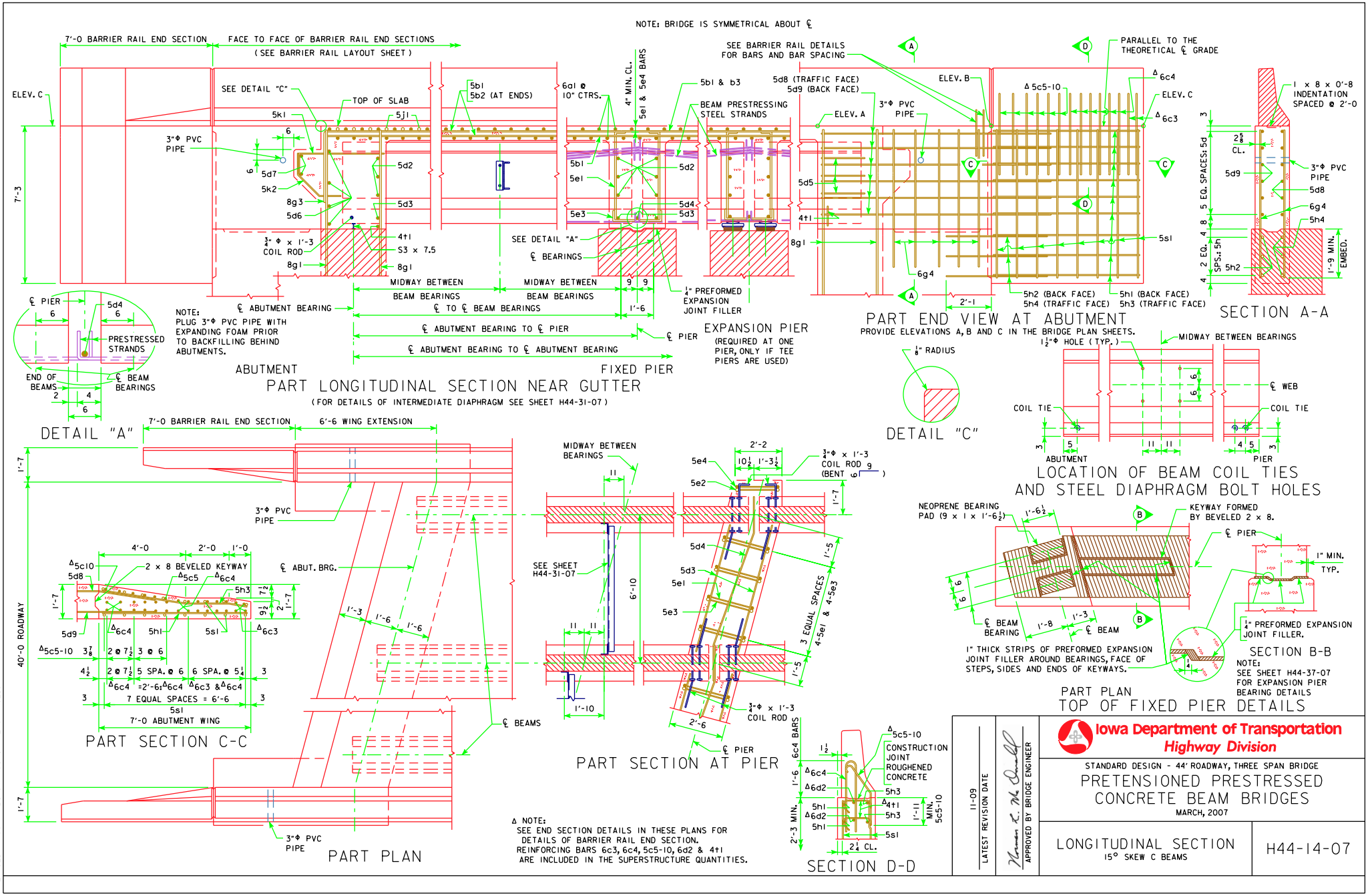
NOTE: BRIDGE IS SYMMETRICAL ABOUT ℄
7'-0 BARRIER RAIL END SECTION
FACE TO FACE OF BARRIER RAIL END SECTIONS
(SEE BARRIER RAIL LAYOUT SHEET)
SEE BARRIER RAIL DETAILS FOR BARS AND BAR SPACING
PARALLEL TO THE THEORETICAL ℄ GRADE
ELEV. C
SEE DETAIL "C"
TOP OF SLAB
5b1
5b2 (AT ENDS)
6a1 @ 10" CTRS.
