APRON DETAIL

WORKING POINT

SECTION C6

APRON DETAIL

ALTERNATE SECTION C6

ALTERNATE CUT OFF WALL

SECTION THRU WINGWALLS

APRON DETAIL

WORKING POINT

BOX CULVERT APRON DETAILS

NOTES

1. Steel reinforcement shall be embedded 2" clear unless otherwise shown on notes.

2. The concrete in the cut-off wall may be placed underwater if the excavation cannot be dewatered.

3. The temporary formwork for the wingwall, shown on this sheet may be used in lieu of the cast-in-place concrete cut-off wall. Payment shall be based on concrete cut-off wall.

4. Locate name plate on nearest wall and traveling up stream face.

DESIGNER NOTES

If precast elements are allowed, indicate the following note on the plan sheet:

"Precast elements are allowed. The following note on the plan sheet: PRECAST CONCRETE BOX CULVERT, (SPAN SIZE) FT X (RISE SIZE) FT (504.2000.S)" PRECAST CONCRETE WINGWALLS (STRUCTURE) (504.1000.S)"

PRECAST CONCRETE BOX CULVERT, (SPAN SIZE) FT X (RISE SIZE) FT (504.2000.S) PRECAST CONCRETE WINGWALLS (STRUCTURE) (504.1000.S)

BAR STEEL FOR CAST-IN-PLACE CONCRETE APRONS SHALL BE UNCOATED AND EPOXY COATED. "BEVEL 2" AT 1'-0" SPACING" MAY BE USED, WHERE PERMITTED ON THE DRAWINGS. IF USED, PROVIDE PRECAST DETAILS FOLLOWING STANDARDS 36.05 AND 36.06 WITH PRECAST ONLY DESIGNS REQUIRE PRIOR APPROVAL FROM THE BUREAU OF STRUCTURES.

PRECAST ONLY DESIGNS REQUIRE PRIOR APPROVAL FROM THE BUREAU OF STRUCTURES.

Bar steel reinforcement shall be embedded 2" clear unless otherwise shown on notes."

Approved: Bill Oliva

Date: 1-21
**NOTES**

FIELD CUT BAR STEEL REINFORCEMENT BY TOP SLAB TO CLEAR THE OPENING PROVIDED FOR MEDIAN INLET. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF WRENCH AND STEEL. MINIMUM ADJUSTMENT SHALL BE 8".

**DESIGN NOTES**

SIZE AND LENGTH OF "A" BARS TO BE DETERMINED BY THE DESIGNER.

STEEL SHOWN IS ADEQUATE TO DEPTH UP TO 3'-10" FOR INLET TYPE 8 AND 5'-4" FOR INLET TYPE 9. A COMPONENT OF 0.120 KCF AND A UNIT WEIGHT OF SOIL OF 0.20 KCF.

VERTICAL STEEL ADEQUATE FOR DEPTH UP TO 2'-6" ASSUMING WIND LOAD OF 50#/SQ. FT.

**FIELD CUT BAR STEEL REINFORCEMENT BY TOP SLAB TO CLEAR THE OPENING PROVIDED FOR MEDIAN INLET. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF WRENCH AND STEEL. MINIMUM ADJUSTMENT SHALL BE 8".**

**MAXIMUM ADJUSTMENT SHALL BE 8". ACCOMPLISHED BY THE USE OF MORTAR AND BRICK. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF WRENCH AND STEEL. MINIMUM ADJUSTMENT SHALL BE 8".**

**FIELD CUT BAR STEEL REINFORCEMENT BY TOP SLAB TO CLEAR THE OPENING PROVIDED FOR MEDIAN INLET. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF WRENCH AND STEEL. MINIMUM ADJUSTMENT SHALL BE 8".**

**LATERAL EARTH PRESSURE OF 0.5 AND A UNIT WEIGHT OF SOIL OF 0.20 KCF.**

**GENERAL STEEL ADEQUATE FOR DEPTH UP TO 2'-6" ASSUMING WIND LOAD OF 50#/SQ. FT.**

**SIZE AND LENGTH OF "A" BARS TO BE DETERMINED BY THE DESIGNER.**

**STEEL SHOWN IS ADEQUATE TO DEPTH UP TO 3'-10" FOR INLET TYPE 8 AND 5'-4" FOR INLET TYPE 9.**

**STEEL SHOWN IS ADEQUATE TO DEPTH UP TO 3'-10" FOR INLET TYPE 8 AND 5'-4" FOR INLET TYPE 9.**

**FOR INLET TYPE 8 & 9**

**BOX CULVERT MANHOLE**

**STANDARD 36.04**
PIPE OPENING IN CULVERT WALL

NOTES

ALL BAR STEEL REINFORCEMENT SHALL BE CUT 2" CLEAR AROUND OPENING.

