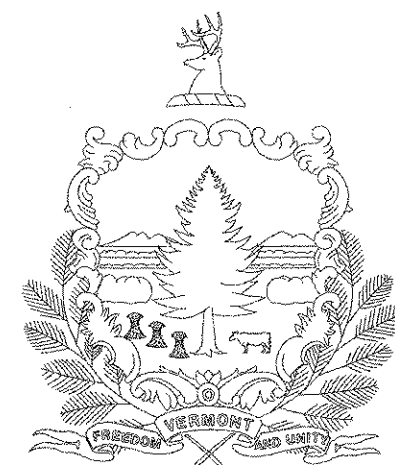
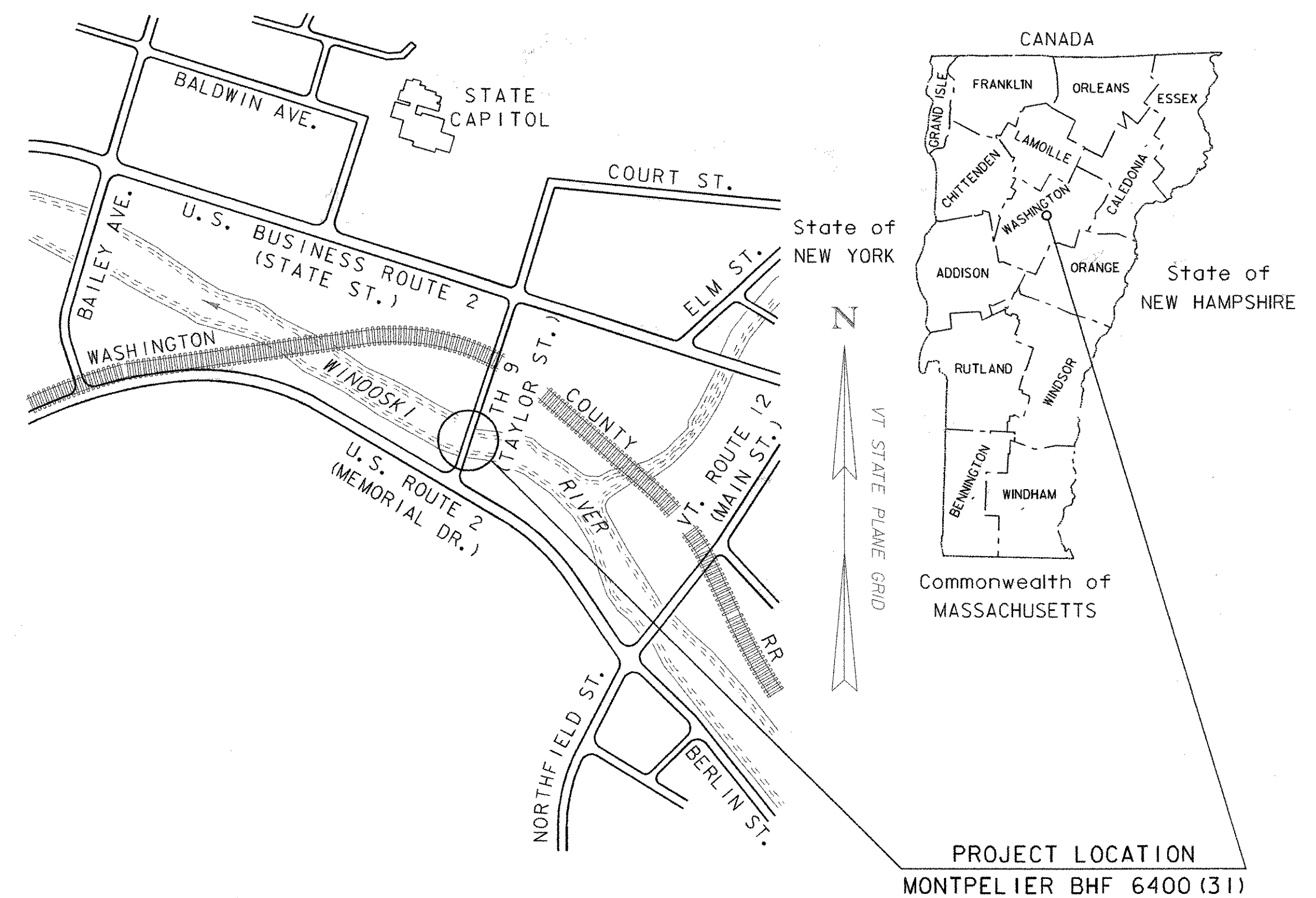


INDEX OF SHEETS
SEE SHEET 2

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT CITY OF MONTPELIER COUNTY OF WASHINGTON

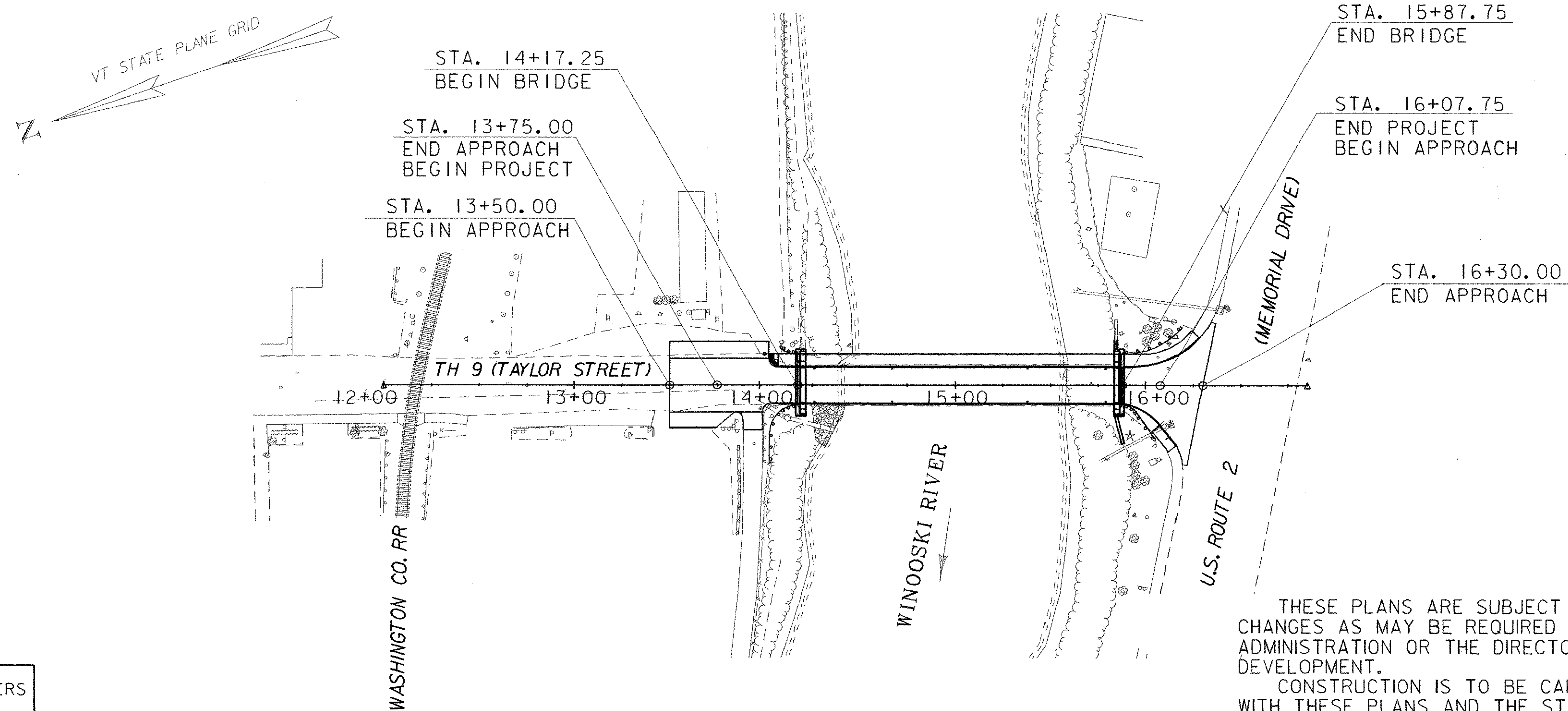


ROUTE NO : TH 9 (TAYLOR STREET) BRIDGE NO : 5 (MONTPELIER)

PROJECT LOCATION: LOCATED IN THE COUNTY OF WASHINGTON, CITY OF MONTPELIER,
TH 9 (TAYLOR STREET) OVER THE WINOOSKI RIVER, APPROXIMATELY 400+/- FEET
SOUTH OF THE JUNCTION OF STATE STREET AND TAYLOR STREET.

PROJECT DESCRIPTION: REHABILITATION OF THE SUPERSTRUCTURE, SUBSTRUCTURE REPAIRS AND
RECONSTRUCTION OF THE APPROACHES.

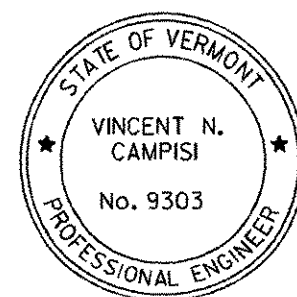
LENGTH OF STRUCTURE : 170.50 FEET
LENGTH OF ROADWAY : 62.25 FEET
LENGTH OF PROJECT : 232.75 FEET



THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

CONVENTIONAL SYMBOLS

COUNTY LINE	— — — — —
TOWN LINE	— — — — —
LIMITS OF ACCESS	— — — — —
POINT OF ACCESS	X
FENCE LINE	X — X — X — X —
STONE WALL	○ — ○ — ○ — ○ —
TRAVELED WAY	— — — — —
GUARD RAIL	— — — — —
RAILROAD	— — — — —
SURVEY LINE	— — — — —
CULVERT	— — — — —
POWER POLE	— — — — —
TELEPHONE POLE	— — — — —
TREES	— — — — —
CONTROL OF ACCESS	P — — — — —
PROPERTY LINE	— — — — —
R.O.W. TAKING LINE	SR — — — — —
SLOPE RIGHTS	— — — — —
TOP OF CUT	— — — — —
TOE OF SLOPE	— — — — —

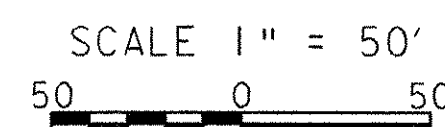


PLANS PREPARED BY
Vincent N. Campisi



SURVEYED BY : R. GILMAN & P. WINTERS
SURVEYED DATE : JANUARY 20, 2005

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (96)



DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED <i>Richard F. ...</i>	DATE 10/2/09
PROJECT MANAGER : SUSAN SCRIBNER	
PROJECT NAME : MONTPELIER	
PROJECT NUMBER : BHF 6400 (31)	
SHEET 1 OF 63 SHEETS	

PRELIMINARY INFORMATION SHEET

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6. REMOVED FROM PLAN SET
7. REMOVED FROM PLAN SET
- 8.-9. PROJECT TYPICAL SECTIONS
10. ROADWAY PAVING DETAILS
11. ITEM DETAIL SHEET
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22. EPSC EXISTING CONDITIONS SITE PLAN
23. EPSC CONSTRUCTION SITE PLAN
24. EPSC FINAL CONDITIONS SITE PLAN
- 25.-26. PROJECT NOTES
27. PLAN AND ELEVATION
28. DECK PLAN AND DETAILS
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- 30.-31. STRUCTURAL STEEL DETAILS
32. EXPANSION BEARING DETAILS
33. EXPANSION JOINT PLAN
34. EXPANSION JOINT DETAILS
35. SCUPPER AND DOWNSPOUT DETAILS
36. APPROACH SLAB DETAILS
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38. ABUTMENT 1 REPAIR DETAILS
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40. MISCELLANEOUS DETAILS
41. REINFORCING STEEL SCHEDULE
42. TEMPORARY TRAFFIC DETOUR PLAN
43. TEMPORARY TRAFFIC SIGNAL PLAN
44. TEMPORARY PEDESTRIAN DETOUR PLAN
45. CONSTRUCTION APPROACH SIGNING
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63. 1929 FABRICATION DRAWINGS 6 OF 6

SCOPE OF WORK

1. INSTALLATION OF TEMPORARY TRAFFIC DETOUR AND TEMPORARY SIGNAL. MODIFICATIONS OF EXISTING SIGNAL TIMING AT THE MEMORIAL/BAILEY INTERSECTION. INSTALLATION OF PEDESTRIAN DETOURS. EXISTING WATER MAIN TO BE DISCONNECTED FROM SERVICE.
2. REHABILITATION OF EXISTING ABUTMENT 1 WITHIN THE TAYLOR STREET RIGHT-OF-WAY.
3. REHABILITATION OF EXISTING ABUTMENT 2 AND WINGWALLS WITHIN THE TAYLOR STREET RIGHT-OF-WAY.
4. REHABILITATION OF EXISTING ABUTMENT 1 BEARINGS. REPLACEMENT OF EXISTING ABUTMENT 2 BEARINGS.
5. COMPLETE REPLACEMENT OF EXISTING TRUSS FLOOR SYSTEM, INCLUDING NEW CAST-IN-PLACE CONCRETE DECK AND SIDEWALK, STRINGERS, FLOORBEAMS AND CONNECTIONS.
6. REHABILITATION OF EXISTING TRUSS, INCLUDING PARTIAL REPLACEMENT OF EXISTING VERTICALS AND COMPLETE REPLACEMENT OF EXISTING BRIDGE RAIL, LOWER LATERAL BRACING AND CONNECTIONS.
7. BLAST CLEANING AND PAINTING OF ALL REMAINING EXISTING STEEL.
8. RELATED MINOR APPROACH WORK, INCLUDING NEW CAST-IN-PLACE CONCRETE APPROACH SLABS.
9. REMOVAL OF EXISTING WATER MAIN TIMBER INSULATION BOX AND EXISTING WATER MAIN. INSTALLATION OF NEW PREINSULATED, HANGER SUPPORTED WATER MAIN. CONNECTION OF NEW WATER MAIN TO EXISTING SERVICE.

LIST OF STANDARDS

- | | |
|--------|----------|
| A-80 | 03-31-04 |
| C-10 | 02-11-08 |
| C-3A | 03-10-08 |
| D-9 | 06-01-94 |
| D-15 | 06-01-94 |
| E-100 | 01-02-04 |
| E-100A | 01-02-04 |
| E-101 | 05-30-03 |
| E-102 | 06-30-03 |
| E-102A | 05-01-04 |
| E-106 | 03-01-04 |
| E-107 | 06-30-03 |
| E-107A | 06-08-09 |
| E-108 | 06-08-09 |
| E-110 | 08-08-95 |
| E-111 | 03-11-97 |
| E-121 | 08-08-95 |
| E-138 | 05-30-03 |
| E-164 | 06-08-09 |
| E-171A | 08-09-95 |
| E-172 | 08-09-95 |
| E-193 | 08-18-95 |
| G-1 | 01-03-00 |
| G-1D | 01-03-00 |
| G-16 | 06-01-94 |

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: Sept. 2007

DRAINAGE AREA : 394 sq. mi.
 CHARACTER OF TERRAIN : Hilly to mountainous
 STREAM CHARACTERISTICS : Straight and stable through the bridge reach.
 NATURE OF STREAMBED : Silt/sand on the banks, with cobbles and ledge in the channel.

PEAK FLOW DATA

Q 2.33 =	6,000 cfs	Q 50 =	20,700 cfs
Q 10 =	13,000 cfs	Q 100 =	24,900 cfs
Q 25 =	17,000 cfs	Q 500 =	37,200 cfs

DATE OF FLOOD OF RECORD : November 1927
 ESTIMATED DISCHARGE: 57,000 cfs at the Montpelier gaging station
 WATER SURFACE ELEV.: Not Available

NATURAL STREAM VELOCITY : @ Q25 = 8.5 fps
 ICE CONDITIONS : Heavy
 DEBRIS: Moderate
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? No
 IS ORDINARY RISE RAPID? No
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No
 IF YES, DESCRIBE:

WATERSHED STORAGE: 2% HEADWATERS: UNIFORM: X
 IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Single span steel truss bridge
 YEAR BUILT: 1929
 CLEAR SPAN(NORMAL TO STREAM): 162.5 ft.
 VERTICAL CLEARANCE ABOVE STREAMBED: 20 ft.
 WATERWAY OF FULL OPENING: 2568 sq. ft.
 DISPOSITION OF STRUCTURE: Rehabilitate
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: Abutments founded on ledge.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	512.7 ft.	VELOCITY =	8.4 fps
Q10 =	519.9 ft.	"	7.7 fps
Q25 =	522.1 ft.	"	8.5 fps
Q50 =	524.2 ft.	"	9.0 fps
Q100 =	525.7 ft.	"	9.8 fps

LONG TERM STREAMBED CHANGES: None noted.

IS THE ROADWAY OVERTOPPED BELOW Q100: Yes
 FREQUENCY: Below Q50
 RELIEF ELEVATION: 523.3 ft.
 DISCHARGE OVER ROAD @Q100: 3,325 cfs

UPSTREAM STRUCTURE

TOWN: Montpelier DISTANCE: 1,000 ft.
 HIGHWAY #: T.H. 2 (Main Street) STRUCTURE #: 2
 CLEAR SPAN: 2 spans at 69' each = 138' total CLEAR HEIGHT: 19 ft.
 YEAR BUILT: 1976 FULL WATERWAY: 2,110 sq. ft.
 STRUCTURE TYPE: Two-span steel beam bridge

DOWNSTREAM STRUCTURE

TOWN: Montpelier DISTANCE: 400 ft.
 HIGHWAY #: Bike Path STRUCTURE #:
 CLEAR SPAN: 167' CLEAR HEIGHT: 21 ft.
 YEAR BUILT: 1998 FULL WATERWAY: N/A.
 STRUCTURE TYPE: Single span pedestrian truss bridge

LOAD FACTOR LOAD RATING (TONS)

LOADING LEVELS	TRUCK						
	H	HS	3S2	6 AXLE	3A STR.	4A. STR.	5A SEMI
INVENTORY (A=2.17,B=1.00)	21	37					
POSTED (A=1.55,B=1.40)	29	52					
OPERATING (A=1.30,B=1.67)	28	51					

COMMENTS: Strength RF = $\phi M_N - 1.3 M_{DL} / A \times M_{LL+I}$

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2007	3300	340	60	1	33
2027	3700	380	60	1	37

20 year ESAL for flexible pavement from N/A to N/A : N/A
 40 year ESAL for flexible pavement from N/A to N/A : N/A
 Design Speed : 25 mph

PROPOSED STRUCTURE

STRUCTURE TYPE: Rehabilitate existing single span truss bridge

CLEAR SPAN(NORMAL TO STREAM): 162.0 ft.
 VERTICAL CLEARANCE ABOVE STREAMBED: 20 ft.
 WATERWAY OF FULL OPENING: 2566 sq. ft.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	512.7 ft.	VELOCITY=	8.4 fps
Q10 =	519.9 ft.	"	7.7 fps
Q25 =	522.1 ft.	"	8.5 fps
Q50 =	524.2 ft.	"	9.0 fps
Q100 =	525.7 ft.	"	9.8 fps

IS THE ROADWAY OVERTOPPED BELOW Q100: Yes
 FREQUENCY: Below Q50
 RELIEF ELEVATION: 523.3 ft.
 DISCHARGE OVER ROAD @Q100: 3,330 cfs

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 523.2 ft.
 VERTICAL CLEARANCE: @ Q25 = 1.1 ft.

SCOUR: No contraction scour calculated in the main channel up to Q500.
 Abutments are set back from the channel and founded on ledge. Scour will be limited by ledge.
 REQUIRED CHANNEL PROTECTION: Stone Fill, Type II, as needed

PERMIT INFORMATION

AVERAGE DAILY FLOW:	800 cfs	DEPTH OR ELEVATION:	
ORDINARY LOW WATER:	350 cfs	Elev. 506.0'	
ORDINARY HIGH WATER:	2600 cfs	Elev. 509.0'	

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: No temporary bridge required.
 CLEAR SPAN (NORMAL TO STREAM):
 VERTICAL CLEARANCE ABOVE STREAMBED:
 WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

The hydrology and hydraulics in this Final Hydraulics Report are based on information in the 1981 Flood Insurance Study for Montpelier.

DESIGN CRITERIA

1. DESIGN LIVE LOAD AASHTO HS -20
2. DESIGN SPAN 165'-0"
3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL N/A
ON LEDGE N/A
4. ALLOWABLE LOAD FOR PILING N/A
TYPE N/A
ESTIMATED LENGTH N/A
5. STRUCTURAL STEEL AASHTO M270M/M270 GRADE 50 PAINTED (NEW STEEL)
F_y=30 KSI (ASSUMED) (EXIST. STEEL TO REMAIN)
6. REINFORCING STEEL GRADE 60
7. CONCRETE, HIGH PERFORMANCE CLASS A f_c: 4000 psi
CONCRETE, HIGH PERFORMANCE CLASS B f_c: 3500 psi
8. DESIGN SOIL UNIT WEIGHT 140 pcf
9. DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL N/A

TRAFFIC MAINTENANCE

1. IS TRAFFIC TO BE MAINTAINED? NO (OFF-SITE DETOUR)
 IF YES, ON EXISTING STRUCTURE? N/A
 OR ON TEMPORARY BRIDGE? N/A
 ONE OR TWO-WAY TRAVEL? N/A
2. TRAFFIC CONTROL SIGNALS REQUIRED? YES (AT OFF-SITE INTERSECTION)
3. ARE SIDEWALKS REQUIRED? NO
 IF SO, ON WHAT SIDE? N/A

PROJECT NAME: **MONTPELIER**
 PROJECT NUMBER: **BHF 6400(31)**
 FILE NAME: 14506_PRELIM_INFO.XLS PLOT DATE: 6/26/2008
 PROJECT LEADER: S. SCRIBNER DRAWN BY: D. D'AMATO
 DESIGNED BY: D. D'AMATO CHECKED BY: P. HALSTEAD
PRELIMINARY INFORMATION SHEET SHEET 2 OF 63



QUANTITY SHEET 1

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

SUMMARY OF ESTIMATED QUANTITIES											
UTILITY	EMPLOYEE TRAINEESHIP	FULL C.E.	EROSION CONTROL	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING	
					285	285	CY	COMMON EXCAVATION	203.15		
					1	1	CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22		
				55		55	CY	STRUCTURE EXCAVATION	204.25		
				45		45	CY	GRANULAR BACKFILL FOR STRUCTURES	204.30		
					220	220	SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10		
					220	220	CY	SUBBASE OF CRUSHED GRAVEL, COARSE GRADED	301.25		
					3	3	CWT	EMULSIFIED ASPHALT	404.65		
					1	1	LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50		
				125		125	CY	CONCRETE, HIGH PERFORMANCE CLASS B	501.34		
				1		1	LS	SHORING SUPERSTRUCTURE	502.10		
				70,500		70,500	LB	STRUCTURAL STEEL, ROLLED BEAM	506.50		
				23,500		23,500	LB	STRUCTURAL STEEL	506.60	EST	
				2,000		2,000	LB	REINFORCING STEEL	507.15		
				300		300	LF	DRILLING AND GROUTING DOWELS	507.16		
				41,000		41,000	LB	EPOXY COATED REINFORCING STEEL	507.17		
				1		1	LS	SHEAR CONNECTORS (850 - 7/8" X 7")	508.15		
				1		1	LS	SHEAR CONNECTORS (200 - 1/2" X 8")	508.15		
				1		1	LS	STRUCTURAL PAINTING, SHOP APPLIED	513.25		
				1		1	LS	STRUCTURAL PAINTING, FIELD APPLIED	513.30		
				1		1	LS	CONTAINMENT & ENVIRONMENTAL PROTECTION, FIELD	513.36		
				1		1	LS	SURFACE PREPARATION, SHOP	513.40		
				1		1	LS	SURFACE PREPARATION, FIELD	513.41		
				30		30	GAL	WATER REPELLENT, SILANE	514.10		
				28		28	LF	BRIDGE EXPANSION JOINT, VERMONT	516.11		
				375		375	SY	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	519.20		
				60		60	LF	JOINT SEALER, HOT POURED	524.11		
				375		375	SY	REMOVAL OF BRIDGE PAVEMENT	529.10		
				1		1	EA	PARTIAL REMOVAL OF STRUCTURE	529.20		
				50		50	CY	REMOVAL OF CONCRETE OR MASONRY	529.25		
				60		60	SY	REMOVAL OF CONCRETE OR MASONRY	529.26	EST	
				2		2	EA	BEARING DEVICE ASSEMBLY, POT	531.12		
				1		1	EA	CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.40		

DETAILED SUMMARY OF QUANTITIES		
QUANTITIES	UNIT	ITEMS
		SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)
66	TON	WEARING COURSE (TYPE IVS)
60	TON	LEVELING COURSE (TYPE IVS)
26	TON	BASE COURSE (TYPE IIS)
16	TON	DRIVES/REC. PATH
2	TON	ROUNDING
170	TON	TOTAL

DETAILED SUMMARY OF QUANTITIES		
QUANTITIES	UNIT	ITEMS
		COMMON EXCAVATION
160	CY	NORTH APPROACH
123	CY	SOUTH APPROACH
2	CY	SIDEWALK/CURB REMOVAL (I5+93.5 - I6+07.5 RT)
285	CY	TOTAL

QUANTITY SHEET (1)

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

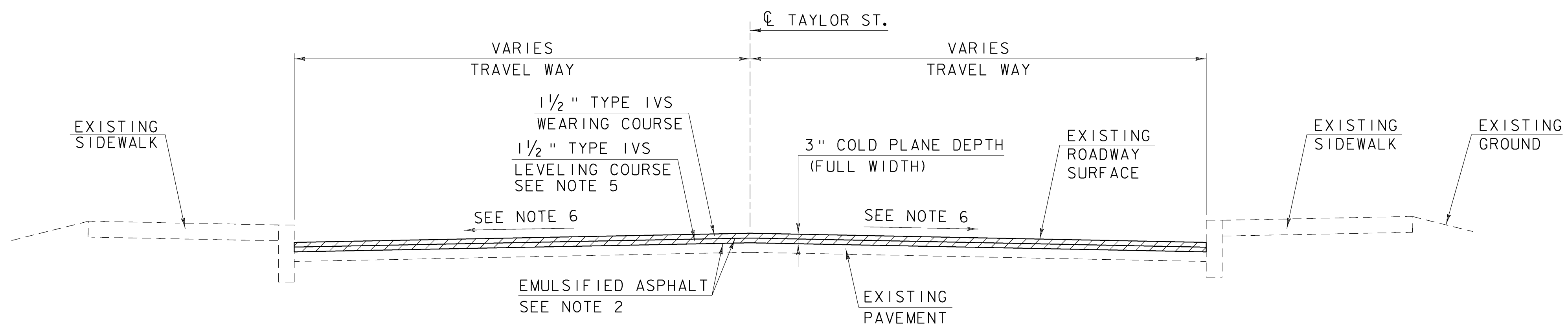
FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 3 OF 63



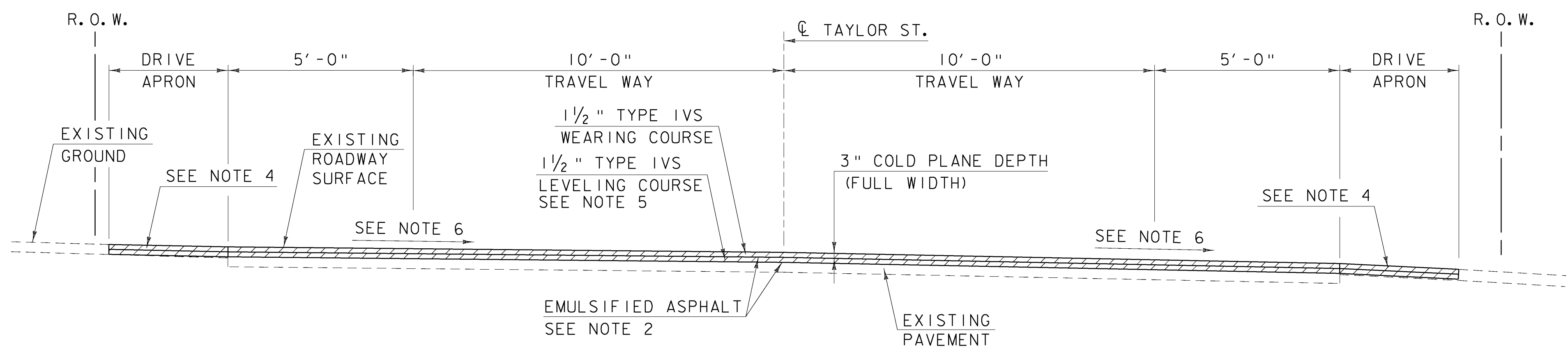
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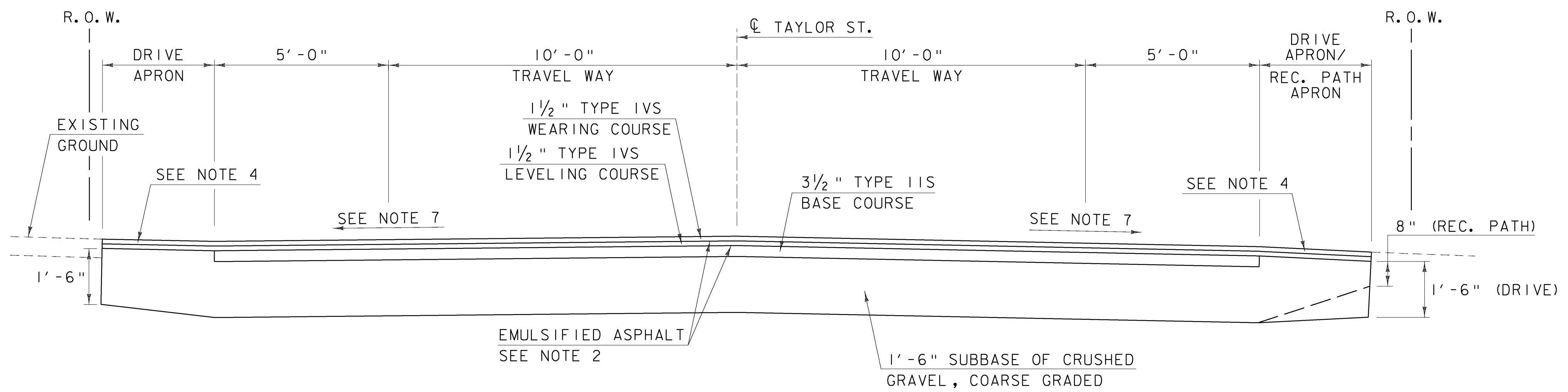
TYPICAL SECTION - SOUTH APPROACH

STA. 16+07.75 TO STA. 16+30.00



TYPICAL SECTION - NORTH APPROACH

STA. 13+50.00 TO STA. 13+75.00



TYPICAL ROADWAY SECTION

STA. 13+75.00 TO STA. 13+97.25

NOTES:

1. THE WEARING COURSE AND LEVELING COURSE SHALL BE TYPE IVS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. THE BASE COURSE SHALL BE TYPE IIS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. ASPHALT CEMENT USED IN THE BITUMINOUS CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH SECTION 900-BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY OF THE SPECIAL PROVISIONS.
2. EMULSIFIED ASPHALT SHALL BE APPLIED ON ALL EXISTING PAVEMENT SURFACES, BETWEEN ALL COURSES OF PAVEMENT AND ON COLD PLANED SURFACES AT THE RATE OF 0.025 GAL/SY OR AS DIRECTED BY THE RESIDENT ENGINEER.
3. SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- 1/4" (TOTAL PAVEMENT THICKNESS EXCLUDING LEVELING).
4. DRIVE APRONS AND RECREATIONAL PATH APRON THAT ARE WITHIN THE LIMITS OF RECONSTRUCTION SHALL BE RECONSTRUCTED TO THE DIMENSIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER. DRIVE APRONS THAT ARE WITHIN LIMITS OF PROJECT APPROACHES SHALL BE COLD PLANED AND RESURFACED TO THE DIMENSIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER. A NEW 3" BITUMINOUS SURFACE CONSISTING OF TWO LIFTS OF TYPE IVS PAVEMENT SHALL BE PROVIDED FOR ALL APRONS AND WILL BE PAID FOR UNDER ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY).
5. SEE PAVEMENT TERMINATION DETAILS ON SHEET 10 FOR LIMITS OF THE LEVELING COURSE ON THE NORTH AND SOUTH APPROACHES.
6. MODIFY LEVELING COURSE AND/OR COLD PLANE DEPTH AS DIRECTED BY THE RESIDENT ENGINEER TO TRANSITION CROSS SLOPE FROM EXISTING PAVEMENT CROSS SLOPE TO NORMAL CROWN AT BRIDGE. SEE ROADWAY CROSS SECTIONS FOR CROSS SLOPE INFORMATION.
7. SEE ROADWAY CROSS SECTIONS FOR CROSS SLOPE INFORMATION.

SEEDING FORMULA

RATE: DOUBLE IF HYDROSEEDING

% WT	LBS./A.	NAME	PUR. %	GERM. %
38	32	CREeping RED FESCUE	98	90
29	24	SPARTAN HARD FESCUE	95	85
15	12	AZAY SHEEP'S FESCUE	95	87
15	12	ANNUAL RYE GRASS	95	90
3	--	INERTS	--	--
100.0	80 LB/A			

SEED MIXTURE:

SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS WEED SEED.

SEED:

TO BE APPLIED PER SEEDING FORMULA OR AS DIRECTED BY THE RESIDENT ENGINEER.

FERTILIZER:

FORMULA 10-20-10 TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS/ACRE (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE:

TO BE APPLIED AT THE RATE OF 2 TONS/ACRE OR AS DIRECTED BY THE RESIDENT ENGINEER.

TOPSOIL:

TO BE USED WITH SEED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.

PROJECT TYPICAL SECTIONS (1)

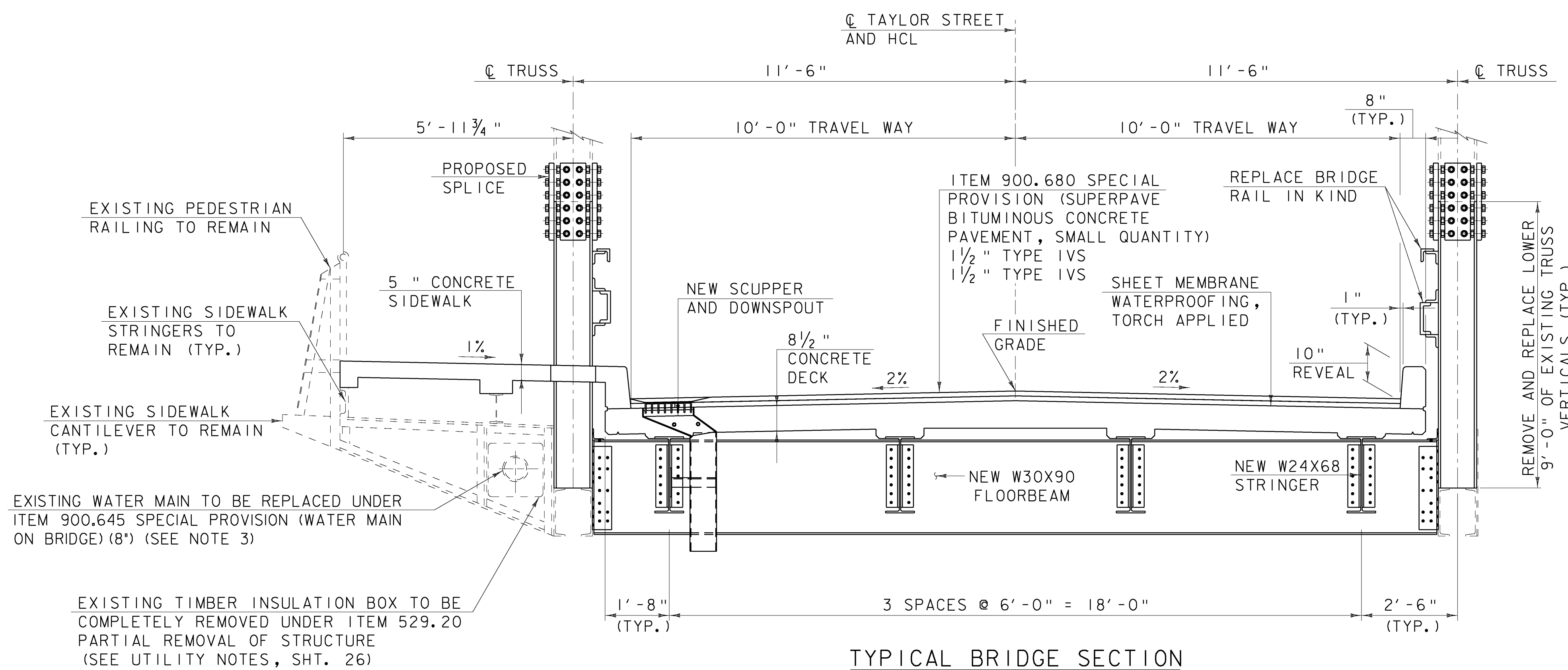
PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

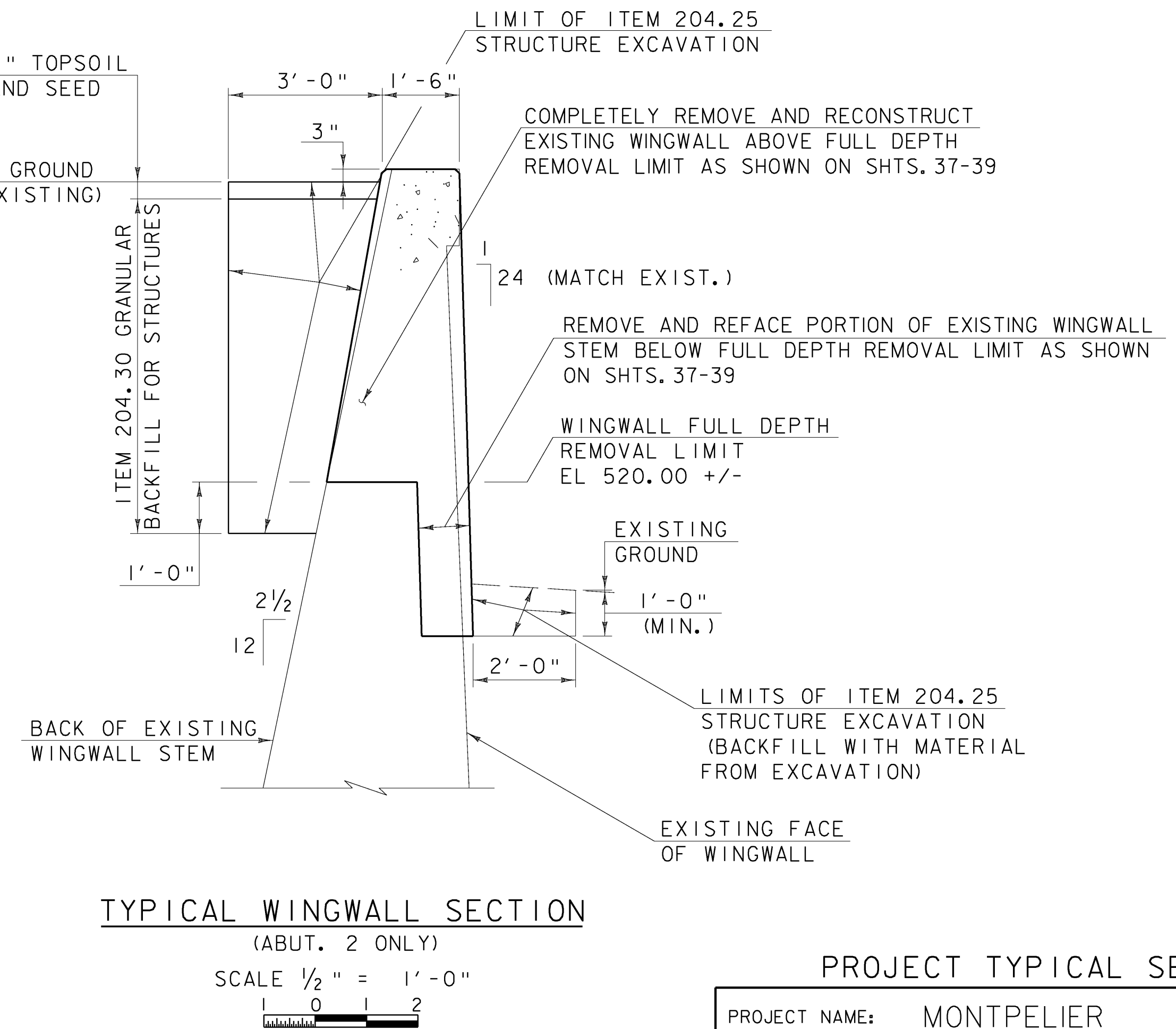
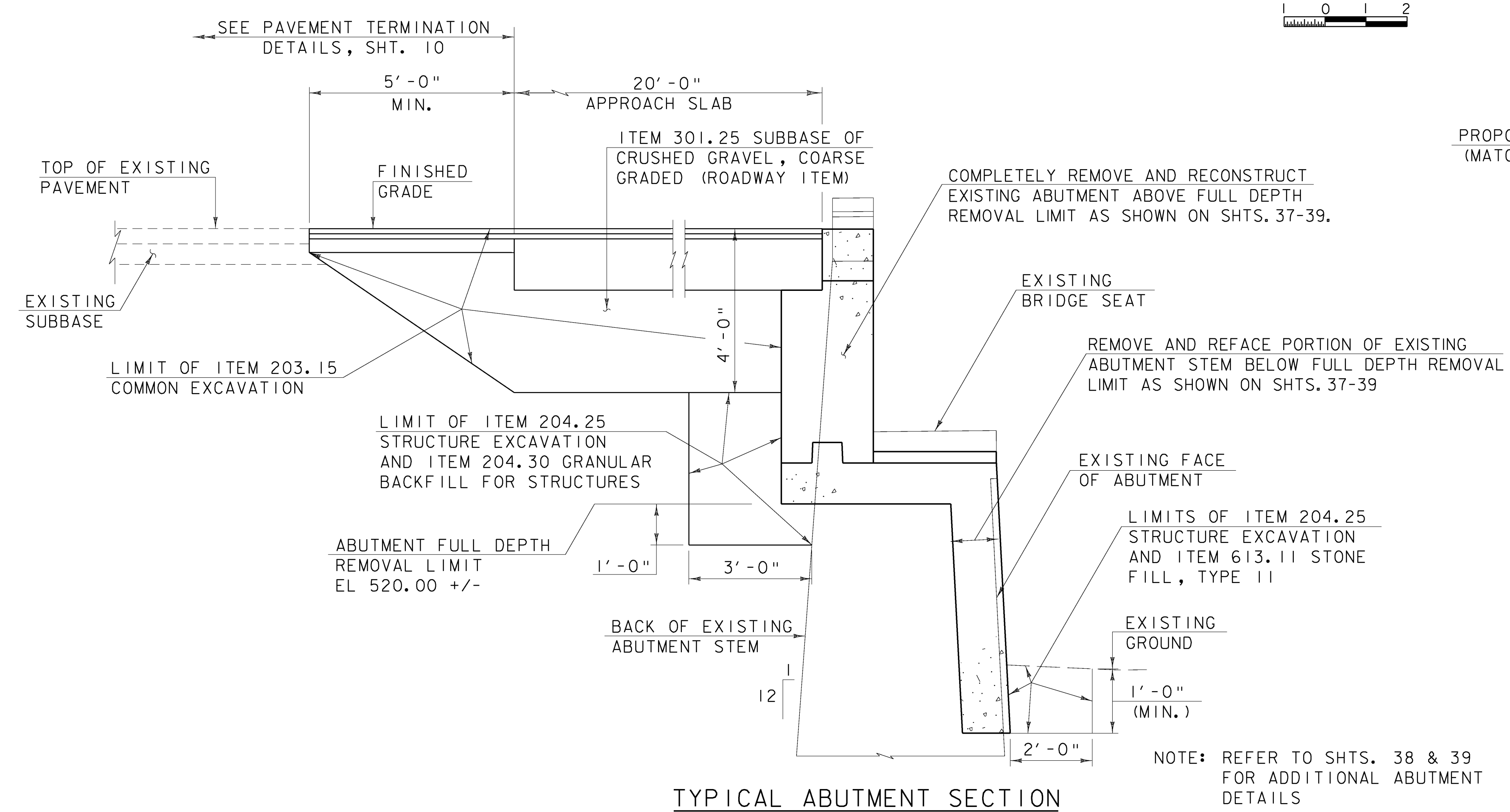
PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 8 OF 63



NOT TO SCALE



- NOTES:**
1. ALL EXISTING STEEL TO REMAIN SHALL BE CLEANED TO BARE METAL AND PAINTED.
 2. REFER TO SHTS. 25 AND SHTS. 29-31 FOR STRUCTURAL STEEL RELATED WORK DESCRIPTIONS AND PAYMENT.
 3. FOR REQUIREMENTS RELATED TO WATER MAIN WORK, SEE UTILITY NOTES, SHT. 26.

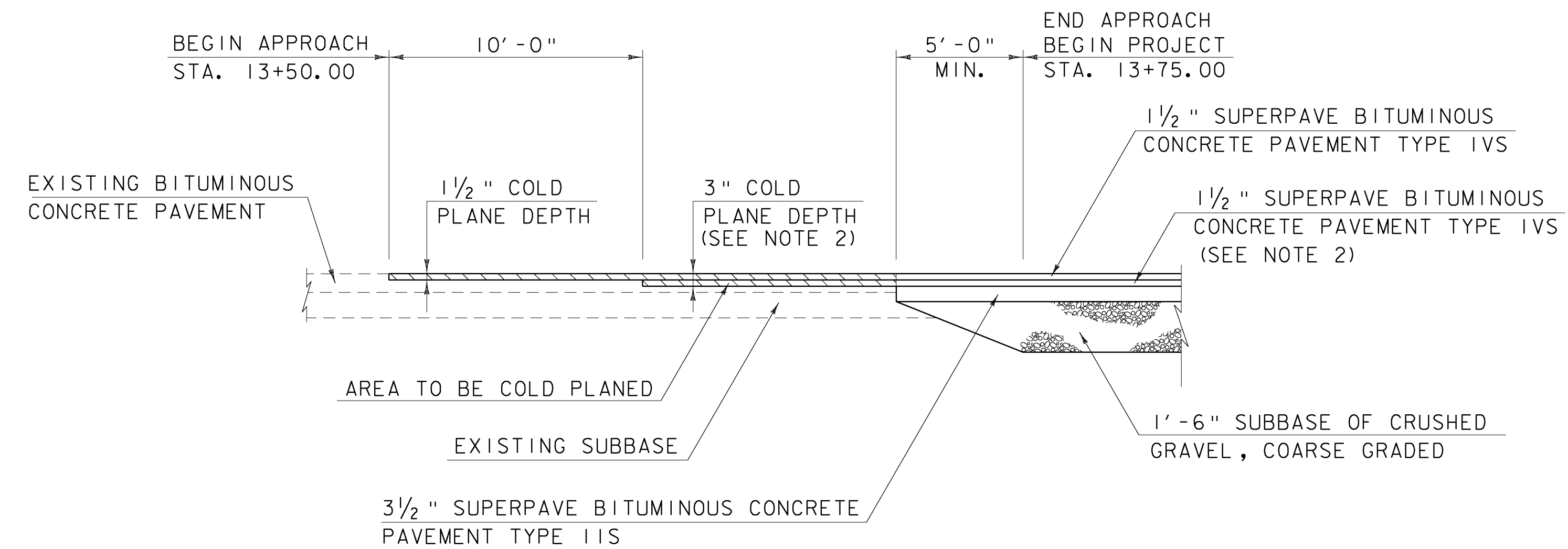


PROJECT TYPICAL SECTIONS (2)

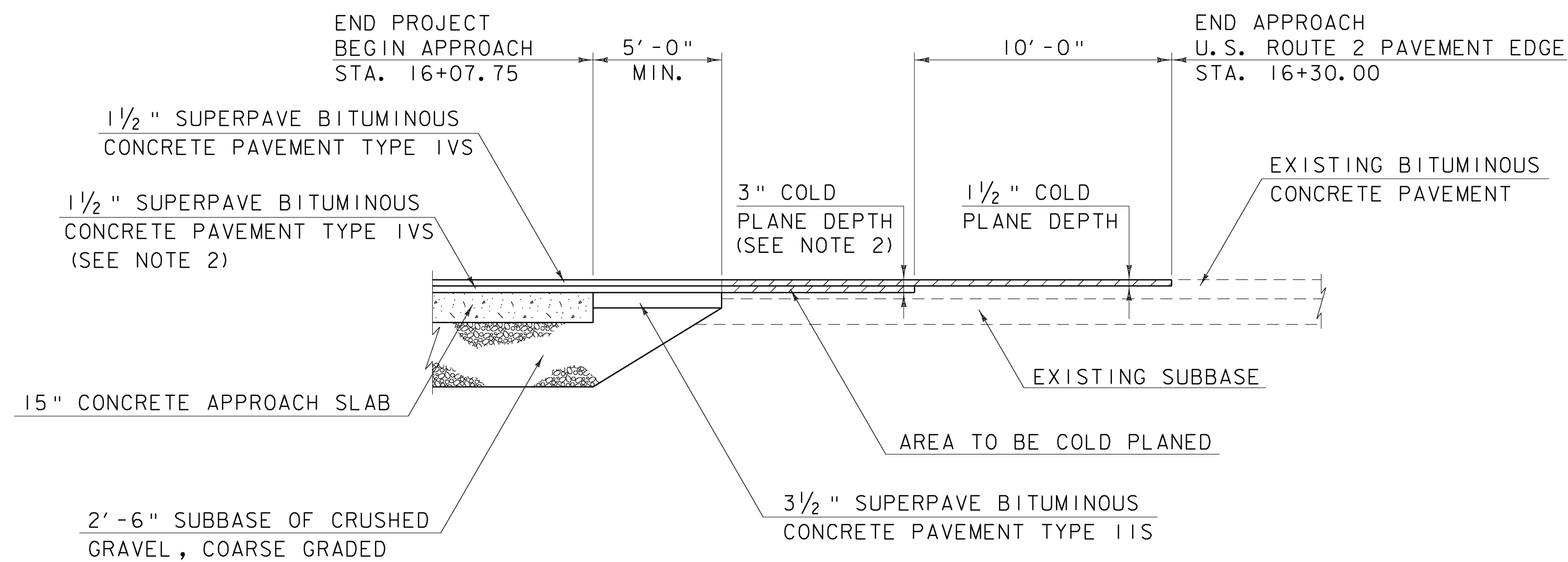
PROJECT NAME: MONTPELIER	FILE NAME: \$FILES\$	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	PROJECT MANAGER: SUSAN SCRIBNER	DRAWN BY: D. D'AMATO
	DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS
	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	SHEET 9 OF 63



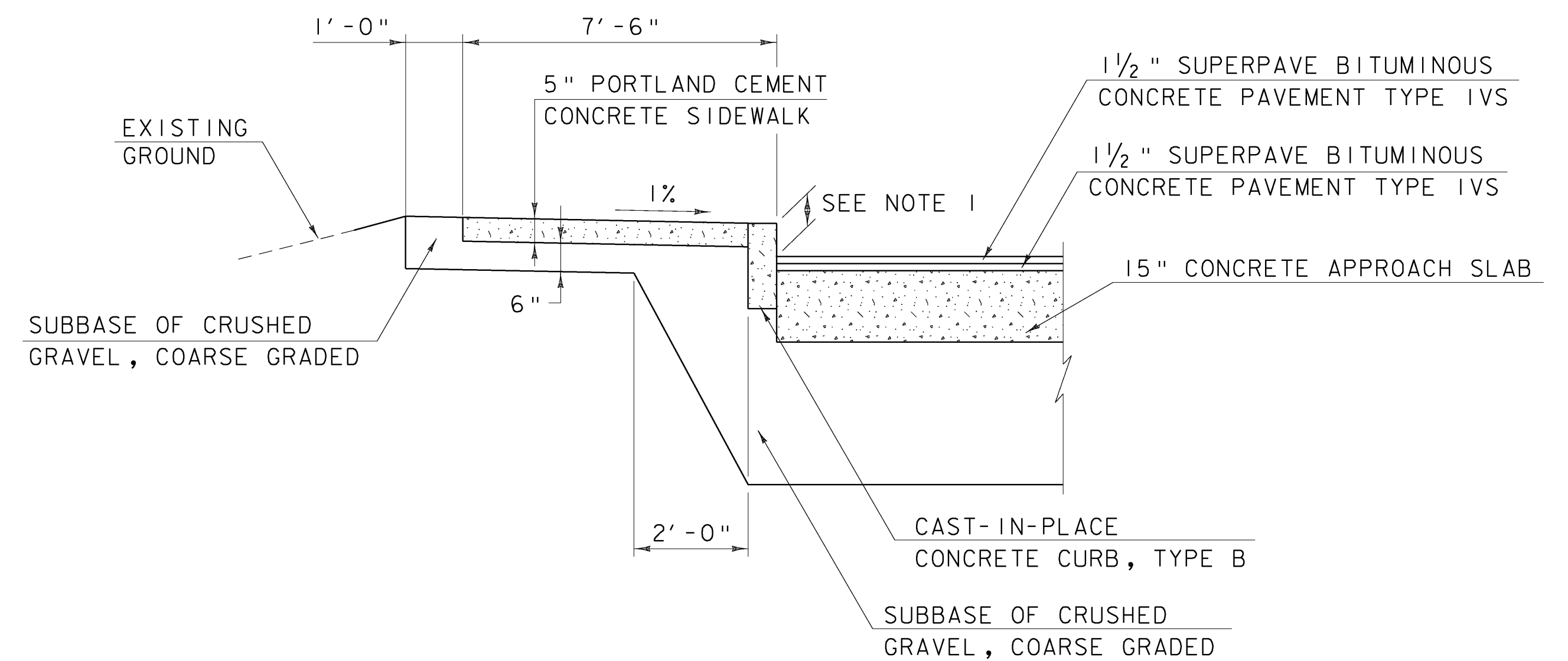
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 DATE/TIME: 10/12/2009 10:25:52
 USER: 22562



PAVEMENT TERMINATION DETAIL
BEGIN PROJECT



PAVEMENT TERMINATION DETAIL
END PROJECT



CONCRETE CURB & SIDEWALK DETAIL

NOTES:

1. NEW CONCRETE CURB SHALL BE CAST-IN-PLACE, TYPE B AND SHALL BE INSTALLED WHERE INDICATED ON THE PLANS. CURB HEIGHT SHALL BE TRANSITIONED AS DIRECTED BY THE RESIDENT ENGINEER TO MATCH PROPOSED BRIDGE CURB AND EXISTING CONCRETE CURB WHERE NECESSARY.
2. MODIFY LEVELING COURSE AND/OR COLD PLANE DEPTH AS DIRECTED BY THE RESIDENT ENGINEER TO TRANSITION CROSS SLOPE FROM EXISTING PAVEMENT CROSS SLOPE TO NORMAL CROWN AT BRIDGE. SEE ROADWAY CROSS SECTIONS FOR ADDITIONAL DETAILS.

FILE NAME: \\s:\14596\mnt\p\lona\14596.pavede.dgn
DATE/TIME: 10/12/2009
USER: 2552

NOT TO SCALE



ROADWAY PAVING DETAILS

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 10 OF 63

GPS CONTROL POINTS

HVCTRL #1

DESIGNATION

"A93010 RESET"

N = 641922.2233
E = 1618150.8910
ELEV. = 520.250

GENERAL LOCATION, MONTPELIER, VT. TO REACH FROM THE INTERSECTION OF U.S. ROUTE 2 AND VT ROUTE 12 IN MONTPELIER GO WEST ALONG U.S. ROUTE 2 FOR 0.4 MI (0.6 KM) TO THE INTERSECTION OF BAILEY AVENUE RIGHT. TURN RIGHT AND GO NORTH ALONG BAILEY AVENUE FOR 0.05 MI (0.08 KM) TO THE SOUTH END OF THE BAILEY AVENUE BRIDGE OVER THE WINOOSKI RIVER AND THE MARK ON THE RIGHT IN THE TOP OF THE ABUTMENT AT THE SOUTHEAST CORNER OF THE BRIDGE. THE MARK IS 0.1 M (0.3 FT) NORTH OF THE SOUTH END OF THE ABUTMENT AND 0.1 M (0.3 FT) WEST OF THE EAST EDGE OF THE ABUTMENT.

HVCTRL #5

DESIGNATION

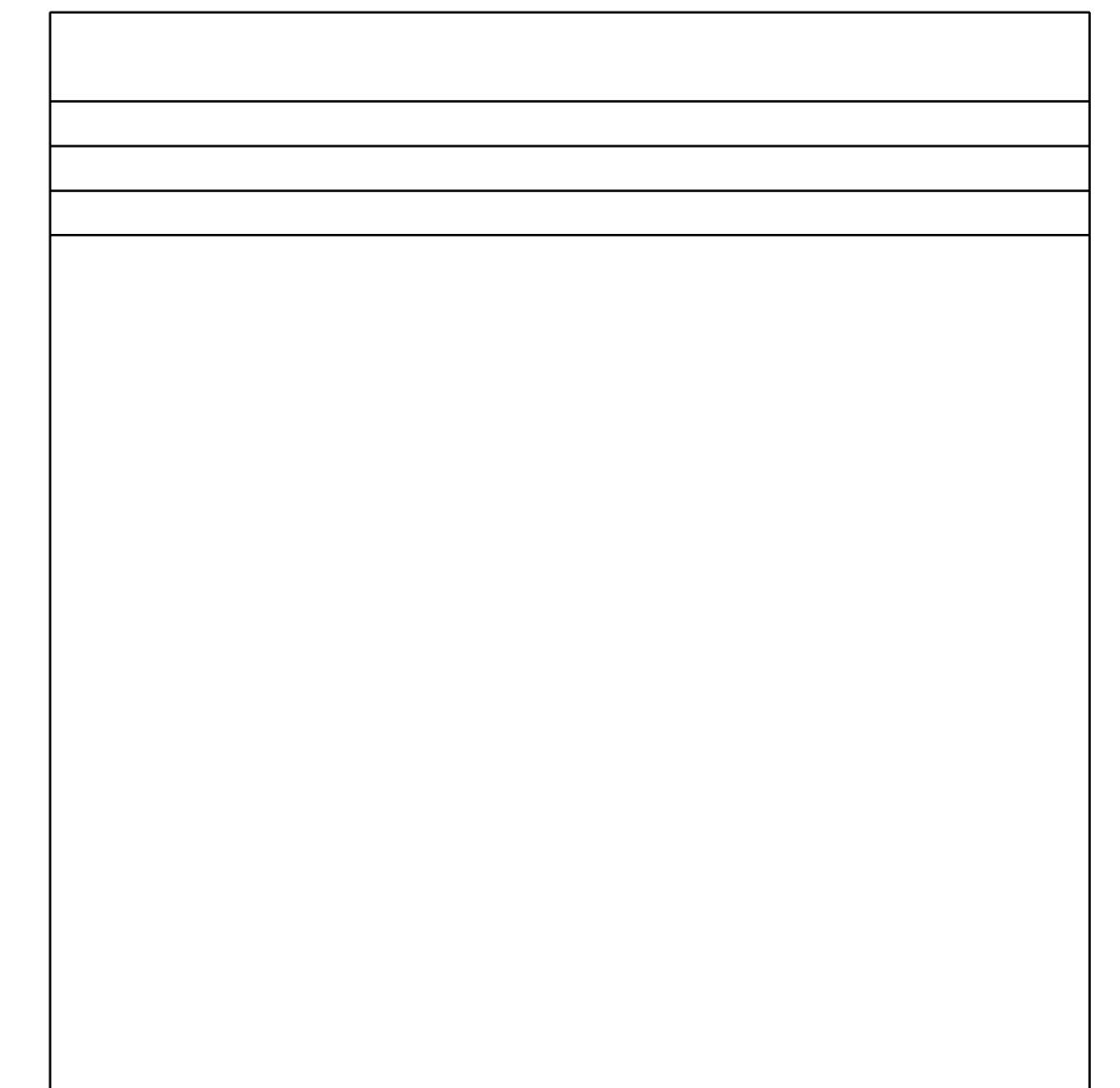
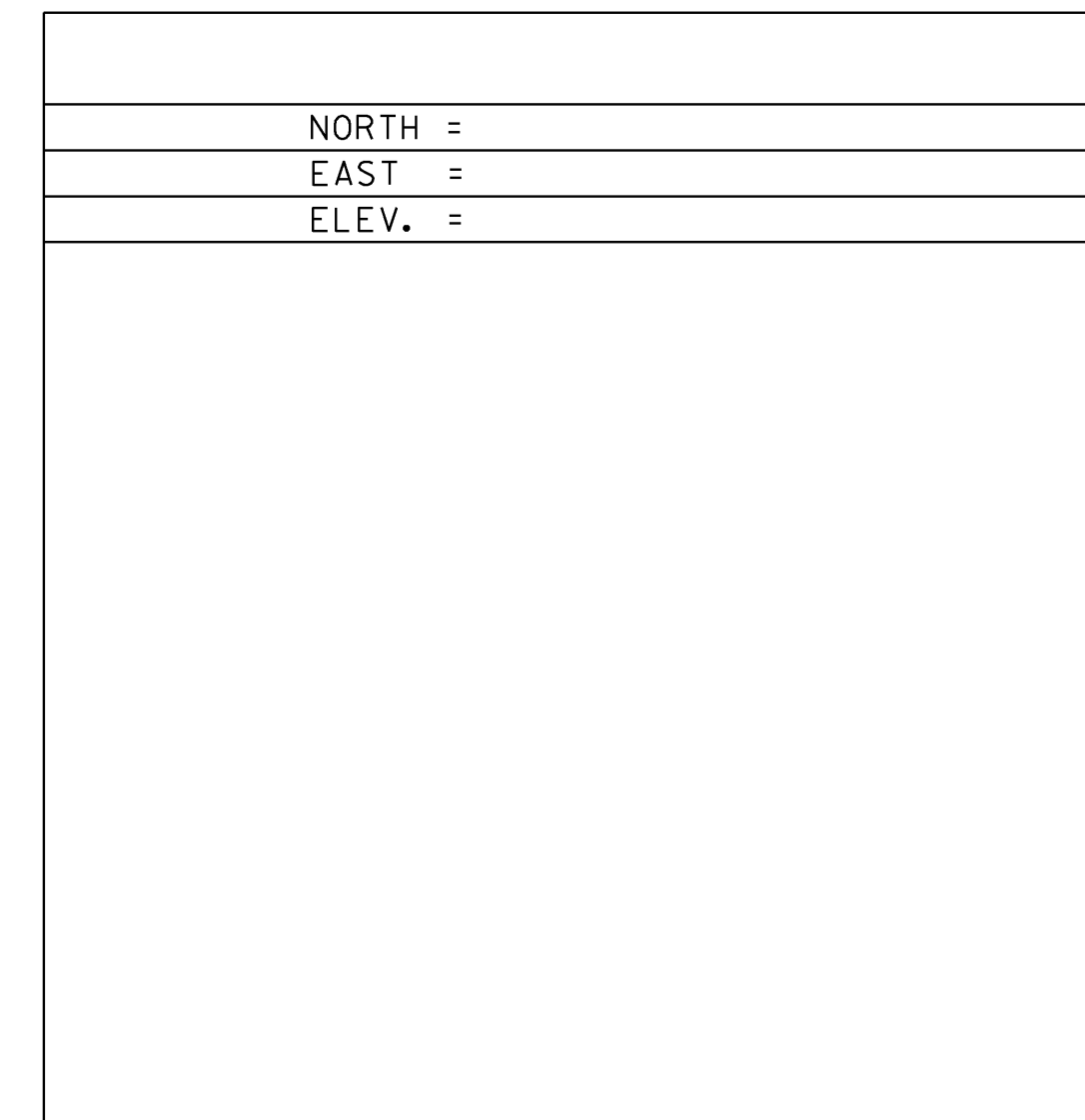
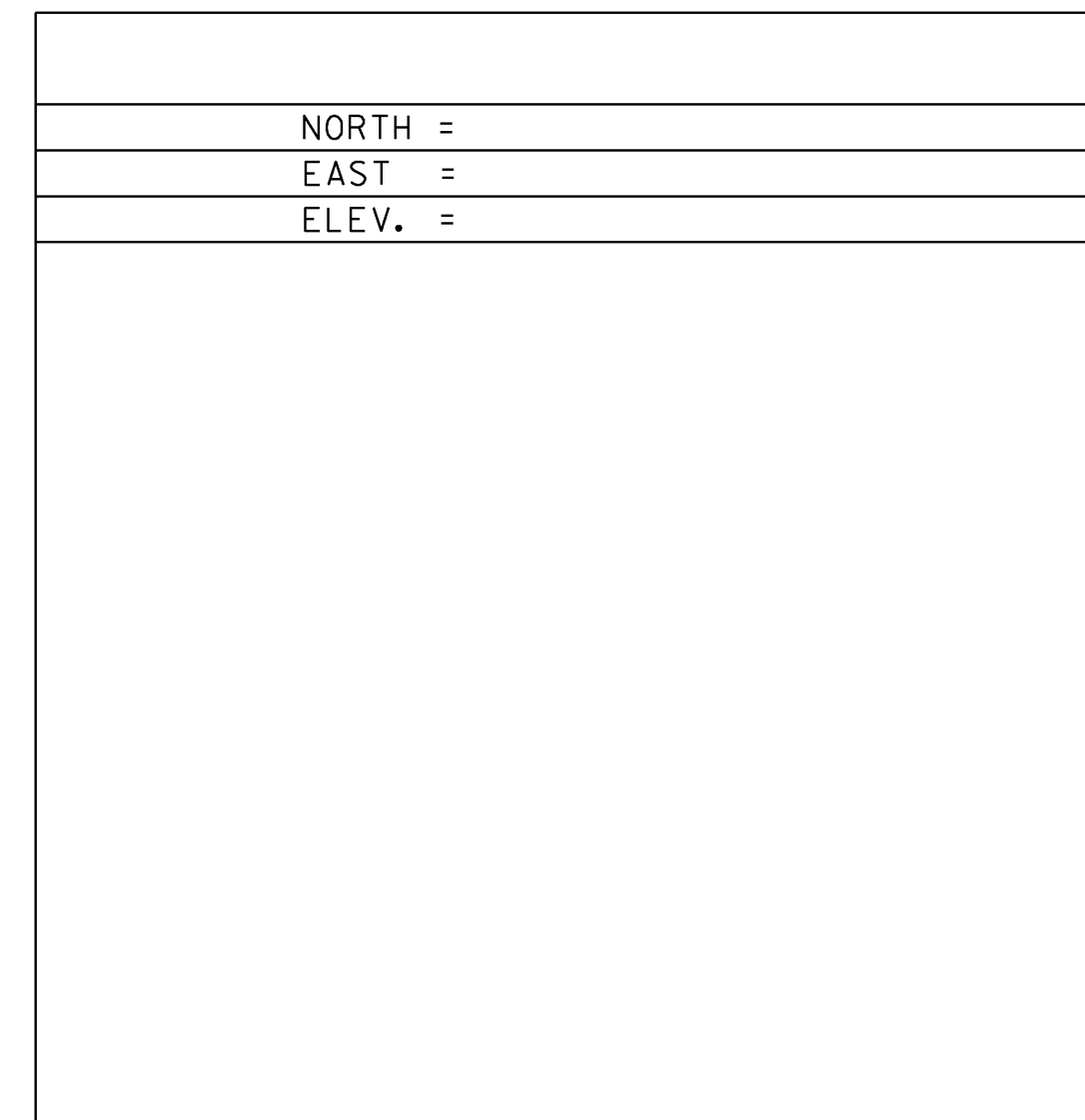
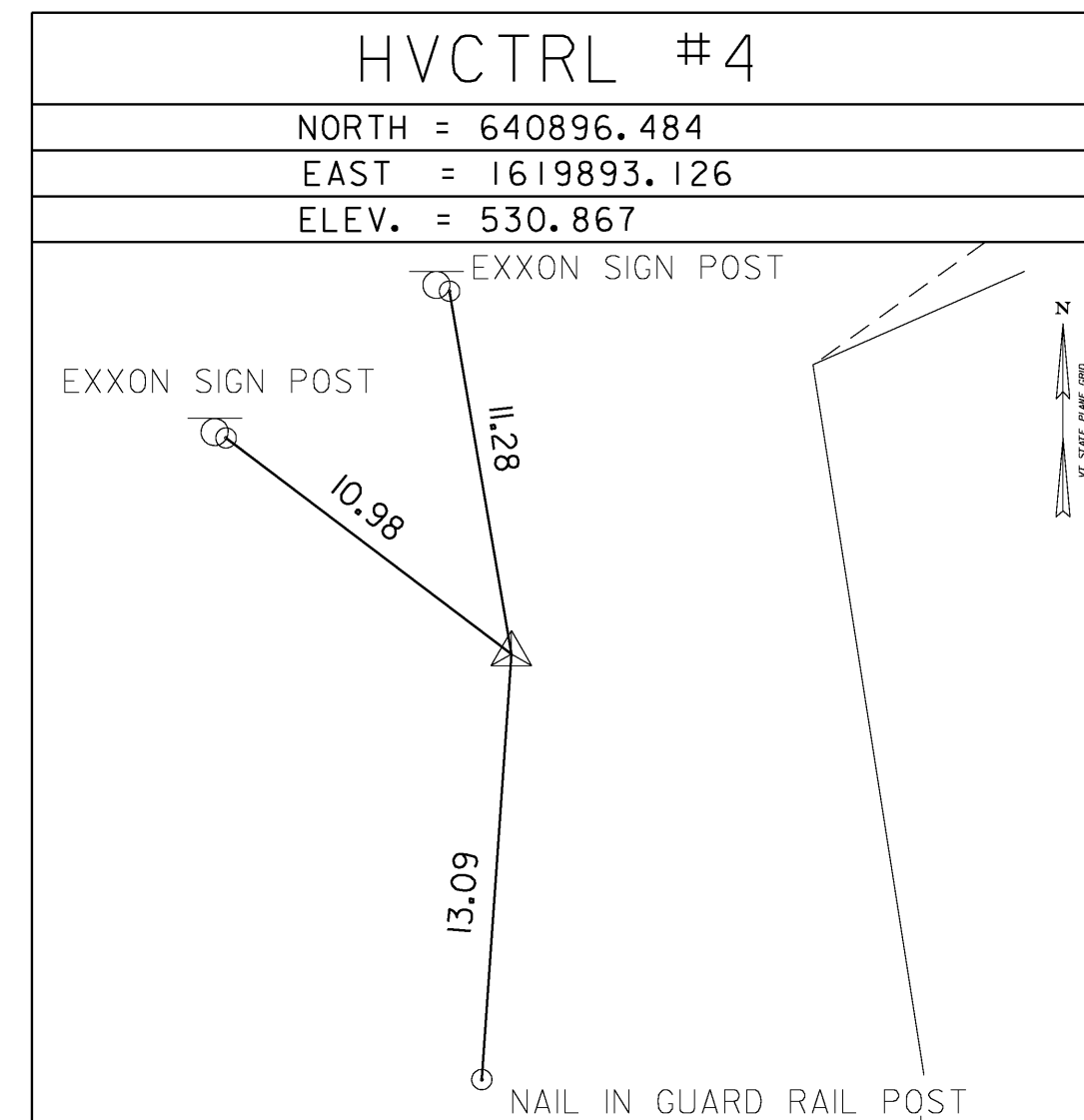
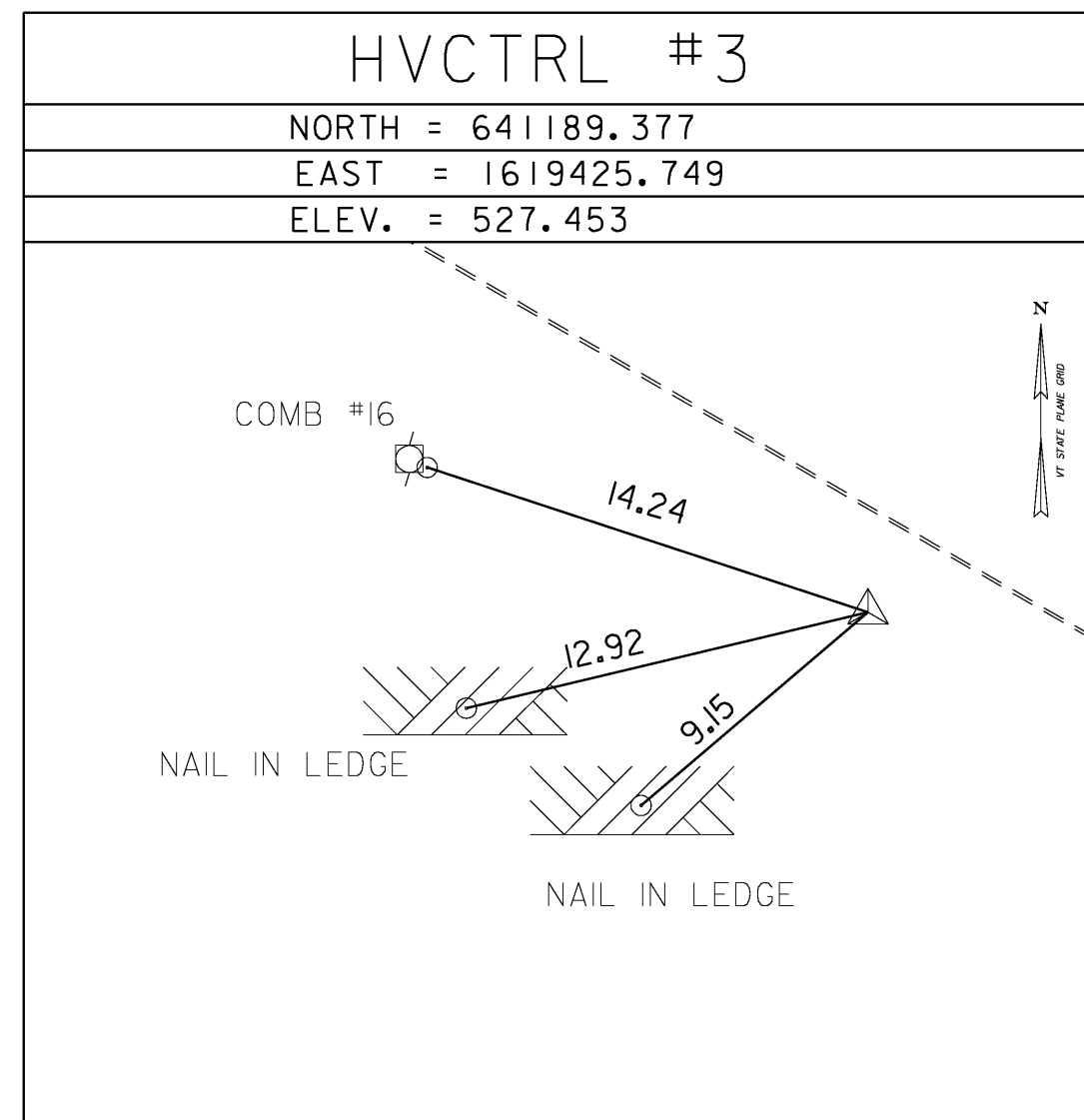
"MAY"

N = 640754.2007
E = 1620031.163
ELEV. = 526.77

GENERAL LOCATION, MONTPELIER, 9 KM (5.60 MI) NORTHWEST OF BARRE, 13 KM (8.05 MI) NORTH NORTHEAST OF NORTHFIELD. THE MARK IS IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF US ROUTE 2 AND MAIN STREET IN MONTPELIER, AND SET IN THE SOUTHEAST END OF A MASSIVE RETAINING WALL. THE STATION IS LOCATED 36.6 FT (11.2 M) (SLOPE) FROM THE SOUTHEAST MOST STEEL GUARDRAIL POST FOR A 3 CABLE STEEL GUARDRAIL, 1.6 FT (0.5 M) SOUTHWEST OF THE SOUTHEAST (RIVER) FACE OF THE RETAINING WALL, AND 1.4 FT (0.4 M) SOUTHEAST OF THE SOUTHWEST FACE OF THE RETAINING WALL.

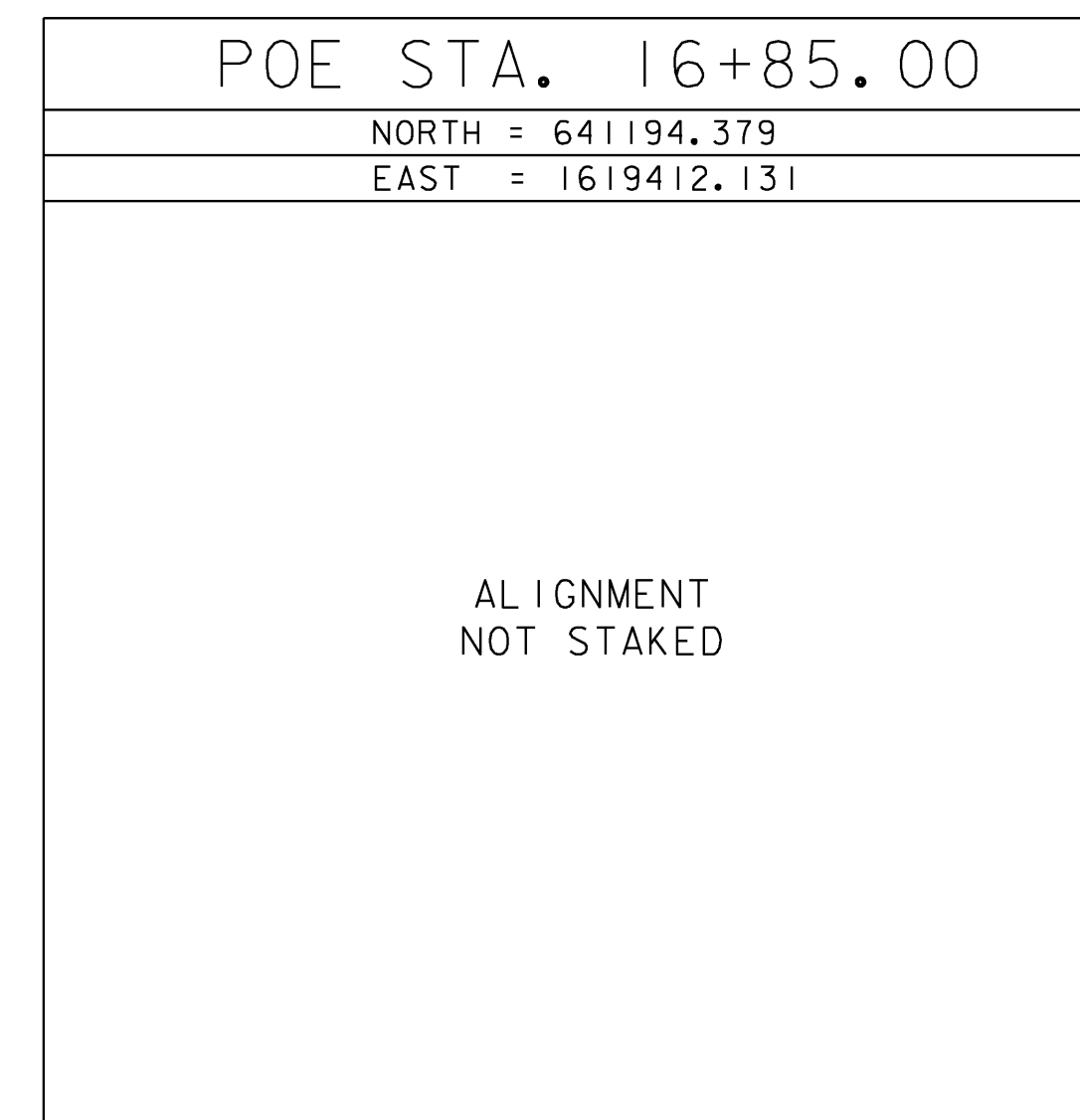
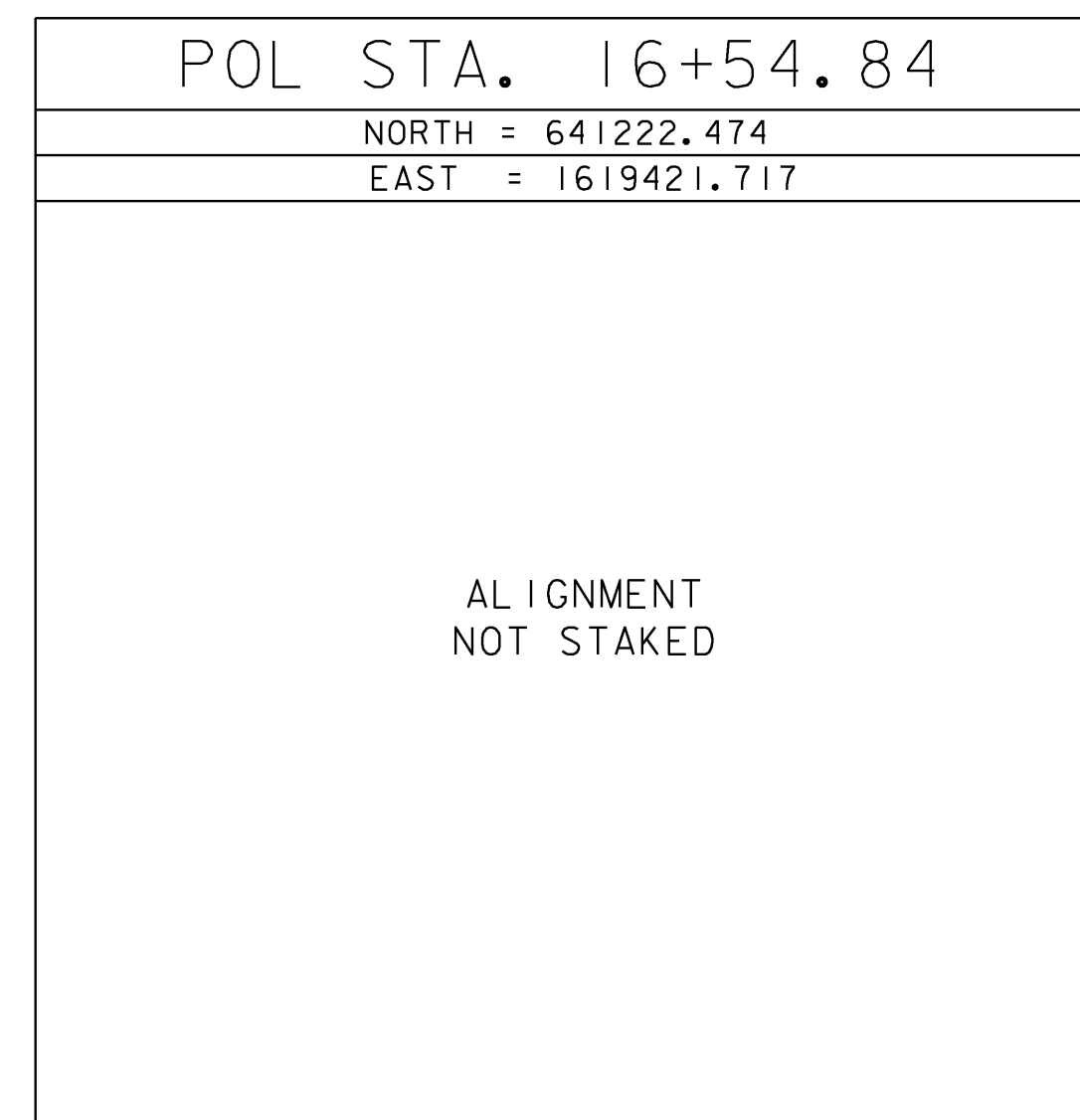
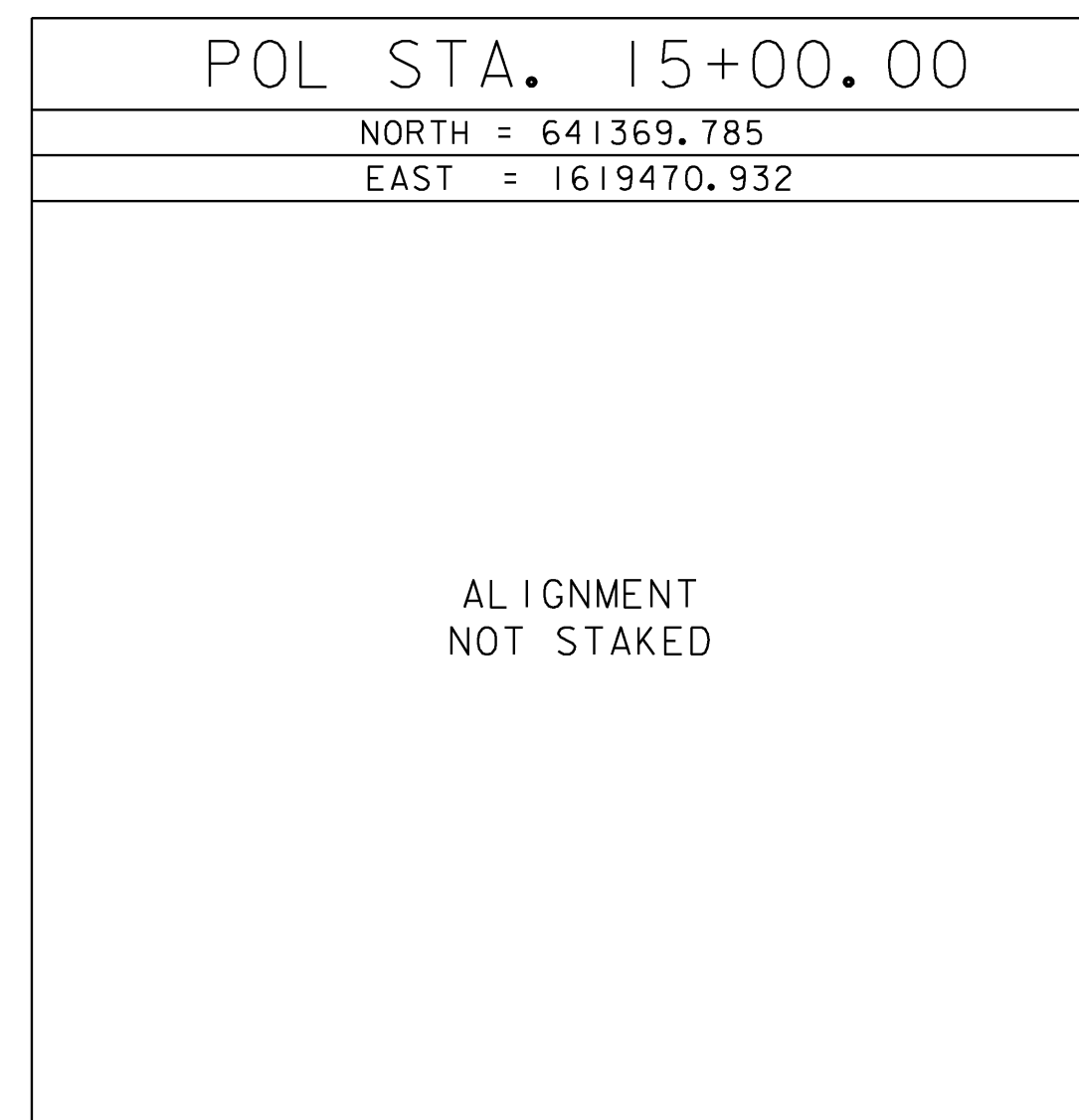
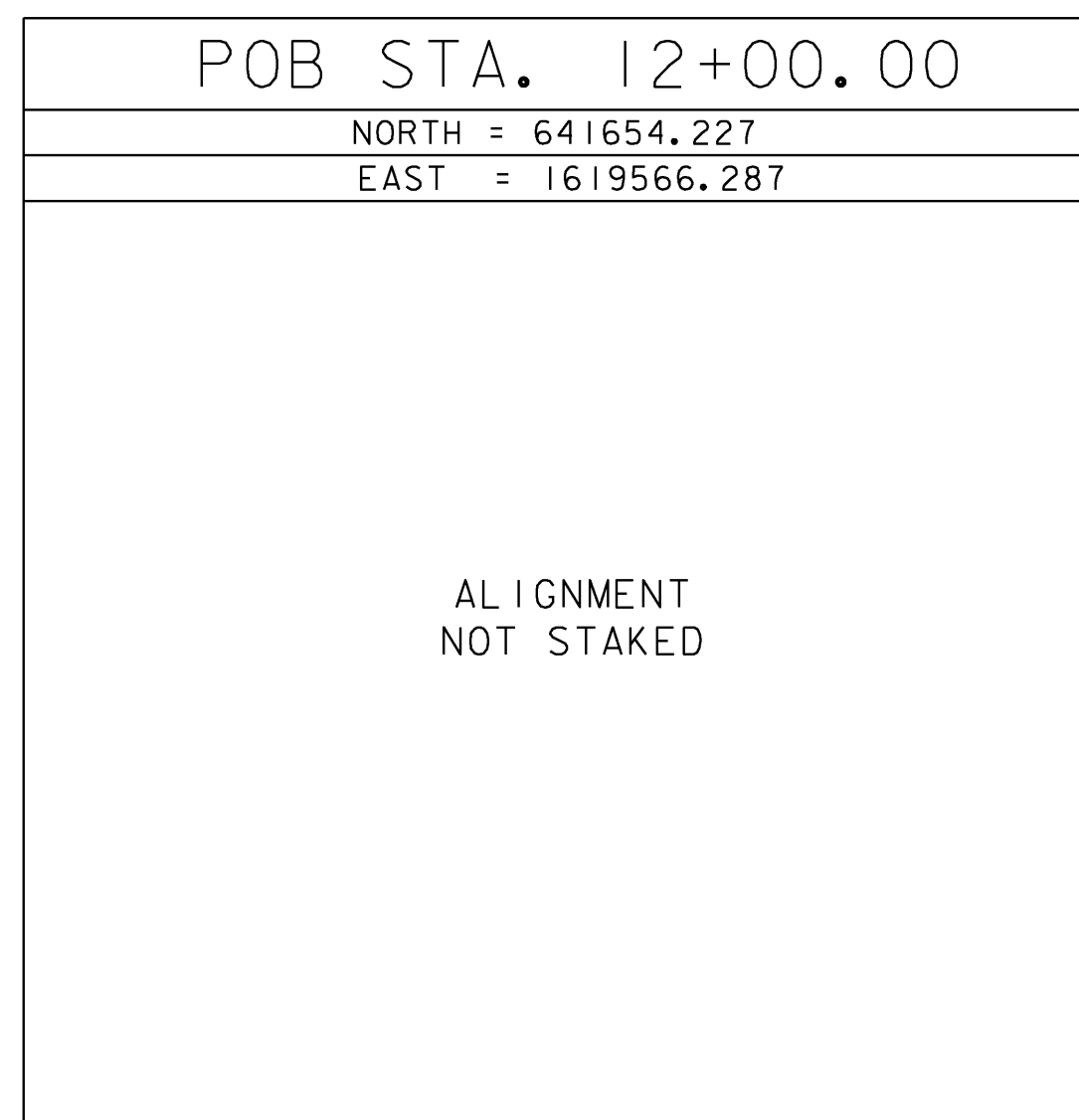
* DESCRIPTION PROVIDED BY VERMONT AGENCY OF TRANSPORTATION GEODETIC SURVEY UNIT

TRAVERSE TIES



* MAIN TRAVERSE COMPLETED: JAN 20, 2005 BY R. GILMAN & P. WINTERS

ALIGNMENT TIES



TIE SHEET

DATUM
VERTICAL NAVD88
HORIZONTAL NAD 83 (96)
ADJUSTMENT Compass

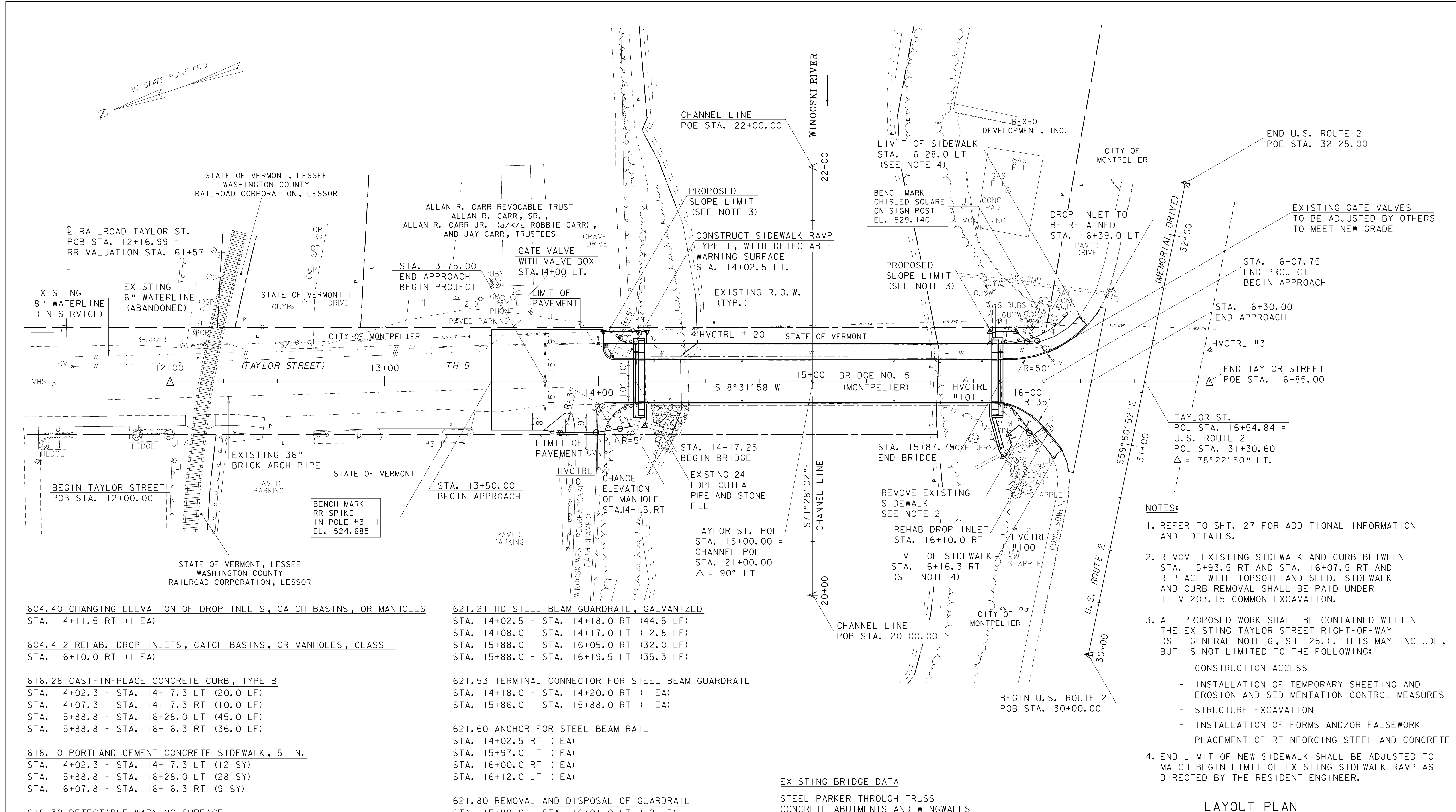
* ALIGNMENT STAKED:

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)



FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 12 OF 63



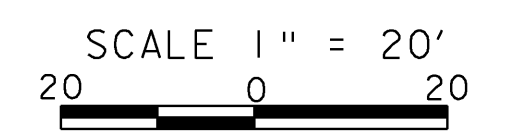
- NOTES:**
- REFER TO SHT. 27 FOR ADDITIONAL INFORMATION AND DETAILS.
 - REMOVE EXISTING SIDEWALK AND CURB BETWEEN STA. 15+93.5 RT AND STA. 16+07.5 RT AND REPLACE WITH TOPSOIL AND SEED. SIDEWALK AND CURB REMOVAL SHALL BE PAID UNDER ITEM 203.15 COMMON EXCAVATION.
 - ALL PROPOSED WORK SHALL BE CONTAINED WITHIN THE EXISTING TAYLOR STREET RIGHT-OF-WAY (SEE GENERAL NOTE 6, SHT 25.). THIS MAY INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING:
 - CONSTRUCTION ACCESS
 - INSTALLATION OF TEMPORARY SHEETING AND EROSION AND SEDIMENTATION CONTROL MEASURES
 - STRUCTURE EXCAVATION
 - INSTALLATION OF FORMS AND/OR FALSEWORK
 - PLACEMENT OF REINFORCING STEEL AND CONCRETE
 - END LIMIT OF NEW SIDEWALK SHALL BE ADJUSTED TO MATCH BEGIN LIMIT OF EXISTING SIDEWALK RAMP AS DIRECTED BY THE RESIDENT ENGINEER.

- 604.40 CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES
STA. 14+11.5 RT (1 EA)
- 604.412 REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS 1
STA. 16+10.0 RT (1 EA)
- 616.28 CAST-IN-PLACE CONCRETE CURB, TYPE B
STA. 14+02.3 - STA. 14+17.3 LT (20.0 LF)
STA. 14+07.3 - STA. 14+17.3 RT (10.0 LF)
STA. 15+88.8 - STA. 16+28.0 LT (45.0 LF)
STA. 15+88.8 - STA. 16+16.3 RT (36.0 LF)
- 618.10 PORTLAND CEMENT CONCRETE SIDEWALK, 5 IN.
STA. 14+02.3 - STA. 14+17.3 LT (12 SY)
STA. 15+88.8 - STA. 16+28.0 LT (28 SY)
STA. 16+07.8 - STA. 16+16.3 RT (9 SY)
- 618.30 DETECTABLE WARNING SURFACE
STA. 14+02.5 LT (15 SF)

- 621.21 HD STEEL BEAM GUARDRAIL, GALVANIZED
STA. 14+02.5 - STA. 14+18.0 RT (44.5 LF)
STA. 14+08.0 - STA. 14+17.0 LT (12.8 LF)
STA. 15+88.0 - STA. 16+05.0 RT (32.0 LF)
STA. 15+88.0 - STA. 16+19.5 LT (35.3 LF)
- 621.53 TERMINAL CONNECTOR FOR STEEL BEAM GUARDRAIL
STA. 14+18.0 - STA. 14+20.0 RT (1 EA)
STA. 15+86.0 - STA. 15+88.0 RT (1 EA)
- 621.60 ANCHOR FOR STEEL BEAM RAIL
STA. 14+02.5 RT (1EA)
STA. 15+97.0 LT (1EA)
STA. 16+00.0 RT (1EA)
STA. 16+12.0 LT (1EA)
- 621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 15+89.0 - STA. 16+01.0 LT (12 LF)
STA. 15+88.0 - STA. 15+98.0 RT (12 LF)
STA. 14+00.0 - STA. 14+16.3 RT (25 LF)
- 629.27 GATE VALVE WITH VALVE BOX
STA. 14+00.0 LT (1EA)

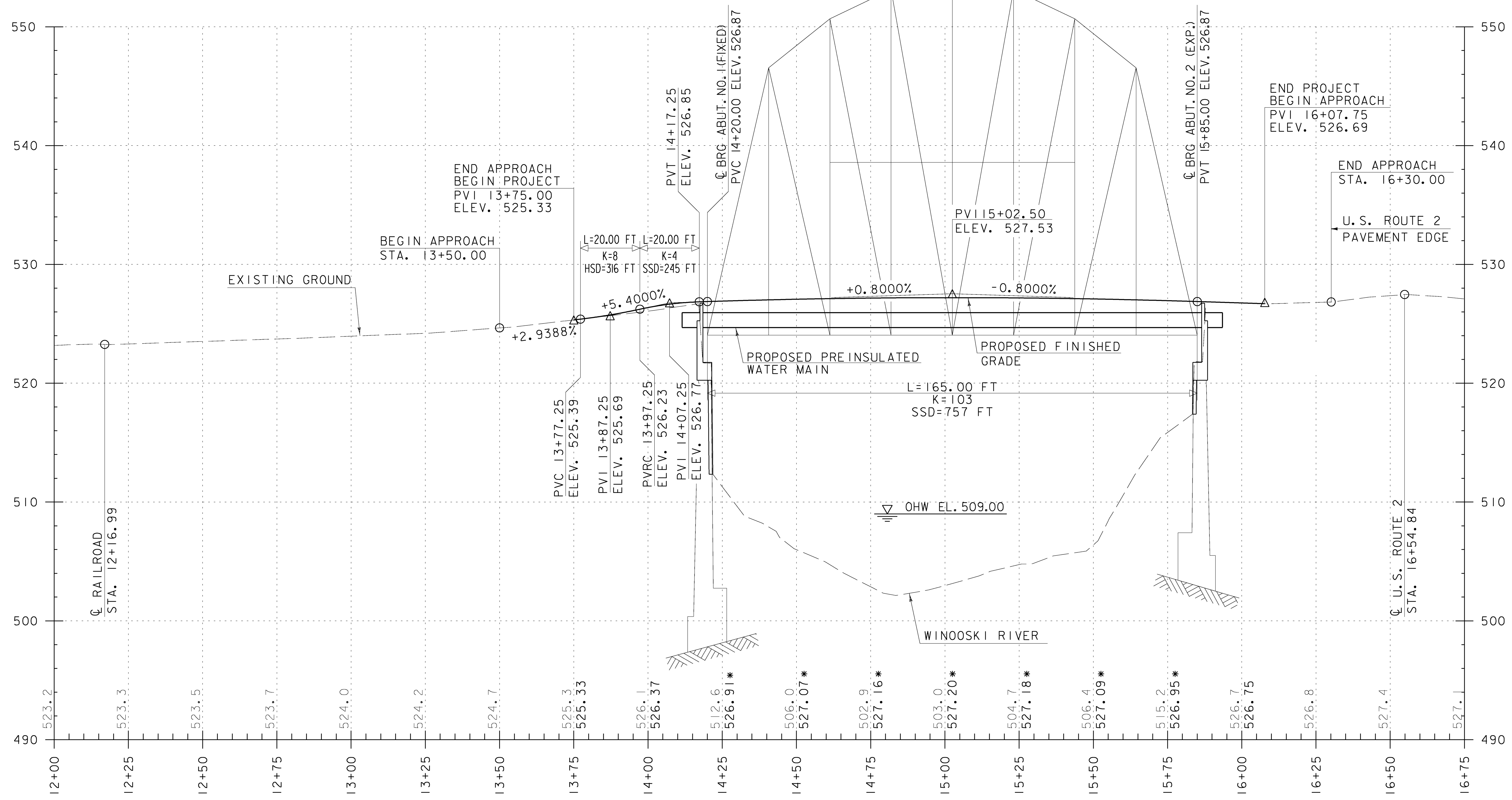
EXISTING BRIDGE DATA

STEEL PARKER THROUGH TRUSS
 CONCRETE ABUTMENTS AND WINGWALLS
 OVERALL LENGTH = 170'-3"
 TRUSS SPAN ϕ BRG. - ϕ BRG. = 165'-0"
 ϕ TO ϕ TRUSS WIDTH = 23'-0"
 CURB TO CURB WIDTH = 20'-0"
 CLEAR SIDEWALK WIDTH = 5'-0"
 VERTICAL CLEARANCE = 20'-0"
 YEAR BUILT = 1929



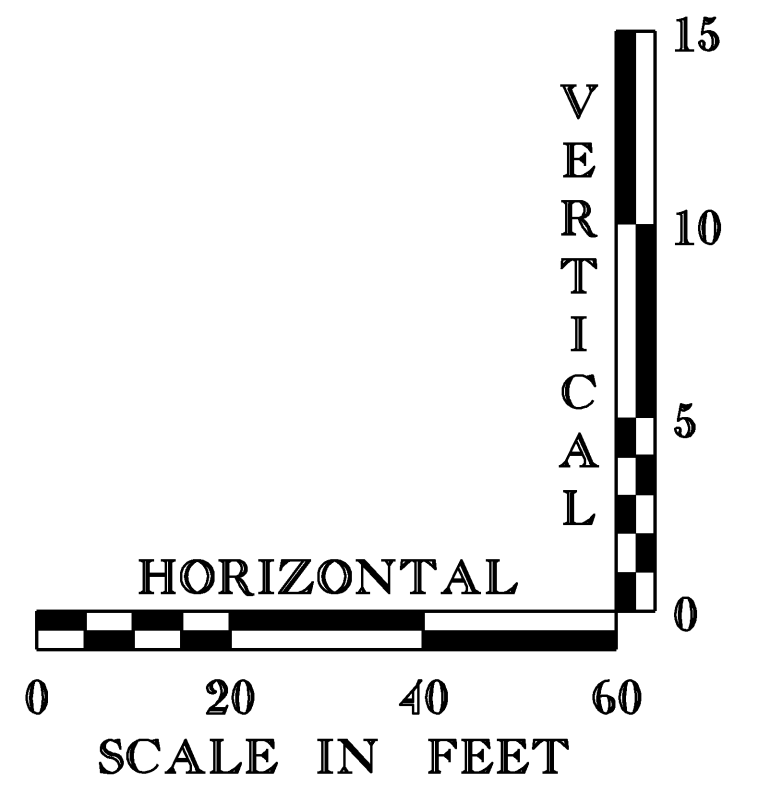
LAYOUT PLAN	
PROJECT NAME: MONTPELIER	PROJECT NUMBER: BHF 6400(31)
FILE NAME: \$FILES\$	PLOT DATE: 10/12/2009
PROJECT MANAGER: SUSAN SCRIBNER	DRAWN BY: D. D'AMATO
DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	SHEET 13 OF 63

FILE NAME: h:\14596\montpelier\plan\14596_layout.dgn
 DATE/TIME: 10/12/2009 10:22:00
 USER: P2552



PROFILE
TAYLOR STREET

NOTE:
 GRADES SHOWN TO NEAREST TENTH REPRESENT EXISTING GROUND ELEVATIONS ALONG CENTERLINE.
 GRADES SHOWN TO NEAREST HUNDREDTH REPRESENT FINISHED GRADE ELEVATIONS ALONG CENTERLINE.
 * GRADES BASED ON RESIDUAL CAMBER AFTER ALL DEAD LOADS APPLIED



PROFILE

PROJECT NAME: MONTPELIER	FILE NAME: \$FILES\$	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	PROJECT MANAGER: SUSAN SCRIBNER	DRAWN BY: D. D'AMATO
	DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS
	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	SHEET 14 OF 63



FILE NAME: I:\14596\mtn\p\lens\14596.prc.dgn
 DATE/TIME: 10/12/2009
 USER: 22562

646.402 DURABLE 4 INCH WHITE LINE, THERMOPLASTIC
 STA. 13+50.00 - STA. 14+07.50 LT & RT (EDGE LINE)
 STA. 15+87.75 - STA. 16+20.00 RT (EDGE LINE)
 STA. 15+87.75 - STA. 16+41.00 LT (EDGE LINE)

646.412 DURABLE 4 INCH YELLOW LINE, THERMOPLASTIC
 STA. 13+50.00 - STA. 16+10.00 RT (DOUBLE SOLID C.L.)

646.462 DURABLE 12 INCH WHITE LINE, THERMOPLASTIC
 STA. 13+94.00 - STA. 13+99.00 RT (REC. PATH)

646.482 DURABLE 24 INCH STOP BAR, THERMOPLASTIC
 STA. 16+10.00 RT

646.502 DURABLE CROSSWALK MARKING, THERMOPLASTIC
 STA. 16+21.00 LT & RT

675.50 REMOVING SIGNS
 AS SHOWN - 11

675.60 ERECTING SALVAGED SIGNS
 AS SHOWN - 4

RAILROAD TAYLOR ST.
 POB STA. 12+16.99 =
 RR VALUATION STA. 61+57

STA. 12+43.0, LT
 TO REPORT STALLED
 VEHICLE ON TRACKS OR
 OTHER EMERGENCY
 CALL 1-888-265-2735
 AND REFER TO
 CROSSING #837-322D
 ON TAYLOR STREET

STA. 12+43.0, LT
 RET
 RAILROAD
 CROSSROAD
 RET

STA. 13+75.00
 END APPROACH
 BEGIN PROJECT

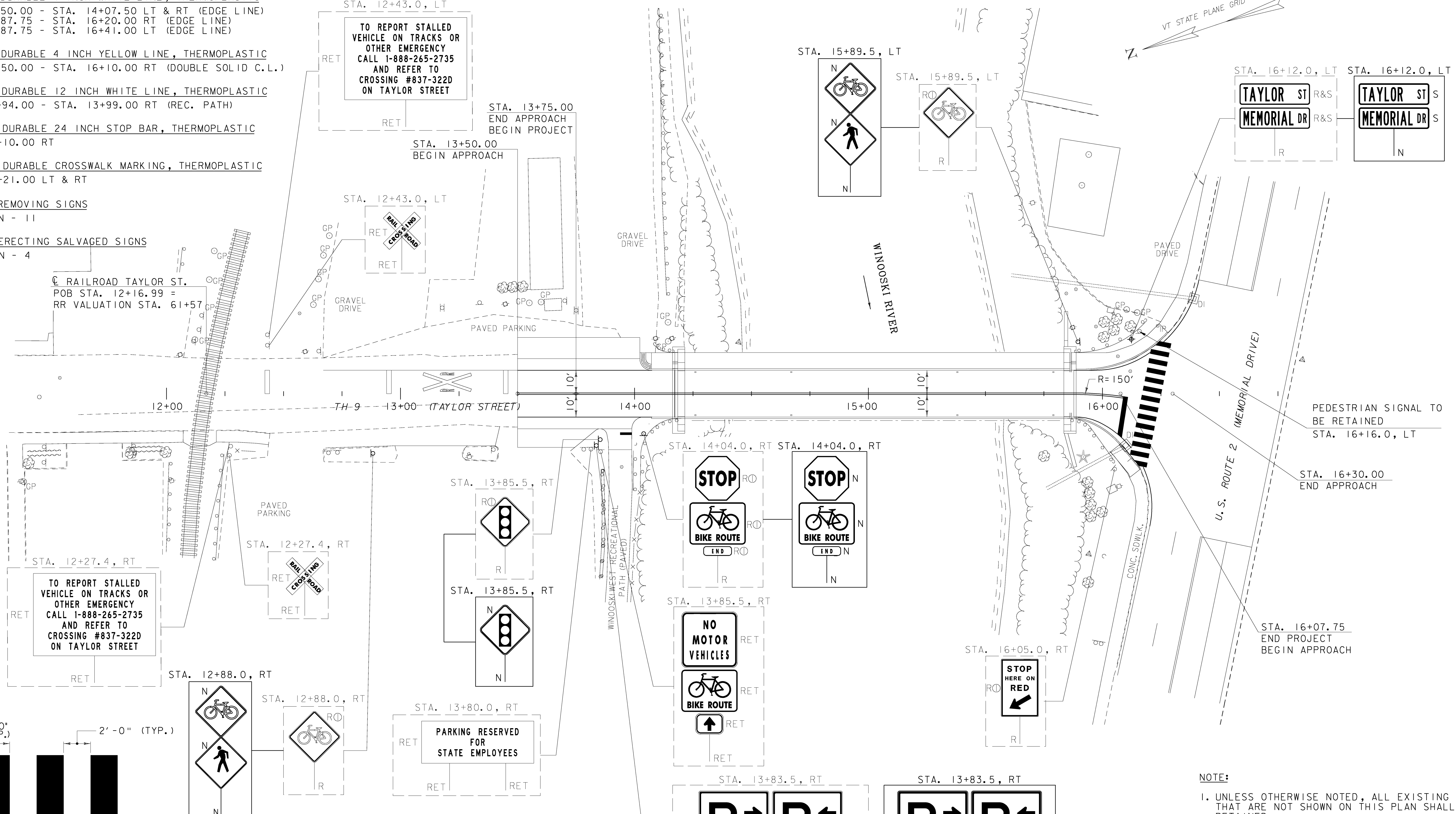
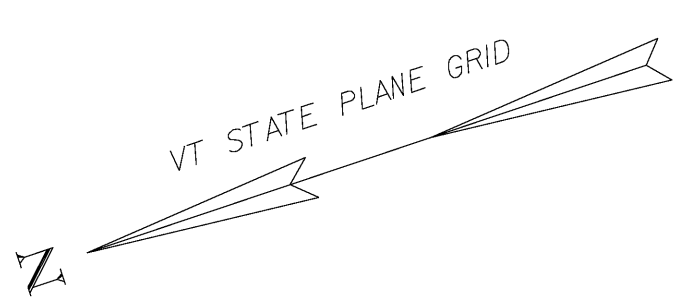
STA. 13+50.00
 BEGIN APPROACH

STA. 15+89.5, LT
 N
 BICYCLE
 N
 BICYCLE
 N
 N

STA. 15+89.5, LT
 RO
 BICYCLE
 R

STA. 16+12.0, LT
 TAYLOR ST R&S
 MEMORIAL DR R&S
 R

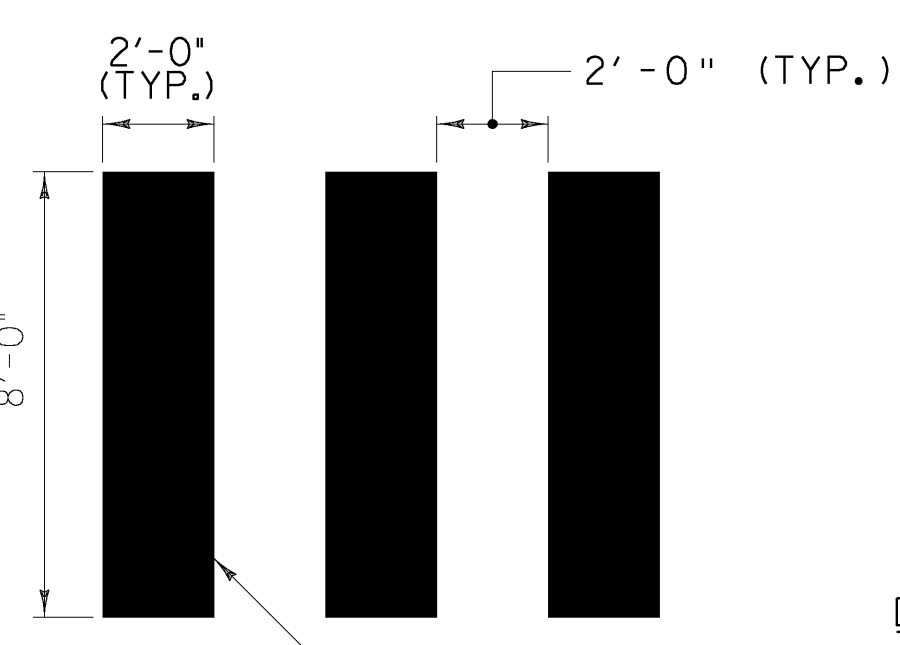
STA. 16+12.0, LT
 TAYLOR ST S
 MEMORIAL DR S
 N



PEDESTRIAN SIGNAL TO
 BE RETAINED
 STA. 16+16.0, LT

STA. 16+30.00
 END APPROACH

STA. 16+07.75
 END PROJECT
 BEGIN APPROACH

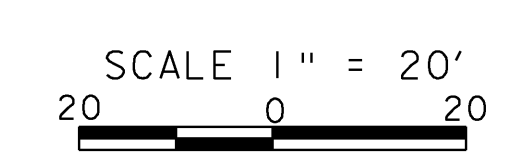


CROSSWALK MARKING
 DETAIL
 N. T. S.

DETAIL NOTES:
 1. THE PER FOOT COST OF INSTALLED
 CROSSWALK SHALL BE PAID AS
 ITEM 646.502 DURABLE CROSSWALK
 MARKING, THERMOPLASTIC.

SIGN LEGEND
 R = REMOVE
 S = SALVAGE
 N = NEW
 RET = RETAIN
 B-B = BACK TO BACK
 EXISTING =
 NEW =
 ⊙ = RETURN TO THE CITY
 OF MONTPELIER

NOTE:
 1. UNLESS OTHERWISE NOTED, ALL EXISTING SIGNS
 THAT ARE NOT SHOWN ON THIS PLAN SHALL BE
 RETAINED.



SIGNING & PAVEMENT MARKING PLAN	
PROJECT NAME: MONTPELIER	PROJECT NUMBER: BHF 6400(31)
FILE NAME: \$FILES\$	PLOT DATE: 10/12/2009
PROJECT MANAGER: SUSAN SCRIBNER	DRAWN BY: D. D'AMATO
DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	SHEET 15 OF 63

FILE NAME: h:\14596\mtn\p\lens\14596_signing.dgn
 DATE/TIME: 10/12/2009 10:25:52
 USER: 22552

TRAFFIC SIGN SUMMARY SHEET 2

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW & SALVAGED SIGNS				EXISTING POST RETAIN	NO. OF POSTS	NEW SIGN POSTS																REMARKS (SHS=STANDARD HIGHWAY SIGNS BOOK, FHWA, 2004 EDITION)	SIGN DETAIL			
				"A"	"B"	SALV SIGN	SALV TIS			FLANGED CHANNEL			SQUARE STEEL (in)			TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL				DETAIL ON DWG. NUMBER	STD. SHEET NUMBER		
		1.12	2.0							3.0	1.75	2.0	2.5	3.0	4.0	4.0 MOD	3.0	3.5	4.0	5.0	FTG. SIZE	WEIGHT	POST SIZE							
		EA	WIDTH (in)	HEIGHT (in)	lb/ft	lb/ft	lb/ft			ANCHOR	SLEEVE	FOUND-ATION	lb/ft	lb/ft	lb/ft	lb/ft	24"	30"												
①		I	30	30	6.25				I				X		X												SIGN ID CODE WII-2 SIGN SHALL BE FLUORESCENT YELLOW GREEN	SHS	-	
		I	24	12	2.00																						SIGN ID CODE W16-7p SIGN SHALL BE FLUORESCENT YELLOW GREEN	SHS	-	
②		I	30	30	6.25				I				X		X												SIGN ID CODE WII-2 SIGN SHALL BE FLUORESCENT YELLOW GREEN	SHS	-	
		I	24	12	2.00																						SIGN ID CODE W16-7p SIGN SHALL BE FLUORESCENT YELLOW GREEN	SHS	-	
③		I	30	30	6.25				I				X		X												SIGN ID CODE RI-1 SIGN ID CODE VD-700 BACK-TO-BACK	SHS	- E-138	
④									I				X		X												MOUNT SALVAGED SIGNS ON NEW POST. TOP MOUNTING BRACKET REQUIRED TO INSTALL SALVAGED SIGNS ON NEW POST. COSTS ASSOCIATED WITH BRACKET ARE INCIDENTAL TO THE SIGN POST.	-	-	
		I	30	30	6.25																								SHS	-
⑤		I	30	30	6.25				I				X		X												SIGN ID CODE WII-2 SIGN SHALL BE FLUORESCENT YELLOW GREEN	SHS		
		I	24	12	2.00																						SIGN ID CODE W16-7p SIGN SHALL BE FLUORESCENT YELLOW GREEN	SHS		
⑥		I	30	30	6.25				I				X		X												SIGN ID CODE WII-2 SIGN SHALL BE FLUORESCENT YELLOW GREEN	SHS		
		I	24	12	2.00																						SIGN ID CODE W16-7p SIGN SHALL BE FLUORESCENT YELLOW GREEN	SHS		
SUBTOTAL THIS SHEET					45.92								84		-													NOTE: SEE SHEET 43 FOR SIGN LAYOUT.		
SHEET 16 SUBTOTAL					39.58								42		50															
TOTALS					SF	SF	EA.	SF					LF	LF	LF	EA.	LB	LB	LB	EA.	LB	EA.	EA.	LB						
					85.5		6						126		50															

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE VTRANS STANDARD SHEETS AND VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET (2)

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 17 OF 63

FILE NAME: I:\14586\plan\14586.dgn DATE/TIME: 10/12/2009 10:28:01 USER: 2552

EROSION CONTROL NARRATIVE

I.1 PROJECT DESCRIPTION

MONTPELIER BHF 6400(3) IS LOCATED ALONG TOWN HIGHWAY (TH) 9 (TAYLOR STREET) IN THE CITY OF MONTPELIER, WASHINGTON COUNTY, VERMONT. THE PROJECT BEGINS AT A POINT APPROXIMATELY 400 FT SOUTH OF THE INTERSECTION OF TH 9 WITH STATE STREET AND CONTINUES SOUTHERLY 210.50 FT TO ITS ENDING POINT JUST NORTH OF THE INTERSECTION WITH U.S. ROUTE 2 (MEMORIAL DRIVE). THE PROJECT INVOLVES REHABILITATION OF BRIDGE NO. 5 OVER THE WINOOSKIRIVER INCLUDING DECK REPLACEMENT, TRUSS REPAIR, SUBSTRUCTURE REPAIR (BRIDGE SEAT RECONSTRUCTION, WINGWALL REFACING, ABUTMENT REFACING), AND RECONSTRUCTION OF THE BRIDGE APPROACHES.

AREAS OF DISTURBANCE ARE LOCATED WITHIN THE EXCAVATION LIMITS FOR THE APPROACH WORK AND SUBSTRUCTURE REPAIR, AND INCLUDE DISTURBANCES RELATED TO TEMPORARY CONSTRUCTION ACCESS.

THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 0.10 ACRE EXCLUDING WASTE, BORROW AND STAGING AREAS.

I.2 SITE INVENTORY AND ANALYSIS

I.2.1 OFF-SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)

THE PROJECT AREA IS BORDERED BY U.S. ROUTE 2 ON THE SOUTH. SURFACE RUNOFF FROM U.S. ROUTE 2 AND FROM A DENSELY WOODED UPLAND AREA LOCATED SOUTH OF U.S. ROUTE 2 IS CAPTURED IN A CLOSED STORMWATER DRAINAGE SYSTEM IN THE ROADWAY AND DISCHARGED TO THE WINOOSKIRIVER. A RELATIVELY FLAT AND NARROW AREA COVERED IN GRASS AND SHRUBS WITH SOME COMMERCIAL DEVELOPMENT IS LOCATED BETWEEN U.S. ROUTE 2 AND THE SOUTH BANK OF THE RIVER. RUNOFF FROM THIS AREA CAN BE CHARACTERIZED AS GENERALLY OVERLAND SHEET FLOW THAT DISCHARGES TO THE RIVER.

THE PROJECT AREA IS BORDERED ON THE NORTH BY GENERALLY FLAT, PAVED PARKING AREAS WITH SOME LIMITED GRAVEL PARKING AREAS THAT ARE ASSOCIATED WITH DOWNTOWN DEVELOPMENT. STORMWATER RUNOFF FROM THIS AREA CAN BE CHARACTERIZED AS GENERALLY OVERLAND SHEET FLOW THAT IS GRADUALLY CONVEYED TO THE WINOOSKIRIVER.

I.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER

THE PROJECT AREA AND BRIDGE REHABILITATION WORK SPANS THE WINOOSKIRIVER. RUNOFF FROM THE EXISTING BRIDGE IS CAPTURED BY SCUPPERS LOCATED IN THE BRIDGE DECK AND OUTLETS DIRECTLY TO THE RIVER AND ITS BANKS. SEVERAL DROP INLETS ARE LOCATED IN TH 9 AND U.S. ROUTE 2 NEAR THE SOUTHERN PROJECT APPROACH AND OUTLET DIRECTLY TO THE WINOOSKIRIVER.

AREAS OF DISTURBANCE ARE GENERALLY LOCATED WITHIN THE 50 FT RIPARIAN BUFFER AREA.

I.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

TH 9 AND U.S. ROUTE 2 ARE THE ONLY ROADWAYS IN THE PROJECT AREA, BOTH ARE PAVED. IN ADDITION, THERE ARE SOME GENERALLY FLAT, PAVED PARKING AREAS AND SOME LIMITED GRAVEL PARKING AREAS ASSOCIATED WITH DOWNTOWN DEVELOPMENT THAT BORDER TH 9 JUST NORTH OF THE PROJECT AREA. A PAVED RECREATIONAL PATH AND GRAVEL DRIVE ARE LOCATED WITHIN THE NORTHERN PROJECT APPROACH. NO BUILDINGS ARE LOCATED WITHIN THE PROJECT LIMITS.

UNDERGROUND WATER AND OVERHEAD ELECTRIC AND TELEPHONE LINES ARE LOCATED WITHIN THE PROJECT AREA. AN EXISTING WATER MAIN IS CARRIED ACROSS THE BRIDGE AND IS TO BE REPLACED AS PART OF THE PROPOSED CONSTRUCTION.

I.2.4 VEGETATION

VEGETATION IN THE PROJECT AREA IS LIMITED TO SMALL GRASSY AREAS WITH SHRUBS AND TREES ON THE TOPS OF THE RIVER BANKS. THE RIVER BANKS ARE COVERED IN LOW-LYING BRUSH WITH SOME LARGER TREES AND SMALL WOODED AREAS THROUGHOUT. EXISTING VEGETATION IS SPARSE ALONG THE BANK WITHIN THE SHADOW OF THE EXISTING BRIDGE. CLEARING OF BRUSH AND TREES ALONG THE BANK IS ONLY NECESSARY TO PROVIDE CONTRACTOR ACCESS BELOW THE BRIDGE AND IS INTENDED TO BE LIMITED IN AREA FOR THAT PURPOSE. ALL GRASSY AND BRUSH COVERED AREAS THAT ARE DISTURBED DURING CONSTRUCTION ARE TO BE RE-VEGETATED WITH SEED AND COVERED IN TEMPORARY EROSION MATTING AS REQUIRED.

I.2.5 SOILS

SOIL SURVEY DATA FOR THE PROJECT AREA WAS OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE'S NATURAL RESOURCES CONSERVATION SERVICE (NRCS). THE SOIL SURVEY MAP FOR WASHINGTON COUNTY, VERMONT SHOWS THE FOLLOWING MAP UNITS IN THE PROJECT AREA (LOCATIONS ARE SHOWN ON SHT. 22):

TUNBRIDGE-LYMAN COMPLEX (MAP UNIT 72E), 35-60% SLOPES, VERY ROCKY, CLASSIFIED AS 'HIGHLY ERODIBLE' WITH A K-FACTOR = 0.34

URBAN LAND-UDIPSAMMENTS COMPLEX (MAP UNIT 104), OCCASIONALLY FLOODED, CLASSIFIED AS 'NOT HIGHLY ERODIBLE' WITH A K-FACTOR = 0.10

I.2.6 SENSITIVE RESOURCE AREAS

NO KNOWN OCCURRENCES OF CRITICAL HABITATS, THREATENED AND ENDANGERED SPECIES, PRIME AGRICULTURAL LAND, WETLANDS, HISTORICAL OR ARCHAEOLOGICAL SITES EXIST WITHIN THE PROJECT AREA.

THE WINOOSKIRIVER IN THE PROJECT AREA IS LISTED AS AN IMPAIRED SURFACE WATER FOR E. COLION THE STATE OF VERMONT 2006 303(d) LIST OF SURFACE WATERS. THERE IS NO STORMWATER OR SEDIMENT IMPAIRMENT IN THE PROJECT AREA.

I.3 RISK EVALUATION

THE PROJECT DOES NOT FALL UNDER THE JURISDICTION OF CONSTRUCTION GENERAL PERMIT 3-9020 BASED ON THE PROJECT IMPACT AREA OF LESS THAN ONE ACRE. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VANR VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION GENERAL PERMIT PROCESS.

I.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION PREVENTION AND SEDIMENT CONTROL PLANS ARE MEANT TO BE A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT AS REQUIRED BY THE AGENCY'S STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006 AND THE EROSION PREVENTION AND SEDIMENT CONTROL PROTOCOL DATED FEBRUARY 2007. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO MINIMIZE EROSION AND PREVENT THE SEDIMENTATION OF RECEIVING WATERS. THE MEASURES PRIMARILY CONSIST OF STABILIZATION AND/OR STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER MISCELLANEOUS POLLUTION PREVENTION CONTROLS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TRYING TO CONTROL ERODED SEDIMENT. MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS, OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION PREVENTION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE EMPLOYED WHEREVER POSSIBLE. THEREFORE, STABILIZE ALL DISTURBED AREAS AS SOON AS PRACTICABLE, BUT NO MORE THAN TWO DAYS AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED.

THE CONTRACTOR SHALL COORDINATE THE INSTALLATION, USE, AND REMOVAL OF EROSION PREVENTION AND SEDIMENT CONTROL MEASURES WITH CONSTRUCTION ACTIVITIES TO ENSURE ECOLOGICAL, EFFECTIVE, AND CONTINUOUS EROSION PREVENTION AND SEDIMENT CONTROL. THE CONTRACTOR SHALL EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

(REFER TO THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL AND APPROPRIATE DETAIL SHEETS FOR EACH PRACTICE REQUIRED ON THE PROJECT TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING.)

I.4.1 MARK SITE BOUNDARIES

PROJECT DEMARCATION FENCING, DENOTED -PDF- ON THE PLANS, IS USED TO DELINEATE THE LIMITS IN WHICH THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT AND PERSONNEL. THIS MEASURE IS INTENDED TO LIMIT THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION. THE CONTRACTOR SHALL INSTALL THE PERIMETER CONTROLS PRIOR TO STARTING ANY WORK WITHIN THE PROJECT AREA.

I.4.2 LIMIT DISTURBANCE AREA

EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. IN GENERAL, THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION, TREES AND SHRUBS WHERE POSSIBLE.

I.4.3 STABILIZE CONSTRUCTION ENTRANCE

THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES PER THE EROSION CONTROL DETAILS AS NECESSARY TO GAIN ACCESS DOWN THE RIVER BANK AND BELOW THE BRIDGE. STABILIZED CONSTRUCTION ENTRANCES ARE INTENDED TO PREVENT THE TRACKING OF SEDIMENT ONTO PAVED SURFACES.

I.4.4 INSTALL SILT FENCE

SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UPSLOPE WORK AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

I.4.5 DIVERT UPLAND FLOW

THE CONTRACTOR SHALL PROVIDE A TEMPORARY PIPE EXTENSION FOR THE EXISTING 15" OUTLET PIPE LOCATED IN THE SOUTHWEST QUADRANT OF THE PROJECT AREA AS NECESSARY TO MAINTAIN STORMWATER OUTLET FLOW AND TO CONVEY DISCHARGE DOWNSLOPE OF AREAS CONSTRUCTED OR MAINTAINED FOR CONTRACTOR ACCESS. PAYMENT FOR THE TEMPORARY PIPE EXTENSION SHALL BE INCIDENTAL TO ITEM 653.35 VEHICLE TRACKING PAD.

IT IS NOT ANTICIPATED THAT OTHER MEASURES SUCH AS TEMPORARY DRAINAGE SWALES WILL BE REQUIRED TO DIVERT UPLAND RUNOFF AWAY FROM THE PROJECT AREA. HOWEVER, IF SITE CONDITIONS CHANGE, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY DIVERSION DIKES OR SWALES PER THE LOW RISK SITE HANDBOOK AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. REFER TO SUBSECTION 105.29 FOR PAYMENT OF TEMPORARY MEASURES TO DIVERT UPLAND FLOW.

I.4.6 SLOW DOWN CHANNELIZED RUNOFF

NO AREAS OF CHANNELIZED RUNOFF ARE ANTICIPATED DURING CONSTRUCTION OR POST-CONSTRUCTION. HOWEVER, IF SITE CONDITIONS CHANGE, THE CONTRACTOR SHALL INSTALL CHECK DAMS PER THE LOW RISK SITE HANDBOOK IN LOCATIONS AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

I.4.7 CONSTRUCT PERMANENT CONTROLS

THE CONTRACTOR SHALL SEED SLOPES AND PROVIDE TEMPORARY EROSION MATTING IN LOCATIONS INDICATED ON THE EPSC PLANS. AREAS ALONG THE RIVER BANK DISTURBED AS A CONSEQUENCE OF PROVIDING CONTRACTOR ACCESS SHALL BE RESTORED TO ORIGINAL GRADE PRIOR TO FINAL SEEDING.

AREAS OF DISTURBANCE ALONG THE RIVER BANK THAT ARE LOCATED BENEATH THE BRIDGE SUPERSTRUCTURE, INCLUDING A 2 FT WIDE AREA ON EITHER SIDE, SHALL BE LINED WITH STONE FILL, TYPE II, AND RESTORED TO ORIGINAL GRADE. ANY EXCAVATION REQUIRED TO PROVIDE THE STONE FILL SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION. UNDER NO CIRCUMSTANCES SHALL THE PLACEMENT OF STONE FILL CREATE MORE AREA OF DISTURBANCE THAN THAT WHICH RESULTED FROM OTHER CONSTRUCTION ACTIVITIES.

EPSC NARRATIVE (1)

PROJECT NAME: MONTPELIER

PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$

PROJECT MANAGER: SUSAN SCRIBNER

DESIGNED BY: D. D'AMATO

BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009

DRAWN BY: D. D'AMATO

CHECKED BY: P. PERKINS

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EROSION CONTROL NARRATIVE (CONTINUED)

1.4.8 STABILIZE EXPOSED SOILS

THE CONTRACTOR SHALL STABILIZE ALL PERMANENT AND TEMPORARY SLOPES WITH SEED AND TEMPORARY EROSION MATTING AS SHOWN ON THE EPSC PLANS. SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN. SEEDING AND BIODEGRADABLE EROSION MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING INTERMITTENT PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL HAVE A HYDROSEEDER AVAILABLE ON THE PROJECT SITE OR AVAILABLE AT NO MORE THAN ONE WEEK'S NOTICE UNTIL PERMANENT SEEDING IS COMPLETED.

