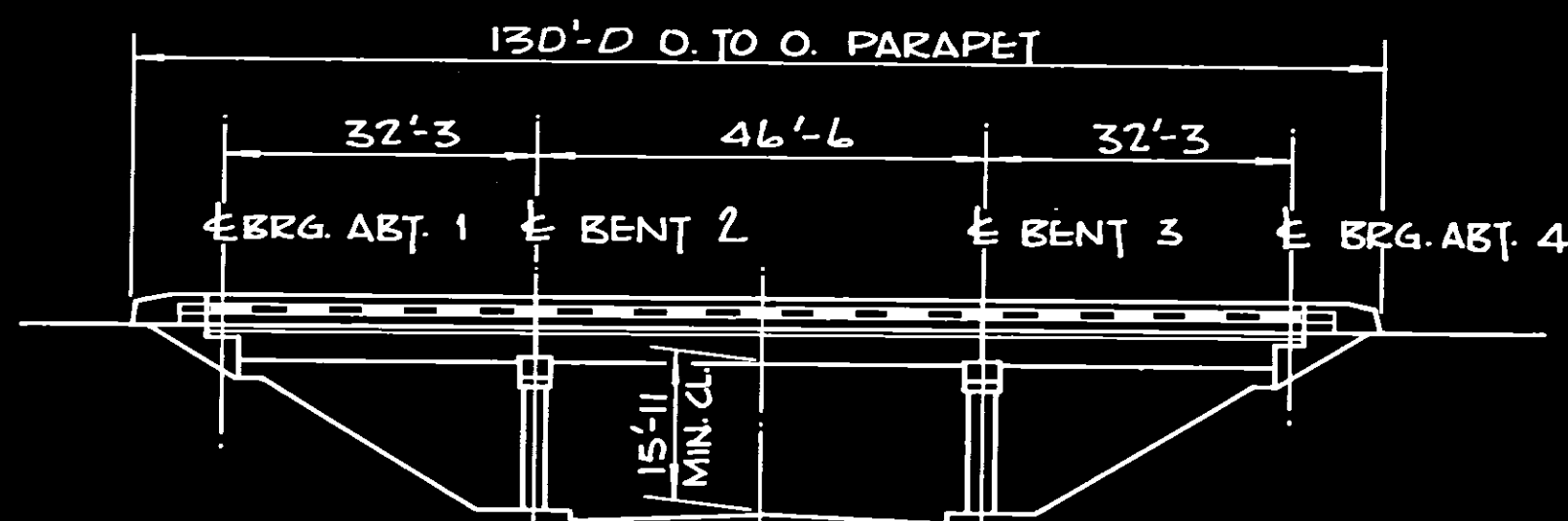
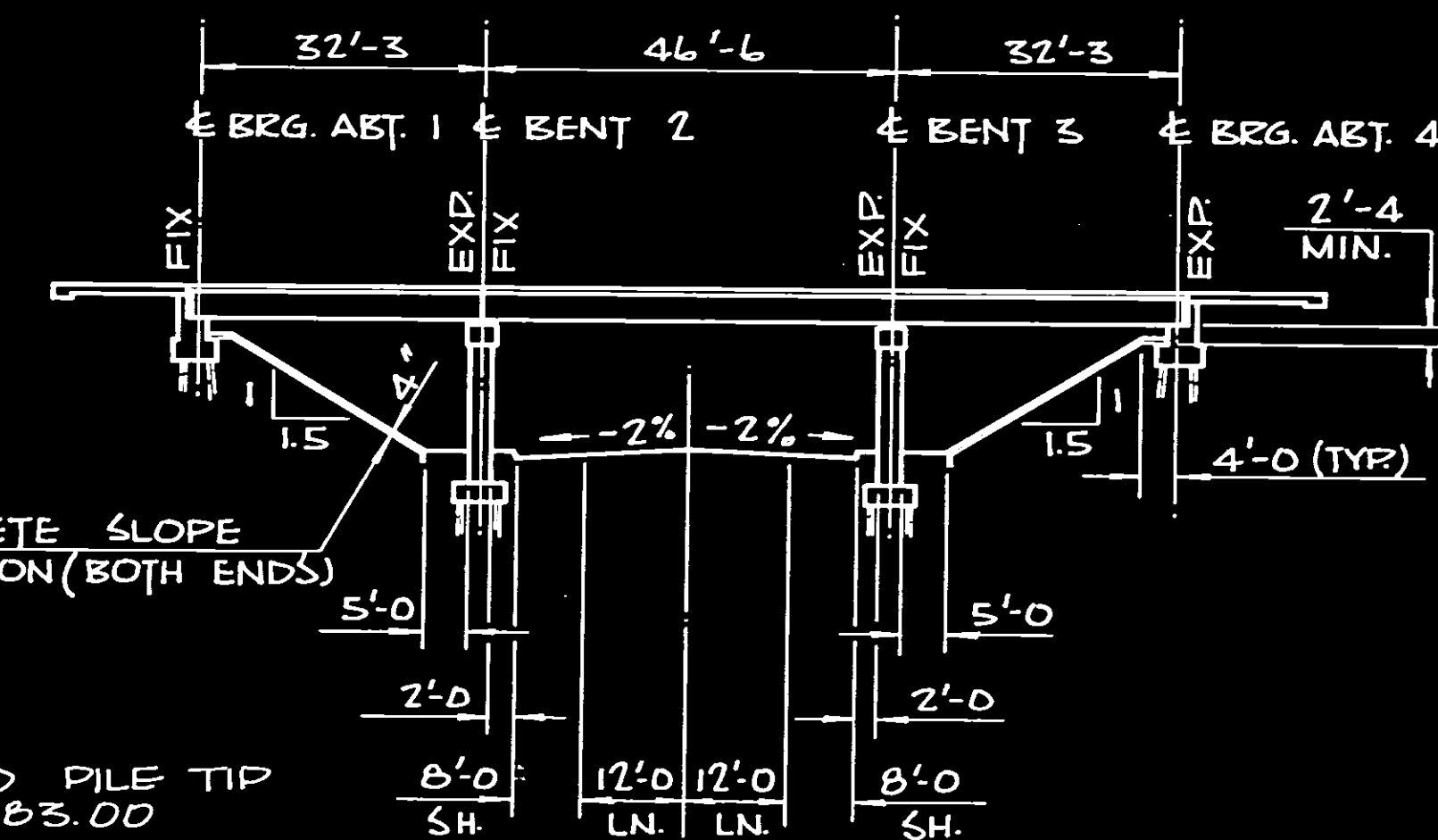


