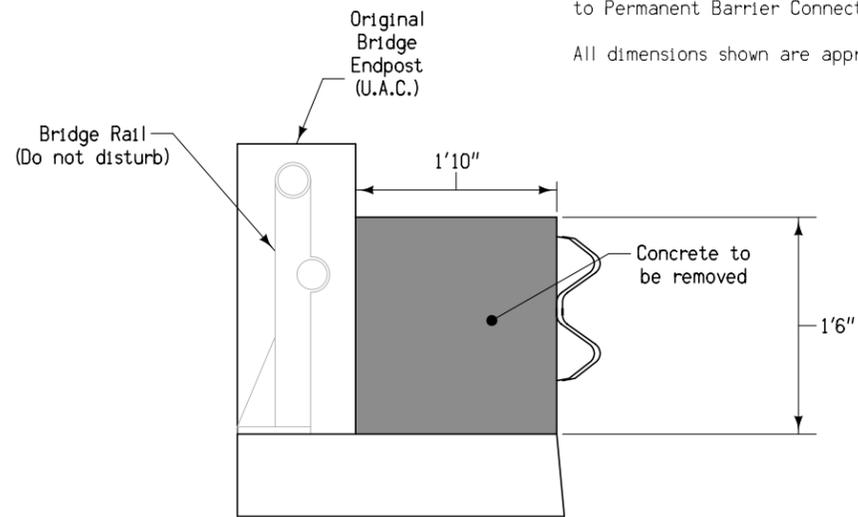


PLAN WEST END OF BRIDGE



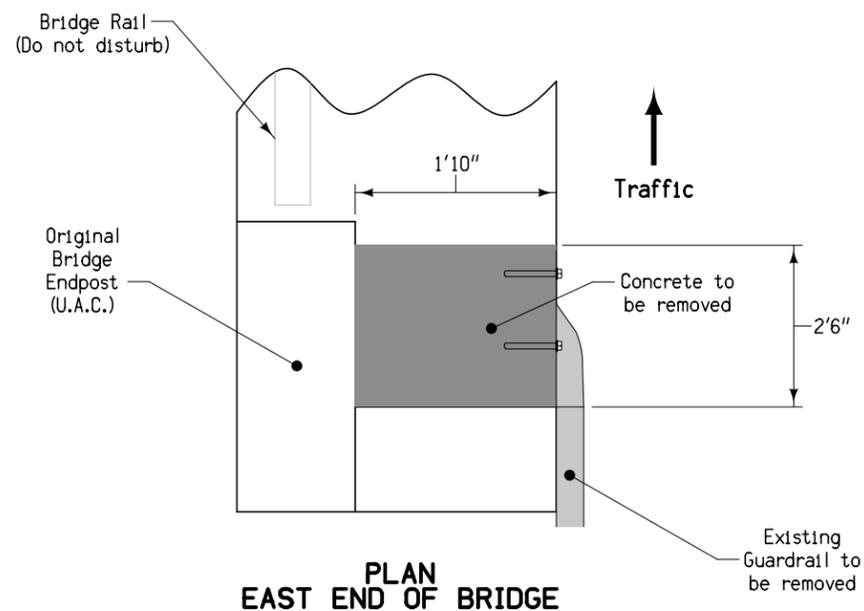
ELEVATION WEST END OF BRIDGE

Existing bridge end posts will need to be modified as shown on these drawings to accommodate the connection of the temporary barrier rail.

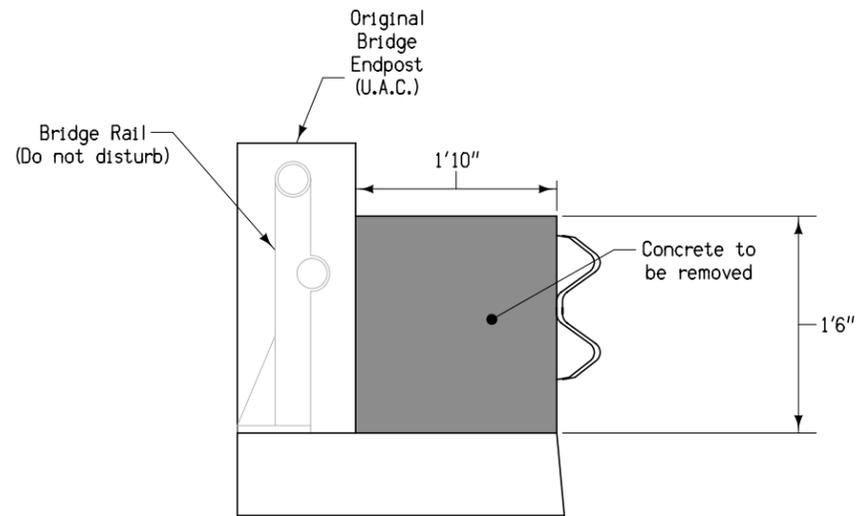
Any reinforcing steel that is embedded into bridge end post that is to remain in place shall be trimmed flush with the concrete surface.

Cost for removal of this concrete shall be included in the price bid for Temporary to Permanent Barrier Connection.

All dimensions shown are approximate.

