIL REMOVED FOR REUSE
202	4	4									202		8	EACH	INLET REMOVED & PLUG PIPE
202	6	6									202		12	S.Y.	WEARING COURSE REMOVED
203	94	102									203		196	C.Y.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
203	230	228									203		458	S.Y.	SUBGRADE COMPACTION
301	12	12									301		24	C.Y.	BITUMINOUS AGGREGATE BASE
SP304	8	8									SP304		16	C.Y.	AGGREGATE BASE
SP310	38	36									SP310		74	C.Y.	SUBBASE, TYPE I, GRADING A
402	10	10									402		20	C.Y.	ASPHALT CONCRETE, AC-20
403	4	2									403		6	C.Y.	ASPHALT CONCRETE, AC-20
404	9	8									404		17	C.Y.	ASPHALT CONCRETE, AC-20
407	4	3									407		7	GAL.	TACK COAT
408	48	46									408		94	GAL.	PRIME COAT
601	2	2									601		4	C.Y.	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER
603	54	54									603		108	L.F.	12" CONDUIT, TYPE B, 706.02
603	104	99									603		203	L.F.	12" CONDUIT, TYPE F, 707.01 (EXCEPT GALVANIZED) OR 707.05 TYPE C WITHOUT PAVED INVERT
SP604	4	4									SP604		8	EACH	CATCH BASIN

ITEM	SHEET NUMBER 5	7		12							ITEM	EXT	TOTAL	UNIT	DESCRIPTION
606	962.5	362.5									606		2325	L.F.	GUARDRAIL TYPE 5
606	6	4									606		10	EACH	ANCHOR ASSEMBLY, TYPE A
606	6	6									606		12	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE A
606	862.5										606		862.5	L.F.	GUARDRAIL REBUILT, TYPE 5
SP606	125	125									SP606		250	L.F.	GUARDRAIL REBUILT, TYPE 5
SP607	595	565									SP607		1160	L.F.	TEMPORARY FENCE (7'-0" CHAIN LINK WITH SPECIALS INCLUDING BARBED WIRE)
SP607	2	2									SP607		4	EACH	TEMPORARY GATE (14'-0")
609	82	80									609		162	L.F.	CONCRETE CURB, STANDARD TYPE 6
SP611	97.8	96.6									SP611		195	S.Y.	CLASS S CONCRETE, APPROACH SLAB, USING SHRINKAGE COMPENSATING CEMENT (T = 10")
SP614				LUMP							SP614		LUMP	SUM	MAINTAINING TRAFFIC
617	3	2									617		5	CY.	COMPACTED AGGREGATE, TYPE A
SP619											SP619		LUMP	SUM	FIELD OFFICE
622	91	103									622		194	L.F.	CONCRETE BARRIER, TYPE D, MODIFIED
SP623											SP623		LUMP	SUM	CONSTRUCTION LAYOUT SURVEY
624											624		LUMP	SUM	MOBILIZATION

STRUCTURES OVER 20'

BRIDGE : NORTHWEST ROAD OVER OHIO TURNPIKE
SEE SHEET 14
BRIDGE . DEYO ROAD OVER OHIO TURNPIKE
SEE SHEET 21

REVISED 1-25-90 AS CONSTRUCTED

THE INFORMATION SHOWN HEREON IS BELIEVED TO BE COMPLETE AND CORRECT. HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

CIP - 43 - 89 - 17

OHIO | FHWA REGION 5 | 7/30

REVISED 1-[illegible] AS CONSTRUCTED

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FULL DEPTH PAVEMENT REMOVAL (PAID UNDER ITEM 203)

APPROACH SLAB TO BE 28'-10" WIDE (R/B CURBS) AND EDGES PARALLEL TO ℄ OF ROAD.

SEE SHEET 8 FOR CATCH BASIN PROFILES

4'x 4'x 18" ROCK CHANNEL PROTECTION, TYPE C W/O FILTER

BUTT JOINT

REFERENCES	SH.NO.
REINFORCED CONCRETE APPROACH SLAB	9
CATCH BASIN DETAILS	10
CONCRETE BARRIER PLAN & DETAIL	11

REF. NUMBER	STATION FROM	STATION TO	ITEM SIDE	202 CULVERTS REMOVED L.F.	202 CONDUITS, TIE BOLTS, NUTS, & WASHERS REMOVED L.F.	202 ASPHALT CONCRETE PAVEMENT REMOVED S.Y.	202 PORTLAND CEMENT CONCRETE PAVEMENT REMOVED S.Y.	203 EXCAVATION MOV. INCLUDING EMBANKMENT WITHIN LIMITS OF ASPH. CONC. BASE C.Y.	301 ASPHALT CONC. BASE C.Y.	SP304 ASPHALT CONC. BASE C.Y.	SP319 SHOULDER C.Y.	402 ASPHALT CONCRETE AC-20 C.Y.	403 ASPHALT CONCRETE AC-20 C.Y.	404 ASPHALT CONCRETE AC-20 C.Y.	407 TACK COAT GAL.	408 PRIME COAT GAL.	601 BRACKETING OR SURFACE RESTORATION WITHOUT FILTER MATL. C.Y.	603 CONDUIT + TYPE 12" L.F.	603 CONDUIT + TYPE 12" L.F.	SP604 CATCH BASIN	GUARDRAIL TYPE 3-S L.F.	606 BRIDGE TERMINAL ASSEMBLY TYPE A EA.	606 ANCHOR ASSEMBLY TYPE T EA.	SP608 GUARDRAIL TYPE 5 C.F.	SP607 TEMPORARY FENCE (T-2) CHAIN LINK WITH SPECIAL BRACE AND BARBED WIRE L.F.	SP607 TEMPORARY GATE (UF-2) EA.	609 CONCRETE CURB TYPE 6 L.F.	SP611 REINFORCED CONCRETE APPROACH SLABS WITH SPECIAL CURBS S.Y.	617 CONCRETE BARRIER TYPE 1 C.Y.	622 CONCRETE BARRIER TYPE 1D INSTALLED L.F.
1-G2	15+55	18+99.76	L.F.	358.36																315	1	1								
2-G2	21+85.87	24+80	L.F.	293.34																351	1	1								
3-G2	15+55	18+14.13	R.F.	258.46																325	1	1								
4-G2	21+80.15	24+80	R.F.	288.04																307.5	1	1								
1-D	18+70	18+85	L.F.		1											1	57		1											
2-D	18+70	21+30	L.F.		1			16								1	62		1											
3-D	18+70	18+85	R.F.		1												27		1											
4-D	21+14	21+30	R.F.		1												27		1											
1-E	17+95	18+84																												
2-E	21+20	22+45																						300	1					
																								285	1					
1-P	18+63	18+92.81				12	114	43	6		18	4		3		23										48	48.3			
2-P	21+80.31	22+90				8	114	43	6		18	4	2	3	3	23										40	48.3	2		
1-B	19+31			50	62.5	25				6		1																		
2-B	20+63			50	62.5	25				6		1									1								51	
																					1								52	
				1563	125	4	12	228	102	10 1/2	54	36	6	9 1/2	3	46	2	1/2	54	99	4	13	8	135	524	2	80	96.6	2	103
					50		12					36.27									1375						78.7	79.22		89