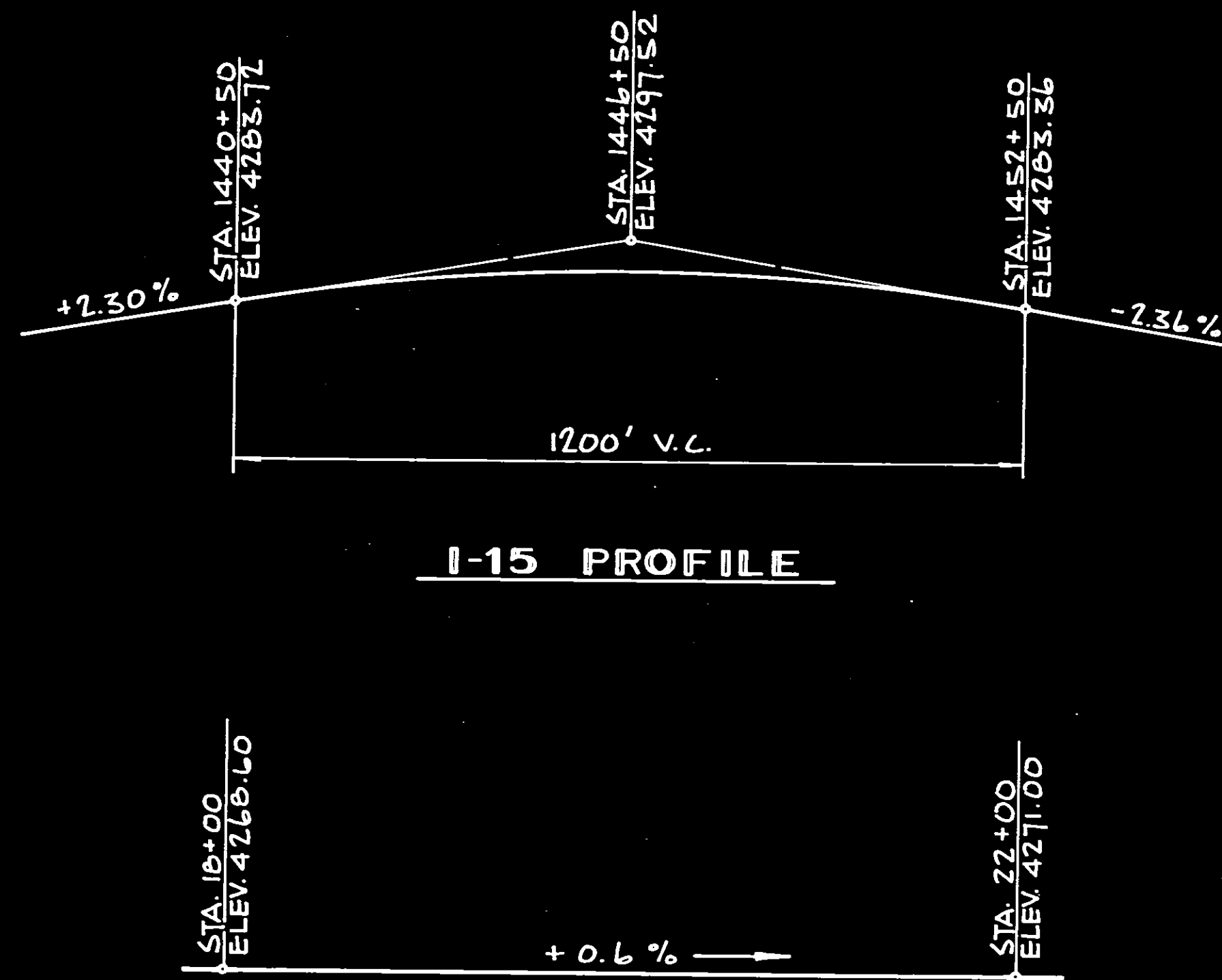
PLAN



ELEVATION

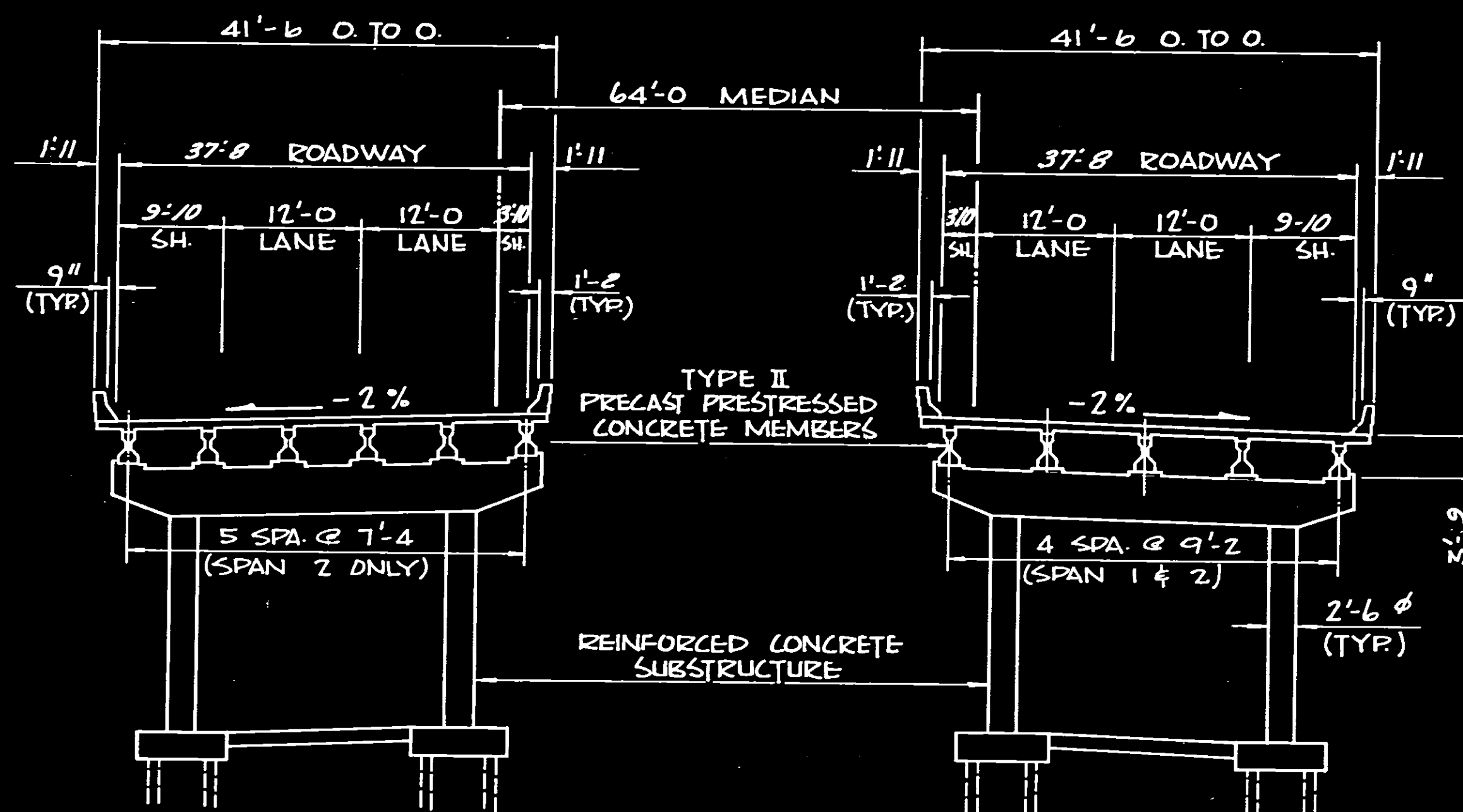


SECTION NORMAL TO 2700 NORTH



I-15 PROFILE

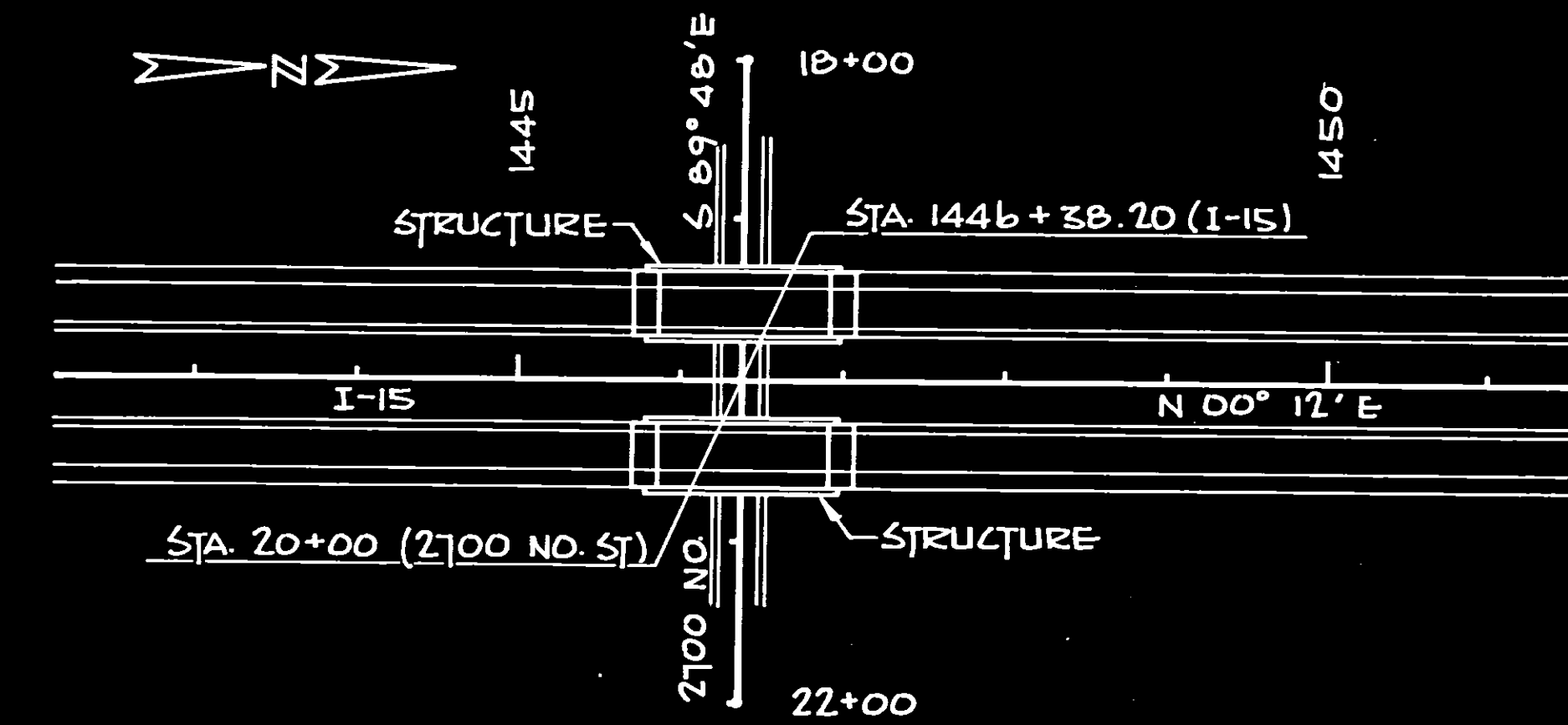
2700 NO ST PROFILE



SECTION A-A

INDEX OF SHEETS

- 1.....SITUATION AND LAYOUT
- 2.....SOIL DATA
- 3.....FOUNDATION AND FRAMING PLAN AND SCREED ELEV.
- 4.....ABUTMENT AND BENT DETAILS.
- 5.....DECK AND SLOPE PROTECTION DETAILS.
- 6.....PRESTRESSED BEAM DETAILS.
- 7.....PRESTRESSED BEAM DETAILS.
- 8.....JOINT AND DIAPHRAGM DETAILS
- 9.....PARAPET DETAILS
- 10.....RAILING DETAILS
- 11.....CONCRETE PILE DETAILS
- 12.....LIGHTING DETAILS FOR STRUCTURE
- 13.....REINFORCING STEEL SCHEDULE



LOCATION PLAN

GENERAL NOTES

1. MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STATE OF UTAH STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1960 EDITION, AND SUPPLEMENTS THERETO WHICH ARE IN EFFECT AT THE DATE OF REQUEST FOR BIDS.
2. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE BILLET STEEL, CONFORMING WITH A.A.S.H.O. DESIGNATION M-31 DEFORMATION SHALL CONFORM WITH A.A.S.H.O. DESIGNATION M-151.
3. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4" EXCEPT WHERE NOTED OTHERWISE.
4. COVER TO REINFORCING STEEL SHALL BE 2 INCHES EXCEPT WHERE NOTED OTHERWISE.

DESIGN DATA

HS20-44 OR INTERSTATE ALTERNATE LOADING IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATIONS OF 1965

