Chapter 03 - Superstructure

SECTION 10

SCUPPERS
(SUP-SC)
GENERAL NOTES

Specifications:

Materials:
Scuppers shall be fiberglass conforming to 921.02.
Gratings and 3/16" bands to be structural steel conforming to ASTM A 709 Grade 36, and epoxy coated.
Elastomeric pad shall conform to 921.02 using 60 Durometer hardness.
Stainless steel bolts shall conform to ASTM A 193, Identification Symbol B 8 Type 304.

Epoxy Bonding Compound: All fiberglass that will be in contact with elastomeric material shall be coated with epoxy bonding compound conforming to 921.04.

Epoxy Coating: All steel parts of structural design shall be epoxy coated as specified in 917.02 except that the color shall match Federal Test Method 595, Color No. 26440.

Measurement and Payment: The furnishing, fabricating, erecting, etc., of all new scuppers for the bridge, complete in place, will be measured and paid for at the Contract unit price per each Scupper item regardless of the length of the downspouts, etc. If no separate item appears in the Invitation for Bids for the Scupper then the cost shall be included in the PCC Items.

Gratings and 3/16" bands to be structural steel conforming to ASTM A 709 Grade 36, and epoxy coated.

Stainless steel bolts shall conform to ASTM A 193, Identification Symbol B 8 Type 304.
Openings in fiberglass to allow concrete to intrude. Concrete shall be finished flush with top of fiberglass.

There must be a minimum of 5" of concrete under entire scupper area, with a mat of rebars equivalent in size and spacing to normal bottom mat pattern of deck. This may require the lowering of the deck in this area.

Wood forms may be used in the area of the scupper, as approved by the Engineer.

Fabricator may select either hole pattern - rectangular or circular.

Steel Clip Angle (typ.) (Epoxy Coated).

Threaded metal insert (2-each side) Location to match 1/4" hold down plate in Scupper Grating. See Detail "A" on sheet 4 of 4.

1" Ø vent hole

8 Holes ø 3 ½"

ALTERNATE OPENING PATTERN TO ALLOW CONCRETE TO INTRUDE

Scale: 1 ½" = 1'-0"

Note:
1. Wood forms may be used in the area of the scupper, as approved by the Engineer.
2. There must be a minimum of 5" of concrete under entire scupper area, with a mat of rebars equivalent in size and spacing to normal bottom mat pattern of deck. This may require the lowering of the deck in this area.
3. Fabricator may select either hole pattern - rectangular or circular.
Provided it does not interfere with minimum underclearance over roadway and/or shoulder.
Out to Out of Rivet Heads.

1 1/2'' x 3/16'' Band Weld

2 7/8'' x 3'-5 3/4'' x 3/16'' band with holes placed between grate and elastomeric pad (both sides of grate).

Provide 3/16'' holes for hold down bolts.

SCALE: 1 1/2'' = 1'-0''

After concrete deck is poured and inlet has been cleaned insert grate and bolt in place.

1/2'' Stainless Steel Bolt 1'' long.

Fiberglass Threaded Insert with 2000# pullout capacity.

SECTION B-B
Scale: 3/4'' = 1'-0''

DETAIL "A"
Scale: None

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

TYPE I BRIDGE SCUPPER

APPROVAL

DIRECTOR
OFFICE OF STRUCTURES
DATE: 01/22/2001

VERSION

1.0

DETAIL NO. SUP-SC-101

SHEET 4 OF 4

RESCIND 04-17-2018

Materials: Scuppers shall be grey cast iron, conforming to ASTM A 48 Class 30 B.

Gratings shall be structural steel conforming to ASTM A 709 Grade 36 and epoxy coated.

Stainless steel bolts shall conform to ASTM A 193, Identification Symbol B8, Type 304.

Paint: Scuppers shall be painted with one shop coat inside and outside. Shop paint shall conform to 912.02.01. Insides of scuppers to be painted with one coat of coal tar epoxy SSPC-Paint 16. Vertical showing surface in curb face and horizontal showing surface in roadway to be painted with the second and finish coats specified in 912.16, System E. Outside of scuppers exposed to atmospheric below the concrete deck slab, shall receive the field paint required for structural steel. If there is no paint indicated, the scupper shall be painted to match color of existing beam.

Shipping: Grate and Scupper shall be shipped as unit with grate hold down bolts in place (not welded).