Burgess & Niple, Limited
Engineers and Architects

7/30

OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

ROADWAY PLAN AND QUANTITIES

DEVO ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TJH			WAC			

PLAN

APPROACH SLAB FOR SKEWED BRIDGE

GENERAL THIS DRAWING PROVIDES DESIGN AND GENERAL CONSTRUCTION DETAILS. THE PROJECT PLANS WILL SHOW SKEW, CURBS (IF ANY), ESTIMATED QUANTITY (SQ. YDS.), AND SPECIAL NOTES AND DETAILS, WHERE NECESSARY FOR CONDITIONS OTHER THAN THOSE INDICATED HEREON, THE APPROACH SLAB SHALL BE ADAPTED TO FIT THE ENDS OF THE BRIDGE AND THE APPROACH PAVEMENT.

DESIGN DATA

CONCRETE - CLASS S USING SHRINKAGE COMPENSATING CEMENT
REINFORCING STEEL A.S.T.M. A615, A616 OR A617 - GRADE 60 MIN. YIELD STRENGTH 60,000 P.S.I.

PREFORMED EXPANSION JOINT FILLER AND SEALER AT THE CORNERS AND SIDES OF THE APPROACH SLAB SHALL BE INCLUDED IN THE PRICE BID PER SQ. YARD FOR THE APPROACH SLAB.

GROOVE AND JOINT SEAL SHOWN AT THE BRIDGE LIMIT END OF THE APPROACH SLAB SHALL BE INCLUDED IN THE PRICE BID PER SQ YARD FOR THE APPROACH SLAB.

TYPE A WATERPROOFING SHOWN AT THE ABUTMENT SLAB SHALL BE INCLUDED IN THE PRICE BID PER SQ YARD FOR THE APPROACH SLAB.

LONGITUDINAL CONSTRUCTION JOINTS REQUIRED FOR STAGE CONSTRUCTION SHALL BE AS PER 511.09.

CURBS, BRIDGES WITH SIDEWALKS: FOR BRIDGES CONSTRUCTED WITH RAISED SIDEWALKS, DEFLECTOR PARAPETS OR OTHER TYPES OF CONSTRUCTION WHICH RETAIN ROADWAY SURFACE DRAINAGE, THE APPROACH SLABS SHALL EITHER INCLUDE INTEGRAL CURBS OR BE CONSTRUCTED IN CONJUNCTION WITH BRIDGE CURBS. CURB HEIGHT SHALL BE TRANSITIONED UNIFORMLY BETWEEN BRIDGE CURB HEIGHT AND APPROACH CURB HEIGHT IN LENGTH AS FOLLOWS: WHERE WINGWALL EXTENDS BEYOND END OF APPROACH SLAB, USE A MINIMUM LENGTH OF 10 FT BEYOND END OF WINGWALL. WHERE THE APPROACH SLAB EXTENDS BEYOND THE END OF WINGWALL, TRANSITION IN THIS LENGTH. HOWEVER, THE TRANSITION LENGTH SHALL NOT BE LESS THAN 10 FT AND THE TRANSITION SHALL EXTEND BEYOND THE END OF THE APPROACH SLAB IF NECESSARY. CURB PLACEMENT SHALL BE IN ACCORDANCE WITH O.D.O.T. STANDARD CONSTRUCTION DRAWING BR-1.

APPROACH SLAB WIDTH APPROACH SLAB FOR 38'-6" BRIDGE WIDTH SHALL BE 39'-0" WIDE WHEN CURBS ARE NOT INCLUDED; 39'-3" WHEN CURB IS INCLUDED ON ONE SIDE ONLY; 39'-6" WHEN CURBS ARE INCLUDED ON BOTH SIDES.

CROWN SHALL CONFORM TO THAT OF THE APPROACH PAVEMENT AND BRIDGE DECK. IF THE RATE OF CROWN OF THE BRIDGE DECK DIFFERS FROM THAT OF THE APPROACH PAVEMENT, A SMOOTH TRANSITION SHALL BE PROVIDED WITHIN THE LIMITS OF THE APPROACH SLAB.