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 (NON PRESTRESSED) = 20,000 P.S.I., $n = 6$.

WEARING SURFACE: 1" CONCRETE, 15 LBS./SQ. FT. FUTURE SURFACE.

QUANTITIES

ITEM	ESTIMATE	UNIT	AS CONST.
EXCAVATION FOR STRUCTURES (UNCLASS)	790	CU. YD.	507.30
CLASS AA CONCRETE (AE)	388	CU. YD.	Lump
CLASS A CONCRETE (AE)	341	CU. YD.	Lump
REINFORCING STEEL	183,347	LB.	123,128.00
STRUCTURAL STEEL	9,465	LB.	Lump
METAL RAILING (SINGLE RAIL)	516	LIN. FT.	Lump
CONCRETE SLOPE PROTECTION	1,168	SQ. YD.	1,124.00
MECHANICAL TAMPING	54	HR.	72.00
PRESTRESSED CONC. MEMBER TYPE II x 32'-10"	20	EA.	20.00
PRESTRESSED CONC. MEMBER TYPE II x 46'-4"	12	EA.	12.00
ELASTOMERIC BEARING PAD (3/4" THICK)	50	SQ. FT.	4937
ELECTRICAL WORK, BRIDGES	1	LUMP	Lump
PILE (OTHER THAN TIMBER)	5,422	LIN. FT.	5,521.90
FURNISHING PILE DRIVING EQUIPMENT	1	LUMP	Lump
POLYCHLOROPRENE JOINT SEAL (1 1/2" WIDE)	332	LIN. FT.	329.60

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

31ST ST. TO HOT SPRINGS
 I-15 OVER 2700 NO.
 SITUATION & LAYOUT

DESIGNED BY: TRP CHECKED BY: MW
 DRAWN BY: B. THOMAS CHECKED BY: H. N. McD.
 QUANTITIES BY: H. G. E. CHECKED BY: D. L. C.

APPROVAL RECORD: July 27, 1966 John W. [Signature]
 APPROVED: 6/16/68 R. E. [Signature] COUNTY ENGINEER

PROJECT NUMBER: 1446+38.2
 STATION: WEBER
 COUNTY: COUNTY

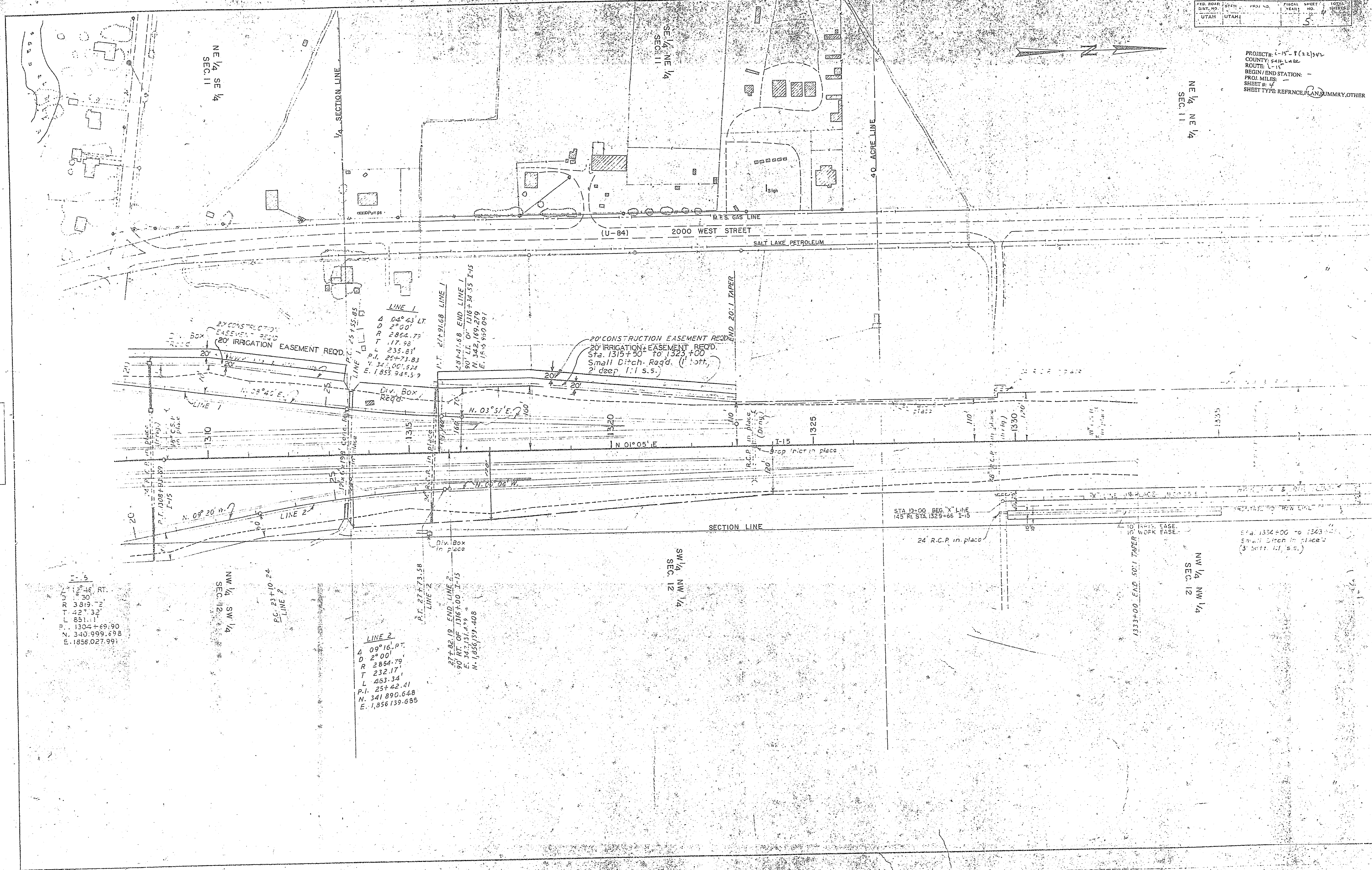
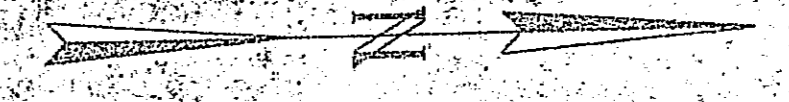
BR. NO. DRG. F-74 1 OF 13

