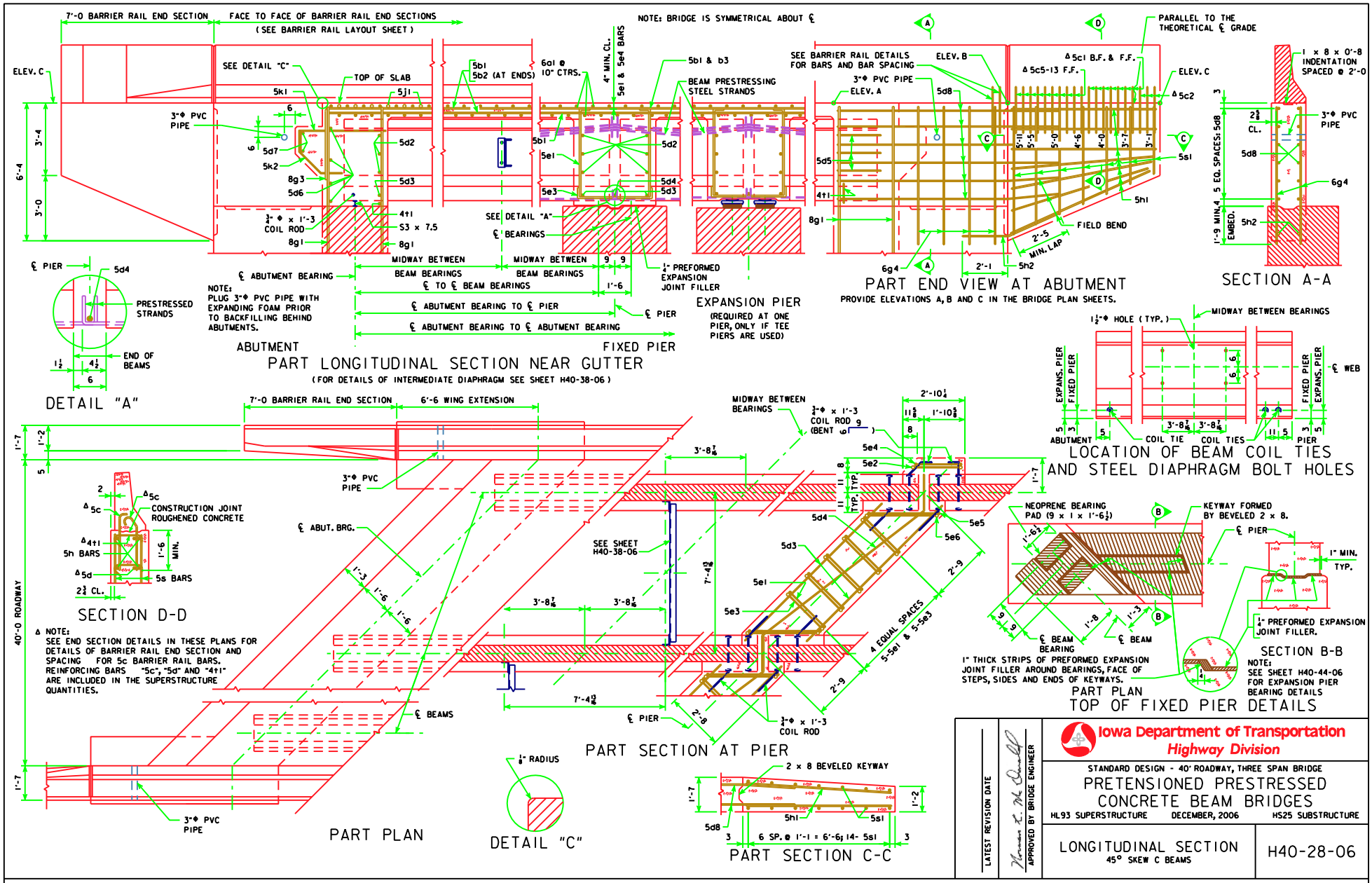
7'-0 BARRIER RAIL END SECTION
FACE TO FACE OF BARRIER RAIL END SECTIONS
(SEE BARRIER RAIL LAYOUT SHEET)
NOTE: BRIDGE IS SYMMETRICAL ABOUT ℄
ELEV. C
SEE DETAIL "C"
TOP OF SLAB
5k1
5j1
5b1
5b2 (AT ENDS)
6a1 @ 10" CTRS.
