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

INDEX OF SHEETS

TITLE SHEET	1
TYPICAL SECTION	2
GENERAL NOTES	3
GENERAL SUMMARY	4
PLAN SHEETS	
NORTHWEST ROAD OVER OHIO TURNPIKE	5-6
DEYO ROAD OVER OHIO TURNPIKE	7-8
REINFORCED CONCRETE APPROACH SLABS	9
CATCH BASIN DETAILS	10
CONCRETE BARRIER PLAN & DETAILS	11
MAINTENANCE OF TRAFFIC	12, 12A, 12B
STRUCTURES	
STRUCTURE GENERAL NOTES	13
NORTHWEST ROAD OVER OHIO TURNPIKE	
GENERAL PLAN AND ELEVATION AND ESTIMATED QUANTITIES	14
REMOVAL DETAILS	15
REPAIR DETAILS	16
FRAMING PLAN, DETAILS, AND DECK ELEVATIONS	17
DECK SLAB DETAIL AND TRANSVERSE SECTION	18
ABUTMENT SLAB DETAILS	19
REINFORCING STEEL LIST	20
DEYO ROAD OVER OHIO TURNPIKE	
GENERAL PLAN AND ELEVATION AND ESTIMATED QUANTIES	21
REMOVAL DETAILS	22
REPAIR DETAILS	23
FRAMING PLAN, DETAILS, AND DECK ELEVATIONS	24
DECK SLAB DETAIL AND TRANSVERSE SECTION	25
ABUTMENT SLAB DETAILS	26
REINFORCING STEEL LIST	27
DECK JOINT DETAILS	28
FENCE DETAILS	29-30

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
G. Alan 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	MC-4	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 ALLEN CARLSON
E-45334
REGISTERED
PROFESSIONAL ENGINEER

BRUNING 44 132 68329

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

NORTHWEST ROAD & DEYO ROAD

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

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

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 1-25-90 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
3/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

GENERAL NOTES

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

BRUNING 44 231 71356

CALC BY	T.J.H.
DATE	1-12-89
CHKD BY	R.M.H.
DATE	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 INTENDED TO BE COMPLETE AND CORRECT. HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

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

REF. NUMBER	STATION FROM	STATION TO	ITEM / SIDE	202 GUARDRAIL REMOVED C.F.	202 GUARDRAIL REMOVED FOR RE-USE L.F.	202 INLET REMOVED & PLUG PIPE WEEPING EA.	202 INLET REMOVED & PLUG PIPE WEEPING SY.	203 SUBGRADE COMPACTION SY.	203 EXCAVATION AND INCLUDING EMBANKMENT C.Y.	301 BITUMINOUS AGGREGATE BASE C.Y.	SP304 AGGREGATE BASE C.Y.	SP310 SUBBASE 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 ROCK CHANNEL PROTECTION TYPE C WITHOUT FILTER C.Y.	603 * CONDUIT TYPE B 12" L.F.	603 * CONDUIT TYPE F 12" L.F.	SP604 CATCH BASIN EA.	606 GUARDRAIL TYPE 5 L.F.	606 GUARDRAIL REBUILT TYPE 5 L.F.	SP606 GUARDRAIL REBUILT TYPE 5 L.F.	606 BRIDGE TERMINAL ASSEMBLY TYPE A EA.	606 ANCHOR ASSEMBLY TYPE A EA.	SP607 TEMPORARY FENCE (7'-0" CHAIN LINK, WITH SPECIALS INCLUDING BARBED WIRE) L.F.	SP607 TEMPORARY GATE (14'-0") EA.	609 CONCRETE CURB TYPE G L.F.	SP611 REINFORCED CONCRETE APPROACH SLABS WITH TYPE 2A CURBS S.Y.	617 COMPACTED AGGREGATE TYPE A C.Y.	622 CONCRETE BARRIER TYPE D MODIFIED L.F.
1-GR	15+65	21+10 (DINING)	LT.	~~395~~ 364																		325				2							
2-GR	21+10 (DINING)	18+98.03	LT.	~~325~~ 315	451																	300			1	1							
3-GR	21+07.23	25+50	LT.		~~642~~																		425**		1	1							
4-GR	15+41	18+92.77	RT.	~~395~~ 334	453																	337.5			1	1							
5-GR	21+03.97	25+60	RT.		~~642~~																		437.5**		1	1							
1-D	18+68	18+83	LT.			1													27		1												
2-D	21+17	21+32	LT.			1													27	53	1												
3-D	18+~~88~~ 76	19+05	RT.			1			3									.89 X		~~54~~ 52	1												
4-D	20+75	21+32	RT.			1			5									.89 X		52	1												
1-F	17+93	18+82																															
2-F	21+18	22+07																									260 259	1					
																											315 284	1					
1-P	18+58	18+96.83					6	115	43	6		19	4	4	6	4	24												41	48.9	3		
2-P	21+03.97	21+42						115	43	6		19	4		3		24												41	48.9			
1-B	19+37			~~28~~ 37	C2.5***						4		1											C2.5***	1								44.7 ~~45~~
2-B	20+63			43	C2.5***						4		1											C2.5***	1								46
				~~1242~~ 1108	~~1242~~ 944	4	~~X~~ 12	290	~~84~~ 75.6	103 ~~X~~	5.5 ~~X~~	~~38~~ 34.47	~~10~~ 6.74	4	~~8~~ 4.03	4.18	48	~~X~~ 1.78	56	~~104~~ 105	4	~~962.5~~ 975	862.5	~~120~~ 50	C2.5***	6		6	~~595~~ 545	2	~~82~~ 83.3	99.5 ~~97.8~~	3	~~89.5~~ 91

FULL DEPTH PAVEMENT REMOVAL (PAID UNDER ITEM 203)

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

SEE SHEET 6 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 & DETAILS	11

Burgess & Niple, Limited
Engineers and Architects

5/30

OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

ROADWAY PLAN AND QUANTITIES
NORTHWEST ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TJH			WAC			

SEEDING	
END WIDTH	SQ. YDS.