NO.	BY	DATE	REMARKS

Final June 17th 68 from [Signature]

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
UTAH	UTAH			5	

PROJECT: 4-15-7 (22) 292
 COUNTY: Salt Lake
 ROUTE: 1-15
 BEGIN/END STATION: -
 PROJ. MILES: -
 SHEET # 4
 SHEET TYPE: REFERENCE PLANS SUMMARY OTHER



N.E. 1/4 SEC. 11

NE 1/4 NE 1/4 SEC. 11

NE 1/4 SE 1/4 SEC. 11

SE 1/4 NE 1/4 SEC. 11

NW 1/4 NW 1/4 SEC. 12

SW 1/4 NW 1/4 SEC. 12

LINE 2
 Δ 09°16' P.T.
 D 2°00'
 R 2864.79
 T 232.17'
 L 453.34'
 P.I. 25442.41
 N. 341 890.648
 E. 1,856 159.689

LINE 1
 Δ 04°43' LT
 D 2°00'
 R 2864.79
 T 117.98'
 L 235.83'
 P.I. 25473.83
 N. 342,001.524
 E. 1,855 949.539

1310
 1315
 1320
 1325
 1330
 1335

STA 13+00 BEG. 'X' LINE
 145 FT. STA. 1329+65 I-15

Sta. 1324+00 to 1328+00
 Small Ditch in place
 (3' sett. 1:1 s.s.)

20' CONSTRUCTION EASEMENT REQD.
 20' IRRIGATION EASEMENT REQD.
 Sta. 1315+50 to 1325+00
 Small Ditch. Regd. (1:1 sett.,
 2' deep 1:1 s.s.)

20' CONSTRUCTION EASEMENT REQD.
 20' IRRIGATION EASEMENT REQD.

EC. 23+10.24

P.T. 27+73.58

27+82.18 END LINE 2

END 20' I TAPER

1333+00 END 50' I TAPER

24' R.C.P. in place

SECTION LINE

2000 WEST STREET
 SALT LAKE PETROLEUM

M.F.S. GAS LINE

40-ACRE LINE

1/4 SECTION LINE

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LINE 2

LINE 1

LINE 1

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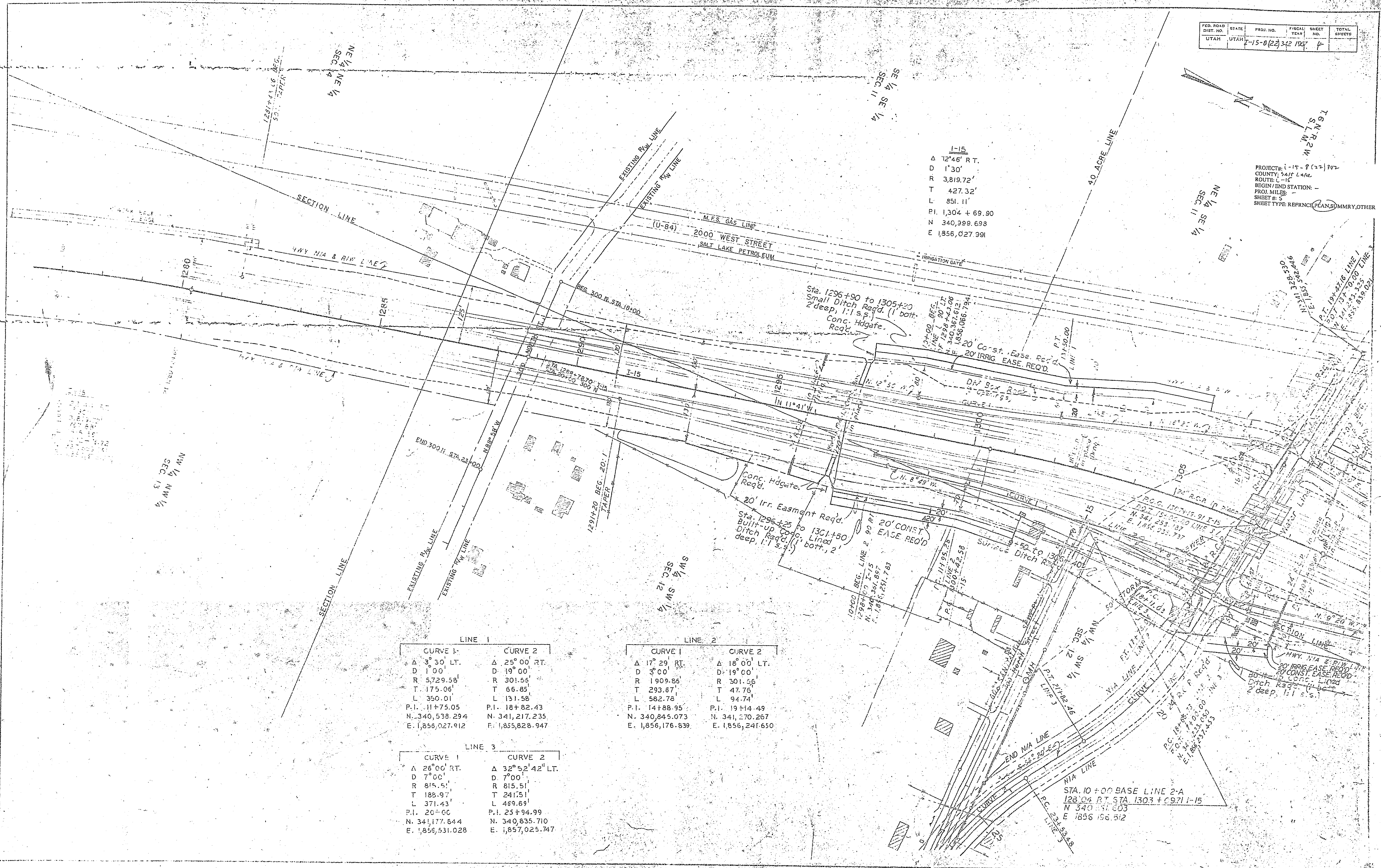
LINE 1

LINE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
UTAH	UTAH	1-15-0(22)342	1967	4	

PROJECT: 1-15-9 (22) 342
 COUNTY: SALT LAKE
 ROUTE: C-15
 BEGIN/END STATION: -
 PROJ. MILES: -
 SHEET # 5
 SHEET TYPE: REFERENCE PLAN, SUMMARY, OTHER

I-15
 Δ 12°46' RT.
 D 1'30'
 R 3,819.72'
 T 427.32'
 L 851.11'
 P.I. 1,304 + 69.90
 N 340,999.693
 E 1,856,027.991



LINE 1

CURVE 1	CURVE 2
Δ 3°30' LT.	Δ 25°00' RT.
D 1'00'	D 19'00'
R 5,729.58'	R 301.56'
T 175.06'	T 66.85'
L 350.01'	L 131.58'
P.I. 11+75.05	P.I. 18+82.43
N. 340,538.294	N. 341,217.235
E. 1,856,027.912	E. 1,855,828.947

LINE 2

CURVE 1	CURVE 2
Δ 17°29' RT.	Δ 18°00' LT.
D 3'00'	D 19'00'
R 1,909.86'	R 301.56'
T 293.87'	T 47.76'
L 582.78'	L 94.74'
P.I. 14+88.95	P.I. 19+14.49
N. 340,845.073	N. 341,270.267
E. 1,856,176.839	E. 1,856,241.650