Measurement and Payment: The furnishing, fabricating, erecting, etc. of all new scuppers for the bridge will be measured and paid for at the Contract unit price per each for the Scupper item regardless of length of downspouts, etc. If no specific items appear in the Invitation for Bids, the cost shall be included in the pertinent Superstructure Concrete item.
Note:
1. Wood forms may be used in the area of the scupper, as approved by the Engineer.
2. There must be a minimum of 5" of concrete under entire scupper area, with a mat of rebars equivalent in size and spacing to normal bottom mat pattern of deck. This may require the lowering of the deck in this area.

Drill and tap holes (2-each side), Location to match 1/4” hold down plate in Scupper Grating. See Detail “A” on sheet 4 of 4.
TYPE I A BRIDGE SCUPPER

STATE OF MARYLAND
OFFICE OF ENGINEERS
STATE HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

DATE: 01/22/2001

1.0

SECTION A-A
Scale 1/2" = 1'-0"

1/2" Stainless Steel Bolt 1" long with lock washer.

3/4" hole for #5 rebar 5'-0" long.

8" DIA. 8" Diameter Cast Iron Downspout.

** Bottom of bottom flange of nearest stringer.

Grind to fit.

No caulking or gasket required.

For support detail for downspout see pertinent standard detail.

* Provided it does not interfere with minimum under clearance over roadway and/or shoulder.

** The downspout may be fiberglass. Color shall match finished bridge paint color. No additional compensation will be allowed for whichever option is chosen.
1/2" Stainless Steel Bolt 1" Long, Hex. head, lock washer, drill and tap holes into scupper.

After concrete deck is poured and inlet has been cleaned insert grate and bolt in place.

1/4" Connection Plate.

Lip of Scupper

Drill and tap holes in shop to receive bolt.

4 1/4" x 4" x 3/8" x 3/8" x 4" Long. Contractor may furnish larger angles than specified for adjustment purposes, provide the location of slot relative to top of angle is maintained.

SECTION B-B

Scale: 1/4" = 1'-0"

Weld 1/4" with continuous weld to bearing bar & band (4 per grate) as shown.
Notes:
1. Fiberglass lining shall extend 3" beyond sides and top of opening on exterior face of parapet and 3" below bottom of slab on exterior face of parapet. Slab bolsters shall have upturned feet embedded in the fiberglass.
2. Omit openings in panels 10' each side of piers and abutments and in those sections which carry light post support brackets. Normal parapet and sidewalk reinforcing shall be provided in all sections without openings.
3. Fiberglass shall conform to 921.11.

The surface of the fiberglass designed to bond with other materials shall be free of bond inhibiting agents.

Note:
On bridges with less than 1/2% grade or the equivalent in a vertical curve, areas between scuppers shall be slopped in gutter area to ensure runoff will reach scupper.

Normal slab reinforcement bent and/or adjusted to clear opening.

Note:
Strings and railing not shown.

SECTION A-A
Scale: 1/4" = 1'-0"

Note:
All longitudinal steel in parapet to be #5's spaced as shown.

Continuous 1 1/4" slab bolster embedded in liner (Typical).
Typical 3' minimum from top of pier and/or top of Bridge at abutment.

Outside face of parapet

Parapet Control Joint

Outside face of parapet

3 1/2''

3'' Typical

2'' x 6'' Continuous Key between openings (Typ.)

Parapet Control Joint

Inside face of scupper

1'-7 1/4''

Where scupper units are called for they shall be centered in parapet panels.

Exterior Elevation

Scale: 1/2'' = 1'-0''

View B-B

Scale: 1/2'' = 1'-0''

3'' Inside 2'-0'' Inside 3'' 1/2''

3'' Typical

10' minimum from top of pier and/or top of Bridge at abutment.

Plan

Scale: 1/2'' = 1'-0''

DATE: 01/22/2001

STATE HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
STATE OF MARYLAND

OFFICE OF STRUCTURES

SUPER-SCUPPERS

1.0

VERSION

DETAIL NO. SUP-SC-103

SHEET 2 OF 2
SECTION A-A
Scale: \( \frac{3}{4}'' = 1'-0'' \)

Notes:
1. Fiberglass lining shall extend 3'' beyond sides and top of opening on exterior face of parapet and 3'' min. below bottom of slab on exterior face of parapet. Slab bolsters shall have upturned feet embedded in the fiberglass.
2. Omit openings in panels 10' each side of piers and abutments and in those sections which carry light posts support brackets. Normal parapet and sidewalk reinforcing shall be provided in all sections without openings.
3. Fiberglass shall conform to MD-12.
   The surface of the fiberglass designed to bond with other materials shall be free of bond inhibiting agents.

