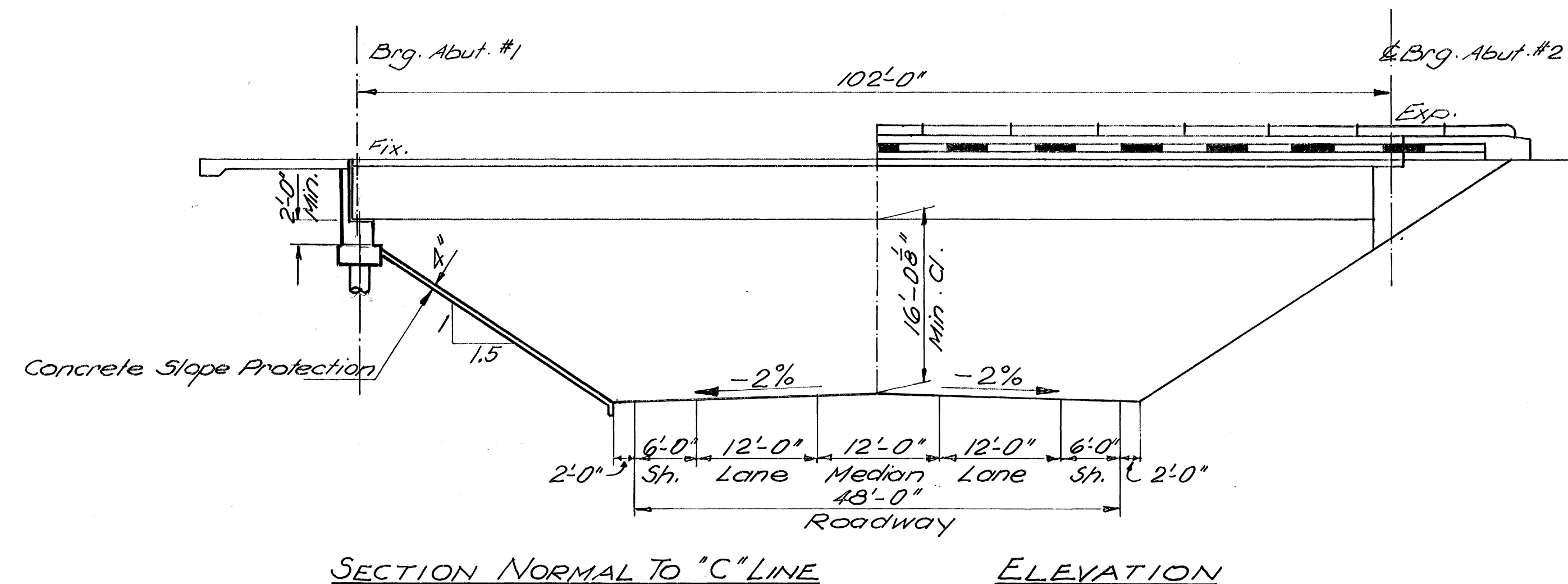
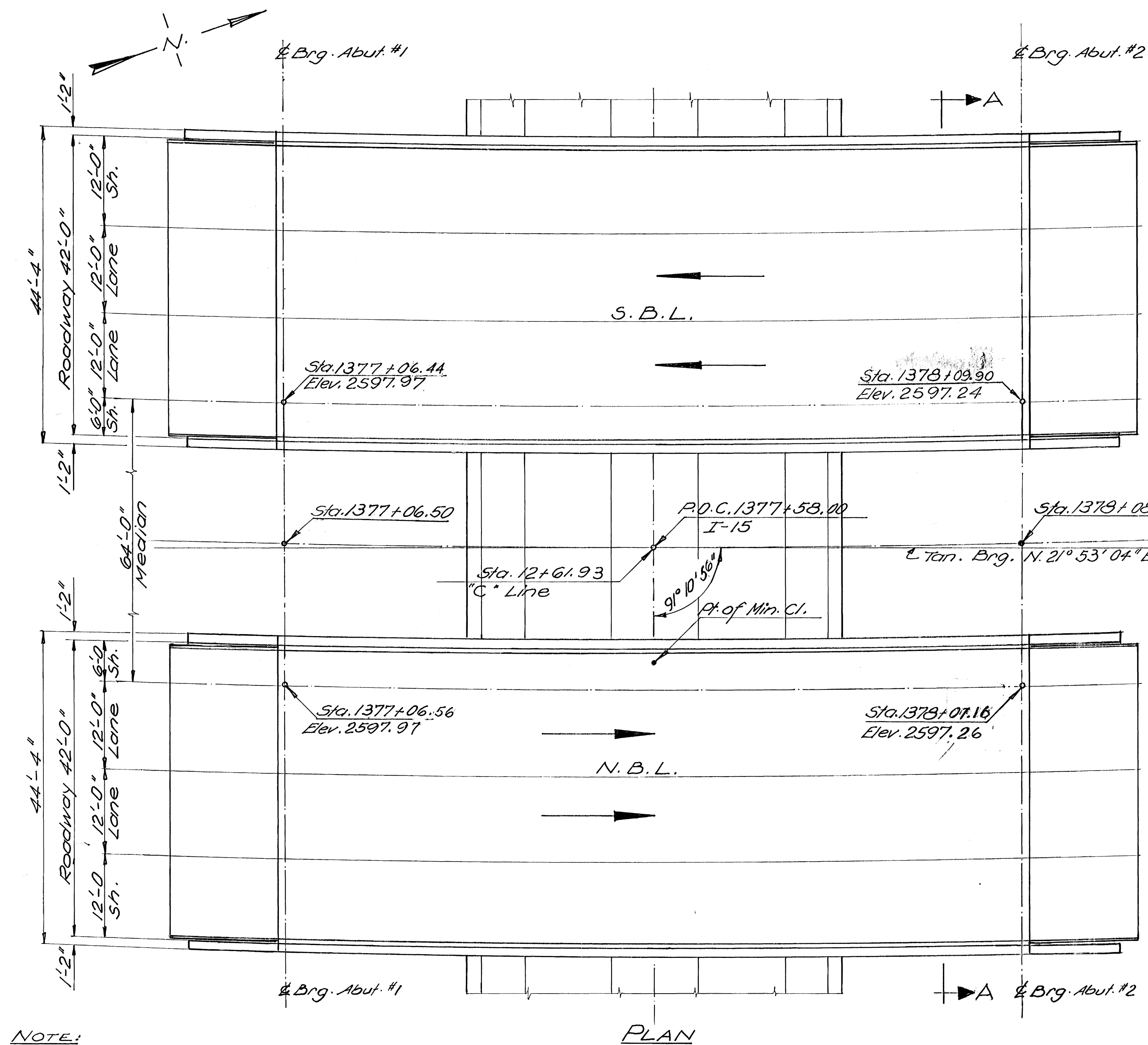