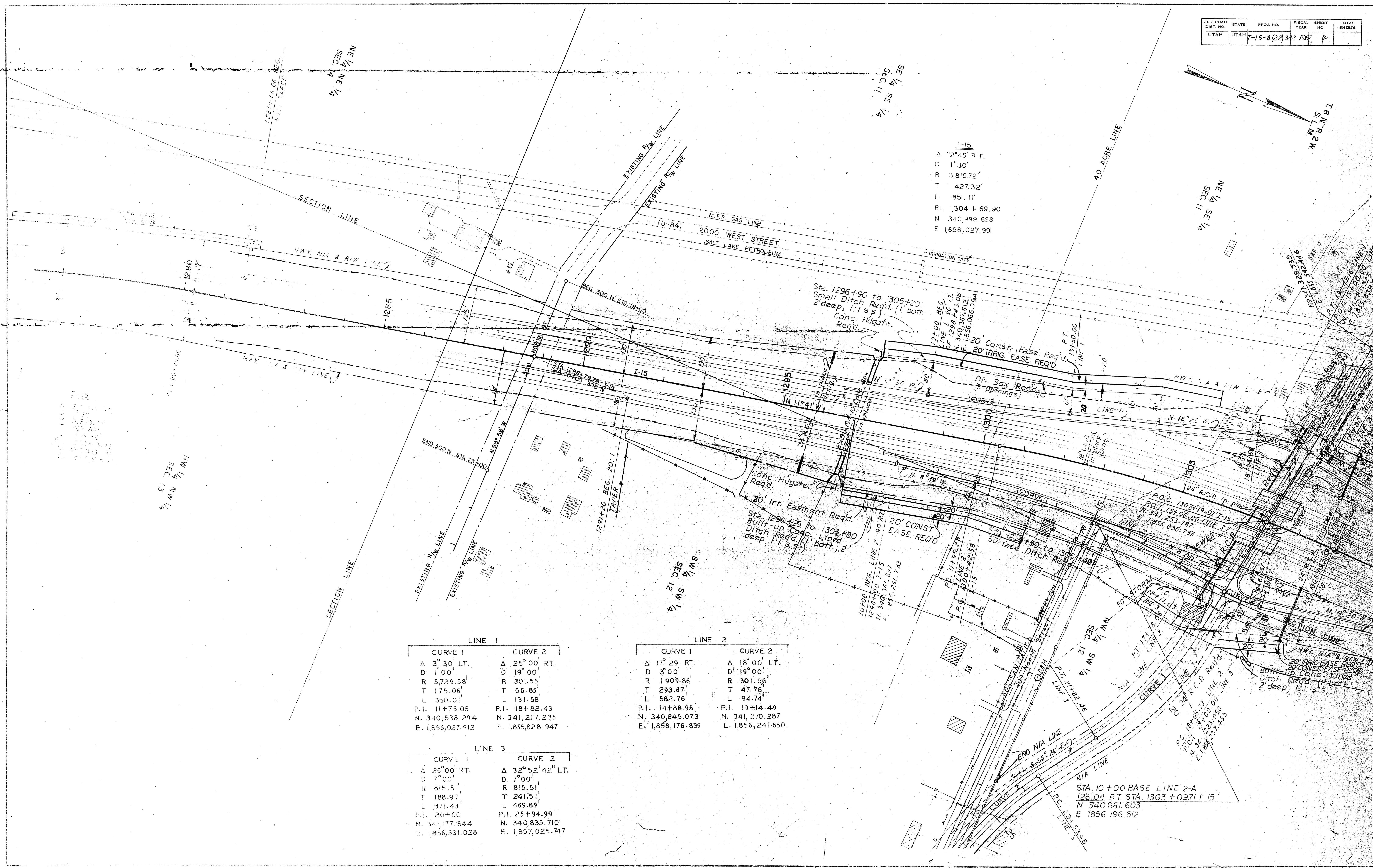
LINE 3

CURVE 1	CURVE 2
Δ 26°00' RT.	Δ 32°52'42" LT.
D 7°00'	D 7°00'
R 815.51'	R 815.51'
T 188.97'	T 241.51'
L 371.43'	L 469.69'
P.I. 20+00	P.I. 25+94.99
N. 341,177.644	N. 340,835.710
E. 1,856,531.028	E. 1,857,025.747

STA. 10+00 BASE LINE 2-A
 128.04 RT. STA. 1303+09.71 I-15
 N 340,551.603
 E 1,856,156.512

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
UTAH	UTAH	T-15-8(2)342	1967	4	

REVISIONS
DATE BY



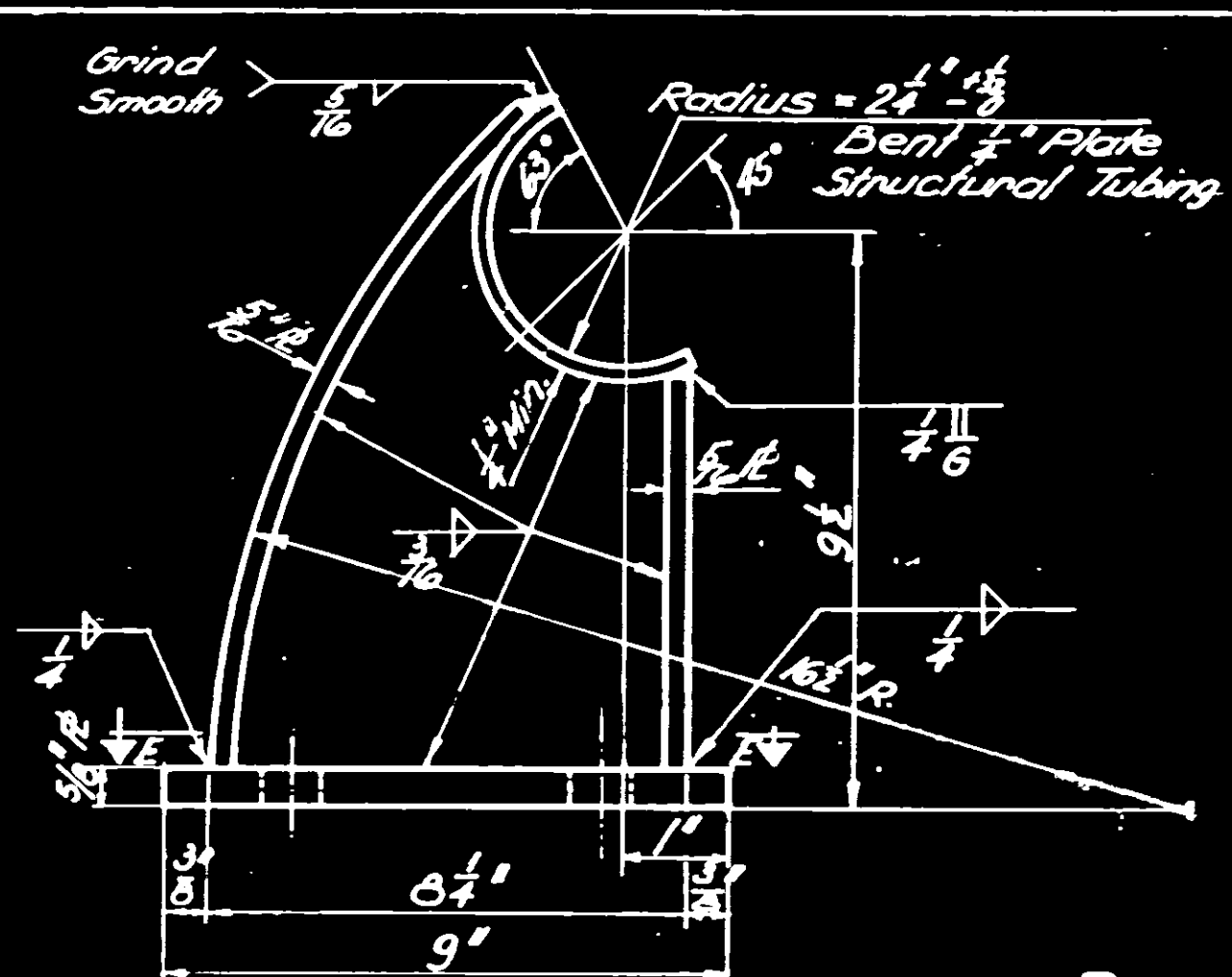
I-15
 Δ 12°46' RT.
 D 1'30'
 R 3,819.72'
 T 427.32'
 L 851.11'
 P.I. 1,304 + 69.90
 N 340,999.698
 E 1,856,027.991