Note:
- On bridges with less than \( \frac{1}{2} \) % grade or the equivalent in a vertical curve, areas between scuppers shall be sloped in gutter area to ensure runoff will reach scupper.

Note:
- All longitudinal steel in parapet to be \#5's spaced as shown.

Notes:
- Normal sidewalk reinforcing steel.
- Normal slab steel not shown.
- Normal sidewalk reinforcing shall be provided in all sections without openings.
- Fiberglass shall conform to MD-12.
   The surface of the fiberglass designed to bond with other materials shall be free of bond inhibiting agents.

Note:
- Omit openings in panels 10' each side of piers and abutments and in those sections which carry light posts support brackets.

Note:
- All longitudinal steel in parapet to be \#5's spaced as shown.

Note:
- Normal slab steel not shown.

Note:
- Normal sidewalk reinforcing steel.

Note:
- Normal slab steel not shown.

Note:
- Normal sidewalk reinforcing steel.

Note:
- Normal slab steel not shown.

Note:
- Fiberglass shall conform to MD-12.
   The surface of the fiberglass designed to bond with other materials shall be free of bond inhibiting agents.
Where scupper units are called for they shall be centered in parapet panels.

Normal sidewalk and parapet steel pattern using spacing shown on sidewalk standard as a maximum.

Materials: Scuppers shall be grey cast iron, conforming to ASTM A 48 Class 30 B.

Gratings shall be structural steel conforming to ASTM A 709 Grade 36 and epoxy coated.

Stainless steel bolts shall conform to ASTM A 193, Identification Symbol B8, Type 304.

Paint: Scuppers shall be painted with one shop coat inside and outside. Shop paint shall conform to 912.02.01. Insides of scuppers to be painted with one coat of coal tar epoxy SSPC-Paint 16. Vertical showing surface in curb face and horizontal showing surface in roadway to be painted with the second and finish coats specified in 912.16, System E. Outside of scuppers exposed to atmosphere below the concrete deck slab, shall receive the field paint required for structural steel. If there is no paint indicated, the scupper shall be painted to match color of existing beam.

Shipping: Grate and Scupper shall be shipped as unit with grate hold down bolts in place (not welded).

Measurement and Payment: The furnishing, fabricating, erecting, etc. of all new scuppers for the bridge will be measured and paid for at the Contract unit price per each for the Scupper item regardless of length of downspouts, etc. If no specific items appear in the Invitation for Bids, the cost shall be included in the pertinent Superstructure Concrete Item.
1. Wood forms may be used in the area of the scupper, as approved by the Engineer.
2. There must be a minimum of 5" of concrete under entire scupper area, with a mat of rebars equivalent in size and spacing to normal bottom mat pattern of deck. This may require the lowering of the deck in this area.

Drill and tap holes (2-each side). Location to match 1/4" hold down plate in Scupper Grating. See detail 'A' on sheet 4 of 4.

Note: Grate not shown.
SECTION A-A
Scaled 1/2" = 1'-0"

* Provided it does not interfere with minimum underclearance over roadway and/or shoulder.
** The downspout may be fiberglass. Color shall match finished bridge paint color. No additional compensation will be allowed for whichever option is chosen.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

TYPE IV BRIDGE SCUPPER

DETAIL NO. SUP-SC-105

SUPER - SCUPPERS
After concrete deck is poured and inlet has been cleaned insert grate and bolt in place.

1/2'' Stainless Steel Bolt 1'' Long, Hex. head, lock washer, drill and tap into scupper.

DETAIL "A"
Scale: None

1/8'' Stainless Steel Bolt 1/2'' Long, Hex. head, lock washer, drill and tap into scupper.

Weld 3/8'' connection plate with continuous weld to bearing bar & band (4 per grate) as shown.

Weld 1/4'' connection plate with continuous weld to bearing bar & band (4 per grate) as shown.

4 1/16'' x 3/16'' Reticuline Bars, Flush Top.
GENERAL NOTES


Materials: Scuppers shall be grey cast iron, conforming to ASTM A 48 Class 30 B.

Gratings shall be structural steel conforming to ASTM A 709 Grade 36 and epoxy coated.