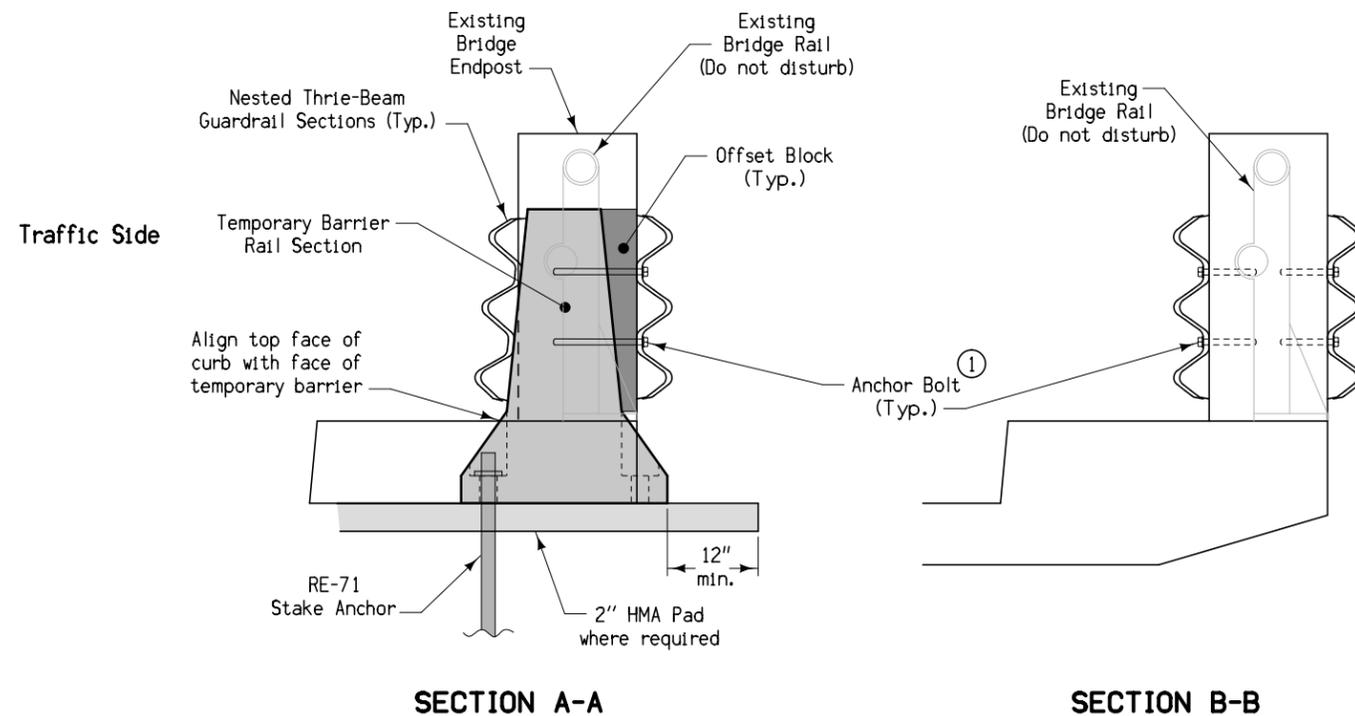


PLAN EAST END OF BRIDGE



ELEVATION EAST END OF BRIDGE

BRIDGE END POST MODIFICATIONS FOR TBR CONNECTION



Adjust anchor bolt locations within tolerances shown in order to avoid joints or irregularities in the existing bridge rail.

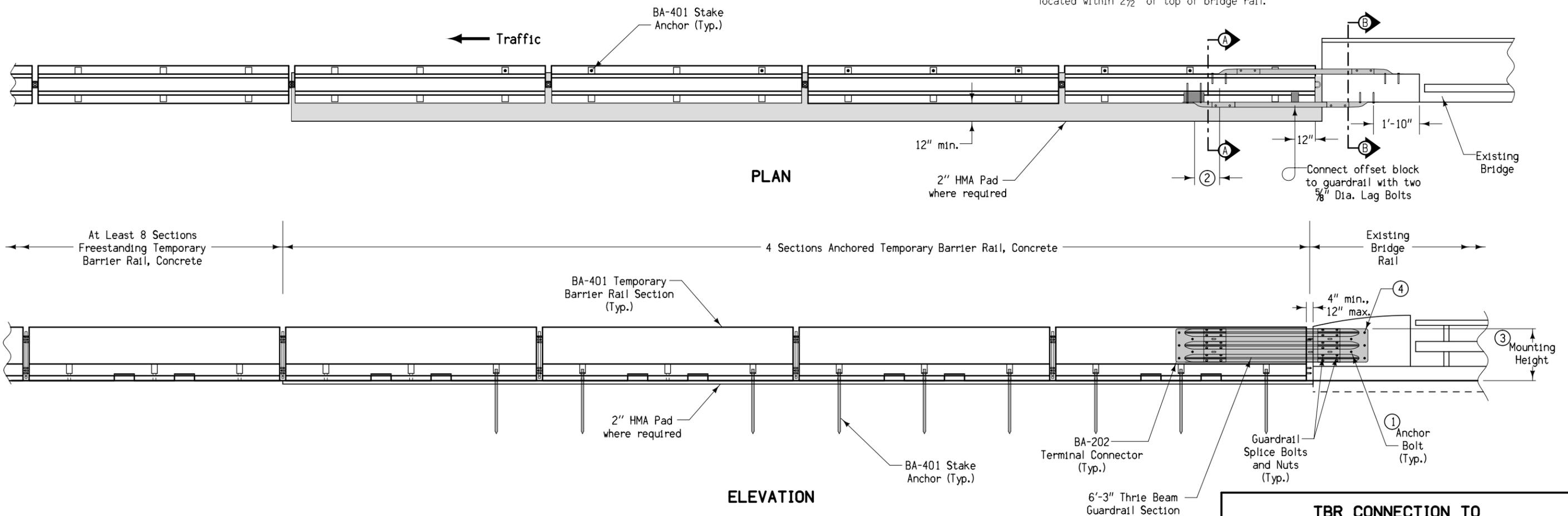
Install temporary barrier rail on a flat, level surface. Removal of curb adjacent to bridge end posts may be necessary. Where anchored TBR sections are not located on existing pavement, construct a 2" minimum thickness HMA pad as shown. When required, removal of curb and construction of HMA pad shall be considered incidental to this contract item.

Contract Item: Temporary to Permanent Barrier Connection

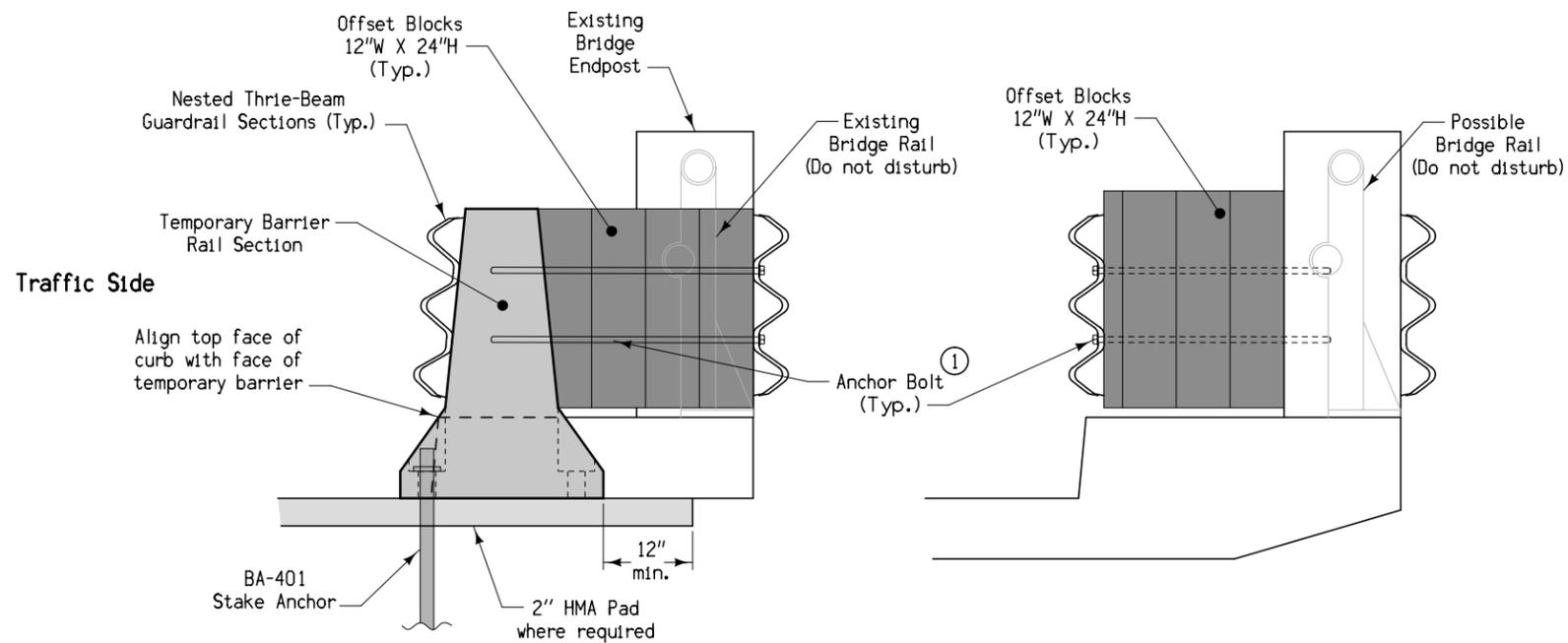
- Item includes:
- 4 - 6'-3" Thrie Beam Guardrail Sections
 - 4 - BA-202 Terminal Connectors
 - 48 - 5/8" Dia. Guardrail Splice Bolts and Nuts
 - 20 - 3/4" Dia. x sufficient length (6" min.) Anchor Bolts
 - Treated Wood Offset Blocks, as required
 - 5/8" Dia. Lag Bolts for Offset Blocks, as required
 - Modification of bridge end post

