

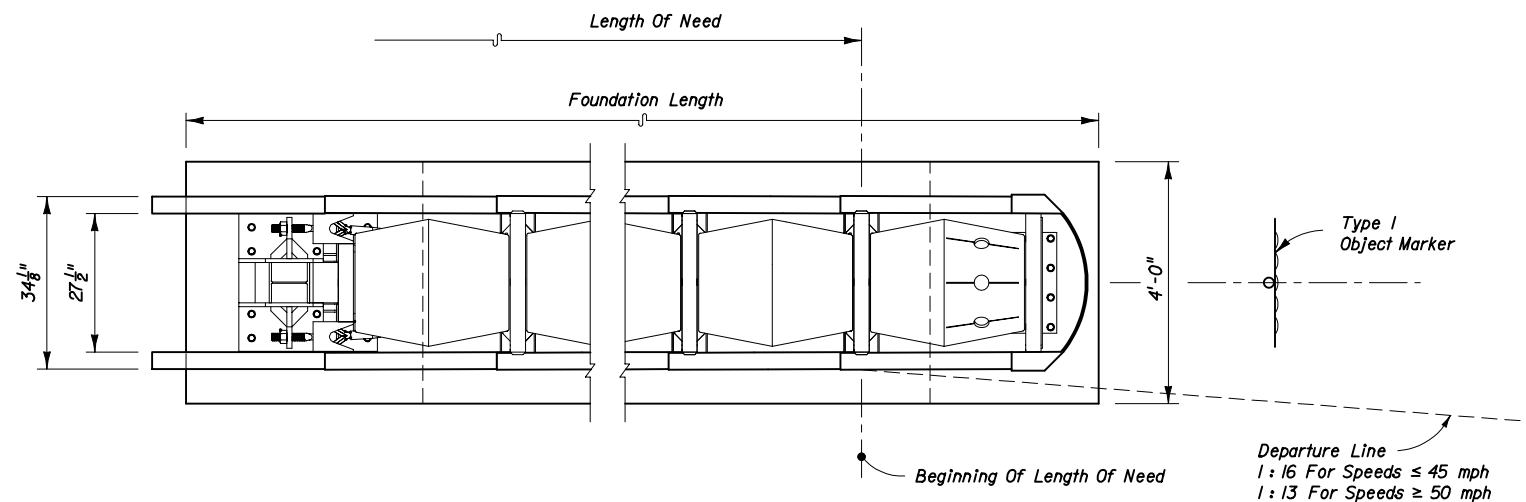
GENERAL NOTES

1. The energy absorbing system represented on this standard is a proprietary design by Barrier Systems, Inc. and marketed under the trade name TAU-II. Any infringement on the rights of the designer shall be the sole responsibility of the user.
2. This standard is produced by the Florida Department of Transportation solely for use by the Department and its assignees.
3. The TAU-II is a redirective non-gating crash cushion produced in two models, each model designed to shield narrow hazards. The TAU-II TL-3 (8 bay model) may be used on Florida highways for all speeds. The TAU-II TL-2 (4 bay model) is limited to use on Florida highways with speeds of 45 mph or less.
4. The TAU-II is supplied in a single width of 27 1/2".
5. There are two types of Energy Absorbing Cartridges (EAC) used in the TAU-II crash cushions. They are to be placed according to the manufacturer's specifications and in the configurations illustrated below.
6. Permanent and portable portland cement concrete foundations shall be constructed with 4000 psi minimum compressive strength concrete. Reinforcing steel shall be in accordance with the schedule on this index.
7. The TAU-II 'Compact Backup' is the primary backup to be used on Florida Department of Transportation projects. Use of concrete backups shall be called out in the plans for site specific construction; concrete backup connections shall meet the guidelines of this index and must meet manufacturer's specifications, installation guidelines and transition hardware requirements.
8. The TAU-II shall be constructed parallel to the approach travel lane and on cross slopes 1:10 or flatter.
9. All metallic components shall meet the galvanizing requirements for guardrail, Index No. 400.
10. A yellow Type I Object Marker shall be centered 3' in front of the nose of the TAU-II. Mounting hardware shall be in conformance with Index Nos. 11860 and 11865. The cost of the Object Marker shall be included in the cost of the TAU-II system.
11. Quantity for payment is based on each independent location as called for in the plans or as directed by the Engineer. The cost for manufacturer's transition hardware, foundations and subgrade preparation will be included in the cost for the TAU-II system.

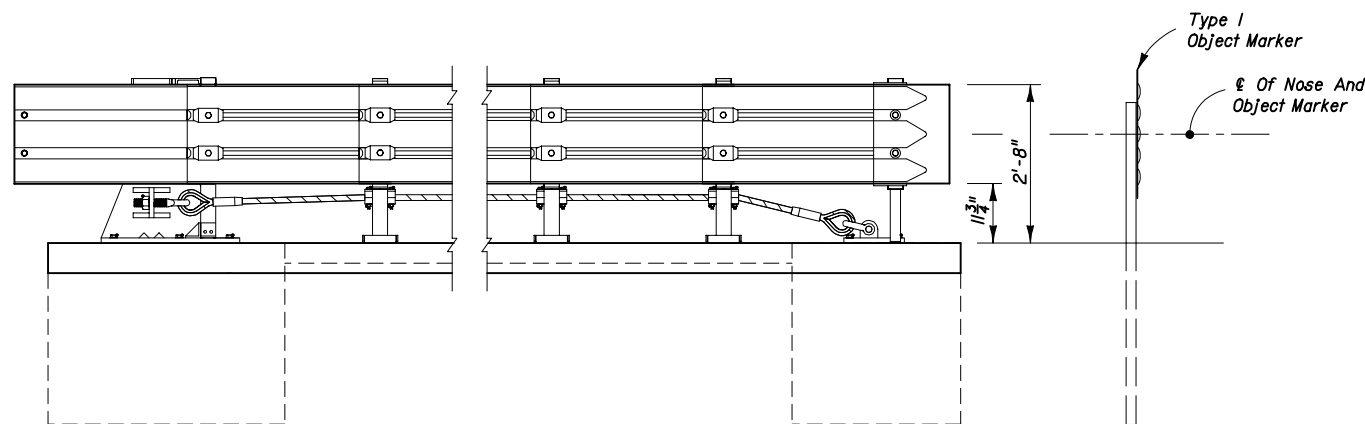
Permanent systems will be paid for under the contract unit price for Impact Attenuator Vehicular (TAU-II), EA; temporary units will be paid for under the contract unit price for Vehicular Impact Attenuator (Temporary) (TAU-II), LO, or when the TAU-II system is used as an option in accordance with Index No. 415, it will be paid for under the contract unit price for Vehicular Impact Attenuator (Temporary) (Redirective), LO.