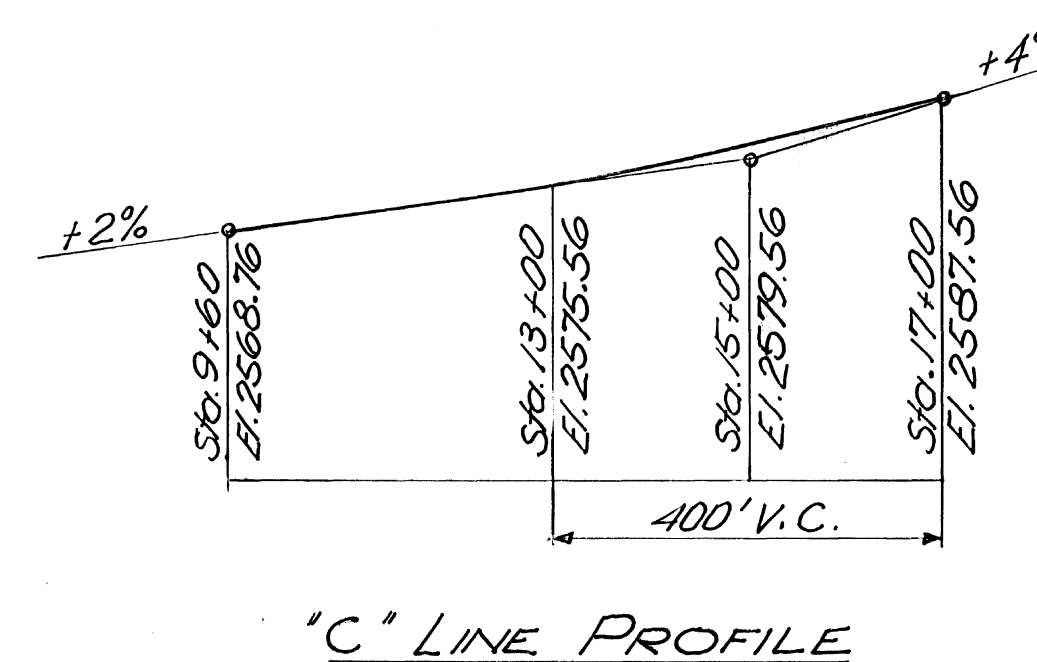
