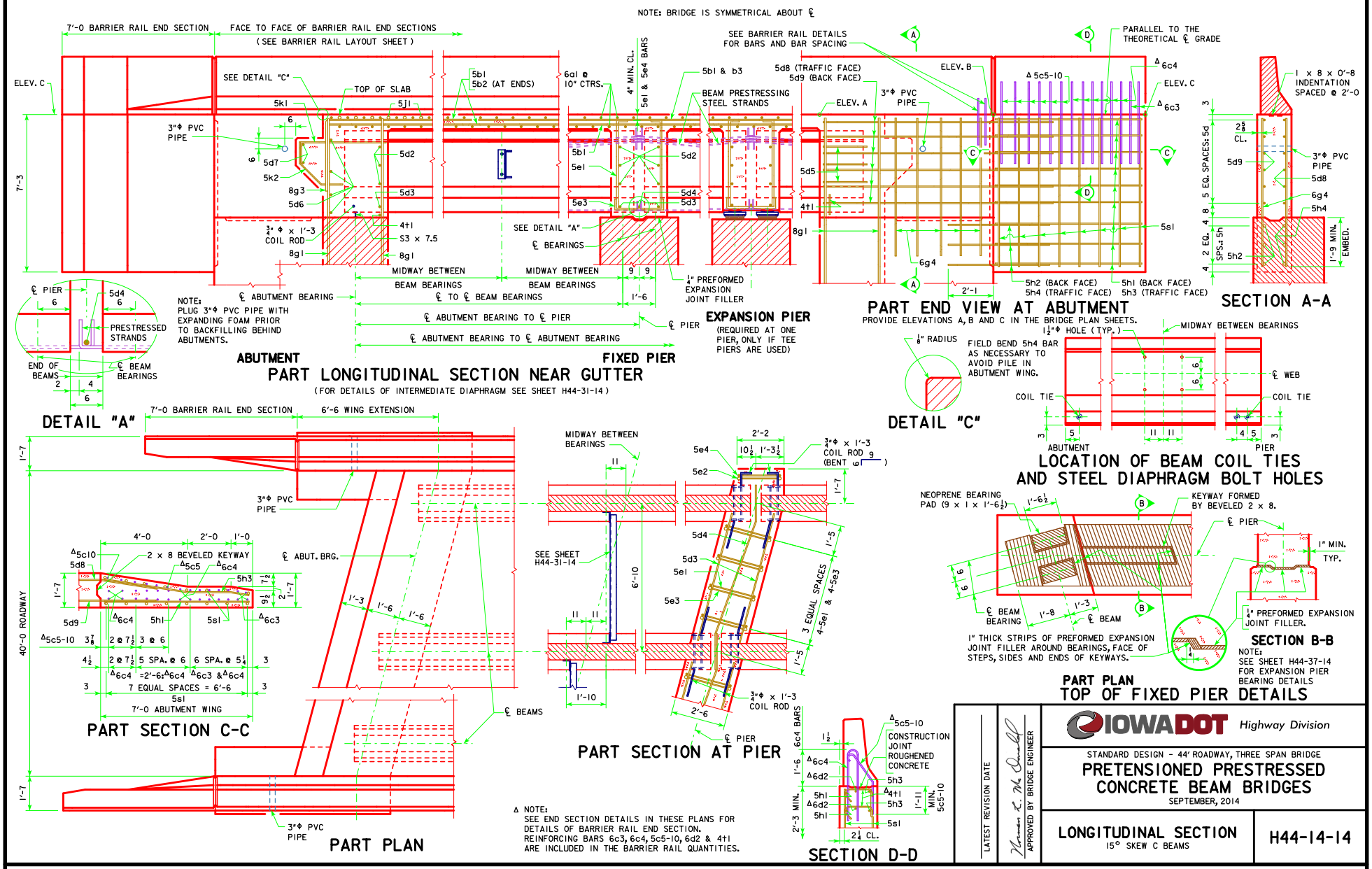
NOTE: BRIDGE IS SYMMETRICAL ABOUT ℄
7'-0 BARRIER RAIL END SECTION
FACE TO FACE OF BARRIER RAIL END SECTIONS
(SEE BARRIER RAIL LAYOUT SHEET)
SEE BARRIER RAIL DETAILS FOR BARS AND BAR SPACING
PARALLEL TO THE THEORETICAL ℄ GRADE
ELEV. C
SEE DETAIL "C"
TOP OF SLAB
5k1
5j1
5b1
5b2 (AT ENDS)
6a1 @ 10" CTRS.
4" MIN. CL.
