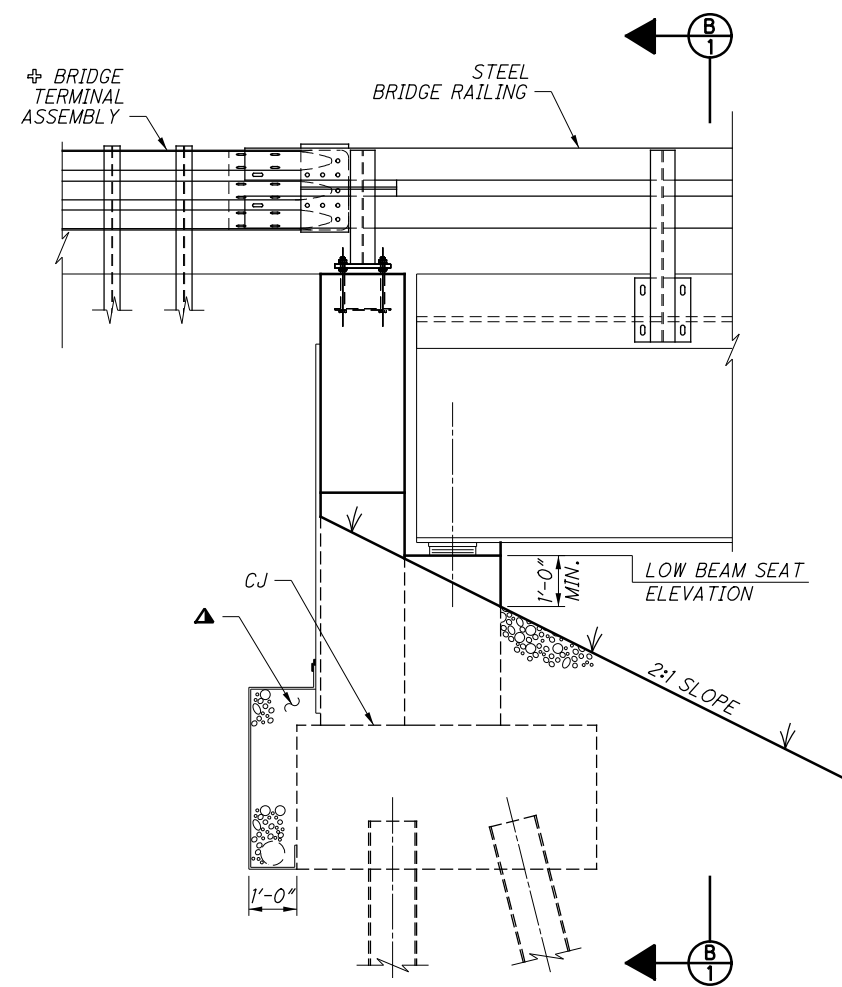


PART PLAN AT ABUTMENT

(SQUARE STRUCTURE WITH STEEL BARRIER)



ELEVATION

SEE SHT. NO. 475 FOR REINFORCING DETAILS

LEGEND:

- ⊙A - DECK EXPANSION JOINT OPENING
- ▲ - PREFABRICATED GEOCOMPOSITE DRAINAGE (PGD) SYSTEM IN ACCORDANCE WITH C&MS 518
- * - SEE ROADWAY TYPICAL SECTIONS
- NPCPP - NON-PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE S)
- PCPP - PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE SP)
- - PROVIDE PRECAST CONCRETE OUTLET WITH TYPE 1 TIED CONCRETE BLOCK MAT AS SHOWN IN DM-1.1
- ** - PLACE BETWEEN THE EDGE OF THE APPROACH SLAB AND THE ABUTMENT IN THE APPROACH SLAB WIDTH ONLY.
- CJ - CONSTRUCTION JOINT. REFER TO BDM SECTION 304.2.3 FOR DESIGN REQUIREMENTS.
- ⊕ - SEE ROADWAY STANDARD DRAWING MGS-3.1 OR MGS-3.2 FOR BRIDGE TERMINAL ASSEMBLY DETAILS. STATE ON THE PROJECT PLANS WHICH STANDARD APPLIES.

GENERAL:

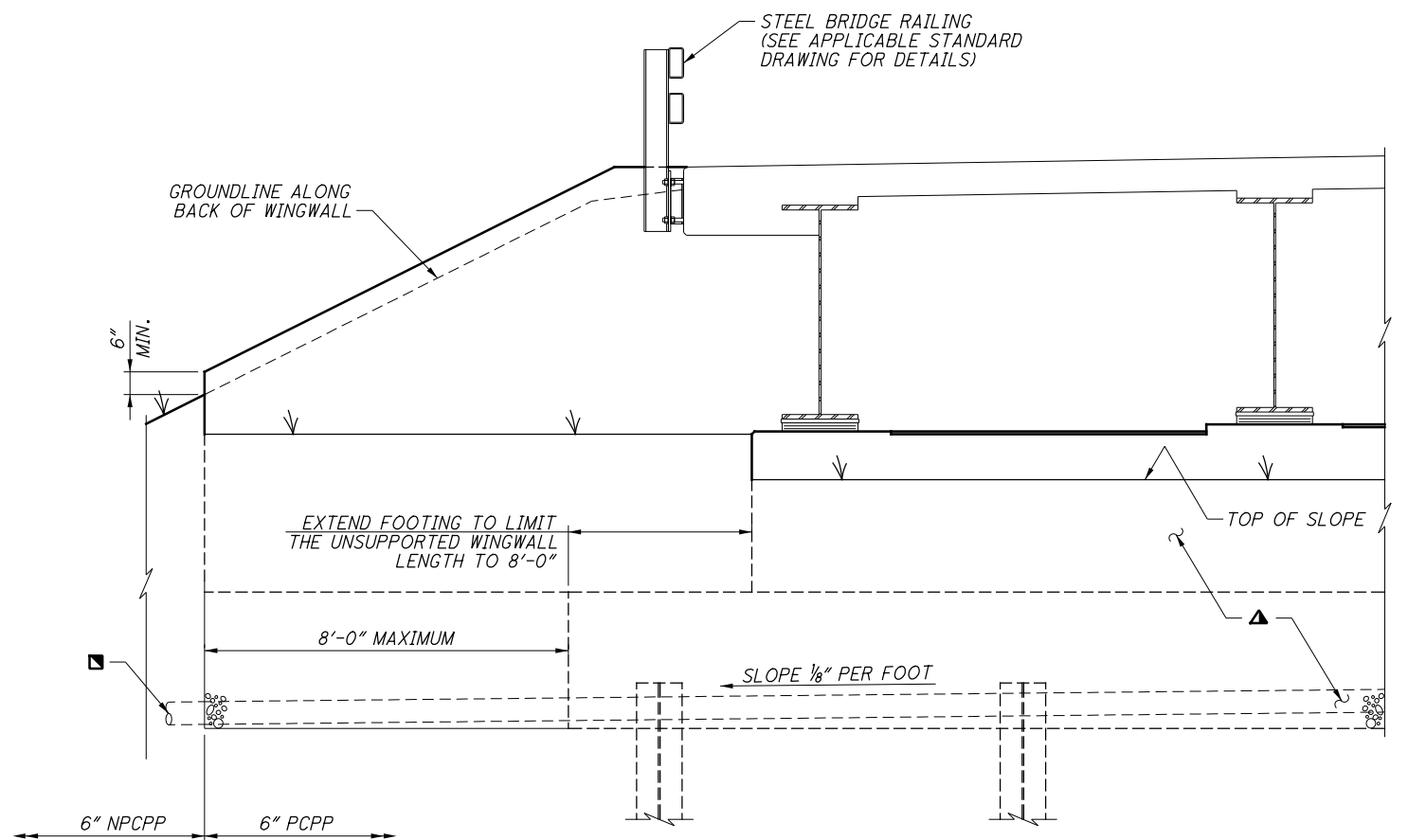
THIS STANDARD DRAWING PROVIDES PREFERRED AND/OR TYPICAL DETAILS FOR ABUTMENTS WITH EXPANSION JOINTS. TREAT THE ABUTMENT DIMENSIONS, CONSTRUCTION JOINTS AND REINFORCING SHOWN IN THIS DRAWING AS MINIMUM VALUES AND PERFORM A COMPLETE DESIGN FOR THE ABUTMENT. DO NOT REFERENCE THESE DRAWINGS IN THE CONTRACT PLANS AND DO NOT USE AS STANDALONE CONSTRUCTION DRAWINGS.