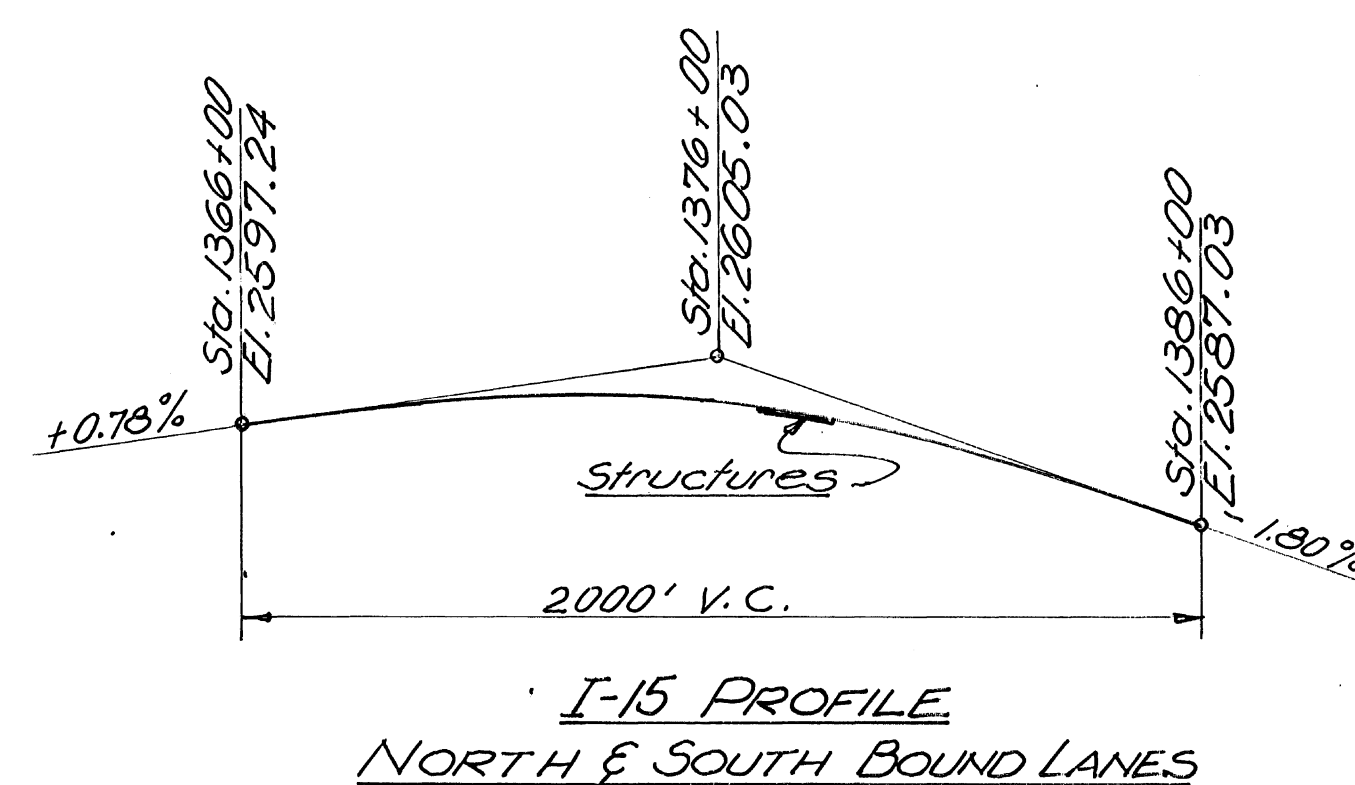
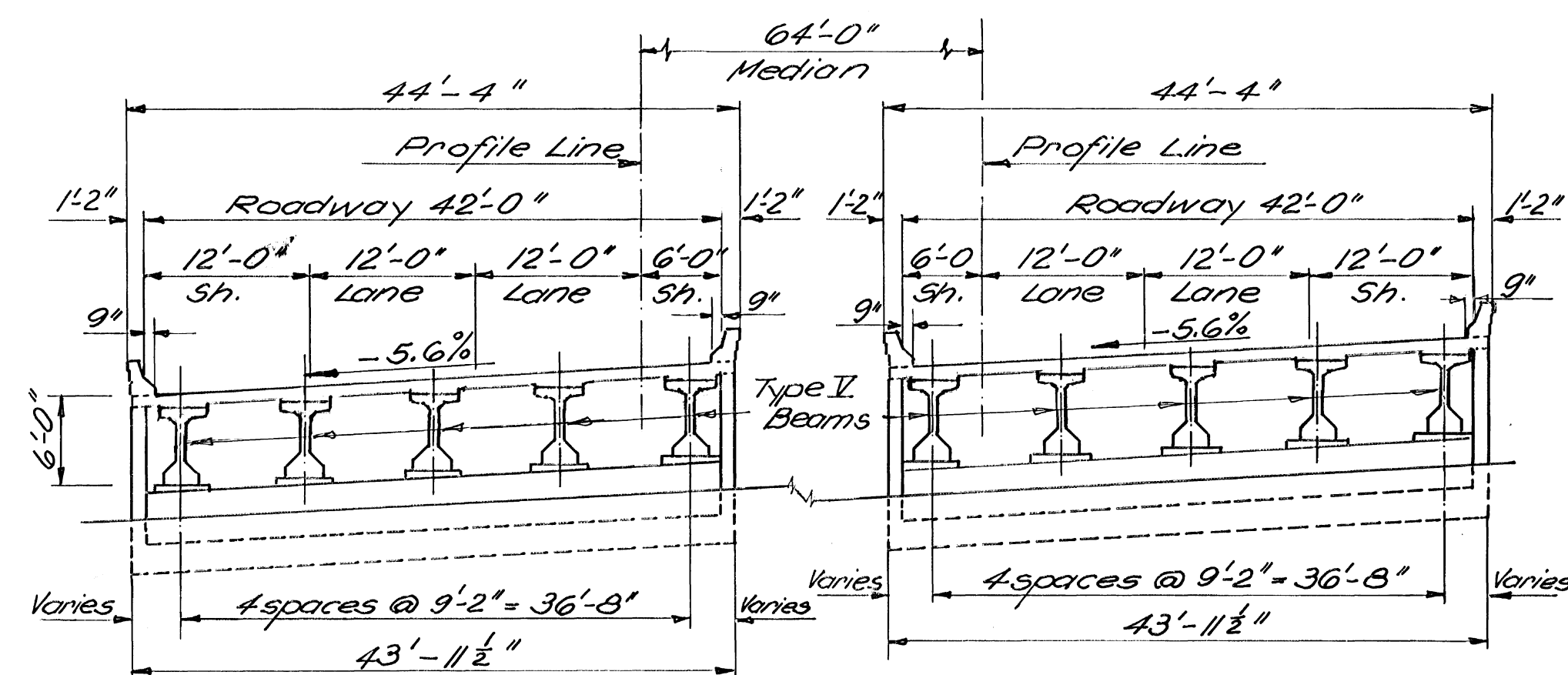




