LIST OF STRUCTURE DRAWINGS

DWG. NO.	DRAWING TITLE
STR-1	LIST OF STRUCTURE DRAWINGS
STR-2	GENERAL PLAN - SHEET 1 OF 2
STR-3	GENERAL PLAN - SHEET 2 OF 2
STR-4	GENERAL NOTES
STR-5	TYPICAL BRIDGE CROSS SECTIONS AND UTILITY NOTES
STR-6	PROFILES - SHEET 1 OF 2
STR-7	PROFILES - SHEET 2 OF 2
STR-8	BORINGS - SHEET 1 OF 7
STR-9	BORINGS - SHEET 2 OF 7
STR-10	BORINGS - SHEET 3 OF 7
STR-11	BORINGS - SHEET 4 OF 7
STR-12	BORINGS - SHEET 5 OF 7
STR-13	BORINGS - SHEET 6 OF 7
STR-14	BORINGS - SHEET 7 OF 7
STR-15	LAYOUT PLAN AND COORDINATES
STR-16	PILE PLAN ABUTMENT 1, WW1A & WW1B
STR-17	PILE PLAN ABUTMENT 2 - SHEET 1 OF 2
STR-18	PILE PLAN ABUTMENT 2 - SHEET 2 OF 2
STR-19	PILE DETAILS
STR-20	ABUTMENT 1 - SHEET 1 OF 2
STR-21	ABUTMENT 1 - SHEET 2 OF 2
STR-22	ABUTMENT 2
STR-23	SLEEVE DETAILS
STR-23-1	PILASTERS AT ABUTMENT 1
STR-24	PILASTERS AT ABUTMENT 2
STR-25	WINGWALL TYPICAL SECTION FOR WW1A & WW1B
STR-26	WINGWALLS 2A & 2B AND RETAINING WALL 101 - SHEET 1 OF 3
STR-27	WINGWALLS 2A & 2B AND RETAINING WALL 101 - SHEET 2 OF 3
STR-28	WINGWALLS 2A & 2B AND RETAINING WALL 101 - SHEET 3 OF 3
STR-29	WINGWALLS 2A & 2B SECTIONS - SHEET 1 OF 3
STR-30	WINGWALLS 2A & 2B SECTIONS - SHEET 2 OF 3
STR-31	WINGWALLS 2A & 2B SECTIONS - SHEET 3 OF 3
STR-32	RETAINING WALL 101 AND PARAPET DETAILS
STR-33	RETAINING WALL MODIFICATIONS - SHEET 1 OF 3
STR-34	RETAINING WALL MODIFICATIONS - SHEET 2 OF 3
STR-35	RETAINING WALL MODIFICATIONS - SHEET 3 OF 3
STR-36	PIER 1
STR-37	PIER 2
STR-38	PIER 3
STR-39	PIER 4
STR-40	PIER 5-FOOTING & PILE PLAN
STR-41	PIER 5
STR-42	PIER 6-FOOTING & PILE PLAN
STR-43	PIER 6
STR-44	PIER 7
STR-45	PIER DETAILS - SHEET 1 OF 2
STR-46	PIER DETAILS - SHEET 2 OF 2
STR-47	FRAMING PLAN - SEGMENT 1
STR-48	FRAMING PLAN - SEGMENT 3 - SHEET 1 OF 3
STR-49	FRAMING PLAN - SEGMENT 3 - SHEET 2 OF 3
STR-50	FRAMING PLAN - SEGMENT 3 - SHEET 3 OF 3
STR-51	GIRDER SCHEDULE - SEGMENT 1
STR-52	GIRDER SCHEDULE - SEGMENT 3
STR-53	STRUCTURAL STEEL DETAILS - SHEET 1 OF 6
STR-54	STRUCTURAL STEEL DETAILS - SHEET 2 OF 6
STR-55	STRUCTURAL STEEL DETAILS - SHEET 3 OF 6
STR-56	STRUCTURAL STEEL DETAILS - SHEET 4 OF 6
STR-57	STRUCTURAL STEEL DETAILS - SHEET 5 OF 6
STR-58	STRUCTURAL STEEL DETAILS - SHEET 6 OF 6
STR-59	CAMBERS AND DEFLECTIONS - SHEET 1 OF 3
STR-60	CAMBERS AND DEFLECTIONS - SHEET 2 OF 3
STR-61	CAMBERS AND DEFLECTIONS - SHEET 3 OF 3
STR-62	BEARING DETAILS (SEGMENT 1 & 3) - SHEET 1 OF 2
STR-63	BEARING DETAILS (SEGMENT 1 & 3) - SHEET 2 OF 2
STR-64	TRUSS SCHEDULE
STR-65	SEGMENT 2 NOTES
STR-66	FRAMING PLAN - SEGMENT 2
STR-67	CONNECTION DETAILS AT L0 & L8
STR-68	CONNECTION DETAILS AT L1 & L7

DWG. NO.	DRAWING TITLE
STR-69	CONNECTION DETAILS AT L2 & L6
STR-70	CONNECTION DETAILS AT L3 & L5
STR-71	CONNECTION DETAILS AT L4
STR-72	CONNECTION DETAILS AT U1 & U7
STR-73	CONNECTION DETAILS AT U2 & U6
STR-74	CONNECTION DETAILS AT U3 & U5
STR-75	CONNECTION DETAILS AT U4
STR-76	FLOOR BEAM SCHEDULE & DETAILS - SHEET 1 OF 2
STR-77	FLOOR BEAM SCHEDULE & DETAILS - SHEET 2 OF 2
STR-78	STRINGER SCHEDULE & DETAILS
STR-79	STRINGER DETAILS - SHEET 1 OF 2
STR-80	STRINGER DETAILS - SHEET 2 OF 2
STR-81	BOTTOM LATERAL BRACING DETAILS
STR-82	TOP LATERAL BRACING DETAILS
STR-83	PORTAL SWAY BRACING DETAILS
STR-84	BEARING DETAILS (SEGMENT 2) - SHEET 1 OF 3
STR-85	BEARING DETAILS (SEGMENT 2) - SHEET 2 OF 3
STR-86	BEARING DETAILS (SEGMENT 2) - SHEET 3 OF 3
STR-87	SLAB PLAN - SHEET 1 OF 4
STR-88	SLAB PLAN - SHEET 2 OF 4
STR-89	SLAB PLAN - SHEET 3 OF 4
STR-90	SLAB PLAN - SHEET 4 OF 4
STR-91	SLAB DETAILS - SHEET 1 OF 5
STR-92	SLAB DETAILS - SHEET 2 OF 5
STR-93	SLAB DETAILS - SHEET 3 OF 5
STR-94	SLAB DETAILS - SHEET 4 OF 5
STR-95	SLAB DETAILS - SHEET 5 OF 5
STR-96	SLAB ELEVATIONS - SHEET 1 OF 2
STR-97	SLAB ELEVATIONS - SHEET 2 OF 2
STR-98	APPROACH SLABS DETAILS
STR-99	EXPANSION JOINT DETAILS - SHEET 1 OF 2
STR-100	EXPANSION JOINT DETAILS - SHEET 2 OF 2
STR-101	BRIDGE DRAINAGE - SHEET 1 OF 2
STR-102	BRIDGE DRAINAGE - SHEET 2 OF 2
STR-103	BRIDGE DRAINAGE AND STANDPIPE DETAILS
STR-104	STANDPIPE DETAILS
STR-105	METAL BRIDGE RAIL (SOLID PANEL) - SHEET 1 OF 3
STR-106	METAL BRIDGE RAIL (SOLID PANEL) - SHEET 2 OF 3
STR-107	METAL BRIDGE RAIL (SOLID PANEL) - SHEET 3 OF 3
STR-107-1	METAL BRIDGE RAIL - PROTECTIVE FENCE - (TYPE C) SHEET 1 OF 2
STR-107-2	METAL BRIDGE RAIL - PROTECTIVE FENCE - (TYPE C) SHEET 2 OF 2
STR-108	METAL BRIDGE RAIL - (5' HIGH) (CHAIN LINK)
STR-109	METAL BRIDGE RAIL (COMBINATION) (EXTRUDED ALUMINUM)
STR-110	INSPECTION WALKWAY TYPE I FRAMING PLAN & ELEVATION
STR-111	INSPECTION WALKWAY TYPE I PLAN, ELEVATION & SECTIONS
STR-112	INSPECTION WALKWAY TYPE II FRAMING PLAN & ELEVATION
STR-113	INSPECTION WALKWAY TYPE II PLAN, ELEVATION & SECTIONS
STR-114	INSPECTION WALKWAY TYPE III FRAMING PLAN & ELEVATION
STR-115	INSPECTION WALKWAY TYPE III PLAN, ELEVATION & SECTIONS
STR-116	GROUNDING & BONDING - SHEET 1 OF 3
STR-117	GROUNDING & BONDING - SHEET 2 OF 3
STR-118	GROUNDING & BONDING - SHEET 3 OF 3
STR-119	ELECTRICAL DETAILS - SHEET 1 OF 3
STR-120	ELECTRICAL DETAILS - SHEET 2 OF 3
STR-120-1	ELECTRICAL DETAILS - SHEET 3 OF 3
STR-121	SNET DETAILS
STR-122	ERECTION SEQUENCE - GENERAL NOTES
STR-123	WORK AREA LAYOUT PLAN
STR-124	SUGGESTED ERECTION PLAN - SEGMENTS 1 AND 3
STR-125	SUGGESTED ERECTION SEQUENCE - SEGMENT 3 - SHEET 1 OF 2
STR-126	SUGGESTED ERECTION SEQUENCE - SEGMENT 3 - SHEET 2 OF 2
STR-127	SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY - SHEET 1 OF 3
STR-128	SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY - SHEET 2 OF 3
STR-129	SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY - SHEET 3 OF 3
STR-130	SUGGESTED TRANSFER BEAMS & HOLD-DOWN DEVICES
STR-131	SUGGESTED TEMPORARY SUPPORTS FOR TRUSS
STR-132	CRANE SCHEMATICS
STR-133	CRANE LAYOUT AREA
STR-134	SUGGESTED CRANE FOUNDATIONS

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

DESIGNER: D. GEISSERT
DRAFTER: D. GEISSERT
CHECKED BY: A. MORETTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S000.DGN
PLOTTED DATE: 6-06-00

TOWN: NEW HAVEN
DRAWING TITLE: LIST OF STRUCTURE DRAWINGS

PROJECT NO.: 92-526
DRAWING NO.: STR-1
SHEET NO.: 135

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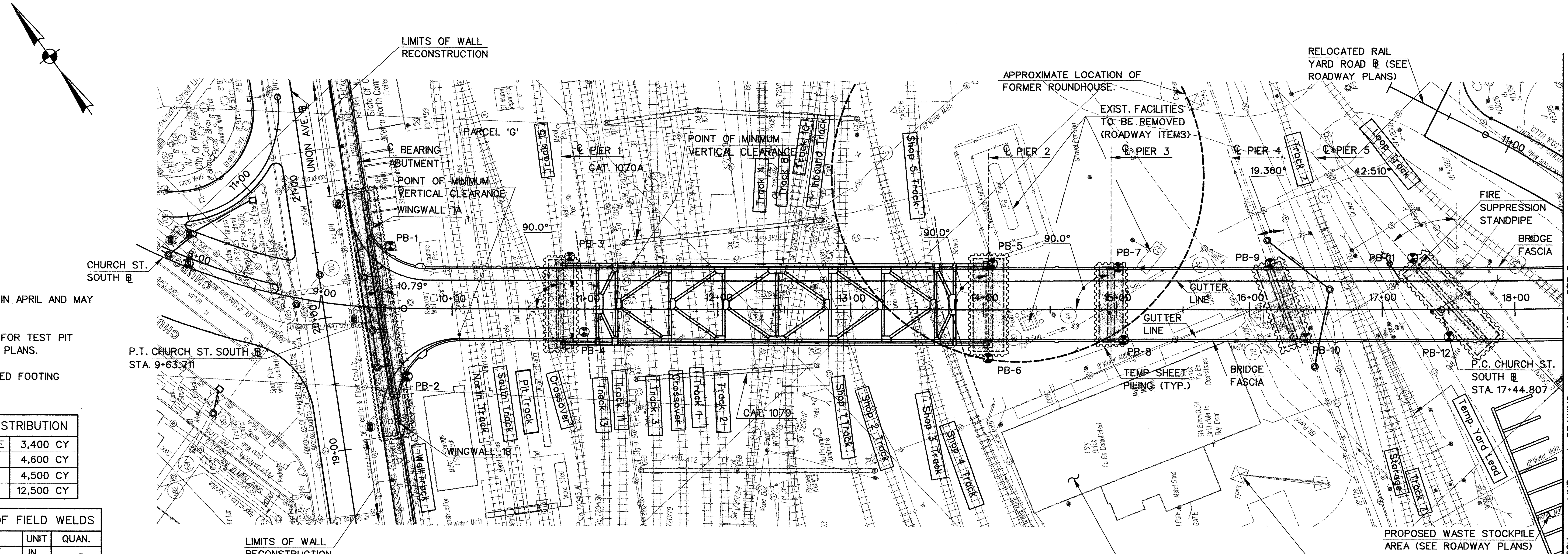
LEGEND

- ⊕ SOIL BORING TAKEN IN APRIL AND MAY OF 1999.
- ▪ UTILITY TEST PIT - FOR TEST PIT DATA SEE ROADWAY PLANS.
- ☐ OUTLINE OF PROPOSED FOOTING



PLAN

CONCRETE DISTRIBUTION	
SUPERSTRUCTURE	3,400 CY
SUBSTRUCTURE	4,600 CY
FOOTINGS	4,500 CY
TOTAL	12,500 CY

INSPECTION OF FIELD WELDS

METHOD	UNIT	QUAN.
ULTRASONIC	IN.	-
MAGNETIC PARTICLE	FT.	-

STRUCTURAL STEEL SHIPPING DATA

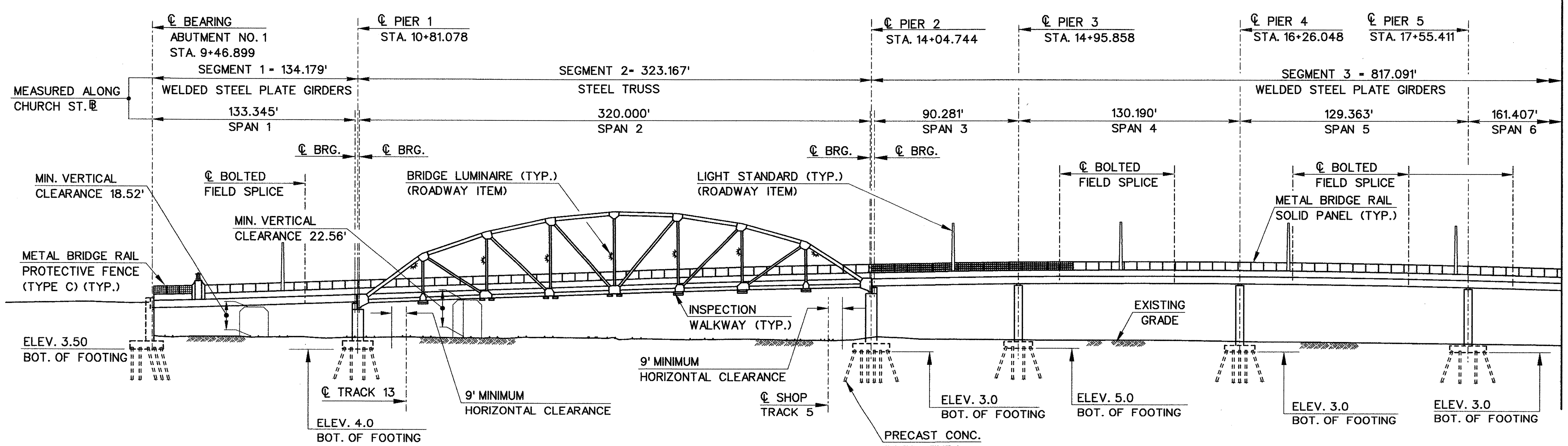
SEGMENT	MEMBER	SHIPPING LENGTH (FT)	SHIPPING HEIGHT (IN.)	SHIPPING WIDTH (IN.)	SHIPPING WEIGHT (LBS.)
2	FB 0	59.708	86.9*	20.0	53,100*
2	FB 1	59.792	56.3	28.0*	39,300
3	G4-G6	117.0*	57.5	18.0	32,800

* INDICATES MAXIMUM ESTIMATED VALUE

NOTICE TO BRIDGE INSPECTORS

THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING OF COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE.) THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF BRIDGES AND STRUCTURES.

COMPONENT OR DETAIL	DRAWING NO. REFERENCE
CONNECTION PLATE ATTACHMENTS TO TENSION FLANGES	VARIOUS
GIRDER FLANGE TRANSITION WELDS	STR-51
BEARINGS AND RESTRAINER ASSEMBLIES	STR-62, 63, 84-86
BOLTED FIELD SPLICES & TRUSS CONNECTIONS	STR-59, 78, 67-75
TRUSS BOTTOM CHORD & FLOOR BEAMS	VARIOUS
EXPANSION JOINTS	STR-99, 100



ELEVATION

NOTE WELL:
OVERHEAD WIRES NOT SHOWN.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE IN FEET
0 40 80
SCALE 1" = 40'

DESIGNER: D. GEISSERT
DRAFTER: M. OFFENBERG
CHECKED BY: A. MORETTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S001.DGN PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN

DRAWING TITLE: GENERAL PLAN - SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-2
SHEET NO.: 136

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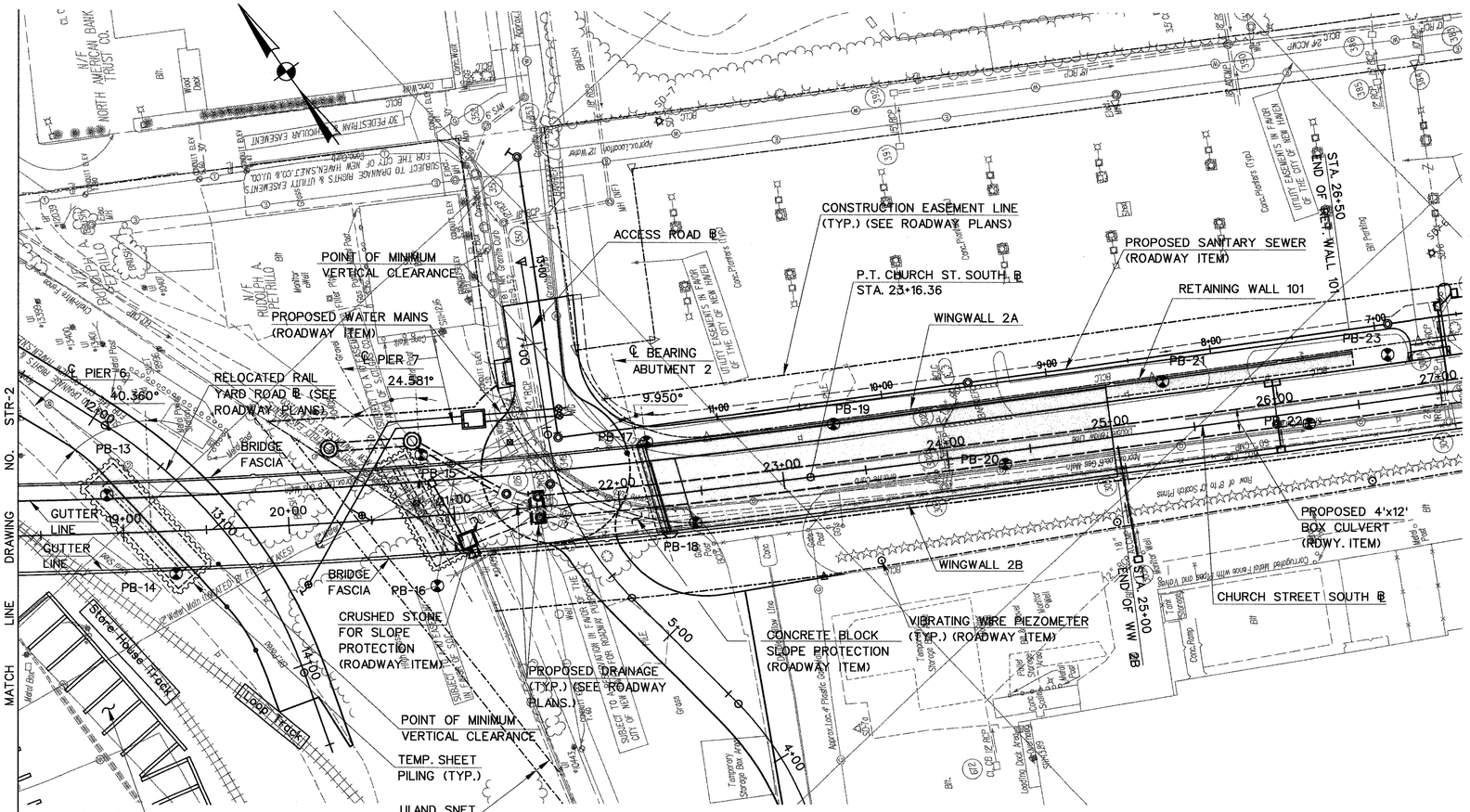

TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
STRUCTURE EXCAVATION - EARTH (COMPLETE)	C.Y.	9,500
PERVIOUS STRUCTURE BACKFILL	C.Y.	2,600
BITUMINOUS CONCRETE - CLASS 1	TON	18
BITUMINOUS CONCRETE - CLASS 2	TON	12
SHEAR CONNECTORS	L.S.	L.S.
WELDED STUDS	EA.	350
BRIDGE SCUPPER (TYPE A)	EA.	4
BRIDGE SCUPPER (TYPE B)	EA.	2
12" PIPE FOR BRIDGE DRAINAGE (FIBERGLASS)	L.F.	400
ELASTOMERIC CONCRETE EXPANSION JOINT SYSTEM	L.F.	140
ELASTOMERIC BEARING PADS	CU. IN	23,184
ISOLATION BEARING ASSEMBLY	EA.	64
CLASS "A" CONCRETE	C.Y.	6,500
CLASS "F" CONCRETE	C.Y.	2,700
HIGH PERFORMANCE CONCRETE	C.Y.	3,300
ASPHALTIC PLUG EXPANSION JOINT SYSTEM	L.F.	100
STAIN PROTECTION	L.S.	L.S.
DEFORMED STEEL BARS	LB.	780,000
DEFORMED STEEL BARS - EPOXY COATED	LB.	20,000
DEFORMED STEEL BARS - CLADDED STAINLESS STEEL	LB.	564,000
DRILLING AND GROUTING REINFORCING BARS	L.F.	3,350
STRUCTURAL STEEL (SEGMENT 1 & 3)	L.S.	L.S.
STRUCTURAL STEEL (SEGMENT 2)	L.S.	L.S.
CRANES	L.S.	L.S.
INSPECTION WALKWAY (TYPE I)	EA.	4
INSPECTION WALKWAY (TYPE II)	EA.	1
INSPECTION WALKWAY (TYPE III)	EA.	2
CONCRETE CYLINDER CURING BOX	EA.	2
FURNISHING 14" SQUARE PRESTRESSED CONCRETE PILES (PRETENSIONED)	L.F.	85,000
DRIVING 14" SQUARE PRESTRESSED CONCRETE PILES (PRETENSIONED)	L.F.	85,000
TEST PILE (14" SQUARE PRESTRESSED CONCRETE PILES - PRETENSIONED - 75' LONG)	EA.	5
PILE LOADING TEST	EA.	5
REMOVAL OF EXISTING TIMBER PILES	EA.	50
MEMBRANE WATERPROOFING (WOVEN GLASS FABRIC)	S.Y.	200
DAMPPROOFING	S.Y.	2,000
TEMPORARY SHEET PILING (RAILROAD)	S.F.	3,300
TEMPORARY SHEET PILING	S.F.	16,000
BAGGED STONE	C.F.	1,250
GRANITE STONE CURBING FOR BRIDGES (5"x9")	L.F.	1,240
CURVED GRANITE STONE CURBING FOR BRIDGES (5"x9")	L.F.	120
SLOPED GRANITE STONE CURBING FOR BRIDGES (6"x12")	L.F.	1,230
METAL BRIDGE RAIL (SOLID PANEL) (TYPE A)	L.F.	850
METAL BRIDGE RAIL (SOLID PANEL) (TYPE B)	L.F.	890
METAL BRIDGE RAIL - PROTECTIVE FENCE (TYPE C)	L.F.	880
METAL BRIDGE RAIL - PROTECTIVE FENCE (5' HIGH) (CHAIN LINK)	L.F.	950
METAL BRIDGE RAIL (COMBINATION) (EXTRUDED ALUMINUM)	L.F.	700
REMOVAL OF EXISTING MASONRY	C.Y.	1,250
¾" RIGID METAL CONDUIT - SURFACE	L.F.	500
2" RIGID METAL CONDUIT IN STRUCTURE	L.F.	6,200
18" x 12" x 8" CAST IRON JUNCTION BOX	EA.	47
4" x 4" x 4" CAST IRON JUNCTION BOX	EA.	6
¾" LIQUID TIGHT FLEXIBLE METAL CONDUIT	L.F.	100
GROUNDING AND BONDING	L.S.	L.S.
FIRE SUPPRESSION STANDPIPE SYSTEM	EA.	1
4" FIBERGLASS CONDUIT FASTENED TO BRIDGE	L.F.	1,315

NOTE WELL:
OVERHEAD WIRES NOT SHOWN.

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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE IN FEET
0 40 80
SCALE 1" = 40'

DESIGNER: D. GEISSERT
DRAFTER: M. OFFENBERG
CHECKED BY: A. MORETTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 7-20-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S002.DGN
PLOTTED DATE: 6-06-00

TOWN: NEW HAVEN
DRAWING TITLE: GENERAL PLAN - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-3
SHEET NO.: 137

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GENERAL NOTES

SPECIFICATIONS:

CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 814A (1995), SUPPLEMENTAL SPECIFICATIONS DATED JULY 1999 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS:

STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (AASHTO-1996) WITH INTERIM SPECIFICATIONS UP TO AND INCLUDING 1998 AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (1997).

DESIGN STRESSES:

CLASS "A" CONCRETE ..... BASED ON f'c = 3,000 psi
CLASS "F" CONCRETE ..... BASED ON f'c = 4,000 psi
HIGH PERFORMANCE CONCRETE.....BASED ON f'c = 4,000 psi
REINFORCEMENT (ASTM A615 GRADE 60) ..... fy = 60 ksi
REINFORCEMENT-CLADDED STAINLESS STEEL (NUOVINOX 316L) .....fy = 75 ksi
STRUCTURAL STEEL (AASHTO M270 GRADE 50).....Fy = 50 ksi
STRUCTURAL STEEL (AASHTO M270 GRADE 50W) ..... Fy = 50 ksi
STRUCTURAL STEEL (AASHTO M270 GRADE HPS 70W) ..... Fy = 70 ksi

DESIGN METHOD:

LOAD FACTOR METHOD (SUBSTRUCTURE AND SUPERSTRUCTURE)

LIVE LOAD:

HS20-44

FUTURE PAVING ALLOWANCE:

30 POUNDS PER SQUARE FOOT.

BITUMINOUS CONCRETE OVERLAY:

AT APPROACH SLABS ONLY. THIS SHALL CONSIST OF TWO LIFTS. THE FIRST SHALL BE BITUMINOUS CONCRETE - (2) (1" THICK) AND THE SECOND SHALL BE BITUMINOUS CONCRETE - CLASS (1) (1½" THICK).

STRUCTURAL STEEL:

SEE STRUCTURAL STEEL NOTES FOR DESIGNATIONS AND REQUIREMENTS.

PAINT-SEGMENTS 1 AND 3:

PAINTING OF THE STRUCTURAL STEEL IS ONLY REQUIRED AT THE ENDS OF THE GIRDERS. STEEL SURFACES ARE TO BE PREPARED FOR WEATHERING IN ACCORDANCE WITH THE SPECIFICATIONS.

GALVANIZING-SEGMENT 2:

ALL STRUCTURAL STEEL SHALL BE GALVANIZED.

ISOLATION BEARING ASSEMBLIES:

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT THE DIMENSIONS OF THE ISOLATION BEARINGS DETAILED ON THE CONTRACT PLANS ARE OF A CONCEPTUAL NATURE. ANY CHANGE IN BEARING HEIGHT RESULTING FROM THEIR DESIGN WILL REQUIRE ADJUSTMENTS TO THE CONCRETE BEARING PAD ELEVATIONS BY THE CONTRACTOR. SEE SPECIAL PROVISIONS.

FOUNDATION PRESSURES AND PILE LOADS:

THE VARIOUS GROUP LOADINGS NOTED ON THE SUBSTRUCTURE PLAN SHEETS REFER TO THE GROUP LOADS AS GIVEN IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

DIMENSIONS:

ALL DIMENSIONS SHOWN ON THE PLANS ARE GIVEN IN U.S. CUSTOMARY UNITS. ALL ELEVATIONS ARE GIVEN IN FEET. WHEN DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZERO.

FORMER ROUNDHOUSE:

THE CONTRACTOR SHALL BE AWARE THAT THE FORMER ROUNDHOUSE AREA SHOWN ON DWG. NO. STR-2 HAS BEEN DESIGNATED AS AN ARCHAEOLOGICAL SITE. ANY EXCAVATION WITHIN THIS AREA MUST FOLLOW THE PROCEDURE AS STATED IN THE CONNDOT STANDARD SPECIFICATION 814A SECTION 1.10.06 AND IN THE SPECIAL PROVISIONS.

EXISTING CONDITIONS:

EXISTING CONDITIONS ARE BASED ON SURVEY PERFORMED SEPTEMBER 1998 AND UPDATED DECEMBER 1998, OCTOBER 1999, JANUARY 2000 AND FEBRUARY 2000.

RAILROAD COORDINATION:

THE CONTRACTOR SHALL COMPLETELY COORDINATE HIS OPERATIONS WITHIN THE NEW HAVEN RAIL YARD WITH METRO-NORTH RAILROAD, AMTRAK AND THE STATE OF CONNECTICUT, AS REQUIRED. FOR DETAILS, SEE ELSEWHERE ON THESE PLANS AND IN THE SPECIALS PROVISIONS.

THE CONTRACTOR SHALL HAVE ALL EMPLOYEES AND SUBCONTRACTORS ATTEND THE AMTRAK AND METRO-NORTH RAILROAD SAFETY TRAINING COURSES PRIOR TO COMMENCING ANY WORK WITHIN THE RAIL YARD. ANY EMPLOYEE/SUBCONTRACTOR WHO HAS NOT COMPLETED THE SAFETY TRAINING COURSES WILL BE EXCLUDED FROM ALL WORK WITHIN THE RAIL YARD.

ACCESS TO ALL DRIVEWAYS, PARKING AREAS AND LOADING ZONES SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY AMTRAK AND/OR METRO-NORTH RAILROAD, AS APPLICABLE.

THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING RAILROAD FLAGMEN AND GROUNDMEN WITH AMTRAK AND/OR METRO-NORTH RAILROAD, AS APPLICABLE FOR PERFORMING WORK ON AND ADJACENT TO THE RAILROAD RIGHT-OF-WAY.

THE CONTRACTOR SHALL SUBMIT TRACK CLOSURE REQUESTS TO THE ENGINEER AT LEAST 14 DAYS IN ADVANCE. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO THE CLOSURE OF ANY TRACK. THE WRITTEN APPROVAL WILL INCLUDE THE TRACK CLOSURE DATE AND CLOSURE TIME, AND SUBSEQUENT TRACK RE-OPENING DATE AND TIME.

THE CONTRACTOR SHALL INSTALL TEMPORARY GRADE CROSSINGS WHENEVER HE NEEDS TO CROSS TRACKS TO PERFORM HIS WORK. THESE CROSSINGS WILL NOT BE MEASURED FOR PAYMENT. THE CONTRACTOR SHALL SUBMIT DETAILS OF PROPOSED TYPICAL TEMPORARY GRADE CROSSING TO AMTRAK AND/OR METRO-NORTH RAILROAD, AS APPLICABLE, FOR APPROVAL. AMTRAK AND/OR METRO-NORTH RAILROAD APPROVAL IS REQUIRED FOR LOCATIONS OF ALL TEMPORARY CROSSINGS, AS WELL AS, ALL ROUTES THE CONTRACTOR PROPOSES TO COMPLETE HIS OPERATIONS. SPECIAL ATTENTION SHALL BE GIVEN TO ROUTES UNDER CATENARY WIRES.

ENVIRONMENTAL:

THE ENTIRE PROJECT AREA IS CONSIDERED AN "AREA OF ENVIRONMENTAL CONCERN". SEE ROADWAY DRAWINGS AND THE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL NOTE THAT ALL DEWATERING EFFLUENT SHALL BE CONVEYED TO THE GROUNDWATER TREATMENT SYSTEM AREA. SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL BE AWARE THAT ALL EXCAVATED MATERIALS AND ALL REMOVED EXISTING MASONRY AND RAILROAD TIES MUST BE TAKEN TO THE WASTE STOCKPILE AREA FOR TESTING. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS NOT TO GENERATE MORE MATERIAL THAN THE WASTE STOCKPILE AREA CAN ACCOMMODATE. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOR THE COMPLETE SAMPLING AND TESTING, INCLUDING OBTAINING TEST REPORTS, OF THE MATERIAL DELIVERED TO THE WASTE STOCKPILE AREA. THE CONTRACTOR SHALL NOTE THAT IT IS ANTICIPATED THAT THE RE-USE OF EXCAVATED MATERIAL AS BACKFILL, ETC. MAY BE ALLOWED. SEE ROADWAY PLANS AND THE SPECIAL PROVISIONS.

S.H.G.W. - SEASONAL HIGH GROUNDWATER ELEVATION

NEW HAVEN RAIL YARD PROJECTS:

THE CONTRACTOR IS MADE AWARE THAT SEVERAL NEW HAVEN RAIL YARD PROJECTS WILL BE CONSTRUCTED WITHIN THE SAME TIME FRAME AND WITHIN THE PROJECT LIMITS OF STATE PROJECT NO. 92-526: THOSE PROJECTS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING:

- STATE PROJECT NO. 301-0001, "NEW HAVEN INTERLOCKING RECONFIGURATION"
- STATE PROJECT NO. 301-0039, "NEW HAVEN RAIL YARD COMPLEX FACILITIES IMPROVEMENTS"
- AMTRAK PROJECT RFP NO. UGJP 0026, "LOCOMOTIVE SHOP, OFFICE AND MATERIAL CONTROL BUILDING"
- STATE PROJECT NO. 301-0025, "PLAN FOR CATENARY REPLACEMENT BETWEEN STRUCTURES 1045 AND 73-16(AM)"

THE CONTRACTOR SHALL COMPLETELY COORDINATE HIS OPERATIONS WITH THESE PROJECTS.

TRACK DESIGNATION:

PARCEL 'G' TRACKS: TRACK 11 AND ALL TRACKS NORTH OF TRACK 11
MAINLINE TRACKS: TRACK 3 SOUTH TO TRACK 10
YARD TRACKS: INBOUND TRACK AND ALL TRACKS SOUTH OF INBOUND TRACK

CONCRETE NOTES

REMAIN-IN-PLACE FORMS:

THE USE OF REMAIN-IN-PLACE FORMS IS REQUIRED FOR SPANS OVER ELECTRIFIED RAIL LINES. REMAIN-IN-PLACE FORMS SHALL BE USED AT SPANS 2 AND 5. THE GIRDERS, STRINGERS, FLOOR BEAMS AND THE TRUSS HAVE BEEN DESIGNED FOR THE ADDITIONAL WEIGHT OF 15 PSF FOR THE REMAIN-IN-PLACE FORMS. THE USE OF REMAIN-IN-PLACE FORMS WILL NOT BE ALLOWED ELSEWHERE ON THE STRUCTURE.

COMPOSITE CONSTRUCTION:

NO TEMPORARY INTERMEDIATE SUPPORTS SHALL BE USED DURING THE PLACING AND SETTING OF THE CONCRETE DECK SLAB. TEMPORARY SUPPORTS MAY ONLY BE USED FOR STRUCTURAL STEEL ERECTION ONLY AND TEMPORARY SUPPORTS SHALL NOT BE USED BETWEEN PIERS 1 AND 2. CONSTRUCTION LOADS AND DEAD LOADS WILL BE PERMITTED WHEN DIRECTED BY THE ENGINEER BUT ONLY WHEN THE CONCRETE HAS REACHED A STRENGTH OF f'c = 3,500 psi. LIVE LOADS (TRAFFIC) WILL BE PERMITTED ON THE STRUCTURE AFTER THE CONCRETE HAS REACHED A STRENGTH OF f'c = 4,000 psi.

CLASS "A" CONCRETE:

CLASS "A" CONCRETE SHALL BE USED FOR THE ENTIRE SUBSTRUCTURE AND THE PARAPETS OF U-TYPE WINGS WITH THE EXCEPTION OF THE CLASS "F" CONCRETE USED IN THE PIER WALLS AND BEARING PADS.

CLASS "F" CONCRETE:

CLASS "F" CONCRETE SHALL BE USED FOR PIER WALLS, BEARING PADS AND APPROACH SLABS.

HIGH PERFORMANCE CONCRETE:

HIGH PERFORMANCE CONCRETE SHALL BE USED FOR BRIDGE DECKS, INCLUDING SIDEWALKS AND PARAPETS.

JOINT SEAL:

SEE SPECIAL PROVISIONS.

EXPOSED EDGES:

EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" x 1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER:

ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT:

ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60 UNLESS NOTED AS CLADDED STAINLESS STEEL, IN WHICH CASE IT SHALL BE NUOVINOX 316L CLADDED STAINLESS STEEL .

CLADDED STAINLESS STEEL REINFORCING BARS:

ALL REINFORCEMENT IN THE SUPERSTRUCTURE INCLUDING THE CONCRETE DECK SLAB, SIDEWALK AND PARAPETS SHALL BE CLADDED STAINLESS STEEL UNLESS OTHERWISE NOTED. THESE BARS SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS (CLADDED STAINLESS STEEL)".

EPOXY COATED REINFORCING BARS:

ALL REINFORCEMENT IN THE CONCRETE APPROACH SLABS, INCLUDING THOSE IN THE HEADERS, SHALL BE EPOXY COATED. THESE BARS SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS (EPOXY COATED)".

PREFORMED EXPANSION JOINT FILLER:

THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS 'A' CONCRETE".

CLOSED CELL ELASTOMER:

THE COST OF FURNISHING AND INSTALLING CLOSED CELL ELASTOMER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS 'A' CONCRETE".

CONSTRUCTION JOINTS:

CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

STAIN PROTECTION:

POLYETHYLENE FILM SHALL BE USED TO PROTECT THE ABUTMENTS AND PIER STEMS FROM SUPERSTRUCTURE STAINING AND SHALL EXTEND FROM THE TOP OF THE STEMS TO THE TOP OF THE FOOTINGS. THE FILM SHALL REMAIN IN PLACE UNTIL AFTER THE BRIDGE DECK HAS BEEN PLACED. SEE SPECIAL PROVISION "STAIN PROTECTION".

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

DESIGNER: D. GEISSERT
DRAFTER: D. GEISSERT
CHECKED BY: A. MORETTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4/26/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S003.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: GENERAL NOTES

PROJECT NO.: 92-526
DRAWING NO.: STR-4
SHEET NO.: 138

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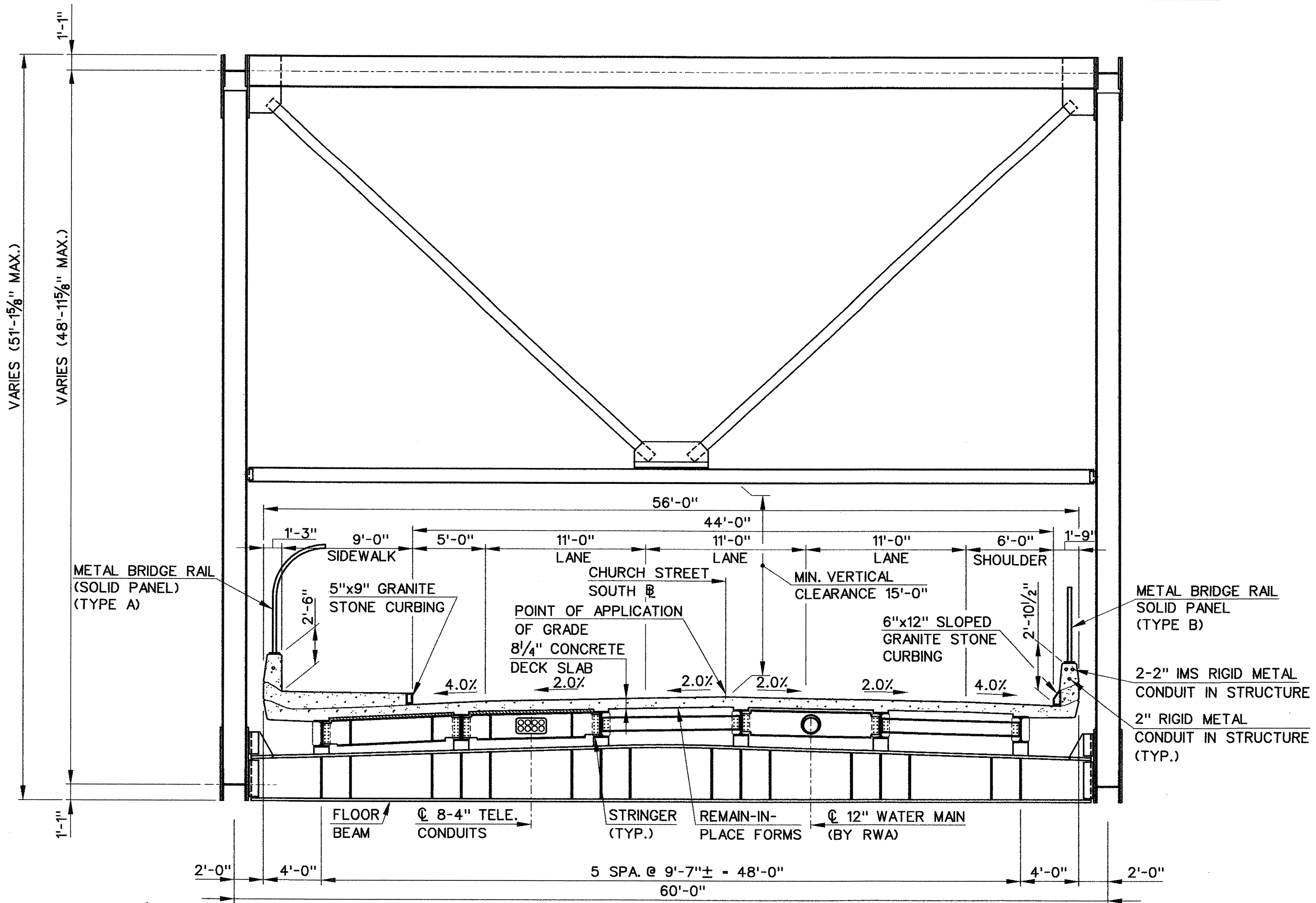
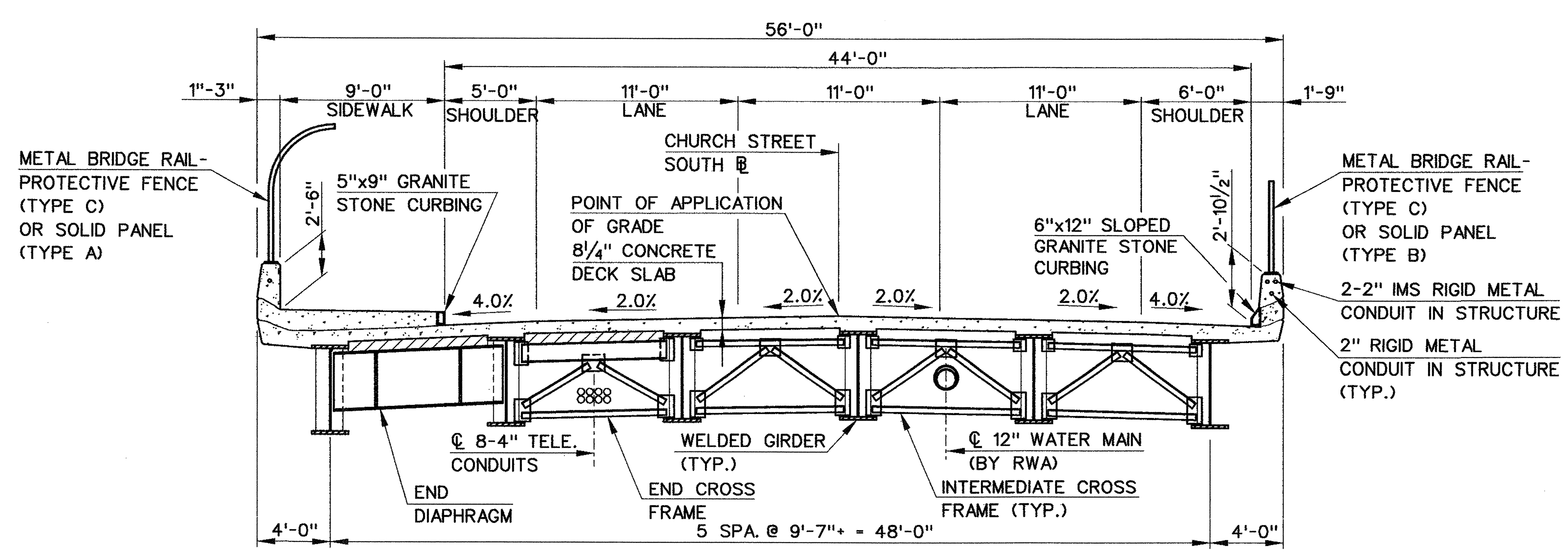


AT END DIAPHRAGMS — AT INTERMEDIATE DIAPHRAGMS

TRUSS



AT END DIAPHRAGMS — AT INTERMEDIATE DIAPHRAGMS

WELDED STEEL PLATE GIRDER

TYPICAL BRIDGE CROSS SECTIONS

SCALE: 3/16" = 1'-0"

UTILITY NOTES:

1. THE CONTRACTOR SHALL COMPLETELY COORDINATE HIS OPERATIONS WITH THE AFFECTED UTILITY COMPANIES AND AGENCIES, INCLUDING THE STATE OF CONNECTICUT, METRO-NORTH RAILROAD, AMTRAK AND THE CITY OF NEW HAVEN, AS REQUIRED. SEE THE SPECIAL PROVISIONS, "NOTICE TO CONTRACTOR - PROTECTION OF EXISTING UTILITIES" AND SECTION 1.07.13 - "CONTRACTOR'S RESPONSIBILITY FOR ADJACENT PROPERTY AND SERVICES".

2. THE CONTRACTOR SHALL MAINTAIN AND PROTECT ALL UTILITIES, THROUGHOUT THE DURATION OF THE PROJECT, EXCEPT AS NOTED.

3. THE UTILITY COMPANIES SHALL BE PROVIDED FULL ACCESS TO THE WORK AREAS AS REQUIRED FOR THEM TO COMPLETE THEIR WORK.

4. FOR TEST PIT DATA SEE THE "ROADWAY BORING LOGS AND TEST PIT DATA" SHEET.

5. UTILITY RELOCATIONS AND/OR NEW UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS AND OUTSIDE THE NEW HAVEN RAIL YARD WILL BE COMPLETED BY THE UTILITY COMPANIES, EXCEPT AS NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. FOR DETAILS SEE THE "DRAINAGE AND UTILITY PLANS" AND THE "UTILITY PLANS".

6. UTILITY RELOCATIONS WITHIN THE RAIL YARD WILL BE COMPLETED BY THE CONTRACTOR, EXCEPT AS FOLLOWS:

   - UNDERGROUND COMMUNICATIONS CABLE AND MANHOLE(S) ALONG THE BASE OF THE RETAINING WALL AT UNION AVENUE WILL BE RELOCATED BY SNET.
   - OVERHEAD ELECTRIC AND TELEPHONE WIRES IN THE VICINITY OF PROPOSED PIER 7 WILL BE RELOCATED BY UI AND SNET, RESPECTIVELY. UI AND/OR SNET WILL REMOVE THE ABANDONED POLES.
   - GAS MAINS WILL BE RELOCATED BY SCG.
   - OVERHEAD COMMUNICATIONS WIRES WILL BE RELOCATED BY METRO-NORTH RAILROAD.
   - WOOD UTILITY POLES AND GUYS WILL BE REMOVED BY METRO-NORTH RAILROAD, UNLESS NOTED OTHERWISE.
   - CATENARY SYSTEM POLES AND GUY WIRES IN THE VICINITY OF PIER 5 AND THE WASTE STOCKPILE AREA WILL BE RELOCATED BY CONNDOT.

7. THERE ARE EXISTING CONDUITS AND ACTIVE CABLES ON AND IN THE EXISTING RETAINING WALL ALONG UNION AVENUE AT PROPOSED ABUTMENT 1 AND WINGWALLS. TO ALLOW FOR REMOVAL OF THE EXISTING WALL AND CONSTRUCTION OF THE PROPOSED ABUTMENT AND WINGWALLS, THE CONDUITS AND WIRES ARE TO BE REMOVED AND RELOCATED AWAY FROM THE WALLS. UPON COMPLETION OF THE PROPOSED WALLS, CONDUITS AND JUNCTION BOXES WITH WIRES ARE TO BE INSTALLED ON THE ABUTMENT, WINGWALLS AND RETAINING WALLS OR AS DIRECTED BY THE ENGINEER. FOR DETAILS OF ELECTRICAL ITEMS TO BE COMPLETED BY TO CONTRACTOR SEE THE "ELECTRICAL DRAWINGS".

8. THE REMOVAL OF ABANDONED AND RELOCATED WATER MAINS AND SANITARY SEWERS TO ALLOW FOR CONSTRUCTION OF THE PROPOSED SUBSTRUCTURE CONSTRUCTION WILL BE INCLUDED UNDER THE ITEMS "REMOVE WATER MAINS" (RDWY. ITEM) AND "REMOVAL OF EXISTING SANITARY SEWER" (RDWY. ITEM), AS APPLICABLE.

9. THE REMOVAL OF ABANDONED GAS MAINS AND UNDERGROUND ELECTRIC AND COMMUNICATIONS LINES, INCLUDING ABANDONED TELEPHONE DUCTS/STRUCTURES, RELOCATED EXISTING DRAINAGE, ETC. TO ALLOW FOR CONSTRUCTION OF THE PROPOSED BRIDGE SUBSTRUCTURE UNITS, WILL BE INCLUDED UNDER THE ITEM FOR "STRUCTURE EXCAVATION". THE REMOVAL AND/OR RELOCATION OF ADDITIONAL UTILITIES REQUIRED TO CONSTRUCT THE PROPOSED SUBSTRUCTURE UNITS WILL BE AS DIRECTED BY THE ENGINEER.

10. THE REMOVAL OF ABANDONED UTILITIES TO ALLOW FOR CONSTRUCTION OF THE PROPOSED ROADWAYS AND APPURTENANCES INCLUDING DRAINAGE AND UTILITIES TO BE COMPLETED BY THE CONTRACTOR WILL BE INCLUDED UNDER THE APPLICABLE EXCAVATION ITEM (RDWY. ITEMS).

UTILITY LEGEND:

SCG	- SOUTHERN CONNECTICUT GAS COMPANY
UI	- UNITED ILLUMINATION COMPANY
RWA	- SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY
SNET	- SOUTHERN NEW ENGLAND TELEPHONE COMPANY
CATV	- TCI CABLEVISION
MNRR	- METRO-NORTH RAILROAD
AMTRAK	- NATIONAL RAILROAD PASSENGER CORPORATION
CITY	- CITY OF NEW HAVEN

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: A. KILPATRICK
CHECKED BY: D. BAGDASARIAN
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Mottei DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S004.DGN PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN

DRAWING TITLE: TYPICAL BRIDGE CROSS SECTIONS AND UTILITY NOTES

PROJECT NO.: 92-526
DRAWING NO.: STR-5
SHEET NO.: 139

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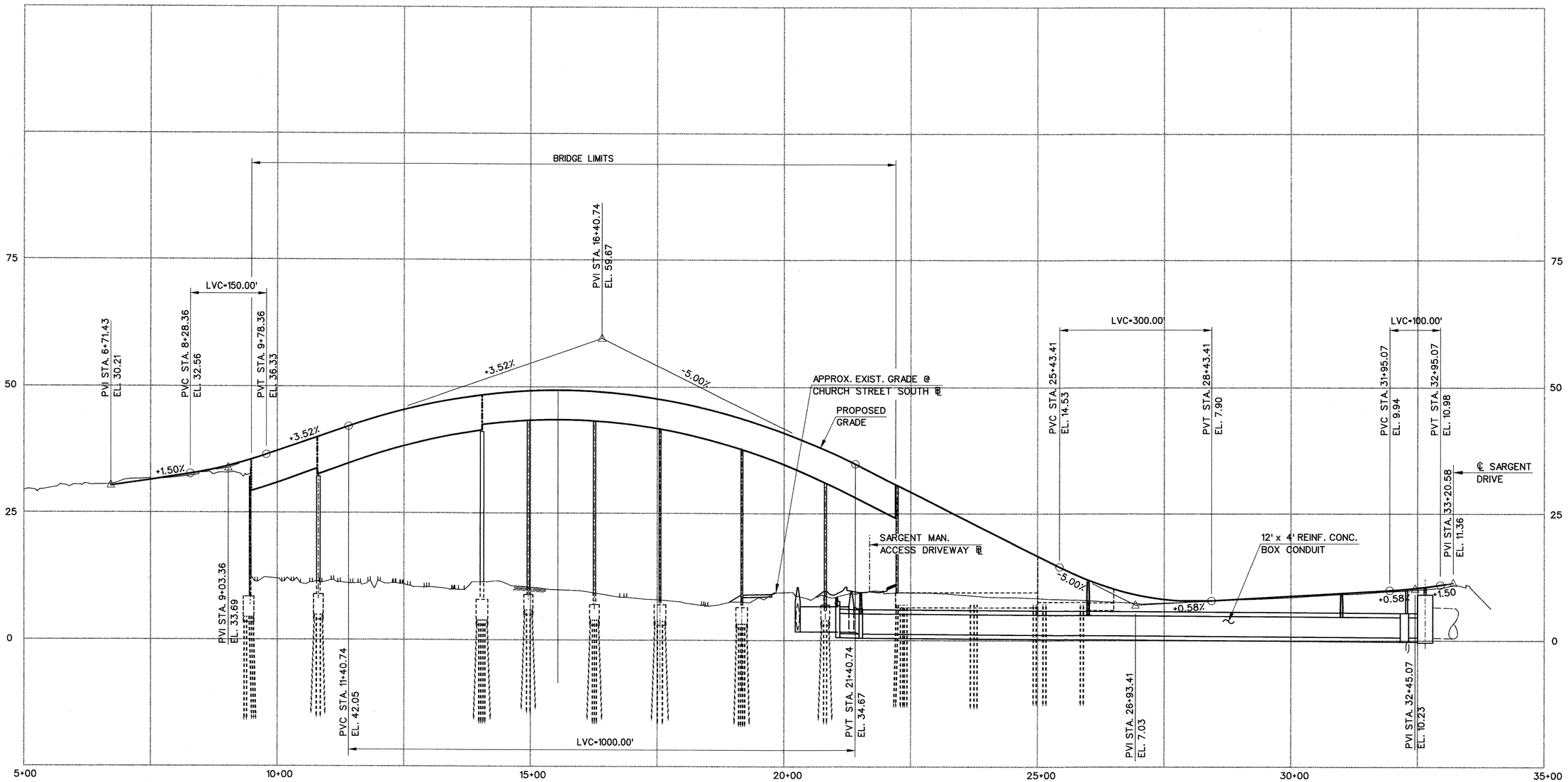

CHURCH STREET SOUTH

PROFILE

SCALE: HORIZ. 1"=100'
VERT. 1"=10'

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: A. MARGIOTTA
DRAFTER: M. OFFENBERG
CHECKED BY: A. MORETTI
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/7/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S005.DGN PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN
DRAWING TITLE: PROFILES - SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-6
SHEET NO.: 140

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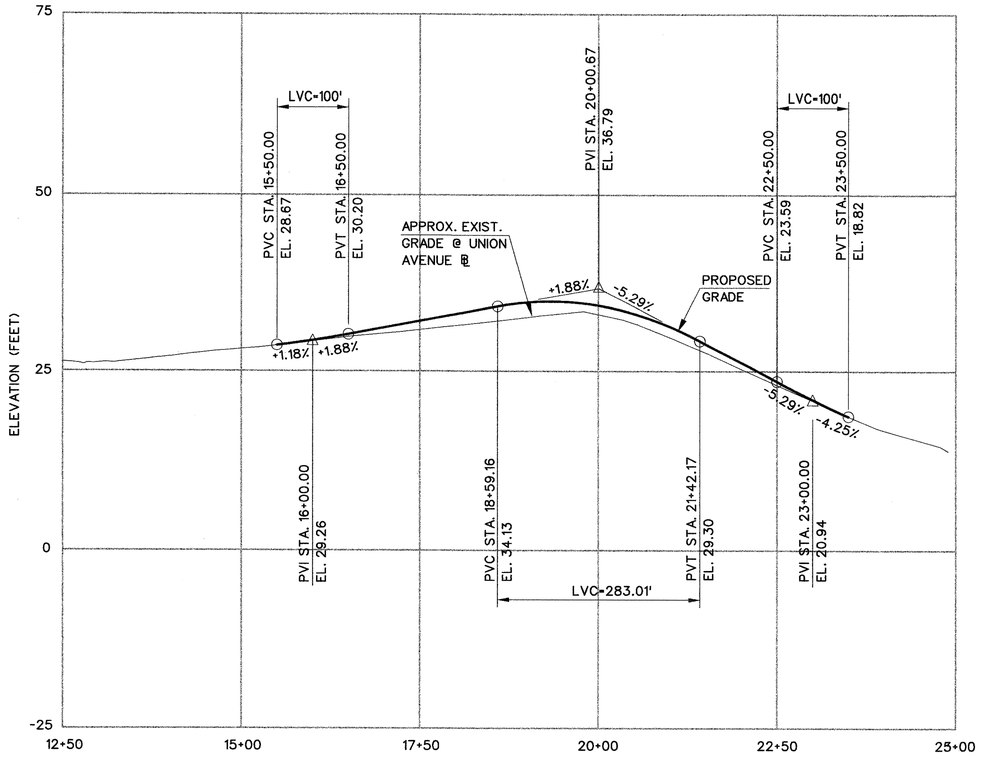
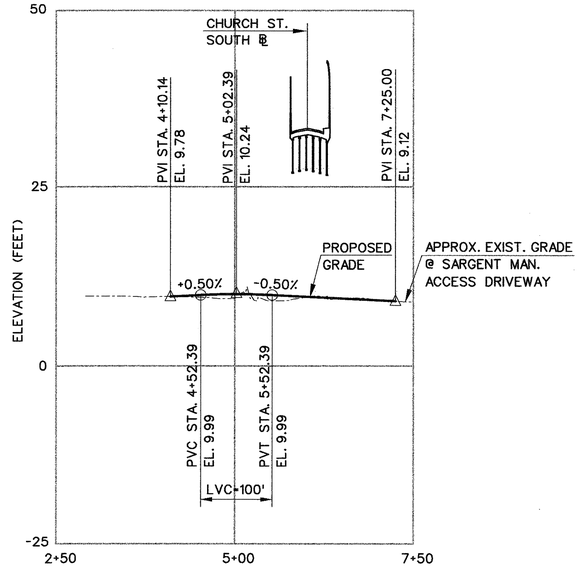


UNION AVENUE



SARGENT MAN. ACCESS DRIVEWAY

PROFILES

SCALE : HORIZ. 1"=100'
VERT. 1"=10'

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: A. MARGIOTTA
DRAFTER: M. OFFENBERG
CHECKED BY: A. MORETTI
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/7/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S006.DGN
PLOTTED DATE: 3-06-00

TOWN: NEW HAVEN
DRAWING TITLE: PROFILES - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-7
SHEET NO.: 141

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HOLE PB - 1
℄ STA. 9+52
OFFSET-47 LEFT

T. Carpenter — BORING FOREMAN
K. Paschal — INSPECTOR
R. Borjeson — SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT
TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

SHEET 1 OF 1
LOCATION: New England Boring Contractors of CT — BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc. — CONTRACTING ENGINEER

LOCATION: Old Motor Storage area along western wall of railyard
SURFACE ELEV.: 13.4
DATE FINISHED: 4/28/99
GROUND WATER OBSERVATIONS: AT 6.25 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

AUGER: TYPE; SIZE I.D.; HAMMER WT.; HAMMER FALL
CASING: HW; 4"; 300#; 24"
SAMPLER: D; 1 3/8"; 140#; 30"
CORE BAR: BIT
HOLE NO.: PB-1
LINE & STATION:
OFFSET:
N. COORDINATE: 168,682
E. COORDINATE: 550,935

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	8	D	2	2	3	1		Orange-brown and dark brown c-f SAND, mostly f, trace c-f gravel, trace silt.
5		5.0 - 7.0	2	24	14	D	3	4	4	5		Brown m-f SAND, trace f gravel, trace silt, odor.
10		10.0 - 12.0	3	24	10	D	4	4	5	7	11.0	
											2.3	Red-brown c-f SAND, trace f gravel, trace silt, odor.
15		15.0 - 17.0	4	24	3	D	6	5	6	6		Red-brown f SAND, little silt, odor.
20		20.0 - 22.0	5	24	16	D	3	3	5	4		Red-brown f SAND, little silt, odor.
25		25.0 - 27.0	6	24	16	D	3	4	4	4		Red-brown f SAND, trace silt.
30		30.0 - 32.0	7	24	8	D	1	3	4	5		Red-brown f SAND, trace silt.
35		35.0 - 37.0	8	24	12	D	4	7	8	8		Red-brown f SAND, trace silt.
40		40.0 - 42.0	9	24	20	D	5	7	8	9		Red-brown f SAND, little silt.
45		45.0 - 47.0	10	24	14	D	7	9	12	16		Red-brown f SAND, little silt.
50		50.0 - 52.0	11	24	8	D	3	5	8	14		Red-brown f SAND, trace silt.
55		55.0 - 57.0	12	24	20	D	5	10	10	8		Red-brown f SAND, some silt.
60		60.0 - 62.0	13	24	24	D	6	9	14	17		Red-brown f SAND and SILT.
65		65.0 - 67.0	14	24	18	D	10	12	16	21		Red-brown f SAND, trace silt.
70		70.0 - 72.0	15	24	24	D	9	16	21	21		Top 12": Red-brown f SAND, trace silt. Bottom 12: Red-brown SILT and f SAND.
75		75.0 - 77.0	16	24	24	D	12	13	19	28		Red-brown SILT and f SAND, trace clay.
80		80.0 - 82.0	17	24	22	D	11	11	15	25		Red-brown SILT and f SAND.
85		85.0 - 87.0	18	24	16	D	15	18	20	22		Red-brown f SAND, trace silt.
90		90.0 - 92.0	19	24	20	D	13	19	37	21		Red-brown f SAND, some silt, trace clay.
95		95.0 - 97.0	20	24	16	D	20	29	30	36		Red-brown m-f SAND, mostly f, trace silt.
100		100.0 - 102.0	21	24	12	D	19	26	31	34	102.0	Red-brown f SAND and SILT.
105											-88.6	Bottom of boring.

FROM GROUND SURFACE TO 60 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-1

SAMPLE TYPE CODING: D=DRY C=CORE A=AUGER UP=UNDISTURBED, PISTON V=VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 2
℄ STA. 9+66
OFFSET-51 RIGHT

O. Cone — BORING FOREMAN
K. Paschal — INSPECTOR
R. Borjeson — SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT
TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

SHEET 1 OF 1
LOCATION: New England Boring Contractors of CT — BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc. — CONTRACTING ENGINEER

LOCATION: Old Motor Storage area along western wall of railyard
SURFACE ELEV.: 11.8
DATE FINISHED: 4/29/99
GROUND WATER OBSERVATIONS: AT 5 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

AUGER: TYPE; SIZE I.D.; HAMMER WT.; HAMMER FALL
CASING: HW; 4"; 300#; 24"
SAMPLER: D; 1 3/8"; 140#; 30"
CORE BAR: BIT
HOLE NO.: PB-2
LINE & STATION:
OFFSET:
N. COORDINATE: 168,602
E. COORDINATE: 550,876

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
5		5.0 - 7.0	1	24	19	D	6	6	4	4	6.0	Top 12": Dark gray c-f SAND, mostly c, trace silt, odor, sheen.
											5.8	Bottom 7": Orange-brown m-f SAND, trace f gravel, trace silt.
10		10.0 - 12.0	2	24	0	D	2	3	3	2		
15		15.0 - 17.0	3	24	6	D	6	6	8	8		Red-brown f SAND, trace silt, odor.
20		20.0 - 22.0	4	24	12	D	5	6	6	7		Red-brown f SAND, trace silt, odor.
25		25.0 - 27.0	5	24	12	D	5	6	10	15		Red-brown f SAND, trace silt, odor.
30		30.0 - 32.0	6	24	20	D	6	8	10	20		Red-brown f SAND, trace silt, odor.
35		35.0 - 37.0	7	24	14	D	10	15	20	25		Red-brown SILT and f SAND.
40		40.0 - 42.0	8	24	14	D	8	10	12	16		Red-brown SILT and f SAND, trace clay.
45		45.0 - 47.0	9	24	14	D	10	14	14	10		Red-brown f SAND, trace silt.
50		50.0 - 52.0	10	24	24	D	12	17	17	19		Red-brown f SAND, little silt.
55		55.0 - 57.0	11	24	20	D	12	15	20	27		Red-brown f SAND, little silt.
60		60.0 - 62.0	12	24	24	D	15	18	20	27		Red-brown f SAND and SILT, trace clay.
65		65.0 - 67.0	13	24	12	D	12	13	18	19		Red-brown clayey SILT, trace sand.
70		70.0 - 72.0	14	24	12	D	15	20	25	33		Red-brown f SAND, some silt.
75		75.0 - 77.0	15	24	10	D	20	18	28	30		Red-brown SILT and f SAND.
80		80.0 - 82.0	16	24	12	D	13	18	25	31		Red-brown f SAND, trace silt, little clay.
85		85.0 - 87.0	17	24	20	D	11	18	20	20		Red-brown f SAND, little silt.
90		90.0 - 92.0	18	24	12	D	11	20	21	25		Red-brown f SAND, little silt.
95		95.0 - 97.0	19	24	12	D	15	22	31	35		Red-brown f SAND, little silt.
100		100.0 - 102.0	20	24	24	D	10	15	20	30	102.0	Red-brown SILT and f SAND, trace clay.
105											-90.2	Bottom of boring.

FROM GROUND SURFACE TO 60 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 20 HOLE NO. PB-2

SAMPLE TYPE CODING: D=DRY C=CORE A=AUGER UP=UNDISTURBED, PISTON V=VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 3
℄ STA. 10+89
OFFSET-40 LEFT

O. Cone — BORING FOREMAN
K. Paschal — INSPECTOR
R. Borjeson — SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT
TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

SHEET 1 OF 1
LOCATION: New England Boring Contractors of CT — BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc. — CONTRACTING ENGINEER

LOCATION: Old Motor Storage Area near Tracks 13 and 15
SURFACE ELEV.: 11.2
DATE FINISHED: 4/28/99
GROUND WATER OBSERVATIONS: AT 5 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

AUGER: TYPE; SIZE I.D.; HAMMER WT.; HAMMER FALL
CASING: HW; 4"; 300#; 24"
SAMPLER: D; 1 3/8"; 140#; 30"
CORE BAR: BIT
HOLE NO.: PB-3
LINE & STATION:
OFFSET:
N. COORDINATE: 168,584
E. COORDINATE: 551,028

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	10	D	12	11	8	7		Brown m-f SAND, mostly f, trace c-f gravel, trace silt.
5		5.0 - 7.0	2	24	10	D	4	4	4	4		Brown m-f SAND, trace f gravel, trace silt, odor, sheen.
10		10.0 - 12.0	3	24	8	D	4	6	7	7		Brown m-f SAND, trace f gravel, trace silt, odor, sheen.
15		15.0 - 17.0	4	24	8	D	2	4	6	10		Overdrive: Brown m-f SAND, trace f gravel, trace silt, odor
20		20.0 - 22.0	5	24	6	D	8	10	12	14	20.0 -8.8	Red-brown f SAND, trace silt, odor.
25		25.0 - 27.0	6	24	12	D	8	20	25	31		Red-brown f SAND, little silt, odor.
30		30.0 - 32.0	7	24	14	D	10	25	28	33		Red-brown m-f SAND, mostly f, trace silt, odor.
35		35.0 - 37.0	8	24	6	D	10	6	8	11		Red-brown f SAND, trace silt, odor.
40		40.0 - 42.0	9	24	16	D	10	15	37	40		Red-brown f SAND, trace silt, odor.
45		45.0 - 47.0	10	24	16	D	8	14	21	24		Red-brown f SAND, trace silt, odor.
50		50.0 - 52.0	11	24	14	D	23	33	40	23		Red-brown f SAND, trace silt, odor.
55		55.0 - 57.0	12	24	24	D	25	37	40	38		Red-brown f SAND, some silt, odor.
60		60.0 - 62.0	13	24	20	D	33	45	48	50		Red-brown f SAND, trace silt, odor.
65		65.0 - 67.0	14	24	12	D	20	32	50	40		Red-brown f SAND, trace silt.
70		70.0 - 72.0	15	24	20	D	30	50	70	60		Red-brown f SAND, trace silt.
75		75.0 - 77.0	16	24	20	D	16	20	30	28		Red-brown f SAND, trace silt.
80		80.0 - 82.0	17	24	12	D	18	22	20	16		Red-brown f SAND, little silt.
85		85.0 - 87.0	18	24	18	D	18	27	30	43		Red-brown SILT, little f sand, trace clay.
90		90.0 - 92.0	19	24	24	D	16	17	24	28		Red-brown SILT and f SAND.
95		95.0 - 97.0	20	24	24	D	16	20	34	45		Red-brown SILT, some f sand, trace clay.
100		100.0 - 102.0	21	24	24	D	18	22	20	18	102.0	Red-brown f SAND, little silt.
105											-90.8	Bottom of boring.

FROM GROUND SURFACE TO 70 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-3

SAMPLE TYPE CODING: D=DRY C=CORE A=AUGER UP=UNDISTURBED, PISTON V=VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

DESIGNER: R. BORJESON
DRAFTER: A. KILPATRICK
CHECKED BY: R. BORJESON
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/7/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S007.DGN
PLOTTED DATE: 3-04-00

TOWN: NEW HAVEN
DRAWING TITLE: BORINGS - SHEET 1 OF 7

PROJECT NO.: 92-526
DRAWING NO.: STR-8
SHEET NO.: 142

16:49:13
05 MAR 2000
h:\dgn\pb\8703s\churchsN\d\structure\r7703s007.dgn

HOLE PB - 4
℄ STA. 10+99
OFFSET=17 RIGHT

T. Carpenter BORING FOREMAN K. Paschal INSPECTOR R. Borjeson SOILS ENGINEER	FORM NO. SM-1 ED. 1/71 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS BORING REPORT TOWN New Haven, Connecticut PROJECT NAME Church Street South Extension PROJECT NO. 92-520	SHEET 1 OF 1 LOCATION New England Boring Contractors of CT BORING CONTRACTOR Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION Old Motor Storage Area between Tracks 13 and 14.

SURFACE ELEV. 11.7		AUGER	CASING	SAMPLER	CORE BAR	HOLE NO. PB-4
DATE FINISHED 4/27/99	TYPE		HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.		4"	1 3/8"		OFFSET
AT 4 FT. AFTER 0.25 HRS.	HAMMER WT.		300#	140#	BIT	N. COORDINATE 168,535
AT FT. AFTER HRS.	HAMMER FALL		24"	30"		E. COORDINATE 550,996

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	8	8	8	7		Brown c-f SAND, trace silt, odor.
5		5.0 - 7.0	2	24	14	D	1	1	2	3		Brown c-f SAND, trace silt, odor, sheen.
10		10.0 - 12.0	3	24	14	D	1	2	3	6		Brown c-f SAND, mostly f, trace silt, odor, sheen.
15		15.0 - 17.0	4	24	0	D	5	4	7	7		Overdrive: No recovery.
20		20.0 - 22.0	5	24	10	D	4	9	9	12		Brown c-f SAND, trace m-f gravel, trace silt, odor.
25		25.0 - 27.0	6	24	14	D	9	10	12	18		Brown c-f SAND, trace m-f gravel, trace silt, odor.
30		30.0 - 32.0	7	24	21	D	3	4	6	11	30.0 -18.3	Orange-brown m-f SAND, mostly m, trace silt, odor.
35		35.0 - 37.0	8	24	22	D	17	17	18	18		Top 4": Red-brown f SAND, trace f gravel, trace silt, odor. Middle 5": Red-brown m-f SAND, mostly m, trace silt, odor. Bottom 13": Red-brown f SAND, trace f gravel, trace silt, odor.
40		40.0 - 42.0	9	24	12	D	6	6	5	9		Red-brown m-f SAND, mostly f, trace silt.
45		45.0 - 47.0	10	24	16	D	10	12	12	17		Red-brown m-f SAND, mostly f, trace f gravel, trace silt, odor.
50		50.0 - 52.0	11	24	20	D	11	18	13	13		Red-brown f SAND and SILT.
55		55.0 - 57.0	12	24	24	D	10	15	19	26		Red-brown f SAND and SILT.
60		60.0 - 62.0	13	24	22	D	10	15	22	30		Red-brown f SAND and SILT.
65		65.0 - 67.0	14	24	22	D	16	25	30	30		Red-brown f SAND and SILT.
70		70.0 - 72.0	15	24	24	D	11	16	23	24		Red-brown f SAND and SILT.
75		75.0 - 77.0	16	24	22	D	13	17	23	23		Red-brown SILT and f SAND.
80		80.0 - 82.0	17	24	24	D	11	18	21	24		Red-brown f SAND and SILT.
85		85.0 - 87.0	18	24	24	D	12	18	21	29		Red-brown SILT and f SAND.
90		90.0 - 92.0	19	24	24	D	13	16	26	28		Red-brown SILT and f SAND.
95		95.0 - 97.0	20	24	24	D	16	17	30	28		Red-brown SILT.
100		100.0 - 102.0	21	24	22	D	13	20	23	32	102.0	Red-brown SILT.
105											-90.3	Bottom of boring.

FROM GROUND SURFACE TO 65 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-4

SAMPLE TYPE CODING: D=DRY C=CORE A=AUGER UP=UNDISTURBED, PISTON V=VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 5
℄ STA. 14+07
OFFSET=35 LEFT

T. Carpenter BORING FOREMAN K. Paschal INSPECTOR R. Borjeson SOILS ENGINEER	FORM NO. SM-1 ED. 1/71 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS BORING REPORT TOWN New Haven, Connecticut PROJECT NAME Church Street South Extension PROJECT NO. 92-520	SHEET 1 OF 1 LOCATION New England Boring Contractors of CT BORING CONTRACTOR Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION Rail Yard near Shop Track 5

SURFACE ELEV. 10.7		AUGER	CASING	SAMPLER	CORE BAR	HOLE NO. PB-5
DATE FINISHED 4/29/99	TYPE		HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.		4"	1 3/8"		OFFSET
AT 5 FT. AFTER 0.25 HRS.	HAMMER WT.		300#	140#	BIT	N. COORDINATE 168,361
AT FT. AFTER HRS.	HAMMER FALL		24"	30"		E. COORDINATE 551,255

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
												Concrete rubble from 2' to 2.5'.
5		5.0 - 7.0	1	24	12	D	5	5	4	3		Gray-brown m-f SAND, mostly m, trace f gravel, trace silt, odor.
10		10.0 - 12.0	2	24	8	D	2	3	3	5		Brown m-f SAND, mostly m, trace f gravel, trace silt, odor.
15		15.0 - 17.0	3	24	10	D	3	3	3	3	18.0 -7.3	Brown m-f SAND, mostly m, trace f gravel, trace silt.
20		20.0 - 22.0	4	24	12	D	5	6	6	7		Red-brown m-f SAND, mostly f, trace silt, odor.
25		25.0 - 27.0	5	24	14	D	6	6	7	11		Red-brown f SAND, trace silt, odor.
30		30.0 - 32.0	6	24	12	D	10	10	10	12		Red-brown f SAND, trace silt.
35		35.0 - 37.0	7	24	24	D	12	17	20	26		Red-brown f SAND, trace silt.
40		40.0 - 42.0	8	24	14	D	9	11	18	19		Red-brown f SAND, trace silt.
45		45.0 - 47.0	9	24	12	D	10	18	21	19		Red-brown f SAND, some silt, trace clay.
50		50.0 - 52.0	10	24	24	D	11	15	18	19		Red-brown f SAND, little silt.
55		55.0 - 57.0	11	24	22	D	10	15	15	21		Red-brown f SAND, little silt.
60		60.0 - 62.0	12	24	16	D	4	7	11	16		Red-brown f SAND, little silt.
65		65.0 - 67.0	13	24	24	D	14	18	19	22		Red-brown f SAND, little silt.
70		70.0 - 72.0	14	24	18	D	16	17	21	28		Red-brown f SAND and SILT, trace clay.
75		75.0 - 77.0	15	24	18	D	13	13	24	21		Red-brown f SAND, some silt, trace clay.
80		80.0 - 82.0	16	24	22	D	10	16	21	20		Red-brown f SAND, some silt, trace clay.
85		85.0 - 87.0	17	24	24	D	15	16	20	20		Red-brown f SAND and SILT.
90		90.0 - 92.0	18	24	24	D	11	17	25	25		Red-brown f SAND and SILT.
95		95.0 - 97.0	19	24	20	D	10	18	24	28		Red-brown f SAND and SILT.
100		100.0 - 102.0	20	24	20	D	13	20	24	27	102.0	Red-brown SILT and f SAND
105											-91.3	Bottom of boring.

FROM GROUND SURFACE TO 70 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 20 HOLE NO. PB-5

SAMPLE TYPE CODING: D=DRY C=CORE A=AUGER UP=UNDISTURBED, PISTON V=VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 6
℄ STA. 14+03
OFFSET=36 RIGHT

O. Cone BORING FOREMAN K. Paschal INSPECTOR R. Borjeson SOILS ENGINEER	FORM NO. SM-1 ED. 1/71 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS BORING REPORT TOWN New Haven, Connecticut PROJECT NAME Church Street South Extension PROJECT NO. 92-520	SHEET 1 OF 1 LOCATION New England Boring Contractors of CT BORING CONTRACTOR Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION Rail Yard along Shop Track 5

SURFACE ELEV. 10.1		AUGER	CASING	SAMPLER	CORE BAR	HOLE NO. PB-6
DATE FINISHED 5/5/99	TYPE		HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.		4"	1 3/8"		OFFSET
AT NA FT. AFTER HRS.	HAMMER WT.		300#	140#	BIT	N. COORDINATE 168,312
AT FT. AFTER HRS.	HAMMER FALL		24"	30"		E. COORDINATE 551,203

DEPTH	CASING BLOWS PER	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	10	D	6	9	10	14		Gray-brown c-f SAND, little m-f gravel, trace silt, odor Concrete from 2.5' to 5'.
5		5.0 - 7.0	2	24	14	D	2	2	4	3		Gray-brown m-f SAND, trace silt, odor.
10		10.0 - 12.0	3	24	24	D	2	3	10	13		Brown c-f SAND, trace f gravel, trace silt, odor.
15		15.0 - 17.0	4	24	10	D	5	6	10	9		Brown c-f SAND, mostly c, trace m-f gravel, trace silt, odor.
20		20.0 - 22.0	5	24	12	D	13	18	22	25		Brown m-f SAND and f GRAVEL, mostly m sand, trace silt.
25		25.0 - 27.0	6	24	6	D	3	4	10	15	25.0 -14.9	Orange-brown m-f SAND, mostly m, trace f gravel, trace silt.
30		30.0 - 32.0	7	24	0	D	3	3	5	8		Overdrive: No recovery.
35		35.0 - 37.0	8	24	24	D	8	10	15	20		Overdrive: Orange-brown c SAND, little m-f gravel, trace silt.
40		40.0 - 42.0	9	24	12	D	13	15	20	34		Orange-brown m-f SAND, mostly f, trace silt.
45		45.0 - 47.0	10	24	16	D	15	19	20	28		Orange-brown m-f SAND, mostly f, trace silt.
50		50.0 - 52.0	11	24	16	D	7	10	14	20		Orange-brown m-f SAND, mostly m, trace f gravel, trace silt.
55		55.0 - 57.0	12	24	6	D	14	18	20	28	54.0 -43.9	Red-brown f SAND, trace m-f gravel, trace silt.
60		60.0 - 62.0	13	24	18	D	7	14	14	20		Orange-brown c-f SAND, mostly c, little m-f gravel, trace silt.
65		65.0 - 67.0	14	24	22	D	7	10	15	23		Red-brown f SAND, trace f gravel, trace silt.
70		70.0 - 72.0	15	24	24	D	15	20	19	25		Red-brown f SAND, little silt.
75		75.0 - 77.0	16	24	16	D	23	43	35	40		Red-brown m-f SAND, some silt.
												Losing water circulation.
		80.0 - 82.0	17	24	20	D	13	46	70	100/4"		Red-brown f SAND, little silt.
85		85.0 - 87.0	18	24	24	D	12	10	18	24		Red-brown SILT and f SAND.
90		90.0 - 92.0	19	24	24	D	20	24	28	30		Red-brown f SAND, little silt.
95		95.0 - 97.0	20	24	24	D	18	21	25	30		Red-brown f SAND, trace silt.
100		100.0 - 102.0	21	24	24	D	14	21	27	50	102.0 -91.9	Red-brown f SAND, little silt.
105												Bottom of boring.

FROM GROUND SURFACE TO 80 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-6

SAMPLE TYPE CODING: D=DRY C=CORE A=AUGER UP=UNDISTURBED, PISTON V=VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

DESIGNER: R. BORJESON DRAFTER: A. KILPATRICK CHECKED BY: R. BORJESON DATE CHECKED: 3-7-00	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. APPROVED BY: Anthony A. Moretti DATE: 3/7/00	PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD CADD FILE: R703S008.DGN PLOTTED DATE: 3-04-00	TOWN: NEW HAVEN DRAWING TITLE: BORINGS- SHEET 2 OF 7	PROJECT NO.: 92-526 DRAWING NO.: STR-9 SHEET NO.: 143

HOLE PB - 7
℄ STA. 15+01
OFFSET=32 LEFT

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

T. Carpenter — BORING FOREMAN	TOWN: New Haven, Connecticut	SHEET 1 OF 1
K. Paschal — INSPECTOR	PROJECT NAME: Church Street South Extension	LOCATION
R. Borjeson — SOILS ENGINEER	PROJECT NO.: 92-520	New England Boring Contractors of CT — BORING CONTRACTOR
		Parsons Brinckerhoff Quade & Douglas, Inc. — CONTRACTING ENGINEER

LOCATION: Rail Yard near Building 6
SURFACE ELEV.: 10.7
DATE FINISHED: 5/5/99
GROUND WATER OBSERVATIONS: AT 6 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO.: PB-7; LINE & STATION; OFFSET; N. COORDINATE 168,294; E. COORDINATE 551,322

DEPTH	CASING BLOWS PER FOOT	DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	14	16	10	10		Orange-brown and tan c-f GRAVEL and m-f SAND, trace silt, little brick, trace concrete.
5		5.0 - 7.0	2	24	10	D	5	6	12	6	9.0 / 1.7	Orange-brown c-f GRAVEL and m-f SAND, mostly c gravel, trace silt, trace shells, odor.
10		10.0 - 12.0	3	24	16	D	8	9	9	10		Gray c-f SAND, trace silt, odor.
15		15.0 - 17.0	4	24	12	D	7	4	4	5		Red-brown c-f SAND, trace f gravel, little silt, odor.
20		20.0 - 22.0	5	24	12	D	2	3	3	3		Red-brown f SAND, trace silt.
25		25.0 - 27.0	6	24	16	D	6	8	10	12		Red-brown f SAND, trace silt, odor.
30		30.0 - 32.0	7	24	22	D	6	10	11	13		Red-brown m-f SAND, mostly f, trace silt.
35		35.0 - 37.0	8	24	22	D	8	8	10	12		Red-brown m-f SAND, mostly f, trace f gravel, trace silt.
40		40.0 - 42.0	9	24	24	D	6	7	8	10		Red-brown c-f SAND, mostly f, trace silt.
45		45.0 - 47.0	10	24	14	D	5	5	5	6		Red-brown f SAND, trace silt.
50		50.0 - 52.0	11	24	14	D	4	6	8	8		Red-brown f SAND, trace silt.
55		55.0 - 57.0	12	24	20	D	7	9	11	13		Red-brown f SAND, little silt.
60		60.0 - 62.0	13	24	22	D	5	10	15	19		Red-brown SILT, some f sand.
65		65.0 - 67.0	14	24	20	D	10	11	13	14		Red-brown f SAND, some silt.
70		70.0 - 72.0	15	24	20	D	9	10	13	15		Red-brown f SAND, little silt.
75		75.0 - 77.0	16	24	16	D	8	12	18	17		Red-brown f SAND, little silt.
70		80.0 - 82.0	17	24	20	D	6	8	13	16		Red-brown SILT and f SAND.
85		85.0 - 87.0	18	24	18	D	8	11	13	17		Red-brown clayey SILT and f SAND.
90		90.0 - 92.0	19	24	18	D	8	11	15	20		Red-brown clayey SILT and f SAND.
95		95.0 - 97.0	20	24	18	D	10	16	21	21		Red-brown f SAND, little silt.
100		100.0 - 102.0	21	24	20	D	10	15	19	25	102.0 / -91.3	Red-brown f SAND, little silt.
105												Bottom of boring.

FROM GROUND SURFACE TO 60 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET
FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-7
SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 8
℄ STA. 15+05
OFFSET=23 RIGHT

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

T. Carpenter — BORING FOREMAN	TOWN: New Haven, Connecticut	SHEET 1 OF 1
K. Paschal — INSPECTOR	PROJECT NAME: Church Street South Extension	LOCATION
R. Borjeson — SOILS ENGINEER	PROJECT NO.: 92-520	New England Boring Contractors of CT — BORING CONTRACTOR
		Parsons Brinckerhoff Quade & Douglas, Inc. — CONTRACTING ENGINEER

LOCATION: Rail Yard along Building 6
SURFACE ELEV.: 10.1
DATE FINISHED: 5/4/99
GROUND WATER OBSERVATIONS: AT 5 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO.: PB-8; LINE & STATION; OFFSET; N. COORDINATE 168,251; E. COORDINATE 551,287

DEPTH	CASING BLOWS PER FOOT	DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	2	2	2	2		Brown and black m-f SAND, little m-f gravel, little silt, trace cinders.
5		5.0 - 7.0	2	24	14	D	7	8	11	12		Gray-brown m-f SAND, trace m-f gravel, trace silt, odor.
10		10.0 - 12.0	3	24	12	D	3	11	8	12		Brown-gray m-f SAND, trace m-f gravel, little clay, odor.
15		15.0 - 17.0	4	24	12	D	4	5	5	6	20.0 / -9.9	Brown m-f SAND, mostly f, trace f gravel, trace silt, odor.
20		20.0 - 22.0	5	24	14	D	4	4	5	5		Red-brown m-f SAND, trace silt, odor.
25		25.0 - 27.0	6	24	18	D	5	6	6	7		Red-brown f SAND, trace silt, odor.
30		30.0 - 32.0	7	24	14	D	8	9	13	13		Red-brown f SAND, some silt.
35		35.0 - 37.0	8	24	16	D	8	9	10	10		Red-brown f SAND, trace silt.
40		40.0 - 42.0	9	24	20	D	7	11	12	13		Red-brown f SAND, some silt.
45		45.0 - 47.0	10	24	16	D	3	4	4	5		Red-brown f SAND, trace silt.
50		50.0 - 52.0	11	24	16	D	4	5	5	7		Red-brown f SAND, trace silt.
55		55.0 - 57.0	12	24	20	D	5	5	7	10		Red-brown f SAND, trace silt.
60		60.0 - 62.0	13	24	16	D	5	8	9	13		Red-brown f SAND, little silt.
65		65.0 - 67.0	14	24	20	D	9	12	16	19		Red-brown f SAND, little silt.
70		70.0 - 72.0	15	24	22	D	5	6	7	10		Red-brown f SAND, little clay.
75		75.0 - 77.0	16	24	20	D	7	12	13	18		Red-brown f SAND, trace silt.
80		80.0 - 82.0	17	24	20	D	9	10	14	20		Red-brown clayey SILT, little f sand.
85		85.0 - 87.0	18	24	24	D	10	14	16	25		Red-brown SILT and f SAND.
90		90.0 - 92.0	19	24	16	D	17	13	16	22		Red-brown SILT and f SAND, trace clay.
95		95.0 - 97.0	20	24	16	D	9	13	19	27		Red-brown f SAND, little silt.
100		100.0 - 102.0	21	24	22	D	16	17	23	28	102.0 / -91.9	Red-brown f SAND, some silt.
105												Bottom of boring.

FROM GROUND SURFACE TO 60 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET
FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-8
SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 9
℄ STA. 16+16
OFFSET=35 LEFT

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

T. Carpenter — BORING FOREMAN	TOWN: New Haven, Connecticut	SHEET 1 OF 1
K. Paschal — INSPECTOR	PROJECT NAME: Church Street South Extension	LOCATION
R. Borjeson — SOILS ENGINEER	PROJECT NO.: 92-520	New England Boring Contractors of CT — BORING CONTRACTOR
		Parsons Brinckerhoff Quade & Douglas, Inc. — CONTRACTING ENGINEER

LOCATION: Rail Yard on eastern side of Building 6
SURFACE ELEV.: 8.9
DATE FINISHED: 5/6/99
GROUND WATER OBSERVATIONS: AT 4.5 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO.: PB-9; LINE & STATION; OFFSET; N. COORDINATE 168,217; E. COORDINATE 551,407

DEPTH	CASING BLOWS PER FOOT	DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	7	10	12	12		Orange-brown c-f SAND, mostly f, trace f gravel, trace silt, trace brick.
5		5.0 - 7.0	2	24	12	D	3	2	2	2		Brown and dark gray m-f SAND, trace m-f gravel, trace silt, odor.
10		10.0 - 12.0	3	24	8	D	2	1	1	1	11.0	Orange-brown m-f SAND, trace f gravel, trace silt, odor.
		12.0 - 14.0	4	24	3	D	WOH	WOH	WOH	WOH	-2.1	Dark gray ORGANIC SILT in tip. Dark gray ORGANIC SILT, trace shells.
15		15.0 - 17.0	4	24	24	D	WOH	WOH	1	0	17.0 / -8.1	Dark gray ORGANIC SILT, little f sand.
20		20.0 - 22.0	5	24	12	D	3	4	5	6		Orange-brown f SAND, trace silt.
25		25.0 - 27.0	6	24	10	D	5	7	9	8		Orange-brown m-f SAND, mostly f, trace silt.
30		30.0 - 32.0	7	24	12	D	3	3	4	4		Orange-brown m-f SAND, mostly f, trace m-f gravel, trace silt.
35		35.0 - 37.0	8	24	12	D	3	3	4	6		Red-brown f SAND, little silt.
40		40.0 - 42.0	9	24	12	D	2	3	3	4		Red-brown m-f SAND, trace silt.
45		45.0 - 47.0	10	24	20	D	4	4	5	6		Red-brown m-f SAND, trace silt.
50		50.0 - 52.0	11	24	16	D	4	5	6	6		Red-brown f SAND and SILT.
55		55.0 - 57.0	12	24	20	D	6	7	10	11		Red-brown f SAND, some silt.
60		60.0 - 62.0	13	24	12	D	6	6	7	8		Red-brown f SAND, some silt.
65		65.0 - 67.0	14	24	18	D	6	8	10	10		Red-brown f SAND, little silt.
70		70.0 - 72.0	15	24	18	D	8	9	12	15		Red-brown SILT and f SAND.
75		75.0 - 77.0	16	24	18	D	9	9	13	16		Red-brown SILT and f SAND.
80		80.0 - 82.0	17	24	10	D	9	10	11	16		Red-brown SILT and f SAND.
85		85.0 - 87.0	18	24	18	D	9	15	16	17		Red-brown SILT and f SAND.
90		90.0 - 92.0	19	24	20	D	9	15	19	24		Red-brown SILT and f SAND.
95		95.0 - 97.0	20	24	22	D	10	13	20	26		Red-brown SILT and f SAND.
100		100.0 - 102.0	21	24	24	D	13	16	16	20	102.0 / -93.1	Red-brown f SAND and SILT.
105												Bottom of boring.

FROM GROUND SURFACE TO 60 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET
FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 22 HOLE NO. PB-9
SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

DESIGNER: R. BORJESON	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD	TOWN: NEW HAVEN	PROJECT NO.: 92-526
DRAFTER: A. KILPATRICK	ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.		DRAWING TITLE: BORINGS- SHEET 3 OF 7	DRAWING NO.: STR-10
CHECKED BY: R. BORJESON	APPROVED BY: Anthony A. Moretti DATE: 3/7/00	CADD FILE: R703S009.DGN	PLOTTED DATE: 3-04-00	SHEET NO.: 144
DATE CHECKED: 3-7-00				

16:52:48 05 MAR 2000 h:\dgn\pb\8703\churchst\rd\structure\r703s009.dgn

HOLE PB - 10
℄ STA. 16+42
OFFSET-21 RIGHT

O. Cone, BORING FOREMAN; K. Paschal, INSPECTOR; R. Borjeson, SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

SHEET 1 OF 1

TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

LOCATION: New England Boring Contractors of CT, BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc., CONTRACTING ENGINEER

LOCATION: Rail Yard along eastern side of Building 6
SURFACE ELEV.: 9.1
DATE FINISHED: 5/7/99
GROUND WATER OBSERVATIONS
AT 5 FT. AFTER 0.25 HRS.
AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO.: PB-10
LINE & STATION:
OFFSET:
N. COORDINATE: 168,158
E. COORDINATE: 551,387

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24		D	3	4	5	5		Brown and dark brown m-f SAND, trace c-f gravel, trace silt, little cinders, trace brick.
5		5.0 - 7.0	2	24	20	D	1	1	1	2		Orange-brown m-f SAND, mostly m, little f-m gravel, trace silt, odor.
10		10.0 - 12.0	3	24	20	D	1	1	1	1	11.0	Top 12": Orange-brown m-f SAND, little m-f gravel, trace silt.
											-1.9	Bottom 8": Gray ORGANIC SILT, some c-f sand, trace shells.
15		15.0 - 17.0	4	24	12	D	1	0	1	0		Gray ORGANIC SILT, some c-f sand.
											19.0	
20		20.0 - 22.0	5	24	24	D	1	0	1	0	-9.9	Orange-brown m-f SAND, little silt.
25		25.0 - 27.0	6	24	12	D	10	11	12	12		Orange-brown m-f SAND, little silt.
30		30.0 - 32.0	7	24	14	D	10	11	9	12		Orange-brown f SAND, trace silt.
35		35.0 - 37.0	8	24	16	D	10	11	16	20		Orange-brown m-f SAND, mostly f, trace silt.
40		40.0 - 42.0	9	24	22	D	4	7	7	8		Dark red-brown m-f SAND, mostly f, trace silt.
45		45.0 - 47.0	10	24	22	D	5	8	8	10		Red-brown f SAND and SILT.
50		50.0 - 52.0	11	24	24	D	7	13	14	13		Red-brown f SAND and SILT.
55		55.0 - 57.0	12	24	24	D	11	15	18	28		Red-brown f SAND and SILT.
60		60.0 - 62.0	13	24	24	D	8	14	9	14		Red-brown f SAND and SILT.
65		65.0 - 67.0	14	24	24	D	10	12	18	18		Red-brown SILT and f SAND.
70		70.0 - 72.0	15	24	18	D	6	4	6	16		Red-brown f SAND and SILT.
75		75.0 - 77.0	16	24	20	D	9	9	12	15		Red-brown f SAND and SILT.
80		80.0 - 82.0	17	24	18	D	9	11	17	20		Red-brown SILT and f SAND.
85		85.0 - 87.0	18	24	20	D	12	14	16	18		Red-brown f SAND and SILT.
90		90.0 - 92.0	19	24	24	D	WOR	WOR	16	24		Red-brown f SAND and SILT.
95		95.0 - 97.0	20	24	24	D	13	16	22	24		Red-brown SILT, some f sand.
100		100.0 - 102.0	21	24	18	D	14	18	20	25	102.0	Red-brown SILT, some f sand.
											-92.9	Bottom of boring.

FROM GROUND SURFACE TO 60 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-10

SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE = 0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 11
℄ STA. 17+23
OFFSET-39 LEFT

O. Cone, BORING FOREMAN; K. Paschal, INSPECTOR; R. Borjeson, SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

SHEET 1 OF 1

TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

LOCATION: New England Boring Contractors of CT, BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc., CONTRACTING ENGINEER

LOCATION: Rail Yard between Track 7 and Loop Track
SURFACE ELEV.: 7.8
DATE FINISHED: 5/10/99
GROUND WATER OBSERVATIONS
AT 5 FT. AFTER 0.25 HRS.
AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO.: PB-11
LINE & STATION:
OFFSET:
N. COORDINATE: 168,147
E. COORDINATE: 551,488

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	15	15	18	12		Black c-f GRAVEL and m-f SAND, little silt, trace brick, little cinders.
5		5.0 - 7.0	2	24	12	D	2	2	2	2		Olive-green and black m-f SAND and c-f GRAVEL, trace silt.
10		10.0 - 12.0	3	24	5	D	5	0	0	1		Olive-green and black m-f SAND and c-f GRAVEL, trace silt, some brick.
											14.0	
15		15.0 - 17.0	4	24	24	D	3	0	0	1	-6.2	Gray ORGANIC SILT, trace f sand.
											17.0	
20		20.0 - 22.0	5	24	12	D	5	3	3	1	-9.2	Red-brown f SAND, little silt.
25		25.0 - 27.0	6	24	12	D	6	5	5	8		Red-brown f SAND, trace silt.
30		30.0 - 32.0	7	24	24	D	11	11	8	13		Orange-brown c-f SAND, mostly f, trace silt.
35		35.0 - 37.0	8	24	22	D	4	5	7	8		Orange-brown f SAND, trace silt.
40		40.0 - 42.0	9	24	24	D	4	4	4	4		Red-brown clayey SILT, trace f sand.
45		45.0 - 47.0	10	24	24	D	4	10	11	15		Red-brown clayey SILT, trace f sand.
50		50.0 - 52.0	11	24	12	D	5	6	7	9		Red-brown clayey SILT, trace f sand.
55		55.0 - 57.0	12	24	12	D	6	8	10	9		Red-brown f SAND, little silt.
60		60.0 - 62.0	13	24	22	D	5	6	11	15		Red-brown f SAND, some silt.
65		65.0 - 67.0	14	24	24	D	6	6	13	14		Red-brown f SAND, some silt.
70		70.0 - 72.0	15	24	24	D	8	9	15	17		Red-brown f SAND and SILT.
75		75.0 - 77.0	16	24	22	D	10	15	18	25		Red-brown f SAND and SILT.
80		80.0 - 82.0	17	24	20	D	15	18	20	26		Red-brown f SAND and SILT.
85		85.0 - 87.0	18	24	20	D	9	11	15	18		Red-brown f SAND, some silt.
90		90.0 - 92.0	19	24	24	D	10	15	20	20		Red-brown f SAND, some silt.
95		95.0 - 97.0	20	24	24	D	13	16	15	22		Red-brown f SAND and SILT.
100		100.0 - 102.0	21	24		D	15	20	20	29	102.0	Red-brown f SAND and SILT.
											-94.2	Bottom of boring.

FROM GROUND SURFACE TO 60 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-11

SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE = 0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 12
℄ STA. 17+50
OFFSET-21 RIGHT

T. Carpenter, BORING FOREMAN; K. Paschal, INSPECTOR; R. Borjeson, SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

SHEET 1 OF 1

TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

LOCATION: New England Boring Contractors of CT, BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc., CONTRACTING ENGINEER

LOCATION: Rail Yard near the Loop Track in between Jersey barriers numbered 3
SURFACE ELEV.: 7.8
DATE FINISHED: 5/7/99
GROUND WATER OBSERVATIONS
AT 4 FT. AFTER 0.25 HRS.
AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO.: PB-12
LINE & STATION:
OFFSET:
N. COORDINATE: 168,084
E. COORDINATE: 551,466

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	14	D	9	12	12	10		Black and orange-brown m-f SAND, some m-f gravel, little silt, trace brick, trace cinders.
5		5.0 - 7.0	2	24	12	D	2	3	3	3		Black m-f SAND, some m-f gravel, trace silt, trace brick. (CINDERS)
10		10.0 - 12.0		24	0	D	WOH	WOH	WOH	WOH	12.5	
											-4.7	
15		15.0 - 17.0	3	24	18	D	WOH	WOH	WOH	WOH	17.0	Gray ORGANIC SILT, little m-f sand, trace f gravel.
											-9.2	
20		20.0 - 22.0	4	24	12	D	3	5	7	10		Red-brown f SAND, little silt.
25		25.0 - 27.0	5	24	8	D	3	3	5	5		Orange-brown f SAND, trace silt.
30		30.0 - 32.0	6	24	14	D	5	4	4	5		Red-brown clayey SILT, some f sand.
35		35.0 - 37.0	7	24	20	D	5	5	6	7		Red-brown clayey SILT, some f sand.
40		40.0 - 42.0	8	24	12	D	6	7	7	6		Red-brown f SAND, trace silt.
45		45.0 - 47.0	9	24	22	D	4	5	4	6		Red-brown f SAND, some silt.
50		50.0 - 52.0	10	24	18	D	6	6	7	8		Red-brown f SAND, some silt.
55		55.0 - 57.0	11	24	18	D	7	7	10	10		Red-brown f SAND, some silt.
60		60.0 - 62.0	12	24	18	D	8	7	10	11		Red-brown f SAND and SILT.
65		65.0 - 67.0	13	24	24	D	8	9	11	14		Red-brown f SAND, some silt.
70		70.0 - 72.0	14	24	20	D	10	11	14	15		Red-brown f SAND, some silt.
75		75.0 - 77.0	15	24	20	D	7	7	12	12		Red-brown f SAND and SILT.
80		80.0 - 82.0	16	24	18	D	7	8	7	12		Red-brown f SAND and SILT.
85		85.0 - 87.0	17	24	20	D	8	10	10	14		Red-brown SILT and f SAND.
90		90.0 - 92.0	18	24	18	D	9	9	15	19		Red-brown clayey SILT, little f sand.
95		95.0 - 97.0	19	24	18	D	9	10	14	18		Red-brown clayey SILT, little f sand.
100		100.0 - 102.0	20	24	20	D	10	15	19	26	102.0	Red-brown clayey SILT, little f sand.
											-94.2	Bottom of boring.

FROM GROUND SURFACE TO FEET USED INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK TYPE D NO. OF SAMPLES 20 HOLE NO. PB-12

SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE = 0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

DESIGNER: R. BORJESON
DRAFTER: A. KILPATRICK
CHECKED BY: R. BORJESON
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Maratti DATE: 3/7/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S010.DGN PLOTTED DATE: 3-04-00

TOWN: NEW HAVEN
DRAWING TITLE: BORINGS- SHEET 4 OF 7

PROJECT NO.: 92-526
DRAWING NO.: STR-11
SHEET NO.: 145

16:52:54
05 MAR 2000
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HOLE PB - 13
℄ STA. 18+91
OFFSET=24 LEFT

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

O. Cone BORING FOREMAN	TOWN: New Haven, Connecticut	SHEET 1 OF 1 LOCATION
K. Paschal INSPECTOR	PROJECT NAME: Church Street South Extension	New England Boring Contractors of CT BORING CONTRACTOR
R. Borjeson SOILS ENGINEER	PROJECT NO.: 92-520	Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION: Eastern boundary of Rail Yard in the road

			AUGER	CASING	SAMPLER	CORE BAR	
SURFACE ELEV. 7.5							HOLE NO. PB-13
DATE FINISHED 5/13/99	TYPE			HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.			4"	1 3/8"		OFFSET
AT 3 FT. AFTER 0.25 HRS.	HAMMER WT.			300#	140#	BIT	N. COORDINATE 168,022
AT FT. AFTER HRS.	HAMMER FALL			24"	30"		E. COORDINATE 551,599

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	10	12	6	7		Black c-f SAND and c-f GRAVEL, some silt, trace grass, odor.
5		5.0 - 7.0	2	24	12	D	4	5	6	5		Olive-green and black c-f GRAVEL, some m-f sand, trace silt, some wood.
10		10.0 - 12.0	3	24	3	D	4	3	1	1		Black m-f GRAVEL, little m-f sand, trace silt, some wood.
15											15.0	
		15.0 - 17.0	4	24	18	D	1	0	1	0	-7.5	Gray ORGANIC SILT, trace c-f sand.
		18.0 - 20.0	1	24	24	UP						Gray ORGANIC SILT, trace c-f sand.
20		20.0 - 22.0	5	24	3	D	1	0	1	2	21.0 -13.5	Overdrive: Top 1": Gray ORGANIC SILT, some m-f gravel little f sand, trace metal fragments. Bottom 2": Orange-brown f SAND, trace silt.
25		25.0 - 27.0	6	24	20	D	6	5	6	6		Orange-brown f SAND, little c-f gravel, trace silt.
30		30.0 - 32.0	7	24	18	D	5	6	5	7		Red-brown f SAND, some silt.
35		35.0 - 37.0	8	24	18	D	14	30	18	25		Red-brown f SAND, some silt.
40		40.0 - 42.0	9	24	14	D	8	11	18	20		Red-brown f SAND, trace silt.
45		45.0 - 47.0	10	24	20	D	8	9	11	12		Red-brown f SAND, some silt.
50		50.0 - 52.0	11	24	24	D	8	14	14	16		Red-brown f SAND, little silt.
55		55.0 - 57.0	12	24	24	D	8	10	17	25		Red-brown f SAND and SILT.
60		60.0 - 62.0	13	24	24	D	9	10	18	20		Red-brown clayey SILT, some f sand.
65		65.0 - 67.0	14	24	24	D	8	11	12	17		Red-brown f SAND and SILT.
70		70.0 - 72.0	15	24	24	D	10	15	13	18		Red-brown f SAND and SILT.
75		75.0 - 77.0	16	24	22	D	8	18	19	26		Red-brown clayey SILT and f SAND.
		80.0 - 82.0	17	24	24	D	10	15	20	24		Red-brown SILT and f SAND.
85		85.0 - 87.0	18	24	24	D	11	12	19	30		Red-brown clayey SILT.
90		90.0 - 92.0	19	24	24	D	15	25	28	33		Red-brown SILT and f SAND.
95		95.0 - 97.0	20	24	24	D	16	18	21	25		Red-brown SILT and f SAND, trace f gravel.
100		100.0 - 102.0	21	24	24	D	19	27	30	46	102.0	Red-brown SILT and f SAND
											-94.5	Bottom of boring.
105												

FROM GROUND SURFACE TO 40 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-13

SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 14
℄ STA. 19+31
OFFSET=26 RIGHT

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

T. Carpenter BORING FOREMAN	TOWN: New Haven, Connecticut	SHEET 1 OF 1 LOCATION
K. Paschal INSPECTOR	PROJECT NAME: Church Street South Extension	New England Boring Contractors of CT BORING CONTRACTOR
R. Borjeson SOILS ENGINEER	PROJECT NO.: 92-520	Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION: Eastern boundary of Rail Yard in the road

			AUGER	CASING	SAMPLER	CORE BAR	
SURFACE ELEV. 7.5							HOLE NO. PB-14
DATE FINISHED 5/13/99	TYPE			HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.			4"	1 3/8"		OFFSET
AT 3.5 FT. AFTER 0.25 HRS.	HAMMER WT.			300#	140#	BIT	N. COORDINATE 167,958
AT FT. AFTER HRS.	HAMMER FALL			24"	30"		E. COORDINATE 551,596

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	23	17	9	9		Black c-f SAND, little gravel, some silt, little wood.
5		5.0 - 7.0	2	24	12	D	2	6	4	4		Black c-f GRAVEL and c-f SAND, little silt, odor.
10											10.5	
		10.0 - 12.0	3	24	8	D	2	1	1	0	-3.0	Dark gray to black ORGANIC SILT, trace f gravel, trace c-f sand.
		13.0 - 15.0	1	24	23	UP						Dark gray ORGANIC SILT, c gravel in the top of sample.
15		15.0 - 17.0	4	24	24	D	WOH	WOH	WOH	WOH		Dark gray ORGANIC SILT, trace f gravel, trace c-f sand.
20											20.5	
		20.0 - 22.0	5	24	10	D	WOR	2	6	8	-13.0	Gray-brown c-f SAND, mostly f , trace f gravel, trace silt.
25		25.0 - 27.0	6	24	16	D	11	10	5	6		Red-brown f SAND and SILT.
30		30.0 - 32.0	7	24	14	D	5	5	5	7		Red-brown f SAND, trace silt.
35		35.0 - 37.0	8	24	20	D	4	5	7	7		Red-brown clayey SILT and f SAND.
40		40.0 - 42.0	9	24	20	D	3	5	5	7		Red-brown clayey SILT and f SAND.
45		45.0 - 47.0	10	24	12	D	14	11	11	10		Red-brown f SAND, trace silt.
50		50.0 - 52.0	11	24	12	D	4	4	5	6		Red-brown f SAND, some silt.
55		55.0 - 57.0	12	24	24	D	7	8	10	11		Red-brown f SAND, some silt.
60		60.0 - 62.0	13	24	22	D	4	6	6	7		Red-brown f SAND, some silt.
65		65.0 - 67.0	14	24	24	D	6	6	7	9		Red-brown f SAND and clayey SILT.
70		70.0 - 72.0	15	24	20	D	7	8	8	7		Red-brown f SAND and clayey SILT.
75		75.0 - 77.0	16	24	20	D	7	7	9	12		Red-brown clayey SILT and f SAND.
80		80.0 - 82.0	17	24	22	D	8	10	10	12		Red-brown clayey SILT.
85		85.0 - 87.0	18	24	20	D	8	10	11	14		Red-brown clayey SILT and f SAND.
90		90.0 - 92.0	19	24	18	D	8	9	11	13		Red-brown f SAND and SILT.
95		95.0 - 97.0	20	24	16	D	10	13	19	20		Red-brown f SAND and SILT.
100		100.0 - 102.0	21	24	23	D	10	13	17	24	102.0	Red-brown SILT and f SAND.
											-94.5	Bottom of boring.
105												

FROM GROUND SURFACE TO 60 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-14

SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 15
℄ STA. 20+83
OFFSET=38 LEFT

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT

O. Cone BORING FOREMAN	TOWN: New Haven, Connecticut	SHEET 1 OF 1 LOCATION
K. Paschal INSPECTOR	PROJECT NAME: Church Street South Extension	New England Boring Contractors of CT BORING CONTRACTOR
R. Borjeson SOILS ENGINEER	PROJECT NO.: 92-520	Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION: Church Street South on the property of Witch Equipment of New England

			AUGER	CASING	SAMPLER	CORE BAR	
SURFACE ELEV. 10.0							HOLE NO. PB-15
DATE FINISHED 4/23/99	TYPE			HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.			4"	1 3/8"		OFFSET
AT 7 FT. AFTER 0.25 HRS.	HAMMER WT.			300#	140#	BIT	N. COORDINATE 167,909
AT FT. AFTER HRS.	HAMMER FALL			24"	30"		E. COORDINATE 551,754

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	20	12	17	20		Red-brown c-f SAND, little m-f gravel, trace silt, trace wood.
5		5.0 - 7.0	2	24	18	D	12	6	12	8		Top 10": Brown f SAND, trace m-f gravel, little silt. Bottom 8": Dark gray SILT and f SAND, litle f gravel.
											8.5	
10											-1.5	
		10.0 - 12.0	3	24	20	D	1	1	1	1		Dark gray ORGANIC SILT, trace f sand, trace plant matter.
15		15.0 - 17.0	4	24	24	D	1	0	1	0		Dark gray ORGANIC SILT, trace m gravel, trace shells.
20		20.0 - 22.0	5	24	24	D	1	1	1	1		Dark gray ORGANIC SILT.
25		25.0 - 27.0	6	24	24	D	WOR	WOR	WOR	5	26.5 -16.5	Top 21": Dark gray ORGANIC SILT, trace f sand with depth, trace shells. Bottom 3": Red-brown f SAND, trace silt.
30		30.0 - 32.0	7	24	4	D	6	12	16	17		Orange-brown f SAND, trace silt.
35		35.0 - 37.0	8	24	12	D	8	10	10	9		Red-brown f SAND, trace silt.
40		40.0 - 42.0	9	24	12	D	10	12	12	13		Red-brown f SAND, some silt.
45		45.0 - 47.0	10	24	12	D	11	12	16	13		Red-brown f SAND, some silt.
50		50.0 - 52.0	11	24	14	D	12	13	13	14		Red-brown f SAND, some silt.
55		55.0 - 57.0	12	24	2	D	15	17	19	18		Red-brown f SAND, some silt.
60		60.0 - 62.0	13	24	18	D	15	16	20	20		Red-brown f SAND, some silt.
65		65.0 - 67.0	14	24	18	D	12	13	15	16		Red-brown f SAND and SILT.
70		70.0 - 72.0	15	24	12	D	11	15	17	23		Red-brown clayey SILT, trace f sand.
75		75.0 - 77.0	16	24	3	D	15	16	19	20		Red-brown clayey SILT, trace f sand.
80		80.0 - 82.0	17	24	8	D	16	18	19	21		Red-brown f SAND, some silt.
85		85.0 - 87.0	18	24	14	D	12	11	18	18		Red-brown clayey SILT, trace f sand.
90		90.0 - 92.0	19	24	12	D	10	10	16	18		Red-brown f SAND and clayey SILT
95		95.0 - 97.0	20	24	12	D	15	18	20	23		Red-brown f SAND, some clayey silt.
100		100.0 - 102.0	21	24	12	D	17	20	27	29	102.0	Red-brown clayey SILT, trace f sand. Rods bouncing.
											-92.0	Bottom of boring.
105												

FROM GROUND SURFACE TO 15 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-15

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

DESIGNER: R. BORJESON
DRAFTER: A. KILPATRICK
CHECKED BY: R. BORJESON
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Morette DATE: 3/7/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S011.DGN PLOTTED DATE: 3-04-00

TOWN: NEW HAVEN

DRAWING TITLE: BORINGS- SHEET 5 OF 7

PROJECT NO.: 92-526
DRAWING NO.: STR-12
SHEET NO.: 146

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HOLE PB - 16
℄ STA. 20+86
OFFSET-43 RIGHT

T. Carpenter, BORING FOREMAN — K. Paschal, INSPECTOR — R. Borjeson, SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT
TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

SHEET 1 OF 1
LOCATION: New England Boring Contractors of CT, BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc., CONTRACTING ENGINEER

LOCATION: Eastern boundary of Rail Yard
SURFACE ELEV.: 7.6
DATE FINISHED: 5/12/99
GROUND WATER OBSERVATIONS: AT 3.6 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO. PB-16
LINE & STATION
OFFSET
N. COORDINATE 167,845
E. COORDINATE 551,706

DEPTH FROM - TO	CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN. INCH	SAMPLE REC. INCH	SAMPLE TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
0.0 - 2.0		1	24	14	D	5	8	8	11		Black, orange-brown and olive-green c-f SAND, little f gravel, trace silt, little clay.
										5.0	
5.0 - 7.0		2	24	4	D	1	0	1	1	2.6	Dark gray SILT and CLAY, little c-f sand.
										9.0	Drive sample: Dark gray SILT and CLAY, little c-f sand.
8.0 - 10.0		1	24	0	UP						
8.0 - 10.0		3	24	8	D	2	2	2	7	-1.4	
10.0 - 12.0		4	24	12	D	9	9	4	8		Black c-f GRAVEL, some c-f sand, trace silt, odor.
										12.5	
										-4.9	
15.0 - 17.0		5	24	4	D	WOH	WOH	WOH	1		Gray ORGANIC SILT, trace c-f sand, trace shells.
18.0 - 20.0		2	24	0	UP						
20.0 - 22.0		3	24	20	UP						Gray ORGANIC SILT.
22.0 - 24.0		6	24	24	D	WOH	WOH	WOH	WOH		Gray ORGANIC SILT, trace c-f sand, trace f gravel.
										25.0	
25.0 - 27.0		7	24	12	D	4	5	7	7	-17.4	Red-brown and gray f SAND and SILT.
30.0 - 32.0		8	24	14	D	11	7	6	7		Red-brown f SAND and SILT.
35.0 - 37.0		9	24	18	D	7	15	10	11		Red-brown f SAND and SILT.
40.0 - 42.0		10	24	24	D	8	10	12	18		Red-brown f SAND and SILT.
45.0 - 47.0		11	24	20	D	6	9	9	12		Red-brown f SAND and SILT.
50.0 - 52.0		12	24	18	D	7	9	11	12		Red-brown f SAND and SILT.
55.0 - 57.0		13	24	20	D	9	10	10	14		Red-brown f SAND, some silt.
60.0 - 62.0		14	24	16	D	10	11	11	16		Red-brown f SAND, some silt.
65.0 - 67.0		15	24	20	D	10	15	15	16		Red-brown f SAND and SILT.
70.0 - 72.0		16	24	24	D	8	10	13	17		Red-brown f SAND and SILT.
75.0 - 77.0		17	24	24	D	10	10	13	20		Red-brown f SAND and SILT.
80.0 - 82.0		18	24	24	D	9	11	20	28		Red-brown clayey SILT and f SAND.
85.0 - 87.0		19	24	22	D	13	14	21	22		Red-brown clayey SILT and f SAND.
90.0 - 92.0		20	24	20	D	10	12	19	20		Red-brown clayey SILT and f SAND.
95.0 - 97.0		21	24	24	D	13	16	17	22		Red-brown f SAND, some silt.
100.0 - 102.0		22	24	22	D	11	15	21	33		Red-brown SILT and f SAND.
										102.0	
										-94.4	Bottom of boring.

FROM GROUND SURFACE TO 45 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 22 HOLE NO. PB-16

SAMPLE TYPE CODING: D=DRY, C=CORE, A=AUGER, UP=UNDISTURBED, PISTON, V=VANE TEST
PROPORTIONS USED: TRACE = 0 - 10%, LITTLE = 10 - 20%, SOME = 20 - 35%, AND = 35 - 50%

HOLE PB - 17
℄ STA. 22+20
OFFSET-33 LEFT

O. Cone, BORING FOREMAN — K. Paschal, INSPECTOR — R. Borjeson, SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT
TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

SHEET 1 OF 1
LOCATION: New England Boring Contractors of CT, BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc., CONTRACTING ENGINEER

LOCATION: Church Street South in the grass
SURFACE ELEV.: 9.8
DATE FINISHED: 5/14/99
GROUND WATER OBSERVATIONS: AT 5 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO. PB-17
LINE & STATION
OFFSET
N. COORDINATE 167,822
E. COORDINATE 551,858

DEPTH FROM - TO	CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN. INCH	SAMPLE REC. INCH	SAMPLE TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
0.0 - 2.0		1	24	4	D	10	15	20	22		Orange-brown m-f SAND, little c-f gravel, little silt, trace roots, trace grass.
5.0 - 7.0		2	24	12	D	8	8	6	2		Orange-brown m-f SAND, trace f gravel, some silt.
10.0 - 12.0		3	24	3	D	2	2	2	4		Gray-brown m-f SAND, little c-f gravel, little silt, trace roots. Losing water.
										14.0	
										-4.2	
15.0 - 17.0		4	24	24	D	1	1	1	1		Dark gray ORGANIC SILT, trace c-f sand, trace shells.
18.0 - 20.0		1	24	24	UP						Dark gray ORGANIC SILT.
20.0 - 22.0		5	24	22	D	1	0	1	1		Dark gray ORGANIC SILT, trace c-f sand, trace shells.
25.0 - 27.0		6	24	24	D	1	1	1	1		Dark gray ORGANIC SILT, trace c-f sand, trace shells, trace plant matter.
										29.0	
										-19.2	
30.0 - 32.0		7	24	12	D	10	11	11	10		Red-brown f SAND, some clayey silt.
35.0 - 37.0		8	24	18	D	5	5	15	17		Red-brown clayey SILT, some f sand.
40.0 - 42.0		9	24	14	D	8	9	11	15		Red-brown f SAND, little silt.
45.0 - 47.0		10	24	14	D	8	9	15	18		Red-brown f SAND, trace silt.
50.0 - 52.0		11	24	16	D	5	8	12	14		Red-brown SILT and f SAND.
55.0 - 57.0		12	24	14	D	8	10	12	15		Red-brown SILT and f SAND.
60.0 - 62.0		13	24	15	D	9	11	13	19		Red-brown SILT and f SAND.
65.0 - 67.0		14	24	13	D	13	15	18	21		Red-brown SILT and f SAND.
70.0 - 72.0		15	24	10	D	16	15	18	17		Red-brown f SAND and SILT.
75.0 - 77.0		16	24	0	D	16	14	16	17		Overdrive: Red-brown f SAND, some silt.
80.0 - 82.0		17	24	12	D	14	16	18	19		Red-brown clayey SILT and f SAND.
85.0 - 87.0		18	24	12	D	10	16	18	21		Red-brown clayey SILT and f SAND.
90.0 - 92.0		19	24	12	D	11	12	16	19		Red-brown clayey SILT, trace f sand.
95.0 - 97.0		20	24	14	D	11	19	34	40		Red-brown clayey SILT, trace f sand.
100.0 - 102.0		21	24	14	D	16	23	29	25		Red-brown clayey SILT, trace f sand.
										102.0	
										-92.2	Bottom of boring.

FROM GROUND SURFACE TO 10 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-17

SAMPLE TYPE CODING: D=DRY, C=CORE, A=AUGER, UP=UNDISTURBED, PISTON, V=VANE TEST
PROPORTIONS USED: TRACE = 0 - 10%, LITTLE = 10 - 20%, SOME = 20 - 35%, AND = 35 - 50%

HOLE PB - 18
℄ STA. 22+44
OFFSET-19 RIGHT

T. Carpenter, BORING FOREMAN — K. Paschal, INSPECTOR — R. Borjeson, SOILS ENGINEER

FORM NO. SM-1 ED. 1/71
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BORING REPORT
TOWN: New Haven, Connecticut
PROJECT NAME: Church Street South Extension
PROJECT NO.: 92-520

SHEET 1 OF 1
LOCATION: New England Boring Contractors of CT, BORING CONTRACTOR
Parsons Brinckerhoff Quade & Douglas, Inc., CONTRACTING ENGINEER

LOCATION: Church Street South in the grass
SURFACE ELEV.: 9.7
DATE FINISHED: 5/14/99
GROUND WATER OBSERVATIONS: AT 6 FT. AFTER 0.25 HRS.; AT FT. AFTER HRS.

	AUGER	CASING	SAMPLER	CORE BAR
TYPE		HW	D	
SIZE I.D.		4"	1 3/8"	
HAMMER WT.		300#	140#	BIT
HAMMER FALL		24"	30"	

HOLE NO. PB-18
LINE & STATION
OFFSET
N. COORDINATE 167,766
E. COORDINATE 551,846

DEPTH FROM - TO	CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN. INCH	SAMPLE REC. INCH	SAMPLE TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
0.0 - 2.0		1	24	12	D	14	23	15	12		Red-brown m-f SAND and m-f GRAVEL, trace silt.
5.0 - 7.0		2	24	6	D	2	2	1	2		Red-brown m-f SAND, little m-f gravel, little silt, trace metal fragments.
10.0 - 12.0		3	24	4	D	1	1	1	2		Red-brown m-f SAND, little m-f gravel, little silt.
										14.0	
										-4.3	
15.0 - 17.0		4	24	24	D	WOH	WOH	1	1		Dark gray ORGANIC SILT, trace f sand, trace shells.
18.0 - 20.0		1	24	6	UP						Dark gray ORGANIC SILT, trace f sand, trace shells, trace plant matter.
20.0 - 22.0		5	24	24	D	WOH	WOH	WOH	WOH		Dark gray ORGANIC SILT, trace f sand, trace shells.
22.0 - 24.0		2	24	15	UP						Dark gray ORGANIC SILT, trace f sand, trace shells.
25.0 - 27.0		6	24	24	D	1	2	2	2		Dark gray ORGANIC SILT, trace f sand, trace shells.
										29.0	
										-19.3	
30.0 - 32.0		7	24	12	D	4	5	5	5		Red-brown f SAND and SILT, trace f gravel.
35.0 - 37.0		8	24	14	D	4	5	5	7		Red-brown f SAND, trace silt.
40.0 - 42.0		9	24	12	D	10	10	12	16		Red-brown f SAND and SILT.
45.0 - 47.0		10	24	14	D	9	11	13	17		Red-brown f SAND, trace to little silt.
50.0 - 52.0		11	24	18	D	9	12	12	16		Red-brown clayey SILT, little f sand.
55.0 - 57.0		12	24	16	D	9	10	10	16		Red-brown clayey SILT, little f sand.
60.0 - 62.0		13	24	16	D	11	11	13	18		Red-brown SILT and f SAND.
65.0 - 67.0		14	24	12	D	10	11	13	17		Red-brown SILT and f SAND.
70.0 - 72.0		15	24	24	D	7	13	15	18		Red-brown f SAND, some silt.
75.0 - 77.0		16	24	22	D	10	12	16	16		Red-brown f SAND, some silt.
80.0 - 82.0		17	24	18	D	11	12	16	21		Red-brown f SAND, some silt.
85.0 - 87.0		18	24	16	D	12	17	17	23		Red-brown clayey SILT, some f sand.
90.0 - 92.0		19	24	10	D	12	12	18	21		Red-brown clayey SILT, some f sand.
95.0 - 97.0		20	24	24	D	12	13	17	21		Red-brown clayey SILT, some f sand.
100.0 - 102.0		21	24	24	D	12	17	20	28		Red-brown SILT and CLAY.
										102.0	
										-92.3	Bottom of boring.

FROM GROUND SURFACE TO 20 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-18

SAMPLE TYPE CODING: D=DRY, C=CORE, A=AUGER, UP=UNDISTURBED, PISTON, V=VANE TEST
PROPORTIONS USED: TRACE = 0 - 10%, LITTLE = 10 - 20%, SOME = 20 - 35%, AND = 35 - 50%

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

DESIGNER: R. BORJESON
DRAFTER: A. KILPATRICK
CHECKED BY: R. BORJESON
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony D. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S012.DGN | PLOTTED DATE: 3-04-00

TOWN: NEW HAVEN
DRAWING TITLE: BORINGS- SHEET 6 OF 7

PROJECT NO.: 92-526
DRAWING NO.: STR-13
SHEET NO.: 147

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HOLE PB - 19
℄ STA. 23+34
OFFSET=30 LEFT

O. Cone BORING FOREMAN	FORM NO. SM-1 ED. 1/71 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS BORING REPORT	SHEET 1 OF 1 LOCATION
K. Paschal INSPECTOR	TOWN New Haven, Connecticut	New England Boring Contractors of CT BORING CONTRACTOR
R. Borjeson SOILS ENGINEER	PROJECT NAME Church Street South Extension PROJECT NO. 92-520	Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION Church Street South in the grass

		AUGER	CASING	SAMPLER	CORE BAR	
SURFACE ELEV. 9.7						HOLE NO. PB-19
DATE FINISHED 5/12/99	TYPE		HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.		4"	1 3/8"		OFFSET
AT 5 FT. AFTER 0.25 HRS.	HAMMER WT.		300#	140#	BIT	N. COORDINATE 167,752
AT FT. AFTER HRS.	HAMMER FALL		24"	30"		E. COORDINATE 551,948

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	18	D	3	5	20	19		Orange-brown c-f SAND, little m-f gravel, trace silt.
5		5.0 - 7.0	2	24	14	D	12	28	20	12		Brown c-f SAND, some m-f gravel, little silt.
											8.0 1.7	
10		10.0 - 12.0	3	24	14	D	1	2	1	3	11.0 -1.3	Top 5": Red-brown f SAND, little silt. Bottom 9": Gray ORGANIC SILT, little f sand, trace shells.
15		15.0 - 17.0	4	24	24	D	1	0	0	1		Gray ORGANIC SILT, trace shells.
		18.0 - 20.0	2	24	12	UP						Gray ORGANIC SILT, trace shells.
20		20.0 - 22.0	2	24	0	UP						
25		25.0 - 27.0	6	24	24	D	2	1	1	2		Dark gray ORGANIC SILT, little c-f sand.
30		30.0 - 32.0	7	24	20	D	8	10	9	9	31.0 -21.3	Gray-brown f SAND, trace silt.
35		35.0 - 37.0	8	24	6	D	9	8	7	9		Red-brown SILT, some f sand.
40		40.0 - 42.0	9	24	12	D	15	16	18	20		Red-brown f SAND, some silt.
45		45.0 - 47.0	10	24	14	D	15	16	18	20		Red-brown f SAND and SILT.
50		50.0 - 52.0	11	24	14	D	8	9	11	13		Red-brown f SAND, little silt.
55		55.0 - 57.0	12	24	12	D	11	11	12	17		Red-brown f SAND and SILT.
60		60.0 - 62.0	13	24	24	D	11	18	18	19		Red-brown SILT, some f sand.
65		65.0 - 67.0	14	24	12	D	15	16	18	22		Red-brown f SAND, little silt.
70		70.0 - 72.0	15	24	6	D	15	16	20	23		Red-brown f SAND and SILT.
75		75.0 - 77.0	16	24	12	D	14	10	15	20		Red-brown f SAND and SILT.
80		80.0 - 82.0	17	24	10	D	15	18	20	24		Red-brown f SAND and SILT.
85		85.0 - 87.0	18	24	6	D	16	20	23	26		Red-brown clayey SILT, little f sand.
90		90.0 - 92.0	19	24	12	D	14	14	20	23		Red-brown clayey SILT, little f sand.
95		95.0 - 97.0	20	24	12	D	16	18	23	25		Red-brown f SAND and SILT.
100		100.0 - 102.0	21	24	12	D	10	14	18	22	102.0	Red-brown SILT and f SAND
											-92.3	Bottom of boring.
105												

FROM GROUND SURFACE TO 15 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 20 HOLE NO. PB-19

SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 20
℄ STA. 24+34
OFFSET=7 RIGHT

T. Carpenter BORING FOREMAN	FORM NO. SM-1 ED. 1/71 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS BORING REPORT	SHEET 1 OF 1 LOCATION
K. Paschal INSPECTOR	TOWN New Haven, Connecticut	New England Boring Contractors of CT BORING CONTRACTOR
R. Borjeson SOILS ENGINEER	PROJECT NAME Church Street South Extension PROJECT NO. 92-520	Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION Church Street South

		AUGER	CASING	SAMPLER	CORE BAR	
SURFACE ELEV. 8.3						HOLE NO. PB-20
DATE FINISHED 4/23/99	TYPE		HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.		4"	1 3/8"		OFFSET
AT 5 FT. AFTER 0.25 HRS.	HAMMER WT.		300#	140#	BIT	N. COORDINATE 167,663
AT FT. AFTER HRS.	HAMMER FALL		24"	30"		E. COORDINATE 552,007

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.5 - 2.5	1	24	10	D	10	18	28	25		Red-brown c-f SAND, little m-f gravel, trace silt.
5		5.0 - 7.0	2	24	18	D	10	10	12	15	6.5 1.8	Top 13": Red-brown c-f SAND, little m-f gravel, trace silt. Bottom 5": Dark gray ORGANIC SILT, trace f sand.
10		10.0 - 12.0	3	24	20	D	4	6	4	3	10.5 -2.2	Brown-gray c-f SAND, trace f gravel, trace silt, trace shells, organic odor.
15		15.0 - 17.0	4	24	4	D	4	1	1	1	16.0 -7.7	Dark gray to black ORGANIC SILT.
		18.0 - 20.0	1	24	24	UP						Gray ORGANIC SILT.
20		20.0 - 22.0	5	24	20	D	1	WOH	0	0		Gray ORGANIC SILT, trace f sand, trace shells.
25		25.0 - 27.0	6	24	18	D	1	WOH	0	0		Gray ORGANIC SILT, trace f sand, trace shells.
30		30.0 - 32.0	7	24	24	D	1	1	1	1		Gray ORGANIC SILT, little f sand, trace shells.
35		35.0 - 37.0	8	24	16	D	7	9	6	3	35.0 -26.7	Gray-brown f-c SAND, moslty f sand, little to trace silt.
40		40.0 - 42.0	9	24	12	D	6	6	9	9		Red-brown f SAND, little to some silt.
45		45.0 - 47.0	10	24	16	D	10	8	11	12		Red-brown SILT and f SAND.
50		50.0 - 52.0	11	24	12	D	10	11	10	12		Red-brown f SAND, little clayey silt.
55		55.0 - 57.0	12	24	16	D	7	7	9	4		Red-brown f SAND, little clayey silt.
60		60.0 - 62.0	13	24	14	D	14	15	11	15		Red-brown f SAND, some silt.
65		65.0 - 67.0	14	24	16	D	9	11	12	16		Red-brown clayey SILT, little f sand.
70		70.0 - 72.0	15	24	14	D	10	16	16	12		Red-brown clayey SILT, little f sand.
75		75.0 - 77.0	16	24	18	D	10	14	15	20		Red-brown f SAND, some silt.
80		80.0 - 82.0	17	24	16	D	10	11	16	21		Red-brown f SAND, some silt.
85		85.0 - 87.0	18	24	10	D	12	13	15	18		Red-brown f SAND, little silt.
90		90.0 - 92.0	19	24	20	D	9	9	14	19		Red-brown clayey SILT.
95		95.0 - 97.0	20	24	10	D	8	13	15	23		Red-brown clayey SILT.
100		100.0 - 102.0	21	24	12	D	15	18	23	31	102.0	Red-brown f SAND, some silt.
											-93.7	Bottom of boring.
105												

FROM GROUND SURFACE TO 20 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-20

SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

HOLE PB - 21
℄ STA. 25+35
OFFSET=29 LEFT

T. Carpenter BORING FOREMAN	FORM NO. SM-1 ED. 1/71 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS BORING REPORT	SHEET 1 OF 1 LOCATION
K. Paschal INSPECTOR	TOWN New Haven, Connecticut	New England Boring Contractors of CT BORING CONTRACTOR
R. Borjeson SOILS ENGINEER	PROJECT NAME Church Street South Extension PROJECT NO. 92-520	Parsons Brinckerhoff Quade & Douglas, Inc. CONTRACTING ENGINEER

LOCATION Church Street South in the grass

		AUGER	CASING	SAMPLER	CORE BAR	
SURFACE ELEV. 8.8						HOLE NO. PB-21
DATE FINISHED 5/17/99	TYPE		HW	D		LINE & STATION
GROUND WATER OBSERVATIONS	SIZE I.D.		4"	1 3/8"		OFFSET
AT 7 FT. AFTER 0.25 HRS.	HAMMER WT.		300#	140#	BIT	N. COORDINATE 167,634
AT FT. AFTER HRS.	HAMMER FALL		24"	30"		E. COORDINATE 552,109

DEPTH	CASING BLOWS PER FOOT	SAMPLE DEPTHS FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0-6	6-12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.)
		0.0 - 2.0	1	24	12	D	3	7	16	16		Orange-brown m-f SAND, mostly f, little m-f gravel, little silt, trace roots, trace grass.
5		5.0 - 7.0	2	24	14	D	4	4	4	4		Gray-brown m-f SAND, little m-f gravel, little silt, trace shells.
10		10.0 - 12.0	3	24	12	D	1	2	2	2		Gray-brown m-f SAND, little m-f gravel, little silt, trace shells.
15		15.0 - 17.0	4	24	10	D	2	2	2	2		Gray-brown m-f SAND, little c-f gravel, little silt, trace shells.
20		20.0 - 22.0	5	24	6	D	3	2	2	3		Gray-brown m-f SAND, little c-f gravel, little silt, trace shells.
25		25.0 - 27.0	6	24	10	D	3	5	6	7		Gray-brown m-f SAND, little c-f gravel, little silt, trace shells.
30		30.0 - 32.0	7	24	2	D	3	5	5	6	31.0 -22.2	Top: Gray-brown m-f SAND and m-f GRAVEL, trace silt. Bottom: Gray ORGANIC SILT, trace m-f sand.
											34.0 -25.2	
35		35.0 - 37.0	8	24	14	D	10	15	15	14		Gray-brown f SAND, trace silt, trace shells.
											38.0 -29.2	
40		40.0 - 42.0	9	24	24	D	1	1	3	3		Gray ORGANIC SILT, some f sand.
45		45.0 - 47.0	10	24	14	D	6	12	12	7	45.0 -36.2	Orange-brown m-f SAND, trace m-f gravel, trace silt.
50		50.0 - 52.0	11	24	24	D	8	6	6	8	50.5 -41.7	Top 6": Orange-brown m-f SAND and m-f GRAVEL, trace silt. Bottom 18": Red-brown f SAND, some silt.
55		55.0 - 57.0	12	24	2	D	6	8	8	9		Red-brown m-f SAND, trace f gravel, some clayey silt.
60		60.0 - 62.0	13	24	20	D	6	7	9	12		Red-brown SILT and f SAND.
65		65.0 - 67.0	14	24	24	D	8	8	9	12		Red-brown f SAND, some silt.
70		70.0 - 72.0	15	24	22	D	10	10	11	18		Red-brown SILT and f SAND.
75		75.0 - 77.0	16	24	18	D	10	11	18	19		Red-brown f SAND and SILT.
80		80.0 - 82.0	17	24	20	D	11	12	14	14		Red-brown f SAND, trace silt.
85		85.0 - 87.0	18	24	22	D	10	10	8	14		Red-brown f SAND and SILT.
90		90.0 - 92.0	19	24	16	D	13	13	15	16		Red-brown clayey SILT and f SAND.
											93.0 -84.2	Losing water circulation.
95		95.0 - 97.0	20	24	12	D	8	12	12	16	96.5 -87.7	Orange-brown m-f GRAVEL, mostly f, and c-f SAND, trace silt. Red-brown clayey SILT, some f sand, little f gravel.
100		100.0 - 102.0	21	24	10	D	9	14	16	24	102.0	Red-brown clayey SILT, some f sand, little f gravel.
											-93.2	Bottom of boring.
105												

FROM GROUND SURFACE TO 55 FEET USED 4 INCH CASING THEN INCH CASING FOR FEET

FOOTAGE IN EARTH 102 FOOTAGE IN ROCK 0 TYPE D NO. OF SAMPLES 21 HOLE NO. PB-21

SAMPLE TYPE CODING: D-DRY C-CORE A-AUGER UP-UNDISTURBED, PISTON V-VANE TEST
PROPORTIONS USED: TRACE =0 -10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

DESIGNER: R. BORJESON
DRAFTER: A. KILPATRICK
CHECKED BY: R. BORJESON
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S012A.DGN PLOTTED DATE: 3-04-00

TOWN: NEW HAVEN

DRAWING TITLE: BORINGS- SHEET 7 OF 7

PROJECT NO.: 92-526
DRAWING NO.: STR-14
SHEET NO.: 148

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05 MAR 2000
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LAYOUT PLAN

SCALE: 1:50

CSS = CHURCH STREET SOUTH
W.P. = WORKING POINT

CURVE DATA

CURVE NO. 1	
PROPOSED CHURCH ST. SOUTH ℄	
P.C.	STA.6+71.43
	N 168894.620
	E 550775.438
P.T.	STA. 9+63.71
	N 168640.784
	E 550909.735
Δ	37° -12'-53"
T	151.51'
L	292.28'
R	450'

CURVE NO. 4	
CHURCH ST. SOUTH ℄	
P.C.	STA. 17+44.81
	N 168103.007
	E 551476.221
P.T.	STA. 23+16.365
	N 167738.162
	E 551915.636
Δ	7° -36'-56.81"
T	286.20'
L	571.56'
R	4300'

WORKING POINT COORDINATES

LOCATION	W.P.	NORTH	EAST
ABUT. 1	1	168695.9334	550930.4544
	1a	168724.2954	550947.7158
	2	168652.5837	550897.7612
	3	168594.9099	550860.9730
	3a	168575.7778	550844.2579
PIER 1	4	168559.9780	550994.8545
PIER 2	5	168337.1367	551229.5924
PIER 3	6	168274.4056	551295.6726
PIER 4	7	168184.7712	551390.0922
PIER 5	8	168095.7160	551483.9207
PIER 6	9	167987.1056	551603.3067
PIER 7	10	167880.9020	551729.3354
ABUT. 2	11	167823.3940	551854.0170
	11a	167568.2716	552204.5267
	12	167794.7233	551839.2754
	13	167772.8295	551828.0184
	13a	167610.8514	552050.1799

GUTTER LINE COORDINATES

LOCATION	NO.	NORTH	EAST
EAST G.L. @ C.L. BRG. ABUTMENT 1	17	168683.3339	550919.1819
WEST G.L. @ C.L. BRG. ABUTMENT 1	18	168608.8878	550867.3225
EAST G.L. @ C.L. BRG. PIER 1 (SPAN A1)	19	168576.1445	551009.0527
WEST G.L. @ C.L. BRG. PIER 1 (SPAN A1)	20	168544.2337	550978.7592
EAST G.L. @ C.L. BRG. PIER 2 (SPAN P2)	21	168352.1557	551244.9994
WEST G.L. @ C.L. BRG. PIER 2 (SPAN P2)	22	168320.2449	551214.7058
EAST G.L. @ C.L. BRG. PIER 3	23	168289.9984	551310.4751
WEST G.L. @ C.L. BRG. PIER 3	24	168258.0875	551280.1815
EAST G.L. @ C.L. BRG. PIER 4	25	168205.5650	551399.4160
WEST G.L. @ C.L. BRG. PIER 4	26	168163.0102	551380.3347
EAST G.L. @ C.L. BRG. PIER 5	27	168124.9273	551484.3586
WEST G.L. @ C.L. BRG. PIER 5	28	168065.2631	551483.4641
EAST G.L. @ C.L. BRG. PIER 6	29	168015.3693	551603.7305
WEST G.L. @ C.L. BRG. PIER 6	30	167957.6364	551602.8649
EAST G.L. @ C.L. BRG. PIER 7	31	167903.8096	551735.2348
WEST G.L. @ C.L. BRG. PIER 7	32	167856.9546	551723.1682
EAST G.L. @ C.L. BRG. ABUTMENT 2	33	167814.1374	551849.2575
WEST G.L. @ C.L. BRG. ABUTMENT 2	34	167774.4094	551828.8307

END OF SLAB COORDINATES

LOCATION	NO.	NORTH	EAST
EAST G.L. @ ABUT. 1	35	168697.6050	550925.3269
CSS BL @ ABUT. 1	36	168654.8607	550895.5510
WEST G.L. @ ABUT. 1	37	168599.5968	550857.0540
EAST G.L @ ABUT.2	38	167812.2961	551851.6841
CSS BL @ ABUT. 2	39	167792.8844	551841.7033
WEST G.L. @ ABUT. 2	40	167776.2477	551826.4026

END OF APPROACH SLAB COORDINATES

LOCATION	NO.	NORTH	EAST
EAST G.L. @ ABUT. 1	41	168695.7295	550919.6331
EAST SHOULDER @ ABUT. 1	42	168696.5416	550912.2345
CSS BL @ ABUT. 1	43	168662.3992	550888.4507
WEST SHOULDER @ ABUT. 1	44	168610.9546	550852.6143
WEST G.L. @ ABUT. 1	45	168604.2746	550855.9931
EAST G.L. @ ABUT.2	46	167802.9664	551864.0348
CSS BL @ ABUT. 2	47	167783.5668	551854.0602
WEST G.L. @ ABUT. 2	48	167763.2680	551843.6232

CSS BASELINE AND ℄ BRG INTERSECTION

LOCATION	NO.	NORTH	EAST
C.L. BRG. PIER 1, (SPAN 1)	91	168560.5518	550994.2502
C.L. BRG. PIER 1, (SPAN 2)	92	168558.7158	550996.1842
C.L. BRG. PIER 2, (SPAN 2)	93	168338.3989	551228.2628
C.L. BRG. PIER 2, (SPAN 3)	94	168336.5629	551230.1969

GIRDER COORDINATES

	℄ BRG. PIER 2 (SPAN 3)			℄ PIER 3			℄ PIER 4		
GIRDER	NO.	NORTH	EAST	NO.	NORTH	EAST	NO.	NORTH	EAST
1	49	168356.6885	551249.3025	55	168294.5311	551314.7782	61	168211.6097	551402.1264
2	50	168349.7262	551242.6930	56	168287.5688	551308.1686	62	168202.3250	551397.9632
3	51	168342.7638	551236.0835	57	168280.6064	551301.5591	63	168193.0403	551393.8000
4	52	168335.8014	551229.4739	58	168273.6441	551294.9496	64	168183.7557	551389.6368
5	53	168328.8391	551222.8644	59	168266.6817	551288.3401	65	167174.4710	551385.4736
6	54	168321.8767	551216.2549	60	168259.7194	551281.7306	66	168165.1863	551381.3104

	℄ PIER 5			℄ PIER 6			℄ PIER 7			℄ BRG. ABUTMENT 2		
GIRDER	NO.	NORTH	EAST	NO.	NORTH	EAST	NO.	NORTH	EAST	NO.	NORTH	EAST
1	67	168133.4241	551484.4860	73	168023.6049	551603.8540	79	167910.4734	551736.9509	85	167819.7816	551852.1596
2	68	168120.3730	551484.2904	74	168010.9586	551603.6644	80	167900.2387	551734.3152	86	167811.1122	551847.7021
3	69	168107.3230	551484.0947	75	167998.3330	551603.4751	81	167890.0089	551731.6807	87	167802.4434	551843.2449
4	70	168094.2919	551483.8993	76	167985.7280	551603.2860	82	167879.7839	551729.0474	88	167793.7752	551838.7880
5	71	168081.2851	551483.7043	77	167973.1432	551603.0973	83	167869.5636	551726.4154	89	167785.1076	551834.3314
6	72	168068.3024	551483.5097	78	167960.5785	551602.9089	84	167859.3481	551723.7846	90	167776.4406	551829.8751

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S013.DGN
PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN

DRAWING TITLE: LAYOUT PLAN AND COORDINATES

PROJECT NO.: 92-526
DRAWING NO.: STR-15
SHEET NO.: 149

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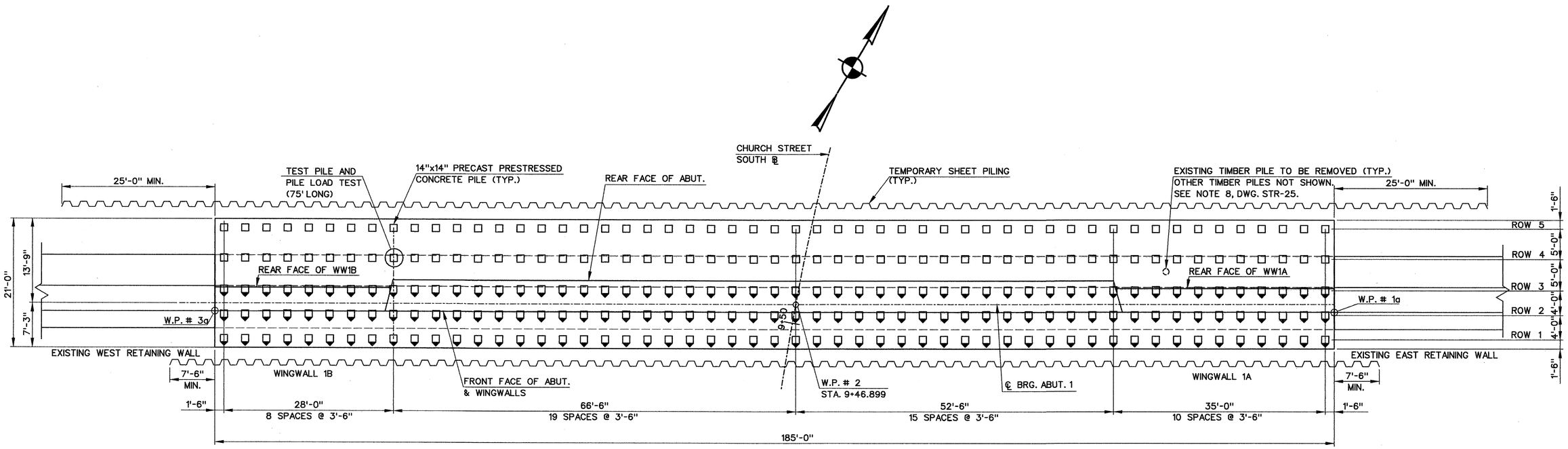


LEGEND:

▷ - INDICATES BATTERED PILE 3/12

FOOTING AND PILE PLAN

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

NOTE: FOR SUBSTRUCTURE NOTES, SEE DWG. STR-25.

PILE NOTES:

THE FOLLOWING NOTES APPLY FOR THE ABUTMENTS, WINGWALLS, AND RETAINING WALL 101:

1. ALL PILES SHALL BE 14"x14" PRECAST PRESTRESSED CONCRETE PILES WITH AN MAXIMUM DESIGN LOAD CAPACITY (LOAD FACTOR DESIGN) OF 80 TONS AND MAXIMUM DESIGN TENSION CAPACITY OF 21 TONS.

2. FOR PILE DETAILS AND NOTES, SEE DWG. STR-19.

3. THE LENGTH OF TEST PILES IS 75 FEET, AND ESTIMATED LENGTH OF OTHER PILES ARE AS FOLLOWS:
   ABUTMENT 1 & WINGWALLS 1A & 1B - 71 FT.
   ABUTMENT 2 & WINGWALLS 2A & 2B - 71 FT.
   RETAINING WALL 101 - 71 FT.

4. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE USED TO CONSTRUCT ABUTMENT 2 AND WINGWALLS 2A & 2B PILE FOUNDATION:
   A. DRIVE ALL PILES THAT ARE WITHIN 20 FEET OF THE PROPOSED BOX CULVERT THAT ARE NOT IN CONFLICT WITH THE EXISTING CMPs OR THE TEMPORARY SHEET PILING FOR THE PROPOSED BOX CULVERT INSTALLATION.
   B. INSTALL THE BOX CULVERT AND DIVERT FLOW THROUGH THE BOX CULVERT.
   C. FILL THE EXISTING CMPs WITH FLOWABLE FILL, SEE SPECIAL PROVISION.
   D. DRIVE THE REMAINING PILES.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

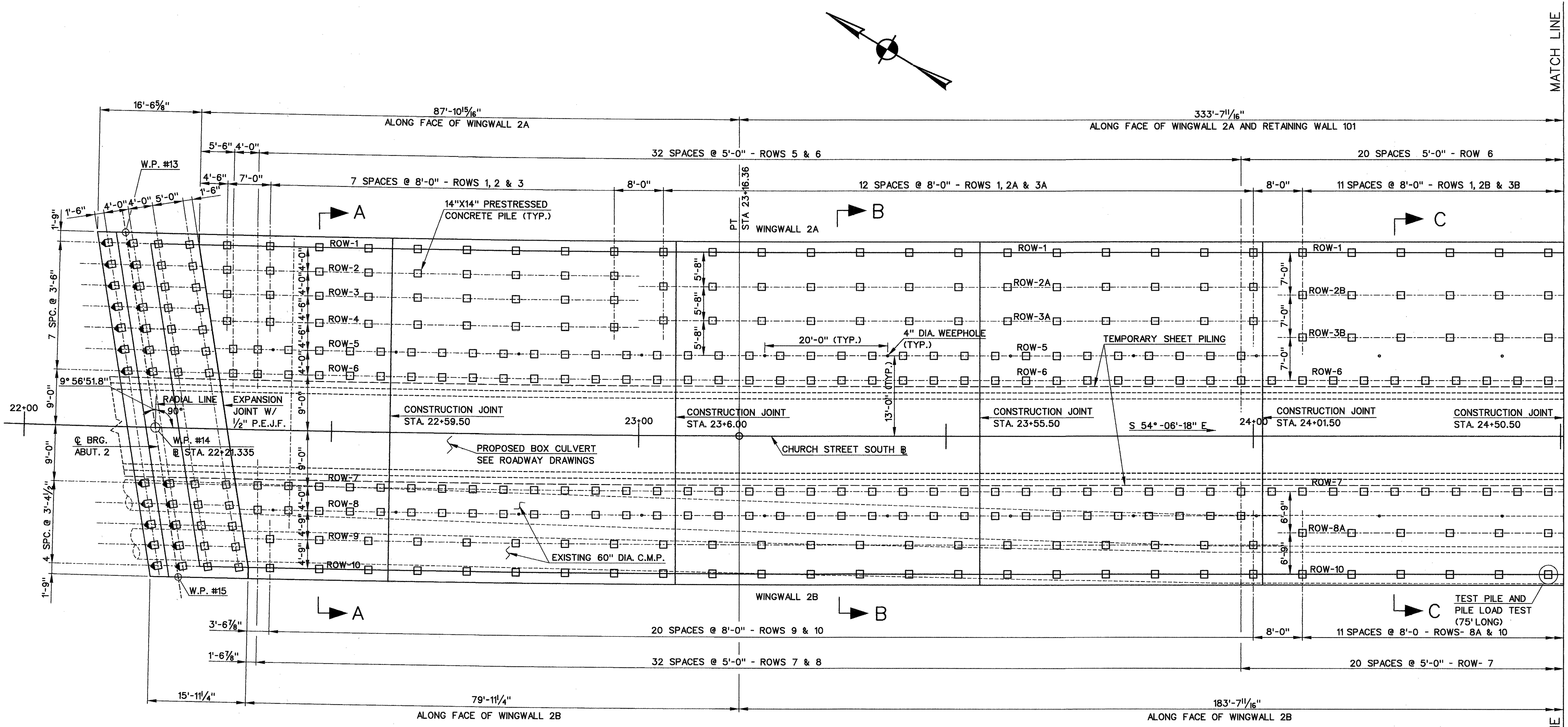
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Moretti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S016.DGN PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: PILE PLAN ABUTMENT 1, WW1A & WW1B

PROJECT NO.: 92-526
DRAWING NO.: STR-16
SHEET NO.: 150



LEGENDS:

▭▸ - INDICATES BATTERED PILE (batter 3:12)

P.E.J.F. - PREFORMED EXPANSION JOINT FILLER.

PARTIAL PILE PLAN - ABUTMENT 2

SCALE: ⅛" = 1'-0"

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REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Moretti DATE: 4-7-00

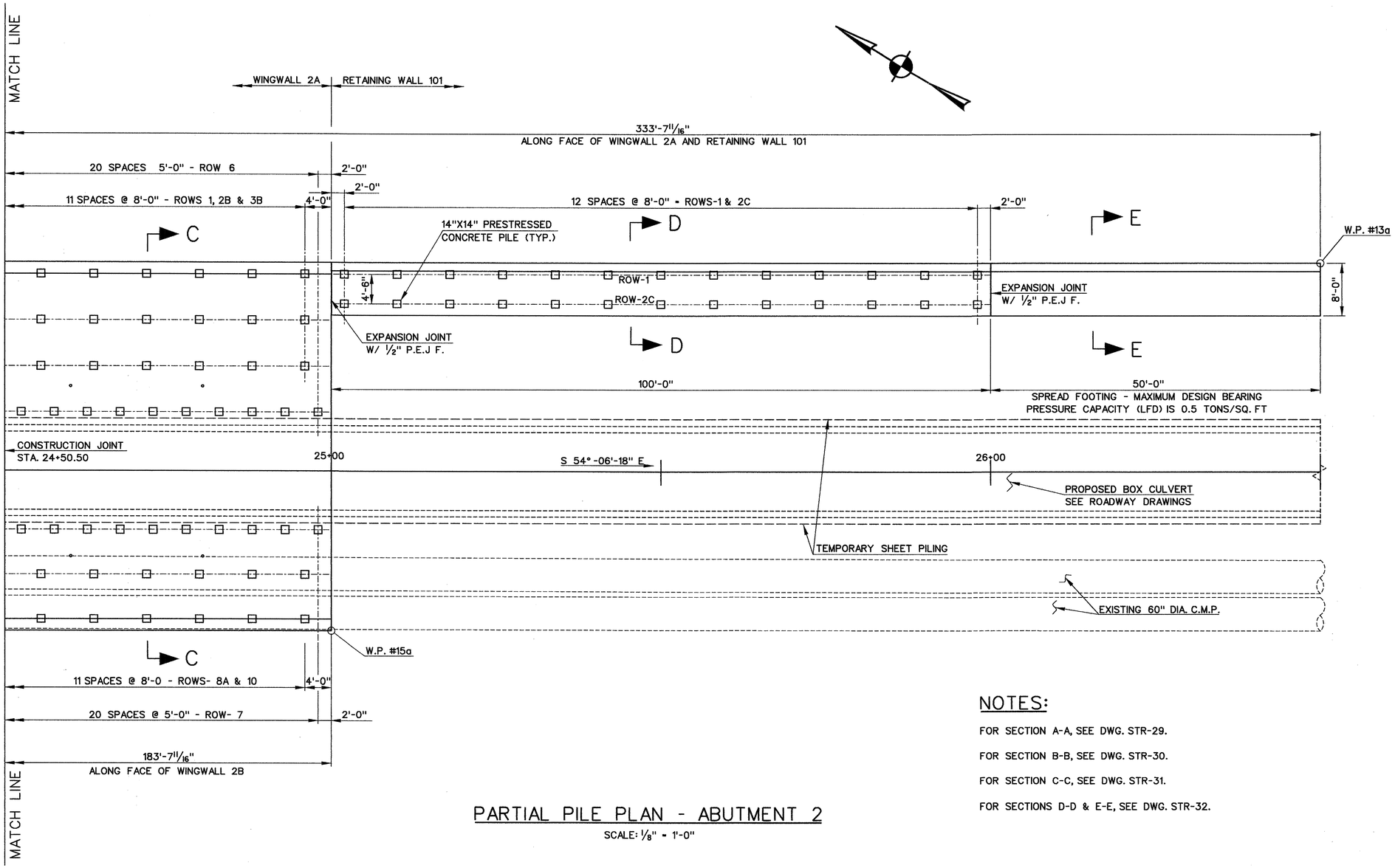
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S017.DGN | PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN

DRAWING TITLE: PILE PLAN ABUTMENT 2, SHT. 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-17
SHEET NO.: 151



PARTIAL PILE PLAN - ABUTMENT 2

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

NOTES:

FOR SECTION A-A, SEE DWG. STR-29.

FOR SECTION B-B, SEE DWG. STR-30.

FOR SECTION C-C, SEE DWG. STR-31.

FOR SECTIONS D-D & E-E, SEE DWG. STR-32.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Maietti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S018.DGN | PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: PILE PLAN ABUTMENT 2, SHT. 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-18
SHEET NO.: 152

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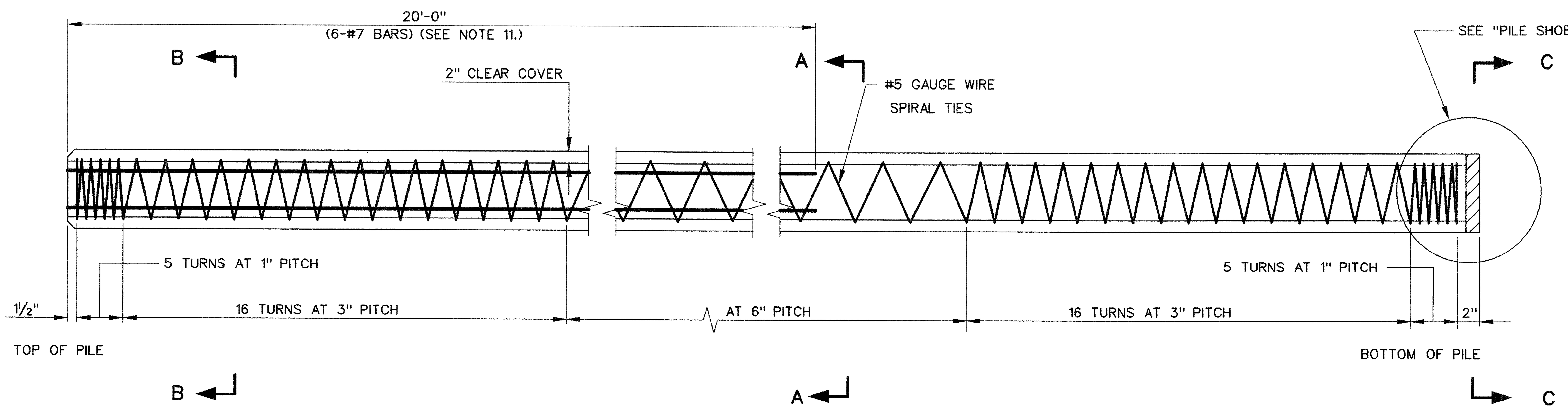
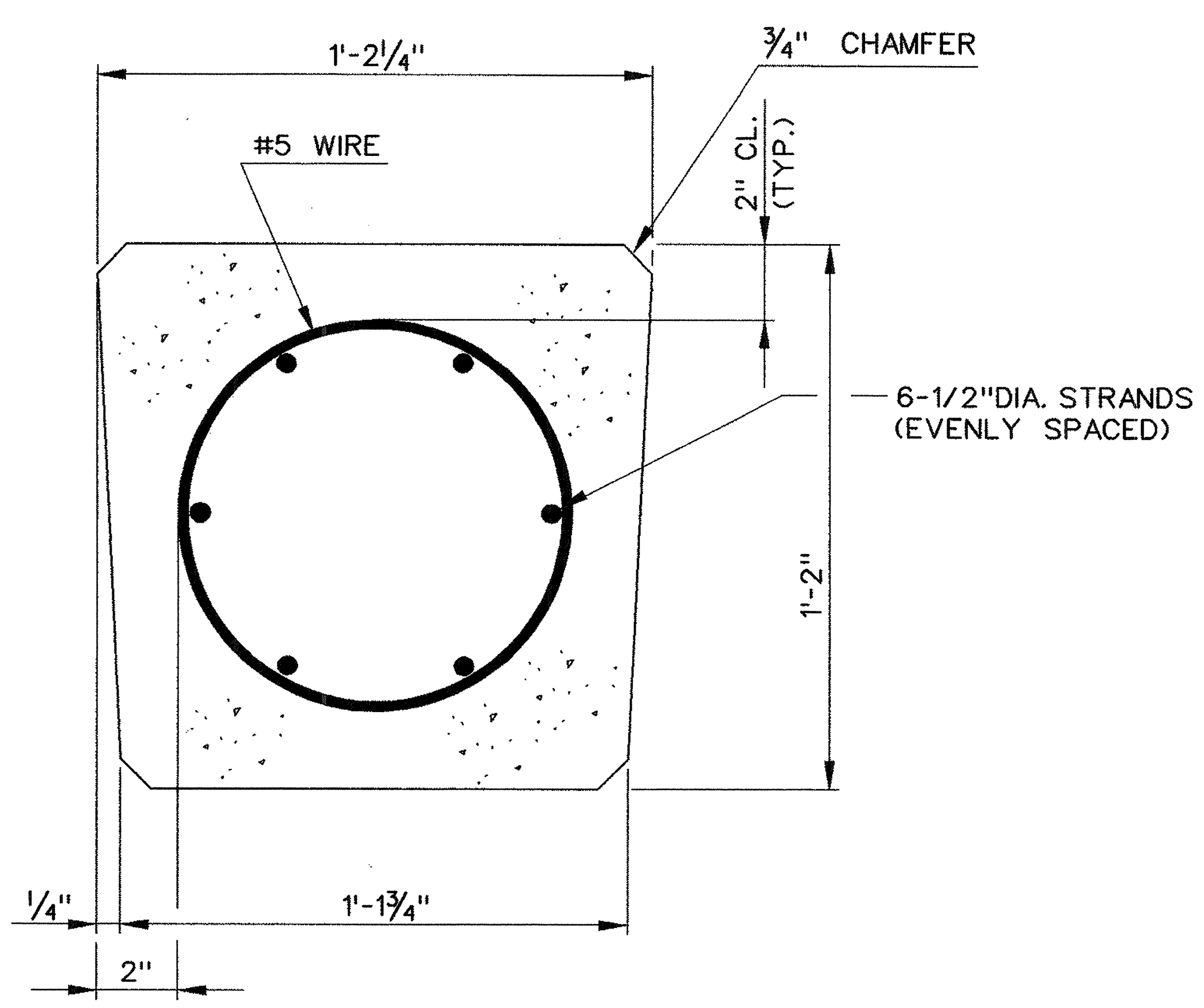
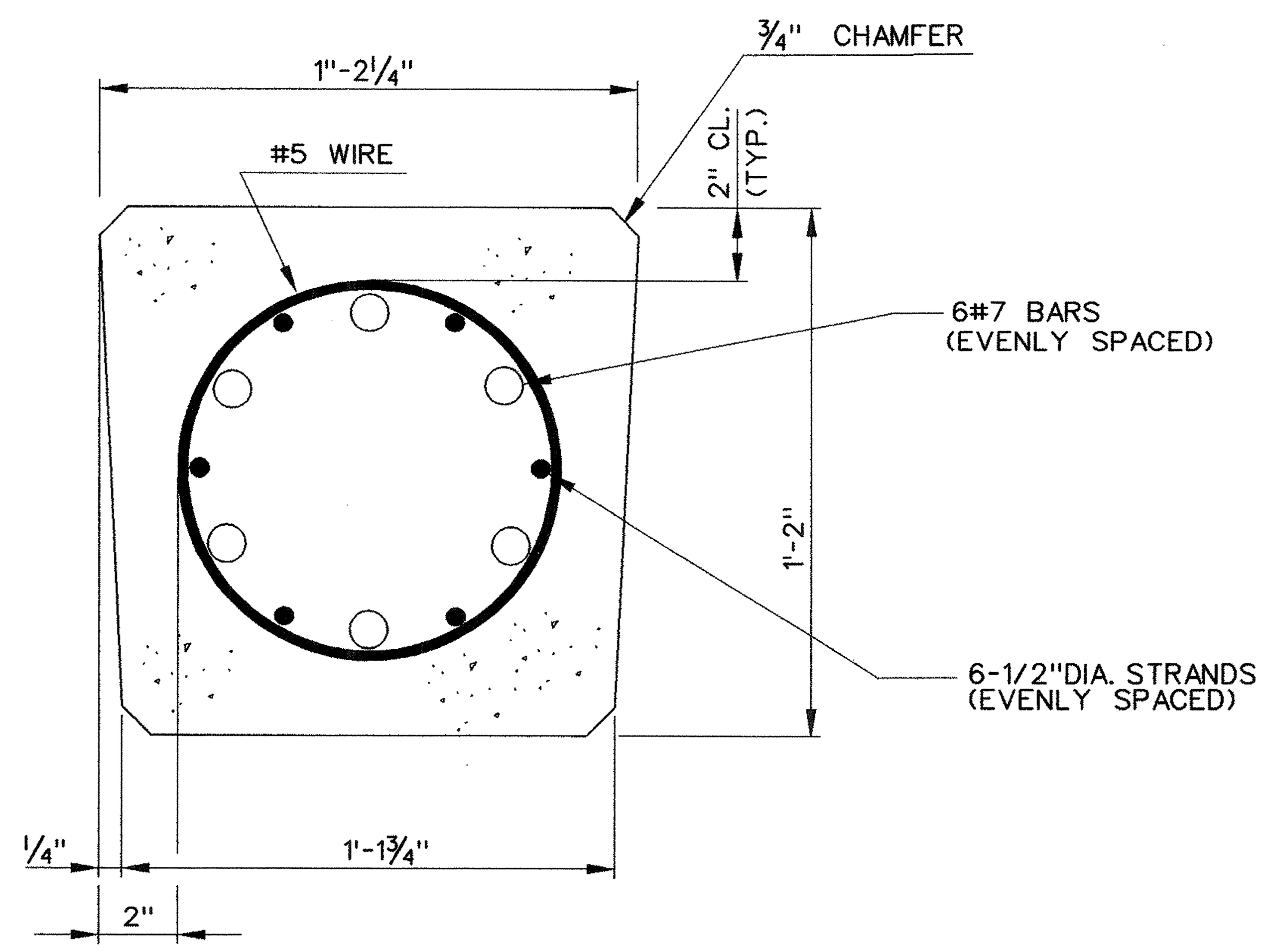


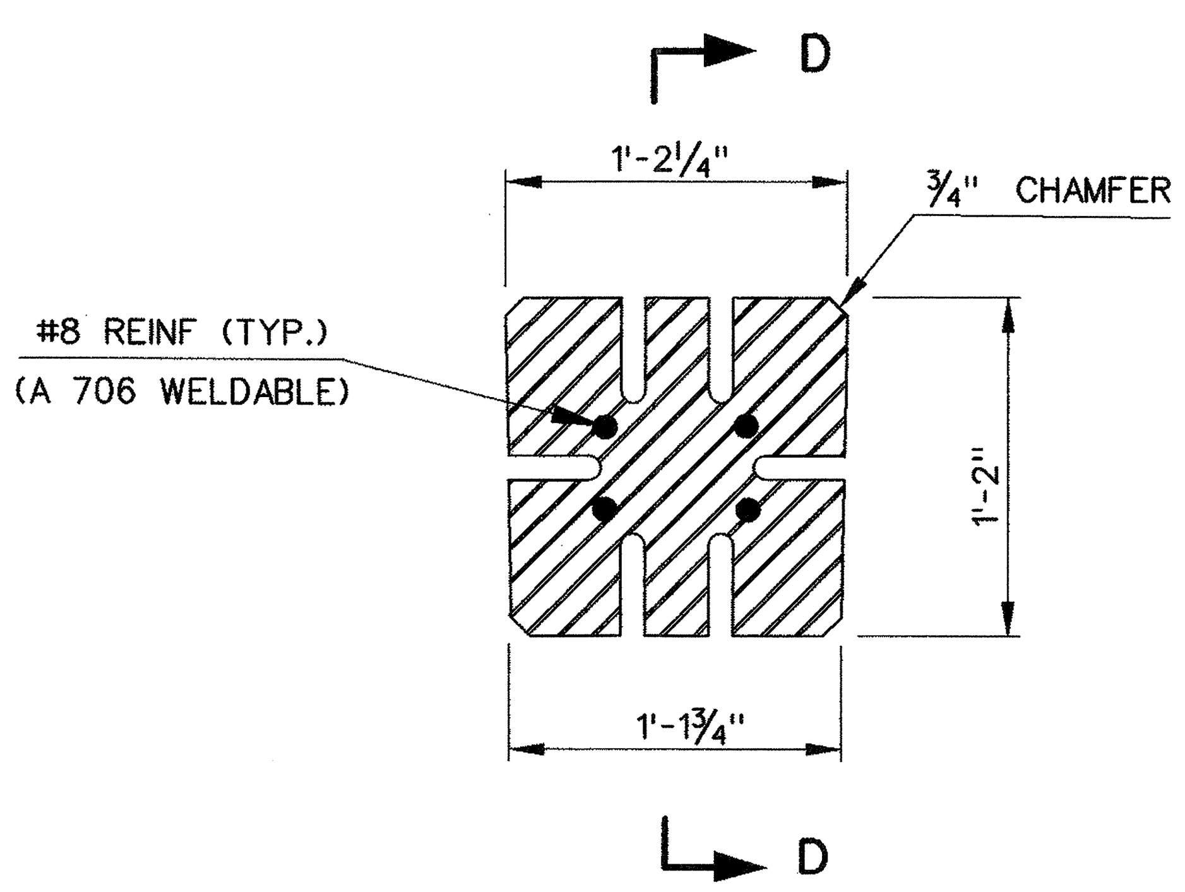
ELEVATION
NOT TO SCALE



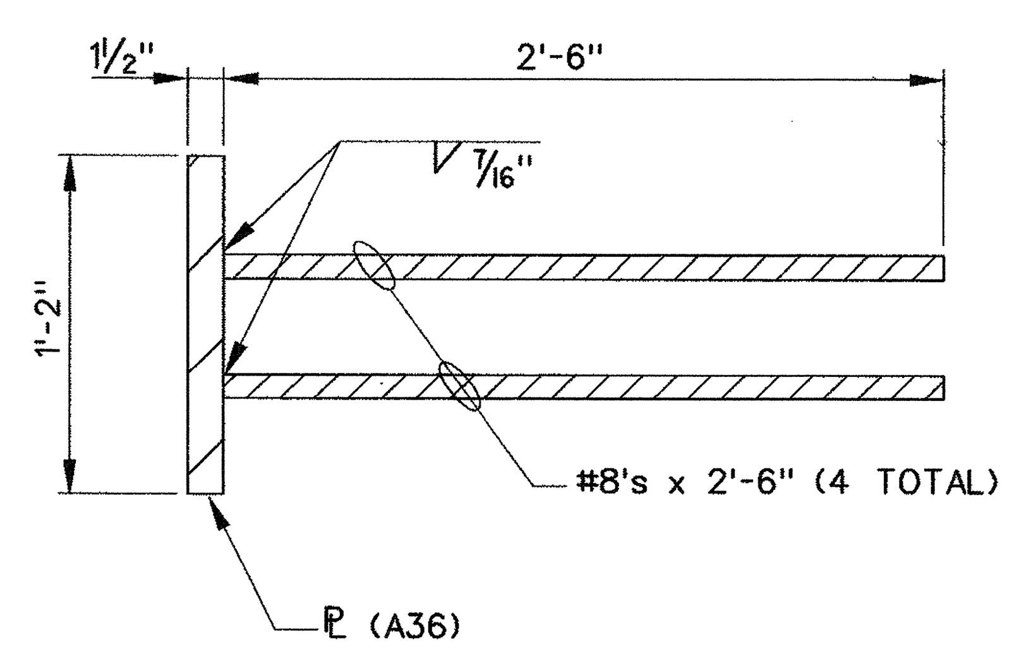
SECTION A–A
SCALE: 3" = 1'-0"



SECTION B–B
SCALE: 3" = 1'-0"



SECTION C–C

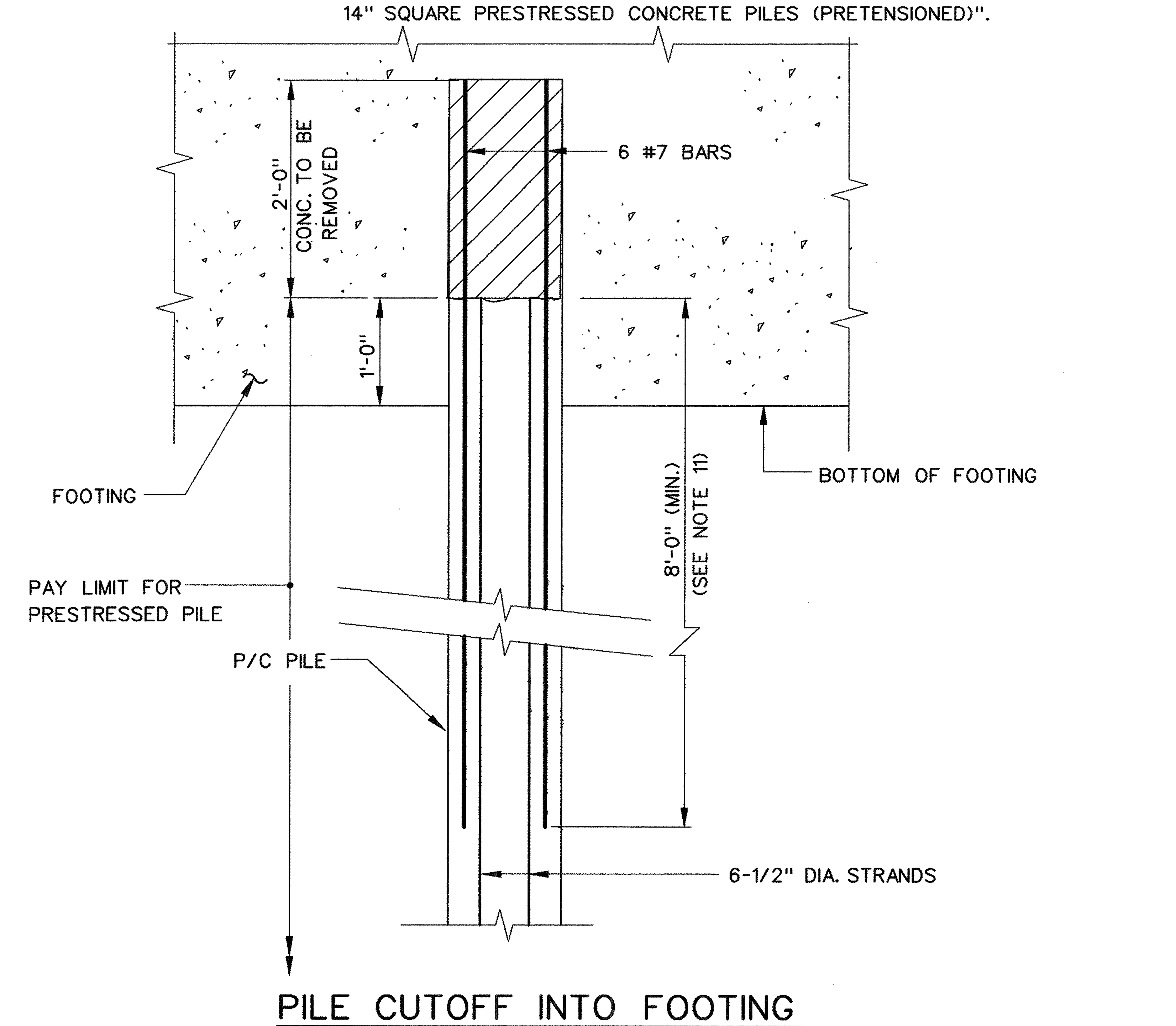


SECTION D–D

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

PRECAST PRESTRESSED CONCRETE PILE NOTES:

1. MINIMUM 28-DAY COMPRESSIVE STRENGTH OF CONCRETE, f'c = 6000 PSI.
2. MINIMUM ULTIMATE TENSILE STRENGTH OF PRETENSIONING STEEL = 270,000 PSI.
3. ALL PRETENSION ELEMENTS SHALL BE SEVEN-WIRE UNCOATED STRESS-RELIEVED LOW-RELAXATION. STEEL STRANDS AND SHALL CONFORM TO A.S.T.M. A416.
4. INITIAL TENSION ON 1/2" STRANDS SHALL BE 31,000 LBS. PER STRAND.
5. NO PRESTRESS SHALL BE TRANSFERRED TO THE CONCRETE UNTIL IT HAS ATTAINED A COMPRESSIVE STRENGTH, AS SHOWN BY A CYLINDER TEST, OF AT LEAST 4,000 PSI.
6. REINFORCING BARS SHALL CONFORM TO A.S.T.M. A 615 GRADE 60 AND SPIRAL REINFORCING SHALL CONFORM TO ASTM A-82.
7. ALL STEEL TO BE ASTM A-36 AND ALL WELDING SHALL CONFORM TO AWS DI-I.
8. PILE SPLICES ARE NOT ALLOWED.
9. LOAD FACTORED CAPACITY OF CONCRETE PILE IS 80 TON.
10. ALL PRESTRESSED FPILES SHALL BE DRIVEN TO AN ELEVATION 70' BELOW BOTTOM OF FOOTING.
11. LENGTH OF #7 BARS IS BASED ON 75' LONG PILE, IF LONGER PILES ARE USED, BAR LENGTH SHALL BE INCREASED.
12. COST OF CONCRETE REMOVAL AT TOP OF PILE SHALL BE INCLUDED UNDER THE ITEM 'FURNISHING 14" SQUARE PRESTRESSED CONCRETE PILES (PRETENSIONED)'.
13. AT ABUTMENT 2 AND WINGWALL 2B, WHERE THERE IS AN INTERFERENCE WITH THE EXISTING CORRUGATED METAL PIPES THE CONTRACTOR SHALL SPUD THROUGH THE PIPES PRIOR TO DRIVING THE PRECAST CONCRETE PILES. THE COST OF SPUDDING SHALL BE INCLUDED IN THE COST OF THE ITEM "DRIVING 14" SQUARE PRESTRESSED CONCRETE PILES (PRETENSIONED)".



PILE CUTOFF INTO FOOTING
SCALE: 1" = 1'-0"

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S. FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z VUKMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Monti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S044.DGN PLOTTED DATE: 6-06-00

TOWN: NEW HAVEN
DRAWING TITLE: PILE DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-19
SHEET NO.: 153

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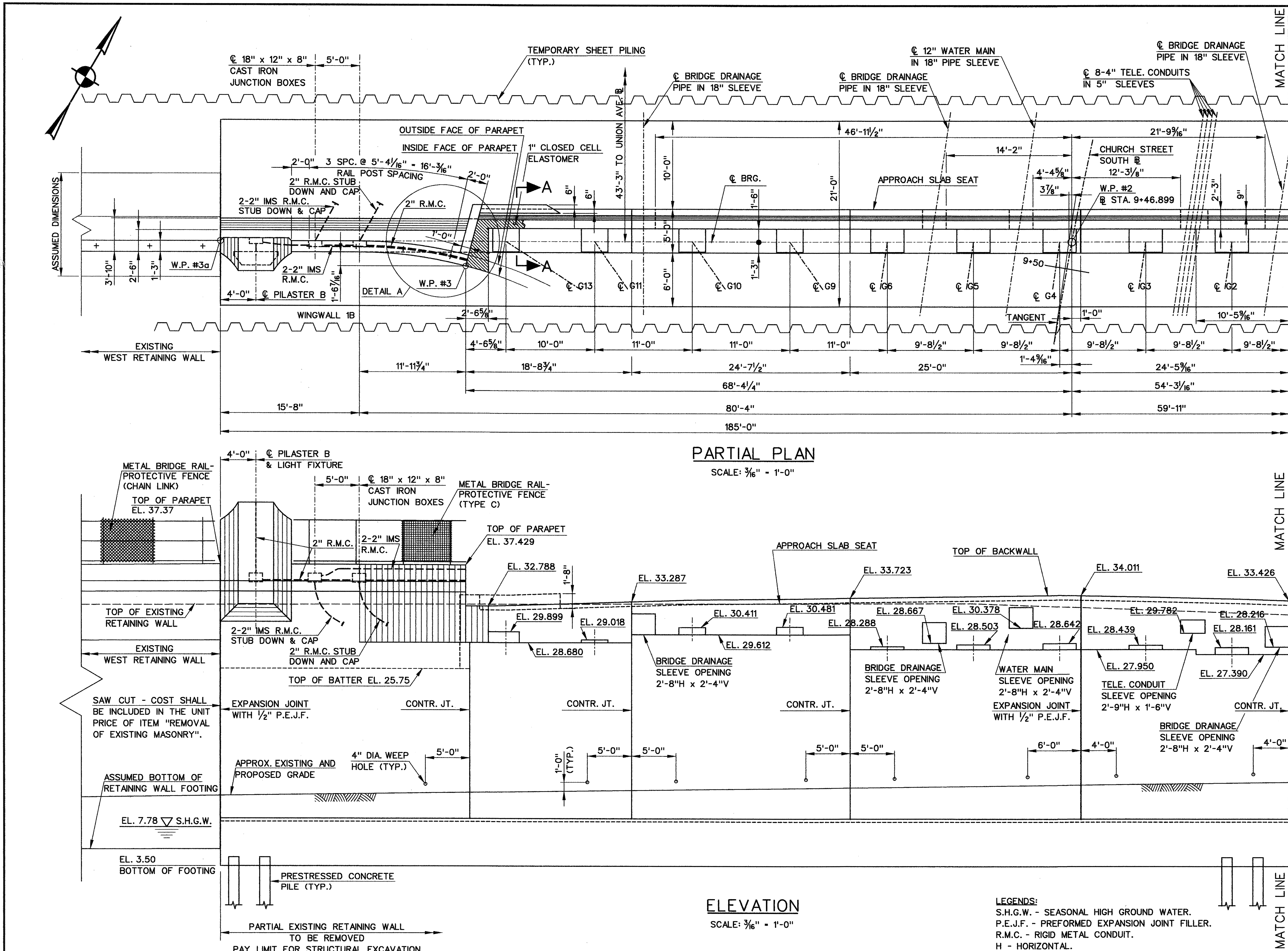

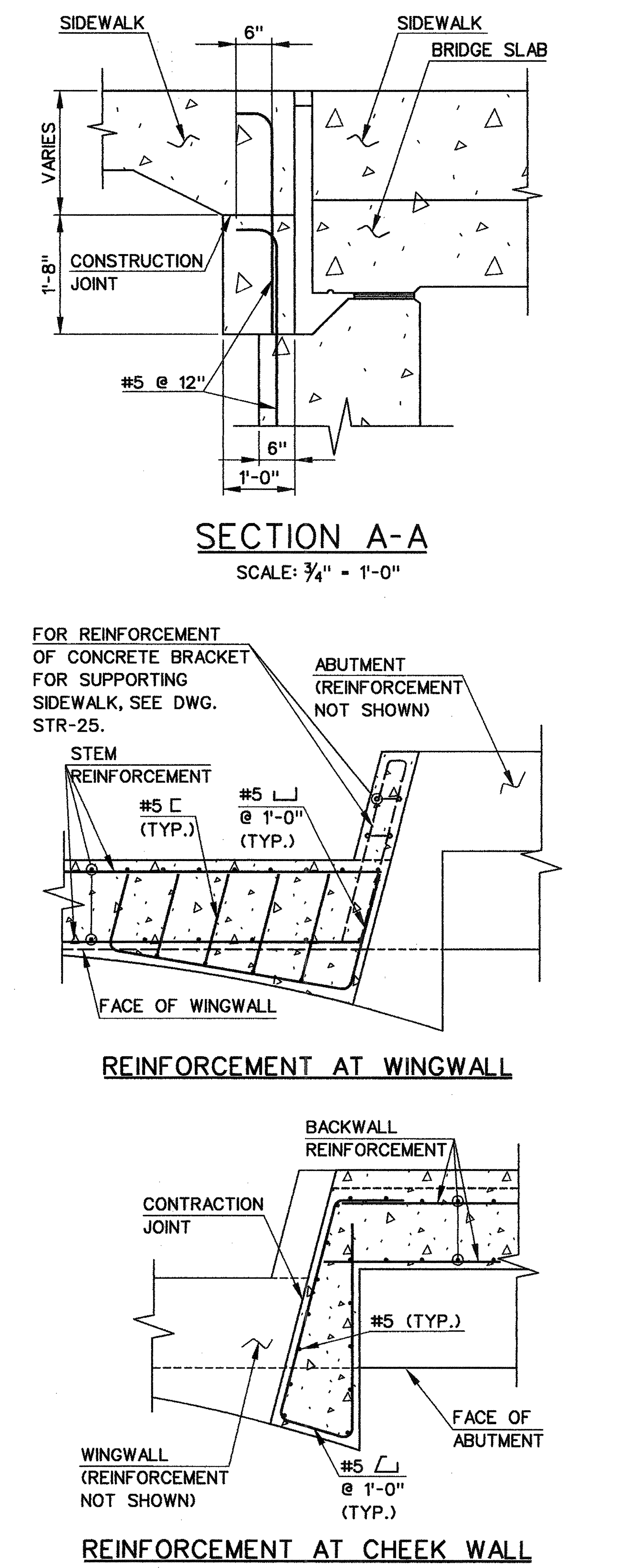

DETAIL A

NOTE: SCALE: ⅜":1'-0"

REINFORCEMENT DETAILS AT WINGWALL 1B SHOWN, REINFORCEMENT DETAILS AT WINGWALL 1A SIMILAR.

LEGENDS:
S.H.G.W. - SEASONAL HIGH GROUND WATER.
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER.
R.M.C. - RIGID METAL CONDUIT.
H - HORIZONTAL.
V - VERTICAL.

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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Moretti DATE: 4-7-00

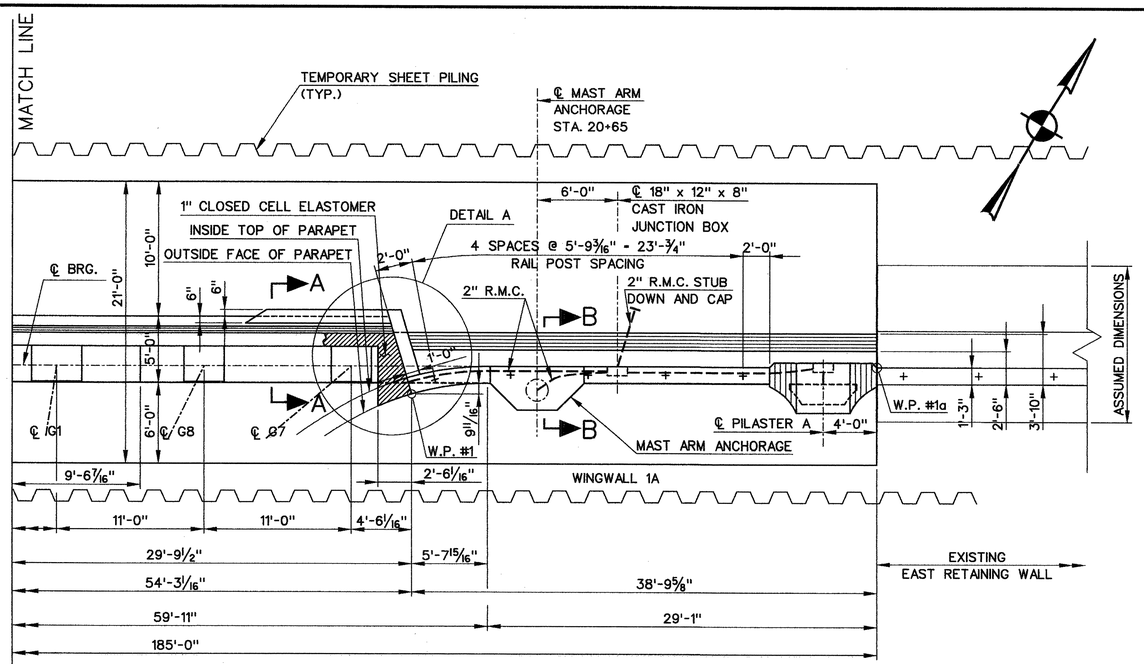
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S020.DGN PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN

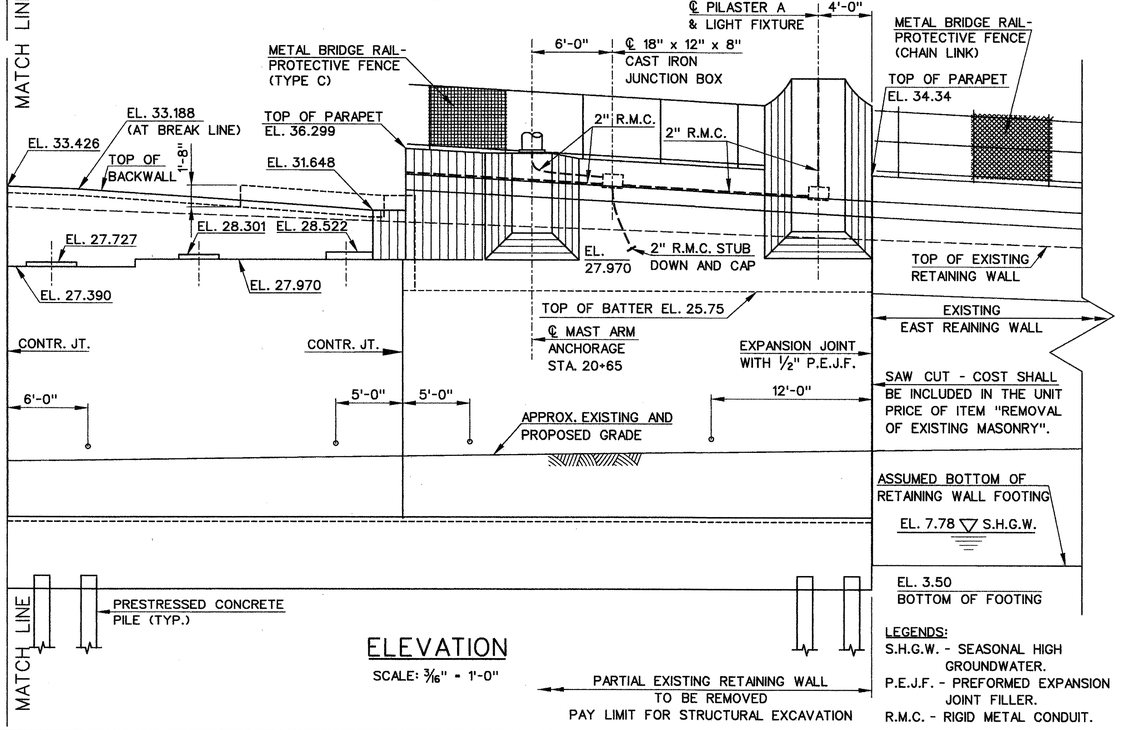
DRAWING TITLE: ABUTMENT 1, SHT. 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-20
SHEET NO.: 154



PARTIAL PLAN

SCALE: 3/16" = 1'-0"

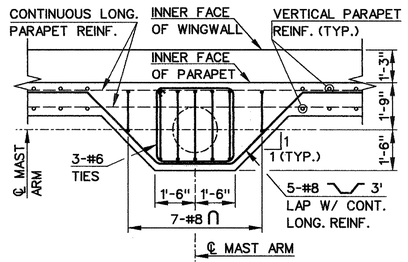


ELEVATION

SCALE: 3/16" = 1'-0"

NOTES:

1. FOR SUBSTRUCTURE NOTES, SEE DWG. STR-25.
2. FOR DETAIL B, SEE DWG. STR-22.
3. FOR PILASTER DETAILS, SEE DWG. STR-23-1.
3. FOR CONCRETE PAD DETAILS, SEE DWG. STR-25.
4. FOR ANCHOR BOLT AND BEARING DETAILS, SEE DWG. STR-62 AND 63.
5. FOR JUNCTION BOX REINFORCEMENT, SEE SECTION A-A ON DWG. STR-35.

