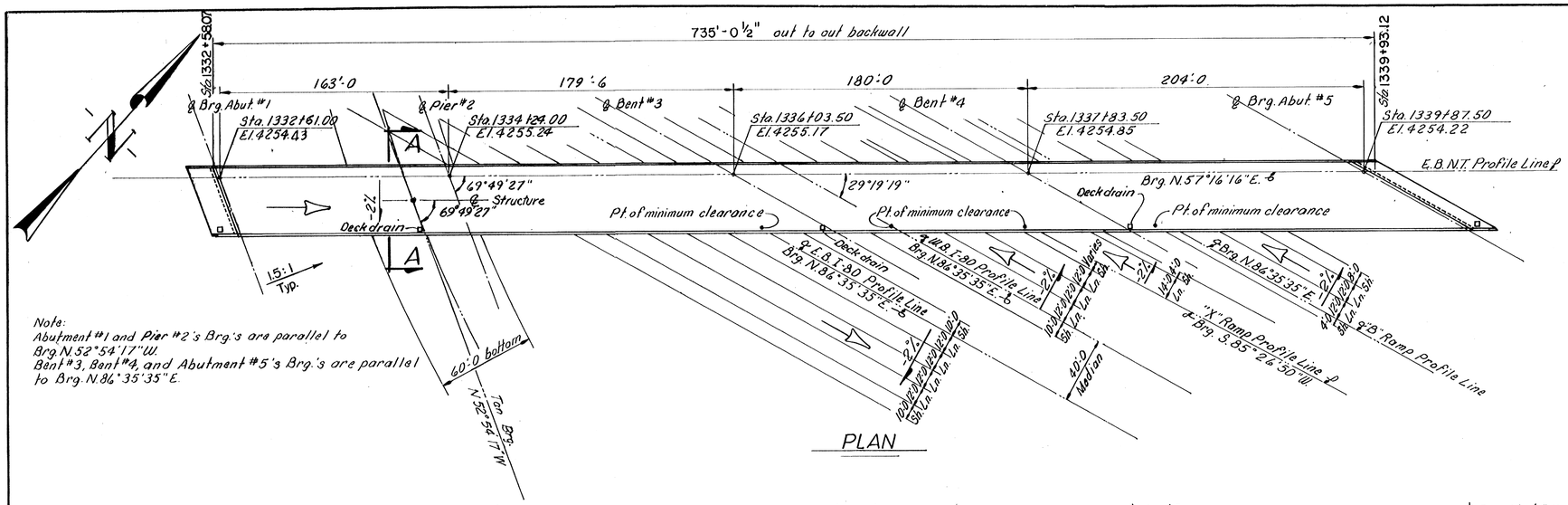
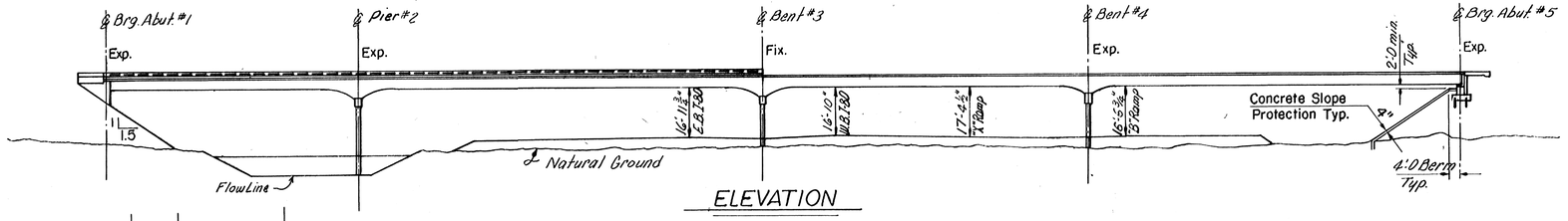
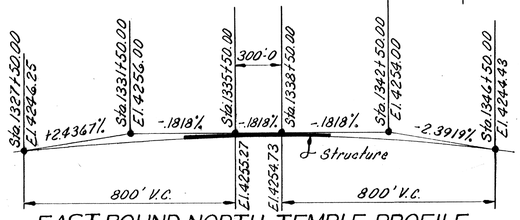