Horizontal Alignment Data I-15
 PI Sta. = 1379 + 35.12 $\Delta = 41^\circ 55' 22.9''$ LT.
 $L_s = 250'$ $D = 2^\circ 30'$
 $\Delta S = 3^\circ 07' 30''$ $R = 2,291.83'$
 $T = 1,003.41$
 $L_c = 1,426.92$



INDEX OF SHEETS

1. Situation & Layout
2. Soil Data
3. Soil Data
4. Foundation, Framing Plan & Screenshot Elevations
5. Abutment Details
6. Prestressed Beam Details
7. Deck Plan & Sections - Electrical
8. Beam End & Alternate #1 Joint Details
9. Beam End & Alternate #2 Joint Details
10. Parapet Details
11. Railing Details
12. Concrete Slope Protection
13. Reinforcing Steel Schedule

GENERAL NOTES

- 1- Materials construction and workmanship shall be in accordance with the Utah Department of Highways Standard Specifications for Road and Bridge Construction, Edition of 1970, 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 40.
- 3- All structural steel shall be structural carbon steel conforming to A.A.S.H.O. Designation M-183 (A.S.T.M. A-36) except where noted otherwise.
- 4- Exposed concrete corners shall be chamfered $\frac{3}{4}''$ except where noted otherwise.
- 5- Cover to reinforcing steel shall be 2 inches except where noted otherwise.

DESIGN DATA

HS 20-44 or Interstate Alternate Loading in accordance with A.A.S.H.O. Specifications of 1969 and Interim Specifications
 Cast-in-place concrete: $f'_c = 3,000$ p.s.i., f_s [Reinf.] = 20,000 p.s.i.
 $f'_c = 1,200$ p.s.i., $n = 10$
 Prestressed concrete: $f'_c = 5,000$ p.s.i. [f_s Nonprestressed] = 20,000 p.s.i.
 Structural steel: $f_s = 20,000$ p.s.i., $n = 6$
 Wearing surface: $\frac{1}{2}''$ concrete, 15 lbs./sq. ft. Future surface.

QUANTITIES

ITEM	ESTIMATED	UNIT	AS CONST.
Excavation for Structures	346	Cu. Yd.	219.50
Class A Concrete (AE)	155	Cu. Yd.	155.00
Class AA Concrete (AE)	392	Cu. Yd.	392.00
Reinforcing Steel	87,946	Lbs.	87,946.00
Metal Railing (Single Rail)	516	Lin. Ft.	516.00
Granular Backfill Borrow	300	Cu. Yd.	68.80
Prestressed Concrete Member			
A.A.S.H.O. Type I 103'4	10	Each	10.00
Elastomeric Bearing Pad (1 1/4 inch)	52	Sq. Ft.	52.00
Electrical Work, Bridges	1	Lump	1.00
Pile (other than Timber) 2'6"	600	Lin. Ft.	1,254.20
Concrete Slope Protection	1,231	Sq. Yd.	1,377.18
Alternate #1 Structural Steel Deck Jnt.	1	Lump	—
Alternate #2 Steel Reinf. Elastomeric Deck Joint	1	Lump	1.00

UTAH STATE DEPARTMENT OF HIGHWAYS
 SALT LAKE CITY, UTAH
 STRUCTURES DIVISION

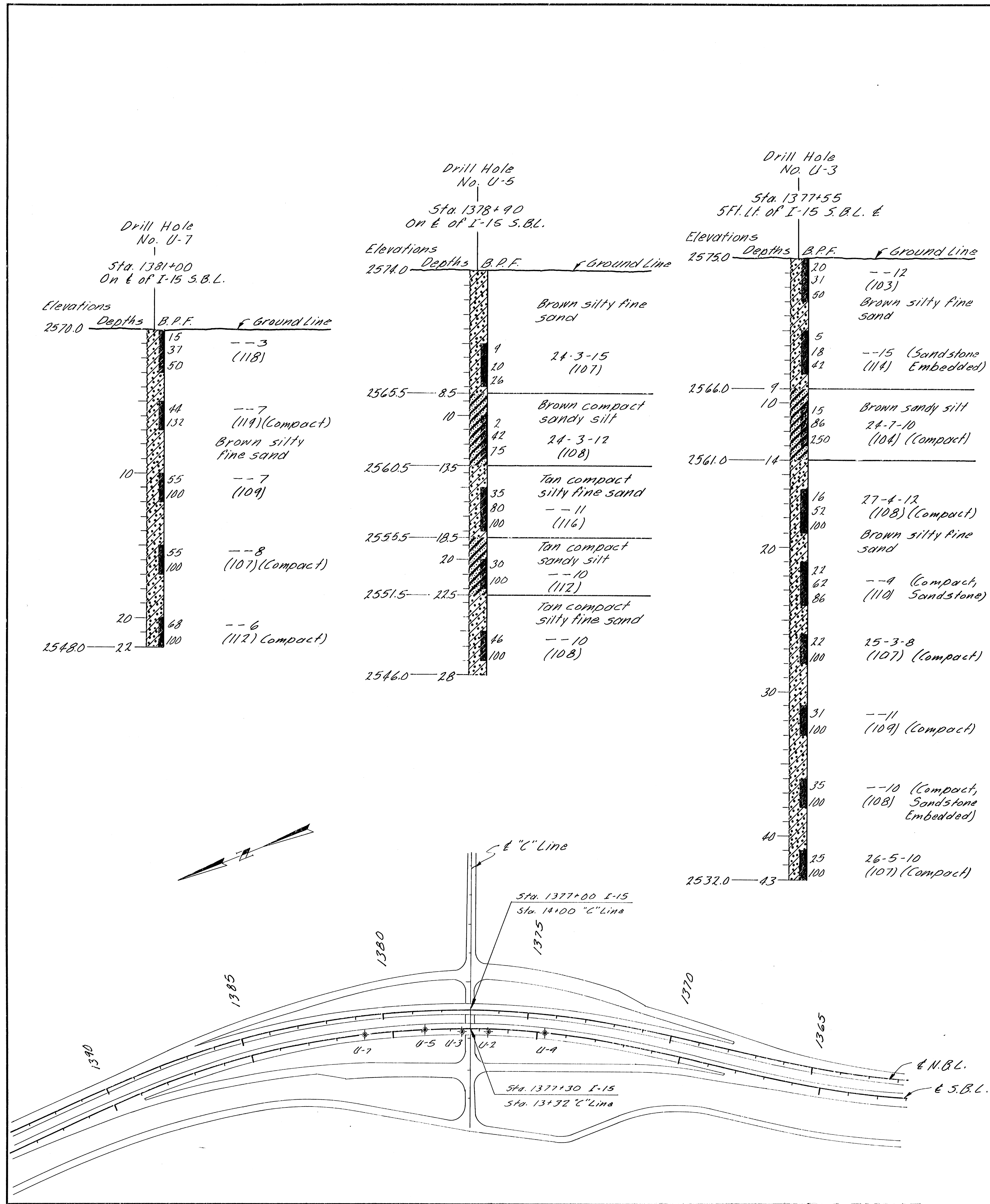
ARIZONA TO SOUTH ST. GEORGE
 I-15 OVER "C" LINE
 SITUATION & LAYOUT

