

# GENERAL NOTES

## ITEM SPECIAL - 4" X 4" JOINT SEAL (BITUMEN IMPREGNATED FOAM)

1. DESCRIPTION: THIS WORK SHALL CONSIST OF SEALING JOINTS USING BITUMEN IMPREGNATED FOAM IN ACCORDANCE WITH THESE SPECIFICATIONS, IN REASONABLY CLOSE CONFORMITY WITH THE PLANS AND MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS DIRECTED BY THE ENGINEER.

2. MATERIAL: THE MATERIAL SHALL BE A PRECOMPRESSED BITUMEN IMPREGNATED FOAM JOINT SEALANT SUCH AS EMSEAL PCSA, PERMABAND ROYSTON UNIBAND 8100 OR AN APPROVED EQUAL. EMSEAL U.S.A., IS LOCATED AT 344 MILL ROAD IN STAMFORD, CT. 06903. AND HAS A TELEPHONE NUMBER OF (203) 322-3828. PERMABAND IS AVAILABLE FROM PERMAQUIK (CANADA) LTD WHICH IS LOCATED AT 3043 UNIVERSAL DRIVE IN MISSISSAUGA, ONTARIO L4X2E2; TELEPHONE (416) 625-9444. ROYSTON IS LOCATED AT 128 FIRST ST; PITTSBURG, PA. 15238; TELEPHONE 828-1500.

ALL MATERIALS SHALL BE STORED AND INCORPORATED IN THE WORK AS RECOMMENDED BY THE MANUFACTURER.

3. SURFACE PREPARATION: THE FACES TO WHICH THE SEAL MUST ADHERE SHALL BE SANDBLASTED CLEAN AND BE FREE OF FOREIGN MATERIAL SUCH AS DIRT, DUST, GREASE, OIL, RELEASE AGENTS AND ANY OTHER MATERIAL DETRIMENTAL TO ADHESION OF THE SEALANT.

4. APPLICATION: JOINTS SEALS SHALL BE INSTALLED ONLY WHEN THE SURFACES ARE DRY AND THE SURFACE TEMPERATURE IS ABOVE 50F. BOTH CONCRETE SURFACES ADJACENT TO THE JOINT SEAL SHALL BE PRIMED AS RECOMMENDED BY THE MANUFACTURER. THE FOAM SEAL SHALL BE REMOVED FROM THE PACKAGING AND ITS NARROW EDGE INSERTED INTO THE JOINT OPENING. THE DEPTH FACE WITH THE SELF-ADHESIVE BACKING SHALL BE PRESSED AGAINST ONE SIDE OF THE JOINT SO THAT FOAM IS HELD IN PLACE WHILE IT RECOVERS.

AT TEMPERATURES ABOVE 70F THE MATERIAL WILL RECOVER IN A FEW HOURS. AT TEMPERATURES BELOW 70F THE RECOVERY SHALL BE ACCELERATED BY HEATING THE MATERIAL WITH AN OPEN FLAME, GAS BURNER, INFRA-RED LAMP OR HOT-AIR BLOWER.

A CONTINUOUS LENGTH OF JOINT SEAL SHALL BE ACHIEVED BY JOINING INDIVIDUAL STRIPS ONLY BY MEANS OF SCARFED JOINTS CUT AT 45 DEGREES OR LESS RELATIVE TO THE SIDES OF THE JOINT. THE SCARFED ENDS MUST BE PUSHED WELL PAST ONE ANOTHER. THE SEAL SHALL NOT BE PULLED OR STRETCHED SO THAT GAPS BETWEEN SUCCESSIVE LENGTHS ARE PREVENTED.

5. METHOD OF MEASUREMENT: FOOTAGE UNDER THIS ITEM SHALL BE THE LINEAR FEET OF BITUMEN IMPREGNATED FOAM SEAL INSTALLED IN THE OPEN JOINTS THAT ARE COMPLETE, IN PLACE AND ACCEPTED.

6. BASIS OF PAYMENT: THE ACCEPTED QUANTITIES OF SEALED JOINTS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAR FOOT, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR PREPARING THE SURFACES, FURNISHING AND PLACING ALL MATERIALS AND ALL LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE JOINT SEAL ACCORDING TO SPECIFICATIONS. PAYMENT WILL BE MADE UNDER THE FOLLOWING:

ITEM	UNIT	DESCRIPTION
SPECIAL	LIN. FT.	4"x4" JOINT SEAL (BITUMEN IMPREGNATED FOAM)

## ITEM SPECIAL - POURED POLYURETHANE JOINT SEAL

1. DESCRIPTION: THIS WORK SHALL CONSIST OF SEALING JOINTS WITH POURED POLYURETHANE JOINT SEAL IN ACCORDANCE WITH THESE SPECIFICATIONS IN REASONABLY CLOSE CONFORMITY WITH THE PLANS AND MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS DIRECTED BY THE ENGINEER.

2. MATERIAL: THE MATERIAL FOR THIS ITEM IS A TWO-PART, COLD APPLIED, CHEMICALLY CURING, SELF LEVELING, ELASTOMERIC, POLYURETHANE JOINT SEALANT MEETING THE REQUIREMENT OF FEDERAL SPECIFICATIONS TT-5-00227E AND ASTM C-920. ALL MATERIALS SHALL BE STORED AND INCORPORATED IN THE WORK AS SPECIFIED BY THE MANUFACTURER.