The number of Temporary to Permanent Barrier Connections will be counted. The Contractor will be paid the contract unit price for each Temporary to Permanent Barrier Connection measured as provided above.

- ① 3/4" Dia. Anchor Bolt: Powers Fasteners Wedge-Bolt Anchor OR Red Head Large Diameter Tapcon OR Simpson Titen HD Screw Anchor. Install five anchor bolts in each Type "J" Terminal Section as shown. Drill pilot holes with a core bit. Avoid drilling or cutting through reinforcing steel within temporary barrier rail sections.
- ② Offset guardrail sections 16" upstream or downstream on non-traffic side in order to prevent anchor bolt interference.
- ③ 31" mounting height preferred. 30" minimum.
- ④ Uppermost anchor bolt (front and back side) may be omitted where anchor bolt hole is located within 2 1/2" of top of bridge rail.



**TBR CONNECTION TO
RETROFIT BRIDGE RAIL
WEST END OF BRIDGE**



SECTION A-A

SECTION B-B

Adjust anchor bolt locations within tolerances shown in order to avoid joints or irregularities in the existing bridge rail.

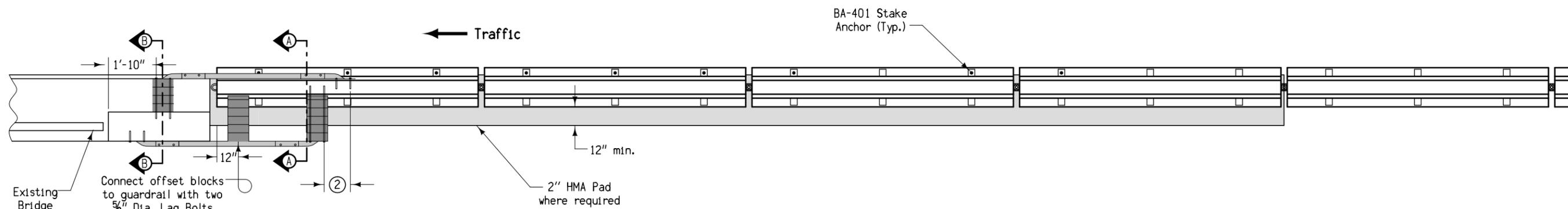
Install temporary barrier rail on a flat, level surface. Removal of curb adjacent to bridge end posts may be necessary. Where anchored TBR sections are not located on existing pavement, construct a 2" minimum thickness HMA pad as shown. When required, removal of curb and construction of HMA pad shall be considered incidental to this contract item.

Contract Item: Temporary to Permanent Barrier Connection

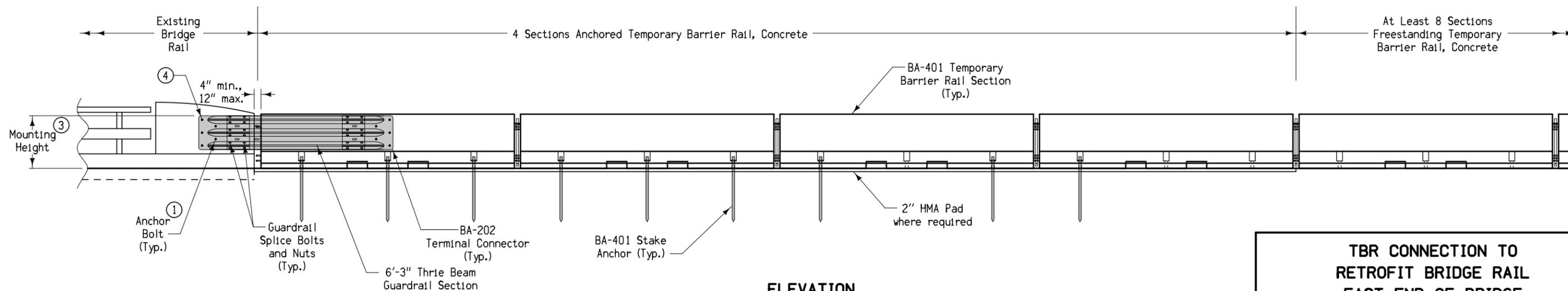
- Item includes:
- 4 - 6'-3" Thrie Beam Guardrail Sections
 - 4 - BA-202 Terminal Connectors
 - 48 - 5/8" Dia. Guardrail Splice Bolts and Nuts
 - 20 - 3/4" Dia. x sufficient length (6" min.) Anchor Bolts
 - Treated Wood Offset Blocks, as required
 - 5/8" Dia. Lag Bolts for Offset Blocks, as required
 - Modification of bridge end post

The number of Temporary to Permanent Barrier Connections will be counted. The Contractor will be paid the contract unit price for each Temporary to Permanent Barrier Connection measured as provided above.