TRANSVERSE JOINT DETAILS AT THE APPROACH PAVEMENT END OF THE APPROACH SLAB SHALL BE EITHER TYPE 'K' OR 'H' AS DETAILED ON THE PLANS. PAYMENT FOR THE TRANSVERSE JOINT SHALL BE AT THE UNIT PRICE BID PER LIN. FT. FOR THE JOINT FURNISHED.

ITEM 310 SUBBASE, TYPE I GRADING "A" SHALL BE PROVIDED UNDER ALL APPROACH SLABS.

SECTION A-A

NOTE 1: GROOVE AND SEAL AS PER O.D.O.T. STD. CONST. DWG. BP-3.

NOTE 2: TYPE A WATERPROOFING SHALL NOT EXTEND ABOVE THE BOTTOM OF THE GROOVE INTO WHICH THE JOINT SEALER IS TO BE PLACED. IT SHALL BE APPLIED TO THE ENTIRE AREA OF THE ABUTMENT OR SUPERSTRUCTURE WHICH COMES INTO CONTACT WITH THE APPROACH SLAB.

NOTE 3: REPAIR OF BROKEN APPROACH SLAB SEAT SHALL BE CONSTRUCTED BY THE CONTRACTOR AS PER DETAIL OR AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE ON THE BASIS OF "DIRECT COSTS" PLUS 15% FOR OVERHEAD AND PROFIT. "DIRECT COSTS" SHALL BE DEFINED UNDER SECTION G-9.02(5) OF THE GENERAL CONDITIONS.

APPROACH SLAB SEAT REPAIR DETAIL

REVISED 1-25-90 AS CONSTRUCTED
THE INFORMATION SHOWN HEREON IS INTENDED TO BE CORRECT IN AND CONTRACT, HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

NO	REVISION	BY	DATE
2	ADDED IMPRESSED JOINT & CHANGED TYPE OF CEMENT	DFC	11-29-89
1	ADDED SEAT REPAIR DETAIL	DFC	10-2-89

OHIO TURNPIKE COMMISSION

REINFORCED CONCRETE APPROACH SLABS

DATE: OCTOBER 1983 | SCALE: N.T.S.
CIP: 43 - 89 - 17 (PART I) | SHEET 9 OF 30

GENERAL NOTES

DESIGN SPECIFICATIONS

THE PROPOSED REHABILITATION WORK FOR THESE STRUCTURES CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1983, INCLUDING THE 1984, 1985, 1986, 1987, AND 1988 INTERIM SPECIFICATIONS AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN LOADING - NORTHWEST ROAD AND DEVO ROAD
HS 20-44 WITH NO FUTURE WEARING SURFACE

DESIGN STRESSES

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4500 PSI FOR SUPERSTRUCTURE

REINFORCING STEEL - ASTM A615, 616, OR A617 - GRADE 60
MINIMUM YIELD STRENGTH 60,000 PSI

EXISTING STRUCTURAL STEEL - A7, UNIT STRESS 18,000 PSI

HIGH STRENGTH BOLTS - SHALL BE 1-INCH DIAMETER, ASTM A-325 UNLESS OTHERWISE NOTED.

DECK PROTECTION METHOD

THE PROPOSED METHOD FOR THE ABUTMENT SLABS AND SUPERSTRUCTURE DECK SLABS IS EPOXY COATED REINFORCING STEEL IN TOP AND BOTTOM MATS AND CONCRETE WEATHERPROOFING SEALER ON TOP SURFACE.

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGNED PURPOSES, TO BE 1/2" THICK.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR 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 SECTION 513.02 AND O.T.C. GENERAL CONDITIONS G-2.04 AND G-5.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRIOR EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD. THE STRUCTURAL STEEL DECK JOINTS SHALL NOT BE FABRICATED UNTIL THE ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

ANY ADDITIONAL COST RESULTING FROM VARIATIONS FROM PLAN DIMENSIONS IS THE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL PAYMENT OVER THE UNIT PRICE BID WILL BE AWARDED BY THE COMMISSION.

EXISTING STRUCTURE PLANS

THE ORIGINAL DESIGN PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE COMMISSION'S PRINCIPAL OFFICE, 682 PROSPECT STREET, BEREA, OHIO. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE DRAWINGS.

REPLACEMENT OF EXISTING REINFORCING STEEL

ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST.

ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW STEEL, WHICH SHALL BE PAID FOR AS ITEM SP824 EPOXY COATED REINFORCING STEEL, GRADE 60. AN ALLOWANCE IS INCLUDED IN ITEM SP824 FOR THIS PURPOSE.

DRILLING DOWEL HOLES, FURNISHING AND PLACING SP956 NONSHRINKING EPOXY MORTAR AND REINFORCING DOWEL BARS, WHERE NEEDED TO REPLACE EXISTING REINFORCEMENT DAMAGED BY THE CONTRACTOR, SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

CUTTING OR BENDING OF REINFORCING BARS

ANY CUTTING OR BENDING OF REINFORCING BARS NECESSARY TO ACCOMMODATE UTILITY OPENINGS OR ANY OTHER ESSENTIAL ELEMENT OF WORK RELATED TO THE PROJECT, SHALL BE INCLUDED IN THE PRICE BID PER POUND FOR "ITEM 824 - EPOXY COATED REINFORCING STEEL, GRADE 60," UNLESS OTHERWISE NOTED.

ABUTMENT BACKFILL

THE CONTRACTOR SHALL PROVIDE AND PLACE BACKFILL BETWEEN EXISTING WINGWALLS AS REQUIRED TO BRING THE FILL TO THE LEVEL OF THE PROPOSED SLAB PRIOR TO PLACING THE NEW DECK SLAB. INCLUDE WITH ITEM 503, ABUTMENT BACKFILL, AS PER 503.10 FOR PAYMENT.