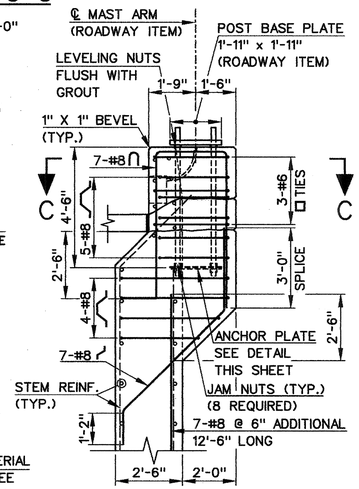


SECTION C-C

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

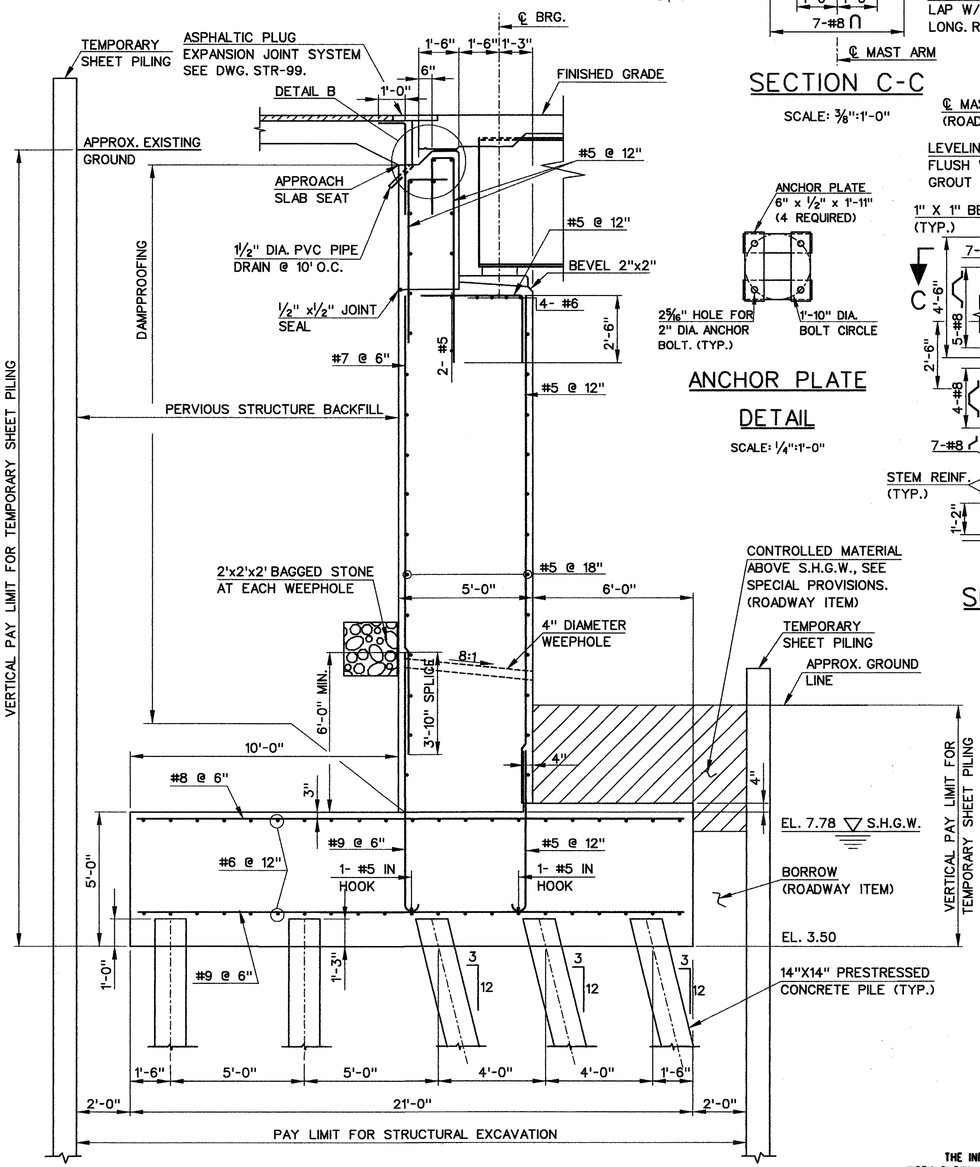
ANCHOR PLATE DETAIL

SCALE: 1/4":1'-0"



SECTION B-B

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



TYPICAL ABUTMENT SECTION

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

LEGENDS:
S.H.G.W. - SEASONAL HIGH GROUNDWATER.
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER.
R.M.C. - RIGID METAL CONDUIT.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony D. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S021.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: ABUTMENT 1, SHT. 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-21
SHEET NO.: 155

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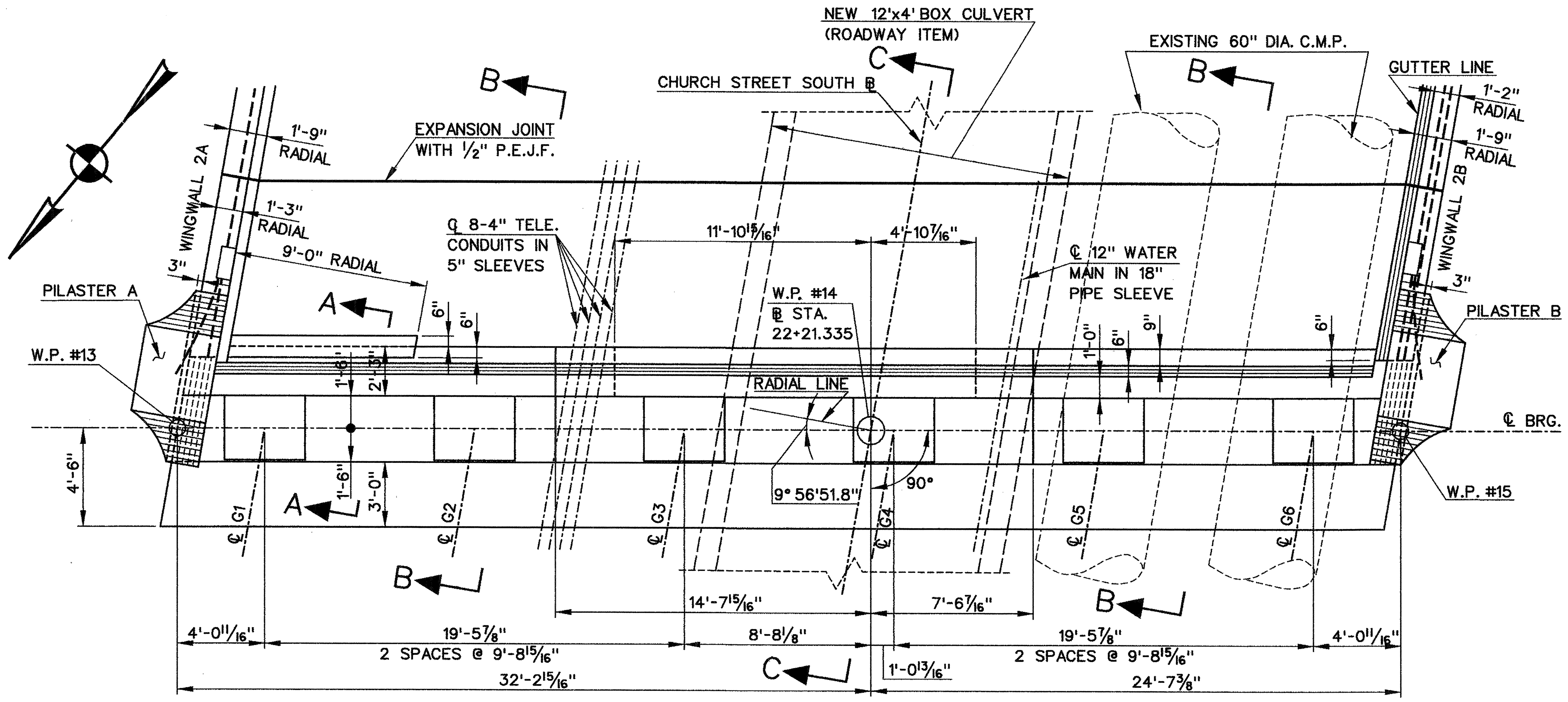
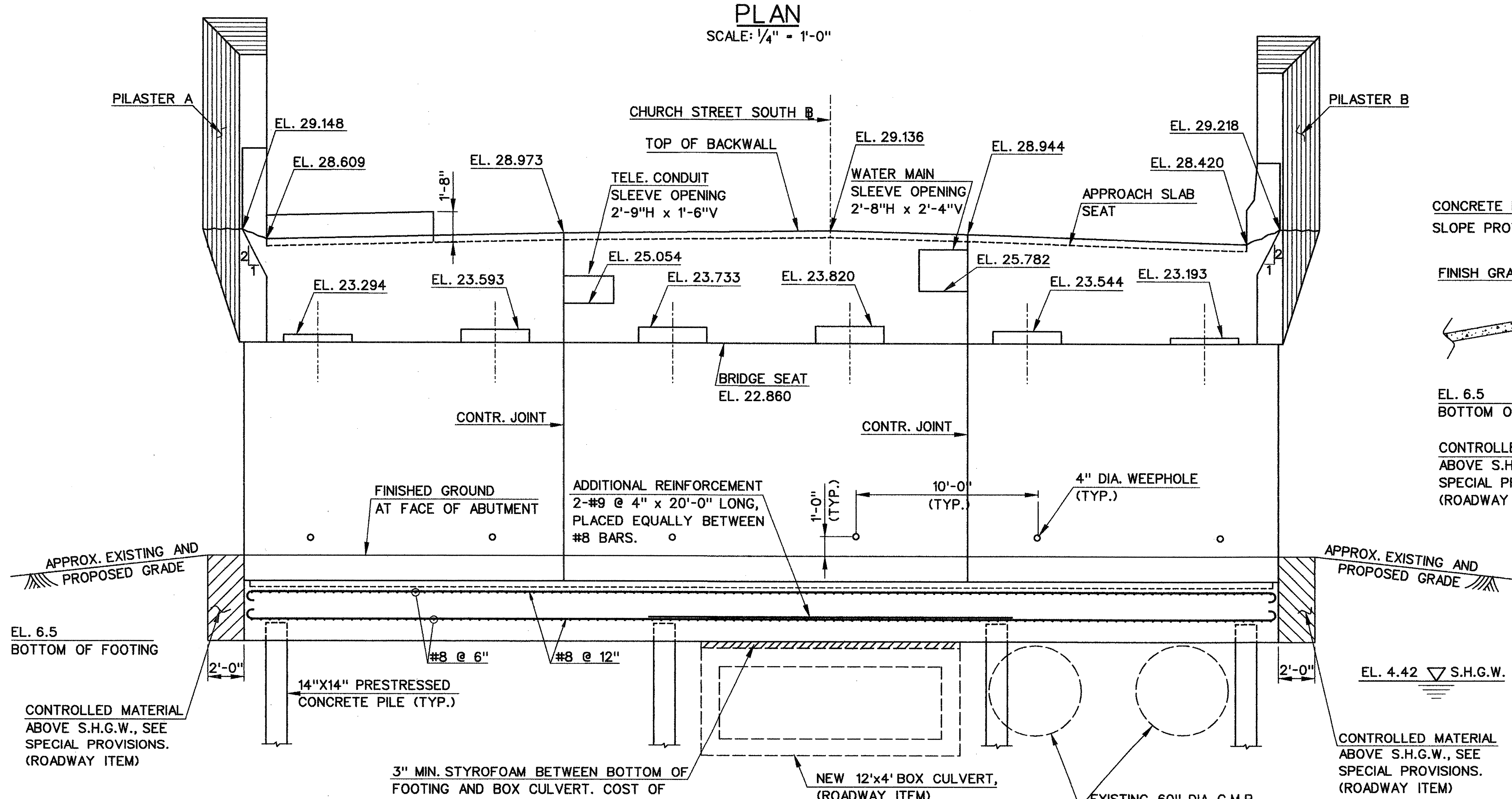


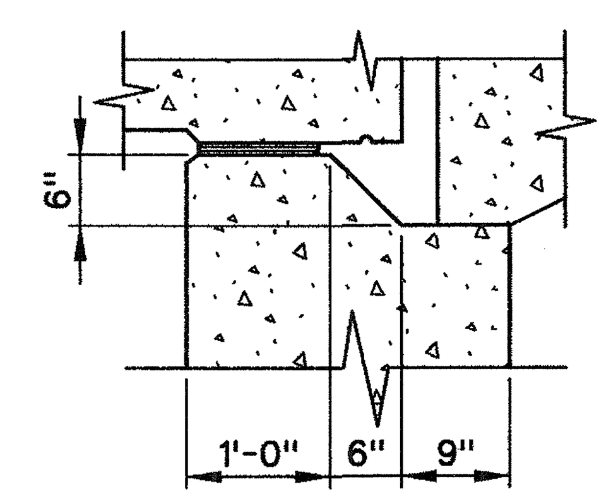
PLAN

SCALE: ¼" = 1'-0"



ELEVATION

SCALE: ¼" = 1'-0"

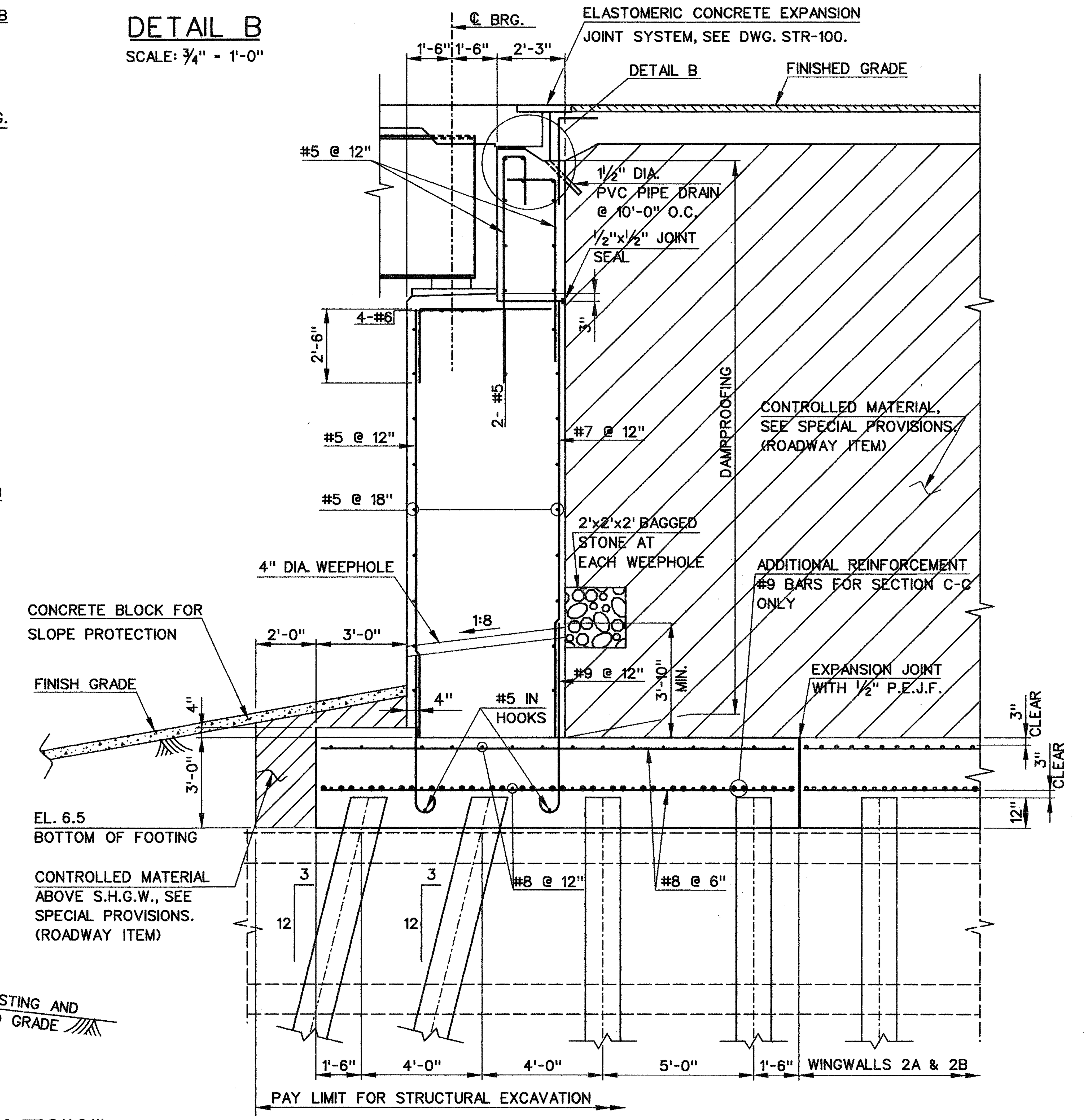


DETAIL B

SCALE: ¾" = 1'-0"

NOTES:

1. FOR SUBSTRUCTURE NOTES, SEE DWG. STR-25.
2. FOR SECTION A-A, SEE DWG. STR-20.
3. FOR PILASTER DETAILS, SEE DWG. STR-24.
4. FOR CONCRETE PAD DETAILS, SEE DWG. STR-25.
5. FOR ANCHOR BOLT AND BEARING DETAILS, SEE DWG. STR-62 AND 63.



ABUTMENT SECTIONS B-B & C-C

SCALE: ⅜" = 1'-0"

LEGEND:

S.H.G.W. - SEASONAL HIGH GROUNDWATER.
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER.
H - HORIZONTAL.
V - VERTICAL.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Monette DATE:

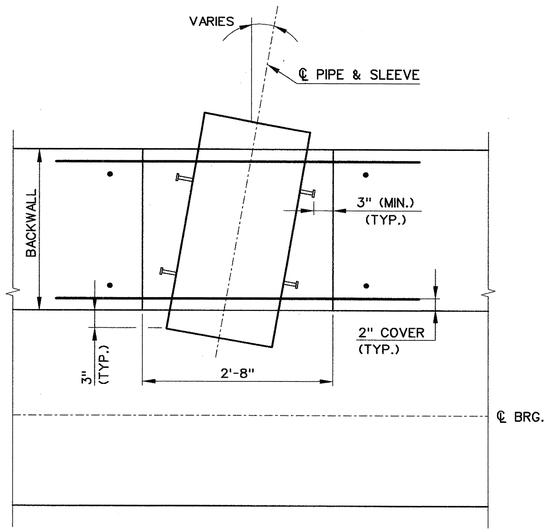
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S022.DGN | PLOTTED DATE: 4-06-00

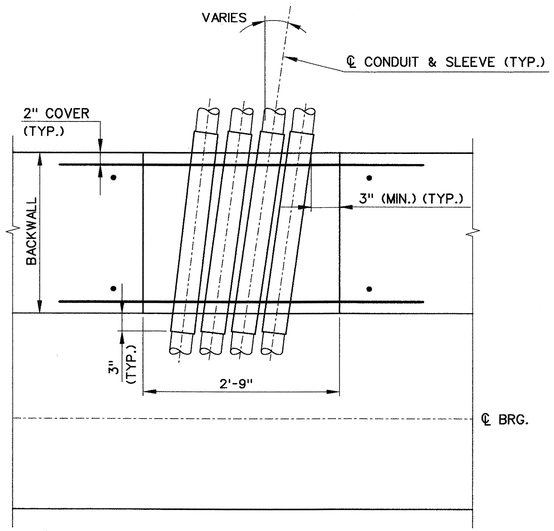
TOWN: NEW HAVEN

DRAWING TITLE: ABUTMENT 2

PROJECT NO.: 92-526
DRAWING NO.: STR-22
SHEET NO.: 156



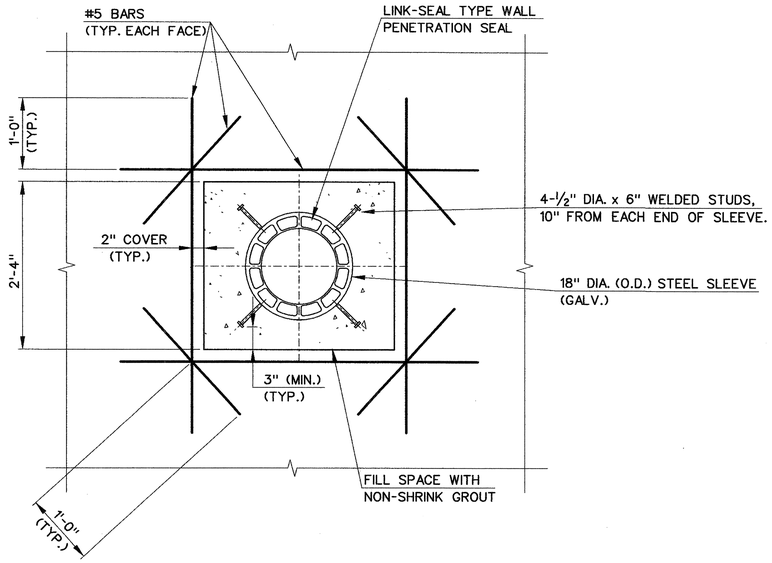
PLAN



PLAN

SLEEVE NOTES:

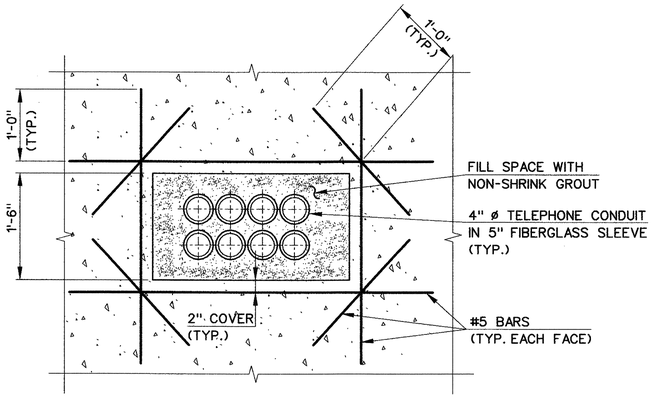
1. STEEL PIPE SLEEVES SHALL CONFORM TO ASTM A53 SCHEDULE 40.
2. PROVIDE ½" DIAMETER x 6" LONG WELDED STUDS ON THE SLEEVES WITHIN THE ABUTMENT BACKWALL. POSTION THE STUDS EQUALLY AROUND THE SLEEVES AND PLACE IN BACKWALL AS SHOWN. WELD STUDS TO THE SLEEVES PRIOR TO GALVANIZING.
3. ALL PIPE SLEEVES SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
4. ALL DAMAGED GALVANIZING SHALL BE GIVEN TWO COATS OF ZINC RICH PAINT CONFORMING TO FEDERAL SPECIFICATION TT-P-6416.
5. THE CONTRACTOR SHALL COORDINATE THE POSITION OF THE OPENINGS AND SLEEVES WITH THE ACTUAL LOCATION OF THE PIPES & CONDUITS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACCURATELY HOLDING THE SLEEVES IN PLACE DURING THE PLACEMENT OF THE NON-SHRINK GROUT.
7. THE COST OF FURNISHING AND INSTALLING THE SLEEVES AND NON-SHRINK GROUT INCLUDING ANY FABRICATION INCIDENTAL THERETO SHALL BE PAID FOR UNDER THE ITEM "CLASS A CONCRETE".
8. THE ANNULAR SPACE BETWEEN THE BRIDGE DRAINAGE AND WATER MAIN PIPES AND THE SLEEVES SHALL BE SEALED WITH A "LINK-SEAL" TYPE WALL PENETRATION SEAL AS MANUFACTURED BY THUNDERLINE CORP. OR APPROVED EQUAL. THE INSTALLATION OF THE LINK-SEAL SHALL BE ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
9. THE LINK-SEAL FOR THE WATER MAIN SHALL BE INCLUDED IN THE WATER MAIN TO BE FURNISHED AND INSTALLED BY R.W.A.
10. THE LINK-SEAL FOR THE BRIDGE DRAINAGE SHALL BE PAID FOR UNDER THE ITEM '12" PIPE FOR BRIDGE DRAINAGE (FIBERGLASS)'.
11. THE SLEEVES SHALL NOT BE GROUTED IN THE OPENINGS UNTIL AFTER THE CONDUITS AND PIPES ARE PLACED IN THE BACKWALL AND THROUGH THE SLEEVES.
12. NON-SHRINK GROUT SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE M.03-11 OF CONNDOT FORM 814A.



SECTION

BRIDGE DRAINAGE & WATER MAIN (BY R.W.A.) SLEEVE OPENINGS DETAIL

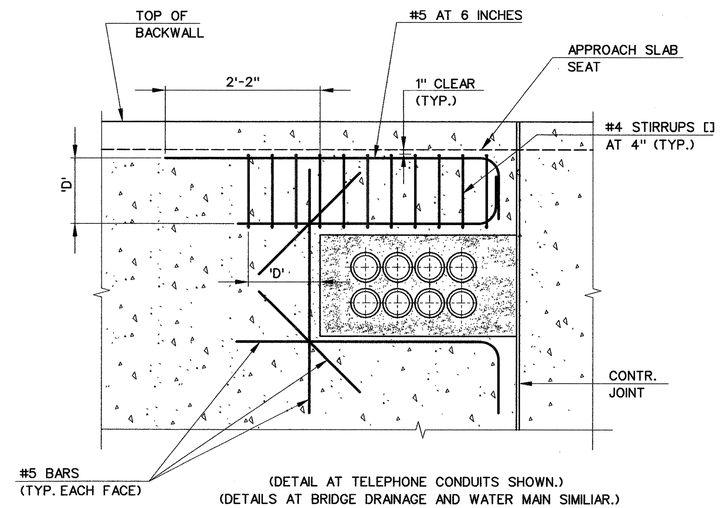
SCALE: 1" = 1'-0"



SECTION

TELEPHONE CONDUIT SLEEVE OPENING DETAIL

SCALE: 1" = 1'-0"



(DETAIL AT TELEPHONE CONDUITS SHOWN.)
(DETAILS AT BRIDGE DRAINAGE AND WATER MAIN SIMILIAR.)

SLEEVE OPENING AT JOINT DETAIL

SCALE: 1" = 1'-0"

NOTE: FOR ADDITIONAL DETAILS NOT SHOWN, SEE ADDITIONAL "SLEEVE OPENING DETAILS" ON THIS SHEET.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. YOUNG
DRAFTER: A. KILPATRICK
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony F. Marotti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S048.DGN | PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: SLEEVE DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-23
SHEET NO.: 157

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08 MAR 2000
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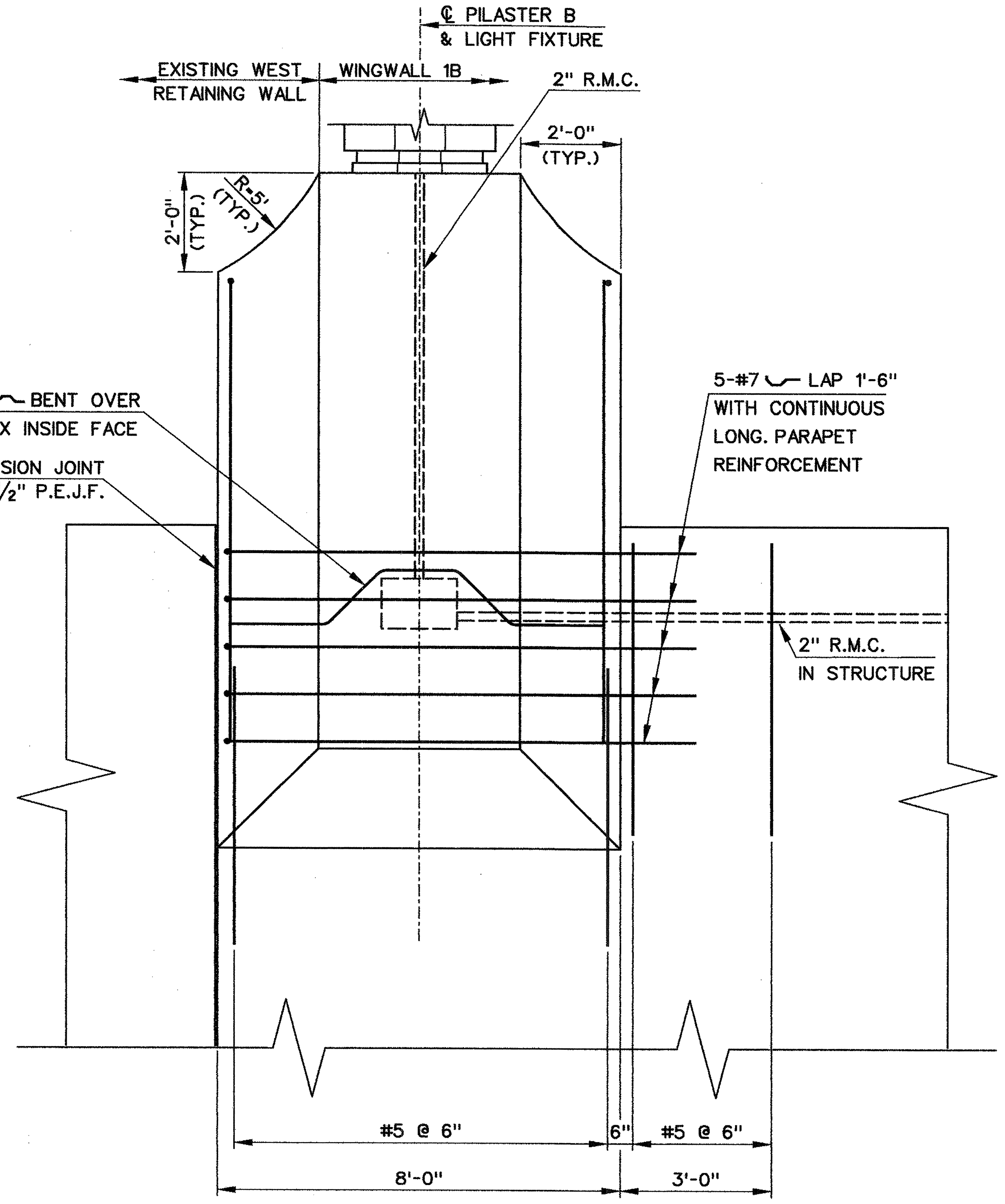
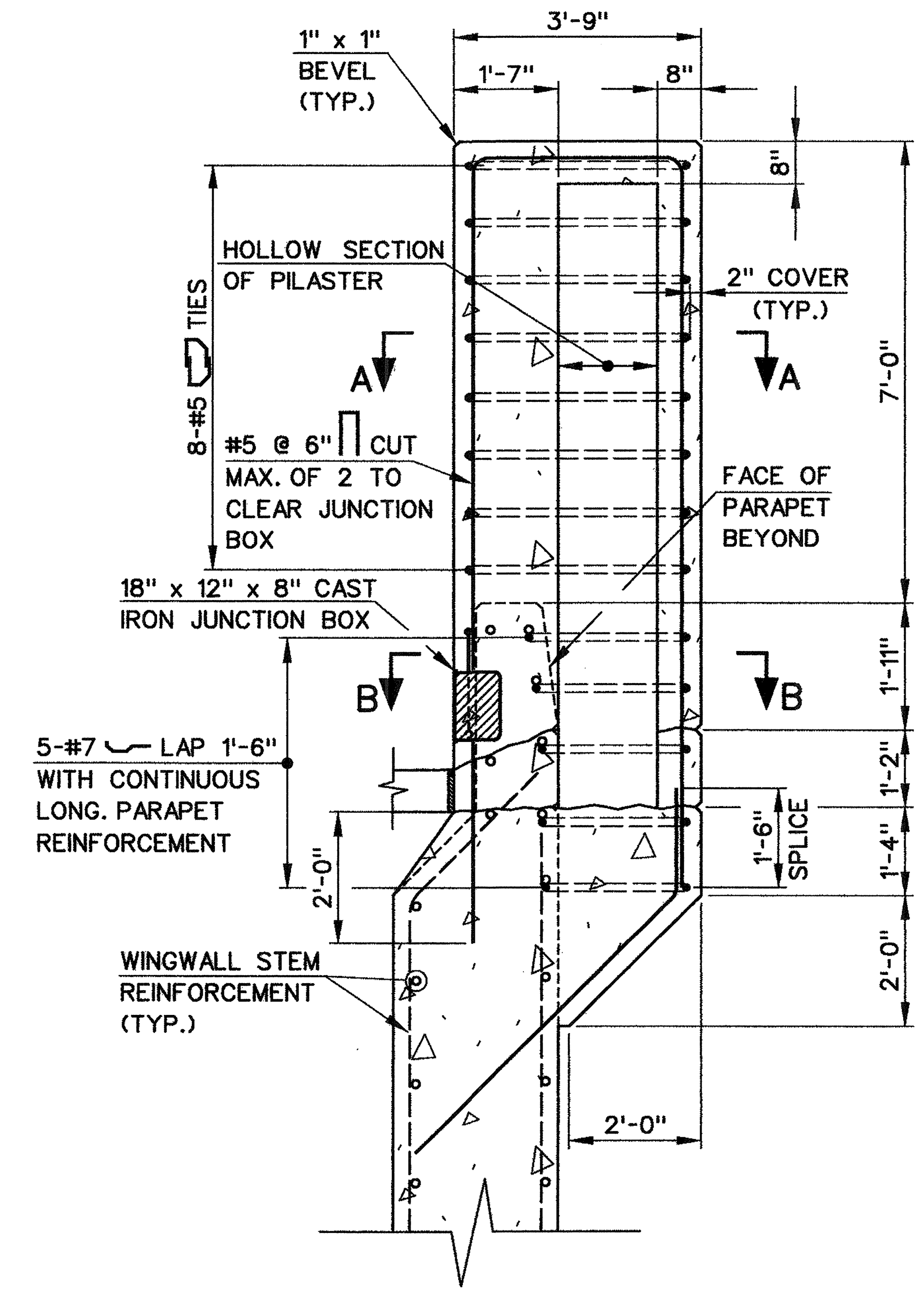


PARAPET ELEVATION AT PILASTER B

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

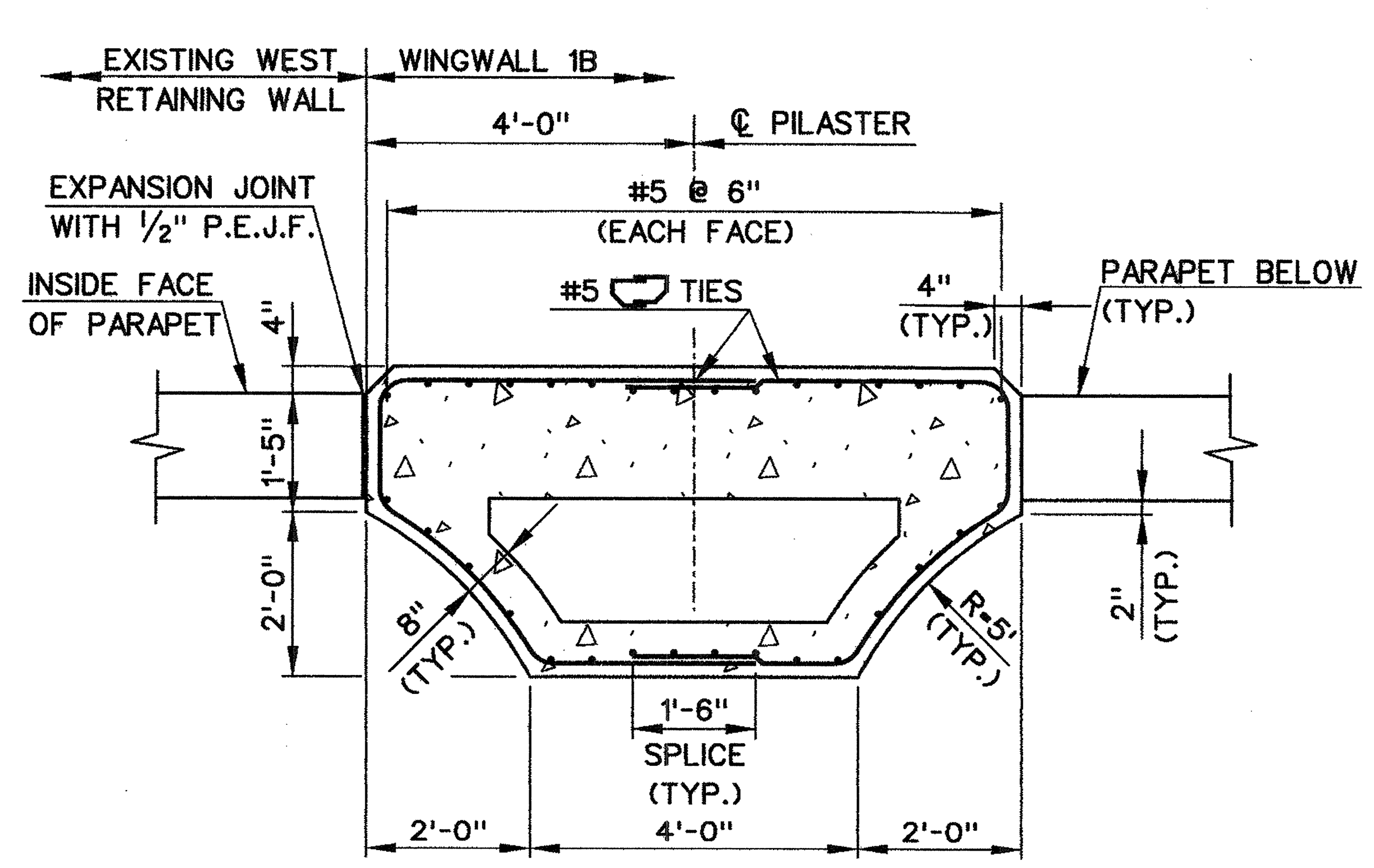


TYPICAL SECTION AT PILASTER

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

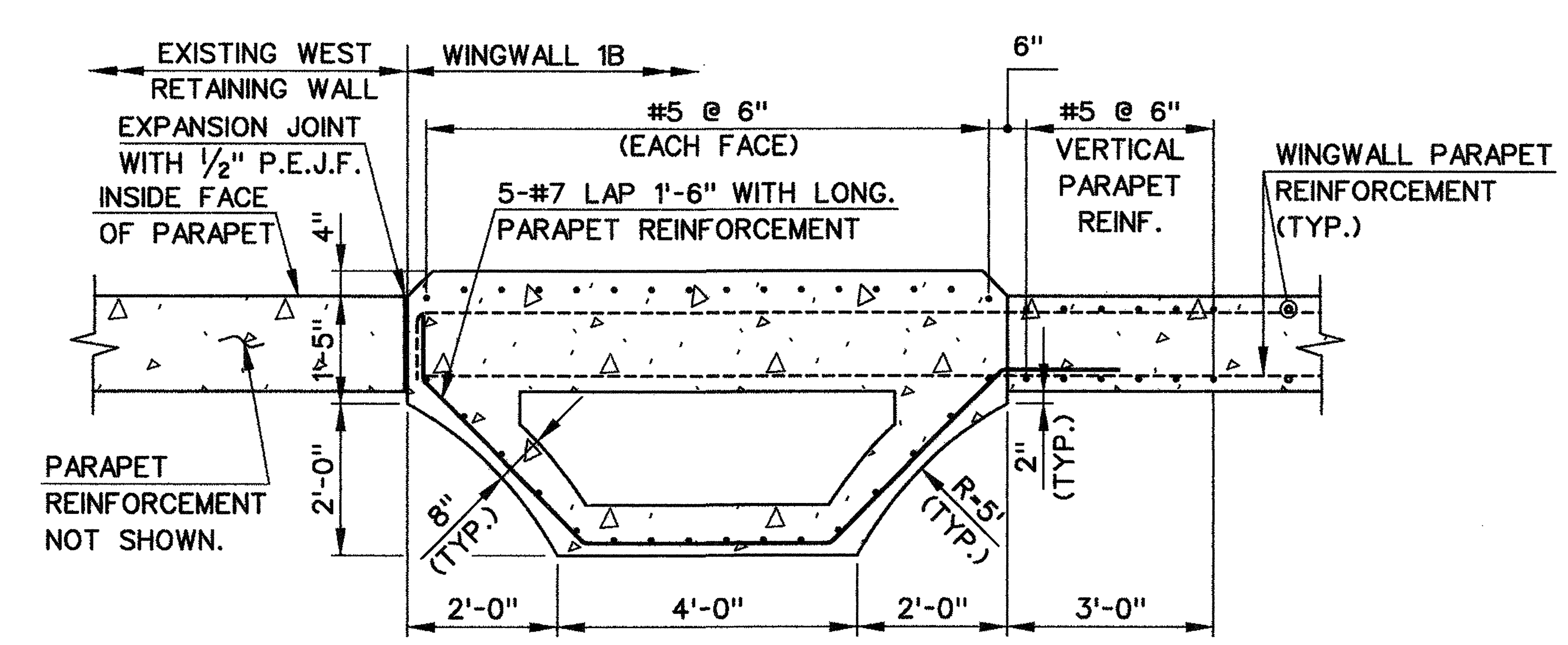
NOTES:

1. PILASTER B SHOWN, PILASTER A SIMILAR AND OPPOSITE HAND.
2. FOR PARAPET DETAILS NOT SHOWN, SEE DWG. STR-32.
3. FOR JUNCTION BOX REINFORCEMENT, SEE SECTION A-A ON DWG. STR-35.
4. FOR PILASTER LIGHT FIXTURE, SEE DWG. STR-120-1.



SECTION A-A, PILASTER B

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



SECTION B-B, PILASTER B

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

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REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.

APPROVED BY: Anthony A. Moretti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S022A.DGN PLOTTED DATE: 4-06-00

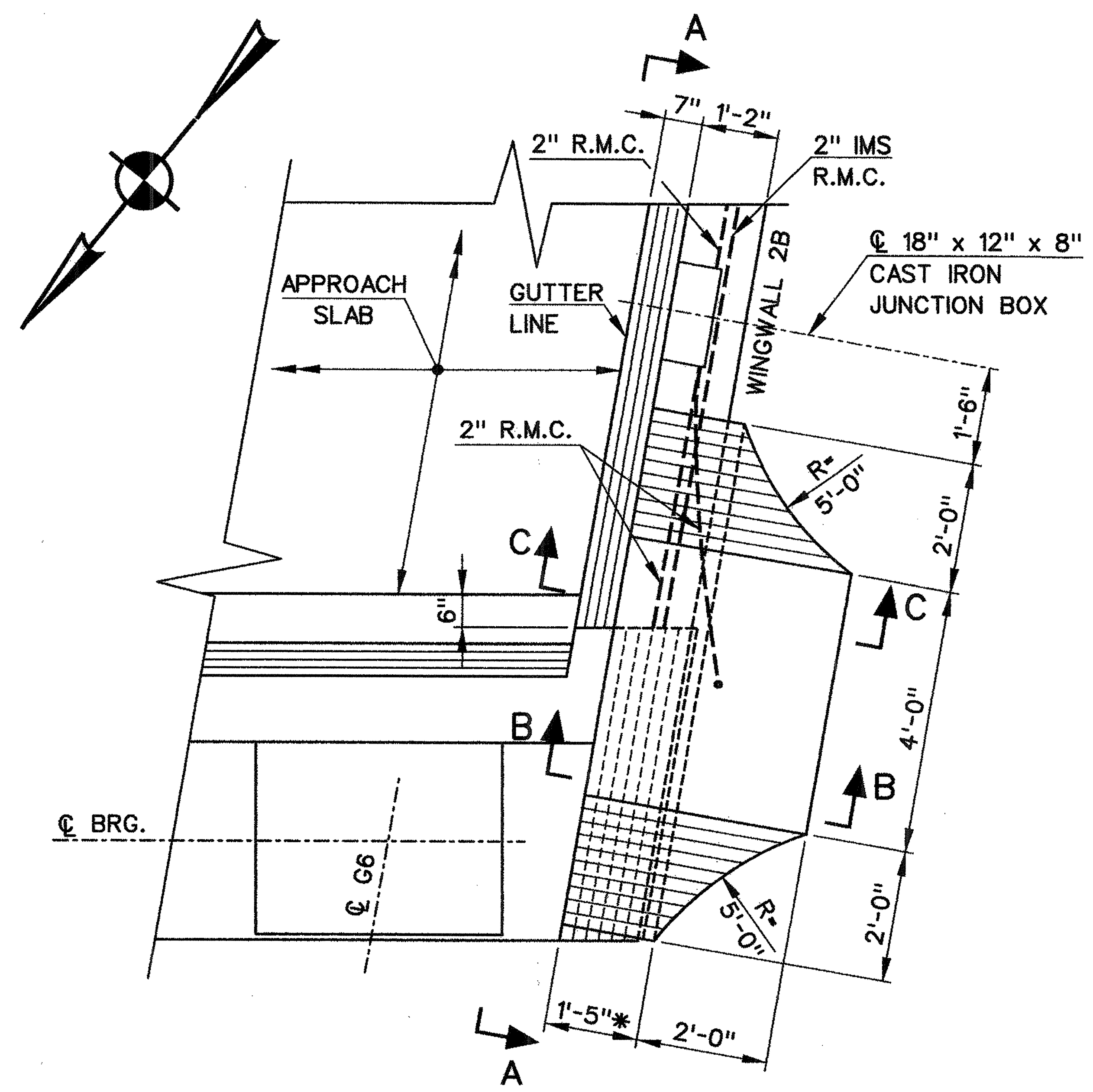
TOWN: NEW HAVEN

DRAWING TITLE: PILASTERS AT ABUTMENT 1

PROJECT NO.: 92-526

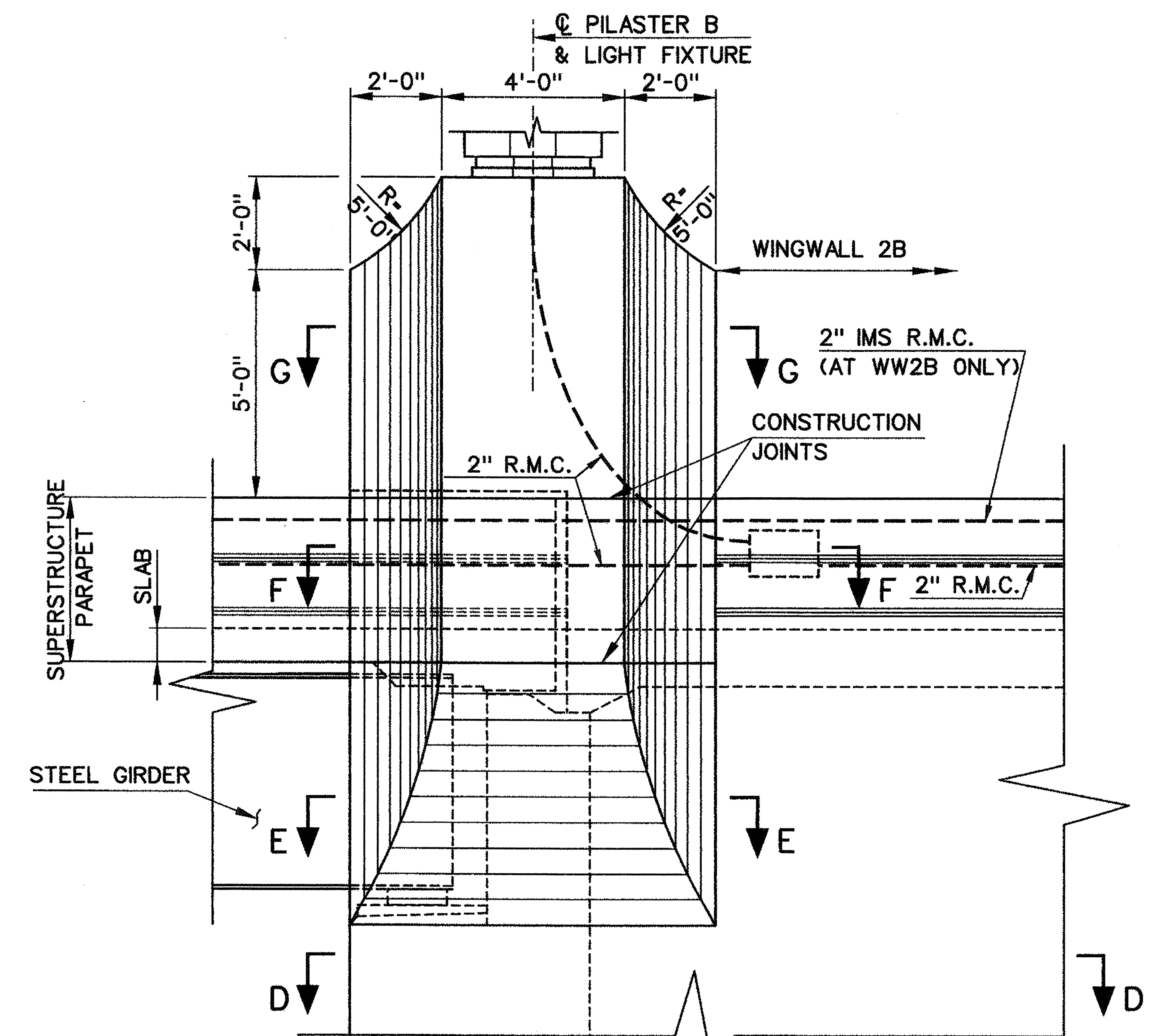
DRAWING NO.: STR-23-1

SHEET NO.: 157-1



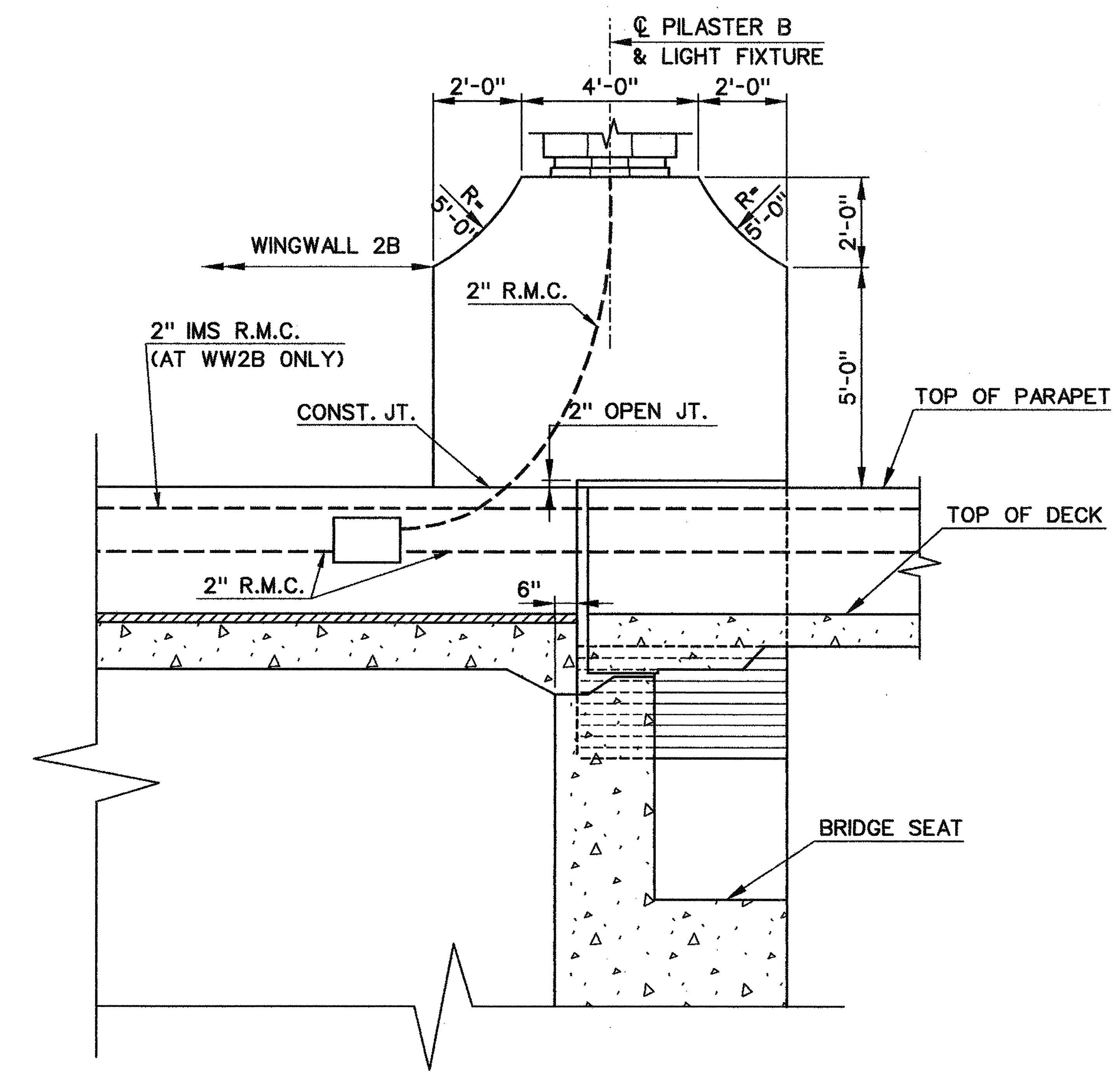
PLAN AT PILASTER B

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



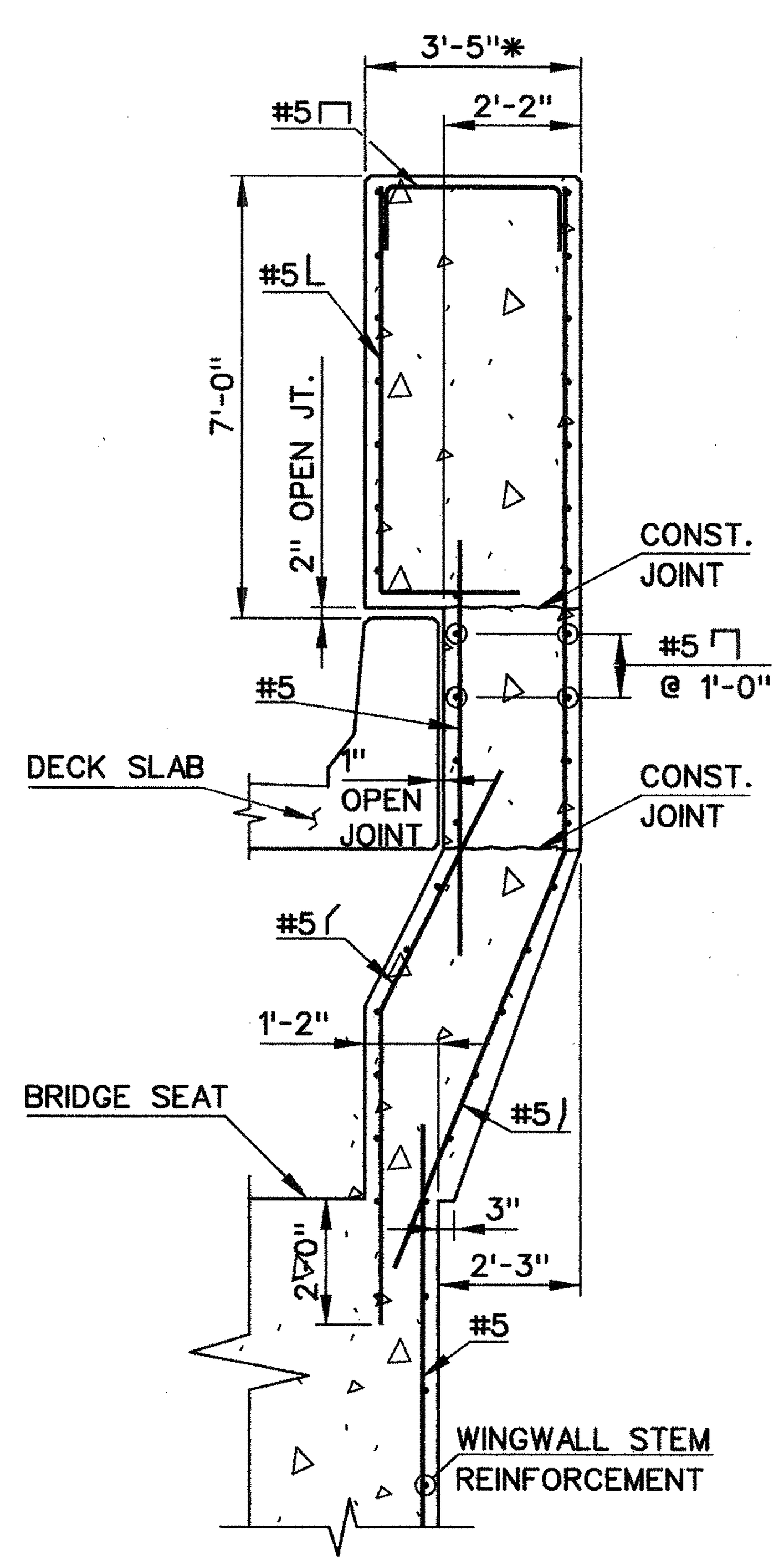
PARAPET ELEVATION AT PILASTER B

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



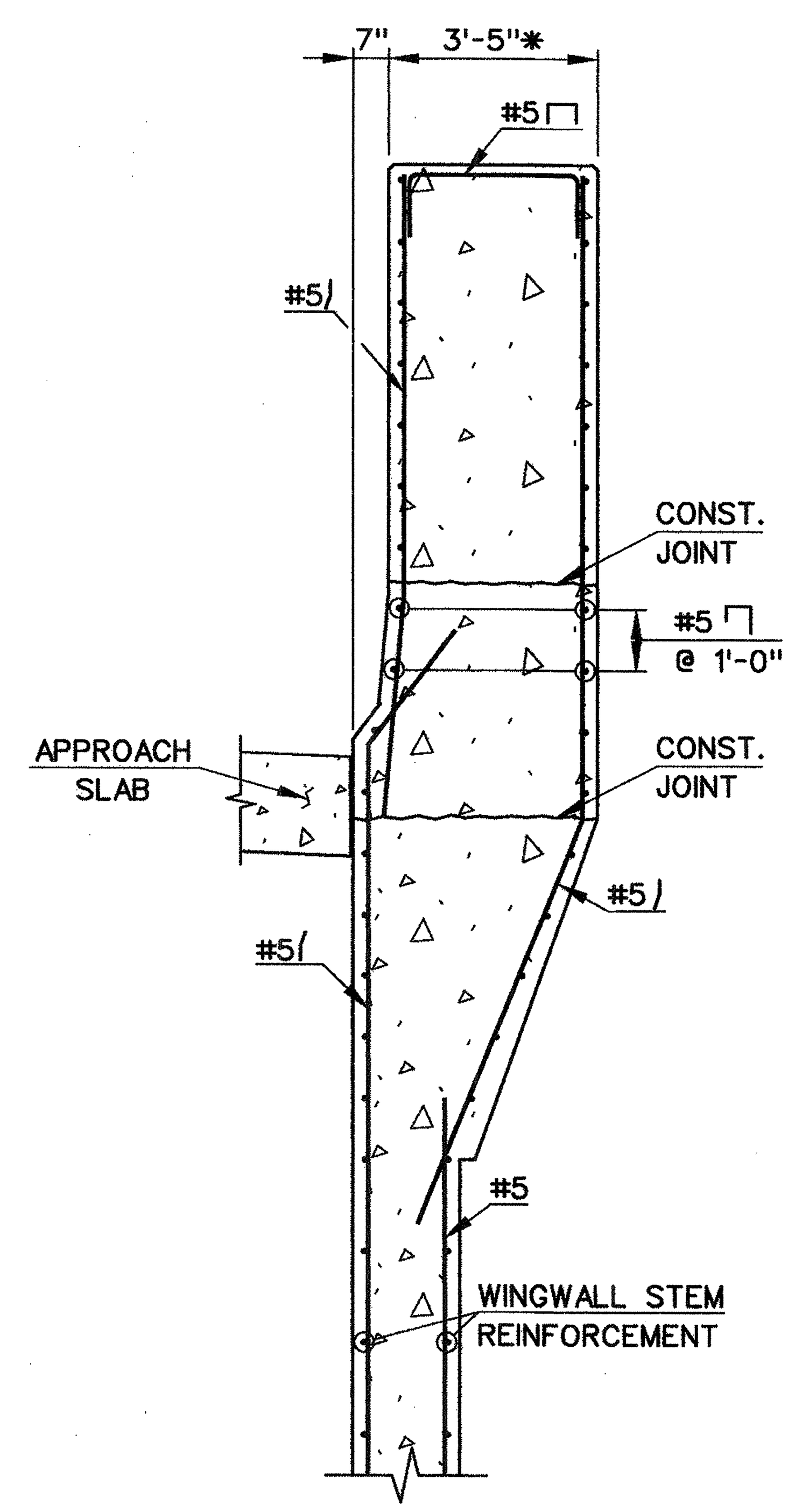
SECTION A-A

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



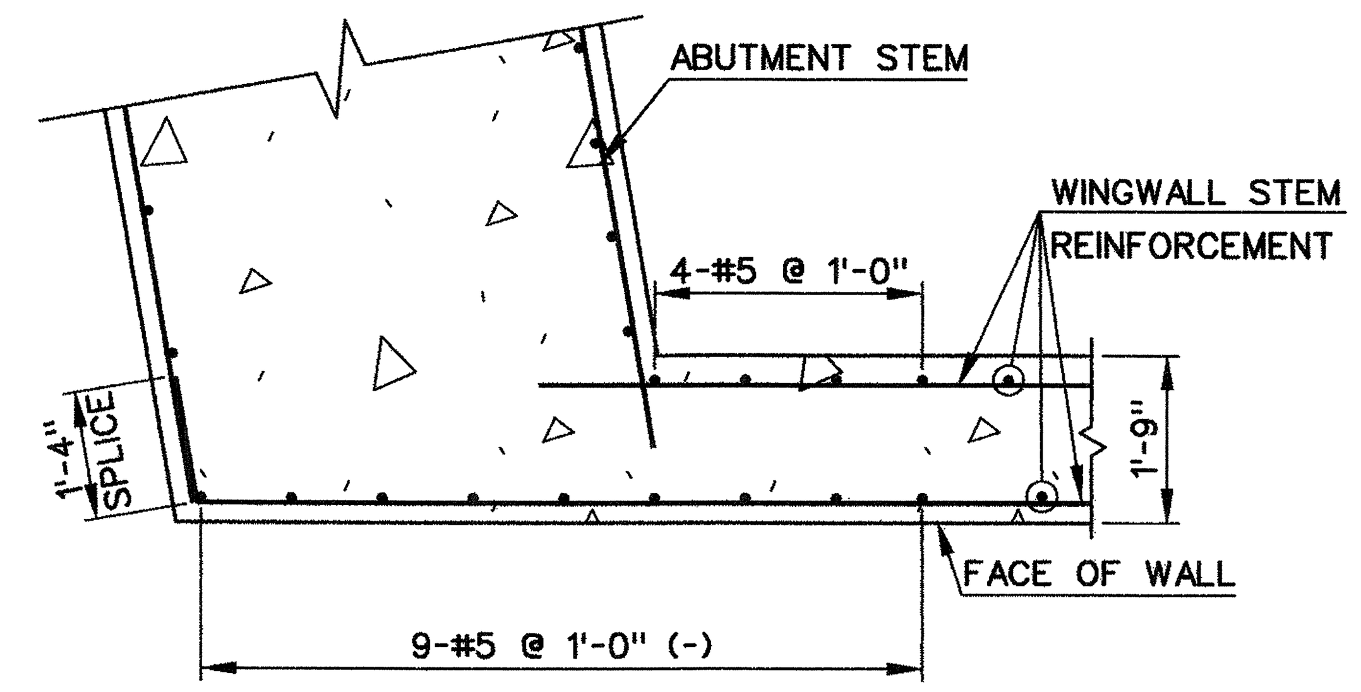
SECTION B-B

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



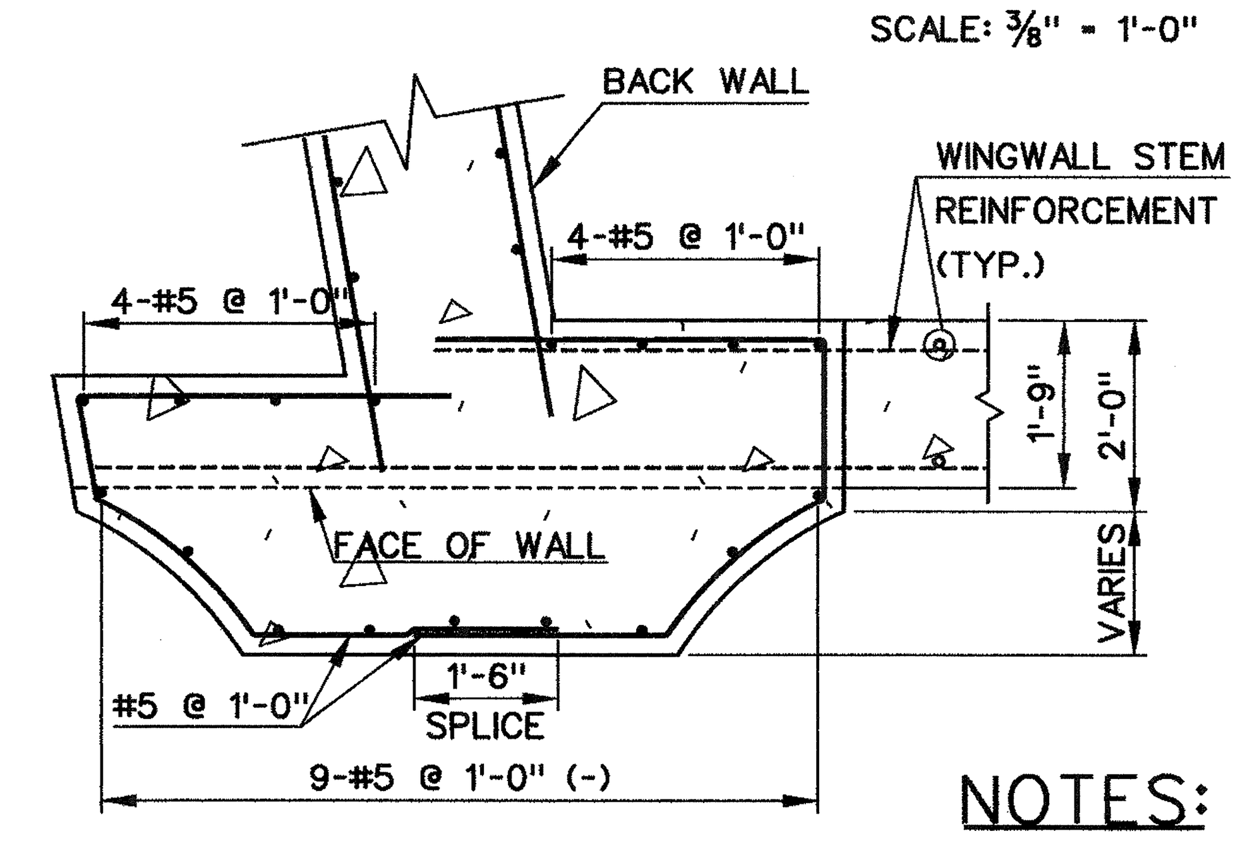
SECTION C-C

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



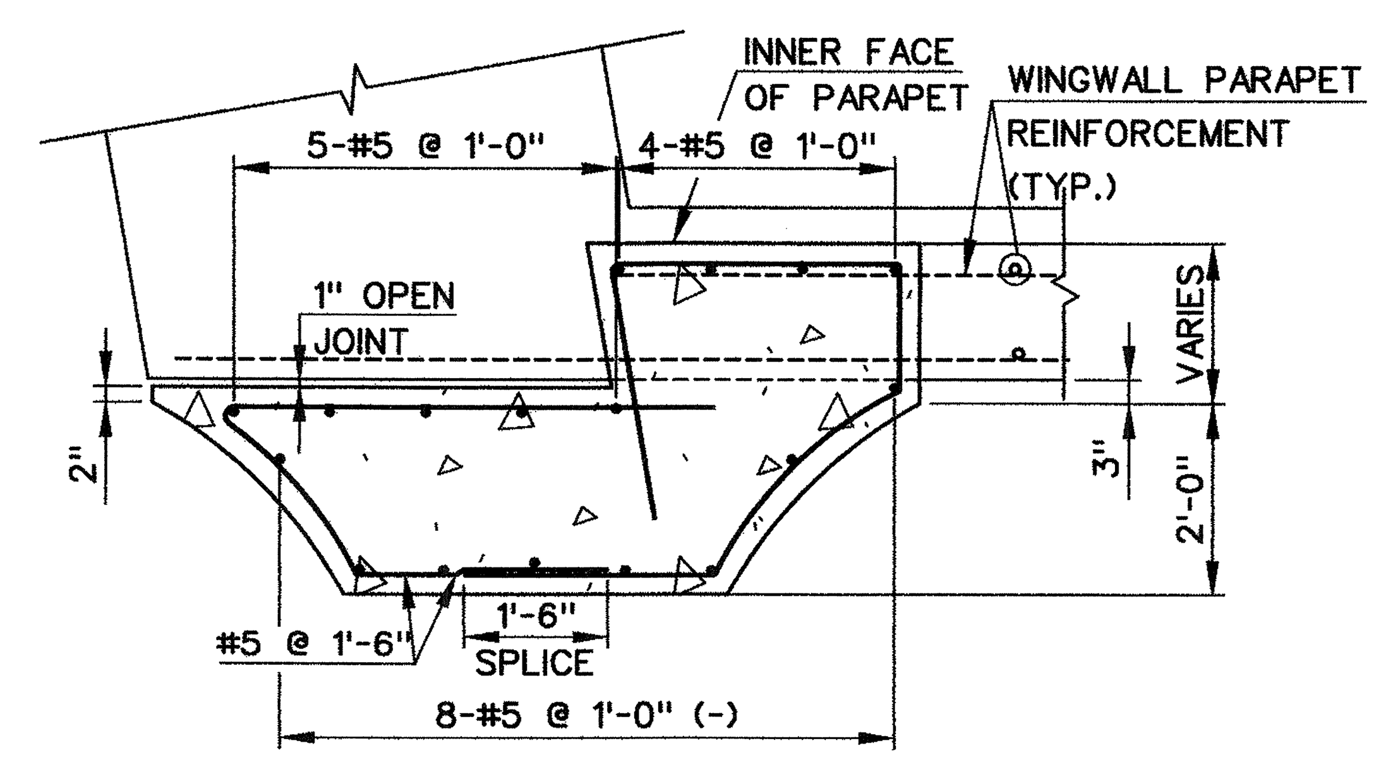
SECTION D-D

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



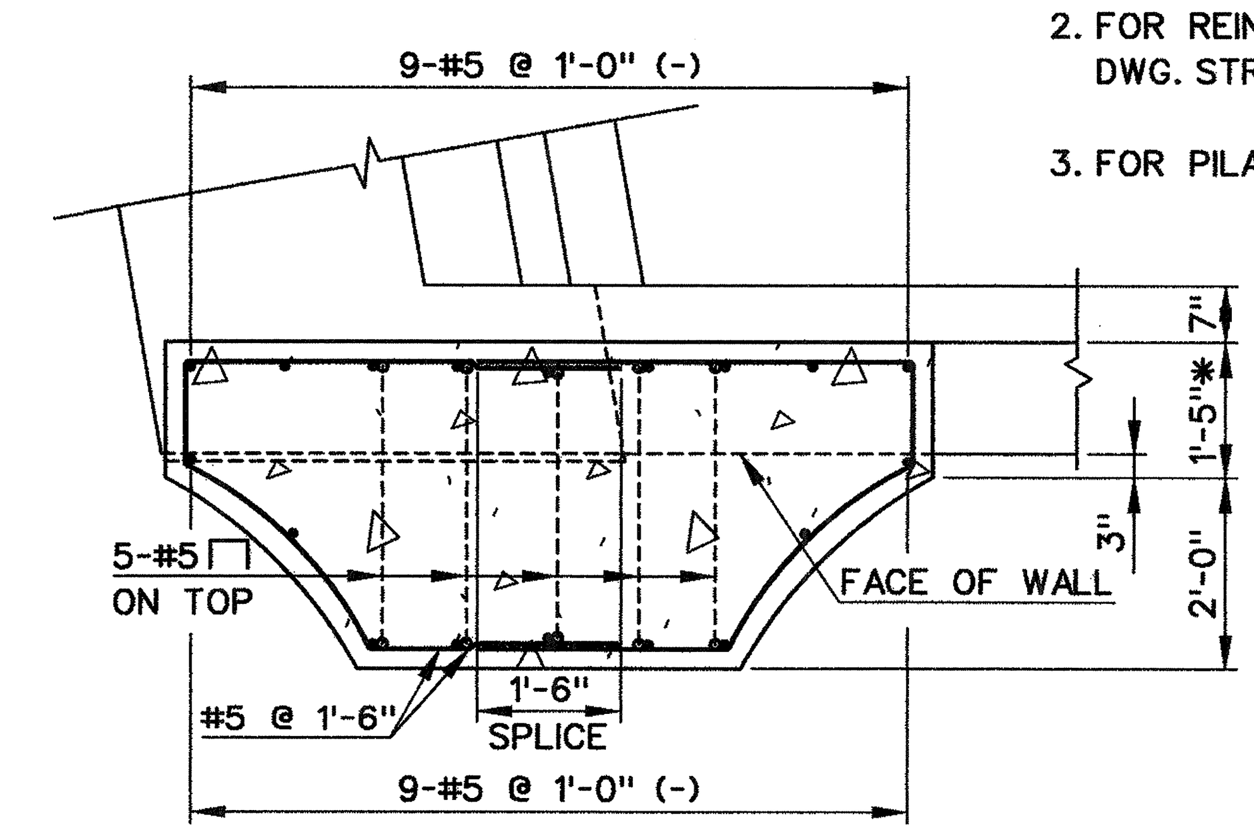
SECTION E-E

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



SECTION F-F

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



SECTION G-G

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

NOTES:

1. PILASTER B SHOWN, PILASTER A SIMILAR AND OPPOSITE HAND.
2. FOR REINFORCEMENT AT JUNCTION BOX, SEE SECTION A-A ON DWG. STR-35.
3. FOR PILASTER LIGHT FIXTURE, SEE DWG. STR-120-1.

LEGENDS:

* - ADD 1" FOR PILASTER A.

R.M.C. - RIGID METAL CONDUIT.

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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.

APPROVED BY: Anthony A. Moretti DATE: 4-7-00

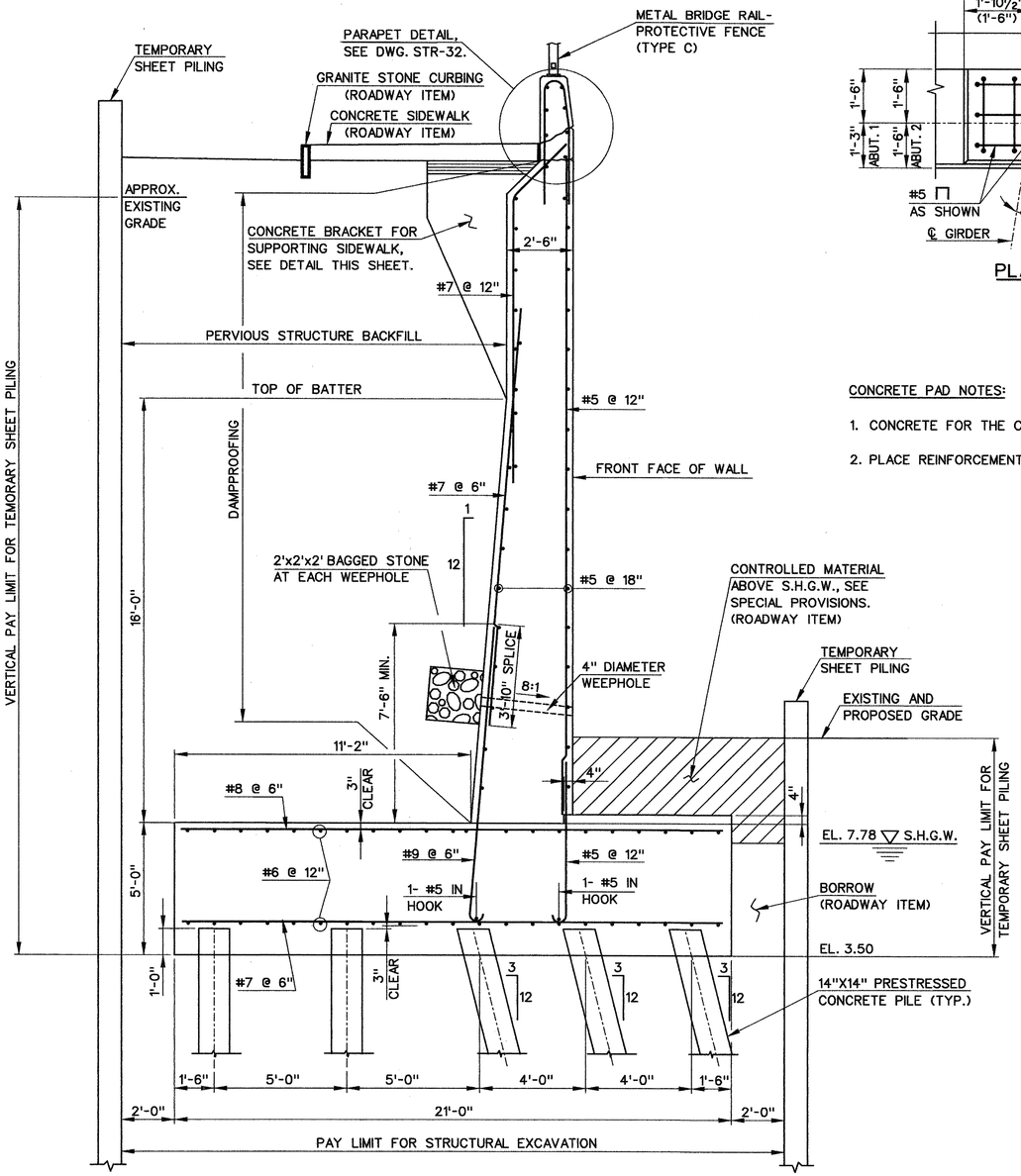
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S023.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN

DRAWING TITLE: PILASTERS AT ABUTMENT 2

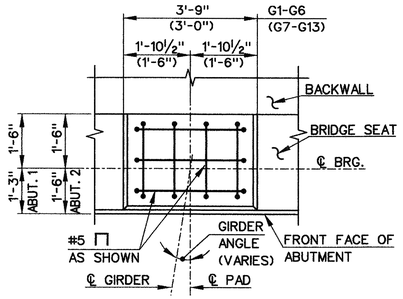
PROJECT NO.: 92-526
DRAWING NO.: STR-24
SHEET NO.: 158



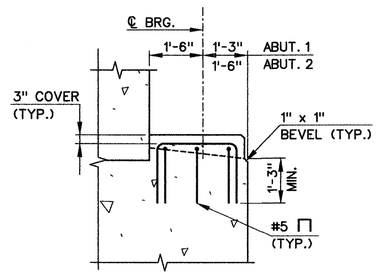
TYPICAL WINGWALL 1A AND 1B SECTION

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

LEGEND:
S.H.G.W. - SEASONAL HIGH GROUNDWATER



PLAN



SECTION

CONCRETE PAD DETAILS FOR ABUTMENTS 1 & 2

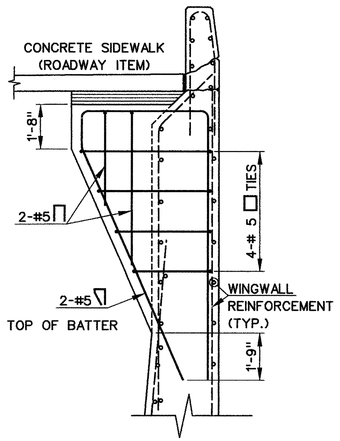
SCALE: ½" = 1'-0"

CONCRETE PAD NOTES:

1. CONCRETE FOR THE CONCRETE PADS SHALL BE PAID FOR UNDER THE ITEM "CLASS 'F' CONCRETE.
2. PLACE REINFORCEMENT TO CLEAR ANCHOR BOLTS.

GIRDER ANGLES		
	GIRDER	ANGLE*
ABUT. NO. 1	G1 TO G6	98°-38'-58.1"
	G7	40°-52'-52.3"
	G8	66°-26'-18.4"
	G9 TO G11	55°-02'-31.1"
	G13	31°-34'-07.1"
ABUT. NO. 2	G1	79°-59'-03.5"
	G2	80°-00'-25.2"
	G3	80°-01'-46.5"
	G4	80°-03'-07.4"
	G5	80°-04'-28.0"
	G6	80°-05'-48.2"

* - WITH RESPECT TO ℄ BEARING



CONCRETE BRACKET DETAIL

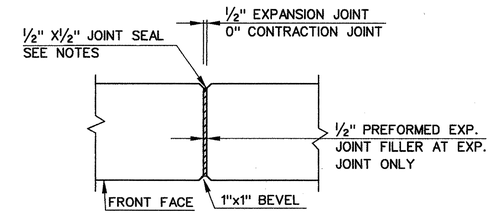
SCALE: 3/8" = 1'-0"

SUBSTRUCTURE NOTES:

THE FOLLOWING NOTES APPLY FOR BUTMENTS, WINGWALLS, AND RETAINING WALL 101:

1. FOR GENERAL NOTES, SEE DWG. STR-4.
2. MAXIMUM DESIGN PILE LOADS (USING AASHTO LOAD FACTOR DESIGN METHOD) ARE AS FOLLOWS:
   ABUTMENT NO. 1 - 49 TONS (GROUP I); 71 TONS (GROUP VII)
   WINGWALLS 1A & 1B - 53 TONS (GROUP VII)
   ABUTMENT NO. 2 - 60 TONS (GROUP I); 79 TONS (GROUP VII)
   WINGWALLS 2A & 2B - 72 TONS (GROUP I)
   RETAINING WALL NO. 101 - 33 TONS (GROUP I)

   MAXIMUM DESIGN FOUNDATION PRESSURE FOR THE SPREAD FOOTING PORTION OF RETAINING WALL NO. 101 IS 0.5 TONS/SQ. FT.
3. 4" DIA. WEEPHOLES SHALL BE PROVIDED IN ABUTMENTS AND WINGWALLS AS SHOWN.
4. ALL REINFORCING STEEL SHALL HAVE 2" COVER EXCEPT WHERE NOTED OTHERWISE.
5. MINIMUM LAP SPLICES OF REINFORCING STEEL NOT SHOWN ON PLANS SHALL BE AS FOLLOWS:
   #5 BARS - 2'-6"
   #6 BARS - 3'-3"
   #7 BARS - 4'-6"
   #8 BARS - 5'-6"
6. TEMPORARY SHEET PILING ALONG UNION AVENUE SHALL BE DESIGNED FOR HS-20 LIVE LOADING.
7. NON-DESTRUCTIVE TESTING REPORT FOR THE EXISTING UNION AVENUE RETAINING WALL WILL BE MADE AVAILABLE FOR THE CONTRACTOR'S REFERENCE IF REQUESTED.
8. TIMBER PILES ARE ANTICIPATED AT THE UNION AVENUE RETAINING WALL. ALL EXISTING PILES WITHIN THE LIMITS OF ABUTMENT 1 AND WINGWALLS 1A & 1B SHALL BE REMOVED PRIOR TO CONSTRUCTING THE NEW PILE FOUNDATION.



NON-KEYED JOINT

VERTICAL STEM JOINT DETAILS

NOT TO SCALE

NOTES:

1. JOINT SEAL IN ABUTMENT SHALL EXTEND FROM TOP OF FOOTING TO TOP OF BACKWALL AND HORIZONTALLY ALONG THE TOP OF BACKWALL.
2. JOINT SEAL IN WINGWALLS AND RETAINING WALL SHALL EXTEND FROM THE TOP OF FOOTING TO TOP OF PARAPET AND HORIZONTALLY ALONG THE TOP OF PARAPET.
3. NO REINFORCEMENT SHALL PASS THROUGH EXPANSION OR CONTRACTION JOINTS. REINFORCEMENT SHALL PASS THROUGH CONSTRUCTION JOINTS.

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REV.	DATE	DESCRIPTION REVISIONS	SHEET. NO

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

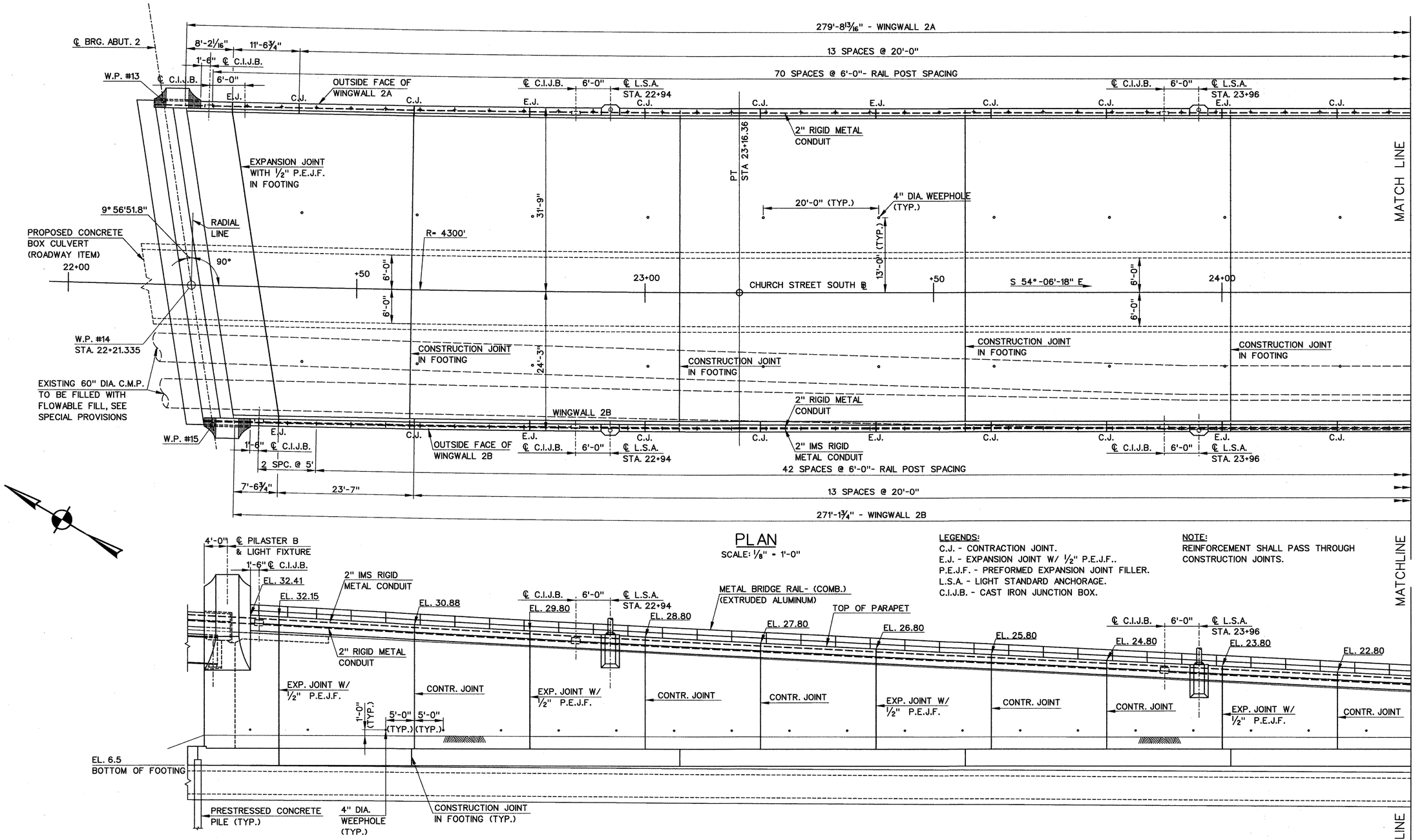
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S024.DGN | PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN

DRAWING TITLE: WINGWALL TYPICAL SECTION FOR WW1A AND WW1B

PROJECT NO.: 92-526
DRAWING NO.: STR-25
SHEET NO.: 159



PLAN

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

LEGENDS:
C.J. - CONTRACTION JOINT.
E.J. - EXPANSION JOINT W/ 1/2" P.E.J.F..
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER.
L.S.A. - LIGHT STANDARD ANCHORAGE.
C.I.J.B. - CAST IRON JUNCTION BOX.

NOTE:
REINFORCEMENT SHALL PASS THROUGH CONSTRUCTION JOINTS.

PARTIAL ELEVATION - WINGWALL 2B

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

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

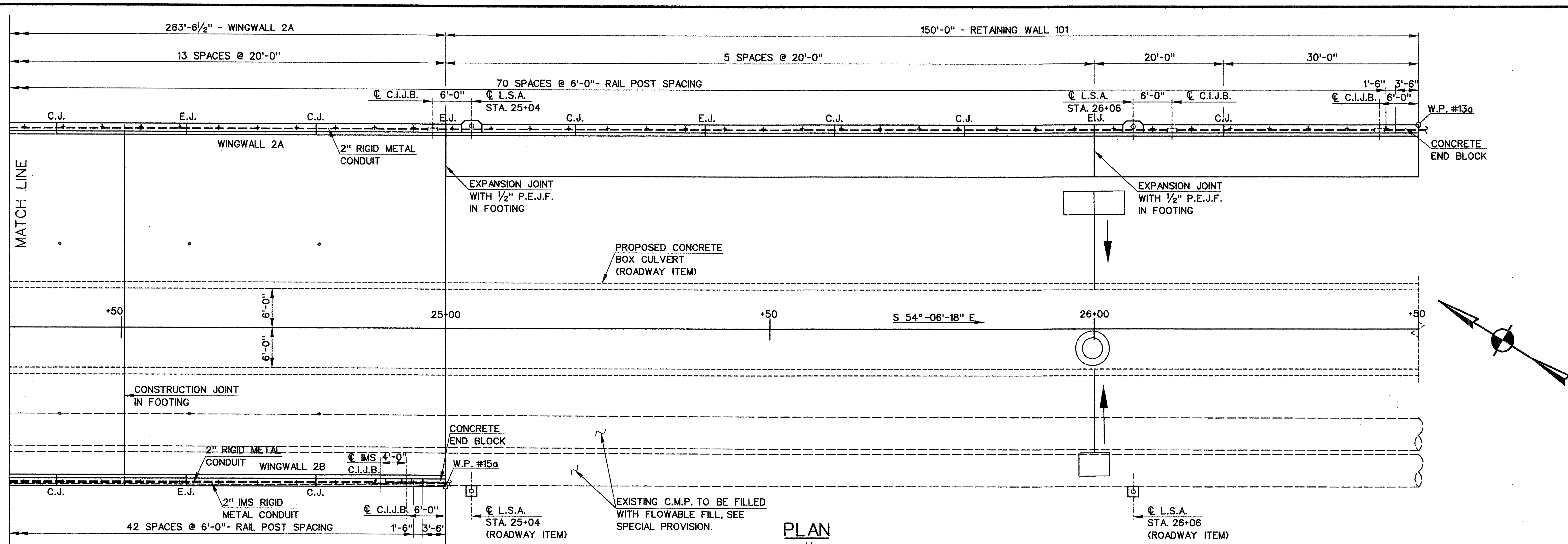
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Maretti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S025.DGN
PLOTTED DATE: 6-05-00

TOWN: NEW HAVEN
DRAWING TITLE: WINGWALLS 2A & 2B AND RETAINING WALL 101 – SHT. 1 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-26
SHEET NO.: 160

\final designs\r703s025.dgn Jun 05, 2000 09:25:32



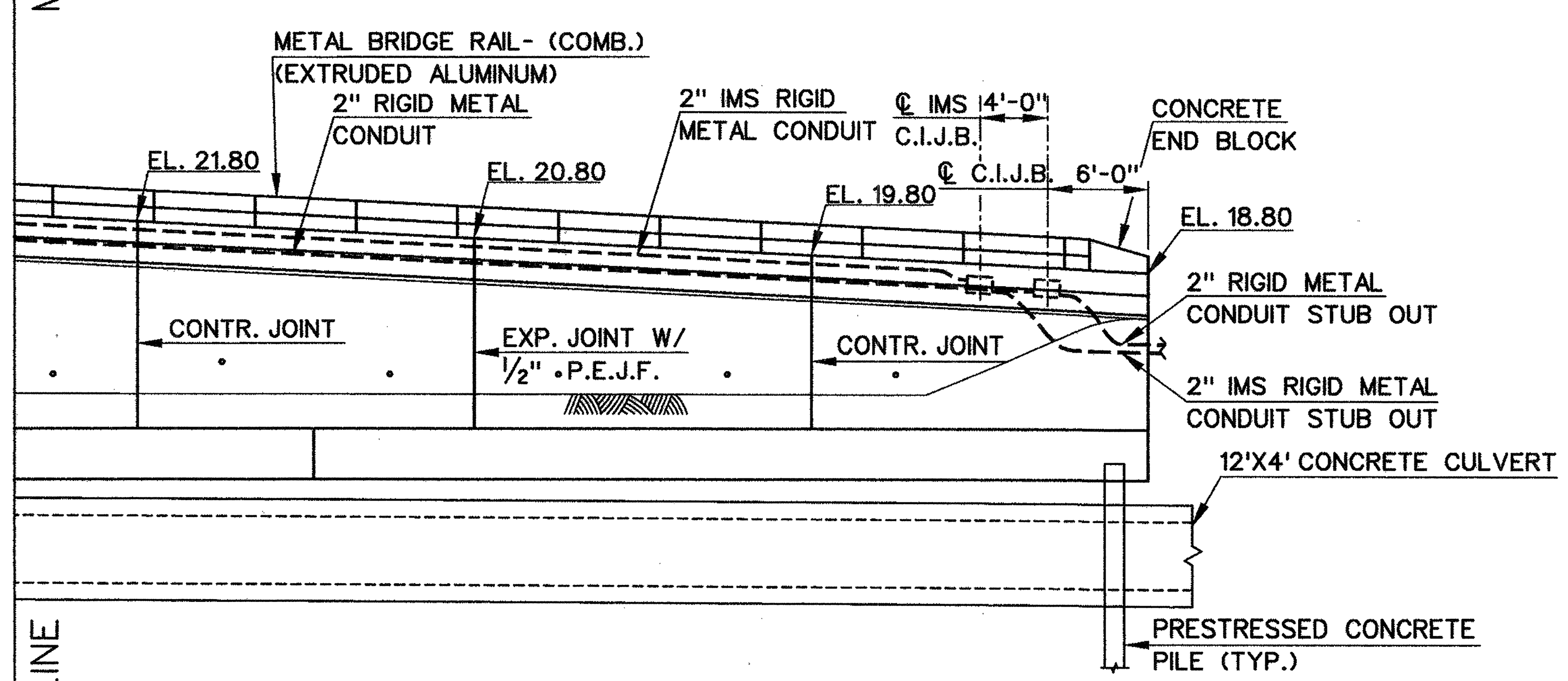
PLAN

SCALE: ⅛" = 1'-0"

LEGENDS:

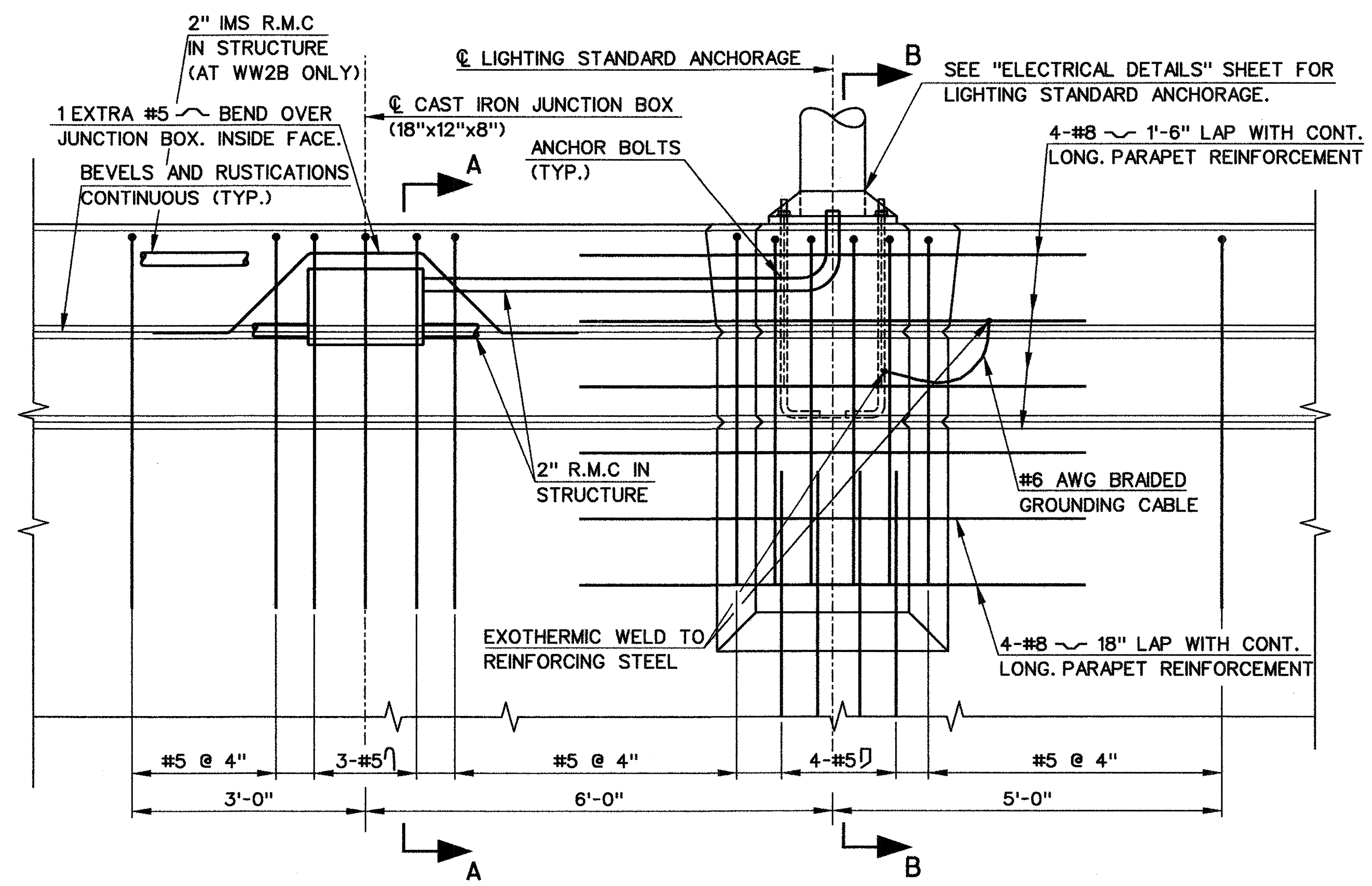
C.J. - CONTRACTION JOINT.
E.J. - EXPANSION JOINT W/ ½" P.E.J.F..
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER.
L.S.A. - LIGHT STANDARD ANCHORAGE.
C.I.J.B. - CAST IRON JUNCTION BOX.

NOTE:
REINFORCEMENT SHALL PASS THROUGH CONSTRUCTION JOINTS.



PARTIAL ELEVATION - WINGWALL 2B

SCALE: ⅛" = 1'-0"



LIGHT STANDARD ANCHORAGE DETAIL - ELEVATION

SCALE: ¾" = 1'-0"

NOTE:
FOR SECTIONS A-A & B-B, SEE DWG. STR-35.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Mocetti DATE: 6/6/00

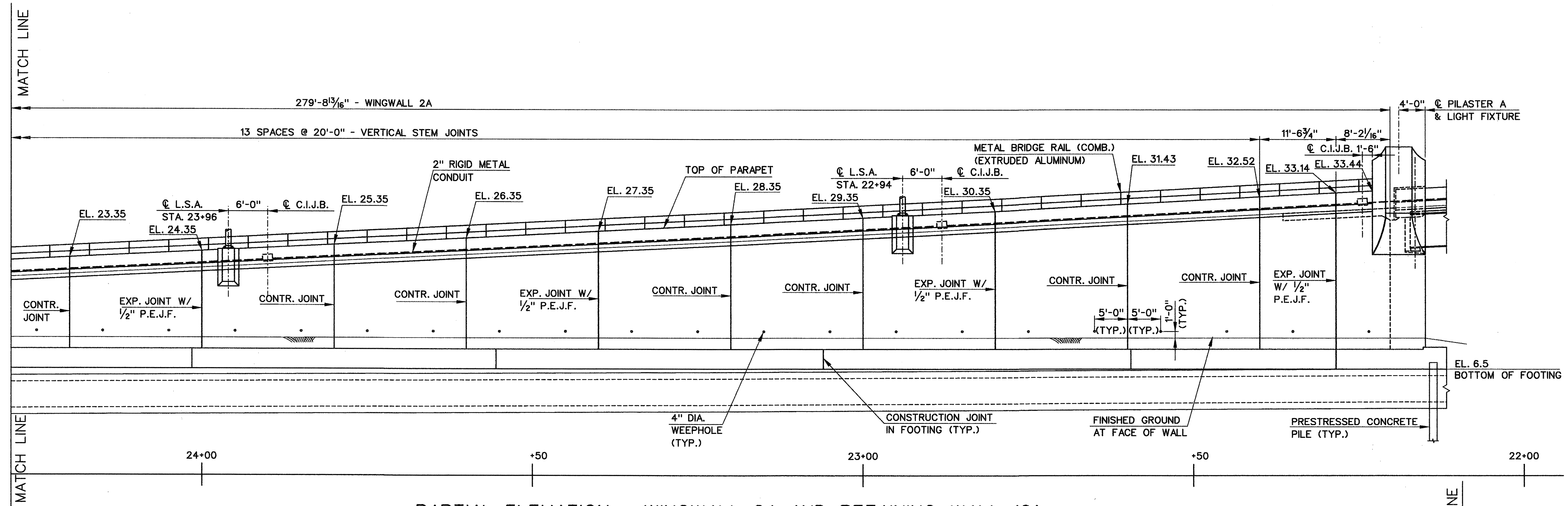
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S026.DGN
PLOTTED DATE: 6-05-00

TOWN: NEW HAVEN

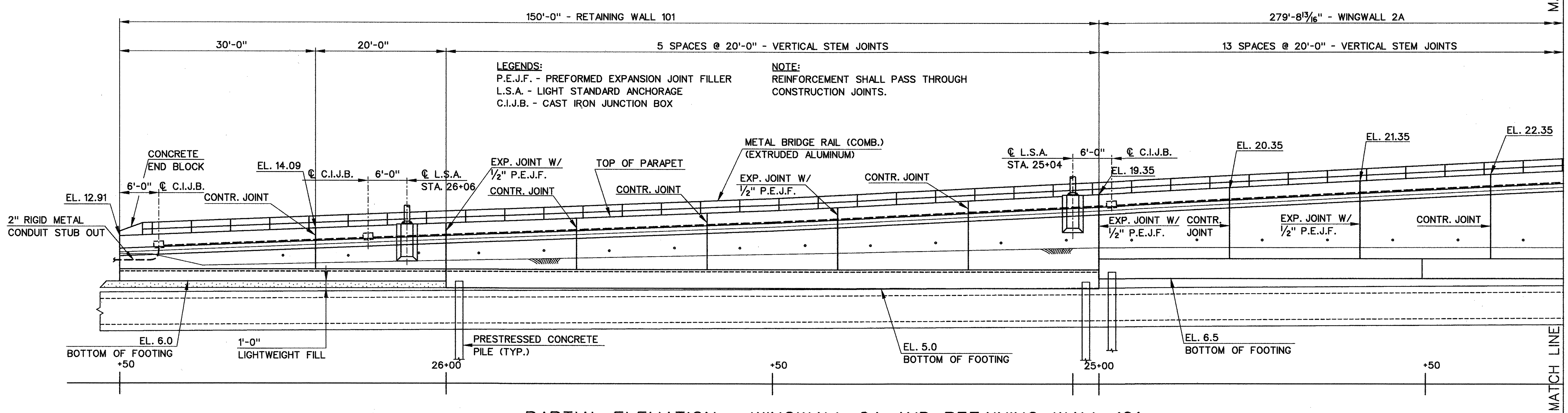
DRAWING TITLE: WINGWALLS 2A & 2B AND RETAINING WALL 101 - SHT. 2 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-27
SHEET NO.: 161



PARTIAL ELEVATION - WINGWALL 2A AND RETAINING WALL 101

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



LEGENDS:
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
L.S.A. - LIGHT STANDARD ANCHORAGE
C.I.J.B. - CAST IRON JUNCTION BOX

NOTE:
REINFORCEMENT SHALL PASS THROUGH CONSTRUCTION JOINTS.

PARTIAL ELEVATION - WINGWALL 2A AND RETAINING WALL 101

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

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET NO.

REVISIONS

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Moretti DATE: 6/6/00

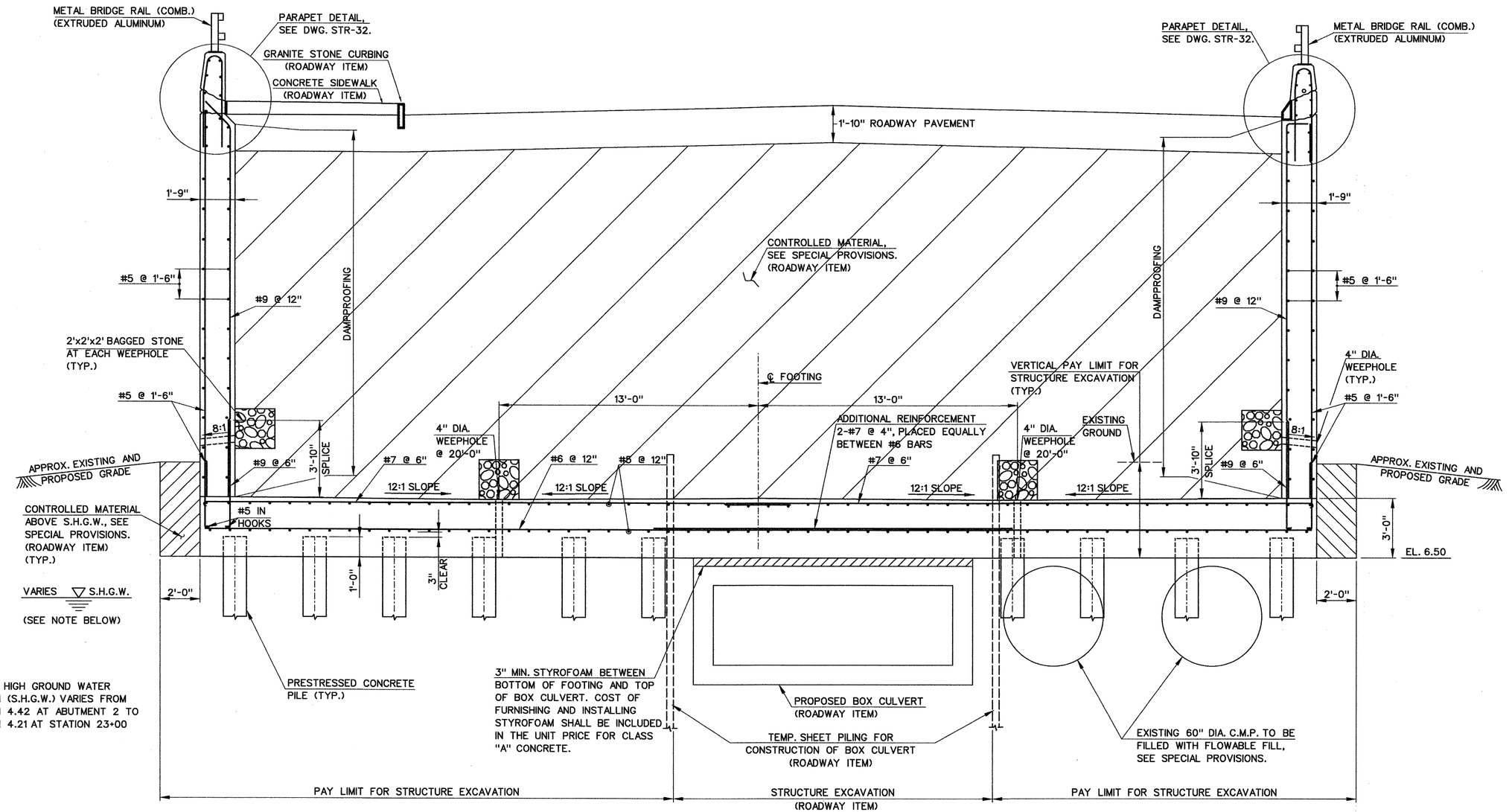
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S027.DGN
PLOTTED DATE: 6-05-00

TOWN: NEW HAVEN

DRAWING TITLE: WINGWALLS 2A & 2B AND RETAINING WALL 101 - SHT. 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-28
SHEET NO.: 162



NOTE:

SEASONAL HIGH GROUND WATER ELEVATION (S.H.G.W.) VARIES FROM ELEVATION 4.42 AT ABUTMENT 2 TO ELEVATION 4.21 AT STATION 23+00

SECTION A-A

(TYP. SECT. FROM ABUT. 2 TO STA. 23+00)
SCALE: 3/8" = 1'-0"

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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

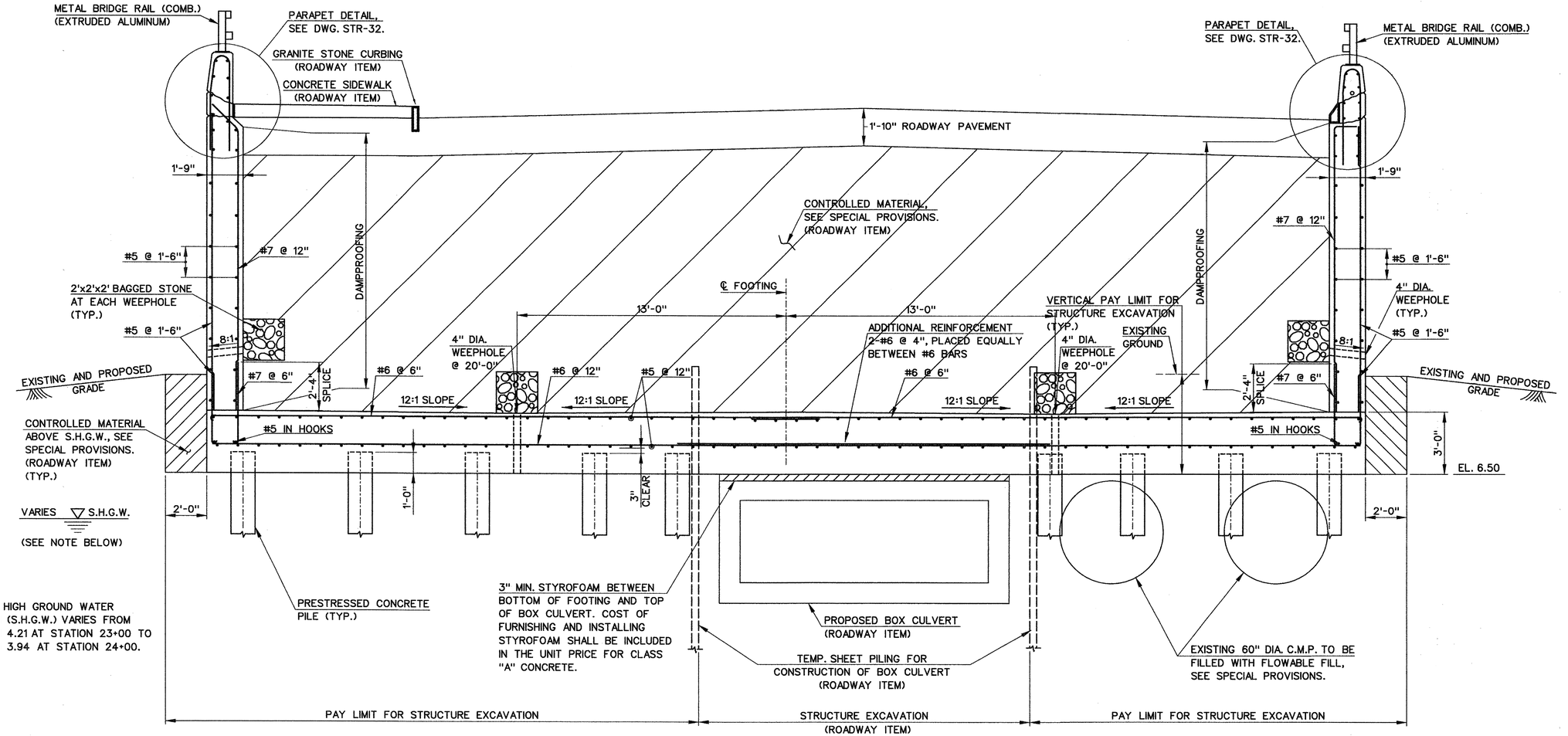
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Moretti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S028.DGN PLOTTED DATE: 6-05-00

TOWN: NEW HAVEN
DRAWING TITLE: WINGWALL 2A & 2B SECTIONS SHT. 1 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-29
SHEET NO.: 163

\final designs\r703s028.dgn Jun 05, 2000 09:30:22



NOTE:

SEASONAL HIGH GROUND WATER ELEVATION (S.H.G.W.) VARIES FROM ELEVATION 4.21 AT STATION 23+00 TO ELEVATION 3.94 AT STATION 24+00.

SECTION B-B

(TYP. SECT. FROM STA. 23+00 TO STA. 24+00)
SCALE: ⅜" = 1'-0"

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

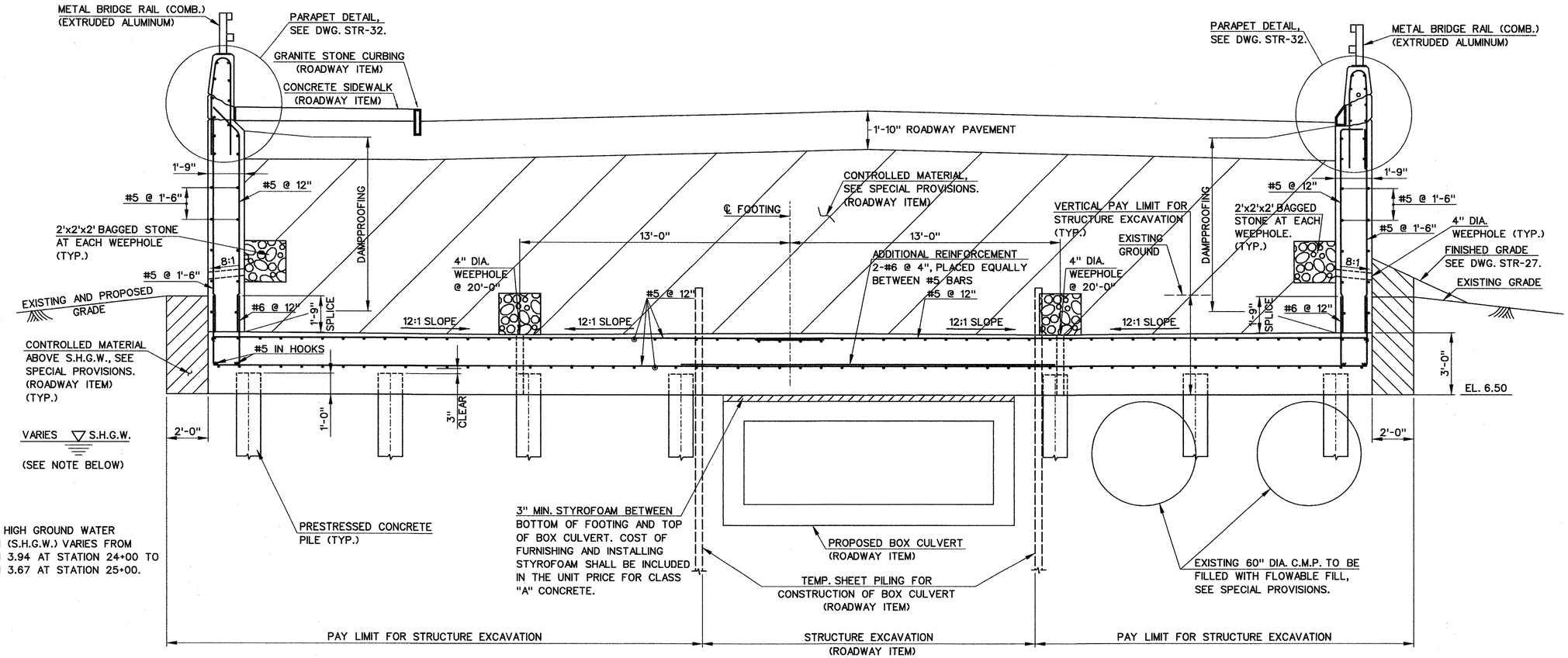
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Maretti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S029.DGN PLOTTED DATE: 6-05-00

TOWN: NEW HAVEN
DRAWING TITLE: WINGWALLS 2A & 2B SECTIONS SHT. 2 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-30
SHEET NO.: 164

...\final design\r703s029.dgn Jun. 05, 2000 08:31:22



NOTE:

SEASONAL HIGH GROUND WATER ELEVATION (S.H.G.W.) VARIES FROM ELEVATION 3.94 AT STATION 24+00 TO ELEVATION 3.67 AT STATION 25+00.

SECTION C-C

(TYP. SECT. FROM STA. 24+00 TO STA. 25+00)
SCALE: ⅜" = 1'-0"

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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

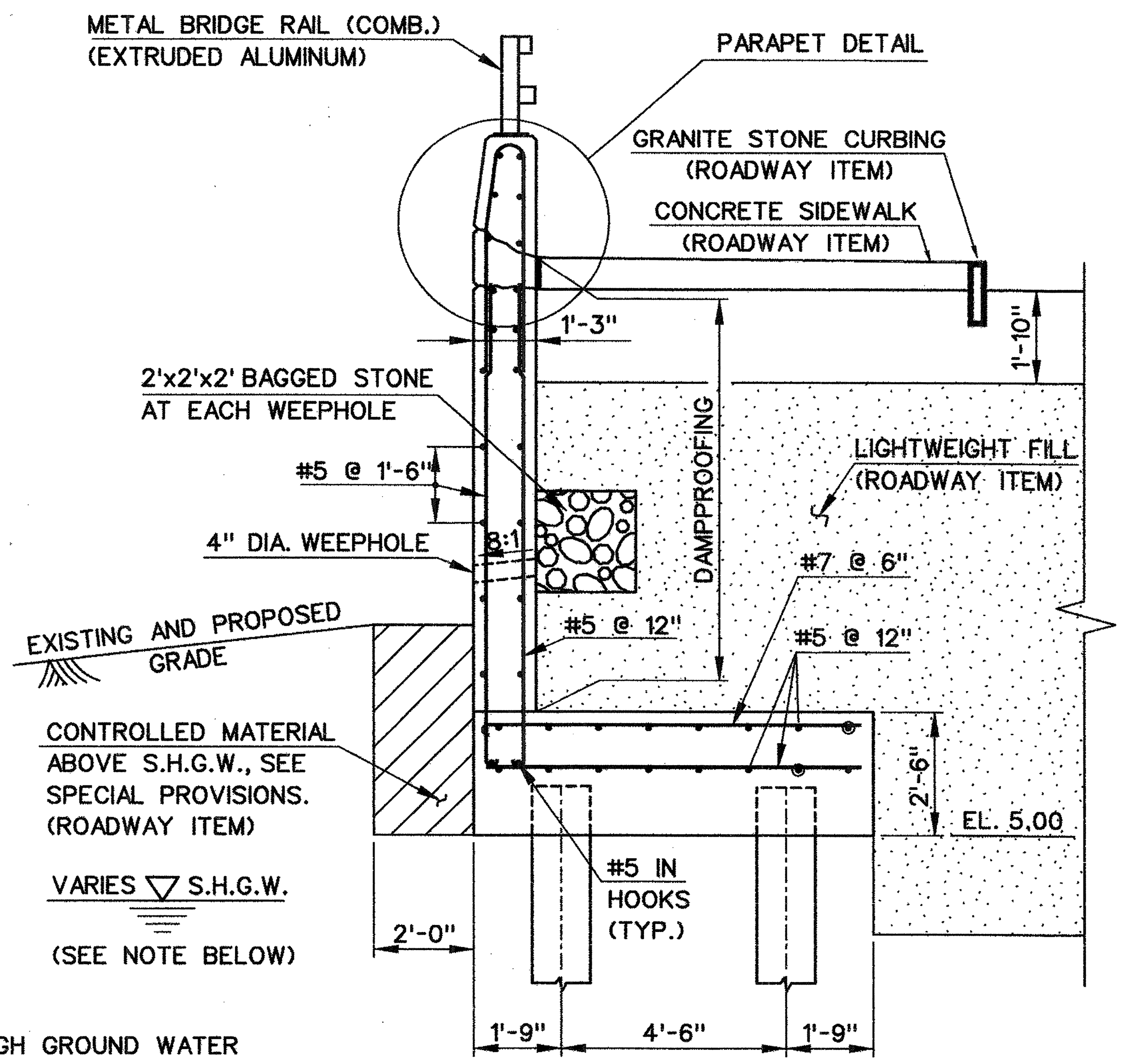
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Maretti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S030.DGN PLOTTED DATE: 6-05-00

TOWN: NEW HAVEN
DRAWING TITLE: WINGWALLS 2A & 2B SECTIONS SHT. 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-31
SHEET NO.: 165

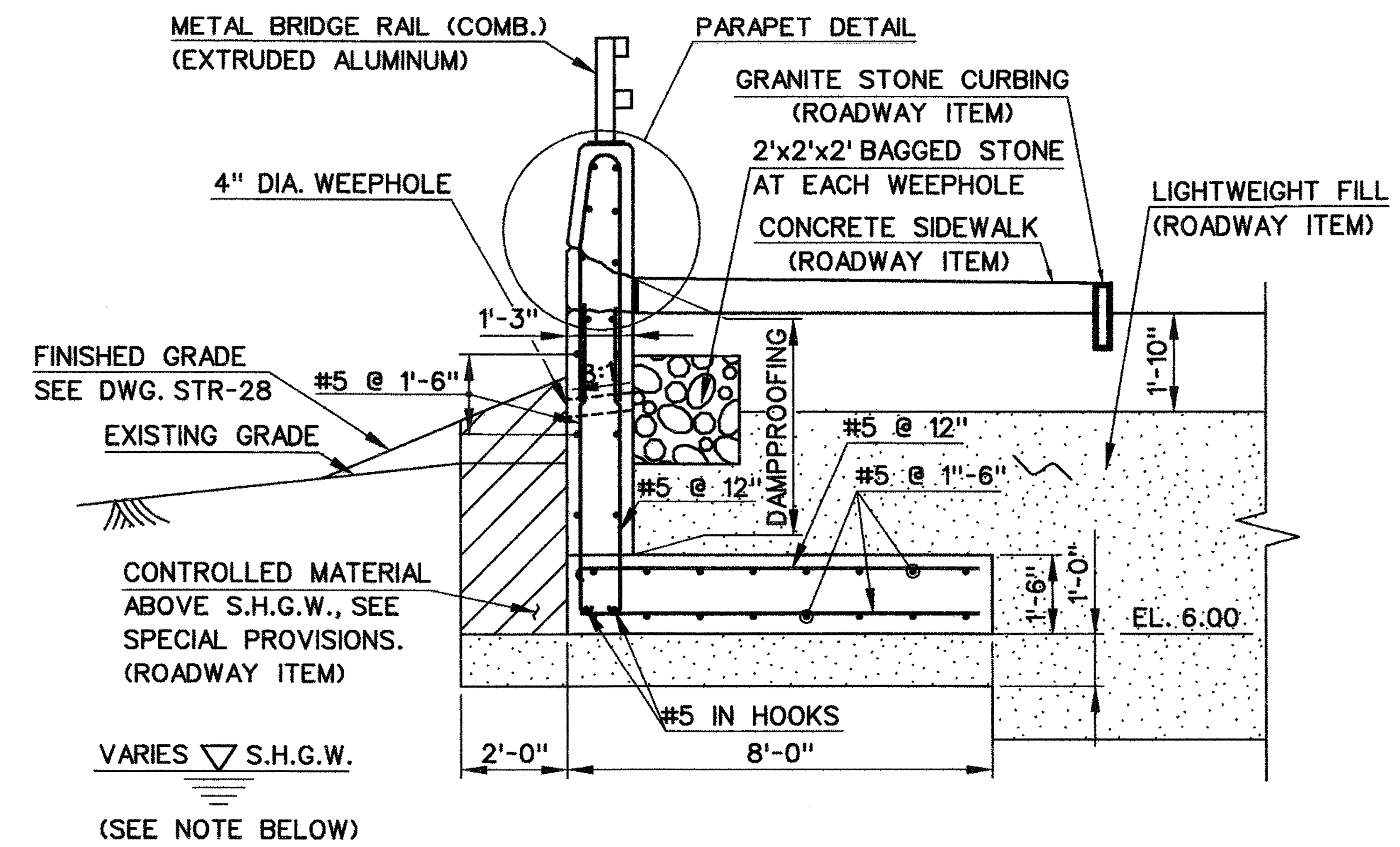


NOTE:

SEASONAL HIGH GROUND WATER ELEVATION (S.H.G.W.) VARIES FROM ELEVATION 3.67 AT STATION 25+00 TO ELEVATION 3.46 AT STATION 26+00.

SECTION D-D

TYP. SECT. FROM STA. 25+00 TO STA. 26+00
SCALE: 3/8" = 1'-0"

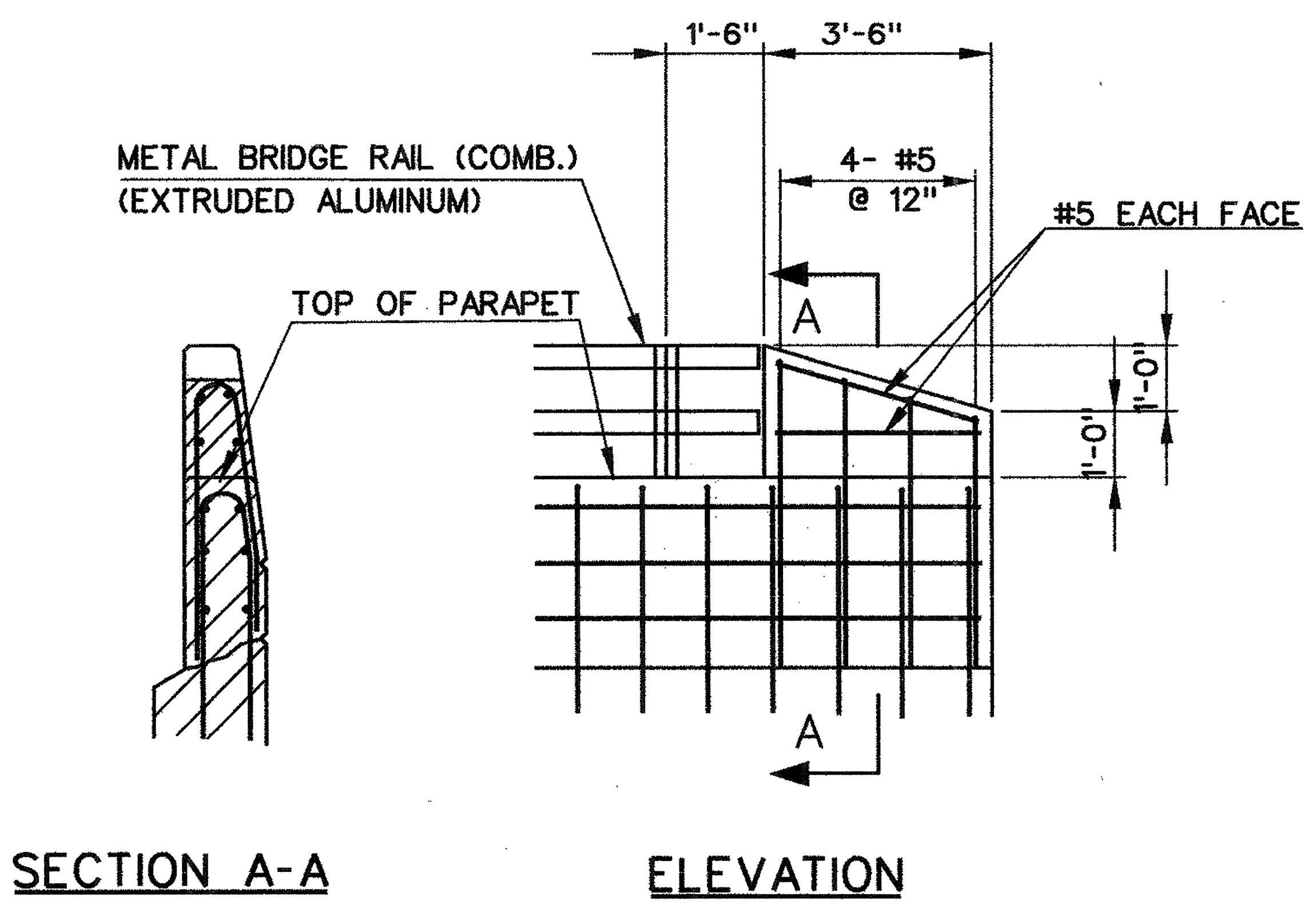


NOTE:

SEASONAL HIGH GROUND WATER ELEVATION (S.H.G.W.) VARIES FROM ELEVATION 3.46 AT STATION 26+00 TO ELEVATION 3.32 AT STATION 26+50.

SECTION E-E

TYP. SECT. FROM STA. 26+00 TO STA. 26+50
SCALE: 3/8" = 1'-0"

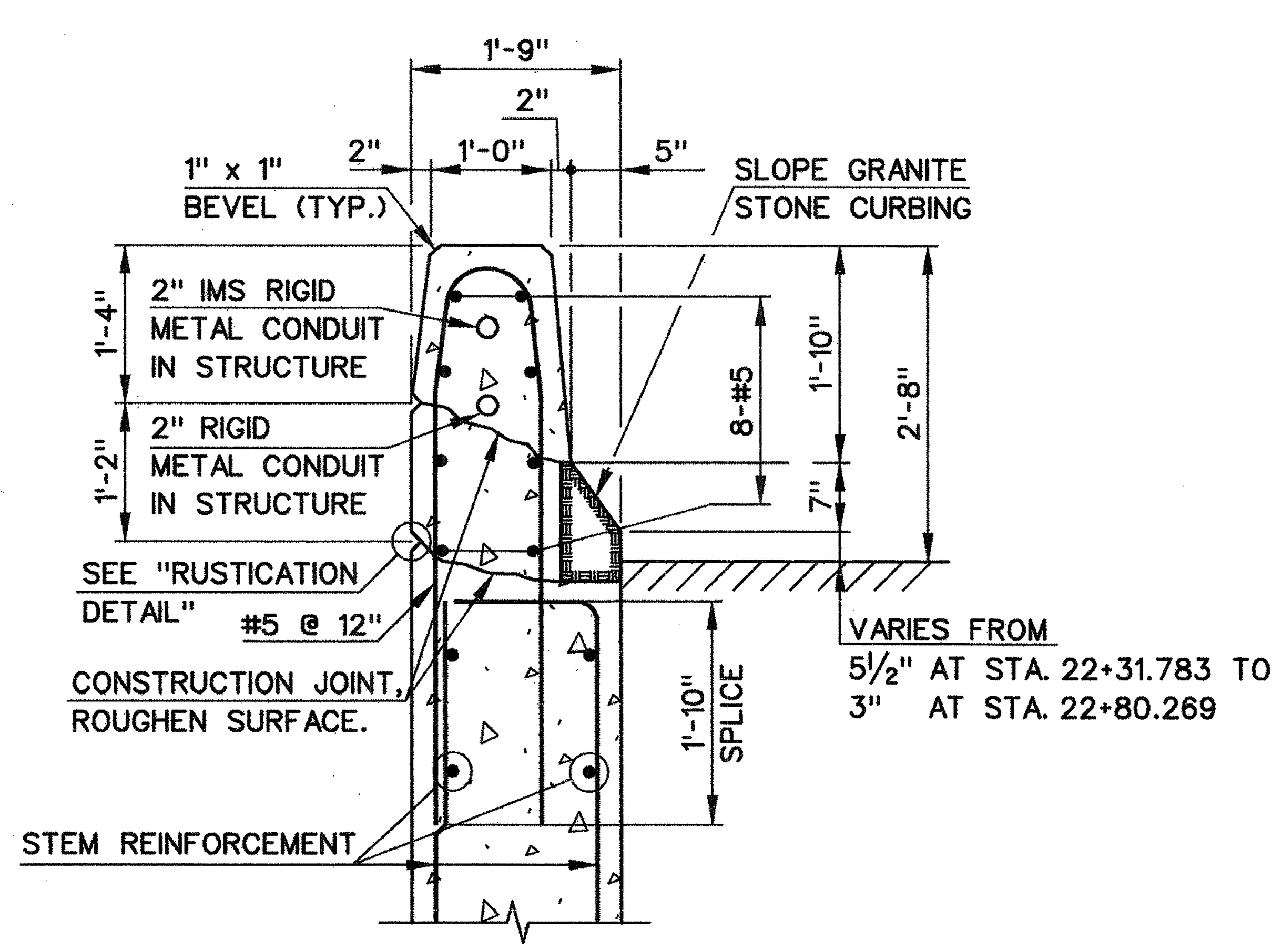


CONCRETE END BLOCK

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

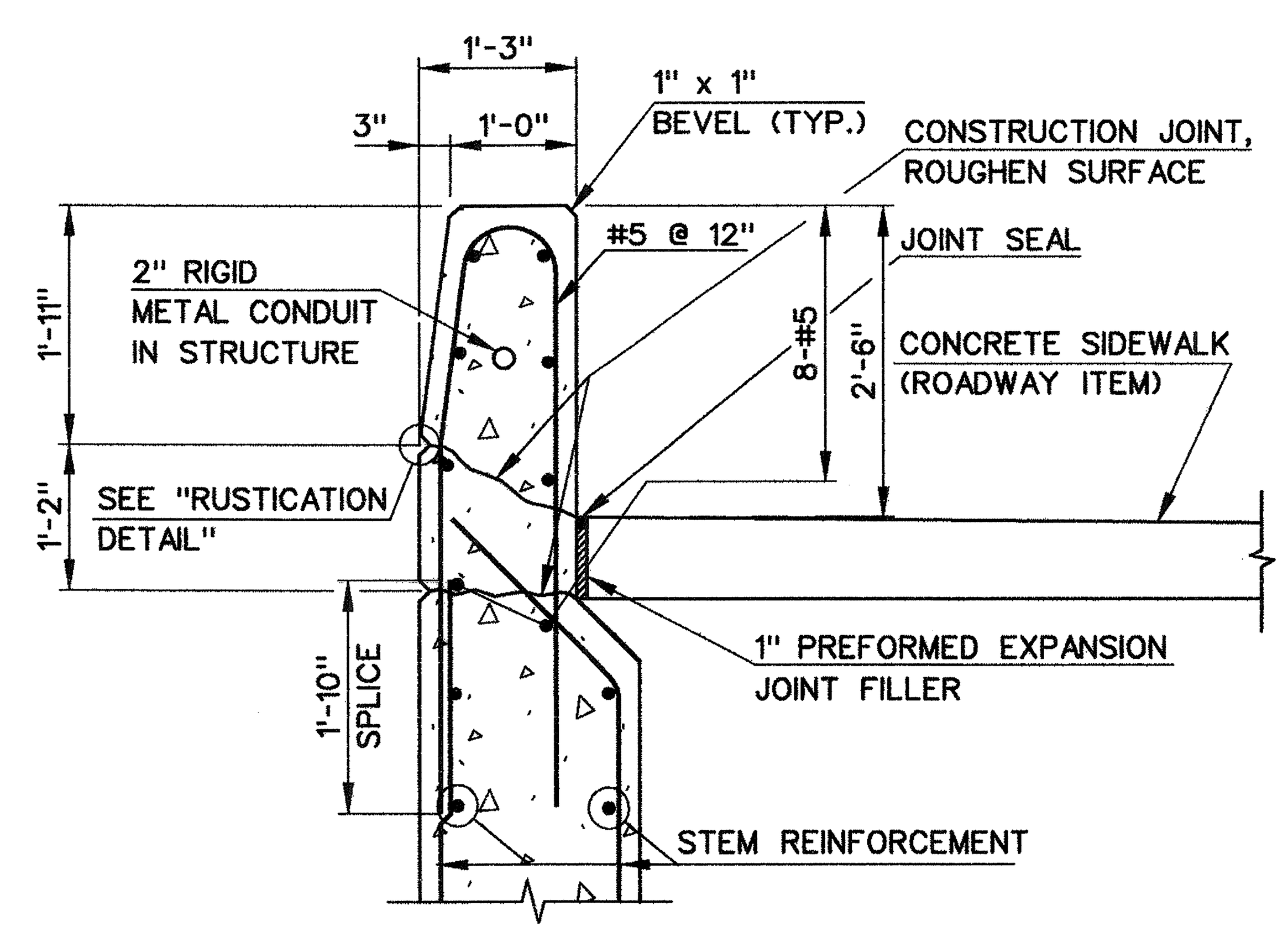
NOTE: SIDEWALK PARAPET SHOWN. SLOPED CURB PARAPET SIMILAR.

NOTE: METAL BRIDGE RAIL NOT SHOWN



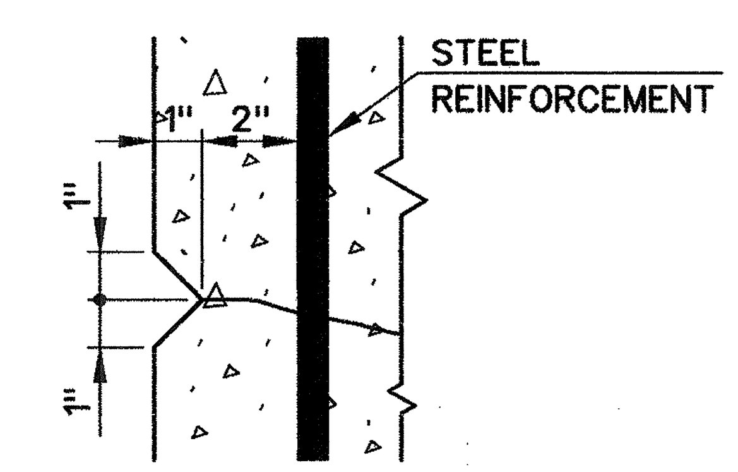
SLOPED CURB PARAPET DETAIL

SCALE: 3/4"=1'-0"



SIDEWALK PARAPET DETAIL

SCALE: 3/4"=1'-0"



RUSTICATION DETAIL

SCALE: 3"=1'-0"

NOTE:

FOR SLOPED GRANITE STONE CURBING DETAILS, SEE DWG. STR-95.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Monti DATE: 6/6/00

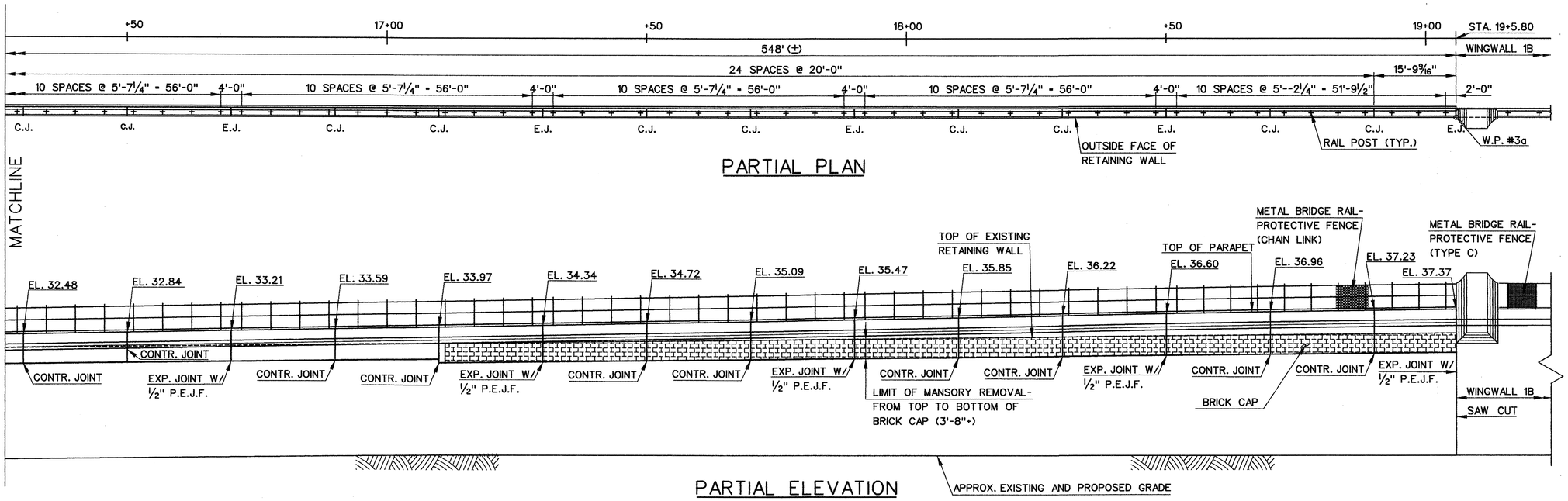
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

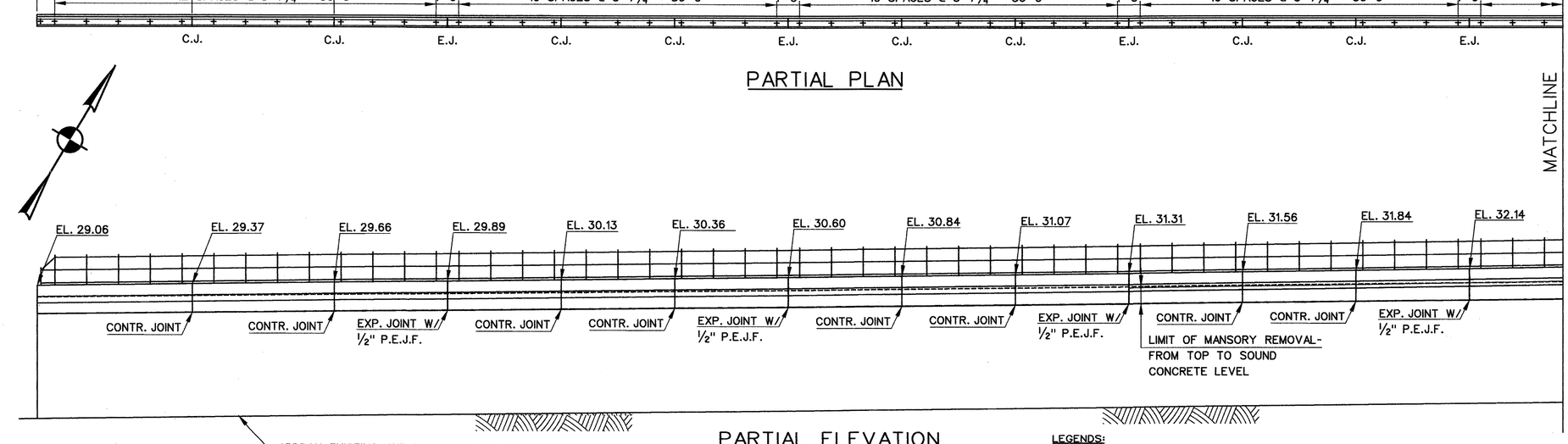
CADD FILE: R703S031.DGN PLOTTED DATE: 6-05-00

TOWN: NEW HAVEN

DRAWING TITLE: RETAINING WALL 101 AND PARAPET DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-32
SHEET NO.: 166





LEGENDS:
C.J. - CONTRACTION JOINT.
E.J. - EXPANSION JOINT.
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

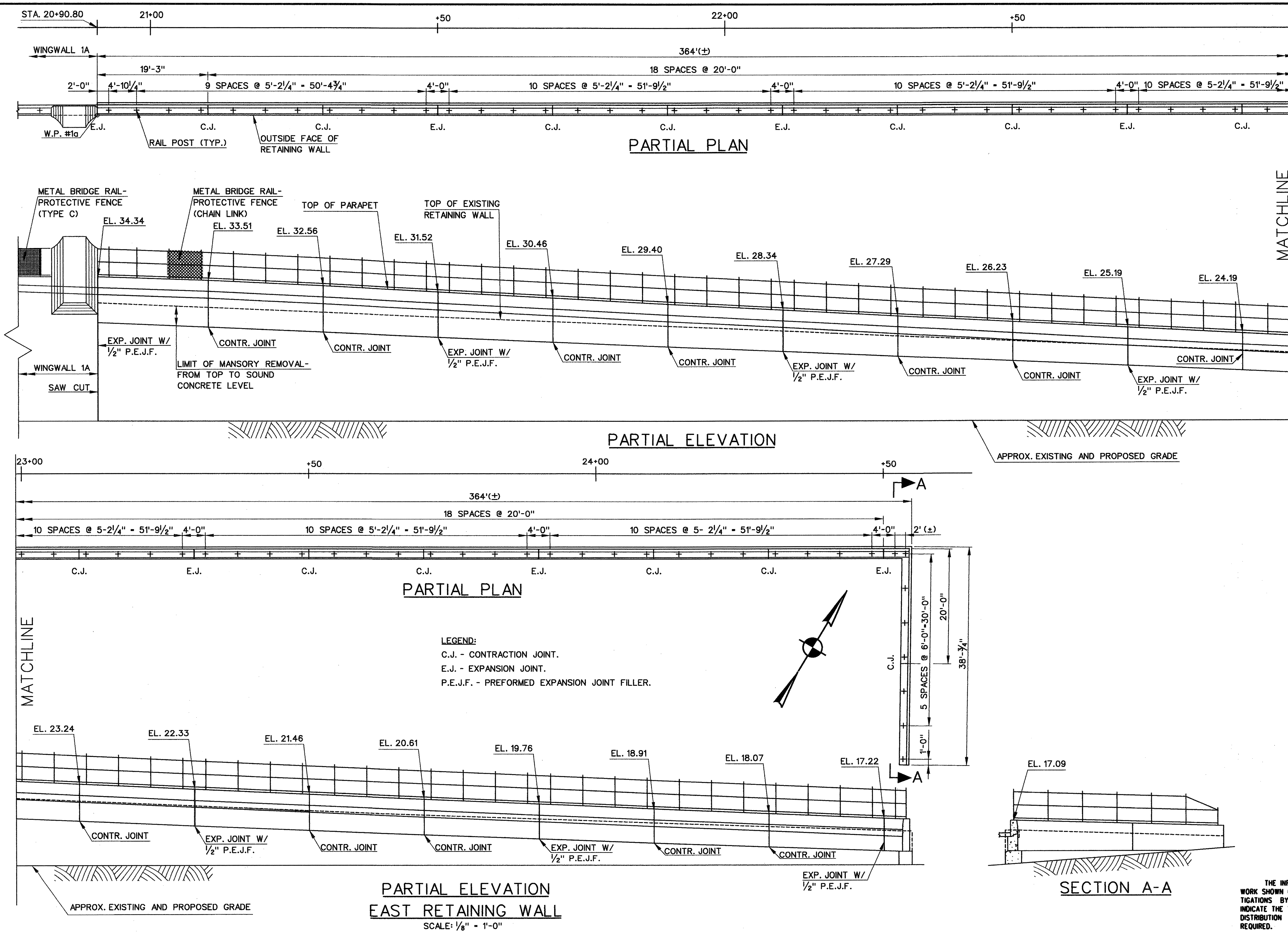
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S032.DGN PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: RETAINING WALL MODIFICATIONS SHT. 1 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-33
SHEET NO.: 167

L:\final design\r703s032.dgn Apr 06, 2000 17:28:49



THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Ucontti DATE: 4-7-00

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

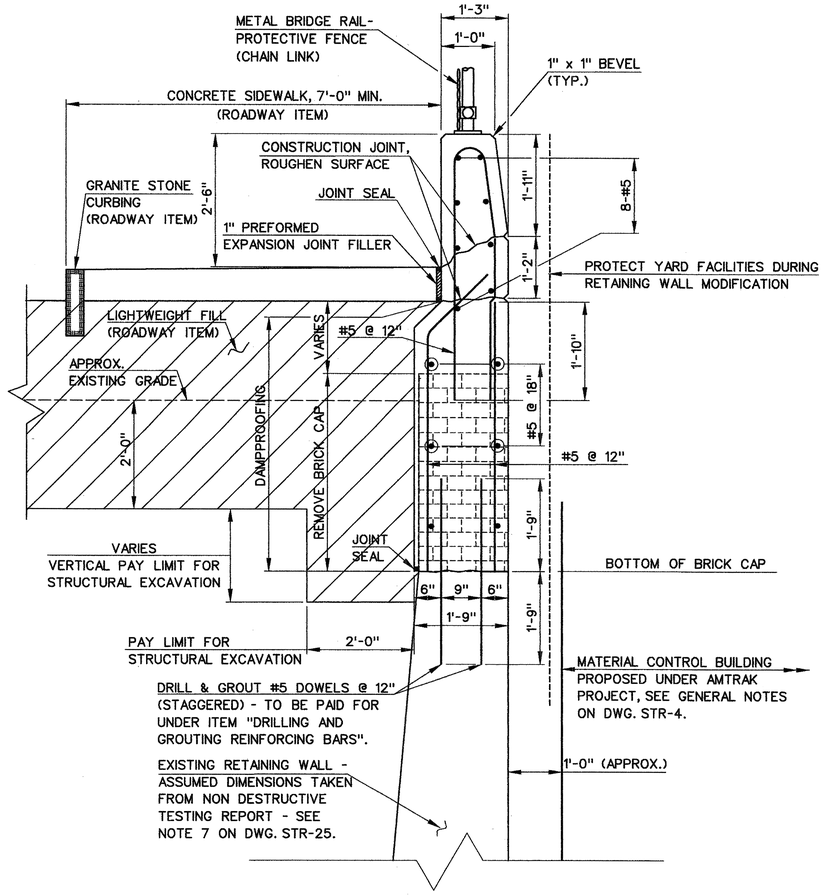
CADD FILE: R703S033.DGN
PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN

DRAWING TITLE:
RETAINING WALL MODIFICATIONS SHT. 2 OF 3

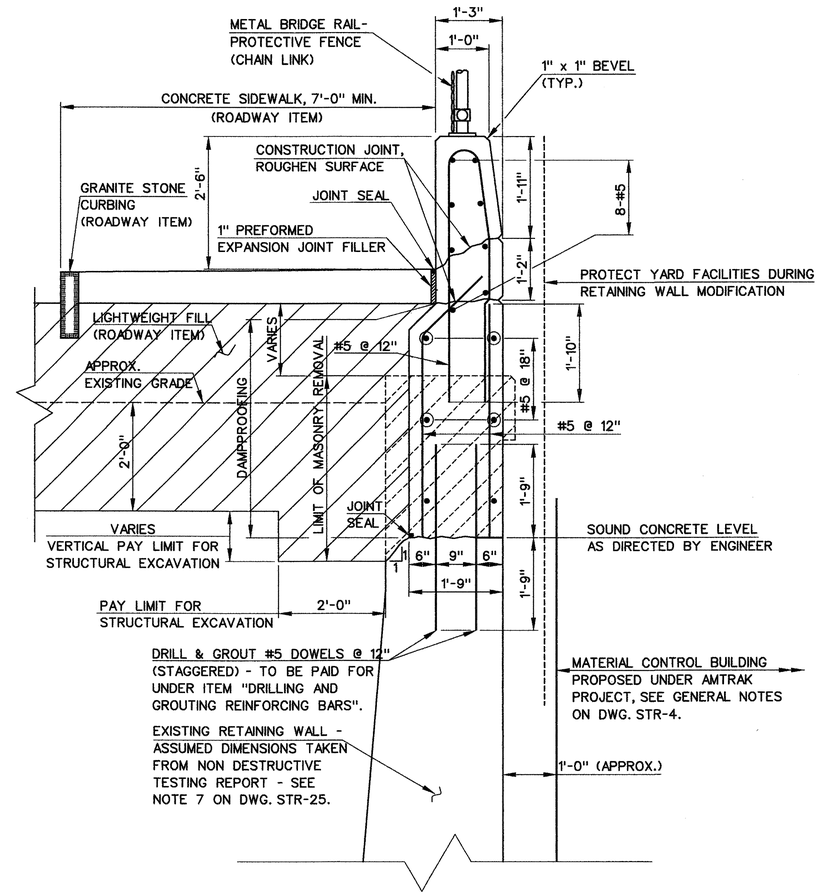
PROJECT NO.: 92-526
DRAWING NO.: STR-34
SHEET NO.: 168

...\final design\r703s033.dgn Apr. 07, 2000 16:15:07



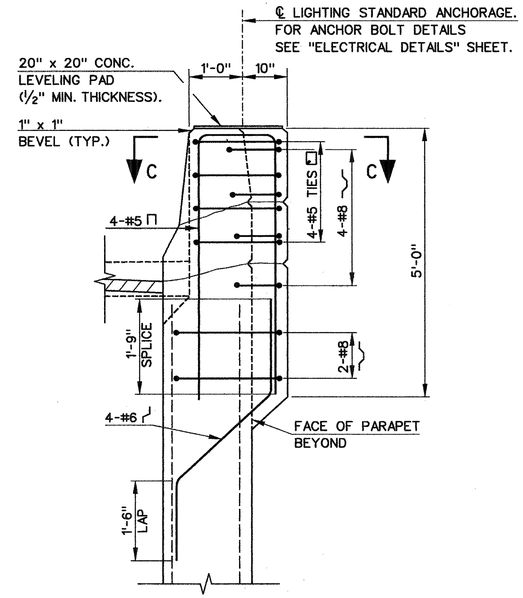
TYPICAL CROSS SECTION - BRICK CAP

SCALE: 3/4"=1'-0"



TYPICAL CROSS SECTION - CONCRETE CAP

SCALE: 3/4"=1'-0"

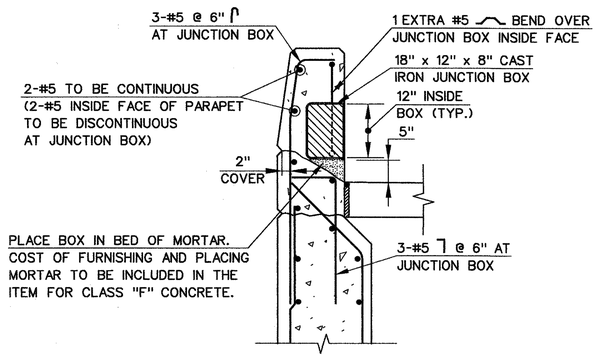


SIDEWALK AND SLOPED CURB

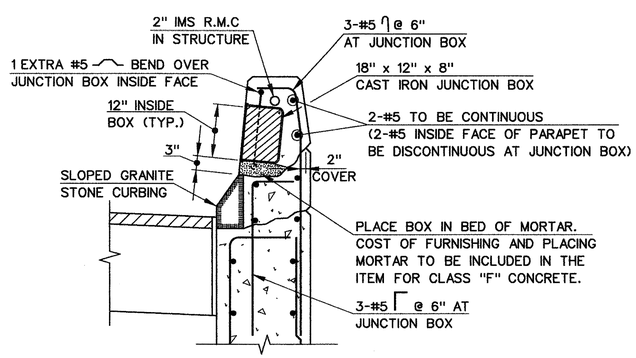
SECTION B-B

SCALE: 3/4" = 1'-0"

NOTE:
FOR PARAPET DETAILS, SEE DWG. STR-32.



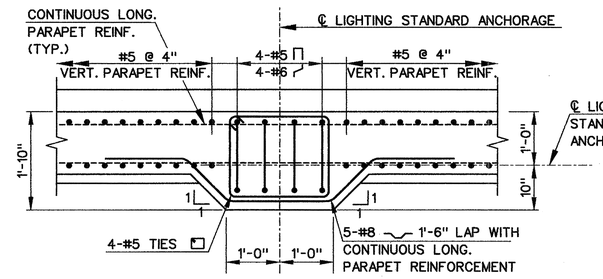
SIDEWALK PARAPET



SLOPED CURB PARAPET

SECTION A-A

SCALE: 3/4" = 1'-0"



SECTION C-C

SCALE: 3/4" = 1'-0"

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. P. NGUYEN
DRAFTER: T. P. NGUYEN
CHECKED BY: M. M. GUPTA
DATE CHECKED: 4-06-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

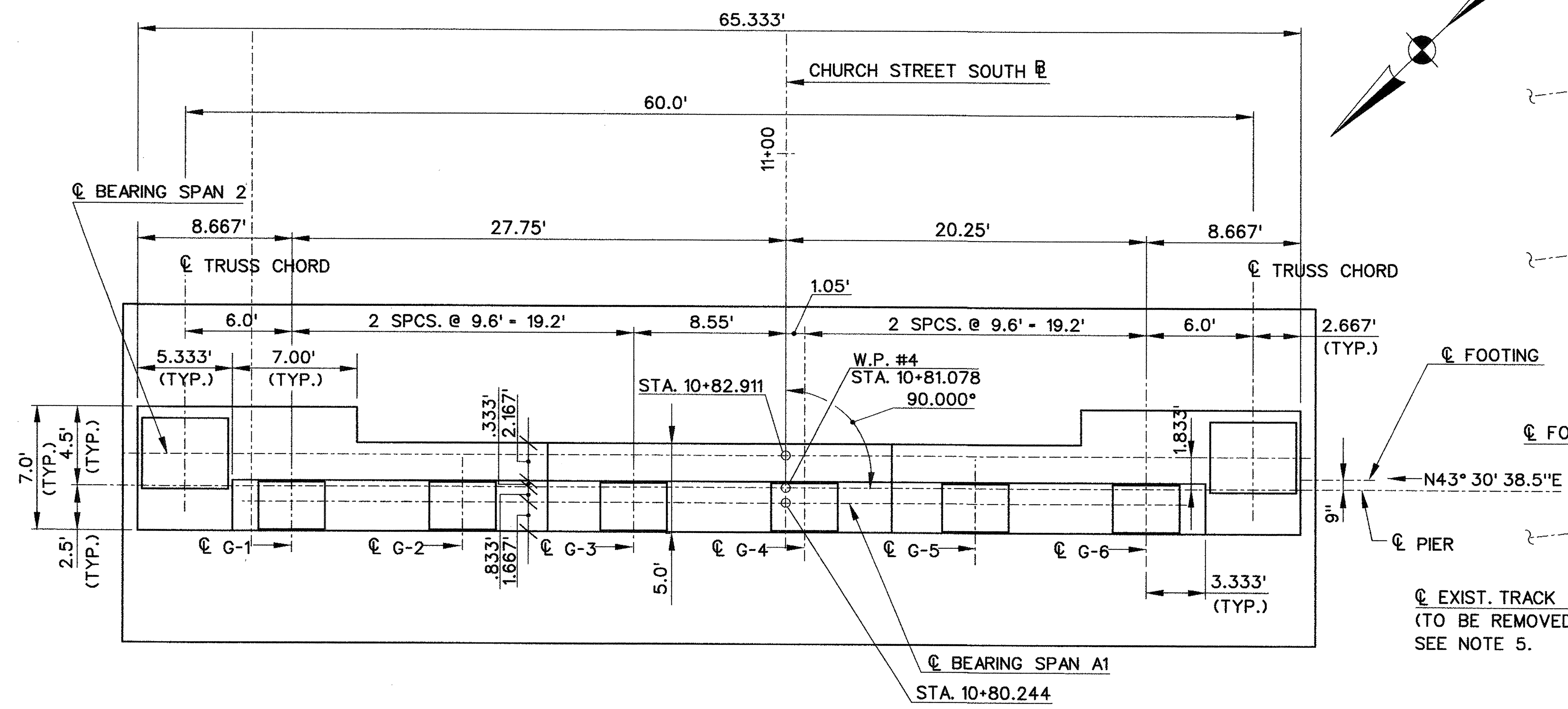
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC./GM2 ASSOCIATES, INC.
APPROVED BY: Anthony A. Mantia DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S034.DGN | PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: RETAINING WALL MODIFICATION SHT. 3 OF 3

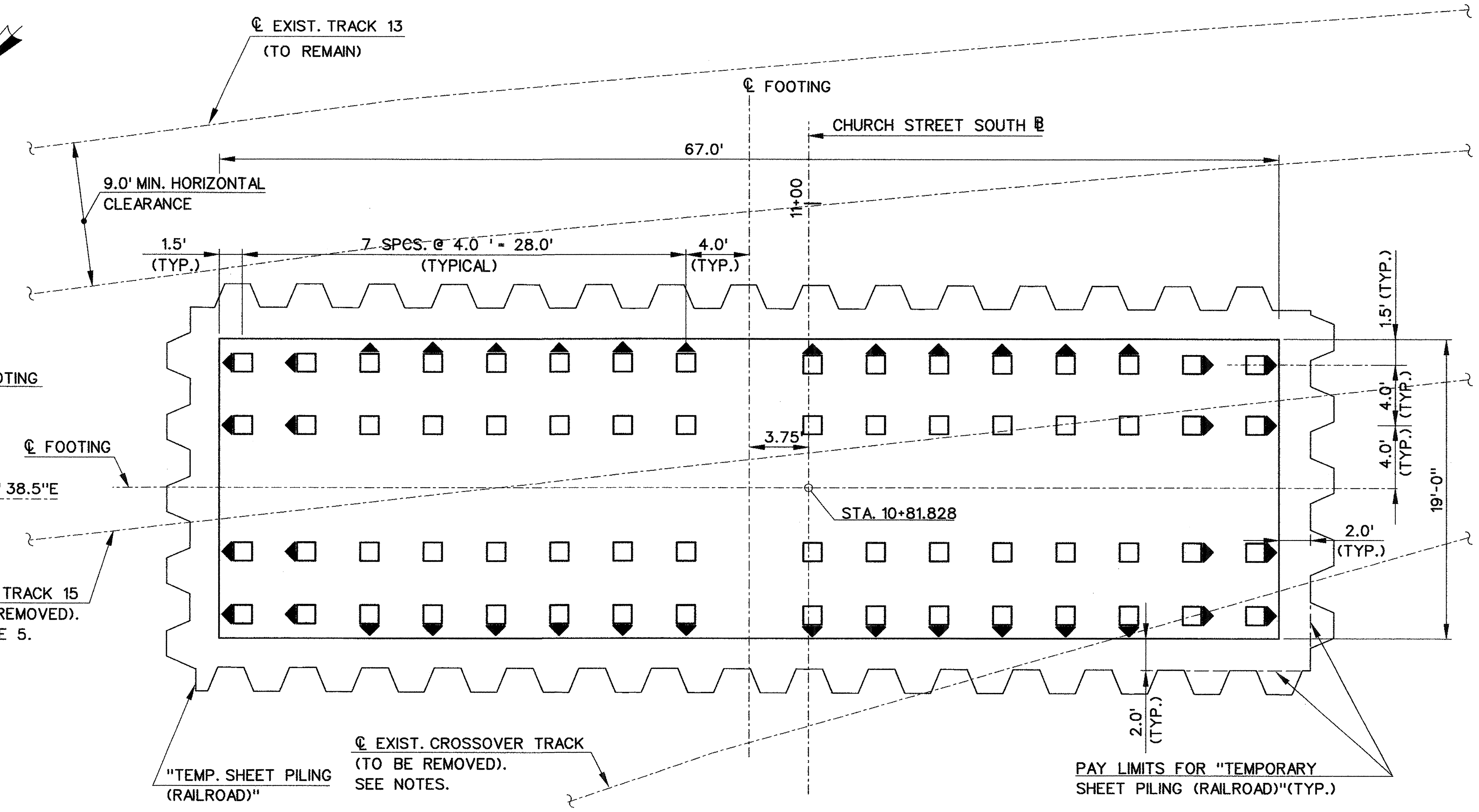
PROJECT NO.: 92-526
DRAWING NO.: STR-35
SHEET NO.: 169

...\final design\r703s034.dgn Apr 06, 2000 08:56:07



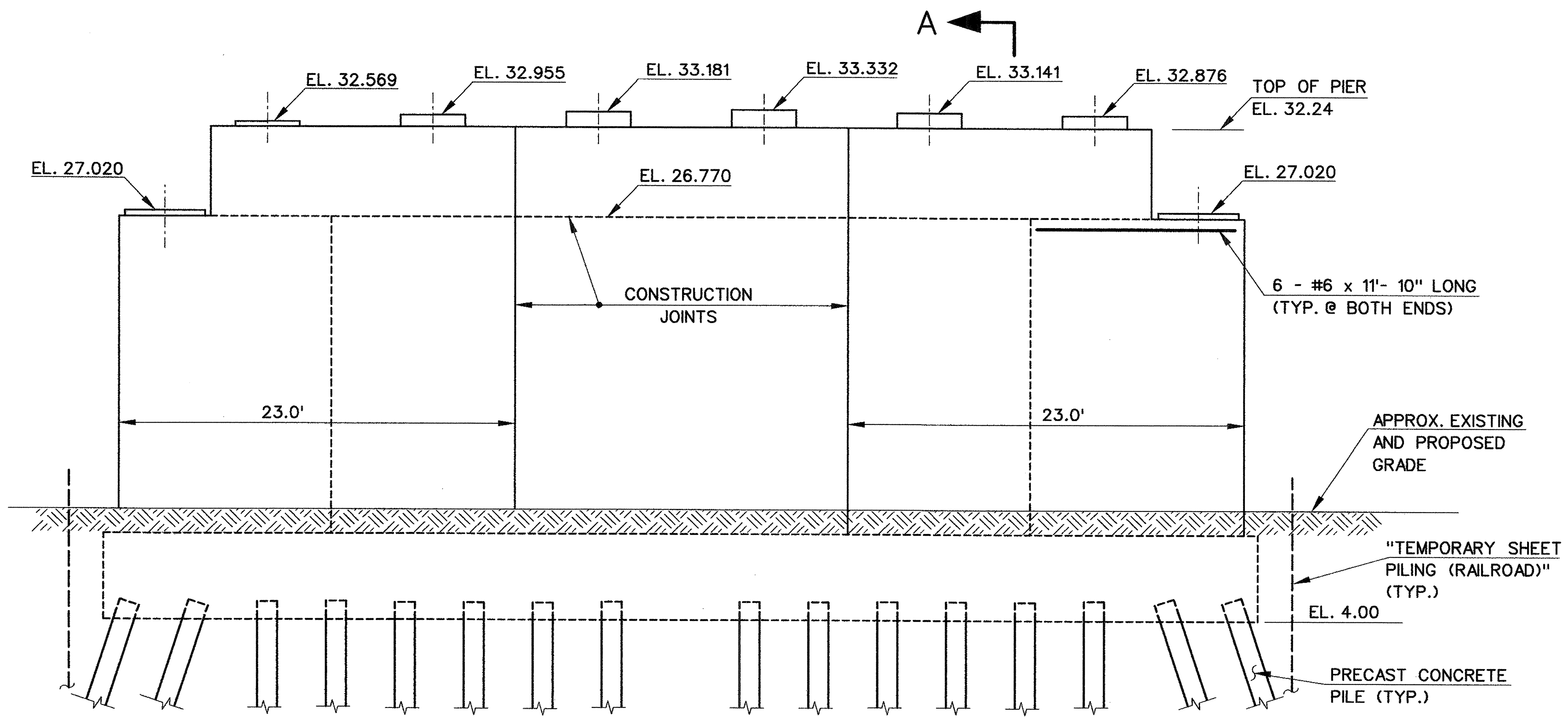
PLAN

SCALE: 3/16" = 1'-0"



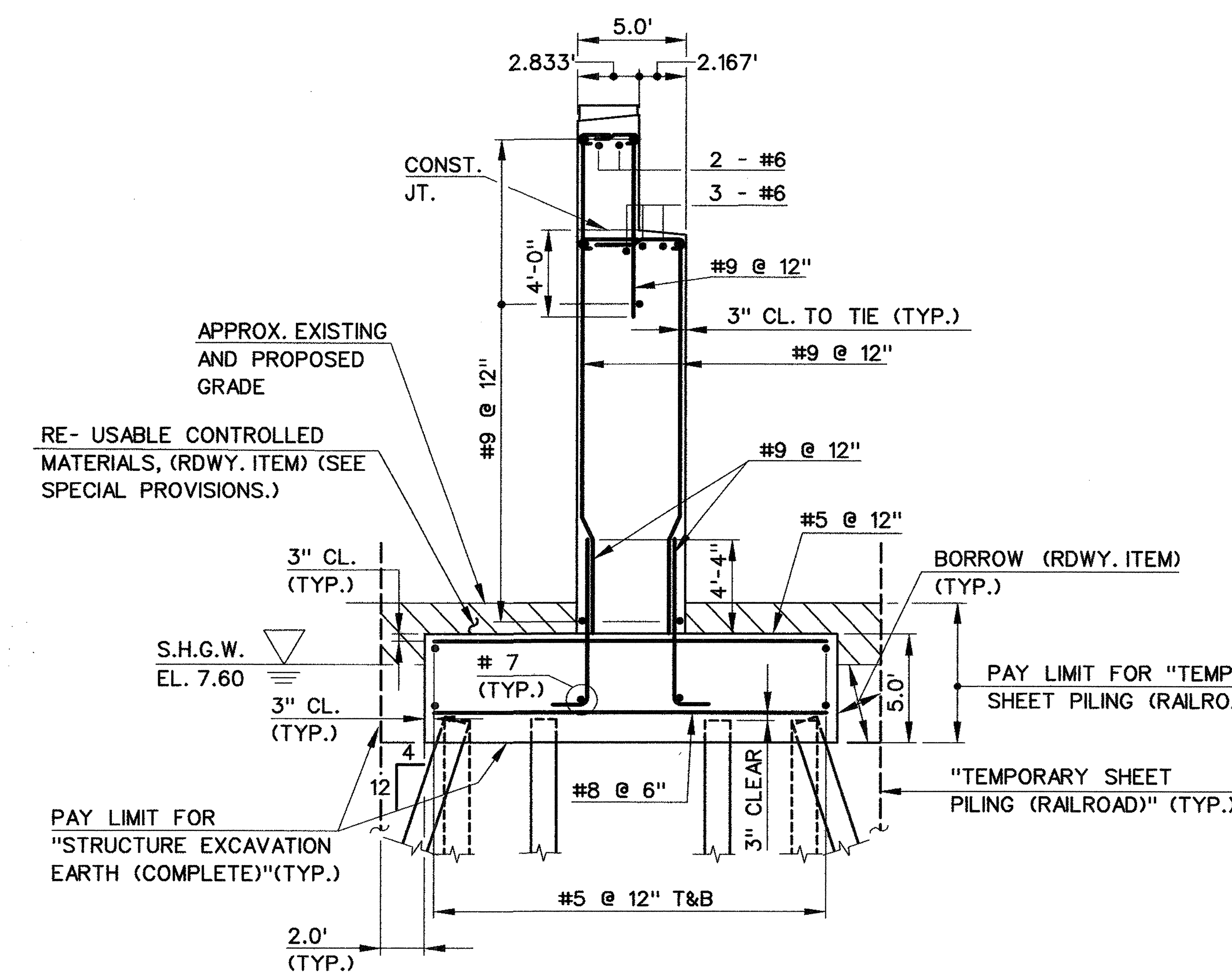
FOOTING AND PILE PLAN

SCALE: 3/16" = 1'-0"



ELEVATION

SCALE: 3/16" = 1'-0"



SECTION A-A

SCALE: 3/16" = 1'-0"

▭▶ INDICATES BATTERED PILE 4/12

NOTES:

1. FOR TYPICAL PILE DETAILS. SEE DWG. NO. STR-19.
2. FOR TYPICAL PIER DETAILS, SEE DWG. NOS. STR-45 AND STR-46.
3. REINFORCEMENT SHALL PASS THRU ALL CONSTRUCTION JOINTS MIN. LAP SPLICE OF #9 TO BE 6'-0".
4. S.H.G.W. = SEASONAL HIGH GROUNDWATER
5. FOR APPROX. TRACK REMOVAL LIMITS. SEE DWG. NO. STR-123.
6. MAXIMUM DESIGN PILE LOADS (AASHTO LOAD FACTOR DESIGN METHOD)
   GROUP I = 80 TONS
   GROUP VII = 78 TONS

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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Monti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S035.DGN
PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN
DRAWING TITLE: PIER 1

PROJECT NO.: 92-526
DRAWING NO.: STR-36
SHEET NO.: 170

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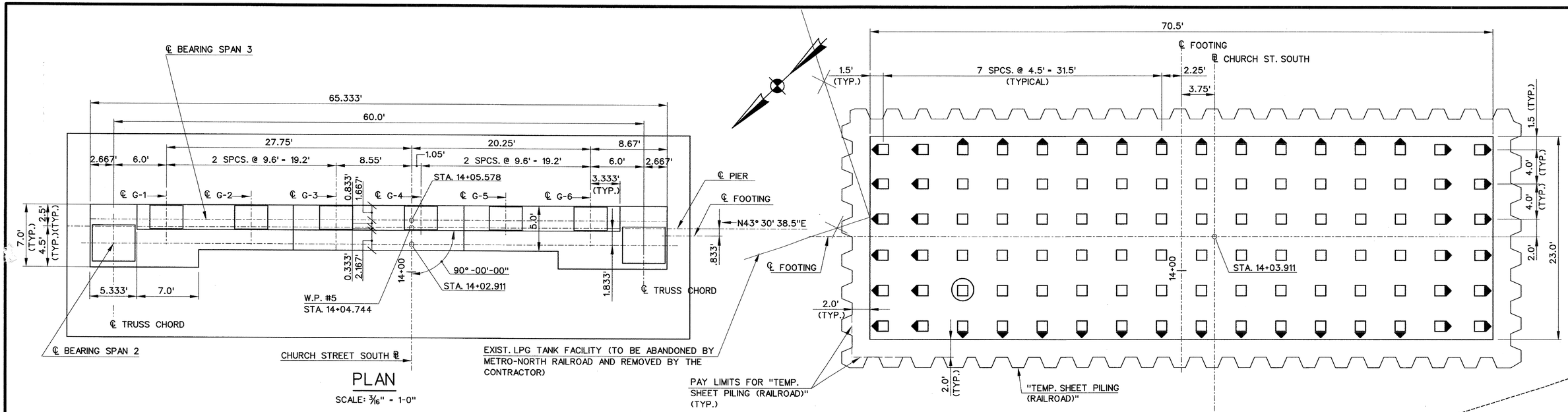
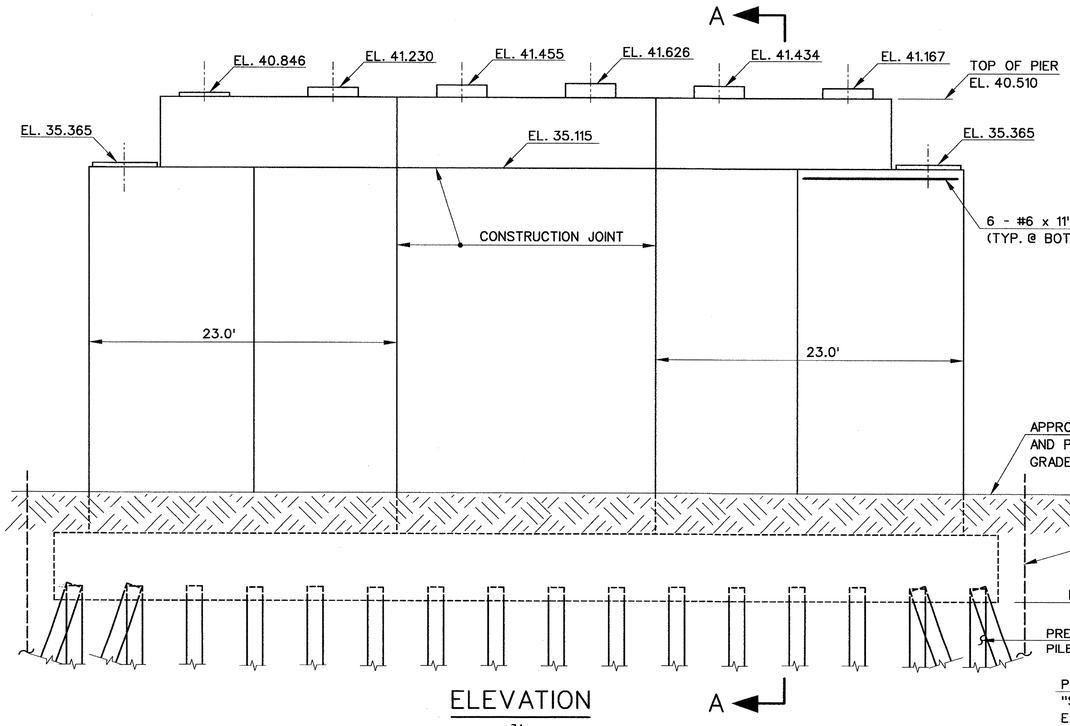


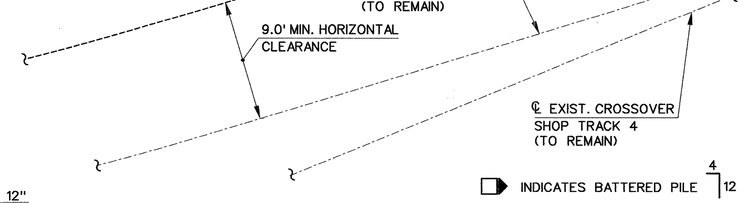
PLAN

SCALE: 3/16" = 1-0"



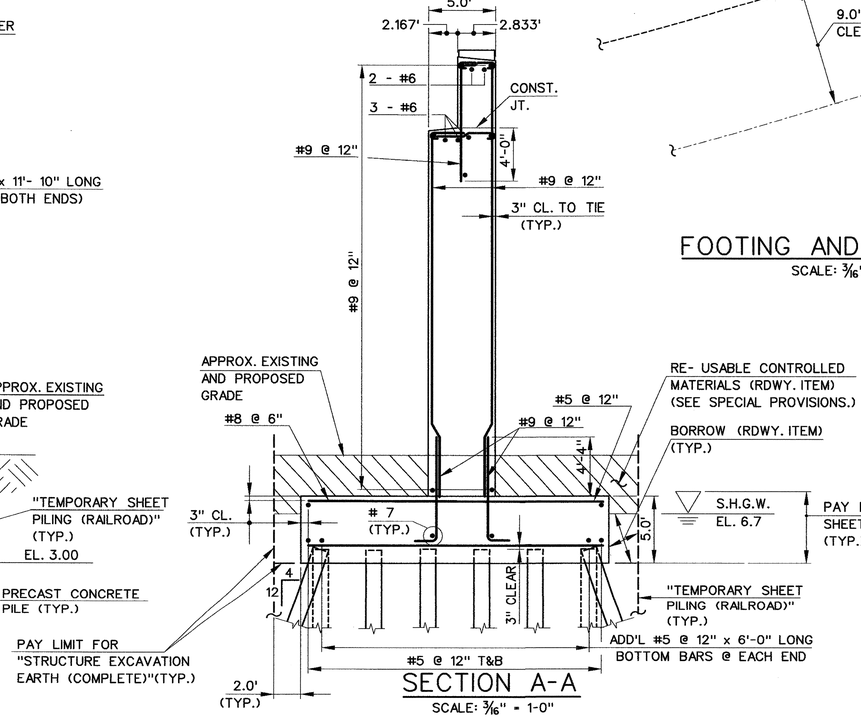
ELEVATION

SCALE: 3/16" = 1-0"



FOOTING AND PILE PLAN

SCALE: 3/16" = 1-0"



SECTION A-A

SCALE: 3/16" = 1-0"

NOTES:

1. FOR TYPICAL PILE DETAILS. SEE DWG. NO. STR-19.
2. FOR TYPICAL PIER DETAILS, SEE DWGS. NOS. STR-45 AND STR-46.
3. REINFORCEMENT SHALL PASS THRU ALL CONSTRUCTION JOINTS MIN. LAP SPLICE OF #9 TO BE 6'-0".
4. S.H.G.W. = SEASONAL HIGH GROUNDWATER
5. MAXIMUM DESIGN PILE LOADS (AASHTO LOAD FACTOR DESIGN METHOD)
   GROUP I = 58 TONS
   GROUP VII = 74 TONS

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S. FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Marotta DATE: 7-28-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S036.DGN
PLOTTED DATE: 7-18-00

TOWN: NEW HAVEN
DRAWING TITLE: PIER 2

PROJECT NO.: 92-526
DRAWING NO.: STR-37
SHEET NO.: 171

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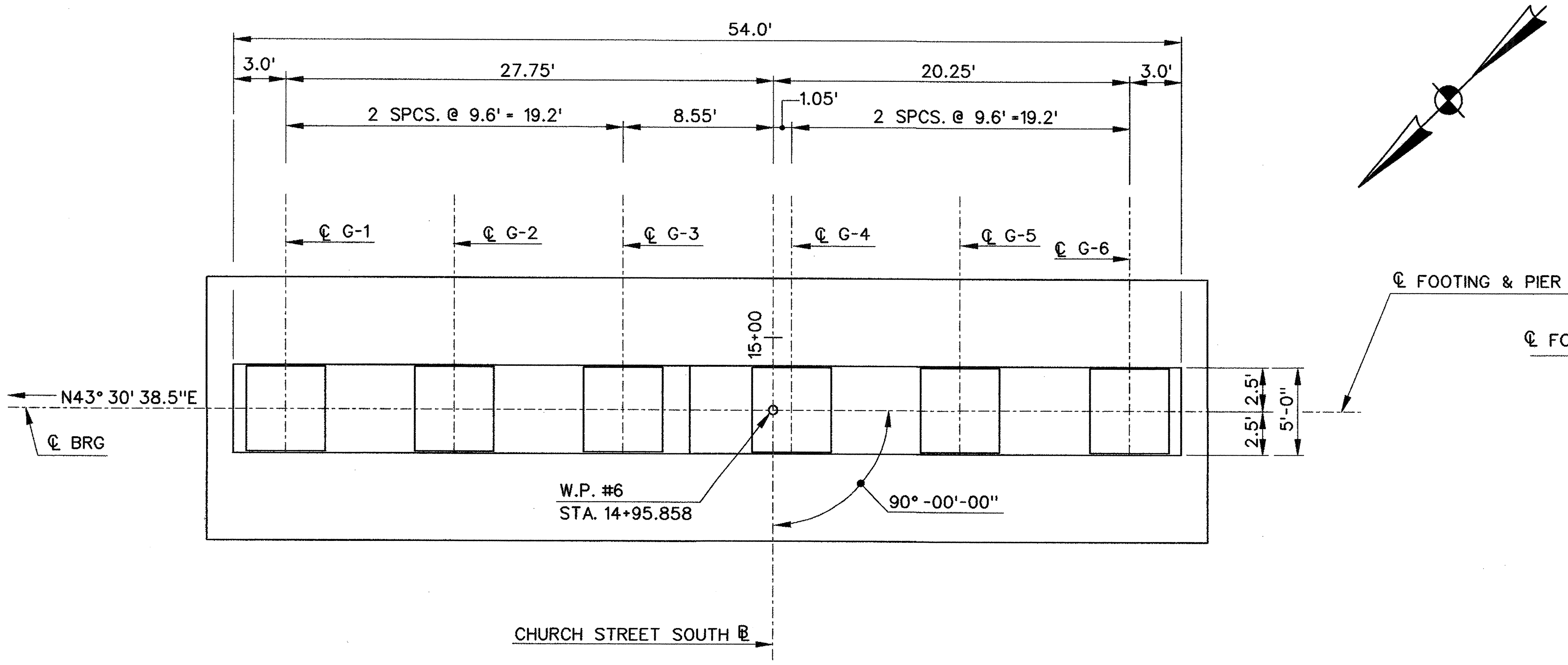
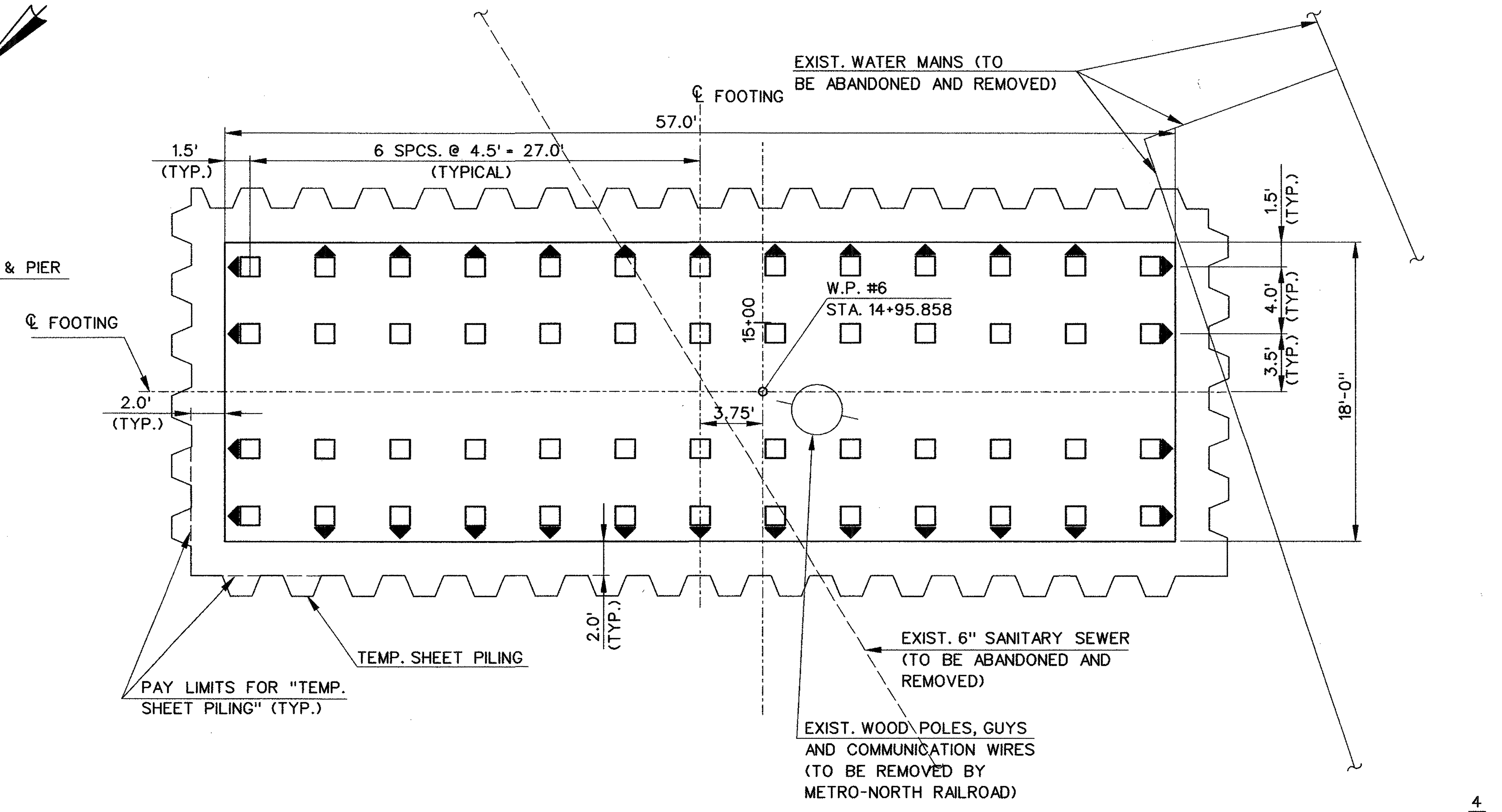


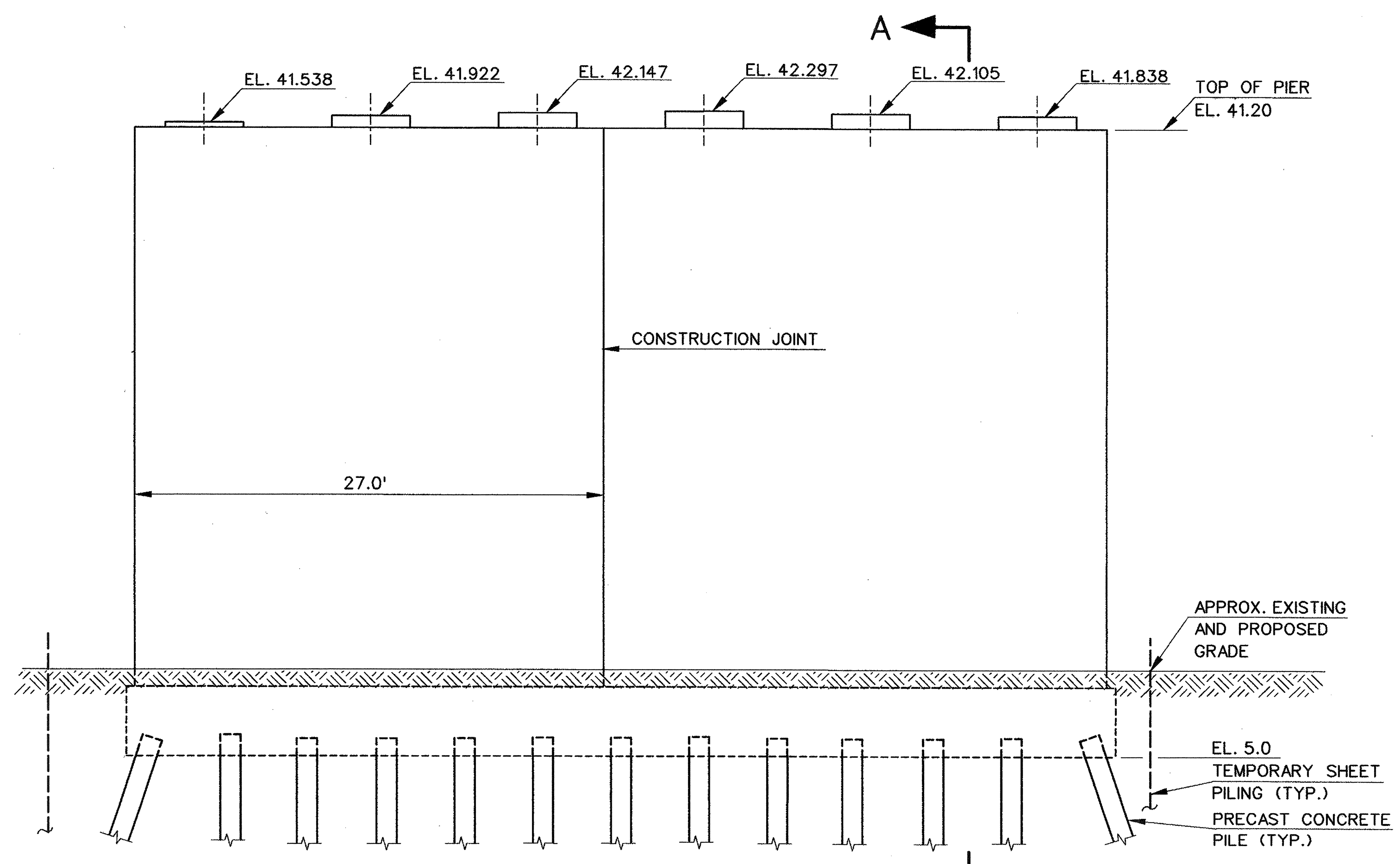
PLAN

SCALE: 3/16" = 1'-0"



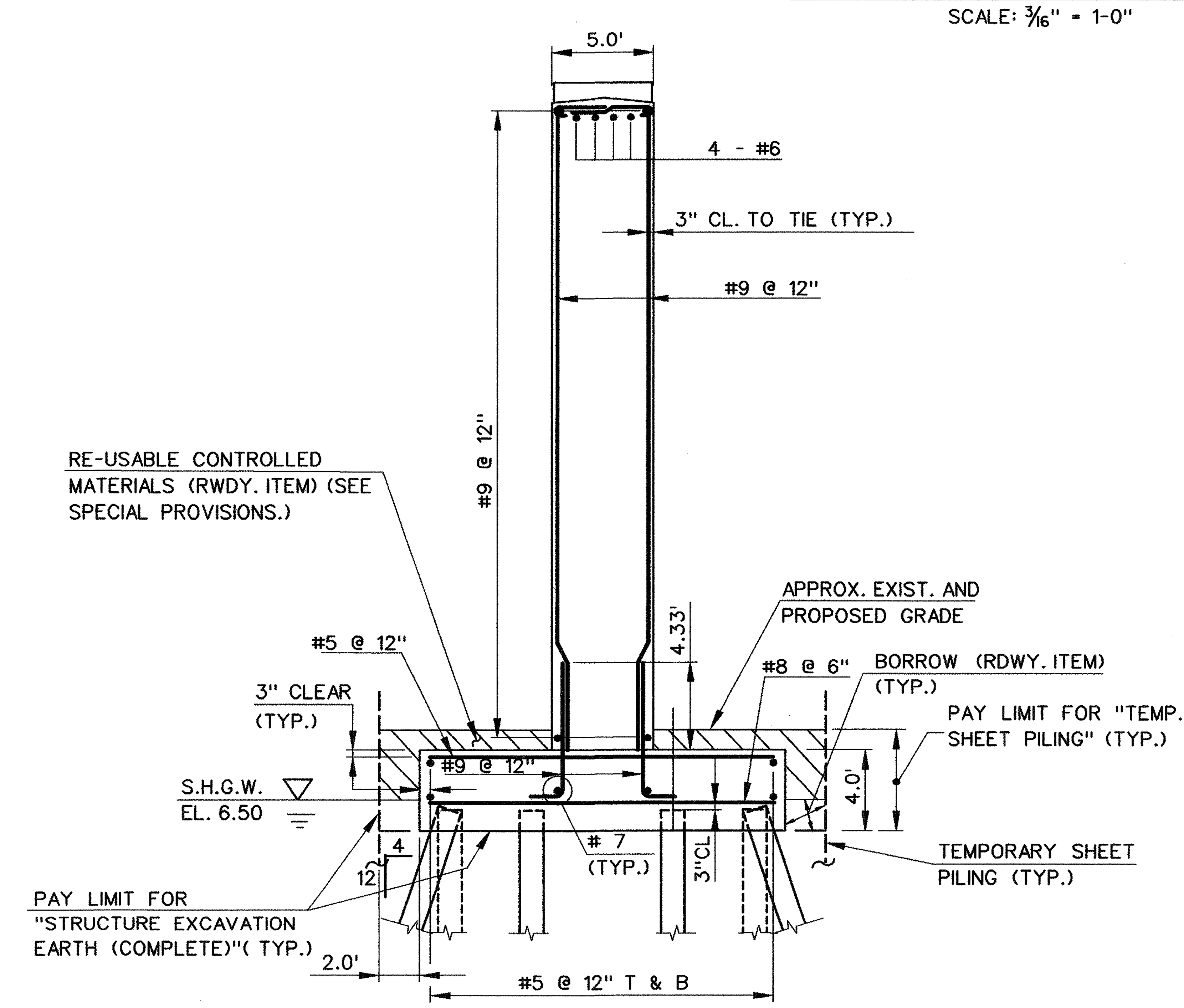
FOOTING AND PILE PLAN

SCALE: 3/16" = 1'-0"



ELEVATION

SCALE: 3/16" = 1'-0"



SECTION A-A

SCALE: 3/16" = 1'-0"

NOTES:

1. FOR TYPICAL PILE DETAILS. SEE DWG. NO. STR-19.
2. FOR TYPICAL PIER DETAILS, SEE DWGS. NOS. STR-45 AND STR-46.
3. REINFORCEMENT SHALL PASS THRU ALL CONSTRUCTION JOINTS MIN. LAP SPLICE OF #9 TO BE 6'-0".
4. S.H.G.W. = SEASONAL HIGH GROUNDWATER
5. MAXIMUM DESIGN PILE LOADS (AASHTO LOAD FACTOR DESIGN METHOD)
   GROUP I = 67 TONS
   GROUP VII = 75 TONS
   GROUP VI = 79 TONS

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

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25 APR 2000
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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

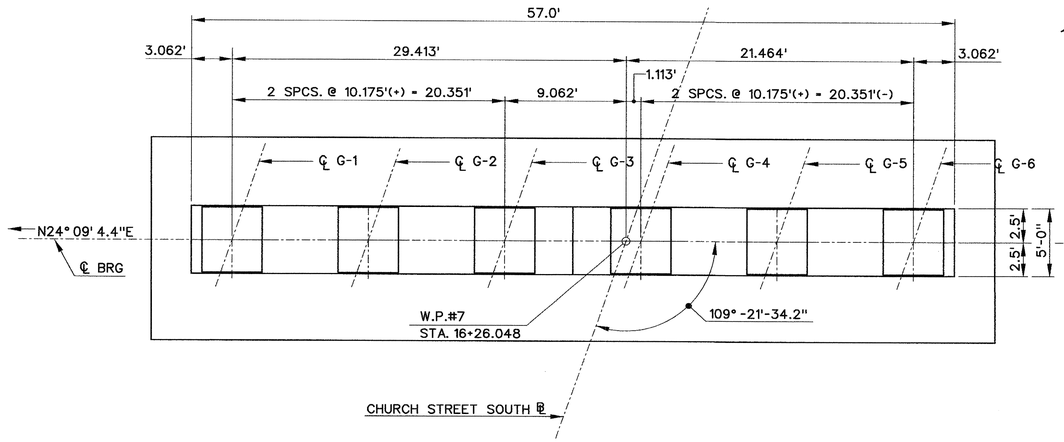
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4/25/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S037.DGN
PLOTTED DATE: 4-25-00

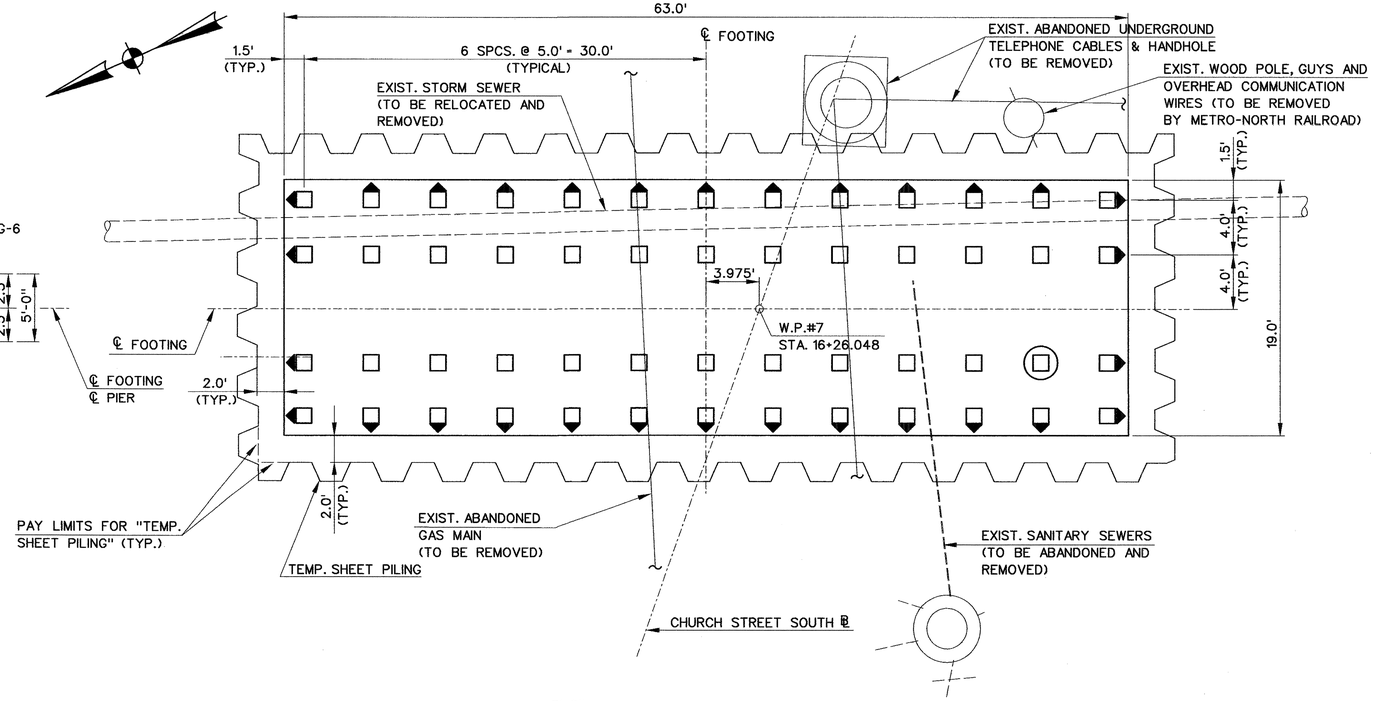
TOWN: NEW HAVEN
DRAWING TITLE: PIER 3

PROJECT NO.: 92-526
DRAWING NO.: STR-38
SHEET NO.: 172



PLAN

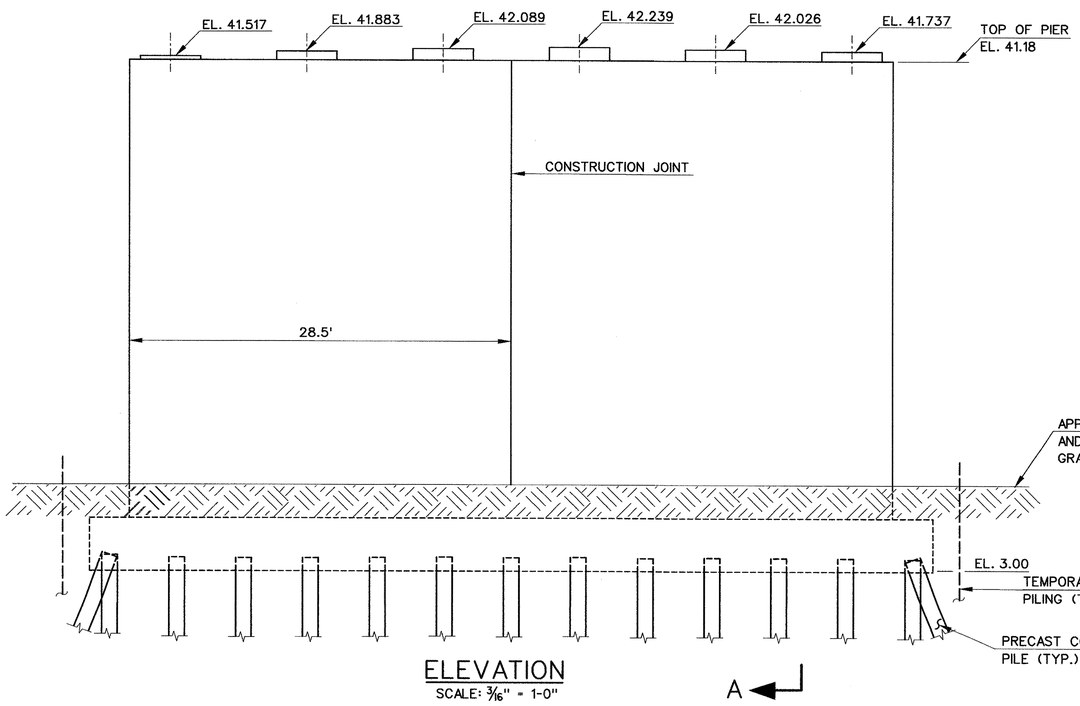
SCALE: 3/16" = 1-0"



FOOTING AND PILE PLAN

SCALE: 3/16" = 1-0"

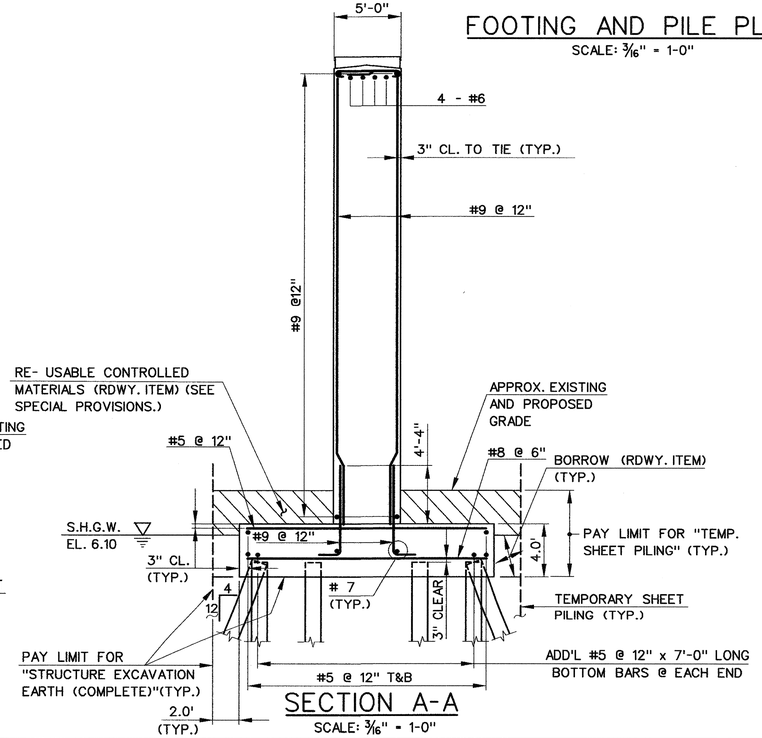
A



ELEVATION

SCALE: 3/16" = 1-0"

A



SECTION A-A

SCALE: 3/16" = 1-0"

INDICATES BATTERED PILE 4 12

INDICATES LOAD TEST PILE & TEST PILE (75' LONG)

NOTES:

1. FOR TYPICAL PILE DETAILS. SEE DWG. NO. STR-19.
2. FOR TYPICAL PIER DETAILS, SEE DWGS. NOS. STR-45 AND STR-46.
3. REINFORCEMENT SHALL PASS THRU ALL CONSTRUCTION JOINTS MIN. LAP SPLICE OF #9 TO BE 6'-0".
4. S.H.G.W. - SEASONAL HIGH GROUNDWATER
5. MAXIMUM DESIGN PILE LOADS (AASHTO LOAD FACTOR DESIGN METHOD)
   GROUP I - 71 TONS
   GROUP VII - 79 TONS
   GROUP VI - 80 TONS

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S. FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 7-18-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S038.DGN PLOTTED DATE: 7-18-00

TOWN: NEW HAVEN
DRAWING TITLE: PIER 4

PROJECT NO.: 92-526
DRAWING NO.: STR-39
SHEET NO.: 173

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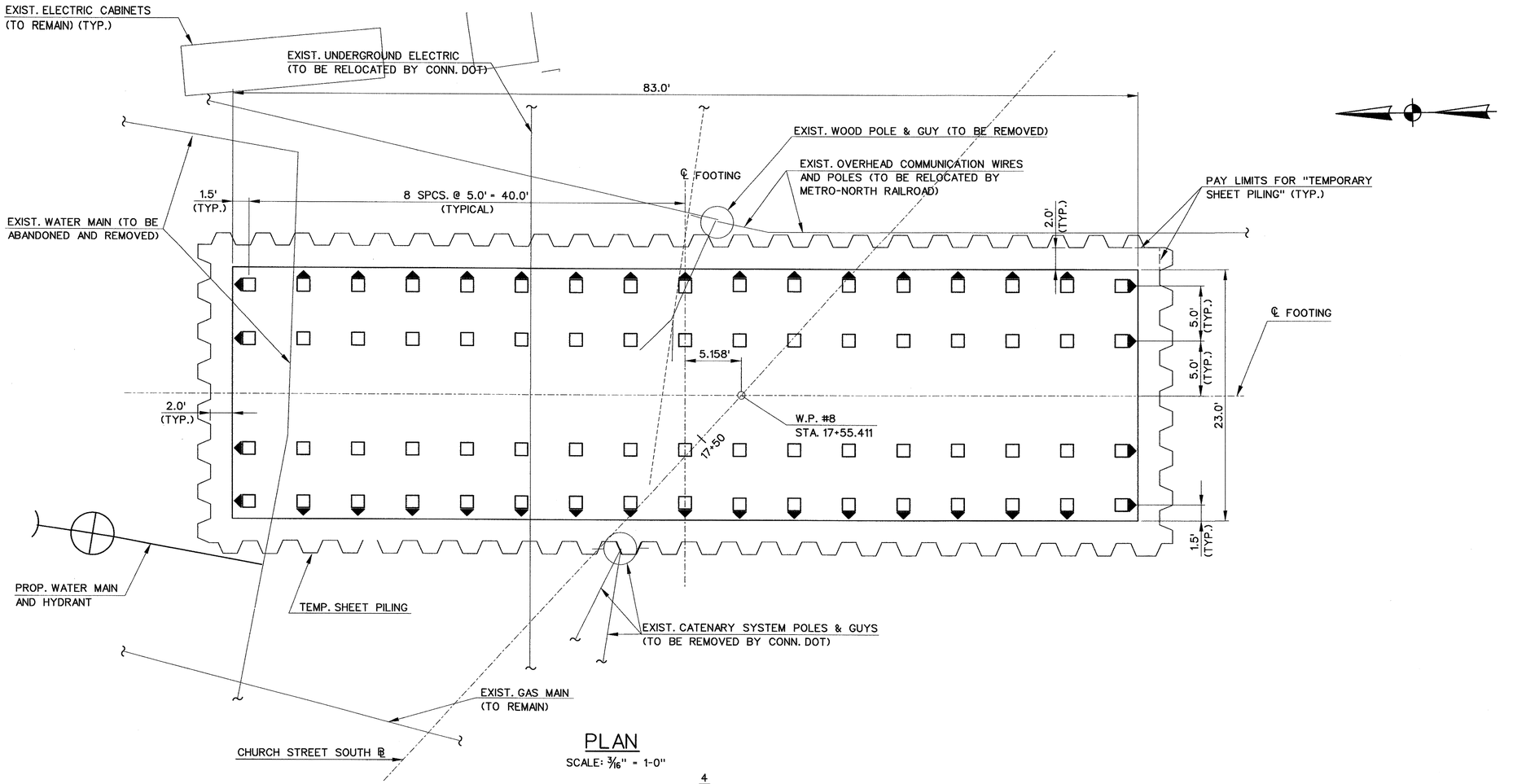
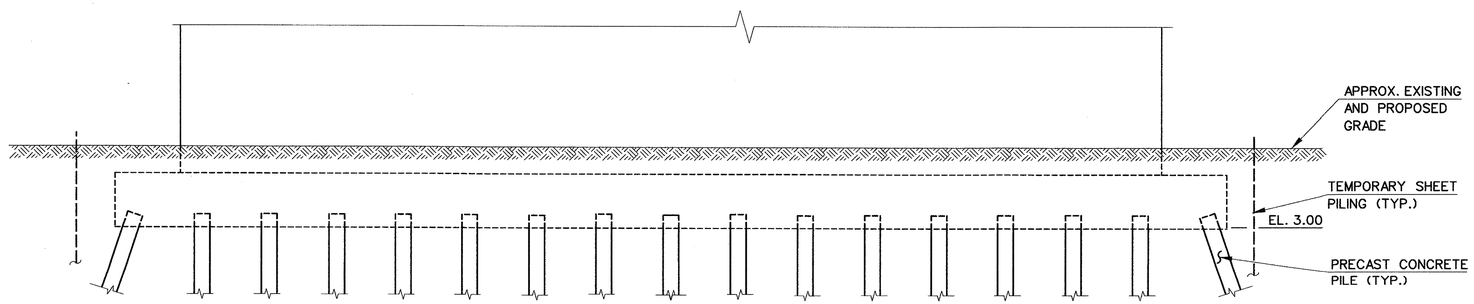


PLAN

SCALE: 3/16" = 1-0"

INDICATES BATTERED PILE 4 ⌐ 12



ELEVATION

SCALE: 3/16" = 1-0"

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: S FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Howitt DATE: 7-26-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S039.DGN
PLOTTED DATE: 7-18-00

TOWN: NEW HAVEN
DRAWING TITLE: PIER 5-FOOTING & PILE PLAN

PROJECT NO.: 92-526
DRAWING NO.: STR-40
SHEET NO.: 174

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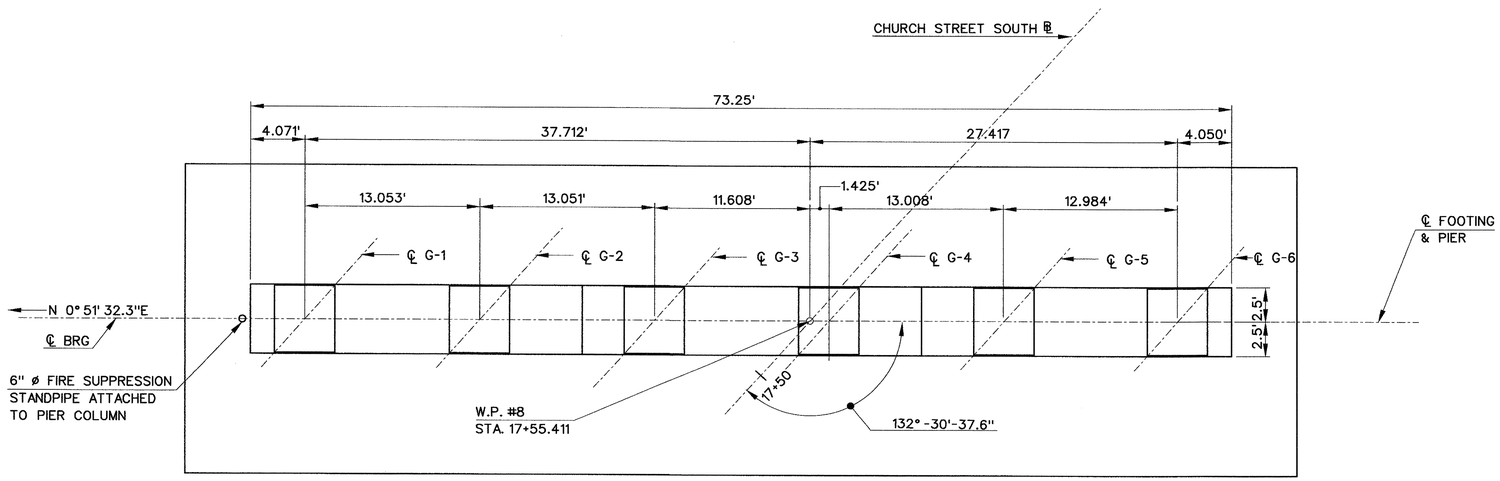
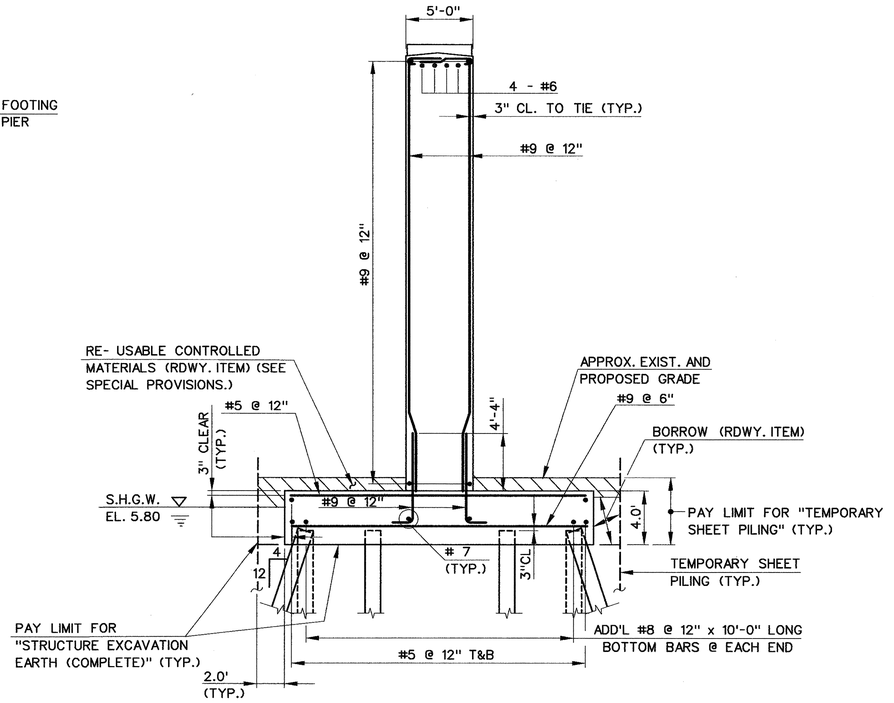


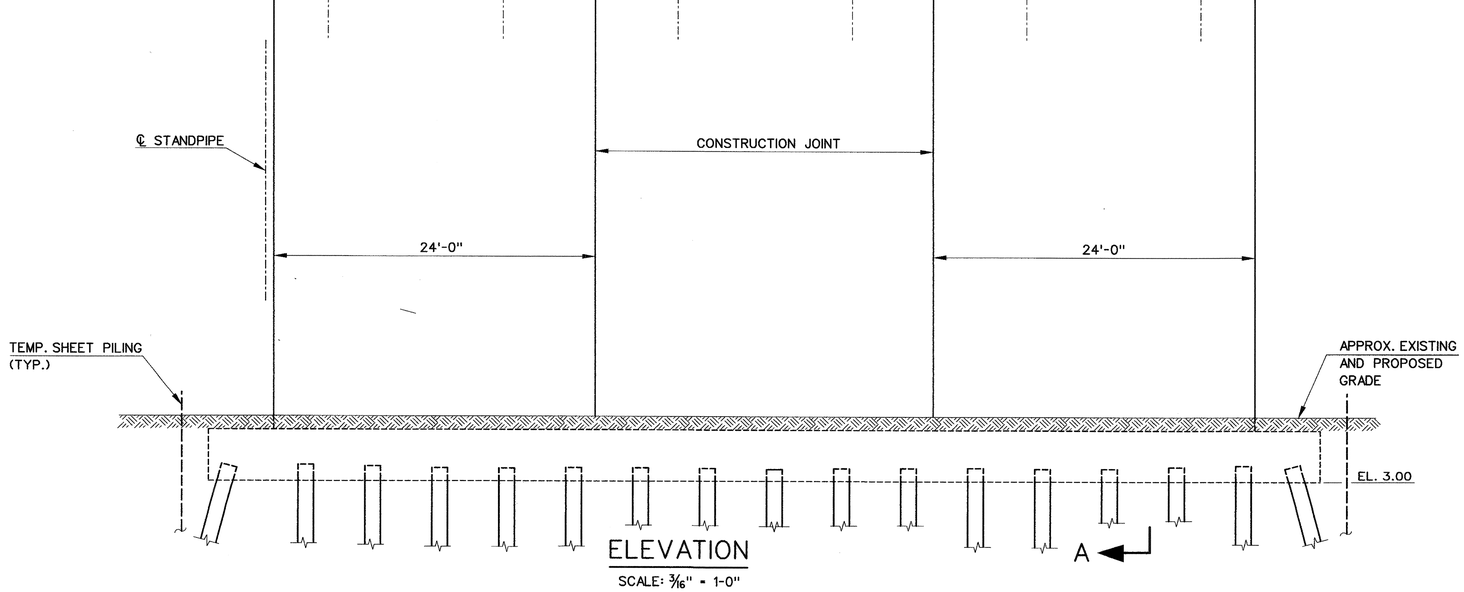
PLAN

SCALE: 3/16" = 1-0"



SECTION A-A

SCALE: 3/16" = 1-0"



ELEVATION

SCALE: 3/16" = 1-0"

NOTES:

1. FOR TYPICAL PILE DETAILS. SEE DWG. NO. STR-19.
2. FOR TYPICAL PIER DETAILS, SEE DWGS. NOS. STR-45 AND STR-46.
3. REINFORCEMENT SHALL PASS THRU ALL CONSTRUCTION JOINTS MIN. LAP SPLICE OF #9 TO BE 6'-0".
4. S.H.G.W. - SEASONAL HIGH GROUNDWATER
5. FOR STANDPIPE DETAILS, SEE DWG. NOS. STR-121 AND STR-122.
6. MAXIMUM DESIGN PILE LOADS (AASHTO) LOAD FACTOR DESIGN METHOD)
   GROUP I - 67 TONS
   GROUP VII - 66 TONS
   GROUP III - 70 TONS

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S. FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Maretti DATE: 7-26-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S040.DGN | PLOTTED DATE: 7-18-00

TOWN: NEW HAVEN
DRAWING TITLE: PIER 5

PROJECT NO.: 92-526
DRAWING NO.: STR-41
SHEET NO.: 175

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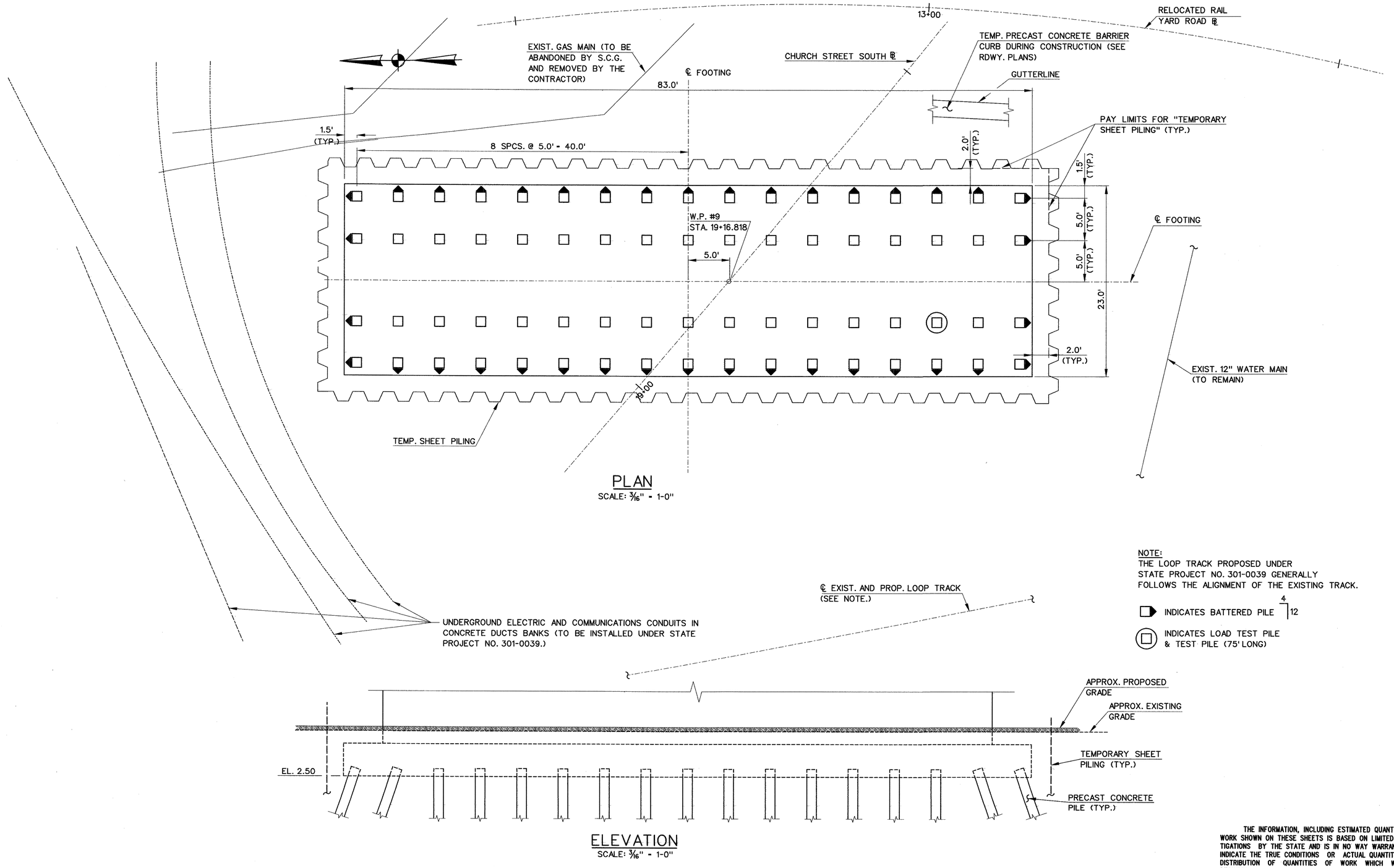

NOTE:
THE LOOP TRACK PROPOSED UNDER STATE PROJECT NO. 301-0039 GENERALLY FOLLOWS THE ALIGNMENT OF THE EXISTING TRACK.