CIP - 43 - 89 - 17

OHIO

FHWA REGION 5

6/30

END AREA		VOLUME	
CUT	FILL	CUT	FILL

REVISED 4-25-90 AS CONSTRUCTED

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

REVISED 1-23-90 AS CONSTRUCTED

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

REF. NUMBER	STATION FROM	STATION TO	ITEM SIDE	202 GUARDRAIL REMOVED	202 GUARDRAIL REMOVED (PAID PER PIECE)	202 ASPHALT PAVEMENT REMOVED	202 PAVEMENT CONCRETE REMOVED	203 SUBGRADE COMPACTION	203 EXCAVATION NOT INCLUDING EMBANKMENT	301 BITUMINOUS AGGREGATE BASE	SP304 AGGREGATE BASE	SP310 SUBBASE	402 ASPHALT CONCRETE AC-20	403 ASPHALT CONCRETE AC-20	404 ASPHALT CONCRETE AC-20	407 TACK COAT	408 PRIME COAT	601 PORCHCHANNEL PROTECTION TYPE C WITHOUT FILTER	603 CONDUIT* TYPE B 12"	603 CONDUIT* TYPE F 12"	SP604 CATCH BASIN	606 GUARDRAIL TYPE 5	606 BRIDGE TERMINAL ASSEMBLY TYPE A	606 ANCHOR ASSEMBLY TYPE A	SP606 GUARDRAIL REBUILT TYPE 5	SP607 TEMPORARY FENCE (7'-0") CHAIN LINK WITH SPECIALS INCLUDING BARBED WIRE	SP607 TEMPORARY GATE (14'-0")	609 CONCRETE CURB TYPE G	SP611 REINFORCED CONCRETE APPROACH SLABS WITH TYPE 2A CURBS	617 COMPACTED AGGREGATE TYPE A	622 CONCRETE BARRIER TYPE D MODIFIED
				C.F.	L.F.	E.A.	S.Y.	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	C.Y.	L.F.	L.F.		L.F.	EA.	EA.	C.F.	L.F.	EA.	L.F.	S.Y.	C.Y.	L.F.
1-GR	15+55	18+99.96	L.T.	350 334																		325	1	1							
2-GR	21+85.87	24+80	L.T.	395 368																		350	1	1							
3-GR	15+55	18+94.13	R.T.	350 334																		325	1	1							
4-GR	21+00.15	24+80	R.T.	395 368																		362.5	1	1							
1-D	18+70	18+85	L.T.			1												1		57	1										
2-D	20+81	21+34	L.T.			1			16									1		42	1										
3-D	18+70	18+85	R.T.			1													27		1										
4-D	21+14	21+30	R.T.			1													27		1										
1-F	17+95	18+86																													
2-F	21+20	22+05																								300	1				
																										265	1				
1-P	18+60	18+96.81				-12	114	63		6		18	4		3		23														
2-P	21+03.59	21+40				-16	114	63		6		10	4	2	5	3	23											40	48.3		
																												40	48.3	2	
1-B	19+37			50 44	62.5** 25						4		1										1		62.5**						51
2-B	20+63			50 44	62.5** 25						4		1										1		62.5**						52
				1563	125 50	4 12	228	102	10.12	5.4	36 38.27	6.8	18	2	8.7	3	46	2.1	54	99	4	1362.5 1375	6	4	125	565	52.4.2	2	80 78.7	96.6 98.26	2	103 89

FULL DEPTH PAVEMENT REMOVAL (PAID UNDER ITEM 203)

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

SEE SHEET 8 FOR CATCH BASIN PROFILES

4'x 4'x18" 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

Burgess & Niple, Limited
Engineers and Architects

7/30

OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

ROADWAY PLAN AND QUANTITIES

DEYO ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TJH			WAC			

SEEDING	
END WIDTH	SQ. YDS.

CALC BY ____ DATE ____
CHKD BY ____ DATE ____

CIP - 43 - 89 - 17

OHIO
FHWA REGION 5

8/30

END AREA		VOLUME	
CUT	FILL	CUT	FILL

STA. 21+30

STA. 18+70

DEYO ROAD

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

7.0 6.0 5.0 4.0 3.0 2.0 1.0 ℄ 1.0 2.0 3.0 4.0 5.0 6.0 7.0

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 COMPLETE AND CORRECT, HOWEVER, ALL PERSONS SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

Nº	REVISION	BY	DATE
2	ADDED IMPRESSED JOINT & CHANGED TYPE OF CEMENT	DFC	11-28-84
1	ADDED SEAT REPAIR DETAIL	DFC	10-2-84

OHIO TURNPIKE COMMISSION

REINFORCED CONCRETE APPROACH SLABS

DATE: OCTOBER 1983 | SCALE: NTS

SECTION A-A

EXISTING SLOPE DRAIN WITH NEW CATCH BASIN

PLAN VIEW-CATCH BASINS

SECTION A-A

NEW SLOPE DRAIN & CATCH BASIN

LEGEND

① SP 609 TYPE I ASPHALT CONCRETE CURB (SEE STANDARD DRWG. BP-5)

② 603 12" TYPE F CONDUIT, 707.01 (EXCEPT GALVANIZED) OR 707.05 TYPE C WITHOUT PAVED INVERT. AS REQUIRED TO FORM TRANSITION BETWEEN NEW CATCH BASIN AND EXISTING C.M P. THAT IS TO REMAIN.

③ 603 12" TYPE F CONDUIT, 707.01 (EXCEPT GALVANIZED) OR 707.05 TYPE C WITHOUT PAVED INVERT. *SIZE VARIES, SEE PLAN SHEETS.*

④ NEW SHOULDER SURFACE TREATMENT

⑤ REINFORCED CONCRETE CATCH BASIN - CLASS "C" CONCRETE USING 499.03 WITH DEFORMED BILLET STEEL REBARS, USING 509.02.

⑥ HEAVY DUTY, GRAY IRON CASTING USING 711.12 CATCH BASIN CURB INLET - MODEL NO. R-3246 AS MANUFACTURED BY NEENAH FOUNDRY CO., OR EAST JORDON IRON WORKS MODEL NO. 7030.

