

NOTES

Class of Concrete
Deck & barrier walls — 4000 P.S.I.
Piers — 4000 P.S.I.
Remainder — 3000 P.S.I.
Or as noted on drawings

Clear Cover on Reinf. Steel
Footings — 3"
Abutts. — 3"
Deck — 2" top; 1" bot
Barrier walls — As shown
Or as noted on drawings

Construction Notes
The Contractor shall be responsible for finishing the bearing seat dead level to the specified elevations with a tolerance of ± 1/8".
No concrete shall be placed above the abutment bearing seats until concrete in the deck has been placed.
Reinforcing Steel Grade — 400
Reinf. bars with the designation 'C' at the end of the bar marks shall be coated bars Formwag
The formwork between deck and ballast walls (e.g. expanded polystyrene) shall be removed by the Contractor.

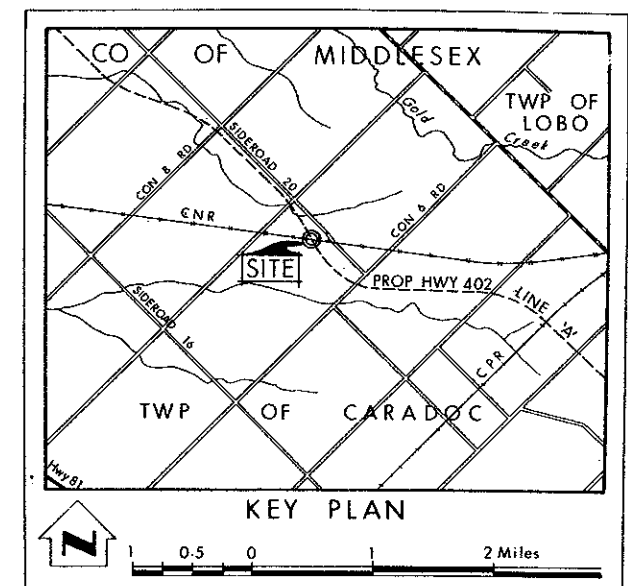
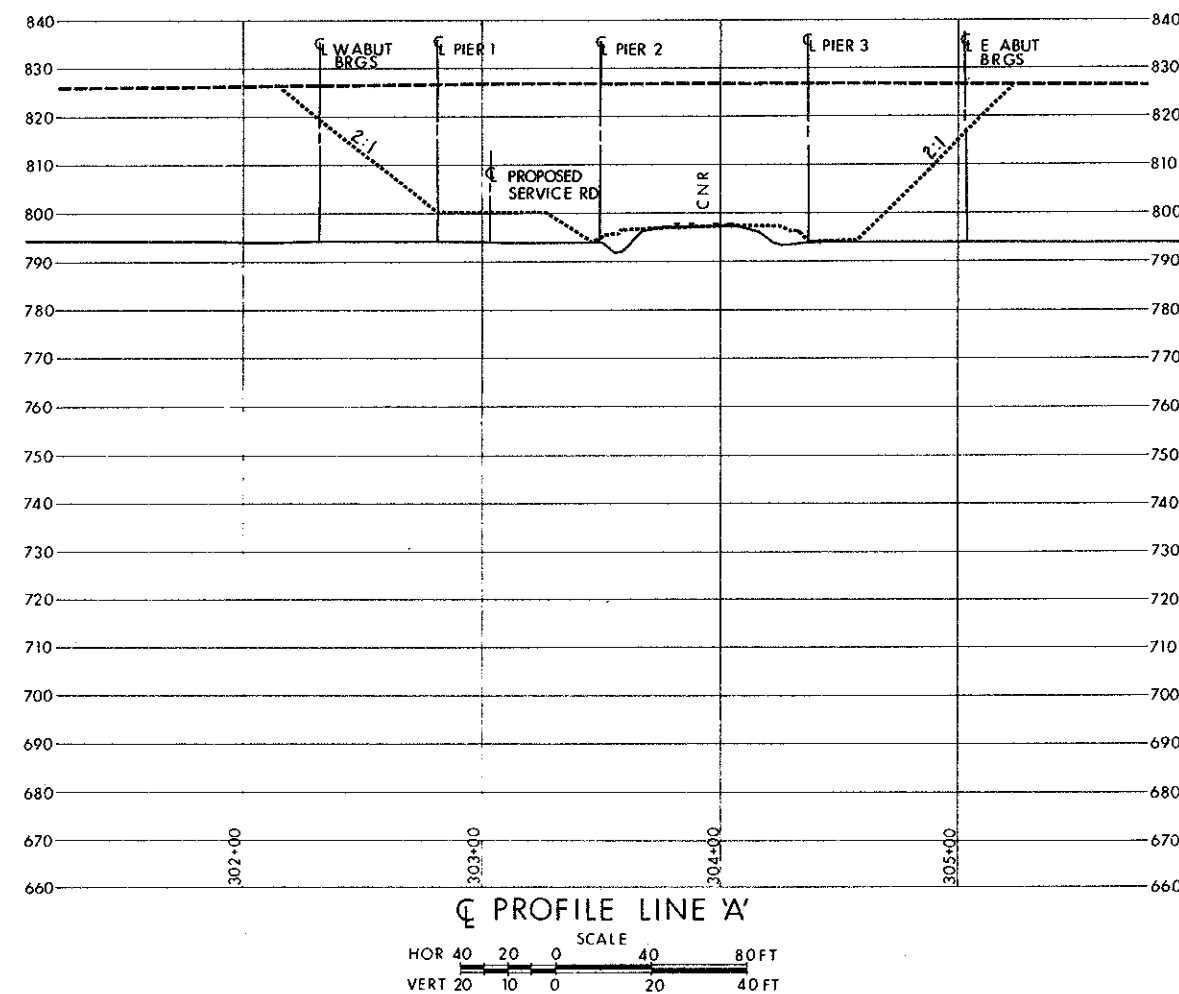
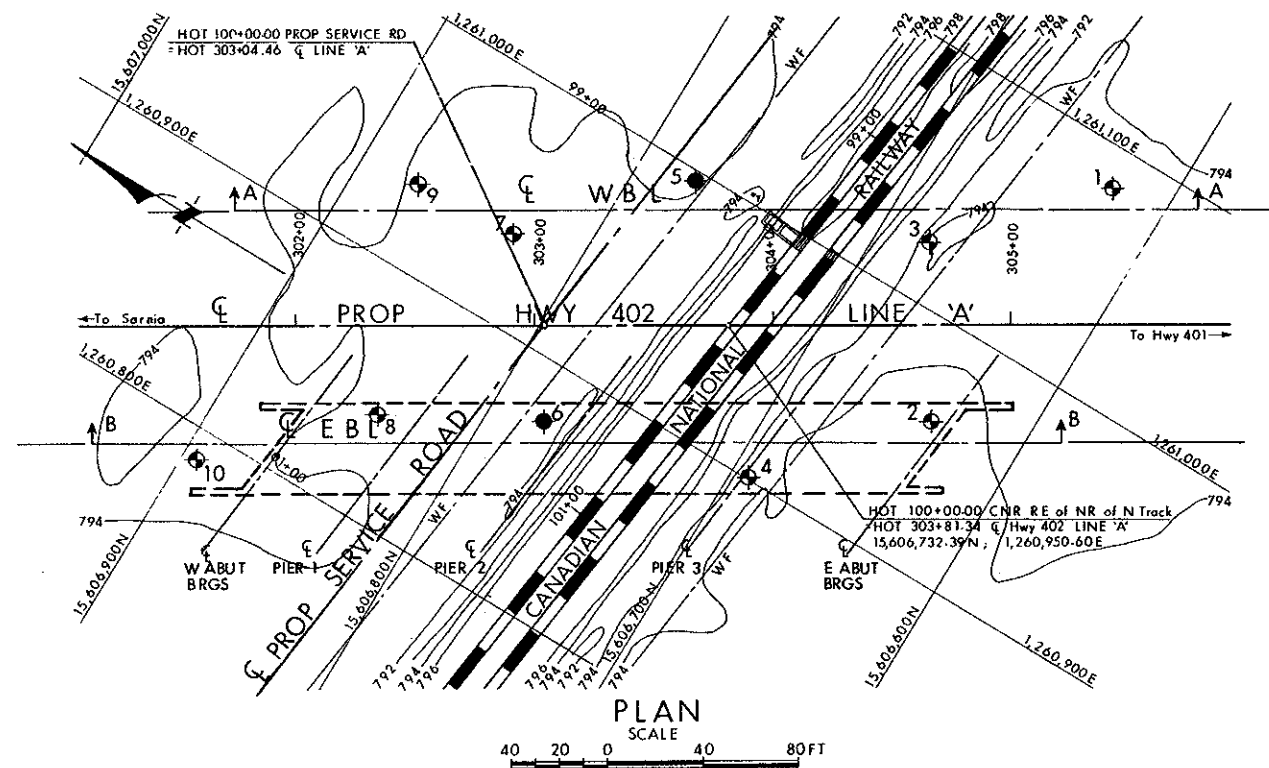
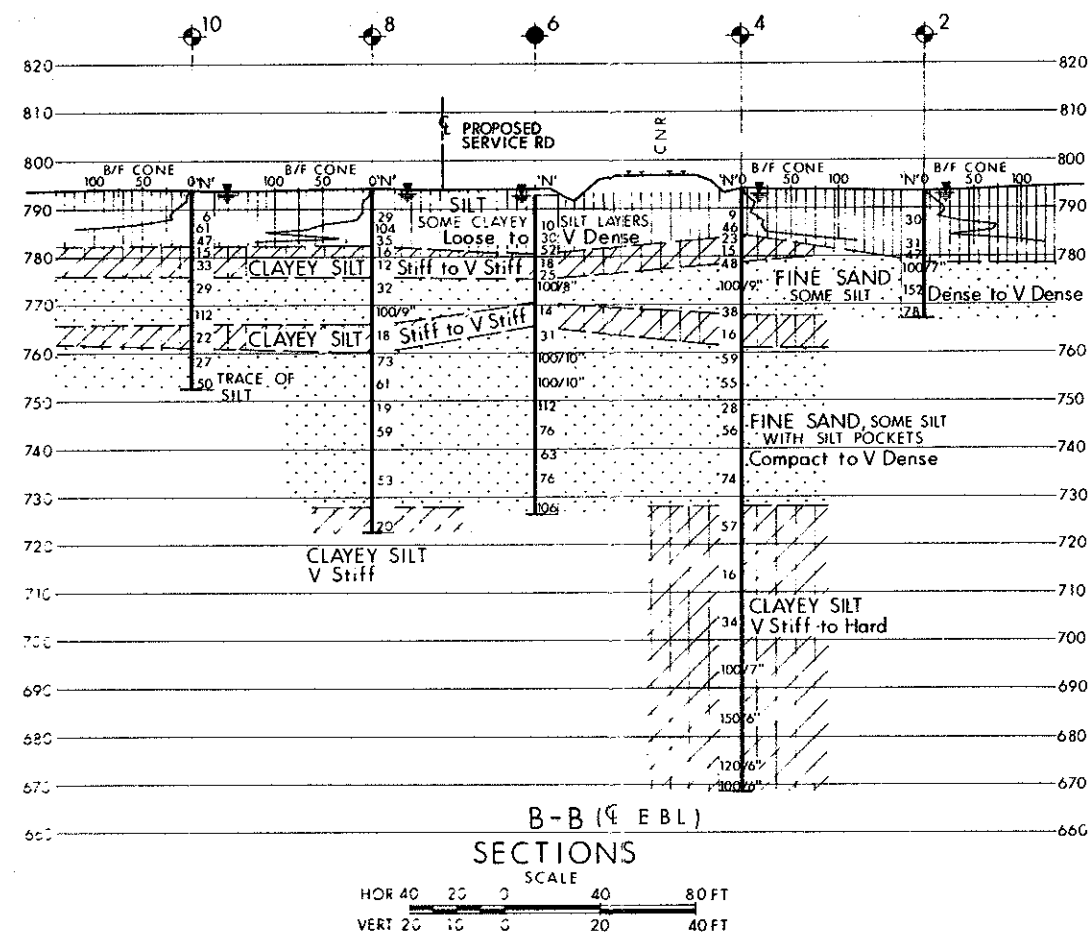
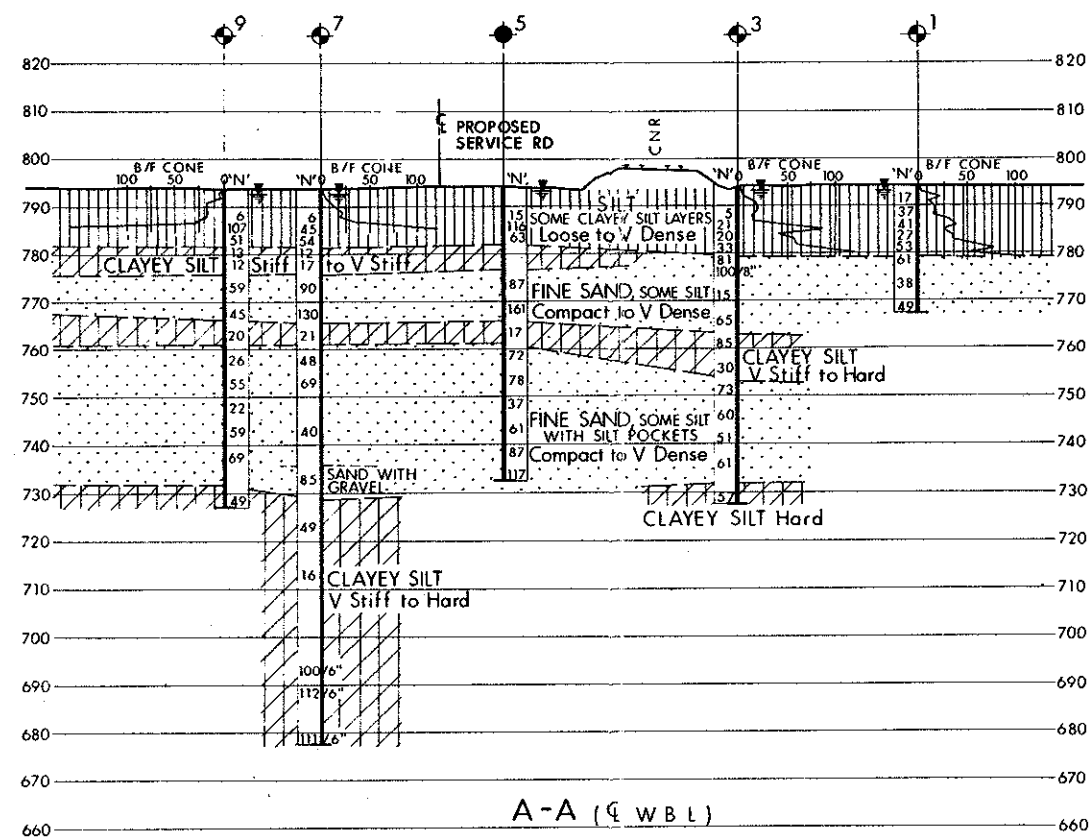
Concrete & Structural Steel Quant.
Concrete & structural steel quantities are listed below for the appropriate lump sum tender items:
Concrete in piers, abutts. & wingwalls — 3000 P.S.I. — 163 Cu. yd.
4000 P.S.I. — 202 Cu. yd.
Concrete in deck — 277 Cu. yd.
Concrete in barrier walls — 47 Cu. yd.
Concrete in approach slabs — 45 Cu. yd.
Structural Steel — 89 Tons