INDICATES BATTERED PILE 4 | 12

INDICATES LOAD TEST PILE & TEST PILE (75' LONG)

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S. FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S041.DGN
PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN
DRAWING TITLE: PIER 6-FOOTING & PILE PLAN

PROJECT NO.: 92-526
DRAWING NO.: STR-42
SHEET NO.: 176

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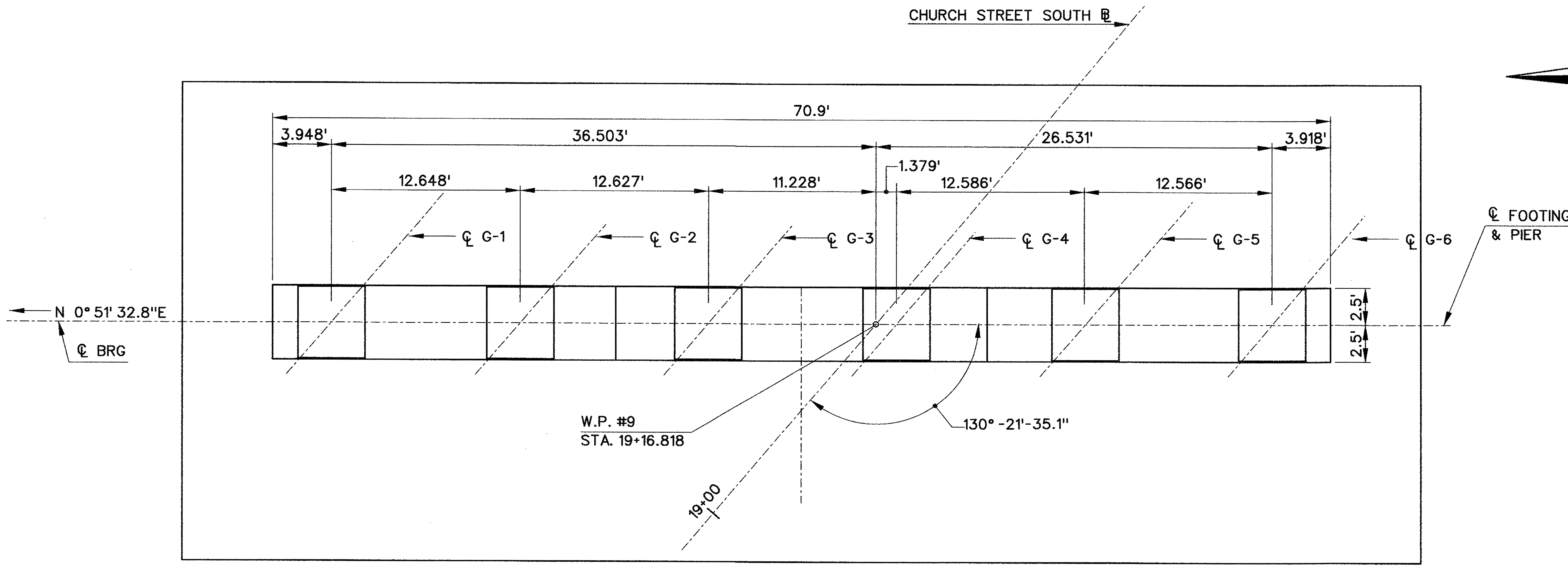
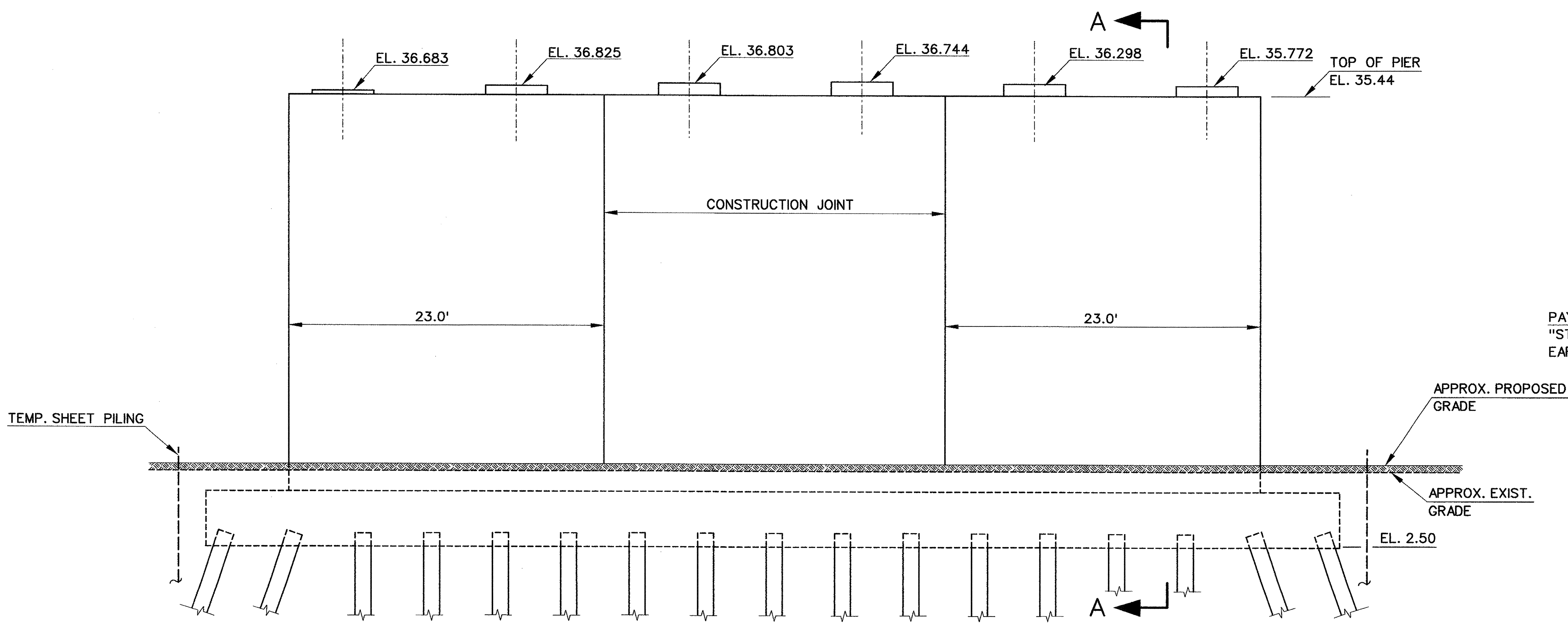


PLAN

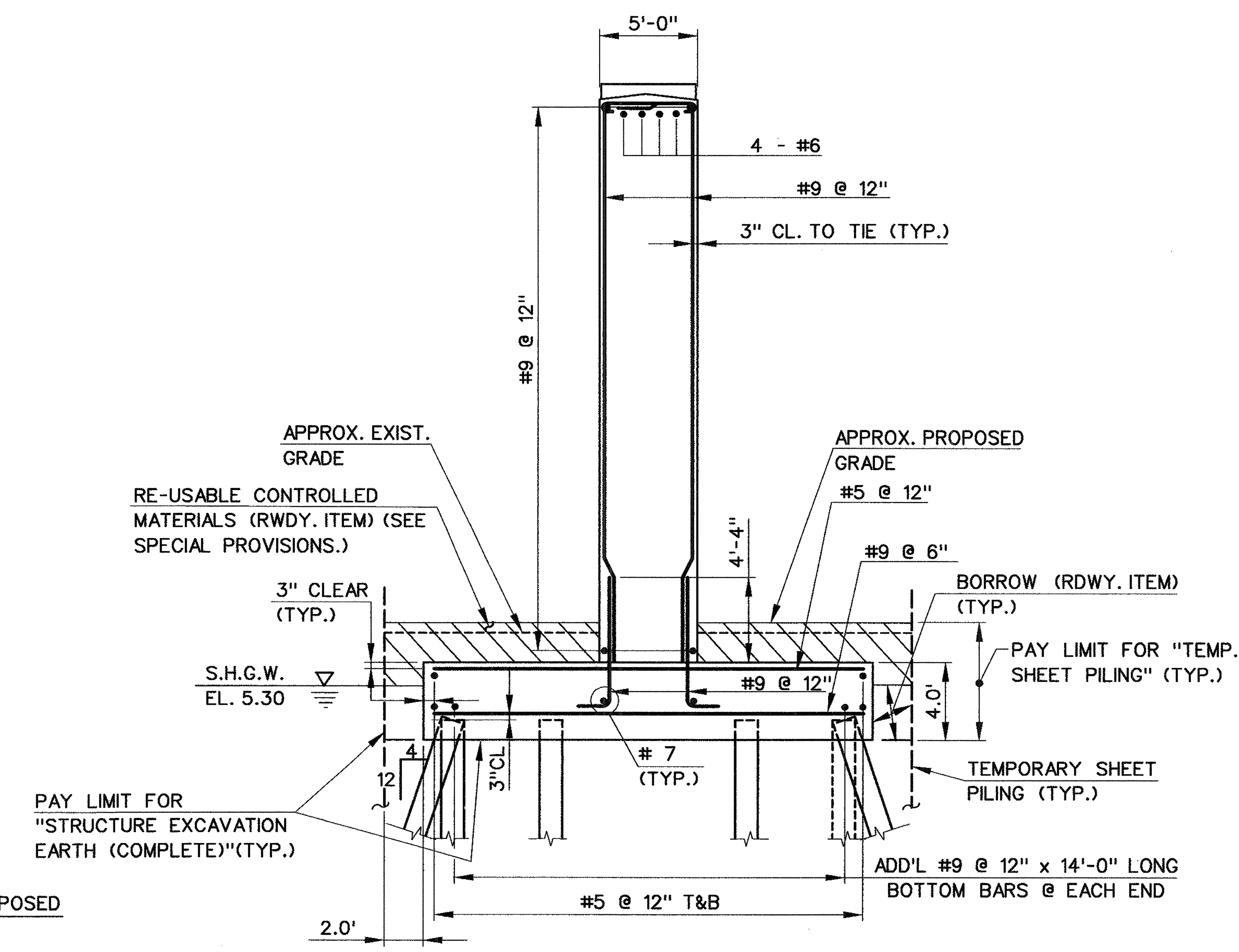


ELEVATION

SCALE: 3/16" = 1'-0"

NOTES:

1. FOR TYPICAL PILE DETAILS. SEE DWG. NO. STR-19.
2. FOR TYPICAL PIER DETAILS, SEE DWGS. NOS. STR-45 AND STR-46.
3. REINFORCEMENT SHALL PASS THRU ALL CONSTRUCTION JOINTS MIN. LAP SPLICE OF #9 TO BE 6'-0".
4. S.H.G.W. = SEASONAL HIGH GROUNDWATER
5. MAXIMUM DESIGN PILE LOADS (AASHTO LOAD FACTOR DESIGN METHOD)
   GROUP I = 68 TONS
   GROUP VII = 66 TONS
   GROUP III = 70 TONS



SECTION A-A

SCALE: 3/16" = 1'-0"

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO

REVISIONS

SCALE AS NOTED

DESIGNER: S. FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Manetti   DATE: 7-28-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S042.DGN   PLOTTED DATE: 7-18-00

TOWN: NEW HAVEN

DRAWING TITLE: PIER 6

PROJECT NO.: 92-526
DRAWING NO.: STR-43
SHEET NO.: 177

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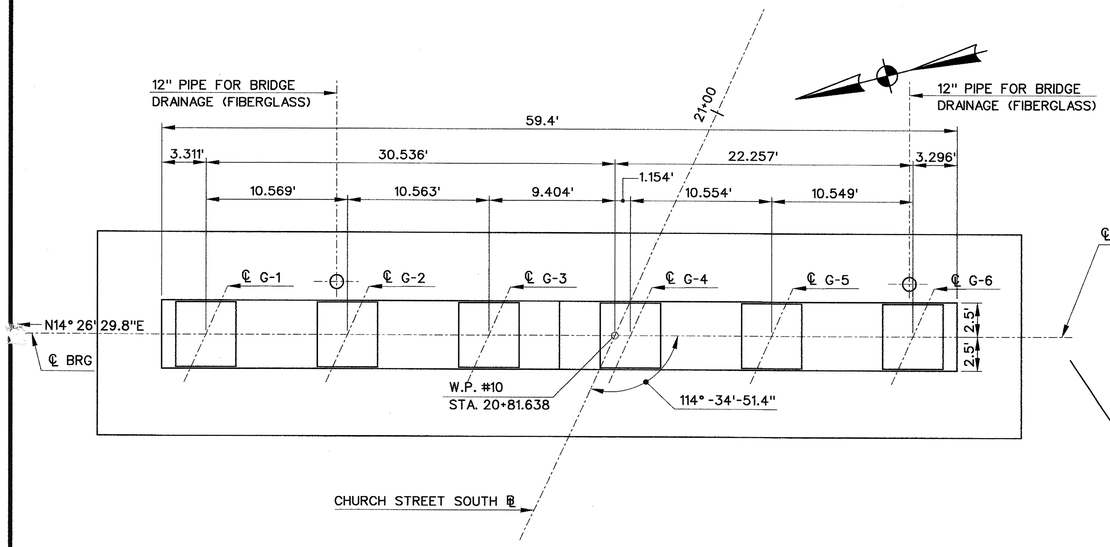
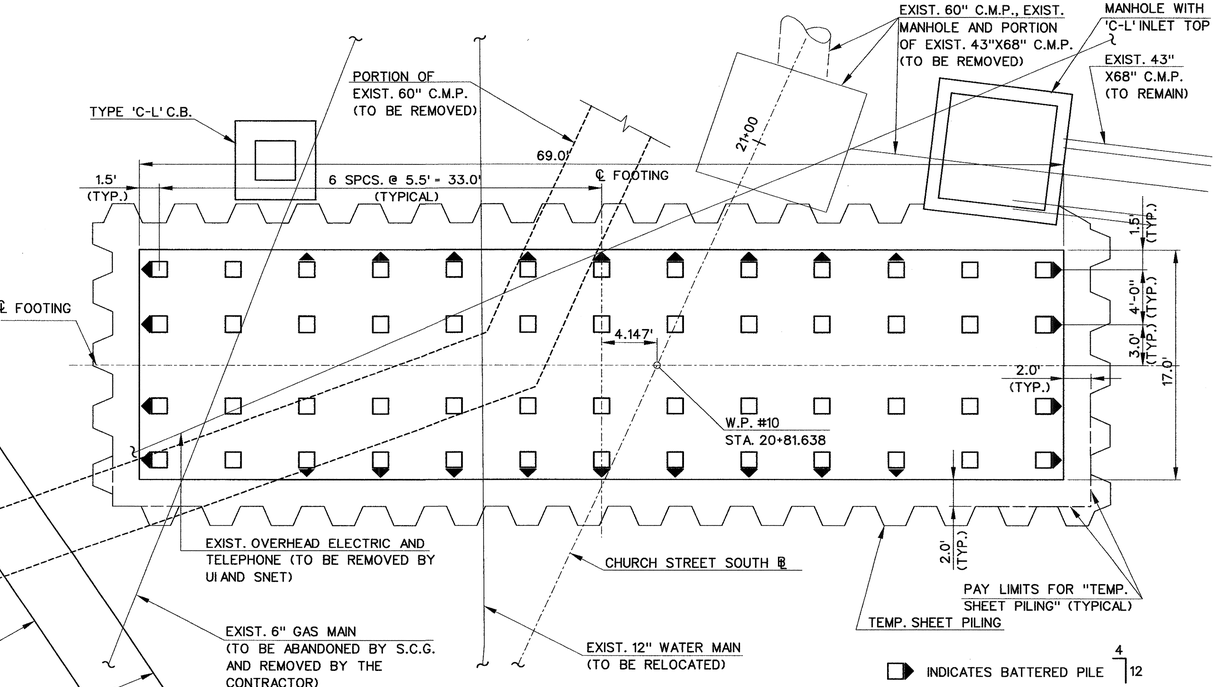
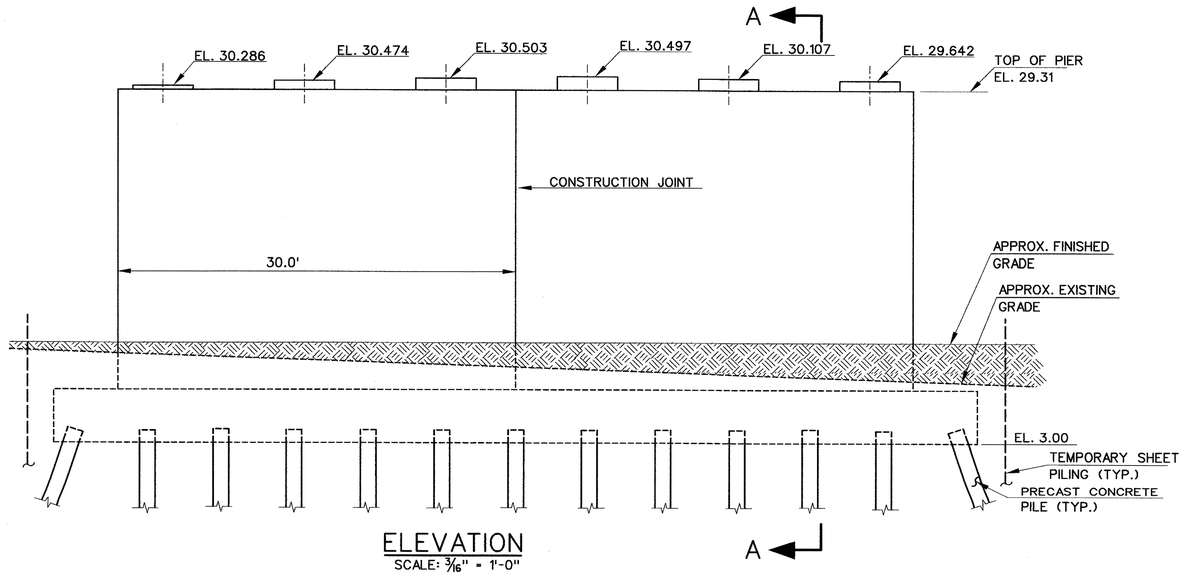


PLAN
SCALE: 3/16" = 1'-0"



FOOTING AND PILE PLAN
SCALE: 3/16" = 1'-0"



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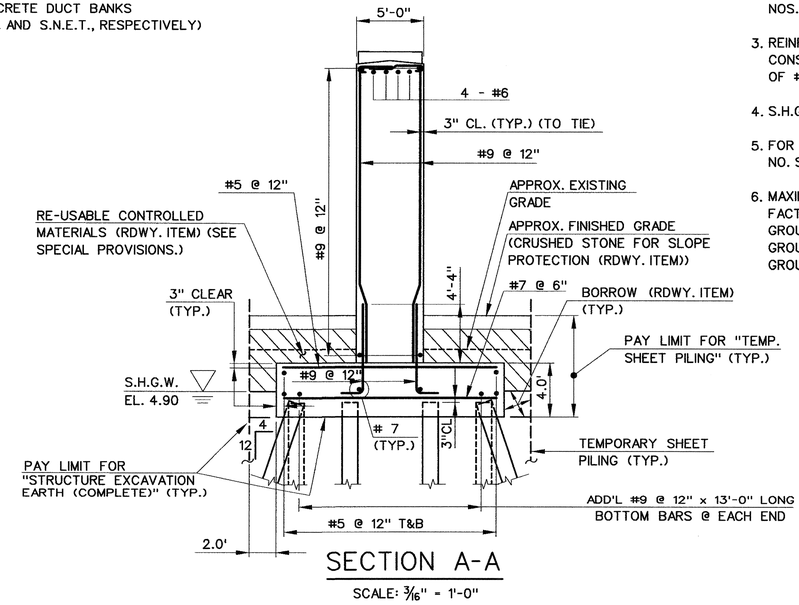

SECTION A-A
SCALE: 3/16" = 1'-0"

NOTES:

1. FOR TYPICAL PILE DETAILS. SEE DWG. NO. STR-19.
2. FOR TYPICAL PIER DETAILS, SEE DWGS. NOS. STR-45 AND STR-46.
3. REINFORCEMENT SHALL PASS THRU ALL CONSTRUCTION JOINTS MIN. LAP SPLICE OF #9 TO BE 6'-0".
4. S.H.G.W. - SEASONAL HIGH GROUNDWATER
5. FOR BRIDGE DRAINAGE DETAILS, SEE DWG. NO. STR-103.
6. MAXIMUM DESIGN PILE LOADS (AASHTO LOAD FACTOR DESIGN METHOD)
   GROUP I - 72 TONS
   GROUP VII - 67 TONS
   GROUP VI - 79 TONS

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: S. FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z VUEMIROVIC
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Maietti DATE: 7-26-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S043.DGN PLOTTED DATE: 7-18-00

TOWN: NEW HAVEN
DRAWING TITLE: PIER 7

PROJECT NO.: 92-526
DRAWING NO.: STR-44
SHEET NO.: 178

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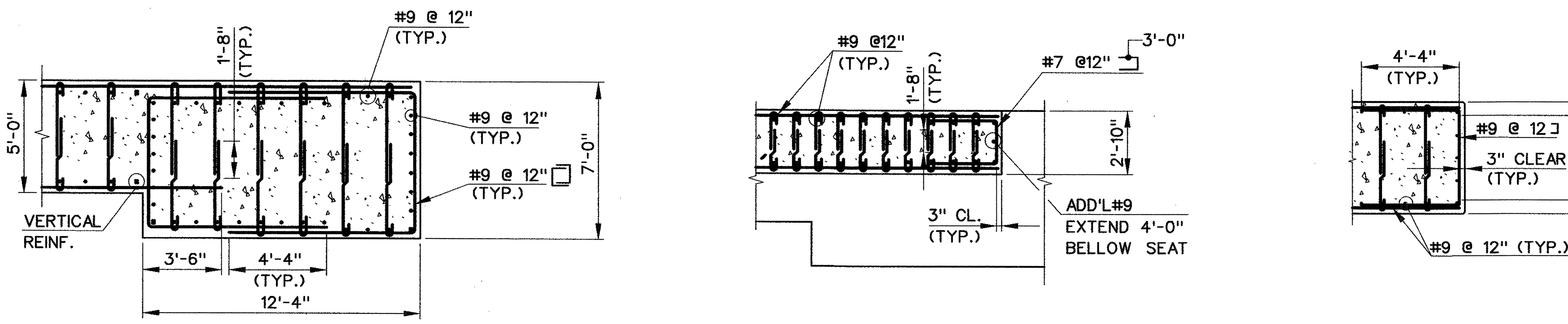
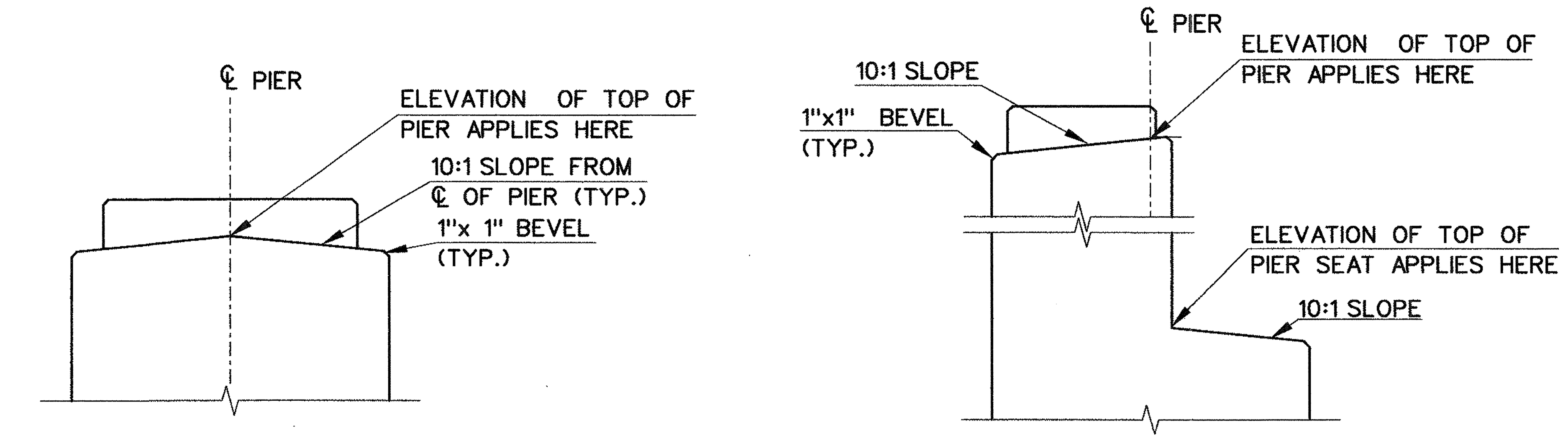


PIERS 1 & 2

PIERS 3 THRU 7

SECTION @ END OF PIER

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

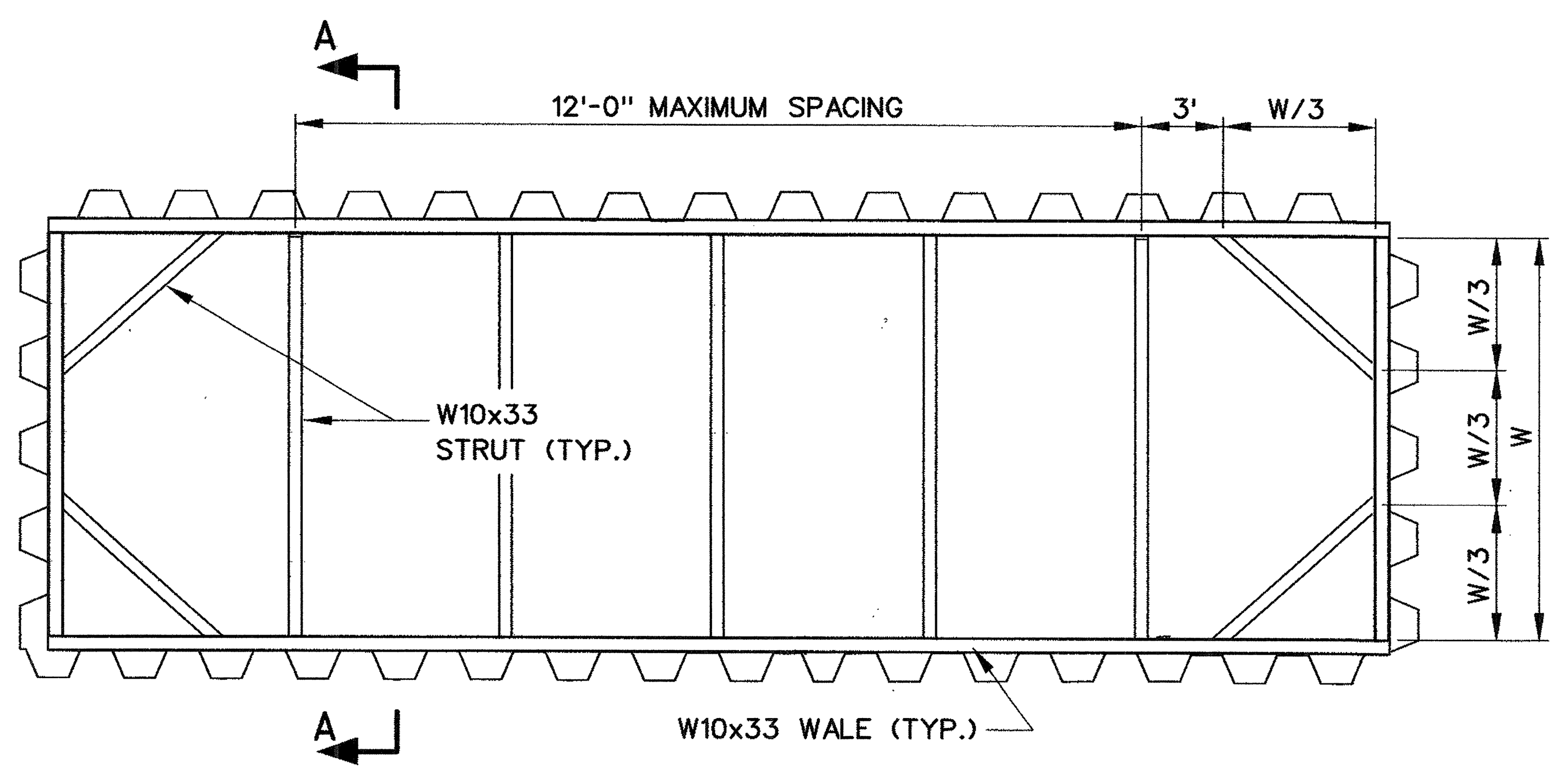


PIERS 3 THRU 7

PIERS 1 & 2

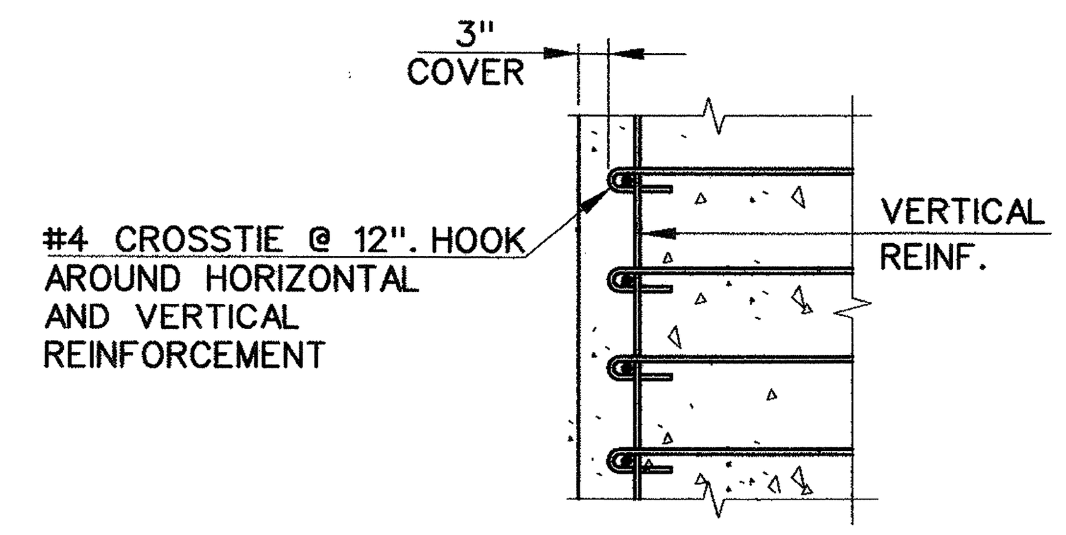
END VIEW @ TOP OF PIER

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

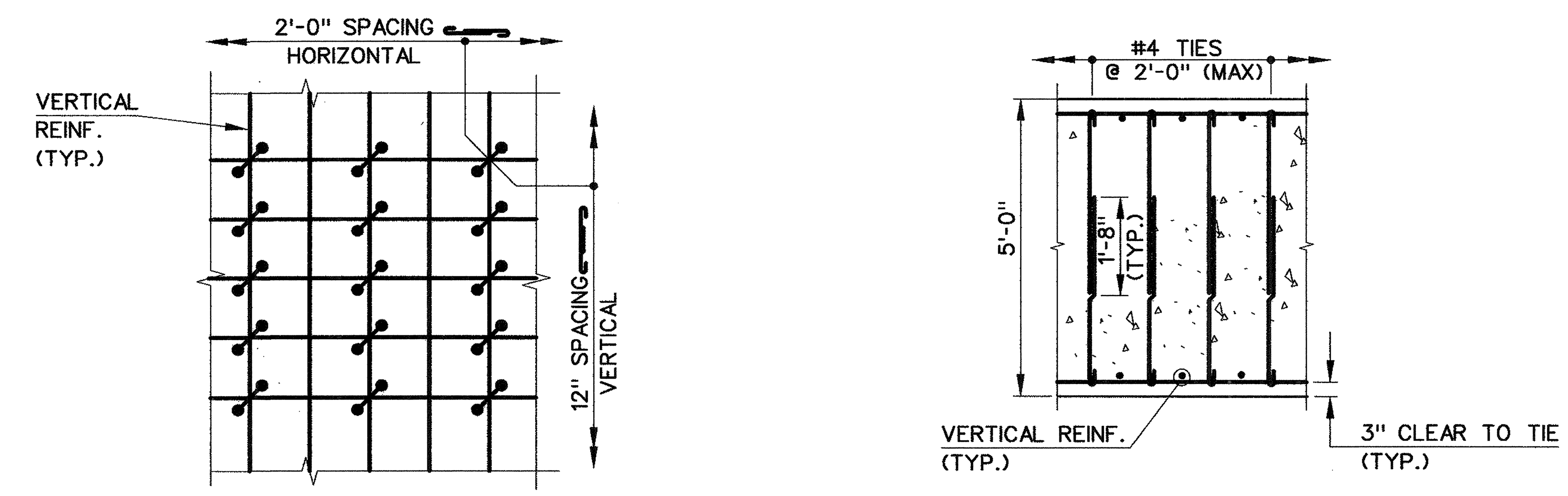


PLAN

NOT TO SCALE



DETAIL

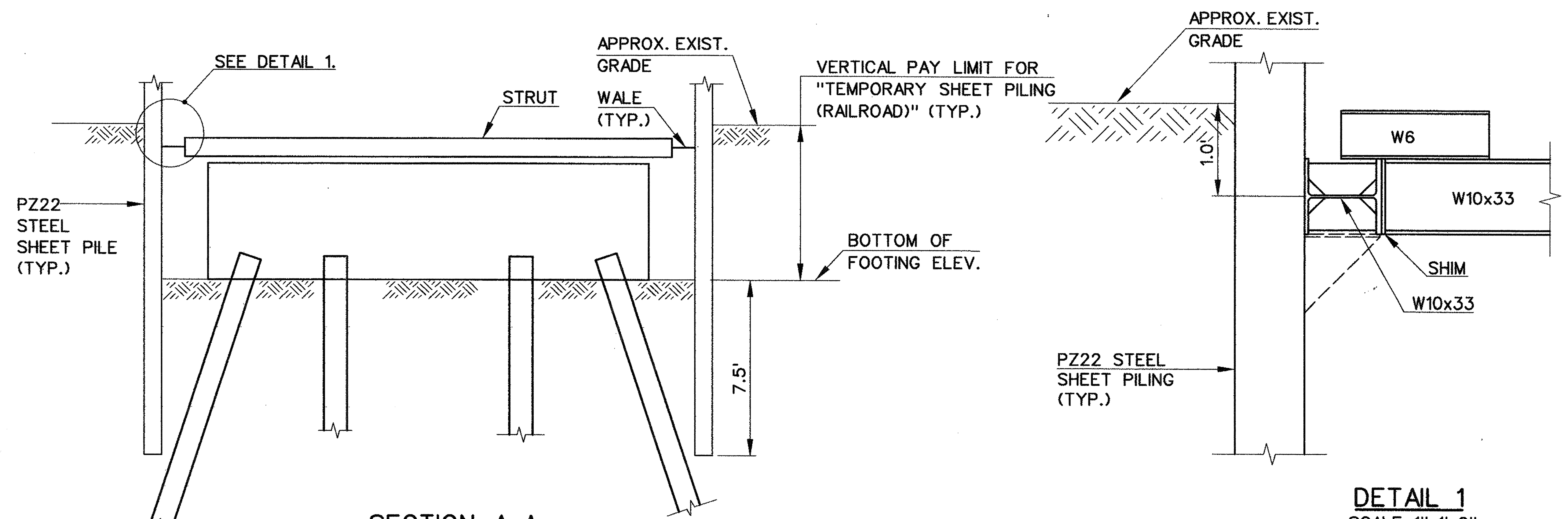


ELEVATION

SECTION

TYPICAL PIER STEM TIES

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



SECTION A-A

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

DETAIL 1

SCALE: 1"=1'-0"

DETAILS OF TEMPORARY SHEET PILING (RAILROAD) AT PIERS 1 AND 2

SCALES AS NOTED

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S. FRIZZELL
DRAFTER: R. DIPANFILO
CHECKED BY: Z. VUKMIROVIC
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S045.DGN PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN

DRAWING TITLE: PIER DETAILS SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-45
SHEET NO.: 179

07:25:15
08 MAR 2000
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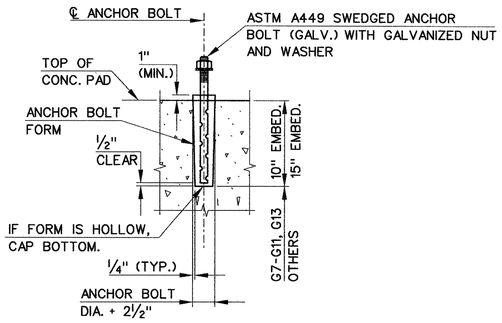
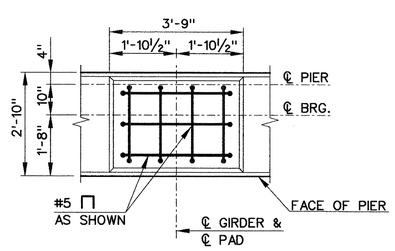


ANCHOR BOLT DETAIL

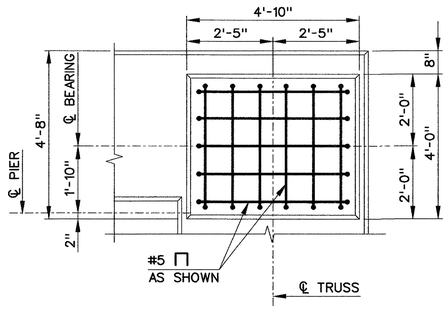
SCALE: 1½" = 1'-0"

ANCHOR BOLT NOTES

1. FORMS SHALL BE UNOILED, HELD IN PLACE ACCURATELY BY TEMPLATE, AND REMOVED AFTER CONCRETE HAS HARDENED.
2. ANCHOR BOLTS SHALL BE SET ACCURATELY AND GROUTED WITH NON-SHRINK GROUT.
3. THE COST OF FURNISHING AND INSTALLING FORMS TO BE INCLUDED IN THE ITEM "CLASS 'F' CONCRETE".



PLAN



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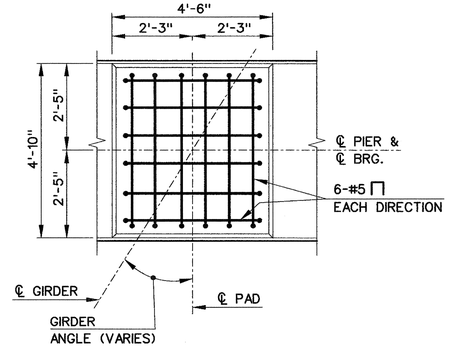

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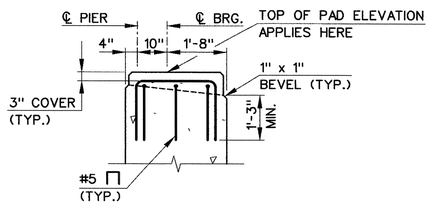
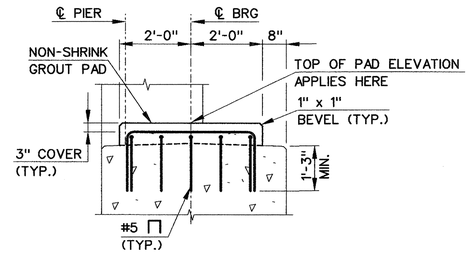


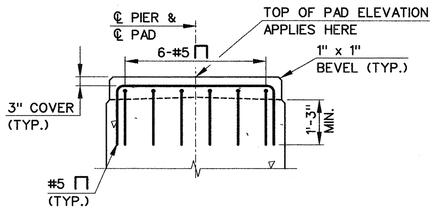
SECTION

(PIERS 1 & 2)



SECTION

(PIERS 1 & 2, SPAN 2)



SECTION

(PIERS 3-7)

CONCRETE PAD DETAILS

SCALE: ½" = 1'-0"

CONCRETE PAD NOTES:

1. CONCRETE FOR THE CONCRETE PADS SHALL BE PAID FOR UNDER THE ITEM "CLASS 'F' CONCRETE".
2. PLACE REINFORCEMENT TO CLEAR ANCHOR BOLTS.

07:18:33
08 MAR 2000
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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: D. BAGDASARIAN
DATE CHECKED: 3-7-00

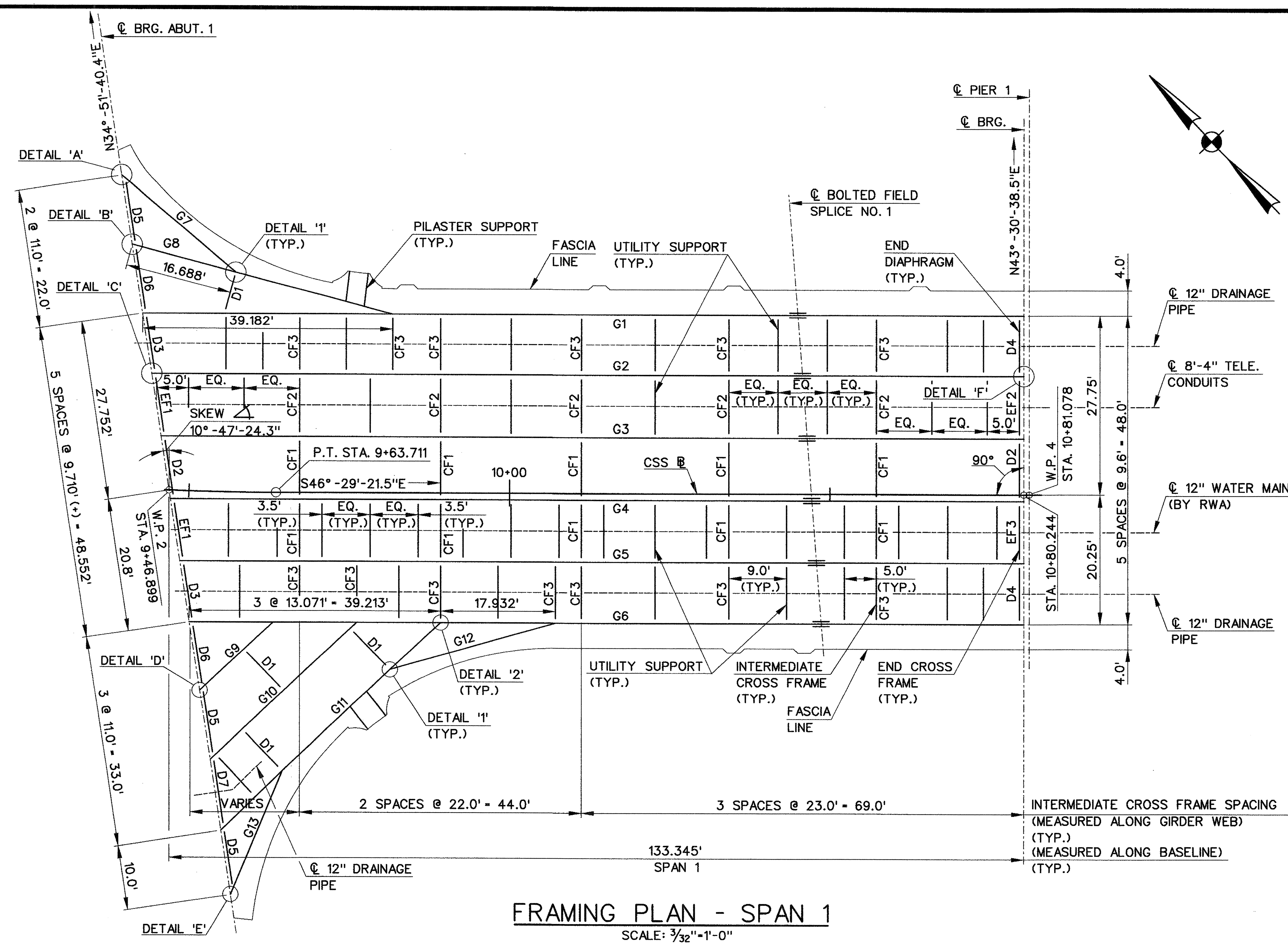
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S047.DGN PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN
DRAWING TITLE: PIER DETAILS - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-46
SHEET NO.: 180



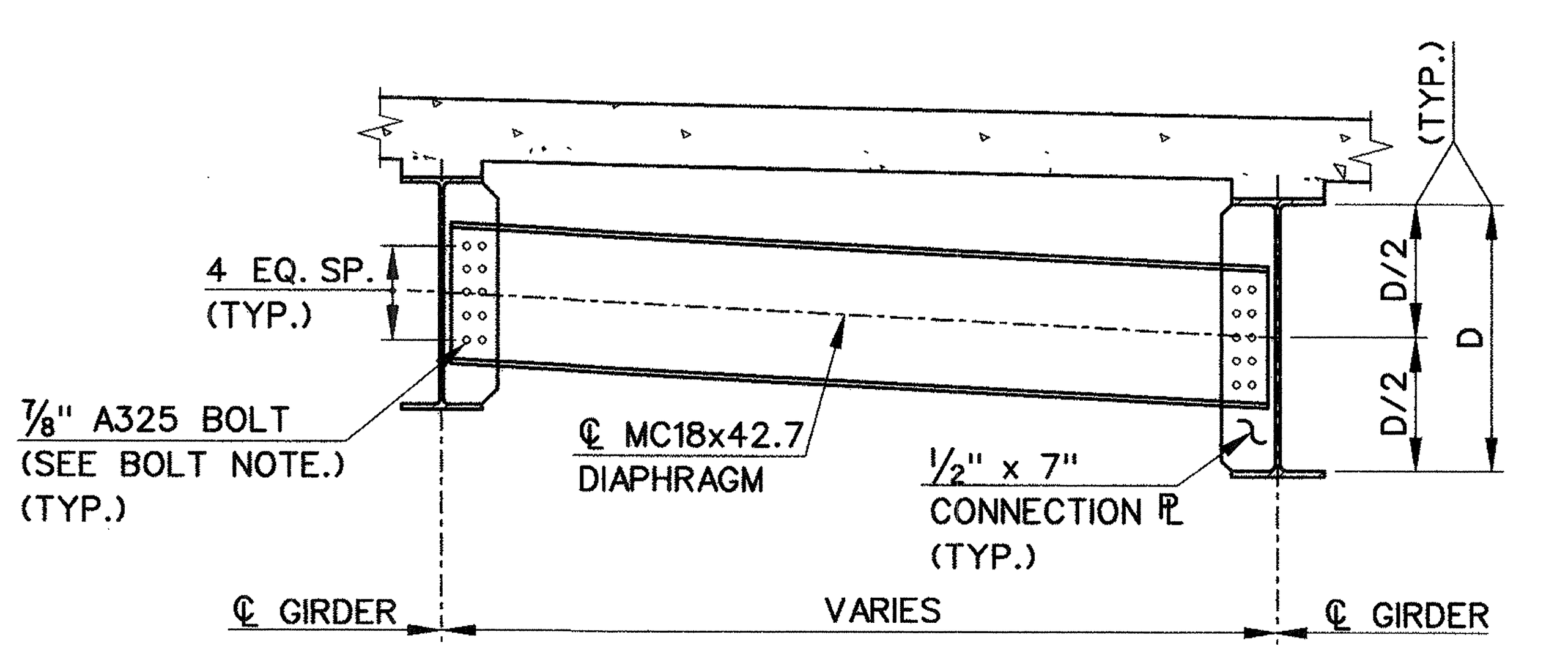
FRAMING PLAN - SPAN 1

SCALE: 3/32"=1'-0"

FLARED GIRDER GEOMETRY		
MARK	LENGTH (FT.)	BEARING
G7	23.372 *	S6° -01'-11.9" E
G8	42.260 *	S31° -34'-38.0" E
G9	15.767 *	N89° -54'-11.5" E
G10	31.535 *	N89° -54'-11.5" E
G11	47.302 *	N89° -54'-11.5" E
G12	26.909 *	S62° -44'-02.3" E
G13	20.576 **	N66° -25'-47.5" E

* LENGTH MEASURED FROM ℄ OF BEARING TO INTERSECTION OF GIRDER CENTERLINES.

** LENGTH MEASURED BETWEEN INTERSECTION OF GIRDER CENTERLINES.



TYPE D1

INTERMEDIATE DIAPHRAGM

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

BOLT NOTE

BOLT HOLE IN DIAPHRAGM SHALL BE 15/16" DIAMETER. BOLT HOLE IN GIRDER CONNECTION ℞ SHALL BE 1 1/16" DIAMETER.

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, GRADE 50WT2.
2. WELDING DETAILS, PROCEDURES AND TESTING METHODS SHALL CONFORM TO THE ANSI/AASTHO/AWS D1.5-98 BRIDGE WELDING CODE, UNLESS OTHERWISE NOTED ON THE PLANS.
3. BOLTED FIELD SPLICES, OTHER THAN THOSE INDICATED ON THE PLANS, WILL NOT BE ALLOWED EXCEPT WITH THE WRITTEN PERMISSION OF THE ENGINEER PRIOR TO THE SUBMISSION OF SHOP PLANS. IF ALLOWED, THESE SPLICES SHALL BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE COST OF THESE SPLICES, INCLUDING THE COST OF DESIGN, SHALL BE AT NO EXTRA EXPENSE TO THE STATE. WELDED FIELD SPLICES WILL NOT BE ALLOWED.
4. ALL WELDED GIRDERS SHALL BE FABRICATED TO THE REQUIRED HORIZONTAL CURVATURE BY HEAT CURVING OR CUTTING THE FLANGES FROM LARGER SIZE PLATES. WHERE CURVATURE IS PROVIDED BY CUTTING FLANGES, THE CONTRACTOR SHALL INDICATE ON HIS SHOP DRAWINGS THE LOCATION OF ANY ADDITIONAL SPLICES REQUIRED.
5. ALL WEB TO FLANGE, WEB TO BEARING STIFFENER AND BEARING STIFFENER TO FLANGE FILLET WELDS SHALL BE INSPECTED IN THEIR ENTIRETY BY THE MAGNETIC PARTICLE METHOD. IF HEAT CURVING IS USED TO OBTAIN THE REQUIRED HORIZONTAL CURVATURE, THE PREVIOUSLY MENTIONED LOCATIONS SHALL BE INSPECTED BY THE MAGNETIC PARTICLE METHOD AFTER HEAT CURVING.
6. MULTIPLE PASS WELDS, INSPECTED BY THE MAGNETIC PARTICLE METHOD SHALL HAVE EACH PASS OR LAYER INSPECTED AND ACCEPTED BEFORE PROCEEDING TO THE NEXT PASS OR LAYER, AS DETERMINED BY THE ENGINEER.
7. SHOP WEB SPLICES SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN.
8. SHOP FLANGE SPLICES SHALL BE LOCATED A MINIMUM OF SIX INCHES (6") FROM WEB SPLICES.
9. FLANGE OR WEB SPLICES SHALL BE LOCATED A MINIMUM OF SIX INCHES (6") FROM STIFFENERS AND CONNECTION PLATES.
10. BEARING STIFFENERS AND THE ENDS OF GIRDERS SHALL BE VERTICAL AFTER THE APPLICATION OF FULL DEAD LOADS.
11. THE STRUCTURAL STEEL FABRICATORS SHALL BE CERTIFIED UNDER THE AISC QUALITY CONTROL PROGRAM AS NOTED BELOW:
    CATEGORY SBrF - SIMPLE STEEL BRIDGE STRUCTURES: TYPICAL WORK INCLUDES: HIGHWAY SIGN STRUCTURES, INSPECTION PLATFORMS, BRIDGE COMPONENTS SUCH AS CROSS FRAMES AND UN-SPLICED ROLLED BEAM BRIDGES.

    CATEGORY MBrF - MAJOR STEEL BRIDGES: ALL BRIDGE STRUCTURES OTHER THAN UN-SPLICED ROLLED BEAM BRIDGES.
12. THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO INSURE THE STABILITY OF ALL STRUCTURAL ELEMENTS UNTIL THE TOTAL STRUCTURE IS IN BEING.

HIGH STRENGTH BOLT NOTES

1. ALL BOLTED CONNECTIONS SHALL BE "SLIP CRITICAL" CONNECTIONS WITH CLASS 'B' SURFACE CONDITIONS UNLESS OTHERWISE NOTED.
2. ALL HIGH STRENGTH BOLTS SHALL BE 7/8"ø ASTM A325 TYPE 1 BOLTS IN STANDARD HOLES UNLESS NOTED OTHERWISE. BOLTS, NUTS AND WASHERS THAT REQUIRE FIELD PAINTING SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50.

FRAMING PLAN NOTES

1. DIMENSIONS AT ENDS OF GIRDERS ARE MEASURED ALONG THE ℄ OF BEARING.
2. ALL LENGTH DIMENSIONS ARE HORIZONTAL.
3. UTILITY SUPPORTS SHALL BE EQUALLY SPACED BETWEEN CROSS FRAMES UNLESS OTHERWISE NOTED.
4. FOR GENERAL NOTES, SEE DWG. NO. STR-4.
5. FOR WORKING POINT COORDINATES, SEE DWG. NO. STR-15.
6. FOR GIRDER SCHEDULE, SEE DWG. NO. STR-51.
7. FOR INTERMEDIATE CROSS FRAME AND UTILITY SUPPORT DETAILS, SEE DWG. NO. STR-53.
8. FOR END CROSS FRAME DETAILS, SEE DWG. NO. STR-54.
9. FOR END DIAPHRAGM DETAILS, SEE DWG. NO. STR-55.
10. FOR BOLTED FIELD SPLICE DETAILS, SEE DWG. NO. STR-58.
11. FOR DETAILS '1' & '2', SEE DWG. NO. STR-58.
12. FOR DETAILS 'A', 'B', 'C', 'D', 'E' & 'F', SEE DWG. NO. STR-56.
13. FOR PILASTER SUPPORT DETAILS, SEE DWG. NO. STR-54.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D BAGDASARIAN
DRAFTER: A KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S050.DGN PLOTTED DATE: 3-05-00

TOWN: NEW HAVEN

DRAWING TITLE: FRAMING PLAN - SEGMENT 1

PROJECT NO.: 92-526
DRAWING NO.: STR-47
SHEET NO.: 181

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06 MAR 2000
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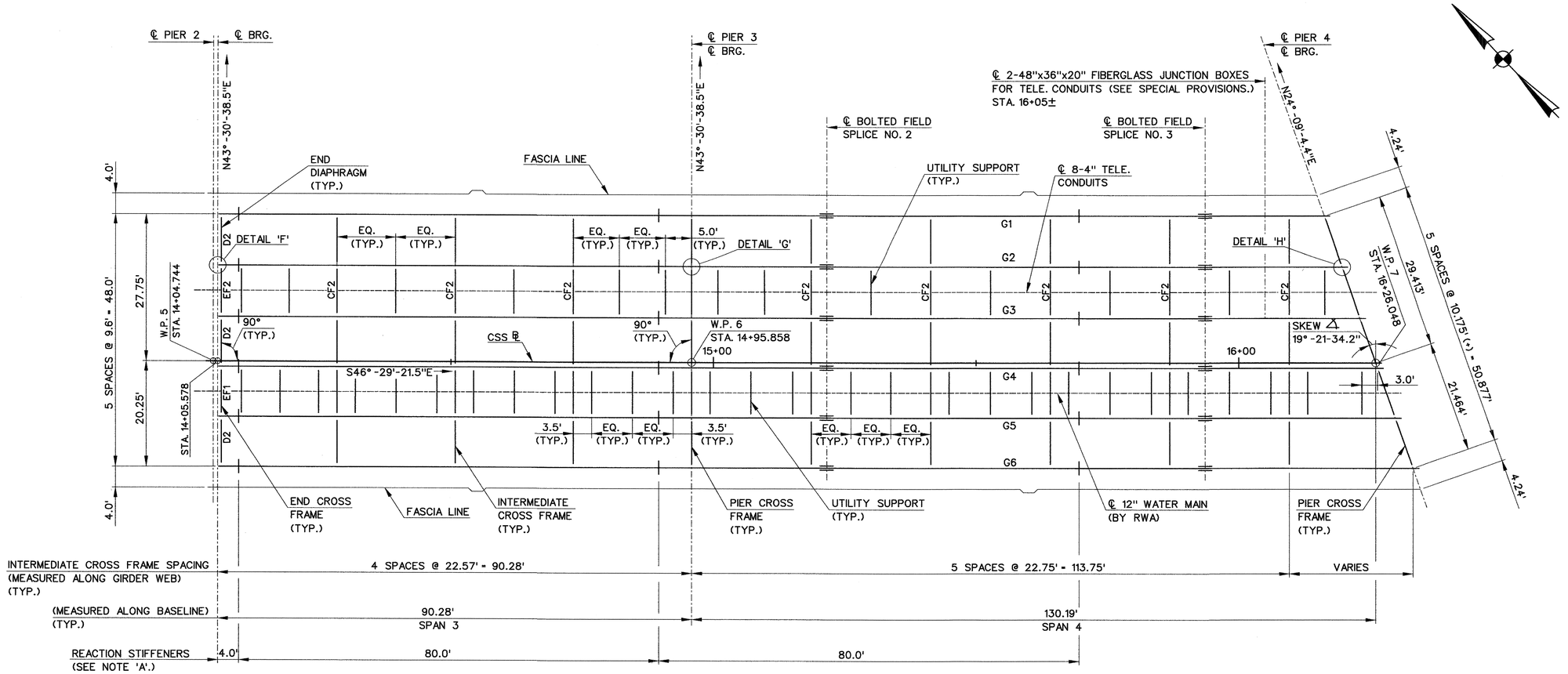

FRAMING PLAN - SPANS 3 & 4

SCALE: 3/32"=1'-0"

NOTE 'A'
THE REACTION STIFFENERS SHOWN ARE PART OF THE "SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY" (SEE DWG. NOS. STR-127 TO STR-130).

THE REACTION STIFFENERS ARE LOCATED AT THE TEMPORARY TRANSFER BEAMS AND HOLD-DOWN DEVICES USED FOR THE ASSEMBLY OF THE STRUCTURAL STEEL TRUSS OF SEGMENT 2 ON THE PROPOSED WELDED GIRDERS OF SEGMENT 3. IT IS ANTICIPATED THAT FOUR PAIRS OF STIFFENERS WILL BE REQUIRED ON EACH WELDED GIRDER AT EACH TRANSFER BEAM LOCATION.

THE CONTRACTOR IS COMPLETELY RESPONSIBILE FOR THE DESIGN OF THE REACTION STIFFENERS.

THE COST OF FABRICATING AND INSTALLING THE REACTION STIFFENERS SHALL BE INCLUDED IN THE ITEM "STRUCTURAL STEEL (SEGMENT 1 & 3)".

FRAMING PLAN NOTES

1. DIMENSIONS AT ENDS OF GIRDERS ARE MEASURED ALONG THE ℄ OF BEARING.
2. ALL LENGTH DIMENSIONS ARE HORIZONTAL.
3. ALL INTERMEDIATE CROSS FRAMES SHALL BE TYPE CF1 UNLESS OTHERWISE NOTED.
4. ALL PIER CROSS FRAMES SHALL BE TYPE CF4 UNLESS OTHERWISE NOTED.
5. FOR GENERAL NOTES, SEE DWG. NO. STR-4.
6. FOR WORKING POINT COORDINATES, SEE DWG. NO. 15.
7. FOR GIRDER SCHEDULE, SEE DWG. NO. STR-52.
8. FOR INTERMEDIATE CROSS FRAME AND UTILITY SUPPORT DETAILS, SEE DWG. NO. STR-53.
9. FOR END CROSS FRAME DETAILS, SEE DWG. NO. STR-54.
10. FOR END DIAPHRAGM DETAILS, SEE DWG. NO. STR-55.
11. FOR DETAILS 'F', 'G' & 'H', SEE DWG. NO. STR-56.
12. FOR BOLTED FIELD SPLICE DETAILS, SEE DWG. NO. STR-58.
13. FOR REACTION STIFFENERS, SEE DWG NO. STR-57.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: A. KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S052A.DGN | PLOTTED DATE: 3-06-00

TOWN: NEW HAVEN
DRAWING TITLE: FRAMING PLAN - SEGMENT 3 (SHEET 1 OF 3)

PROJECT NO.: 92-526
DRAWING NO.: STR-48
SHEET NO.: 182

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06 MAR 2000
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FRAMING PLAN - SPANS 5 & 6

SCALE: 3/32"=1'-0"

NOTE 'A'
THE REACTION STIFFENERS SHOWN ARE PART OF THE "SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY" (SEE DWG. NOS. STR-127 TO STR-130).

THE REACTION STIFFENERS ARE LOCATED AT THE TEMPORARY TRANSFER BEAMS AND HOLD-DOWN DEVICES USED FOR THE ASSEMBLY OF THE STRUCTURAL STEEL TRUSS OF SEGMENT 2 ON THE PROPOSED WELDED GIRDERS OF SEGMENT 3. IT IS ANTICIPATED THAT FOUR PAIRS OF STIFFENERS WILL BE REQUIRED ON EACH WELDED GIRDER AT EACH TRANSFER BEAM LOCATION.

THE CONTRACTOR IS COMPLETELY RESPONSIBILE FOR THE DESIGN OF THE REACTION STIFFENERS.

THE COST OF FABRICATING AND INSTALLING THE REACTION STIFFENERS SHALL BE INCLUDED IN THE ITEM "STRUCTURAL STEEL (SEGMENT 1 & 3)".

FRAMING PLAN NOTES

1. DIMENSIONS AT ENDS OF GIRDERS ARE MEASURED ALONG THE ℄ OF BEARING.
2. ALL LENGTH DIMENSIONS ARE HORIZONTAL.
3. ALL INTERMEDIATE CROSS FRAMES SHALL BE TYPE CF1 UNLESS OTHERWISE NOTED.
4. ALL PIER CROSS FRAMES SHALL BE TYPE CF4 UNLESS OTHERWISE NOTED.
5. FOR GENERAL NOTES, SEE DWG. NO. STR-4.
6. FOR WORKING POINT COORDINATES, SEE DWG. NO. STR-15.
7. FOR GIRDER SCHEDULE, SEE DWG. NO. STR-52.
8. FOR INTERMEDIATE CROSS FRAME AND UTILITY SUPPORT DETAILS, SEE DWG. NO. STR-53.
9. FOR DETAILS 'H' & 'J', SEE DWG. NO. STR-56.
10. FOR BOLTED FIELD SPLICE DETAILS, SEE DWG. NO. STR-58.
11. FOR REACTION STIFFENERS, SEE DWG. NO. STR-57.

CURVED GIRDER DATA

MARK	RADIUS	LT	LC
G1	4272.25'	339.229'	468.585'
G2	4281.85'	339.229'	471.334'
G3	4291.45'	339.229'	474.081'
G4	4301.05'	339.229'	476.830'
G5	4310.65'	339.229'	479.577'
G6	4320.25'	339.229'	482.326'

LT: GIRDER LENGTH ALONG TANGENT MEASURED FORM ℄ BRG.
LC: GIRDER LENGTH ALONG CURVE MEASURED TO ℄ BRG.

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06 MAR 2000
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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: A. KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

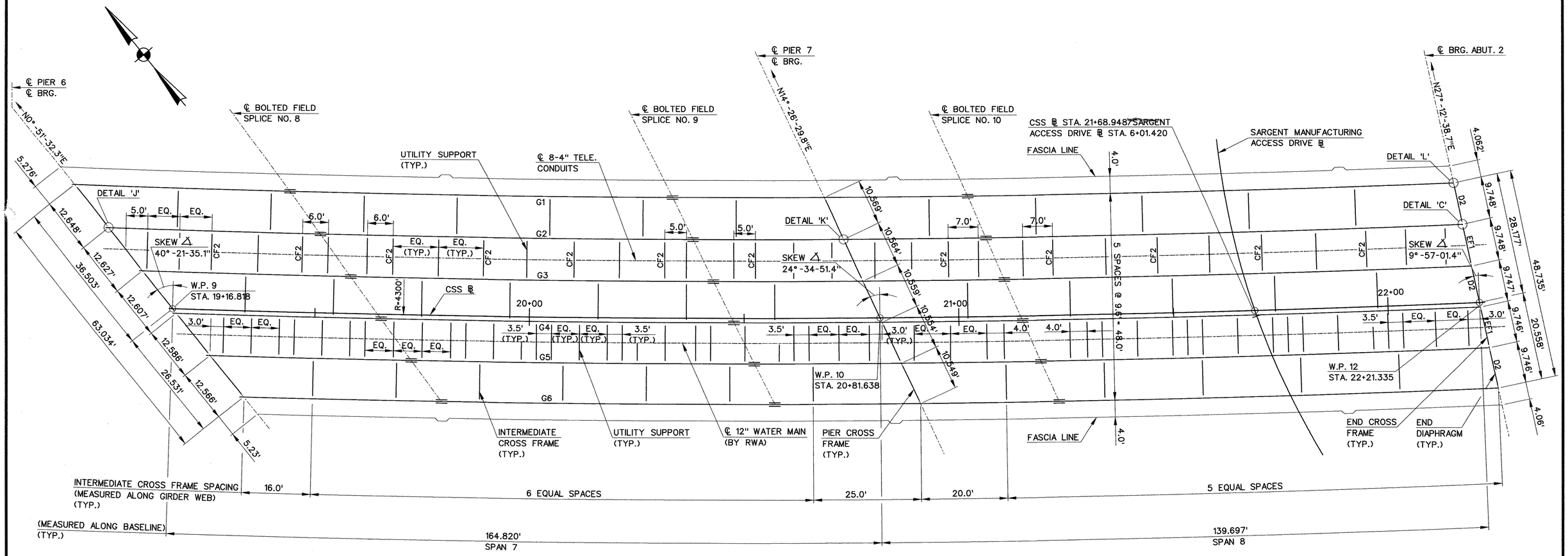
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S052B.DGN
PLOTTED DATE: 3-06-00

TOWN: NEW HAVEN

DRAWING TITLE: FRAMING PLAN - SEGMENT 3 (SHEET 2 OF 3)

PROJECT NO.: 92-526
DRAWING NO.: STR-49
SHEET NO.: 183



FRAMING PLAN - SPANS 7 & 8

SCALE: 3/32"=1'-0"

FRAMING PLAN NOTES

1. DIMENSIONS AT ENDS OF GIRDERS ARE MEASURED ALONG THE ℄ OF BEARING.
2. ALL LENGTH DIMENSIONS ARE HORIZONTAL.
3. ALL INTERMEDIATE CROSS FRAMES SHALL BE TYPE CF1 UNLESS OTHERWISE NOTED.
4. ALL PIER CROSS FRAMES SHALL BE TYPE CF4 UNLESS OTHERWISE NOTED.
5. FOR CURVED GIRDER DATA, SEE DWG. NO. STR-49.
6. FOR GENERAL NOTES, SEE DWG. NO. STR-4.
7. FOR WORKING POINT COORDINATES, SEE DWG. NO. STR-15.
8. FOR GIRDER SCHEDULE, SEE DWG. NO. STR-52.
9. FOR INTERMEDIATE CROSS FRAME AND UTILITY SUPPORT DETAILS, SEE DWG. NO. STR-53.
10. FOR END CROSS FRAME DETAILS, SEE DWG. NO. STR-54.
11. FOR END DIAPHRAGM DETAILS, SEE DWG. NO. STR-55.
12. FOR DETAILS 'C', 'J', 'K' & 'L', SEE DWG. NO. STR-56.
13. FOR BOLTED FIELD SPLICE DETAILS, SEE DWG. NO. STR-58.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: A. KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S052C.DGN | PLOTTED DATE: 3-29-00

TOWN: NEW HAVEN
DRAWING TITLE: FRAMING PLAN - SEGMENT 3 (SHEET 3 OF 3)

PROJECT NO.: 92-526
DRAWING NO.: STR-50
SHEET NO.: 184

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07 APR. 2000
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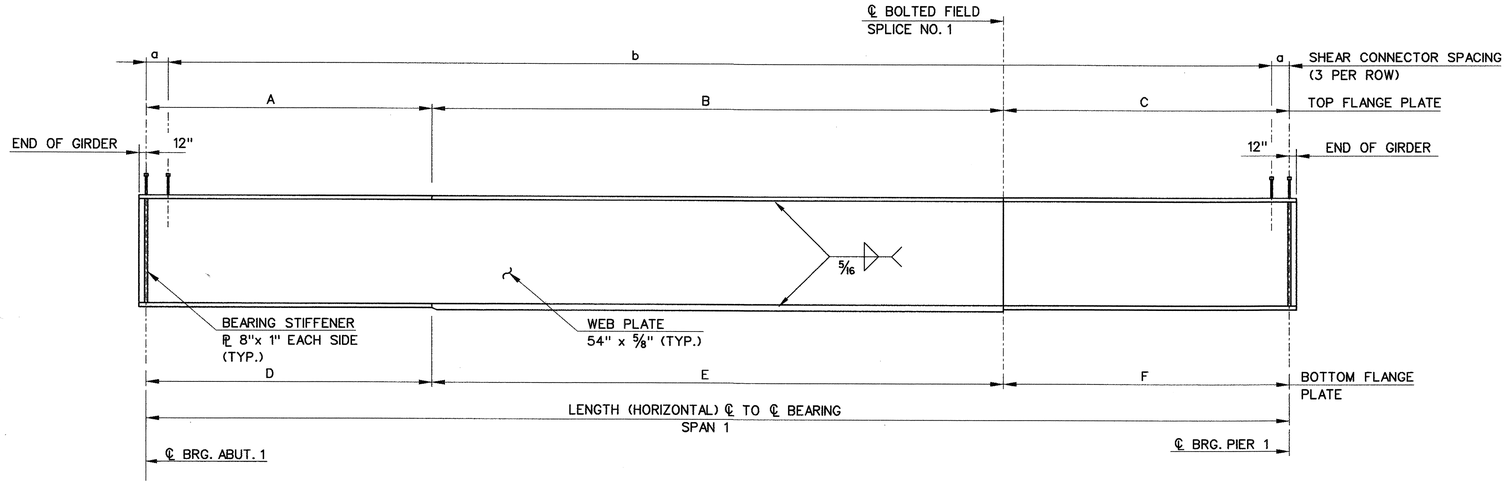
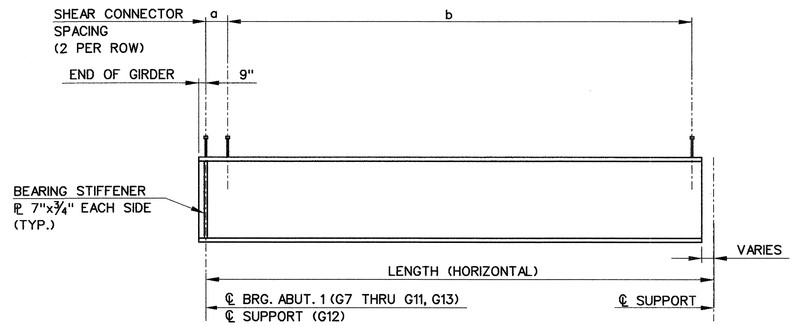


GIRDER ELEVATION
(GIRDER G1 THRU G6)
NOT TO SCALE



ROLLED BEAM ELEVATION
(BEAM G7 THRU G13)
NOT TO SCALE

NOTE: ℄ SUPPORT INDICATES THE INTERSECTION OF THE ℄ WEBS AT ROLLED BEAM END CONNECTIONS.

GIRDER SCHEDULE

MARK	LENGTH ℄ TO ℄ BEARING	WELDED PLATE GIRDERS												DEAD LOAD DEFLECTIONS AT C.L. OF SPAN			CAMBERS AT CENTER OF SPAN				WELDED STUD SHEAR CONNECTOR SPACING	
		TOP FLANGE PLATES						BOTTOM FLANGE PLATES														
		A		B		C		D		E		F										
		SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	STRUCT STEEL	OTHER DEAD LOAD	COMPOSITE DEAD LOAD	TOTAL DEAD LOAD	VERT. CURVE ORDINATE	EXTRA	TOTAL	a	b
G1	137.515	18"x1"	35.258	18"x1"	67.000	18"x1"	35.258	18"x1½"	35.258	18"x2¼"	67.000	18"x1½"	35.258	0.153	0.482	0.303	0.938	0.000	0.115	1.053	1 SP. @ 21"	67 SP. @ 24"
G2	136.055	18"x1"	34.528	18"x1"	67.000	18"x1"	34.528	18"x1½"	34.528	18"x2¼"	67.000	18"x1½"	34.528	0.148	0.481	0.173	0.802	0.000	0.113	0.916	1 SP. @ 16½"	80 SP. @ 20"
G3	134.594	18"x1"	33.797	18"x1"	67.000	18"x1"	33.797	18"x1½"	33.797	18"x2¼"	67.000	18"x1½"	33.797	0.142	0.460	0.166	0.768	0.000	0.112	0.880	1 SP. @ 17½"	79 SP. @ 20"
G4	133.134	18"x1"	33.067	18"x1"	67.000	18"x1"	33.067	18"x1½"	33.067	18"x2¼"	67.000	18"x1½"	33.067	0.135	0.485	0.158	0.779	0.000	0.111	0.890	1 SP. @ 18¾"	78 SP. @ 20"
G5	131.674	18"x1"	32.337	18"x1"	67.000	18"x1"	32.337	18"x1½"	32.337	18"x2¼"	67.000	18"x1½"	32.337	0.129	0.464	0.151	0.745	0.000	0.110	0.854	----	79 SP. @ 20"
G6	130.213	18"x1"	31.607	18"x1"	67.000	18"x1"	31.607	18"x1½"	31.607	18"x2¼"	67.000	18"x1½"	31.607	0.121	0.371	0.260	0.753	0.000	0.109	0.862	1 SP. @ 13¼"	64 SP. @ 24"

ROLLED BEAM SCHEDULE

MARK	LENGTH	ROLLED BEAM SECTION	* DEAD LOAD DEFLECTIONS AT C.L. OF SPAN			CAMBERS AT CENTER OF SPAN				WELDED STUD SHEAR CONNECTOR SPACING	
			STRUCT STEEL	OTHER DEAD LOAD	COMPOSITE DEAD LOAD	TOTAL DEAD LOAD	VERT. CURVE ORDINATE	EXTRA	TOTAL	a	b
G7	23.372	W30x90	0.001	0.003	0.003	0.007	0.000	0.020	0.026	1 SP. @ 7¼"	38 SP. @ 7"
G8	42.260	W36x135	0.012	0.019	0.023	0.054	0.000	0.035	0.089	1 SP. @ 5¾"	62 SP. @ 8"
G9	15.767	W30x90	0.000	0.001	0.000	0.001	0.000	0.013	0.015	1 SP. @ 7¾"	29 SP. @ 6"
G10	31.535	W30x90	0.002	0.022	0.002	0.025	0.000	0.026	0.052	1 SP. @ 4½"	41 SP. @ 9"
G11	47.302	W36x135	0.006	0.038	0.039	0.083	0.000	0.039	0.122	1 SP. @ 4¾"	62 SP. @ 9"
G12	26.909	W30x90	0.001	0.005	0.004	0.010	0.000	0.022	0.033	1 SP. @ 9½"	38 SP. @ 8"
G13	20.576	W30x90	0.000	0.002	0.002	0.004	0.000	0.017	0.021	1 SP. @ 6½"	39 SP. @ 6"

* DEAD LOAD DEFLECTIONS ARE RELATIVE TO ENDS OF GIRDER AND DO NOT ACCOUNT FOR DEFLECTION OF SUPPORTING MEMBER.

NOTES:

1. ALL LENGTH DIMENSIONS ARE HORIZONTAL AND MEASURED ALONG THE ℄ OF THE GIRDER OR BEAM WEB.
2. FOR STRUCTURAL STEEL NOTES, SEE DWG. NO. STR-47.
3. FOR BEARING STIFFENER AND CONNECTION PLATE DETAILS, SEE DWG. NO. STR-57.
4. FOR SHEAR CONNECTOR DETAILS, SEE DWG. NO. STR-57.
5. FOR BOLTED FIELD SPLICE DETAILS, SEE DWG. NO. STR-58.
6. STEEL DEAD LOAD INCLUDES WELDED GIRDERS AND DIAPHRAGMS.
7. ADDITIONAL DEAD LOAD INCLUDES CONCRETE DECK SLAB, HAUNCHES AND UTILITIES.
8. COMPOSITE DEAD LOAD INCLUDES PARAPETS, SIDEWALKS, RAILINGS AND FUTURE BITUMINOUS CONCRETE OVERLAY.
9. TOTAL DEAD LOAD INCLUDES STEEL DEAD LOAD, ADDITIONAL DEAD LOAD AND COMPOSITE DEAD LOAD.
10. TOTAL CAMBER APPLIES TO TOP OF WEB.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

NOT TO SCALE

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: D. BAGDASARIAN
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S054.DGN | PLOTTED DATE: 3-06-00

TOWN: NEW HAVEN
DRAWING TITLE: GIRDER SCHEDULE - SEGMENT 1

PROJECT NO.: 92-526
DRAWING NO.: STR-51
SHEET NO.: 185

20:32:59
06 MAR 2000
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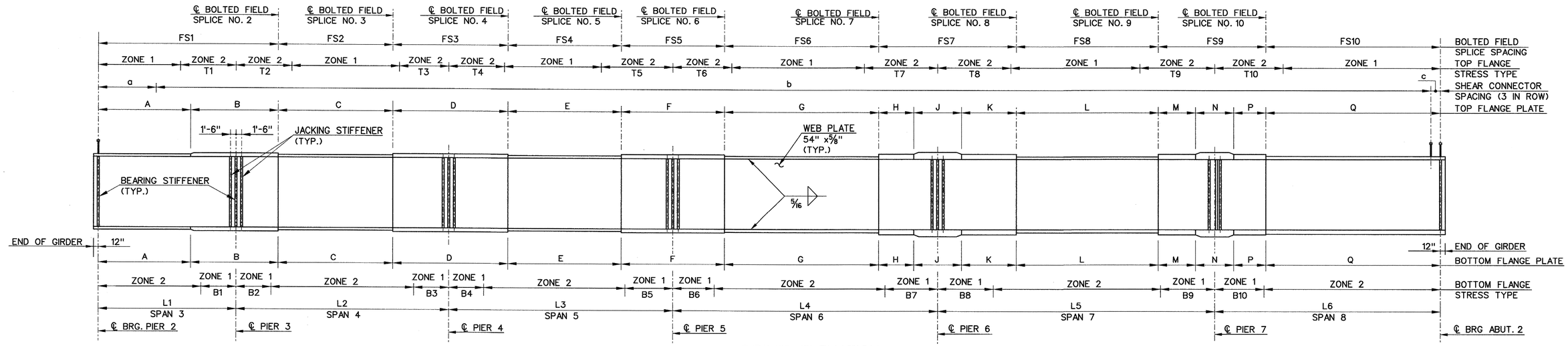

GIRDER ELEVATION
NOT TO SCALE

STRESS TYPE
ZONE 1 - COMPRESSION
ZONE 2 - TENSION OR REVERSAL

GIRDER SCHEDULE

MARK	FLANGE PLATE	A		B		C		D		E		F		G		H		J		K		L		M		N		P		Q	
		SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH
G1	TOP	18" x 1"	61.000	18" x 1½"	55.000	18" x 1"	72.000	18" x 1½"	52.400	18" x 1"	52.500	24" x 2"	59.500	18" x 1"	96.900	24" x 2"	22.200	24 x 2¾"	30.000	24" x 2"	34.400	18" x 1"	89.200	24" x 2"	24.000	24 x 2¾"	24.000	24" x 2"	20.700	18" x 1"	114.010
	BOTTOM	18" x 1"	61.000	18" x 1½"	55.000	18" x 1"	72.000	18" x 1½"	52.400	18" x 1"	52.500	24" x 2"	59.500	18" x 1"	96.900	24" x 2"	22.200	24 x 2¾"	30.000	24" x 2"	34.400	18" x 1"	89.200	24" x 2"	24.000	24 x 2¾"	24.000	24" x 2"	20.700	18" x 1½"	114.010
G2	TOP	18" x 1"	61.000	18" x 1½"	55.000	18" x 1"	72.000	18" x 1½"	56.400	18" x 1"	56.200	24" x 2"	60.600	18" x 1"	96.700	24" x 2"	22.200	24 x 2¾"	30.000	24" x 2"	33.500	18" x 1"	86.900	24" x 2"	23.800	24 x 2¾"	24.000	24" x 2"	20.400	18" x 1"	111.860
	BOTTOM	18" x 1"	61.000	18" x 1½"	55.000	18" x 1"	72.000	18" x 1½"	56.400	18" x 1"	56.200	24" x 2"	60.600	18" x 1"	96.700	24" x 2"	22.200	24 x 2¾"	30.000	24" x 2"	33.500	18" x 1"	86.900	24" x 2"	23.800	24 x 2¾"	24.000	24" x 2"	20.400	18" x 1½"	111.860
G3	TOP	18" x 1"	61.000	18" x 1½"	55.000	18" x 1"	72.000	18" x 1½"	60.400	18" x 1"	60.000	24" x 2"	61.600	18" x 1"	96.500	24" x 2"	22.000	24 x 2¾"	30.000	24" x 2"	32.800	18" x 1"	84.600	24" x 2"	23.500	24 x 2¾"	24.000	24" x 2"	20.200	18" x 1"	109.710
	BOTTOM	18" x 1"	61.000	18" x 1½"	55.000	18" x 1"	72.000	18" x 1½"	60.400	18" x 1"	60.000	24" x 2"	61.600	18" x 1"	96.500	24" x 2"	22.000	24 x 2¾"	30.000	24" x 2"	32.800	18" x 1"	84.600	24" x 2"	23.500	24 x 2¾"	24.000	24" x 2"	20.200	18" x 1½"	109.710
G4	TOP	18" x 1"	61.000	18" x 1¾"	55.000	18" x 1"	72.000	24" x 1½"	64.400	18" x 1"	63.700	24" x 2"	62.700	18" x 1"	96.300	24" x 1¾"	22.000	24 x 2½"	30.000	24" x 1¾"	31.900	18" x 1"	82.300	24" x 1¾"	23.200	24 x 2½"	24.000	24" x 1¾"	20.000	18" x 1"	107.570
	BOTTOM	18" x 1"	61.000	18" x 1¾"	55.000	18" x 1"	72.000	24" x 1½"	64.400	18" x 1"	63.700	24" x 2"	62.700	18" x 1"	96.300	24" x 1¾"	22.000	24 x 2½"	30.000	24" x 1¾"	31.900	18" x 1"	82.300	24" x 1¾"	23.200	24 x 2½"	24.000	24" x 1¾"	20.000	18" x 1½"	107.570
G5	TOP	18" x 1"	61.000	18" x 1¾"	55.000	18" x 1"	72.000	24" x 1½"	68.400	18" x 1"	67.500	24" x 2"	63.800	18" x 1"	96.100	24" x 1¾"	22.000	24 x 2½"	30.000	24" x 1¾"	31.000	18" x 1"	80.000	24" x 1¾"	22.700	24 x 2½"	24.000	24" x 1¾"	20.000	18" x 1"	105.310
	BOTTOM	18" x 1"	61.000	18" x 1¾"	55.000	18" x 1"	72.000	24" x 1½"	68.400	18" x 1"	67.500	24" x 2"	63.800	18" x 1"	96.100	24" x 1¾"	22.000	24 x 2½"	30.000	24" x 1¾"	31.000	18" x 1"	80.000	24" x 1¾"	22.700	24 x 2½"	24.000	24" x 1¾"	20.000	18" x 1½"	105.310
G6	TOP	18" x 1"	61.000	18" x 1¾"	55.000	18" x 1"	72.000	24" x 1½"	72.400	18" x 1"	71.200	24" x 2"	64.800	18" x 1"	95.900	24" x 1¾"	22.000	24 x 2½"	30.000	24" x 1¾"	30.200	18" x 1"	77.700	24" x 1¾"	22.200	24 x 2½"	24.000	24" x 1¾"	20.000	18" x 1"	103.140
	BOTTOM	18" x 1"	61.000	18" x 1¾"	55.000	18" x 1"	72.000	24" x 1½"	72.400	18" x 1"	71.200	24" x 2"	64.800	18" x 1"	95.900	24" x 1¾"	22.000	24 x 2½"	30.000	24" x 1¾"	30.200	18" x 1"	77.700	24" x 1¾"	22.200	24 x 2½"	24.000	24" x 1¾"	20.000	18" x 1½"	103.140

TOP FLANGE STRESS ZONES

MARK	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
G1	31.061	28.280	23.759	33.468	49.860	31.804	48.187	48.996	51.170	45.311
G2	31.364	28.572	25.323	34.269	47.646	36.807	47.649	48.514	50.301	44.170
G3	31.895	28.912	26.803	32.503	46.465	37.453	47.167	48.111	49.460	43.184
G4	33.442	30.240	31.846	37.308	45.670	37.908	46.081	46.958	47.984	41.540
G5	35.522	30.576	33.127	35.575	46.505	38.543	45.547	46.502	47.163	40.725
G6	35.905	31.048	34.590	36.507	44.566	39.278	42.160	46.195	46.411	40.042

BOTTOM FLANGE STRESS ZONES

MARK	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
G1	20.701	20.650	15.318	19.914	28.577	23.362	34.571	36.666	37.219	33.302
G2	21.167	20.899	16.947	20.995	29.279	25.575	34.209	36.406	36.577	32.614
G3	21.535	21.176	18.387	21.996	29.631	26.099	33.726	35.940	35.861	31.751
G4	22.663	21.729	21.196	24.534	30.534	26.892	33.146	35.023	34.903	30.759
G5	23.012	22.022	22.729	25.652	30.914	27.675	32.724	34.522	34.199	29.958
G6	22.856	22.129	23.770	26.374	30.696	28.087	31.990	33.313	33.164	28.760

MARK	WELDED STUD SHEAR CONNECTOR SPACING		
	a	b	c
G1	29 SP. @ 15"	514 SP. @ 18"	1 SP. @ 6.76"
G2	29 SP. @ 15	516 SP. @ 18"	1 SP. @ 3.75"
G3	29 SP. @ 15"	517 SP. @ 18"	2 SP. @ 9.36"
G4	29 SP. @ 15"	519 SP. @ 18"	1 SP. @ 15.70"
G5	29 SP. @ 15"	521 SP. @ 18"	1 SP. @ 12.67"
G6	29 SP. @ 15"	523 SP. @ 18"	1 SP. @ 9.65"

BOLTED FIELD SPLICE SPACING

MARK	FS1	FS2	FS3	FS4	FS5	FS6	FS7	FS8	FS9	FS10
G1	116.000	72.000	52.400	52.500	59.500	96.900	86.600	89.200	68.700	114.010
G2	116.000	72.000	56.400	56.200	60.600	96.700	85.700	86.900	68.200	111.860
G3	116.000	72.000	60.400	60.000	61.600	96.500	84.800	84.600	67.700	109.710
G4	116.000	72.000	64.400	63.700	62.700	96.300	83.900	82.300	67.200	107.570
G5	116.000	72.000	68.400	67.500	63.800	96.100	83.000	80.000	66.700	105.310
G6	116.000	72.000	72.400	71.200	64.800	95.900	82.200	77.700	66.200	103.140

SPAN LENGTH - SEGMENT 3

MARK	℄ TO ℄ BEARING					
	L1	L2	L3	L4	L5	L6
G1	90.281	120.440	113.561	162.210	174.693	146.629
G2	90.281	123.813	119.032	161.941	171.267	144.229
G3	90.281	127.186	124.501	161.659	167.852	141.831
G4	90.281	130.559	129.958	161.377	164.449	139.435
G5	90.281	133.932	135.399	161.097	161.056	137.041
G6	90.281	137.305	140.823	160.822	157.675	134.649

BEARING STIFFENERS

LOCATION	PLATE SIZE
PIER 2, 3, 4 & ABUTMENT 2	2-1.0"x 8.0"
PIER 5, 6 & 7	2-1.25"x 11.0"

JACKING STIFFENERS

LOCATION	PLATE SIZE
PIER 3 & 4	4-1.0"x 8.0"
PIER 5, 6 & 7	4-1.25"x 11.0"

NOTES:

1. ALL LENGTH DIMENSIONS ARE HORIZONTAL AND MEASURED ALONG ℄ OF GIRDER WEB.
2. NO ATTACHMENT SHALL BE FILLET WELDED, PLUG WELDED OR TACK WELDED TO THE TENSION OR REVERSAL FLANGES (ZONE 2).
3. FOR STRUCTURAL STEEL NOTES, SEE DWG. NO. STR-47.
4. FOR BEARING STIFFENER, JACKING STIFFENER AND CONNECTION PLATE DETAILS, SEE DWG. NO. STR-57.
5. FOR SHEAR CONNECTOR DETAILS, SEE DWG. NO. STR-57.
6. FOR BOLTED FIELD SPLICE DETAILS, SEE DWG. NO. STR-58.
7. FOR MAXIMUM VERTICAL LOADS, SEE "BEARING DATA" ON DWG. NO. STR-63.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

NOT TO SCALE

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: D. BAGDASARIAN
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S053.DGN PLOTTED DATE: 3-29-00

TOWN: NEW HAVEN
DRAWING TITLE: GIRDER SCHEDULE - SEGMENT 3

PROJECT NO.: 92-526
DRAWING NO.: STR-52
SHEET NO.: 186

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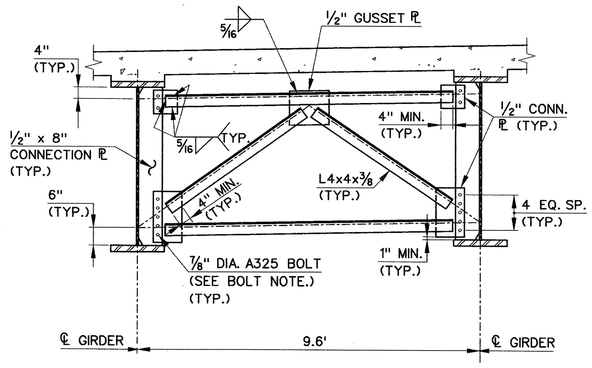
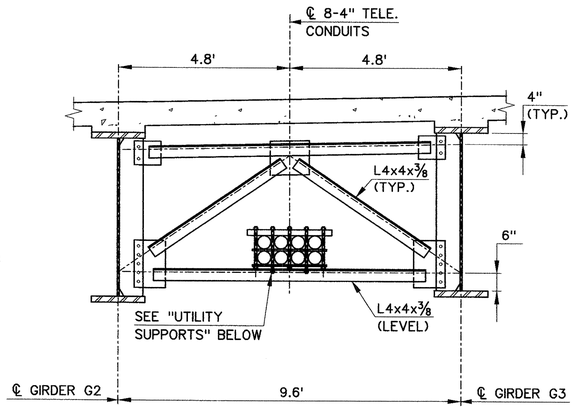


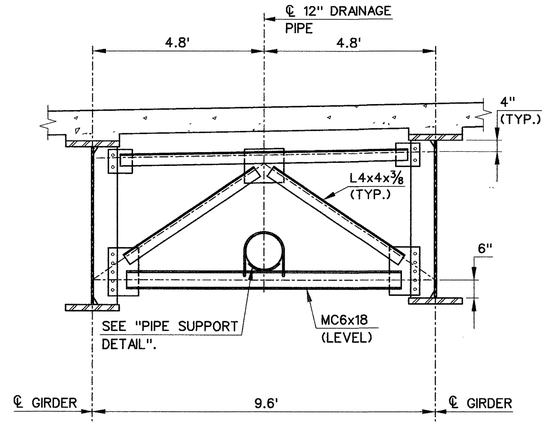
TYPE CF1

BOLT NOTE

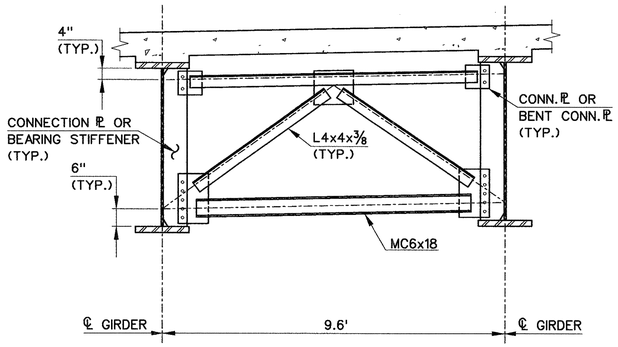
BOLT HOLE IN CROSS FRAME CONN. PL SHALL BE 15/16" DIA.
BOLT HOLE IN GIRDER CONNECTION PL SHALL BE 1 1/16" DIA.



TYPE CF2
(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE CF1.)



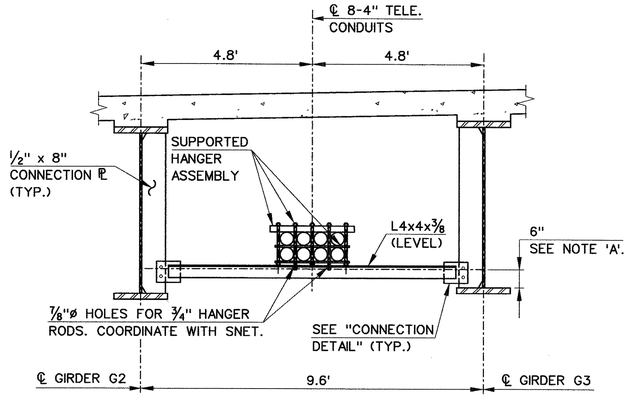
TYPE CF3
(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE CF1.)



TYPE CF4
(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE CF1.)

INTERMEDIATE CROSS FRAMES

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



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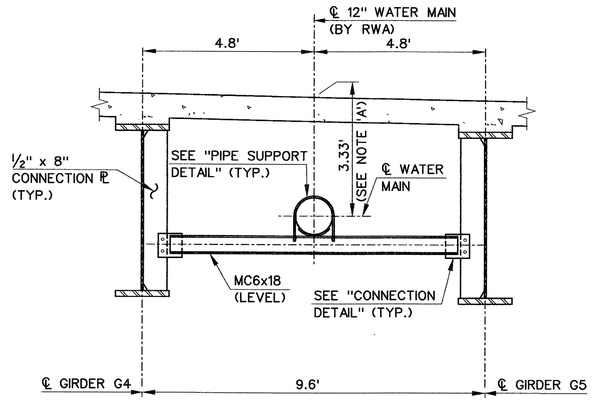
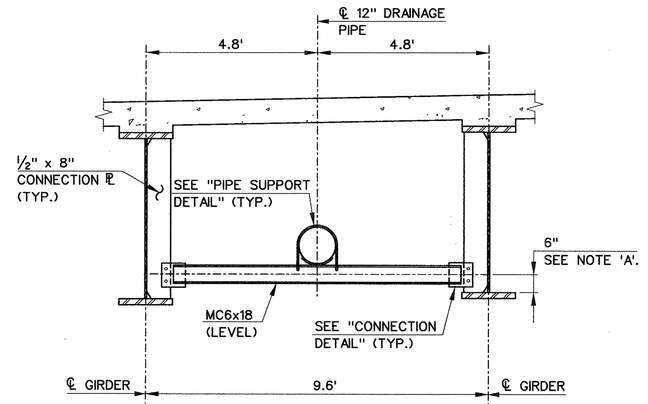


AT WATER MAIN



AT DRAINAGE PIPE

UTILITY SUPPORTS

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

NOTE 'A':

1. DIMENSION SHALL BE ADJUSTED AS REQUIRED AT UTILITY SUPPORT ADJACENT TO SEGMENT 2.

NOTES

1. FOR CONNECTION PLATE AND BEARING STIFFENER DETAILS, SEE DWG. NO. STR-57.
2. FOR PIPE SUPPORT DETAIL, SEE DWG. NO. STR-54.
3. FOR CONNECTION DETAIL, SEE DWG. NO. STR-54.

$TIME$
$DATE$
$FILE$

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: R. WOLFF
CHECKED BY: T. YOUNG
DATE CHECKED: 4-9-00

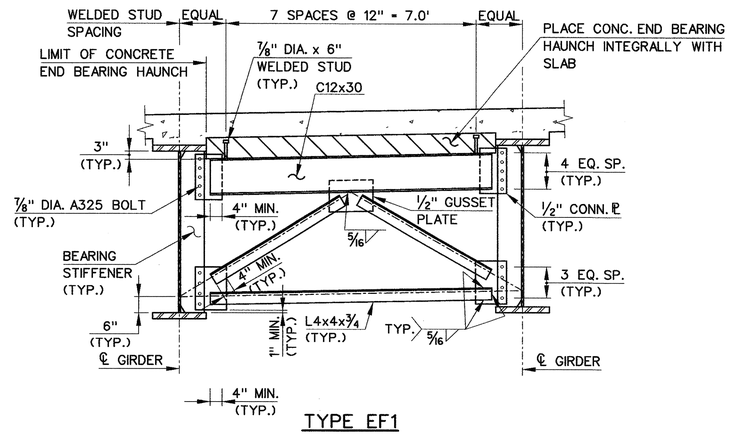
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

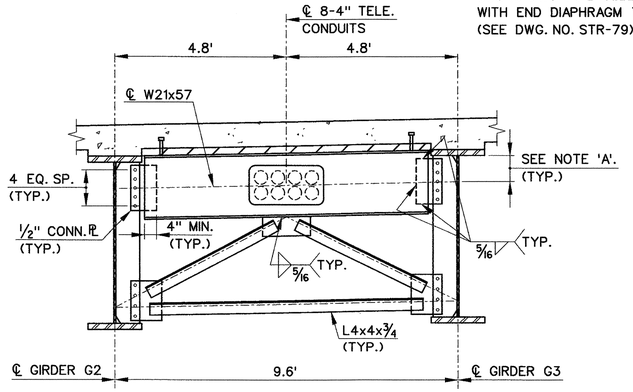
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S058.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: STRUCTURAL STEEL DETAILS - SHEET 1 OF 6

PROJECT NO.: 92-526
DRAWING NO.: STR-53
SHEET NO.: 187



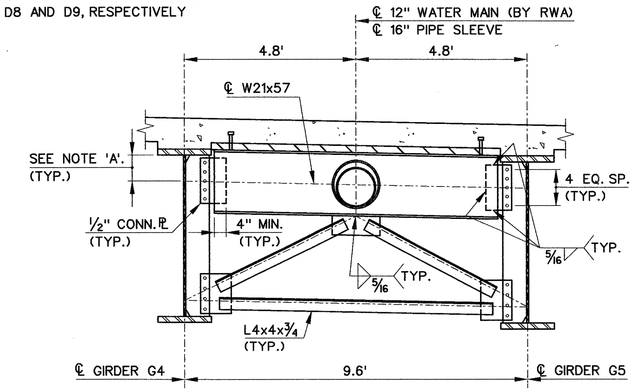
TYPE EF1



NOTE 'A':
COORDINATE PIPE SLEEVE AND ACCESS HOLE LOCATIONS WITH END DIAPHRAGM TYPE D8 AND D9, RESPECTIVELY (SEE DWG. NO. STR-79).

TYPE EF2

(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE EF1)

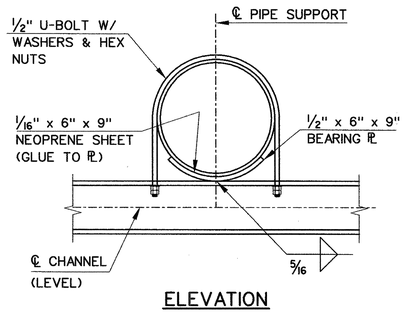


TYPE EF3

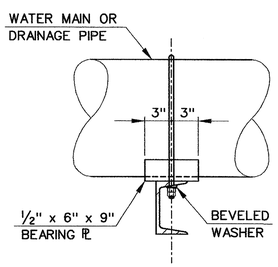
(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE EF1)

END CROSS FRAMES

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



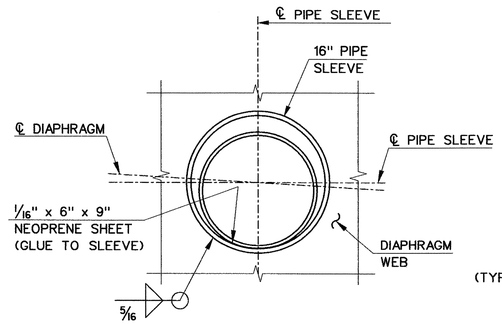
ELEVATION



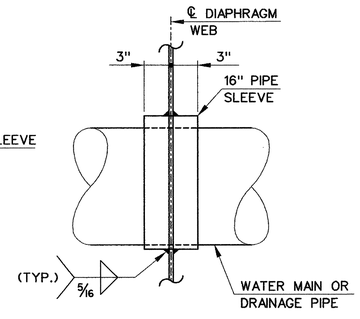
SECTION

PIPE SUPPORT DETAIL

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



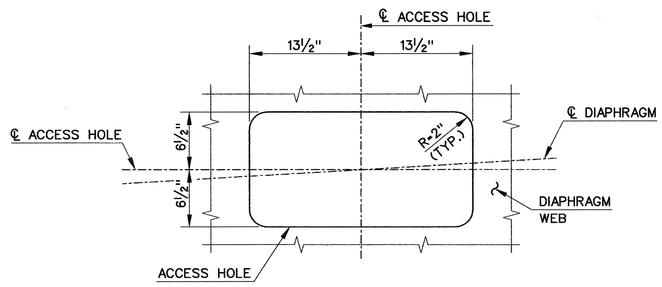
ELEVATION



SECTION

PIPE SLEEVE DETAIL

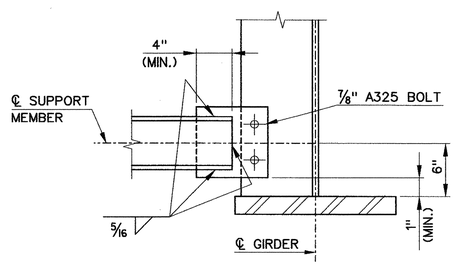
SCALE: 1/2"=1'-0"



ELEVATION

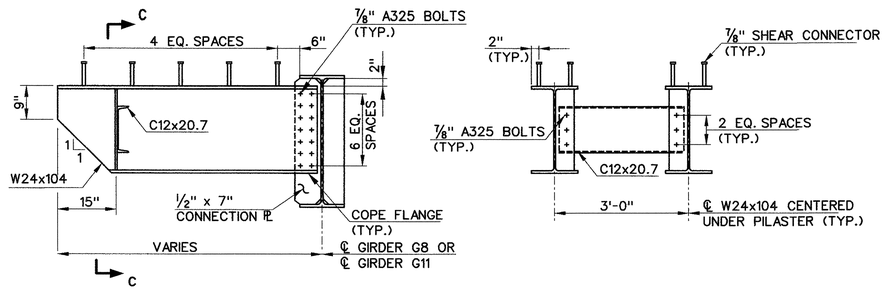
ACCESS HOLE DETAIL

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



CONNECTION DETAIL

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



ELEVATION

SECTION C-C

PILASTER SUPPORT DETAILS

SCALE: 3/4"= 1'-0"

NOTE

1. FOR BEARING STIFFENER DETAILS, SEE DWG. NO. STR-57.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: M. OFFENBERG
CHECKED BY: T. YOUNG
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

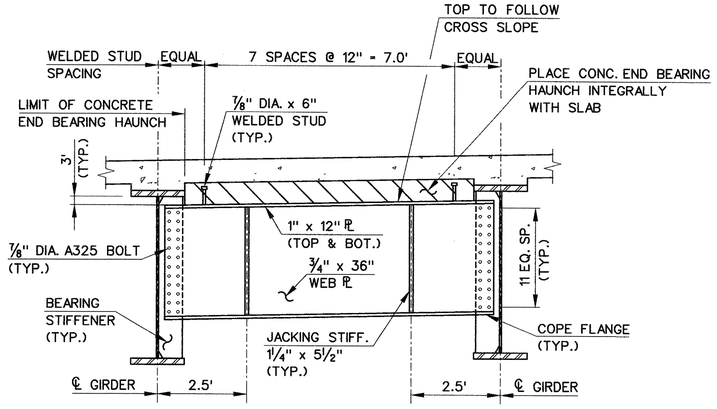
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S056.DGN
PLOTTED DATE: 3-06-00

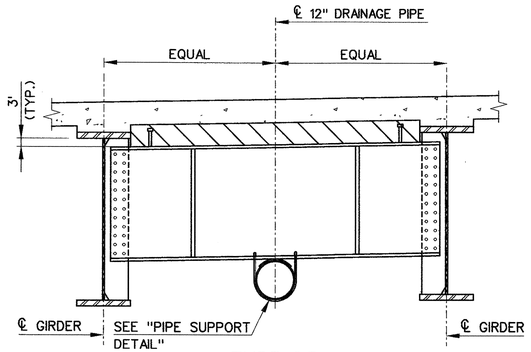
TOWN: NEW HAVEN
DRAWING TITLE: STRUCTURAL STEEL DETAILS - SHEET 2 OF 6

PROJECT NO.: 92-526
DRAWING NO.: STR-54
SHEET NO.: 188

20:36:45
06 MAR 2000
h:\dgn\pw\8703\structsfs\fd\structure\v703s056.dgn



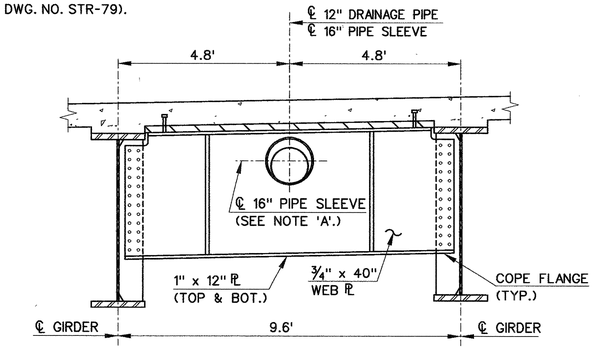
TYPE D2



TYPE D3

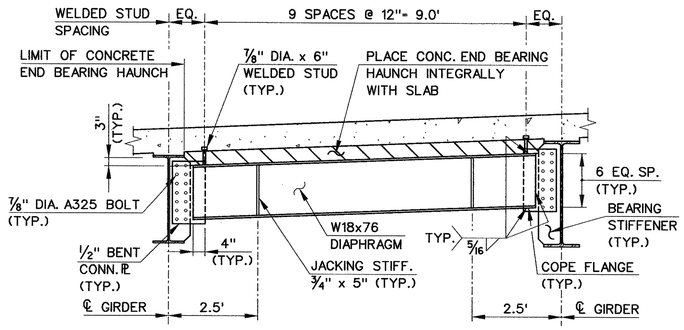
(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE D2)

NOTE 'A':
COORDINATE PIPE SLEEVE LOCATIONS WITH END DIAPHRAGM TYPE D8 (SEE DWG. NO. STR-79).

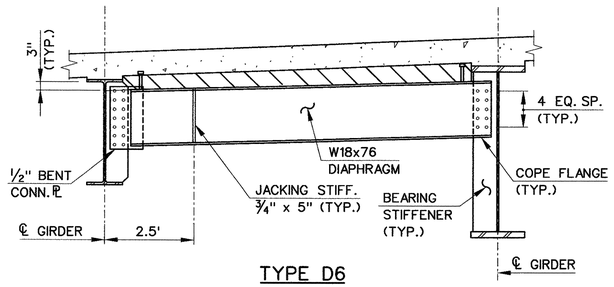


TYPE D4

(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE D2)

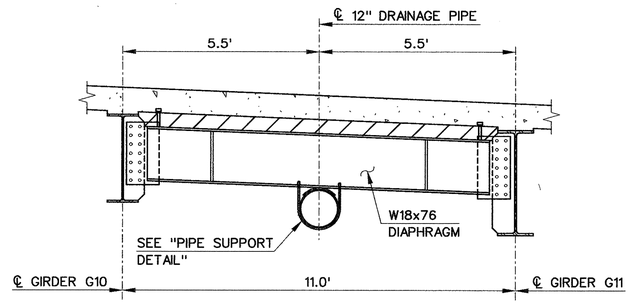


TYPE D5



TYPE D6

(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE D5)

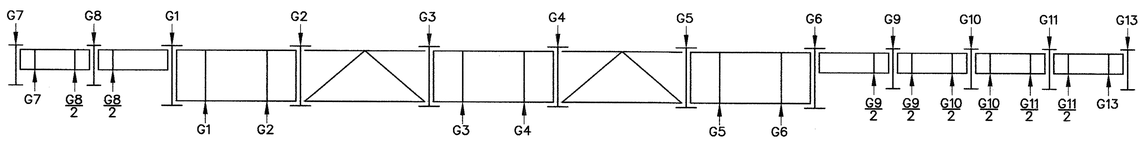


TYPE D7

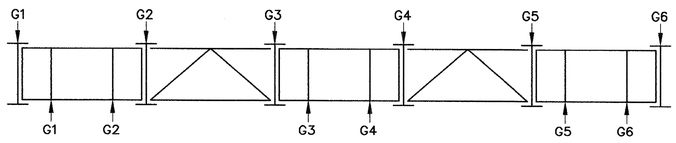
(NOTE: FOR INFORMATION NOT SHOWN, SEE TYPE D5)

END DIAPHRAGMS

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



AT ABUT. 1



AT PIER 1, PIER 2 & ABUT. 2

FUTURE JACKING SCHEME

NOT TO SCALE

NOTE: FOR MAXIMUM VERTICAL LOADS, SEE "BEARING DATA" ON DWG. NO. STR-63.

NOTES

1. FOR BEARING AND JACKING STIFFENER DETAILS, SEE DWG. NO. STR-57.
2. FOR FLANGE COPING DETAILS, SEE DWG. NO. STR-57.
3. FOR PIPE SUPPORT AND PIPE SLEEVE DETAILS, SEE DWG. NO. STR-54.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: M. OFFENBERG
CHECKED BY: T. YOUNG
DATE CHECKED: 4-9-00

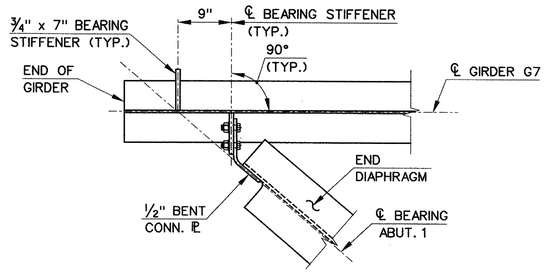
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony J. Mostti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S056A.DGN
PLOTTED DATE: 3-29-00

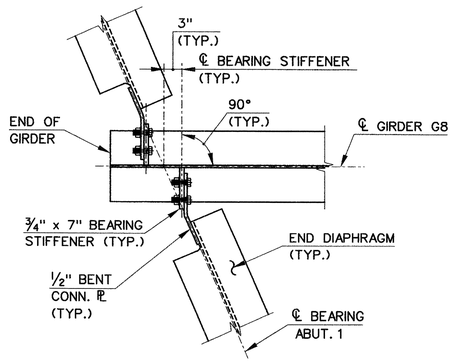
TOWN: NEW HAVEN
DRAWING TITLE: STRUCTURAL STEEL DETAILS - SHEET 3 OF 6

PROJECT NO.: 92-526
DRAWING NO.: STR-55
SHEET NO.: 189

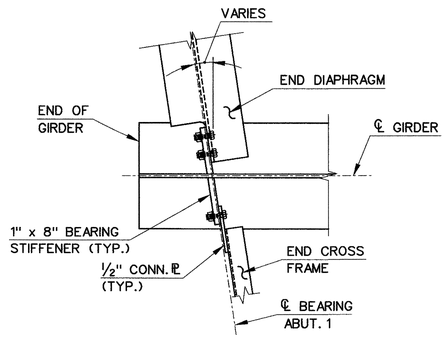
$TIME$
$DATE$
$FILE$



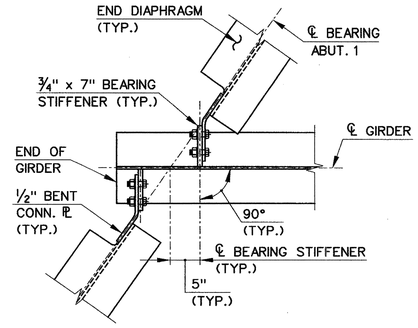
DETAIL 'A'
SCALE: 1" = 1'-0"



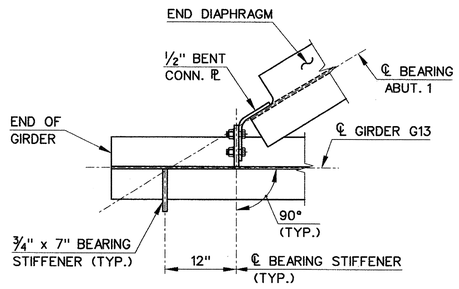
DETAIL 'B'
SCALE: 1" = 1'-0"



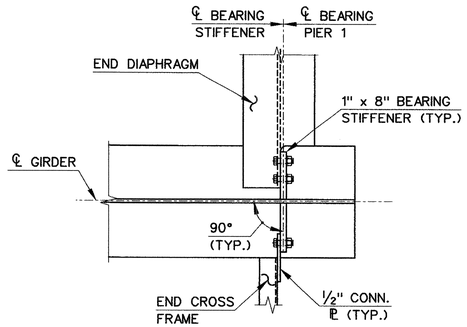
DETAIL 'C'
SCALE: 1" = 1'-0"
(ABUT. 1 SHOWN, ABUT. 2 OPPOSITE HAND)



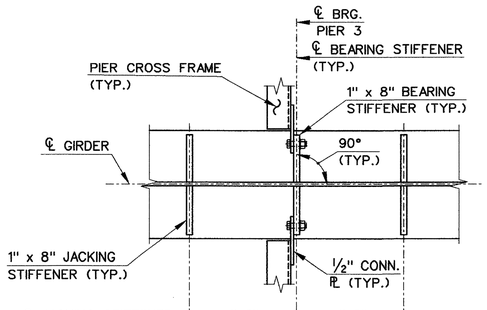
DETAIL 'D'
SCALE: 1" = 1'-0"



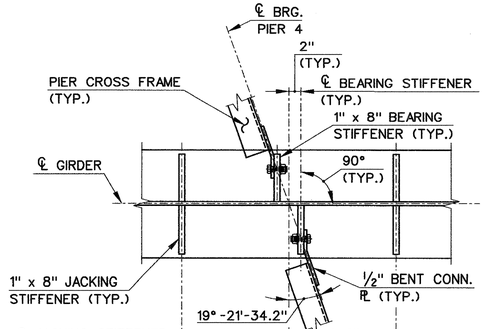
DETAIL 'E'
SCALE: 1" = 1'-0"



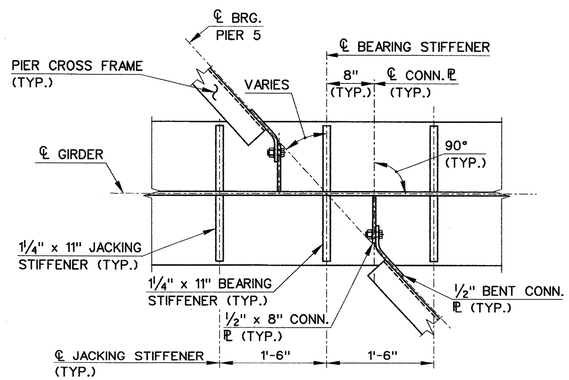
DETAIL 'F'
SCALE: 1" = 1'-0"
(PIER 1 SHOWN, OTHER LOCATIONS SIMILAR)



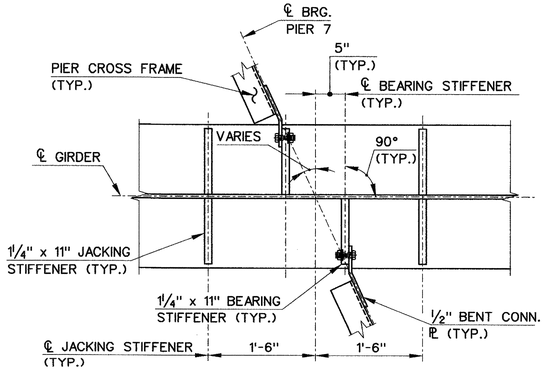
DETAIL 'G'
SCALE: 1" = 1'-0"



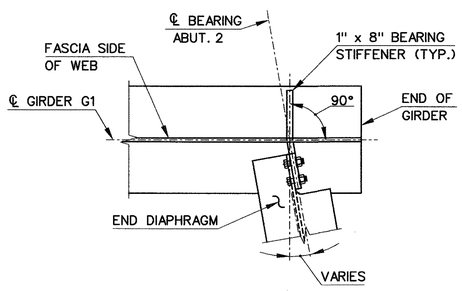
DETAIL 'H'
SCALE: 1" = 1'-0"



DETAIL 'J'
SCALE: 1" = 1'-0"
(PIER 5 SHOWN, PIER 6 SIMILAR)



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



DETAIL 'L'
SCALE: 1" = 1'-0"
(GIRDER G1 SHOWN, GIRDER G6 SIMILAR)

NOTE:
1. FOR CONNECTION ℙ, BEARING STIFFENER AND JACKING STIFFENER DETAILS, SEE DWG. NO. STR-57.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: R. WOLFF
CHECKED BY: T.YOUNG
DATE CHECKED: 3-7-00

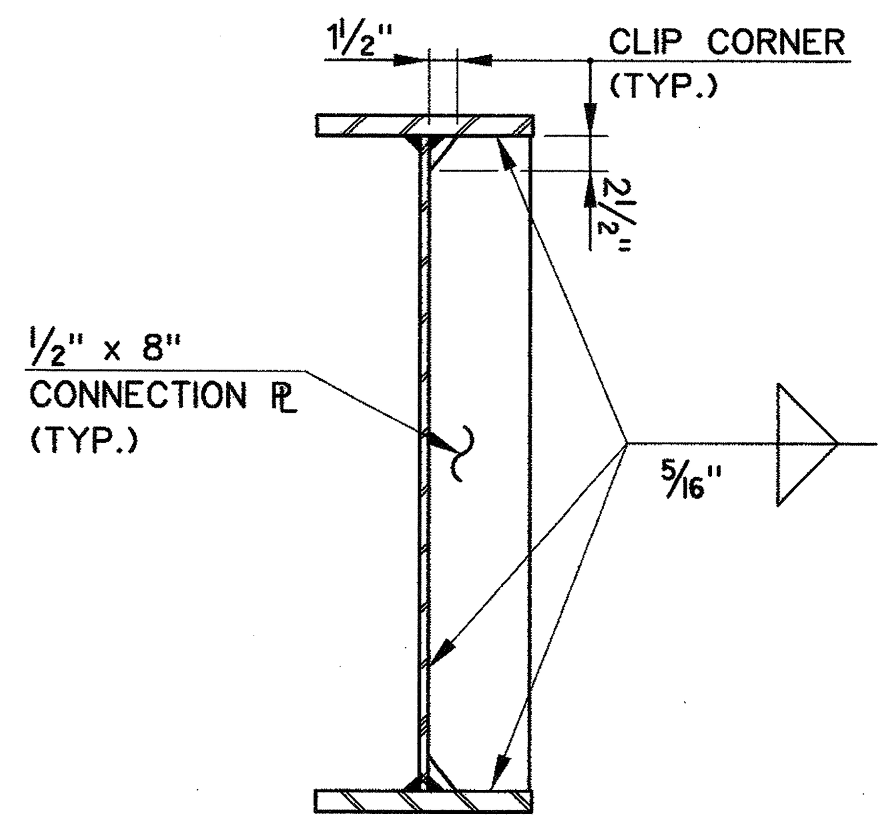
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S059.DGN PLOTTED DATE: 3-06-00

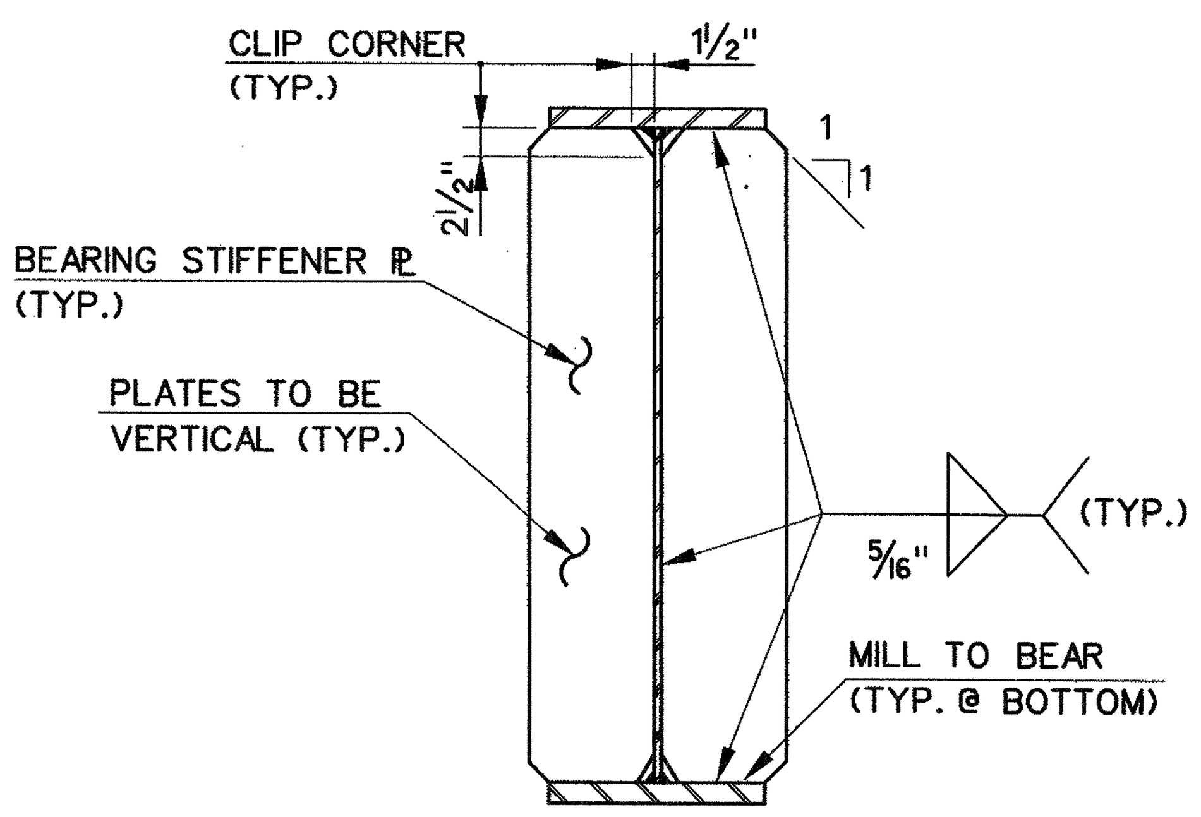
TOWN: NEW HAVEN
DRAWING TITLE: STRUCTURAL STEEL DETAILS - SHEET 4 OF 6

PROJECT NO.: 92-526
DRAWING NO.: STR-56
SHEET NO.: 190

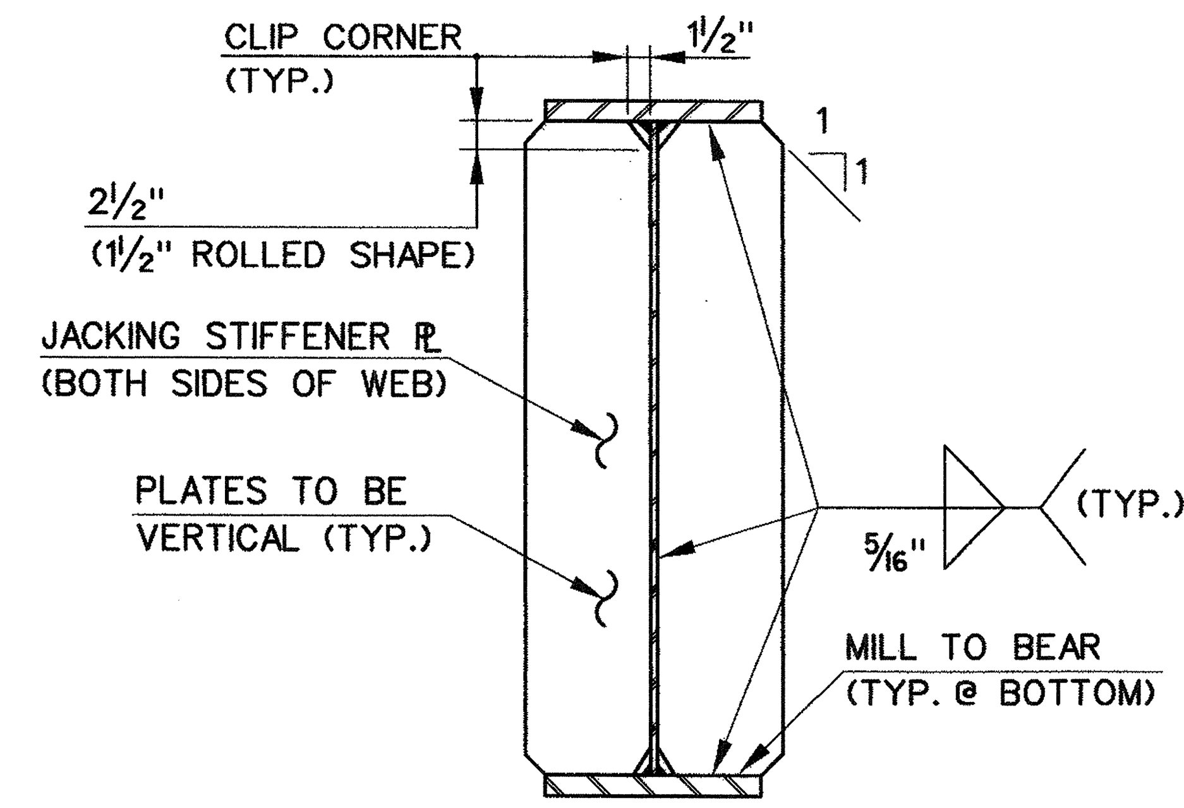
20:38:41 06 MAR 2000
k:\dgn\pbl8703\churches\fo\structure\r703s059.dgn



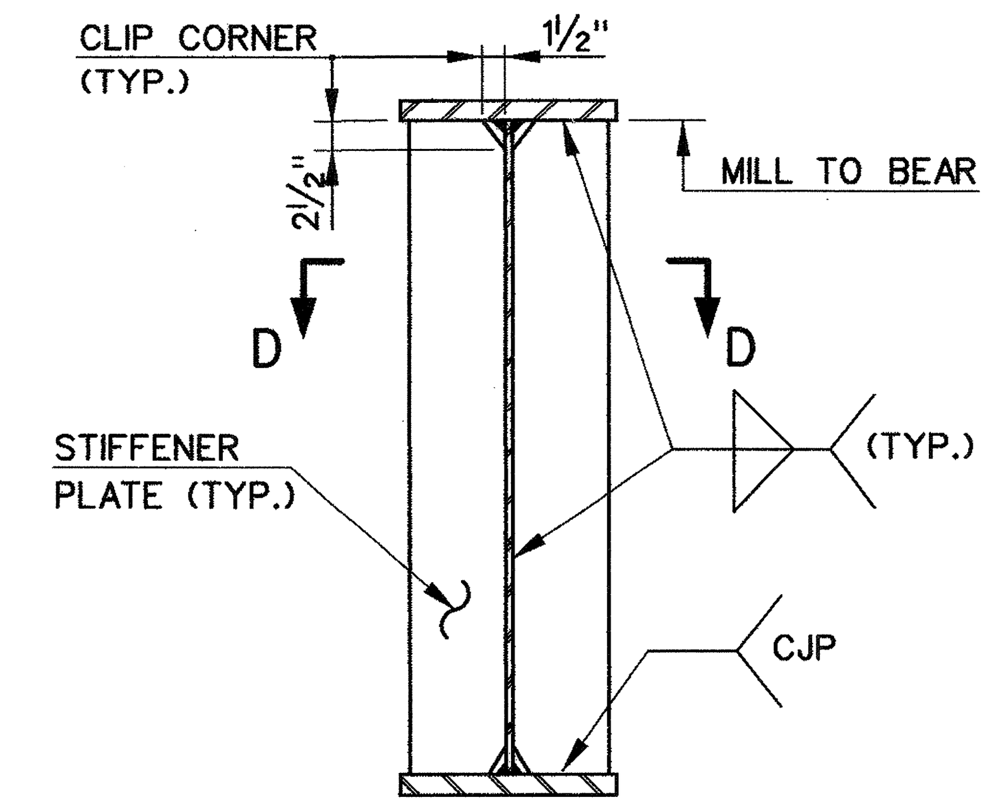
CONNECTION PLATE
SCALE: 3/4"=1'-0"



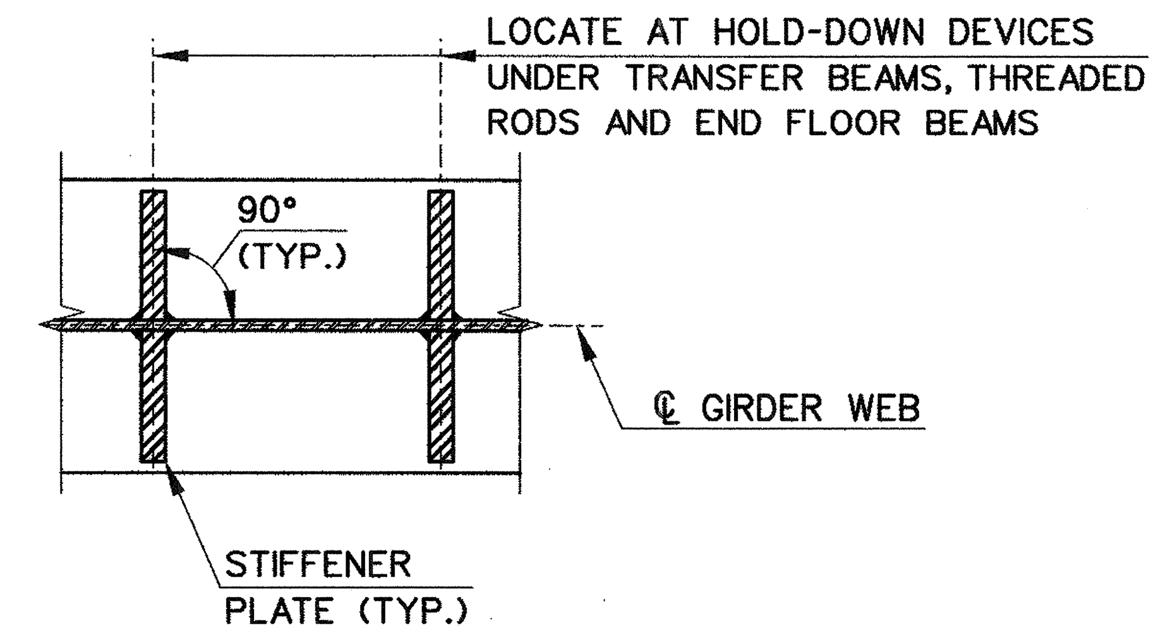
BEARING STIFFENER
SCALE: 3/4"=1'-0"



JACKING STIFFENER
SCALE: 3/4"=1'-0"
(PLATE GIRDER SHOWN, ROLLED SHAPE SIMILAR)



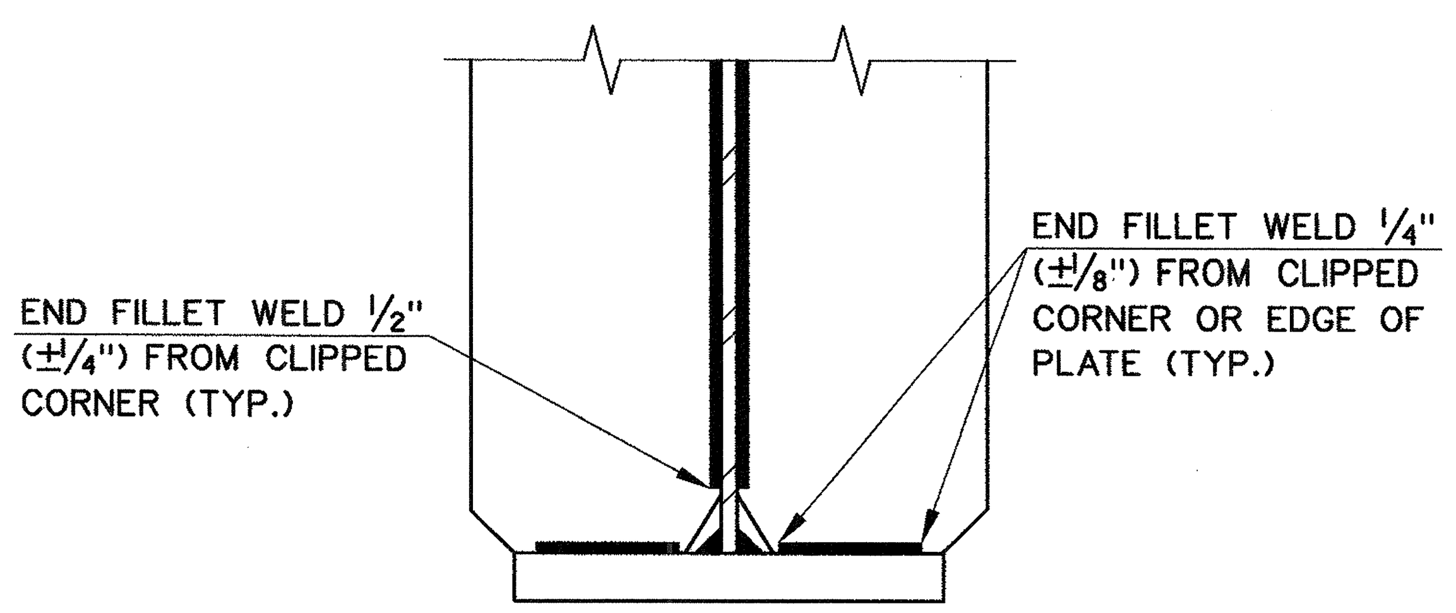
REACTION STIFFENER
SCALE: 3/4"=1'-0"



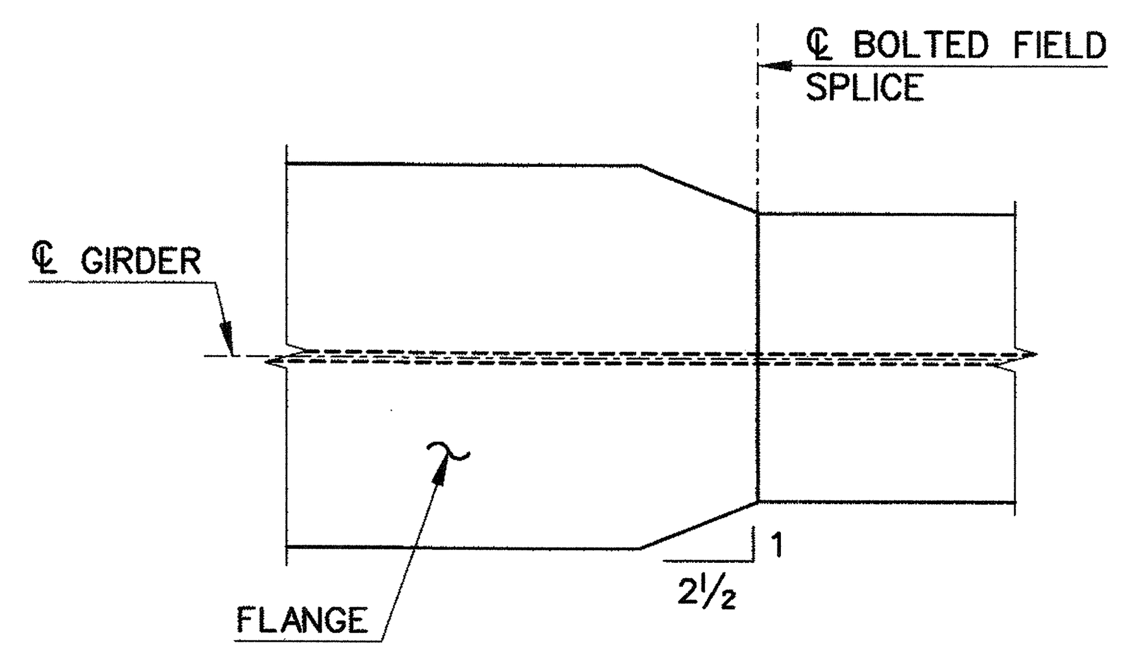
SECTION D-D
SCALE: 1"=1'-0"

REACTION STIFFENER NOTES:

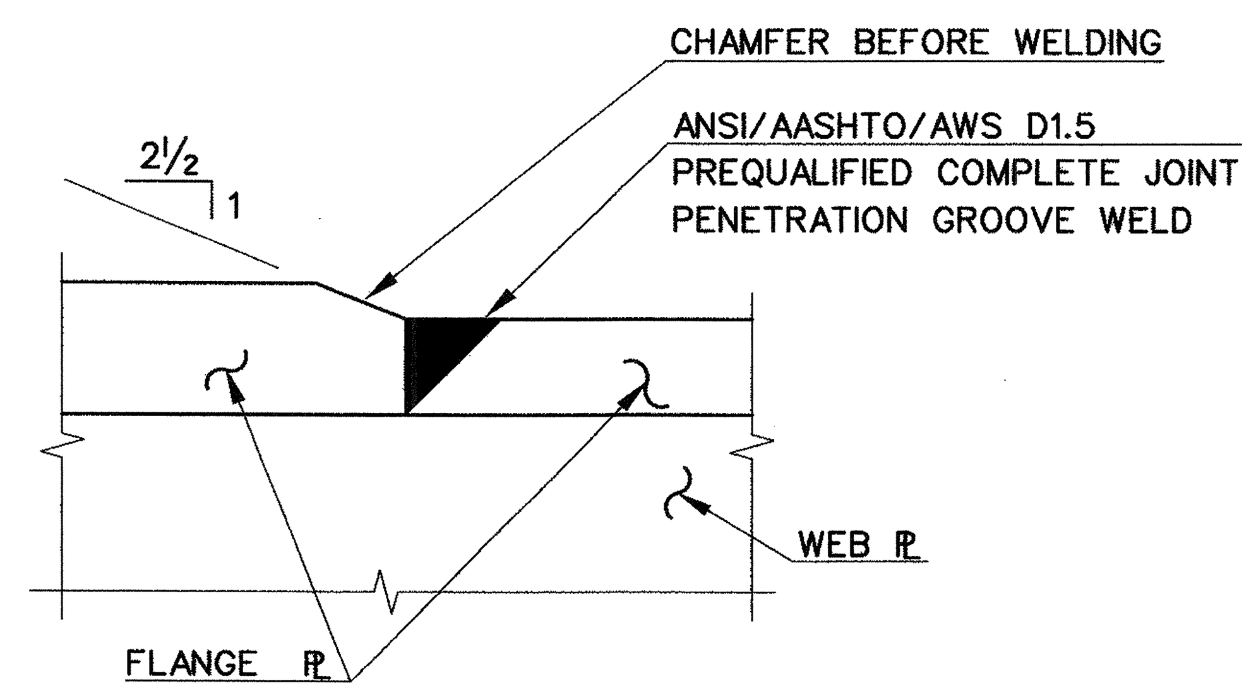
1. THESE DETAILS ARE PROPOSED AS PART OF THE "SUGGESTED ERECTION SEQUENCE" SHOWN ON DWG. NOS. STR-127 TO STR-131. THE CONTRACTOR SHALL DESIGN THESE DETAILS FOR THE ACTUAL ERECTION SEQUENCE UTILIZED BY THE CONTRACTOR.
2. SEE "ERECTION SEQUENCE - GENERAL NOTES", DWG. NO. STR-122.
3. FOR "STRUCTURAL STEEL NOTES", SEE DWG. NO. STR-47.



WELD TERMINATION DETAIL
SCALE: 1/2" =1'-0"
(BEARING STIFFENER SHOWN, CONNECTION ℙ AND JACKING STIFFENER SIMILAR)

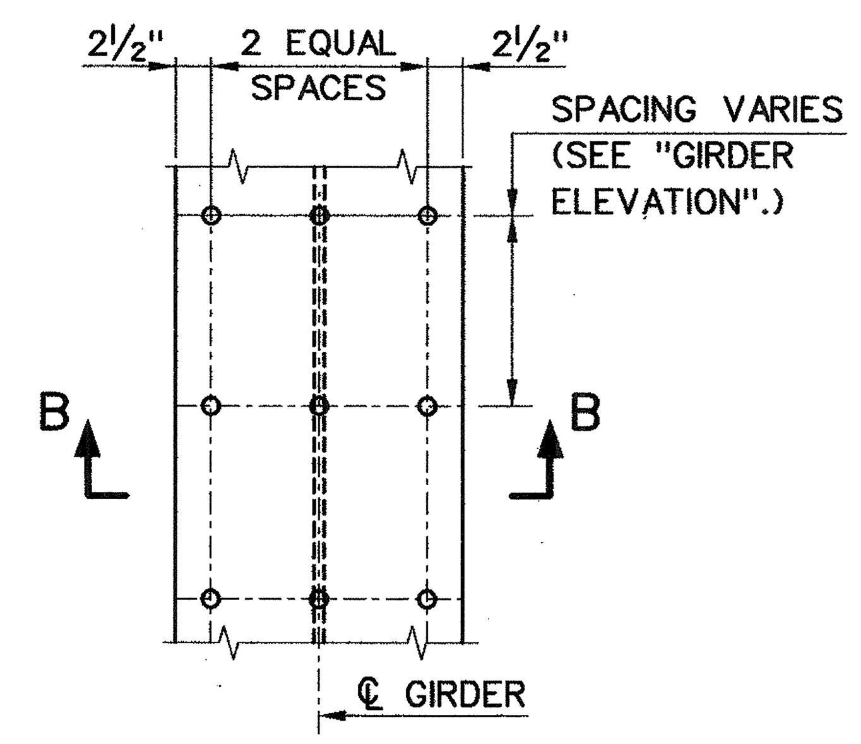


WIDTH TRANSITION
SCALE: 1"=1'-0'

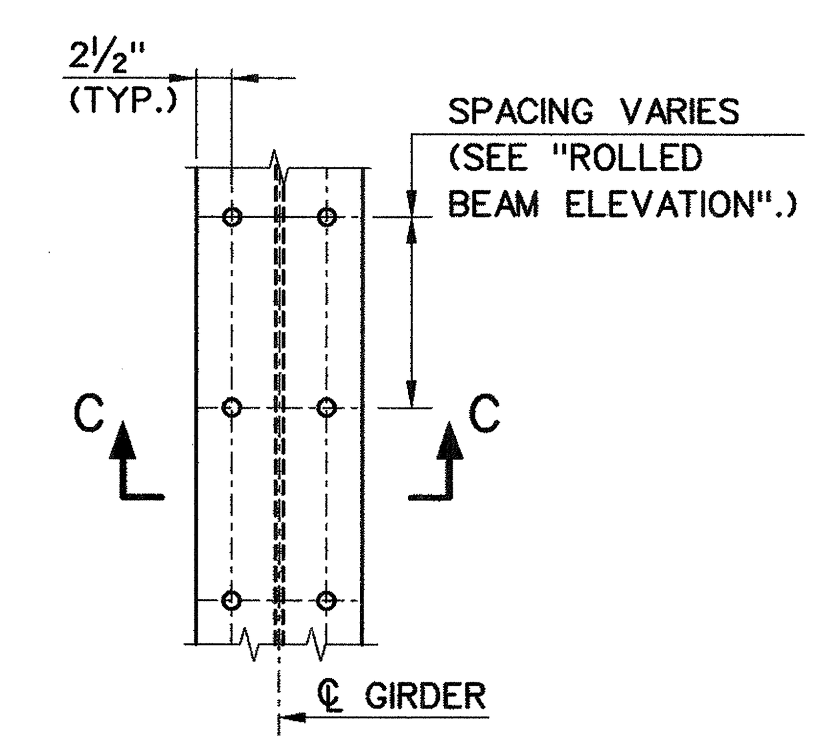


THICKNESS TRANSITION
SCALE: 3"=1'-0'

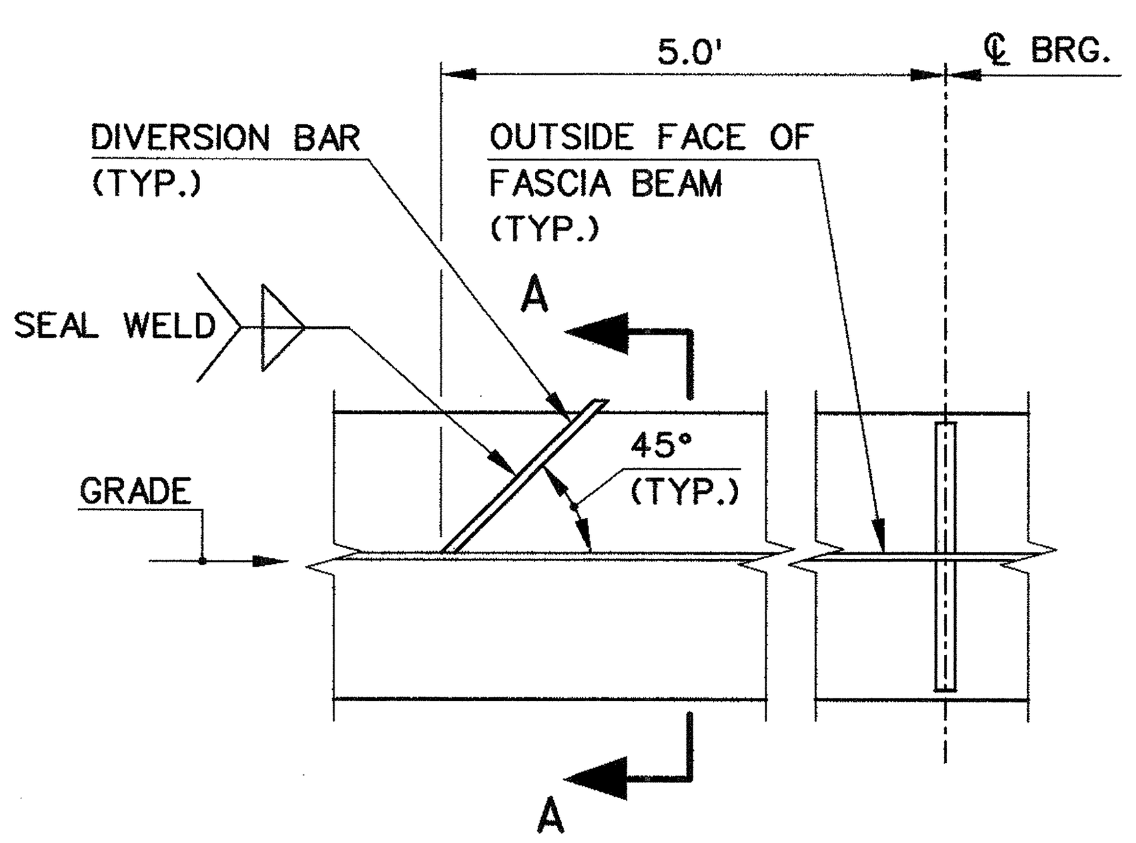
FLANGE TRANSITION DETAILS



PLAN

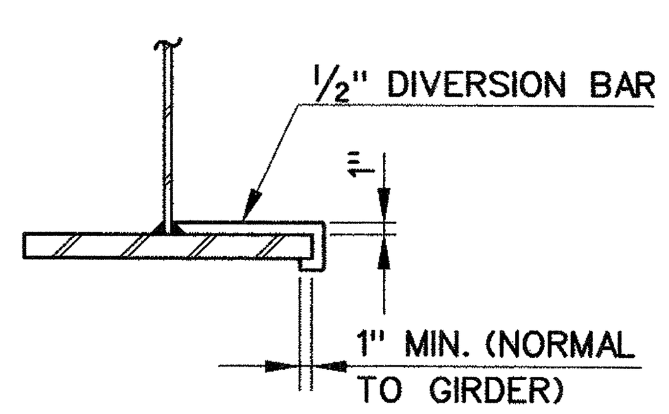


PLAN



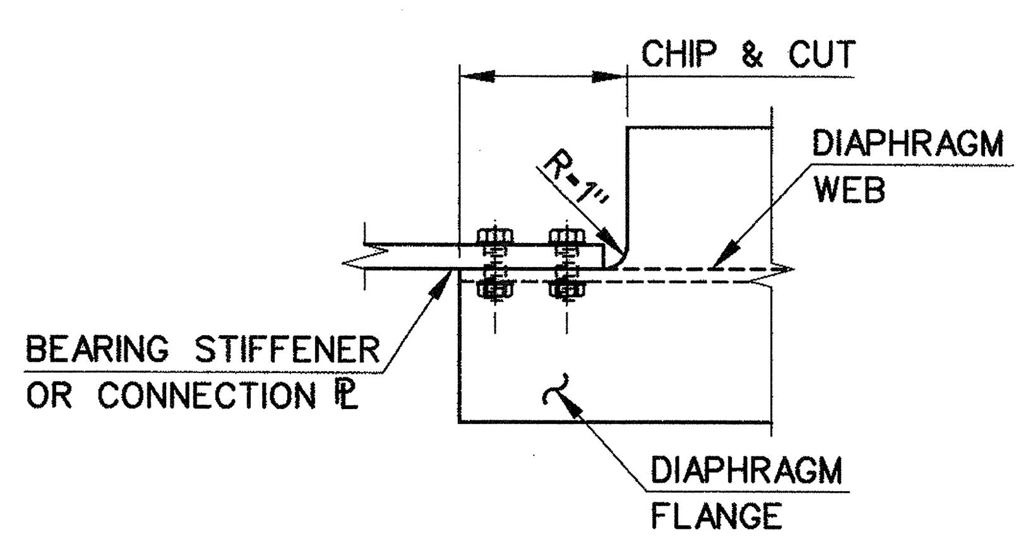
PLAN

NOTE:
STAIN PROTECTION DIVERSION BARS ARE REQUIRED ON THE OUTSIDE FACE OF EACH FASCIA GIRDER. DIVERSION BARS SHALL BE LOCATED AT THE LOW END OF EACH SPAN.

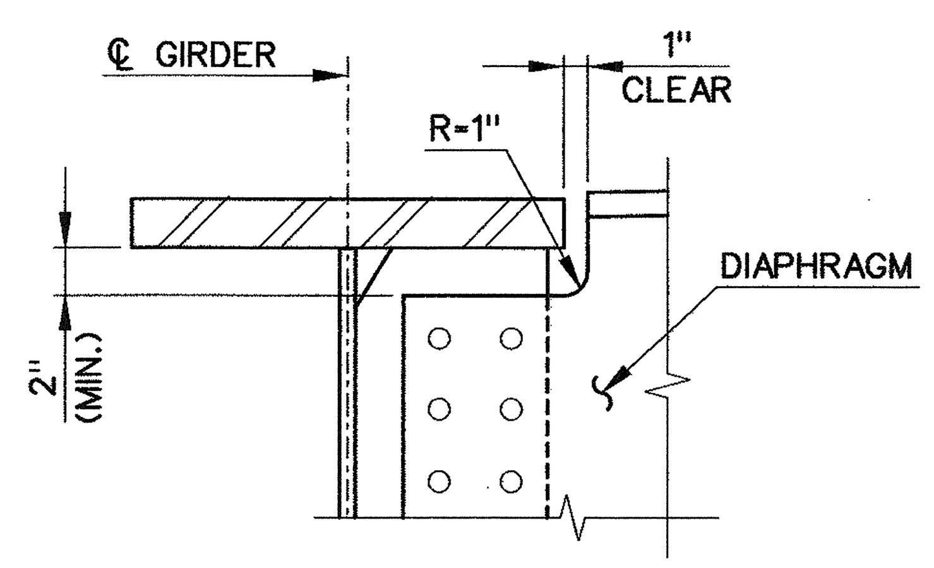


SECTION A-A

DIVERSION BAR DETAIL
SCALE: 3/4"=1'-0"

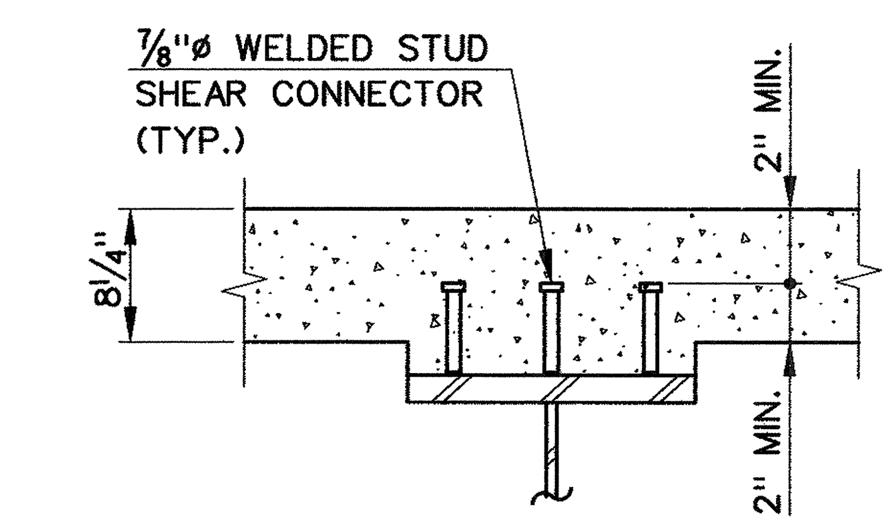


PLAN

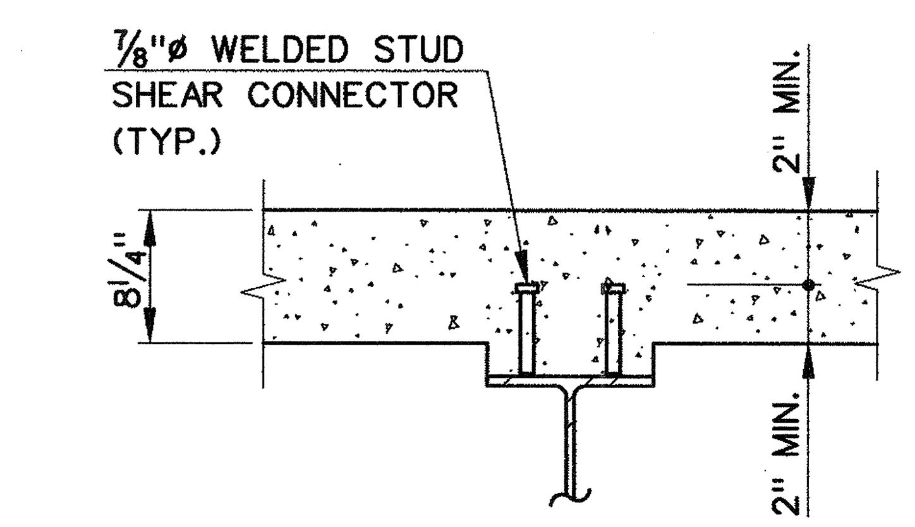


ELEVATION @ TYPE D4

FLANGE COPING DETAIL
SCALE: 1 1/2"=1'-0"



SECTION B-B
(G1 THRU G6)



SECTION C-C
(G7 THRU G13)

WELDED STUD SHEAR CONNECTOR DETAIL
SCALE: 1"=1'-0"

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: A. KILPATRICK
CHECKED BY: A. MORETTI
DATE CHECKED: 3-7-00

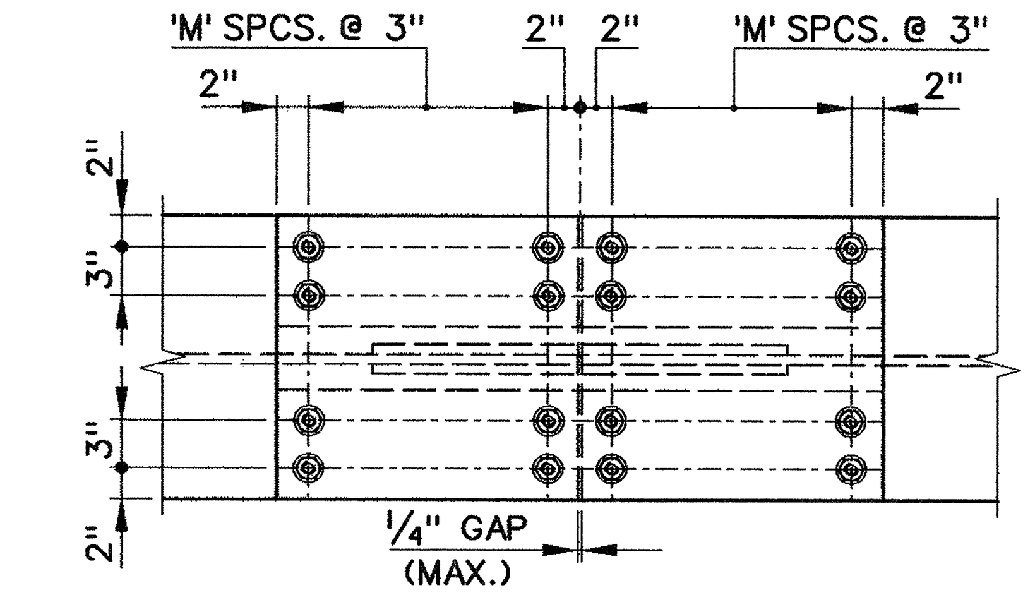
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S055.DGN
PLOTTED DATE: 3-06-00

TOWN: NEW HAVEN
DRAWING TITLE: STRUCTURAL STEEL DETAILS - SHEET 5 OF 6

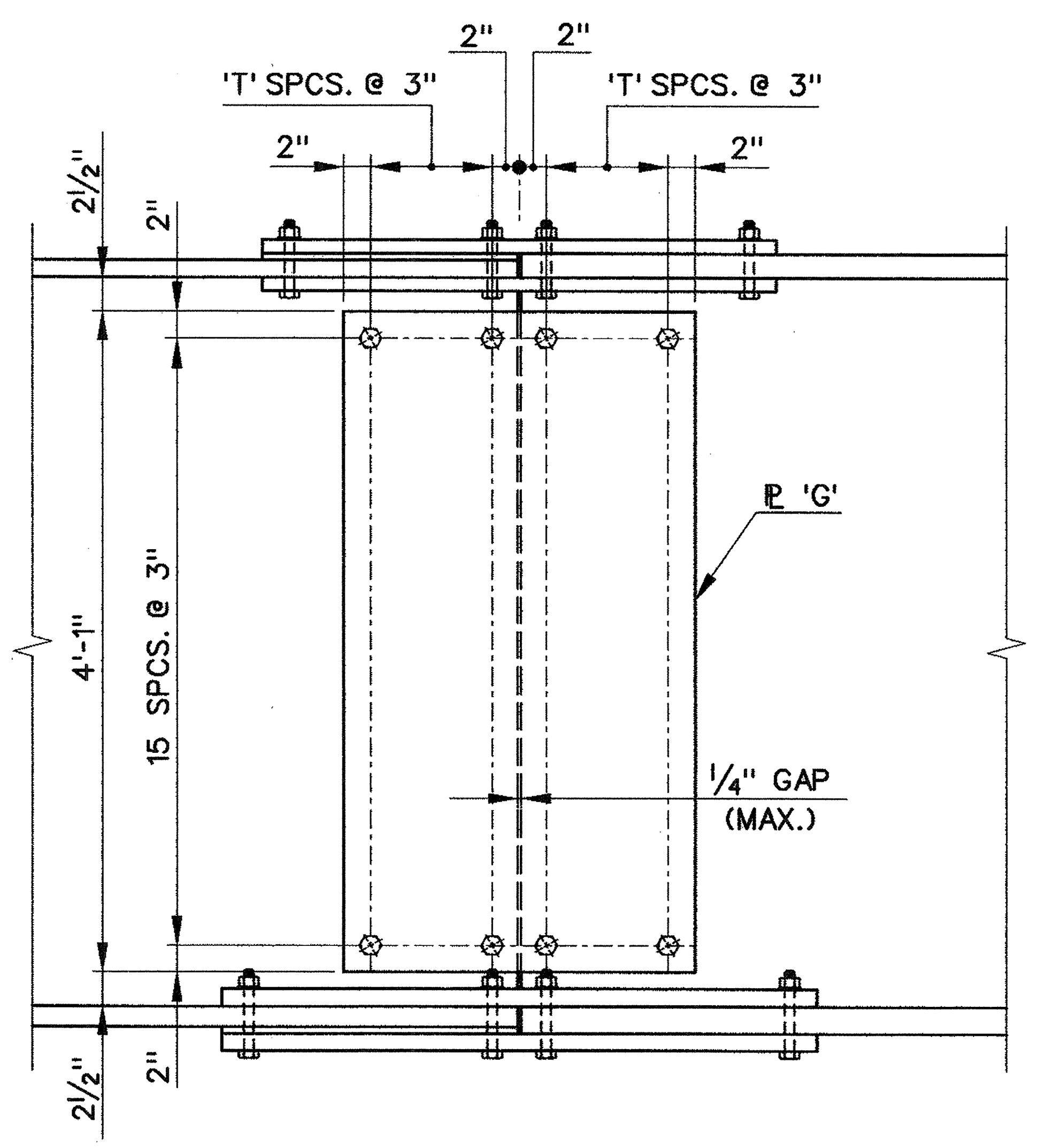
PROJECT NO.: 92-526
DRAWING NO.: STR-57
SHEET NO.: 191

18:14:55
07 MAR 2000
h:\dgn\bbl8703\churchst\d\structure\r703s055.dgn

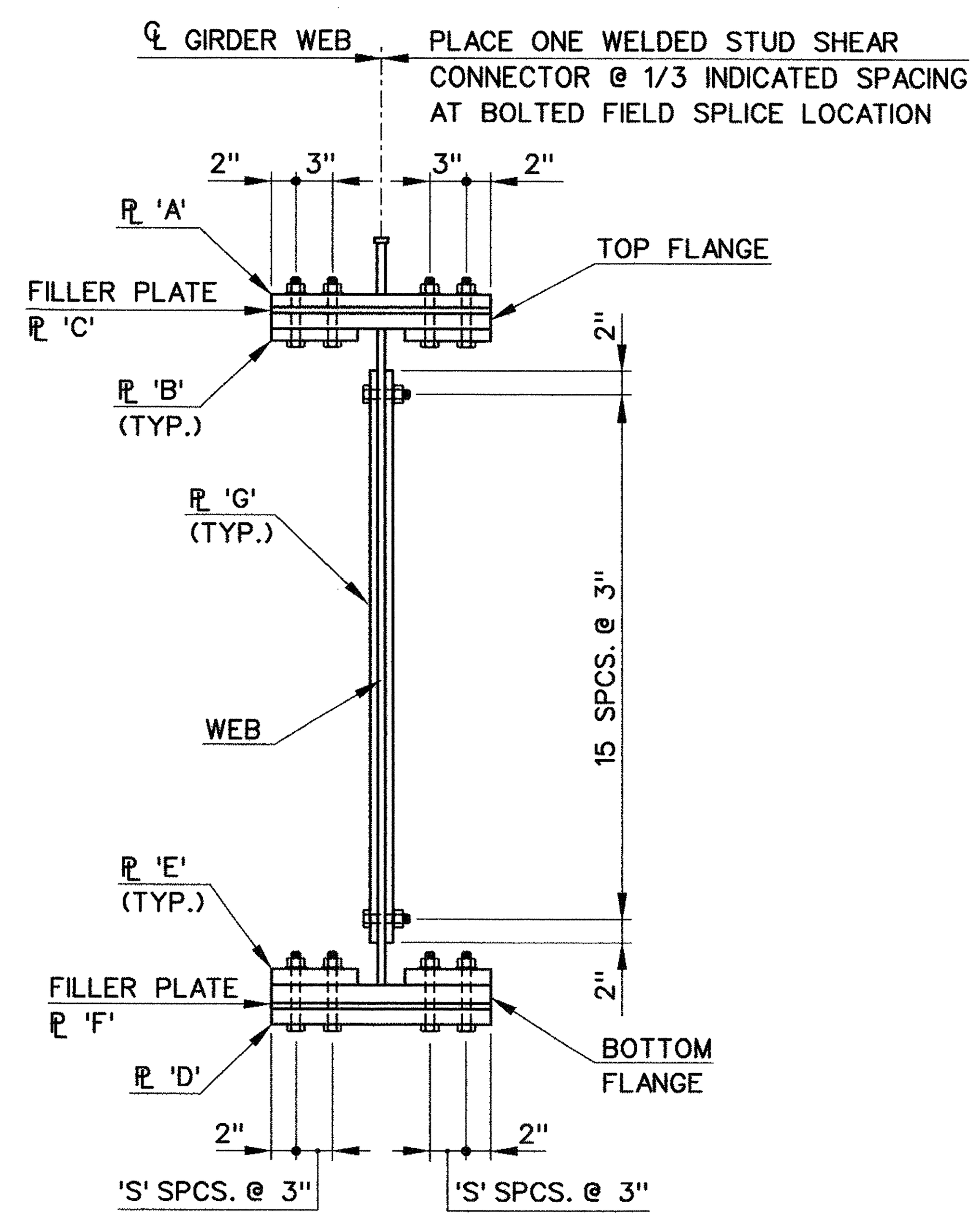


PLAN-TOP FLANGE

BOLTED FIELD SPLICE SCHEDULE									
SPLICE NO.	TOP FLANGE			BOTTOM FLANGE				WEB PLATE	
	PL 'A'	PL 'B'	'M' SPCS.	PL 'D'	PL 'E'	'R' SPCS.	'S' SPCS.	PL 'G'	'T' SPCS.
1	18"x5/8"	7"x5/8"	4	18"x1"	7"x1"	7	1	49"x1/2"	3
2, 3, 4	18"x5/8"	7"x5/8"	3	18"x5/8"	7"x5/8"	3	1	49"x1/2"	2
5, 6, 7, 8	18"x5/8"	7"x5/8"	3	18"x5/8"	7"x5/8"	4	1	49"x1/2"	2
9, 10	18"x5/8"	7"x5/8"	4	18"x3/4"	7"x3/4"	5	1	49"x1/2"	2

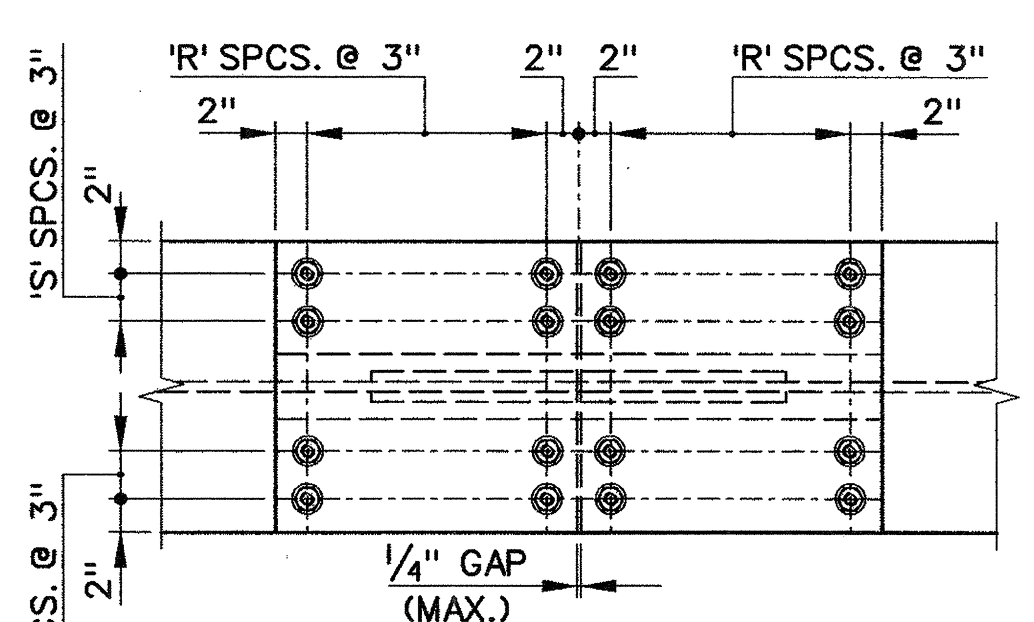


ELEVATION



SECTION

CONNECTION SCHEDULE				
LOCATION	DETAIL	ANGLE	'A'	'B'
G7/G8	'1'	25° -33'-26.1"	7	2
G8/G1	'1'	14° -54'-43.4"	9	3
G9/G6	'2'	43° -36'-27.0"	5	1
G10/G6	'2'	43° -36'-27.0"	7	1
G11/G6	'2'	43° -36'-27.0"	9	1
G12/G6	'1'	16° -14'-40.8"	7	2
G12/G11	'1'	27° -21'-46.2"	7	2
G13/G11	'1'	23° -28'-24.0"	7	2



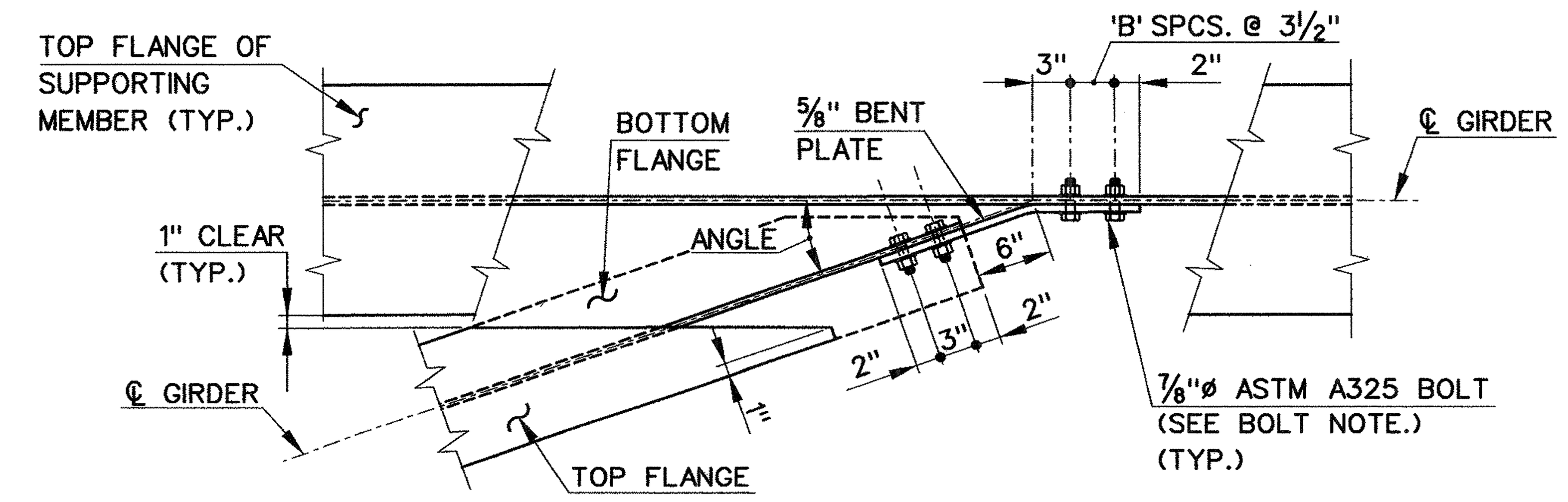
PLAN-BOTTOM FLANGE

BOLTED FIELD SPLICE NOTES

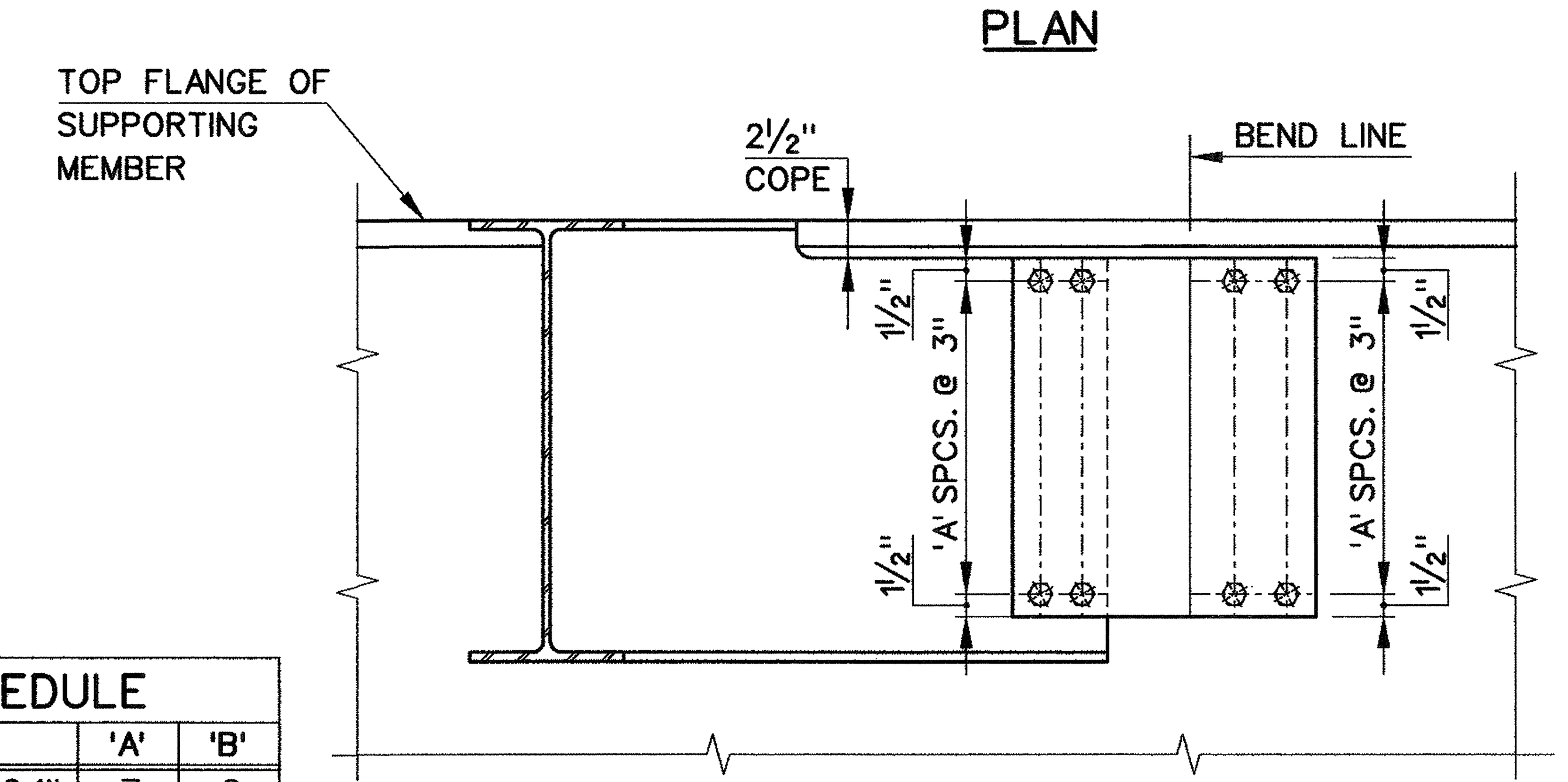
1. FOR LOCATION OF FIELD SPLICES, SEE GIRDER SCHEDULES ON DWG. NO. STR-51 & 52.
2. ALL BOLTS SHALL BE 7/8"ø ASTM A325.
3. ALL FIELD SPLICES SHALL BE "SLIP CRITICAL" CONNECTIONS WITH CLASS 'B' SURFACE CONDITIONS.
4. ALL FASTENERS SHALL HAVE ONE HEAVY HEX NUT AND ONE HARDENED WASHER UNDER THE TURNED ELEMENT.
5. ALL BOLT HOLES SHALL BE DRILLED OR PUNCHED TO A FINISHED DIAMETER OF 15/16".
6. ALL SPLICE AND FILLER PLATES SHALL CONFORM TO ASTM A709 (GRADE 50W) AND SHALL BE FREE FROM BURRS, NICKS, AND GOUGES.
7. BOLT HEADS SHALL FACE DOWNWARD ON FLANGE SPLICES AND SHALL FACE OUTWARD ON FASCIA GIRDER WEB SPLICES.