CONCRETE WEATHERPROOFING

SHALL BE APPLIED TO THE FOLLOWING EXPOSED CONCRETE SURFACES OF THE BRIDGE:

- ALL SIDES OF PARAPETS ON ABUTMENTS AND SUPERSTRUCTURE.
- EDGES AND UNDERSIDE OF DECK OUTSIDE OF EXTERIOR FASCIA BEAMS.
- CONCRETE BRIDGE DECK WEARING SURFACE ON ABUTMENTS, SUPERSTRUCTURE AND APPROACH SLABS.
- NEW EXPOSED CONCRETE SURFACES OF ALL ABUTMENTS AND PIERS. SEALING SHALL NOT BE DONE UNTIL CONCRETE PATCHING REPAIRS HAVE BEEN COMPLETED AND CURED.

THE WORK SHALL PERFORMED PER ITEM SP536 - "CONCRETE WEATHERPROOFING."

CARE SHALL BE TAKEN NOT TO APPLY WEATHERPROOFING ON CONSTRUCTION JOINT SURFACES, SURFACES TO RECEIVE JOINT SEALER, AND FASCIA BEAM PAINT.

CONCRETE INSERT ASSEMBLIES,

AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1 AND GR-3, SHALL BE PROVIDED AT ALL PARAPET TERMINALS FOR ATTACHMENT OF GUARDRAIL TERMINAL CONNECTORS. INCLUDE WITH ITEM SP511 FOR PAYMENT.

REMOVING BEARING DEVICES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF AN ADEQUATE SUPPORT AND JACKING SYSTEM CAPABLE OF RAISING THE EXISTING BRIDGE BEAMS AND BEARING DEVICES.

THE CONTRACTOR WILL BE RESPONSIBLE FOR PROPERLY ARRANGING ALL TEMPORARY SUPPORTS SO AS NOT TO DAMAGE OR INDUCE OVERSTRESS IN ANY EXISTING BRIDGE MEMBERS AND DIAPHRAGMS. THE STRUCTURE SHALL NOT BE RAISED MORE THAN NECESSARY TO REPLACE THE BEARINGS.

THE CONTRACTOR SHALL SUBMIT DETAILS OF THE PROPOSED TEMPORARY SUPPORT AND JACKING SYSTEMS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE SUBMITTAL SHALL INDICATE MATERIALS, MEMBER SIZES, SPACING, SUPPORT LOCATIONS, JACKING POINTS, REACTIONS (I.E. LOADS), AND REMOVAL PROCEDURES.

PAYMENT FOR ALL LABOR AND EQUIPMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SP524B - RESETTING EXPANSION BEARING DEVICES.

BEARING RESETTING RESTRICTIONS

JACKING AND/OR TEMPORARY SUPPORTS SHALL BE LIMITED TO ONE (1) SUBSTRUCTURE UNIT AT ANY GIVEN TIME, E.G. JACKING AND/OR TEMPORARY SUPPORTS WILL NOT BE PERMITTED AT PIER 1 AND PIER 3 SIMULTANEOUSLY. ALL BEAMS, AT A GIVEN SUBSTRUCTURE UNIT SHALL BE RAISED SIMULTANEOUSLY, E.G. BEAM LINES 1, 2, 3, 4, & 5 SHALL BE RAISED SIMULTANEOUSLY WHEN REMOVING THE PIER BEARINGS. THE STRUCTURE SHALL NOT BE RAISED MORE THAN NECESSARY.

REMOVAL OF SCUPPER DRAINPIPE

THE CONTRACTOR SHALL REMOVE EXPOSED EXISTING SCUPPER DRAINPIPES, AND PLUG PORTION TO REMAIN AS PER DETAIL (SEE REMOVAL DETAILS SHEETS). PAYMENT FOR THIS WORK WILL BE INCLUDED IN ITEM SP202.

BRIDGE DECK ELEVATIONS, SLAB THICKNESS, AND APPROACH PROFILES

IN ORDER TO MEET ROADWAY GRADES, TO ASSURE THE CONSTRUCTION OF THE REQUIRED THICKNESS OF DECK SLABS AND TO ASSURE THE PROPER LOCATION OF THE REINFORCING STEEL IN THE DECK SLABS; THE CONTRACTOR SHALL OBTAIN THE ELEVATIONS OF THE TOP OF THE EXISTING STEEL BEAMS AFTER THE COMPLETE REMOVAL OF THE EXISTING DECK SLABS AT THE LOCATIONS SHOWN IN THE TABLES ON SHEET 17 OF 30 FOR THE FINAL PAVEMENT ELEVATIONS AT THE NORTHWEST ROAD BRIDGE AND ON SHEET 24 OF 30 FOR THE FINAL PAVEMENT ELEVATIONS AT THE DEVO ROAD BRIDGE. THE CONTRACTOR SHALL COMPUTE THE DECK SCREED ELEVATIONS UTILIZING THE DEAD LOAD DEFLECTIONS. THEN THE CONTRACTOR SHALL CALCULATE THE DECK THICKNESS OVER THE BEAMS USING THE DECK SCREED ELEVATIONS AND THE TOP OF BEAM ELEVATIONS. IF THE COMPUTED DECK THICKNESS IS FOUND TO BE LESS THAN THE MINIMUM THICKNESS REQUIRED, THE FINAL PAVEMENT ELEVATIONS SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER.

THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED UPON 8-1/2" THICK CONCRETE OUTSIDE THE HAUNCH AREAS, AND THE AVERAGE THICKNESS OF CONCRETE PLACED OVER THE EXISTING BEAMS AT THE HAUNCHES. A TYPICAL HAUNCH WIDTH OF 9" SHALL BE USED FOR COMPUTING THE QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6" AND 12", PROVIDED THAT THE SLOPE SHALL NOT BE MORE THAN 1:4 FOR A HAUNCH LESS THAN 9" IN WIDTH.