DESIGN NOTES AND GUIDELINES

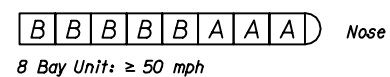
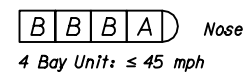
1. The beginning length of need shall be at the point of intersection between the face of the cushion and the transverse centerline of the diaphragm back of cartridge No. 1.
2. The TAU-II System is designed to cushion automobile end-on hits and to redirect automobiles from side hits. The TAU-II is designed to shield fixed hazards or the ends of other temporary and permanent barrier systems. The number of bays to be used in a specific unit will be determined by the design speed, except where the Engineer determines that another speed is more applicable.
3. The TAU-II is a restorable system that is particularly suited to shielding hazards subject to high speed traffic, high volume traffic, and/or traffic with a history of frequent errant vehicle departures from the roadway or the potential exists for such departures. The TAU-II is particularly suited to shielding hazards where the approach space is limited; and, is particularly suited to conditions where the terminal must be located close to the traffic lane.
4. Currently the Department does not recognize other proprietary items as being equally suitable alternatives to the TAU-II, and until such alternatives are available, the TAU-II need not be bid against other proprietary items. However, for temporary use where the TAU-II and other approved redirective crash cushions meet or exceed the minimum requirements for a specific location, the approved crash cushions will be considered optional systems and paid for as described in General Note 11 above.



UNIT PLAN



UNIT ELEVATION

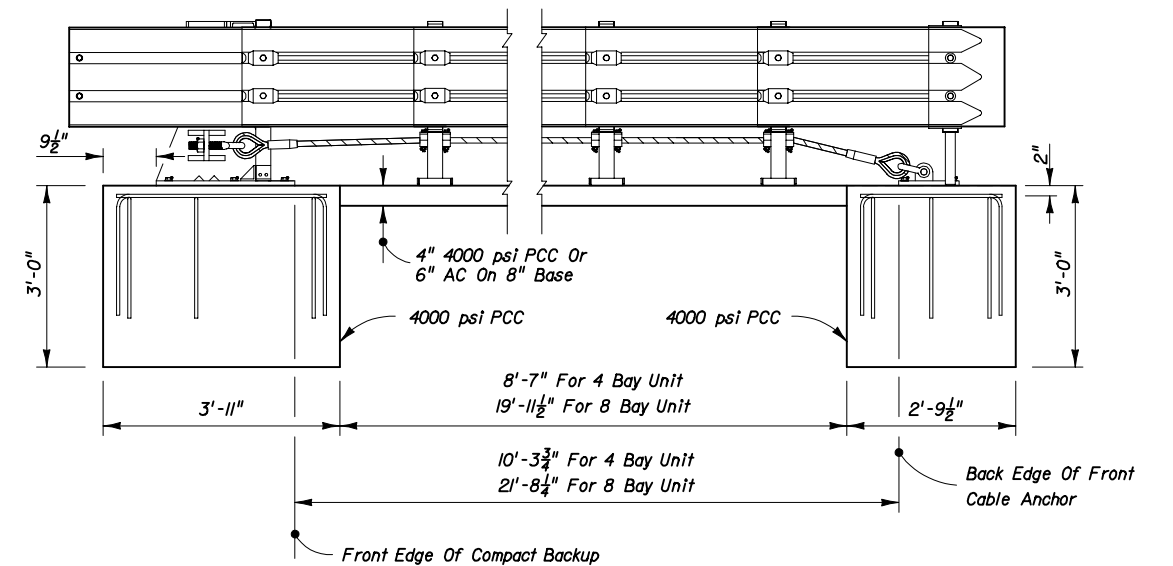
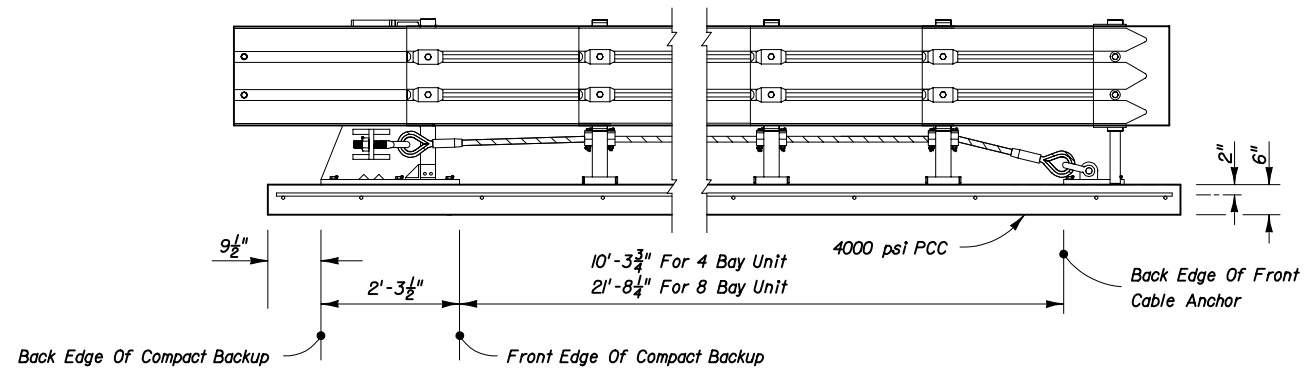
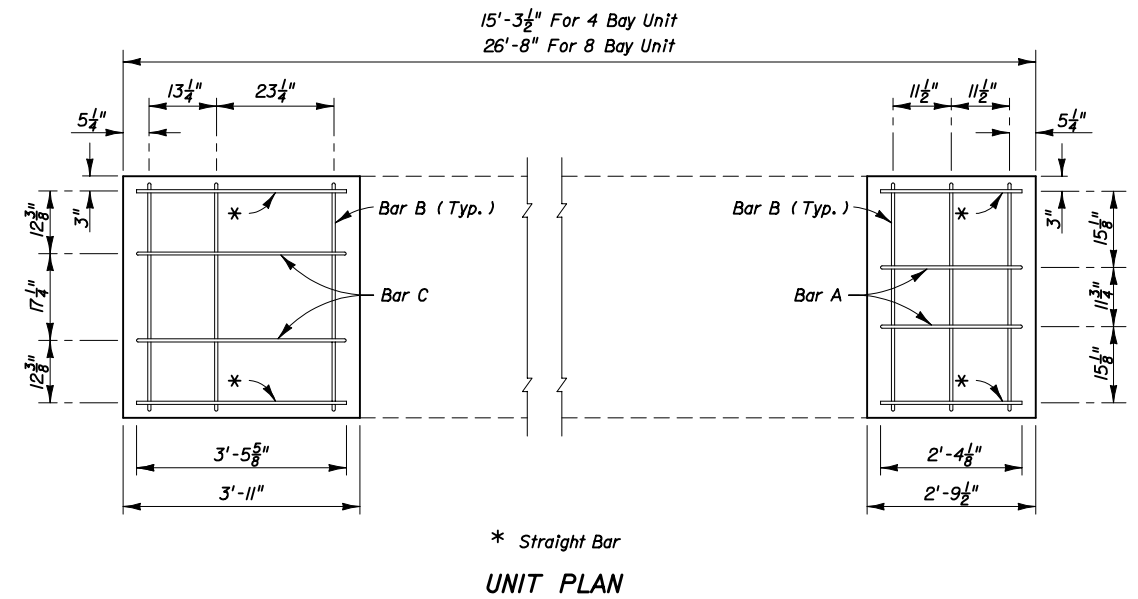
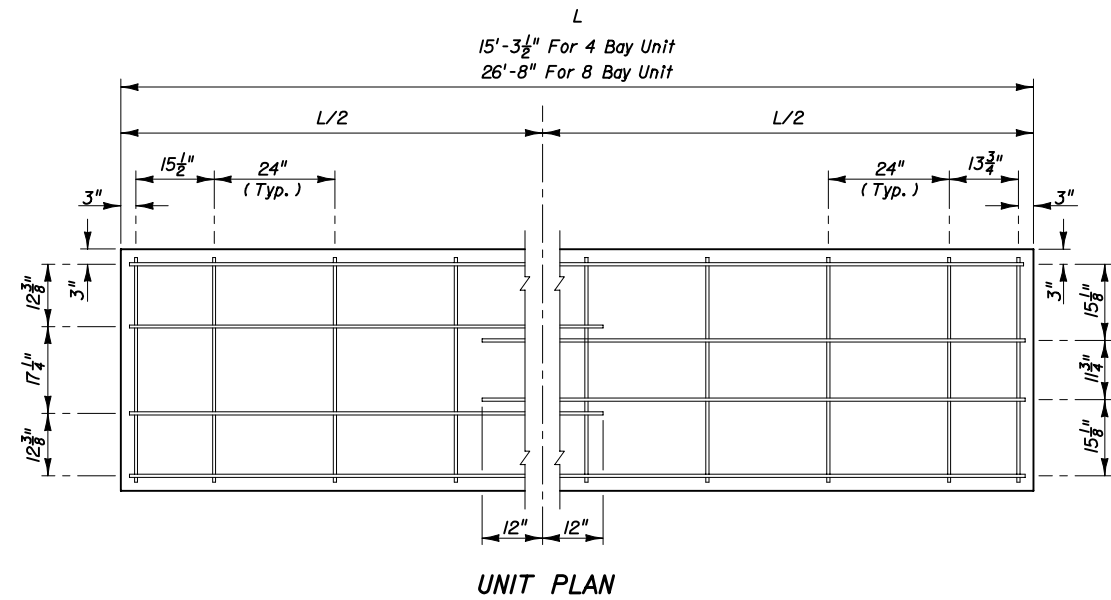


