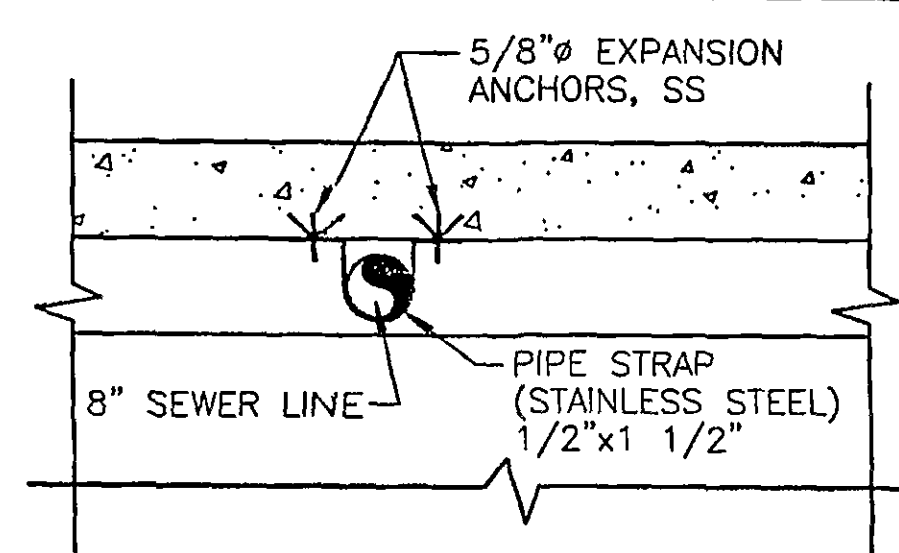
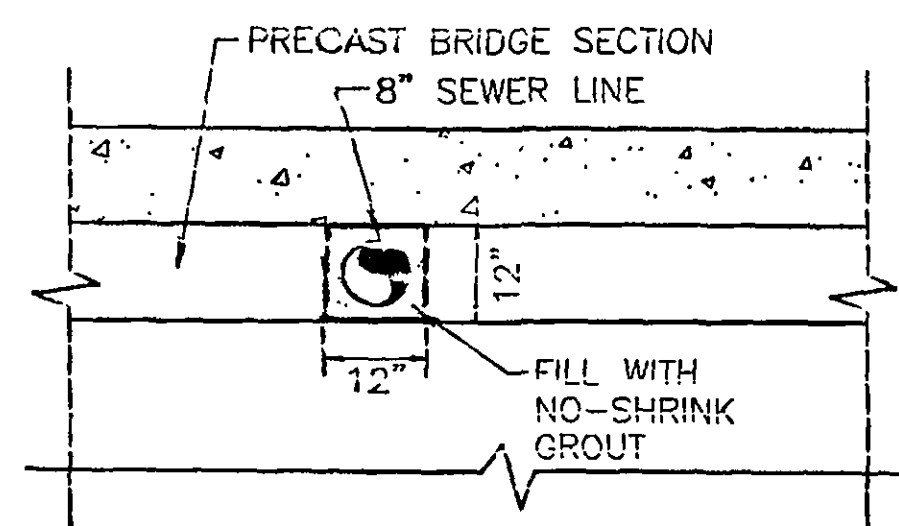