PROVIDE ALL INFORMATION REQUIRED TO CONSTRUCT THE ABUTMENT IN THE PROJECT PLANS.

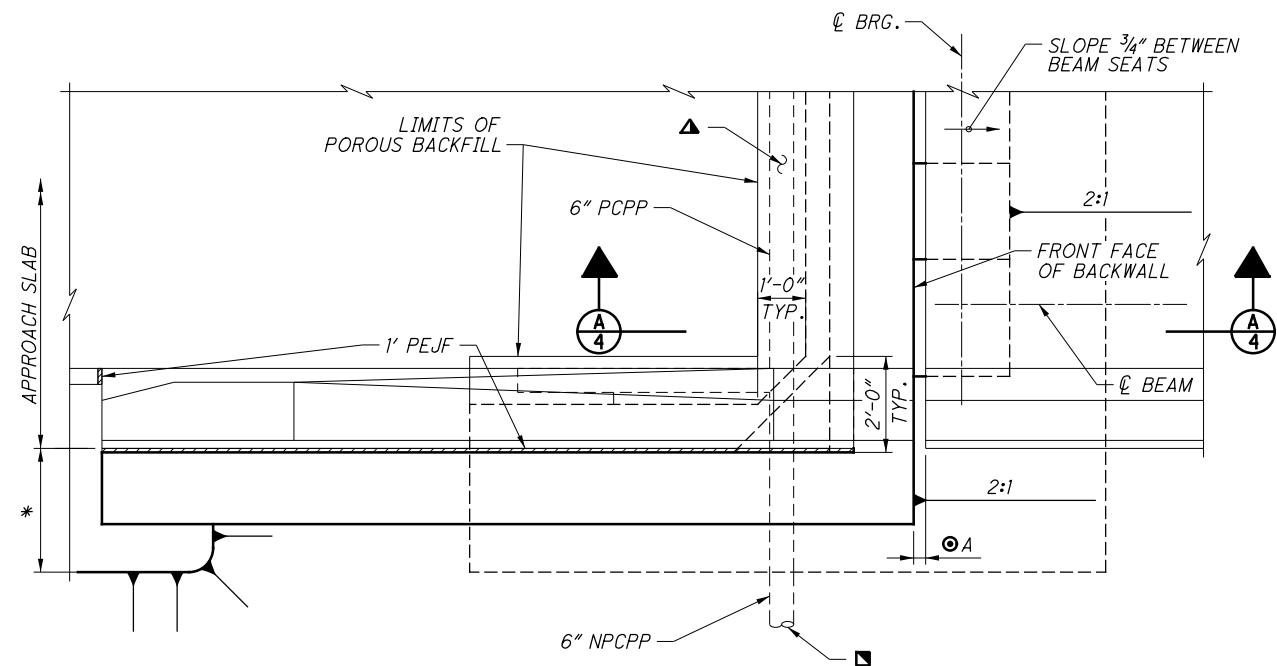
STEEL GIRDERS ARE SHOWN IN THIS STANDARD DRAWING. ROLLED STEEL BEAMS WILL BE SIMILAR. REFER TO PSID-1-13 FOR MODIFICATIONS REQUIRED FOR PRESTRESSED CONCRETE I-BEAMS.

DESIGN DATA:

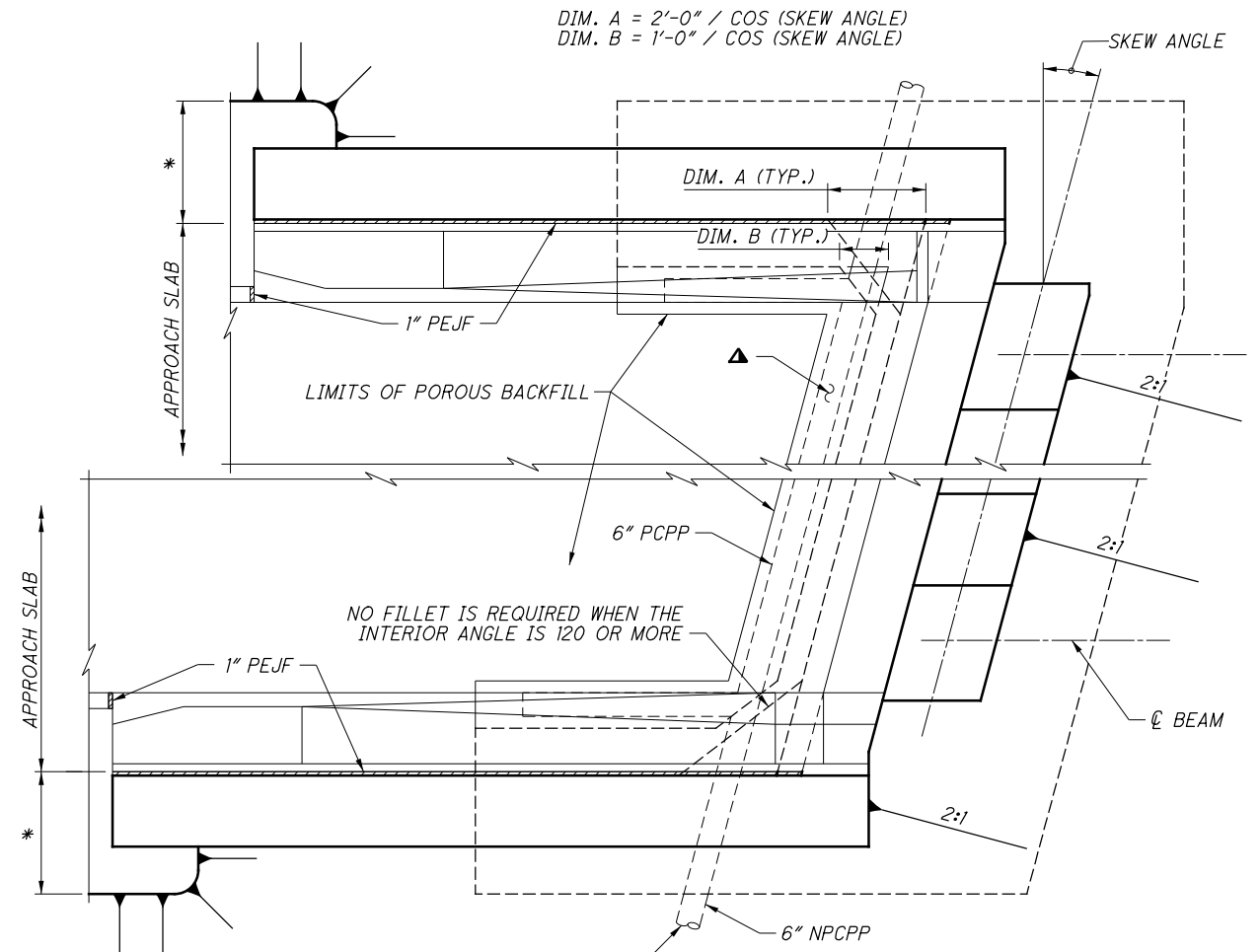
CONCRETE - COMPRESSIVE STRENGTH 4.0 KSI
 REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI



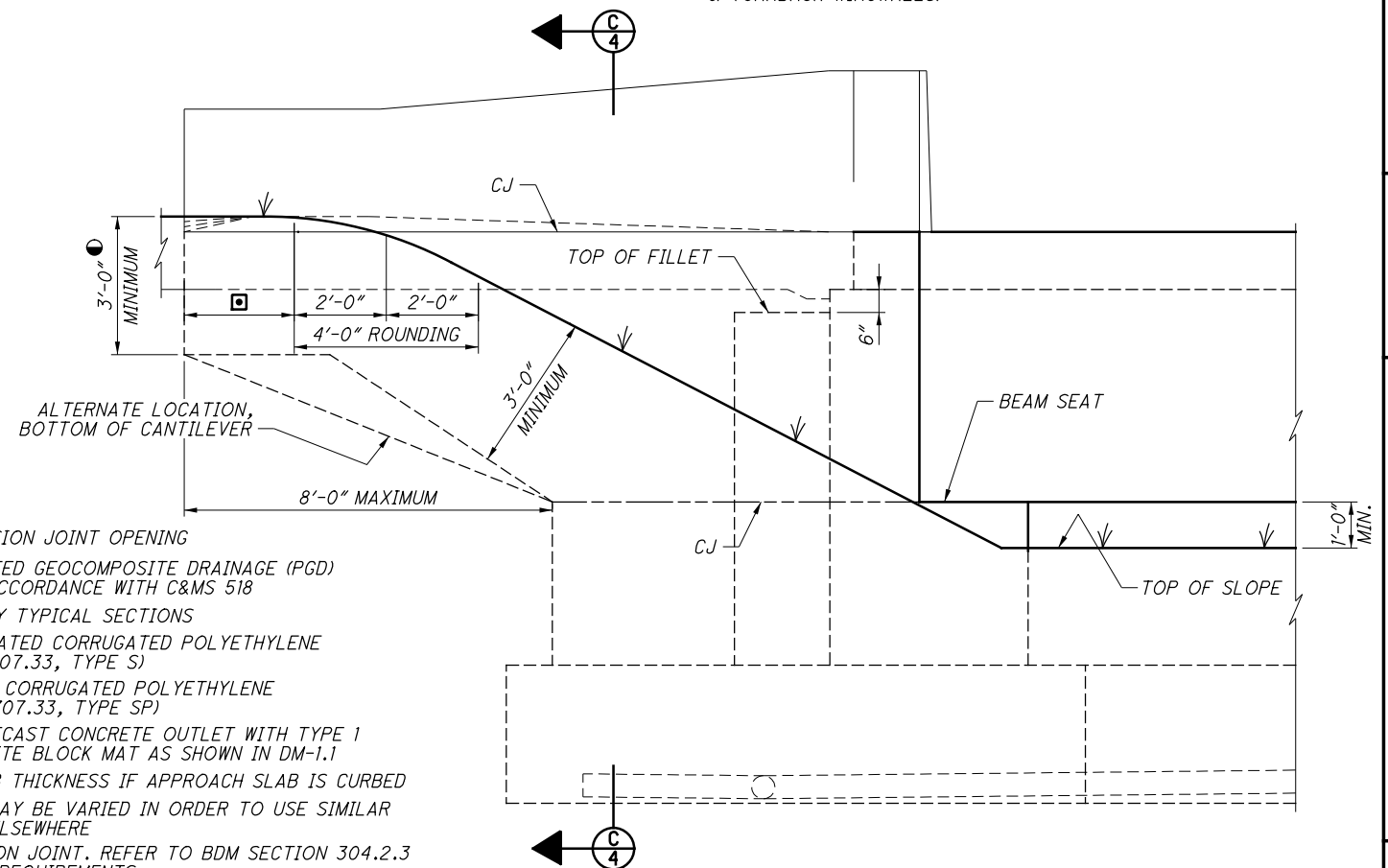
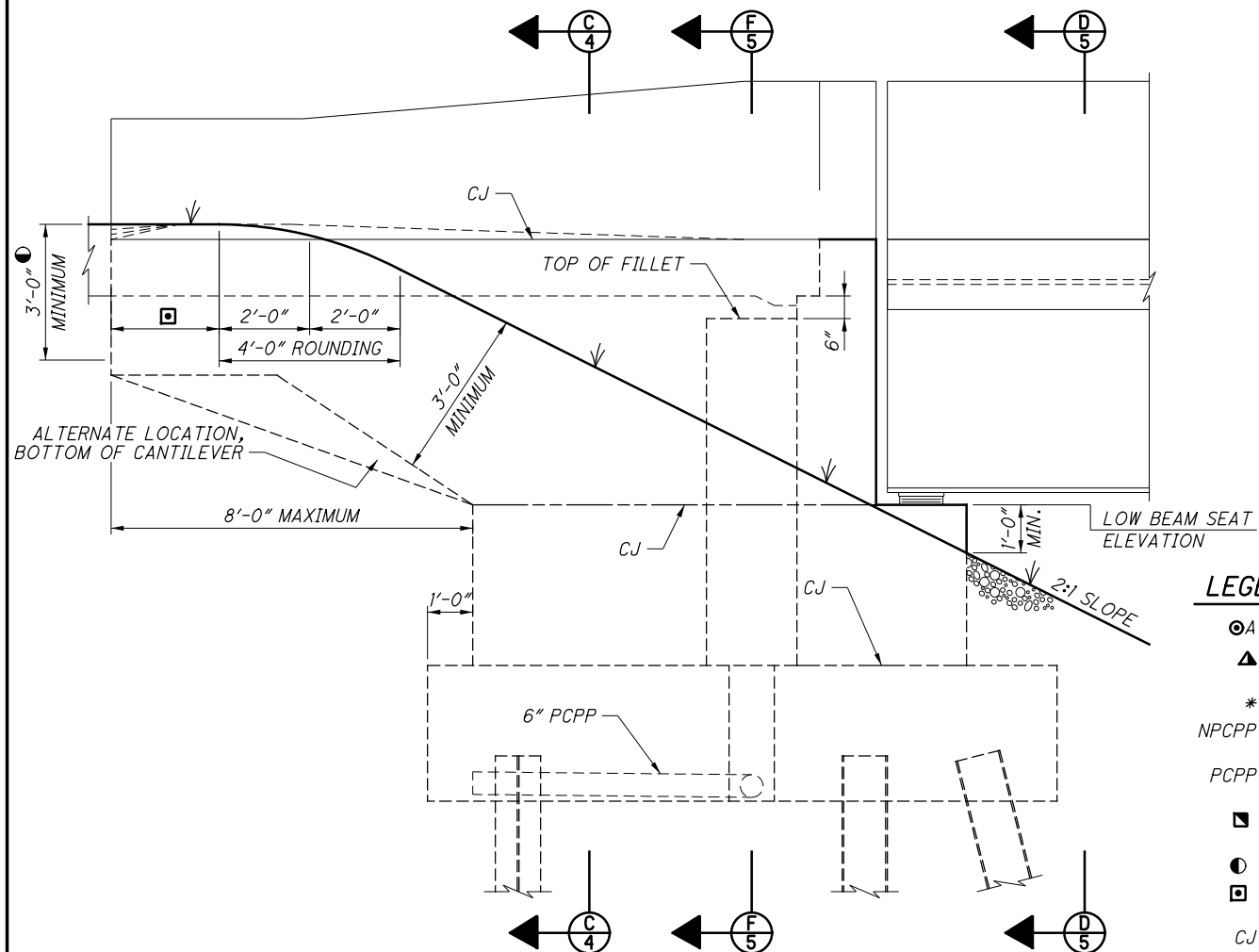
SECTION B-B



PART PLAN AT ABUTMENT
(SQUARE STRUCTURE WITH SBR-1 BARRIER
& TURNBACK WINGWALLS)