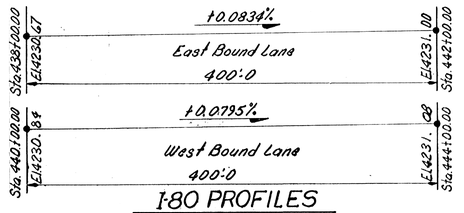
PLAN



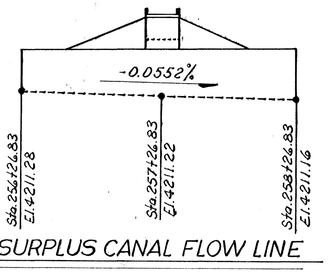
ELEVATION



EAST BOUND NORTH TEMPLE PROFILE

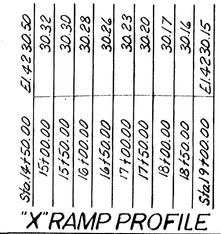


I-80 PROFILES



SURPLUS CANAL FLOW LINE

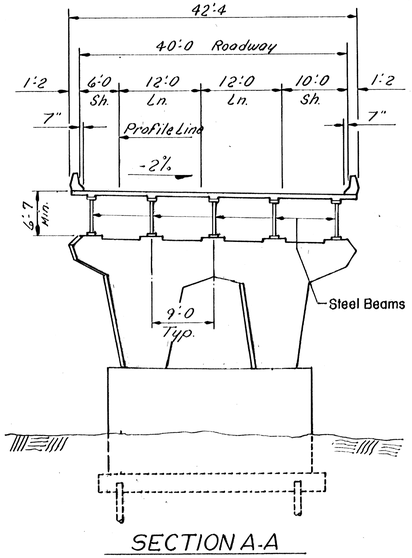
"B" RAMP PROFILE



"X" RAMP PROFILE

CURVE DATA SURPLUS CANAL

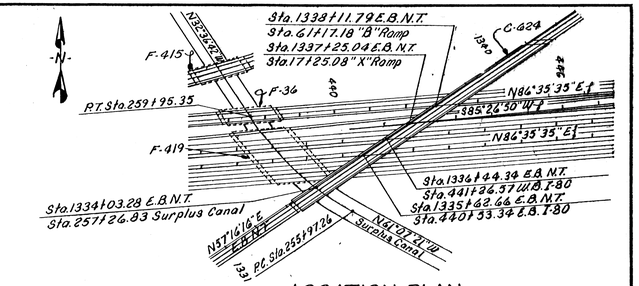
Δ = 28°30'39" Rt.
D = 7°09'43.1"
R = 800'
T = 203.25'
L = 398.09'
P.I. = Sta. 258+00.51
P.C. Brg. N.61°07'21"W.



SECTION A-A

Pier #2 Shown
For other Bents see sht. 8

INDEX OF SHEETS



LOCATION PLAN

GENERAL NOTES

1. Materials, and workmanship shall be in accordance with the Utah Department of Transportation Standard Specifications for Road and Bridge Construction, Edition of 1979, and Supplements thereto which are in effect at the date of request for bids.
2. All reinforcing steel shall be deformed billet steel bars conforming to A.S.T.M. Designation A615-68, Grade 60.
3. All structural steel shall be structural carbon steel conforming to A.A.S.H.T.O. Designation M-183 except where noted otherwise.
4. Exposed concrete corners shall be chamfered ¾" except where noted otherwise.
5. Cover to reinforcing steel shall be 2" except where noted otherwise.
6. All cast-in-place concrete shall be Class AA(AE) except where specified otherwise.
7. **Use Type V Cement for Pier #2 only. No additional payment will be made.**

DESIGN DATA

HS 20-44 or Interstate Alternate Loading in accordance with A.A.S.H.T.O. specifications of 1977 and Interim specifications.
Cast-in-place concrete:
Class AA(AE) f_c = 1400 psi, f_s (Reinf) = 24000 psi, n = 8.
Prestressed Concrete f'_c = 5000 psi, f_s (nonprestressed) = 24000 psi, n = 6.
Wearing Surface: ½" Wearing Surface, 35 lbs./sq. ft. Future Wearing Surface.
Design Speed: E.B.N.T. = 60 mph, E.B. & W.B. I-80 = 70 mph, "X" & "B" Ramps = 60 mph.