DESIGNER NOTES

DETAILS SHOWN ARE FOR CAST-IN-PLACE CULVERTS. PRECAST CULVERT DETAILS TO BE SIMILAR.

Diameter (D)

Typ.

Showing outside reinf.

Bar length D+1'-6" min. (typ.)

Reinforcing cut by opening provide 50% of vertical bar mats (typ.) between inside and outside #4 diagonal bars, place both faces (typ.) 3'-0" min. top and bottom additional horiz. #4 bar, 6" cl.

Opening

Horiz. Edge

Ver. vertic a l e d g e

half section

half section

COVERED WALL REINFORCEMENT

Provided side of vertical reinforcing cut by opening

Min. length 5'-0" Min.

5'-0" Min.

Additional min. 3" bar D/P and bottom

3" grout.

Additional min. 3" bar D/P and bottom

3" grout.

ELEVATION

When D < 6' Max.

When D > 6' Max.

When D < 3' Max.

When D > 3' Max.

Additional 3" bar D/P and bottom

3" grout.

Additional 3" bar D/P and bottom

3" grout.

Approved: Bill Oliva

Date: 1-13

STANDARD 36.07
GUARDRAIL POST ANCHORS TYPE 1
USE FOR THICKNESS 'T' OF 8 INCHES OR MORE AND MINIMUM CONCRETE STRENGTH (50°F) OF 4,000 PSI

GUARDRAIL POST ANCHORS TYPE 2
USE FOR THICKNESS 'T' OF 10 INCHES OR MORE AND MINIMUM CONCRETE STRENGTH (50°F) OF 3,500 PSI

GUARDRAIL POST ANCHORAGE SYSTEM

# GUARDRAIL POST ANCHORAGE SYSTEM

CLASS 3" GUARDRAIL PLATE

<table>
<thead>
<tr>
<th>Width</th>
<th>Length</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>3&quot;</td>
<td>1'-0&quot;</td>
<td>0.125&quot;</td>
</tr>
</tbody>
</table>

STEEL SHIM DETAIL

The railing and anchorage system meet NCHRP 350 evaluation criteria for test level 3 (T-3).

DESIGNER NOTES

1. Ensure that the post anchorage system is designed to hold the post in alignment even if the post is removed. Determine the type of anchorage system used.

2. Check to see if post anchorage system is required for alignment. If so, see applicable section of the standard.

3. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

4. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

5. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

6. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

7. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

8. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

9. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

10. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

11. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

12. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

13. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

14. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

15. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

16. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

17. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.

18. Ensure that the post anchorage system is designed to be installed as shown on the structure plans. Ensure that all steel posts and plates are galvanized. All threaded rods shall be galvanized after fabrication. Steel shims may be used between plates and slab where required for alignment.
DESIGNER NOTES FOR PRECAST CONCRETE STRUCTURE

PRECAST BRIDGES WILL BE LIMITED TO SPANS NOT TO EXCEED 42'-0".

PREFABRICATION SHOP AND GEOTECHNICAL ISSUES ENGINEERS APPROVE BEFORE INCORPORATING PRECAST BRIDGES INTO ANY PROJECT.

CHECK FOUNDATION PRESSURE, SOIL, AND SETTLEMENT TO ENSURE THAT NO FOUNDATION FAILURE OCCURS.

PREVENTIVE MEASURES WILL BE IMPLEMENTED IN THE INSTALLATION PROCESS TO MINIMIZE SETTLEMENT AND DAMAGE.

