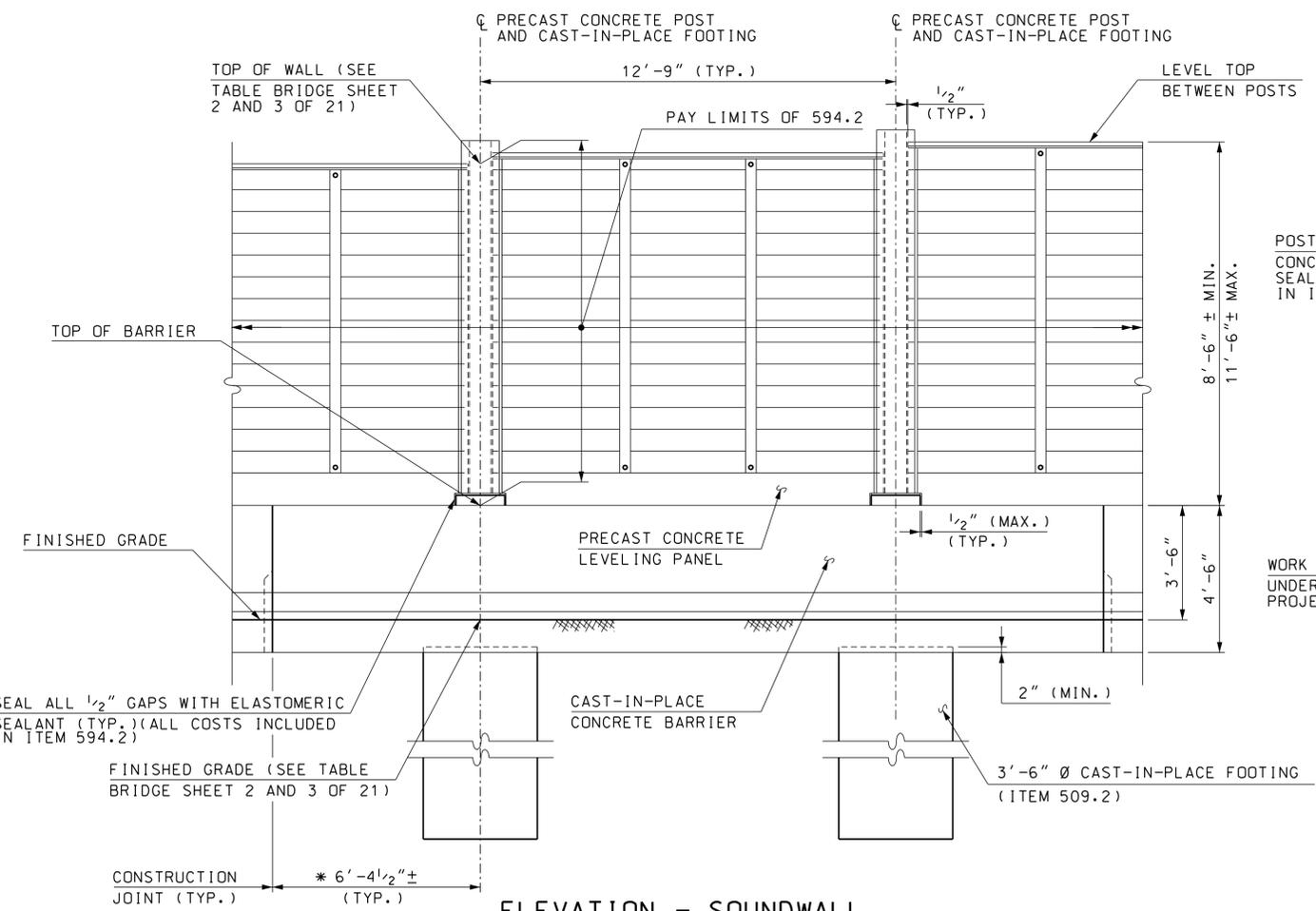


**PLAN VIEW DETAIL OF
PANEL - POST CONNECTION**
SCALE 3" = 1'-0"

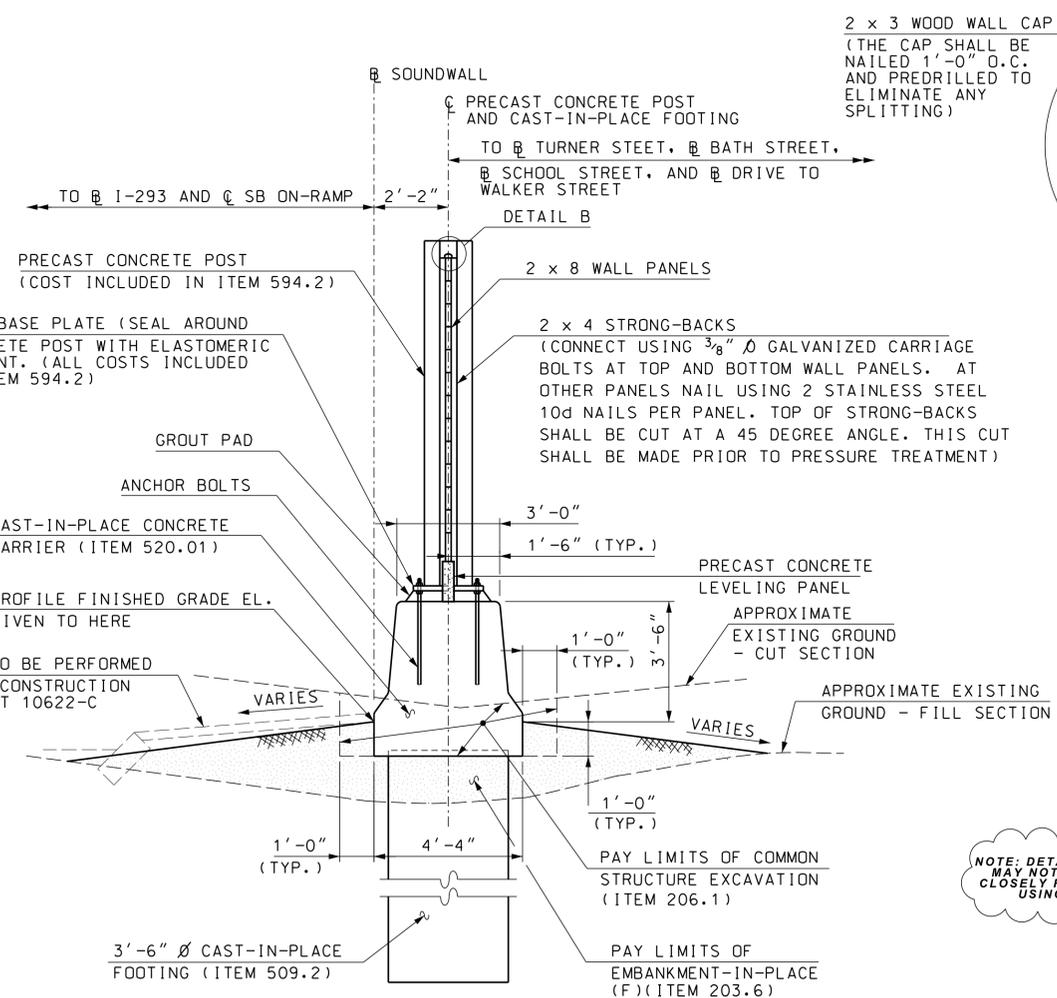
PLAN - SOUNDWALL
SCALE 3/8" = 1'-0"

GENERAL NOTES

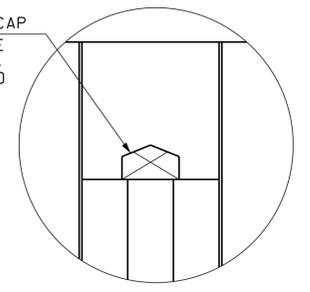
- ITEM 594.2, WOOD PANEL SOUND ABATEMENT WALL SHALL INCLUDE ALL TIMBER, PRECAST CONCRETE POSTS AND PRECAST CONCRETE LEVELING PANEL, CONCRETE GROUT PAD UNDERNEATH POSTS, STEEL BASE PLATES, THREADED REINFORCING, ANCHOR BOLTS, NUTS AND WASHERS, AND OTHER ATTACHMENT HARDWARE NECESSARY FOR COMPLETE CONSTRUCTION OF THE WALL AS SHOWN.
- SEE SPECIAL PROVISION FOR TIMBER REQUIREMENTS.
- SEE SHEETS 2, 3 AND 7 OF 21 FOR PLANS SHOWING LAYOUT OF THE TIMBER SOUNDWALL.
- THE ANGLE BETWEEN THE PRECAST CONCRETE POST AND WALL PANEL SHALL NOT EXCEED 10 DEGREES. POSTS MAY BE HORIZONTALLY ALIGNED TO ACHIEVE PROPOSED WALL ALIGNMENT WITH ANGLE POINTS LESS THAN OR EQUAL TO 20 DEGREES.
- TRANSITION IN TOP OF WALL ELEVATION SHALL BE AS FOLLOWS: IN THE CASE WHERE THE TOP OF WALL ELEVATION IS THE SAME ON BOTH SIDES OF A POST THE MAXIMUM ALLOWABLE DISTANCE FROM THE TOP OF WALL TO TOP OF POST SHALL BE 4". IN THE CASE WHERE THE TOP OF WALL ELEVATION VARIES ON BOTH SIDES OF A POST THE MAXIMUM ALLOWABLE DISTANCE FROM THE TOP OF WALL TO THE TOP OF POST SHALL BE 1'-4".
- IT IS INTENDED THAT THE SOUND WALL BARRIERS BE CONSTRUCTED ON THE CURVES SHOWN. HOWEVER, THE CONTRACTOR MAY CONSTRUCT THE BARRIER ON 25'-6"± CHORDS TO THE CURVES.



ELEVATION - SOUNDWALL
SCALE 3/8" = 1'-0"



SECTION A-A
SCALE 3/8" = 1'-0"



DETAIL B
SCALE 3" = 1'-0"

NOTE: BARRIER MOUNTED ANCHORAGE SYSTEM SHALL BE DESIGNED FOR EACH PROJECT.