HYDRAULIC DATA

1. Drainage area equals canal capacity.
2. Design Flood (Q_d) = 3300 c.f.s.
3. 100-yr. Flood (Q_{100}) = 3300 c.f.s.
4. Normal Depth (D_n) for Q_d = 10.7 ft.
5. Normal Water Surface Elev. for Q_d = 4221.92 ft.
6. Back-Water for Qd = 0 ft.
7. Back-Water Elevation for Q_d = 4221.92 ft.
8. Velocity through Bridge Opening for Qd = 9 ft/sec.
9. Normal Water Surface Elevation for Q_{100} = 4221.92 ft.
10. Back-Water for Q_{100} = 0 ft.
11. Back-Water Elevation for Q_{100} = 4221.92 ft.
12. Over topping Flood frequency in years = 265 yrs.
13. Magnitude of Over-topping Flood (Q Overtopping) = 4300 c.f.s.
14. Water Surface Elevation for (Q overtoping) = 4223.4 ft.
15. The highest Q recorded to date on the Surplus Canal was 3170 cfs on June 19, 1983.

QUANTITIES

ITEM	ESTIMATED	UNIT	AS CONST.
Concrete Class AA (AE) (Est. Quant. 1783 Cu. Yds.)	1	Lump	1
Reinforcing Steel	146,458	Lbs.	146611.7
Reinforcing Steel (Epoxy coated)	230,730	Lbs.	230931.0
Structural Steel (Est: Quant. 1,863,105 Lbs.)	1	Lump	1
Concrete Slope Protection	1,333	Sq. Yds.	1143.9
Granular Backfill Borrow	177	Cu. Yds.	262.1
Driven Piles (12" dia.)	9776	Lin. Ft.	62,76.8
Furnishing Pile Driving Equipment	1	Lump	1
Excavation for Structures (S.A. #2)			81.5

NO.	BY	DATE	REMARKS
			REVISIONS

UTAH DEPARTMENT OF TRANSPORTATION
SALT LAKE CITY, UTAH
STRUCTURES DIVISION

I-80 AND NORTH TEMPLE OVER SURPLUS CANAL
E.B. NORTH TEMPLE OVER I-80
SITUATION AND LAYOUT

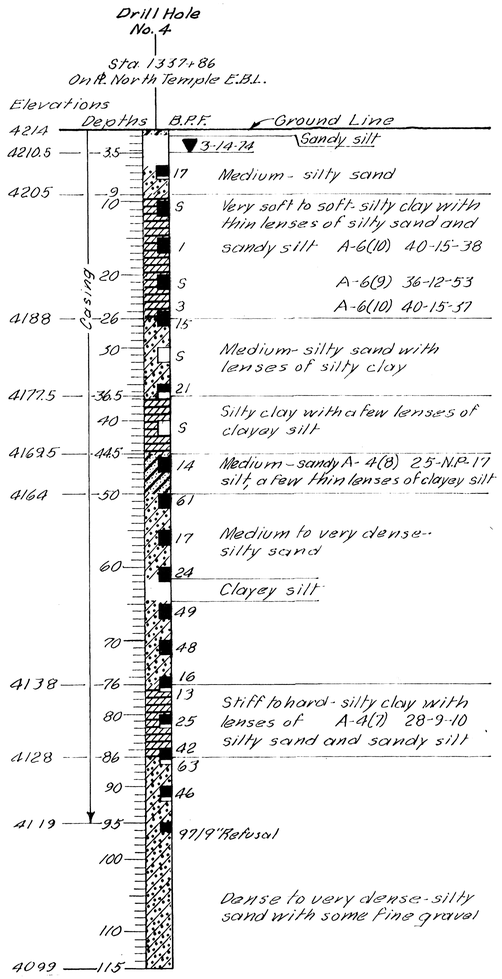
DESIGN Cy P. 5/19/83 CHECK AOB 6/83
DRAWN CMDS 5/27/83 CHECK Cy P 5/27/83
QUANT. CMDS 5/27/83 CHECK AOB 5/27/83
APPROVAL RECOMM 5/19/83 DATE — Engr. Leader
APPROVED 6-10-83 DATE — Chief Structural Engr.