5e1 & 5e4 BARS
5b1 & b3
BEAM PRESTRESSING STEEL STRANDS
5d8 (TRAFFIC FACE)
5d9 (BACK FACE)
ELEV. B
ELEV. A
3"Φ PVC PIPE
Δ 5c5-10
Δ 6c4
ELEV. C
Δ 6c3
1 x 8 x 0'-8 INDENTATION SPACED @ 2'-0
5d7
5k2
8g3
5d6
5d2
5d3
5b1
5e1
5e3
5d4
5d3
5d5
4t1
8g1
6g4
5s1
5h2
5h4
3"Φ PVC PIPE
5d9
5d8
6g4
5h4
1'-9 MIN. EMBED.
2 EQ. SPACES: 5h
5 EQ. SPACES: 5d
¾" Φ x 1'-3 COIL ROD
S3 x 7.5
SEE DETAIL "A"
℄ BEARINGS
MIDWAY BETWEEN BEAM BEARINGS
℄ TO ℄ BEAM BEARINGS
¼" PREFORMED EXPANSION JOINT FILLER
5h2 (BACK FACE)
5h4 (TRAFFIC FACE)
5h1 (BACK FACE)
5h3 (TRAFFIC FACE)
℄ ABUTMENT BEARING
℄ ABUTMENT BEARING TO ℄ PIER
℄ ABUTMENT BEARING TO ℄ ABUTMENT BEARING
℄ PIER
NOTE: PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.
EXPANSION PIER
(REQUIRED AT ONE PIER, ONLY IF TEE PIERS ARE USED)
ABUTMENT
FIXED PIER
PART LONGITUDINAL SECTION NEAR GUTTER
(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE SHEET H44-31-14)
PART END VIEW AT ABUTMENT
PROVIDE ELEVATIONS A, B AND C IN THE BRIDGE PLAN SHEETS.
SECTION A-A
℄ PIER
5d4
PRESTRESSED STRANDS
END OF BEAMS
℄ BEAM BEARINGS
DETAIL "A"
⅛" RADIUS
DETAIL "C"
1½"Φ HOLE (TYP.)
FIELD BEND 5h4 BAR AS NECESSARY TO AVOID PILE IN ABUTMENT WING.
MIDWAY BETWEEN BEARINGS
℄ WEB
COIL TIE
ABUTMENT
PIER
LOCATION OF BEAM COIL TIES AND STEEL DIAPHRAGM BOLT HOLES
7'-0 BARRIER RAIL END SECTION
6'-6 WING EXTENSION
3"Φ PVC PIPE
℄ ABUT. BRG.
40'-0 ROADWAY
4'-0
2'-0
1'-0
Δ5c10
5d8
2 x 8 BEVELED KEYWAY
Δ5c5
Δ6c4
5h3
5d9
Δ6c4
5h1
5s1
Δ6c3
Δ5c5-10
2 @ 7½
3 @ 6
5 SPA. @ 6
6 SPA. @ 5¼
Δ6c4 =2'-6; Δ6c4 Δ6c3 & Δ6c4
7 EQUAL SPACES = 6'-6
5s1
7'-0 ABUTMENT WING
PART SECTION C-C
℄ BEAMS
3"Φ PVC PIPE
PART PLAN
MIDWAY BETWEEN BEARINGS
SEE SHEET H44-31-14
6'-10
1'-10
5e4
5e2
¾"Φ x 1'-3 COIL ROD (BENT 6)
5d4
5d3
5e1
5e3
3 EQUAL SPACES 4-5e1 & 4-5e3
¾"Φ x 1'-3 COIL ROD
℄ PIER
PART SECTION AT PIER
NEOPRENE BEARING PAD (9 x 1 x 1'-6½)
KEYWAY FORMED BY BEVELED 2 x 8.
℄ PIER
1" MIN. TYP.
℄ BEAM BEARING
℄ BEAM
1" THICK STRIPS OF PREFORMED EXPANSION JOINT FILLER AROUND BEARINGS, FACE OF STEPS, SIDES AND ENDS OF KEYWAYS.
¼" PREFORMED EXPANSION JOINT FILLER.
SECTION B-B
NOTE: SEE SHEET H44-37-14 FOR EXPANSION PIER BEARING DETAILS
PART PLAN
TOP OF FIXED PIER DETAILS
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
Δ5c5-10
CONSTRUCTION JOINT ROUGHENED CONCRETE
Δ6c4
Δ6d2
5h3
5h1
Δ4t1
Δ6d2
5h3
5h1
5s1
2'-3 MIN.
1'-11 MIN. 5c5-10
2¼ CL.
SECTION D-D
LATEST REVISION DATE
APPROVED BY BRIDGE ENGINEER
IOWADOT Highway Division
STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
SEPTEMBER, 2014
LONGITUDINAL SECTION
15° SKEW C BEAMS
H44-14-14