4" MIN. CL.
5e1 & 5e4 BARS
5b1 & b3
BEAM PRESTRESSING STEEL STRANDS
3"Φ PVC PIPE
5d7
5k2
8g3
5d6
5d2
5d3
4t1
S3 x 7.5
8g1
3/4" Φ x 1'-3 COIL ROD
SEE DETAIL "A"
℄ BEARINGS
5e1
5e3
5d4
5d3
℄ PIER
5d4
PRESTRESSED STRANDS
END OF BEAMS
℄ ABUTMENT BEARING
MIDWAY BETWEEN BEAM BEARINGS
℄ TO ℄ BEAM BEARINGS
℄ ABUTMENT BEARING TO ℄ PIER
℄ ABUTMENT BEARING TO ℄ ABUTMENT BEARING
1/4" PREFORMED EXPANSION JOINT FILLER
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 H40-38-06)
DETAIL "A"
EXPANSION PIER
(REQUIRED AT ONE PIER, ONLY IF TEE PIERS ARE USED)
SEE BARRIER RAIL DETAILS FOR BARS AND BAR SPACING
ELEV. B
ELEV. A
3"Φ PVC PIPE
5d8
5d5
4t1
8g1
6g4
5c1 B.F. & F.F.
5c5-13 F.F.
PARALLEL TO THE THEORETICAL ℄ GRADE
ELEV. C
5c2
5s1
5h1
FIELD BEND
2'-5 MIN. LAP
2'-1
5h2
PART END VIEW AT ABUTMENT
PROVIDE ELEVATIONS A, B AND C IN THE BRIDGE PLAN SHEETS.
1 x 8 x 0'-8 INDENTATION SPACED @ 2'-0
3"Φ PVC PIPE
5d8
6g4
5h2
1'-9 MIN. EMBED.
4.5 EQ. SPACES=5d8
SECTION A-A
1 1/2"Φ HOLE (TYP.)
MIDWAY BETWEEN BEARINGS
EXPANS. PIER
FIXED PIER
℄ WEB
ABUTMENT
COIL TIE
COIL TIES
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.
℄ BEAMS
40'-0 ROADWAY
CONSTRUCTION JOINT ROUGHENED CONCRETE
5h BARS
5s BARS
SECTION D-D
Δ NOTE:
SEE END SECTION DETAILS IN THESE PLANS FOR DETAILS OF BARRIER RAIL END SECTION AND SPACING FOR 5c BARRIER RAIL BARS. REINFORCING BARS "5c", "5d" AND "4t1" ARE INCLUDED IN THE SUPERSTRUCTURE QUANTITIES.
PART PLAN
MIDWAY BETWEEN BEARINGS
3/4"Φ x 1'-3 COIL ROD (BENT 6)
SEE SHEET H40-38-06
℄ PIER
3/4"Φ x 1'-3 COIL ROD
4 EQUAL SPACES 5-5e1 & 5-5e3
PART SECTION AT PIER
1/8" RADIUS
DETAIL "C"
2 x 8 BEVELED KEYWAY
5h1
5s1
5d8
6 SP. @ 1'-1 = 6'-6; 14- 5s1
PART SECTION C-C
NEOPRENE BEARING PAD (9 x 1 x 1'-6 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
TOP OF FIXED PIER DETAILS
1" MIN. TYP.
1/4" PREFORMED EXPANSION JOINT FILLER.
SECTION B-B
NOTE:
SEE SHEET H40-44-06 FOR EXPANSION PIER BEARING DETAILS
LATEST REVISION DATE
APPROVED BY BRIDGE ENGINEER
Iowa Department of Transportation
Highway Division
STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
HL93 SUPERSTRUCTURE
DECEMBER, 2006
HS25 SUBSTRUCTURE
LONGITUDINAL SECTION
45° SKEW C BEAMS
H40-28-06