1.4.9 WINTER STABILIZATION

IT IS ANTICIPATED THAT THE PROJECT WILL BE SUBSTANTIALLY COMPLETED PRIOR TO THE WINTER CONSTRUCTION SEASON. IF THE PROJECT CANNOT BE SUBSTANTIALLY COMPLETED PRIOR TO THE WINTER CONSTRUCTION SEASON, VARIOUS MEASURES SPECIFIC TO WINTER SHALL BE EMPLOYED PER THE LOW RISK SITE HANDBOOK AS NECESSARY OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

1.4.10 STABILIZE SOIL AT FINAL GRADE

SEEDING AND BIODEGRADABLE EROSION MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3 AS SHOWN ON THE EPSC PLANS. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

1.4.11 DE-WATERING ACTIVITIES

NO DE-WATERING ACTIVITIES ARE ANTICIPATED AS PART OF THIS PROJECT.

1.4.12 INSPECT YOUR SITE

EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BASED ON PERMIT AUTHORIZATION OR SPECIAL PROVISION REQUIREMENTS. INSPECTION OF MEASURES SHALL BE COMPLETED ON A DAILY BASIS AND AFTER EVERY STORM GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE. REPAIRS SHALL BE MADE AS NEEDED WHEN DAMAGE TO MEASURES ARE DISCOVERED AND SEDIMENT SHALL BE REMOVED WHEN THE STORAGE CAPACITY OF A SEDIMENT CONTROL MEASURE APPROACHES ONE-HALF OF ITS INTENDED CAPACITY OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

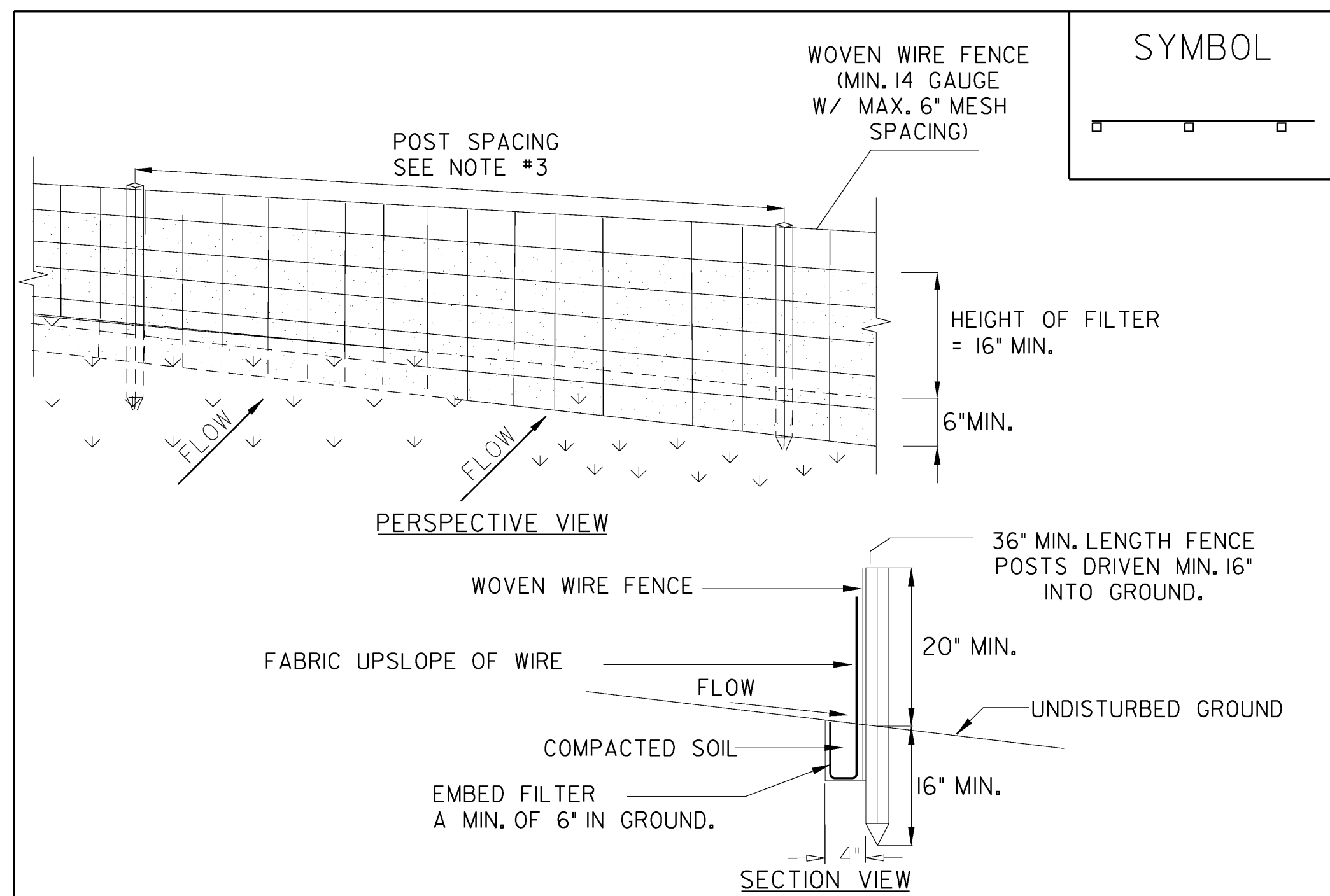
EPSC NARRATIVE (2)

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 19 OF 63





CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE REINFORCEMENT IS ONLY REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
2. WHERE REQUIRED FENCE SHALL BE WOVEN WIRE, MIN. 14 GAUGE WITH A 6" MAXIMUM MESH OPENING. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4'. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
6. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

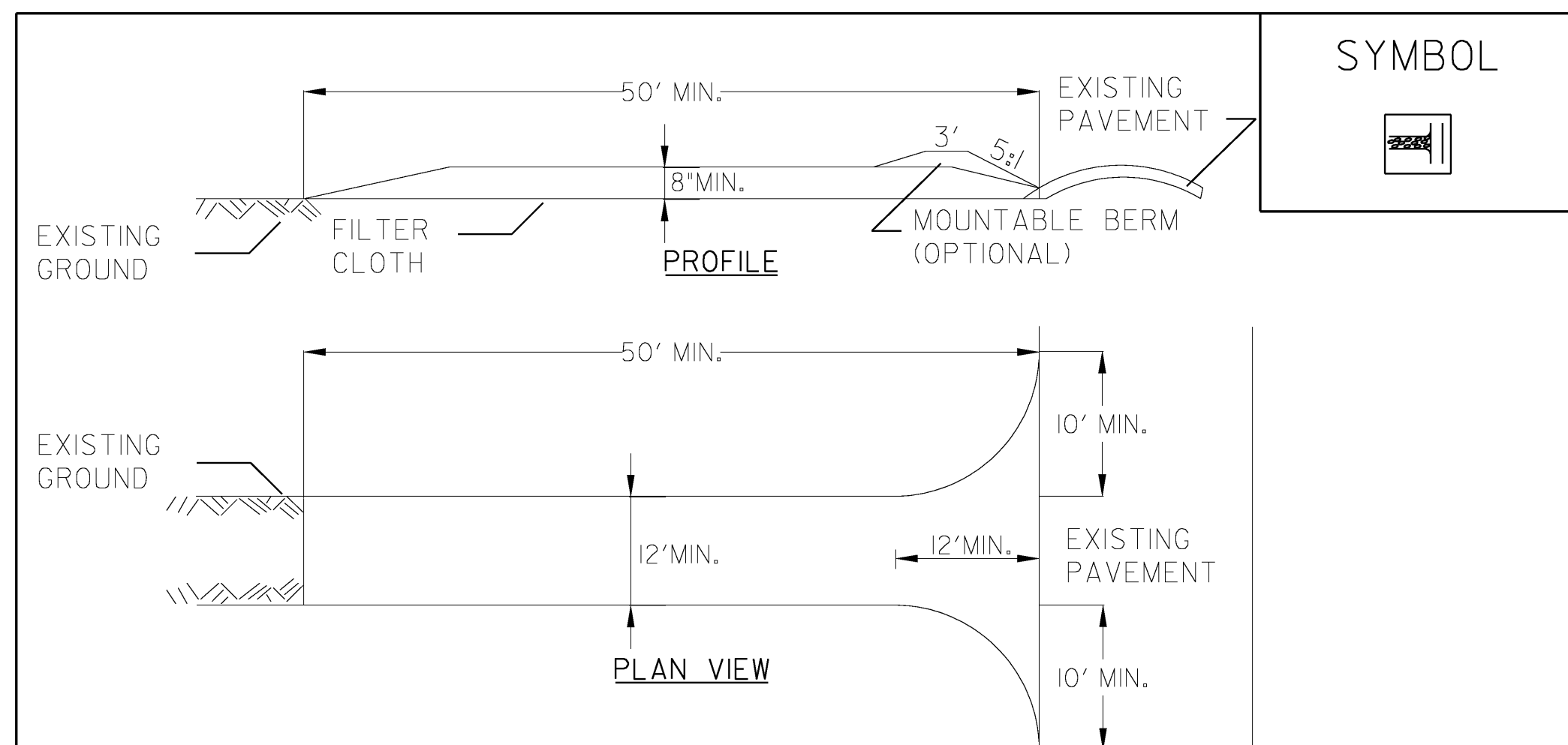
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:

REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER:
ITEM 649.515 GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH APPLIES).
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

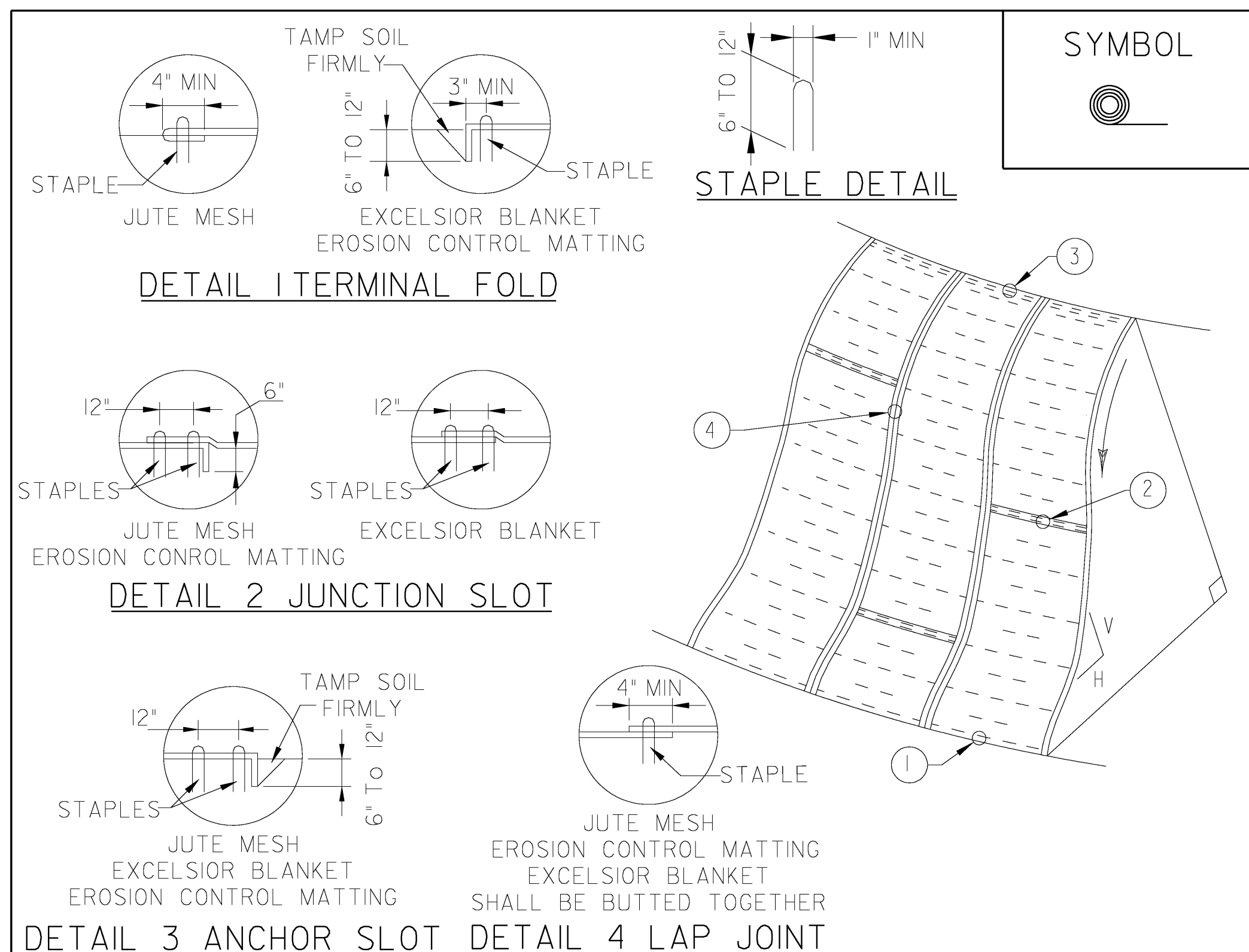
**STABILIZED
CONSTRUCTION
ENTRANCE**

NOTES:

REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER:
ITEM 653.35 VEHICLE TRACKING PAD

REVISIONS	
FEBRUARY 9, 2007	WHF
MARCH 8, 2007	JMF



CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME AND SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12' INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**ROLLED EROSION
CONTROL PRODUCT
(RECP) SIDE SLOPE**

NOTES:

REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER:
ITEM 653.20 TEMPORARY EROSION MATTING OR
ITEM 653.21 PERMANENT EROSION MATTING

NEW	
APRIL 16, 2007	WHF
REVISIONS	

EPSC DETAILS (1)

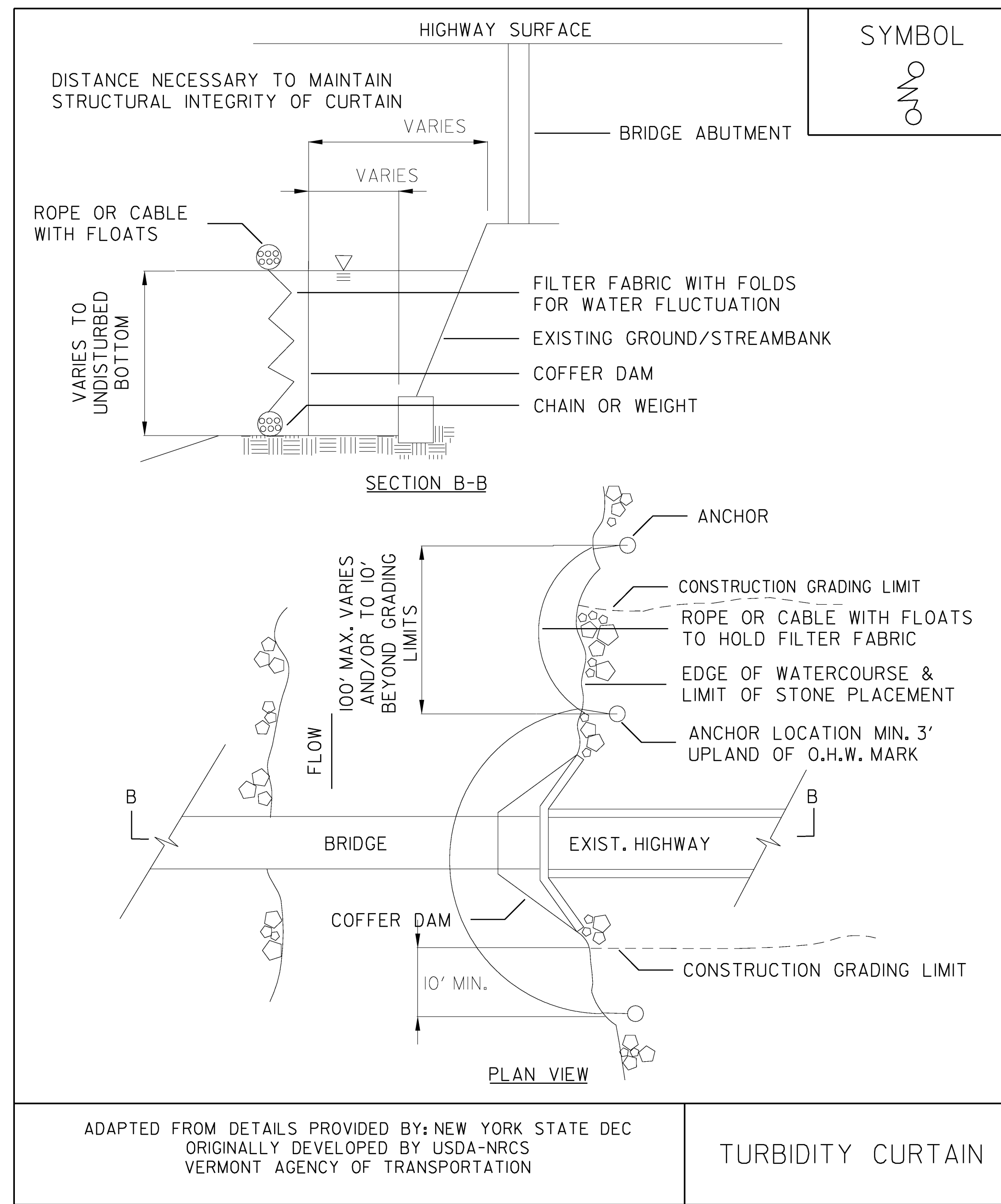
PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 20 OF 63



NOT TO SCALE



SYMBOL

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
 ORIGINALLY DEVELOPED BY USDA-NRCS
 VERMONT AGENCY OF TRANSPORTATION

TURBIDITY CURTAIN

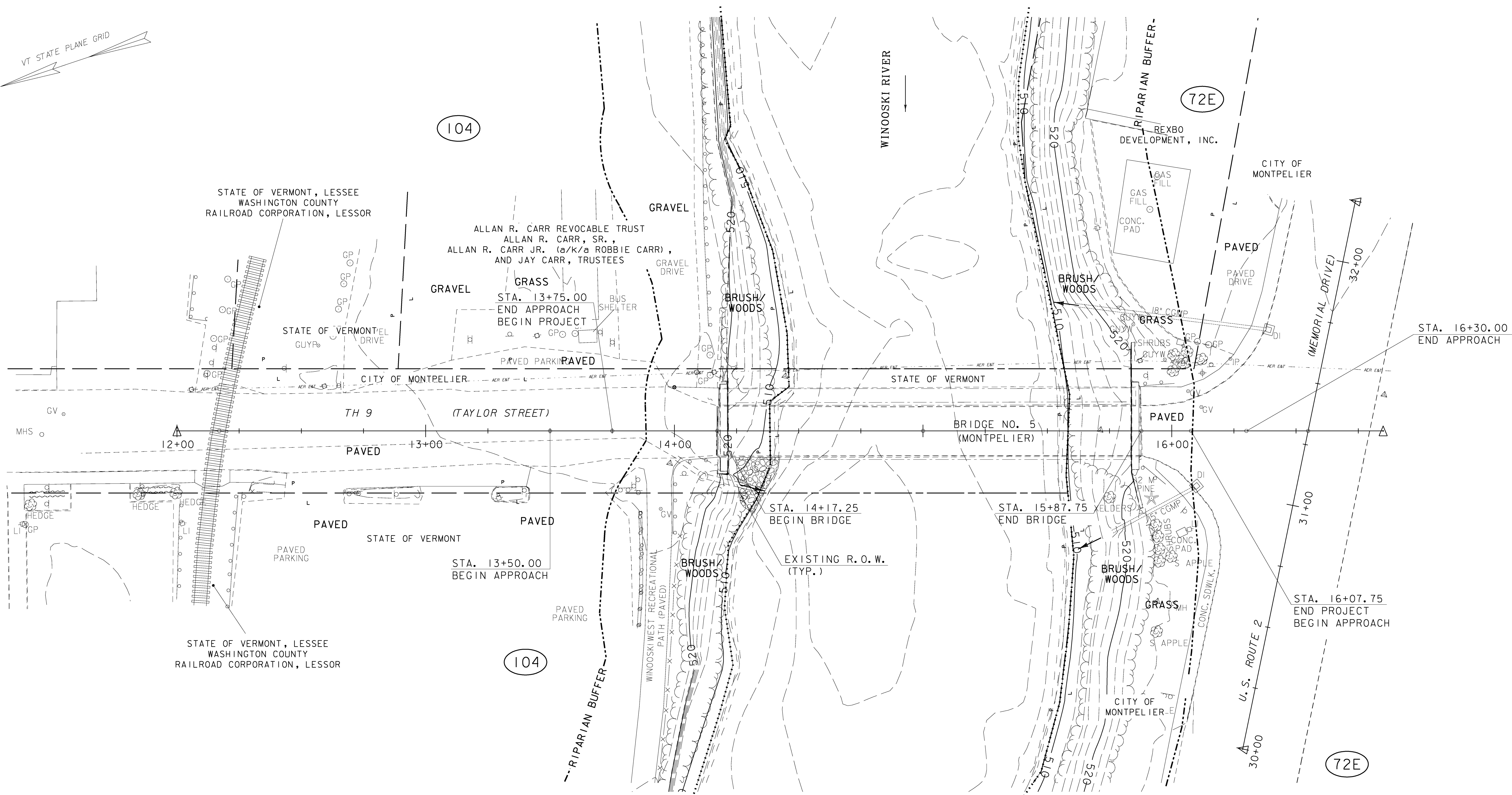
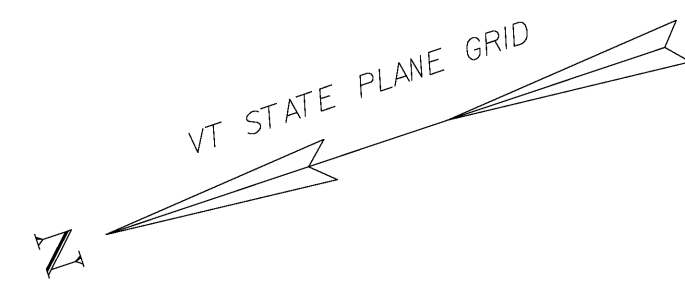
NOTES:
 REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
 THIS ITEM SHALL BE PAID FOR UNDER:
 ITEM 649.6(GEOTEXTILE FOR FILTER CURTAIN

EPSC DETAILS (2)

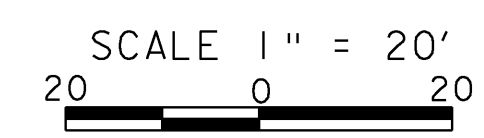
PROJECT NAME: MONTPELIER	FILE NAME: \$FILES\$	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	PROJECT MANAGER: SUSAN SCRIBNER	DRAWN BY: D. D'AMATO
	DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS
	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	SHEET 21 OF 63



FILE NAME: h:\14596\mtn\p\lona\14596.ecdd.dgn
 DATE/TIME: 10/12/2009
 USER: 2552



LEGEND	
(XXX)	SOIL MAP UNIT TYPE (SEE SHT. 18 FOR DETAIL)
-----	SOIL MAP UNIT BOUNDARY
-----	RIPARIAN BUFFER



EPSC EXISTING CONDITIONS SITE PLAN

PROJECT NAME:	MONTPELIER	FILE NAME:	\$FILES\$	PLOT DATE:	10/12/2009
PROJECT NUMBER:	BHF 6400(31)	PROJECT MANAGER:	SUSAN SCRIBNER	DRAWN BY:	D. D'AMATO
		DESIGNED BY:	D. D'AMATO	CHECKED BY:	P. PERKINS
		BRIDGE DESIGN SUPERVISOR:	P. HALSTEAD		SHEET 22 OF 63

FILE NAME: h:\14596\m\m\vt\pl\ons\14596.ecp01.dgn
 DATE/TIME: 10/12/2009
 USER: 2552

649.61 GEOTEXTILE FOR FILTER CURTAIN

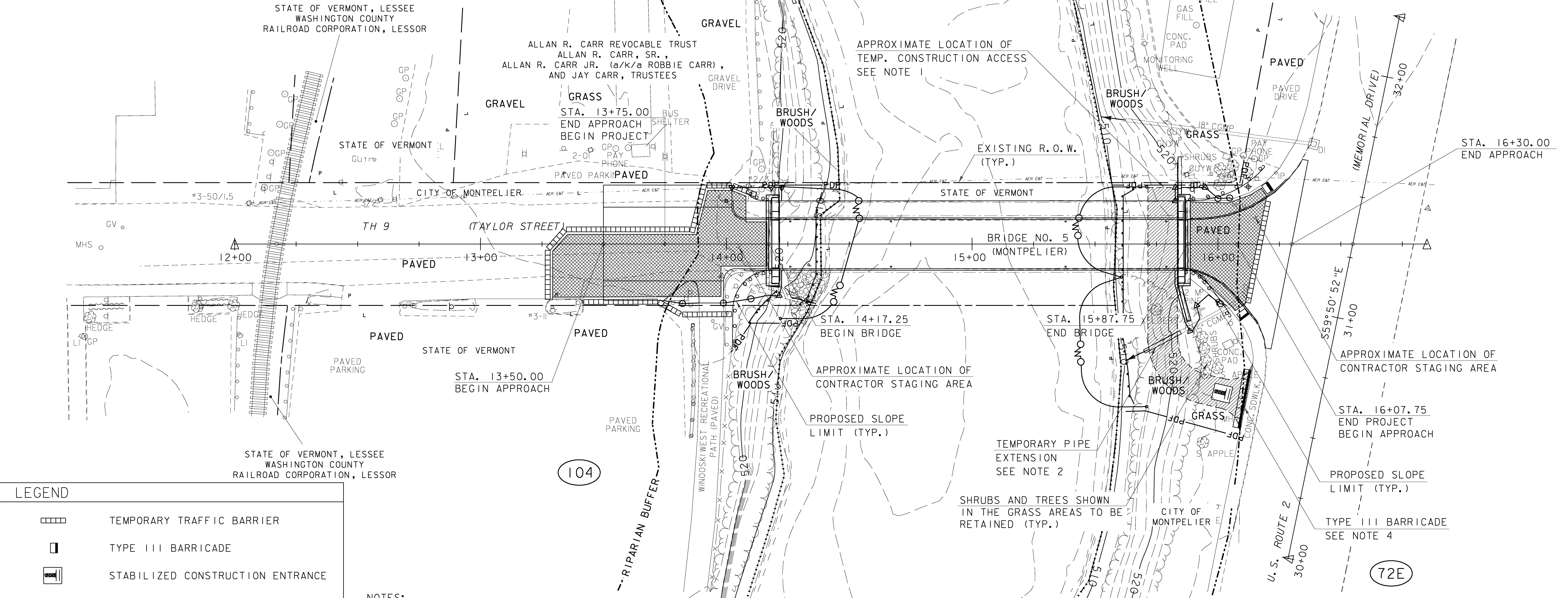
STA. 14+22.0 - STA. 14+55.0 LT & RT (64 SY)
 STA. 15+42.0 - STA. 15+71.0 LT & RT (99 SY)

653.55 PROJECT DEMARCATION FENCE

STA. 14+02.0 - STA. 14+30.0 RT (34 LF)
 STA. 14+14.0 - STA. 14+47.0 LT (33 LF)
 STA. 15+53.0 - STA. 16+15.0 LT (62 LF)
 STA. 15+59.0 - STA. 16+10.0 RT (53 LF)

649.515 GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED

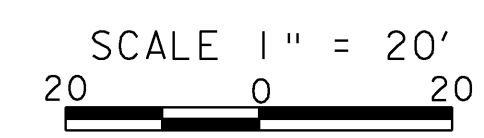
STA. 14+09.0 - STA. 14+21.0 RT (6 SY)
 STA. 14+32.0 - STA. 14+39.0 LT & RT (16 SY)
 STA. 15+61.0 - STA. 15+65.0 LT & RT (30 SY)



LEGEND	
	TEMPORARY TRAFFIC BARRIER
	TYPE III BARRICADE
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE
	TURBIDITY CURTAIN
	PROJECT DEMARCATION FENCE
	STABILIZED CONSTRUCTION ENTRANCE/ TEMPORARY CONSTRUCTION ACCESS
	CONTRACTOR STAGING AREA (APPROX.)
	SOIL MAP UNIT TYPE (SEE SHT. 18 FOR DETAIL)
	SOIL MAP UNIT BOUNDARY
	RIPARIAN BUFFER

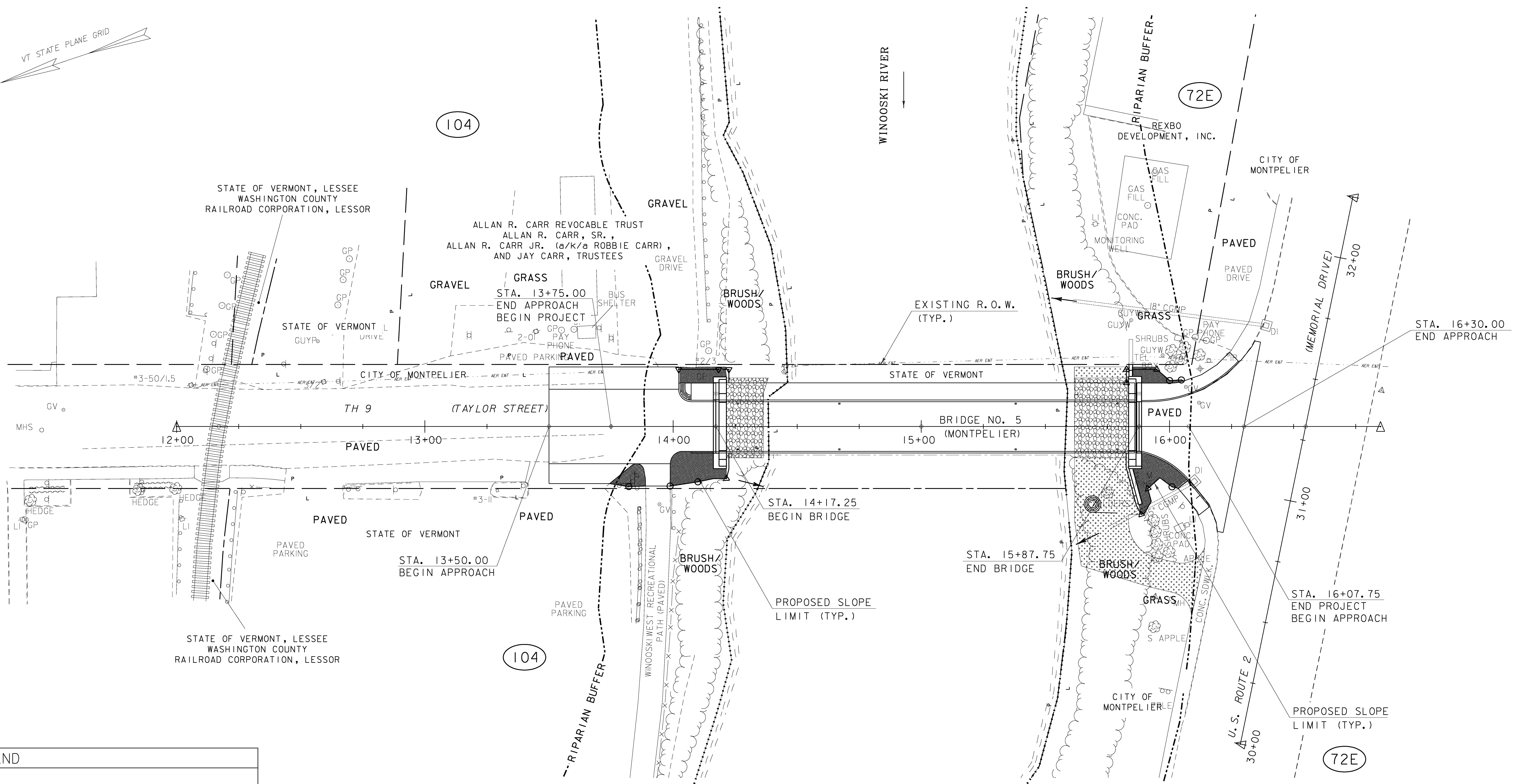
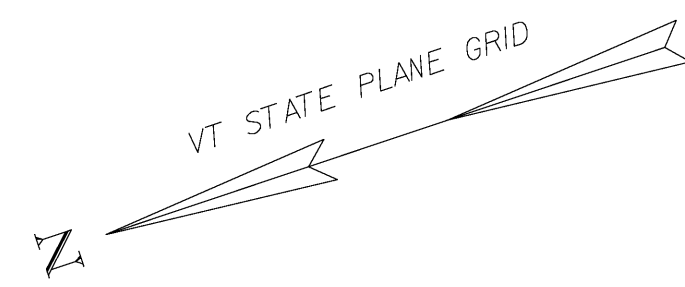
NOTES:

1. THE CONTRACTOR SHALL TAKE CARE TO MINIMIZE DISTURBANCE OF THE EXISTING RIVER BANK RESULTING FROM THE BRUSH AND TREE CLEARING, EXCAVATING, AND GRADING THAT IS REQUIRED TO GAIN ACCESS AND STAGE CONSTRUCTION OPERATIONS BELOW THE BRIDGE. COSTS FOR REQUIRED CLEARING AND GRUBBING SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS. ANY TEMPORARY EARTH SLOPES THAT ARE CONSTRUCTED TO ACCOMMODATE ACCESS SHALL BE STABILIZED WITH SEED AND TEMPORARY EROSION MATTING IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.
2. THE CONTRACTOR SHALL AVOID OR MINIMIZE DISTURBANCE OF THE EXISTING 15" OUTLET PIPE DURING OPERATIONS TO GAIN ACCESS BELOW THE BRIDGE. A TEMPORARY PIPE EXTENSION WITH 2' MINIMUM COVER SHALL BE PROVIDED TO MAINTAIN STORMWATER OUTLET FLOW AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT FOR THE TEMPORARY PIPE EXTENSION SHALL BE INCIDENTAL TO ITEM 653.35 VEHICLE TRACKING PAD.
3. TEMPORARY TRAFFIC BARRIER SHALL BE INSTALLED AROUND THE PROJECT SITE TO PROVIDE FOR TRAFFIC CONTROL. PAYMENT SHALL BE MADE UNDER ITEM 621.90. REMOVING AND REINSTALLING TEMPORARY TRAFFIC BARRIER AS NECESSARY FOR THE CONTRACTOR TO GAIN ACCESS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCIDENTAL TO ITEM 621.90.
4. TYPE III BARRICADES SHALL BE PLACED ACROSS THE TEMPORARY CONSTRUCTION ACCESS TO DISCOURAGE PEDESTRIAN ACCESS FROM THE SIDEWALK WHEN THE CONSTRUCTION ACCESS IS NOT ACTIVELY BEING UTILIZED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A FLAGGER AT THIS LOCATION WHEN ACTIVELY MOVING EQUIPMENT INTO AND OUT OF THE CONSTRUCTION ACCESS.



EPSC CONSTRUCTION SITE PLAN	
PROJECT NAME:	MONTPELIER
PROJECT NUMBER:	BHF 6400(31)
FILE NAME:	\$FILES\$
PROJECT MANAGER:	SUSAN SCRIBNER
DESIGNED BY:	D. D'AMATO
BRIDGE DESIGN SUPERVISOR:	P. HALSTEAD
PLOT DATE:	10/12/2009
DRAWN BY:	D. D'AMATO
CHECKED BY:	P. PERKINS
SHEET	23 OF 63

FILE NAME: h:\14596\montpelier\plan\14596_esp02.dgn
 DATE/TIME: 10/12/2009 10:25:22
 USER: pperkins



LEGEND	
	AREA OF SEED
	AREA OF SEED & EROSION MATTING
	AREA OF STONE FILL, TYPE II (SEE NOTE 3)
	SOIL MAP UNIT TYPE (SEE SHT. 18 FOR DETAIL)
	SOIL MAP UNIT BOUNDARY
	RIPARIAN BUFFER

NOTES:

- SEE CROSS SECTIONS FOR FINAL SLOPE GRADING INFORMATION.
- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE THE STABILIZED CONSTRUCTION ENTRANCE AND ANY MATERIAL PLACED ON THE EXISTING BANK FOR THE TEMPORARY CONSTRUCTION ACCESS. RIVER BANKS SHALL BE RESTORED TO ORIGINAL GRADE PRIOR TO IMPLEMENTATION OF PERMANENT EROSION CONTROLS AS DESCRIBED IN THE EPSC PLANS AND NOTES.
- STONE FILL, TYPE II SHALL ONLY BE PLACED BELOW THE BRIDGE SUPERSTRUCTURE AND 2 FEET TO EITHER SIDE OF THE SUPERSTRUCTURE IN AREAS THAT WERE DISTURBED BY EXCAVATION OR GRADING OF THE EXISTING RIVER BANK MATERIAL AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. UNDER NO CIRCUMSTANCES SHALL THE PLACEMENT OF STONE FILL CREATE MORE AREA OF DISTURBANCE OF THE EXISTING BANK THAN THAT WHICH RESULTED FROM OTHER CONSTRUCTION ACTIVITIES.
- SILT FENCE AND TURBIDITY CURTAIN SHALL REMAIN IN PLACE UNTIL FINAL SLOPES HAVE BEEN STABILIZED.

SCALE 1" = 20'



EPSC FINAL CONDITIONS SITE PLAN

PROJECT NAME: MONTPELIER	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	DRAWN BY: D. D'AMATO
FILE NAME: \$FILES\$	CHECKED BY: P. PERKINS
PROJECT MANAGER: SUSAN SCRIBNER	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD
DESIGNED BY: D. D'AMATO	SHEET 24 OF 63

FILE NAME: h:\14596\mtn\p\lona\14596_esp03.dgn
 DATE/TIME: 10/12/2009 11:25:52
 USER: pperkins

GENERAL:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SEVENTEENTH EDITION, AND ITS LATEST REVISIONS.
2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY THE DISCHARGE OF RAW CONCRETE, FUEL AND/OR LUBRICANTS, INTO THE WINOOSKIRIVER AS DIRECTED BY THE RESIDENT ENGINEER AND STANDARD SPECIFICATION SECTION 105.
3. REFERENCE SHEETS FROM THE RECORD PLANS AND FABRICATION DRAWINGS FOR THE EXISTING BRIDGE ARE INCLUDED IN THE PLANS FOR THE CONTRACTOR'S USE (SHTS. 52-63). THE CONTRACTOR IS ADVISED TO FIELD VERIFY DIMENSIONS TO ENSURE THE WORK CAN BE CONSTRUCTED AS PROPOSED IN THE PLANS. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MATCH THE FINAL PRODUCT AS DESCRIBED IN THE PLANS WITH THE EXISTING FIELD CONDITION.
4. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68°F, UNLESS SHOWN OTHERWISE.
5. ANY DAMAGE DONE TO EXISTING SUBSTRUCTURE, SUPERSTRUCTURE, UTILITIES, TRAFFIC SIGNALS OR ANY OTHER FACILITIES RELATED TO THIS PROJECT TO BE RETAINED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE STATE OF VERMONT.
6. IT IS ANTICIPATED THAT CONSTRUCTION STAGING AND ACCESS AREAS WILL BE REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN ON THE PLANS. POTENTIAL STAGING AND ACCESS AREAS ARE DETAILED ON SHT. 23, EPSC CONSTRUCTION SITE PLAN, AND ARE SUMMARIZED AS FOLLOWS:

NORTHERN STAGING AREA

THE APPROXIMATE LIMITS OF THE PROPOSED STAGING AREA SHALL BE BETWEEN STA. 13+25 AND 14+17.25. THE STAGING AREA SHALL BE CONTAINED WITHIN THE EXISTING TAYLOR STREET RIGHT-OF-WAY. PLACEMENT OF THE REQUIRED TEMPORARY TRAFFIC BARRIER SHALL NOT PRECLUDE A SOUTHBOUND BUS (AASHTO CLASSIFICATION BUS-45) FROM EXECUTING A TURNING MANEUVER TO REVERSE DIRECTION ON TAYLOR STREET. IT IS ASSUMED THAT THE NORTHERN PARKING AREA OF THE EXISTING VTRANS BUS DEPOT AND THE EXISTING TAYLOR STREET NORTHBOUND TRAVELWAY WILL BE UTILIZED FOR THIS MOVEMENT.

SOUTHERN STAGING AREA AND TEMPORARY CONSTRUCTION ACCESS

THE APPROXIMATE LOCATION OF THE PROPOSED STAGING AREA SHALL BE BETWEEN STA. 15+87.75 AND STA. 16+25. FOR LAYOUT PURPOSES, THE STAGING AREA HAS BEEN SHOWN CONTAINED WITHIN THE EXISTING SIDEWALK LIMITS ON TAYLOR STREET. TEMPORARY TRAFFIC BARRIER SHALL BE PLACED TO INCORPORATE THE TEMPORARY PEDESTRIAN DETOUR SHOWN ON SHT. 44.

IT IS ASSUMED THAT TEMPORARY CONSTRUCTION ACCESS MAY BE REQUIRED FOR THE PROPOSED ABUTMENT 2 REHABILITATION WORK. TEMPORARY CONSTRUCTION ACCESS, IF REQUIRED, SHALL BE ACCOMMODATED IN THE SOUTHWEST QUADRANT OF THE PROJECT.

IT SHOULD BE NOTED THAT THE CITY OF MONTPELIER CURRENTLY OWNS THE PROPERTY IN THE SOUTHWEST QUADRANT OF THE PROJECT. IT IS ASSUMED THAT SHOULD TEMPORARY CONSTRUCTION ACCESS OR ADDITIONAL STAGING AREA BE REQUIRED THE CONTRACTOR SHALL NEGOTIATE TEMPORARY USE OF THIS PROPERTY DIRECTLY WITH THE CITY. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY ENVIRONMENTAL PERMITS FOR ANY STAGING AREA OUTSIDE THE LIMITS OF THE PROJECT AT NO ADDITIONAL COST TO THE STATE OF VERMONT.

SUPERSTRUCTURE REMOVAL NOTES:

1. COMPLETE REMOVAL AND DISPOSAL OF THE EXISTING BITUMINOUS BRIDGE PAVEMENT SHALL BE PAID FOR UNDER ITEM 529.10, REMOVAL OF BRIDGE PAVEMENT.
2. COMPLETE REMOVAL AND DISPOSAL OF ALL MATERIALS NECESSARY TO COMPLETE THE WORK REQUIRED IN THE CONTRACT SHALL BE PAID FOR UNDER ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE.

STRUCTURAL STEEL NOTES:

1. ALL NEW STRUCTURAL STEEL SHALL BE AASHTO M270M/M270 GRADE 50 PAINTED EXCEPT AS SHOWN OTHERWISE. NEW STRUCTURAL STEEL FOR THE TRUSS FLOOR SYSTEM, BOTTOM LATERAL BRACING, STRINGER CONNECTION ANGLES, SCUPPERS AND DOWNSPOUTS SHALL BE PAID FOR UNDER ITEM 506.50, STRUCTURAL STEEL, ROLLED BEAM. ALL NEW STRUCTURAL STEEL WHICH CONNECTS TO EXISTING STRUCTURAL STEEL (FLOORBEAM CONNECTION ANGLES, LATERAL BRACING CONNECTION PLATES, REPLACEMENT VERTICALS, BRIDGE RAIL, SIDEWALK RAIL BALUSTERS AND ANY OTHER STEEL DESIGNATED OR ORDERED BY THE RESIDENT ENGINEER FOR REPLACEMENT IN KIND) SHALL BE PAID FOR UNDER ITEM 506.60, STRUCTURAL STEEL. PAINTING OF ALL NEW STEEL SHALL BE PAID FOR UNDER ITEM 513.25, STRUCTURAL PAINTING, SHOP APPLIED.
2. THE CONTRACTOR AND FABRICATOR SHALL BE RESPONSIBLE FOR DETAILING AND FIT-UP OF ALL NEW STRUCTURAL STEEL. FABRICATION DRAWINGS FOR ALL NEW STRUCTURAL STEEL SHALL BE SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL AS PER SUBSECTION 506.03 OF THE STANDARD SPECIFICATIONS.
3. ALL FIELD CONNECTIONS SHALL BE MADE USING HIGH STRENGTH BOLTS MEETING AASHTO M164, TYPE 1 GALVANIZED. THE BOLTS SHALL RECEIVE AN INTERMEDIATE COAT OF PAINT, AS WELL AS A FINAL COAT AFTER INSTALLATION. ALL CONNECTIONS SHALL BE 7/8" BOLTS INSTALLED IN 1 1/8" HOLES UNLESS OTHERWISE NOTED. ANY CONNECTIONS NOT DESIGNATED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
4. MEMBERS DESIGNATED "CVN" SHALL MEET CHARPY V-NOTCH REQUIREMENTS FOR MAIN MEMBERS AS INDICATED IN SECTION 506 OF THE STANDARD SPECIFICATIONS.
5. ALL MEMBERS SHALL BE PLACED WITH MILL CAMBER UP.
6. THE CONTRACTOR IS REMINDED THAT ALL HARDWARE FOR CONNECTIONS IS NOT PAID FOR DIRECTLY BUT IS CONSIDERED INCIDENTAL TO THE STRUCTURAL STEEL ITEMS (INCLUDING ALL RIVET REMOVAL IN ORDER TO CONNECT NEW PLATES OR MEMBERS TO EXISTING PLATES OR MEMBERS WITH NEW HIGH STRENGTH BOLTS). THE CONTRACTOR SHALL MAKE A DETAILED COUNT OF ALL HARDWARE NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS. BOLT LENGTHS SHALL BE FIELD VERIFIED BY THE CONTRACTOR TO HAVE SUFFICIENT THREAD LENGTH TO TIGHTEN.

TRUSS REHABILITATION NOTES:

1. ANY NECESSARY SHORING OF THE TRUSS, INCLUDING BUT NOT LIMITED TO THAT NECESSARY TO REPLACE OR REHABILITATE EXISTING BEARINGS, SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 502 OF THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR UNDER ITEM 502.10, SHORING SUPERSTRUCTURE. THE CONTRACTOR SHALL TAKE CARE SUCH THAT THE TRUSS REMAINS STABLE DURING DISMANTLING OF THE EXISTING FLOOR SYSTEM AND DURING REPAIR WORK TO TRUSS MEMBERS, SUBSTRUCTURES AND BEARINGS. THE CONTRACTOR SHALL SUBMIT CONSTRUCTION DRAWINGS FOR DISMANTLING AND SHORING, INCLUDING ASSOCIATED DESIGN CALCULATIONS, TO THE STRUCTURES ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK. CONSTRUCTION DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 105. PLANS AND DESIGN CALCULATIONS SHALL BE STAMPED BY A QUALIFIED PROFESSIONAL ENGINEER.
2. ALL EXISTING STEEL RETAINED IN THE REHABILITATED STRUCTURE SHALL BE CLEANED TO BARE METAL AND REPAINTED. WHERE STEEL IS TO BE CONNECTED TO EXISTING STEEL, THE SURFACE OF THE EXISTING STEEL SHALL BE CLEANED TO BARE METAL, REMOVING ALL RUST, AND PRIMED BEFORE ATTACHING NEW STEEL. ALL CLEANING OF EXISTING STEEL SHALL BE PAID FOR UNDER ITEM 513.41, SURFACE PREPARATION, FIELD. PAINTING OF EXISTING STEEL SHALL BE PAID FOR UNDER ITEM 513.30, STRUCTURAL PAINTING, FIELD APPLIED. THE COLOR OF THE FINAL COAT OF PAINT SHALL BE GREEN IN ACCORDANCE WITH SUBSECTION 708.03. THE CONTRACTOR SHALL ENSURE COMPATIBILITY BETWEEN THE SHOP AND FIELD PAINT SYSTEMS.
3. THE EXISTING STRUCTURAL STEEL IS PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. THE REMOVED STRUCTURAL STEEL WILL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED STRUCTURAL STEEL.
4. THE REPAIRS TO THE TRUSS MEMBERS INDICATED ON THE PLANS ARE A MINIMUM REQUIREMENT. THESE MEMBERS SHALL BE REPLACED IN KIND TO THE EXTENT FEASIBLE WITH MEMBERS HAVING SIMILAR GEOMETRY AND STRUCTURAL SECTION PROPERTIES TO THOSE DETAILED ON THE PLANS AND REFERENCE SHEETS. FOR THOSE MEMBERS NOT DESIGNATED FOR REPAIR AND IN THE OPINION OF THE RESIDENT ENGINEER HAVE INCURRED GREATER THAN 15 PERCENT SECTION LOSS, THE RESIDENT ENGINEER SHALL CONTACT THE STRUCTURES ENGINEER FOR FURTHER REPAIR RECOMMENDATIONS. AREAS LIKELY TO REQUIRE THE SPECIAL ATTENTION OF THE RESIDENT ENGINEER INCLUDE, BUT ARE NOT LIMITED TO: INTERIOR GUSSET PLATES AT TRUSS PANEL POINTS, SIDEWALK FRAMING OBSTRUCTED BY THE WATER MAIN ENCLOSURE, MISCELLANEOUS RIVETS AND BOTTOM CHORD SPLICE PLATES. ANY ADDITIONAL WORK REQUIRED SHALL BE PAID AT THE BID PRICE FOR THE APPROPRIATE BID ITEMS.
5. FINISHED GRADES FOR THE TRUSS SPAN PROVIDED IN THE PLANS ARE THEORETICAL AND ARE BASED ON ASSUMPTIONS REGARDING TRUSS DEFLECTION AND CAMBER. THE CONTRACTOR SHALL CONSTRUCT THE FLOOR SYSTEM AS SHOWN IN THE PLANS, INCLUDING CONCRETE HAUNCHES FOR STRINGERS AS SHOWN ON SHT. 28. BEAM PROFILES ARE NOT REQUIRED FOR DETERMINING FINISHED GRADES.
6. ALL CONNECTIONS ON THE TRUSS ARE BELIEVED TO BE 7/8" DIAMETER RIVETS IN 1 1/8" DIAMETER HOLES. THE CONTRACTOR SHALL VERIFY DIAMETER OF ACTUAL RIVET OR BOLT SIZE BEFORE ORDERING REPLACEMENTS.
7. ALL RIVETS REMOVED FROM THE TRUSS SHALL BE REPLACED WITH EQUIVALENT DIAMETER BOLTS MEETING AASHTO M-164, TYPE 1 GALVANIZED. HEX HEADS BOLTS SHALL BE USED, EXCEPT WHERE THE RESIDENT ENGINEER ORDERS DOME HEADED BOLTS SO AS NOT TO DETRACT FROM THE HISTORIC VALUE OF THE BRIDGE. THOSE RIVETS THAT ARE DEEMED BY THE RESIDENT ENGINEER TO BE DETERIORATED BEYOND THEIR USEFUL LIFE, BUT ARE NOT OTHERWISE TO BE REMOVED AND REPLACED UNDER THE STRUCTURAL STEEL ITEMS, SHALL BE REMOVED AND REPLACED UNDER ITEM 900.620, SPECIAL PROVISION (THROUGH TRUSS RIVET REPLACEMENT).

PROJECT NOTES (1)

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 25 OF 63



CONCRETE NOTES:

- I. FOR BOTH ABUTMENTS 1 AND 2, CONCRETE PORTIONS OF THE ABUTMENTS AND WINGWALLS ABOVE ADJACENT BRIDGE SEAT ELEVATIONS SHALL NOT BE PLACED UNTIL THE STRUCTURAL STEEL HAS BEEN SET AND FINISHED GRADE DETERMINED BY THE RESIDENT ENGINEER.
2. WHEN CONSTRUCTING THE DECK, THE CONCRETE SHALL BE POURED PARALLEL TO THE CENTERLINE OF BEARING AND SYMMETRICALLY ABOUT THE CENTERLINE OF TAYLOR STREET, TO THE EXTENT PRACTICAL, SO AS TO LOAD THE SUPERSTRUCTURE EQUALLY.
3. IT IS ANTICIPATED THAT THE CONTRACTOR WILL POUR THE ENTIRE DECK IN ONE EIGHT HOUR POUR. IF THIS IS THE CASE, THE POUR SHALL BEGIN AT THE ABUTMENT 1 END AND A RETARDING ADMIXTURE, APPROVED BY THE VERMONT AGENCY OF TRANSPORTATION MATERIALS AND RESEARCH LABORATORY, SHALL BE USED TO PREVENT THE DECK CONCRETE FROM SETTING UP UNTIL THE ENTIRE POUR HAS BEEN COMPLETED. THE RETARDING ADMIXTURE SHALL BE INCIDENTAL TO ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT). IF THIS IS NOT THE CASE, A POUR SEQUENCE SHALL BE SUBMITTED IN WRITING TO THE STRUCTURES ENGINEER FOR APPROVAL.
4. IT IS ANTICIPATED THAT THE CONTRACTOR WILL POUR THE ENTIRE SIDEWALK INDEPENDENTLY OF THE DECK, IN ONE EIGHT HOUR POUR. IF THIS IS THE CASE, THE POUR SHALL BEGIN AT THE ABUTMENT 1 END AND A RETARDING AND SHRINKAGE COMPENSATION ADMIXTURE, BOTH APPROVED BY THE VERMONT AGENCY OF TRANSPORTATION MATERIALS AND RESEARCH LABORATORY, SHALL BE USED. BOTH ADMIXTURES SHALL BE INCIDENTAL TO ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT). IF THIS IS NOT THE CASE, A POUR SEQUENCE SHALL BE SUBMITTED IN WRITING TO THE STRUCTURES ENGINEER FOR APPROVAL.
5. IF REQUIRED, TRANSVERSE BRIDGE DECK OR SIDEWALK CONSTRUCTION JOINTS SHALL BE FORMED BETWEEN ADJACENT POURS AS SHOWN IN THE TYPICAL CONCRETE CONSTRUCTION JOINT DETAIL ON SHT. 40.
6. ITEM 514.10, WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
7. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS SHOWN ON SHT. 40, OR AS DIRECTED BY THE RESIDENT ENGINEER.
8. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" X 1".
9. THE KEY IN THE CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. UPWARD KEYS SHALL BE APPROVED BY THE RESIDENT ENGINEER AND PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
10. ALL SUPERSTRUCTURE REINFORCING STEEL AND ANY SUBSTRUCTURE STEEL SO DESIGNATED ON THE PLANS, SHALL BE EPOXY COATED AND PAID FOR UNDER ITEM 507.17, EPOXY COATED REINFORCING STEEL. WHEN EPOXY COATED REINFORCING STEEL IS TO BE CUT, THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL WILL NOT BE PERMITTED.
- II. REINFORCING PLACEMENT TOLERANCES SHALL BE:
 - SPACING +/- 1"
 - CLEARANCE +/- 1/4"

UTILITY NOTES:

- I. REQUIRED UTILITY COORDINATION SHALL BE COMPLETED BY THE VERMONT AGENCY OF TRANSPORTATION UNLESS OTHERWISE NOTED. ANTICIPATED UTILITY COORDINATION MAY BE REQUIRED FOR THE FOLLOWING WORK ITEMS SHOWN IN THE PLANS:
 - THE PROPOSED GATE VALVE AT STA. 14+00.0 LT SHALL BE INSTALLED UNDER ITEM 629.27 GATE VALVE WITH VALVE BOX. THE PROPOSED GATE VALVE SHALL BE INSTALLED PRIOR TO DISCONNECTION OF THE EXISTING WATER MAIN FROM SERVICE. ANY EXCAVATION REQUIRED FOR GATE VALVE INSTALLATION SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCLUDED UNDER ITEM 629.27.
 - THE PORTION OF THE WATER MAIN CURRENTLY SUPPORTED ON THE EXISTING BRIDGE SHALL BE ISOLATED AND DISCONNECTED FROM SERVICE. THE 8" DIA. WATER MAIN IS CURRENTLY OWNED AND MAINTAINED BY THE CITY OF MONTPELIER. THE CONTRACTOR SHALL COORDINATE DISCONNECTION OF THE EXISTING WATER MAIN WITH THE CITY.
 - THE EXISTING 8" DIA. WATER MAIN AND ASSOCIATED TIMBER INSULATION BOX WILL BE COMPLETELY REMOVED UNDER ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE. THE EXISTING WATER MAIN TIMBER INSULATION BOX (BOX) MAY CONTAIN HAZARDOUS MATERIAL. THE REMOVED BOX IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE CITY, STATE, THEIR OFFICERS AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE BOX. ALL COSTS ASSOCIATED WITH ITS DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO ITEM 529.20.
 - THE EXISTING WATER MAIN SHALL BE REPLACED UNDER ITEM 900.645, SPECIAL PROVISION (WATER MAIN ON BRIDGE) (8").
 - THE EXISTING GATE VALVES AT THE SOUTHEAST APPROACH SHALL BE ADJUSTED IN ELEVATION BY THE CITY OF MONTPELIER DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE GATE VALVES DURING CONSTRUCTION.
 - EXISTING LUMINARIES LOCATED AT STA. 14+40.6 LT AND 15+64.4 LT SHALL BE REPLACED BY GREEN MOUNTAIN POWER (GMP). THE CITY OF MONTPELIER WILL COORDINATE WITH GMP ACCORDINGLY.

TRAFFIC CONTROL AND DETOUR NOTES:

- I. DURING CONSTRUCTION, VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AS FOLLOWS:
 - TEMPORARY TRAFFIC BARRIERS SHALL BE INSTALLED AT THE PROJECT SITE AS SHOWN ON SHT. 23.
 - THE TEMPORARY TRAFFIC DETOUR (FOR VEHICLES) SHALL BE ESTABLISHED AS SHOWN ON SHT. 42.
 - A TEMPORARY SIGNAL SYSTEM SHALL BE INSTALLED AT THE TAYLOR ST/ U.S. BUSINESS ROUTE 2 (STATE STREET) INTERSECTION AS SHOWN ON SHT. 43.
 - TEMPORARY SIGNAL ADJUSTMENTS SHALL BE MADE AT THE BAILEY AVENUE/ MEMORIAL DRIVE AND TAYLOR STREET/MEMORIAL DRIVE INTERSECTIONS AS SHOWN ON SHT. 43.
 - THE TEMPORARY PEDESTRIAN DETOUR SHALL BE ESTABLISHED AS SHOWN ON SHT. 44.
2. THE CONTRACTOR SHALL NOTIFY THE CITY OF MONTPELIER DEPARTMENT OF PUBLIC WORKS (DIRECTOR TODD LAW 802-223-9508) AND THE STATE OF VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES (DAVID BURLEY 802-828-5643) A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF DIVERTING ANY VEHICULAR OR PEDESTRIAN TRAFFIC.
3. CONTRACTOR SHALL ERECT AND MAINTAIN ALL EQUIPMENT AND FACILITIES REQUIRED FOR TRAFFIC CONTROL AND DETOURS AS SHOWN IN THE PLANS AND AS DIRECTED BY THE RESIDENT ENGINEER. THE BID PRICE FOR ITEM 641.10, TRAFFIC CONTROL SHALL INCLUDE ALL WORK REQUIRED TO INSTALL, MAINTAIN AND REMOVE TEMPORARY SIGNING, BARRELS, BARRICADES, CONES, FENCE, PAVEMENT MARKINGS AND ADJUSTMENTS TO EXISTING TRAFFIC SIGNALS.
4. ITEM 621.90, TEMPORARY TRAFFIC BARRIER AND ITEM 678.40, TEMPORARY TRAFFIC SIGNAL SYSTEM SHALL EACH BE MEASURED AND PAID FOR UNDER THEIR RESPECTIVE ITEM NUMBERS AND PAYMENT UNITS.
5. AS A MINIMUM, ROLL UP SIGN MATERIAL SHALL HAVE ASTM D 4956-OI TYPE VI FLUORESCENT ORANGE RETROREFLECTIVE SHEETING. ALL POST-MOUNTED SIGNS AND SOLID SUBSTRATE PORTABLE SIGNS SHALL HAVE ASTM D 4956-OI TYPE VII, TYPE VIII OR TYPE IX FLUORESCENT ORANGE RETROREFLECTIVE SHEETING.

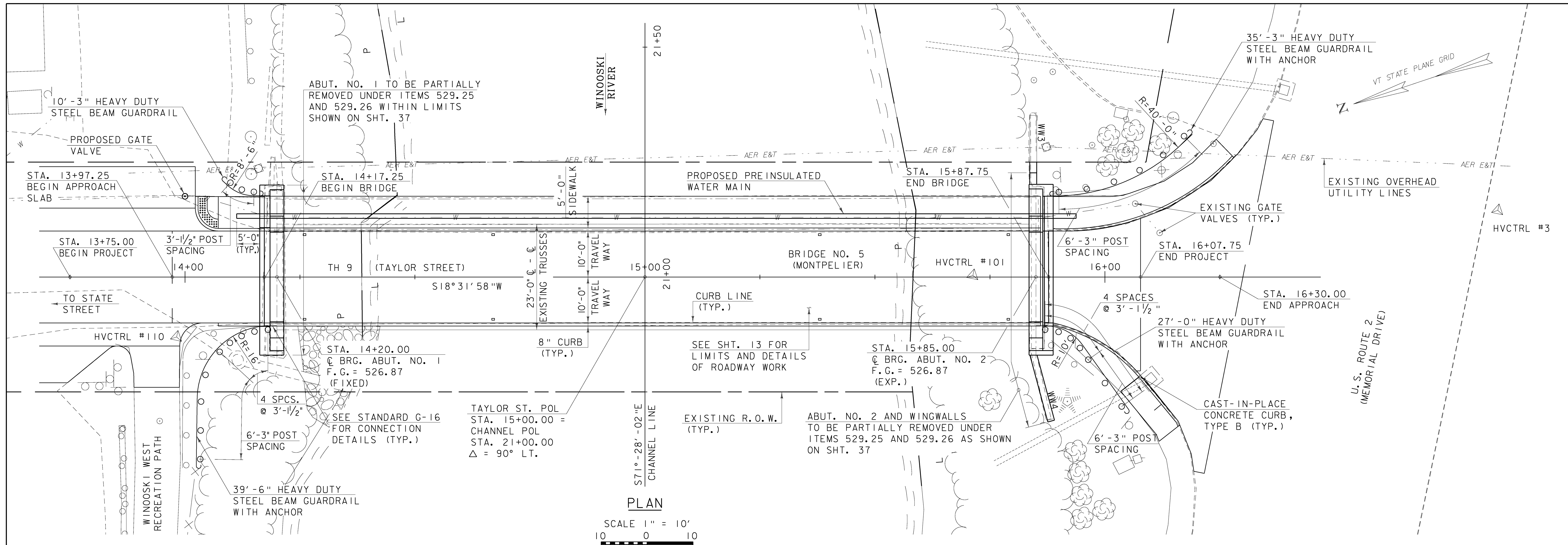
PROJECT NOTES (2)

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

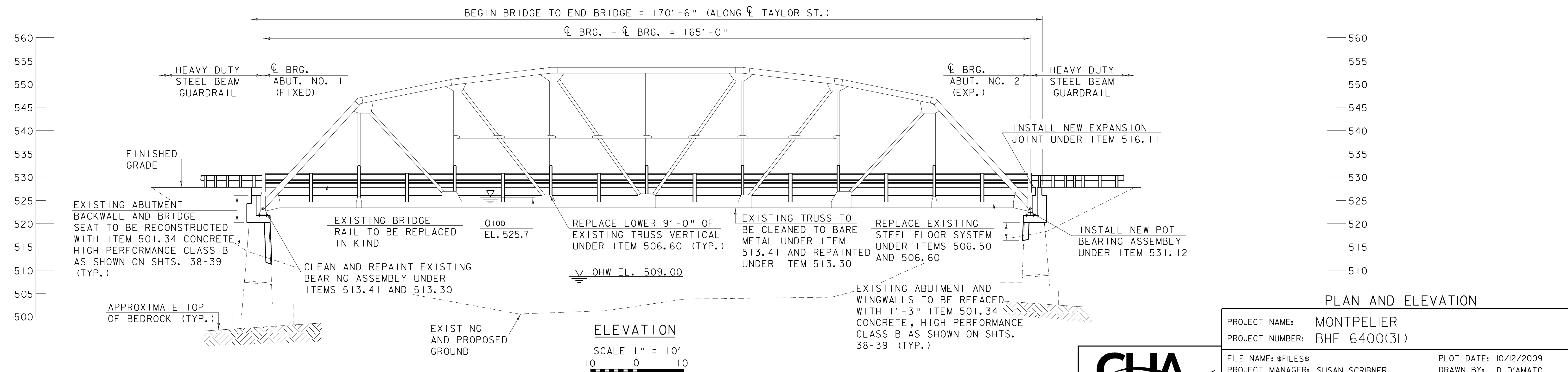
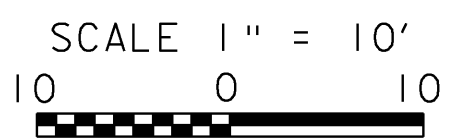
FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 26 OF 63

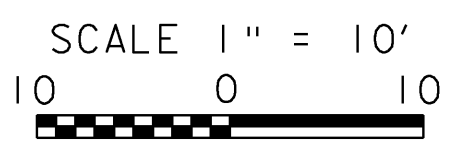




PLAN



ELEVATION

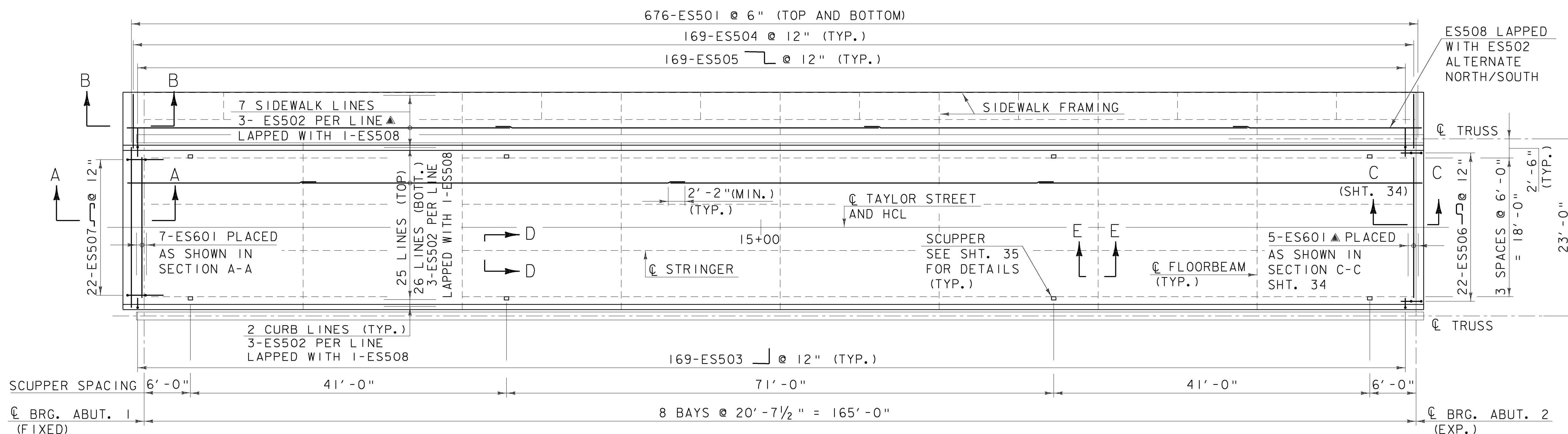


PLAN AND ELEVATION

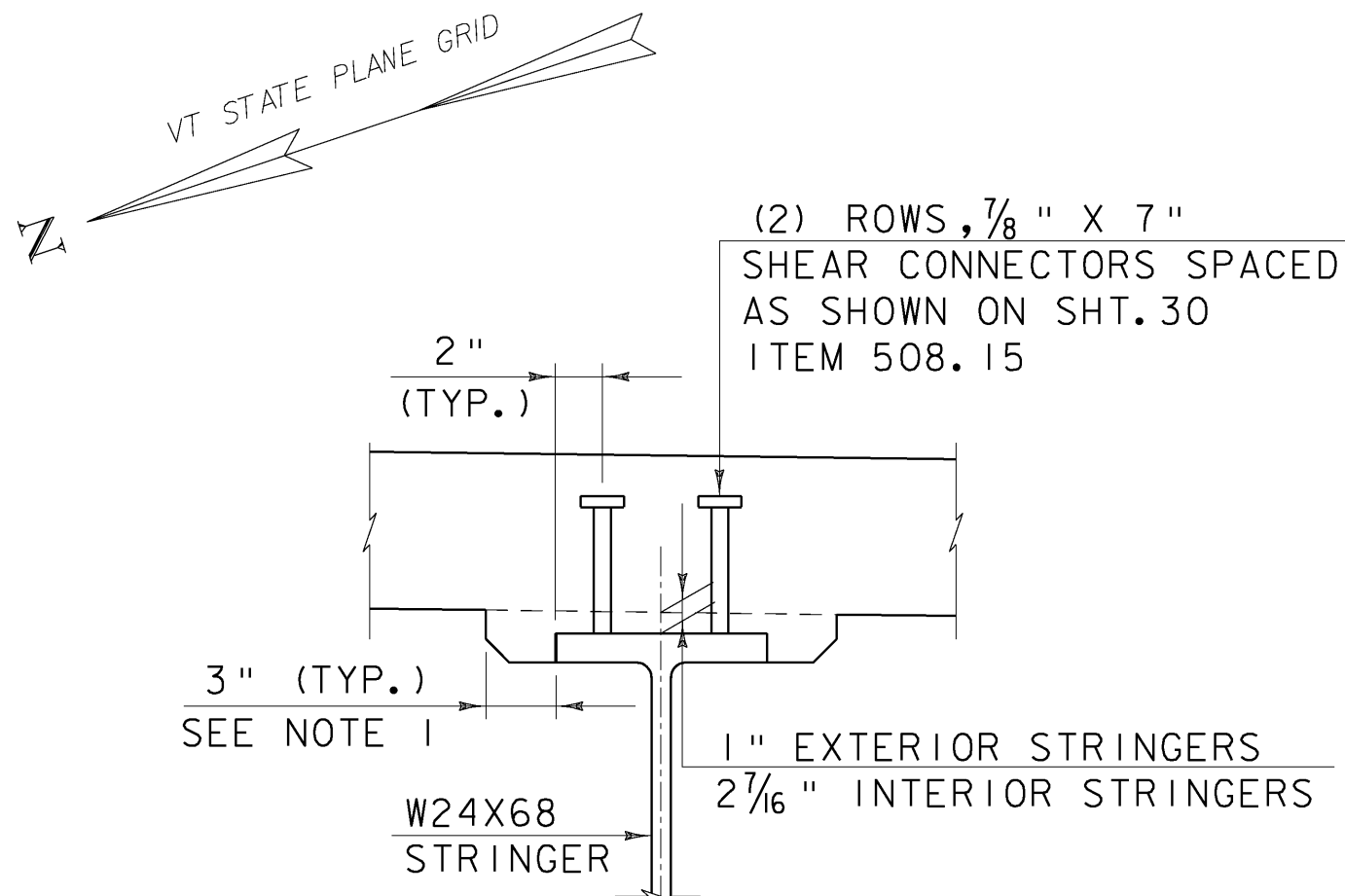
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PROJECT NUMBER:	BHF 6400(31)	PROJECT MANAGER:	SUSAN SCRIBNER	DRAWN BY:	D. D'AMATO
		DESIGNED BY:	D. D'AMATO	CHECKED BY:	P. PERKINS
		BRIDGE DESIGN SUPERVISOR:	P. HALSTEAD		SHEET 27 OF 63



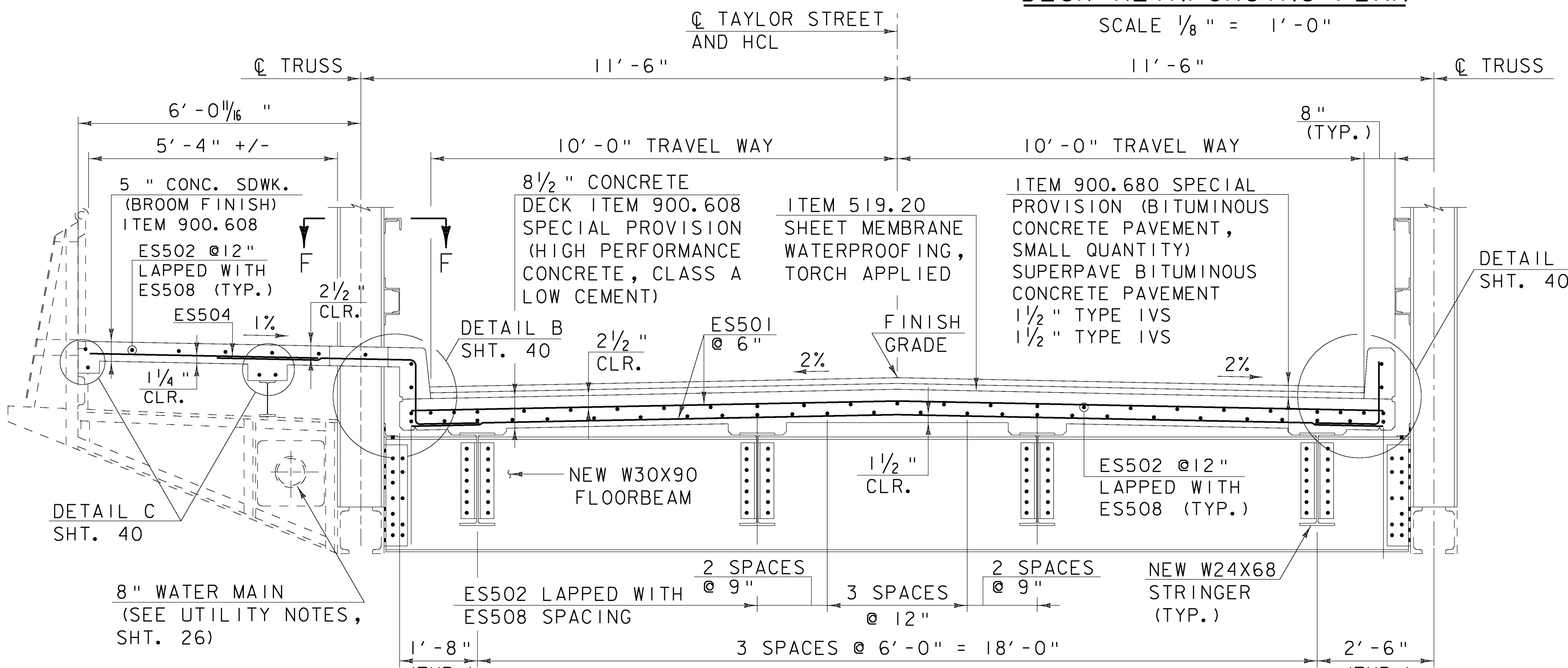
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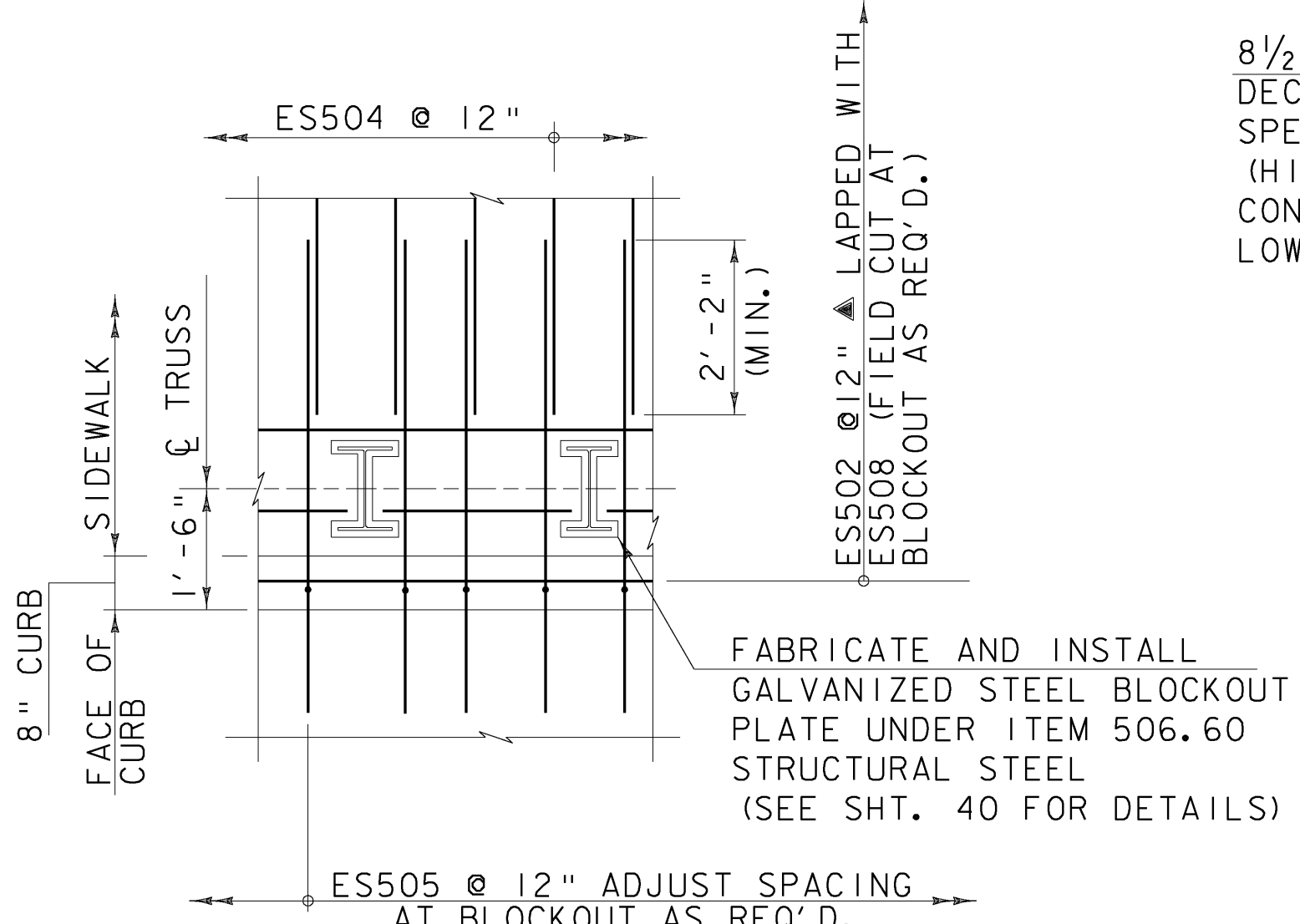
DECK REINFORCING PLAN
SCALE 1/8" = 1'-0"



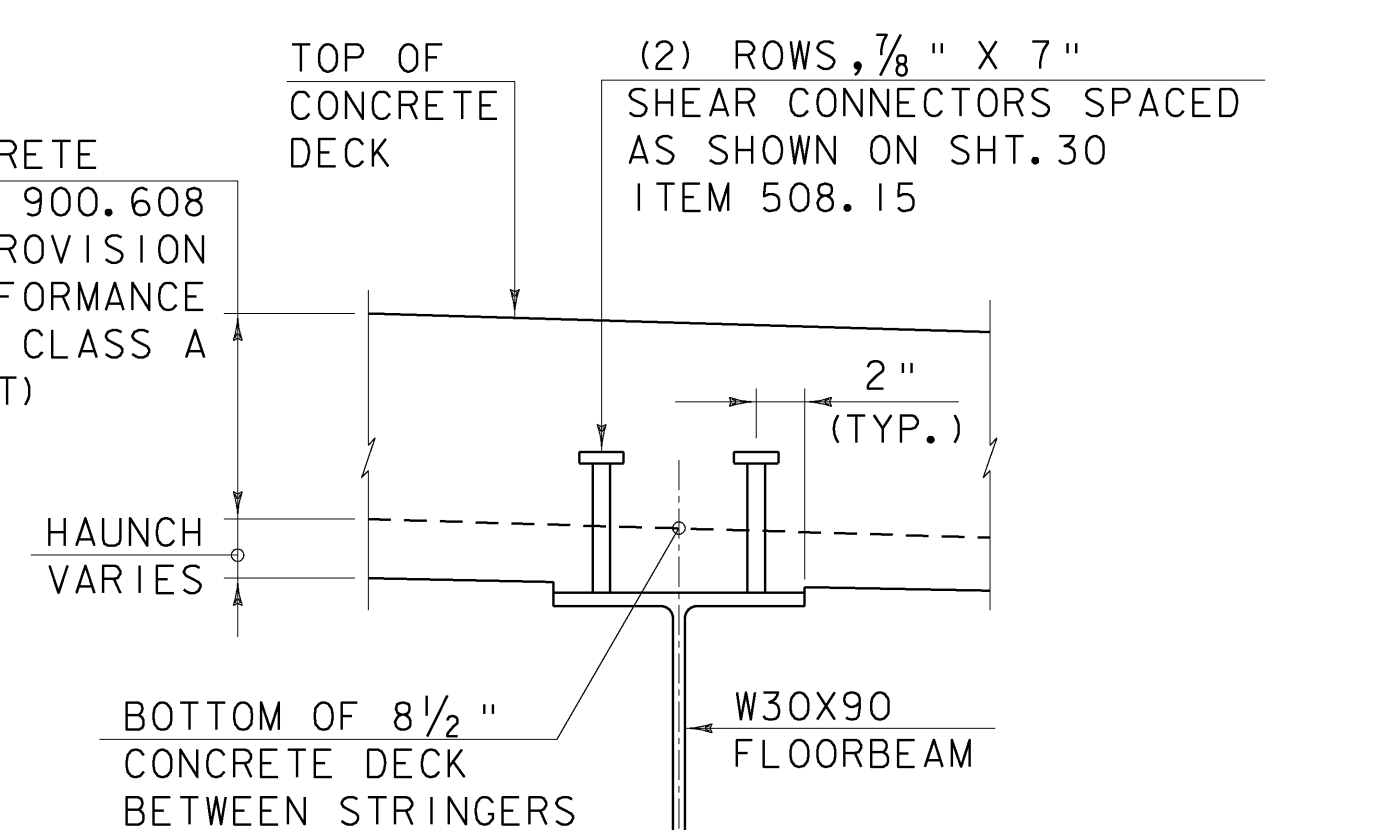
SECTION D-D
SCALE 1/2" = 1'-0"



TYPICAL BRIDGE SECTION
SCALE 1/2" = 1'-0"



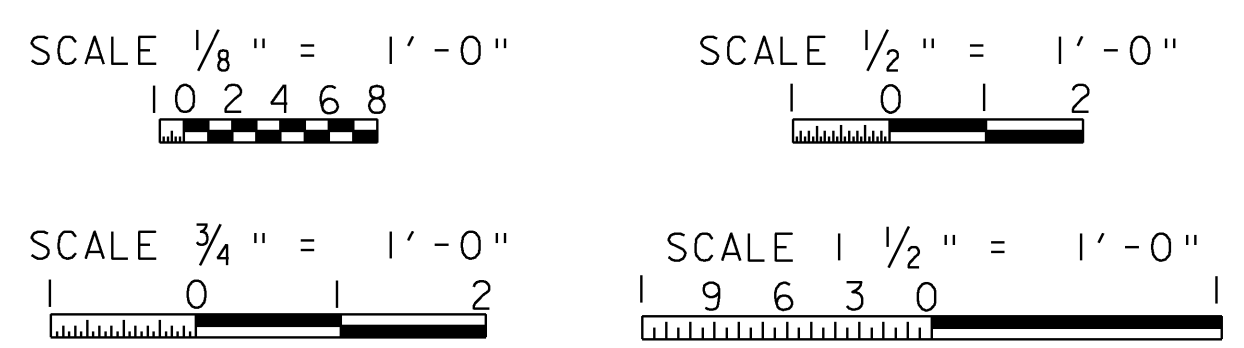
SECTION F-F
SCALE 1/2" = 1'-0"



SECTION E-E
SCALE 1/2" = 1'-0"

NOTES:

1. THE 3" STRINGER HAUNCH PROJECTION MAY BE ELIMINATED FOR FORMING SYSTEMS DESIGNED FOR THE CONSTRUCTION OF VERTICAL HAUNCHES. SYSTEMS SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURES ENGINEER. ALL VOIDS SHALL BE FILLED WITH POLYURETHANE JOINT SEALER OR AN EQUIVALENT PRODUCT APPROVED BY THE VERMONT AGENCY OF TRANSPORTATION MATERIALS AND RESEARCH LABORATORY.
2. FOR END OF DECK DETAILS AT ABUTMENT 2, SEE SHT. 34.



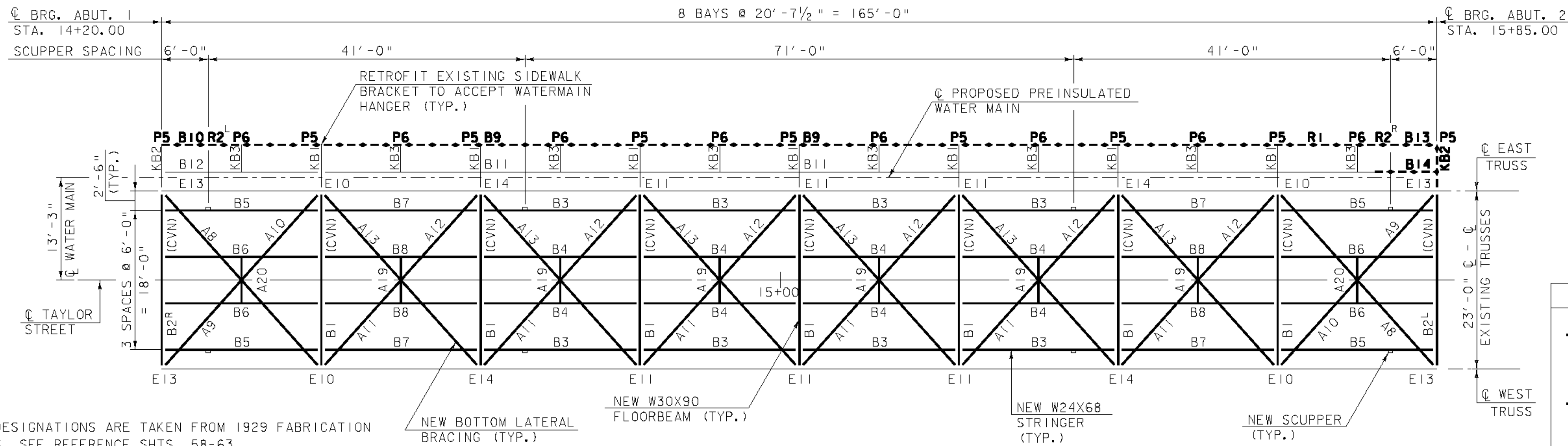
- LEGEND:**
 NF = NEAR FACE
 FF = FAR FACE
 EF = EACH FACE
 ▲ = CUT IN FIELD

DECK PLAN AND DETAILS

PROJECT NAME:	MONTPELIER	FILE NAME:	\$FILES\$	PLOT DATE:	10/12/2009
PROJECT NUMBER:	BHF 6400(31)	PROJECT MANAGER:	SUSAN SCRIBNER	DESIGNED BY:	D. D'AMATO
		BRIDGE DESIGN SUPERVISOR:	P. HALSTEAD	CHECKED BY:	P. PERKINS
					SHEET 28 OF 63



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FLOOR FRAMING PLAN

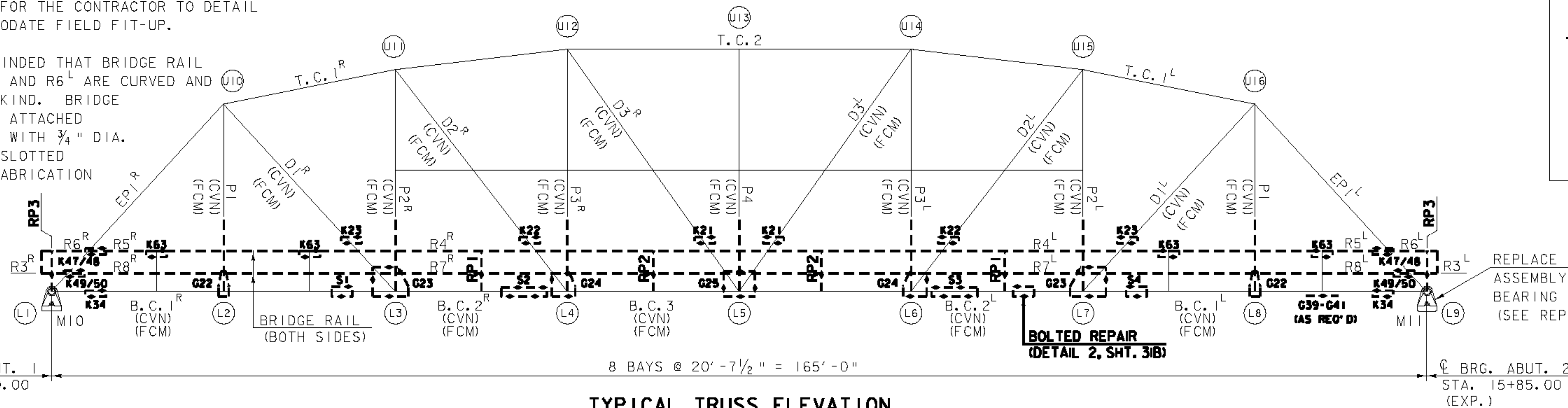
SCALE 1/8" = 1'-0"
1 0 2 4 6 8

NOTES:

- MEMBER DESIGNATIONS ARE TAKEN FROM 1929 FABRICATION DRAWINGS. SEE REFERENCE SHTS. 58-63.
- SEE SHT. 25, FOR ADDITIONAL INFORMATION REGARDING PAYMENT AND REQUIRED SUBMITTALS.
- WHERE NEW STRUCTURAL STEEL IS NOT FULLY DETAILED IN THE PLANS, THE INTENT IS FOR THE CONTRACTOR TO DETAIL THE MEMBERS TO ACCOMMODATE FIELD FIT-UP.
- THE CONTRACTOR IS REMINDED THAT BRIDGE RAIL MEMBERS R3^L, R3^R, R6^R AND R6^L ARE CURVED AND SHALL BE REPLACED IN KIND. BRIDGE RAIL MEMBERS SHALL BE ATTACHED TO THE EXISTING TRUSS WITH 3/4" DIA. BOLTS IN 9/16" X 1 1/8" SLOTTED HOLES, PER THE 1929 FABRICATION DRAWINGS.

LEGEND

- EXISTING MEMBER TO BE REPLACED UNDER ITEM 506.50, STRUCTURAL STEEL, ROLLED BEAM
- EXISTING MEMBER TO BE REPLACED UNDER ITEM 506.60, STRUCTURAL STEEL
- EXISTING MEMBER TO REMAIN (CLEAN TO BARE METAL UNDER ITEM 513.41, SURFACE PREPARATION, FIELD AND REPAINT UNDER ITEM 513.30, STRUCTURAL PAINTING, FIELD APPLIED)
- ADDITIONAL MEMBER TO BE REPLACED UNDER ITEM 506.60, STRUCTURAL STEEL AS DETERMINED DURING CONSTRUCTION (SEE SHT. 31A-31C FOR ADDITIONAL REPAIR REQUIREMENTS)
- JOINT NUMBER



TYPICAL TRUSS ELEVATION

(EAST TRUSS SHOWN, WEST TRUSS SIMILAR)
SCALE 1/8" = 1'-0"
1 0 2 4 6 8

REPAIR REQUIREMENTS (TYPICAL EACH TRUSS)

FOR ANY MEMBERS NOT SHOWN ABOVE, REFER TO SHTS. 58-63 FOR 1929 FABRICATION DRAWINGS:

FLOORBEAMS - MEMBER B1, B2^R AND B2^L: REPLACE EXISTING CB30X115 WITH W30X90 (SEE SHT. 30)

STRINGERS - MEMBER B3, B4, B5, B6, B7 AND B8: REPLACE EXISTING CB24X76 WITH W24X68 (SEE SHT. 30)

VERTICALS - MEMBER P1, P2^R, P2^L, P3^R, P3^L, P4: REPLACE LOWER 9'-0" OF EXISTING CB12X36 WITH W12X35

BRIDGE RAIL - MEMBER R4^R, R5^R AND R6^R: REPLACE L4X3X5/16 ANGLE (FULL LENGTH)

BRIDGE RAIL - MEMBER R4^L, R5^L AND R6^L: REPLACE L4X3X5/16 ANGLE (FULL LENGTH)

BRIDGE RAIL - MEMBER R3^R, R7^R AND R8^R: REPLACE BUILT UP RAIL SECTION 1-C6X8.2 CHANNEL AND 2-L4X3X5/16 ANGLES (FULL LENGTH)

BRIDGE RAIL - MEMBER R3^L, R7^L AND R8^L: REPLACE BUILT UP RAIL SECTION 1-C6X8.2 CHANNEL AND 2-L4X3X5/16 ANGLES (FULL LENGTH)

SIDEWALK RAIL - MEMBER R1, R2^R, R2^L: REPLACE 3/4" SQUARE X 2'-6 3/8" RAILING BALUSTERS AS DIRECTED BY THE RESIDENT ENGINEER. ANY BALUSTERS (AND/OR SECTION OF 2"X1/8" TOP HORIZONTAL BALUSTER SUPPORT BAR) THAT ARE EITHER STRAIGHTENED OR REPLACED SHALL BE PAID UNDER ITEM 506.60, STRUCTURAL STEEL, AT THE PER POUND PRICE FOR THE WEIGHT OF EACH PIECE.

LATERAL BRACING - MEMBER A8, A9 AND A10: REPLACE 2-L5X3X5/16 ANGLES (FULL LENGTH)

LATERAL BRACING - MEMBER A11, A12 AND A13: REPLACE L4X3 1/2 X 3/16 ANGLE (FULL LENGTH)

HANGERS - MEMBER A19 AND A20: REPLACE BUILT UP HANGER SECTION 1-L4X3X5/16, 1-L6X3 1/2 X 3/8, 1-L3 1/2 X 3 1/2 X 5/16 AND 4-L6X4X3/8

CONNECTION P - MEMBER E10: REPLACE P 3/8" X 15 1/2" X 2'-9"

CONNECTION P - MEMBER E11: REPLACE P 3/8" X 15 1/2" X 2'-8"

CONNECTION P - MEMBER E13: REPLACE P 3/8" X 14" X 2'-9"

CONNECTION P - MEMBER E14: REPLACE P 3/8" X 15" X 2'-8"

CONNECTION P - MEMBER G8: REPLACE P 3/8" X 11 1/2" X 2'-4 1/2"

CONNECTION P - MEMBER G9: REPLACE P 3/8" X 15" X 2'-9"

FIXED BEARING - MEMBER M10: REMOVE EXISTING PIN, CLEAN TO BARE METAL AND REPAINT EXISTING ASSEMBLY, GREASE AND REPLACE PIN (SEE SHT. 25, TRUSS REHABILITATION NOTE 2)

EXPANSION BEARING - MEMBER M11: REPLACE EXISTING ASSEMBLY (SHT. 32 FOR DETAILS).

SIDEWALK BRACKETS - MEMBERS KB1, KB2, KB3: RETROFIT TO ACCEPT WATER MAIN HANGER (SHT. 30 FOR DETAILS)

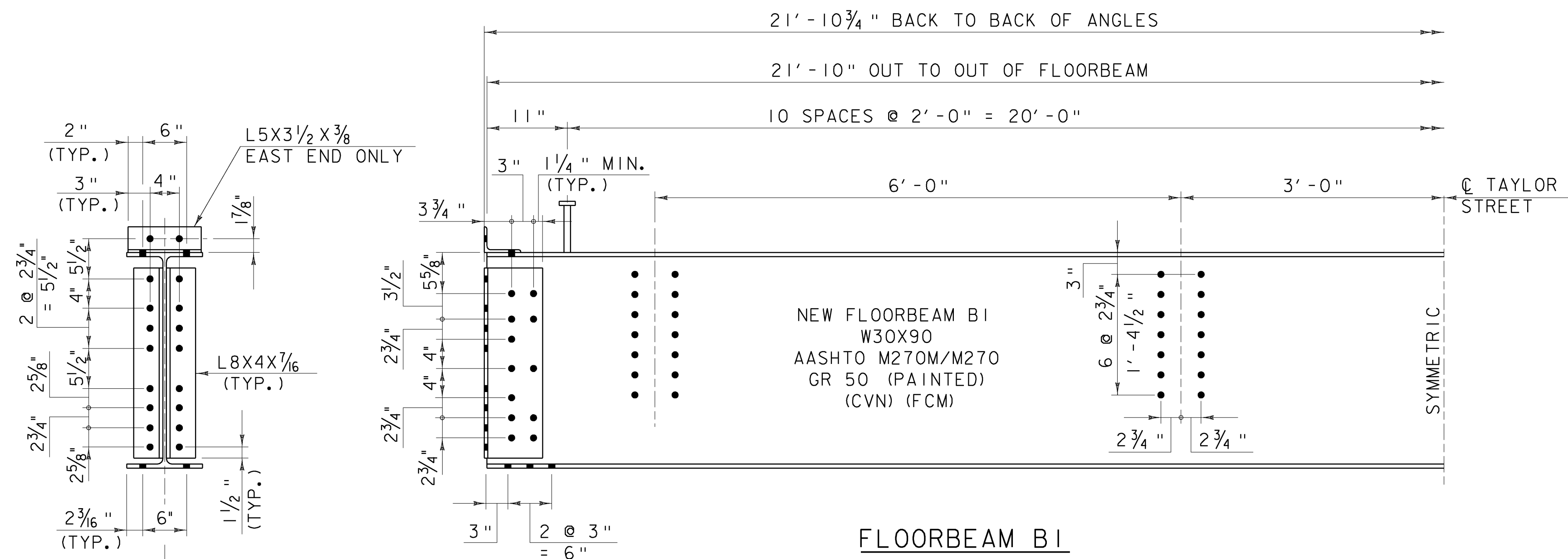
TRUSS REHABILITATION

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

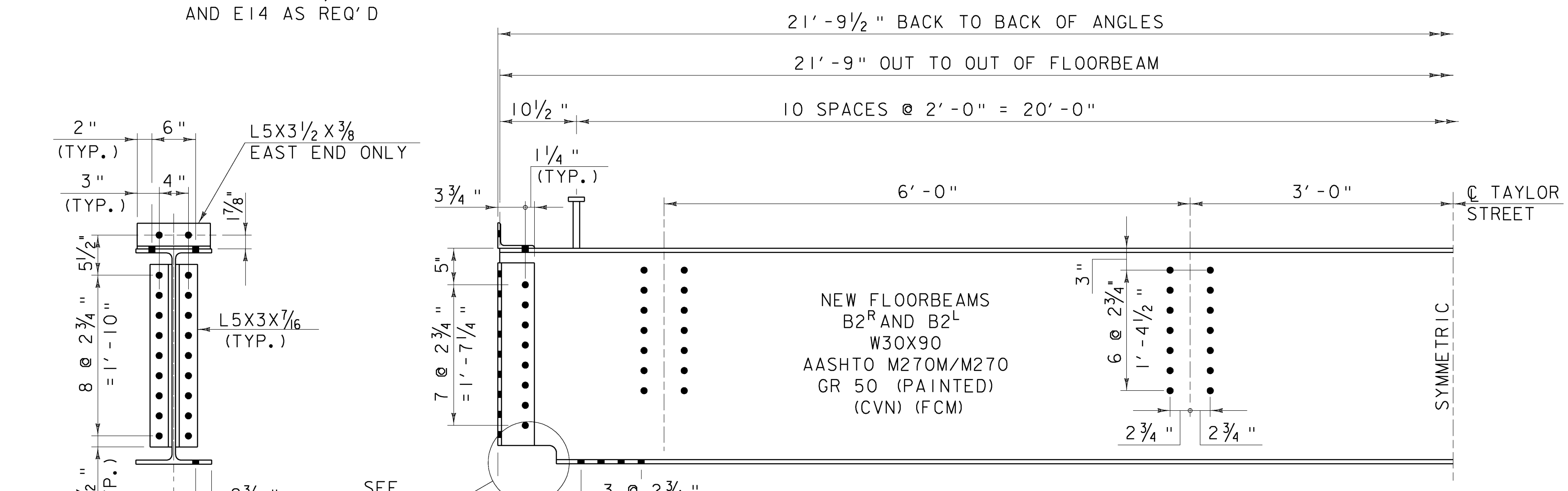
FILE NAME: #FILES# PLOT DATE: 7/8/2010
PROJECT MANAGER: SUSAN SCRIBNER DRAWN BY: D. D'AMATO
DESIGNED BY: D. D'AMATO CHECKED BY: P. PERKINS
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD SHEET 29 OF 63



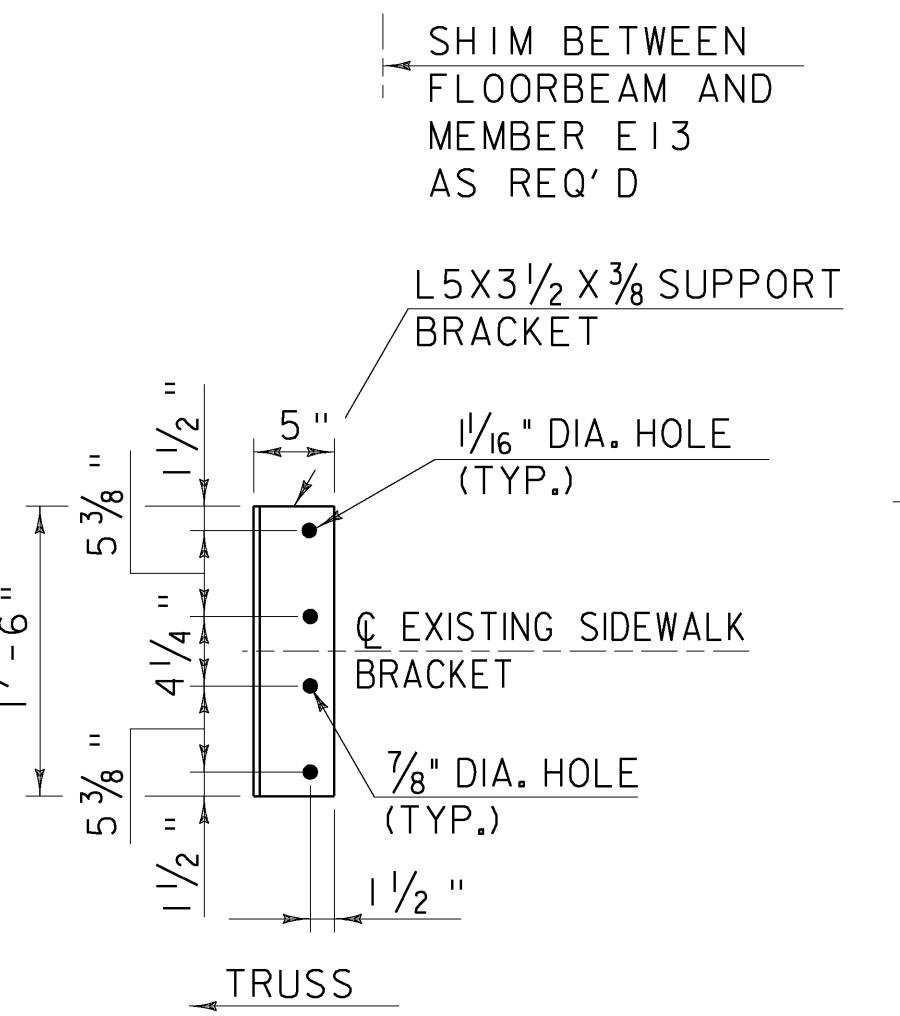
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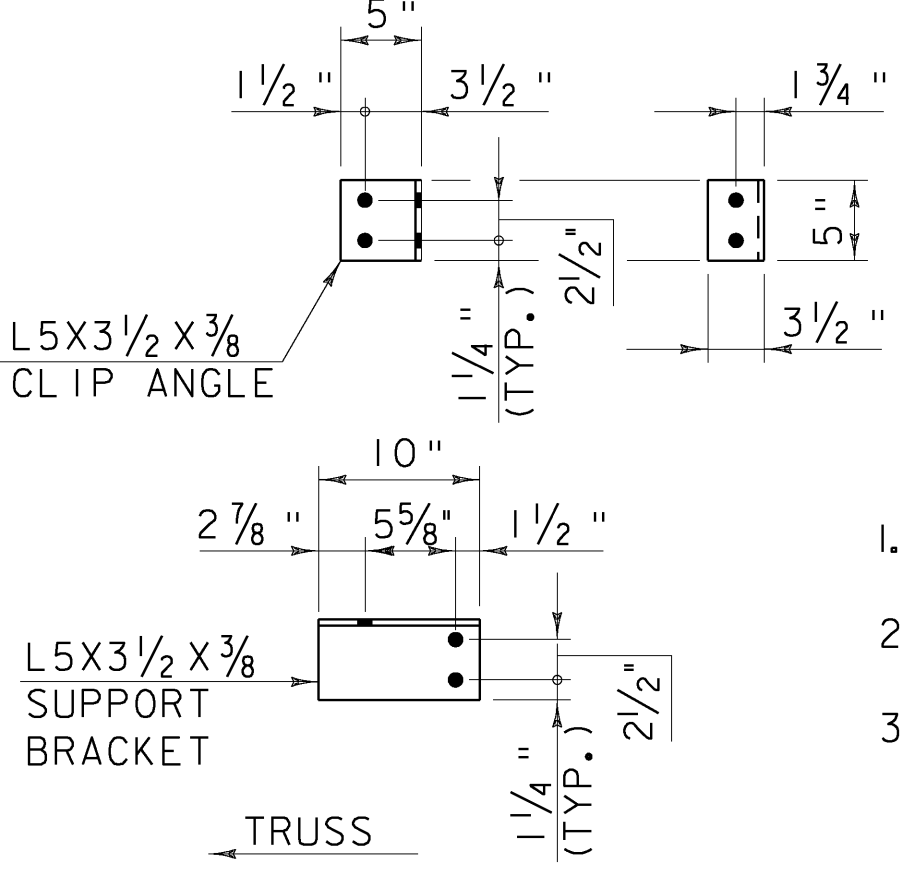
FLOORBEAM B1
(LOOKING UPSTATION)
SCALE 1" = 1'-0"



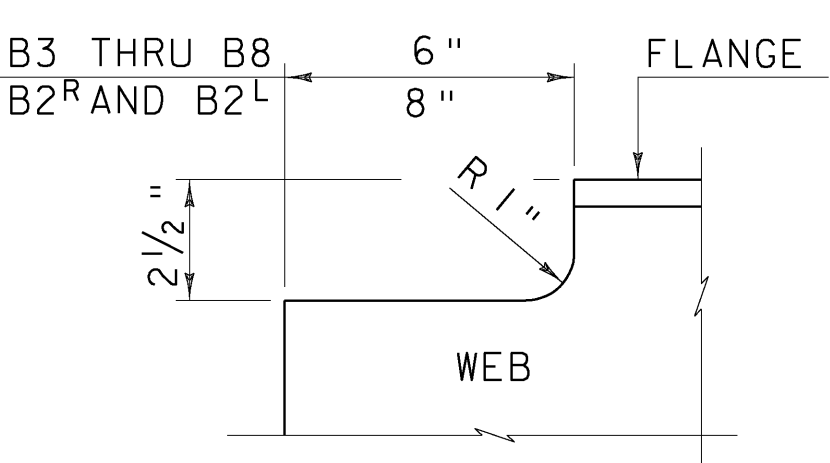
FLOORBEAMS B2^L
(LOOKING UPSTATION)
(FLOORBEAM B2^R SIMILAR)
SCALE 1" = 1'-0"



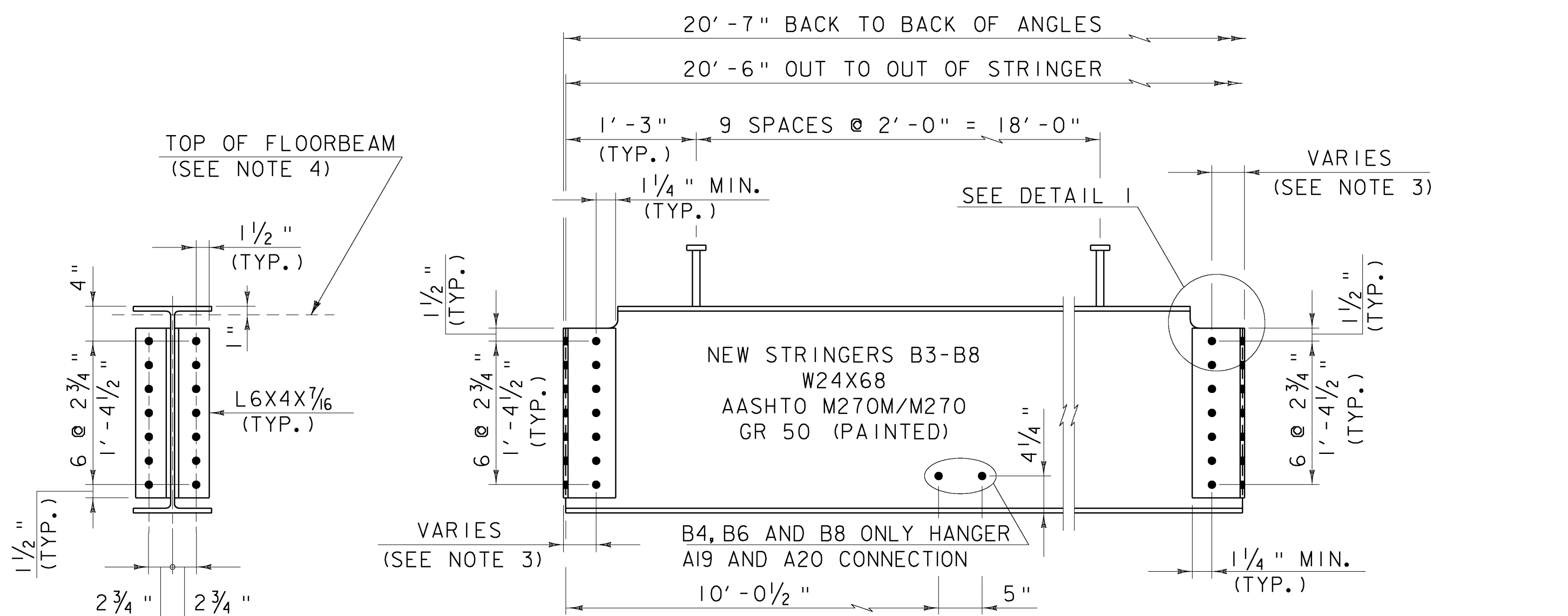
DETAIL 1
SCALE 1" = 1'-0"



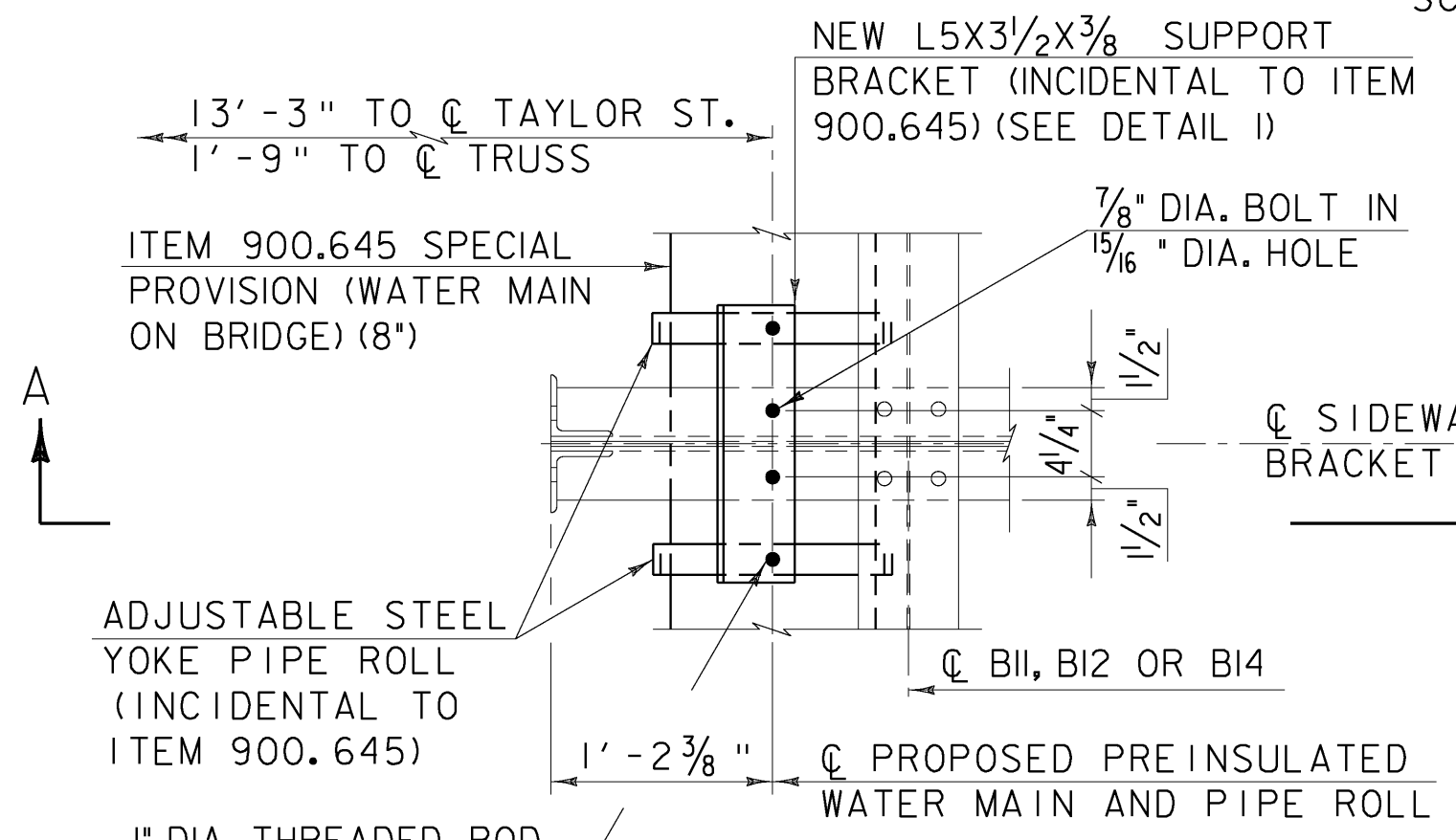
DETAIL 2
SCALE 1" = 1'-0"



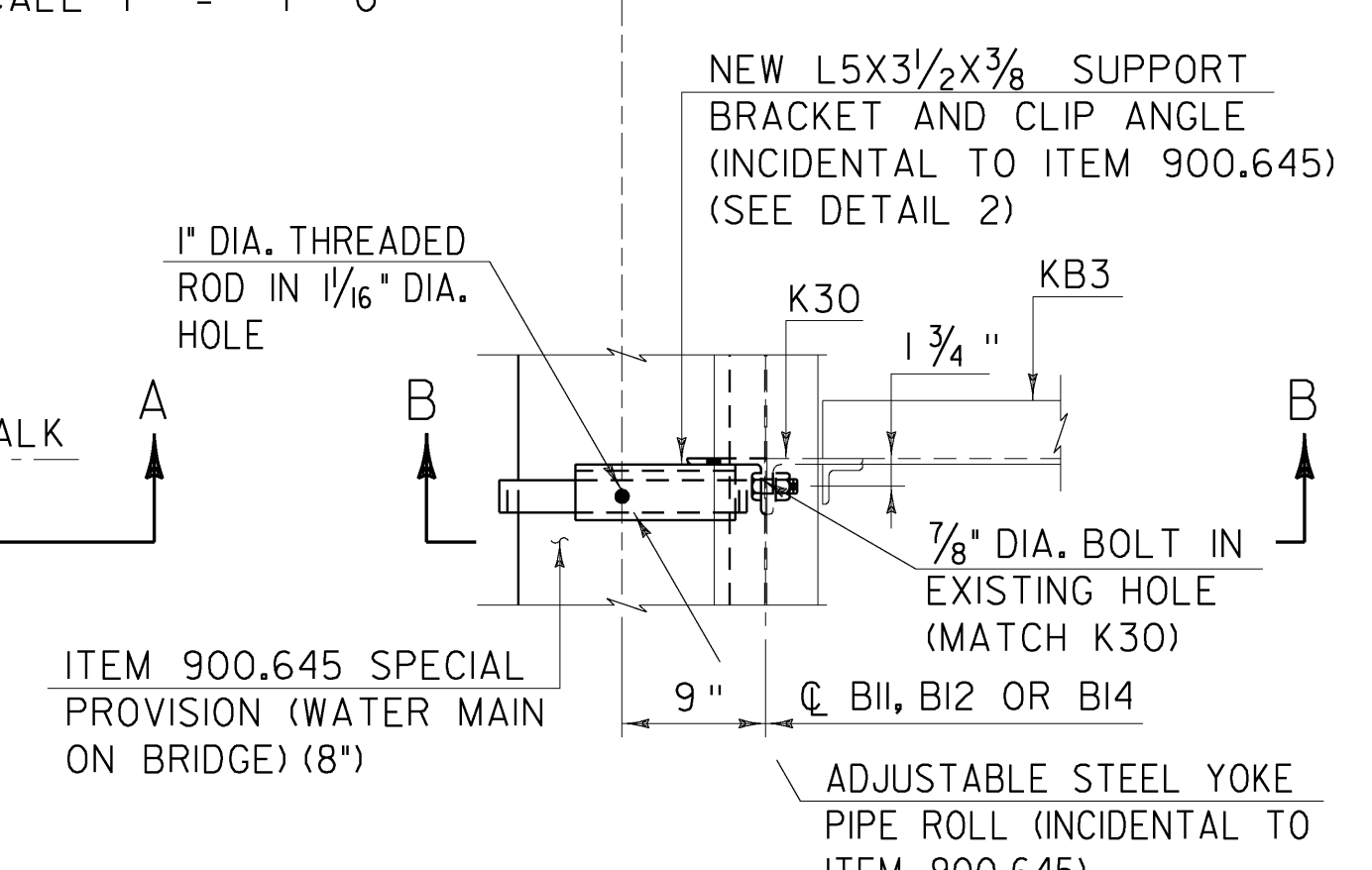
DETAIL 3
NOT TO SCALE



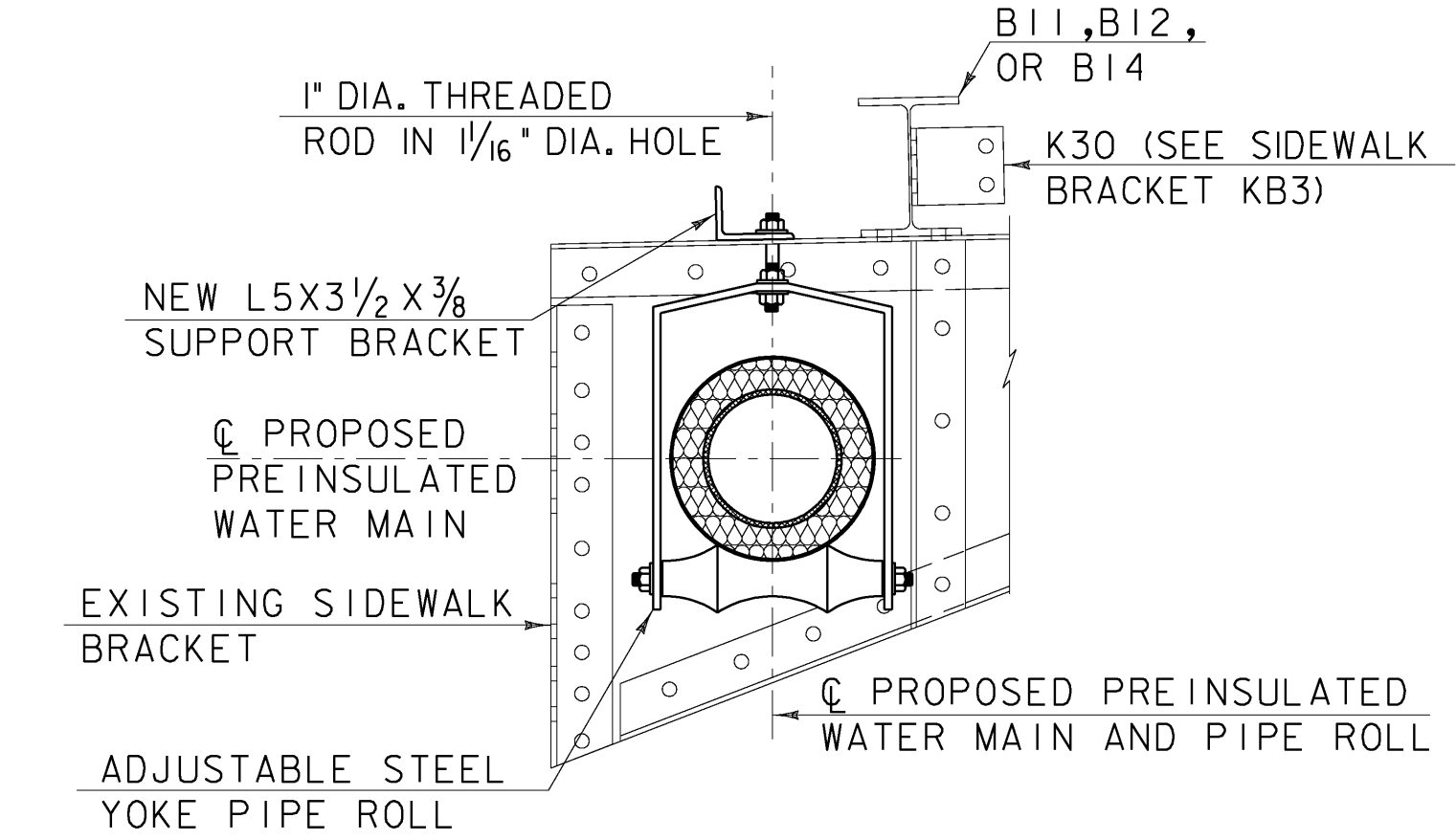
STRINGERS B3-B8
SCALE 1" = 1'-0"



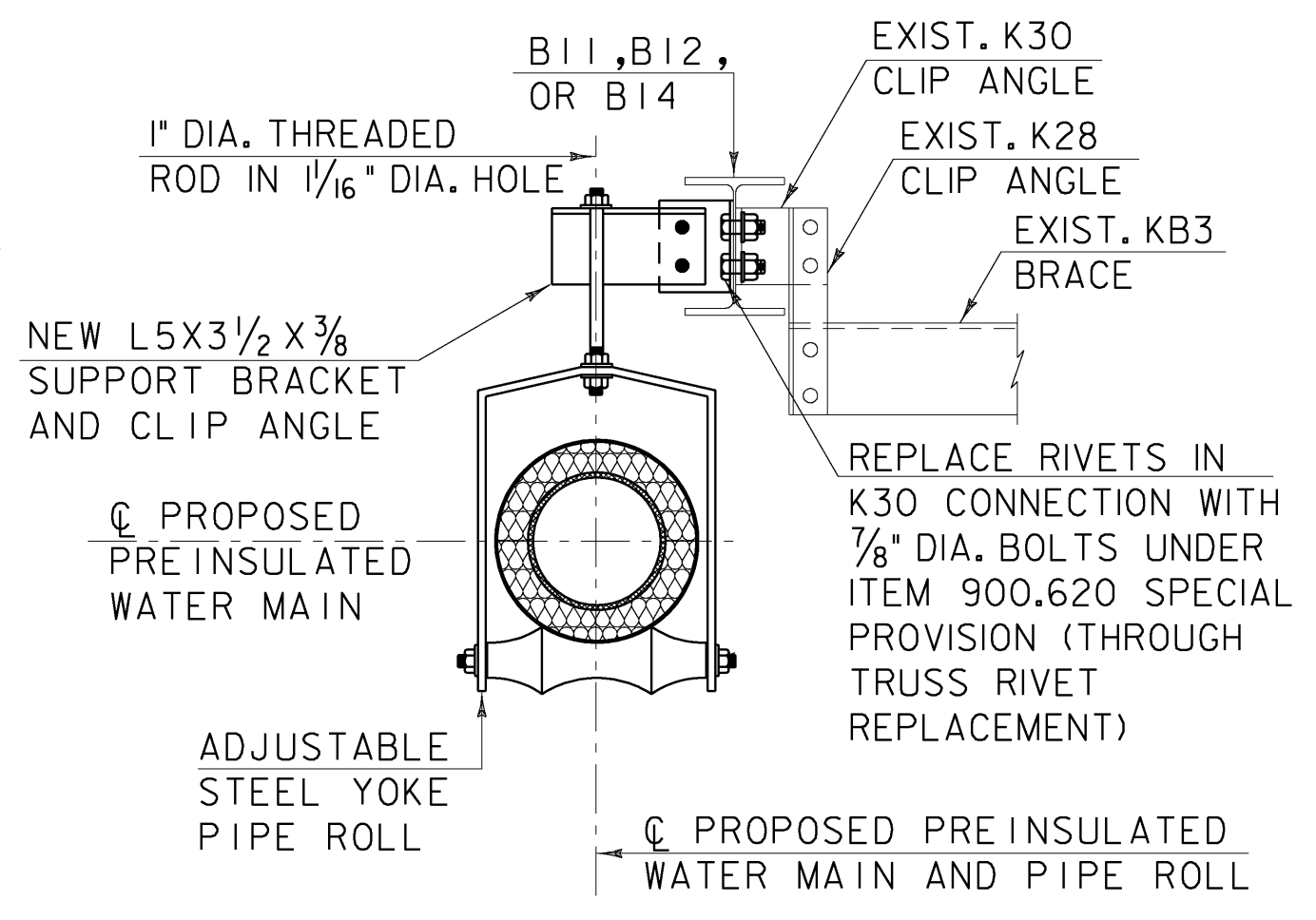
PLAN
(WATERMAIN HANGER CONNECTION AT KBI)



PLAN
(WATERMAIN HANGER CONNECTION AT KB3)

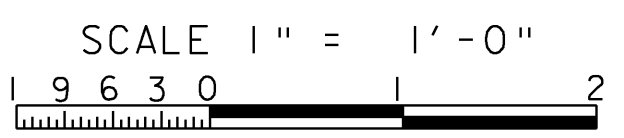


SECTION A-A
SIDEWALK BRACKET KBI
(BRACKET KB2 SIMILAR)
SCALE 1" = 1'-0"



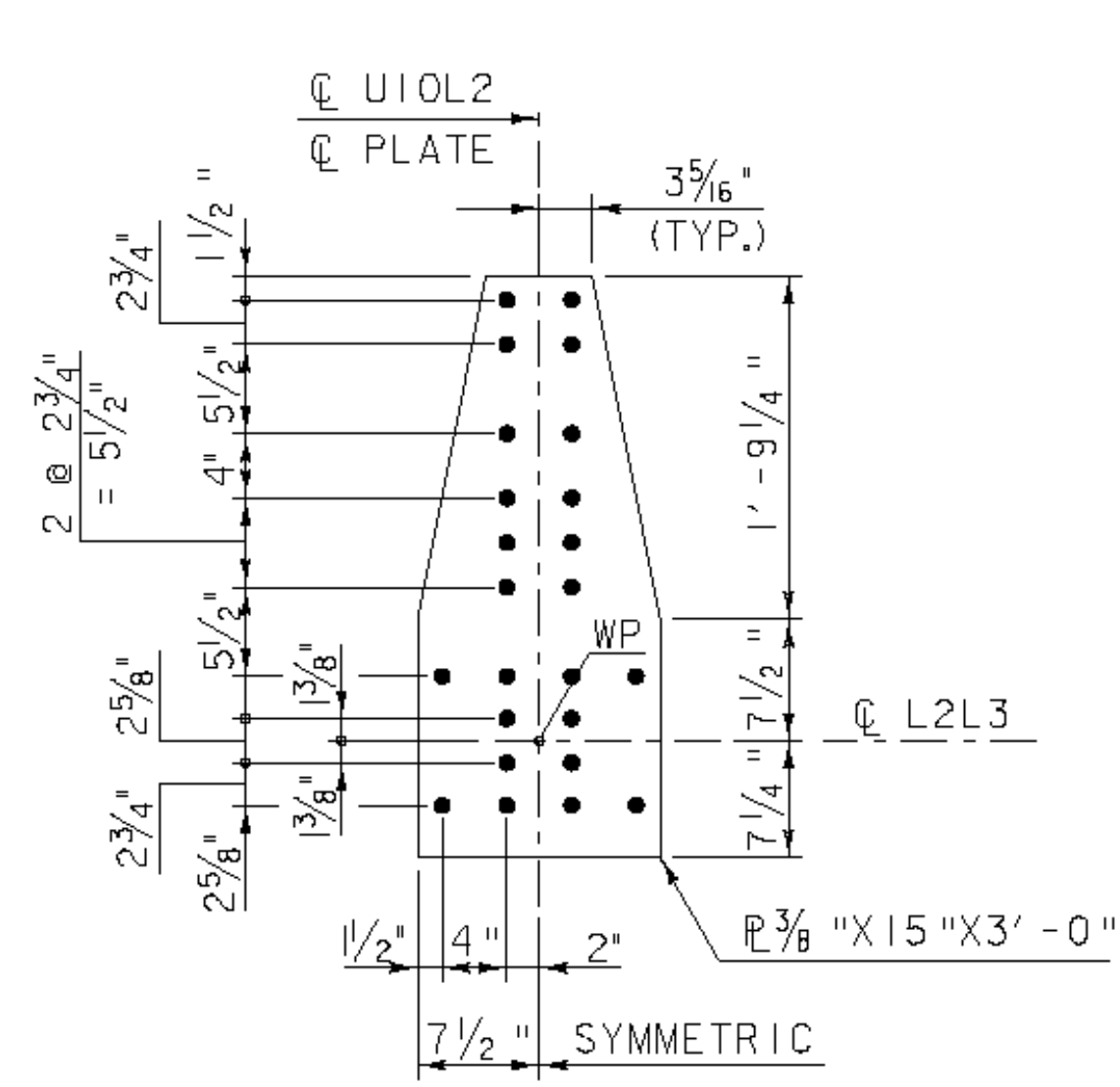
SECTION B-B
SIDEWALK BRACKET KB3
SCALE 1" = 1'-0"

- SEE REFERENCE SHTS. 58-63 FOR 1929 FABRICATION DRAWINGS.
- SEE SHT. 25 FOR ADDITIONAL INFORMATION REGARDING PAYMENT AND REQUIRED SUBMITTALS.
- THE CONTRACTOR IS ADVISED THAT THE EXISTING TRUSS IS CAMBERED TO PRODUCE THE VERTICAL CURVATURE OF TAYLOR STREET. AS A RESULT, STRINGER TO FLOORBEAM CONNECTION ANGLES MAY NOT BE PLUMB. THE CONTRACTOR IS CAUTIONED TO ENSURE THE BOLT PATTERN IN THE STRINGER WEB FACILITATES FIELD FIT-UP THROUGH UNDERSTANDING OF REFERENCE SHTS. 58-63 AND BY OBTAINING ALL NECESSARY FIELD MEASUREMENTS. FIELD DRILLING MAY BE DETAILED AT THE CONTRACTOR'S OPTION, PROVIDED REQUIRED EDGE DISTANCES ARE MAINTAINED.
- THE CONTRACTOR IS CAUTIONED THAT THE TOP OF THE NEW STRINGERS ARE DETAILED 1" HIGHER THAN THE TOP OF THE FLOORBEAMS. THIS IS A CHANGE FROM THE DETAILING SHOWN IN THE 1929 FABRICATION DRAWINGS.