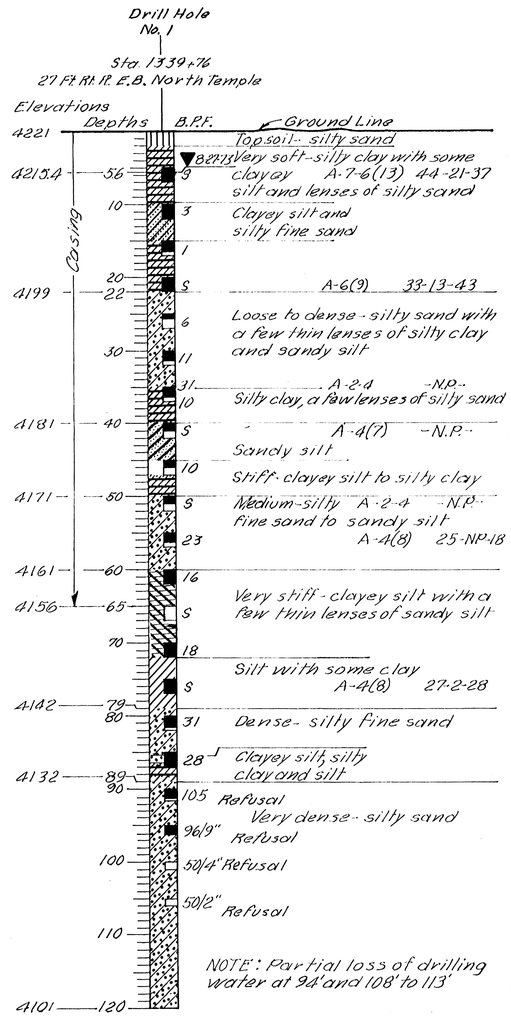
1335+62.66 E.B.N.T. STATION
SALT LAKE COUNTY
DRG. NO. C-624
PROJECT NUMBER I-80-3(85)117
SHT. 1 OF 23

C-624

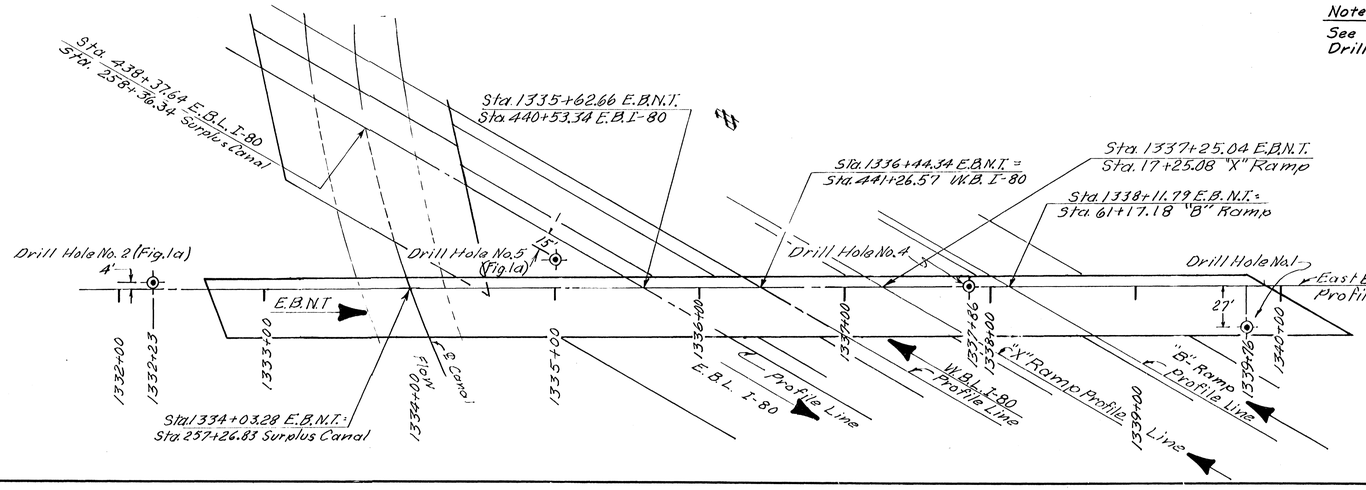
Final by: Victor A. Burns 6-1-85

5681





Note:
See Sheet #3 of Drg. # F-419 for Drill Holes #2 & #5.