- A = Type "A" EAC
- B = Type "B" EAC

TAU-II CONFIGURATIONS

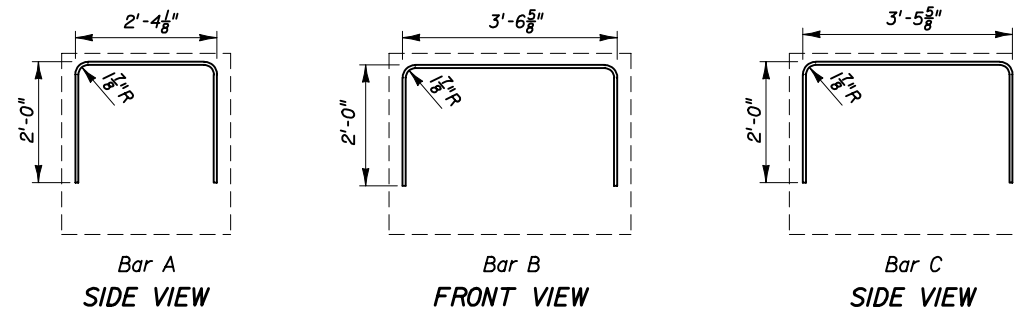
GENERAL SYSTEM FEATURES

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
TAU-II				
Designed By	Names	Dates	Approved By	
Drawn By	SBC	12/02	 Roadway Design Engineer	
Checked By	JVG/TRB	12/02		
			Revision	Sheet No.
			04	1 of 8
				Index No.
				441



**UNIT ELEVATION
REINFORCED CONCRETE PAD**

**UNIT ELEVATION
CONCRETE ANCHOR BLOCKS**



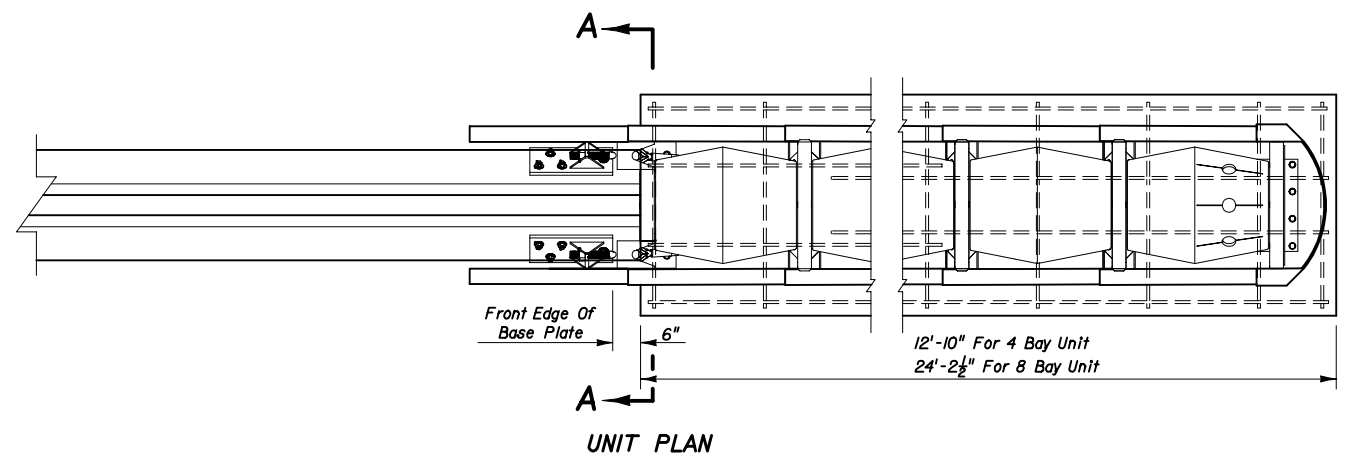
Note: All reinforcement #5 bars. All dimensions out to out.