LIST OF DRAWINGS

19-527A - 1 General Plan
2 Bore Hole Locations & Soil Strata
3 Foundation Layout
4 Footing Reinforcing
5 West Abutment
6 East Abutment
7 Pier #1
8 Piers #2 & #3
9 Structural Steel I
10 Structural Steel II
11 Structural Steel III
12 Deck Details & Screed Elevations
13 Deck Reinforcing
14 Barrier Walls
15 Steel Railing
16 20 Ft. Approach Slabs
17 Standard Details I
18 Standard Details II
19 Standard Details III
20 As Constructed Elevations

B.M. 794.97
Geodetic Datum
N & W in NW Root at 2.5 Maple
505' Lt 30' 10' Line 'A'

REVISIONS	DATE	BY	DESCRIPTION
DESIGN	2.2	CHECK J.L.K.	LOADING HS-20-44
DRAWING	D.C.	CHECK J.L.K.	SITE No 19-527A DWG 1



LEGEND			
	Bore Hole		
	Dynamic Cone Penetration Resistance Test B/F CONE - Blows/Ft. Cone Test (350 ft. lbs. energy/blow)		
	Bore Hole & Cone Test		
	Water Levels established at time of field investigation, Feb. 1976		
NO.	ELEVATION	CO-ORDINATES	
		NORTH	EAST
1	794.3	15,606,624	1,261,084
2	793.5	15,606,638	1,260,960
3	794.1	15,606,678	1,261,024
4	794.0	15,606,692	1,260,901
5	794.3	15,606,776	1,260,996
6	792.7	15,606,778	1,260,876
7	793.8	15,606,830	1,260,937
8	794.0	15,606,839	1,260,843
9	793.7	15,606,874	1,260,935
10	794.0	15,606,894	1,260,788

NOTE
The boundaries between soil strata have been established only at Bore Hole locations. Between Bore Holes the boundaries are assumed from geological evidence.

REVISION	DATE	DESCRIPTION
1	81	

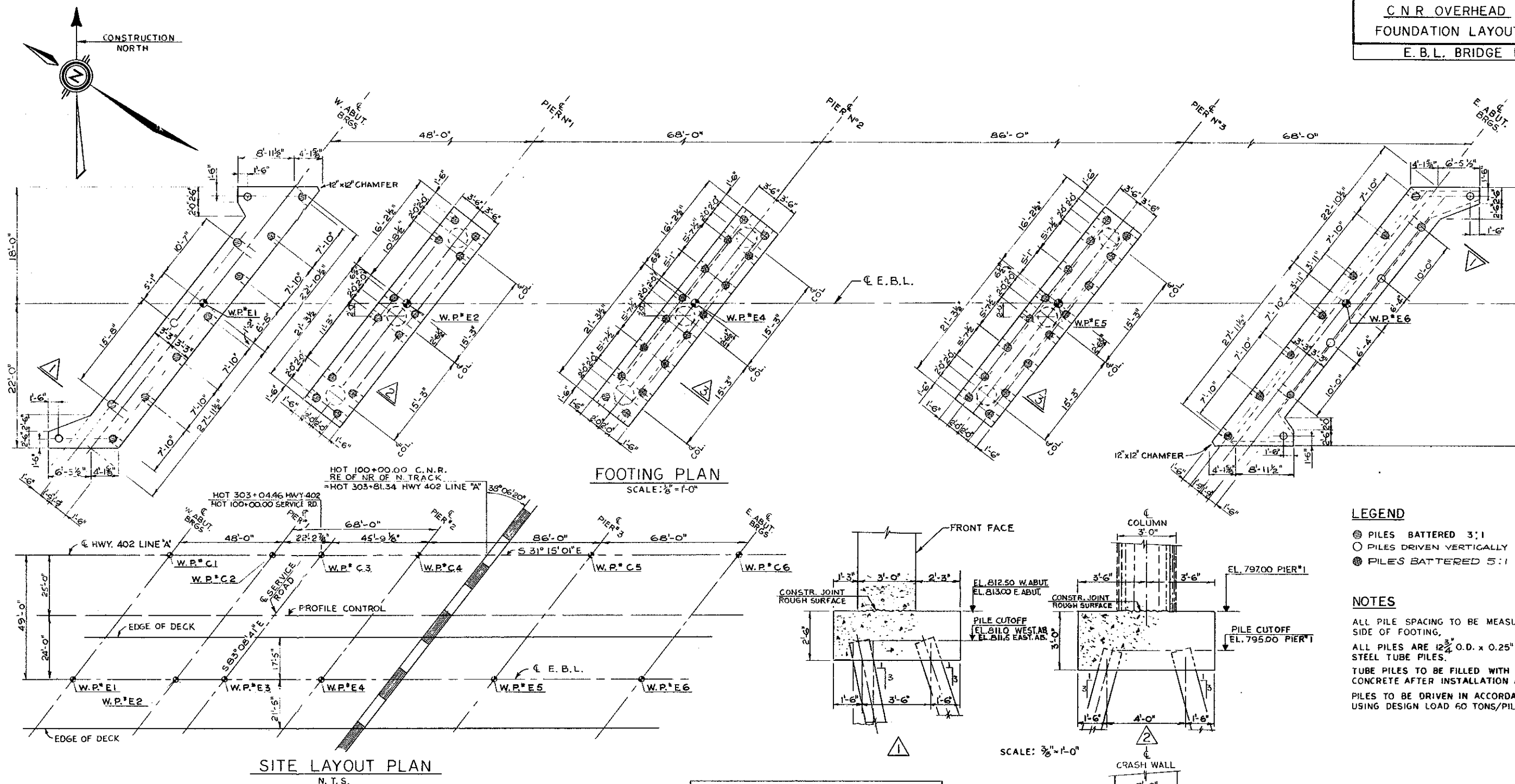
MINISTRY OF TRANSPORTATION AND COMMUNICATIONS—ONTARIO
HIGHWAY ENGINEERING DIVISION—ENGINEERING MATERIALS OFFICE—SOIL MECHANICS SECTION