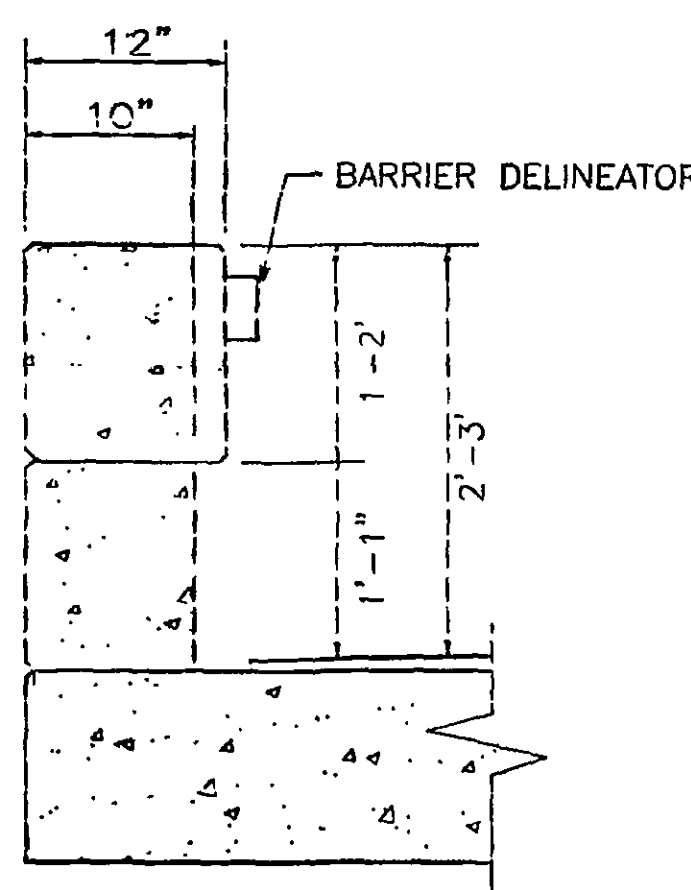
PLAN
SCALE: 1/4"=1'-0"



PIPE SUPPORT DETAIL
SCALE: 1/2"=1'-0"



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



VDOT STD. BCR-2
(KANSAS CORRAL)
SCALE: 1"=1'-0"

GENERAL NOTES

- SPECIFICATIONS:
- DESIGN - AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1989, AND 1990 INTERIM SPECIFICATIONS, AND VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) MODIFICATIONS.
 - CONSTRUCTION - VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS, 1994, AS AMENDED BY SPECIAL PROVISIONS.
 - STANDARDS - VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS, 1993.

THESE PLANS ARE INCOMPLETE UNLESS ACCOMPANIED BY THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS REQUIRED FOR CONSTRUCTION.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION WORK AREA PROTECTION MANUAL, CURRENT EDITION.

DESIGN LOADING: HS20-44, PLUS 45PSF FOR WEARING SURFACE AND AN ADDITIONAL ALLOWANCE OF 15 PSF FOR FUTURE WEARING SURFACE.

CONCRETE FOR ALL CAST-IN-PLACE CONSTRUCTION SHALL BE CLASS A4, EXCEPT SUB-FOOTING CONCRETE & RETAINING WALL, RW-2 MOD, SHALL BE CLASS A3. CONCRETE FOR ALL PRECAST SECTIONS SHALL BE CLASS A5.

DEFORMED REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. REINFORCING STEEL IN PRECAST CONCRETE BRIDGE SECTIONS SHALL BE EPOXY COATED. REINFORCING STEEL PROTRUDING FROM PRECAST SECTIONS CONNECTING BRIDGE RAILING AND TERMINAL WALLS TO THE PRECAST SECTIONS SHALL BE GALVANIZED OR APPROVED ALTERNATE.

THE BRIDGE SHALL BE CONSTRUCTED OF FLAT TOPPED THREE-SIDED PRECAST CONCRETE BRIDGE SECTIONS BY PERMATILE CONCRETE PRODUCTS CO., ROTONDO PRECAST OR APPROVED EQUAL.

THE CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS SHOWING COMPLETE DETAILS OF PRECAST CONCRETE BRIDGE SECTIONS. THE DRAWINGS SHALL INCLUDE PLACING DRAWINGS, REINFORCING STEEL, DETAILS OF GROUTED KEYWAYS, ANCHORAGE RECESS DETAIL, DETAILS OF BLOCK-OUT FOR 8" SEWER. DRAWINGS AND DESIGN CALCULATIONS, SIGNED AND SEALED, SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL. THE PRICE FOR "THREE-SIDED PRECAST CONCRETE BRIDGE" SHALL INCLUDE INSERTS, ANCHORAGE DEVICES, BLOCKOUTS, LATERAL TIES, BEARING PADS, WATER PROOFING, GROUTING KEYWAYS, TRANSPORTATION, ERECTING FINISHED PRODUCT.