BENDING DIAGRAM

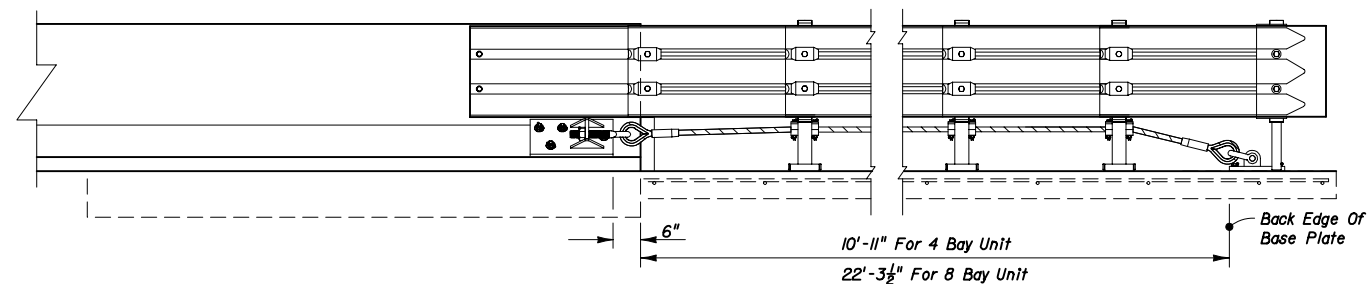
**REINFORCED CONCRETE PAD OR ANCHOR BLOCKS OR
CONCRETE ROADWAY PAVEMENT OR BRIDGE DECK**

FOUNDATIONS

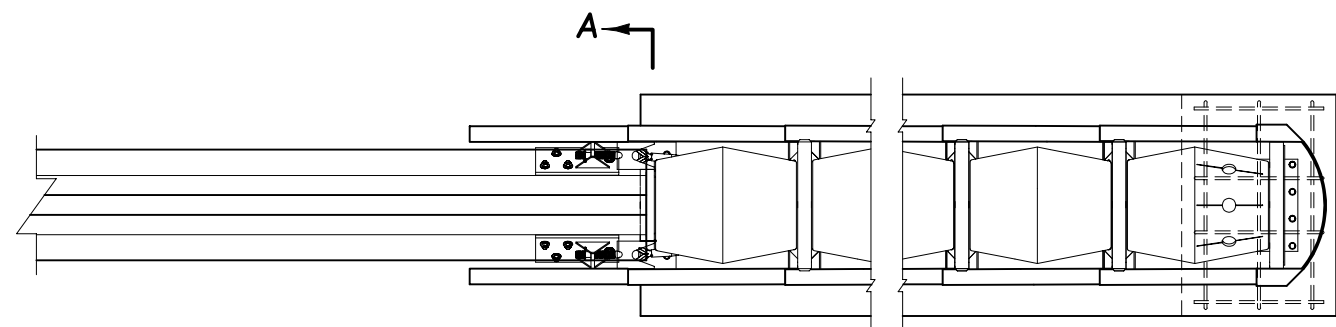
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
TAU-II				
	Names	Dates	Approved By	
Designed By	MRG	12/02	Roadway Design Engineer	
Drawn By	SBC	12/02	Revision	Sheet No.
Checked By	JVG/TRB	12/02	04	2 of 8
				Index No. 441