DESIGN CCA 3-10-70 CHECK MW 12-7-70 I-15-1(2) 0
 DRAWN AKP 3-19-70 CHECK GLT 12-14-70 PROJECT NUMBER
 QUANT. D.L.C. 12/3/70 CHECK GLT 12-14-70 1377+58.00

APPROVAL RECOMM. DATE 12-7-70 DATE 12-7-70 STATION
 APPROVED DATE 12-7-70 DATE 12-7-70 WASHINGTON
 COUNTY

NO.	BY	DATE	REMARKS

Final: Houn # 12-31-73.



NOTES:

Drilling, sampling, soil descriptions, and testing by Reinard W. Brandley, 1959

Penetration tests were made using a 2-inch Modified California Type Soil Sampler. The number of blows required to drive the sampler one foot were recorded for a 175 lb. hammer falling 24 inches.

Locations are referenced to 1959 Highway Location Survey

KEY TO DRILLING LOG
RELATIVE DENSITY (NON-PLASTIC SAND & SILT)

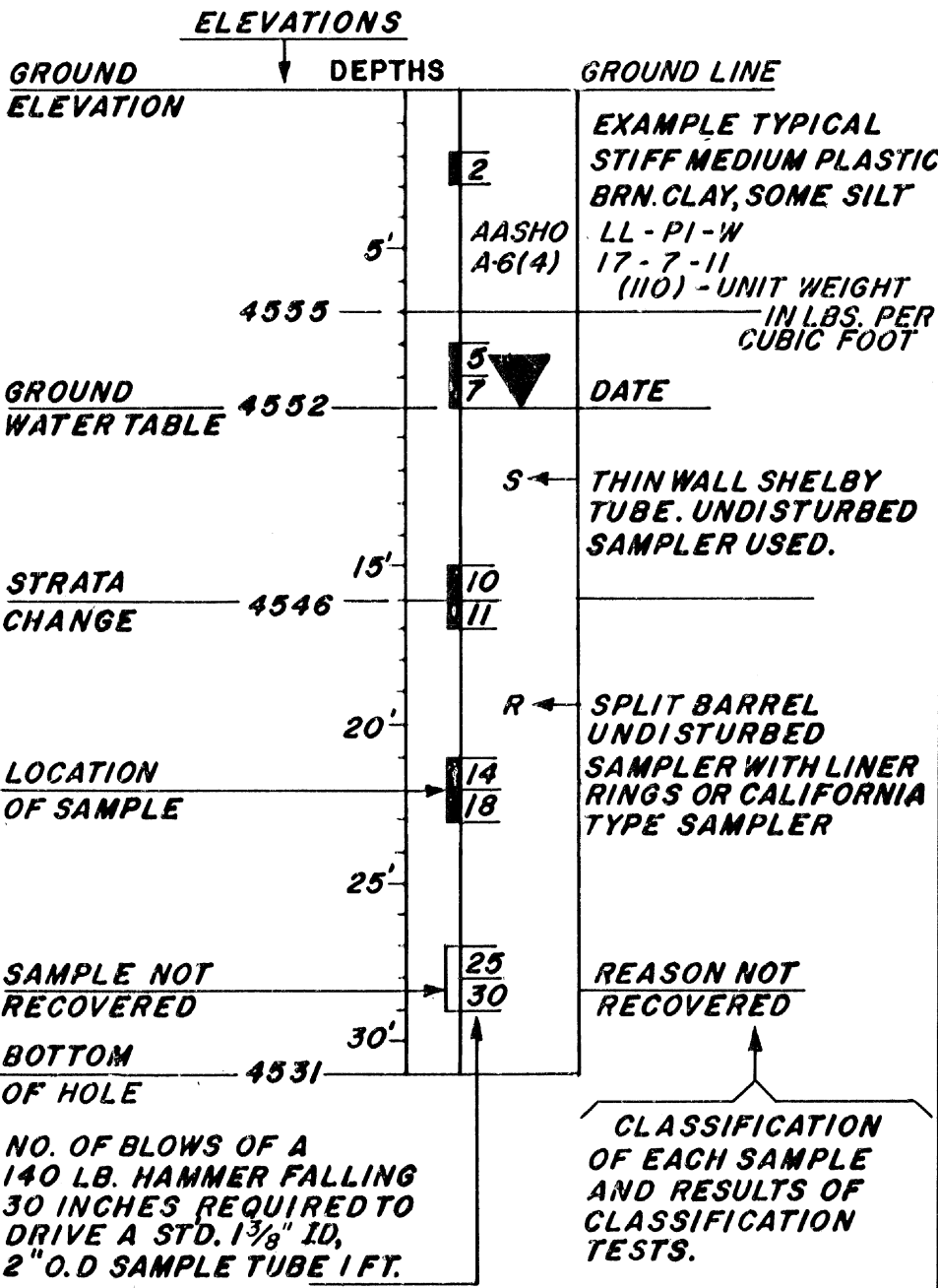
VERY LOOSE - LESS THAN 4 BLOWS PER FOOT.
LOOSE - 4 TO 10 BLOWS PER FOOT.
MEDIUM - 10 TO 30 BLOWS PER FOOT.
DENSE - 30 TO 50 BLOWS PER FOOT.
VERY DENSE - MORE THAN 50 BLOWS PER FOOT.