- ① 3/4" Dia. Anchor Bolt: Powers Fasteners Wedge-Bolt Anchor OR Red Head Large Diameter Tapcon OR Simpson Titen HD Screw Anchor. Install five anchor bolts in each Type "J" Terminal Section as shown. Drill pilot holes with a core bit. Avoid drilling or cutting through reinforcing steel within temporary barrier rail sections.
- ② Offset guardrail sections 16" upstream or downstream on non-traffic side in order to prevent anchor bolt interference.
- ③ 31" mounting height preferred. 30" minimum.
- ④ Uppermost anchor bolt (front and back side) may be omitted where anchor bolt hole is located within 2 1/2" of top of bridge rail.

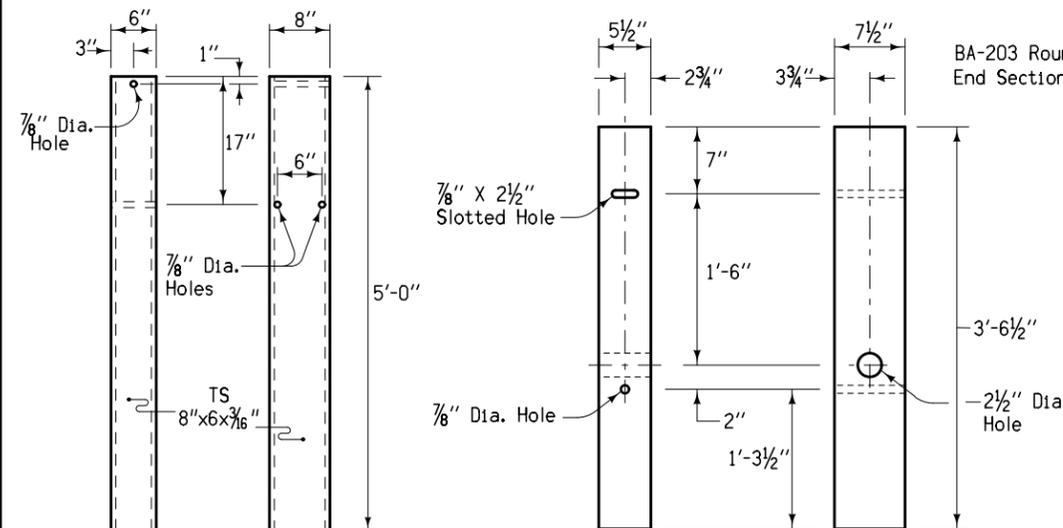


PLAN



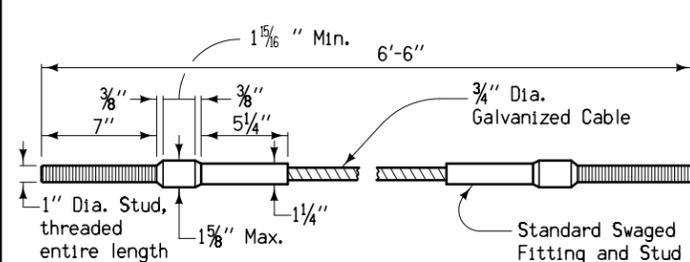
ELEVATION

**TBR CONNECTION TO
RETROFIT BRIDGE RAIL
EAST END OF BRIDGE**

