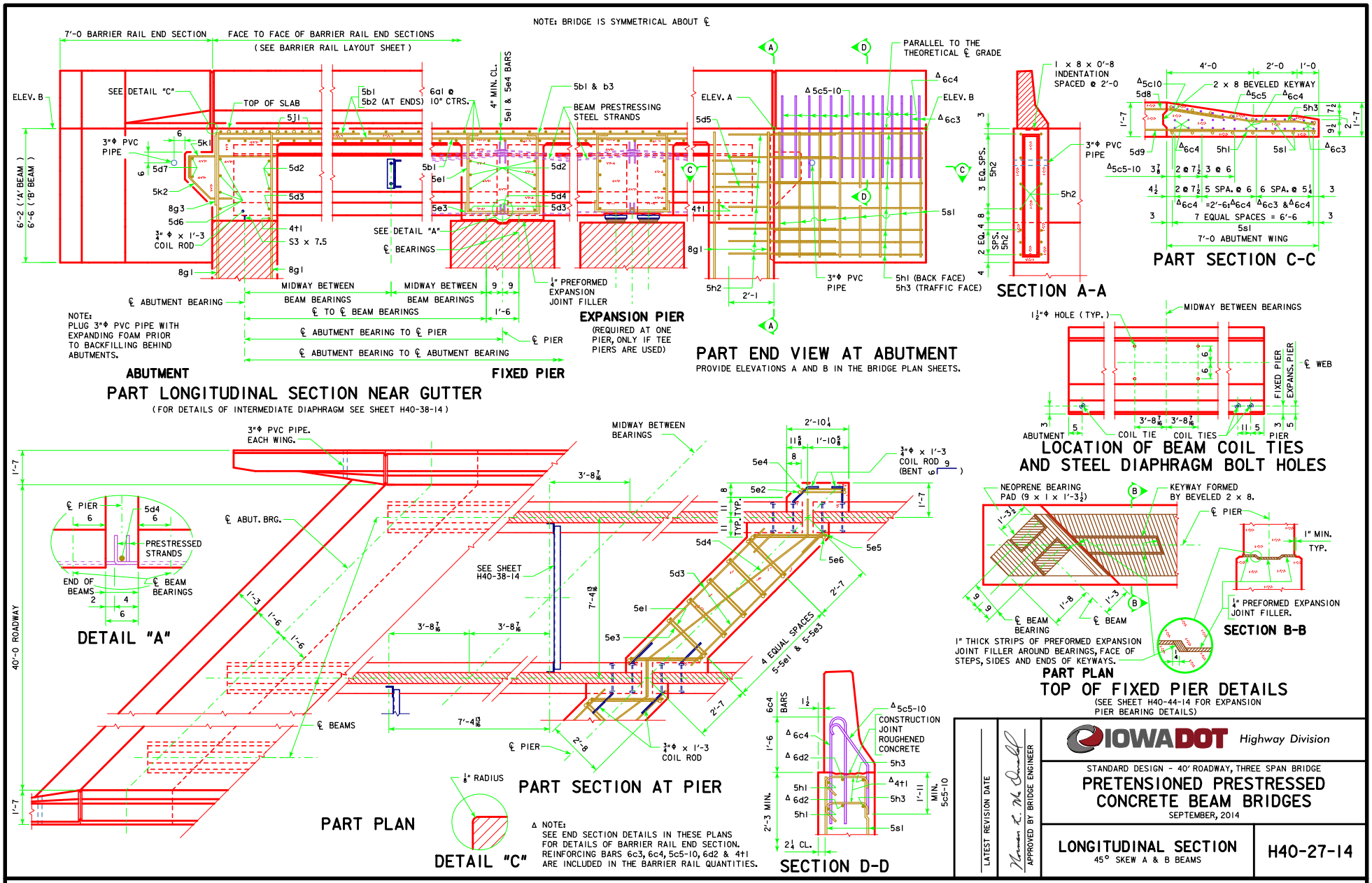
NOTE: BRIDGE IS SYMMETRICAL ABOUT ℄
7'-0 BARRIER RAIL END SECTION
FACE TO FACE OF BARRIER RAIL END SECTIONS
(SEE BARRIER RAIL LAYOUT SHEET)
ELEV. B
SEE DETAIL "C"
TOP OF SLAB
5j1
5b1
5b2 (AT ENDS)
6a1 @ 10" CTRS.
4" MIN. CL.