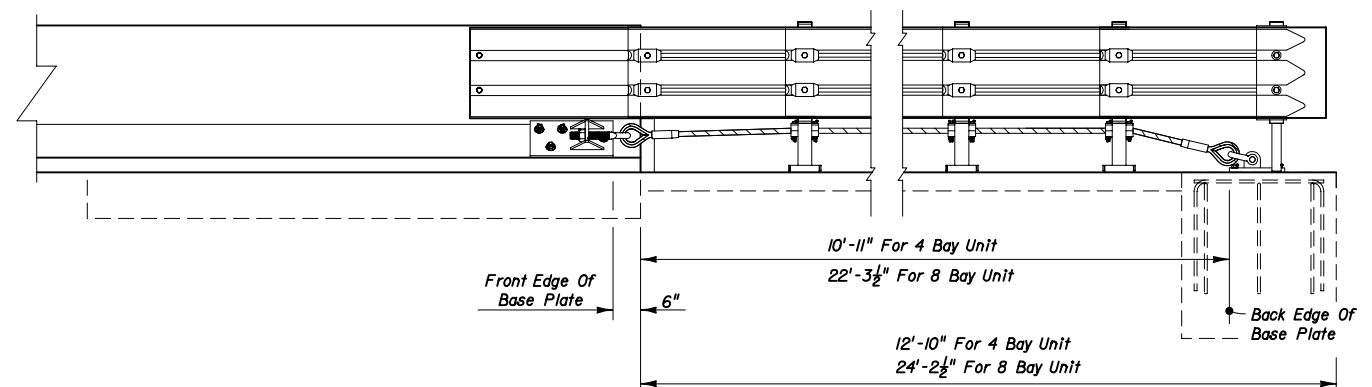
UNIT PLAN



UNIT ELEVATION
CONCRETE PAD

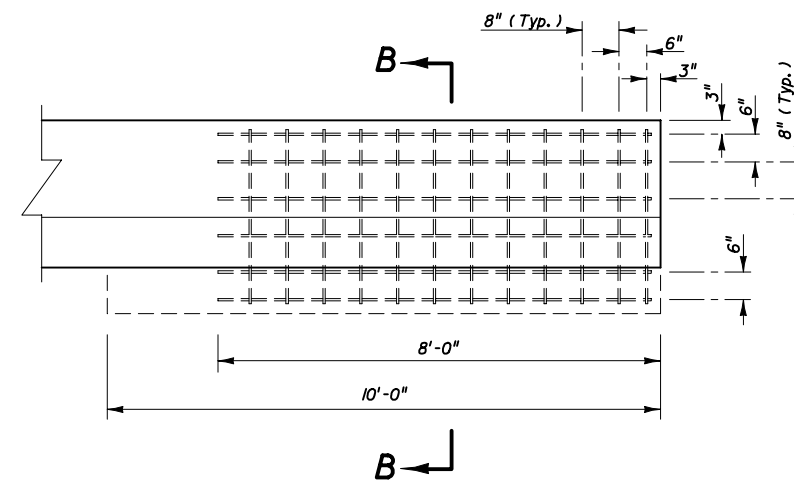


UNIT PLAN

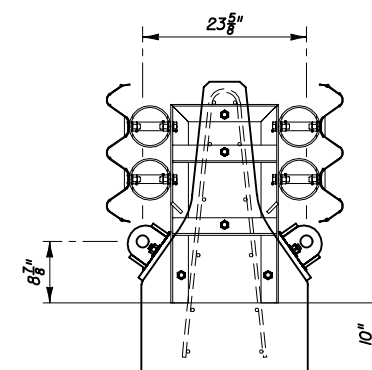


UNIT ELEVATION
CONCRETE ANCHOR BLOCK

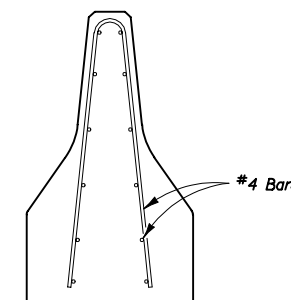
PERMANENT CONCRETE BARRIER WALL BACKUP



UNIT ELEVATION
WALL REINFORCEMENT




ENLARGED
SECTION AA

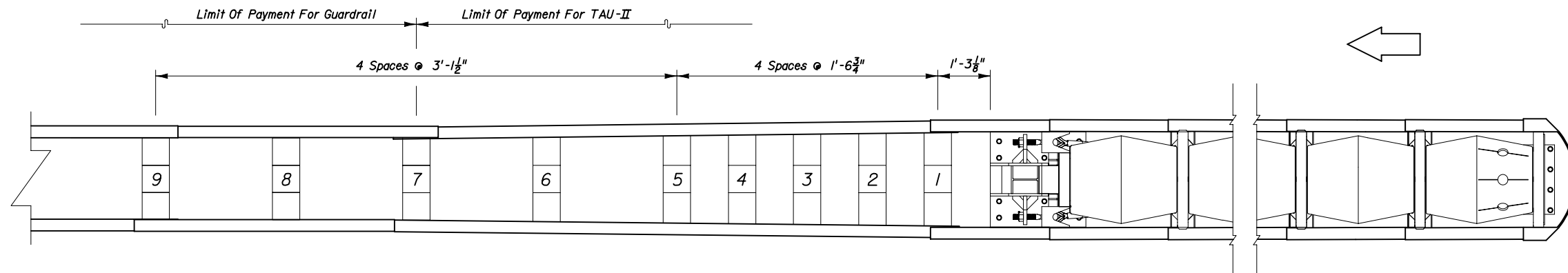


ENLARGED
SECTION BB

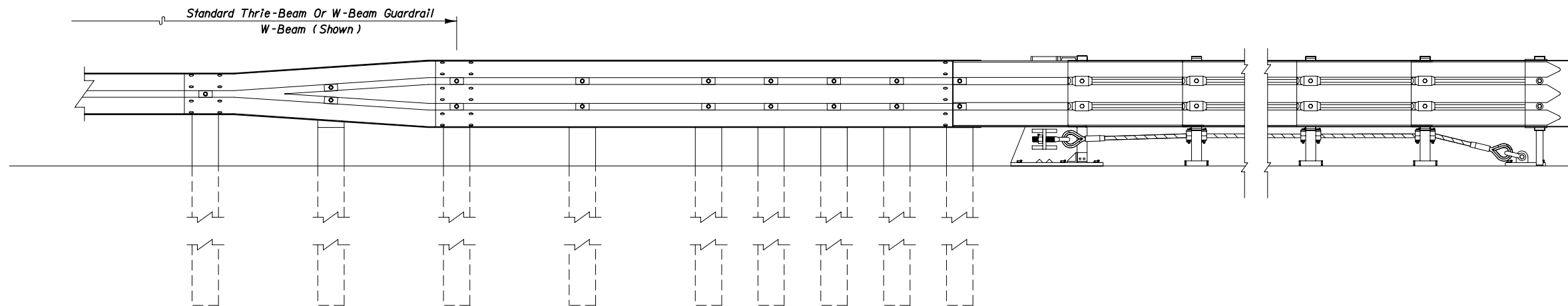
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TAU-II

Names		Dates	Approved By		
Designed By	MRG	12/02	 Roadway Design Engineer		
Drawn By	SBC	12/02			
Checked By	JVG/TRB	12/02	Revision	Sheet No.	Index No.
			04	3 of 8	441