NOTES:

1. CATCH BASINS AND SLOPE DRAINS SHALL BE CONSTRUCTED TO THE APPROXIMATE STATIONS AS INDICATED ON THE PLAN, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. SLOPE DRAIN COUPLING BANDS SHALL BE 10 1/2" BAR & STRAP CONNECTOR WITH CONTINUOUS CORRUGATION AROUND BAND.
3. PIPE MAY BE TRIMMED FLUSH WITH INSIDE OF BASIN OR EXTEND INTO THE BASIN 1" MAX.
4. N.G. = NORMAL GUTTER ELEVATION
   INV. = PIPE INVERT ELEVATION.
5. WHERE CONNECTIONS ARE MADE BETWEEN NEW AND OLD PIPES PROVIDE CONCRETE COLLAR (SEE STANDARD DRWG. MC-4).

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

NO.	REVISIONS	BY	DATE
1	GENERAL	DFC	11-84

OHIO TURNPIKE COMMISSION

CATCH BASIN & SLOPE DRAIN DETAILS

DATE: JANUARY 1984 SCALE: N.T.S.

1. 1" PREFORMED EXPANSION JOINT MATERIAL IS TO BE PLACED BETWEEN ALL SURFACES WHERE THE NEW CONCRETE BARRIER WILL BUTT AGAINST THE EXISTING CONCRETE BRIDGE PIERS (TYPICAL) ALL SURFACES OF BOTH THE CONCRETE BARRIER AND BARRIER FOUNDATION).

2. ALL TRANSITION SECTIONS ARE TO HAVE EMBEDDED CONCRETE INSERT TYPE A BRIDGE TERMINAL ASSEMBLIES PLACED AS PER O.D.O.T. STANDARD CONSTRUCTION DRAWING "GR-3"

3. NO. 8 DEFORMED STEEL BARS, 12" LG., SPACED AT 2'-0" O/C IN THE TRANSITION SECTION AND SPACED AT 4'-0" O/C IN THE NORMAL SECTIONS OF THE CONCRETE BARRIER.

4. UNSEALED CONTRACTION JOINTS SPACED AT 10' O/C (MAX.) SHALL BE CONSTRUCTED THROUGHOUT THE ENTIRE RUN OF CONCRETE BARRIER. CONTRACTION JOINTS MAY BE CONSTRUCTED WITH METAL INSERTS INSIDE THE FORMS, PREFORMED FULL WIDTH JOINT FILLER, A GROOVING TOOL, OR BY SAWING. CONTRACTION JOINT TO BE A MIN. DEPTH OF 1 1/2" AND SHALL BE CONSTRUCTED FOR THE FULL HEIGHT OF THE BARRIER INCLUDING THE BARRIER FOUNDATION.

5. ALL EXCAVATION COSTS SHALL BE INCLUDED UNDER ITEM 622 "TYPE D MODIFIED CONCRETE BARRIER".

6. THERE SHALL BE NO SEPARATE PAYMENT FOR THE CONCRETE FOOTER, THESE COSTS SHALL BE INCLUDED UNDER ITEM 622 "TYPE D MODIFIED CONCRETE BARRIER."

7. WHEN IT IS NECESSARY TO REMOVE EXISTING PAVED SHOULDER IN ORDER TO CONSTRUCT THE CONCRETE BARRIER, THE SHOULDER SHALL BE REPLACED USING ITEM 402 (6" MIN. DEPTH) OVER SP 304.

8. OMIT TRANSITION SECTION ON TRAILING END OF OUTSIDE SHOULDER, UNLESS EXISTING GUARDRAIL EXTENDS BEYOND THE PIERS.

9. CONCRETE BARRIER TO BE PROVIDED IN MEDIAN ONLY IF THE STRUCTURE HAS DOUBLE MEDIAN PIERS. TRANSITION SECTION REQUIRED AT BOTH APPROACH AND TRAILING END.

CONCRETE BARRIER PLAN (LOCAL ROAD OR RAMP STRUCTURE OVER TURNPIKE)

CONCRETE BARRIER PLAN (TURNPIKE STRUCTURE OVER LOCAL ROAD)

REF. NO.	622	606	SP 606	606	606	202		SP 304	402
	TYPE D, MODIFIED CONCRETE BARRIER	GUARDRAIL, TYPE 5	GUARDRAIL REBUILT, TYPE 5 *	BRIDGE TERMINAL ASSEMBLY TYPE A	TYPE A ANCHOR ASSEMBLY	GUARDRAIL REMOVED	GUARDRAIL REMOVED FOR REUSE *	AGGREGATE BASE	ASPHALT CONCRETE
	L.F.	L.F.	L.F.	EACH	EACH	L.F.	L.F.	C.Y.	C.Y.
1 B									
2 B									
1 GR									
2 GR									
3 GR									
4 GR									
TOT.									

* THIS QUANTITY HAS BEEN ESTABLISHED AS A CONTINGENCY TO BE USED IF REQUIRED, AS DIRECTED BY THE ENGINEER, TO PROVIDE A TRANSITION SECTION BETWEEN THE EXISTING GUARDRAIL AND THE PROPOSED CONCRETE BARRIER. THE TRANSITION SECTION SHALL BE REBUILT AT A 50:1 MIN. TAPER.

TYPICAL BARRIER END SECTION

SCALE: 3/4" = 1'-0"

SECTION 1-1 (END VIEW) | SECTION 2-2 | SECTION 3-3

TYPICAL SECTIONS

SCALE: 3/4" = 1'-0"

DRAINAGE SLOT DETAIL

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

REV	DESCRIPTION	BY	DATE
2	ADDED PLAN FOR TURNPIKE PIERS MISC. REVISIONS	JDL	7-16-87
1	ADDED 304 SHLDR. & NOTE 6	DFC	11-28-84

OHIO TURNPIKE COMMISSION

CONCRETE BARRIER PLAN & DETAILS

DATE: MARCH 1984 | SCALE: AS NOTED

LEGEND

- SIGN MOUNTED ON POST SUPPORT
- SIGN MOUNTED ON PORTABLE BARRICADE. SEE FIG. C-5 OF THE O.M.U.T.C.D.
- SIGNS MOUNTED ON GATE AND BARRICADE. SEE "BARRICADES AND GATES" SHEET ___ OF ___
- DETOUR ROUTE

NOTE

RED LIGHTS SHALL BE MOUNTED ON PORTABLE BARRICADES.

NOTE

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (O.M.U.T.C.D.)