3. APPLICATION: THE CONCRETE SURFACES TO WHICH THE SEALER IS TO ADHERE SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING. POLYURETHANE JOINT SEAL SHALL BE POURED OVER THE FULL LENGTH OF THE BITUMEN IMPREGNATED FOAM SEAL PREVIOUSLY INSTALLED IN THE OPEN JOINT AND SHALL BE APPLIED ONLY WHEN THE CONCRETE IS DRY AND ITS TEMPERATURE IS ABOVE 50F. THE POURED JOINT SEALER SHALL ACT AS A SECOND SEAL UNDERNEATH AND ON TOP OF THE BITUMEN IMPREGNATED FOAM JOINT SEAL. THE INSTALLED AND CURED MATERIAL SHALL BE THE DEPTH AS SHOWN IN THE PLANS AND SHALL BE BONDED TO THE CONCRETE SIDES OF THE JOINT. ANY UNBONDED SECTION SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DAMS AS REQUIRED TO CONTAIN THE POURED SEALER SHALL BE INCIDENTAL TO THIS ITEM OF WORK.

4. METHOD OF MEASUREMENT: FOOTAGE UNDER THIS ITEM SHALL BE THE LINEAR FEET OF URETHANE JOINT SEAL POURED OVER THE FOAM JOINT SEAL THAT ARE COMPLETE, IN PLACE AND ACCEPTED.

5. BASIS OF PAYMENT: THE ACCEPTED QUANTITIES OF POURED POLYURETHANE JOINT SEAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAR FOOT, WHICH PRICE AND PAYMENT SHALL BE IN FULL COMPENSATION FOR PREPARING THE SURFACES, FURNISHING AND PLACING ALL MATERIALS AND ALL OTHER MATERIAL, LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE JOINT SEAL ACCORDING TO SPECIFICATIONS. PAYMENT WILL BE MADE UNDER:

ITEM	UNIT	DESCRIPTION
SPECIAL	LIN. FT.	POURED POLYURETHANE JOINT SEAL

## ITEM SPECIAL, VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC

VANDAL PROTECTION FENCE SHALL CONFORM TO STANDARD DRAWING VPF-1-90 WITH THE FOLLOWING REQUIRED DETAILS AND EXCEPTIONS:

- 1) THE POST SECTION TYPE SHALL BE PS-4. THE REQUIRED BASE PLATE TYPE SHALL BE BP-5.
- 2) STEEL FABRIC SHALL BE 11 GAGE CORE WIRE WITH CLASS 2B PVC COATING.
- 3) 3/4" DIAMETER HIGH STRENGTH ANCHORS SHALL BE CAST-IN-PLACE THREADED FERRULE CONCRETE INSERTS AS APPROVED BY THE DIRECTOR.
- 4) PAYMENT FOR VANDAL PROTECTION FENCE SHALL BE MADE UNDER ITEM SPECIAL VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC.

## BAR LAP LENGTHS

UNLESS OTHERWISE SHOWN, BAR LAPS SHALL BE NOT LESS THAN:

BAR NO.	4	5	6	7	8	9
LAP LENGTH FOR EPOXY COATED	1'-7"	2'-0"	2'-4"	3'-0"	3'-11"	5'-0"

## UTILITY LINES

UTILITY LINES: ALL EXPENSE INVOLVED IN RELOCATION (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE UTILITY(IES). THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

## LIMITATION OF OPERATIONS:

1. NO CONCRETE PATCHING OR SEALING OPERATIONS WILL BE PERFORMED BETWEEN NOVEMBER 1 AND APRIL 15.
2. ALL CONCRETE SHALL BE AT LEAST 60 DAYS OLD BEFORE SILANE AND EPOXY SEALERS ARE APPLIED.
3. SEE MAINTENANCE OF TRAFFIC RESTRICTIONS.

FOR MAINTENANCE OF TRAFFIC SEE SHEETS 6-15 OF 54.

## PROPOSED WORK NOTE

NEW WIDENED COMPOSITE REINFORCED CONCRETE DECK ON WIDENED SUBSTRUCTURES INCLUDING ADDING TWO NEW STEEL BEAMS, REPLACE ABUTMENT BACKWALLS, NEW WINGWALLS, RESET ROCKER BEARINGS, NEW STRIP SEAL EXPANSION JOINTS, PATCH AND SEAL SUBSTRUCTURES, REPLACE APPROACH SLABS, NEW VANDAL PROTECTION FENCE.

## ABBREVIATIONS

TYP. = TYPICAL  
 BRG. = BEARING  
 C = CENTERLINE  
 S.R. = STATE ROUTE  
 F.F. = FAR FACE  
 E.F. = EACH FACE  
 N.F. = NEAR FACE  
 EL. = ELEVATION  
 STA. = STATION  
 DIA. = DIAMETER  
 P.E.J.F. = PREFORMED EXPANSION JOINT FILLER  
 BOTT. = BOTTOM  
 SPA. = SPACING  
 FA = FORWARD ABUTMENT  
 RA = REAR ABUTMENT

DESIGN AGENCY <b>THE OSBORN ENGINEERING COMPANY</b> 668 EUCLID AVENUE CLEVELAND, OHIO 44114	DATE 10/95	REVIEWED GA	STRUCTURE FILE NUMBER 4305019	
DRAWN VM	REVISIONS	DESIGNED BK	CHECKED JRS	
GENERAL NOTES BRIDGE NO. LAK-90-2687 OVER INTERSTATE 1-90				
LAK-90-26.87				
7 / 24				
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