PLACEMENT OF THE ABUTMENT SLAB PRIOR TO THE DECK SLAB WILL NOT BE PERMITTED. HOWEVER, THE ABUTMENT SLAB AND THE DECK SLAB MAY BE POURED AT THE SAME TIME. UPON THE COMPLETION OF THESE POURS AND PRIOR TO POURING THE CONCRETE APPROACH SLABS, THE ENGINEER WILL PROVIDE THE CONTRACTOR WITH FINISH GRADES AND ELEVATIONS REQUIRED TO PROVIDE A SMOOTH TRANSITION FROM THE ASPHALT ROADWAY AND CONCRETE APPROACH SLABS TO THE CONCRETE ABUTMENT AND DECK SLABS.

PRIOR TO REMOVAL OF THE EXISTING ASPHALT PAVEMENT, AS SHOWN ON PLAN SHEETS 5 OF 30 AND 7 OF 30, THE CONTRACTOR SHALL PROVIDE THE ENGINEER ELEVATIONS OF THE EXISTING PAVEMENT SURFACE ALONG THE CENTERLINE AND BOTH EDGES OF PAVEMENT AT INTERVALS OF 25 FEET. ELEVATIONS OF THE EXISTING ASPHALT, AT 25 FOOT INTERVALS, FOR A DISTANCE OF 100 FEET BEYOND THE PAVING LIMITS AND AS-BUILT ELEVATIONS OF THE ABUTMENT AND DECK SLABS SHALL ALSO BE PROVIDED. AFTER RECEIPT OF THESE ELEVATIONS THE ENGINEER WILL CALCULATE AND PROVIDE TO THE CONTRACTOR FINAL ELEVATIONS FOR THE CONCRETE

APPROACH SLABS AND FOR BOTH ITEM 402, ASPHALT CONCRETE BASE COURSE AND ITEM 404, ASPHALT CONCRETE SURFACE COURSE. NO APPROACH SLABS SHALL BE POURED NOR SHALL ASPHALT PAVING COMMENCE UNTIL RECEIPT OF THESE FINAL ELEVATIONS.

PAYMENT FOR THE ABOVE MENTIONED WORK SHALL BE INCLUDED WITH THE LUMP SUM PRICE BID FOR ITEM SP623.

BARRIER DEFLECTION JOINT

THE DEFLECTION JOINTS IN THE BARRIER CURB MAY BE EITHER 1/4" GRAY SPONGE RUBBER OR 1/4" GRAY CELLULAR POLYVINYL CHLORIDE (PVC) SPONGE. EITHER MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M-153, TYPE II, EXCEPT THE DENSITY OF THE PVC SPONGE SHALL NOT BE LESS THAN 20 LBS. PER CU. FT.

INCLUDE WITH ITEM SP511B, LIGHTWEIGHT CONCRETE, SUPERSTRUCTURE, FOR PAYMENT.

EPOXY COATED REINFORCING STEEL SUPPORT

IN ACCORDANCE WITH THE REQUIREMENTS OF SP 824 AND 509.09, THE TOP AND BOTTOM MATS OF ALL LONGITUDINAL AND TRANSVERSE EPOXY COATED REINFORCING STEEL SHALL BE SUPPORTED BY APPROVED EPOXY COATED DEVICES WITH SPACING NOT EXCEEDING 3'-0" CENTERS IN EACH DIRECTION. BROKEN CONCRETE, BRICKS, ETC. SHALL NOT BE USED FOR SUPPORT OF EPOXY COATED REINFORCING STEEL.

WELDED ATTACHMENTS

WELDED ATTACHMENTS FOR SUPPORTS OF CONCRETE DECK FINISHING MACHINE OR ANY OTHER PURPOSE IS PROHIBITED. ONLY THOSE WELDS SHOWN ON THE PLANS FOR ATTACHMENT OF SHEAR STUD CONNECTORS SHALL BE PERMITTED.

EPOXY BONDING COMPOUND (SP526)

EPOXY BONDING COMPOUND SHALL BE PLACED ON THE SURFACE OF EXISTING CONCRETE WHICH WILL BE IN CONTACT WITH NEW CONCRETE. THE PRICE SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE PERTINENT CONCRETE ITEMS.

REINFORCING STEEL COVER

ALL REINFORCING STEEL COVER SHALL BE 2" UNLESS OTHERWISE NOTED.

CHAMFER

ALL CONCRETE CORNERS TO MATCH EXISTING OR CHAMFER CORNERS TO 1".

STRUCTURE REMOVAL

EACH OF THE SCUPPERS ARE ATTACHED TO THE BRIDGE BY BOLTS THROUGH THE TOP FLANGES OF THE BEAMS. THESE BOLTS MUST BE REMOVED BEFORE THE DECK CAN BE REMOVED TO AVOID DAMAGING THE BEAMS. THE CONTRACTOR SHALL SUBMIT DETAILS OF REMOVAL WITH DECK REMOVAL PLANS. REMOVAL OF THESE BOLTS WILL BE INCLUDED FOR PAYMENT IN ITEM SP202, PORTIONS OF STRUCTURE REMOVED. DAMAGE TO THE BEAMS, INCLUDING PAINT, SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE OHIO TURNPIKE COMMISSION.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE ESTIMATED QUANTITIES FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEERS DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

DIMENSIONS

DIMENSIONS GIVEN ARE MEASURED HORIZONTALLY AND AT 60 DEGREES FAHRENHEIT, UNLESS OTHERWISE NOTED.

REVISED 1-25-90 AS CONSTRUCTED
THE INFORMATION SHOWN HEREON IS INTENDED TO BE COMPLETE AND CORRECT. HOWEVER, ALL PERSONS THAT VERIFY INFORMATION TAKEN FROM THIS DRAWING

Burgess & Niple, Limited
Engineers and Architects

13/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

STRUCTURE
GENERAL NOTES

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
R.M.H.			W.A.C.		