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

OHIO TURNPIKE COMMISSION

TRAFFIC CONTROL (COUNTY ROAD 312) NORTHWEST ROAD

DATE: NOVEMBER 1988 SCALE: N.T.S.

NOTE

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (O.M.U.T.C.D.)

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

LEGEND

- SIGN MOUNTED ON POST SUPPORT
- SIGN MOUNTED ON PORTABLE BARRICADE. SEE FIG. C-5 OF THE OM.U.T.C.D.
- SIGNS MOUNTED ON GATE AND BARRICADE. SEE "BARRICADES AND GATES" SHEET ___ OF ___
- DETOUR ROUTE

NOTE

RED LIGHTS SHALL BE MOUNTED ON PORTABLE BARRICADES.

OHIO TURNPIKE COMMISSION

TRAFFIC CONTROL
(TOWNSHIP ROAD 102)
DEYO ROAD

DATE: NOVEMBER 1988 | SCALE: N.T.S.

MOVABLE GATE

GATES SHALL BE WELL SPIKED USING SPIKES LONG ENOUGH TO CLINCH.

-NOTES-

① BARRICADES: BARRICADES SHALL BE CONSTRUCTED ACCORDING TO DETAILS SHOWN. WHEN THE ROAD IS CLOSED TO TRAFFIC, BARRICADES AND GATES SHALL BE USED TO EFFECTIVELY CLOSE THE ENTIRE ROADWAY INCLUDING THE MEDIAN OF DIVIDED HIGHWAYS. IN URBAN AREAS AND AT LOCATIONS WHERE IT IS IMPRACTICAL TO EXTEND THE BARRICADE TO THE RIGHT-OF-WAY LINE BECAUSE OF A SIDEWALK OR OTHER OBSTRUCTION, THE ENDS OF THE BARRICADE SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO EFFECT THE DESIRED CLOSING OF THE HIGHWAY.

② PAINTING AND REFLECTORIZATION: ALL RAILS OF THE BARRICADES AND GATES SHALL BE REFLECTORIZED WITH ORANGE AND WHITE REFLECTORIZED SHEETING IN 6" WIDE ALTERNATE STRIPES WHICH SLOPE DOWNWARD TOWARD THE CENTER LINE OF THE ROAD AT AN ANGLE OF 45°. ALL THREE RAILS OF THE ROAD CLOSED BARRICADE SHALL BE STRIPED ON THE SIDE FACING TRAFFIC. ALL GATE RAILS SHALL BE STRIPED ON BOTH SIDES. ALL POSTS, BRACES, GATE LEGS, AND ANY UNSTRIPED RAILS SHALL BE PAINTED WHITE.

③ GATES: ONE GATE SHALL BE ERECTED FOR EACH TRAFFIC LANE. GATES SHALL BE CHAINED AND PADLOCKED TO ONE ANOTHER AND TO ADJACENT POSTS OF THE BARRICADES. CHAINS SHALL BE 1/4" STOCK OR LARGER WITH WELDED LINKS.

A HINGED GATE MAY BE USED AND SHALL BE AN APPROVED 12'x4' STEEL FRAME FARM TYPE, OR A TYPE APPROVED BY THE ENGINEER. THE GATE SHALL BE HUNG ON HINGE SCREW HOOKS, OR AS OTHERWISE APPROVED. STRIPING SIMILAR TO THAT USED ON THE MOVEABLE GATE SHALL BE ACCOMPLISHED WITH 1"x8" LUMBER OR WITH METAL STRIPS FASTENED TO THE GATE. THE GATE SHALL BE SUPPORTED AT THE CENTER IN AN APPROVED MANNER.

④ TYPE C STEADY BURNING BARRICADE WARNING LIGHTS EACH GATE SHALL BE EQUIPPED WITH A TYPE C STEADY BURNING BARRICADE WARNING LIGHT, CONSPICUOUSLY VISABLE AT ALL DISTANCES UP TO 1000' UNDER NORMAL ATMOSPHERIC CONDITIONS. THE LIGHT SHALL BE IN OPERATION AT ALL TIMES BETWEEN SUNSET AND SUNRISE DURING THE PERIOD THE HIGHWAY IS CLOSED.

⑤ SIGNS: WHERE THE ROAD IS CLOSED TO TRAFFIC BY THE ERECTION OF GATES AND BARRICADES, ROAD CLOSED SIGNS (R-75) SHALL BE MOUNTED ON THE GATES AS SHOWN.

WHERE TRAFFIC IS MAINTAINED, A ROAD CONSTRUCTION AHEAD SIGN (OW-128) SHALL BE USED ON THE RIGHT SHOULDER ON THE APPROACHES APPROXIMATELY 500 FEET IN ADVANCE OF THE PROJECT

AN END CONSTRUCTION SIGN (OC-8) SHALL BE ERECTED FACING TRAFFIC LEAVING THE CONSTRUCTION SECTION. THE SIGNS SHALL BE ERECTED AS DETAILED HEREON. DUAL MOUNTED SIGNS ARE REQUIRED FOR A FOUR LANE FACILITY.

⑥ LUMBER: LUMBER USED IN THE CONSTRUCTION OF THE GATES AND BARRICADES SHALL BE NO. 1 COMMON YELLOW PINE OR NO. 1 COMMON DOUGLAS FIR, SURFACED ON FOUR SIDES STANDARD, OR OTHER MATERIALS APPROVED BY THE ENGINEER. ALL SIZES ARE NOMINAL.

⑦ POSTS: POSTS SHALL BE SOUND 4"x4" SAWED OR 4 ½" ROUND. RAILS OF THE BARRICADE SHALL BE BOLTED TO THE POSTS WITH 5/8" BOLTS.

GATES AND BARRICADES IN POSITION

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

OHIO TURNPIKE COMMISSION

BARRICADES
AND GATES

DATE: JAN. 1989 | SCALE:

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 DEYO 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 PREBID 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 DEYO 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 1, 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 SHALL VERIFY INFORMATION TAKEN FROM THIS DRAWING

Burgess & Niple, Limited
Engineers and Architects
bn INC
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 RMH DATE 1-12-89	CIP 43-89-17 PART 1	OHIO	14/30
CHKD BY WAC DATE 1-12-89		FHWA REGION 5	

GENERAL PLAN
N.T.S.