4" MIN. 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
Δ 6c3
1 x 8 x 0'-8 INDENTATION SPACED @ 2'-0
5k1
5j1
5d7
5k2
8g3
5d6
5d2
5d3
4t1
S3 x 7.5
8g1
3/4" Φ x 1'-3 COIL ROD
5b1
5e1
5e3
5d4
SEE DETAIL "A"
℄ BEARINGS
5d5
8g1
6g4
5s1
5h2 (BACK FACE)
5h4 (TRAFFIC FACE)
5h1 (BACK FACE)
5h3 (TRAFFIC FACE)
2'-1
7'-3
MIDWAY BETWEEN BEAM BEARINGS
℄ TO ℄ BEAM BEARINGS
℄ ABUTMENT BEARING
℄ ABUTMENT BEARING TO ℄ PIER
℄ ABUTMENT BEARING TO ℄ ABUTMENT BEARING
1/4" PREFORMED EXPANSION JOINT FILLER
℄ PIER
EXPANSION PIER
(REQUIRED AT ONE PIER, ONLY IF TEE PIERS ARE USED)
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 H44-31-07)
PART END VIEW AT ABUTMENT
PROVIDE ELEVATIONS A, B AND C IN THE BRIDGE PLAN SHEETS.
SECTION A-A
2 5/8 CL.
5 EQ. SPACES: 5d
2 EQ. SPS.: 5h
1'-9 MIN. EMBED.
℄ PIER
5d4
PRESTRESSED STRANDS
END OF BEAMS
℄ BEAM BEARINGS
DETAIL "A"
1/8" RADIUS
DETAIL "C"
1 1/2"Φ HOLE (TYP.)
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
1'-7
40'-0 ROADWAY
3"Φ PVC PIPE
4'-0
2'-0
1'-0
Δ5c10
5d8
2 x 8 BEVELED KEYWAY
Δ5c5
Δ6c4
5h3
℄ ABUT. BRG.
5d9
5h1
5s1
Δ6c3
Δ5c5-10
2 @ 7 1/2
3 @ 6
4 1/2
5 SPA. @ 6
6 SPA. @ 5 1/4
Δ6c4 =2'-6: Δ6c4 Δ6c3 & Δ6c4
7 EQUAL SPACES = 6'-6
5s1
7'-0 ABUTMENT WING
PART SECTION C-C
1'-3
1'-6
℄ BEAMS
PART PLAN
MIDWAY BETWEEN BEARINGS
SEE SHEET H44-31-07
6'-10
1'-10
2'-2
10 1/2
1'-3 1/2
3/4"Φ x 1'-3 COIL ROD (BENT 6 9)
5e4
5e2
5d4
5d3
5e1
5e3
1'-5
3 EQUAL SPACES 4-5e1 & 4-5e3
2'-6
℄ PIER
PART SECTION AT PIER
NEOPRENE BEARING PAD (9 x 1 x 1'-6 1/2)
1'-6 1/2
KEYWAY FORMED BY BEVELED 2 x 8.
℄ PIER
1" MIN. TYP.
℄ BEAM BEARING
1'-8
1'-3
℄ BEAM
1" THICK STRIPS OF PREFORMED EXPANSION JOINT FILLER AROUND BEARINGS, FACE OF STEPS, SIDES AND ENDS OF KEYWAYS.
1/4" PREFORMED EXPANSION JOINT FILLER.
SECTION B-B
NOTE: SEE SHEET H44-37-07 FOR EXPANSION PIER BEARING DETAILS
PART PLAN
TOP OF FIXED PIER DETAILS
6c4 BARS
2'-3 MIN.
Δ6c4
Δ6d2
5h1
Δ5c5-10
CONSTRUCTION JOINT ROUGHENED CONCRETE
5h3
Δ4t1
1'-11 MIN. 5c5-10
5s1
2 1/4 CL.
SECTION D-D
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 SUPERSTRUCTURE QUANTITIES.
11-09
LATEST REVISION DATE
APPROVED BY BRIDGE ENGINEER
Iowa Department of Transportation
Highway Division
STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
MARCH, 2007
LONGITUDINAL SECTION
15° SKEW C BEAMS
H44-14-07
REVISED 11-09 - ABUT. WINGS SHAPE CHANGED.