CALC BY R.M.H. DATE 11-1-89	CIP 43-89-17 PART 1	OHIO FHWA REGION 5	21/30
CHKD BY W.A.C. DATE 11-1-89			

GENERAL PLAN
N.T.S.

Anti-Climb Shield Located At Mid-Point Of End Span (Typ.)
209'-5 3/8"
8"
28'-2"
Exp. Jt.
131'-5 7/8" (Typ. Ea. Side)
Exp. Jt.
28'-2"
8"
8"
8

TRANSVERSE SECTION
THRU ABUTMENT SLAB

SECTION A

TYPICAL DECK CROSS SECTION

DRAIN PIPE CAP DETAIL
(Include With Item SP 202, Portions Of Structures Removed, For Payment.)

LONGITUDINAL SECTION
THRU ABUTMENT SLAB

SPLASH PLATES
AT EXPANSION PIERS
(Include With Item SP 202)

Denotes Areas To Be Removed.

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Engineers and Architects
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OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

REMOVAL DETAILS
DEVO ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RMH			WAC			

CIP - 43 - 89 - 17	OHIO	23/30
	FHWA REGION 5	

① Remove And Replace Indicated Concrete Bearing Pads With Item 511 Class "S" Concrete, Pier Cap Bearing Pads, As Per Plan. Removal Of Concrete Shall Be Per Item SP 516 Patching Concrete Structures, And Shall Be Included For Payment Item SP 202 Concrete And Reinforcing Steel For Bearing Pads Shall Conform To Item 519.02. Existing Reinforcing Ties And Dowels Shall Be Salvaged And Reused For The New Pads. New Bearing Pads Shall Be Replaced To Existing Plan Dimensions And Elevations.

PIER Nº1 (NORTH FACE)

NORTH ABUTMENT

SOUTH ABUTMENT

- Indicates Area Of Spalled Concrete

Cracks To Be Epoxy Injected As Per SP 516 A 12 L.F.

PIER Nº1 (SOUTH FACE)

PIER Nº2 (NORTH FACE)

* Includes Other Faces

Notes

Physical Inventory Of Measured Quantities Of Deterioration Was Performed In Oct. 1988.

Estimated Quantity Has Been Increased Over Measured Quantities To Allow For Additional Deterioration.

- Indicates Approximate Area To Be Patched Per Item SP 519 - Patching Concrete Structures. Exact Dimensions And Locations Of Patches Shall Be Determined By The Engineer In The Field For Final Pay Quantity.

Item 503 Unclassified Excavation As Per Plan, As A Contingency, 1 C.Y. Of Unclassified Excavation Has Been Included In The Estimated Quantities For Exposing And Subsequently Backfilling Portions Of Existing Columns & Abutments, Where Concrete Patching May Extend Below Grade, As Directed By The Engineer. All Applicable Provisions Of Item 503 Shall Apply, Except That The Method Of Measurement Shall Be To The Limits Shown On The Plan. The Cost For All Labor, Equipment, And Materials To Perform The Above Work Shall Be Included In The Cubic Yard Price Bid For Item 503 Unclassified Excavation As Per Plan.

PIER Nº3 (NORTH FACE)

PIER Nº3 (SOUTH FACE)

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EXCAVATION LIMITS FOR UNCLASSIFIED EXCAVATION AS PER PLAN

SUMMARY OF REPAIR QUANTITIES				
TYPE	LOCATION	UNIT	MEASURED QUANTITY	ESTIMATED QUANTITY
PATCHING	N. ABUTMENT	SF	5	10
	PIER Nº 1	SF	35	50
	PIER Nº 2	SF	2	10
	PIER Nº 3	SF	40	50
	S. ABUTMENT	SF	21	40
			Total	140
CRACK REPAIR	S. ABUTMENT	LF	11	20
			Total	20

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OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

REPAIR DETAILS

DEYO ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.M.H.			W.A.C.			

EXISTING FRAMING PLAN

N.T.S.

TRIMMING ENDS OF STRUCTURAL STEEL MEMBERS

1. ABUTMENTS: BEAMS AT THE FIXED BEARINGS AT NORTH AND SOUTH ABUTMENTS WITH GAPS BETWEEN THE BEAM ENDS AND THE BACKWALLL OF LESS THAN 1" SHALL BE TRIMMED AS DETERMINED IN THE FIELD BY THE ENGINEER.
2. PIER NO. 1 & NO. 3: BEAMS WHERE THE GAPS BETWEEN ENDS IS LESS THAN 1 7/8" AT 60°F. SHALL BE TRIMMED AS DETERMINED IN THE FIELD BY THE ENGINEER.
3. STRUCTURAL STEEL SHALL BE TRIMMED AFTER THE DECK CONCRETE HAS BEEN REMOVED.

Welded Attachments - Welded Attachments For Supports Of Concrete Deck Finishing Machine Or Any Other Purpose Is Prohibited. Only Those Welds Shown On The Plans For Attachment Of Shear Stud Connectors Shall Be Permitted.

RUST HOLE REPAIRS
GRINDING REPAIRS - (G)
WELDING REPAIRS - (W)

EXISTING BEAM ELEVATION

N. T. S.

NOTE.
WELDED STUD SHEAR CONNECTORS SHALL CONFORM TO A.A.S.H.T.O. M 169 AND SP 518. WELDED STUD SHEAR CONNECTORS SHALL BE MOVED TO AVOID INTERFERENCE WITH RIVET HEADS.