VERTICAL EARTH PRESSURES:
- UNIT WEIGHT = 140 PCF
- HORIZONTAL EARTH PRESSURES:
- UNIT WEIGHT = 150 PCF

LIVE LOAD:
- HL-93

WALL BACKFILL REQUIREMENTS

BACKFILL REQUIREMENTS

MINIMUM BACKFILL HEIGHT

- FILL GRADE
- BASE/FINISH GRADE
- TO ROADWAY

WALL BACKFILL REQUIREMENTS

MINIMUM BACKFILL DEPTH

- 1'-0" @ ANCHOR
- WALL HEIGHT

*NOTE: ADJACENT SEGMENTS SHALL BE ATTACHED TO EACH OTHER TO KEEP FRONT FACES IN ALIGNMENT. PLACE A FILLER AT THESE JOINTS WITH A MEMBRANE ALONG THE JOINT AT THE BACK FACE.

PRECAST THREE-SIDED BOX CULVERT DESIGN NOTES

BUREAU OF STRUCTURES

APPROVED: Bill Oliva DATE: 7-21

STANDARD 36.10
**STRUCTURE**

**GENERAL NOTES:**

T Y P E  "X "  T Y P E  "X "  T Y P E  "X "  T Y P E  "X "


HEADWALL  HEADWALL  HEADWALL  HEADWALL

SPAN  R I S E  S P A N  R I S E  S P A N  R I S E

8" M I N .  8" M I N .  8" M I N .  8" M I N .

DESIGN  PER  M I N .  2 '-0 "  M I N .  2 '-0 "  M I N .  2 '-0 "

WING 2  WING 3  WING 4  WING 1

VARIES  ANGLE  VARIES  ANGLE  VARIES  ANGLE  VARIES  ANGLE

FLOW  ON  S O L I D  R O C K  B A S E  F O O T  I N  G

4 '-0 " M I N .  U N L E S S 4 '-0 " M I N .  U N L E S S

V A R I E S  V A R I E S  V A R I E S  V A R I E S

X '-X "  X '-X "  X '-X "  X '-X "

M I N .  3 '-6 "  M I N .  3 '-6 "  M I N .  3 '-6 "  M I N .  3 '-6 "

AS SPECIFIED  AS SPECIFIED  AS SPECIFIED  AS SPECIFIED

PRECAST OR CIP WINGWALL  PRECAST OR CIP WINGWALL  PRECAST OR CIP WINGWALL  PRECAST OR CIP WINGWALL

N - S P A N  x  R I S E  x  L O N G  N - S P A N  x  R I S E  x  L O N G  N - S P A N  x  R I S E  x  L O N G  N - S P A N  x  R I S E  x  L O N G

**MEMBRANE WATERPROOFING**

18-INCH RUBBERIZED MEMBRANE

‡" X …" BUTYL ROPE

**B R I D G E  D E T A I L S  A N D  F E A S I B I L I T Y  G U I D E L I N E S**

SEE STANDARD 36.13 AND STANDARD 36.14 FOR APPROXIMATE

+

PLUS (N-1) JOINTS @ "" TO "" PER JOINT = L

PRECAST CONCRETE CULVERT UNITS

ALL BAR SPLICES TO BE "CLASS C" TENSION LAP SPLICES.

NOTE: PLATE LENGTH AND THICKNESS SHALL BE

NOTE: CONNECTION PLATES (P-1) MUST BE POSITIONED WITH

SMALL DIAMETER HOLES TOWARD PRECAST BRIDGE UNIT

PRECAST THREE-SIDED BOX CULVERT LAYOUT DESIGNS

PRECAST BRIDGE UNIT (TYP.)

PRECAST BRIDGE UNIT (TYP.)

PRECAST BRIDGE UNIT (TYP.)

PRECAST BRIDGE UNIT (TYP.)

PRECAST THREE-SIDED BOX CULVERT LAYOUT DESIGNS

STANDARD 36.11

PRECAST WINGWALL  GROUT

STIRRUPS PER DESIGN

CAST-IN-PLACE FOOTING TYPE  "X "  T Y P . BETWEEN UNITS

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

TOP OF PRECAST BRIDGE UNIT

WRAPPED 4-INCH PIPE UNDERDRAIN

TOP OF PRECAST BRIDGE UNIT

WRAPPED 4-INCH PIPE UNDERDRAIN

TOP OF PRECAST BRIDGE UNIT

PRECAST WINGWALL  INSIDE FACE OF

NOTE TOP AND BOTTOM (AS SHOWN)

#6 @ 1'-0" MAX. BARS,

DOUBLE NUTS SPACING TO BE DESIGNED

1" X 6" THREADED ROD (2) WITH DOUBLE

WINGWALL ANCHOR FOR 1" X 6"

NUTS SPACING TO BE DESIGNED

PRECAST OR CIP WINGWALL

GALV. PLATE WASHER 4" X 4" X ""

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.