CANADIAN NATIONAL RAILWAY
(5.8 Miles West of Hwy 2)

HIGHWAY NO. Prop 402 LINE 'A' E.B.L. DIST NO. 2
CO. MIDDLESEX
TWP. CARADOC LOT CON

BORE HOLE LOCATIONS & SOIL STRATA

SUBMD PJS. CHECKED	WP NO 40-66-13	DRAWING NO
DRAWN CHECKED	W/O NO	214
DATE April 21, 1976	SITE NO 19-527	BRIDGE DRAWING NO
APPROVED	CONT NO 79-51	19-527A-2



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

SITE LAYOUT PLAN
 N.T.S.

LEGEND

- PILES BATTERED 3:1
- PILES DRIVEN VERTICALLY
- PILES BATTERED 5:1

NOTES

ALL PILE SPACING TO BE MEASURED AT UNDER SIDE OF FOOTING.
 ALL PILES ARE 12 3/4" O.D. x 0.25" WALL THICKNESS STEEL TUBE PILES.
 TUBE PILES TO BE FILLED WITH 3000 P.S.I. CONCRETE AFTER INSTALLATION AND INSPECTION.
 PILES TO BE DRIVEN IN ACCORDANCE WITH SS3-II USING DESIGN LOAD 60 TONS/PILE.

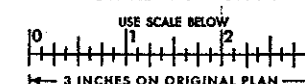
CONCRETE QUANTITI IN TUBE PILES — 100 C. Y.

PILE DATA					
LOCATION	FACE	N° REQD	BATTER	LENGTH	
W. ABUTMENT	FRONT	7	1:3	62'-0"	
	REAR	3	VERTIC.	58'-0"	
	REAR	2	1:3	62'-0"	
PIER N°1	WEST	6	1:3	44'-0"	
	EAST	6	1:3	44'-0"	
	NORTH	2	1:3	37'-0"	
PIER N°2	SOUTH	2	1:3	37'-0"	
	WEST	6	1:5	36'-0"	
	EAST	6	1:5	36'-0"	
PIER N°3	W. & E. FACE	16	1:3	41'-0"	
	FRONT	7	1:3	62'-0"	
	REAR	2	1:3	62'-0"	
E. ABUTMENT	REAR	4	VERTIC.	58'-0"	

W. P.	STATION	CO-ORDINATES		W. P.	STATION	CO-ORDINATES	
		NORTH	EAST			NORTH	EAST
W.P. C1	302+34.22	15606858.16	1260874.28	W.P. E1	301+95.79	15606865.60	1260812.45
W.P. C2	302+82.22	15606817.13	1260899.18	W.P. E2	302+43.79	15606824.56	1260837.35
W.P. C3	303+04.46	15606798.11	1260910.72	W.P. E3	302+66.03	15606805.55	1260848.89
W.P. C4	303+50.22	15606758.99	1260934.46	W.P. E4	303+11.79	15606766.43	1260872.63
W.P. C5	304+36.22	15606685.47	1260979.07	W.P. E5	303+97.79	15606692.91	1260917.24
W.P. C6	305+04.22	15606627.34	1261014.35	W.P. E6	304+65.79	15606634.77	1260952.52

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

FOR REDUCED PLAN



REVISIONS	DATE	BY	DESCRIPTION
DESIGN A.K.	CHECK P.K.	LOADING HS20-44	DATE MAR. 78
DRAWING Z.K.	CHECK P.K.	SITE No 19-527A	DWG 3

Clear Cover on Reinf. Steel

Footings	3"
Abuts.	3"
Deck	2" top; 1" bot.
Barrier walls	As shown

Or as noted on drawings

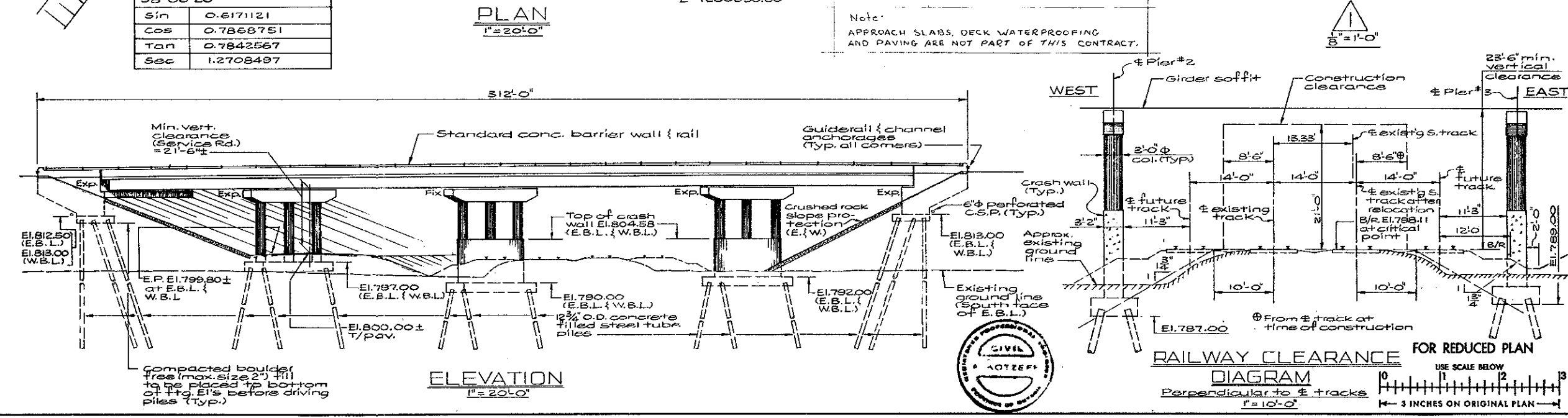
No concrete shall be placed above the abutment bearing seats until concrete in the deck has been placed.