LINE 1		CURVE 2	
Δ 3°30' LT.	Δ 25°00' RT.	Δ 25°00' RT.	Δ 19°00'
D 1'00'	D 19'00'	R 301.56'	R 301.56'
R 5,729.58'	R 301.56'	T 66.85'	T 66.85'
T 175.06'	T 66.85'	L 131.58'	L 131.58'
L 350.01'	L 131.58'	P.I. 18+82.43	P.I. 18+82.43
P.I. 11+75.05	P.I. 18+82.43	N 341,217.235	N 341,217.235
N 340,538.294	N 341,217.235	E 1,856,027.912	E 1,856,027.912
E 1,856,027.912	E 1,856,027.912		

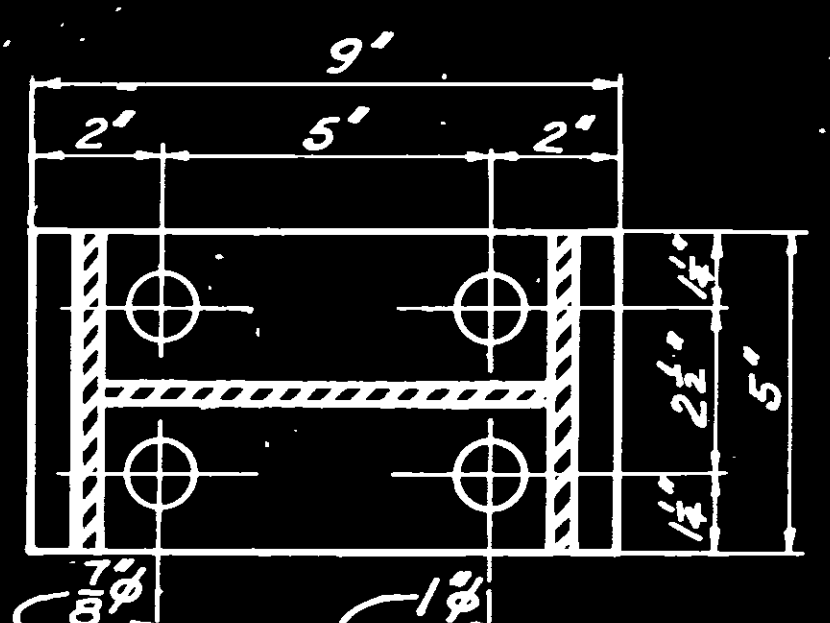
LINE 2		CURVE 2	
Δ 17°29' RT.	Δ 18°00' LT.	Δ 18°00' LT.	Δ 19°00'
D 3'00'	D 19'00'	R 301.56'	R 301.56'
R 1,909.86'	R 301.56'	T 47.76'	T 47.76'
T 293.87'	T 47.76'	L 94.74'	L 94.74'
L 582.78'	L 94.74'	P.I. 19+14.49	P.I. 19+14.49
P.I. 14+88.95	P.I. 19+14.49	N 341,270.267	N 341,270.267
N 340,845.073	N 341,270.267	E 1,856,176.839	E 1,856,176.839
E 1,856,176.839	E 1,856,176.839		

LINE 3		CURVE 2	
Δ 26°00' RT.	Δ 32°52'42" LT.	Δ 32°52'42" LT.	Δ 7°00'
D 7°00'	D 7°00'	R 815.51'	R 815.51'
R 815.51'	R 815.51'	T 241.51'	T 241.51'
T 188.97'	T 241.51'	L 469.69'	L 469.69'
L 371.43'	L 469.69'	P.I. 25+94.99	P.I. 25+94.99
P.I. 20+00	P.I. 25+94.99	N 340,835.710	N 340,835.710
N 341,177.844	N 340,835.710	E 1,857,025.747	E 1,857,025.747
E 1,856,531.028	E 1,857,025.747		

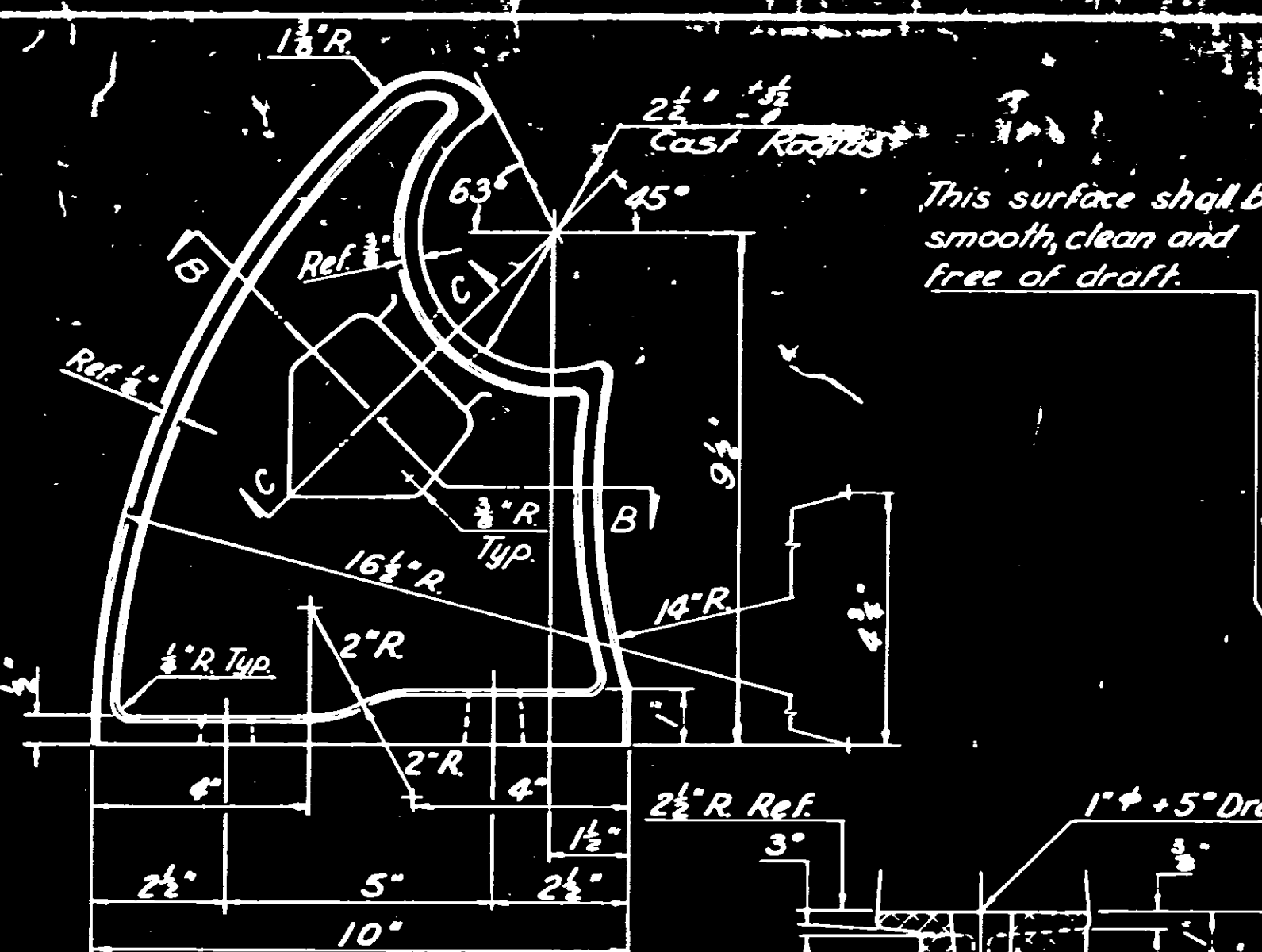
STA. 10+00 BASE LINE 2-A
 128°04' RT. STA. 1303+0971 I-15
 N 340,861.603
 E 1,856,196.512



POST DETAIL
[WELDED STEEL PLATE A36]

