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DESIGN FILE: I:\projects\25673\Struct\bridgerehab\strnotet1.dgn
WORKSTATION: dmollens DATE: 10/31/2007

REFERENCES SHALL BE MADE TO STANDARD DRAWINGS:

BP-3.1	DATED	10/19/07
MT-97.10	DATED	9/05/06
MT-101.60	DATED	9/20/06
MT-105.10	DATED	10/18/02
MT-105.11	DATED	10/18/02

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, INCLUDING THE 2003, 2004, 2005 AND 2006 SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

EXISTING STRUCTURE VERIFICATION:

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

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

EXISTING PLANS:

THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND, OH.

DESIGN DATA:

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI
CONCRETE CLASS S - COMPRESSIVE STRENGTH 4,500 PSI

DECK PROTECTION METHOD:

WATERPROOFING AND ASPHALT CONCRETE OVERLAY

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES:

SPECIAL CARE SHALL BE TAKEN, WHEN PLACING THE ASPHALT CONCRETE FEATHERING TO EFFECT A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK OR APPROACH SLAB. THE CONTRACTOR'S ATTENTION IS CALLED TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES; SPECIFICALLY, THE CONTRACTOR SHALL PROVIDE A 600:1 TAPER RATE FOR PLANING OPERATIONS.

CUT LINE CONSTRUCTION JOINT PREPARATION:

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL IN PLACE. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

THESE ITEMS SHALL BE USED AT LOCATIONS IN THE PLAN.

THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER SHALL BE APPROVED BY THE ENGINEER.

THE EXISTING REINFORCING STEEL SHALL BE PRESERVED AS INDICATED IN THE PLANS. EXISTING CONCRETE SHALL BE REMOVED IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS NO HEAVIER THAN 90 POUND CLASS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

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ITEM 202 - REMOVAL MISC.: CONCRETE

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THE 1" THICK CONCRETE OVERLAY ON TOP OF THE BACKWALLS SHALL BE REMOVED BY HAND CHIPPING. THE SIZE OF THE CHIPPING HAMMER SHALL BE APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 511 - CLASS S CONCRETE, MISC.: CURB REPAIR:

ITEM 511 - CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR):

THESE ITEMS SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THE COARSE AGGREGATE SHALL BE LIMESTONE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR EACH OF THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 516 - JOINT SEALER, AS PER PLAN:

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN TO SEAL THE OPENING IN THE CURB AND FACE OF PARAPET AT THE EXPANSION JOINT. THE SEAL SHALL BE EVAZOTE 50, AS MANUFACTURED BY E-POXY ENGINEERED MATERIALS LLC, 10 BROADWAY, ALBANY, NEW YORK 12202, TELEPHONE 1-888-999-2463 OR EQUAL.

THE SEAL SHALL BE CEMENTED IN WITH AN ADHESIVE AS RECOMMENDED BY THE MANUFACTURER OF THE JOINT SEAL. ALL LAITANCES OR SURFACE CONTAMINANTS SHALL BE REMOVED TO INSURE MAXIMUM ADHESION. THE CONTRACTOR SHALL ESTABLISH THE SEAL SIZE AND INSTALL IT AS RECOMMENDED BY THE MANUFACTURER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 614 - MAINTAINING TRAFFIC:

ON STRUCTURES ASD-302-0089, ASD-302-0154 AND ASD-302-0563
TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING WORKING HOURS WHEN ONE LANE MAY BE CLOSED USING FLAGGERS, AS PER STANDARD DRAWING MT-97.10.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF THE OMUTCD. PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

STRUCTURE NOTES

ASD-89-12.15

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ITEM 614 - MAINTAINING TRAFFIC

DETOUR LIMITATION AND INTERIM COMPLETION DATE:

TWO WAY TRAFFIC ON STRUCTURE ASD-302-0244 SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED EIGHTEEN (18) CONSECUTIVE CALENDAR DAYS, THROUGH TRAFFIC WILL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR SHALL NOTIFY THE O.D.O.T. DISTRICT THREE ROADWAY SERVICES MANAGER, IN WRITING, A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF THE DATE THE DETOUR IS NEEDED. THE STATE OF OHIO WILL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT, AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

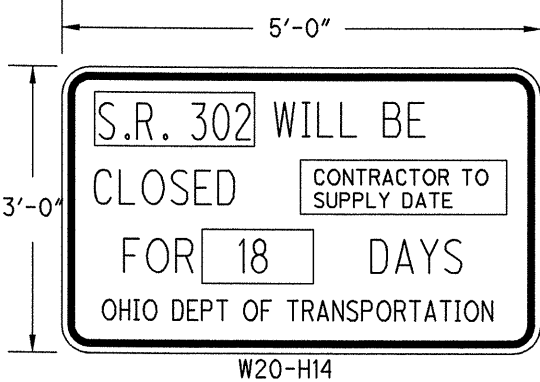
THE EIGHTEEN (18) CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE EIGHTEEN (18) DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES, AS PER SECTION 108.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES AS PER 614.02 (d).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

NOTICE OF CLOSURE SIGNS

THESE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE LOCATED IN THE FIELD SO AS NOT TO INTERFERE WITH ANY PERMANENT SIGNS. ON THIS PROJECT, THEY SHOULD BE ERECTING AT THE POINT OF CLOSURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE SIGNS INCLUDING SUPPORTS.

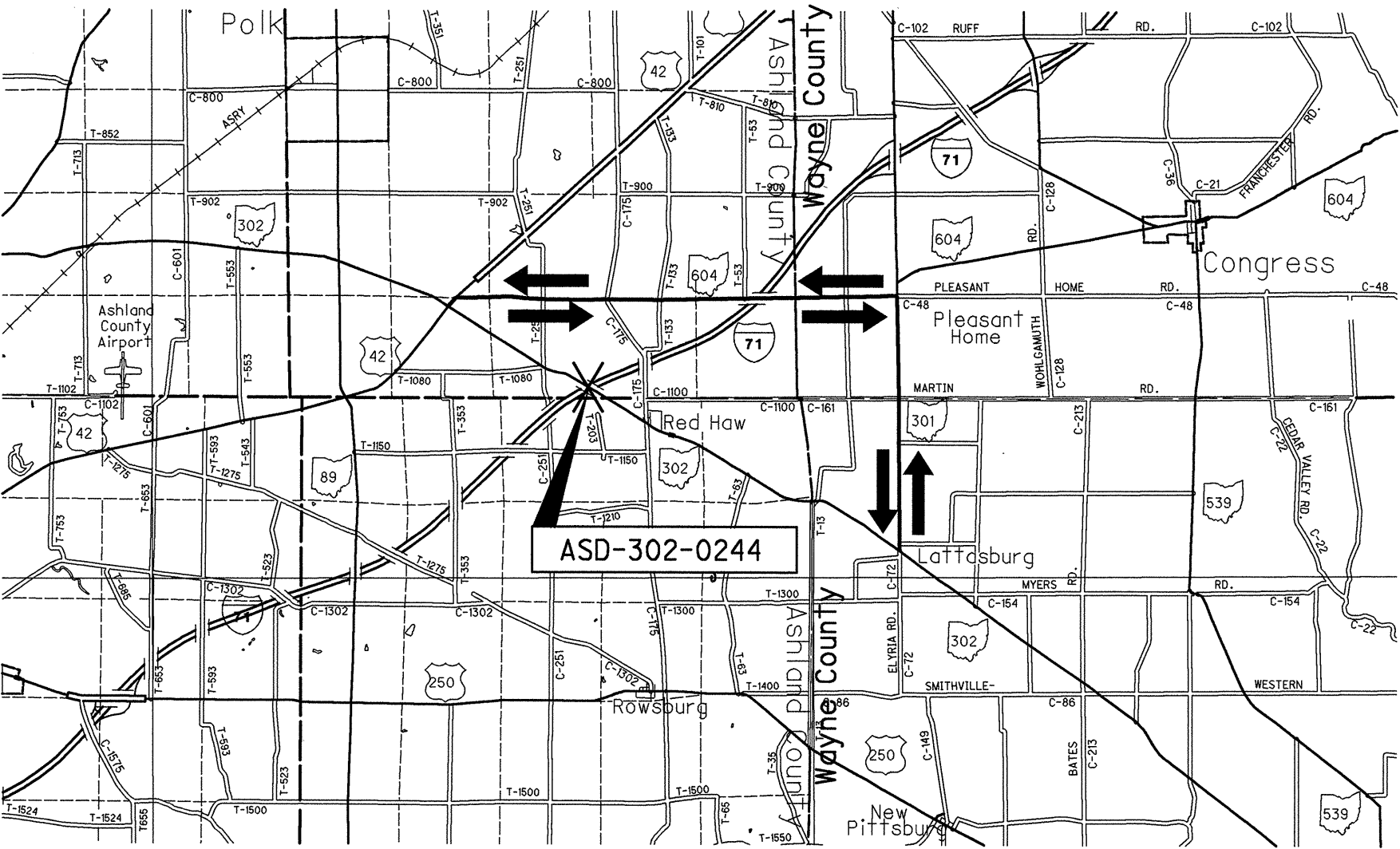


MAINTENANCE OF LOCAL DETOUR ROUTE

A LOCAL MAINTENANCE ROUTE, OTHER THAN THE OFFICIAL SIGNED ODOT DETOUR ROUTE, WILL BE DESIGNATED BY AGREEMENT BETWEEN ODOT AND LOCAL GOVERNMENTAL AGENCIES PRIOR TO THE HIGHWAY CLOSURE.

DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL MAINTENANCE ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER. THE DESIGNATED LOCAL DETOUR ROUTE IS TO BE REVIEWED AND REPAIRED PRIOR TO THE ASPHALT CONTRACTOR OR SUBCONTRACTOR LEAVING THE PROJECT.