UNIT PLAN




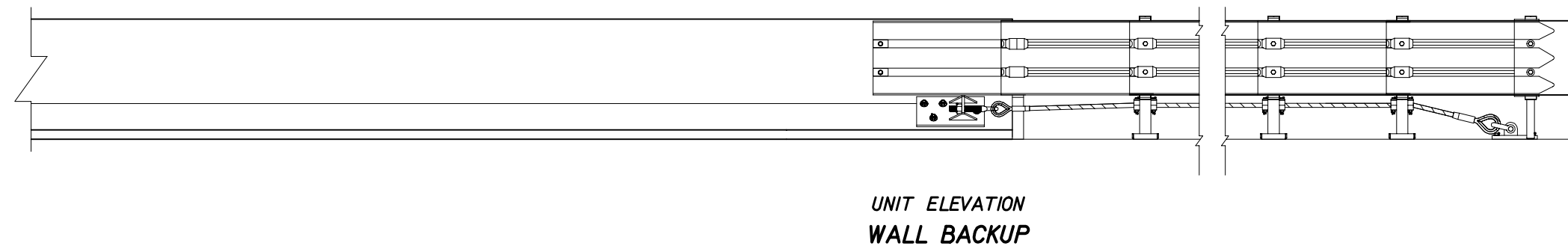
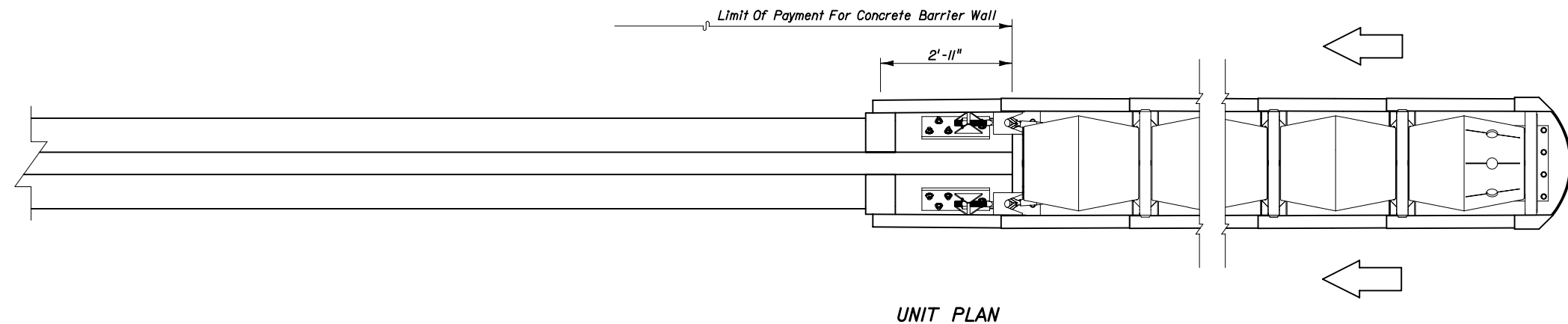
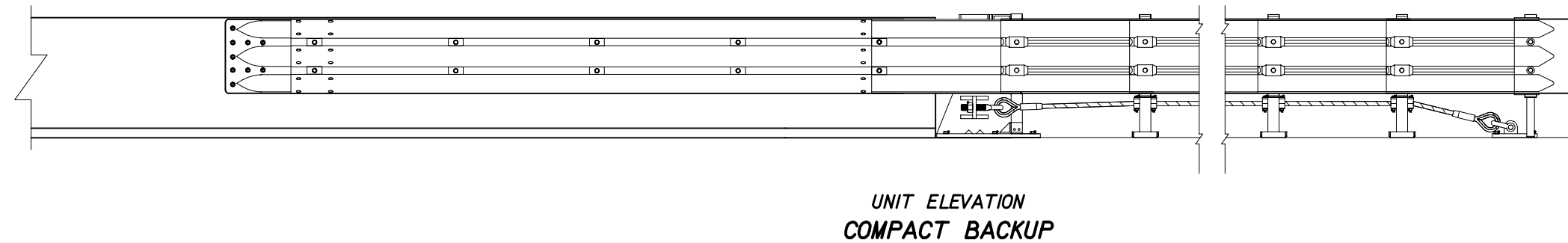
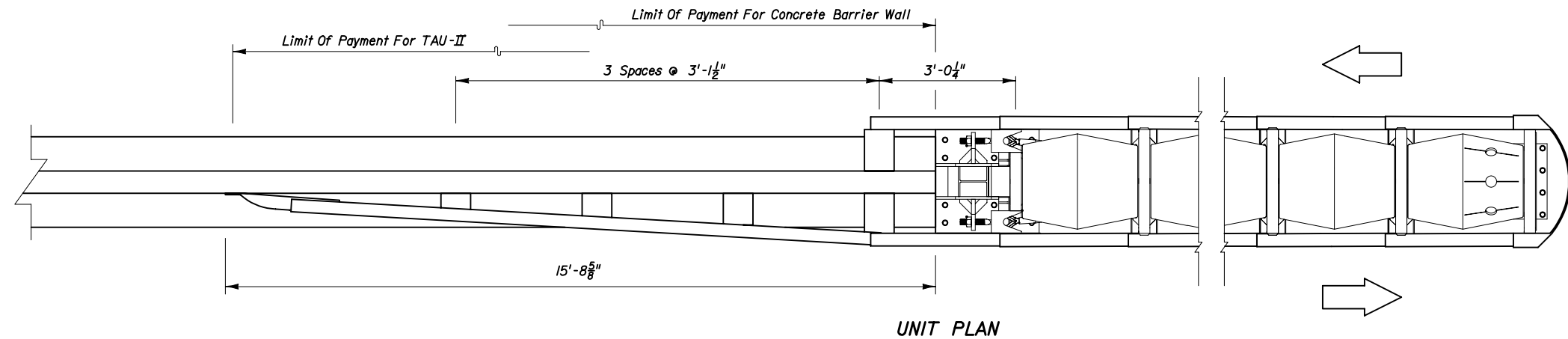
UNIT ELEVATION

TRANSITION TO DOUBLE FACE GUARDRAIL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TAU-II


		Names	Dates	Approved By 		
Designed By	MRG		12/02	Roadway Design Engineer		
Drawn By	SBC		12/02			
Checked By	JVG/TRB		12/02	Revision	Sheet No.	Index No.
				04	4 of 8	441

