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2 **DIVISION8.GR8**

MISCELLANEOUS CONSTRUCTION

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4 **11.GR8**

GUARDRAIL

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6 **BSP1102.GB8**

Materials

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8 **BSP110201.GB8**

Beam Guardrail

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10 **BSP11020101.GB8**

Posts and Blocks

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12 **BSP110201011.GB8**

(Steel shear plates and backing plates)

(BSP February 22, 2001)

13 Use in thrie beam retrofit projects with beam
14 guardrail Type Thrie Beam using timber blockouts
15 wedged between openings in existing concrete
16 baluster rails. Include with **0221.GR6, 02318.GR6,**
17 **BSP110201021.GB8, BSP110201022.GB8,**
18 **BSP110301A1.GB8, and BSP110301C2.GB8.**

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21 **BSP110201012.GB8**

(Grout)

(BSP July 12, 2000)

22 Use in thrie beam retrofit projects with beam
23 guardrail Type Thrie Beam using a steel post
24 connection to the existing concrete curb or
25 railbase. Include with **0221.GR6, 02318.GR6,**
26 **BSP110201021.GB8, and BSP110301A2.GB8.**

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29 **BSP110201013.GB8**

(Steel Angles for Timber Blockout Connection to
Truss)

(BSP October 13, 2003)

30 Use in thrie beam retrofit projects with beam
31 guardrail Type Thrie Beam requiring timber
32 blockout connection to existing steel truss
33 members. Include with **BSP110201022.GB8 and**
34 **other appropriate BSP's supplementing**
35 **Sections 8-11.2 and 8-11.3(1).**

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39 **BSP110201014.GB8**

(Beam Guardrail Type WP Thrie Beam)

(BSP November 5, 2006)

40 Use in thrie beam retrofit projects with weak post
41 thrie beam guardrail retrofit (beam guardrail Type
42 WP Thrie Beam). Include with **07012.FR1,**
43 **BSP110201022.GB8, BSP110301A3.GB8,**
44 **BSP110301C4.GB8, BSP1103021.GB8,**
45 **BSP1103041.GB8 and BSP1105A1.GB8.**

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48 **BSP11020102.GB8**

Hardware

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50 **BSP110201021.GB8**

(Resin bonded anchors)

(BSP July 12, 2000)

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Use in thrie beam retrofit projects requiring resin bonded anchors for connection to concrete baluster railing end posts, and concrete curbs and railbases. Include with **0221.GR6, 02318.GR6, and either BSP110201011.GB8, BSP110201022.GB8, BSP110301A1.GB8, and BSP110301C2.GB8, or BSP110201012.GB8 and BSP110301A2.GB8.**

[BSP110201022.GB8](#)

(Lag screws)
(BSP July 12, 2000)
Use in thrie beam retrofit projects requiring connections with lag screws to timber members and blockouts.

[BSP1103.GB8](#) **Construction Requirements**

[BSP110301.GB8](#) **Beam Guardrail**

[BSP110301A.GB8](#) **Erection of Posts**

[BSP110301A1.GB8](#)

(Timber Blockouts for Beam Guardrail Type Thrie Beam)
(BSP February 9, 2009)
Use in thrie beam retrofit projects with beam guardrail Type Thrie Beam using timber blockouts wedged between openings in existing concrete baluster rails. Include with **0221.GR6, 02318.GR6, BSP110201011.GB8, BSP110201021.GB8, BSP110201022.GB8, and BSP110301C2.GB8.**

[BSP110301A2.GB8](#)

(Steel Posts for Beam Guardrail Type Thrie Beam)
(BSP January 26, 2009)
Use in thrie beam retrofit projects with beam guardrail Type Thrie Beam using a steel post connection to the existing concrete curb or railbase. Include with **0221.GR6, 02318.GR6, BSP110201012.GB8, BSP110201021.GB8, and BSP110301A2.GB8.**

[BSP110301A3.GB8](#)

(Beam Guardrail Type WP Thrie Beam)
(BSP August 3, 2009)
Include in thrie beam retrofit projects with weak post thrie beam guardrail retrofit (beam guardrail Type WP Thrie Beam). Include with **07012.FR1, BSP110201014.GB8, BSP110201022.GB8, BSP110301C4.GB8, BSP1103021.GB8, BSP1103041.GB8 and BSP1105A1.GB8.**

[BSP110301C.GB8](#) **Erection of Rail**

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[BSP110301C1.GB8](#) (Field Measuring to Existing Type 3 Anchors)
(BSP July 12, 2000)
Include in thrie beam retrofit projects when existing
Type 3 anchors are being salvaged for reuse as
part of the retrofitted guardrail system.