PAYMENT FOR THE WORK NECESSARY TO REPAIR THESE LOCAL ROADS WILL BE PERFORMED BY EITHER CHANGE ORDER OR FORCE ACCOUNT.



DETOUR MAP

LEGEND

- X - PROJECT LOCATION
- ⇄ - OFFICIAL SIGNED DETOUR



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WORKSTATION: dmollens DATE: 10/31/2007

ASD-89-1670 SFN 0303704

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING	
503	21300	LUMP		UNCLASSIFIED EXCAVATION (WINGWALL FOOTING)	
509	10000	1596	LB	EPOXY COATED REINFORCING STEEL	
511	46001	7.5	CU YD	CLASS C CONCRETE, RET WALL/WINGWALL, ABOVE FT, AS PER PLAN	35
511	46501	10.5	CU YD	CLASS C CONCRETE, FOOTING, AS PER PLAN	35
512	10100	20	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
601	32100	51	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	

ASD-302-0089 SFN 0305197

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	98300	4	SQ YD	REMOVAL MISC.: CONCRETE	40
254	01000	67	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
407	10000	5	GAL	TACK COAT	
442	00201	4	CU YD	ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446), AS PER PLAN	4

ASD-302-0154 SFN 0305235

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
512	10100	74	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	33010	198	SQ YD	TYPE 3 WATERPROOFING	
SPECIAL	51631300	70	FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	46

ASD-302-0244 SFN 0305278

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	8	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	39
254	01000	953	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
407	10000	66	GAL	TACK COAT	
407	14000	25	GAL	TACK COAT FOR INTERMEDIATE COURSE	
442	20101	34	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 9.5MM, TYPE A (448), AS PER PLAN	4
442	00201	34	CU YD	ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446), AS PER PLAN	4
511	34450	7	CU YD	CLASS S CONCRETE, MISC.: CURB REPAIR	40
511	45701	1	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	40
516	13200	8	SQ FT	½" PREFORMED EXPANSION JOINT FILLER	
516	31001	19	FT	JOINT SEALER, AS PER PLAN	40
SPECIAL	51631300	56	FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	51

ASD-302-0563 SFN 0305294

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
407	10000	23	GAL	TACK COAT	
442	00201	12	CU YD	ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446), AS PER PLAN	4
512	10100	19	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
SPECIAL	51631300	70	FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	53

DESIGN AGENCY
ODOT DISTRICT THREE
OFFICE OF PRODUCTION

DATE
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STRUCTURE SUMMARY

ASD-89-12.15

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WORKSTATION: dnoless DATE: 10/31/2007

BRIDGE DECK DATA									ROADWAY DATA		
	COUNTY, ROUTE, BRIDGE NO.	LOCATION	STRUCTURE TYPE	LENGTH (BRIDGE DECK)	WIDTH	BRIDGE DECK AREA	SKEW	EXISTING WEARING SURFACE	EXISTING PAVEMENT WIDTH	EXISTING APPROACH SLAB WIDTH	EXISTING APPROACH SLAB LENGTH
				FT.	FT.	SQ.YD.			FT.	FT.	FT.
	+ ASD-89-1465	OVER KATOTAWA CREEK	TWIN CONCRETE PIPES					ASPHALT	24'±		
	++ ASD-89-1670	OVER MATTS RUN	TWIN CONCRETE PIPES					ASPHALT	26'±		
	* ASD-302-0089	OVER MUDDY FORK	3 SPAN CONCRETE SLAB	92'-6"±	32'	329	10° RF	CONCRETE	23'-6"±	20'	15'
	+ ASD-302-0120	OVER SMALL CREEK	CORRUGATED METAL PIPE					ASPHALT	23'-6"±		
	++ ASD-302-0154	OVER REDHAW CREEK	SINGLE SPAN PRESTRESS	59'-4"±	30'	198	31° RF	ASPHALT	23'-6"±	30'	25'
	** ASD-302-0244	OVER I-71	4 SPAN STEEL BEAM	307'-3"±	24'	820	31° LF	CONCRETE	23'-6"±	24'	25'
	● ASD-302-0563	OVER KATOTAWA CREEK	SINGLE SPAN PRESTRESS	35'-2"±	34'	133	12° LF	ASPHALT	23'-6"±	34'	20'

- + PAVE OVER STRUCTURE (NO STRUCTURE WORK) (SEE ROADWAY PLANS FOR PAVING QUANTITIES)
- ++ PAVE OVER STRUCTURE (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK) (SEE ROADWAY PLANS FOR PAVING QUANTITIES)
- * PLANE 1" DEEP ON APPROACH SLABS AND 1½" DEEP FOR 75 FT. ON BOTH APPROACHES. OMIT RESURFACING ON THE BRIDGE DECK, BUTT JOINT AT THE BRIDGE DECK.
(SEE DETAILS IN THE PLAN FOR STRUCTURE WORK) (SEE ROADWAY PLANS FOR PAVING QUANTITIES)
ASD-302-0089 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE: 67 SQUARE YARDS (CARRIED TO GENERAL SUMMARY SHEET, SHEET NO. 42)
- ** TAPER THE PAVING FROM 1½" DEEP TO 3" DEEP IN 150' FOR A 23'-6"± WIDTH AT THE APPROACH TO THE BRIDGE DECK. PAVE 3" DEEP ACROSS THE BRIDGE DECK FULL WIDTH. TAPER THE PAVING FROM 3" DEEP TO 1½" DEEP IN 150' FOR A 23'-6"± WIDTH BEYOND THE BRIDGE DECK.
(SEE DETAILS IN THE PLAN FOR STRUCTURE WORK). (SEE ROADWAY PLANS FOR PAVING QUANTITIES).
- TAPER THE PLANING FROM 0" DEEP TO 1½" DEEP IN 75' FOR A 23'-6"± WIDTH AT THE APPROACH TO THE APPROACH SLABS. PLANE 1½" DEEP ACROSS THE APPROACH SLABS AND BRIDGE DECK FOR A 34' WIDTH. TAPER THE PLANING FROM 1½" DEEP TO 0" DEEP IN 75' FOR A 23'-6"± WIDTH BEYOND THE APPROACH SLAB. PAVE FULL WIDTH OVER THE STRUCTURE (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK).
(SEE ROADWAY PLANS FOR PAVING QUANTITIES):
ASD-302-0563 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE: 284 SQUARE YARDS (CARRIED TO GENERAL SUMMARY SHEET, SHEET NO. 42)

DESIGN AGENCY
ODOT DISTRICT THREE
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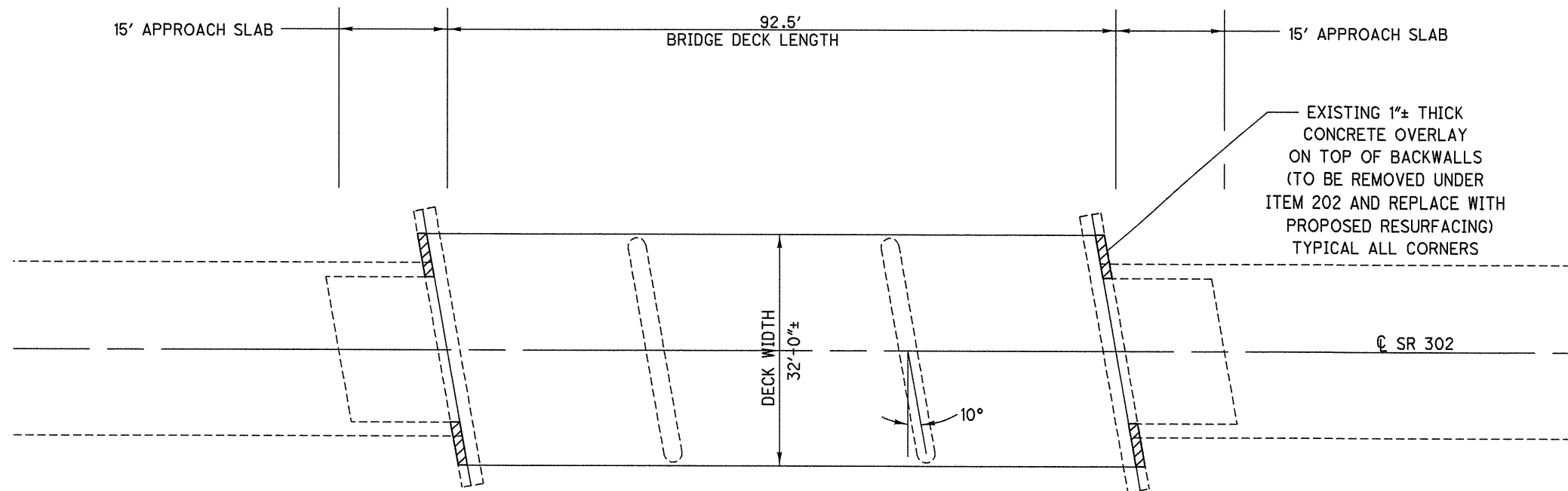
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BRIDGE TREATMENT