SHEAR STUD CONNECTOR DETAILS

N. T. S.

TYPICAL SPLICE AND COVER PLATE (EXISTING)

DEFLECTION DUE TO DECK DEAD LOAD**					
BEAMS	SPAN 1 & 4	SPAN 2 & 3			
	1/2 SPAN	1/4 SPAN	1/2 SPAN	SPLICE	
1 & 5	1/32"	5/16"	3/8"	1/8"	
2, 3 & 4	1/16"	5/16"	3/8"	1/8"	

**DEFLECTION DUE TO WEIGHT OF STEEL IS NOT INCLUDED

NOTE.
THE ELEVATIONS SHOWN ARE FINISHED PAVEMENT ELEVATIONS. BEFORE THE CONCRETE IS PLACED, PROPER ALLOWANCE SHALL BE MADE FOR THE DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF THE CONCRETE.

FINAL PAVEMENT ELEVATIONS (Top of deck)

BEAM	SPAN 1			SPAN 2				SPAN 3				SPAN 4		
	℄ BRG. N. ABUT.	1/2 SPAN	℄ PIER 1	1/4 SPAN	1/2 SPAN	℄ FIELD SPLICE	℄ PIER 2	℄ FIELD SPLICE	1/2 SPAN	3/4 SPAN	℄ PIER 3	1/2 SPAN	℄ BRG. S. ABUT.
K5	730.17	730.40	730.60	730.80	730.90	730.97	730.99	730.97	730.91	730.82	730.63	730.43	730.20
K4	730.21	730.50	730.69	730.90	731.00	731.06	731.08	731.06	731.00	730.91	730.70	730.51	730.24
K3	730.37	730.60	730.79	730.99	731.09	731.15	731.17	731.15	731.07	730.99	730.79	730.60	730.37
K2	730.39	730.51	730.70	730.91	731.00	731.06	731.08	731.06	731.00	730.90	730.69	730.50	730.27
K1	730.20	730.43	730.62	730.82	730.91	730.97	730.99	730.97	730.90	730.80	730.60	730.40	730.17

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Burgess & Niple, Limited
Engineers and Architects

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OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

FRAMING PLAN, DETAILS AND DECK ELEVATIONS
DEYO ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
T.J.H./R.M.H.			W.A.C.		

CIP - 43 - 89 - 17	OHIO FHWA REGION 5	25 / 30

PLAN

TRANSVERSE SECTION

N.T.S.

* Size Bridge Deck Elevations, Slab Thickness, And Approach Profiles Note On Sht. 13 Of 30.

** Long Leg On Bottom

SECTION A-A

N.T.S.

SECTION B-B

N.T.S.

SECTION C-C

SLAB DETAIL AT BEAM END (TYP.)

NO SCALE

NOTES

1. DRIP GROOVES SHALL TERMINATE 2'-0" FROM FACES OF ABUTMENT.
2. FOR ADDITIONAL RAILING DETAILS, SEE STANDARD DRAWING BR-1.
3. FOR JOINT DETAILS, SEE SHEET 28.
4. REINFORCING SPLICE LENGTHS SHALL BE 1'-8" FOR NO. 4 BARS AND 2'-0" FOR NO.5 BARS, UNLESS OTHERWISE SHOWN.
5. LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN THE DECK SLAB.
6. FOR ADDITIONAL FENCE DETAILS, SEE SHEET 30.

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bn INC.
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OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

DECK SLAB DETAIL & TRANSVERSE SECTION

DEVO ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.M.H.			W.A.C.			

BR-07/90 4-28-1-7.DGN

CIP-43-89-17

OHIO FHWA REGION 5

26/30

* Elevations Are Top Of Abutment Slab.

PLAN
N.T.S.

SECTION B-B

SECTION C-C

SECTION E-E

SECTION D-D

SECTION A-A

Notes

1. Drip Grooves Shall Terminate 2'-0" From Faces Of Abutment.
2. For Additional Railing Details, See Standard Drawing BR-1
3. For Joint Details, See Sheet 28
4. Reinforcing Splice Lengths Shall Be 2'-0" For No. 5 Bars.
5. Longitudinal Or Transverse Construction Joints Shall Not Be Permitted In The Deck Slab.

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OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

ABUTMENT SLAB DETAILS

DEYO ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.M.H.			W.A.C.			

CIP - 43 - 99 - 17

OHIO
FHWA REGION 5

27/30

Mark	No.	Length Inc.	Weight	Type	Dim. A Inc.	Dim. B Inc.	Dim. C Inc.	Bar Distribution Inc.	FRNG	REAR
ABUTMENTS										
EA401	24	29'-4"	470	1					12	12
EA402	60	10'-4"	414	1					30	30
EA501	24	29'-4"	734	1					12	12
EA502	32	8'-9"	292	1					16	16
EA504	8	5'-3"	44	26	2'-4"	2'-2"	7½		4	4
EA506	20	2'-8"	66	8	2'-1"				10	10
EA507	20	2'-7"	54	2	2'-1"	7"			10	10
EA508	32	4'-0"	134	1					16	16
EA510	12	2'-1"	32	8	2'-0"				6	6
EA511	12	2'-6"	31	2	2'-0"	7"			6	6
EA512	18	7'-6"	141	1					9	9
EA601	8	4'-3"	51	27	1'-2"	9"	6"		4	4
EA602	4 SETS or 5	3'-3" TO 4'-3"	115	27	1'-2" TO 1'-2"	7" TO 9"	1½" TO 6"	2" 1"	2 SETS	2 SETS
EA603	12	2'-10"	51	28	1'-0"	7"	1'-4"	D = 8"	6	6
EA701	118	10'-4"	2492	1					59	59
TOTAL			5,111							