LATERAL TIES SHALL BE 1/2" DIAMETER, S.R. GRADE 270 (POLYSTRAND CP OR EQUAL) STRANDS, COATED AT 30,000 LBS EACH. THE CONTRACTOR SHALL SUBMIT DETAILS OF THE LATERAL TIE ANCHORAGE FOR APPROVAL WITH THE SHOP DRAWINGS.

A FULL-DEPTH ASPHALT CONCRETE BRIDGE OVERLAY, OF TYPE BM-2 & TYPE SM-2A SHALL BE APPLIED TO THE BRIDGE DECK, AT 1 1/2" MINIMUM THICKNESS. TYPE SM-2A SHALL BE A MINIMUM OF 1 1/2" THICK. AN ASPHALT EMULSION TACK COAT SHALL BE APPLIED TO TOPS OF PRECAST CONCRETE BRIDGE SECTIONS AT A APPLICATION RATE OF .07 GAL/SY.

CONTRACTOR SHALL REMOVE THE EXISTING BRIDGE IN ITS ENTIRETY AND SHALL DISPOSE OF ALL DEBRIS.

GROUT MORTAR SHALL BE USED IN SHEAR KEYS BETWEEN PRECAST SECTIONS AND SHALL BE "SURE-GROUT" BY KAUFMAN OF BALTIMORE, MD., OR AN APPROVED EQUAL. ALL MORTARING OF SHEAR KEYS SHALL BE DONE IN ONE CONTINUOUS OPERATION.

WATERPROOFING SHALL BE APPLIED TO THE TOPS AND VERTICAL EXTERIOR FACES OF PRECAST SECTIONS PER THE SPECIAL PROVISIONS AND SECTION 405 OF THE SPECIFICATIONS, EXCEPT SAND SHALL BE OMITTED FROM THE EPOXY RESIN ON VERTICAL SURFACES.