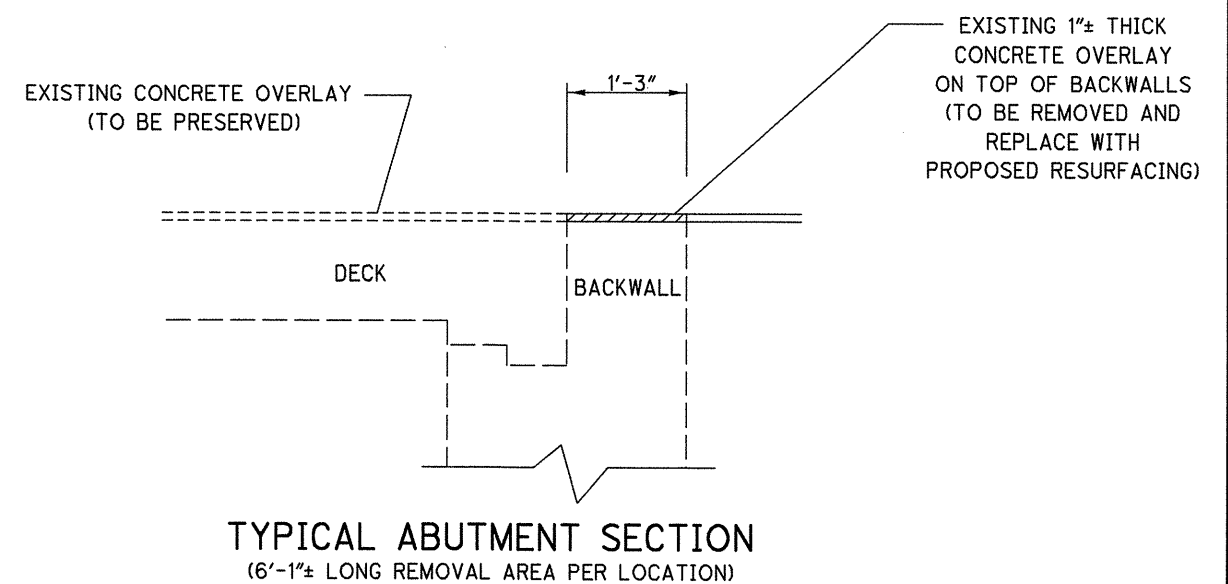
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PLAN VIEW



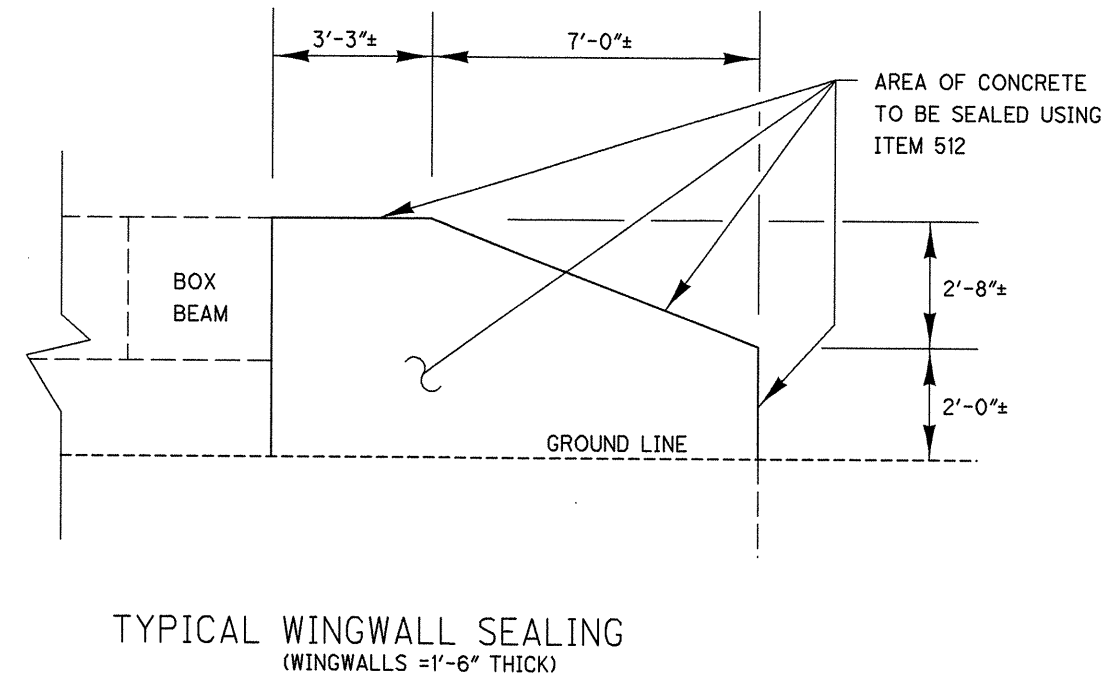
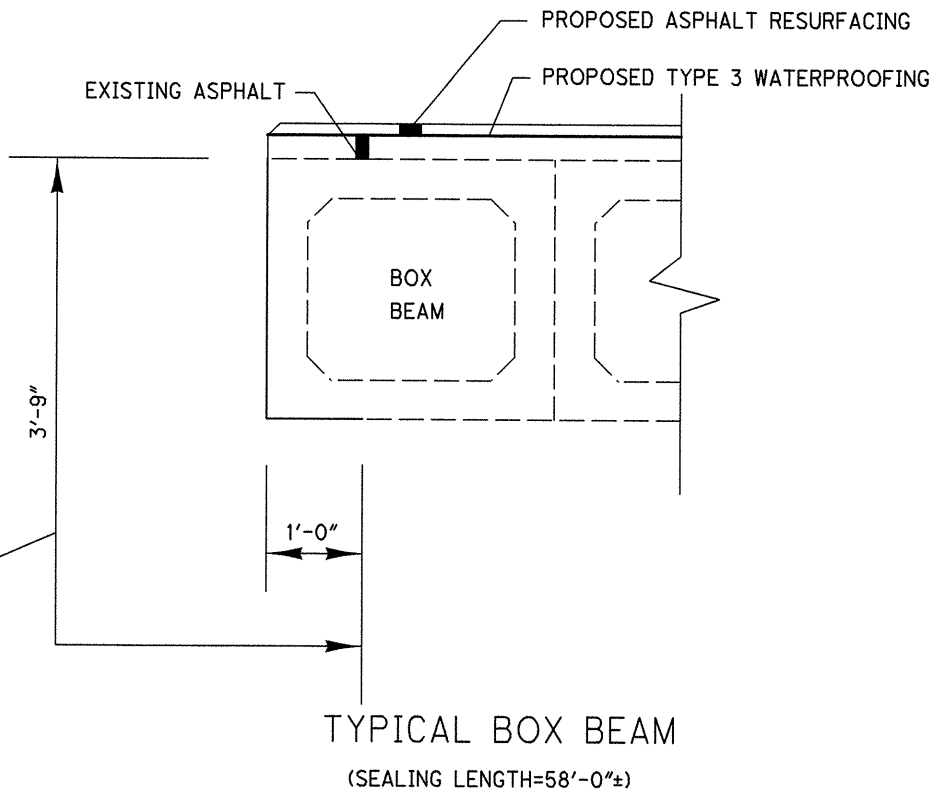
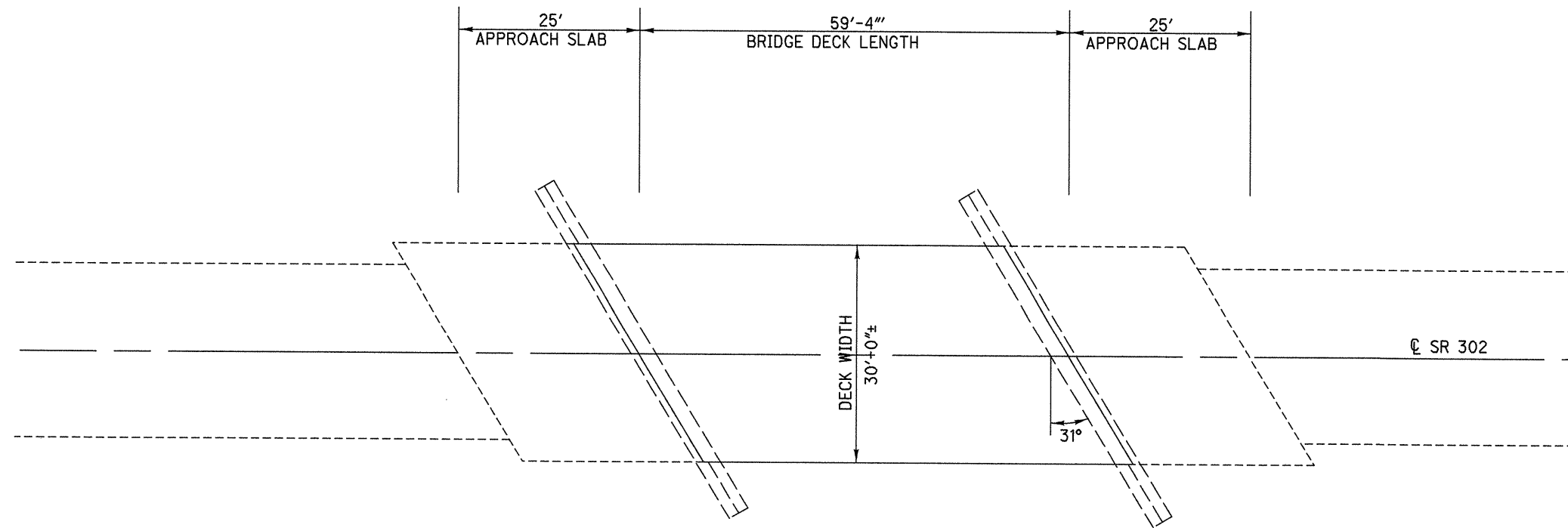
ITEM	QUANTITY	UNIT	DESCRIPTION
202	4	SQ YD	REMOVAL MISC.: CONCRETE
254	67	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
407	5	GAL	TACK COAT
442	4	CU YD	ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446), AS PER PLAN

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET

NOTES:

- 1) GUARDRAIL NOT SHOWN.
- 2) REMOVE THE 1"± THICK OVERLAY CONCRETE ON TOP OF THE BACKWALLS WITH ITEM 202 AND PAVE OVER THE BACKWALLS WITH ROADWAY ASPHALT.