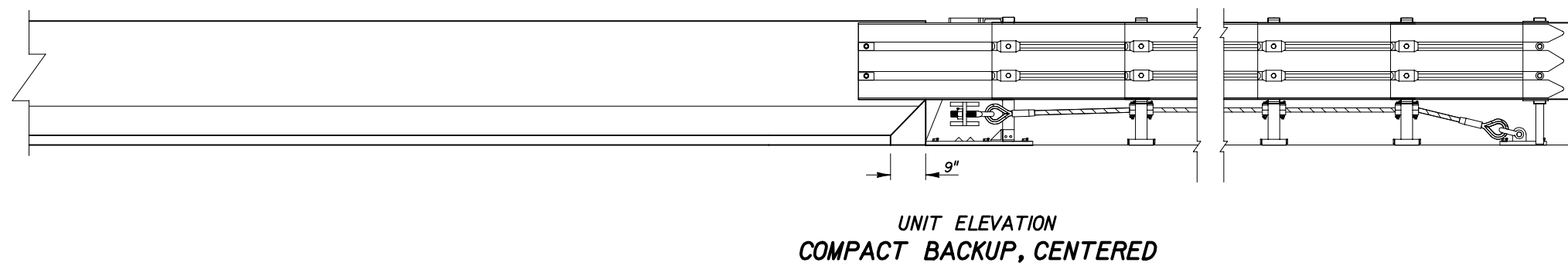
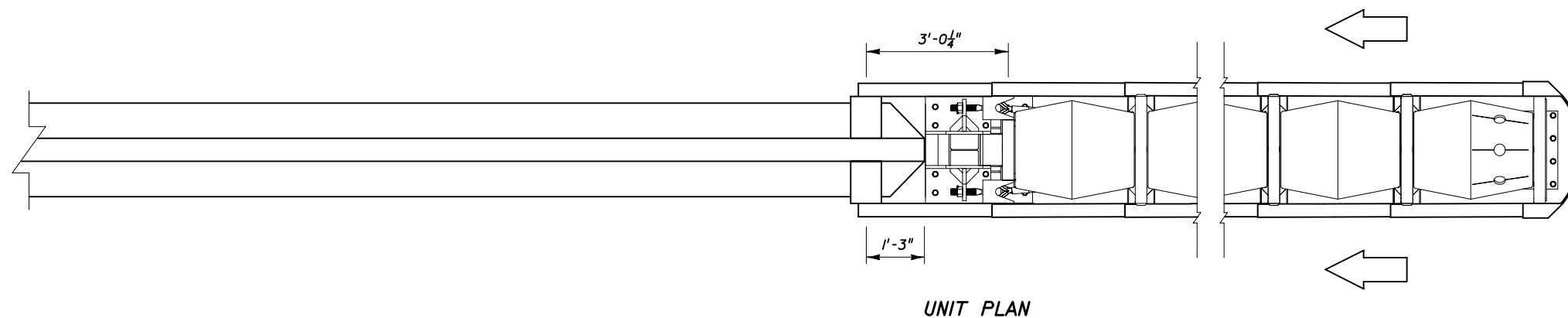
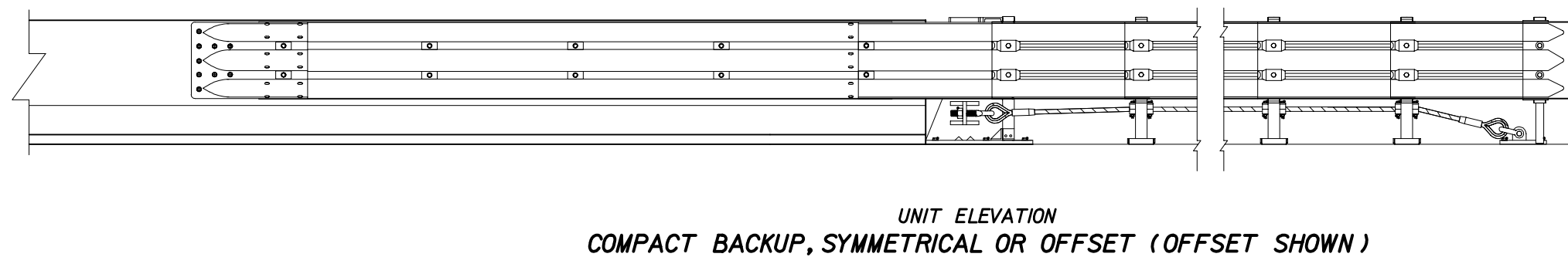
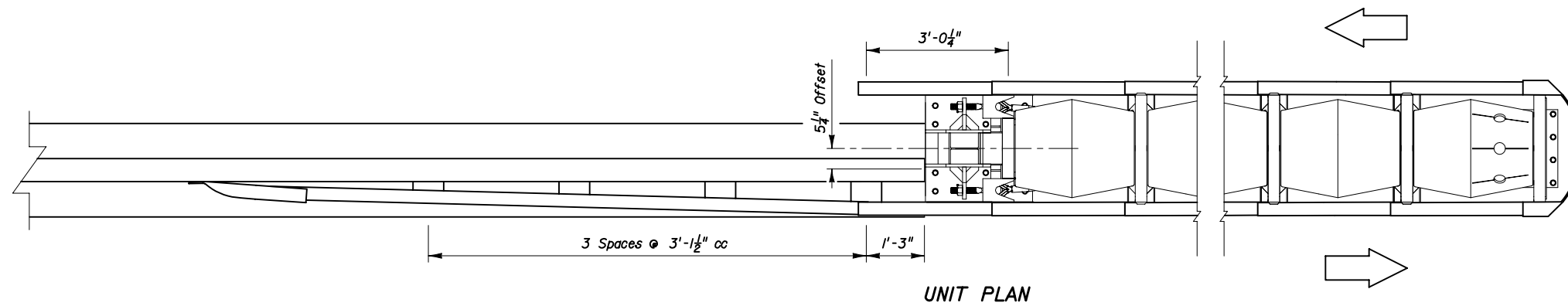


TRANSITION TO PERMANENT CONCRETE BARRIER WALL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TAU-II


Names		Dates	Approved By		
Designed By	MRG	12/02	 Roadway Design Engineer		
Drawn By	SBC	12/02			
Checked By	JVG/TRB	12/02	Revision	Sheet No.	Index No.
			04	5 of 8	441