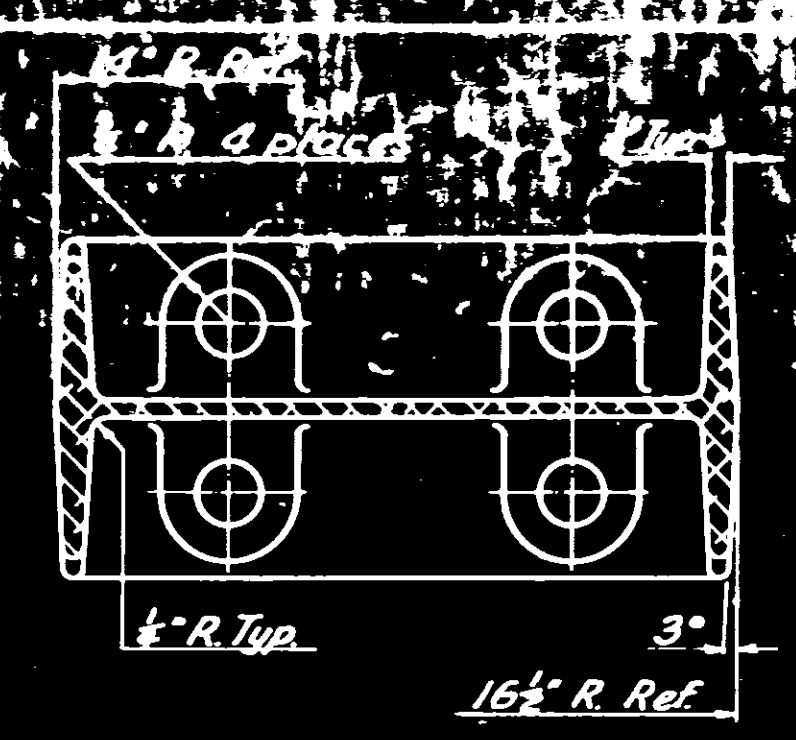


SECTION E-E



POST DETAIL
[ALUMINUM CASTING]

Taper 1/8" wall to 1/4" in this length



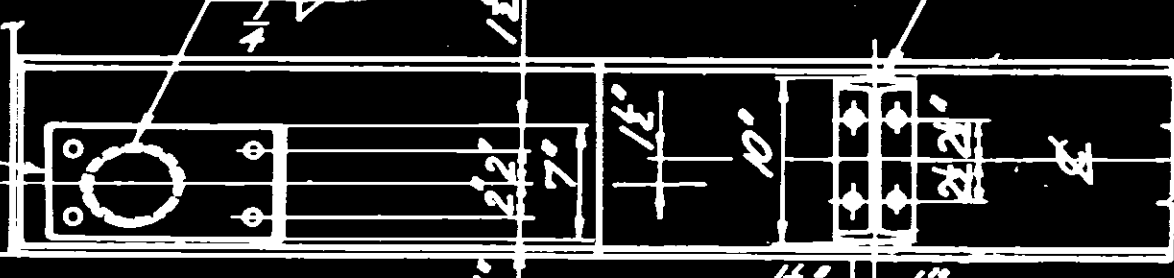
SECTION D-D

GENERAL NOTES

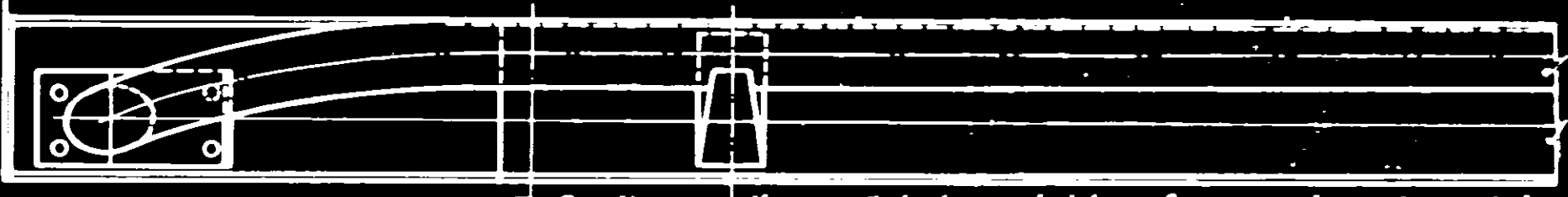
1. Contractor, at his option, may supply either steel or aluminum posts and railing.
2. Aluminum castings shall be a permanent mold Cast Aluminum Alloy A340-T4. Specifications for Cast Aluminum Alloy Railing Posts-Alloy A340-T4 as adopted by the Aluminum Association shall apply.
3. Unless otherwise specified draft shall be 3°.
4. All unmarked radii shall be 16" R.
5. The contact surfaces of concrete and aluminum shall be thoroughly coated with aluminum impregnated caulking compound.
6. Steel posts shall be structural Carbon Steel conforming with A.A.S.H.O. Designation M-103 (A.S.T.M.-A-36).
7. Steel rail shall be fabricated from pipe conforming to API Specification 5LX, Grade X52, (Pressure tests & radiographic inspection not required).
8. Steel Post, Railing, & Sleeves shall be galvanized in accordance with A.A.S.H.O. designation M-11 (A.S.T.M.-A-123).

NOTE: All railing posts shall be painted with reflecting paint on surface facing approaching traffic. See Details below.

- 1 1/2" 7/16" x 1/2" w/ 1/8" Holes - Aluminum Option
- 1 1/2" 7/16" x 1/2" w/ 1/8" Holes - Steel Option

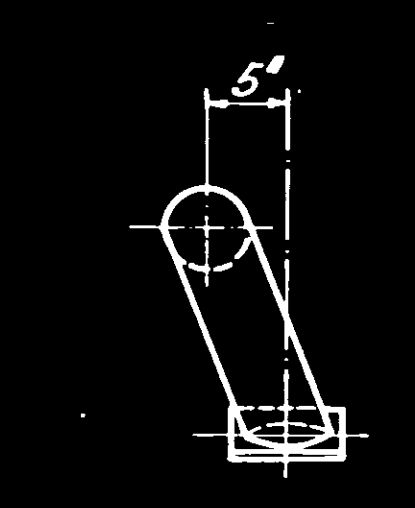


RAIL ATTACHING PLAN

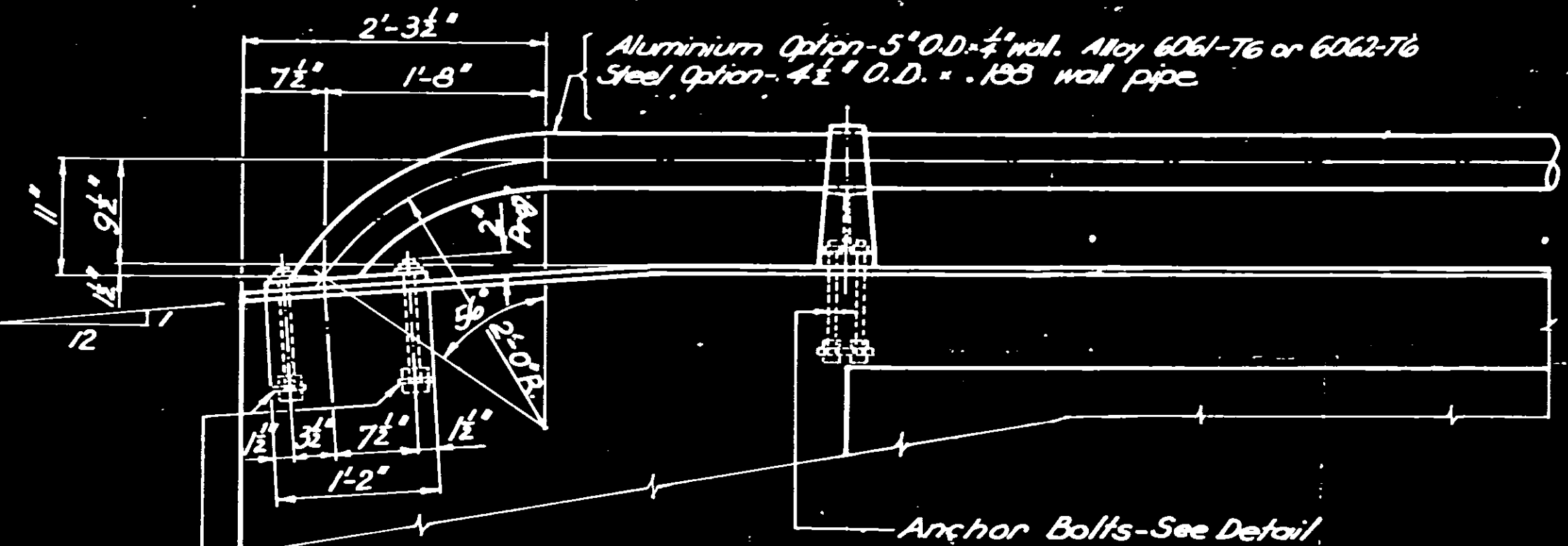


Continue rail parallel to outside of parapet until point of arc is reached.