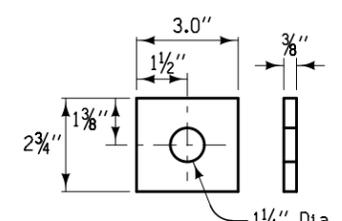


**FRONT SIDE
STEEL ANCHOR TUBE**

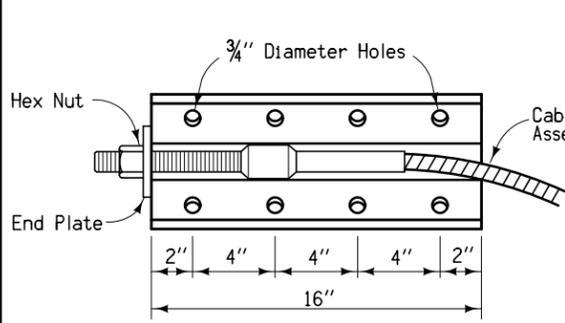
**FRONT SIDE
WOOD TERMINAL POST**



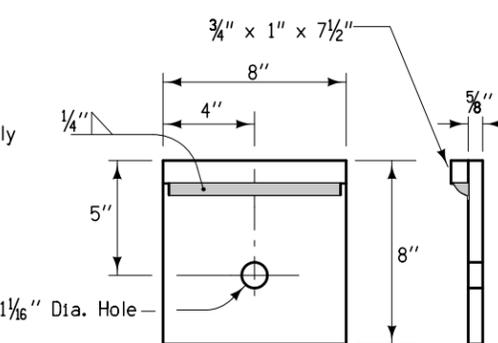
**DETAIL 'B'
CABLE ASSEMBLY**



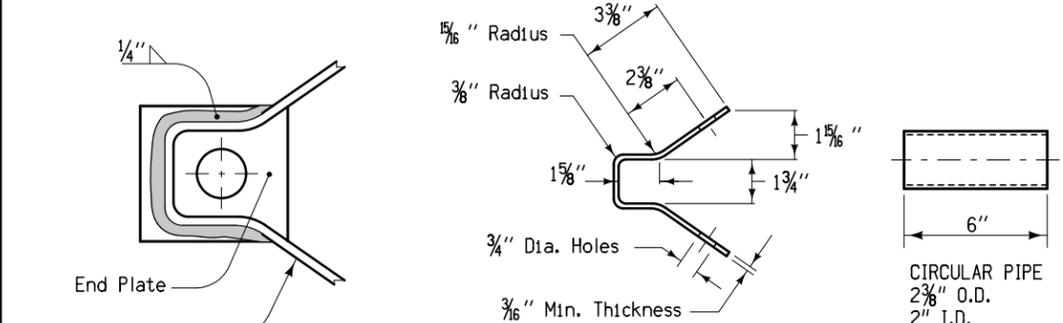
END PLATE



ANCHOR BRACKET ASSEMBLY VIEW

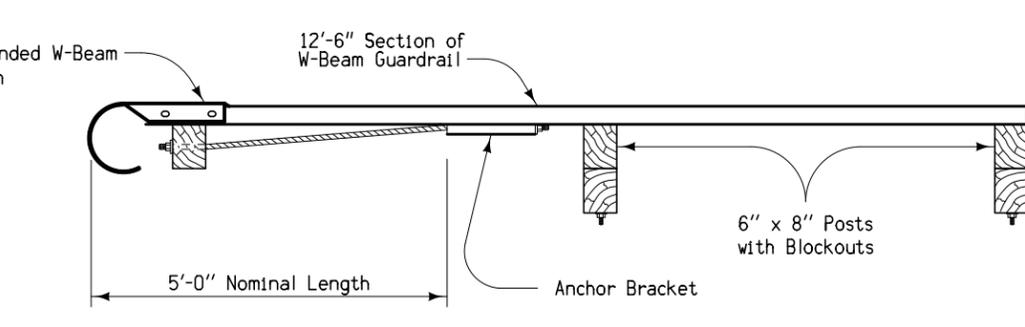


BEARING PLATE

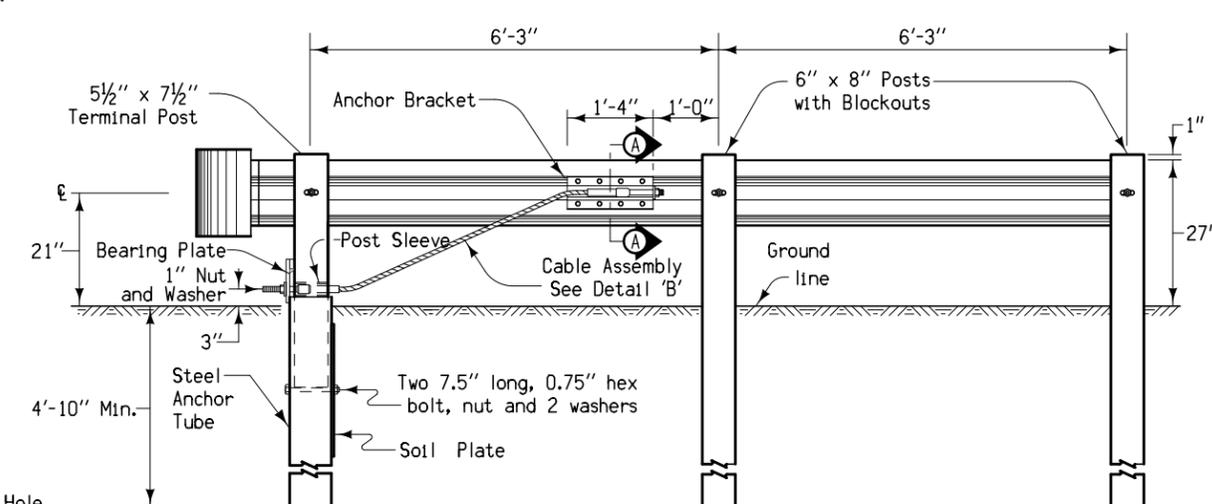


**ANCHOR BRACKET
FABRICATION DETAILS**

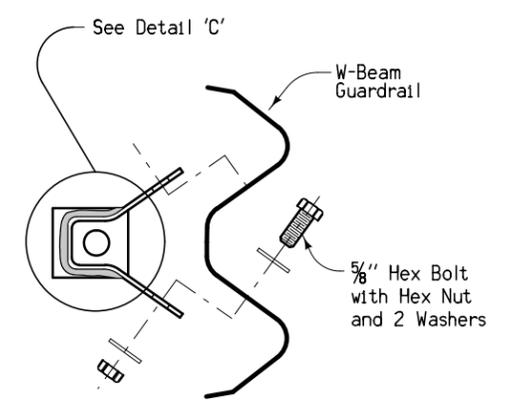
POST SLEEVE



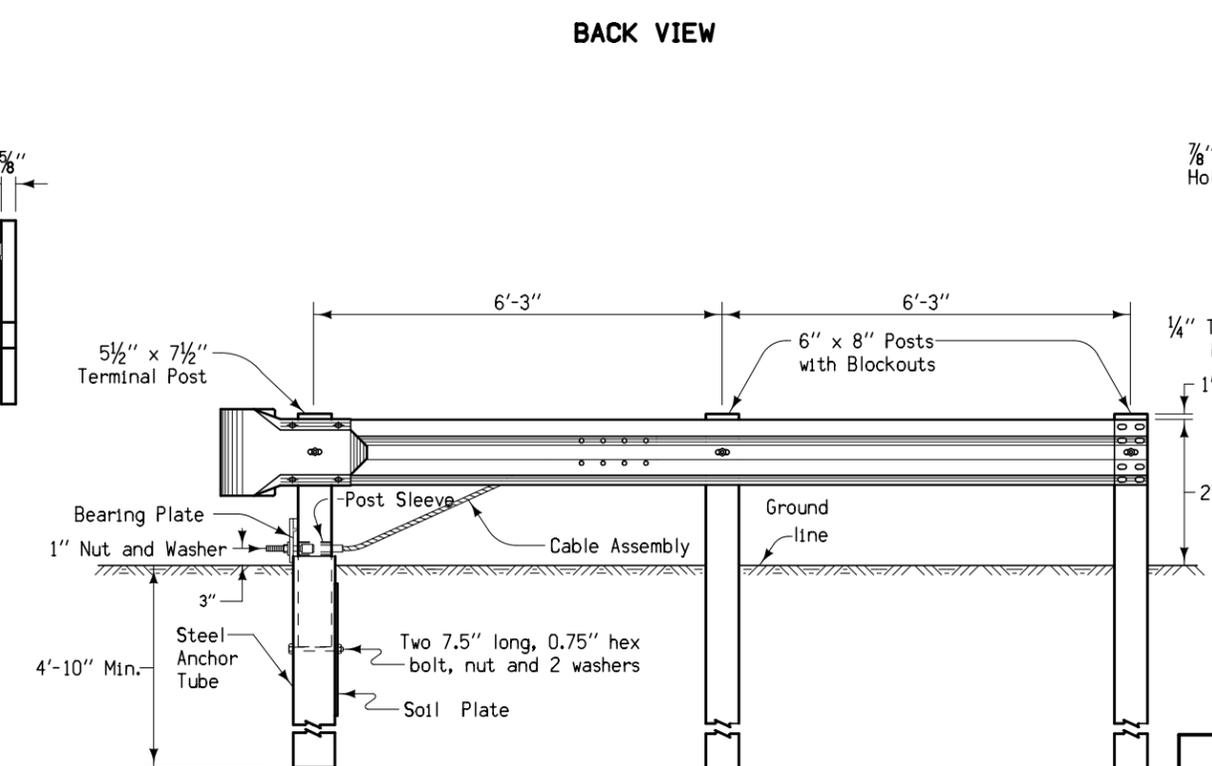
PLAN VIEW



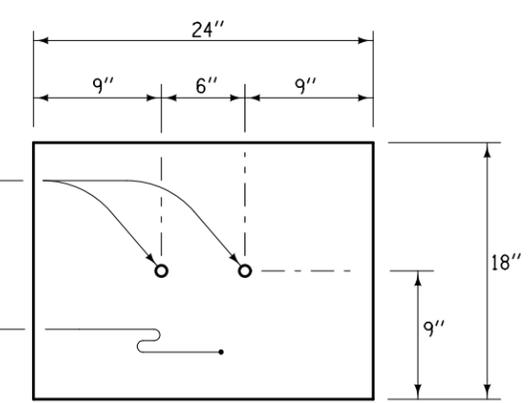
BACK VIEW



SECTION A-A



FRONT VIEW



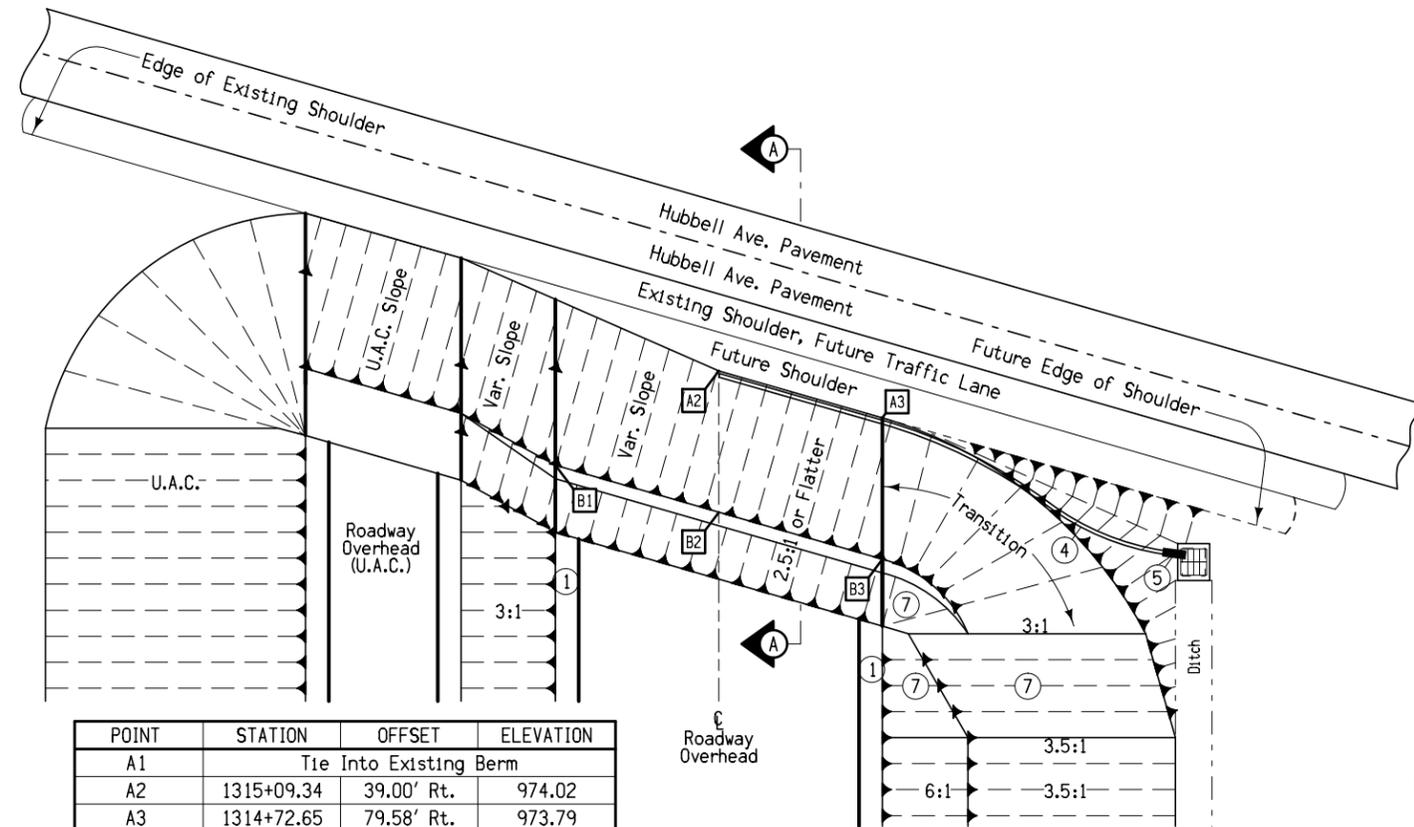
SOIL PLATE

GENERAL NOTES
All hardware shall conform to the specifications set forth in "A Guide to Standardized Barrier Hardware", published by AASHTO.