BOLTED FIELD SPLICE DETAIL

SCALE: 1"=1'-0"



PLAN



ELEVATION

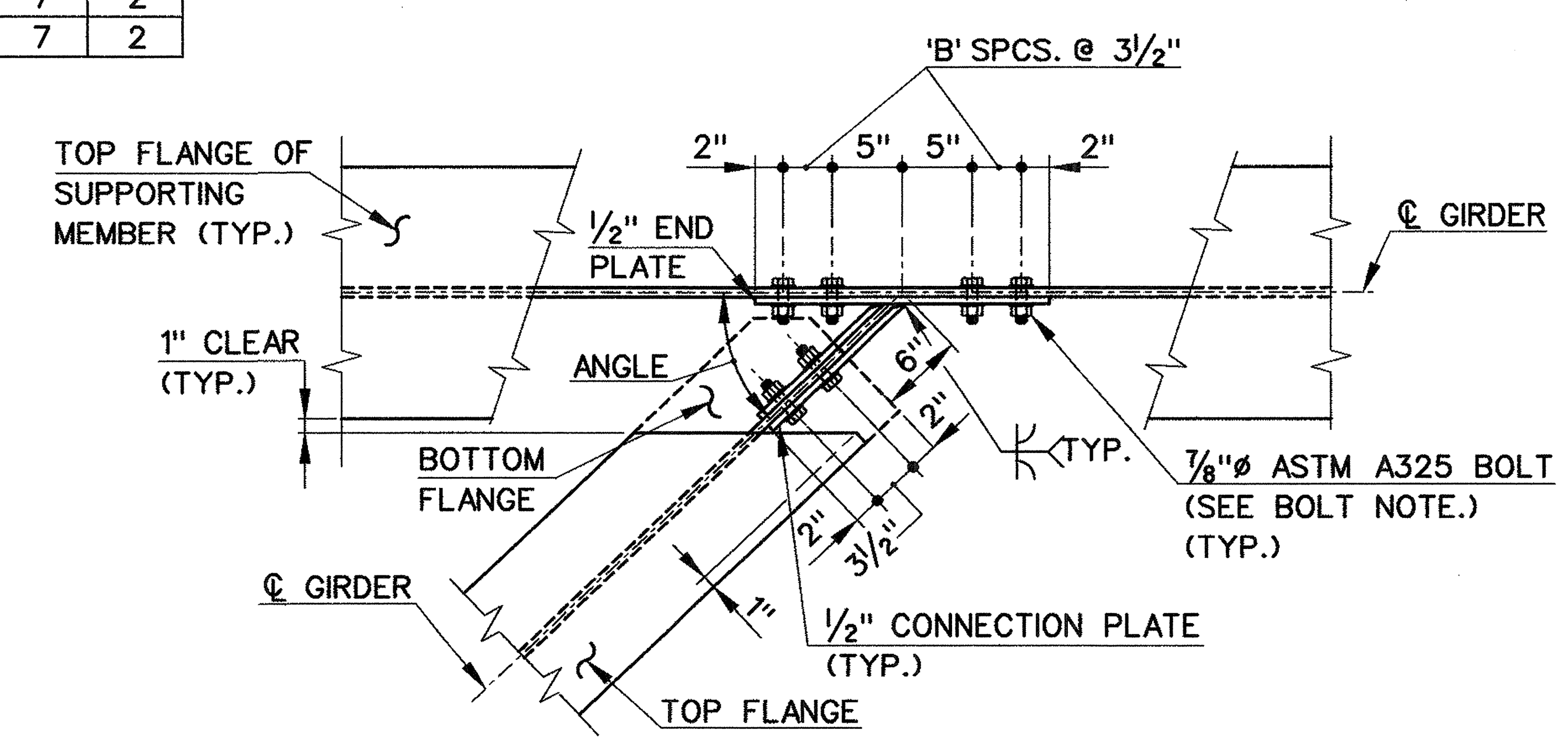
DETAIL '1'

SCALE: 1"=1'-0"

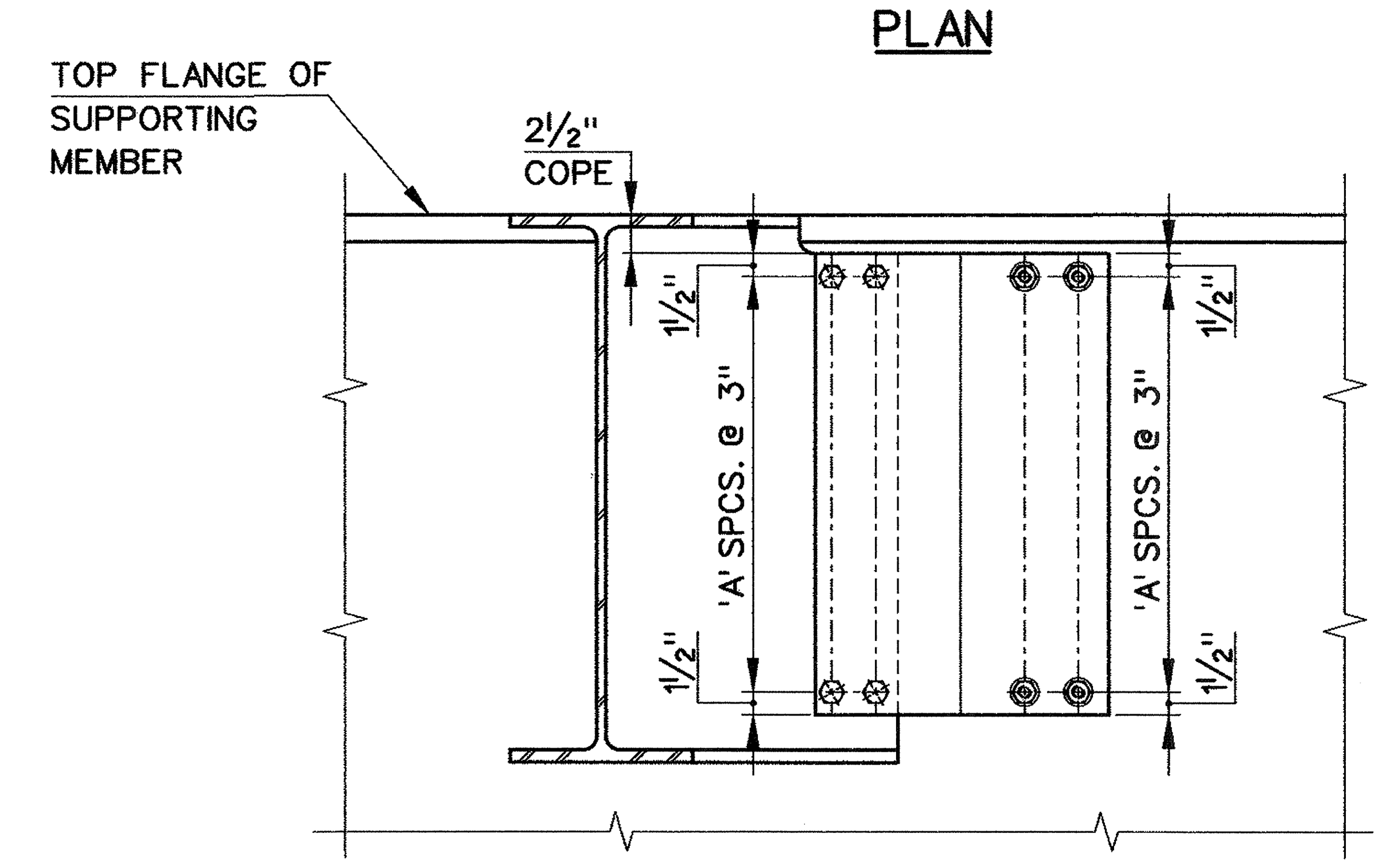
(GIRDER G12 CONNECTION SHOWN, OTHERS SIMILAR.)

BOLT NOTE

BOLT HOLE IN GIRDER SHALL BE 15/16" DIA. BOLT HOLE IN BENT PL AND END PL SHALL BE 1 1/16" DIA.



PLAN



ELEVATION

DETAIL '2'

SCALE: 1"=1'-0"

(GIRDER G11 CONNECTION SHOWN, OTHERS SIMILAR.)

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R.DEVAUX
DRAFTER: R. DIPANFILO
CHECKED BY: T. YOUNG
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S057.DGN | PLOTTED DATE: 3-06-00

TOWN: NEW HAVEN

DRAWING TITLE: STRUCTURAL STEEL DETAILS - SHEET 6 OF 6

PROJECT NO.: 92-526
DRAWING NO.: STR-58
SHEET NO.: 192

20-40i6
06 MAR 2000
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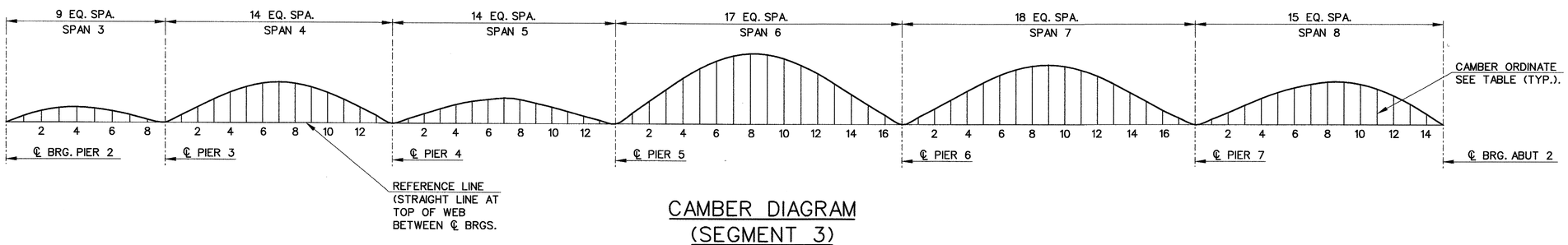
CAMBER ORDINATES (ft)

GIRDER		INCREMENT LENGTH SPAN 3	CL BRG PIER 2	SPAN 3								CL PIER 3
				1	2	3	4	5	6	7	8	
G1	STEEL DEAD LOAD	10.031	0.000	0.004	0.008	0.010	0.009	0.008	0.005	0.002	0.000	0.000
	ADDITIONAL DEAD LOAD		0.000	0.015	0.027	0.033	0.033	0.027	0.017	0.007	0.000	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.011	0.014	0.014	0.012	0.007	0.003	0.000	0.000
	TOTAL DEAD LOAD		0.000	0.026	0.046	0.056	0.056	0.046	0.030	0.012	0.000	0.000
	VERT. CURVE ORD.		0.000	0.034	0.060	0.077	0.086	0.086	0.077	0.060	0.034	0.000
	TOTAL		0.000	0.060	0.106	0.133	0.142	0.132	0.107	0.072	0.034	0.000
G2	STEEL DEAD LOAD	10.031	0.000	0.004	0.008	0.009	0.009	0.008	0.005	0.002	0.000	0.000
	ADDITIONAL DEAD LOAD		0.000	0.016	0.028	0.034	0.034	0.027	0.017	0.006	-0.001	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.011	0.013	0.013	0.011	0.007	0.002	0.000	0.000
	TOTAL DEAD LOAD		0.000	0.026	0.046	0.057	0.056	0.045	0.028	0.010	-0.002	0.000
	VERT. CURVE ORD.		0.000	0.034	0.060	0.077	0.086	0.086	0.077	0.060	0.034	0.000
	TOTAL		0.000	0.060	0.106	0.134	0.142	0.131	0.105	0.070	0.033	0.000
G3	STEEL DEAD LOAD	10.031	0.000	0.004	0.007	0.009	0.009	0.007	0.004	0.001	-0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	0.015	0.027	0.033	0.032	0.025	0.015	0.005	-0.002	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.010	0.013	0.012	0.010	0.006	0.002	-0.001	0.000
	TOTAL DEAD LOAD		0.000	0.025	0.044	0.054	0.053	0.042	0.025	0.008	-0.003	0.000
	VERT. CURVE ORD.		0.000	0.034	0.060	0.077	0.086	0.086	0.077	0.060	0.034	0.000
	TOTAL		0.000	0.059	0.104	0.131	0.138	0.128	0.102	0.068	0.031	0.000
G4	STEEL DEAD LOAD	10.031	0.000	0.004	0.007	0.008	0.007	0.005	0.003	0.000	-0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	0.016	0.028	0.033	0.032	0.025	0.014	0.004	-0.002	0.000
	COMPOSITE DEAD LOAD		0.000	0.005	0.010	0.012	0.011	0.009	0.005	0.001	-0.001	0.000
	TOTAL DEAD LOAD		0.000	0.025	0.044	0.053	0.051	0.039	0.022	0.005	-0.004	0.000
	VERT. CURVE ORD.		0.000	0.034	0.060	0.077	0.086	0.086	0.077	0.060	0.034	0.000
	TOTAL		0.000	0.059	0.104	0.130	0.136	0.125	0.099	0.066	0.030	0.000
G5	STEEL DEAD LOAD	10.031	0.000	0.004	0.006	0.007	0.007	0.005	0.002	0.000	-0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	0.015	0.027	0.032	0.030	0.023	0.013	0.002	-0.003	0.000
	COMPOSITE DEAD LOAD		0.000	0.005	0.009	0.011	0.010	0.008	0.004	0.000	-0.001	0.000
	TOTAL DEAD LOAD		0.000	0.024	0.042	0.050	0.047	0.036	0.019	0.003	-0.006	0.000
	VERT. CURVE ORD.		0.000	0.034	0.060	0.077	0.086	0.086	0.077	0.060	0.034	0.000
	TOTAL		0.000	0.058	0.102	0.127	0.133	0.121	0.096	0.063	0.028	0.000
G6	STEEL DEAD LOAD	10.031	0.000	0.003	0.006	0.007	0.006	0.004	0.002	-0.001	-0.002	0.000
	ADDITIONAL DEAD LOAD		0.000	0.012	0.021	0.024	0.023	0.017	0.008	0.000	-0.004	0.000
	COMPOSITE DEAD LOAD		0.000	0.005	0.009	0.010	0.010	0.007	0.003	0.000	-0.002	0.000
	TOTAL DEAD LOAD		0.000	0.020	0.035	0.041	0.038	0.028	0.013	-0.001	-0.007	0.000
	VERT. CURVE ORD.		0.000	0.034	0.060	0.077	0.086	0.086	0.077	0.060	0.034	0.000
	TOTAL		0.000	0.054	0.095	0.119	0.124	0.113	0.090	0.059	0.027	0.000

CAMBER ORDINATES (ft)

GIRDER		INCREMENT LENGTH SPAN 4	CL PIER 3	SPAN 4												CL PIER 4
				1	2	3	4	5	6	7	8	9	10	11	12	13	
G1	STEEL DEAD LOAD	8.603	0.000	0.003	0.007	0.012	0.016	0.021	0.024	0.025	0.024	0.022	0.018	0.013	0.008	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.009	0.023	0.040	0.058	0.072	0.083	0.087	0.085	0.077	0.064	0.047	0.029	0.013	0.000
	COMPOSITE DEAD LOAD		0.000	0.004	0.010	0.018	0.025	0.032	0.036	0.038	0.037	0.034	0.028	0.021	0.013	0.005	0.000
	TOTAL DEAD LOAD		0.000	0.015	0.040	0.070	0.099	0.125	0.142	0.150	0.147	0.133	0.110	0.081	0.050	0.021	0.000
	VERT. CURVE ORD.		0.000	0.041	0.076	0.104	0.126	0.142	0.151	0.155	0.151	0.142	0.126	0.104	0.076	0.041	0.000
	TOTAL		0.000	0.056	0.116	0.174	0.226	0.267	0.294	0.304	0.298	0.274	0.236	0.185	0.126	0.062	0.000
G2	STEEL DEAD LOAD	8.844	0.000	0.003	0.008	0.013	0.019	0.023	0.026	0.027	0.026	0.024	0.019	0.014	0.008	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.011	0.028	0.048	0.069	0.086	0.097	0.102	0.099	0.089	0.073	0.053	0.032	0.013	0.000
	COMPOSITE DEAD LOAD		0.000	0.004	0.012	0.020	0.028	0.035	0.040	0.042	0.040	0.036	0.030	0.022	0.013	0.006	0.000
	TOTAL DEAD LOAD		0.000	0.018	0.047	0.082	0.115	0.144	0.163	0.171	0.166	0.149	0.122	0.089	0.053	0.022	0.000
	VERT. CURVE ORD.		0.000	0.043	0.080	0.110	0.133	0.150	0.160	0.163	0.160	0.150	0.133	0.110	0.080	0.043	0.000
	TOTAL		0.000	0.061	0.127	0.192	0.249	0.294	0.323	0.334	0.326	0.299	0.255	0.199	0.133	0.065	0.000
G3	STEEL DEAD LOAD	9.085	0.000	0.003	0.009	0.015	0.021	0.026	0.029	0.030	0.029	0.025	0.020	0.014	0.008	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.012	0.031	0.054	0.076	0.094	0.106	0.111	0.107	0.095	0.077	0.055	0.033	0.013	0.000
	COMPOSITE DEAD LOAD		0.000	0.005	0.013	0.022	0.031	0.039	0.044	0.045	0.044	0.039	0.032	0.023	0.014	0.006	0.000
	TOTAL DEAD LOAD		0.000	0.021	0.053	0.091	0.128	0.158	0.178	0.186	0.179	0.160	0.129	0.093	0.055	0.022	0.000
	VERT. CURVE ORD.		0.000	0.046	0.084	0.116	0.141	0.158	0.169	0.172	0.169	0.158	0.141	0.116	0.084	0.046	0.000
	TOTAL		0.000	0.066	0.137	0.207	0.268	0.316	0.347	0.358	0.348	0.318	0.270	0.209	0.139	0.067	0.000
G4	STEEL DEAD LOAD	9.326	0.000	0.004	0.010	0.016	0.023	0.028	0.031	0.032	0.031	0.027	0.021	0.015	0.008	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.013	0.034	0.058	0.081	0.101	0.114	0.118	0.113	0.099	0.079	0.055	0.032	0.012	0.000
	COMPOSITE DEAD LOAD		0.000	0.005	0.013	0.023	0.032	0.039	0.044	0.046	0.044	0.039	0.031	0.022	0.013	0.005	0.000
	TOTAL DEAD LOAD		0.000	0.022	0.057	0.097	0.136	0.168	0.189	0.196	0.187	0.165	0.131	0.092	0.053	0.021	0.000
	VERT. CURVE ORD.		0.000	0.048	0.089	0.122	0.148	0.167	0.178	0.182	0.178	0.167	0.148	0.122	0.089	0.048	0.000
	TOTAL		0.000	0.070	0.145	0.219	0.284	0.335	0.367	0.378	0.365	0.331	0.280	0.214	0.142	0.069	0.000
G5	STEEL DEAD LOAD	9.566	0.000	0.004	0.011	0.018	0.025	0.031	0.034	0.035	0.033	0.029	0.023	0.015	0.009	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.015	0.037	0.063	0.089	0.110	0.123	0.126	0.120	0.104	0.082	0.056	0.031	0.011	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.015	0.025	0.035	0.043	0.048	0.050	0.047	0.042	0.033	0.023	0.013	0.005	0.000
	TOTAL DEAD LOAD		0.000	0.025	0.063	0.106	0.149	0.184	0.205	0.211	0.200	0.175	0.138	0.095	0.053	0.020	0.000
	VERT. CURVE ORD.		0.000	0.051	0.094	0.129	0.156	0.176	0.187	0.191	0.187	0.176	0.156	0.129	0.094	0.051	0.000
	TOTAL		0.000	0.076	0.156	0.235	0.305	0.359	0.393	0.402	0.388	0.350	0.294	0.224	0.147	0.070	0.000
G6	STEEL DEAD LOAD	9.807	0.000	0.005	0.012	0.019	0.027	0.033	0.036	0.037	0.035	0.030	0.023	0.015	0.008	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.014	0.035	0.060	0.083	0.102	0.114	0.117	0.110	0.096	0.075	0.051	0.028	0.010	0.000
	COMPOSITE DEAD LOAD		0.000	0.007	0.017	0.028	0.039	0.047	0.053	0.054	0.051	0.045	0.035	0.024	0.014	0.005	0.000
	TOTAL DEAD LOAD		0.000	0.025	0.063	0.107	0.149	0.182	0.203	0.208	0.196	0.170	0.133	0.091	0.050	0.018	0.000
	VERT. CURVE ORD.		0.000	0.053	0.098	0.135	0.164	0.184	0.197	0.201	0.197	0.184	0.164	0.135	0.098	0.053	0.000
	TOTAL		0.000	0.079	0.162	0.242	0.312	0.367	0.400	0.409	0.393	0.354	0.297	0.226	0.148	0.071	0.000



CAMBER DIAGRAM
(SEGMENT 3)

NOT TO SCALE

NOTES:
1. STEEL DEAD LOAD INCLUDES WELDED GIRDERS AND DIAPHRAGMS.
2. ADDITIONAL DEAD LOAD INCLUDES CONCRETE DECK SLAB, HAUNCHES, UTILITIES AND REMAIN-IN-PLACE FORMS WHERE APPLICABLE.
3. COMPOSITE DEAD LOAD INCLUDES PARAPETS, SIDEWALKS, RAILINGS AND FUTURE BITUMINOUS CONCRETE OVERLAY.
4. TOTAL DEAD LOAD INCLUDES STEEL DEAD LOAD, ADDITIONAL DEAD LOAD AND COMPOSITE DEAD LOAD.
5. TOTAL CAMBER APPLIES TO TOP OF WEB.
6. IF HORIZONTAL CURVATURE IS ACHIEVED BY THE METHOD OF HEAT CURVING. THE FABRICATOR SHALL PROVIDE ADDITIONAL CAMBER IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

NOT TO SCALE

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: J. K. SULLIVAN
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S061.DGN | PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: CAMBERS AND DEFLECTIONS - SHEET 1 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-59
SHEET NO.: 193

14:16:26
08 MAR 2000
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CAMBER ORDINATES (ft)

GIRDER		INCREMENT LENGTH SPAN 5	CL PIER 4	SPAN 5													CL PIER 5
				1	2	3	4	5	6	7	8	9	10	11	12	13	
G1	STEEL DEAD LOAD	8.111	0.000	-0.001	-0.001	-0.001	0.000	0.000	0.000	-0.001	-0.002	-0.004	-0.005	-0.006	-0.005	-0.004	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.006	-0.008	-0.007	-0.006	-0.006	-0.007	-0.009	-0.013	-0.017	-0.020	-0.021	-0.019	-0.012	0.000
	COMPOSITE DEAD LOAD		0.000	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002	-0.003	-0.004	-0.006	-0.007	-0.008	-0.007	-0.005	0.000
	TOTAL DEAD LOAD		0.000	-0.010	-0.012	-0.011	-0.008	-0.007	-0.008	-0.013	-0.019	-0.026	-0.032	-0.035	-0.032	-0.020	0.000
	VERT. CURVE ORD.		0.000	0.036	0.067	0.092	0.112	0.126	0.135	0.137	0.135	0.126	0.112	0.093	0.067	0.036	0.000
	TOTAL		0.000	0.026	0.055	0.082	0.104	0.119	0.126	0.125	0.116	0.100	0.080	0.058	0.036	0.016	0.000
G2	STEEL DEAD LOAD	8.502	0.000	-0.001	0.000	0.001	0.002	0.003	0.003	0.002	0.001	-0.001	-0.003	-0.005	-0.005	-0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.005	-0.004	-0.001	0.004	0.006	0.006	0.003	-0.002	-0.009	-0.015	-0.019	-0.019	-0.013	0.000
	COMPOSITE DEAD LOAD		0.000	-0.002	-0.002	-0.001	0.001	0.002	0.002	0.002	0.000	-0.002	-0.004	-0.006	-0.006	-0.005	0.000
	TOTAL DEAD LOAD		0.000	-0.008	-0.007	0.000	0.007	0.011	0.012	0.007	-0.001	-0.012	-0.023	-0.030	-0.030	-0.021	0.000
	VERT. CURVE ORD.		0.000	0.040	0.074	0.102	0.123	0.139	0.148	0.151	0.148	0.139	0.123	0.102	0.074	0.040	0.000
	TOTAL		0.000	0.032	0.067	0.101	0.130	0.150	0.160	0.158	0.147	0.127	0.101	0.072	0.044	0.019	0.000
G3	STEEL DEAD LOAD	8.893	0.000	-0.001	0.001	0.003	0.005	0.007	0.007	0.007	0.005	0.002	0.000	-0.003	-0.004	-0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.003	0.000	0.007	0.015	0.020	0.021	0.019	0.013	0.004	-0.005	-0.012	-0.015	-0.011	0.000
	COMPOSITE DEAD LOAD		0.000	-0.002	-0.001	0.002	0.004	0.007	0.008	0.007	0.005	0.003	-0.001	-0.003	-0.005	-0.004	0.000
	TOTAL DEAD LOAD		0.000	-0.006	0.000	0.012	0.024	0.033	0.037	0.033	0.023	0.009	-0.006	-0.018	-0.023	-0.018	0.000
	VERT. CURVE ORD.		0.000	0.044	0.081	0.111	0.135	0.152	0.162	0.165	0.162	0.152	0.135	0.111	0.081	0.044	0.000
	TOTAL		0.000	0.038	0.081	0.123	0.159	0.185	0.198	0.198	0.185	0.161	0.129	0.093	0.058	0.026	0.000
G4	STEEL DEAD LOAD	9.283	0.000	0.000	0.002	0.005	0.008	0.010	0.012	0.011	0.009	0.007	0.003	0.000	-0.002	-0.002	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.002	0.003	0.013	0.023	0.031	0.035	0.033	0.025	0.015	0.003	-0.008	-0.013	-0.011	0.000
	COMPOSITE DEAD LOAD		0.000	-0.001	0.000	0.004	0.007	0.010	0.012	0.012	0.010	0.006	0.002	-0.001	-0.004	-0.004	0.000
	TOTAL DEAD LOAD		0.000	-0.004	0.005	0.021	0.038	0.052	0.058	0.055	0.045	0.027	0.008	-0.009	-0.019	-0.017	0.000
	VERT. CURVE ORD.		0.000	0.048	0.088	0.121	0.147	0.165	0.176	0.180	0.176	0.165	0.147	0.121	0.088	0.048	0.000
	TOTAL		0.000	0.044	0.094	0.142	0.185	0.217	0.234	0.235	0.221	0.193	0.155	0.112	0.069	0.031	0.000
G5	STEEL DEAD LOAD	9.671	0.000	0.000	0.003	0.007	0.011	0.015	0.017	0.017	0.015	0.011	0.007	0.003	0.000	-0.002	0.000
	ADDITIONAL DEAD LOAD		0.000	0.001	0.010	0.024	0.039	0.051	0.057	0.056	0.047	0.034	0.018	0.003	-0.007	-0.008	0.000
	COMPOSITE DEAD LOAD		0.000	-0.001	0.002	0.007	0.012	0.016	0.019	0.019	0.017	0.012	0.007	0.002	-0.002	-0.003	0.000
	TOTAL DEAD LOAD		0.000	0.000	0.015	0.038	0.062	0.082	0.092	0.091	0.079	0.058	0.032	0.008	-0.009	-0.013	0.000
	VERT. CURVE ORD.		0.000	0.052	0.096	0.131	0.159	0.179	0.191	0.195	0.191	0.179	0.159	0.131	0.095	0.051	0.000
	TOTAL		0.000	0.052	0.111	0.170	0.222	0.261	0.283	0.286	0.270	0.237	0.191	0.139	0.086	0.039	0.000
G6	STEEL DEAD LOAD	10.059	0.000	0.001	0.005	0.010	0.016	0.021	0.023	0.024	0.021	0.017	0.012	0.006	0.002	-0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	0.001	0.012	0.026	0.042	0.055	0.063	0.063	0.056	0.044	0.028	0.013	0.001	-0.004	0.000
	COMPOSITE DEAD LOAD		0.000	0.000	0.004	0.011	0.018	0.023	0.027	0.027	0.025	0.020	0.013	0.006	0.001	-0.002	0.000
	TOTAL DEAD LOAD		0.000	0.003	0.021	0.048	0.076	0.099	0.113	0.114	0.103	0.081	0.053	0.025	0.004	-0.006	0.000
	VERT. CURVE ORD.		0.000	0.056	0.103	0.142	0.172	0.193	0.206	0.210	0.206	0.192	0.171	0.140	0.102	0.055	0.000
	TOTAL		0.000	0.059	0.124	0.189	0.247	0.292	0.319	0.324	0.308	0.273	0.224	0.165	0.105	0.049	0.000

CAMBER ORDINATES (ft)

GIRDER		INCREMENT LENGTH SPAN 6	CL PIER 5	SPAN 6															CL PIER 6
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
G1	STEEL DEAD LOAD	9.542	0.000	0.007	0.017	0.027	0.038	0.048	0.056	0.061	0.061	0.059	0.052	0.043	0.033	0.022	0.013	0.005	0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	0.024	0.054	0.089	0.125	0.158	0.185	0.202	0.208	0.202	0.185	0.159	0.127	0.092	0.060	0.032	0.012	0.000
	COMPOSITE DEAD LOAD		0.000	0.010	0.023	0.038	0.053	0.067	0.078	0.084	0.086	0.084	0.076	0.065	0.051	0.037	0.023	0.012	0.004	0.000
	TOTAL DEAD LOAD		0.000	0.041	0.094	0.155	0.217	0.274	0.319	0.347	0.356	0.345	0.314	0.267	0.211	0.151	0.095	0.049	0.017	0.000
	VERT. CURVE ORD.		0.000	0.064	0.119	0.166	0.206	0.237	0.260	0.276	0.284	0.284	0.276	0.260	0.236	0.205	0.165	0.118	0.063	0.000
	TOTAL		0.000	0.104	0.213	0.321	0.422	0.511	0.579	0.624	0.640	0.628	0.589	0.527	0.447	0.356	0.261	0.167	0.080	0.000
G2	STEEL DEAD LOAD	9.526	0.000	0.007	0.016	0.027	0.039	0.049	0.057	0.062	0.064	0.061	0.055	0.046	0.035	0.024	0.015	0.007	0.002	0.000
	ADDITIONAL DEAD LOAD		0.000	0.026	0.060	0.100	0.142	0.182	0.214	0.236	0.245	0.240	0.222	0.193	0.157	0.117	0.077	0.044	0.018	0.000
	COMPOSITE DEAD LOAD		0.000	0.009	0.022	0.037	0.052	0.065	0.076	0.083	0.086	0.083	0.076	0.066	0.052	0.038	0.024	0.012	0.004	0.000
	TOTAL DEAD LOAD		0.000	0.042	0.099	0.165	0.233	0.296	0.348	0.382	0.394	0.385	0.353	0.305	0.244	0.179	0.116	0.063	0.024	0.000
	VERT. CURVE ORD.		0.000	0.063	0.118	0.164	0.203	0.234	0.258	0.273	0.281	0.281	0.273	0.258	0.234	0.203	0.164	0.117	0.062	0.000
	TOTAL		0.000	0.105	0.216	0.329	0.436	0.531	0.605	0.655	0.675	0.666	0.627	0.562	0.478	0.382	0.280	0.180	0.086	0.000
G3	STEEL DEAD LOAD	9.509	0.000	0.007	0.016	0.026	0.037	0.048	0.056	0.062	0.063	0.061	0.055	0.047	0.036	0.025	0.015	0.008	0.002	0.000
	ADDITIONAL DEAD LOAD		0.000	0.024	0.057	0.096	0.137	0.176	0.209	0.231	0.241	0.238	0.221	0.193	0.157	0.118	0.079	0.045	0.018	0.000
	COMPOSITE DEAD LOAD		0.000	0.009	0.021	0.035	0.050	0.064	0.075	0.082	0.085	0.083	0.076	0.066	0.053	0.039	0.025	0.013	0.005	0.000
	TOTAL DEAD LOAD		0.000	0.040	0.093	0.157	0.224	0.288	0.340	0.375	0.389	0.381	0.352	0.305	0.246	0.182	0.119	0.065	0.025	0.000
	VERT. CURVE ORD.		0.000	0.062	0.116	0.162	0.201	0.232	0.255	0.271	0.279	0.279	0.271	0.255	0.232	0.201	0.162	0.116	0.062	0.000
	TOTAL		0.000	0.101	0.209	0.320	0.426	0.520	0.595	0.646	0.668	0.660	0.623	0.561	0.478	0.383	0.282	0.182	0.087	0.000
G4	STEEL DEAD LOAD	9.493	0.000	0.006	0.014	0.024	0.035	0.046	0.054	0.060	0.062	0.061	0.055	0.047	0.037	0.027	0.017	0.008	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.025	0.060	0.103	0.148	0.191	0.228	0.254	0.266	0.263	0.246	0.216	0.177	0.133	0.089	0.051	0.020	0.000
	COMPOSITE DEAD LOAD		0.000	0.009	0.021	0.035	0.050	0.064	0.075	0.083	0.086	0.084	0.078	0.068	0.055	0.040	0.026	0.014	0.005	0.000
	TOTAL DEAD LOAD		0.000	0.040	0.095	0.162	0.233	0.300	0.357	0.396	0.414	0.408	0.379	0.331	0.269	0.200	0.132	0.073	0.028	0.000
	VERT. CURVE ORD.		0.000	0.061	0.115	0.161	0.200	0.230	0.253	0.269	0.276	0.276	0.269	0.253	0.230	0.200	0.161	0.115	0.061	0.000
	TOTAL		0.000	0.101	0.210	0.323	0.432	0.531	0.610	0.665	0.690	0.684	0.648	0.584	0.499	0.400	0.293	0.188	0.089	0.000
G5	STEEL DEAD LOAD	9.476	0.000	0.005	0.013	0.023	0.034	0.044	0.052	0.058	0.061	0.060	0.055	0.047	0.037	0.027	0.017	0.009	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.023	0.056	0.096	0.140	0.183	0.219	0.246	0.259	0.258	0.242	0.214	0.176	0.133	0.090	0.051	0.021	0.000
	COMPOSITE DEAD LOAD		0.000	0.008	0.019	0.033	0.047	0.061	0.073	0.081	0.084	0.083	0.077	0.068	0.055	0.041	0.027	0.014	0.005	0.000
	TOTAL DEAD LOAD		0.000	0.036	0.088	0.152	0.221	0.288	0.345	0.385	0.404	0.401	0.374	0.328	0.268	0.201	0.134	0.074	0.029	0.000
	VERT. CURVE ORD.		0.000	0.061	0.114	0.160	0.198	0.228	0.251	0.267	0.274	0.274	0.267	0.251	0.228	0.198	0.160	0.114	0.061	0.000
	TOTAL		0.000	0.097	0.202	0.312	0.419	0.516	0.596	0.651	0.678	0.675	0.641	0.580	0.497	0.399	0.293	0.189	0.090	0.000
G6	STEEL DEAD LOAD	9.460	0.000	0.005	0.012	0.021	0.031	0.041	0.050	0.056	0.058	0.058	0.053	0.046	0.037	0.027	0.017	0.009	0.003	0.000
	ADDITIONAL DEAD LOAD		0.000	0.016	0.040	0.070	0.103	0.136	0.165	0.186	0.196	0.196	0.184	0.162	0.133	0.100	0.068	0.038	0.015	0.000
	COMPOSITE DEAD LOAD		0.000	0.007	0.018	0.031	0.045	0.059	0.070	0.079	0.082	0.082	0.076	0.067	0.055	0.041	0.027	0.015	0.005	0.000
	TOTAL DEAD LOAD		0.000	0.027	0.069	0.122	0.179	0.236	0.285	0.320	0.337	0.335	0.314	0.276	0.225	0.168	0.112	0.062	0.024	0.000
	VERT. CURVE ORD.		0.000	0.060	0.113	0.159	0.196	0.227	0.249	0.264	0.272	0.272	0.264	0.249	0.227	0.196	0.159	0.113	0.060	0.000
	TOTAL		0.000	0.088	0.182	0.280	0.376	0.463	0.534	0.584	0.609	0.607	0.578	0.525	0.452	0.365	0.271	0.175	0.084	0.000

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: J. K. SULLIVAN
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S062.DGN | PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: CAMBERS AND DEFLECTIONS - SHEET 2 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-60
SHEET NO.: 194

14:5:33
08 MAR 2000
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CAMBER ORDINATES (ft)

GIRDER		INCREMENT LENGTH SPAN 7	CL PIER 6	SPAN 7																	CL PIER 7
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
G1	STEEL DEAD LOAD	9.705	0.000	0.003	0.009	0.017	0.028	0.040	0.051	0.060	0.066	0.068	0.065	0.059	0.050	0.038	0.027	0.016	0.007	0.002	0.000
	ADDITIONAL DEAD LOAD		0.000	0.000	0.008	0.023	0.045	0.069	0.092	0.111	0.122	0.126	0.120	0.105	0.084	0.060	0.035	0.015	0.001	-0.004	0.000
	COMPOSITE DEAD LOAD		0.000	0.002	0.009	0.019	0.031	0.045	0.057	0.067	0.073	0.075	0.072	0.065	0.054	0.041	0.028	0.015	0.006	0.000	0.000
	TOTAL DEAD LOAD		0.000	0.005	0.025	0.059	0.104	0.153	0.200	0.238	0.261	0.268	0.257	0.229	0.188	0.139	0.090	0.046	0.014	-0.002	0.000
	VERT. CURVE ORD.		0.000	0.069	0.130	0.183	0.228	0.264	0.293	0.313	0.325	0.329	0.325	0.313	0.293	0.264	0.228	0.183	0.130	0.069	0.000
	TOTAL		0.000	0.074	0.155	0.242	0.332	0.418	0.493	0.551	0.587	0.598	0.582	0.542	0.481	0.404	0.317	0.229	0.144	0.067	0.000
G2	STEEL DEAD LOAD	9.515	0.000	0.001	0.006	0.013	0.023	0.033	0.043	0.051	0.057	0.059	0.057	0.051	0.043	0.033	0.022	0.013	0.005	0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.004	0.000	0.012	0.031	0.052	0.074	0.092	0.104	0.107	0.103	0.090	0.071	0.049	0.027	0.008	-0.003	-0.006	0.000
	COMPOSITE DEAD LOAD		0.000	0.001	0.007	0.016	0.027	0.039	0.050	0.059	0.064	0.066	0.064	0.057	0.048	0.036	0.024	0.013	0.005	0.000	0.000
	TOTAL DEAD LOAD		0.000	-0.002	0.012	0.041	0.080	0.124	0.167	0.202	0.225	0.232	0.223	0.198	0.161	0.118	0.073	0.034	0.007	-0.005	0.000
	VERT. CURVE ORD.		0.000	0.066	0.124	0.175	0.218	0.253	0.280	0.300	0.311	0.315	0.311	0.300	0.280	0.253	0.218	0.175	0.124	0.066	0.000
	TOTAL		0.000	0.064	0.137	0.216	0.298	0.377	0.447	0.502	0.536	0.547	0.534	0.498	0.442	0.371	0.291	0.209	0.131	0.061	0.000
G3	STEEL DEAD LOAD	9.325	0.000	0.001	0.004	0.011	0.019	0.029	0.038	0.045	0.050	0.052	0.050	0.045	0.038	0.029	0.019	0.011	0.004	0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.006	-0.003	0.007	0.023	0.042	0.061	0.077	0.088	0.092	0.087	0.076	0.060	0.040	0.021	0.005	-0.005	-0.007	0.000
	COMPOSITE DEAD LOAD		0.000	0.001	0.005	0.013	0.023	0.033	0.043	0.052	0.057	0.058	0.056	0.050	0.042	0.031	0.021	0.011	0.004	0.000	0.000
	TOTAL DEAD LOAD		0.000	-0.004	0.006	0.031	0.065	0.104	0.142	0.174	0.195	0.202	0.194	0.172	0.139	0.100	0.061	0.027	0.003	-0.006	0.000
	VERT. CURVE ORD.		0.000	0.063	0.119	0.167	0.208	0.242	0.268	0.286	0.298	0.301	0.298	0.287	0.268	0.242	0.208	0.167	0.119	0.063	0.000
	TOTAL		0.000	0.059	0.125	0.198	0.273	0.346	0.410	0.461	0.492	0.503	0.491	0.458	0.407	0.342	0.269	0.194	0.122	0.057	0.000
G4	STEEL DEAD LOAD	9.136	0.000	0.001	0.005	0.011	0.020	0.028	0.037	0.044	0.048	0.049	0.048	0.043	0.036	0.027	0.019	0.010	0.004	0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.007	-0.005	0.006	0.023	0.044	0.065	0.082	0.094	0.099	0.095	0.083	0.066	0.045	0.024	0.007	-0.004	-0.007	0.000
	COMPOSITE DEAD LOAD		0.000	0.000	0.005	0.012	0.022	0.032	0.042	0.049	0.054	0.056	0.054	0.049	0.041	0.031	0.020	0.011	0.004	0.000	0.000
	TOTAL DEAD LOAD		0.000	-0.006	0.004	0.029	0.064	0.104	0.143	0.175	0.197	0.204	0.197	0.175	0.143	0.104	0.063	0.028	0.003	-0.007	0.000
	VERT. CURVE ORD.		0.000	0.060	0.114	0.160	0.199	0.231	0.256	0.274	0.284	0.288	0.284	0.274	0.256	0.231	0.199	0.160	0.114	0.060	0.000
	TOTAL		0.000	0.055	0.118	0.189	0.263	0.335	0.399	0.449	0.481	0.492	0.481	0.449	0.399	0.335	0.262	0.188	0.117	0.054	0.000
G5	STEEL DEAD LOAD	8.948	0.000	0.001	0.004	0.010	0.017	0.025	0.032	0.039	0.043	0.044	0.043	0.038	0.032	0.024	0.016	0.009	0.003	0.000	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.008	-0.008	0.001	0.016	0.034	0.053	0.069	0.079	0.083	0.080	0.070	0.055	0.037	0.019	0.003	-0.006	-0.007	0.000
	COMPOSITE DEAD LOAD		0.000	0.000	0.003	0.010	0.018	0.027	0.036	0.043	0.048	0.049	0.048	0.043	0.036	0.027	0.018	0.009	0.003	-0.001	0.000
	TOTAL DEAD LOAD		0.000	-0.007	0.000	0.020	0.051	0.086	0.121	0.150	0.170	0.177	0.170	0.152	0.123	0.088	0.052	0.021	0.000	-0.007	0.000
	VERT. CURVE ORD.		0.000	0.058	0.109	0.153	0.190	0.221	0.244	0.261	0.272	0.275	0.272	0.261	0.244	0.221	0.190	0.153	0.109	0.058	0.000
	TOTAL		0.000	0.050	0.108	0.173	0.241	0.307	0.366	0.412	0.441	0.452	0.442	0.413	0.367	0.309	0.243	0.174	0.109	0.050	0.000
G6	STEEL DEAD LOAD	8.759	0.000	0.000	0.002	0.007	0.013	0.020	0.026	0.032	0.036	0.037	0.036	0.032	0.027	0.020	0.013	0.007	0.002	0.000	0.000
	ADDITIONAL DEAD LOAD		0.000	-0.005	-0.004	0.004	0.016	0.031	0.045	0.057	0.065	0.068	0.065	0.057	0.045	0.030	0.016	0.004	-0.004	-0.005	0.000
	COMPOSITE DEAD LOAD		0.000	-0.001	0.002	0.008	0.015	0.023	0.031	0.038	0.042	0.043	0.042	0.038	0.031	0.023	0.015	0.007	0.002	-0.001	0.000
	TOTAL DEAD LOAD		0.000	-0.006	0.001	0.019	0.044	0.074	0.103	0.127	0.143	0.148	0.143	0.127	0.103	0.074	0.044	0.018	0.000	-0.006	0.000
	VERT. CURVE ORD.		0.000	0.055	0.104	0.146	0.181	0.211	0.233	0.249	0.259	0.262	0.259	0.250	0.233	0.211	0.181	0.146	0.104	0.055	0.000
	TOTAL		0.000	0.049	0.105	0.164	0.226	0.284	0.336	0.376	0.402	0.411	0.402	0.376	0.336	0.284	0.226	0.164	0.104	0.049	0.000

CAMBER ORDINATES (ft)

GIRDER		INCREMENT LENGTH SPAN 8	CL PIER 7	SPAN 8														CL BRG ABUT. 2
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	
G1	STEEL DEAD LOAD	9.775	0.000	0.003	0.009	0.018	0.030	0.043	0.055	0.066	0.073	0.075	0.073	0.066	0.055	0.039	0.020	0.000
	ADDITIONAL DEAD LOAD		0.000	0.016	0.041	0.074	0.113	0.153	0.189	0.219	0.237	0.242	0.233	0.209	0.171	0.122	0.064	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.016	0.031	0.048	0.065	0.080	0.093	0.100	0.102	0.098	0.087	0.072	0.051	0.027	0.000
	TOTAL DEAD LOAD		0.000	0.024	0.066	0.124	0.191	0.261	0.325	0.377	0.410	0.420	0.404	0.363	0.297	0.212	0.111	0.000
	VERT. CURVE ORD.		0.000	0.041	0.075	0.100	0.116	0.125	0.125	0.117	0.103	0.088	0.073	0.059	0.044	0.029	0.015	0.000
	TOTAL		0.000	0.065	0.141	0.223	0.307	0.386	0.450	0.494	0.513	0.508	0.478	0.421	0.341	0.241	0.125	0.000
G2	STEEL DEAD LOAD	9.615	0.000	0.003	0.010	0.019	0.031	0.043	0.055	0.065	0.072	0.074	0.072	0.065	0.053	0.038	0.020	0.000
	ADDITIONAL DEAD LOAD		0.000	0.018	0.045	0.080	0.120	0.161	0.199	0.229	0.247	0.252	0.242	0.216	0.177	0.126	0.066	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.016	0.030	0.046	0.062	0.076	0.087	0.094	0.096	0.092	0.082	0.067	0.048	0.025	0.000
	TOTAL DEAD LOAD		0.000	0.026	0.070	0.129	0.197	0.266	0.330	0.381	0.413	0.422	0.406	0.364	0.298	0.212	0.111	0.000
	VERT. CURVE ORD.		0.000	0.039	0.069	0.092	0.107	0.114	0.112	0.103	0.090	0.078	0.065	0.052	0.039	0.026	0.013	0.000
	TOTAL		0.000	0.065	0.140	0.221	0.304	0.380	0.443	0.484	0.504	0.500	0.470	0.415	0.336	0.238	0.124	0.000
G3	STEEL DEAD LOAD	9.455	0.000	0.003	0.009	0.019	0.030	0.042	0.053	0.062	0.068	0.070	0.068	0.061	0.050	0.036	0.019	0.000
	ADDITIONAL DEAD LOAD		0.000	0.017	0.043	0.077	0.115	0.154	0.189	0.217	0.234	0.238	0.228	0.204	0.167	0.119	0.062	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.015	0.029	0.044	0.059	0.072	0.083	0.089	0.091	0.087	0.078	0.063	0.045	0.023	0.000
	TOTAL DEAD LOAD		0.000	0.026	0.068	0.124	0.188	0.254	0.314	0.361	0.391	0.399	0.383	0.343	0.281	0.200	0.104	0.000
	VERT. CURVE ORD.		0.000	0.036	0.064	0.084	0.097	0.102	0.100	0.090	0.079	0.068	0.056	0.045	0.034	0.023	0.011	0.000
	TOTAL		0.000	0.062	0.132	0.209	0.286	0.356	0.414	0.451	0.470	0.467	0.440	0.388	0.315	0.222	0.116	0.000
G4	STEEL DEAD LOAD	9.296	0.000	0.003	0.009	0.018	0.029	0.040	0.050	0.059	0.064	0.066	0.064	0.058	0.047	0.034	0.018	0.000
	ADDITIONAL DEAD LOAD		0.000	0.018	0.047	0.084	0.125	0.166	0.203	0.232	0.249	0.253	0.242	0.217	0.177	0.126	0.065	0.000
	COMPOSITE DEAD LOAD		0.000	0.005	0.015	0.028	0.042	0.057	0.070	0.080	0.086	0.087	0.083	0.074	0.061	0.043	0.022	0.000
	TOTAL DEAD LOAD		0.000	0.027	0.071	0.130	0.196	0.263	0.323	0.371	0.400	0.407	0.390	0.348	0.285	0.202	0.106	0.000
	VERT. CURVE ORD.		0.000	0.033	0.059	0.077	0.088	0.091	0.088	0.078	0.068	0.059	0.049	0.039	0.029	0.019	0.010	0.000
	TOTAL		0.000	0.060	0.130	0.207	0.284	0.354	0.411	0.449	0.468	0.465	0.438	0.387	0.314	0.222	0.115	0.000
G5	STEEL DEAD LOAD	9.136	0.000	0.003	0.009	0.017	0.028	0.038	0.048	0.056	0.061	0.062	0.060	0.054	0.044	0.032	0.017	0.000
	ADDITIONAL DEAD LOAD		0.000	0.018	0.045	0.080	0.119	0.157	0.192	0.219	0.235	0.239	0.228	0.204	0.166	0.118	0.062	0.000
	COMPOSITE DEAD LOAD		0.000	0.005	0.015	0.027	0.040	0.054	0.066	0.075	0.081	0.082	0.078	0.070	0.057	0.040	0.021	0.000
	TOTAL DEAD LOAD		0.000	0.026	0.069	0.124	0.186	0.249	0.306	0.350	0.377	0.383	0.367	0.328	0.268	0.190	0.099	0.000
	VERT. CURVE ORD.		0.000	0.030	0.053	0.070	0.078	0.080	0.075	0.067	0.059	0.050	0.042	0.033	0.025	0.017	0.008	0.000
	TOTAL		0.000	0.057	0.122	0.194	0.265	0.330	0.381	0.417	0.436	0.433	0.409	0.361	0.293	0.207	0.108	0.000
G6	STEEL DEAD LOAD	8.977	0.000	0.003	0.009	0.017	0.026	0.036	0.045	0.052	0.057	0.058	0.056	0.050	0.041	0.029	0.015	0.000
	ADDITIONAL DEAD LOAD		0.000	0.014	0.035	0.061	0.091	0.121	0.148	0.170	0.182	0.185	0.177	0.158	0.129	0.092	0.048	0.000
	COMPOSITE DEAD LOAD		0.000	0.005	0.014	0.026	0.039	0.051	0.063	0.071	0.077	0.077	0.074	0.066	0.054	0.038	0.020	0.000
	TOTAL DEAD LOAD		0.000	0.022	0.058	0.104	0.156	0.209	0.256	0.293	0.316	0.321	0.307	0.274	0.224	0.159	0.083	0.000
	VERT. CURVE ORD.		0.000	0.028	0.048	0.062	0.069	0.070	0.064	0.057	0.050	0.042	0.035	0.028	0.021	0.014	0.007	0.000
	TOTAL		0.000	0.049	0.106	0.166	0.225	0.278	0.320	0.350	0.365	0.363	0.343	0.303	0.246	0.173	0.090	0.000

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: J. K. SULLIVAN
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S063.DGN
PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: CAMBERS AND DEFLECTIONS - SHEET 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-61
SHEET NO.: 195

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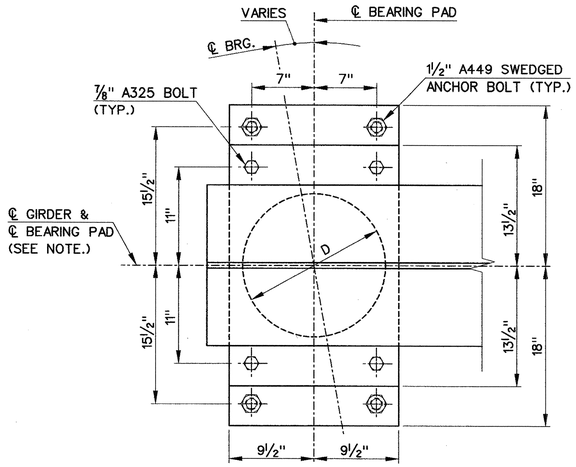
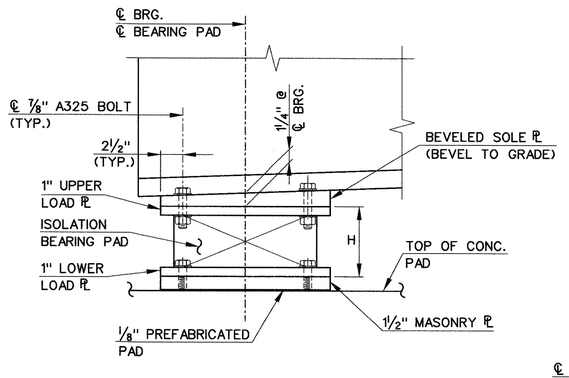
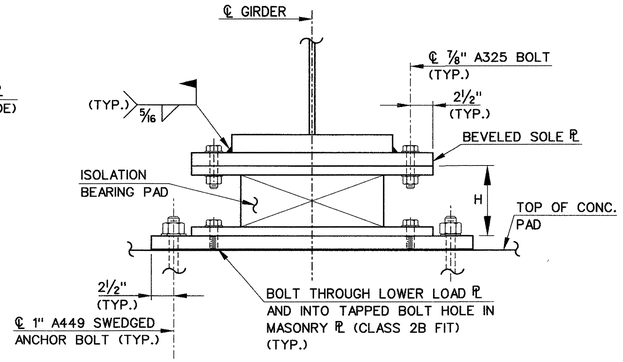


PLAN

NOTE: FOR HORIZONTAL CURVED GIRDERS, ℄ GIRDER REFERS TO LINE TANGENT TO ℄ GIRDER AT ℄ BEARING PAD.



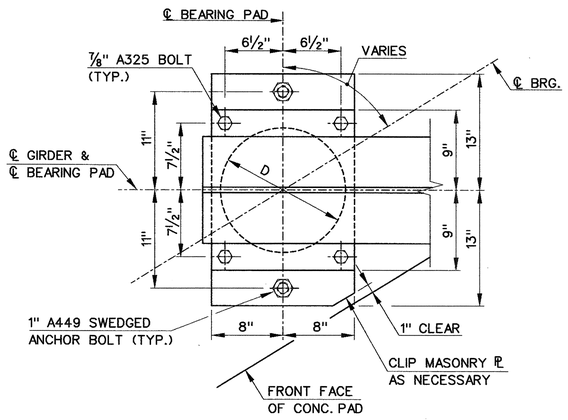
ELEVATION



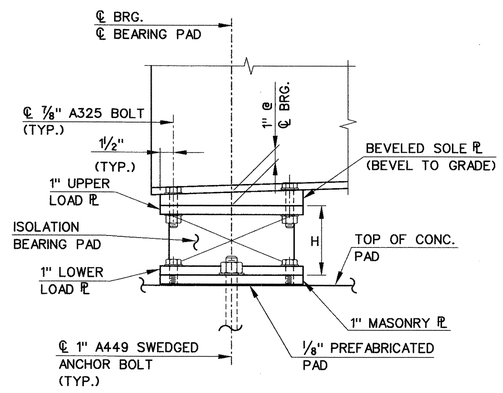
SECTION

TYPE 'A'

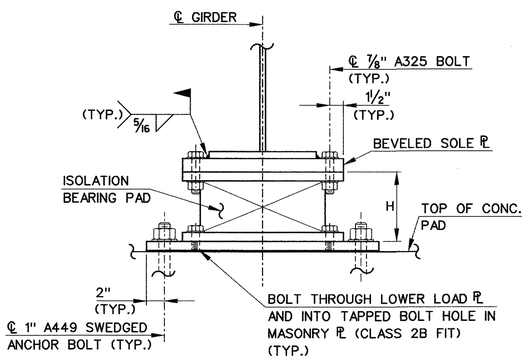
ISOLATION BEARING SCHEDULE				
SUPPORT	GIRDER NO.	BEARING TYPE	D (INCHES)	H (INCHES)
ABUT. 1	G1-G6	'A'	16	7.82
ABUT. 1	G7-G11, G13	'B'	14	7.82
PIER 1	G1-G6	'A'	16	7.82
PIER 2	G1-G6	'A'	17	10.30
PIER 3-7	G1-G6	'C'	-	10.80
ABUT. 2	G1-G6	'A'	17	10.30



PLAN



ELEVATION



SECTION

TYPE 'B'

ISOLATION BEARING DETAILS

SCALE: 1½"=1'-0"

NOTES:

1. ISOLATION BEARING DETAILS ARE SHOWN FOR INFORMATION ONLY. THE ISOLATION BEARING MANUFACTURER SHALL BE RESPONSIBLE FOR THE BEARING DESIGN (SEE SPECIAL PROVISIONS).
2. THE ISOLATION BEARING DETAILS SHOWN ARE FOR AN ELASTOMERIC ISOLATION SYSTEM AS MANUFACTURED BY SEISMIC ENERGY PRODUCTS, L.P. THE CONTRACTOR MAY SELECT OTHER TYPES AS INDICATED IN THE SPECIAL PROVISIONS.
3. BEAM SEAT ELEVATIONS HAVE BEEN CALCULATED BASED ON THE DIMENSIONS SHOWN. CHANGES IN ISOLATION BEARING HEIGHT WILL REQUIRE ADJUSTMENT TO PLATE THICKNESSES AND/OR BEAM SEAT ELEVATIONS AS INDICATED IN THE SPECIAL PROVISIONS.
4. FOR "BEARING DATA" INFORMATION, SEE DWG. NO. STR-63.
5. ALL ANCHOR BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A449. ANCHOR BOLTS, NUTS AND WASHERS SHALL BE MECHANICALLY GALVANIZED IN CONFORMANCE WITH ASTM B695, CLASS 50.
6. SOLE PLATES, LOAD PLATES AND MASONRY PLATES SHALL CONFORM TO ASTM A709, GRADE 50W.
7. THE ISOLATION BEARINGS SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE HAS BEEN BETWEEN 40°F AND 60°F FOR AT LEAST TWO (2) HOURS.
8. THE COST OF FURNISHING AND INSTALLING ISOLATION BEARINGS SHALL BE PAID FOR UNDER THE ITEM "ISOLATION BEARING ASSEMBLY" (SEE SPECIAL PROVISIONS).

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

$TIME$
$DATE$
$FILE$

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: A. KILPATRICK
CHECKED BY: D. GEISSERT
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

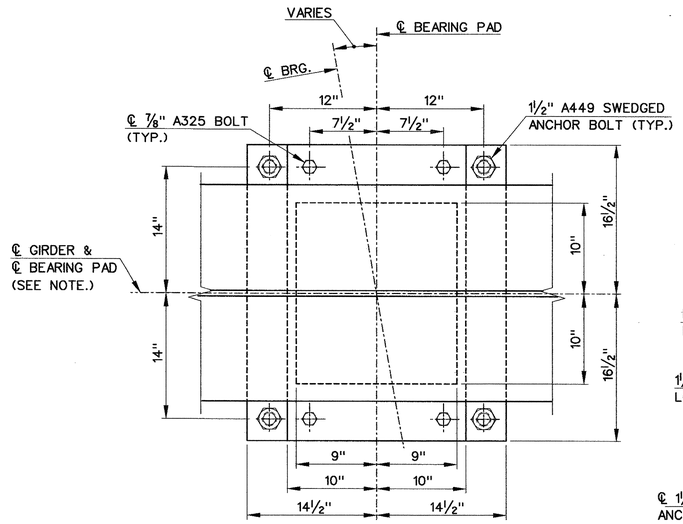
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S066.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: BEARING DETAILS (SEGMENT 1 & 3) – SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-62
SHEET NO.: 196

BEARING DATA

LOCATION	GIRDER NO.	MAXIMUM VERTICAL LOADS (KIPS)				
		D	L	I	TOTAL	1.5 x TOTAL
ABUT. 1	G1	166	53	10	229	344
	G2	139	62	12	213	320
	G3	137	62	12	211	317
	G4	143	62	12	217	326
	G5	141	62	12	215	323
	G6	166	51	10	227	341
	G7	22	28	8	58	87
	G8	55	41	12	108	162
	G9	13	33	10	56	84
	G10	26	46	14	86	129
	G11	59	51	15	125	188
	G13	19	21	6	46	69
PIER 1	G1	147	53	10	210	315
	G2	139	62	12	213	320
	G3	137	62	12	211	317
	G4	143	62	12	217	326
	G5	141	62	12	215	323
	G6	144	51	10	205	308
PIER 2	G1	59	47	11	117	176
	G2	61	58	14	133	200
	G3	61	58	14	133	200
	G4	63	58	14	135	203
	G5	62	58	14	134	201
	G6	56	47	11	114	171
PIER 3	G1	234	84	18	336	504
	G2	247	99	22	368	552
	G3	249	100	22	371	557
	G4	267	102	22	391	587
	G5	270	103	22	395	593
	G6	248	87	19	354	531
PIER 4	G1	211	89	18	318	477
	G2	236	105	21	362	543
	G3	249	121	23	393	590
	G4	279	111	22	412	618
	G5	293	113	22	428	642
	G6	275	99	19	393	590
PIER 5	G1	288	104	20	412	618
	G2	319	121	23	463	695
	G3	325	122	23	470	705
	G4	346	122	23	491	737
	G5	352	123	23	498	747
	G6	316	107	19	442	663
PIER 6	G1	356	114	20	490	735
	G2	372	132	23	527	791
	G3	367	131	23	521	782
	G4	376	130	23	529	794
	G5	370	129	23	522	783
	G6	328	110	19	457	686
PIER 7	G1	365	135	20	520	780
	G2	373	132	23	528	792
	G3	365	120	23	508	762
	G4	373	128	23	524	786
	G5	365	126	23	514	771
	G6	327	107	20	454	681
ABUT. 2	G1	103	52	10	165	248
	G2	106	61	11	178	267
	G3	105	61	12	178	267
	G4	109	61	12	182	273
	G5	107	61	12	180	270
	G6	96	59	10	165	248



NOTE: FOR HORIZONTAL CURVED GIRDERS, ℄ GIRDER REFERS TO LINE TANGENT TO ℄ GIRDER AT ℄ BEARING PAD.

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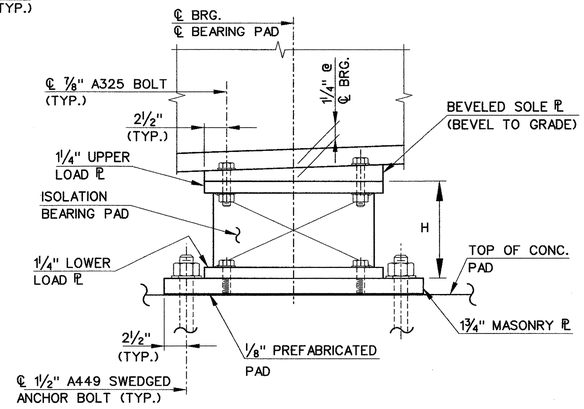
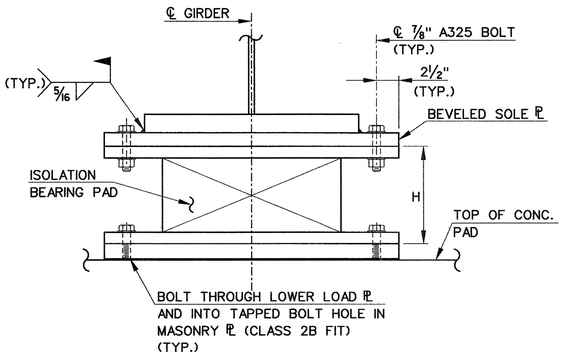


ELEVATION



SECTION

TYPE 'C'

ISOLATION BEARING DETAILS

SCALE: 1½"=1'-0"

BEARING DATA

LOCATION	MAXIMUM LATERAL LOADS (KIPS)						MAXIMUM LATERAL DISPLACEMENTS (INCHES)					
	W		TEMP		EQ		W		TEMP		EQ	
	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN
ABUT. 1	20	53	26	0	94	112	0.10	0.25	0.35	0	1.37	1.63
PIER 1	20	53	26	0	111	104	0.10	0.25	0.35	0	0.99	0.93
PIER 2	13	35	97	0	120	121	0.15	0.35	1.86	0	1.20	0.86
PIER 3	32	85	76	0	190	183	0.15	0.35	1.28	0	1.45	1.03
PIER 4	45	99	55	0	199	186	0.15	0.35	0.70	0	1.46	1.11
PIER 5	43	112	35	0	215	214	0.15	0.35	0.13	0	1.27	0.97
PIER 6	49	130	52	0	210	197	0.15	0.35	0.60	0	1.54	1.66
PIER 7	46	121	78	0	186	236	0.15	0.35	1.35	0	1.72	2.61
ABUT. 2	21	56	58	0	107	142	0.15	0.35	2.17	0	2.09	3.81

ABBREV.:

D - DEAD LOAD
L - LIVE LOAD
I - IMPACT
W - WIND LOAD
TEMP - TEMPERATURE
EQ - EARTHQUAKE
LONG - LONGITUDINAL
TRAN - TRANSVERSE

NOTES:

1. ALL LOADS ARE UNFACTORED.
2. LATERAL LOADS AND DISPLACEMENTS ARE GIVEN PER SUBSTRUCTURE LOCATION.
3. FOR ISOLATION BEARING NOTES, SEE DWG. NO. STR-62.
4. FOR ISOLATION BEARING SCHEDULE, SEE DWG. NO. STR-62.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: A. KILPATRICK
CHECKED BY: D. GEISSERT
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S067.DGN
PLOTTED DATE: 2-28-00

TOWN: NEW HAVEN
DRAWING TITLE: BEARING DETAILS (SEGMENT 1 & 3) - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-63
SHEET NO.: 197

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TABLE OF TRUSS MEMBERS AND FORCES															
	MEMBER	MATERIAL	SECTION (in)		AREA (in^2)		DEAD LOAD (DL)		LIVE LOAD + IMPACT (LL+I)		WIND (TENS. OR COMP.)	FACTORED AASHTO LOADING			
												GROUP I		GROUP III	
			WEB	FLANGES	GROSS	NET	TENS.	COMP.	TENS.	COMP.		TENS.	COMP.	TENS.	COMP.
BOTTOM CHORDS	L0-L1	GR. 70	3/4 x 18	1 x 26	65.5	49.5	1698		286			2828			
	L1-L2	GR. 70	3/4 x 18	1 x 26	65.5	49.5	1698		286			2828			
	L2-L3	GR. 70	3/4 x 18	1 x 26	65.5	49.5	1991		334			3313			
	L3-L4	GR. 70	3/4 x 18	1 x 26	65.5	49.5	2096		351			3486			
	L4-L5	GR. 70	3/4 x 18	1 x 26	65.5	49.5	2097		351			3488			
	L5-L6	GR. 70	3/4 x 18	1 x 26	65.5	49.5	1994		334			3317			
	L6-L7	GR. 70	3/4 x 18	1 x 26	65.5	49.5	1700		286			2831			
	L7-L8	GR. 70	3/4 x 18	1 x 26	65.5	49.5	1700		286			2831			
TOP CHORDS	L0-U1	GR. 70	3/4 x 17	1-1/2 x 26	90.8	66.8		-2085		-351			-3472		
	U1-U2	GR. 70	3/4 x 17	1-1/2 x 26	90.8	66.8		-2101		-352			-3495		
	U2-U3	GR. 70	3/4 x 17	1-1/2 x 26	90.8	66.8		-2142		-359	23		-3564		-2478
	U3-U4	GR. 70	3/4 x 17	1-1/2 x 26	90.8	66.8		-2134		-357	37		-3549		-2454
	U4-U5	GR. 70	3/4 x 17	1-1/2 x 26	90.8	66.8		-2128		-357	37		-3541		-2448
	U5-U6	GR. 70	3/4 x 17	1-1/2 x 26	90.8	66.8		-2124		-359	23		-3540		-2460
	U6-U7	GR. 70	3/4 x 17	1-1/2 x 26	90.8	66.8		-2074		-352			-3460		
	U7-L8	GR. 70	3/4 x 17	1-1/2 x 26	90.8	66.8		-2037		-351			-3410		
VERTICALS	L1-U1	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	314		145			723			
	L2-U2	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	90		112	-44		360	22		
	L3-U3	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	186		108	-48		476	138		
	L4-U4	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	232		45			399			
	L5-U5	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	188		108	-48		479	140		
	L6-U6	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	92		112	-44		363	24		
	L7-U7	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	314		145			723			
DIAGONALS	U1-L2	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	348		93	-93		654	251		
	U2-L3	GR. 50	3/4 x 18-1/2	3/4 x 16	37.9	31.9	145		80	-100		362	-29		
	U3-L4	GR. 50	3/4 x 18-1/2	3/4 x 16	37.9	31.9	48		89	-96		256	-146		
	L4-U5	GR. 50	3/4 x 18-1/2	3/4 x 16	37.9	31.9	47		89	-96		254	-147		
	L5-U6	GR. 50	3/4 x 18-1/2	3/4 x 16	37.9	31.9	146		80	-100		363	-27		
	L6-U7	GR. 50	3/4 x 18-1/2	3/4 x 14	34.9	28.9	358		93	-93		667	264		

FORCES / LOADS ARE GIVEN IN KIPS

TRUSS MEMBER LENGTH (FT)			
	MEMBER	THEORETICAL LENGTH *	THEORETICAL LENGTH CORRECTED FOR STRAIN DUE TO DEAD LOAD
BOTTOM CHORDS	L0-L2	80.048	79.976
	L2-L4	80.036	79.952
	L4-L6	80.022	79.934
	L6-L7	80.010	79.938
TOP CHORDS	L0-U1	49.140	49.179
	U1-U2	42.231	42.265
	U2-U3	40.902	40.935
	U3-U4	40.157	40.190
	U4-U5	40.027	40.059
	U5-U6	40.518	40.551
	U6-U7	41.608	41.641
	U7-L8	47.958	47.995
VERTICALS	L1-U1	27.144	27.136
	L2-U2	39.289	39.286
	L3-U3	46.634	46.625
	L4-U4	48.980	48.969
	L5-U5	46.599	46.590
	L6-U6	39.217	39.213
	L7-U7	27.109	27.101
DIAGONALS	U1-L2	47.569	47.553
	U2-L3	55.235	55.228
	U3-L4	60.535	60.532
	L4-U5	62.117	62.114
	L5-U6	56.669	56.661
	L6-U7	48.689	48.672

* LENGTH BETWEEN WORKING POINTS

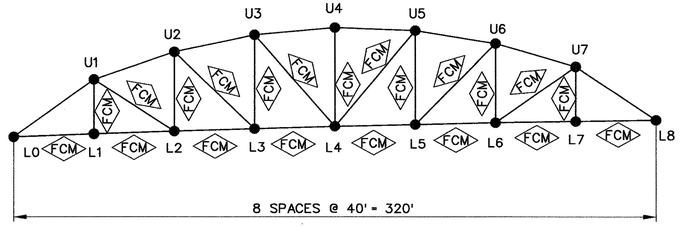
NOTE:
THE WORKING POINTS ARE WHERE THE CENTERLINE OF THE CHORDS, DIAGONALS AND VERTICALS INTERSECT.

RELATIVE JOINT COORDINATES		
JOINT	X	Y
L0	0.000	0.000
L1	40.000	1.399
L2	80.000	2.798
L3	120.000	3.995
L4	160.000	5.192
L5	200.000	6.117
L6	240.000	7.041
L7	280.000	7.693
L8	320.000	8.345
U1	40.000	28.543
U2	80.000	42.086
U3	120.000	50.629
U4	160.000	54.173
U5	200.000	52.716
U6	240.000	46.259
U7	280.000	34.802

BOTTOM CHORD DEFLECTIONS (FT)									
	L0	L1	L2	L3	L4	L5	L6	L7	L8
STEEL D.L.	0.000	-0.098	-0.152	-0.182	-0.189	-0.181	-0.151	-0.096	0.000
ADDITIONAL D.L.	0.000	-0.160	-0.244	-0.289	-0.297	-0.288	-0.242	-0.158	0.000
COMPOSITE D.L.	0.000	-0.090	-0.137	-0.162	-0.167	-0.161	-0.136	-0.089	0.000
TOTAL D.L.	0.000	-0.348	-0.532	-0.632	-0.653	-0.630	-0.529	-0.343	0.000

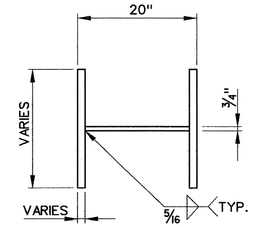
NOTES :
1. THE STEEL DEAD LOAD DEFLECTIONS (STEEL D.L.) ARE DUE TO ALL STEEL WHICH INCLUDES ALL TRUSS MEMBERS, BRACING, STRINGERS, FLOOR BEAMS AND DIAPHRAGMS.
2. ADDITIONAL DEAD LOAD DEFLECTIONS (ADDITIONAL D.L.) ARE DUE TO THE UTILITIES, REMAIN-IN-PLACE FORMS, INSPECTION PLATFORMS AND THE CONCRETE SLAB.
3. THE COMPOSITE DEAD LOAD DEFLECTIONS (COMPOSITE D.L.) ARE DUE TO THE SIDEWALKS, PARAPETS, FUTURE BITUMINOUS WEARING SURFACE AND RAILINGS.

PROPOSED PICK POINTS (EACH TRUSS)
420 KIPS AT EACH OF 4 PICK POINTS
(UNFACTORED LOAD)
SEE DWG. NO. STR-122 FOR DETAILS.

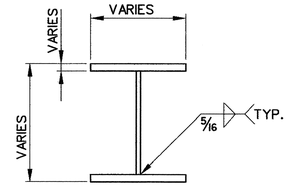


KEY PLAN
NOT TO SCALE

FCM INDICATES FRACTURE CRITICAL MEMBER
(INCLUDES GUSSET PLATES ATTACHED TO THESE MEMBERS)



TYPICAL TRUSS MEMBER
NOT TO SCALE



TYPICAL BRACING MEMBER
NOT TO SCALE

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

$TIME$
$DATE$
$FILE$

DESIGNER: D. GEISSERT
DRAFTER: M. OFFENBERG
CHECKED BY: D. MOOLIN
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony D. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S070.DGN
PLOTTED DATE: 3-29-00

TOWN: NEW HAVEN
DRAWING TITLE: TRUSS SCHEDULE

PROJECT NO.: 92-526
DRAWING NO.: STR-64
SHEET NO.: 198

SEGMENT 2 STRUCTURAL STEEL NOTES

1. ALL GRADE 50 STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, GRADE 50T2 UNLESS NOTED AS 'FRACTURE CRITICAL MEMBER' (FCM), IN WHICH CASE THE STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, GRADE 50F2.

2. ALL GRADE 70 STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, GRADE HPS 70WT2 (ASTM A709 HPS 70W) UNLESS NOTED AS 'FRACTURE CRITICAL MEMBER' (FCM), IN WHICH CASE THE STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, HPS 70WF2 (ASTM A709 HPS 70W).

3. ALL STRUCTURAL STEEL SHALL BE GALVANIZED, SEE SPECIAL PROVISIONS. ATTACHEMENTS SHALL BE GALVANIZED OR STAINLESS STEEL.

4. WELDING DETAILS, PROCEDURES AND TESTING METHODS SHALL CONFORM TO THE ANSI/AASTHO/AWS D1.5-98 BRIDGE WELDING CODE, UNLESS OTHERWISE NOTED ON THE PLANS.

5. BOLTED FIELD SPLICES, OTHER THAN THOSE INDICATED ON THE PLANS, WILL NOT BE ALLOWED EXCEPT WITH THE WRITTEN PERMISSION OF THE ENGINEER PRIOR TO THE SUBMISSION OF SHOP PLANS. IF ALLOWED, THESE SPLICES SHALL BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE COST OF THESE SPLICES, INCLUDING THE COST OF DESIGN, SHALL BE AT NO EXTRA EXPENSE TO THE STATE. WELDED FIELD SPLICES WILL NOT BE ALLOWED.

6. ALL WEB TO FLANGE, WEB TO BEARING STIFFENER AND BEARING STIFFENER TO FLANGE FILLET WELDS SHALL BE INSPECTED IN THEIR ENTIRETY BY THE MAGNETIC PARTICLE METHOD.

7. MULTIPLE PASS WELDS, INSPECTED BY THE MAGNETIC PARTICLE METHOD SHALL HAVE EACH PASS OR LAYER INSPECTED AND ACCEPTED BEFORE PROCEEDING TO THE NEXT PASS OR LAYER, AS DETERMINED BY THE ENGINEER.

8. UNLESS OTHERWISE NOTED, SHOP WEB SPLICES SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN.

9. SHOP FLANGE SPLICES SHALL BE LOCATED A MINIMUM OF SIX INCHES (6") FROM WEB SPLICES.

10. FLANGE OR WEB SPLICES SHALL BE LOCATED A MINIMUM OF SIX INCHES (6") FROM STIFFENERS AND CONNECTION PLATES.

11. BEARING STIFFENERS AND THE ENDS OF STRINGERS AND FLOOR BEAMS SHALL BE VERTICAL AFTER THE APPLICATION OF FULL DEAD LOADS.

12. THE STRUCTURAL STEEL FABRICATORS SHALL BE CERTIFIED UNDER THE AISC QUALITY CONTROL PROGRAM AS NOTED BELOW:
    CATEGORY SBrF - SIMPLE STEEL BRIDGE STRUCTURES: TYPICAL WORK INCLUDES: HIGHWAY SIGN STRUCTURES, INSPECTION PLATFORMS, BRIDGE COMPONENTS SUCH AS CROSS FRAMES AND UN-SPLICED ROLLED BEAM BRIDGES.

    CATEGORY MBrF - MAJOR STEEL BRIDGES: ALL BRIDGE STRUCTURES OTHER THAN UN-SPLICED ROLLED BEAM BRIDGES.

13. THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO INSURE THE STABILITY OF ALL STRUCTURAL ELEMENTS UNTIL THE TOTAL STRUCTURE IS IN BEING.

14. ALL GUSSET PLATES ATTACHED TO, AND PLATES MAKING UP MEMBERS NOTED AS 'FRACTURE CRITICAL MEMBERS', SHALL CONFORM TO THE BASE METAL CHARPY V-NOTCH REQUIREMENTS FOR FRACTURE CRITICAL MEMBERS ZONE 2.

15. BOTTOM CHORD MEMBERS ARE CONTINUOUS THROUGH ODD NUMBERED JOINTS.

16. THE CONTRACTOR IS RESPONSIBLE TO CALCULATE CAMBERS OF TRUSS MEMBERS FOR THE ERECTION PROCEDURE USED. THE CONSTRUCTION SHALL BE SUCH THAT AFTER THE TOTAL DEAD LOAD DEFLECTION, THE FINISHED ROADWAY SURFACES WILL CONFORM TO THE FINAL GRADE.

SEGMENT 2 HIGH STRENGTH BOLT NOTES

1. ALL BOLTED CONNECTIONS SHALL BE "SLIP CRITICAL" CONNECTIONS WITH CLASS 'C' SURFACE CONDITIONS UNLESS OTHERWISE NOTED.

2. ALL HIGH STRENGTH BOLTS SHALL BE 7/8"ø ASTM A325 TYPE 1 BOLTS IN STANDARD HOLES.

3. UNLESS OTHERWISE NOTED, MINIMUM BOLT SPACING SHALL BE THREE INCHES (3").

4. UNLESS OTHERWISE NOTED, MINIMUM EDGE DISTANCE SHALL BE ONE AND ONE-HALF INCHES (1½") TO SHEARED OR THERMALLY CUT EDGES AND ONE AND ONE-QUARTER INCHES (1¼") TO ROLLED OR PLANNED EDGES.

5. UNLESS OTHERWISE NOTED, BOLTS, NUTS AND WASHERS SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50.

6. THE NUTS SHALL BE CONCEALED IN THE CONNECTIONS WHENEVER POSSIBLE.

SEGMENT 2 MISCELLANEOUS NOTES

DRAINAGE HOLES

TOP AND BOTTOM CHORDS SHALL HAVE THREE INCH (3") DIAMETER DRAIN HOLES IN THE WEB, CENTERED BETWEEN FLANGES. DRAIN HOLES ARE TO BE SPACED AT FIVE FEET (5') ± CENTER TO CENTER.

JACKING PROVISIONS

PROVISIONS HAVE BEEN MADE FOR JACKING THE FULL DEAD AND LIVE LOAD WITH IMPACT AT FB 0 AND FB 8.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

DESIGNER: D. GEISSERT
DRAFTER: D. GEISSERT
CHECKED BY: D. MOOLIN
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S070A.DGN PLOTTED DATE: 3-05-00

TOWN: NEW HAVEN
DRAWING TITLE: SEGMENT 2 NOTES

PROJECT NO.: 92-526
DRAWING NO.: STR-65
SHEET NO.: 199

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06 MAR 2000
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FRAMING PLAN - SPAN 2

SCALE: 3/32"=1'-0"

FRAMING PLAN NOTES

1. DIMENSIONS AT ENDS OF GIRDERS ARE MEASURED ALONG THE ℄ OF BEARING.
2. ALL LENGTH DIMENSIONS ARE HORIZONTAL.
3. ALL INTERMEDIATE DIAPHRAGMS SHALL BE TYPE D1 UNLESS OTHERWISE NOTED.
4. ALL INTERMEDIATE DIAPHRAGMS IN WATER MAIN BAY SHALL BE TYPE D2 UNLESS OTHERWISE NOTED.
5. FOR GENERAL NOTES, SEE DWG. NO. STR-4.
6. FOR WORKING POINT COORDINATES, DWG. NO. STR-15.
7. FOR STRINGER SCHEDULE, SEE DWG. NO. STR-78.
8. FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE DWG. NO. STR-79.
9. FOR BOLTED FIELD SPLICE DETAILS, SEE DWG. NO. STR-78.
10. FOR JACKING BRACKET DETAILS, SEE DWG. NO. STR-80.
11. FOR INSPECTION PLATFORMS, SEE DWG. NOS. STR-110 TO STR-115.

NOTE A

COORDINATE LOCATION OF DIAPHRAGM WITH ANGLE ATTACHED TO BOTTOM LATERAL BRACE, SEE DWG. NO. STR-81.

JACKING BRACKET NOTE

JACKING BRACKETS ARE REQUIRED ON THE FASCIA SIDE OF THE FASCIA STRINGER AT FB 1 TO FB 3 AND FB 5 TO FB 7.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: A KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S051.DGN PLOTTED DATE: 3-06-00

TOWN: NEW HAVEN
DRAWING TITLE: FRAMING PLAN - SEGMENT 2
PROJECT NO.: 92-526
DRAWING NO.: STR-66
SHEET NO.: 200

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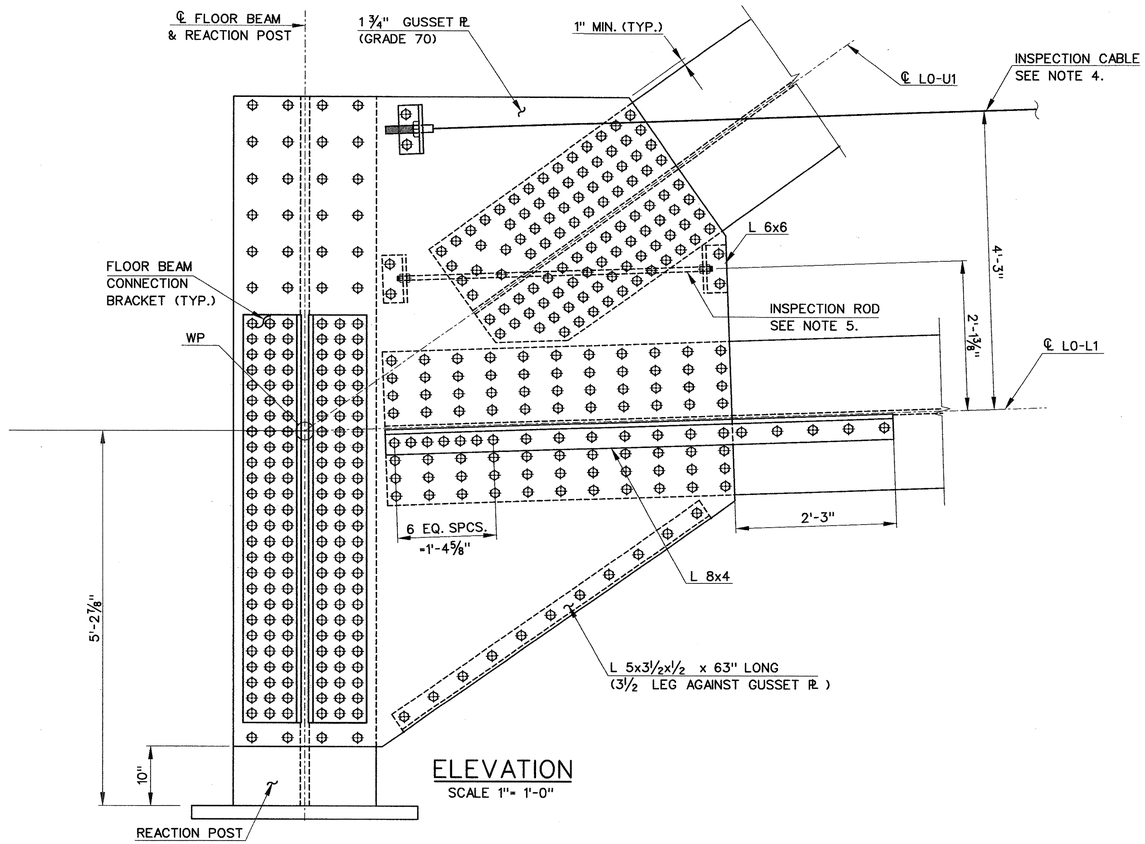

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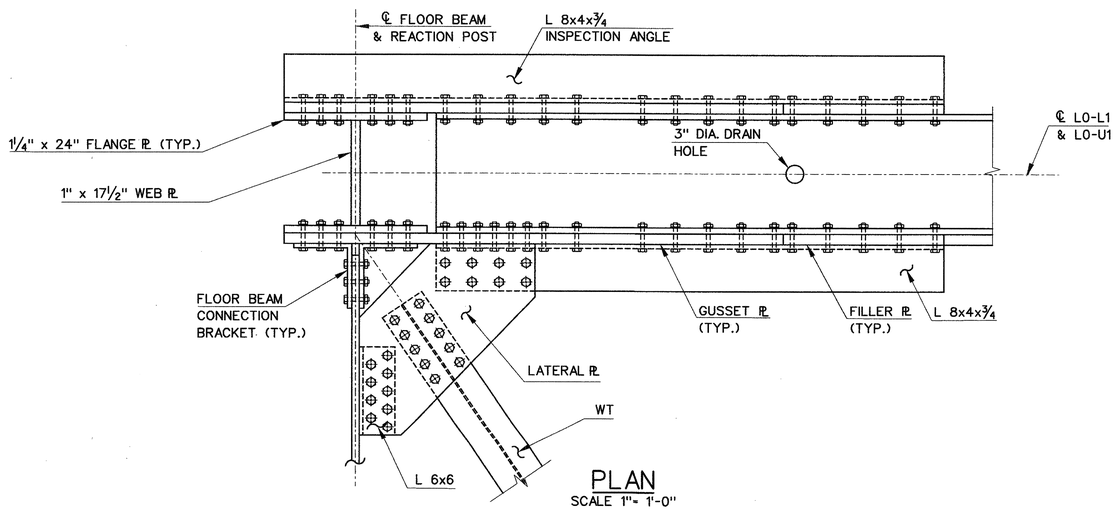
SCALE 1"= 1'-0"



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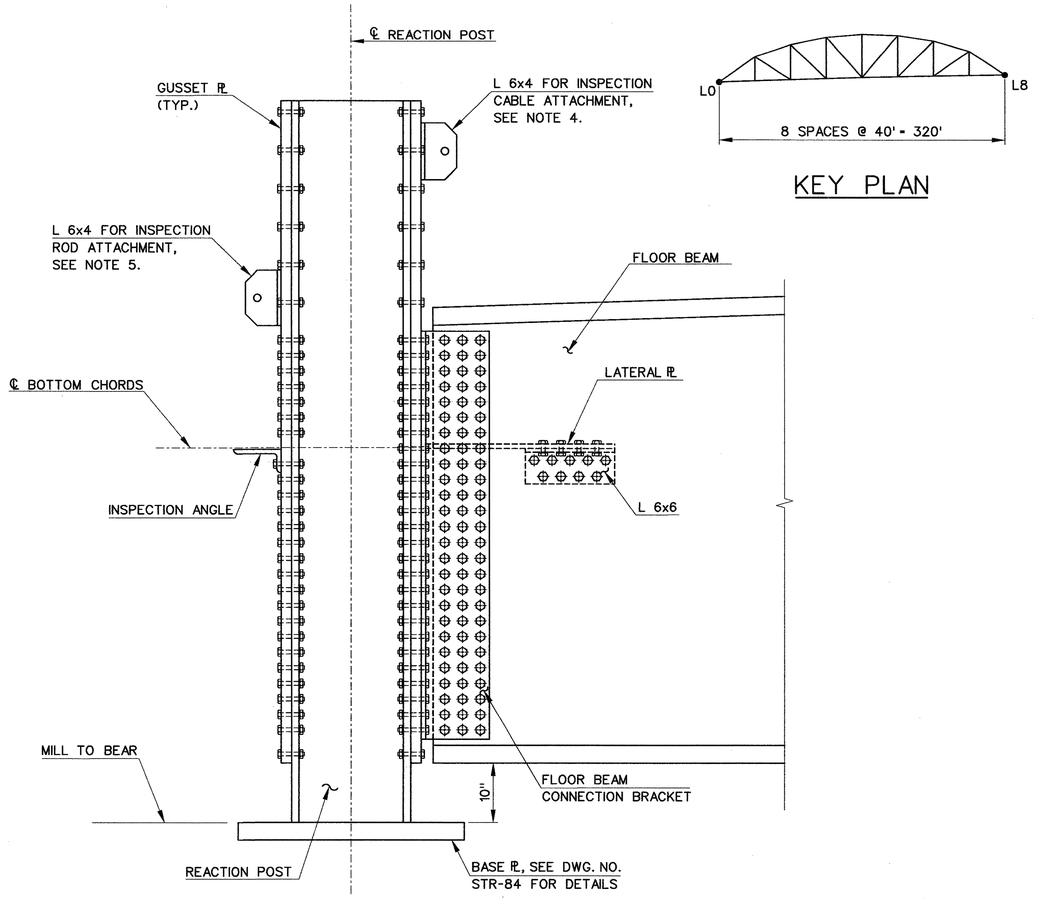

SECTION
SCALE 1"= 1'-0"

KEY PLAN

NOTES:

1. DETAILS AT L0 SHOWN; L8 SIMILAR AND OPPOSITE HAND.
2. FOR BOTTOM CHORD LATERAL BRACING DETAILS NOT SHOWN, SEE DWG. STR-81.
3. FOR FLOOR BEAM DETAILS NOT SHOWN, SEE DWG. NO. STR-77.
4. FOR INSPECTION CABLE AT INSIDE GUSSET PLATE, SEE DWG. NO. STR-69 FOR DETAILS.
5. FOR INSPECTION ROD AT OUTSIDE GUSSET PLATE, SEE DWG. NO. STR-70 FOR DETAILS.
6. REACTION POST SHALL BE VERTICAL AFTER APPLICATION OF ALL DEAD LOADS.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: D. GEISSERT
CHECKED BY: D. MOOLIN
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Marotta DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S071.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: TRUSS DETAILS AT L0 & L8

PROJECT NO.: 92-526
DRAWING NO.: STR-67
SHEET NO.: 201

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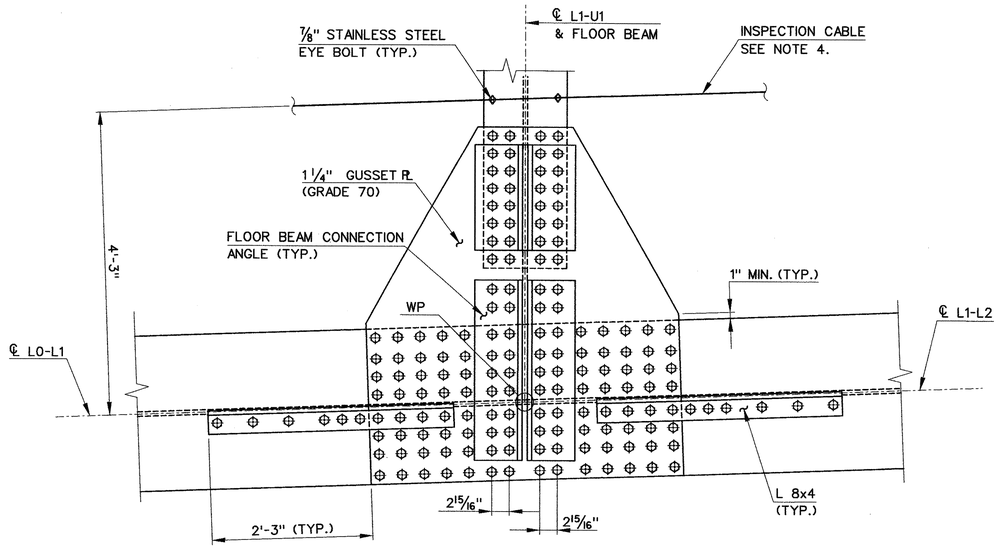
$DATE$
$FILE$



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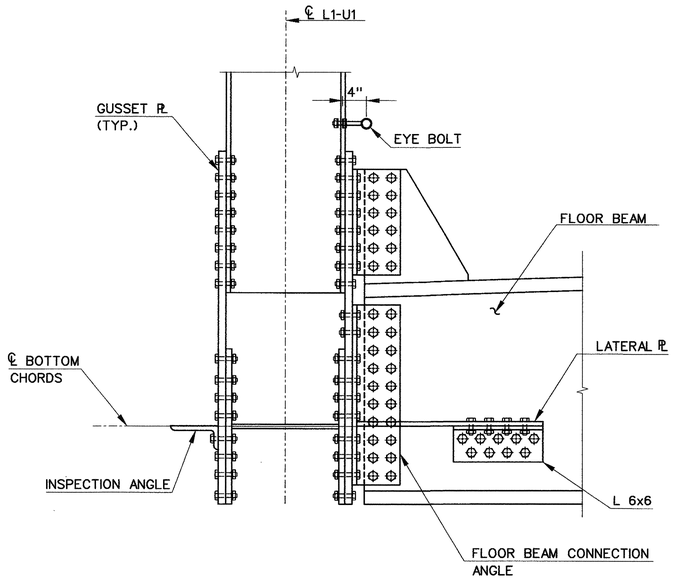

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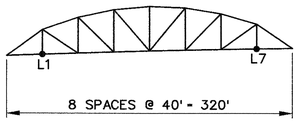
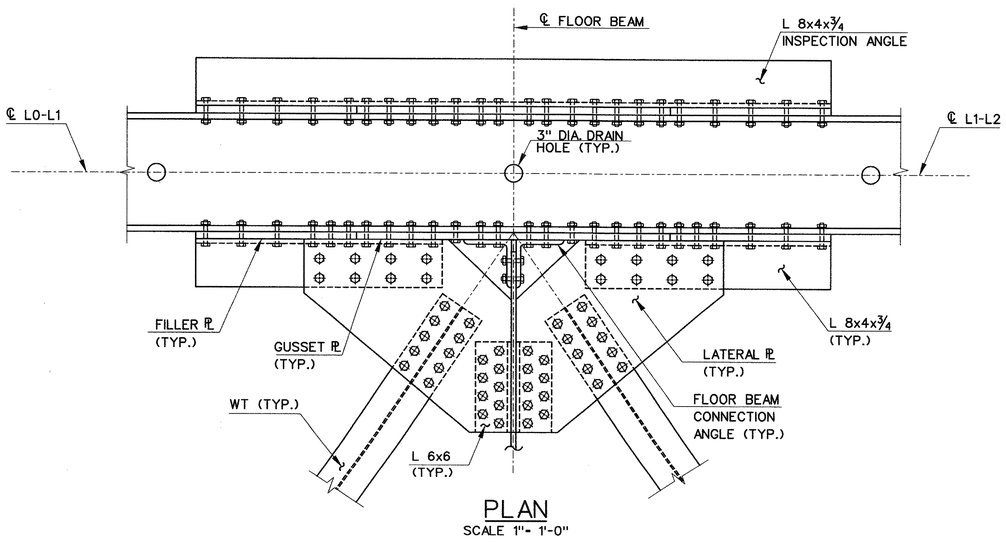


KEY PLAN



PLAN
SCALE 1"= 1'-0"

NOTES:

1. DETAILS AT L1 SHOWN; L7 SIMILAR AND OPPOSITE HAND.
2. FOR BOTTOM CHORD LATERAL BRACING DETAILS NOT SHOWN, SEE DWG. NO. STR-81.
3. FOR FLOOR BEAM DETAILS NOT SHOWN, SEE DWG. NO. STR-76.
4. INSPECTION CABLE AT INSIDE GUSSET PLATE, SEE DWG. NO. STR-69 FOR DETAILS.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: D. GEISSERT
CHECKED BY: D. MOOLIN
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Ulonetti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S072.DGN
PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN
DRAWING TITLE: TRUSS DETAILS AT L1 & L7

PROJECT NO.: 92-526
DRAWING NO.: STR-68
SHEET NO.: 202

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07 MAR 2000
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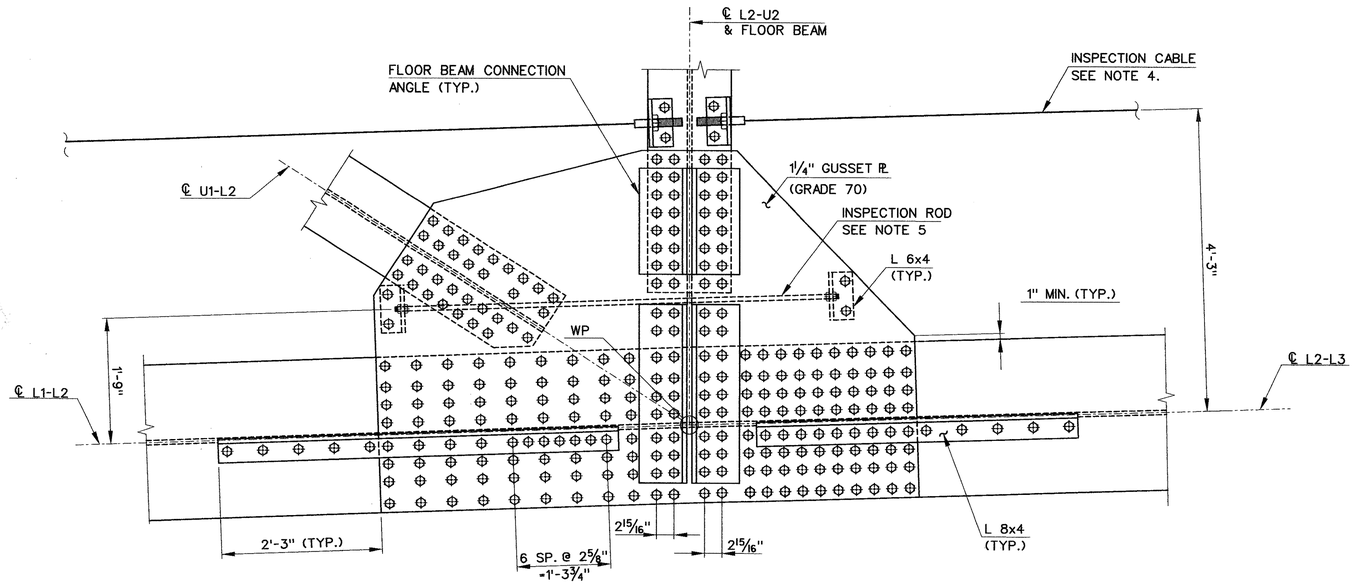

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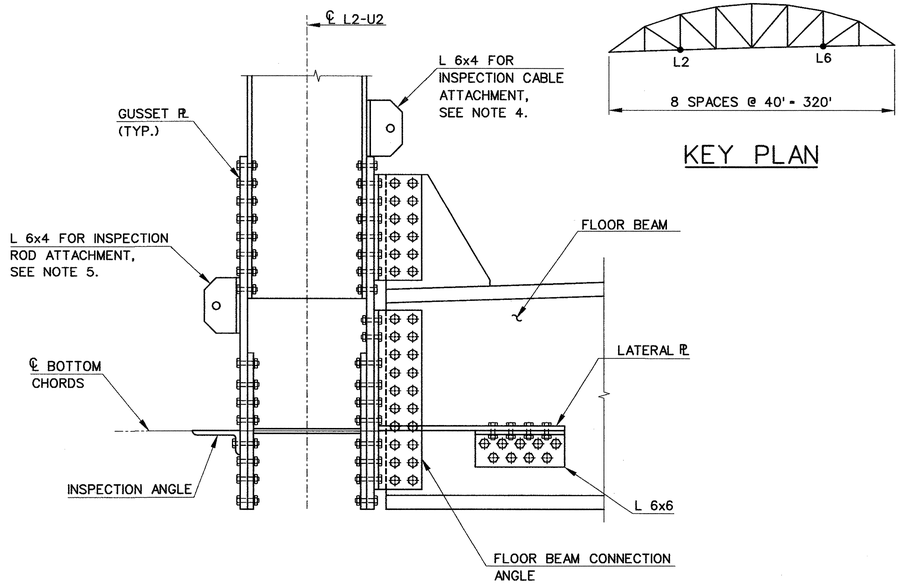
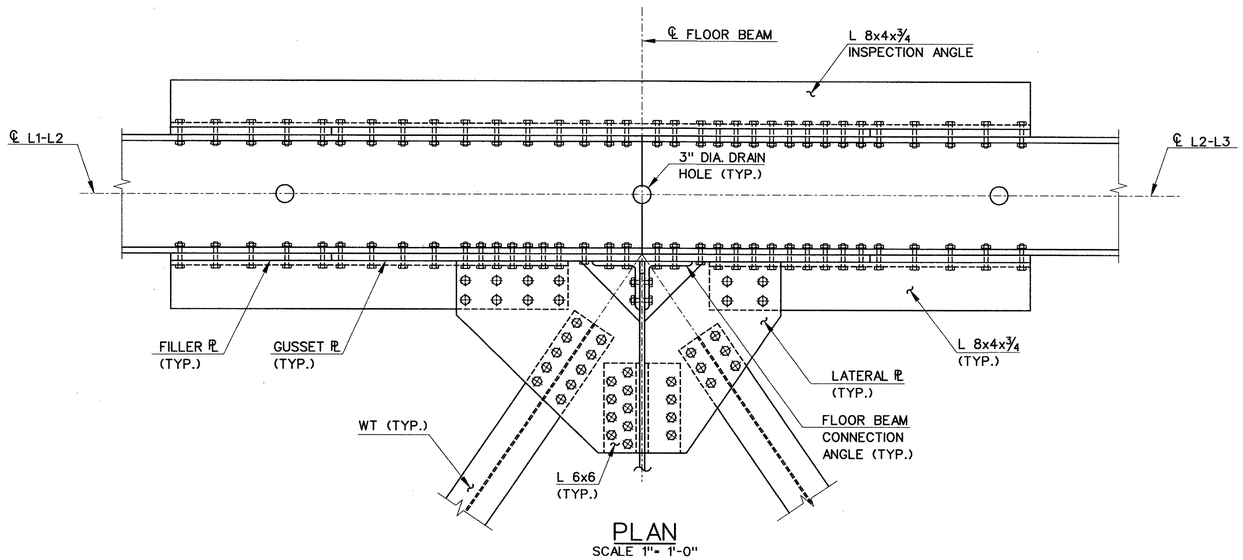


SECTION
SCALE 1"= 1'-0"

KEY PLAN



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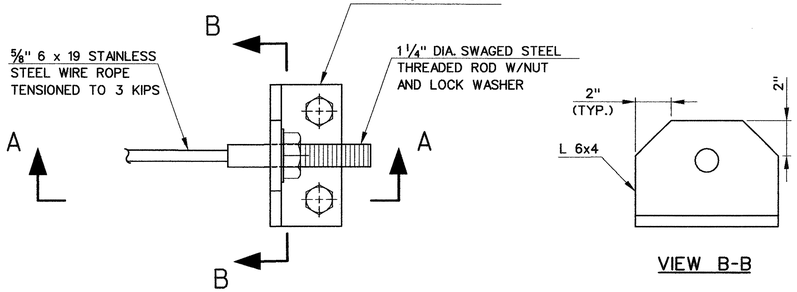
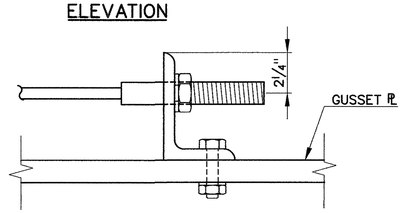


ELEVATION

VIEW B-B



SECTION A-A

NOTE:
COST OF FURNISHING AND INSTALLING INSPECTION CABLE TO BE INCLUDED IN THE ITEM 'STRUCTURAL STEEL (SEGMENT 2)'.

1. DETAILS AT L2 SHOWN; L6 SIMILAR AND OPPOSITE HAND.
2. FOR BOTTOM CHORD LATERAL BRACING DETAILS NOT SHOWN, SEE DWG. NO. STR-81.
3. FOR FLOOR BEAM DETAILS NOT SHOWN, SEE DWG. NO. STR-76.
4. INSPECTION CABLE AT INSIDE GUSSET PLATE.
5. INSPECTION ROD AT OUTSIDE GUSSET PLATE, SEE DWG. NO. STR-70 FOR DETAILS.

INSPECTION CABLE ANCHORAGE DETAILS
SCALE: 3"=1'-0"

$TIME$
$DATE$
$FILE$

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

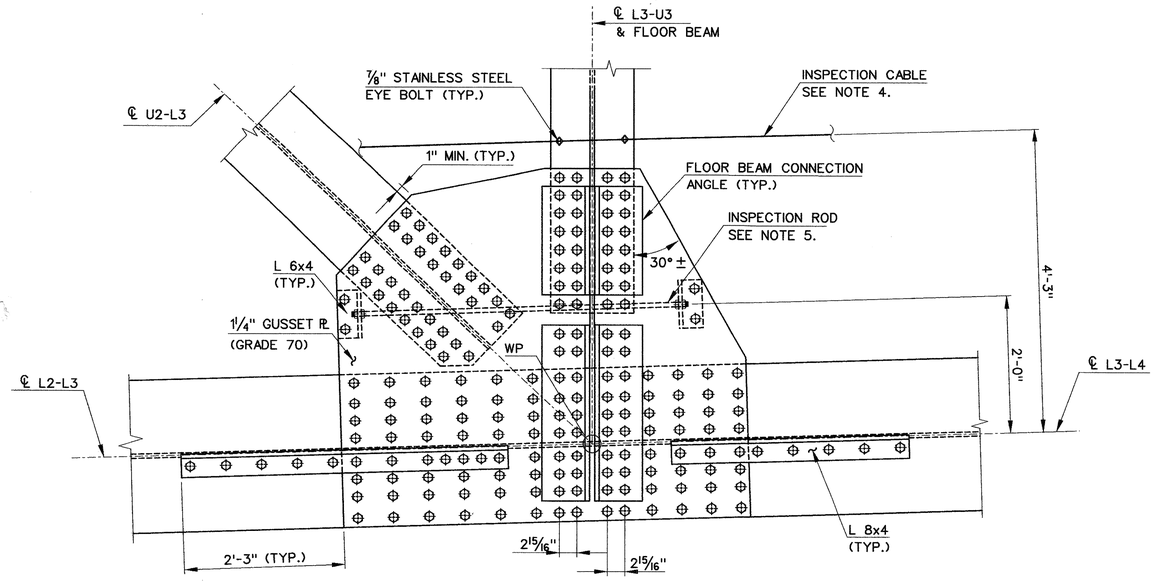
DESIGNER: D. GEISSERT
DRAFTER: D. GEISSERT
CHECKED BY: D. MOOLIN
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

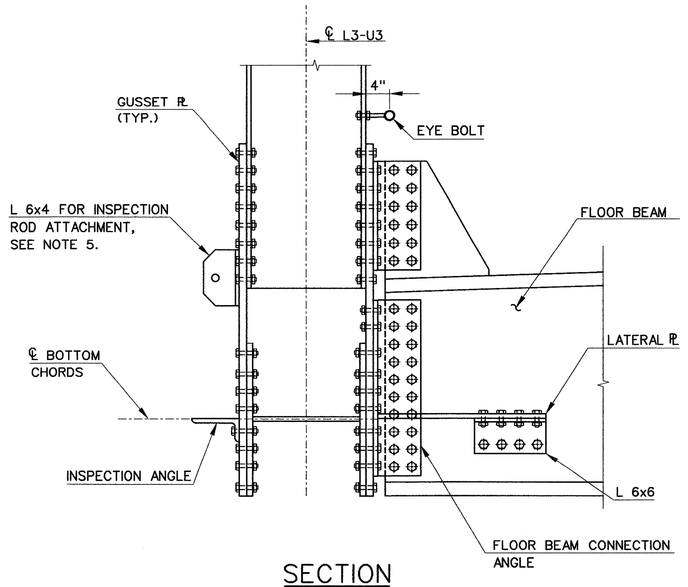
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S073.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: TRUSS DETAILS AT L2 & L6

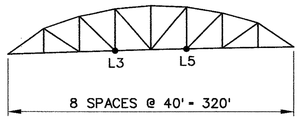
PROJECT NO.: 92-526
DRAWING NO.: STR-69
SHEET NO.: 203



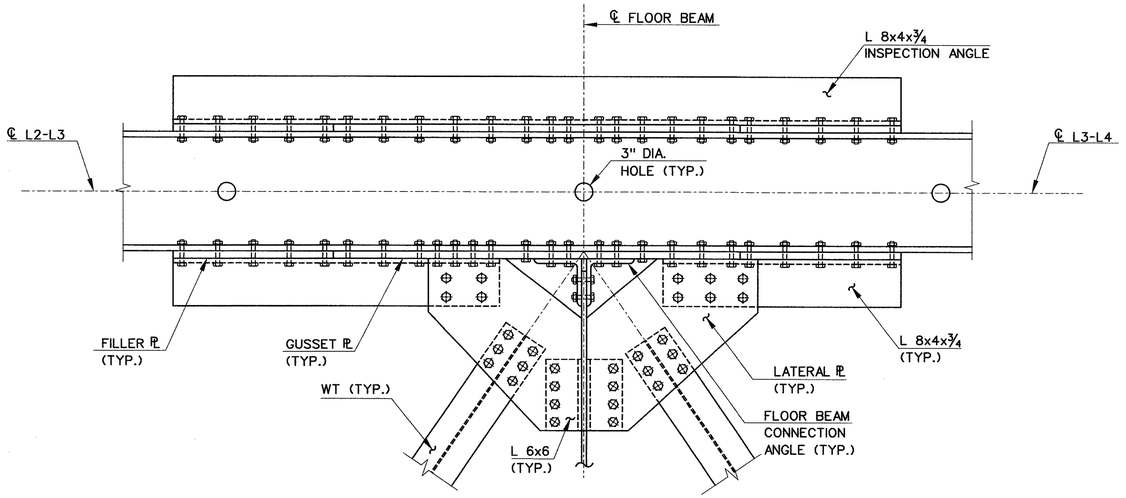
ELEVATION
SCALE 1"= 1'-0"



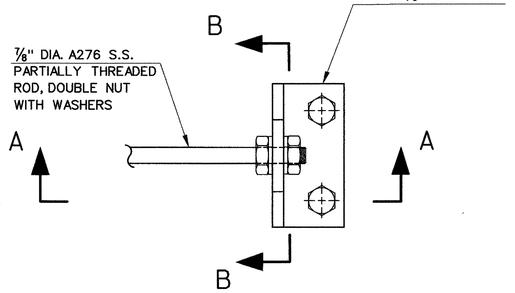
SECTION
SCALE 1"= 1'-0"



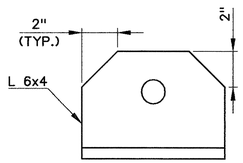
KEY PLAN



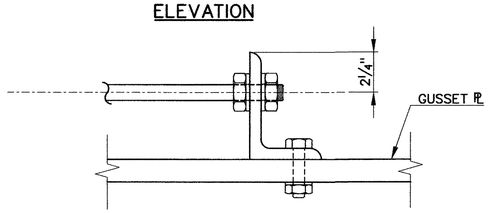
PLAN
SCALE 1"= 1'-0"



ELEVATION



VIEW B-B



SECTION A-A

INSPECTION ROD ANCHORAGE DETAILS
SCALE: 3"=1'-0"

NOTE:
COST OF FURNISHING AND INSTALLING INSPECTION ROD TO BE INCLUDED IN THE ITEM 'STRUCTURAL STEEL (SEGMENT 2)'.

NOTES:
1. DETAILS AT L3 SHOWN; L5 SIMILAR AND OPPOSITE HAND.
2. FOR BOTTOM CHORD LATERAL BRACING DETAILS NOT SHOWN, SEE DWG. NO. STR-81.
3. FOR FLOOR BEAM DETAILS NOT SHOWN, SEE DWG. NO. STR-76.
4. INSPECTION CABLE AT INSIDE GUSSET PLATE, SEE DWG. NO. STR-69 FOR DETAILS.
5. INSPECTION ROD AT OUTSIDE GUSSET PLATE.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: D. GEISSERT
CHECKED BY: D. MOOLIN
DATE CHECKED: 4-9-00

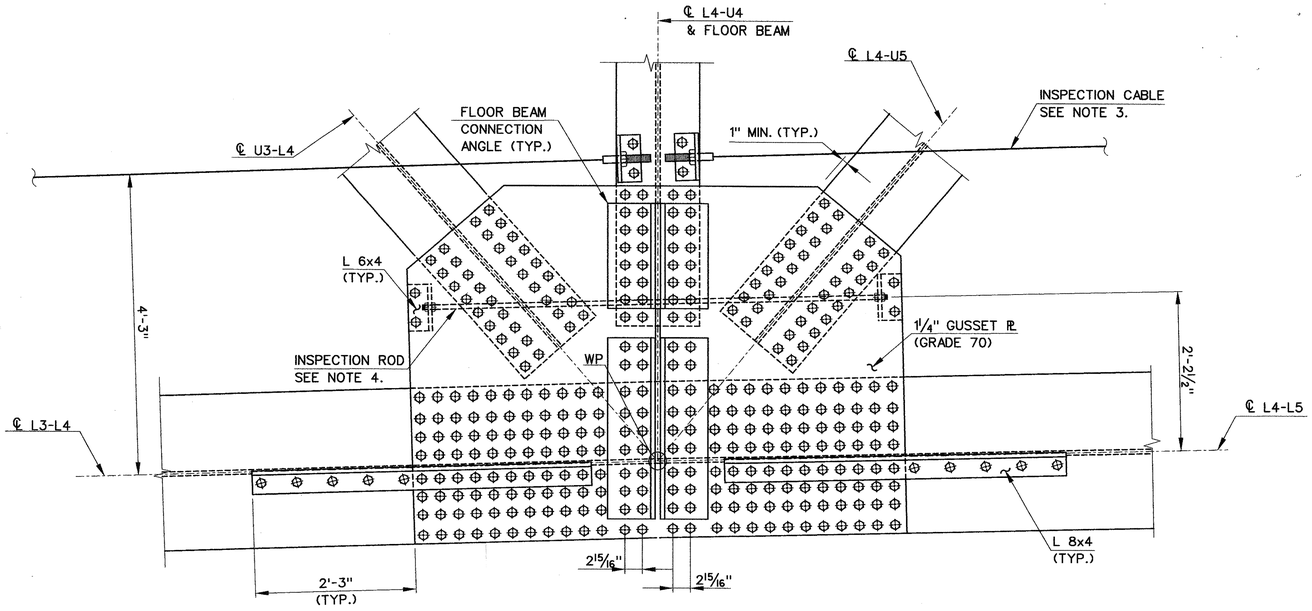
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony D. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S074.DGN
PLOTTED DATE: 4-06-00

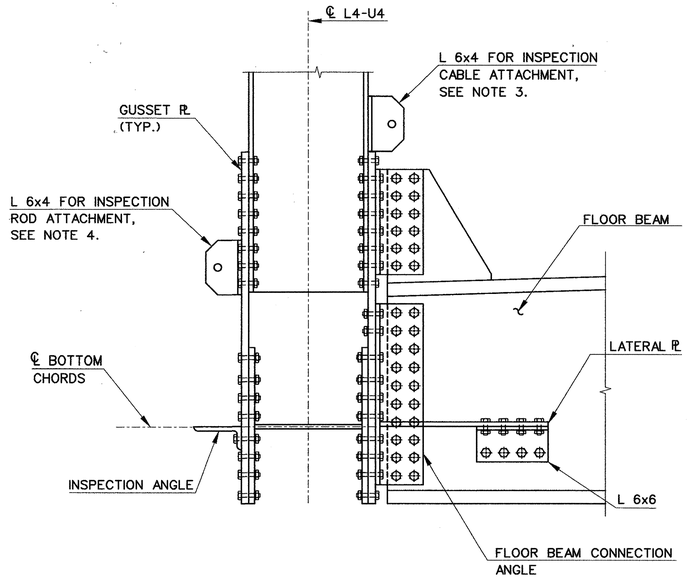
TOWN: NEW HAVEN
DRAWING TITLE: TRUSS DETAILS AT L3 & L5

PROJECT NO.: 92-526
DRAWING NO.: STR-70
SHEET NO.: 204

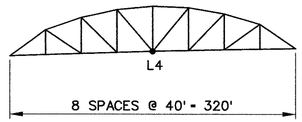
10:51:46
08 APR 2000
h:\dgn\pw\R703\structure\v703s074.dgn



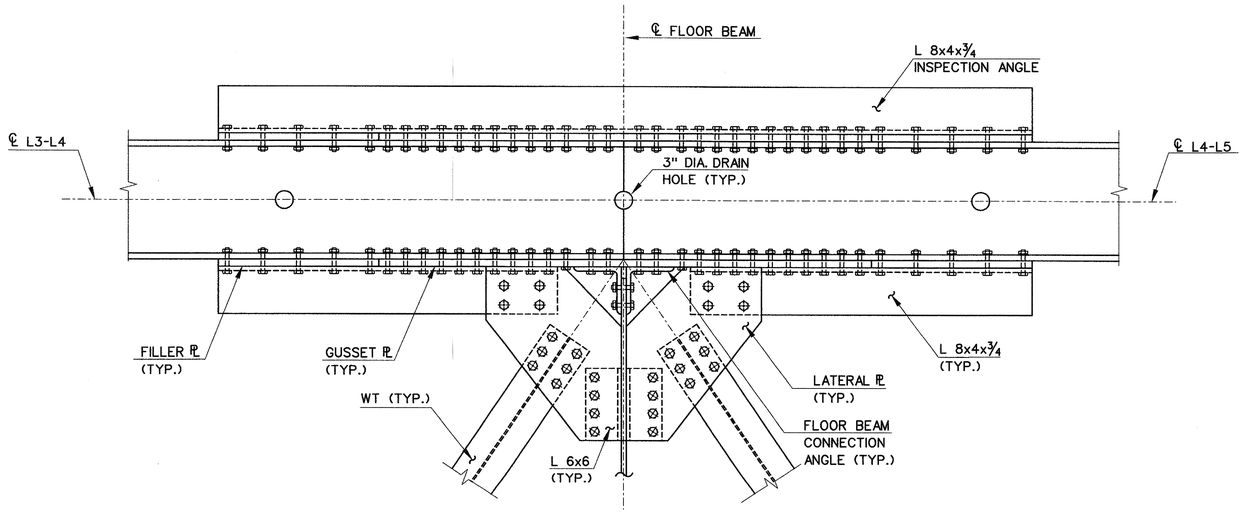
ELEVATION
SCALE 1"= 1'-0"



SECTION
SCALE 1"= 1'-0"



KEY PLAN



PLAN
SCALE 1"= 1'-0"

NOTES:

1. FOR BOTTOM CHORD LATERAL BRACING DETAILS NOT SHOWN, SEE DWG. NO. STR-81.
2. FOR FLOOR BEAM DETAILS NOT SHOWN, SEE DWG. NO. STR-76.
3. INSPECTION CABLE AT INSIDE GUSSET PLATE, SEE DWG. NO. STR-69 FOR DETAILS.
4. INSPECTION ROD AT OUTSIDE GUSSET PLATE, SEE DWG. NO. STR-70 FOR DETAILS.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: D. GEISSERT
CHECKED BY: D. MOOLIN
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION
OVER NEW HAVEN INTERLOCKING
AND RAIL YARD

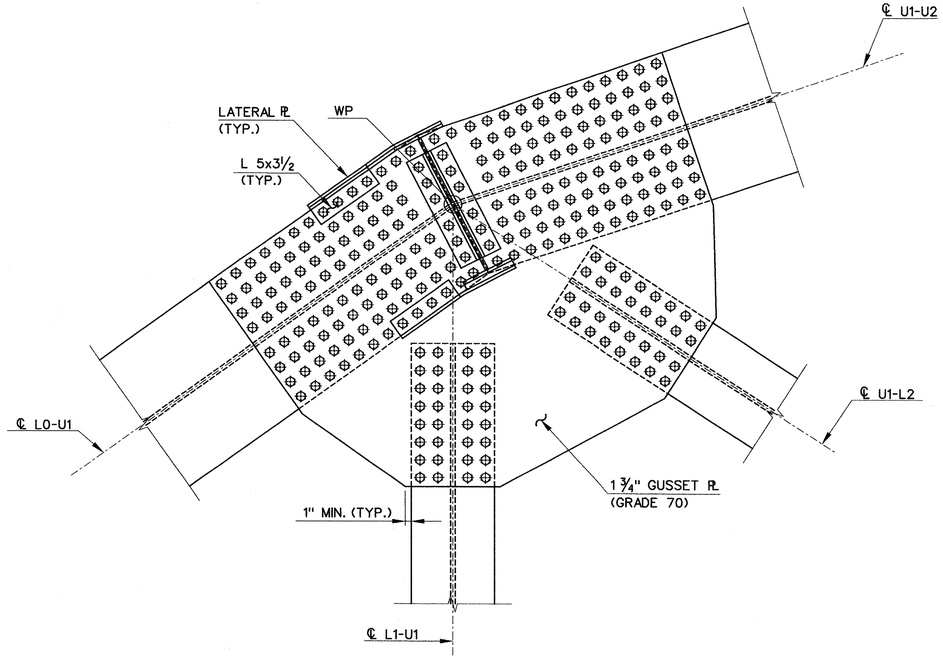
CADD FILE: R703S075.DGN | PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN

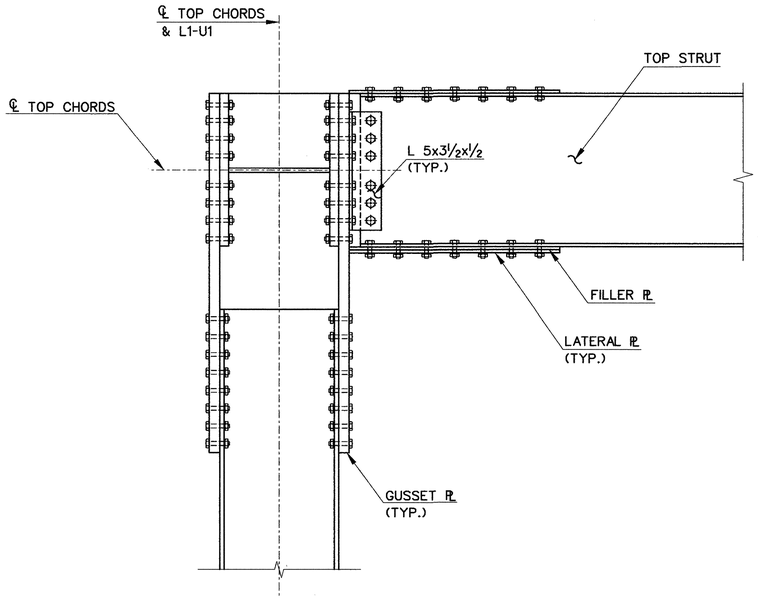
DRAWING TITLE: TRUSS DETAILS AT L4

PROJECT NO.: 92-526
DRAWING NO.: STR-71
SHEET NO.: 205

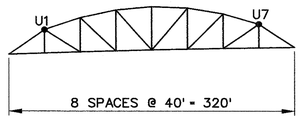
12:09:15
07 MAR 2000
h:\dgn\pb8703\churchstsf\d\structure\r703s075.dgn



ELEVATION
SCALE 1"= 1'-0"



SECTION
SCALE 1"= 1'-0"



KEY PLAN

NOTES:

1. DETAILS AT U1 SHOWN; U7 SIMILAR AND OPPOSITE HAND.
2. FOR TOP CHORD LATERAL BRACING AND PORTAL BRACING DETAILS NOT SHOWN, SEE DWG. NO. STR-82 AND DWG. NO. STR-83.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: M. OFFENBERG
CHECKED BY: D. MOOLIN
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

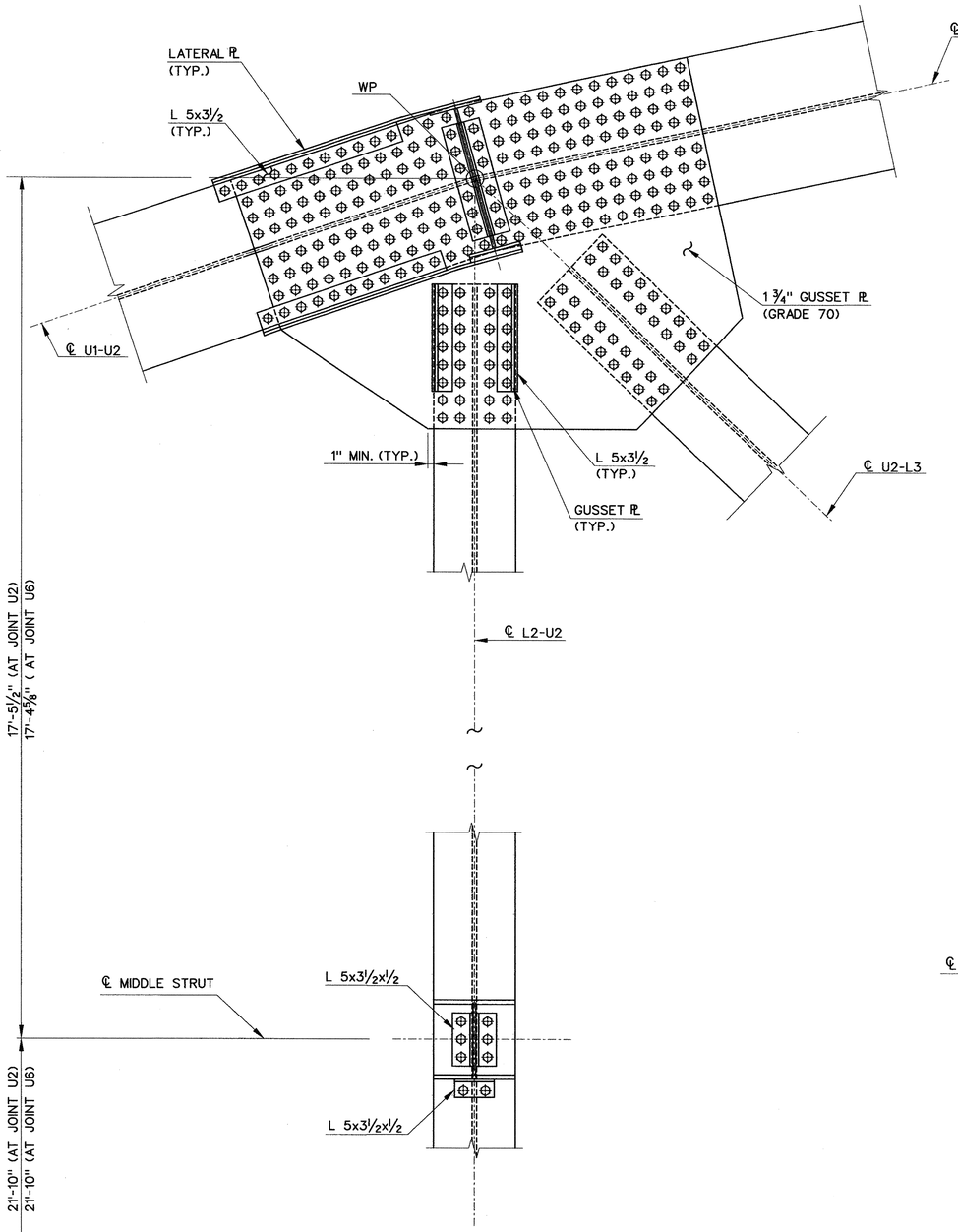
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S076.DGN PLOTTED DATE: 3-07-00

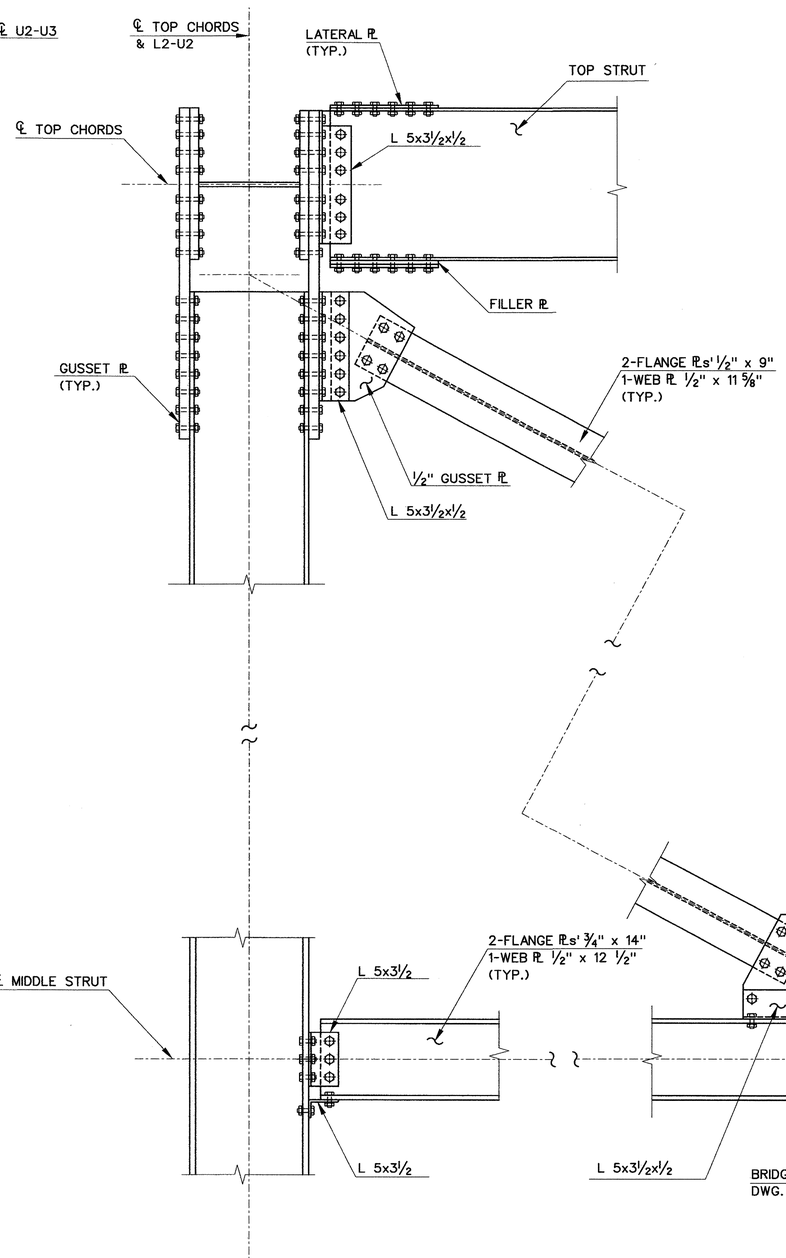
TOWN: NEW HAVEN
DRAWING TITLE: TRUSS DETAILS AT U1 & U7

PROJECT NO.: 92-526
DRAWING NO.: STR-72
SHEET NO.: 206

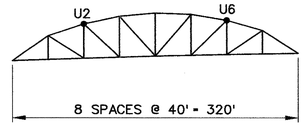
08:58:46
07 MAR 2000
h:\dgn\pbl8703\churchst\rd\structure\r7103s076.dgn



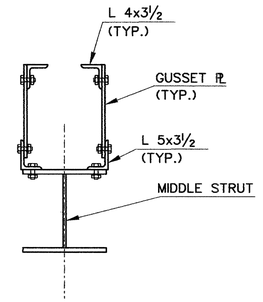
ELEVATION
SCALE 1"= 1'-0"



SECTION
SCALE 1"= 1'-0"



KEY PLAN



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

NOTES:
1. DETAILS AT U2 SHOWN; U6 SIMILAR AND OPPOSITE HAND.
2. FOR TOP CHORD LATERAL BRACING AND SWAY BRACING DETAILS NOT SHOWN, SEE DWG. NO. STR-82.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: M. OFFENBERG
CHECKED BY: D. MOOLIN
DATE CHECKED: 4-9-00

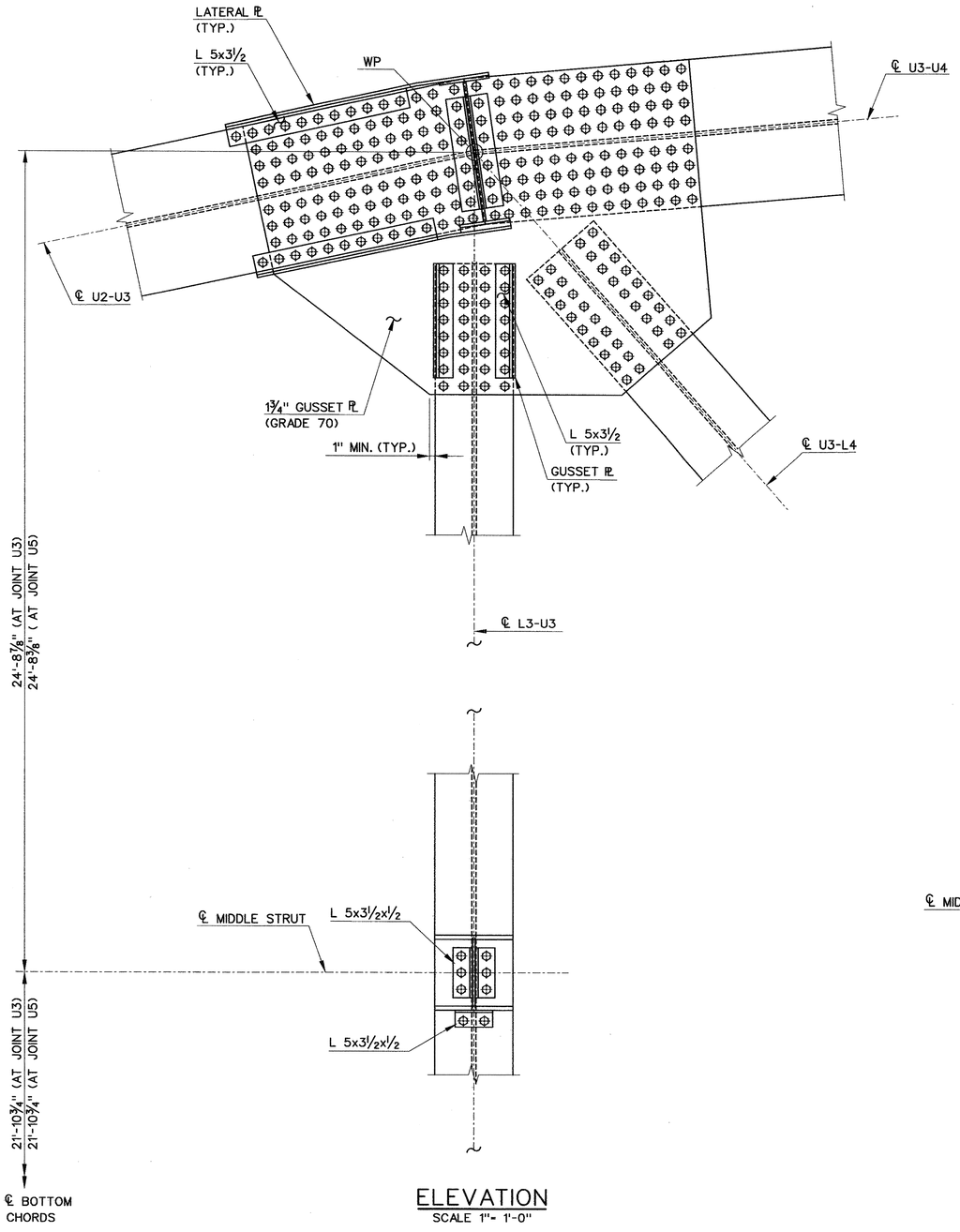
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Marotta DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S077.DGN
PLOTTED DATE: 4-06-00

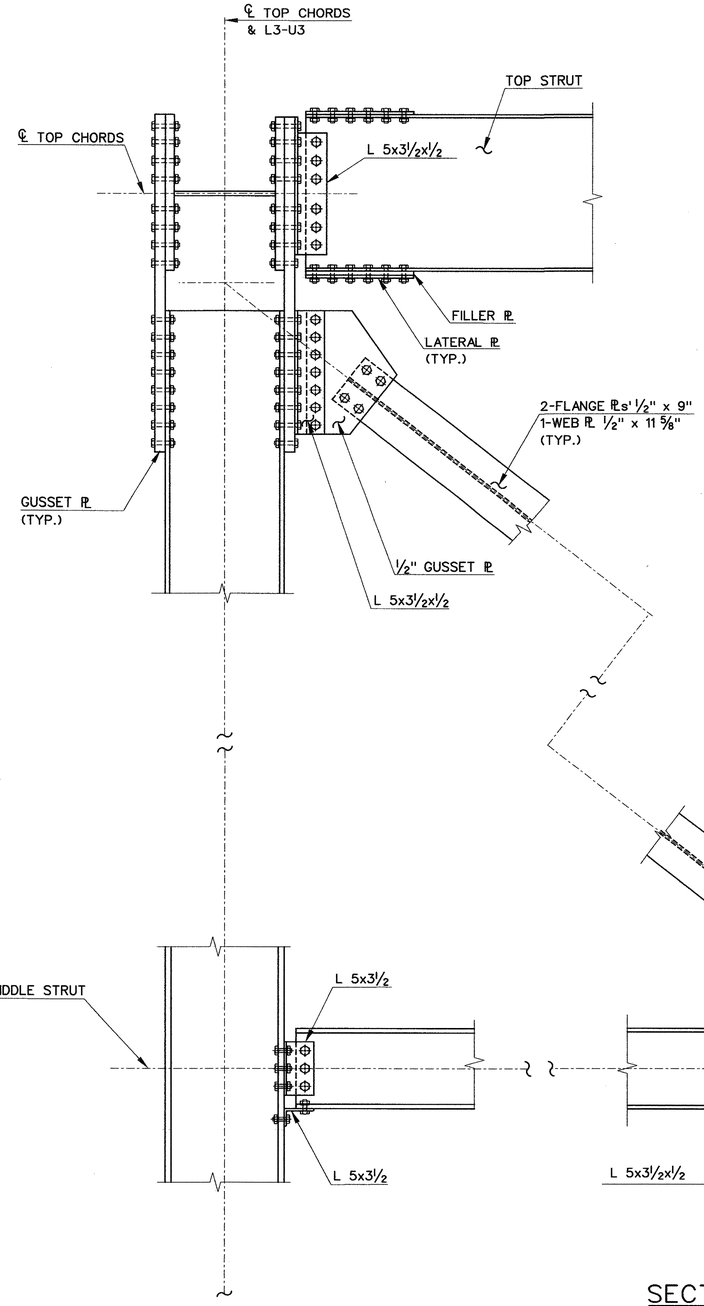
TOWN: NEW HAVEN
DRAWING TITLE: TRUSS DETAILS AT U2 & U6

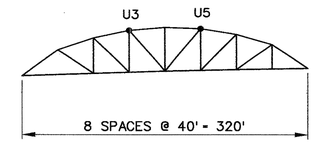
PROJECT NO.: 92-526
DRAWING NO.: STR-73
SHEET NO.: 207

$TIME$
$DATE$
$FILE$

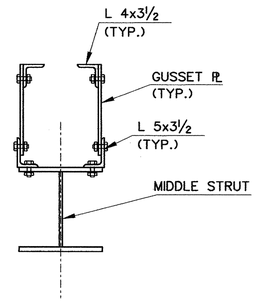


ELEVATION
SCALE 1"= 1'-0"

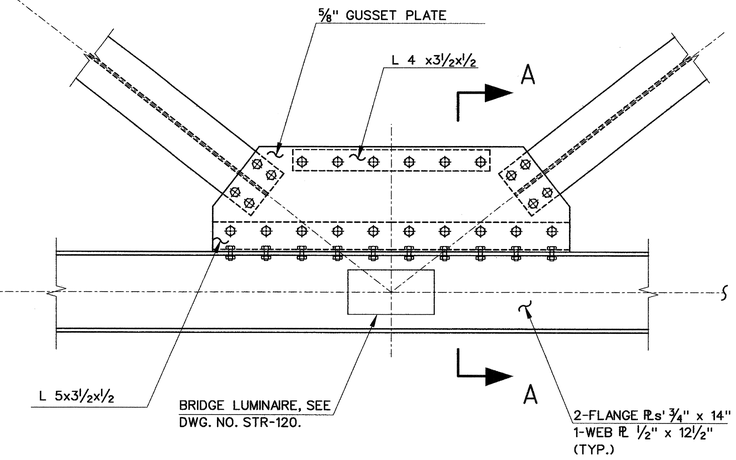




KEY PLAN



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



SECTION
SCALE 1"= 1'-0"

NOTES:
1. DETAILS AT U3 SHOWN; U5 SIMILAR AND OPPOSITE HAND.
2. FOR TOP CHORD LATERAL BRACING AND SWAY BRACING DETAILS NOT SHOWN, SEE DWG. NO. STR-82.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: M. OFFENBERG
CHECKED BY: D. MOOLIN
DATE CHECKED: 4-9-00

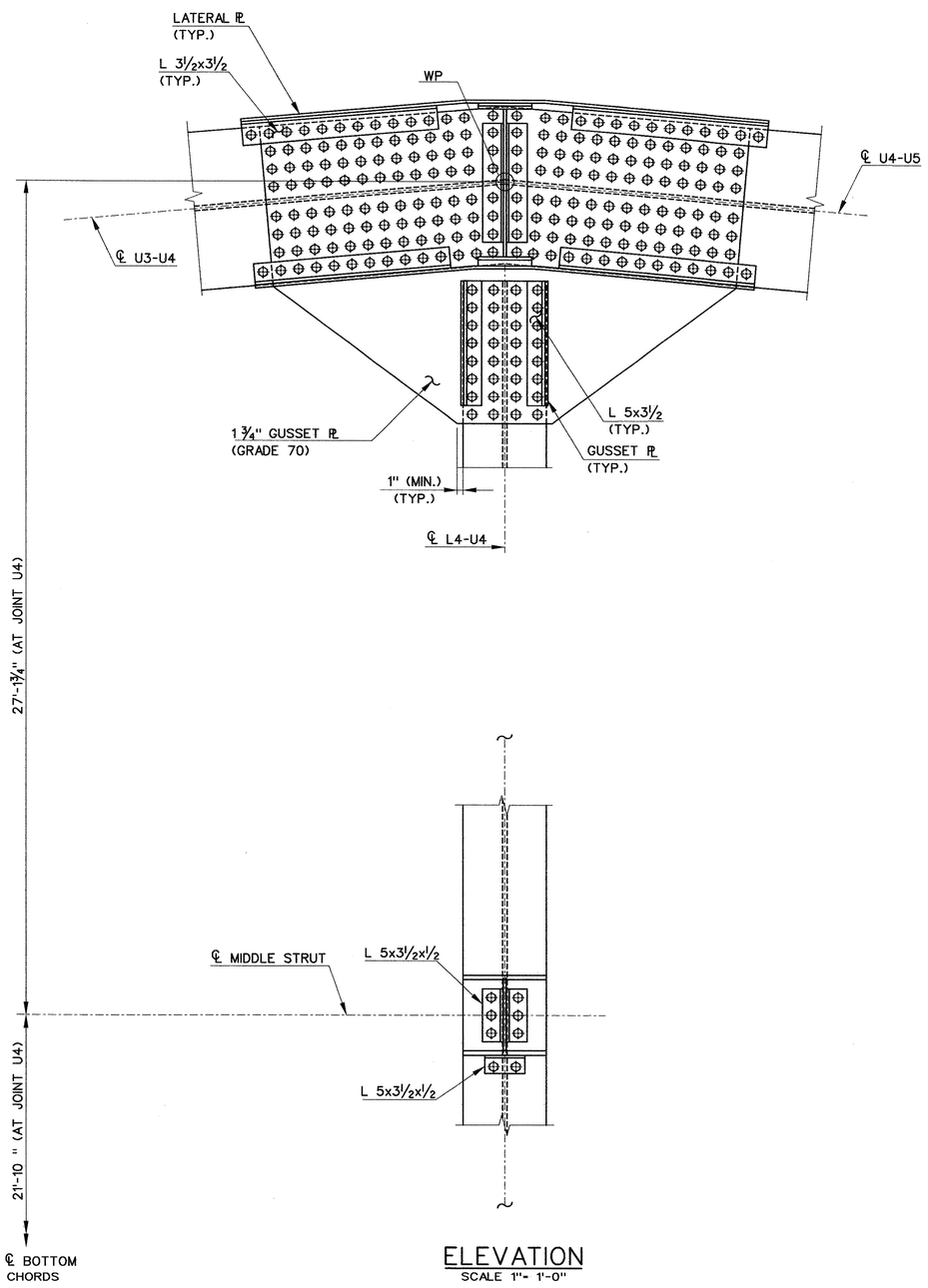
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Montte DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S078.DGN
PLOTTED DATE: 4-06-00

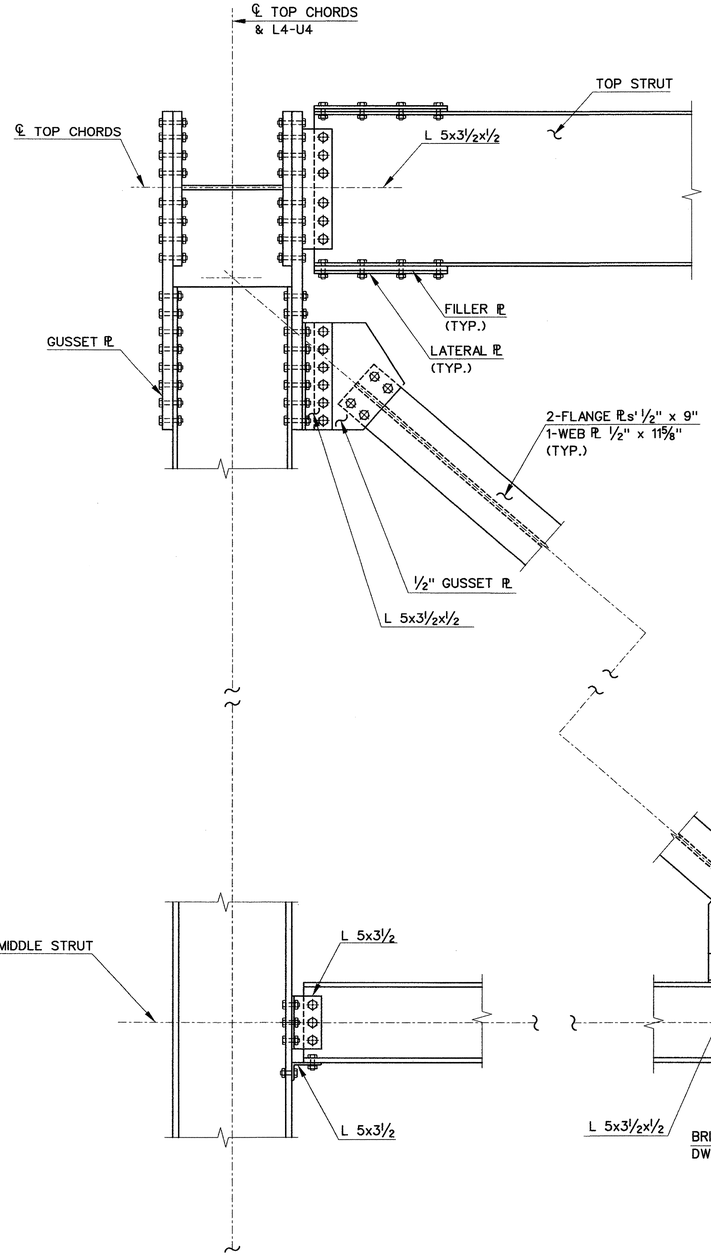
TOWN: NEW HAVEN
DRAWING TITLE: TRUSS DETAILS AT U3 & U5

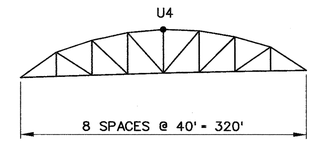
PROJECT NO.: 92-526
DRAWING NO.: STR-74
SHEET NO.: 208

$TIME$
$DATE$
$FILE$

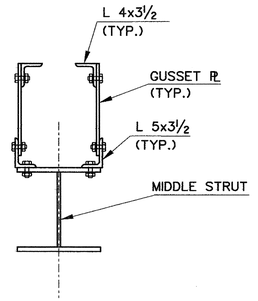


ELEVATION
SCALE 1"= 1'-0"

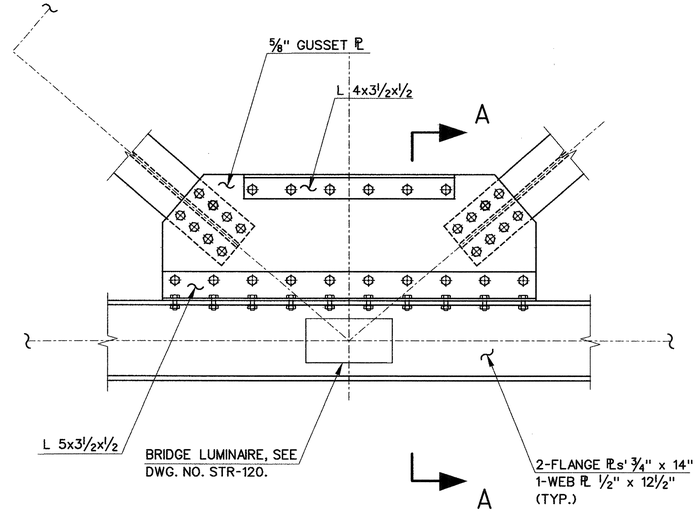




KEY PLAN



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



SECTION
SCALE 1"= 1'-0"

NOTES:

1. FOR TOP CHORD LATERAL BRACING AND SWAY BRACING DETAILS NOT SHOWN, SEE DWG. NO. STR-82.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. GEISSERT
DRAFTER: M. OFFENBERG
CHECKED BY: D. MOOLIN
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Mortti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S079.DGN | PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: TRUSS DETAILS AT U4

PROJECT NO.: 92-526
DRAWING NO.: STR-75
SHEET NO.: 209

$TIME$
$DATE$
$FILE$

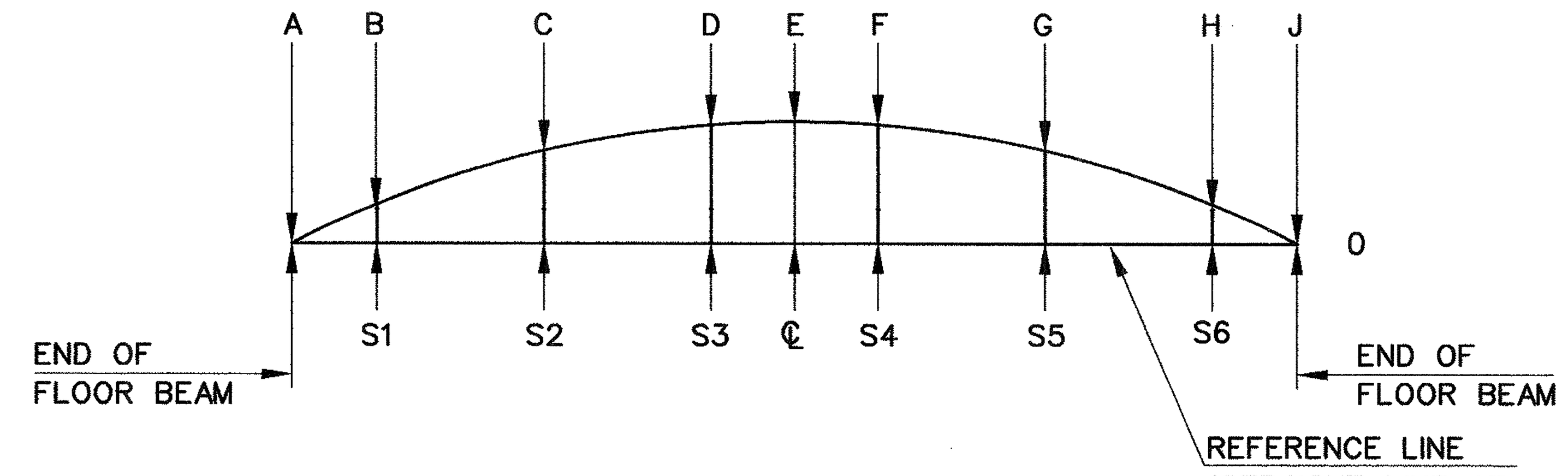
FLOOR BEAM NOTES

1. SEE "SEGMENT 2 STRUCTURAL STEEL NOTES" ON DWG. NO. STR-65.
2. FOR INSPECTION ROD DETAILS, SEE DWG. NO. STR-70.
3. OMIT JACKING STIFFENERS ON FLOOR BEAM FB 4.

FCM INDICATES FRACTURE CRITICAL MEMBER

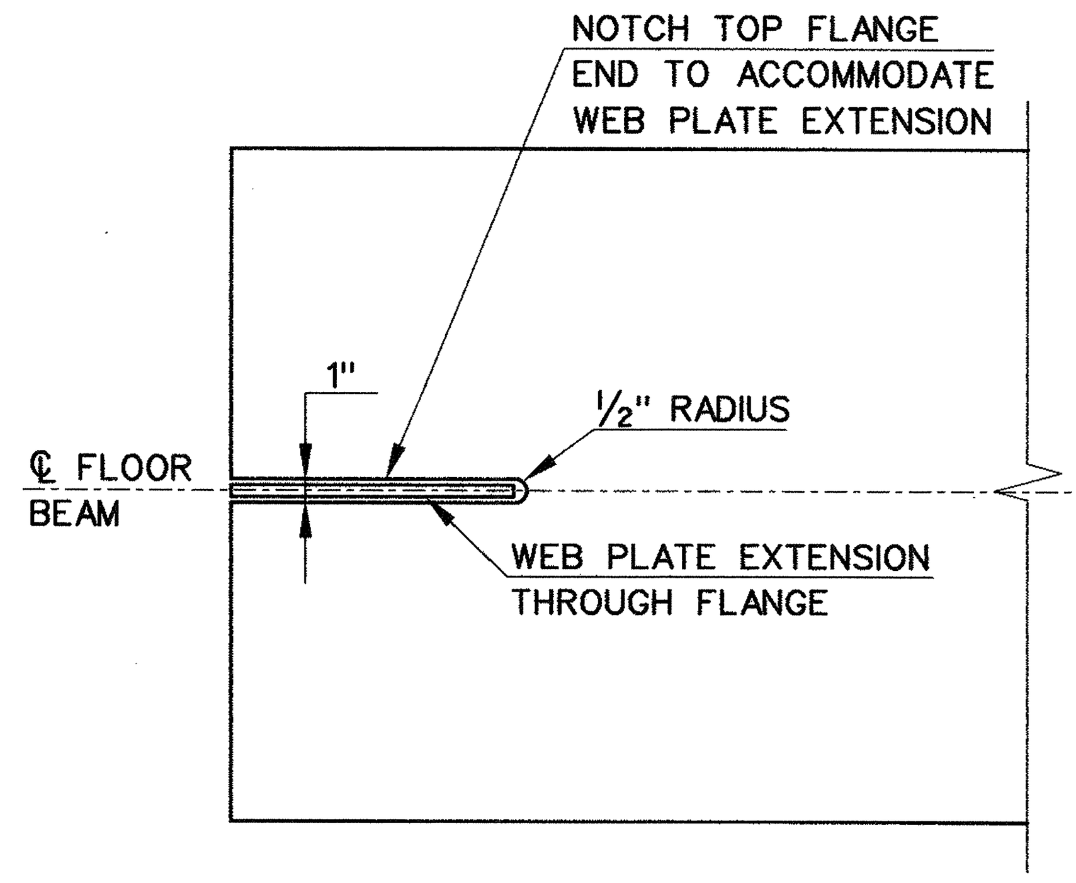
DEAD LOAD DEFLECTIONS AT STRINGER LOCATIONS (FEET)										
FLOOR BEAM	LOADING	A	B	C	D	E	F	G	H	J
FB 1 FB 7	STRUCTURAL STEEL DEAD LOAD	0.000	0.004	0.011	0.015	0.016	0.015	0.011	0.004	0.000
	ADDITIONAL DEAD LOAD	0.000	0.021	0.054	0.072	0.074	0.072	0.055	0.021	0.000
	COMPOSITE DEAD LOADS	0.000	0.011	0.029	0.038	0.039	0.038	0.029	0.011	0.000
	TOTAL DEAD LOAD CAMBER	0.000	0.037	0.095	0.125	0.129	0.125	0.095	0.037	0.000
	TOTAL CAMBER	0.000	0.037	0.095	0.125	0.129	0.125	0.095	0.037	0.000
FB 2 FB 6	STRUCTURAL STEEL DEAD LOAD	0.000	0.004	0.011	0.014	0.015	0.014	0.011	0.004	0.000
	ADDITIONAL DEAD LOAD	0.000	0.018	0.047	0.062	0.063	0.062	0.047	0.018	0.000
	COMPOSITE DEAD LOADS	0.000	0.010	0.025	0.032	0.033	0.032	0.025	0.010	0.000
	TOTAL DEAD LOAD CAMBER	0.000	0.032	0.082	0.108	0.111	0.108	0.082	0.032	0.000
	TOTAL CAMBER	0.000	0.032	0.082	0.108	0.111	0.108	0.082	0.032	0.000
FB 3 FB 5	STRUCTURAL STEEL DEAD LOAD	0.000	0.004	0.011	0.014	0.015	0.014	0.011	0.004	0.000
	ADDITIONAL DEAD LOAD	0.000	0.019	0.049	0.064	0.066	0.065	0.049	0.019	0.000
	COMPOSITE DEAD LOADS	0.000	0.010	0.026	0.034	0.035	0.034	0.026	0.010	0.000
	TOTAL DEAD LOAD CAMBER	0.000	0.033	0.085	0.113	0.116	0.113	0.086	0.033	0.000
	TOTAL CAMBER	0.000	0.033	0.085	0.113	0.116	0.113	0.086	0.033	0.000
FB 4	STRUCTURAL STEEL DEAD LOAD	0.000	0.004	0.011	0.014	0.015	0.014	0.011	0.004	0.000
	ADDITIONAL DEAD LOAD	0.000	0.019	0.048	0.064	0.065	0.064	0.048	0.019	0.000
	COMPOSITE DEAD LOADS	0.000	0.010	0.003	0.033	0.034	0.033	0.025	0.010	0.000
	TOTAL DEAD LOAD CAMBER	0.000	0.033	0.062	0.111	0.115	0.111	0.084	0.033	0.000
	TOTAL CAMBER	0.000	0.033	0.062	0.111	0.115	0.111	0.084	0.033	0.000

STRUCTURAL STEEL DEAD LOAD INCLUDES : FLOOR BEAM, FLOOR BEAM STIFFENERS, BEARINGS AND FILL PLATES, STEEL STRINGERS AND STRINGER DIAPHRAGMS.
ADDITIONAL DEAD LOAD INCLUDES : REMAIN-IN-PLACE FORMS, CONCRETE SLAB AND HAUNCH, INSPECTION PLATFORMS, AND UTILITIES.
COMPOSITE DEAD LOAD INCLUDES : SIDEWALK, PARAPETS, FUTURE BITUMINOUS WEARING SURFACE AND FENCING.

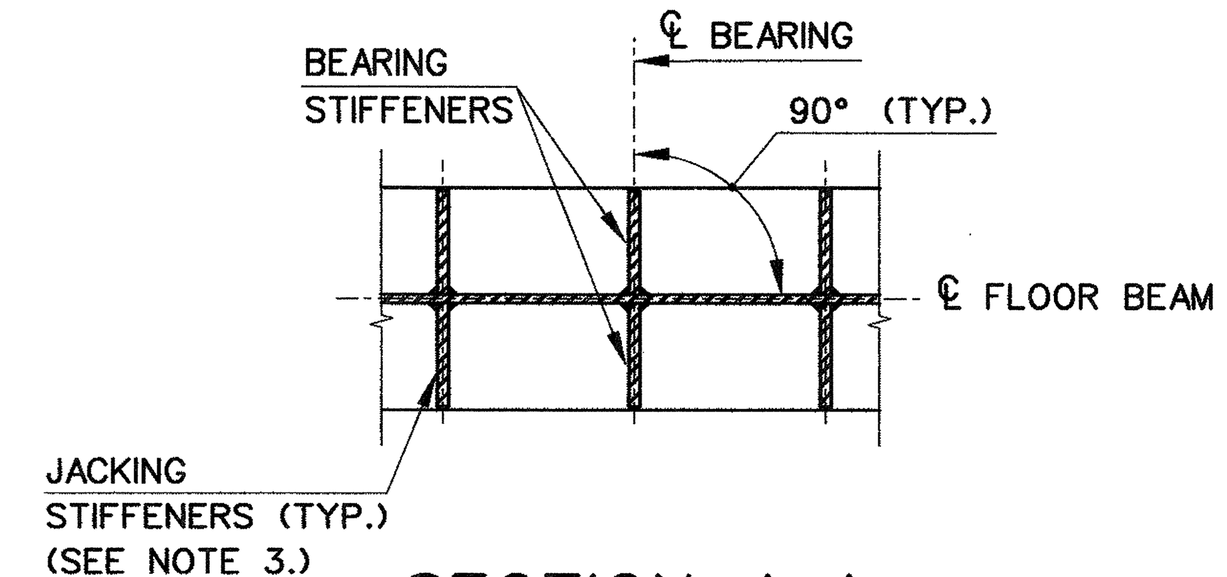


CAMBER DIAGRAM
(N.T.S.)

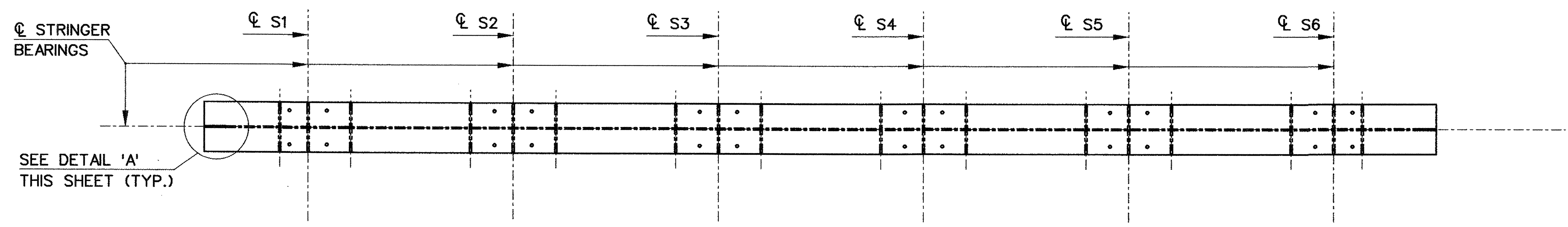
NOTE:
CAMBERS ARE RELATIVE TO FLOOR BEAM SUPPORTS AND DO NOT ACCOUNT FOR DEFLECTIONS OF SUPPORTING MEMBERS.



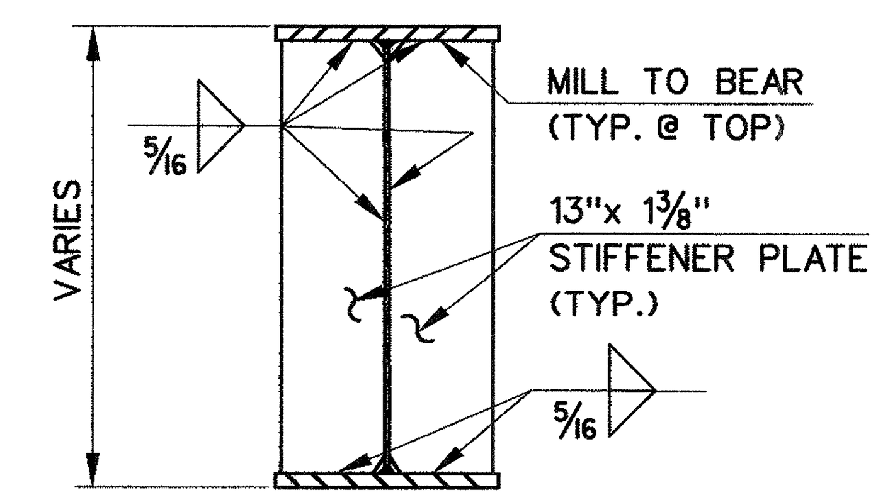
DETAIL "A"
SCALE: 1½" = 1'-0"



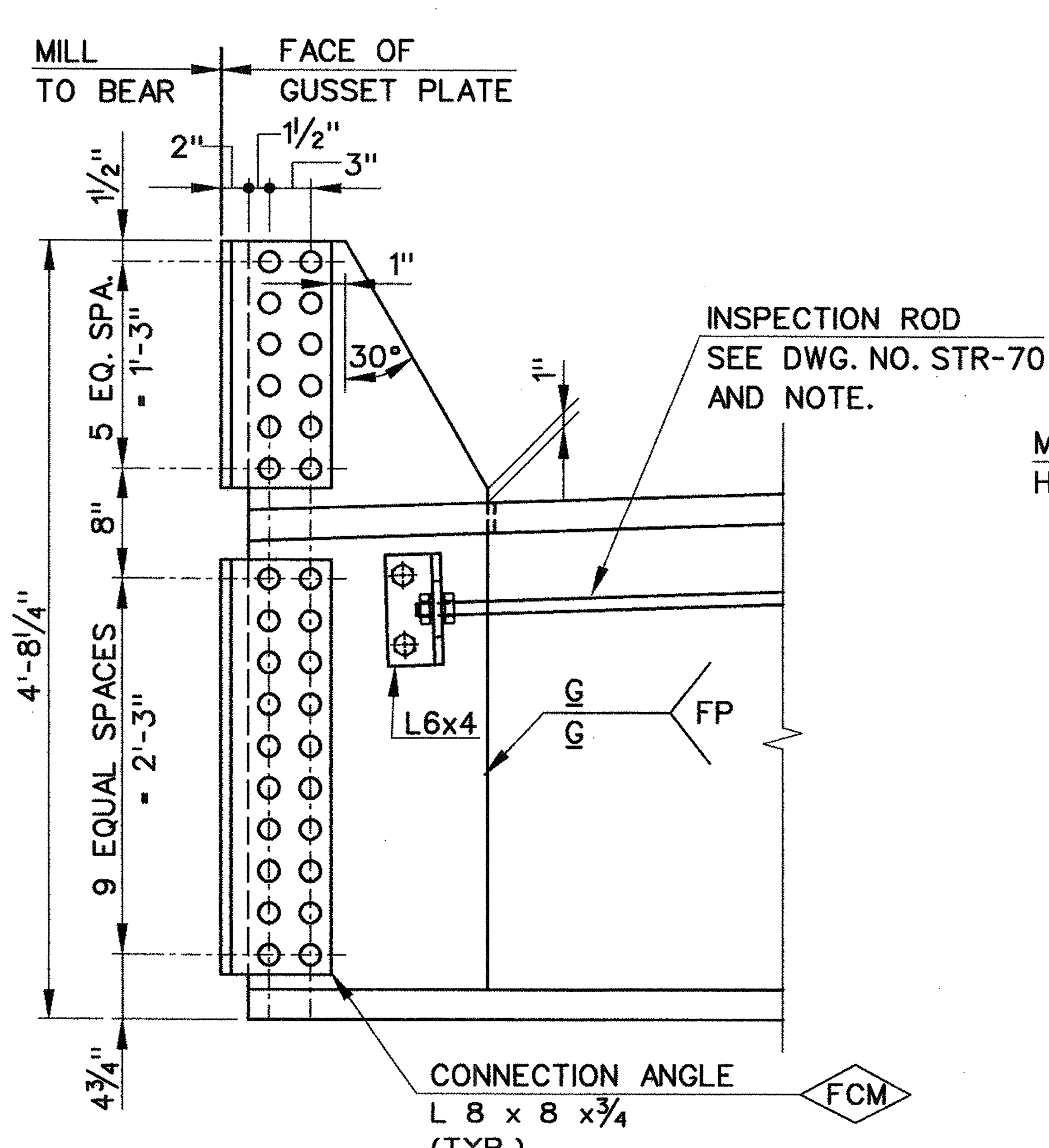
SECTION A-A
SCALE: ½"=1'-0"



FLOOR BEAM TOP VIEW - FB 1 TO FB 7
SCALE : ¼" = 1'-0"

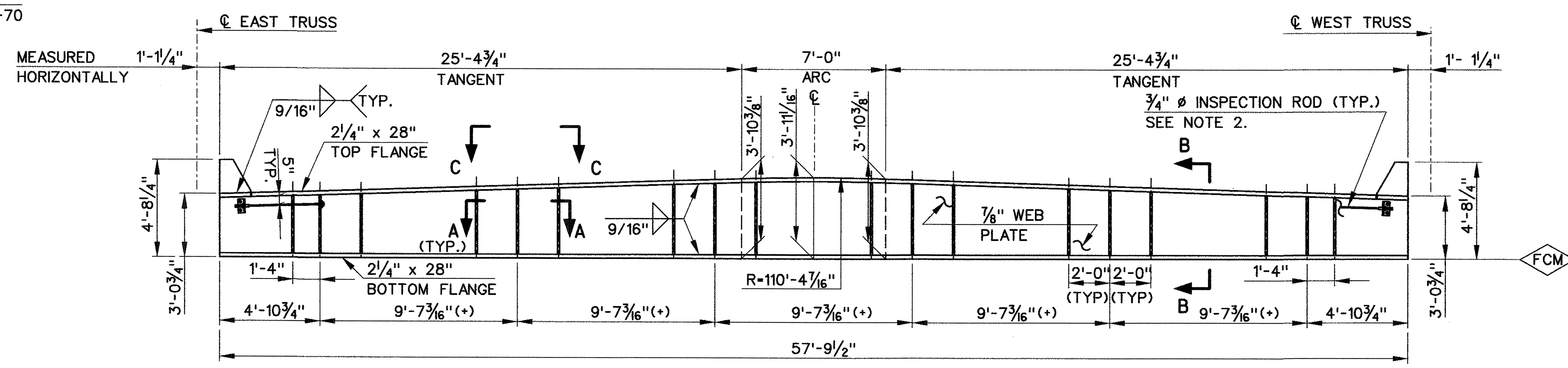


SECTION B-B
SCALE: ½"=1'-0"

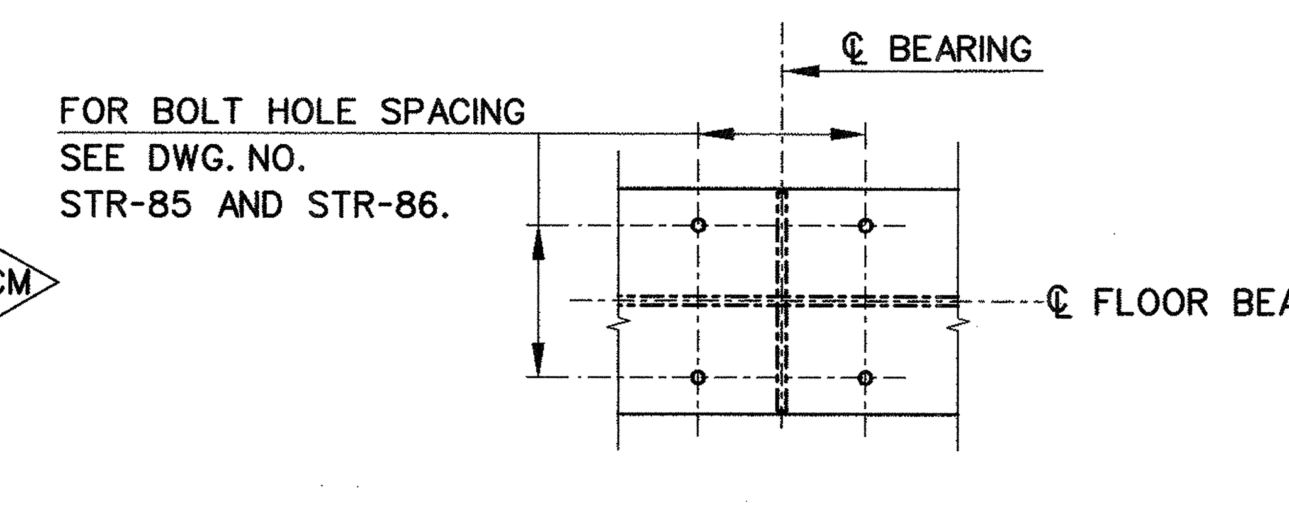


END BOLTING DETAIL
SCALE: 1"=1'-0"

NOTE:
ANCHORAGE OF INSPECTION ROD AT L6x4 AS SHOWN ON STR-70, ANCHORAGE AT BEARING STIFFENER SIMILAR.



FLOOR BEAM ELEVATION - FB 1 TO FB 7
SCALE : ¼" = 1'-0"



VIEW C-C
SCALE: ½"=1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. YOUNG
DRAFTER: A. KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 3-7-00

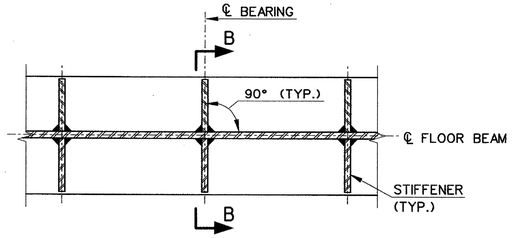
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S080.DGN
PLOTTED DATE: 3-08-00

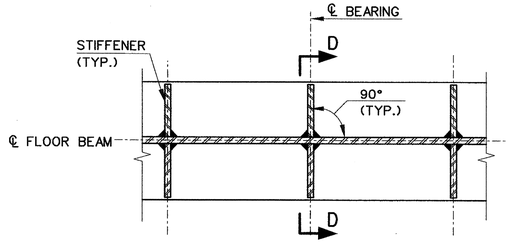
TOWN: NEW HAVEN
DRAWING TITLE: FLOOR BEAM SCHEDULE & DETAILS - SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-76
SHEET NO.: 210

11:18:04
08 MAR 2000
h:\dgn\pb\8703\churchst\r\structure\r703s080.dgn



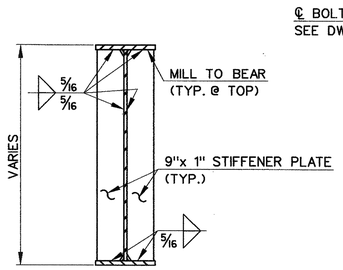
SECTION A-A
SCALE: 1"=1'-0"



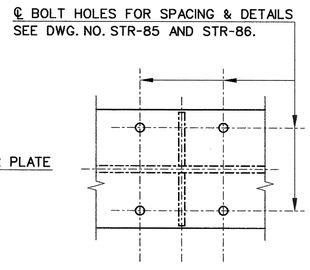
SECTION C-C
SCALE: 1"=1'-0"

DEAD LOAD DEFLECTIONS AT STRINGER LOCATIONS (FEET)										
FLOOR BEAM	LOADING	A	B	C	D	E	F	G	H	J
FB 0 & FB 8	STRUCTURAL STEEL DEAD LOAD	0.000	0.001	0.002	0.003	0.003	0.003	0.002	0.001	0.000
	ADDITIONAL DEAD LOAD	0.000	0.002	0.004	0.006	0.006	0.006	0.004	0.002	0.000
	COMPOSITE DEAD LOAD	0.000	0.001	0.002	0.003	0.003	0.003	0.002	0.001	0.000
	TOTAL DEAD LOAD CAMBER	0.000	0.004	0.008	0.012	0.012	0.012	0.008	0.004	0.000
	TOTAL CAMBER	0.000	0.004	0.008	0.012	0.012	0.012	0.008	0.004	0.000

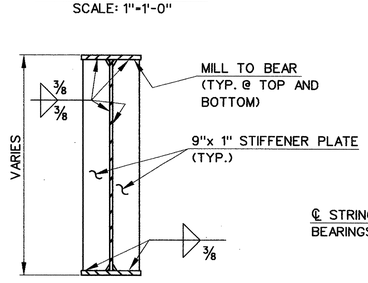
STRUCTURAL STEEL DEAD LOAD INCLUDES : FLOOR BEAM, FLOOR BEAM STIFFENERS, BEARINGS AND FILL PLATES, STEEL STRINGERS AND STRINGER DIAPHRAGMS.
ADDITIONAL DEAD LOAD INCLUDES : REMAIN-IN-PLACE FORMS, CONCRETE SLAB AND HAUNCH AND UTILITIES.
COMPOSITE DEAD LOAD INCLUDES : SIDEWALK, PARAPETS, FUTURE BITUMINOUS WEARING SURFACE AND FENCING.



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

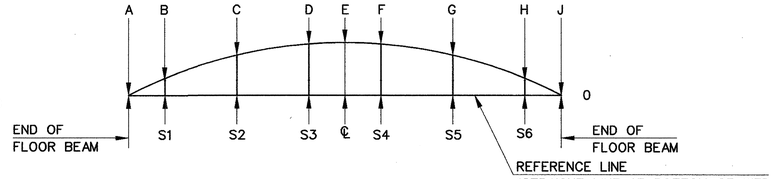


VIEW E-E
SCALE: 1"=1'-0"

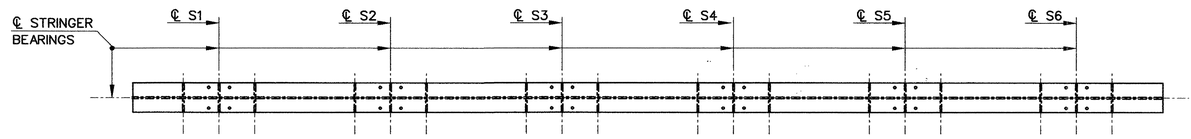


SECTION D-D
SCALE: 1/2"=1'-0"

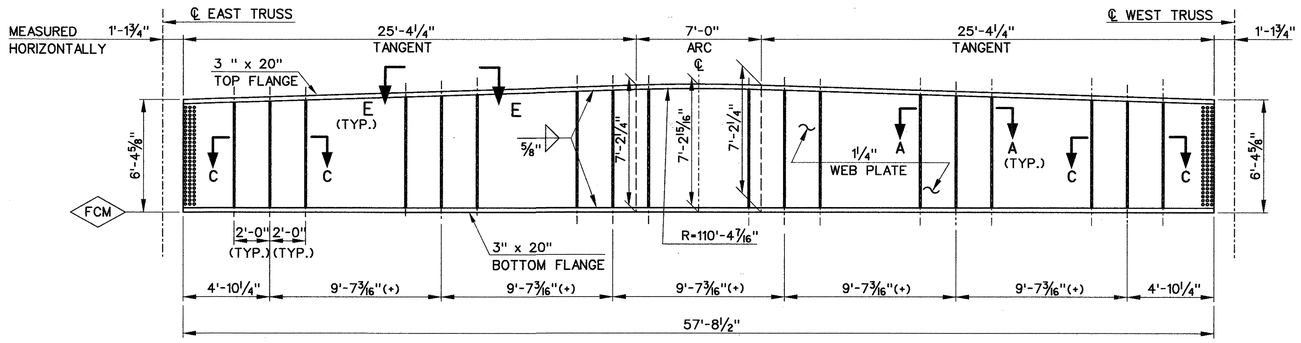
NOTE:
CAMBERS ARE RELATIVE TO FLOOR BEAM SUPPORTS AND DO NOT ACCOUNT FOR DEFLECTIONS OF SUPPORTING MEMBERS.



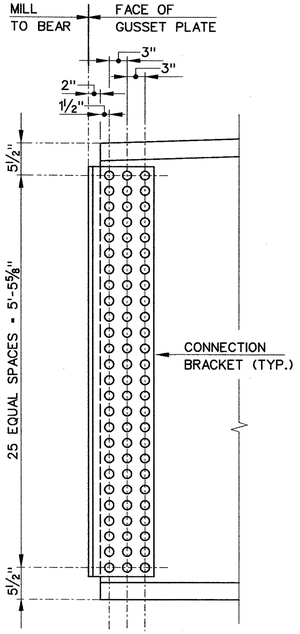
CAMBER DIAGRAM
(N.T.S.)



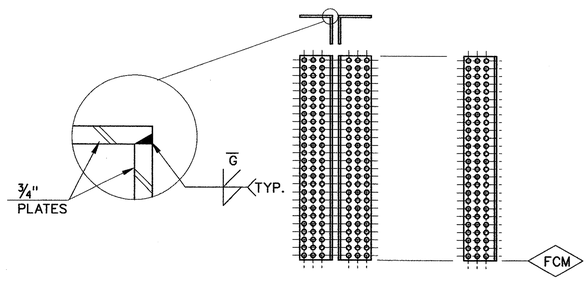
FLOOR BEAM TOP VIEW - FB 0 & FB 8
SCALE: 1/4" = 1'-0"



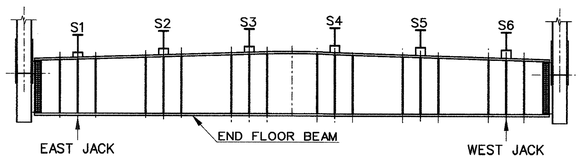
FLOOR BEAM ELEVATION - FB 0 & FB 8
SCALE: 1/4" = 1'-0"



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

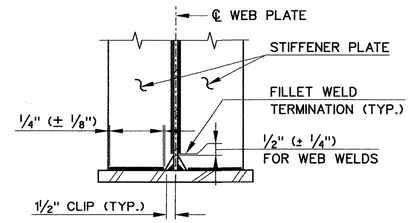


CONNECTION BRACKETS
N.T.S.



FUTURE JACKING SCHEME
(N.T.S.)

JACKING DATA		
SUPPORT LOCATION	MAXIMUM JACK REACTION (SERVICE)	
	DL (KIPS)	LL+I (KIPS)
EAST JACK	1320	270
WEST JACK	1320	270



TERMINATION OF STIFFENER WELDS
(BOTTOM FLANGE SHOWN - TOP FLANGE SIMILIAR)
SCALE 1"=1'-0"

FLOOR BEAM NOTES:
1. SEE DWG. NO. STR-76 FOR FLOOR BEAM NOTES.

FCM INDICATES FRACTURE CRITICAL MEMBER

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. YOUNG
DRAFTER: A. KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 3-7-00

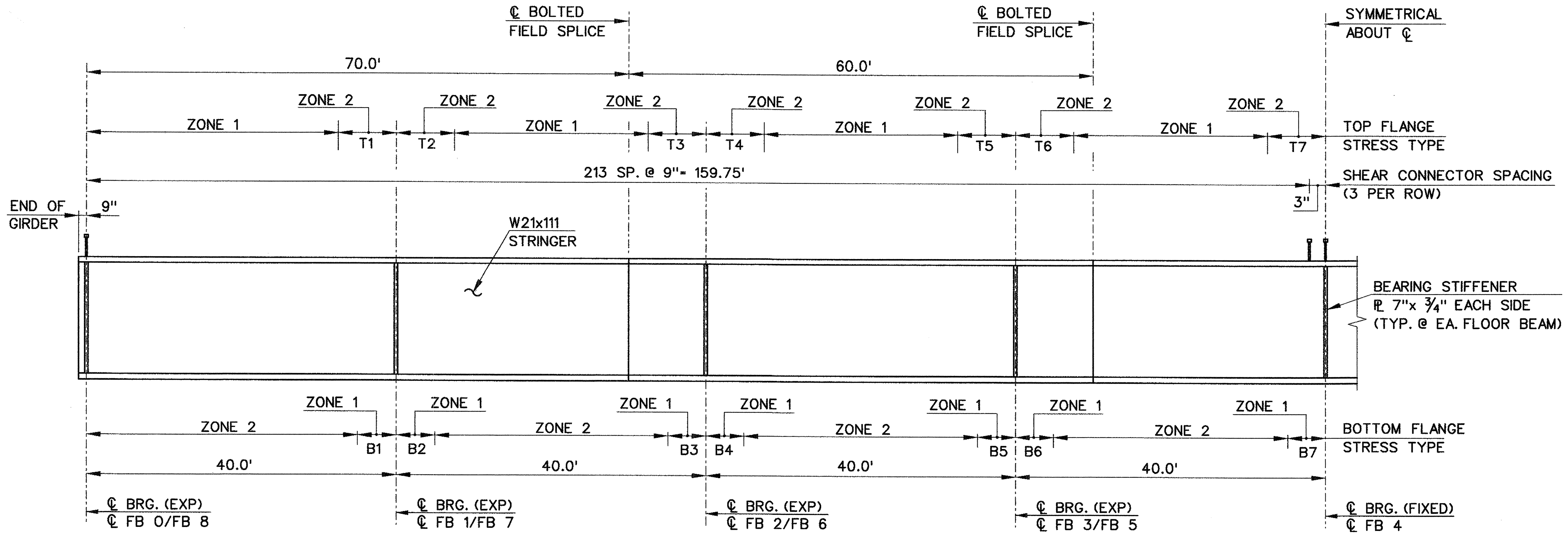
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S081.DGN PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: FLOOR BEAM SCHEDULE & DETAILS - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-77
SHEET NO.: 211

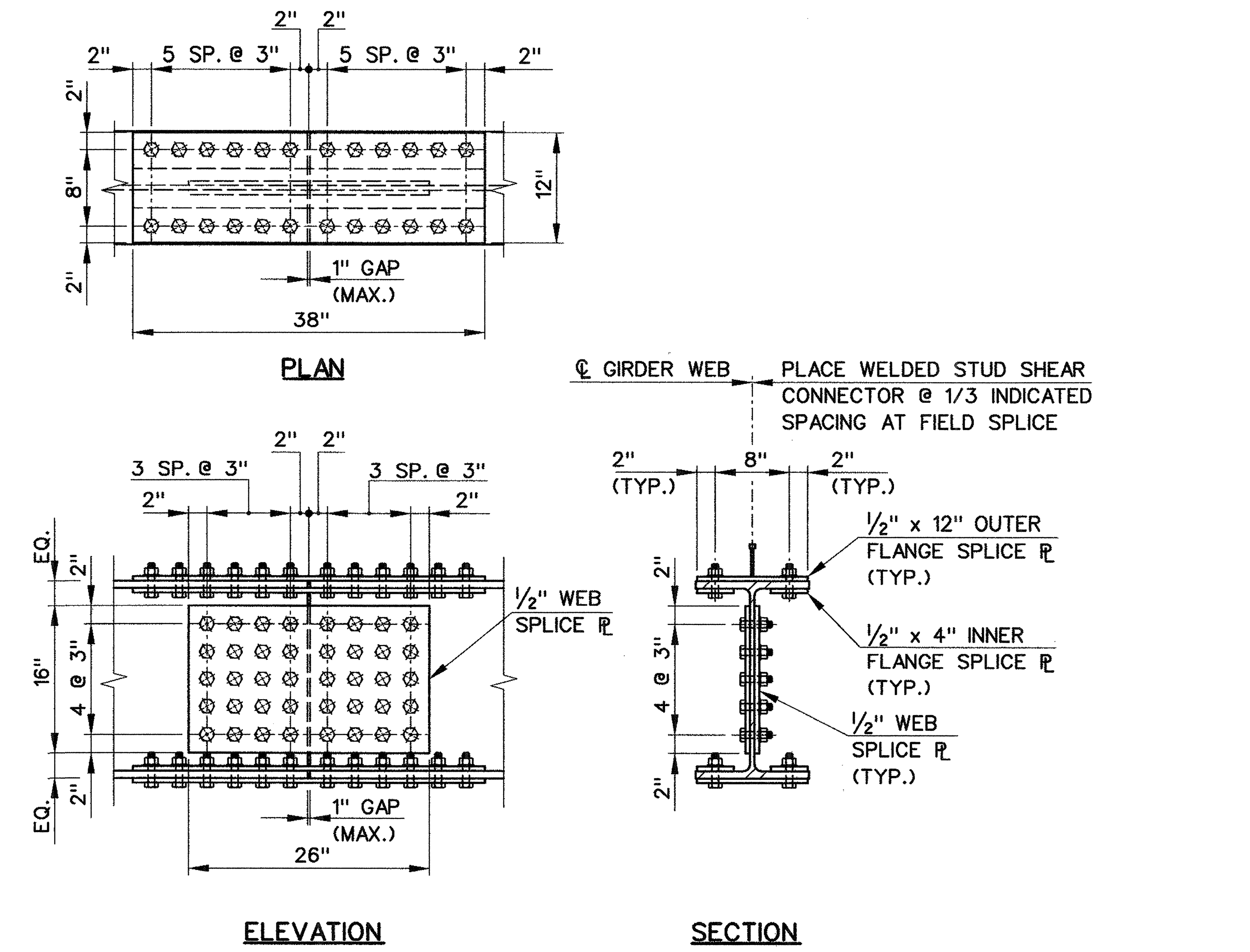
17:28:00
08 MAR 2000
h:\dgn\bbl8703\structures\f\structure\r703s081.dgn



STRESS TYPE
ZONE 1 = COMPRESSION
ZONE 2 - TENSION OR REVERSAL

STRINGER SCHEDULE

NOT TO SCALE

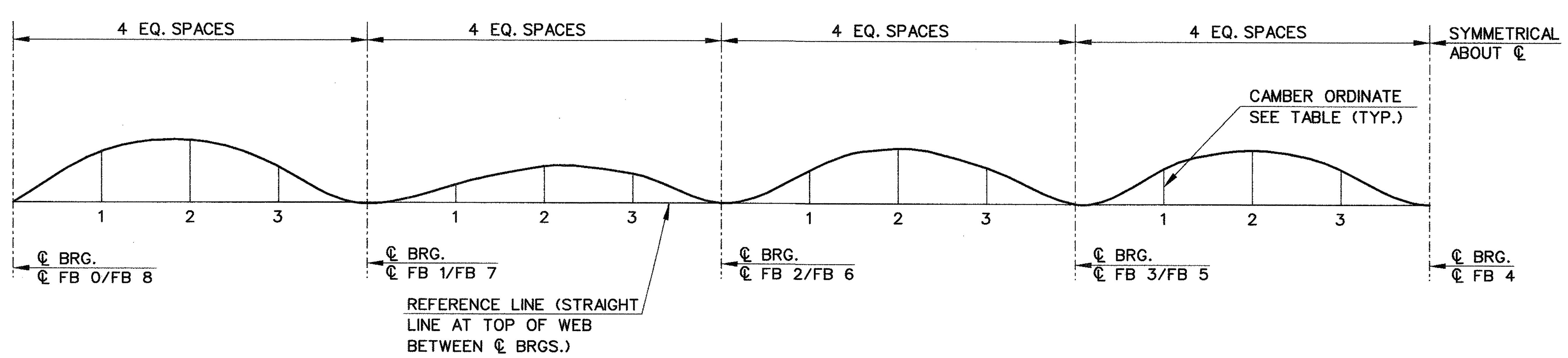


BOLTED FIELD SPLICE DETAIL

NOT TO SCALE

CAMBER ORDINATES (ft)																		
GIRDER		INCREMENT LENGTH SPAN 2	℄ BRG. FB 0	SPAN 1	SPAN 2	SPAN 3	℄ BRG. FB 1	SPAN 1	SPAN 2	SPAN 3	℄ BRG. FB 2	SPAN 1	SPAN 2	SPAN 3	℄ BRG. FB 3	SPAN 1	SPAN 2	SPAN 3	℄ BRG. FB 4
S1 & S6	STEEL DEAD LOAD	10.000	0.000	0.003	0.004	0.002	0.000	0.000	0.001	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.002	0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	0.025	0.032	0.017	0.000	0.002	0.008	0.005	0.000	0.008	0.014	0.008	0.000	0.007	0.013	0.007	0.000
	COMPOSITE DEAD LOAD		0.000	0.007	0.008	0.005	0.000	0.001	0.002	0.001	0.000	0.002	0.004	0.002	0.000	0.002	0.003	0.002	0.000
	TOTAL DEAD LOAD		0.000	0.035	0.044	0.024	0.000	0.003	0.011	0.006	0.000	0.012	0.020	0.011	0.000	0.010	0.017	0.010	0.000
	VERT. CURVE ORD.		0.000	0.000	0.000	0.000	0.000	0.005	0.010	0.009	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000
	TOTAL		0.000	0.035	0.044	0.024	0.000	0.008	0.021	0.016	0.000	0.025	0.037	0.024	0.000	0.022	0.035	0.023	0.000
S2-S3	STEEL DEAD LOAD	10.000	0.000	0.003	0.004	0.002	0.000	0.000	0.001	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.002	0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	0.029	0.036	0.020	0.000	0.003	0.009	0.005	0.000	0.010	0.016	0.009	0.000	0.008	0.014	0.008	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.008	0.004	0.000	0.001	0.002	0.001	0.000	0.002	0.003	0.002	0.000	0.002	0.003	0.002	0.000
	TOTAL DEAD LOAD		0.000	0.039	0.048	0.026	0.000	0.004	0.012	0.007	0.000	0.013	0.021	0.012	0.000	0.011	0.019	0.011	0.000
	VERT. CURVE ORD.		0.000	0.000	0.000	0.000	0.000	0.005	0.010	0.009	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000
	TOTAL		0.000	0.039	0.048	0.026	0.000	0.009	0.022	0.016	0.000	0.026	0.039	0.025	0.000	0.023	0.036	0.024	0.000
S4 & S5	STEEL DEAD LOAD	10.000	0.000	0.003	0.004	0.002	0.000	0.000	0.001	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.002	0.001	0.000
	ADDITIONAL DEAD LOAD		0.000	0.032	0.039	0.022	0.000	0.003	0.010	0.006	0.000	0.011	0.018	0.010	0.000	0.009	0.016	0.009	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.008	0.004	0.000	0.001	0.002	0.001	0.000	0.002	0.003	0.002	0.000	0.002	0.003	0.002	0.000
	TOTAL DEAD LOAD		0.000	0.041	0.051	0.028	0.000	0.004	0.013	0.007	0.000	0.014	0.023	0.013	0.000	0.011	0.020	0.012	0.000
	VERT. CURVE ORD.		0.000	0.000	0.000	0.000	0.000	0.005	0.010	0.009	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000
	TOTAL		0.000	0.041	0.051	0.028	0.000	0.009	0.023	0.017	0.000	0.027	0.040	0.026	0.000	0.024	0.038	0.024	0.000

NOTES: CAMBERS ARE RELATIVE TO STRINGER SUPPORTS AND DO NOT ACCOUNT FOR DEFLECTIONS OF SUPPORTING MEMBERS.