ELEVATION
N.T.S.

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION			Final
SP202	Lump	Lump Sum	Portions Of Structures Removed			100%
503	3	CY	Unclassified Excavation, As Per Plan			—
503	7	CY	Abutment Backfill, As Per 503.10			5
511	2	CY	Class S Concrete, Pier Cap Bearing Pads, As Per Plan			1.19
SP511B	3	CY	Lightweight Concrete, Using Shrinkage Compensating Cement, For Pre-Pour Testing			3
SP511B	199	CY	Lightweight Concrete, Superstructure Deck & Barriers, Using Shrinkage Compensating Cement			204.8
SP511B	28	CY	Lightweight Concrete, Abutment Slabs and Barriers, Using Shrinkage Compensating Cement			28.83
SP513	2730	Each	Welded Stud Shear Connectors			2730
SP514	333	SF	Field Painting Of Existing Structural Steel			—
SP514	940	SF	Surface Preparation - Top Flange Of Existing Beams			931
SP514	20	Each	Field Painting Of Existing Expansion Bearings Reset			20
SP519	330	SF	Patching Concrete Structures			162.62
SP524B	20	Each	Resetting Expansion Bearing Devices			20
SP527	Lump	Lump Sum	Falsework, Temporary Bracing & Protective Structures			100%
SP529	15	Each	Trim Ends Of Structural Steel Members			17
SP533	57.0	LF	3 Inch Continuous Strip Seal In Structural Steel Joints			57.4
SP533A	57.0	LF	2 Inch Elastomeric Compression Seal In Structural Steel Joints			57.06
SP536	1240	SY	Concrete Weatherproofing			1075.28
SP824	49,537	LBS	Epoxy Coated Reinforcing Steel, Grade 60			49,537

Item SP 202 - Portions Of Structures Removed
Shall Include Approx. 194 Cu. Yd. Of Superstructure Concrete, 26 Cu. Yd. Of Abutment Slab Concrete, 434 Lin. Ft. Of Railing, Scuppers Including Downspouts, And Expansion Joints. There Is No Asphalt Wearing Surface On The Deck And Abutment Slab.

Notes

For Structural Notes, See Sheet 13

For Parapet Deflection Joint Locations, See Sheet 18.

Barrier Pier Protection Not Shown. See Roadway Plan Sheet 5 For Location. See Sheet 11 For Details.

For Benchmark, See Sheet 5.

* Existing Expansion Bearing Anchor Bolt Nuts Shall Be Checked For Tightness. If Found To Be Tight Against The Top Bearing Plate, They Shall Be Loosened As Directed By The Engineer. Special Care Shall Be Exercised To Prevent Damage To The Anchor Bolt. Include With Item SP 202 Portions Of Structures Removed, For Payment.

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
14/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

GENERAL PLAN AND ELEVATION
AND ESTIMATED QUANTITIES
NORTHWEST ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RWH			WAC		

TRANSVERSE SECTION
THRU ABUTMENT SLAB

SECTION A

TYPICAL DECK CROSS SECTION

DRAIN PIPE CAP DETAIL
(Include With Item SP202, Portions Of Structures Removed, For Payment)

LONGITUDINAL SECTION
THRU ABUTMENT SLAB

SPLASH PLATES
AT EXPANSION PIERS
(Include With Item SP202)

Denotes Areas To Be Removed.

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
15/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE
REMOVAL DETAILS
NORTHWEST ROAD OVER OHIO TURNPIKE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RMH			WAC			

PIER Nº1 (NORTH FACE)

NORTH ABUTMENT

1 All Concrete Bearing Pads On Piers 1 And 3 Shall Be Removed And Replaced With Item 511 - Class "S" Concrete Pier Cap Bearing Pads, As Per Plan. Removal Of Concrete Shall Be Per Item SP519 - Patching Concrete Structures And Shall Be Included For Payment With Item SP 202. Concrete And Reinforcing Steel For Bearing Pads Shall Conform To Item 519.02. Exist. 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 (SOUTH FACE)

PIER Nº 2 (NORTH FACE)

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 SP519 - 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, 3 C.Y. Of Unclassified Excavation Has Been Included In The Estimated Quantities For Exposing And Subsequently Backfilling Portions Of Existing Pier Columns, 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.

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

PIER Nº3 (NORTH FACE)

PIER Nº 3 (SOUTH FACE)

EXCAVATION LIMITS FOR UNCLASSIFIED EXCAVATION AS PER PLAN

SUMMARY OF REPAIR QUANTITIES

TYPE	LOCATION	UNIT	MEASURED QUANTITY	ESTIMATED QUANTITY
PATCHING	N. ABUTMENT	SF	1	10
	PIER Nº 1	SF	64	85
	PIER Nº 2	SF	8	20
	PIER Nº 3	SF	162	215
			TOTAL =	330

Burgess & Niple, Limited
Engineers and Architects
16/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE
REPAIR DETAILS
NORTHWEST 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.

EXISTING BEAM ELEVATION

N. T. S.

NOTE.
WELDED STUD SHEAR CONNECTORS SHALL CONFORM TO A.A.S.H.T.O. M 169 AND SP 513. 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.
#5	714.84	715.06	715.25	715.44	715.55	715.62	715.64	715.63	715.57	715.47	715.29	715.11	714.90
#4	714.95	715.16	715.35	715.54	715.64	715.71	715.73	715.71	714.97	715.56	715.37	715.19	714.97
3	715.05	715.26	715.45	715.64	715.74	715.80	715.82	715.80	715.65	715.64	715.43	715.26	715.05
#2	714.97	715.09	715.37	715.56	715.65	715.71	715.73	715.71	715.64	715.54	715.35	715.16	714.95
#1	714.90	715.11	715.29	715.47	715.57	715.63	715.64	715.62	715.55	715.44	715.25	715.06	714.84

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
17/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

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

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

PLAN

TRANSVERSE SECTION

N.T.S.

* See Bridge Deck Elevations, Slab Thickness, And Approach Profiles Note Sht. 13 of 30.

** Long Leg On Bottom.

SECTION A-A

N.T.S.

SECTION B-B

N.T.S.

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.