The price bid for "Guardrail, End Anchorage, W-Beam, shall be considered full compensation for furnishing the materials detailed on this sheet and installing the end anchorage. 12'-6" section of W-Beam guardrail and 6" x 8" posts with blockouts are included with this bid item.

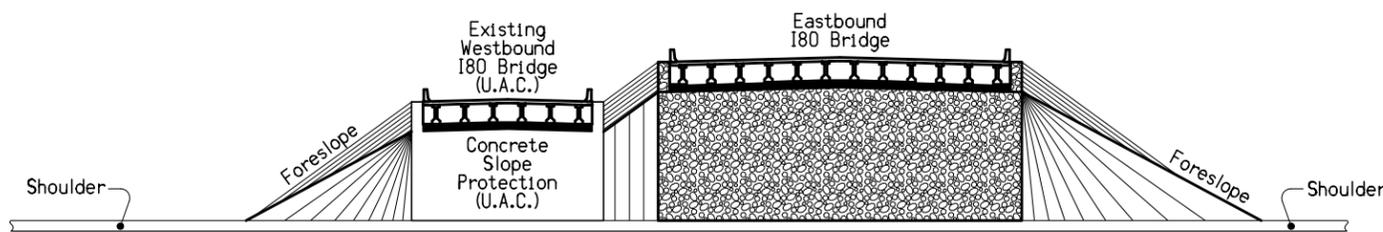
- ① Two 7.5" long, 3/4" hex bolt, nut and washers under head and nut.
- ② One 10" long, 3/4" hex bolt, nut and washers under head and nut.

**END ANCHORAGE
(W BEAM)**

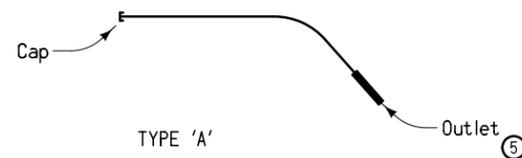


POINT	STATION	OFFSET	ELEVATION
A1	Tie Into Existing Berm		
A2	1315+09.34	39.00' Rt.	974.02
A3	1314+72.65	79.58' Rt.	973.79
B1	Tie Into Existing Berm		
B2	1314+50.54	39.00' Rt.	991.20
B3	1314+14.00	79.58' Rt.	991.20