UNIT LEG  WINGWALL LEG

WRAPPED 4-INCH PIPE UNDERDRAIN

PRECAST WINGWALL, IF SPECIFIED (TYP.)

PRECAST BRIDGE UNIT

TOP AND BOTTOM (AS SHOWN)

PRECAST BRIDGE UNIT

NOTE PLATE LENGTH AND WIDTH SHALL BE

INCREASED AS REQUIRED BY DESIGN.
STAINLESS

TYPICAL SKEW LIMITS PLAN VIEW - NOT TO SCALE

1'-6"

9"

(A S P E R D E S I G N )

PRECAST HEAD WALL

1'-9"

8" MIN.

VARIES

1'-0"

8" MIN.

VARIES

LIFTING HOLES

LIFTING INSERTS

TYPICAL LIFT POINT SEALING DETAIL

LIFTING INSERTS Pockets with grous, finishing flush

PRECAST BRIDGE Unit, Headwall or Wingwall

END OF CULVERT DURABILITY/HEADWALL NOT SHOWN FOR CLARITY

SKewed Units

TYPICAL SKEW LIMITS PLAN VIEW - NOT TO SCALE

UNIT SPAN

MAX. HEIGHT AT CROWN

MAX. APPROXIMATE HEIGHT AT EDGE

TO HEADWALL (SHOWN WHERE RELEVANT)

MAX. HEIGHT @ CROWN OF SPAN

MAX. APPROXIMATE HEIGHT @ EDGE

PRECAST THREE-SIDED BOX CULVERT HEADWALL DETAILS

CAST-IN-PLACE HEAD WALL DETAIL

PRECAST HEAD WALL DETAIL WITH COLLAR

NOT TO SCALE

LRFD COLLAR/HEAD WALL DESIGN NOTES:

- Headwall details shown here have only been designed for the
following 2 load cases:

1) Earth pressure only
2) Earth pressure + live load surcharge

- These details are not to be used where a vehicle load can
be transmitted through a barrier to the headwall.

- For headwall thickness:
- For collar thickness:
- For collar thickness:
- For collar thickness:
- For collar thickness:
- For collar thickness:
- For collar thickness:
- For collar thickness:
- For collar thickness:
- For collar thickness:

- For headwall design only

PRECAST THREE-SIDED BOX CULVERT HEADWALL DETAILS

APPROVED

Scot Becker

DATE:

STANDARD 36.13
<table>
<thead>
<tr>
<th>COVER</th>
<th>14'-0&quot; SPAN</th>
<th>20'-0&quot; TO 24'-0&quot; SPANS</th>
<th>28'-0&quot; TO 42'-0&quot; SPANS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AREA OF CONCRETE SECTION</td>
<td>GEOMETRIC PROPERTIES (ft.)</td>
<td>AREA OF CONCRETE SECTION</td>
</tr>
<tr>
<td></td>
<td>SQ. FT</td>
<td>CENTER OF GRAVITY</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>14</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>4</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>5</td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>6</td>
<td>5.6</td>
<td>5.6</td>
<td>5.6</td>
</tr>
<tr>
<td>7</td>
<td>6.4</td>
<td>6.4</td>
<td>6.4</td>
</tr>
<tr>
<td>8</td>
<td>7.2</td>
<td>7.2</td>
<td>7.2</td>
</tr>
<tr>
<td>9</td>
<td>8.0</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td>10</td>
<td>8.8</td>
<td>8.8</td>
<td>8.8</td>
</tr>
<tr>
<td>11</td>
<td>9.6</td>
<td>9.6</td>
<td>9.6</td>
</tr>
</tbody>
</table>

NOTE: THESE STEEL AREAS ARE SHOWN FOR COVER OF 14'-0" OR LESS.