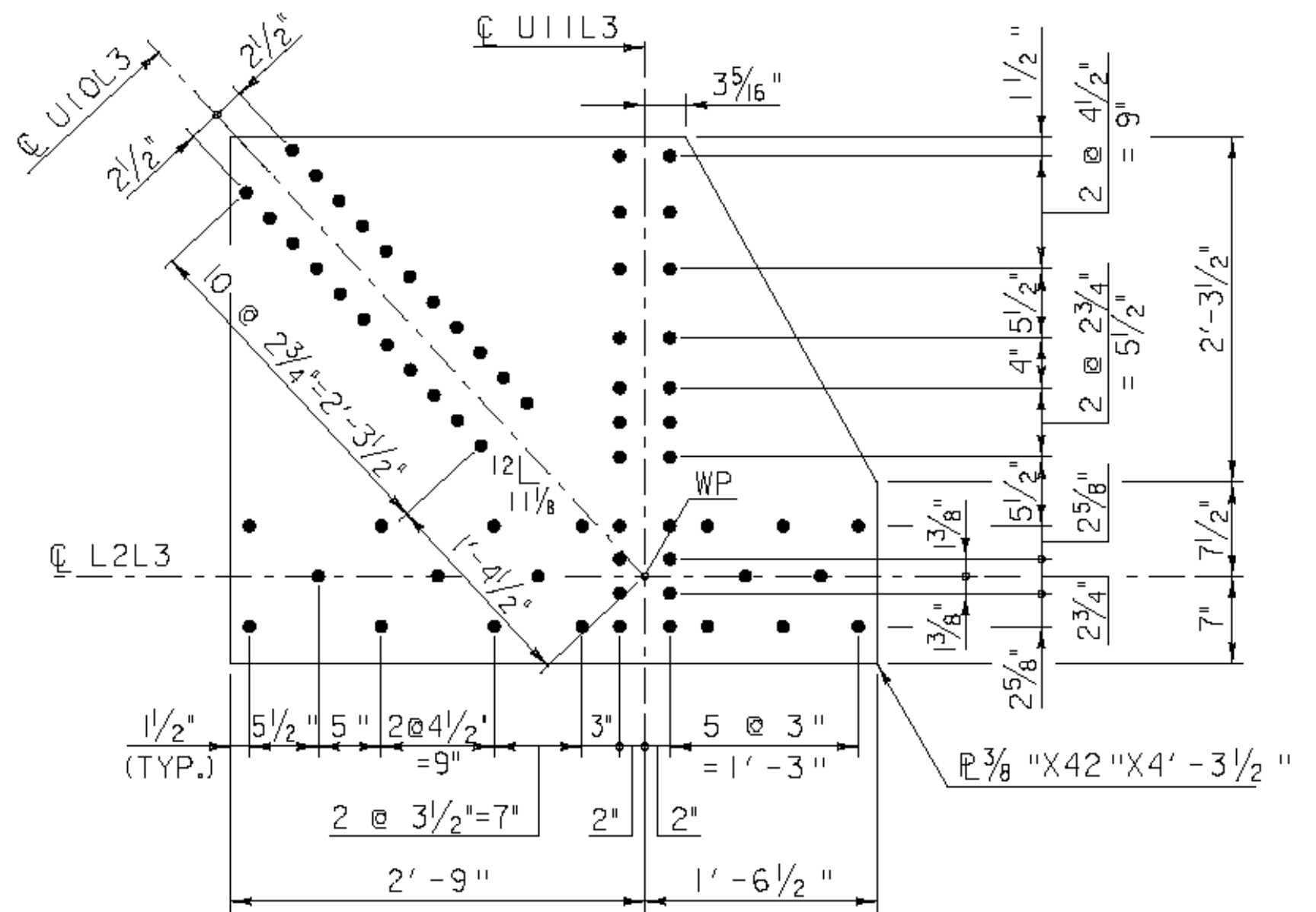


PROJECT NAME: MONTPELIER	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	DRAWN BY: D. D'AMATO
FILE NAME: \$FILES\$	DESIGNED BY: P. PERKINS
PROJECT MANAGER: SUSAN SCRIBNER	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD
DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	SHEET 30 OF 63

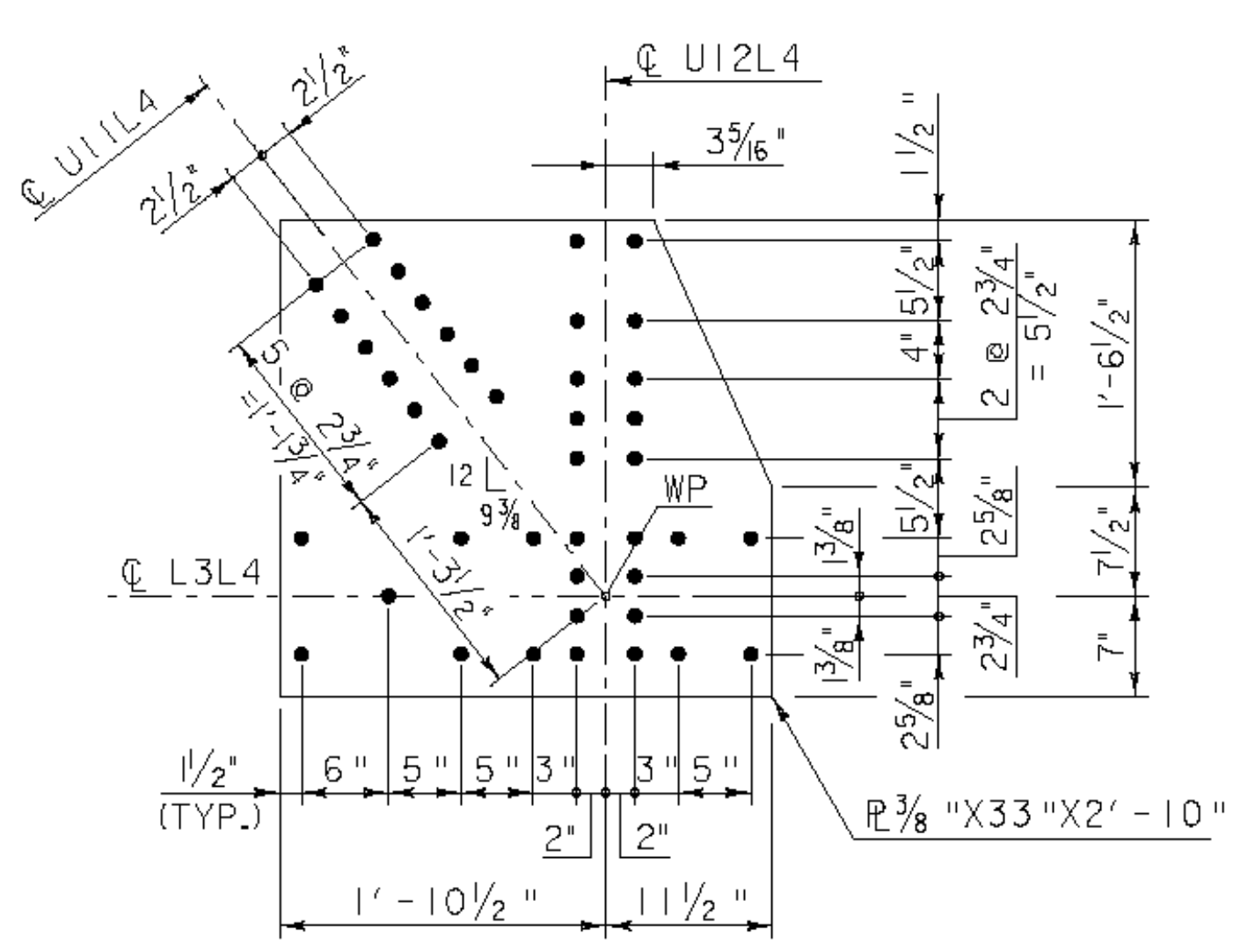
FILE NAME: h:\14590\mtn\p\lona\145906_r\medetail.dgn
 DATE/TIME: 10/12/2009 11:25:52
 USER: 22552



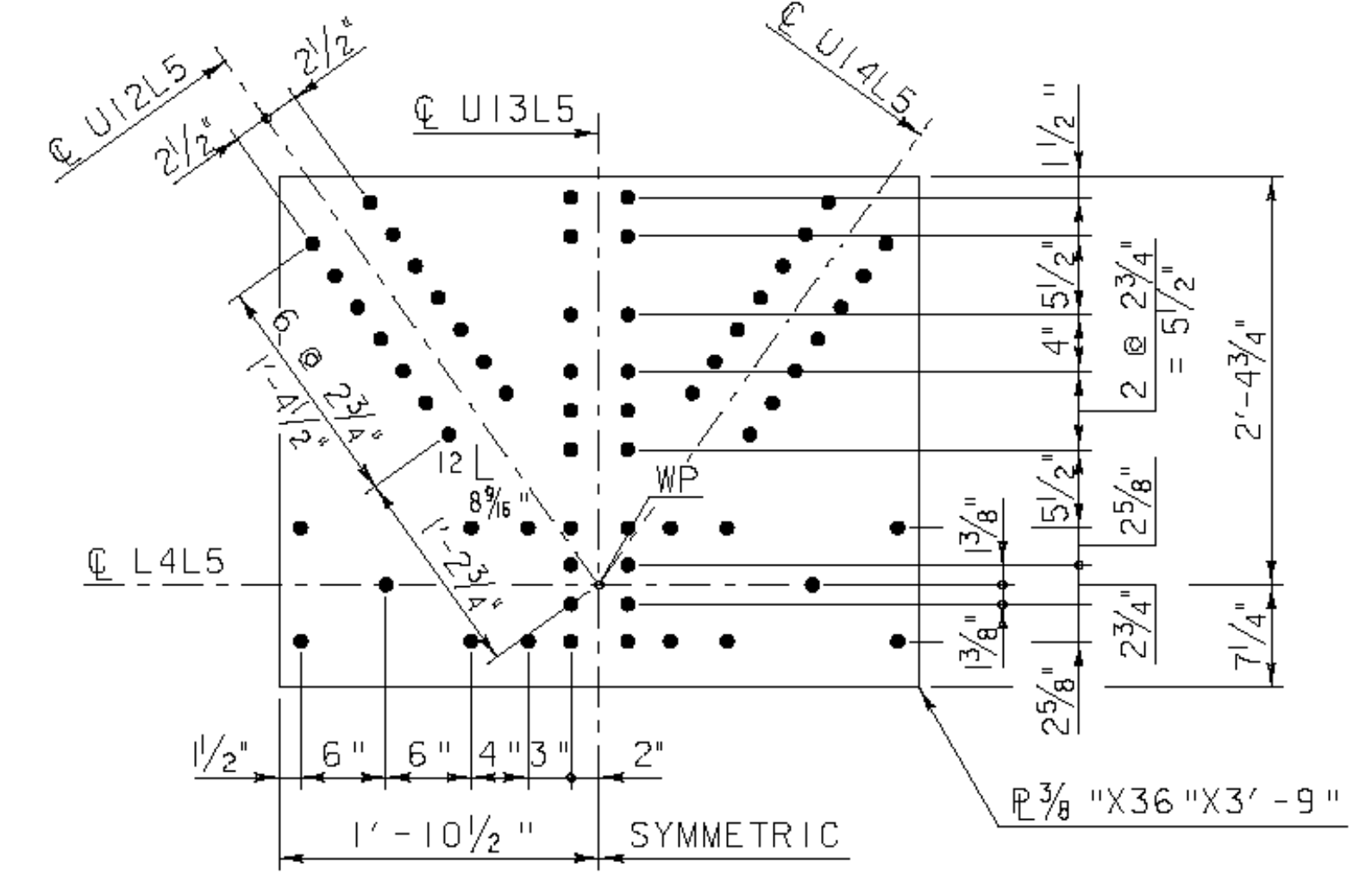
GUSSET PLATE G22
(L2 SHOWN, L8 SIMILAR)
SCALE 1" = 1'-0"



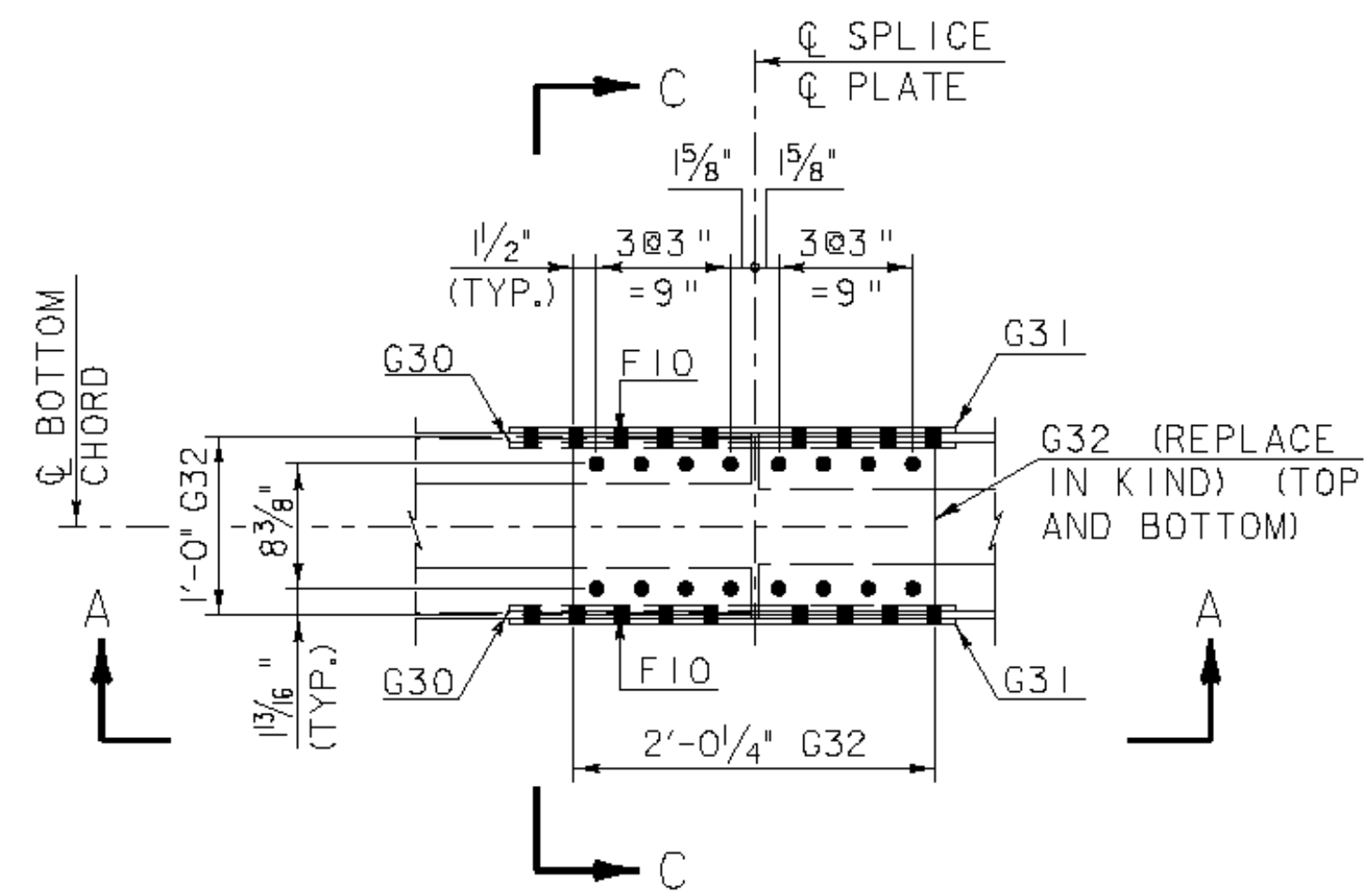
GUSSET PLATE G23
(L3 SHOWN, L7 OPPOSITE HAND)
SCALE 1" = 1'-0"



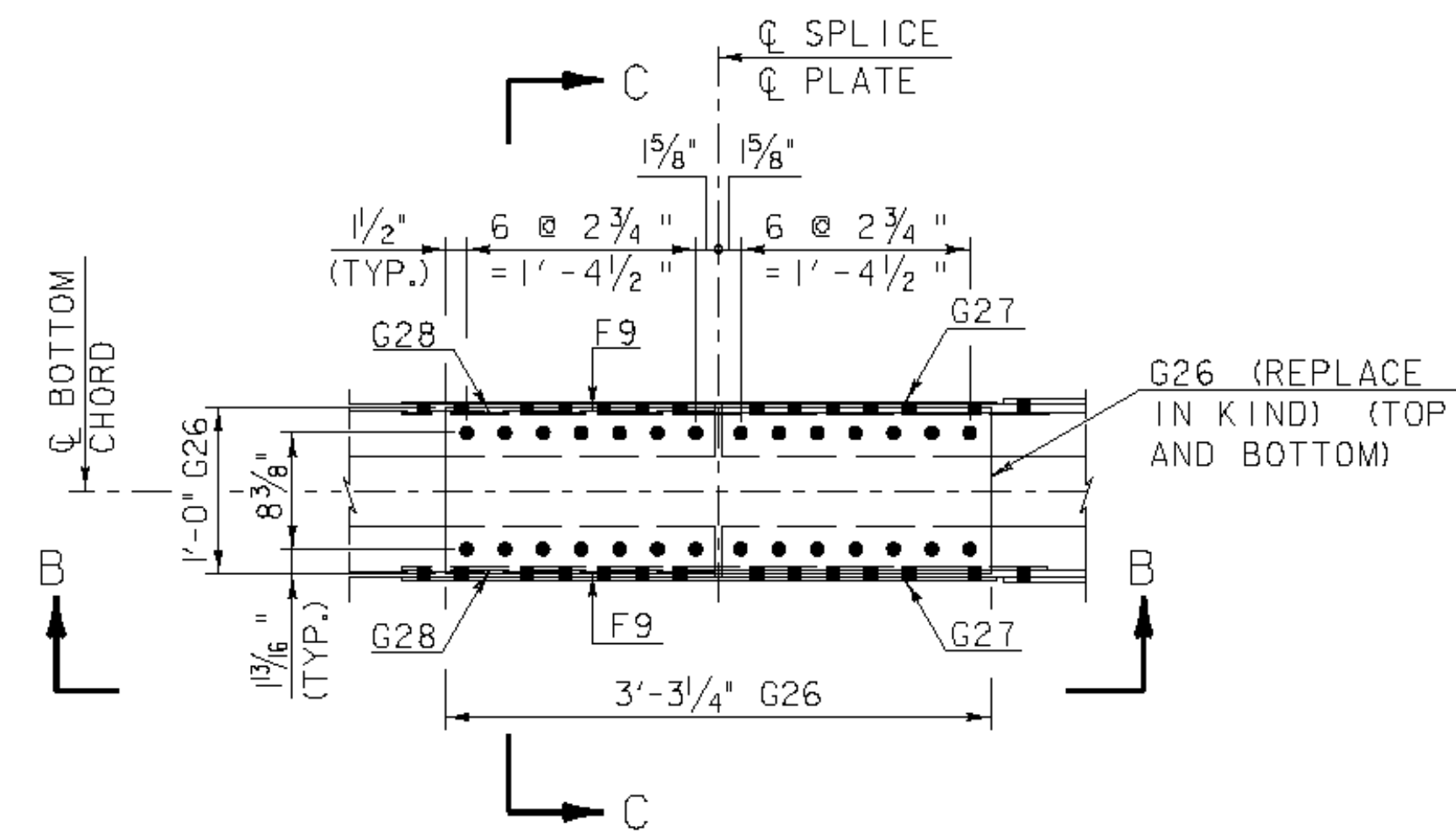
GUSSET PLATE G24
(L4 SHOWN, L6 OPPOSITE HAND)
SCALE 1" = 1'-0"



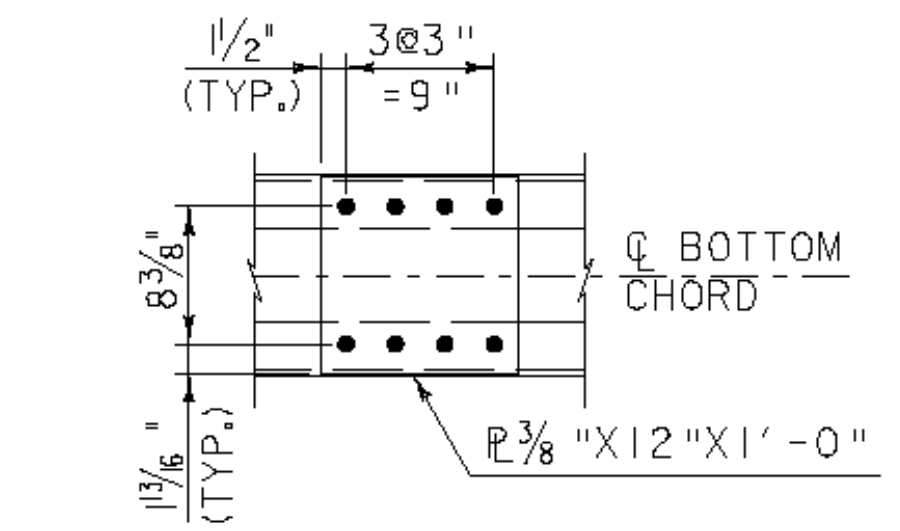
GUSSET PLATE G25
SCALE 1" = 1'-0"



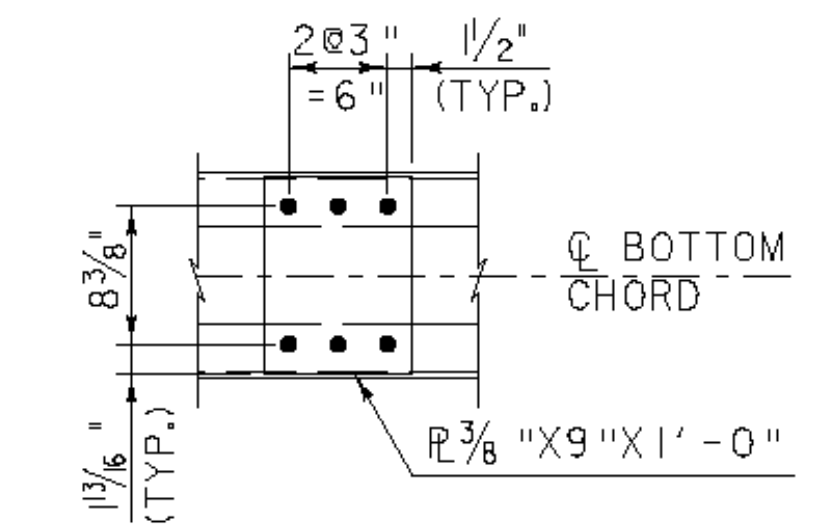
PLAN - SPLICE S1 AND S4
SCALE 1" = 1'-0"



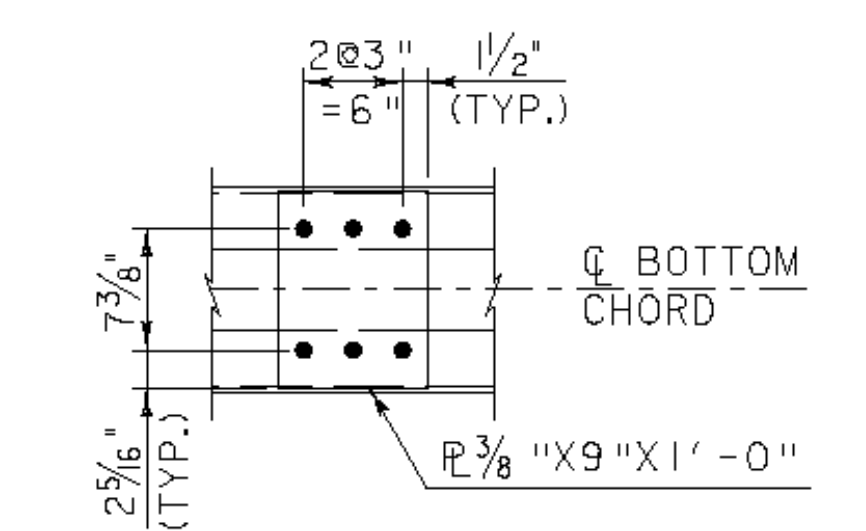
PLAN - SPLICE S2 AND S3
SCALE 1" = 1'-0"



PLAN - BATTEN PLATE G39
SCALE 1" = 1'-0"



PLAN - BATTEN PLATE G40
SCALE 1" = 1'-0"



PLAN - BATTEN PLATE G41
SCALE 1" = 1'-0"

ADDITIONAL REPAIR REQUIREMENTS (WEST TRUSS):

- GUSSET PLATE - MEMBER G22: REPLACE INBOARD AT L8, 1-P 3/8" X 15" X 3'-0"
- SPLICE PLATE - MEMBER G32: REPLACE BOTTOM AT S1, 1-P 3/8" X 12" X 2'-0 1/4"
- SPLICE PLATE - MEMBER G26: REPLACE BOTTOM AT S3, 1-P 3/8" X 12" X 3'-3 1/4"
- SPLICE PLATE - MEMBER G32: REPLACE BOTTOM AT S4, 1-P 3/8" X 12" X 2'-0 1/4"

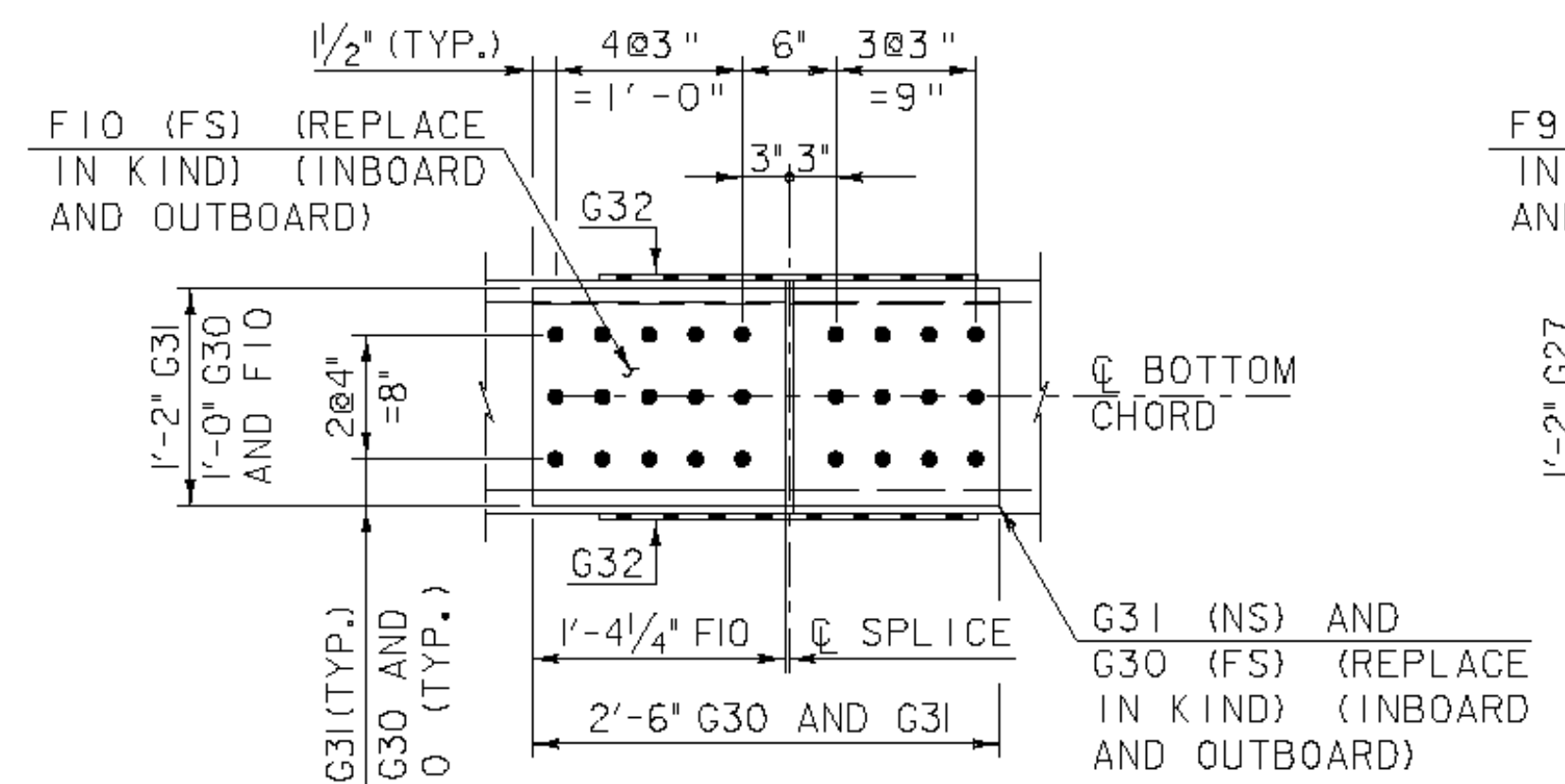
ADDITIONAL REPAIR REQUIREMENTS (EAST TRUSS):

- GUSSET PLATE - MEMBER G22: REPLACE INBOARD AND OUTBOARD AT L2 AND L8, 4-P 3/8" X 15" X 3'-0"
- GUSSET PLATE - MEMBER G23: REPLACE INBOARD AND OUTBOARD AT L3 AND L7, 4-P 3/8" X 42" X 4'-3 1/2"
- GUSSET PLATE - MEMBER G24: REPLACE INBOARD AND OUTBOARD AT L4 AND L6, 4-P 3/8" X 33" X 2'-10"
- GUSSET PLATE - MEMBER G25: REPLACE INBOARD AND OUTBOARD AT L5, 2-P 3/8" X 36" X 3'-9"

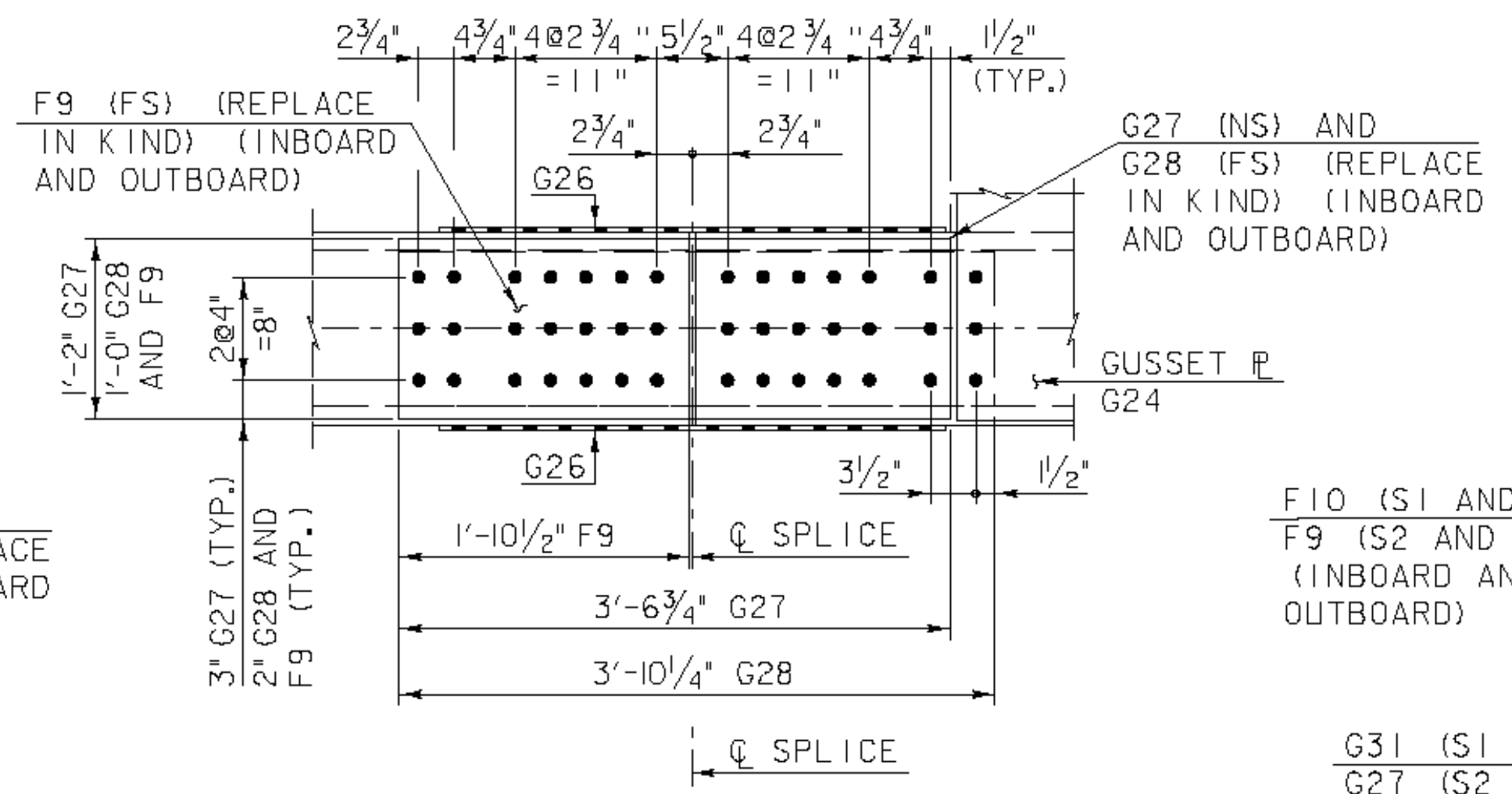
- SPLICE PLATE - MEMBER G30: REPLACE INBOARD AND OUTBOARD AT S1 AND S4, 4-P 3/8" X 12" X 2'-6"
- SPLICE PLATE - MEMBER G31: REPLACE INBOARD AND OUTBOARD AT S1 AND S4, 4-P 3/8" X 14" X 2'-6"
- FILL PLATE - MEMBER F10: REPLACE INBOARD AND OUTBOARD AT S1 AND S4, 4-P 3/8" X 12" X 1'-4 1/4"
- SPLICE PLATE - MEMBER G32: REPLACE TOP AND BOTTOM AT S1 AND S4, 4-P 3/8" X 12" X 2'-0 1/4"

- SPLICE PLATE - MEMBER G26: REPLACE TOP AND BOTTOM AT S2 AND S3, 4-P 3/8" X 12" X 3'-3 1/4"
- SPLICE PLATE - MEMBER G27: REPLACE INBOARD AND OUTBOARD AT S2 AND S3, 4-P 3/8" X 14" X 3'-6 3/4"
- FILL PLATE - MEMBER F9: REPLACE INBOARD AND OUTBOARD AT S2 AND S3, 4-P 3/8" X 12" X 1'-10 1/2"
- SPLICE PLATE - MEMBER G28: REPLACE INBOARD AND OUTBOARD AT S2 AND S3, 4-P 3/8" X 12" X 3'-10 1/4"

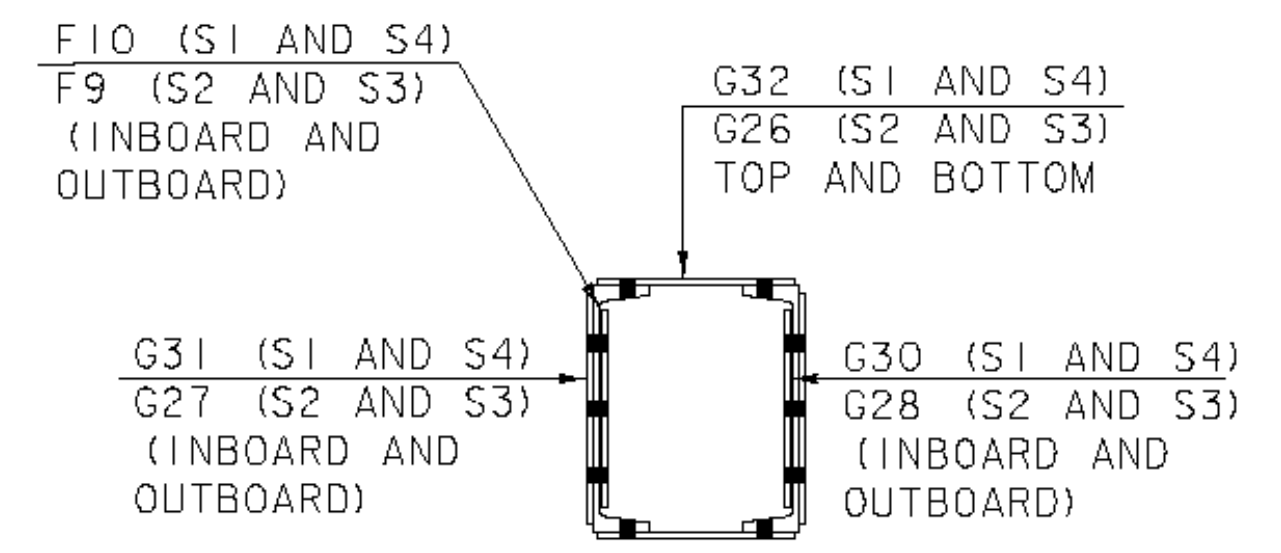
- BATTEN PLATE - MEMBER G39: REPLACE TOP AND BOTTOM AS REQUIRED, 7-P 3/8" X 12" X 1'-0"
- BATTEN PLATE - MEMBER G40: REPLACE TOP AND BOTTOM AS REQUIRED, 41-P 3/8" X 9" X 1'-0"
- BATTEN PLATE - MEMBER G41: REPLACE TOP AND BOTTOM AS REQUIRED, 17-P 3/8" X 12" X 1'-0"



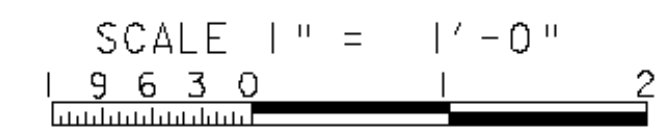
SECTION A-A
SCALE 1" = 1'-0"



SECTION B-B
SCALE 1" = 1'-0"



SECTION C-C
SCALE 1" = 1'-0"



STRUCTURAL STEEL DETAILS (3)

PROJECT NAME: MONTPELIER	PLOT DATE: 7/14/2010
PROJECT NUMBER: BHF 6400(31)	DRAWN BY: D. D'AMATO
FILE NAME: #FILES#	DESIGNED BY: P. PERKINS
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	CHECKED BY: P. PERKINS
	SHEET 31A OF 63



FILE NAME: #FILES#
DATE/TIME: 7/14/2010 10:25:22
USER: pperkins



Memorandum

To: Wayne Symonds (VTrans)
CC: Peter Perkins (CHA), Dale Gozalkowski (CHA)
From: David D'Amato (CHA)
Date: 4/26/2010
Re: Montpelier Taylor Street Bridge Rehabilitation, BHF 6400(31) Construction Inspection Findings

The following is a listing of additional steel repairs to the Taylor Street Bridge corresponding to Contract Plan Sht. 31A. Repair recommendations are the result of an April 23, 2010 field visit and construction inspection findings compiled by the Resident Engineer. All additional steel required for the listed repairs shall be paid under Item 506.60 Structural Steel (LB).

Gusset and Splice Plates - East Truss

1. Node L2, Inboard/Outboard: Local section loss to 100%. **Recommend replacement.**
 - **2-PL $\frac{3}{8}$ "x15"x3'-0"**, approximate weight = 120 LB (Mark G22) (FCM)
2. S1: Heavy scaling and local section loss to approximately 40%. **Recommend replacement.**
 - **2-PL $\frac{3}{8}$ "x12"x2'-0 $\frac{1}{4}$ "**, approximate weight = 65 LB (Mark G32) (FCM)
 - **2-PL $\frac{3}{8}$ "x14"x2'-6"**, approximate weight = 90 LB (Mark G31) (FCM)
 - **2-PL $\frac{3}{8}$ "x12"x2'-6"**, approximate weight = 80 LB (Mark G30) (FCM)
 - **2-PL $\frac{3}{16}$ "x12"x1'-4 $\frac{1}{4}$ "**, approximate weight = 21 LB (Mark F10)
3. Node L3, Inboard: Heavy scaling and local section loss to approximately 40%. Local knife edging and perforation adjacent to Member U11L3. **Recommend replacement.**
 - **1-PL $\frac{3}{8}$ "x42"x4'-3 $\frac{1}{2}$ "**, approximate weight = 230 LB (Mark G23) (FCM)
4. Node L3, Outboard: Heavy scaling. **Recommend replacement.**
 - **1-PL $\frac{3}{8}$ "x42"x4'-3 $\frac{1}{2}$ "**, approximate weight = 230 LB (Mark G23) (FCM)

5. S2: Heavy scaling. **Recommend replacement.**
- 2-PL^{3/8}"x12"x3'-3 1/4", approximate weight = 100 LB (Mark G26) (FCM)
 - 2-PL^{3/16}"x14"x3'-6 3/4", approximate weight = 65 LB (Mark G27) (FCM)
 - 2-PL^{3/16}"x12"x3'-10 1/4", approximate weight = 60 LB (Mark G28) (FCM)
 - 2-PL^{1/8}"x12"x1'-10 1/2", approximate weight = 20 LB (Mark F9)
6. Node L4, Inboard/Outboard: Heavy scaling and local section loss to approximately 30%. **Recommend replacement.**
- 2-PL^{3/8}"x33"x2'-10", approximate weight = 240 LB (Mark G24) (FCM)
7. Node L5, Inboard/Outboard: Heavy scaling and local section loss to approximately 30%. **Recommend replacement.**
- 2-PL^{3/8}"x36"x3'-9", approximate weight = 350 LB (Mark G25) (FCM)
8. Node L6, Inboard/Outboard: Heavy scaling and local section loss to approximately 30%. **Recommend replacement.**
- 2-PL^{3/8}"x33"x2'-10", approximate weight = 240 LB (Mark G24) (FCM)
9. S3: Heavy scaling. **Recommend replacement.**
- 2-PL^{3/8}"x12"x3'-3 1/4", approximate weight = 100 LB (Mark G26) (FCM)
 - 2-PL^{3/16}"x14"x3'-6 3/4", approximate weight = 65 LB (Mark G27) (FCM)
 - 2-PL^{3/16}"x12"x3'-10 1/4", approximate weight = 60 LB (Mark G28) (FCM)
 - 2-PL^{1/8}"x12"x1'-10 1/2", approximate weight = 20 LB (Mark F9)
10. Node L7, Inboard/Outboard: 2"x6" perforation adjacent to Member U16L7. Heavy scaling and local section loss to approximately 50%. **Recommend replacement.**
- 2-PL^{3/8}"x42"x4'-3 1/2", approximate weight = 460 LB (Mark G23) (FCM)
11. S4: Local section loss to approximately 40%. **Recommend replacement.**
- 2-PL^{3/8}"x12"x2'-0 1/4", approximate weight = 65 LB (Mark G32) (FCM)
 - 2-PL^{3/8}"x14"x2'-6", approximate weight = 90 LB (Mark G31) (FCM)
 - 2-PL^{3/8}"x12"x2'-6", approximate weight = 80 LB (Mark G30) (FCM)
 - 2-PL^{3/16}"x12"x1'-4 1/4", approximate weight = 21 LB (Mark F10)
12. Node L8, Inboard/Outboard: **Recommend replacement.**
- 2-PL^{3/8}"x15"x3'-0", approximate weight = 120 LB (Mark G22) (FCM)

Batten Plates – East Truss

1. Stockpile batten plates for replacement, as required:

- 7-PL^{3/8}"x12"x1'-0", approximate weight = 110 LB (Mark G39)
- 41-PL^{3/8}"x9"x1'-0", approximate weight = 475 LB (Mark G40)
- 17-PL^{3/8}"x12"x1'-0", approximate weight = 260 LB (Mark G41)

Gusset and Splice Plates - West Truss

1. S1: Recommend partial replacement.

- 1-PL^{3/8}"x12"x2'-0¼", approximate weight = 31 LB (Mark G32) (FCM)

2. S3: Recommend partial replacement.

- 1-PL^{3/8}"x12"x3'-3¼", approximate weight = 50 LB (Mark G26) (FCM)

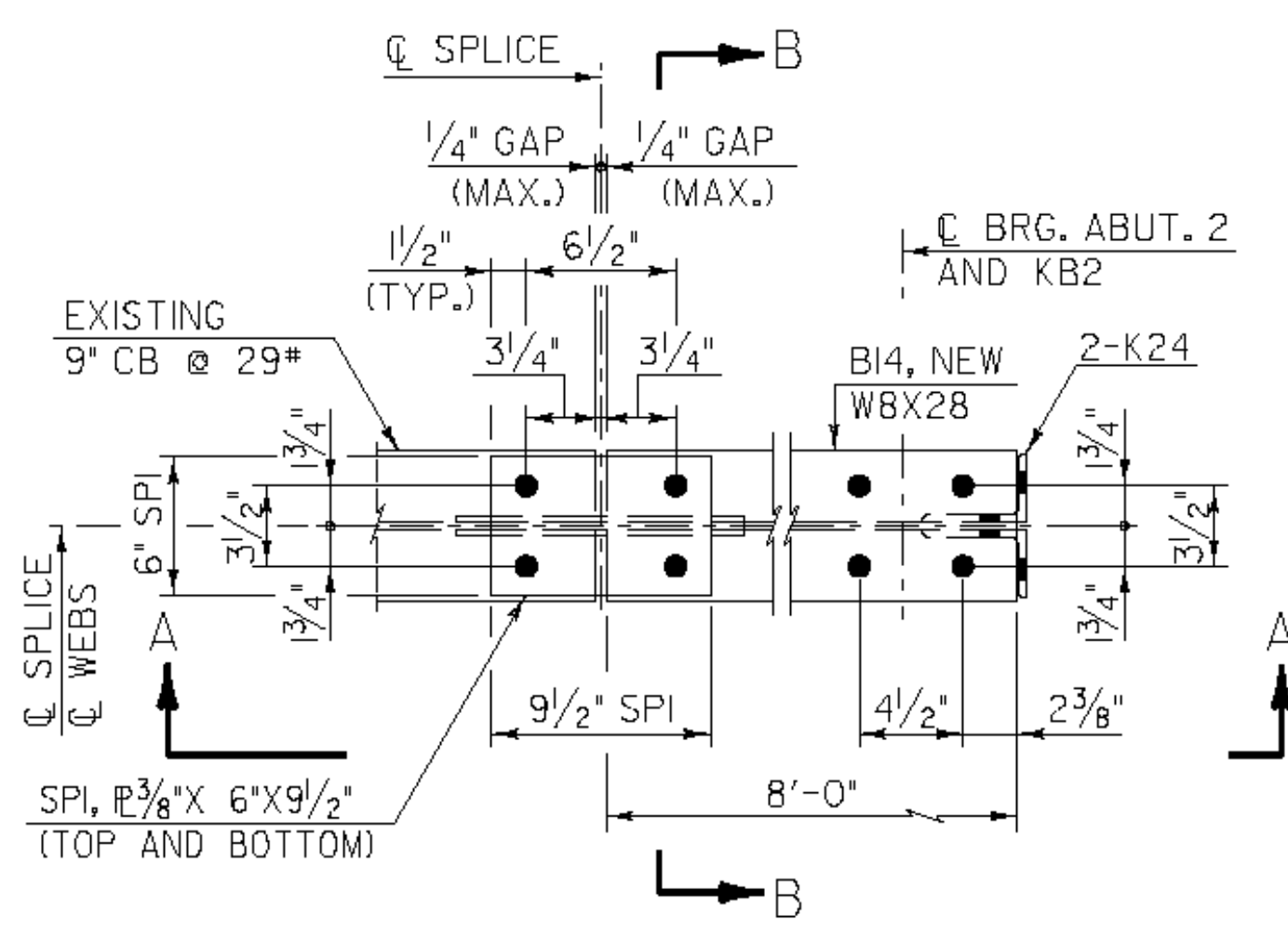
3. S4: Recommend partial replacement.

- 1-PL^{3/8}"x12"x2'-0¼", approximate weight = 31 LB (Mark G32) (FCM)

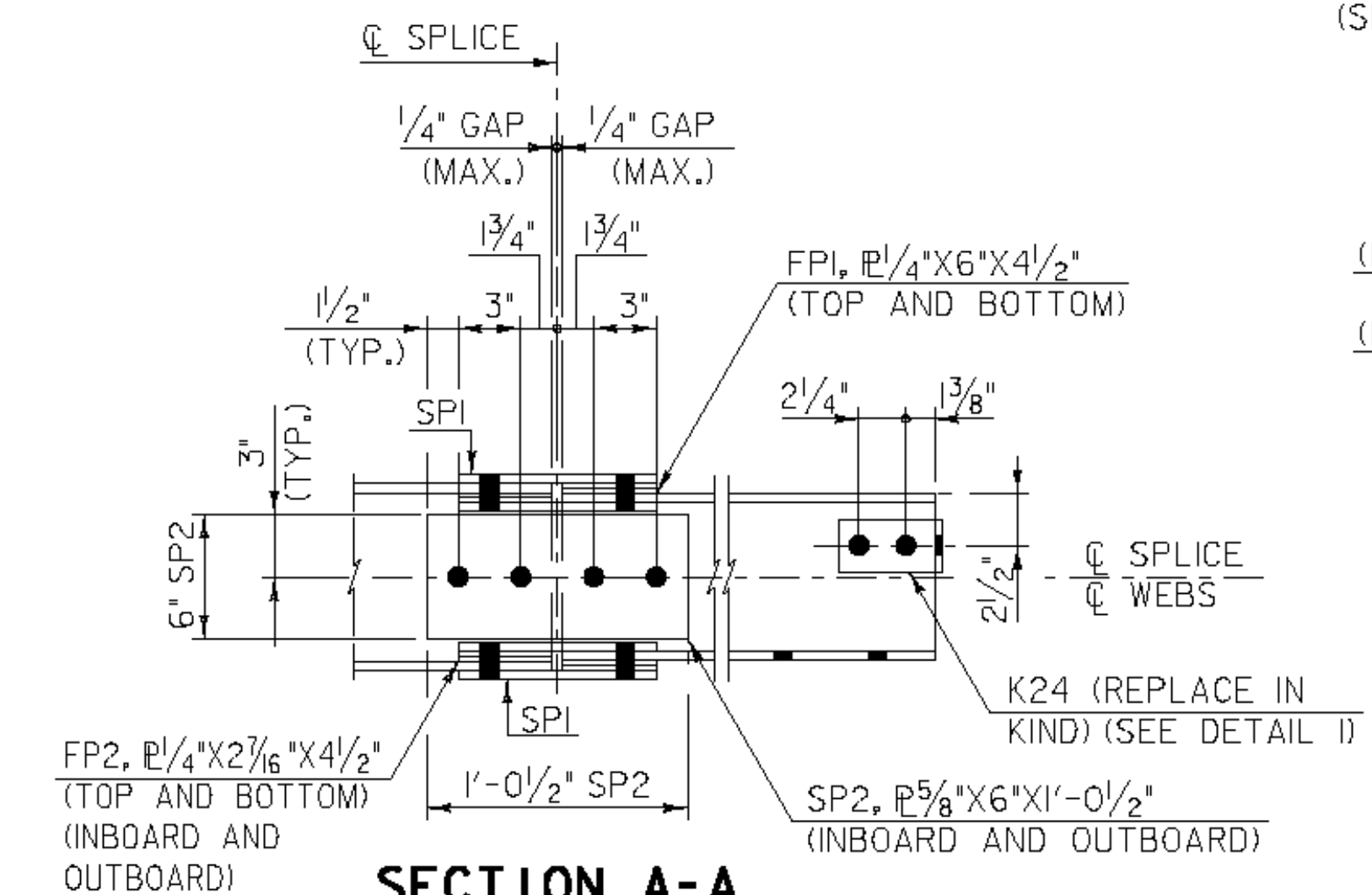
4. Node L8, Inboard: Recommend partial replacement.

- 1-PL^{3/8}"x15"x3'-0", approximate weight = 60 LB (Mark G22) (FCM)

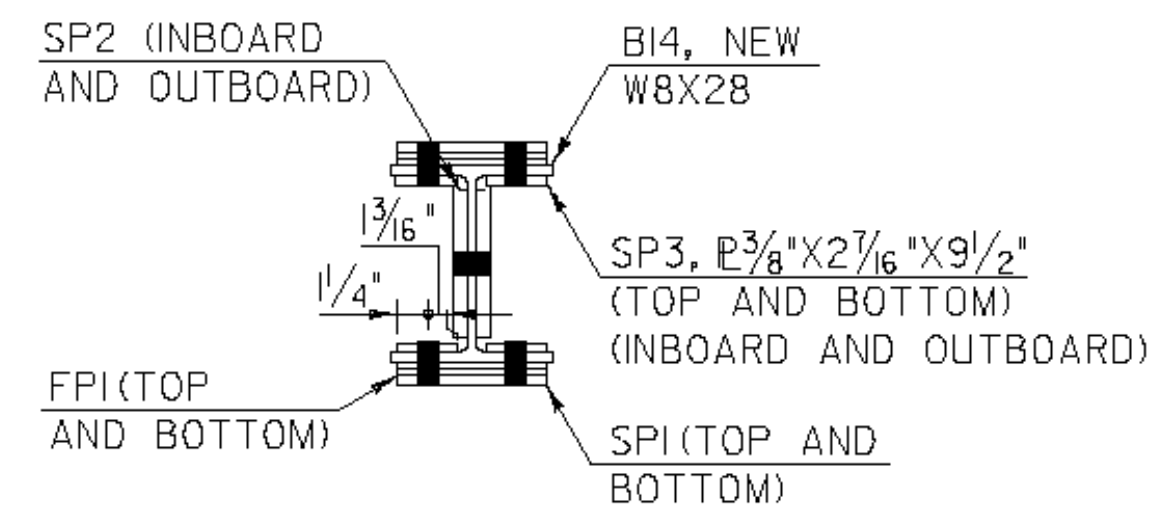
Total Additional Item 506.60 Structural Steel (LB), this memorandum = 4009 LB



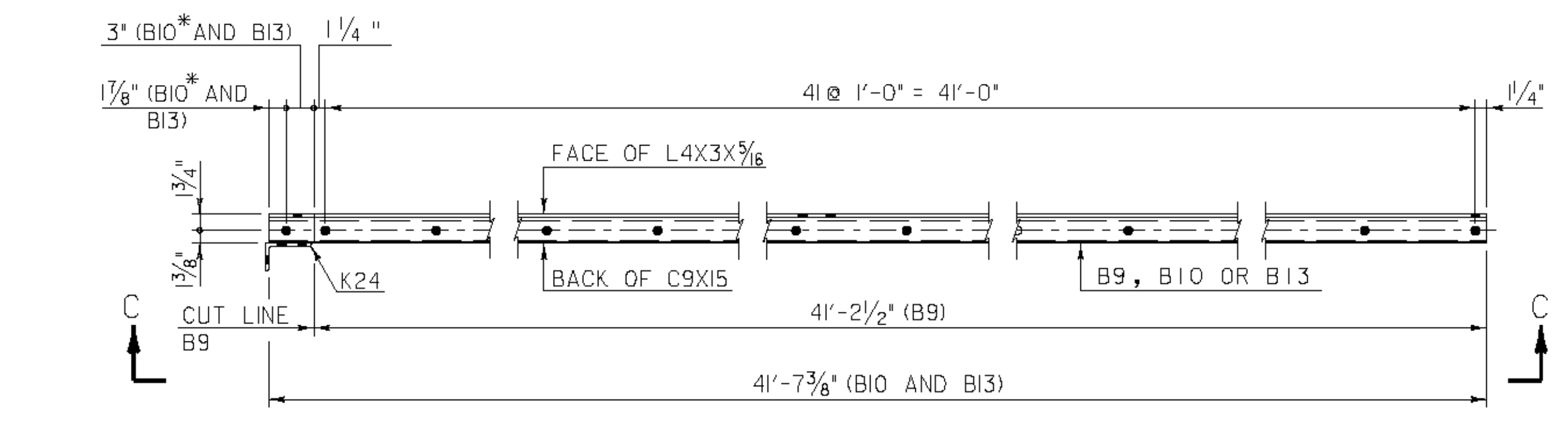
**SIDEWALK STRINGER B14
SPLICE PLAN**
SCALE: 1/2" = 1'-0"



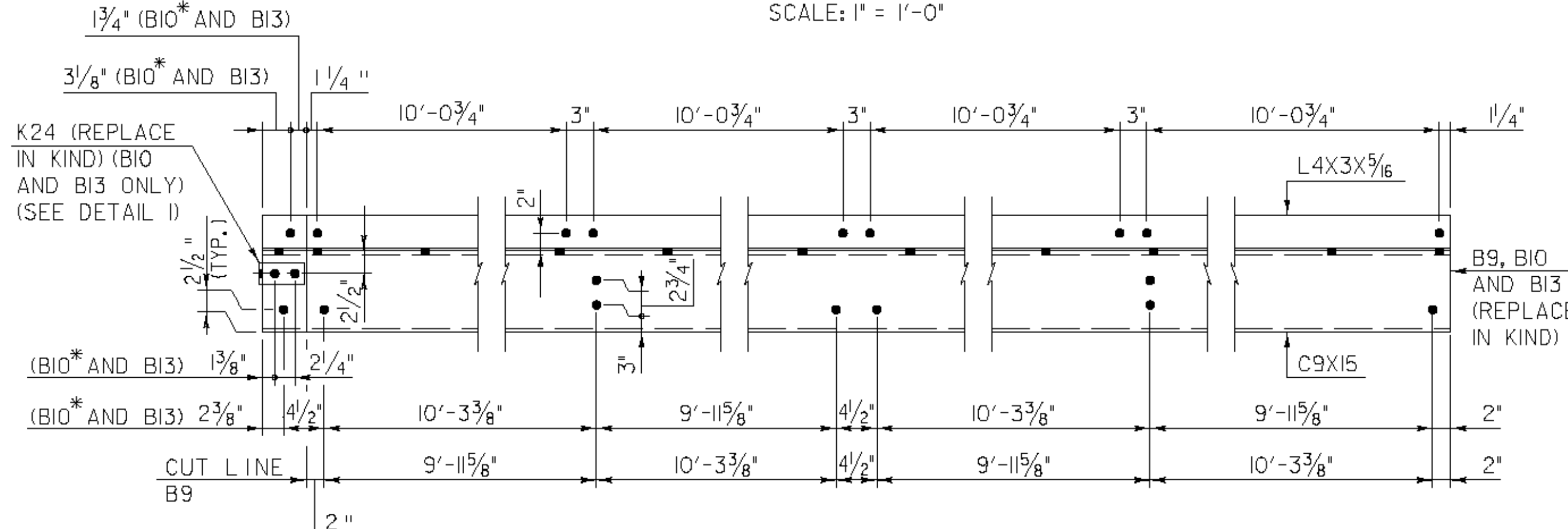
SECTION A-A
SCALE: 1/2" = 1'-0"



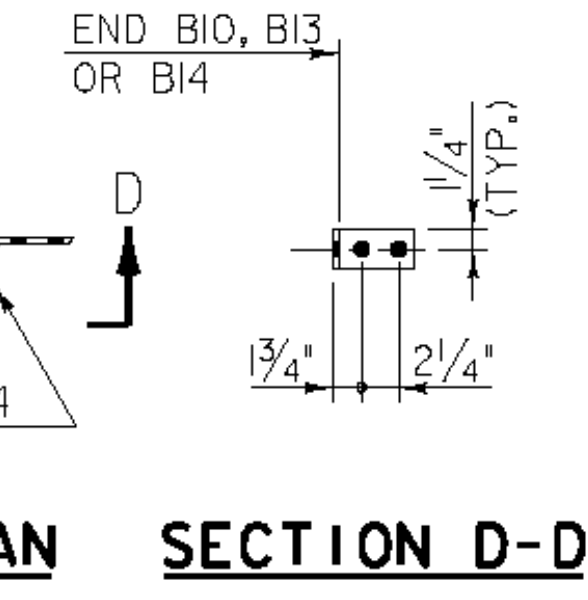
SECTION B-B
SCALE: 1/2" = 1'-0"



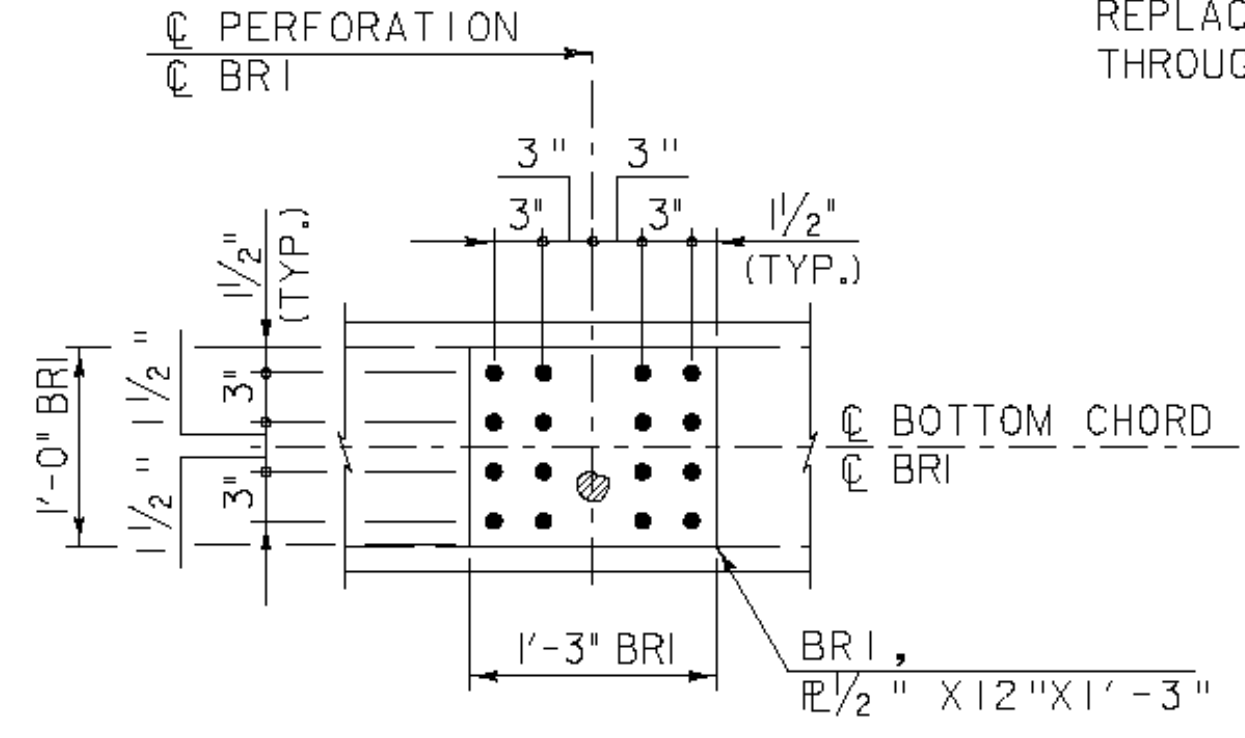
SIDEWALK STRINGER B9, B10 AND B13 PLAN
SCALE: 1" = 1'-0"



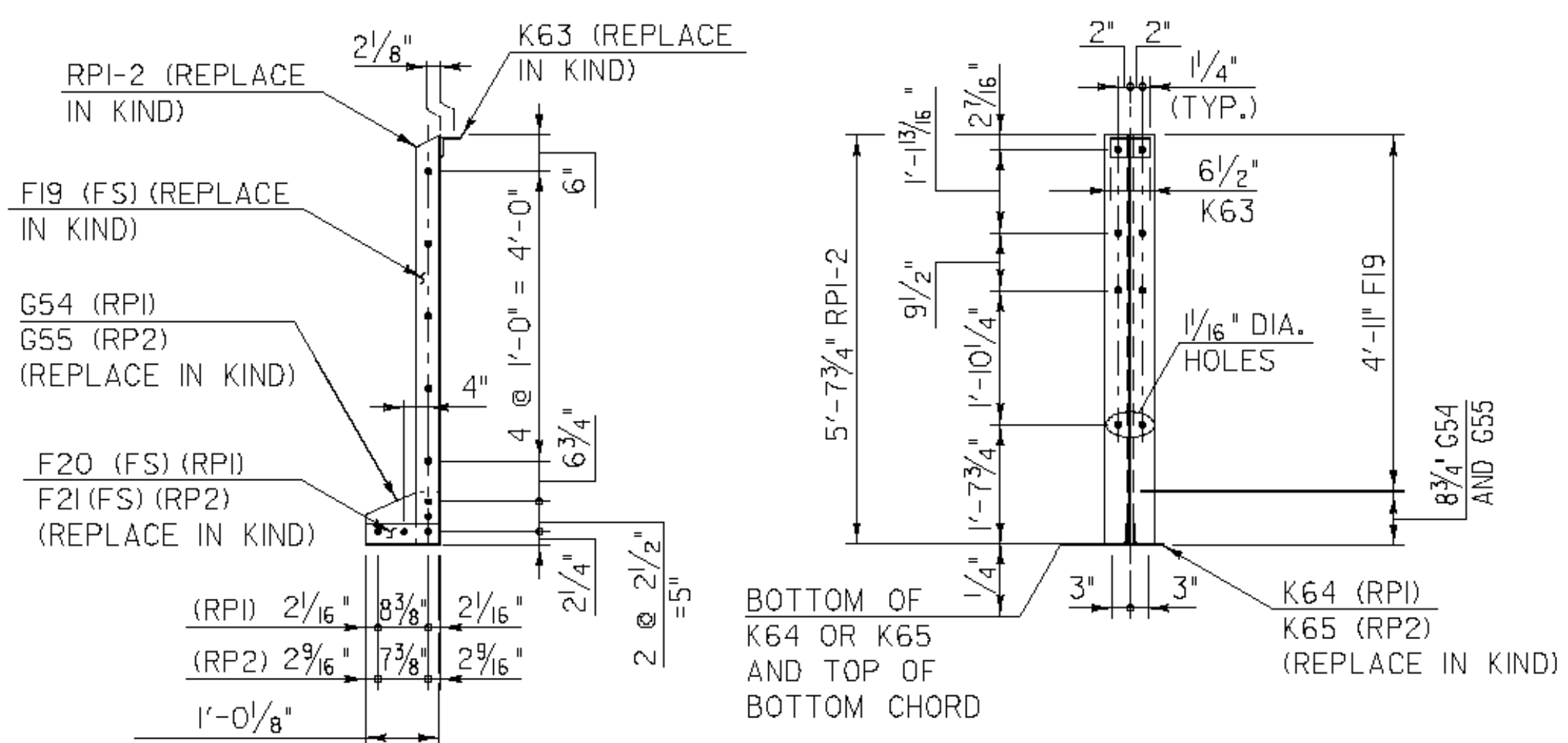
SECTION C-C
SCALE: 1" = 1'-0"



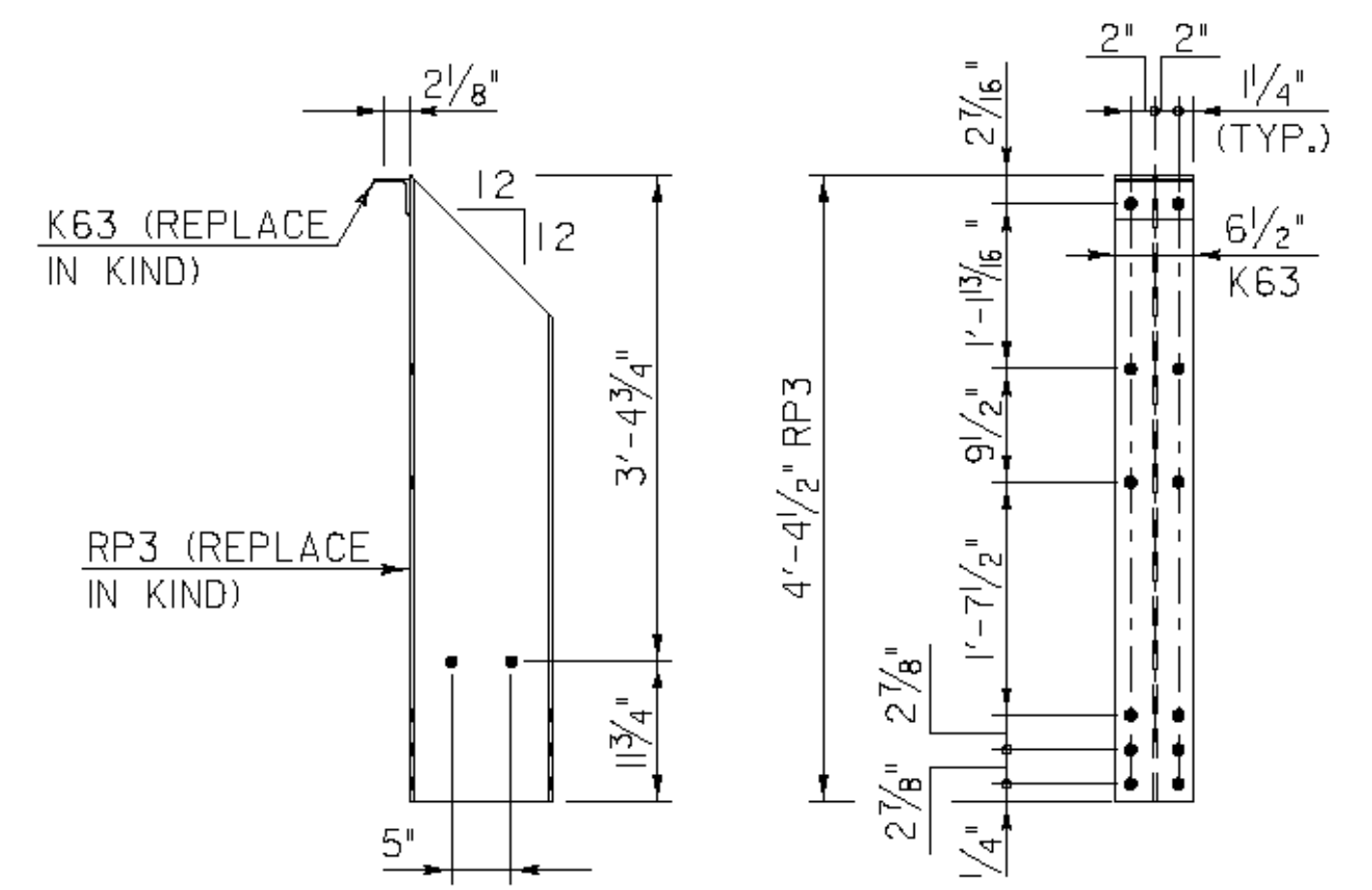
DETAIL 1
SCALE: 1" = 1'-0"



DETAIL 2
SCALE: 1" = 1'-0"

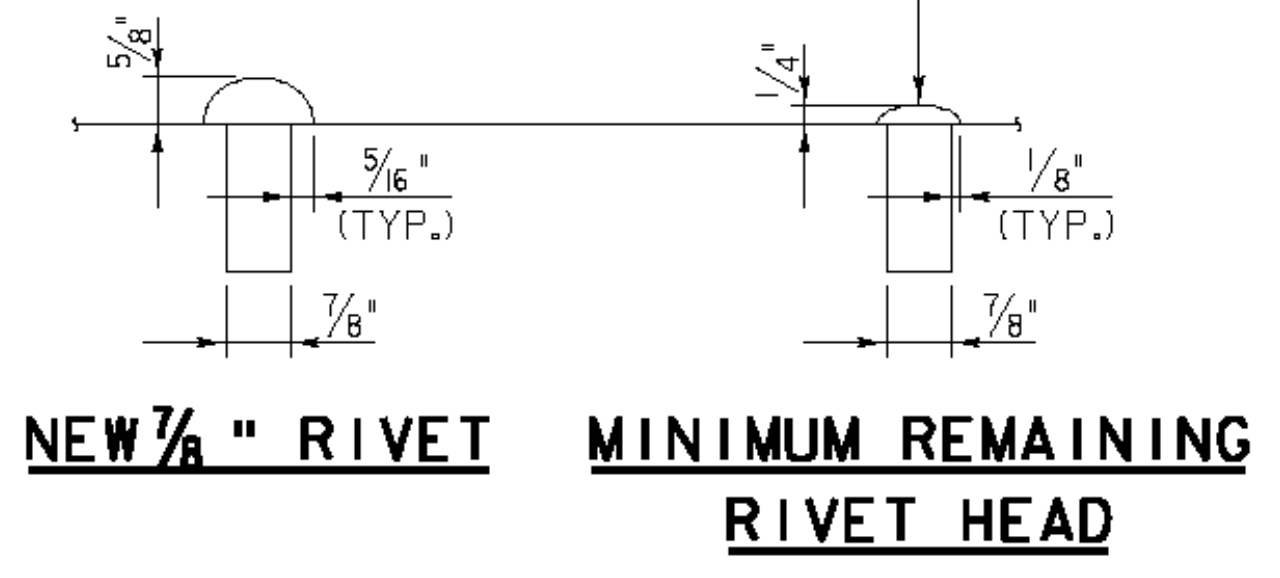


RAIL POST RPI AND RP2
SCALE: 1/2" = 1'-0"



RAIL POST RP3
SCALE: 3/4" = 1'-0"

ANY RIVETS WHICH ARE LOOSE, DETERIORATED BEYOND THE CRITERIA SHOWN, OR IDENTIFIED FOR REPLACEMENT BY THE RESIDENT ENGINEER SHALL BE REPLACED UNDER ITEM 900.620 (SPECIAL PROVISION THROUGH TRUSS RIVET REPLACEMENT)



RIVET REPLACEMENT CRITERIA
N.T.S.

ADDITIONAL REPAIR REQUIREMENTS (WEST TRUSS):
RAIL POST - MEMBER RPI: REPLACE BUILT UP BRIDGE RAIL POSTS
MEMBER RPI-2: 4-L4X4X5/16 (FULL LENGTH)
MEMBER F19: 2-R5/16 "X4"X4" - 11"
MEMBER G54: 2-R5/16 "X8 3/4"X1' - 0 1/2"
MEMBER K63: 2-L3 1/2 X3 1/2 X5/16 (FULL LENGTH)
MEMBER K64: 4-L5X3 1/2 X5/16 (FULL LENGTH)
MEMBER F20: 4-R5/16 X3 1/2 "X8 3/4"

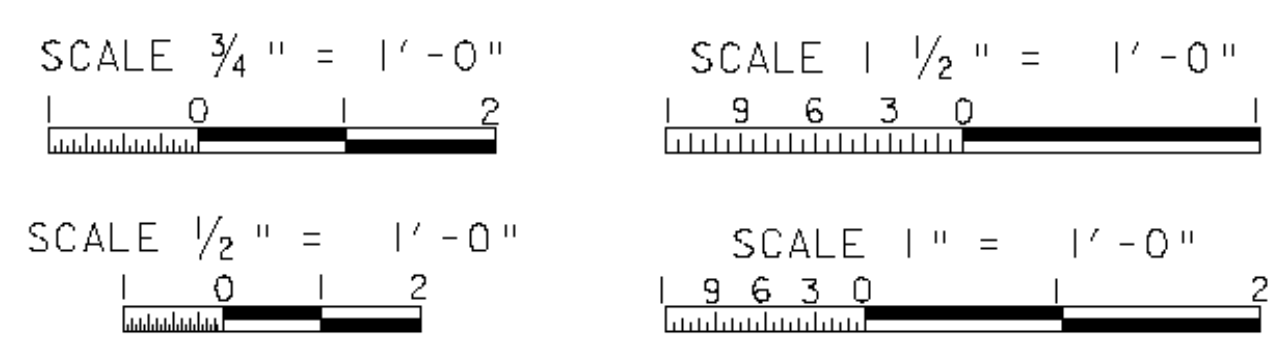
RAIL POST - MEMBER RP2: REPLACE BUILT UP BRIDGE RAIL POSTS
MEMBER RPI-2: 4-L4X4X5/16 (FULL LENGTH)
MEMBER F19: 2-R5/16 "X4"X4" - 11"
MEMBER G55: 2-R5/16 "X8 3/4"X1' - 0 1/2"
MEMBER K63: 2-L3 1/2 X3 1/2 X5/16 (FULL LENGTH)
MEMBER K65: 4-L5X3 1/2 X5/16 (FULL LENGTH)
MEMBER F21: 4-R5/16 "X3 1/2"X8 3/4"

RAIL POST - MEMBER RP3: REPLACE END BRIDGE RAIL POSTS
MEMBER RP3: 2-W12X30 (FULL LENGTH)
MEMBER K63: 2-L3 1/2 X3 1/2 X5/16 (FULL LENGTH)

BOLTED REPAIR - REPAIR BOTTOM CHORD MEMBER BETWEEN (6) AND (7)
MEMBER BRT: 1-R1/2 "X12"X1' - 3"

ADDITIONAL REPAIR REQUIREMENTS (EAST TRUSS):
SIDEWALK STRINGER - MEMBER B9: REPLACE BUILT UP STRINGER 2-C9X15 AND 2-L4X3X5/16 ANGLE (FULL LENGTH)
SIDEWALK STRINGER - MEMBER B10: REPLACE BUILT UP STRINGER 1-C9X15 AND 1-L4X3X5/16 ANGLE (FULL LENGTH)
MEMBER K24: REPLACE 1-L5X3X3/8 CLIP ANGLE
SIDEWALK STRINGER - MEMBER B13: REPLACE BUILT UP STRINGER 1-C9X15 AND 1-L4X3X5/16 ANGLE (FULL LENGTH)
MEMBER K24: REPLACE 1-L5X3X3/8 CLIP ANGLE
SIDEWALK STRINGER - MEMBER B14: REPLACE 8'-0" OF EXISTING CB9X29 WITH PROPOSED W8X28
MEMBER SPI: INSTALL NEW SPLICE PLATE 2-R3/8 "X6"X9 1/2"
MEMBER SP2: INSTALL NEW SPLICE PLATE 2-R5/8 "X6"X1' - 0 1/2"
MEMBER SP3: INSTALL NEW SPLICE PLATE 4-R3/8 "X2 7/16"X9 1/2"
MEMBER FPI: INSTALL NEW FILL PLATE 4-R1/4 "X6"X4 1/2"
MEMBER FP2: INSTALL NEW FILL PLATE 8-R1/4 "X2 7/16"X4 1/2"
MEMBER K24: REPLACE 2-L5X3X3/8 CLIP ANGLES (FULL LENGTH)

RAIL POST - MEMBER RP3: REPLACE END BRIDGE RAIL POSTS
MEMBER RP3: 2-W12X30 (FULL LENGTH)
MEMBER K63: 2-L3 1/2 X3 1/2 X5/16 (FULL LENGTH)



STRUCTURAL STEEL DETAILS (4)

PROJECT NAME:	MONTPELIER	FILE NAME:	#FILES#	PLOT DATE:	7/8/2010
PROJECT NUMBER:	BHF 6400(31)	DESIGNED BY:	D. D'AMATO	CHECKED BY:	P. PERKINS
BRIDGE DESIGN SUPERVISOR:	P. HALSTEAD	BRIDGE DESIGN SUPERVISOR:	P. HALSTEAD	CHECKED BY:	P. PERKINS
					SHEET 31B OF 63



FILE NAME: K:\4506\Montpelier\14506\14506-additional\steel_2.dgn
DATE/TIME: 7/8/2010 10:25:22
USER: 2552



Memorandum

To: Wayne Symonds (VTrans)
CC: Peter Perkins (CHA), Dale Gozalkowski (CHA)
From: David D'Amato (CHA)
Date: 6/10/2010
Re: Montpelier Taylor Street Bridge Rehabilitation, BHF 6400(31) Construction Inspection Findings

The following is a listing of additional steel repairs to the Taylor Street Bridge corresponding to Contract Plan Sht. 31B. Repair recommendations are the result of an April 23, 2010 field visit and construction inspection findings compiled by the Resident Engineer. All additional steel required for the listed repairs shall be paid under Item 506.60 Structural Steel (LB).

Sidewalk and Rail Components - East Truss

1. B9: **Recommend replacement.**

- 2-C9x15x41'-2½", approximate weight = 1,240 LB (Mark B9)
- 2-L4x3x½x41'-2½", approximate weight = 595 LB (Mark B9)

2. B10: **Recommend replacement.**

- 1-C9x15x41'-7¾", approximate weight = 625 LB (Mark B10)
- 1-L4x3x½x41'-7¾", approximate weight = 300 LB (Mark B10)
- 1-L5x3x¾x2½", approximate weight = 2 LB (Mark K24)

3. B13: **Recommend replacement.**

- 1-C9x15x41'-7¾", approximate weight = 625 LB (Mark B13)
- 1-L4x3x½x41'-7¾", approximate weight = 300 LB (Mark B13)
- 1-L5x3x¾x2½", approximate weight = 2 LB (Mark K24)

4. B14: **Recommend partial replacement.**

- 1-W8x28x8'-0", approximate weight = 224 LB (Mark B14)
- 2-PL¾"x6"x9½", approximate weight = 13 LB (Mark SP1)
- 2-PL¾"x6"x1'-0½", approximate weight = 27 LB (Mark SP2)
- 4-PL¾"x2 ¼"x9½", approximate weight = 10 LB (Mark SP3)

- 4-PL $\frac{1}{4}$ "x6"x4 $\frac{1}{2}$ ", approximate weight = 8 LB (Mark FP1)
- 8-PL $\frac{1}{4}$ "x2 $\frac{1}{16}$ "x4 $\frac{1}{2}$ ", approximate weight = 7 LB (Mark FP2)
- 2-L5x3x $\frac{3}{8}$ x2 $\frac{1}{2}$ ", approximate weight = 4 LB (Mark K24)

5. RP3: Recommend replacement.

- 2-W12x30x4'-4 $\frac{1}{2}$ ", approximate weight = 263 LB (Mark RP3)
- 2-L3 $\frac{1}{2}$ x3 $\frac{1}{2}$ x $\frac{5}{16}$ x6 $\frac{1}{2}$ ", approximate weight = 8 LB (Mark K63)

Sidewalk and Rail Components – West Truss

1. RP1: Recommend replacement.

- 4-L4x4x $\frac{5}{16}$ x5'-7 $\frac{3}{4}$ ", approximate weight = 185 LB (Mark RP1-2)
- 2-PL $\frac{5}{16}$ "x4"x4'-11", approximate weight = 42 LB (Mark F19)
- 2-PL $\frac{5}{16}$ "x8 $\frac{3}{4}$ "x1'-0 $\frac{1}{2}$ ", approximate weight = 20 LB (Mark G54)
- 2-L3 $\frac{1}{2}$ x3 $\frac{1}{2}$ x $\frac{5}{16}$ x6 $\frac{1}{2}$ ", approximate weight = 8 LB (Mark K63)
- 4-L5x3 $\frac{1}{2}$ x $\frac{5}{16}$ x1'-0 $\frac{1}{8}$ ", approximate weight = 36 LB (Mark K64)
- 4-PL $\frac{5}{16}$ "x3 $\frac{1}{2}$ "x8 $\frac{3}{4}$ ", approximate weight = 11 LB (Mark F20)

2. RP2: Recommend replacement.

- 4-L4x4x $\frac{5}{16}$ x5'-7 $\frac{3}{4}$ ", approximate weight = 185 LB (Mark RP1-2)
- 2-PL $\frac{5}{16}$ "x4"x4'-11", approximate weight = 42 LB (Mark F19)
- 2-PL $\frac{5}{16}$ "x8 $\frac{3}{4}$ "x1'-0 $\frac{1}{2}$ ", approximate weight = 20 LB (Mark G55)
- 2-L3 $\frac{1}{2}$ x3 $\frac{1}{2}$ x $\frac{5}{16}$ x6 $\frac{1}{2}$ ", approximate weight = 8 LB (Mark K63)
- 4-L5x3 $\frac{1}{2}$ x $\frac{5}{16}$ x1'-0 $\frac{1}{8}$ ", approximate weight = 36 LB (Mark K65)
- 4-PL $\frac{5}{16}$ "x3 $\frac{1}{2}$ "x8 $\frac{3}{4}$ ", approximate weight = 11 LB (Mark F21)

3. RP3: Recommend replacement.

- 2-W12x30x4'-4 $\frac{1}{2}$ ", approximate weight = 263 LB (Mark RP3)
- 2-L3 $\frac{1}{2}$ x3 $\frac{1}{2}$ x $\frac{5}{16}$ x6 $\frac{1}{2}$ ", approximate weight = 8 LB (Mark K63)

Miscellaneous Repairs – West Truss

1. Nodes L6 and L7: Bolted repair of bottom chord between nodes.

- 1-PL $\frac{1}{2}$ "x12"x1'-3", approximate weight = 26 LB (Mark BR1)

Total Additional Item 506.60 Structural Steel (LB), this memorandum = 5154 LB



Memorandum

To: Wayne Symonds (VTrans)
CC: Peter Perkins (CHA), Dale Gozalkowski (CHA)
From: David D'Amato (CHA)
Date: 6/10/2010
Re: Montpelier Taylor Street Bridge Rehabilitation, BHF 6400(31) Construction Inspection Findings

The following is a listing of additional steel repairs to the Taylor Street Bridge corresponding to Contract Plan Sht. 31C. Repair recommendations are the result of an April 23, 2010 field visit and construction inspection findings compiled by the Resident Engineer. All additional steel required for the listed repairs shall be paid under Item 506.60 Structural Steel (LB).

Sidewalk and Rail Components - East Truss

1. KB2: **Recommend replacement.**

- 1-PL^{5/16}"x31^{1/2}"x6'-9^{1/2}", approximate weight = 230 LB (Mark KB2)
- 1-L3^{1/2}x3^{1/2}x^{5/16}x6'-9^{1/8}", approximate weight = 50 LB (Mark K8)
- 1-L3^{1/2}x3^{1/2}x^{5/16}x5'-5^{1/4}" , approximate weight = 40 LB (Mark K9)
- 2-L3^{1/2}x3^{1/2}x^{5/16}x2'-0^{5/16}" , approximate weight = 30 LB (Mark K12)
- 1-L2^{1/2}x2^{1/2}x^{1/4}x9^{1/4}" , approximate weight = 4 LB (Mark K14)
- 1-L3^{1/2}x3^{1/2}x^{5/16}x7^{1/4}" , approximate weight = 5 LB (Mark K15)
- 1-L3^{1/2}x3^{1/2}x^{5/16}x6'-10" , approximate weight = 50 LB (Mark K42)
- 1-L3^{1/2}x3^{1/2}x^{5/16}x5'-4^{1/8}" , approximate weight = 40 LB (Mark K43)
- 2-L4x3x^{3/8}x2'-3^{1/2}" , approximate weight = 39 LB (Mark K44)
- 2-PL^{5/16}"x3^{1/2}"x1'-4^{3/4}" , approximate weight = 11 LB (Mark F11)

2. K21: **Recommend replacement.**

- 2-L3^{1/2}x3^{1/2}x^{5/16}x9^{1/2}" , approximate weight = 12 LB (Mark K21)

3. K22: **Recommend replacement.**

- 2-L3^{1/2}x3^{1/2}x^{5/16}x9^{1/2}" , approximate weight = 12 LB (Mark K22)

4. K23: **Recommend replacement.**

- 2-L3^{1/2}x3^{1/2}x^{5/16}x9^{1/2}" , approximate weight = 12 LB (Mark K23)

5. RP1 and RP2: **Recommend partial replacement.**

- 8-L3½x3½x⁵/₁₆x6½", approximate weight = 32 LB (Mark K63)

6. P5 and P6: **Recommend partial replacement.**

- 9-L2½x2½x¼x5'-1³/₁₆", approximate weight = 190 LB (Mark P5)
- 8-L2½x2½x¼x4'-10¹⁵/₁₆", approximate weight = 162 LB (Mark P6)
- 17-L2½x2½x¼x4'-4⁷/₈", approximate weight = 310 LB (Mark K25)
- 17-L2x2x¼x5¼", approximate weight = 25 LB (Mark K27)

7. Terminal Bridge Rail: **Recommend replacement.**

- 2-L3x3x⁵/₁₆x2'-0¼", approximate weight = 30 LB (Mark K47)
- 2-L3x3x⁵/₁₆x1'-1⁷/₈", approximate weight = 15 LB (Mark K48)
- 4-L3¼x3x⁵/₁₆x1'-1⁷/₈", approximate weight = 30 LB (Mark K49)
- 2-C6x8.2x2'-3¹/₁₆", approximate weight = 37 LB (Mark K50)

8. R1: **Recommend replacement.**

- 1-3" Dia.x10'-1¼" Sch. 80 Pipe, approximate weight = 105 LB
- 1-PL¹/₁₆"x2"x9'-9", approximate weight = 30 LB (Mark G37)
- 23-BAR³/₄"x³/₄"x2'-7", approximate weight = 120 LB
- 1-L3x2x⁵/₁₆x10'-3¼", approximate weight = 55 LB

9. R2^L and R2^R: **Recommend replacement.**

- 2-3" Dia.x10'-8⁵/₈"Sch. 80 Pipe, approximate weight = 220 LB
- 2-PL¹/₁₆"x2"x9'-9", approximate weight = 60 LB (Mark G37)
- 46-BAR³/₄"x³/₄"x2'-7", approximate weight = 240 LB
- 2-L3x2x⁵/₁₆x10'-6³/₈", approximate weight = 105 LB

10. K34: **Recommend replacement.**

- 2-L3x3½x³/₈x13½", approximate weight = 18 LB (Mark K34)

Sidewalk and Rail Components – West Truss

1. K21: **Recommend replacement.**

- 2-L3½x3½x⁵/₁₆x9½", approximate weight = 12 LB (Mark K21)

2. K22: **Recommend replacement.**

- 2-L3½x3½x⁵/₁₆x9½", approximate weight = 12 LB (Mark K22)

3. K23: **Recommend replacement.**

- 2-L3½x3½x⁵/₁₆x9½", approximate weight = 12 LB (Mark K23)

4. RP1 and RP2: **Recommend partial replacement.**

- 4-L3½x3½x⁵/₁₆x6½", approximate weight = 16 LB (Mark K63)

5. Terminal Bridge Rail: **Recommend replacement.**

- 2-L3x3x $\frac{5}{16}$ x2'-0 $\frac{1}{4}$ ", approximate weight = 30 LB (Mark K47)
- 2-L3x3x $\frac{5}{16}$ x1'-1 $\frac{7}{8}$ ", approximate weight = 15 LB (Mark K48)
- 4-L3 $\frac{1}{4}$ x3x $\frac{5}{16}$ x1'-1 $\frac{7}{8}$ ", approximate weight = 30 LB (Mark K49)
- 2-C6x8.2x2'-3 $\frac{1}{16}$ ", approximate weight = 37 LB (Mark K50)

6. K34: **Recommend replacement.**

- 2-L3x3 $\frac{1}{2}$ x $\frac{3}{8}$ x13 $\frac{1}{2}$ ", approximate weight = 18 LB (Mark K34)

Total Additional Item 506.60 Structural Steel (LB), this memorandum = 2501 LB



Memorandum

To: Wayne Symonds (VTrans)
CC: Peter Perkins (CHA), Dale Gozalkowski (CHA)
From: David D'Amato (CHA)
Date: 6/10/2010
Re: Montpelier Taylor Street Bridge Rehabilitation, BHF 6400(31) Construction Inspection Findings

The following is a listing of additional steel repairs to the Taylor Street Bridge corresponding to Contract Plan Sht. 31D. Repair recommendations are the result of an April 23, 2010 field visit and construction inspection findings compiled by the Resident Engineer. All additional steel required for the listed repairs shall be paid under Item 506.60 Structural Steel (LB).

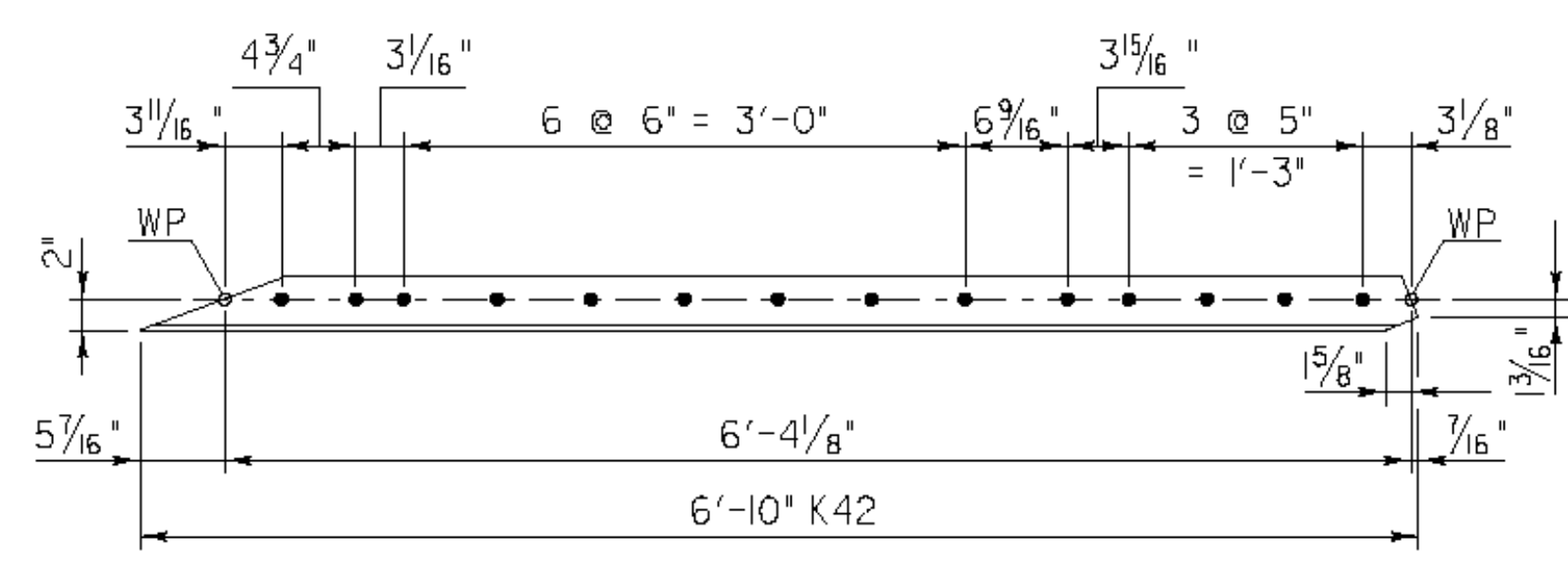
Sidewalk and Rail Components - East Truss

1. RPA1: **Recommend replacement.**
 - **8-PL^{3/8}"x4"x1'-0"**, approximate weight = 45 LB (Mark RPA1)

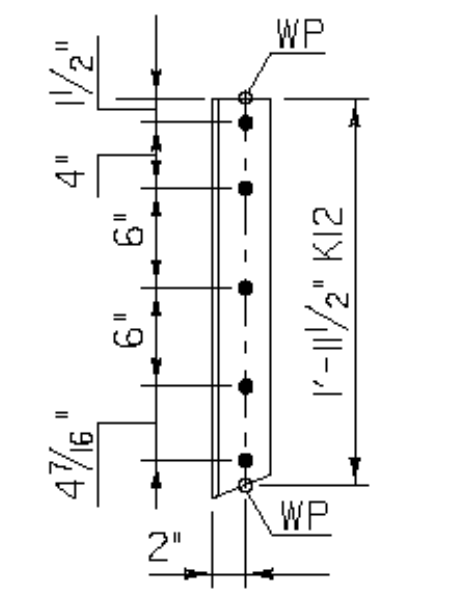
Sidewalk and Rail Components – West Truss

- **8-PL^{3/8}"x4"x1'-0"**, approximate weight = 45 LB (Mark RPA1)

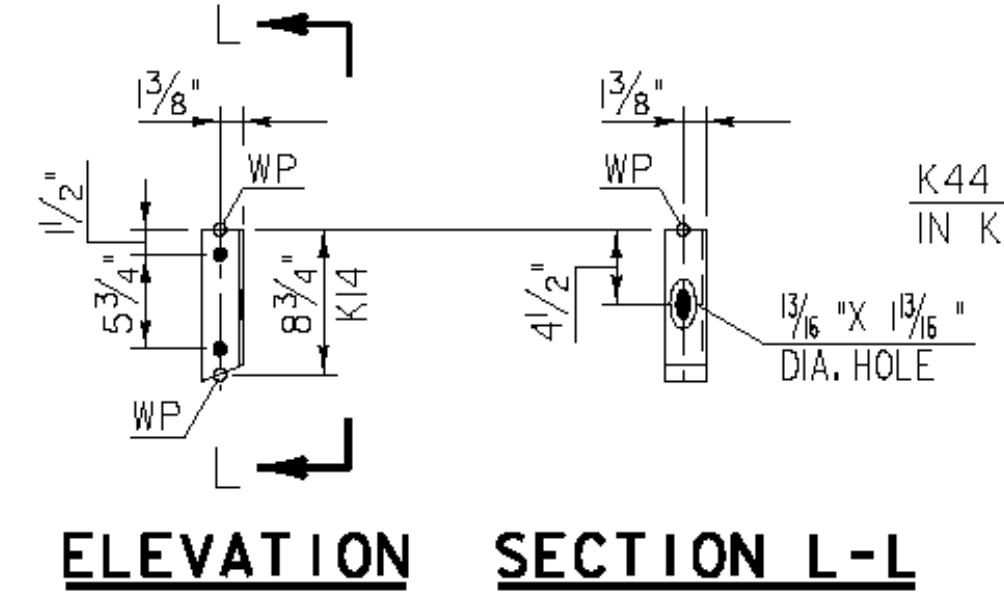
Total Additional Item 506.60 Structural Steel (LB), this memorandum = 90 LB



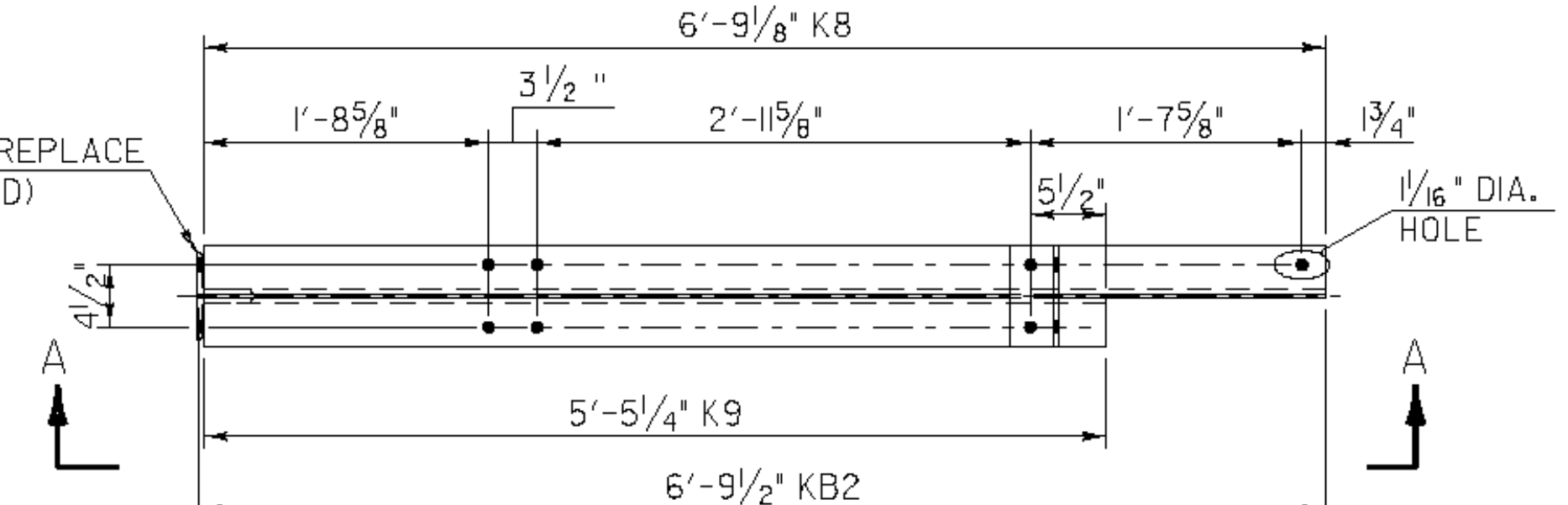
K42 DETAIL
SCALE: 1" = 1'-0"



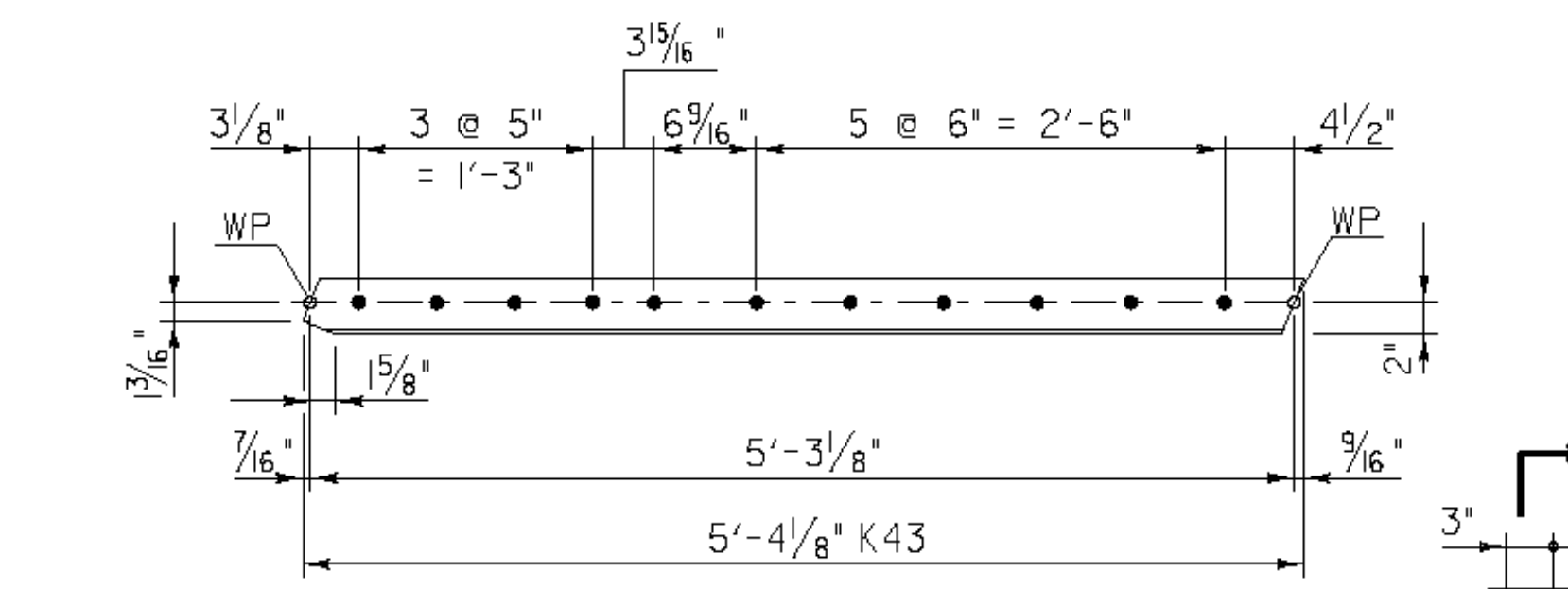
K12 DETAIL
SCALE: 1" = 1'-0"



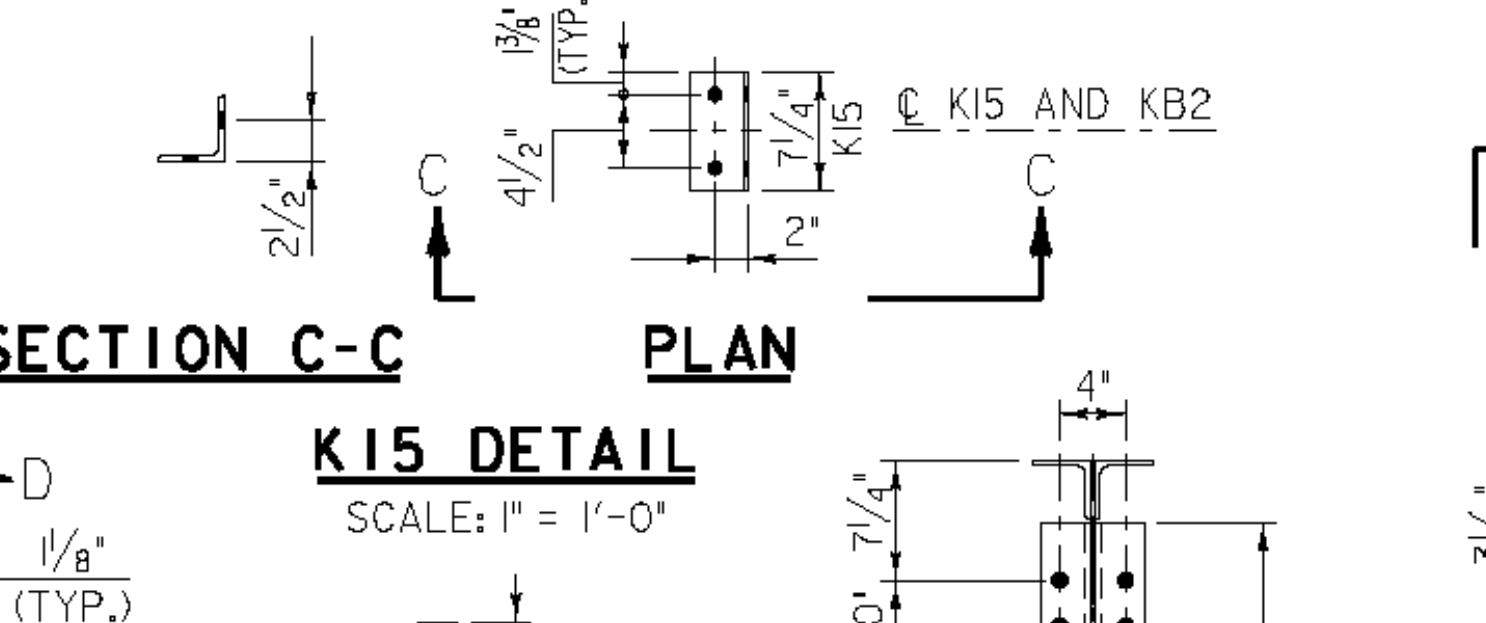
K14 DETAIL
SCALE: 1" = 1'-0"



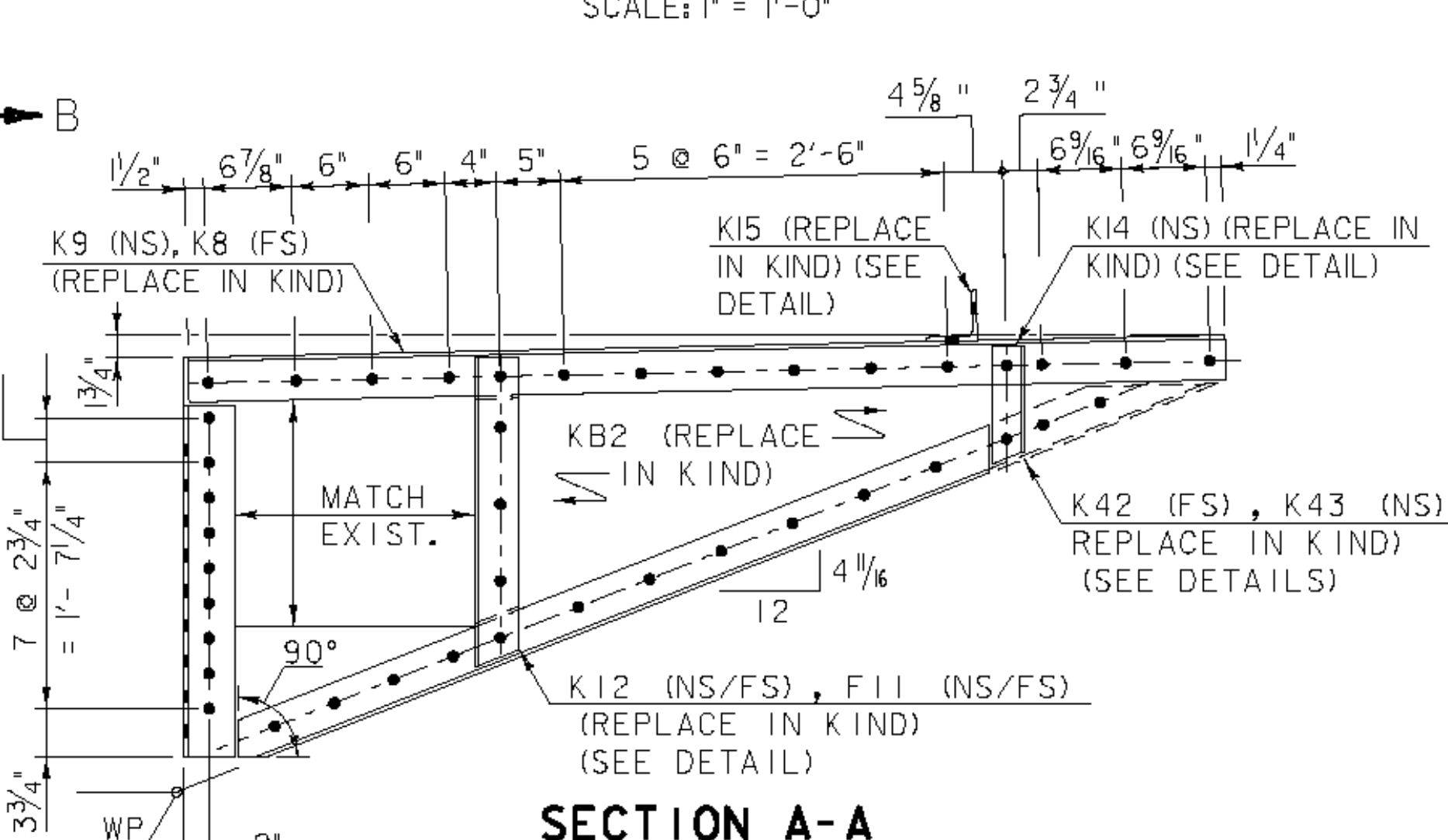
SIDEWALK FRAME KB2 - PLAN
SCALE: 1" = 1'-0"



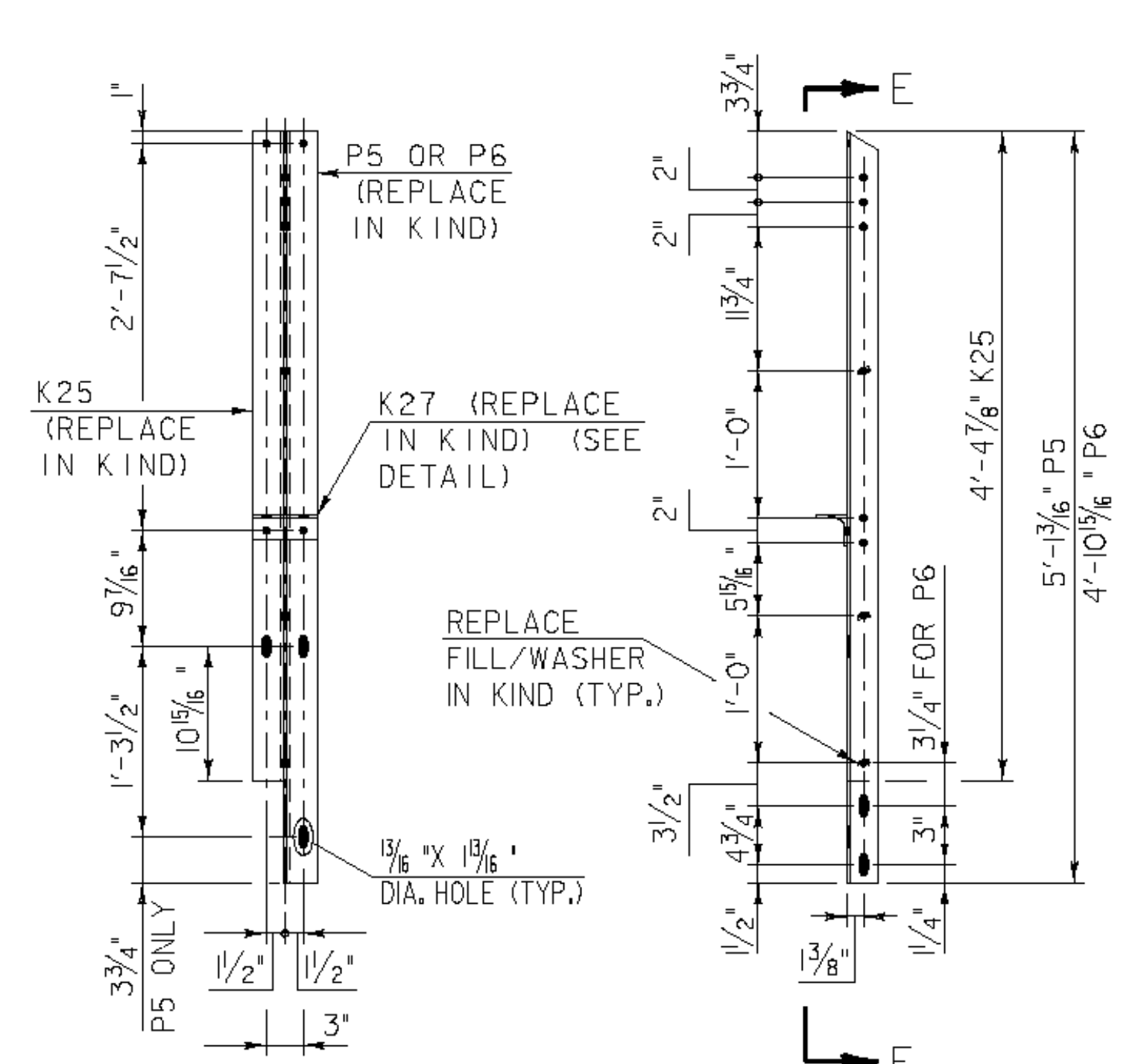
K43 DETAIL
SCALE: 1" = 1'-0"



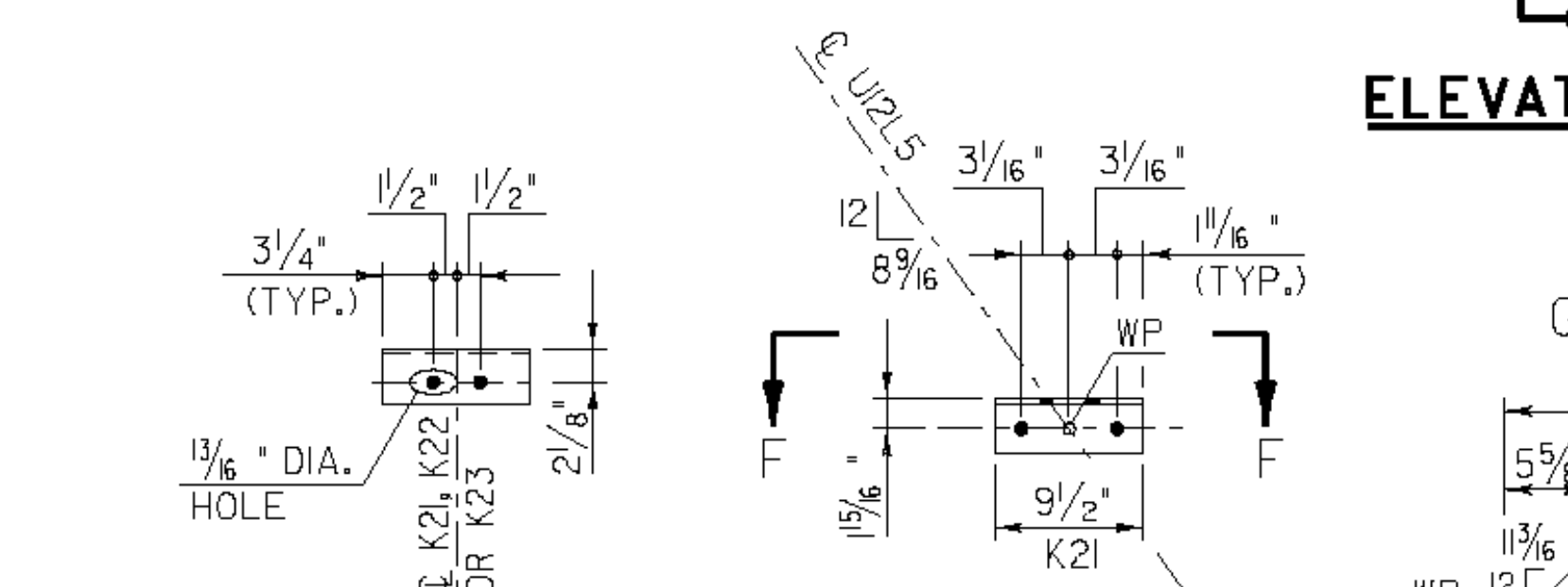
SECTION C-C PLAN
SCALE: 1" = 1'-0"



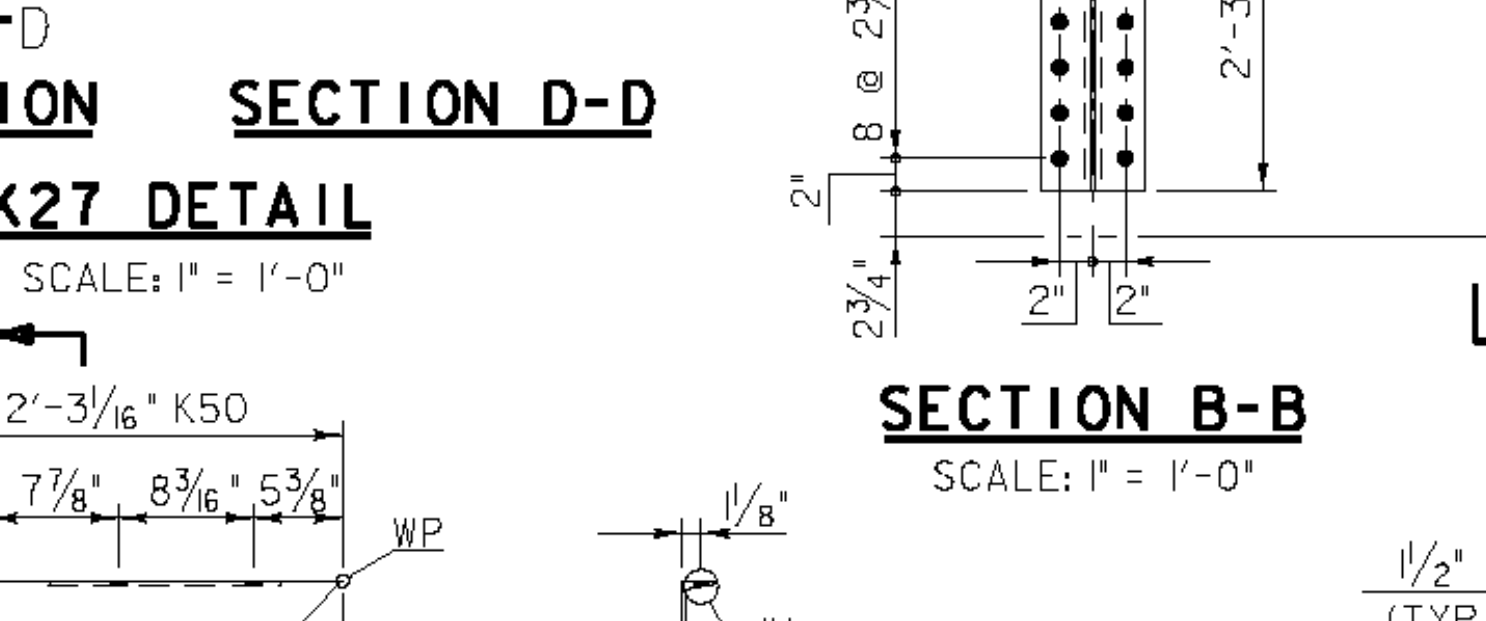
SECTION A-A
SCALE: 1" = 1'-0"



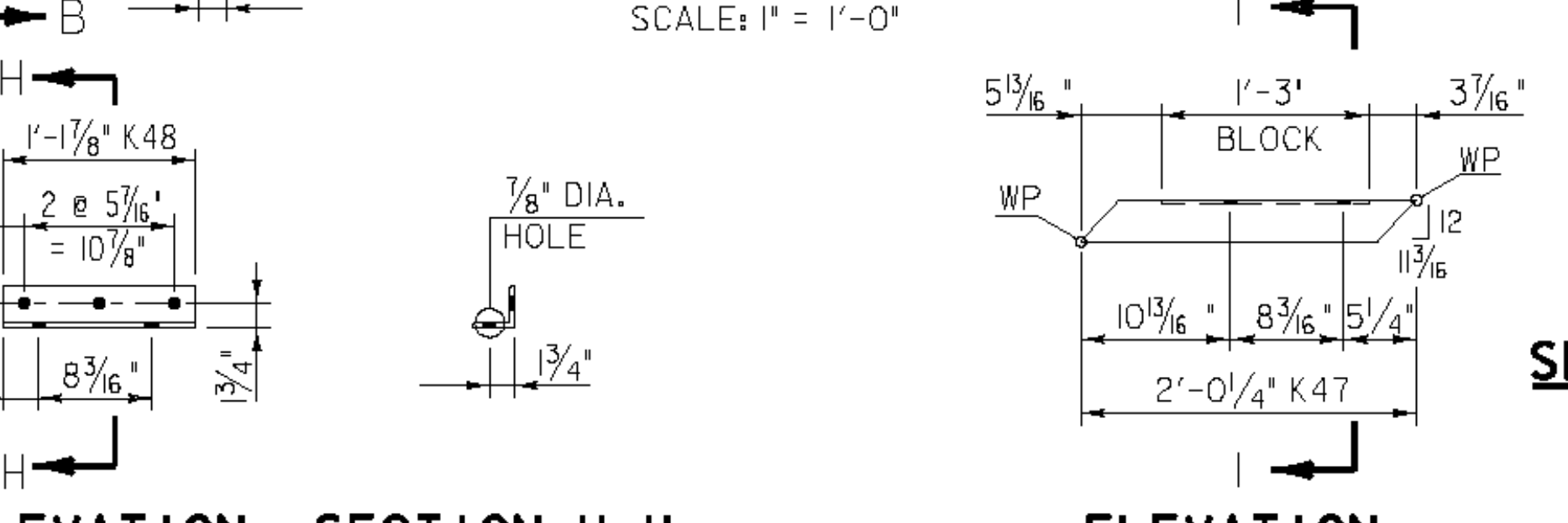
SECTION E-E ELEVATION
PEDESTRIAN RAIL P5 AND P6
SCALE: 1" = 1'-0"



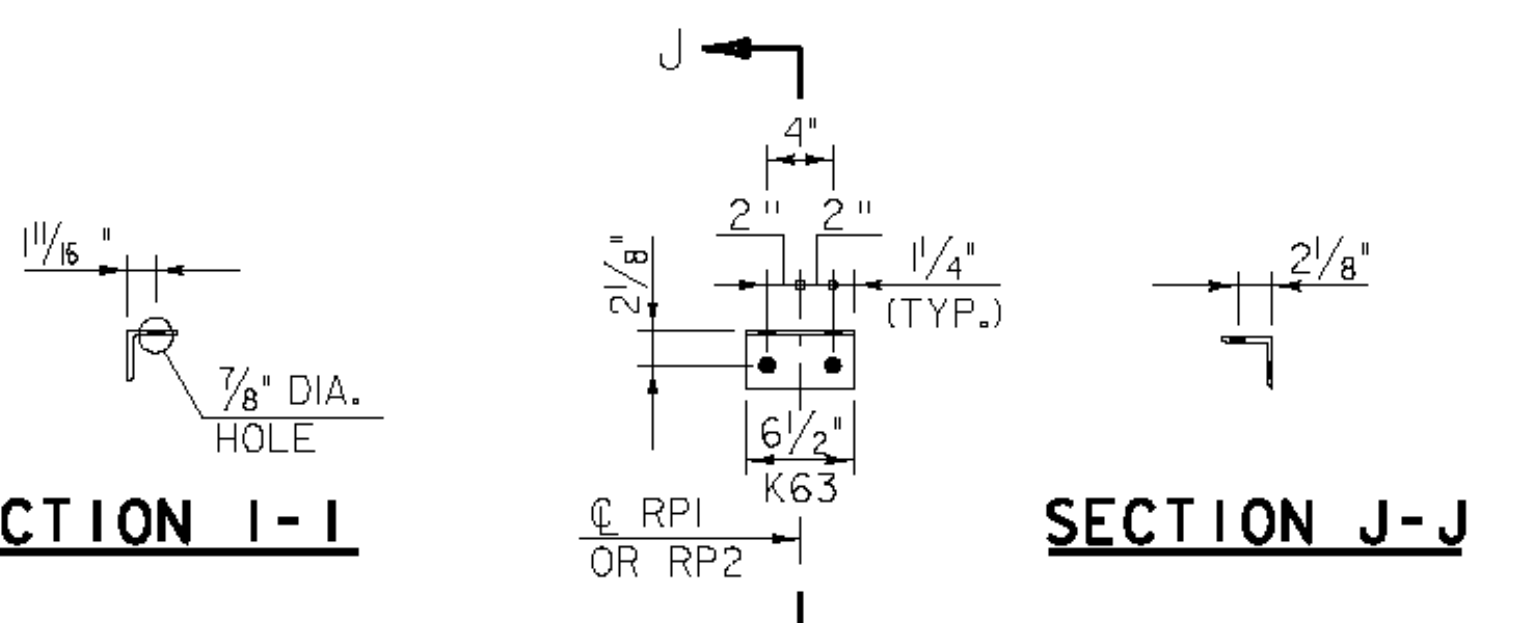
SECTION F-F ELEVATION
K21 DETAIL
SCALE: 1" = 1'-0"



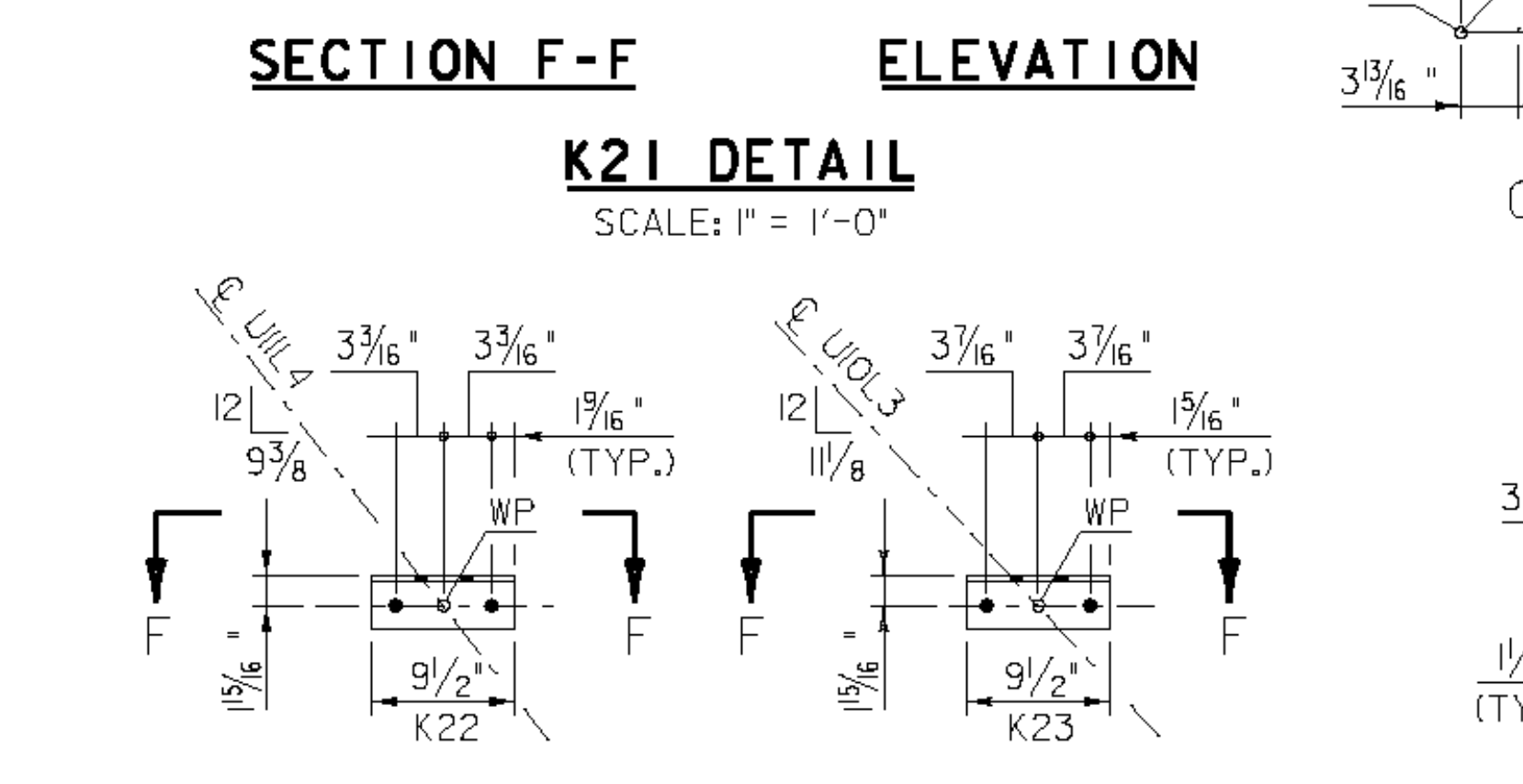
SECTION B-B
SCALE: 1" = 1'-0"



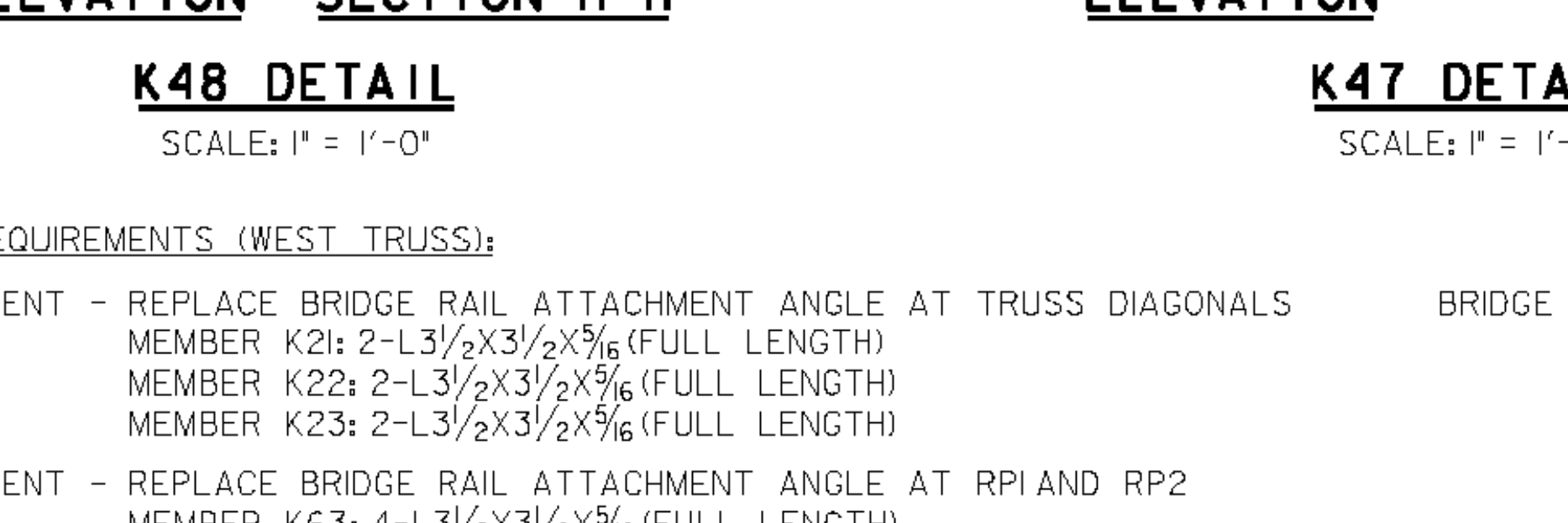
SECTION H-H
SCALE: 1" = 1'-0"



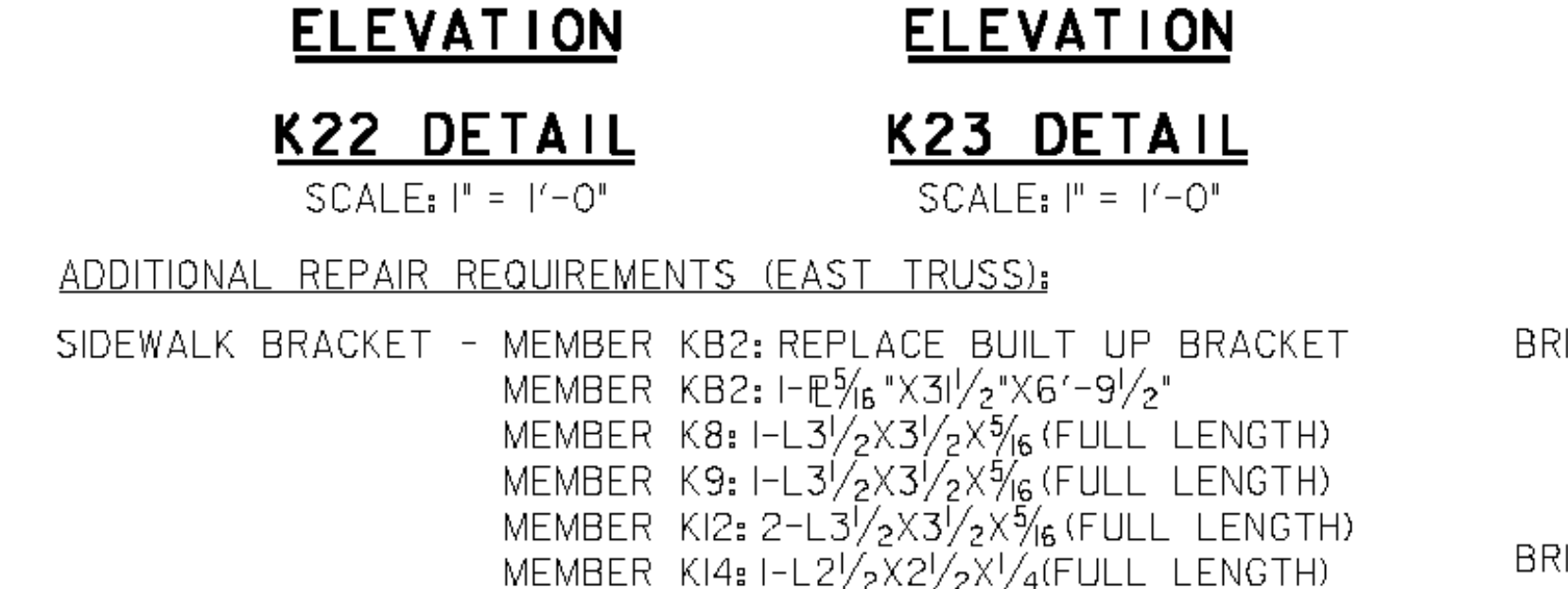
SECTION I-I
SCALE: 1" = 1'-0"