SECTION C-C
SLAB DETAIL AT BEAM END (TYP.)
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

Burgess & Niple, Limited
Engineers and Architects
18/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

DECK SLAB DETAIL & TRANSVERSE SECTION
NORTHWEST ROAD OVER OHIO TURNPIKE

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

BRUNING 44-231 71356

* Elevations Are Top Of Abutment Slab

PLAN
N.T.S.

SECTION B-B

SECTION C-C

SECTION E-E

SECTION D-D

NORTH ABUTMENT

SOUTH ABUTMENT

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.

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

19/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

ABUTMENT SLAB DETAILS
NORTHWEST ROAD OVER OHIO TURNPIKE

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

BRUNING 44-231 71356

CIP - 43 - 89 - 17

OHIO FHWA REGION 5

20/30

TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6 TYPE 7 TYPE 8 TYPE 9 TYPE 10 TYPE 11 TYPE 12 TYPE 13 TYPE 14 TYPE 15 TYPE 16 TYPE 17

Mark	No.	Length	Inc.	Weight	Type	Dim. A	Inc.	Dim. B	Inc.	Dim. C	Inc.	Bar Distribution						FRWD	REAR
ABUTMENTS																			
EA401	24	29'-8"		476	1													12	12
EA402	60	10'-6"		421	1													30	30
EA501	24	29'-8"		743	1													12	12
EA502	32	8'-11"		298	1													16	16
EA504	8	5'-3"		44	26	2'-4"		2'-2"		7½"	2½							4	4
EA506	20	2'-8"		56	8	2'-1"												10	10
EA507	20	2'-7"		54	2	2'-1"		7"										10	10
EA509	32	4'-0"		134	1													16	16
EA510	12	2'-7"		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 OF 5	3'-5' TO 4'-3"	2½	115	27	7" TO 1'-2"	¾	7" TO 9"	½	2" TO 6"	1"							2 SETS	2 SETS
EA603	12	2'-10"		51	28	1'-0"		7"		1'-4"		D=5						6	6
EA701	118	10'-6"		2533	1													59	59
TOTAL				5,180															

Mark	No.	Length	Inc.	Weight	Type	Dim. A	Inc.	Dim. B	Inc.	Dim. C	Inc.	Bar Distribution					
SUPERSTRUCTURE																	
ES601	301	30'-6"		13,789	7	29'-8"											
ES501	289	29'-8"		8943	1												
ES502	80	28'-6"		2378	1												
ES503	160	34'-8"		5786	1												
ES504	48	15'-1"		755	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'-3"		313	1												
ES508	32	14'-1"		470	1												
ES401	140	16'-3"		1520	8	15'-9"											
ES402	70	34'-5"		1609	1												
ES403	72	26'-0"		1251	1												
ES404	72	33'-10"		1627	1												
ES405	70	34'-8		1621	8	34'-2"											
ES406	294	4'-7"		900	13	2'-5"		6"		45°							
TOTAL		DECK		44,257													
TOTAL		ABUTS		5,180													
*				100													
TOTAL				49,537													

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

TYPE 18 TYPE 19 TYPE 20 TYPE 21 TYPE 22 TYPE 23 TYPE 24 TYPE 25

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

TYPE 26 TYPE 27 TYPE 28

LEGEND:

% = Out to Out Inc. = Increment

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

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
bn 1962

20/30

OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

REINFORCING STEEL LIST

NORTHWEST ROAD OVER OHIO TURNPIKE

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

CALC BY R.M.H. DATE 1-12-89	CIP 43-89-17 PART I	OHIO FHWA REGION 5	21/30
CHKD BY W.A.C. DATE 1-12-89			

GENERAL PLAN
N.T.S.

ELEVATION
N.T.S.

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION			FINAL
SP 202	Lump	Lump Sum	Portions Of Structures Removed			✓
503	3	CY	Unclassified Excavation, As Per Plan			0
503	7	CY	Abutment Backfill, As Per 503.10			5
511	1	CY	Class "S" Concrete, Pier Cap Bearing Pads, As Per Plan			1.19
SP511B	194	CY	Lightweight Concrete, Superstructure Deck & Barriers, Using Shrinkage Compensating Cement			204.89
SP511B	28	CY	Lightweight Concrete, Abutment Slabs & Barriers, Using Shrinkage Compensating Cement			28.83
SP513	2710	Each	Welded Stud Shear Connectors			2730
SP514	4	Each	Field Painting Of Existing Expansion Bearings Reset			20
SP514	333	SF	Field Painting Of Existing Structural Steel			281.57
SP514	926	SF	Surface Preparation - Top Flange Of Existing Beam			931
SP516A	20	LF	Crack Repair			12
SP519	140	SF	Patching Concrete Structures			162.62
SP524C	4	Each	Resetting Expansion Bearing Devices			20
SP527	Lump	Lump Sum	Falsework, Temporary Bracing & Protective Structures			✓
SP529	15	Each	Trim Ends Of Structural Steel Members			17
SP533	57.0	LF	3 Inch Continuous Strip Seal In Structural Steel Joints			57.4
SP533A	57.0	LF	2 Inch Elastomeric Compression Seal In Structural Steel Joints			57.06
SP536	1197	SY	Concrete Wearherproofing			1157.48
** SP607	418	LF	Type II Fence, (6'-0" Chain Link With Specials)			
** SP607	418	LF	Type II Fence, All Aluminum (6'-0" Chainlink With Specials)			
SP824	48,631	LBS	Epoxy Coated Reinforcing Steel, Grade 60.			49,537

** See Proposal

Item SP 202 - Portions Of Structures Removed Shall Include Approximately 189 Cu. Yd. Of Superstructure Concrete, 26 Cu. Yd. Of Abutment Slab Concrete, 427 Lin. Ft. Of Railing, Scuppers Including Downspouts, And Expansion Joints. There Is No Asphalt Wearing Surface On The Deck And Abutment Slab.