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

DRILL HOLE NO. STATION 0+00 E OR LT. OR RT. IN FT. OFFSET.

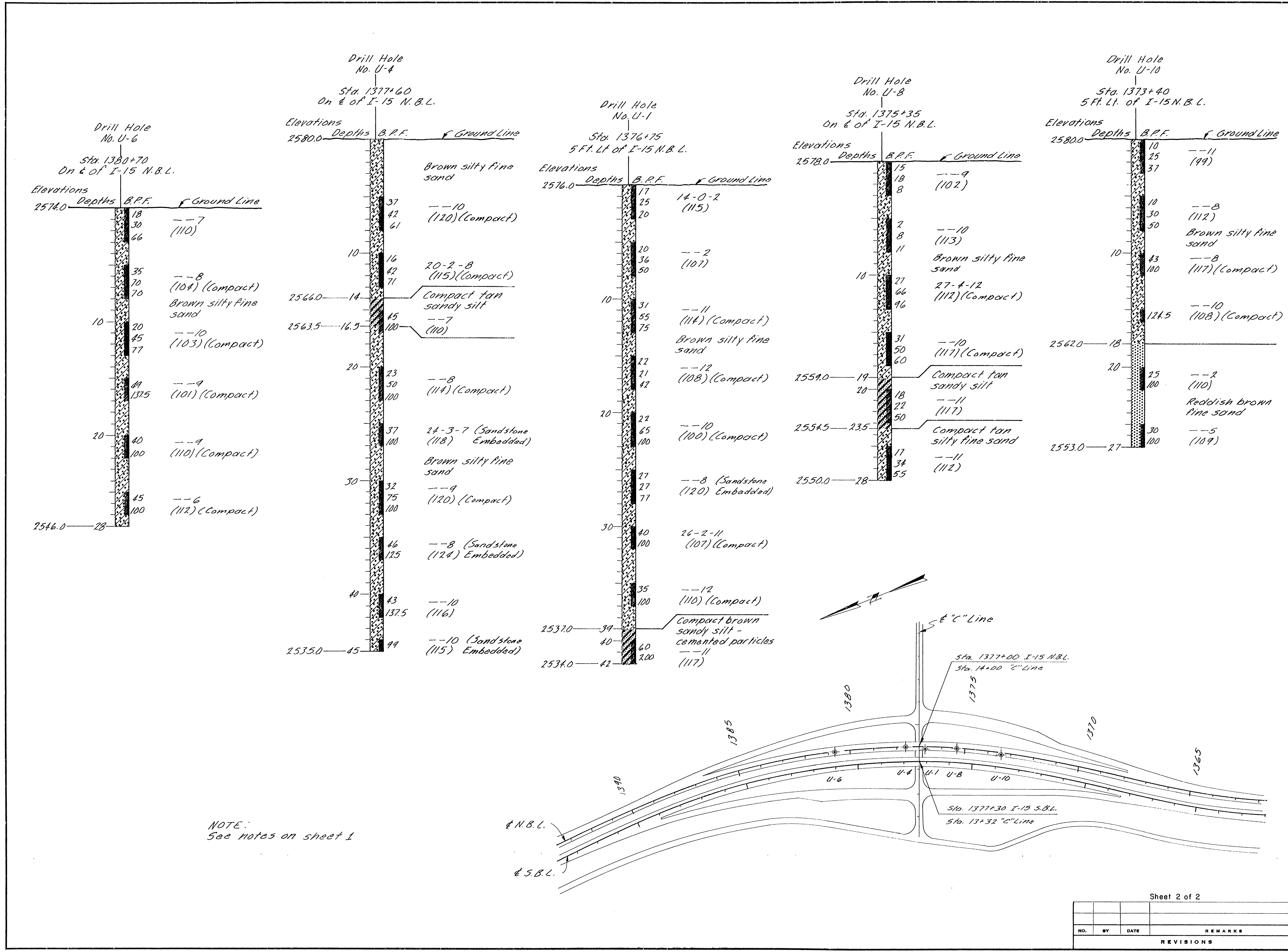


ABBREVIATIONS

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

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

DRAWN BY	Kistler	CHECKED BY	B. Searle	1-15-1(21)0
CHECKED BY	L. Rousher	CHECKED BY		PROJECT NUMBER
CHECKED BY	D. P. Rice	CHECKED BY		1377+00 ±
APPROVAL		RECEIVED BY	12-7-70	STATION
RECOMMENDED BY		DATE	12-7-70	WASHINGTON
NO.	BY	DATE	REMARKS	COUNTY
REVISIONS				
BR. NO.	DRG. NO. F-291			2 OF 13



KEY TO DRILLING LOG
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LEGEND

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

DRILL HOLE NO. U-6
Sta. 1380+70
On & of I-15 N.B.L.