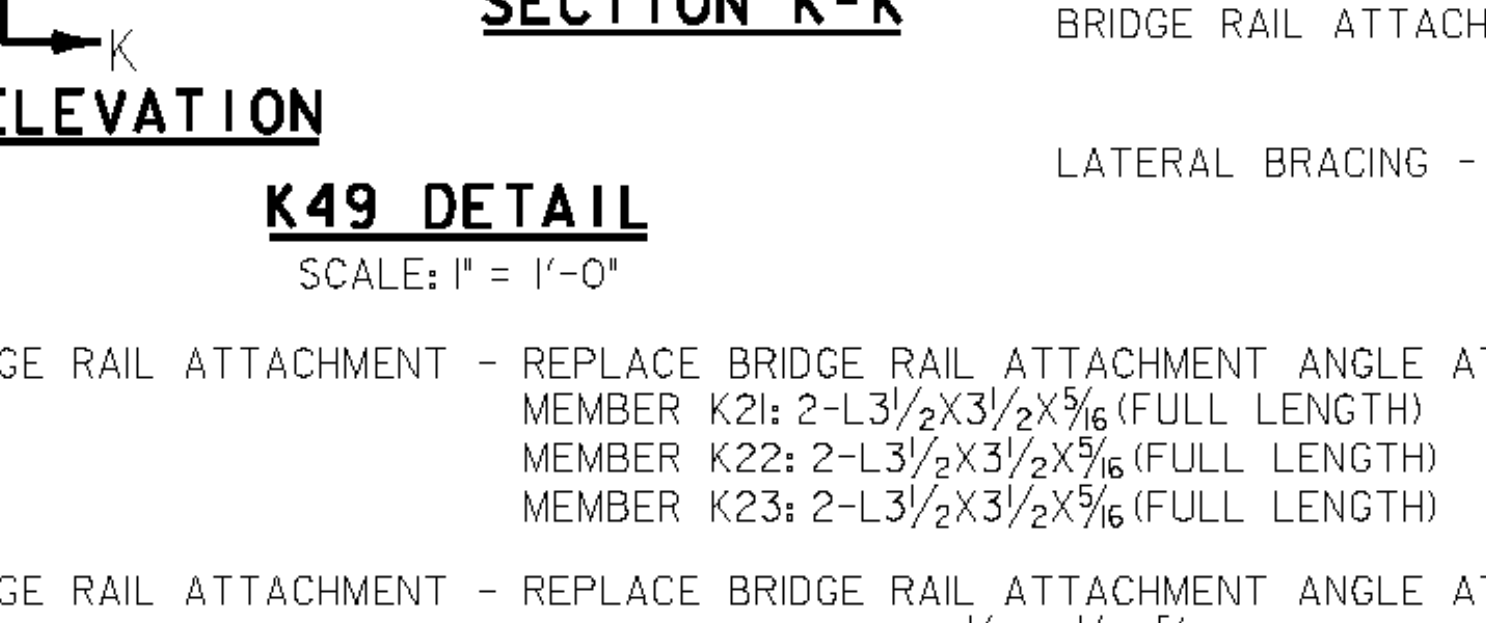
SECTION G-G
SCALE: 1" = 1'-0"



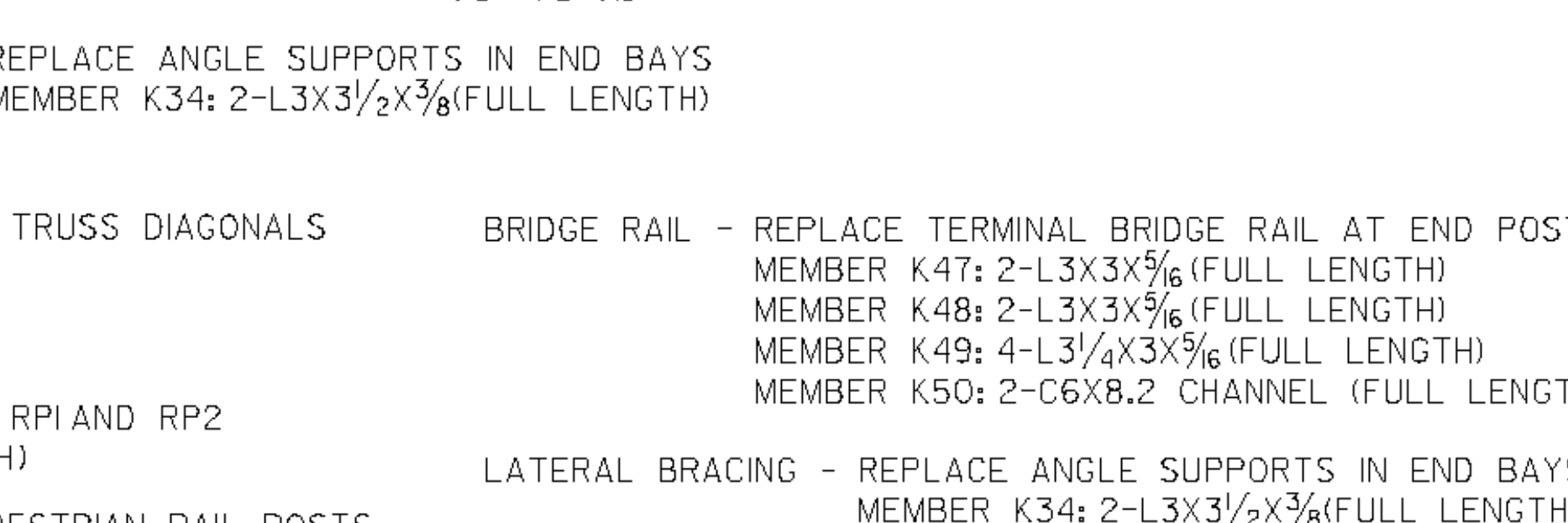
SECTION J-J
SCALE: 1" = 1'-0"



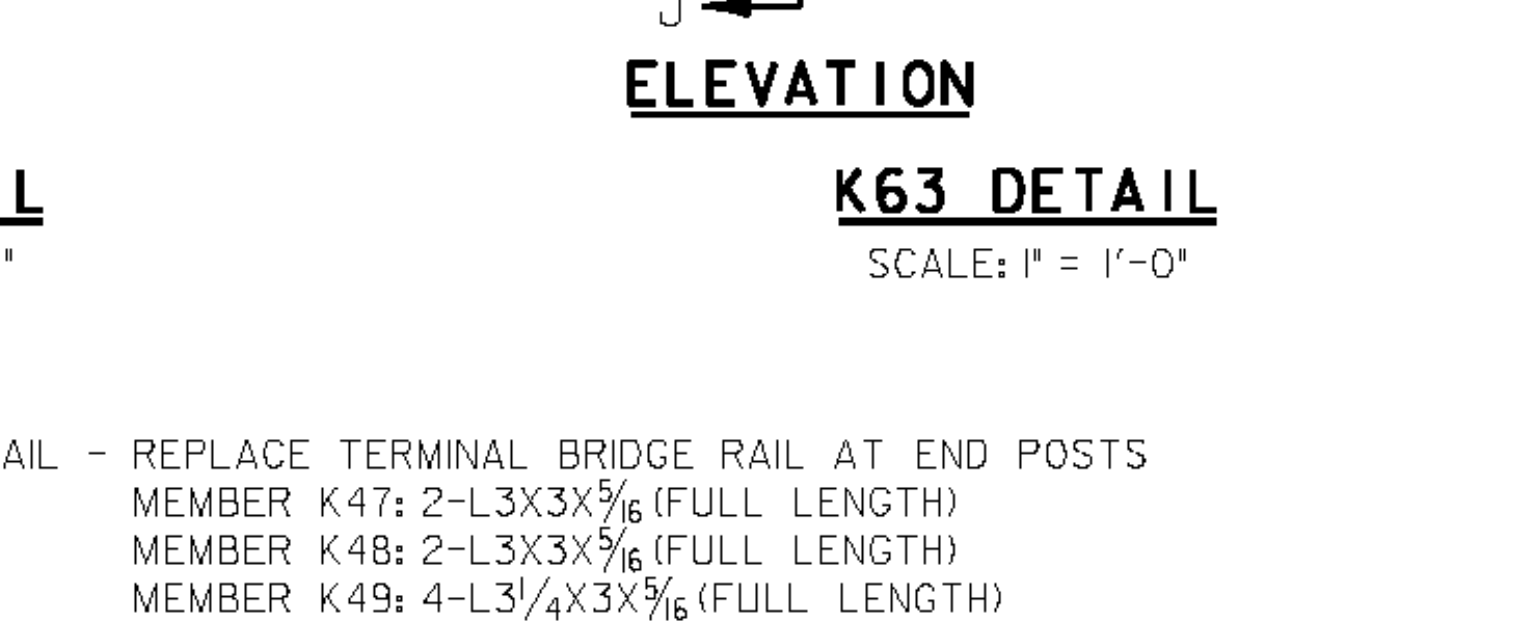
K22 DETAIL
SCALE: 1" = 1'-0"



K49 DETAIL
SCALE: 1" = 1'-0"



K48 DETAIL
SCALE: 1" = 1'-0"



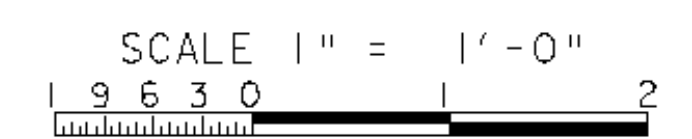
K63 DETAIL
SCALE: 1" = 1'-0"

ADDITIONAL REPAIR REQUIREMENTS (EAST TRUSS):
 SIDEWALK BRACKET - MEMBER KB2: REPLACE BUILT UP BRACKET
 MEMBER KB2: 1- $1 \frac{1}{16}$ " X $3 \frac{1}{2}$ " X 6 " - $9 \frac{1}{2}$ "
 MEMBER K8: 1-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K9: 1-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K12: 2-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K14: 1-L $2 \frac{1}{2}$ " X $2 \frac{1}{2}$ " X $\frac{1}{4}$ " (FULL LENGTH)
 MEMBER K15: 1-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K42: 1-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K43: 1-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K44: 2-L 4 " X $3 \frac{3}{8}$ " (FULL LENGTH)
 MEMBER F11: 2- $2 \frac{5}{16}$ " X $3 \frac{1}{2}$ " X 1 " - $4 \frac{3}{4}$ "

ADDITIONAL REPAIR REQUIREMENTS (WEST TRUSS):
 BRIDGE RAIL ATTACHMENT - REPLACE BRIDGE RAIL ATTACHMENT ANGLE AT TRUSS DIAGONALS
 MEMBER K21: 2-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K22: 2-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K23: 2-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 BRIDGE RAIL ATTACHMENT - REPLACE BRIDGE RAIL ATTACHMENT ANGLE AT RPI AND RP2
 MEMBER K63: 8-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 PEDESTRIAN RAIL POSTS P5 AND P6 - REPLACE PORTION OF BUILT UP PEDESTRIAN RAIL POSTS
 MEMBER P5: 9-L $2 \frac{1}{2}$ " X $2 \frac{1}{2}$ " X $\frac{1}{4}$ " (FULL LENGTH)
 MEMBER P6: 8-L $2 \frac{1}{2}$ " X $2 \frac{1}{2}$ " X $\frac{1}{4}$ " (FULL LENGTH)
 MEMBER K25: 17-L $2 \frac{1}{2}$ " X $2 \frac{1}{2}$ " X $\frac{1}{4}$ " (FULL LENGTH)
 MEMBER K27: 17-L 2 " X $2 \frac{1}{4}$ " (FULL LENGTH)

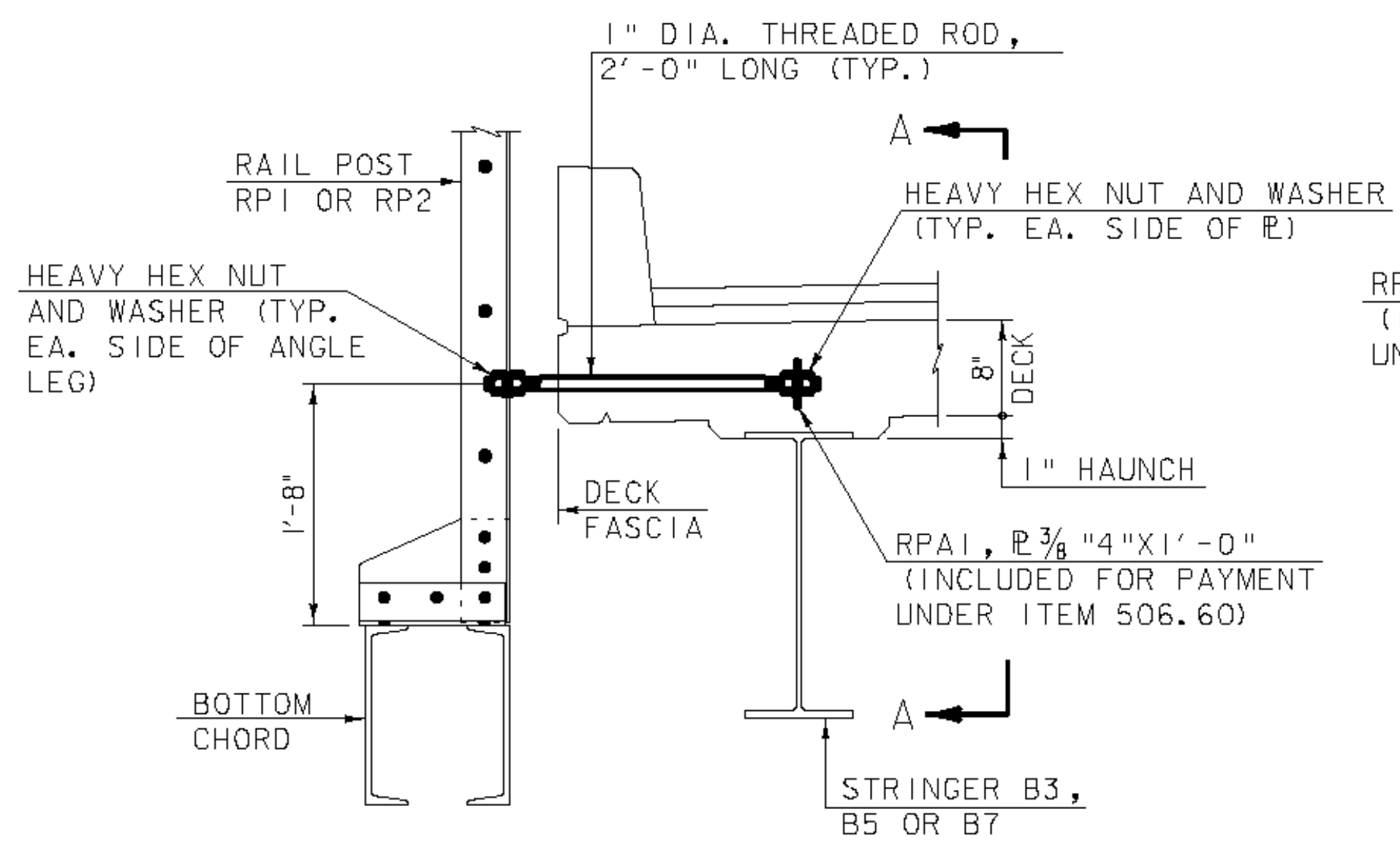
ADDITIONAL REPAIR REQUIREMENTS (WEST TRUSS):
 BRIDGE RAIL ATTACHMENT - REPLACE BRIDGE RAIL ATTACHMENT ANGLE AT TRUSS DIAGONALS
 MEMBER K21: 2-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K22: 2-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 MEMBER K23: 2-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 BRIDGE RAIL ATTACHMENT - REPLACE BRIDGE RAIL ATTACHMENT ANGLE AT RPI AND RP2
 MEMBER K63: 4-L $3 \frac{1}{2}$ " X $3 \frac{1}{2}$ " X $\frac{3}{16}$ " (FULL LENGTH)
 LATERAL BRACING - REPLACE ANGLE SUPPORTS IN END BAYS
 MEMBER K34: 2-L 3 " X $3 \frac{1}{2}$ " X $\frac{3}{8}$ " (FULL LENGTH)

ADDITIONAL REPAIR REQUIREMENTS (WEST TRUSS):
 BRIDGE RAIL - REPLACE TERMINAL BRIDGE RAIL AT END POSTS
 MEMBER K47: 2-L 3 " X $3 \frac{3}{16}$ " (FULL LENGTH)
 MEMBER K48: 2-L 3 " X $3 \frac{3}{16}$ " (FULL LENGTH)
 MEMBER K49: 4-L $3 \frac{1}{4}$ " X $3 \frac{3}{16}$ " (FULL LENGTH)
 MEMBER K50: 2-C6X8.2 CHANNEL (FULL LENGTH)
 PEDESTRIAN RAIL - REPLACE R1, R2^R AND R2^L
 MEMBER PIPE: 3-3" DIA., SCH. 80 (FULL LENGTH)
 MEMBER G37: 3- $2 \frac{1}{16}$ " X 2" (FULL LENGTH)
 MEMBER BALUSTER: 69-BAR $\frac{3}{4}$ " X $\frac{3}{4}$ " (FULL LENGTH)
 MEMBER BOT. ANGLE: 3-L 3 " X $2 \frac{3}{16}$ " (FULL LENGTH)

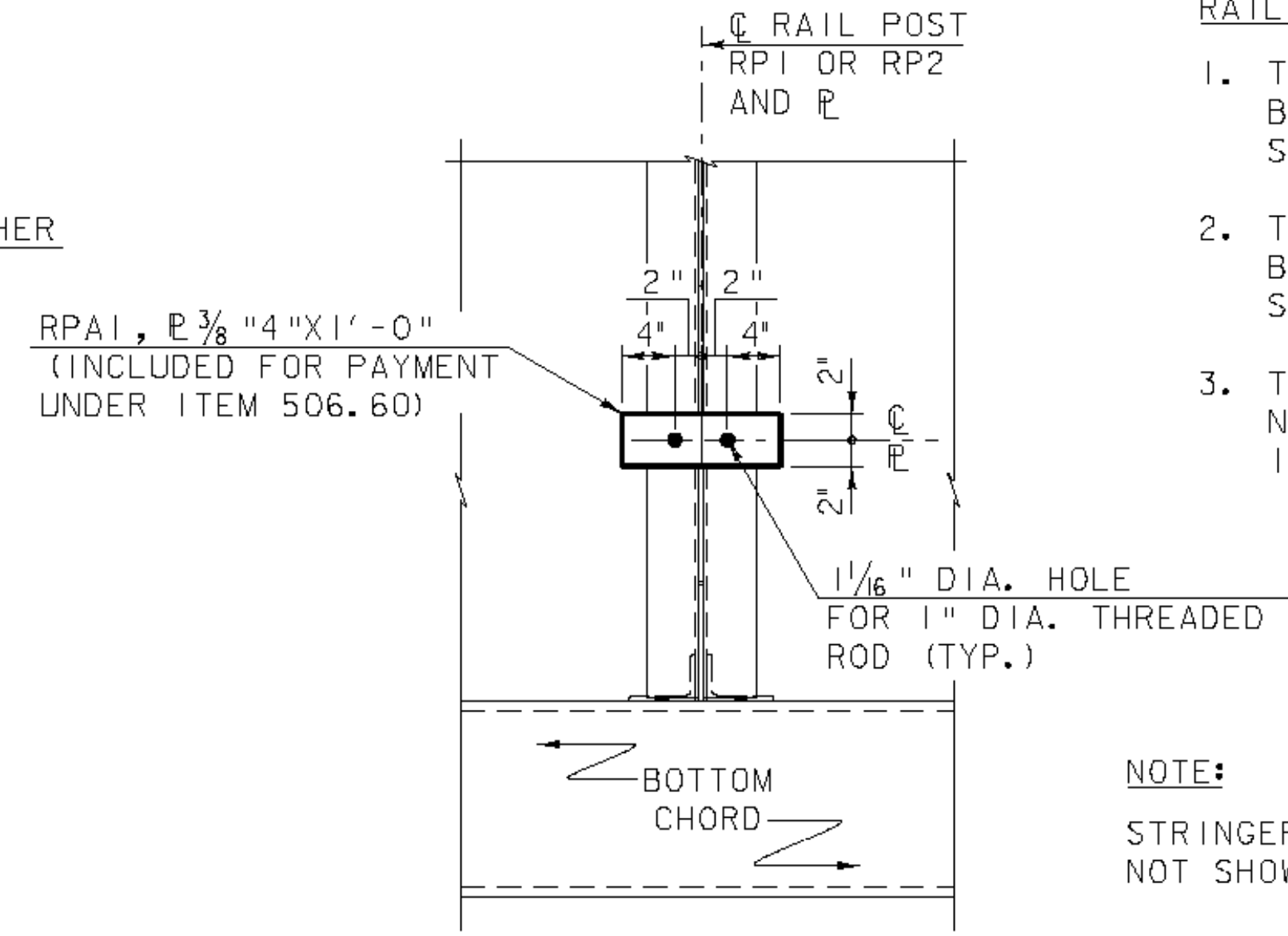


STRUCTURAL STEEL DETAILS (5)	
PROJECT NAME:	MONTPELIER
PROJECT NUMBER:	BHF 6400(31)
FILE NAME:	#FILES#
PROJECT MANAGER:	SUSAN SCRIBNER
DESIGNED BY:	D. D'AMATO
BRIDGE DESIGN SUPERVISOR:	P. HALSTEAD
PLOT DATE:	7/8/2010
DRAWN BY:	D. D'AMATO
CHECKED BY:	P. PERKINS
SHEET	31C OF 63

FILE NAME: #FILES#
 PROJECT MANAGER: SUSAN SCRIBNER
 DESIGNED BY: D. D'AMATO
 BRIDGE DESIGN SUPERVISOR: P. HALSTEAD
 PLOT DATE: 7/8/2010
 DRAWN BY: D. D'AMATO
 CHECKED BY: P. PERKINS
 SHEET 31C OF 63



ELEVATION



SECTION A-A

RAIL POST ANCHORAGE
(TYPICAL ALL RPI AND RP2 LOCATIONS)
SCALE: 1" = 1'-0"

RAIL POST ANCHORAGE NOTES:

1. THREADED ROD, HEAVY HEX NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SUBSECTION 714.07.
2. THREADED ROD, HEAVY HEX NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH STANDARD SPECIFICATION SUBSECTION 506.15.
3. THREADED ROD, HEAVY HEX NUTS AND WASHERS SHALL NOT BE PAID FOR DIRECTLY BUT ARE CONSIDERED INCIDENTAL TO ITEM 506.60.

NOTE:

STRINGER, DECK AND CURB NOT SHOWN FOR CLARITY

ADDITIONAL REPAIR REQUIREMENTS (EAST TRUSS):

RAIL POST ANCHORAGE - MEMBER RPA1: INSTALL NEW ANCHORAGE 8-#3/8"X4"X1'-0"

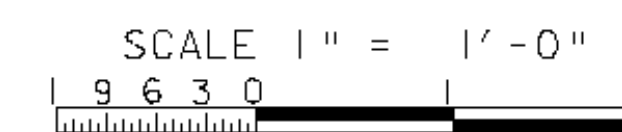
ADDITIONAL REPAIR REQUIREMENTS (WEST TRUSS):

RAIL POST ANCHORAGE - MEMBER RPA1: INSTALL NEW ANCHORAGE 8-#3/8"X4"X1'-0"

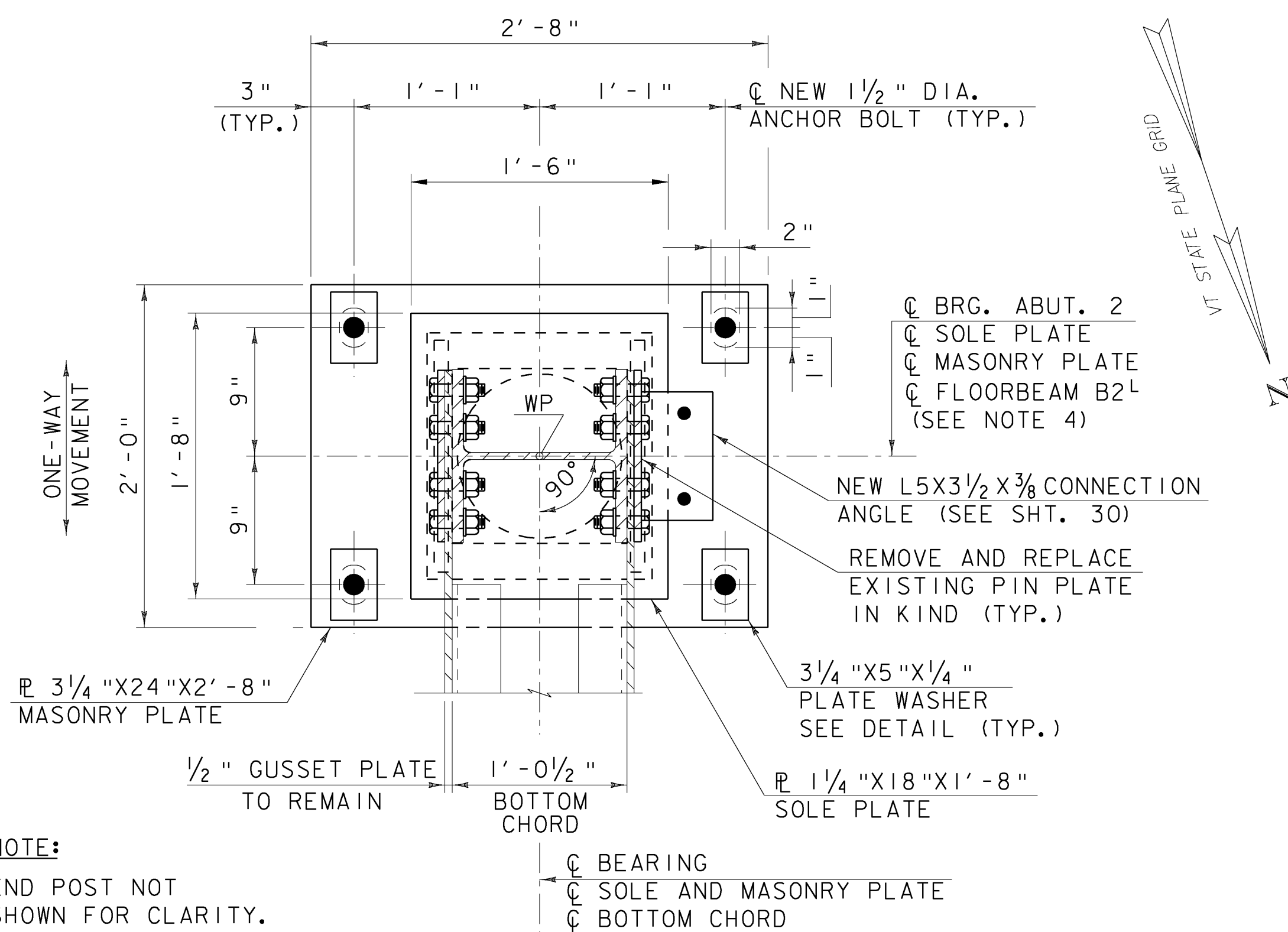
STRUCTURAL STEEL DETAILS (6)

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: #FILES# PLOT DATE: 7/8/2010
PROJECT MANAGER: SUSAN SCRIBNER DRAWN BY: D. D'AMATO
DESIGNED BY: D. D'AMATO CHECKED BY: P. PERKINS
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD SHEET 31D OF 63



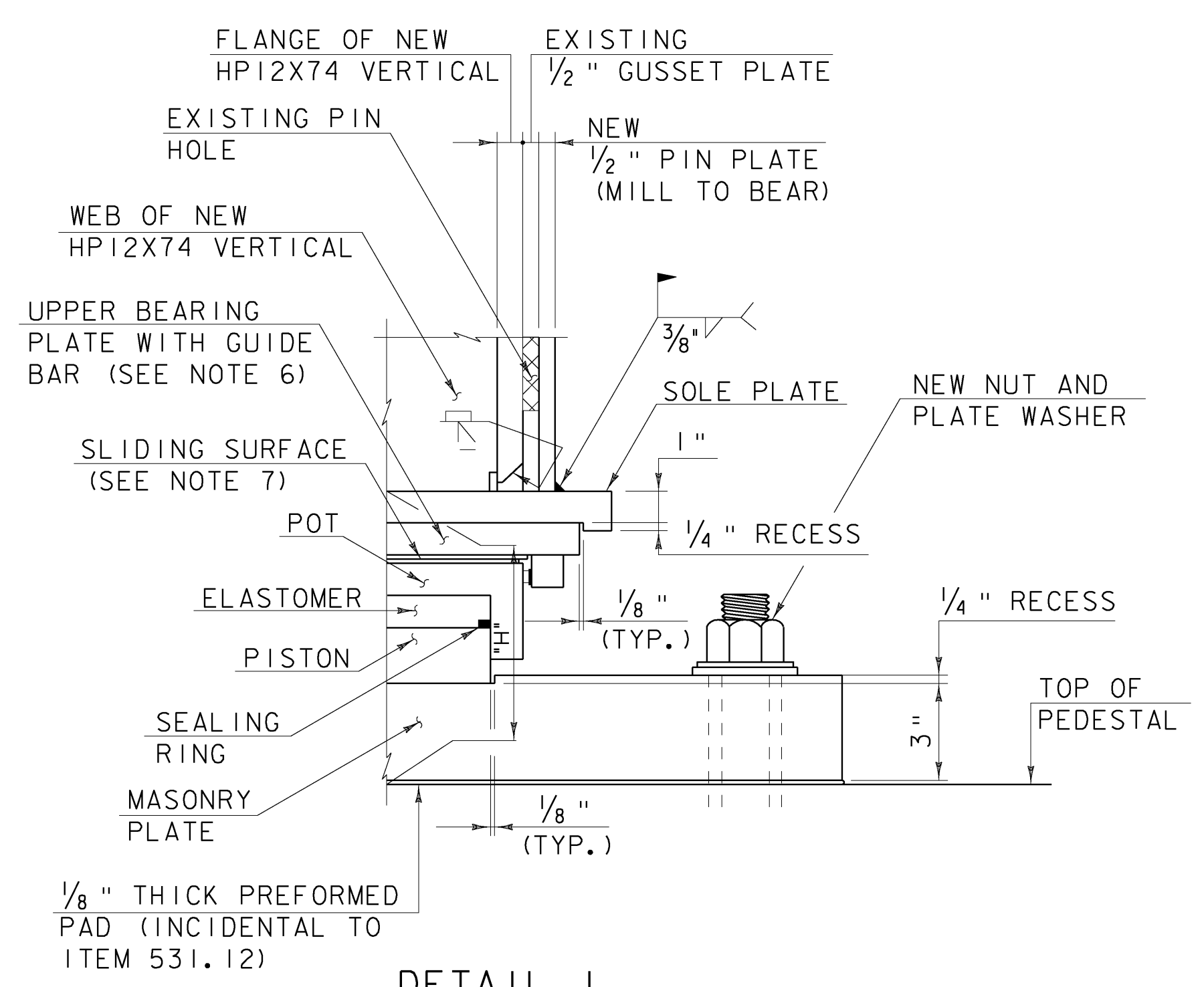
FILE NAME: K:\14506\Montpelier\p1\14506_additional_steel_4.dgn
DATE/TIME: 7/8/2010 10:26:22
USER: PPERKINS



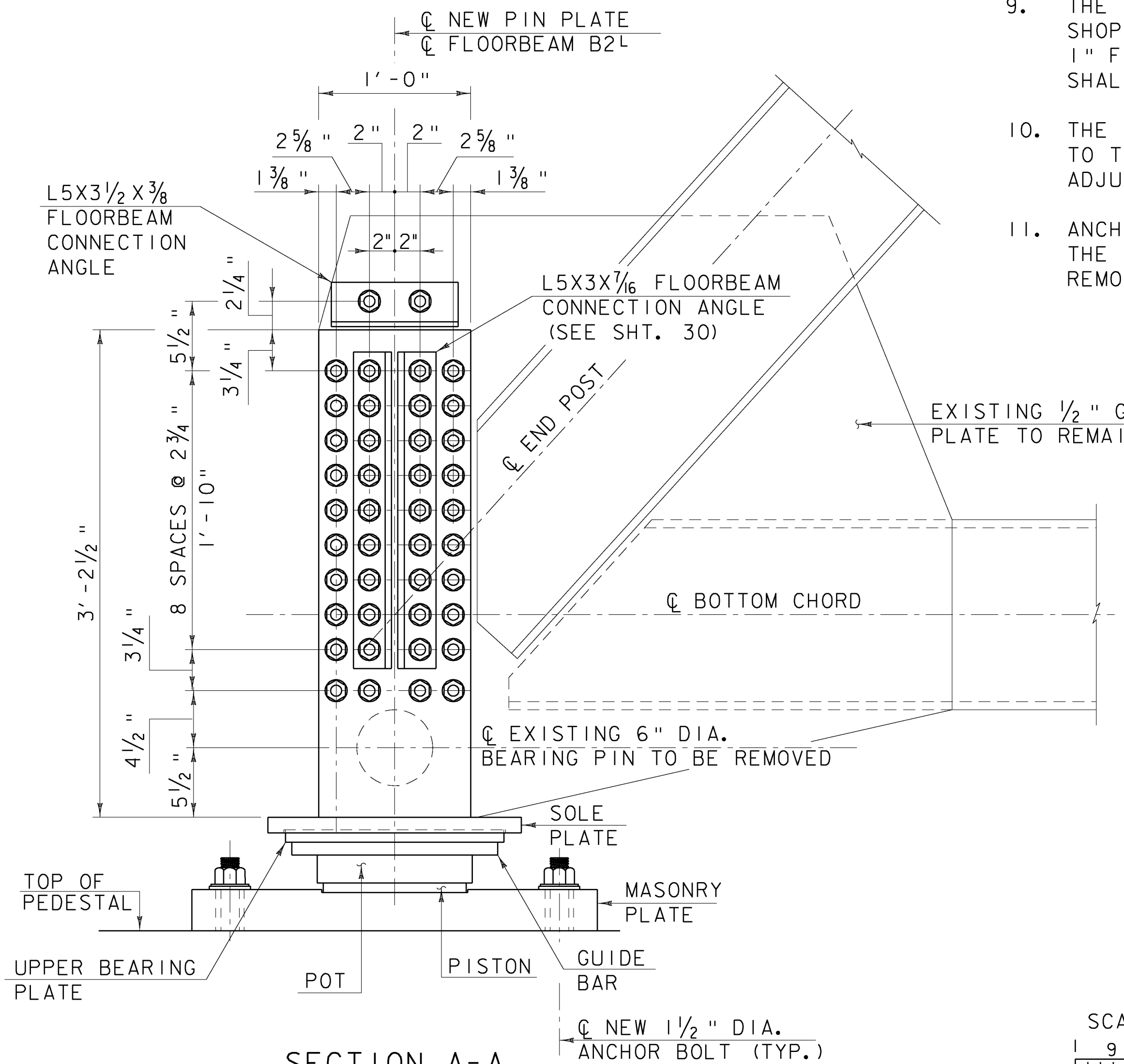
PLAN
SCALE: 1/2" = 1'-0"



ELEVATION
SCALE: 1/2" = 1'-0"
(EAST BEARING SHOWN
WEST BEARING SIMILAR)



DETAIL I
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"

BEARING NOTES:

- POT BEARING ASSEMBLIES SHALL BE PAID FOR UNDER ITEM 531.12 BEARING DEVICE ASSEMBLY, POT. SOLE PLATES, MASONRY PLATES, ANCHOR BOLTS AND PLATE WASHERS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCLUDED UNDER ITEM 531.12. ALL NEW STEEL ABOVE THE TOP OF THE SOLE PLATES SHALL BE PAID FOR AS ITEM 506.60 STRUCTURAL STEEL. FABRICATION DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 105. PLANS AND DESIGN CALCULATIONS SHALL BE STAMPED BY A QUALIFIED PROFESSIONAL ENGINEER.
- PEDESTAL ELEVATIONS ARE BASED UPON THE POT BEARING ASSEMBLIES HAVING THE THICKNESS OF "H". IF THE THICKNESS OF THE NEW BEARING IS DIFFERENT THAN SHOWN, NEW PEDESTAL ELEVATIONS SHALL BE COMPUTED AND SUBMITTED BY THE CONTRACTOR TO THE RESIDENT ENGINEER FOR APPROVAL PRIOR TO PLACING CONCRETE. ANY ADDITIONAL COST DUE TO MODIFICATIONS BY THE CONTRACTOR SHALL BE AT THE CONTRACTOR'S EXPENSE.
- THE MASONRY PLATE SHALL BE ONE PLATE.
- THE CENTERLINE OF ALL BEARING COMPONENTS SHALL BE IN LINE AT 45° F.
- GUIDED EXPANSION BEARINGS SHALL BE SELF ALIGNING.
- GUIDE BARS SHALL BE ATTACHED TO THE UPPER BEARING PLATE BY THE MANUFACTURER.
- ALL EXPANSION BEARINGS SHALL HAVE A MAXIMUM COEFFICIENT OF FRICTION OF 4%. THE TEMPERATURE OF THE STEEL ADJACENT TO THE ELASTOMER SHALL NOT EXCEED 200° F. TEMPERATURE SHALL BE CONTROLLED BY WELDING PROCEDURES AND TEMPERATURE INDICATING CRAYONS OR OTHER DEVICES APPROVED BY THE RESIDENT ENGINEER.
- MASONRY PLATES, SOLE PLATES, HP12X74 VERTICAL, NUTS AND PLATE WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH STANDARD SPECIFICATION SUBSECTION 506.15. THE SOLE PLATE AND HP12X74 VERTICAL SHALL BE GALVANIZED AS A SINGLE UNIT.
- THE PIN PLATES SHALL BE SHOP PAINTED UNDER ITEM 513.25 STRUCTURAL PAINTING, SHOP APPLIED AND SHALL BE FIELD WELDED TO THE SOLE PLATE. TERMINATE ALL WELDS 1" FROM THE END OF THE PLATE. ANY GALVANIZED SURFACE DAMAGED DURING ERECTION SHALL BE REPAIRED IN ACCORDANCE WITH STANDARD SPECIFICATION SUBSECTION 513.06.
- THE CONTRACTOR SHALL SUBMIT THE NEW BEARING INSTALLATION PROCEDURE TO THE RESIDENT ENGINEER FOR REVIEW. PROCEDURE SHALL INCLUDE BEARING ADJUSTMENT SETTINGS DEPENDING UPON TEMPERATURE AT TIME OF ERECTION.
- ANCHOR BOLTS WILL HAVE AN 1/8" GAP BETWEEN THE BOTTOM OF THE NUT AND THE TOP OF THE WASHER. BURR THE THREADS ON ALL ANCHOR BOLTS TO PREVENT REMOVAL OF THE NUTS.

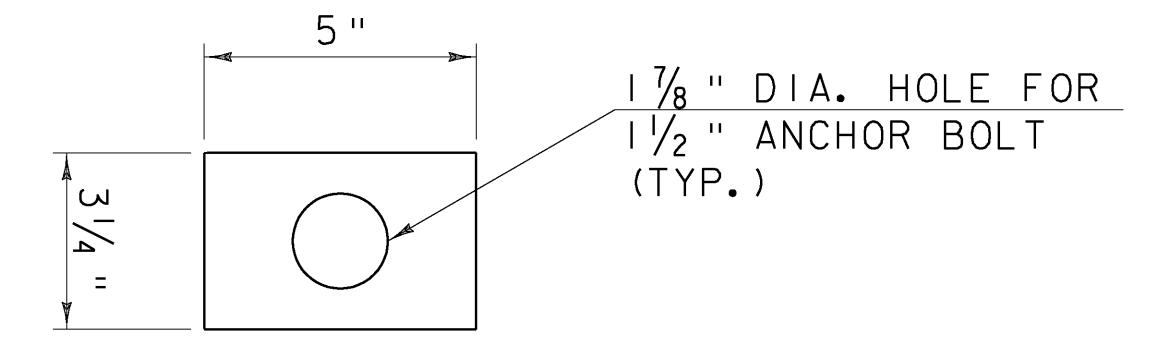
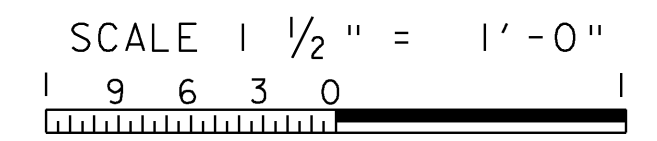


PLATE WASHER DETAIL
NOT TO SCALE

EXPANSION BEARING TABLE					
DESIGN LOADS			LIVE LOAD ROTATION (RAD)	ONE-WAY MOVEMENT (IN)	H (IN)
TOTAL DL (KIPS)	TOTAL LL+I (KIPS)	HORIZONTAL (KIPS)			
150	115	14	.015	1.00	8.05

NOTE:

THE ONE WAY MOVEMENT SHOWN ON THE BEARING TABLE IS THE MAXIMUM MOVEMENT (EXPANSION OR CONTRACTION) OF THE SUPERSTRUCTURE WHEN BEARINGS AND SUPERSTRUCTURE ARE SET AT 45° F.



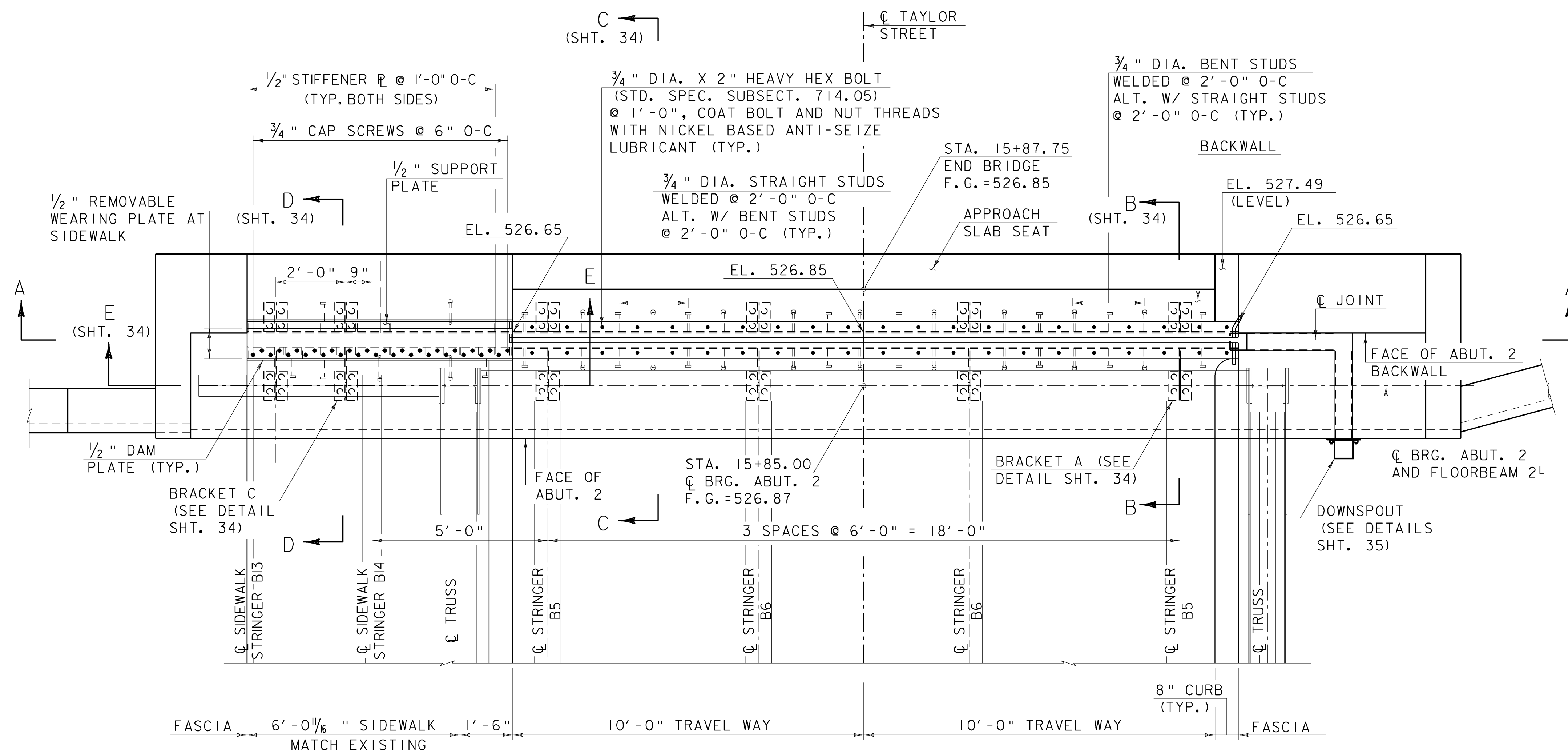
EXPANSION BEARING DETAILS

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

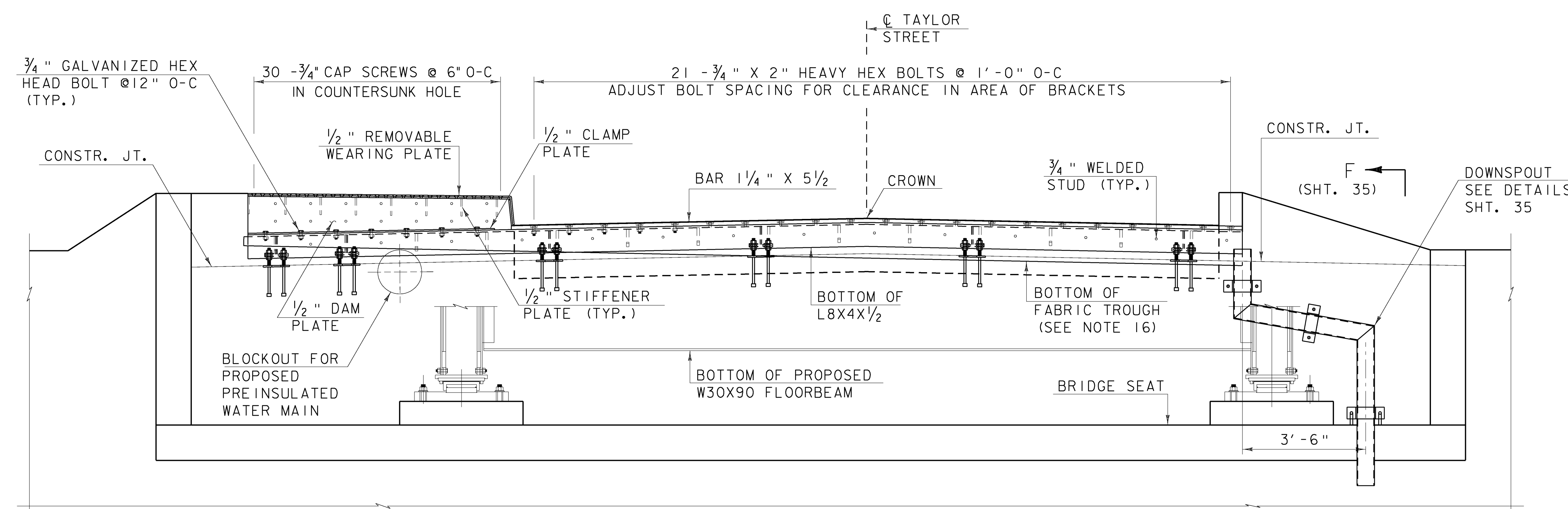
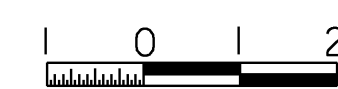
PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 32 OF 63





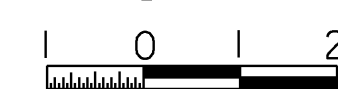
EXPANSION JOINT PLAN AT ABUTMENT 2

SCALE 1/2" = 1'-0"



SECTION A-A

SCALE 1/2" = 1'-0"



EXPANSION JOINT NOTES:

1. DETAILS ON SHTS. 33 AND 34 ARE FOR ITEM 516.11 BRIDGE EXPANSION JOINT, VERMONT.
2. PREFORMED FABRIC MATERIAL SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
3. THE FINAL FINISH OF THE EXPANSION DEVICE SHALL BE COVERED DURING THE PLACING OF BRIDGE DECK CONCRETE.
4. ALL STEEL COMPONENTS SHALL BE GALVANIZED OR METALIZED AND MEET THE REQUIREMENTS OF SUBSECTION 516.02. THREADED RODS SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 714.04. THE 1/2" X 9" X 8" ANCHOR PLATE AND WELDED STUD ASSEMBLY MAY BE SUPPLIED WITHOUT GALVANIZING OR METALIZING.
5. ITEM 516.11 BRIDGE EXPANSION JOINT, VERMONT SHALL INCLUDE THE FABRICATION AND ERECTION OF THE COMPLETE JOINT ASSEMBLY INCLUDING ALL STEEL PLATES, BRACKETS, ANGLES, WELDED STUDS OR RODS, PREFORMED FABRIC DRAIN TROUGH MATERIAL AND PLASTIC DRAIN TUBES, BUTYL RUBBER TAPE AND ANY OTHER MISCELLANEOUS MATERIAL NECESSARY TO INSTALL JOINT.
6. THE L4X8X1/2 ANGLES SHALL BE FURNISHED AS ONE CONTINUOUS PIECE. THE 1/4" X 5 1/2" BARS EACH SIDE OF THE JOINT SHALL BE PROVIDED IN CONTINUOUS LENGTHS AS SHOWN ON THE PLANS.
7. FILL COUNTERBORED HOLES WITH HOT POURED JOINT SEALER (STANDARD SPECIFICATION SUBSECTION 707.04) AFTER BOLT INSTALLATION. PAYMENT FOR THE WORK SHALL BE INCIDENTAL TO ITEM 516.11 BRIDGE EXPANSION JOINT, VERMONT.
8. A 1" DIAMETER PLASTIC DRAIN TUBE (PER STANDARD SPECIFICATION SUBSECTION 740.01) SHALL BE INSTALLED AS SHOWN AT THE FACE OF CURB. THE UPPER END IS TO BE PLUGGED WITH STEEL WOOL AND THE LOWER END IS TO EXTEND BELOW THE BOTTOM OF THE TRUSS BOTTOM CHORD. THE DRAIN TUBES SHALL BE FASTENED TO THE BOTTOM CHORD USING A METHOD APPROVED BY THE RESIDENT ENGINEER. PAYMENT INCIDENTAL TO ITEM 501.34.
9. THE EXPANSION JOINT SHALL BE SHOP ASSEMBLED AND SHIPPED AS ONE UNIT.
10. THE COST FOR P.V.C. WATERSTOP SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 501.34, CONCRETE, HIGH PERFORMANCE CLASS B. OTHER CONFIGURATIONS MAY BE USED UPON APPROVAL BY THE STRUCTURES ENGINEER.
11. A DRIP BEAD OF 1/4" X 7" STRIP OF PREFORMED MATERIAL SHALL BE CEMENTED TO THE BOTTOM OF THE FABRIC TROUGH USING AN ADHESIVE APPROVED BY THE MANUFACTURER. THE DRIP BEAD SHALL BE APPLIED 1" FROM THE DOWNSPOUT END OF THE TROUGH.
12. FABRIC TROUGH SHALL BE THOROUGHLY CLEANED AND FLUSHED AFTER PAVING OPERATION.
13. PRIOR TO GALVANIZING OR METALIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC., SHALL BE GROUND TO A 1/16" RADIUS.
14. TEMPORARY SHIPPING ATTACHMENTS SHALL BE ATTACHED BY BOLTING. WELDING WILL NOT BE PERMITTED.
15. PROJECTING THREADS OF THE 3/4" BOLTS IN THE JOINT SHALL BE GREASED BY THE CONTRACTOR PRIOR TO PLACING ADJACENT CONCRETE. THIS WILL FACILITATE BOLT REMOVAL IF REQUIRED IN THE FUTURE.
16. SLOPE FABRIC DRAIN TROUGH 2% MIN. ALONG TROUGH TOWARDS DOWNSPOUT CONTINUOUSLY FROM THE BACK OF THE SIDEWALK. THE CONTRACTOR SHALL INCLUDE A FABRIC TROUGH PLAN IN THE FABRICATION DRAWINGS FOR SUBMITTAL TO THE STRUCTURES ENGINEER.
17. AN EPOXY BONDING COMPOUND, APPROVED BY THE VERMONT AGENCY OF TRANSPORTATION MATERIALS AND RESEARCH LABORATORY, SHALL BE PLACED BETWEEN THE DECK CONCRETE AND THE JOINT HARDWARE.

EXPANSION JOINT PLAN

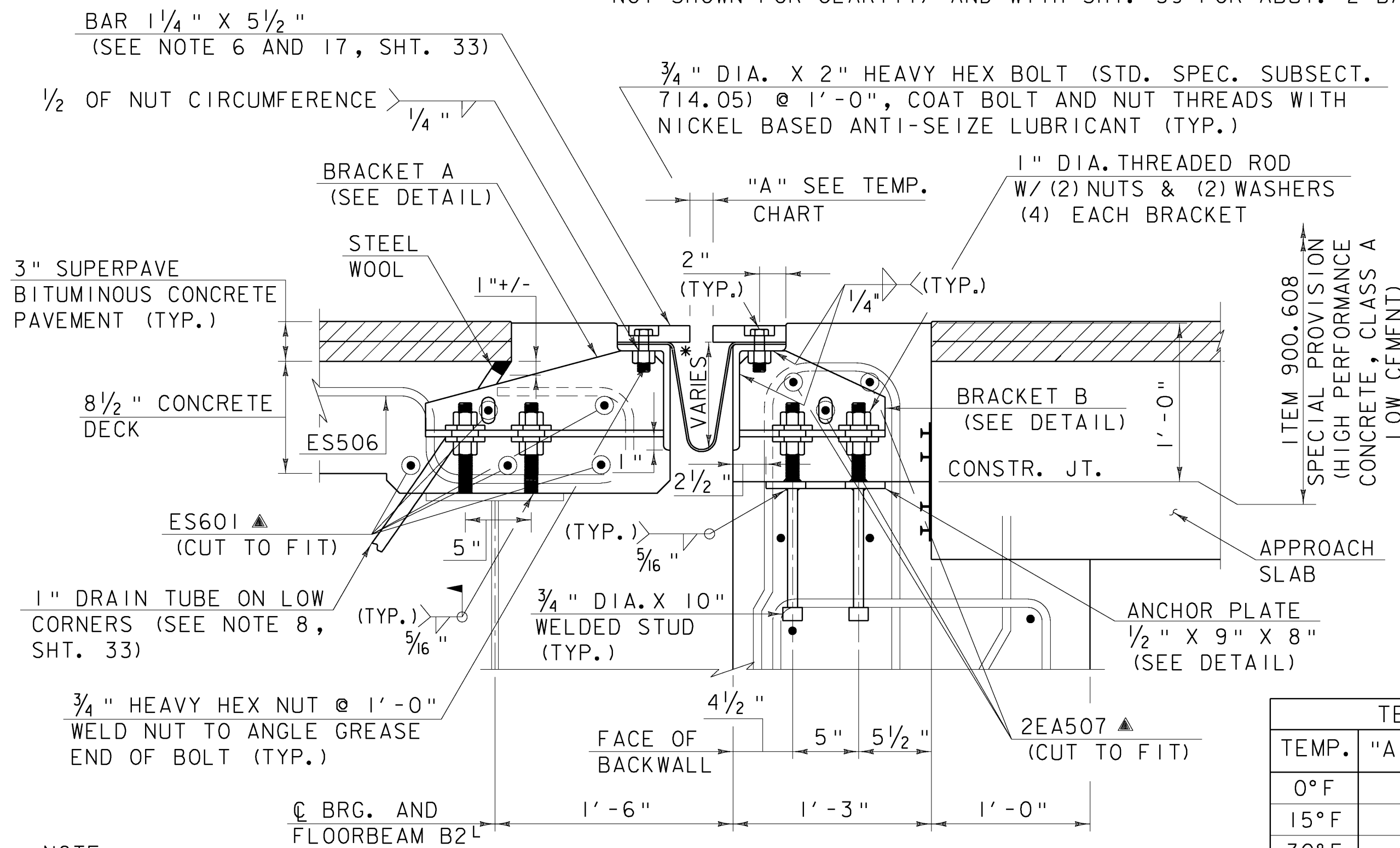
PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 33 OF 63

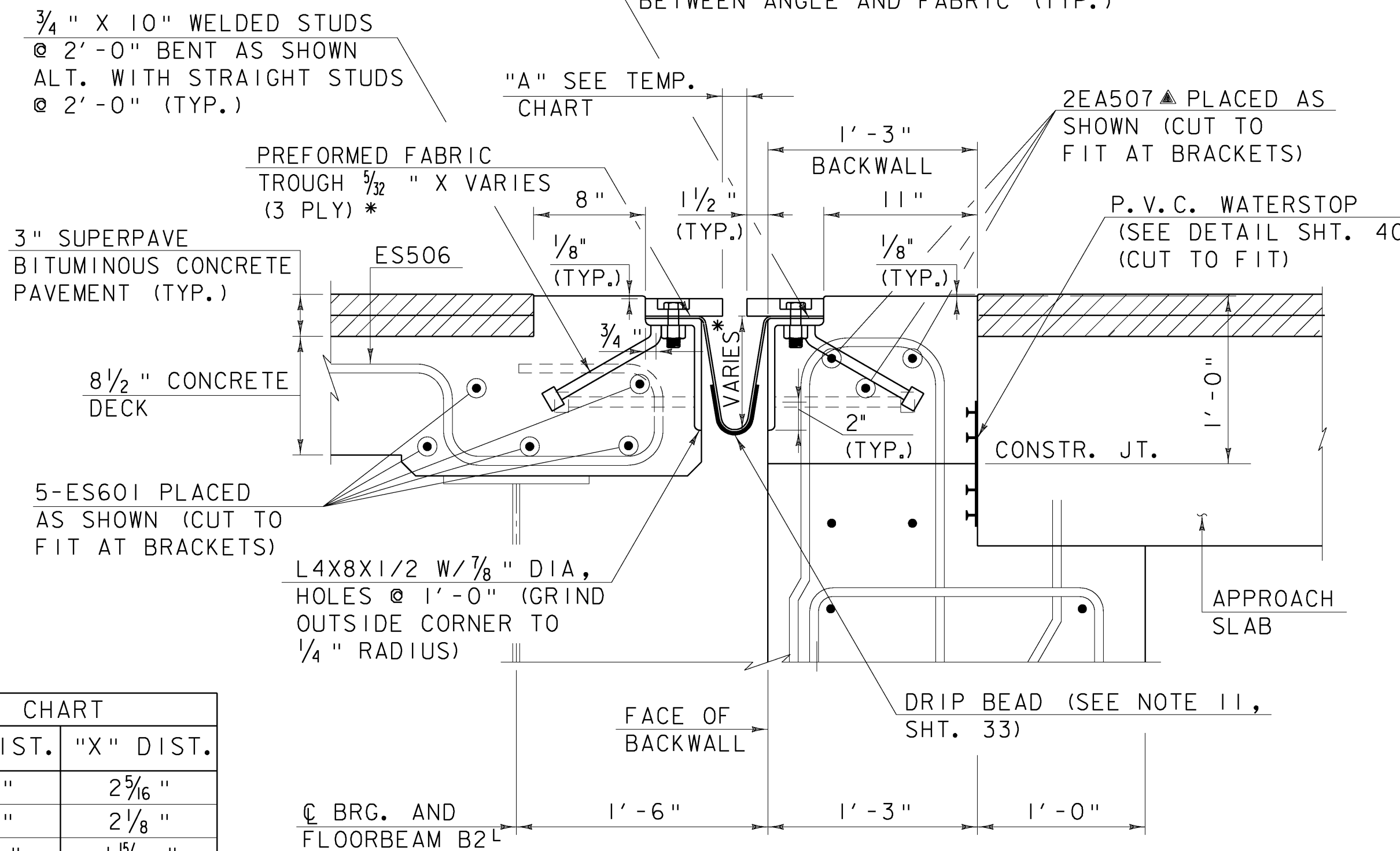


NOTE: WORK THIS SHT. WITH SHT. 28 FOR END OF DECK REINFORCEMENT AT ABUT.2 (ES501, ES502 AND ES508 NOT SHOWN FOR CLARITY) AND WITH SHT. 39 FOR ABUT. 2 BACKWALL REINFORCEMENT.



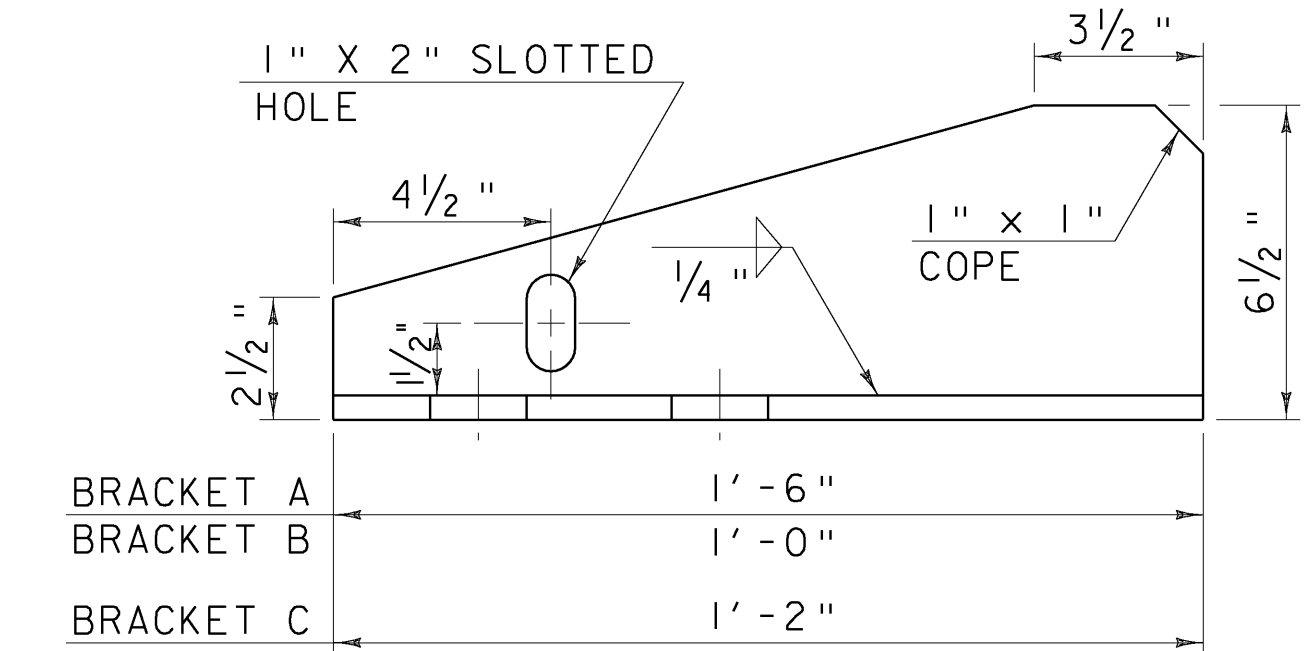
SECTION B-B
(TYPICAL SECTION AT BRACKETS)
SCALE 1 1/2" = 1'-0"

NOTE:
WORK SECTION B-B AND SECTION C-C TOGETHER

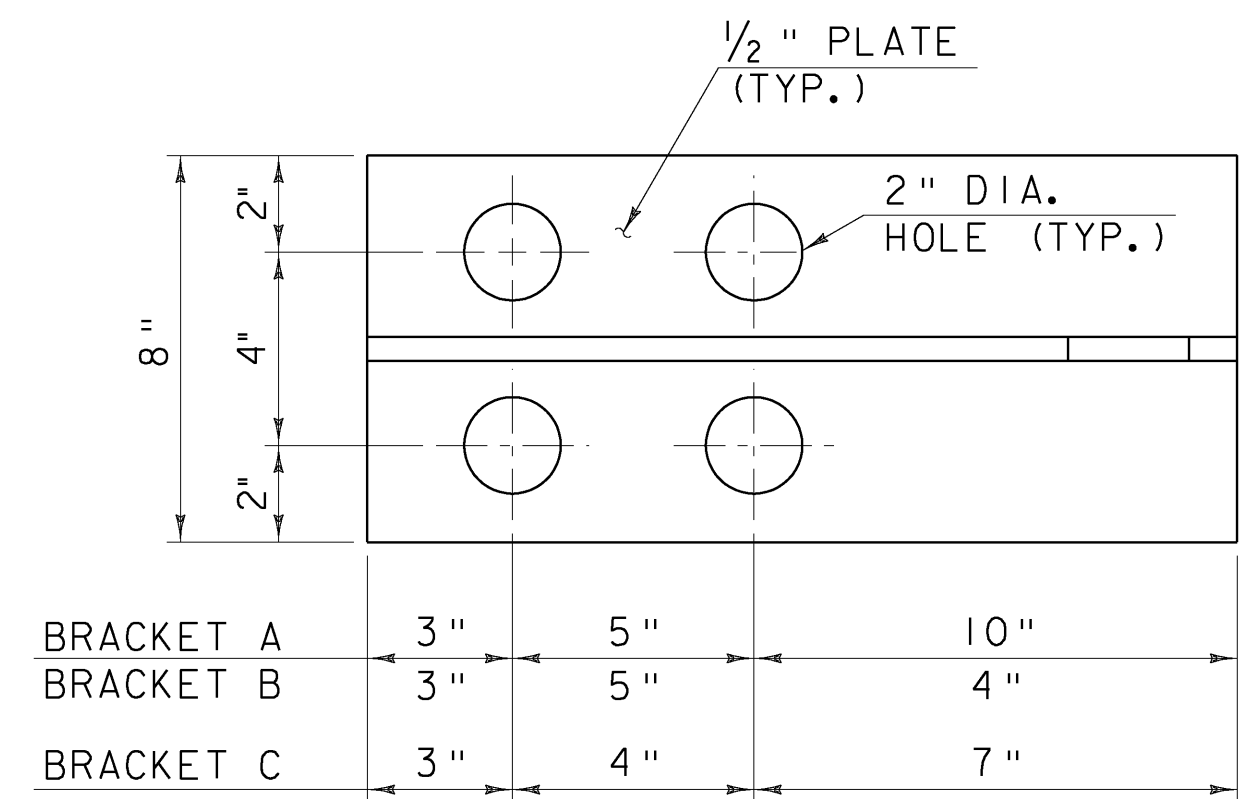


SECTION C-C
(TYPICAL SECTION BETWEEN BRACKETS)
SCALE 1 1/2" = 1'-0"

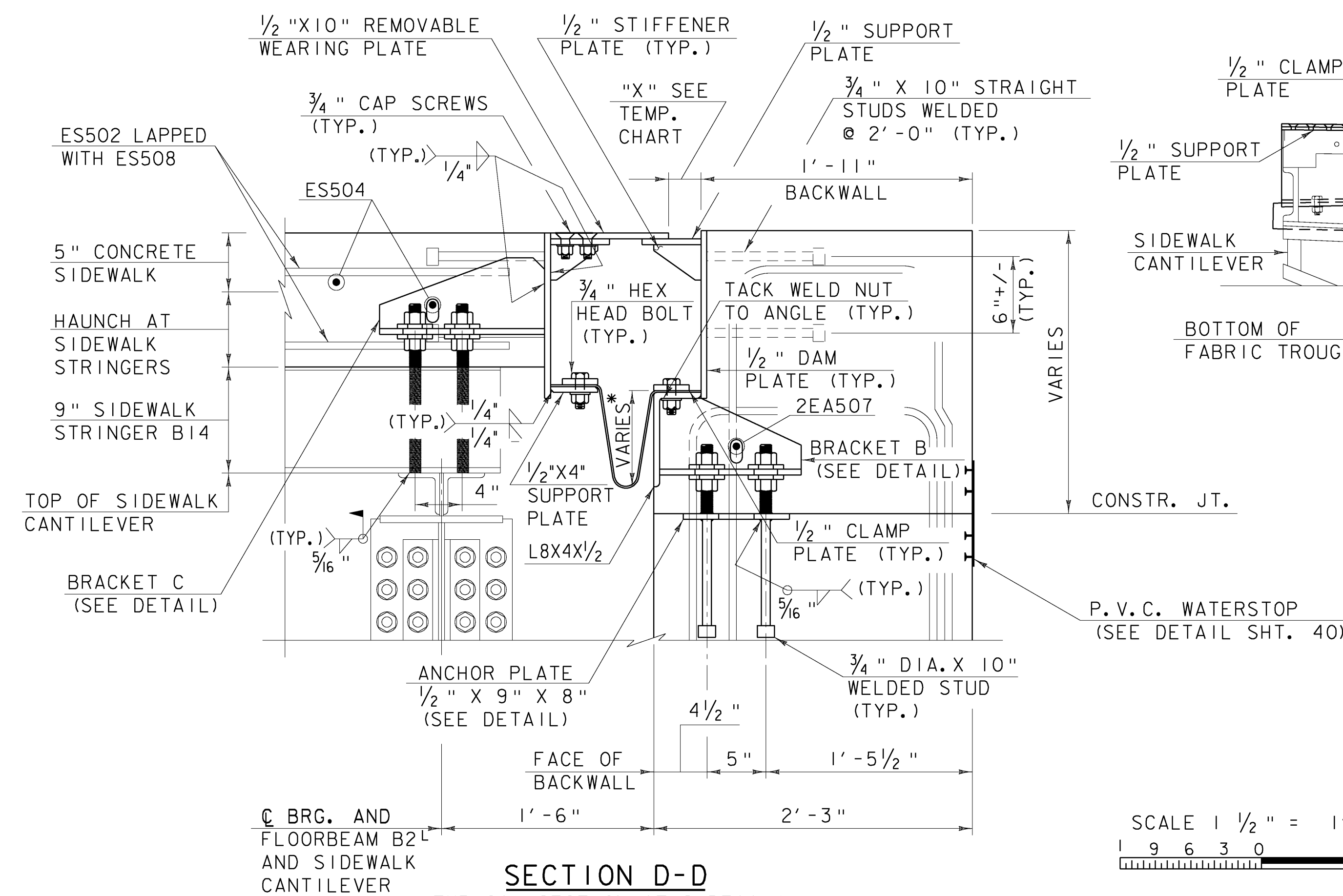
TEMP. CHART		
TEMP.	"A" DIST.	"X" DIST.
0°F	2 5/16"	2 5/16"
15°F	2 1/8"	2 1/8"
30°F	1 9/16"	1 5/8"
45°F	1 3/4"	1 3/4"
60°F	1 9/16"	1 9/16"
75°F	1 3/8"	1 3/8"
90°F	1 3/16"	1 3/16"
105°F	1"	1"



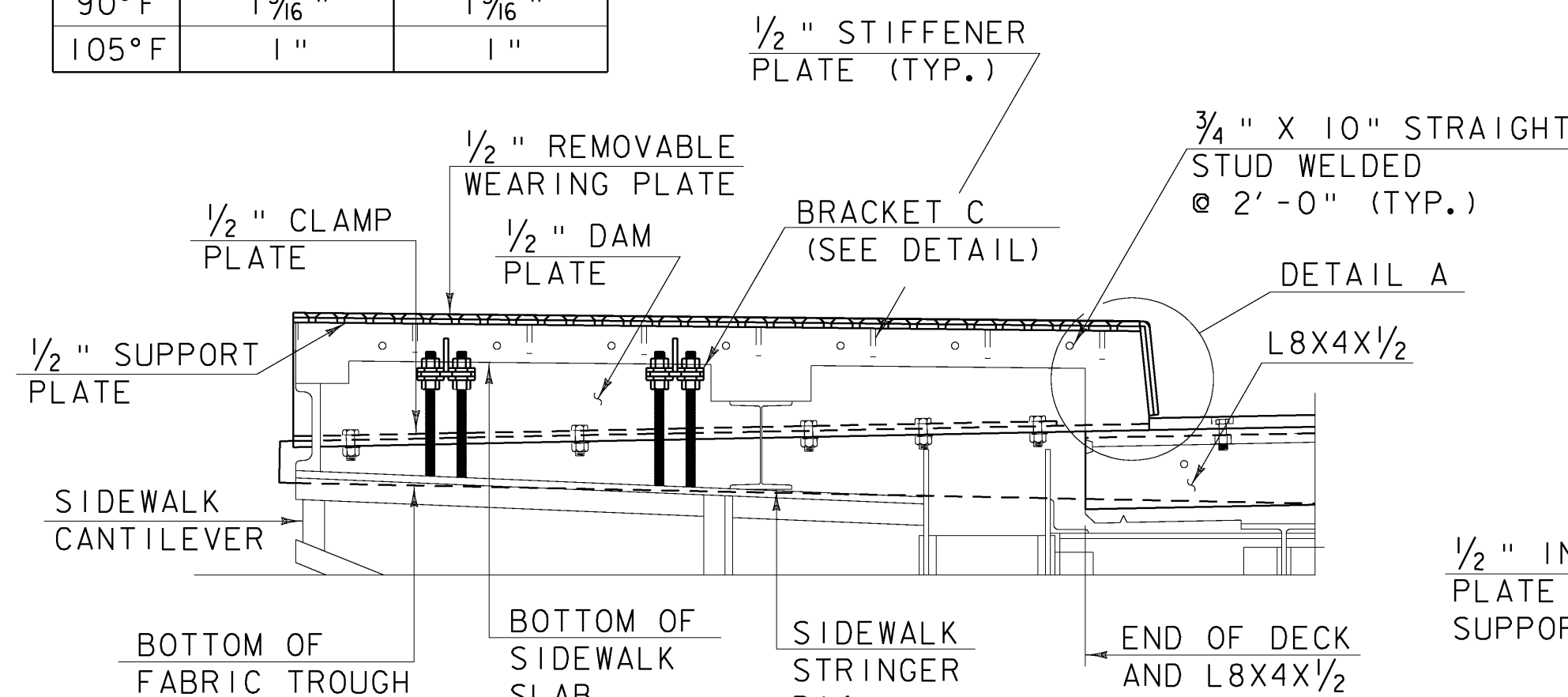
BRACKET ELEVATION
SCALE 3" = 1'-0"



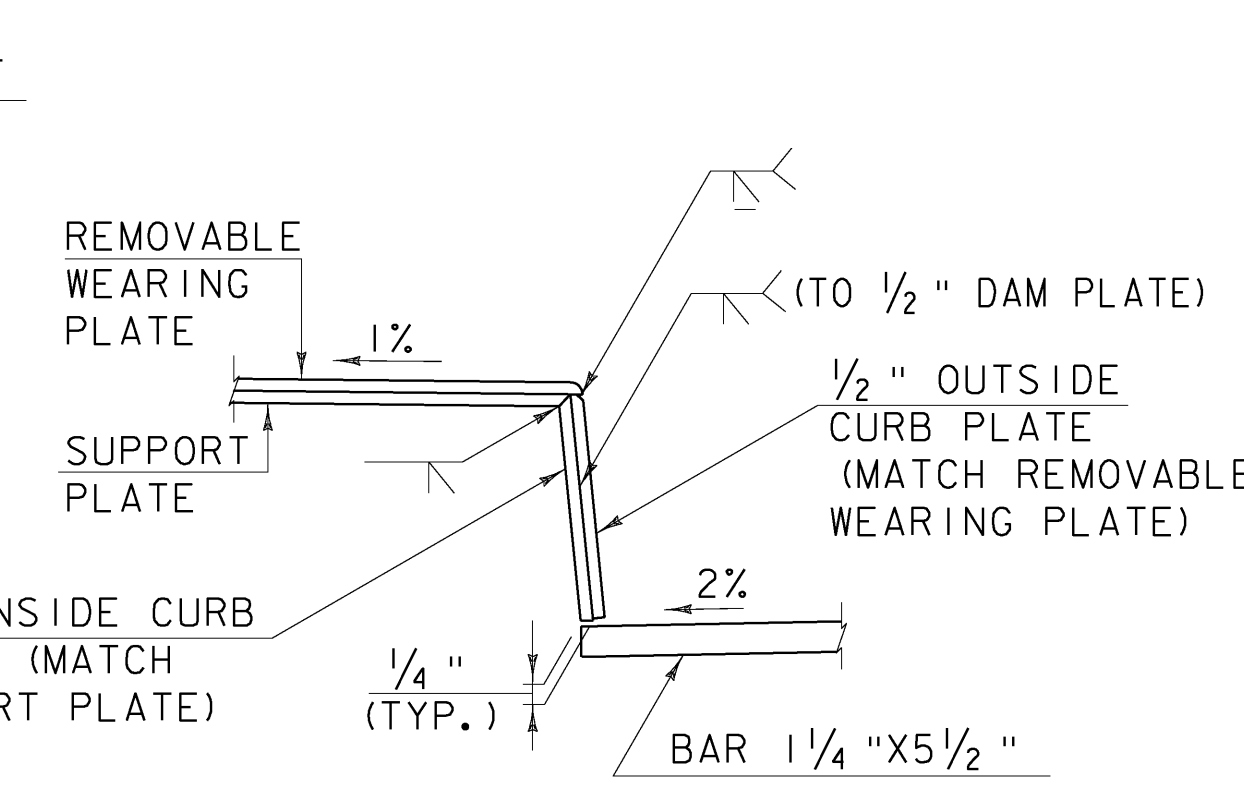
BRACKET PLAN
SCALE 3" = 1'-0"



SECTION D-D
(TYPICAL SECTION AT SIDEWALK)
SCALE 1 1/2" = 1'-0"



SECTION E-E
SCALE 3/4" = 1'-0"



DETAIL A
SCALE 1 1/2" = 1'-0"

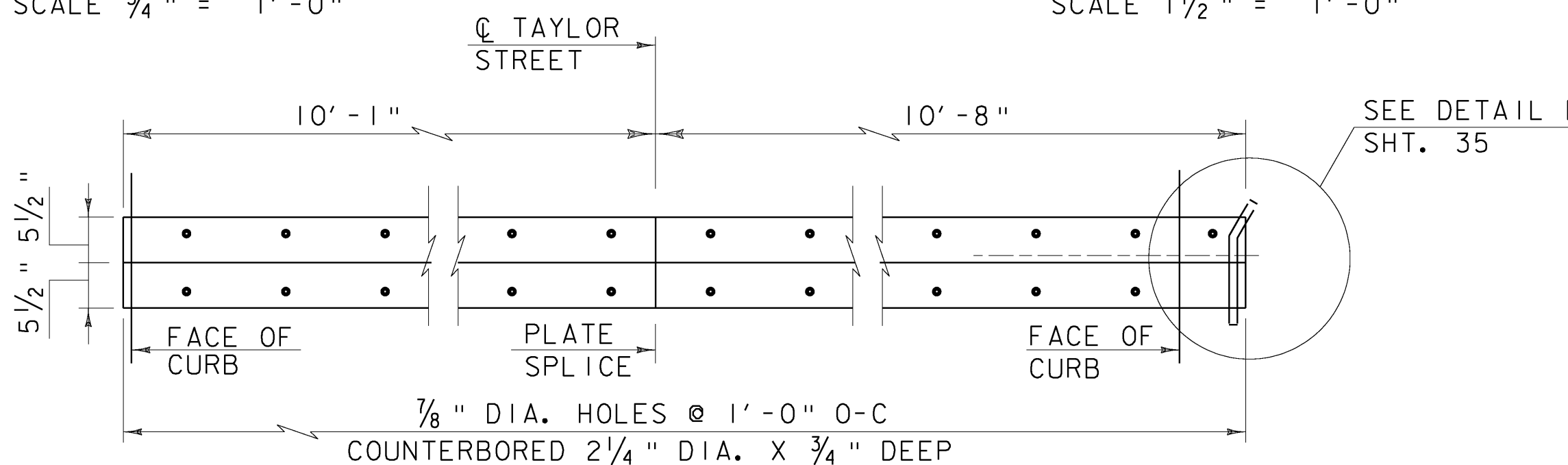
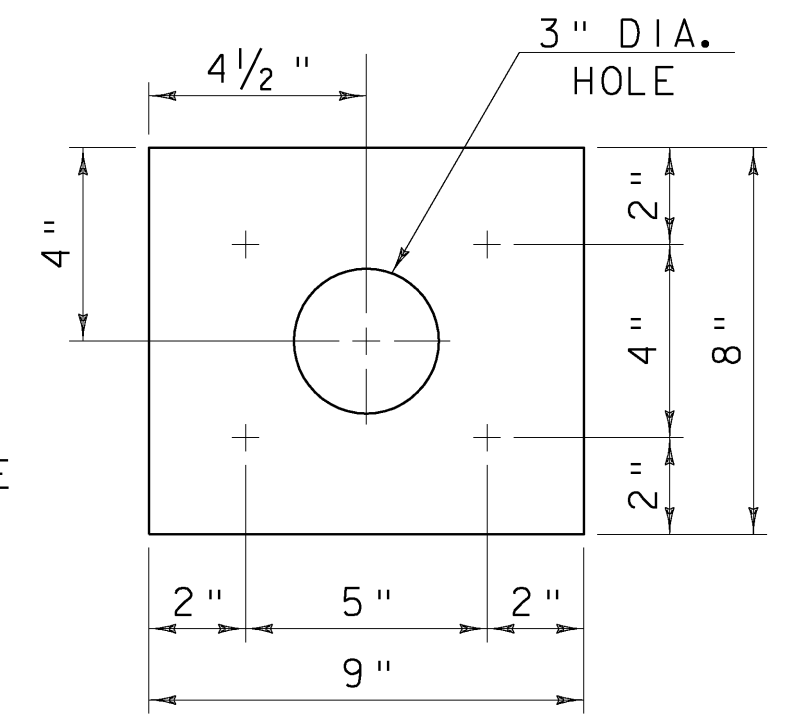
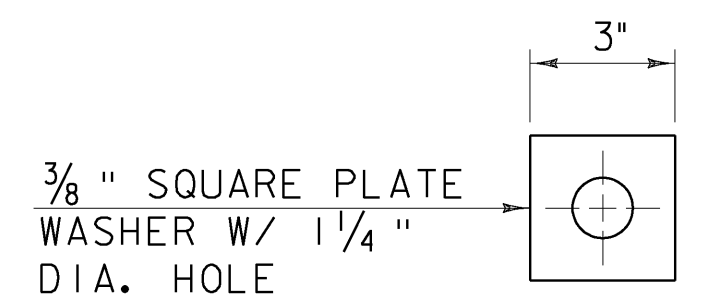


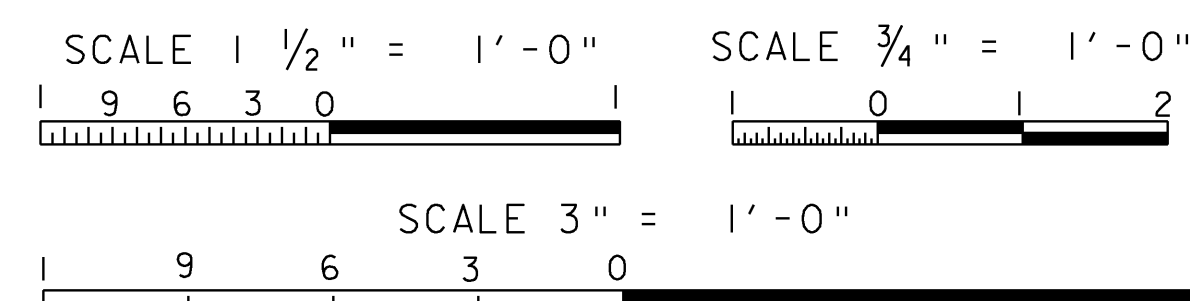
PLATE DETAIL
SCALE 3/4" = 1'-0"



ANCHOR PLATE PLAN
SCALE 3" = 1'-0"
(GALVANIZING OR METALIZING NOT REQUIRED)



WASHER FOR BRACKET
SCALE 3" = 1'-0"



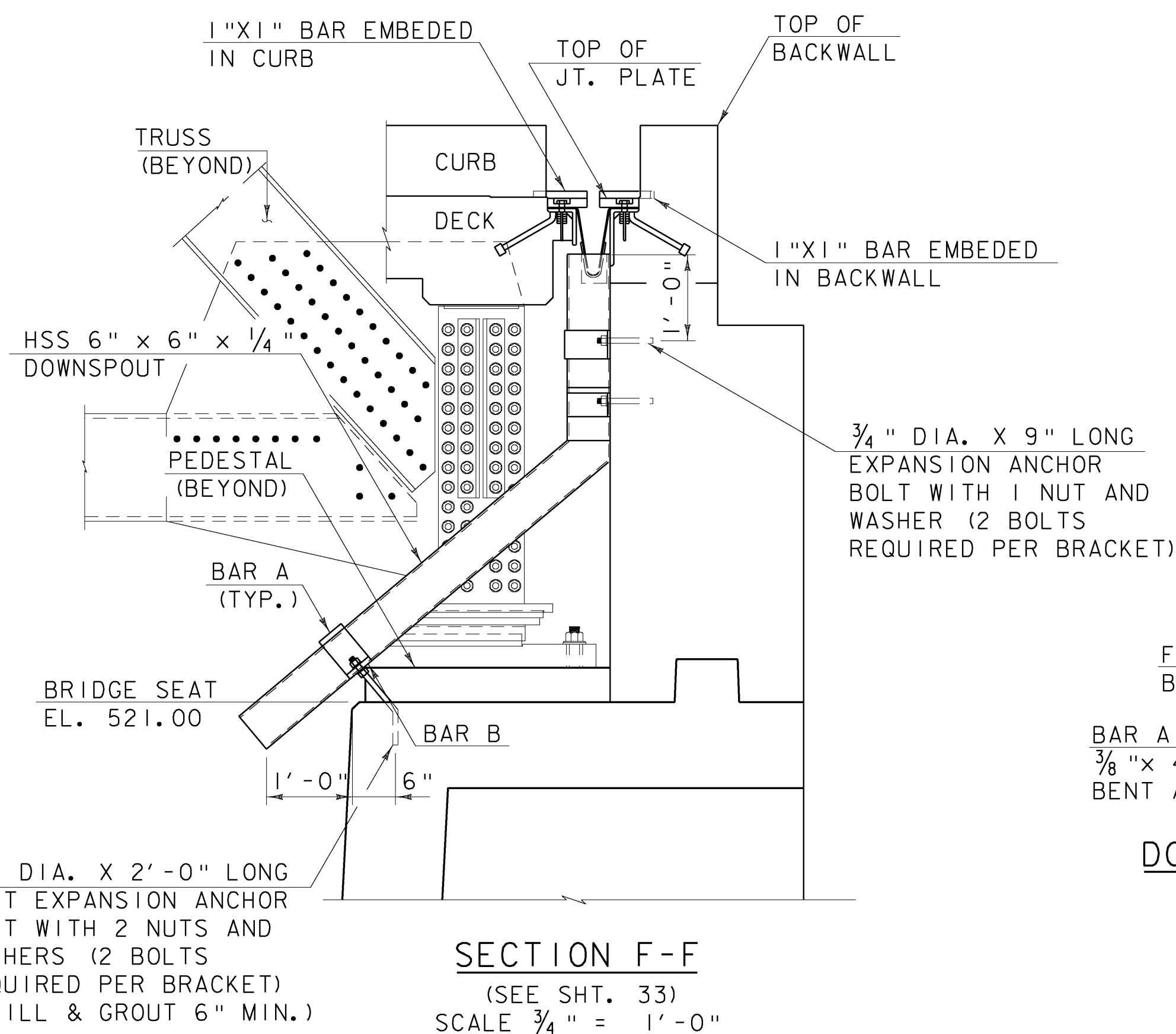
EXPANSION JOINT DETAILS

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

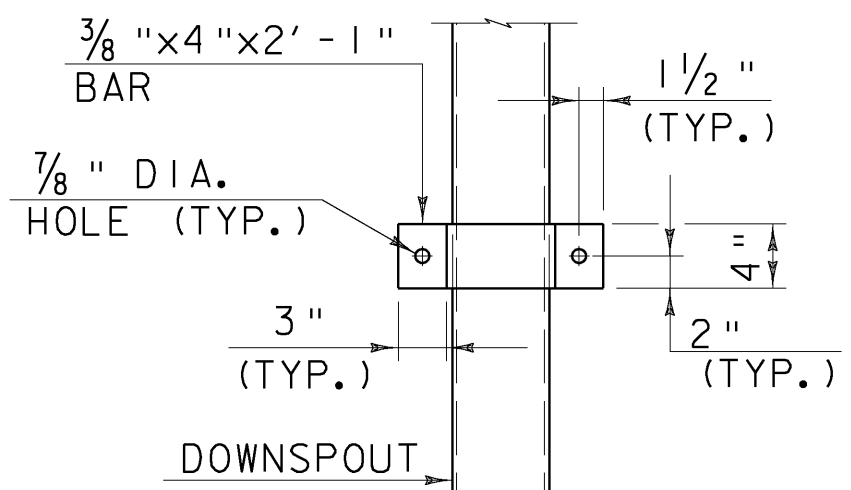
FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 34 OF 63

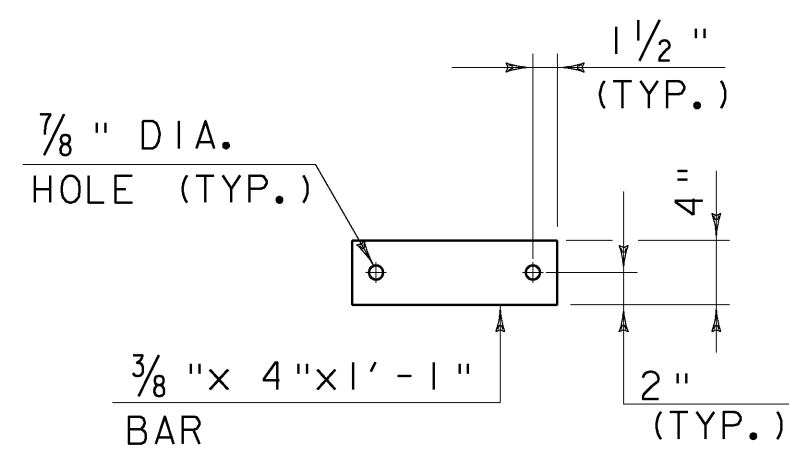




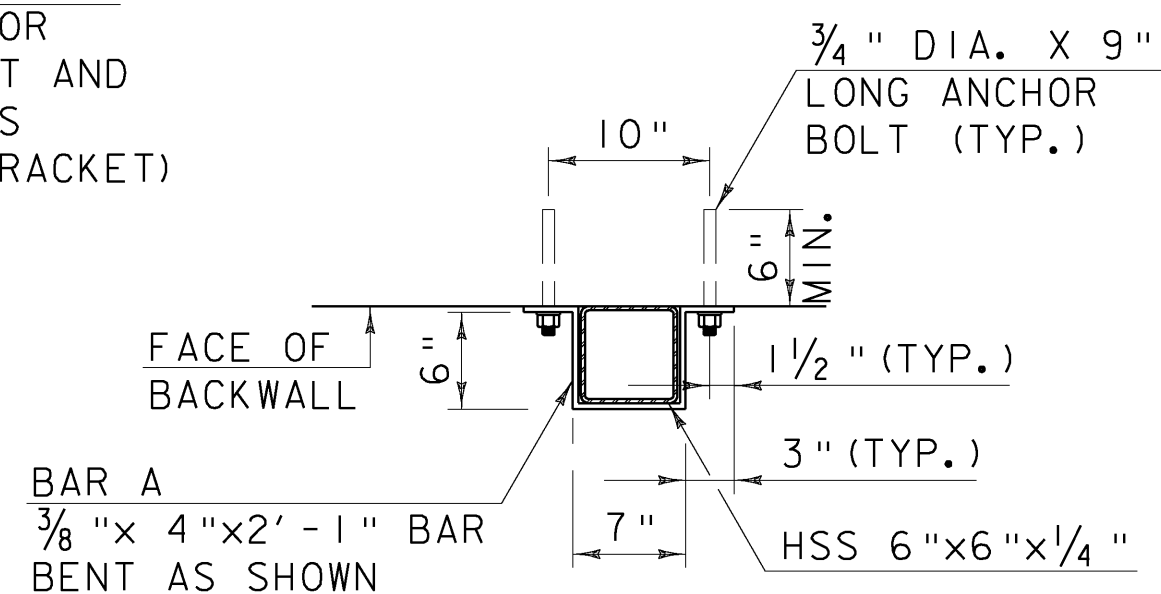
SECTION F-F
(SEE SHT. 33)
SCALE 3/4" = 1'-0"



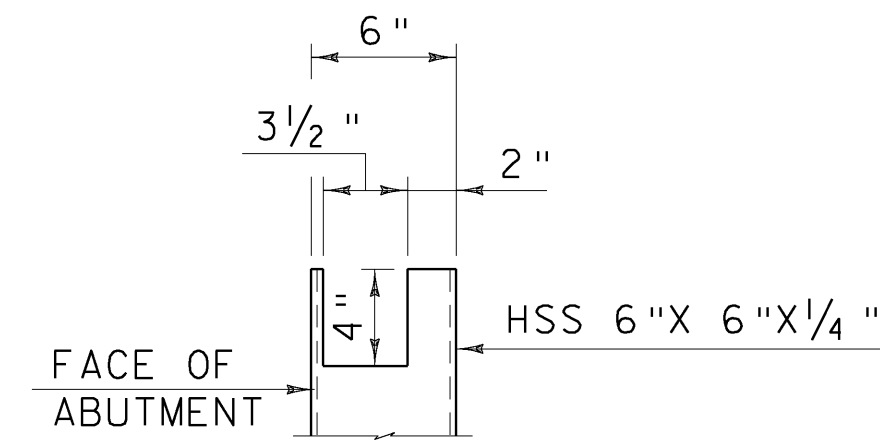
BAR A DETAIL
SCALE 1" = 1'-0"



BAR B DETAIL
SCALE 1" = 1'-0"



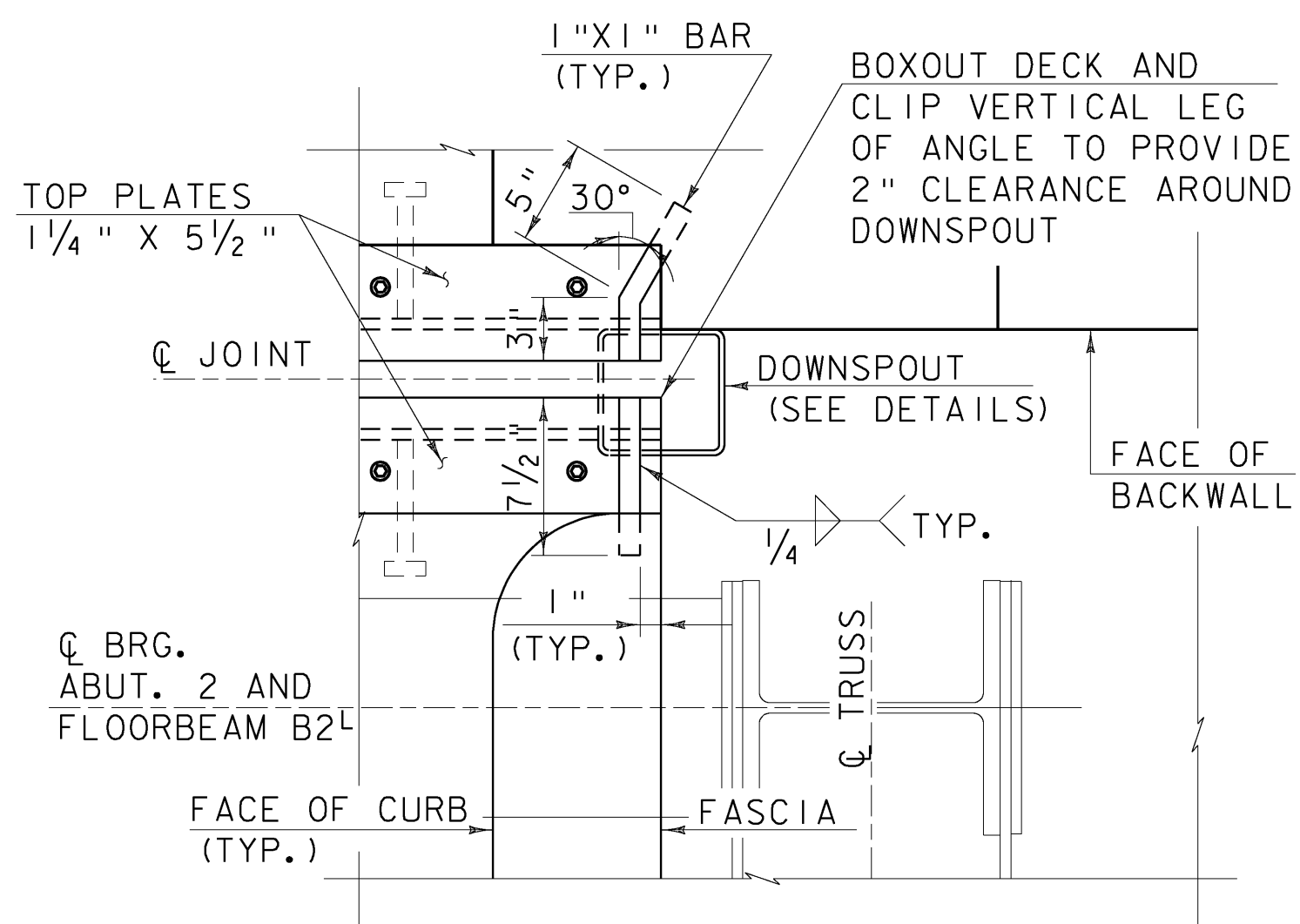
DOWNSPOUT ATTACHMENT DETAIL
SCALE 1" = 1'-0"



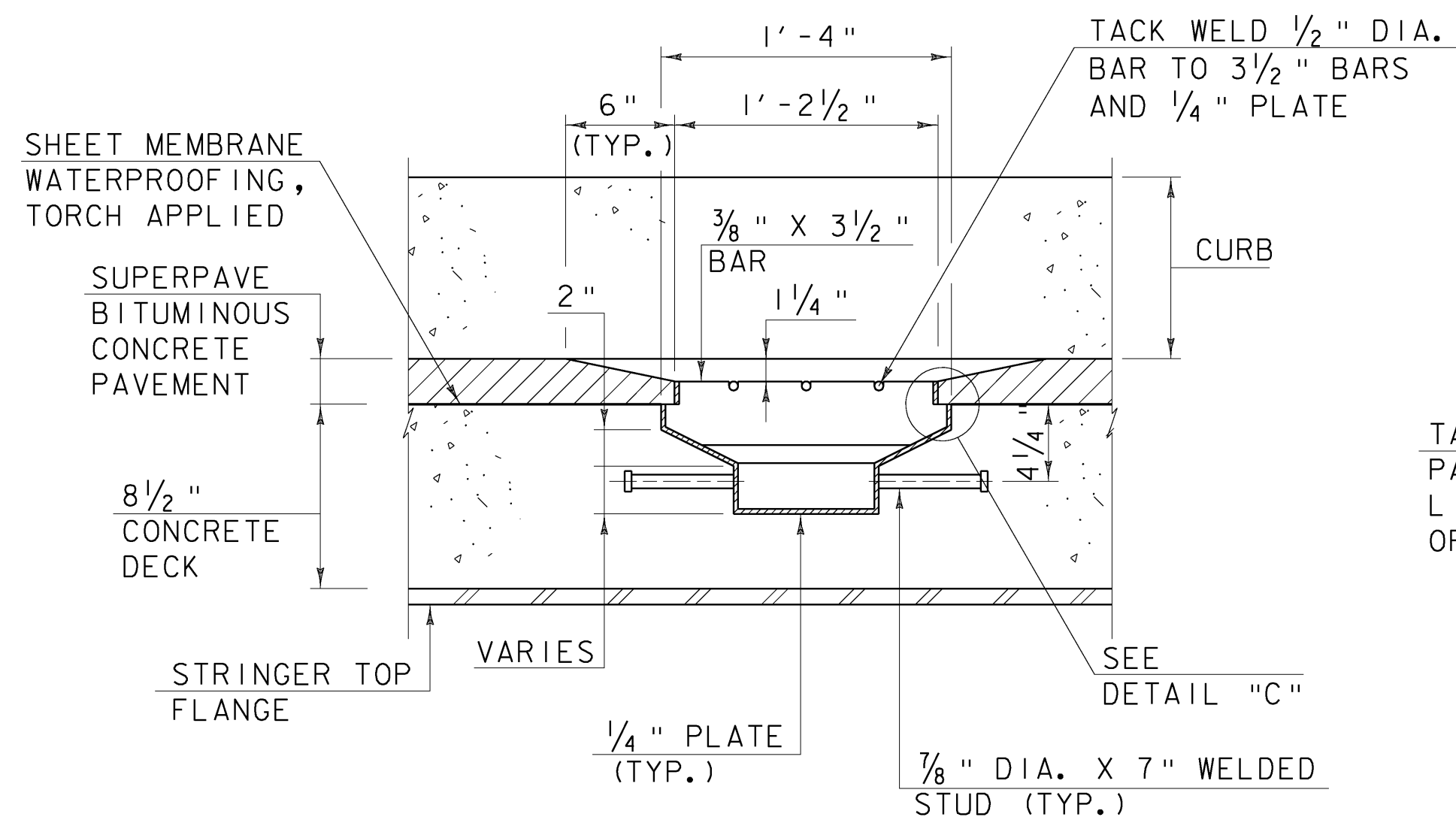
DOWNSPOUT CUTOUT DETAIL
SCALE 1/2" = 1'-0"

SCUPPER AND DOWNSPOUT NOTES:

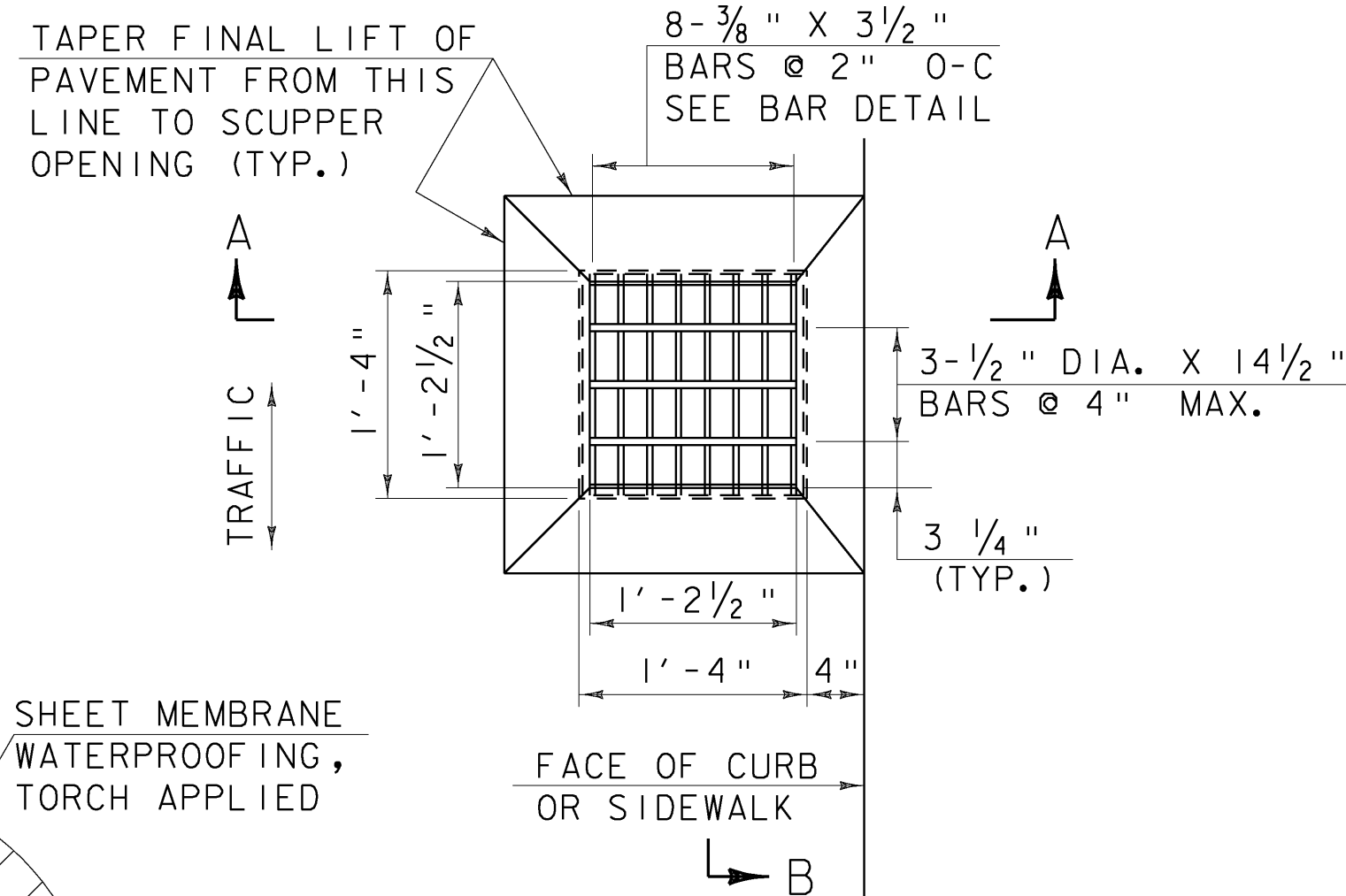
- HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 714.11.
- ALL PLATES, BARS, AND ANGLES SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 714.02.
- DOWNSPOUTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION.
- ALL BOLTS AND RELATED HARDWARE SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 714.04 AND SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 506.15.
- IN AREAS WHERE THE GALVANIZING HAS BEEN REMOVED FROM THE SCUPPERS AND DOWNSPOUTS EITHER BY CUTTING, BURNING, WELDING, PLACING, OR ANY OTHER MEANS, IT SHALL BE REPAIRED BY THOROUGHLY CLEANING THE DAMAGED AREAS WITH A WIRE BRUSH AND PAINTING THE DAMAGED AREAS WITH TWO COATS OF A SEALANT APPROVED BY THE VERMONT AGENCY OF TRANSPORTATION MATERIALS AND RESEARCH LABORATORY.
- AN EPOXY BONDING COMPOUND, APPROVED BY THE VERMONT AGENCY OF TRANSPORTATION MATERIALS AND RESEARCH LABORATORY, SHALL BE PLACED BETWEEN DECK CONCRETE AND SCUPPER/DOWNSPOUT HARDWARE.
- THE SCUPPER BAR AND GRATE MAY BE PREFABRICATED PROVIDING THE GEOMETRY AND SECTION PROPERTIES ARE EQUIVALENT TO THE DETAILS SHOWN.
- ALL REQUIRED WELDS FOR SCUPPERS AND DOWNSPOUTS SHALL BE DETAILED ON FABRICATION DRAWINGS WHICH SHALL ALSO INCLUDE ALL APPLICABLE WELDING PROCEDURES.
- THE TOP SURFACE OF THE SCUPPER SHALL BE ADJUSTED TO MATCH THE ROADWAY SLOPE AND GRADE.
- AFTER ALL PAVING AND CONCRETING OPERATIONS THE SCUPPERS AND DOWNSPOUTS SHALL BE CLEANED OF ALL CONTAMINATION BY FLUSHING.
- ALL MATERIALS AND INSTALLATION COSTS FOR THE SCUPPERS AND DOWNSPOUTS, INCLUDING STEEL TUBING, RELATED HARDWARE, AND ANCHOR BOLTS SHALL BE PAID FOR UNDER ITEM 506.50 STRUCTURAL STEEL, ROLLED BEAM.



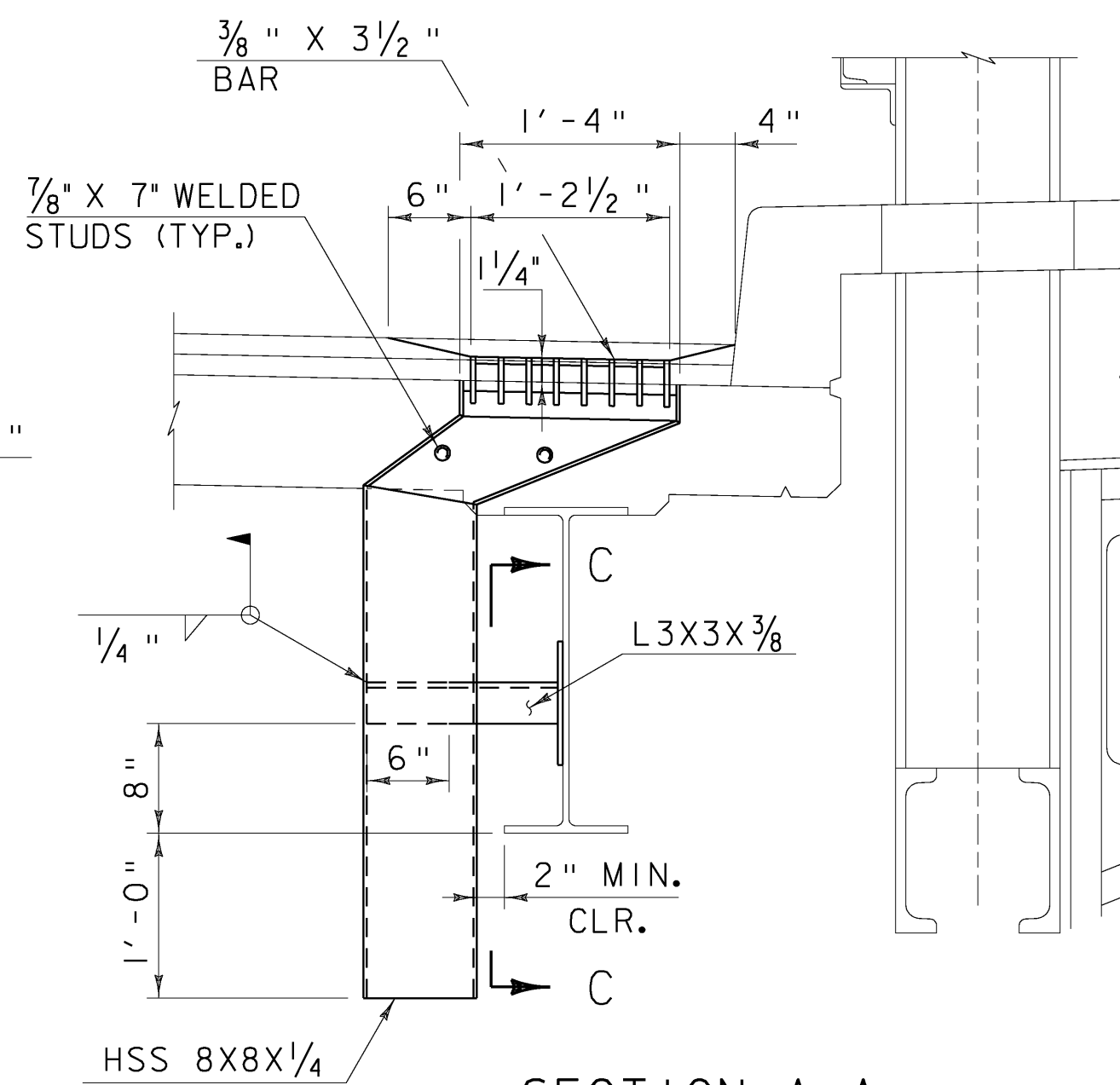
DETAIL B
SCALE 1/2" = 1'-0"



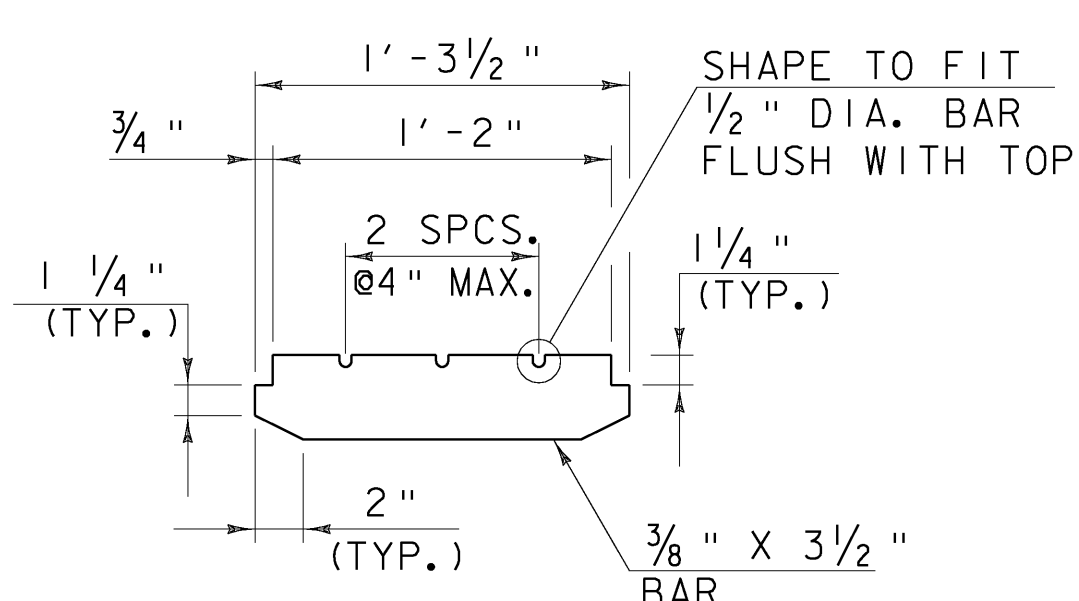
SECTION B-B
SCALE 1/2" = 1'-0"



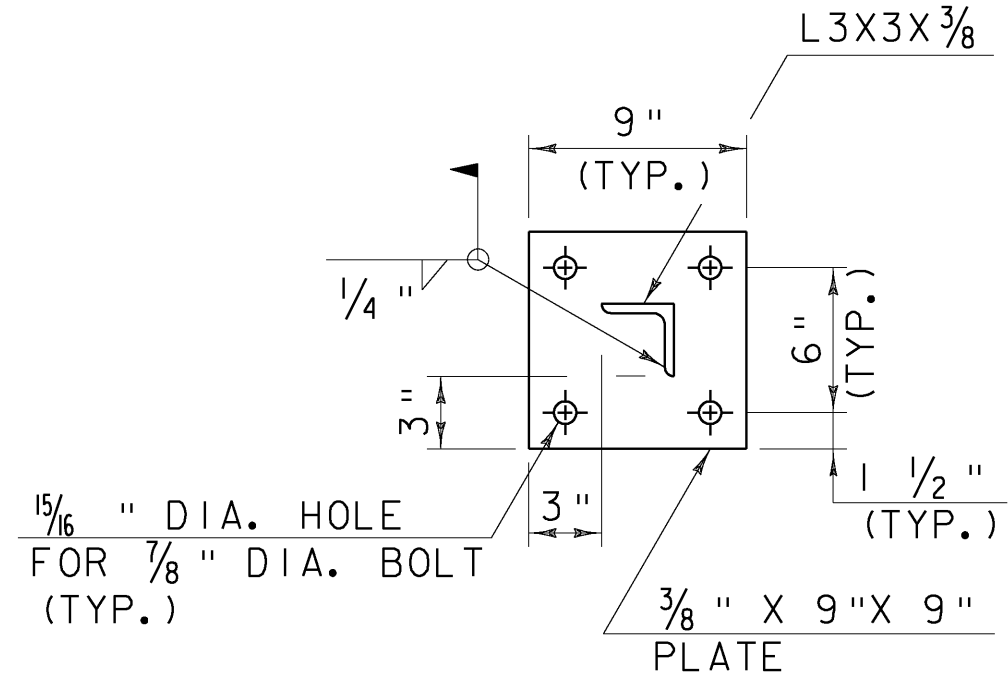
SCUPPER PLAN
SCALE 1" = 1'-0"



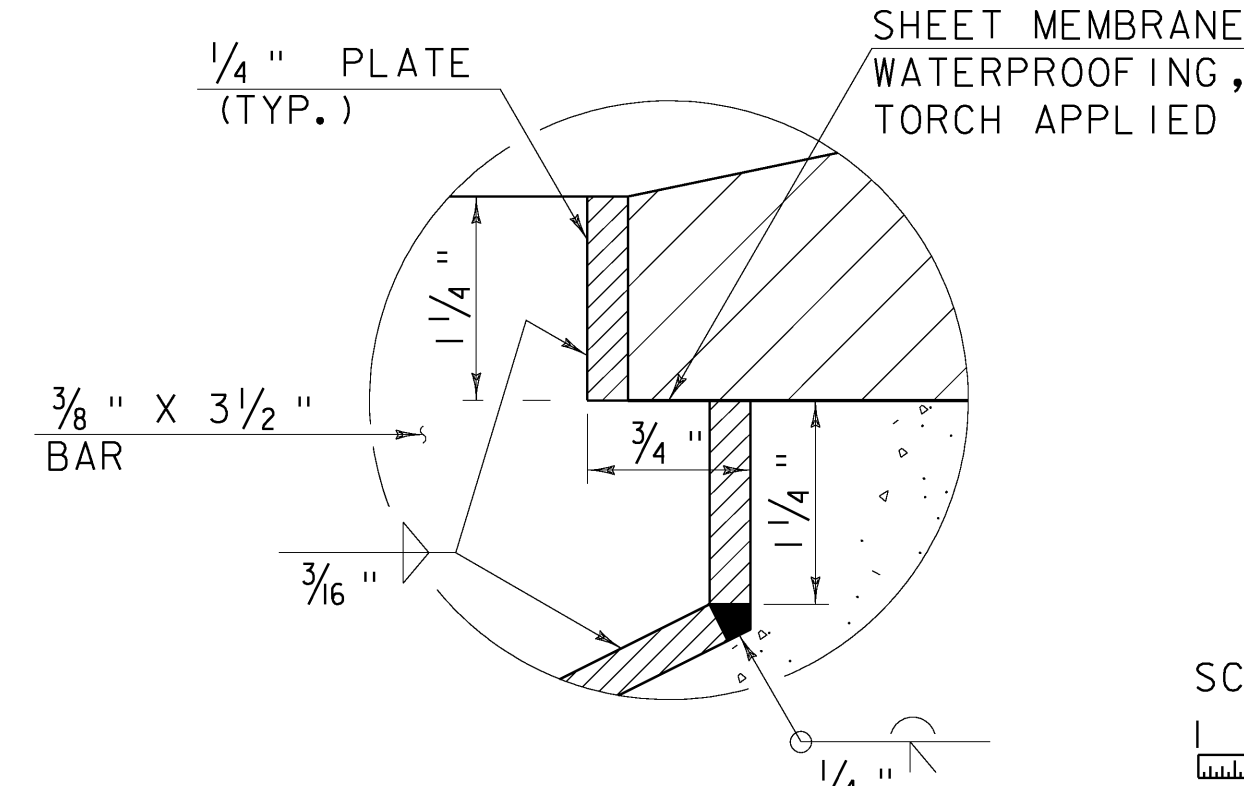
SECTION A-A
SCALE 1" = 1'-0"



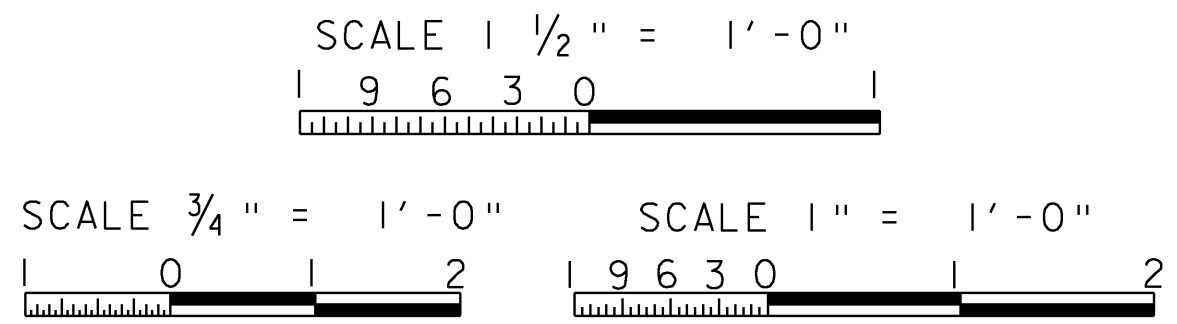
BAR DETAIL FOR GRATE
SCALE 1/2" = 1'-0"



SECTION C-C
SCALE 1/2" = 1'-0"



DETAIL C
NOT TO SCALE

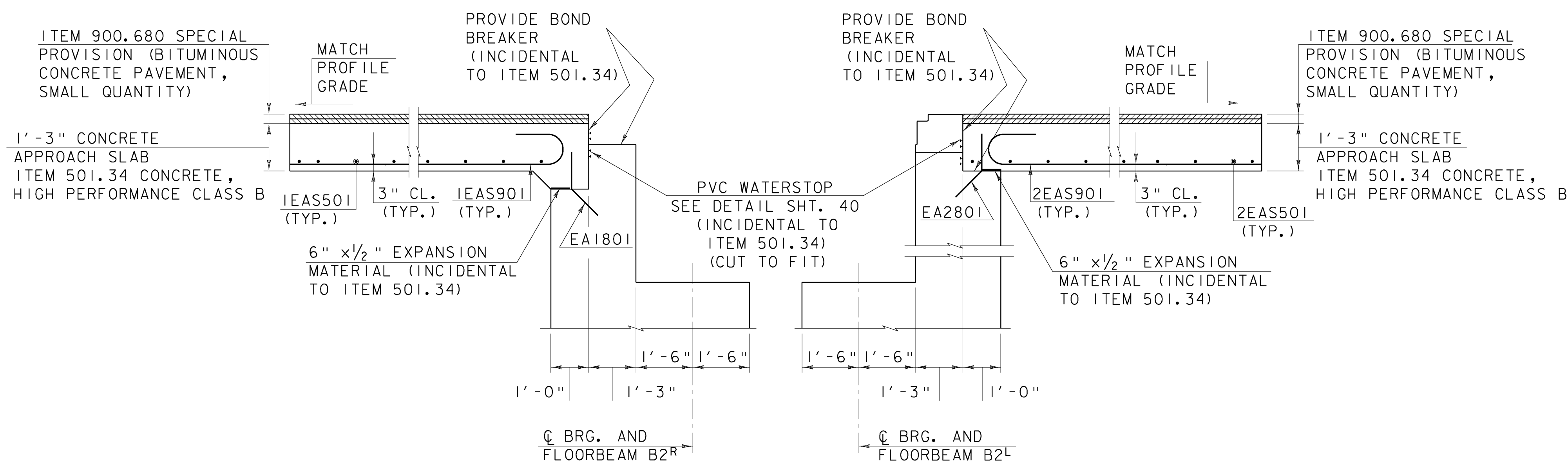
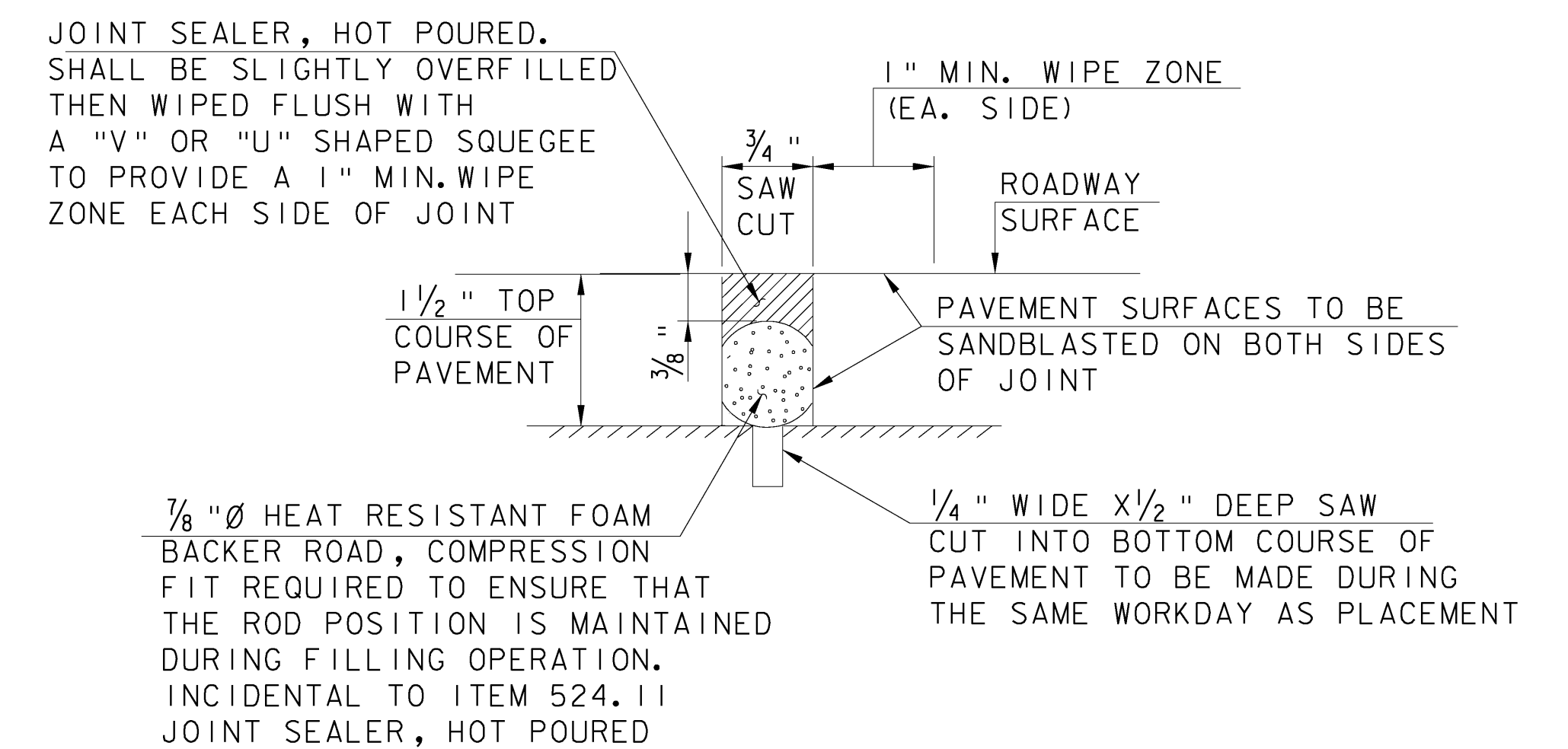
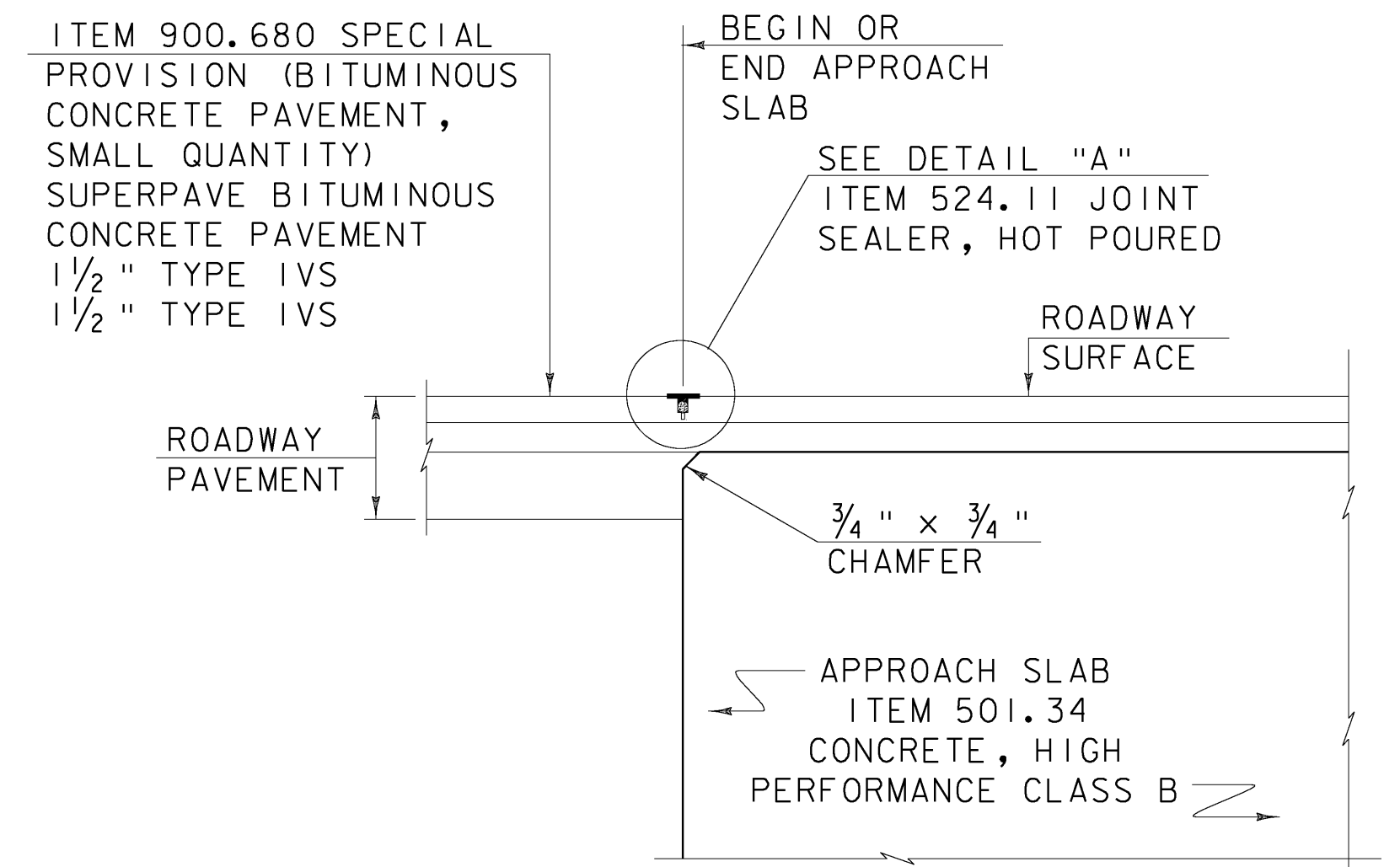
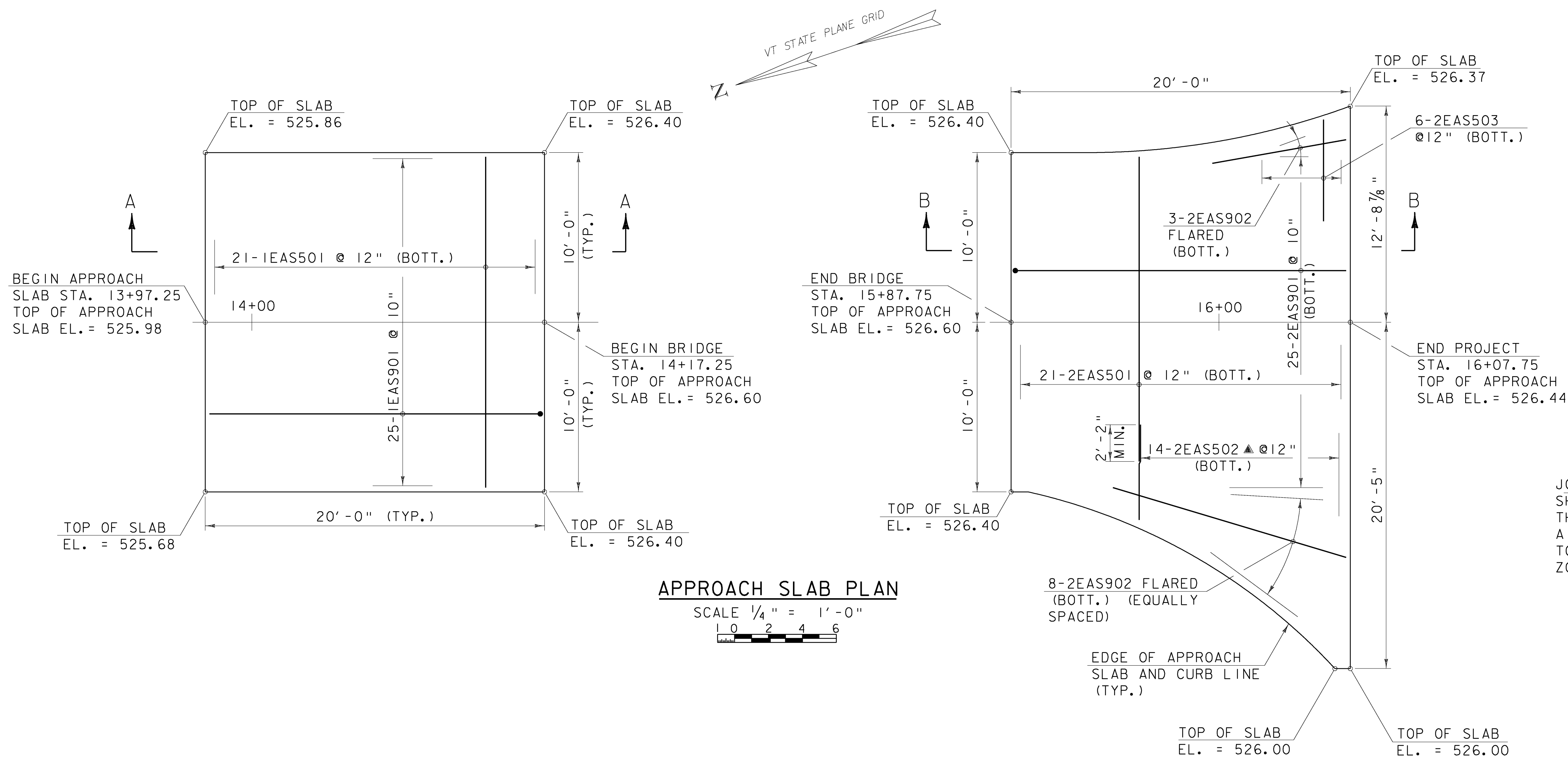


SCUPPER AND DOWNSPOUT DETAILS

PROJECT NAME: MONTPELIER	FILE NAME: \$FILES\$	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	PROJECT MANAGER: SUSAN SCRIBNER	DRAWN BY: D. D'AMATO
	DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS
	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	SHEET 35 OF 63



FILE NAME: h:\14596\mtn\p\lens\14596-downspout-detail.dgn
DATE/TIME: 10/12/2009 10:22:00
USER: 22552



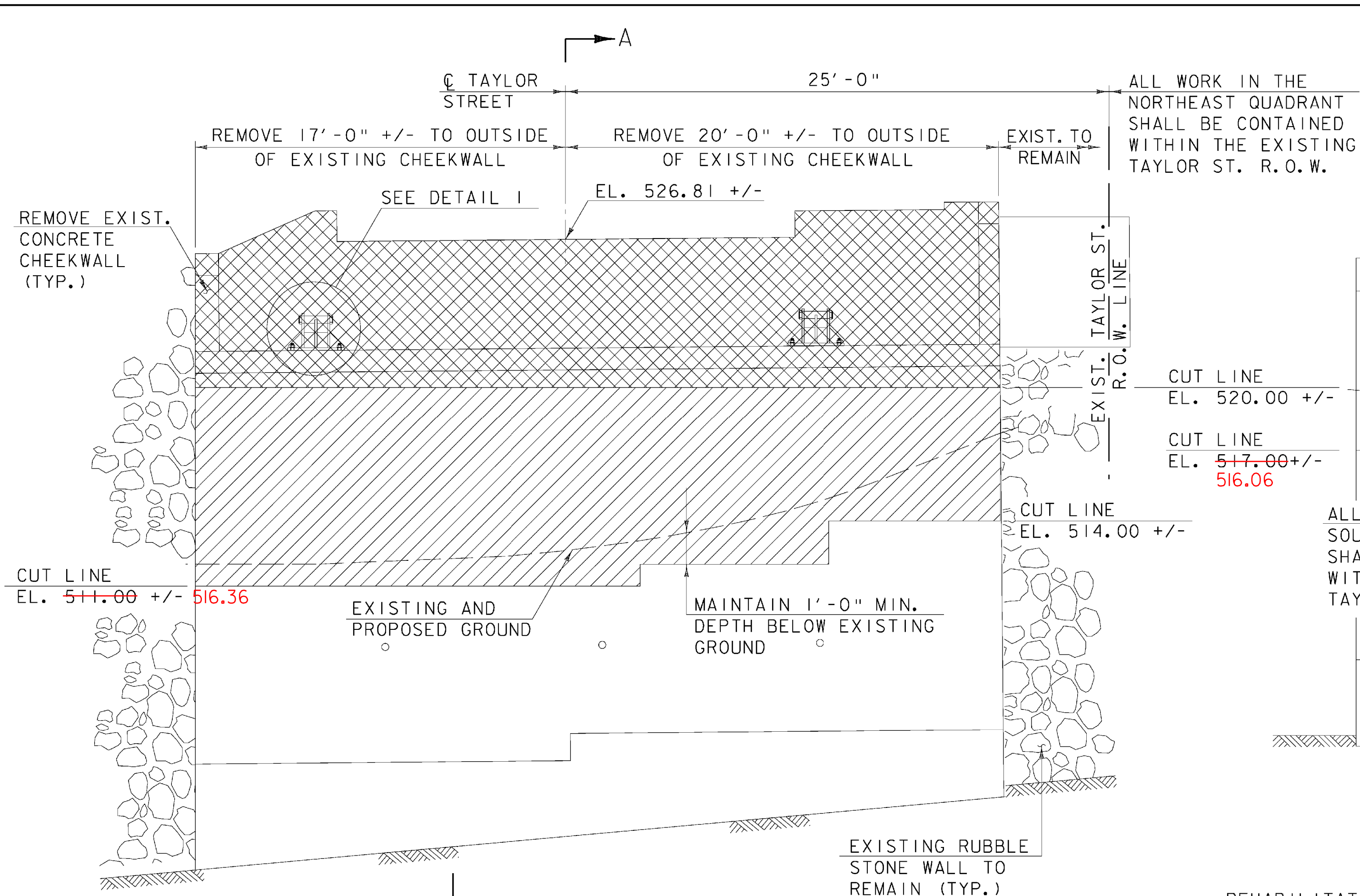
LEGEND:
 NF = NEAR FACE
 FF = FAR FACE
 EF = EACH FACE
 ▲ = CUT IN FIELD



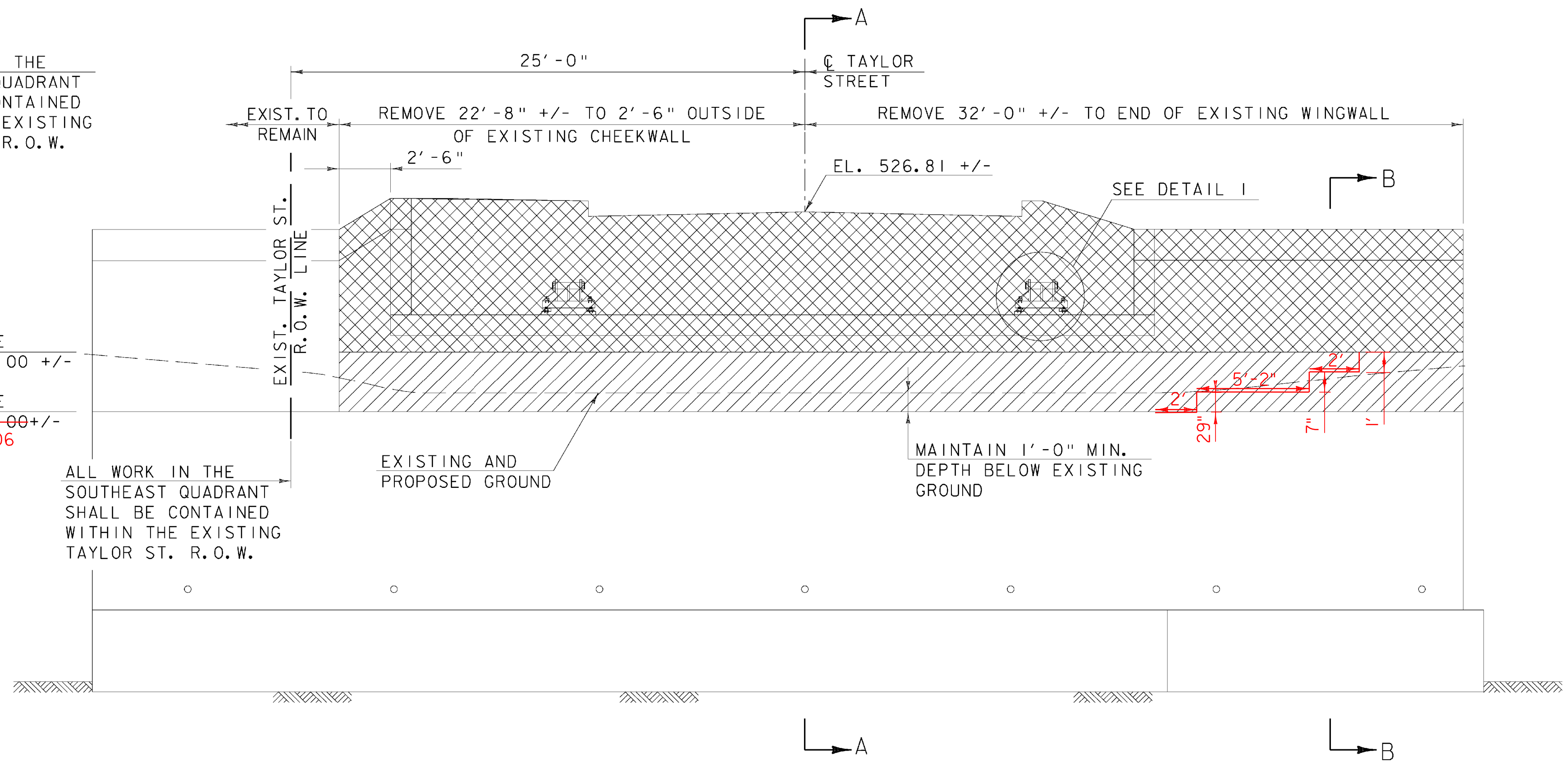
PROJECT NAME: MONTPELIER
 PROJECT NUMBER: BHF 6400(31)

FILE NAME: \$FILES\$
 PROJECT MANAGER: SUSAN SCRIBNER
 DESIGNED BY: D. D'AMATO
 BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
 DRAWN BY: D. D'AMATO
 CHECKED BY: P. PERKINS
 SHEET 36 OF 63

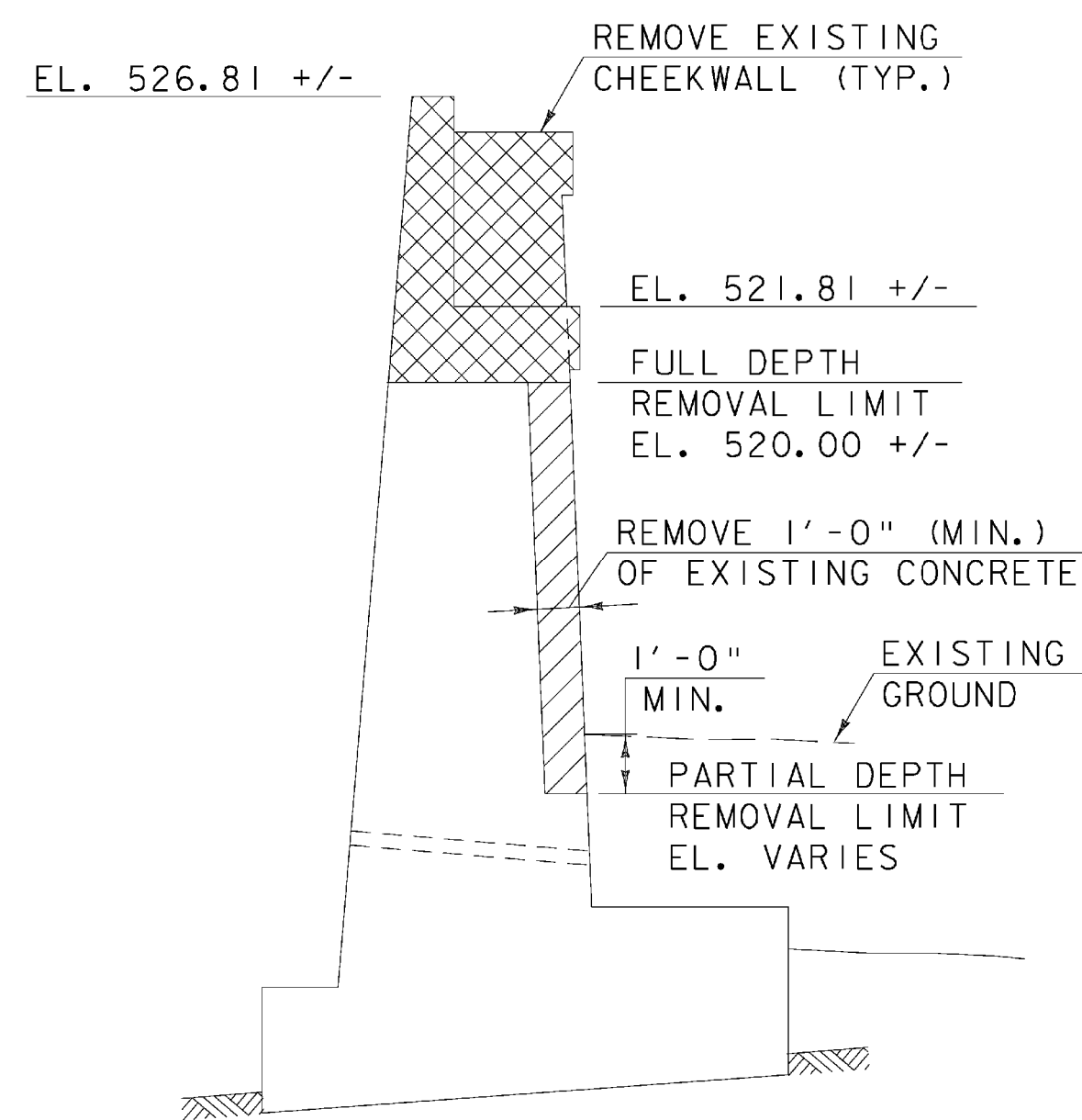


ABUTMENT 1 - ELEVATION
SCALE 1/4" = 1'-0"

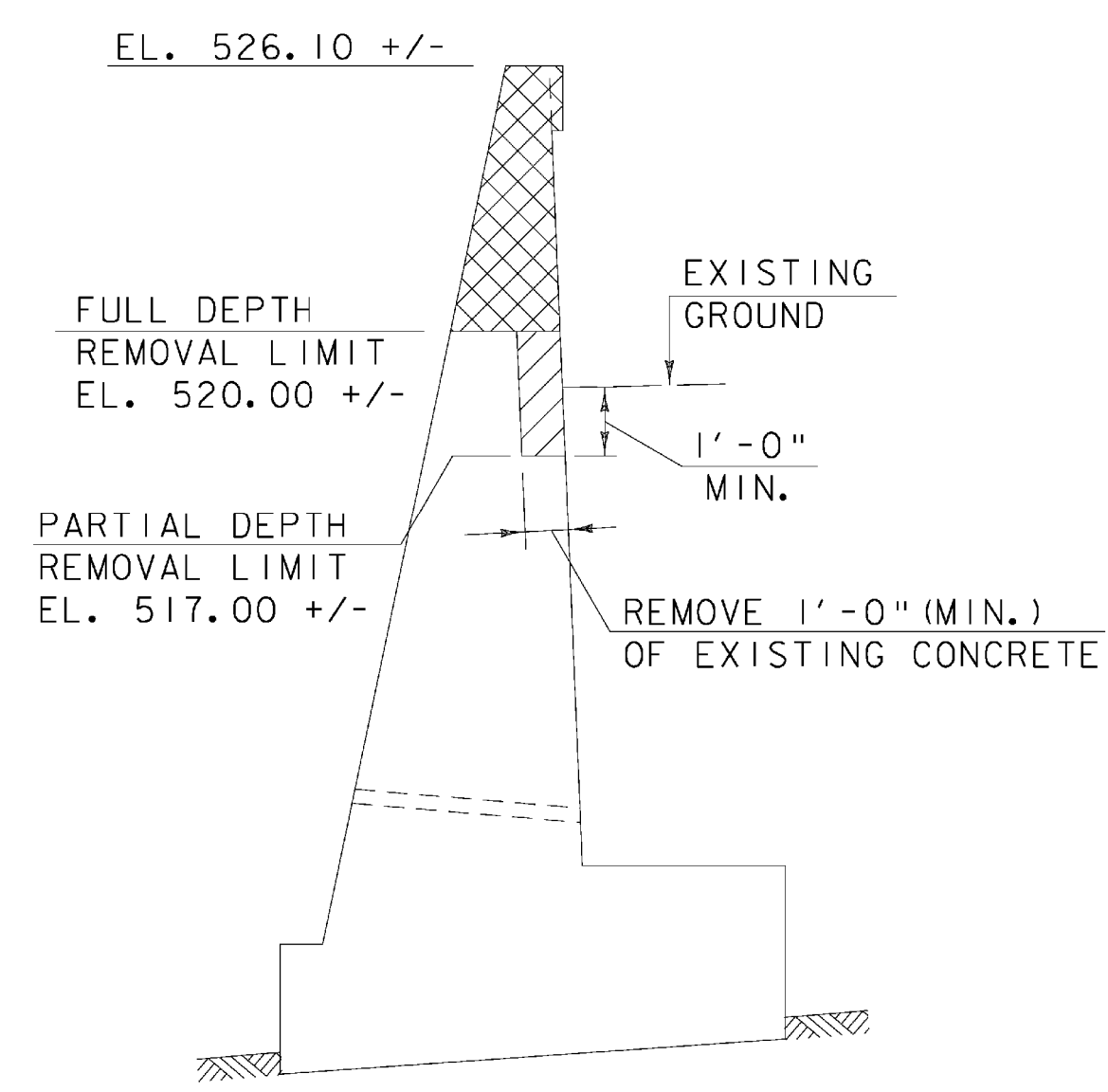


ABUTMENT 2 - ELEVATION
SCALE 1/4" = 1'-0"

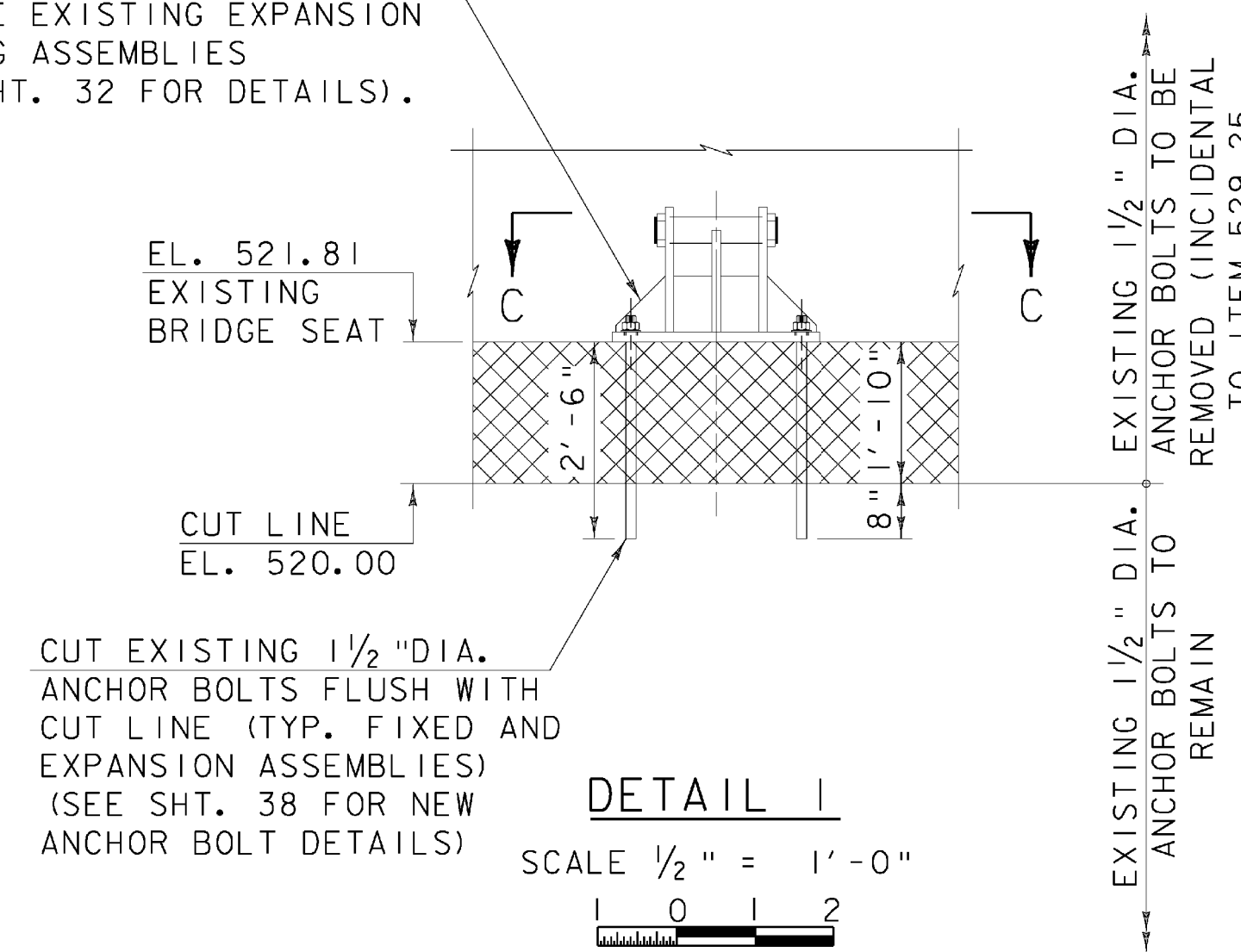
REHABILITATE EXISTING FIXED BEARING ASSEMBLIES (SEE SHT. 29 FOR DETAILS). REPLACE EXISTING EXPANSION BEARING ASSEMBLIES (SEE SHT. 32 FOR DETAILS).