[BSP110301C2.GB8](#) (Attaching Beam Guardrail Type Thrie Beam to
Timber Blockouts)
(BSP August 3, 2009)
Use in thrie beam retrofit projects with beam
guardrail Type Thrie Beam using timber blockouts
wedged between openings in existing concrete
baluster rails. Include with **0221.GR6, 02318.GR6,**
BSP110201011.GB8, BSP110201021.GB8,
BSP110201022.GB8, and BSP110301A1.GB8.

[BSP110301C3.GB8](#) (Thrie Beam Expansion Joint Element)
(BSP July 12, 2000)
Use in thrie beam retrofit projects where the beam
guardrail elements are continuous across interior
bridge expansion joints.

[BSP110301C4.GB8](#) (Beam Guardrail Type WP Thrie Beam)
(BSP August 3, 2009)
Include in thrie beam retrofit projects with weak
post thrie beam guardrail retrofit (beam guardrail
Type WP Thrie Beam). Include with **07012.FR1,**
BSP110201014.GB8, BSP110201022.GB8,
BSP110301A3.GB8, BSP1103021.GB8,
BSP1103041.GB8 and BSP1105A1.GB8.

[BSP110302.GB8](#) **Guardrail Construction Exposed to Traffic**

[BSP1103021.GB8](#) (Beam Guardrail Type WP Thrie Beam)
(BSP July 12, 2000)
Include in thrie beam retrofit projects with weak post
thrie beam guardrail retrofit (beam guardrail Type WP
Thrie Beam). Include with **07012.FR1,**
BSP110201014.GB8, BSP110201022.GB8,
BSP110301A3.GB8, BSP110301C4.GB8,
BSP1103041.GB8 and BSP1105A1.GB8.

[BSP110304.GB8](#) **Removing Guardrail**

[BSP1103041.GB8](#) (Beam Guardrail Type WP Thrie Beam)
(BSP July 12, 2000)
Include in thrie beam retrofit projects with weak post
thrie beam guardrail retrofit (beam guardrail Type WP
Thrie Beam). Include with **07012.FR1,**
BSP110201014.GB8, BSP110201022.GB8,

**BSP110301A3.GB8, BSP110301C4.GB8,
BSP1103021.GB8 and BSP1105A1.GB8.**

BSP1105.GB8 **Payment**

[BSP1105A.GB8](#) *Use preceding the following:*

[BSP1105A1.GB8](#) (Removal Costs included in Beam Guardrail Type WP
Thrie Beam)
(BSP July 12, 2000)
Include in thrie beam retrofit projects with weak post
thrie beam guardrail retrofit (beam guardrail Type WP
Thrie Beam). Include with **07012.FR1,
BSP110201014.GB8, BSP110201022.GB8,
BSP110301A3.GB8, BSP110301C4.GB8,
BSP1103021.GB8 and BSP1103041.GB8.**

12.GR8 CHAIN LINK FENCE AND WIRE FENCE

[1202.GR8](#) **Materials**

[BSP12022.GB8](#) (Cable Fence)
(BSP September 8, 2003)
Use in projects with cable fence. Include with
**BSP1203012.GB8, BSP120401.GB8, and
BSP12052.GB8.** Include with **BSP1203011.GB8** when
anchoring the cable fence posts to existing concrete
structures. Include with **BSP1203013.GB8** when painting
of the galvanized fence posts is required.

[BSP1203.GB8](#) **Construction Requirements**

[BSP120301.GB8](#) (Cable Fence)
Use once preceding the following:

[BSP1203011.GB8](#) (Field Measuring For Cable Fence)
(BSP September 8, 2003)
Use in projects with cable fence when anchoring the
cable fence posts to existing concrete structures.
Include with **BSP12022.GB8, BSP1203012.GB8,
BSP120401.GB8, and BSP12052.GB8.** Include with
BSP1203013.GB8 when painting of the galvanized
fence posts is required.

1 Geotechnical Branch. Include with **BSP2003041.FB8 and**
2 **BSP20051.GB8.**

3
4 2003.GR8 **Construction Requirements**

5
6 BSP200304.GB8 **Foundations**

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8 BSP2003041.FB8 (Shafts for Signal Standard Foundations)
9 (BSP August 4, 2008)

10 Use in traffic signal projects with shaft foundations in
11 weak soils, with the concurrence of the Materials
12 Laboratory Geotechnical Branch. The fill-in specifies
13 the location(s) of the shaft(s) requiring construction
14 under these construction requirements. Include with
15 **BSP20021.GB8 and BSP20051.GB8.**
16 (One fill-in).

