CROSS SECTION THRU ABUTMENT AT MSE WALL

EYE BOLT DETAIL

CAST-IN-PLACE COPING

FACE OF CONCRETE

COST INCIDENTAL TO THE CONCRETE MASONRY BRIDGES.

EXPANDED POLYSTYRENE

TOP OF WALL

COST INCIDENTAL TO THE CONCRETE MASONRY BRIDGES.

Necessary to be placed as shown.

JS. FT. PLATED

FJ. OF MSE WALL

FJ. ABUT.

FACE OF CONCRETE

COST INCIDENTAL TO THE CONCRETE MASONRY BRIDGES.

EXPANDED POLYSTYRENE

TOP OF WALL

COST INCIDENTAL TO THE CONCRETE MASONRY BRIDGES.

Necessary to be placed as shown.

JS. FT. PLATED

FJ. OF MSE WALL

FJ. ABUT.

CROSS SECTION THRU ABUTMENT AT MSE WALL

EXPANSION joint shown in standard 2.30 & 2.02 for approach deck reinforcement and standard 2.03 & 2.04 for backwall and wall reinforcement.

ABUTMENT ANCHORAGE TO BE DETERMINED BY THE MSE WALL DESIGNER AND TO BE SHOWN AS CONCRETE JOINT FILLER STIPS SHOWN.

PARTIAL ELEVATION OF F.F. ABUTMENT SHOWING EYE BOLT FALL PROTECTION OPTION (REARWALL NOT SHOWN)

MSE WALL AT ABUTMENT

BUREAU OF STRUCTURES

APPROVED: Bill Oliva

DATE: 1-18

STANDARD 14.04
**Designer Notes**

The "Preferred MSE Wall at Abutment Configuration" is the desired option as it separates the MSE wall from the abutment, minimizing complications and adventitious settlement issues. This advice is more relevant as skew increases.

**Notes**

- Seal all exposed horizontal and vertical surfaces of filler with non-staining, non-bituminous joint sealant, deep and held on; sealer surface of concrete.

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**MSE Wall at Abutment Layout Details**

**Front Elevation of Alternate MSE Wall at Abutment With Closure Wall**

- #5 bars @ 1'-0" max.
- 0° wall angle required for wing parallel to abutment centerline.
- #4 bars for type A semi-exp. abuts.
- Wing parallel to roadway or abutment centerline.
- 2'-0" min. at top of coping.

**Section A-A**

- F.F. of MSE Wall cast-in-place coping.
- For type A semi-expansion abuts, extend polyethylene sheeting over entire length of closure wall.
- 1'-6" min. with wrapped MSE Wall.
- #5 bars @ 1'-0" max.

**Plan View of Alternate MSE Wall at Abutment With Closure Wall**

- Wing not required.
- 0° wall angle required for wing parallel to abutment centerline.
- 1'-9" min. with wrapped MSE Wall.
- #5 bars @ 1'-0" max.
- 0° wall angle required for wing parallel to abutment centerline.
- #5 bars @ 1'-0" max.

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**Approved:**

Bill Oliva

**Date:**

7-17

**Standard:**

14.05
**TYPICAL SECTION**

MSE WALL WITH CONCRETE PANEL FACING

- **MSE Backfill**
- **Existing Grade**
- **F.F. of retaining wall**
- **Top of wall**
- **Finished grade**
- **Set back per block varies by manufacturer**
- **Top of wall**
- **Coping**
- **Bench**
- **Unreinforced concrete**

**DESIGNER NOTE**

See standard 14.02 for additional information
MSE WALL WIRE FACING I

BUREAU OF STRUCTURES

Material Properties

Concrete Masonry Retaining Walls

fy = 3,500 psi

Pre-stressed Precast Concrete Wall Panel

fy = 6,000 psi

Bar Steel Reinforcement

Grade 60

f'c = 5,000 psi

Structural Carbon Steel - ASTM A6

f'c = 3,500 psi

Notes

Clevis, Clevis Pin, Coupler, Multidirectional Connector, and Adhesive to be corrosion resistant and develop 125% of the ultimate strength of the 1" diameter rod.

Steps, Rod, Connecting hardware, and Deadman anchor including all associated reinforcement are included in the 90 per "pre-stressed precast concrete wall panel."

Forces applied to the design anchor must be accounted for in the design of MSE reinforcement when specifying forces and moment equilibrium.

Designer Notes

Show bar size and spacing only. Do not provide Bill of Bars. Bar Steel reinforcement and concrete included in bid item "pre-stressed precast concrete wall panel."

Wall Panel Height is defined as the length from the top of the wall panel to the top of the concrete footing. The maximum allowable wall panel height is 30'.

Legend

Contractor to design length to provide required horizontal capacity of anchor assembly, length of post of component, 1" rod to the top of the top of reinforced soil zone.

Clevis to be installed towards the top of the slotted hole, as an alternative, 1" (GALV.) Adhesive may be used to facilitate installation of the wire facing wire wall.

Optional multidirectional connector may be used to facilitate alignment of the connection.

Includes Concrete for Coping, Footing, and Deadman Anchor.

Typical Wall Section with Cast-in-Place Concrete Traffic Barrier

See Typical Wall Section with Cast-in-Place Concrete Coping Detail for Additional Information

Panel Connection Detail

As an alternative, 1/" diameter anchor anchors may be used to secure and adjust the panel to one panel connection per panel.

Studs may be needed to 1/" wire plate with 1/" stud screws anchored in concrete anchor block as needed. All associated reinforcement details for approval by the engineer.