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

NOTE

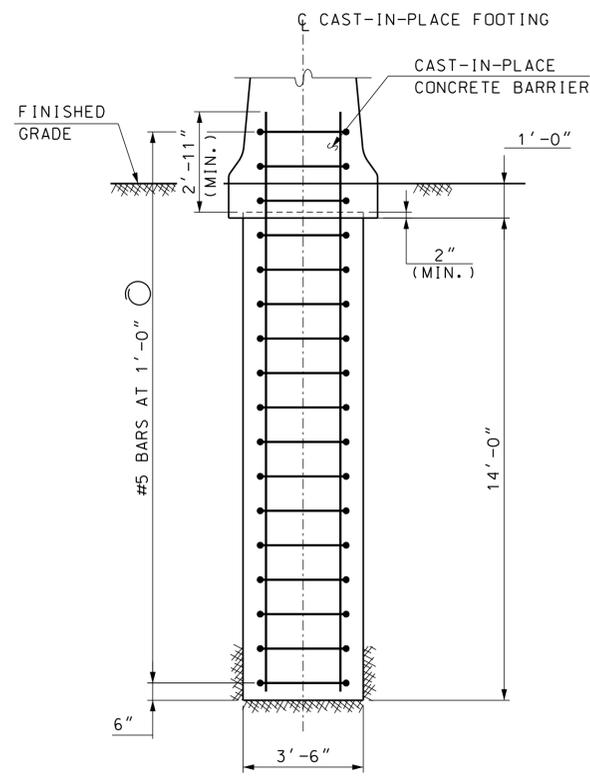
* DUE TO THE CURVATURE OF THE SOUNDWALL BARRIER THESE DISTANCES MAY VARY SLIGHTLY. SEE THE SOUNDWALL BARRIER REINFORCEMENT PLAN, BRIDGE SHEET 10 OF 21 FOR CONSTRUCTION JOINT AND EXPANSION JOINT LAYOUT. SEE GENERAL NOTES.

SAMPLE PLAN
DATE: 08-2004

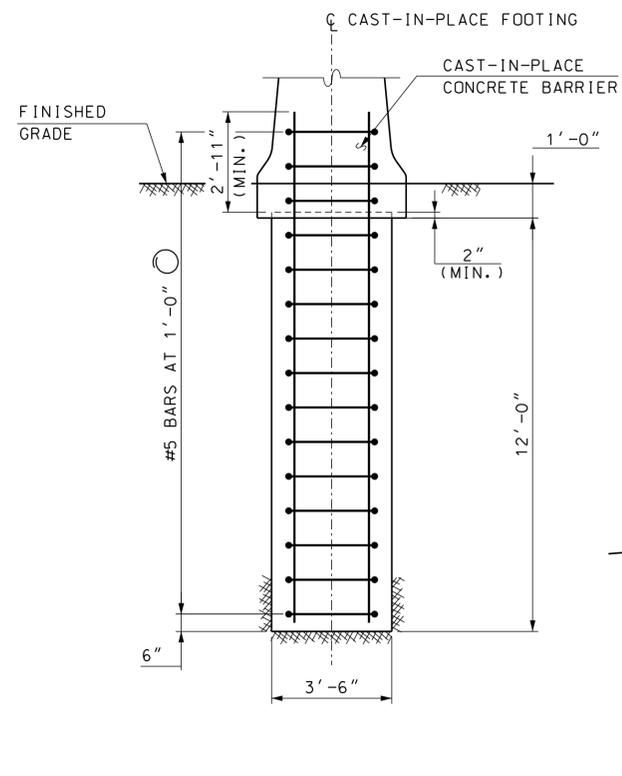


STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	MANCHESTER			BRIDGE NO.				STATE PROJECT	10622-B
LOCATION	ALLARD DRIVE, SECOND STREET, AND TURNER STREET RECONSTRUCTION								
SOUNDWALL PLAN AND ELEVATION									BRIDGE SHEET
									8 OF 21
DESIGNED	SRP	1/03	CHECKED	BTW	8/04			FILE NUMBER	96-4-1
DRAWN	MWS	1/03	CHECKED	BTW	8/04			TOTAL SHEETS	120
QUANTITIES	SRP	5/03	CHECKED	BTW	8/04				
ISSUE DATE				FEDERAL PROJECT NO.			SHEET NO.		
REV. DATE				A000 (270)			96		