CAMBER DIAGRAM - SEGMENT 2

NOT TO SCALE

BOLTED FIELD SPLICE NOTES:

1. FOR LOCATION OF FIELD SPLICES, SEE STRINGER SCHEDULE.
2. ALL BOLTS SHALL BE 7/8" DIAMETER ASTM A325.
3. ALL FIELD SPLICES SHALL BE "SLIP CRITICAL" CONNECTIONS WITH CLASS 'C' SURFACE CONDITIONS.
4. ALL FASTENERS SHALL HAVE ONE HEAVY HEX NUT AND ONE HARDENED WASHER UNDER THE TURNED ELEMENT.
5. ALL BOLT HOLES SHALL BE DRILLED OR PUNCHED TO A FINISHED DIAMETER OF 15/16".
6. ALL SPLICE AND FILLER PLATES SHALL CONFORM TO ASTM A709 (GRADE 50) (GALV.) AND SHALL BE FREE FROM BURRS, NICKS, AND GOUCHES.
7. BOLT HEADS SHALL FACE DOWNWARD ON FLANGE SPLICES AND SHALL FACE OUTWARD ON FACIA GIRDER WEB SPLICES.

STRESS ZONE DIMENSIONS (FEET)														
MARK	T1	T2	T3	T4	T5	T6	T7	B1	B2	B3	B4	B5	B6	B7
S1 & S6	9.383	11.979	9.522	9.293	9.483	9.543	9.476	6.003	6.551	5.201	4.963	5.441	5.497	5.342
S2 & S3	9.313	11.900	9.449	9.211	9.415	9.473	9.407	6.006	6.521	5.221	4.989	5.457	5.513	5.363
S4 & S5	9.289	11.876	9.429	9.177	9.391	9.455	9.382	6.090	6.642	5.321	5.084	5.555	5.610	5.458

NOTES:

1. ALL LENGTH DIMENSIONS ARE HORIZONTAL AND MEASURED ALONG THE ℄ OF THE STRINGER WEB.
2. NO ATTACHMENT SHALL BE FILLET WELDED, PLUG WELDED OR TACK WELDED TO THE TENSION OR REVERSAL FLANGES (ZONE 2).
3. FOR STRUCTURAL STEEL NOTES, SEE DWG. NO. STR-47.
4. FOR BEARING STIFFENERS AND CONNECTION PLATE DETAILS, SEE DWG. NO. STR-57.
5. FOR SHEAR CONNECTOR DETAILS, SEE DWG. NO. STR-57.
6. STEEL DEAD LOAD INCLUDES STRINGERS AND DIAPHRAGMS.
7. ADDITIONAL DEAD LOAD INCLUDES CONCRETE DECK SLAB, HAUNCHES, UTILITIES AND REMAIN-IN-PLACE FORMS.
8. COMPOSITE DEAD LOAD INCLUDES PARAPETS, SIDEWALKS, RAILINGS AND FUTURE BITUMINOUS CONCRETE OVERLAY.
9. TOTAL DEAD LOAD INCLUDES STEEL DEAD LOAD, ADDITIONAL DEAD LOAD AND COMPOSITE DEAD LOAD.
10. TOTAL CAMBER APPLIES TO TOP OF WEB.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN / R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Monti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S082.DGN PLOTTED DATE: 2-29-00

TOWN: NEW HAVEN

DRAWING TITLE: STRINGER SCHEDULE AND DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-78
SHEET NO.: 212

17:01:54
08 MAR 2000
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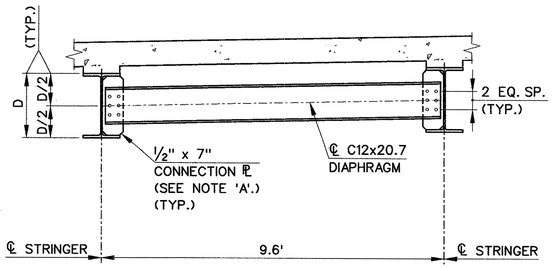
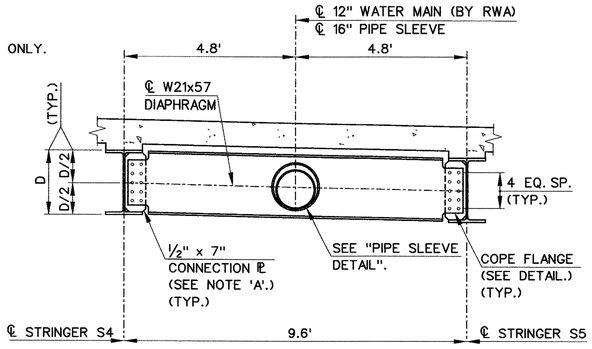
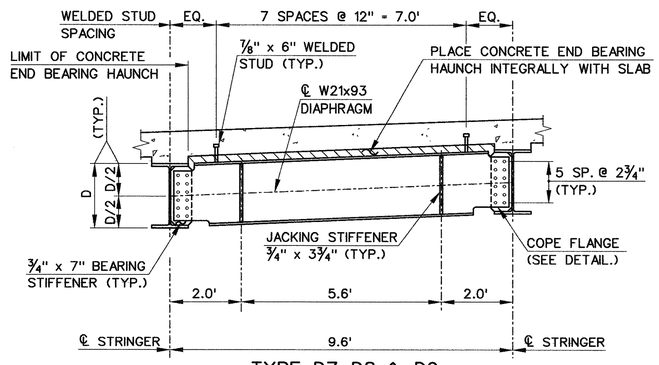
NOTE 'A':
USE ¾" x 7" BEARING STIFFENER AT FB 4 ONLY.



TYPE D1



TYPE D2



TYPE D7, D8 & D9

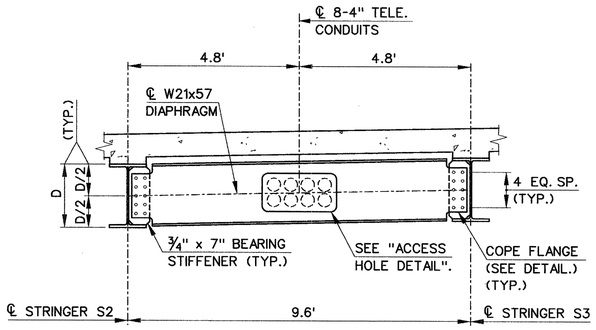
FOR PIPE SLEEVE LOCATION @ TYPE D8, SEE TYPE D2.
FOR ACCESS HOLE LOCATION @ TYPE D9, SEE TYPE D3.

BOLT NOTE

ALL BOLTS SHALL BE ⅞" DIAMETER AND SHALL CONFORM TO ASTM A325. BOLT HOLES IN THE DIAPHRAGM SHALL BE 15/16" DIAMETER. BOLT HOLE IN STRINGER CONNECTION ℄ SHALL BE 1 1/16" DIAMETER

END DIAPHRAGMS

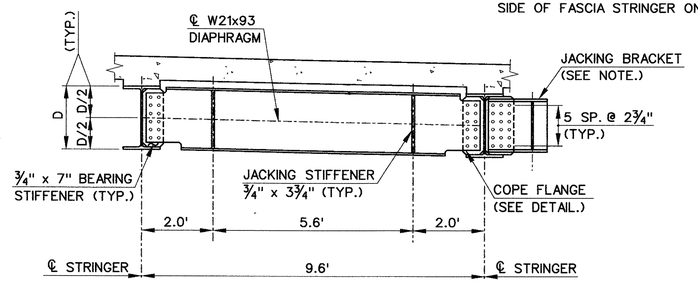
SCALE: ½"=1'-0"



TYPE D3

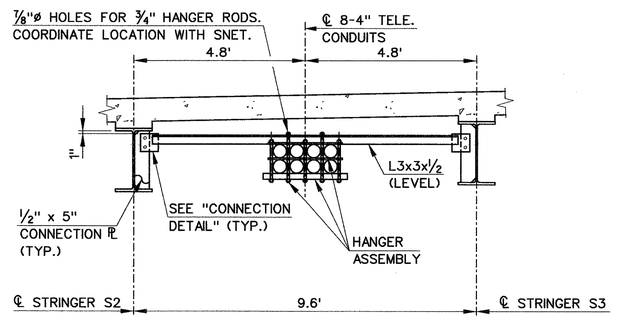
JACKING BRACKET NOTE:

JACKING BRACKET REQUIRED ON FASCIA SIDE OF FASCIA STRINGER ONLY.



TYPE D4, D5 & D6

FOR PIPE SLEEVE LOCATION @ TYPE D5, SEE TYPE D2.
FOR ACCESS HOLE LOCATION @ TYPE D6, SEE TYPE D3.



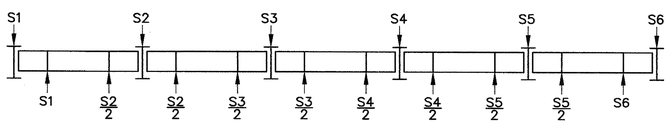
AT TELEPHONE CONDUIT

INTERMEDIATE DIAPHRAGMS

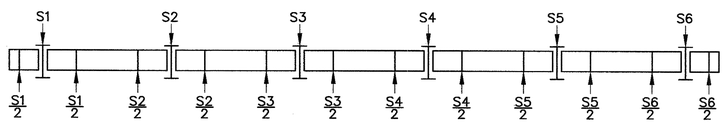
SCALE: ½"=1'-0"

UTILITY SUPPORT

SCALE: ½"=1'-0"



AT FB 0 & FB 8

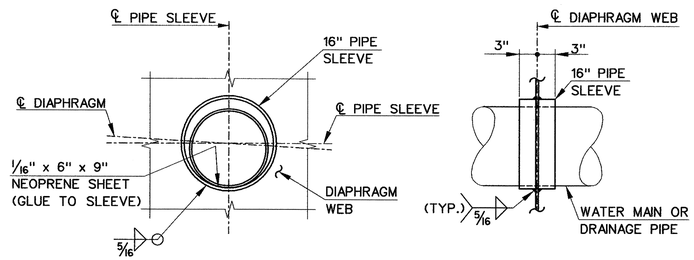


AT FB 1 TO FB 3 & FB 5 TO FB 7

FUTURE JACKING SCHEME

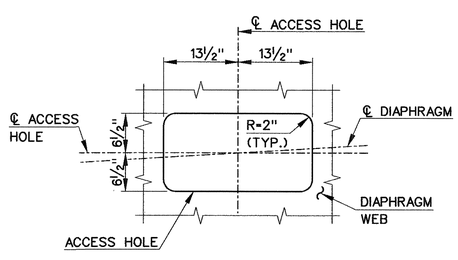
NOT TO SCALE

NOTE: FOR MAXIMUM VERTICAL LOADS, SEE "BEARING DATA" ON DWG. NO. STR-86.



PIPE SLEEVE DETAIL

SCALE: 1"=1'-0"



ELEVATION

ACCESS HOLE DETAIL

SCALE: 1"=1'-0"

NOTES:

1. FOR CONNECTION ℄, BEARING STIFFENER AND JACKING STIFFENER DETAILS, SEE DWG NO. STR-80.
2. FOR FLANGE COPING DETAILS, SEE DWG. NO. STR-80.
3. FOR "CONNECTION DETAILS", SEE DWG. NO. STR. 80.
4. FOR JACKING BRACKET DETAILS, SEE DWG. NO. STR-80.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: R. WOLFF
CHECKED BY: T.YOUNG
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S083.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: STRINGER DETAILS - SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-79
SHEET NO.: 213

$TIME$
$DATE$
$FILE$


CONNECTION PL (TYP.)
5/16
CONNECTION PLATE
SCALE: 1/2"=1'-0"
3/4" x 7" BEARING STIFFENER (TYP.)
PLATES TO BE VERTICAL (TYP.)
5/16 (TYP.)
MILL TO BEAR (TYP. @ BOTTOM)
BEARING STIFFENER
SCALE: 1/2"=1'-0"
W21x93 DIAPHRAGM
JACKING STIFFENER 3/4" x 3 3/4" (TYP.)
FITTED (TYP.)
PLATES TO BE VERTICAL (TYP.)
5/16 (TYP.)
MILL TO BEAR (TYP. @ BOTTOM)
JACKING STIFFENER
SCALE: 1/2"=1'-0"
END FILLET WELD 1/2" (±1/4") FROM CLIPPED CORNER (TYP.)
END FILLET WELD 1/4" (±1/8") FROM CLIPPED CORNER OR EDGE OF PLATE (TYP.)
1/2"
CLIP CORNER (TYP.)
1/2"
WELD TERMINATION DETAIL
SCALE: 3"=1'-0"
(NOTE: BEARING STIFFENER SHOWN, CONNECTION PL AND JACKING STIFFENER SIMILAR)
1" CLEAR (TYP.)
CONNECTION PL OR BEARING STIFFENER
DIAPHRAGM
EQ.
EQ.
R=1" (TYP.)
STRINGER (TYP.)
@ TYPE D2
NOTE 'A': PROVIDE CLEARANCE FOR ANCHOR BOLT.
1" CLEAR
CONNECTION PL OR BEARING STIFFENER
DIAPHRAGM
1" (MIN.)
SEE NOTE 'A'
R=1" (TYP.)
6" CLEAR
STRINGER (TYP.)
@ TYPE D2 & D3
(FOR TYPE D2, DETAIL APPLIES AT FB 4 ONLY)
1" CLEAR
BEARING STIFFENER
DIAPHRAGM
EQ.
EQ.
R=1" (TYP.)
6" CLEAR
STRINGER (TYP.)
@ TYPE D4 TO D9
FLANGE COPING DETAILS
SCALE: 1/2"=1'-0"
2" 2 EQ. SPCS. 2"
SPACING VARIES (SEE "STRINGER ELEVATION".)
A A
CL STRINGER
PLAN
7/8"ø WELDED STUD SHEAR CONNECTOR (TYP.)
2" MIN.
8 1/4"
2" MIN.
SECTION A-A
WELDED STUD SHEAR CONNECTOR DETAIL
SCALE: 1"=1'-0"
3" MIN.
1/2"
1" @ LOWER STRINGER
L3x3x1/2 (LEVEL)
7/8" A325 BOLT (TYP.)
5/16
1/2" x 5" CONNECTION PL
CONNECTION DETAIL
SCALE: 1/2"=1'-0"
1/2"
2 SP. @ 2.75" = 5.5"
1"
1/2"
1" FILL PL
A
CL BRACKET
D
D/2
D/2
5 SP. @ 2.75" = 13.75"
3 EQ. SPACES
A
BEARING STIFFENER
3 1/2"
3 1/2"
CL FASCIA STRINGER
1'-4"
5"
ELEVATION
NOTE: INTERMEDIATE DIAPHRAGM NOT SHOWN FOR CLARITY.
3/4" x 3 1/4" JACKING STIFFENER (TYP.)
STRINGER
MC18x42.7 (TYP.)
VIEW A-A
JACKING BRACKET DETAIL
SCALE: 1/2"=1'-0"
INTERIOR SIDE OF WEB
FASCIA SIDE OF WEB
1" (TYP.)
3/4" x 7" BEARING STIFFENER
5/8 TYP.
CL FASCIA STRINGER
1" x 9 1/2" BEARING STIFFENER
NOTE: FOR INFORMATION NOT SHOWN, SEE BEARING STIFFENER DETAIL.
JACKING BRACKET BEARING STIFFENER
SCALE: 1/2"=1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: D. BAGDASARIAN
CHECKED BY: T. YOUNG
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

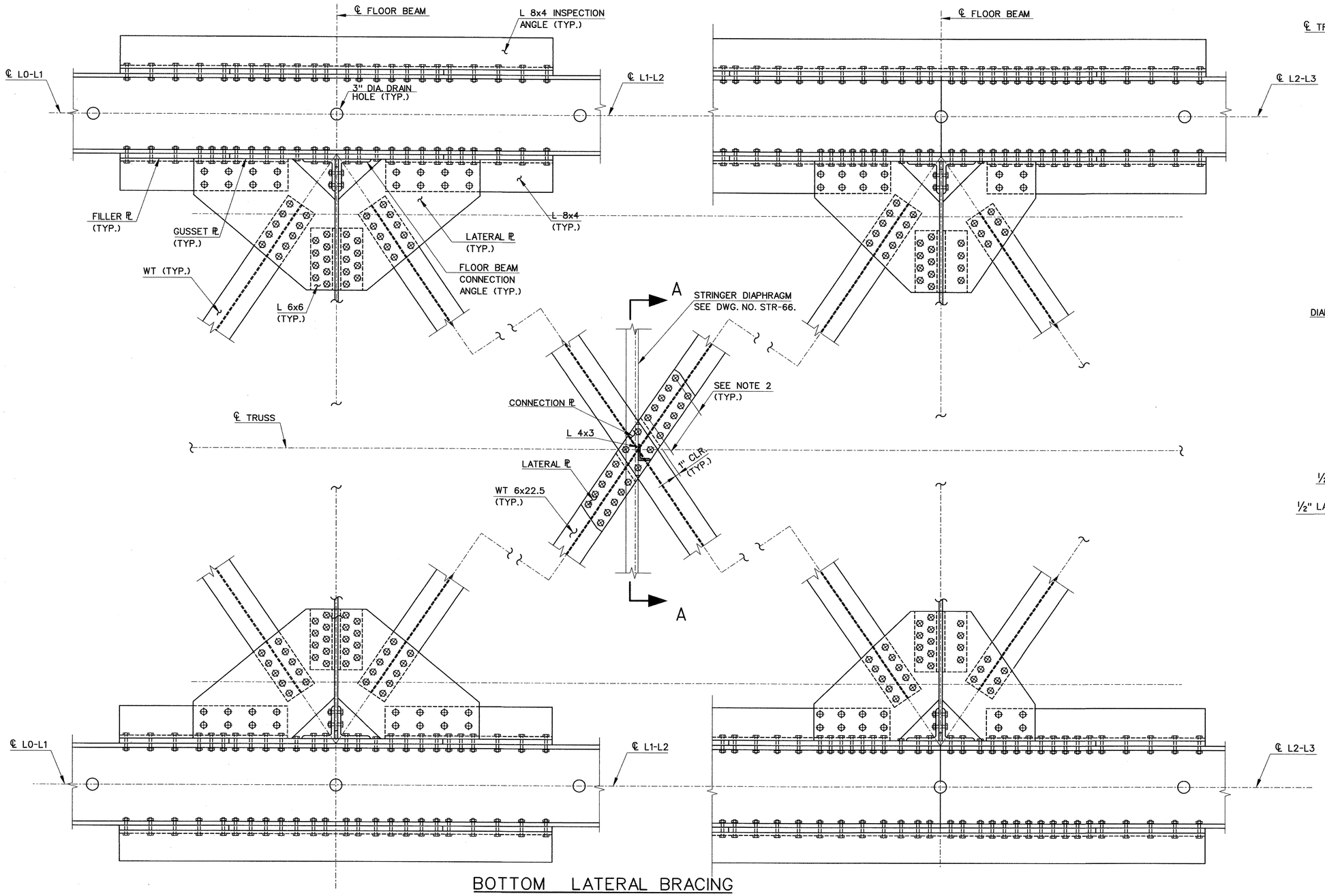
CADD FILE: R703S084.DGN PLOTTED DATE: 2-29-00

TOWN: NEW HAVEN

DRAWING TITLE: STRINGER DETAILS - SHEET 2 OF 2

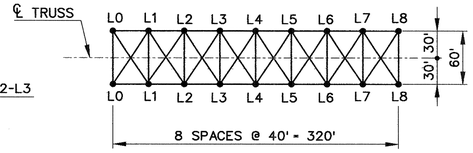
PROJECT NO.: 92-526
DRAWING NO.: STR-80
SHEET NO.: 214

13:11:31
08 MAR 2000
h:\dgn\pb\8703\churchst\r\d\structure\r703s084.dgn



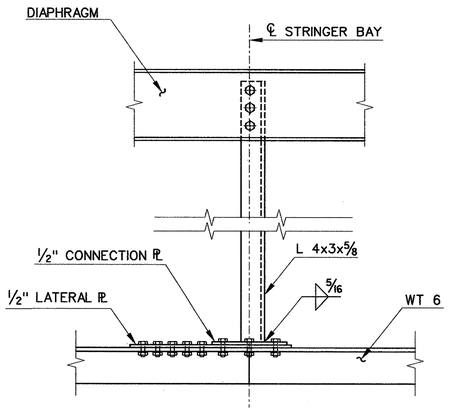
BOTTOM LATERAL BRACING

SCALE 1"= 1'-0"



BOTTOM LATERAL BRACING KEY PLAN

NOT TO SCALE



SECTION A-A

SCALE 1"= 1'-0"

NOTES:

1. DETAILS SHOWN AT PANEL L1-L2, OTHER PANELS SIMILAR.
2. 10 BOLTS AT BAYS L0-L1, L1-L2, L6-L7 & L7-L8.
   5 BOLTS AT BAYS L2-L3, L3-L4, L4-L5 & L5-L6.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: P. BLISS
DRAFTER: D. GEISSERT
CHECKED BY: R. SIMON
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

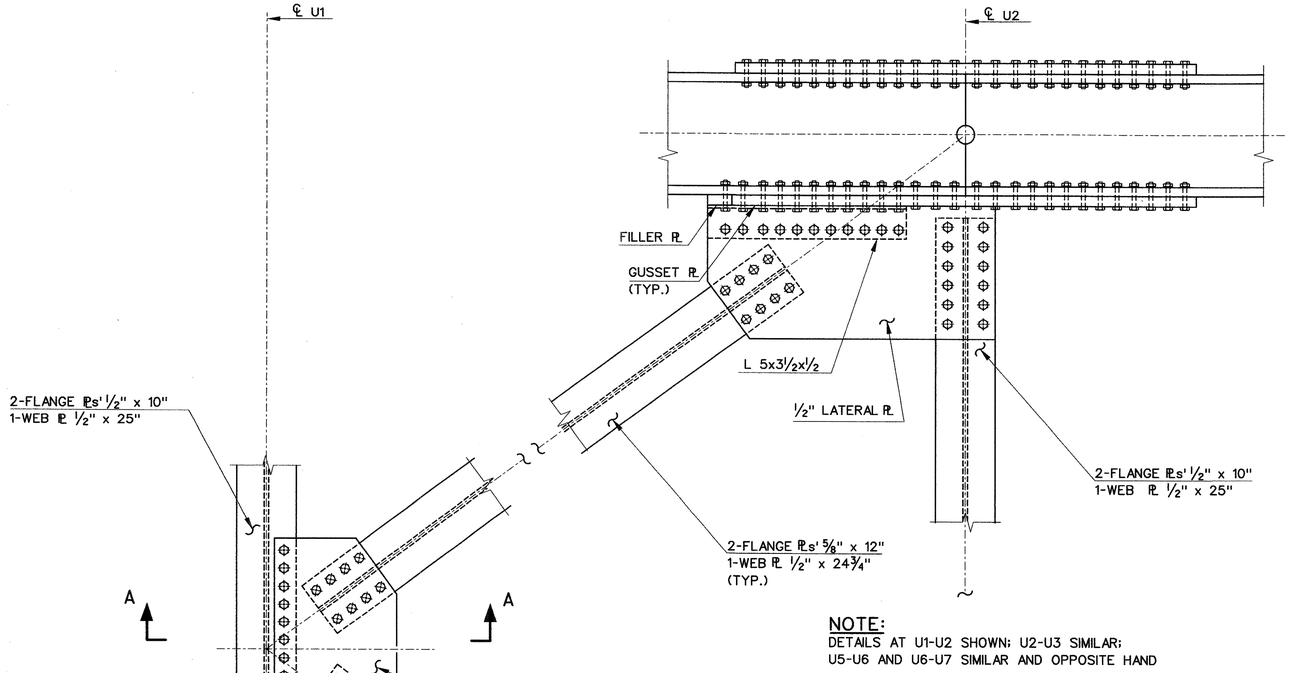
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S086.DGN
PLOTTED DATE: 4-06-00

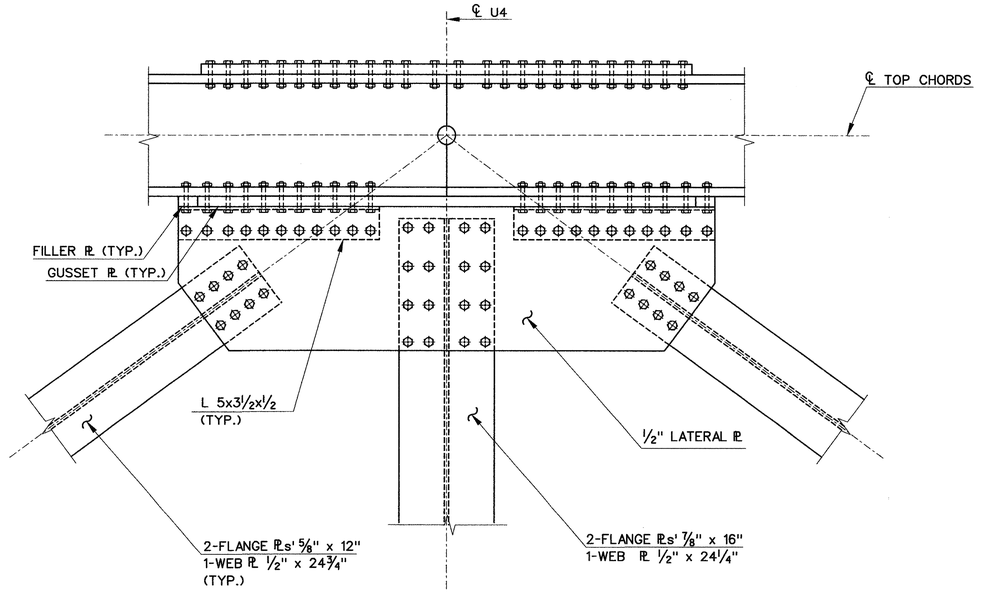
TOWN: NEW HAVEN
DRAWING TITLE: BOTTOM LATERAL BRACING DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-81
SHEET NO.: 215

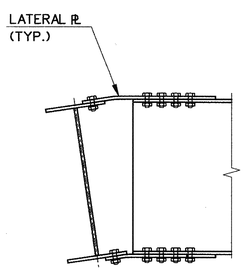
$TIME$
$DATE$
$FILE$



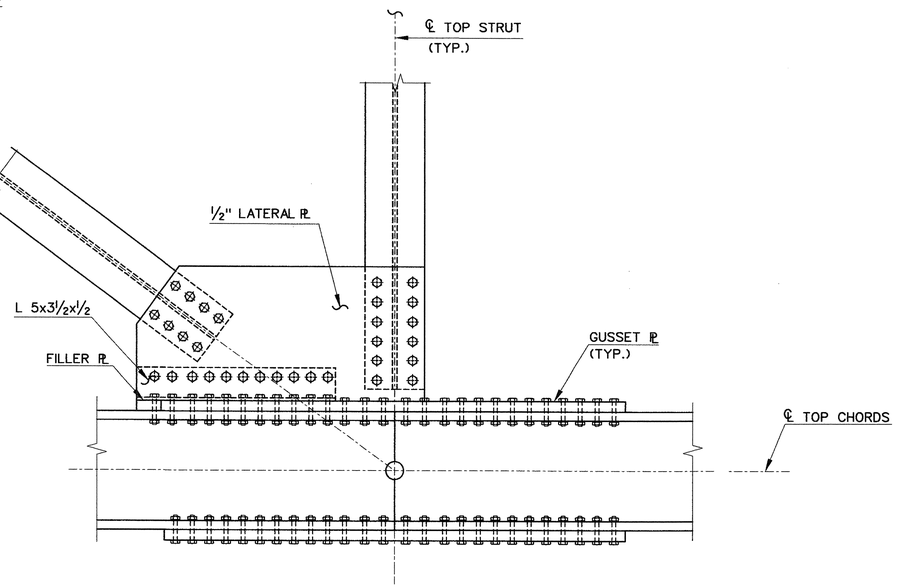
NOTE:
DETAILS AT U1-U2 SHOWN; U2-U3 SIMILAR;
U5-U6 AND U6-U7 SIMILAR AND OPPOSITE HAND



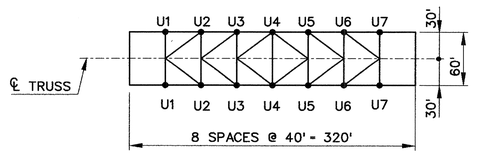
TOP LATERAL BRACING @ U4
SCALE 1"= 1'-0"



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



TOP LATERAL BRACING @ U2 AND U3
(U5 AND U6 SIMILAR AND OPPOSITE HAND)
SCALE 1"= 1'-0"



TOP LATERAL BRACING KEY PLAN
NOT TO SCALE

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. SIMON
DRAFTER: M. OFFENBERG
CHECKED BY: P. BLISS
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Mortti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S087.DGN | PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN
DRAWING TITLE: TOP LATERAL BRACING DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-82
SHEET NO.: 216

12:11:54
07 MAR 2000
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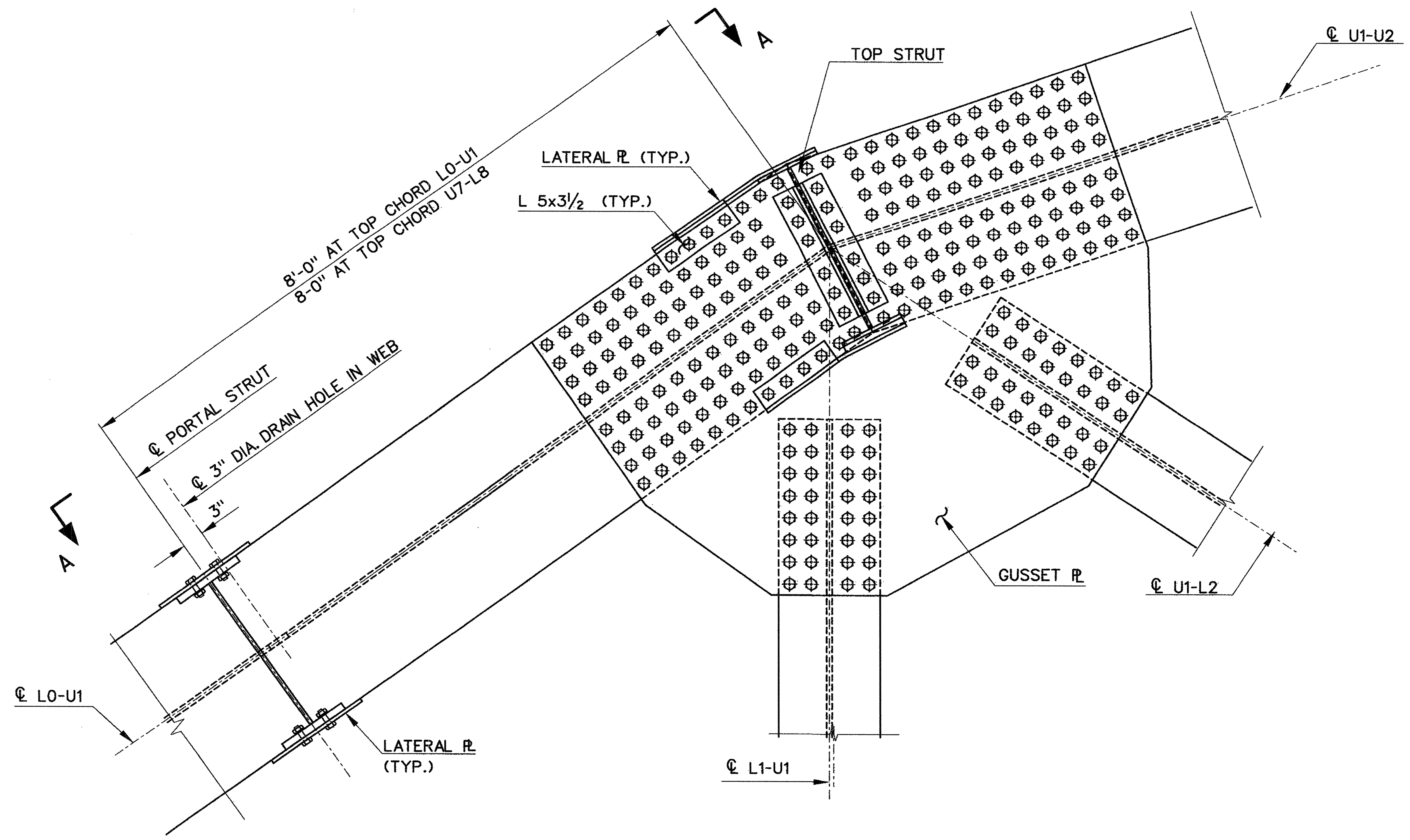
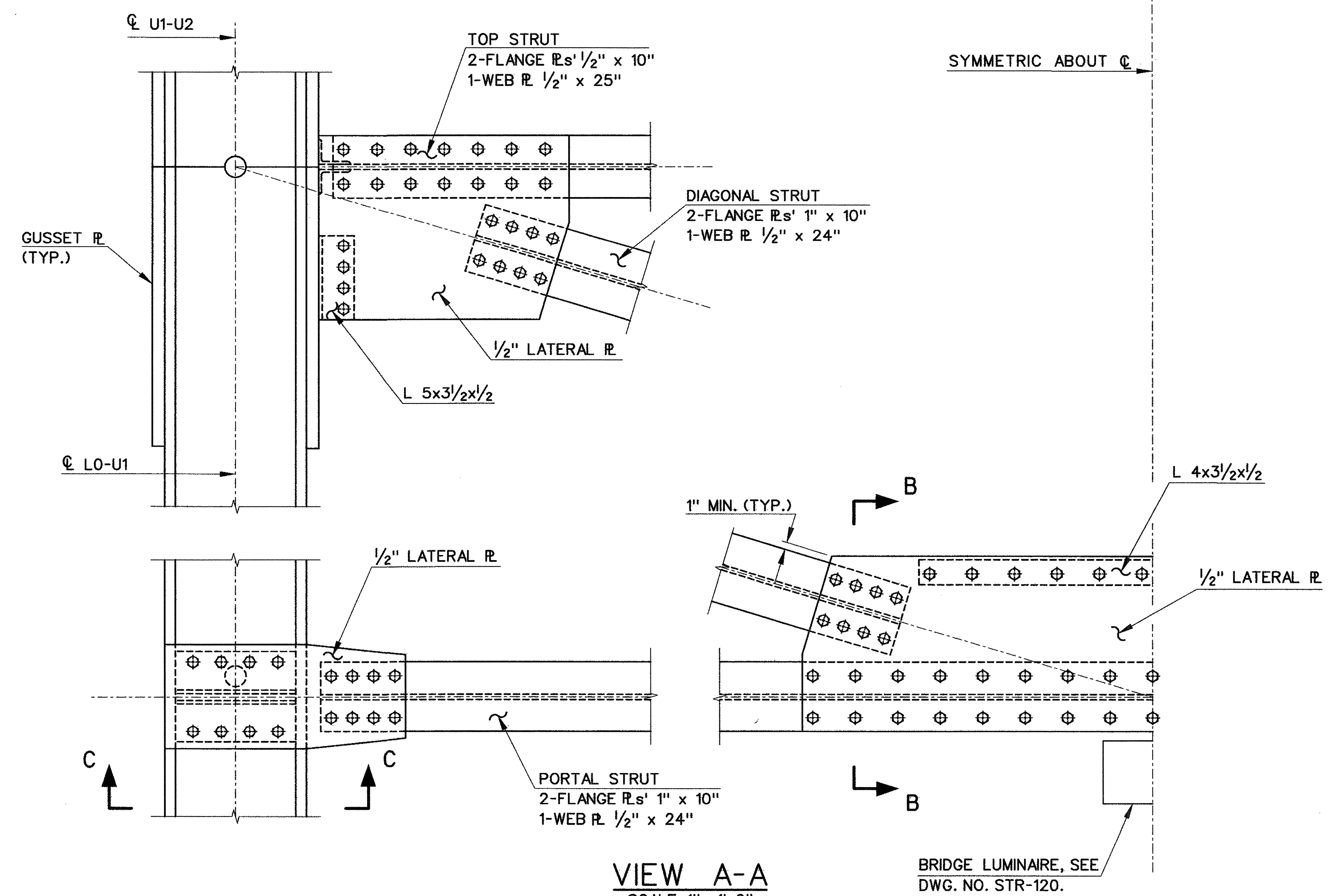
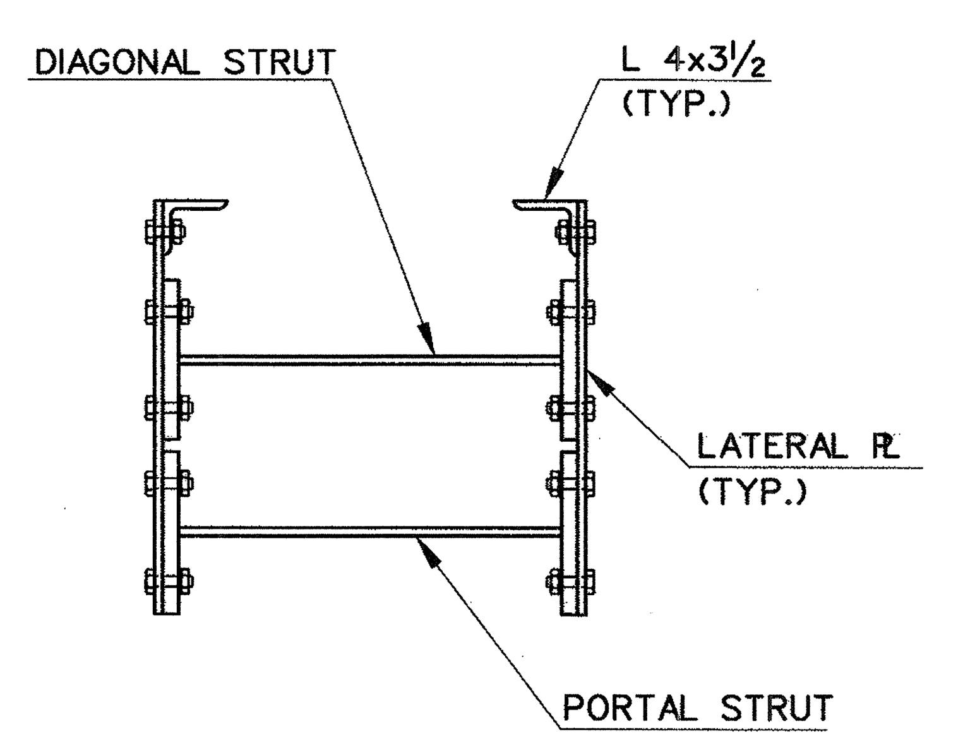


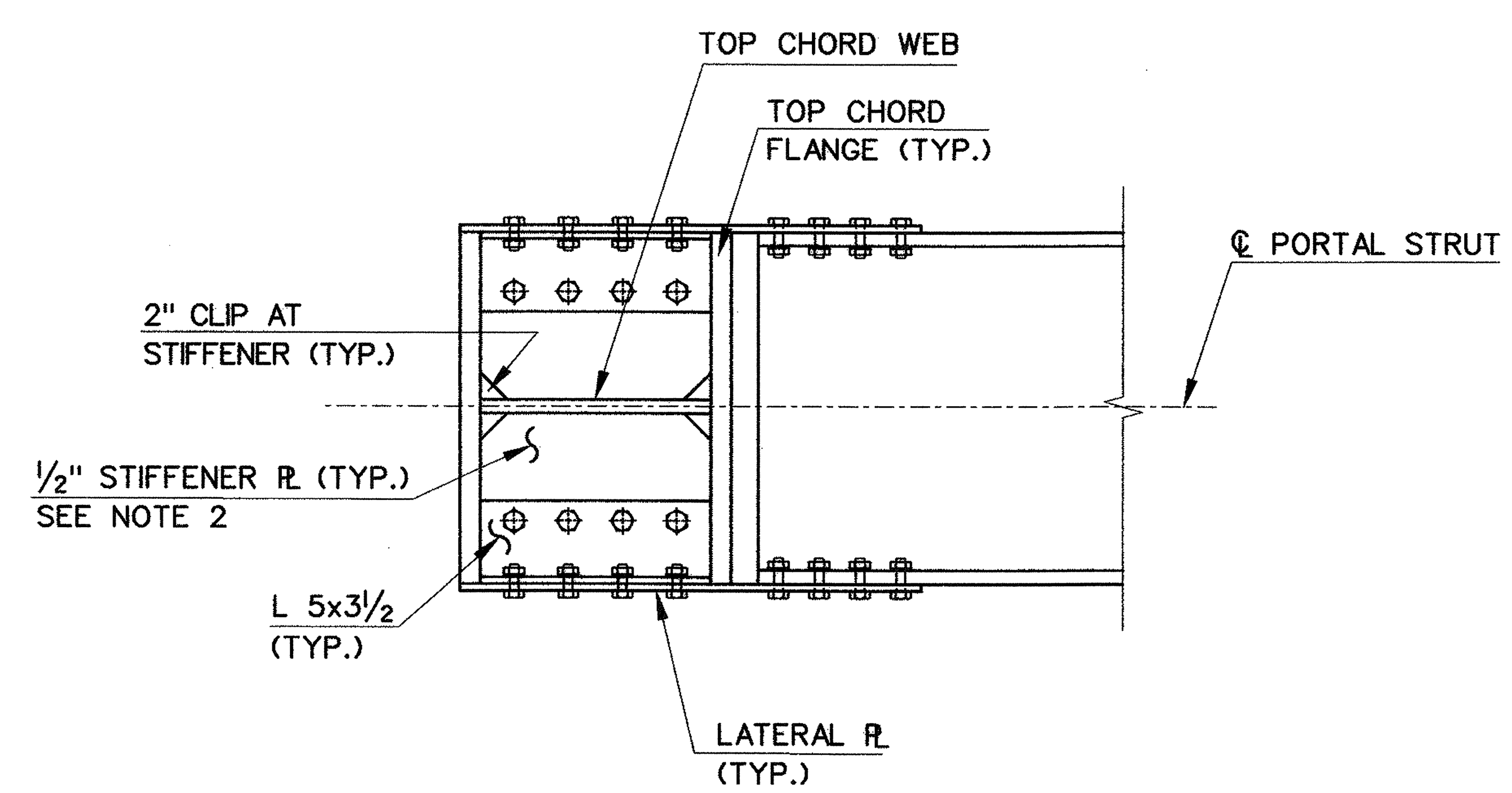
ELEVATION OF JOINT U1
SCALE 1"= 1'-0"



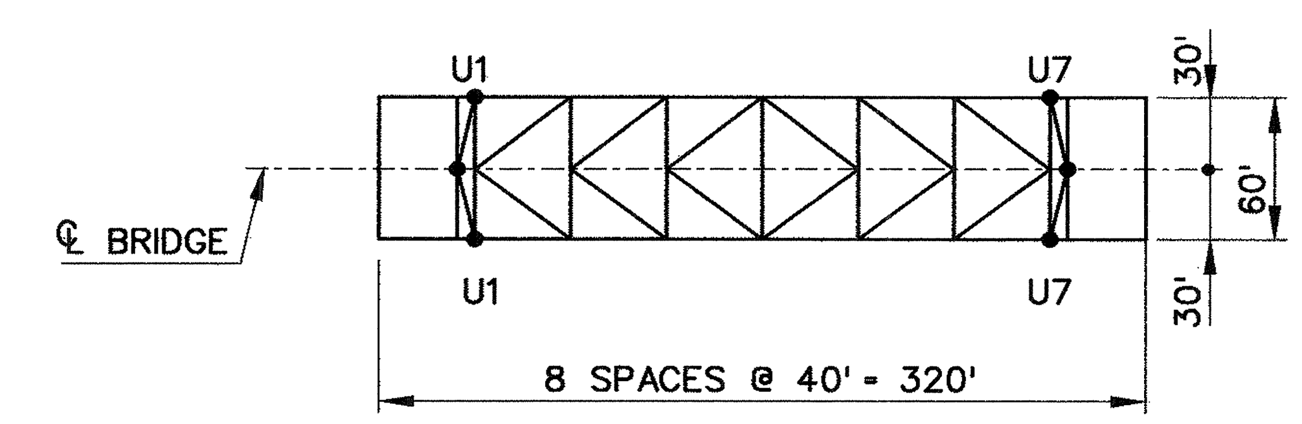
VIEW A-A
SCALE 1"= 1'-0"



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



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



PORTAL BRACING
KEY PLAN
NOT TO SCALE

NOTES:

1. DETAILS AT U1 SHOWN; U7 SIMILAR AND OPPOSITE HAND.
2. CONNECT STIFFENER PLATES TO TOP CHORD WEB WITH 5⁄16" FILLET WELDS ON BOTH SIDES OF STIFFENER PLATES. MILL TO BEAR AT TOP CHORD FLANGES.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: P. BLISS
DRAFTER: M. OFFENBERG
CHECKED BY: R. SIMON
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S085.DGN PLOTTED DATE: 3-07-00

TOWN: NEW HAVEN
DRAWING TITLE: PORTAL SWAY BRACING DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-83
SHEET NO.: 217

12:14:39
08 MAR 2000
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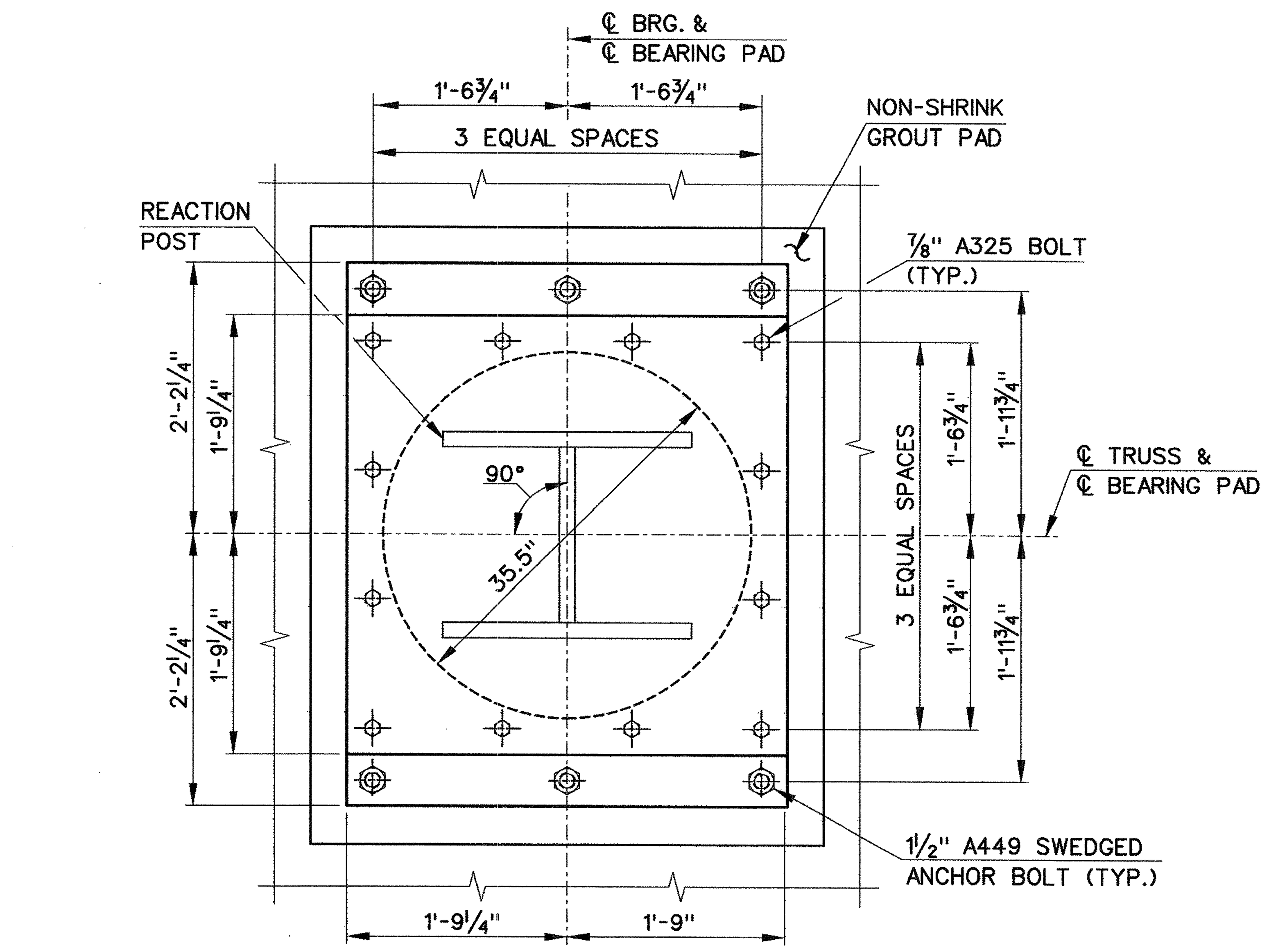
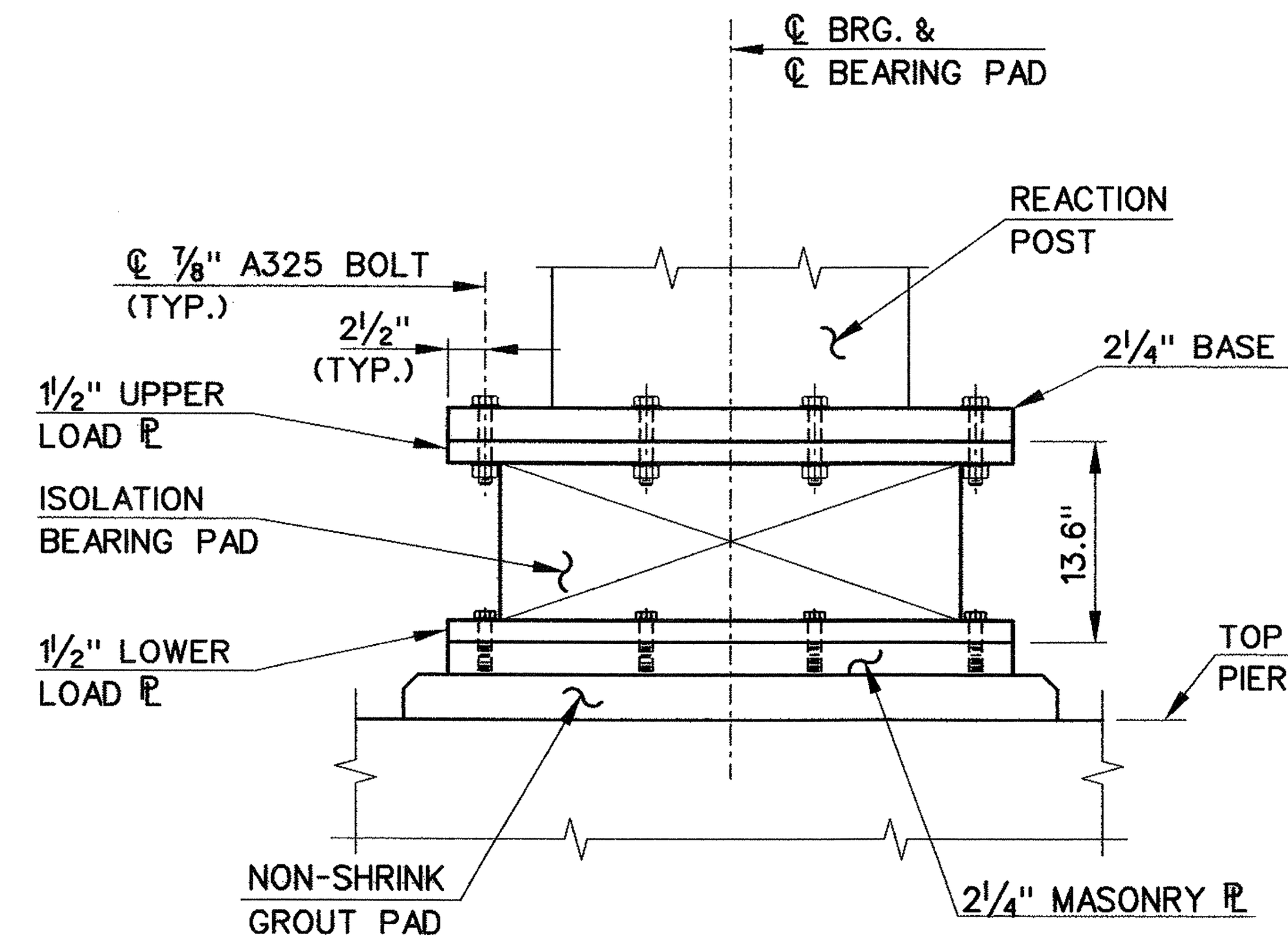
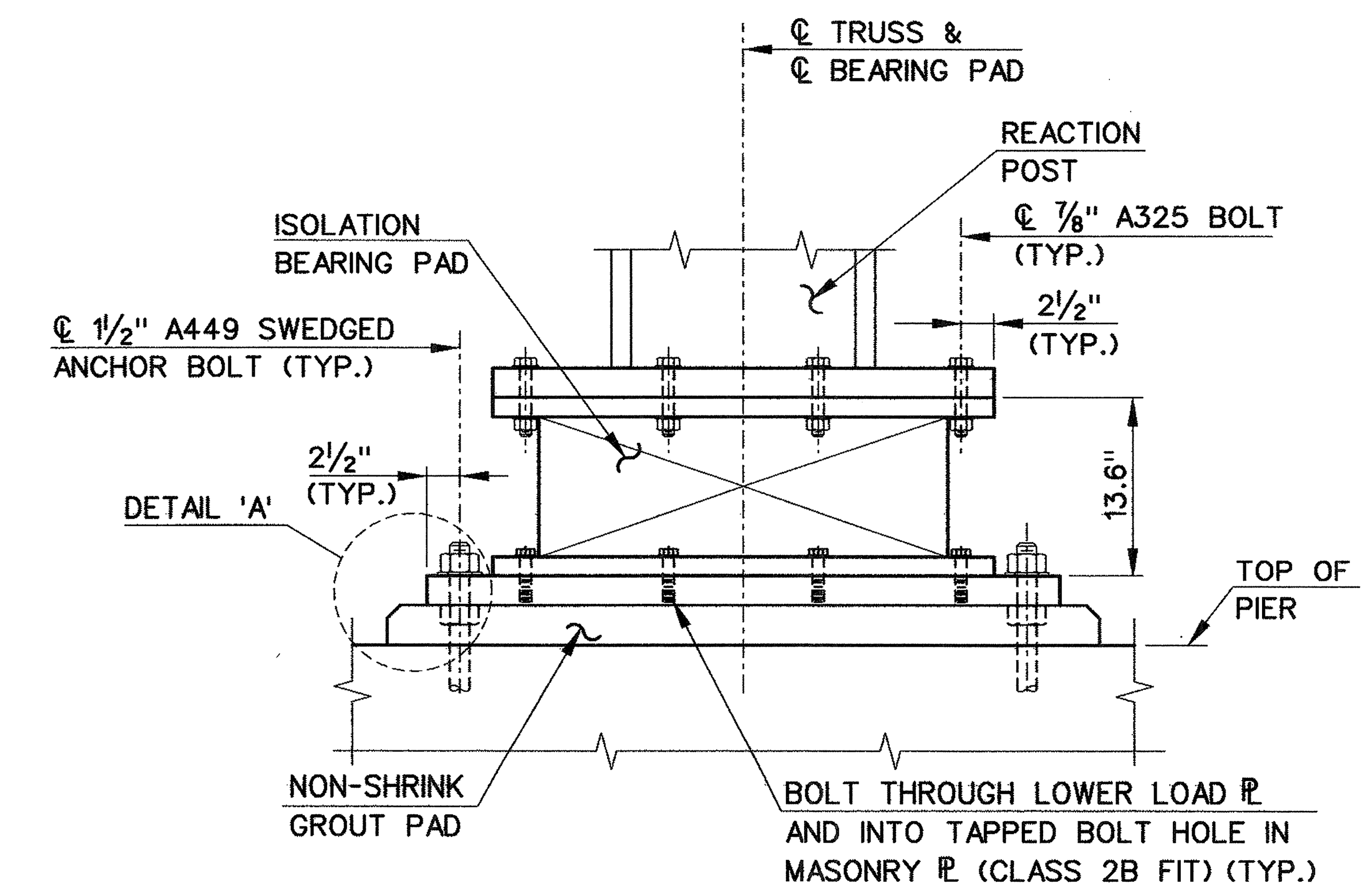


PLAN



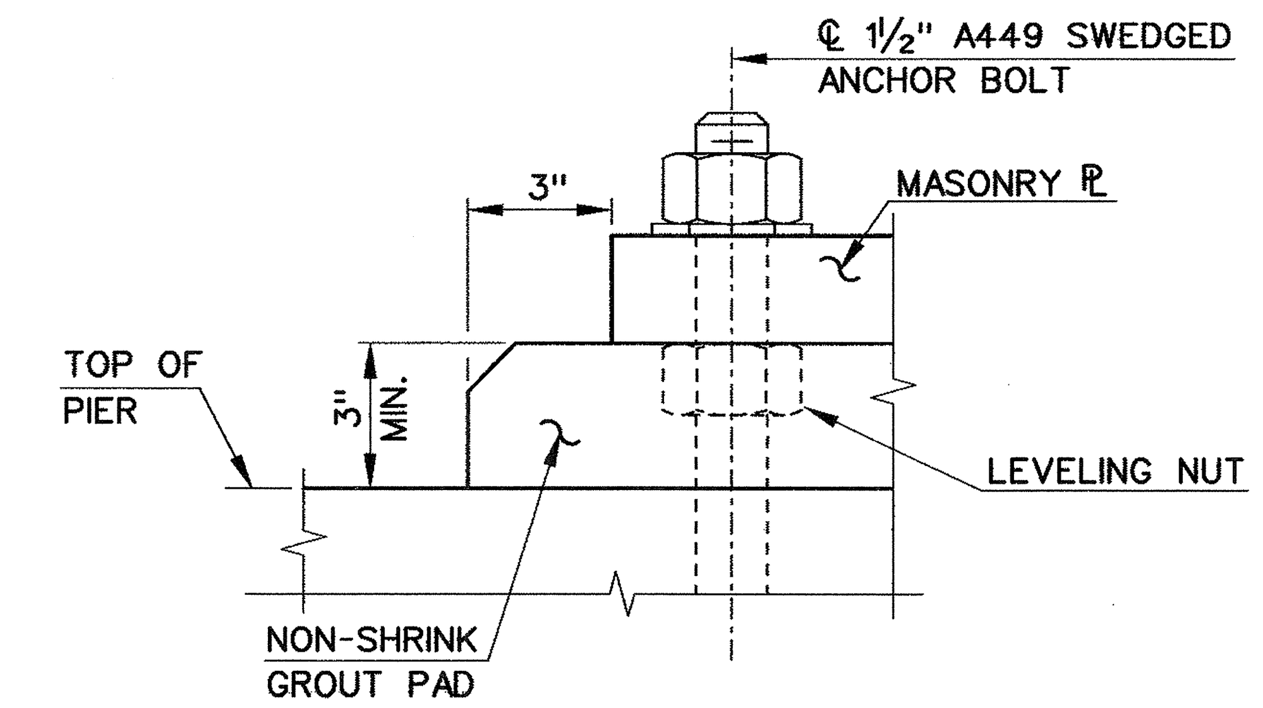
ELEVATION



SECTION

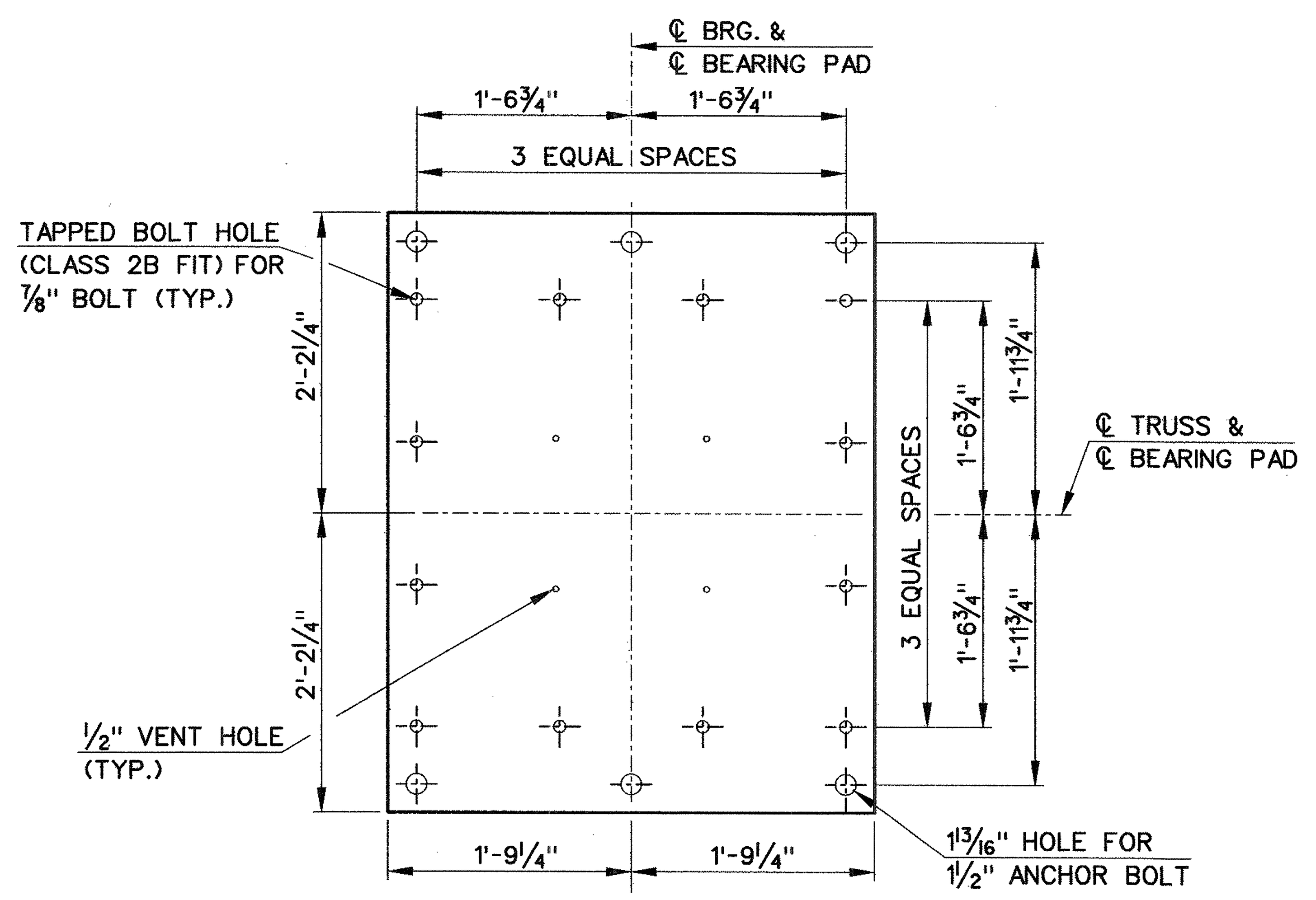
ISOLATION BEARING DETAILS

SCALE: 1" = 1'-0"



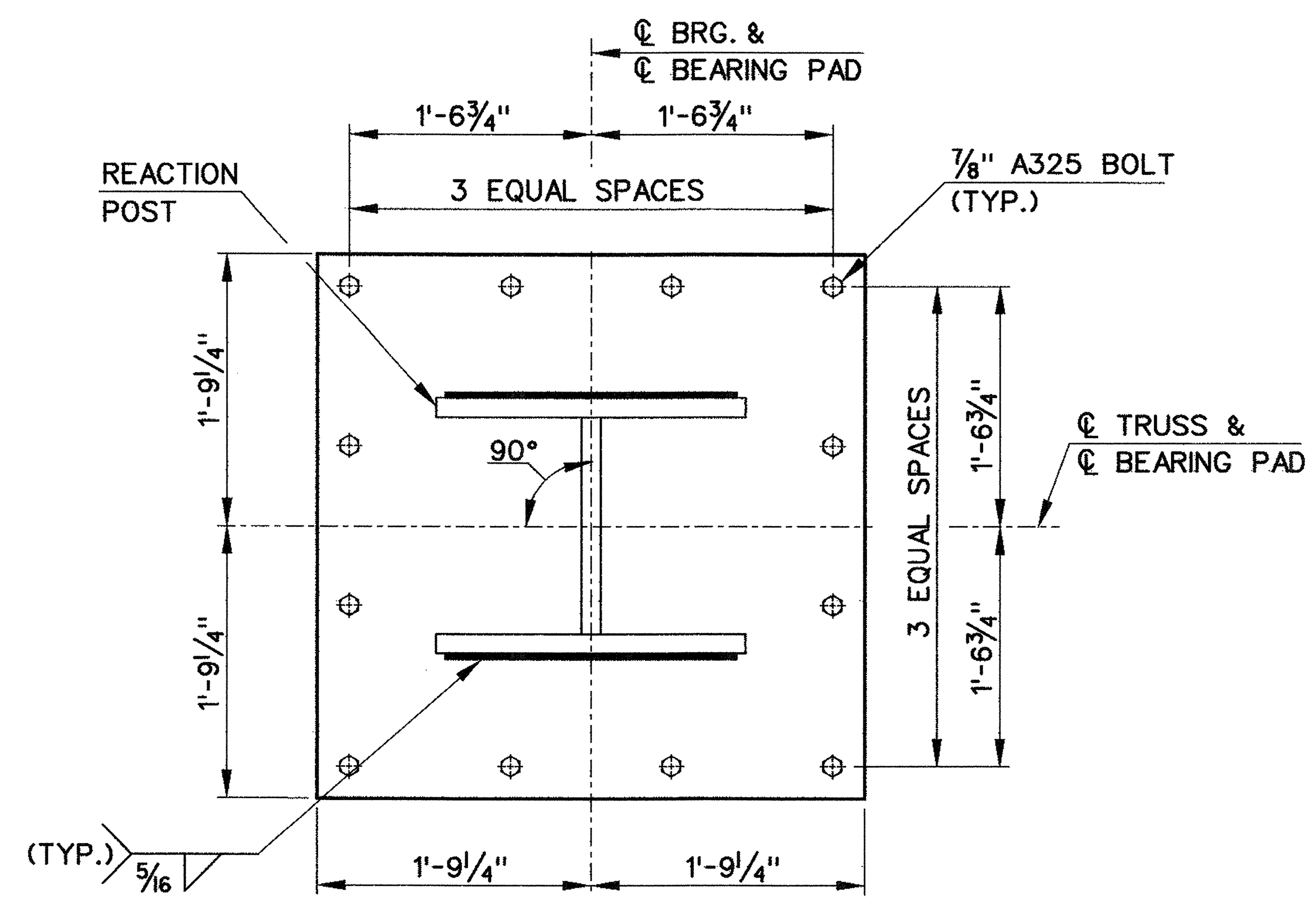
DETAIL 'A'

SCALE: 3" = 1'-0"



MASONRY ℞ DETAIL

SCALE: 1" = 1'-0"



BASE ℞ DETAIL

SCALE: 1" = 1'-0"

NOTES:

1. ISOLATION BEARING DETAILS ARE SHOWN FOR INFORMATION ONLY. THE ISOLATION BEARING MANUFACTURER SHALL BE RESPONSIBLE FOR THE BEARING DESIGN (SEE SPECIAL PROVISIONS).
2. THE ISOLATION BEARING DETAILS SHOWN ARE FOR AN ELASTOMERIC ISOLATION SYSTEM AS MANUFACTURED BY SEISMIC ENERGY PRODUCTS, L.P. THE CONTRACTOR MAY SELECT OTHER TYPES AS INDICATED IN THE SPECIAL PROVISIONS.
3. BEAM SEAT ELEVATIONS HAVE BEEN CALCULATED BASED ON THE DIMENSIONS SHOWN. CHANGES IN ISOLATION BEARING HEIGHT WILL REQUIRE ADJUSTMENT TO PLATE THICKNESSES AND/OR BEAM SEAT ELEVATIONS AS INDICATED IN THE SPECIAL PROVISIONS.
4. ALL ANCHOR BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A449. ANCHOR BOLTS, NUTS AND WASHERS SHALL BE MECHANICALLY GALVANIZED IN CONFORMANCE WITH ASTM B695, CLASS 50.
5. BASE PLATES, LOAD PLATES AND MASONRY PLATES SHALL CONFORM TO ASTM A709, GRADE 50.
6. THE ISOLATION BEARINGS SHALL BE INSTALLED SUCH THAT THE ℄ OF TRUSS IS COINCIDENT WITH THE ℄ OF BEARING PAD AT 50°F.
7. THE COST OF FURNISHING AND INSTALLING ISOLATION BEARINGS SHALL BE PAID FOR UNDER THE ITEM "ISOLATION BEARING ASSEMBLY" (SEE SPECIAL PROVISIONS).

BEARING DATA

LOCATION	MAXIMUM VERTICAL LOADS (KIPS)				MAXIMUM LATERAL LOADS (KIPS)						MAXIMUM LATERAL DISPLACEMENTS (INCHES)					
					W		TEMP		EQ		W		TEMP		EQ	
	D	L	I	TOTAL	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN
PIER 1	1281	212	24	1517	154	230	81	0	300	279	0.45	0.70	0.80	0	2.71	2.06
PIER 2	1281	212	24	1517	154	230	81	0	320	285	0.45	0.70	0.80	0	2.21	1.82

ABBREV.:

- D - DEAD LOAD
- L - LIVE LOAD
- I - IMPACT
- W - WIND LOAD
- TEMP - TEMPERATURE
- EQ - EARTHQUAKE
- LONG - LONGITUDINAL
- TRAN - TRANSVERSE

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: A. KILPATRICK
CHECKED BY: D. GEISSERT
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Monetti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S094.DGN PLOTTED DATE: 2-29-00

TOWN: NEW HAVEN

DRAWING TITLE: BEARING DETAILS (SEGMENT 2) - SHEET 1 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-84
SHEET NO.: 218

11:29:15
07 APR 2000
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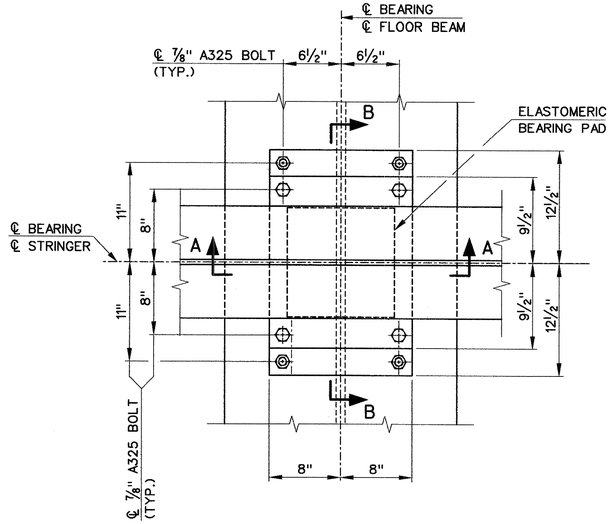
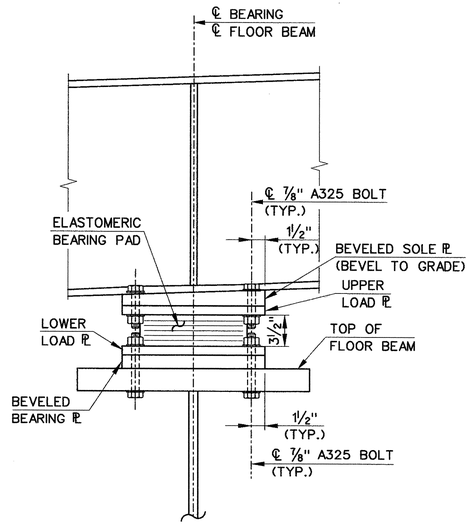
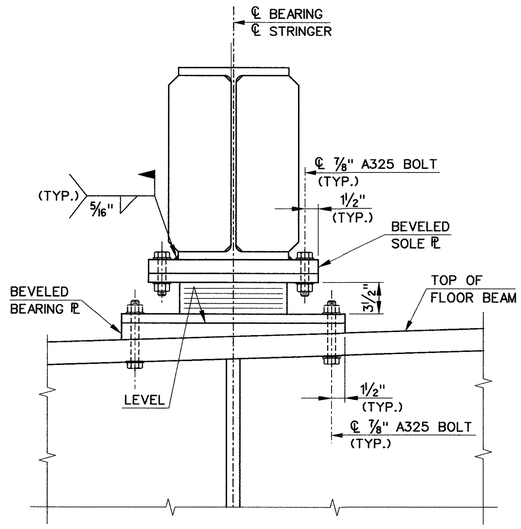


PLAN



SECTION A-A



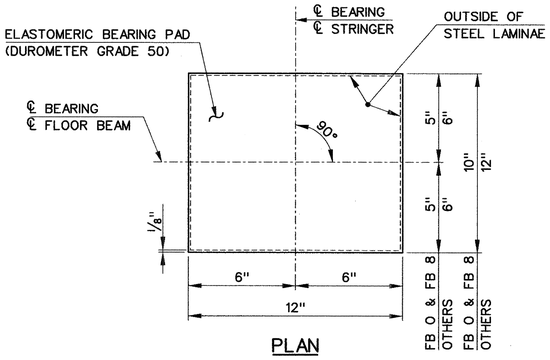
SECTION B-B

BEARING PLATE THICKNESS TABLE					
FLOOR BEAM	STRINGER	BEVELED SOLE PL	UPPER LOAD PL	LOWER LOAD PL	BEVELED BEARING PL
FB 0, FB 1 FB 2, FB 6 & FB 8	S1	1½"	1"	1"	1½"
	S2	1½"	1"	1"	1½"
	S3	1½"	1"	1"	1½"
	S4	2"	1"	1"	2"
	S5	2"	2"	2"	2"
	S6	2"	2"	2"	2"
FB 3, FB 5 & FB 7	S1	2"	1"	1"	2"
	S2	2"	1"	1"	2"
	S3	2"	1"	1"	2"
	S4	2"	1½"	1½"	2"
	S5	2½"	2"	2"	2½"
	S6	2½"	2"	2"	2½"

NOTE: BEVELED PLATE THICKNESS MEASURED AT ℄ OF BEARING.

EXPANSION BEARING (NON-GUIDED)

SCALE: 1½" = 1'-0"



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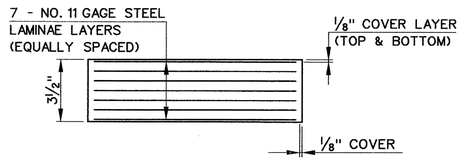
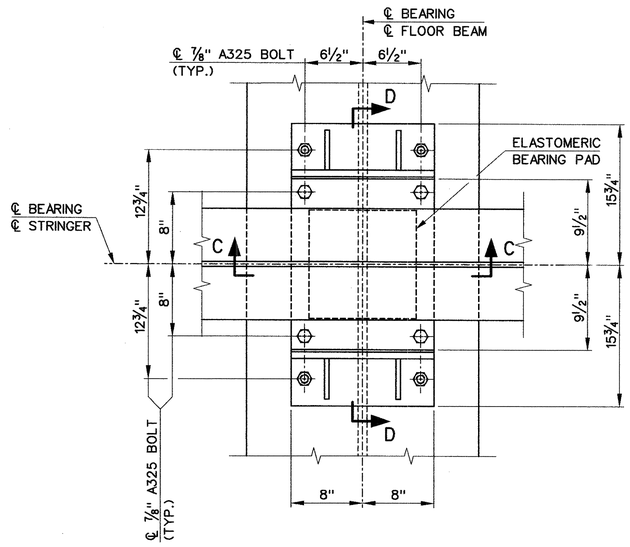


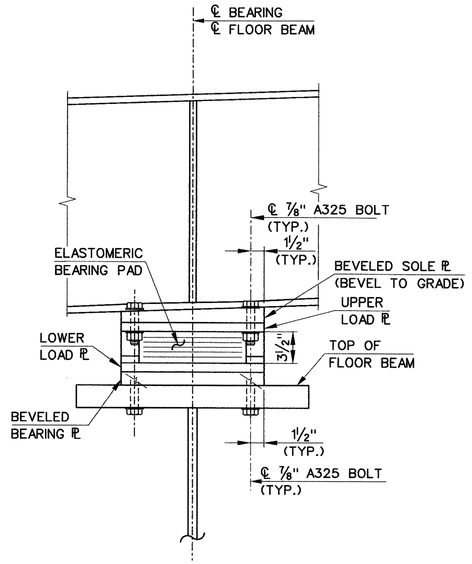
SECTION

ELASTOMERIC BEARING PAD

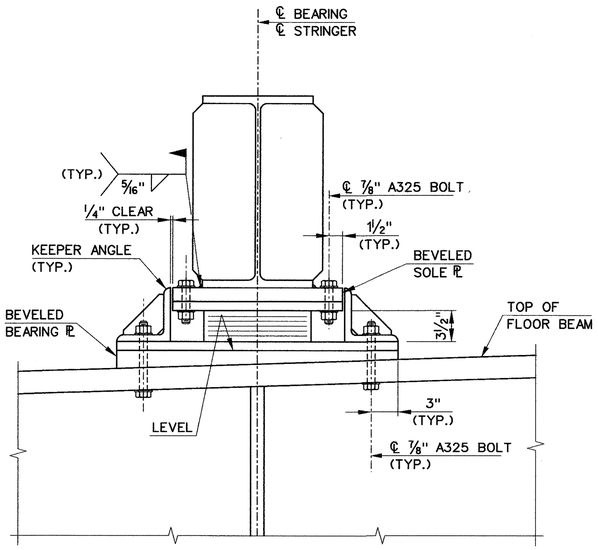
SCALE: 3" = 1'-0"



PLAN



SECTION C-C



SECTION D-D

EXPANSION BEARING (GUIDED)

SCALE: 1½" = 1'-0"

NOTES:

1. FOR FIXED BEARINGS, SEE DWG NO. STR-86.
2. FOR ADDITIONAL BEARING INFORMATION, SEE DWG NO. STR-86.

REV.	DATE	DESCRIPTION REVISIONS	SHEET. NO

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: M. OFFENBERG
CHECKED BY: M. VIOLANTI
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Violanti DATE: 3/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S088.DGN
PLOTTED DATE: 2-29-00

TOWN: NEW HAVEN
DRAWING TITLE: BEARING DETAILS (SEGMENT 2) - SHEET 2 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-85
SHEET NO.: 219

16:37:34
08 MAR 2000
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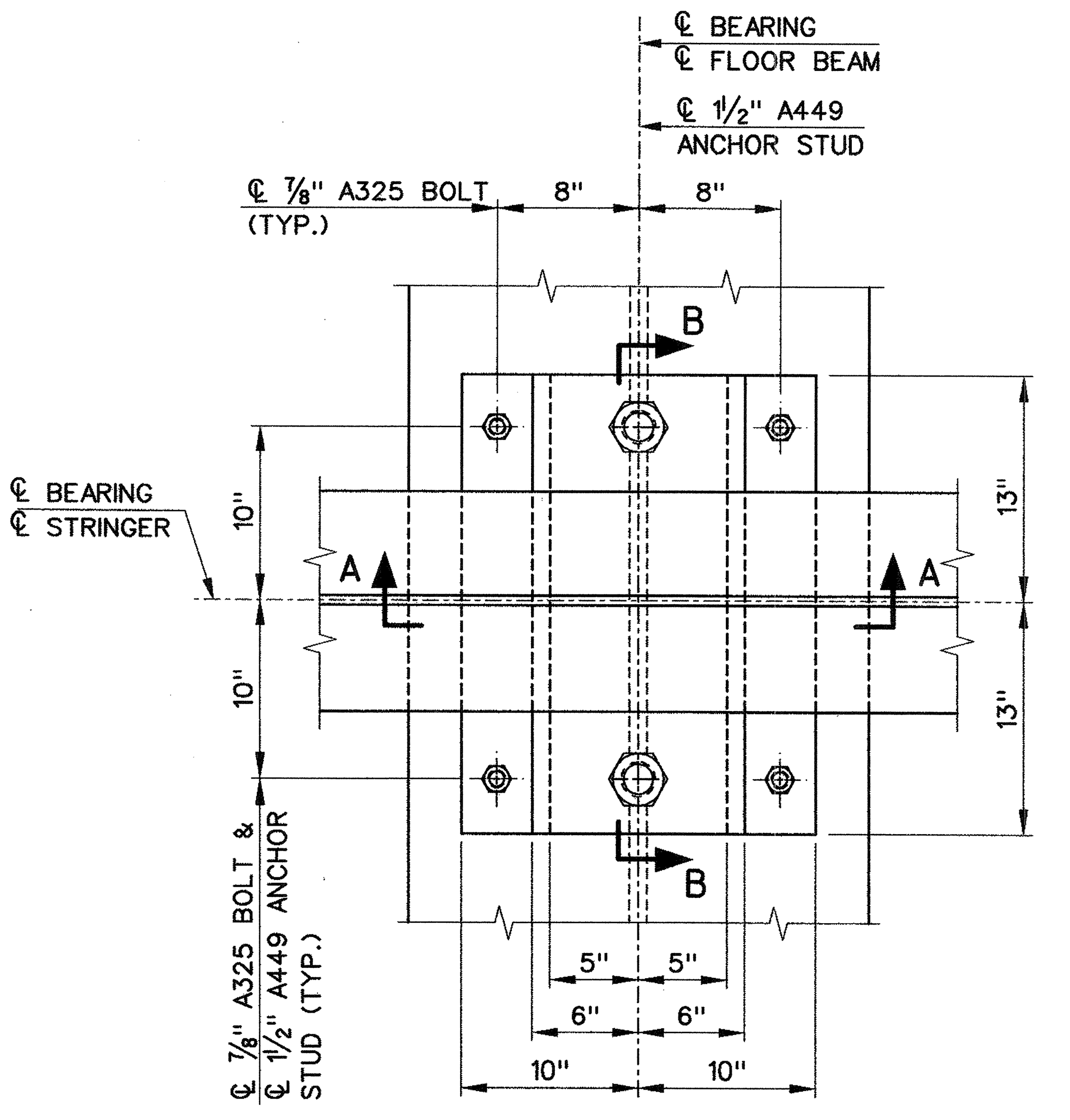
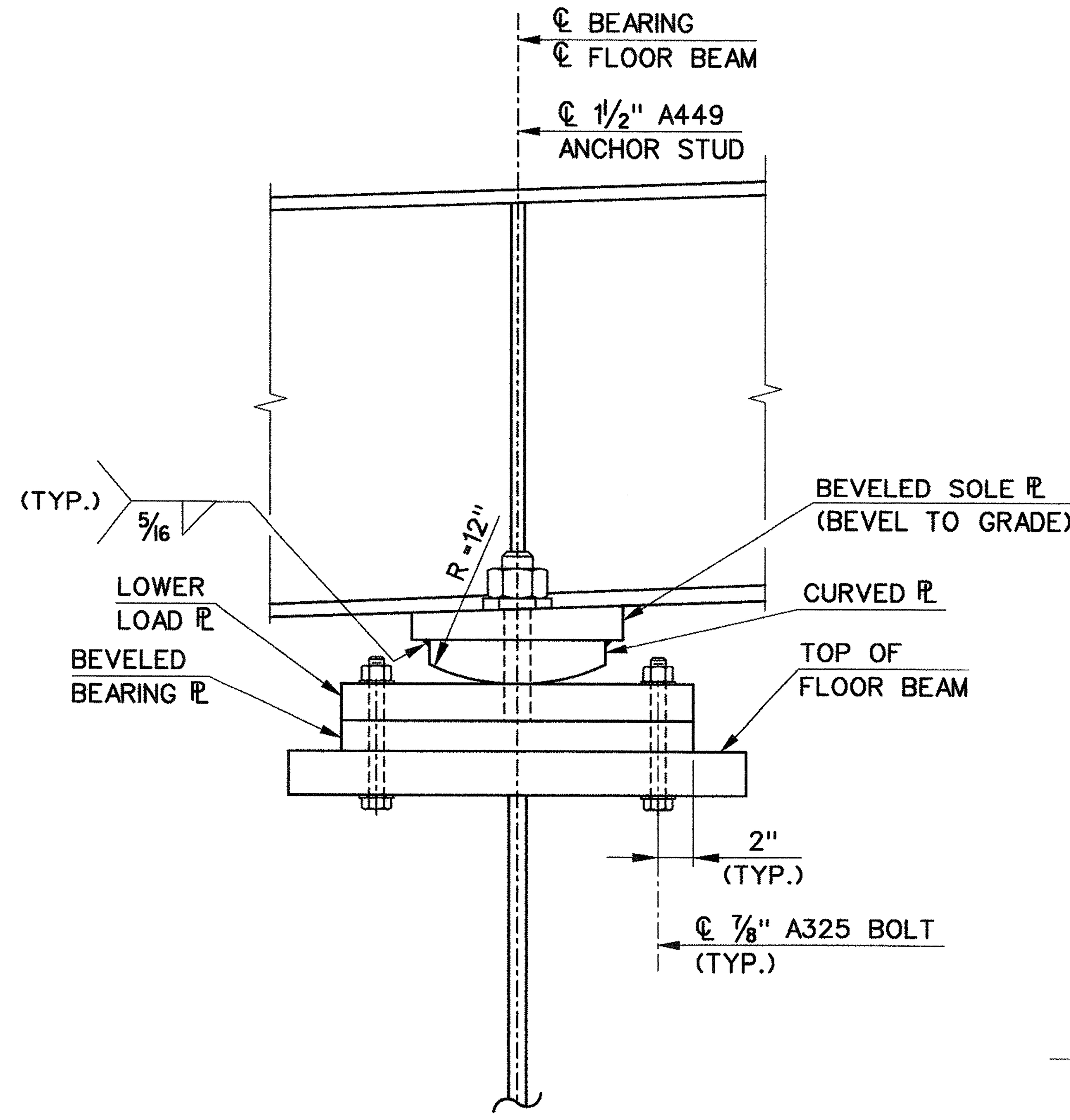
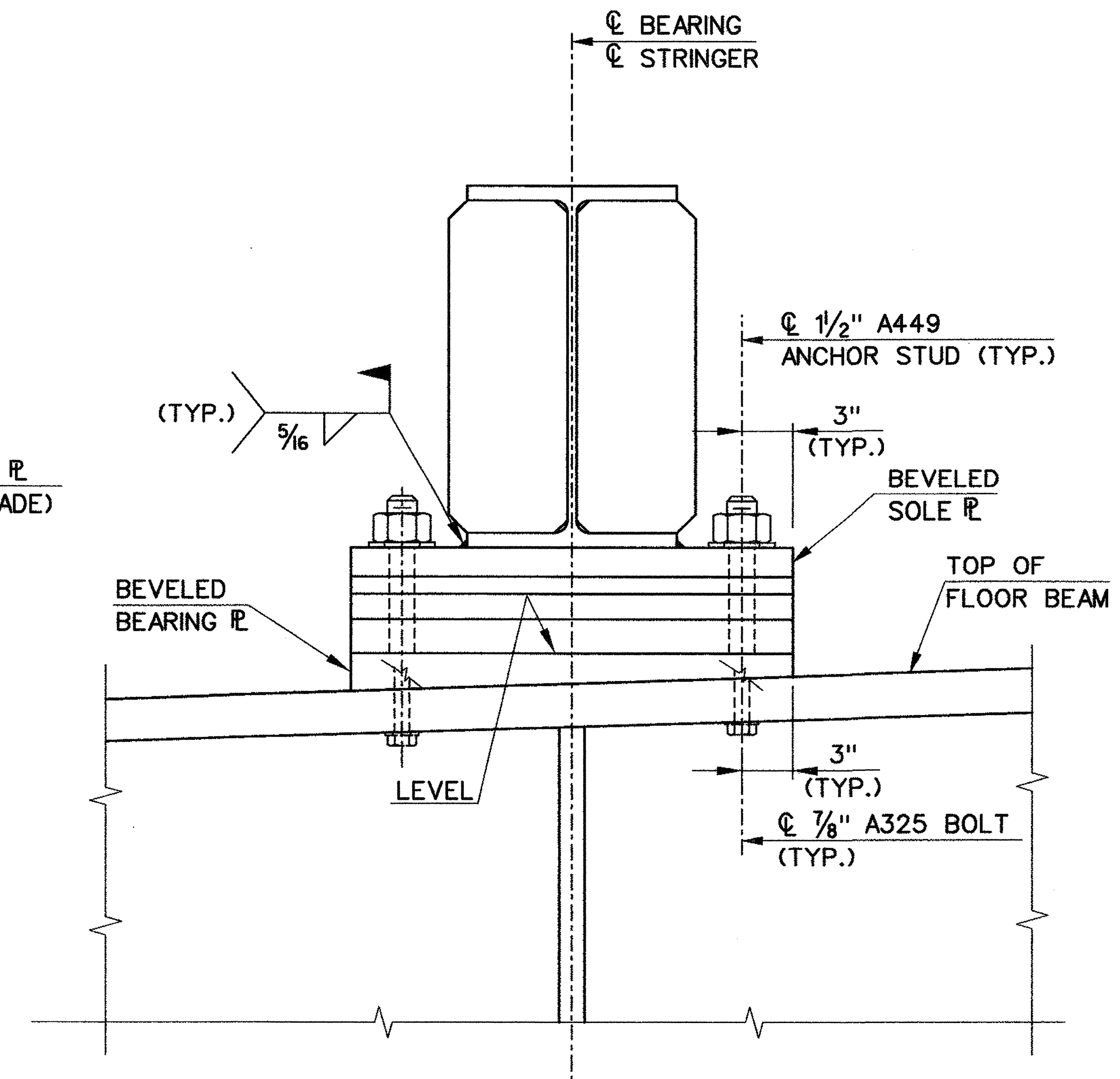


PLAN



SECTION A-A



SECTION B-B

FIXED BEARING

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

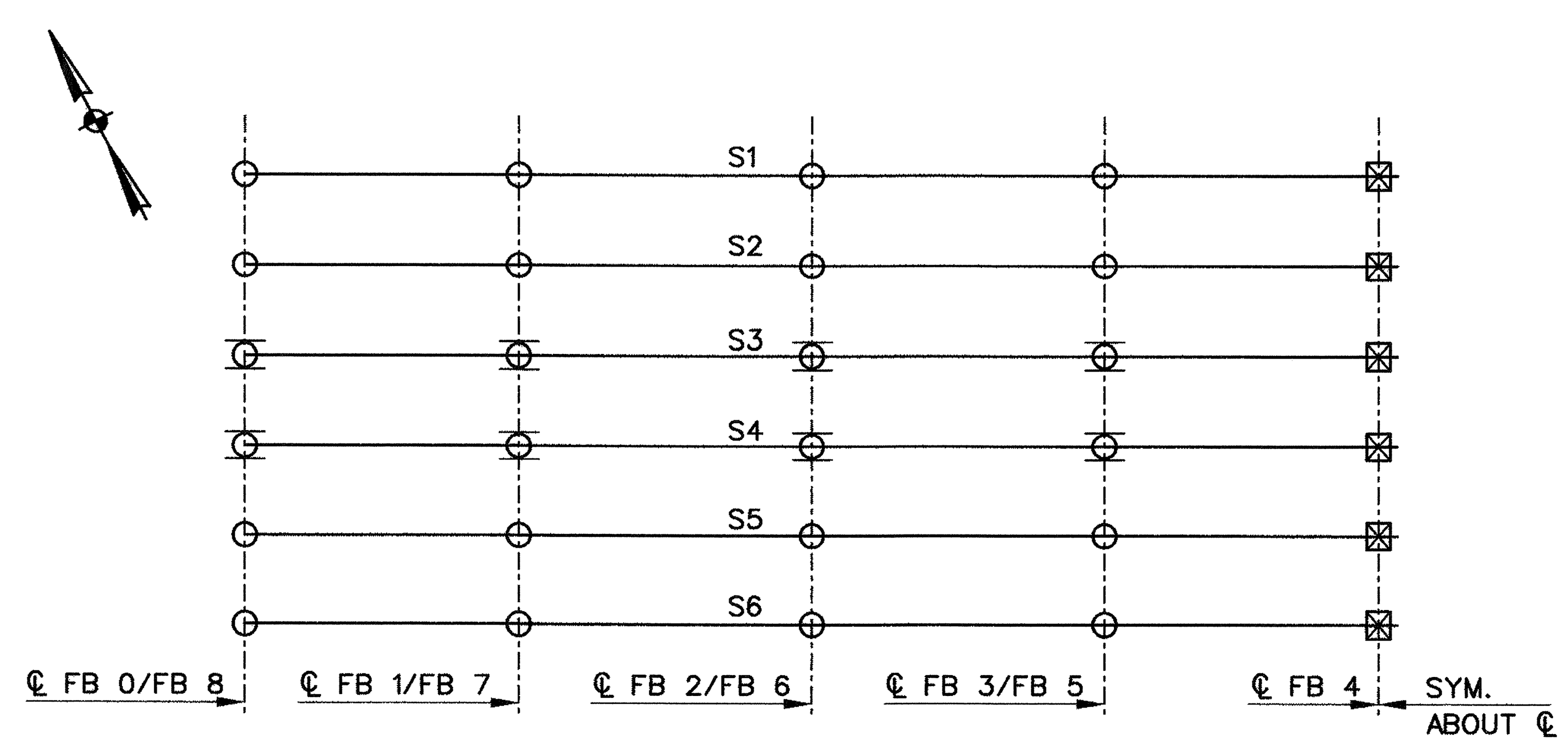
BEARING NOTES:

1. ELASTOMER SHALL BE GRADE 3 WITH A SHORE "A" DUROMETER HARDNESS = 50 ± 5 POINTS AND A SHEAR MODULUS WITHIN THE RANGE OF 95 PSI TO 135 PSI.
2. THE STEEL LAMINAE USED IN THE ELASTOMERIC BEARING SHALL CONFORM TO ASTM A709, GRADE 36 AND SHALL BE PAID FOR UNDER THE ITEM "ELASTOMERIC BEARING PADS".
3. THE ANCHOR STUDS SHALL CONFORM TO ASTM A449. THE ANCHOR STUDS, NUTS AND WASHERS SHALL BE MECHANICALLY GALVANIZED IN CONFORMANCE WITH ASTM B695, CLASS 50 AND SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL - SEGMENT 2".
4. BOLTED CONNECTIONS SHALL BE "SLIP-CRITICAL" CONNECTIONS WITH CLASS 'C' SURFACE CONDITION USING 7/8" ASTM A325 HIGH STRENGTH BOLTS AND SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL - SEGMENT 2".
5. ALL OTHER STEEL IN BEARINGS INCLUDING SOLE PLATES, CURVED PLATES, BEARING PLATES AND LOAD PLATES SHALL CONFORM TO ASTM A709, GRADE 50 (GALVANIZED) AND SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL - SEGMENT 2".
6. THE LOAD PLATES SHALL BE HOT BONDED TO THE ELASTOMERIC BEARING PAD DURING VULCANIZATION.
7. THE SOLE PLATE SHALL BE BEVELED TO MATCH THE SLOPE OF THE GIRDER SO THAT THE BOTTOM SURFACE OF THE PLATE IS LEVEL AFTER THE APPLICATION OF FULL DEAD LOAD.
8. ELASTOMERIC BEARINGS SHALL BE INSTALLED AT AN AMBIENT TEMPERATURE BETWEEN 30° AND 70°F. CENTERLINE OF BEARING PAD AND SOLE PLATE TO BE INSTALLED AT THE CENTERLINE OF BEARING.
9. AFTER GIRDER ERECTION AND WELDING OF GIRDER TO SOLE PLATE, LOOSEN ANCHOR STUD (APPROX. 1/8 TURN) TO ALLOW FREE MOTION OF THE BEARING PAD, THEN BURR THREAD AT TOP OF NUT.
10. IN NO CASE SHALL THE ELASTOMER OR VULCANIZED BOND BE SUBJECTED TO TEMPERATURES HIGHER THAN 400°F.
11. THE ELASTOMERIC BEARING PADS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (AASHTO-1996), SECTION 14 (METHOD B).

BEARING PLATE THICKNESS TABLE

STRINGER	BEVELED SOLE ℘	CURVED LOAD ℘	LOWER LOAD ℘	BEVELED BEARING ℘
S1	2"	2 1/2"	2"	2"
S2	2"	2 1/2"	2"	2"
S3	2"	2 1/2"	2"	2"
S4	2 1/2"	2 1/2"	2"	2 1/2"
S5	3 1/4"	2 1/2"	2 1/2"	3 1/4"
S6	3 1/4"	2 1/2"	2 1/2"	3 1/4"

NOTE: BEVELED PLATE THICKNESS MEASURED AT ℄ OF BEARING.

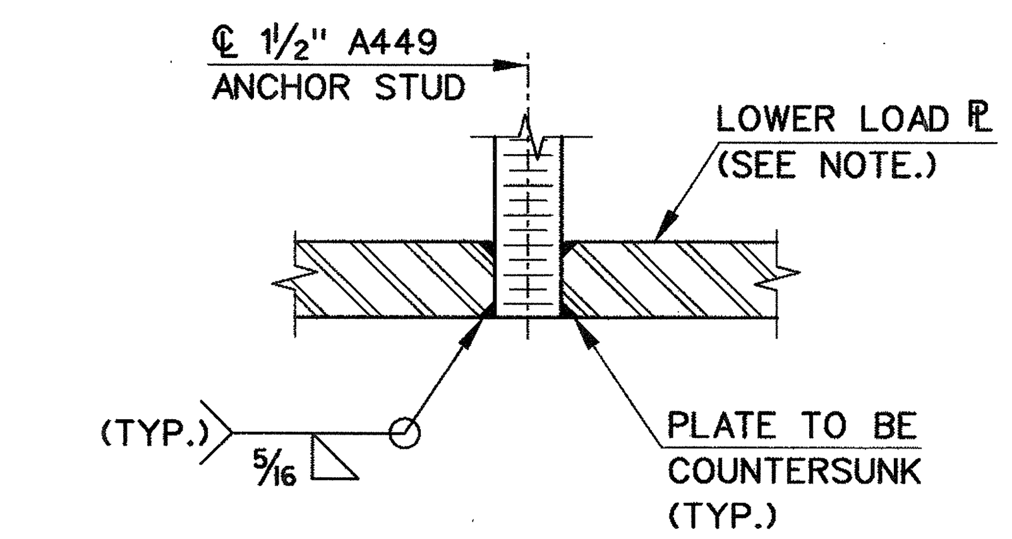


BEARING LOCATION PLAN

NOT TO SCALE

LEGEND

- ○ - EXPANSION BEARING (NON-GUIDED)
- ○ - EXPANSION BEARING (GUIDED)
- ⊠ - FIXED BEARING



NOTE: LOWER LOAD ℘ SHALL BE TAPPED FOR 1/2" DIA. THREADED STUD (CLASS 2B FIT).

ANCHOR STUD DETAIL

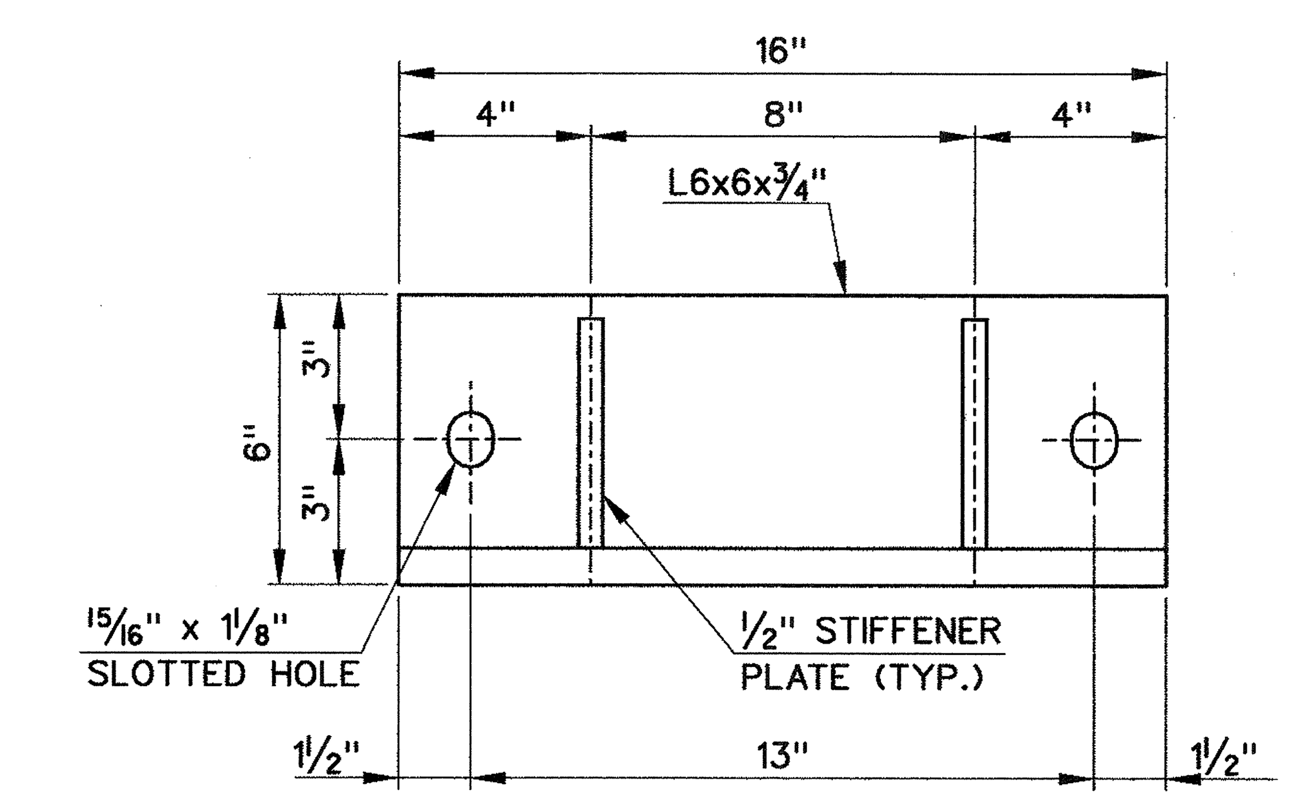
NOT TO SCALE

BEARING DATA

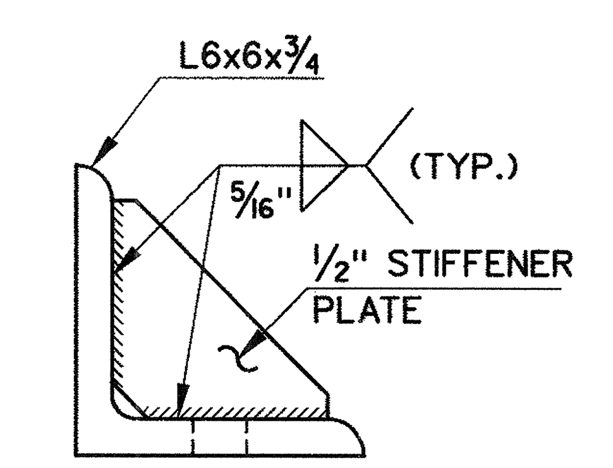
LOCATION	STRINGER NO.	MAXIMUM VERTICAL LOADS (KIPS) DL	LL	I	TOTAL	1.5 x TOTAL
FB 0/FB 8	S1, S6	29	39	12	80	120
	S2, S3	32	49	15	96	144
	S4, S5	33	49	15	97	146
FB 1/FB 7	S1, S6	83	48	14	145	218
	S2, S3	91	59	18	168	252
	S4, S5	95	59	18	172	258
FB 2/FB 6	S1, S6	71	45	14	130	195
	S2, S3	77	56	17	150	225
	S4, S5	81	56	17	154	231
FB 3/FB 5	S1, S6	74	45	14	133	200
	S2, S3	81	56	17	154	230
	S4, S5	85	56	17	158	237
FB 4	S1, S6	73	48	14	135	203
	S2, S3	80	59	18	157	234
	S4, S5	84	59	18	161	242

ABBREVIATIONS

DL = DEAD LOAD
LL = LIVE LOAD
I = IMPACT



PLAN



SECTION

KEEPER ANGLE DETAIL

SCALE: 3" = 1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: M. OFFENBERG
CHECKED BY: M. VIOLANTI
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S089.DGN PLOTTED DATE: 2-29-00

TOWN: NEW HAVEN

DRAWING TITLE: BEARING DETAILS (SEGMENT 2) - SHEET 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-86
SHEET NO.: 220

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08 MAR 2000
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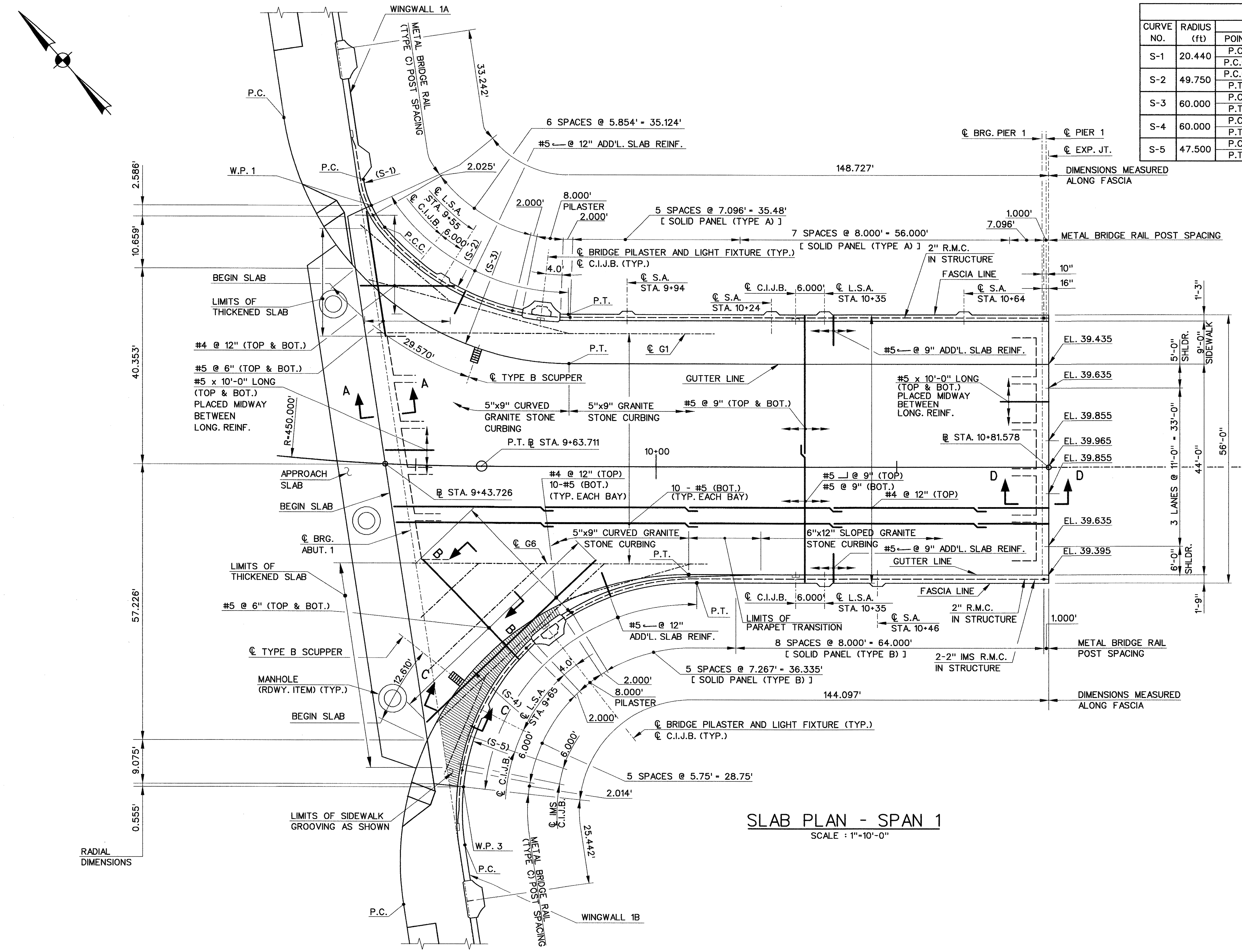

SLAB PLAN - SPAN 1

SCALE : 1"=10'-0"

CURVE DATA FOR GUTTERLINE AND FASCIA						
CURVE NO.	RADIUS (ft)	LOCATION			COORDINATES	
		POINT	STATION	OFFSET (ft)	NORTH	NORTH
S-1	20.440	P.C.	UNION AVE ℄, STA. 20+61.296	44.437 RT	168701.0295	550933.0321
		P.C.C.	UNION AVE ℄, STA. 20+50.778	47.358 RT	168690.7312	550929.4109
S-2	49.750	P.C.C.	UNION AVE ℄, STA. 20+50.778	47.358 RT	168690.7312	550929.4109
		P.T.	CSS ℄ STA. 9+81.911	31.750 LT	168651.2795	550944.7942
S-3	60.000	P.C.	UNION AVE ℄ STA. 20+76.648	30.000 RT	168721.8798	550929.971
		P.T.	CSS ℄, STA. 9+81.911	21.500 LT	168643.8458	550937.7372
S-4	60.000	P.C.	UNION AVE. ℄, STA. 19+10.530	30.000 RT	168585.6208	550834.9521
		P.T.	CSS ℄, STA. 10+06.776	22.500 RT	168594.8157	550925.4768
S-5	47.500	P.C.	UNION AVE. ℄, STA. 19+21.075	44.507 RT	168585.9726	550852.883
		P.T.	CSS ℄, STA. 10+07.176	24.250 RT	168593.2713	550924.5619

SLAB NOTES:

1. FOR FINISHED SLAB ELEVATIONS, SEE DWG. NOS. STR-96 & 97.
2. ELEVATIONS GIVEN IN "PLAN" APPLY AT TOP OF SLAB.
3. FOR TYPICAL SLAB SECTIONS AND SECTION C-C, SEE DWG. NO. STR-91.
4. FOR APPROACH SLAB DETAILS, SEE DWG. NO. STR-98.
5. FOR EXPANSION JOINT DETAILS, SEE DWG. NOS. STR-99 & 100.
6. FOR SECTION A-A AND SECTION B-B, SEE DWG. NO. STR-88.
7. FOR SECTION D-D, SEE DWG. NO. STR-89.
8. FOR PARAPET TRANSITION DETAILS, SEE DWG. NO. STR-93.
9. FOR METAL BRIDGE RAIL SOLID PANEL DETAILS, SEE DWG. NOS. STR-105 TO 107.
10. FOR METAL BRIDGE RAIL PROTECTIVE FENCE (TYPE C) DETAILS, SEE DWG. NO. STR-108.
11. C.I.J.B. DENOTES CAST IRON JUNCTION BOX.
12. FOR BRIDGE PILASTER DETAIL, SEE DWG. NO. STR-95.
13. FOR ELECTRICAL DETAILS, SEE DWG. NOS. STR-119 & 120.
14. L.S.A. DENOTES LIGHT STANDARD ANCHORAGE WITH 11" DIA. BOLT CIRCLE.
15. S.A. DENOTES SIGN ANCHORAGE WITH 10" DIA. BOLT CIRCLE.
16. ALL LAP SPLICES SHALL BE ALTERNATED A FULL LAP LENGTH. MINIMUM LAP SPLICES FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

BAR SIZE	SPLICE LENGTH
#4	1' - 8'
#5	1' - 8"
#6	2' - 0"

17. FOR SCUPPER DETAILS, SEE DWG. NO. STR-94.
18. FOR LIGHTING ANCHORAGE DETAILS, SEE DWG. NO. STR-92.
19. FOR SIGN ANCHORAGE DETAILS, SEE DWG. NO. STR-95.
20. FOR GRANITE STONE CURBING DETAILS, SEE DWG. NO. STR-93.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moutti DATE: 7-20-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S100.DGN PLOTTED DATE: 7-18-00

TOWN: NEW HAVEN

DRAWING TITLE: SLAB PLAN - SHEET 1 OF 4

PROJECT NO.: 92-526
DRAWING NO.: STR-87
SHEET NO.: 221

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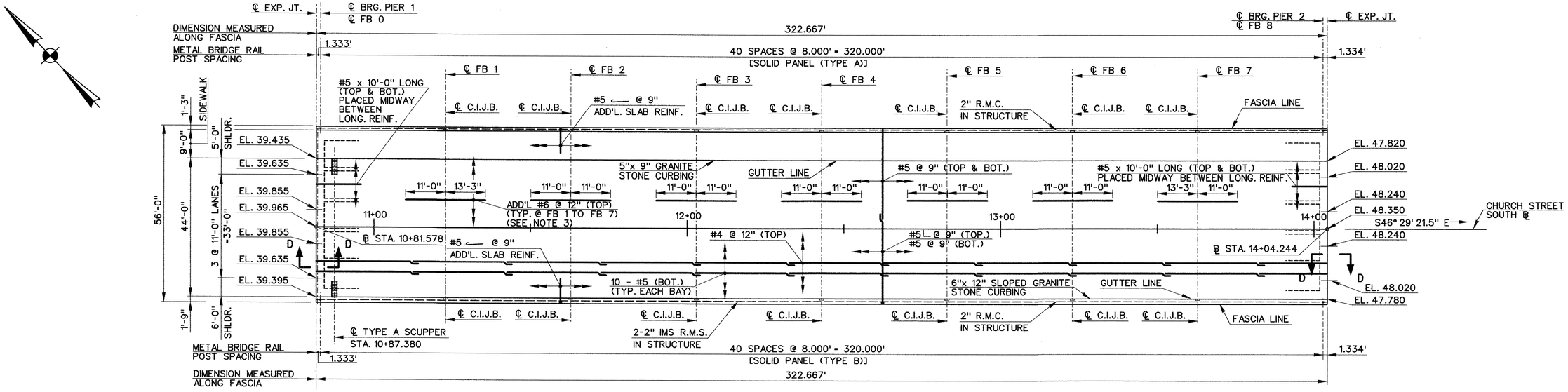
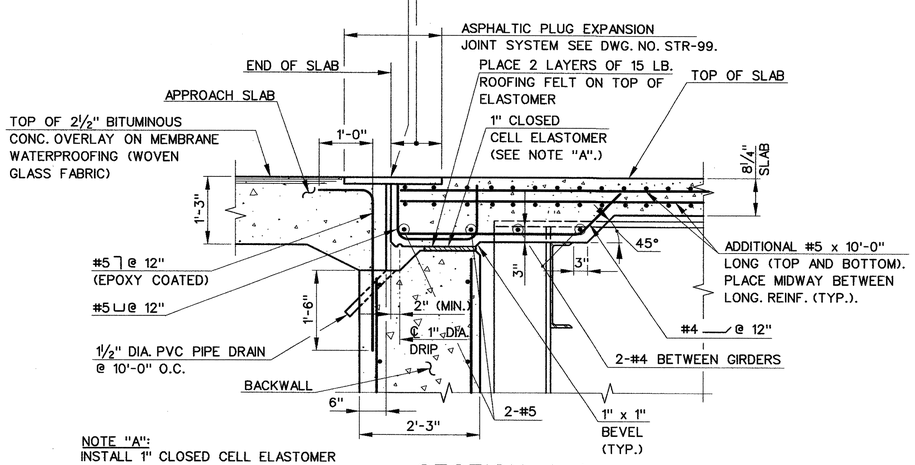


SLAB PLAN - SPAN 2

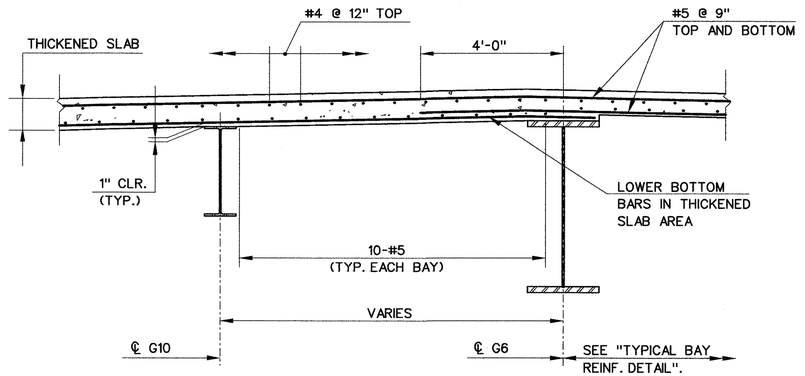
SCALE: 1/16" = 1'-0"



NOTE "A":
INSTALL 1" CLOSED CELL ELASTOMER BONDED TO TOP OF BACKWALL WITH A PRESSURE SENSITIVE ADHESIVE.

SECTION A-A

SCALE: ¾" = 1'-0"



SECTION B-B

SCALE: ½" = 1'-0"
(WEST SIDE SHOWN, EAST SIDE SIMILAR)

NOTES:
1. FOR SLAB NOTES, SEE DWG NO. STR-87.
2. F.B. INDICATES FLOOR BEAM.
3. REINFORCING LENGTH IN TOP OF SIDEWALK SHALL MATCH ADDITIONAL REINFORCING LENGTH AS SHOWN IN SLAB.
4. REMAIN - IN - PLACE FORMS SHALL BE USED IN SPAN 2.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. DEVAUX
DRAFTER: A KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony J. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S101.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: SLAB PLAN - SHEET 2 OF 4

PROJECT NO.: 92-526
DRAWING NO.: STR-88
SHEET NO.: 222

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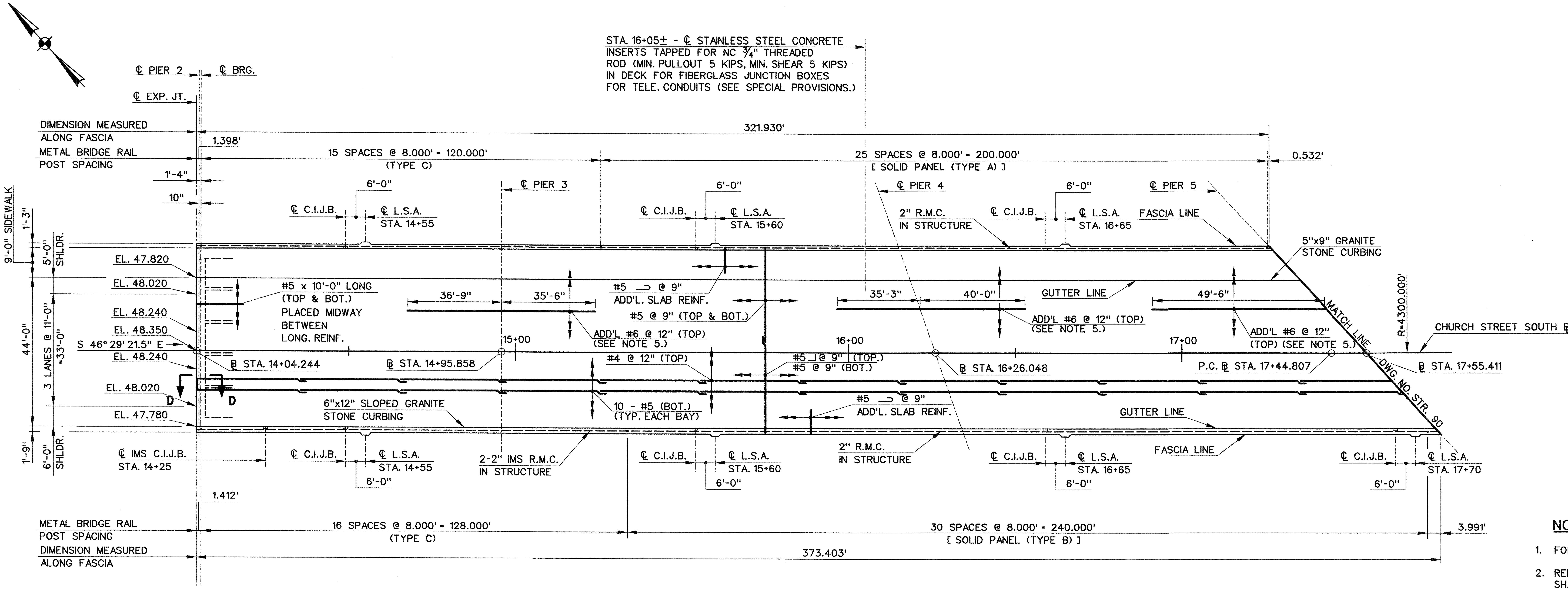
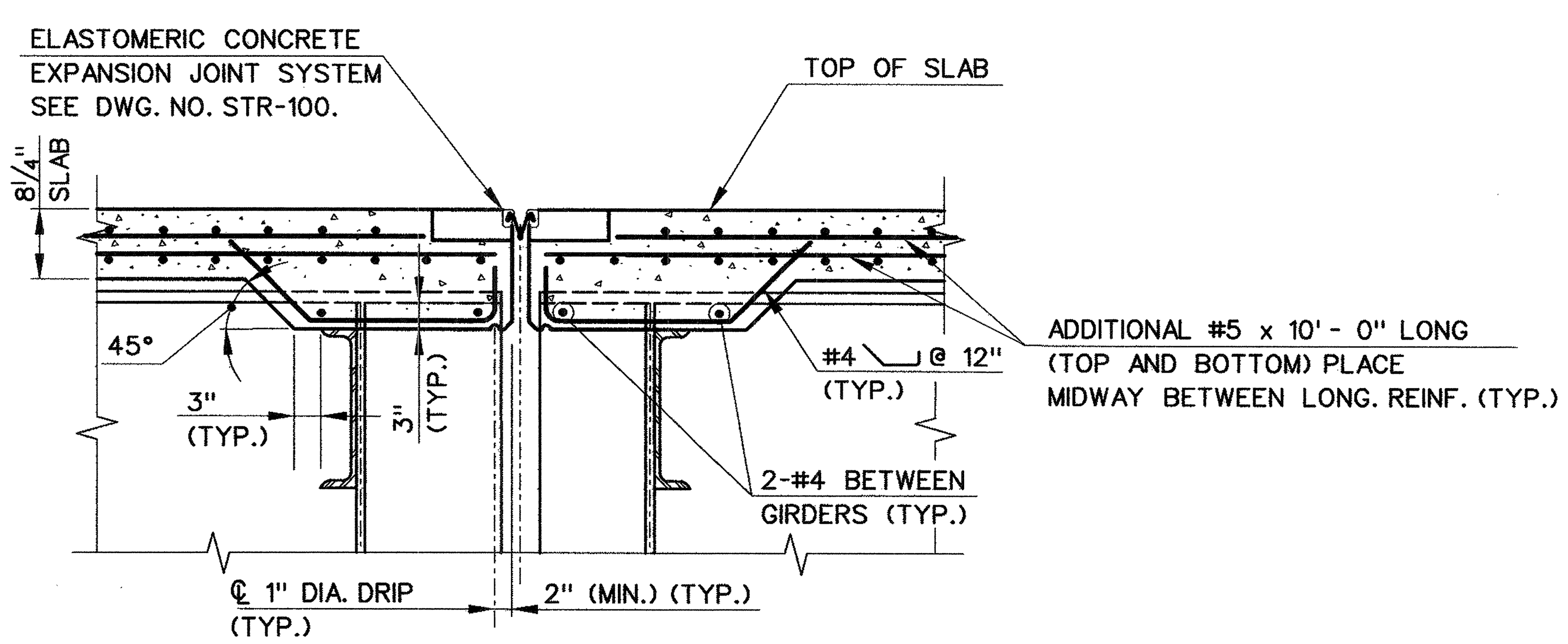


SLAB PLAN - SPAN 3, 4, & 5

SCALE: 1/16" = 1'-0"

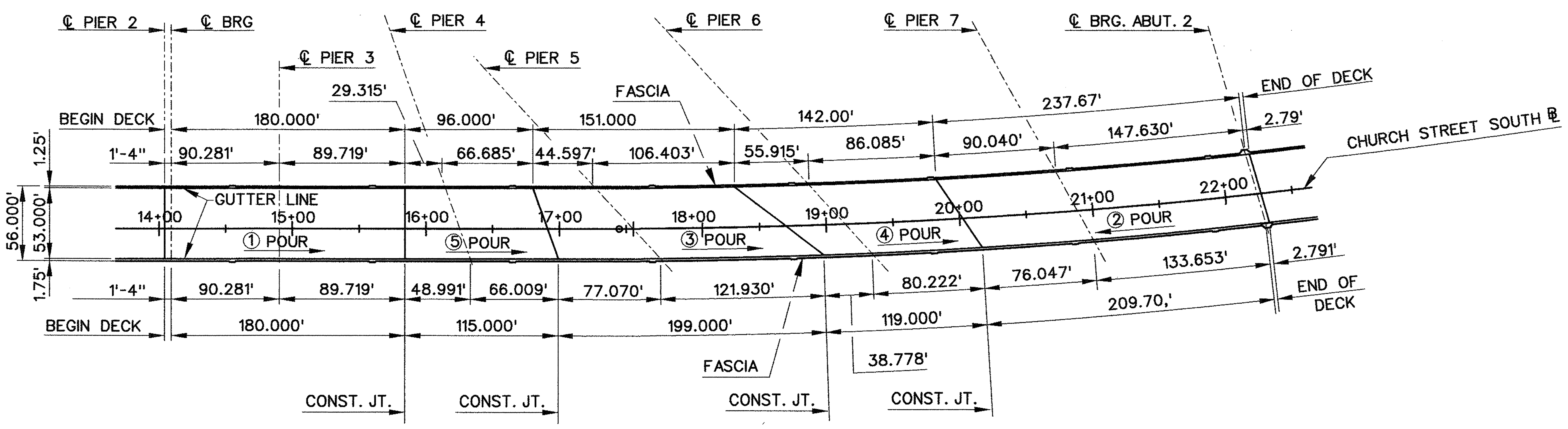
NOTES:

1. FOR SLAB NOTES, SEE DWG. NO. STR-87.
2. REINFORCING LENGTH IN TOP OF SIDEWALK SHALL MATCH ADDITIONAL REINFORCING LENGTH AS SHOWN IN SLAB.
3. REMAIN - IN - PLACE FORMS SHALL BE USED IN SPAN 5.



SECTION D-D

SCALE: ¾"=1'-0"



SLAB POUR SEQUENCE

SCALE: ¼" = 1'-0"

SEQUENCE OF POUR NOTES:

1. ○ ⟶ INDICATES SEQUENCE AND DIRECTION OF POUR
2. THE CONCRETE MUST OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 1.0 ksi PRIOR TO PLACING CONCRETE IN CONSECUTIVE POURS.
3. ALL CONCRETE SHALL BE KEPT IN FLUID CONDITION UNTIL THE ENTIRE POUR IS COMPLETED.
4. ALL DIMENSIONS ARE MEASURED ALONG FASCIA.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Monti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S102.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: SLAB PLAN - SHEET 3 OF 4

PROJECT NO.: 92-526
DRAWING NO.: STR-89
SHEET NO.: 223

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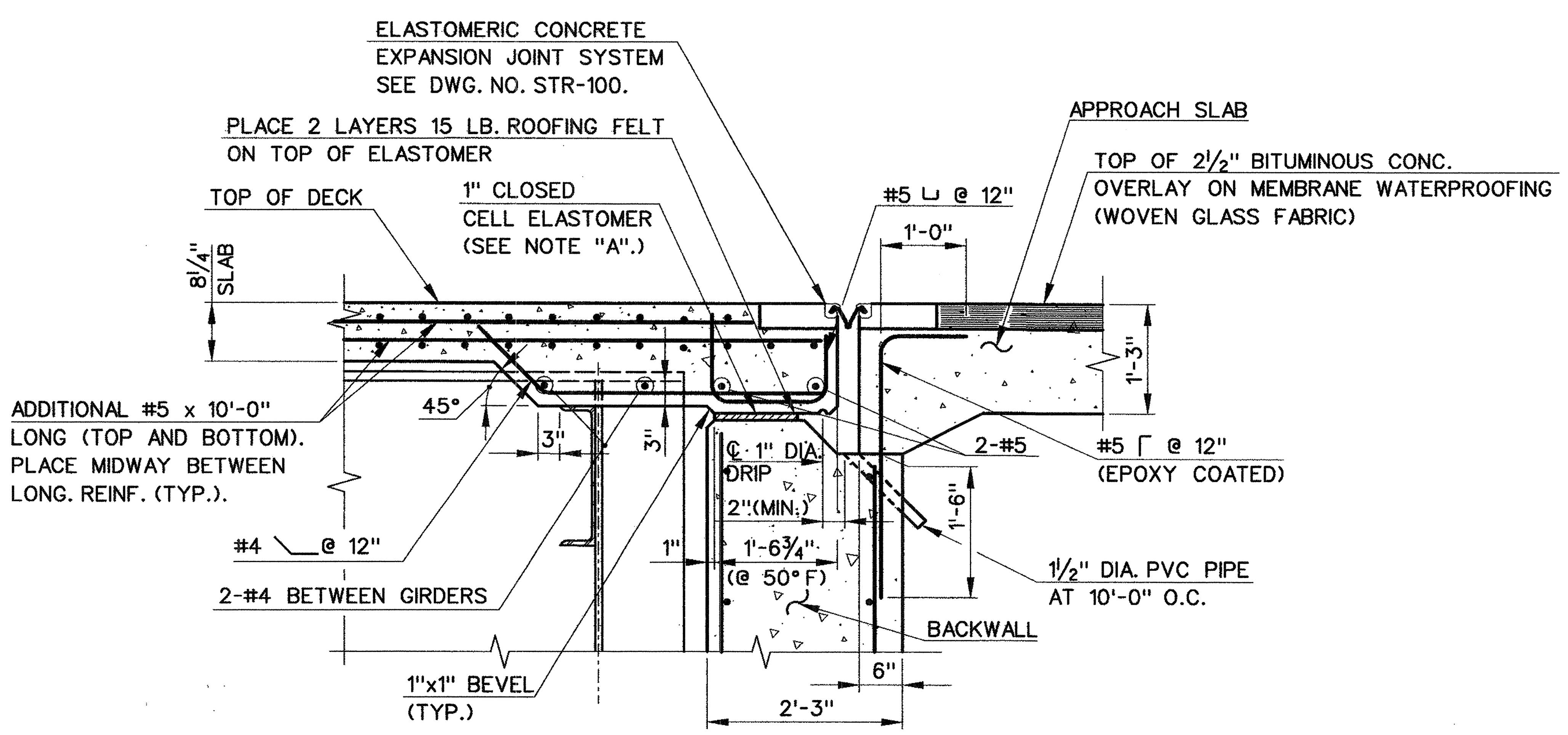
SLAB PLAN - SPANS 6,7 & 8

SCALE: 1/16" = 1'-0"



SECTION E-E

SCALE: 3/4" = 1'-0"

NOTE "A":
INSTALL 1" CLOSED CELL ELASTOMER BONDED TO TOP OF BACKWALL WITH A PRESSURE SENSITIVE ADHESIVE.

NOTES:
1. FOR SLAB NOTES, SEE DWG. NO. STR-87.
2. FOR PILASTER DETAILS AT ABUTMENT 2, SEE DWG. NO. STR-24.
3. REINFORCING LENGTH IN TOP OF SIDEWALK SHALL MATCH ADDITIONAL REINFORCING LENGTH AS SHOWN IN SLAB.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S103.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: SLAB PLAN - SHEET 4 OF 4

PROJECT NO.: 92-526
DRAWING NO.: STR-90
SHEET NO.: 224

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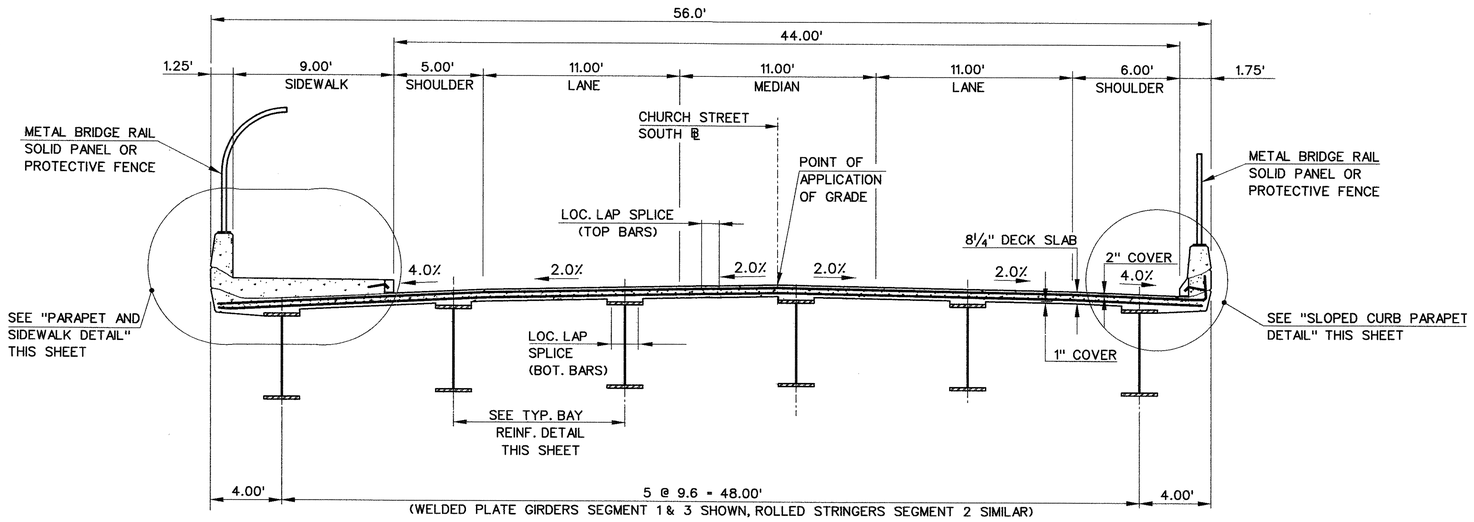
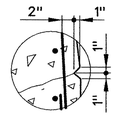


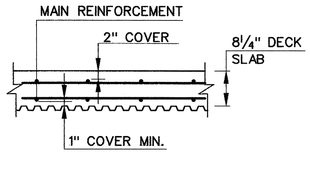
TYPICAL SLAB SECTION

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



RUSTICATION DETAIL

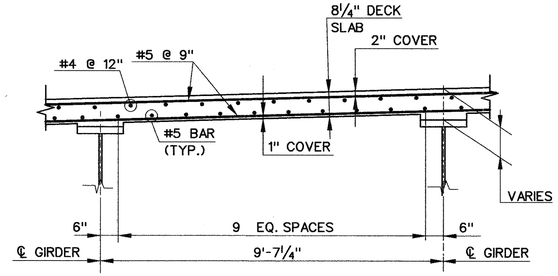
SCALE: 1" = 1'-0"



REMAIN-IN-PLACE FORM DETAIL

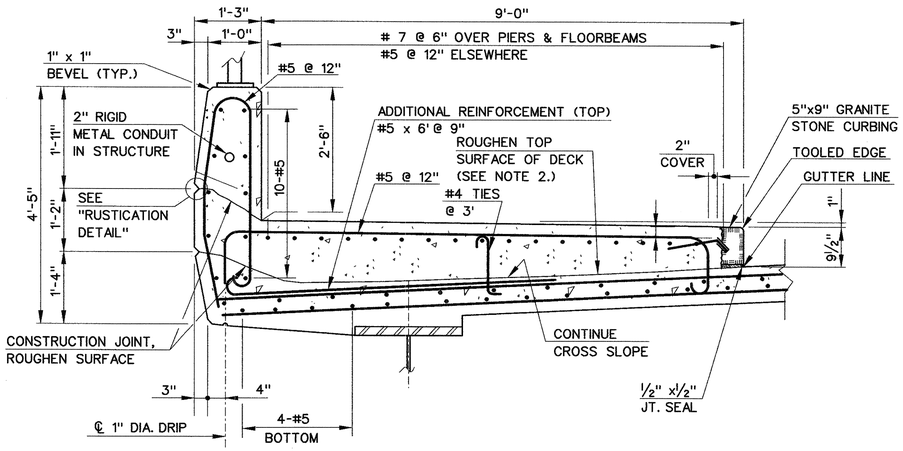
NOT TO SCALE

NOTE:
REMAIN-IN-PLACE FORMS SHALL BE USED IN ALL BAYS. (SPANS 2 AND 5 ONLY).



TYPICAL BAY REINFORCEMENT DETAIL

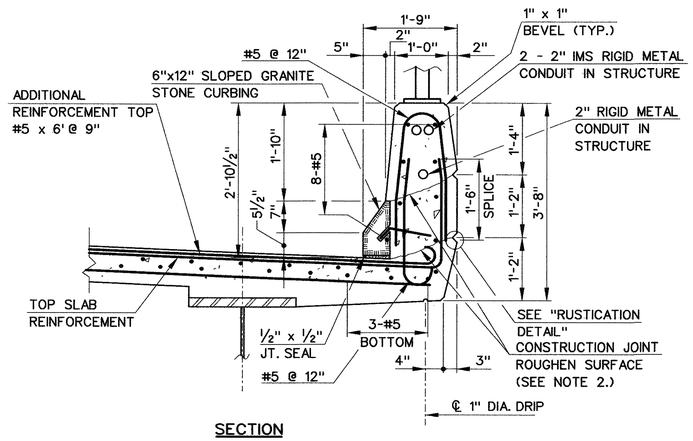
SCALE: 1/2" - 1'-0"



SECTION

PARAPET AND SIDEWALK DETAIL

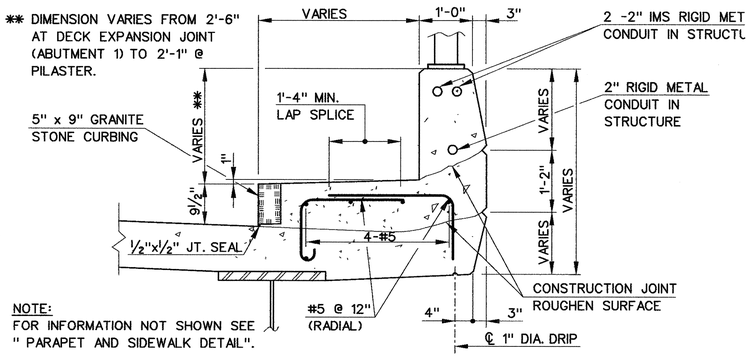
SCALE: 3/4" = 1'-0"



SECTION

SLOPED CURB PARAPET DETAIL

SCALE: 3/4" = 1'-0"



SECTION C-C

SCALE: 3/4" = 1'-0"

NOTES:

1. THE PARAPET CONCRETE SHALL BE PLACED CONTINUOUS BETWEEN SEQUENCE OF POUR JOINTS. LONGITUDINAL REINF. SHALL BE CONTINUOUS WITH MINIMUM LAP SPLICES OF 3'-3".
2. CONCRETE ABOVE THIS LINE TO BE PLACED AFTER THE CONCRETE IN DECK SLAB HAS REACHED A STRENGTH OF 4000 PSI.
3. ALL PARAPET REINFORCEMENT SHALL HAVE 2" COVER, EXCEPT AS NOTED.
4. FOR LOCATION OF SECTION C-C, SEE DWG. NO. STR-87.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: A. KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Mantia DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S104.DGN
PLOTTED DATE: 3-31-00

TOWN: NEW HAVEN
DRAWING TITLE: SLAB DETAILS - SHEET 1 OF 5

PROJECT NO.: 92-526
DRAWING NO.: STR-91
SHEET NO.: 225

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07 APR 2000
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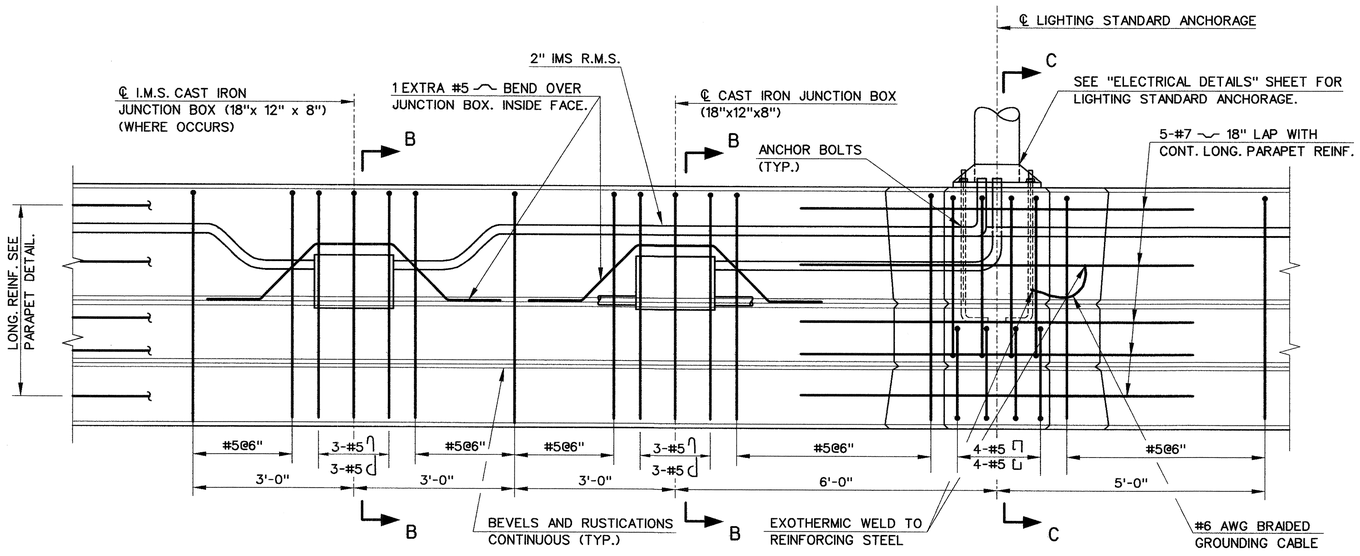
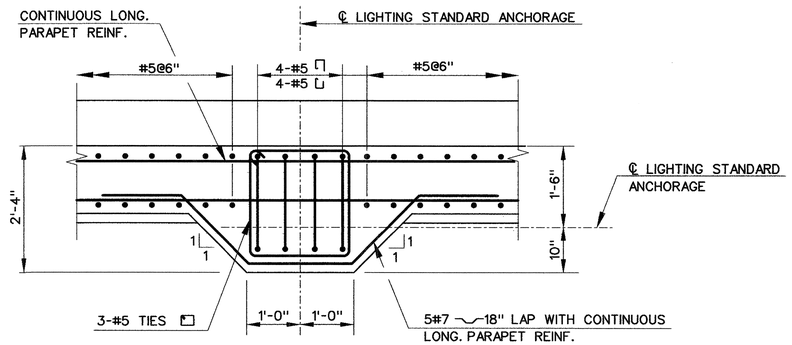
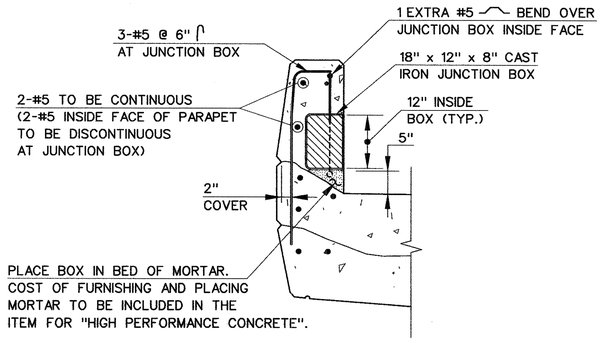


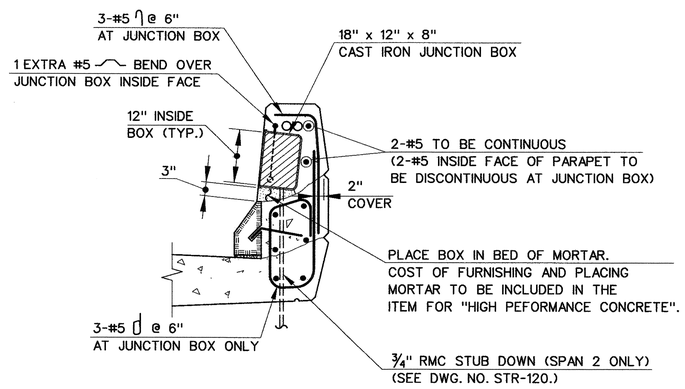
ELEVATION



SECTION D-D

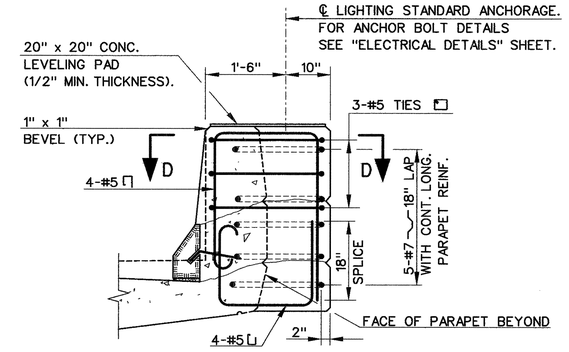


SIDEWALK



SLOPED CURB

SECTION B-B



SIDEWALK AND SLOPED CURB

SECTION C-C

NOTE:
FOR PARAPET DETAILS, SEE DWG. NO. STR-91.

PARAPET REINFORCEMENT AT LIGHTING STANDARD & JUNCTION BOX

SCALE: ¾"-1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: M. OFFENBERG
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S106.DGN
PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN
DRAWING TITLE: SLAB DETAILS - SHEET 2 OF 5

PROJECT NO.: 92-526
DRAWING NO.: STR-92
SHEET NO.: 226

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07 APR 2000
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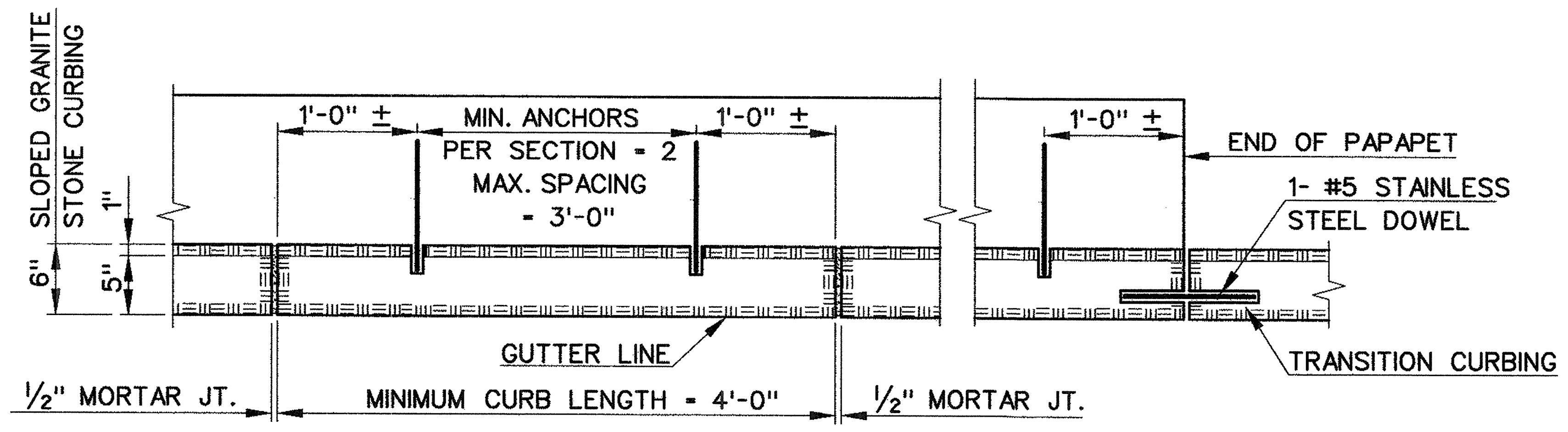
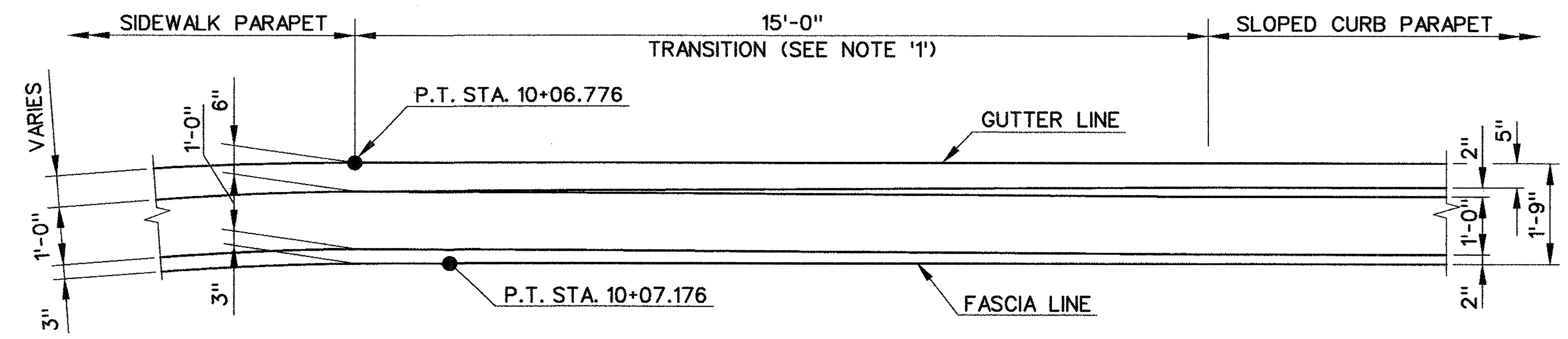


PLAN

GRANITE STONE CURBING

SCALE: 1"=1'-0"

NOTE:
SLOPED GRANITE STONE CURBING AT SLOPED CURB PARAPET SHOWN, GRANITE STONE CURBING AT SIDEWALK SIMILAR.



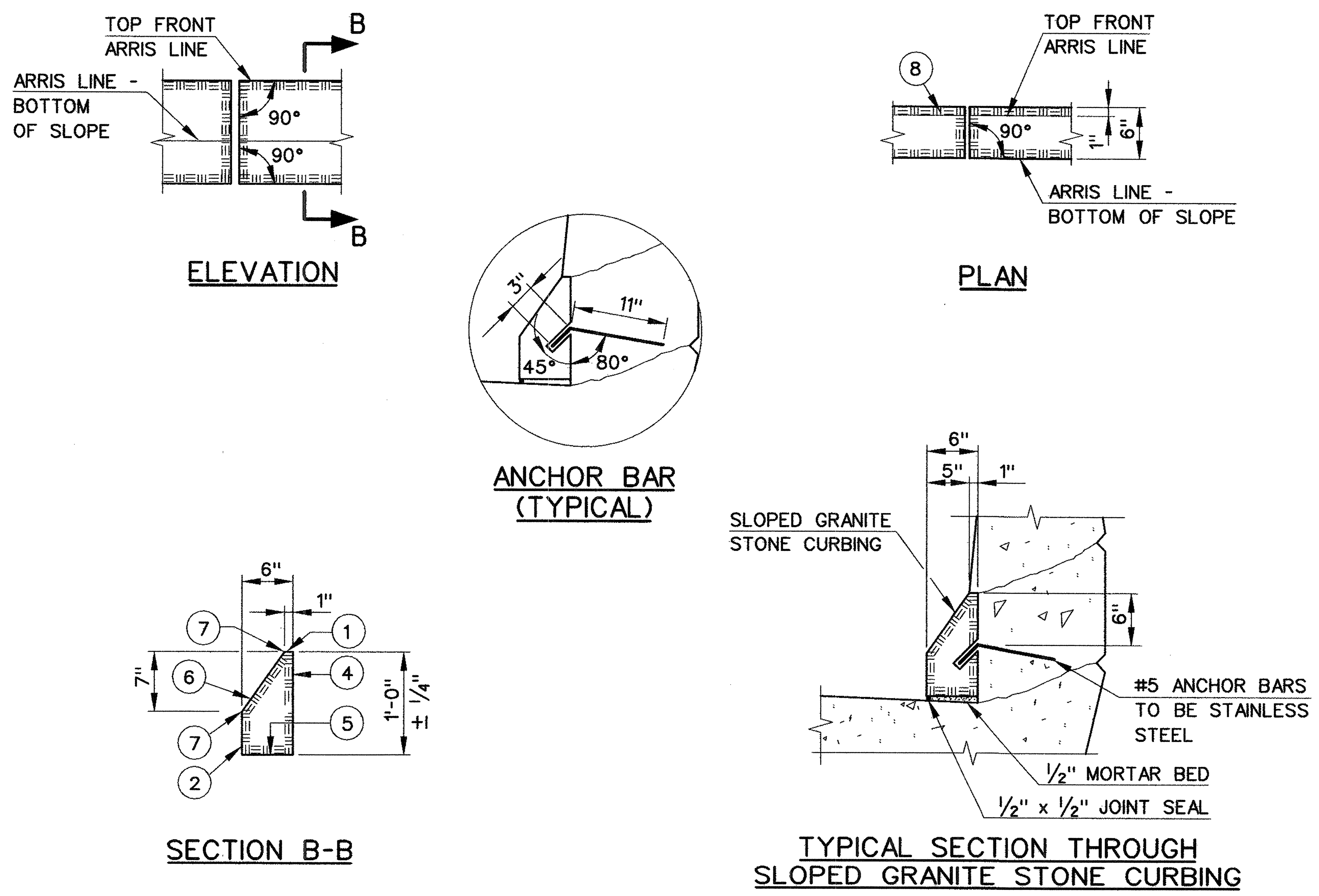
PLAN

PARAPET TRANSITION DETAIL

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

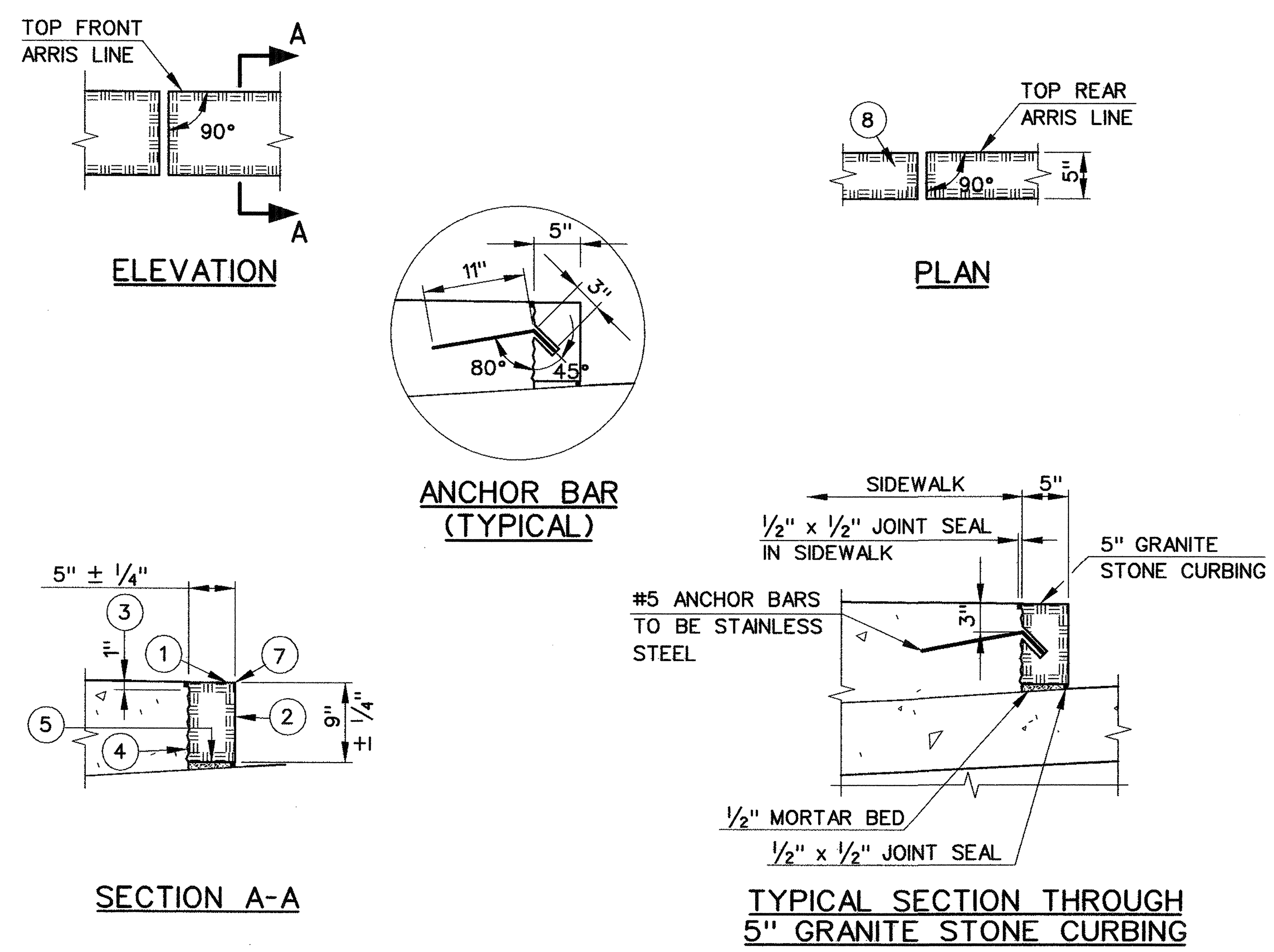
NOTES:
1. TRANSITION 6"x12" SLOPED GRANITE STONE CURBING TO 5"x9" GRANITE STONE CURBING WITHIN THESE LIMITS.

2. FOR LOCATION OF PARAPET TRANSITION, SEE DWG. NO. STR-87.



SLOPED GRANITE STONE CURBING

SCALE: 1"= 1'-0"



6" GRANITE STONE CURBING

SCALE: 1"= 1'-0"

TOLERANCE NOTES:

1. SAWED SURFACE APPROXIMATING A TRUE PLANE WITH NO PROJECTIONS OR DEPRESSIONS GREATER THAN 1/4".
2. SMOOTH, QUARRY SPLIT SURFACE, FREE OF DRILL HOLES, WITH PROJECTIONS OR DEPRESSIONS NOT OVER 1/2".
3. NO PROJECTIONS OR DEPRESSIONS WITHIN THIS AREA GREATER THAN 1/4".
4. SPLIT SURFACE SHALL BE FREE OF ANY PROJECTIONS OVER 1".
5. SAWED OR SPLIT SURFACE APPROXIMATING A TRUE PLANE TO THE SPECIFIED DIMENSIONS WITH PROJECTION NO GREATER THAN 1/4".
6. SAWED SURFACE FREE OF ALL QUARRY SAWING AND CUTTING MARKS WITH ALLOWABLE DEPRESSIONS OR PROJECTIONS NOT OVER 1/4"
7. THESE ARRIS LINES SHALL BE STRAIGHT AND TRUE WITHIN A (±) TOLERANCE OF 1/4".
8. ENDS OF STONES AT INTERMEDIATE JOINTS SHALL BE HELD FULL FOR 2" FROM ALL EXPOSED SURFACES WITH A PERMITTED VARIATION OF 1/4". BEYOND THIS AREA THE JOINT MAY FALL AWAY A MAXIMUM OF 3".

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. CICHOWSKI
DRAFTER: M. OFFENBERG / A. KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S110.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: SLAB DETAILS - SHEET 3 OF 5

PROJECT NO.: 92-526
DRAWING NO.: STR-93
SHEET NO.: 227

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07 APR 2000
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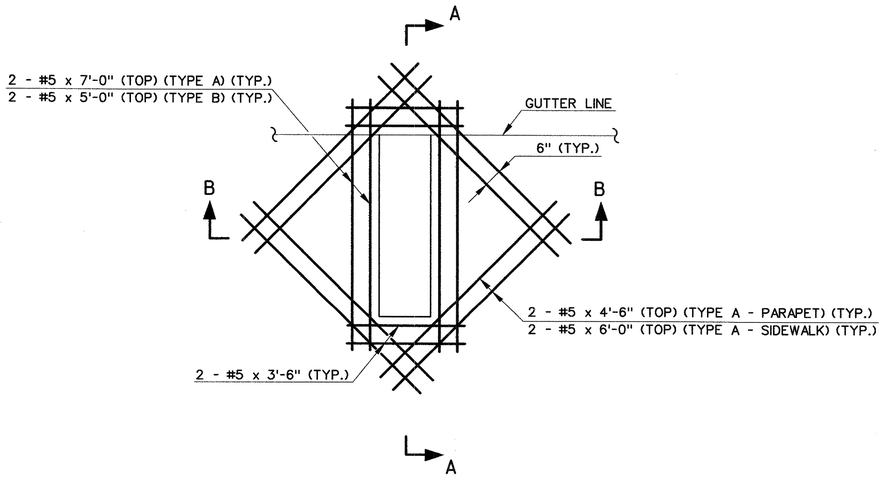
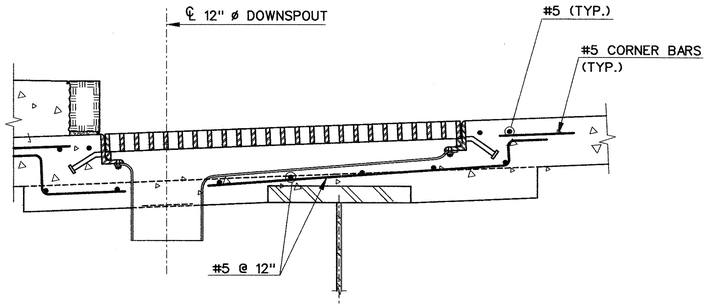


PLAN

SLAB REINFORCEMENT @ SCUPPERS

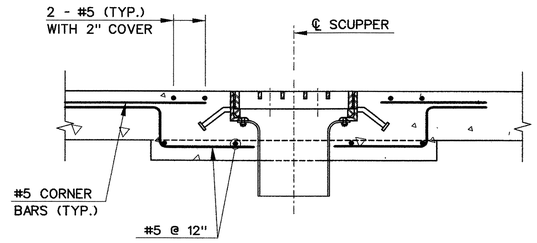
SCALE: 1/2"= 1'-0"



SECTION A-A

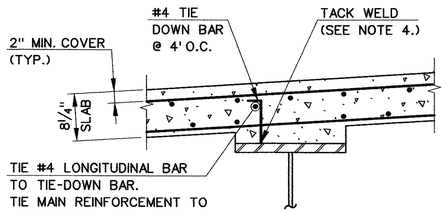
SCALE: 1"= 1'-0"

(TYPE A SCUPPER - SIDEWALK SHOWN)
(TYPE A - PARAPET AND TYPE B SIMILAR)



SECTION B-B

SCALE: 1" = 1'-0"

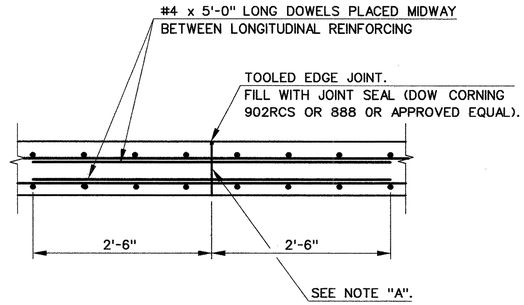


TIE DOWN DETAIL

NOT TO SCALE

TIE DOWN NOTES:

1. TIE-DOWN BARS DO NOT EXCLUDE THE USE OF CHAIRS FOR SUPPORTING THE REINFORCEMENT MAT.
2. THE COST OF FURNISHING AND PLACING TIE-DOWN BARS TO BE INCLUDED IN THE CONTRACT ITEM "DEFORMED STEEL BARS (CLADDED STAINLESS STEEL)".
3. TIE-DOWN BARS AND LONGITUDINAL BARS SHALL CLEAR SHEAR CONNECTORS.
4. WELDING OF TIE DOWN BARS SHALL BE ALLOWED IN FLANGE COMPRESSION STRESS ZONES ONLY.



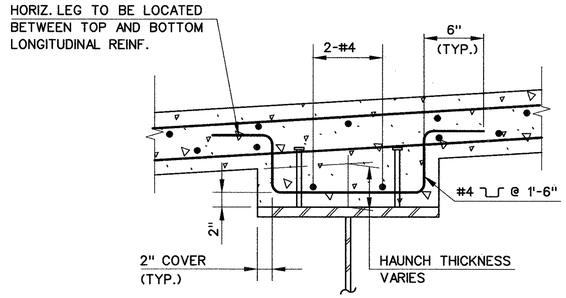
SECTION

TRANSVERSE CONSTRUCTION JOINT

NOT TO SCALE

NOTE "A":

ROUGHEN SURFACE, BLAST CLEAN, THEN APPLY A NEAT CEMENT GROUT OR OTHER SUITABLE BONDING MATERIAL IMMEDIATELY PRIOR TO PLACING ADJACENT POUR. COST TO BE INCLUDED IN THE ITEM "CLASS "F" CONCRETE".



SECTION

HAUNCH REINFORCEMENT DETAIL

NOT TO SCALE

(REQUIRED FOR HAUNCH DEPTH GREATER THAN 4")

NOTES:

1. FOR SCUPPER LOCATIONS, SEE SLAB PLANS ON DWG. NOS. STR-87 THRU STR-90.
2. FOR SCUPPER DETAILS, SEE DWG. NO. STR-101.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: M. OFFENBERG / A. KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony D. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S111.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: SLAB DETAILS - SHEET 4 OF 5

PROJECT NO.: 92-526
DRAWING NO.: STR-94
SHEET NO.: 228

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07 APR 2000
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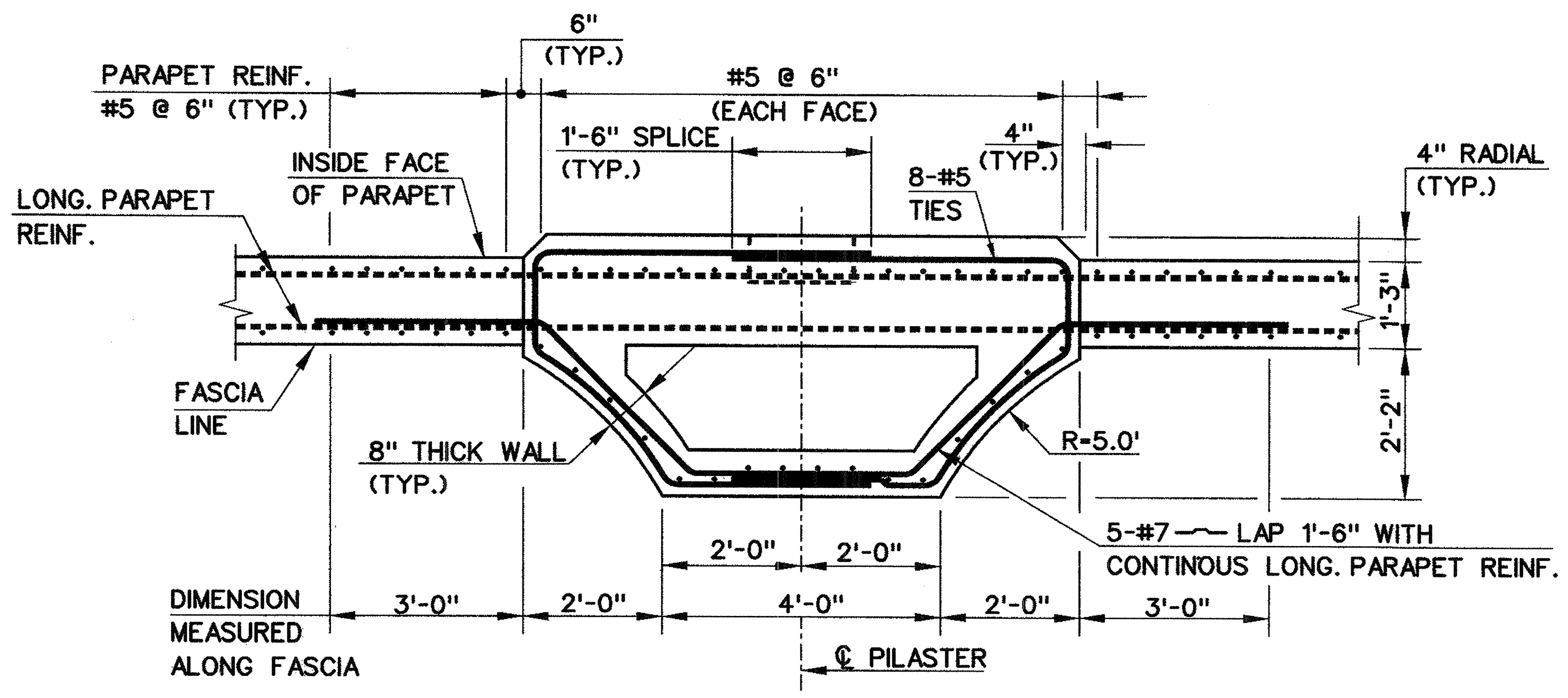
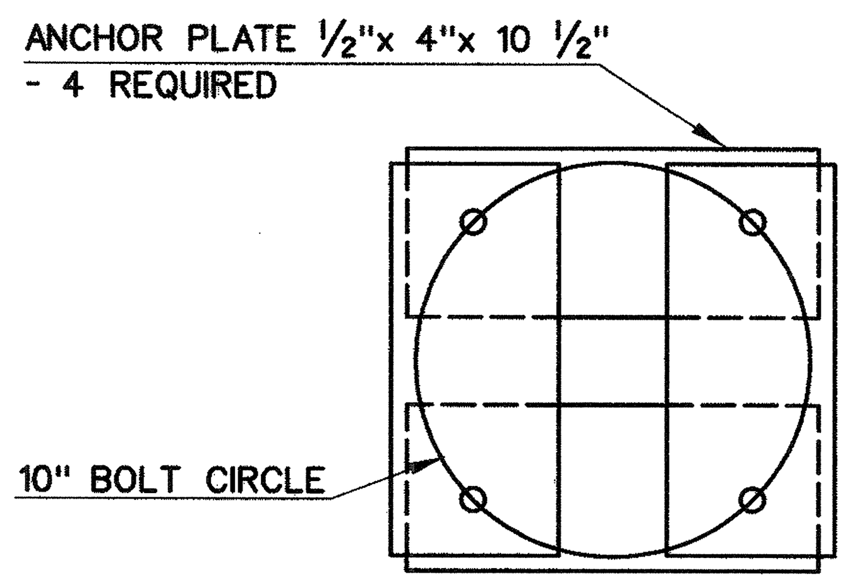


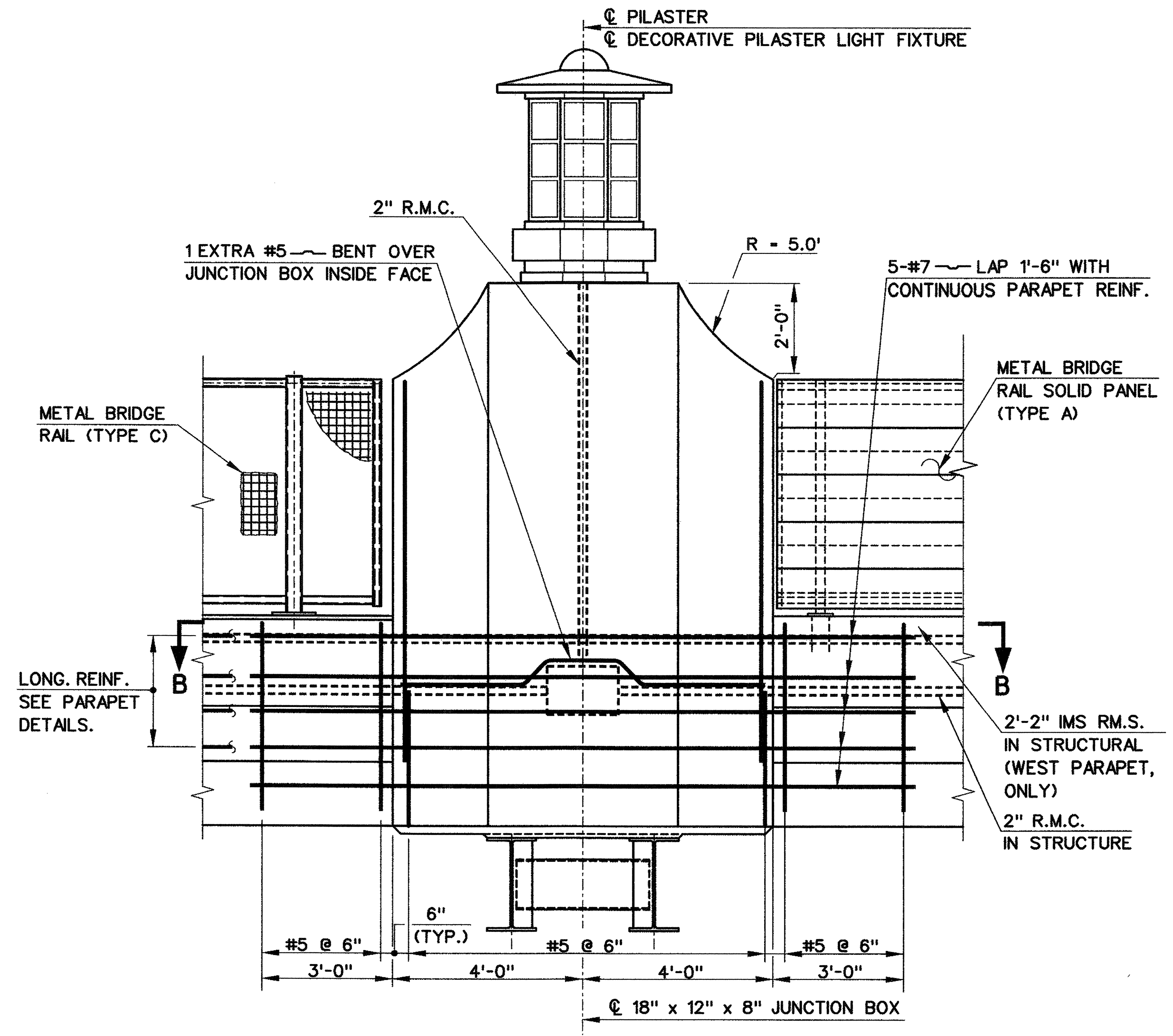
SECTION B-B

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



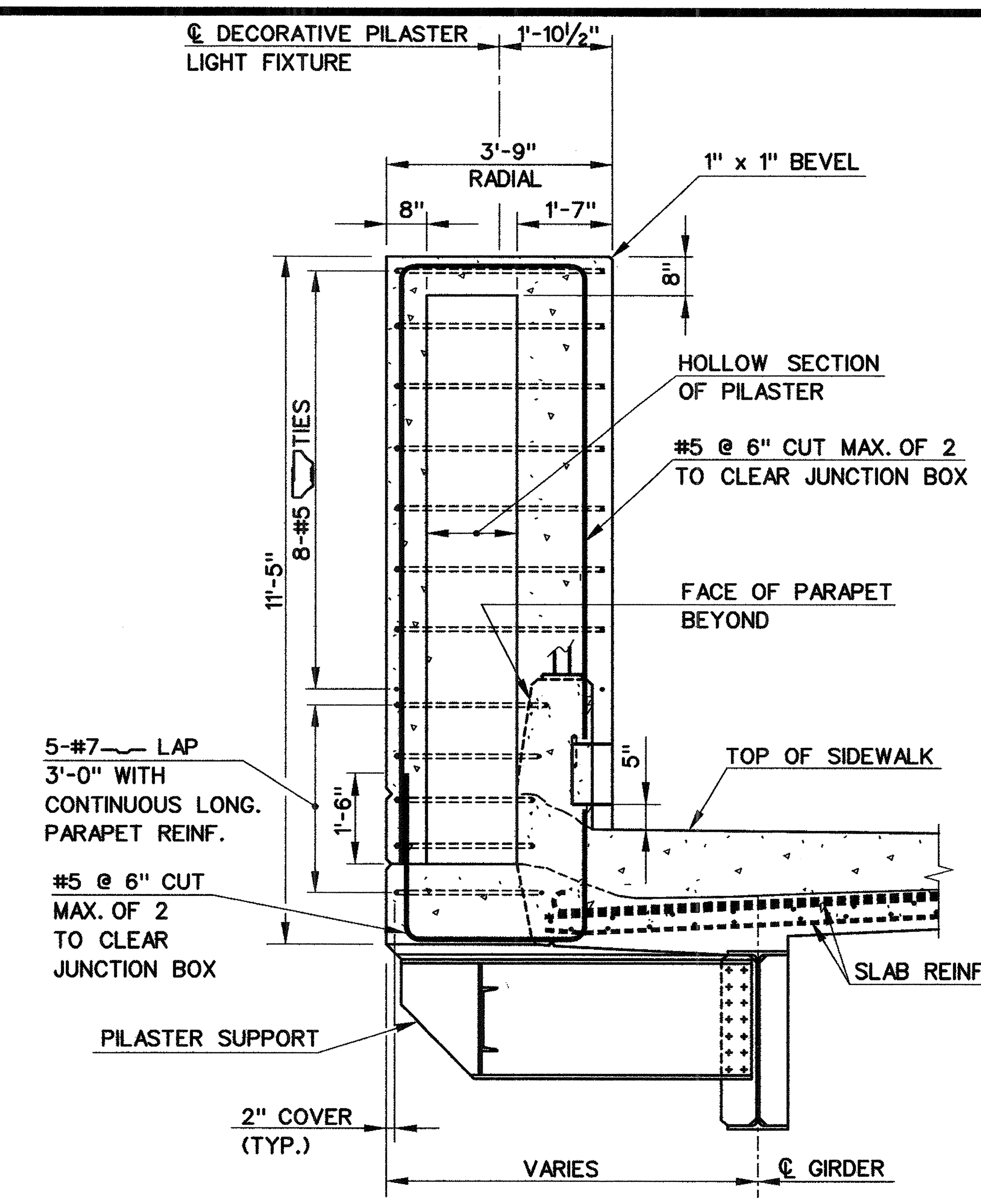
ANCHOR PLATE DETAIL

SCALE: 1"=1'-0"



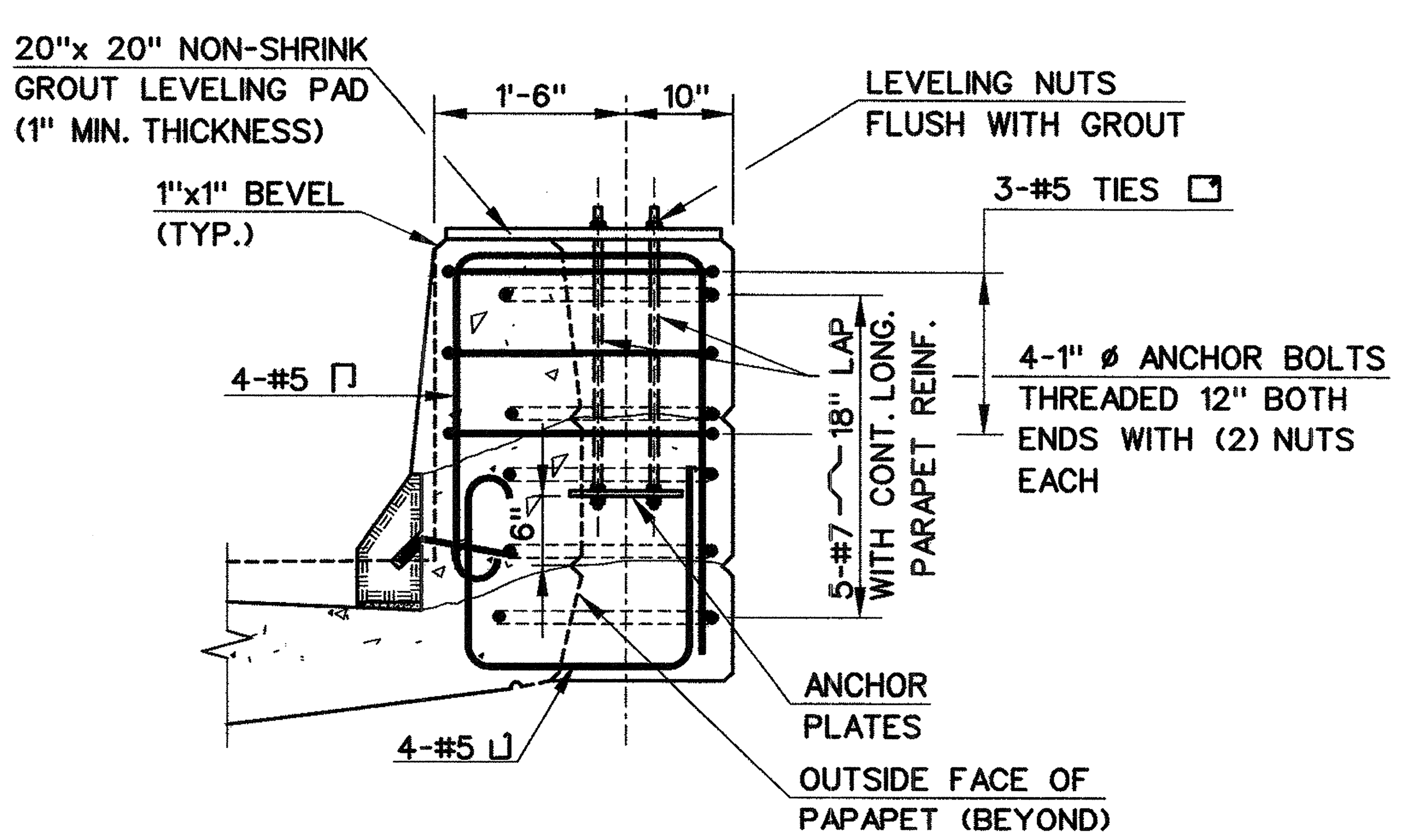
PARAPET ELEVATION AT PILASTER

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



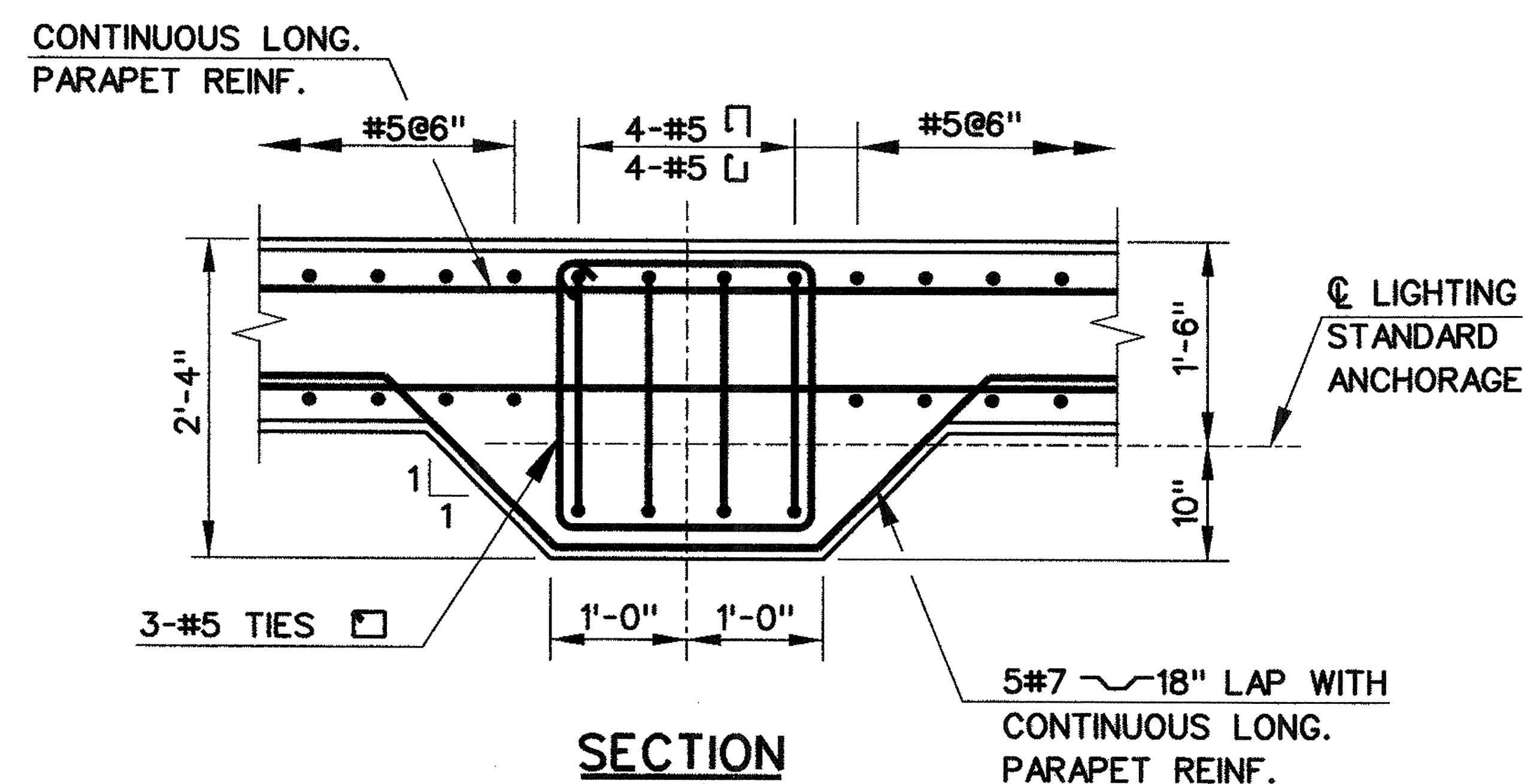
TYPICAL SECTION @ PILASTER

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



SECTION D-D

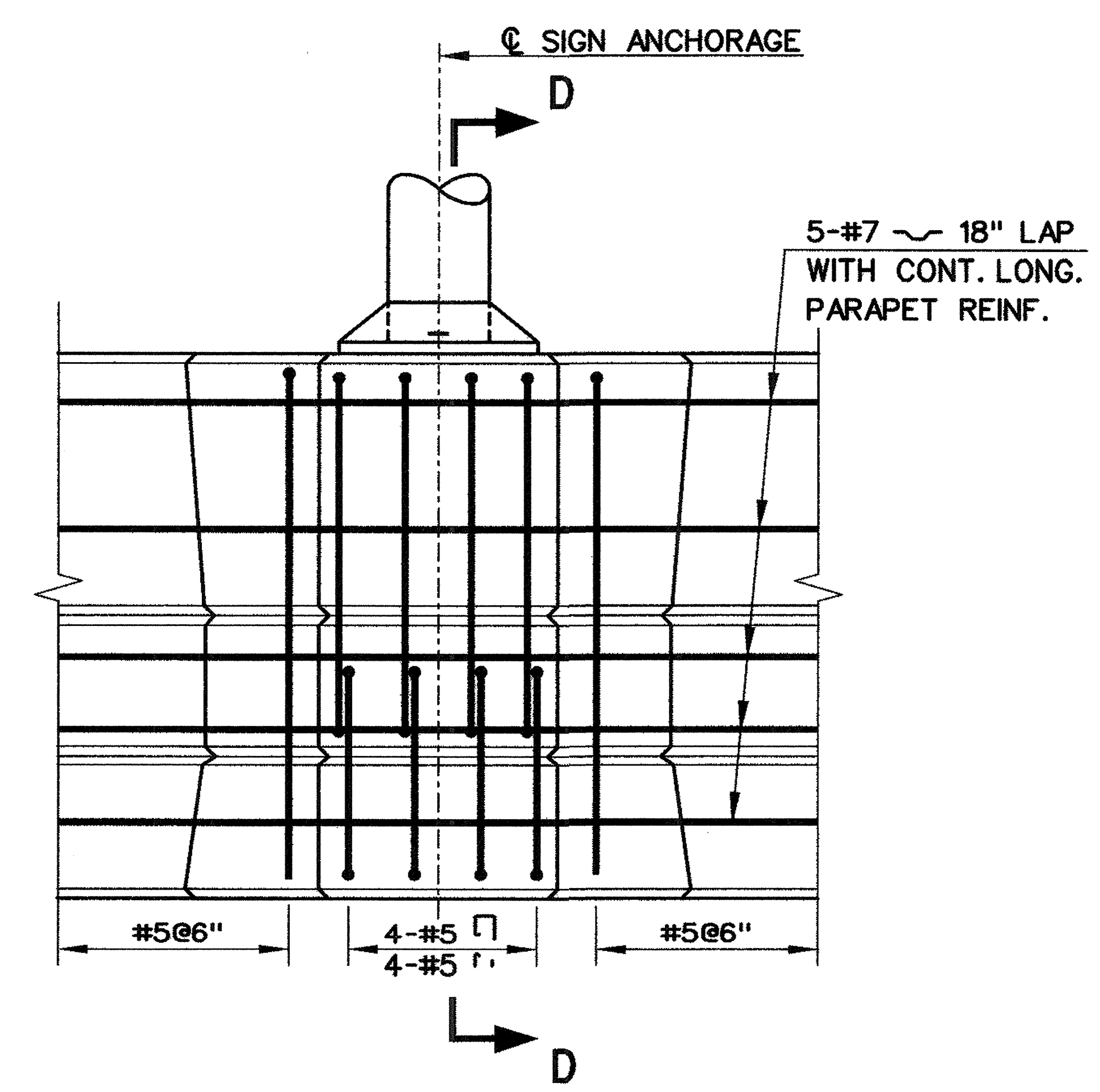
SCALE: 3/4"=1'-0"



SECTION

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

SIGN ANCHORAGE DETAILS



ELEVATION

SCALE: 3/4"=1'-0"

NOTES:

1. FOR LOCATION OF PILASTERS, SEE DWG. NO. STR-87.
2. FOR PARAPET DETAILS NOT SHOWN, SEE DWG. NOS. STR-91 AND 92.
3. FOR DECORATIVE PILASTER LIGHT FIXTURE, SEE NO. STR-120-1.
4. FOR SIGN ANCHORAGE LOCATIONS, SEE DWG. NO. STR-87.

ANCHORAGE NOTES:

1. ANCHOR BOLTS AND NUTS SHALL BE MANUFACTURED OF STEEL CONFORMING TO THE FOLLOWING REQUIREMENTS:

   SQUARE LEVELING NUTS - LOW CARBON STEEL.

   BOLTS - ASTM A-449.

   HEX NUTS - ASTM A-563 GRADE DH.

2. ANCHOR BOLTS AND NUTS TO BE GALVANIZED IN ACCORDANCE WITH ASTM A-153.
3. STRUCTURAL STEEL PLATE SHALL CONFORM TO ASTM A-36.
4. COSTS OF FURNISHING AND INSTALLING ANCHOR BOLTS, NUTS AND STEEL PLATES TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND FOR "DEFORMED STEEL BARS (CLADDED STAINLESS STEEL)".

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R.CICHOWSKI
DRAFTER: A. KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Marotti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S112.DGN | PLOTTED DATE: 4-5-00

TOWN: NEW HAVEN

DRAWING TITLE: SLAB DETAILS - SHEET 5 OF 5

PROJECT NO.: 92-526
DRAWING NO.: STR-95
SHEET NO.: 229

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TOP OF SLAB ELEVATIONS (SPAN 1)																
GIRDER	INCREMENT (ft)	CL BRG ABUT. 1	1	2	3	4	5	6	7	8	9	10	11	12	13	CL BRG PIER 1
1	9.822	34.544	34.704	34.943	35.285	35.677	36.023	36.369	36.715	37.061	37.407	37.753	38.100	38.446	38.792	39.138
2	9.718	34.822	35.131	35.458	35.751	36.098	36.440	36.783	37.125	37.467	37.810	38.152	38.495	38.837	39.179	39.522
3	9.614	35.074	35.376	35.694	36.022	36.360	36.698	37.037	37.376	37.714	38.053	38.392	38.731	39.069	39.408	39.747
4	9.510	35.267	35.573	35.886	36.212	36.546	36.881	37.216	37.551	37.887	38.222	38.557	38.892	39.227	39.562	39.897
5	9.405	35.132	35.429	35.736	36.060	36.391	36.722	37.054	37.385	37.717	38.048	38.379	38.711	39.042	39.373	39.705
6	9.301	34.992	35.280	35.584	35.905	36.168	36.458	36.816	37.144	37.472	37.799	38.127	38.455	38.782	39.110	39.438

TOP OF SLAB ELEVATIONS (SPAN 1)							
GIRDER	INCREMENT (ft)	CL BRG ABUT. 1	1	2	3	4	CL * SUPPORT
7	7.791	33.007	33.480	34.006	-	-	34.447
8	10.565	33.810	34.226	34.632	35.141	-	37.010
9	7.884	34.833	35.113	-	-	-	35.399
10	10.511	34.709	34.970	35.437	-	-	35.843
11	9.460	34.351	34.349	34.717	35.196	35.706	36.224
12**	8.970	35.626	35.997	36.418	-	-	36.870
13	10.288	34.054	34.175	-	-	-	34.449

TOP OF SLAB ELEVATIONS (SPAN 2)

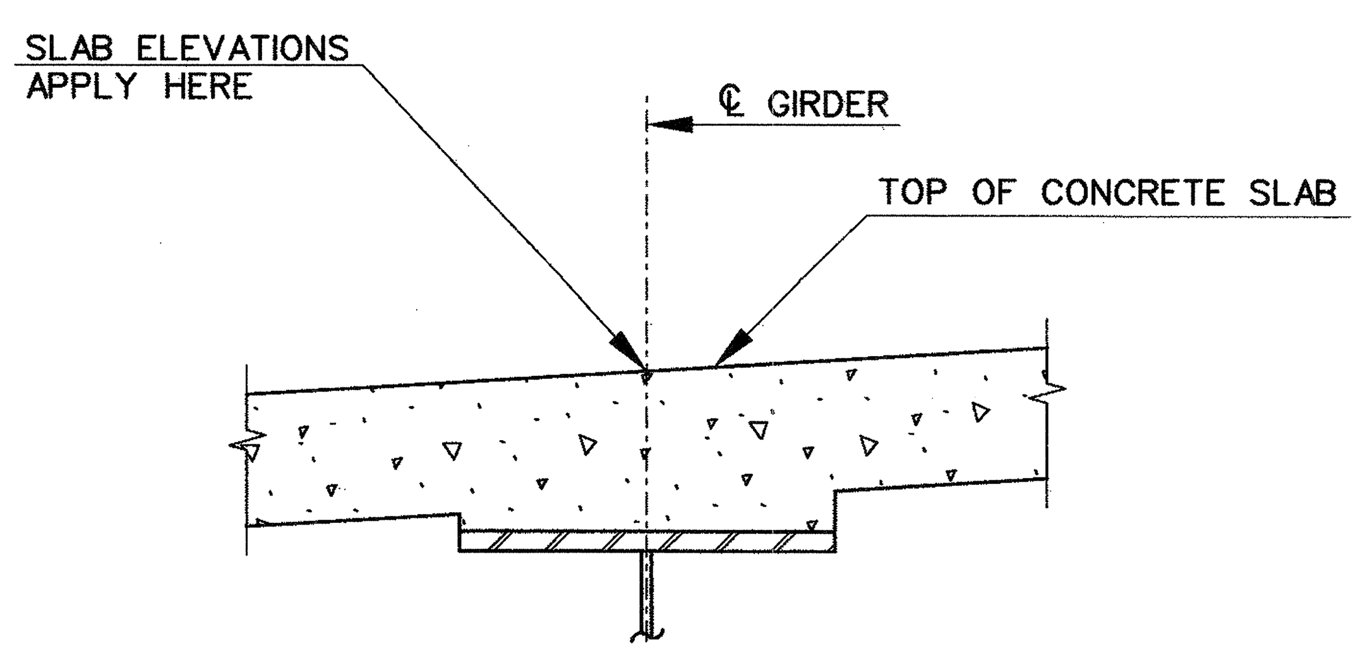
GIRDER	INCREMENT (ft)	CL BRG P1/FB0	1	2	3	FB1	1	2	3	FB2	1	2	3	FB3	1	2
1	10.000	39.232	39.584	39.936	40.289	40.641	40.993	41.345	41.692	42.029	42.358	42.679	42.991	43.295	43.590	43.876
2	10.000	39.616	39.968	40.320	40.673	41.025	41.377	41.729	42.076	42.413	42.742	43.063	43.375	43.679	43.974	44.260
3	10.000	39.841	40.193	40.545	40.898	41.250	41.602	41.954	42.301	42.638	42.967	43.288	43.600	43.904	44.199	44.485
4	10.000	39.991	40.343	40.695	41.048	41.400	41.752	42.104	42.451	42.788	43.117	43.438	43.750	44.054	44.349	44.635
5	10.000	39.799	40.151	40.503	40.856	41.208	41.560	41.912	42.259	42.596	42.925	43.246	43.558	43.862	44.157	44.443
6	10.000	39.532	39.884	40.236	40.589	40.941	41.293	41.645	41.992	42.329	42.658	42.979	43.291	43.595	43.890	44.176

GIRDER	3	FB4	1	2	3	FB5	1	2	3	FB6	1	2	3	FB7	1	2	3	CL BRG P1/FB8
1	44.154	44.424	44.685	44.937	45.181	45.417	45.644	45.862	46.072	46.273	46.466	46.650	46.826	46.993	47.152	47.302	47.444	47.577
2	44.538	44.808	45.069	45.321	45.565	45.801	46.028	46.246	46.456	46.657	46.850	47.034	47.210	47.377	47.536	47.686	47.828	47.961
3	44.763	45.033	45.294	45.546	45.790	46.026	46.253	46.471	46.681	46.882	47.075	47.259	47.435	47.602	47.761	47.911	48.053	48.186
4	44.913	45.183	45.444	45.696	45.940	46.176	46.403	46.621	46.831	47.032	47.225	47.409	47.585	47.752	47.911	48.061	48.203	48.336
5	44.721	44.991	45.252	45.504	45.748	45.984	46.211	46.429	46.639	46.840	47.033	47.217	47.393	47.560	47.719	47.869	48.011	48.144
6	44.454	44.724	44.985	45.237	45.481	45.717	45.944	46.162	46.372	46.573	46.766	46.950	47.126	47.293	47.452	47.602	47.744	47.877

NOTES :

* ℄ SUPPORT INDICATES THE INTERSECTION OF GIRDER WEBS. SEE "FRAMING PLAN" DWG. NO. STR-47 FOR LOCATION.