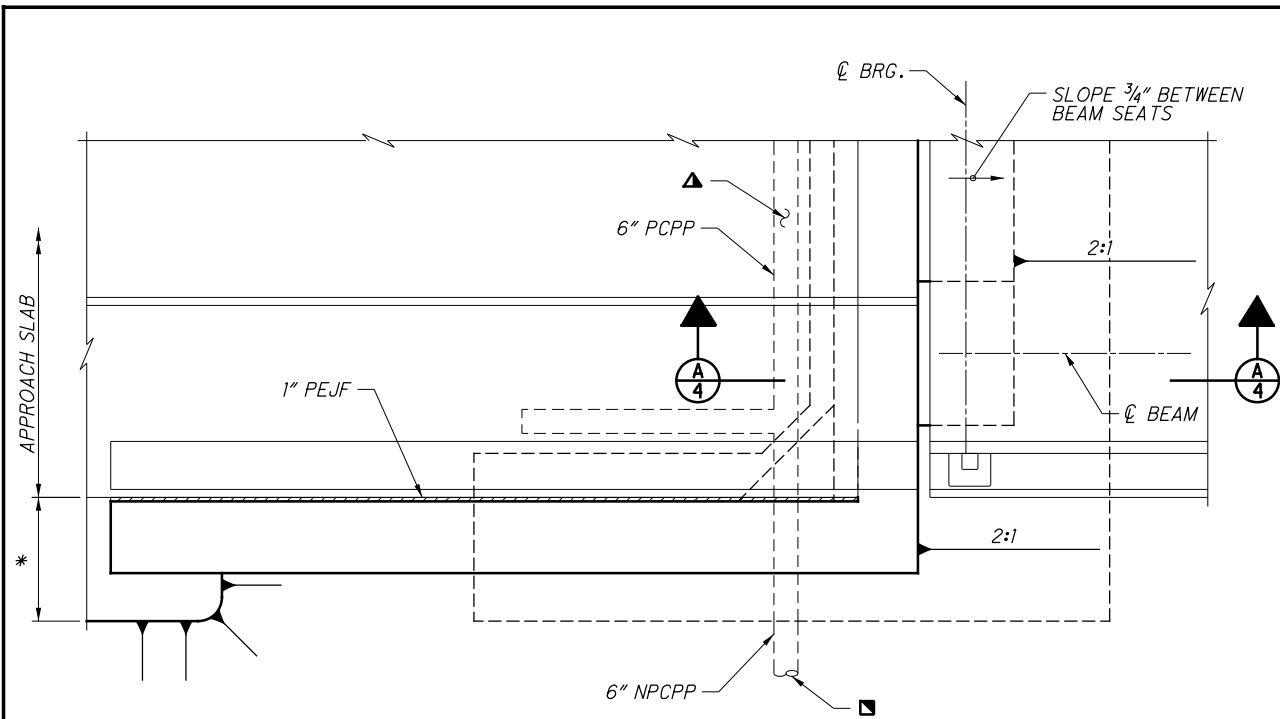


PART PLAN AT ABUTMENT
(SKEWED STRUCTURE WITH SBR-1 BARRIER
& TURNBACK WINGWALLS)

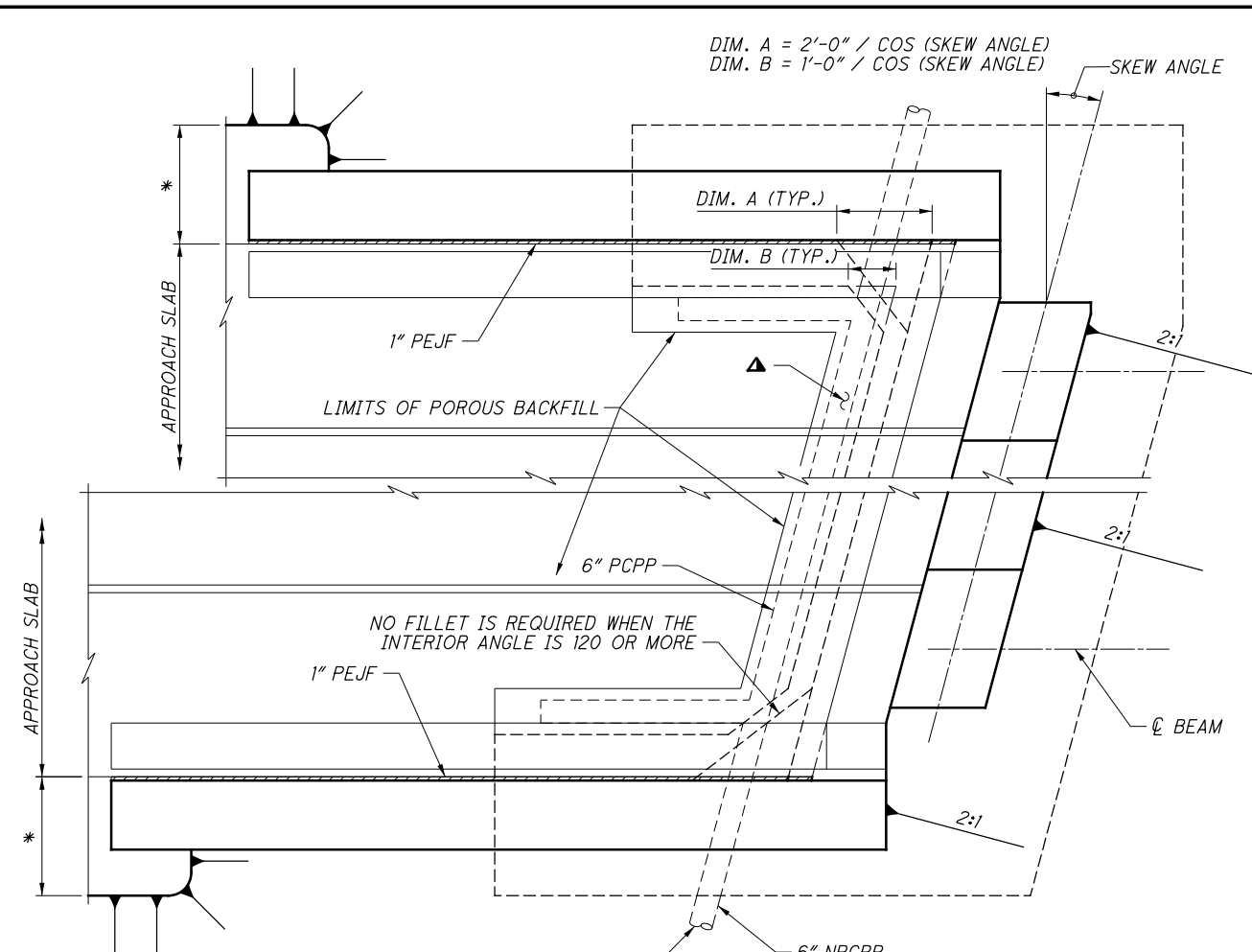


LEGEND:

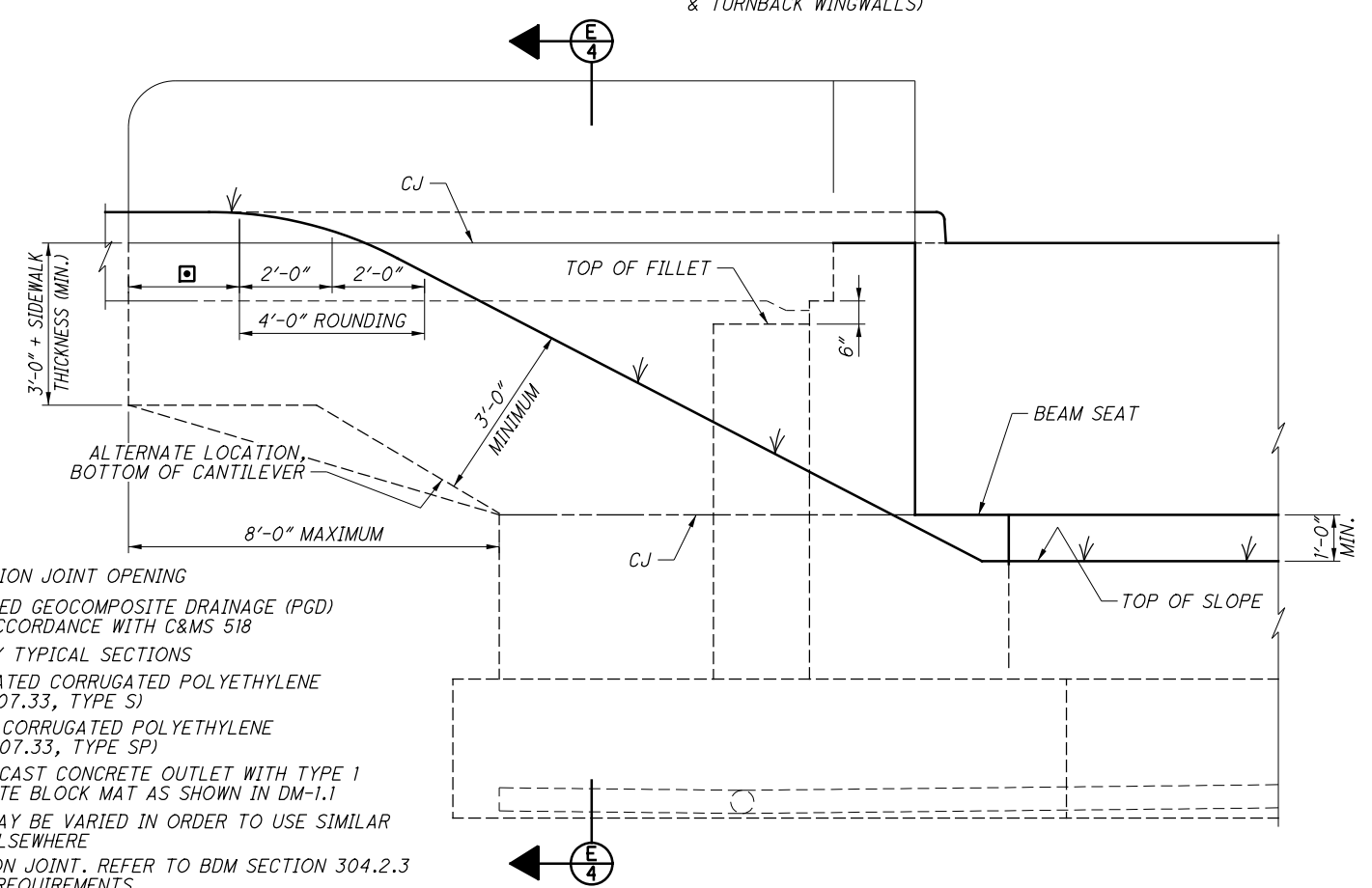
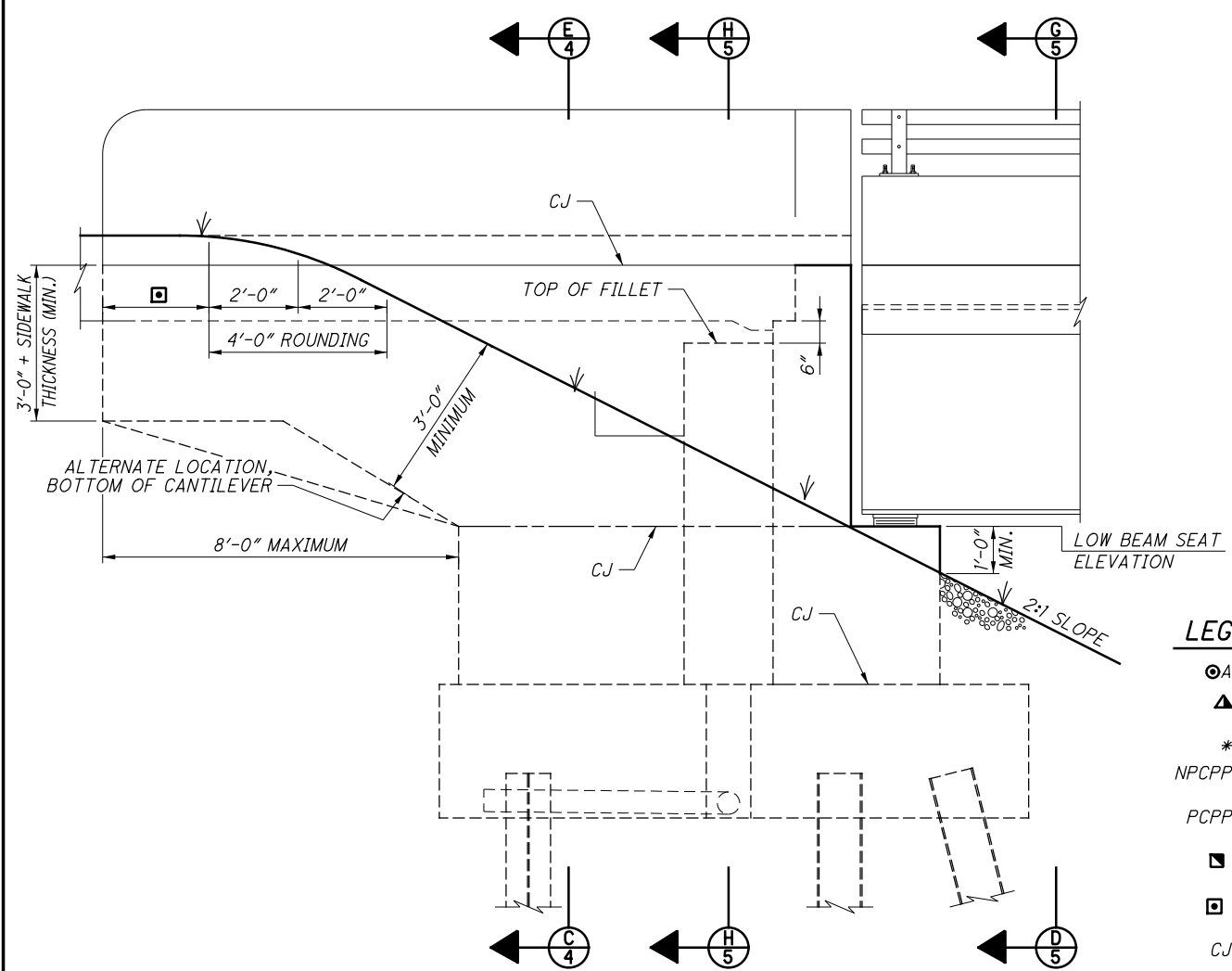
- ⊙A - DECK EXPANSION JOINT OPENING
- ▲ - PREFABRICATED GEOCOMPOSITE DRAINAGE (PGD) SYSTEM IN ACCORDANCE WITH C&MS 518
- * - SEE ROADWAY TYPICAL SECTIONS
- NPCPP - NON-PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE S)
- PCPP - PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE SP)
- - PROVIDE PRECAST CONCRETE OUTLET WITH TYPE 1 TIED CONCRETE BLOCK MAT AS SHOWN IN DM-1.1
- - 3'-0" + CURB THICKNESS IF APPROACH SLAB IS CURBED
- - DIMENSION MAY BE VARIED IN ORDER TO USE SIMILAR WINGWALLS ELSEWHERE
- CJ - CONSTRUCTION JOINT. REFER TO BDM SECTION 304.2.3 FOR DESIGN REQUIREMENTS.