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

Notes

1. For Structural General Notes, See Sht. 13
2. For Parapet Deflection Joint Locations, See Sht. 25.
3. Barrier Pier Protection Not Shown, See Roadway Sht. 7 For Location, See Sht. 11 For Details.
4. For Benchmark, See Sht. 7
5. Fence Posts Shall Not Be Set Closer Than 8" From Any Parapet Deflection Joints.
6. The Contractor Shall Give Special Attention To Fence Anchor Stud Projection Above Top Of Parapet, Provide For Base Plate Thickness, Washer Thickness, And A Positive Thread Projection At End Of Stud.
*7. Exist. Expansion Bearing Anchor Bolt Nuts Shall Be Checked For Tightness. If Found To Be Tight Against The Top Bearing Plate, They Shall Be Loosened As Directed By The Engineer. Special Care Shall Be Exercised To Prevent Damage To The Anchor Bolt. Include With Item SP 202 Portions Of Structures Removed, For Payment.

Burgess & Niple, Limited
Engineers and Architects

21/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

GENERAL PLAN AND ELEVATION
AND ESTIMATED QUANTITIES
DEYO ROAD OVER OHIO TURNPIKE

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

TRANSVERSE SECTION
THRU ABUTMENT SLAB

SECTION A

TYPICAL DECK CROSS SECTION

DRAIN PIPE CAP DETAIL
(Include With Item SP202, Portions Of Structures Removed, For Payment)

LONGITUDINAL SECTION
THRU ABUTMENT SLAB

SPLASH PLATES
AT EXPANSION PIERS
(Include With Item SP202)

Denotes Areas To Be Removed

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
22/30

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

REMOVAL DETAILS
DEYO 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 SP519 Patching Concrete Structures, And Shall Be Included For Payment w/Item SP202. 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 Nº 2 (NORTH FACE)

* Includes Other Faces

PIER Nº3 (NORTH FACE)

PIER Nº 3 (SOUTH FACE)

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

EXCAVATION LIMITS FOR UNCLASSIFIED EXCAVATION AS PER PLAN

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 SP519 - 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, 7 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.

SUMMARY OF REPAIR QUANTITIES

TYPE	LOCATION	UNIT	MEASURED QUANTITY	ESTIMATED QUANTITY
PATCHING	N. ABUTMENT	SF	3	10
	PIER Nº 1	SF	33	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

Burgess & Niple, Limited
Engineers and Architects
23/30

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 513. WELDED STUD SHEAR CONNECTORS SHALL BE MOVED TO AVOID INTERFERENCE WITH RIVET HEADS.

SHEAR STUD CONNECTOR DETAILS

N. T. S.

TOP PLAN
(BOTTOM PLAN SIMILAR)

ELEVATION

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.
5	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
4	730.27	730.50	730.69	730.90	731.00	731.06	731.08	731.06	731.00	730.91	730.70	730.51	730.29
3	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
2	730.29	730.51	730.70	730.91	731.00	731.06	731.08	731.06	731.00	730.90	730.69	730.50	730.27
1	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

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

24/30

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	25/30
	FHWA REGION 5	

PLAN

TRANSVERSE SECTION

N.T.S.

* See 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.

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

25/30

OHIO TURNPIKE COMMISSION

OHIO TURNPIKE

DECK SLAB DETAIL & TRANSVERSE SECTION

DEYO ROAD OVER OHIO TURNPIKE

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

BRUNING 44-231 71356

* 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.

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
26/30

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.			

Mark	No.	Length	Inc.	Weight	Type	Dim. A	Inc.	Dim. B	Inc.	Dim. C	Inc.	Bar Distribution						FRWD	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"		56	8	2'-1"												10	10
EA507	20	2'-7"		54	2	2'-1"		7"										10	10
EA509	32	4'-0"		134	1													16	16
EA510	12	2'-7"		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 OF 5	3'-5" TO 4'-3"	2½"	115	27	7" TO 1'-2"	1¾"	7" TO 9"	½"	2" TO 6"	1"							2 SETS	2 SETS
EA603	12	2'-10"		51	28	1'-0"		7"		1'-4"		D = 5"						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							
SUPERSTRUCTURE																			
ES601	297	30'-2"		13457	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							

Reinforcing Steel Samples: Refer To OTC General Conditions & 6-02 & CMS Section 700, 709.01 Through 709.05 & 709.08. Sufficient 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.

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

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.C.			

PLAN - SKEW ANGLE < 10°
(Strip Seal Shown, Compression Seal Similar)
Scale: ¾" = 1'-0"

PLAN - SKEW ANGLE 10° TO 45°
(Strip Seal Shown, Compression Seal Similar)
Scale: ¾" = 1'-0"

PLAN - SKEW ANGLE > 45° (STRIP SEAL ONLY)
Scale: ¾" = 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.

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 BEARINGS 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"

TABLE B

	SKEW ANGLE	
	< 10°	10° - 45°
d	3/4" MIN.	3/4"
X	6 15/16"	8 3/16"

NOTE:
For joint details in sidewalk see sheet #___

Detail A
Scale ¼" = 1"

SECTION B-B (STRIP SEAL)
Scale: 1½" = 1'-0"

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

SECTION B-B (COMPRESSION SEAL)
Scale: 1½" = 1'-0"

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

SECTION C-C
No Scale

SECTION D-D

SECTION E-E

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

ELEVATION

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

END POST

INTERMEDIATE POST

LONGITUDINAL RAIL - POST ATTACHMENT

SCALE: 3" = 1'-0"

STRETCHER BAR ATTACHMENT

NO SCALE

TRUSS ROD ATTACHMENT

NO SCALE

TYPE II CHAIN LINK SAFETY FENCE

TYPICAL SECTION

SCALE: 3/4" = 1'-0"

DETAIL I/11

NOT TO SCALE

ANTI-CLIMB SHIELD

(TYPICAL OF FOUR PLACES)

TYPICAL SECTION

SCALE: 3/4" = 1'-0"

SECTION A/11

NOT TO SCALE

SECTION B/11

SCALE: 3" = 1'-0"

GENERAL NOTES

SPECIFICATIONS: 1983 O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS. LATEST A. A. S. H. T. O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES FOR DESIGN.

MATERIALS: FABRIC SHALL BE 1" MESH WOVEN FROM NO. 9 GAUGE, ALUMINUM COATED STEEL WIRE CONFORMING TO A.A.S.H.T.O. M181, TYPE II THE ENDS OF THE FABRIC SHALL BE KNUCKLED SELVAGE AT THE TOP AND BOTTOM.