Date Drilled
Drill Hole No. 1 - 8-73
Drill Hole No. 4 - 3-74

KEY TO DRILLING LOG

RELATIVE DENSITY (NON-PLASTIC SAND & SILT)

VERY LOOSE – LESS THAN 4 BLOWS PER FOOT.
LOOSE – 4 TO 10 BLOWS PER FOOT.
MEDIUM – 10 TO 30 BLOWS PER FOOT.
DENSE – 30 TO 50 BLOWS PER FOOT.
VERY DENSE – MORE THAN 50 BLOWS PER FOOT.

CONSISTENCY (PLASTIC-SILT & CLAY)

VERY SOFT – LESS THAN 2 BLOWS PER FOOT.
SOFT – 2 TO 4 BLOWS PER FOOT.
MEDIUM – 4 TO 8 BLOWS PER FOOT.
STIFF – 8 TO 15 BLOWS PER FOOT.
VERY STIFF 15 TO 30 BLOWS PER FOOT.
HARD – MORE THAN 30 BLOWS PER FOOT.

TOPSOIL OR FILL
GRAVEL
SAND
SILT
CLAY
SHALE
IGNEOUS
LIMESTONE
CONGLOMERATE
DOLOMITE
SANDY CLAY
CLAYEY SAND
SILTY CLAY
CLAYEY SILT
SILTY SAND
SANDY SILT

DRILL HOLE NO
STATION 0+00 ℄ OR L.T. OR RT. IN FT. OFFSET.

ABBREVIATIONS

L.L. — LIQUID LIMIT IN %
P.I — PLASTIC INDEX
W. — NATURAL MOISTURE CONTENT IN %
W.G. — WELL GRADED
PEN. — PENETRATION
G.W.T. — GROUND WATER TABLE
B.P.F. — BLOWS PER FOOT.
N.P — NON PLASTIC

Note: Refusal - 50 or more blows per 6"

NO. | BY | DATE | REMARKS
REVISIONS

UTAH STATE DEPARTMENT OF HIGHWAYS
SALT LAKE CITY, UTAH
MATERIALS AND TESTS DIVISION

SOIL DATA

DRAWN BY B.D. Searle	CHECKED BY	I-80-3(85)117 PROJECT NUMBER
CHECKED BY P.J. Sizemore	CHECKED BY	440+53.34 E.B.L. I-80 = 1335+62.66 E.B.N.T. STATION
CHECKED BY H. Salhi	CHECKED BY	
APPROVAL RECOMMENDED BY Loren K. Rogsaker		SALT LAKE COUNTY
RECEIVED 6-10-83 DATE	CHIEF STRUCTURAL ENG'R.	
Foundations File No. 72-7-FS-7	DRG. NO. C-624	2 OF 23

Fig. 1 b

C 624.pdf - Adobe Acrobat Pro

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1 / 23 125% Find

Sticky Note Text Edits Show

Furnishing Pile Driving Equipment	1	Lump	1
Excavation for Structures (S.A. #2)			81.5

UTAH DEPARTMENT OF TRANSPORTATION
SALT LAKE CITY, UTAH
STRUCTURES DIVISION

I-80 AND NORTH TEMPLE OVER SURPLUS CANAL
E.B. NORTH TEMPLE OVER I-80
SITUATION AND LAYOUT

DESIGN Cy P. 3/19/83	CHECK AOB 6/83	1335+62.66 E.B.N.T. STATION	
DRAWN CHRIS 2/7/83	CHECK Cy P. 5/27/83		
QUANT. CHRIS 2/7/83	CHECK VGB 5/27/83		
APPROVAL RECOMM. 5/19/83 DATE	Cy Parshmandi PE GROUP LEADER	SALT LAKE COUNTY	
APPROVED 6-10-83 DATE	J. L. Christensen CHIEF STRUCTURAL ENG'R	DRG. NO. C-624	
REMARKS			
REVISIONS	1-80-3(85)117 PROJECT NUMBER	SHT. 1 OF 23	

Final by: Victor G. Bruns 6-1-85

5681

35.51 x 23.37 in

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