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ITEM	QUANTITY	UNIT	DESCRIPTION
512	74	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	198	SQ YD	TYPE 3 WATERPROOFING
SPECIAL	70	FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET

NOTES:

- 1) GUARDRAIL NOT SHOWN.
- 2) SEAL EDGE OF BOX BEAMS AND WINGWALLS AS PER DETAILS ABOVE USING ITEM 512.
- 3) PLACE TYPE 3 WATERPROOFING ON EXISTING DECK ASPHALT PRIOR TO RESURFACING.
- 4) PLACE A POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM AT EACH ABUTMENT AS DETAILED ON SHEET 2/2.

PLAN VIEW
ASD-302-0154 OVER REDHAW CREEK

ASD-89-12.15

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DESIGN AGENCY
ODOT DISTRICT THREE
OFFICE OF PRODUCTION

DATE
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WORKSTATION: dmollens DATE: 10/31/2007

GENERAL NOTES AND DETAILS FOR POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM WILL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR WILL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING APPROVED APPLICATORS WHO WILL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

PRODUCT NAME	SUPPLIER	ADDRESS	PHONE NO.
THORMA-JOINT	DYNAMIC SURFACE APPLICATIONS, LTD	373 VILLAGE RD. PENNSDALE, PA 17756	(570)546-6041
MATRIX 502	CRAFCO INC.	420 N. ROOSEVELT AVE. CHANDLER, AZ 85226	(800)528-8242
EXPANDEX JOINT SYSTEM	WATSON-BOWMAN ACME	95 PINEVIEW DR. AMHERST, NY 14228	(716)691-7566
APJ ASPHALTIC PLUG EXPANSION JOINT	WYOMING EQUIPMENT SALES	281 SIXTH STREET P.O. BOX 287 WEST WYOMING, PA 18644	(570)693-2810

MATERIALS:

BRIDGING PLATE:

MILD STEEL $\frac{1}{8}$ " OR $\frac{1}{4}$ " THICK PLATE, 8" WIDE OR 18 GAUGE
ALUMINUM, 8" WIDE.

BINDER:

TYPE: POLYMER MODIFIED ASPHALT
SOFTENING POINT: 180 DEGREES F. MIN.
FLOW: 3 mm. MAX. AT 140 DEGREES F.
PENETRATION: 9 mm. MAX. AT 77 DEGREES F.
1 mm. MIN AT 0 DEGREES F.
ASTM D 3407
DUCTILITY: 40 cm. MIN. ASTM D 113
RESILIENCE: 60% MIN. AT 77 DEGREES F.
TENSILE ADHESION: 700% MIN.
SPECIFIC GRAVITY: 1.10 * 0.05
POURING TEMP: 350 - 390 DEGREES F.

AGGREGATE:

TYPE: CRUSHED, DOUBLE WASHED, AND
DRIED GRANITE OR BASALT

GRADATION

THE GRADATION OF THE AGGREGATE
VARIES BY MANUFACTURER AND
WILL BE AS PER THE MANUFACTURER'S
RECOMMENDATIONS FOR THE SYSTEM
BEING USED ON THIS PROJECT.

BACKER ROD:

THE BACKER SHALL BE A CLOSED CELL FOAM EXPANSION JOINT FILLER
CAPABLE OF WITHSTANDING THE PLACEMENT TEMPERATURE OF THE
POLYMER MODIFIED ASPHALT.

NOTE: PRIOR TO PLACEMENT OF ANY PORTION OF THE JOINT SYSTEM,
THE PROJECT ENGINEER MUST HAVE CERTIFIED TEST DATA MEETING ALL
THE MINIMUM REQUIREMENTS OF ALL THE MATERIALS OF THE JOINT SYSTEM.

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETE, THE OVERLAY IS TO BE
TRANSVERSELY SAW CUT FULL DEPTH NO LESS THAN TWO INCHES DEEP
(20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED).
REMOVE ALL MATERIAL, INCLUDING WATER-PROOFING MATERIAL, BETWEEN
SAW CUTS. THOROUGHLY CLEAN AND DRY EXPOSED CONCRETE, STEEL,
AND CUT SURFACES USING COMPRESSED AIR AND A HOT COMPRESSED AIR
(HCA) LANCE. THE LANCE MUST PRODUCE A FLAME RETARDED AIR STREAM
TEMPERATURE OF 3000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER

SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION
DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED
WITH THE HCA LANCE IMMEDIATELY BEFORE THE BINDER COAT OPERATION.
ALSO, 6 INCHES OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT
WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION
IS OBTAINED.

SEALING OF EXPANSION JOINT: (PRE-STRESSED BOX OR CONCRETE SLAB)

THE EXPANSION JOINT GAP IS TO BE SEALED AND A BRIDGING PLATE
CENTERED ALONG IT. A VERY NARROW GAP WILL BE SEALED BY POURING
HOT BINDER INTO THE GAP. GAPS OF $\frac{1}{8}$ " OR MORE WILL FIRST BE FILLED
WITH AN APPROPRIATELY SIZED BACKER ROD. THE BACKER ROD WILL BE
INSTALLED SO THAT IT IS BETWEEN $\frac{1}{8}$ " AND 1-1/8" BELOW THE TOP OF
THE EXISTING GAP. THE GAP WILL THEN BE FILLED WITH BINDER.

BOND BREAKER:

SPREAD BINDER OVER SURFACE AREA WHERE THE METAL BRIDGING PLATE
WILL BE PLACED. CENTER THE BRIDGING PLATE OVER THE EXISTING JOINT
AND BED INTO THE HOT BINDER. BUTT JOINT THE BRIDGING PLATES TO
ACCOMODATE THE ENTIRE JOINT LENGTH. SPIKE HOLES WILL BE
DRILLED AT 1 FOOT INTERVALS ALONG THE LONGITUDINAL CENTERLINE
OF THE PLATES. SECURE BRIDGING PLATE WITH NAILS OR SPIKES.
SEAL BUTT JOINTS WITH HOT BINDER AND ALLOW BINDER TO SETUP
BEFORE NEXT OPERATION. WHEN ALUMINUM BRIDGING PLATES ARE USED,
ONLY THE BINDER IS REQUIRED TO SECURE THE INDIVIDUAL PLATES.

BINDER COAT:

SEAL ALL PREPARED, EXPOSED SURFACES OF THE JOINT WITH BINDER.
POUR THE HOT BINDER OVER THE FLOOR AREA OF THE JOINT AND
SPREAD TO COAT ALL EXPOSED SURFACES. THE BINDER WILL BE
A MINIMUM OF $\frac{1}{2}$ " THICK ON THE BOTTOM OF THE JOINT CAVITY,
WITH POOLS OF GREATER THICKNESS WHERE SURFACE IRREGULARITIES
EXIST. THE BINDER APPLICATION TEMPERATURE WILL BE BETWEEN 350
AND 390 DEGREES F. THE BINDER WILL NOT BE ALLOWED TO BE
HEATED ABOVE 410 DEGREES F. NOR ALLOWED TO EXCEED 390 DEGREES
F. FOR MORE THAN 1 HOUR. A DOUBLE JACKETED OIL MELTER WILL
BE USED TO HEAT THE BINDER. THE MELTER WILL BE EQUIPPED WITH
A CONTINUOUS AGITATION SYSTEM, TEMPERATURE CONTROLS, AND A
CALIBRATED THERMOMETER. ALSO A SYSTEM FOR ACCURATELY MEASURING
THE WEIGHTS OF THE BINDER AND THE AGGREGATE WILL BE REQUIRED.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

HEAT THE AGGREGATE TO A TEMPERATURE OF 275 TO 325 DEGREES F.,
WITH A SUITABLE ROTATING DRUM WITH ATTACHED HEAT SOURCE OR A
HOT COMPRESSED AIR LANCE, TO REMOVE DUST AND MOISTURE.

AGGREGATE PROPORTION AND LAYER THICKNESS:

MIX THE AGGREGATE WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE
CONTENT BY WEIGHT WILL BE 68%. THE HEATED AGGREGATE AND BINDER
WILL BE COMBINED IN LAYERS, UNLESS PATENTED INSTALLATION REQUIRES
DIFFERENTLY, NOT LESS THAN $\frac{3}{4}$ OF AN INCH NOR EXCEEDING 2-1/2 INCHES.
THE THICKNESS OF EACH LAYER CAN BE VARIED WITHIN THESE LIMITS, TO
ACHIEVE THE REQUIRED JOINT THICKNESS (MIN. 2 INCHES). THE OBJECTIVE
IS TO COAT EACH STONE AND FILL THE VOIDS WHILE AVOIDING AN EXCESS OF
BINDER. THIS WILL ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTENT
WITH ALL STONES BEING COATED WITH BINDER. RAKE THE MIXTURE TO MIX
AND LEVEL.

THE TOP LAYER THICKNESS WILL VARY BETWEEN $\frac{1}{2}$ INCH AND ONE (1) INCH.
IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER WILL
BE APPROXIMATELY 6:1 BY WEIGHT. OVERFILL THE TOP LAYER AND COMPACT
TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY
PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION,
POUR SUFFICIENT BINDER OVER THE JOINT TO FILL THE SURFACE VOIDS
AND COAT THE SURFACE STONE. DUST THE FINISHED JOINT WITH A FINE,
DRY AGGREGATE TO PREVENT TACKINESS.