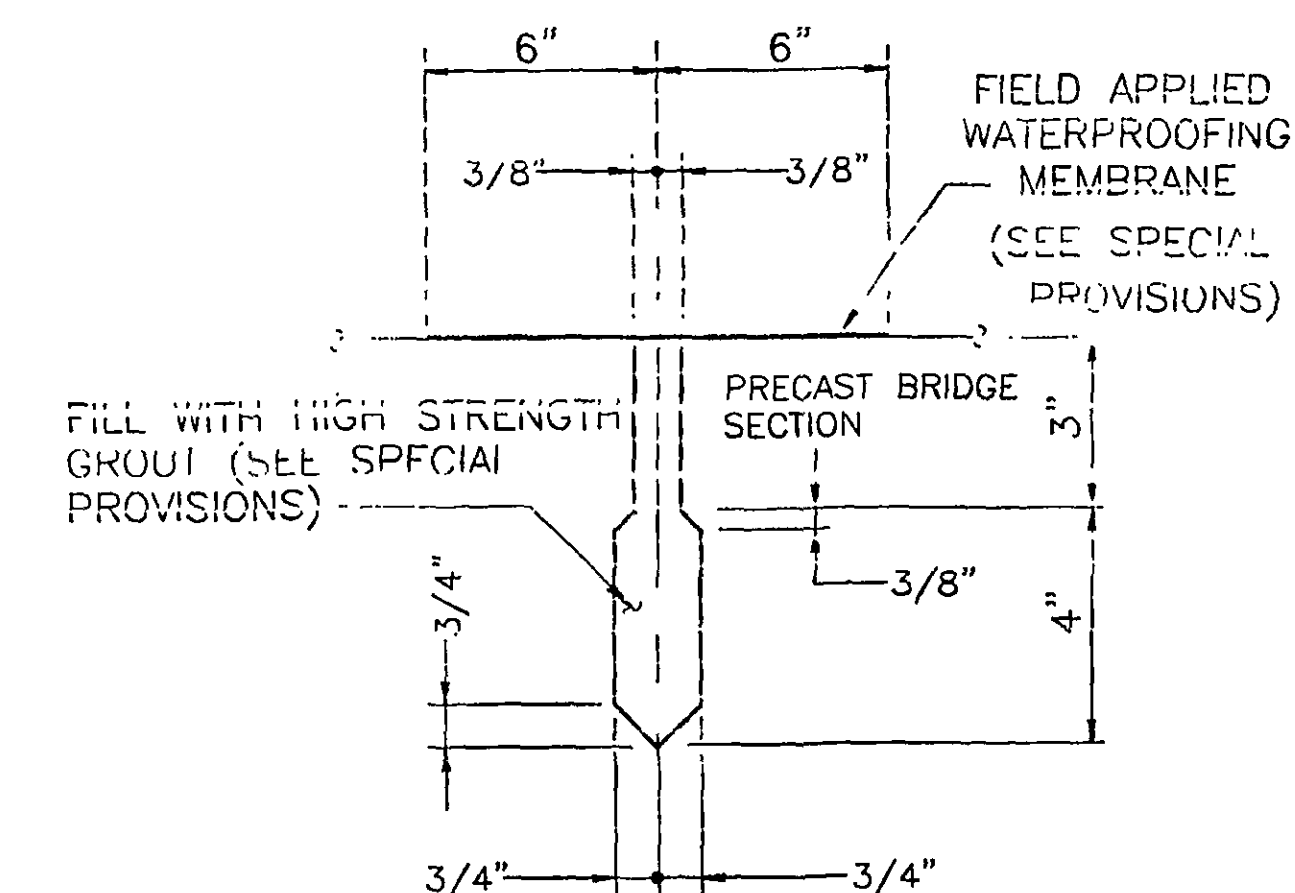
THE CONTRACTOR SHALL FURNISH AND INSTALL 1/2" X 12" UNREINFORCED BEARING PADS (70 DUROMETER NEOPRENE) TO PROVIDE CONTINUOUS SUPPORT FOR PRECAST BRIDGE SECTIONS AT FOOTINGS.

THE LOCATION OF EXISTING UTILITIES, INCLUDING UNDERGROUND UTILITIES, IS INDICATED ON THE DRAWINGS INsofar AS THEIR EXISTENCE AND LOCATION ARE KNOWN. HOWEVER, NOTHING IN THESE CONTRACT DOCUMENTS SHALL BE CONSIDERED AS A GUARANTEE THAT SUCH UTILITIES ARE IN THE LOCATION INDICATED OR THAT THEY ACTUALLY EXIST, OR THAT OTHER UTILITIES ARE NOT WITHIN THE AREA OF OPERATIONS. THE CONTRACTOR SHALL MAKE ALL NECESSARY INVESTIGATIONS TO DETERMINE THE EXISTENCE AND LOCATIONS OF SUCH UTILITIES. THE CONTRACTOR SHALL PAY FOR ANY DAMAGE TO AN FOR MAINTENANCE AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.

THE EXPOSED VERTICAL SURFACE OF RW-2 MODIFIED WALLS, CONNECTION WALLS AND CAST-IN-PLACE WINGWALLS SHALL BE FORMED WITH A RANDOM FIELDSTONE FORM LINER BY CUSTOM ROCK INTERNATIONAL OR APPROVED EQUAL. COLOR SHALL BE APPLIED TO MATCH NATURAL STONE PER THE MANUFACTURER'S SPECIFICATIONS. ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING FORM LINERS AND APPLICATION OF COLOR TO STONE PATTERN SHALL BE INCLUDED IN BID ITEMS "RETAININGS WALLS RW-2 MOD" AND "CONCRETE CLASS A4".