PART PLAN AT ABUTMENT
(SQUARE STRUCTURE WITH BR-2 BARRIER & TURNBACK WINGWALLS)

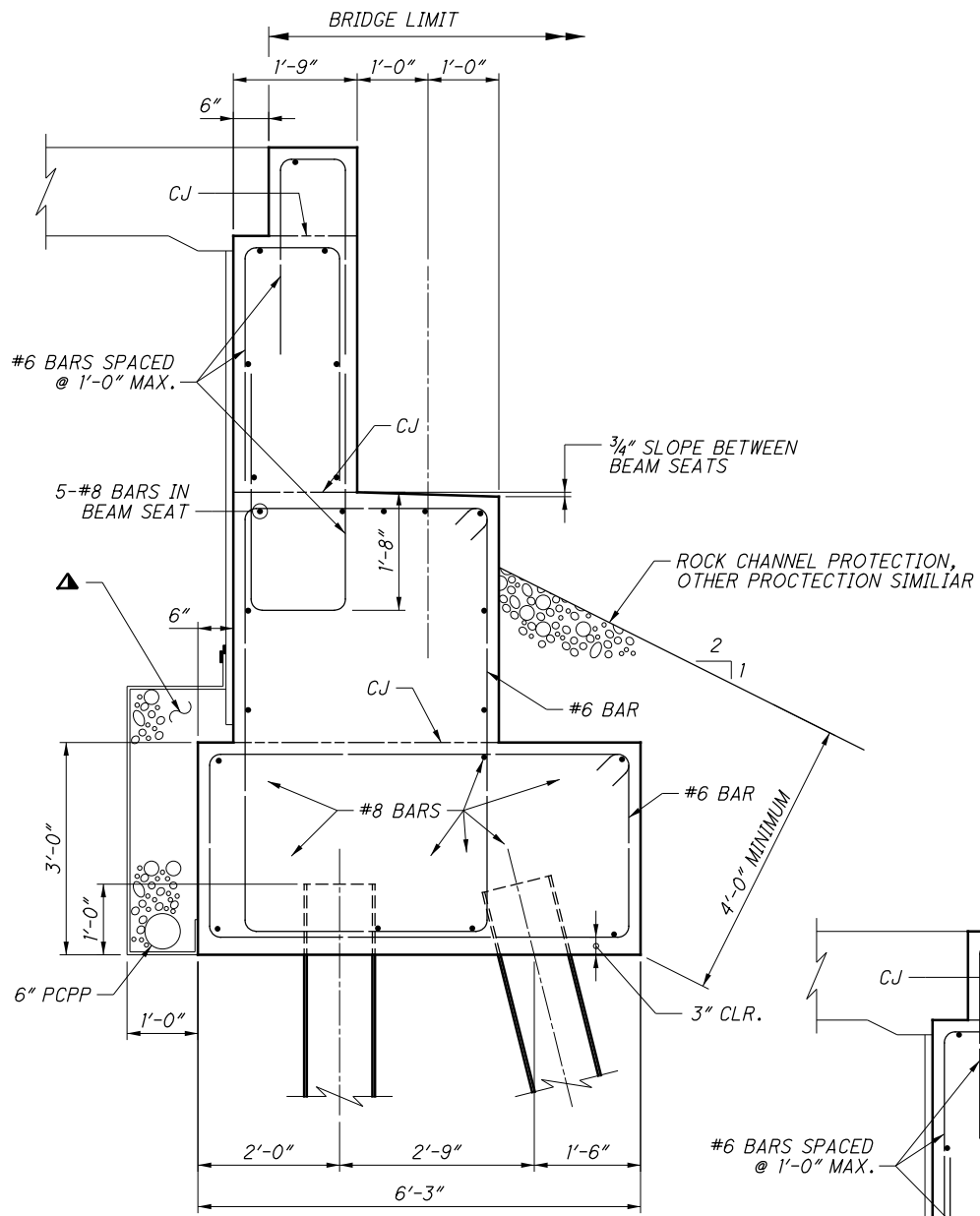


PART PLAN AT ABUTMENT
(SKEWED STRUCTURE WITH BR-2 BARRIER & TURNBACK WINGWALLS)

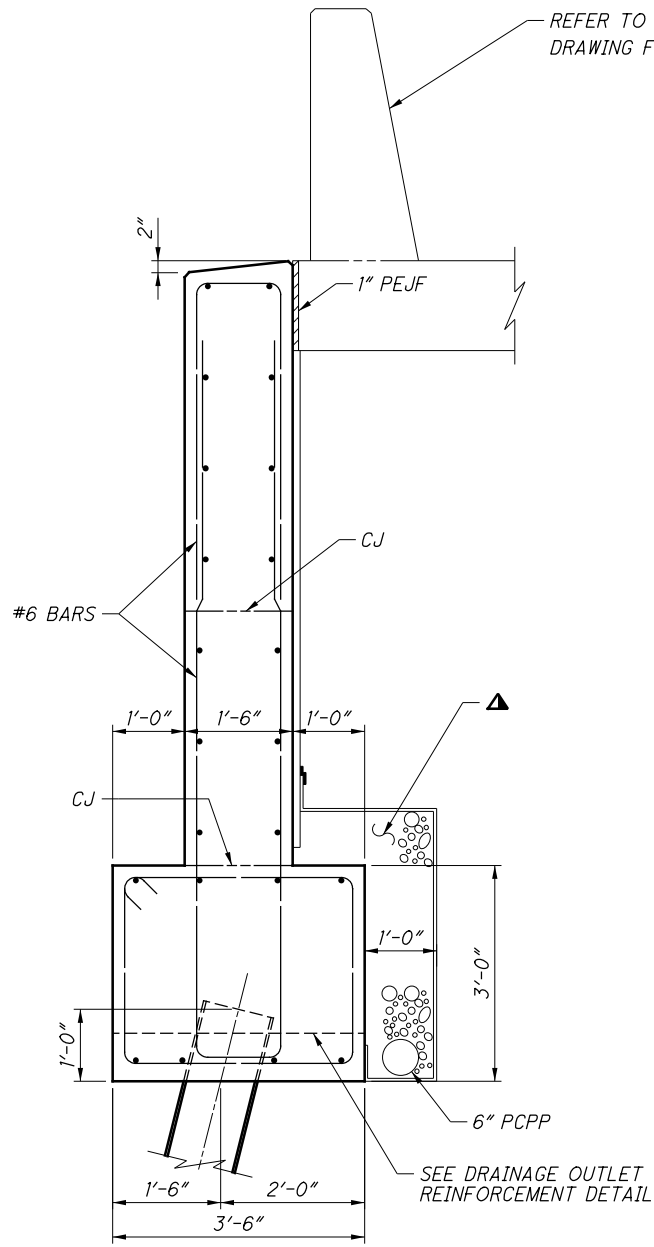


LEGEND:

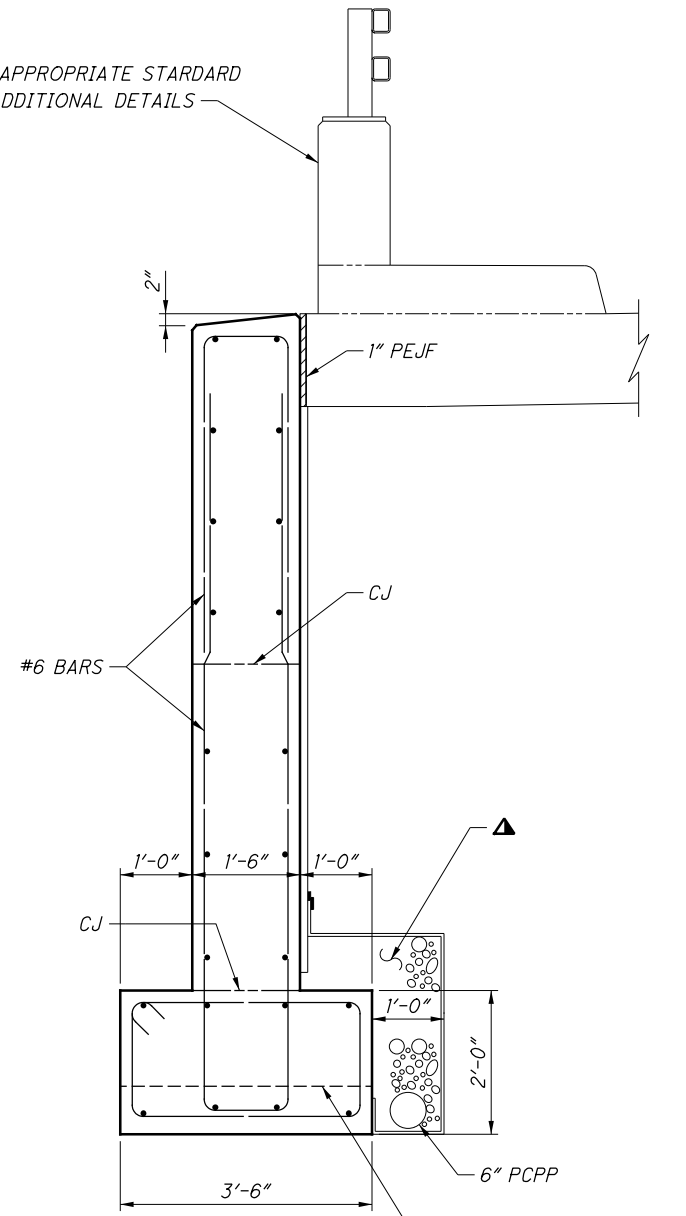
- ⊙A - DECK EXPANSION JOINT OPENING
- ▲ - PREFABRICATED GEOCOMPOSITE DRAINAGE (PGD) SYSTEM IN ACCORDANCE WITH C&MS 518
- * - SEE ROADWAY TYPICAL SECTIONS
- NPCPP - NON-PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE S)
- PCPP - PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE SP)
- - PROVIDE PRECAST CONCRETE OUTLET WITH TYPE 1 TIED CONCRETE BLOCK MAT AS SHOWN IN DM-1.1
- - DIMENSION MAY BE VARIED IN ORDER TO USE SIMILAR WINGWALLS ELSEWHERE
- CJ - CONSTRUCTION JOINT. REFER TO BDM SECTION 304.2.3 FOR DESIGN REQUIREMENTS.