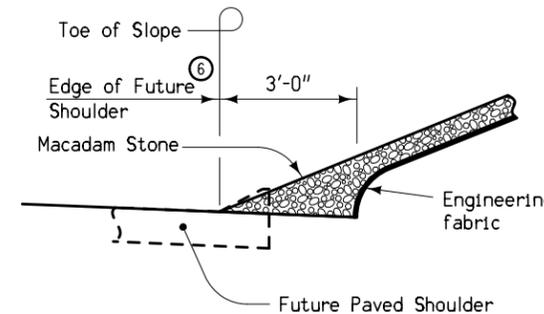
PLAN VIEW OF BRIDGE BERM AREA



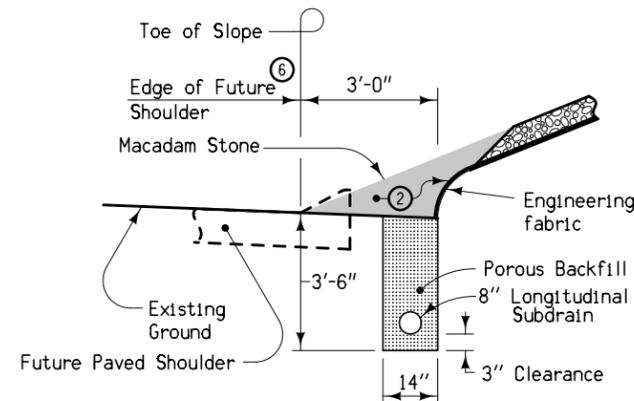
SIDE VIEW BENEATH BRIDGE



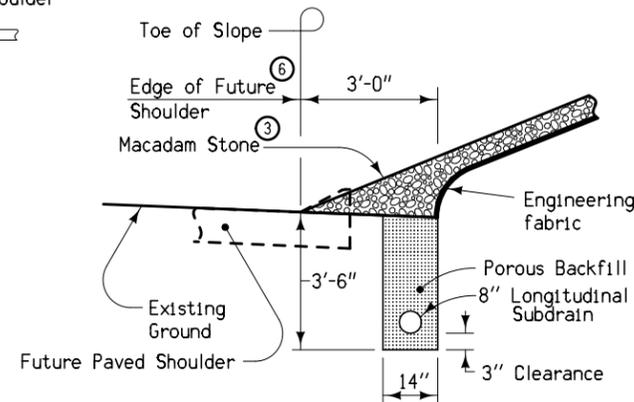
SUBDRAIN LAYOUT



PARTIAL SECTION A-A
As constructed by others



PARTIAL SECTION A-A
Proposed construction

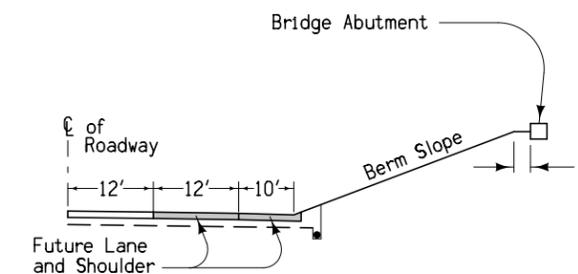


COMPLETED SECTION

The cost of removal, stockpiling and placement of the macadam stone shall be considered incidental to "Subdrain, Longitudinal, (Shoulder) 4 In. Dia."

For additional information see Bridge Situation Plan

- ① Foreslope transition for bridge. Refer to Typical 4303.
- ② Remove and stockpile macadam stone. Carefully separate the macadam stone from the surrounding soil. Preserve the integrity of the engineering fabric.
- ③ Place clean macadam stone from stockpile.
- ④ Approximate location of bridge berm subdrain.
- ⑤ RF-19C, subdrain outlet.
- ⑥ 'A' points are at the toe of the berm.
- ⑦ Variable slope.