MAINTENANCE OF TRAFFIC:

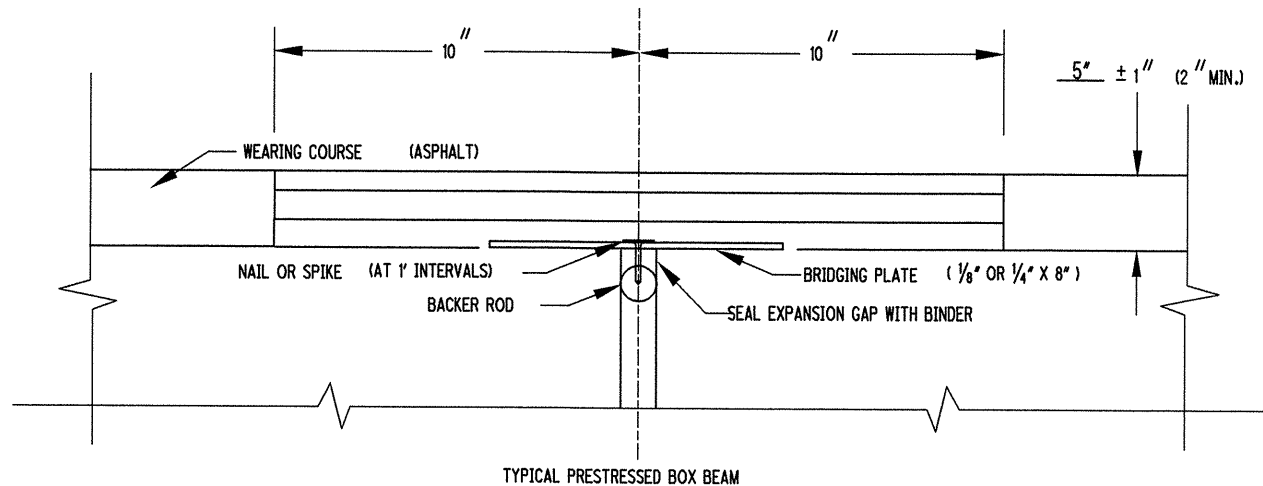
IF NECESSARY TO FACILITATE TRAFFIC MAINTENANCE, THE JOINT WILL BE
INSTALLED IN TWO (2) HALF-WIDTH PHASES. DURING PHASE 1
APPROXIMATELY HALF OF THE TOTAL JOINT WILL BE INSTALLED. DURING
PHASE 2, A MINIMUM OF TWO (2) INCHES OF THE PHASE 1 JOINT WILL
BE REMOVED, AT OR NEAR THE CENTERLINE, WITH THE REMAINDER OF THE
JOINT INSTALLED. IN ALL CASES, OPERATIONS WILL BE SCHEDULED SO
THAT ALL LANES CAN BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS.

TESTING:

CERTIFICATION WILL BE SUPPLIED FOR EACH PROJECT SHOWING BINDER
COMPLIANCE WITH REQUIRED PROPERTIES. A ONE QUART SAMPLE OF
BINDER WILL BE RETRIEVED FROM EACH BRIDGE FOR FURTHER TESTING
BY THE O.D.O.T OFFICE OF MATERIALS MANAGEMENT.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

THE DEPARTMENT WILL MEASURE THE JOINT BY THE NUMBER OF FEET AND
WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS: ITEM SPECIAL,
POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM.



ASD-302-0154 SFN 0305235			
ITEM	DESCRIPTION	UNIT	QUANTITY
SPECIAL	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	FT	70

QUANTITY CARRIED TO SHEET NO. 1/2.

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
ASD-302-0154 OVER REDHAW CREEK

ASD-89-12.15

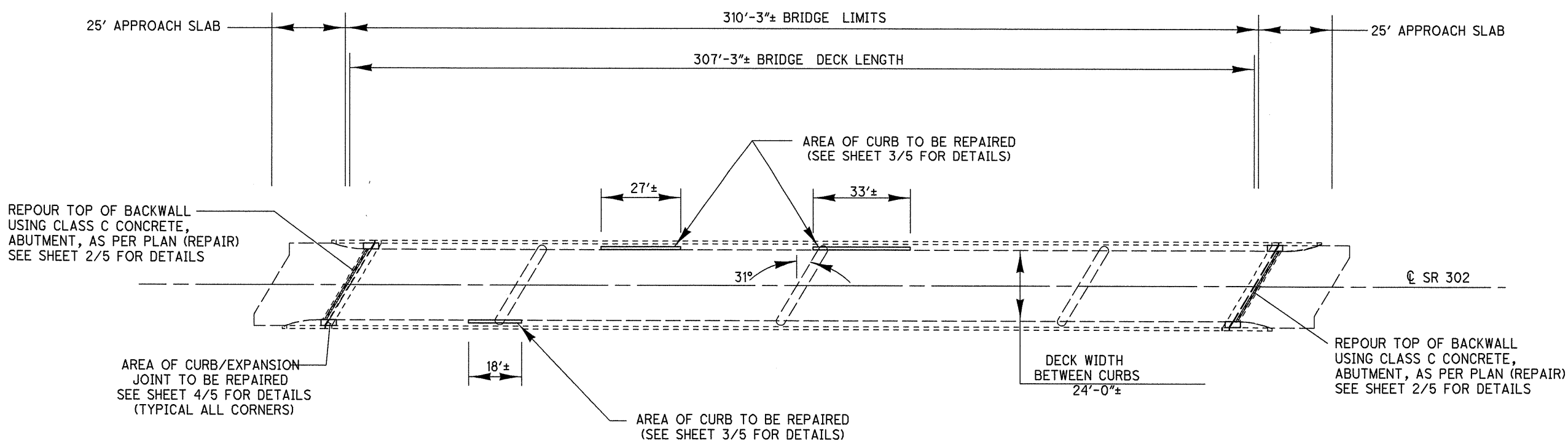
2 / 2

46
56

CALCULATED
DCM
DATE
REVISED
10-28-96
10-17-03
04-15-05

DESIGNED
MAM
DRAWN
MAM

DESIGN FILE: I:\projects\25673\Structure\Bridgerehab\302-0244str1.dgn
WORKSTATION: dmollens DATE: 10/31/2007



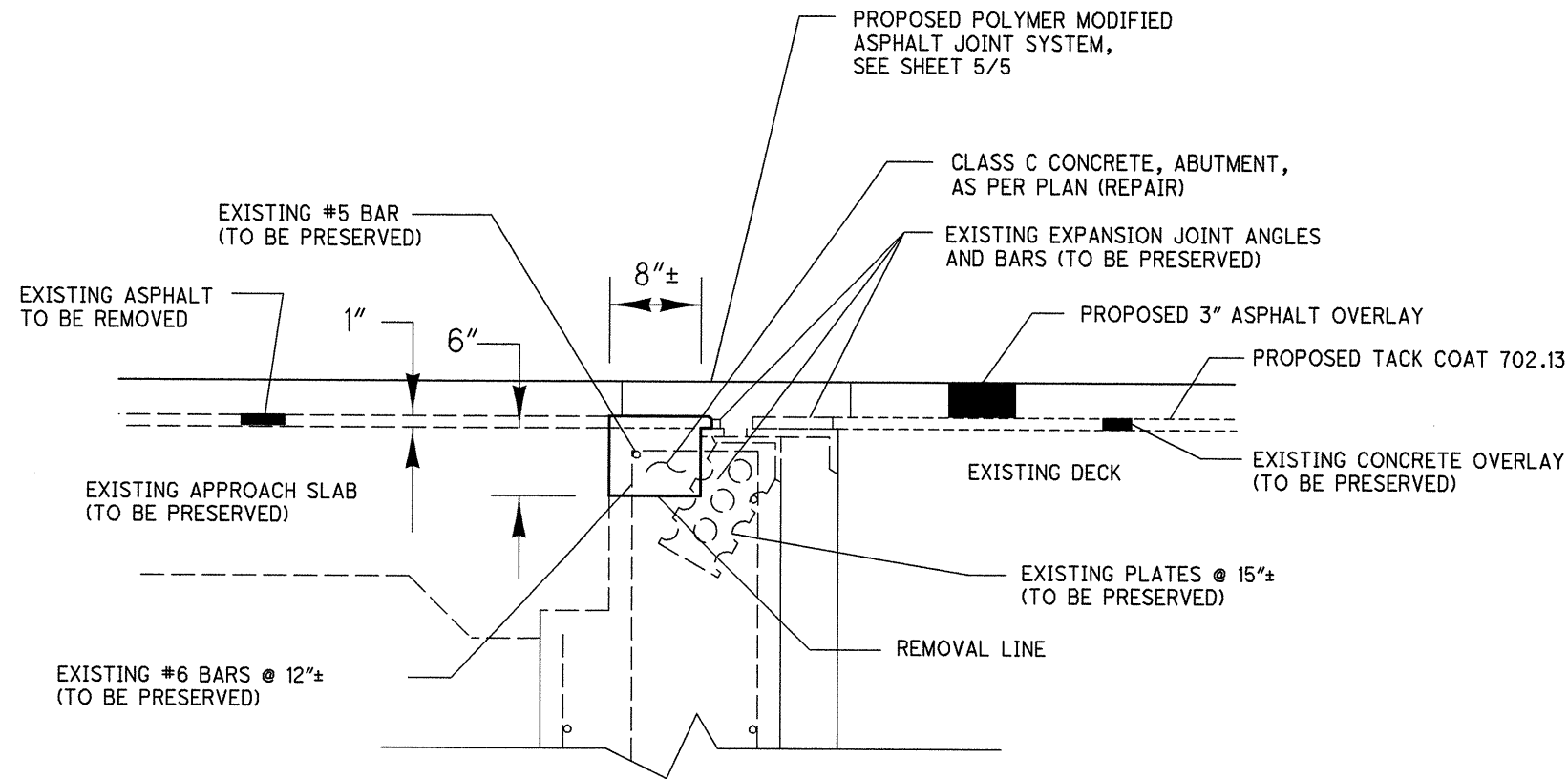
PLAN VIEW

ITEM	QUANTITY	UNIT	DESCRIPTION
202	8	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
254	953	CU YD	PAVEMENT PLANING, ASPHALT CONCRETE
407	66	GAL	TACK COAT
407	25	GAL	TACK COAT FOR INTERMEDIATE COURSE
442	34	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 9.5MM, TYPE A (448), AS PER PLAN
442	34	CU YD	ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446), AS PER PLAN
511	7	CU YD	CLASS S CONCRETE, MISC.: CURB REPAIR
511	1	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)
516	8	SQ FT	1/2" PREFORMED EXPANSION JOINT FILLER
516	19	FT	JOINT SEALER, AS PER PLAN
SPECIAL	56	FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET

- NOTES:
- 1) APPROACH GUARDRAIL NOT SHOWN.
 - 2) REPAIR CURBS AT AREAS INDICATED ABOVE. SEE SHEET 3/5 FOR DETAILS.
 - 3) REPOUR TOP 6" OF BACKWALL FROM CURB TO CURB AS DETAILED ON SHEET 2/5.
 - 4) PLACE A POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM AT EACH ABUTMENT AS DETAILED ON SHEET 5/5.
 - 5) REPAIR CURB/EXPANSION JOINT AREAS AS PER DETAILS ON SHEET 4/5.
 - 6) PAVE OVER BRIDGE DECK WITH 3" OF ASPHALT, SEE ROADWAY PLANS FOR QUANTITIES.
 - 7) TAPER ASPHALT AT EACH SCUPPER LOCATION TO DRAIN INTO SCUPPER.
 - 8) ALL EXISTING REINFORCING STEEL TO BE PRESERVED.