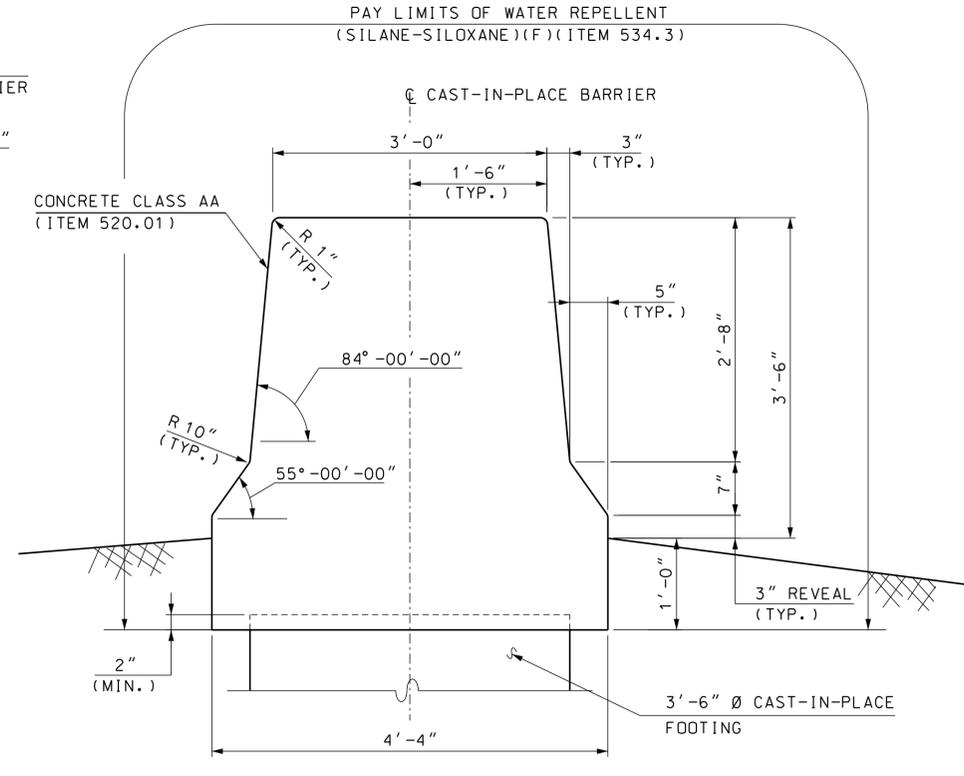
10622BSWD.DGN



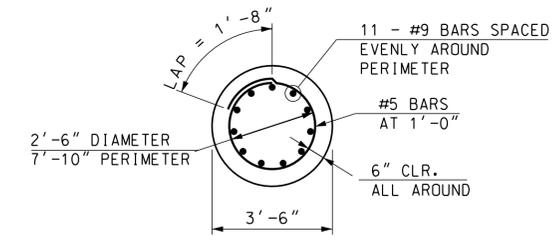
ELEVATION - FOOTING
(SHAFTS NO. 1 - 63)
SCALE 3/8" = 1'-0"



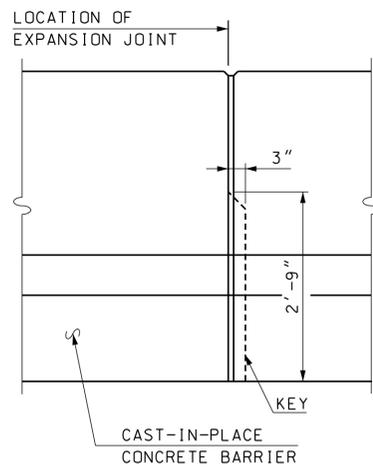
ELEVATION - FOOTING
(SHAFTS NO. 64 - 131)
SCALE 3/8" = 1'-0"



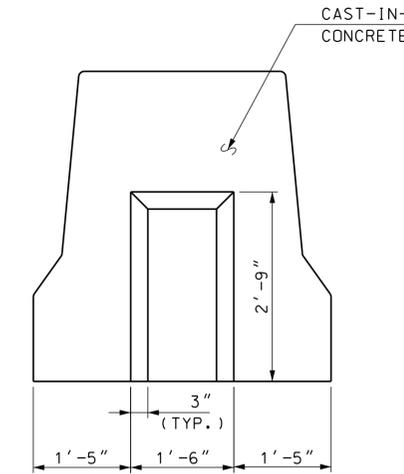
TYPICAL BARRIER SECTION
SCALE 1" = 1'-0"



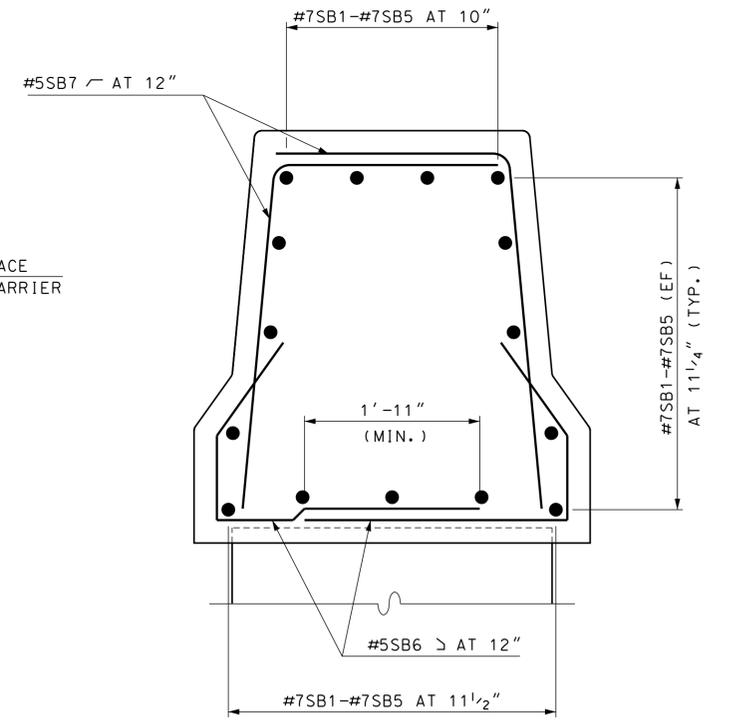
PLAN FOOTING
SCALE 3/8" = 1'-0"



BARRIER SHEAR KEY DETAIL AT EXPANSION JOINT
SCALE 3/4" = 1'-0"



SECTION THROUGH JOINT



TYPICAL BARRIER REINFORCING SECTION
SCALE 1" = 1'-0"