** AT GIRDER 12 BOTH ENDS APPLY AT ℄ SUPPORT (TYP.).



SECTION

SLAB ELEVATION DETAIL

NOT TO SCALE

MEMBER DEFLECTIONS (SPAN 1) (ft.)																
GIRDER	INCREMENT (ft)	CL BRG PIER 1	1	2	3	4	5	6	7	8	9	10	11	12	13	CL BRG PIER 2
G1	9.822	0	-0.185	-0.359	-0.510	-0.631	-0.719	-0.771	-0.785	-0.763	-0.704	-0.613	-0.492	-0.344	-0.177	0
G2	9.718	0	-0.152	-0.294	-0.419	-0.519	-0.593	-0.639	-0.654	-0.639	-0.593	-0.519	-0.419	-0.294	-0.152	0
G3	9.614	0	-0.145	-0.282	-0.401	-0.496	-0.567	-0.611	-0.626	-0.611	-0.567	-0.496	-0.401	-0.282	-0.145	0
G4	9.510	0	-0.139	-0.269	-0.383	-0.474	-0.542	-0.584	-0.599	-0.584	-0.542	-0.474	-0.383	-0.269	-0.139	0
G5	9.405	0	-0.133	-0.257	-0.366	-0.453	-0.519	-0.559	-0.572	-0.559	-0.519	-0.453	-0.366	-0.257	-0.133	0
G6	9.301	0	-0.150	-0.290	-0.412	-0.509	-0.579	-0.620	-0.632	-0.613	-0.566	-0.493	-0.396	-0.278	-0.143	0

MEMBER DEFLECTIONS (SPAN 1) (ft.)							
GIRDER	INCREMENT (ft)	CL BRG PIER 1	1	2	3	4	CL SUPPORT
G7	7.791	0	-0.005	-0.005	-	-	0
G8	10.565	0	-0.030	-0.042	-0.031	-	0
G9	7.884	0	-0.002	-	-	-	0
G10	10.511	0	-0.021	-0.021	-	-	0
G11	9.460	0	-0.045	-0.073	-0.073	-0.046	0
*G12	8.970	0	-0.008	-0.008	-	-	0
G13	10.288	0	-0.004	-	-	-	0

MEMBER DEFLECTION NOTES :

1. MEMBER DEFLECTIONS ARE SHOWN IN FEET.
2. NEGATIVE MEMBER DEFLECTION INDICATES DOWNWARD DEFLECTION OF THE GIRDER.
3. MEMBER DEFLECTIONS DO NOT REFLECT THE DEFLECTIONS OF THE SUPPORTING MEMBERS.
4. MEMBER DEFLECTIONS INCLUDE DEFLECTIONS FROM REMAIN-IN-PLACE FORMS, SLAB, HAUNCH, FUTURE BITUMINOUS WEARING SURFACE AND PARAPET DEAD LOADS. MEMBER DEFLECTIONS DO NOT INCLUDE DEFLECTIONS FROM GIRDER SELF WEIGHT, CROSS MEMBERS AND UTILITIES DEAD LOADS.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. DEVAUX
DRAFTER: M. OFFENBERG
CHECKED BY: M. VIOLANTI
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Violetti DATE: 3/5/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S107.DGN PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN

DRAWING TITLE: SLAB ELEVATIONS - SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-96
SHEET NO.: 230

14:14:38
08 MAR 2000
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TOP OF SLAB ELEVATIONS (SPAN 3)

GIRDER	INCREMENT (ft)	CL BRG PIER 2	1	2	3	4	5	6	7	8	CL PIER 3
1	10.031	47.611	47.734	47.848	47.953	48.050	48.139	48.218	48.290	48.352	48.406
2	10.031	47.995	48.118	48.232	48.337	48.434	48.523	48.602	48.674	48.736	48.790
3	10.031	48.220	48.343	48.457	48.562	48.659	48.748	48.827	48.899	48.961	49.015
4	10.031	48.370	48.493	48.607	48.712	48.809	48.898	48.977	49.049	49.111	49.165
5	10.031	48.178	48.301	48.415	48.520	48.617	48.706	48.785	48.857	48.919	48.973
6	10.031	47.911	48.034	48.148	48.253	48.350	48.439	48.518	48.590	48.652	48.706

TOP OF SLAB ELEVATIONS (SPAN 4)

GIRDER	INCREMENT (ft)	CL PIER 3	1	2	3	4	5	6	7	8	9	10	11	12	13	CL PIER 4
1	8.603	48.406	48.446	48.479	48.506	48.527	48.541	48.549	48.551	48.546	48.535	48.518	48.495	48.465	48.429	48.386
2	8.844	48.790	48.831	48.865	48.892	48.913	48.927	48.934	48.934	48.928	48.916	48.896	48.870	48.837	48.798	48.752
3	9.085	49.015	49.057	49.092	49.119	49.140	49.153	49.159	49.159	49.151	49.136	49.115	49.086	49.050	49.007	48.957
4	9.326	49.165	49.208	49.243	49.271	49.291	49.304	49.310	49.308	49.299	49.282	49.258	49.226	49.187	49.141	49.087
5	9.567	48.973	49.017	49.053	49.081	49.101	49.113	49.118	49.115	49.104	49.085	49.058	49.024	48.982	48.932	48.874
6	9.808	48.706	48.751	48.787	48.816	48.836	48.847	48.851	48.846	48.834	48.813	48.783	48.746	48.700	48.647	48.585

TOP OF SLAB ELEVATIONS (SPAN 5)

GIRDER	INCREMENT (ft)	CL PIER 4	1	2	3	4	5	6	7	8	9	10	11	12	13	CL PIER 5
1	8.111	48.386	48.340	48.289	48.232	48.169	48.101	48.027	47.948	47.863	47.772	47.676	47.574	47.466	47.353	47.235
2	8.502	48.752	48.701	48.644	48.581	48.512	48.437	48.356	48.268	48.174	48.075	47.969	47.856	47.738	47.613	47.483
3	8.893	48.957	48.902	48.839	48.770	48.694	48.612	48.523	48.426	48.324	48.214	48.098	47.975	47.845	47.709	47.565
4	9.088	49.087	49.026	48.958	48.882	48.800	48.709	48.612	48.507	48.394	48.275	48.148	48.013	47.872	47.723	47.566
5	9.426	48.874	48.807	48.733	48.651	48.561	48.462	48.356	48.242	48.120	47.989	47.851	47.705	47.551	47.390	47.220
6	9.763	48.585	48.513	48.432	48.342	48.244	48.138	48.023	47.899	47.766	47.625	47.476	47.317	47.151	46.976	46.793

TOP OF SLAB ELEVATIONS (SPAN 6)

GIRDER	INCREMENT (ft)	CL PIER 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	CL PIER 6
1	9.543	47.235	47.088	46.933	46.769	46.598	46.419	46.232	46.037	45.834	45.624	45.405	45.179	44.945	44.703	44.453	44.195	43.929	43.656
2	9.526	47.483	47.329	47.167	46.997	46.819	46.633	46.440	46.239	46.030	45.813	45.588	45.356	45.116	44.868	44.612	44.348	44.077	43.798
3	9.509	47.565	47.404	47.236	47.059	46.875	46.683	46.483	46.276	46.061	45.838	45.607	45.369	45.123	44.869	44.607	44.338	44.061	43.776
4	9.493	47.566	47.399	47.224	47.041	46.851	46.652	46.447	46.233	46.012	45.783	45.546	45.302	45.050	44.791	44.524	44.249	43.966	43.676
5	9.476	47.220	47.046	46.865	46.676	46.479	46.275	46.063	45.843	45.616	45.381	45.139	44.889	44.631	44.366	44.093	43.813	43.525	43.229
6	9.460	46.793	46.613	46.425	46.230	46.027	45.817	45.599	45.374	45.141	44.900	44.652	44.396	44.133	43.862	43.584	43.298	43.004	42.703

TOP OF SLAB ELEVATIONS (SPAN 7)

GIRDER	INCREMENT (ft)	CL PIER 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	CL PIER 7
1	9.705	43.656	43.370	43.075	42.773	42.462	42.143	41.816	41.481	41.138	40.787	40.427	40.060	39.684	39.300	38.908	38.508	38.100	37.684	37.259
2	9.515	43.798	43.511	43.217	42.914	42.604	42.287	41.961	41.628	41.287	40.938	40.581	40.217	39.844	39.464	39.076	38.681	38.277	37.866	37.447
3	9.325	43.776	43.490	43.195	42.894	42.585	42.268	41.944	41.613	41.274	40.927	40.574	40.213	39.844	39.468	39.084	38.693	38.295	37.889	37.476
4	9.136	43.676	43.389	43.095	42.795	42.487	42.172	41.849	41.520	41.184	40.840	40.490	40.132	39.767	39.395	39.016	38.630	38.237	37.836	37.429
5	8.948	43.229	42.943	42.650	42.350	42.044	41.730	41.410	41.083	40.749	40.409	40.062	39.708	39.347	38.979	38.605	38.223	37.835	37.440	37.039
6	8.760	42.703	42.418	42.126	41.827	41.522	41.211	40.893	40.569	40.238	39.901	39.557	39.207	38.850	38.487	38.117	37.741	37.358	36.969	36.573

TOP OF SLAB ELEVATIONS (SPAN 8)

GIRDER	INCREMENT (ft)	CL PIER 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	CL BRG ABUT. 2
1	9.775	37.259	36.823	36.379	35.927	35.466	34.998	34.521	34.035	33.544	33.052	32.560	32.068	31.576	31.084	30.592	30.100
2	9.615	37.447	37.016	36.577	36.130	35.675	35.212	34.740	34.262	33.779	33.296	32.813	32.330	31.848	31.365	30.882	30.399
3	9.455	37.476	37.049	36.615	36.173	35.723	35.266	34.801	34.329	33.855	33.382	32.908	32.434	31.961	31.487	31.013	30.539
4	9.296	37.429	37.007	36.577	36.141	35.697	35.245	34.787	34.322	33.858	33.393	32.928	32.464	31.999	31.534	31.070	30.605
5	9.136	37.039	36.622	36.198	35.766	35.328	34.883	34.430	33.974	33.519	33.063	32.607	32.152	31.696	31.240	30.785	30.329
6	8.977	36.573	36.161	35.742	35.316	34.884	34.445	33.999	33.552	33.106	32.659	32.212	31.765	31.319	30.872	30.425	29.978

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

DESIGNER: R. DEVAUX
DRAFTER: A. KILPATRICK
CHECKED BY: M. VIOLANTI
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Vicinelli DATE: 3/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S108.DGN
PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: SLAB ELEVATIONS - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-97
SHEET NO.: 231

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08 MAR 2000
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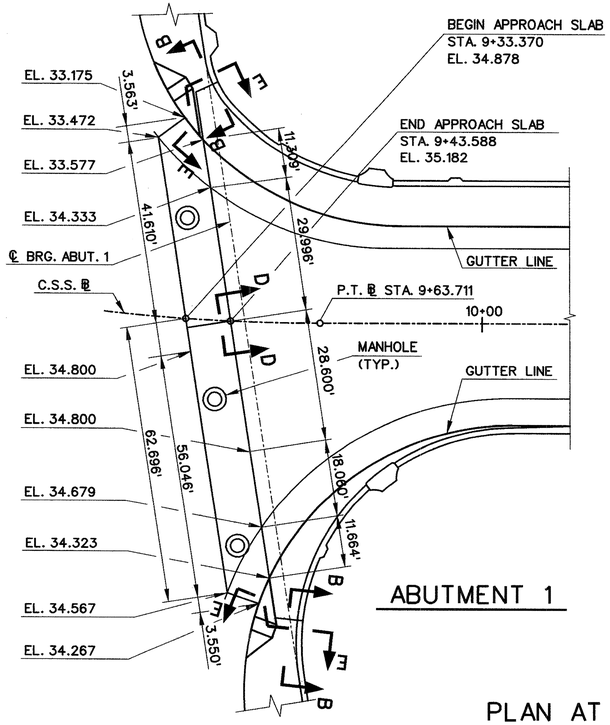
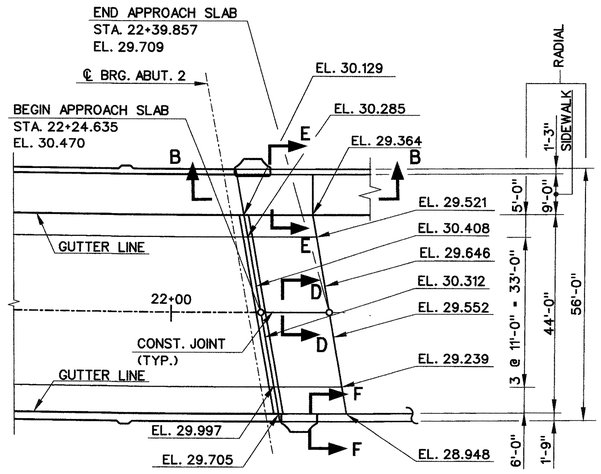


ABUTMENT 1

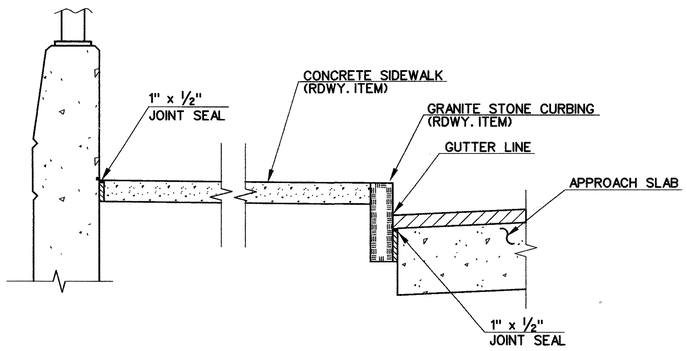


ABUTMENT 2

NOTE:
APPROACH SLAB ELEVATIONS APPLY AT TOP OF WEARING SURFACE.

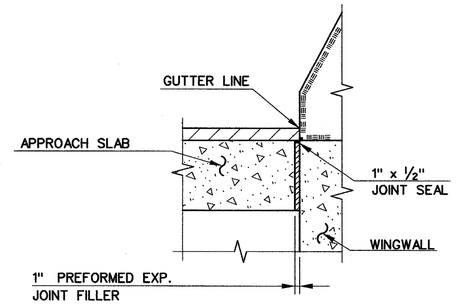
PLAN AT APPROACH SLABS

SCALE: 1/16"=1'-0"



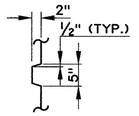
SECTION E-E

SCALE: 3/4"=1'-0"



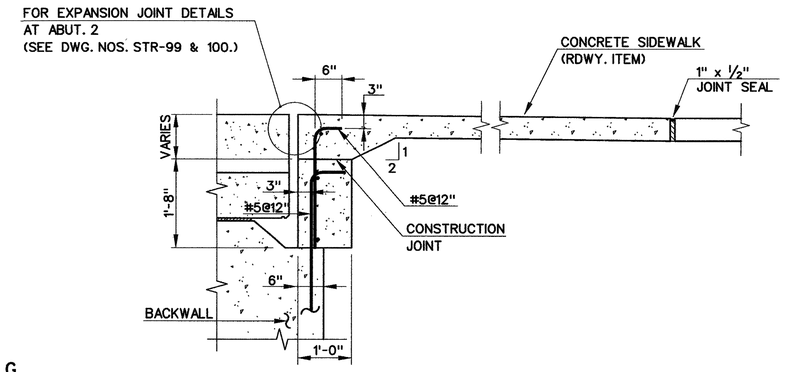
SECTION F-F

SCALE: 3/4"=1'-0"



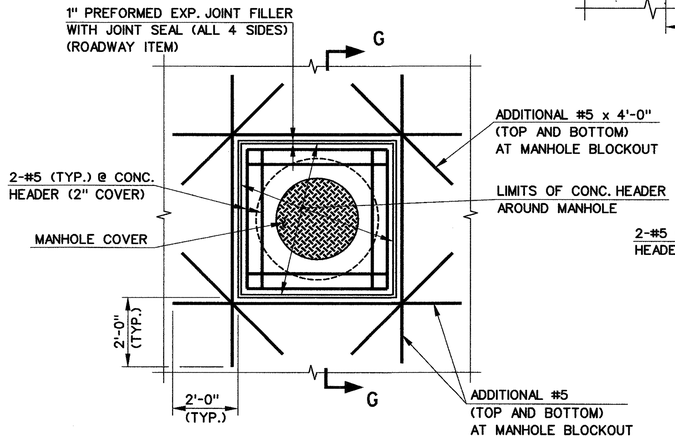
DETAIL 'A'

SCALE: 3/4"=1'-0"

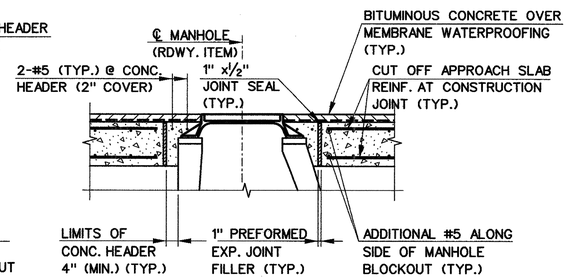


SECTION B-B

SCALE: 3/4"=1'-0"



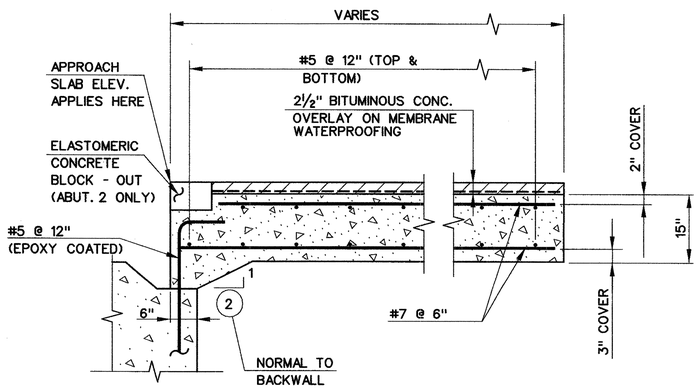
PLAN



SECTION G-G

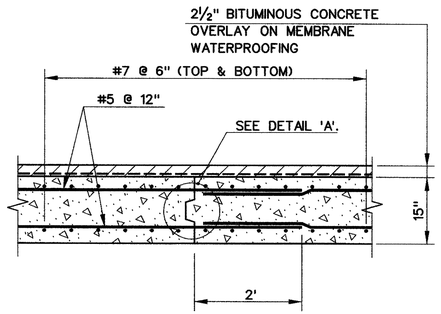
REINFORCEMENT AT MANHOLE

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



TYPICAL LONGITUDINAL SECTION

SCALE: 3/4"=1'-0"



SECTION D-D

SCALE: 3/4"=1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: M. OFFENBERG
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony J. Mantella DATE: 4.7.00

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION
OVER NEW HAVEN INTERLOCKING
AND RAIL YARD

CADD FILE: R703S109.DGN
PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN

DRAWING TITLE:
APPROACH SLAB DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-98
SHEET NO.: 232

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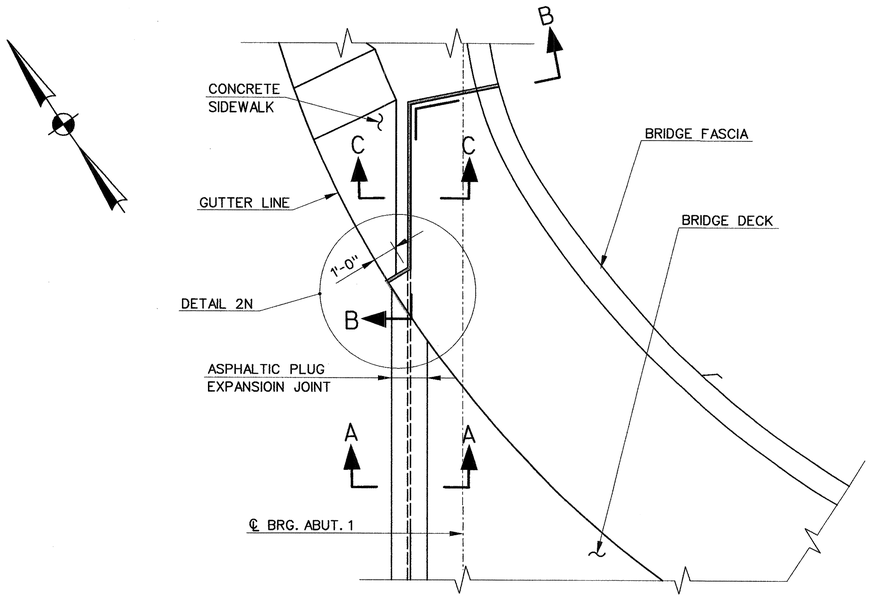
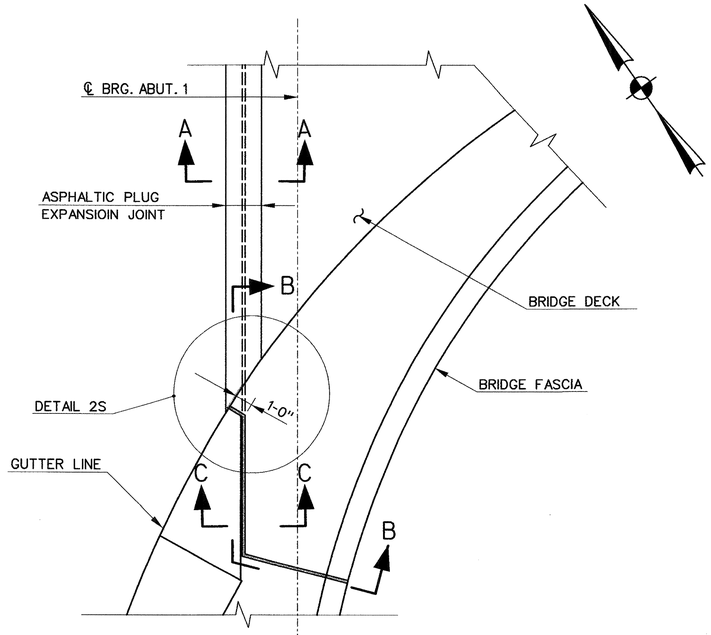
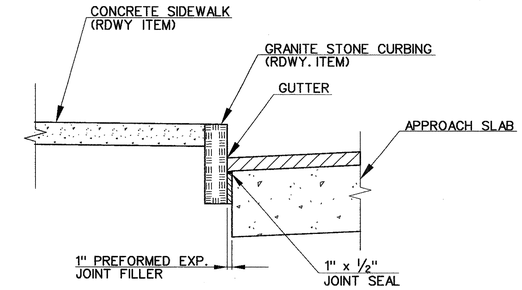


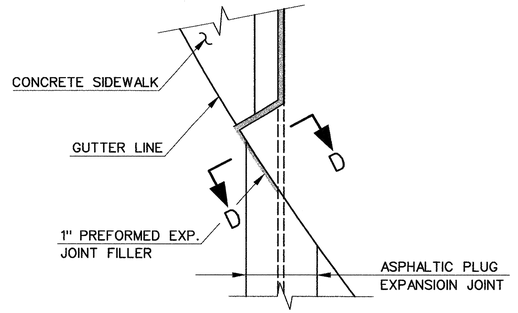
PLAN AT ABUTMENT 1
NORTH SIDE
SCALE: 1/4" = 1'-0'



PLAN AT ABUTMENT 1
SOUTH SIDE
SCALE: 1/4" = 1'-0'

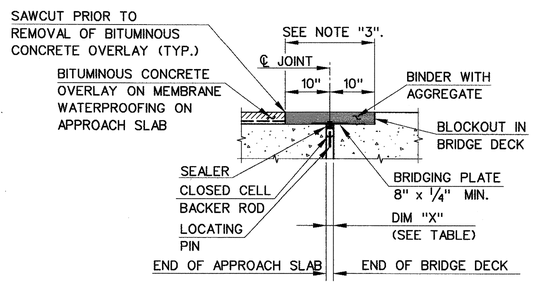


SECTION D-D
SCALE: 3/4"=1'-0"

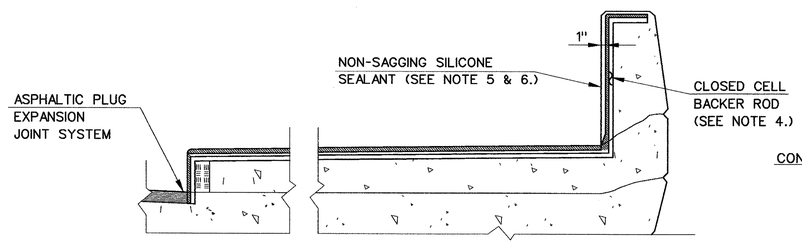


DETAIL 2N
SCALE: 1/2" = 1'-0'
(DETAIL 2S SIMILAR)

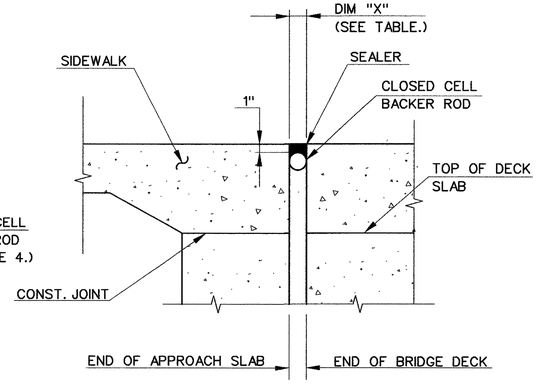
DIMENSION "X" FOR VARIOUS INSTALLATION TEMPERATURES						
	40°	50°	60°	70°	80°	90°
ABUTMENT 1	1.09"	1.00"	0.91"	0.81"	0.72"	0.62"



SECTION A-A
NOT TO SCALE



SECTION B-B
SCALE: 3/4"= 1'-0"



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

NOTES
1. TEMPERATURE GIVEN IN DEGREES FAHRENHEIT.
2. DIMENSION "X" GIVEN IN INCHES.
3. REMOVE NEW BITUMINOUS CONCRETE OVERLAY AND MEMBRANE WATERPROOFING. REPLACE WITH ASPHALTIC PLUG EXPANSION JOINT SYSTEM. THIS WORK TO BE PAID FOR UNDER THE CONTRACT ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM". (SEE SPECIAL PROVISIONS.)
4. THE CLOSED CELL BACKER ROD SHALL BE PLACED A MINIMUM OF 2" FROM THE OUTSIDE FACE OF PARAPETS.
5. PRIOR TO INSTALLING THE SILICONE SEALANT, CLEAN JOINT SIDES BY SANDBLASTING. DUST SHALL BE REMOVED BY THE METHOD APPROVED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR UNDER THE CONTRACT ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM". (SEE SPECIAL PROVISIONS.)
6. THE NON-SAGGING SILICONE SEALANT SHALL BE PLACED ON THE BACKER ROD 1" THICK. AT THE SIDEWALK AND GUTTER, THE SILICONE SEALANT SHALL BE PLACED FLUSH WITH THE FACE OF CONCRETE.

ASPHALTIC PLUG EXPANSION JOINT DETAILS

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: A. KILPATRICK
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Maretti DATE: 7-28-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S115.DGN
PLOTTED DATE: 7-18-00

TOWN: NEW HAVEN
DRAWING TITLE: EXPANSION JOINT DETAILS - SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-99
SHEET NO.: 233

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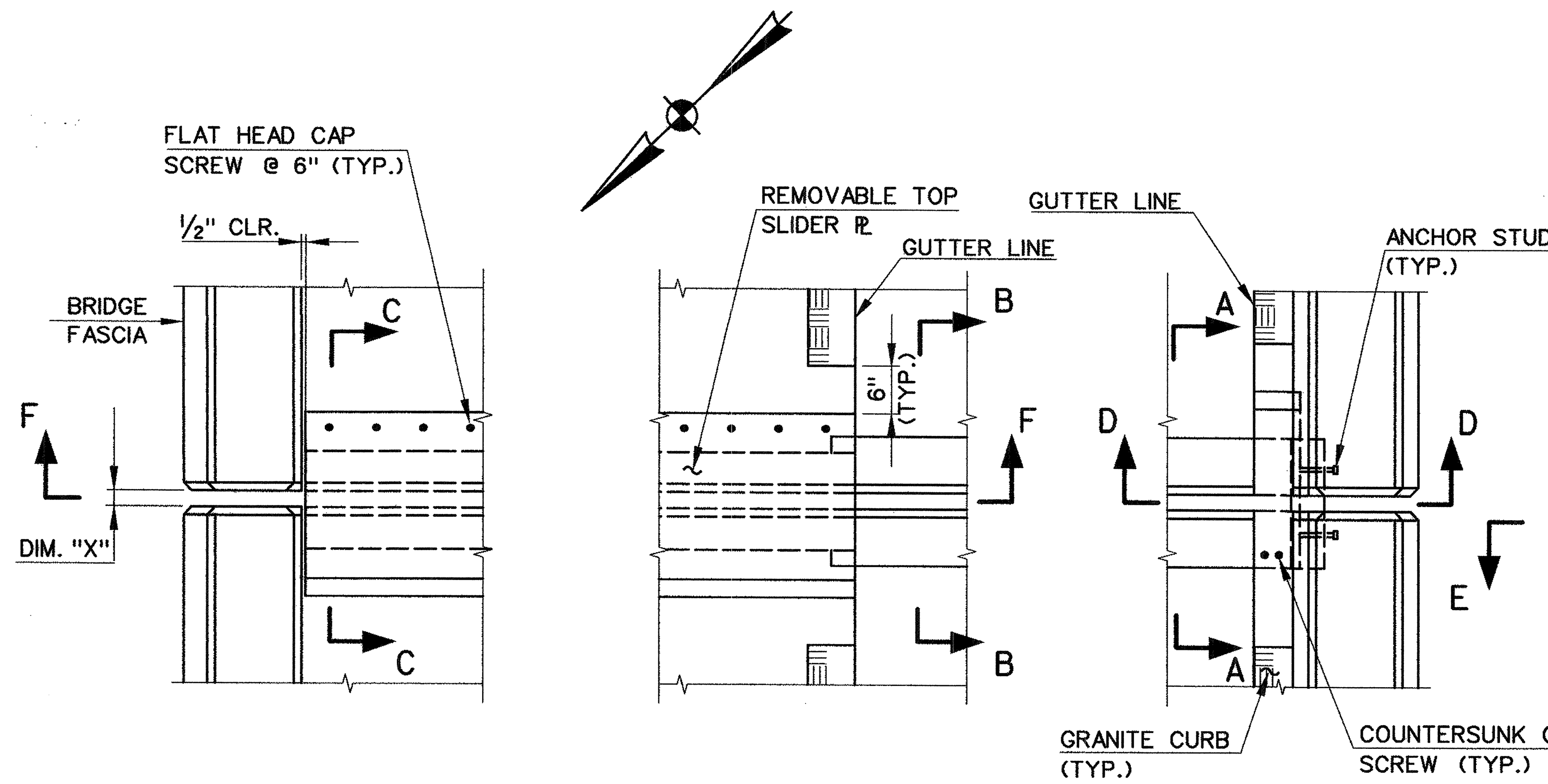
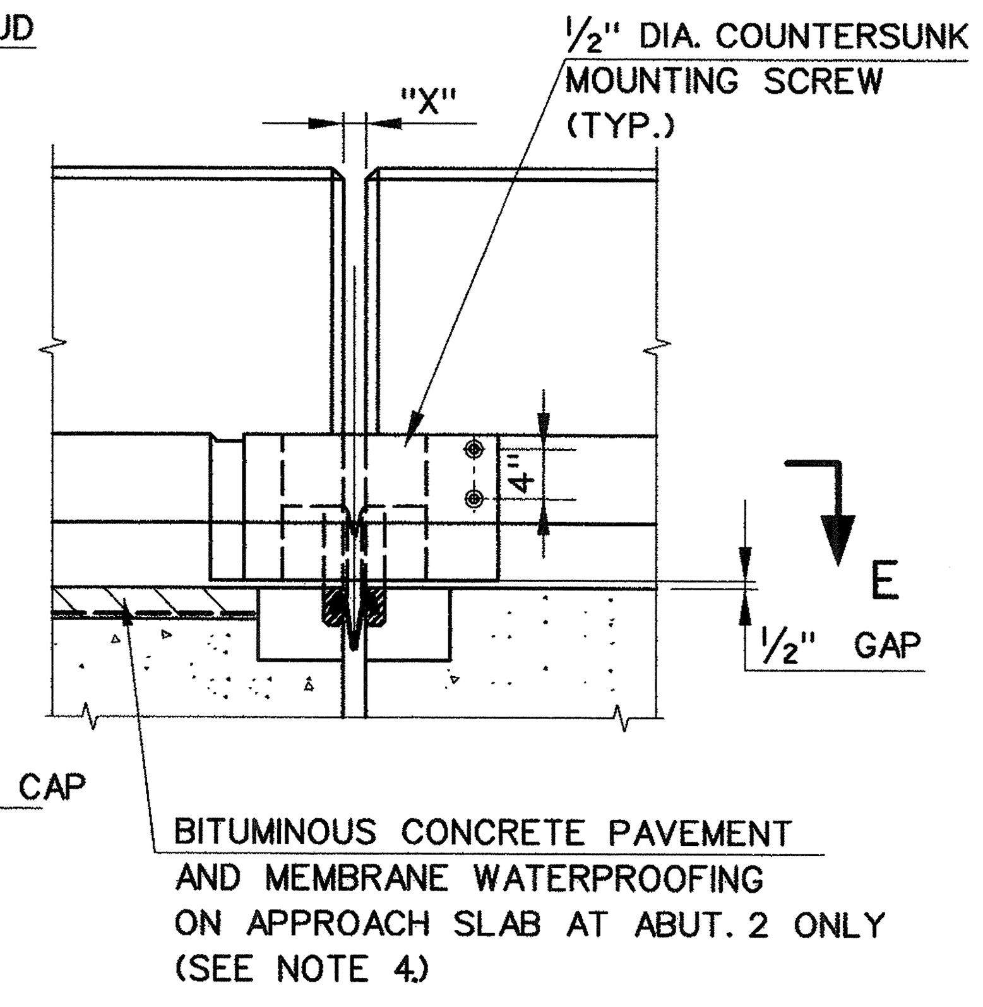


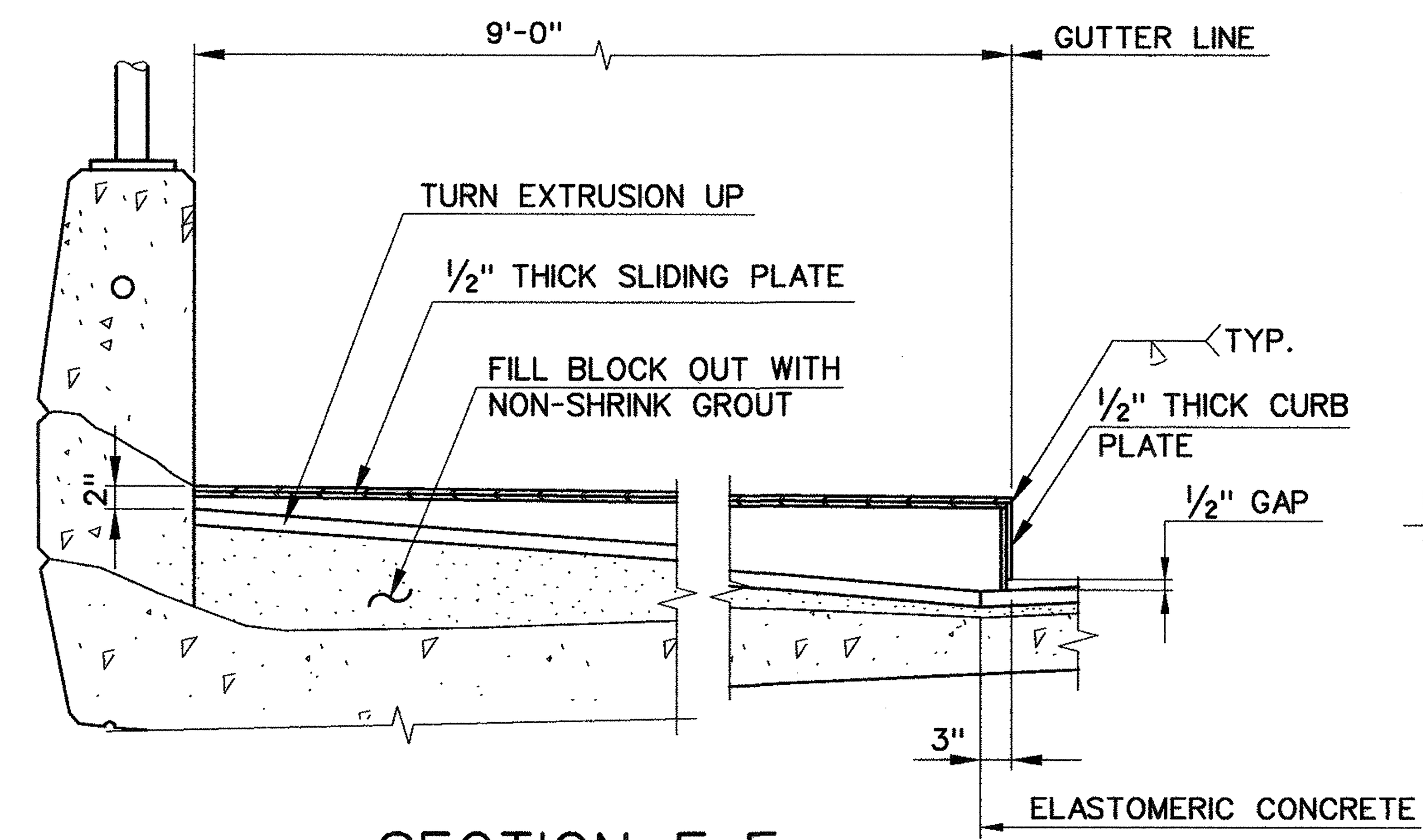
PLAN @ PIERS 1 & 2

SCALE: 3/4"=1'-0"
(ABUTMENT 2 SIMILAR)



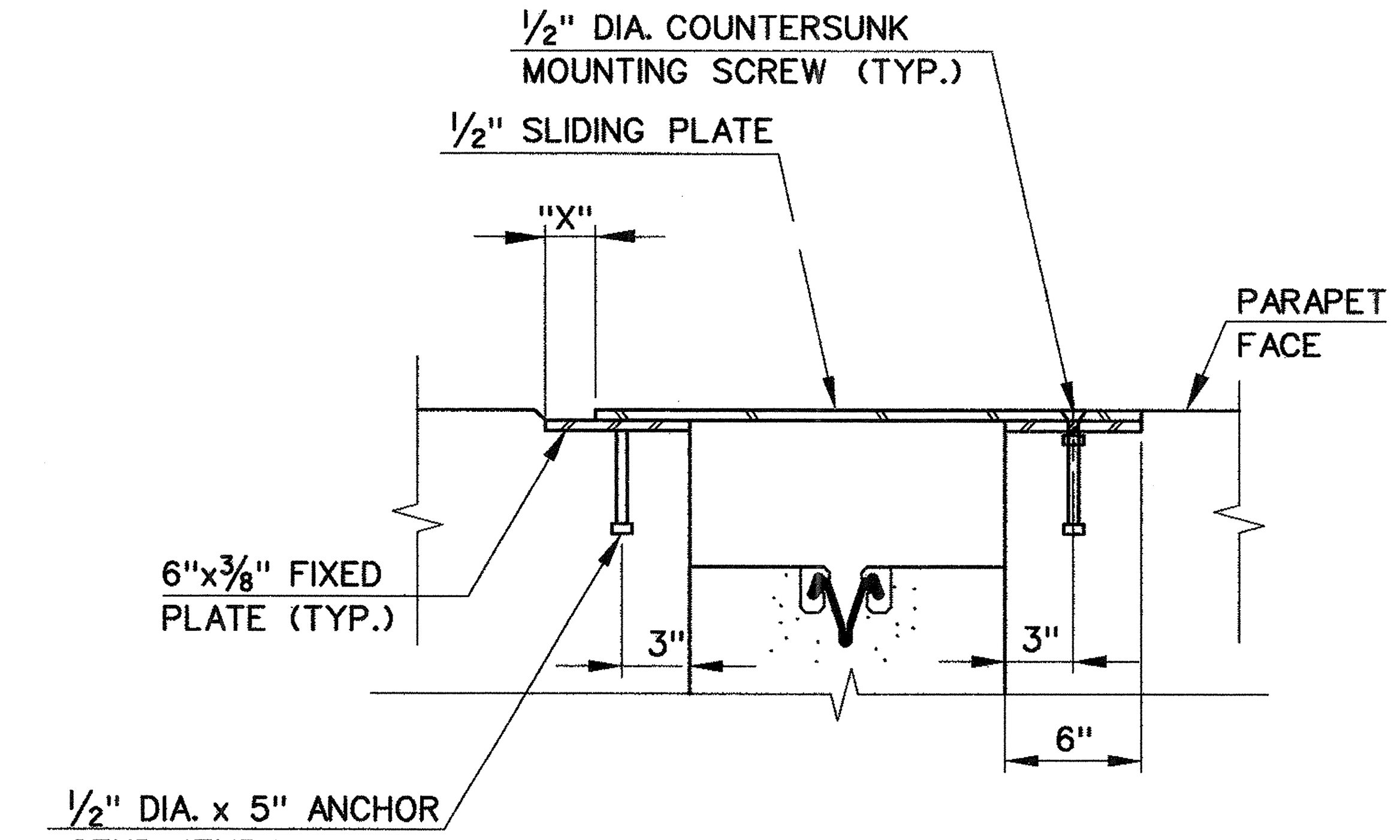
SECTION A-A

SCALE: 3/4"= 1'-0"



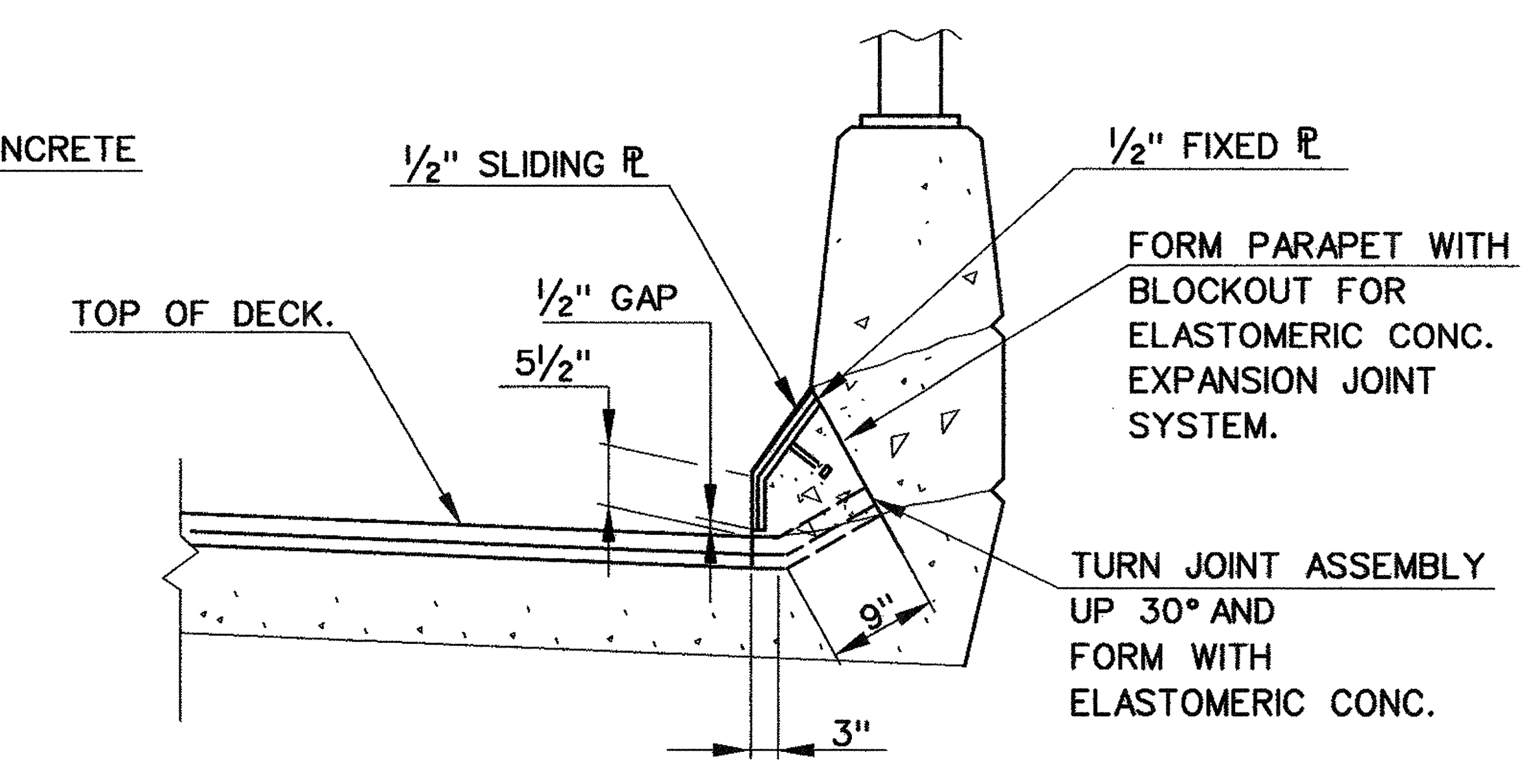
SECTION F-F

SCALE: 3/4"=1'-0"



SECTION E-E

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

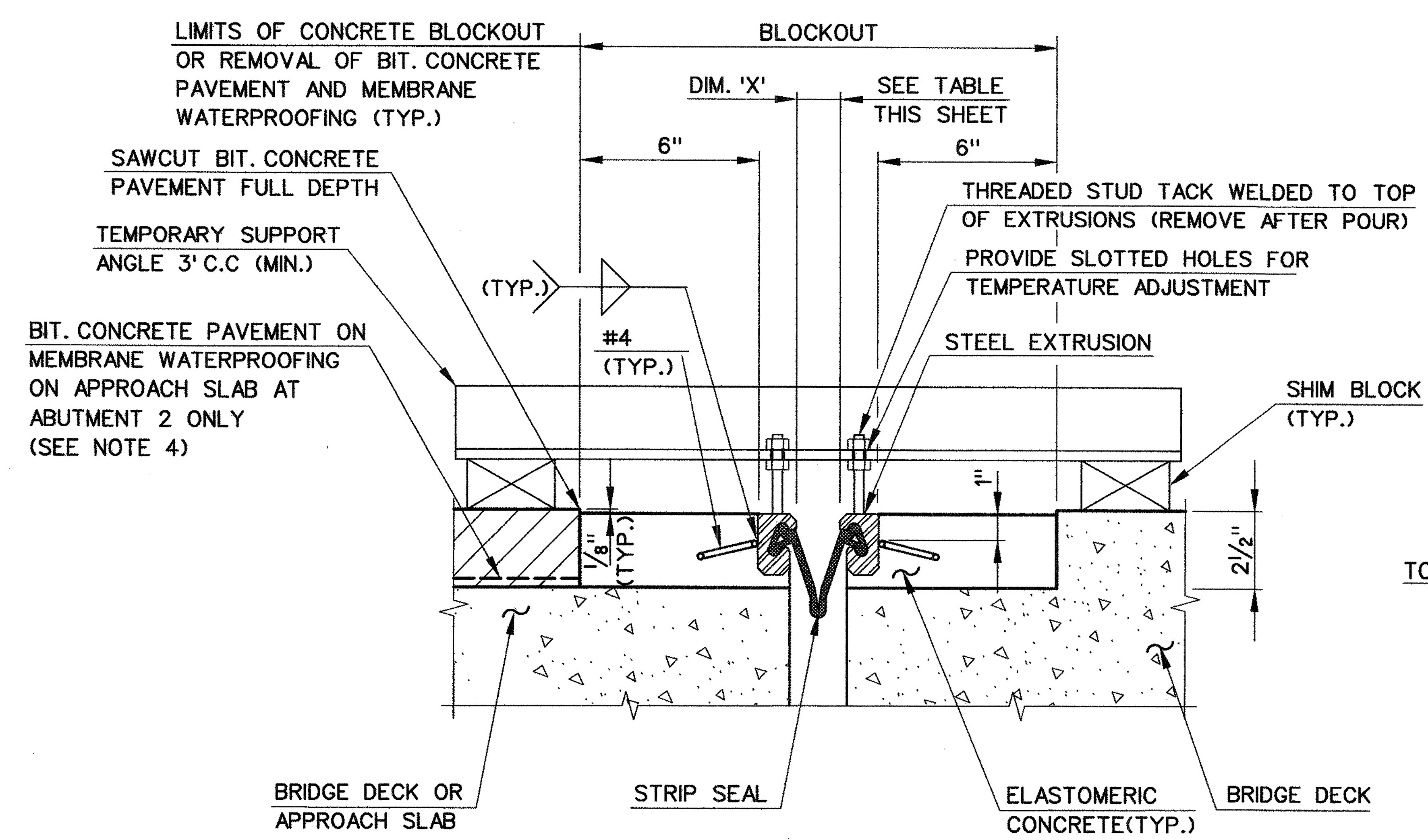


NOTE: PARAPET AND SLAB REINFORCEMENT NOT SHOWN.

SECTION D-D

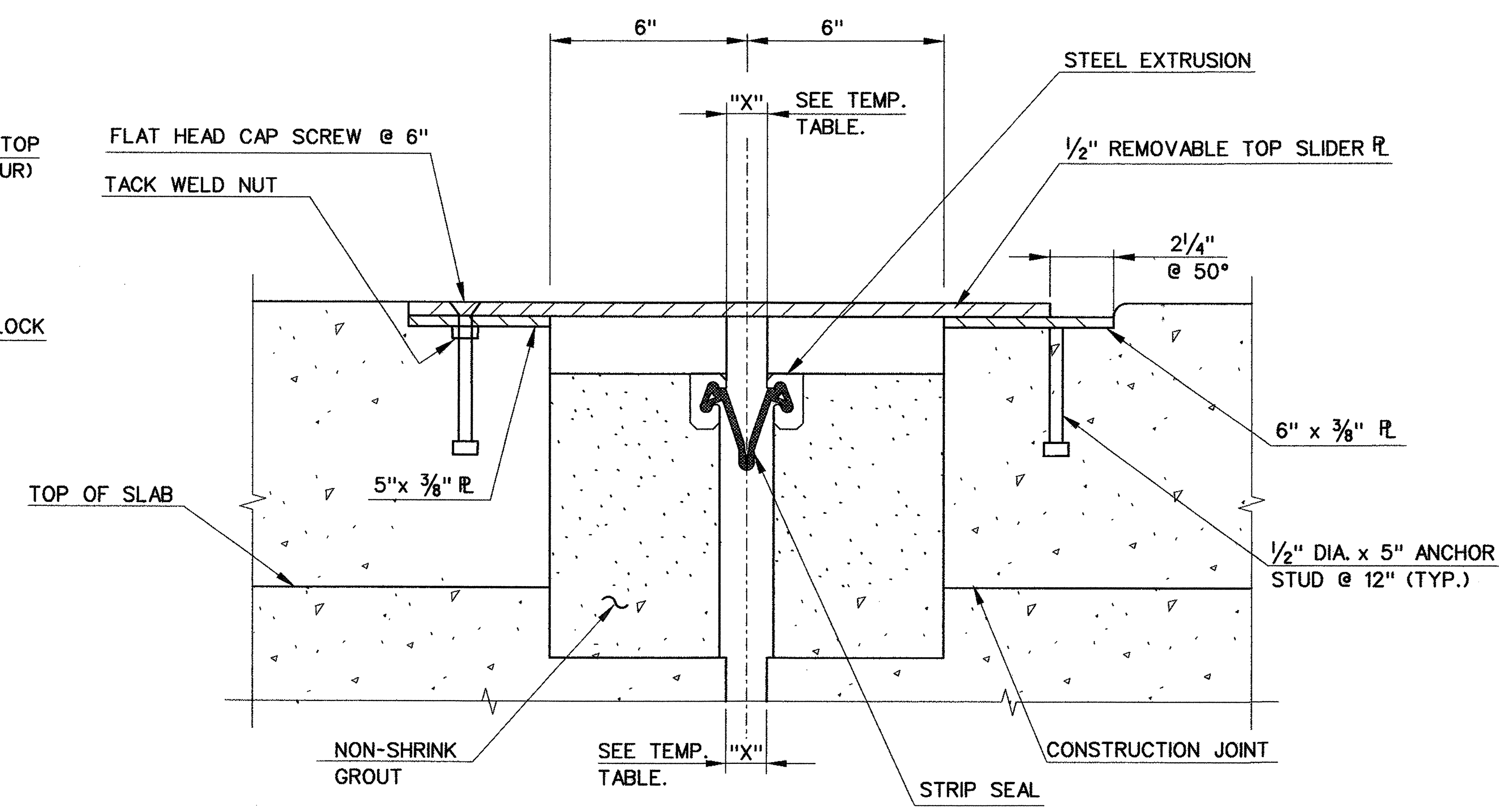
SCALE: 3/4"=1'-0"

DIMENSION "X" FOR VARIOUS INSTALLATION TEMPERATURES (INCHES)						
	40°	50°	60°	70°	80°	90°
PIER-1	2.48	2.25	2.02	1.79	1.56	1.33
PIER-2	2.50	2.25	2.00	1.75	1.50	1.25
ABUTMENT 2	2.58	2.25	1.92	1.59	1.26	0.96



SECTION B-B

SCALE: 3"=1'-0"



SECTION C-C

SCALE: 3"=1'-0"

NOTES:

1. THE EXPANSION JOINT SHALL PROVIDE FOR A MOVEMENT OF 4" MIN.
2. ALL STEEL SHALL CONFORM TO ASTM A588 AND SHALL BE GALVANIZED.
3. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
4. REMOVAL OF NEW BITUMINOUS CONCRETE OVERLAY AND MEMBRANE WATERPROOFING TO BE PAID FOR UNDER THE ITEM "ELASTOMERIC CONCRETE JOINT SYSTEM".

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: M. OFFENBERG
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Montti DATE: 4.10.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S116.DGN PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN

DRAWING TITLE: EXPANSION JOINT DETAILS - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-100
SHEET NO.: 234

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10 APR 2000
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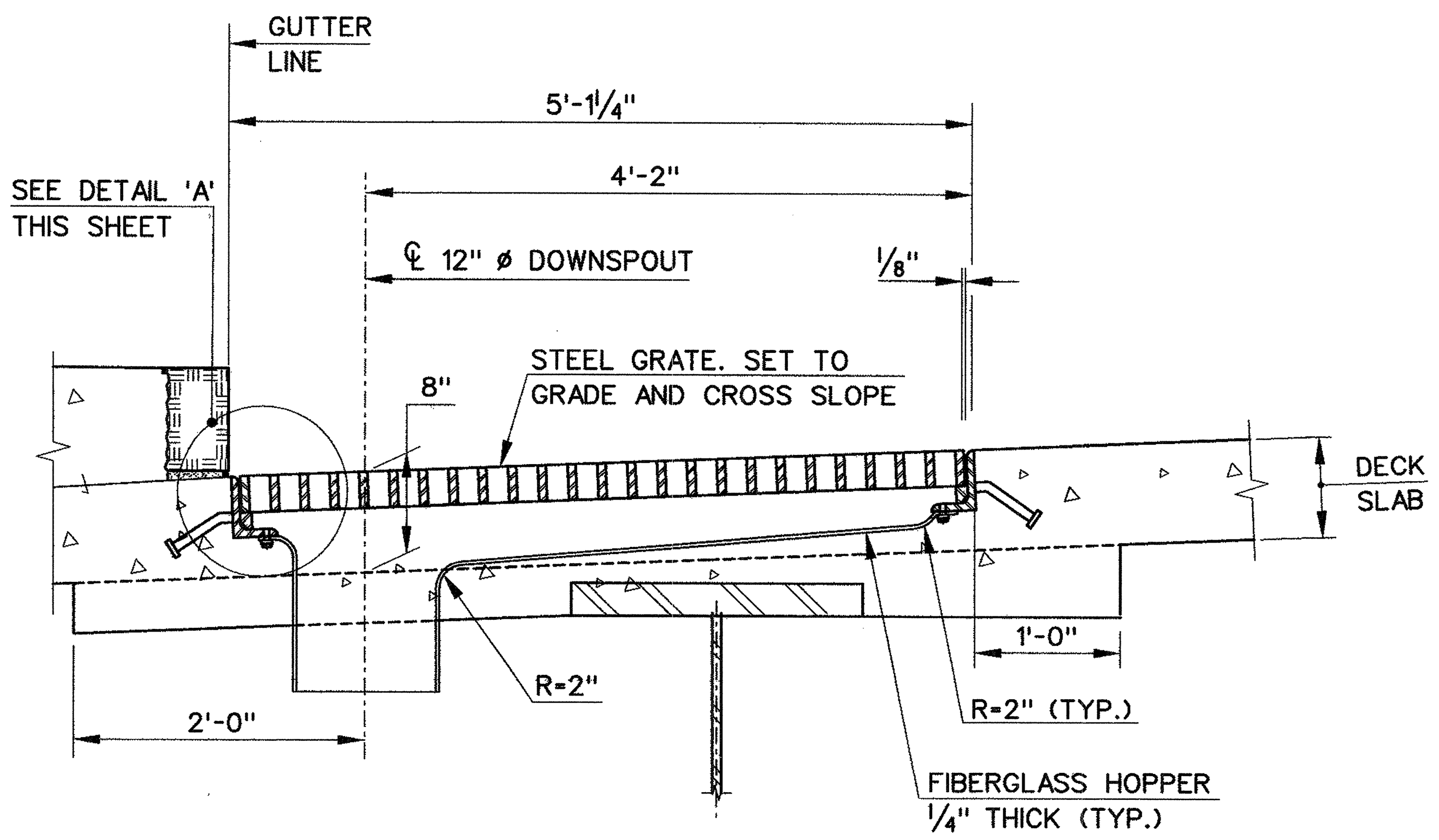
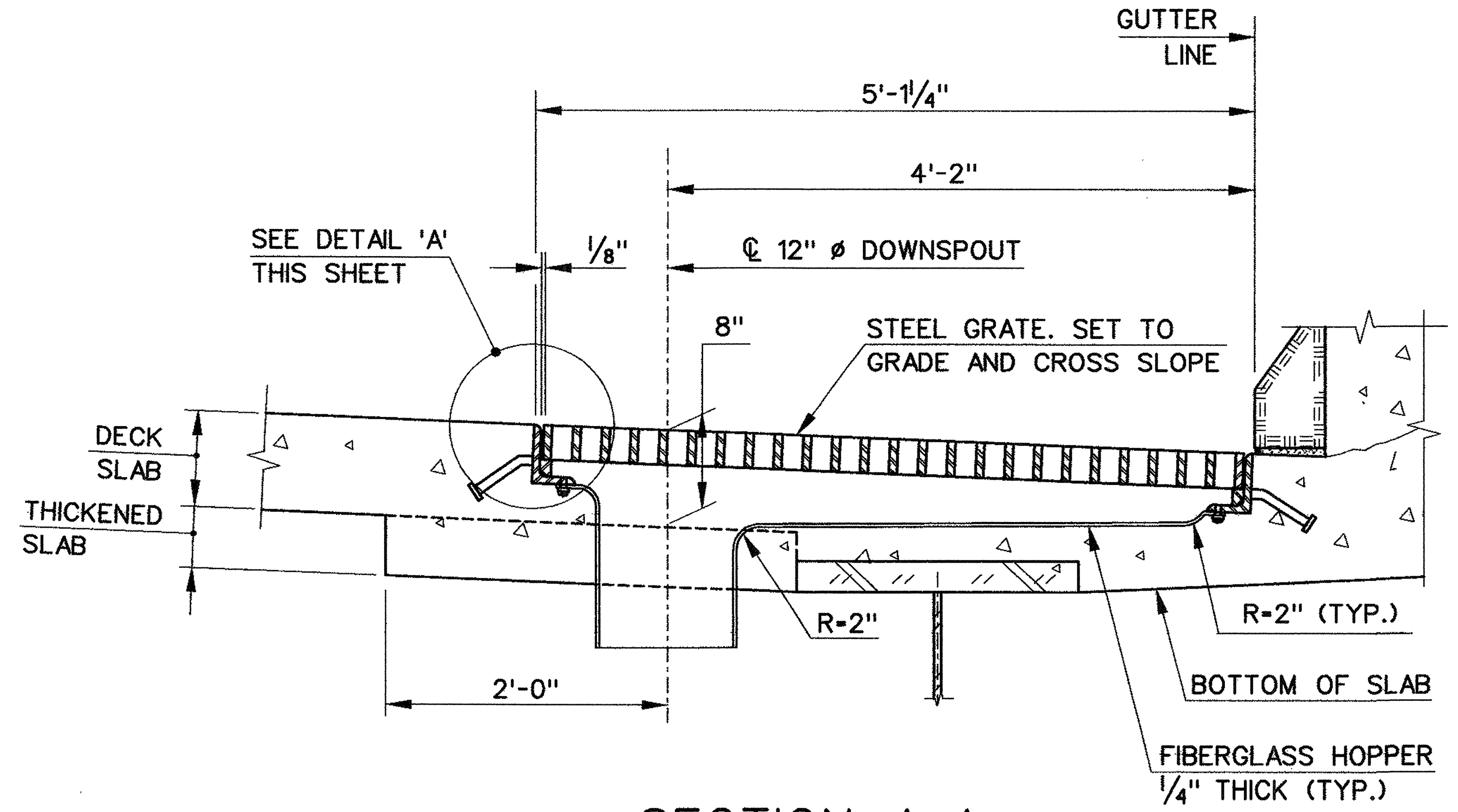
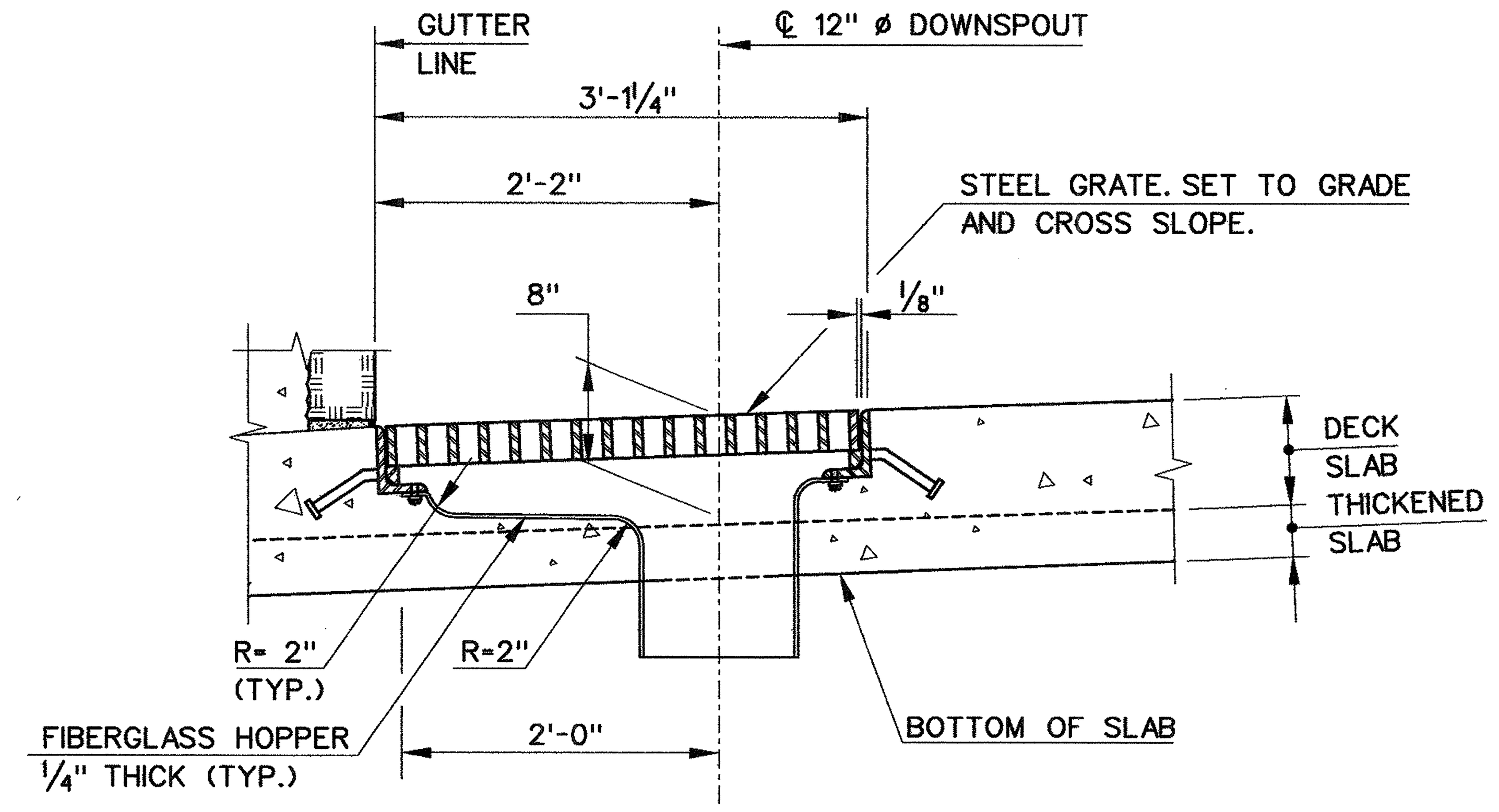


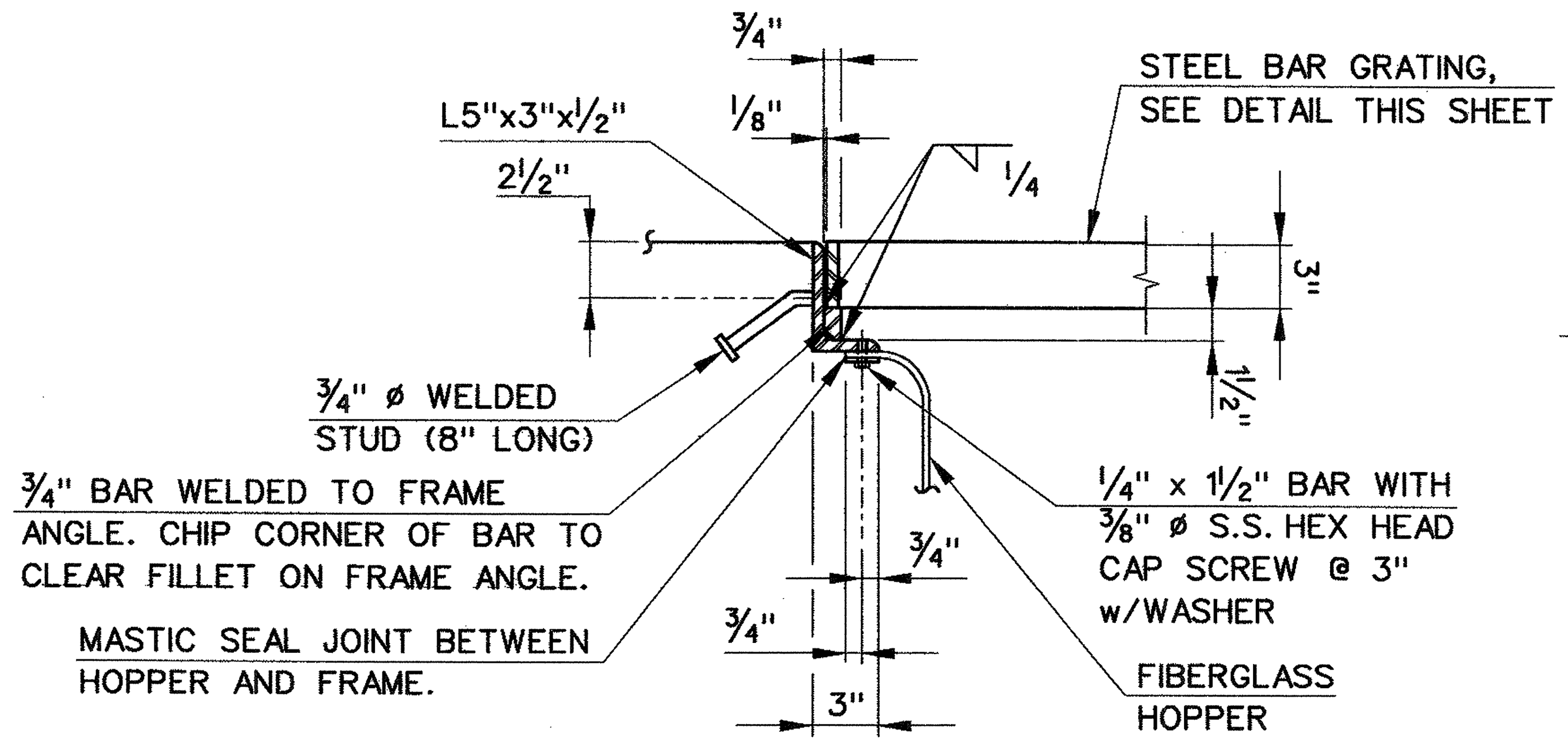
SECTION A-A
SCALE: 1"= 1'-0"
(TYPE A SCUPPER - SIDEWALK)



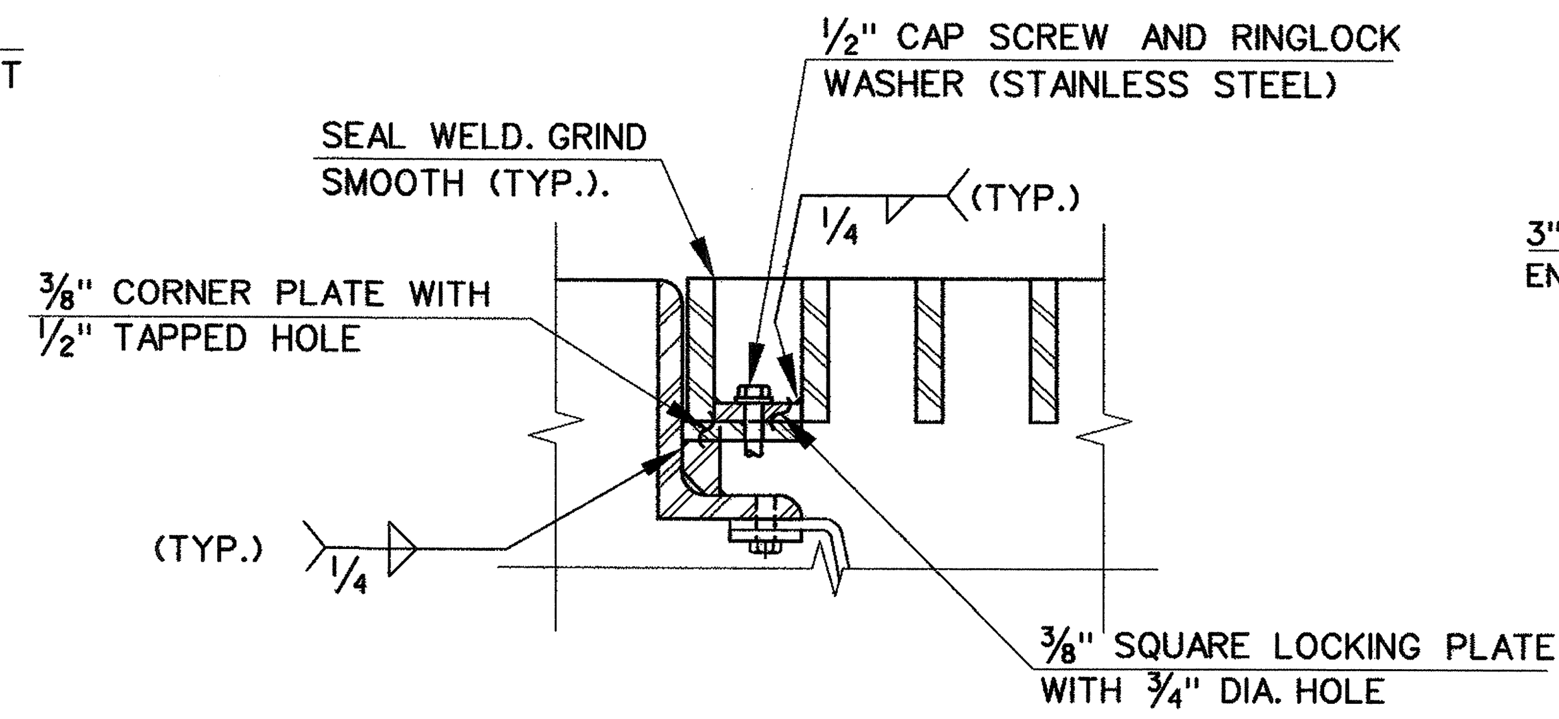
SECTION A-A
SCALE: 1"= 1'-0"
(TYPE A SCUPPER - PARAPET)



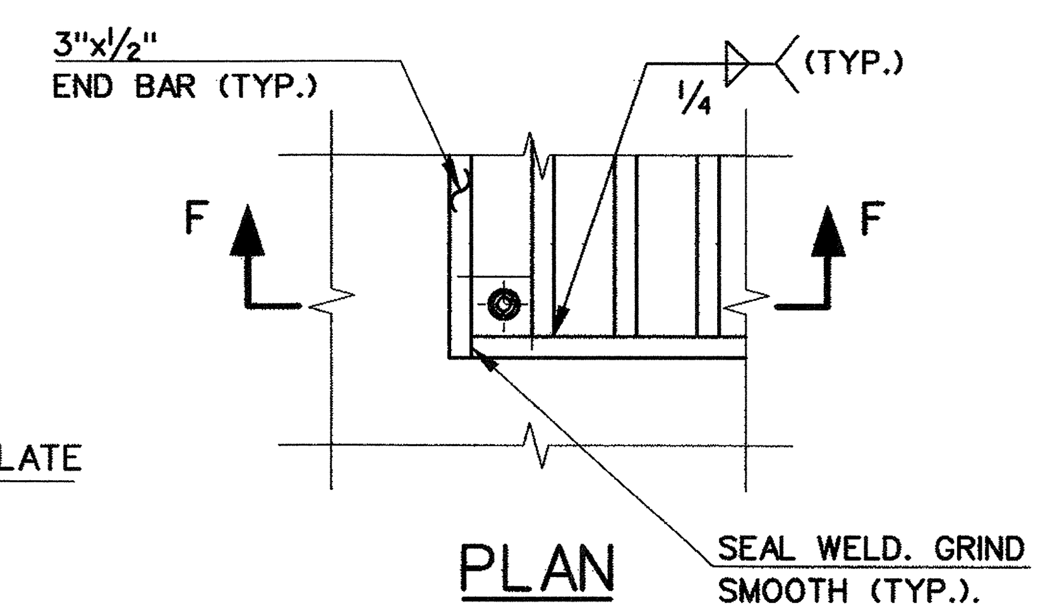
SECTION A-A
SCALE: 1" = 1'-0"
(TYPE B SCUPPER)



DETAIL 'A'
SCALE: 1½" = 1'-0"

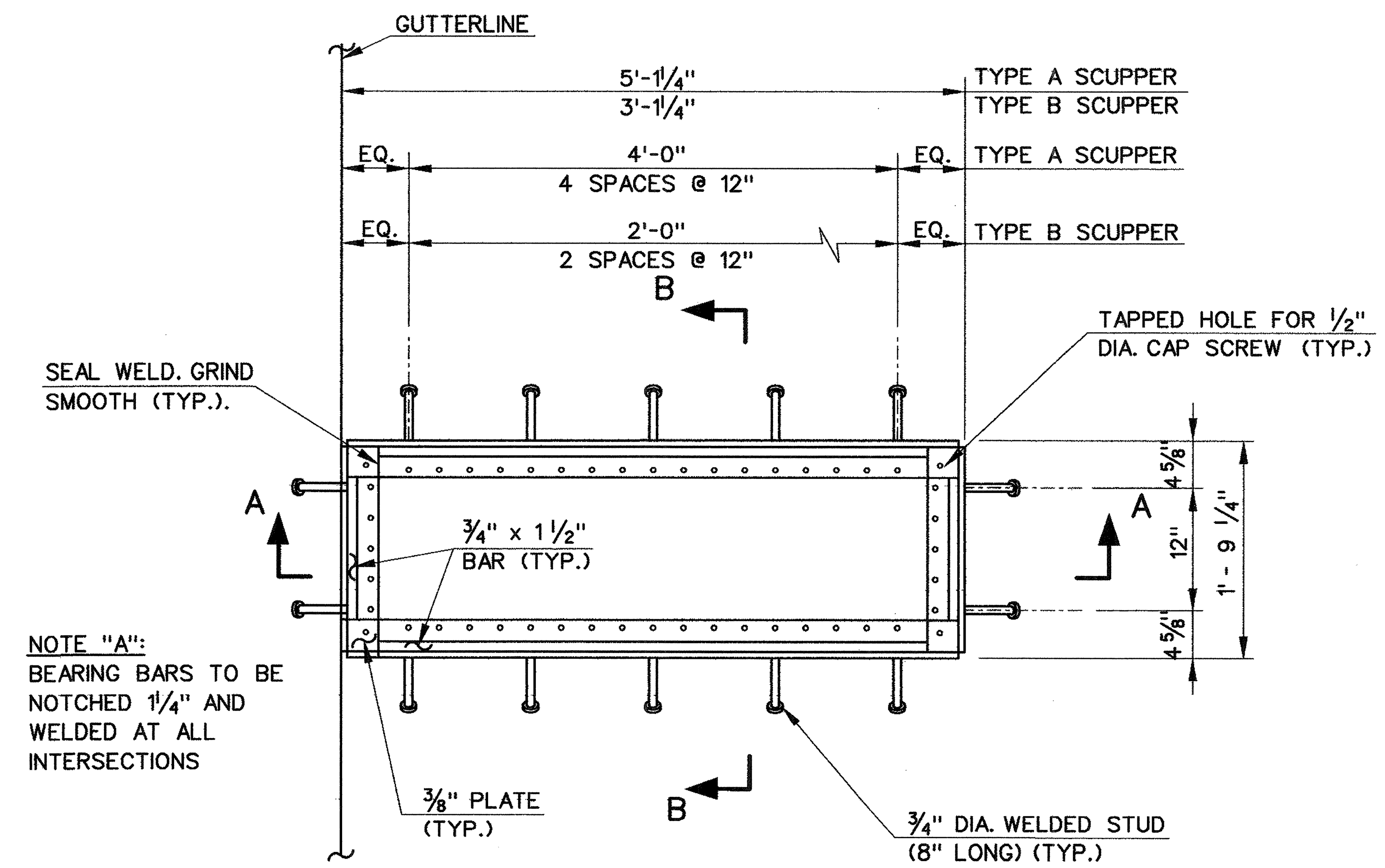


SECTION F-F

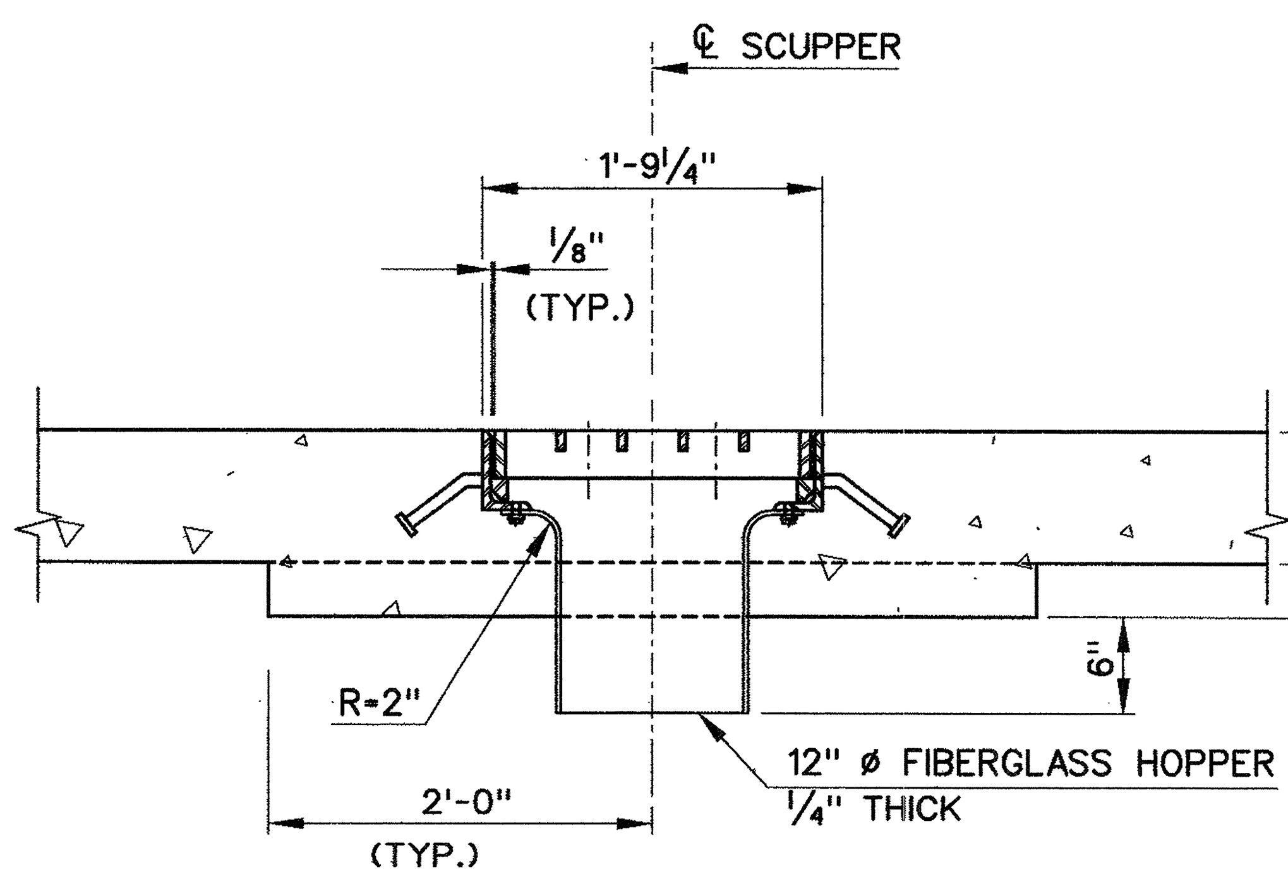


PLAN

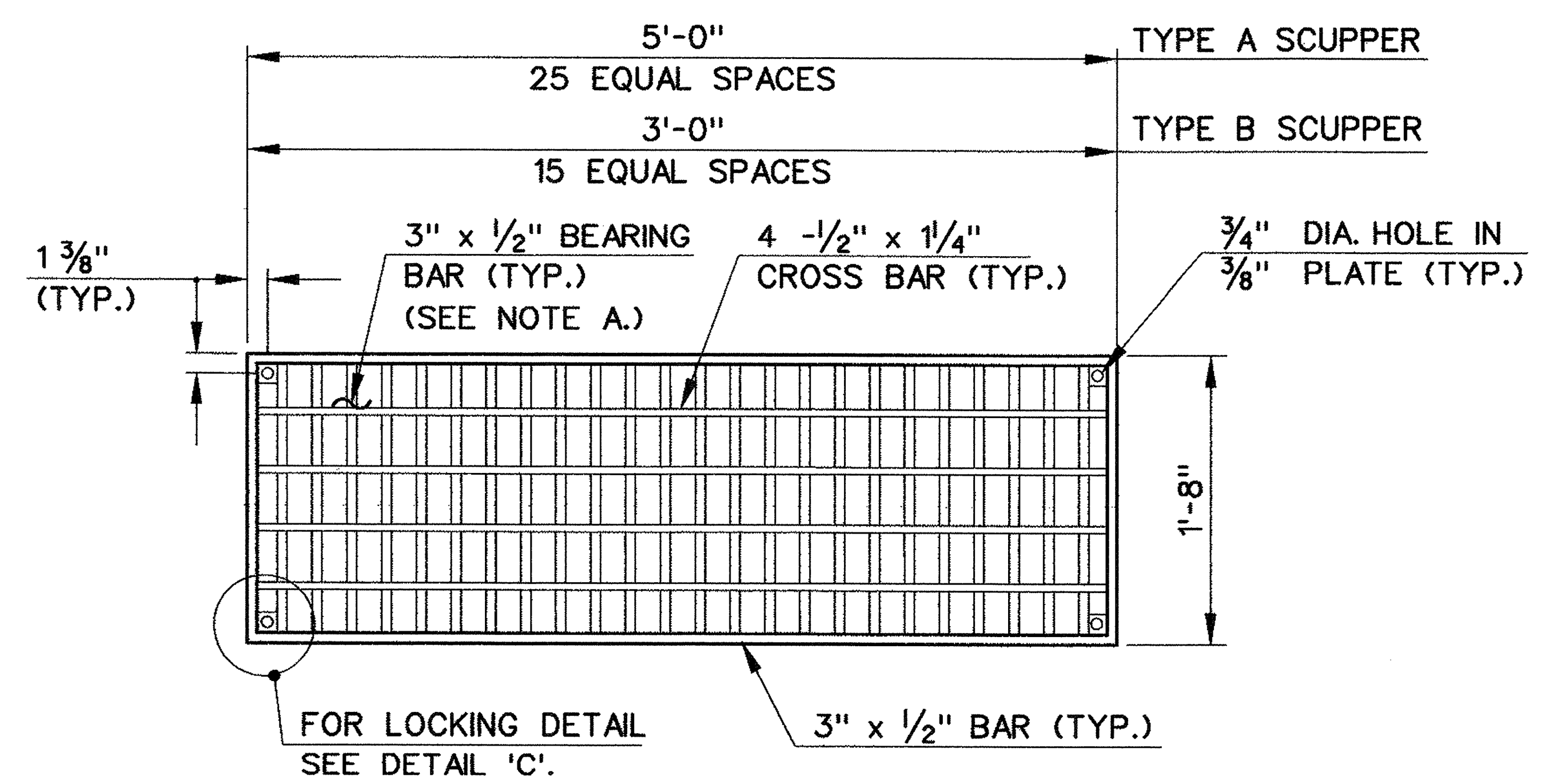
DETAIL 'C'
SCALE: 3" = 1'-0"



PLAN @ FRAME
SCALE: 1" = 1'-0"
(TYPE A SCUPPER SHOWN)



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



GRATE PLAN
SCALE: 1" = 1'-0"
(TYPE A SCUPPER SHOWN)

NOTES:
1. FOR SCUPPER LOCATIONS SEE SLAB PLANS ON DWG NOS. STR-87 THRU STR-90.
2. FOR ADDITIONAL SLAB REINFORCING AT SCUPPERS, SEE DWG. NO. STR-94.

14:47:43
07 APR 2000
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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: M. OFFENBERG
CHECKED BY: R. DEVAUX
DATE CHECKED: 4-9-00

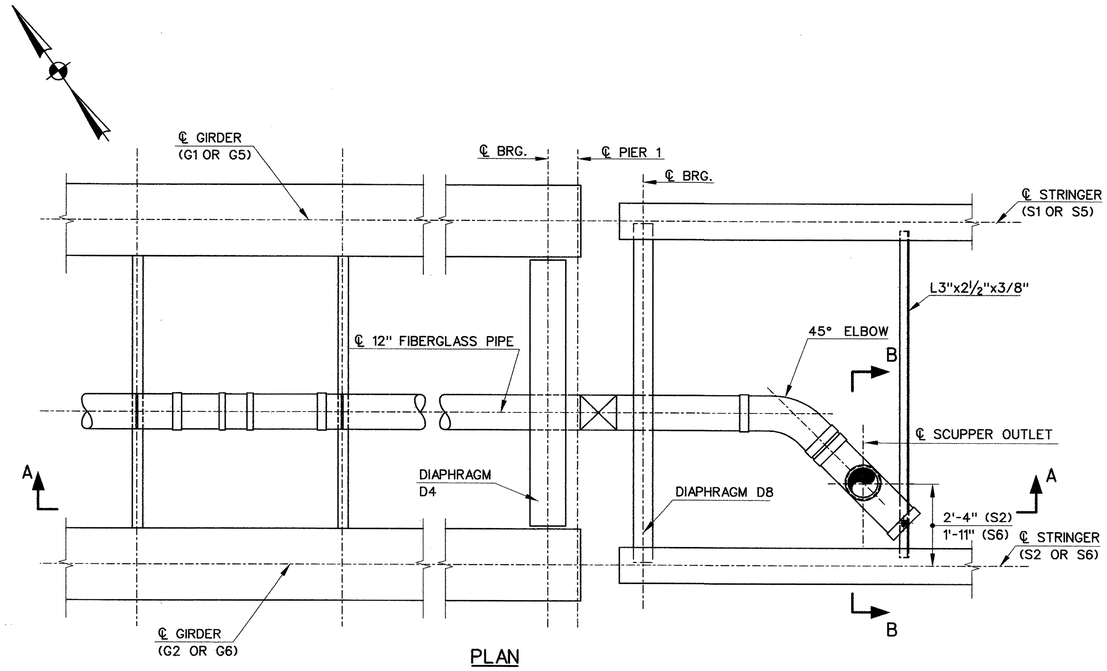
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Uliotti DATE: 4-7-00

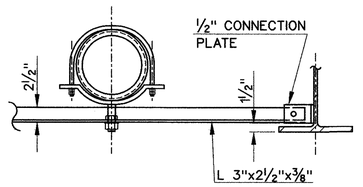
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S120.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: BRIDGE DRAINAGE - SHEET 1 OF 2

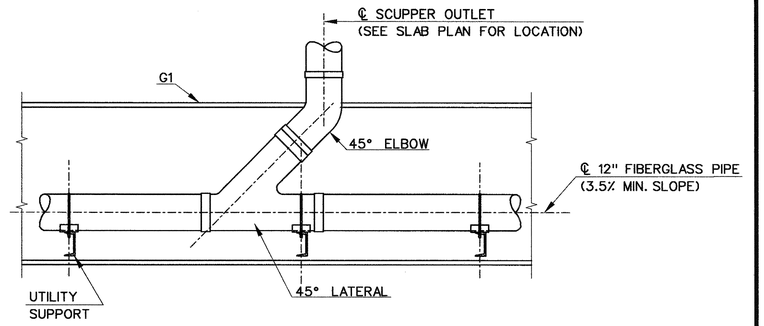
PROJECT NO.: 92-526
DRAWING NO.: STR-101
SHEET NO.: 235



PLAN

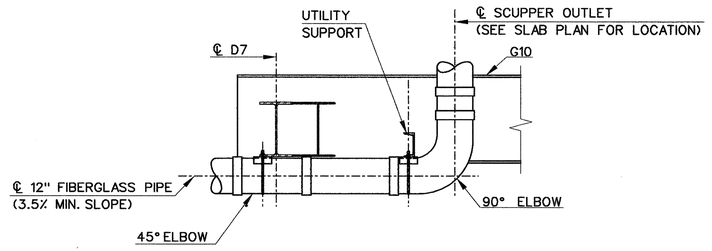


SECTION B-B
SCALE: 1" = 1'-0"



(SCUPPER - EAST GUTTER)

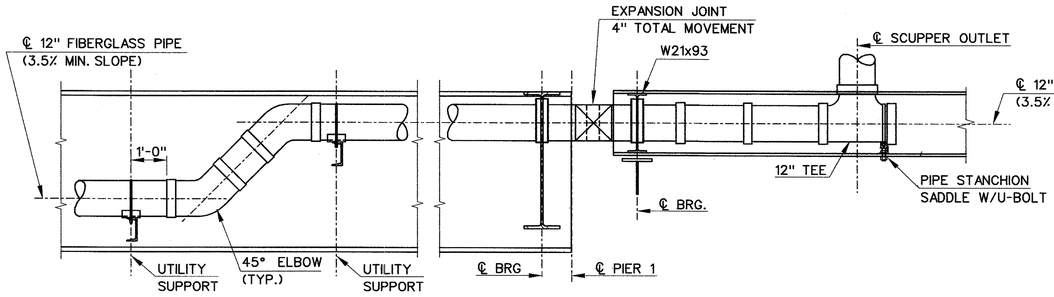
SECTION
SCALE: ½" = 1'-0"



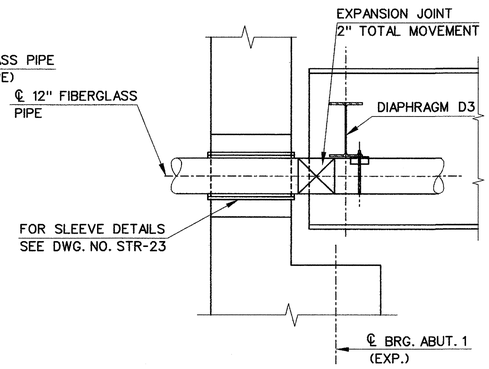
(SCUPPER - WEST GUTTER)

SECTION
SCALE: ½" = 1'-0"

SCUPPER DRAINAGE - SPAN 1



SECTION A-A



SECTION - ABUT 1

SCUPPER DRAINAGE AT PIER 1

SCALE: ½" = 1'-0"

NOTES:

1. FOR LOCATION OF SCUPPERS, SEE SLAB PLANS.
2. FOR SCUPPER DETAILS, SEE DWG. NO. STR-101.
3. FOR LOCATION OF DRAINAGE PIPES, SEE FRAMING PLANS SPANS 1 AND 2 , DWG. NO. STR-47 AND 66.
4. CLEANOUTS SHALL BE PROVIDED AT 50 FOOT MAXIMUM SPACING.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. CHICKOWSKI
DRAFTER: M. OFFENBERG / A. KILPATRICK
CHECKED BY:
DATE CHECKED: 4-9-00

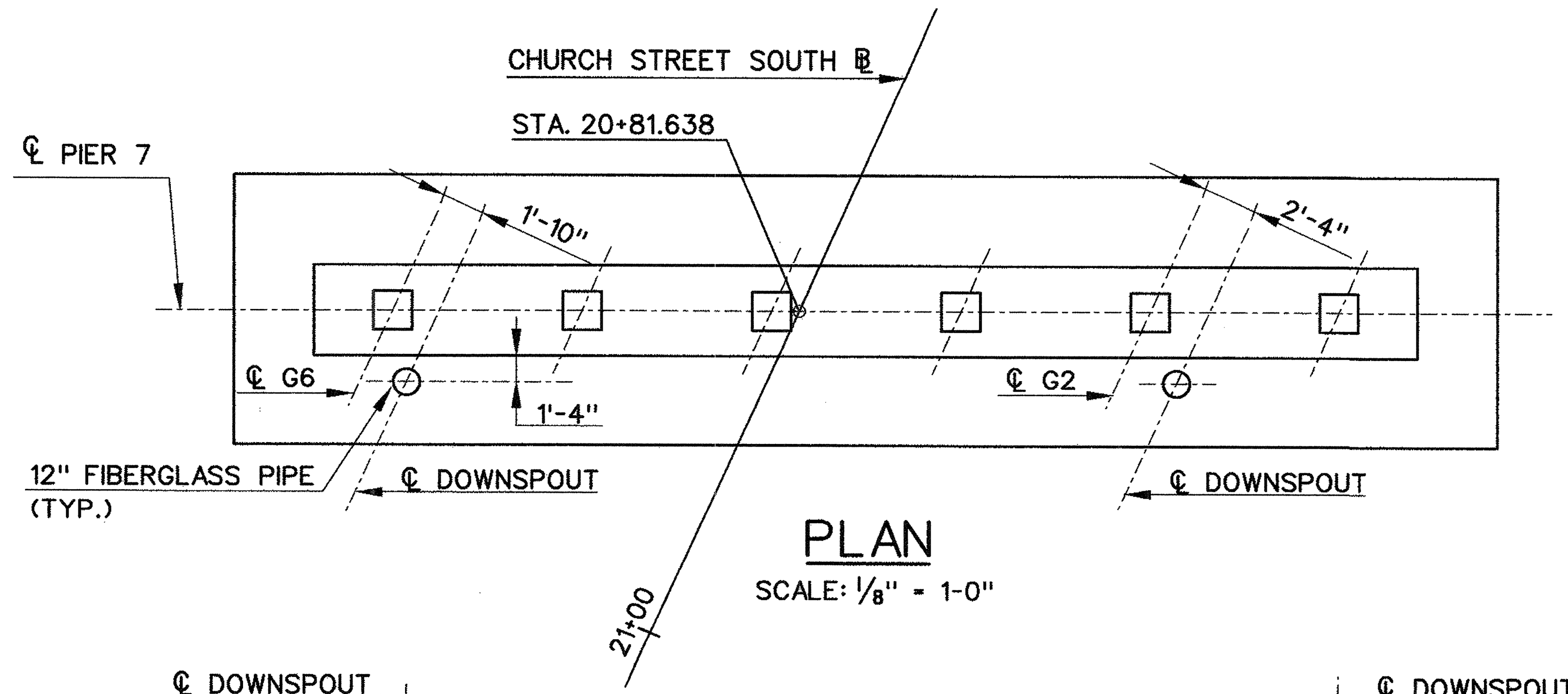
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Mouette DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703ST121.DGN
PLOTTED DATE: 4-06-00

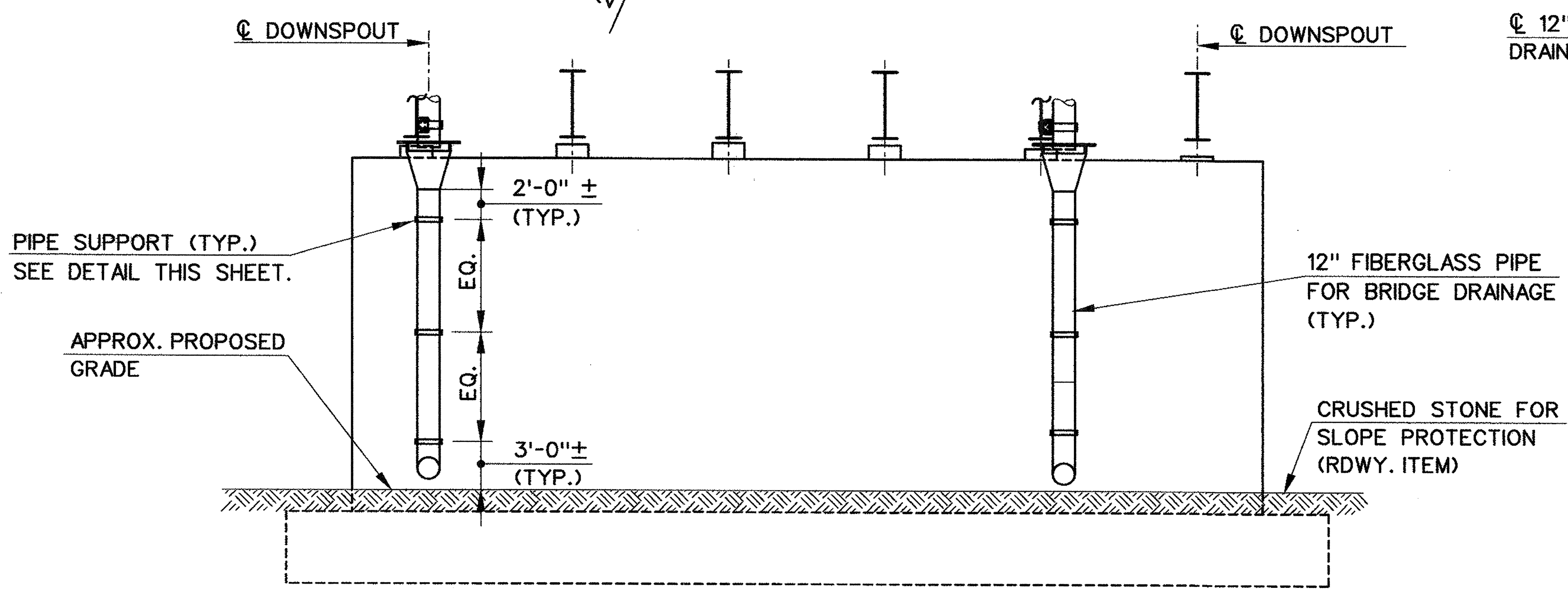
TOWN: NEW HAVEN
DRAWING TITLE: BRIDGE DRAINAGE - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-102
SHEET NO.: 236

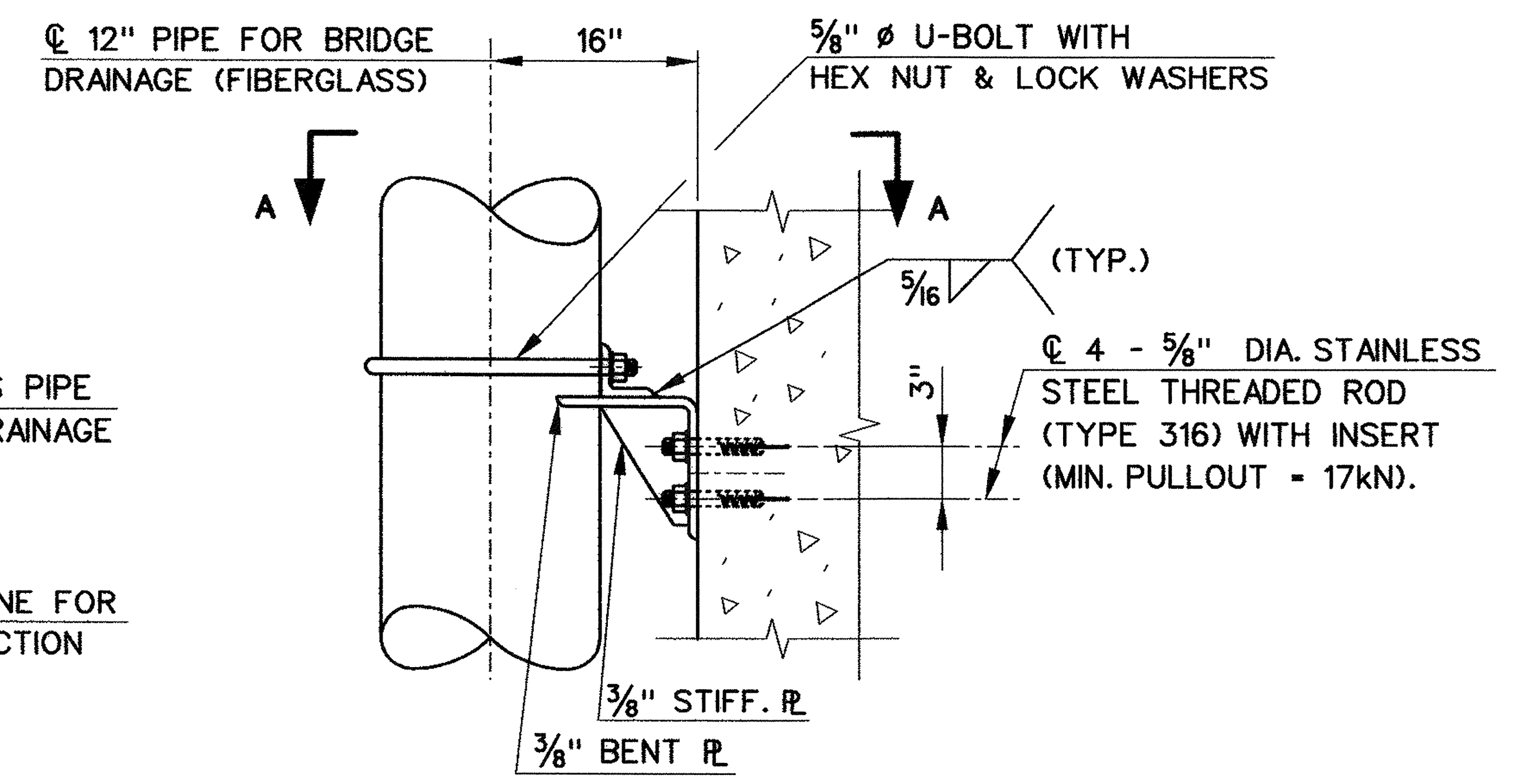
$TIME$
$DATE$
$FILE$



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



SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



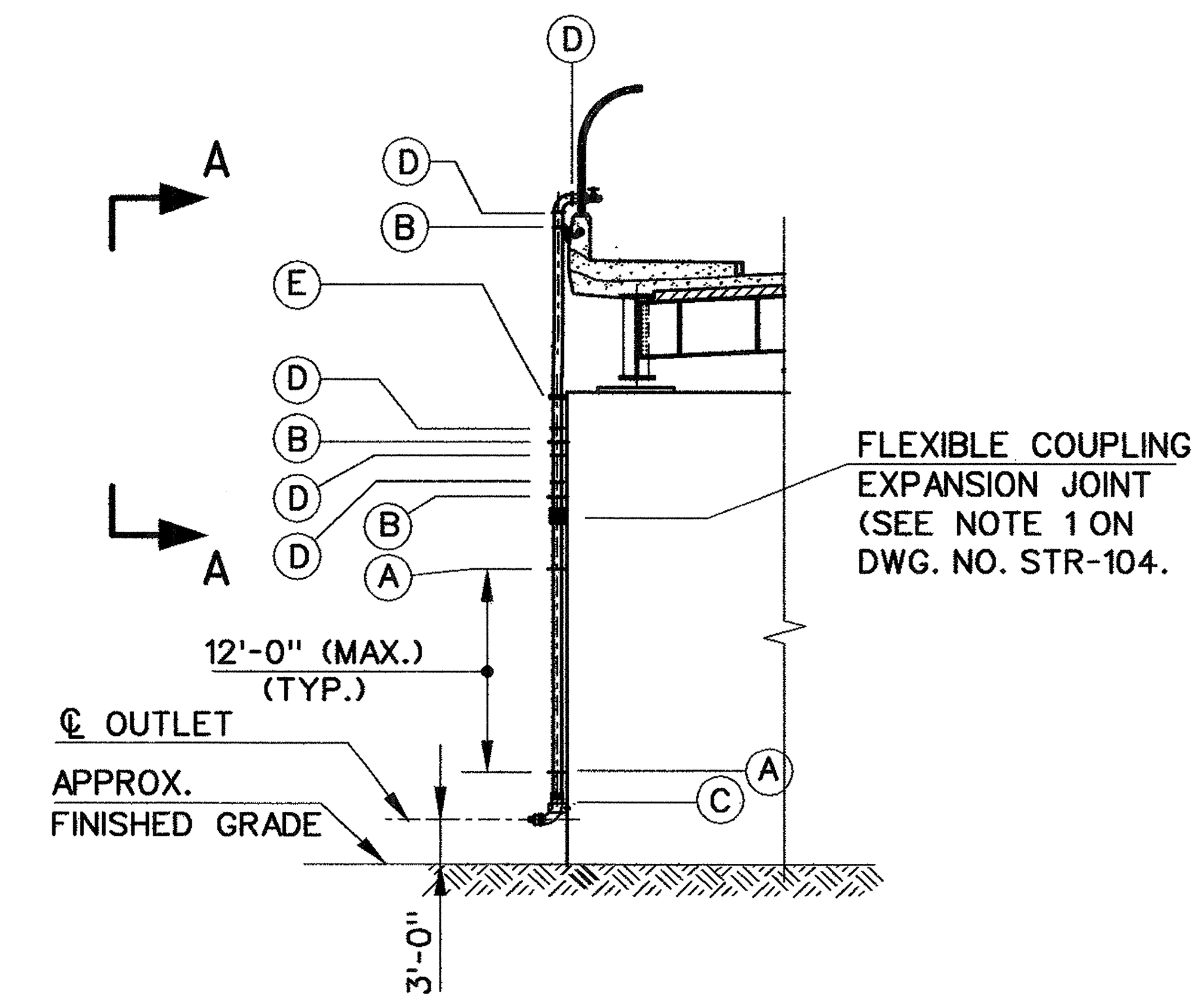
ELEVATION

NOTE:

THE COST OF THREADED INSERTS SHALL BE INCLUDED UNDER THE ITEMS "DEFORMED STEEL BARS".

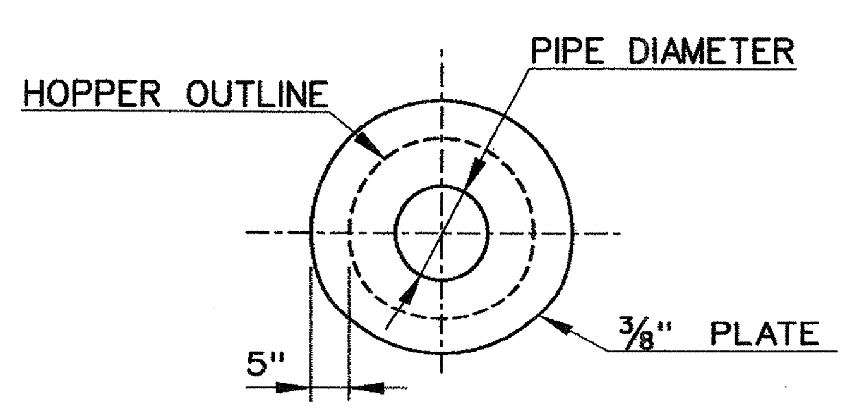
LEGEND

- (A)- STANDPIPE GUIDE - SEE DWG. NO. STR-104.
- (B)- STANDPIPE ANCHOR - SEE DWG. NO. STR-104
- (C)- STANDPIPE ATTACHMENT AT INLET - SEE DWG. NO. STR-104.
- (D)- RIGID COUPLING - SEE NOTE 4, DWG. NO. STR-104.
- (E)- FLEXIBLE COUPLING TO BE INSTALLED IN THE FULLY EXPANDED POSITION - SEE NOTE 4, DWG. NO. STR-104.

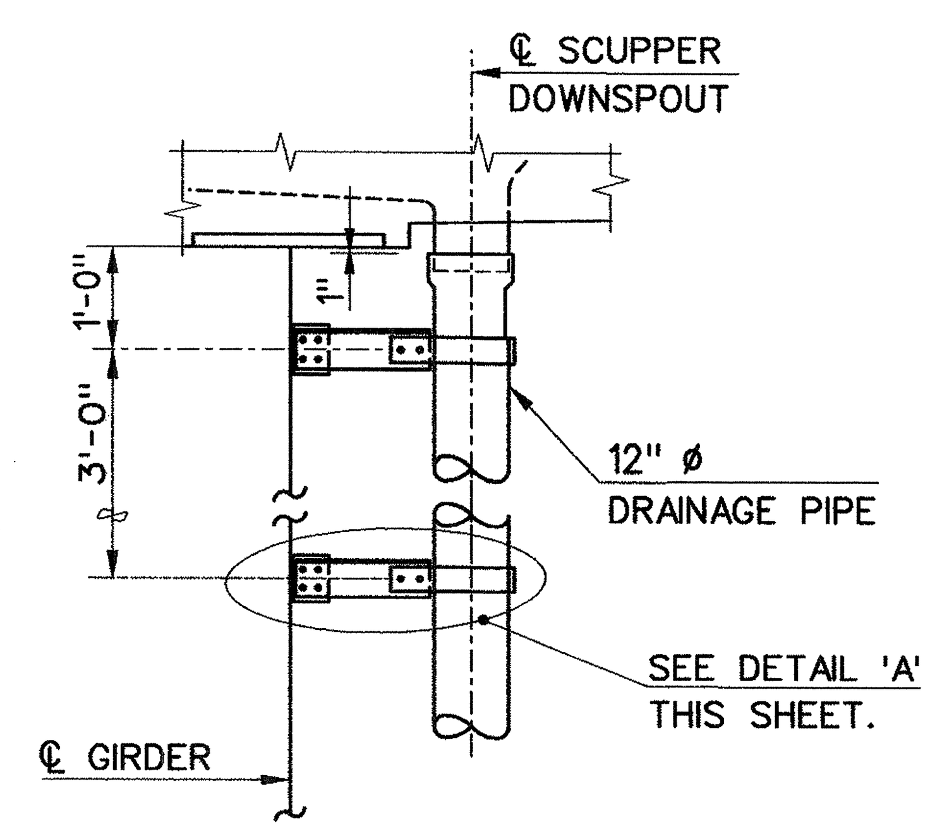


PIER 5 NORTH ELEVATION

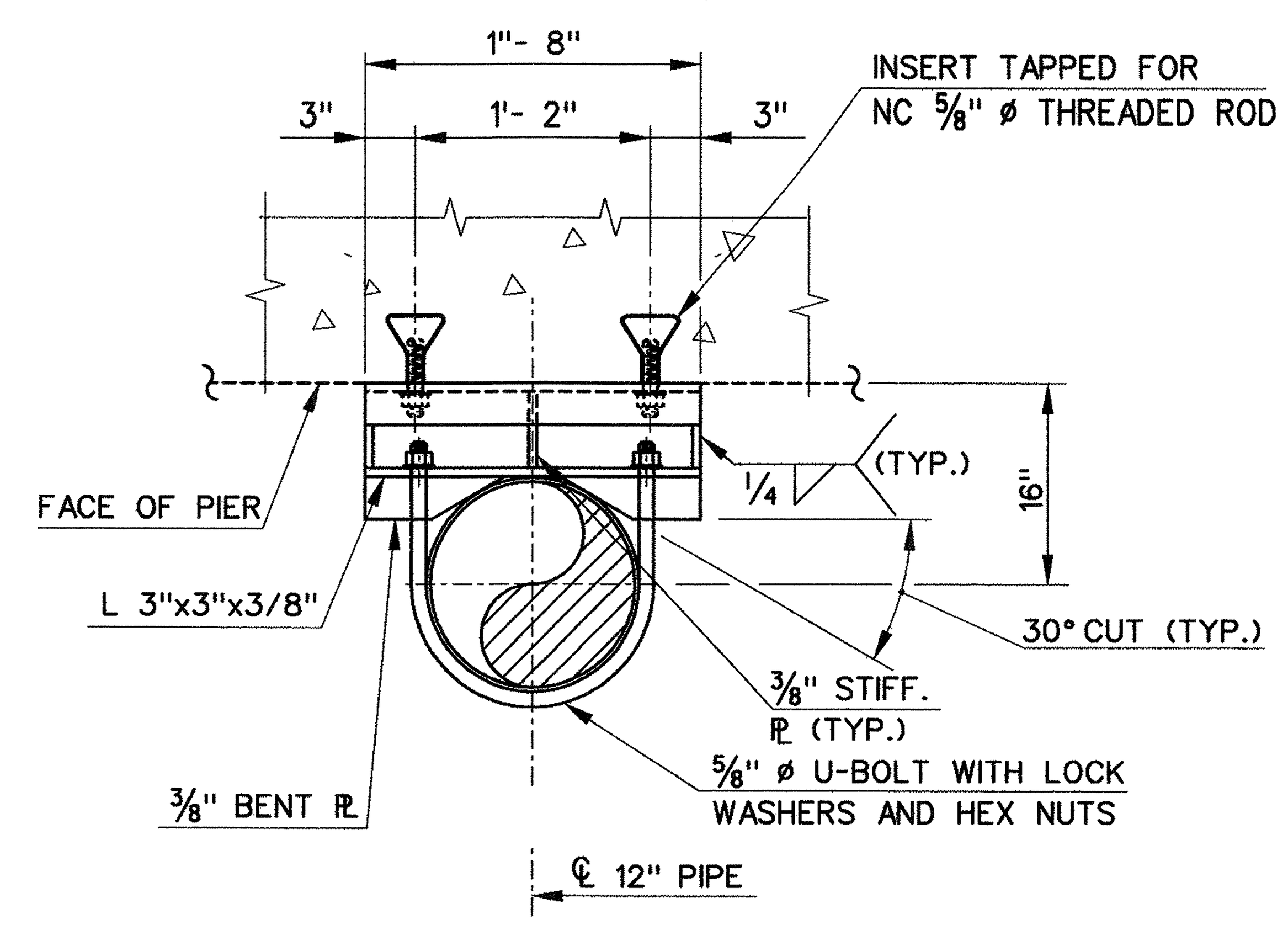
STANDPIPE INSTALLATION
SCALE: 1/8" = 1'-0"



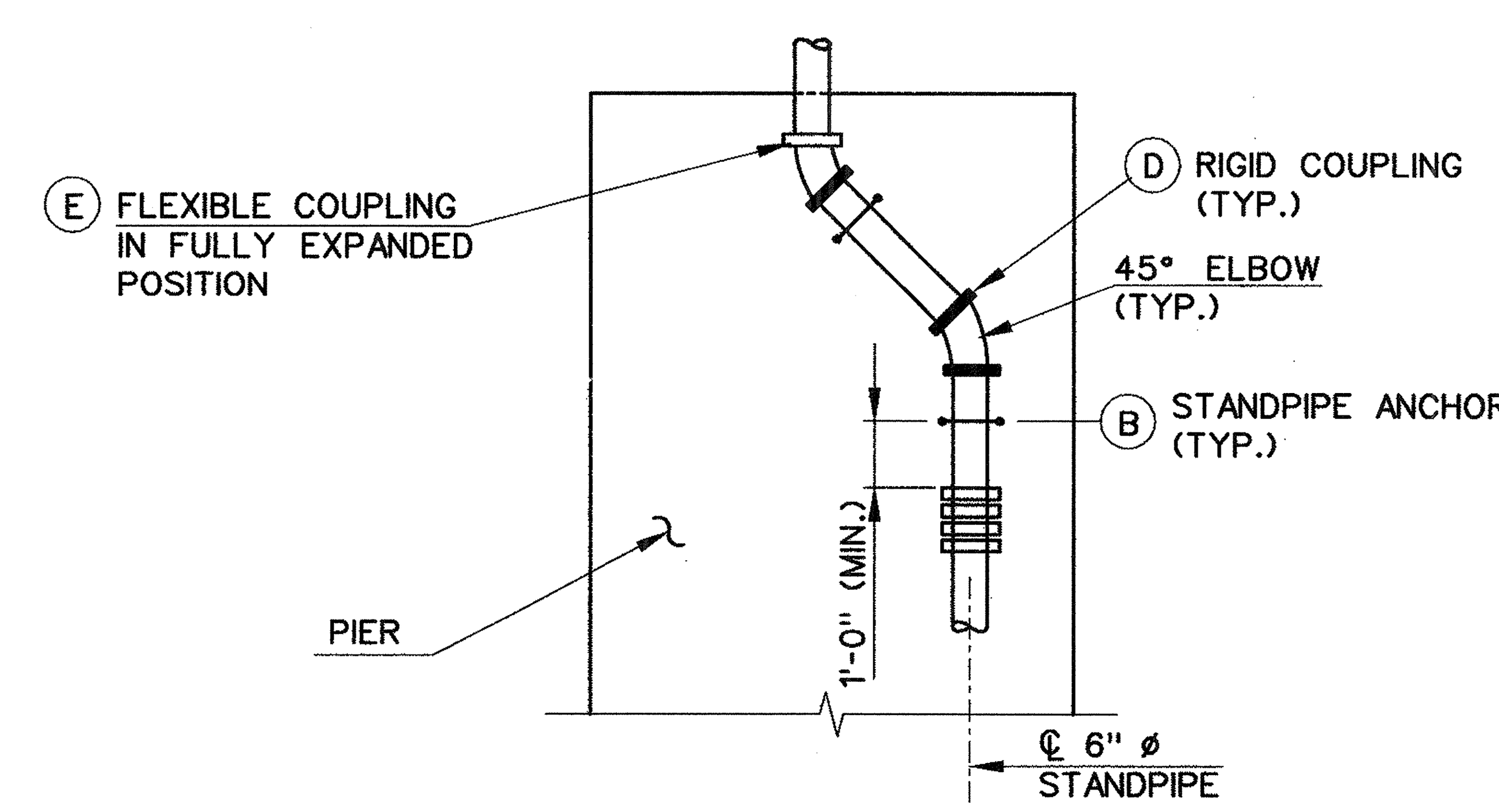
COVER PLATE
NOT TO SCALE



PIPE ATTACHMENT DETAIL
NOT TO SCALE

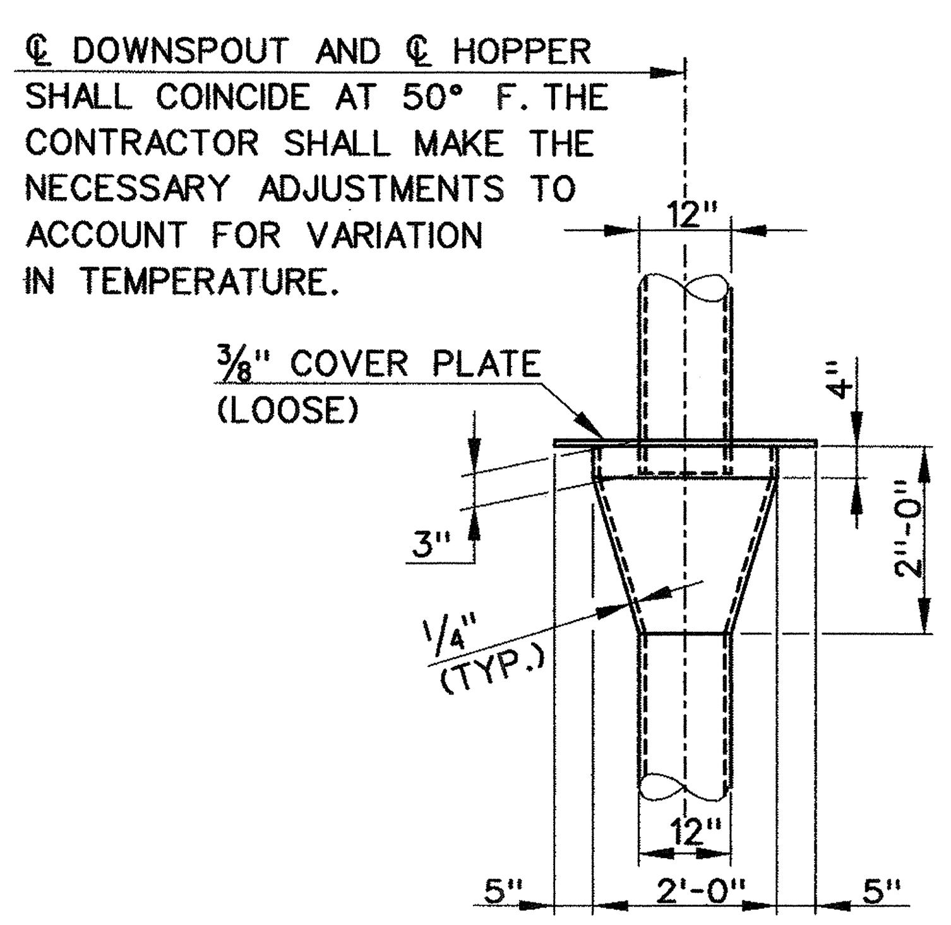


SECTION A - A

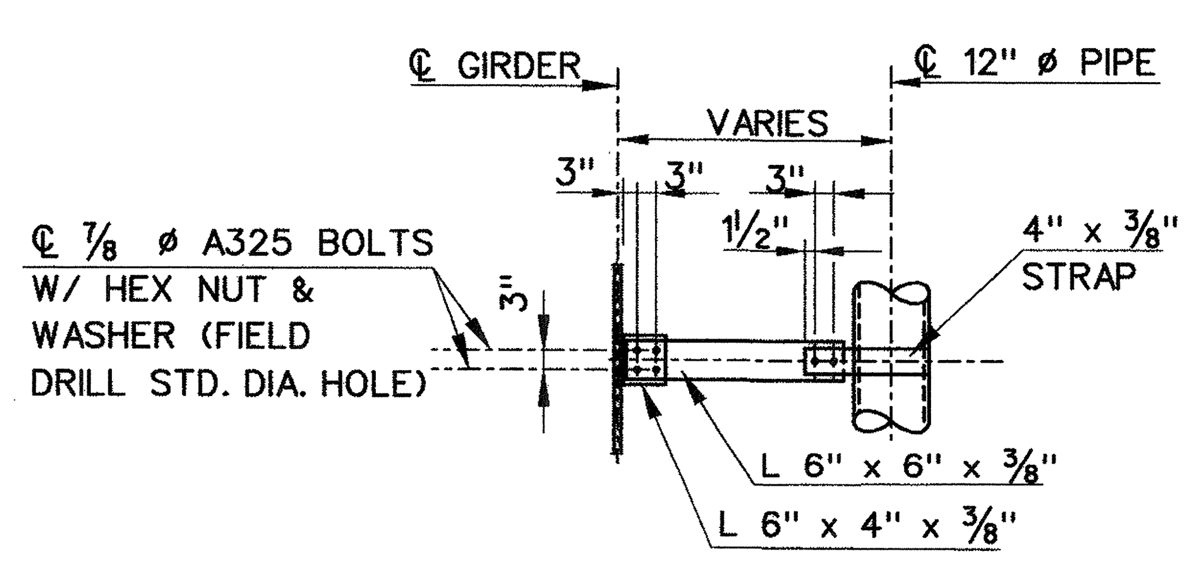


VIEW A-A
NOT TO SCALE

BRIDGE DRAINAGE PIPE SUPPORT DETAIL
NOT TO SCALE



CIRCULAR HOOPER DETAIL
SCALE: 1/2" = 1'-0"



DETAIL 'A'
NOT TO SCALE

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: A. KILPATRICK
CHECKED BY: A. MORETTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S122.DGN PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN

DRAWING TITLE: BRIDGE DRAINAGE AND STANDPIPE DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-103
SHEET NO.: 237

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07 APR 2000
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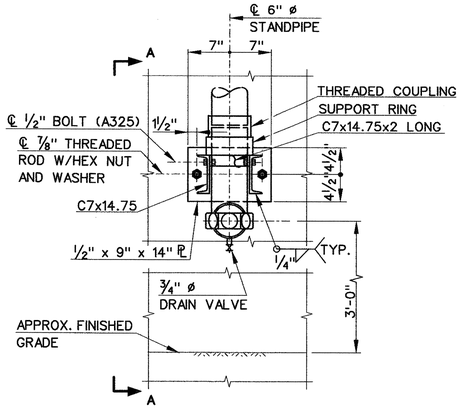
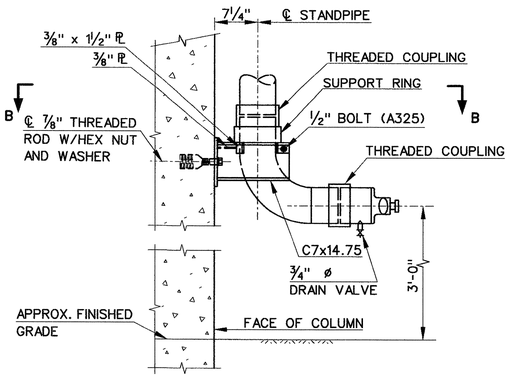
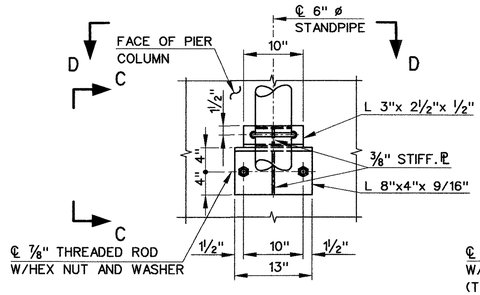


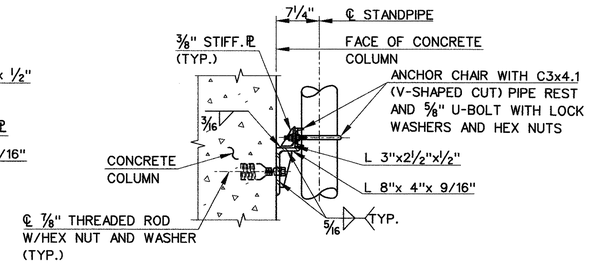
ELEVATION



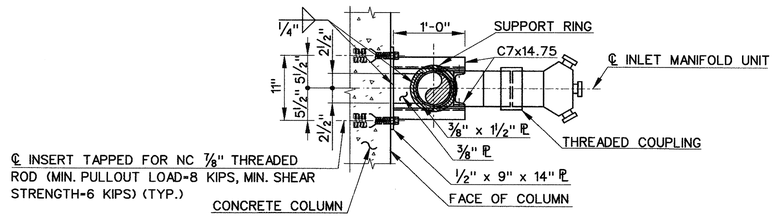
VIEW A-A



ELEVATION



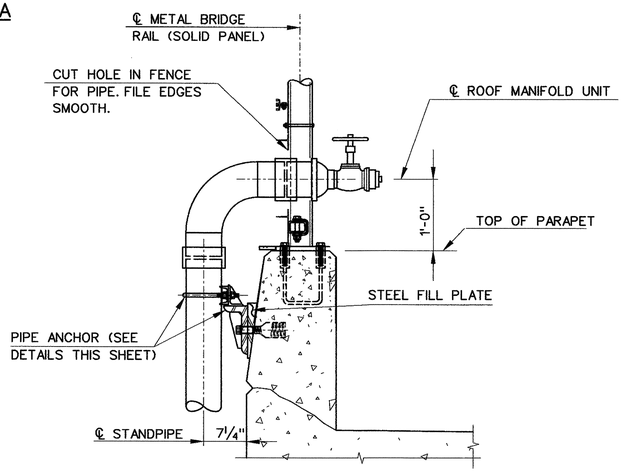
VIEW C-C



SECTION B-B

STANDPIPE ATTACHMENT DETAILS @ INLET

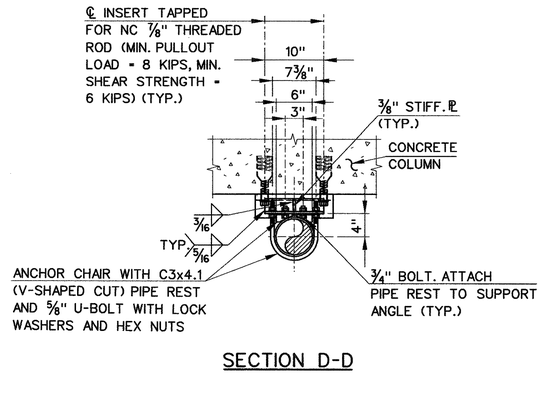
SCALE: 1½" = 1'-0"



TYPICAL SECTION

OUTLET DETAIL

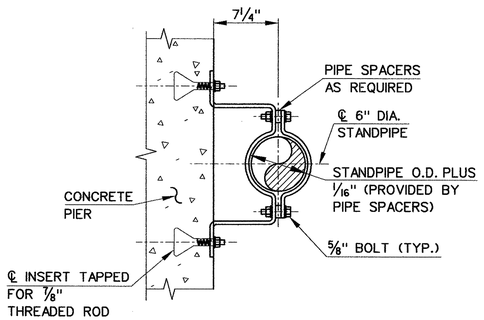
SCALE: 1" = 1'-0"



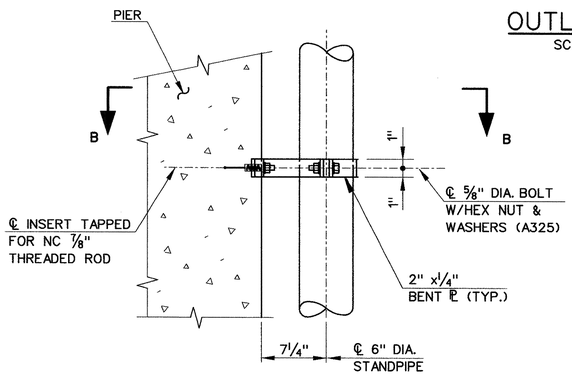
SECTION D-D

STANDPIPE ANCHOR DETAIL

SCALE: 1½" = 1'-0"



SECTION B-B



ELEVATION

PIPE GUIDE DETAIL

SCALE: 1½" = 1'-0"

NOTES:

1. EXPANSION JOINTS SHALL BE INSTALLED AS INDICATED. EXPANSION JOINTS SHALL CONSIST OF 4-FLEXIBLE COUPLINGS. 2 COUPLINGS SHALL BE INSTALLED IN THE FULLY OPEN POSITION TO ACCOMMODATE EXPANSION AND 2 IN THE FULLY COMPRESSED POSITION TO ACCOMMODATE CONTRACTION. MULTIPLE CUT GROOVED COUPLINGS SHALL BE AS MANUFACTURED BY VICTAULIC CO. STYLE 155 OR APPROVED EQUAL.
2. THE COST OF FURNISHING AND INSTALLING ALL PIPE, PIPE FITTINGS AND PIPE SUPPORTS SHALL BE INCLUDED UNDER THE ITEM "FIRE SUPPRESSION STANDPIPE SYSTEM" (SEE SPECIAL PROVISIONS).
3. PIPE SHALL BE 6" DIAMETER GALVANIZED, SCHEDULE 40 WELDED SEAMLESS STEEL PIPE PER ASTM A53, GRADE B.
4. FLEXIBLE COUPLINGS SHALL BE VICTAULIC STYLE 77, OR APPROVED EQUAL. RIGID COUPLINGS SHALL BE VICTAULIC STYLE 07 ZEROFLEX, OR APPROVED EQUAL.
5. STRUCTURAL STEEL SUPPORT MEMBERS INCLUDING PIPE GUIDES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709, GRADE 36 AND BE GALVANIZED IN CONFORMANCE WITH ASTM A123.
6. THREADED ROD SHALL CONFORM TO THE REQUIREMENTS OF ASTM A449. HEX NUTS SHALL CONFORM TO ASTM A563, GRADE DH OR ASTM A194, GRADE 2H. WASHERS SHALL CONFORM TO ASTM F436.
7. HIGH STRENGTH BOLTS AND THREADED RODS INCLUDING HEX NUTS AND WASHERS SHALL BE GALVANIZED IN CONFORMANCE WITH ASTM B695, CLASS 50 (MECHANICAL GALVANIZED).
8. ALL WELDING REQUIRED FOR THE FABRICATION OF PIPE SUPPORTS SHALL BE IN ACCORDANCE WITH CURRENT AWS SPECIFICATIONS. WELDING OF PIPING TO SUPPORTS SHALL NOT BE PERMITTED.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. YOUNG
DRAFTER: A. KILPATRICK
CHECKED BY: A. MORETTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S142.DGN PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN
DRAWING TITLE: STANDPIPE DETAILS

PROJECT NO.: 92-526
DRAWING NO.: STR-104
SHEET NO.: 238

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07 APR 2000
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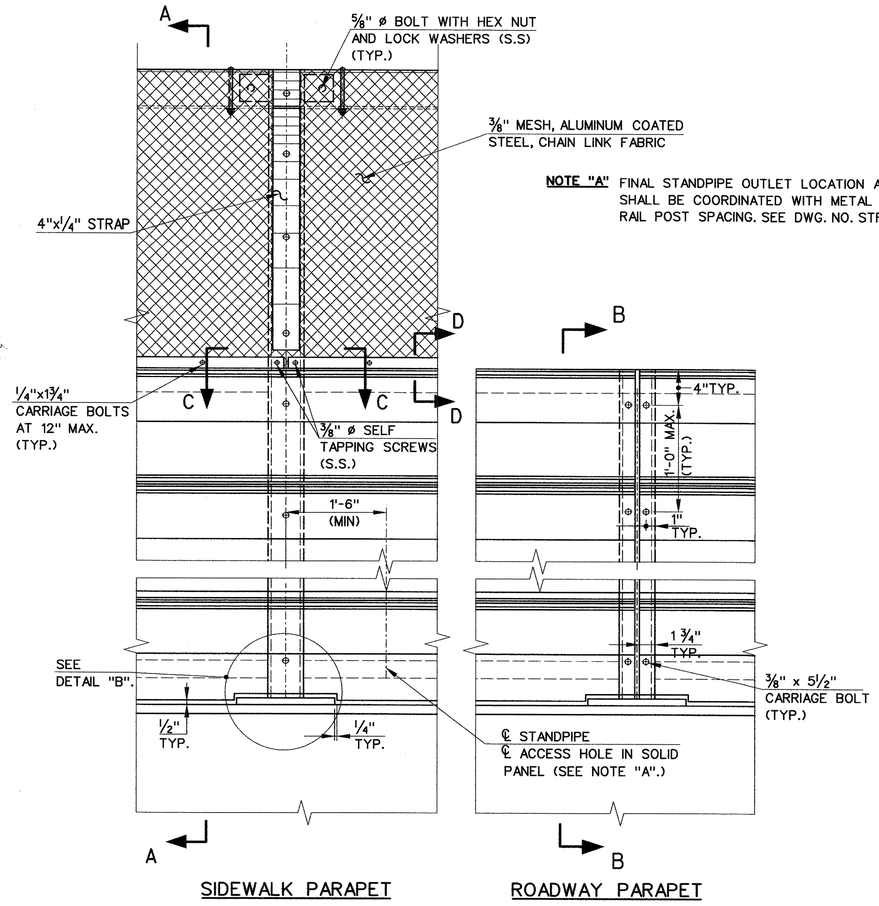


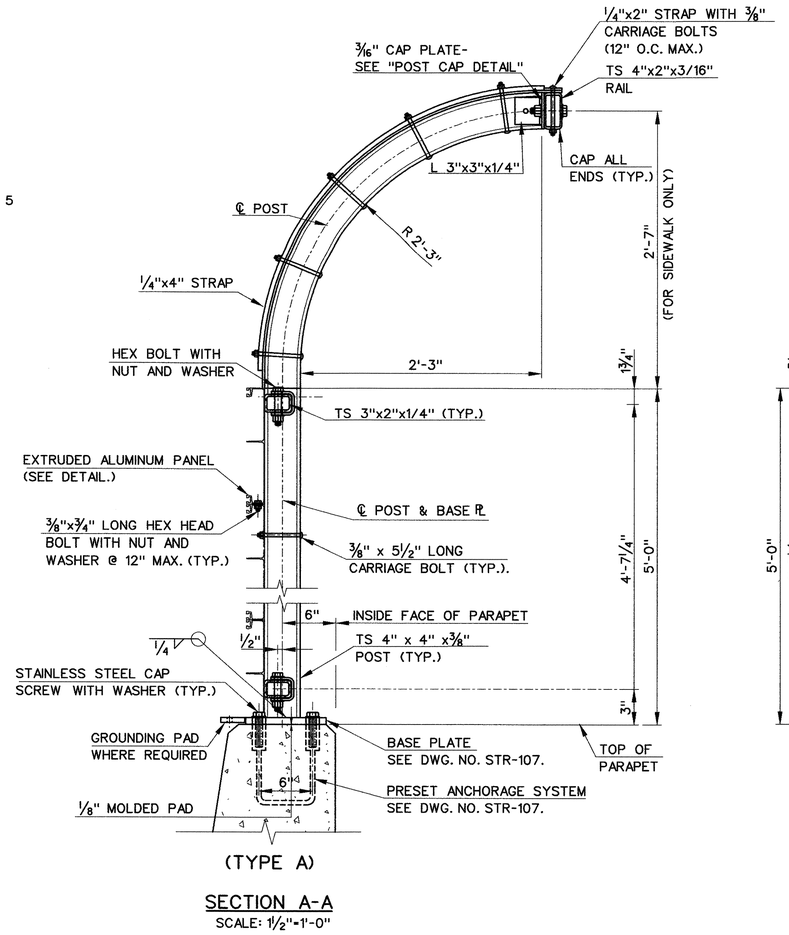
SIDEWALK PARAPET ROADWAY PARAPET

(LOOKING AT OUTSIDE OF PARAPETS)

ELEVATIONS

SCALE: 1½" = 1'-0"

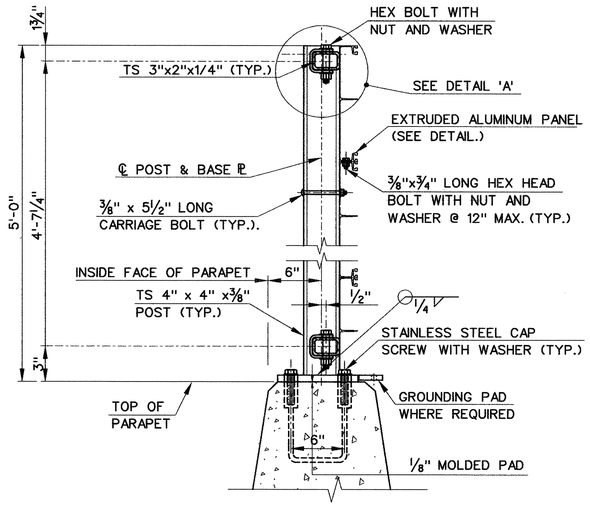
NOTE "A" FINAL STANDPIPE OUTLET LOCATION AT PIER 5 SHALL BE COORDINATED WITH METAL BRIDGE RAIL POST SPACING. SEE DWG. NO. STR-103.



(TYPE A)

SECTION A-A

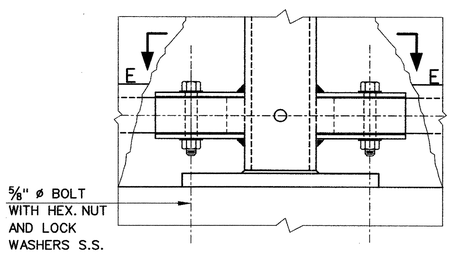
SCALE: 1½"-1'-0"



(TYPE B)

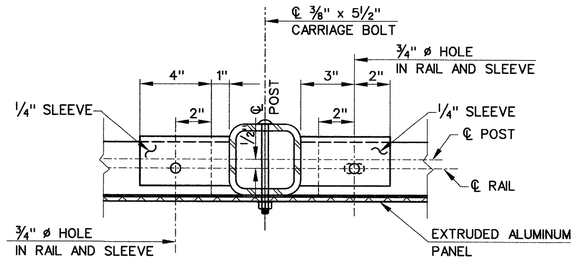
SECTION B-B

SCALE: 1½"-1'-0"



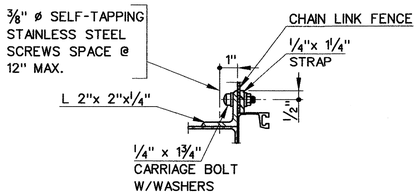
DETAIL "B"

SCALE: 3"-1'-0"



SECTION E-E

SCALE: 3"-1'-0"



SECTION D-D

SCALE: 3"- 1'-0"

NOTES

1. THE POSTS, RAILS, BASES, SLEEVES AND CONNECTION MATERIAL SHALL BE EXTRUDED ALUMINUM CONFORMING TO ASTM B221, ALUMINUM ALLOY 6061-T6 AND SHALL BE ANODIZED GRAY. SEE SPECIAL PROVISION.
2. ALL HARDWARE EXCEPT AS NOTED SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM A193, CLASS 1 OR 2, GRADE B8 (AISI TYPE 316). STAINLESS STEEL WASHERS SHALL CONFORM TO ASTM A167, TYPES 302-305.
3. FOR RAIL POST SPACING SEE SLAB PLANS.
4. THE RAILING SHALL BE FABRICATED AND ERECTED SO THAT THE EXTRUDED ALUMINUM PANELS ARE PARALLEL TO EACH OTHER AND TO THE PARAPET AND THE RAILING POSTS ARE VERTICAL.
5. EXPOSED SURFACES OF POSTS, RAILING, CONNECTION PLATES AND ANGLES AND RAILING PANELS SHALL BE FREE OF BURRS, IRREGULARITIES AND SHARP EDGES.
6. FOR CONNECTION TO THE GROUNDING AND BONDING SYSTEM, SEE DWG. NO. STR-118. GROUNDING PADS ARE TO BE PAID FOR UNDER THE APPLICABLE METAL BRIDGE RAIL (SOLID PANEL) ITEM.
7. FOR SECTIONS C-C AND DETAIL 'A'. SEE DWG. NO. STR-106.
8. METAL BRIDGE RAIL MOUNTED ON THE SIDEWALK PARAPET SHALL BE PAID FOR UNDER THE "METAL BRIDGE RAIL (SOLID PANEL) (TYPE A)".
9. METAL BRIDGE RAIL MOUNTED ON THE ROADWAY PARAPET SHALL BE PAID FOR UNDER THE ITEM "METAL BRIDGE RAIL (SOLID PANEL) (TYPE B)".

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. CICHOWSKI
DRAFTER: A. KILPATRICK
CHECKED BY: A. MORETTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S135.DGN PLOTTED DATE: 4-05-00

TOWN: NEW HAVEN
DRAWING TITLE: METAL BRIDGE RAIL (SOLID PANEL) - SHEET 1 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-105
SHEET NO.: 239

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07 APR 2000
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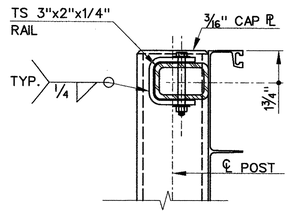
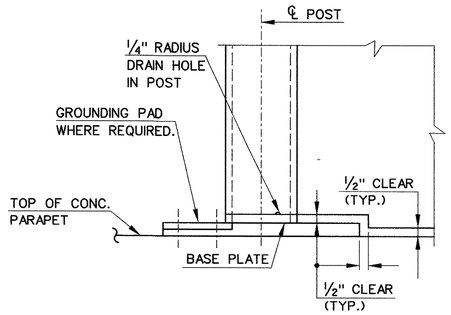
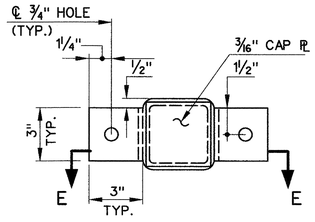


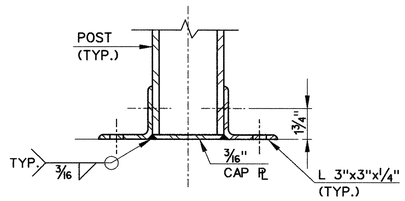
DETAIL "A"
SCALE: 3"=1'-0"



END PANEL DETAIL
SCALE: 3" = 1'-0"

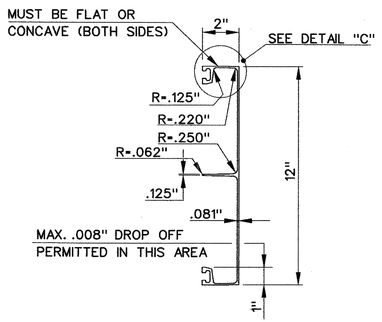


ELEVATION

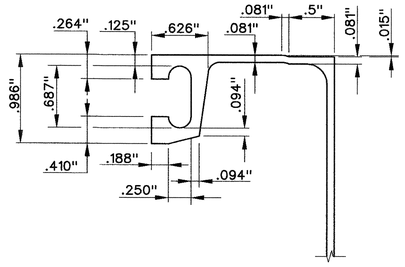


SECTION E-E

POST CAP DETAIL (SIDEWALK)
SCALE: 3"= 1'-0"

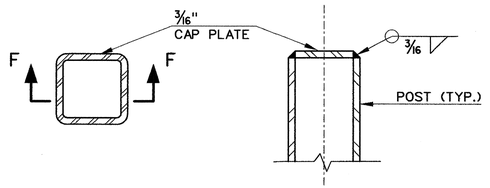


EXTRUDED ALUMINUM
PANEL DETAIL
N.T.S.



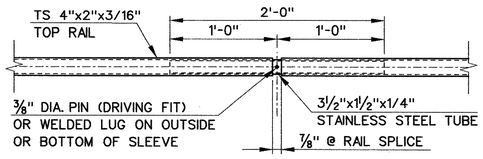
MOMENT OF INERTIA = 1.179 in.^{4} (MIN.)
MIMIMUM SECTION MOD. = 1.656 in.^{3} (FACE)
0.915 in.^{3} (LEGS)
WT./L.F. = 2.485 lb. (MIN.)

DETAIL "C"
N.T.S.

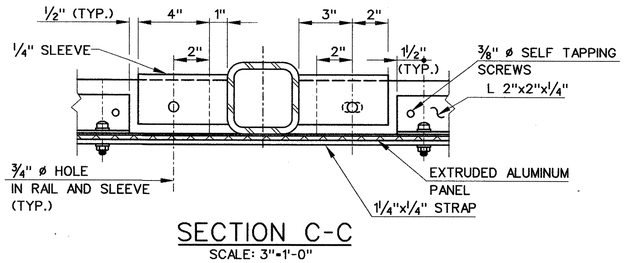


PLAN SECTION F-F

POST CAP DETAIL (ROADWAY)
SCALE: 3"= 1'-0"



4"x2"x3/16" TUBE RAIL SPLICE
SCALE : 1 1/2"=1'-0"



SECTION C-C
SCALE: 3"=1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. CICHOWSKI
DRAFTER: M. OFFENBERG
CHECKED BY: D. GEISSERT
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Marotti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S136.DGN PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN
DRAWING TITLE: METAL BRIDGE RAIL (SOLID PANEL) – SHEET 2 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-106
SHEET NO.: 240

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07 APR 2000
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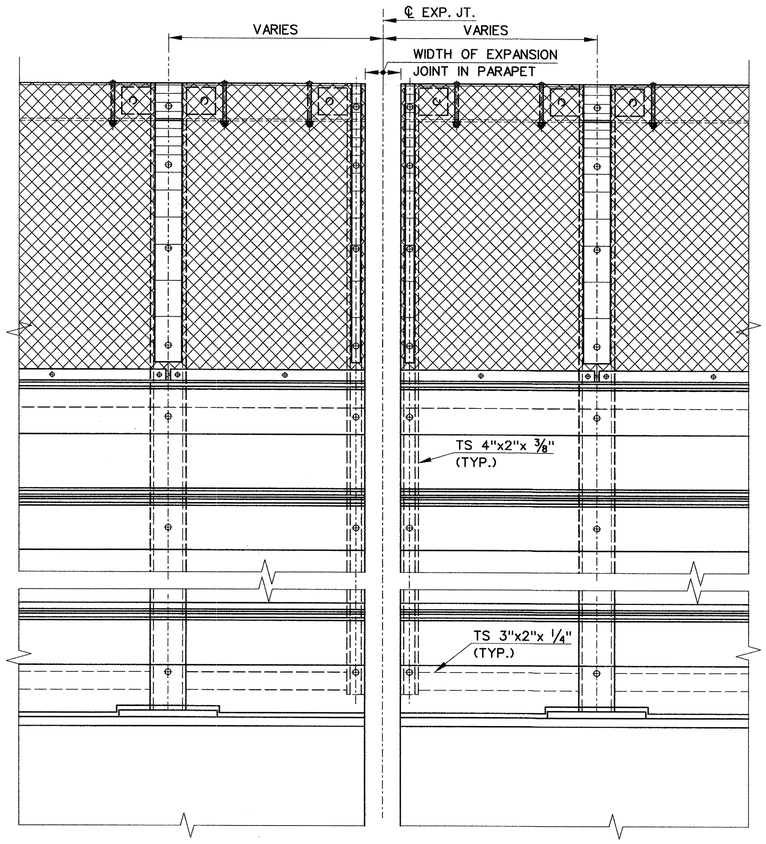
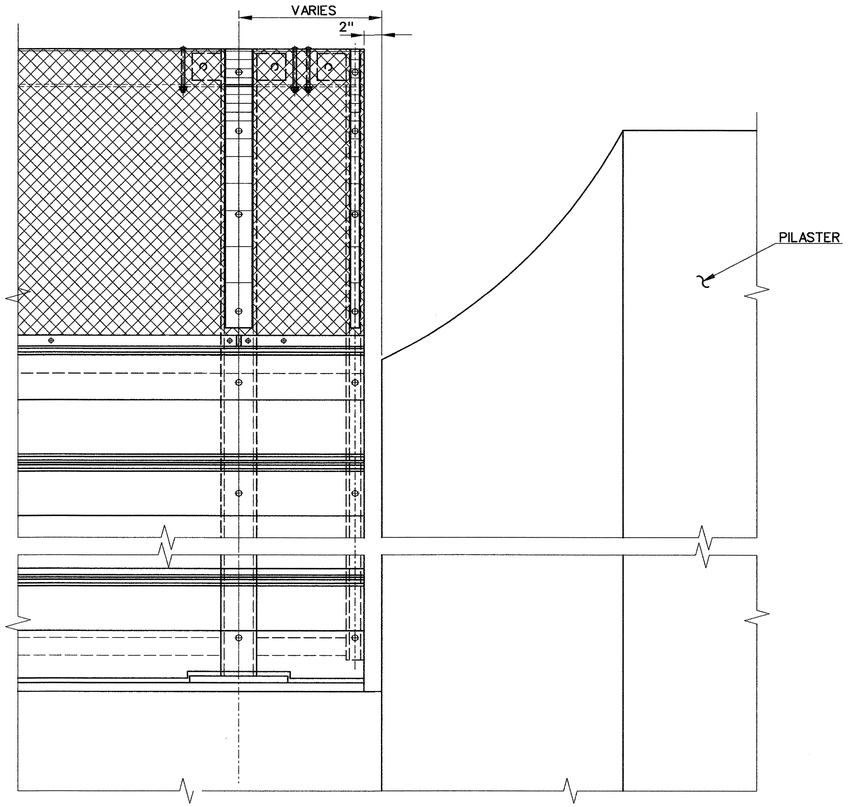


SIDEWALK PARAPET SHOWN
(ROADWAY PARAPET SIMILAR)

EXPANSION JOINT - PIER 1

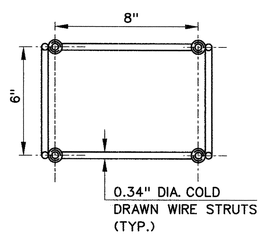
SCALE: 1½"= 1'-0"



SIDEWALK PARAPET SHOWN
(ROADWAY PARAPET SIMILAR)

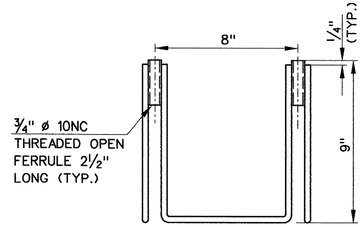
END PANEL - PILASTER

SCALE: 1½"= 1'-0"



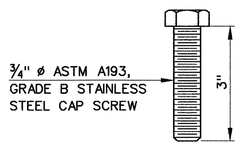
PLAN

SCALE: 3"= 1'-0"



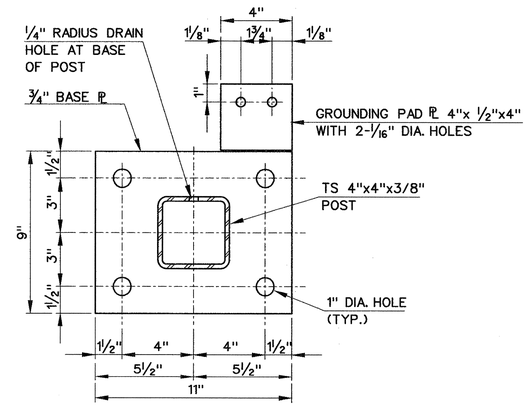
ELEVATION

SCALE: 3"= 1'-0"



CAP SCREW

NOT TO SCALE



BASE PLATE

SCALE: 3"=1'-0"

PRESET ANCHORAGE SYSTEM

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. CICHOWSKI
DRAFTER: A. KILPATRICK
CHECKED BY: D. GEISSERT
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S137.DGN
PLOTTED DATE: 4-05-00

TOWN: NEW HAVEN
DRAWING TITLE: METAL BRIDGE RAIL (SOLID PANEL) – SHEET 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-107
SHEET NO.: 241

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07 APR 2000
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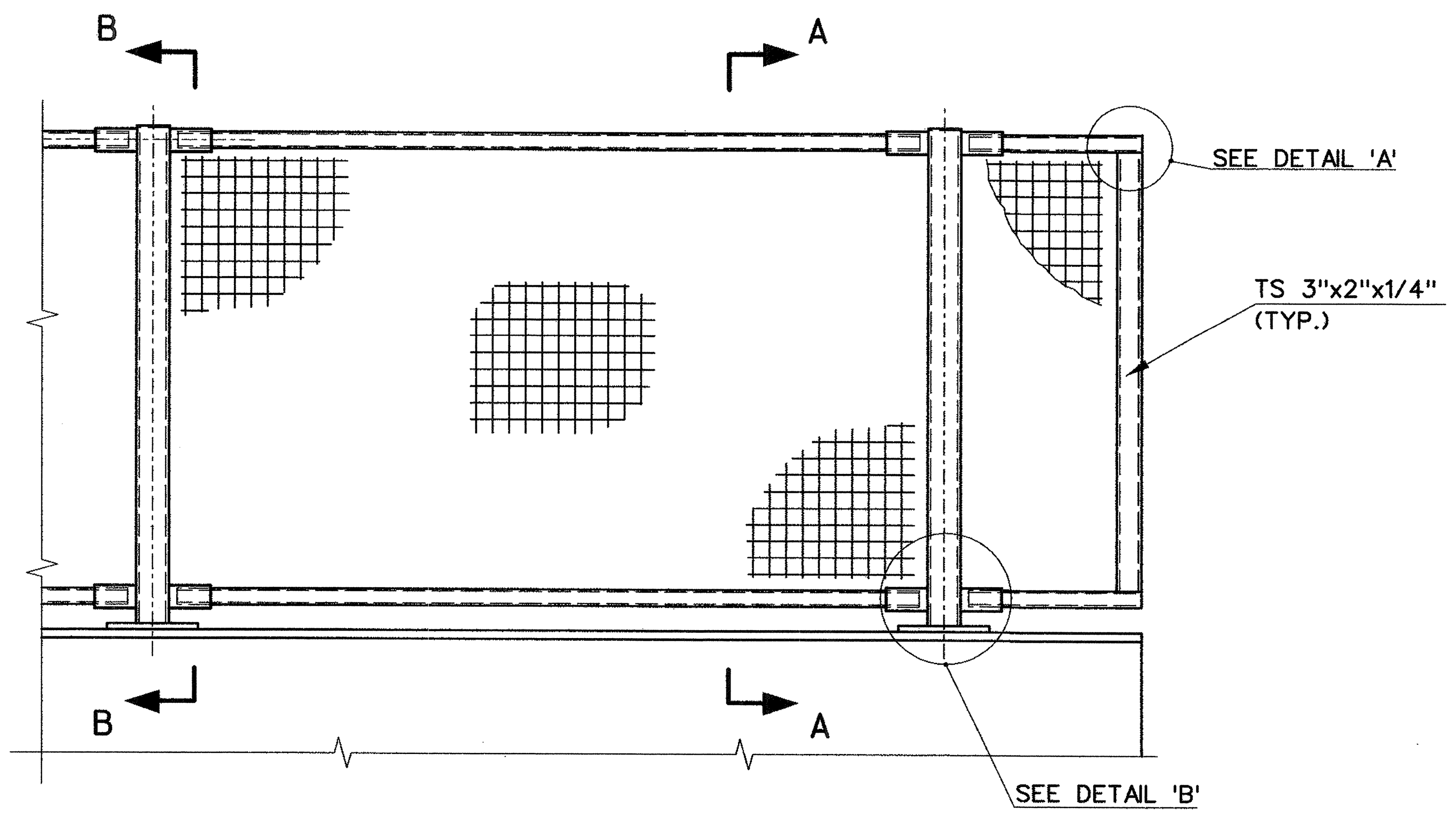
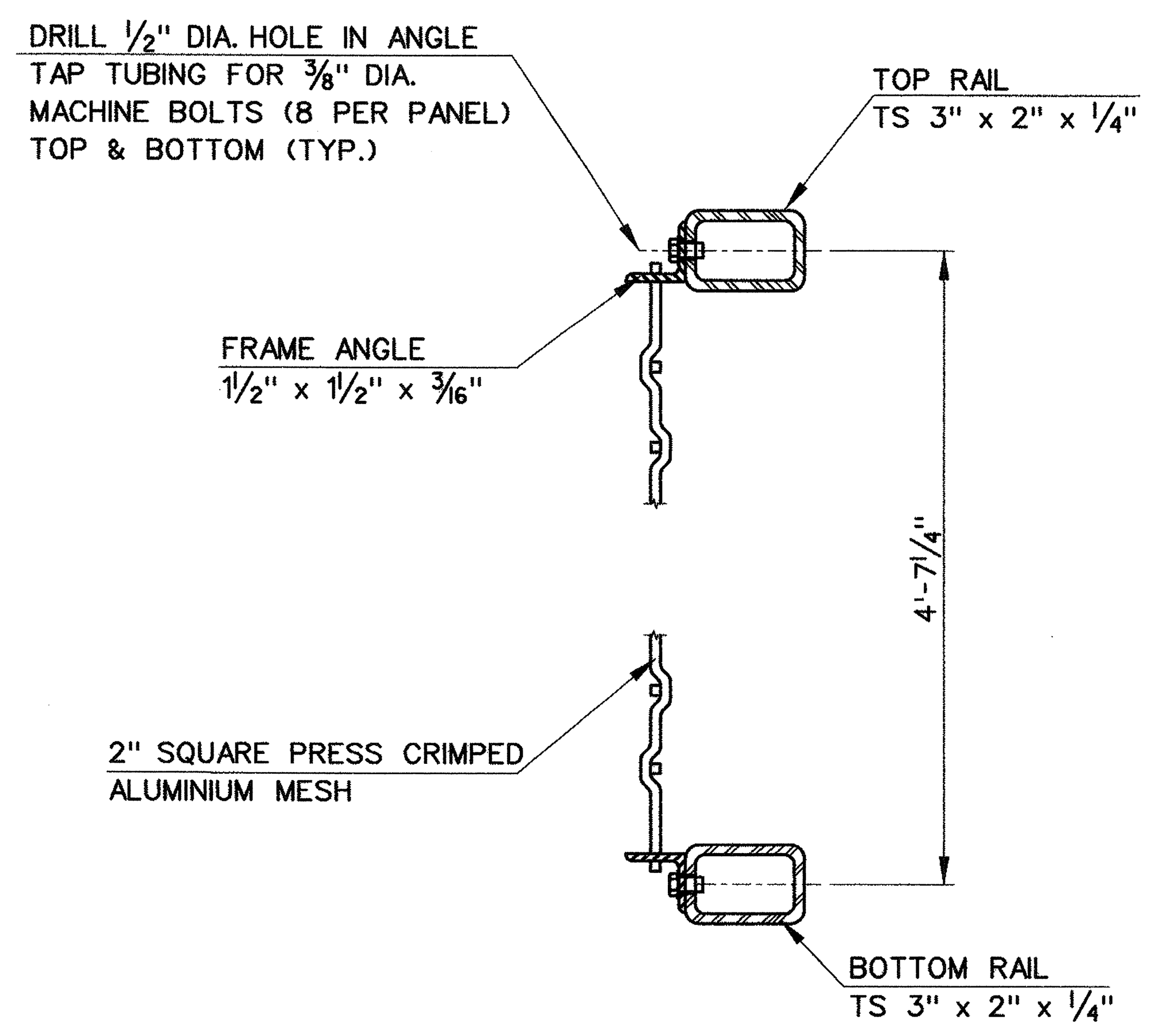


INTERIOR PANEL   END PANEL

(LOOKING AT INSIDE OF PARAPETS)

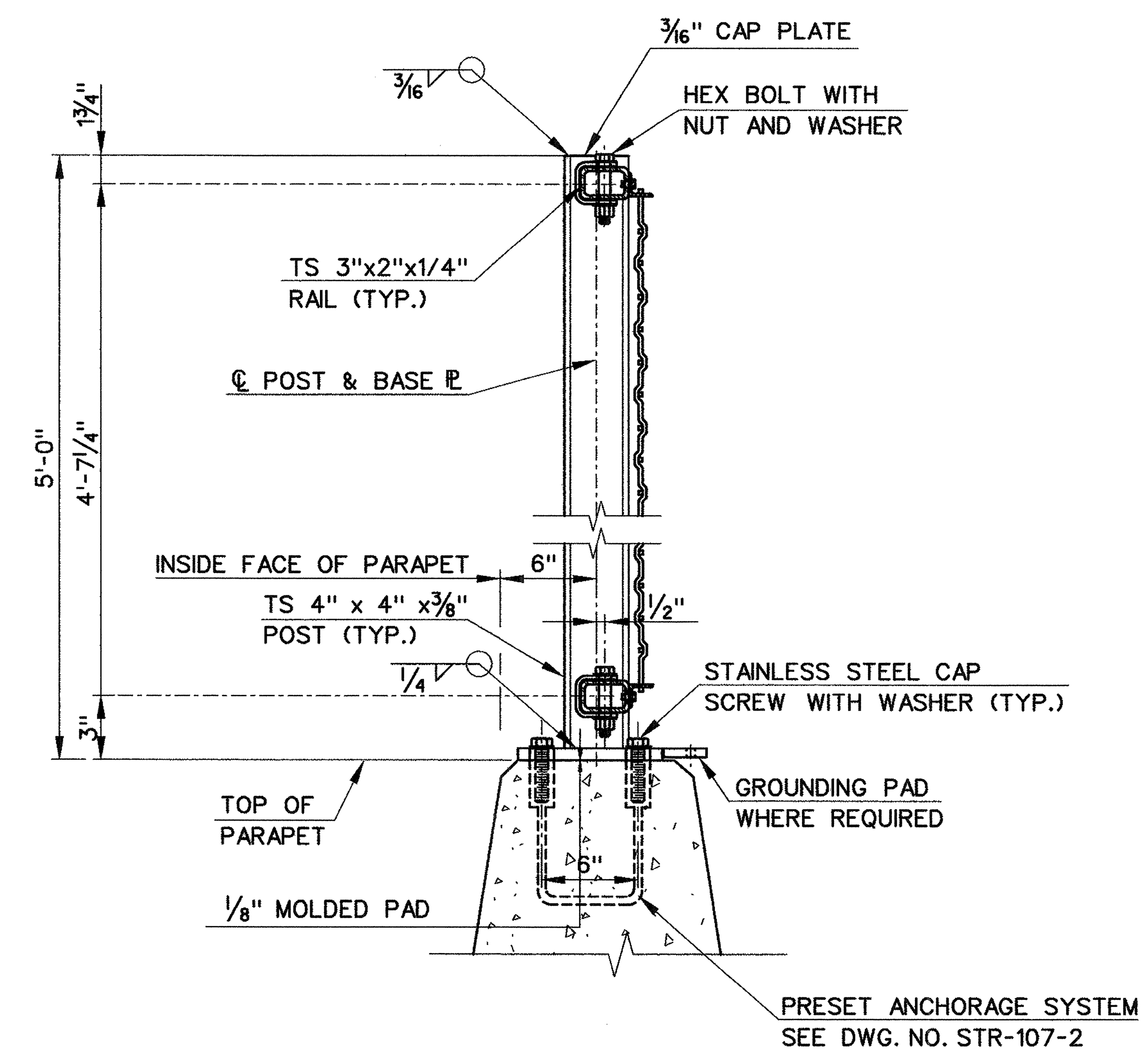
ELEVATION

SCALE: 3/4" = 1'-0"



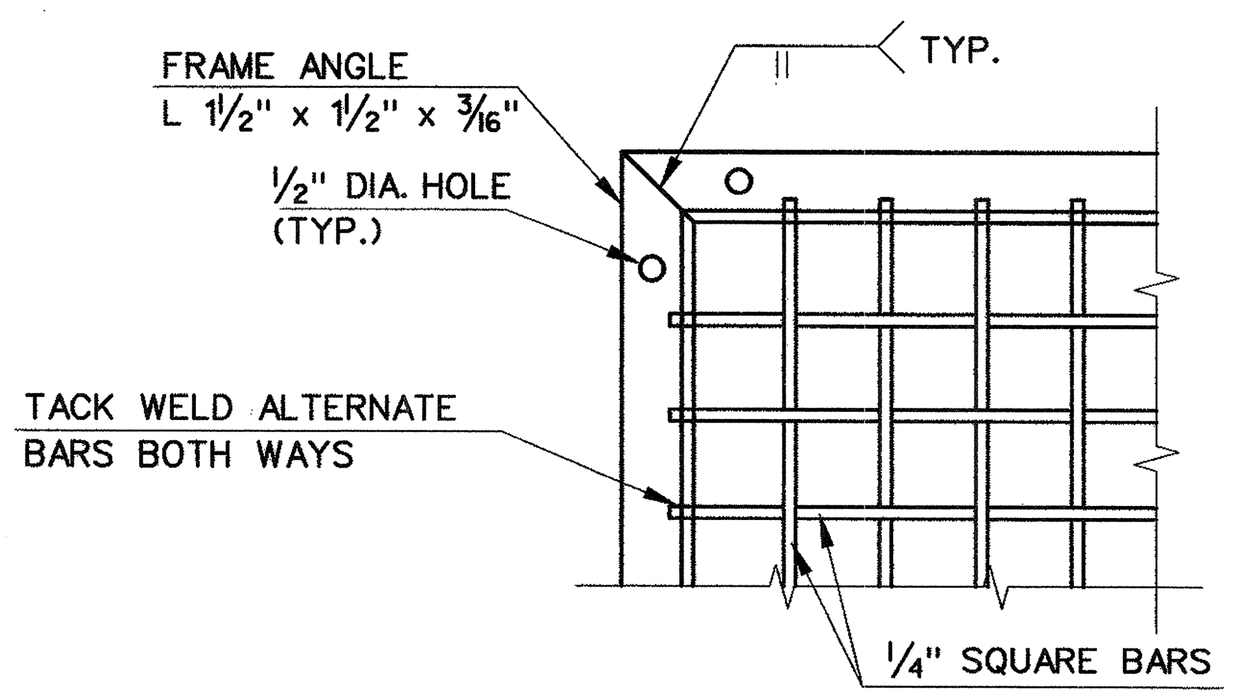
SECTION A-A

SCALE: 3"=1'-0"



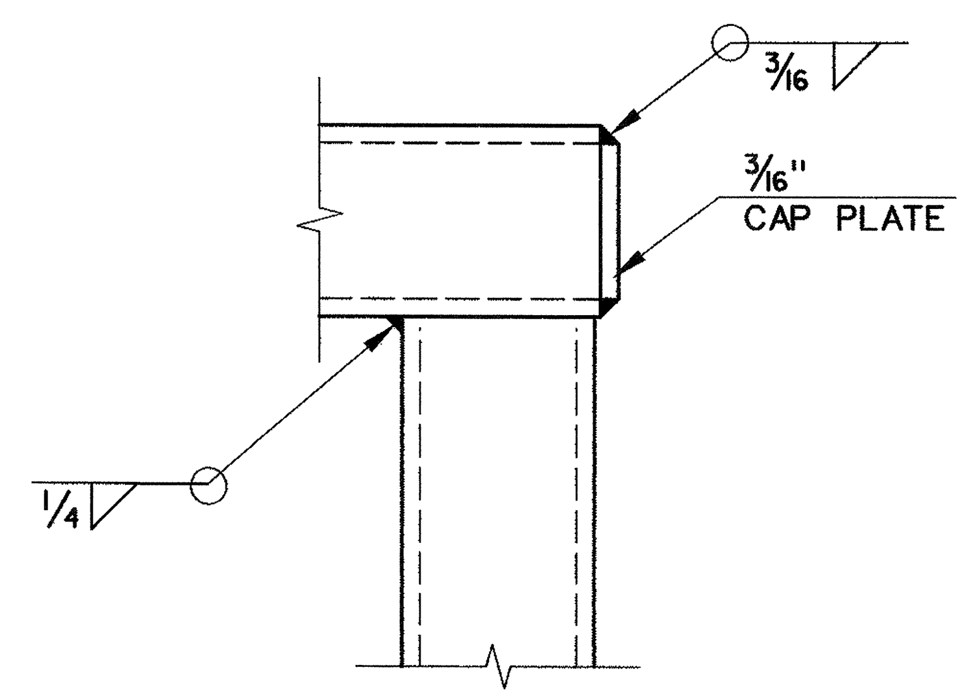
SECTION B-B

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



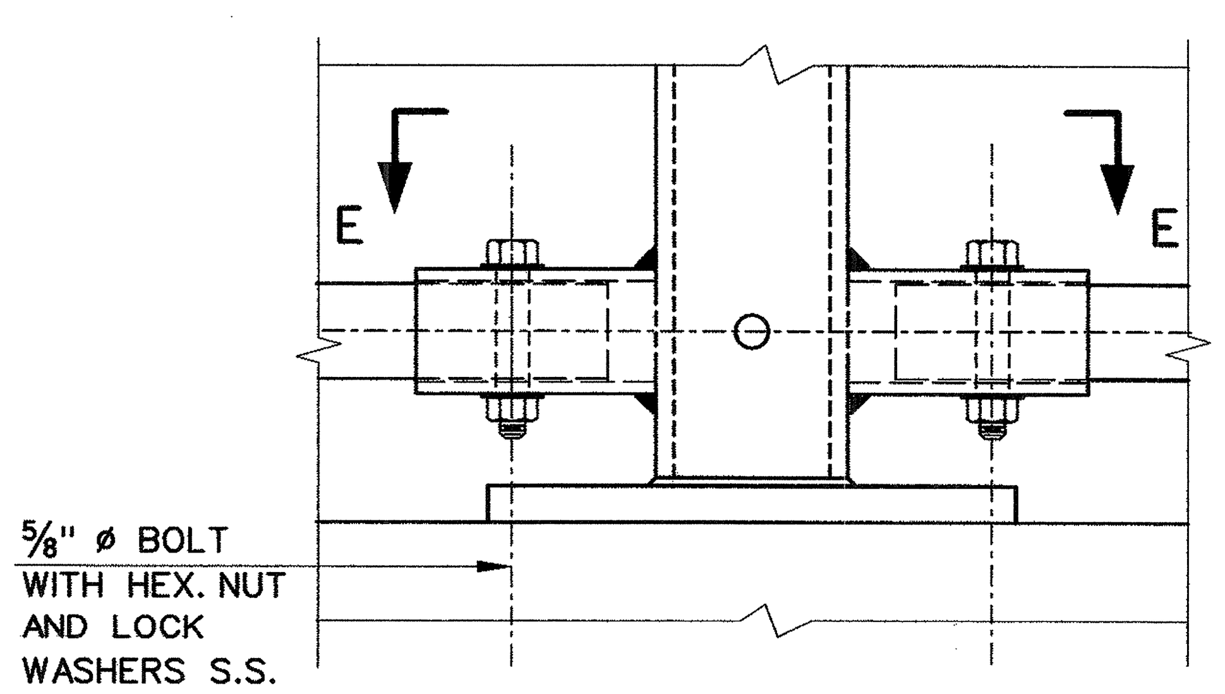
CORNER DETAIL

SCALE: 3"=1'-0"



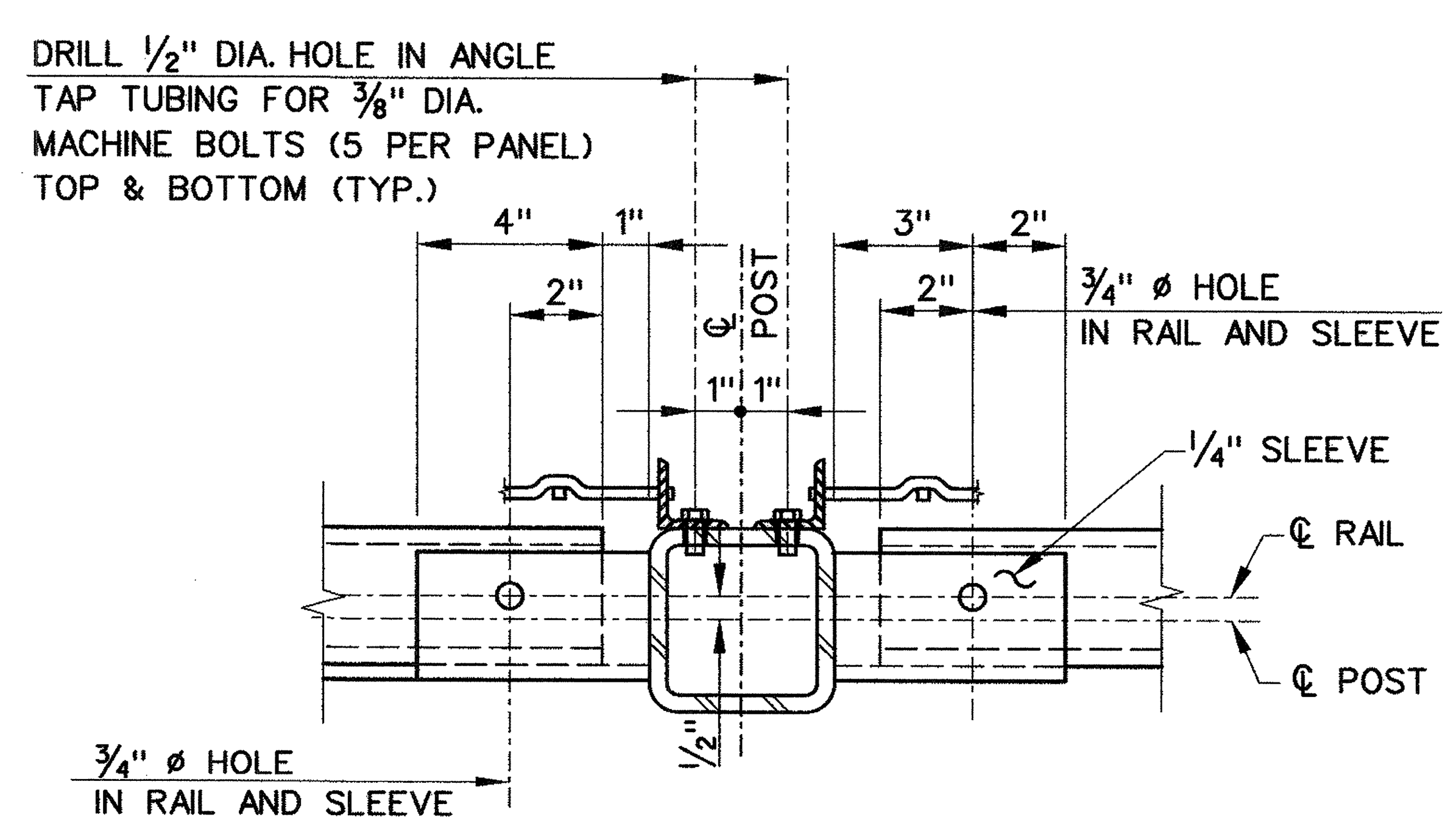
DETAIL 'A'

SCALE: 3"= 1'-0"



DETAIL 'B'

SCALE: 3"=1'-0"



SECTION E-E

SCALE: 3"=1'-0"

NOTES

1. THE POSTS, RAILS,BASES, SLEEVES AND CONNECTION MATERIAL SHALL BE EXTRUDED ALUMINUM CONFORMING TO ASTM B221, ALUMINUM ALLOY 6061-T6 AND SHALL BE ANODIZED GRAY. SEE SPECIAL PROVISION.
2. ALL HARDWARE EXCEPT AS NOTED SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM A193, CLASS 1 OR 2, GRADE B8 (AISI TYPE 316). STAINLESS STEEL WASHERS SHALL CONFORM TO ASTM A167, TYPES 302-305.
3. FOR RAIL POST SPACING SEE SLAB PLANS.
4. THE RAILING SHALL BE FABRICATED AND ERECTED SO THAT THE RAILS ARE PARALLEL TO EACH OTHER AND TO THE PARAPET AND THE RAILING POSTS ARE VERTICAL.
5. EXPOSED SURFACES OF POSTS, RAILING, CONNECTION SLEEVES, ANGLES AND RAILING PANELS SHALL BE FREE OF BURRS, IRREGULARITIES AND SHARP EDGES.
6. FOR CONNECTION TO THE GROUNDING AND BONDING SYSTEM, SEE DWG. NO. STR-118. GROUNDING PADS ARE TO BE PAID FOR UNDER THE ITEM METAL BRIDGE RAIL-PROTECTIVE FENCE (TYPE C).

15:31:13 07 APR 2000 h:\dgn\pb8703\churchst\d\structure\r703s138.dgn

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. CICHOWSKI
DRAFTER: A. KILPATRICK
CHECKED BY: A. MORETTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti   DATE: 4-7-00

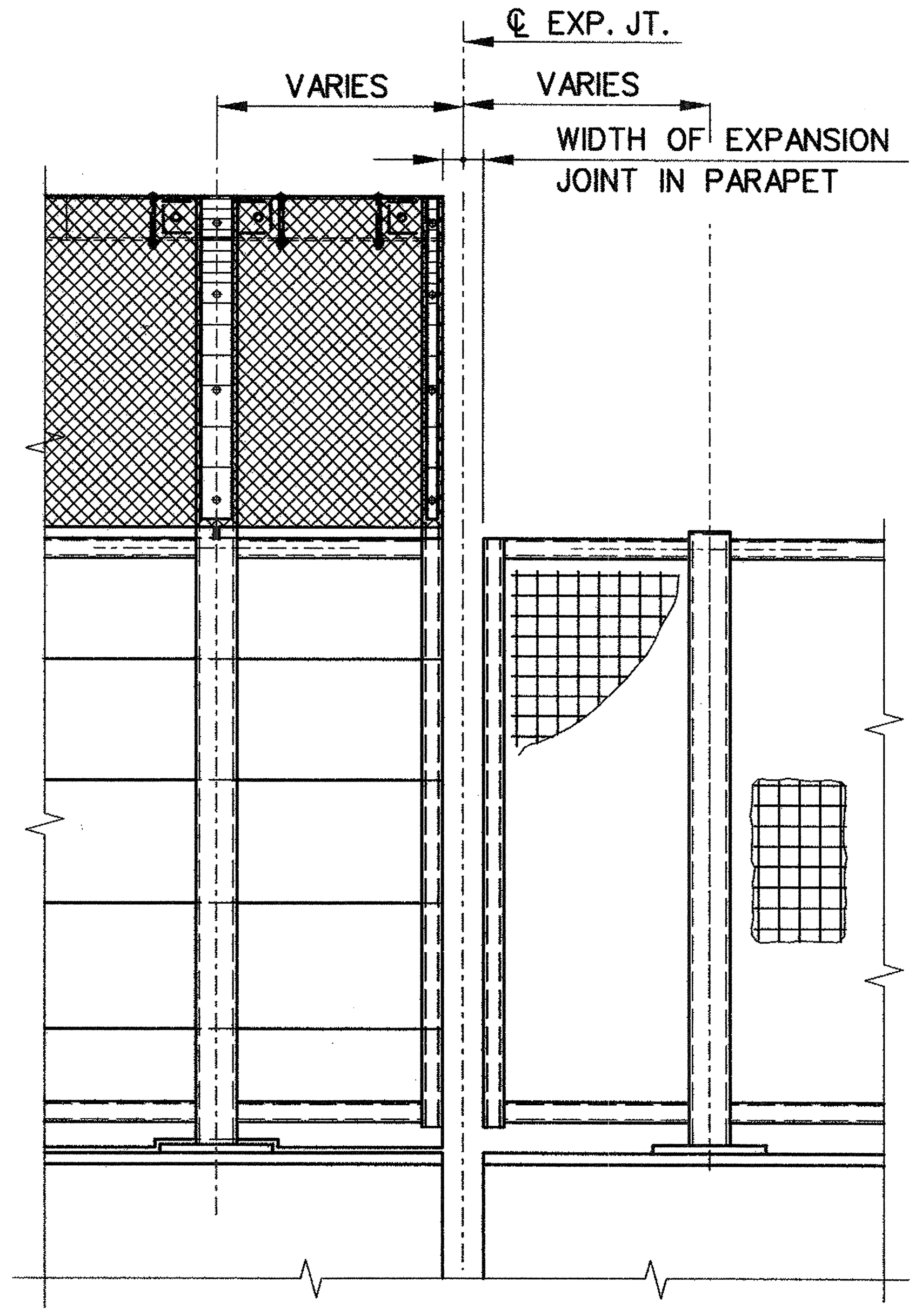
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S138.DGN   PLOTTED DATE: 4-05-00

TOWN: NEW HAVEN

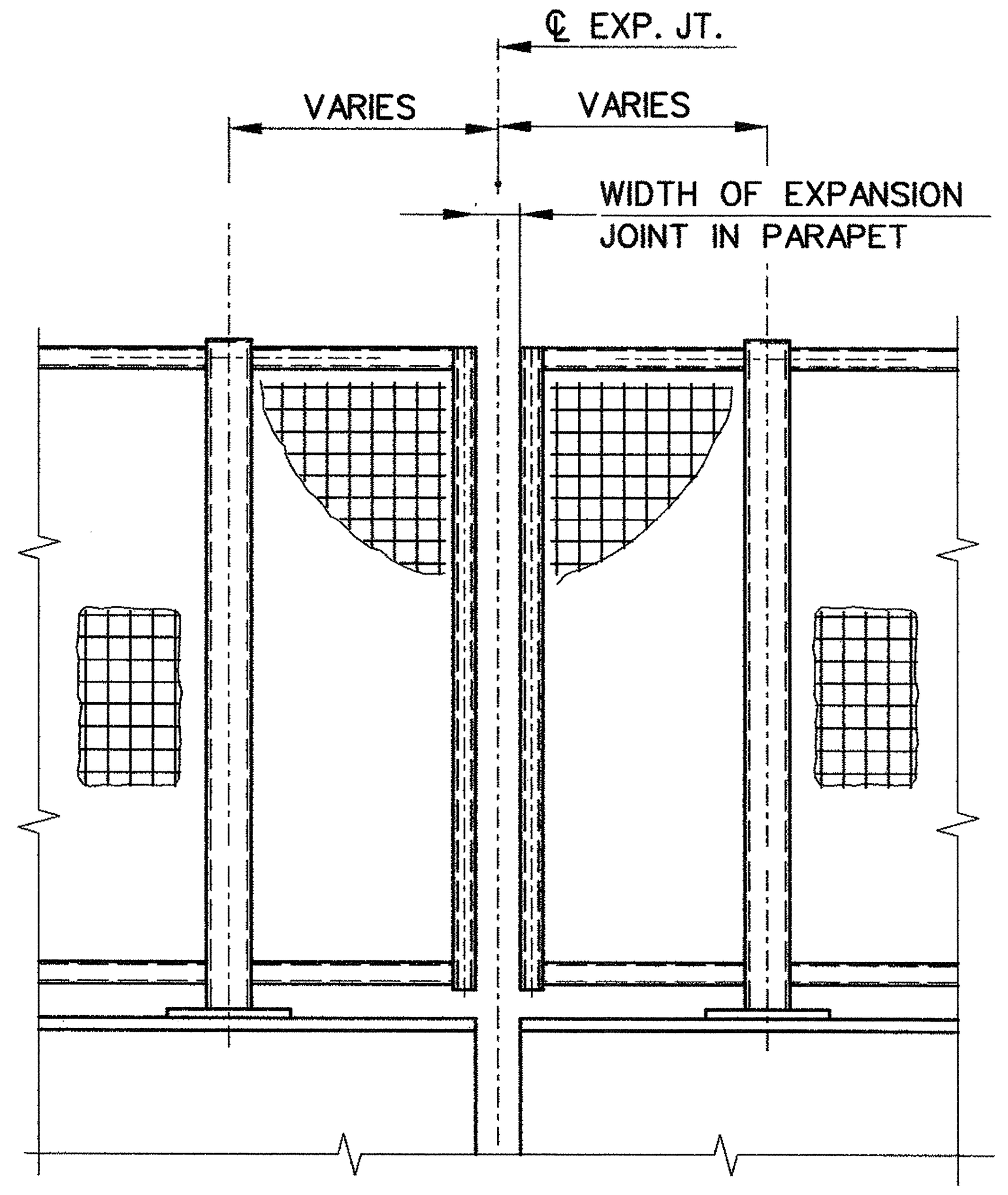
DRAWING TITLE: METAL BRIDGE RAIL PROTECTIVE FENCE (TYPE C)- SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-107-1
SHEET NO.: 241-1

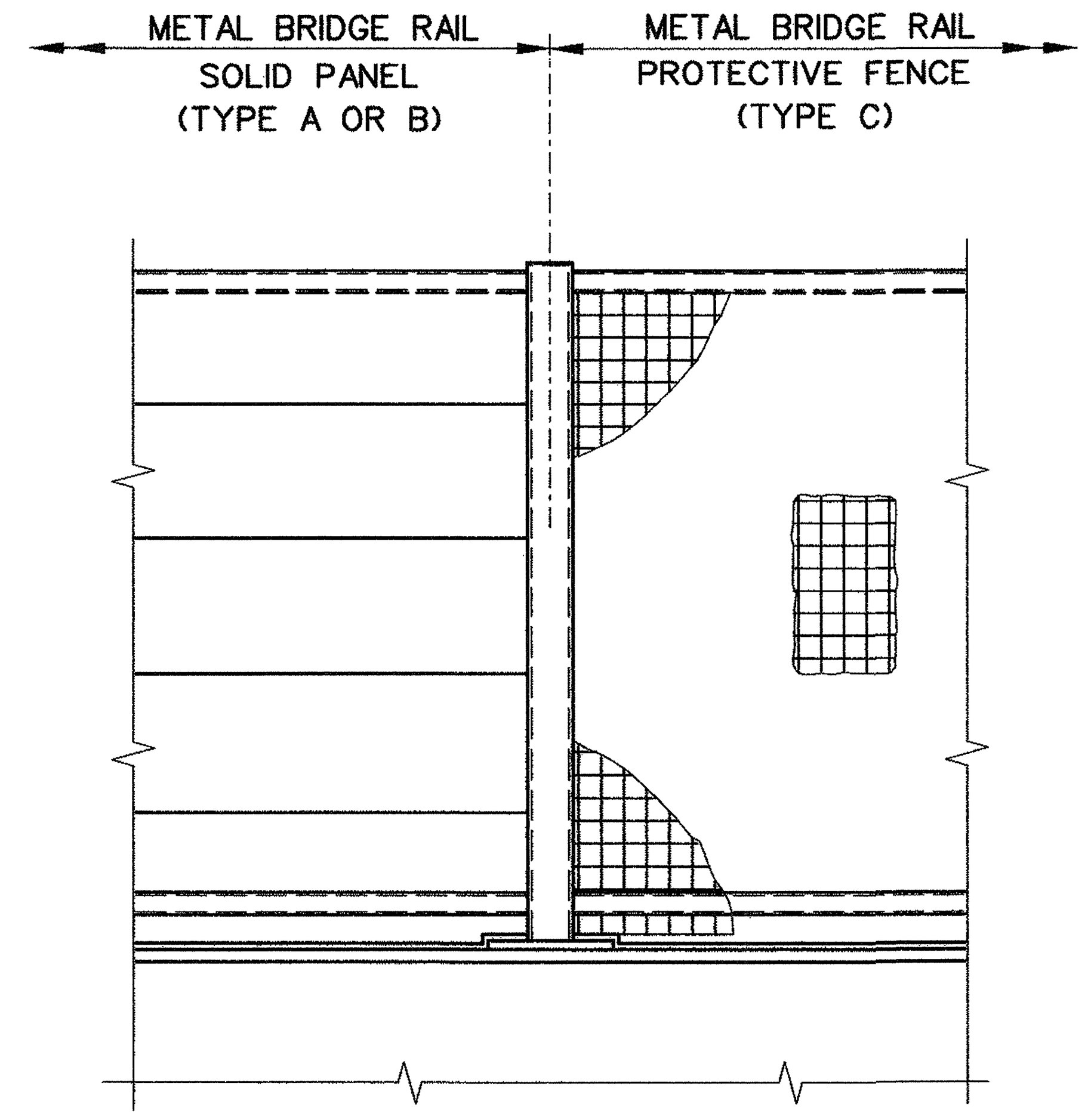


SIDEWALK PARAPET SHOWN
(ROADWAY PARAPET SIMILAR)

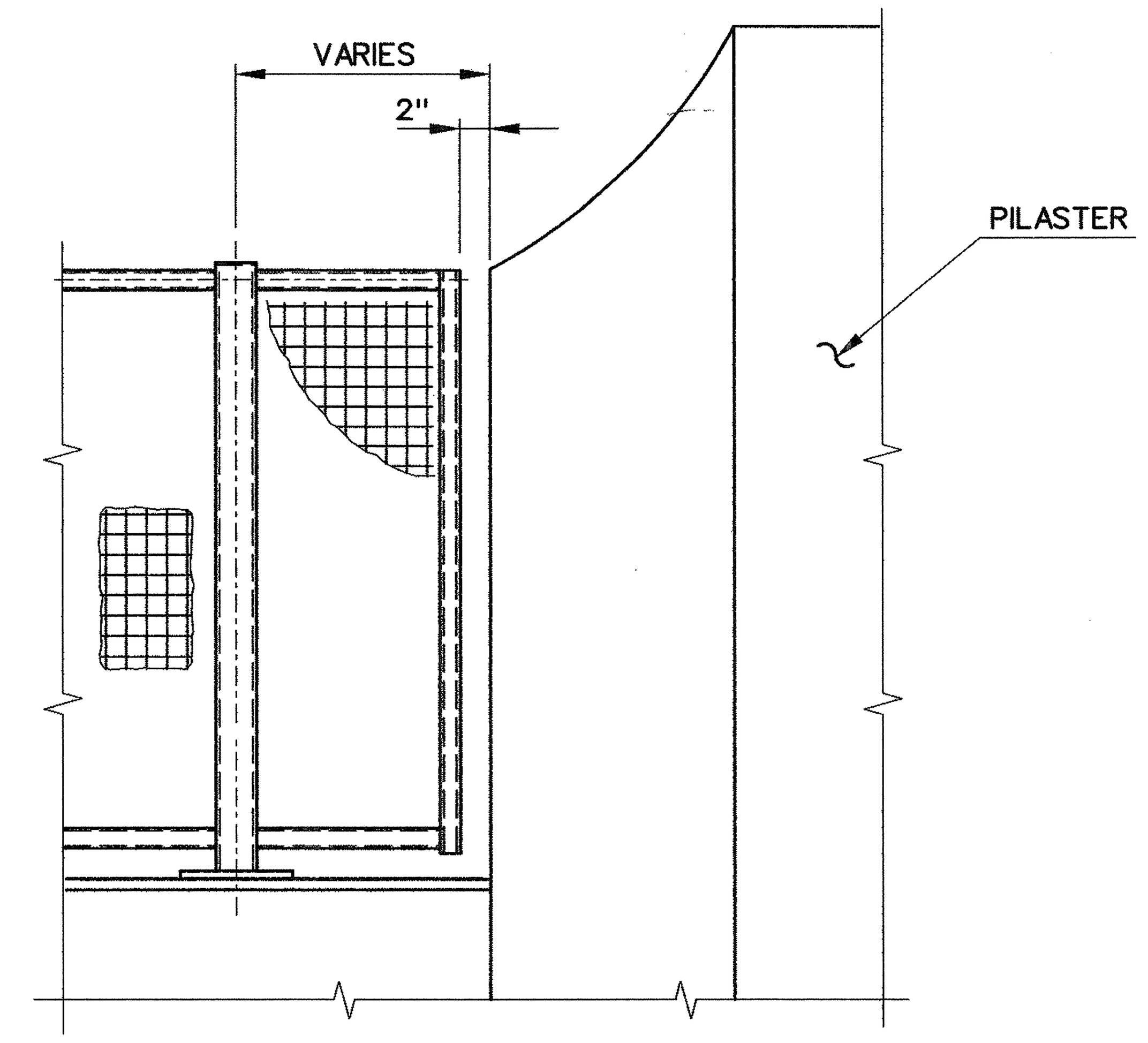
EXPANSION JOINT - PIER 2
SCALE: 3/4"= 1'-0"



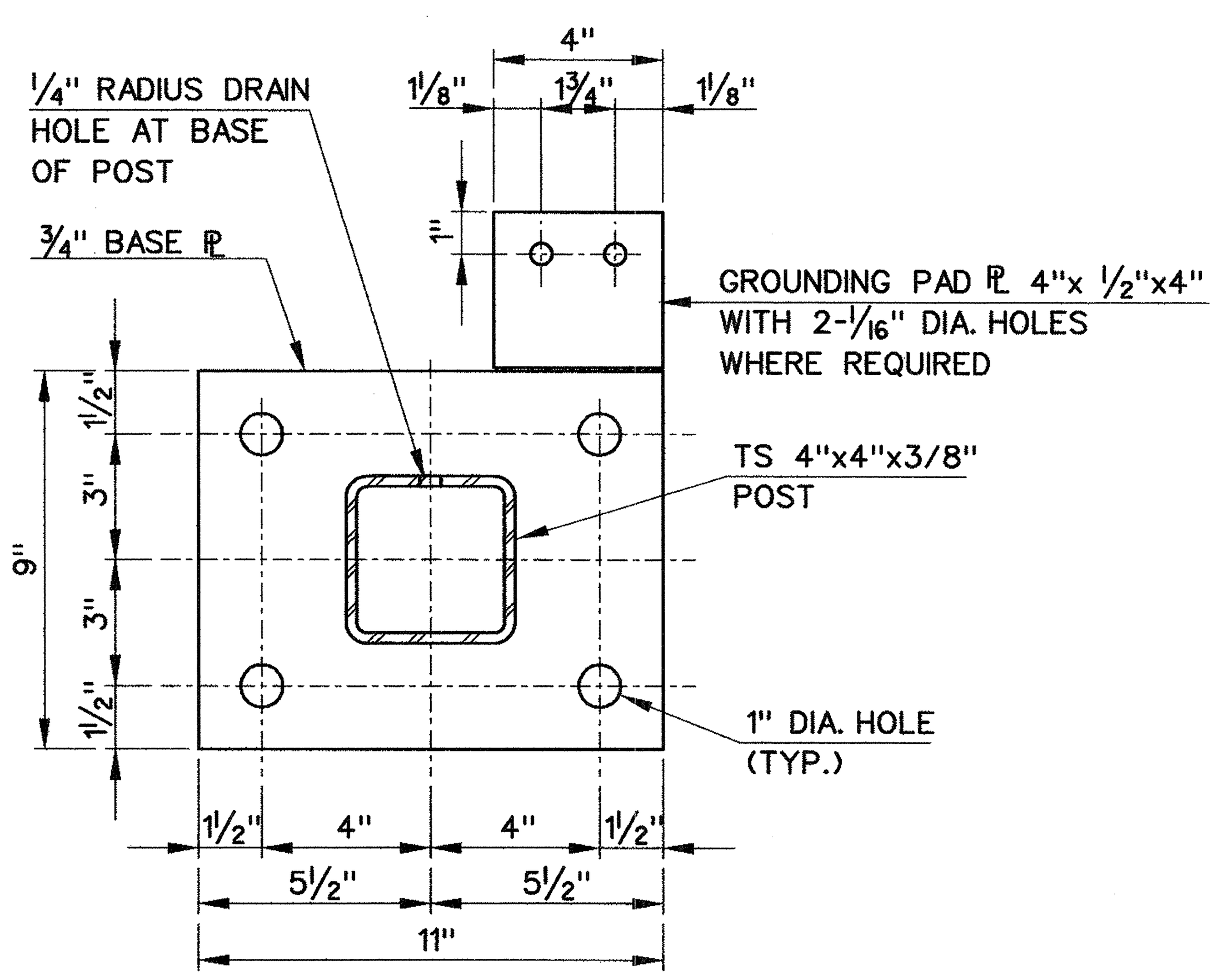
EXPANSION JOINT - ABUTMENT 1
SCALE: 3/4"= 1'-0"



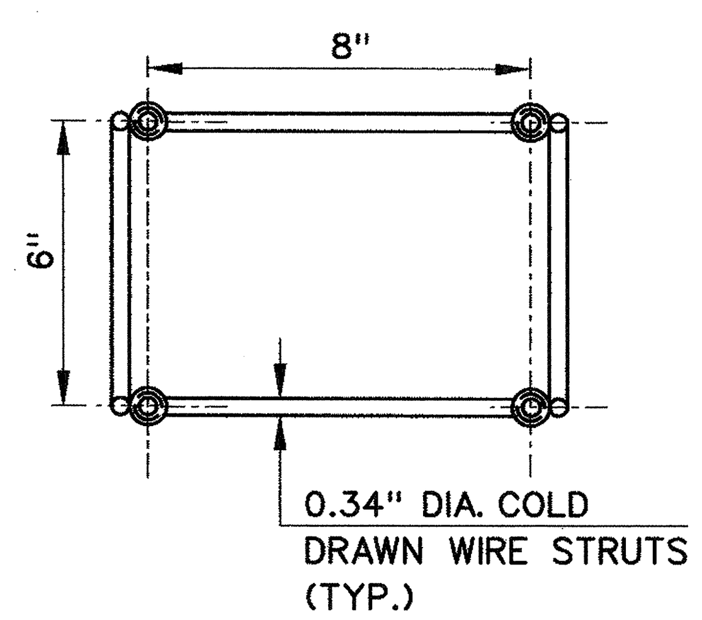
METAL BRIDGE RAIL TRANSITION
SCALE: 3/4"= 1'-0"



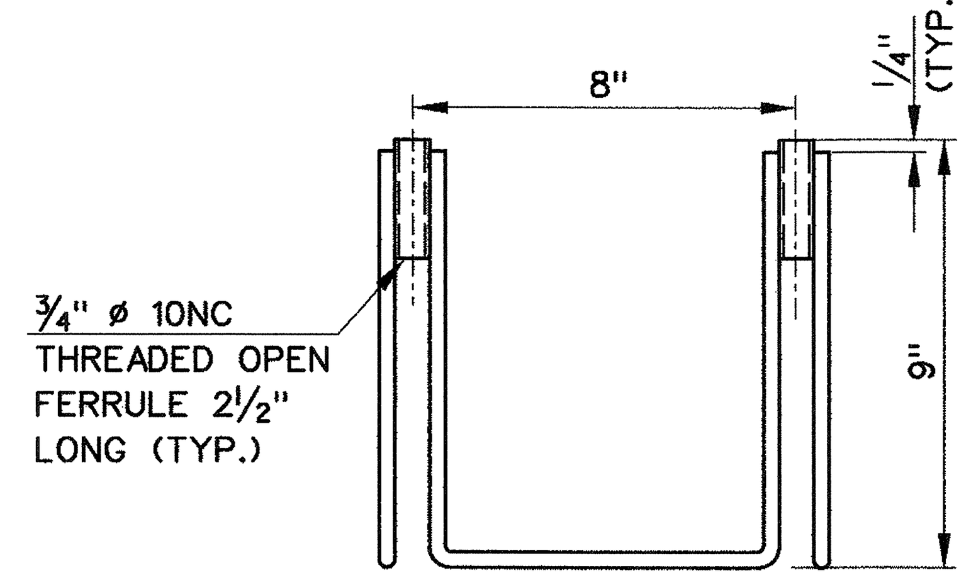
END PANEL - PILASTER
SCALE: 3/4"= 1'-0"



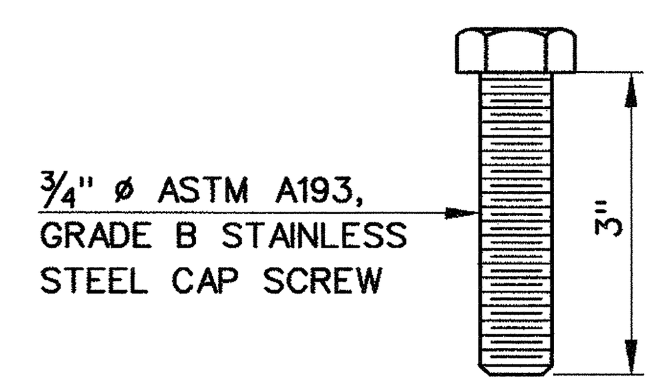
BASE PLATE
SCALE: 3"=1'-0"



PLAN
SCALE: 3"= 1'-0"



ELEVATION
SCALE: 3"= 1'-0"



CAP SCREW
NOT TO SCALE

PRESET ANCHORAGE SYSTEM

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER:	D. CICHOWSKI
DRAFTER:	M. OFFENBERG
CHECKED BY:	A. MORETTI
DATE CHECKED:	4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S139.DGN PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: METAL BRIDGE RAIL PROTECTIVE FENCE (TYPE C)- SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-107-2
SHEET NO.: 241-2

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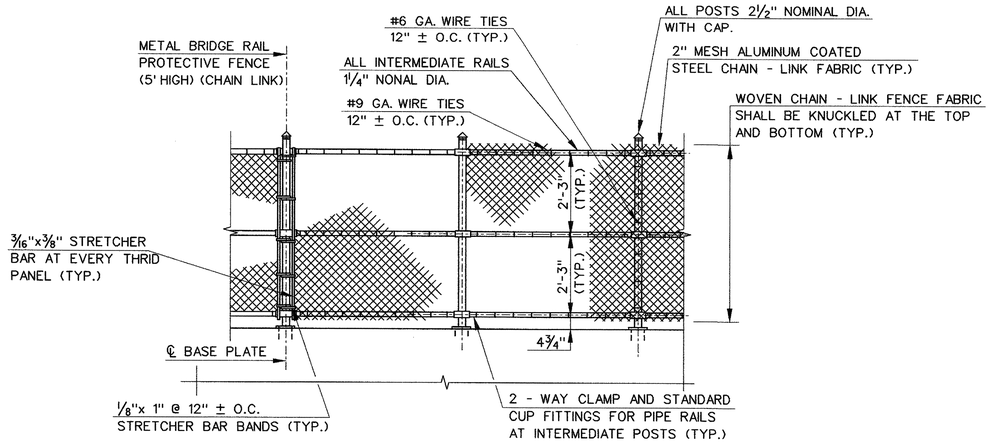
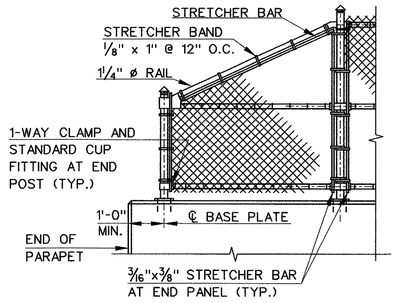
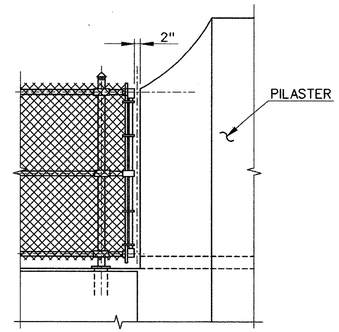


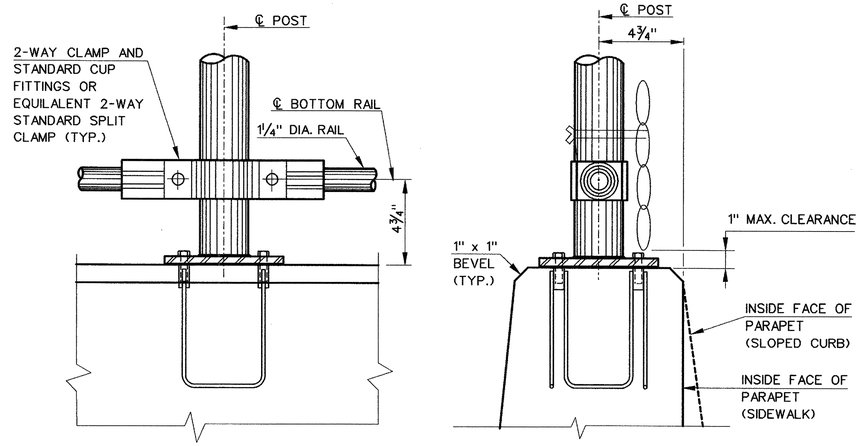
TYPICAL INTERIOR PANEL
NOT TO SCALE



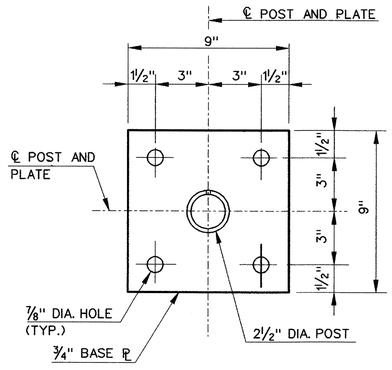
TYPICAL END PANEL
NOT TO SCALE



TYPICAL END PANEL - PILASTER
NOT TO SCALE

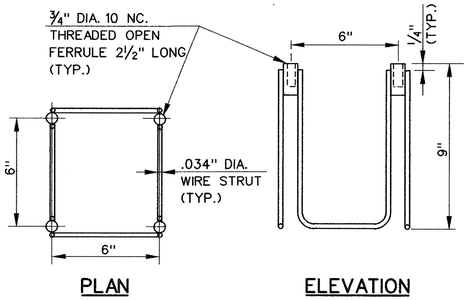


POST ANCHORAGE DETAILS
SCALE: 3" = 1'-0"



NOTE:
PROVIDE 5/16" DIA. HOLE AT BASE
ON SIDE OF ALL POSTS FOR DRAINAGE.