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WORKSTATION: dmollens DATE: 10/31/2007



TYPICAL ABUTMENT SECTION
(28'± OF REPAIR LENGTH PER ABUTMENT)

ITEM	QUANTITY	UNIT	DESCRIPTION
202	1	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	1	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)

NOTES:

- 1) ALL EXISTING REINFORCING STEEL TO BE PRESERVED

ALL QUANTITIES CARRIED TO SHEET 1/5.

BACKWALL REPAIR
ASD-302-0244 OVER I-71

ASD-89-12.15

2 / 5

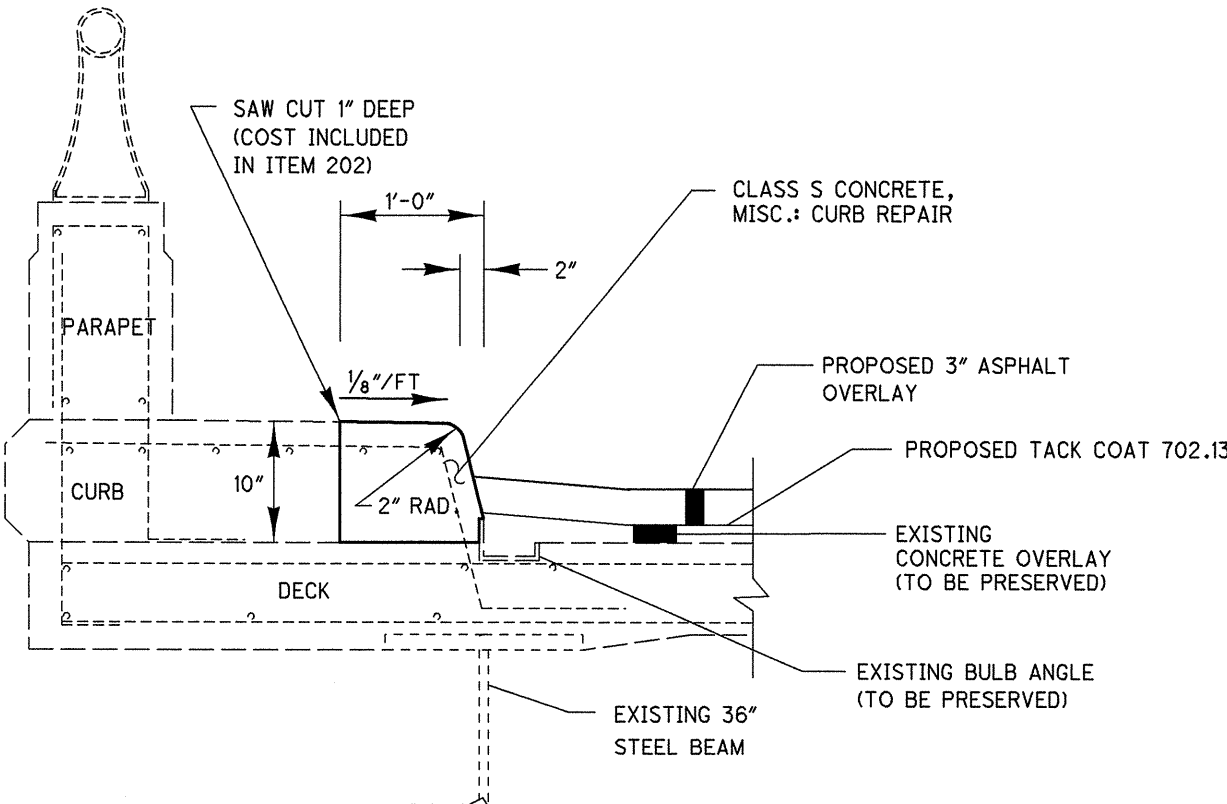
48
56

DESIGN AGENCY
ODOT DISTRICT THREE
OFFICE OF PRODUCTION

REVIEWED
RDN
DATE
9/07
STRUCTURE FILE NUMBER
0305278

DRAWN
DCM
DESIGNED
DCM
CHECKED
DJV
REVISED

DESIGN FILE:



TYPICAL CURB REPAIR SECTION

(78'± OF CURB REPAIR LENGTH)

ITEM	QUANTITY	UNIT	DESCRIPTION
202	3	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	3	CU YD	CLASS S CONCRETE, MISC.: CURB REPAIR

NOTES:

1) ALL EXISTING REINFORCING STEEL TO BE PRESERVED

ALL QUANTITIES CARRIED TO SHEET 1/5.

ASD-89-12.15

CURB REPAIR
ASD-302-0244 OVER I-71

DESIGNED
DCM
CHECKED
DJV

DRAWN
DCM
REVISED

REVIEWED	DATE
RDN	9/07
STRUCTURE FILE NUMBER	
0305278	

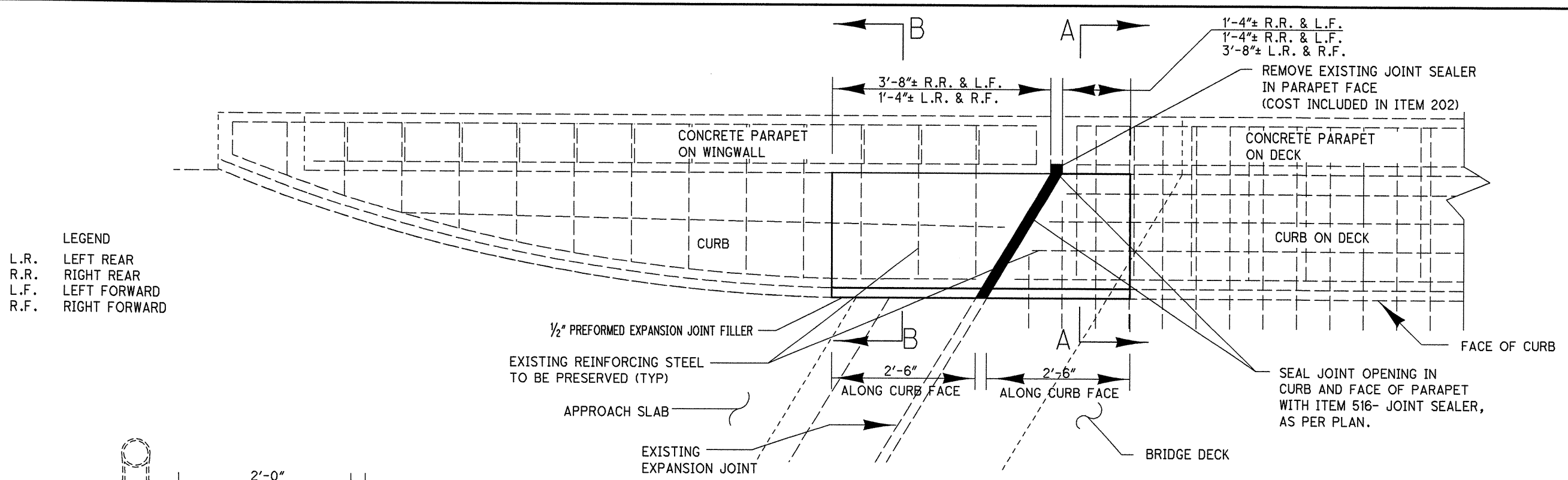
DESIGN AGENCY
ODOT DISTRICT THREE
OFFICE OF PRODUCTION