SECTION A-A
SCALE 1/4" = 1'-0"



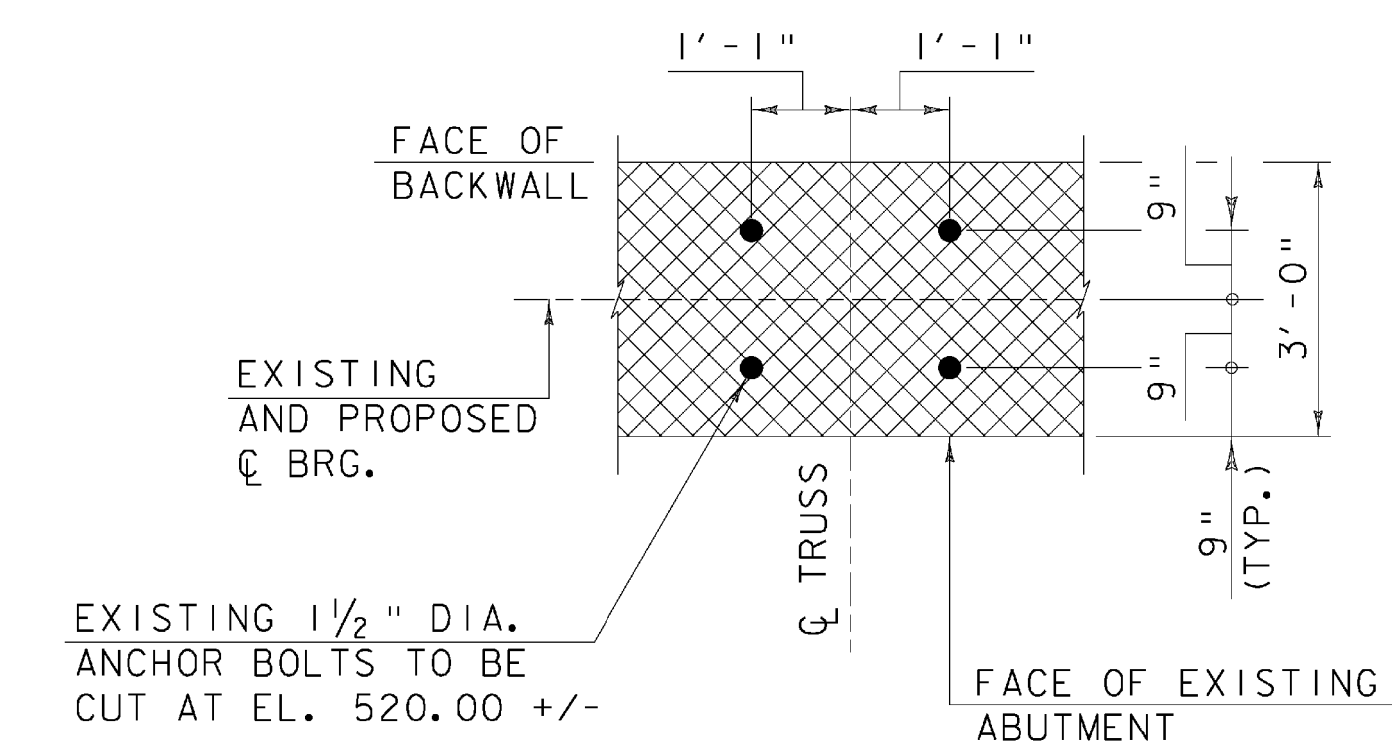
SECTION B-B
SCALE 1/4" = 1'-0"



DETAIL 1
SCALE 1/2" = 1'-0"

LEGEND

- EXISTING CONCRETE TO BE COMPLETELY REMOVED UNDER ITEM 529.25, REMOVAL OF EXISTING CONCRETE OR MASONRY (CY) AND REPLACED WITH NEW CONCRETE AS SHOWN IN THE PLANS.
- EXISTING CONCRETE TO BE PARTIALLY REMOVED UNDER ITEM 529.26, REMOVAL OF EXISTING CONCRETE OR MASONRY (SY) AND REMAINING CONCRETE TO BE FACED WITH ITEM 501.34 HIGH PERFORMANCE CONCRETE, CLASS B.



SECTION C-C
SCALE 1/2" = 1'-0"

NOTE:

1. SAW CUT EXISTING SUBSTRUCTURE 3" DEEP ALONG CUT LINES PRIOR TO BEGINNING CONCRETE REMOVAL OPERATIONS.

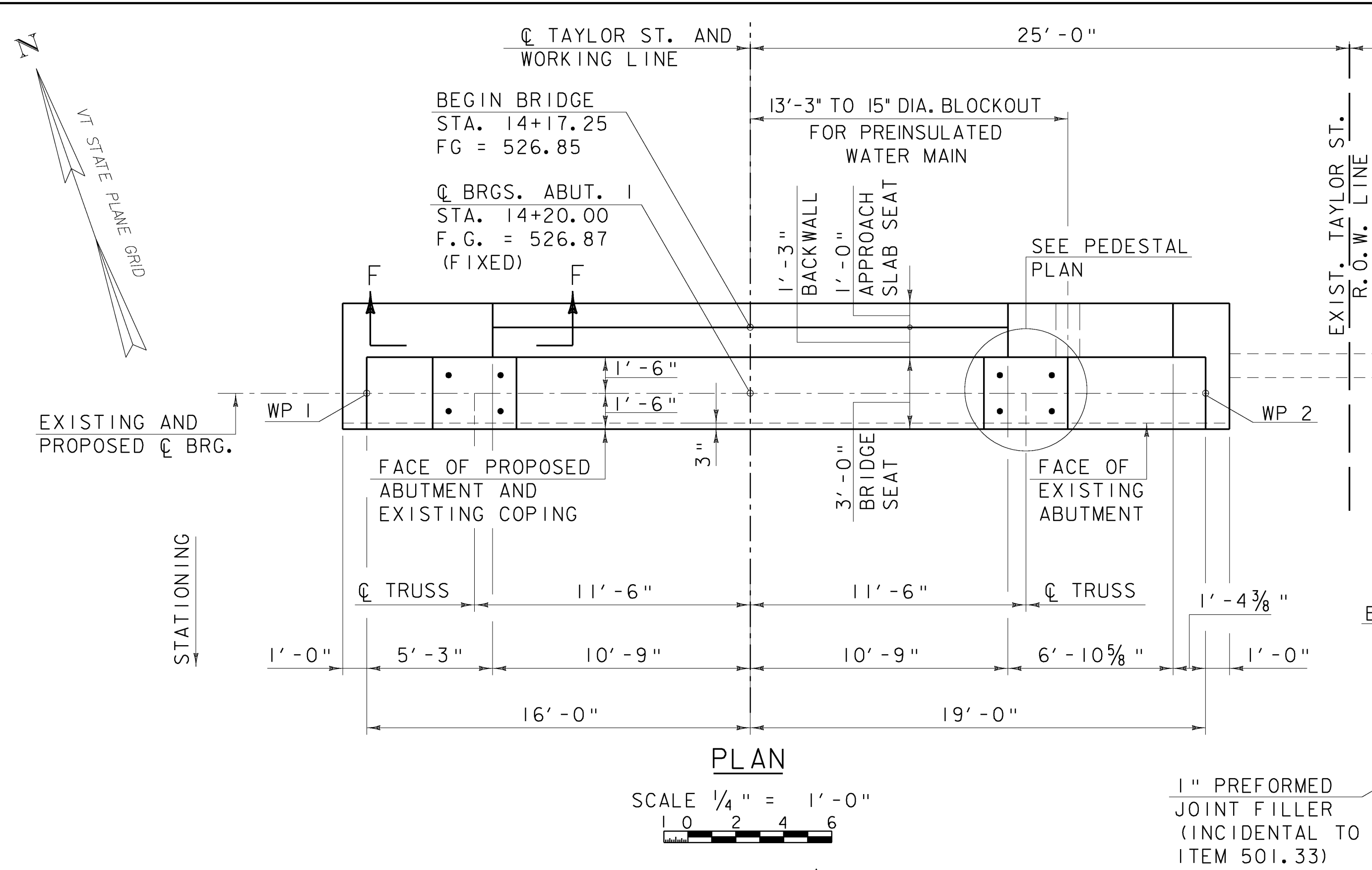
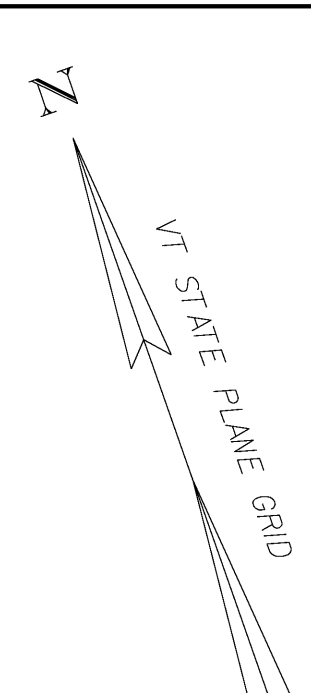
SUBSTRUCTURE REMOVAL DETAILS

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

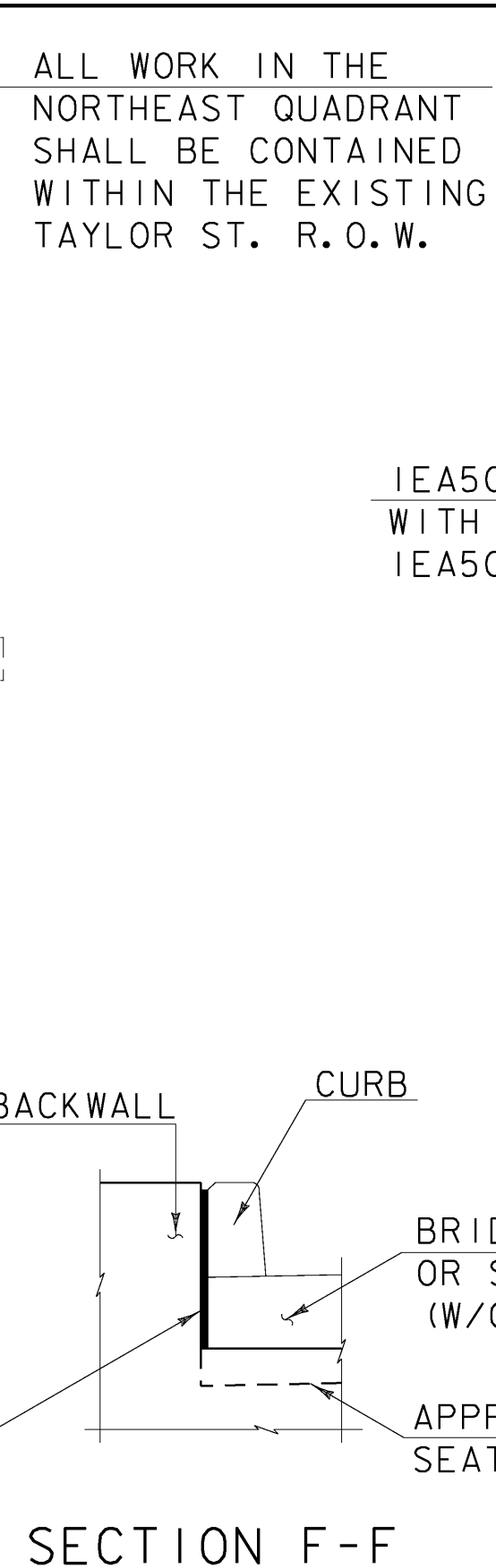
FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 37 OF 63

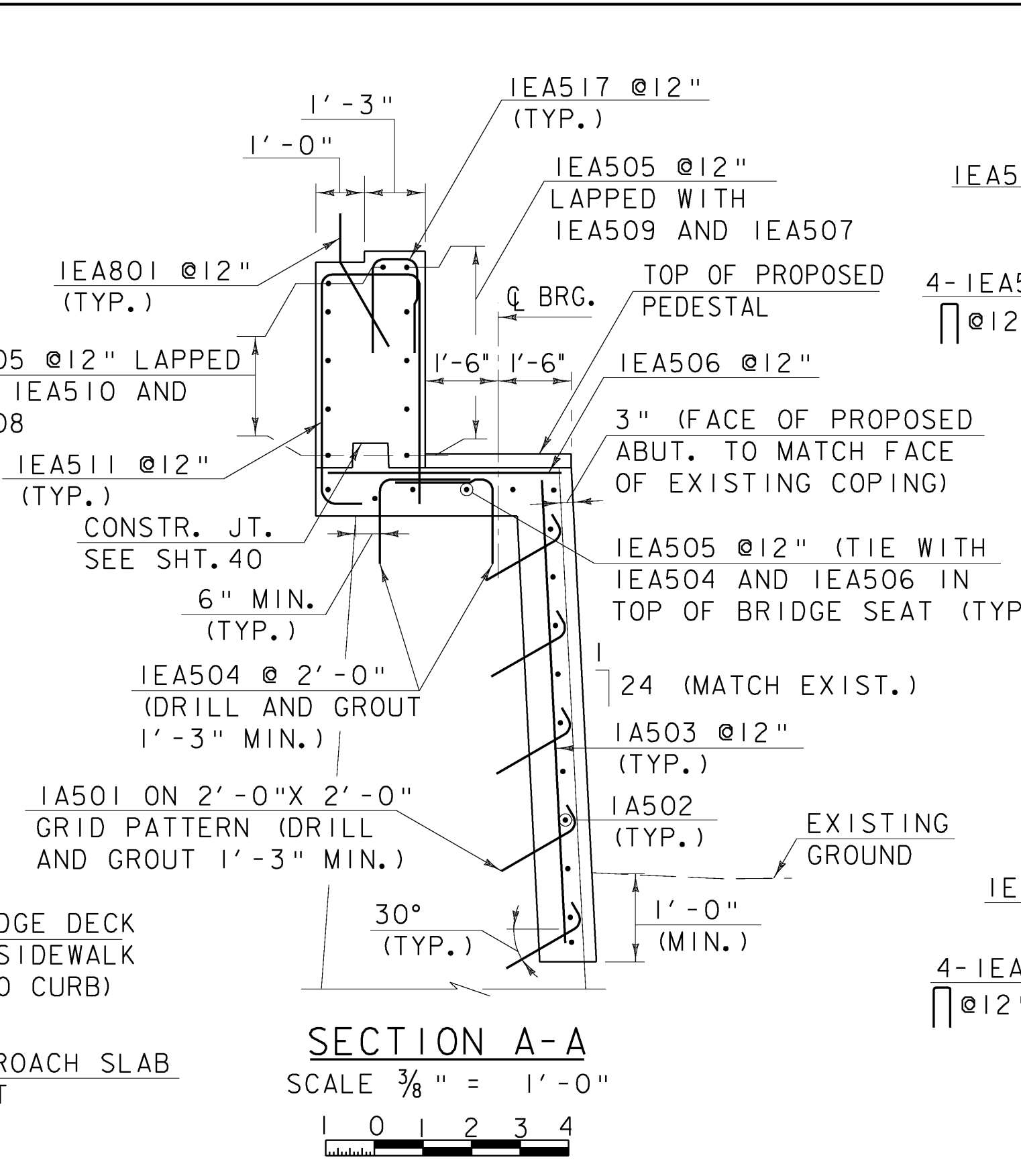




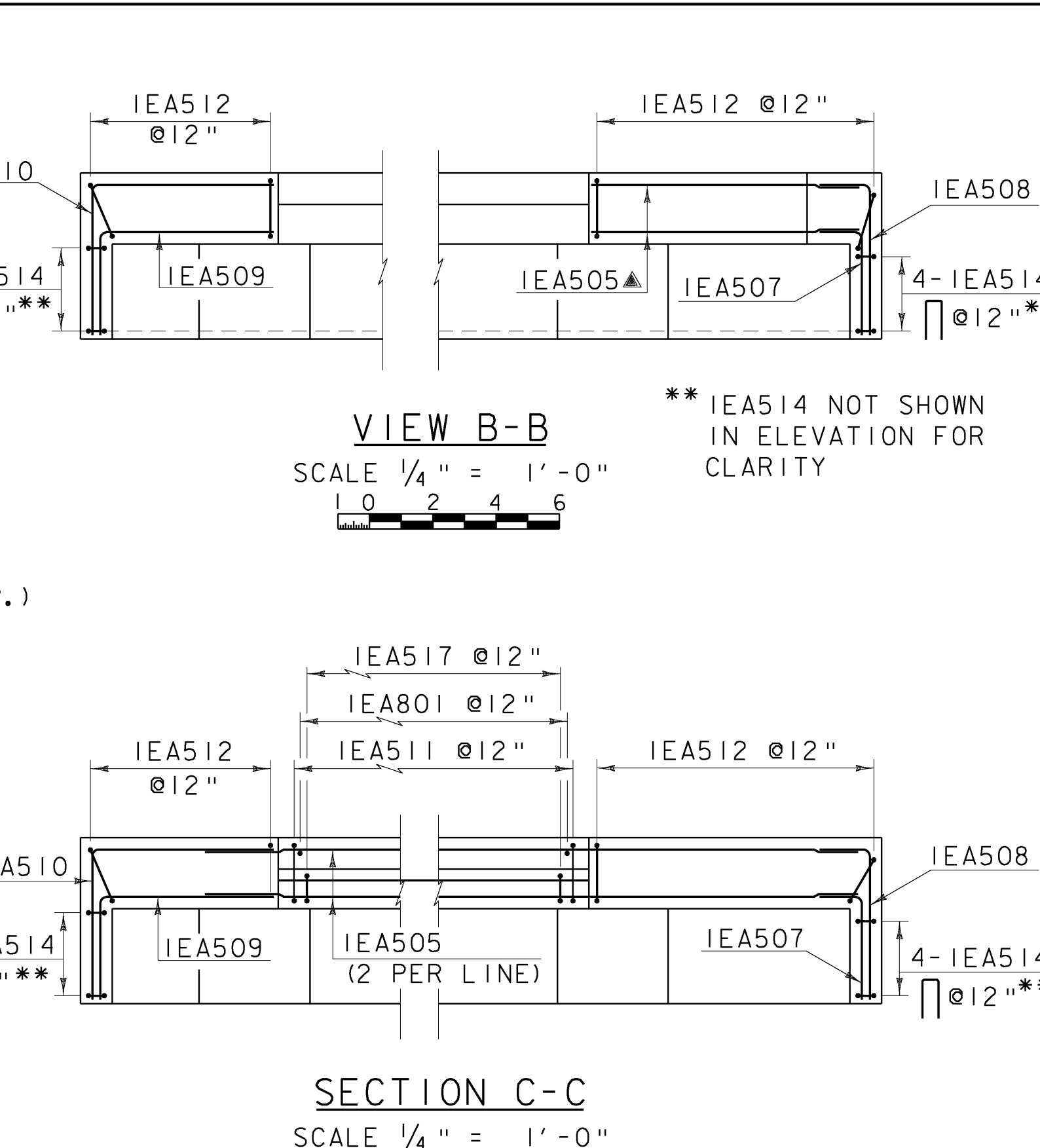
PLAN
SCALE 1/4" = 1'-0"



SECTION F-F
SCALE 1/2" = 1'-0"

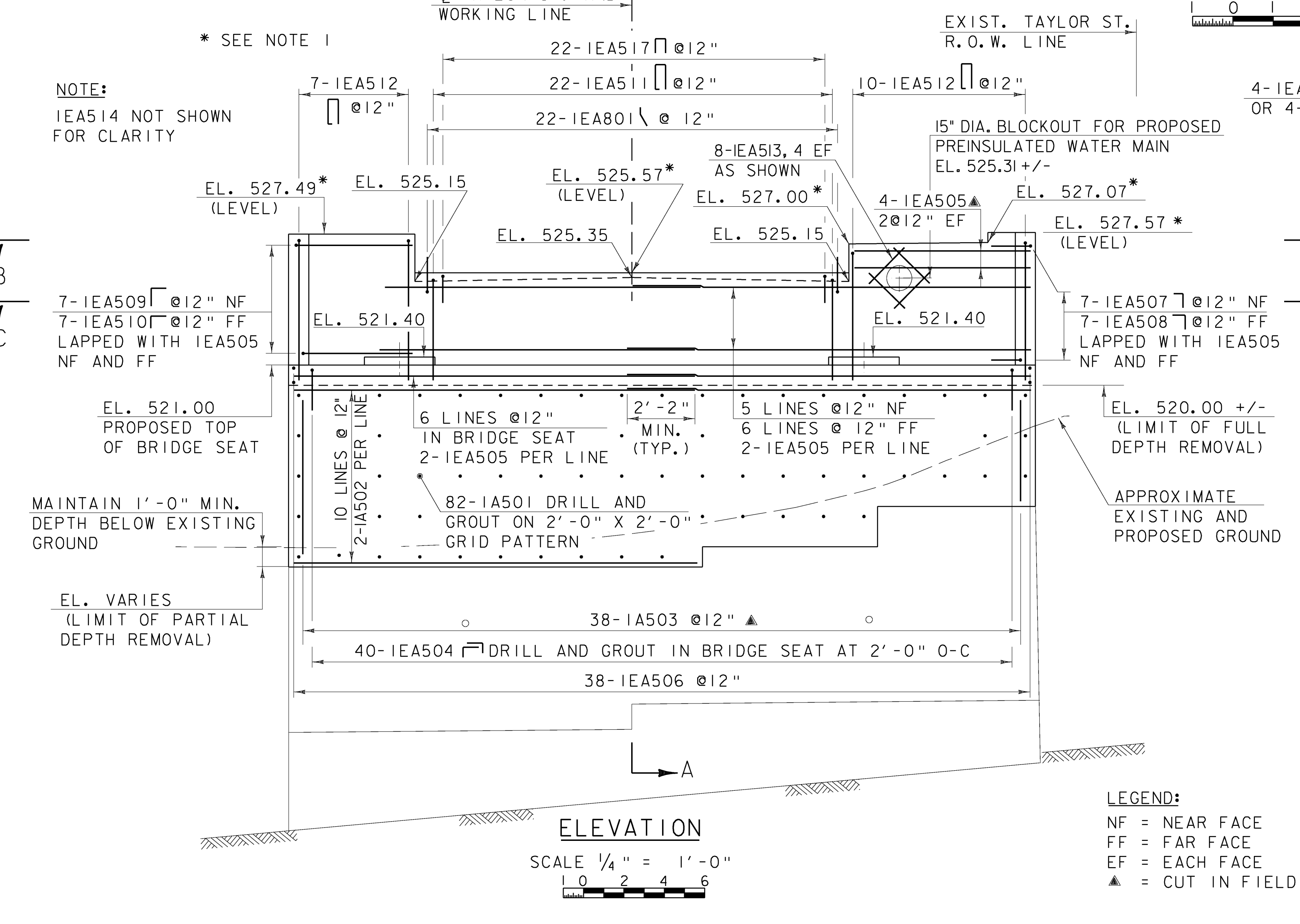


SECTION A-A
SCALE 3/8" = 1'-0"



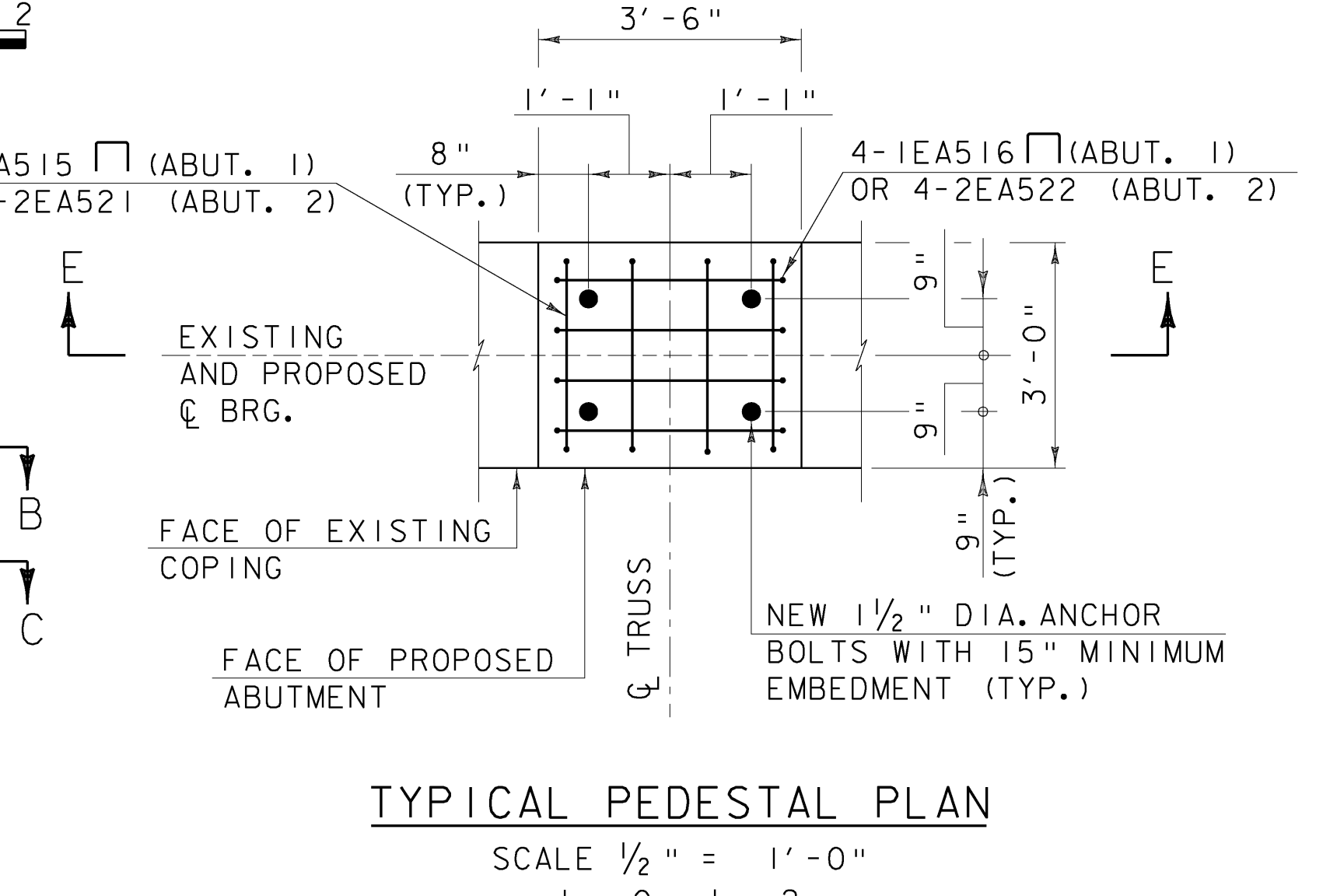
VIEW B-B
SCALE 1/4" = 1'-0"

SECTION C-C
SCALE 1/4" = 1'-0"



ELEVATION
SCALE 1/4" = 1'-0"

LEGEND:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT IN FIELD



TYPICAL PEDESTAL PLAN
SCALE 1/2" = 1'-0"



SECTION E-E
SCALE 1/2" = 1'-0"

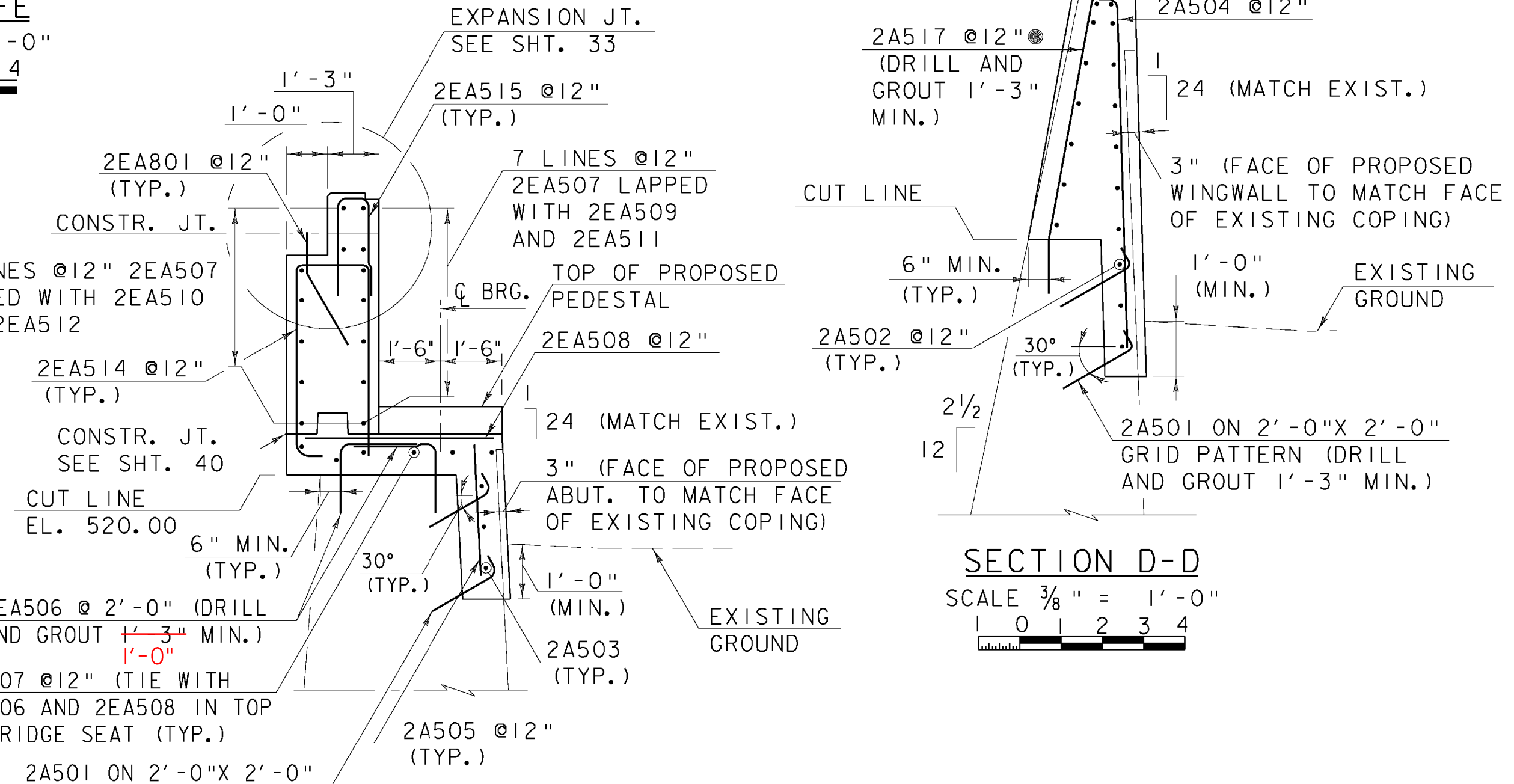
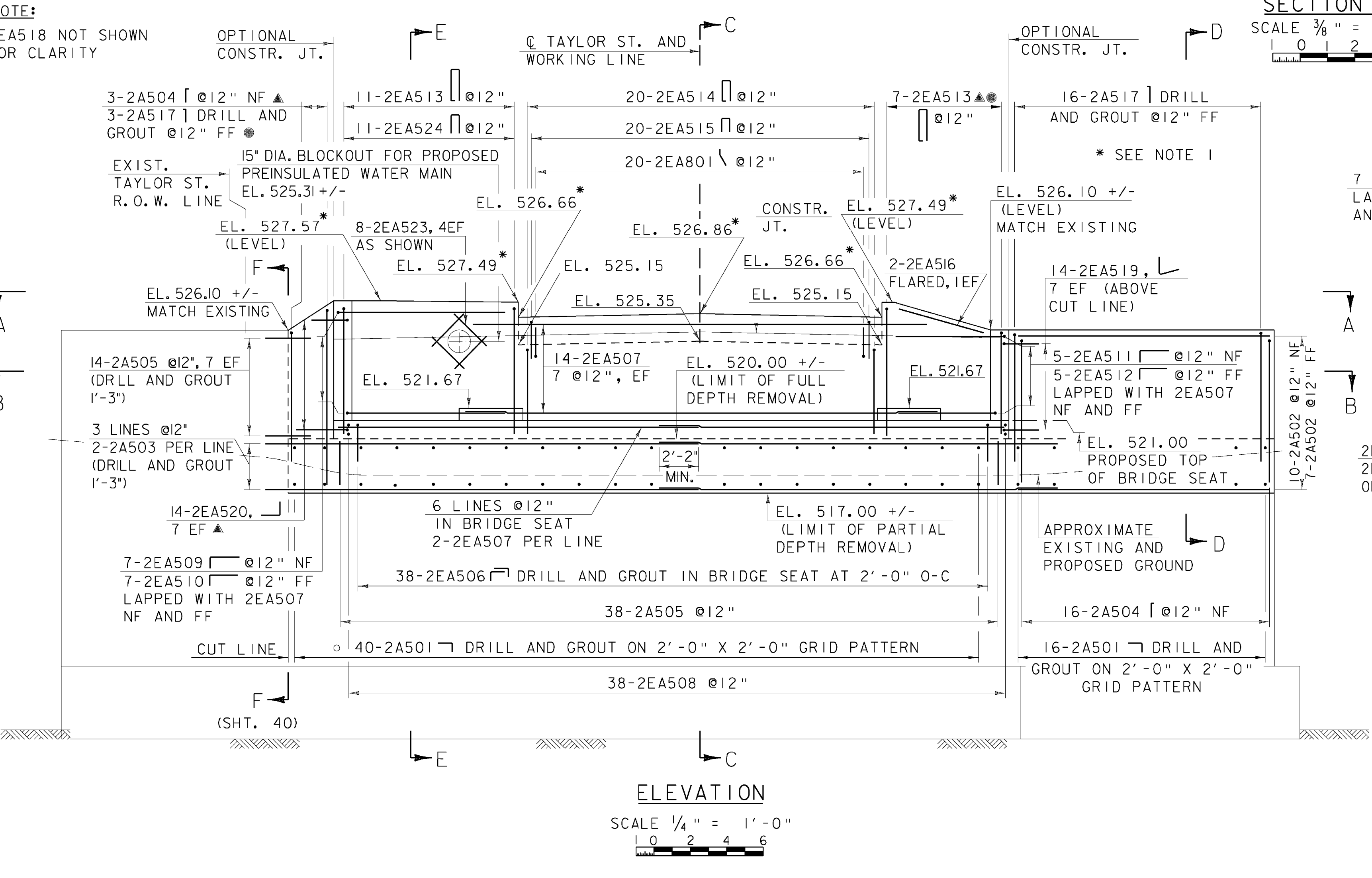
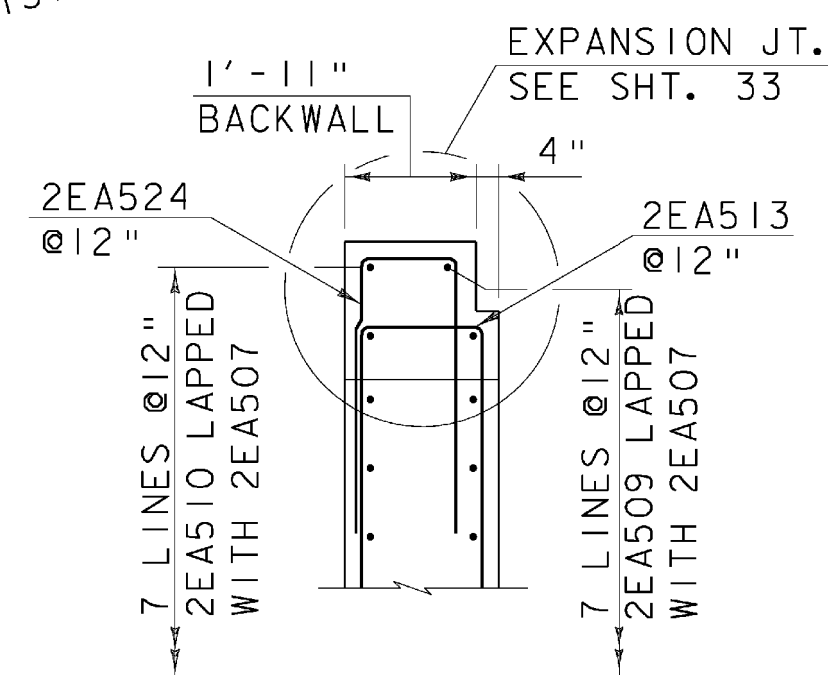
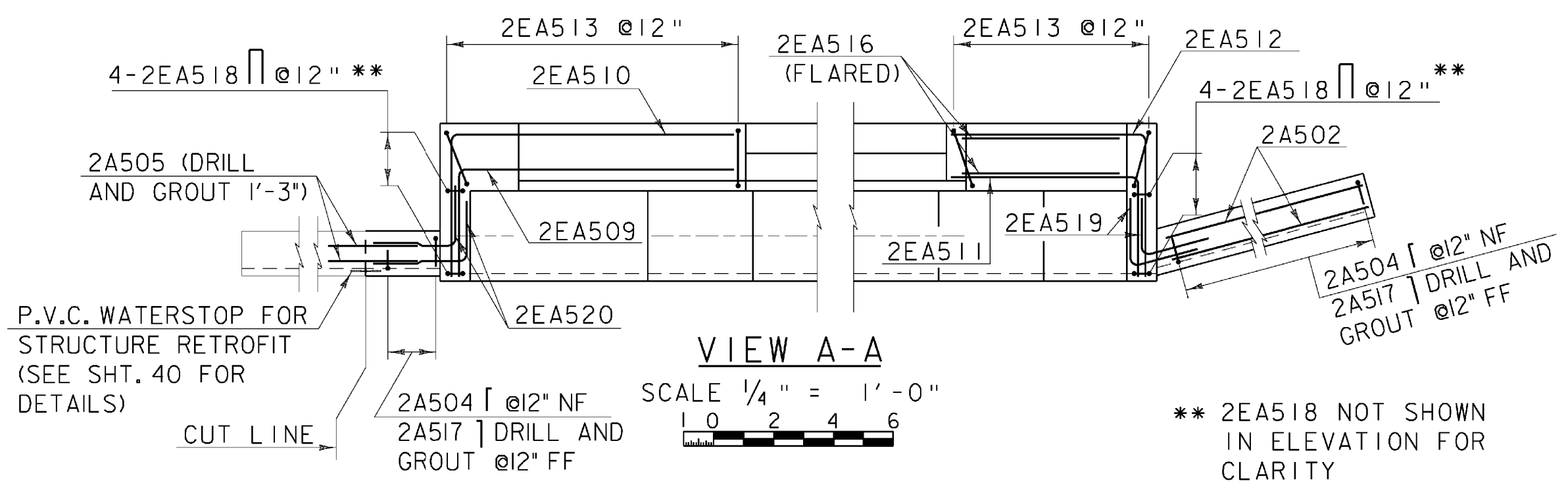
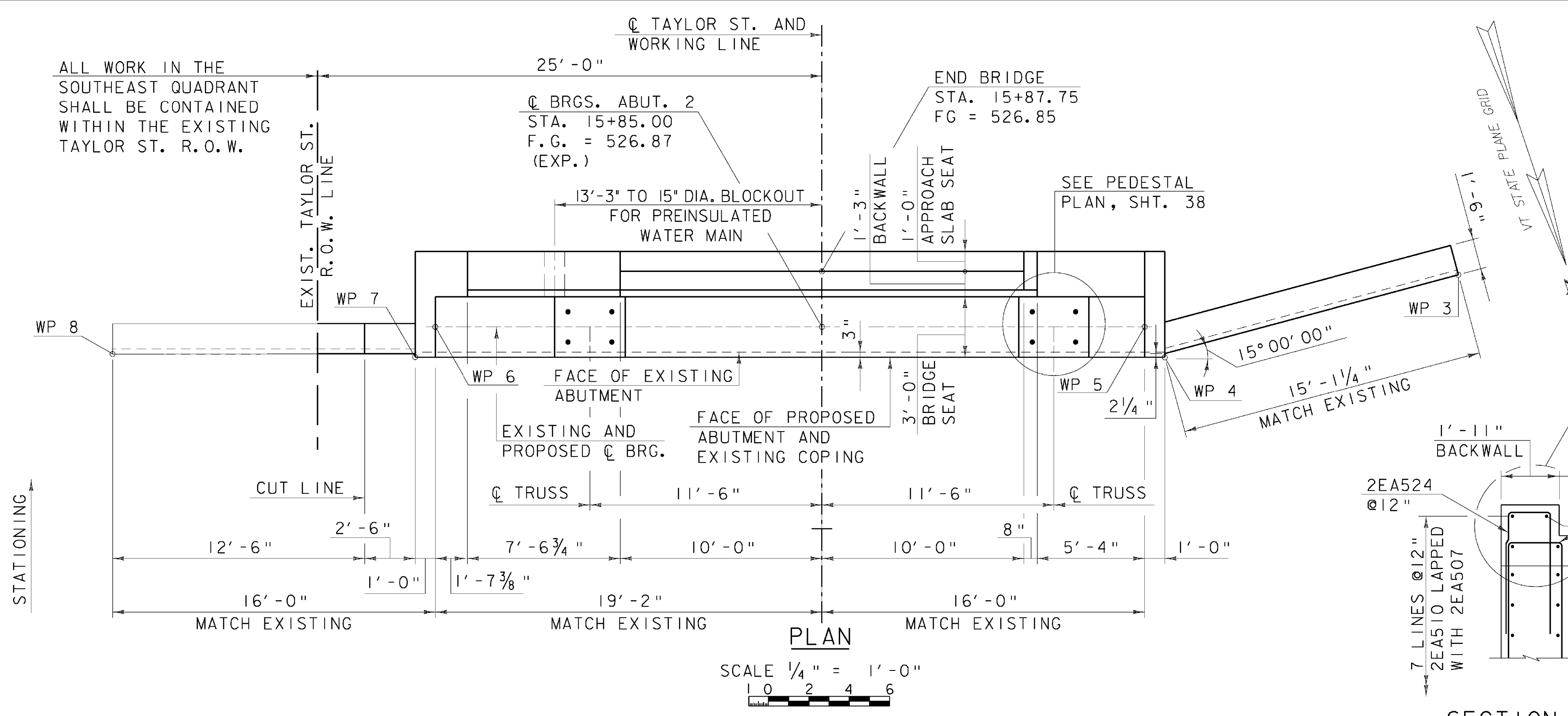
- NOTES:**
1. ELEVATIONS APPLY AT FRONT FACE OF BACKWALL.
 2. ALL SUBSTRUCTURE CONCRETE SHALL BE HIGH PERFORMANCE CLASS B AND SHALL BE PAID FOR UNDER ITEM 501.34 CONCRETE, HIGH PERFORMANCE CLASS B.
 3. 3" CLR. UNLESS OTHERWISE SPECIFIED ON PLANS.



ABUTMENT 1 REPAIR DETAILS	
PROJECT NAME:	MONTPELIER
PROJECT NUMBER:	BHF 6400(31)
FILE NAME:	\$FILES\$
PROJECT MANAGER:	SUSAN SCRIBNER
DESIGNED BY:	D. D'AMATO
BRIDGE DESIGN SUPERVISOR:	P. HALSTEAD
PLOT DATE:	10/12/2009
DRAWN BY:	D. D'AMATO
CHECKED BY:	P. PERKINS
SHEET	38 OF 63

FILE NAME: h:\14596\mtn\p\lens\14596_abut_1.dgn
 DATE/TIME: 10/12/2009 10:25:52
 USER: 22562

ALL WORK IN THE SOUTHEAST QUADRANT SHALL BE CONTAINED WITHIN THE EXISTING TAYLOR ST. R.O.W.



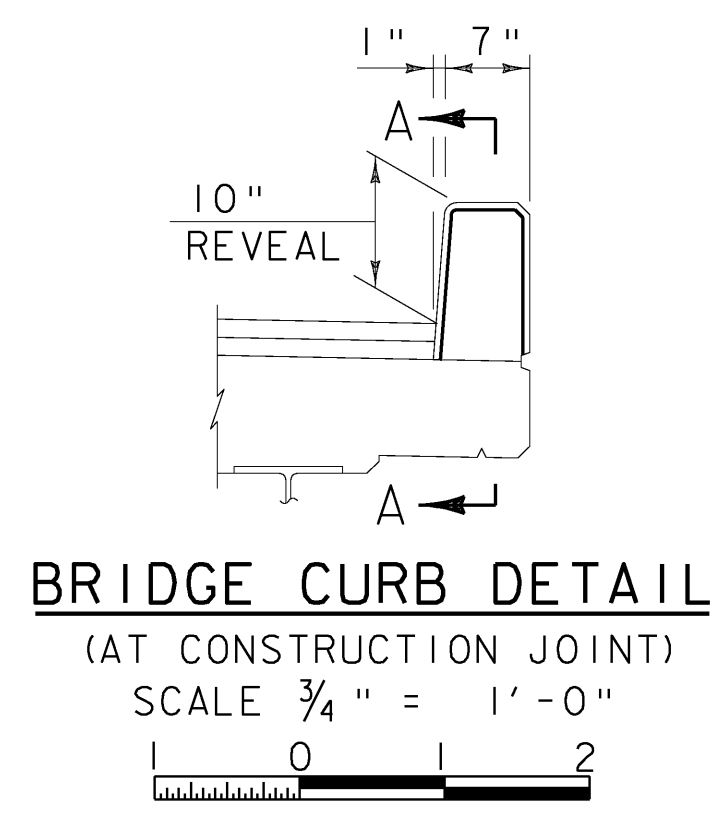
- NOTES:**
- ELEVATIONS APPLY AT FRONT FACE OF BACKWALL.
 - ALL SUBSTRUCTURE CONCRETE SHALL BE HIGH PERFORMANCE CLASS B AND SHALL BE PAID FOR UNDER ITEM 501.34 CONCRETE, HIGH PERFORMANCE CLASS B.
 - 3" CLR. UNLESS OTHERWISE SPECIFIED ON PLANS.

- LEGEND:**
- NF = NEAR FACE
 - FF = FAR FACE
 - EF = EACH FACE
 - ▲ = CUT IN FIELD
 - = BEND IN FIELD



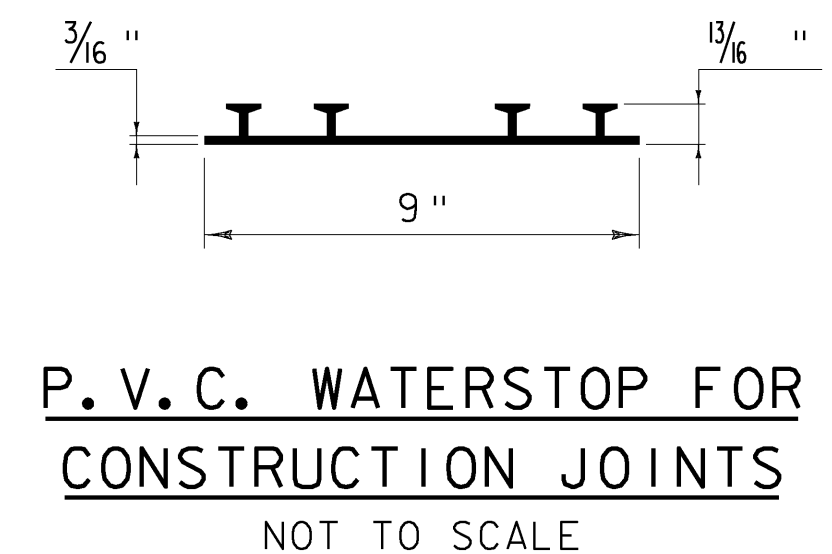
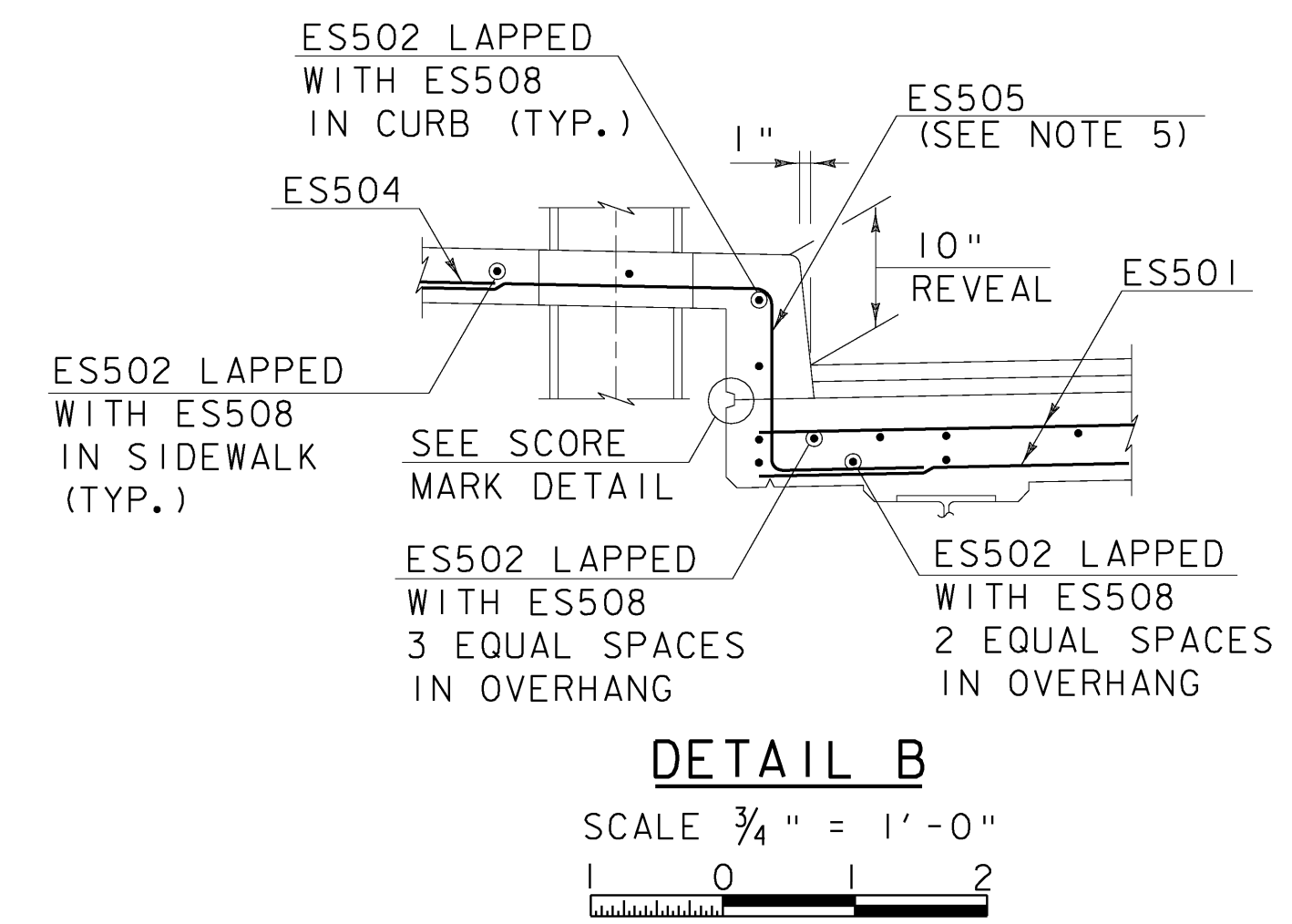
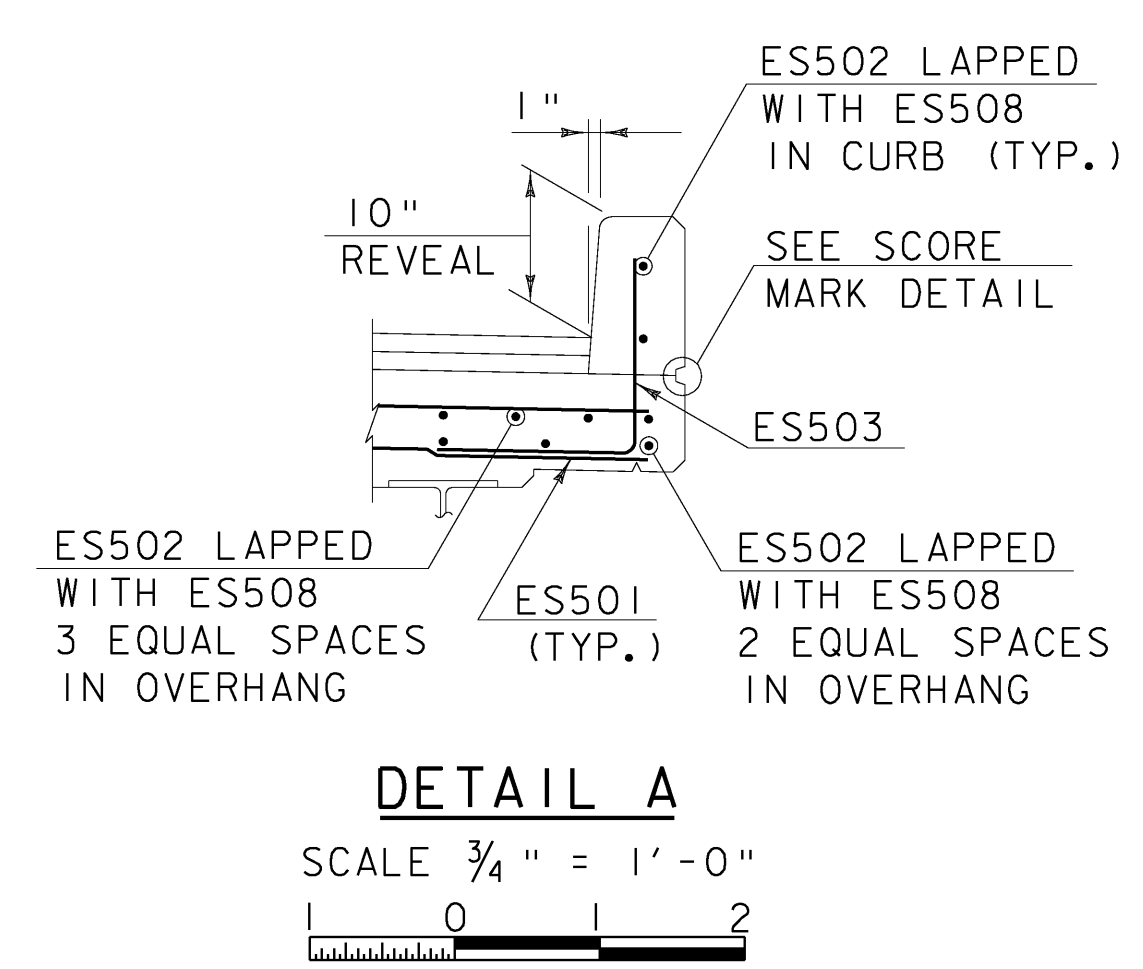
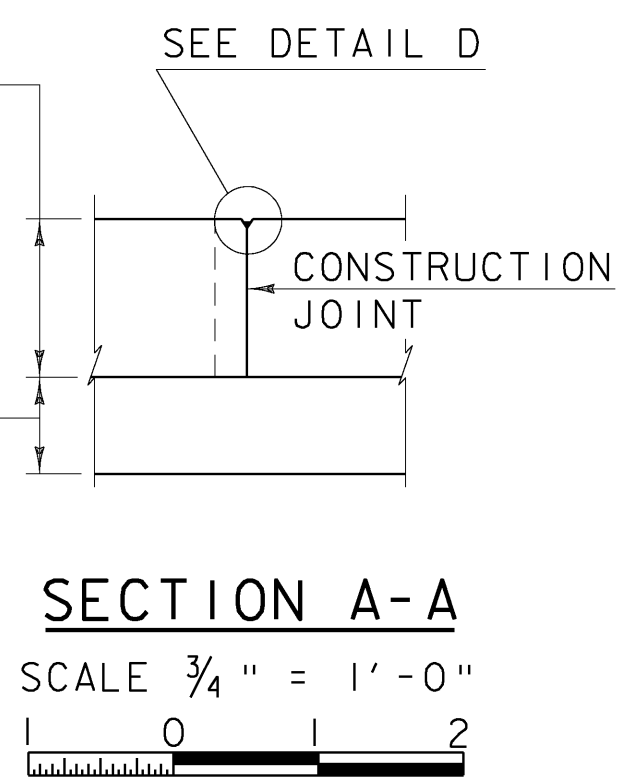
PROJECT NAME: MONTPELIER	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	DRAWN BY: D. D'AMATO
FILE NAME: \$FILES\$	CHECKED BY: P. PERKINS
PROJECT MANAGER: SUSAN SCRIBNER	SHEET 39 OF 63
DESIGNED BY: D. D'AMATO	
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	

FILE NAME: H:\145965\montpelier\plans\abut2\abut2.dgn DATE/TIME: 10/12/2009 10:25:52 USER: 2552

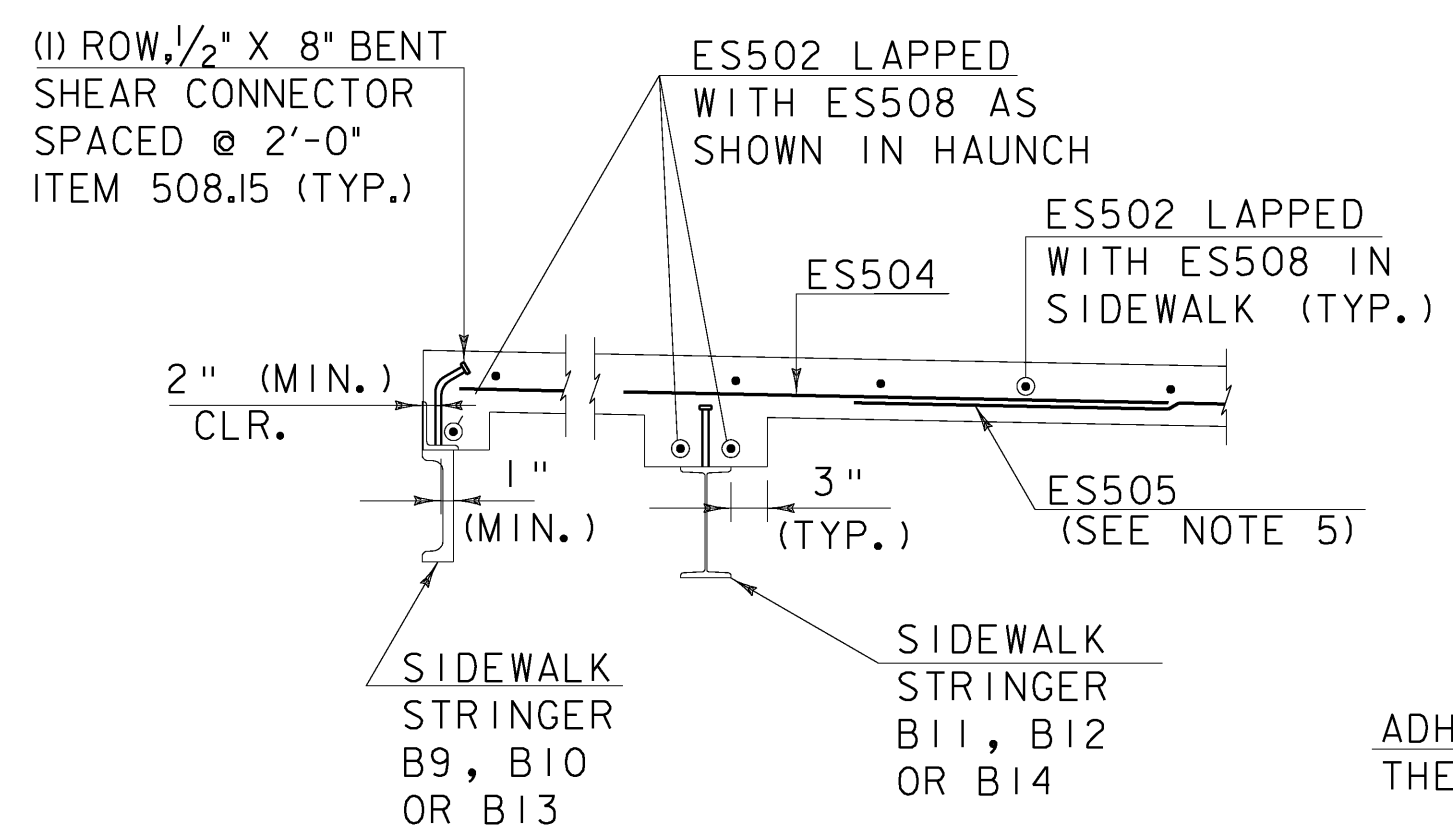


10" CONCRETE CURB
ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT)

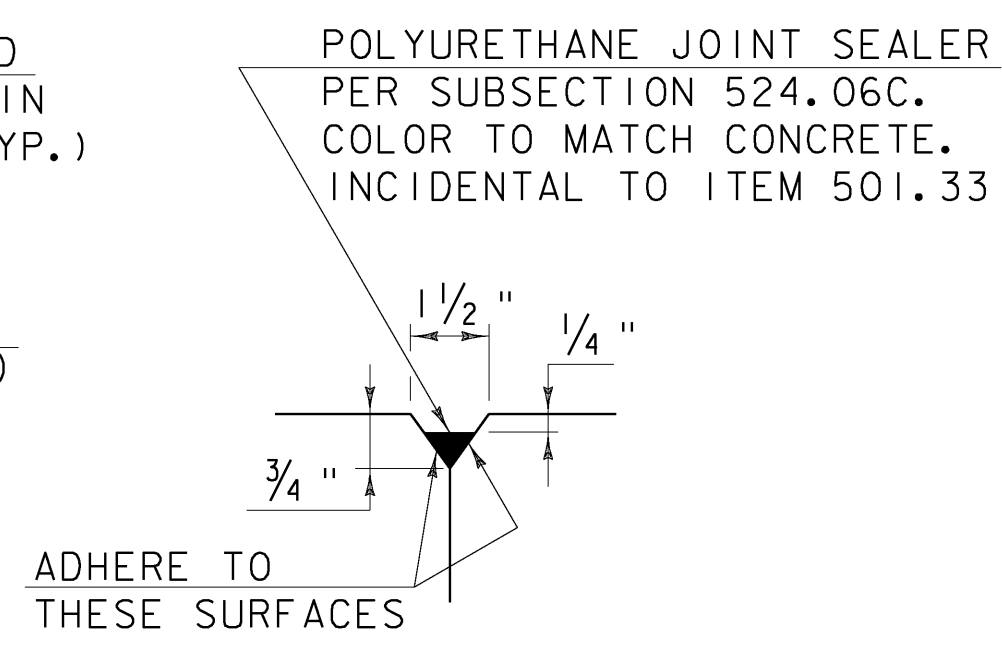
8 1/2" CONCRETE DECK
ITEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT)



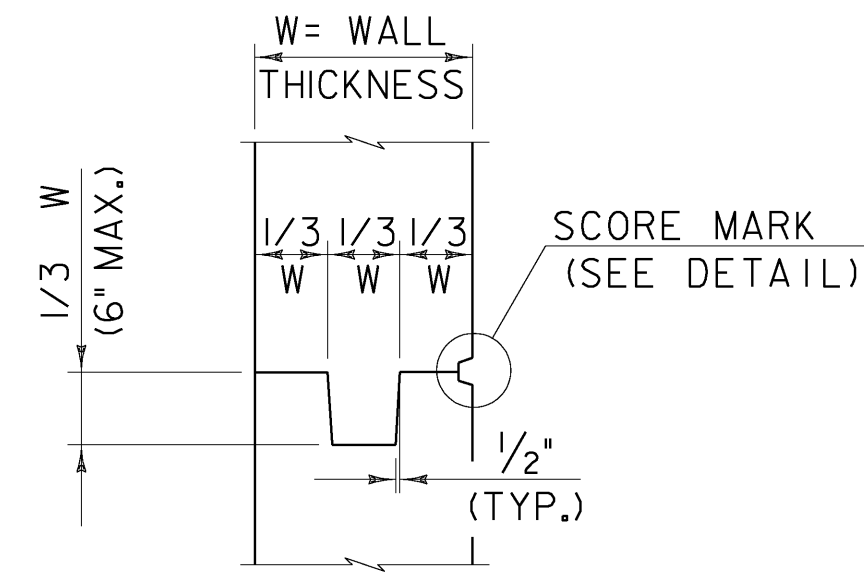
P.V.C. WATERSTOP FOR CONSTRUCTION JOINTS
NOT TO SCALE



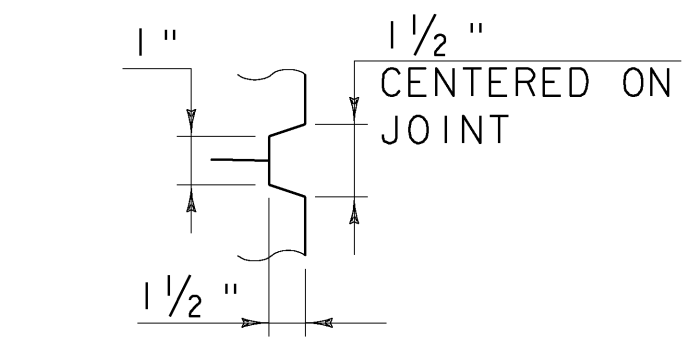
DETAIL C
SCALE 3/4" = 1'-0"



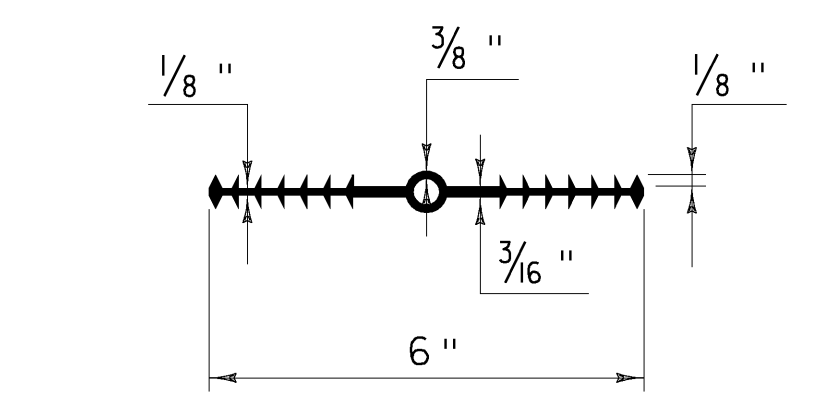
DETAIL D
NOT TO SCALE



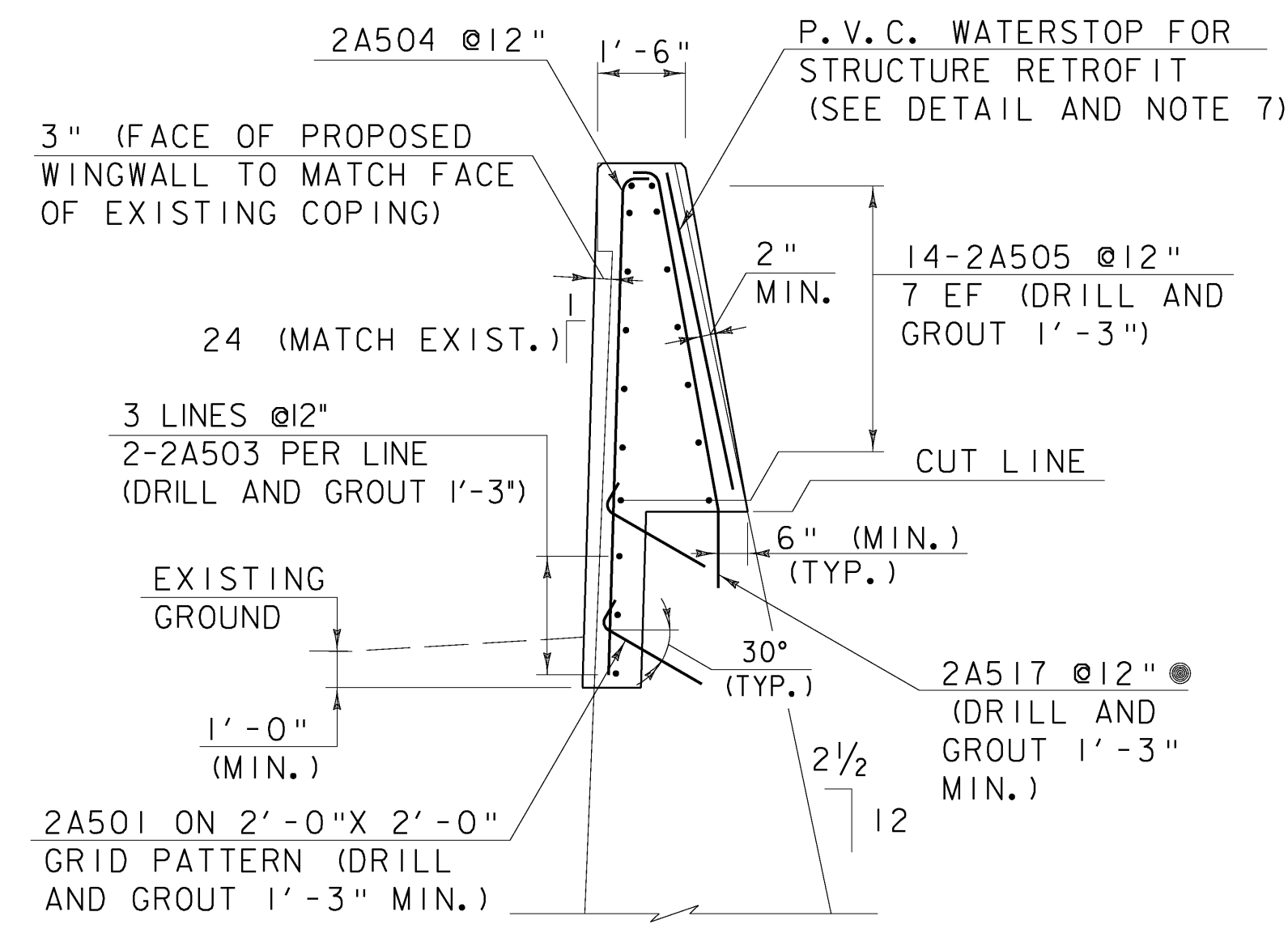
TYPICAL CONCRETE CONSTRUCTION JOINT
NOT TO SCALE



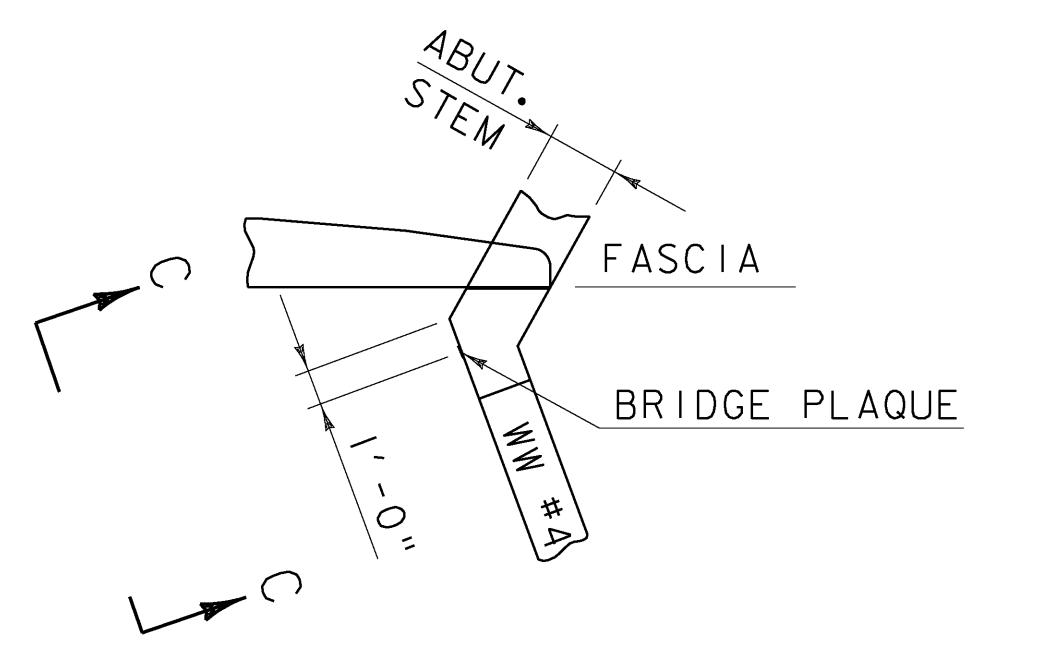
SCORE MARK DETAIL
NOT TO SCALE



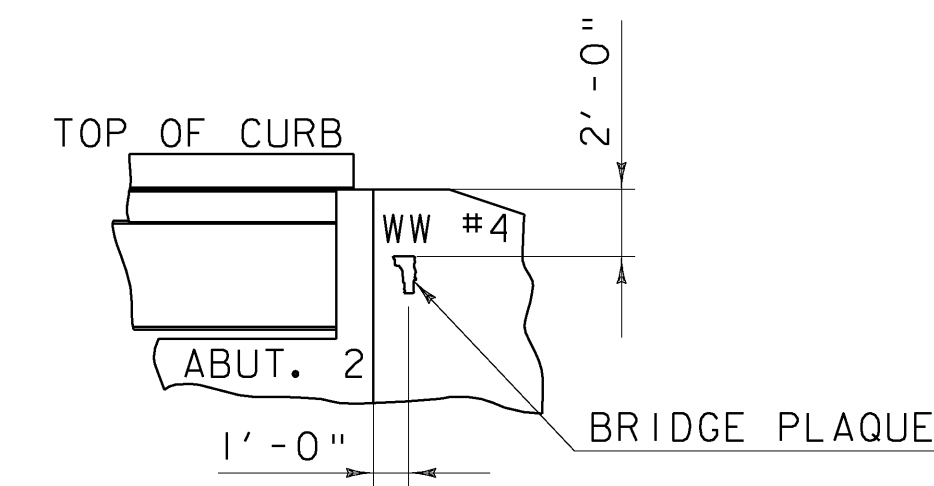
P.V.C. WATERSTOP FOR STRUCTURE RETROFIT
NOT TO SCALE



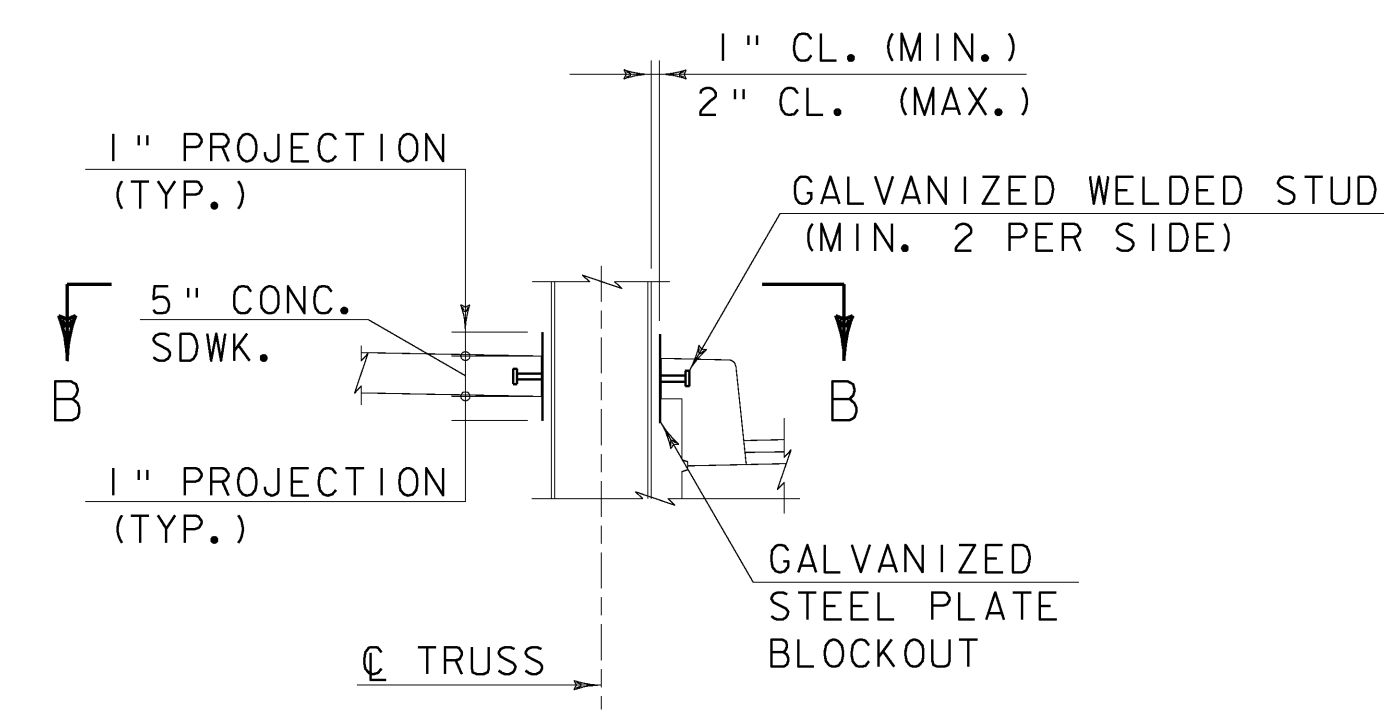
SECTION F-F
SCALE 3/4" = 1'-0"



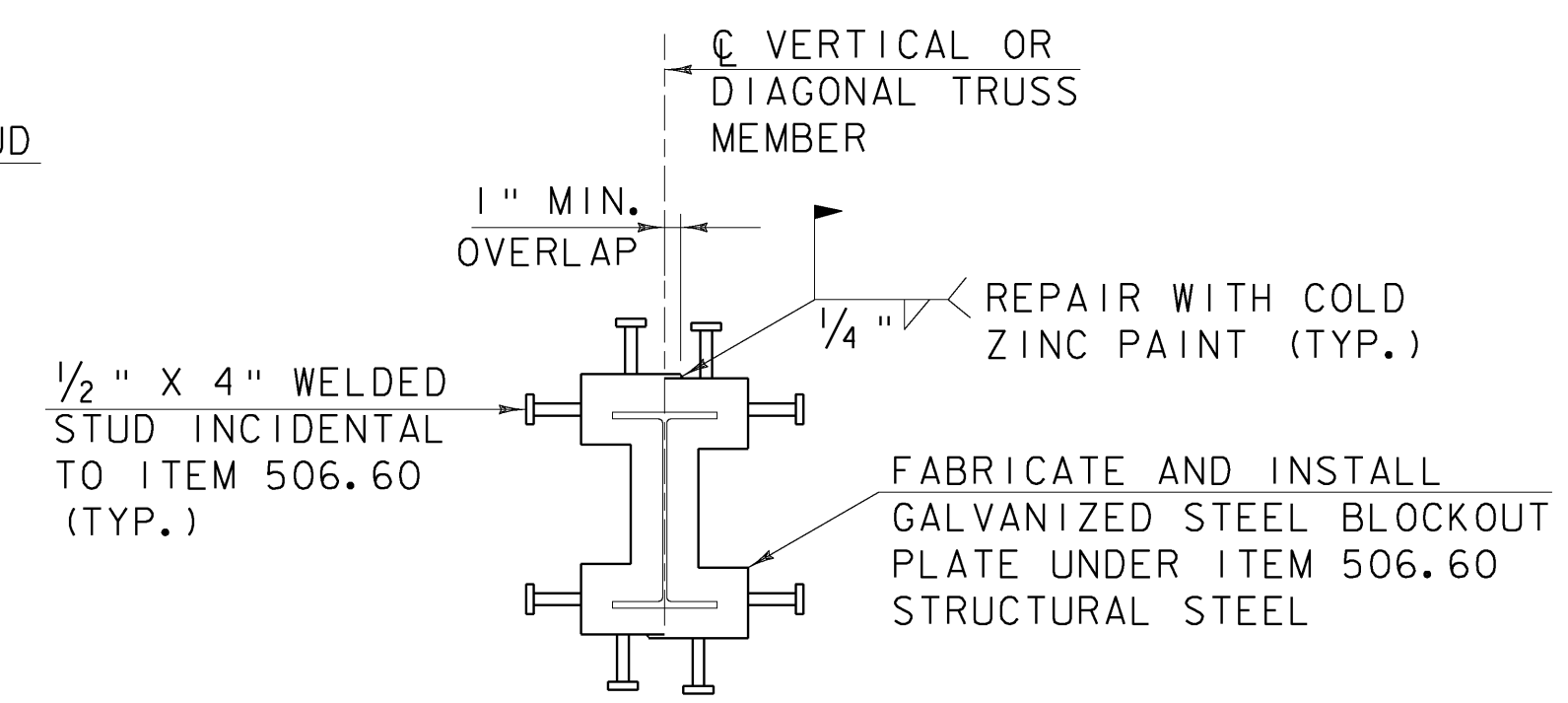
BRIDGE PLAQUE
NOT TO SCALE



SECTION C-C
NOT TO SCALE



SIDEWALK BLOCKOUT DETAIL AT TRUSS MEMBERS
SCALE 1/2" = 1'-0"



SECTION B-B
SCALE 1" = 1'-0"

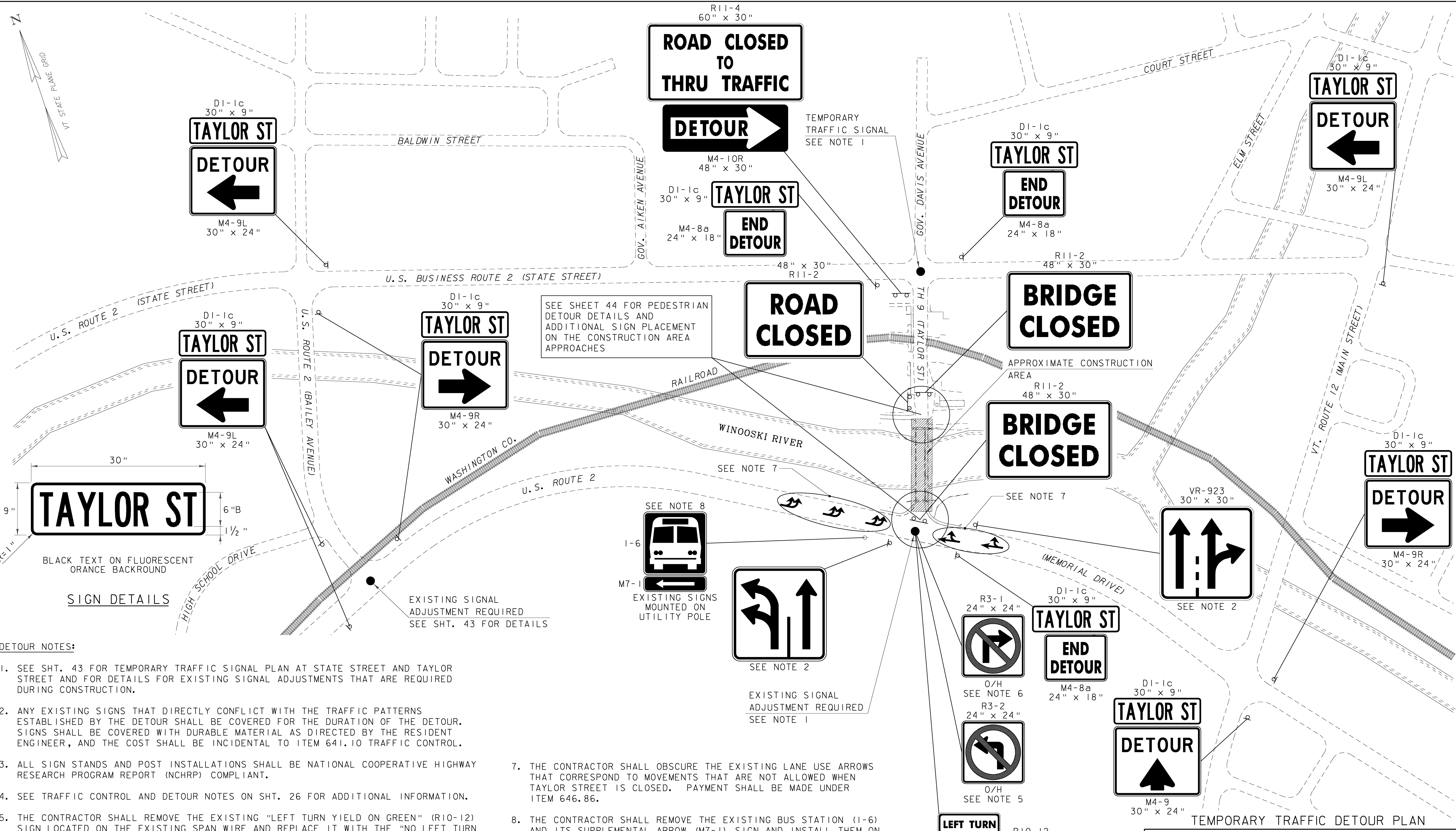
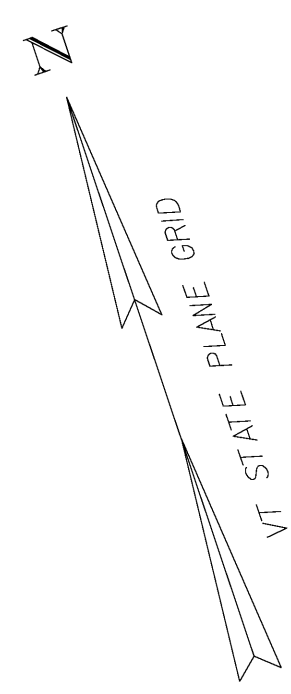
- NOTES:**
- CONSTRUCTION JOINTS THROUGH CONCRETE CURBS SHALL BE SPACED MAXIMUM 15'-0" CENTER TO CENTER. CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS. THE CONTRACTOR HAS THE OPTION TO ELIMINATE THE CURB JOINTS AND MAKE EACH CURB IN ONE PLACEMENT USING AN APPROVED SHRINKAGE ADMIXTURE AS NOTED IN THE SPECIAL PROVISIONS. THE COST OF ANY SUCH ADMIXTURE SHALL BE INCIDENTAL TO THE CONCRETE ITEM.
 - LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CURB CONSTRUCTION JOINTS.
 - CONSTRUCTION JOINTS THROUGH SIDEWALKS SHALL BE SIMILAR TO CONCRETE CURB CONSTRUCTION JOINTS.
 - SEE SHT. 28 FOR LOCATIONS OF DETAILS A, B AND C. SEE SHEET 39 FOR LOCATION OF SECTION F.
 - ES504 AND ES505 TO BE PLACED IN THE SAME HORIZONTAL PLANE. ES502 AND ES508 TO BE PLACED ON TOP.
 - WATERSTOP MATERIAL SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SUBSECTION 707.10. WATERSTOP SYSTEM SHALL BE APPROVED BY THE VERMONT AGENCY OF TRANSPORTATION MATERIALS AND RESEARCH LABORATORY. THE COSTS FOR P.V.C. WATERSTOP SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE. OTHER CONFIGURATIONS MAY BE USED UPON APPROVAL OF THE STRUCTURES ENGINEER.
 - SAWCUT VERTICAL SLOT IN EXISTING WINGWALL. SLOT SHALL BEGIN 2" ABOVE CUT LINE AND END 2" BELOW THE TOP OF THE EXISTING WINGWALL. INSERT WATERSTOP IN SLOT AND PACK SLOT WITH ADHESIVE APPROVED BY WATERSTOP MANUFACTURER.
 - THE BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT #2 ON WINGWALL #4 AS SHOWN OR AS DIRECTED BY THE ENGINEER.
 - PAYMENT FOR INSTALLATION OF THE BRIDGE PLAQUE SHALL BE INCIDENTAL TO THE ADJACENT CONCRETE.

MISCELLANEOUS DETAILS

PROJECT NAME: MONTPELIER	FILE NAME: \$FILES\$	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	PROJECT MANAGER: SUSAN SCRIBNER	DRAWN BY: D. D'AMATO
	DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS
	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	SHEET 40 OF 63



FILE NAME: I:\14596\mtn\p\lens\14596_curbdetn1a.dgn DATE/TIME: 10/12/2009 11:25:52 USER: 22552



TAYLOR ST

BLACK TEXT ON FLUORESCENT ORANGE BACKGROUND

SIGN DETAILS

DETOUR NOTES:

1. SEE SHT. 43 FOR TEMPORARY TRAFFIC SIGNAL PLAN AT STATE STREET AND TAYLOR STREET AND FOR DETAILS FOR EXISTING SIGNAL ADJUSTMENTS THAT ARE REQUIRED DURING CONSTRUCTION.
2. ANY EXISTING SIGNS THAT DIRECTLY CONFLICT WITH THE TRAFFIC PATTERNS ESTABLISHED BY THE DETOUR SHALL BE COVERED FOR THE DURATION OF THE DETOUR. SIGNS SHALL BE COVERED WITH DURABLE MATERIAL AS DIRECTED BY THE RESIDENT ENGINEER, AND THE COST SHALL BE INCIDENTAL TO ITEM 641.10 TRAFFIC CONTROL.
3. ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT (NCHRP) COMPLIANT.
4. SEE TRAFFIC CONTROL AND DETOUR NOTES ON SHT. 26 FOR ADDITIONAL INFORMATION.
5. THE CONTRACTOR SHALL REMOVE THE EXISTING "LEFT TURN YIELD ON GREEN" (R10-12) SIGN LOCATED ON THE EXISTING SPAN WIRE AND REPLACE IT WITH THE "NO LEFT TURN SIGN" (R3-2) PRIOR TO CLOSING TAYLOR STREET. THE CONTRACTOR SHALL REINSTALL THE "LEFT TURN YIELD ON GREEN" (R10-12) SIGN PRIOR TO OPENING TAYLOR STREET TO TRAFFIC.
6. THE CONTRACTOR SHALL INSTALL A NO RIGHT TURN SIGN (R3-1) ON THE EXISTING SPAN WIRE PRIOR TO CLOSING TAYLOR STREET. THE CONTRACTOR SHALL REMOVE THIS SIGN PRIOR TO OPENING TAYLOR STREET TO TRAFFIC.

7. THE CONTRACTOR SHALL OBSCURE THE EXISTING LANE USE ARROWS THAT CORRESPOND TO MOVEMENTS THAT ARE NOT ALLOWED WHEN TAYLOR STREET IS CLOSED. PAYMENT SHALL BE MADE UNDER ITEM 646.86.
8. THE CONTRACTOR SHALL REMOVE THE EXISTING BUS STATION (I-6) AND ITS SUPPLEMENTAL ARROW (M7-1) SIGN AND INSTALL THEM ON A NEW POST LOCATED AT A POINT WEST OF THE MEMORIAL DRIVE INTERSECTION WITH BAILEY AVENUE PRIOR TO CLOSING TAYLOR STREET TO TRAFFIC. THE CONTRACTOR SHALL REINSTALL THE BUS STATION (I-6) AND ARROW (M7-1) SIGNS TO A LOCATION WEST OF THE MEMORIAL DRIVE INTERSECTION WITH TAYLOR STREET PRIOR TO OPENING TAYLOR STREET TO TRAFFIC. PAYMENT SHALL BE INCIDENTAL TO ITEM 641.10 TRAFFIC CONTROL.

TEMPORARY TRAFFIC DETOUR PLAN

PROJECT NAME: MONTPELIER	FILE NAME: \$FILES\$	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	DESIGNED BY: SUSAN SCRIBNER	DRAWN BY: D. D'AMATO
	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	CHECKED BY: P. PERKINS
		SHEET 42 OF 63

FILE NAME: \\s:\14596\m\m\vt\p\lens\14596.dctour.dgn
DATE/TIME: 10/12/2009 11:52:00
USER: P2552



LEFT TURN YIELD ON GREEN
O/H SEE NOTE 5

R3-1
24" x 24"
O/H SEE NOTE 6

R3-2
24" x 24"
O/H SEE NOTE 5

SEE NOTE 2
EXISTING SIGNAL ADJUSTMENT REQUIRED
SEE NOTE 1

SEE NOTE 8
I-6
M7-1
EXISTING SIGNS MOUNTED ON UTILITY POLE

EXISTING SIGNAL ADJUSTMENT REQUIRED
SEE SHT. 43 FOR DETAILS

SEE SHEET 44 FOR PEDESTRIAN DETOUR DETAILS AND ADDITIONAL SIGN PLACEMENT ON THE CONSTRUCTION AREA APPROACHES

APPROXIMATE CONSTRUCTION AREA
R11-2
48" x 30"

ROAD CLOSED

BRIDGE CLOSED

BRIDGE CLOSED

R11-4
60" x 30"
ROAD CLOSED TO THRU TRAFFIC

DETOUR

M4-10R
48" x 30"

D1-1c
30" x 9"

TAYLOR ST

M4-8a
24" x 18"

END DETOUR

D1-1c
30" x 9"

TAYLOR ST

END DETOUR

M4-8a
24" x 18"

D1-1c
30" x 9"
TAYLOR ST
DETOUR

M4-9L
30" x 24"

D1-1c
30" x 9"
TAYLOR ST
DETOUR

M4-9R
30" x 24"

VR-923
30" x 30"
SEE NOTE 2

D1-1c
30" x 9"
TAYLOR ST
DETOUR

M4-9
30" x 24"

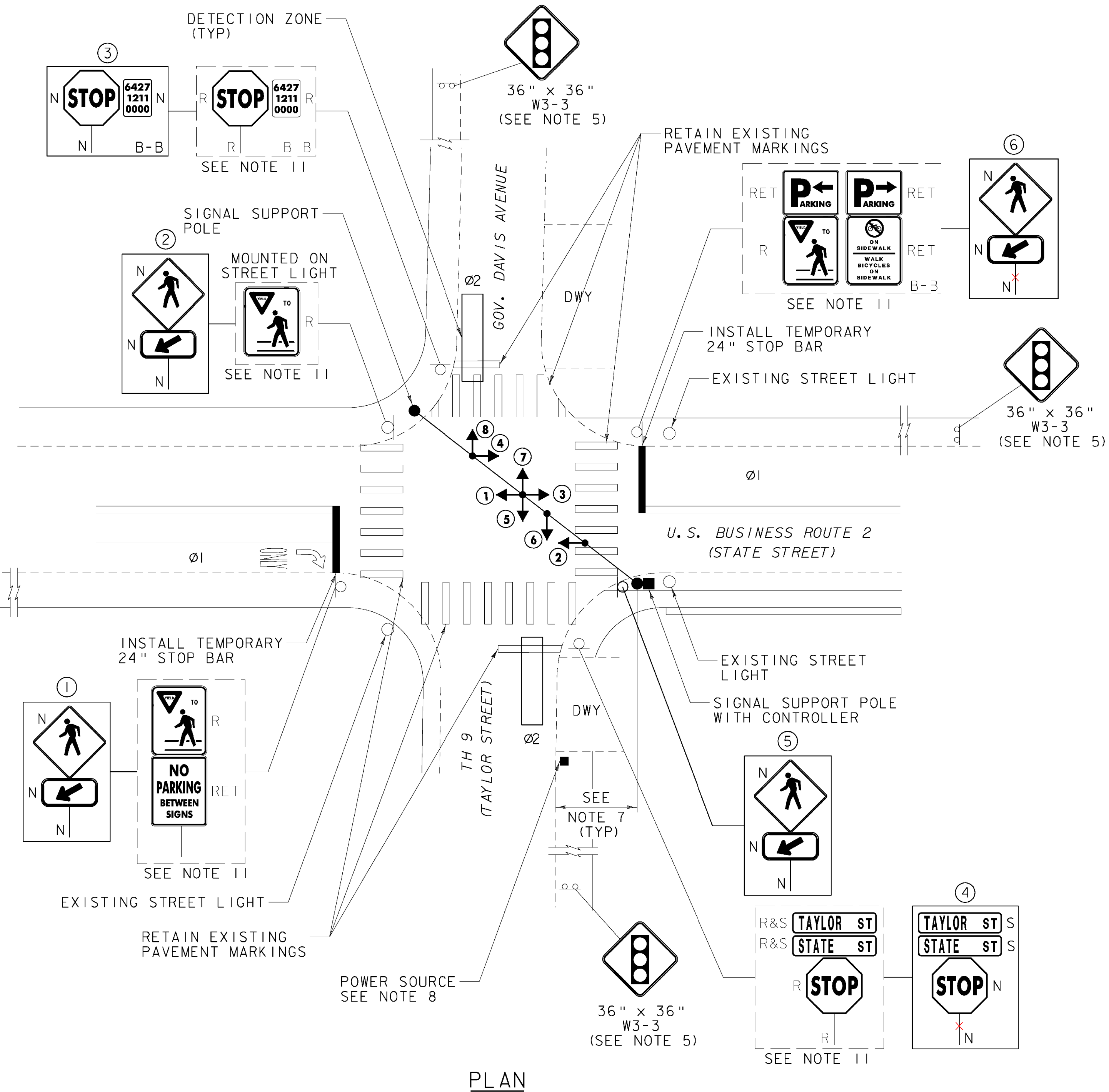
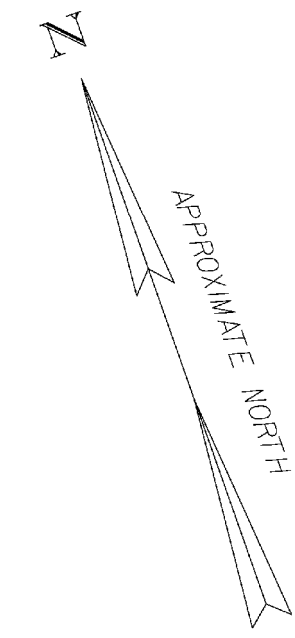
D1-1c
30" x 9"
TAYLOR ST
END DETOUR

M4-8a
24" x 18"

R10-12
24" x 30"

NOT TO SCALE

FILE NAME: h:\14560\m\un\pl\enn\1\st\14560\mp2.dgn
 DATE/TIME: 10/12/2009
 USER: p2552



TEMPORARY TRAFFIC SIGNAL NOTES:

1. THIS TEMPORARY SIGNAL PLAN IS NOT TO SCALE AND SHALL ONLY BE USED AS A GUIDE. A PLAN SHOWING THE SPECIFIC EQUIPMENT USED AND ITS EXACT LOCATION SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL IN ACCORDANCE WITH SECTION 678 OF THE STANDARD SPECIFICATIONS.
2. PAYMENT FOR THE INSTALLATION AND REMOVAL OF ALL TEMPORARY TRAFFIC SIGNAL EQUIPMENT, STRUCTURAL SUPPORTS, AND APPURTENANCES THAT ARE REQUIRED FOR A FULLY OPERATIONAL TEMPORARY TRAFFIC SIGNAL SYSTEM SHALL BE MADE UNDER ITEM 678.40 TEMPORARY TRAFFIC SIGNAL SYSTEM PER SECTION 678 OF THE STANDARD SPECIFICATIONS.
3. ALL EQUIPMENT FOR THE TEMPORARY TRAFFIC SIGNAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 678.12 OF THE STANDARD SPECIFICATIONS.
4. VEHICLE DETECTION SHALL BE PROVIDED FOR TAYLOR STREET AND GOV. DAVIS AVENUE APPROACHES. PAYMENT SHALL BE INCIDENTAL TO ITEM 678.40 TEMPORARY TRAFFIC SIGNAL SYSTEM.
5. TEMPORARY ADVANCE WARNING "SIGNAL AHEAD" SIGNS SHALL BE PROVIDED ON ALL APPROACHES IN ACCORDANCE WITH THE LATEST MUTCD STANDARDS OR AS DIRECTED BY THE RESIDENT ENGINEER. THESE SIGNS SHALL COMPLY WITH THE LATEST MUTCD STANDARDS FOR A W3-3 SIGN WITH DIMENSIONS OF 36" X 36". SIGNS SHALL BE SET BACK A MINIMUM OF 100' FROM STOP BAR.
6. EACH APPROACH SHALL HAVE DUAL INDICATIONS WITH 12 INCH DIAMETER LENSES. HEIGHT AND DISTANCE BETWEEN SIGNALS SHALL BE IN ACCORDANCE WITH CHAPTER 4 OF THE LATEST MUTCD, AND VAOT STANDARD SHEET E-171A.
7. ALL POLES SHALL BE LOCATED A MINIMUM OF 2 FEET OFF THE FACE OF CURB OR AS DIRECTED BY THE RESIDENT ENGINEER.
8. EXACT LOCATION OF POWER SOURCE CONNECTION SHALL BE DETERMINED IN THE FIELD THROUGH COORDINATION WITH THE UTILITY COMPANY SUPPLYING POWER.
9. THERE ARE EXISTING UNDERGROUND UTILITIES LOCATED AT THE TAYLOR STREET AND STATE STREET INTERSECTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 1-888-344-7233 AND THE CITY OF MONTPELIER AT 802-223-9508 TO DETERMINE THE LOCATIONS OF THESE UTILITIES PRIOR TO PERFORMING ANY SUBSURFACE OPERATIONS.
10. REFER TO TRAFFIC CONTROL AND DETOUR NOTES ON SHT. 26 FOR ADDITIONAL INFORMATION.
11. EXISTING SIGNS AT LOCATIONS ①, ②, ③, ④, ⑤ AND ⑥ SHALL BE REMOVED UPON ACTIVATION OF THE PROPOSED TEMPORARY TRAFFIC SIGNAL. PROPOSED SIGNS AT LOCATIONS ①, ②, ③, ④, ⑤ AND ⑥ SHALL BE INSTALLED AND COMPLETELY COVERED PRIOR TO THE DEACTIVATION OF THE TEMPORARY TRAFFIC SIGNAL. PROPOSED SIGNS AT LOCATIONS ①, ②, ③, ④, ⑤ AND ⑥ SHALL BE UNCOVERED UPON REMOVAL OF THE TEMPORARY TRAFFIC SIGNAL. ALL EXISTING SIGNS THAT ARE NOT SHOWN ON THE PLAN SHALL BE RETAINED UNLESS DIRECTED OTHERWISE BY THE RESIDENT ENGINEER.

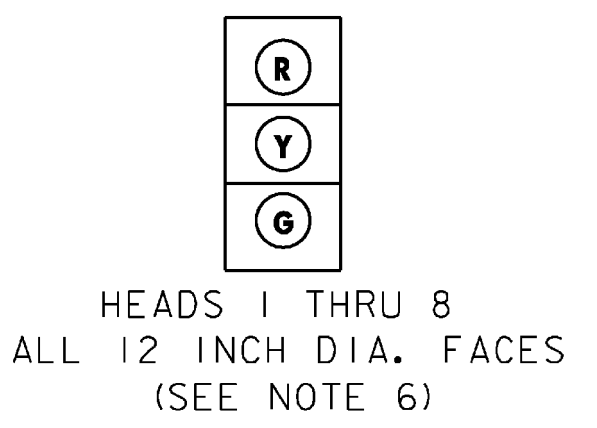
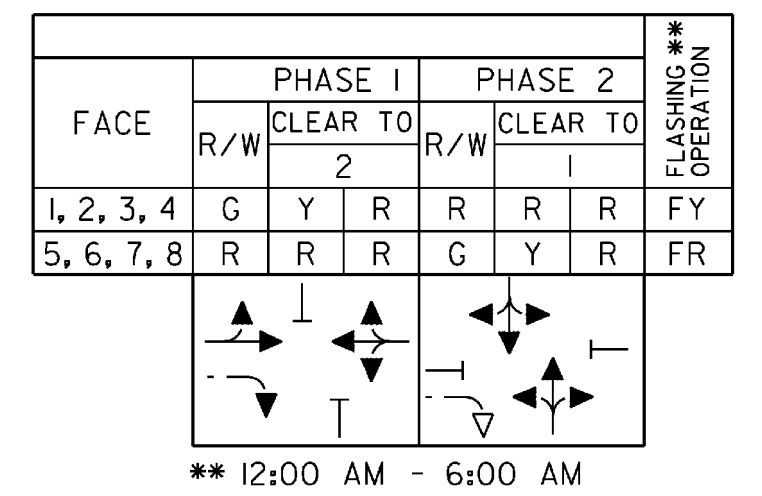
EXISTING TRAFFIC SIGNAL TEMPORARY ADJUSTMENTS

1. MODIFY SIGNAL TIMINGS AT THE MEMORIAL DRIVE AND BAILEY AVENUE SIGNAL AS FOLLOWS DURING CONSTRUCTION:
 - EB TH/LT (01): MAX II = 10 SEC.
 - EB/WB (02): MAX II = 22 SEC.
 - SB TH (03): MAX II = 10 SEC.
2. EXISTING TRAFFIC SIGNAL PHASING AT THE INTERSECTION OF TAYLOR STREET AND U.S. ROUTE 2 (MEMORIAL DRIVE) SHALL BE MODIFIED DURING THE TAYLOR STREET CLOSURE TO BE FLASHING YELLOW ON THE U.S. ROUTE 2 (MEMORIAL DRIVE) APPROACHES AND FLASHING RED ON TAYLOR STREET.

- SIGN LEGEND**
- R = REMOVE
 - S = SALVAGE
 - N = NEW
 - RET = RETAIN
 - B-B = BACK TO BACK
 - EXISTING = _____
 - NEW = _____

675.50 REMOVING SIGNS
 AS SHOWN - 8
 675.60 ERECTING SALVAGED SIGNS
 AS SHOWN - 2

TABLE OF OPERATIONS									
LOCAL PROGRAMMING	PHASE								
	1	2	3	4	5	6	7	8	9
MINIMUM GREEN	-	14							
EXTENSION	-	2							
YELLOW CLEARANCE	4	4							
ALL RED CLEARANCE	2	2							
MAX. GREEN I	32	20							
MAX. GREEN II	32	20							
WALK	-	-							
FLASHING DON'T WALK	-	-							
RECALL	MAX	MIN							
MEMORY	NL	L							



TEMPORARY TRAFFIC SIGNAL PLAN

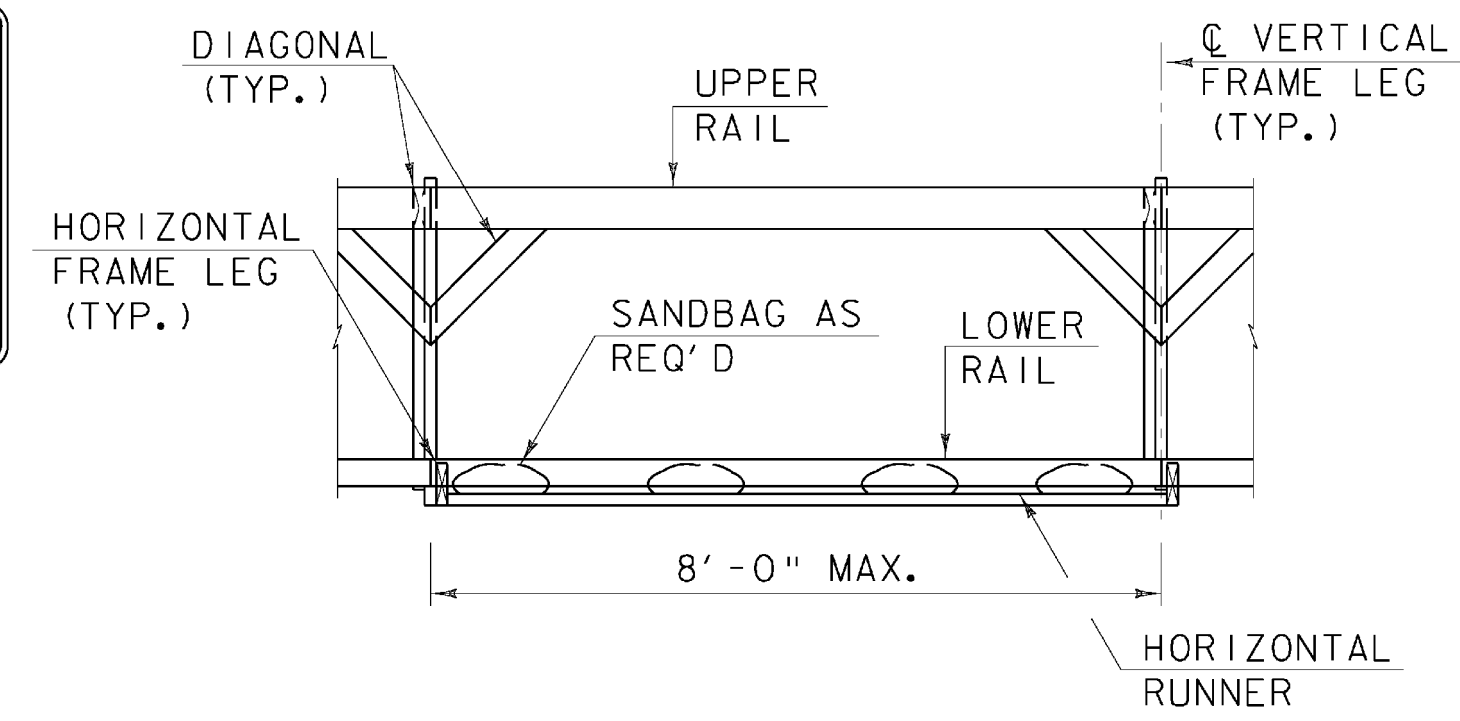
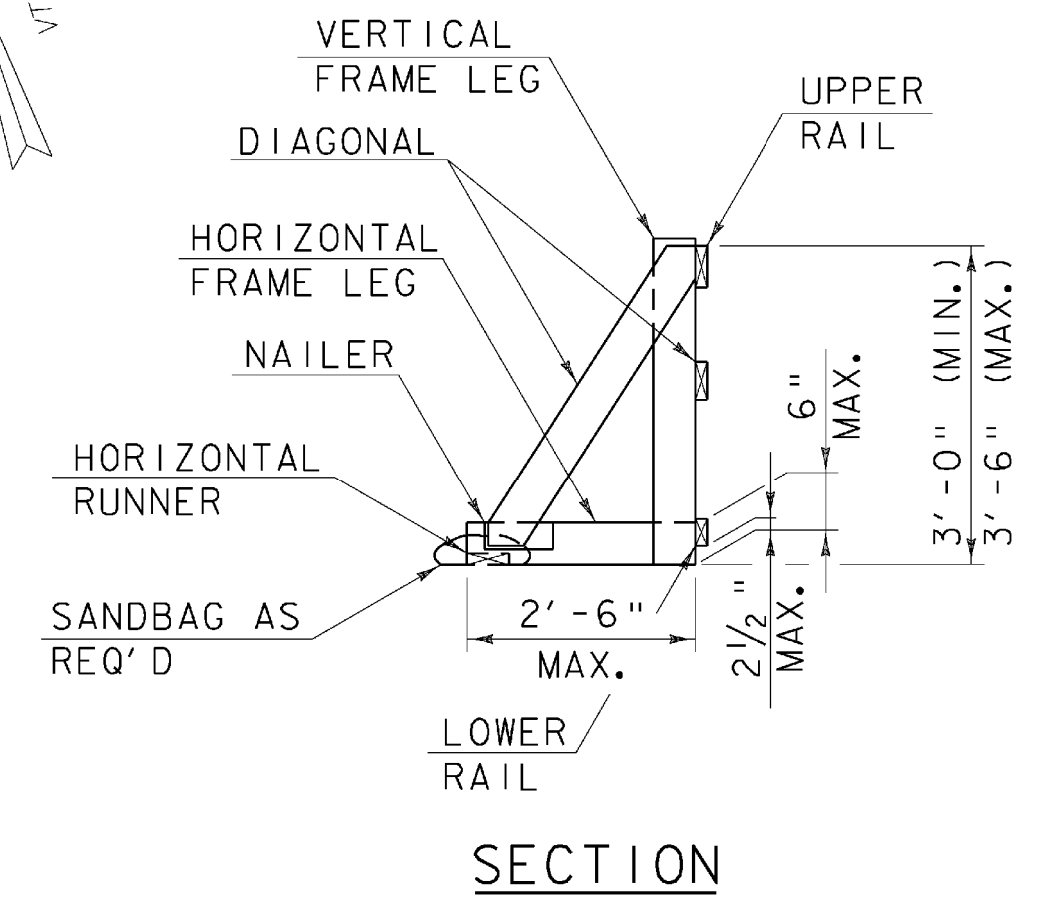
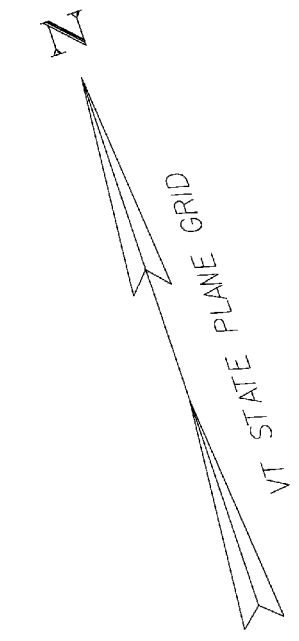
PROJECT NAME: MONTPELIER	PLOT DATE: 10/12/2009
PROJECT NUMBER: BHF 6400(31)	DRAWN BY: K. RAPELLO
FILE NAME: \$FILES\$	CHECKED BY: P. PERKINS
PROJECT MANAGER: SUSAN SCRIBNER	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD
DESIGNED BY: S. POWMAN	SHEET 43 OF 63



NOT TO SCALE

U.S. BUSINESS ROUTE 2 (STATE STREET)

1. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS ACROSS TAYLOR STREET ALONG U.S. ROUTE 2 (MEMORIAL DRIVE) THROUGHOUT CONSTRUCTION.
2. REMOVE GUARDRAIL BEAM ELEMENTS AS DIRECTED BY THE RESIDENT ENGINEER TO PROVIDE PASSAGE BETWEEN THE WINOOSKI WEST RECREATION PATH AND TEMPORARY PEDESTRIAN ROUTE. CONTRACTOR SHALL STORE BEAM ELEMENTS DURING CONSTRUCTION AND REINSTALL PRIOR TO OPENING THE PATH UPON CONSTRUCTION COMPLETION. ALL WORK REQUIRED TO REMOVE, STORE, AND REINSTALL GUARDRAIL BEAM ELEMENTS SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.10 TRAFFIC CONTROL.
3. ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT (NCHRP) 350 COMPLIANT.
4. ITEM 641.10 TRAFFIC CONTROL SHALL INCLUDE ALL WORK REQUIRED TO FABRICATE, INSTALL, MAINTAIN AND REMOVE THE TEMPORARY FENCE AS SHOWN. SEE TRAFFIC CONTROL AND DETOUR NOTES ON SHT. 26 FOR ADDITIONAL INFORMATION.