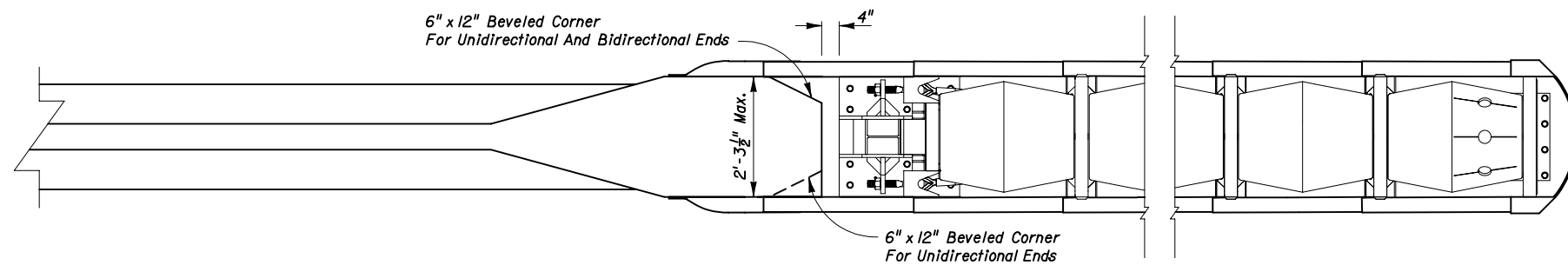


TRANSITION TO SAFETY SHAPE PERMANENT CONCRETE BARRIER WALL

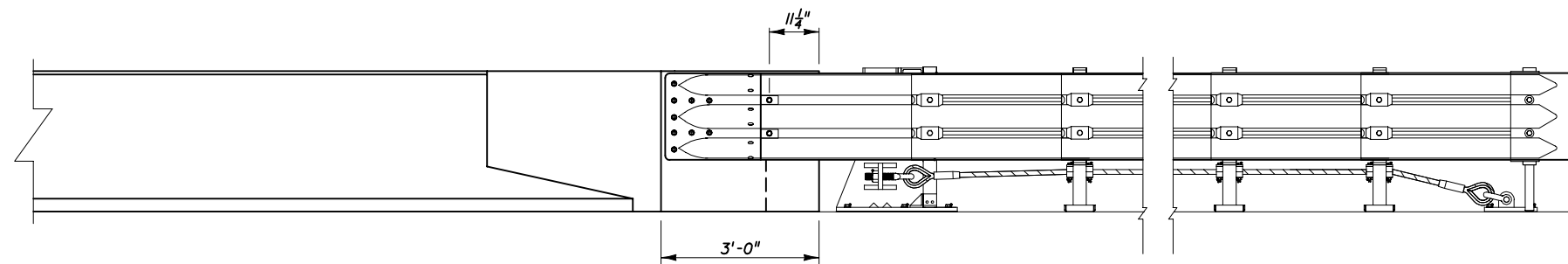
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TAU-II

Names		Dates	Approved By		
Designed By	MRG	12/02	 Roadway Design Engineer		
Drawn By	SBC	12/02			
Checked By	JVG/TRB	12/02	Revision	Sheet No.	Index No.
			04	6 of 8	441



UNIT PLAN




UNIT ELEVATION

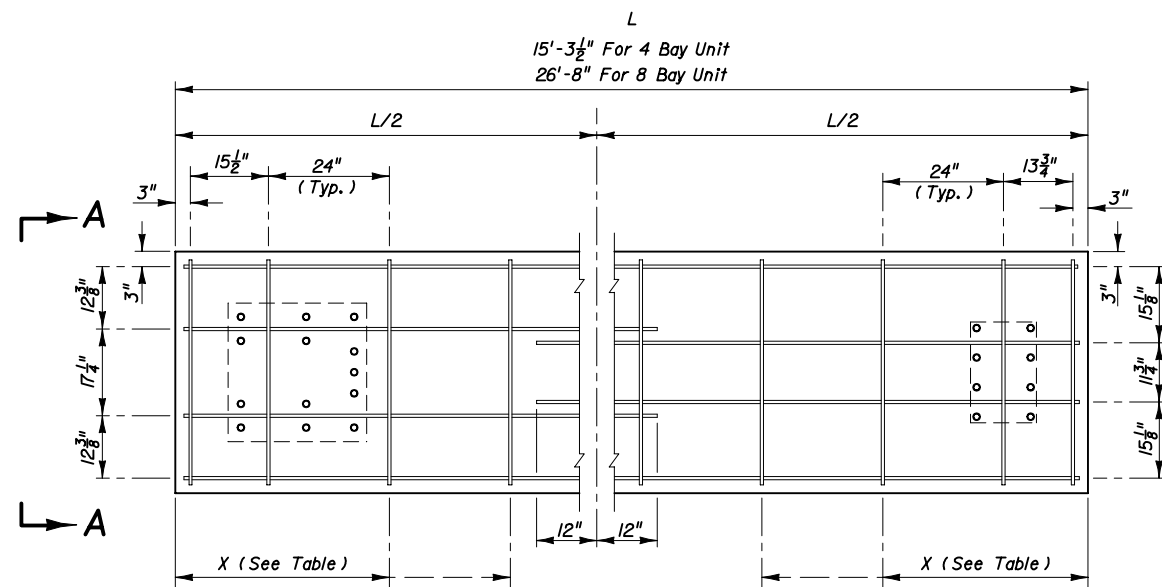
COMPACT BACKUP, CONCRETE END SHOE TO BULBED END BARRIER

TRANSITION TO PERMANENT CONCRETE BARRIER WALL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

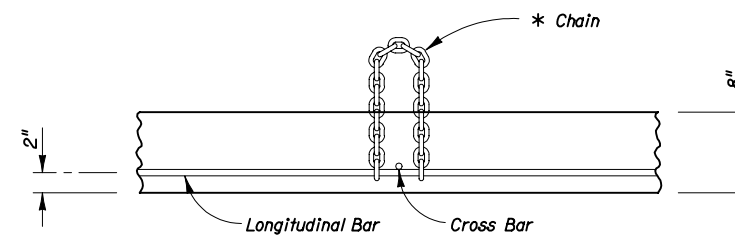
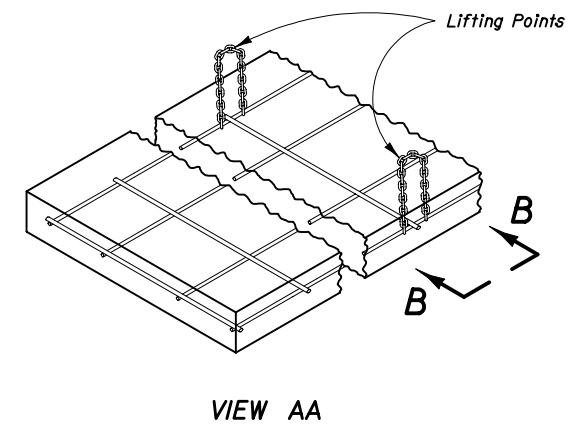
TAU-II

Names		Dates	Approved By		
Designed By	MPG	12/02	 Roadway Design Engineer		
Drawn By	SBC	12/02			
Checked By	JVG/TRB	12/02	Revision	Sheet No.	Index No.
			04	7 of 8	441



Note: All reinforcement #5 bars.
UNIT PLAN

PICKUP POINT LOCATIONS		
No. Of Bays	Pad Length, L	Pickup Points, X
4	15'-3 1/2"	42" ± 2"
8	26'-8"	66" ± 2"



* 1/2" Proof Coil Chain Must Meet The Requirements Of ASTM A413 Grade 2B.
 The Minimum Length Is 15 Links And The Rebar Will Be Inserted Through Both End Links As Shown.

**ENLARGED
 VIEW BB**

PORTABLE REINFORCED CONCRETE PAD

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
TAU-II				
Designed By	Names	Dates	Approved By	
Drawn By	SBC	12/02	 Roadway Design Engineer	
Checked By	JVG/TRB	12/02		
			Revision	Sheet No.
			04	8 of 8
				Index No.
				441