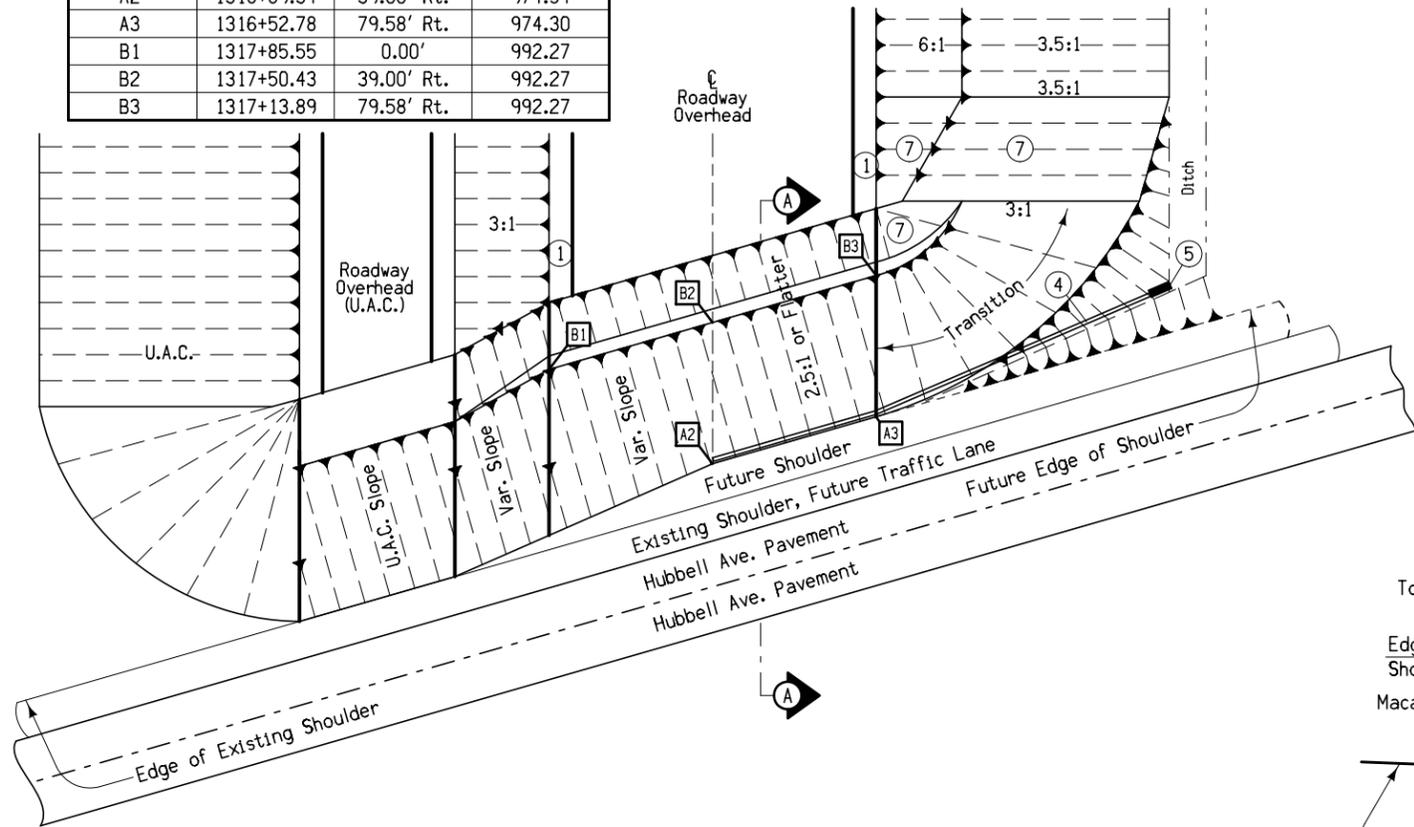


SECTION A-A

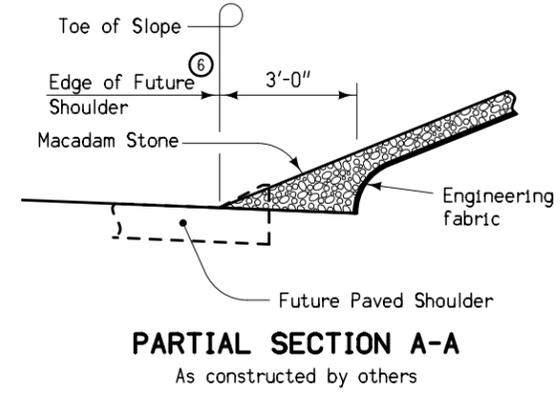
Contract Items:
 Subdrain, Longitudinal, (Shoulder) 4 In. Dia.
 Subdrain Outlet, RF-19F
 Tabulation: 104-9

**BRIDGE BERM GRADING
 WEST BERM
 (WITH BARNROOF SECTION)**

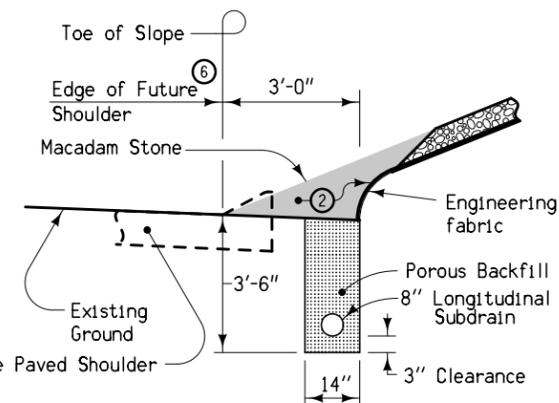
POINT	STATION	OFFSET	ELEVATION
A1	Tie Into Existing Berm		
A2	1316+89.34	39.00' Rt.	974.54
A3	1316+52.78	79.58' Rt.	974.30
B1	1317+85.55	0.00'	992.27
B2	1317+50.43	39.00' Rt.	992.27
B3	1317+13.89	79.58' Rt.	992.27



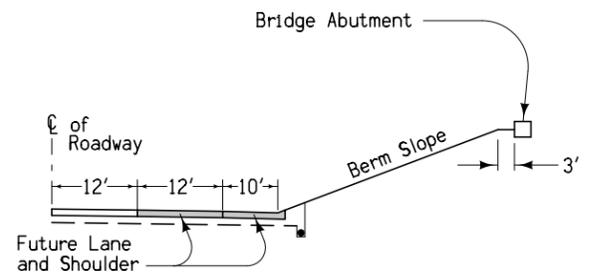
PLAN VIEW OF BRIDGE BERM AREA



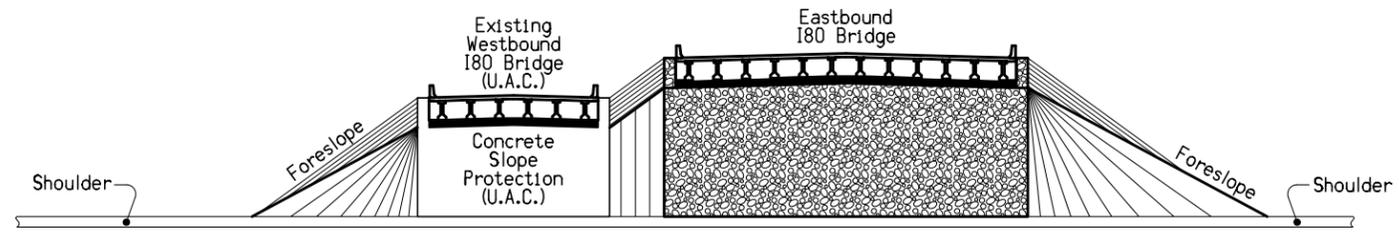
PARTIAL SECTION A-A
As constructed by others



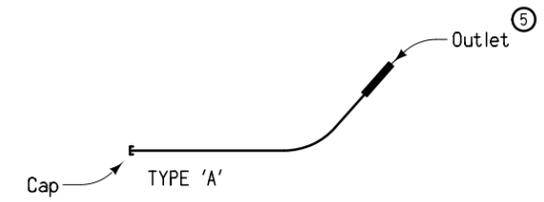
PARTIAL SECTION A-A
Proposed construction



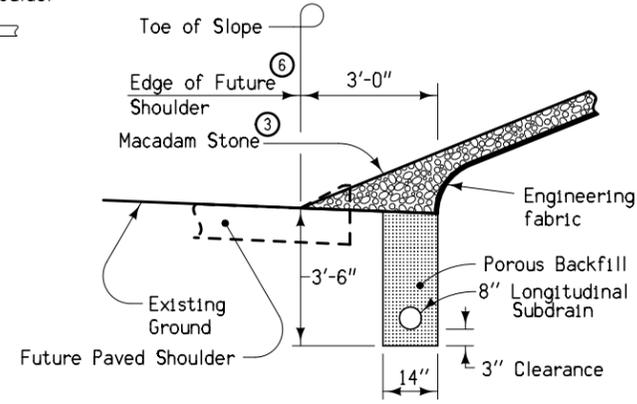
SECTION A-A



SIDE VIEW BENEATH BRIDGE



SUBDRAIN LAYOUT



COMPLETED SECTION

The cost of removal, stockpiling and placement of the macadam stone shall be considered incidental to "Subdrain, Longitudinal, (Shoulder) 4 In. Dia."

For additional information see Bridge Situation Plan

- ① Foreslope transition for bridge. Refer to Typical 4303.
- ② Remove and stockpile macadam stone. Carefully separate the macadam stone from the surrounding soil. Preserve the integrity of the engineering fabric.
- ③ Place clean macadam stone from stockpile.
- ④ Approximate location of bridge berm subdrain.
- ⑤ RF-19E, subdrain outlet.
- ⑥ 'A' points are at the toe of the berm.
- ⑦ Variable slope.

- Contract Items:
- Subdrain, Longitudinal, (Shoulder) 4 In. Dia.
 - Subdrain Outlet, RF-19E
- Tabulation: 104-9

**BRIDGE BERM GRADING
EAST BERM
(WITH BARNROOF SECTION)**