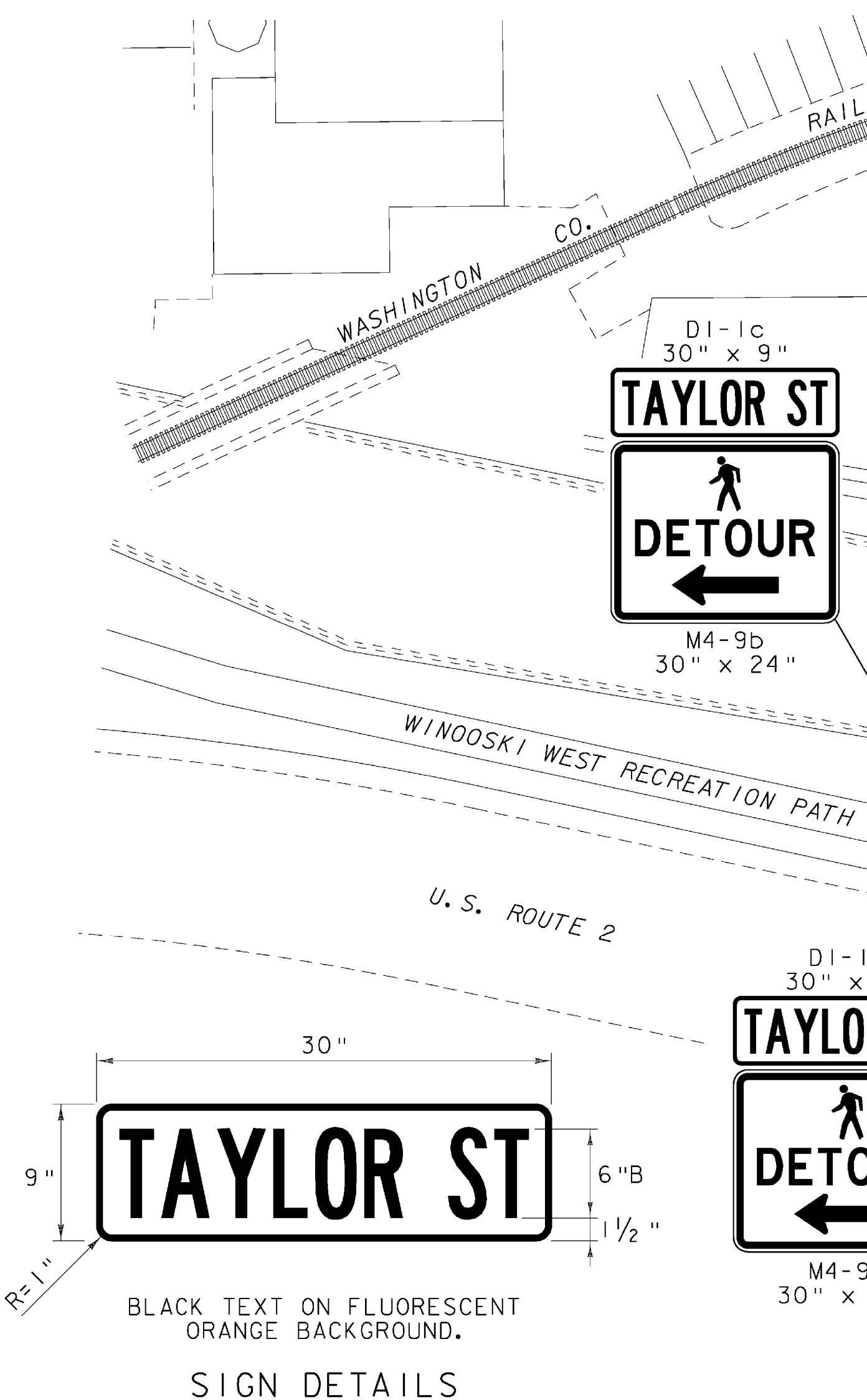
ELEVATION
TEMPORARY FENCE
DETAILS

LEGEND

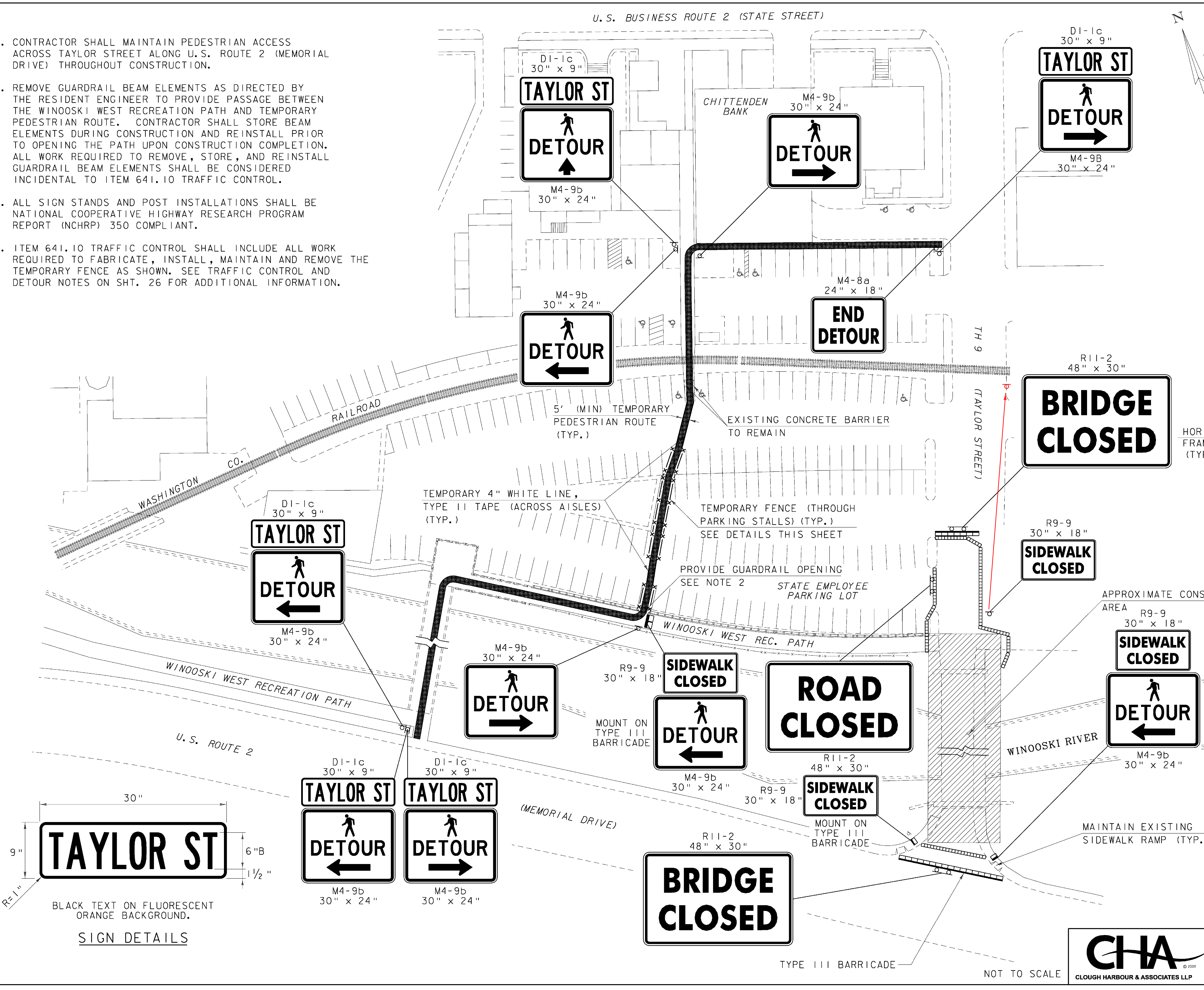
	TEMPORARY TRAFFIC BARRIER
	TYPE III BARRICADE
	TEMPORARY PEDESTRIAN ROUTE

TEMPORARY PEDESTRIAN DETOUR PLAN

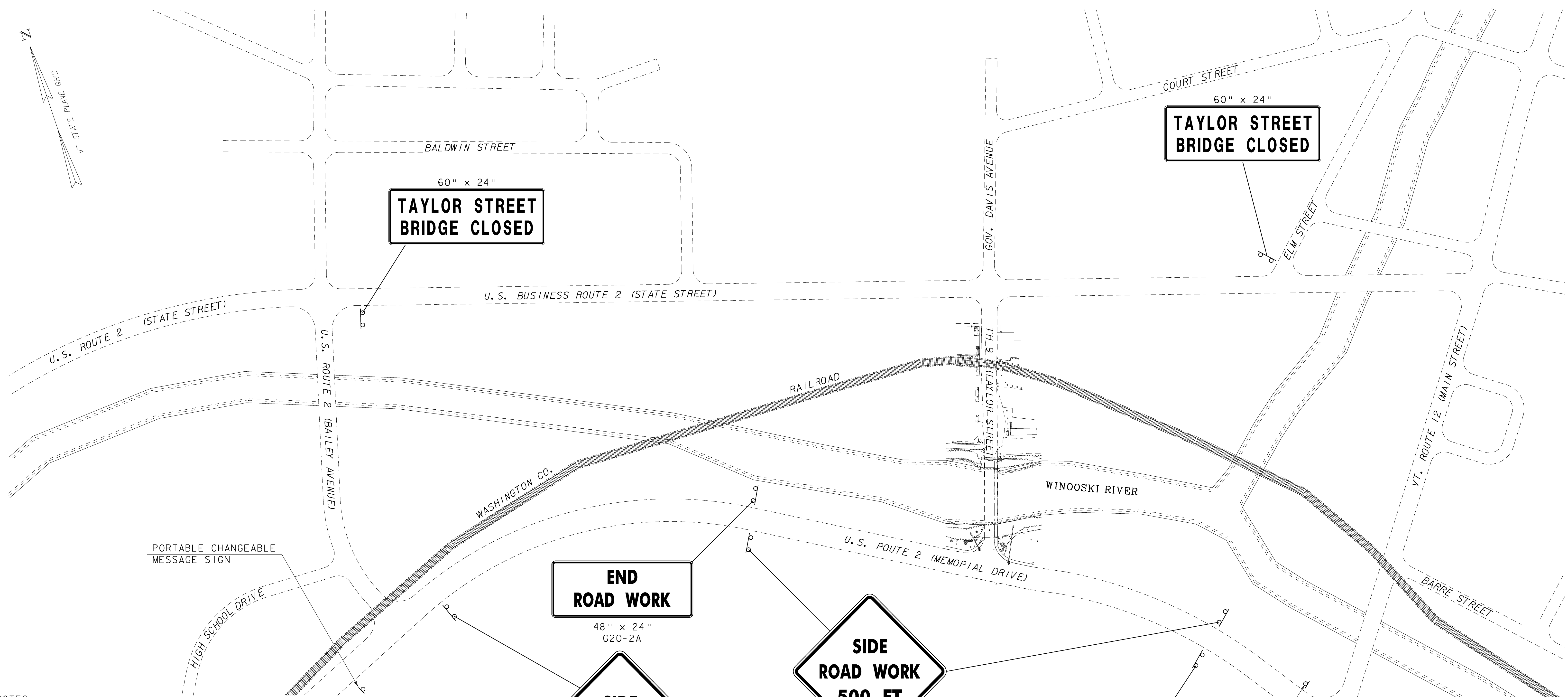
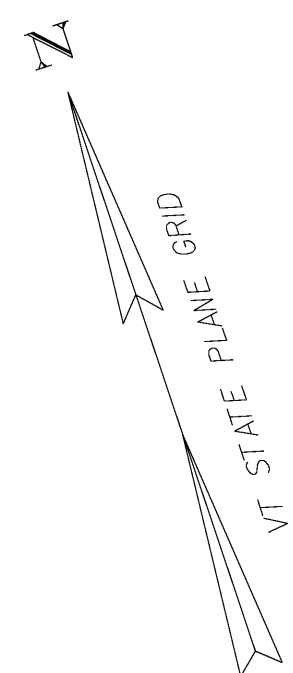
PROJECT NAME: MONTPELIER
 PROJECT NUMBER: BHF 6400(31)
 FILE NAME: \$FILES\$
 PROJECT MANAGER: SUSAN SCRIBNER
 DESIGNED BY: D. D'AMATO
 BRIDGE DESIGN SUPERVISOR: P. HALSTEAD
 PLOT DATE: 10/12/2009
 DRAWN BY: D. D'AMATO
 CHECKED BY: P. PERKINS
 SHEET 44 OF 63



FILE NAME: s:\14596\mstr\plans\2414596_detour.dgn
DATE: 10/26/09
USER: 2252



NOT TO SCALE



60" x 24"
**TAYLOR STREET
BRIDGE CLOSED**

60" x 24"
**TAYLOR STREET
BRIDGE CLOSED**

**END
ROAD WORK**

48" x 24"
G20-2A



48" x 48"
VC-839



48" x 48"
VC-839

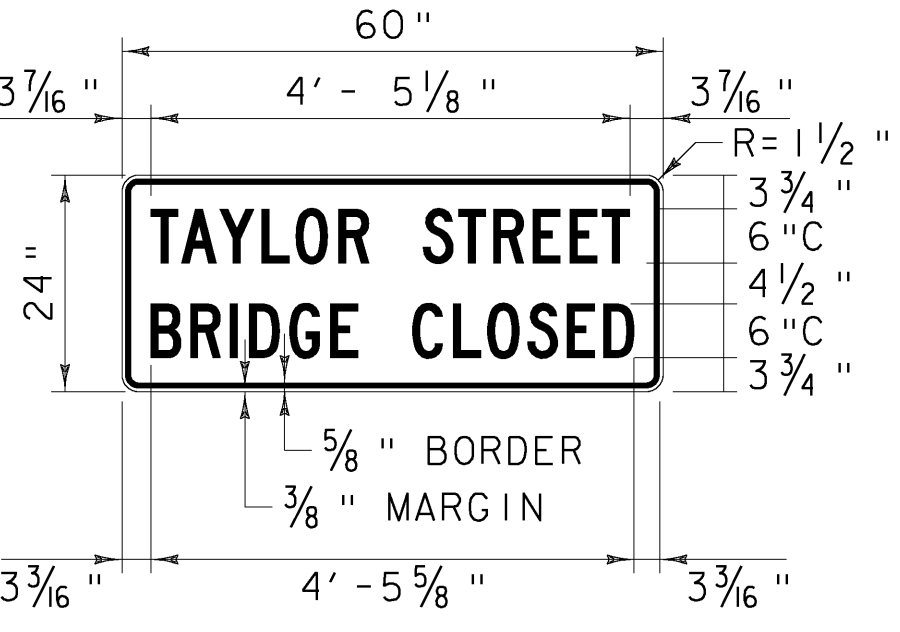
**END
ROAD WORK**

48" x 24"
G20-2A

PORTABLE CHANGEABLE
MESSAGE SIGN

NOTES:

1. SEE STANDARDS E-100 AND E-100A FOR ADDITIONAL SIGN PLACEMENT DETAILS.
2. CONSTRUCTION ZONE SIGN LAYOUT SHALL BE IN ACCORDANCE WITH PART 6 OF THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE-NEW CONDITION PER VAOT STANDARDS.
4. CONSTRUCTION SIGNS SHALL BE OF THE SIZES SHOWN ON THE PLAN WITH BLACK LEGENDS ON FLUORESCENT ORANGE BACKGROUNDS.
5. AS A MINIMUM, ROLL UP SIGN MATERIAL SHALL HAVE ASTM D 4956-01 TYPE VI FLUORESCENT ORANGE RETROREFLECTIVE SHEETING. ALL POST-MOUNTED SIGNS AND SOLID SUBSTRATE PORTABLE SIGNS SHALL HAVE ASTM D 4956-01 TYPE VII, TYPE VIII OR TYPE IX FLUORESCENT ORANGE RETROREFLECTIVE SHEETING.
6. ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT (NCHRP) 350 COMPLIANT.
7. PORTABLE CHANGEABLE MESSAGE SIGNS ARE TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.
8. PAYMENT FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL CONSTRUCTION SIGNS SHALL BE MADE UNDER ITEM 641.10 TRAFFIC CONTROL.



COLOR & MATERIALS PER
VAOT STD. E-100
SIGN DETAILS

CONSTRUCTION APPROACH SIGNING

PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

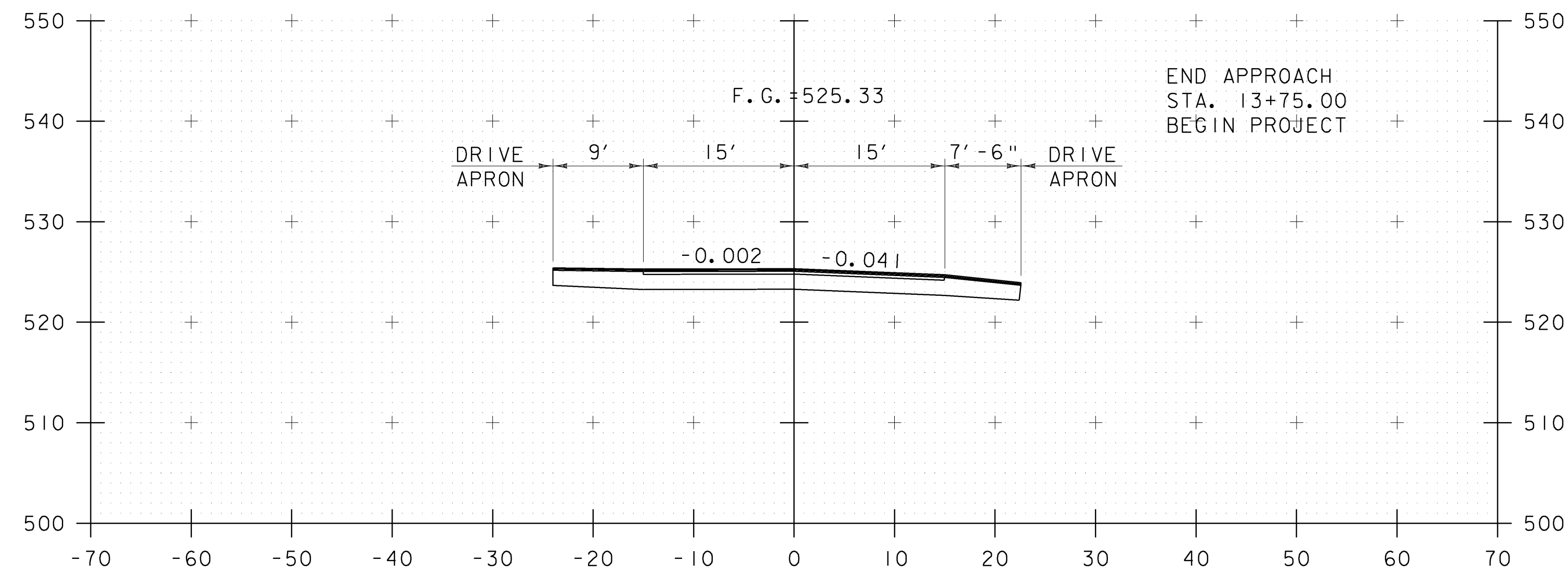
FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 45 OF 63

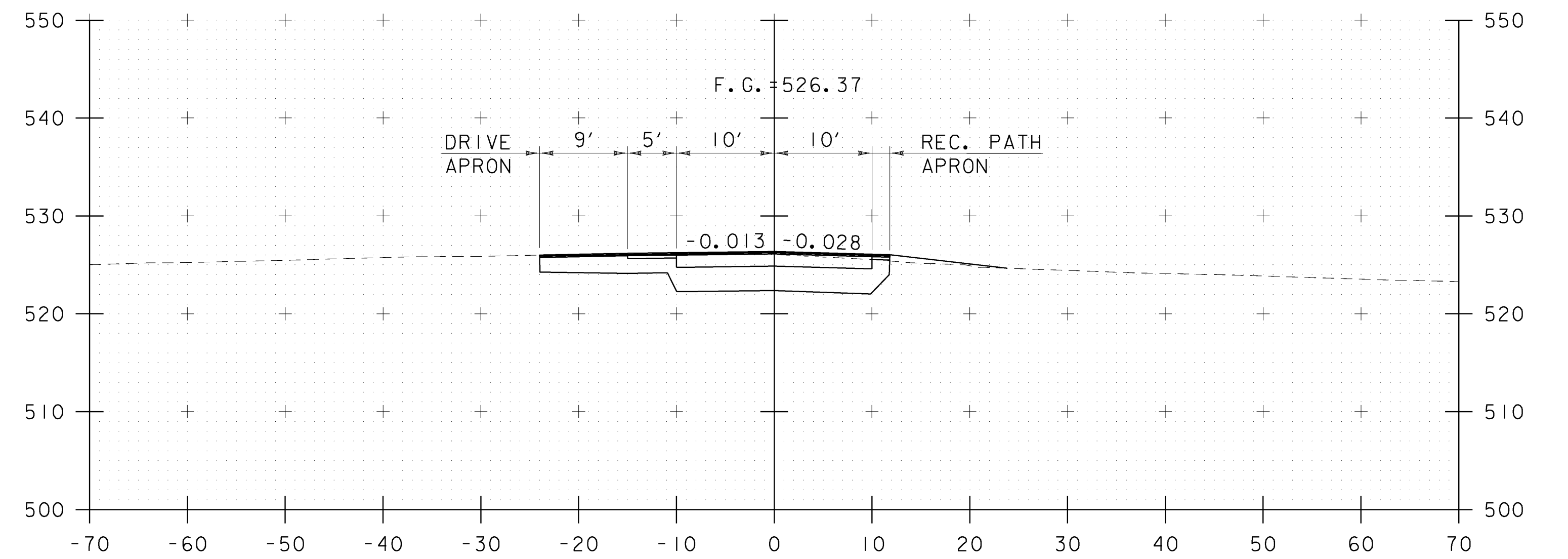


NOT TO SCALE

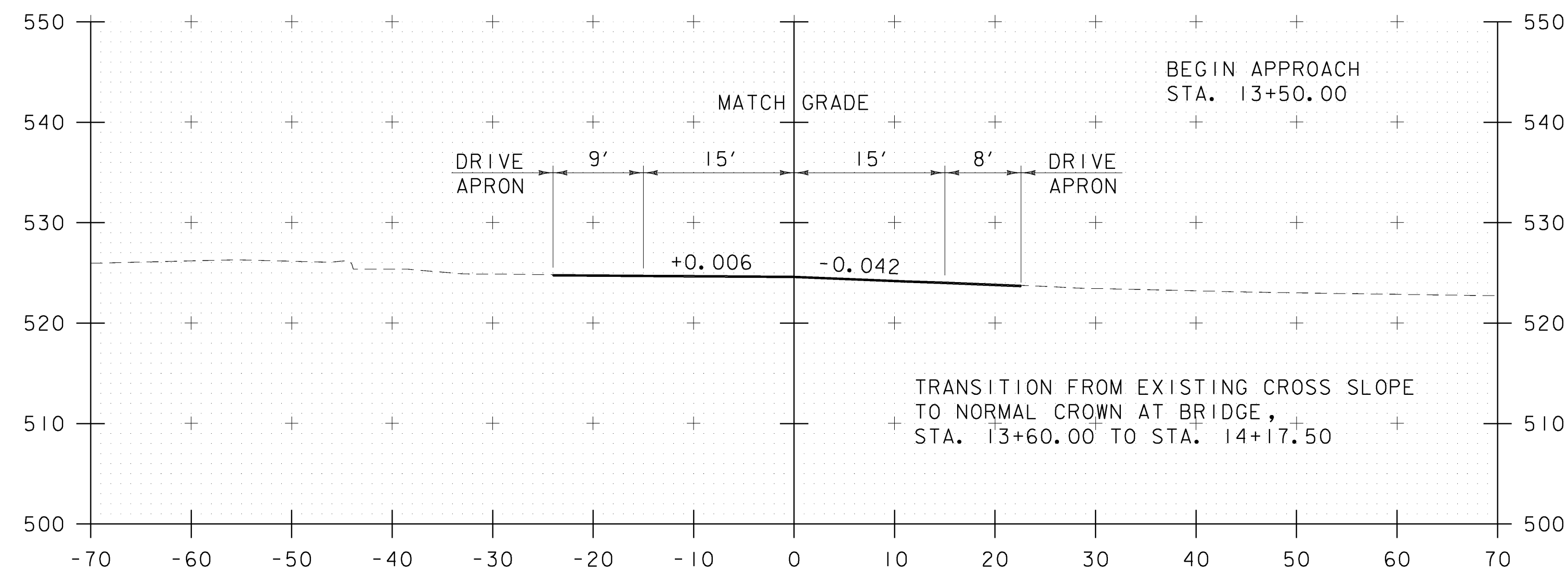
FILE NAME: h:\14596\m\vt\p\lens\14596.cas.dgn
DATE/TIME: 10/12/2009
USER: 22562



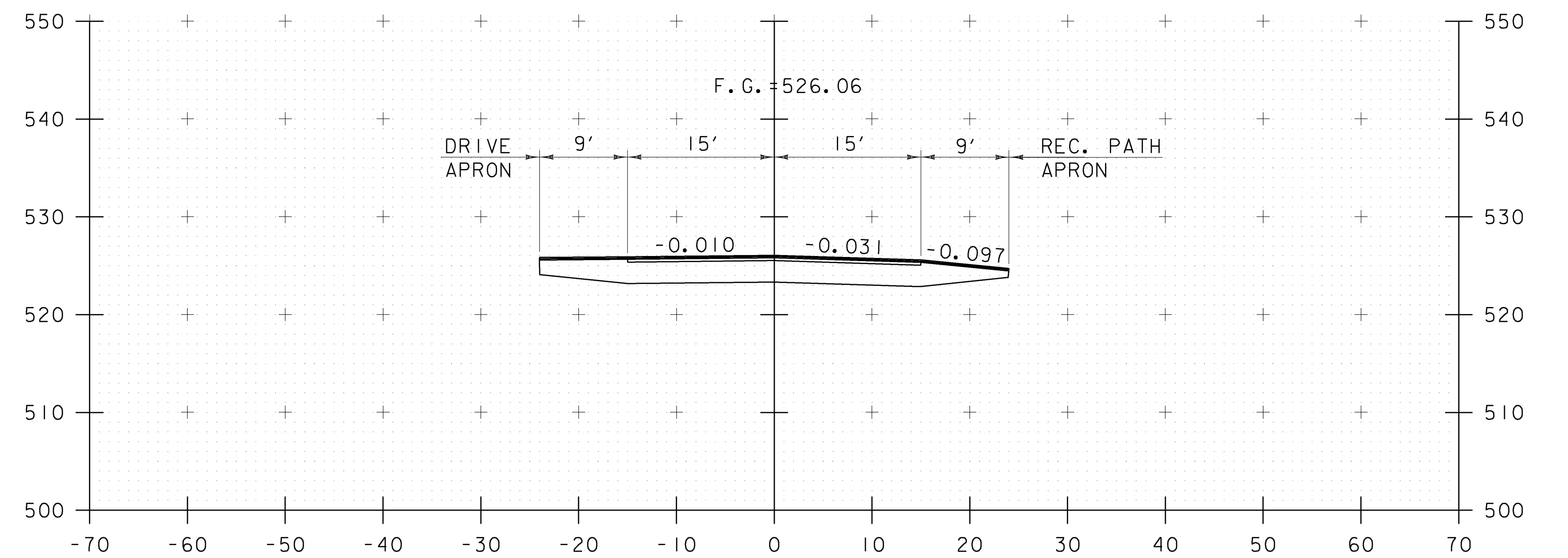
13+75



14+00



13+50



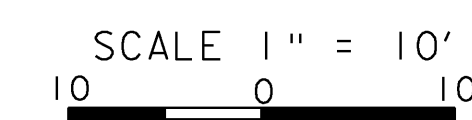
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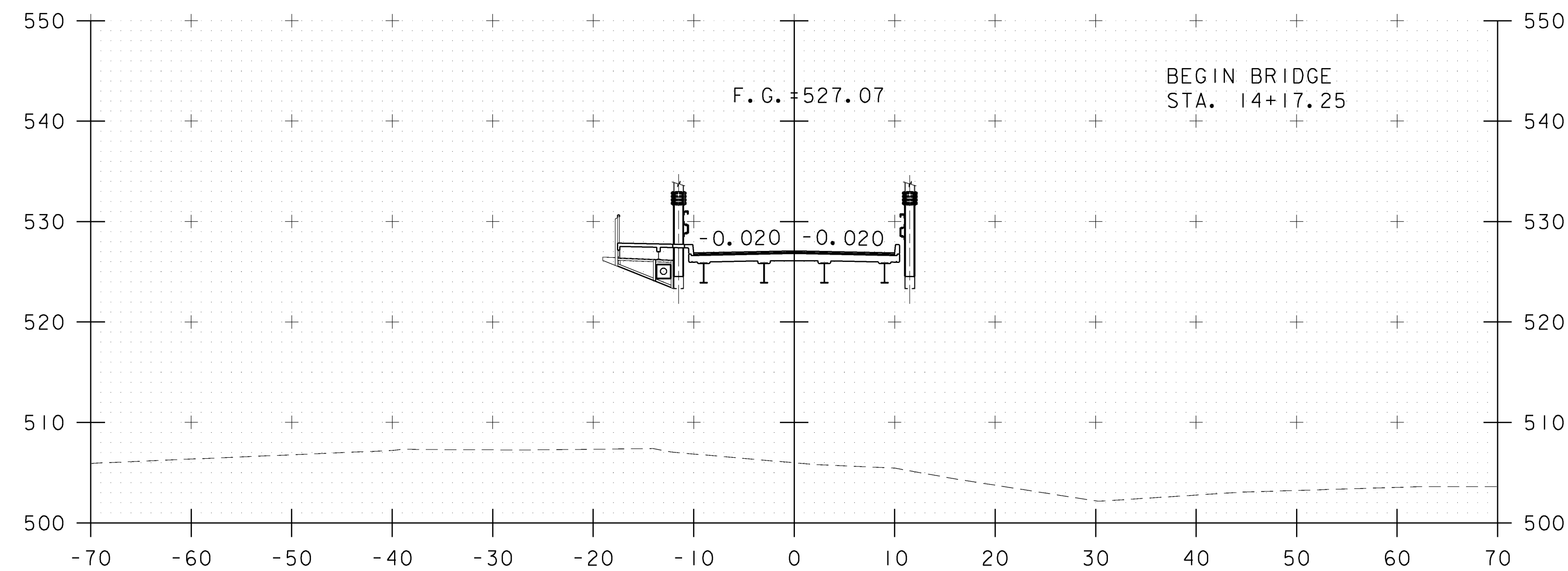
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PROJECT NAME: MONTPELIER
PROJECT NUMBER: BHF 6400(31)

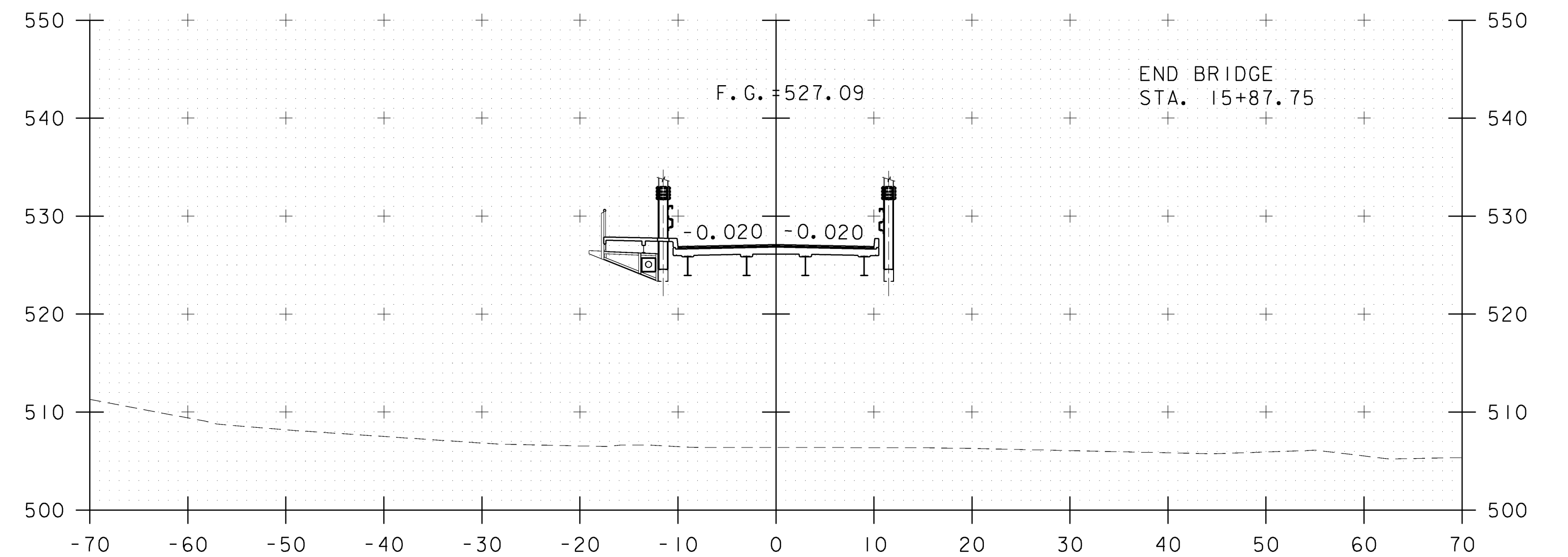
FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 46 OF 63

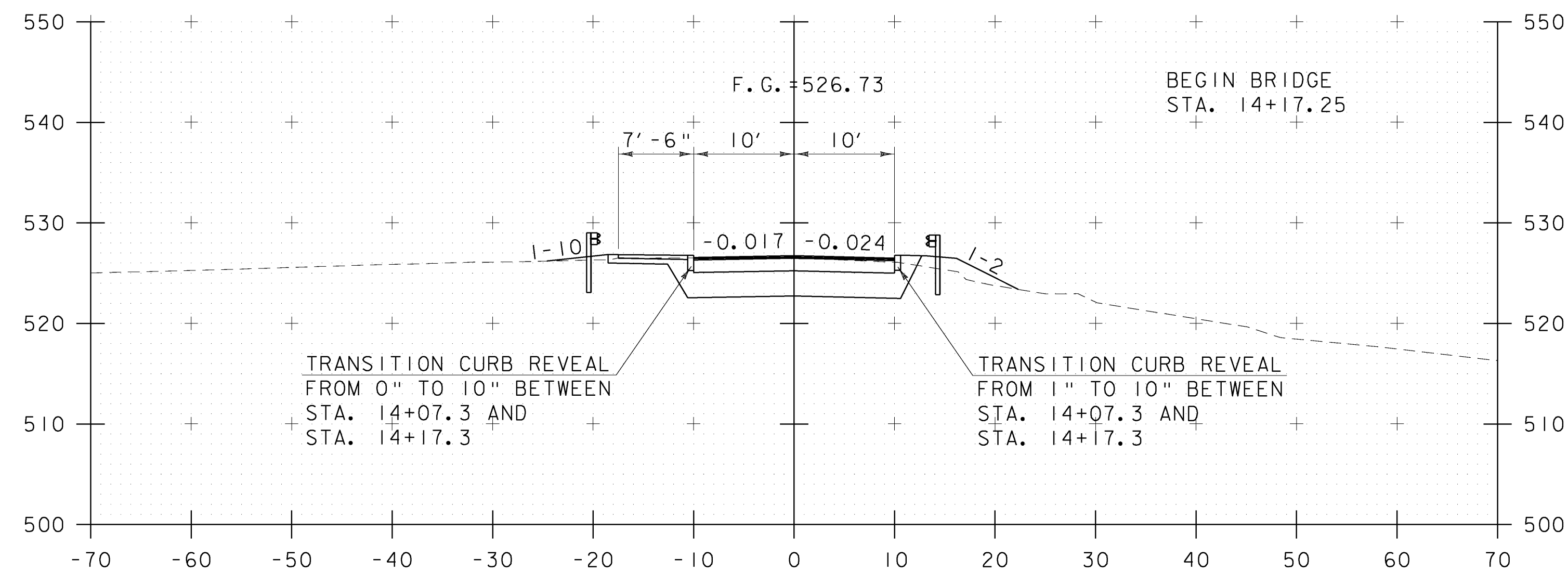




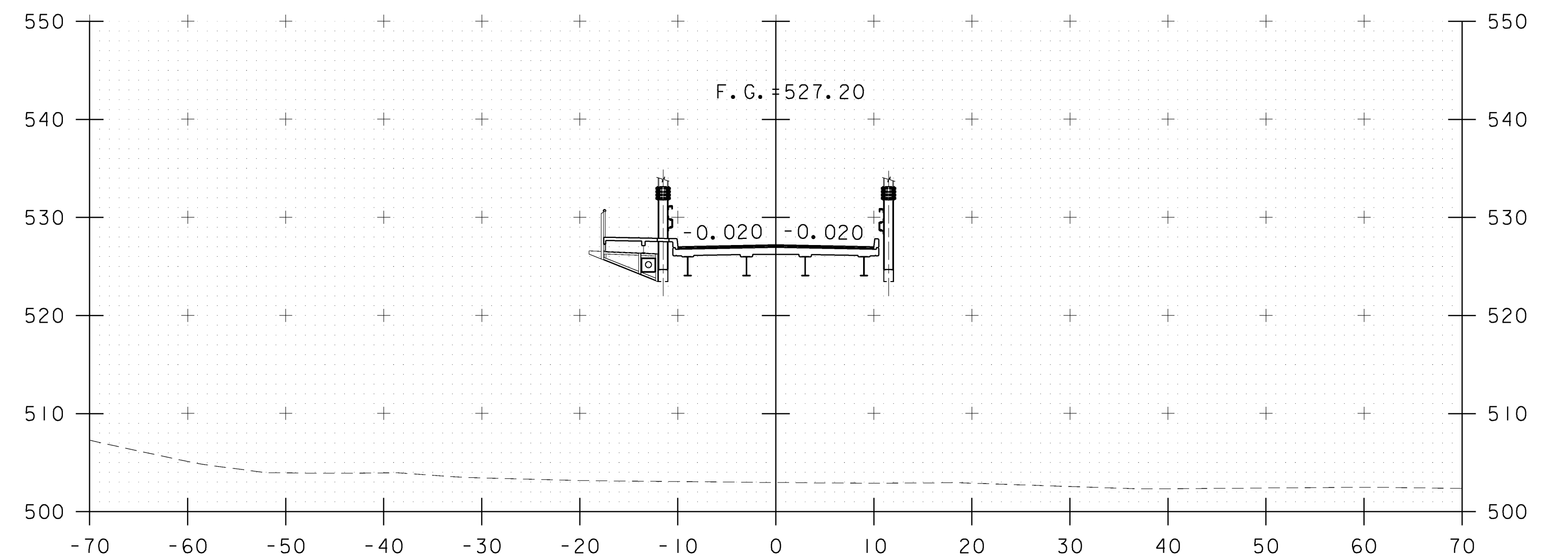
14+50



15+50



14+10



15+00

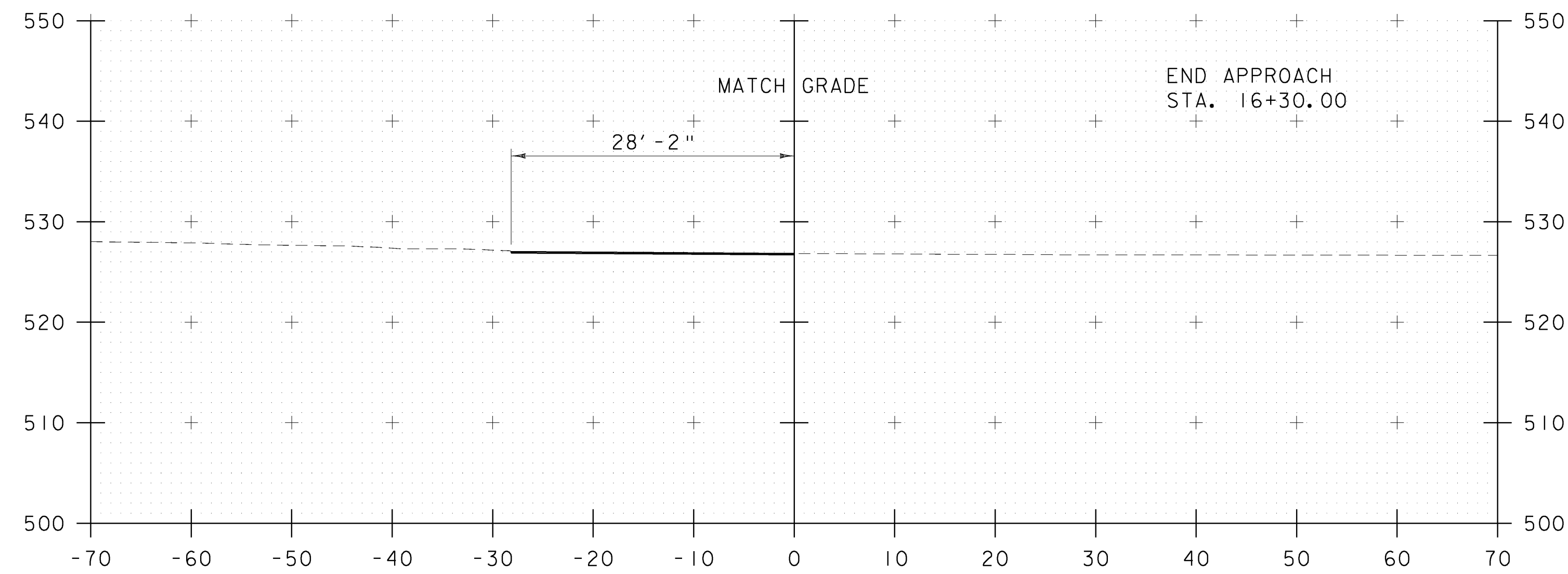
CROSS SECTIONS (2)

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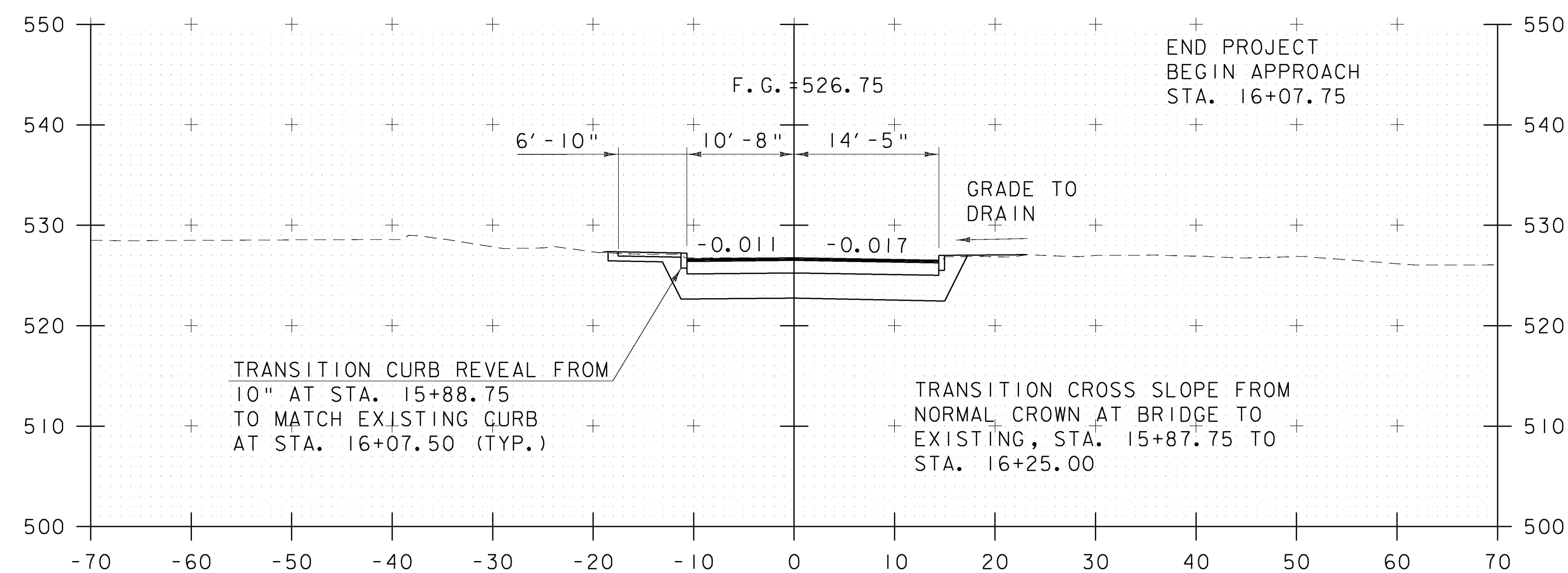
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PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 47 OF 63





16+30



16+00

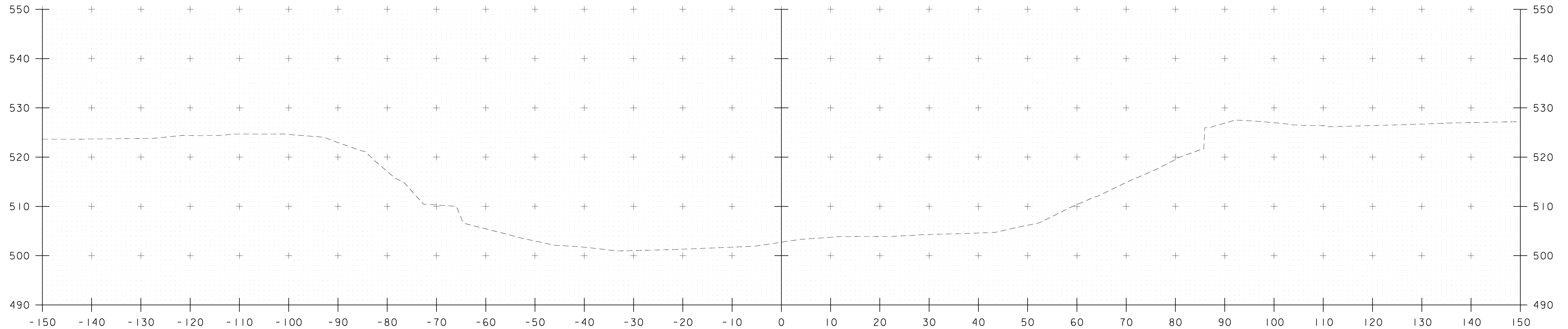
CROSS SECTIONS (3)

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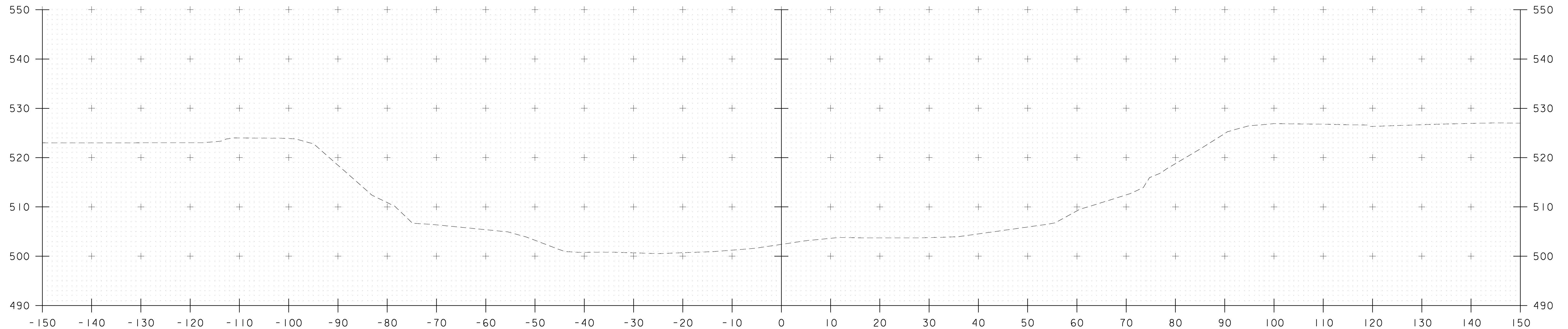
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PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD

PLOT DATE: 10/12/2009
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 48 OF 63





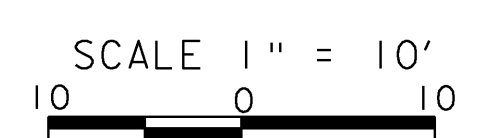
20+75



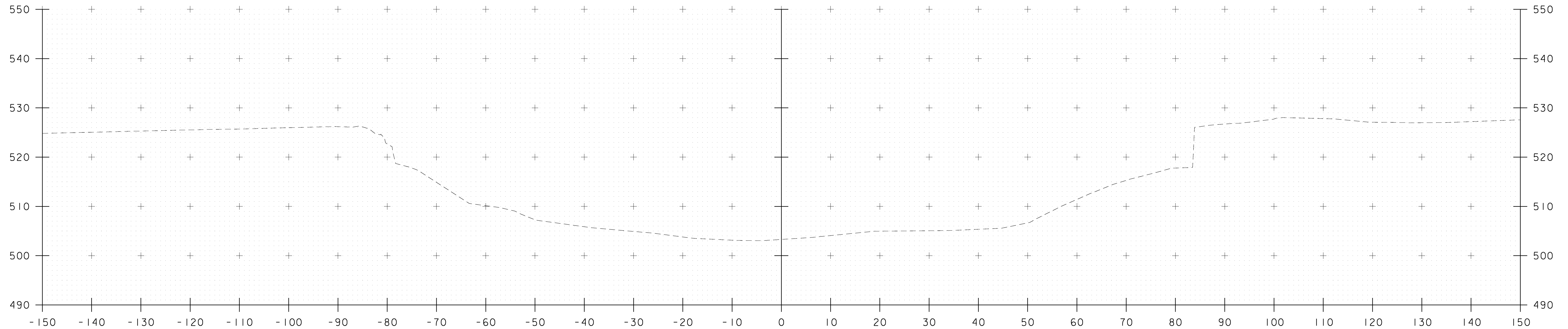
20+50

CHANNEL CROSS SECTIONS (I)

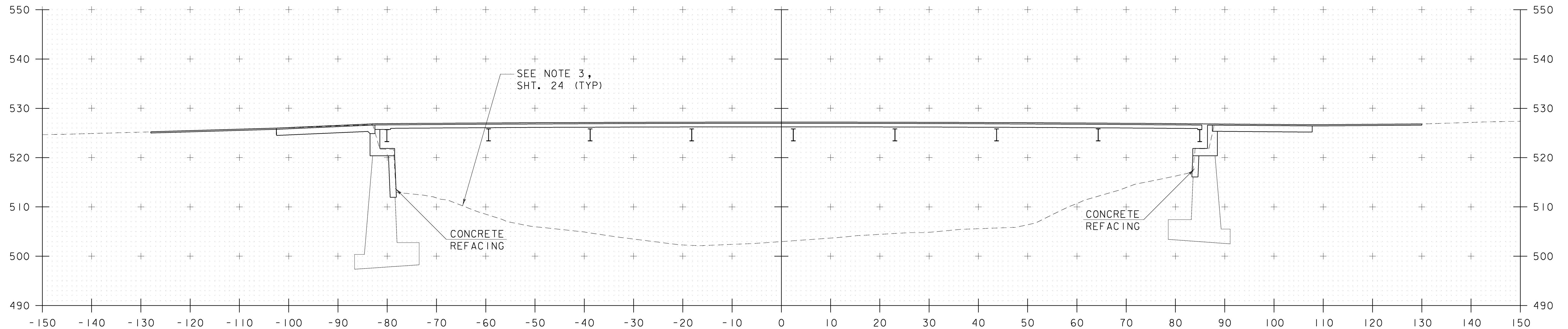
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PROJECT NUMBER: BHF 6400(31)	DRAWN BY: D. D'AMATO
FILE NAME: \$FILES\$	CHECKED BY: P. PERKINS
PROJECT MANAGER: SUSAN SCRIBNER	SHEET 49 OF 63
DESIGNED BY: D. D'AMATO	
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD	



FILE NAME: h:\14596\mtn\p\lona\14596_xsc.dgn
 DATE/TIME: 10/12/2009
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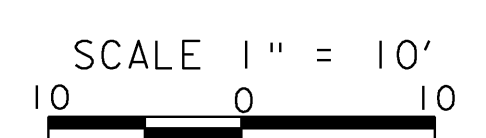
21+25



21+00

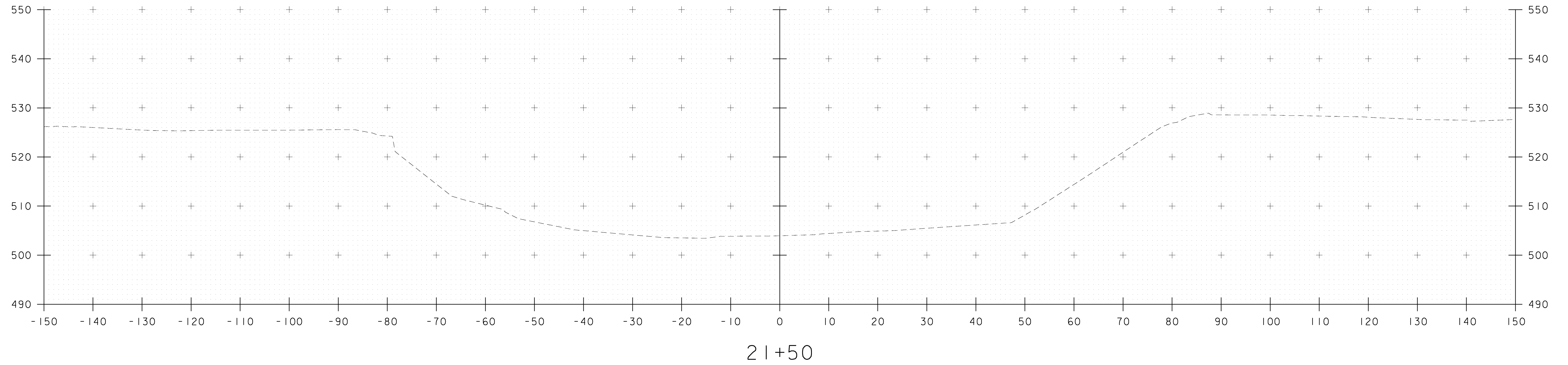
CHANNEL CROSS SECTIONS (2)

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PROJECT NUMBER: BHF 6400(31)		DRAWN BY: D. D'AMATO	
FILE NAME: \$FILES\$	DESIGNED BY: D. D'AMATO	CHECKED BY: P. PERKINS	SHEET 50 OF 63
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD			



FILE NAME: h:\14596\mtn\p\lona\14596_xsc.dgn
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 USER: 2252

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DATE/TIME: 10/12/2009
USER: 2552

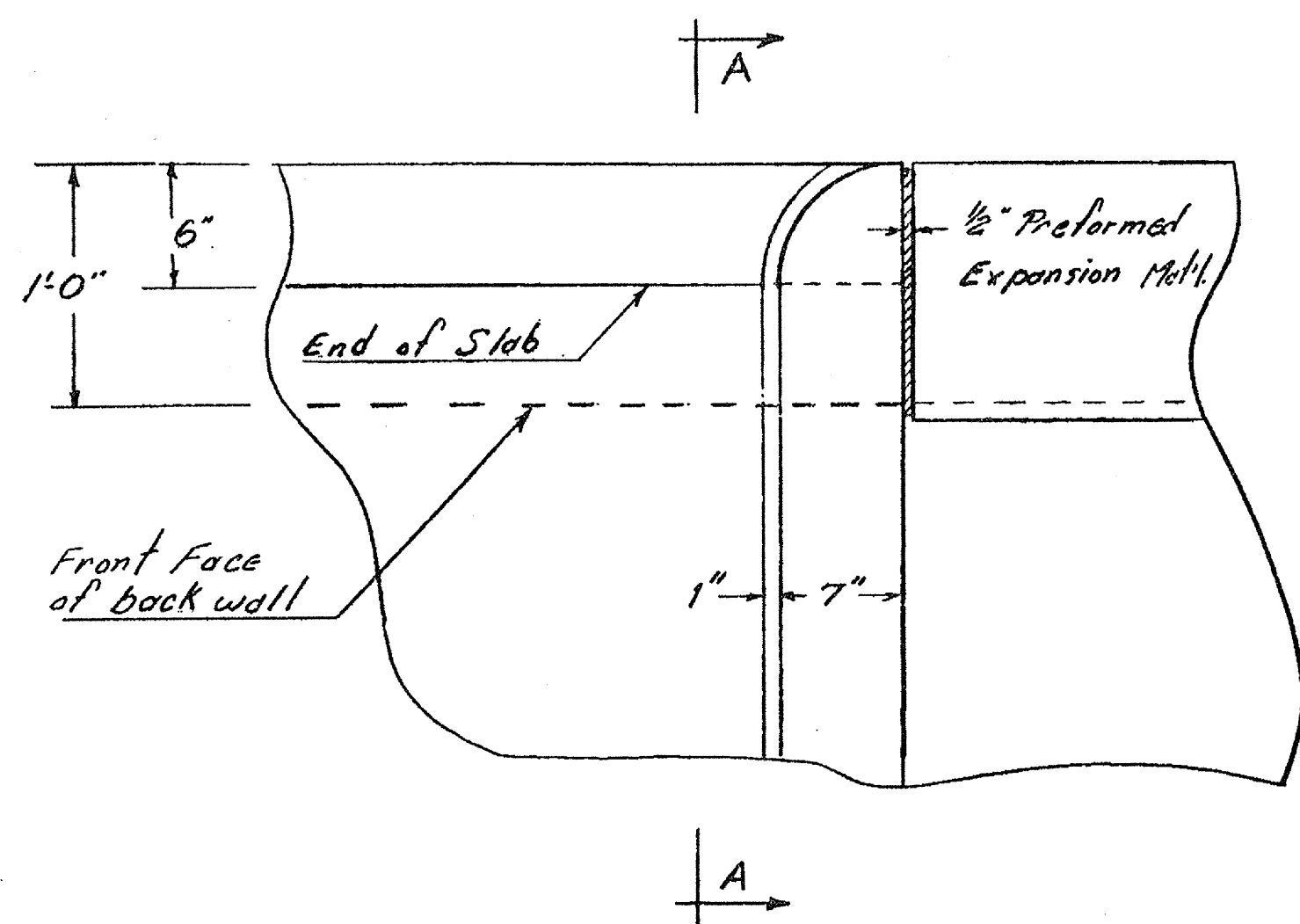


CHANNEL CROSS SECTIONS (3)

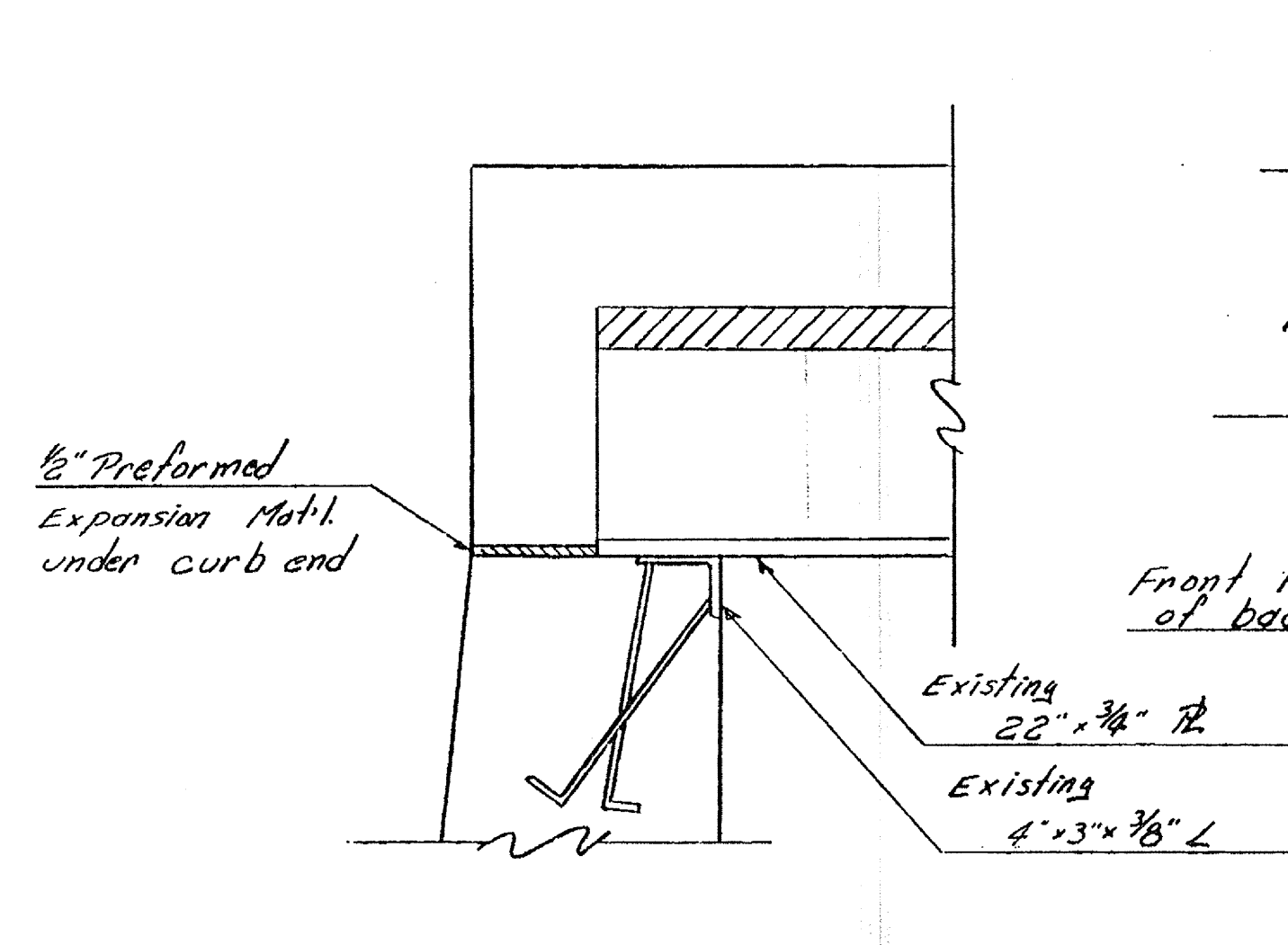
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FILE NAME: \$FILES\$	CHECKED BY: P. PERKINS
DESIGNED BY: D. D'AMATO	BRIDGE DESIGN SUPERVISOR: P. HALSTEAD
	SHEET 51 OF 63

SCALE 1" = 10'
10 0 10

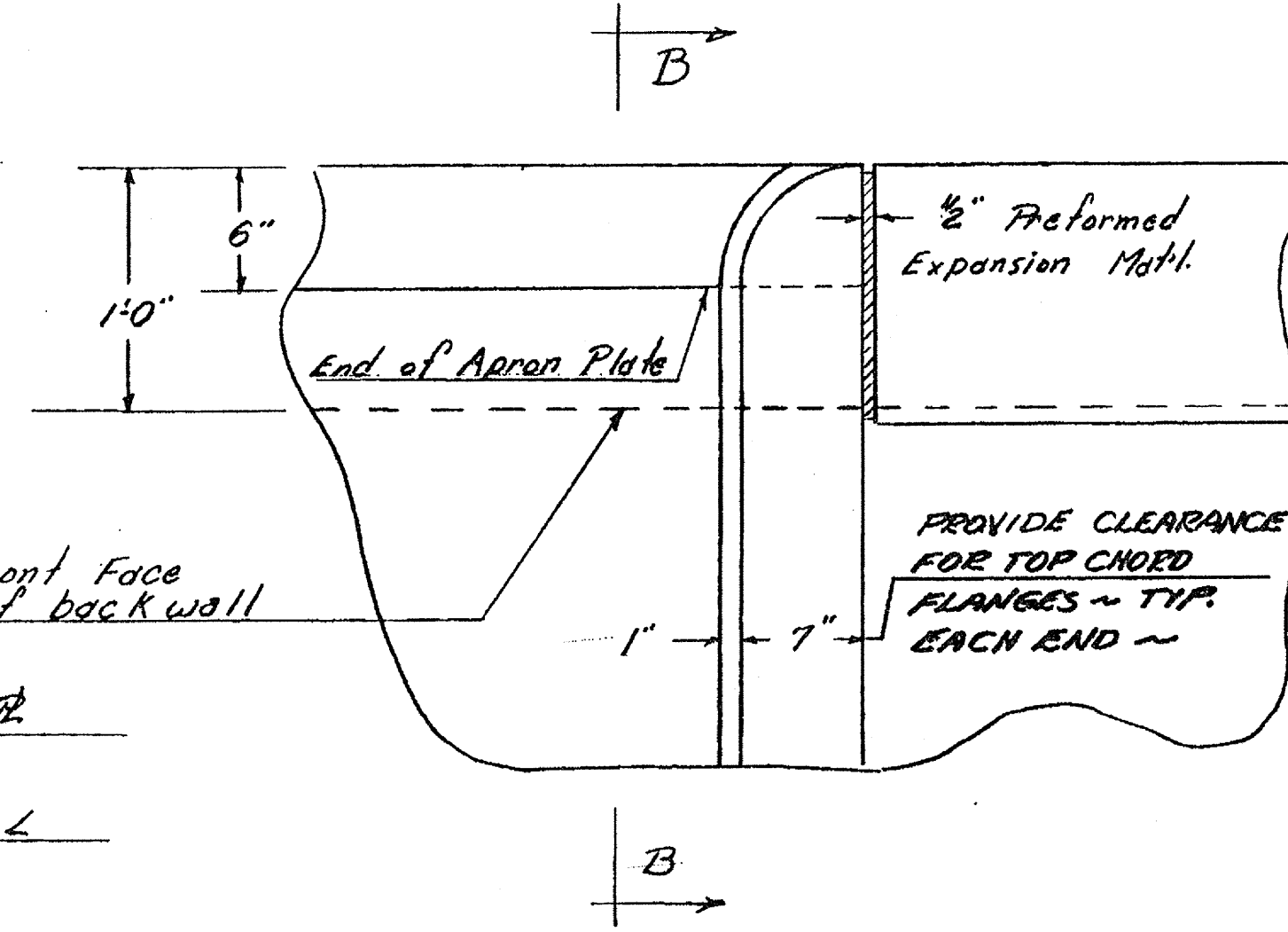




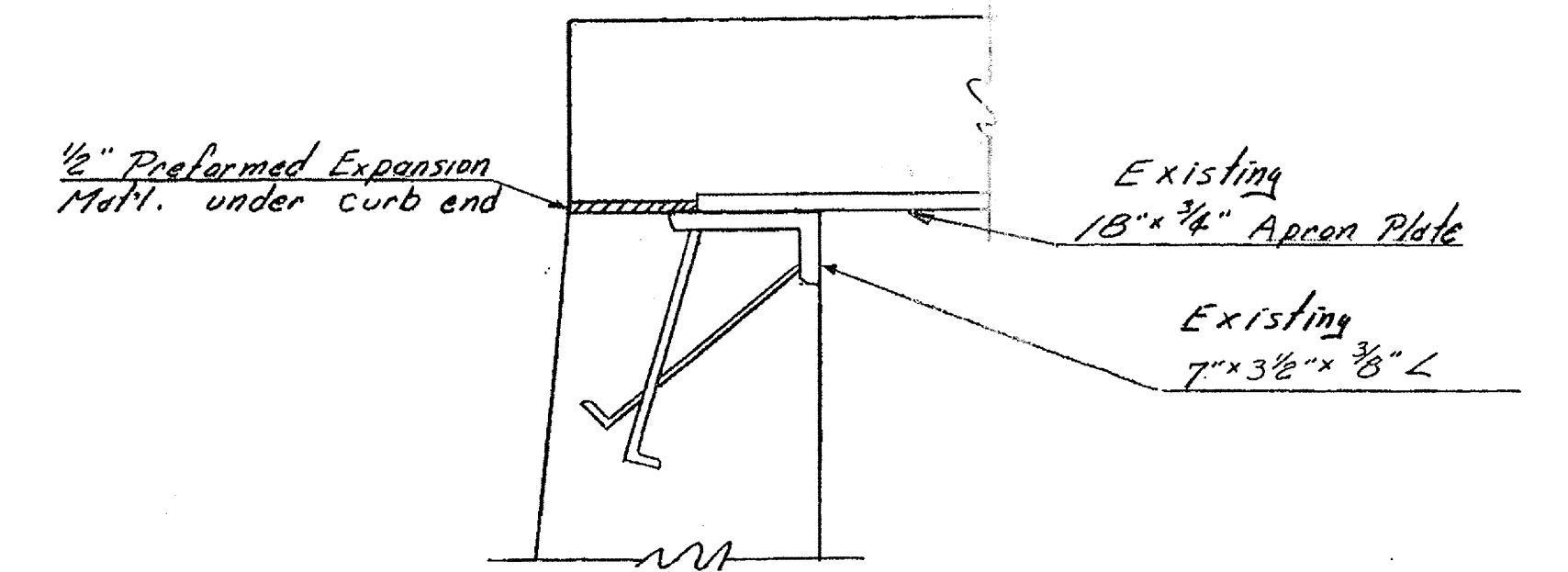
Abutment No. 1 Curb Detail
Scale: 1 1/2" = 1'



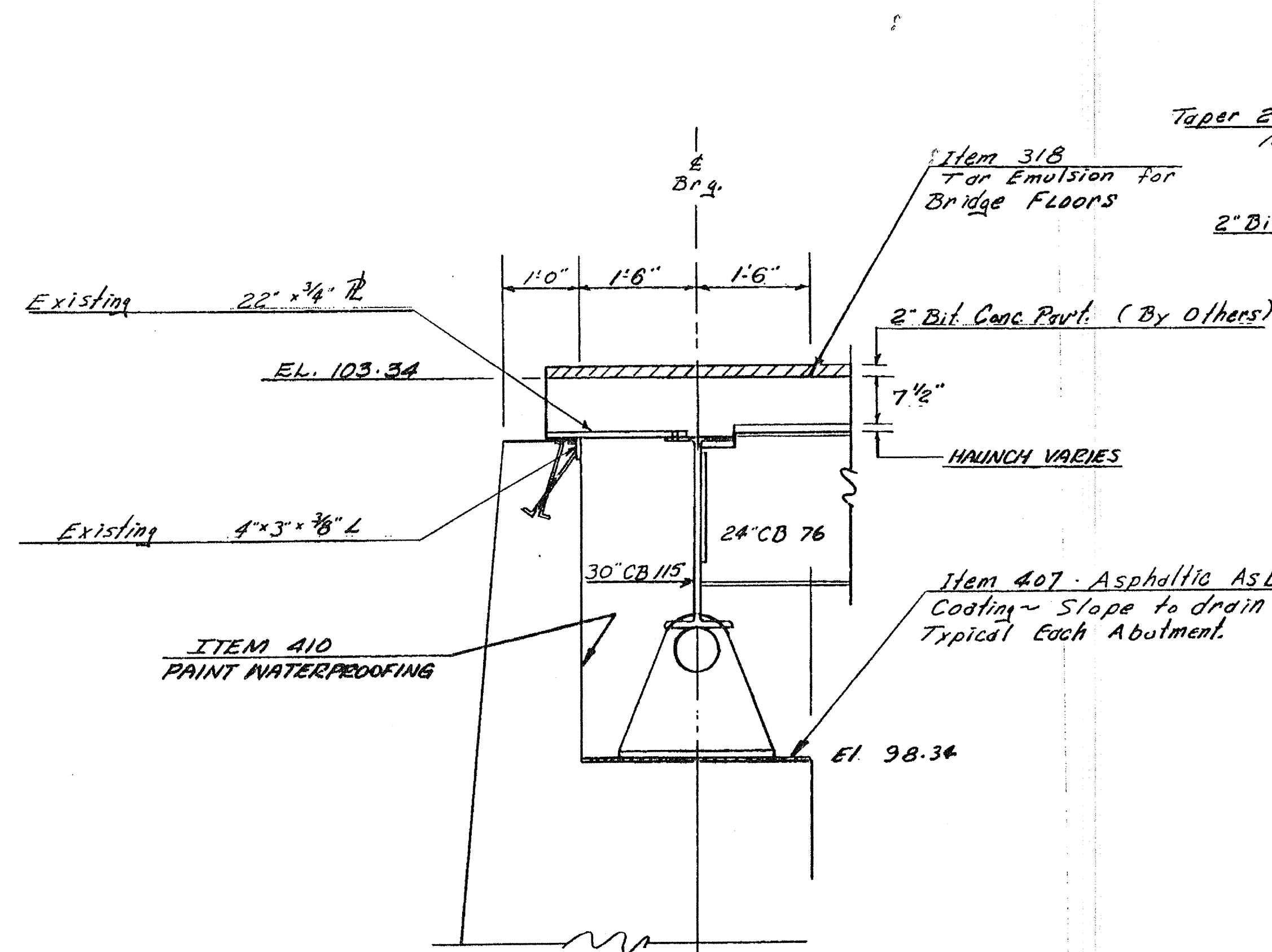
SECTION A-A
Scale: 1 1/2" = 1'



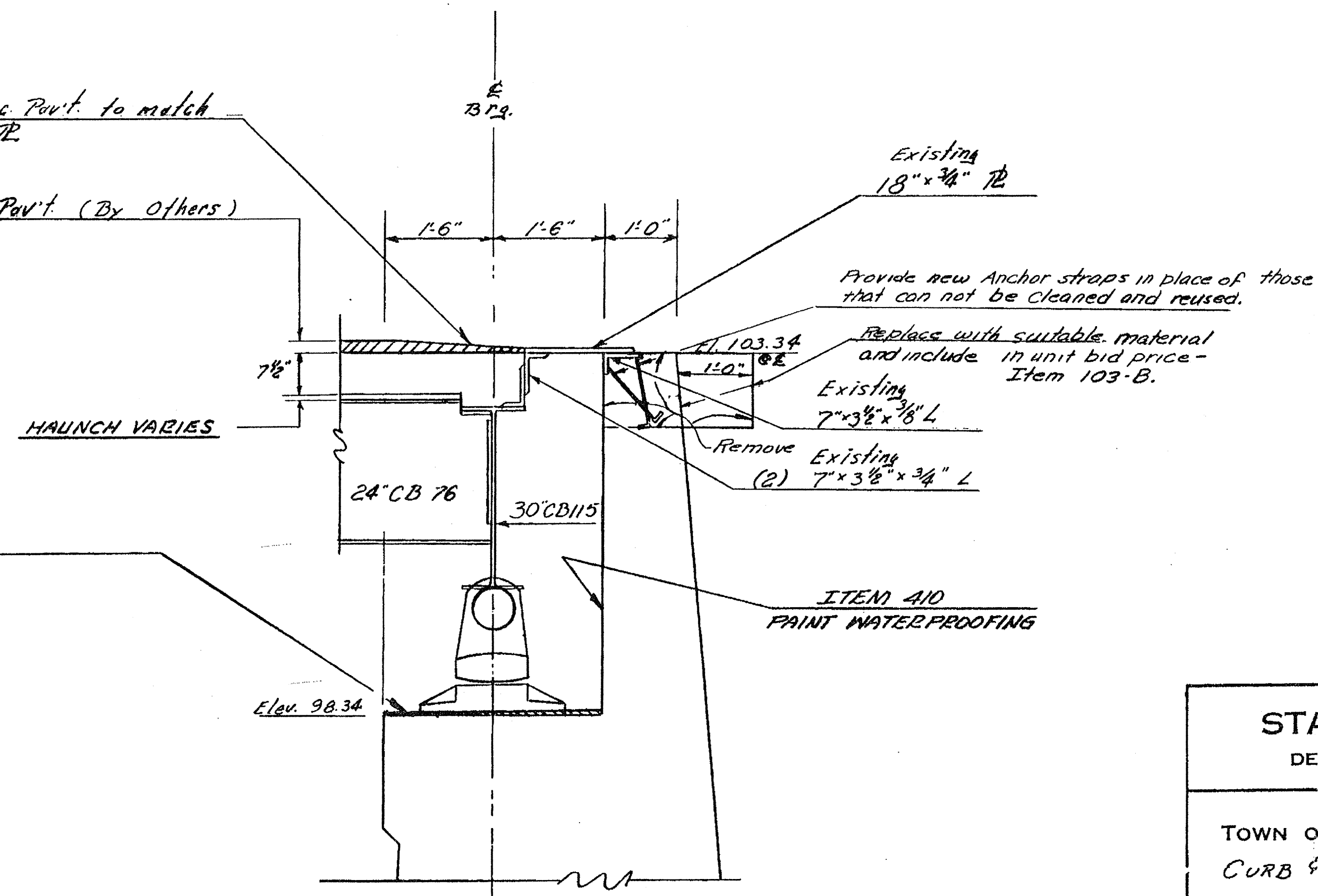
Abutment No. 2 Curb Detail
Scale: 1 1/2" = 1'



SECTION B-B
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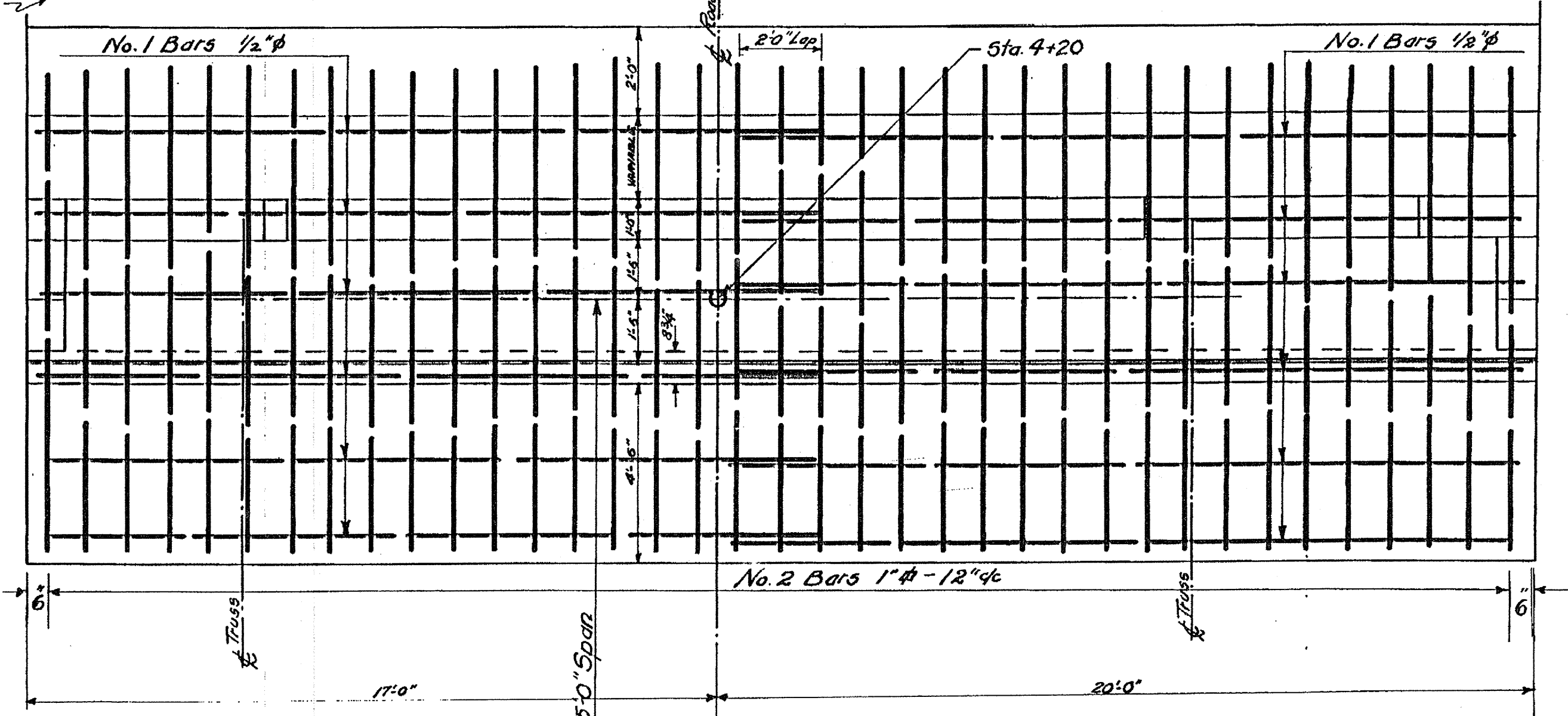
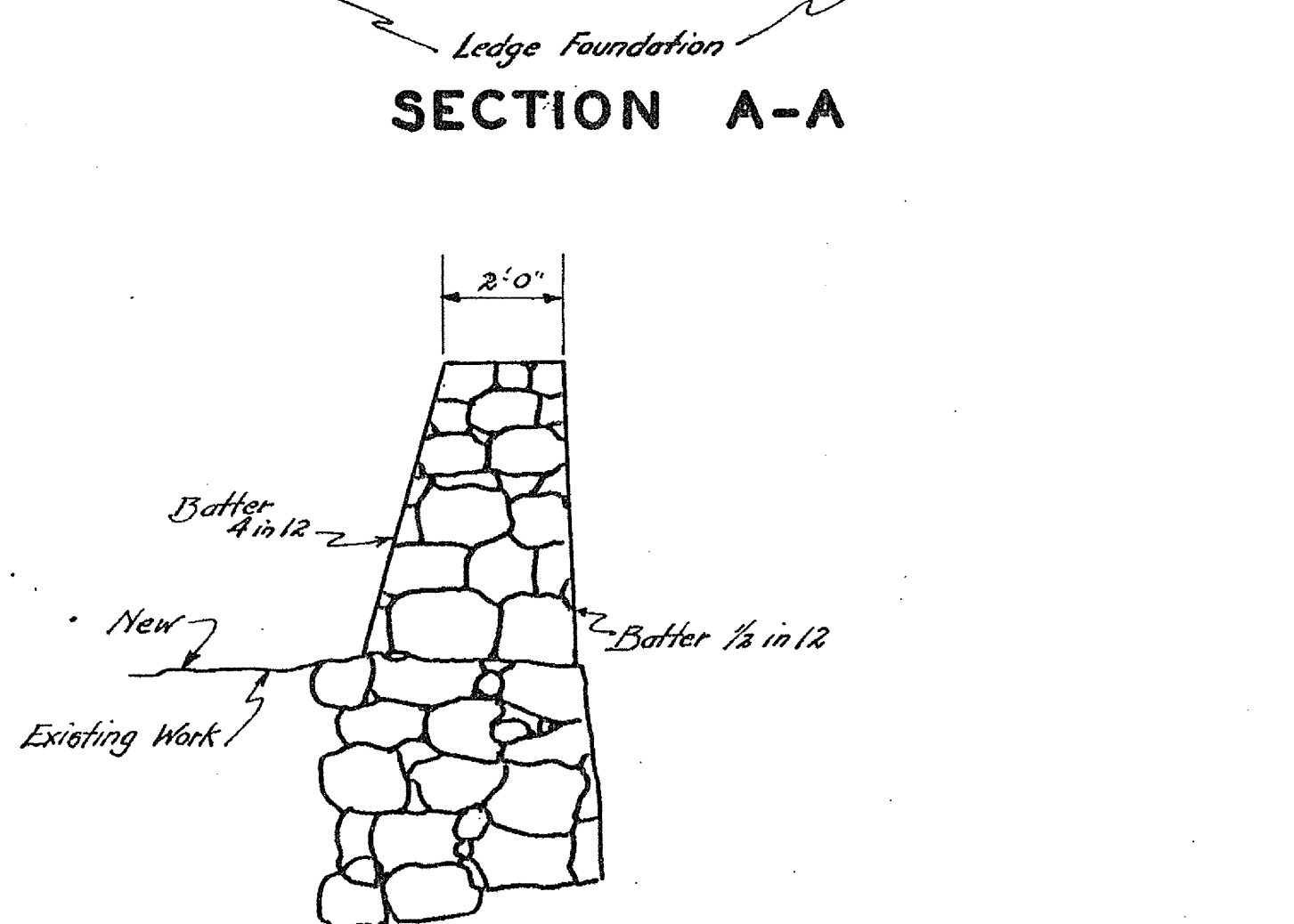
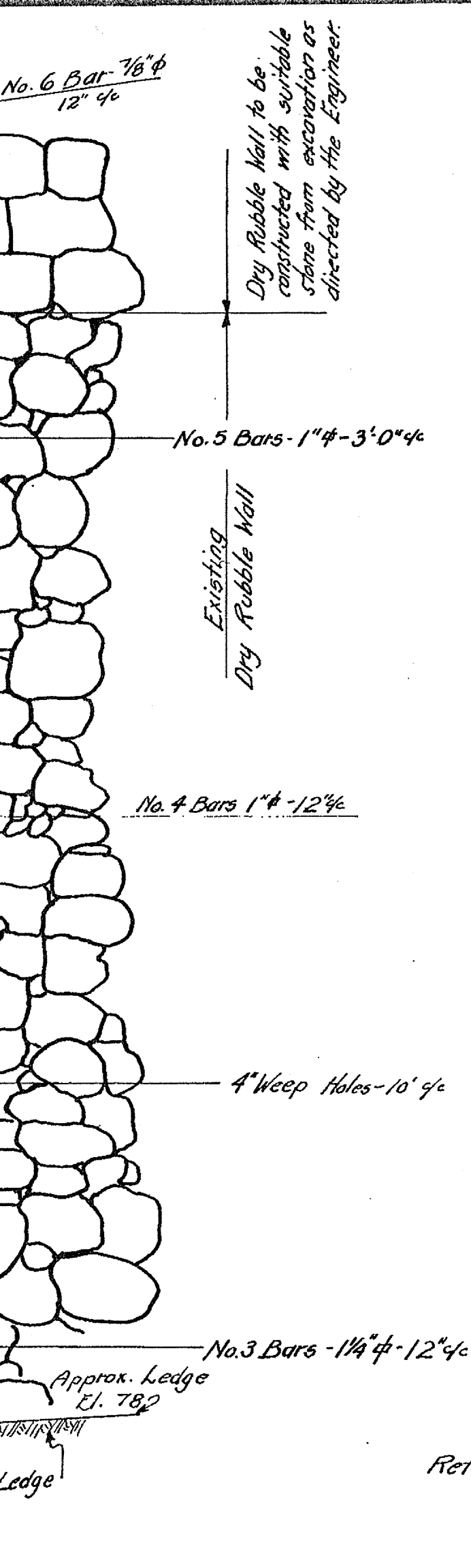
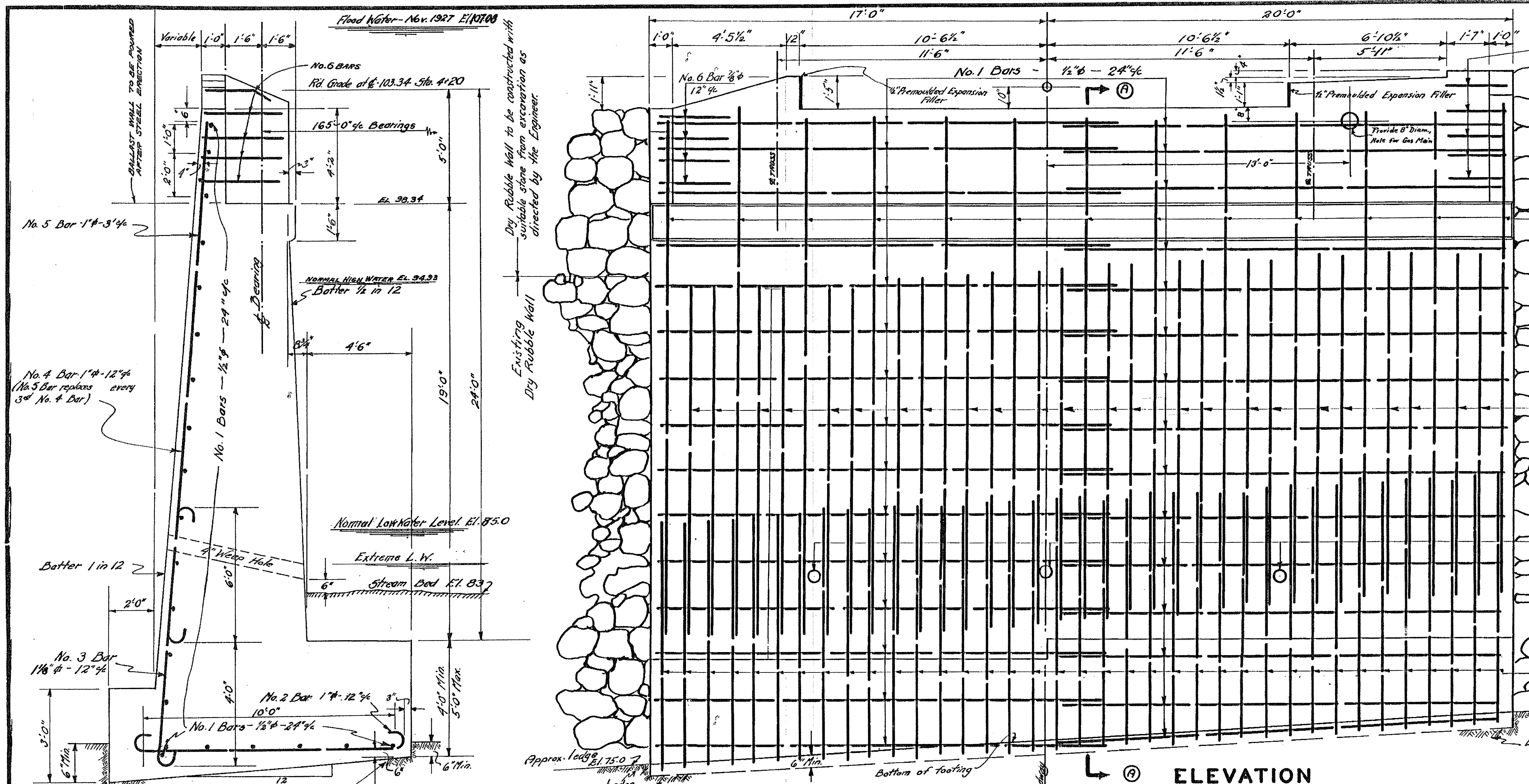


ABUTMENT No. 1
FIXED
Scale: 3/8" = 1'



ABUTMENT No. 2
Expansion
Scale: 3/8" = 1'

STATE OF VERMONT DEPARTMENT OF HIGHWAYS	
TOWN OF	MONTPELIER
CURB & BEARING DETAILS	
TAYLOR ST. BRIDGE	
OVER WINDSOR RIVER	1
SCALE	As Noted
IN CHARGE	R. H. Watson
DRAWN BY	D. Mayo
CHECKED BY	D. W. W. W.
PROJECT No.	SAB 6612
SHEET	4 OF 8



ESTIMATED QUANTITIES	
STRUCTURE EXCAVATION-	350 C.Y.
CONC. (CLASS C) 1:2:4	
REINFORCING STEEL-	244 C.Y.
DRY RUBBLE MASONRY	17 CU YDS

Surveyed by	Walker	Filed
Designed by	A.D.B.	
Drawn by	A.D.B.	
Traced by	A.G.	
Checked by	H. P. Johnson	11/8/27
Series	No.	
Sheet 2 of 3 Sheets		

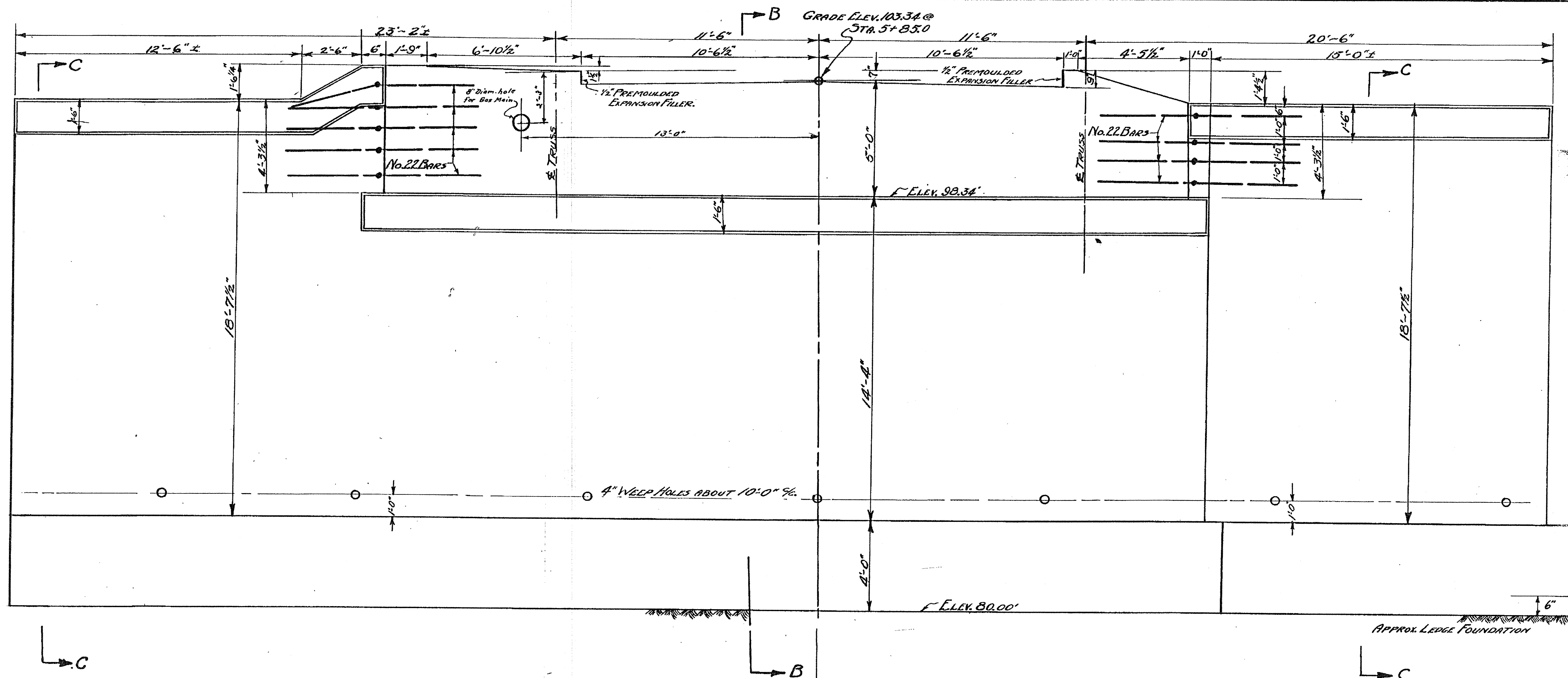
PLAN OF ABUT. NO. 1
STA. 4+20
TAYLOR ST. BRIDGE
MONTPELIER, VT.

SCALE: 3/8" = 1'-0"

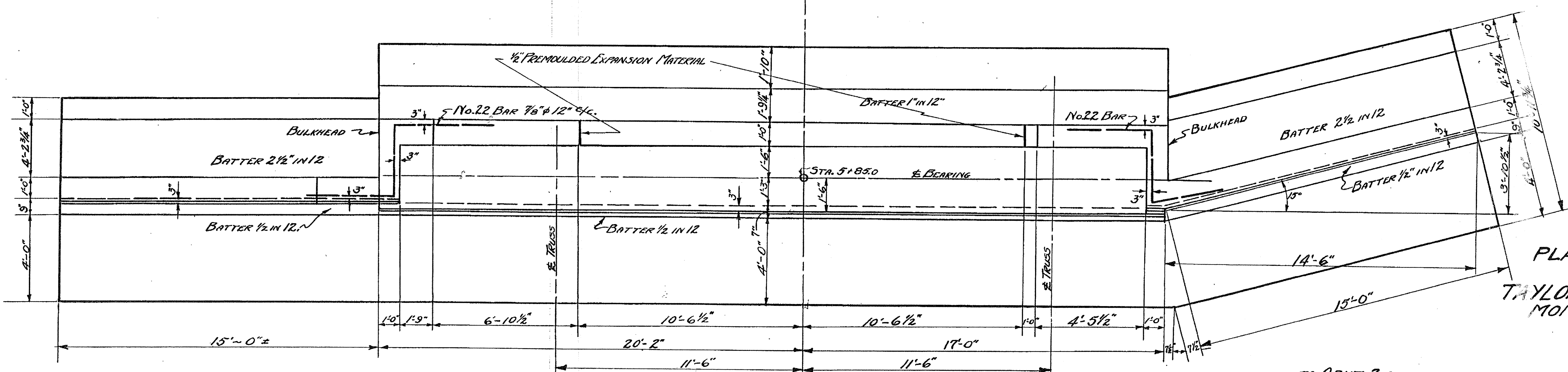
Concrete Mix to be 1:2:4
for Abuts and Piers.

2.3
1.7
E

Reference: - for Score Marks and Cast Joint Details
see Standard Details Sheet SB 2.
204, 221.



FOR CROSS SECTIONS AND REINFORCING
SEE SHEET No. 4 OF

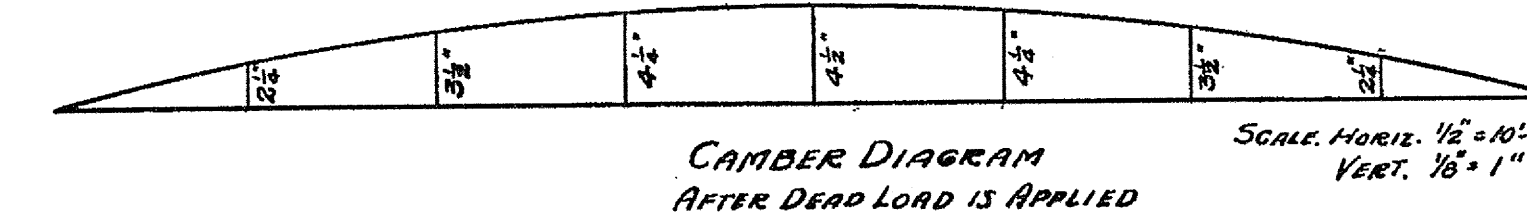
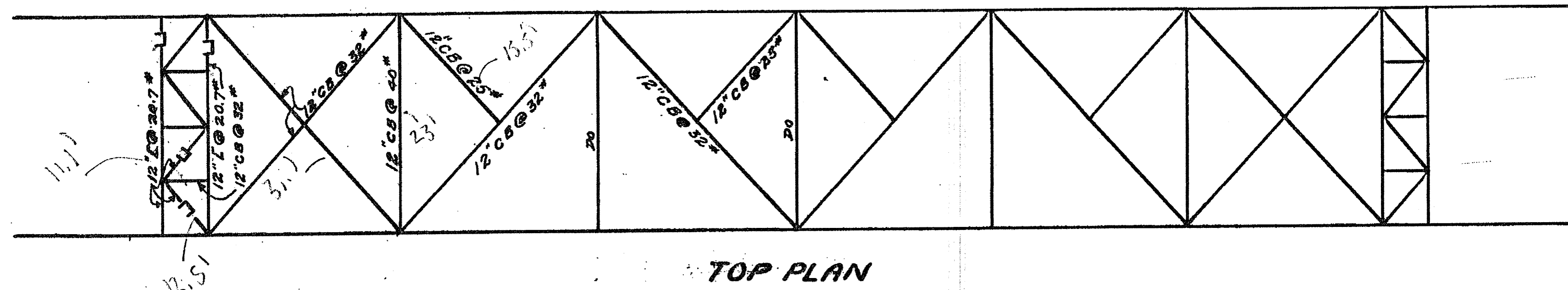


PLAN ABUT. No. 2
STA. 5+85.0
TAYLOR ST. BRIDGE
MONTPELIER, VT.
SCALE 3/8" = 1'-0"

~ ABUT. 2 ~

ESTIMATED QUANTITIES	
STRUCTURE EXCAVATION	560 Cu. Yds.
CONG. CLASS C (1-2-4)	314 Cu. Yds.
REINFORCING STEEL	7842 LBS.

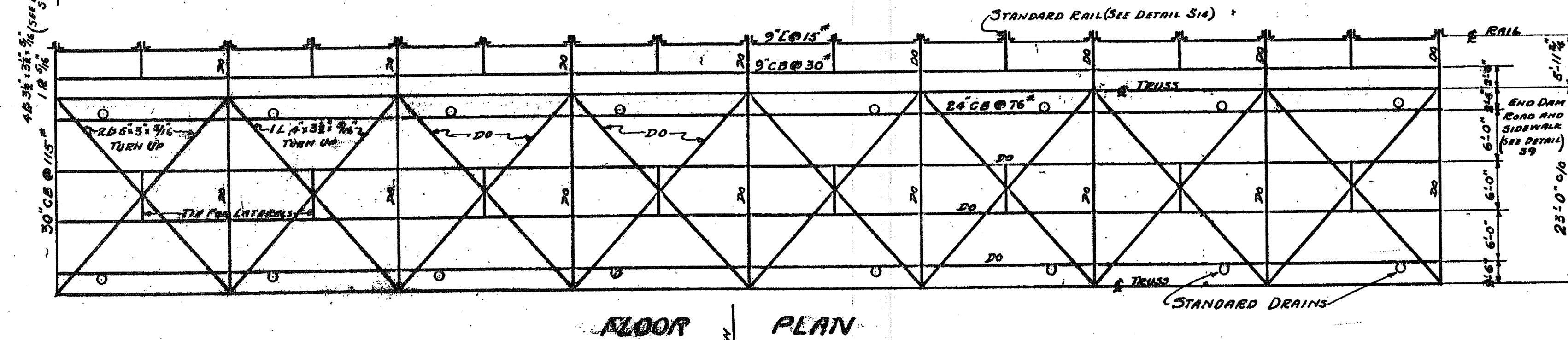
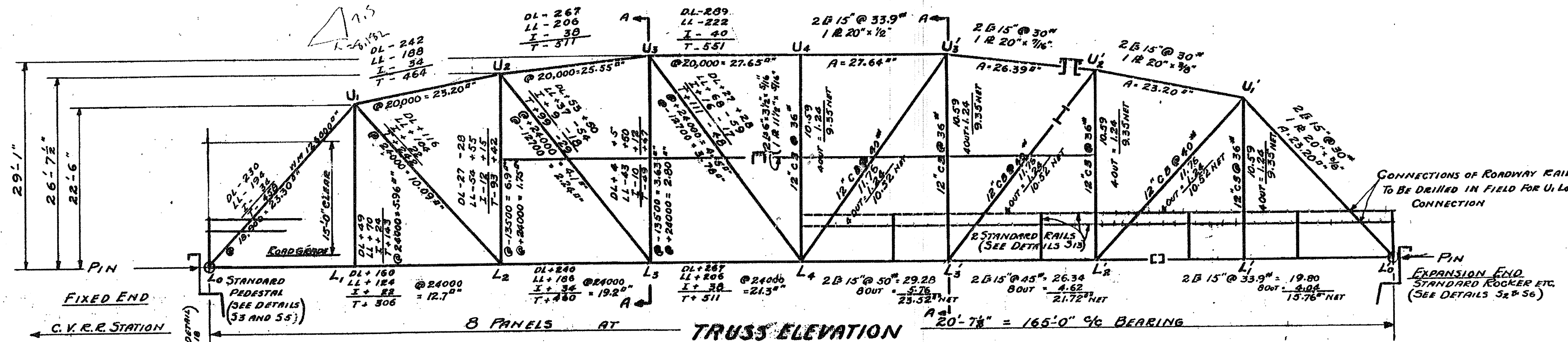
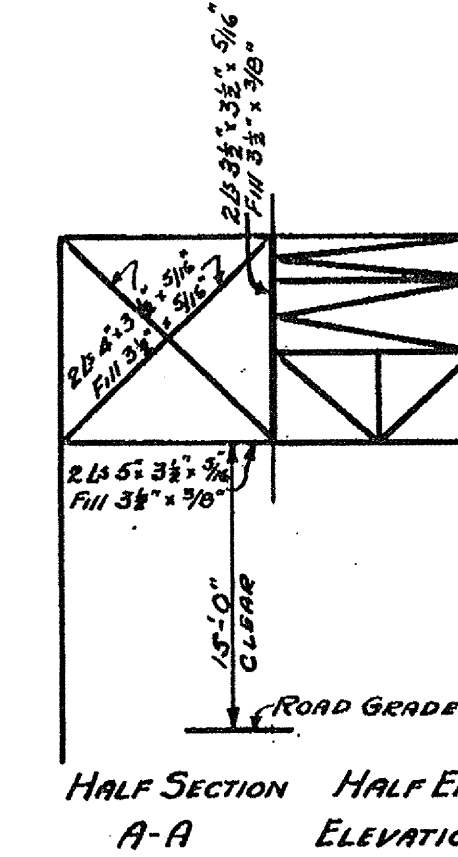
Surveyed by WALKER
Designed by A.D.B.
Drawn by A.D.B.
Traced by R.G.M.
Checked by H.P. [Signature]
Series No. [Blank] Filed [Blank]
Sheet 3 of 3 Sheets



NOTES:

REFERENCES:
FOR THIS BRIDGE USE SHEET SB-1, STANDARD DETAILS, Nos. 52, 53, 55, 57, 59, 510, 512, 513, 514, 518, 521, 515 MODIFIED.

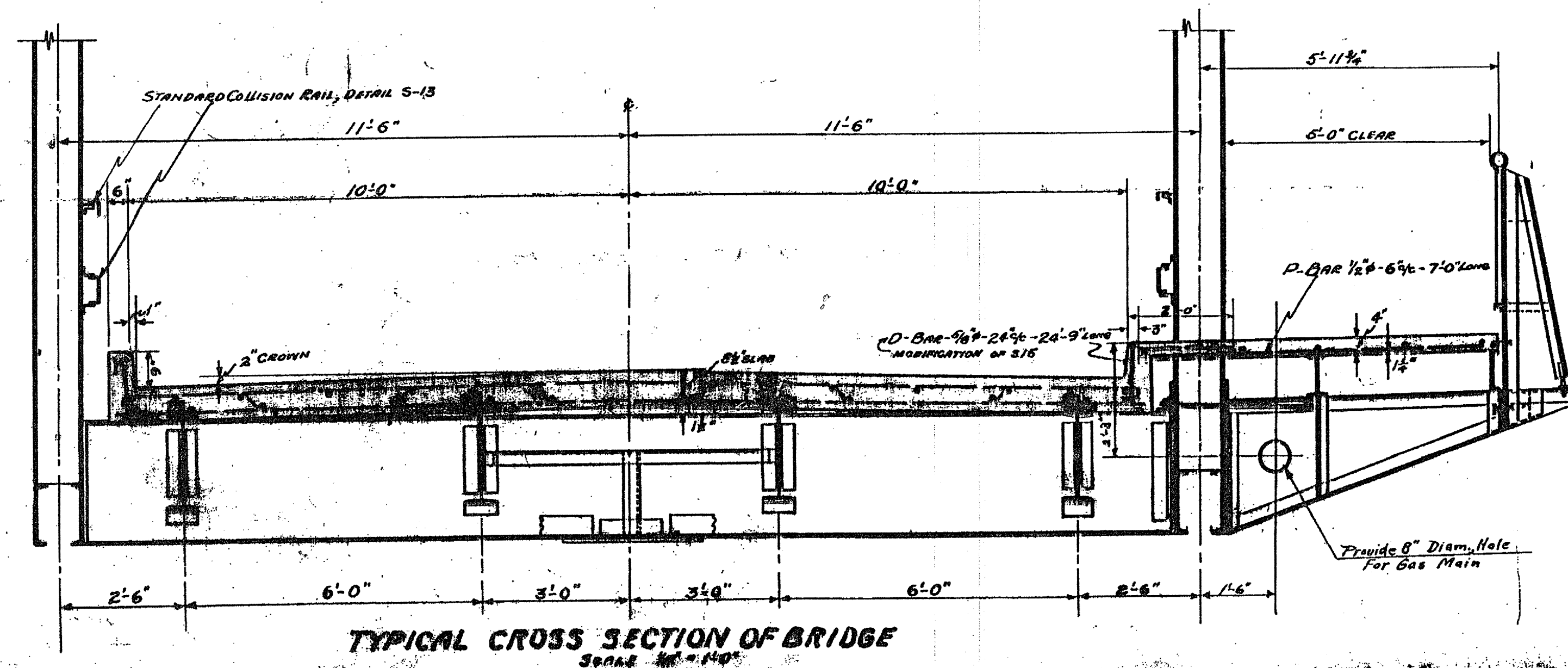
SPECIFICATIONS (DESIGN)
DESIGN AREA 1920 REVISED
DL-STRESSES 16000#, LL (DOUBLED) 24000#, I* L-TIES
FLOOR DESIGN FOR 2-15 TON TRUCKS 85% REAR
15'-0" W/4 FLEES, 6" W/4 WHEELS MEETING OR PASSING
SIDE WALK 86" DEE SQ. FT. NO IMPACT
TRUSS DESIGN FOR 115 LOADING
CONCENTRATED LOAD (13500 FOR MOMENTS
19500 FOR SHEAR)
UNIFORM LOAD 480 LBS. PER FOOT OF LANE
PLUS 52x5x260" INTRUSION LOAD FROM SIDEWALK PLUS
DEAD LOAD +25" INTRUSION ALLOWANCE.
SPECIFICATIONS FABRICATION AND ERECTION
VERMONT STANDARD ROAD AND BRIDGE SPECIFICATIONS 1926
FLEETS 7/8", EXCEPT AT L₀ HERE 1/16"
BOTTOM CHORD BRIGES SHALL BE DETAILED
OUTSIDE OF GUSSETT PLATE AND AS CLOSE THERE TO
AS PRACTICABLE.



ROADWAY	
STRINGERS	FLOOR BEAMS
DL 39H"	DL 181H"
LL 238H" X	LL 354 H"
I 77H"	I 118 H"
T 354 H"	T 653H"
@ 1/2" = 178IN ²	@ 3/4" = 327IN ²
24" CB @ 76" S=182.0 IN ²	30" CB @ 115" S=332.4 IN ²

SIDEWALK STRINGERS	
OUTSIDE	INSIDE
DL 71	DL 10.5
LL 14.4	LL 34.8
T 21.5	T 45.3
@ 1/2" = 10.75 IN ²	@ 3/4" = 22.65 IN ²
9" I @ 15", S=112.7 IN ²	9" CB 30" S=22.53 IN ²

STRESSES IN KIPS.



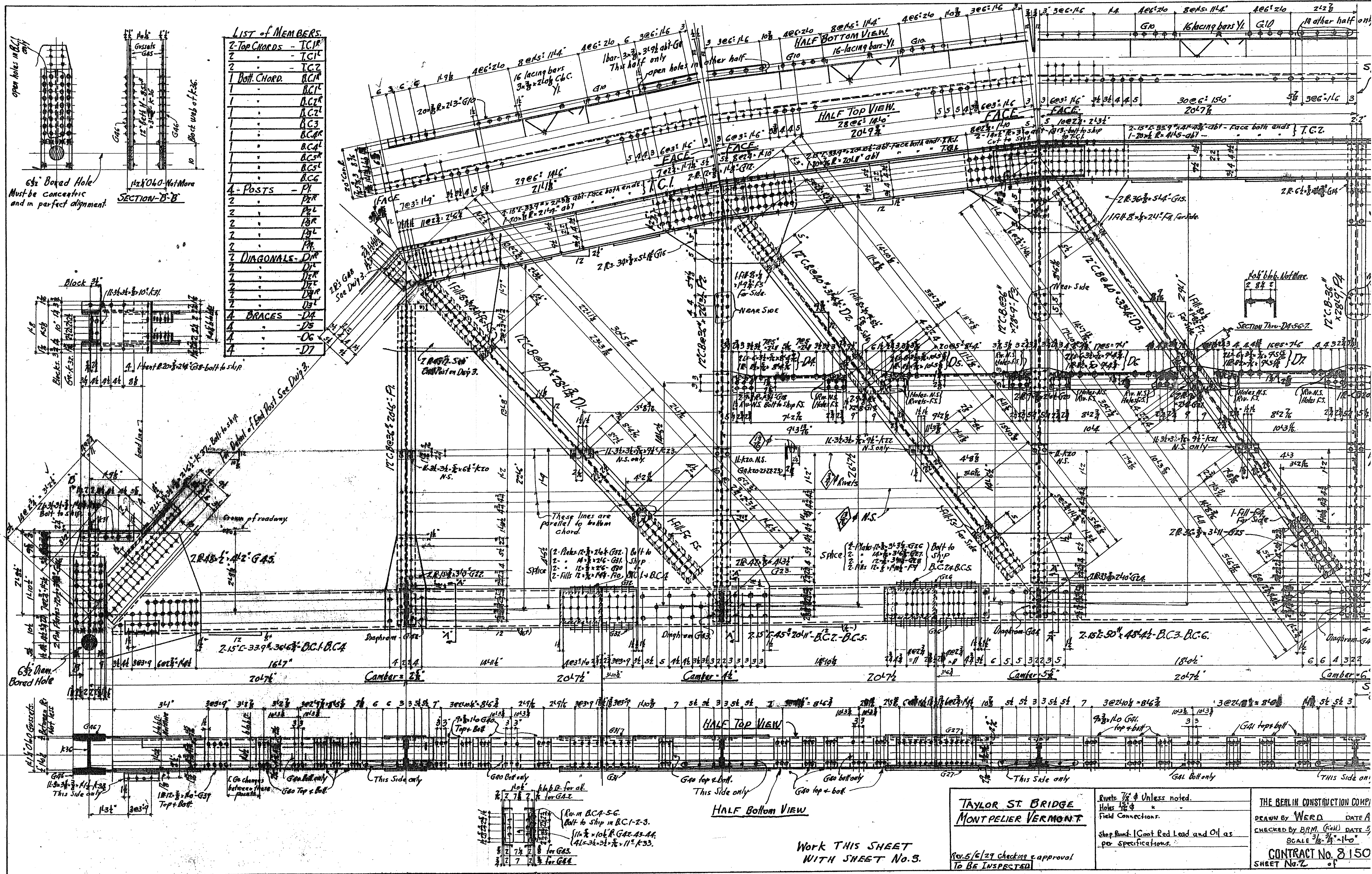
$$\frac{170}{165} \times 277,000 \times \frac{24}{10} = 415,500$$

**STEEL SUPERSTRUCTURE
165'-0" 0/4 BEARINGS-20' ROADWAY
21-15
FOR
TAYLOR ST. BRIDGE
MONTPELIER - VT.**

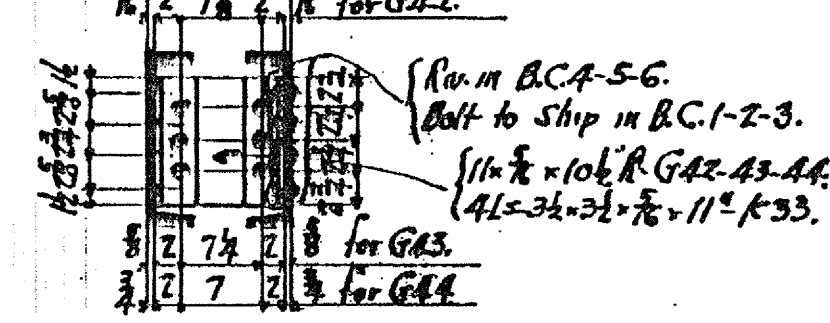
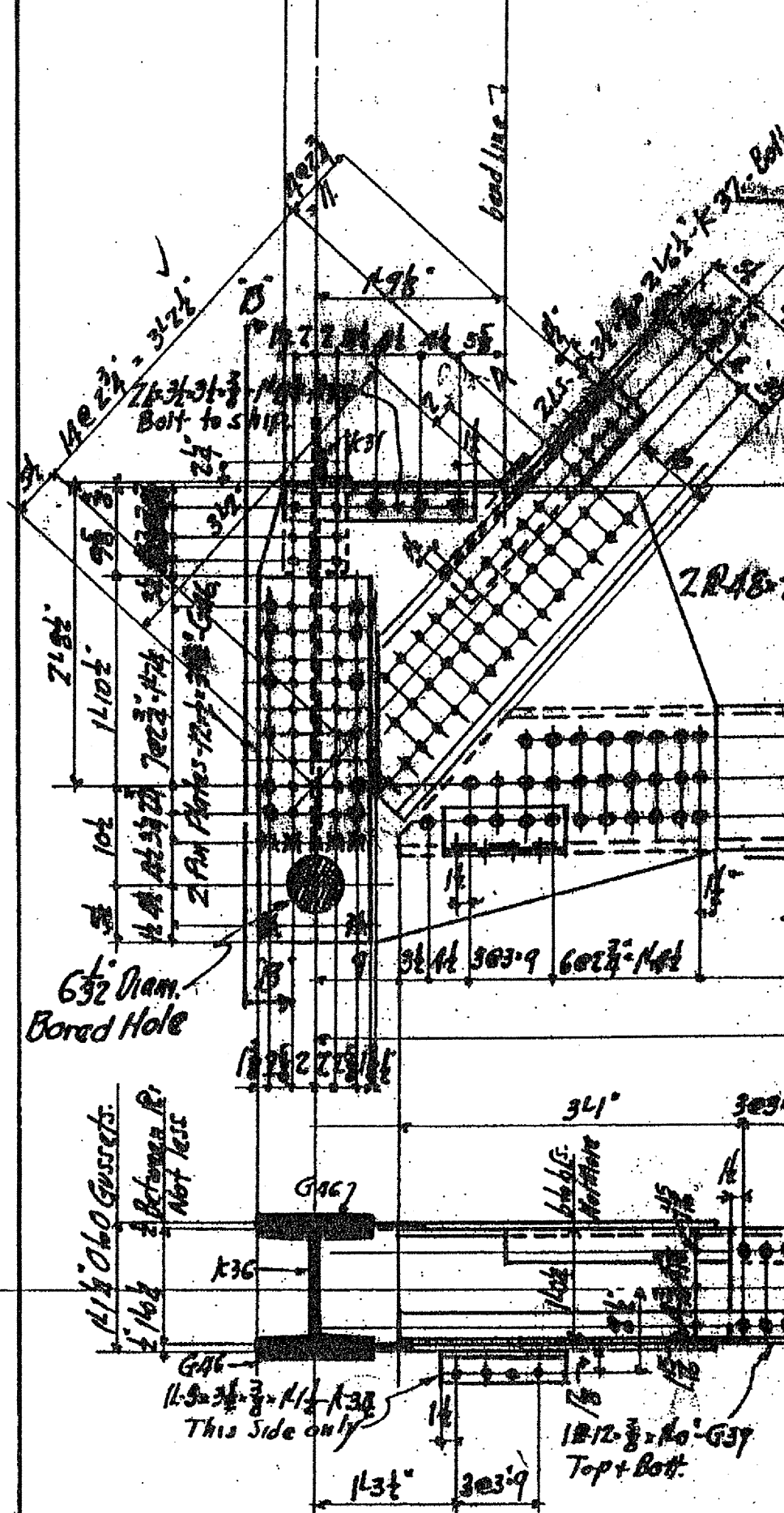
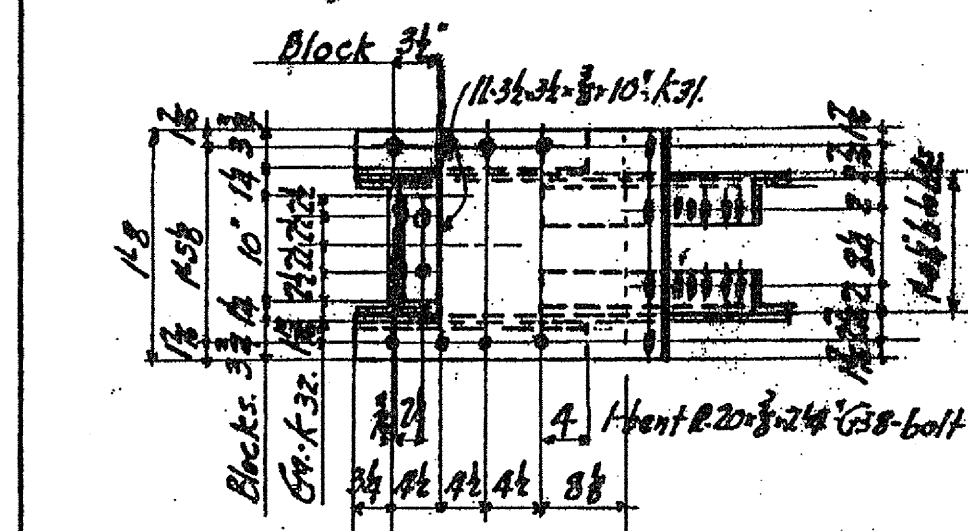
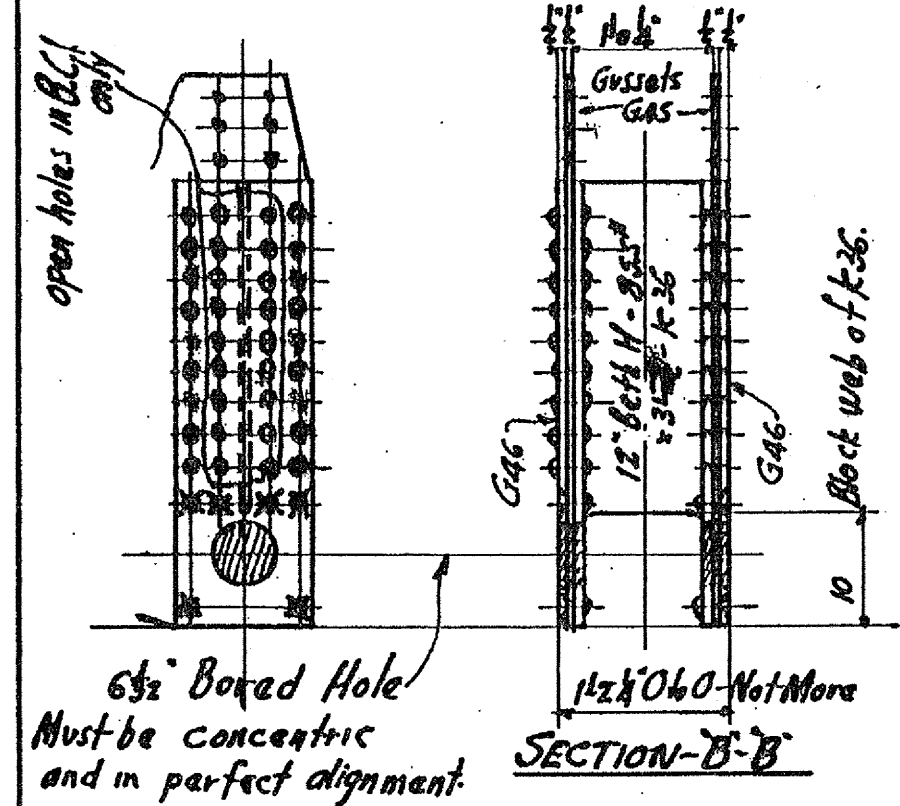
CONTRACT:
A. O. Bishop
BRIDGE ENGINEER

ESTIMATED QUANTITIES	
STRUCTURAL STEEL	277,000 LBS.
REINFORCING STEEL	18,820 LBS.
CONCRETE CLASS A	108 CU. YD.

Surveyed by	WALKER
Designed by	BISHOP
Drawn by	BISHOP
Traced by	DUNN
Checked by	
Series	No. Filed



- LIST OF MEMBERS:**
- 2-Top CHORDS - TC1, TC2
 - 1-Bottom CHORD - BC1, BC2, BC3, BC4, BC5, BC6
 - 4-POSTS - P1, P2, P3, P4
 - 2-DIAGONALS - D1, D2
 - 4-BRACES - B1, B2, B3, B4



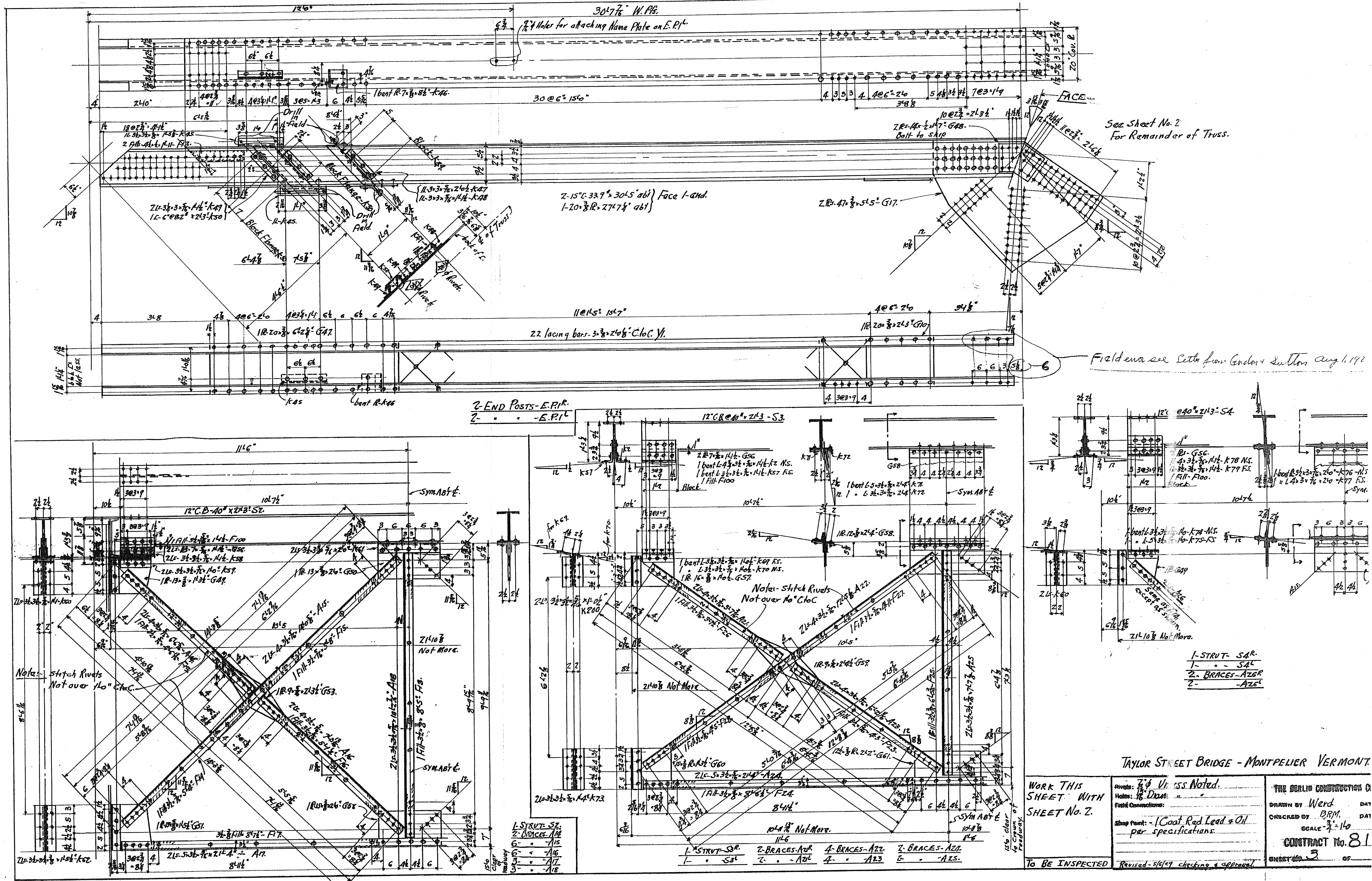
TAYLOR ST BRIDGE
MONTPELIER VERMONT

Rivets 7/8" unless noted.
 Holes 1/8" field connections.
 Shop Bolt 1 Coat Red Lead and Oil as per specifications.

Rev. 5/6/29 checked & approval to be inspected

THE BERLIN CONSTRUCTION CO. INC.
 DRAWN BY W.E.D. DATE 5/29/29
 CHECKED BY B.M.M. (Rev.) DATE 5/29/29
 SCALE 3/8" = 1'-0"
 CONTRACT No. 8150
 SHEET No. 7 of 8

Work THIS SHEET WITH SHEET No. 3.



See Sheet No. 2
For Remainder of Truss.

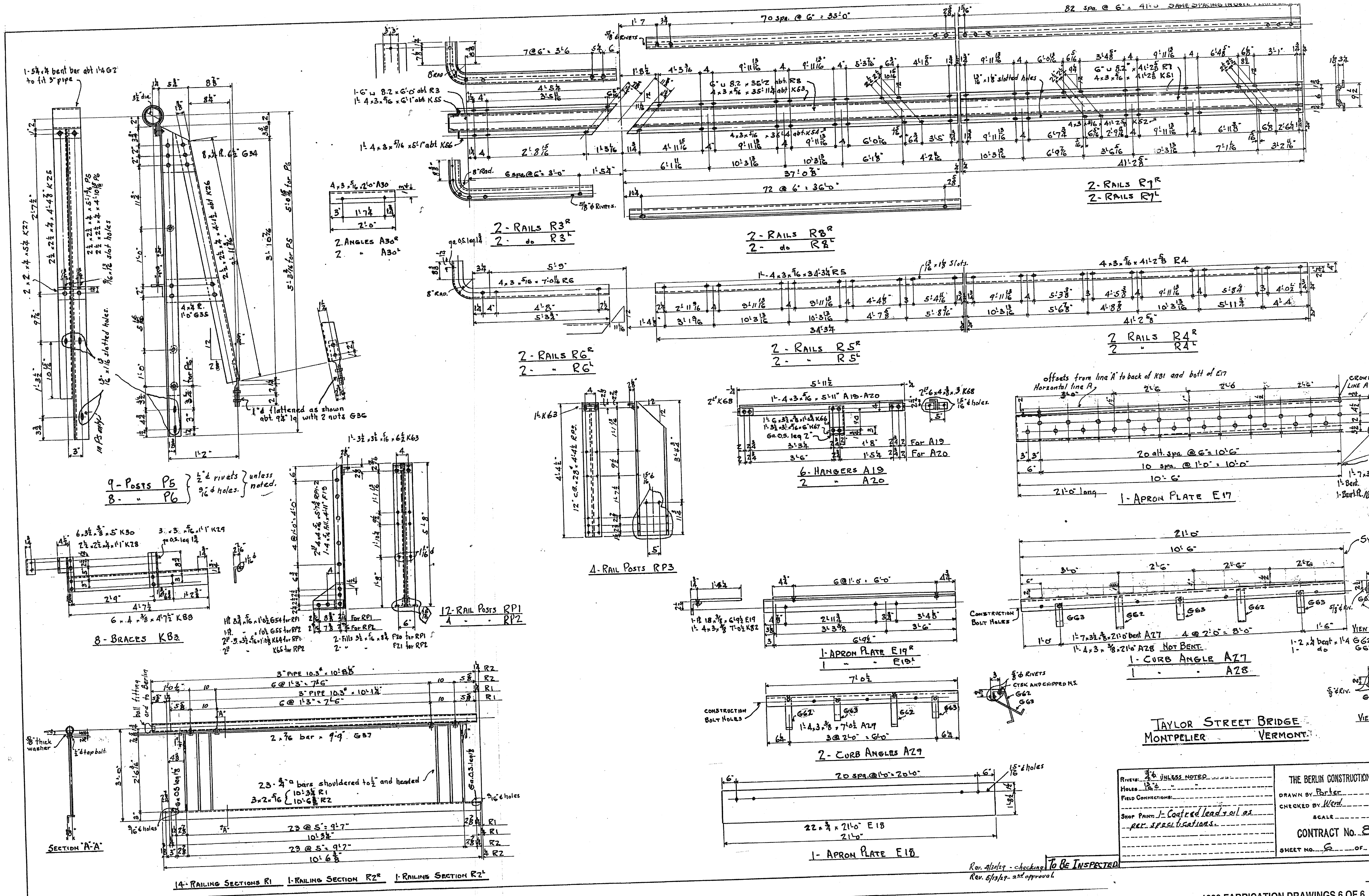
Field end see both from End view sections Aug. 1, 1920

2- END POSTS - E.P.I.R.
2- - - - E.P.I.L

1- STRUT - SAR
1- - - - S4L
2- BRACES - AZ6R
2- - - - AZ6L

TAYLOR STREET BRIDGE - MONTPELIER VERMONT.