FOOTING NOTES

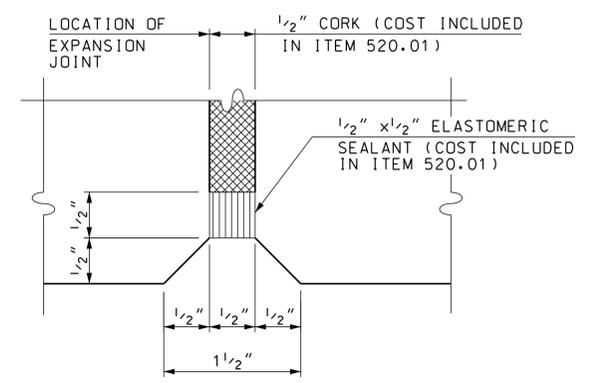
- FOOTING EXCAVATION AND CONSTRUCTION METHODS, ALONG WITH CONCRETE AND REINFORCING REQUIREMENTS FOR THE FOOTING SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR SECTION 509, DRILLED SHAFTS. PAYMENT SHALL BE INCLUDED IN ITEM 509.2, DRILLED SHAFTS. REMOVAL OF OBSTRUCTIONS AS NECESSARY WILL BE PAID FOR UNDER ITEM 509.3.
- WHERE FILL EMBANKMENT IS TO BE CONSTRUCTED ABOVE THE EXISTING GROUND, THE EMBANKMENT SHALL BE BUILT PRIOR TO CONSTRUCTING THE SHAFTS. PLACEMENT AND COMPACTION OF FILL SHALL BE IN ACCORDANCE WITH 203.3.7 AND 203.3.8.
- UTILITY RELOCATION WORK SHALL BE COMPLETED BEFORE CONSTRUCTION OF THE SOUNDWALL FOUNDATION.
- ALL REINFORCING STEEL SHALL BE A MINIMUM 6" CLEAR FROM ALL CONCRETE SURFACES, EXCEPT AS NOTED.

BARRIER NOTES

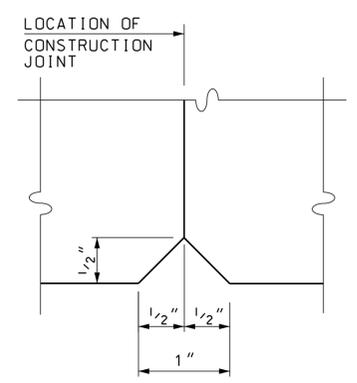
- CONCRETE FOR CAST-IN-PLACE BARRIER SHALL BE CONCRETE CLASS AA, ITEM 520.01.
- JOINTS IN BARRIER SHALL BE SPACED AT APPROXIMATE 25'-6". EVERY THIRD JOINT SHALL BE AN EXPANSION JOINT.
- ALL REINFORCING STEEL SHALL BE A MINIMUM 3" CLEAR FROM ALL CONCRETE SURFACES.

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

NOTE: BARRIER MOUNTED ANCHORAGE SYSTEM SHALL BE DESIGNED FOR EACH PROJECT.



EXPANSION JOINT DETAIL
SCALE 1" = 3"



CONSTRUCTION JOINT DETAIL
SCALE 1" = 3"

SAMPLE PLAN
DATE: 08-2004

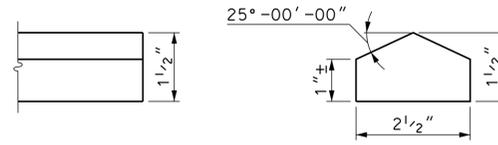
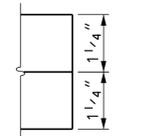


STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	MANCHESTER	BRIDGE NO.	STATE PROJECT				10622-B		
LOCATION ALLARD DRIVE, SECOND STREET, AND TURNER STREET RECONSTRUCTION									
SOUNDWALL BARRIER AND FOOTING DETAILS									
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	BTW	DATE	BRIDGE SHEET		
		DESIGNED	SWP	1/03	CHECKED	BTW	8/04	9 OF 21	
		DRAWN	MWS	1/03	CHECKED	BTW	8/04	FILE NUMBER	
		QUANTITIES	SWP	5/03	CHECKED	BTW	8/04	96-4-1	
		ISSUE DATE	FEDERAL PROJECT NO.				SHEET NO.		TOTAL SHEETS
		REV. DATE	A000 (270)				97		120

10622BSWD.DGN

NOTE: WALL CAP SHALL HAVE NO GROOVE. UPPERMOST WALL PANEL SHALL HAVE NO TONGUE

PLAN VIEW



ELEVATION VIEW

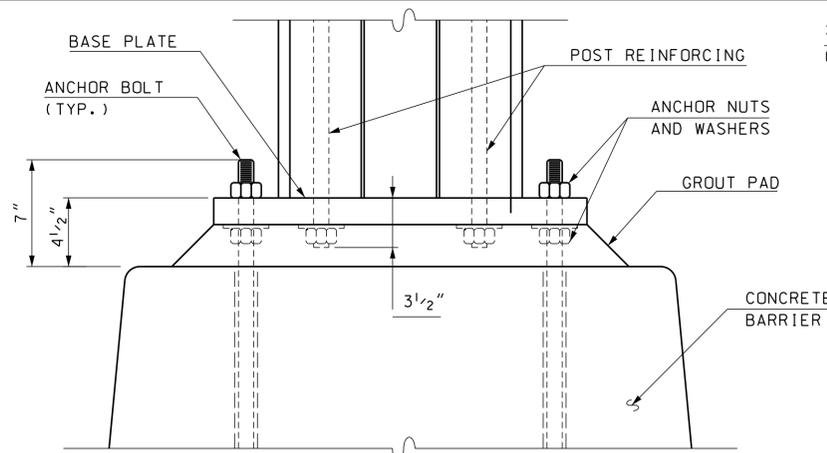
END VIEW

WALL CAP DETAILS

1" = 2"

