B-512-5C

PLAN

Ahead Station

a
c
b
d
f

2½" e e 2½"

℄ Girder
℄ Bearing slots
℄ Slots and Anchor bolts

1¾" for 1½" Ø x 2'-0"
A449 anchor bolts
with ⁵⁄₁₆" x 2¾"Ø flat
plate washer, nut
and jam nut

PINTLE DETAIL

Radius plate
1¼"
⅞"
1½"
Threaded or tight fit

DETAIL ①

Bottom plate
Stainless steel (16 Ga)
Sliding plane
PTFE - ³⁄₃₂"
Rigid substrate (10 Ga stainless steel)
Elastomeric pad
Upper Element
Lower Element

SIDE PLATE DETAIL

Sole plate
n
³⁄₈
³⁄₈
2" Plate
7"

SECTION ⓐ

Transversely beveled sole plate
℄ Girder
Concrete girder
h
q q
Radius plate
Elastomeric bearing pad
Bottom plate

RADIUS PLATE DETAIL

Ahead Station
p p
2"
Radius plate
Bottom plate
Radius r
s s
Elastomeric bearing pad

ELASTOMERIC BEARING DETAILS

1⅝"Ø Pintle holes in sole plate
℄ Bearing slots
⁵⁄₁₆
⁵⁄₁₆
Bottom plate
k
⁹⁄₃₂"
g
℄ Anchor bolts

SECTION ⓑ

SECTION
TOP PLATE TO GIRDER CONNECTION
(CONCRETE GIRDER)

Bottom surface of concrete box girder
Sole plate
Ss
2 rows of shear connectors, automatically end welded, at spacing Ss
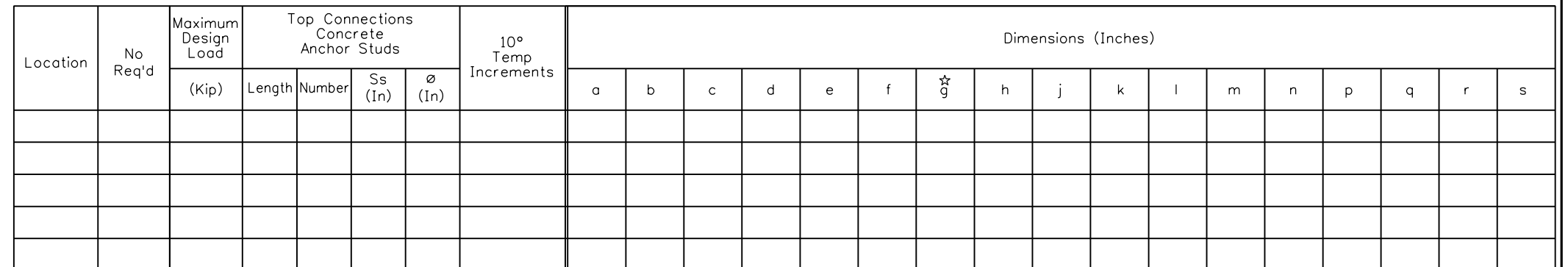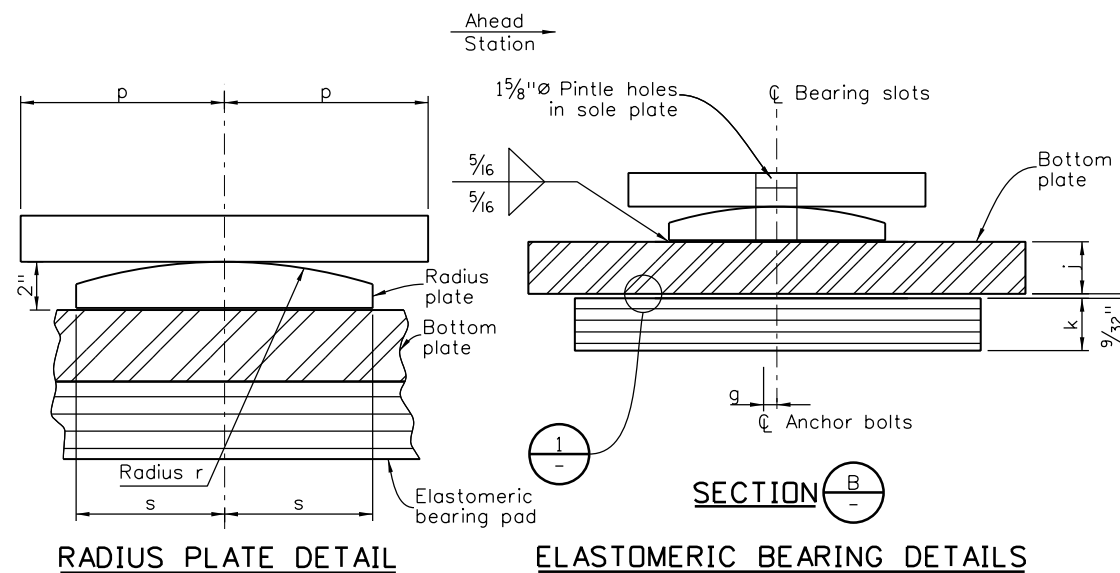
NOTES:

1. Elastomeric pad, sole plate, radius and bottom plate, PTFE, side plates, pintle, shear studs, welding, anchor bolts, and miscellaneous hardware shall be included in the bid price for item 512, Bearing Device (Type V).

2. The centerlines of the upper and lower elements of the expansion bearings shall be aligned as shown in section B at a mid-point temperature of 40°. The upper element only shall be adjusted in relation to the fixed bearing for each 10° temperature change. Adjust away from the fixed bearing one 10° temperature increment for each 10° change above 40° and toward the fixed bearing for each 10° change below 40°.

3. Provide ¼" clearance between jam nut and sole plate under all temperature conditions prior to jamming.

4. Seal weld stainless steel to the sole plate.

5. PTFE and substrate shall be vulcanized to the elastomeric pad.

6. Grade 3 elastomer shall be used. Higher grade elastomer may be substituted for grade 3 at no additional cost to the project.

7. Design shear modulus G = _____ psi at 73°F.

8. Hardness = _____ Duro (Shore A).

9. AASHTO design method _____ has been used.

Location	No Req'd	Maximum Design Load (Kip)	Top Connections Concrete Anchor Studs			10° Temp Increments	Dimensions (Inches)															
			Length	Number	Ss (In)	∅ (In)		a	b	c	d	e	f	☆ g	h	j	k	l	m	n	p	q	r	s

☆ NOTE: Dimension g compensates for creep and shrinkage. Negative values indicate that the * bearing slots shall be set backstation from the * anchor bolts and elastomeric pad.

Revision Dates
4/93 3/99 11/99 4/02 3/07 10/13 3/23 9/24

INITIALS | DESIGN | DATE | DETAIL | DATE | QUANTITY | DATE
By
Checked By

$PLOT_INFO$