WORK THIS SHEET WITH SHEET No. 2. TO BE INSPECTED	Rivets: 7/8 Unass. Noted. Holes: 1/8 Dia. Field Connections:	THE BERLIN CONSTRUCTION CO. DRAWN BY: Werd CHECKED BY: B.M. SCALE: 3/4" = 1'-0" CONTRACT No. 81 SHEET No. 3 OF 3
	Shop Paint: - (Coat Red Lead & Oil per specifications.	Revised: 5/6/29 checking & approval
	Date:	Date:
	Date:	Date:



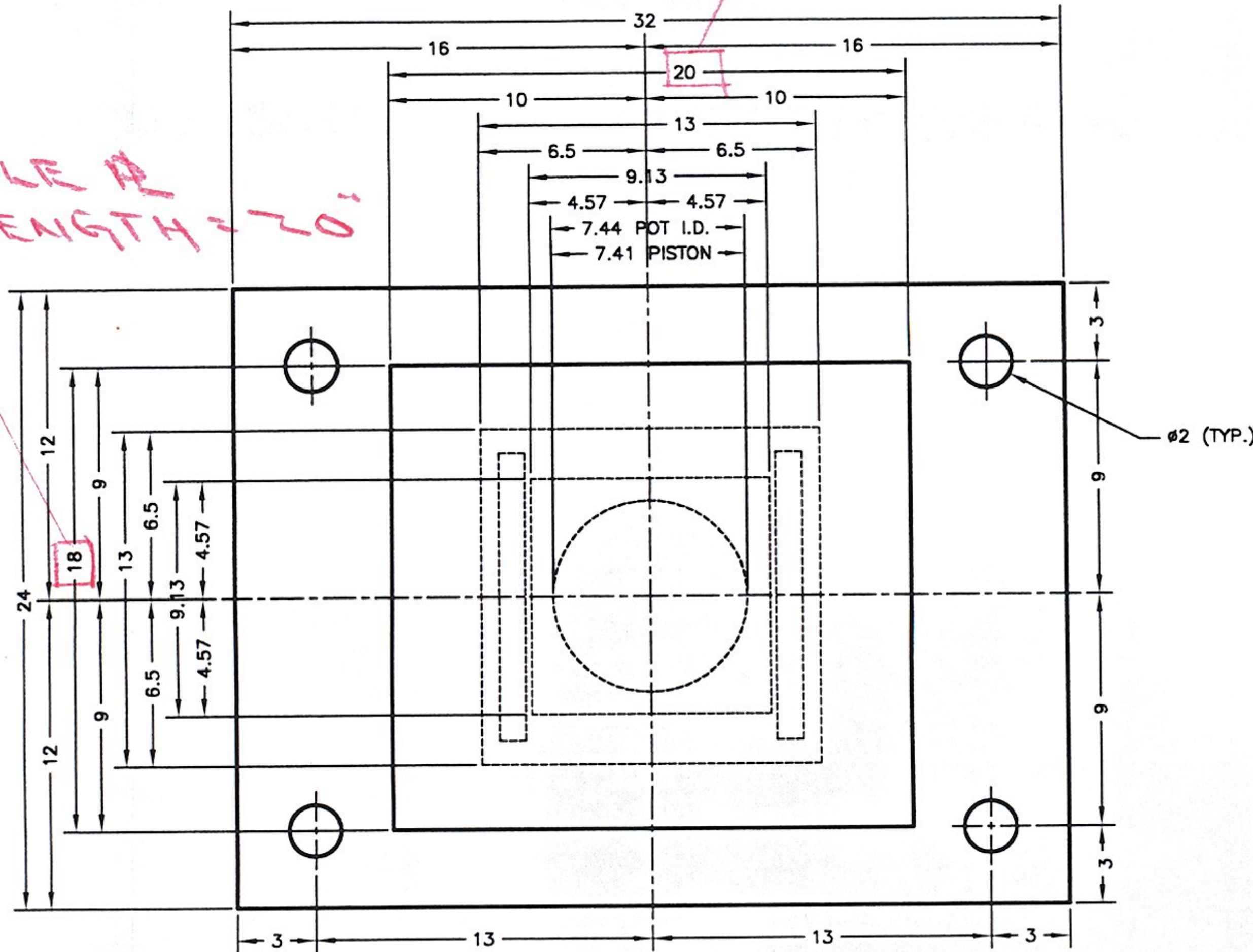
RIVETS: $\frac{3}{8}$ " UNLESS NOTED	THE BERLIN CONSTRUCTION CO.
HOLE: $\frac{1}{16}$ "	DRAWN BY: Porter
FIELD CONNECTIONS:	CHECKED BY: Ward
SHOP PRINTS: Coated lead oil as per specifications.	SCALE:
	CONTRACT No. 8 L
	SHEET NO. 6 OF 6

TAYLOR STREET BRIDGE
MONTPELIER - VERMONT

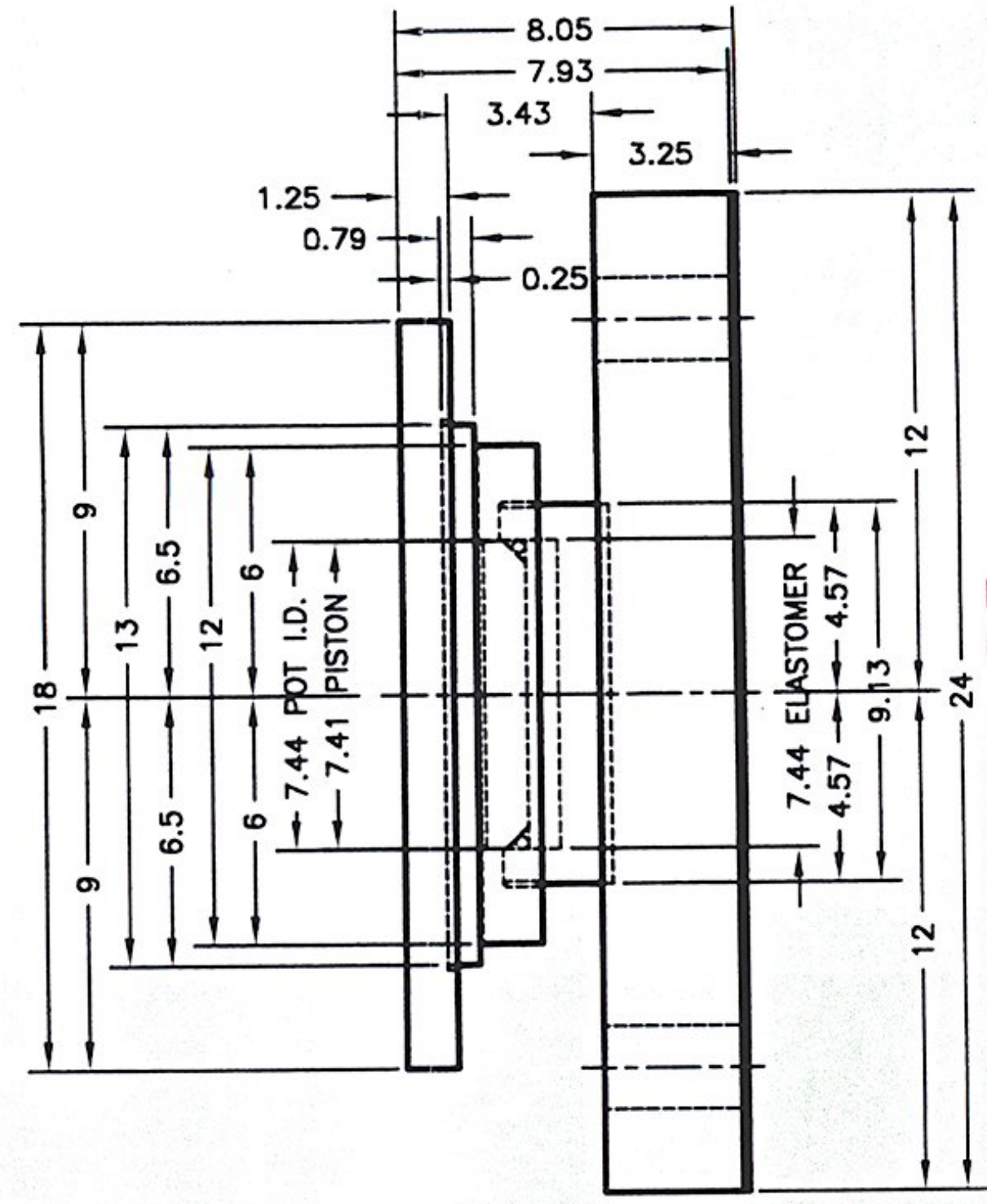
Rev. 9/29/29 - checking To BE INSPECTED
Rev. 6/13/29 - steel approval

SOLE PLATE
WIDTH = 18"

SOLE PLATE
LENGTH = 20"

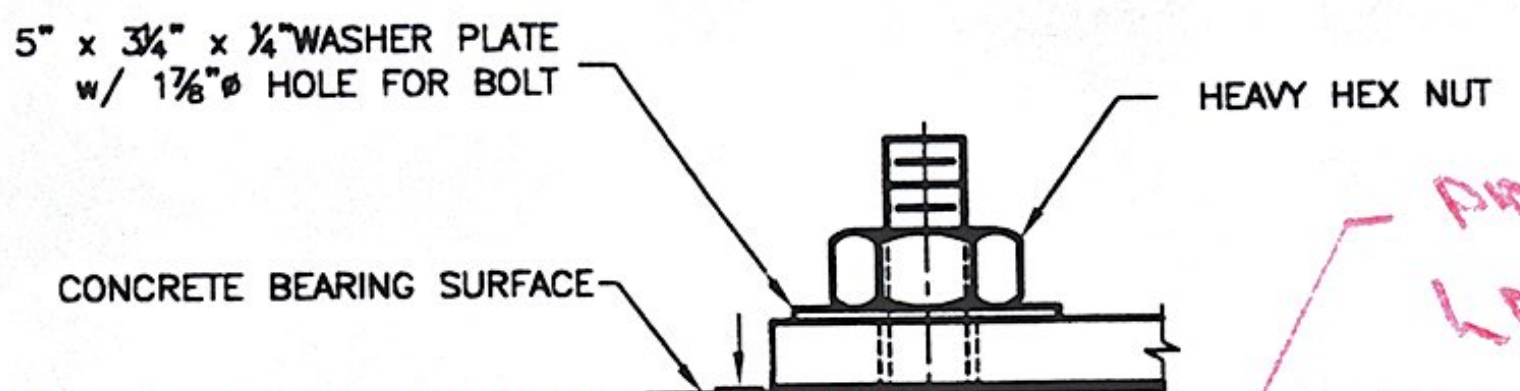


PLAN VIEW



SIDE VIEW

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



- NO EXCEPTIONS TAKEN
- MAKE CORRECTIONS NOTED
- REJECTED
- SUBMIT SPECIFIED ITEM

(CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF THE WORK.

CHIA

DATE 2/26/10 BY [Signature]

ANCHOR BOLT DETAIL
QTY. REQ'D = 8, 4 PER BEARING

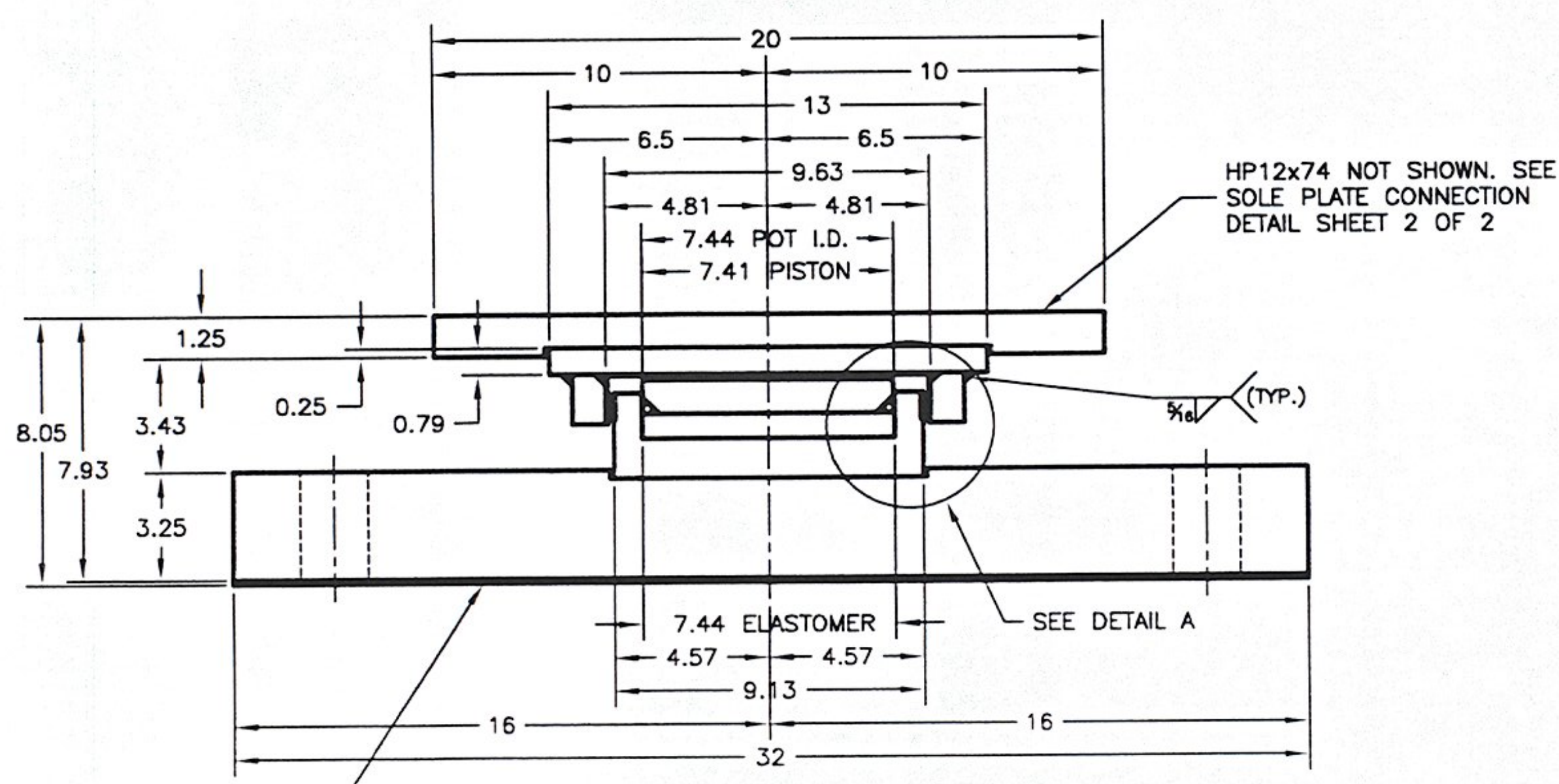
PROVIDE EMB. LENGTH + PROJECTION TO ENSURE ADEQUATE GRIP.

RECEIVED

CHK'D BY _____ OK'D BY _____

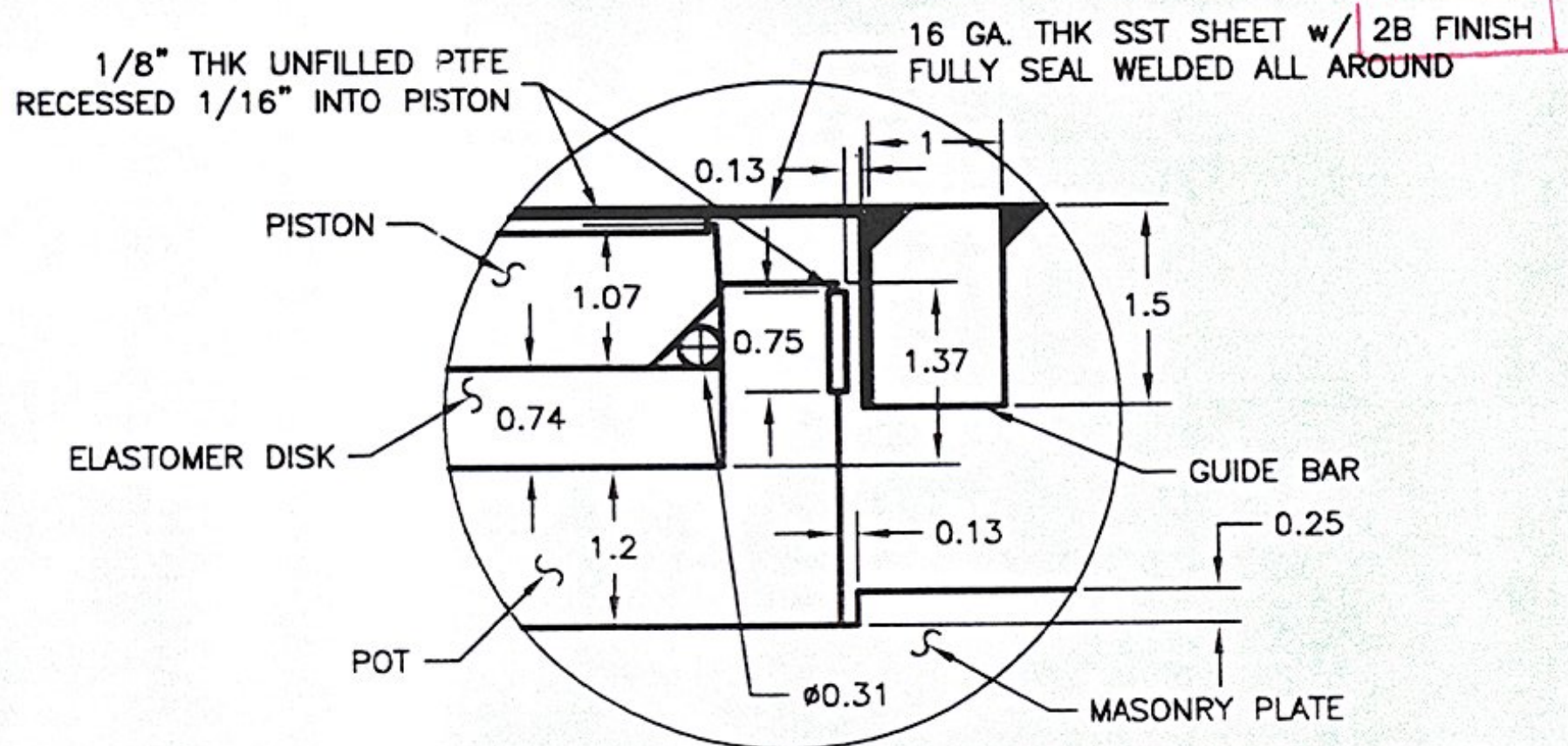
FINISH IN ACCORDANCE WITH 731.05 FEB 01 2010

RESUBMIT _____ APPROVED _____
BY _____ DATE _____



ELEVATION VIEW

GUIDED TYPE @ ABUTMENT 2
QTY. REQ'D = 2
ITEM NO. 531.1200
VERTICAL CAPACITY = 150 KIPS
HORIZONTAL CAPACITY = 14 KIPS



DETAIL -A-

OR 10% OF VERTICAL LOAD IN ACCORDANCE W/ 531.04 (h)

VERMONT AGENCY OF TRANSPORTATION
CITY OF MONTPELIER
PROJECT NO. BHF 6400(31)

GUIDED EXPANSION POT
BEARING DETAIL

AMSCOT
STRUCTURAL PRODUCTS CORP.
DOVER, NJ

SCALE: N.T.S. CHECKED: DRAWN BY: C.A.M.
DATE: 1/25/10 B.F. REVISION: 0

FOR WINTERSET INC.

DWG NO. W1041PC SHEET NO. 1 OF 2

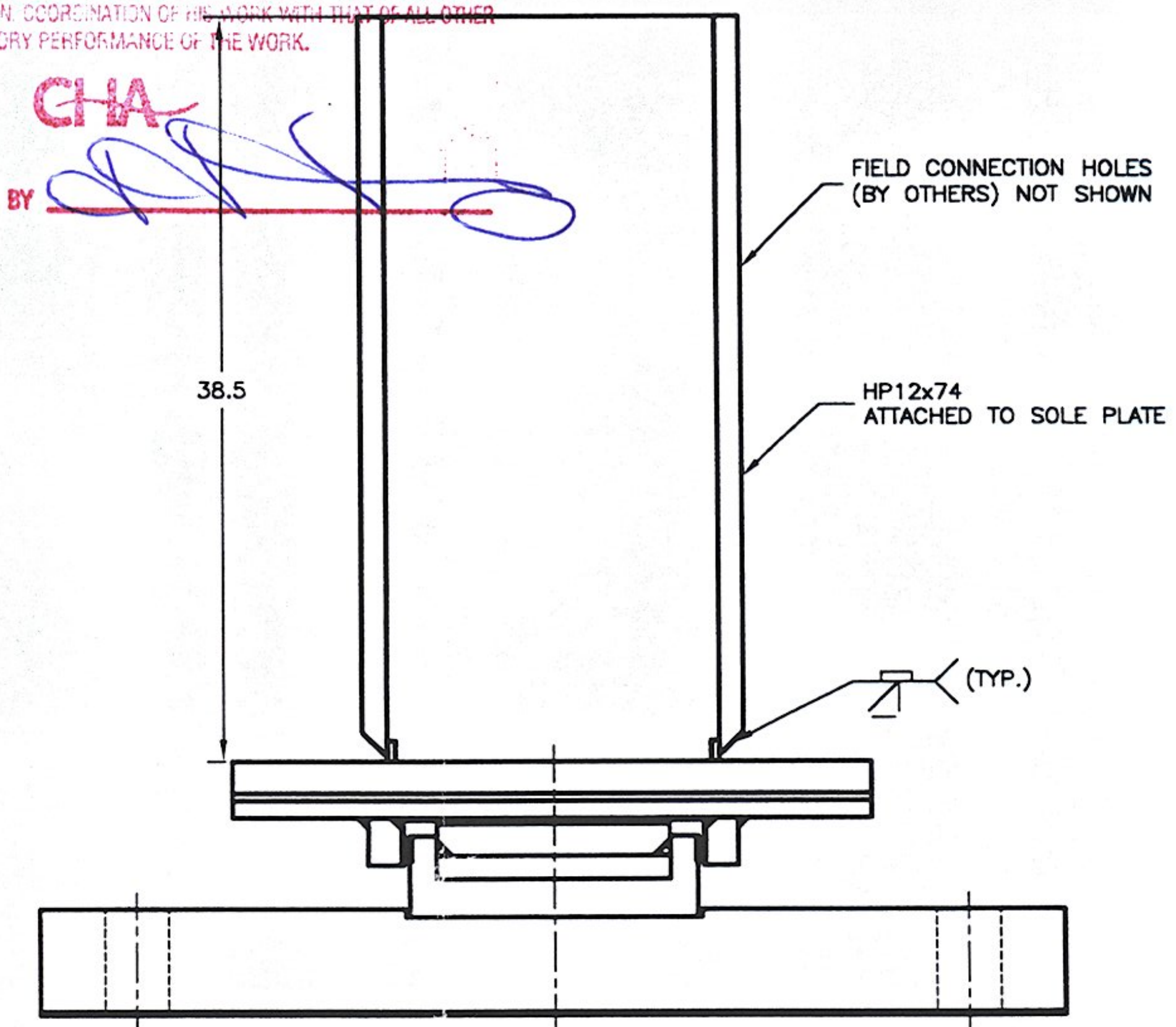
PROVIDE
CONSISTENT
WITH BHT. 10P2

<input type="checkbox"/> NO EXCEPTIONS TAKEN		<input type="checkbox"/> MAKE CORRECTIONS NOTED		REVISIONS	
<input type="checkbox"/> REJECTED	ZONE	REV	<input checked="" type="checkbox"/> REVISE AND RESUBMIT	DESCRIPTION	DATE
			<input type="checkbox"/> SUBMIT	SPECIFIED ITEM	APPROVED

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY WORK SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CORRELATED AND CORRELATED AT THE JOB SITE. FABRICATION PROCESSES AND TRADES AND THE SATISFACTORY PERFORMANCE OF THE WORK.

1. ELASTOMERIC DISC.
 - (A) ELASTOMERIC DISCS SHALL HAVE THE MINIMUM THICKNESS PER AASHTO 14.6.4.3.
 - (B) AREAS OF ELASTOMERIC DISCS SHALL BE DESIGNED FOR A MAXIMUM AVERAGE STRESS OF 3500 PSI AT THE TOTAL DEAD AND LIVE LOADS OF THE STRUCTURE PER AASHTO 14.6.4.4.
 - (C) ELASTOMERIC DISC TO BE OF 50 SHORE "A" DUROMETER HARDNESS PER AASHTO 14.6.4.2.
2. POT
 - (A) ALL STEEL USED IN POT BEARING TO BE AASHTO M270, GR. 345 AND SHALL BE GALVANIZED.
 - (B) DEPTH OF THE POT CAVITY SHALL BE EQUAL TO OR GREATER THAN: (POT ID/2) X DESIGN ROTATION (0.3 RADIANS) + 1 + THE THICKNESS OF THE ELASTOMERIC DISC. + THE PISTON FACE WIDTH.
 - (C) INSIDE DIAMETERS SHALL BE THE SAME AS THE ELASTOMERIC DISC.
3. PISTON
 - (A) PISTONS SHALL BE DESIGNED AS FOLLOWS FOR THICKNESS AND CLEARANCE PER AASHTO 14.6.4.7.
 - (B) PISTON FOR ROUND CROSS SECTION SEALING RINGS SHALL HAVE THE LOWER OUTSIDE EDGE BEVELED TO ACCEPT AND RETAIN THE RING AND PERMIT FULL DESIGN ROTATION.
4. ELASTOMERIC SEAL RINGS
 - (A) ROUND CROSS SECTION BRASS SEALING RINGS SHALL MEET THE FOLLOWING DESIGN REQUIREMENTS PER AASHTO 14.6.4.5
 - (1) RINGS SHALL FIT THE POT ID SNUGLY 5/16" MIN. (0" TO 1/64" LESS THAN POT ID).
 - (2) RINGS SHALL BE ROLLED INTO A CIRCLE AND BRAZED. (TO BE MADE FROM ONE PIECE).
5. PTFE SLIDING SURFACE
 - (A) THE AREA OF THE PTFE SHALL BE DESIGNED FOR A WORKING STRESS AS PER AASHTO SECTION 14.6.2, AT THE FULL DEAD AND LIVE LOAD OF THE STRUCTURE.
 - (B) UNFILLED PTFE SHALL MEET THE FOLLOWING REQUIREMENTS:
 - (1) BONDED TO THE PISTON IT SHALL HAVE A MINIMUM THICKNESS OF 1/8" AND SHALL BE RECESSED ONE-HALF OF ITS THICKNESS INTO STEEL PISTON TO CONFORM TO AASHTO SECTION 14.6.2.6.1.
6. STAINLESS STEEL SLIDING SURFACE
 - (A) THE STAINLESS STEEL SLIDING SURFACE SHALL COVER THE PTFE SURFACE IN ALL OPERATING POSITIONS PLUS ONE ADDITIONAL INCH IN EVERY DIRECTION OF MOVEMENT.
 - (B) STAINLESS STEEL SHALL BE 16ga. (AASHTO 14.6.2.3.2) THICKNESS AND SHALL BE CONNECTED TO THE TOP PLATE BY MEANS OF AN EPOXY BOND & SEAL WELDED AROUND THE ENTIRE PERIMETER (AS PER AASHTO SECTION 14, 2002)
 - (C) WELDING PROCEDURES SHALL BE CHOSEN SUCH THAT THE STAINLESS STEEL IN SERVICE IS IN CONTACT WITH THE TOP PLATE AND THE SURFACE IS SMOOTH AND FLAT.
 - (D) STAINLESS STEEL SLIDING SURFACES SHALL BE PREFERABLY FACE DOWN.
7. GUIDE BARS
 - (A) GUIDE BARS AND THEIR CONNECTIONS TO THE TOP PLATE SHALL BE DESIGNED FOR THE HORIZONTAL FORCES ON THE BEARING AND NOT LESS THAN 19% OF THE TOTAL VERTICAL LOAD CAPACITY OF THE BEARING.
 - (B) UNLESS THE GUIDE BAR CLEAR. IS SPECIFIED IT SHALL BE A TOTAL OF 1/8" (MAX.).
 - (C) GUIDING ARRANGEMENTS SHALL BE DESIGNED SO THAT GUIDING MEMBER IS ALWAYS WITHIN THE GUIDES AT ALL POINTS OF TRANSLATION OF THE BEARING.
 - (D) GUIDE BAR MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GR. 345 AND SHALL BE PAINTED. SEE NOTE 9 (I).
8. MATERIALS
 - (A) STRUCTURE STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GR. 345 AND SHALL BE GALVANIZED.
 - (B) ELASTOMERS SHALL CONFORM TO AASHTO SECT. 14, 2002, AND MODIFIED BY STANDARD SPEC. 2002 WITH MODIFICATIONS AS NOTED IN TABLE 716-07-1
 - (C) ELASTOMER SEALS MAY ONLY BE MADE OF METAL AS FOLLOWS:
 - (1) ROUND CROSS SECTION BRASS RINGS, ASTM B-36 (HALF HARD), SHALL CONFORM TO FEDERAL SPECIFICATION QQB62E, COMPOSITION 2.

- (D) PTFE SLIDING SURFACES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SECTION 14, 2002, AND AS MODIFIED BY STAND. SPEC. 716-07
 - (E) STAINLESS STEEL SLIDING SURFACES SHALL CONFORM TO ASTM A-240 TYPE 304 WITH A SURFACE FINISH OF #8 MIRROR (AASHTO 14.6.2.2)
9. MANUFACTURING REQUIREMENTS
 - (A) POTS AND PISTONS SHALL BE MACHINED FROM A SOLID PIECE OF STEEL AS PER AASHTO SECTION 18.5.1.5-1 POT BEARINGS.
 - (B) ELASTOMERIC DISC TOLERANCES SHALL BE PER AASHTO TABLE 18.5.1.5-1 DATE 2/26/10 BY [Signature]
 - (C) PTFE SLIDING SURFACE TOLERANCES SHALL BE PER AASHTO TABLE 18.5.1.5-1 PTFE.
 - (D) STAINLESS STEEL SLIDING SURFACES SHALL BE EPOXY BONDED & SEAL WELDED, CONFORMING TO THE AMERICAN WELDING SOCIETY REQUIREMENTS FOR STAINLESS STEEL AROUND IT'S PERIMETER USING TECHNIQUES WHICH WILL ENSURE IT REMAINS IN CONTACT WITH THE BACKING PLATE. FINISH SHALL BE #8 MIRROR. FLATNESS SHALL CONFORM TO CLASS "A" OR BETTER.
 - (E) SOLE PLATE TOLERANCES SHALL CONFORM TO TABLE 18.5.1.5-1 REQUIREMENTS.
 - (F) GUIDE BAR TOLERANCES SHALL CONFORM TO TABLE 18.5.1.5-1.
 - (G) OVERALL HEIGHT OF BEARING SHALL NOT EXCEED THE NOMINAL HEIGHT BY MORE THAN 3/16".
 - (H) THE EDGES OF ALL PARTS SHALL BE BROKEN BY GRINDING SO THAT THERE ARE NO SHARP EDGES.
 - (I) EXTERNAL STEEL PLATE SURFACES TO BE HOT DIP GALVANIZED AS PER SPECIFICATIONS.
 10. TOLERANCES FOR FLATNESS
 - (A) FLATNESS OF BEARING SURFACES SHALL BE DETERMINED BY THE FOLLOWING METHOD:
 - (1) A PRECISION STRAIGHT EDGE LONGER THAN THE NOMINAL DIMENSION TO BE MEASURED SHALL BE PLACED IN CONTACT WITH THE SURFACE TO BE MEASURED AS PARALLEL TO IT AS POSSIBLE.
 - (2) SELECT A FEELER GAUGE HAVING AN ACCURACY OF ±.001" EQUAL TO THE TOLERANCE ALLOWED AND ATTEMPT TO INSERT IT UNDER THE STRAIGHT EDGE.
 - (3) PLATES ARE "ACCEPTABLE" IF THE FEELER GAUGE DOES NOT PASS UNDER THE STRAIGHT EDGE.
 - (B) FLATNESS TOLERANCES SHALL BE AS FOLLOWS:
 - (1) CLASS "A" 0.001 X NOMINAL DIMENSION PER AASHTO TABLE 18.5.15-1.
 - (C) "NOMINAL DIMENSIONS" SHALL BE INTERPRETED AS THE ACTUAL DIMENSION OF THE PLATE, IN METRIC UNITS, UNDER THE STRAIGHT EDGE WHERE THE STRAIGHT EDGE IS NOT PARALLEL TO ANY PLAN DIMENSION OF THE PLATE BEING MEASURED.
 - (D) IN DETERMINING THE FLATNESS THE STRAIGHT EDGE MAY BE LOCATED IN ANY POSITION ON THE SURFACE BEING MEASURED.
 11. REFERENCE
 - (A) AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 17TH. EDITION 2002 WITH CURRENT INTERIMS, AS MODIFIED BY THE NYSDOT STANDARD SPECIFICATIONS DATED JAN. 2, 2002 AND AS MODIFIED BY THE CONTRACT DOCUMENTS.
 12. ADDITIONAL COMMENTS
 - (A) BEARINGS SHALL HAVE A MAXIMUM FRICTION COEFFICIENT OF 3%.
 - (B) ALL BEARINGS SHALL BE PLACED ON A 1/8" THK. BEARING PAD SAME SIZE AS MASONRY PLATE, AND CONFORM TO STAND. SPEC. 728-02 OR 728-03
 - (C) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
 - (D) SCALE = N.T.S.
 - (E) MANUFACTURING LOCATION:
AMSCOT STRUCTURAL PRODUCTS CORP. INC.
241 EAST BLACKWELL STREET
DOVER, NJ 07801
PH: (973) 989-8800
FX: (973) 989-5651
CONTACT: PETER SOMOGYI



SOLE PLATE CONNECTION DETAIL

USE 2006
VTRANS
STANDARD
SPECIFICATION
FOR
CONSTRUCTION

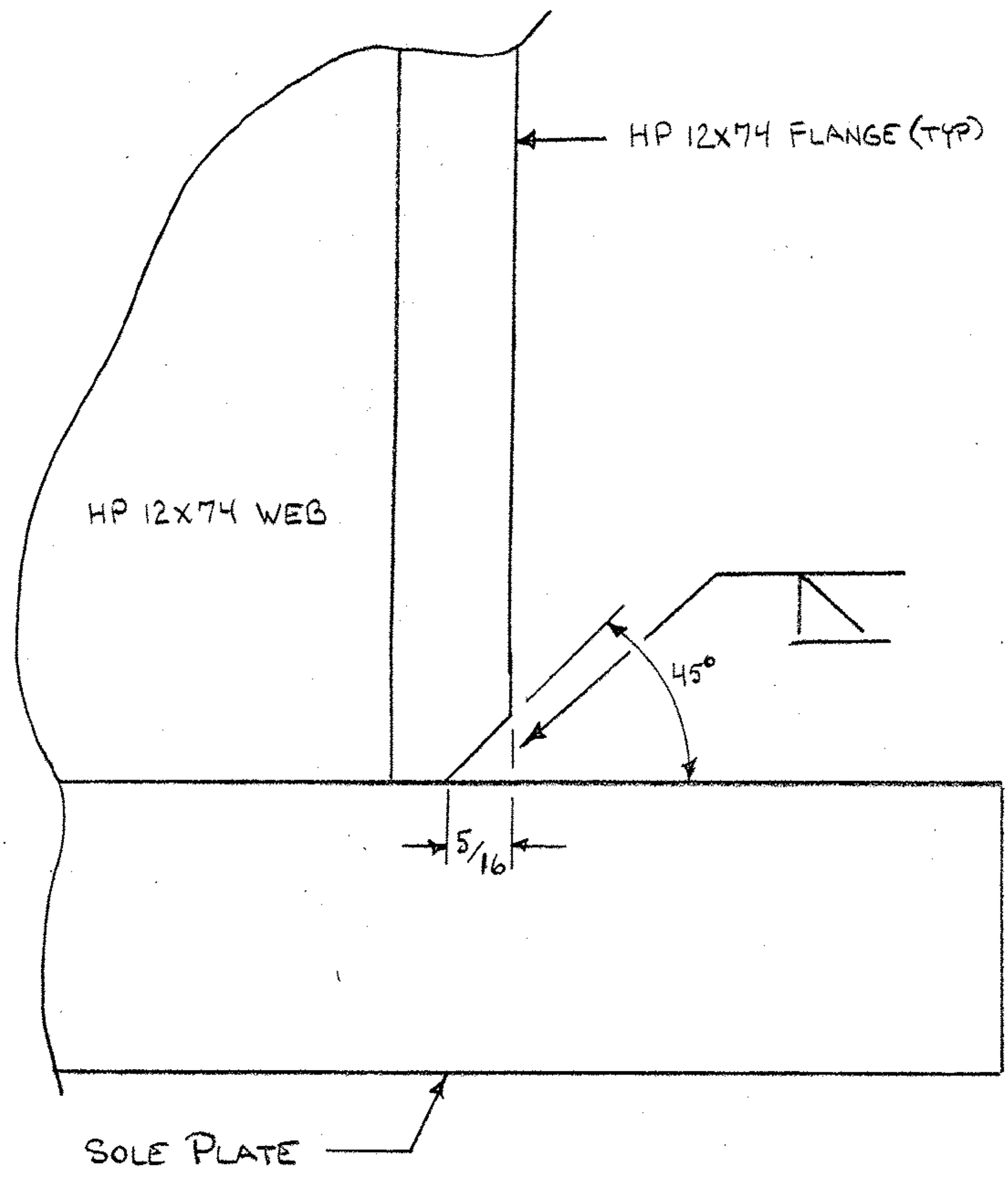
RECEIVED
CHK'D BY _____ OK'D BY _____
FEB 01 2010
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

VERMONT AGENCY OF TRANSPORTATION
CITY OF MONTPELIER
PROJECT NO. BHF 6400(31)

GUIDED EXPANSION POT
BEARING NOTES

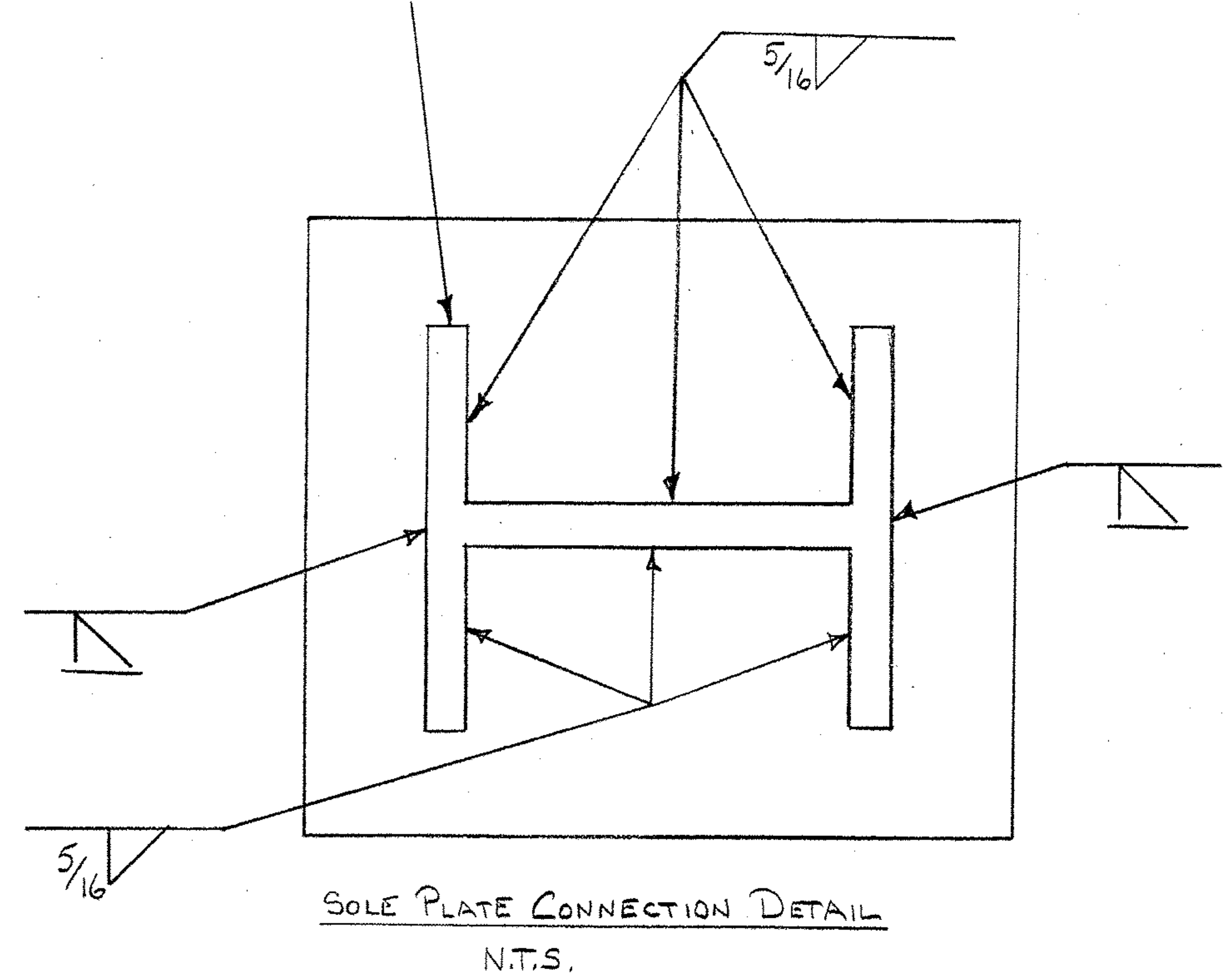
AMSCOT
STRUCTURAL PRODUCTS CORP.
DOVER, NJ JOB # 0071

SCALE	N.T.S.	CHECKED	DRAWN BY: C.A.M.
DATE	1/25/10	B.F.	REVISION: 0
FOR WINTERSET, INC.			
DWG NO: 104190		SHEET NO: 2 OF 2	



DETAIL "A"
N.T.S.

SEAL WELD FLANGE ENDS (TYP)



Casco Bay Steel Structures, Inc.

TELEPHONE (207) 282-7360 75 Spring Hill Road Saco, Maine 04072 FAX (207) 282-1179

CUSTOMER: WINTERSET, INC. A/E: CHA

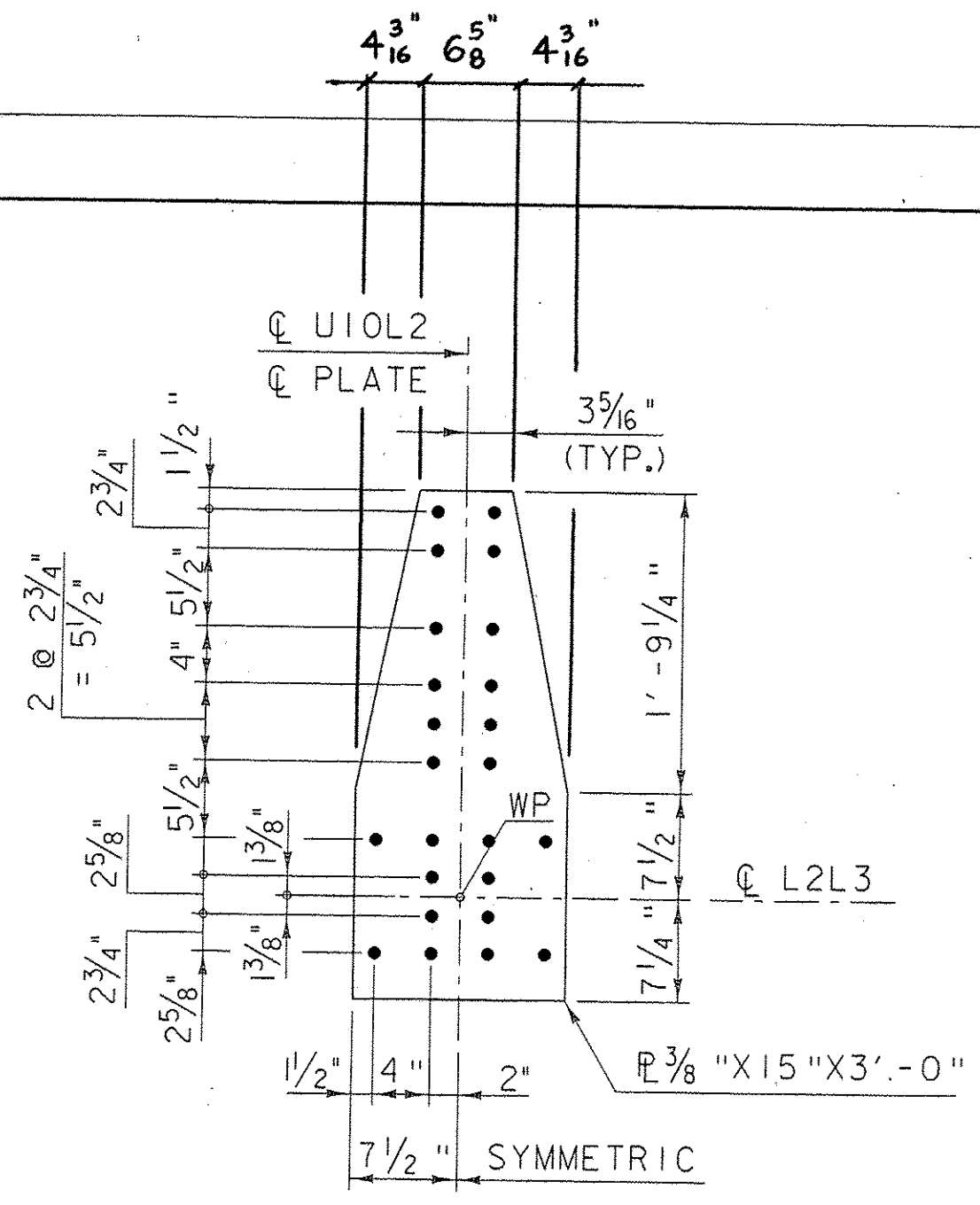
PROJECT: 149-TAYLOR STREET BRIDGE NO 5 DATE: 5-11-10 SKETCH NO.: 511

MONTPELIER, VERMONT DRAWN BY: JSS WANTED:

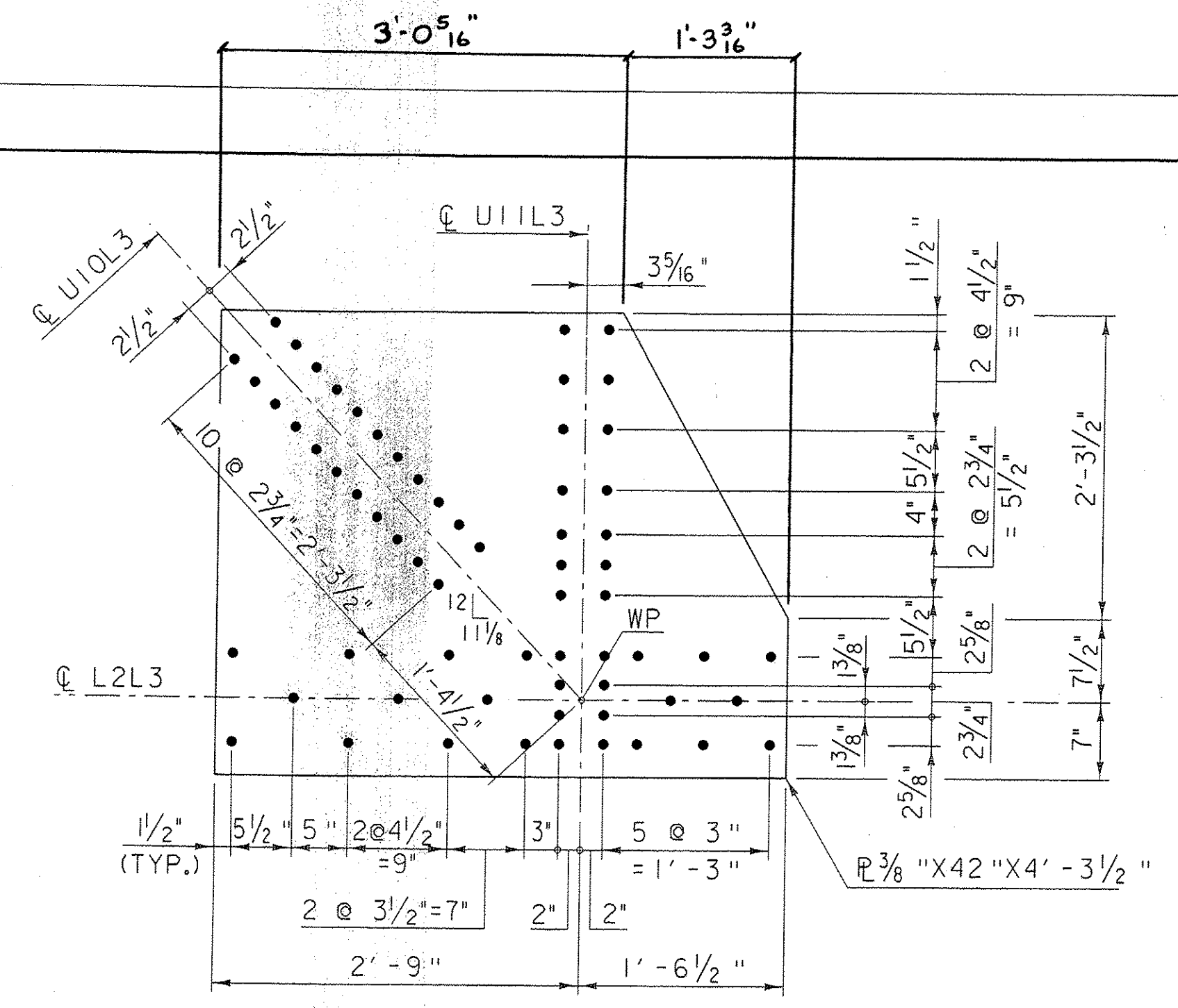
DELIVERY ARRANGEMENTS: LAND AIR PAINT: SSPC-SP10 AND CARBOLINE 659 3-5 MILS DFT

ABM INFO		SHOP BILL										JOB NO.	DRG. NO.
PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEM. MARK	SHIPPING MARK	REMARKS	WEIGHT				
	5	*	R 3/8 x 15	3	0		G22	SHAPE					
	4	*	R 3/8 x 42	4	3/2		G23	SHAPE					
	4	*	R 3/8 x 33	2	10		G24	SHAPE					
	2	*	R 3/8 x 36	3	9		G25	SHAPE					
	4	*	R 3/8 x 12	2	6		G30						
	4	*	R 3/8 x 14	2	6		G31						
	5	*	R 3/8 x 12	2	0 1/4		G32						
	5	*	R 3/8 x 12	3	3/4		G26						
	4	*	R 3/8 x 12	1	0		G39						
	15	*	R 3/8 x 9	1	0		G40						
	10	*	R 3/8 x 12	1	0		G41						
	4		R 3/16 x 12	1	4 1/4		F10				A709-50		
	4		R 3/16 x 14	3	6 3/4		G27						
	4		R 3/16 x 12	3	10 1/2		G28						
	4		R 1/8 x 12	1	10 1/2		F9				A709-50w		
* ABOVE MATERIAL A709-50F2 FRACTURE CRITICAL MATERIAL													
<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> MATERIAL IS DETAILED ON SKETCH # 512 </div>													
							3/8"	R	PO*		434-7		
							3/16"	R	PO*		434-9		
							1/8"	R	PO*		434-10		

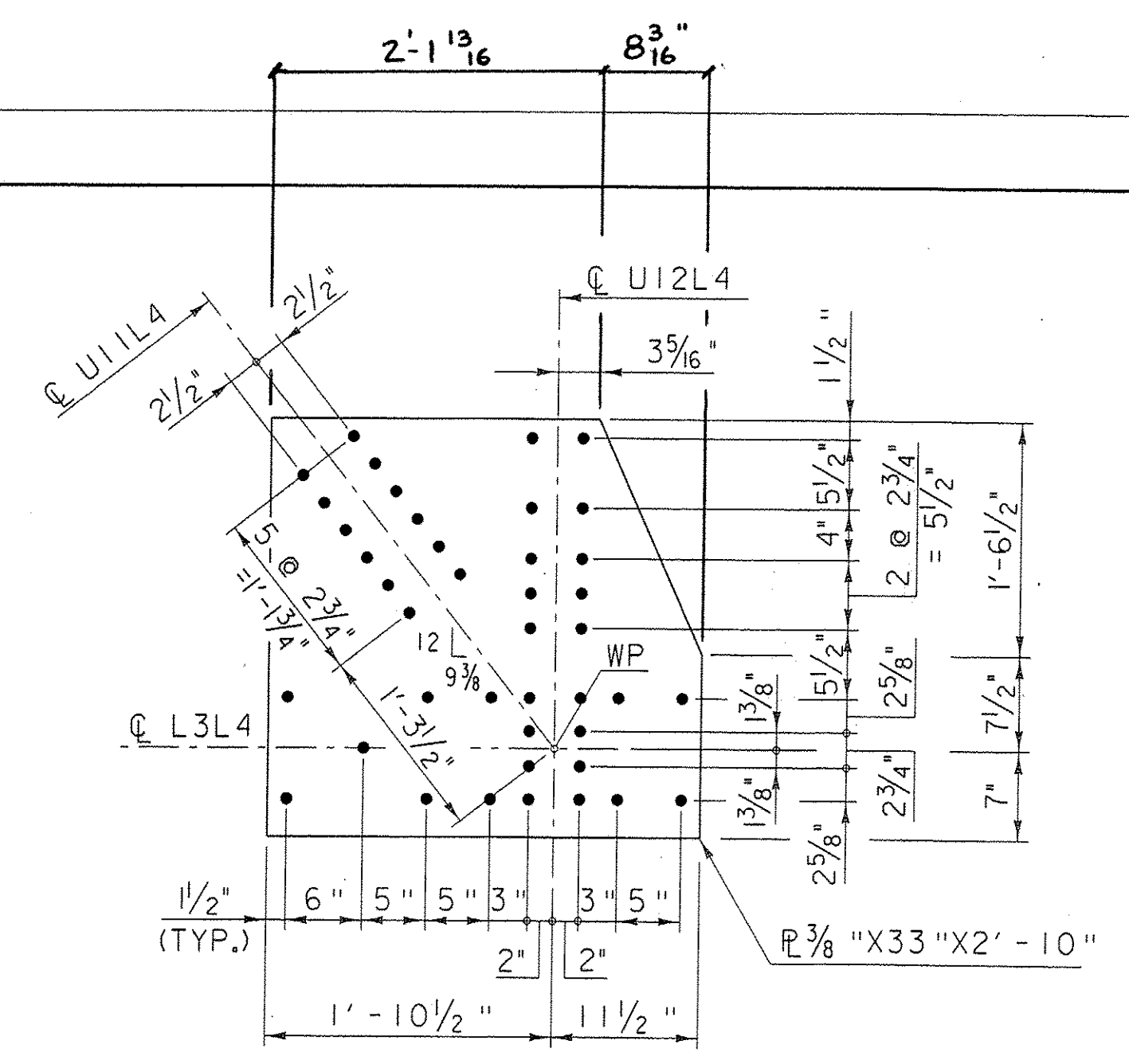
Shop 5-18-10
Shop 5-24-10 Δ



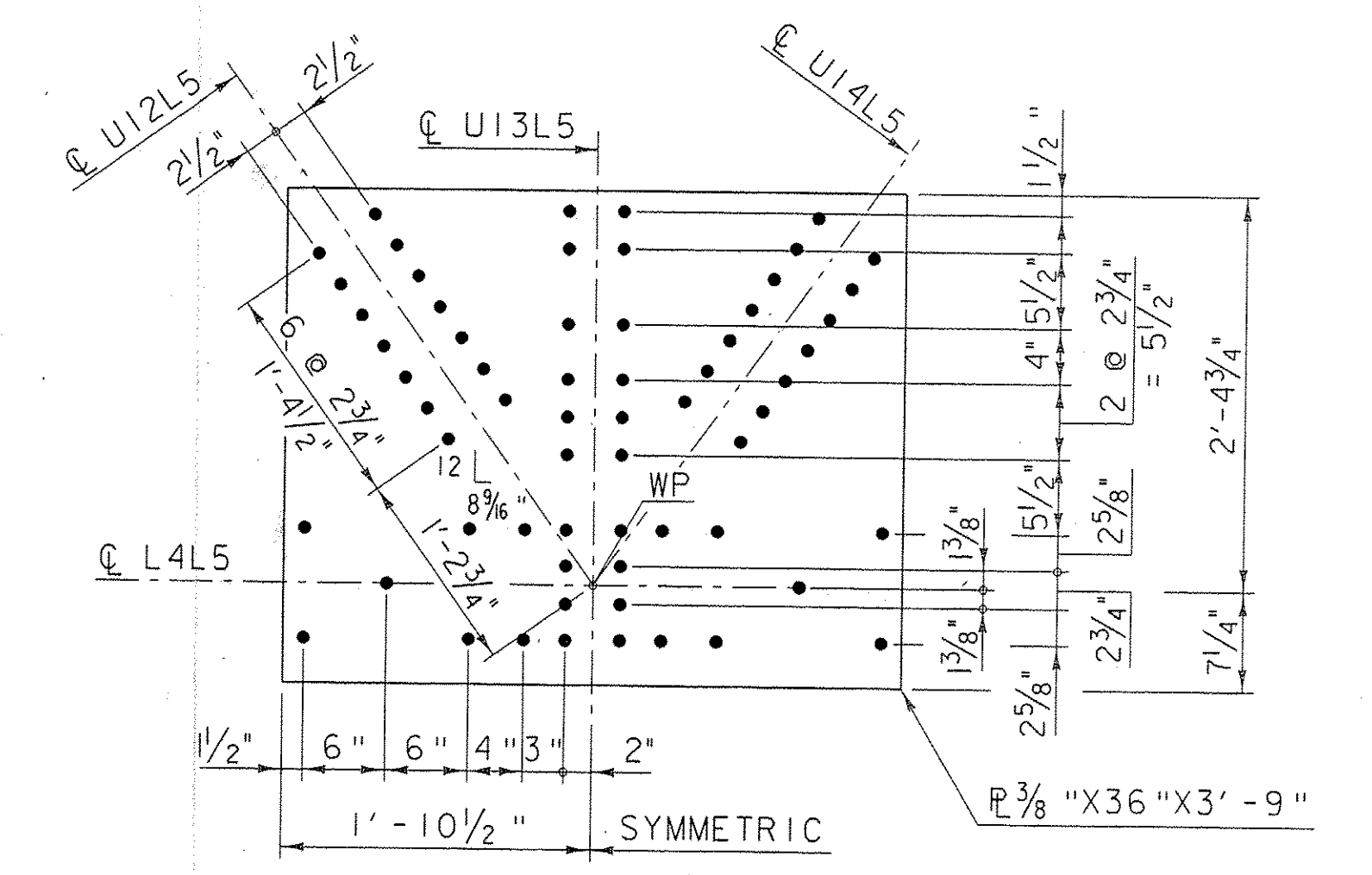
GUSSET PLATE G22
(L2 SHOWN, L8 SIMILAR)
SCALE 1" = 1'-0"



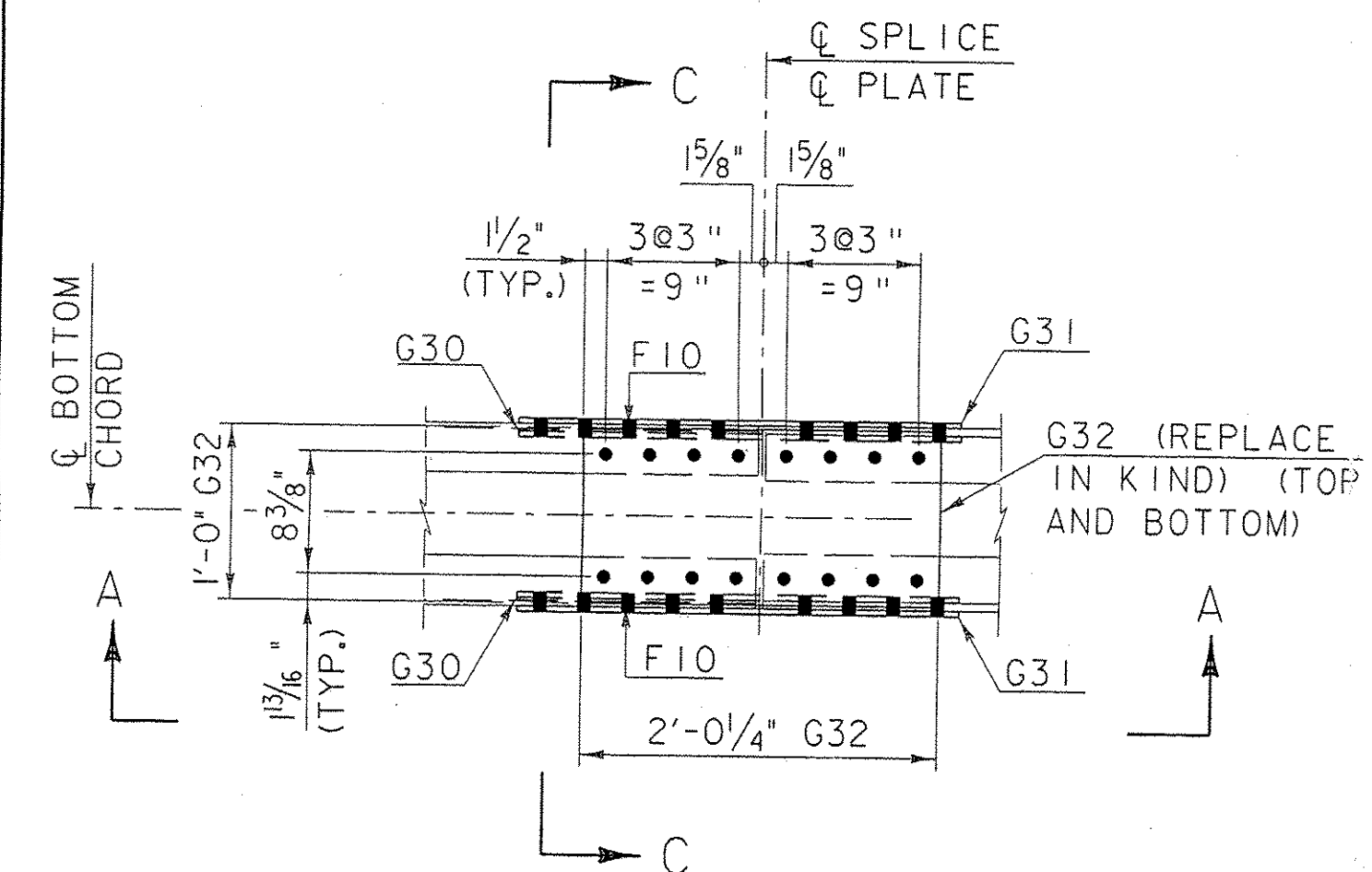
GUSSET PLATE G23
(L3 SHOWN, L7 OPPOSITE HAND)
SCALE 1" = 1'-0"



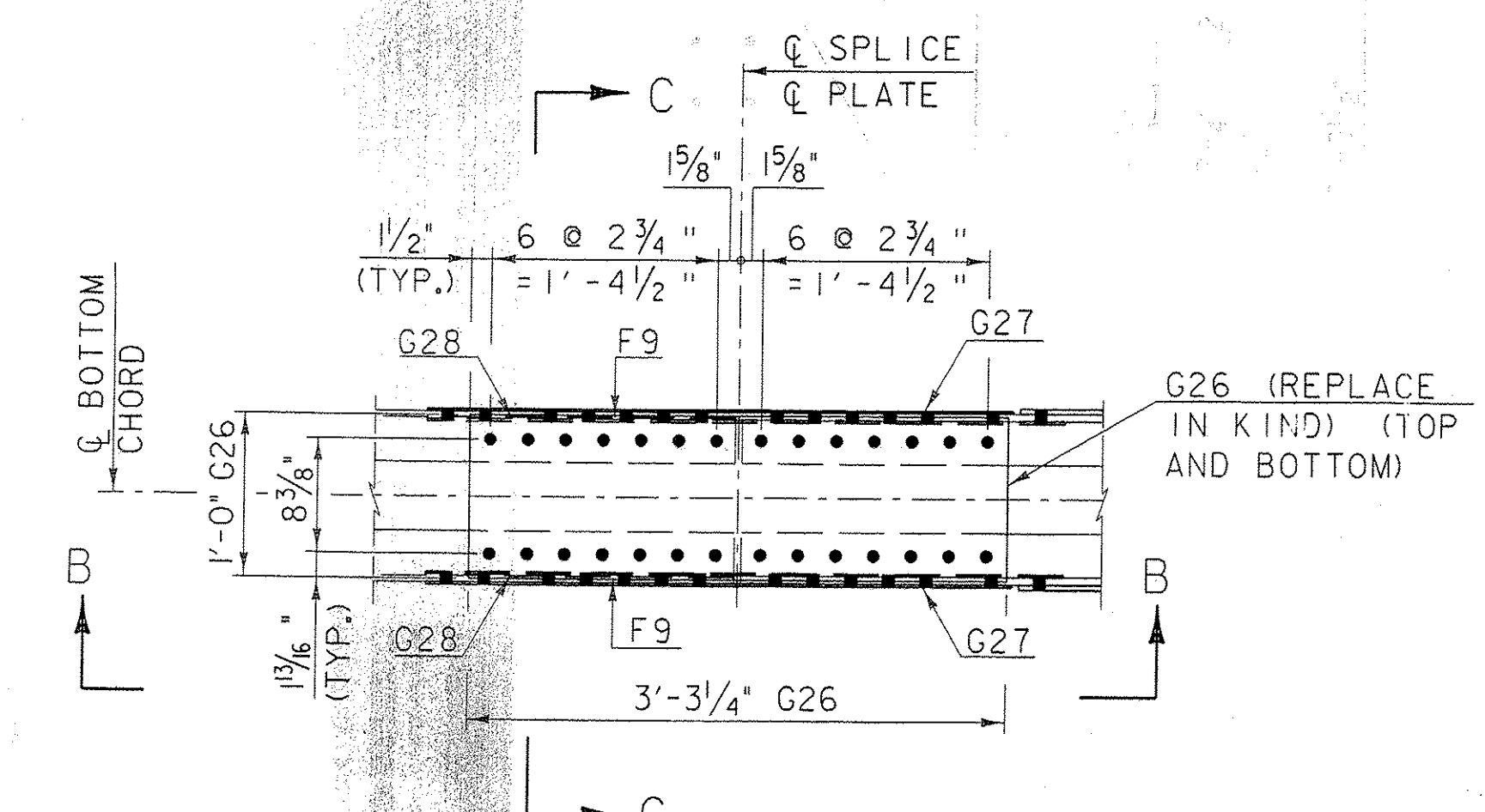
GUSSET PLATE G24
(L4 SHOWN, L6 OPPOSITE HAND)
SCALE 1" = 1'-0"



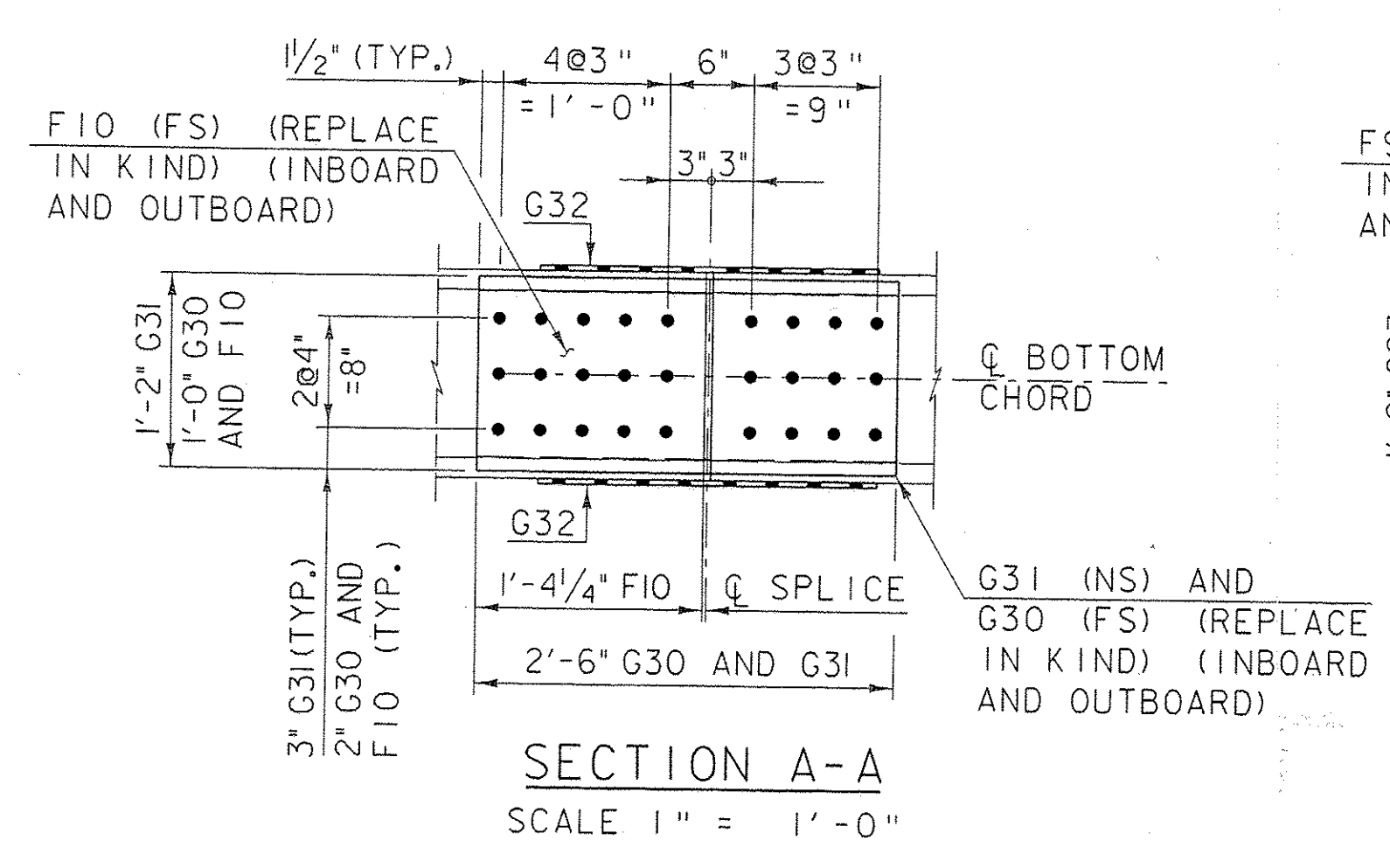
GUSSET PLATE G25
SCALE 1" = 1'-0"



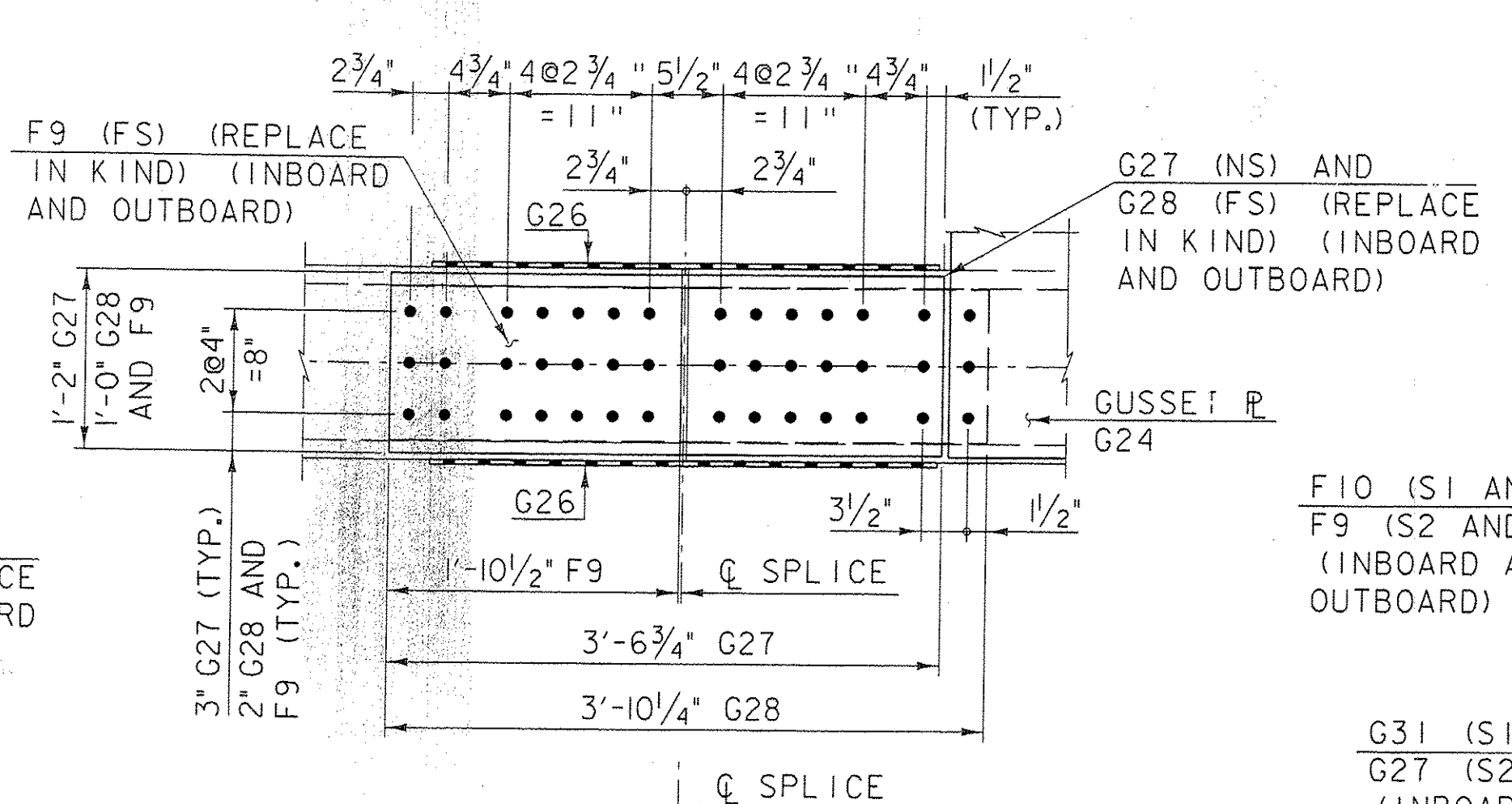
PLAN - SPLICE S1 AND S4
SCALE 1" = 1'-0"



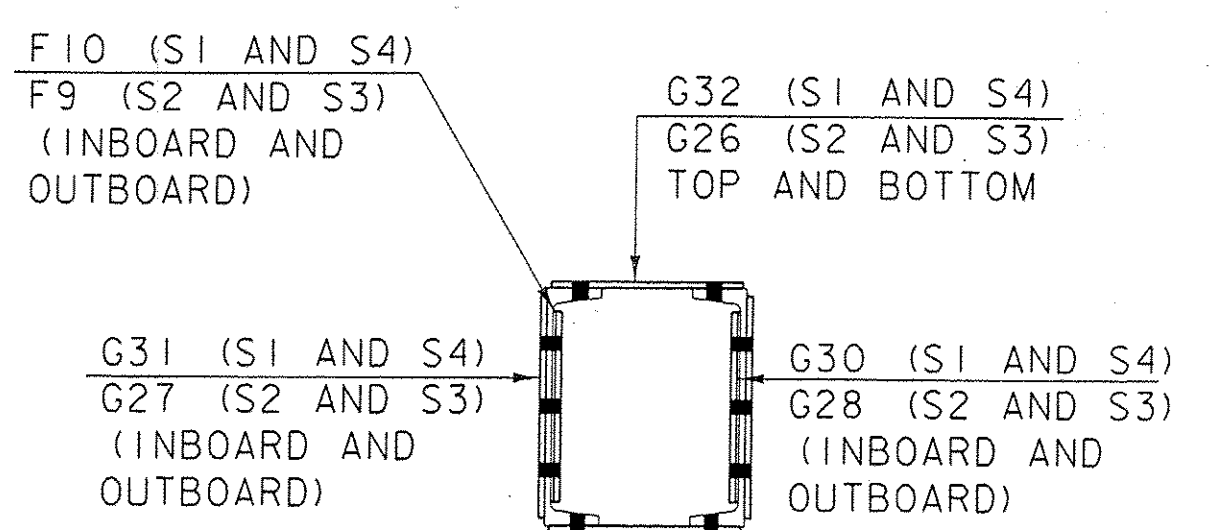
PLAN - SPLICE S2 AND S3
SCALE 1" = 1'-0"



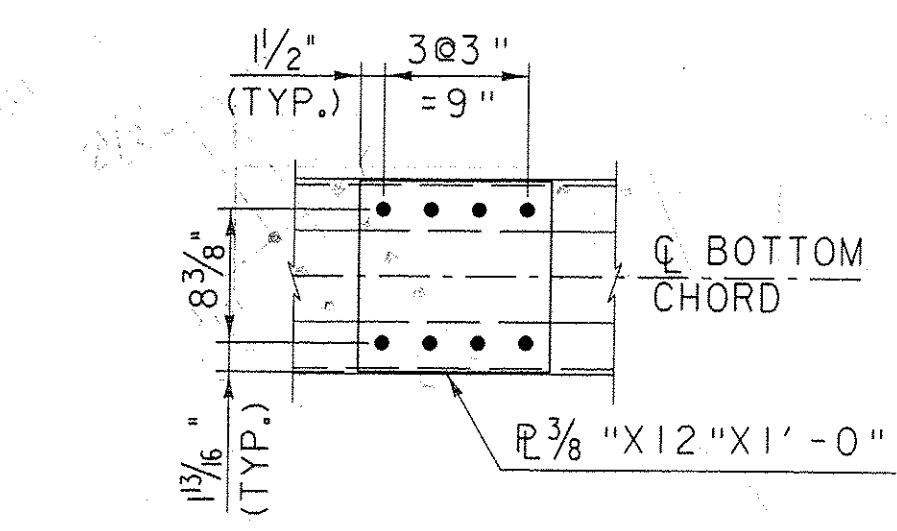
SECTION A-A
SCALE 1" = 1'-0"



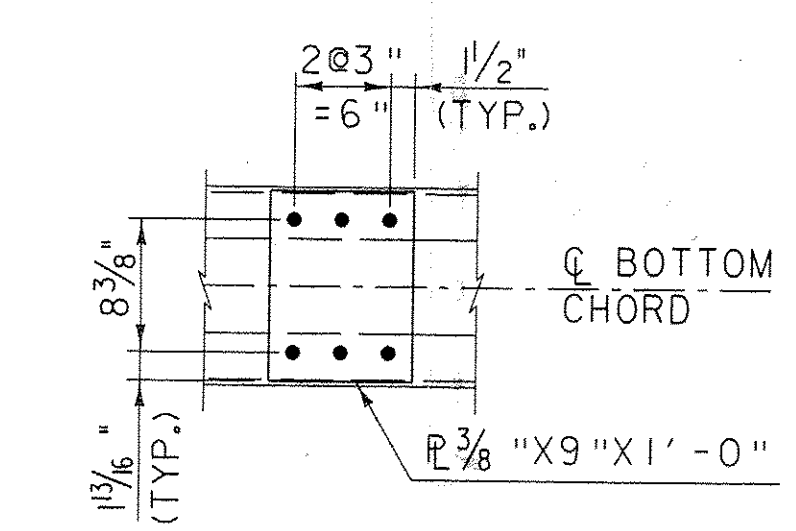
SECTION B-B
SCALE 1" = 1'-0"



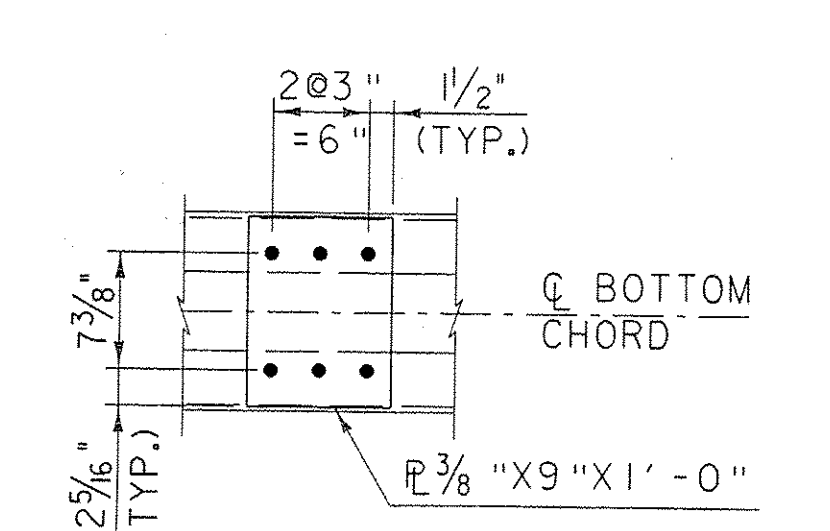
SECTION C-C
SCALE 1" = 1'-0"



PLAN - BATTEN PLATE G39
SCALE 1" = 1'-0"



PLAN - BATTEN PLATE G40
SCALE 1" = 1'-0"



PLAN - BATTEN PLATE G41
SCALE 1" = 1'-0"

ADDITIONAL REPAIR REQUIREMENTS (WEST TRUSS):

GUSSET PLATE - MEMBER G22: REPLACE INBOARD AT L8, 1-R 3/8 " X 15" X 3'-0"

ADDITIONAL REPAIR REQUIREMENTS (EAST TRUSS):

- GUSSET PLATE - MEMBER G22: REPLACE INBOARD AND OUTBOARD AT L2 AND L8, 4-R 3/8 " X 15" X 3'-0"
- GUSSET PLATE - MEMBER G23: REPLACE INBOARD AND OUTBOARD AT L3 AND L7, 4-R 3/8 " X 42" X 4'-3 1/2"
- GUSSET PLATE - MEMBER G24: REPLACE INBOARD AND OUTBOARD AT L4 AND L6, 4-R 3/8 " X 33" X 2'-10"
- GUSSET PLATE - MEMBER G25: REPLACE INBOARD AND OUTBOARD AT L5, 2-R 3/8 " X 36" X 3'-9"
- SPLICE PLATE - MEMBER G30: REPLACE INBOARD AND OUTBOARD AT S1 AND S4, 4-R 3/8 " X 12" X 2'-6"
- SPLICE PLATE - MEMBER G31: REPLACE INBOARD AND OUTBOARD AT S1 AND S4, 4-R 3/8 " X 14" X 2'-6"
- FILL PLATE - MEMBER F10: REPLACE INBOARD AND OUTBOARD AT S1 AND S4, 4-R 3/8 " X 12" X 1'-4 1/4"
- SPLICE PLATE - MEMBER G32: REPLACE TOP AND BOTTOM AT S1 AND S4, 5-R 3/8 " X 12" X 2'-0 1/4"
- SPLICE PLATE - MEMBER G26: REPLACE TOP AND BOTTOM AT S2 AND S3, 5-R 3/8 " X 12" X 3'-3 1/4"
- SPLICE PLATE - MEMBER G27: REPLACE INBOARD AND OUTBOARD AT S2 AND S3, 4-R 3/8 " X 14" X 3'-6 3/4"
- FILL PLATE - MEMBER F9: REPLACE INBOARD AND OUTBOARD AT S2 AND S3, 4-R 3/8 " X 12" X 1'-10 1/2"
- SPLICE PLATE - MEMBER G28: REPLACE INBOARD AND OUTBOARD AT S2 AND S3, 4-R 3/8 " X 12" X 3'-10 1/4"
- BATTEN PLATE - MEMBER G39: REPLACE TOP AND BOTTOM AS REQUIRED, 4-R 3/8 " X 12" X 1'-0"
- BATTEN PLATE - MEMBER G40: REPLACE TOP AND BOTTOM AS REQUIRED, 15-R 3/8 " X 9" X 1'-0"
- BATTEN PLATE - MEMBER G41: REPLACE TOP AND BOTTOM AS REQUIRED, 10-R 3/8 " X 12" X 1'-0"

HOLES = 15 φ

Shop: 9-18-10
Shop: 5-24-10 Δ

Casco Bay Steel Structures, Inc.		
TELEPHONE (207) 282-7360	75 Spring Hill Road Saco, Maine 04072	FAX (207) 282-1179
CUSTOMER: WINTENSET, INC.	A/E: CHA	
PROJECT: TH9-TAYLOR STREET BRIDGE NO 5 MONTPELIER, VERMONT	DATE: 5-11-10	SKETCH NO.: 512
	JOB NO.: 43A	S.O. NO.:
	DRAWN BY: J.S.S.	WANTED:
	PAINT: SSPC-SP10 AND CARBOLINE 859 3-5 MILS DFT	



FILE NAME: \$FILES\$
PROJECT MANAGER: SUSAN SCRIBNER
DESIGNED BY: D. D'AMATO
BRIDGE DESIGN SUPERVISOR: P. HALSTEAD
PLOT DATE: 5/10/2010
DRAWN BY: D. D'AMATO
CHECKED BY: P. PERKINS
SHEET 31A OF 63

TELEPHONE (207) 282-7360		Casco Bay Steel Structures, Inc. 75 Spring Hill Road Saco, Maine 04072		FAX (207) 282-1179	
CUSTOMER: WINTERSET, INC.			A/E: CHA		
PROJECT: TH-9 TAYLOR STREET BRIDGE NO. 5 MONTPELIER, VERMONT			DATE: 6-28-10		SKETCH NO.: 62BF
DELIVERY ARRANGEMENTS:			JOB NO.: 434		S.O. NO.:
DRAWN BY: J.S.S.			WANTED:		PAINT: SSPC-SP10 AND CARBOLINE 859 3-5 MILS DFT

ABM INFO		JOB NO.		DRG. NO.		
PAGE	LINE NO.	DESCRIPTION	FT	IN	REMARKS	WEIGHT
WRITTEN ORDER # 3 SIDEWALK PEDESTRIAN RAIL SECTIONS						
	1	RAILING			R1	
	1	L3x2x5/16	10	3/4		
	23	R 3x3x3/4	2	7+		
	1	R 7/16x2	9	9		
	9	R 5/8x				
	1	3" STD. PIPE	10	1/4		
	9	1/2" BOLT				
	1	RAILING			R2R	
	1	L3x2x5/16	10	6/8		
	23	R 3x3x3/4	2	7+		
	1	R 7/16x2	9	9		
	9	R 5/8x				
	1	3" STD. PIPE	10	8/8		
	9	1/2" BOLT				
	1	BALL END CAP				
	1	RAILING			R2L	
	1	L3x2x5/16	10	6/8		
	23	R 3x3x3/4	2	7+		
	1	R 7/16x2	9	9		
	9	R 5/8x				
	1	3" STD. PIPE	10	8/8		
	9	1/2" BOLT				
	1	BALL END CAP				

FROM '31C' EAST TRUSS

Casco Bay Steel Structures, Inc.

TELEPHONE (207) 282-7360 75 Spring Hill Road Saco, Maine 04072 FAX (207) 282-1179

CUSTOMER: WINTERSSET, INC.	A/E: C.H.A.
PROJECT: TH-9 TAYLOR STREET BRIDGE NO. 5 MONTPELIER, VERMONT	DATE: 6-28-10 SKETCH NO.: 628D
	JOB NO.: 434 S.O. NO.:
	DRAWN BY: J.S.S. WANTED:
DELIVERY ARRANGEMENTS:	PAINT: SSPC-SP10 AND CARBOLINE 859 3-5 MILS DFT

SHOP BILL

JOB NO. DRG. NO.

PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEM. MARK	SHIPPING MARK	REMARKS	WEIGHT
			PEDESTRIAN RAIL POSTS						
	9		L2'2" x 2'2" x 1/4"	5	1 3/8		P5		
	9		L2'2" x 2'2" x 1/4"	4	4 7/8	K25			
	9		L2'2" x 2'2" x 1/4"	0	5 1/4	K27			
	8		L2'2" x 2 1/4" x 1/4"	4	10 5/8		P6		
	8		L2'2" x 2 1/4" x 1/4"	4	4 7/8	K25			
	8		L2'2" x 2 1/4" x 1/4"	0	5 1/4	K27			
			FROM WRITTEN ORDER # 3						
	2		L5 x 3 x 3/8	1	1 1/2		K34P		
	2		L5 x 3 x 3/8	1	1 1/2		K34L		
	1		R38 x 12	2	0 1/4		G32		

FROM 31C EAST TRUSS

Casco Bay Steel Structures, Inc.

TELEPHONE (207) 282-7360 FAX (207) 282-1179
 75 Spring Hill Road
 Saco, Maine 04072

CUSTOMER: WINTERSET, INC.		A/E: C.H.A.	
PROJECT: TH-2 TAYLOR STREET BRIDGE No 5 MONTPELIER, VERMONT		DATE: 6-28-10	SKETCH NO.: 620C
		JOB NO.: 434	S.O. NO.:
		DRAWN BY: J.S.S.	WANTED:
DELIVERY ARRANGEMENTS:		PAINT: SSPC-SP10 AND CARBOLINE 859 3-5 MILS DFT	

ABM INFO		JOB NO.		DRG. NO.					
PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEM. MARK	SHIPPING MARK	REMARKS	WEIGHT
	1		BUILT UP BRACKET				KB2		
	1		R 5/16 x 3 1/2	6	9 1/2	KB2X			
	1		L 3 1/2 x 3 1/2 x 5/16	6	9 1/8	KB			
	1		L 3 1/2 x 3 1/2 x 5/16	5	5 1/4	K9			
	2		L 3 1/2 x 3 1/2 x 5/16	2	0 9/16	K12			
	1		L 2 1/2 x 2 1/2 x 1/4	0	9 3/16	K14			
	1		L 3 1/2 x 3 1/2 x 5/16	0	7 1/4	K15			
	1		L 3 1/2 x 3 1/2 x 5/16	6	10	K42			
	1		L 3 1/2 x 3 1/2 x 5/16	5	4 1/8	K43			
	2		L 4 x 3 x 3/8	2	3 1/2	K44			
	2		R 5/16 x 3 1/2	1	4 3/4	F11			
	2		L 3 1/2 x 3 1/2 x 5/16	0	9 1/2	K21			
	2		R 3 1/2 x 3 1/2 x 5/16	0	9 1/2	K22			
	2		L 3 1/2 x 3 1/2 x 5/16	0	9 1/2	K23			
	8		L 3 1/2 x 3 1/2 x 5/16	0	8 1/2	K63			
	2		L 3 x 3 x 5/16	2	0 1/4	K47	B.C.Z.E.		
	4		L 3 x 3 x 5/16	1	1 1/8	K48			
	4		L 3 1/2 x 3 x 5/16	1	1 1/8	K49	CUT 3/8 LEG TO 3/4		
	2		C 6 x 8 x 2	2	3 1/16	K50	B.C.Z.E.		

From '310' West Truss

Casco Bay Steel Structures, Inc.

TELEPHONE (207) 282-7360 75 Spring Hill Road Saco, Maine 04072 FAX (207) 282-1179

CUSTOMER: WINTERSET, INC.	A/E: CHA
PROJECT: TH-9 TAYLOR STREET BRIDGE No. 5 MONTPELIER, VERMONT	DATE: 6-28-10 SKETCH NO.: 620B
	JOB NO.: 434 S.O. NO.:
	DRAWN BY: J.S.S. WANTED:
	PAINT: SSPC-SP10
DELIVERY ARRANGEMENTS:	AND CARBOLINE 859 3-5 MILS D.P.T.

SHOP BILL

JOB NO. DRG. NO.

PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEM. MARK	SHIPPING MARK	REMARKS	WEIGHT
	2		RAIL POST					RP1	
	4		L 4x4x5/16	5	7 3/4	RP1X			
	2		R 5/16x4	4	11"	F19			
	2		R 5/16x8 3/4	1	0 1/2	G54			
	2		L 3/2x3 1/2x5/16	0	6 1/2	K63			
	4		L 5x3 1/2x5/16	1	0 8	K64			
	4		R 5/16x3 1/2	0	8 3/4	F20			
	2		RAIL POST					RP2	
	4		L 4x4x5/16	5	7 3/4	RP2X			
	2		R 5/16x4	4	11"	F19			
	2		R 5/16x8 3/4	1	0 1/2	G55			
	2		L 3/2x3 1/2x5/16	0	6 1/2	K63			
	4		L 5x3 1/2x5/16	1	0 8	K65			
	4		R 5/16x3 1/2	0	8 3/4	F21			
	2		RAIL POST					RP3	
	2		W 12x30	4	4 1/2	RP3X			
	2		L 3 1/2x3 1/2x5/16	0	6 1/2	K63			
	1		R 1/2x12	1	3			BRI	

FROM '31B' EAST TRUSS

Casco Bay Steel Structures, Inc.

TELEPHONE (207) 282-7360 FAX (207) 282-1179
 75 Spring Hill Road
 Saco, Maine 04072

CUSTOMER: WINTERSET, INC.	A/E: C.H.A.
PROJECT: TH-9 TAYLOR STREET BRIDGE No. 5 MONTPELIER, VERMONT	DATE: 6-28-10 SKETCH NO.: 628A JOB NO.: 434 S.O. NO.: DRAWN BY: J.S.S. WANTED: PAINT: SSPC-SF10 AND CARBOLINE 859 3-5 MILS DFT
DELIVERY ARRANGEMENTS:	

SHOP BILL

JOB NO. DRG. NO.

PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEM. MARK	SHIPPING MARK	REMARKS	WEIGHT
	2		SIDEWALK STRINGER				B9		
	2		C 9 x 15	41	2 1/2	B9X			
	2		L 4 x 3 x 5/16	41	2 1/2	KB9			
	1		SIDEWALK STRINGER				B10		
	1		C 9 x 15	41	7/8	B10X			
	1		L 4 x 3 x 5/16	41	7/8	KB10			
	1		L 5 x 3 x 3/8	0	2 1/2	K24			
	1		SIDEWALK STRINGER				B13		
	1		C 9 x 15	41	7/8	B13X			
	1		L 4 x 3 x 5/16	41	7/8	KB13			
	1		L 5 x 3 x 3/8	0	2 1/2	K24			
	1		SIDEWALK STRINGER				B14		
	1		W 8 x 20	0	0	B14X			
	2		R 3/8 x 6	0	9 1/2	SP1			
	2		R 5/8 x 6	1	0 1/2	SP2			
	4		R 3/8 x 2 1/16	0	9 1/2	SP3			
	4		R 1/4 x 6	0	4 1/2	FP1			
	8		R 1/4 x 2 1/16	0	4 1/2	FP2			
	2		L 5 x 3 x 3/8	0	2 1/2	K24			
	2		RAIL POST				RP3		
	2		W 12 x 30	4	4 1/2	RP3X			
	2		L 3 1/2 x 3 1/2 x 5/16	0	6 1/2	K63			

Casco Bay Steel Structures, Inc.

5 Industry Road
South Portland, Maine 04106

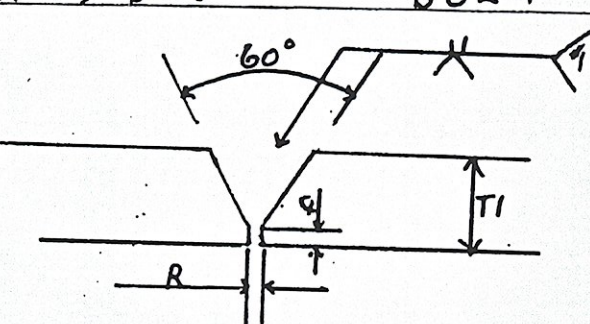
Phone: (207) 772-2533

Fax: (207) 772-0580

WELDING PROCEDURE SPECIFICATION

Material specification A36-A572-A588 (ASTM 709 Gr 36-50-50w)
 Welding process Flux Cored Arc welding (FCAW)
 Manual or machine Semi-AUTO
 Position of welding Flat-IG
 Filler metal specification AWS A5-20
 Filler metal classification E71T-1
 Flux NA
 Shielding gas 75% AR 25% CO₂ Flow rate 40 ± 5
 Single or multiple pass Both Electrode stick out 3/4 ± 1/4
 Single or multiple arc Single
 Welding current Direct Current
 Polarity Reverse Electrode Positive
 Welding progression See Detail
 Root treatment weld side * backgauge side * 2 grind * then weld
 Preheat and interpass temperature To 3/4-50° F (14-10°) * 3/4 to 1/2-70° (19 to 20°)
 Postheat temperature NA
 Heat input Min NA Max NA BRIDGE No. 5
 MONTPELIER, VT.
 CBSS Job # 434

WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed
		Amperes	Volts	
1/16	280 ± 28	25 ± 1.7	11 ± 1.1	AWS D1.5 Joint detail BU2-F  T1 - UNLIMITED P - 0 To 1/8 / 0 To 3.2mm R - 0 To 1/8 / 0 To 3.2mm 1 - Grind as required
1.6	280 ± 28	25 ± 1.7	280 ± 28	

CK'D BY JWC OK'D BY JWC
 APR 22 2010
 RESUBMIT APPROVED
 BY DATE 05/04/10

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 104 Contractor Casco Bay Steel
 Revision no. AWS - OCT Authorized By Paul E. Goodale
 Form III-2 Paul E. Goodale Date 2/2/99
 C.W.I.

Casco Bay Steel Structures, Inc.
 TELEPHONE (207) 282-7360 75 Spring Hill Road Saco, Maine 04072 FAX (207) 282-1179

CUSTOMER: WINTERSET A/E:
 PROJECT: TH-9 DATE: 4-5-10 SKETCH NO.: M1-A
 TAYLOR STREET BRIDGE #5 JOB NO.: 434 S.O. NO.:
 MONTPELIER, VERMONT DRAWN BY: J.P.F. WANTED:
 PAINT:

DELIVERY ARRANGEMENTS:

RECEIVED

CHK BY: CUA

APR 10 2010

RESHWIT APPROVED ✓

BY: WJR/RS DATE: 5/11/10

3 4
 R 4 x 7 x 1-7
 A270M GR50
 IF SHOP BUTT WELDS GRIND BOTH SIDES
 1/2" WELDED STUD ON 1/2"

- CPI-16-REQ'D.
 (@ INTERMEDIATE RAIL POSTS)
 GALVANIZE AFTER FAB.

UNLESS NOTED OTHERWISE ALL MATERIAL MUST BE ASTM-A36 OR BETTER HOLES: Ø DIA. U.N.O.

SHIP MK	QTY	MARK	DESCRIPTION	LENGTH	WT	REMARKS
CPI	16		R 4 x 7	1	7	BEND
4B	WS		1/2" WELDED STUD	0	4	

Casco Bay Steel Structures, Inc.
5 Industry Road
South Portland, Maine 04106

Phone: (207) 772-2533

Fax: (207) 772-0580

WELDING PROCEDURE SPECIFICATION

Material specification A36-A572-A588 (ASTM 709 Gr 36-50-50w)
Welding process Flux Cored Arc welding (FCAW)
Manual or machine Semi-AUTO
Position of welding Flat
Filler metal specification AWS 5.20
Filler metal classification E71T-1
Flux AA Flow rate 40 F5
Shielding gas 75% Ar 25% CO2 Electrode stickout 3/4" V4
Single or multiple pass single
Single or multiple arc single
Welding current Direct Current
Polarity Reverse Electrode Positive
Welding progression see Detail
Preheat and interpass temperature 275-345° (19-102) 7/16 to 1/2" (19 to 38-100)
Postheat temperature NA
Heat input Min NA Max NA

VT-AOT, BRN0-5
Boiler No. BHE 640063D
T-101 ST BC, CBS 434

WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed	AWS D1.5
		Amps	Volts		
1/16	2/80	25 ± 1.7	17.5 ± 1.7	175 in/min ± 1.7	Square groove joint detail BUTT
1.6	2/80 ± 2/8	25 ± 1.7	43.2 ± 4.32	432 in/min ± 43.2	Butt joint detail 3/16 (1.0)

RESUBMIT APPROVED DATE 01/14/10

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 1.05 Contractor Casco Bay Steel
Revision no. _____ Authorized By Paul E. G...
Form III-2 AWS-CES-10-01 Paul E. G... 83100001 C.W.I. Date 2/2/99

Casco Bay Steel Structures, Inc.
 75 Spring Hill Road
 Saco, Maine 04072

Phone: (207) 282-7360

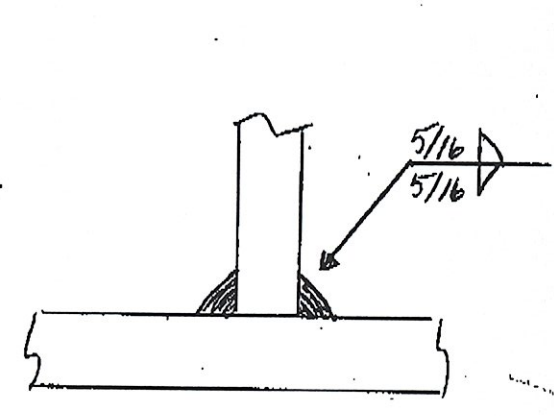
Fax: (207) 282-1174

WELDING PROCEDURE SPECIFICATION

Material specification ASTM A 709 - Gr 36-50-50W / A 709M Gr 250-345-345W
 Welding process Flux cored arc welding (FCAW)
 Manual or machine Semi AUTO
 Position of welding Flat - Horizontal
 Filler metal specification AWS A5-29
 Filler metal classification E81T1-Ni-HW ESAB
 Flux NA
 Shielding gas 75% Ar - 25% CO₂ Flow rate 35 CFH ± 4
 Single or multiple pass Single / Multiple Elec Ex 1/4 ± 1/4
 Single or multiple arc Single
 Welding current DCRP
 Polarity DCRP
 Welding progression See detail
 Root treatment wire brush - area to be Free of loose scale, slag, rust & moisture
 Preheat and interpass temperature To 200 (394) (1850), 80 (302) to 10 (1/8) 200 (394) 40 (1/4) 260 (500) 65 (1/2) 150
 Postheat temperature NA
 Heat Input Min 2.7 kJ/in Max 43.6 kJ/in PQR FCM # 8 39.6 kJ/in
VT-AOT, BFN0-5
Reg. No. BHF 6400(2)
12/1/07 ST Br, CBS 434

WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed
		Amps	Volts	
1/16	2.87	29	13	AWS D1-5 Joint detail Fillet
	2.58	26.8	11.4	
	To	To	To	
	3.15	31	14	



VT TRANS RECEIVED
 CK'D BY: _____ DATE: _____
 APPROVED BY: _____ DATE: 02/14/10
 AWS QC 1
 Print's Institute
 Saco, ME

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 101 Contractor Casco Bay Steel
 Revision no. _____ Authorized By Paul C. Goodale
 Form II-2 Date 12-6-06

Casco Bay Steel Structures, Inc.

75 Spring Hill Road
Saco, Maine 04072

Phone: (207) 282-7360

Fax: (207) 282-1179

WELDING PROCEDURE SPECIFICATION

Material specification ASTM A36 (250-345-342M)
 Welding process Shielded Metal Arc Welding (SMAW)
 Manual or machine Manual
 Position of welding Flat (1G) Horizontal (2G)
 Filler metal specification A51-A5-5 TRANS
 Filler metal classification E7018-B018023-025B
 Flux NA
 Shielding gas NA Flow rate NA
 Single or multiple pass single and multiple TRANS
 Single or multiple arc single
 Welding current AC DCE RESUBMIT APPROVED
 Polarity STRAIGHT / Reverse BY DATE 02/12/10
 Welding progression
 Root treatment To AWS SPECIFICATION
 Preheat and interpass temperature To AWS (100) 1/2 (200) 70° (200)
 Postheat temperature NA
 Heat input Min NA Max NA

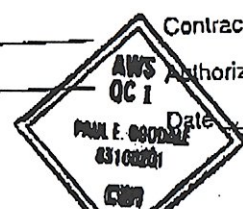
WT-AOT, BKNO-5
REG NO RHE 640(3)
1011er St. Br. CBS5434

WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed	Joint detail
		Amps	Volts		
A5	7018 1/8 (3.2)	70-170	22-26	AWS D1.5	B-U46
	5/32 (3.9)	120-225	22-26		
REQ	8018 1/8 (3.2)	90-160	22-26	REQ	
	5/32 (3.9)	120-225	22-26		
	7028 5/32 (3.9)	170-270	22-26		

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 402 Contractor Casco Bay Steel
 Revision no. _____ Authorized By Tom J. Boudreau
 Form III-2 _____ Date 10-16-01



Casco Bay Steel Structures, Inc.

75 Spring Hill Road
Saco, Maine 04072

Phone: (207) 282-7360

Fax: (207) 282-1179

WELDING PROCEDURE SPECIFICATION

Material specification ASTM A709/A709M - Gr 36-50-50w (250-345-345W)
 Welding process STUD WELDER
 Manual or machine MACHINE
 Position of welding FLAT
 Filler metal specification NA
 Flux NA Flow rate NA
 Shielding gas NA
 Single or multiple pass SINGLE
 Single or multiple arc SINGLE
 Welding current DC EN
 Polarity DC EN
 Welding progression NA
 Root treatment Clean
 Preheat and interpass temperature 1/2" To 1/2-70° 3/4" To 1/2-150° over 2 1/2" 225°
 Postheat temperature NA
 Heat input Min NA Max NA

APPROVED
DATE 01/11/10

WELDING PROCEDURE

VT-AOT, BY NO-5
Proj. No. RHF 6400(3)
Taylor St. Br. 085434

Pass no.	Electrode size	Welding current		Travel speed
		Amperes	Volts	
	5/16	350	35±	NA
	1/2	650	35±	
	5/8	650	35±	
	3/4	550	40±	
	7/8	650	1.0±	

Note:
This procedure is only a guide to setup.

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. # I S.W.

Contractor Casco Bay Steel

Revision no. _____

Authorized By [Signature]

Form W-2

Date May 3-1990



Casco Bay Steel Structures, Inc.

5 Industry Road
South Portland, Maine 04106

Phone: (207) 772-2533

Fax: (207) 772-0580

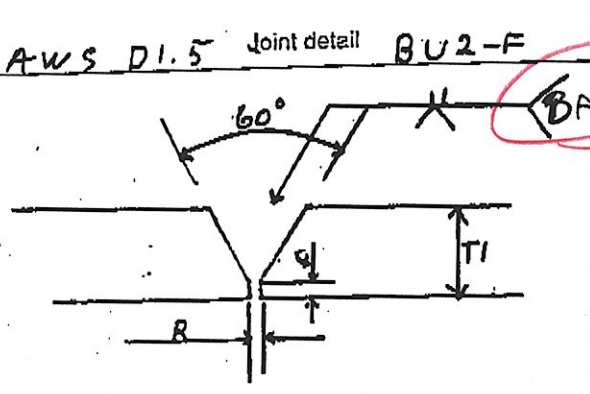
WELDING PROCEDURE SPECIFICATION

Material specification A36-A572-A588 (ASTM 709 Gr 36-50-50w)
 Welding process Flux Cored Arc welding (FCAW)
 Manual or machine semi-AUTO
 Position of welding Flat - 1G
 Filler metal specification AWS A5-20
 Filler metal classification E71T-1
 Flux NA
 Shielding gas 75% Ar 25% CO₂ Flow rate 40 ± 5
 Single or multiple pass Both Electrode stick out 3/4 ± 1/4
 Single or multiple arc single
 Welding current Direct current
 Polarity Reverse Electrode positive
 Welding progression see detail
 Root treatment see detail
 Preheat and interpass temperature To 3/4 50° (1" - 10") 3/4 to 1 1/2 70° (1 1/2 to 38-20")
 Postheat temperature NA
 Heat Input Min NA Max NA

VT-AOT, BKNO-5
For AWS E640 (3d)
For AWS E640 (3d)
For AWS E640 (3d)

WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed
		Amperes	Volts	
1/16	2.80	±28	±1.7	11 ±1.1
1.6	2.80	±28	±1.7	2.80 ±2.8

AWS D1.5 Joint detail BU2-F

 TI - UNLIMITED
 R - 0 to 1/8 / 0 to 3.2 mm
 R - 0 to 1/8 / 0 to 3.2 mm
 1-Grind as required

SUBMITTED BY: [Signature]
 APPROVED BY: [Signature]
 DATE: 2/14/99

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 104 Contractor Casco Bay Steel
 Revision no. AWS-OC1 Authorized By Paul E. Goodale
 Form III-2 Paul E. Goodale Date 2/2/99
 83100201
 C.W.I.

Casco Bay Steel Structures, Inc.

75 Spring Hill Road
Saco, Maine 04072

Phone: (207) 282-7360

Fax: (207) 282-1179

WELDING PROCEDURE SPECIFICATION

Material specification ASTM A572 Gr 50 (250-345-345W)
 Welding process Shielded Metal Arc Welding (SMAW)
 Manual or machine Manual
 Position of welding vertical up (3F)
 Filler metal specification AWS E7018 - R018 Ck3
 Flux NA
 Shielding gas NA Flow rate NA
 Single or multiple pass single - multiple
 Welding current DC
 Polarity Positive
 Welding progression see Detail
 Root treatment Area To be Free of loose Scale, Slag, Rust or Moisture
 Preheat and interpass temperature To 34 (19) 50 (10), 34 (19) To 120 (38) To 200 (149) To 210 (100)
 Postheat temperature NA
 Heat Input Min NA Max NA

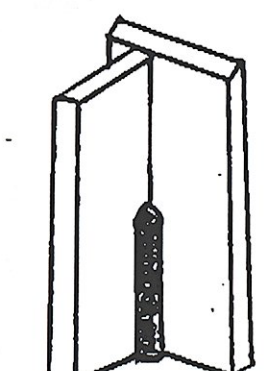

RESUBMIT APPROVED
DATE 04/14/10

VT-AOT, BRNO-5
By: NO. B.H.F. 6400(AD)
Twyler St. Pr., CB59432

(Metric) WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed	AWS D1.5 Joint detail
		Amperes	Volts		
7018 1/8 (3.2)	1/8	70-170	22-26		Filet
		120-190	22-26		
8018 1/8 (3.2)	1/8	90-160	22-26		Filet
		130-200	22-26		

NOTE: For Tacking and repair welding, To Code 5-27-06

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 403 Contractor Casco Bay Steel
 Revision no. _____ Authorized By Paul H. [Signature]
 Form III-2 Date 4-24-03

Casco Bay Steel Structures, Inc.

75 Spring Hill Road
Saco, Maine 04072

Phone: (207) 282-7360

Fax: (207) 282-1179

WELDING PROCEDURE SPECIFICATION

Material specification ASTM A36 Gr 36-50-50W (250-345-345W)
 Welding process Shielded Metal Arc Welding (SMAW)
 Manual or machine Manual
 Position of welding Overhead (4F)
 Filler metal specification A51-A5.5 TRANS
 Filler metal classification E7018-8018
 Flux NA
 Shielding gas NA Flow rate NA
 Single or multiple pass Single - multiple
 Single or multiple arc Single
 Welding current DC
 Polarity Positive
 Welding progression Sec. Detail
 Root treatment Area to be free of loose scale - slag - rust or moisture
 Preheat and interpass temperature 30(19) 50(100) 34(70) to 120(250) 120(250)
 Postheat temperature NA
 Heat Input Min NA Max NA

(Metric) WELDING PROCEDURE VT-AOT, B10-5
Reg. No. R.H.F. 640(3D)
Case No. ST. RC. CBS434

Pass no.	Electrode size	Welding current		Travel speed
		Amperes	Volts	
7018				
1/8 (3.2)	95-160	22-26		
5/32 (3.9)	120-190	22-26		
8018				
1/8 (3.2)	110-150	22-26		
5/32 (3.9)	130-190	22-26		

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications.

Procedure no. 404 Contractor Casco Bay
 Revision no. _____ Authorized By Paul E. Gagnier
 Form III-2 Date 6-3-04

Casco Bay Steel Structures, Inc.

5 Industry Road
South Portland, Maine 04106

Phone: (207) 772-2533

Fax: (207) 772-0580

WELDING PROCEDURE SPECIFICATION

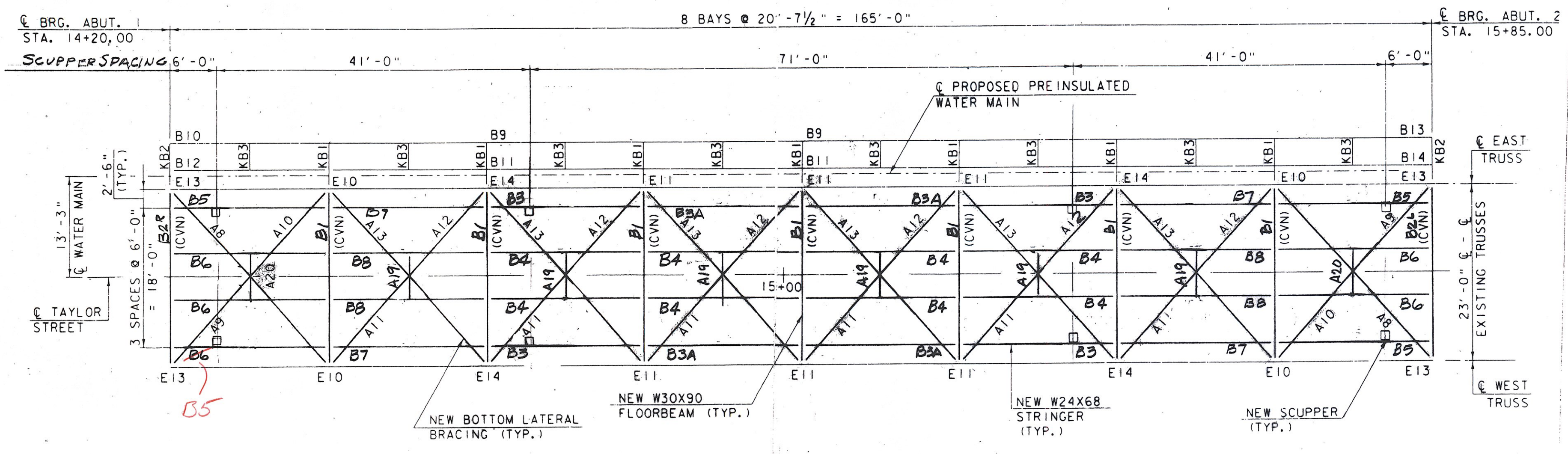
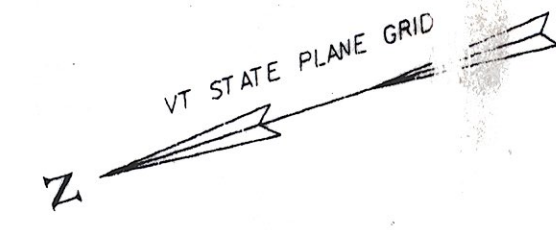
Material specification ASTM A109-01 3/8" x 50' x 50' (250-345-345W)
 Welding process Shielded Metal Arc Welding (SMAW)
 Manual or machine Manual
 Position of welding Flat (1F) Horizontal (2F) ✓ TRANS
 Filler metal specification ANSI/AWS A5.1 - A5.5
 Filler metal classification E7018 - R018 C₁S - 7028
 Flux NA
 Shielding gas NA Flow rate NA
 Single or multiple pass Single and multiple 1/4" 2" 2 1/2"
 Single or multiple arc Single
 Welding current AC / DC RESUBMIT APPROVED
 Polarity STRAIGHT / REVERSE DATE 04/19/00
 Welding progression NA
 Root treatment MEET AWS SPECIFICATION
 Preheat and interpass temperature 70°(165°) 50°(120°) 3/16" TO 1/4" (8) 70°(160°) 1/2" (13) TO 3/8" (10) 5/8" (15) 150°(325°)
 Postheat temperature NA over 2 1/2" (6.35) 225° (110°)
 Heat input Min NA Max NA VT-ACT, BY NO-5

(Metric) WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed	AWS D1.5	Joint detail	Fillet
		Amps	Volts				
AS	3/16 (4.8)	70-170	22-26	AS	1F		
	5/32 (3.9)	120-225	22-26				
	3/16 (4.8)	170-300	24-27				
REQ	1/8 (3.2)	90-160	22-26	REQ	2F		
	5/32 (3.9)	120-225	22-26				
	3/16 (4.8)	180-290	24-27				
REQ	3/16 (4.8)	170-300	24-27	REQ	3/16 TO 3/8 (5 TO 10)		
	5/32 (3.9)	190-270	22-26				
	3/16 (4.8)	210-330	24-27				

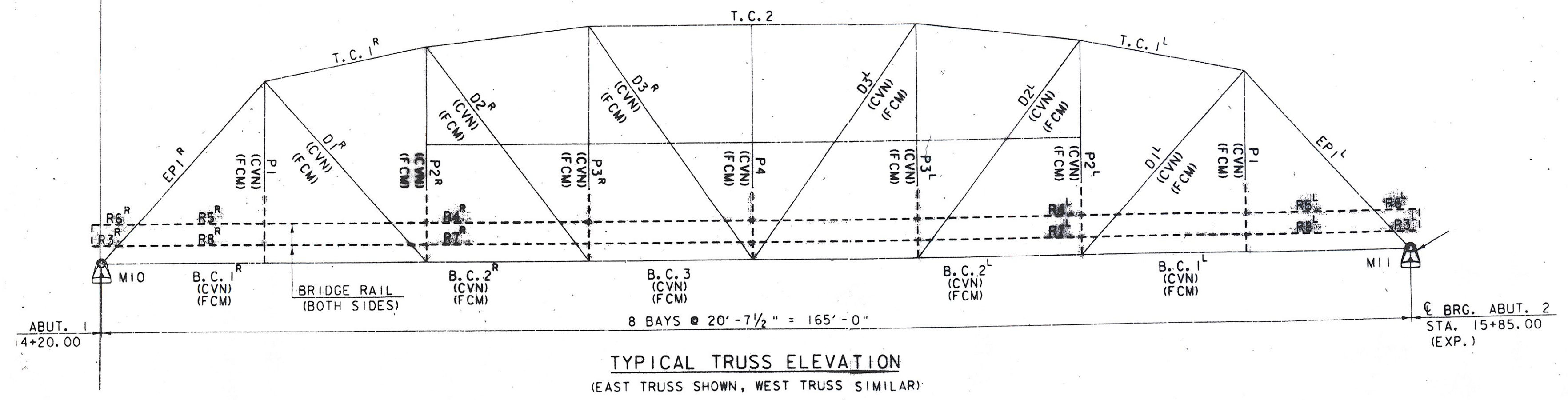
This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable codes or contract specifications.

Procedure no. 401 Contractor Casco Bay Steel
 Revision no. 1 Authorized by Paul E. Hurdale
 Form III-2 Date 3/2/00



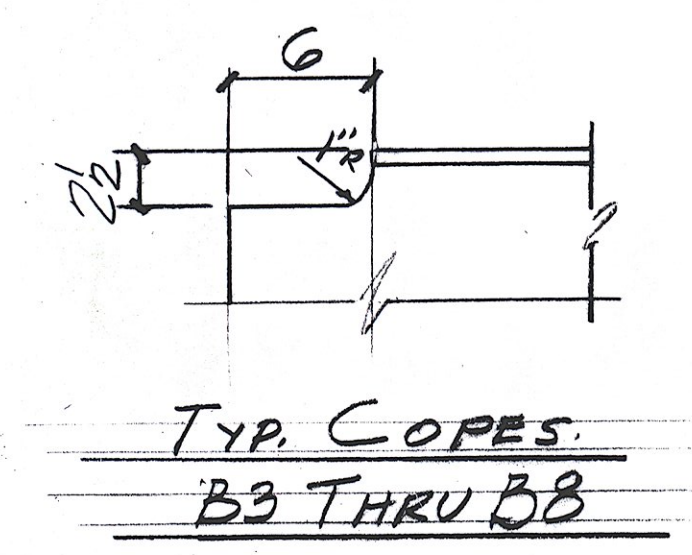
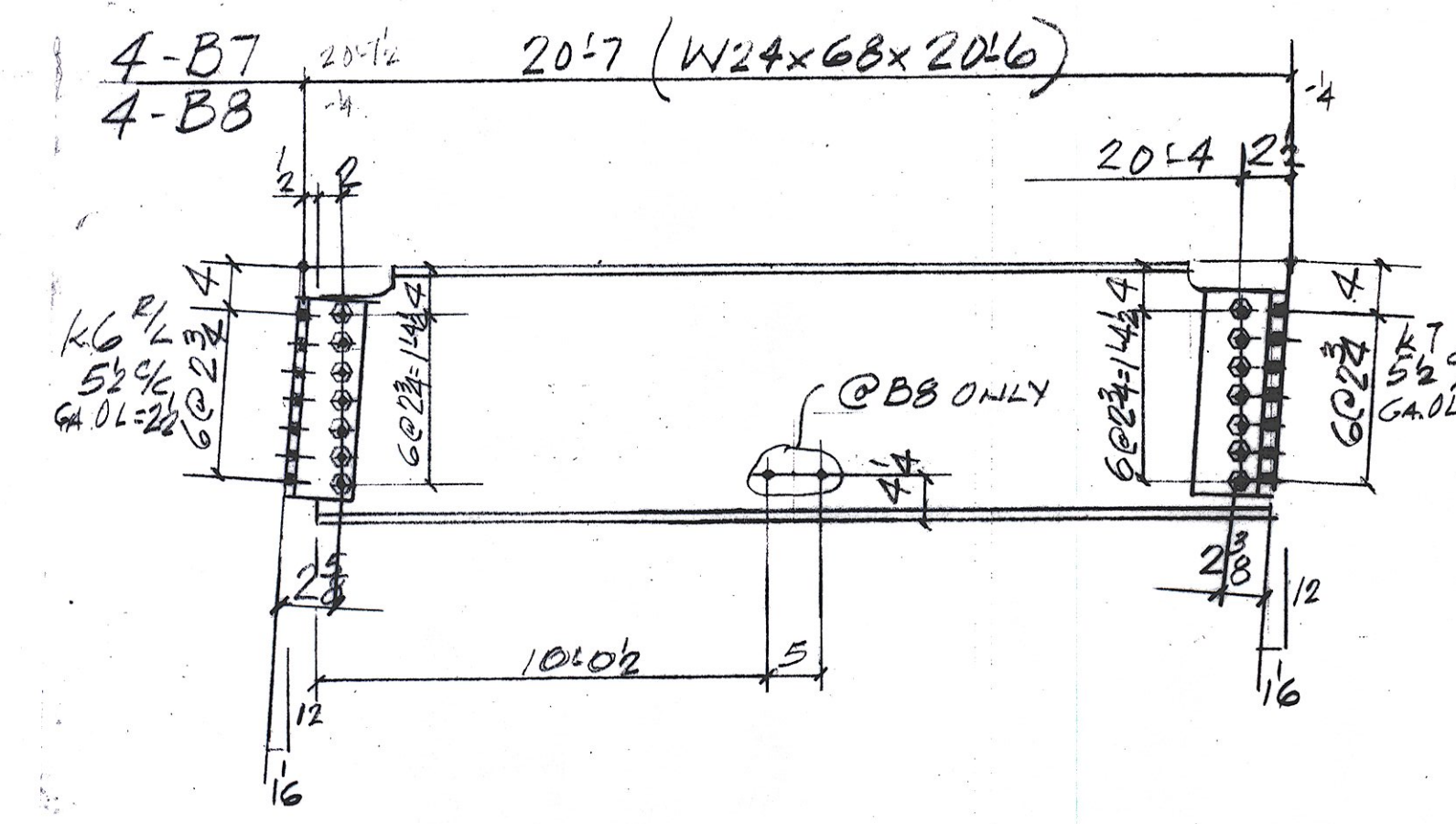
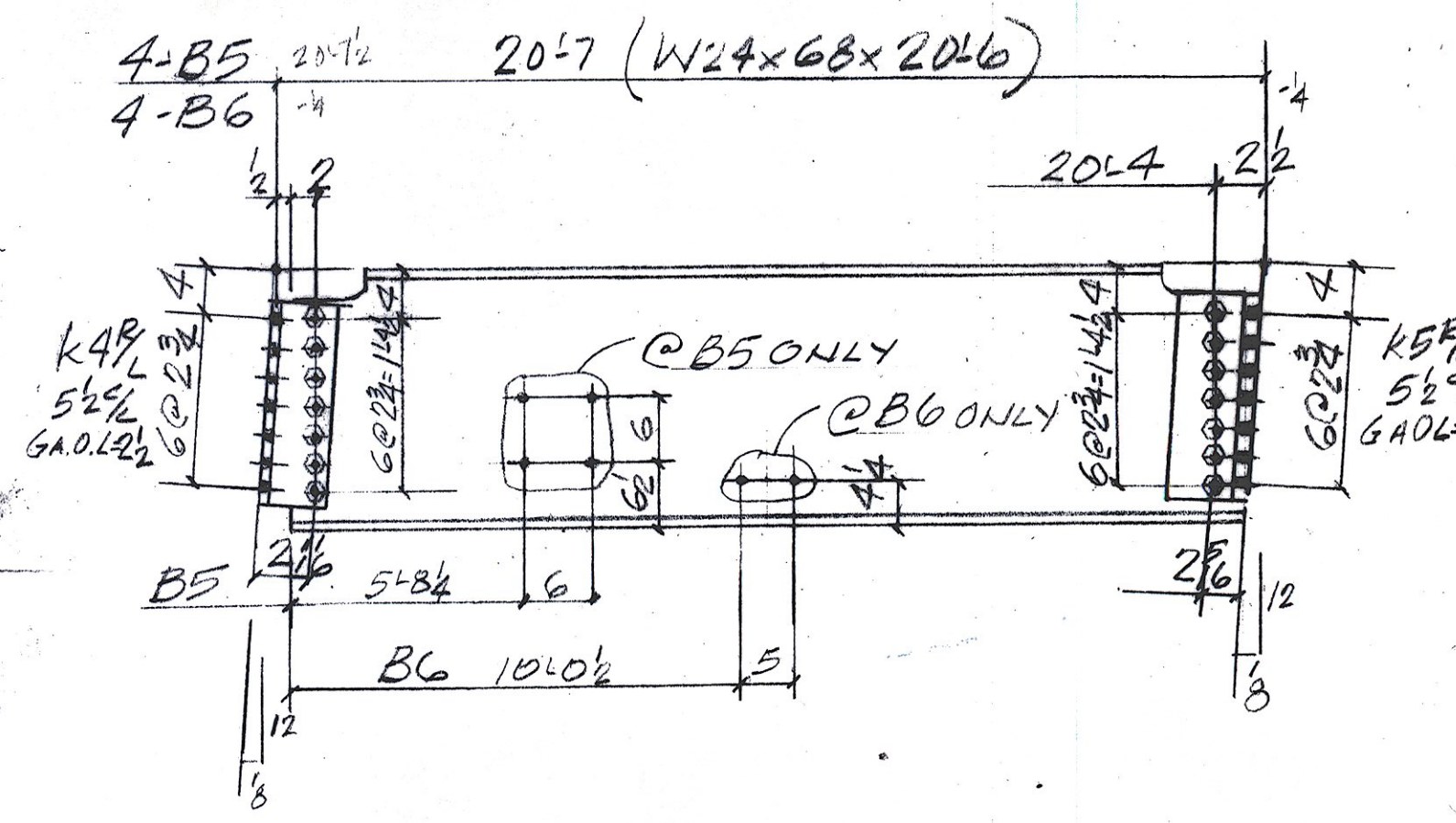
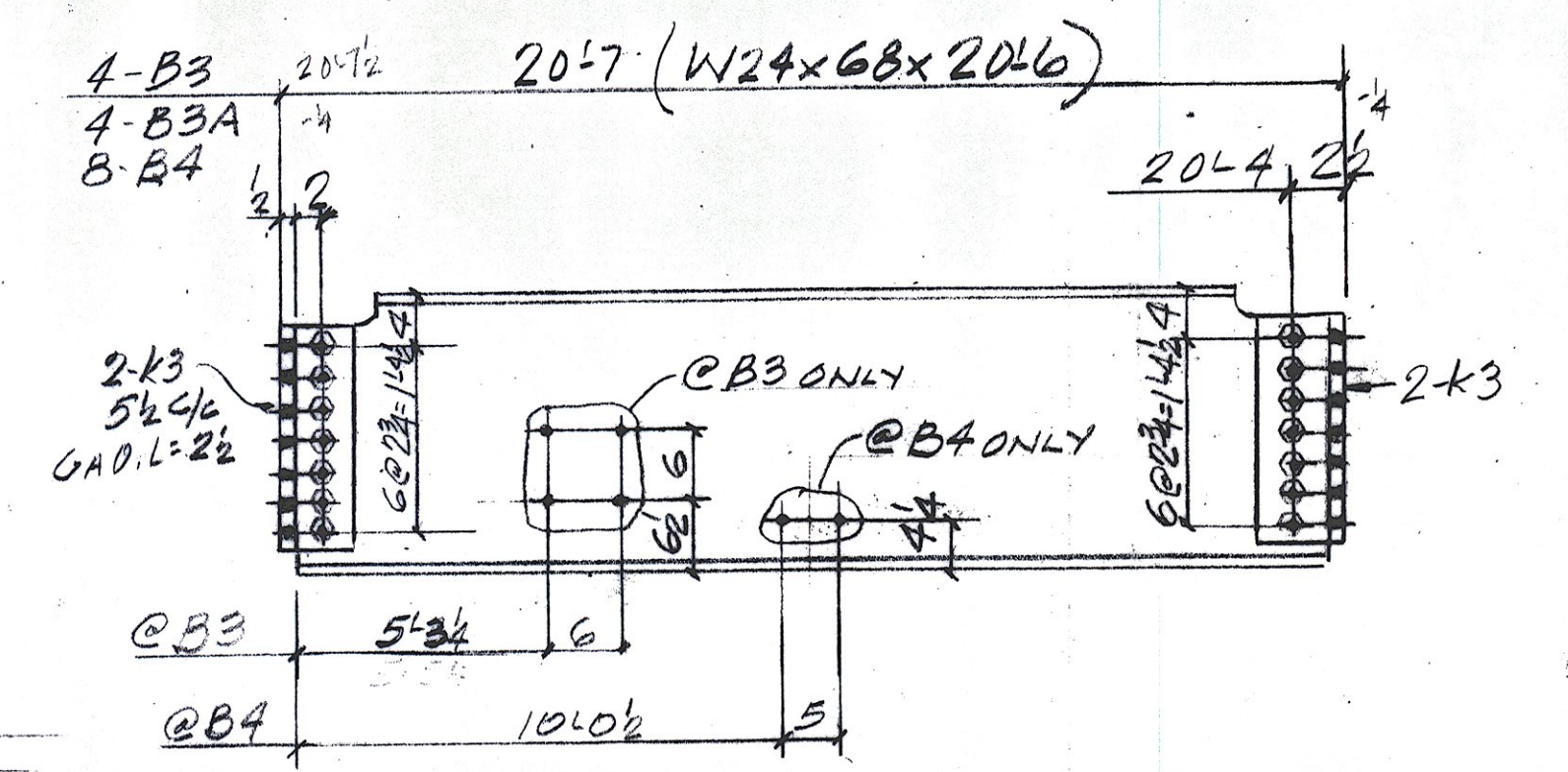
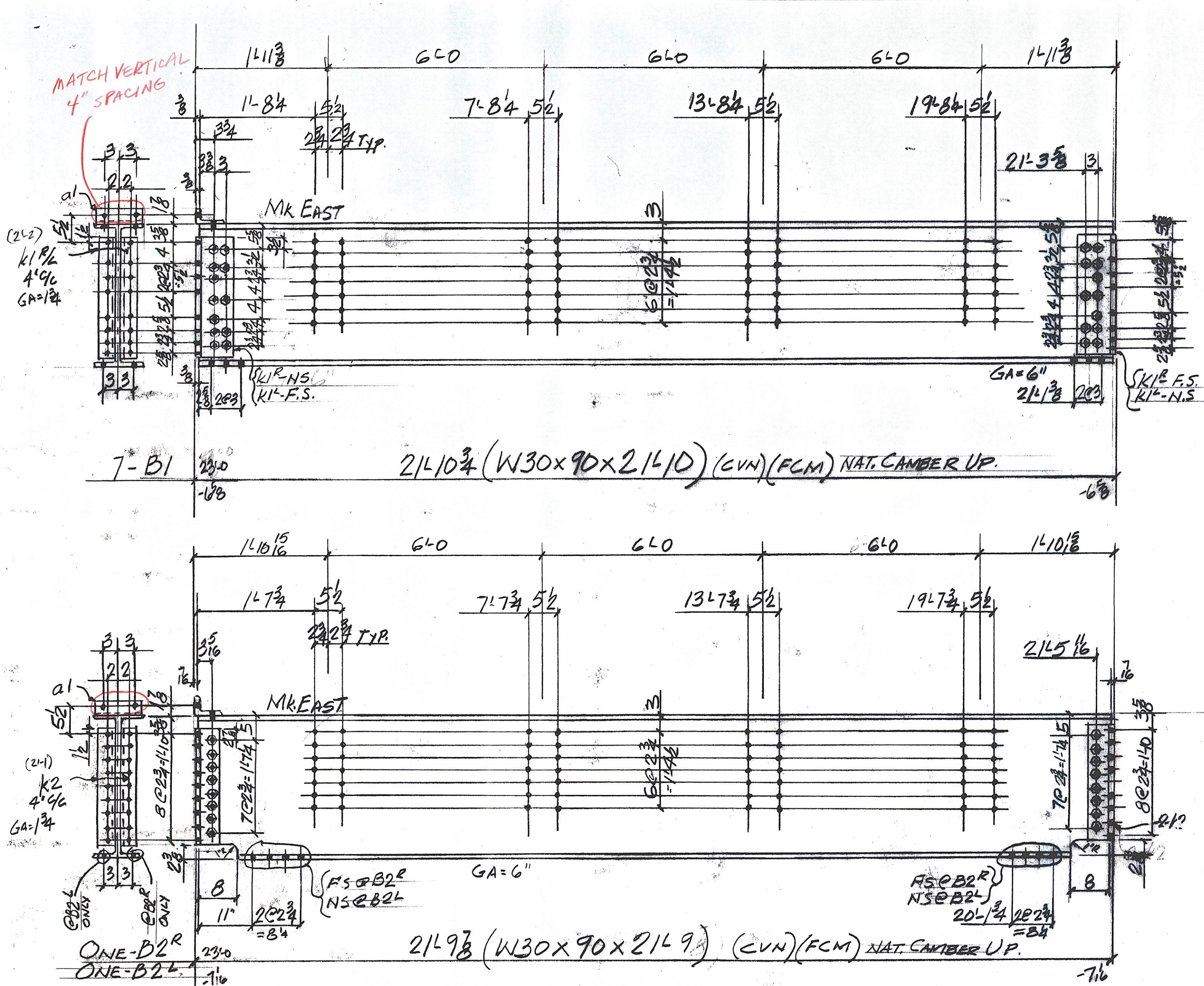
LEGEND

- EXISTING MEMBER TO BE REPLACED UNDER ITEM 506.50, STRUCTURAL STEEL, ROLLED BEAM
- - - EXISTING MEMBER TO BE REPLACED UNDER ITEM 506.60, STRUCTURAL STEEL
- EXISTING MEMBER TO REMAIN (CLEAN TO BARE METAL UNDER ITEM 513.41, SURFACE PREPARATION, FIELD AND REPAINT UNDER ITEM 513.30, STRUCTURAL PAINTING, FIELD APPLIED)



OUT FOR APPROVAL	1/2%										
OUT FOR APPROVAL											
ISSUED TO SHOP											
FIELD & OFFICE											
REV.	REMARKS	DATE	DWN	CHK	APP	Q.A.	NO.	DIA.	LGT	TYPE	WASHER
	PROJECT NO. BHF-6400 (3)										
	STATE PROJECT NO. BRIDGE NO. 5										
	MATERIAL: A270										
	ELECTRODES: —										
	HOLES: AS NOTED										
	SHOP BOLTS:										
	SURFACE PREP. & PAINT:										
DESCRIPTION:	FRAMING PLAN										
DRAWN BY:	JPF	DATE:	12-09								
JOB:	TH9-TAYLOR ST.-BRIDGE NO. 5	CHKD BY:									
	MONTPELIER, VERMONT.	APPROV BY:									
		Q.A.									
CUSTOMER:	WINTER SET										
CASCO BAY STEEL STRUCTURES, INC.		JOB NO.:	434	DRG. NO.:	E1						
75 SPRING HILL ROAD	SACO, MAINE 04072	PHONE (207) 282-7360	FAX (207) 282-1179								

REVISIONS
 CHA
 JAN 27 2010
 APPROVED AS SHOWN
 DATE 2/23/10



ABM INFO		SHOP BILL				JOB NO. 434	DRG. NO. 51		
PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEM. MARK	SHIPPING MARK	REMARKS	WEIGHT
	7		W30x90	21	10		B1	(CVN)(FCM)	
	14		L8x4x2	2	2	K12			
	14		DO	2	2	K14			
	7		L5x3x3/8			B1	a1		
	16B		3/8" A325-GALV.	23 1/2		SHOP		W/NEW.	
	14		DO	24		DO			
	1		K130x90	21	9		B2 ^R	(CVN)(FCM)	
	1		DO	21	9		B2 ^L	(CVN)(FCM)	
	8		L5x3x3/8	2	1	K2			
	2		L5x3x3/8			B1	a1		
	32		3/8" A325-GALV.	24		SHOP			
	4		DO	24		DO			
	4		W24x68	20	6		B3		
	4		DO	20	6		B3A		
	8		DO	20	6		B4		
	6A		L6x4x7/8	1	7 1/2	K3			
	22A		3/8" A325-GALV.	23 1/2		SHOP		W/NEW.	
	4		DO	24		DO			
	4		W24x68	20	6		B5		
	4		DO	20	6		B6		
	16		L6x4x7/8	1	7 1/2	K4			
	16		DO	1	7 1/2	K4 1/2		W/NEW.	
	112		3/8" A325-GALV.	23 1/2		SHOP		W/NEW.	
	4		W24x68	20	6		B7		
	4		DO	20	6		B8		
	16		L6x4x7/8	1	7 1/2	K12			
	16		DO	1	7 1/2	K12			
	112		3/8" A325-GALV.	23 1/2		SHOP		W/NEW.	
		FIELD BOLTS							
	76		1/2" A325-GALV.	36				FIELD BOLT TO CENTERPOST	
	126		3/8" A325-GALV.	24				FIELD BOLT TO TRUSS (EST.)	
	112		DO	3				BOLT TRUSS (EST.)	
	112		DO	24				DO BOLT TO B2 1/2	
	392		DO	24				DO B2-B3-B4-B7-B8 TO B1	
PANEL ITEM - 506.50									

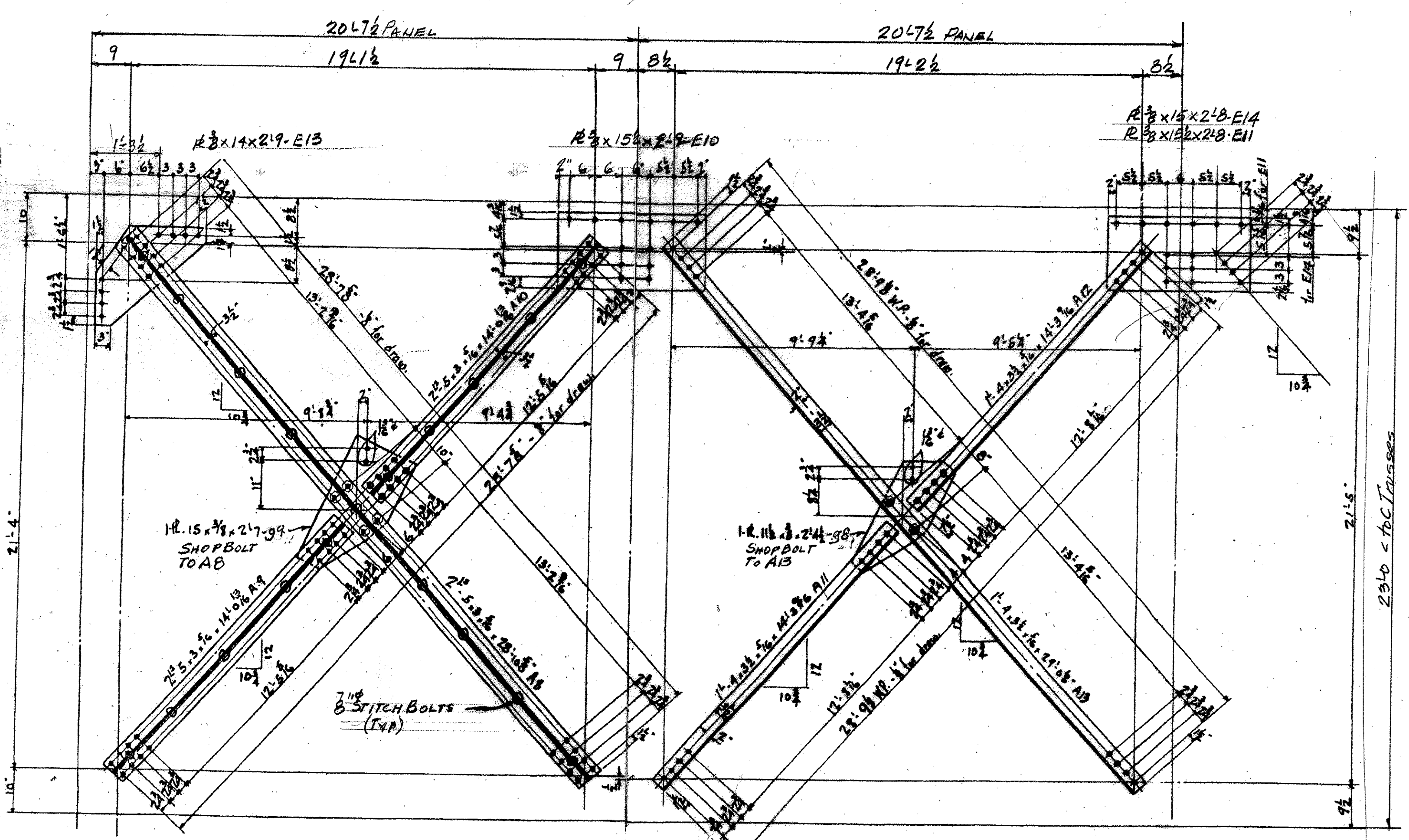
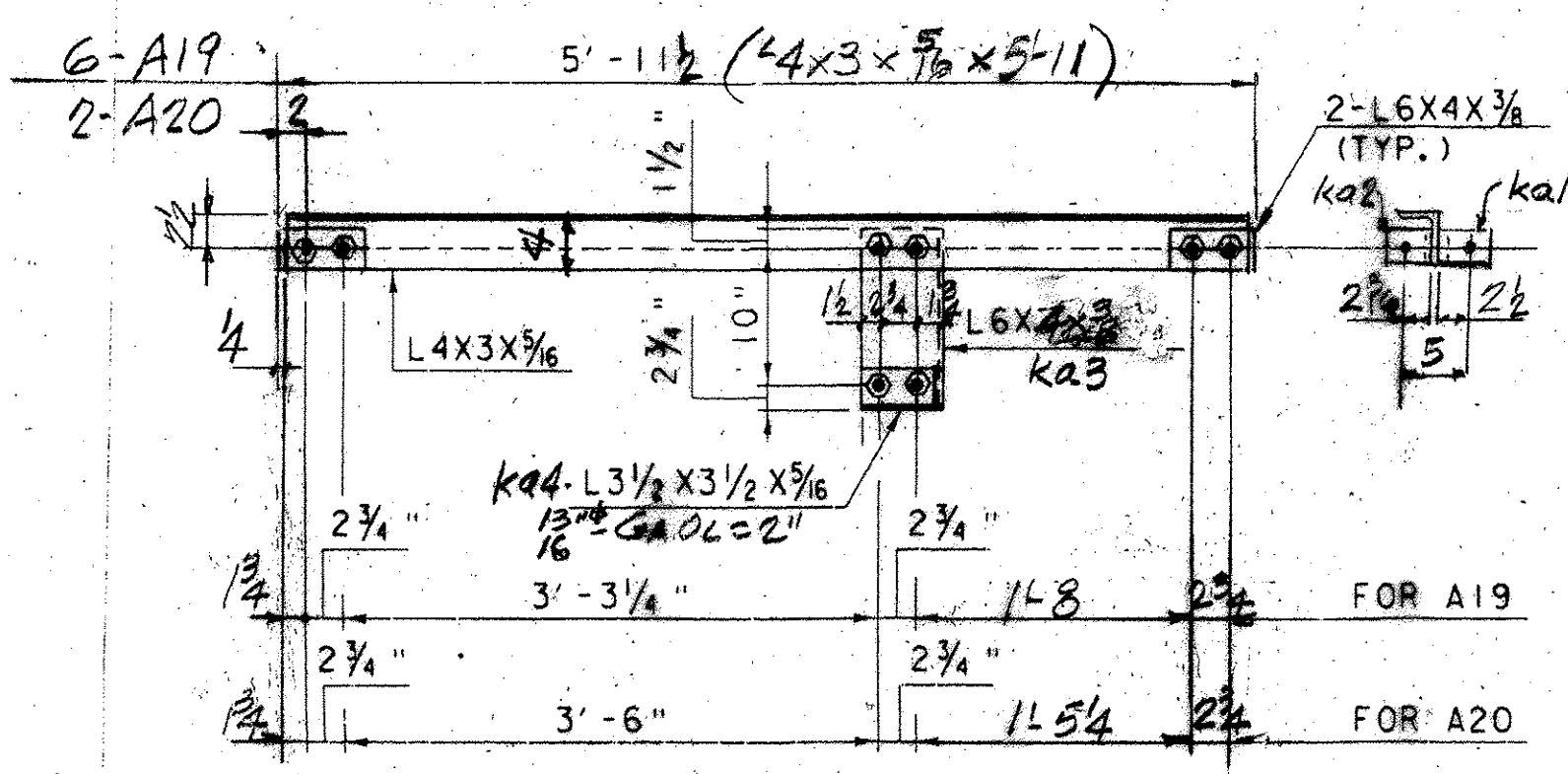
OUT FOR APPROVAL	1/2/10
OUT FOR APPROVAL	
ISSUED TO SHOP	
FIELD & OFFICE	

REV.	REMARKS	DATE	DWN	CHK	APP	Q.A.	NO.	DIA.	LGT	TYPE	WASHER
	PROJECT NO. BHF-G400(2)										
	STATE PROJECT NO. BRIDGE NO. 5										
	MATERIAL: A325										
	ELECTRODES: -										
	HOLES: 1/8" U.N.										
	SHOP BOLTS: 3/8"										
	SURFACE PREP. & PAINT: A325 GALV.										
	BLAST CLEAN - SPIO										
	CARBOLINE #859-ORGANIC ZINC PRIMER										
	3705 DFT.										