BASE PLATE
SCALE: 3" = 1'-0"



PRESET ANCHORAGE SYSTEM
SCALE: 3" = 1'-0"

NOTES:

1. CHAIN - LINK FENCE FABRIC SHALL BE NO. 9 GAGE, ALUMINUM COATED, TWO INCH MESH SIXE, DIAMOND.
2. ALL POSTS AND RAILS SHALL BE STANDARD PIPE OF NORMAL DIAMETER SIZES 2½" AND 1¼", RESPECTIVELY AND SHALL CONFORM TO ASTM SPECIFICATION A53.
3. BASE AND ANCHORAGE PLATES SHALL CONFORM TO ASTM A36.
4. ALL PROTECTIVE FENCE MATERIALS EXCEPT FABRIC, SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION. SEE SPECIAL PROVISIONS.
5. ALL POSTS, RAILS AND ANCHORAGES SHALL BE FABRICATED AND ERECTED SO THAT THE RAILS ARE PARALLEL AND THE POSTS ARE TRULY VERTICAL.
6. FOR STRUCTURES ON CURVATURES OF 3° OR LESS, THE RAILS MAY BE SPRUNG INTO PLACE. FOR STRUCTURES EXCEEDING 3° IN CURVATURE, RAILS SHALL BE FABRICATED TO FOLLOW THE CURVATURE.
7. EXPOSED SURFACES OF THE ASSEMBLED PROTECTIVE FENCE SHALL BE FREE OF BURRS AND SHARP EDGES AND SHALL BE OF ONE COLOR IN APPEARANCE.
8. THE COST OF FURNISHING AND INSTALLING PRESET ANCHORAGE SYSTEM INCLUDING SHIMS AND BASE PLATES SHALL BE INCLUDED IN THE PAYMENT ITEM "METAL BRIDGE RAIL - PROTECTIVE FENCE (5' HIGH) (CHAIN LINK)".
9. ALL MEASUREMENTS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF THE PROTECTIVE FENCE TO ENSURE PROPER FIT AND ALIGNMENT.
10. FOR ADDITIONAL INFORMATION, SEE SPECIAL PROVISIONS, "METAL BRIDGE RAIL - PROTECTIVE FENCE (5' HIGH) (CHAIN LINK)" FOR FENCE POST SPACING, SEE SLAB PLANS.
11. FOR FENCE POST SPACING, SEE SLAB PLANS.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. CICHOWSKI
DRAFTER: M. OFFENBERG
CHECKED BY: D. GEISSERT
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Nicotti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S129.DGN PLOTTED DATE: 6-06-00

TOWN: NEW HAVEN
DRAWING TITLE: METAL BRIDGE RAIL - PROTECTIVE FENCE (5' HIGH) (CHAIN LINK)

PROJECT NO.: 92-526
DRAWING NO.: STR-108
SHEET NO.: 242

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06 JUN 2000
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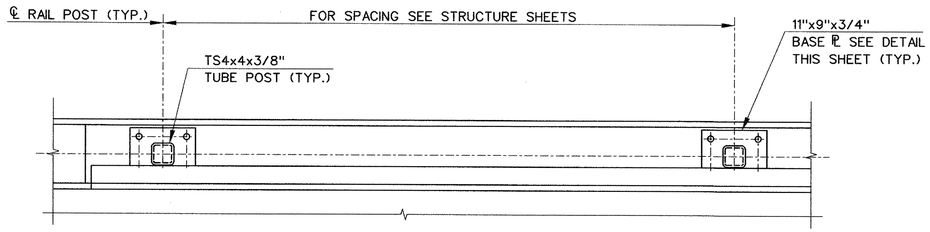

PLAN
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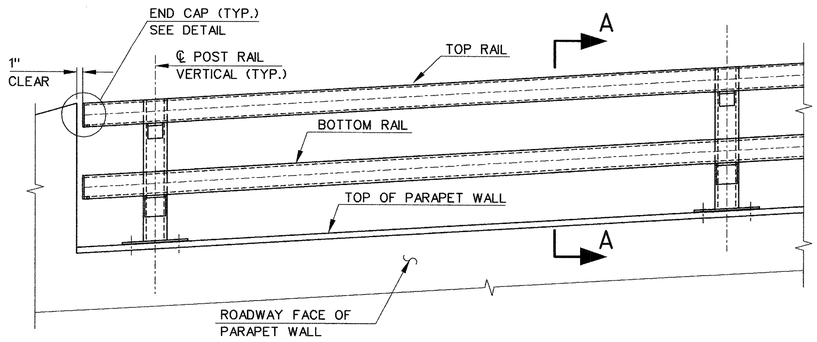
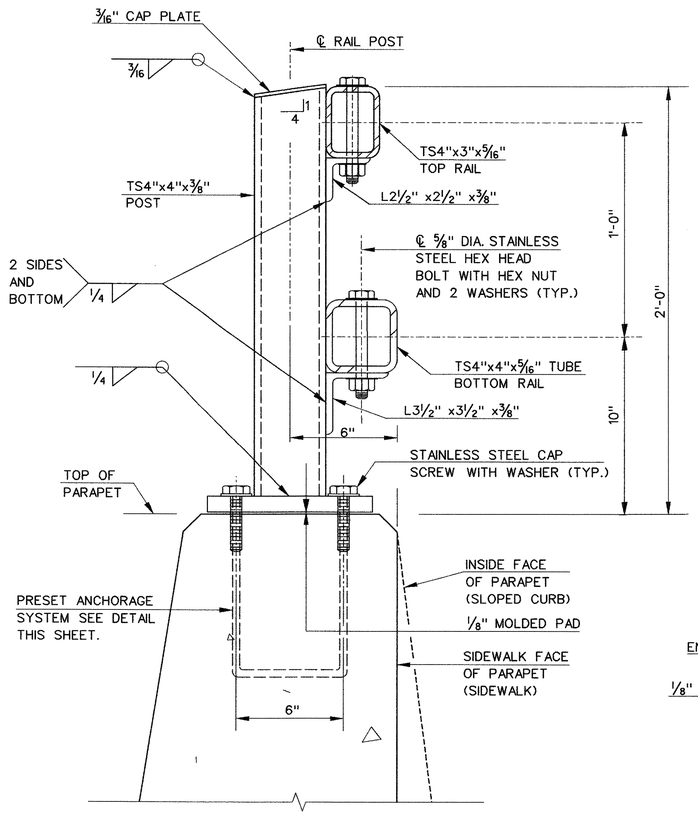
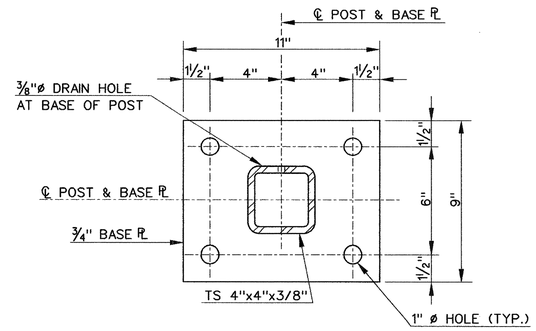


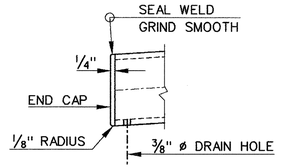
ELEVATION
SCALE: 1"=1'-0"



SECTION A-A
SCALE: 3"=1'-0"



BASE PLATE
SCALE: 3"=1'-0"



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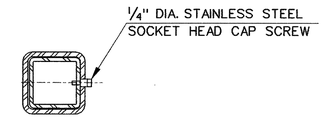
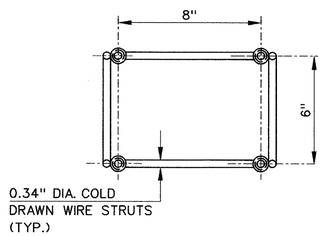
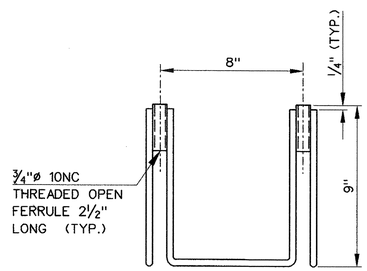
NOT TO SCALE



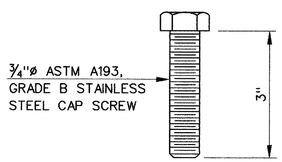
SECTION B-B
NOT TO SCALE



PLAN
SCALE: 3"=1'-0"



ELEVATION
SCALE: 3"=1'-0"



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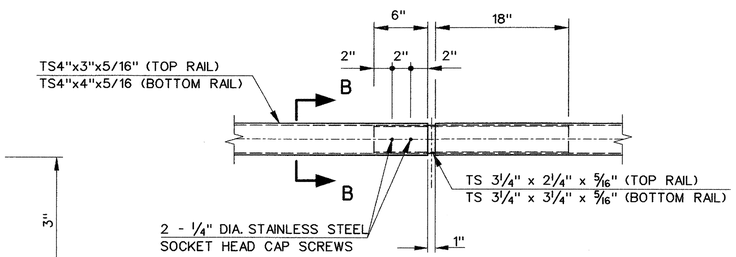
NOT TO SCALE



RAIL SPLICE
SCALE: 1 1/2"=1'-0"

NOTES

1. THE POSTS, BASES, POST CONNECTION DEVICES, SPLICE BARS AND RAILS SHALL BE EXTRUDED ALUMINUM CONFORMING TO ASTM B221, ALUMINUM ALLOY 6061-T6 AND SHALL BE ANODIZED GRAY.
2. ALL BOLTS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM A193, CLASS 1 OR 2, GRADE B8 (AISI TYPE 316). STAINLESS STEEL WASHERS SHALL CONFORM TO ASTM A167, TYPES 302-305.
3. THE RAILING SHALL BE FABRICATED AND ERECTED SO THAT THE RAILINGS ARE PARALLEL TO EACH OTHER AND TO THE BARRIER CURB AND THE RAILING POSTS ARE VERTICAL.
4. EXPOSED SURFACES OF POSTS, RAILING, CONNECTION PLATES AND ANGLES SHALL BE EXTRUDED AND SHALL BE FREE OF BURRS, IRREGULARITIES AND SHARP EDGES.
5. THE PRESET ANCHORAGE SYSTEM SHALL BE SET PERPENDICULAR TO THE GRADE OF THE RAIL.
6. EXPANSION JOINT IN RAILS SHALL BE ALIGNED WITH EXPANSION JOINTS IN PARAPET WALL BUT SHALL NOT BE LESS THAN 2'-0" FROM CENTER LINE OF POST
7. LENGTH OF RAIL SHALL BE CONTINUOUS OVER A MINIMUM OF FOUR RAIL POSTS WHERE POSSIBLE AND IN NO CASE LESS THAN TWO.

PRESET ANCHORAGE SYSTEM

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: D. CICHOWSKI
DRAFTER: M. OFFENBERG
CHECKED BY: D. GEISSERT
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S134.DGN
PLOTTED DATE: 6-06-00

TOWN: NEW HAVEN
DRAWING TITLE: METAL BRIDGE RAIL (COMBINATION) (EXTRUDED ALUMINUM)

PROJECT NO.: 92-526
DRAWING NO.: STR-109
SHEET NO.: 243

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06 JUN 2000
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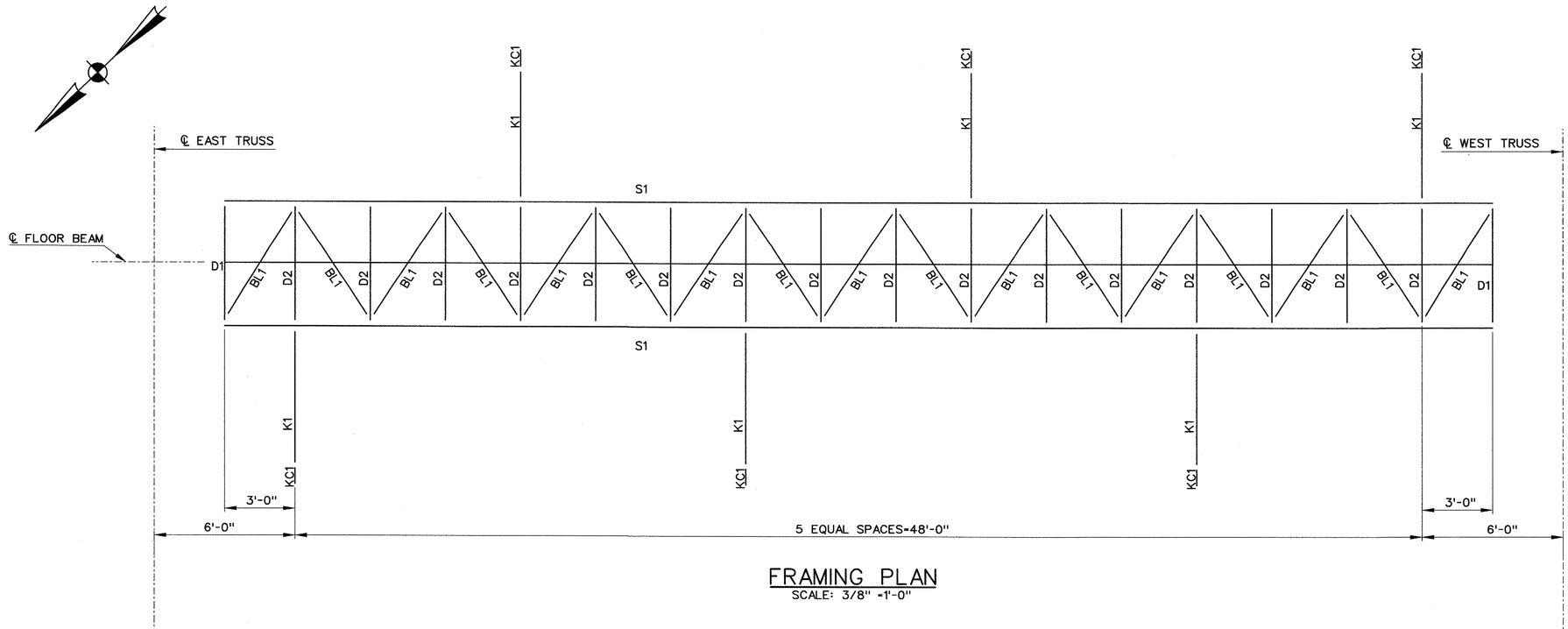
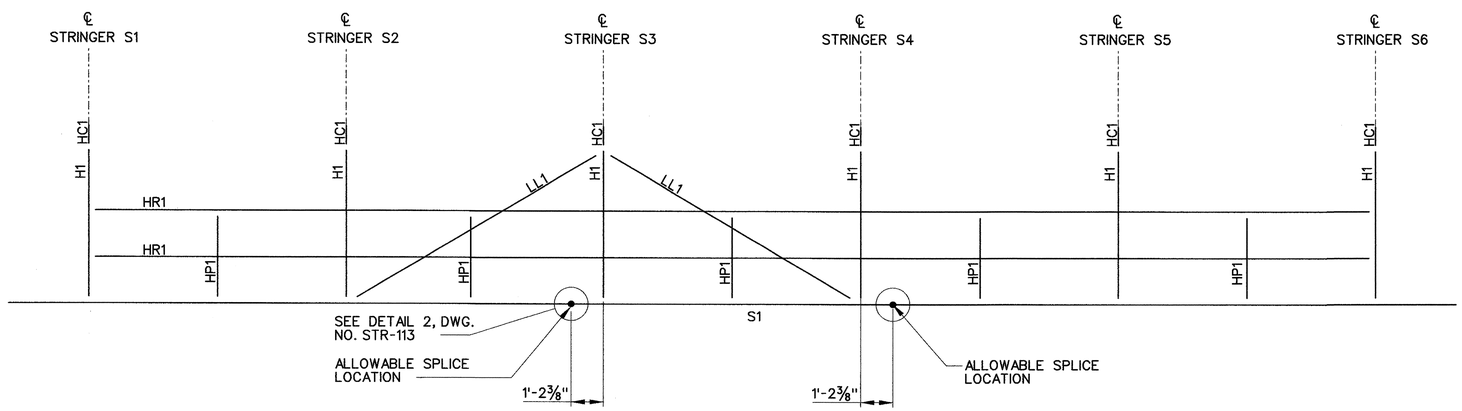


FRAMING PLAN
SCALE: 3/8" =1'-0"



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

INSPECTION WALKWAY TYPE I MEMBER SCHEDULE		
WALKWAY MEMBER	MEMBER DESCRIPTION	MEMBER CROSS-SECTION
HC1	HANGER CLIP	STEEL WT10.5x22
KC1	KICKER CLIP	STEEL WT6x20
H1	HANGER	FRP L4x4x½
S1	STRINGER	FRP C10x2¾x½
D1	END DIAPHRAGM	FRP C10x2¾x½
D2	INTERMEDIATE DIAPHRAGM	FRP L4x4x⅜
BL1	BOTTOM LATERAL BRACING	FRP L3x3x⅜
K1	TRANSVERSE KICKER	FRP L4x4x⅜
LL1	LONGITUDINAL BRACING	FRP L4x4x⅜
HR1	HAND RAILING	FRP L3x3x½
HP1	HAND RAIL POST	FRP L3x3x½

NOTES:

1. REFER TO DWG. NO. STR-4 FOR GENERAL NOTES.
2. TYPE I INSPECTION WALKWAYS SHALL BE LOCATED AT FLOOR BEAMS FB1, FB5, FB6 AND FB7.
3. WALKWAYS WILL BE DESIGNED TO SUPPORT A LIVE LOAD OF 100 PSF.
4. ALL MEMBERS SHALL BE FIBER REINFORCED PLASTIC (FRP) UNLESS NOTED OTHERWISE. THE FRP MEMBERS SHALL BE A FIRE-RESISTANT POLYESTER MEETING THE REQUIREMENTS OF ASTM TEST METHOD E-84 WITH A MAXIMUM FLAME SPREAD VALUE OF 25. THE FRP MEMBERS SHALL BE GREY IN COLOR. IN ADDITION, THE FRP MEMBERS SHALL HAVE THE FOLLOWING PHYSICAL PROPERTIES:

PROPERTY	ASTM DESIGNATION	VALUE
ULTIMATE TENSILE STRENGTH	D-638	30,000 PSI
ULTIMATE FLEXURAL STRENGTH	D-790	30,000 PSI
ULTIMATE SHORT BEAM STRENGTH	D-2344	4,500 PSI
MODULUS OF ELASTACITY	FULL SECTION	2,800,000 PSI

5. ALL CONNECTIONS SHALL HAVE A MINIMUM OF TWO (2) ⅝" DIAMETER STAINLESS STEEL (SS) BOLTS UNLESS NOTED OTHERWISE.
6. ALL FASTENERS SHALL BE STAINLESS STEEL 316 BOLTS, CONDITION A, PER ASTM DESIGNATION F593-98.
7. WALKWAY GRATING SHALL BE ONE OF THE FOLLOWING OR AN EQUIVALENT TO BE APPROVED BY THE ENGINEER.
   a) IKG INDUSTRIES CORGRATE WT 2" FIBER REINFORCED PULTRUDED GRATING.
   b) STRONGWELL DURAGRID T-3300 2" FIBERGLASS PULTRUDED GRATING.
   c) SEASAFE SAFE-T-GRATE T-3320 2" FIBER REINFORCED PULTRUDED GRATING.
8. FRP C10 STRINGER MAY BE SPLICED AT POINTS NOTED ON FRAMING ELEVATION. NUMBER OF SPLICES SHALL BE LIMITED TO TWO PER STRINGER. SEE DWG. NO. STR-113 FOR SPLICE DETAIL.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: P.V. BLISS
DRAFTER: J. FERRERI
CHECKED BY: D. TAYLOR
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S300.DGN
PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: INSPECTION WALKWAY TYPE I FRAMING PLAN AND ELEVATION

PROJECT NO.: 92-526
DRAWING NO.: STR-110
SHEET NO.: 244

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08 MAR 2000
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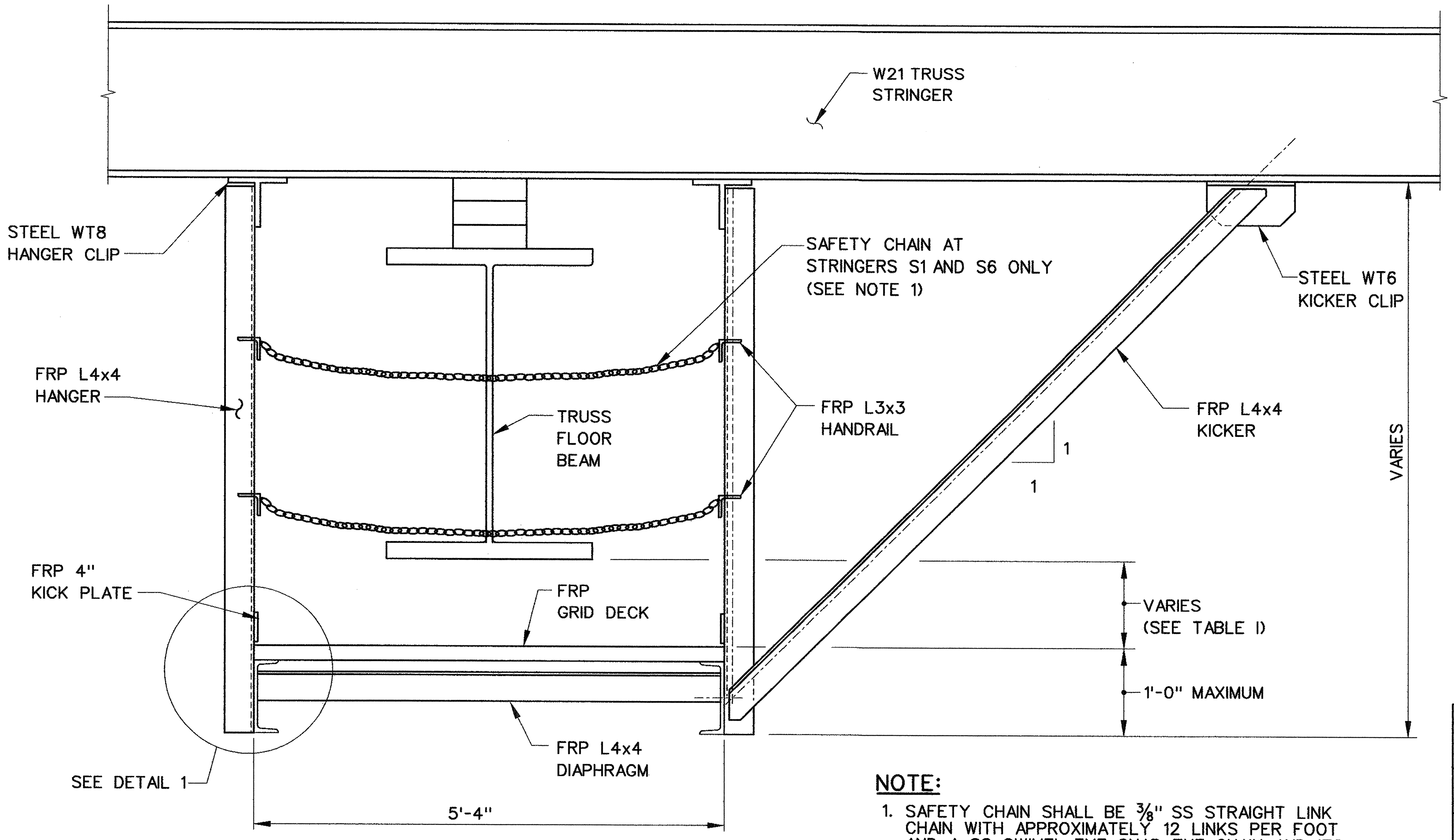
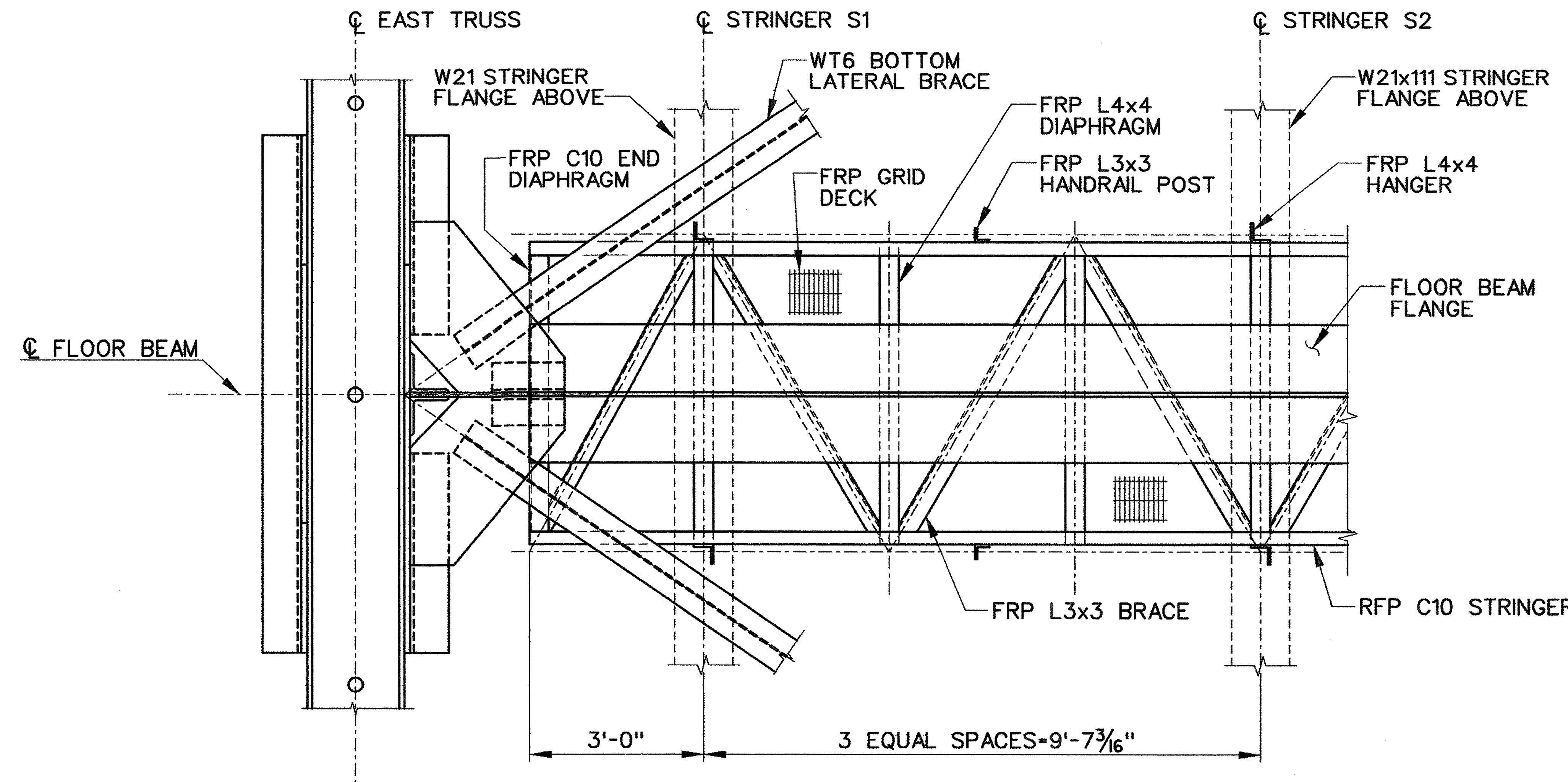


SECTION A-A
SCALE: 1" =1'-0"

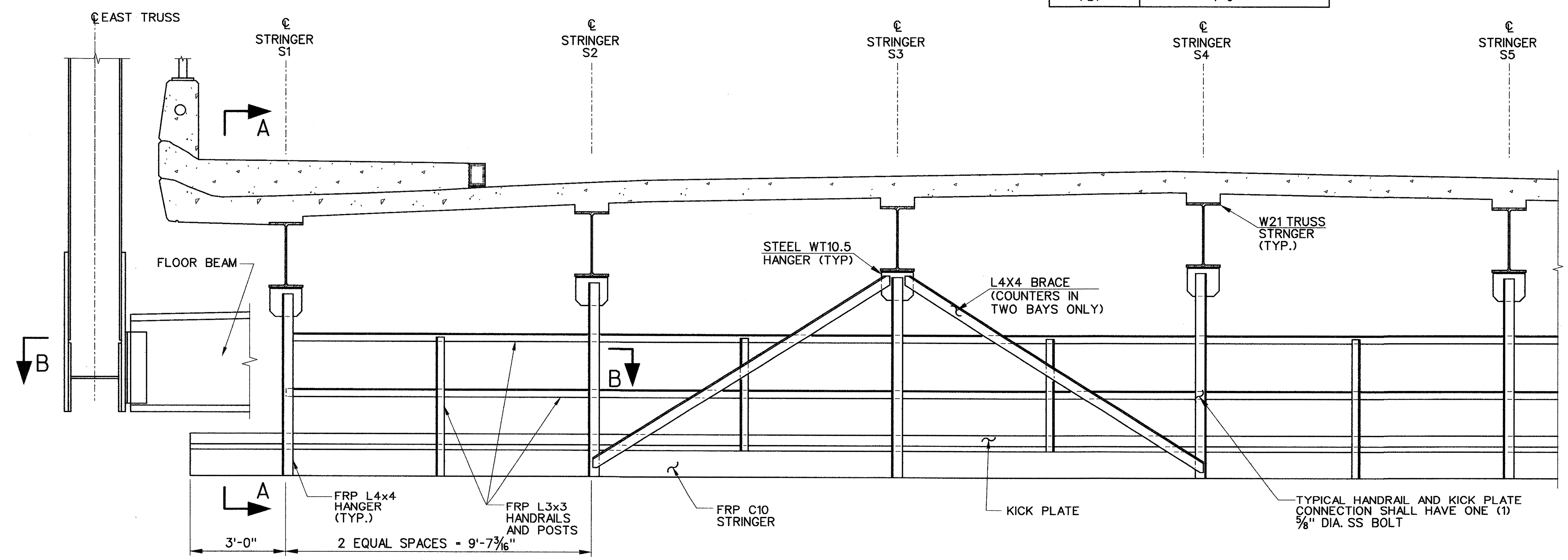
NOTE:

1. SAFETY CHAIN SHALL BE 3/8" SS STRAIGHT LINK CHAIN WITH APPROXIMATELY 12 LINKS PER FOOT AND A SS SWIVEL EYE SNAP. THE CHAIN AND ITS CONNECTIONS SHALL HAVE A MINIMUM RATED WORKING LOAD OF 800 LBS.

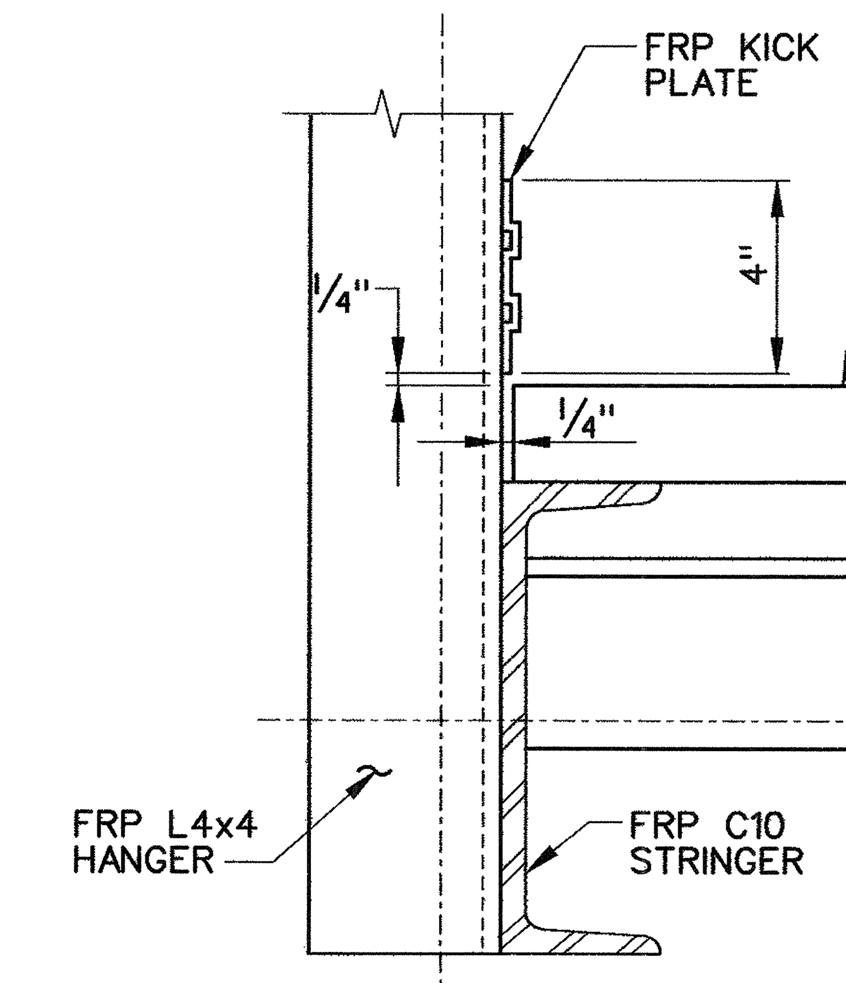


SECTION B-B
SCALE: 1/2" =1'-0"

TABLE I FLOOR BEAM CLEARANCE	
FLOOR BEAM	CLEARANCE (FT-IN)
FB1	1'-0"
FB5	0'-11"
FB6	1'-0"
FB7	1'-0"



WALKWAY ELEVATION
SCALE: 1/2" =1'-0"



DETAIL 1
SCALE: 3"=1'-0"
(APPLIES TO WALKWAY TYPE I TYPE II AND TYPE III)

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: P.V. BLISS
DRAFTER: J. FERRERI
CHECKED BY: D. TAYLOR
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S301.DGN
PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: INSPECTION WALKWAY TYPE I PLAN ELEVATION AND SECTIONS

PROJECT NO.: 92-526
DRAWING NO.: STR-111
SHEET NO.: 245

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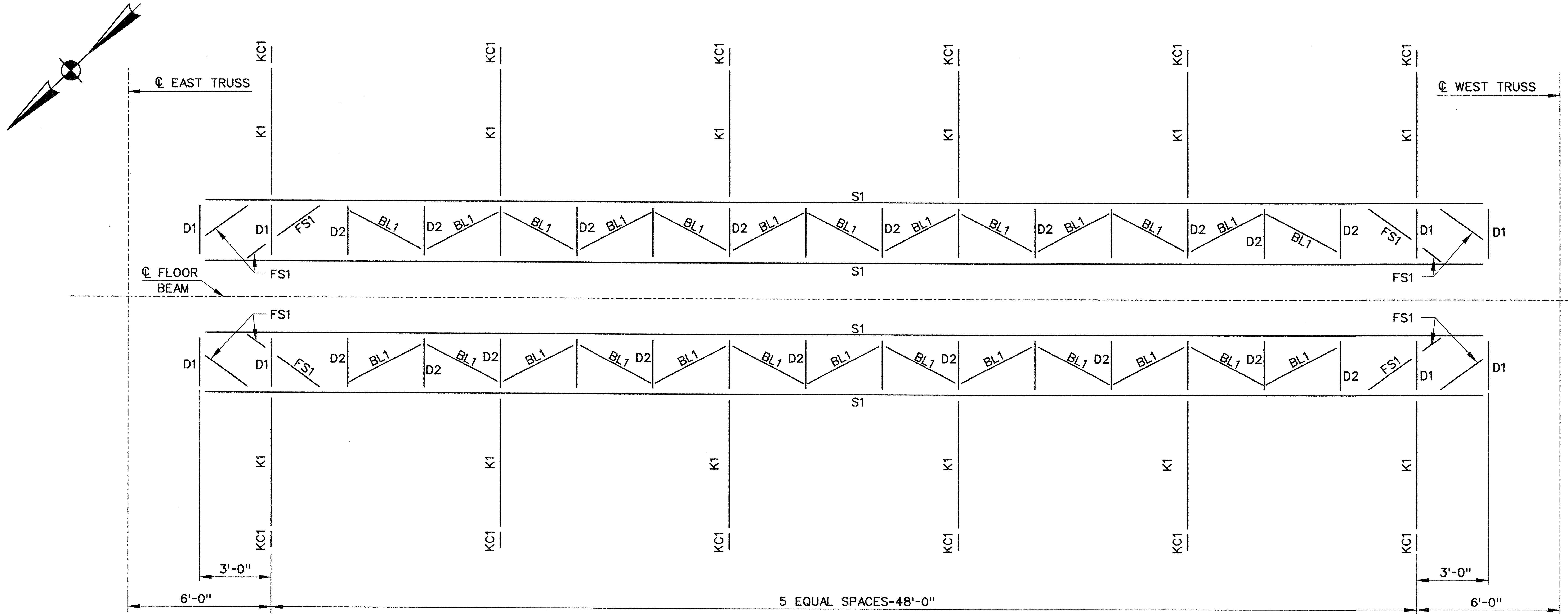
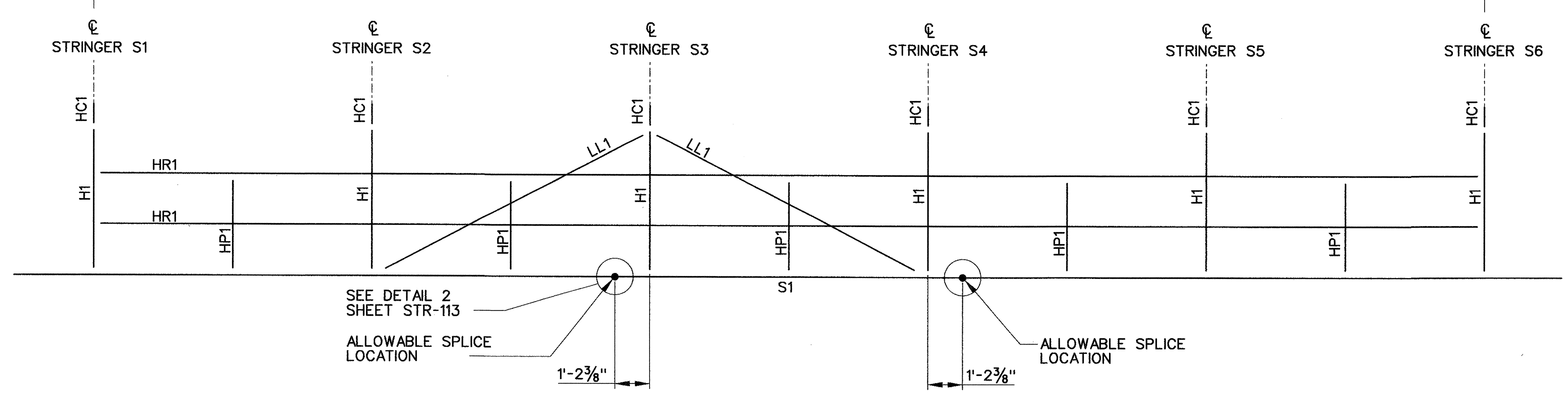


FRAMING PLAN

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



FRAMING ELEVATION

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

INSPECTION WALKWAY TYPE II MEMBER SCHEDULE

WALKWAY MEMBER	MEMBER DESCRIPTION	MEMBER CROSS-SECTION
KC1	KICKER CLIP	STEEL WT6x20
HC1	HANGER CLIP	STEEL WT10.5x22
H1	HANGER	FRP L4x4x½
S1	STRINGER	FRP C10x2¾x½
D1	END DIAPHRAGM	FRP C10x2¾x½
D2	INTERMEDIATE DIAPHRAGM	FRP L4x4x⅜
FS1	FLOOR SUPPORT	FRP C10x2¾x½
BL1	LATERAL BRACING	FRP L3x3x⅜
K1	TRANSVERSE KICKER	FRP L4x4x⅜
LL1	LONGITUDINAL BRACING	FRP L4x4x⅜
HR1	HAND RAILING	FRP L3x3x½
HP1	HAND RAIL POST	FRP L3x3x½

NOTE:

1. TYPE II INSPECTION WALKWAYS SHALL BE LOCATED AT FLOOR BEAM FB2.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: P.V. BLISS
DRAFTER: J. FERRERI
CHECKED BY: D. TAYLOR
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Monetti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S302.DGN
PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: INSPECTION WALKWAY TYPE II FRAMING PLAN AND ELEVATION

PROJECT NO.: 92-526
DRAWING NO.: STR-112
SHEET NO.: 246

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08 MAR 2000
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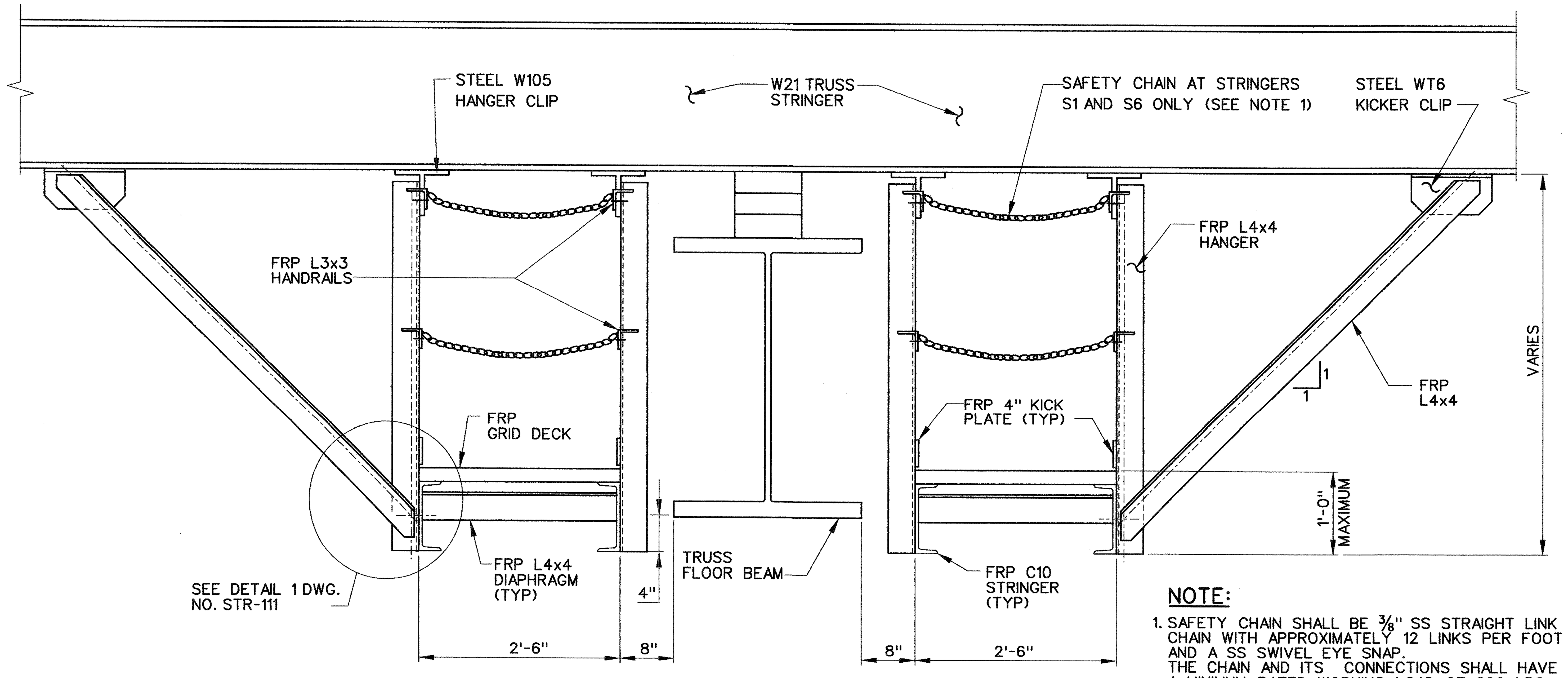
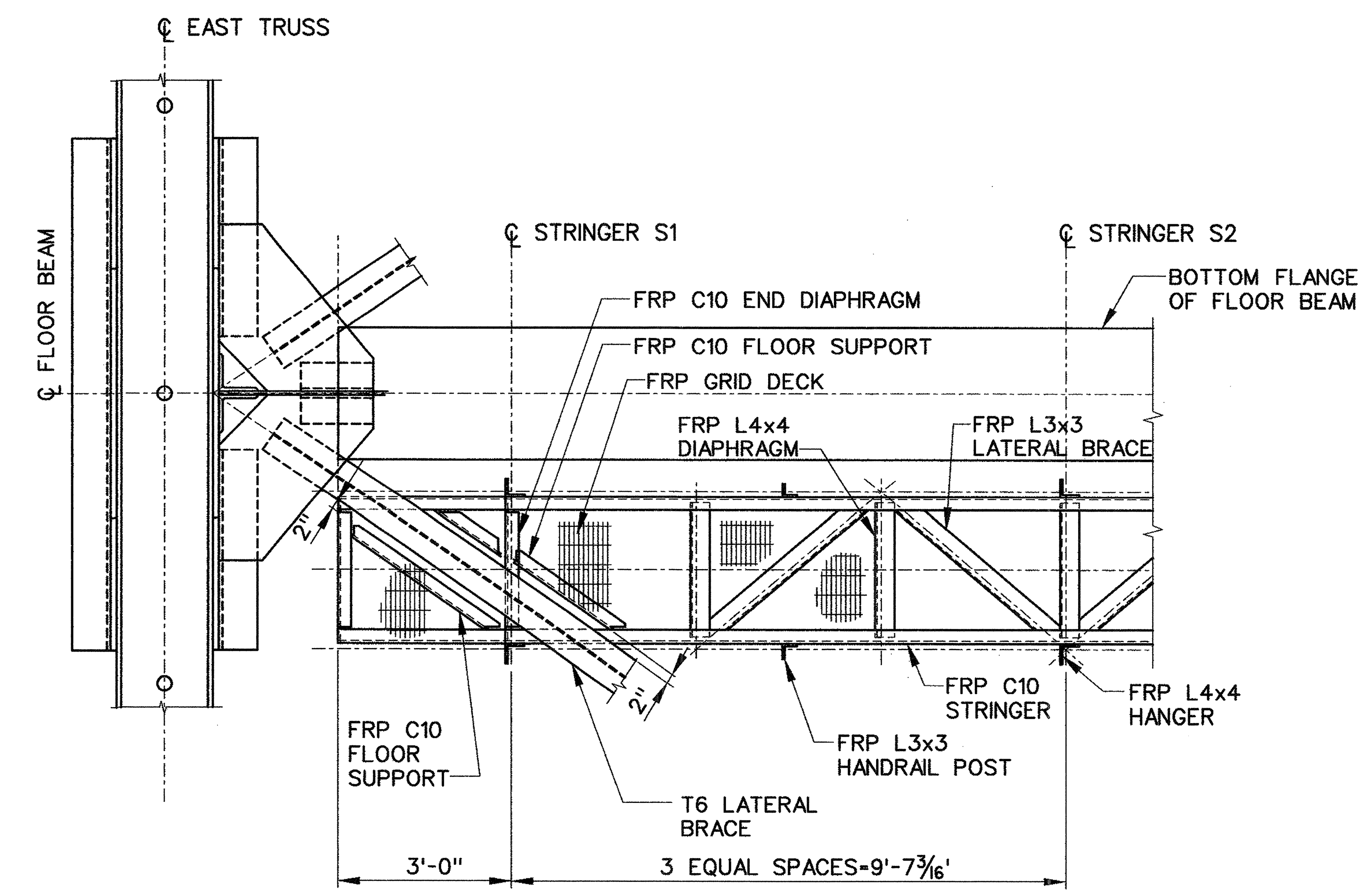


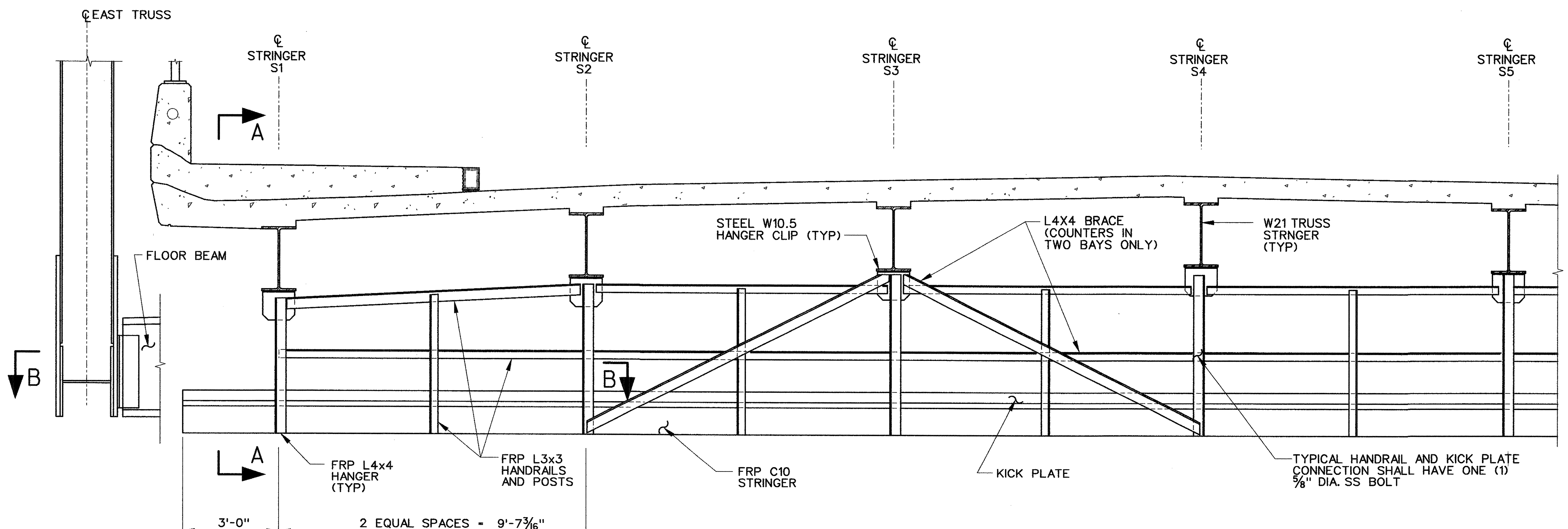
NOTE:

1. SAFETY CHAIN SHALL BE 3/8" SS STRAIGHT LINK CHAIN WITH APPROXIMATELY 12 LINKS PER FOOT AND A SS SWIVEL EYE SNAP. THE CHAIN AND ITS CONNECTIONS SHALL HAVE A MINIMUM RATED WORKING LOAD OF 800 LBS.

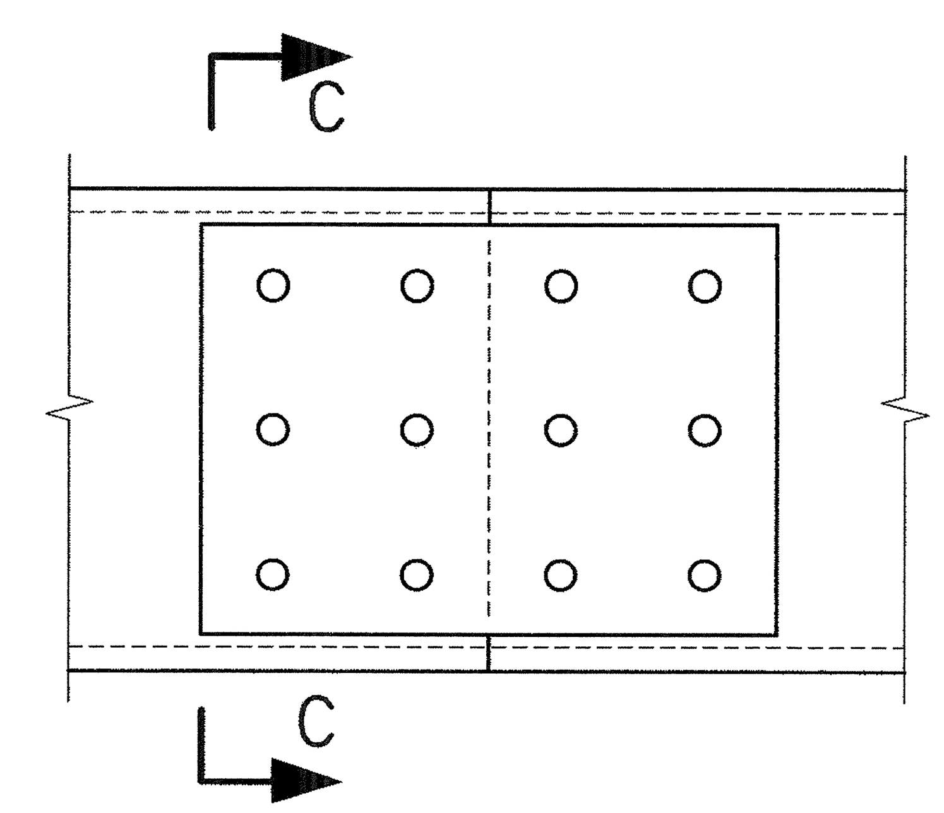
SECTION A-A
SCALE: 1" =1'-0"



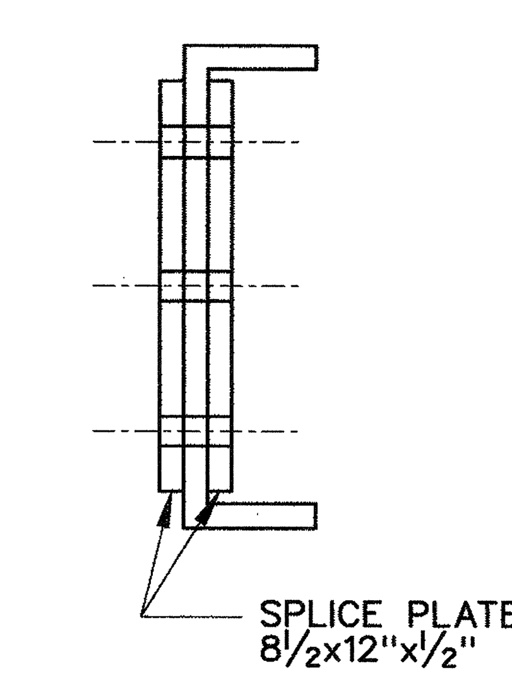
SECTION B-B
SCALE: 1/2"=1'-0"



WALKWAY ELEVATION
SCALE: 1/2" =1'-0"



DETAIL 2
SCALE: 3" = 1'-0"
(APPLIES TO WALKWAY TYPE I
TYPE II AND TYPE III)



SECTION C-C
SCALE: 3" = 1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: P.V. BLISS
DRAFTER: J. FERRERI
CHECKED BY: D. TAYLOR
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Motti DATE: 4.7.00

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION
OVER NEW HAVEN INTERLOCKING
AND RAIL YARD
CADD FILE: R703S303.DGN
PLOTTED DATE: 3-06-00

TOWN: NEW HAVEN
DRAWING TITLE: INSPECTION WALKWAY TYPE II PLAN ELEVATION AND SECTIONS

PROJECT NO.: 92-526
DRAWING NO.: STR-113
SHEET NO.: 247

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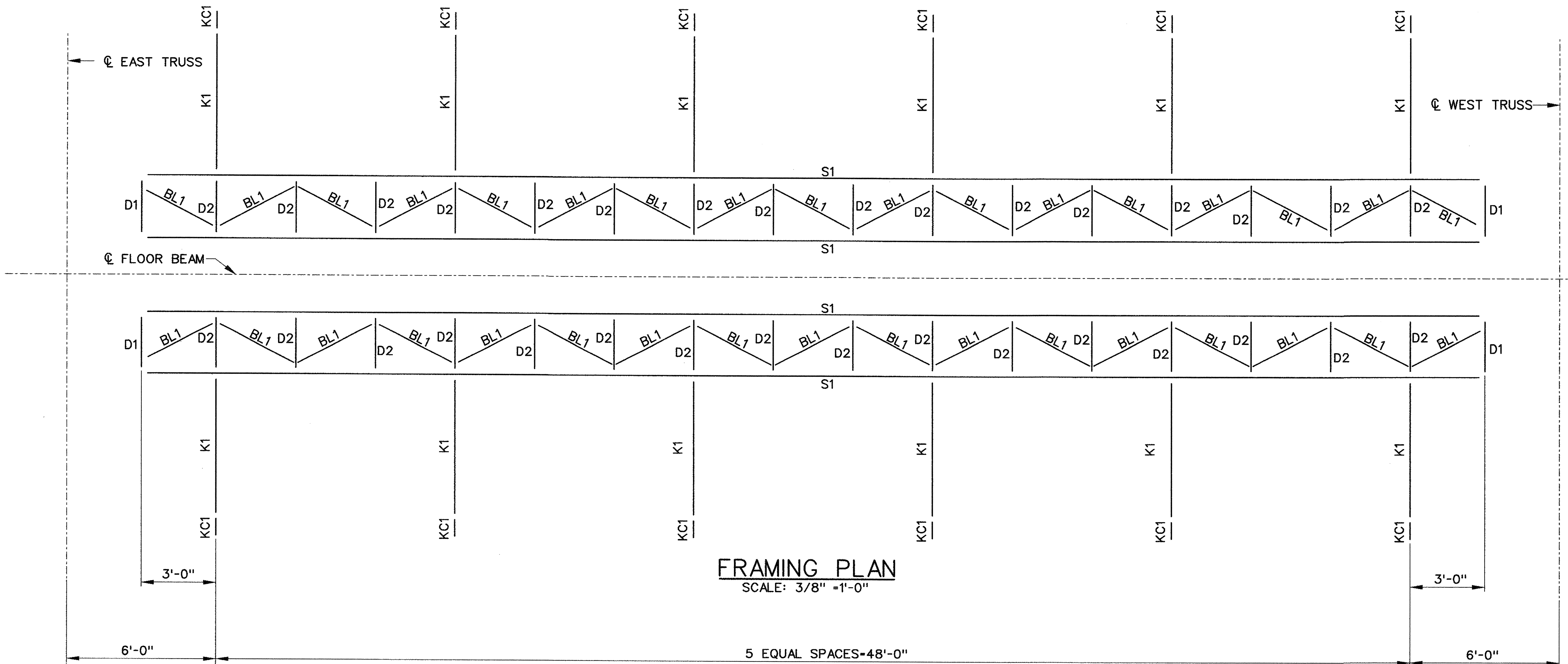
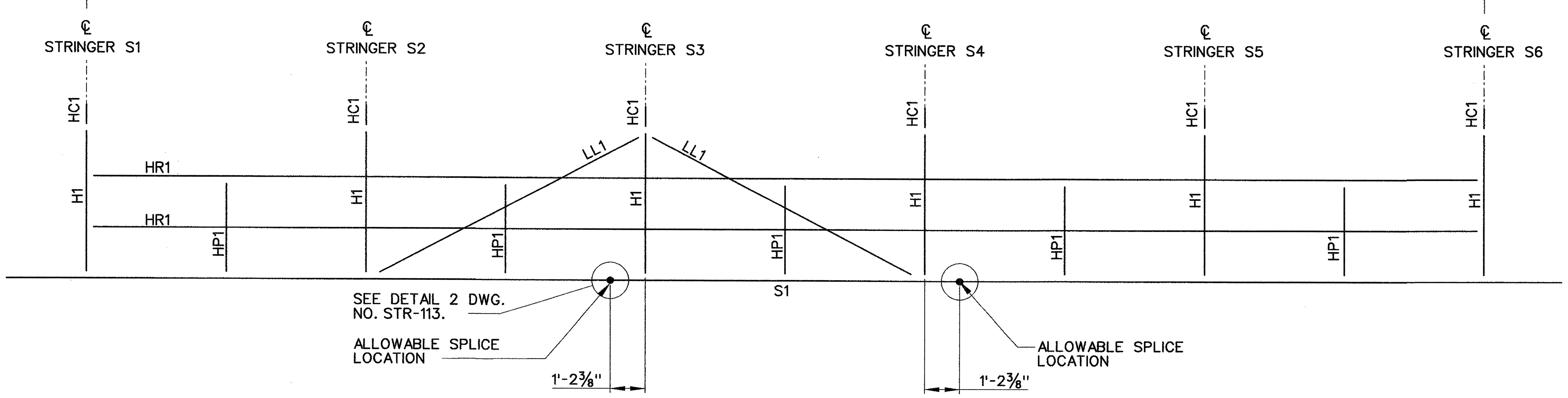


FRAMING PLAN
SCALE: 3/8" =1'-0"



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

INSPECTION WALKWAY TYPE II MEMBER SCHEDULE		
WALKWAY MEMBER	MEMBER DESCRIPTION	MEMBER CROSS-SECTION
KC1	KICKER CLIP	STEEL WT6x20
HC1	HANGER CLIP	STEEL WT10.5x22
H1	HANGER	FRP L4x4x½
S1	STRINGER	FRP C10x2¾x½
D1	END DIAPHRAGM	FRP C10x2¾x½
D2	INTERMEDIATE DIAPHRAGM	FRP L4x4x⅜
BL1	LATERAL BRACING	FRP L3x3x⅜
K1	TRANSVERSE KICKER	FRP L4x4x⅜
LL1	LONGITUDINAL BRACING	FRP L4x4x⅜
HR1	HAND RAILING	FRP L3x3x½
HP1	HAND RAIL POST	FRP L3x3x½

NOTE:

1. TYPE III INSPECTION WALKWAYS SHALL BE LOCATED AT FLOOR BEAMS FB3 AND FB4.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: P.V. BLISS
DRAFTER: J. FERRERI
CHECKED BY: D. TAYLOR
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S304.DGN PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN

DRAWING TITLE: INSPECTION WALKWAY TYPE III FRAMING PLAN AND ELEVATION

PROJECT NO.: 92-526
DRAWING NO.: STR-114
SHEET NO.: 248

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08 MAR 2000
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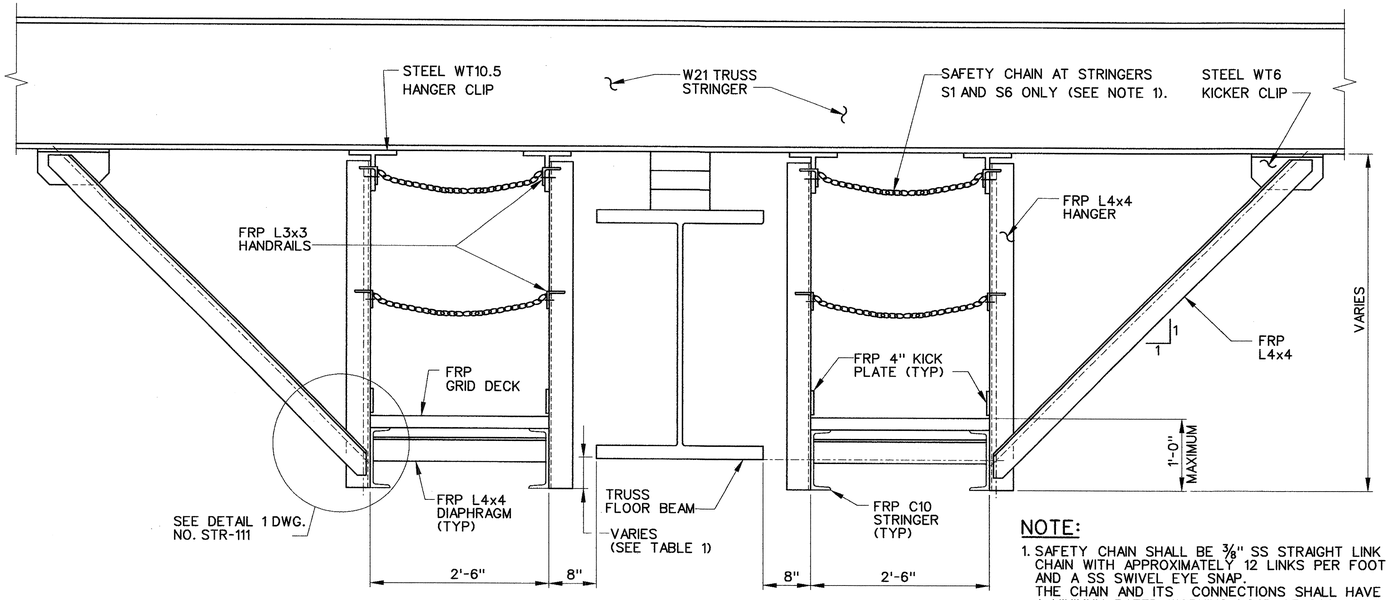
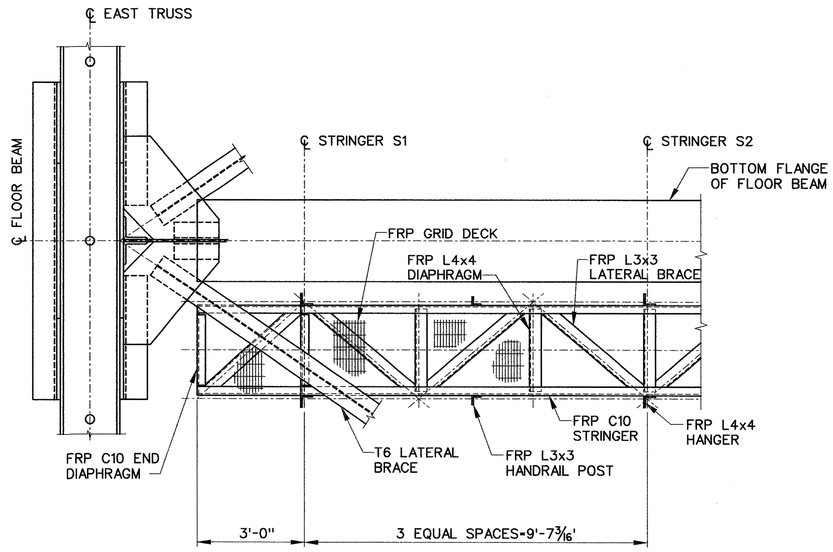


NOTE:

1. SAFETY CHAIN SHALL BE ⅜" SS STRAIGHT LINK CHAIN WITH APPROXIMATELY 12 LINKS PER FOOT AND A SS SWIVEL EYE SNAP. THE CHAIN AND ITS CONNECTIONS SHALL HAVE A MINIMUM RATED WORKING LOAD OF 800 LBS.

SECTION A-A

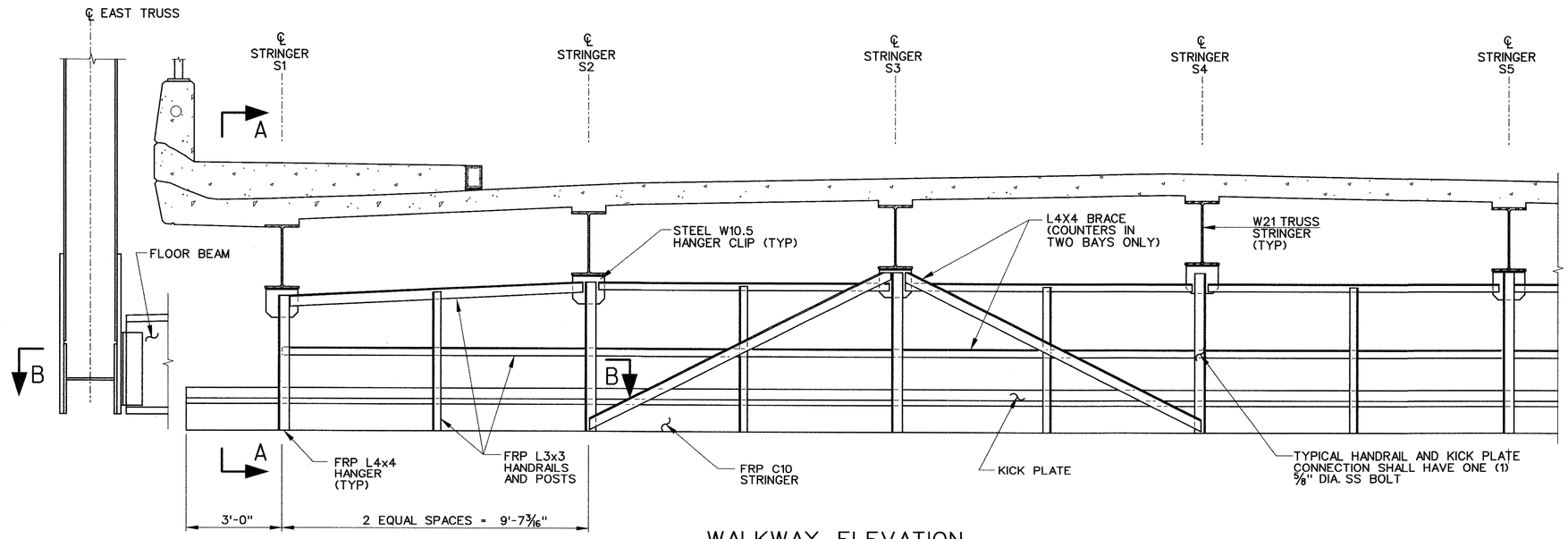
SCALE: 1" =1'-0"



SECTION B-B

SCALE:½"=1'-0"

TABLE 1	
FLOOR BEAM	CLEARANCE
FB3	0'-6"
FB4	0'-6"



WALKWAY ELEVATION

SCALE: ½" =1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: P.V. BLISS
DRAFTER: J. FERRERI
CHECKED BY: D. TAYLOR
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Maietta DATE: 4.7.00

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION
OVER NEW HAVEN INTERLOCKING
AND RAIL YARD

CADD FILE: R703S305.DGN | PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN

DRAWING TITLE:
INSPECTION WALKWAY TYPE III
PLAN ELEVATION AND SECTIONS

PROJECT NO.: 92-526
DRAWING NO.: STR-115
SHEET NO.: 249

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07 APR 2000
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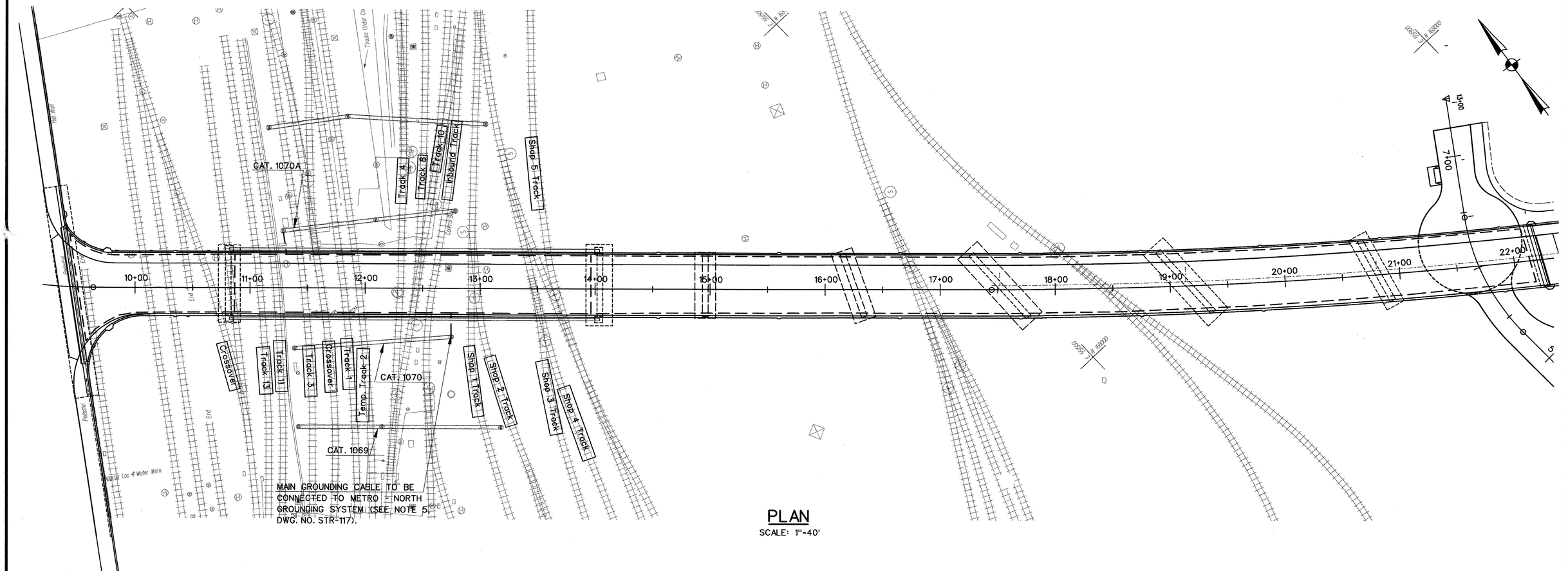
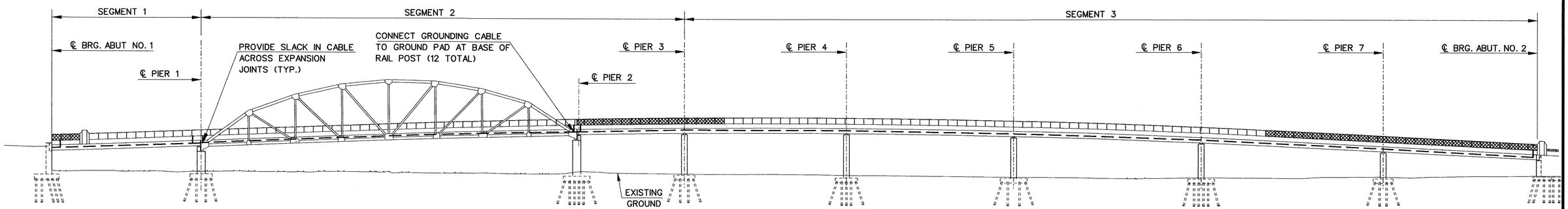


PLAN
SCALE: 1"=40'



ELEVATION
SCALE: 1"=40'

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: M. DEEGAN
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S132.DGN PLOTTED DATE: 3-4-00

TOWN: NEW HAVEN
DRAWING TITLE: GROUNDING & BONDING SHEET 1 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-116
SHEET NO.: 250

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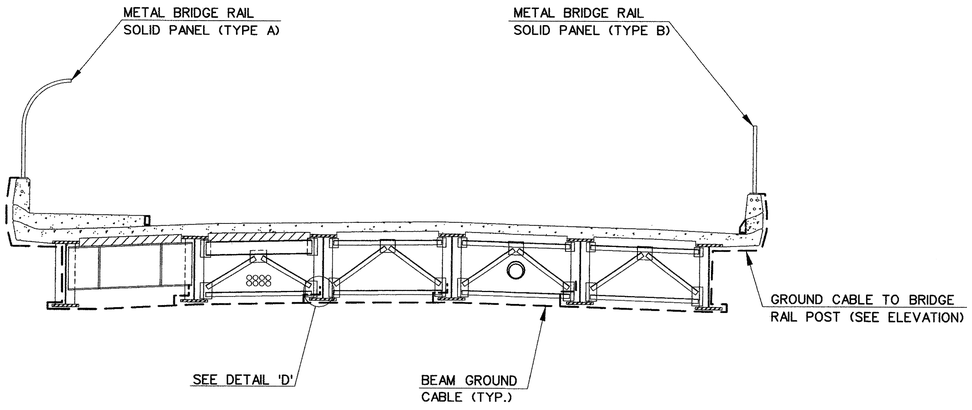
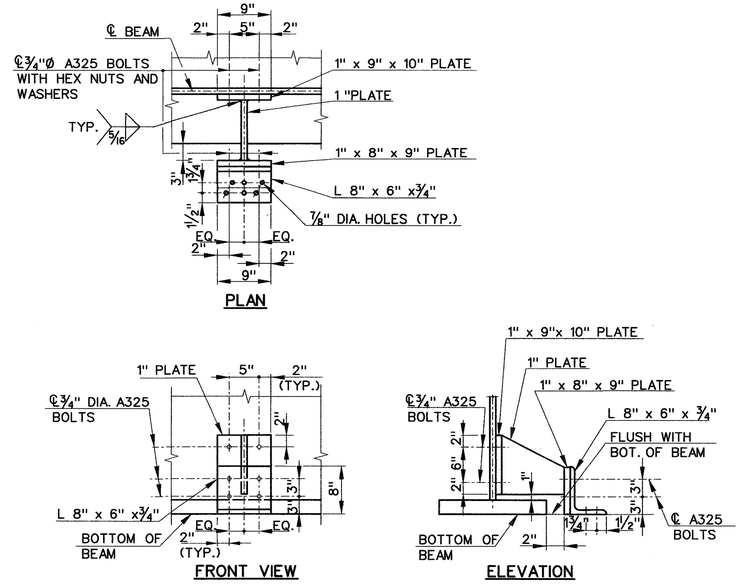


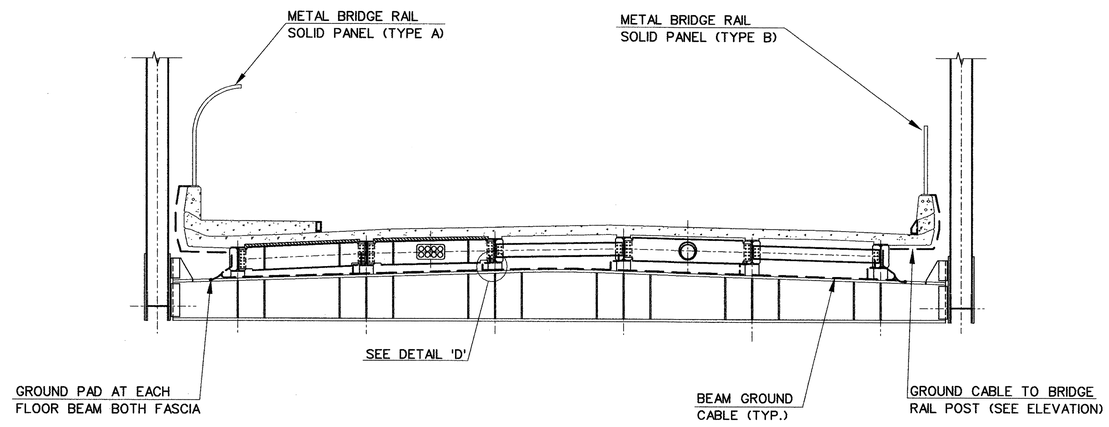
BRIDGE SECTION (SEGMENT 1& 3)

SCALE: 3/16" = 1'-0"



GIRDER GROUND PAD DETAIL

SCALE: 1" = 1'-0"



BRIDGE SECTION (SEGMENT2)

SCALE: 3/16" = 1'-0"

NOTES

1. INSTALL THE MAIN GROUND CABLES AS SHOWN ON THE PLAN AFTER ALL BRIDGE BEAMS ARE IN PLACE.
2. CONTRACTOR SHALL TENSION MAIN GROUND CABLE PRIOR TO INSTALLATION OF GROUND CONNECTIONS TO THE BEAMS IN ORDER TO MINIMIZE CABLE SPAN SLACK.
3. ALL ALUMINUM CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH CONNECTOR MANUFACTURER'S RECOMMENDATIONS. ANTIOXIDANT JOINT COMPOUNDS SHALL BE USED AND SHALL BE SUITABLE FOR WEATHER-EXPOSED DUTY.
4. ALL TAPPED THREADS MUST BE TIGHT.
5. THE GROUNDING CONNECTIONS FROM THE BEAMS GROUND PADS TO THE RAILROAD GROUNDING SYSTEM TO BE PERFORMED BY RAILROAD FORCES AFTER THE BRIDGE GROUNDING SYSTEM HAS BEEN COMPLETED BY THE CONTRACTOR.
6. STEEL FOR BEAMS GROUND PADS SHALL CONFORM TO ASTM A709 GRADE 50 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153. COST FOR FURNISHING AND INSTALLING THE GROUND PADS SHALL BE INCLUDED IN ITEM "STRUCTURAL STEEL".
7. ALL GROUNDING AND BONDING COMPONENTS AT SEGMENT 2 SHALL BE INSTALLED PRIOR TO THE CRANE PICK OF SEGMENT 2.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: M. DEEGAN
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A Maretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S130.DGN PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: GROUNDING & BONDING SHEET 2 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-117
SHEET NO.: 251

11:53
08 APR 2000
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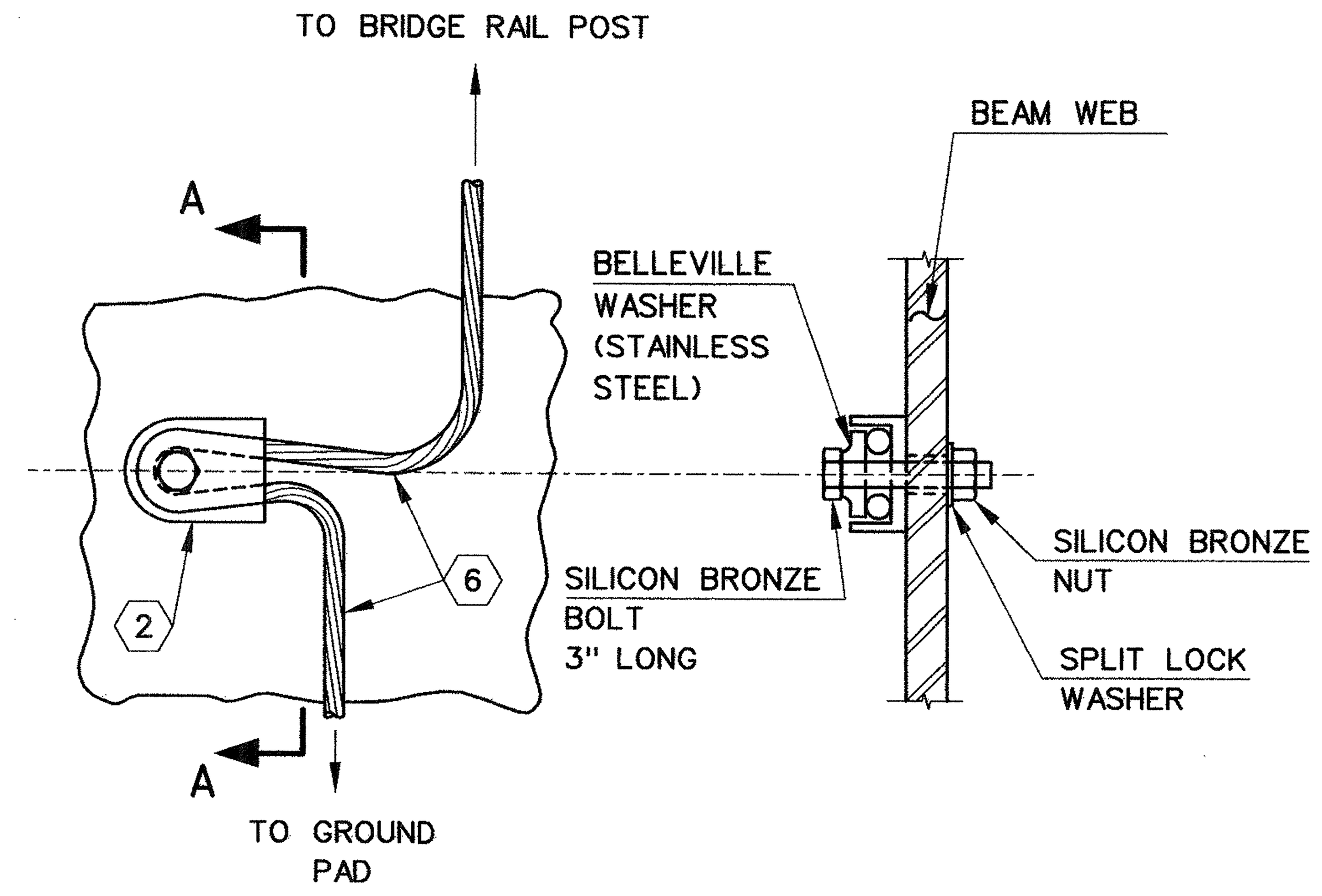

DETAIL "A"
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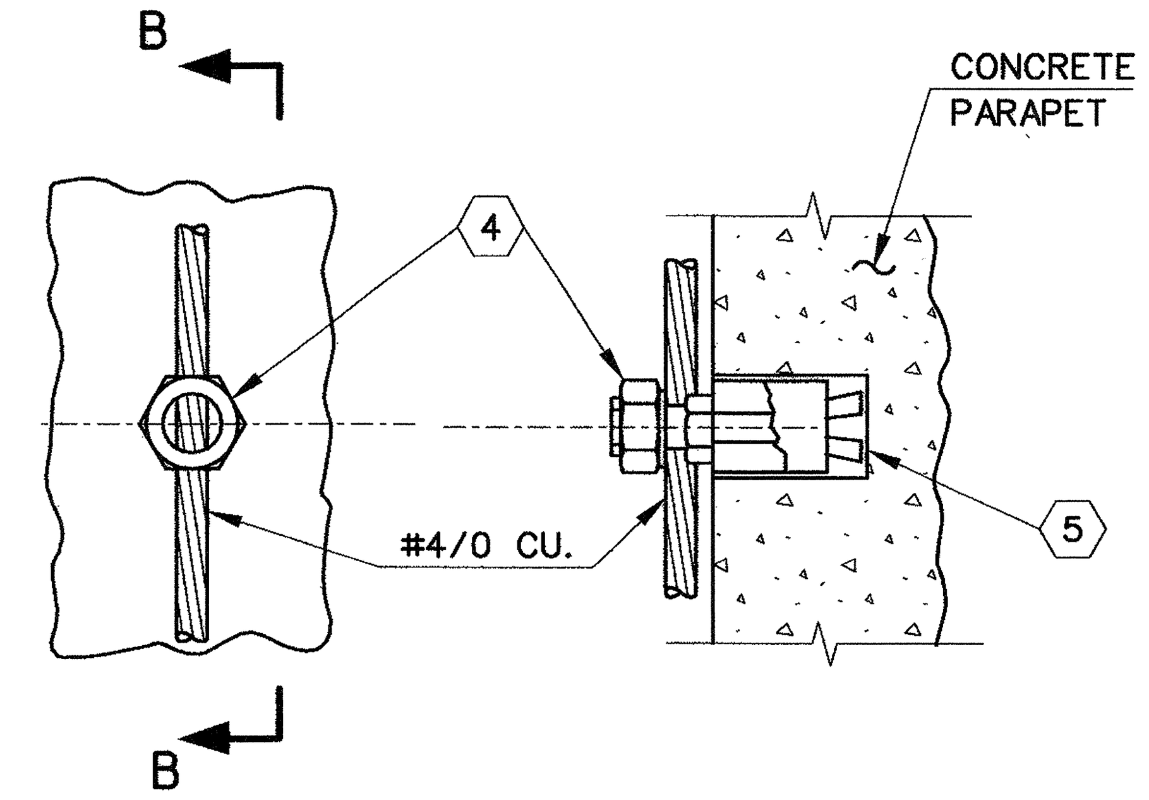
SECTION A-A
N.T.S.



DETAIL "B"
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SECTION B-B
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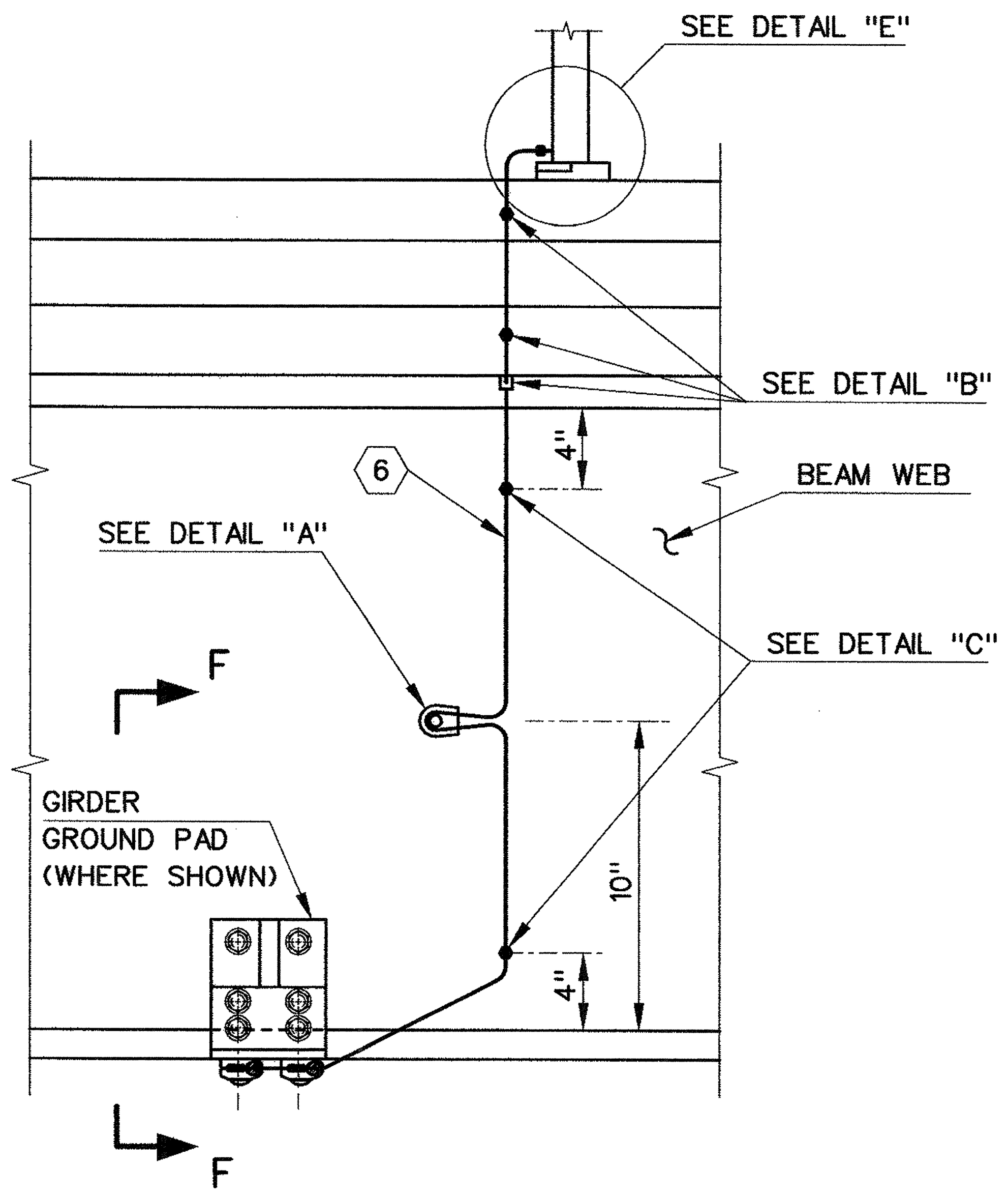

PARTIAL FASCIA ELEVATION
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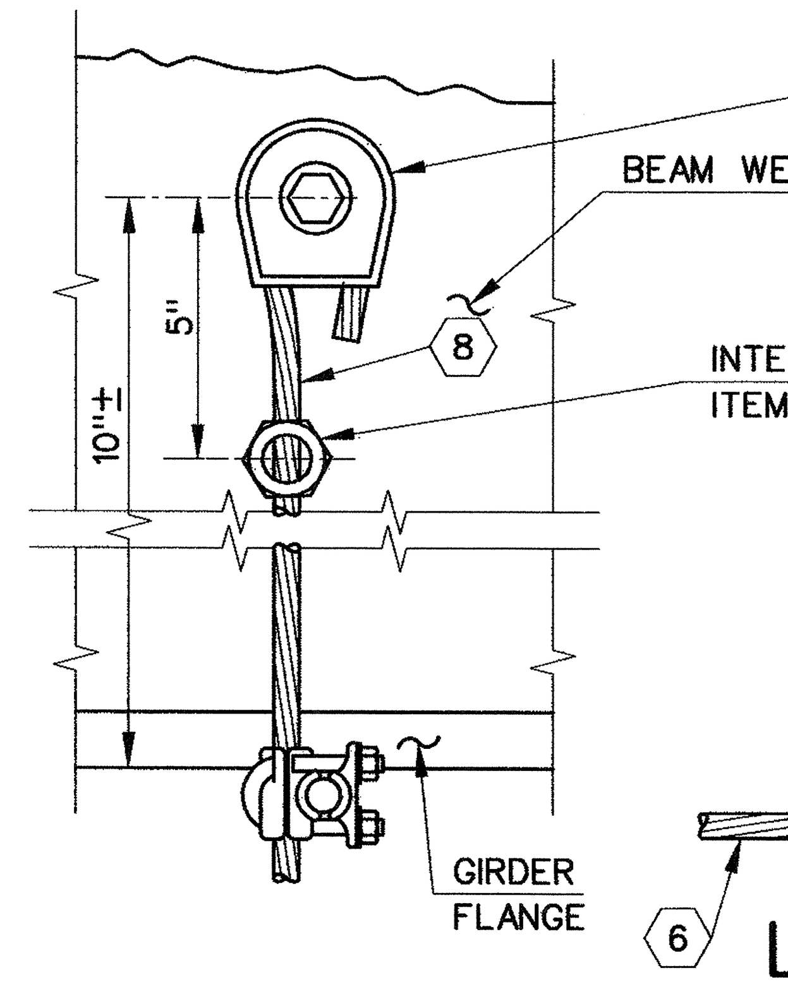

SECTION D-D
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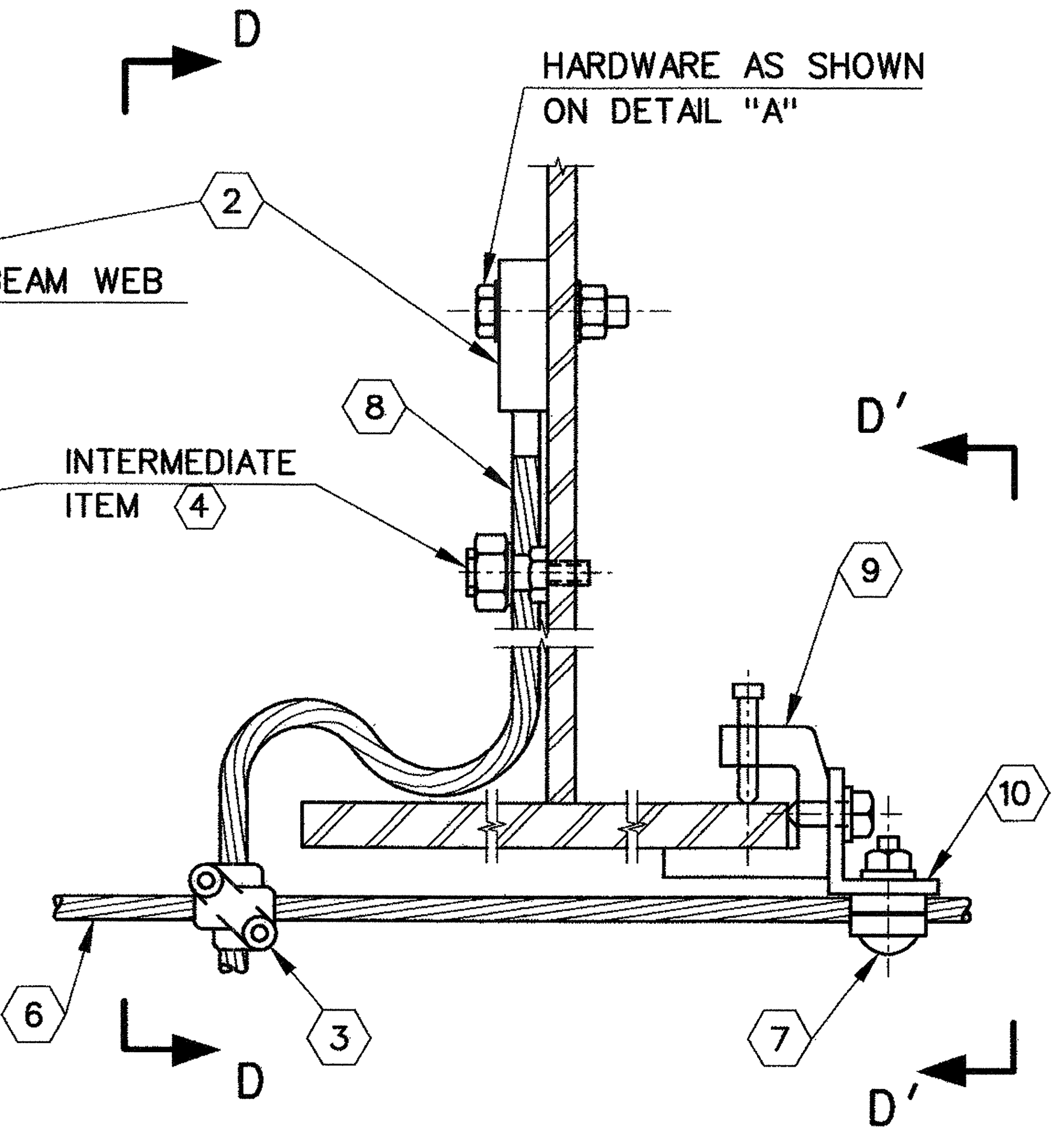

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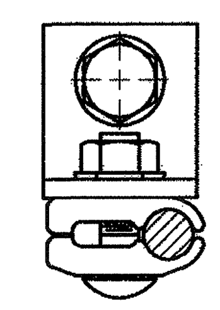
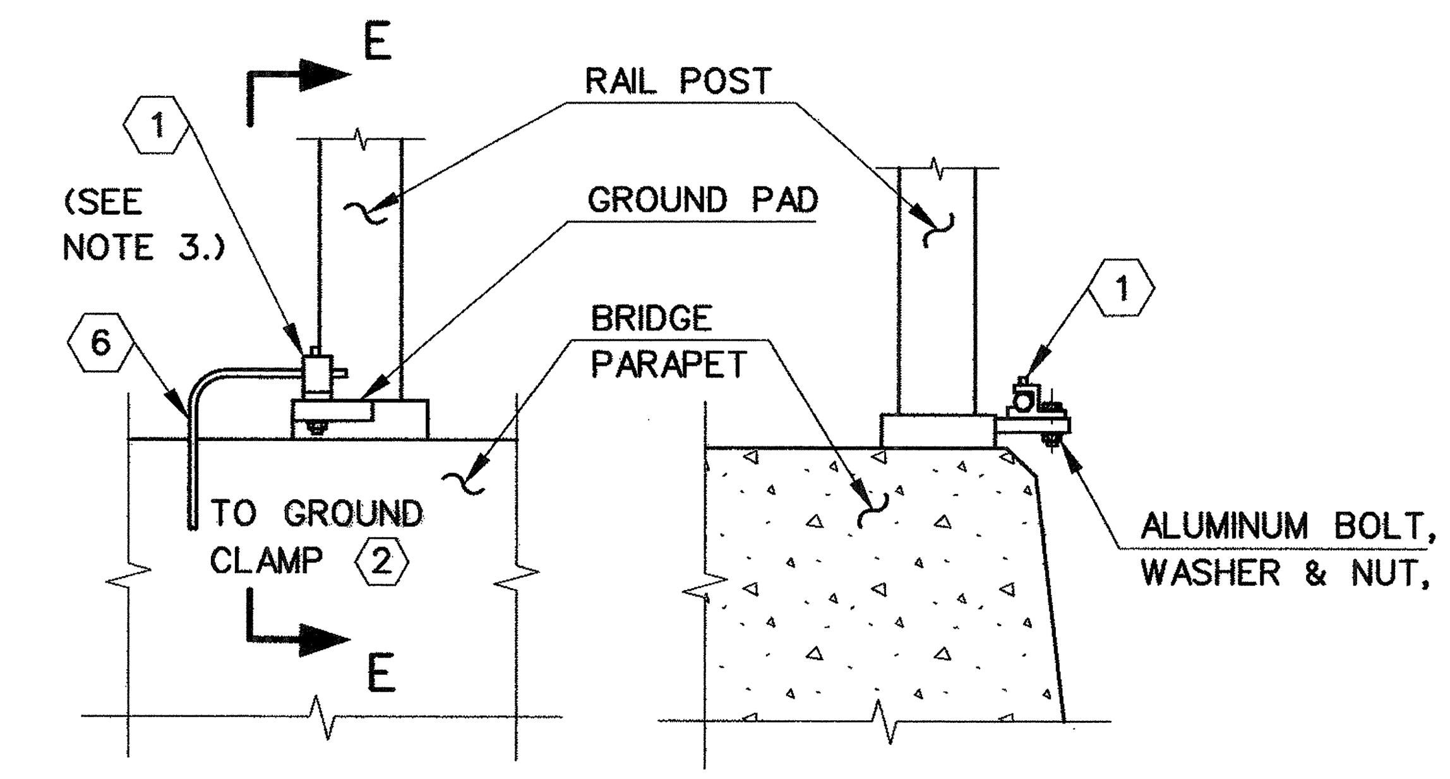


SECTION D'-D'
N.T.S.



DETAIL "E"
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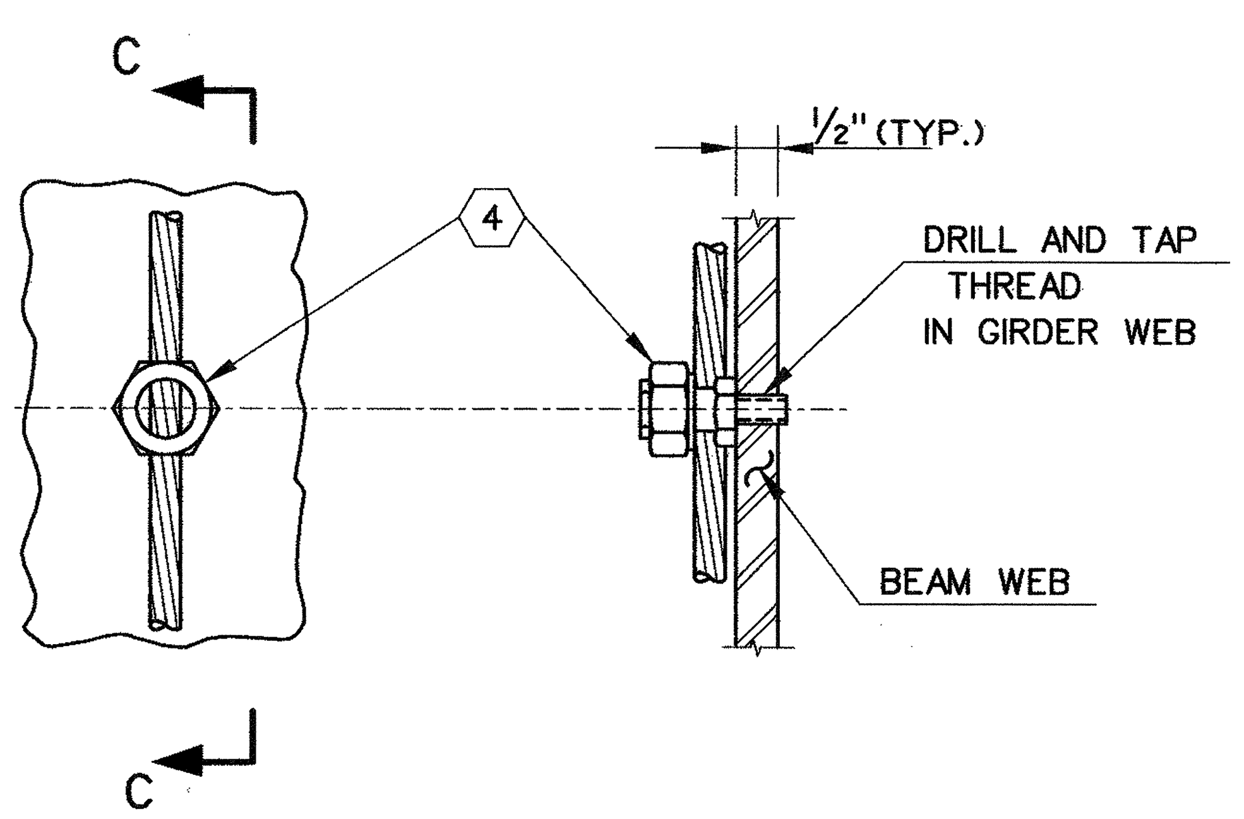
SECTION E-E
N.T.S.



DETAIL "C"
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SECTION C-C
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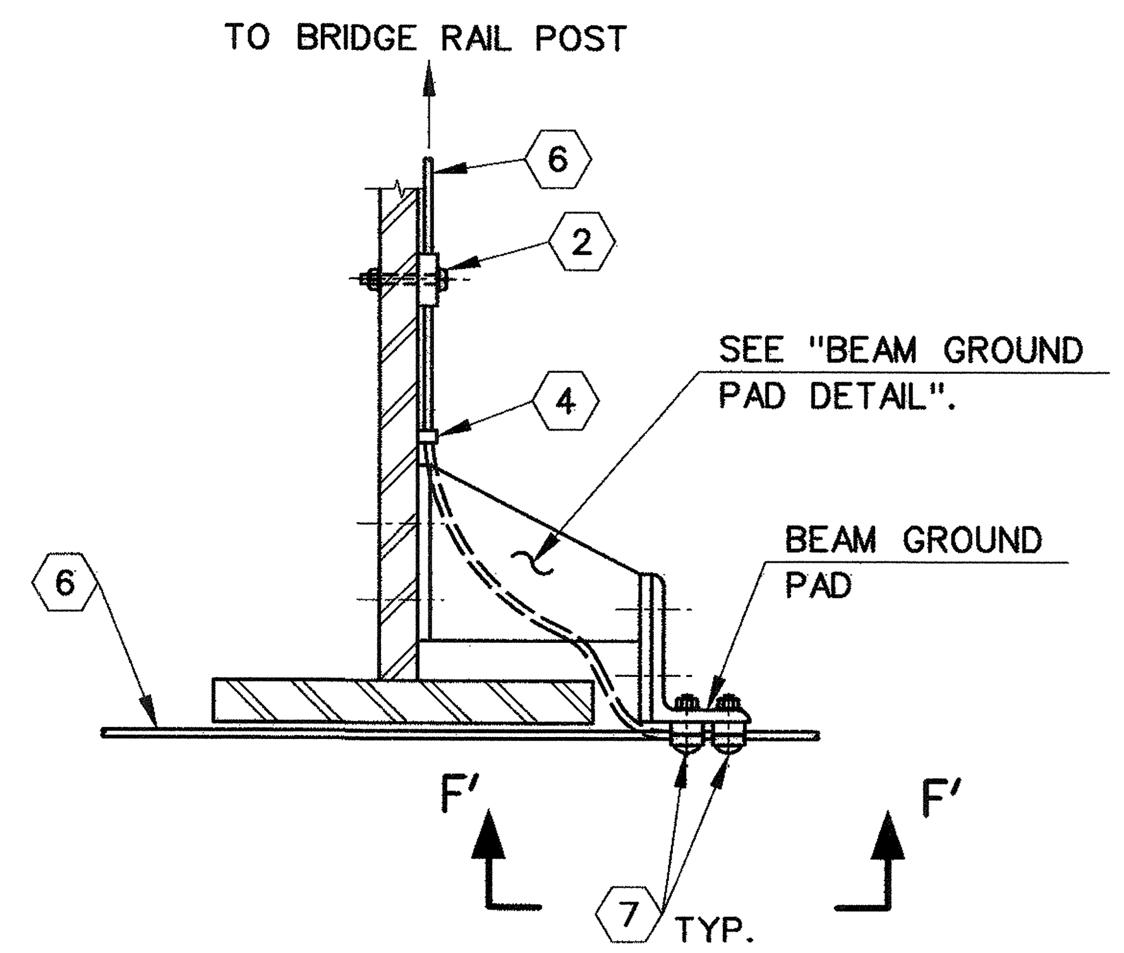
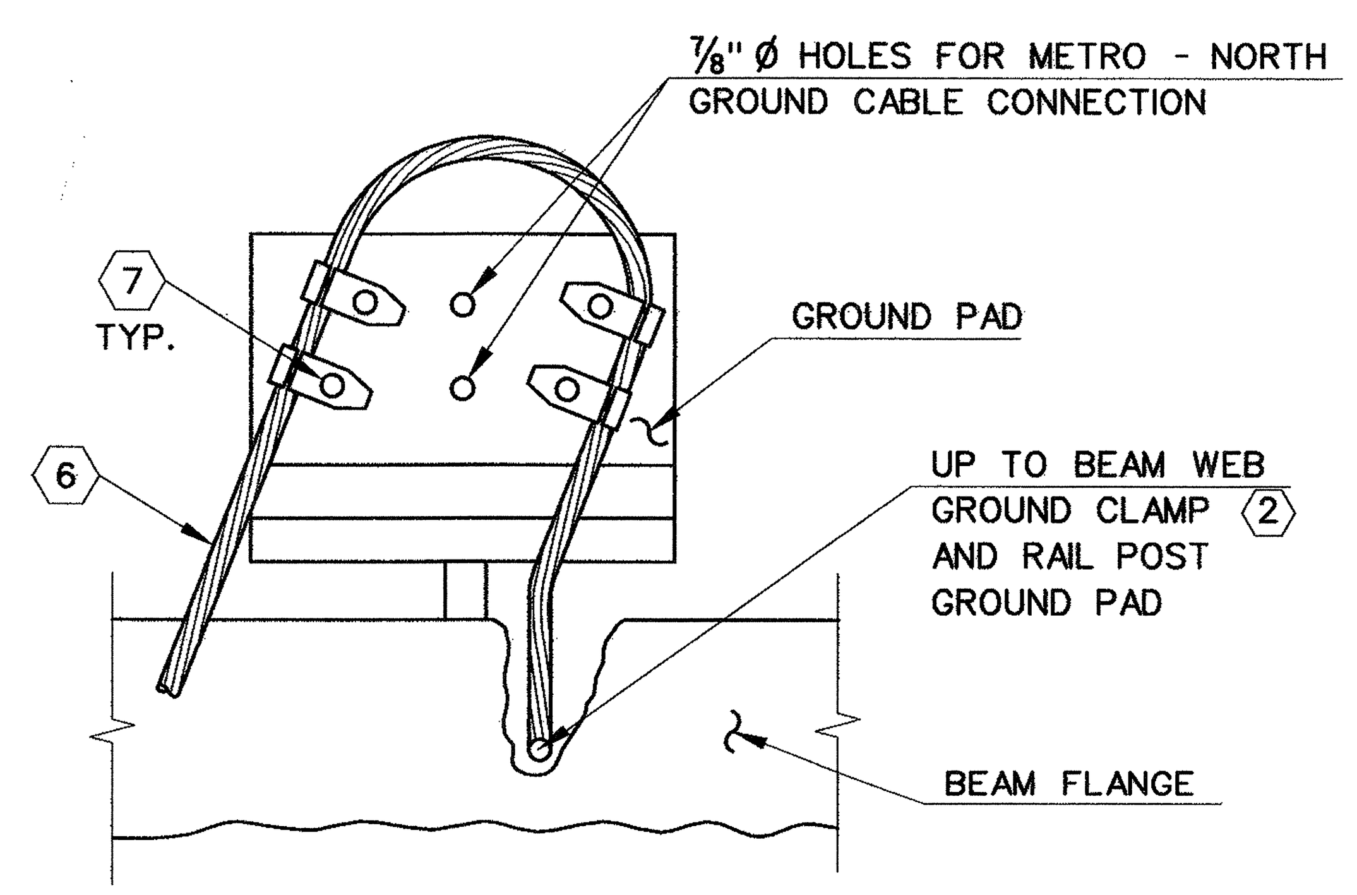


SECTION F-F
N.T.S.



VIEW F'-F'
N.T.S.

MATERIAL DESIGNATIONS

ITEM	DESCRIPTION	MAKE, TYPE, CATALOG NUMBER						
		DOSSERT	BURNDY	ILSCO	ROME CABLE	STAR TAMPIN	KINDORF	UNISTRUT
1	GROUND LUG	---	---	GBL250E FASTENERS	---	---	---	---
2	GROUND CLAMP	GL25-63	GZ2958	---	---	---	---	---
3	GROUND CLAMP	G625-25	GL2929	---	---	---	---	---
4	SERVIT STUD	---	KC28	---	---	---	---	---
5	EXPANSION ANCHOR	---	---	---	---	#4045	---	---
6	MAIN GROUND CABLE	---	---	---	#4/0-7 ST. BARE CU.	---	---	---
7	GROUND CLAMP	GF25*	GB29*	---	---	---	---	---
8	BONDING JUMPER	---	---	---	#4/0-7 ST. BARE CU.	---	---	---
9	BEAM FLANGE CLAMP	---	---	---	---	---	508	---
10	90° ANGLE PIECE	---	---	---	---	---	---	P1068

* ITEM 7 USED ON BEAM GROUND PADS SHALL BE SUPPLIED WITH ½"∅ BOLTS FOR ¾" THICK BAR.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: R. CICHOWSKI
DRAFTER: M. DEEGAN
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Mautte DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S131.DGN
PLOTTED DATE: 3-4-00

TOWN: NEW HAVEN

DRAWING TITLE: GROUNDING & BONDING SHEET 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-118
SHEET NO.: 252

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08 MAR 2000
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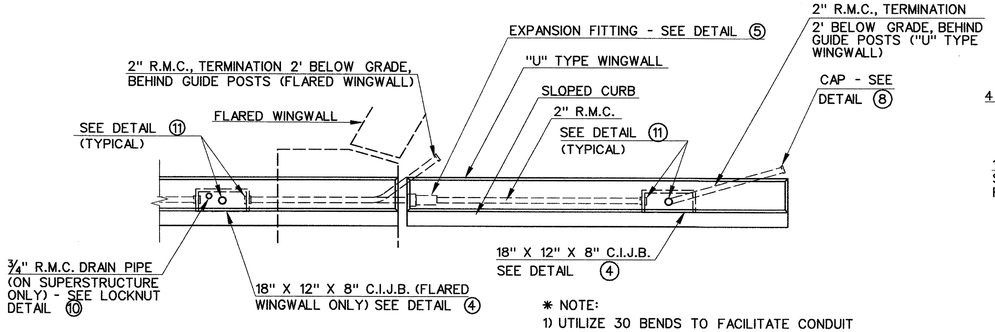
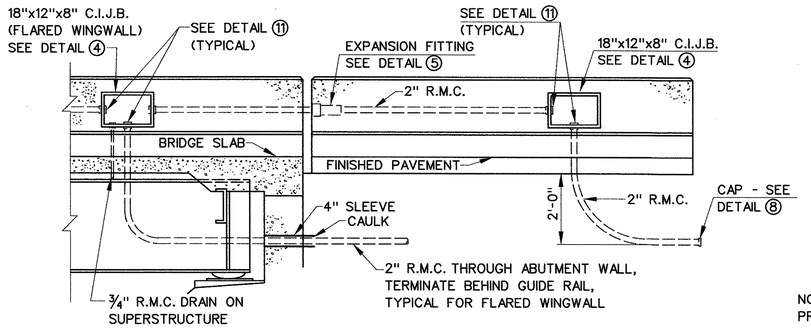
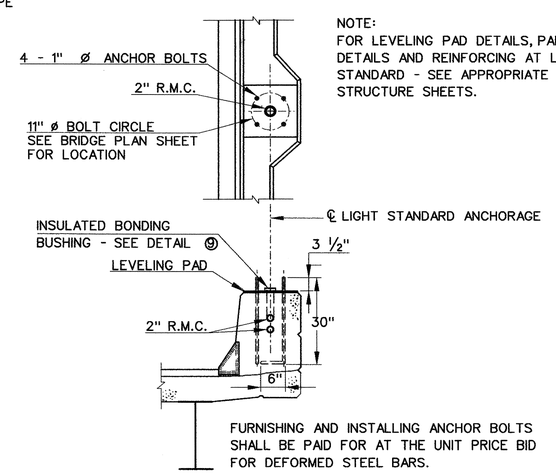


TOP VIEW

✱ NOTE:
1) UTILIZE 30 BENDS TO FACILITATE CONDUIT LEAVING WINGWALL AT 24" BELOW GRADE.
2) CONDUIT BENDS SHALL HAVE A RADIUS OF NOT LESS THAN 6 TIMES THE TRADE SIZE OF THE CONDUIT.

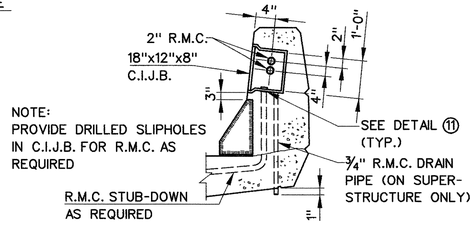


① CONDUIT PARAPET TO FILL



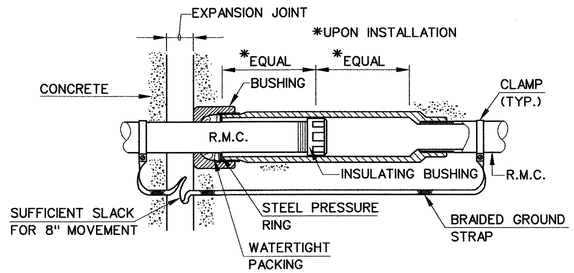
NOTE:
FOR LEVELING PAD DETAILS, PARAPET DETAILS AND REINFORCING AT LIGHT STANDARD - SEE APPROPRIATE STRUCTURE SHEETS.

③ PARAPET TREATMENT AT LIGHT STANDARD

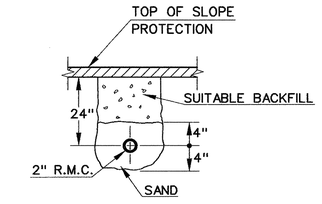


NOTE:
PROVIDE DRILLED SLIPHOLES IN C.I.J.B. FOR R.M.C. AS REQUIRED

④ JUNCTION BOX INSTALLATION



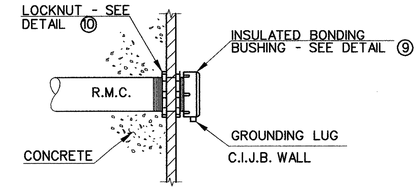
⑤ EXPANSION FITTING (8" MOVEMENT)
(TO BE USED AT ALL EXPANSION JOINTS)



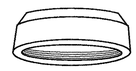
⑦ RIGID METAL CONDUIT UNDER SLOPE PROTECTION

		TABLE OF DETAILS
	1	CONDUIT PARAPET TO FILL
X	2	LIGHT STANDARD ON PARAPET WALL
X	3	PARAPET TREATMENT AT LIGHT STANDARD
X	4	JUNCTION BOX INSTALLATION
X	5	EXPANSION FITTING
X	6	SERVICE TO LUMINAIRE UNDER STRUCTURE
	7	RIGID METAL CONDUIT UNDER SLOPE PROTECTION
	8	MALLEABLE IRON CAP
X	9	INSULATED BONDING BUSHING WITH GROUND LUG
X	10	LOCK NUT
X	11	CONDUIT ENTRY INTO CAST IRON JUCTION BOX

NOTE: SEE BRIDGE PLANS FOR SPECIFIC CONSTRUCTION DETAILS AND LOCATIONS

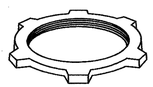


⑪ CONDUIT ENTRY INTO CAST IRON JUNCTION BOX



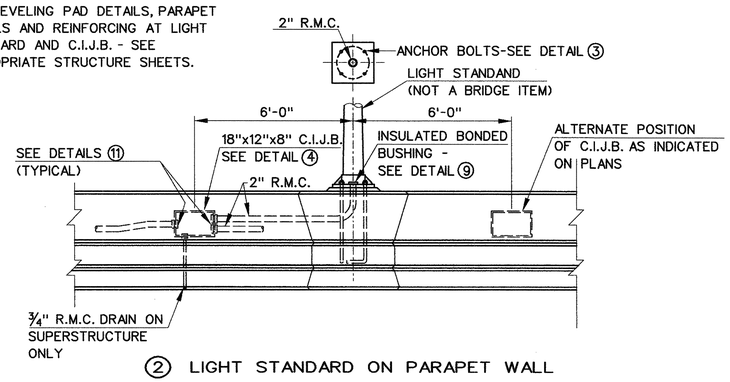
⑧ MALLEABLE IRON CAP

⑨ INSULATED BONDING BUSHING WITH GROUND LUG

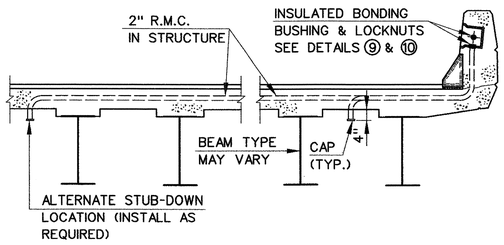


⑩ LOCKNUT

✱ NOTE:
FOR LEVELING PAD DETAILS, PARAPET DETAILS AND REINFORCING AT LIGHT STANDARD AND C.I.J.B. - SEE APPROPRIATE STRUCTURE SHEETS.



② LIGHT STANDARD ON PARAPET WALL



⑥ SERVICE TO LUMINAIRE UNDER STRUCTURE

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05-APR-2000
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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER:
DRAFTER:
CHECKED BY:
DATE CHECKED:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4/26/00

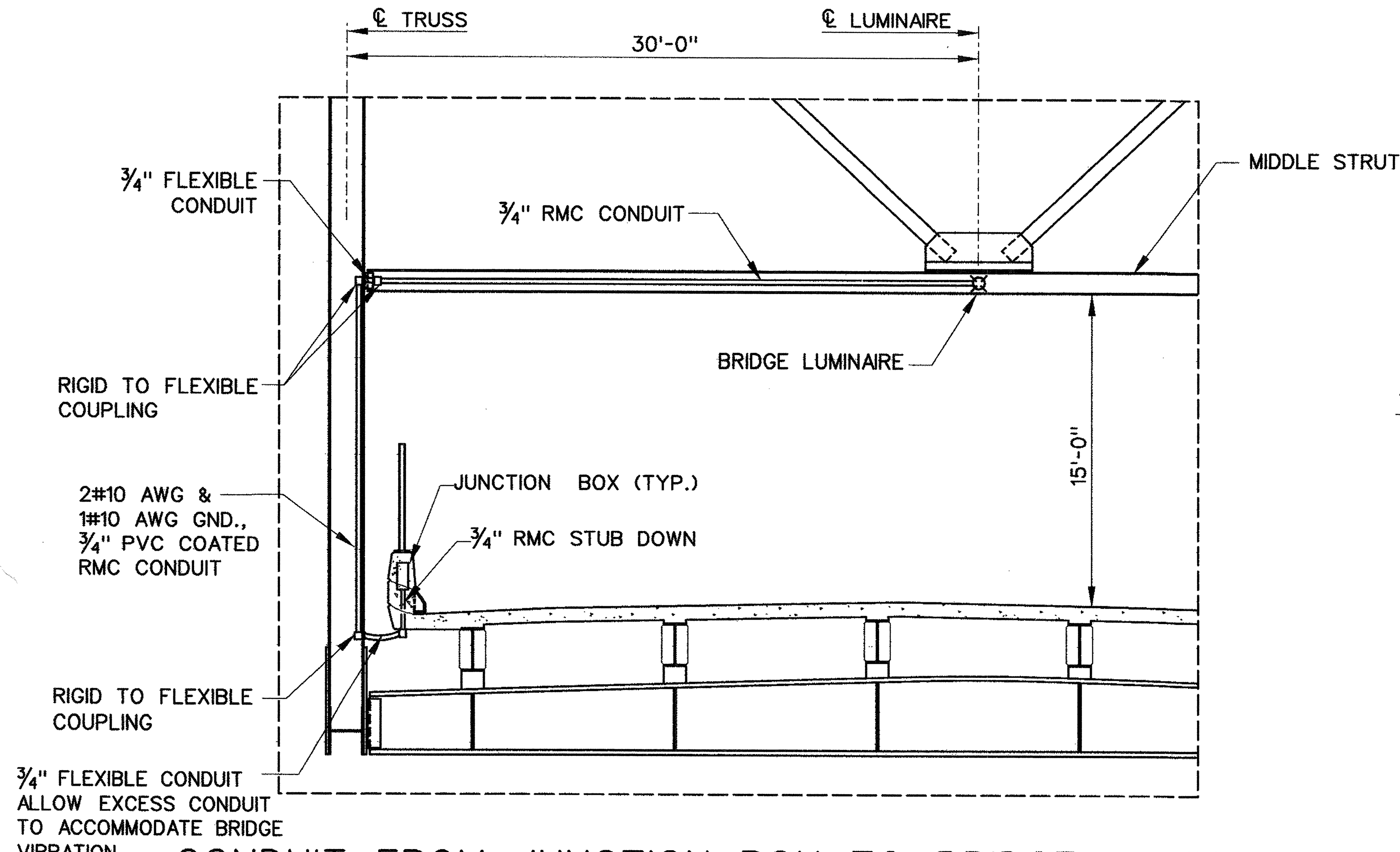
PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S140.DGN | PLOTTED DATE: 3-31-00

TOWN: NEW HAVEN

DRAWING TITLE:
ELECTRICAL DETAILS
SHEET 1 OF 3

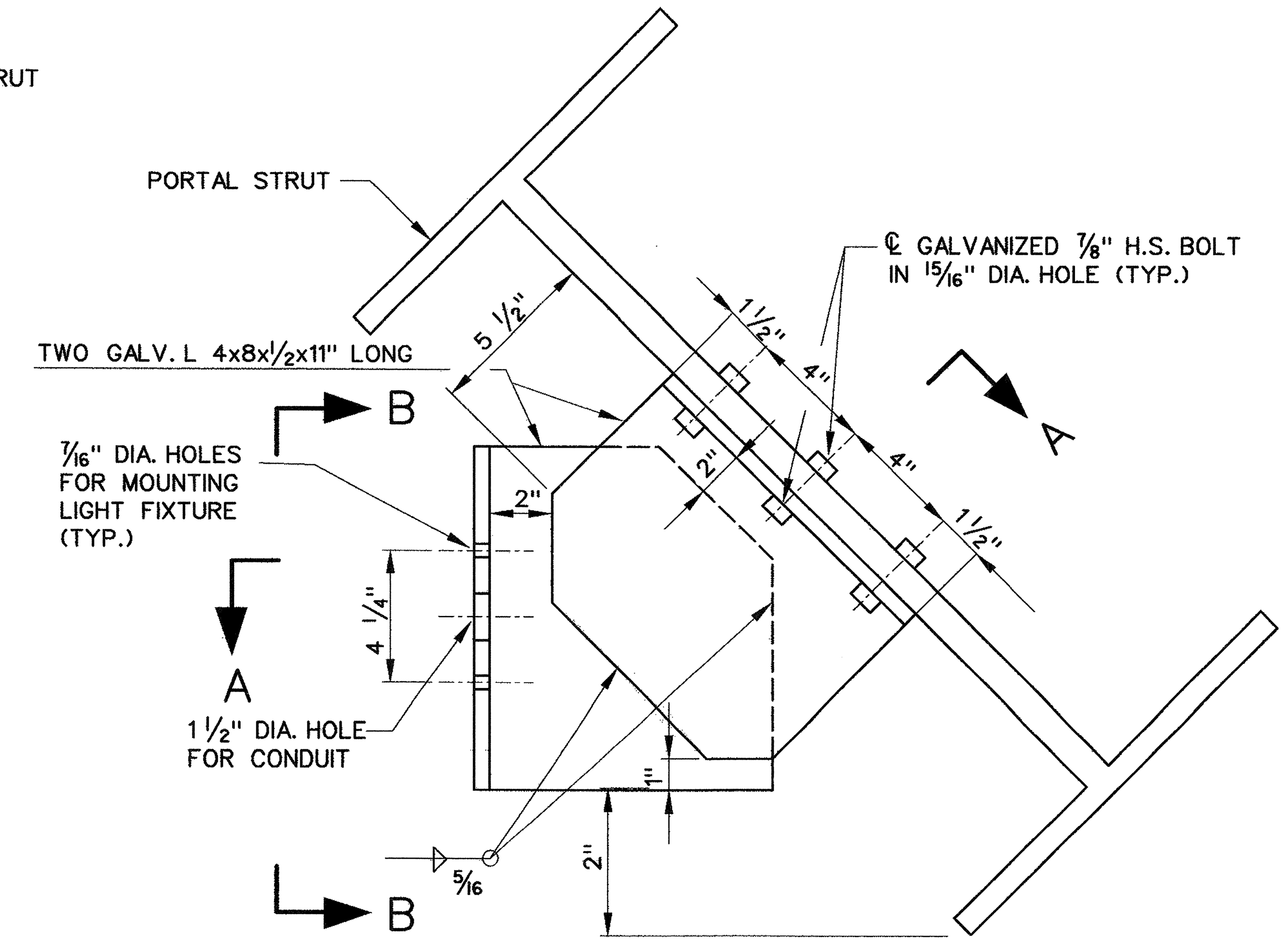
PROJECT NO.: 92-526
DRAWING NO.: STR-119
SHEET NO.: 253



CONDUIT FROM JUNCTION BOX TO BRIDGE LUMINAIRE

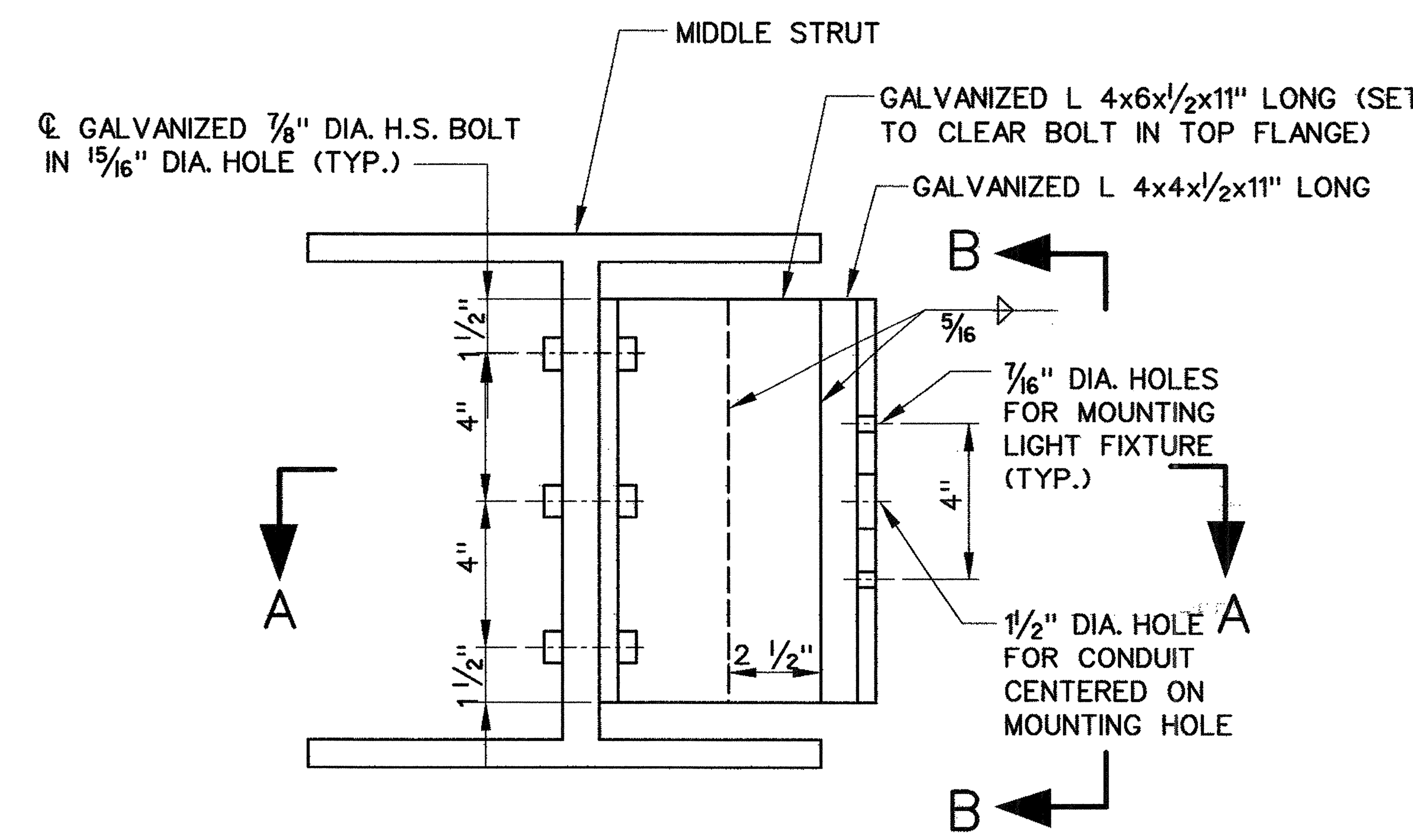
LOOKING DOWNSTATION

N T S



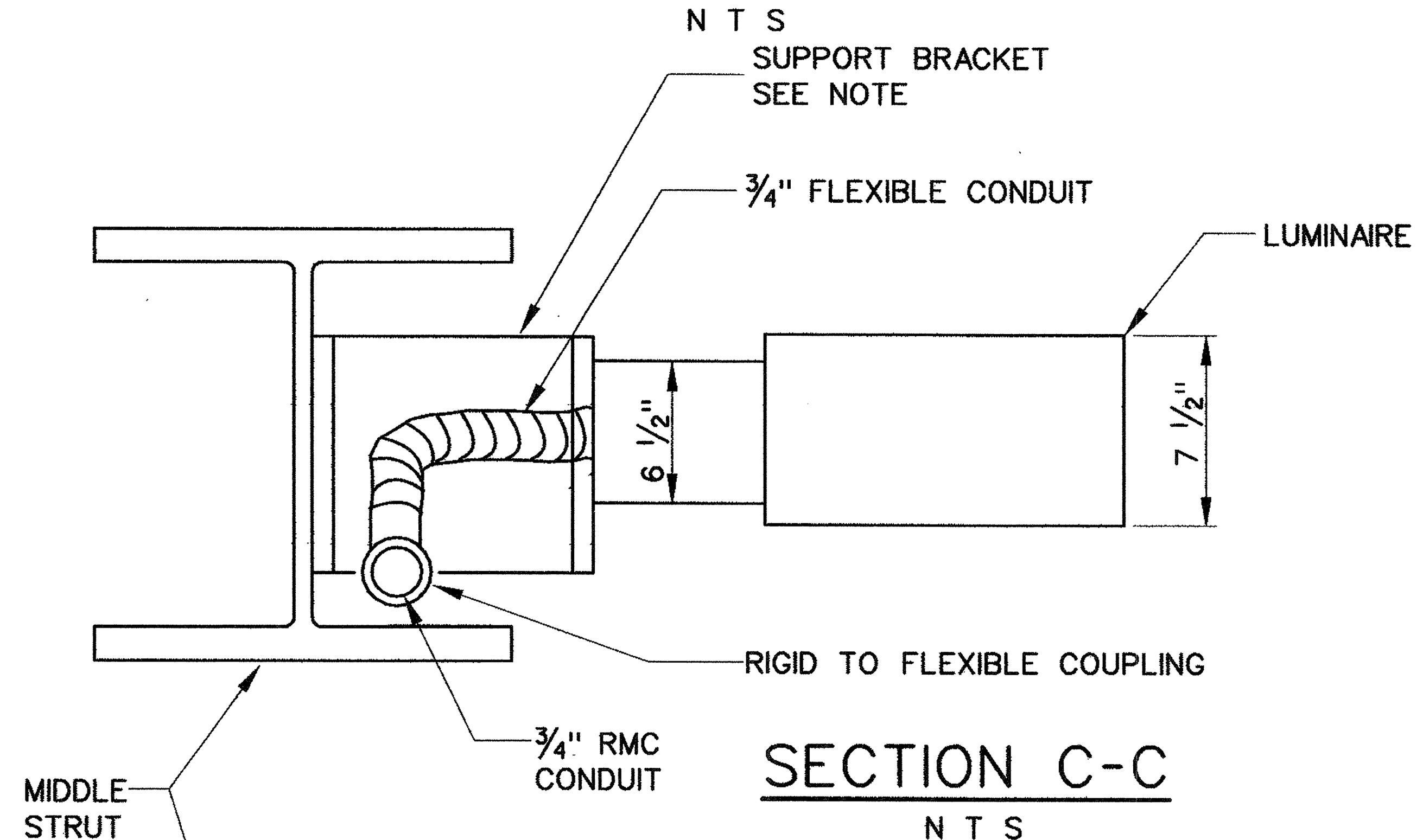
TRUSS LIGHTING SUPPORT TYPE-2

N T S



TRUSS LIGHTING SUPPORT TYPE-1

N T S



SECTION C-C

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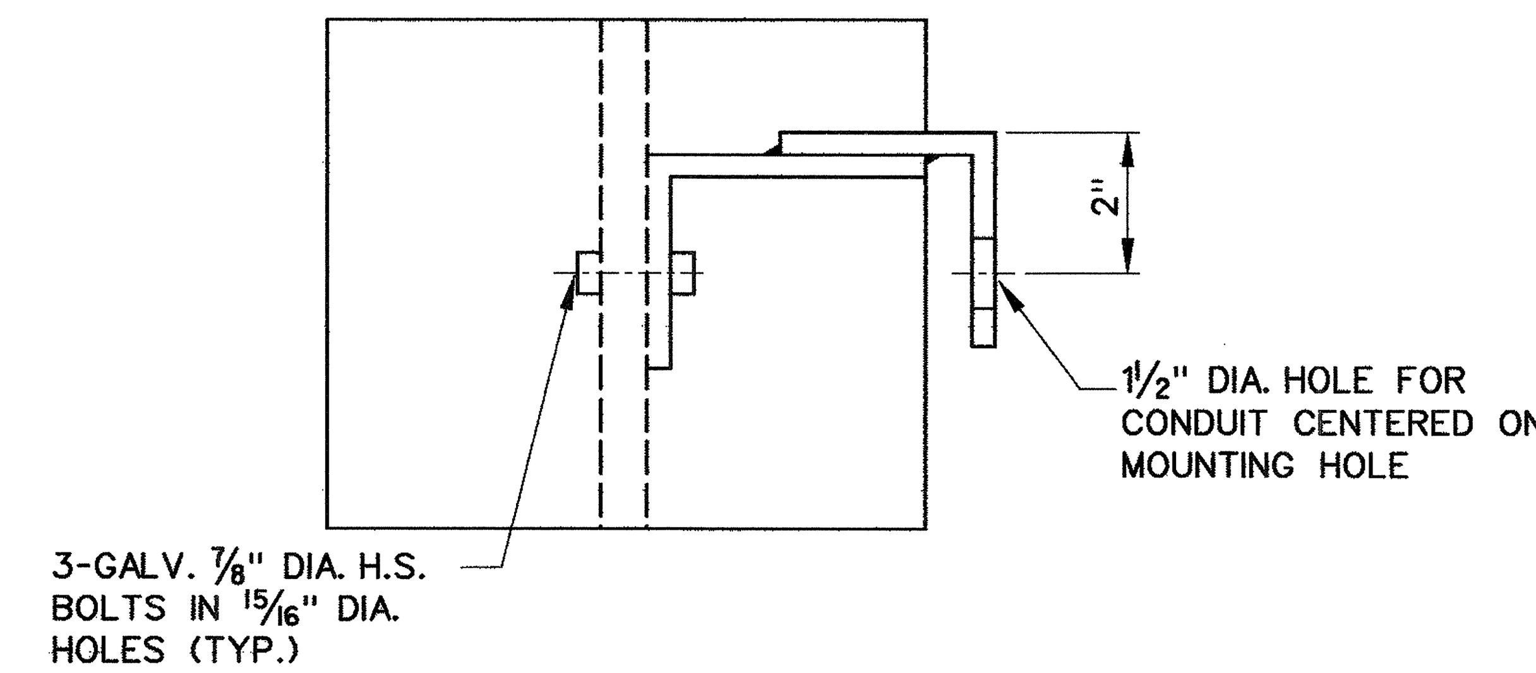
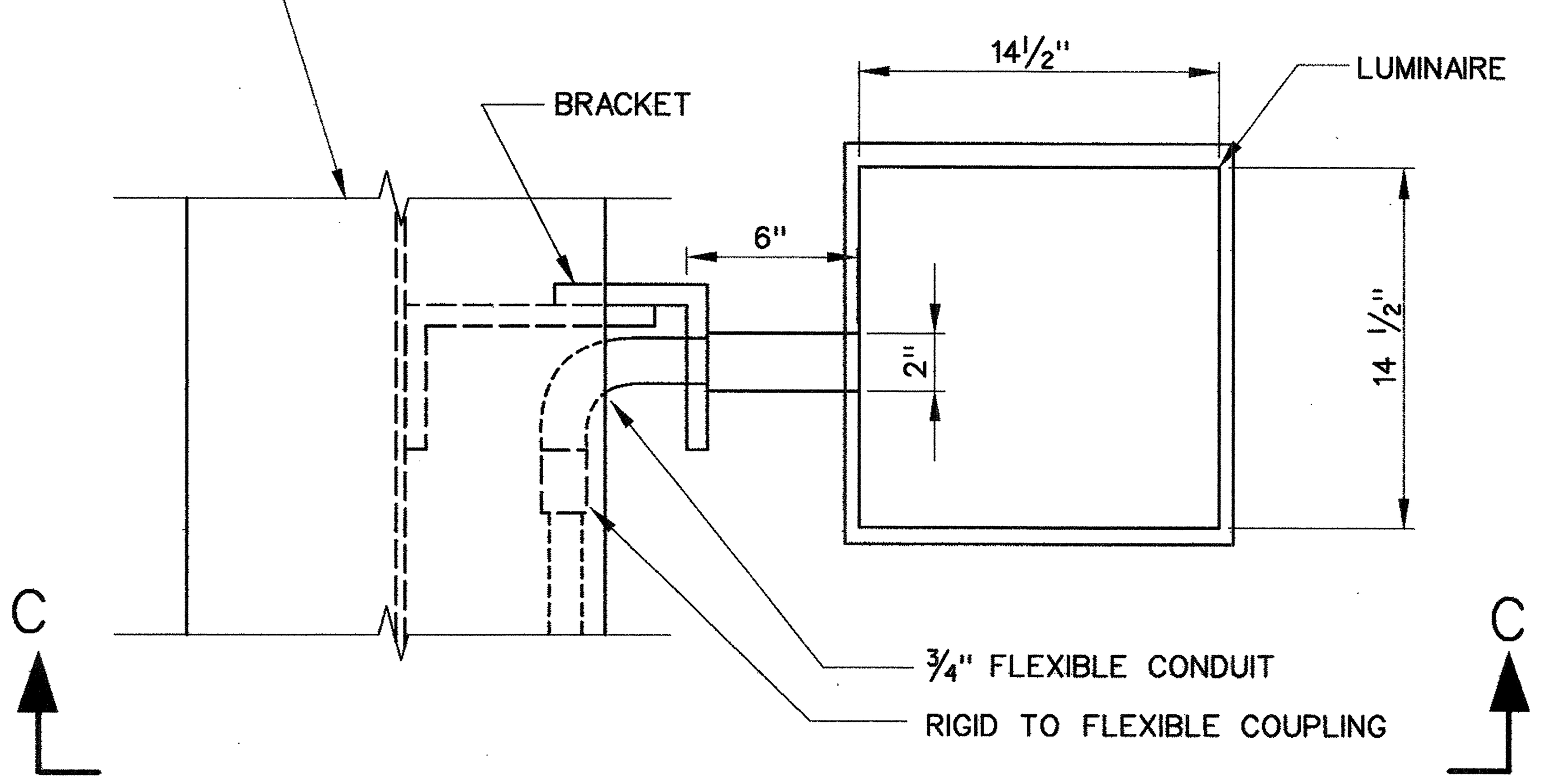


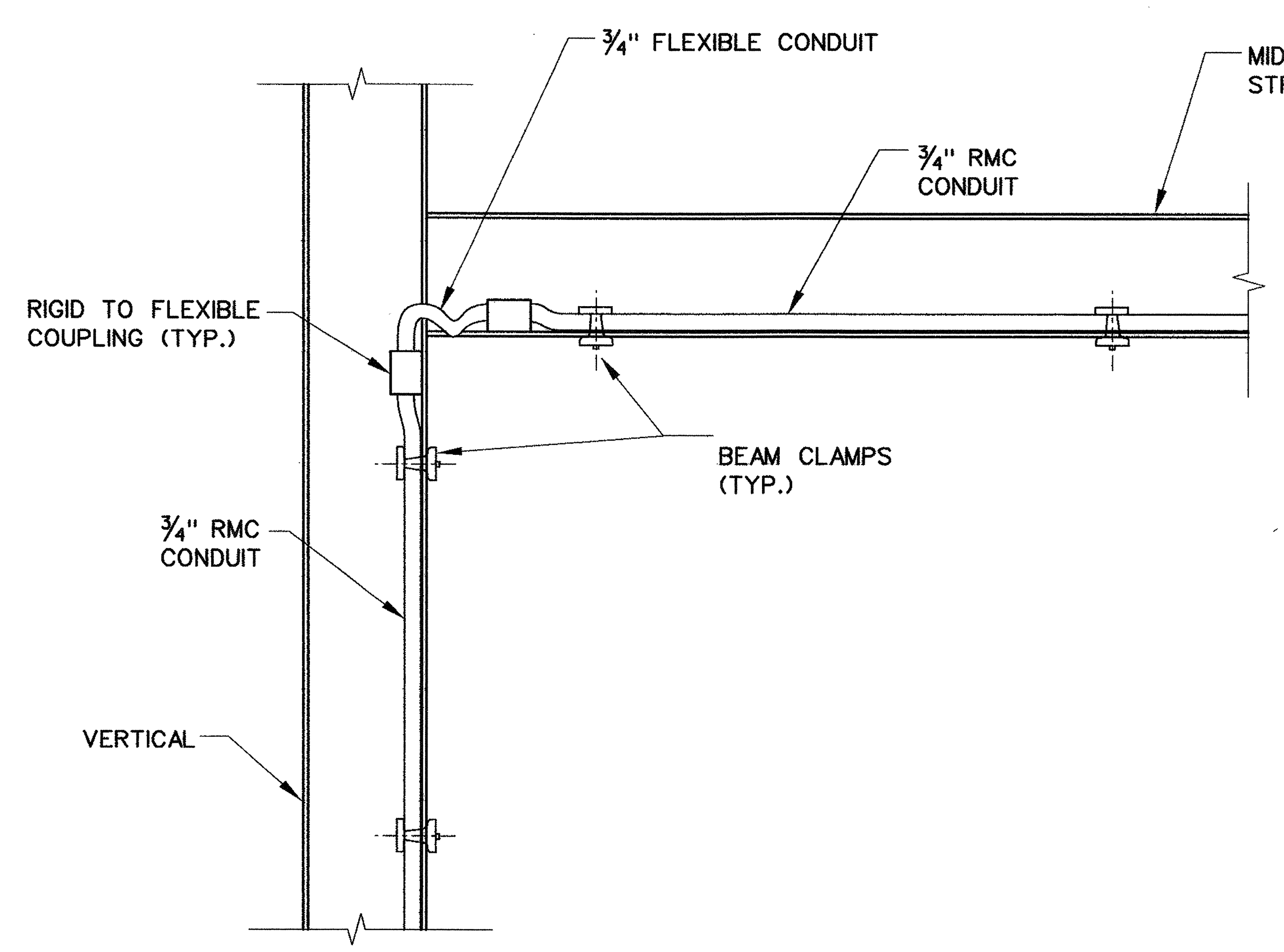
SECTION A-A

N T S



LUMINAIRE DETAIL

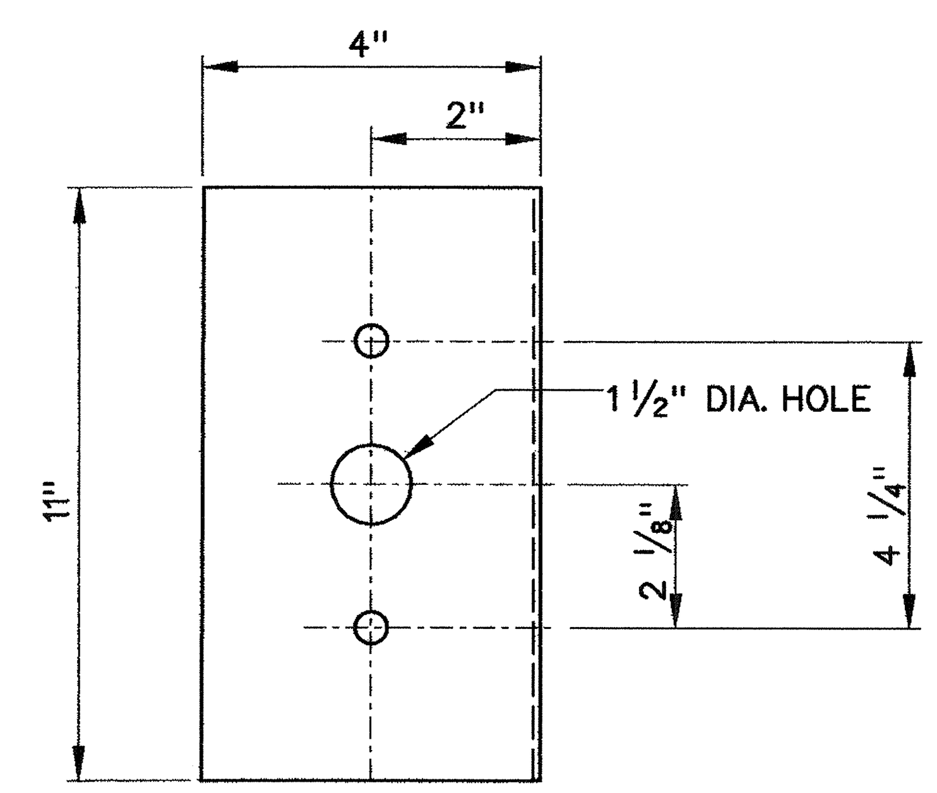
N T S



CONDUIT ATTACHED TO TRUSS MEMBERS

LOOKING DOWNSTATION

N T S



SECTION B-B

N T S

NOTES:

1. THE COST OF THE SUPPORT BRACKETS INCLUDING HARDWARE SHALL BE INCLUDED IN THE APPLICABLE LUMINAIRE ITEM.
2. THE COLOR OF ALL ELECTRICAL COMPONENTS SHALL BE "GALVANIZED-SILVER ". THE CONTRACTOR SHALL SUBMIT COLOR SAMPLES TO THE ENGINEER FOR APPROVAL.
3. SUPPORT BRACKETS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
4. HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 AND BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50.

14:46:23 07 APR 2000 h:\dgn\pb8703\church\rd\illumination\r703e005.dgn

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

NOT TO SCALE

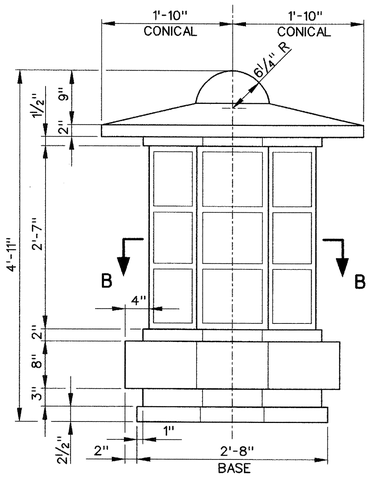
DESIGNER: D. LEONE
DRAFTER: D. LOCKS
CHECKED BY: M. ZIAUGRA
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Marte DATE: 4-7-00

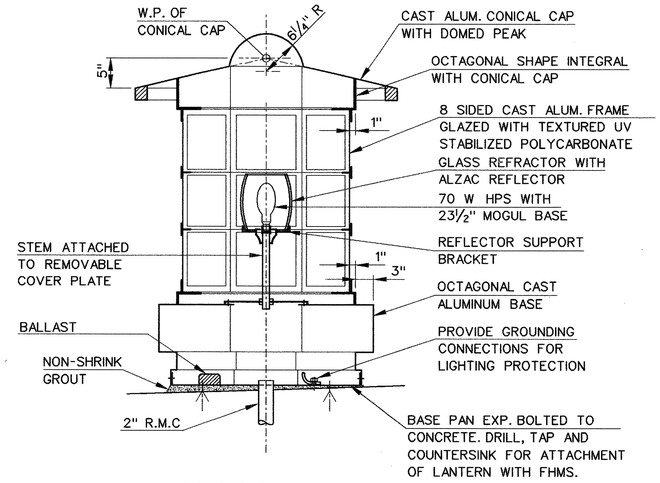
PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD R703e005.DGN PLOTTED 04-07-00

TOWN: NEW HAVEN
DRAWING TITLE: ELECTRICAL DETAILS - SHEET 2 OF 3

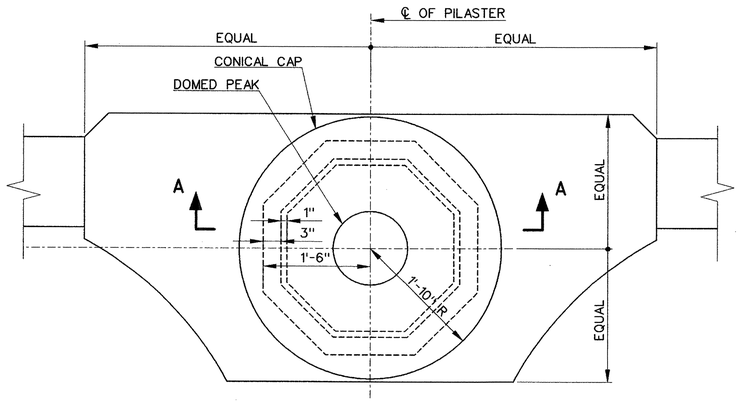
PROJECT NO.: 92-526
DRAWING NO.: STR-120
SHEET NO.: 254



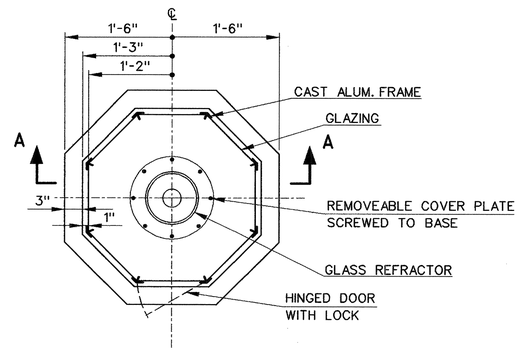
ELEVATION
SCALE: 1"= 1'-0"



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



PLAN VIEW
SCALE: 1"= 1'-0"



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

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: S. LORCH
DRAFTER: A. KILPATRICK
CHECKED BY: D. GEISSERT
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Venditti DATE: 6/6/00

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION
OVER NEW HAVEN INTERLOCKING
AND RAIL YARD
CADD FILE: R703S143.DGN
PLOTTED DATE: 6-06-00

TOWN: NEW HAVEN
DRAWING TITLE:
ELECTRICAL DETAILS
SHEET 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-120-1
SHEET NO.: 254-1

10:49:49
06 JUN 2000
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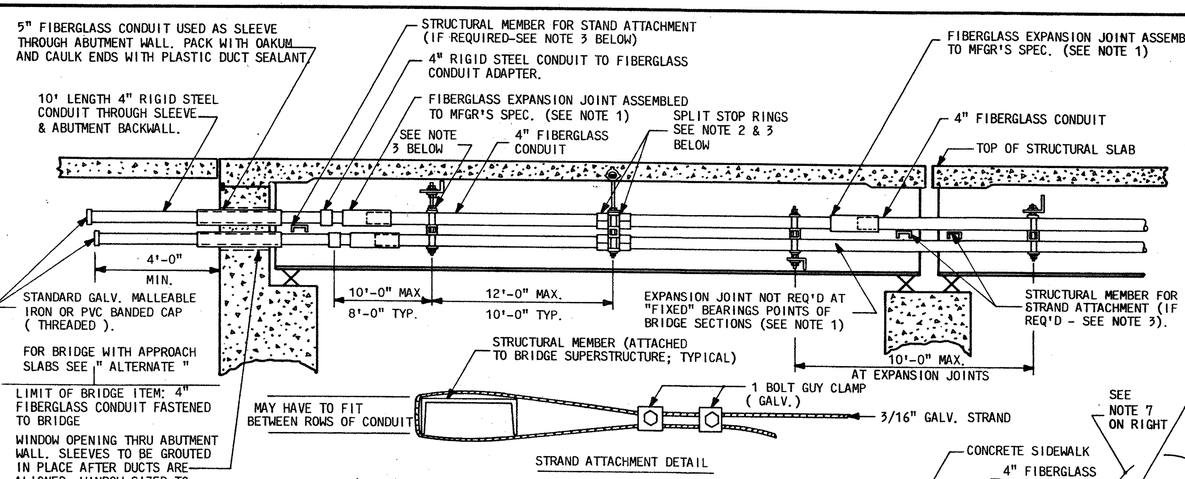
FHWA REGION	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
I	CONN.	NEW HAVEN		92-526	2000	—	255	

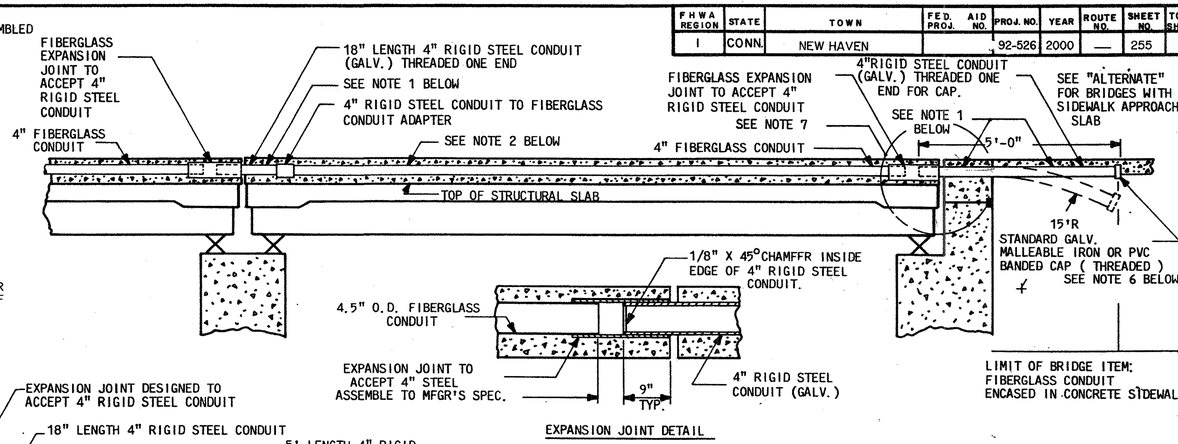


TYPE 1 CONSTRUCTION

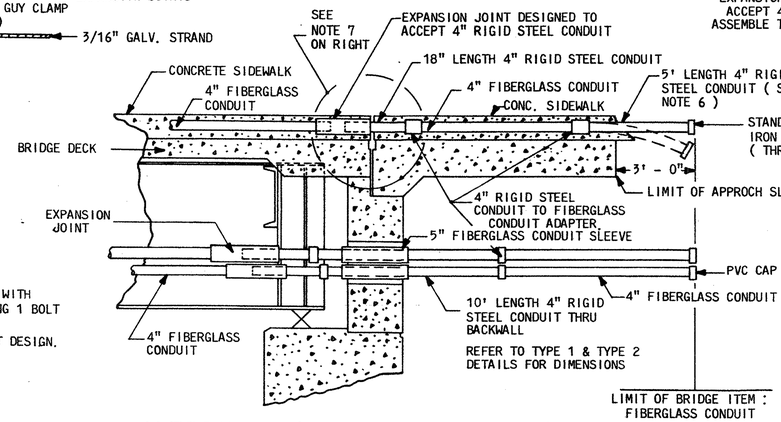
4" FIBERGLASS CONDUIT FASTENED TO BRIDGE

NOTES :

1. FIBERGLASS CONDUIT EXPANSION JOINTS SHALL BE INSTALLED AT EACH BRIDGE EXPANSION JOINT. CONDUIT IN BRIDGES HAVING A TOTAL SPAN GREATER THAN 40' SHALL HAVE AT LEAST 1 EXPANSION JOINT.
2. SPLIT STOP RINGS SHALL BE INSTALLED AGAINST THE HANGER ASSEMBLY MIDWAY BETWEEN CONDUIT EXPANSION JOINTS (RUNS WITH LESS THAN 2 EXPANSION JOINTS DO NOT REQUIRE SPLIT STOP RINGS).
3. SUSPENDED HANGERS (DETAILS C & D) WITH CONDUIT RUNS HAVING MORE THAN 1 EXPANSION JOINT SHALL BE GUYED BY RUNNING 2 - 3/16" GALV. STEEL STRANDS FROM END TO END OF EACH BRIDGE EXPANSION SECTION (1 STRAND ON EACH SIDE OF HANGERS). STRANDS SHALL BE ATTACHED TO STRUCTURAL MEMBERS, IN ALIGNMENT WITH HANGERS, AT THE ENDS OF EACH BRIDGE EXPANSION SECTION (SEE DETAIL ABOVE), AND TO EACH HANGER USING 1 BOLT GUY CLAMPS (SEE "TYPICAL HANGER ASSY."). STRANDS SHALL BE TENSIONED TO 150LBS.
4. CURVED BRIDGES AND BRIDGES WITH AN EXPANSION SECTION OF MORE THAN 250' WILL REQUIRE SPECIAL CONDUIT DESIGN.



EXPANSION JOINT DETAIL



TYPE 2 CONSTRUCTION

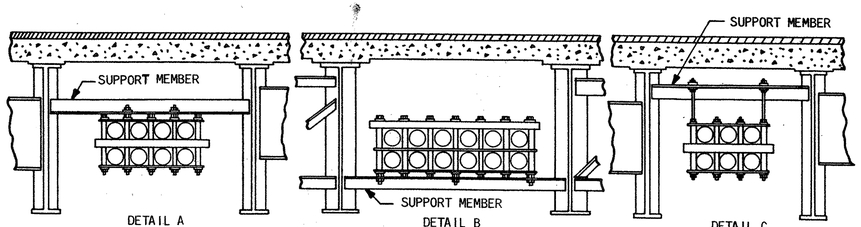
4" FIBERGLASS CONDUIT ENCASED IN CONCRETE SIDEWALK

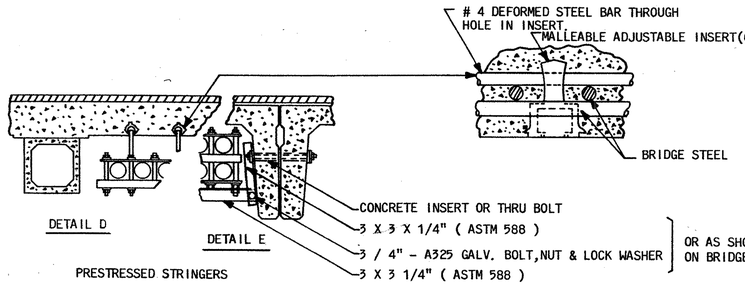
NOTES:

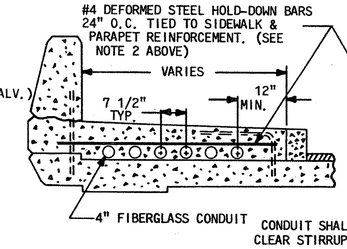
1. STEEL CONDUIT SECTIONS SHALL BE TACK WELDED IN FORMATION USING #4 REINF. BARS TO MAINTAIN ALIGNMENT.
2. FIBERGLASS CONDUIT SECTIONS SHALL BE WIRE-TIED TO HOLD-DOWN BARS AS REQUIRED TO MAINTAIN ALIGNMENT.
3. CAUTION : EXTREME CARE MUST BE TAKEN TO AVOID DISTRUBING EXPANSION JOINTS & CONDUIT WHILE POURING CONCRETE SIDEWALK.
4. EXPANSION JOINTS SHALL BE INSTALLED AT EACH BRIDGE EXPANSION & CONTRACTION JOINT.
5. EXPANSION JOINTS SHALL BE CUT TO MATCH SKEW OF BRIDGE.
6. DEFLECT RIGID STEEL CONDUIT (15' RADIUS) ONLY WHEN REQUIRED DUE TO OBSTRUCTION IN SIDEWALK (e.g. DRIVEWAY APRON OR CHANGE IN GRADE OF SIDEWALK).
7. REFER TO DETAIL ON BRIDGE SHEETS IF BRIDGE EXPANSION JOINT DIFFERS FROM THIS REPRESENTATION.

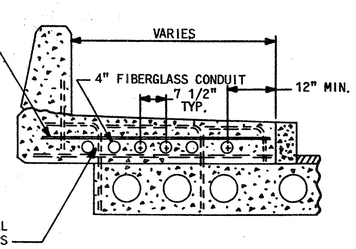
ALTERNATE (TYPE 1 & TYPE 2)

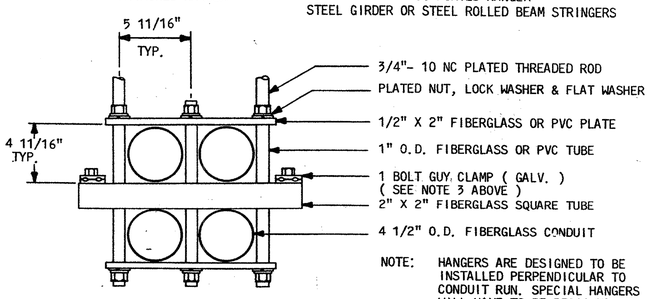
BRIDGE WITH APPROACH SLAB











TYPICAL HANGER ASSY.

NOTE: HANGERS ARE DESIGNED TO BE INSTALLED PERPENDICULAR TO CONDUIT RUN. SPECIAL HANGERS WILL HAVE TO BE DESIGNED IF HANGERS ARE NOT PERPENDICULAR TO CONDUIT.

GENERAL NOTES :

1. NOMINAL 4" FIBERGLASS CONDUIT IS MANUFACTURED WITH VARIOUS O.D.'S. ONLY 4.5" O.D. SHALL BE USED.
2. REFER TO " SPECIAL PROVISION, ITEM# 1500".

TYPE	DESCRIPTION
1	FIBERGLASS CONDUIT FASTENED TO BRIDGE
2	FIBERGLASS CONDUIT ENCASED IN CONC. SIDEWALK

DETAIL	DESCRIPTION
A	ATTACHED
B	SUPPORTED
C	SUSPENDED
D	SUSPENDED FROM INSERTS
E	SPECIAL BRACKET
F	ENCASED IN SIDEWALK
G	ENCASED IN SIDEWALK

CONFIGURATION

4 DUCTS WIDE X 2 DUCTS HIGH = 8

CONDUIT CROSS SECTION (N.T.S.)

SOUTHERN NEW ENGLAND TELEPHONE

NO.	DATE	DESCRIPTION
3	5/86	REDRAWN - EXPANSION JOINTS
2	4/84	3 MIL ZINC PLATING
1	12/83	STRAND ATTACHMENT EXPANSION JOINTS

REVISIONS

CONNECTICUT
DEPARTMENT OF TRANSPORTATION

NEW HAVEN

CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

DWG. NO. 010383 NOT TO SCALE

ENGINEER: A.D.H.

DESIGNER: A.D.H. DRAFTER: E.V.D. CHECKER: S.G.W.

APPROVED : G.P.L. DATE: 5/86

STRUCTURE NO. BRIDGE LOG NO. STRUCTURE SHEET NO. STR. - 121

FOR NEW BRIDGES

ERECTION NOTES

1. THROUGHOUT ALL STAGES OF THE WORK, THE CONTRACTOR SHALL TAKE THE PROPOER PRECAUTIONS TO INSURE THE STABILITY OF ALL STRUCTURAL ELEMENTS UNTIL THE TOTAL STRUCTURE IS IN BEING.

2. THE CONTRACTOR SHALL DETERMINE AND BE RESPONSIBLE FOR THE ACTUAL ERECTION SEQUENCE WITH THE APPROVAL OF THE ENGINEER. THE SUGGESTED ERECTION METHODS, SEQUENCES AND DETAILS SHOWN ON THE PLANS SHALL BE CONSIDERED ONLY AS A GUIDE.

   THE CONTRACTOR SHALL COMPLETELY DESIGN AND DETAIL ALL COMPONENTS USED FOR THE ERECTION AND CONSTRUCTION OF THE PERMANENT BRIDGE (SUPERSTRUCTURE AND SUBSTRUCTURE).

   THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO COMPLETE THE DESIGN, DETAILING, FABRICATION, INSTALLATION, OPERATION, REMOVAL AND ANY OTHER ASPECT OF THE ERECTION SEQUENCING AND THE COMPONENTS REQUIRED TO COMPLETE THE ERECTION.

   THE CONTRACTOR SHALL COMPLETELY DESIGN AND DETAIL ALL COMPONENTS USED FOR THE ERECTION OF THE TEMPORARY COMPONENTS REQUIRED FOR THE ERECTION OF THE PERMANENT BRIDGE COMPONENTS.

   ALL TEMPORARY COMPONENTS USED FOR THE ERECTION AND CONSTRUCTION ARE THE PROPERTY OF THE CONTRACTOR AND SHALL BE COMPLETELY REMOVED FROM THE SITE WHEN NO LONGER REQUIRED.

   SEE "NOTE WELL" THIS SHEET.

3. THE CONTRACTOR SHALL COMPLETELY COORDINATE HIS OPERATIONS WITHIN THE NEW HAVEN RAIL YARD WITH METRO-NORTH RAILROAD, AMTRAK AND THE STATE OF CONNECTICUT AS REQUIRED. FOR DETAILS SEE ELSEWHERE ON THESE PLANS AND IN THE SPECIAL PROVISIONS. FOR METRO-NORTH RAILROAD AND/OR AMTRAK REQUIREMENTS FOR WORK ON/OR ADJACENT TO THE RAILROAD RIGHT-OF-WAY AND PROPERTY, INCLUDING DESIGN LOADINGS AND WORK PLATFORMS/PROTECTIVE SHIELDING, ETC., SEE SPECIAL PROVISIONS.

4. TRACK AND/OR POWER OUTAGES ARE REQUIRED FOR THE CONTRACTOR'S WORK ON AND ADJACENT TO THE RAILROAD RIGHT-OF-WAY AND PROPERTY. METRO-NORTH RAILROAD AND AMTRAK, AS APPLICABLE WILL DETERMINE THE WORK WHICH REQUIRES TRACK AND/OR POWER OUTAGES. IT IS THE CONTRACTOR'S RESPONSIBILTY TO COORDINATE THE OUTAGES REQUIRED BY HIS ERECTION AND CONSTRUCTION OPERATIONS AND ASSOCIATED WORK WITH METRO-NORTH RAILROAD AND AMTRAK. COORDINATION WITH AMTRAK IS REQUIRED FOR WORK IN AND ADJACENT TO PARCEL "G" AND PARCEL "B3" (SEE SPECIAL PROVISIONS.)

5. THERE ARE CATENARY WIRES, POWER AND SIGNAL FEEDER WIRES, YARD POWER AND COMMUNICATION WIRES, ETC., AND NUMEROUS ADDITIONAL UTILITIES, BOTH OVERHEAD AND UNDERGROUND, THROUGHOUT THE NEW HAVEN INTERLOCKING AND RAILROAD YARD.

   CLEARANCES TO THESE FACILITIES AS SPECIFIED BY THE METRO-NORTH RAILROAD SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE RAILROAD.

   IT IS ANTICIPATED THAT SOME OF THE CONTRACTOR'S OPERATIONS WILL REQUIRE DE-ENERGIZING WIRES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE POWER OUTAGES WITH METRO-NORTH RAILROAD. (SEE SPECIAL PROVISIONS).

   WHERE PERMANENT OR TEMPORARY UNDERGROUND CONSTRUCTION IS REQUIRED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY, TO UNCOVER ALL UNDERGROUND FACILITIES, EITHER KNOWN OR UNKNOWN, THAT MAY EXIST WITHIN THE AREA OF THE CONSTRUCTION.

   IF THE CONSTRUCTION CONFLICTS WITH EXISTING FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

6. IN ADDITION TO COORDINATION WITHIN THE RAIL YARD, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS OPERATIONS, INCLUDING LOCAL ROAD LANE CLOSURES AND/OR DETOURS, WITH THE DEPARTMENT, THE CITY OF NEW HAVEN, AND ALL APPLICABLE UTILITIES AND AGENCIES.

7. THE ACTUAL TIMING OF THE ERECTION SEQUENCING SHALL BE DETERMINED BY THE CONTRACTOR AND SHALL TAKE INTO ACCOUNT THE ALLOWABLE METRO-NORTH RAILROAD AND AMTRAK TRACK AND POWER OUTAGE PERIODS AS REQUIRED.

8. THE ERECTION PROCEDURE SHALL MINIMIZE THE TIME PERIODS THAT THE STRUCTURE IS SUPPORTED ON THE TEMPORARY FALSEWORK BENTS, TRANSFER BEAMS, WELDED GIRDERS, BRACKETS AND ANY OTHER TEMPORARY CONSTRUCTION THE CONTRACTOR PROPOSES.

9. THE LIFTING AND MOVING THE PROPOSED STRUCTURAL STEEL TRUSS (SEGMENT2) INTO ITS FINAL POSITION SHALL BE ACCOMPLISHED BY USE OF A SINGLE HIGH CAPACITY CRANE, AS DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE METHODS USED SHALL BE COMPLETELY DESIGNED AND DETAILED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR HIS REVIEW. SEE "NOTE WELL" THIS SHEET. FOR DETAILS SEE ELSEWHERE ON THESE PLANS AND IN THE SPECIAL PROVISIONS.

10. THE CRAWLER-TYPE CRANE, IF USED, SHALL BE A MODEL "LTL - 3000" TRANSI-LIFT BY NEIL F. LAMPSON, INC. OR APPROVED EQUAL.

    THE RING-TYPE CRANE, IF USED, SHALL BE A MODEL "MSG-50" HEAVY LIFTING DEVICE AS MANUFACTURED BY DAVENPORT MAMMOET L.L.C., OR APPROVED EQUAL.

    THE ACTUAL CRANE TYPE USED SHALL BE DETERMINED BY THE CONTRACTOR, AND SUBMITTED TO THE ENGINEER FOR REVIEW.

    THE TRUSS SHALL BE LIFTED AND MOVED INTO ITS FINAL POSITION AFTER THE COMPLETE ASSEMBLY OF THE TRUSS INCLUDING, BUT NOT LIMITED TO THE INSTALLATION OF THE FOLLOWING COMPONENTS OF SEGMENT 2: THE FULLY ASSEMBLED STRUCTURAL STEEL TRUSS, (FLOOR BEAMS, BOTTOM CHORDS, TOP CHORDS, VERTICALS, DIAGONALS, GUSSET PLATES, BRACING MEMBERS, STRINGERS AND BEARINGS, FULLY BOLTED FIELD SPLICES AND CONNECTIONS, ETC.), INSPECTION PLATFORMS, UTILITY PIPES, CONDUITS AND SUPPORTS, BRIDGE DRAINAGE PIPING, ELECTRICAL CONDUITS, REMAIN-IN-PLACE CONCRETE DECK FORMS, FASCIA FORMING BRACKETS, AND TEMPORARY PROTECTIVE SHIELDING.

    THE FOLLOWING WEIGHT ALLOWANCES HAVE BEEN MADE FOR THE CRANE PICK:

TRUSS STRUCTURAL STEEL:	1554 KIPS
FIBERGLASS INSPECTION PLATFORMS:	26 KIPS
FASCIA FORMING BRACKETS AND TEMPORARY PROTECTIVE SHIELDING:	100 KIPS
TOTAL CRANE PICK:	1680 KIPS

    AN ALLOWANCE OF 100 KIPS HAS BEEN MADE FOR THE FASCIA FORMING BRACKETS AND THE PROTECTIVE SHIELDING. DEPENDING ON THE ACTUAL DESIGN OF THE PROTECTIVE SHIELDING BY THE CONTRACTOR, IT MAY BE NECESSARY TO INSTALL ONLY A PORTION OF THE SHIELDING TO MEET THIS ALLOWANCE. AREAS OVER MAINLINE ELECTRIFIED TRACKS SHALL BE GIVEN PRIORITY WHEN DETERMINING WHICH AREAS WILL BE INSTALLED PRIOR TO LIFTING AND MOVING THE TRUSS.

11. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER WORKING DRAWINGS AND COMPUTATIONS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT FULLY DEPICTING HIS PROPOSED ERECTION METHODS. THE COMPUTATIONS SHALL INSURE THAT FORCES INDUCED BY THE ERECTION METHODS PROPOSED BY THE CONTRACTOR, ESPECIALLY THE LIFTING AND MOVING OF THE TRUSS BY THE SINGLE CRANE INTO ITS FINAL POSITION AND OTHER ERECTION OPERATIONS DO NOT AFFECT THE COMPLETED STRUCTURE'S ABILITY TO PERFORM AS INTENDED.THE WORKING DRAWINGS AND COMPUTATIONS SHALL INCLUDE A COMPLETE ANALYSES OF THE TRUSS DURING ALL APPLICABLE PHASES OF THE ERECTION OPERATIONS. THE ERECTION METHOD PROPOSED SHALL NOT REQUIRE WELDED ATTACHMENTS TO, OR ADDITIONAL HOLES MADE IN, THE PROPOSED TRUSS, PLATE GIRDERS OR DIAPHRAGMS.

12. FOR GEOTECHNICAL AND FOUNDATION REQUIREMENTS RELATED TO THE HIGH CAPACITY CRANE SEE ELSEWHERE ON THESE PLANS AND IN THE SPECIAL PROVISIONS.

13. NO PAYMENT WILL BE MADE FOR ANY EXTRA MATERIAL REQUIRED DUE TO ERECTION CONDITIONS.

NOTE WELL

THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER, WORKING DRAWINGS AND COMPUTATIONS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT, FULLY DEPICTING THE CONTRACTOR'S PROPOSED ERECTION METHODS, SEQUENCING AND DETAILS. THE DRAWINGS SHALL INCLUDE COMPLETE DETAILS OF THE METHODS, MATERIALS, MEMBER SIZES AND EQUIPMENT THE CONTRACTOR PROPOSES TO USE.

CRANE ASSEMBLY NOTES

1. THE CRANE ASSEMBLY, OPERATION AND DISASSEMBLY SHALL BE RESTRICTED IN THE RAIL YARD TO THE WORK AREA SHOWN ON THE "CRANE LAYOUT AREA" DWG. NO. STR-133.

2. THE NUMBER OF TRUCKS ACCESSING THE WORK AREA AT ANY ONE TIME WILL BE RESTRICTED DUE TO RAILROAD OPERATIONS. THE CONTRACTOR SHALL PROVIDE STORAGE AND STAGING AREAS FOR THE CRANE ASSEMBLY AND DISASSEMBLY OUTSIDE OF THE RAIL YARD. THE CONTRACTOR SHALL TRANSFER INTO THE WORK AREA WITHIN THE YARD THOSE MATERIALS, EQUIPMENT AND CRANE PARTS TO BE USED WITHIN THE PRESENT AND FOLLOWING DAY, OR AS APPROVED BY STATE, METRO-NORTH RAILROAD AND/OR AMTRAK.

CRANE FOUNDATION PRELOAD NOTES

1. AFTER THE CRANE FOUNDATION HAS BEEN PREPARED, THE CONTRACTOR SHALL PRELOAD THE INTENDED CRANE TRAVEL PATH WITH A MINIMUM OF 125% OF THE MAXIMUM CALCULATED LOADING FOR THE LIFTING AND MOVING OF THE PROPOSED TRUSS OF SEGMENT 2. THE PRELOADING SHALL BE DONE TO INDUCE ANY PERMANENT SETTLEMENTS IN THE FOUNDATION BEFORE THE LIFTING AND MOVING OF THE PROPOSED TRUSS OF SEGMENT 2 TAKES PLACE. IF USING A MOVING MASS TO PRELOAD THE PATH, THE CONTRACTOR SHALL MAKE A MINIMUM OF TWO PASSES WITH ELEVATIONS MEASURED BOTH BEFORE AND AFTER EACH PRELOAD. THE ELEVATIONS MEASURED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

2. A REPRESENTATIVE OF THE CRANE COMPANY SHALL BE PRESENT FOR THE PRELOADING AND SHALL REVIEW THE RESULTS AND ELEVATIONS MEASURED.

CRANE UTILITY NOTES

1. BASED ON LIMITED FIELD SURVEY, IT HAS BEEN DETERMINED THAT THERE IS EXISTING UNDERGROUND AND OVERHEAD UTILITIES IN THE VICINITY OF THE HIGH CAPACITY CRANE THAT WILL BE USED TO ERECT THE TRUSS SPAN (SEGMENT 2). THE CRANE SET-UP PROPOSED BY THE CONTRACTOR MAY IMPACT SOME OR ALL OF THESE UTILITIES. THE OWNERS OF THE UTILITIES, AND/OR THE ENGINEER, REQUIRE THAT THE UTILITIES BE EITHER TEMPORARILY OR PERMANENTLY RELOCATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE THE IMPACTED UTILITIES TO THE SATISFACTION OF THE OWNER OF THE FACILITY. IN ADDITION, IF THE CONTRACTOR DETERMINES THAT UTILITIES MUST BE RELOCATED DUE TO HIS OPERATIONS THEY SHALL BE RELOCATED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.

2. THE CONTRACTOR SHALL COMPLETELY COORDINATE HIS OPERATIONS WITH THE AFFECTED UTILITY COMPANIES AND AGENCIES, INCLUDING THE STATE OF CONNECTICUT, METRO-NORTH RAILROAD, AMTRAK AND THE CITY OF NEW HAVEN, AS REQUIRED. SEE THE SPECIAL PROVISIONS, "NOTICE TO CONTRACTOR - PROTECTION OF EXISTING UTILITIES" AND SECTION 1.07.13 - "CONTRACTOR'S RESPONSIBILITY FOR ADJACENT PROPERTY AND SERVICES".

3. THERE WILL BE NO SEPARATE PAYMENT FOR THE UTILITY RELOCATIONS. THE COST OF THE UTILITY RELOCATIONS WILL BE INLUDED UNDER THE ITEM "CRANES".

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

DESIGNER: T. YOUNG
DRAFTER: G. LEE
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Nicotti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S184.DGN
PLOTTED DATE: 6-06-00

TOWN: NEW HAVEN
DRAWING TITLE: ERECTION SEQUENCE GENERAL NOTES

PROJECT NO.: 92-526
DRAWING NO.: STR-122
SHEET NO.: 256

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NOTES:

1. THE WORK AREAS WITHIN THE RAIL YARD SHOWN ARE THE HORIZONTAL LIMITS TO WHICH THE CONTRACTOR MUST CONFINE HIS OPERATIONS. THESE WORK AREAS HAVE BEEN PREVIOUSLY COORDINATED AND APPROVED BY THE DEPARTMENT, METRO-NORTH RAILROAD AND AMTRAK.
2. THE CONTRACTORS ACTIVITIES WITHIN THE WORK AREAS SHALL BE COORDINATED WITH THE DEPARTMENT, METRO-NORTH RAILROAD AND/OR AMTRAK.
3. THE CONTRACTOR SHALL NOTE THAT THERE ARE OTHER CONSTRUCTION PROJECTS ONGOING WITHIN THE RAIL YARD WHICH MAY RESTRICT THE CONTRACTORS USE OF THE WORK AREAS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THESE PROJECTS. SEE THE "GENERAL NOTES" ON DWG. STR-4.
4. USE OF THE PORTIONS OF THE WORK AREAS THAT ARE ON OR ADJACENT TO RAILROAD TRACKS MUST BE COMPLETED DURING OUTAGES COORDINATED WITH METRO-NORTH RAILROAD AND/OR AMTRAK.
5. ACCESS TO/FROM THE WORK AREAS SHALL BE COORDINATED WITH THE DEPARTMENT, METRO-NORTH RAILROAD AND/OR AMTRAK.
6. THE STORAGE OF MATERIALS AND EQUIPMENT WITHIN THE WORK AREAS SHAL BE LIMITED TO THE AREAS WHERE THERE IS ACTIVE CONSTRUCTION OPERATIONS THAT HAVE BEEN PREVIOUSLY COORDINATED AND APPROVED BY THE DEPARTMENT, METRO-NORTH RAILROAD AND/OR AMTRAK.
7. THE CONTRACTORS ATTENTION IS DIRECTED TO THE FACT THAT STORAGE AREAS WITHIN THE RAIL YARD ARE NOT AVAILABLE FOR HIS USE. IT IS REQUIRED THAT THE CONTRACTOR MAKE ARRANGEMENTS TO HAVE AVAILABLE FOR HIS USE SUFFICIENT STORAGE AND STAGING AREAS OUTSIDE OF THE LIMITS OF THE NEW HAVEN RAIL YARD.
8. ACCESS TO THE YARD MASTERS BUILDING SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE WITH METRO-NORTH RAILROAD TO DETERMINE THE ACCESS ROUTE(S) TO BE USED BY METRO-NORTH RAILROAD PERSONNEL. THE ACCESS ROUTE(S) SHALL BE PROTECTED BY THE CONTRACTOR, WHO SHALL BE RESPONSIBLE FOR MOUNTING ADEQUATE SIGNAGE, FENCES, RAMPS, WALKWAYS, ETC. AS APPROVED BY THE ENGINEER & METRO-NORTH RAILROAD.
9. THE USE OF THE WORK AREA TO THE NORTH OF THE OIL STORAGE FACILITY AND THE FORMER POWER PLANT IS TO BE LIMITED TO THE ASSEMBLY, OPERATION AND DISASSEMBLY OF THE "HIGH CAPACITY CRANE".
10. THE CONTRACTOR SHALL COORDINATE THE USE OF THE "TRAIN STATION PARKING LOT" FOR ACCESS INTO & OUT OF THE WORK AREAS WITHIN PARCEL "G".
11. THE WORK AREAS DESIGNATED FOR THE CONSTRUCTION OF ABUTMENT 1 & WINGWALLS AND PIER 1 SHALL NOT BE USED BY THE CONTRACTOR CONCURRENTLY.
12. THE DETAILS OF THE REMOVAL AND/OR RELOCATIONS OF EXISTING UTILITIES AND OTHER FACILITIES WITHIN THE WORK AREAS, ARE SHOWN ELSEWHERE ON THESE PLANS, INCLUDING THE "ELECTRICAL PLANS" AND "UTILITY PLANS" AND IN THE SPECIAL PROVISIONS.
13. FOR SPECIFIC RELOCATIONS AT EACH SUBSTRUCTURE UNIT, SEE DWG. NOS. STR-16 TO STR-44, THE "DRAINAGE AND UTILITY PLANS", THE "ELECTRICAL PLANS" AND THE "UTILITY PLANS".