Mark	No.	Length Inc.	Weight	Type	Dim. A Inc.	Dim. B Inc.	Dim. C Inc.	Bar Distribution Inc.
SUPERSTRUCTURE								
ES601	297	30'-2"	13 457	7	29'-4"			
ES501	285	29'-4"	8719	1				
ES502	80	27'-9"	2315	1				
ES503	160	34'-4"	5729	1				
ES504	48	14'-9"	738	1				
ES505	324	5'-3"	1774	26	2'-4"	2'-2"	7½	
ES506	324	4'-6"	1521	27	1'-2"	9"	6"	
ES507	48	6'-4"	317	1				
ES508	32	13'-8"	456	1				
ES401	140	15'-11"	1489	7	15'-5"			
ES402	70	34'-4"	1605	1				
ES403	72	25'-5"	1222	1				
ES404	72	33'-1"	1591	1				
ES405	70	34'-4"	1605	8	33'-10"			
ES406	288	4'-7"	882	13	2'-5"	6"	45°	
TOTAL		DECK	43,420					
TOTAL		ABUTS	5,111					
*			100					
TOTAL			48,631					

Mark	No.	Length Inc.	Weight	Type	Dim. A Inc.	Dim. B Inc.	Dim. C Inc.	Bar Distribution Inc.

Reinforcing Steel Samples: Refer to OTC General Conditions & 6-02 & C.M.S. Section 700, 709.01 Through 709.05 & 709.08 Supplying Additional Reinforcing Steel Shall Be Provided For Sampling. Random Samples Shall Be Replaced In The Structures By The Additional Steel, Spliced In Accordance With 509.08

LEGEND:

% = Out to Out Inc. - Increment

* ALLOWANCE FOR REPLACEMENT OF EXISTING REINFORCING STEEL TO BE USED AS DIRECTED BY THE ENGINEER.

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THE INFORMATION SHOWN HEREON IS INTENDED TO BE COMPLETE AND CORRECT. HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

Burgess & Niple, Limited
Engineers and Architects

27/30

OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

REINFORCING STEEL LIST

DEYO ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.M.H.			W.A.G.			

PLAN - SKEW ANGLE < 10°
(Strip Seal Shown, Compression Seal Similar)
Scale: 3/8" = 1'-0"

PLAN - SKEW ANGLE 10° TO 45°
(Strip Seal Shown, Compression Seal Similar)
Scale: 3/8" = 1'-0"

PLAN - SKEW ANGLE > 45° (STRIP SEAL ONLY)
Scale: 3/8" = 1'-0"

Note: When skew angle is greater than 45°, supply joint assemblies in two sections and provide a field splice at the center line of roadway.

GENERAL NOTES

INSTALLATION OF SEAL: DURING INSTALLATION OF SUPPORT ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE JOINT SEAL THE SEATING OF BEAMS ON BEARINGS SHALL BE CAREFULLY OBSERVED TO ASSURE THAT POSITIVE BEARING IS MAINTAINED. PROPER VERTICAL FIT OF THE SUPPORT/ARMOR ON THE BEAMS SHALL BE ACHIEVED BY POSITIONING OF THE SUPPORT ANGLES RATHER THAN BY CLAMPING FORCE.

ELASTOMERIC COMPRESSION SEALS SHALL BE USED AT FIXED JOINTS ONLY, AND AT SKEWS LESS THAN 45°.

STUD ANCHORS SHALL BE LOW CARBON STEEL ASTM A-108.

ALL WELDING SHALL CONFORM WITH A.W.S. AND AASHTO SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.

ELASTOMERIC COMPRESSION SEAL SHALL BE WABO- WJ-200, D.S. BROWN C-V 2000 OR APPROVED EQUAL.

CONTINUOUS STRIP SEAL SHALL BE AS MANUFACTURED BY WABO-ACME, D-S-BROWN, [redacted] OR APPROVED EQUAL, AND SHALL BE THE SIZE AS SPECIFIED

DETAILS AT DIAPHRAGMS SHOWN, DETAILS AT BEAMS OR GIRDERS SIMILAR.

TABLE A

STRIP SEAL SIZE	STRIP SEAL JOINT OPENING INSTALLATION CHART						
	TEMPERATURE °F						
	30	40	50	60	70	80	90
3"	2-1/4"	2-1/8"	2"	1-7/8"	1-3/4"	1-5/8"	1-1/2"
4"	2 5/8"	2 1/2"	2 1/2"	2 3/8"	2 1/4"	2 1/8"	2"
5"	2 7/8"	2 3/4"	2 3/4"	2 5/8"	2 5/8"	2 1/2"	2 3/8"

ABUTMENT

SUPERSTRUCTURE

TABLE B

	SKEW ANGLE	
	< 10°	10° - 45°
d	3/4" Min.	3/4"
X	6 5/16"	5 3/8"

ABUTMENT

SUPERSTRUCTURE

Note: For joint details in sidewalk see sheet #

Detail A
Scale 1/4" = 1'

SECTION A-A (COMPRESSION SEAL)
Scale: 3/8" = 1'-0"

SECTION B-B (STRIP SEAL)
Scale: 1 1/2" = 1'-0"

SECTION B-B (COMPRESSION SEAL)
Scale: 1 1/2" = 1'-0"

SECTION A-A (STRIP SEAL)
Scale: 3/8" = 1'-0"

SECTION C-C
No Scale

SECTION D-D
Scale: 1 1/2" = 1'-0"

SECTION E-E
No Scale

REVISED 1-25-90 AS CONSTRUCTED

THE INFORMATION SHOWN HEREON IS INTENDED TO BE COMPLETE AND CORRECT, HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

REVISED 10-87

OHIO TURNPIKE COMMISSION

DECK JOINT DETAILS

DATE: JANUARY 1985	SCALE: AS NOTED
DIP: 43-89-17 (PART I)	SHEET 28 OF 30