3 / 5

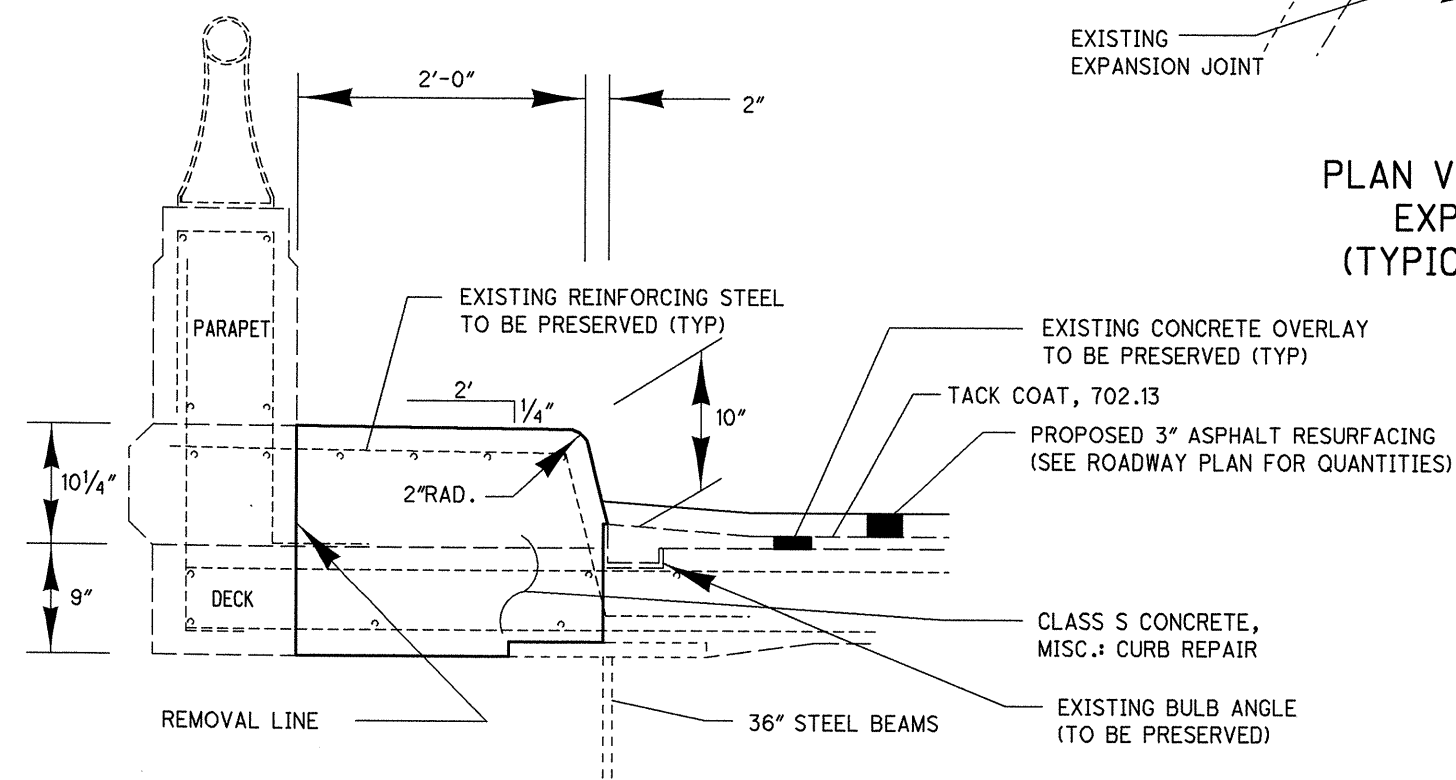
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WORKSTATION: dmollens DATE: 10/31/2007

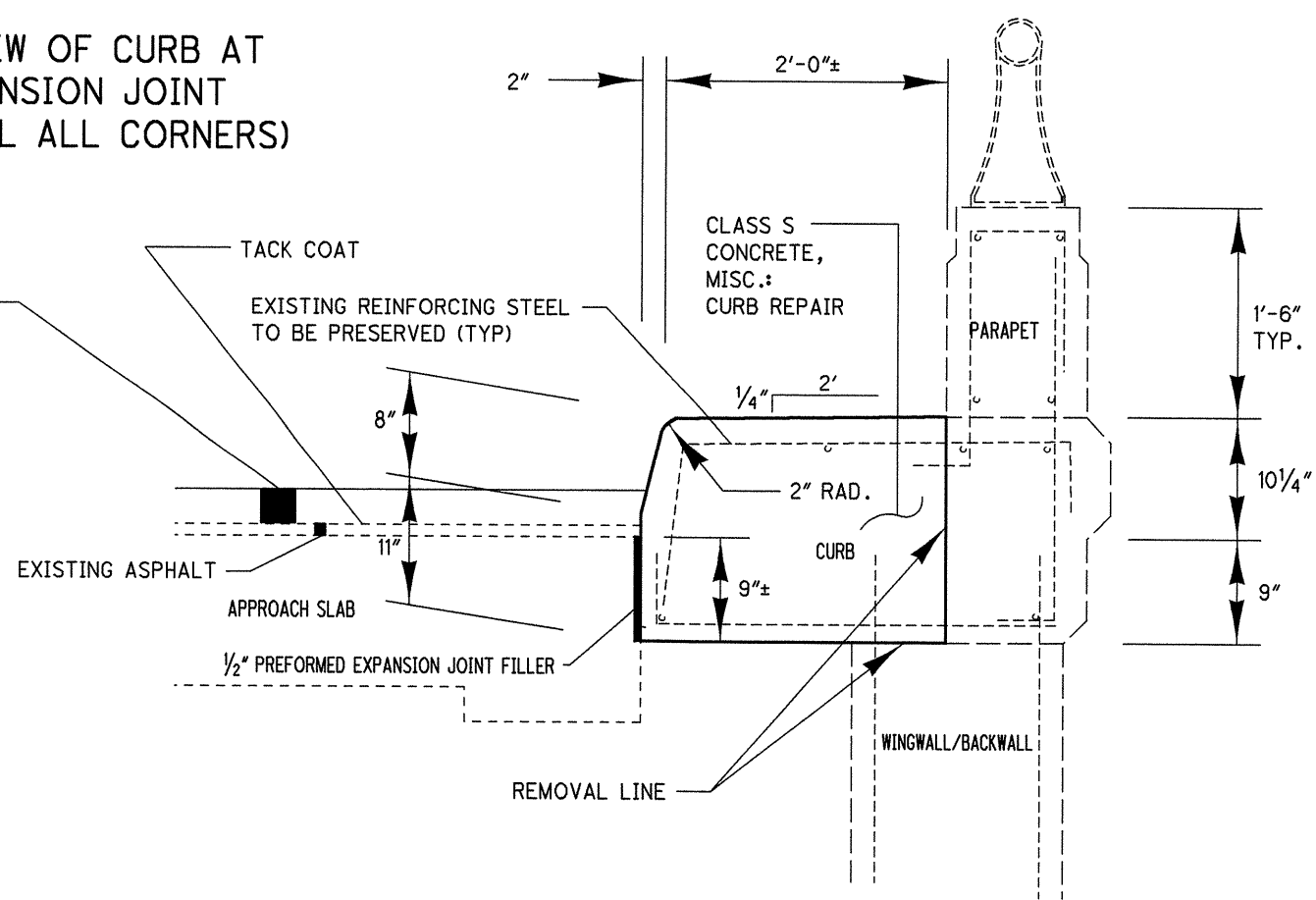
LEGEND
L.R. LEFT REAR
R.R. RIGHT REAR
L.F. LEFT FORWARD
R.F. RIGHT FORWARD



PLAN VIEW OF CURB AT EXPANSION JOINT (TYPICAL ALL CORNERS)



SECTION A-A
(2'-6" AVG. LENGTH)



SECTION B-B
(2'-6" AVG. LENGTH)

NOTES:
1) ALL EXISTING REINFORCING STEEL TO BE PRESERVED

ITEM	QUANTITY	UNIT	DESCRIPTION
202	4	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	4	CU YD	CLASS S CONCRETE, MISC.: CURB REPAIR
516	19	FT	JOINT SEALER, AS PER PLAN
516	8	SQ FT	1/2" PREFORMED EXPANSION JOINT FILLER

ALL QUANTITIES CARRIED TO SHEET 1/5

DESIGN FILE: i:\projects\25673\Struct\bridgerehab\302_0244str2.dgn
WORKSTATION: dmollens DATE: 10/31/2007

GENERAL NOTES AND DETAILS FOR POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM WILL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR WILL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING APPROVED APPLICATORS WHO WILL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

PRODUCT NAME	SUPPLIER	ADDRESS	PHONE NO.
THORMA-JOINT	DYNAMIC SURFACE APPLICATIONS, LTD	373 VILLAGE RD. PENNSDALE, PA 17756	(570)546-6041
MATRIX 502	CRAFCO INC.	420 N. ROOSEVELT AVE. CHANDLER, AZ 85226	(800)528-8242
EXPANDEX JOINT SYSTEM	WATSON-BOWMAN ACME	95 PINEVIEW DR. AMHERST, NY 14228	(716)691-7566
APJ ASPHALTIC PLUG EXPANSION JOINT	WYOMING EQUIPMENT SALES	281 SIXTH STREET P.O. BOX 287 WEST WYOMING, PA 18644	(570)693-2810

MATERIALS:

BRIDGING PLATE:

MILD STEEL $\frac{1}{8}$ " OR $\frac{1}{4}$ " THICK PLATE, 8" WIDE OR 18 GAUGE
ALUMINUM, 8" WIDE.

BINDER:

TYPE: POLYMER MODIFIED ASPHALT
SOFTENING POINT: 180 DEGREES F. MIN.
FLOW: 3 mm. MAX. AT 140 DEGREES F.
PENETRATION: 9 mm. MAX. AT 77 DEGREES F.
1 mm. MIN AT 0 DEGREES F.
ASTM D 3407
DUCTILITY: 40 cm. MIN. ASTM D 113
RESILIENCE: 60% MIN. AT 77 DEGREES F.
TENSILE ADHESION: 700% MIN.
SPECIFIC GRAVITY: 1.10 * 0.05
POURING TEMP: 350 - 390 DEGREES F.

AGGREGATE:

TYPE: CRUSHED, DOUBLE WASHED, AND DRIED GRANITE OR BASALT

GRADATION: THE GRADATION OF THE AGGREGATE VARIES BY MANUFACTURER AND WILL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE SYSTEM BEING USED ON THIS PROJECT.

BACKER ROD:

THE BACKER SHALL BE A CLOSED CELL FOAM EXPANSION JOINT FILLER CAPABLE OF WITHSTANDING THE PLACEMENT TEMPERATURE OF THE POLYMER MODIFIED ASPHALT.