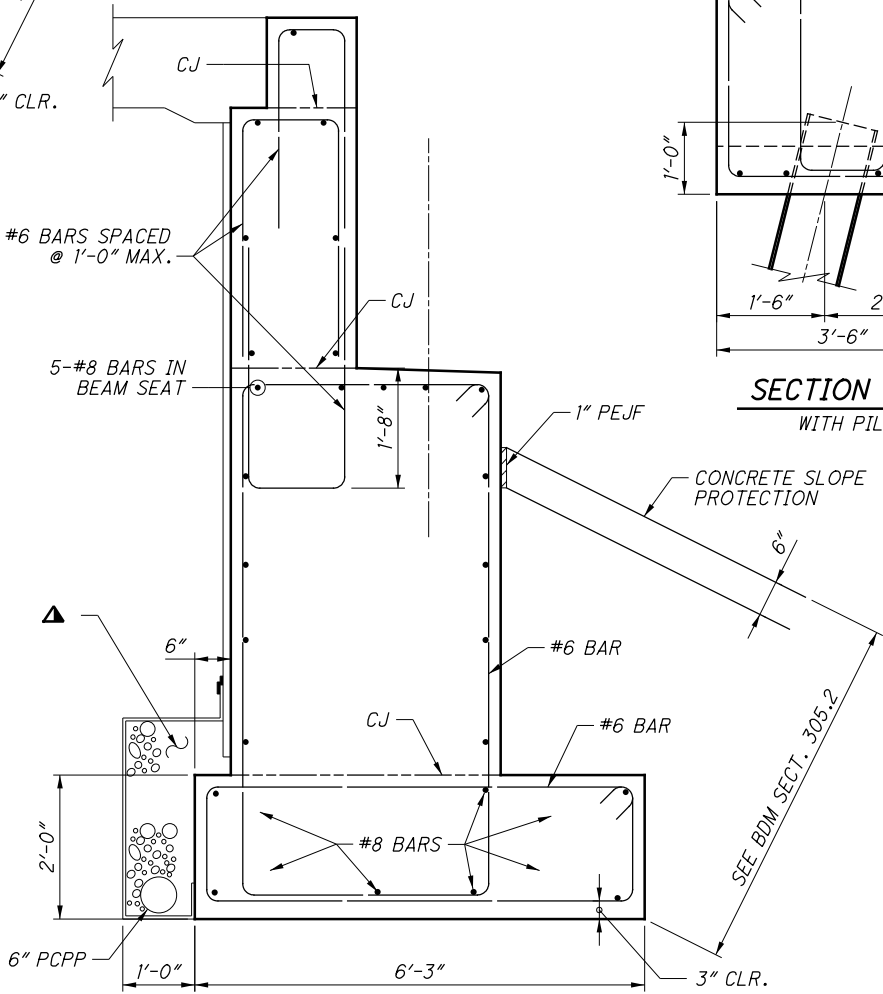
SECTION B-B
WITH PILES



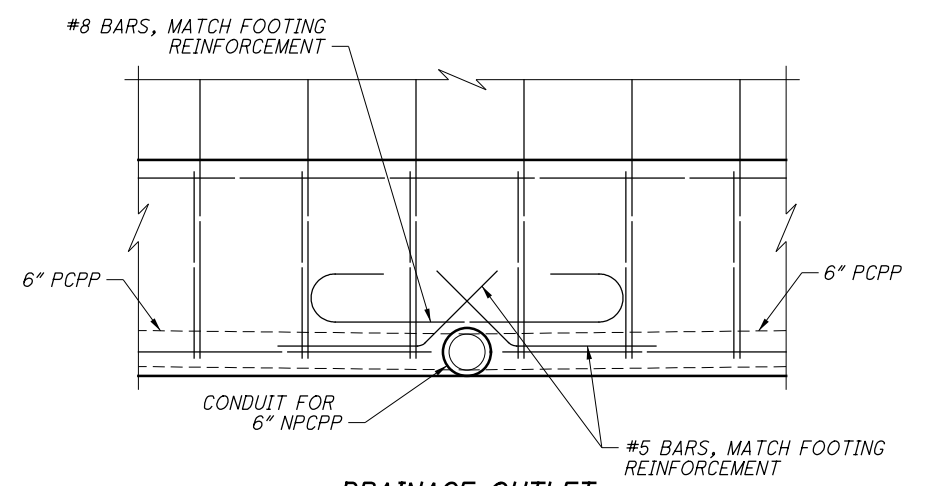
SECTION C-C
WITH PILES



SECTION E-E
WITHOUT PILES



SECTION B-B
WITHOUT PILES



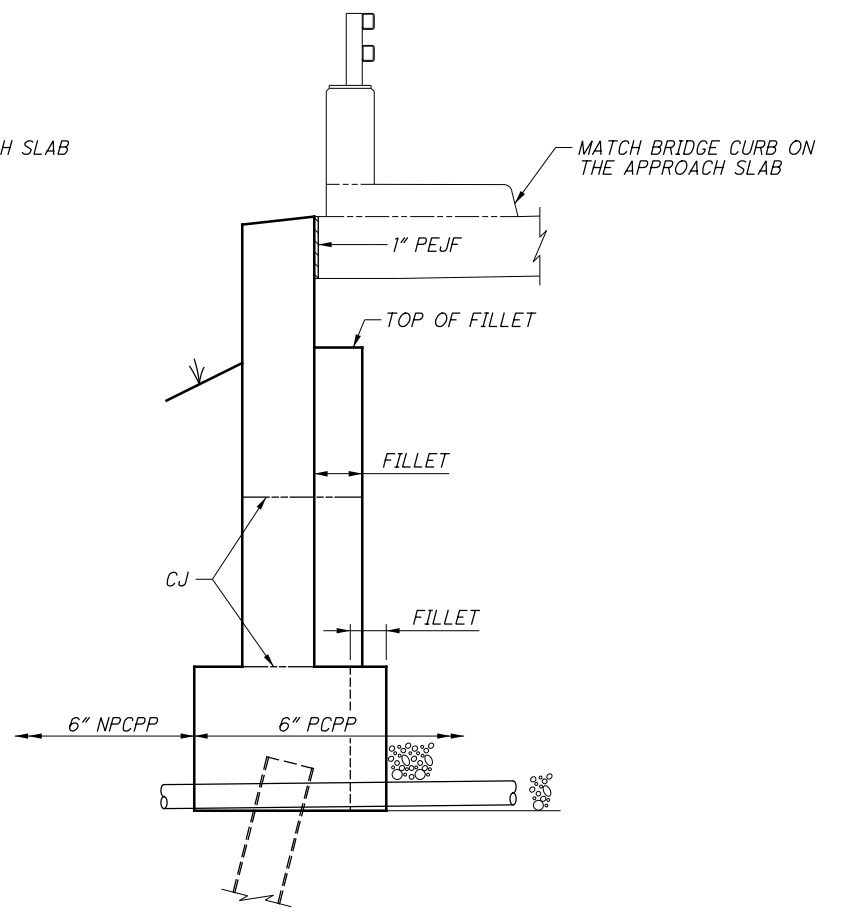
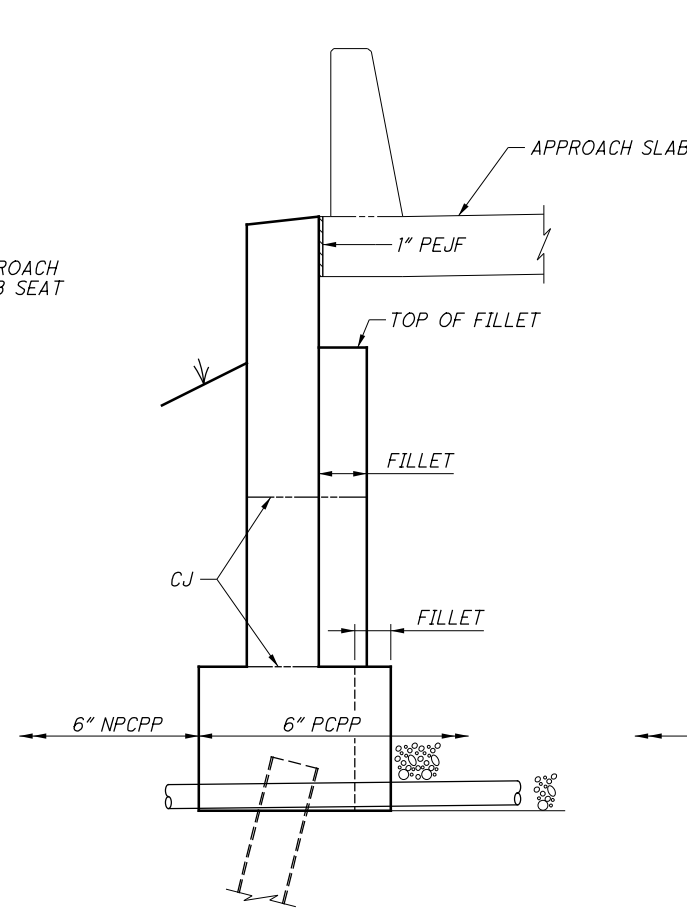
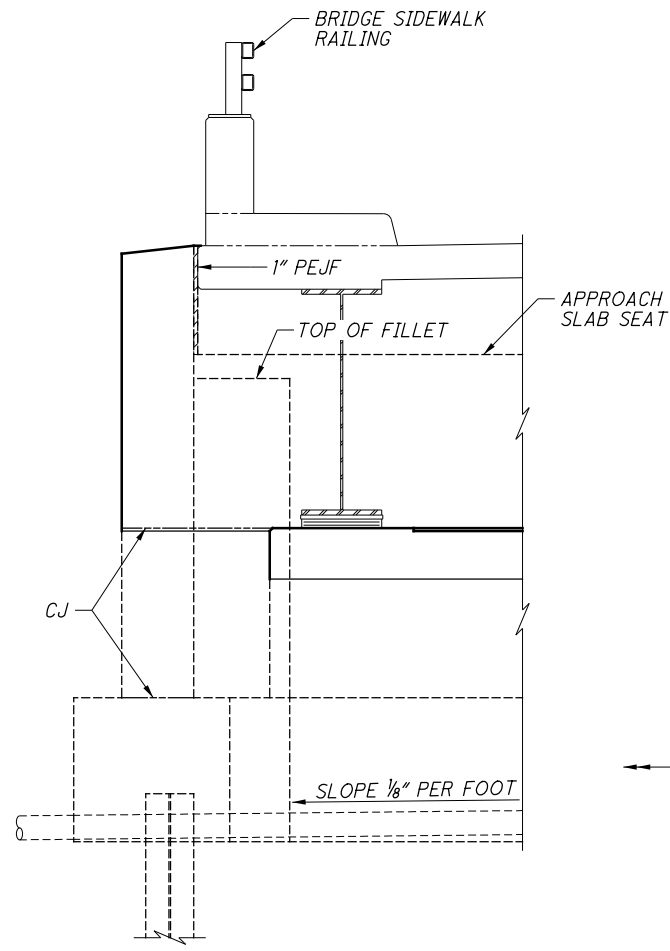
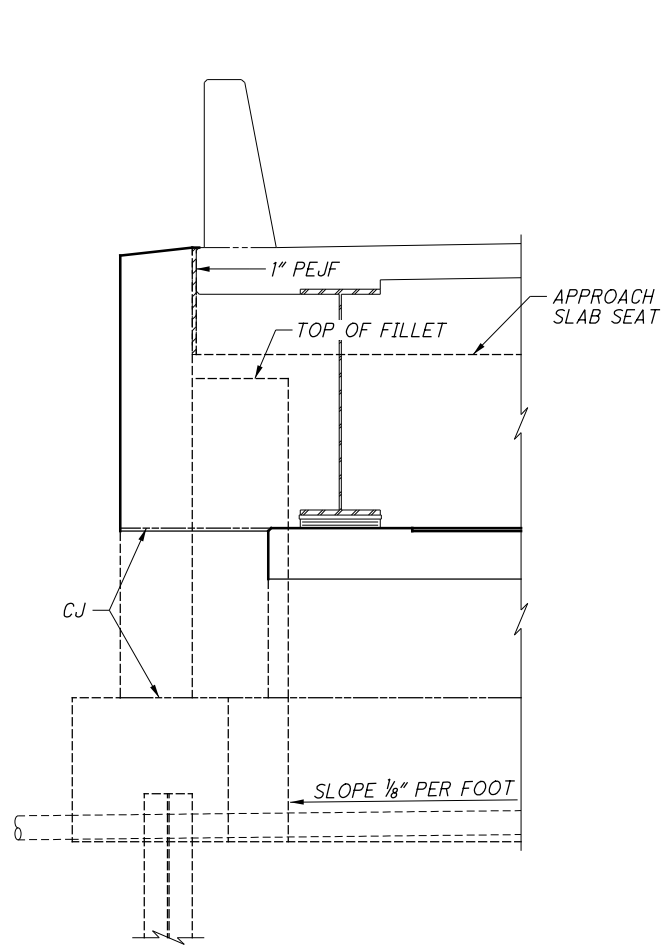
DRAINAGE OUTLET
REINFORCEMENT DETAIL
(SEE NOTE 5)

NOTES:

1. UNLESS NOTED OTHERWISE, ALL REINFORCING BARS ARE #5 BARS.
2. FOR ABUTMENTS WITH PILES, EQUALLY SPACE APPLICABLE VERTICAL BARS A MAXIMUM OF 1'-6" BETWEEN PILES
3. THE MAXIMUM SPACING FOR ALL BARS IS 1'-6"
4. UNLESS OTHERWISE NOTED, THE CONCRETE CLEAR COVER SHALL BE 2".
5. THE DRAINAGE OUTLET REINFORCEMENT DETAIL SHOULD ONLY BE USED WHEN IT IS NOT POSSIBLE TO RUN THE DRAINAGE AROUND THE ABUTMENT/WINGWALL FOOTING.

LEGEND:

- ▲ - PREFABRICATED GEOCOMPOSITE DRAINAGE (PGD) SYSTEM IN ACCORDANCE WITH C&MS 518
- NPCPP - NON-PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE S)
- PCPP - PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE SP)
- CJ - CONSTRUCTION JOINT. REFER TO BDM SECTION 304.2.3 FOR DESIGN REQUIREMENTS.



LEGEND:

- NPCPP - NON-PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE S)
- PCPP - PERFORATED CORRUGATED POLYETHYLENE PIPE (C&MS 707.33, TYPE SP)
- PEJF - PREFORMED EXPANSION JOINT FILLER

CJ - CONSTRUCTION JOINT. REFER TO BDM SECTION 304.2.3 FOR DESIGN REQUIREMENTS.