DRILL HOLE NO. U-4
Sta. 1377+60
On & of I-15 N.B.L.

DRILL HOLE NO. U-8
Sta. 1375+35
On & of I-15 N.B.L.

DRILL HOLE NO. U-10
Sta. 1373+40
5 Ft. Lt. of I-15 N.B.L.

EXAMPLE TYPICAL STIFF MEDIUM PLASTIC BRN. CLAY. SOME SILT
LL - PI - W
17 - 7 - 11
(110) - UNIT WEIGHT - IN LBS. PER CUBIC FOOT

DATE

THIN WALL SHELBY TUBE, UNDISTURBED SAMPLER USED.

SPLIT BARREL UNDISTURBED SAMPLER WITH LINER RINGS OR CALIFORNIA TYPE SAMPLER

REASON NOT RECOVERED

CLASSIFICATION OF EACH SAMPLE AND RESULTS OF CLASSIFICATION TESTS.

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NOTE:
See notes on sheet 1

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

DRAWN BY: *Kistler* CHECKED BY: *B. Swank* PROJECT NUMBER: 1-15-1(21)0

CHECKED BY: *L. Reuther* CHECKED BY: STATION: 1377+00 *

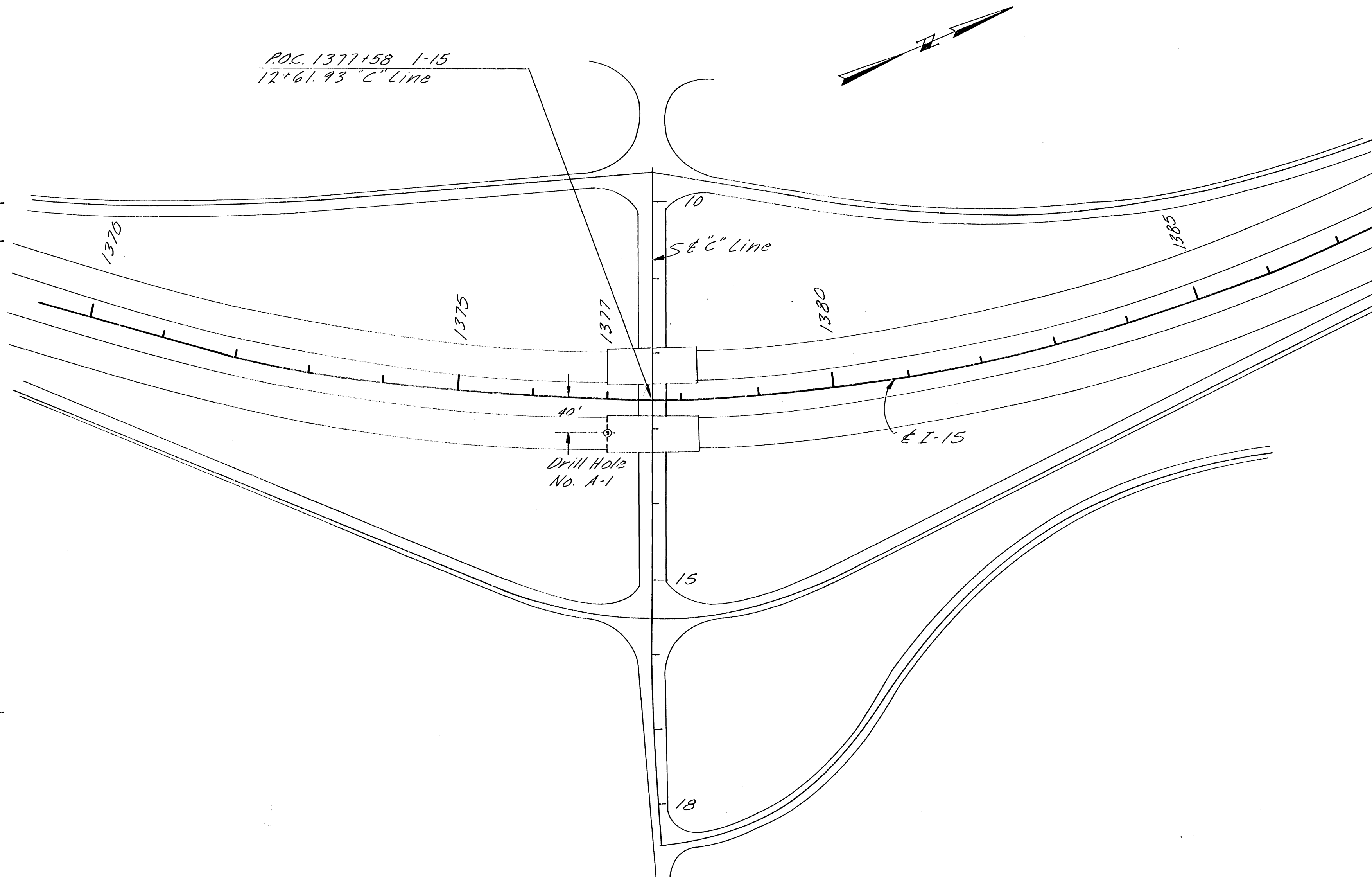
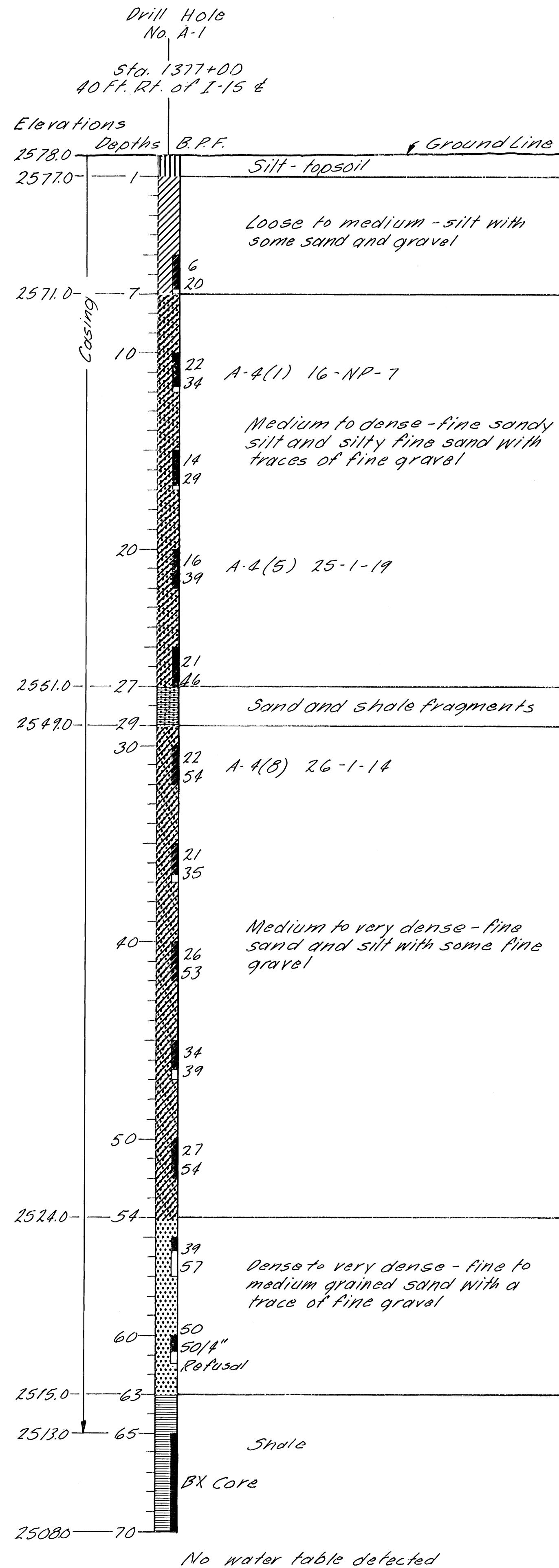
CHECKED BY: *D.T. Price* CHECKED BY: WASHINGTON COUNTY