THE QUANTITIES FOR PAYMENT OF BEDROCK EXCAVATION WILL BE MEASURED IN CUBIC YARDS OF MATERIAL REMOVED FROM THE LIMITS OF VERTICAL PLANES ALONG THE NEAT LINES OF THE FOOTINGS. IT WILL BE MEASURED FROM THE SURFACE OF BEDROCK DOWN TO THE BOTTOM OF THE FOUNDATION, 1'-6" BELOW THE ELEVATION SHOWN ON TOP OF FOOTING. THE COST SHALL BE INCLUDED IN THE BID ITEM "UNDERCUT EXCAVATION(ROCK)" AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD. THIS PAY ITEM APPLIES ONLY TO THE EXCAVATION FOR PRECAST BRIDGE WALLS AND FOOTINGS.

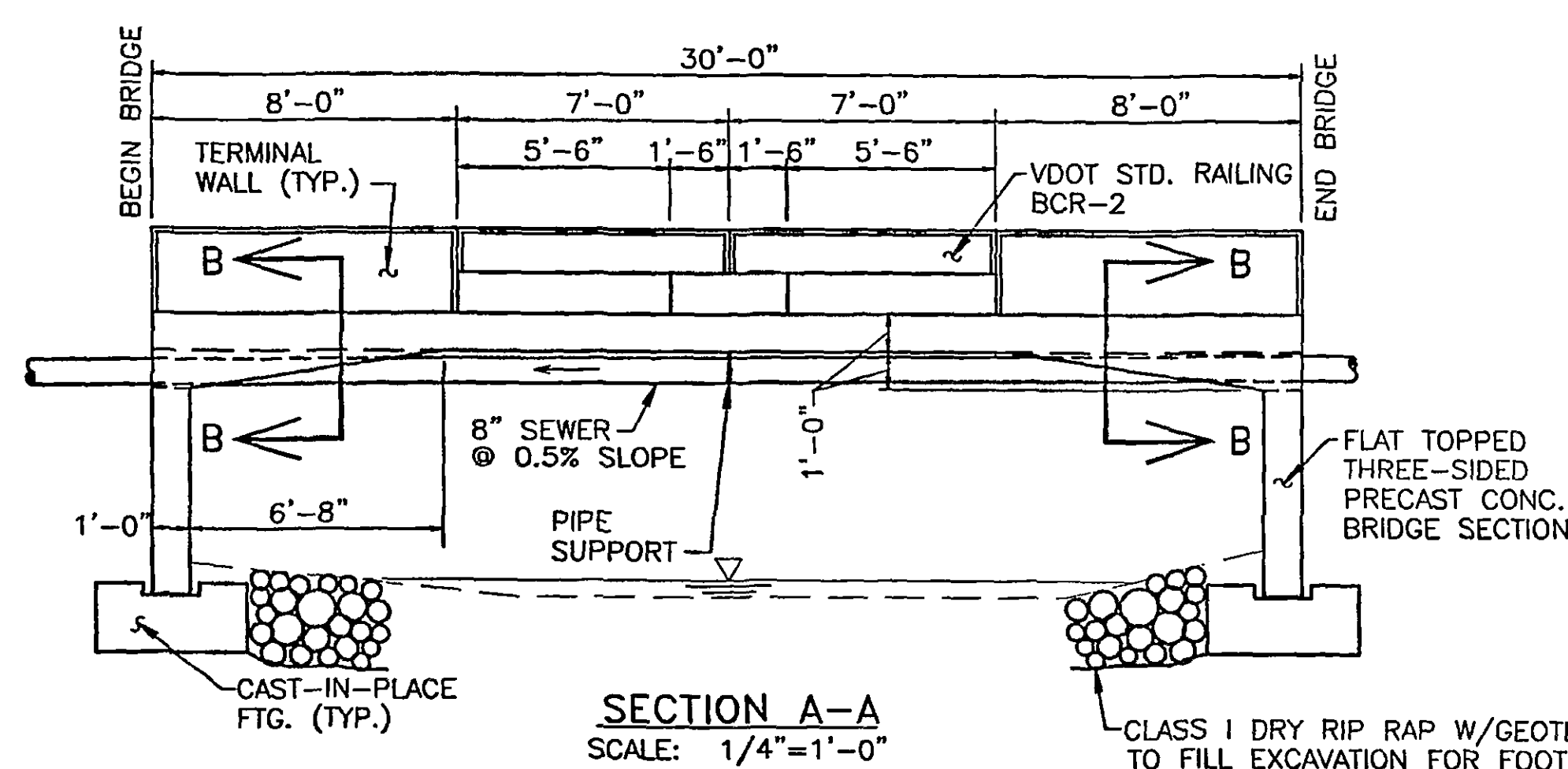
THE CAST-IN-PLACE FOOTING SHALL BEAR ON SOLID ROCK OR SUBFOOTING CONCRETE AND SHALL BE A MIN OF 1'-6" THICK. SUBFOOTING CONCRETE QUANTITIES WILL BE MEASURED IN CUBIC YARDS FROM 1'-6" BELOW THE ELEVATION SHOWN ON TOP OF FOOTING DOWN TO TOP OF BEDROCK WITHIN THE LIMITS OF THE VERTICAL PLANES OF THE NEAT LINES OF THE FOOTING. THE COST SHALL BE INCLUDED IN THE BID ITEM "CONCRETE CLASS A3" AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD.