ALL POSTS, BRACES, FITTINGS AND HARDWARE SHALL MEET THE REQUIREMENTS OF A.A.S.H.T.O. M181. THEY SHALL BE ZINC COATED STEEL EXCEPT CASTINGS FOR OTHER THAN ORNAMENTAL PURPOSES WHICH SHALL BE ZINC COATED MALLEABLE IRON.

ALL PLATES SHALL BE STEEL CONFORMING TO A. S. T. M. DESIGNATION: A-36. ALL PARTS SHALL BE STEEL GALVANIZED UNLESS OTHERWISE NOTED AND ALL GALVANIZING SHALL BE DONE AFTER FABRICATION. PRECOATED LONGITUDINAL RAILS, IF CUT, WILL HAVE CUT END COATED WITH WITH A ZINC-RICH PRIMER MEETING THE REQUIREMENTS OF FEDERAL SPECIFICATIONS TT-P-641 TYPE III, PRIOR TO ERECTION.

ANCHOR STUDS: MATERIAL FOR ANCHOR STUDS SHALL CONFORM TO A.S.T.M. DESIGNATION: A-276 TYPE 430 TO TYPE 304 STAINLESS STEEL ANNEALED, HOT-FINISHED, ULTIMATE STRENGTH 70,000 P.S.I. MIN., 20% MIN. ELONGATION. THREADS MAY BE ROLLED OR CUT.

POST SPACING: FOR POST SPACING SEE PERTINENT STRUCTURE SHEETS. POST SPACING SHALL BE 8'-0" MAXIMUM.

ERECTION: ALL LONGITUDINAL RAILS TO BE PARALLEL TO TOP OF PARAPET.

ALL POSTS TO BE SET NORMAL TO TOP OF PARAPET.

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
2-2-84
7-12-88

OHIO TURNPIKE COMMISSION

CHAIN LINK SAFETY FENCE

DETAILS, TYPE II

DATE: JUNE 1983 | SCALE: AS NOTED

LOCATE ANTI-CLIMB SHIELD AT POST NEAREST MIDPOINT OF END SPANS. 4 REQUIRED FOR EACH STRUCTURE.

ANTI-CLIMB SHIELD DETAIL

3/4" = 1'-0"

DETAIL B

NOT TO SCALE

SECTION B-B

1 1/2" = 1'-0"

DETAIL C

1 1/2" = 1'-0"

DETAIL A

NOT TO SCALE

TYPE II CHAIN LINK FENCE DETAIL

NOT TO SCALE

NOTE:
FOR BASE SLEEVE, POST AND RAIL SIZES SEE FENCE DETAIL AT LEFT

SECTION A-A

3" = 1'-0"

RAIL FITTING AND BAND

SPLIT CASTING

LONGITUDINAL RAIL-POST ATTACHMENT

3" = 1'-0"

STRETCHER BAR ATTACHMENT

3" = 1'-0"

TRUSS ROD ATTACHMENT

1 1/2" = 1'-0"

GENERAL NOTES

SPECIFICATIONS: 1983 O.D.O.T. "CONSTRUCTION AND MATERIAL SPECIFICATIONS"; LATEST A.A.S.H.T.O. "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" AND "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS".

MATERIALS: CHAIN LINK FENCE FABRIC SHALL BE 1" MESH WOVEN FROM NO. 9 GAGE ALUMINUM ALLOY WIRE CONFORMING TO THE REQUIREMENTS OF A.A.S.H.T.O. M181, TYPE III, AND SHALL HAVE KNUCKLED SELVAGE AT THE BOTTOM AND BARBED SELVAGE AT THE TOP. FABRIC TIES SHALL BE NO.9 GAGE ALUMINUM ALLOY WIRE CONFORMING TO THE REQUIREMENTS OF A.S.T.M. B211, ALLOY 6061, TEMPER T6.

POSTS, RAILS, PLATES, BARS, BANDS AND TRUSS RODS SHALL BE ALUMINUM ALLOY CONFORMING TO THE REQUIREMENTS OF A.S.T.M. B221, ALLOY 6061, TEMPER T6.

SHIMS SHALL BE ALUMINUM ALLOY CONFORMING TO A.S.T.M. B209; ALLOY 1100-O.

RAIL FITTINGS, TURNBUCKLES AND SPLIT CASTINGS SHALL BE ALUMINUM ALLOY CASTINGS CONFORMING TO THE REQUIREMENTS OF A.S.T.M. B26, B85 OR B108, ALLOY SG70A-T6, ZC81A-T5, SG100A, SG100B OR SI2B.

CARRIAGE BOLTS AND NUTS SHALL BE ALUMINUM ALLOY CONFORMING TO THE REQUIREMENTS OF A.S.T.M. B211, ALLOY 2024-T4 FOR BOLTS, AND ALLOY 6061-T6 FOR NUTS. WASHERS SHALL BE ALUMINUM ALLOY CONFORMING TO THE REQUIREMENTS OF A.S.T.M. B209, ALLOY 6061-T6.

ANCHOR STUDS: MATERIAL FOR ANCHOR STUDS SHALL CONFORM TO A.S.T.M. DESIGNATION A-276, TYPE 430 TO TYPE 304 STAINLESS STEEL ANNEALED, HOT-FINISHED, ULTIMATE STRENGTH 70,000 P.S.I. MINIMUM, 20% MINIMUM ELONGATION, THREADS MAY BE ROLLED OR CUT.

POST SPACING: FOR POST SPACING, SEE PERTINENT STRUCTURE SHEETS. POST SPACING SHALL BE 8'-0" MAXIMUM.

ERECTION: ALL LONGITUDINAL RAILS TO BE PARALLEL TO TOP OF PARAPET.

ALL POSTS TO BE SET NORMAL TO TOP OF PARAPET.

ALUMINUM SURFACES TO BE PLACED IN CONTACT WITH CONCRETE SHALL BE GIVEN A HEAVY COAT OF ALKALI-RESISTANT BITUMINOUS PAINT BEFORE INSTALLATION.

INTERIOR ELEVATION

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

OHIO TURNPIKE COMMISSION

CHAIN LINK SAFETY FENCE (ALL ALUMINUM) DETAILS, TYPE II

REVISED 7-12-88

DATE: FEB., 1984 | SCALE: AS NOTED