5e1 & 5e4 BARS
5b1 & b3
BEAM PRESTRESSING STEEL STRANDS
3"Φ PVC PIPE
5k1
5d7
5k2
5d2
5d3
5d6
8g3
3/4" Φ x 1'-3 COIL ROD
4t1
S3 x 7.5
8g1
5b1
5e1
5e3
5d4
SEE DETAIL "A"
℄ BEARINGS
6'-2 ('A' BEAM)
6'-6 ('B' BEAM)
℄ ABUTMENT BEARING
MIDWAY BETWEEN BEAM BEARINGS
℄ TO ℄ BEAM BEARINGS
1/4" PREFORMED EXPANSION JOINT FILLER
1'-6
℄ ABUTMENT BEARING TO ℄ PIER
℄ PIER
℄ ABUTMENT BEARING TO ℄ ABUTMENT BEARING
NOTE:
PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.
ABUTMENT
FIXED PIER
PART LONGITUDINAL SECTION NEAR GUTTER
(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE SHEET H40-38-14)
EXPANSION PIER
(REQUIRED AT ONE PIER, ONLY IF TEE PIERS ARE USED)
ELEV. A
5d5
5c5-10
6c4
ELEV. B
6c3
PARALLEL TO THE THEORETICAL ℄ GRADE
5s1
8g1
5h2
2'-1
3"Φ PVC PIPE
5h1 (BACK FACE)
5h3 (TRAFFIC FACE)
PART END VIEW AT ABUTMENT
PROVIDE ELEVATIONS A AND B IN THE BRIDGE PLAN SHEETS.
1 x 8 x 0'-8 INDENTATION SPACED @ 2'-0
3 EQ. SPS. 5h2
2 EQ. SPS. 5h2
SECTION A-A
4'-0
2'-0
1'-0
2 x 8 BEVELED KEYWAY
5c10
5d8
5c5
6c4
5h3
5d9
5h1
5s1
6c3
5c5-10
2 @ 7 1/2
3 @ 6
4 1/2
2 @ 7 1/2
5 SPA. @ 6
6 SPA. @ 5 1/4
6c4 =2'-6; 6c4 6c3 & 6c4
7 EQUAL SPACES = 6'-6
5s1
7'-0 ABUTMENT WING
PART SECTION C-C
1 1/2"Φ HOLE (TYP.)
MIDWAY BETWEEN BEARINGS
℄ WEB
FIXED PIER
EXPANS. PIER
ABUTMENT
COIL TIE
COIL TIES
PIER
LOCATION OF BEAM COIL TIES AND STEEL DIAPHRAGM BOLT HOLES
3"Φ PVC PIPE. EACH WING.
MIDWAY BETWEEN BEARINGS
℄ PIER
5d4
PRESTRESSED STRANDS
END OF BEAMS
℄ BEAM BEARINGS
DETAIL "A"
℄ ABUT. BRG.
SEE SHEET H40-38-14
40'-0 ROADWAY
℄ BEAMS
℄ PIER
3/4"Φ x 1'-3 COIL ROD
PART PLAN
2'-10 1/4
11 5/8
1'-10 5/8
5e4
5e2
3/4"Φ x 1'-3 COIL ROD (BENT 6 9)
TYP. TYP.
5d4
5e5
5e6
5d3
5e1
5e3
4 EQUAL SPACES 5-5e1 & 5-5e3
2'-7
PART SECTION AT PIER
NEOPRENE BEARING PAD (9 x 1 x 1'-3 1/2)
KEYWAY FORMED BY BEVELED 2 x 8.
℄ PIER
℄ BEAM BEARING
℄ BEAM
1" THICK STRIPS OF PREFORMED EXPANSION JOINT FILLER AROUND BEARINGS, FACE OF STEPS, SIDES AND ENDS OF KEYWAYS.
PART PLAN
1" MIN. TYP.
1/4" PREFORMED EXPANSION JOINT FILLER.
SECTION B-B
TOP OF FIXED PIER DETAILS
(SEE SHEET H40-44-14 FOR EXPANSION PIER BEARING DETAILS)
1/8" RADIUS
DETAIL "C"
Δ NOTE:
SEE END SECTION DETAILS IN THESE PLANS FOR DETAILS OF BARRIER RAIL END SECTION. REINFORCING BARS 6c3, 6c4, 5c5-10, 6d2 & 4t1 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.
6c4 BARS
5c5-10
CONSTRUCTION JOINT ROUGHENED CONCRETE
6c4
6d2
5h3
5h1
4t1
5s1
2'-3 MIN.
2 1/4 CL.
SECTION D-D
LATEST REVISION DATE
APPROVED BY BRIDGE ENGINEER
IOWA DOT Highway Division
STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
SEPTEMBER, 2014
LONGITUDINAL SECTION
45° SKEW A & B BEAMS
H40-27-14