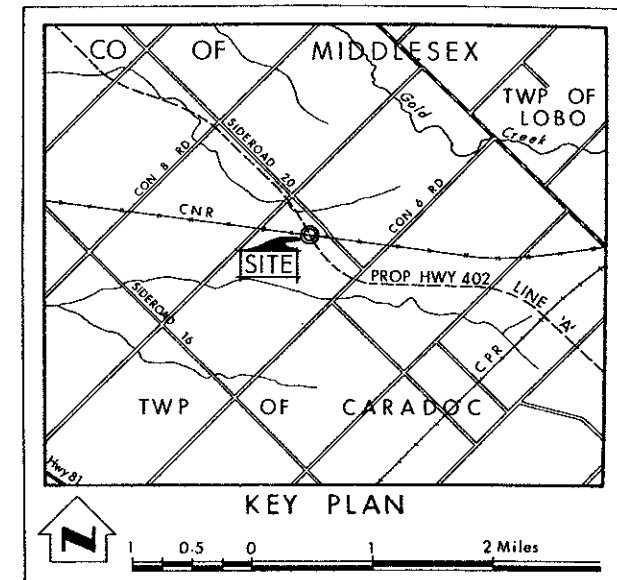
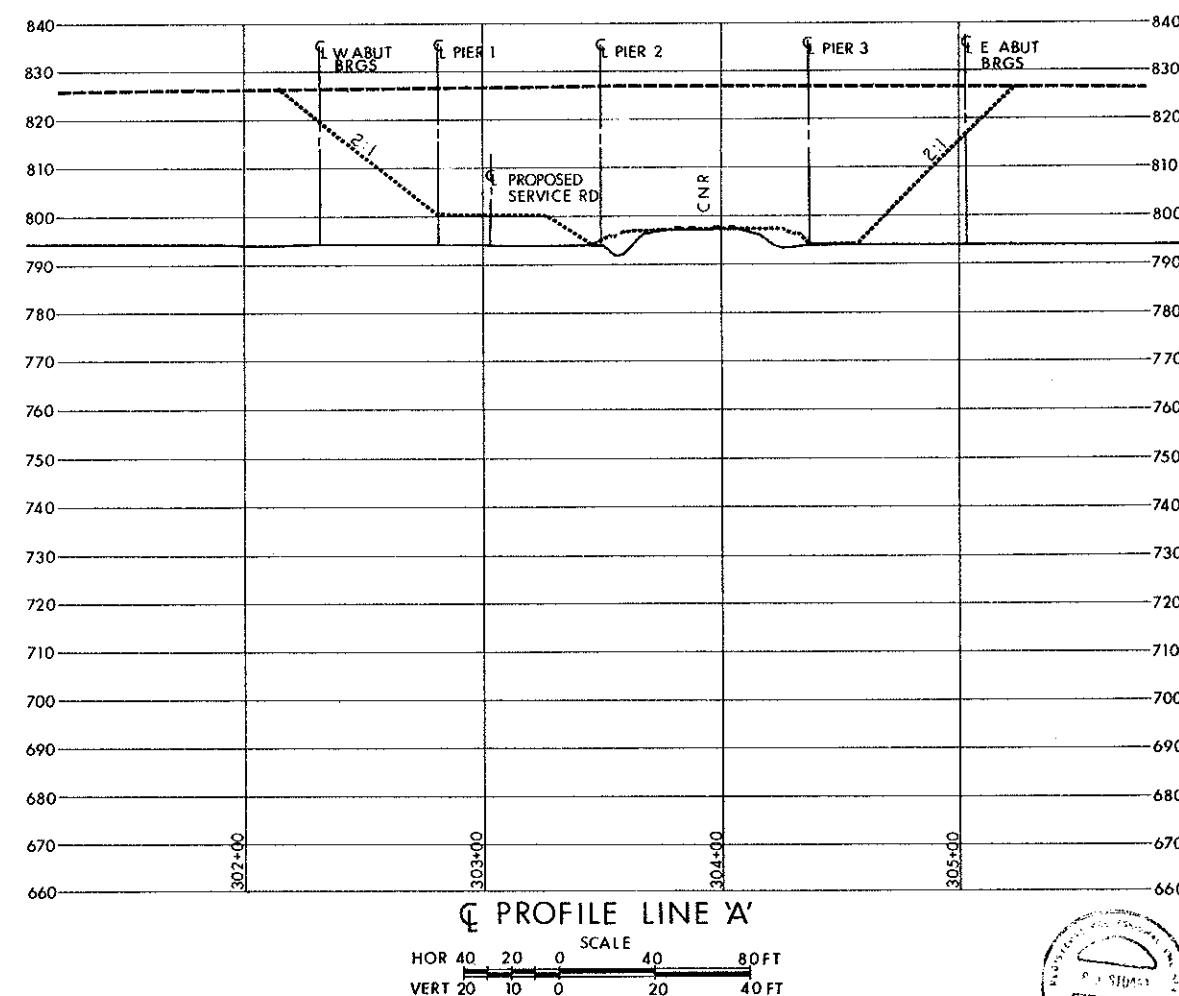
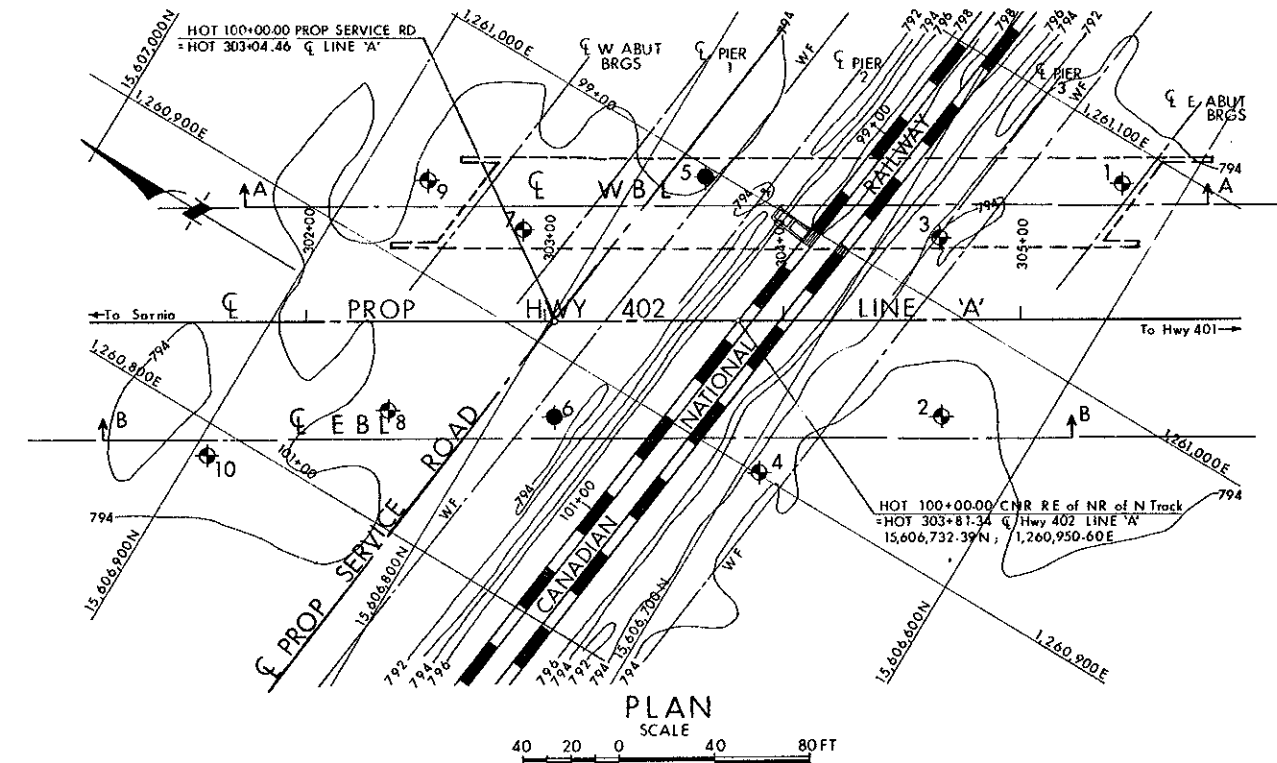
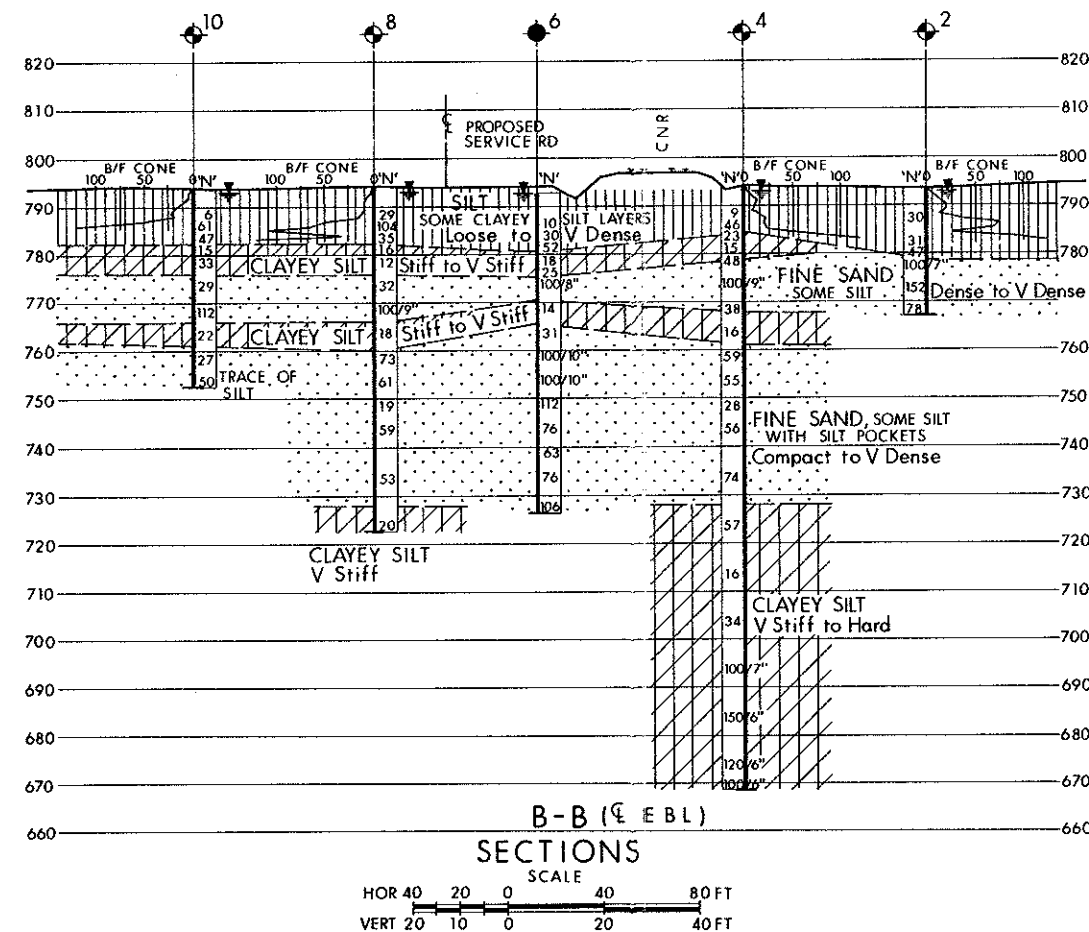