17
18 BSP2005.GB8 **Payment**

19
20 BSP20051.GB8 (Removing Traffic Signal Shaft Obstructions)
21 (BSP September 8, 2003)

22 Use in traffic signal projects with shaft foundations in weak
23 soils, with the concurrence of the Materials Laboratory
24 Geotechnical Branch. Include with **BSP20021.GB8 and**
25 **BSP2003041.FB8.**

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27 BSP21.GB8 **PERMANENT SIGNING**

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29 BSP2102.GB8 **Materials**

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31 BSP210201.GB8 **Sign Support Structures**

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33 BSP210201A.GB8 *Use preceding the following BSP only*

34
35 BSP210201A1.GB8 (Shafts for Sign Structure Foundations)
36 (BSP August 3, 2009)

37 Use in sign structure projects with shaft
38 foundations where the shaft diameter is 48 inches
39 or greater, or where the shaft depth is 15 feet or
40 greater, or where the Materials Laboratory
41 Geotechnical Branch identifies the foundation soils
42 as sufficiently weak to require use of this
43 specification. Include with **BSP210309F2.FB8 and**
44 **BSP210501.GB8.**

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46 BSP21020101.GB8 **Steel Structures and Posts**

47
48 BSP210201011.GB8 (Monotube Sign Structures)
49 (BSP October 2, 2006)

50 Use in projects with monotube sign bridges and/or
51 monotube cantilever sign structures. Include with

1 either **BSP210309A1.GB8** or **BSP210309A2.FB8**,
2 **BSP210309F1.GB8**, and **BSP2104.FB8**. Include
3 with **BSP210201012.GB8** when sign structures are
4 constructed with round tube or pipe.
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6 [BSP210201012.GB8](#) (Monotube Sign Structures of round tube or
7 pipe)
8 (BSP August 5, 2002)

9 Use in projects with monotube sign bridges and/or
10 monotube cantilever sign structures, constructed
11 with round tube or pipe. Include with
12 **BSP210201011.GB8**, either **BSP210309A1.GB8**
13 or **BSP210309A2.FB8**, **BSP210309F1.GB8**, and
14 **BSP2104.FB8**.
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16 [BSP2103.GB8](#) **Construction Requirements**

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18 [BSP210309.GB8](#) **Sign Structures**

19
20 [BSP210309A.GB8](#) **Fabrication of Sign Structures**

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22 [BSP210309A1.GB8](#) (Monotube Sign Structures)
23 (BSP August 3, 2009)

24 Use in projects with monotube sign bridges and/or
25 monotube cantilever sign structures painted with
26 the conventional gray color (Federal Standard
27 595B No. 35247). Include with
28 **BSP210201011.GB8**, **BSP210309F1.GB8**, and
29 **BSP2104.FB8**. Include with **BSP210201012.GB8**
30 when sign structures are constructed with round
31 tube or pipe.
32

33 [BSP210309A2.FB8](#) (Monotube Sign Structures)
34 (BSP August 3, 2009)

35 Use in projects with monotube sign bridges and/or
36 monotube cantilever sign structures painted a color
37 other than the conventionally specified gray color.
38 Include with **BSP210201011.GB8**,
39 **BSP210309F1.GB8**, and **BSP2104.FB8**. Include
40 with **BSP210201012.GB8** when sign structures are
41 constructed with round tube or pipe. The fill-in
42 specifies the Federal Standard 595B color number,
43 or the color name if no number.
44 (1 fill-in)
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46 [BSP210309E.GB8](#) **Bridge Mounted Sign Brackets**
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[BSP210309E1.FB8](#) (Bridge Mounted Sign Brackets)
(BSP December 14, 2000)
Use in projects with bridge mounted sign brackets.
The first and third fill-ins specify the sign bracket
number(s). The second fill-in itemizes the
structural carbon steel quantity for each sign
bracket. The fourth fill-in specifies the quantity of
hole drilling required for the resin bonded anchors
for each sign bracket.
(4 fill-ins)

[BSP210309F.GB8](#) **Foundations**

[BSP210309F1.GB8](#) (Deleting Grout Pad for Monotube Sign Structures)
(BSP July 12, 2000)
Use in projects with monotube sign bridges and/or
monotube cantilever sign structures. Include with
BSP210201011.GB8, either **BSP210309A1.GB8**,
or **BSP210309A2.FB8**, and **BSP210309F1.GB8**.
Include with **BSP210201012.GB8** when sign
structures are constructed with round tube or pipe.

[BSP210309F2.FB8](#) (Shafts for Sign Structure Foundations)
(BSP August 4, 2008)
Use in sign structure projects with shaft
foundations where the shaft diameter is 48 inches
or greater, or where the shaft depth is 15 feet or
greater, or where the Materials Laboratory
Geotechnical Branch identifies the foundation soils
as sufficiently weak to require use of this
specification. The fill-in specifies the location(s) of
the shaft(s) requiring construction under these
construction requirements. Include with
BSP210201A1.GB8 and BSP210501.GB8
(1 fill-in)

[BSP2104.GB8](#) **Measurement**