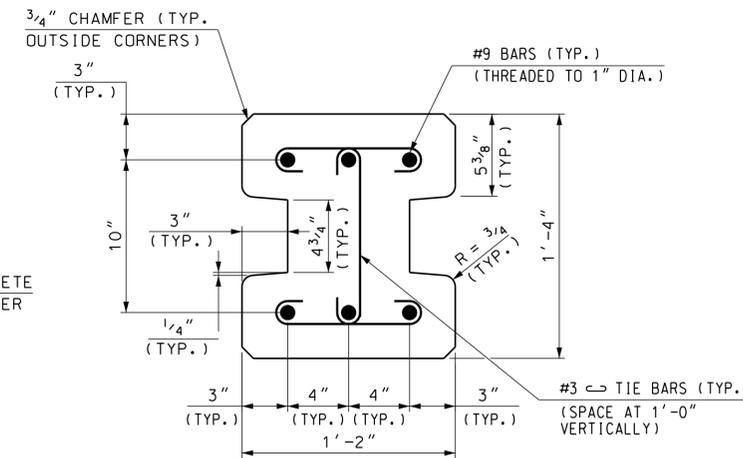
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

NOTE: BARRIER MOUNTED ANCHORAGE SYSTEM SHALL BE DESIGNED FOR EACH PROJECT.



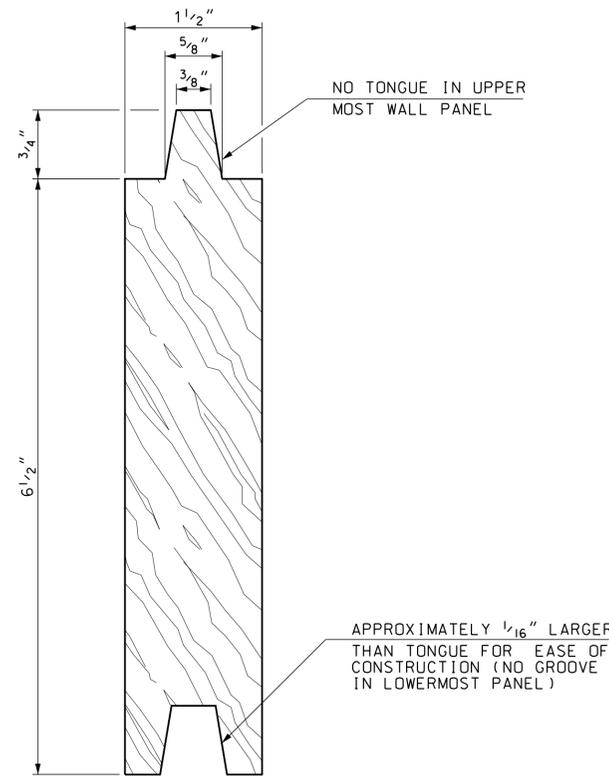
CONNECTION DETAIL

SCALE 2" = 1'-0"



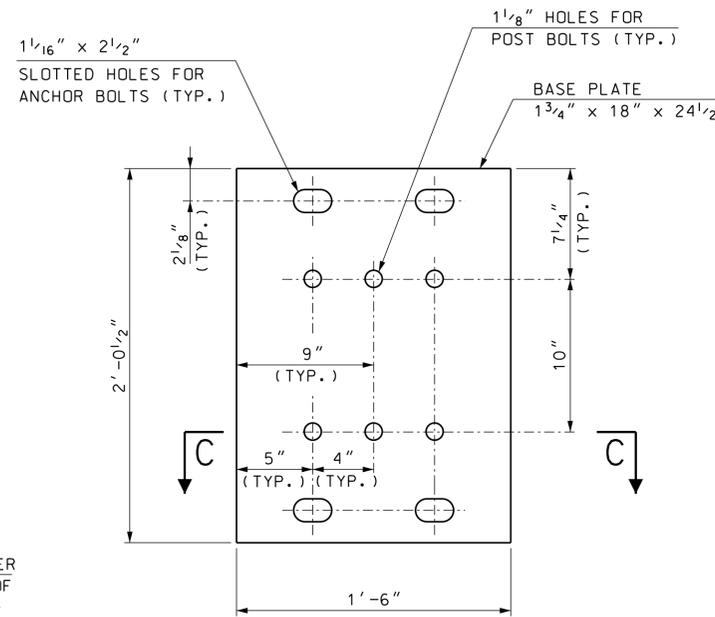
POST DETAIL

(TYPICAL ALL POSTS)
SCALE 2" = 1'-0"