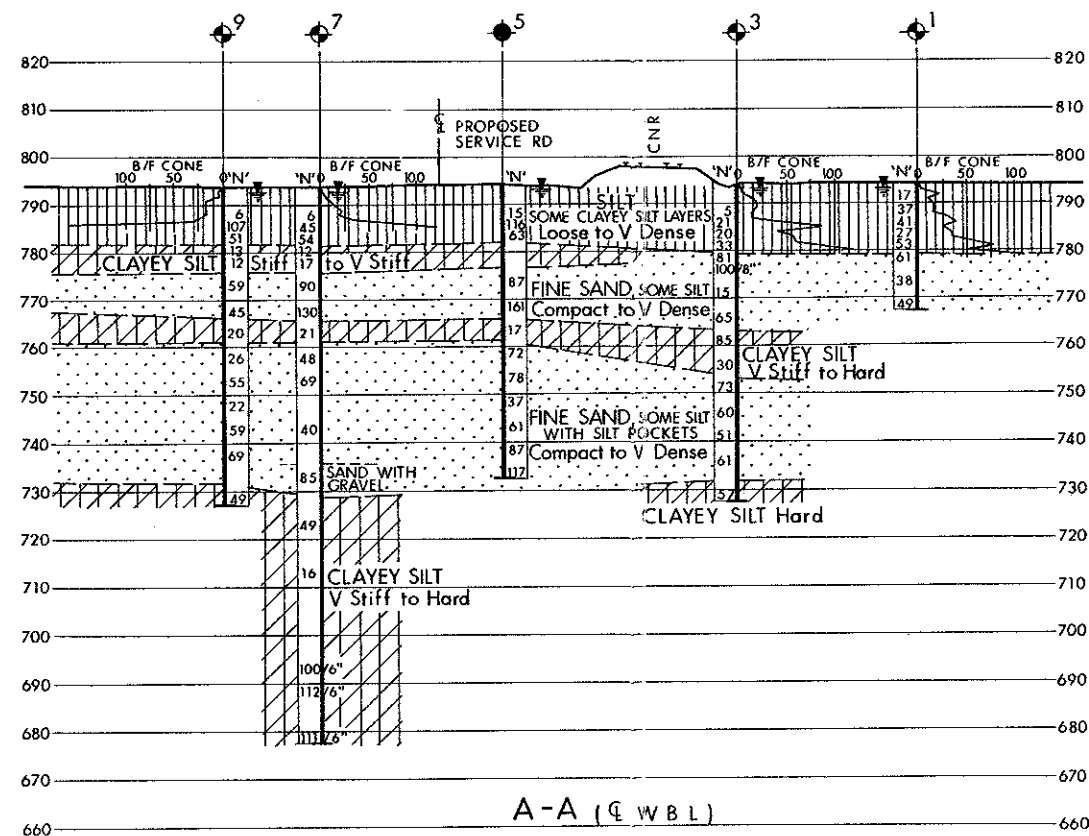
The formwork between deck and ballast walls (e.g. expanded polystyrene) shall be removed by the Contractor.