Stainless steel bolts shall conform to ASTM A 193, Identification Symbol B8, Type 304.

Paint: Scuppers shall be painted with one shop coat inside and outside. Shop paint shall conform to 912.02.01. Insides of scuppers to be painted with one coat of coal tar epoxy SSPC-Paint 16. Vertical showing surface in curb face and horizontal showing surface in roadway to be painted with the second and finish coats specified in 912.16, System E. Outside of scuppers exposed to atmosphere below the concrete deck slab, shall receive the field paint required for structural steel. If there is no paint indicated, the scupper shall be painted to match color of existing beam.

Shipping: Grate and Scupper shall be shipped as unit with grate hold down bolts in place (not welded).

Measurement of Payment: The furnishing, fabricating, erecting, etc. of all new scuppers for the bridge will be measured and paid for at the Contract unit price per each for the Scupper item regardless of length of downspouts, etc. If no specific items appear in the Invitation for Bids, the cost shall be included in the pertinent Superstructure Concrete Item.
Note: Grate not shown.

1. Wood forms may be used in the area of the scupper, as approved by the Engineer.
2. There must be a minimum of 5" of concrete under entire scupper area, with a mat of rebars equivalent in size and spacing to normal bottom mat pattern of deck. This may require the lowering of the deck in this area.

Drill and tap holes (2-each side). Location to match 1/4" hold down plate in Scupper Grating. See detail A on sheet 4 of 4.

Note: Grate not shown.

Steel Clip Angle (typ.)
7"x4"x3/8"x4" long (epoxy coated).

Rebars equivalent in size and spacing to normal bottom mat pattern of deck. This may require the lowering of the deck in this area.
**SECTION A-A**

Scaled 1/2" = 1'-0"

* Provided it does not interfere with minimum underclearance over roadway and/or shoulder.

** The downspout may be fiberglass. Color shall match finished bridge paint color. No additional compensation will be allowed for whichever option is chosen.
4'-0\(\frac{1}{4}\)"

\(\frac{1}{2}\"\) 2\(\frac{1}{2}\"

8 spaces @ 5" = 3'-4"

\(2\frac{1}{2}\"\) \(\frac{1}{8}\"

\(\frac{3}{8}\"\)     Rivets @ 5"

\(\frac{3}{8}\"\)

\(\frac{2}{3}\"

\(\frac{1}{2}\"

\(\frac{3}{8}\"

\(\frac{1}{8}\"

\(\frac{1}{8}\"

\(\frac{5}{8}\"

\(\frac{1}{4}\"

\(\frac{5}{8}\"

\(\frac{1}{4}\"

\(\frac{7}{8}\"

\(\frac{7}{8}\"

\(\frac{2}{3}\"

\(\frac{2}{3}\"

\(\frac{1}{2}\"

\(\frac{1}{2}\"

\(\frac{3}{8}\"

\(\frac{3}{8}\"

\(\frac{5}{8}\"

\(\frac{5}{8}\"

\(\frac{1}{4}\"

After concrete deck is poured and inlet has been cleaned insert grate and bolt in place.

1/2" Stainless Steel Bolt 1" Long, Hex. head, lock washer, drill and tap holes into scupper.

\(\frac{1}{4}\"\) Connection Plate.

Drill and tap holes in shop to receive bolt.
Notes:
1. All exposed material, except cast iron scupper downspout to be epoxy coated in conformance with Section 465.
2. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy conforming to Specification SSPC-16.

* Provided it does not interfere with minimum underclearance over roadway and/or shoulder.
** The downspout may be fiberglass. Color shall match finished bridge paint color. No additional compensation will be allowed for whichever option is chosen.
Notes:
1. All exposed material except cast iron scupper downspout to be epoxy coated in conformance with Section 465. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

2. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

3. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

4. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

5. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

6. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

7. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

8. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

9. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

10. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

11. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

12. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

13. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

14. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

15. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

16. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

17. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

18. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

19. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

20. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

21. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

22. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

23. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

24. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

25. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

26. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

27. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

28. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

29. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

30. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

31. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

32. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

33. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

34. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

35. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

36. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

37. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

38. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

39. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

40. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

41. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

42. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

43. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

44. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

45. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

46. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

47. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

48. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

49. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.

50. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy, conforming to Specification SSPC-16.
1. U bolts, nuts, washers, bars, channels, etc. shall receive the same number of coats and same color field paint as required for structural steel. If weathering steel is specified it need not be painted.