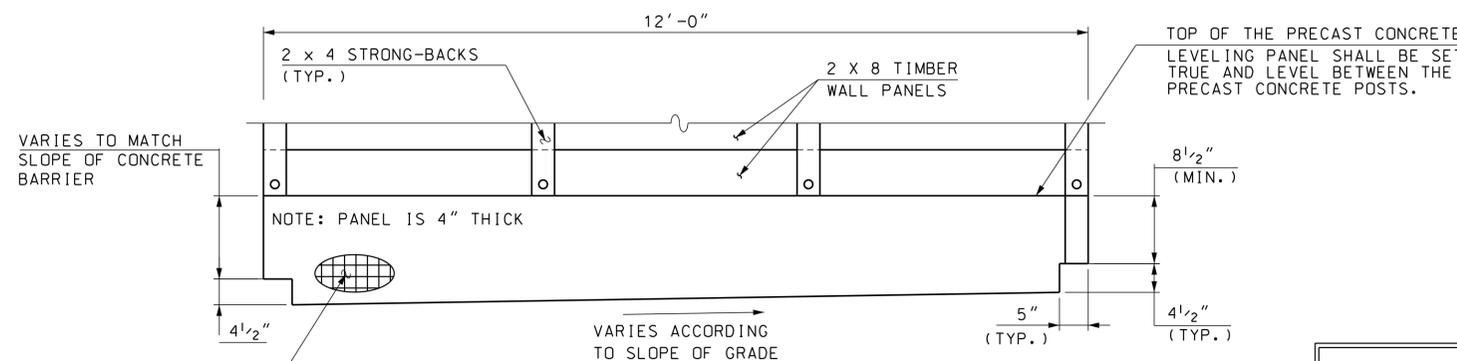
TIMBER WALL PANEL DETAIL

SCALE 1" = 1"



BASE PLATE DETAIL

SCALE 2" = 1'-0"



TYPICAL PRECAST CONCRETE LEVELING PANEL ON CONCRETE BARRIER

SCALE 3/4" = 1'-0"

SAMPLE PLAN

DATE: 08-2004



540 Commercial Street Manchester, NH 03101
(603) 668-8221 Fax: (603) 668-8802
www.ced-engineers.com www.ced-engineers.com

POST NOTES

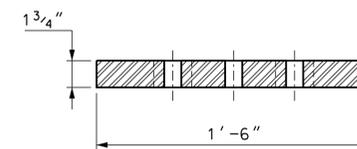
1. ALL CONCRETE FOR POSTS SHALL MEET THE REQUIREMENTS OF SECTION 520 OF THE STANDARD SPECIFICATIONS. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
2. ALL STEEL REINFORCING SHALL BE GRADE 60 STEEL, GALVANIZED, AND SHALL MEET THE REQUIREMENTS OF SECTION 544 OF THE NHDOT STANDARD SPECIFICATIONS. TIE BARS MAY BE EPOXY COATED OR GALVANIZED.
3. EXCEPT AS NOTED, VERTICAL REINFORCING BARS SHALL MEET THE REQUIREMENTS OF SECTION 550.2.5. THE LAST 4 INCHES OF THE REINFORCING STEEL SHALL BE THREADED TO THE SPECIFIED SIZE. 3.5 INCHES OF THE THREADS SHALL EXTEND BEYOND THE BOTTOM OF THE POST.

CONNECTION NOTES

1. THE STEEL FOR THE BASE PLATE SHALL MEET THE REQUIREMENTS OF SECTION 550 OF THE STANDARD SPECIFICATIONS. STEEL SHALL BE ASTM A572, GRADE 50 GALVANIZED.
2. NUTS SHALL CONFORM TO ASTM A563, GRADE A. THE WASHERS SHALL BE TYPE 1 WASHERS AND SHALL MEET THE REQUIREMENTS OF ASTM F436 AND SHALL BE MADE OF HARDENED STEEL. NUTS AND WASHERS SHALL BE GALVANIZED.
3. ANCHOR BOLTS SHALL BE FABRICATED IN ACCORDANCE WITH SECTION 550.2.5 OF THE NHDOT STANDARD SPECIFICATIONS, EXCEPT AS NOTED.
4. ANCHOR BOLTS SHALL EXTEND 7" BEYOND THE TOP OF THE CONCRETE BARRIER PRIOR TO GROUTING.
5. ALL STEEL COMPONENTS SHALL BE GALVANIZED AFTER FABRICATION IN CONFORMANCE TO AASHTO M232 (ASTM A153) AND AASHTO M111 (ASTM A123). GALVANIZED MATERIAL SHALL BE PROPERLY STORED.
6. HOLES IN BASE PLATES SHALL BE FILLED FLUSH WITH ELASTOMERIC SEALANT AFTER POST INSTALLATION. ALL COST SUBSIDIARY TO ITEM 594.2.
7. GROUT THE AREAS UNDERNEATH THE POSTS WITH APPROVED HIGH STRENGTH, NON-SHRINK GROUT.

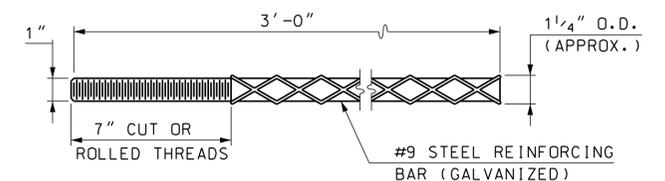
PRECAST CONCRETE PANEL NOTES

1. ALL CONCRETE FOR LEVELING PANELS SHALL MEET THE REQUIREMENTS OF SECTION 520 OF THE STANDARD SPECIFICATIONS. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
2. THE LEVELING PANELS SHALL BE 4" THICK AND SHALL BE FREE OF DEFECTS. THE TOP OF LEVELING PANEL SHALL BE FREE FROM PITS OR HOLES AND SHALL BE CAST SMOOTH TO PREVENT GAPS.