APPROVAL: RECEIVED BY: *Ray F. DeLong* DATE: *12-7-70* CHIEF STRUCTURAL ENGR.

REVISIONS

NO.	BY	DATE	REMARKS

BR. NO. ORG. NO. *F-291* 3 of 13



KEY TO DRILLING LOG
RELATIVE DENSITY (NON-PLASTIC SAND & SILT)
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GRAVEL	LIMESTONE	CLAYEY SAND
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CLAY		SILTY SAND
SHALE		SANDY SILT

DRILL HOLE NO. 0+00 E OR LT. OR RT. IN FT. OFFSET.

ELEVATIONS
GROUND ELEVATION
DEPTHS
GROUND LINE

EXAMPLE TYPICAL
STIFF MEDIUM PLASTIC
BRN. CLAY, SOME SILT
AASHO
A-6(4)
LL - PI - W
17 - 7 - 11

DATE

THIN WALL SHELBY
TUBE, UNDISTURBED
SAMPLER USED.

SPLIT BARREL
UNDISTURBED
SAMPLER WITH LINER
RINGS OR CALIFORNIA
TYPE SAMPLER

REASON NOT
RECOVERED

CLASSIFICATION
OF EACH SAMPLE
AND RESULTS OF
CLASSIFICATION
TESTS.

NO. OF BLOWS OF A
140 LB. HAMMER FALLING
30 INCHES REQUIRED TO
DRIVE A STD. 1 1/2" ID,
2" O.D. SAMPLE TUBE 1 FT.

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

SOIL DATA

DRAWN BY Kistler	CHECKED BY R. S. Sarna	PROJECT NUMBER 1-15-1(21)0
CHECKED BY L. Raughter	CHECKED BY K. M. Vay	STATION 1377+00 ±
CHECKED BY G. P. Piser	CHECKED BY S. J. B. J. J.	COUNTY WASHINGTON
APPROVAL RECOMMENDED BY William A. Hurdley	DATE 12-28-70	RECEIVED BY Ray J. B. J.

Drilled: 10-29-70

BR. NO. DRG. F-291 3A of 13