2. Exposed portions of cast iron scupper downspout to be coated with coal tar epoxy conforming to Specification SSPC-16.

Notes:

- If connection plate is being added to an existing stringer, this will be a field weld.

The downspout may be fiberglass. Color shall match finished bridge paint color. No additional compensation will be allowed for whichever option is chosen.

Scale: \( \frac{3}{8}'' = 1'-0'' \)

8"\( \phi \) Std. Weight Cast Iron *** Scupper Downspout.

5/8'' U-Bolt with nuts & washers.

2'' x 1'-0'' x 3/8'' Flat bar.

Proposed stiffener or additional connection plate.

** Provided it does not interfere with minimum underclearance over roadway and/or shoulder.

*** The downspout may be fiberglass. Color shall match finished bridge paint color. No additional compensation will be allowed for whichever option is chosen.
Notes:
1. Wood forms may be used in the area of the scupper as approved by the Engineer.
2. Type IA scupper shown.
* - See appropriate Lap Chart.

Normal Deck Reinforcing

*5 to extend 3'-0" beyond outside faces of scupper.

Additional #5 & 6"

In area of scupper modify this rebar as shown, all other normal parapet steel not shown.

Deck not to be lowered beyond fascia stringer.

Notes:
1. Wood forms may be used in the area of the scupper as approved by the Engineer.
2. Type IA scupper shown.

* Additional #5 bars, spaced to match normal deck reinforcing pattern

Top of Roadway

Stop parapet key

Additional #5 bars, spaced to match normal deck reinforcing pattern

SECTION
Scale: 1/4" = 1'-0"

Normal Deck Reinforcing
(Cut in field as necessary around scupper).

SECTION A-A
Scale: 1/4" = 1'-0"

Additional #5 bars, spaced to match normal deck reinforcing pattern

Notes:
1. Wood forms may be used in the area of the scupper as approved by the Engineer.
2. Type IA scupper shown.

* - See appropriate Lap Chart.
Notes:
1. Wood forms may be used in the area of the scupper as approved by the Engineer.
2. Type IA scupper shown.

* - See appropriate Lap Chart.

Normal Deck Reinforcing

Additional #5 bars, spaced to match normal deck reinforcing pattern

#5 to extend 3'-0" beyond outside faces of scupper.

In area of scupper modify this rebar as shown, all other normal parapet steel not shown.

Deck not to be lowered beyond fascia stringer.

SECTION
Scale: 1/4" = 1'-0"

Top of Roadway
Stop parapet key

Additional #5 bars, spaced to match normal deck reinforcing pattern

SECTION A-A
Scale: 1/4" = 1'-0"

Normal Deck Reinforcing
(Cut in field as necessary around scupper).

#5 @ 8" c/c lapped with vertical reinforcing as shown

#5 to extend 3'-0" beyond outside faces of scupper.

Note: Parapet reinforcing not shown.

Engineer.

Type I A scupper shown.

Additional #5 bars, spaced to match normal deck reinforcing pattern
Notes:
1. Normal deck reinforcing not shown for clarity.
2. Wood forms may be used in the area of the scupper as approved by the Engineer.
3. Type I scupper shown.

* - See appropriate Lap Chart.

Optional extension of haunch to each stringer (haunch stops at stringer).

Additional #5 bars to match spacing of normal deck reinforcing pattern.

Extend rebar if haunch is continued to stringer.

Top of Roadway

Additional #5's, spaced to match normal deck reinforcing pattern

Finished Sidewalk

SECTION
Scale: \( \frac{3}{4}'' = 1'-0'' \)

SECTION B-B
Scale: \( \frac{3}{4}'' = 1'-0'' \)
Note:

1. Splash blocks shall be placed at all scuppers that do not directly outlet onto slope protection or into water and are less than 40' above finished ground.
2. Concrete shall be Mix. No. 1 or better.
3. Cost of splash block(s) complete in place, regardless of alternate (including Selected Backfill) shall be measured and paid for at Contract unit price bid on Slope Protection Item, if there is no slope protection in the project then cost to be included in Contract price bid on Scuppers or whichever item(s) scuppers are included in.
4. Alternate Section A-A is to be utilized when riprap slope protection is specified for slopes of bridge. All material for riprap splash block shall conform to the same requirements for the other riprap slope protection for bridge.