Concrete in piers, abuts.		
{ wingwalls	3000 P.S.I. —	161 Cu.yd.
	4000 P.S.I. —	202 Cu.yd.
Concrete in deck — — — —		277 Cu.yd.

Concrete in barrier walls	47	Cu.yd.
Concrete in approach slabs	45	Cu.yd.
Structural Steel	89	Tons

- 19-527 -1 General Plan
- 11 2 Bore Hole Locations {
- 11 Soil Strata
- 11 3 Foundation Layout
- 11 4 Footing Reinforcing
- 11 5 West Abutment
- 11 6 East Abutment
- 11 7 Pier #1
- 11 8 Piers #2 { #3
- 11 9 Structural Steel I
- 11 10 Structural Steel II
- 11 11 Structural Steel III
- 11 12 Deck Details { Scream
- 11 Elevations
- 11 13 Deck Reinforcing
- 11 14 Barrier Walls
- 11 15 Steel Railing
- 11 16 20 Ft. Approach Slabs
- 11 17 Standard Details I
- 11 18 Standard Details II
- 11 19 Standard Details III
- 11 20 As Constructed
- 11 Elevations





LEGEND	
	Bore Hole
	Dynamic Cone Penetration Resistance Test B/F CONE - Blows/Ft. Cone Test (350 ft. lbs. energy/blow)
	Bore Hole & Cone Test
	Water Levels established at time of field investigation, Feb 1976

NO.	ELEVATION	CO-ORDINATES	
		NORTH	EAST
1	794.3	15,606,624	1,261,084
2	793.5	15,606,638	1,260,960
3	794.1	15,606,678	1,261,024
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10	794.0	15,606,894	1,260,788

NOTE

The boundaries between soil strata have been established only at Bore Hole locations. Between Bore Holes the boundaries are assumed from geological evidence.

The Engineer's responsibility for this project may be assumed by the Engineering Materials Office, Ontario. Information contained in this file and any supplementary data is specifically excluded from the conditions of Section 20.2 of Form 100.

DATE	BY	DESCRIPTION

MINISTRY OF TRANSPORTATION AND COMMUNICATIONS-ONTARIO
HIGHWAY ENGINEERING DIVISION-ENGINEERING MATERIALS OFFICE-SOIL MECHANICS SECTION

CANADIAN NATIONAL RAILWAY
(5.8 Miles West of Hwy 2)

HIGHWAY NO. Prop 402 LINE 'A' W.B.L. DIST. NO. 2
CO. MIDDLESEX
TWP. CARADOC LOT CON.

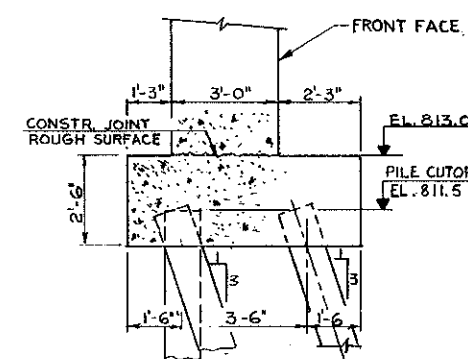
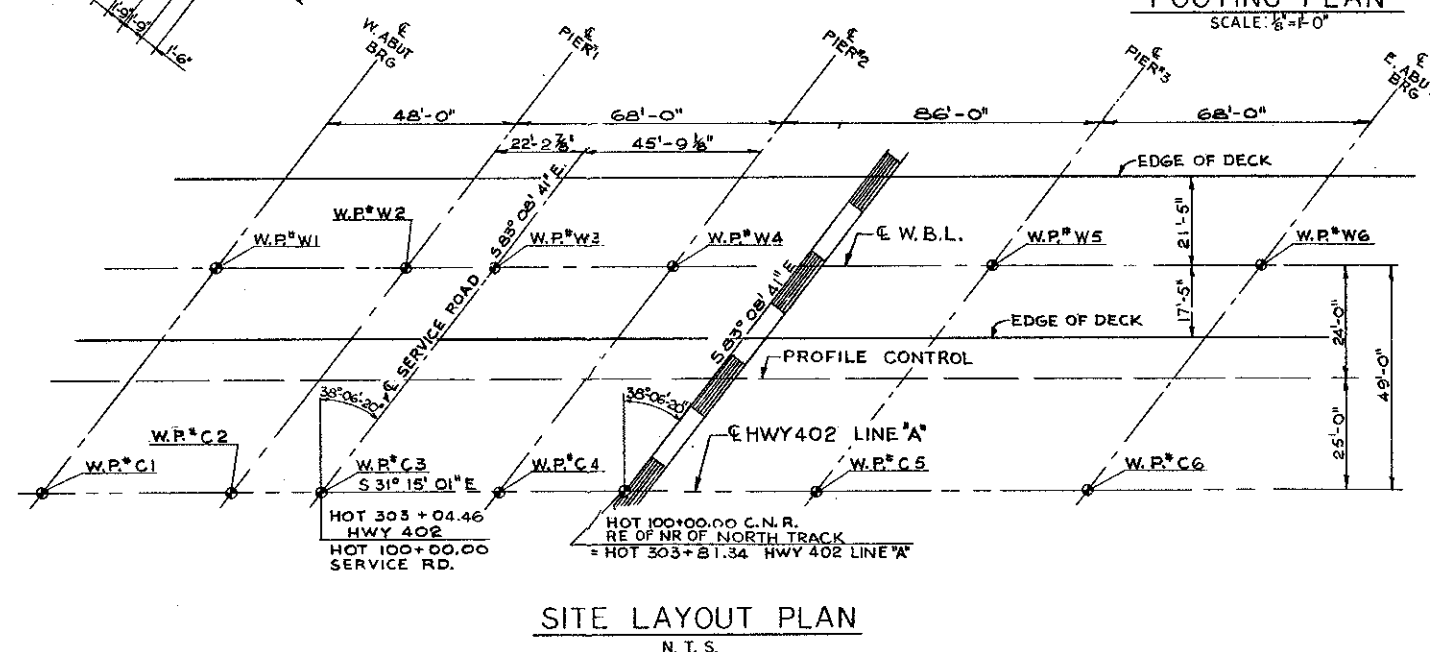
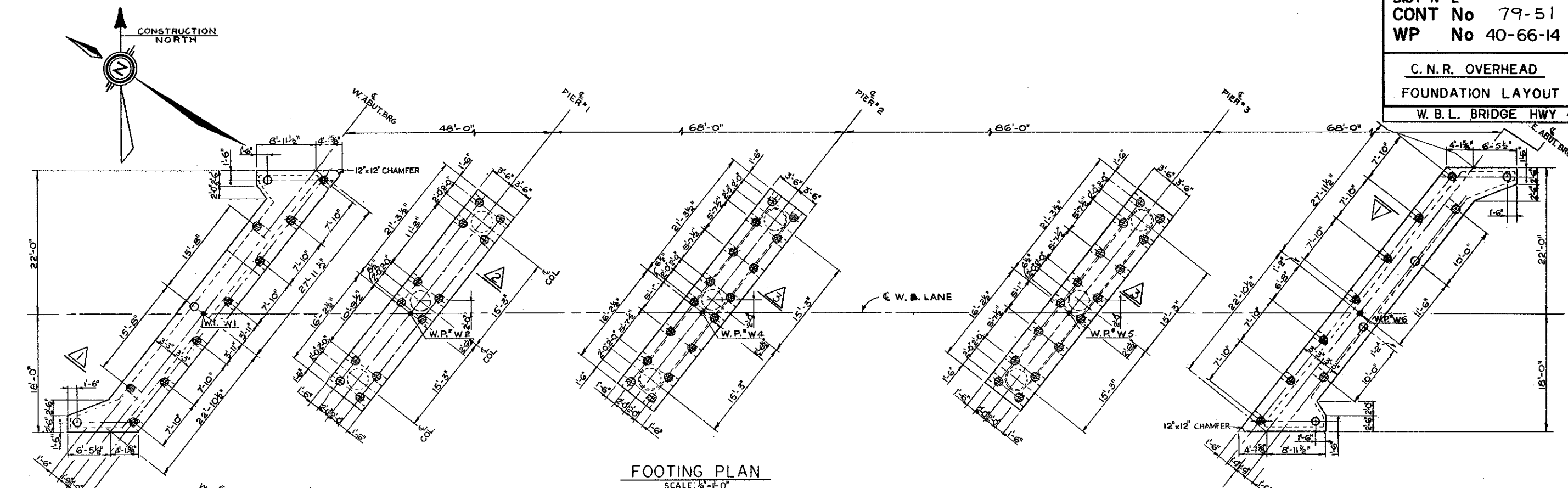
BORE HOLE LOCATIONS & SOIL STRATA			
SUBMD PJS	CHECKED	W/P NO. 40-66-14	DRAWING NO.
DRAWN	CHECKED	W/O NO.	234
DATE April 21, 1976	SITE NO. 19-527	BRIDGE DRAWING NO.	19-527B-2
APPROVED	CONT. NO. 79-51		