SECTION C-C

SCALE 2" = 1'-0"



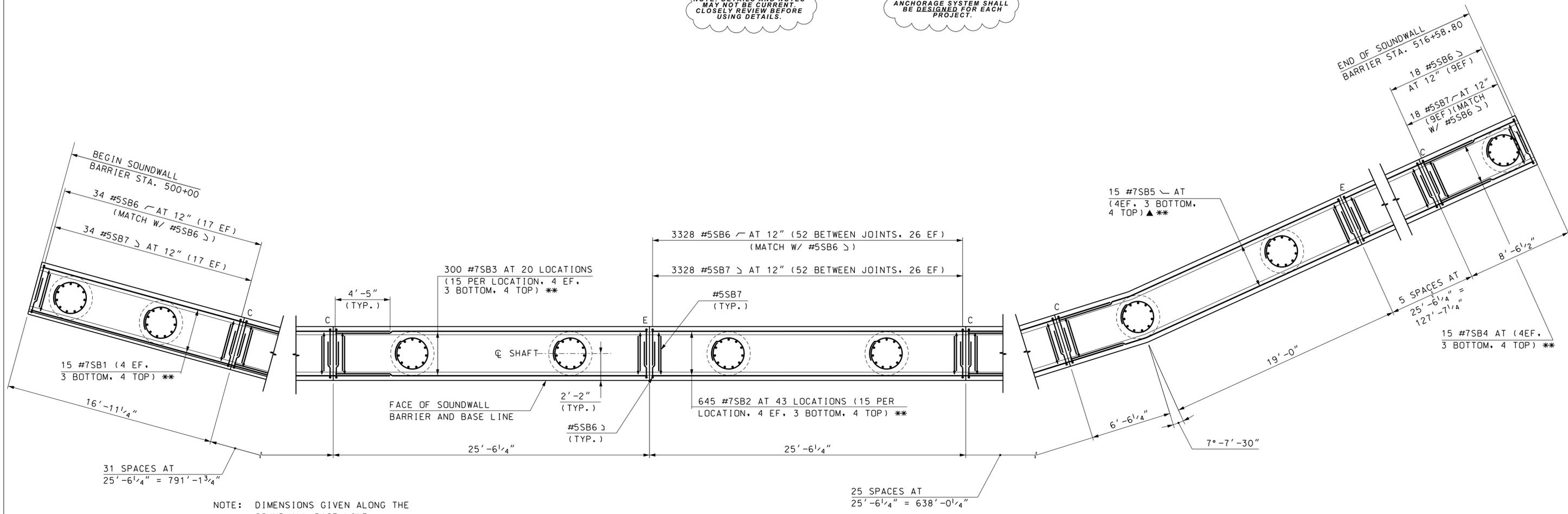
ANCHOR BOLT DETAIL

SCALE 3" = 1'-0"

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	MANCHESTER		BRIDGE NO.			STATE PROJECT	10622-B		
LOCATION	ALLARD DRIVE, SECOND STREET, AND TURNER STREET RECONSTRUCTION								
SOUNDWALL DETAILS									
REVISIONS AFTER PROPOSAL	BY	DATE	CHECKED	BTW	DATE	BY	DATE	FILE NUMBER	BRIDGE SHEET
	DESIGNED	SWP	1/03	CHECKED	BTW	8/04		11 OF 21	
	DRAWN	MWS	1/03	CHECKED	BTW	8/04		96-4-1	
	QUANTITIES	SWP	5/03	CHECKED	BTW	8/04			
	ISSUE DATE	FEDERAL PROJECT NO.				SHEET NO.	TOTAL SHEETS		
	REV. DATE	A000 (270)				99	120		

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NOTE: BARRIER MOUNTED ANCHORAGE SYSTEM SHALL BE DESIGNED FOR EACH PROJECT.



SOUNDWALL BARRIER REINFORCING PLAN
SCALE 1/4" = 1'-0"

** PLACE PER TYPICAL BARRIER SECTION, SEE SHEET 9 OF 21.

LEGEND

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- E = EXPANSION JOINT
- C = CONTRACTION JOINT

SAMPLE PLAN
DATE: 08-2004

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	MANCHESTER	BRIDGE NO.		STATE PROJECT	10622-B				
LOCATION	ALLARD DRIVE, SECOND STREET, AND TURNER STREET RECONSTRUCTION								
SOUNDWALL BARRIER REINFORCEMENT PLAN									BRIDGE SHEET
									10 OF 21
									FILE NUMBER
									96-4-1
									TOTAL SHEETS
									120
DESIGNED	SWP	1/03	CHECKED	BTW	8/04				
DRAWN	MWS	1/03	CHECKED	BTW	8/04				
QUANTITIES	SWP	5/03	CHECKED	BTW	8/04				
ISSUE DATE				FEDERAL PROJECT NO.	A000 (270)	SHEET NO.	98		
REV. DATE									

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