DESCRIPTION: FLOOR BEAMS & STRINGERS	DRAWN BY: JPF	DATE: 12-09
JOB: TH9-TAYLOR ST. - BRIDGE NO. 5	CHKD BY: CR	
MONTPELIER, VERMONT	APPROV BY: G.A.	

CUSTOMER: WINTERSET
CASCO BAY STEEL STRUCTURES, INC.
 75 SPRING HILL ROAD SACO, MAINE 04072
 PHONE (207) 282-7380 FAX (207) 282-1179

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 DATE 2/2/10



- 2-DIAGONALS - A8
- 2- DO - A9
- 2- DO - A10
- 4- PLATES - E13

- 6-DIAGONALS - A11
- 6- DO - A12
- 6- DO - A13
- 4- PLATES - E10
- 6- DO - E11
- 4- DO - E14

BRACING TO GUSSETS
 A19 AND TO STRAINERS & GUSSETS TO K150 FOR B
 GUSSETS TO TRUSSES

ABM INFO		SHOP BILL				JOB NO.	DRG. NO.	
PAGE	LINE	NO.	DESCRIPTION	FT	IN	REMARKS	WEIGHT	
		2	2-10 5x3x3/8	26	10 3/8	A8		
		2	DO	14	0 1/8	A9		
		2	DO	14	0 1/8	A10		
		2	2-12 1/2" A325 GALV	2	99	W/NEW		
		2	2-12 1/2" A325 GALV	2	99	W/NEW		
		4	2-12 1/2" A325 GALV	2	99	E13		
		6	4-4x3x3/8	29	0 1/8	A11		
		6	DO	14	3 1/8	A12		
		6	DO	14	3 1/8	A13		
		4	2-12 1/2" A325 GALV	2	99	E10		
		6	DO	2	8	E11		
		4	2-12 1/2" A325 GALV	2	8	E14		
		6	2-12 1/2" A325 GALV	2	42	G3		
		12	2-12 1/2" A325 GALV	2	SHOP	W/NEW		
		6	4-4x3x3/8	5	11	A19		
		2	DO	5	11	A20		
		16	4-6x4x3/8	3		ka1		
		16	DO	3		ka2		
		8	DO	1		ka3		
		8	4-3/2x3/2x1/2	5		ka4		
		32	1/2" A325 GALV	2	SHOP	W/NEW		
		32	DO	2	DO	DO		
		FIELD BOLTS						
		240	1/2" A325 GALV	2		W/NEW		
		132	DO	24		DO		
		100	DO	22		W/NEW WASH.		

PAY ITEM 506.50

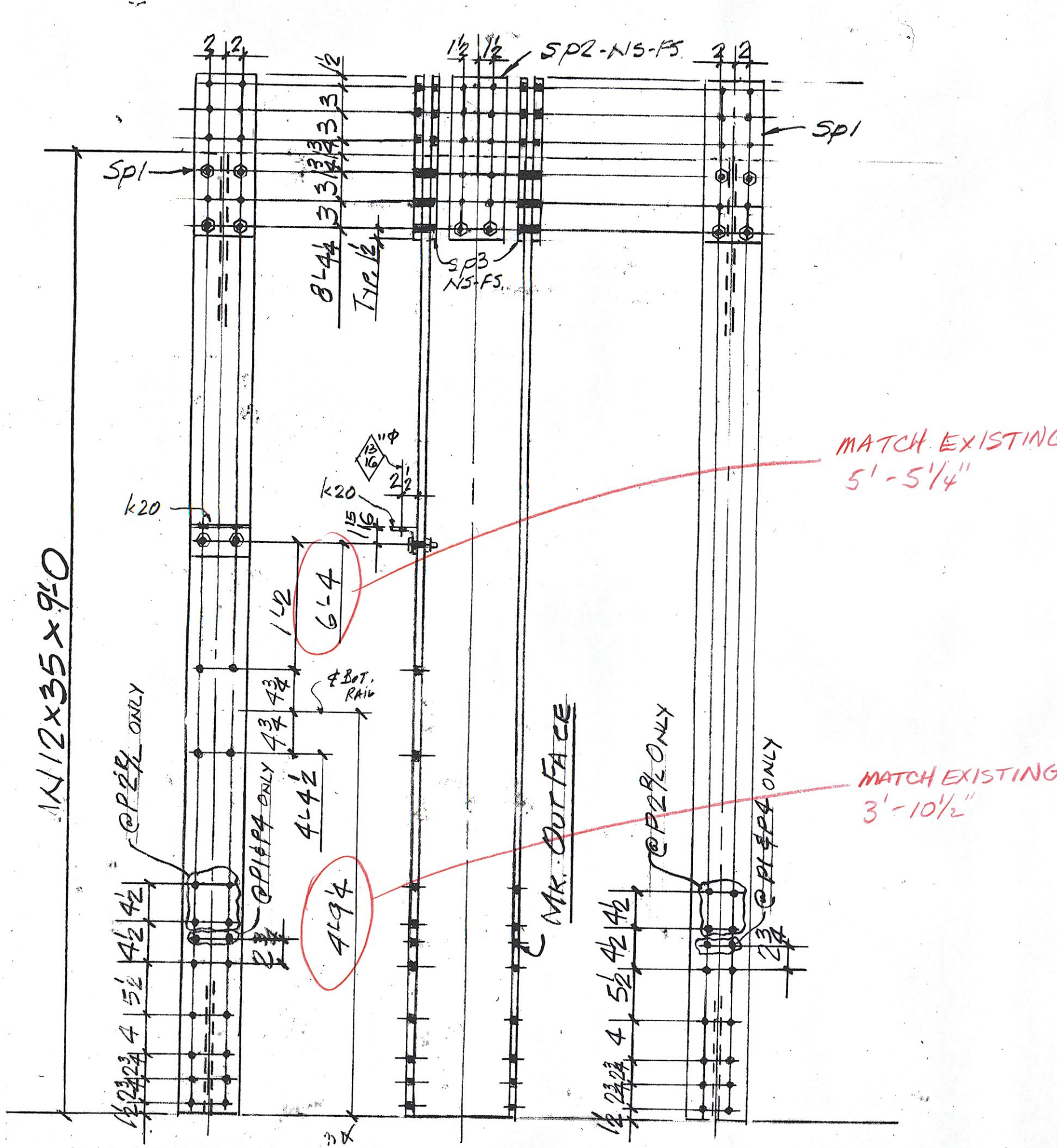
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OUT FOR APPROVAL									
ISSUED TO SHOP									
FIELD & OFFICE									

REV.	REMARKS	DATE	OWN	CHK	APP	Q.A.	NO.	DIA.	LGT	TYPE	WASHER	
PROJECT NO. BH-6400 (S)		STATE PROJECT NO. BRIDGE NO. 5										
MATERIAL: A325 GALV		ELECTRODES: -		HOLES: 1/8" U.N.		SHOP BOLTS: 3/4"					A325 GALV	
SURFACE PREP. & PAINT: A325 GALV												
BLAST CLEAN-SP10												
CARBOLINE #859-ORGANIC ZINC PRIMER												
3705-DET												
DESCRIPTION: BRACING										DRAWN BY		DATE
JOB: TH9-TAYLOR ST. - BRIDGE #5										JPF		12-09
MONTPELIER, VERMONT										CHKD BY		CR
										APPROV BY		
										Q.A.		
CUSTOMER: WINTERSET												
CASCO BAY STEEL STRUCTURES, INC.										JOB NO.		DRG. NO.
75 SPRING HILL ROAD SAGO, MAINE 04072										434		52
PHONE (207) 282-7380 FAX. (207) 282-1179										REV.		△

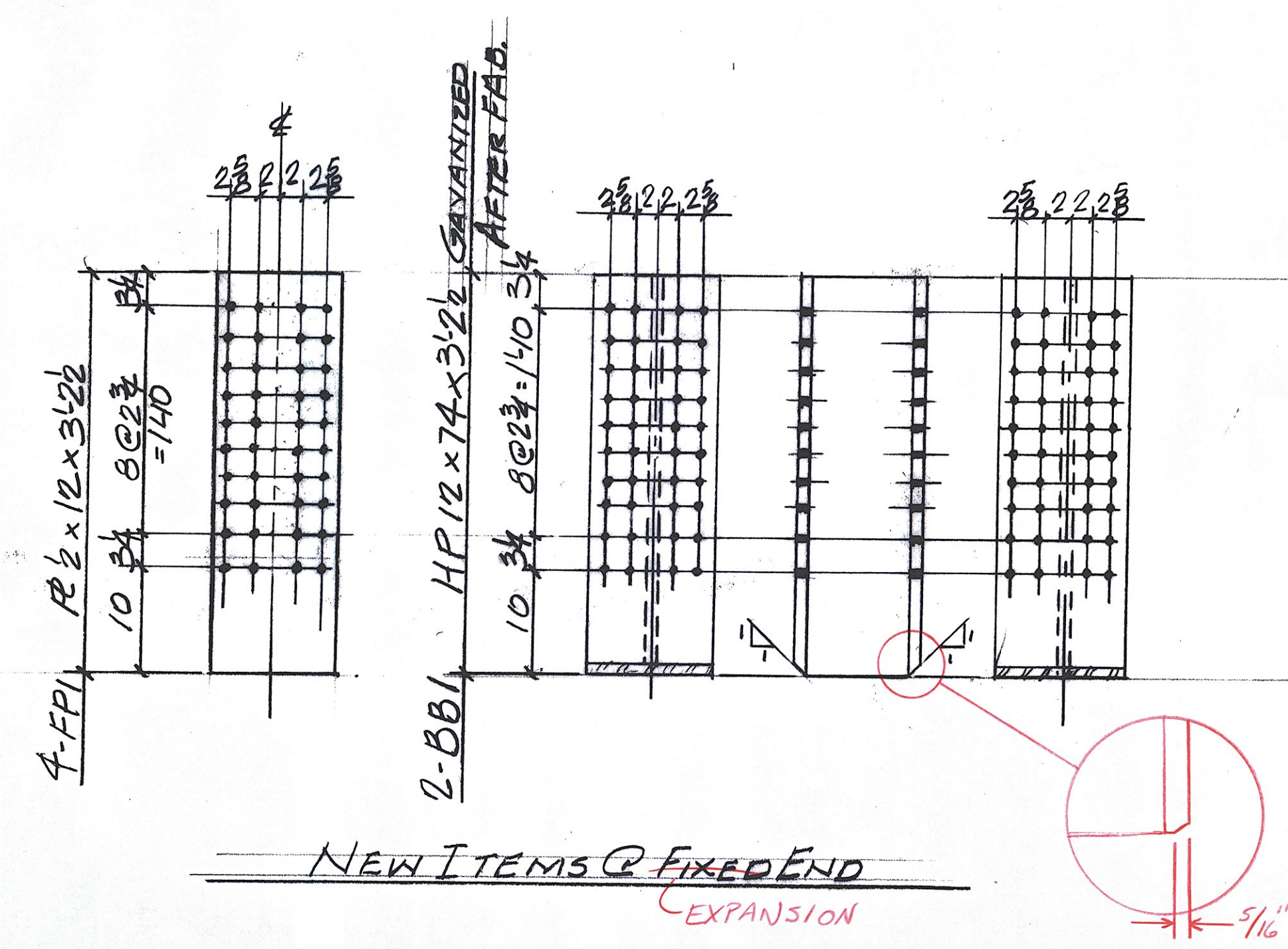
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 BY W.P. DATE 2/2/10

ABM INFO		SHOP BILL				JOB NO.	DRG. NO.
PAGE	LINE	NO.	DESCRIPTION	FT	IN	REMARKS	WEIGHT
	4		W12x35	9	0	P1 (CVN) (FCM)	
	2			9	0	P2R (CVN) (FCM)	
	2			9	0	P2L (CVN) (FCM)	
	2			9	0	P3R (CVN) (FCM)	
	2			9	0	P3L (CVN) (FCM)	
	2		W12x35	9	0	P4 (CVN) (FCM)	
	28		P 1/2 x 6 1/2	1	6 1/2	SP1 (CVN)	
	28		P 1/2 x 6	1	6 1/2	SP2 (CVN)	
	56		P 1/2 x 2 1/2	1	6 1/2	SP3 (CVN)	
	14		L 3 1/2 x 3 1/2 x 1/4	6 1/2	K20		
	28		3/8" A325 GALV.	24	SHWP		
	72		DO WASH.	3	DO	QFL6	
	18		DO	2 3/4	DO	PWEB	
	144		3/8" A325 GALV	3	FIELD	QFL6	
	190		DO	2 3/4	DO	PWEB	
	4		P 1/2 x 12	3	2 1/2	FPI	
	2		HP 12 x 74	3	2 1/2	BB1 GALV.	
	124		3/8" A325 GALV.	3	FIELD	WASH.	

IG BOLTS



- P1-4-REQ'D-AS NOTED.
- P2R-2-REQ'D-AS NOTED
- P2L-2-REQ'D-AS NOTED.
- P3R-2-REQ'D-
- P3L-2-REQ'D
- P4-2-REQ'D-AS NOTED.



OUT FOR APPROVAL	1/24/10										
OUT FOR APPROVAL											
ISSUED TO SHOP											
FIELD & OFFICE											
REV.	REMARKS	DATE	DWN	CHK	APP	Q.A.	NO.	DIA.	LGT	TYPE	WASHER
	PROJECT NO. BHF-6400 (3)										
	STATE PROJECT NO. BRIDGE NO. 5										
	MATERIAL: A325 GALV. ELECTRODES: — HOLES: 1/8" UN SHOP BOLTS: 3/8"										
	SURFACE PREP. & PAINT: A325-TL (GALV)										
	BLAST CLEAN-SPI0										
	CARBOLINE #859 ORGANIC ZINC PRIMER										
	UNLESS NOTED - GALV. 3702 DFT.										
	DESCRIPTION: NEW TRUSS VERTICALS										
	JOB: TH9-TAYLOR ST.-BRIDGE NO. 5										
	MONTPELIER, VERMONT.										
	CUSTOMER: WINTERSET										
	CASCO BAY STEEL STRUCTURES, INC.										
	75 SPRING HILL ROAD SACO, MAINE 04072										
	PHONE (207) 282-7380 FAX (207) 282-1179										
	JOB NO. 434										
	DRG. NO. 53										
	REV. 1										

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 JAN 27 2010
 RESUBMIT APPROVED AS NOTED
 BY W.B.S. DATE 2/2/10



State of Vermont
PDD/Structures Design Section
National Life Building - Drawer 33
Montpelier, VT 05633-5001
www.aot.state.vt.us

Agency of Transportation

[phone] 802-828-2621
[fax] 802-828-3566
[ttd] 800-253-0191

May 4, 2010

Casco Bay Steel Structures, Inc.
75 Spring Hill Rd
Saco, Me 04072

Project Name: Montpelier Project #: BHF 6400(31)


Structure Identification: Bridge 5 over the Winooski River

The following Miscellaneous Structural Steel Drawings for the above project (Vendor's Job #434) transmitted with your letter dated 4/19/2010 have been reviewed and are being returned herewith.

The sheets are approved or approved as noted (note comments in red).

Please make appropriate changes as indicated on these "as noted" or "approved" drawings and submit white prints for our use in the record plans for this project. Also, please submit extended weights for our approval. **Partial payment for this item will be withheld until extended weights are received and approved.**

You must provide notice to our fabrication inspector, Jeff Clark, as to the date fabrication represented by these drawings will begin. Jeff must receive and acknowledge your notice at least seven days prior to that date, as per Specification S06.03. You may contact Jeff by phone at (802)828-0044 or email at jeff.clark@state.vt.us. Any material fabricated prior to the notification date is subject to rejection without further cause.

Sincerely,

Wayne Symonds
Project Manager

Attachments

cc: [x] Resident Engineer, Bob Suckert
[x] Shop Inspector
[x] Contractor, Winterset
[x] Design Consultant, CHA
[x] Files





April 27, 2010

Mr. Wayne Symonds, P.E.
Structures Project Manager
State of Vermont
Structures Design Section
One National Life Drive
Montpelier, VT 05633-5001

**Re: Retainer Contract #0284599; BHF 6400(31); Montpelier Taylor Street Bridge Rehabilitation
Phase B; CHA Project No: 14506**

Dear Mr. Symonds:

CHA has reviewed the Miscellaneous Steel Fabrication Drawings for the above mentioned project and is recommending the submittal be "Approved as Noted".

Attached please find the following:

- One copy of the Miscellaneous Steel Fabrication Drawings

Please do not hesitate to contact me directly at (860) 257-4557 if you have any questions or require additional information.

Sincerely,

David M. D'Amato, P.E.
Associate

K:\14506\Civil\Letter\021.docx

CASCO BAY STEEL STRUCTURES, INC.
75 Spring Hill Rd.
SACO, MAINE 04072

(207) 282-7360 FAX (207) 282-1179

LETTER OF TRANSMITTAL

DATE	4-6-10	JOB NO.	434
ATTENTION	CALLEN		
RE:	MONTPELIER BHF 6400 (31)		
	TAYLOR STREET		
	BRIDGE No. 5		
	MONTPELIER, VT.		

TO INTERSET

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

Shop drawings Prints Plans Samples Specifications

Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
7			BRIDGE RAIL # 514 RE-SUBMITTING
7			SKETCH M1-A ADDED POST FOUR STOP

THESE ARE TRANSMITTED as checked below:

For approval Approved as submitted Resubmit _____ copies for approval

For your use Approved as noted Submit _____ copies for distribution

As requested Returned for corrections Return _____ corrected prints

For review and comment _____

FOR BIDS DUE PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

RECEIVED

CHK BY _____ DATE BY _____

RESUBMIT _____ APPROVED _____

BY _____ DATE _____

COPY TO _____

SIGNED: (Signature)

CASCO BAY STEEL STRUCTURES, INC.
75 Spring Hill Rd.
SACO, MAINE 04072

LETTER OF TRANSMITTAL

DATE	4-19-10	JOB NO.	434
ATTENTION	CLEN		
RE:	MONTPELIER BHE (400 (31)) TAYLOR STREET BRIDGE No. 5 MONTPELIER, VT.		

(207) 282-7360 FAX (207) 282-1179

TO WINTERSET

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:
 Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
7			SA - Updated Slot Sizes
7			SA - Revised RBL + RLB DUE TO TIGHT TOLERANCES.
1			WELD PROCEDURE

THESE ARE TRANSMITTED as checked below:
 For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

RECEIVED

For Approval ~ 7 COPIES OK'D BY
APR 22 2010

RESUBMIT _____ BY _____ DATE _____

TO _____ SIGNED: [Signature]

WINTERSET INCORPORATED
 P.O. BOX 968
 LYNDONVILLE, VERMONT 05851

LETTER OF TRANSMITTAL

(802) 626-9330 FAX (802) 626-8933

DATE	4-20-10	JOB NO.	6400 (31)
ATTENTION	WAYNE Symonds		
RE:	MANTAPLE, VT TAYOR STREET BRIDGE # 5		

TO TRANS

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:
 Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
1			CASCO BAY TRANSMITTAL
6			57 - UPDATED SLOT SIZES
6			57A REVISED R3L & R6L DUE TO TIGHT RADII
1			W/LED PROCEDURE

THESE ARE TRANSMITTED as checked below:
 For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

RECEIVED

CRF BY _____ OK'D BY _____

APR 22 2010

RESUBMIT _____ APPROVED _____

BY _____ DATE _____

COPY TO: FILE
 SIGNED: Alex Thompson
 If enclosures are not as noted, kindly notify us at once.

Casco Bay Steel Structures, Inc.

TELEPHONE (207) 282-7360 FAX (207) 282-1179
 75 Spring Hill Road
 Saco, Maine 04072

CUSTOMER: WINTERSET	A/E:	
PROJECT: TH-9 TAYLOR STREET BRIDGE #5 MONTPELIER, VERMONT	DATE: 4-5-10	SKETCH NO.: M1-A
	JOB NO.: 434	S.O. NO.:
	DRAWN BY: J.P.F.	WANTED:
	PAINT:	

DELIVERY ARRANGEMENTS:

From Approval Comment
 ON SHOP DWG. # M1

RECEIVED
 DATE 5/14/10
 BY WJS

IF SHOP BUTT
 WELOS, GRIND
 BOTH SIDES

1/2" WELDED STUD

NO EXCEPTIONS TAKEN MAKE CORRECTIONS NOTED
 REJECTED RESUBMIT
 SUBMIT **REO'D.**

CHECKING ONLY FOR CONFORMANCE WITH THE DESIGN AND SPECIFICATIONS
 PROJECT AND DESIGNER'S RESPONSIBILITY TO INSURE THE ACCURACY OF THE PLANS AND
 SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE
 CONFIRMED AND CORRELATED AT THE JOB SITE. FABRICATION PROCESSES AND
 TECHNIQUES OF CONSTRUCTION COORDINATED WITH THE ARCHITECT AND OTHER
 TRADES AND THE SATISFACTION OF THE ARCHITECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

DATE 5/12/10 BY WJS

UNLESS NOTED OTHERWISE ALL MATERIAL MUST BE ASTM-A36 OR BETTER HOLES: Ø DIA. U.N.O.

SHIP MK	QTY	MARK	DESCRIPTION	LENGTH	WT	REMARKS
CPI	16		R2 4 x 7	17		BEND
4B		WS	1/2" WELDED STUD	4		

Casco Bay Steel Structures, Inc.

5 Industry Road
South Portland, Maine 04106

Phone: (207) 772-2533

Fax: (207) 772-0580

WELDING PROCEDURE SPECIFICATION

Material specification A36-A572-A588 (ASTM 909 Gr 36-50-50w)
 Welding process Flux Cored Arc welding (FCAW)
 Manual or machine semi-AUTO
 Position of welding Flat-1G
 Filler metal specification AWS A5-20
 Filler metal classification E91T-1
 Flux NA
 Shielding gas 75% AR 25% CO₂ Flow rate 40 ± 5
 Single or multiple pass Both Electrode stick out 3/4 ± 1/4
 Welding current Single
 Polarity Reverse Electrode positive
 Welding progression see detail
 Root treatment weld side 1, backgauge side 2 - grind - then weld
 Preheat and interpass temperature To 34-50° (19-10°) 3/4 to 1 1/2 - 70° (19 to 38-20°)
 Postheat temperature NA
 Heat Input Min NA Max NA BRIDGE No. 5
 MONTPELIER, VT.
 CBSS Job # 434

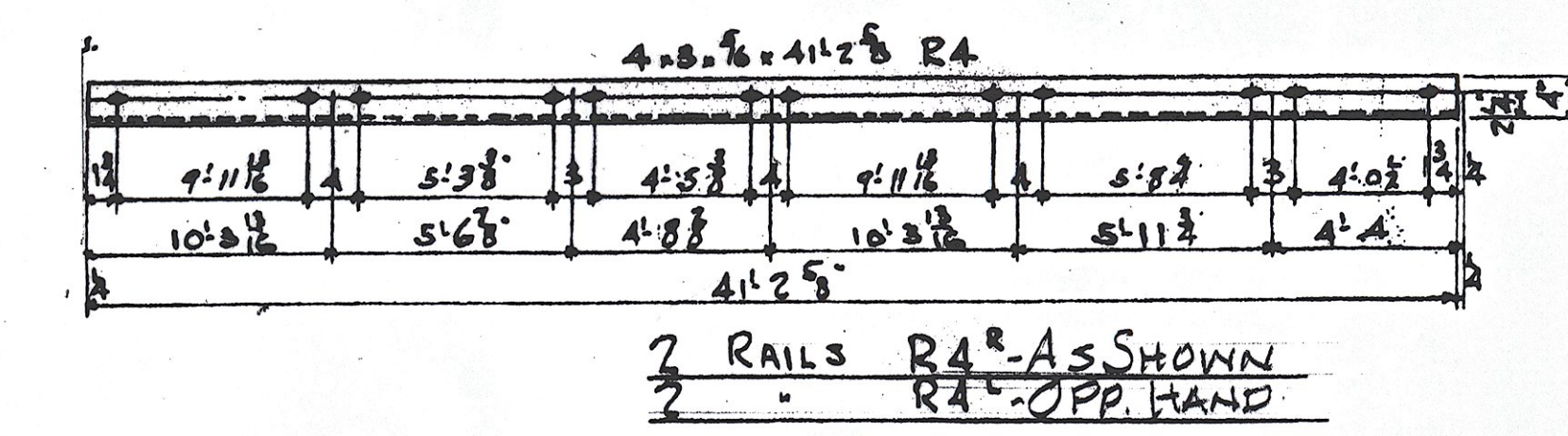
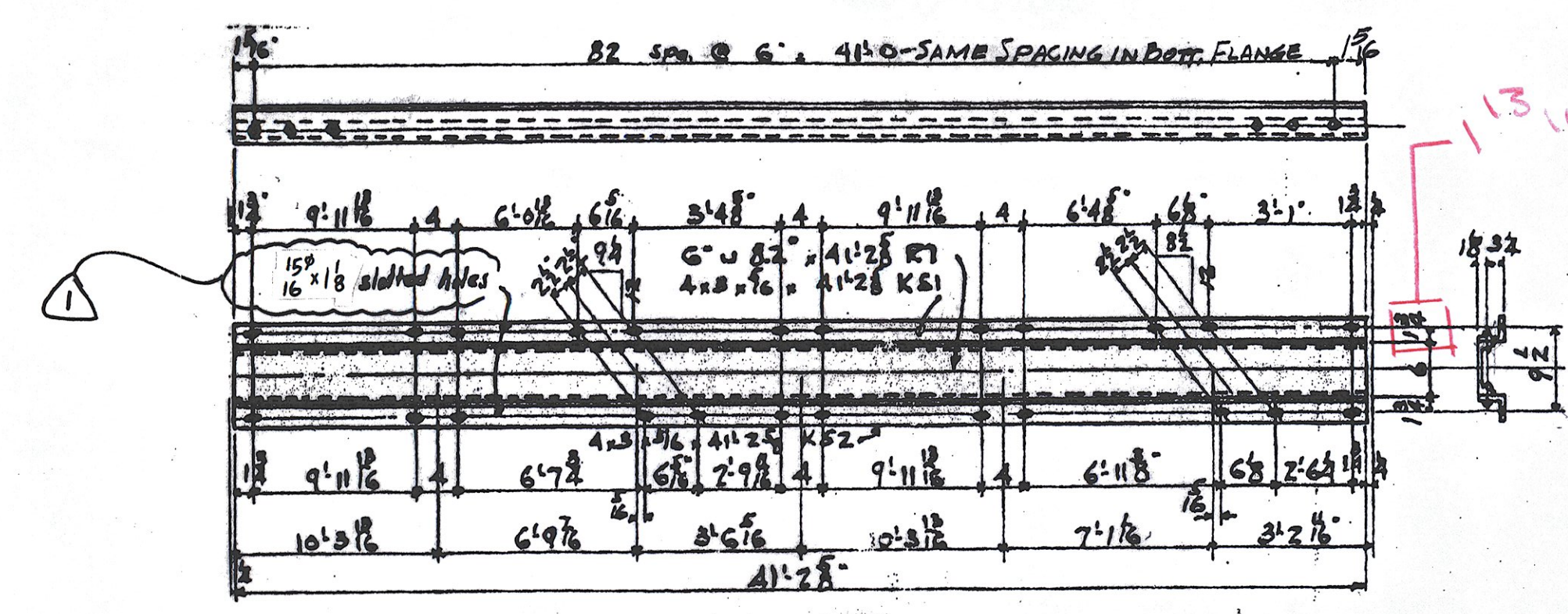
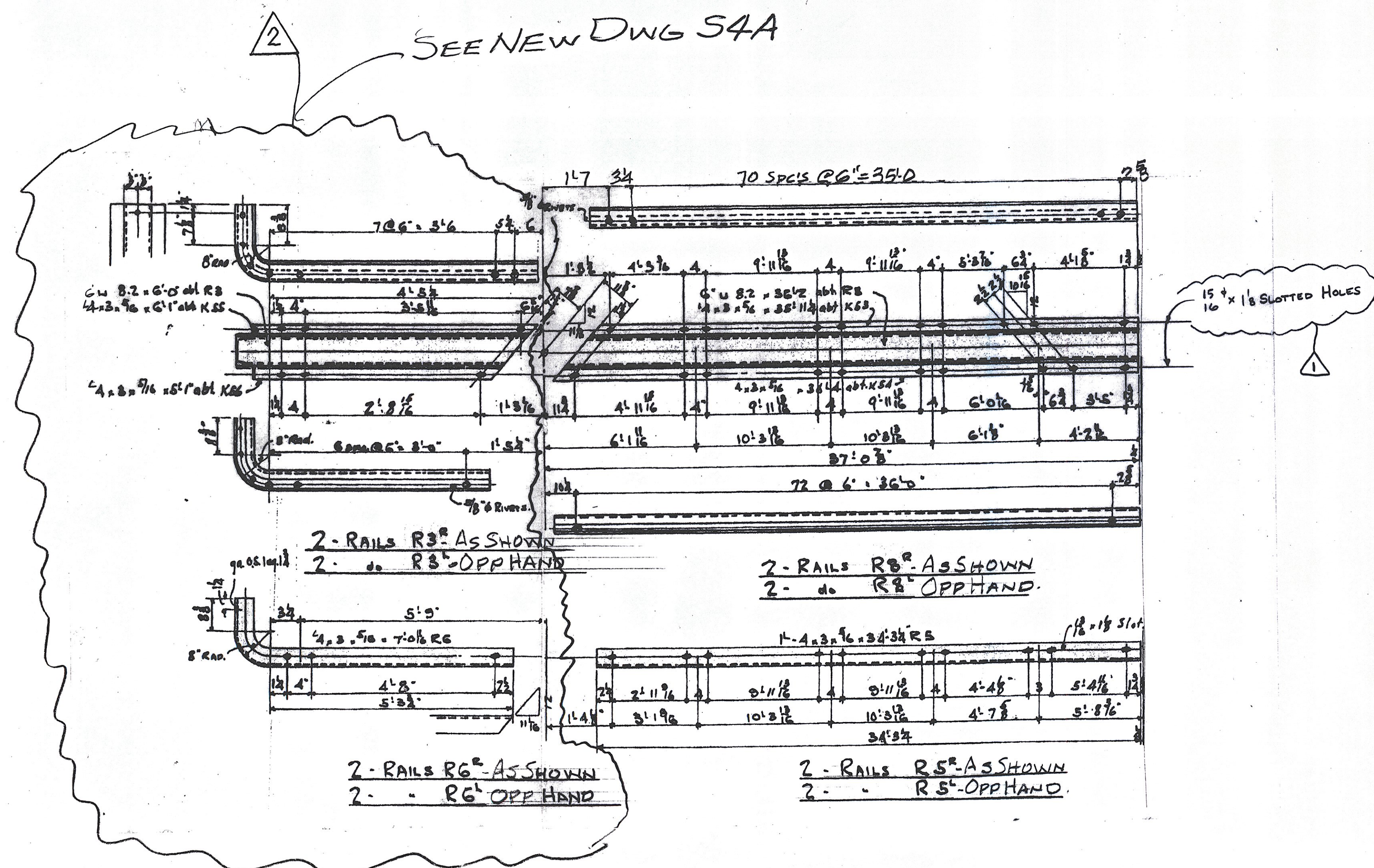
WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed	AWS D1.5 Joint detail BU2-F
		Amperes	Volts		
1/16	280 ± 28	25 ± 1.7	11 ± 1.1		<p>T1 - UNLIMITED P - 0 to 1/8 / 0 to 3.2 mm R - 0 to 1/8 / 0 to 3.2 mm 1 - Grind as required</p>
1.6	280 ± 28	25 ± 1.7	280 ± 28		

APR 22 2000
 RESUBMIT APPROVED
 BY DATE 5/24/00

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 104 Contractor Casco Bay Steel
 Revision no. _____ Authorized By Paul E. Goodale
 Form III-2 AWS-OC1 Paul E. Goodale Date 2/2/99
 B310201
 C.W.I.



NO EXCEPTIONS TAKEN TO MAKE CORRECTIONS NOTED
 REJECTED REVISE & RESUBMIT SUBMIT SPECIFIED ITEM

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTIONS KNOWN SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK.

CLASH HARRIS ASSOCIATES LLP
 ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS

DATE 4/13/10 BY [Signature]

ABM INFO		SHOP BILL				JOB NO.	DRG. NO.		
PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEM. MARK	SHIPPING MARK	REMARKS	WEIGHT
	2		L4 x 3 x 3/8	41	2 3/8		R4 ^R		
	2		DO	41	2 3/8		R4 ^L		
	2		DO	34	3 3/4		R5 ^R		
	2		DO	34	3 3/4		R5 ^L		
	2		C6 x 8.2	41	2 3/8		R7 ^R		
	2		DO	41	2 3/8		R7 ^L		
	4		L4 x 3 x 3/8	41	2 3/8		K51 ^R		
	4		DO	41	2 3/8		K52 ^R		
	2		C6 x 8.2	36	2 1/2		R8 ^R		
	2		DO	36	2 1/2		R8 ^L		
	4		L4 x 3 x 3/8	35	1 1/4		K53 ^R		
	4		DO	36	1 1/4		K54 ^R		
	4		C6 x 8.2	6	0 1/2		R9 ^R	ROLL	
	4		DO	6	0 1/2		R9 ^L	DS	
	4		L4 x 3 x 3/8	6	1 1/2		K55	DS	
	4		DO	6	1 1/2		K56	DS	
			3303	2			SHOP	W/INT. BEVEL WASH.	
			FIELD BOLTS						
			(200)	3"	A325 FC BOLTS (GALV)	2 1/2	FIELD	W/INT. WASH	
			(100)	DO	DO (GALV)	1 3/4	DO	DO	

Approved: 2-23-10

OUT FOR APPROVAL 1/2/10

OUT FOR APPROVAL 4/1/10

ISSUED TO SHOP

FIELD & OFFICE

2 REMOVED ITEM SEE DWG S4A

1 SLOTS SIDE SUFFICIENT 7/6/10

REV. REMARKS DATE DWN CHK APP G.A. NO. DIA. LGT TYPE WASHER

PROJECT NO. BHF 6400 (31) STATE PROJECT NO.

MATERIAL: A325 ELECTRODES: - HOLES: A51/16" SHOP BOLTS: 5/8"

SURFACE PREP. & PAINT: A325 FC GALV.

BLAST CLEAN - SP10

CARBOLINE #859 ORGANIC ZINC PRIMER 3 TO 5 DFT.

DESCRIPTION: BRIDGE RAIL DRAWN BY DATE

JOB: UPF 12-09

TH 9-TAYLOR ST. BRIDGE #5 CHKD BY

MONTPELIER, VERMONT CR

APPROV BY

G.A.

CUSTOMER: WINTERSET

CASCO BAY STEEL STRUCTURES, INC. JOB NO. DRG. NO.

75 SPRING HILL ROAD SACO, MAINE 04072 434 54

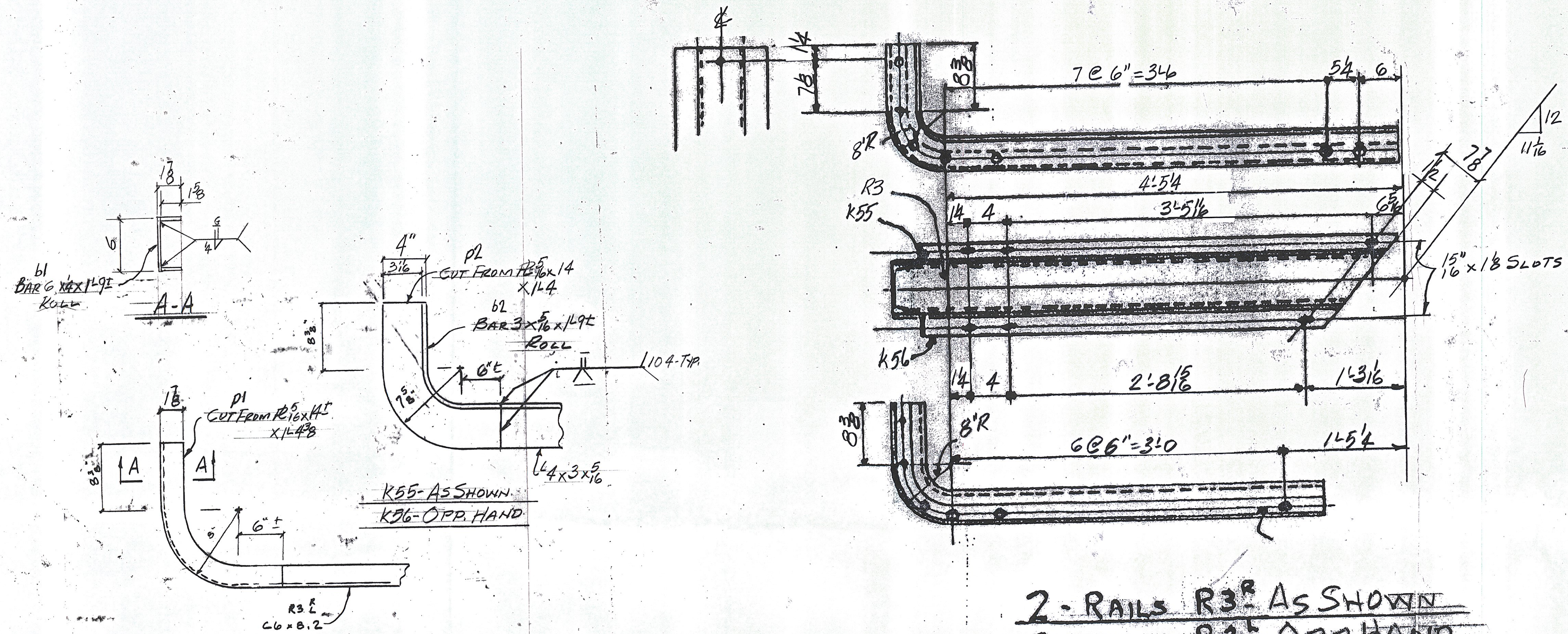
PHONE (207) 282-7360 FAX (207) 282-1179 REV. [Signature]

RECEIVED

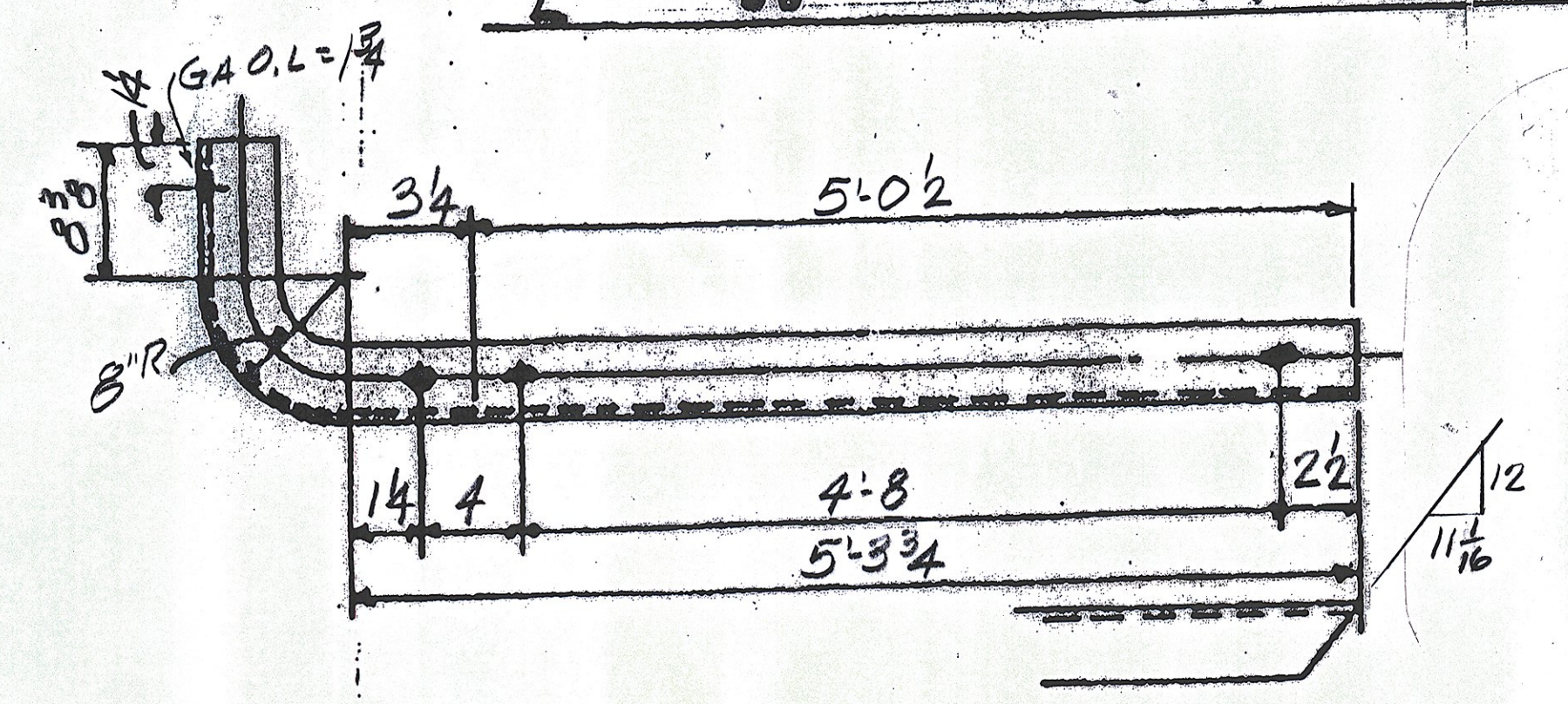
CHK BY: CHA DATE: 4/13/10

RESUBMIT APPROVED BY: [Signature] DATE: 4/13/10

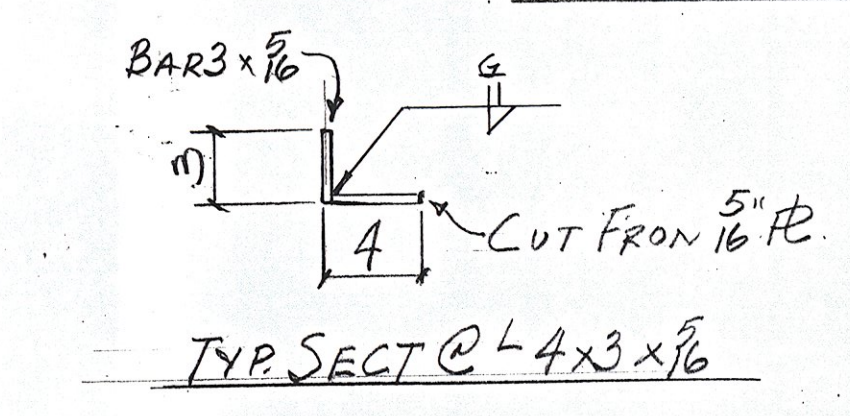
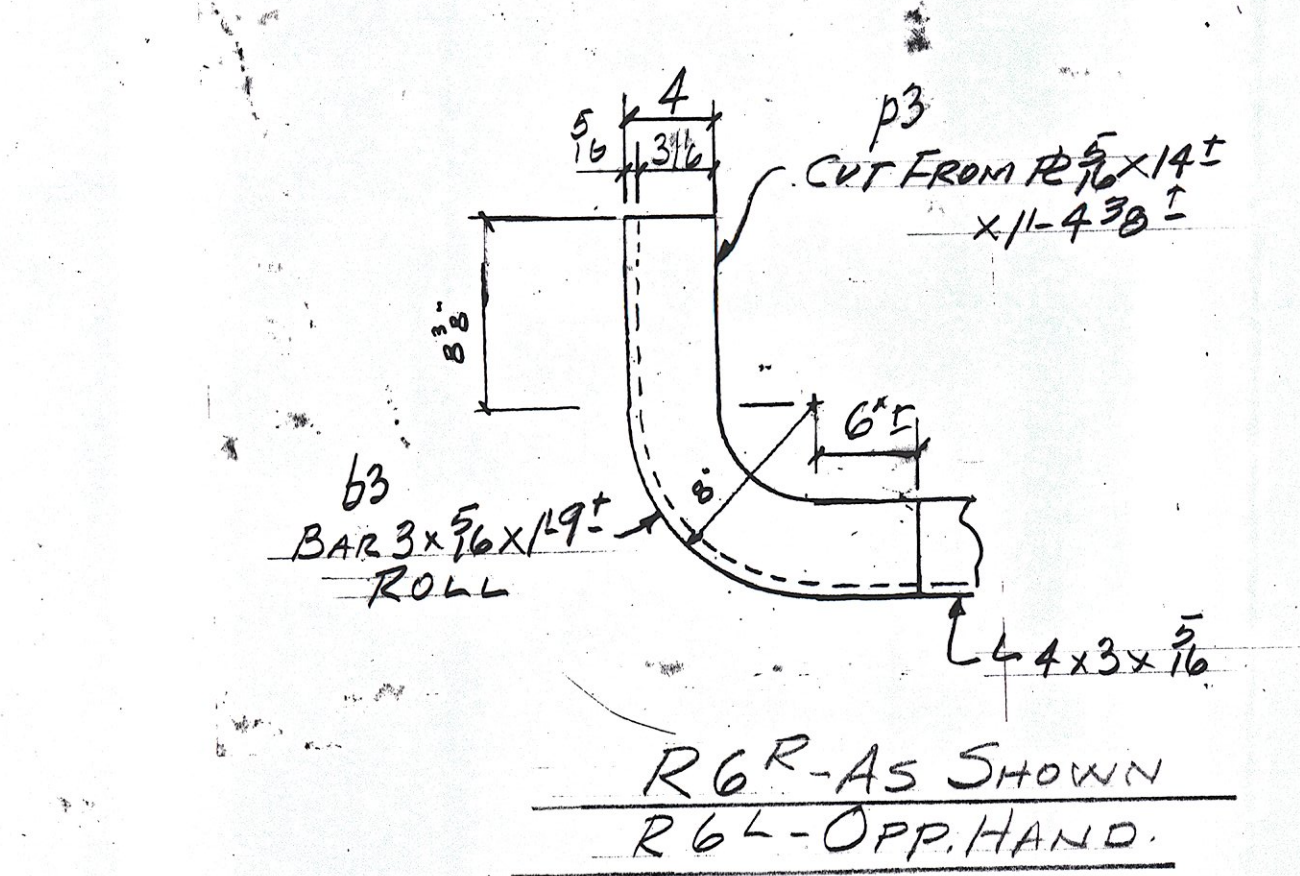
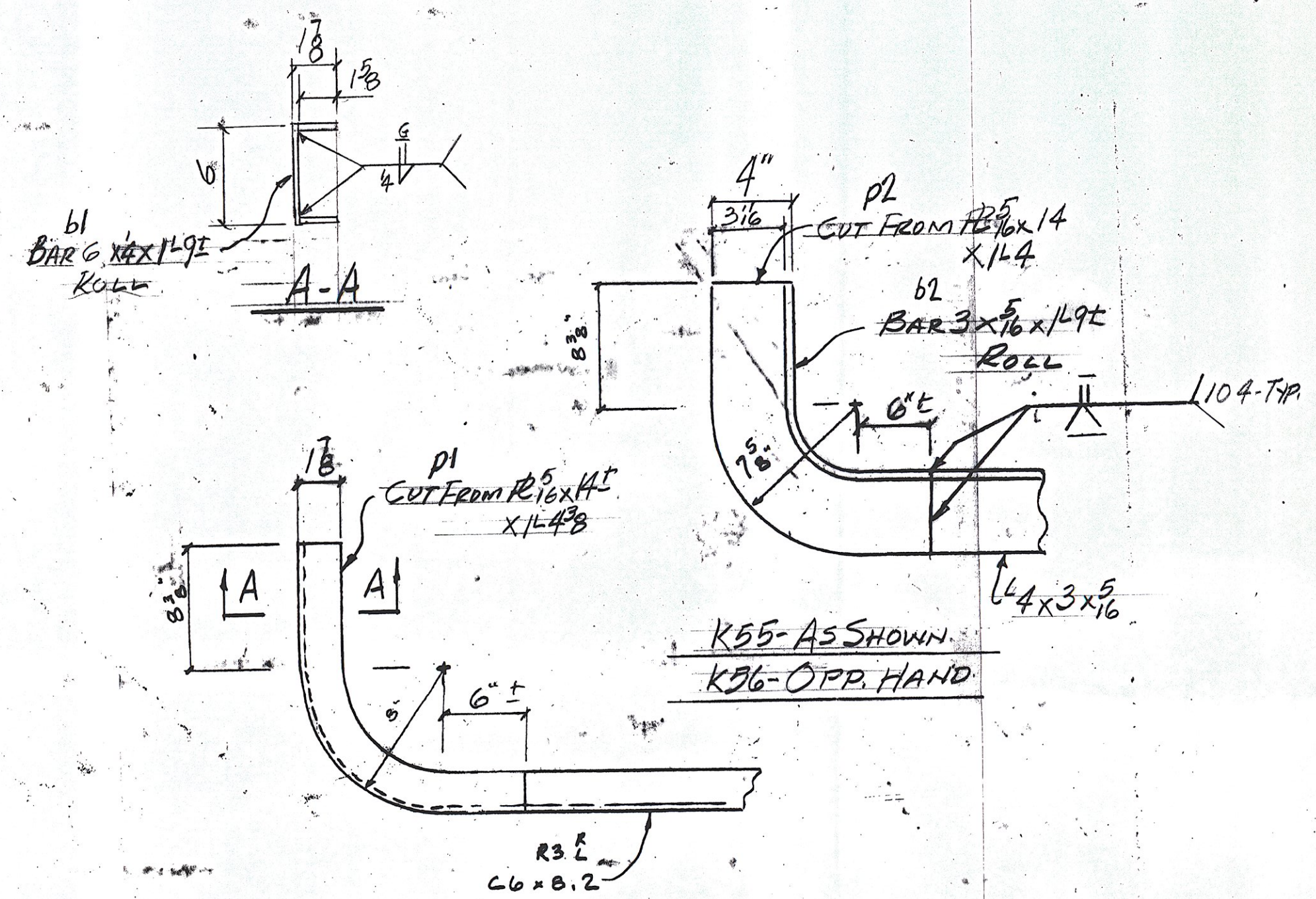
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		2	DO	4	0E		K5L		
		4	BAR 6x4	1	9E		B1		
		8	R 1/2 x 14	1	4E		D1		
		4	L 4x3x7/16	4	0E		K55		
		4	DO	3	0E		K56		
		8	BAR 3x7/16	1	9E		B2		
		8	R 1/2 x 14	1	4		P2		
		2	L 4x3x5/16	4	10E		R6R		
		2	DO	4	10E		R6L		
		4	BAR 3x5/16	1	9E		B3		
		4	R 1/2 x 14	1	4E		P3		
FOR SHOP & FIELD BOLTS SEE DWG 54									
PAY ITEM 506.60									



2 - RAILS R3^R AS SHOWN
 2 - " R3^L - OPP HAND



2 - RAILS R6^R - AS SHOWN
 2 - " R6^L - OPP HAND



NO EXCEPTIONS TAKEN MAKE CORRECTIONS NOTED
 REJECTED REVISE & RESUBMIT
 SUBMIT SPECIFIED ITEM

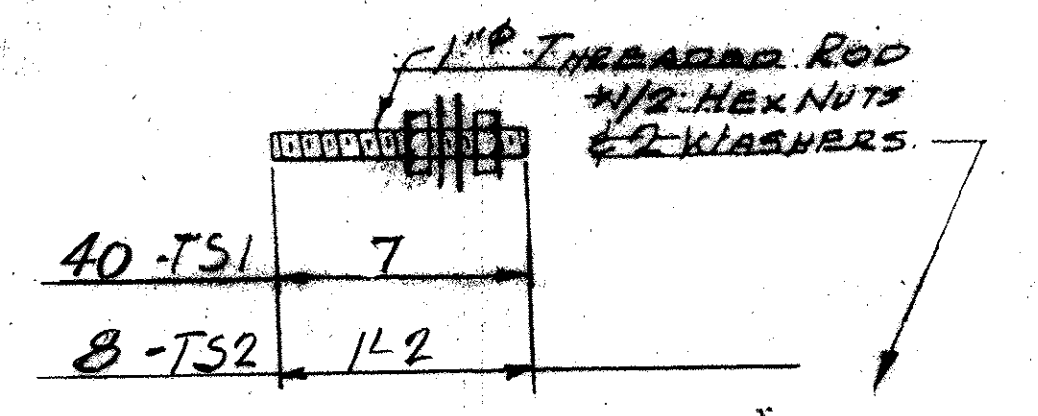
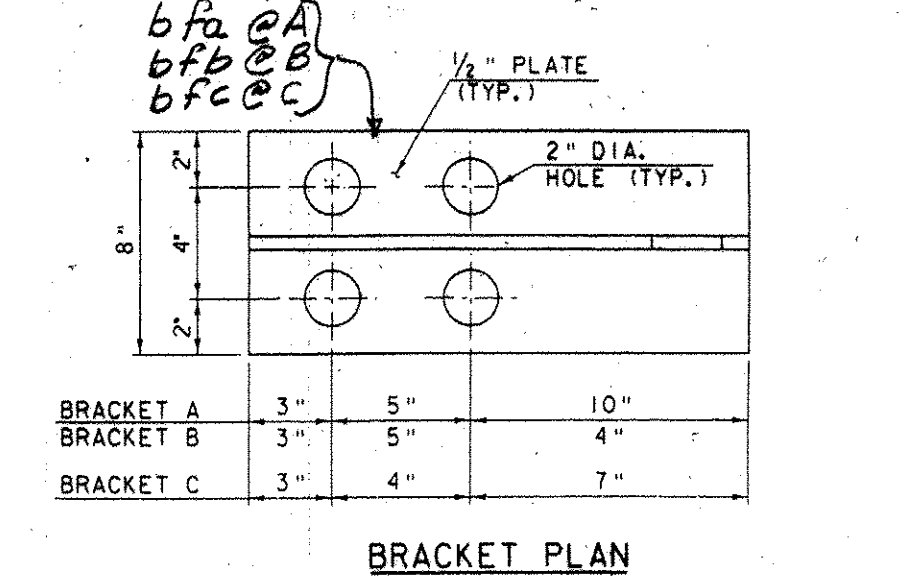
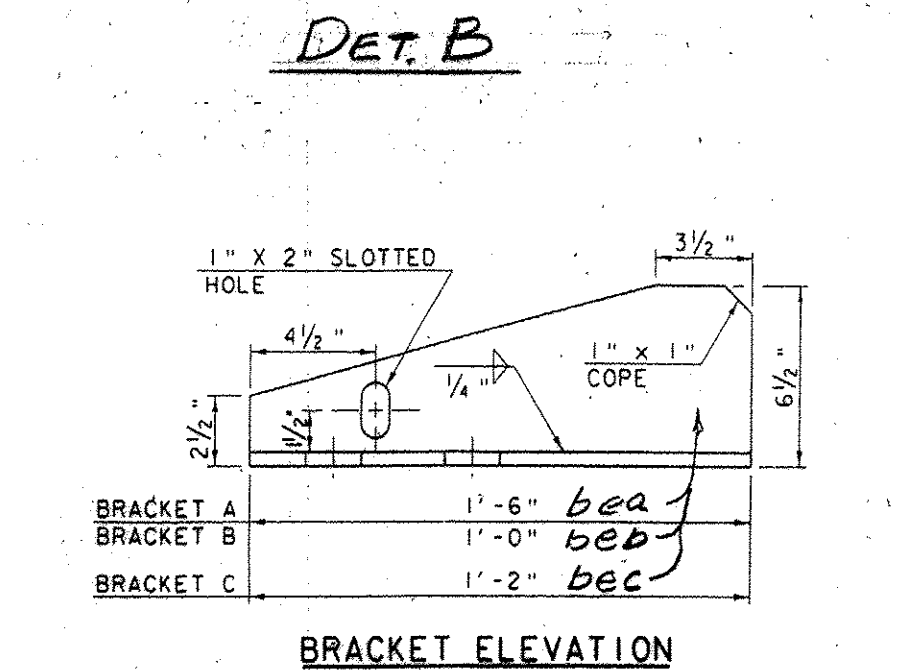
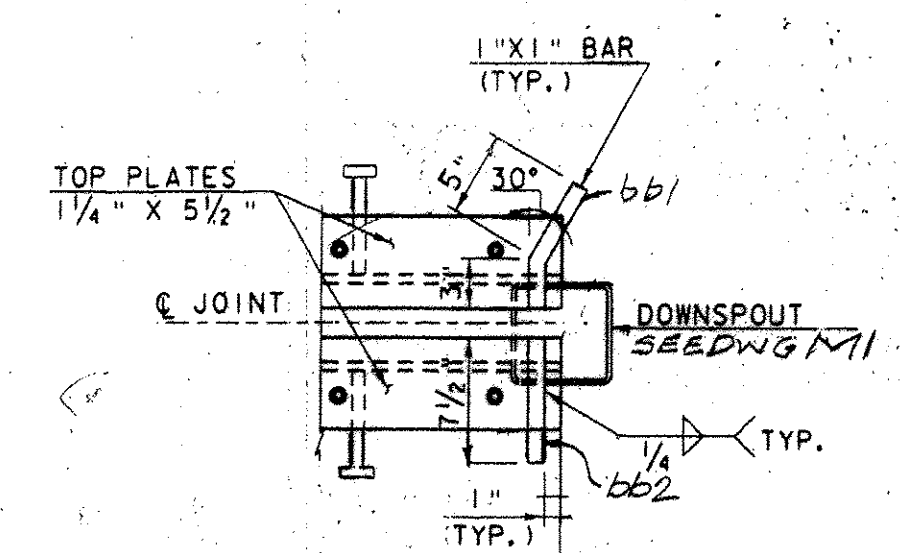
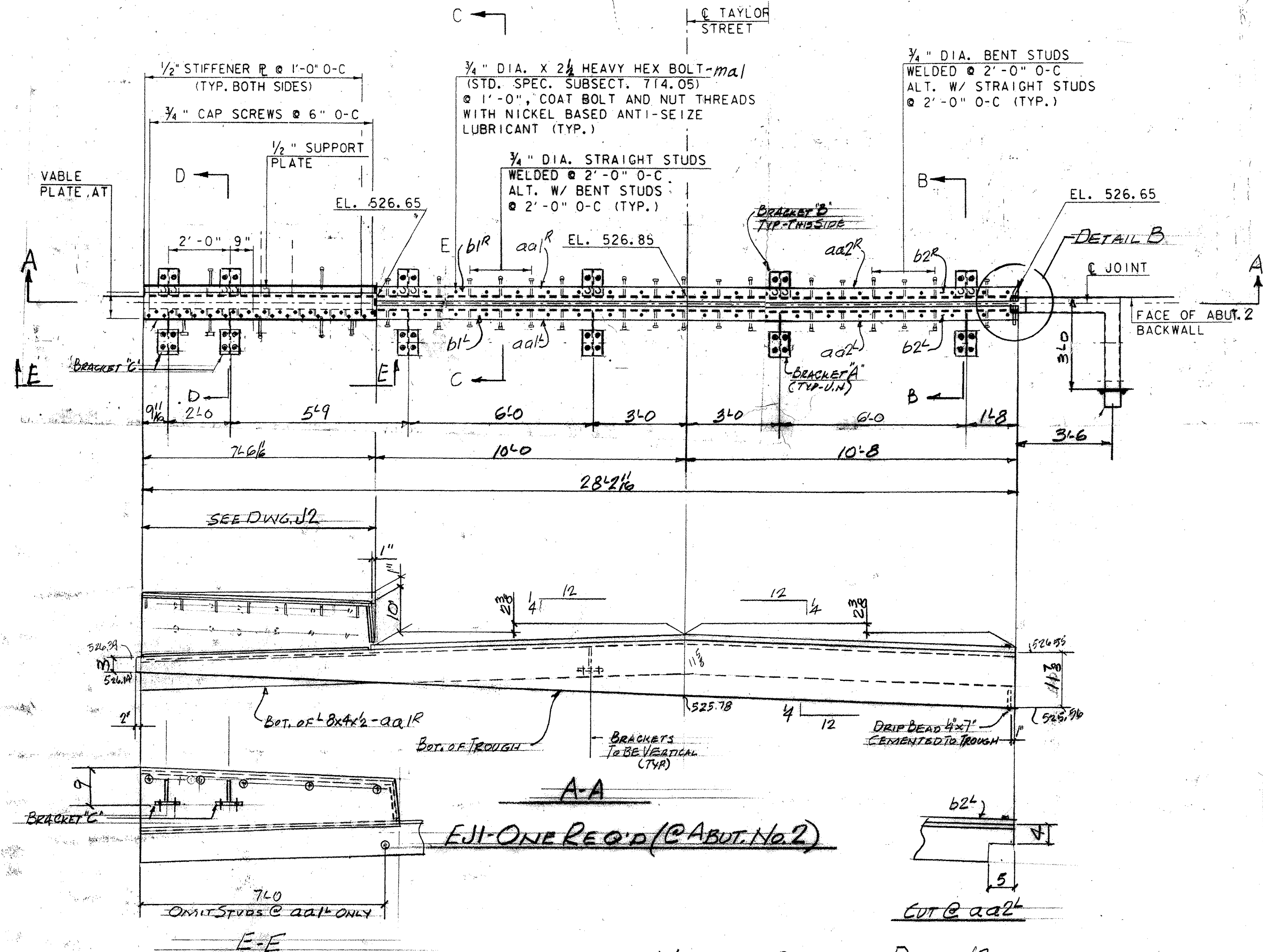
CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTIONS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK.

CLOUGH HARBOUR ASSOCIATES LLP
 ENGINEERS, SURVEYORS, PLANNERS
 ARCHITECTS

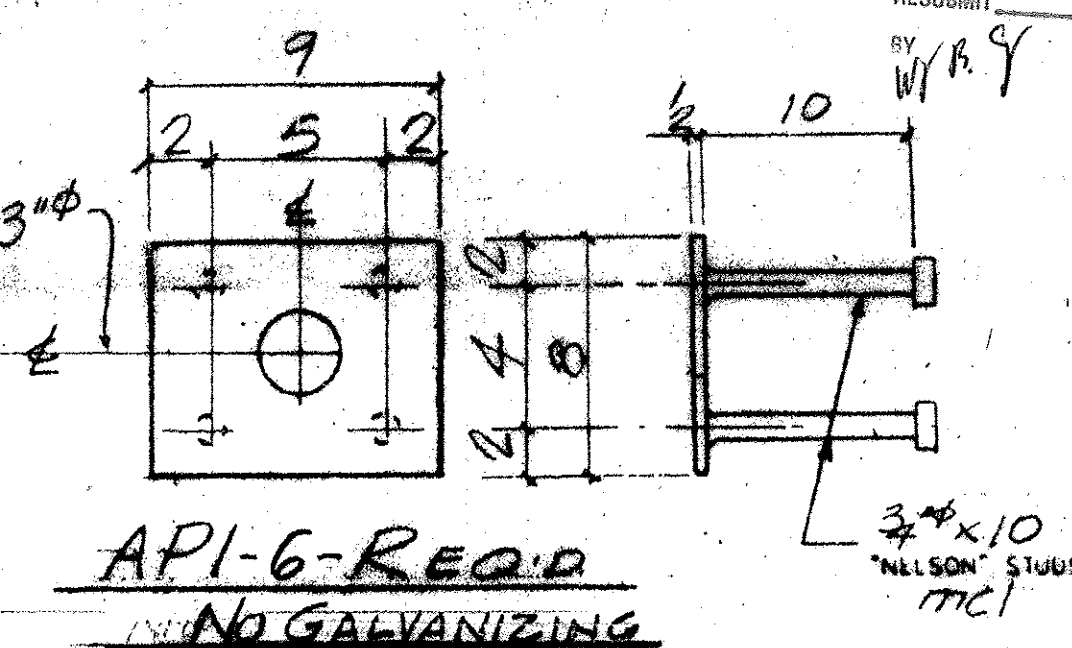
DATE 4/13/10 BY [Signature]

RECEIVED
 CHK'D BY: CHA DTD BY: [Signature]
 APR 22 2010
 RESUBMIT: [] APPROVED: [X]
 BY: WYB J DATE 5/1/10

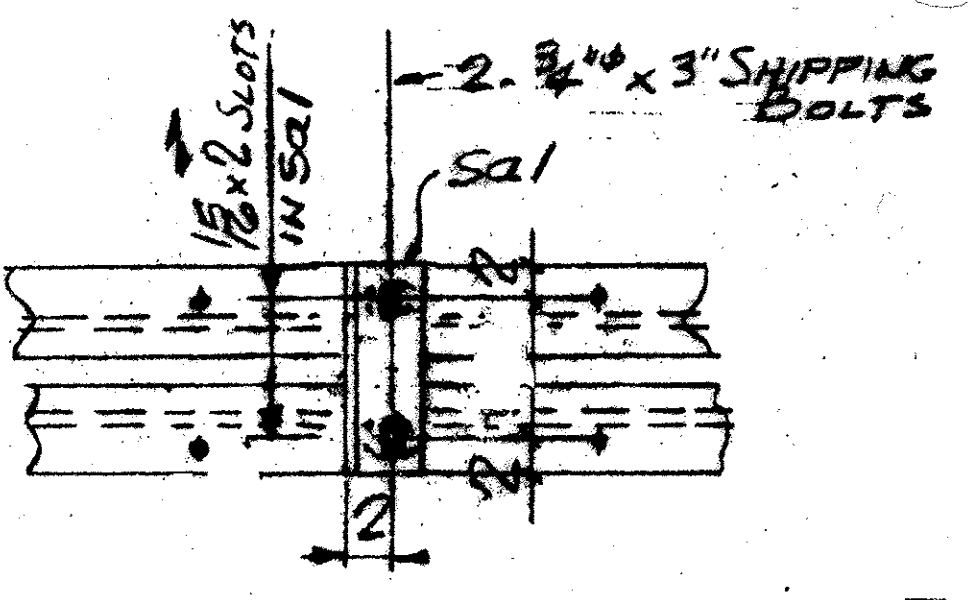
REV.	REMARKS	DATE	DWN	CHK	APP	Q.A.	NO.	DIR.	LGT	TYPE	WASHER
	OUT FOR APPROVAL										
	OUT FOR APPROVAL										
	ISSUED TO SHOP										
	FIELD & OFFICE										
PROJECT NO. BHF 6400 (31) STATE PROJECT NO.											
MATERIAL: A270 ELECTRODES: HUES: AS NOTED SHIP BOLTS: 5" P											
SURFACE PREP. & PAINT: A325-7C GALV.											
BLAST CLEAN - SPI0											
CARBOLINE #859 ORGANIC ZINC PRIMER											
3705 DFL											
DESCRIPTION: BRIDGE RAIL										DRAWN BY: JPF	
JOB: TH9-TAYLOR ST. BRIDGE #5										DATE: 4-10	
MONTPELIER, VERMONT										CHKD BY:	
										APPROV BY:	
										Q.A.	
CUSTOMER: WINTERSET											
CASCO BAY STEEL STRUCTURES, INC.										JOB NO. 434	
75 SPRING HILL ROAD SACO, MAINE 04072										DRG. NO. 54A	
PHONE (207) 282-7360 FAX. (207) 282-1179										REV. Δ	



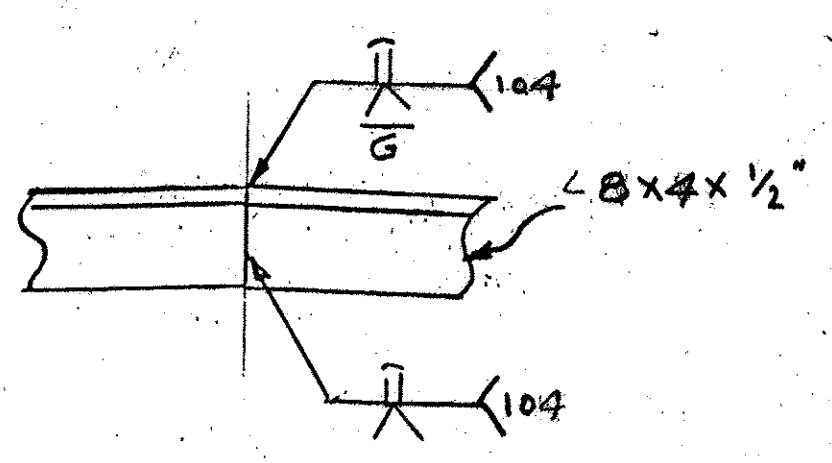
WASHER FOR BRACKET W1



WORK THIS DWG. WITH DWG. J2
PRIOR TO GALV. GRIND ALL EDGES & CORNERS TO 1/16" RADIUS.



SHIPPING DEVICE
SPACED 5'-0" O.C. MAX.



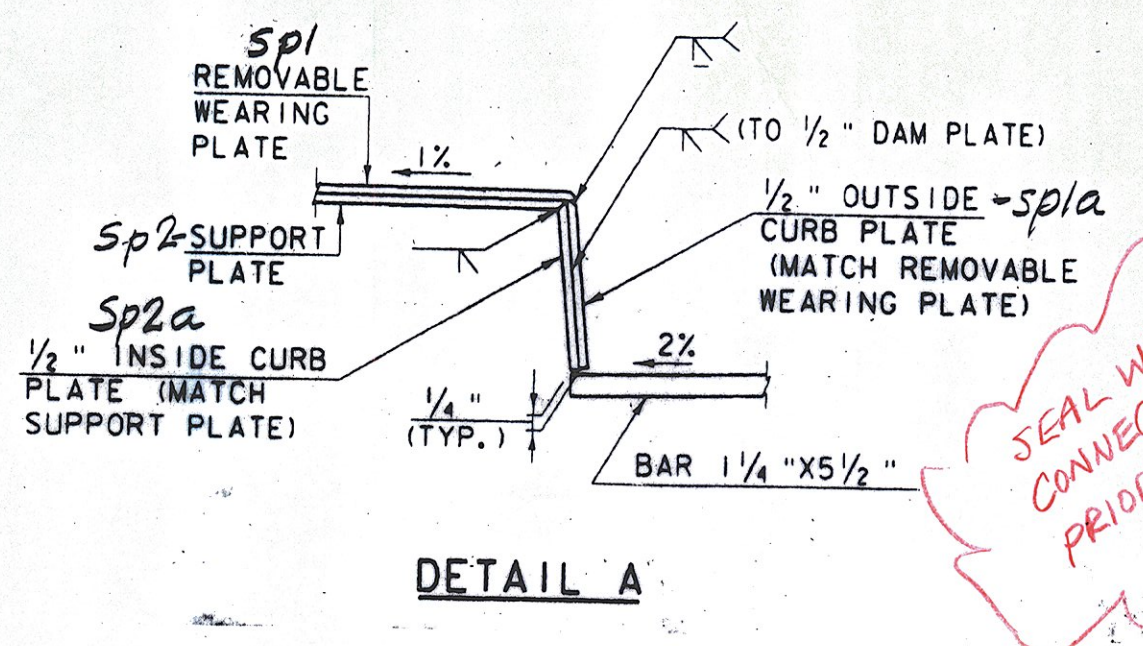
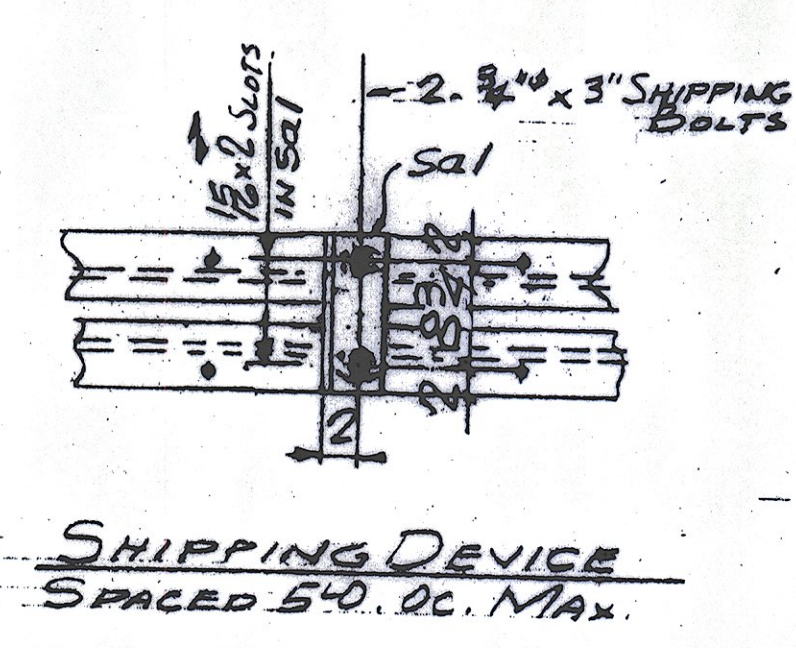
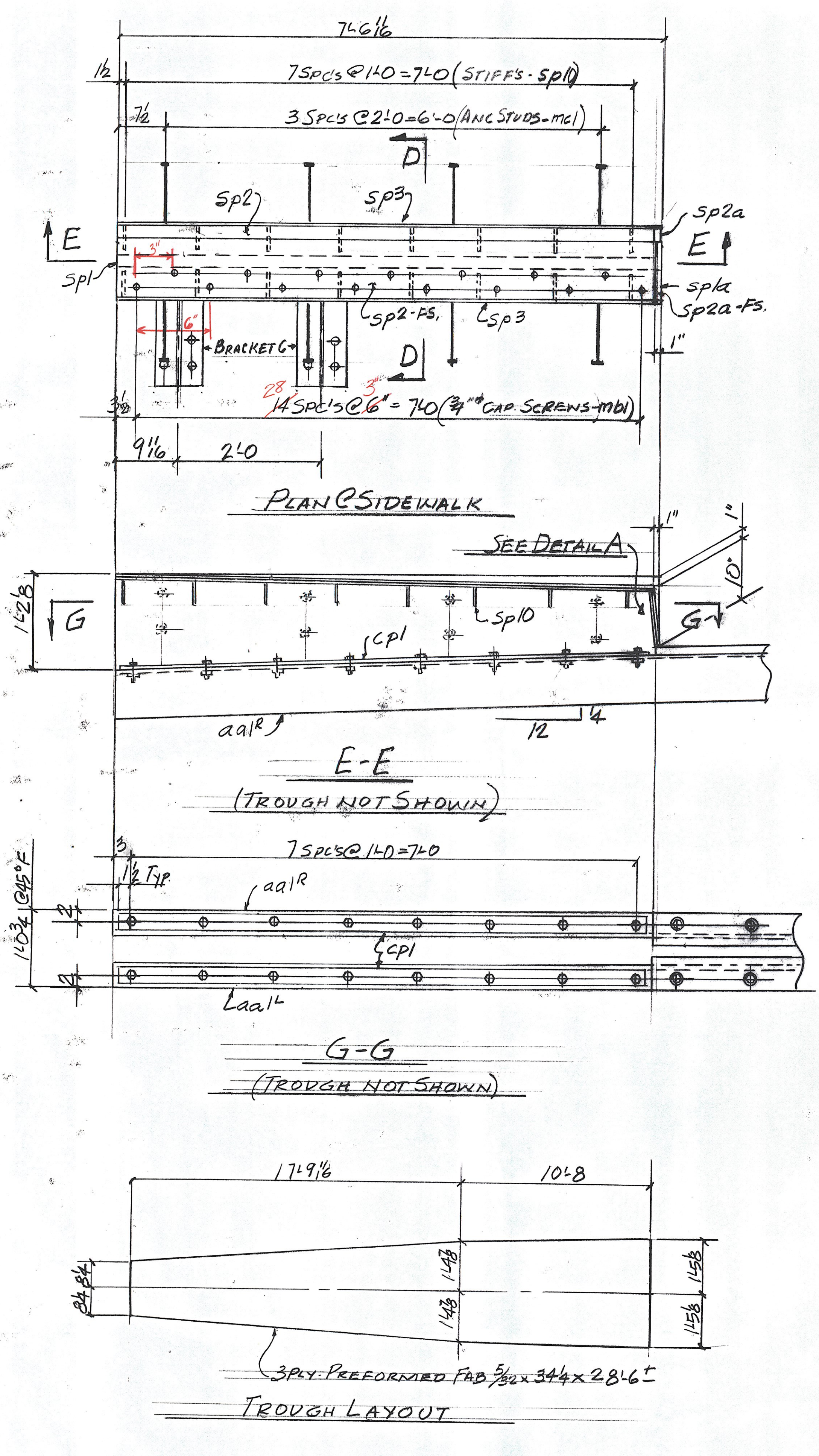
WELDING DETAIL

SHOP BILL				JOB NO. 434	DRG. NO. J1				
PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEMBLY MARK	SHIPPING MARK	REMARKS	WEIGHT
	1		Exp. Joint	28	3 1/2		EJ1		
	1		L8x4x1/2	17	6 1/2	aa1R			
	1		DO	10	8	aa2R			
	1		DO	10	8	aa2L			
	2		BAR 5x1/4	10	1	bl1R			
	2		DO	10	8	bl2R			
	4		R 1/2 x 6	1	0	bea			
	6		DO	1	0	beb			
	2		DO	1	2	bec			
	4		R 1/2 x 8	1	0	bfa			
	6		DO	1	0	bfb			
	2		DO	1	2	bfc			
	42		3/4" PHX BOLTS	28	1/4	ma1		STPS SPEC SUBJECT 714.05	
	48		3/4" ANK STUDS	10	mcl				
	1		BAR 1x1	8	bb1			BEND	
	1		PREPARED TYP. 3/4" x 3/4"	30	0	mb1		STPS SPEC SUBJECT 714.07	
	2		PREPARED TYP. 1/2" x 3/4"	30	0	mb1		SUBJECT 714.12	
TS1	40		1" IN. THREADING ROD	7		TS1		SUBJECT 714.05	
TS2	8		DO	1	2	TS2		DO	
96			1" IN. HEX NUTS			FIELD			
96			R 3/8 x 3	3	1/4	W1		R. WASH	
6			R 1/2 x 8	9		API		NO GALV	
	24		3/4" ANK STUDS	10	mcl				
	6		L4x4x1/2	1	0	SA1			
	12		3/4" BOLTS	3	SHOP				
SIDEWALK ITEMS - SEE DWG. J2									
	1		R 6 x 11	7	5 1/2	SP1			
	1		R 1/2 x 7/4	11	5 1/2	SP1a			
	2		R 1/2 x 5	7	5 1/2	SP2			
	2		DO			SP2a			
	2		R 1/2 x 1 1/2	7	6 1/2	SP3			
	8		R 1/2 x 3	4	5 1/2				
	2		BAR 3 x 1/2	7	3	CP1			
	12		3/4" ANK STUDS	10	mcl				
	15		3/4" CAP SCREWS	1/2	mb1			STAINLESS STEEL	
	16		3/4" A325	22	SHOP			W/ GALV.	
PAY ITEM: 516.11									

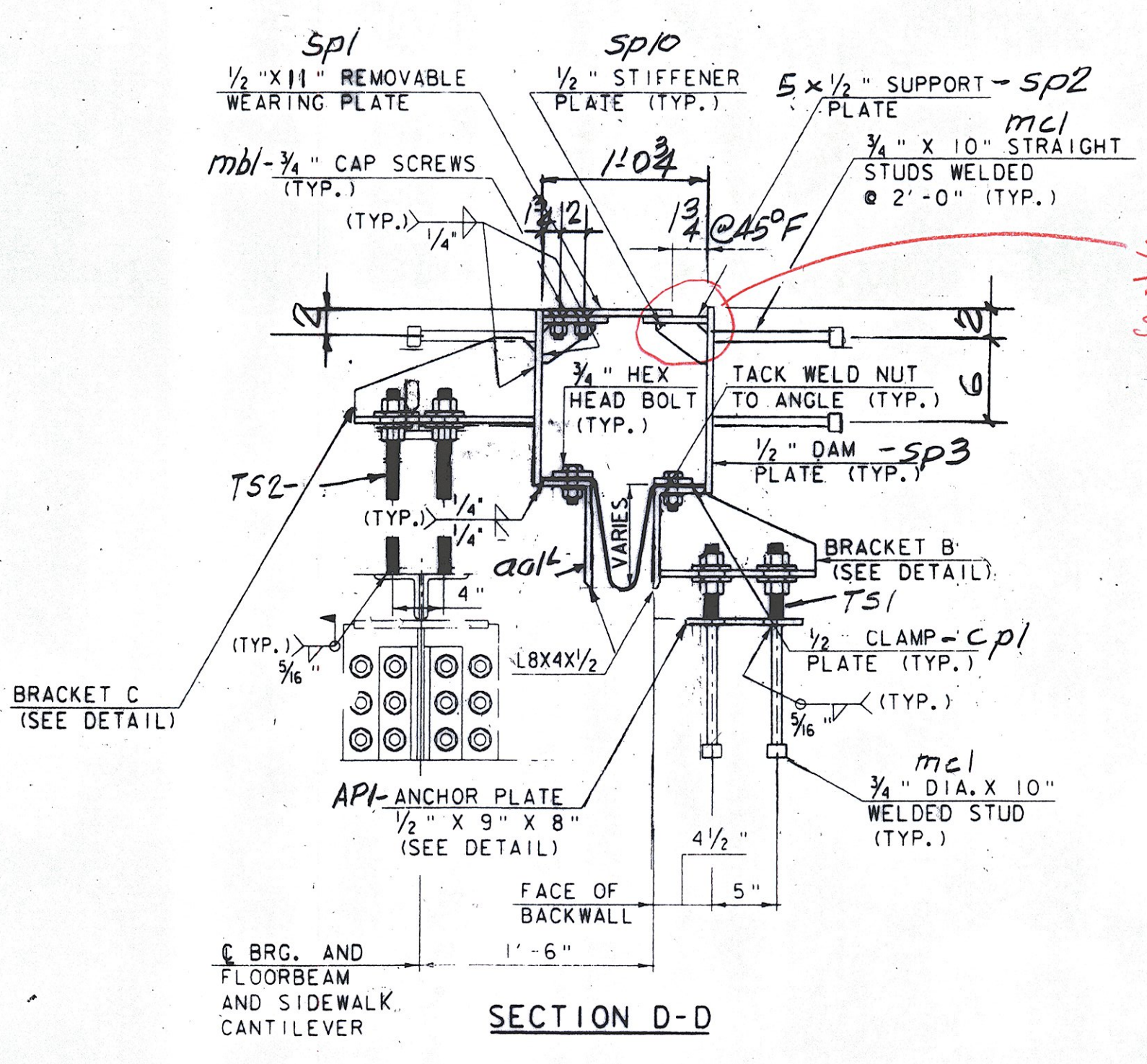
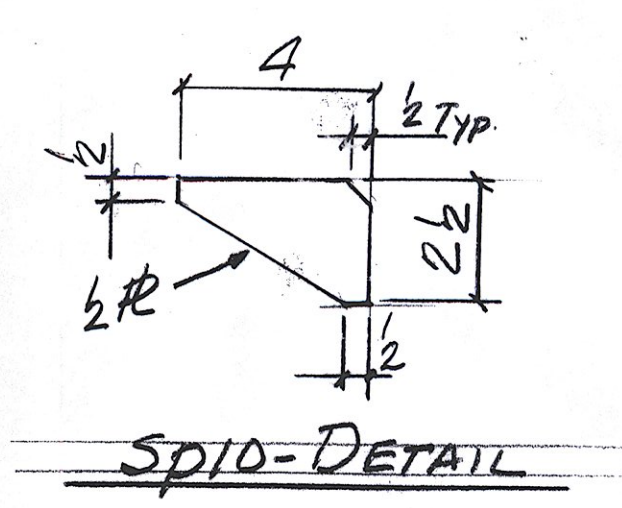
OUT FOR APPROVAL	1/4/10				
OUT FOR APPROVAL					
ISSUED TO SHOP					
FIELD & OFFICE					

REV.	REMARKS	DATE	DWN	CHK	APP	Q.A.	NO.	DIA.	LGT	TYPE	WASHER
	PROJECT NO. BHF-6400 (31)										
	MATERIAL: A325										
	SURFACE PREP. & PAINT:										A525-GALV.

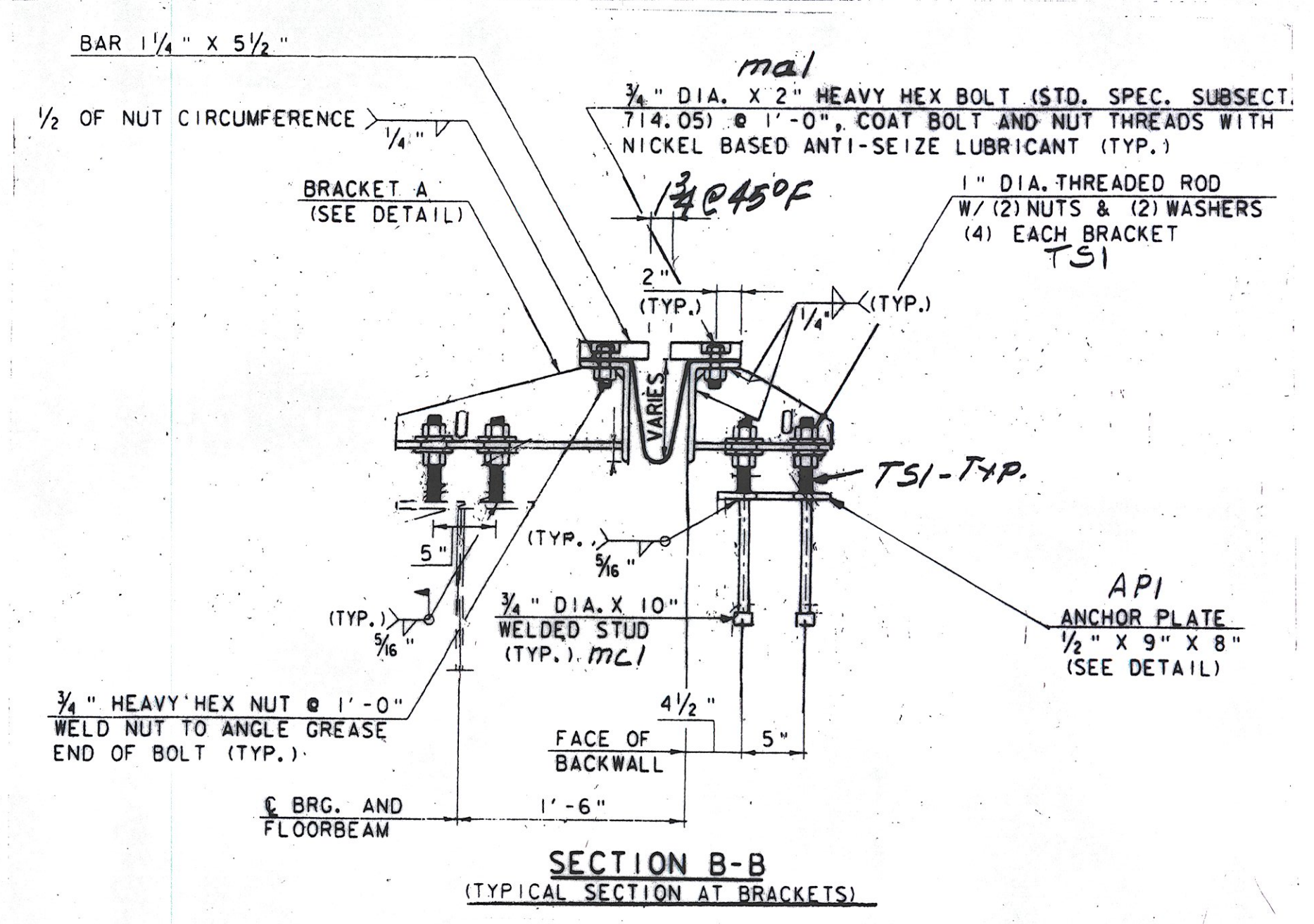
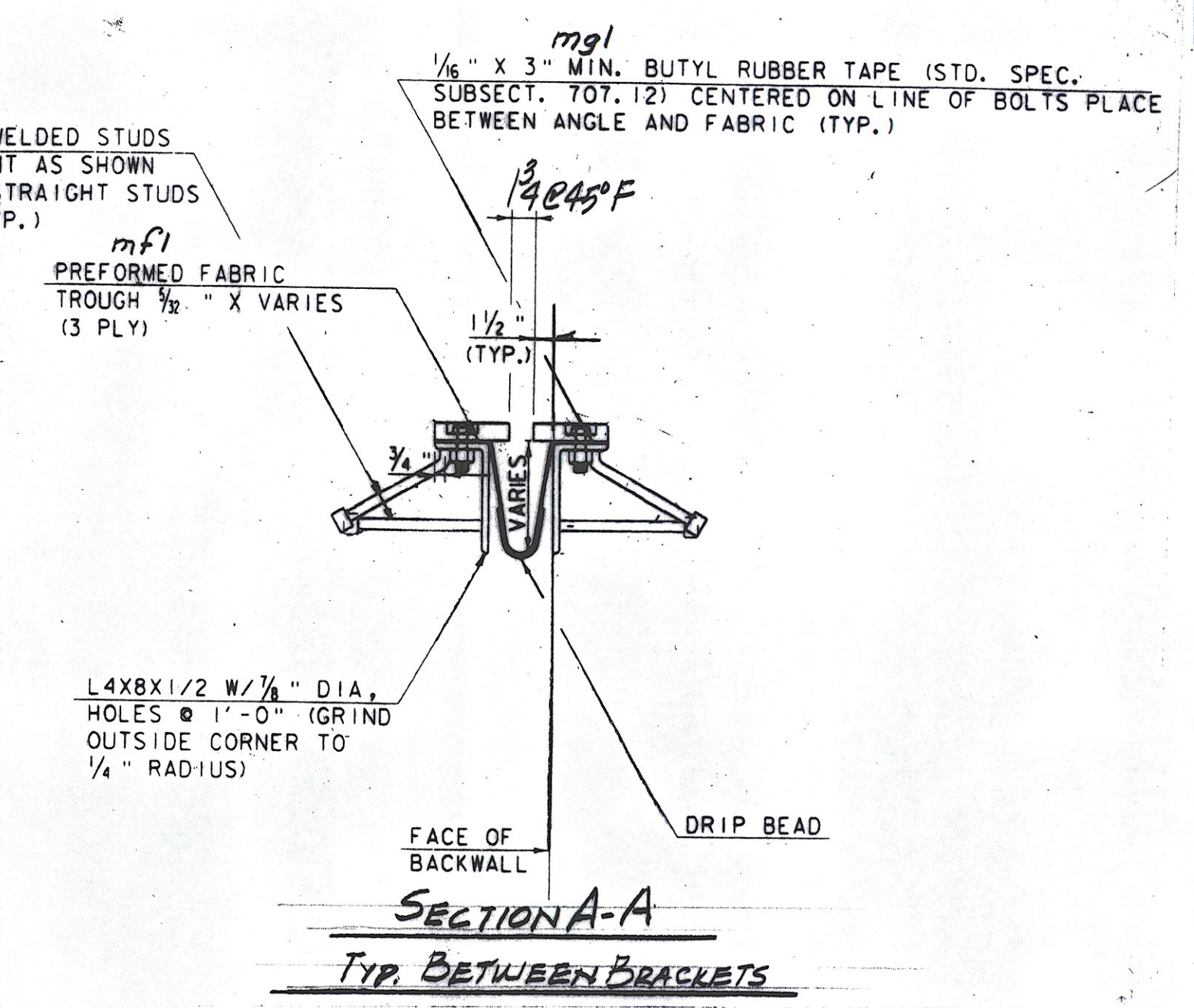
GALVANIZE AFTER FAB.											
DESCRIPTION: EXPANSION JOINT - ABUT. 2										DRAWN BY	DATE
JOB:										JPF	1-10
TH9-TAYLOR ST. BRIDGE NO. 5										CHKD BY	
MONTPELIER, VERMONT										APPROV BY	
CUSTOMER: WINTERSET										Q.A.	
CASCO BAY STEEL STRUCTURES, INC.										JOB NO.	DRG. NO.
75 SPRING HILL ROAD SACO, MAINE 04072										434	J1
PHONE (207) 282-7380 FAX. (207) 282-1179										REV.	



SEAL WELD ALL WELDED CONNECTIONS WHERE POSSIBLE PRIOR TO GALVANIZING



SP2 SUPPORT PLATES WELDED TO SP3 DAM PLATES AND SP10 STIFFENER PLATES?



OUT FOR APPROVAL	1/4"										
OUT FOR APPROVAL											
ISSUED TO SHOP											
FIELD & OFFICE											
REV.	REMARKS	DATE	DWN	CHK	APP	Q.A.	NO.	DIA.	LGT	TYPE	WASHER
PROJECT NO. BHF 6400 (31) STATE PROJECT NO. BRIDGE No. 5											
MATERIAL: A3270 ELECTRODES: SEE PROC HOLES: AS NOTED SHOP BOLTS: 3/4" SURFACE PREP. & PAINT: A525-GALV.											
GALVANIZE AFTER FAB.											
DESCRIPTION:	EXP. JOINT ABUT. 2 - SECT. 4 DET. 5.										
JOB:	TH9-TAYLOR ST. BRIDGE No. 5 MONTPELIER, VERMONT										
DRAWN BY:	JPF	DATE:	1-10								
CHKD BY:	CR	APPROV BY:									
CUSTOMER:	WINTERSET										
CASCO BAY STEEL STRUCTURES, INC.	JOB NO. 434	DRG. NO. J2									
75 SPRING HILL ROAD SACO, MAINE 04072	PHONE (207) 282-7360	FAX (207) 282-1179									

WORK THIS DWG. WITH DWG. 41



State of Vermont
PDD/Structures Design Section
National Life Building - Drawer 33
Montpelier, VT 05633-5001
www.not.state.vt.us

[phone] 802-828-2621
[fax] 802-828-3566
[toll] 800-253-0191

Agency of Transportation

March 4, 2010

Casco Bay Steel Structures, Inc.
75 Spring Hill Rd
Saco, Me 04072

Project Name: Montpelier Project #: BHF 6400(31)

Structure Identification: Bridge 5 over the Winooski River

The following Structural Steel Drawings for the above project (Vendor's Job #434) transmitted with your letter dated 2/11/2010 have been reviewed and are being returned herewith.

Sheet M1 is approved as noted (note comments in red).

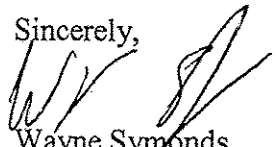
Please make appropriate changes as indicated on these "as noted" drawings and submit white prints for our use in the record plans for this project. Also, please submit extended weights for our approval.

Partial payment for this item will be withheld until extended weights are received and approved.

Although not detailed in the Contract Plan set, sidewalk block out plates should be fabricated for the intermediate rail posts which protrude through the concrete deck. These existing members are marked RP1 and RP2 on Sht. 58 of the Contract Plan set. In total there are 8 of these pieces (see attached photo). Please forward fabrication drawings for these plates.

You must provide notice to our fabrication inspector, Jeff Clark, as to the date fabrication represented by these drawings will begin. Jeff must receive and acknowledge your notice at least seven days prior to that date, as per Specification 506.03. You may contact Jeff by phone at (802)828-0044 or email at jeff.clark@state.vt.us. Any material fabricated prior to the notification date is subject to rejection without further cause.

Sincerely,


Wayne Symonds
Project Manager

Attachments

cc: [x] Resident Engineer, Bob Suckert
[x] Shop Inspector
[x] Contractor, Winterset
[x] Design Consultant, CHA
[x] Files





WINTerset INCORPORATED
P.O. BOX 968
LYNDONVILLE, VERMONT 05851

LETTER OF TRANSMITTAL

DATE	2-15-10	JOB NO.	CAF 6400 (31)
ATTENTION	WAYNE SYMONDS		
RE:	MONTPELIER, VT		
	TRYLEA ST. BRIDGE		
	STRUCTURAL STEEL		

TO: 1 TRANS

(802) 626-9330 FAX (802) 626-8933

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

Shop drawings Prints Plans Samples Specifications

Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
1			Copy CASCO Bay TRANSMITTAL
6			Copy M-1 - MISC. ITEMS

THESE ARE TRANSMITTED as checked below:

For approval Approved as submitted Resubmit _____ copies for approval

For your use Approved as noted Submit _____ copies for distribution

As requested Returned for corrections Return _____ corrected prints

For review and comment _____

FOR BIDS DUE _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO: FILE

SIGNED: ALEX Thompson

If enclosures are not as noted, kindly notify us at once.

CASCO BAY STEEL STRUCTURES, INC. LETTER OF TRANSMITTAL
 75 Spring Hill Rd.
 SACO, MAINE 04072

(207) 282-7360 FAX (207) 282-1179
 TO WINTERSET

DATE	2-11-10	JOB NO.	434
ATTENTION	CALLEN		
RE:	MONTPELIER BHF 6400 (31)		
	TAYLOR STREET		
	BRIDGE No. 5		
	MONTPELIER, VT.		

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:
 Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
7			M1 ~ Misc ITEMS

THESE ARE TRANSMITTED as checked below:
 For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS

 For Approval ~ 7 Copies

COPY TO _____ SIGNED: Jeff Spivey
 If enclosures are not as noted, kindly notify us at once

D'Amato Jr., Dave

From: D'Amato Jr., Dave
Sent: Tuesday, February 23, 2010 3:17 PM
To: 'Symonds, Wayne'
Cc: Gozalkowski, Dale
Subject: Taylor Street Bridge - Scupper and Downspout Shops
Attachments: DCP_9755.JPG

Wayne-

We have reviewed this submittal and offer the following comments:

- The weld shown in the Section B-B expanded detail is not 'all around', but should be deposited on each side of mark b1, as shown in Detail C, on Sht. 35 of the Contract Plan set.
- Although not detailed in the Contract Plan set, sidewalk blockout plates should be fabricated for the intermediate rail posts which protrude through the concrete deck. These existing members are marked RP1 and RP2 on Sht. 58 of the Contract Plan set. In total there are 8 of these pieces (see attached photo).

We will be returning the submittal in tonight's mail, with a recommendation to 'Approve as Noted'.

Please let me know if you require further explanation.

Thanks,

Dave

David D'Amato, PE
Associate
CHA - *Imagine What We Can Do For You!*
860.257.6955 x249
d'amato@chacompanies.com
www.chacompanies.com



March 1, 2010

Mr. Wayne Symonds, P.E.
Structures Project Manager
State of Vermont
Structures Design Section
One National Life Drive
Montpelier, VT 05633-5001

**Re: Retainer Contract #0284599; BHF 6400(31); Montpelier Taylor Street Bridge Rehabilitation
Phase B; CHA Project No: 14506**

Dear Mr. Symonds:

CHA has reviewed the Proposed Steel Truss Temporary Support System documentation for the above mentioned project and is recommending the submittal be 'Approved'.

Attached please find the following:

- One copy of the Proposed Steel Truss Temporary Support System documentation, revised February 26, 2010.

Please do not hesitate to contact me directly at (860) 257-4557 if you have any questions or require additional information.

Sincerely,

David M. D'Amato, P.E.
Associate

K:\14506\Curr\Letter\tr 019.docx



February 23, 2010

Mr. Wayne Symonds
Structures Project Manager
State of Vermont
Structures Design Section
One National Life Drive
Montpelier, VT 05633-5001

Re: Retainer Contract #0284599; BHF 6400(31); Montpelier Taylor Street Bridge Rehabilitation Phase B; CHA Project No: 14506

Dear Mr. Symonds:

CHA has reviewed the Miscellaneous Steel Fabrication Drawings for the above mentioned project and is recommending the submittal be 'Approved as Noted'.

Attached please find the following:

- One set of marked Shop Drawings, with abbreviated comments.
- One copy of the email transmitted to your office on February 23, 2010, with a detailed explanation of comments.

Please do not hesitate to contact me directly at (860) 257-4557 if you have any questions or require additional information.

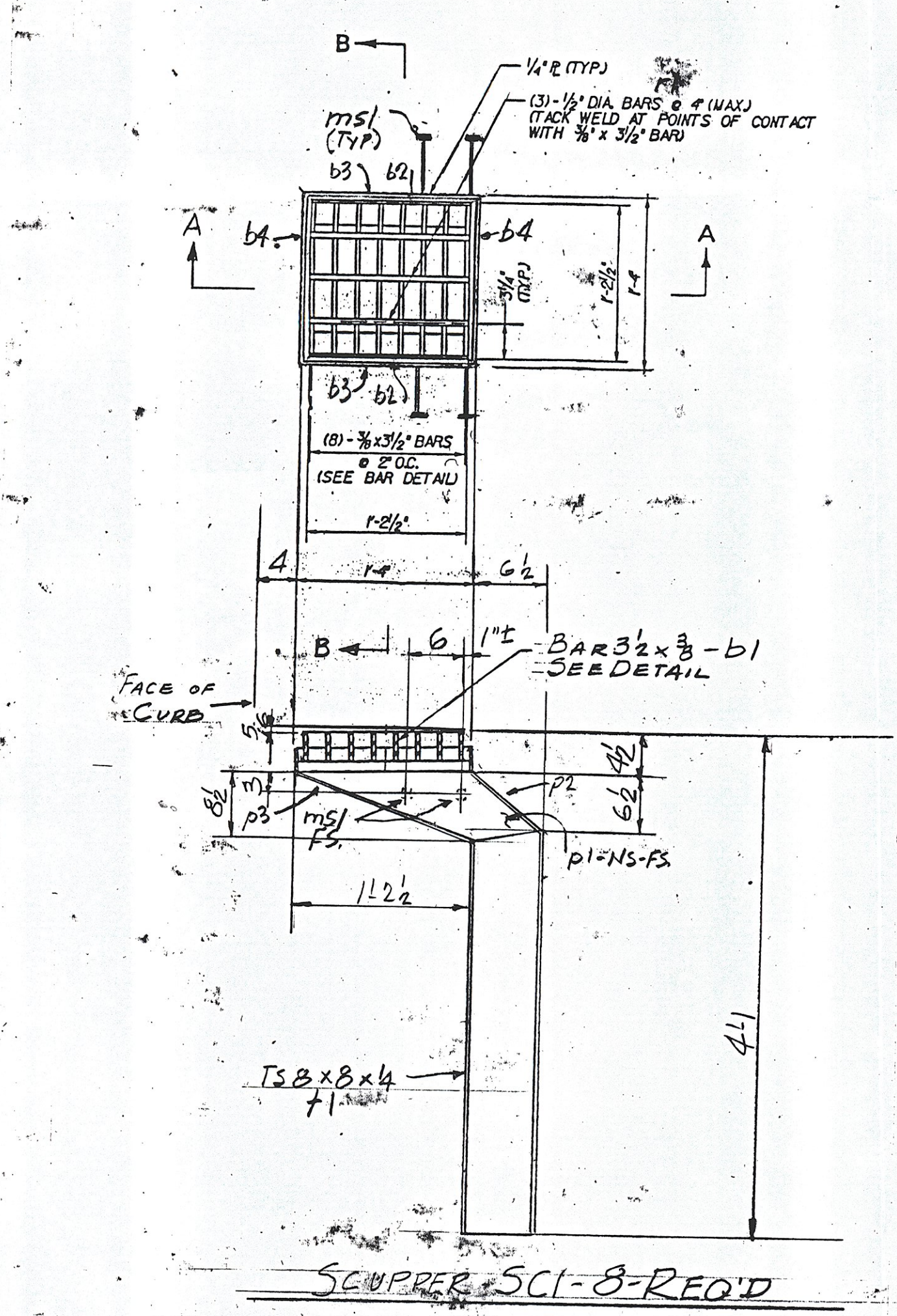
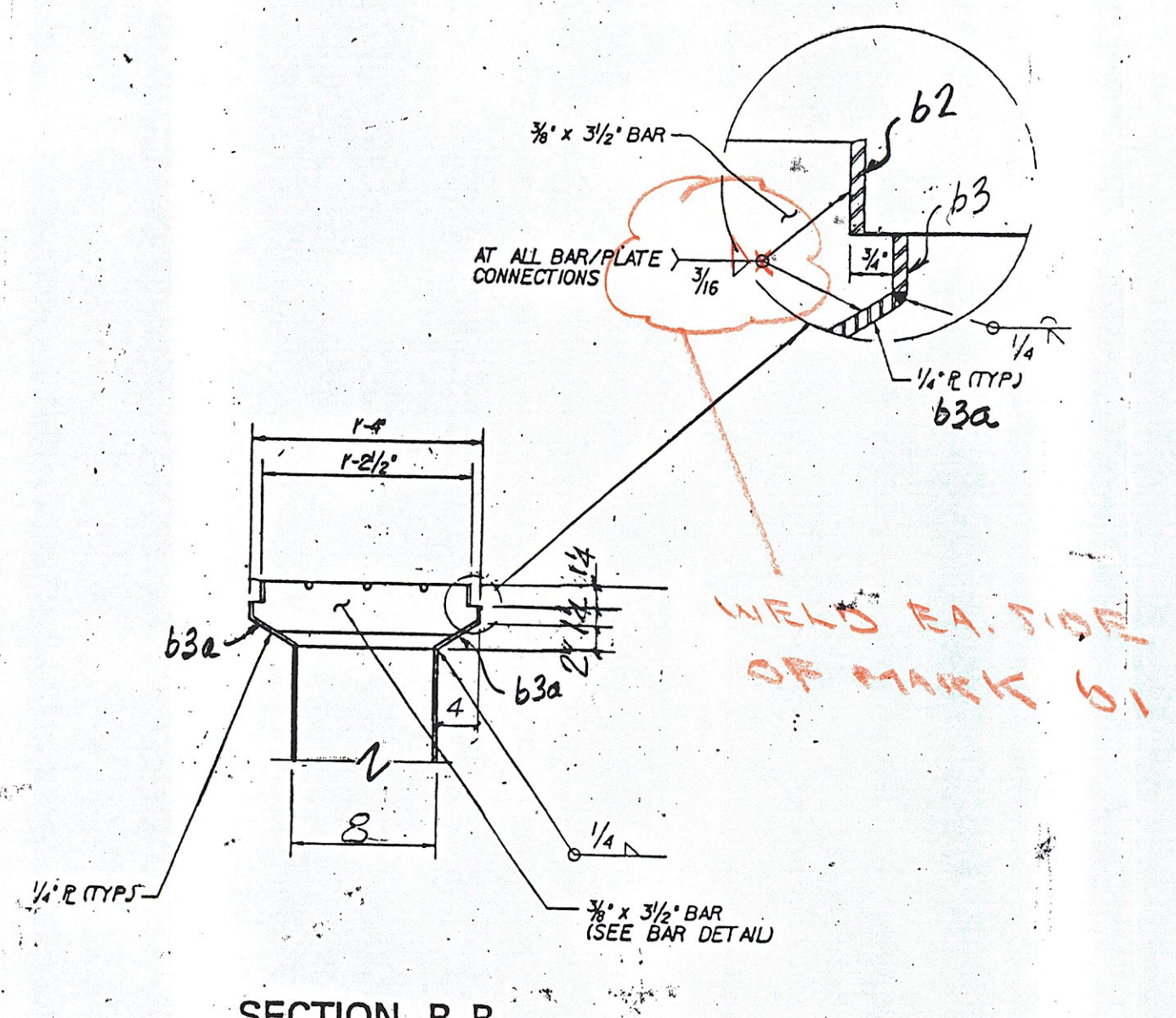
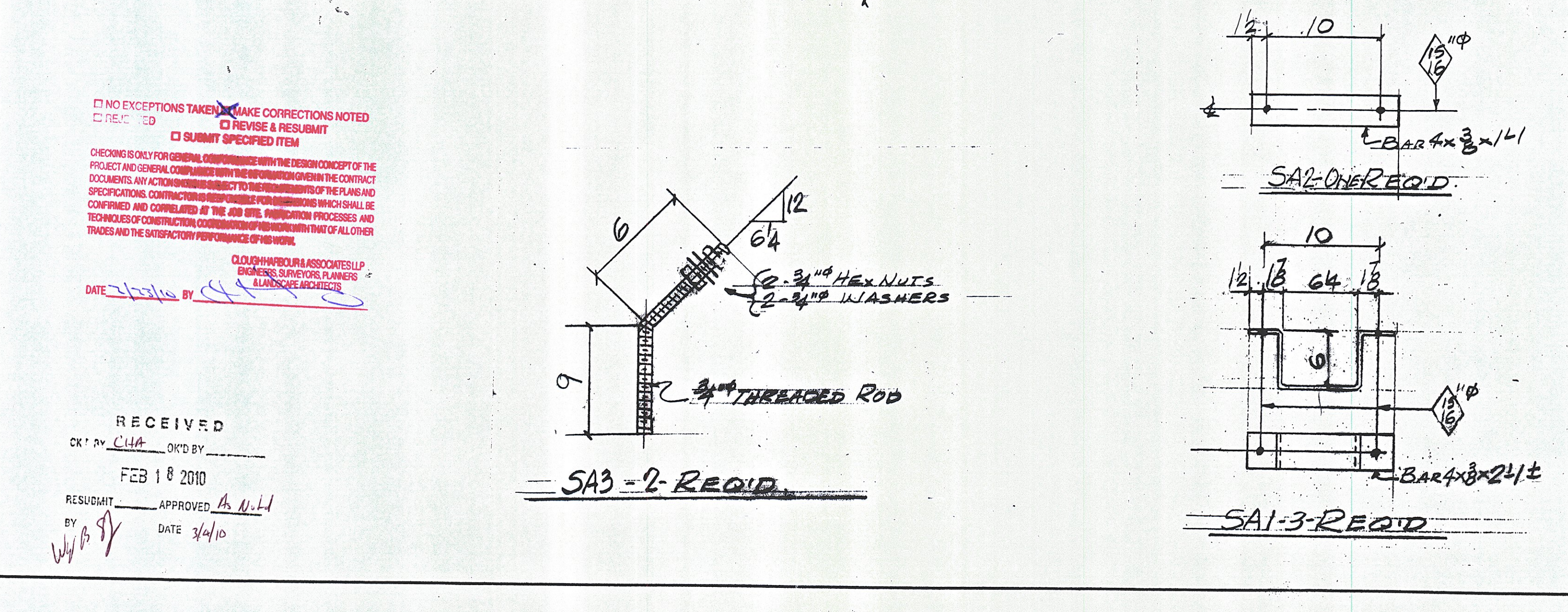
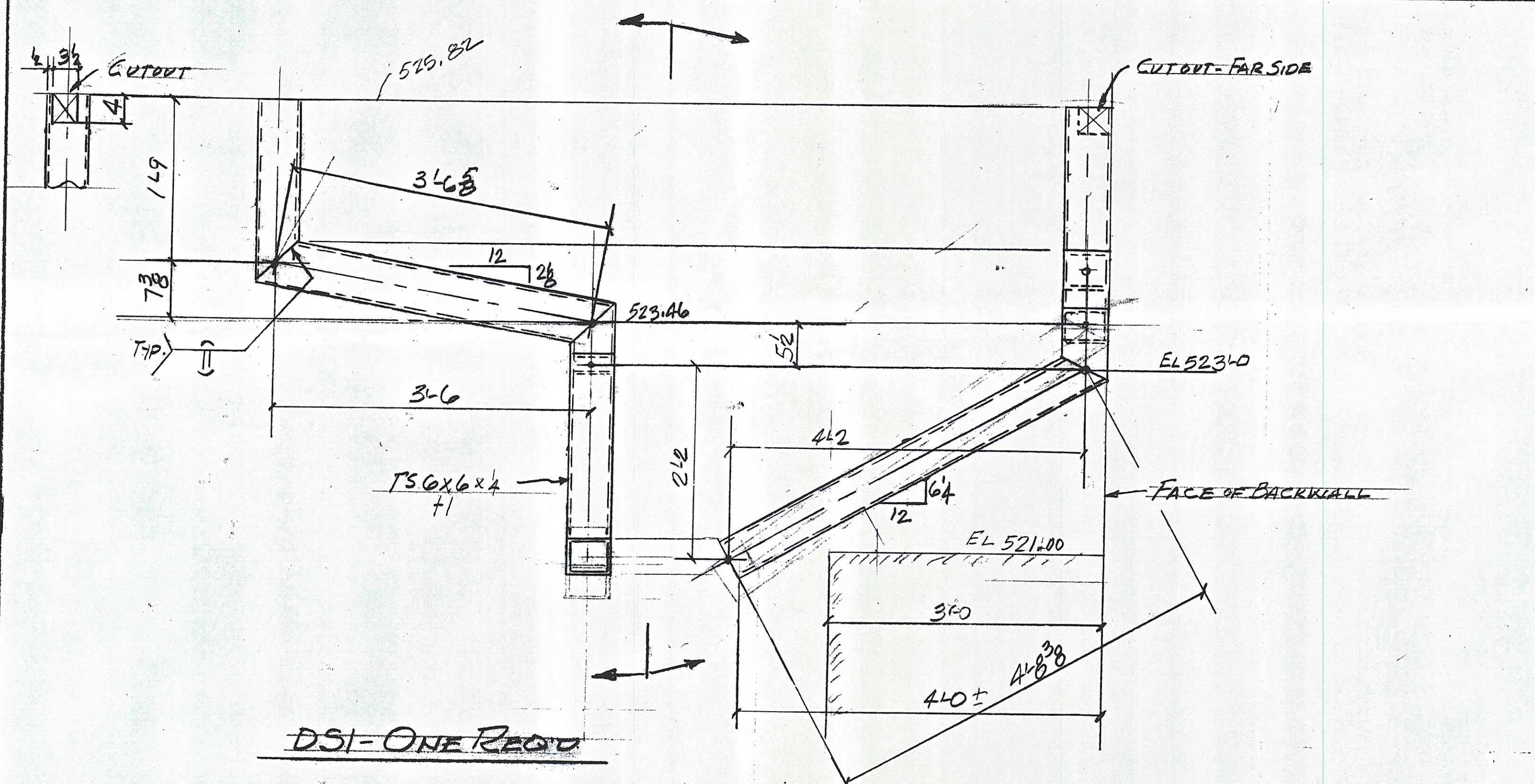
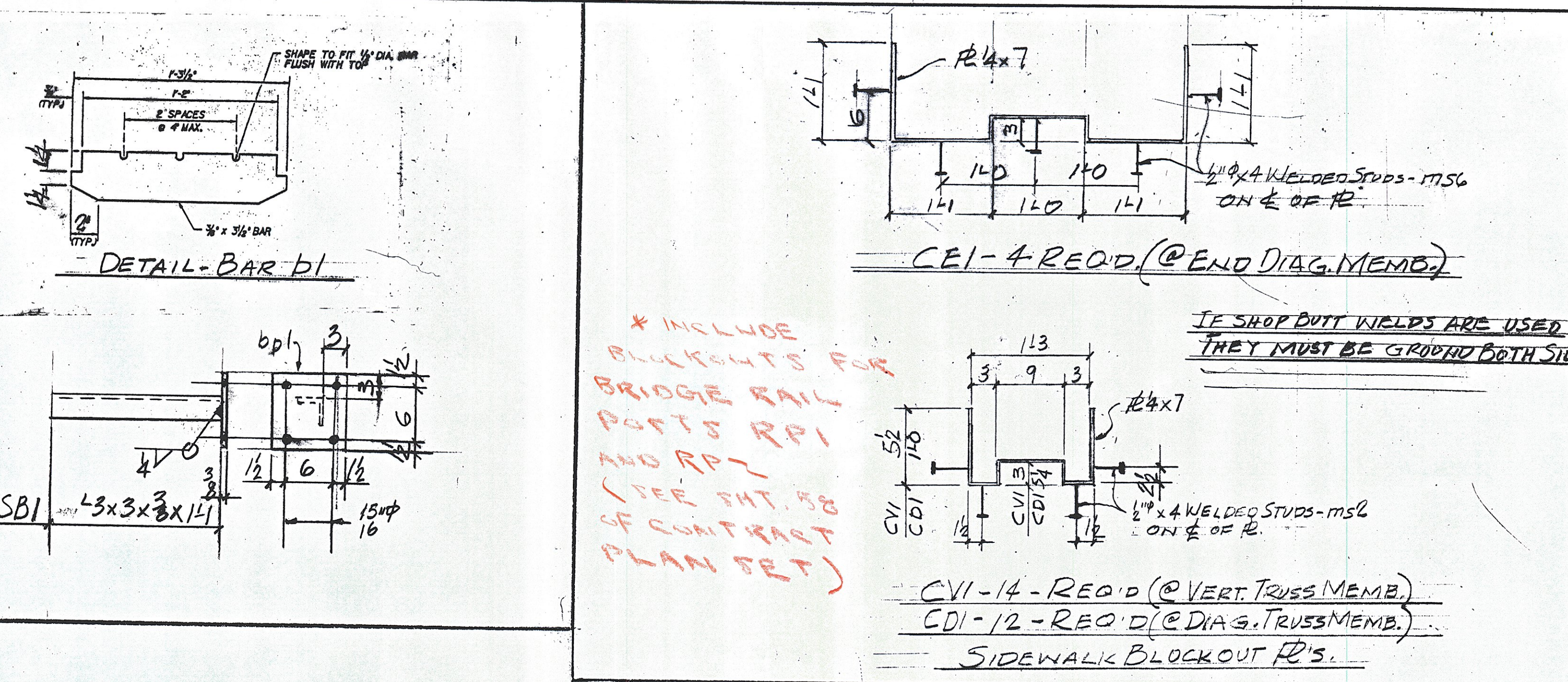
Sincerely,

David M. D'Amato, P.E.
Associate

K:\14599\Conf\Letter\011.doc

ABM INFO		SHOP BILL				JOB NO. 434	DRG. NO. M1		
PAGE	LINE	NO.	DESCRIPTION	FT	IN	ASSEM. MARK	SHIPPING MARK	REMARKS	WEIGHT
	8		SCUPPERS	4	12		SCI		
		8	TS 8x8x4	3	2	71			
		64	BAR 3/2x3/8	1	32	b1			
		16	BAR 1/4x1/4	1	22	b2			
		16	DO	1	4	b3			
		16	BAR 7/8x4	1	4	b3a			
		16	BAR 3/4x4	1	32	b4			
		24	6" BAR	1	22	F1			
		16	12x12x9	1	102	P1			
		8	12x12x9	1	52	P2			
		8	12x12x9	1	42	P3			
		32	3/8" ANG STUBS	7	msl	S			
		8	L 3x3x3/8	1	1	SE1			
		8	12x12x9	1	9	bpl			
		32	3/8" A526TC BOLTS	26		FIELD	X/NEW		
		1	DOWNSPOUT	8	0	DS1			
		1	TS 6x6x4	12	0	H1			
		3	BAR 4x3/8	2	12	SA1	BEND		
		1	DO	1	1	SA2	BEND		
		2	3/8" TENSILE ROD	1	3	SA3	BEND		
		4	3/8" HEX NUTS			SHOP			
		4	3/8" WASHERS			DO			
		4	3/8" EXR BOLTS	9		FIELD	X/INTEWAGH		
SIDEWALK BLOCKOUTS (PAY ITEM 506.60)									
		4	12x14	5	10	CE1	BEND		
		12	14	2	8	CV1	DO		
		12	12	5	3	CD1	DO		
		12	12	4	3				
PAY ITEM 506.50 (UNLESS NOTED)									

OUT FOR APPROVAL	2/11/10										
OUT FOR APPROVAL											
ISSUED TO SHOP											
FIELD & OFFICE											
REV.	REMARKS	DATE	DWN	CHK	APP	Q.A.	NO.	DIA.	LGT	TYPE	WASHER
	PROJECT NO. BHF-6400(31)										STATE PROJECT NO. BRIDGE NO. 5
	MATERIAL: SUBSECTION 714.02										ELECTRODES: PREP PROC HOLES: AS NOTED SHOP BOLTS: SURFACE PREP. & PAINT:
	GALVANIZE AFTER FAB - ASTM-A123										
DESCRIPTION:	SCUPPERS-DOWNSPOUTS-CURBS	DRAWN BY:	JPF	DATE:	1-10						
JOB:	719-TAYLOR ST. BRIDGE NO. 5	CHKD BY:	CR								
	MONTPELIER, VERMONT	APPROV BY:									
		Q.A.									
CUSTOMER:	WINTERSET										
CASCO BAY STEEL STRUCTURES, INC.											
75 SPRING HILL ROAD SACO, MAINE 04072											
PHONE (207) 282-7360 FAX (207) 282-1179											
	JOB NO. 434	DRG. NO. M1									
	REV.										



NO EXCEPTIONS TAKEN. MAKE CORRECTIONS NOTED.
 REVISIONS: 1. REVISE & RESUBMIT
 2. SUBMIT SPECIFIED ITEM

CHECKING ONLY FOR GENERAL COMPLIANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE SPECIFICATIONS GIVEN IN THE CONTRACT DOCUMENTS. ANY OTHER REQUIREMENTS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR TO VERIFY ALL DIMENSIONS, PROCESSES AND TECHNIQUES OF CONSTRUCTION COORDINATED WITH THE ARCHITECT AND ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK.

CLASH/HAZARD ASSOCIATES LLP
 ENGINEERS, SUPERVISORS, PLANNERS & ARCHITECTS

DATE: 2/10/10 BY: [Signature]

RECEIVED
 OK'D BY: CUA OK'D BY: [Signature]
 FEB 18 2010
 RESUBMIT APPROVED AS U.L.
 BY: W.B. [Signature] DATE: 2/10/10