DIST No 2
CONT No 79-51
WP No 40-66-14

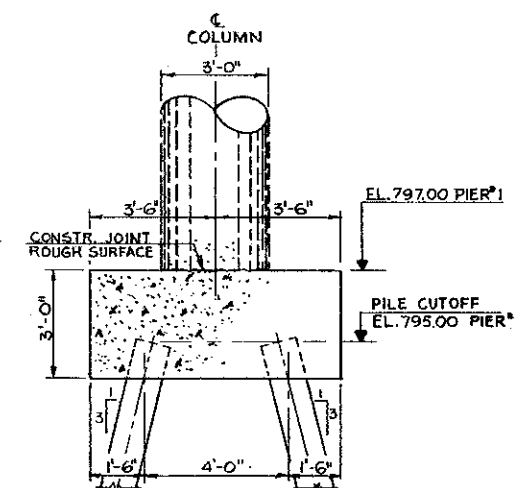
C.N.R. OVERHEAD
FOUNDATION LAYOUT

W.B.L. BRIDGE HWY 402

SHEET
235



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



LEGEND

- PILES BATTERED 1:3
- PILES DRIVEN VERTICALLY
- PILES BATTERED 1:5

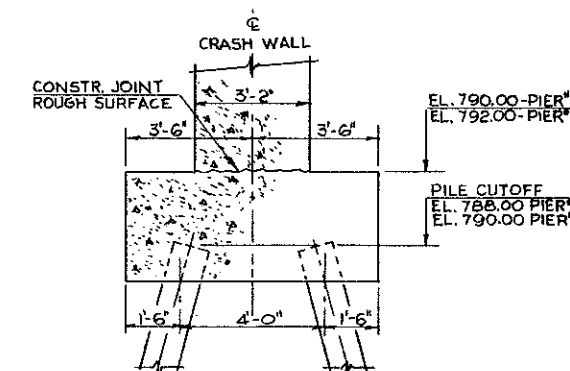
NOTES

ALL PILE SPACING TO BE MEASURED AT UNDER SIDE OF FOOTING.
ALL PILES ARE 12" O.D. x 0.25" WALL THICKNESS STEEL TUBE PILES.
TUBE PILES TO BE FILLED WITH 3000 P.S.I. CONCRETE AFTER INSTALLATION AND INSPECTION.
PILES TO BE DRIVEN IN ACCORDANCE WITH SS3-II USING DESIGN LOAD 60 TONS/PILE.

CONCRETE QUANTITY IN TUBE PILES 100-C.Y.

W.P.	STATION	CO-ORDINATES		W.P.	STATION	CO-ORDINATES	
		NORTH	EAST			NORTH	EAST
W.P.*C1	302+34.22	15606858.16	1260874.28	W.P.*W1	302+72.65	15606850.73	1260936.10
W.P.*C2	302+82.22	15606817.13	1260899.18	W.P.*W2	303+20.65	15606809.70	1260961.01
W.P.*C3	303+04.46	15606798.11	1260910.72	W.P.*W3	303+42.89	15606790.68	1260972.54
W.P.*C4	303+50.22	15606758.99	1260934.46	W.P.*W4	303+88.65	15606751.56	1260996.28
W.P.*C5	304+36.22	15606685.47	1260979.07	W.P.*W5	304+74.65	15606678.04	1261040.90
W.P.*C6	305+04.22	15606627.34	1261014.35	W.P.*W6	305+42.65	15606619.91	1261076.17

PILE DATA				
LOCATION	FACE	NO REQD	BATTER	LENGTH
W. ABUTMENT	FRONT	7	1:3	62'-0"
	REAR	3	VERTIC	59'-0"
	REAR	2	1:3	62'-0"
PIER NO 1	WEST	6	1:3	44'-0"
	EAST	6	1:3	44'-0"
PIER NO 2	NORTH	2	1:3	37'-0"
	SOUTH	2	1:3	37'-0"
	WEST	6	1:5	36'-0"
	EAST	6	1:5	36'-0"
PIER NO 3	W & E FACE	16	1:3	44'-0"
	FRONT	7	1:3	62'-0"
E. ABUTMENT	FRONT	2	1:3	62'-0"
	REAR	4	VERTIC	59'-0"



FOR REDUCED PLAN



REVISIONS	DATE	BY	DESCRIPTION

DESIGN A.K. CHECK PKR LOADING HS20 - 44 DATE MAR 78
DRAWING Z K CHECK PKR SITE No 19-5226 DWG 3