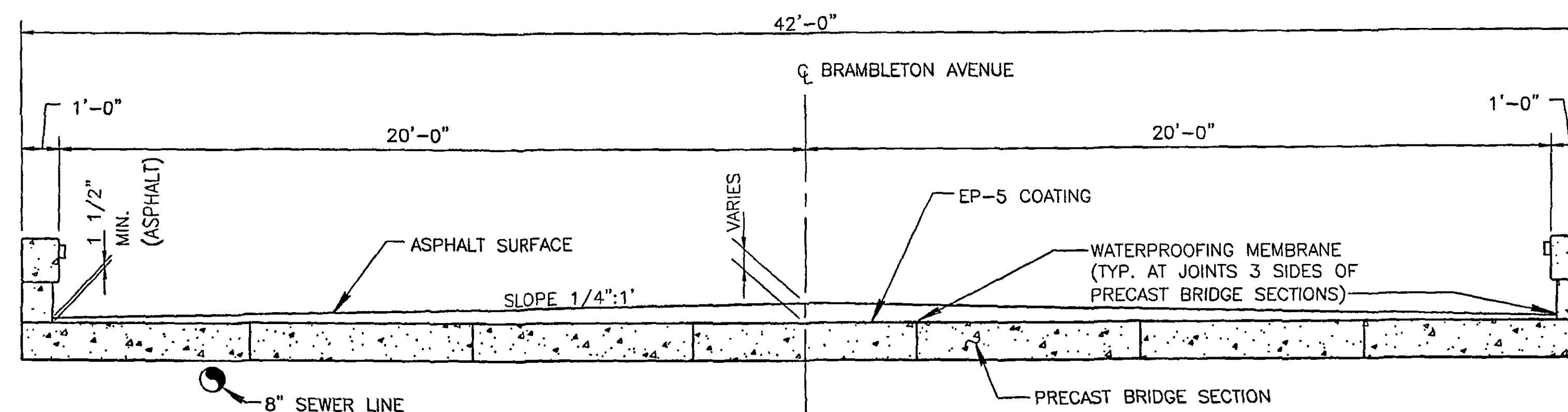
SHEAR KEY DETAIL

SCALE: NONE

(PRECAST SUPPLIER MAY SUBMIT OPTIONAL DETAIL FOR APPROVAL)



SECTION A-A
SCALE: 1/4"=1'-0"



TRANSVERSE SECTION LOOKING EAST

SCALE: 3/8"=1'-0"