NOTE: PRIOR TO PLACEMENT OF ANY PORTION OF THE JOINT SYSTEM, THE PROJECT ENGINEER MUST HAVE CERTIFIED TEST DATA MEETING ALL THE MINIMUM REQUIREMENTS OF ALL THE MATERIALS OF THE JOINT SYSTEM.

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETE, THE OVERLAY IS TO BE TRANSVERSELY SAW CUT FULL DEPTH NO LESS THAN TWO INCHES DEEP (20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED). REMOVE ALL MATERIAL, INCLUDING WATER-PROOFING MATERIAL, BETWEEN SAW CUTS. THOROUGHLY CLEAN AND DRY EXPOSED CONCRETE, STEEL, AND CUT SURFACES USING COMPRESSED AIR AND A HOT COMPRESSED AIR (HCA) LANCE. THE LANCE MUST PRODUCE A FLAME RETARDED AIR STREAM TEMPERATURE OF 3000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER

SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED WITH THE HCA LANCE IMMEDIATELY BEFORE THE BINDER COAT OPERATION. ALSO, 6 INCHES OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION IS OBTAINED.

SEALING OF EXPANSION JOINT: (PRE-STRESSED BOX OR CONCRETE SLAB)

THE EXPANSION JOINT GAP IS TO BE SEALED AND A BRIDGING PLATE CENTERED ALONG IT. A VERY NARROW GAP WILL BE SEALED BY POURING HOT BINDER INTO THE GAP. GAPS OF $\frac{1}{8}$ " OR MORE WILL FIRST BE FILLED WITH AN APPROPRIATELY SIZED BACKER ROD. THE BACKER ROD WILL BE INSTALLED SO THAT IT IS BETWEEN $\frac{1}{8}$ " AND 1-1/8" BELOW THE TOP OF THE EXISTING GAP. THE GAP WILL THEN BE FILLED WITH BINDER.

BOND BREAKER:

SPREAD BINDER OVER SURFACE AREA WHERE THE METAL BRIDGING PLATE WILL BE PLACED. CENTER THE BRIDGING PLATE OVER THE EXISTING JOINT AND BED INTO THE HOT BINDER. BUTT JOINT THE BRIDGING PLATES TO ACCOMODATE THE ENTIRE JOINT LENGTH. SPIKE HOLES WILL BE DRILLED AT 1 FOOT INTERVALS ALONG THE LONGITUDINAL CENTERLINE OF THE PLATES. SECURE BRIDGING PLATE WITH NAILS OR SPIKES. SEAL BUTT JOINTS WITH HOT BINDER AND ALLOW BINDER TO SETUP BEFORE NEXT OPERATION. WHEN ALUMINUM BRIDGING PLATES ARE USED, ONLY THE BINDER IS REQUIRED TO SECURE THE INDIVIDUAL PLATES.

BINDER COAT:

SEAL ALL PREPARED, EXPOSED SURFACES OF THE JOINT WITH BINDER. POUR THE HOT BINDER OVER THE FLOOR AREA OF THE JOINT AND SPREAD TO COAT ALL EXPOSED SURFACES. THE BINDER WILL BE A MINIMUM OF $\frac{1}{2}$ " THICK ON THE BOTTOM OF THE JOINT CAVITY, WITH POOLS OF GREATER THICKNESS WHERE SURFACE IRREGULARITIES EXIST. THE BINDER APPLICATION TEMPERATURE WILL BE BETWEEN 350 AND 390 DEGREES F. THE BINDER WILL NOT BE ALLOWED TO BE HEATED ABOVE 410 DEGREES F. NOR ALLOWED TO EXCEED 390 DEGREES F. FOR MORE THAN 1 HOUR. A DOUBLE JACKETED OIL MELTER WILL BE USED TO HEAT THE BINDER. THE MELTER WILL BE EQUIPPED WITH A CONTINUOUS AGITATION SYSTEM, TEMPERATURE CONTROLS, AND A CALIBRATED THERMOMETER. ALSO A SYSTEM FOR ACCURATELY MEASURING THE WEIGHTS OF THE BINDER AND THE AGGREGATE WILL BE REQUIRED.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

HEAT THE AGGREGATE TO A TEMPERATURE OF 275 TO 325 DEGREES F., WITH A SUITABLE ROTATING DRUM WITH ATTACHED HEAT SOURCE OR A HOT COMPRESSED AIR LANCE, TO REMOVE DUST AND MOISTURE.

AGGREGATE PROPORTION AND LAYER THICKNESS:

MIX THE AGGREGATE WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE CONTENT BY WEIGHT WILL BE 68%. THE HEATED AGGREGATE AND BINDER WILL BE COMBINED IN LAYERS, UNLESS PATENTED INSTALLATION REQUIRES DIFFERENTLY, NOT LESS THAN $\frac{3}{4}$ OF AN INCH NOR EXCEEDING 2-1/2 INCHES. THE THICKNESS OF EACH LAYER CAN BE VARIED WITHIN THESE LIMITS, TO ACHIEVE THE REQUIRED JOINT THICKNESS (MIN. 2 INCHES). THE OBJECTIVE IS TO COAT EACH STONE AND FILL THE VOIDS WHILE AVOIDING AN EXCESS OF BINDER. THIS WILL ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTENT WITH ALL STONES BEING COATED WITH BINDER. RAKE THE MIXTURE TO MIX AND LEVEL.

THE TOP LAYER THICKNESS WILL VARY BETWEEN $\frac{1}{2}$ INCH AND ONE (1) INCH. IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER WILL BE APPROXIMATELY 6:1 BY WEIGHT. OVERFILL THE TOP LAYER AND COMPACT TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION, POUR SUFFICIENT BINDER OVER THE JOINT TO FILL THE SURFACE VOIDS AND COAT THE SURFACE STONE. DUST THE FINISHED JOINT WITH A FINE, DRY AGGREGATE TO PREVENT TACKINESS.

MAINTENANCE OF TRAFFIC:

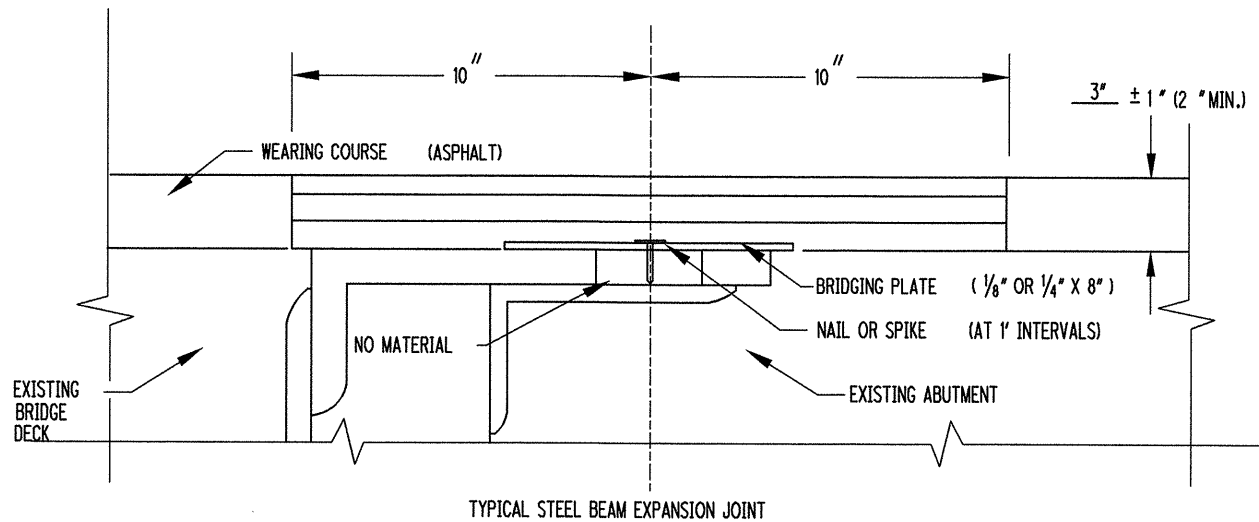
IF NECESSARY TO FACILITATE TRAFFIC MAINTENANCE, THE JOINT WILL BE INSTALLED IN TWO (2) HALF-WIDTH PHASES. DURING PHASE 1 APPROXIMATELY HALF OF THE TOTAL JOINT WILL BE INSTALLED. DURING PHASE 2, A MINIMUM OF TWO (2) INCHES OF THE PHASE 1 JOINT WILL BE REMOVED, AT OR NEAR THE CENTERLINE, WITH THE REMAINDER OF THE JOINT INSTALLED. IN ALL CASES, OPERATIONS WILL BE SCHEDULED SO THAT ALL LANES CAN BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS.

TESTING:

CERTIFICATION WILL BE SUPPLIED FOR EACH PROJECT SHOWING BINDER COMPLIANCE WITH REQUIRED PROPERTIES. A ONE QUART SAMPLE OF BINDER WILL BE RETRIEVED FROM EACH BRIDGE FOR FURTHER TESTING BY THE O.D.O.T OFFICE OF MATERIALS MANAGEMENT.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

THE DEPARTMENT WILL MEASURE THE JOINT BY THE NUMBER OF FEET AND WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS: ITEM SPECIAL, POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM.



ASD-302-0244 SFN 0305278			
ITEM	DESCRIPTION	UNIT	QUANTITY
SPECIAL	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	FT	56

QUANTITY CARRIED TO SHEET NO. 1/5

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ASD-89-12.15

ASD-302-0244 OVER 1-71

DESIGNED	CHECKED	DATE	REVISION
MAM	DCM	10-28-96	04-5-05
BROWN	DJV	10-17-03	

5	5
51	56