TRAIN STATION PARKING LOT (SEE NOTE 10)
RENTAL CAR LOT
"TOWER 75" BUILDING TO REMAIN
EXIST. CATENARY POLE #68 AND GUY TO BE REMOVED BY CONNDOT
YARD MASTERS BUILDING TO REMAIN. SEE NOTES ON "CRANE LAYOUT AREA" DWG. NO. 1335
PORTION OF WORK AREA FOR THE HIGH CAPACITY CRANE ONLY. SEE NOTE 9.
N/F STATE OF CONNECTICUT
LIMITS OF PARCEL "B3"
N/F AMTRAK
LIMITS OF PARCEL "C"
℄ TRACK
APPROXIMATE LOCATION OF FORMER ROUNDHOUSE. FOR DETAILS, SEE THE "GENERAL NOTES" ON DWG. STR-4 AND THE SPECIAL PROVISIONS.
EXIST. FACILITIES TO BE REMOVED (RDWY. ITEM)
10' LIMITS OF REMOVAL OF TRACK 15 AND CROSSOVER TRACK
10' OFF ℄ PROPOSED TRACK (BY AMTRAK)
WORK AREA TO BE USED FOR PIER 1 CONSTRUCTION. SEE NOTE 11.
WORK AREA TO BE USED FOR ABUTMENT AND WINGWALL CONSTRUCTION. SEE NOTE 11.
EXIST. BUILDING TO BE REMOVED (BY METRO-NORTH RAILROAD)
NOTE - ALL OVERHEAD WIRES NOT SHOWN.
N/F STATE OF CONNECTICUT
EXIST. FEEDER WIRE AND TP STRUCTURES NO. 3 AND 4 (TO BE REMOVED UNDER STATE PROJECT NO. 301-0039)
PROPERTY LINE
TAKING LINE (SEE STATE PROJECT NO. 301-0039)
STREET LINE
PROP. YARD ROAD (SHOWN). TEMP. YARD ROAD (SIMILAR). SEE RDWY. PLANS FOR DETAILS.
WASTE STOCKPILE AREA
UI AND SNET EASEMENT
N/F RUDOLPH A PETRILLO

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE IN FEET
0 40 80
SCALE 1"=40'

DESIGNER: T. YOUNG
DRAFTER: A. KILPATRICK
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 7-28-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S186.DGN
PLOTTED DATE: 7-27-00

TOWN: NEW HAVEN
DRAWING TITLE: WORK AREA LAYOUT PLAN

PROJECT NO.: 92-526
DRAWING NO.: STR-123
SHEET NO.: 257

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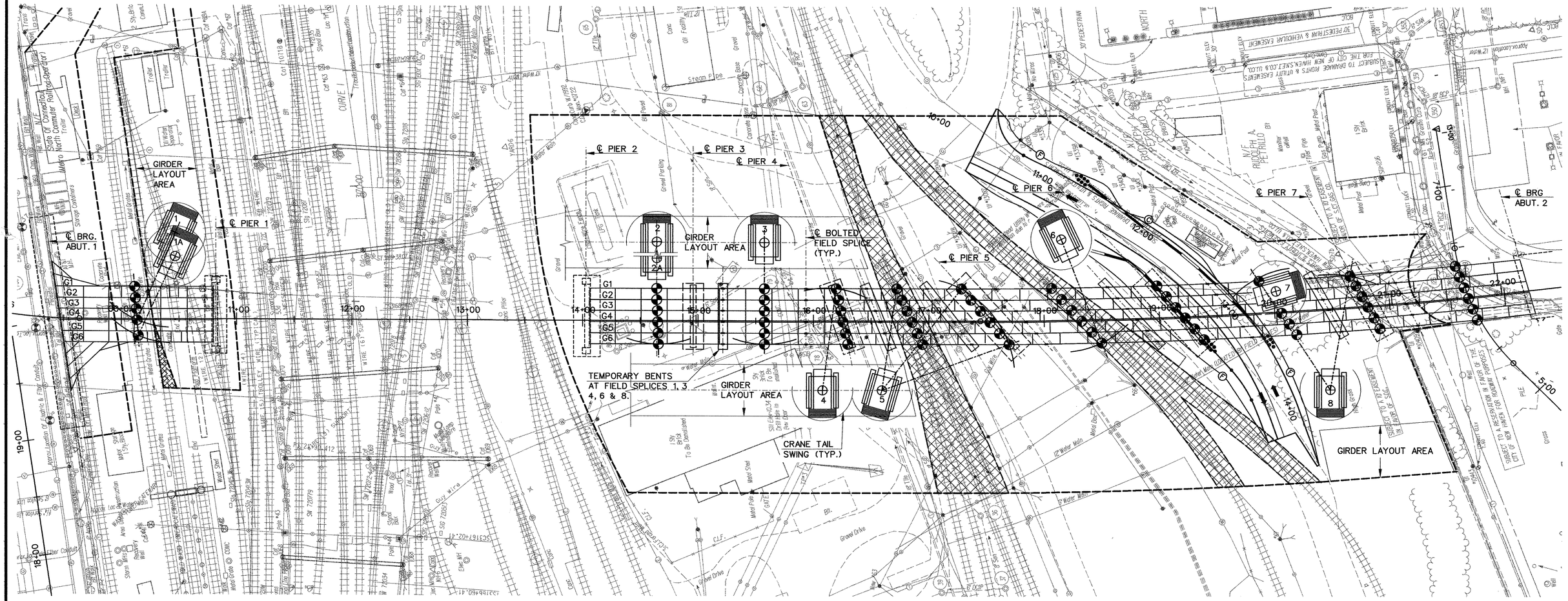

● - DENOTES CENTER OF GRAVITY OF FIELD SECTION

CONTROLLING CRANE PICKS

BRIDGE SEGMENT	SEGMENT 1		SEGMENT 3																	
CRANE LOCATION	1/1A		2/2A		3		4		5				6		7		8			
GIRDER SEGMENT			①		②		③		④		⑤		⑥		⑦		⑧		⑨	
PICK	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS
G1	39	55'	62	55'	36	55'	27	100'	27	105'	30	120'	49	95'	43	100'	45	100'	35	90'
G2	39	60'	62	65'	36	65'	29	95'	29	95'	31	120'	49	85'	43	95'	44	95'	35	85'
G3	39	70'	62	75'	36	75'	31	85'	30	85'	31	115'	49	75'	42	85'	43	85'	34	80'
G4	38	75'	62	(60') **	36	85'	33	75'	32	80'	32	115'	49	65'	42	80'	42	75'	34	70'
G5	38 *	(70') *	62	(70') **	36	90'	35	65'	34	70'	32	120'	49	55'	42	75'	40	65'	34	65'
G6	37 *	(70') *	63	(80') **	36	100'	37	55'	36	65'	33	120'	48	45'	41	75'	39	50'	34	60'

NOTES:

* G5 & G6 SET TOGETHER FROM LOCATION 1A.

** FROM LOCATION 2A.

NOTES:

1. FOR ADDITIONAL NOTES, SEE DWG. NO. STR-127.
2. RADII SHOWN IN PARENTHESIS INDICATE THE CRANE WILL INITIALLY BE LOCATED CLOSER TO THE BASELINE FOR A REDUCED PICK RADIUS.
3. SEGMENT 1 FIELD SPLICES SHALL BE COMPLETED PRIOR TO GIRDER PICKS.
4. PICKS FOR GIRDERS 7 - 13 ON SEGMENT 1 NOT SHOWN AND ARE NOT THE CONTROLLING. PICKS FOR SEGMENT 1.
5. CRANE LOCATION 6 WILL PICK GIRDERS DIRECTLY OFF DIVERY TRUCK LOCATED IN A PORTION OF YARD ROAD TEMPORARILY CLOSED TO TRAFFIC.
6. CRANE PICKS FOR FIELD SECTION ADJACENT TO ABUTMENT 2 NOT SHOWN. CRANE ASSUMED TO BE LOCATED OUTSIDE RAIL YARD.
7. FOR "SUGGESTED ERECTION SEQUENCE - SEGMENT 3 "SEE DWG. NOS. STR-125 AND STR-126.

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REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE IN FEET
0 40 80
SCALE 1" = 40'

DESIGNER: T. YOUNG
DRAFTER: T. YOUNG
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Monetti DATE: 4.7.00

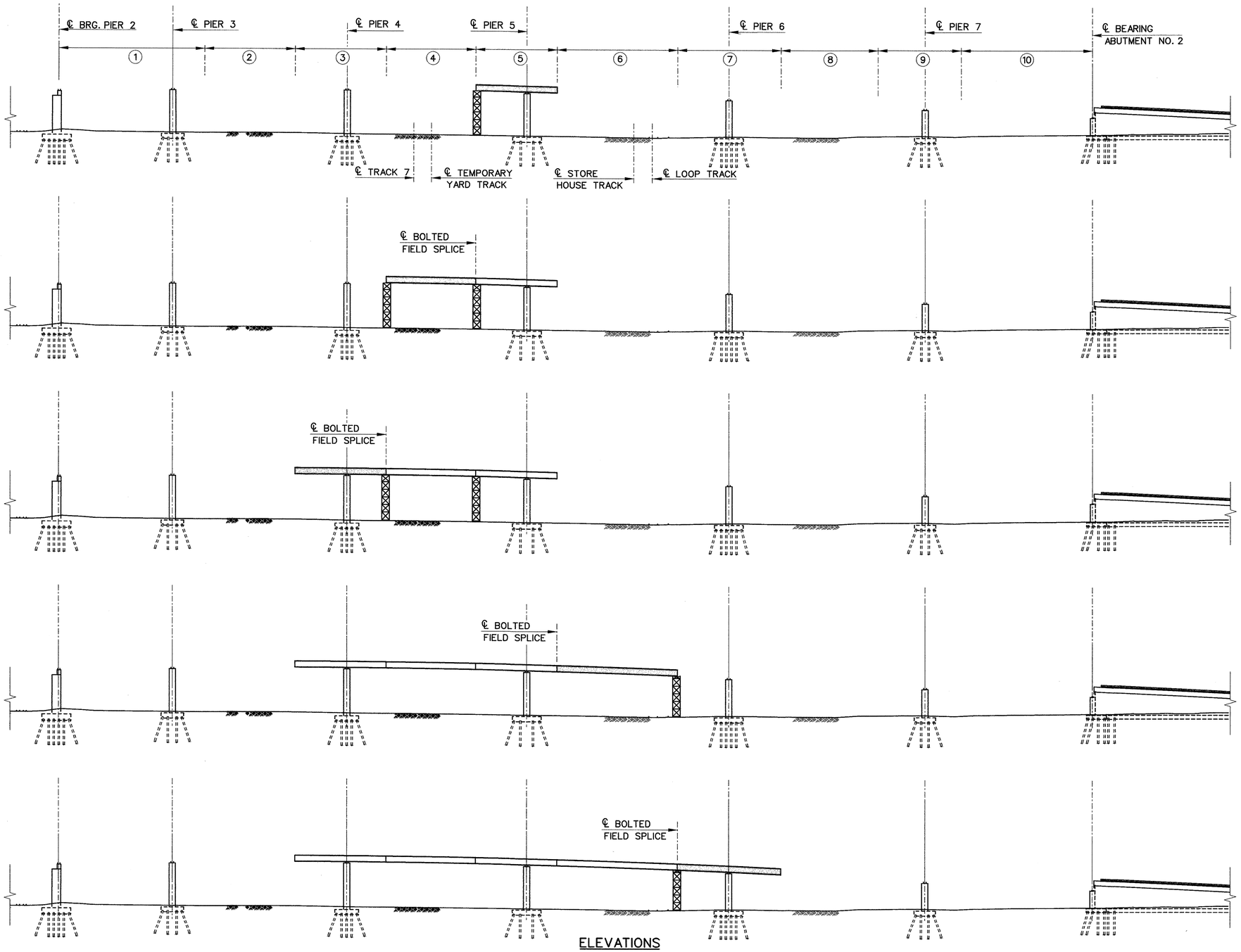
PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION
OVER NEW HAVEN INTERLOCKING
AND RAIL YARD

CADD FILE: R703S191.DGN
PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN

DRAWING TITLE:
SUGGESTED ERECTION PLAN
SEGMENTS 1 AND 3

PROJECT NO.: 92-526
DRAWING NO.: STR-124
SHEET NO.: 258



ELEVATIONS

SUGGESTED WELDED GIRDER ERECTION SEQUENCE

NOT TO SCALE

SUGGESTED ERECTION SEQUENCE

STAGE 1

PLACE TEMPORARY FALSEWORK BENTS AS SHOWN.
ERECT GIRDER SEGMENT 5 ON PIER 5 & TEMPORARY BENTS.
PROVIDE TEMPORARY LONGITUDINAL RESTRAINTS AS REQUIRED.

PLACE TEMPORARY FALSEWORK BENTS AS SHOWN.

ERECT GIRDER SEGMENT 4 ON TEMPORARY BENTS OVER TRACK 7 AND THE TEMPORARY YARD TRACK.

COMPLETE FIELD SPLICE TO SEGEMENT 5.

ERECT GIRDER SEGMENT 3 ON PIER 4 AND TEMPORARY BENTS. COMPLETE FIELD SPLICE TO SEGMENT 4.

REMOVE TEMPORARY FALSEWORK BENTS.

STAGE 2

PLACE TEMPORARY FALSEWORK BENTS AS SHOWN.

ERECT GIRDER SEGMENT 6 ON TEMPORARY BENT AND HOLD WITH CRANE OVER STORE HOUSE TRACK AND LOOP TRACK.

COMPLETE FIELD SPLICE TO SEGMENTS 5 AND RELEASE CRANE.

ERECT GIRDER SEGMENT 7 ON PIER 6 AND TEMPORARY BENTS.
COMPLETE FIELD SPLICE TO SEGMENT 6.

REMOVE TEMPORARY FALSEWORK BENTS.

NOTES:

1. FOR ERECTION NOTES, SEE DWG. NO. STR-124.
2. FOR WELDED GIRDERS (SEGMENT 3) SEE DWG. NOS. STR-47 TO STR-63.
3. FOR "WORK AREA LAYOUT PLAN" WITHIN THE NEW HAVEN RAIL YARD, SEE DWG. NO. STR-125.
4. FOR SUGGESTED CRANE LAYOUT, SEE DWG. NO. STR-126.
5. ALL GIRDERS, CROSS FRAMES AND DIAPHRAGMS SHALL BE COMPLETELY ERECTED AND BOLTED IN EACH STAGE PRIOR TO ADVANCING TO THE NEXT STAGE.
6. (X) - INDICATES GIRDER FIELD SEGMENT
7. TEMPORARY BRACING/GUYING FOR GIRDERS AND TEMPORARY SUPPORTS AS MAY BE REQUIRED IS NOT SHOWN.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

NOT TO SCALE

DESIGNER: T. YOUNG
DRAFTER: G. LEE
CHECKED BY: J. D' AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S187.DGN
PLOTTED DATE: 4-05-00

TOWN: NEW HAVEN
DRAWING TITLE: SUGGESTED ERECTION SEQUENCE - SEGMENT 3 - SHEET 1 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-125
SHEET NO.: 259

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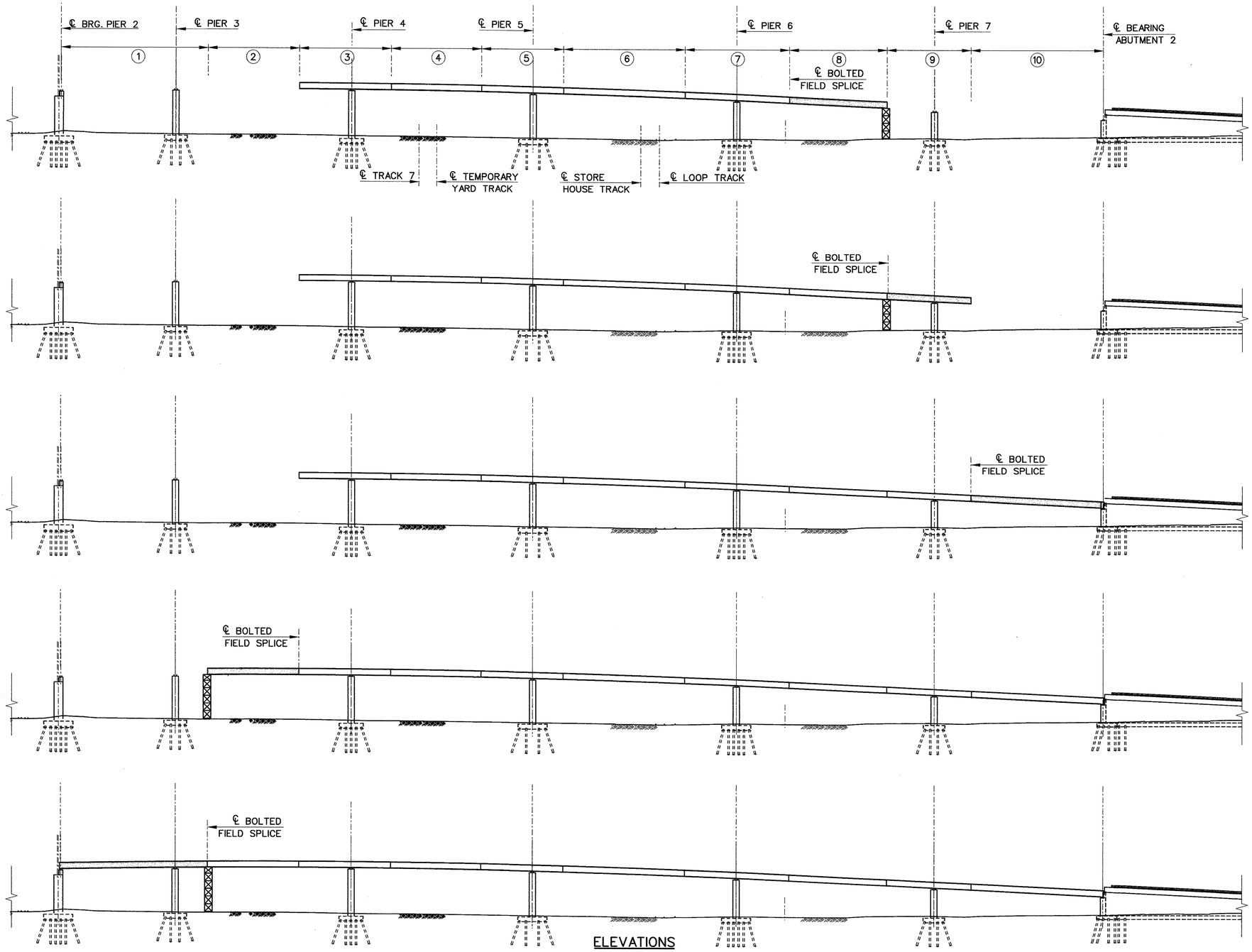

ELEVATIONS

SUGGESTED WELDED GIRDER ERECTION SEQUENCE

NOT TO SCALE

SUGGESTED ERECTION SEQUENCE

STAGE 3

PLACE TEMPORARY FALSEWORK BENTS.
ERECT GIRDER SEGMENT 8 ON TEMPORARY BENT AND HOLD WITH CRANE.
COMPLETE FIELD SPLICE TO SEGMENT 7 AND RELEASE CRANE.

ERECT GIRDER SEGMENT 9 ON PIER 7 AND TEMPORARY BENT.
COMPLETE FIELD SPLICE TO SEGMENT 8.
REMOVE TEMPORARY FALSEWORK BENTS.

ERECT GIRDER SEGMENT 10 ON ABUTMENT 2 AND HOLD WITH CRANE.
COMPLETE FIELD SPLICE TO SEGMENT 9 AND RELEASE CRANE.

STAGE 4

PLACE TEMPORARY FALSEWORK BENTS AS SHOWN.
ERECT GIRDER SEGMENT 2 ON TEMPORARY BENTS AND HOLD WITH CRANE.
COMPLETE FIELD SPLICE TO SEGMENT 3 AND RELEASE CRANE.

ERECT GIRDER SEGMENT 1 ON PIERS 2 AND 3.
COMPLETE FIELD SPLICE TO SEGMENT 2.
REMOVE TEMPORARY FALSEWORK BENTS.

NOTE
FOR NOTES SEE DWG. NO. STR-127.

REV.	DATE	DESCRIPTION	SHEET. NO.
		REVISIONS	

NOT TO SCALE

DESIGNER: T. YOUNG
DRAFTER: G. LEE
CHECKED BY: J. D' AGOSTINO
DATE CHECKED: 3-7-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 3/8/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S188.DGN
PLOTTED DATE: 3-08-00

TOWN: NEW HAVEN
DRAWING TITLE: SUGGESTED ERECTION SEQUENCE - SEGMENT 3 - SHEET 2 OF 2

PROJECT NO.: 92-526
DRAWING NO.: STR-126
SHEET NO.: 260

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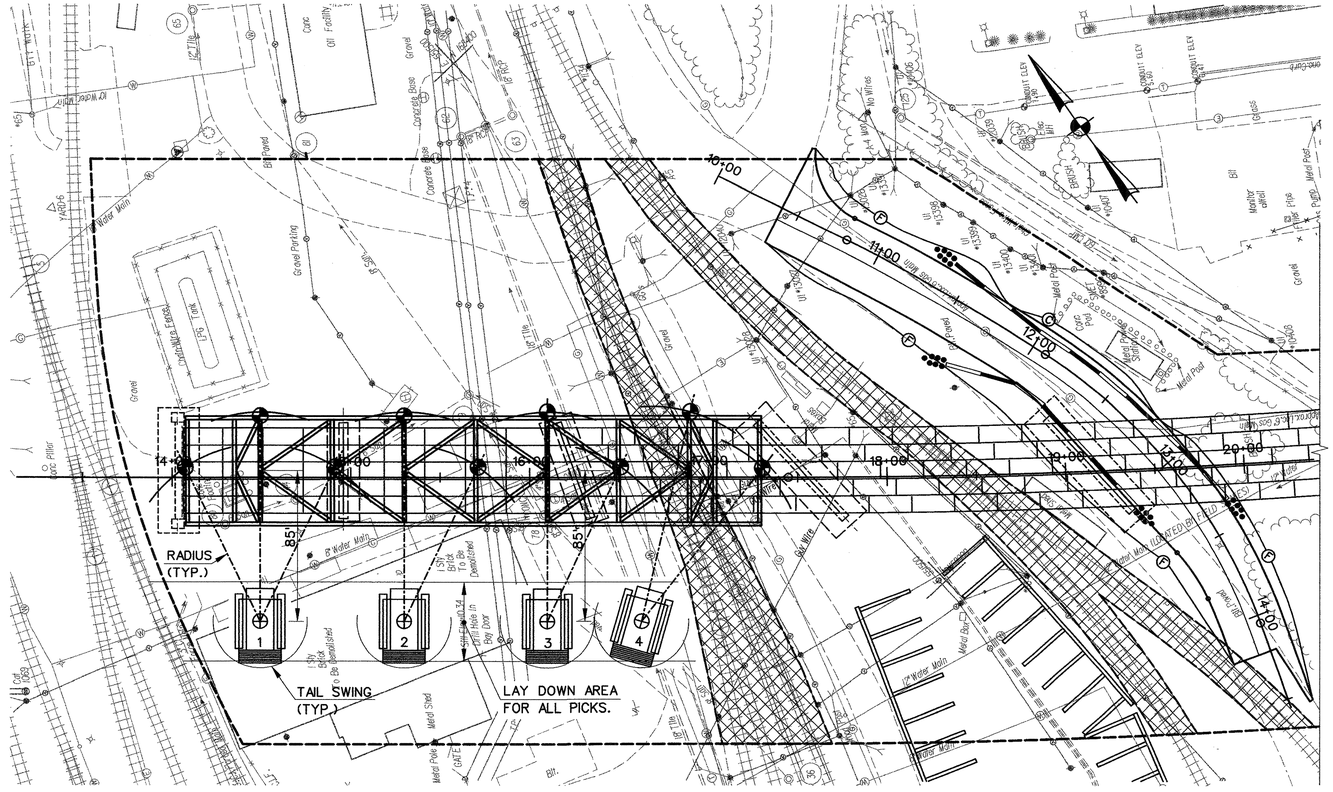
NOTES:

1. FOR "ERECTION SEQUENCE-GENERAL NOTES" SEE DWG. NO. STR-122.
2. FOR ADDITIONAL DETAILS OF THE "SUGGESTED ERECTION SEQUENCE-TRUSS ASSEMBLY" SEE DWG. NOS. STR-128 & 129.
3. FOR TRANSFER BEAM AND HOLD-DOWN DEVICE DETAILS SEE DWG. NO. STR-130.
4. FOR WORK AREAS WITHIN THE RAILYARD , SEE DWG. NO. STR-123.
5. LOCATIONS OF CRANES ARE SHOWN FOR GENERAL LAYOUT ONLY. THE ACTUAL POSITION OF THE CRANES DURING EACH ERECTION OPERATION IS TO BE DETERMINED BY THE CONTRACTOR.
6. THE USE OF ADDITIONAL CRANES AND TEMPORARY BRACING/GUYING AS MAY BE REQUIRED SHALL BE DETERMINED BY THE CONTRACTOR.

◔ - DENOTES CENTER OF GRAVITY OF FIELD SECTION.

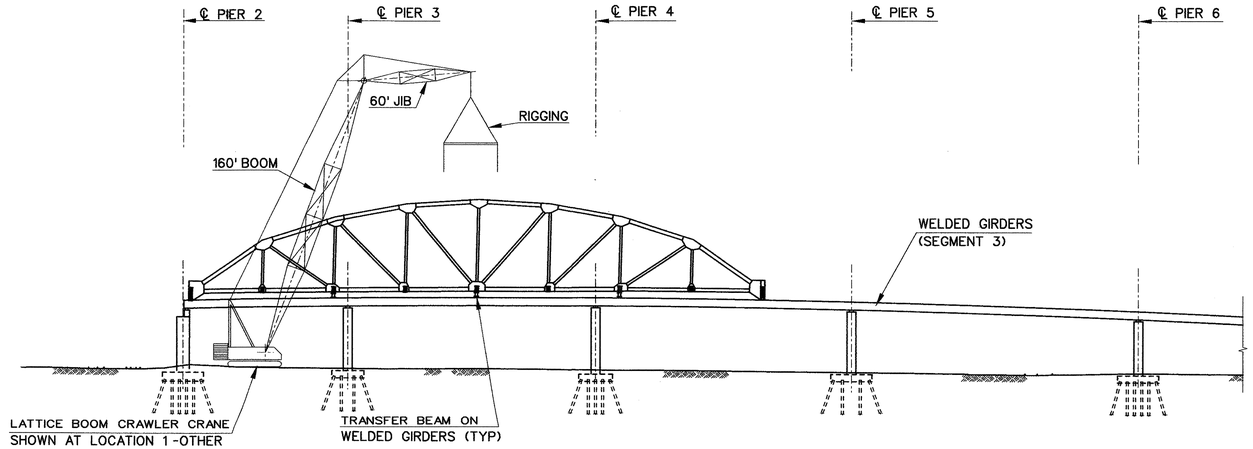


PLAN

CONTROLLING CRANE PICKS								
CONTROLLING MEMBERS	CRANE LOCATIONS							
	1		2		3		4	
	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS	WEIGHT	RADIUS
TRANSFER BEAM	46 K	95'	46 K	95'	46 K	95'	-----	-----
END FLOOR BEAM	54 K (1A)	85'	-----	-----	-----	-----	54 K (4A)	85'
INTERIOR FLOOR BEAM	40 K	100'	40 K	100'	40 K	100'	40 K	95'
LOWER CHORD	18 K	120'	18 K	120'	18 K	120'	18 K	125'
TOP CHORD	15 K	120'	13 K	120'	13 K	120'	15 K	125'
VERTICALS	6 K	130'	6 K	130'	6 K	130'	6 K	125'
DIAGONALS	8 K	125'	8 K	125'	8 K	125'	8 K	130'
BOTTOM LATERAL BRACING	2 K	95'	2 K	95'	2 K	95'	2 K	105'
PORTAL STRUT	7 K	95'	-----	-----	-----	-----	7 K	110'
TOP STRUT @ U4	-----	-----	8 K	100'	-----	-----	-----	-----
TOP STRUT ALL OTHER	5 K	100'	5 K	100'	5 K	100'	5 K	-----
TOP DIAGONALS	5 K	110'	5 K	110'	5 K	110'	5 K	-----
STRINGERS	10 K	115'	10 K	115'	10 K	115'	10 K	-----

CRANE PICK NOTES:

1. THE WEIGHTS SHOWN IN THE " CONTROLLING CRANE PICKS" TABLE ARE ESTIMATED AND DO NOT INCLUDE RIGGING.
2. THE CONTRACTOR SHALL DETERMINE AND BE RESPONSIBLE FOR THE ACTUAL WEIGHTS OF EACH FIELD PIECE.
3. LOCATIONS 1A AND 4A WILL TEMPORARILY LOCATE THE CRANE CLOSER TO THE BASE LINE FOR A REDUCED RADIUS.



ELEVATION

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE IN FEET
0 40 80
SCALE 1"=40'

DESIGNER: T. YOUNG
DRAFTER: M. OFFENBERG
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S162.DGN
PLOTTED DATE: 4-07-00

TOWN: NEW HAVEN
DRAWING TITLE: SUGGESTED ERECTION SEQUENCE TRUSS ASSEMBLY-SHEET 1 OF 1

PROJECT NO.: 92-526
DRAWING NO.: STR-127
SHEET NO.: 261

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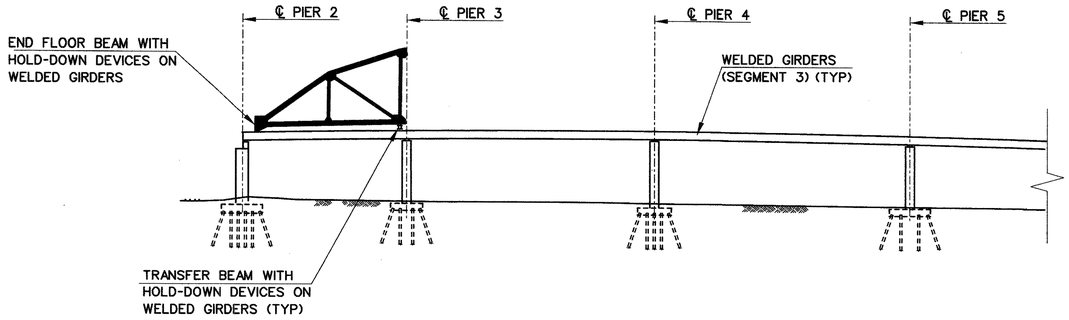
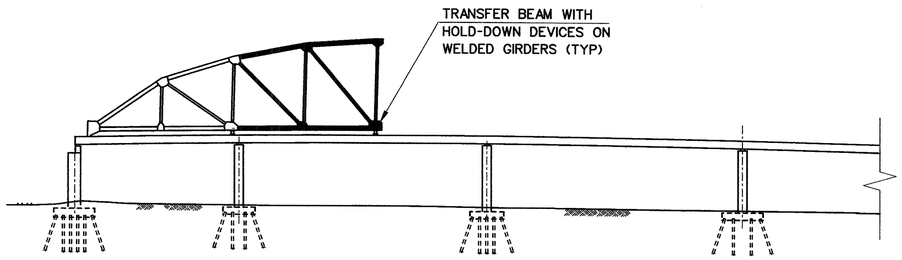
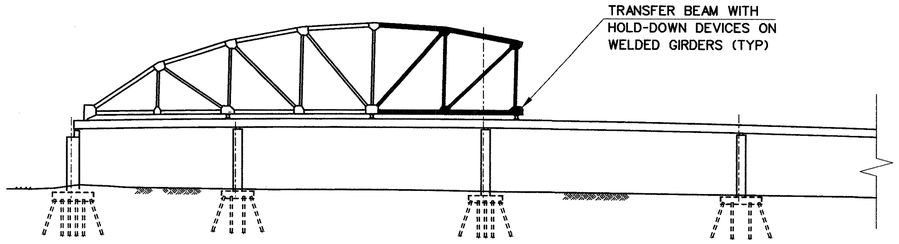
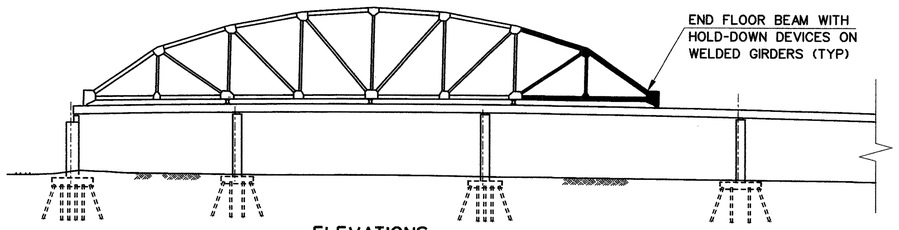








ELEVATIONS

SUGGESTED TRUSS ASSEMBLY SEQUENCE

NOT TO SCALE

NOTE:
HOLD-DOWN DEVICES AND REACTION STIFFENERS ON WELDED GIRDERS NOT SHOWN.

SUGGESTED ERECTION SEQUENCE

STAGE 1

1. PLACE FLOOR BEAM FB0 AT PANEL POINT L0 AND SHIM AS REQUIRED. PLACE AND TIGHTEN HOLD-DOWN DEVICES AT FLOOR BEAM FB0.
2. PLACE TRANSFER BEAM BELOW PANEL POINT L2 AND SHIM AS REQUIRED. PLACE AND TIGHTEN HOLD-DOWN DEVICES AT TRANSFER BEAM.
3. CONSTRUCT THE TRUSS FROM L0 TO L2 INCLUDING: TRUSS LOWER CHORDS, FLOOR BEAMS, CONNECTION BRACKETS, REACTION POSTS, VERTICALS, DIAGONALS, UPPER CHORDS, GUSSET PLATES, BRACING BETWEEN MEMBERS, STRINGERS AND STRINGER DIAPHRAGMS.
4. THE FOLLOWING SHALL NOT BE INSTALLED UNTIL AFTER THE COMPLETION OF STAGE 4: REMAIN-IN-PLACE FORMS, INSPECTION PLATFORMS, TEMPORARY PROTECTIVE BARRIER (RAILROAD). SEE DWG. NO. STR-131 FOR DETAILS.

STAGE 2

1. PLACE TRANSFER BEAM BELOW PANEL POINT L4 AND SHIM AS REQUIRED. PLACE AND TIGHTEN HOLD-DOWN DEVICES AT TRANSFER BEAM.
2. CONSTRUCT THE TRUSS FROM L2 TO L4 INCLUDING: TRUSS LOWER CHORDS, FLOOR BEAMS, CONNECTION BRACKETS, VERTICALS, DIAGONALS, UPPER CHORDS, GUSSET PLATES, BRACING BETWEEN MEMBERS, STRINGERS AND STRINGER DIAPHRAGMS.

STAGE 3

1. PLACE TRANSFER BEAM BELOW PANEL POINT L6 AND SHIM AS REQUIRED. PLACE AND TIGHTEN HOLD-DOWN DEVICES AT TRANSFER BEAM.
2. CONSTRUCT THE TRUSS FROM L4 TO L6 INCLUDING: TRUSS LOWER CHORDS, FLOOR BEAMS, CONNECTION BRACKETS, VERTICALS, DIAGONALS, UPPER CHORDS, GUSSET PLATES, BRACING BETWEEN MEMBERS, STRINGERS AND STRINGER DIAPHRAGMS.

STAGE 4

1. PLACE FLOOR BEAM FB8 AT PANEL POINT L8 AND SHIM AS REQUIRED. PLACE AND TIGHTEN HOLD-DOWN DEVICES AT FLOOR BEAM FB8.
2. CONSTRUCT THE TRUSS FROM L6 TO L8 INCLUDING: TRUSS LOWER CHORDS,FLOOR BEAMS, CONNECTION BRACKETS, REACTION POSTS, VERTICALS, DIAGONALS, UPPER CHORDS, GUSSET PLATES, BRACING BETWEEN MEMBERS, STRINGERS AND STRINGER DIAPHRAGMS.

NOTES:

1. FOR "ERECTION SEQUENCE GENERAL NOTES," SEE DWG. NO. 122.
2. FOR ADDITIONAL DETAILS OF THE "SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY" SEE DWG. NOS. STR. - 127 & 129.
3. FOR TRANSFER BEAM AND HOLD-DOWN DEVICE DETAILS, SEE DWG. NO. STR-130.
4. THE TRUSS MEMBERS SHOWN "SHADED" INDICATE THE PORTIONS OF THE STRUCTURAL STEEL OF SEGMENT 2 (TRUSS MEMBERS, BRACING, FLOOR BEAMS, CONNECTIONS, ETC.) THAT ARE TO BE ASSEMBLED DURING EACH STAGE. THE SEQUENCE SHOWN SHALL BE CONSIDERED ONLY AS A GUIDE. THE CONTRACTOR SHALL DETERMINE AND BE RESPONSIBLE FOR THE ACTUAL SEQUENCE USED FOR THE ASSEMBLY OF THE INDIVIDUAL STRUCTURAL STEEL COMPONENTS.
5. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER, WORKING DRAWINGS AND COMPUTATIONS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT FULLY DEPICTING HIS PROPOSED ERECTION METHODS.
6. THE COMPUTATIONS SHALL INSURE THAT THE FORCES INDUCED BY THE ERECTION METHODS PROPOSED BY THE CONTRACTOR SHALL NOT AFFECT THE ABILITY OF THE COMPLETED STRUCTURE (EITHER TRUSS OR WELDED GIRDERS) TO PERFORM AS INTENDED.
6. TEMPORARY BRACING/GUYING AS MAY BE REQUIRED NOT SHOWN.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

NOT TO SCALE

DESIGNER: T. YOUNG
DRAFTER: M. OFFENBERG
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Montti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S167.DGN PLOTTED DATE: 4-05-00

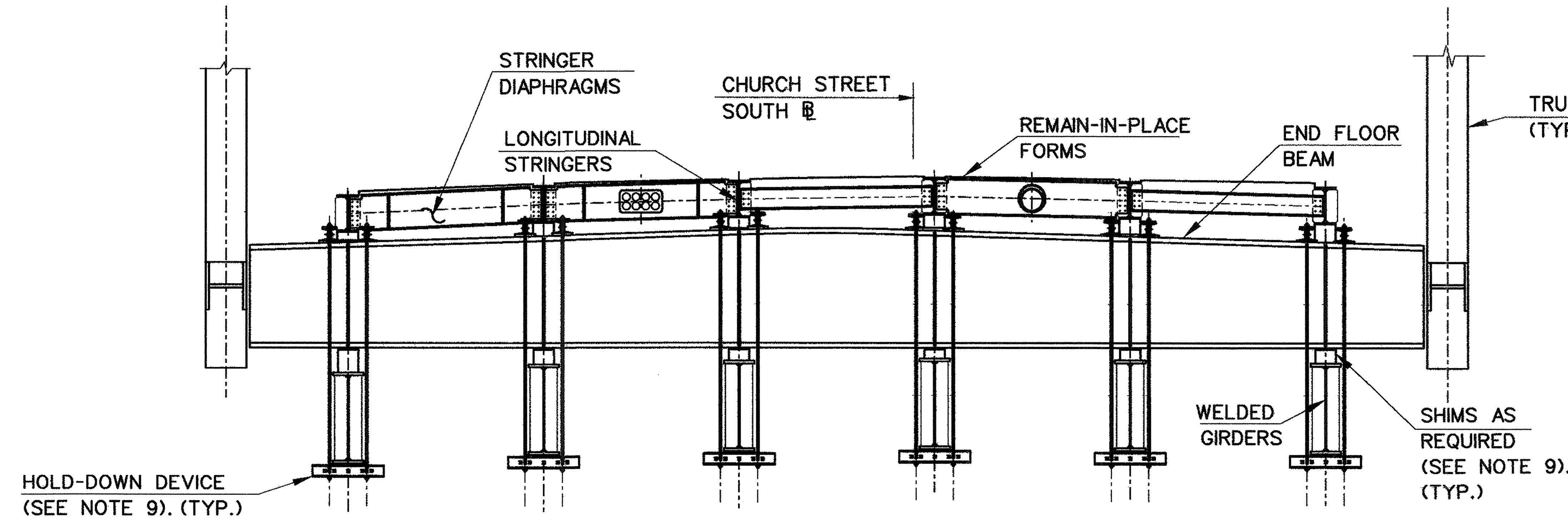
TOWN: NEW HAVEN
DRAWING TITLE: SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY - SHEET 2 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-128
SHEET NO.: 262

$TIME$
$FILE$
$FILE$

NOTES:

1. FOR ADDITIONAL DETAILS OF THE "SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY" SEE DWG. NOS. STR-127 AND STR-128.
2. FOR HOLD-DOWN DEVICES AND DETAILS SEE DWG. NO. STR-130.
3. FOR TRANSFER BEAMS AND DETAILS, SEE DWG. NO. STR-130.
4. FOR TRUSS FLOOR BEAM DETAILS, SEE DWG. NO. STR-76 AND STR-77.
5. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO DETERMINE THE LOCATION, DIMENSIONS AND DESIGN OF THE TRANSFER BEAMS, SHIMS, AND HOLD-DOWN DEVICES.
6. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING, FABRICATING, FURNISHING, INSTALLING, PRETENSIONING AND REMOVING TRANSFER BEAMS, SHIMS AND HOLD-DOWN DEVICES, OR ANY OTHER MATERIALS AND/OR OPERATION, INCLUDING FIELD MEASUREMENTS REQUIRED FOR THE TRUSS ASSEMBLY AS DEPICTED, THE PRICE OF WHICH SHALL BE INCLUDED IN THE ITEM "STRUCTURAL STEEL (SEGMENT 2)". SEE SPECIAL PROVISIONS.
7. THE INSTALLATION OF THE TRANSFER BEAMS, SHIMS AND HOLD-DOWN DEVICES, AND THE ERECTION OF THE PROPOSED TRUSS SHALL NOT BEGIN UNTIL ALL OF THE WELDED GIRDERS, FIELD SPLICES AND DIAPHRAGMS IN SEGMENT 3 ARE IN PLACE AND COMPLETED.
8. FOR STRUCTURAL STEEL NOTES SEE DWG. NO. STR-47. FOR SEGMENT 2 STRUCTURAL STEEL NOTES SEE DWG. NO. STR-65.
9. HOLD-DOWN DEVICES AND SHIMS SHALL BE OMITTED AT LOCATIONS WHERE THE TRANSFER BEAMS ARE LOCATED ABOVE WELDED GIRDER BOLTED FIELD SPLICES. FOR LOCATIONS OF BOLTED FIELD SPLICES SEE DWG. NOS. STR-48 AND STR-49.



AT END FLOOR BEAM

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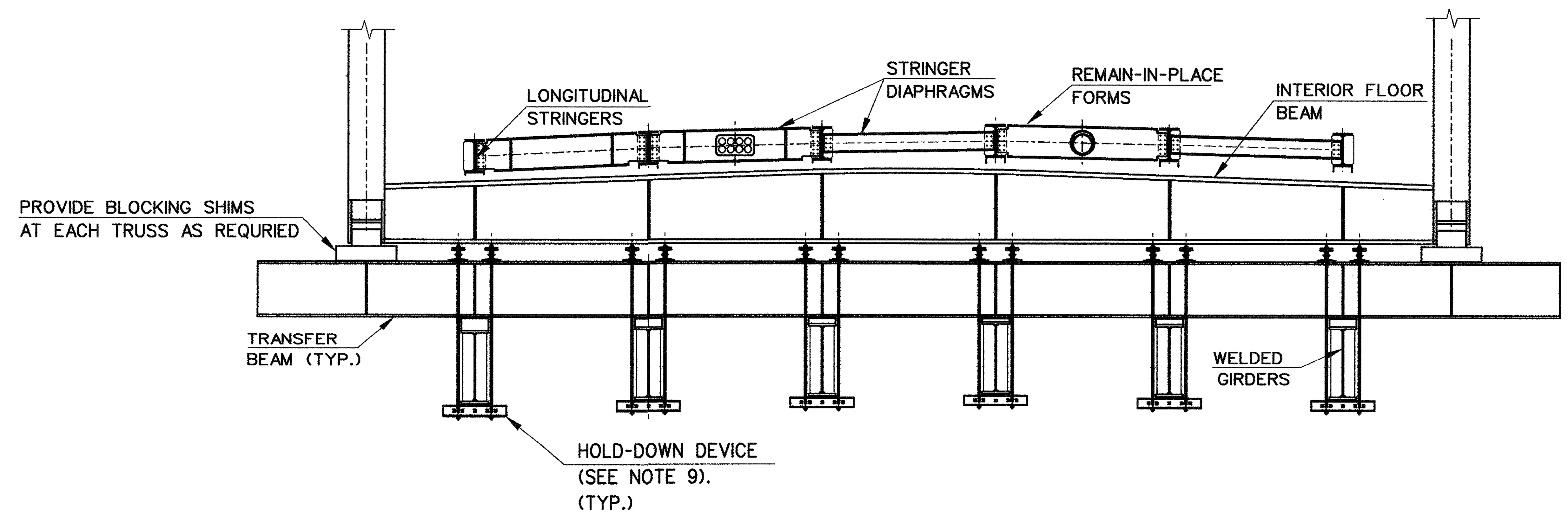

AT INTERIOR FLOOR BEAM

TRUSS SECTIONS

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

NOT TO SCALE

DESIGNER: T. YOUNG
DRAFTER: A. KILPATRICK
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4.7.00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S163.DGN PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN

DRAWING TITLE: SUGGESTED ERECTION SEQUENCE - TRUSS ASSEMBLY - SHEET 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-129
SHEET NO.: 263

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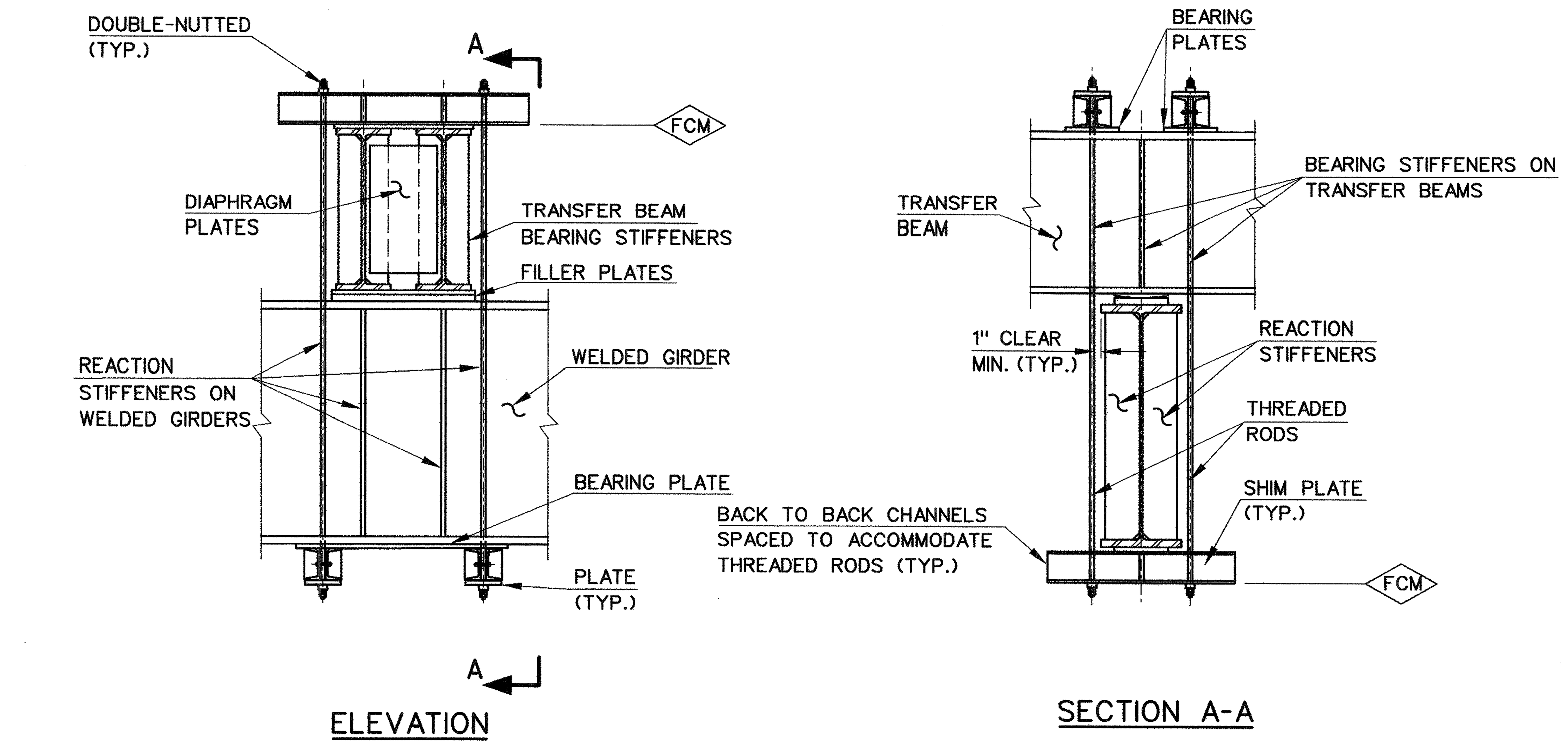
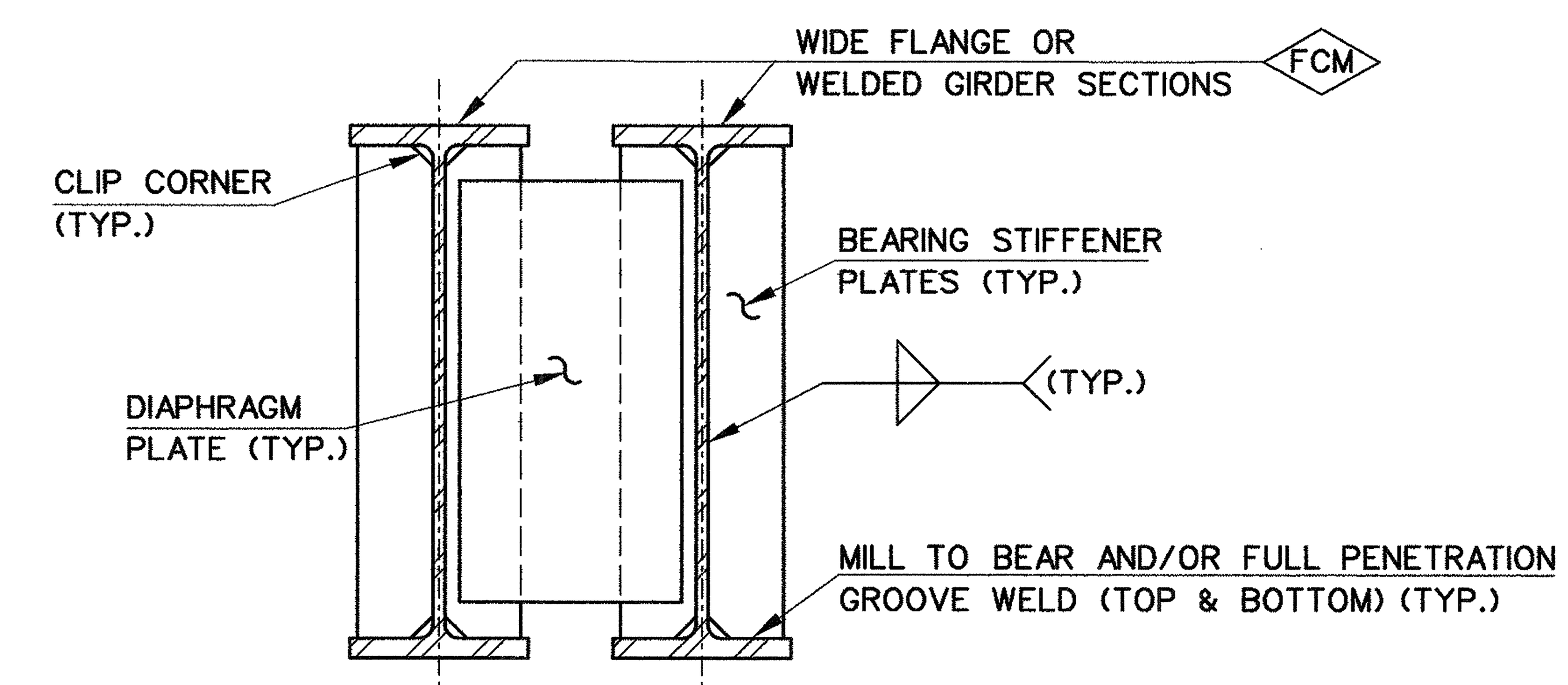


HOLD-DOWN DEVICE DETAILS

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

HOLD-DOWN DEVICE NOTES

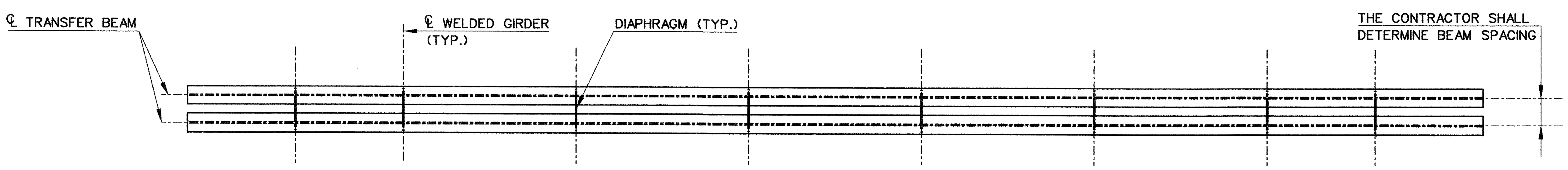
1. THREADED RODS SHALL CONFORM TO ASTM A354 GRADE BD. NUTS SHALL BE HEAVY HEX HEAD ASTM A563 GRADE DH. WASHERS SHALL BE ASTM F436.
2. ALL PRETENSIONED THREADED RODS SHALL HAVE HARDENED WASHERS UNDER THE NUT AND SHALL BE DOUBLE NUTTED.
3. STRUCTURAL STEEL FOR HOLD-DOWN DEVICES SHALL CONFORM TO ASTM A709 GRADE 36 OR GRADE 50.
4. ALL STRUCTURAL STEEL EXCEPT REACTION STIFFENERS, BEARING PLATES AND SPACERS ARE FRACTURE CRITICAL MEMBERS AND ARE DENOTED BY 'FCM'.
5. FRACTURE CRITICAL MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH THE REQUIREMENTS OF THE ANSI / AASHTO / AWS D1.5-95 BRIDGE WELDING CODE.
6. THE CONTRACTOR SHALL DETERMINE THE REQUIRED PRETENSION IN THE THREADED RODS. THE HOLD DOWN DEVICES SHALL BE COMPLETELY PRETENSIONED PRIOR TO ASSEMBLING THE TRUSS ON TRANSFER BEAMS.
7. TO INSURE UNIFORM BEARING DURING THE TENSIONING OPERATION, THE THREADED RODS SHALL BE PRETENSIONED SEQUENTIALLY IN INCREMENTS OF 10 KIPS UNTIL ALL OF THE RODS ARE TENSIONED TO THEIR REQUIRED PRETENSION FORCE.
8. THE RODS SHALL BE TENSIONED BY USE OF HYDRAULIC JACKS. THE APPLIED FORCE SHALL BE MONITORED BY HYDRAULIC GAUGE PRESSURE AND BY MEASURING THE THREADED ROD ELONGATION.
9. PRETENSIONING SHALL ACCOUNT FOR LOSSES DUE TO SEATING OF THE ANCHORAGE, COMPRESSION OF THE HOLD-DOWN DEVICES AND RELAXATION OF THE THREADED RODS.
10. THE CONTRACTOR SHALL SUBMIT HIS METHODS AND SEQUENCING OF TENSIONING THE THREADED RODS TO THE ENGINEER FOR APPROVAL.
11. OMIT HOLD DOWN DEVICES AND FILLER PLATES WHERE TRANSFER BEAMS CROSS BOLTED FIELD SPLICES OF PLATE GIRDERS.



SECTION C-C

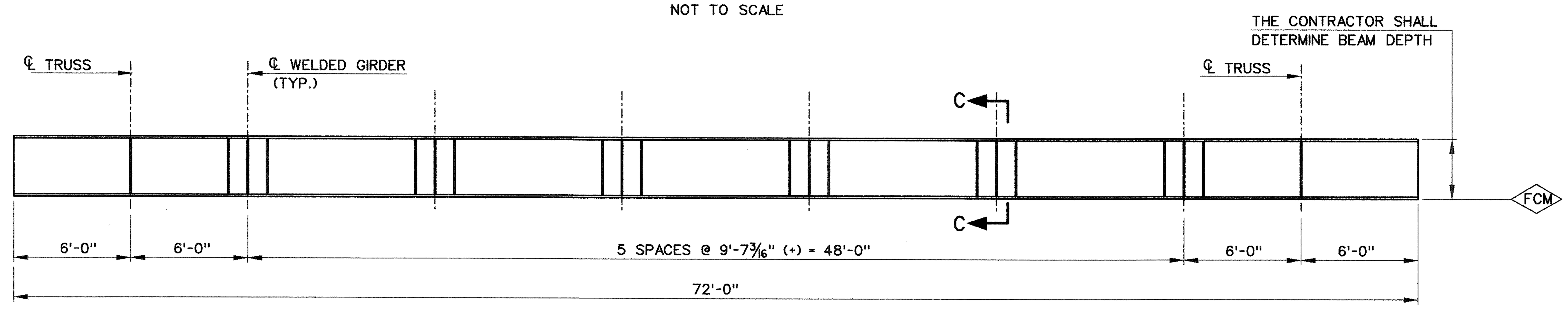
TRANSFER BEAM DETAIL

NOT TO SCALE



PLAN

NOT TO SCALE



ELEVATION

TRANSFER BEAM

NOT TO SCALE

NOTES:

1. FOR STRUCTURAL STEEL NOTES SEE DWG. NO. STR-47.
2. FOR THE "SUGGESTED ERECTION SEQUENCE-TRUSS ASSEMBLY" SEE DWG. NOS. STR-127 TO STR-129.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE AS NOTED

DESIGNER: T. YOUNG
DRAFTER: A. KILPATRICK
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Ucetti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S164.DGN PLOTTED DATE: 4-05-00

TOWN: NEW HAVEN
DRAWING TITLE: SUGGESTED TRANSFER BEAMS AND HOLD-DOWN DEVICES

PROJECT NO.: 92-526
DRAWING NO.: STR-130
SHEET NO.: 264

17:48:28
07 APR 2000
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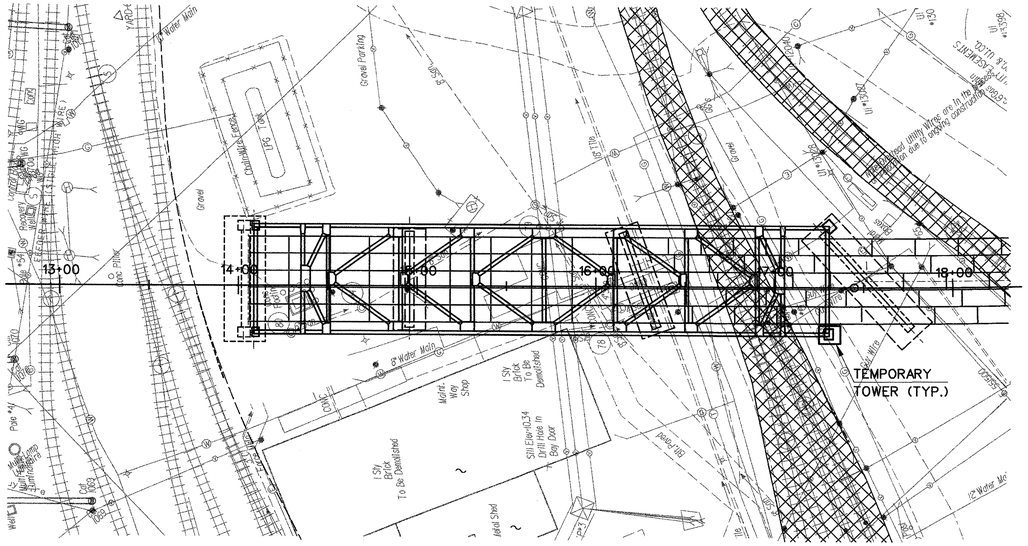

PLAN
SCALE: 1" = 40'

NOTES:

1. FOR "ERECTION SEQUENCE-GENERAL NOTES" SEE DWG. NO. STR-122.
2. FOR METRO-NORTH RAILROAD REQUIREMENTS FOR WORK ON OR ADJACENT TO THE RAILROAD RIGHT-OF-WAY AND PROPERTY, INCLUDING DESIGN LOADINGS AND PROTECTIVE SHEILDING, ETC. SEE SPECIAL PROVISIONS.
3. THE CONTRACTOR SHALL SUPPORT AND JACK THE FULLY ASSEMBLED TRUSS SEGMENT AT THE FOUR REACTION POSTS FOR THE PURPOSE OF DETERMINING THE REQUIRED CONCRETE DECK HAUNCHES AND THE REMAIN-IN-PLACE FORM SETTINGS AND TO ALLOW FOR THE INSTALLATION OF THE PROPOSED INSPECTION PLATFORMS. THE TEMP. SUPPORTS SHALL REPLICATE THE SUPPORT CONDITIONS OF THE TRUSS IN ITS FINAL POSITION PRIOR TO PLACING THE REMAIN-IN-PLACE FORMS.
4. IN NO CASE SHALL THE METHOD USED REQUIRE ATTACHMENTS TO THE TRUSS, WELDED GIRDERS, OR DIAPHRAGMS. COMPUTATIONS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT, SHALL BE PREPARED BY THE CONTRACTOR TO INSURE THAT FORCES INDUCED BY THE TRUSS ASSEMBLY SEQUENCE AND METHODS ON THE WELDED GIRDERS AND BEARINGS SUPPORTING THE TRUSS SHALL NOT EFFECT THE ABILITY OF THE STRUCTURE TO PERFORM AS INTENDED. THESE COMPUTATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR HIS REVIEW.
5. FOR WORK AREAS WITHIN THE RAIL YARD, SEE DWG. NO. STR. 123.

SECTION A-A
SCALE: ½" = 1'-0"

ELEVATION
SCALE: 1" = 40'

TRUSS SECTION
SCALE: ⅛ " = 1'- 0 "

SIDE VIEW

END VIEW

TEMPORARY TOWER
SCALE: ¼" = 1'-0"

REV.	DATE	DESCRIPTION	SHEET. NO

REVISIONS

SCALE AS NOTED

DESIGNER: T. YOUNG
DRAFTER: A. KILPATRICK
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Mattei DATE: 4.7.00

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION
OVER NEW HAVEN INTERLOCKING
AND RAIL YARD
CADD FILE: R703S189.DGN
PLOTTED DATE: 4-05-00

TOWN: NEW HAVEN
DRAWING TITLE:
SUGGESTED TEMPORARY SUPPORT
FOR TRUSS ASSEMBLY

PROJECT NO.: 92-526
DRAWING NO.: STR-131
SHEET NO.: 265

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07 APR 2000
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CRAWLER-TYPE CRANE NOTES:

1. SCHEMATIC SHOWN IS OF A LAMPSON "LTL-3000" TRANSI-LIFT AS OWNED BY THE NEIL F. LAMPSON INC. COMPANY, P.O. BOX 6510, KENNEWICK, WA 99336 PHONE (509) 586-0411 CONTACT: MR. BRYAN PEPIN-DONAT.

   THE SCHEMATICS SHOWN HAVE BEEN PROVIDED BY THE CRANE OWNER AND ARE SHOWN FOR GENERAL CONFIGURATION ONLY. THE ACTUAL DETAILS OF THE CRANE, RIGGING AND FOUNDATION, ETC., SHALL BE DETERMINED BY THE OWNER.

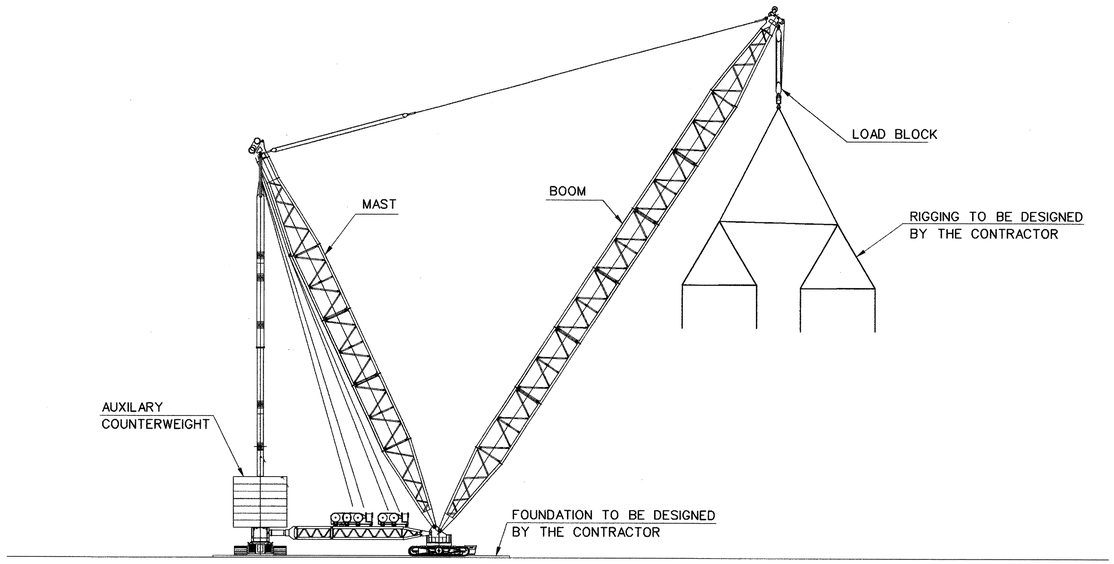
2. FOR "ERECTION SEQUENCE - GENERAL NOTES" SEE DWG. NO. STR-122.

3. FOR CRANE LAYOUT AND WORK AREAS FOR ASSEMBLY, OPERATION, AND DISASSEMBLY OF THE CRANE, SEE "CRANE LAYOUT AREA", DWG. NO. STR-133.

4. FOR "SUGGESTED CRANE FOUNDATIONS", SEE DWG. NO. STR-134.

NOTE:

THE PICK POINTS ON EACH TRUSS SHALL BE AT TRUSS JOINTS U2 AND U6 AS SHOWN ON DWG. NO. STR-64.



ELEVATION

CRAWLER-TYPE CRANE SCHEMATIC

NOT TO SCALE

RING-TYPE CRANE NOTES:

1. SCHEMATIC SHOWN IS OF EITHER

   AN "MSG-50" HEAVY LIFTING DEVICE AS OWNED BY THE DAVENPORT MAMMOET L.L.C., 20525 FM521, ROSHARON, TX 77583 PHONE (281) 369-2200. CONTACT: MR. DONNI DAVENPORT OR

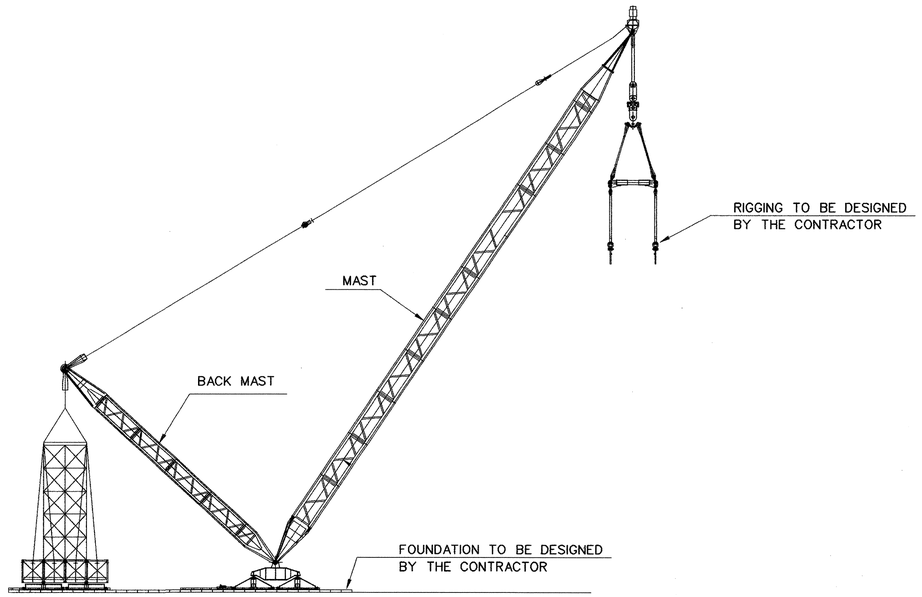
   A PLATFORM TWIN RING HEAVY DUTY OWNED BY VAN SEUMEREN USA, INC., 12231 CHAMPION FOREST DRIVE SUITE #104 HUSTON, TX 77069 PHONE (281) 893-9337. CONTACT: MR. JOHN NELSON

   THE SCHEMATICS SHOWN HAVE BEEN PROVIDED BY THE CRANE OWNERS AND ARE SHOWN FOR GENERAL CONFIGURATION ONLY. THE ACTUAL DETAILS OF THE CRANE, RIGGING AND FOUNDATION, ETC., SHALL BE DETERMINED BY THE OWNERS.

2. FOR "ERECTION SEQUENCE - GENERAL NOTES" SEE DWG. NO. STR- 122

3. FOR CRANE LAYOUT AND WORK AREAS FOR ASSEMBLY, OPERATION AND DISASSEMBLY OF THE CRANE, SEE "CRANE LAYOUT AREA", DWG. NO. STR- 133.

4. FOR "SUGGESTED CRANE FOUNDATIONS" SEE DWG. NO. STR-134.



ELEVATION

RING-TYPE CRANE SCHEMATIC

NOT TO SCALE

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

NOT TO SCALE

DESIGNER: T. YOUNG
DRAFTER: T. YOUNG
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 6/6/00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S204.DGN | PLOTTED DATE: 6-06-00

TOWN: NEW HAVEN
DRAWING TITLE: CRANE SCHEMATICS

PROJECT NO.: 92-526
DRAWING NO.: STR-132
SHEET NO.: 266

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05 JUN 2000
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NOTES:

1. FOR ADDITIONAL WORK AREA DETAILS, NOTES AND LEGEND SEE DWG NO. STR-123.
2. PROVIDE A MINIMUM 10' CLEARANCE BETWEEN THE CRANE AND OIL STORAGE FACILITY FOR UTILITY RELOCATION DUE TO "HIGH CAPACITY CRANE".
3. FOR "HIGH CAPACITY CRANE" DETAILS INCLUDING SECTIONS A-A AND B-B SEE DWG. NOS. STR-132 AND STR-134.
4. FOR "ERECTION SEQUENCE-GENERAL NOTES", SEE DWG. NO. STR-122.
5. FOR SPECIFIC RELOCATIONS AT THE HIGH CAPACITY CRANE LAYOUT AREA. SEE THE "ELECTRICAL PLANS".

NOTES:

LIMITS OF PARCEL "B3"

EXISTING BUILDING AND TRAILER TO REMAIN

EXISTING YARD MASTERS BUILDING TO REMAIN SEE NOTE 1

EXISTING OIL STORAGE FACILITY AND FORMER POWER PLANT TO REMAIN

SEE NOTE 2

CRAWLER TYPE CRANE

RING-TYPE CRANE

APPROXIMATE LOCATION OF FORMER ROUNDHOUSE

LIMITS OF PARCEL "G"

RADIUS TO BE DETERMINED BY CRANE MANUFACTURER (TYP.)

PROPOSED TRUSS: FULLY ASSEMBLED ON WELDED GIRDERS PRIOR TO LIFTING AND MOVING

PROPOSED WELDED GIRDERS (SEGMENT 3)

FINAL TRUSS LOCATION

INITIAL TRUSS ASSEMBLY LOCATION

WASTE STOCKPILE AREA

N/F AMTRAK

N/F STATE OF CONNECTICUT

N/F RONALD LAHNE

N/F KATHERINE ADAM & REIGLEMAN

N/F CHARLES & ANDREW ANNICELLI

N/F NORTH AMERICAN BANK & TRUST CO.

N/F RUDOLPH A. PETRILLO

UNION AVE. (S)

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

SCALE IN FEET
0 40 80
SCALE 1" = 40'

DESIGNER: T. YOUNG
DRAFTER: M. OFFENBERG
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Mantte DATE: 4.7.00

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD

CADD FILE: R703S171.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN

DRAWING TITLE:
CRANE LAYOUT AREA

PROJECT NO.: 92-526
DRAWING NO.: STR-133
SHEET NO.: 267

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07 APR 2000
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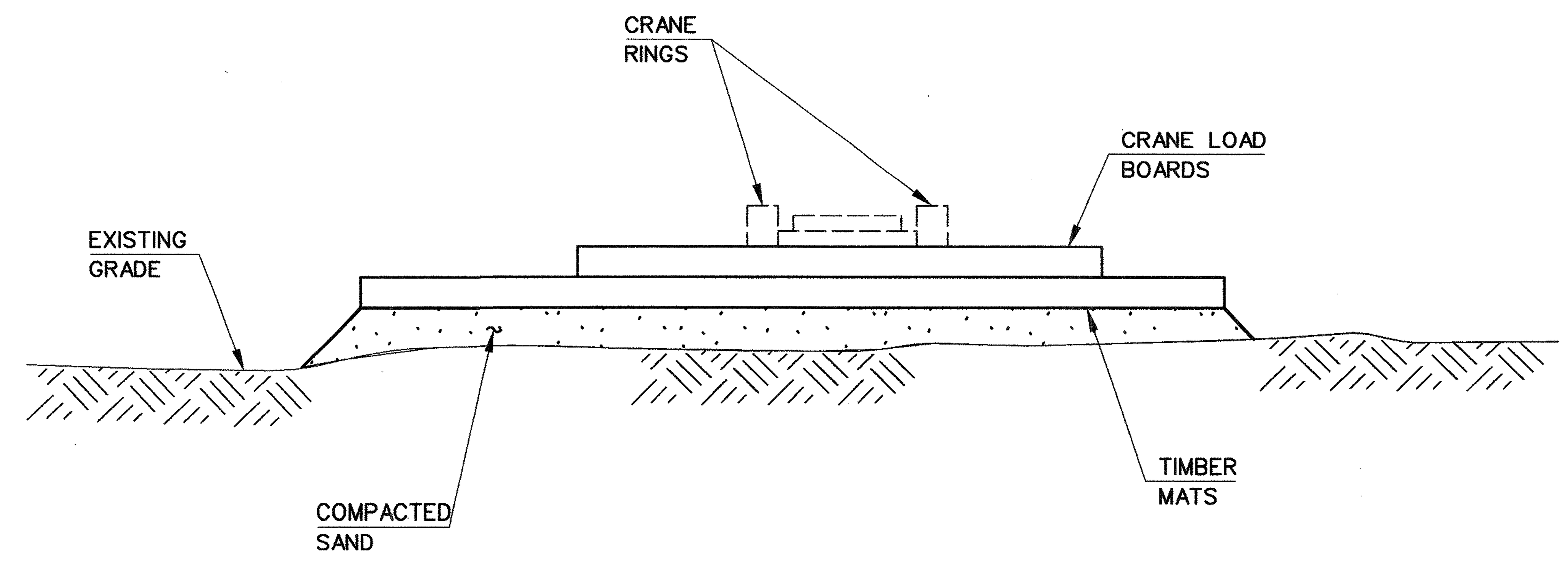
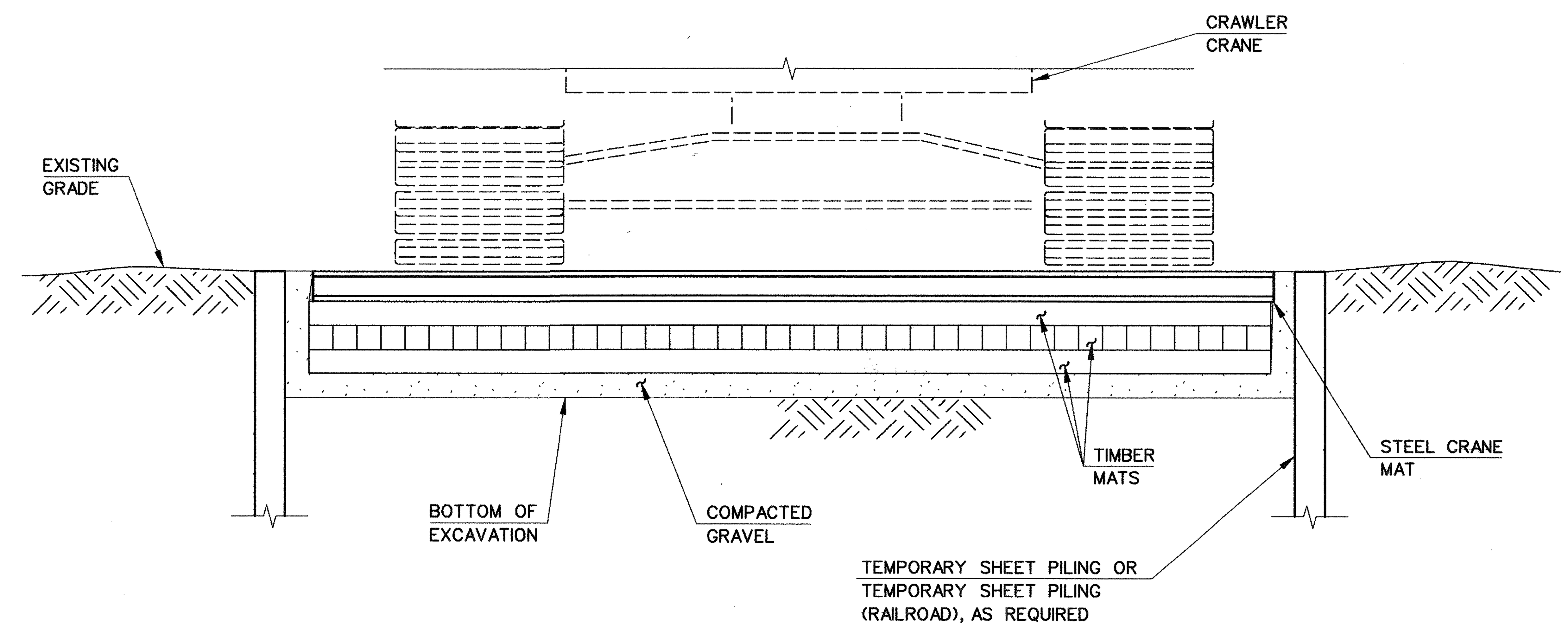
CRANE FOUNDATION NOTES:

1. FOR "ERECTION SEQUENCE - GENERAL NOTES" SEE DWG. NO. STR-122.
2. FOR CRAWLER-TYPE CRANE NOTES AND SCHEMATICS AND RING-TYPE CRANE NOTES AND SCHEMATICS SEE DWG. NO. STR-132.
3. FOR CRANE WORK LAYOUTS AND WORK AREAS SEE DWG. NO. STR-133.
4. THE CRANE FOUNDATIONS SHOWN ARE BASED ON LIMITED INVESTIGATIONS AND PRELIMINARY DISCUSSIONS WITH THE RESPECTIVE CRANE COMPANIES NOTED ELSEWHERE ON THESE PLANS AND IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACTUAL CRANE FOUNDATION REQUIRED. THE CONTRACTOR SHALL THOROUGHLY INVESTIGATE THE EXTENT OF FOUNDATIONS THAT MAY BE REQUIRED TO SUPPORT THE CRANE DURING ALL PHASES OF OPERATION AND SHALL BASE HIS BID ACCORDINGLY. THE CONTRACTOR SHALL COMPLETELY DESIGN AND DETAIL THE CRANE FOUNDATION. THE FOUNDATION DESIGN SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT AND EXPERIENCED IN THE DESIGN OF FOUNDATIONS FOR LARGE CRANES AND FOR LARGE CONSTRUCTION LOADS AND THE LOCAL SOIL CONDITIONS. THE CRANE FOUNDATION DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. THE CRANE FOUNDATION DESIGN SHALL BE COMPLETELY REVIEWED BY AND APPROVED BY THE CRANE MANUFACTURER PRIOR TO SUBMITTAL TO THE ENGINEER.
5. THE COST OF THE CRANE FOUNDATION, INCLUDING BUT NOT LIMITED TO: SUBSURFACE EXPLORATION, ANALYSIS AND DESIGN, FURNISHING AND FABRICATING, INSTALLING ALL REQUIRED COMPONENTS, EXCAVATING, REMOVING, HANDLING AND DISPOSING OF EXISTING MATERIAL, INCLUDING DEWATERING, DISPOSAL OF CONTROLLED AND/OR CONTAMINATED MATERIALS, UTILITY RELOCATION AND/OR PROTECTION, CONSTRUCTION EASEMENTS AS MAY BE REQUIRED, AND MEASUREMENT DURING PRELOADING SHALL BE INCLUDED IN THE UNIT PRICE FOR THE ITEM "HIGH CAPACITY CRANE" (SEE SPECIAL PROVISIONS).
6. SOIL BORINGS WERE PERFORMED IN THE CRANE WORK AREA UNDER STATE PROJECT NO. 301-0039. SEE "GENERAL NOTES" ON DWG. NO. STR-4 FOR ADDITIONAL INFORMATION.
7. FOR ENVIRONMENTAL REQUIREMENTS SEE "GENERAL NOTES", DWG. NO. STR-4.



SECTION A-A

RING-TYPE CRANE



SECTION B-B

CRAWLER-TYPE CRANE

SUGGESTED CRANE FOUNDATIONS

NOT TO SCALE

NOTE: FOR LOCATION OF SECTION A-A AND B-B SEE "CRANE LAYOUT AREA", DWG. NO. STR-133.

REV.	DATE	DESCRIPTION	SHEET. NO
		REVISIONS	

NOT TO SCALE

DESIGNER: T. YOUNG
DRAFTER: T. YOUNG
CHECKED BY: J. D'AGOSTINO
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
APPROVED BY: Anthony A. Moretti DATE: 4-7-00

PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD
CADD FILE: R703S172.DGN
PLOTTED DATE: 4-06-00

TOWN: NEW HAVEN
DRAWING TITLE: SUGGESTED CRANE FOUNDATIONS

PROJECT NO.: 92-526
DRAWING NO.: STR-134
SHEET NO.: 268

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07 APR 2000
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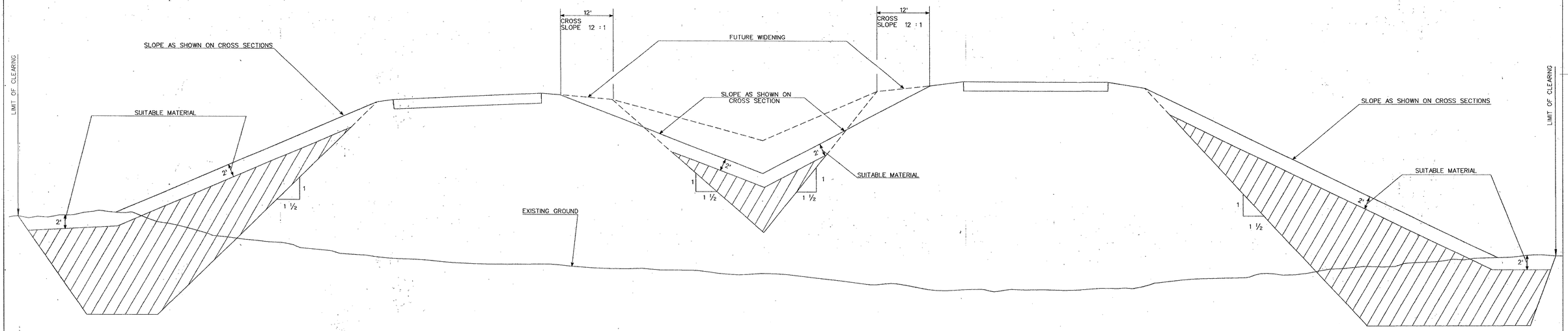


GUIDE LINE SECTION SHOWING LOCATION OF DISPOSAL AREAS FOR UNSUITABLE MATERIAL

AREAS IN WHICH UNSUITABLE MATERIAL FROM EXCAVATION MAY BE PLACED WITH PERMISSION OF THE ENGINEER. ALL DISPOSED MATERIAL SHALL BE CLEAN FILL ONLY, AS DEFINED BY STATE LAW AND SHALL BE IN ACCORDANCE WITH ALL OTHER STATE AND FEDERAL LAWS.

UNSUITABLE MATERIAL SHALL NOT BE PLACED IN AREAS SUBJECT TO FLOODING, IMMERSION OR THE ACTION OF FLOWING STREAMS. UNSUITABLE MATERIAL MAY BE PLACED IN AREAS CONTRIBUTING WATER TO A PUBLIC WATER SUPPLY ONLY IF THE MATERIAL CAN BE SHOWN TO HAVE NO DELETERIOUS EFFECT ON THE WATER.

CONNECTICUT D.O.T. COMPUTER AIDED DESIGN OFFICE OF ENGINEERING

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

DISPOSAL OF UNSUITABLE MATERIAL

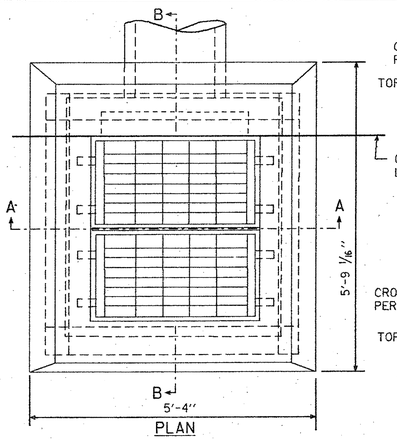
REVISIONS		
NO.	DATE	DESCRIPTION

Designed by:	SPECIAL STUDIES	Date: 10-88
Drafted by:	GLENN L. ARTZ	Date: 2-14-89
Reviewed by:	M. BURNS	Date: 5-1-99
Approval Rec:	D. GLADOWSKI	Date: 5-1-99
Approved:	Bradley J. Smith	Date: 5-24-99
F.Hw.A. Approval:	Donald J. West	Date: 7-21-99

Scale: NOT TO SCALE

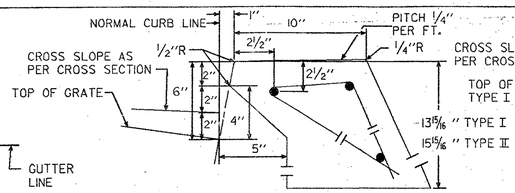
STANDARD NUMBER
201

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
I	CONN.							

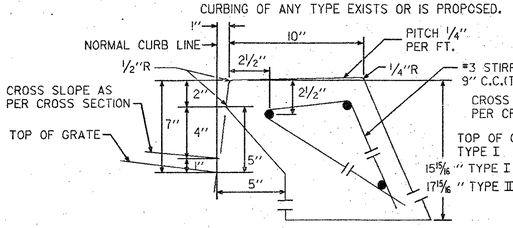


PLAN

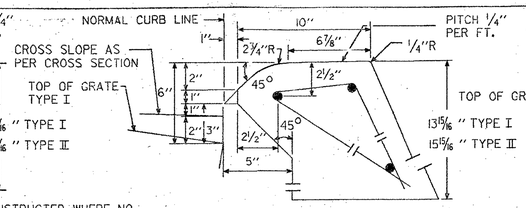
NOTE: WHEN CATCH BASIN IS SET IN CONCRETE PAVEMENT THE 1/2" SLOPE ON THE TOP SURFACE SHALL BE CHANGED TO MATCH ADJOINING PAVEMENT.



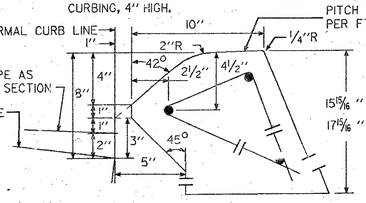
TO BE USED WHEN CURB INLET IS CONSTRUCTED WHERE NO CURBING OF ANY TYPE EXISTS OR IS PROPOSED.



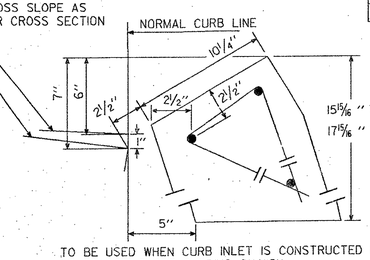
TO BE USED WHEN CURB INLET IS CONSTRUCTED IN A LINE OF PLAIN CONCRETE CURBING, DOWELED CONCRETE CURBING, OR STONE CURBING, 6" HIGH.



TO BE USED WHEN CURB INLET IS CONSTRUCTED IN A LINE OF CONCRETE PARK CURBING OR DOWELED CONCRETE PARK CURBING, 4" HIGH.



TO BE USED WHEN CURB INLET IS CONSTRUCTED IN A LINE OF BITUMINOUS CONCRETE LIP CURBING 6" HIGH.



TO BE USED WHEN CURB INLET IS CONSTRUCTED IN A LINE OF GRANITE SLOPE CURBING 6" HIGH.

DETAIL OF CURB INLET GRANITE SLOPE CURB TYPE

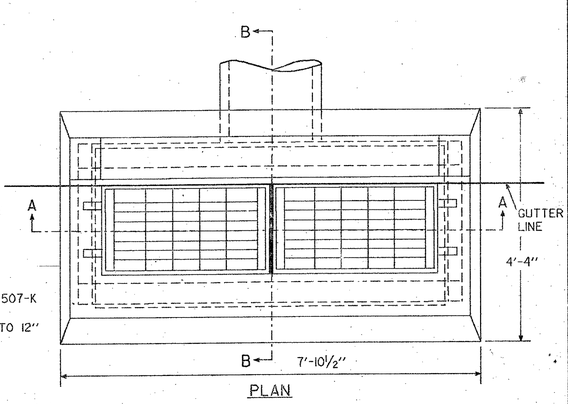
NOTES

FOR DETAILS OF STEEL FRAME & GRATE SEE STANDARD SHEET NO. 507-K OR 507-L TWO FRAMES & GRATES REQUIRED FOR EACH CATCH BASIN.

WALLS OF ALL CATCH BASINS OVER 10 FT. DEEP TO BE INCREASED TO 12" THICKNESS, INSIDE DIMENSIONS TO REMAIN THE SAME.

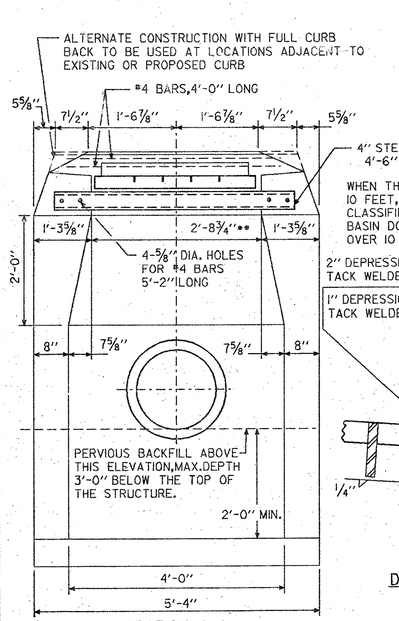
ALL STEEL, EXECPT REINFORCING BARS, SHALL BE GALVANIZED IN ACCORDANCE WITH M.06.03.

ALL BARS SHALL HAVE 2" COVER.
ALL STRAIGHT REINF. BARS WILL BE #4 BARS.
ALL STIRRUPS WILL BE #3 BARS 9" C.C. TYP.

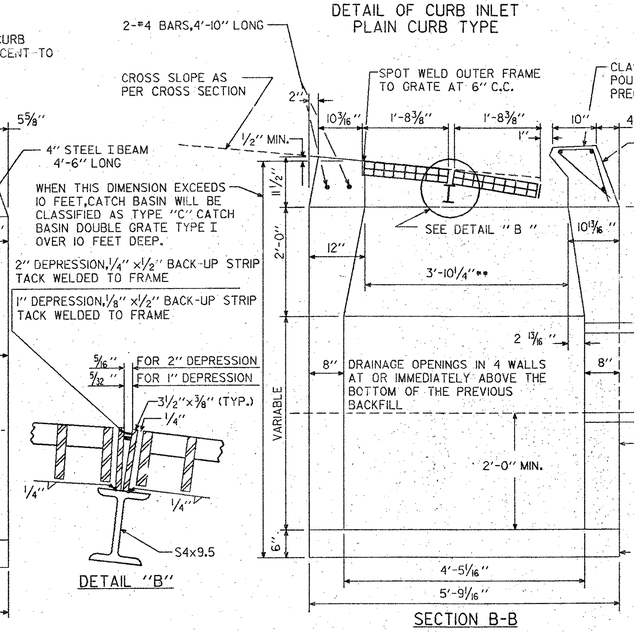


PLAN

NOTE: WHEN CATCH BASIN IS SET IN CONCRETE PAVEMENT THE 1/2" SLOPE ON THE TOP SURFACE SHALL BE CHANGED TO MATCH ADJOINING PAVEMENT.

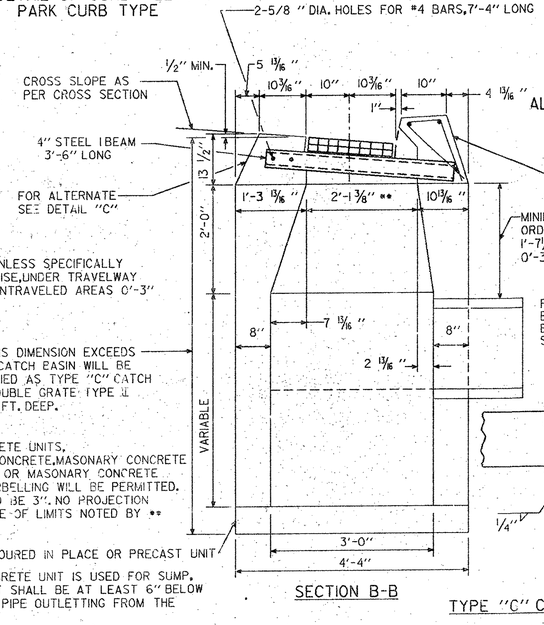


SECTION A-A

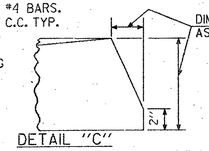


SECTION B-B

DETAIL "B"



SECTION B-B



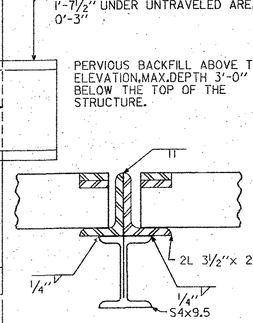
DETAIL "C"

ALTERNATE CONSTRUCTION OF TYPE II TOP

CLASS "A" CONCRETE POURED IN PLACE OR PRECAST CONCRETE UNIT.

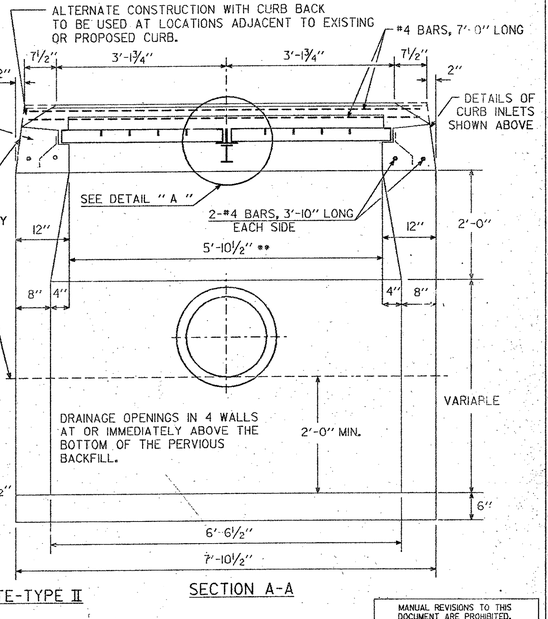
FOR ALTERNATE SEE DETAIL "C"

PERVIOUS BACKFILL ABOVE THIS ELEVATION, MAX. DEPTH 3'-0" BELOW THE TOP OF THE STRUCTURE.



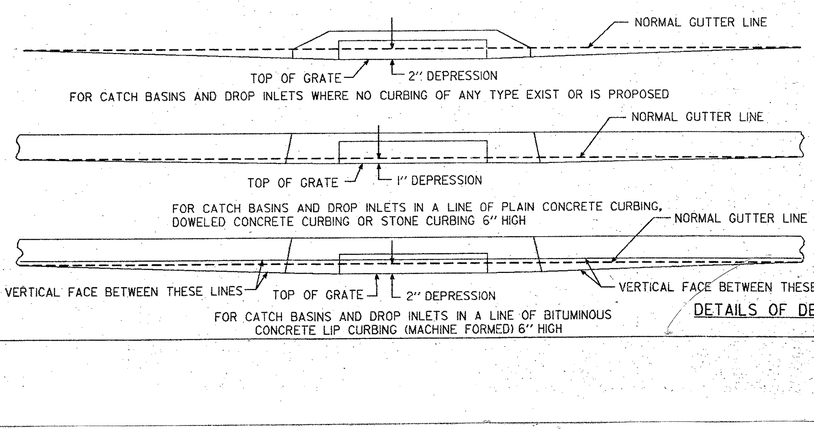
DETAIL "A"

TYPE "C" CATCH BASIN DOUBLE GRATE-TYPE II

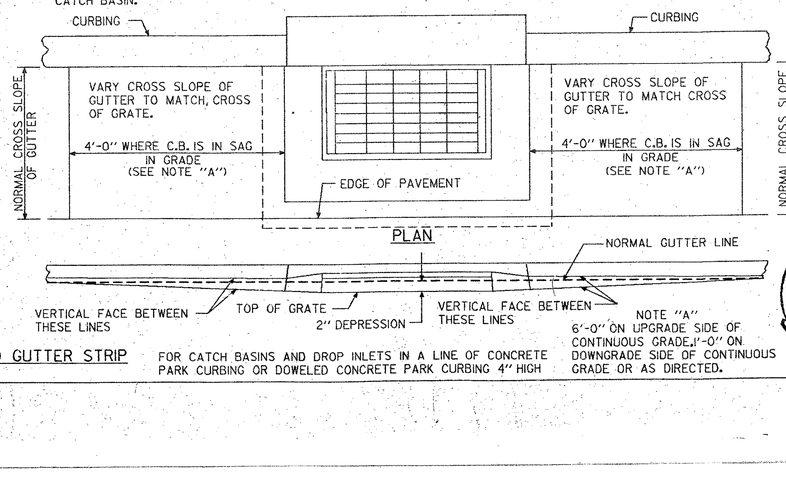


SECTION A-A

TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE I



DETAILS OF DEPRESSED GUTTER STRIP



MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON Cadd File: 0SA2x200,200507D.DGN

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE I AND II

REVISIONS				
NO.	DATE	DESCRIPTION		
			Designed by: J. BARRY	Date: MAY-79
			Drafted by: GLENN L. ARZT	Date: 6 JAN.89
			Reviewed by: TOM McMAHON	Date: 1 FEB.89
			Approval Rec: H. JENSEN	Date: 1 FEB.89
			Approved:	Date: 7-20
			F.H.W.A. Approval:	Date: 12/3/90

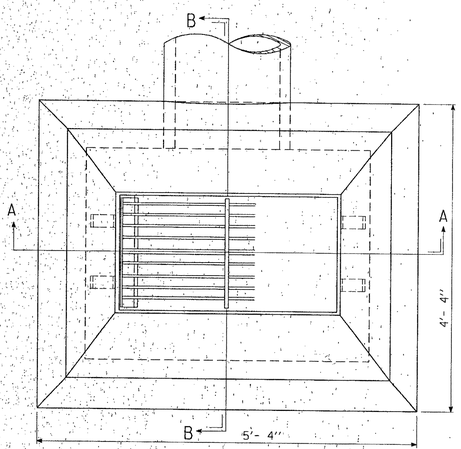
Scale: NOT TO SCALE

STANDARD NUMBER 507-D

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
I	CONN.							

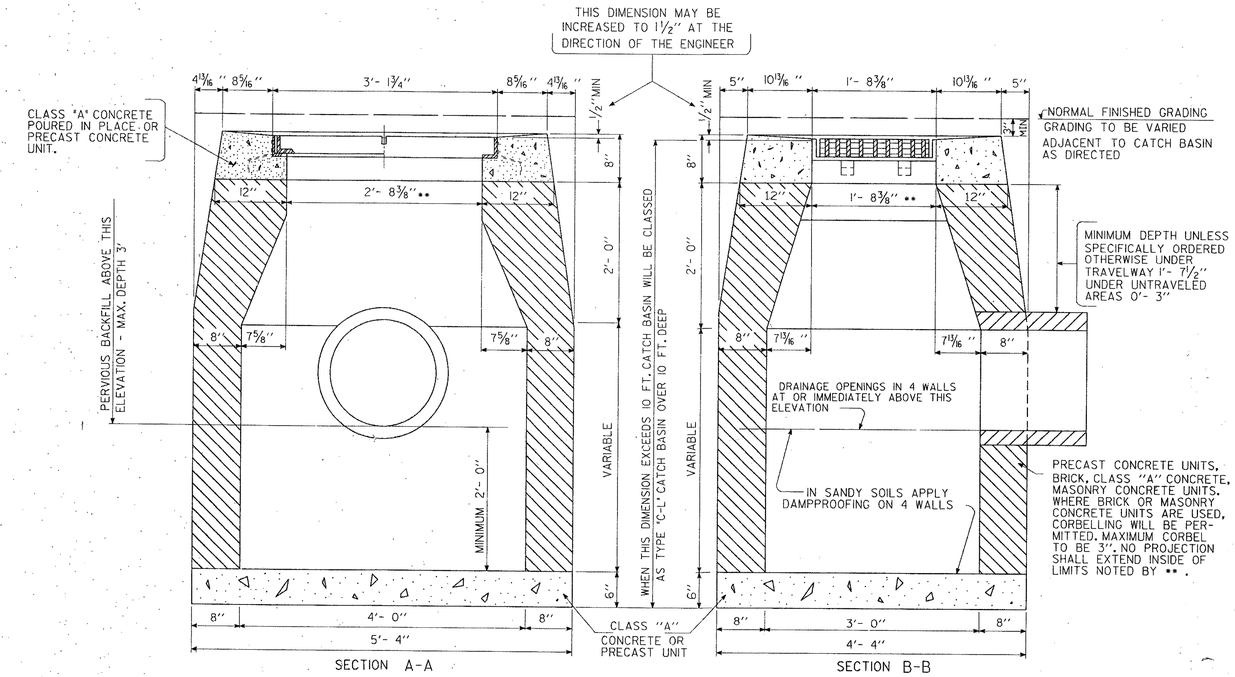
NOTES

FOR DETAILS OF FRAME AND GRATE SEE STD.SHEET NO.507-K.
WALLS OF ALL CATCH BASINS OVER 10 FT. DEEP TO BE INCREASED TO 12" THICKNESS. INSIDE DIMENSIONS TO REMAIN THE SAME.



PLAN

TYPE "C-L" CATCH BASIN



TYPE "C-L" CATCH BASIN

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON
Cadd File: GSA2\E200,200350TJ.DGN

CONNECTICUT DOT COMPUTER AIDED DESIGN OFFICE OF ENGINEERING

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

TYPE "C-L" CATCH BASIN

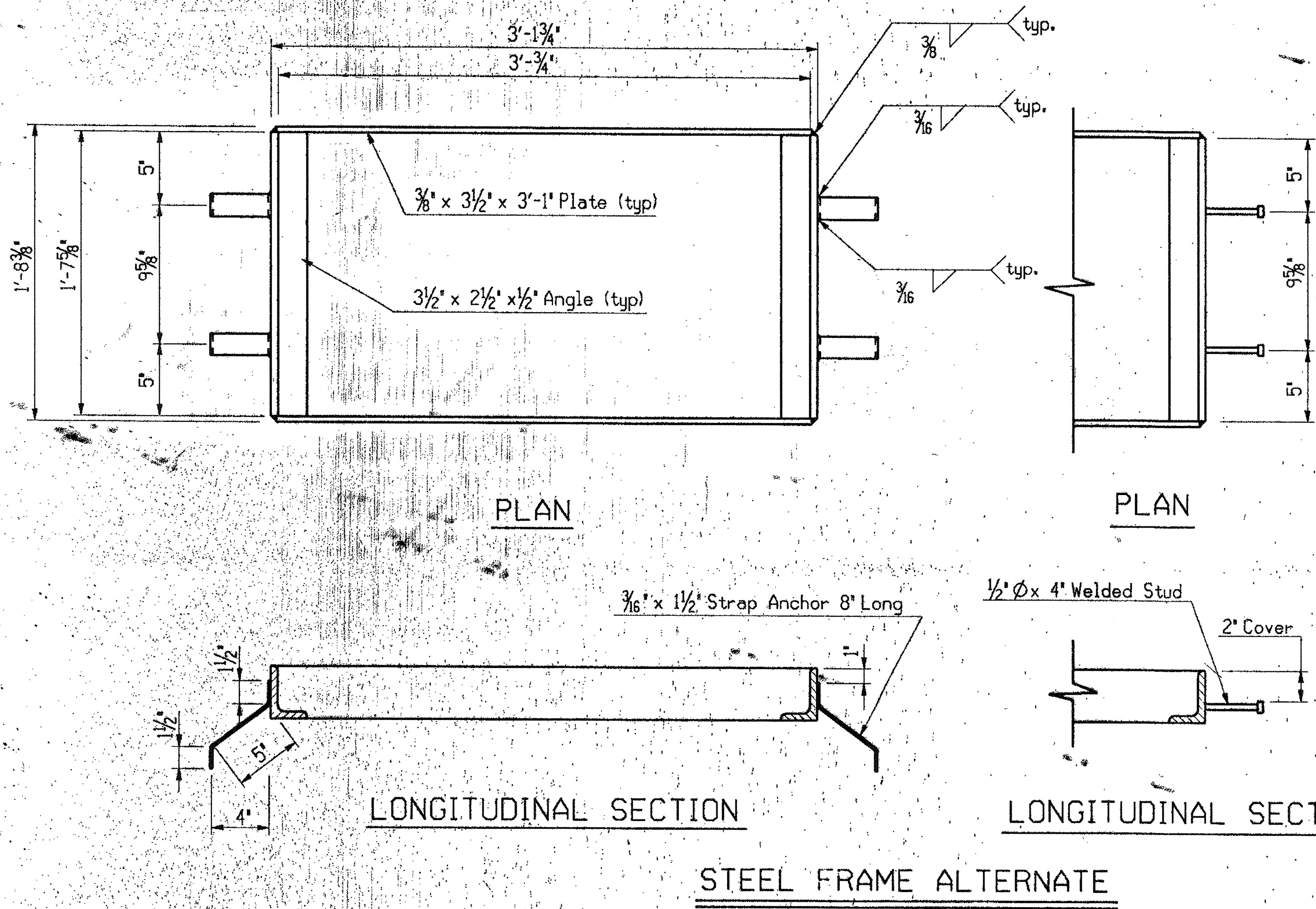
REVISIONS		
NO.	DATE	DESCRIPTION

Designed by: R.F. FELIX Date: 6/16/60
Drafted by: S.A. ROBERTS Date: 11/88
Reviewed by: T.McMAHON Date: 12/13/88
Approval Rec: J.JENSEN Date: 2/89
Approved: D.L. COFFEY Date: 7/90
F.Hw.A. Approval: Date: 12/3/90

Scale: NOT TO SCALE

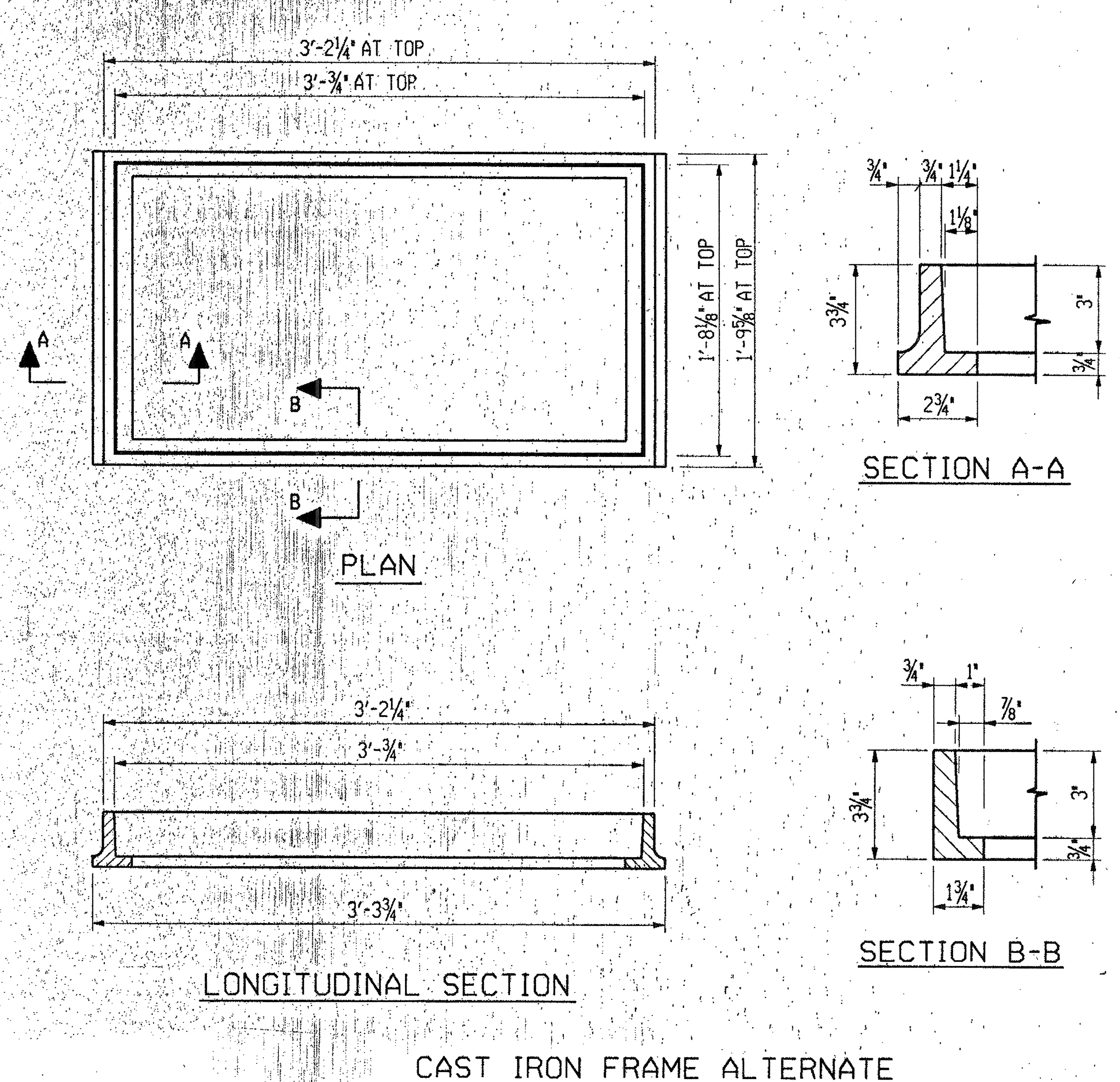
STANDARD NUMBER
507-J

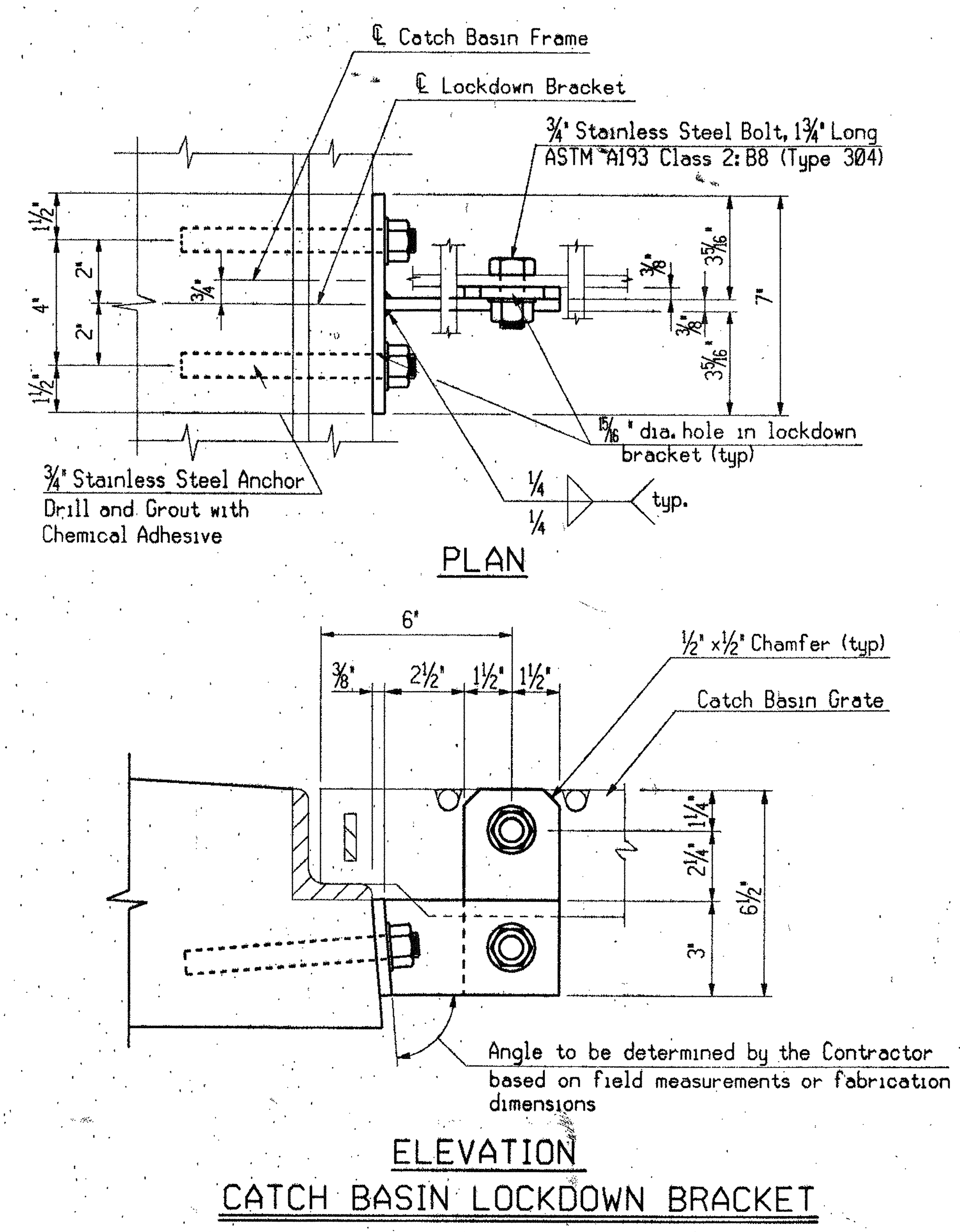
F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.							



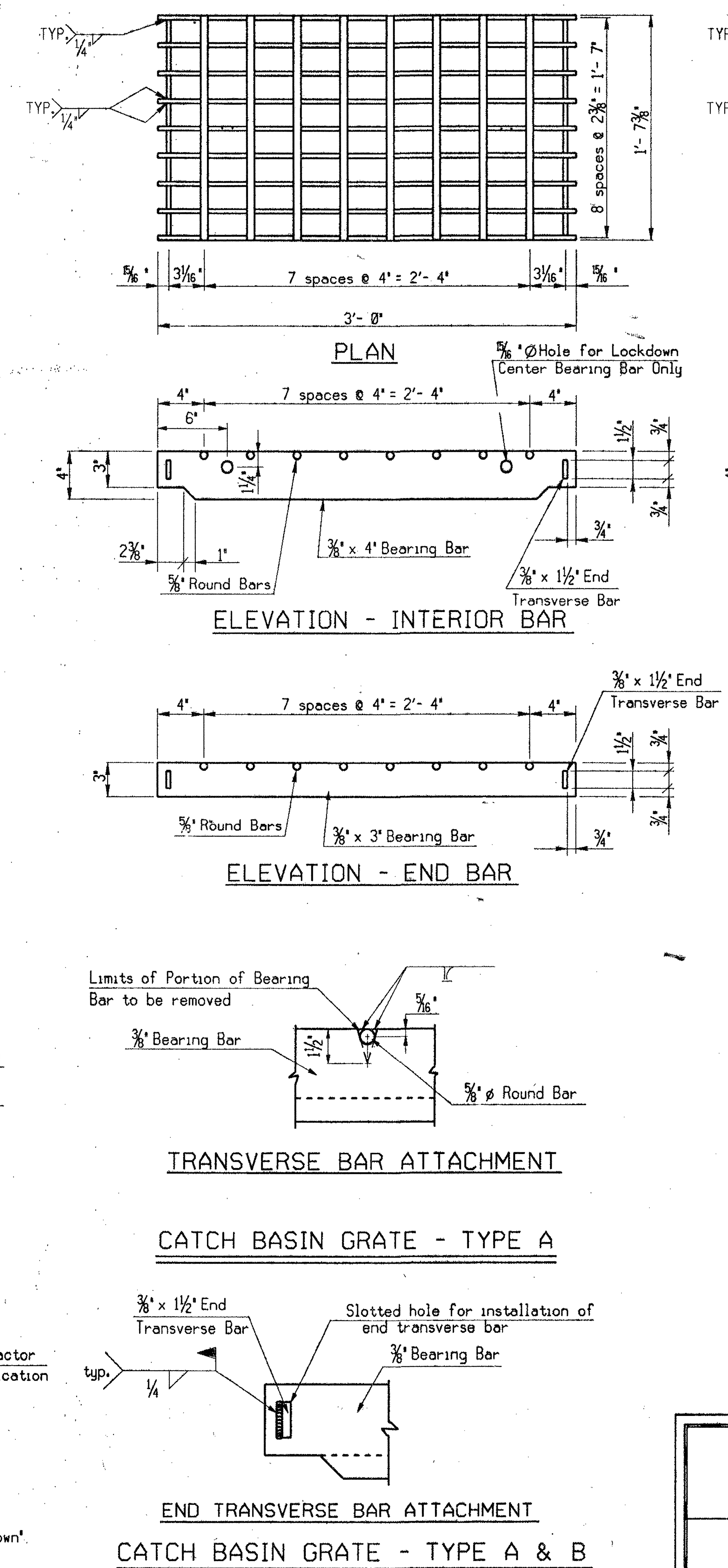
CATCH BASIN GRATE AND FRAME NOTES

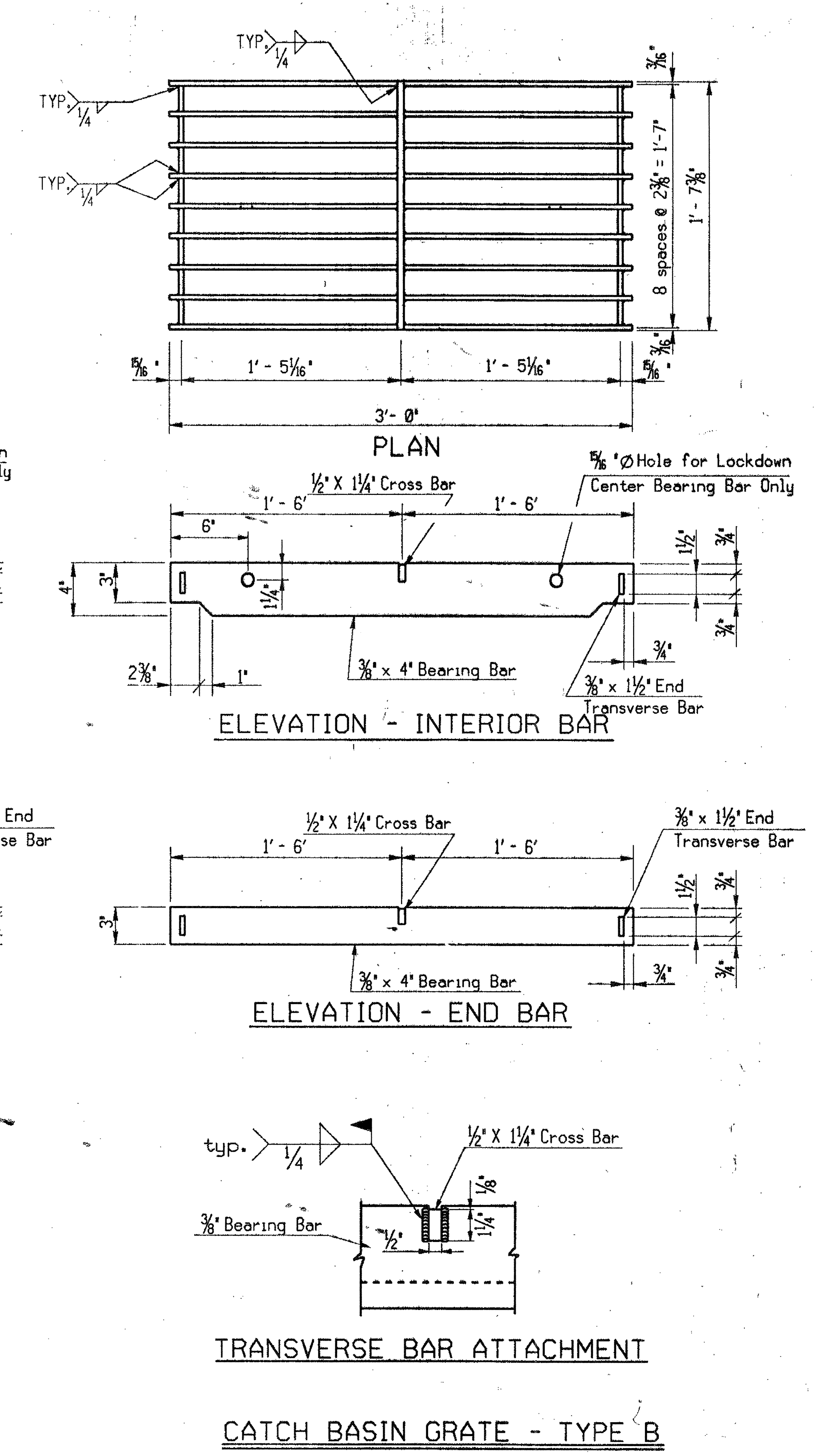
1. Type A Grates to be used on all roadways where bicycle traffic is allowed or as directed by the Engineer.
2. Type B Grates to be used on all limited access highways, ramps, and where bicycle traffic is not allowed, or as directed by the Engineer.
3. Steel Frames and Grates shall be galvanized in accordance with Article M.06.03.
4. Cast Iron Frames are not to be galvanized.
5. All welding shall conform to the requirements of AWS D1.1.
6. Dimensional Tolerance shall be ±1/16"





Notes:
1. Lockdown brackets shall be installed when specified or as ordered by the Engineer. To be paid for under the item "Catch Basin Lockdown".
2. Bolts shall be stainless steel and conform to the requirements of ASTM A193, Class 2: B8 (Type 304)
3. Washers shall be Stainless Steel and conform to ASTM A167, Type 302.
4. Steel for Bracket shall conform to ASTM A709 Grade 36, ⅜" thick, and shall be hot-dipped Galvanized after fabrication according to ASTM A123.
5. For new Precast Catch Basin Tops, preset anchorage devices may be substituted for the chemical adhesive anchors.
6. Two lockdown brackets shall be installed for each catch basin, one at each end of the frame.
7. Anchors and adhesive shall conform to Article M.03.01-15.





Note: All bars to be welded at all intersections

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON Cadd File: 507_K.DGN

CONNECTICUT D.O.T. OFFICE OF ENGINEERING — COMPUTER AIDED DESIGN

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

CATCH BASIN FRAMES AND GRATES

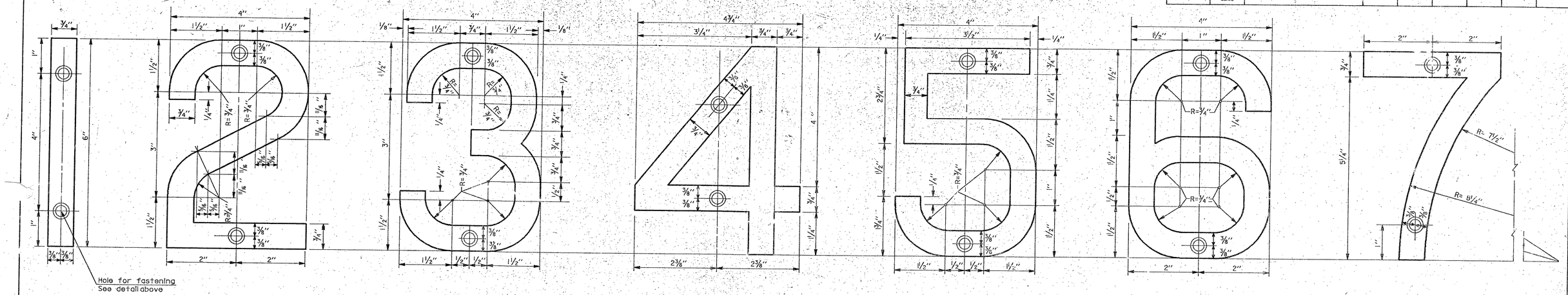
REVISIONS		
NO.	DATE	DESCRIPTION

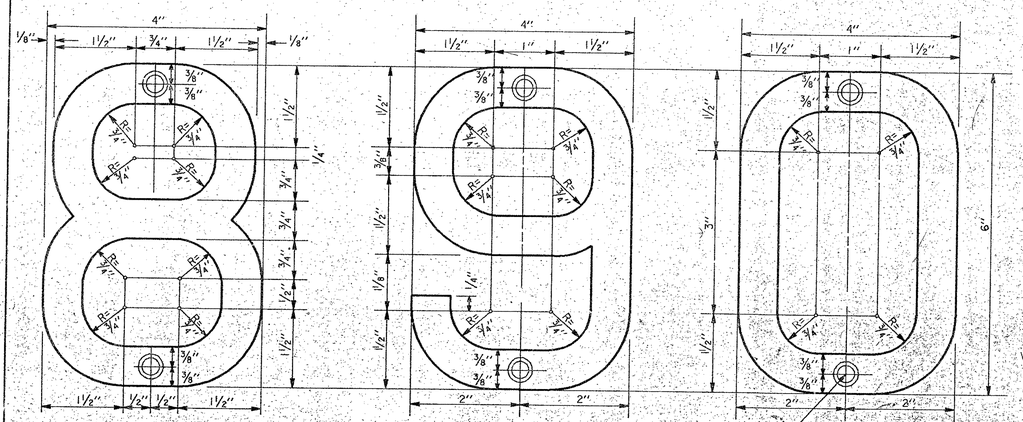
Designed by: M.P. CULNO — Date: FEB. 1994
Drafted by: M.P. CULNO — Date: FEB. 1994
Reviewed by: [signature] — Date: 6-15-95
Approval Rec: [signature] — Date: 7/3/95
Approved: [signature] — Date: 7/3/95
F.Hw.A. Approval: [signature] — Date: 7/14/95

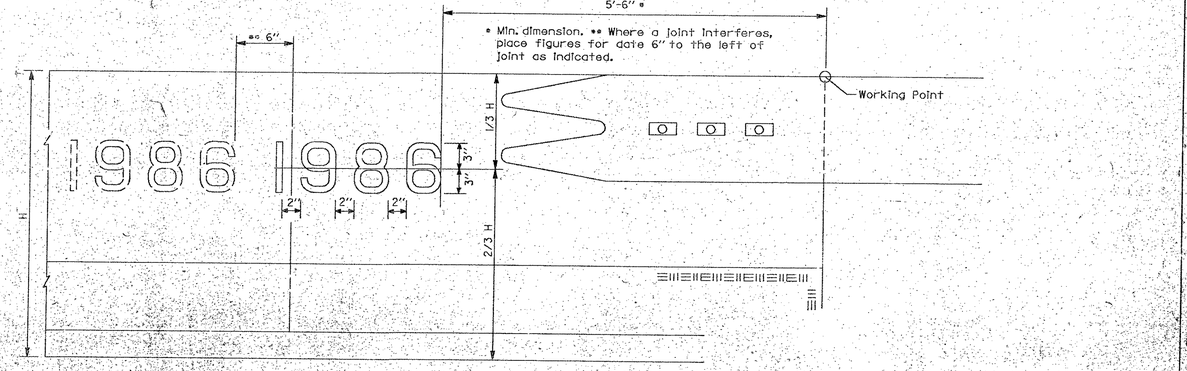
Scale: NOT TO SCALE

STANDARD NUMBER 507-K

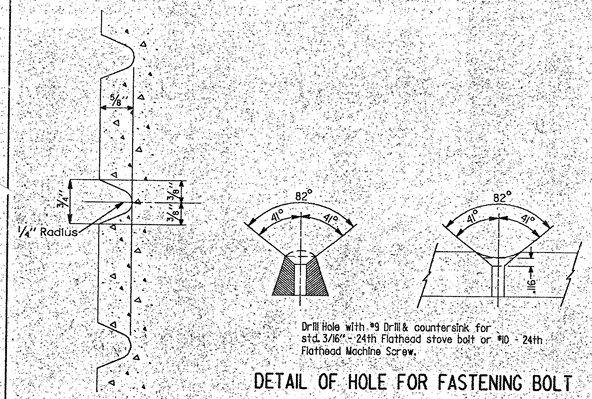
F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
I	CONN.							





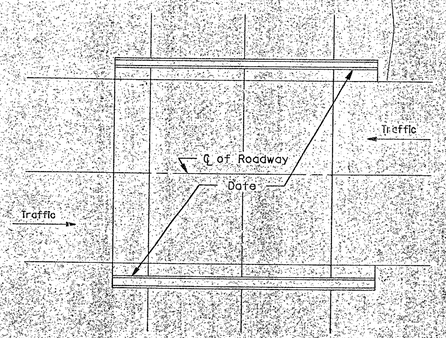


DETAIL OF LOCATION OF DATE ON PARAPET
SCALE 1½" = 1'-0"

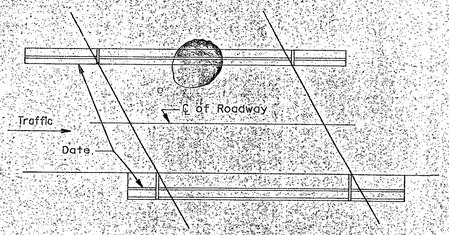


DETAIL OF HOLE FOR FASTENING BOLT

TYPICAL SECTION THROUGH FIGURES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TYPICAL PLAN OF BRIDGE SHOWING LOCATION OF DATES
(DATE OF COMPLETION)

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON Cadd Files OSA2dE200,200360IA.DGN

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

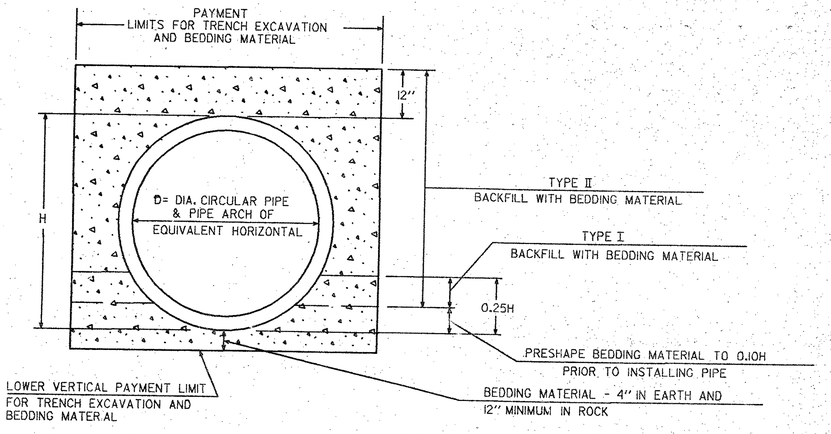
FIGURES FOR DATES ON BRIDGE PARAPETS

REVISIONS			Designed by: C.L.B.	Date: 3-7-66
NO.	DATE	DESCRIPTION	Drafted by: M. JYLKKA	Date: 6-14-89
			Reviewed by: T. McMAHON	Date: 6-15-89
			Approval Rec: J. JENSEN	Date: 6-18-89
			Approved:	Date: 7-20
			F.Hw.A. Approval:	Date: 12/3/90

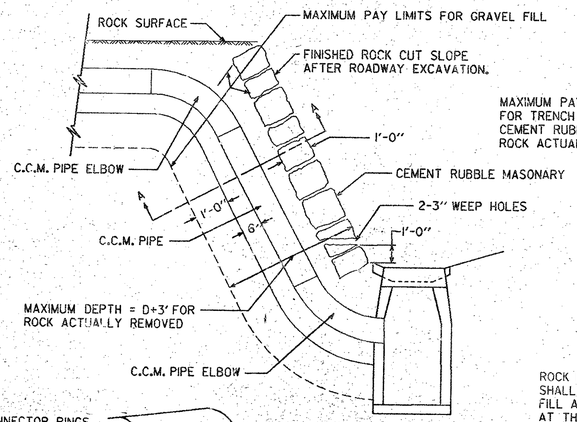
Scale: NOT TO SCALE

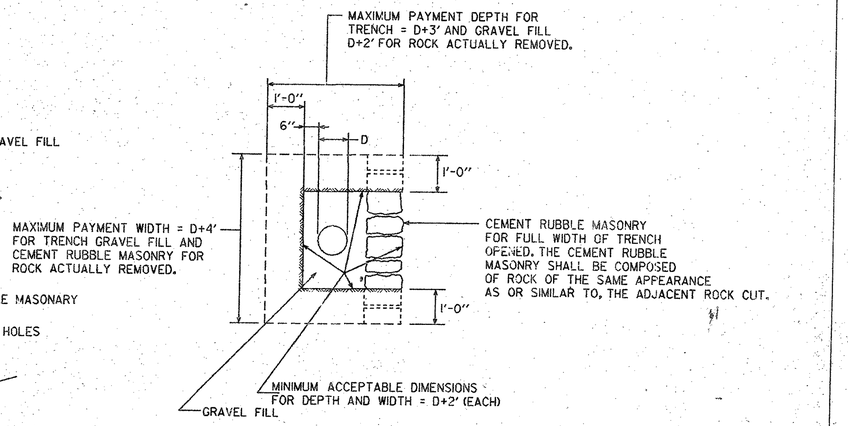
STANDARD NUMBER
601-A

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
I	CONN.							



INSTALLATION
WHERE GRAVEL FILL NOT USED

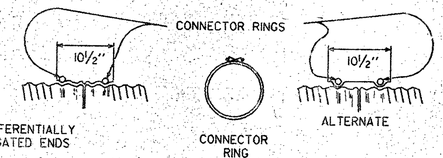




SECTION A-A

ROCK REMOVED BEYOND THE MAXIMUM PAYMENT LIMITS SHOWN ABOVE SHALL BE REPLACED WITH CEMENT RUBBLE MASONRY AND GRAVEL. FILL AS REQUIRED TO CLOSE THE OPENING AS SHOWN ON THE PLANS AT THE CONTRACTORS EXPENSE; HOWEVER, THE PAYMENT LINES MAY BE MODIFIED TO COINCIDE WITH NATURAL FAULTS OR FISSURES OF THE ROCK AS THE ENGINEER MAY DETERMINE.

TYPICAL C.C.M. PIPE INSTALLATIONS IN ROCK SLOPE



RODS: 7/8" DIAMETER ELECTRO-GALVANIZED WITH 6" LENGTH OF ½" ROLLED THREADS EACH END, FURNISHED CURVED, TO FIT PIPE. SEE TABLE "A"

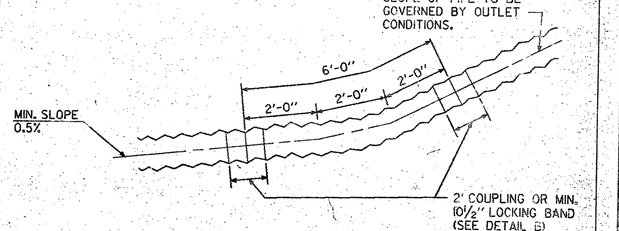
LUGS: DOUBLE TAKE UP, CAST IRON, ELECTRO-GALVINIZED.

NOTE: THE COUPLER FASTENING DEVICE SHALL NOT INTERFERE WITH INSTALLATION OF CONNECTER RINGS.

DETAIL "B"

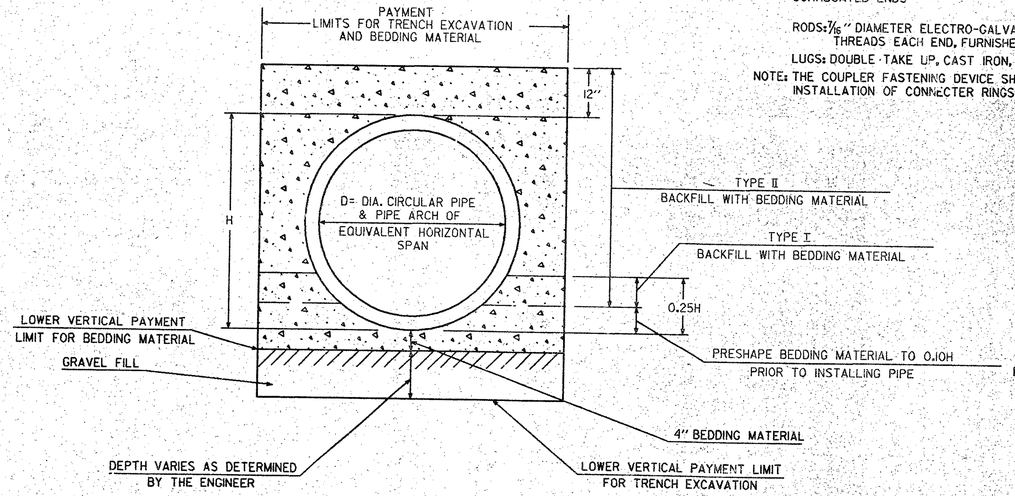
TABLE "A"
CONNECTOR RINGS

PIPE DIAMETER	LENGTH OF RING
12"	52"
15"	61"
18"	71"
21"	80"
24"	90"
30"	108"
36"	128"
42"	147"
48"	166"

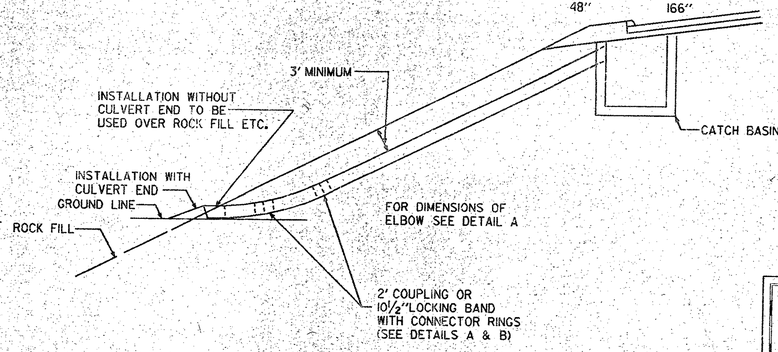


C.C.M.P. ELBOW AND COUPLING

DETAIL A



INSTALLATION
WHERE GRAVEL FILL IS USED
BEDDING FOR CULVERTS



TYPICAL APPLICATIONS OF C.C.M.P. ELBOW ON HIGH FILL

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON
Cadd File: 0SA2:E200,200351A.DGN

CONNECTICUT DOT — COMPUTER AIDED DESIGN — OFFICE OF ENGINEERING

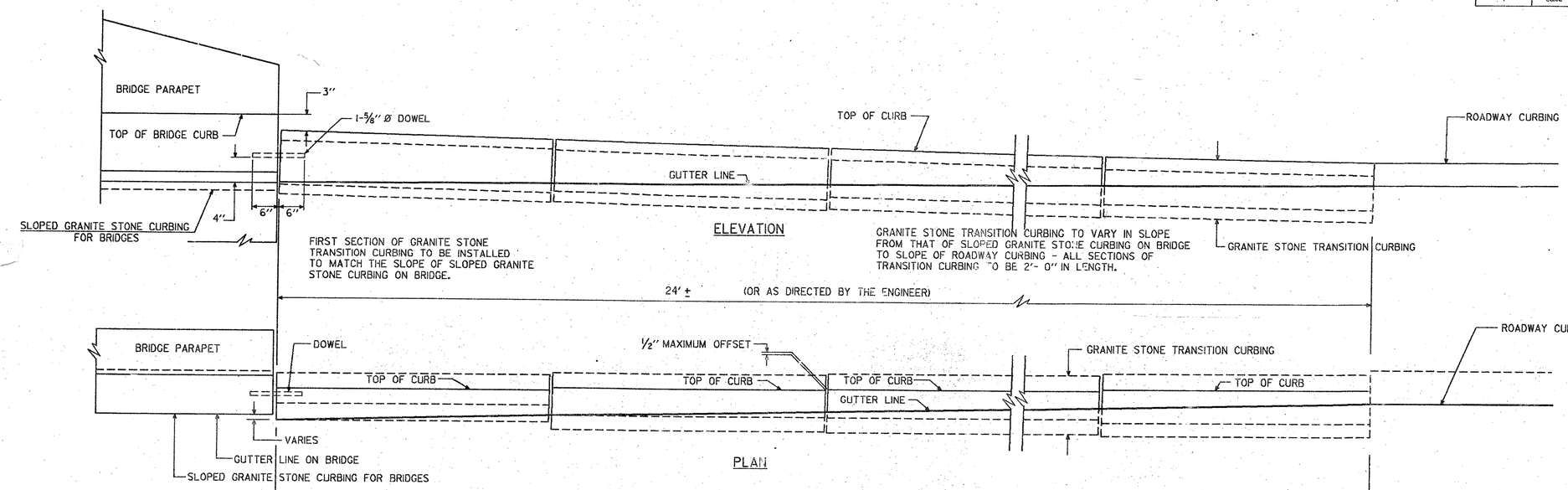
STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

TYPICAL CCM PIPE INSTALLATIONS IN EARTH AND ROCK SLOPES AND BEDDING FOR CULVERTS

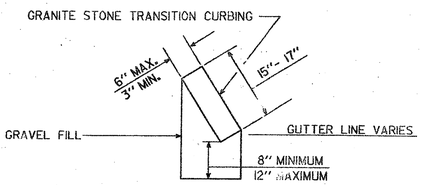
REVISIONS		
NO.	DATE	DESCRIPTION

Designed by:	SPECIAL STUDIES	Date: 10/15/88
Drafted by:	GLENN L. ARZT	Date: 11/16/88
Reviewed by:	TOM McMAHON	Date: 11/23/88
Approved Rec.:	JOSEPH OBARA	Date: 5/13/91
Approved:		Date: 5-15-91
F.H.W.A. Approval:		Date: 8-26-91
Scale:	NOT TO SCALE	STANDARD NUMBER 651-A

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
I	CONN.							



DETAIL SHOWING INSTALLATION OF
GRANITE STONE TRANSITION CURBING
BETWEEN
BRIDGE CURBING AND ROADWAY CURBING

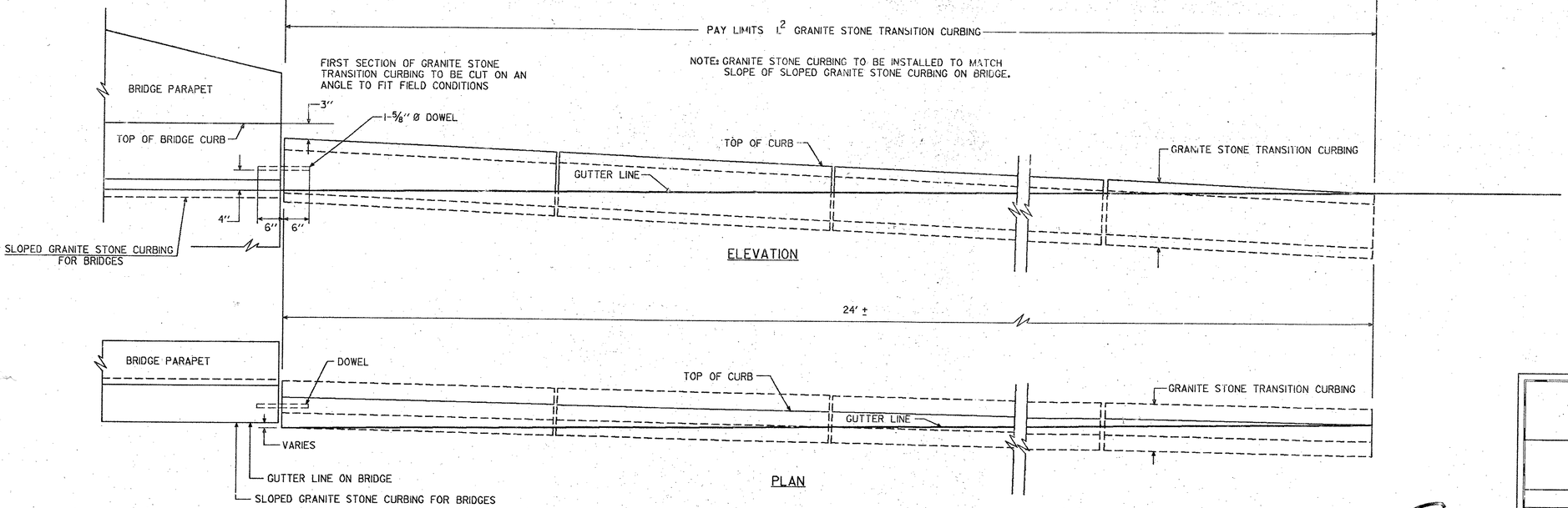


TYPICAL SECTION SHOWING
INSTALLATION OF
GRANITE STONE TRANSITION CURBING

NOTE:

1) GRANITE STONE TRANSITION CURBING WILL BE INSTALLED AS NOTED ON THE PLANS AND ACCORDING TO THE PERTINENT SPECIFICATIONS FOR "GRANITE SLOPE CURBING".

2) GRANITE STONE TRANSITION CURBING (INCLUDING DOWEL) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "GRANITE TRANSITION CURBING".



DETAIL SHOWING INSTALLATION OF
GRANITE STONE TRANSITION CURBING
ADJACENT TO BRIDGE CURBING
(NO ADJACENT ROADWAY CURBING)

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON
Cadd Files 0SA2x(200,200)816A.DGN

CONNECTICUT DOT COMPUTER AIDED DESIGN OFFICE OF ENGINEERING

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

GRANITE STONE TRANSITION CURBING

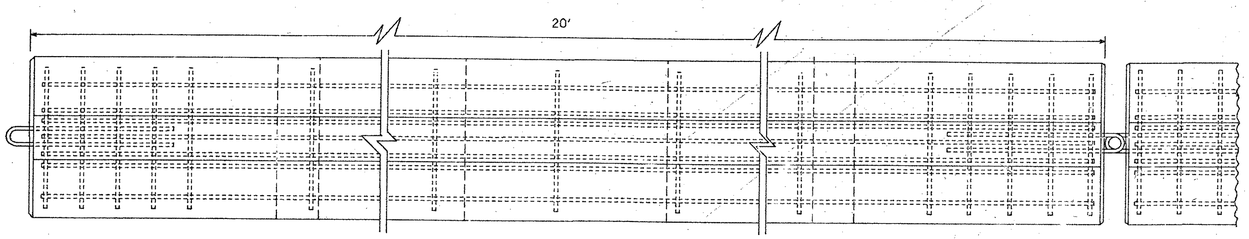
REVISIONS		
NO.	DATE	DESCRIPTION

Designed by: J. BARRY Date: 6/85
Drafted by: GLENN L. ARZT Date: 12/20/88
Reviewed by: T. McMAHON Date: 1/9/89
Approval Rec: J. JENSEN Date: 1/9/89
Approved: Date: 3-25-8
F.H.W.A. Approval: Date: 9/10/90

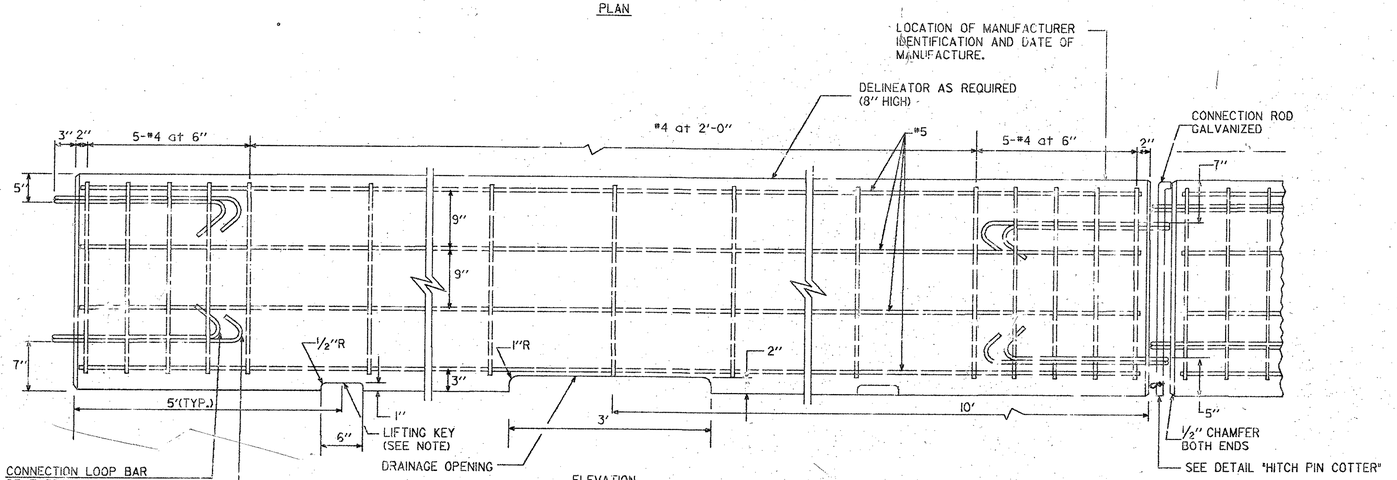
Scale: NOT TO SCALE

STANDARD NUMBER
816-A

F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
I	CONN.							

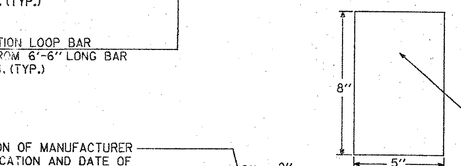


PLAN



ELEVATION

PRECAST UNIT



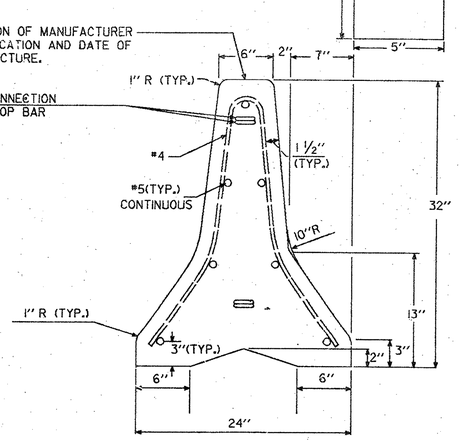
DE-7 ONE WAY SILVER
DE-7A ONE WAY YELLOW
DE-7B TWO WAY YELLOW
DE-7C SILVER/YELLOW BACK TO BACK

TEMPORARY PRECAST CONCRETE BARRIER DELINEATORS

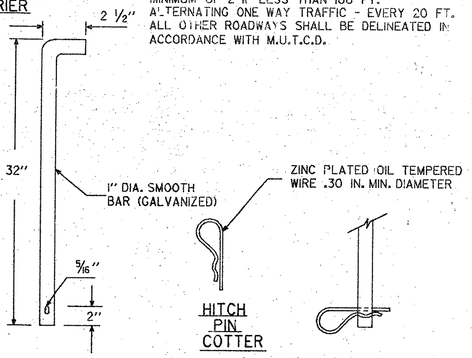
TEMPORARY BARRIER DELINEATORS ARE TO BE MOUNTED IN THE CENTER OF THE TEMPORARY BARRIER AS REQUIRED.

SPACING FOR TEMPORARY BARRIER DELINEATORS

ON THE LEADING TAPERED SECTION EVERY 20 FT.
ON THE FIRST 100 FT. OF THE PARALLEL SECT. - EVERY 20 FT.
ON THE REMAINING LENGTH - EVERY 5 TH SECT. (100FT.)
MINIMUM OF 2 IF LESS THAN 100 FT.
ALTERNATING ONE WAY TRAFFIC - EVERY 20 FT.
ALL OTHER ROADWAYS SHALL BE DELINEATED IN ACCORDANCE WITH M.U.T.C.D.



END VIEW



CONNECTION ROD

HITCH PIN COTTER

NOTE:
ALTERNATE DESIGNS FOR LIFTING KEYS, HOLES OR OTHER HANDLING DEVICES MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

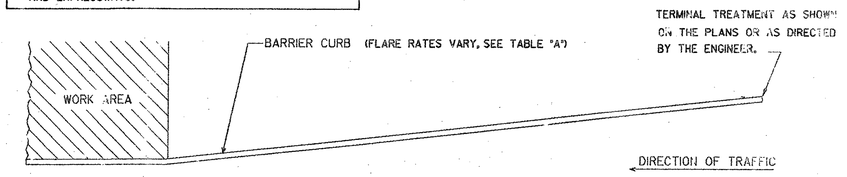
TABLE "A"

FLARE RATES

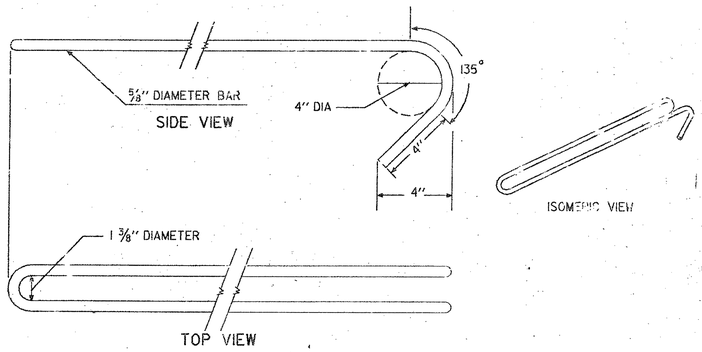
SPEED *	FLARE RATE **
30 MPH OR LESS	6 :1
40 MPH	8 :1
50 MPH OR GREATER	10 :1

* ANTICIPATED TRAVEL SPEED THROUGH THE WORK AREA.

** 10 :1 FLARE RATE TO BE USED FOR ALL FREEWAYS AND EXPRESSWAYS.



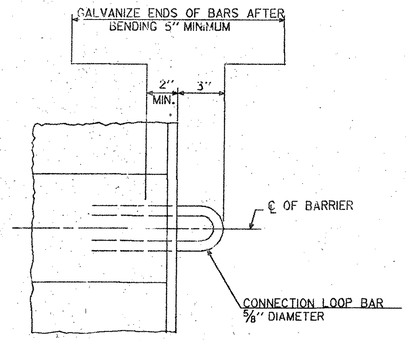
TYPICAL TEMPORARY BARRIER INSTALLATION



CONNECTION LOOPS

TOTAL BAR LENGTHS 6'-0" AND 6'-6"

NOTE:
CONNECTION BARS SHALL BE BENT FROM 5/8" DIAMETER SMOOTH BARS CONFORMING TO AISI HR 1018 OR EQUIVALENT.
ALTERNATE DESIGNS FOR CONNECTIONS MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.



PLAN

CONNECTION DETAIL

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON
Cadd Files 05A2\C200\200322A.DGN

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

PRECAST CONCRETE BARRIER CURB FOR TEMPORARY TRAFFIC CONTROL

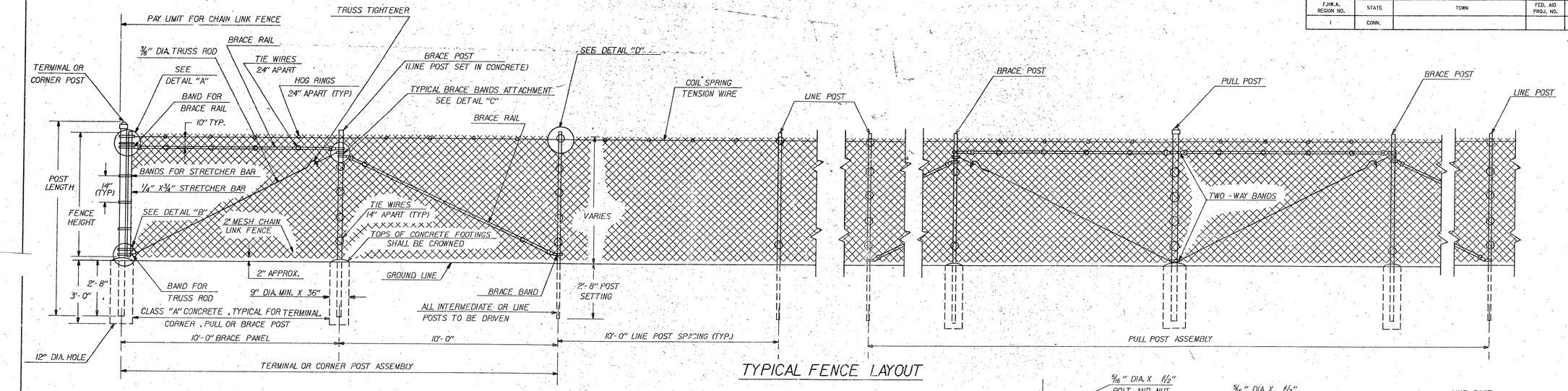
REVISIONS NO.	DATE	DESCRIPTION

Designed by:	SPECIAL STUDIES	Date: JAN. 88
Drafted by:	GLENN L. ARZT	Date: JULY 89
Reviewed by:	T. McMAHON	Date: JULY 89
Approval Rec:	J. O'BARA	Date: MAR 91
Approved:		Date: 3-11-91
F.H.W.A. Approval:		Date: 8-26-91

Scale: NOT TO SCALE

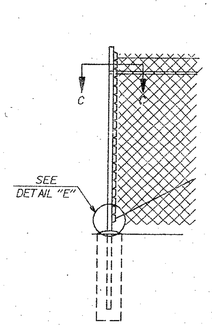
STANDARD NUMBER 822-A

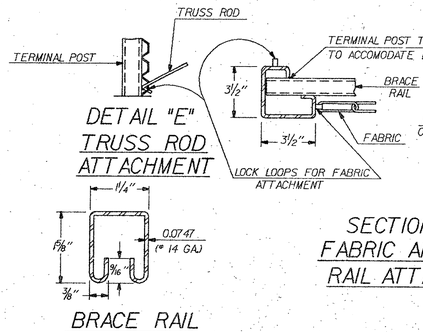
F.H.W.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.							1



TYPICAL FENCE LAYOUT

ROUND PIPE TERMINAL CORNER OR PULL POST

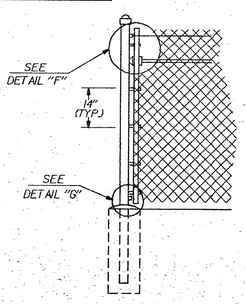




ROLL-FORMED SECTION TERMINAL, CORNER OR PULL POST

DETAIL "E" TRUSS ROD ATTACHMENT

BRACE RAIL



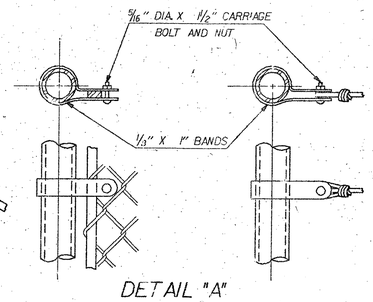
SQUARE TUBULAR TERMINAL, CORNER OR PULL POST

NOTE: A MINUS TOLERANCE OF 5% IN SIZE AND WEIGHT SHALL BE ALLOWED FOR THESE MEMBERS, BUT SHALL NOT APPLY TO THE ZINC OR POLYVINYL CHLORIDE COATING.

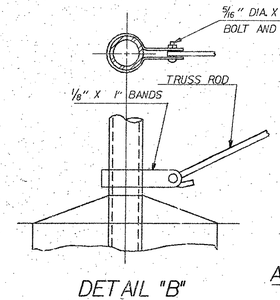
	TYPE	MATERIAL	FENCE HEIGHT 6' OR LESS DIMENSIONS INCHES	6' OR LESS WEIGHT Lbs.per ft.	GREATER THAN 6' DIMENSIONS INCHES	GREATER THAN 6' WEIGHT Lbs.per ft.
LINE BRACE OR INTERMEDIATE POST	"H"	STEEL	1.87 X 1.62	2.70	2.25 X 1.70	3.26
		ALUM. ALLOY		0.91		1.25
	"C"	STEEL	1.87 X 1.62	2.28	2.25 X 1.70	2.64
	PIPE	STEEL CLASS 1	1.90 O.D.	2.72	2.37 O.D.	3.65
		STEEL CLASS 2		2.28		3.12
		ALUM. ALLOY		0.94		1.25
BRACE RAIL (OR TOP RAIL WHEN SPECIFIED)	ROLL-FORMED *	STEEL	1.62 X 1.25	1.35	———	———
	PIPE	STEEL CLASS 1	1.31 O.D.	1.68	1.66 O.D.	2.27
		STEEL CLASS 2		1.34		1.84
		ALUM. ALLOY	1.62 O.D.	0.78	1.62 O.D.	0.78
TERMINAL CORNER OR PULL POST	ROLL-FORMED *	STEEL	3.50 X 3.50	4.84	———	———
	TUBULAR	STEEL	2.00 X 2.00	3.60	2.50 X 2.50	5.70
		ALUM. ALLOY	2.50 X 2.50	1.25	3.00 X 3.00	2.00
	PIPE	STEEL CLASS 1	2.37 O.D.	3.65	2.87 O.D.	5.79
		STEEL CLASS 2		3.12		4.64
		ALUM. ALLOY		1.25		2.00

* DIMENSIONS AND WEIGHT ARE FOR A FENCE HEIGHT OF 9' OR LESS.

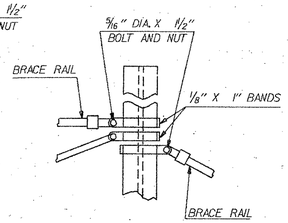
MINIMUM DIMENSIONS AND WEIGHTS OF POSTS AND RAILS



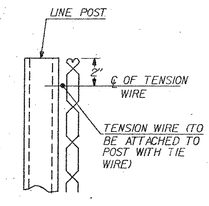
DETAIL "A" STRETCHER BAR AND TENSION WIRE ATTACHMENTS



DETAIL "B" TRUSS ROD ATTACHMENT



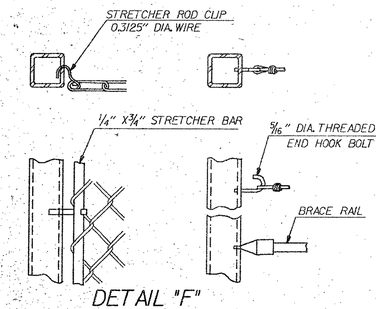
DETAIL "C" ATTACHMENT OF BRACE RAILS TO LINE POSTS (TYPICAL)



DETAIL "D" LOCATION OF TENSION WIRE

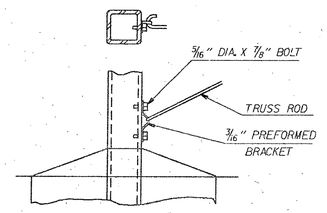
GENERAL NOTES

1) REFER TO SPECIFICATIONS FOR LOCATION OF PULL POST ASSEMBLIES.
2) ALL SQUARE AND ROUND POSTS WILL BE CAPPED TO PREVENT WATER FROM ENTERING.
3) WHERE ROCK IS ENCOUNTERED IT SHALL BE DRILLED AND THE POSTS SET IN CONCRETE OR MORTAR.



DETAIL "F" STRETCHER BAR AND TENSION WIRE ATTACHMENTS TO SQUARE TERMINAL POST

NOTE: BANDS MAY ALSO BE USED FOR ATTACHMENT



DETAIL "G" TRUSS ROD ATTACHMENT

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

CHAIN LINK FENCE

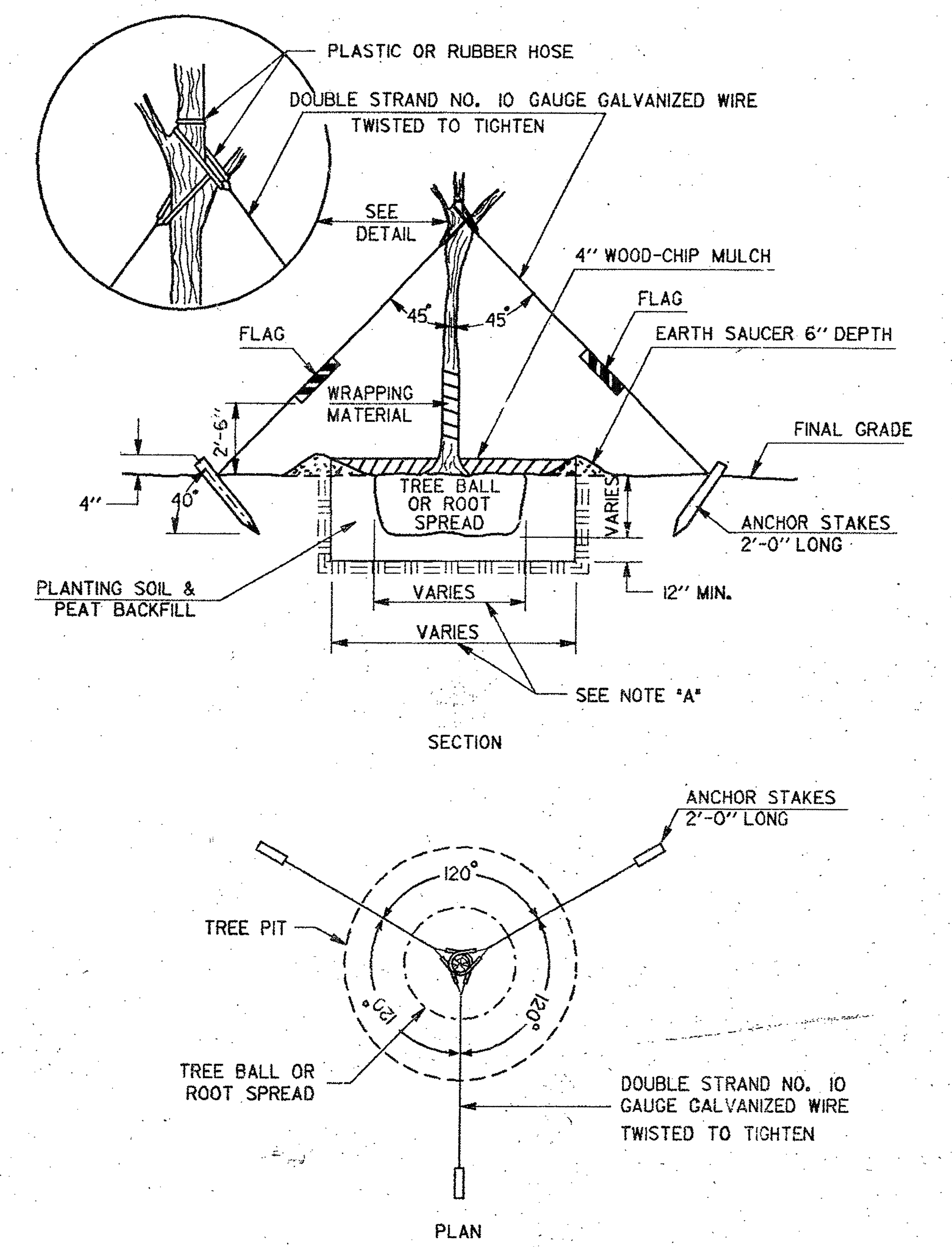
REVISIONS NO.	DATE	DESCRIPTION

Designed by: T. McMAHON Date: 2-9-77
Drafted by: ROGER N. BAROUTJIAN Date: 4-18-89
Reviewed by: C.R. Birkholz Date: 4-18-89
Approval Rec: J.B. JENSEN Date: 4-18-89
Approved: Date: 7-20-89
F.H.W.A. Approval: Date: 12/3/90

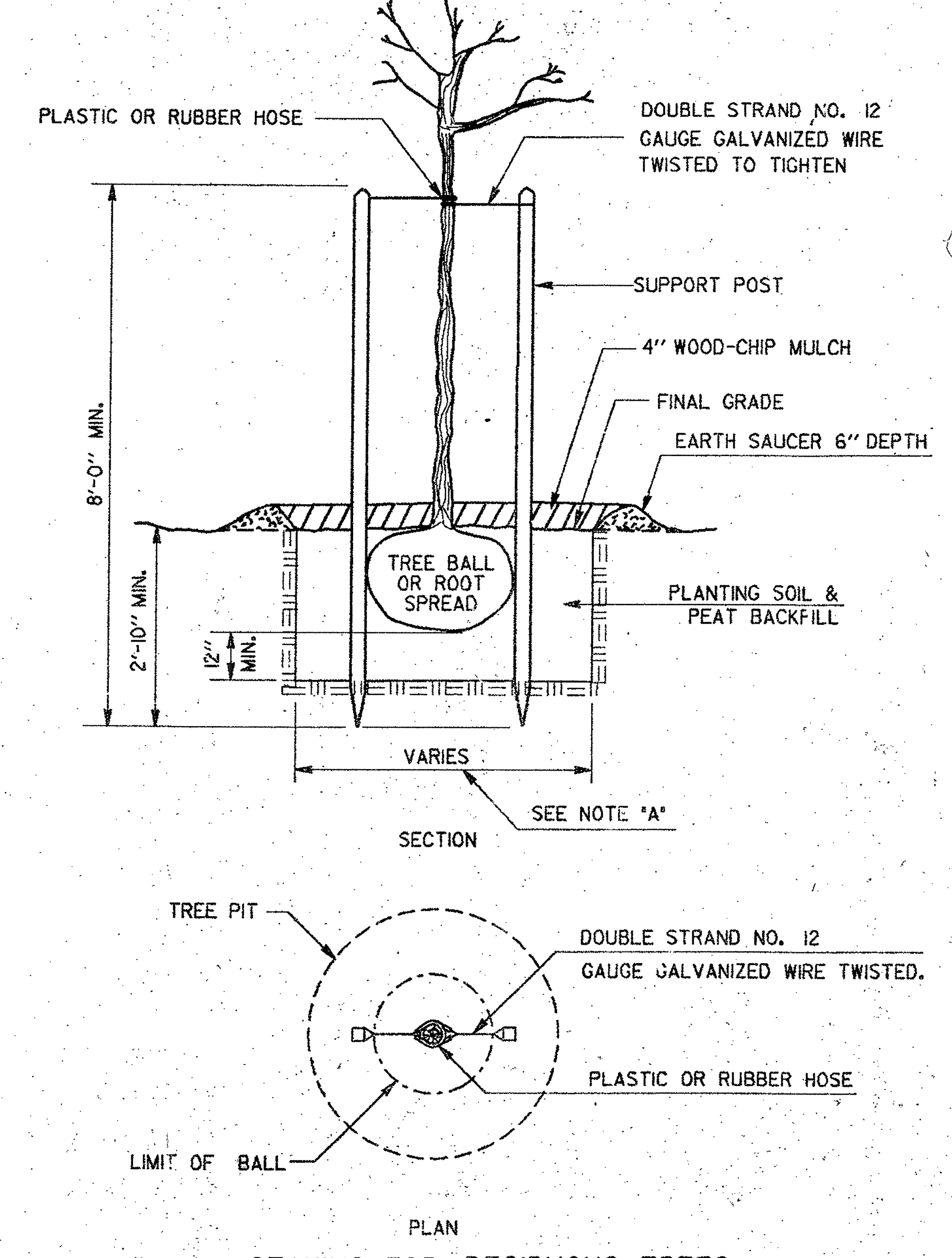
Scale: NOT TO SCALE

STANDARD NUMBER 913-A

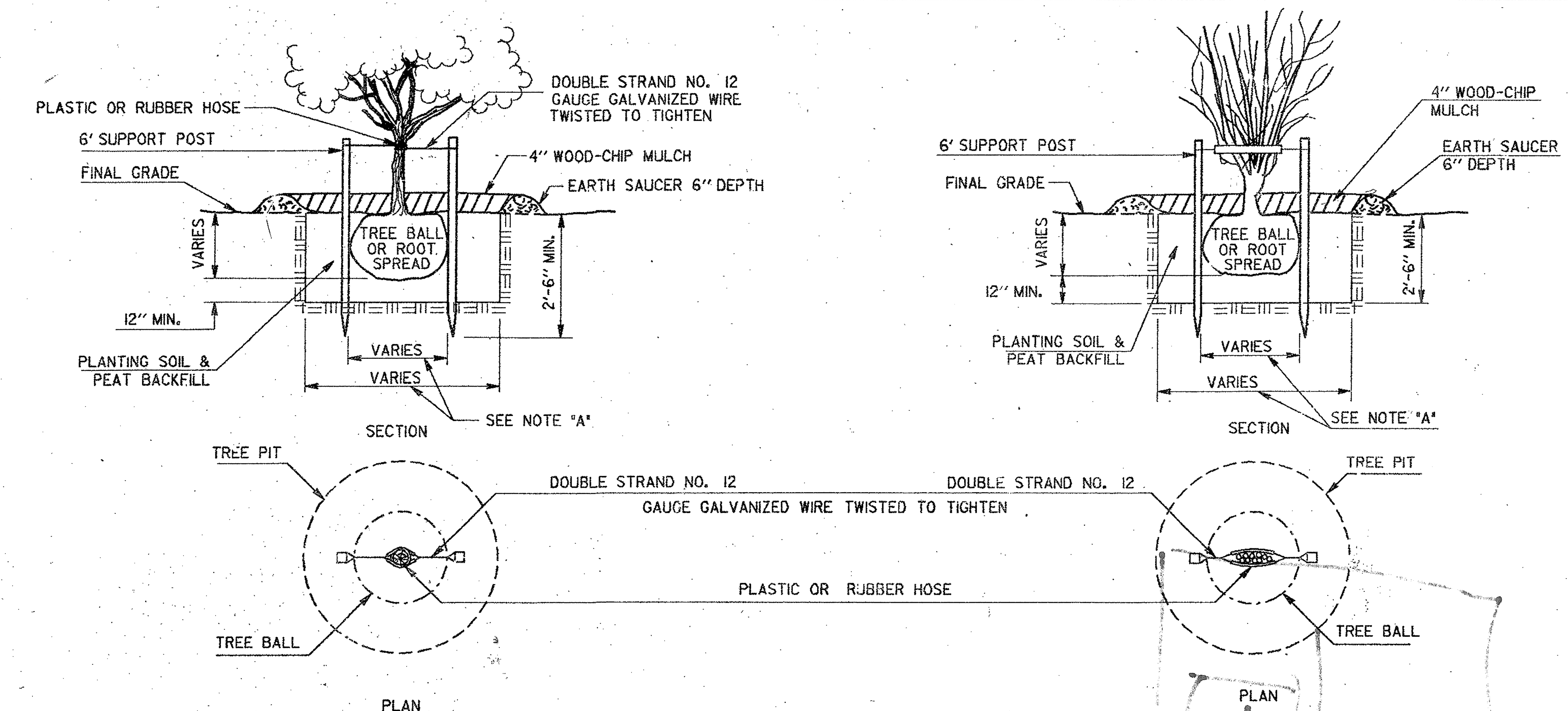
F.HW.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.							



GUYING FOR DECIDUOUS TREES 3" IN CALIBER AND OVER AND FOR EVERGREEN TREES 8' AND OVER IN HEIGHT

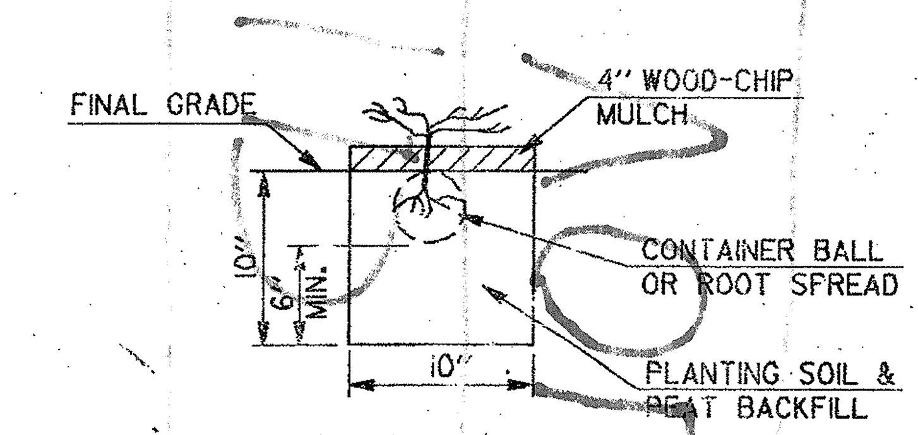


STAKING FOR DECIDUOUS TREES LESS THAN 3" IN CALIBER

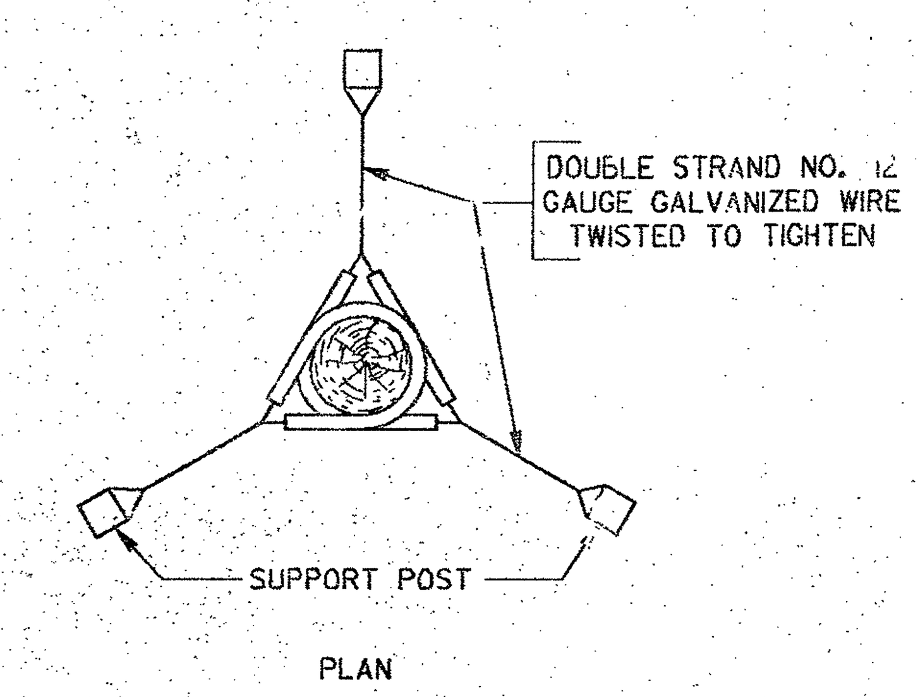


STAKING FOR LOW BRANCHED DECIDUOUS TREES AND EVERGREEN TREES FROM 5' TO 8' HIGH

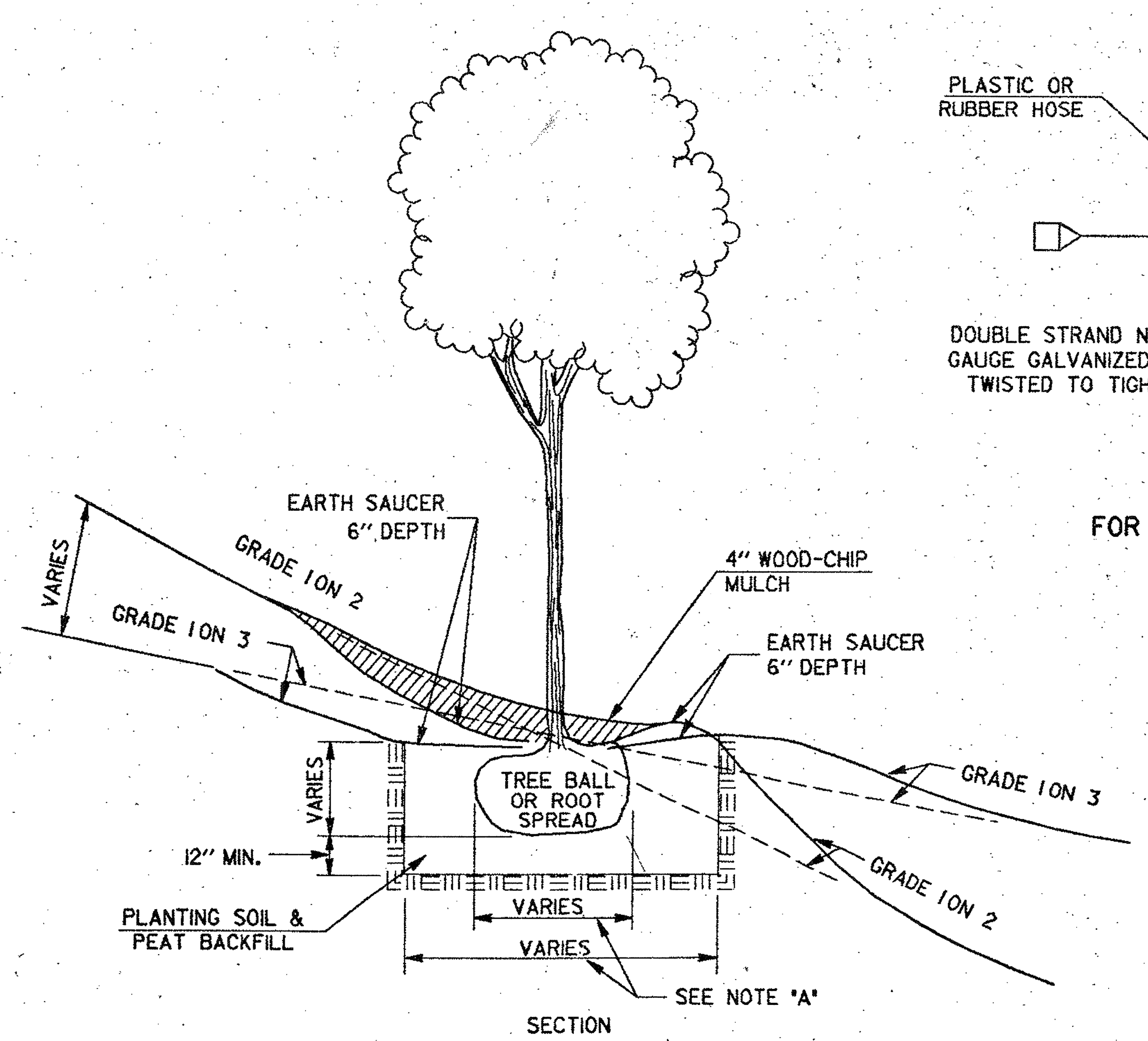
STAKING FOR BUSH FORM DECIDUOUS TREES FROM 5' TO 10' HIGH



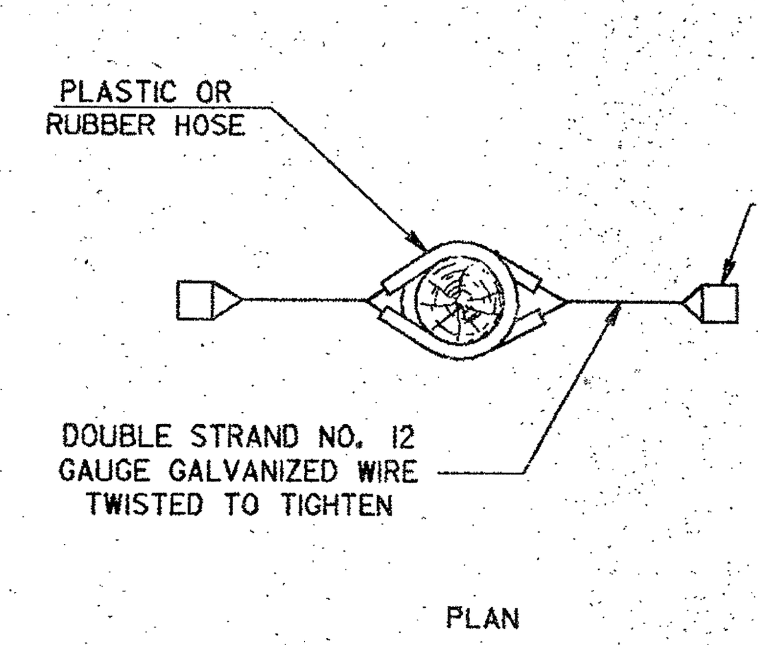
PLANTING FOR SEEDLINGS, VINES AND GROUND COVER PLANTS IN PITS ON SLOPES



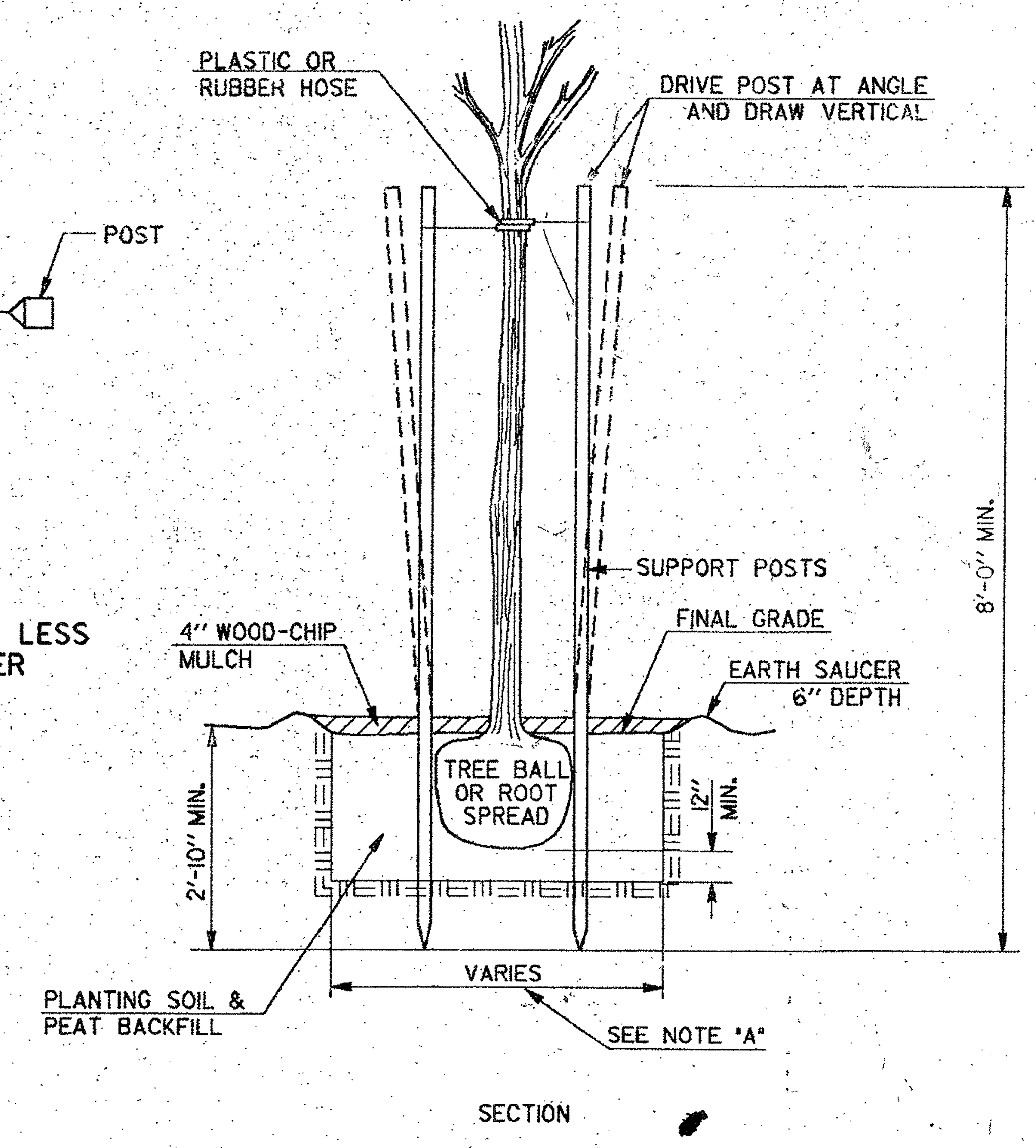
FOR DECIDUOUS TREES 3" IN CALIBER AND OVER



GRADING FOR TREE ON SLOPE

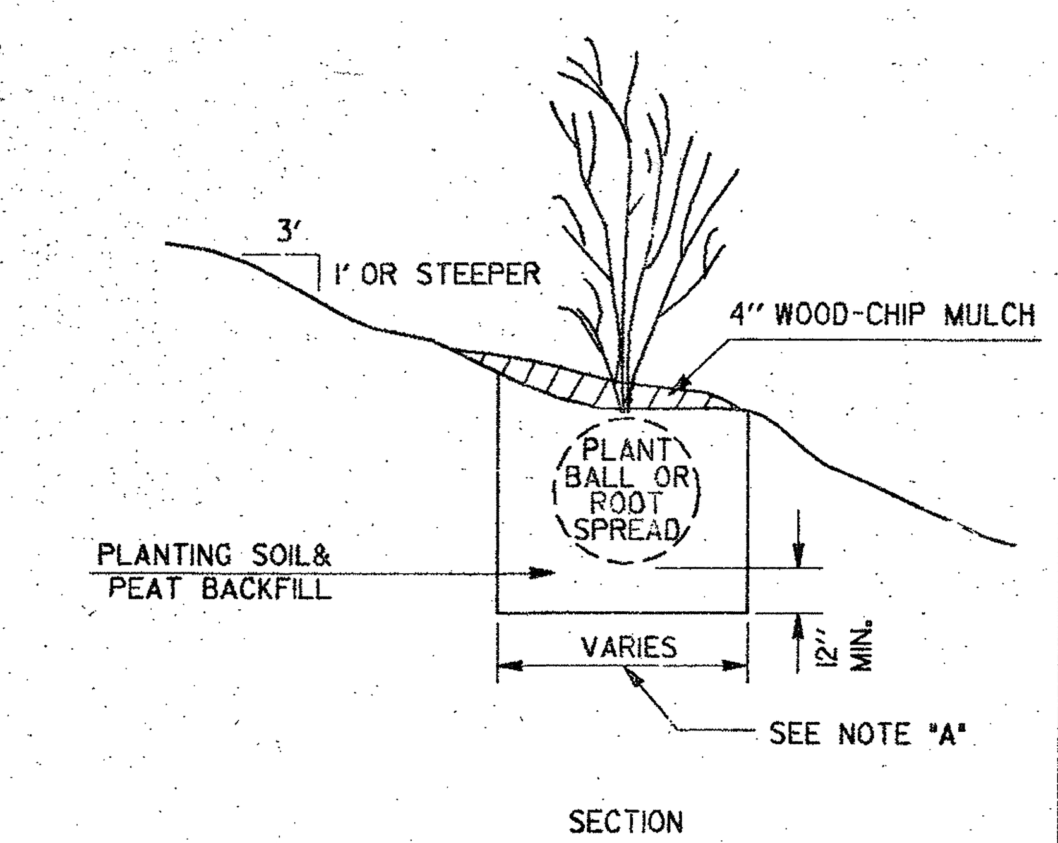


FOR DECIDUOUS TREES LESS THAN 3" IN CALIBER



STAKING FOR DECIDUOUS TREES WITHIN 10 FEET OF WALKS AND OTHER PEDESTRIAN TRAFFIC

NOTE: FOR TREES 3" IN CALIBER AND OVER, USE 3 POSTS. FOR TREES LESS THAN 3" IN CALIBER USE 2 POSTS.

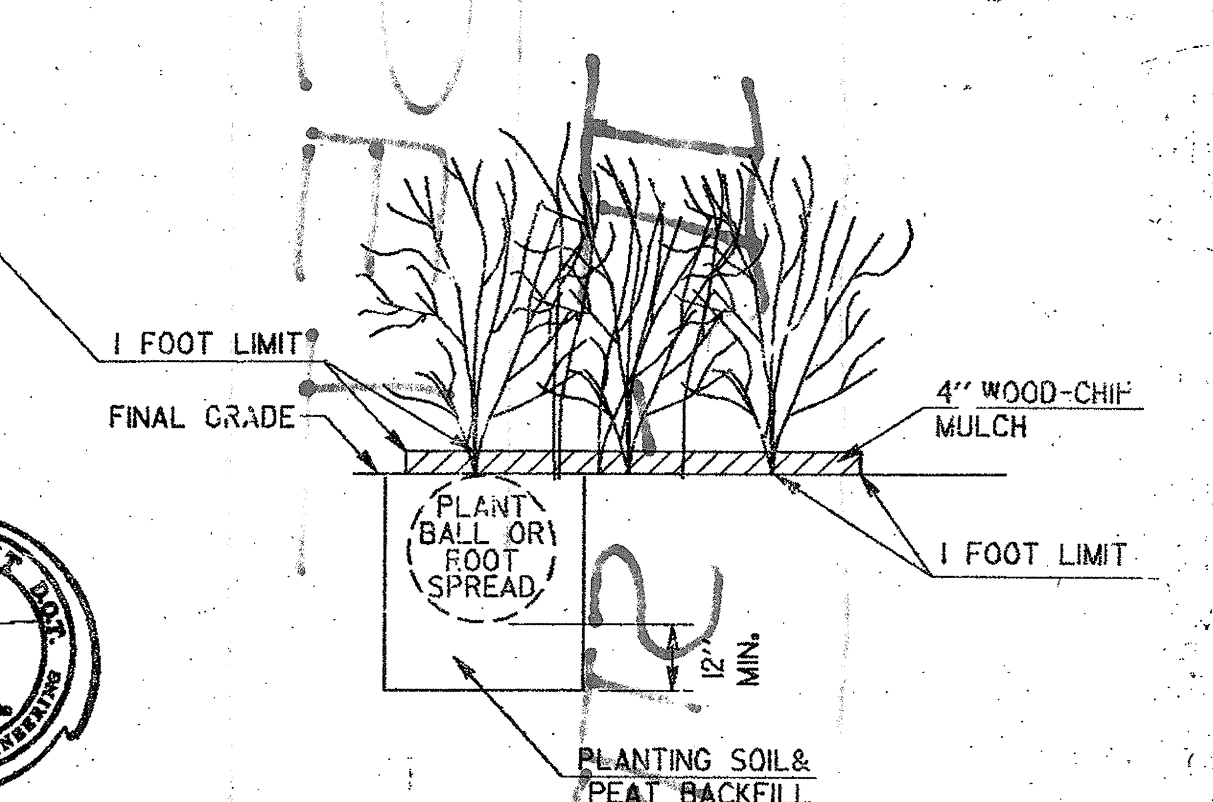


PLANTING FOR SHRUBS IN INDIVIDUAL PITS ON STEEP SLOPES

NOTE "A":
FOR WIDTH SEE STANDARD SPECIFICATIONS

MULCHING OF PLANT BEDS

UNLESS OTHERWISE DIRECTED WOOD-CHIP MULCH SHALL BE PLACED TO A LIMIT OF ONE FOOT BEYOND THE CENTER OF THE OUTERMOST SHRUBS IN SHRUB BED.



PLANTING FOR SHRUBS IN BEDS

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON Cadd Files 05A2(200,200)949.DGN

STANDARD SHEET
CONN. DEPT. OF TRANSPORTATION

PLANTING DETAILS

REVISIONS		
NO.	DATE	DESCRIPTION

Designed by:	D. Ginter	Date: 1-30-68
Drafted by:	J. Concellero	Date: 7-13-89
Reviewed by:	T. McMahon	Date: 7-13-89
Approval Rec:	J. Jensen	Date: 7-13-89
Approved:	[signature]	Date: 7-90
F.Hw.A. Approval:		Date: 12/3/90

Scale: NOT TO SCALE

STANDARD NUMBER 949