RAIL END PLAN



END VIEW



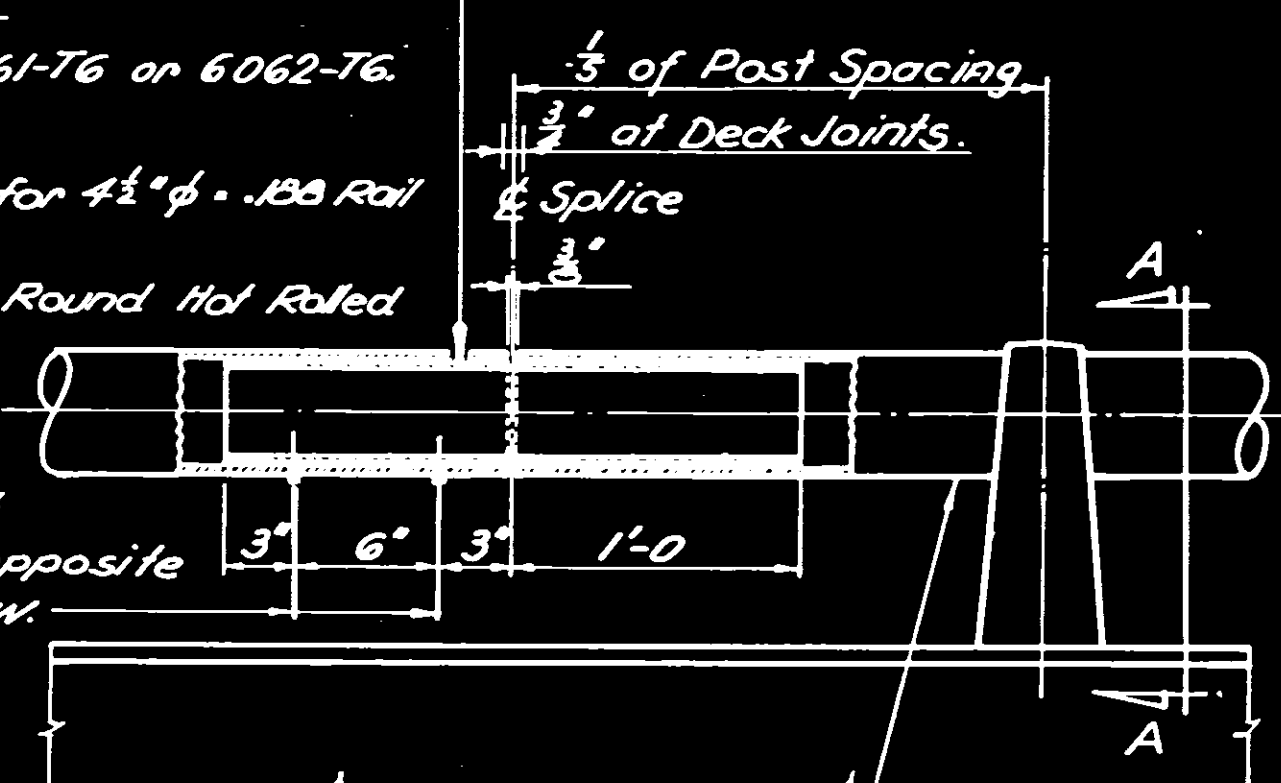
RAIL END ELEVATION

Expansion Joint Sleeve

Aluminum Option - 4 1/2" O.D. x 1/4" wall 6061-T6 or 6062-T6

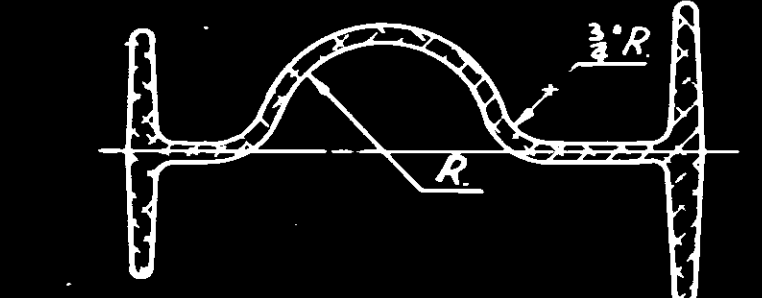
Steel Option - 4" O.D. x .259 wall for 4 1/2" O.D. x .188 Rail

Steel Sleeves to be Round Hot Rolled welded Mechanical Tubing C-1020



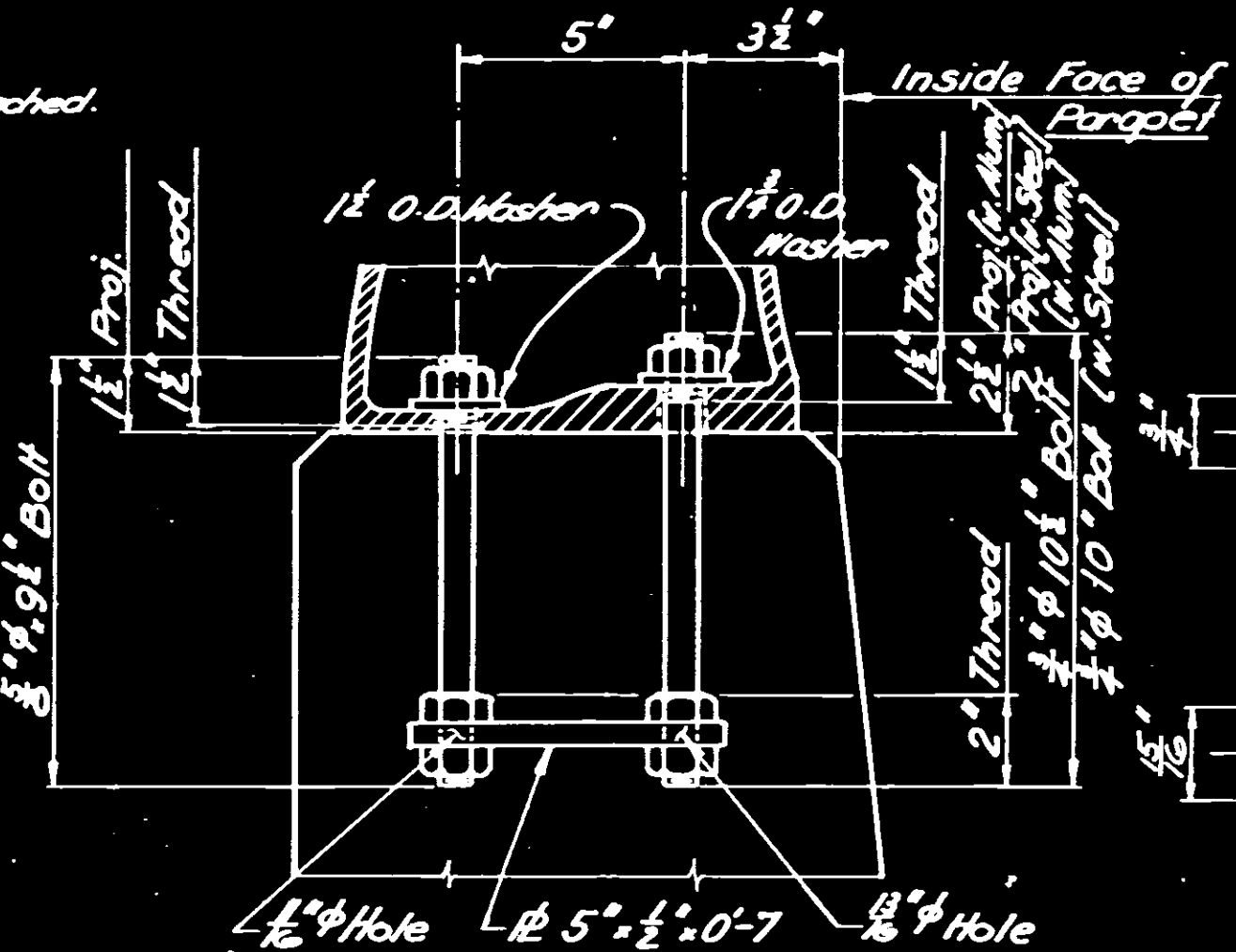
SPlice DETAIL

Rails shall be continuous over at least 3 posts whenever practical. Rail Splices shall be furnished in panels crossing Deck Joints.



SECTION B-B

SECTION C-C



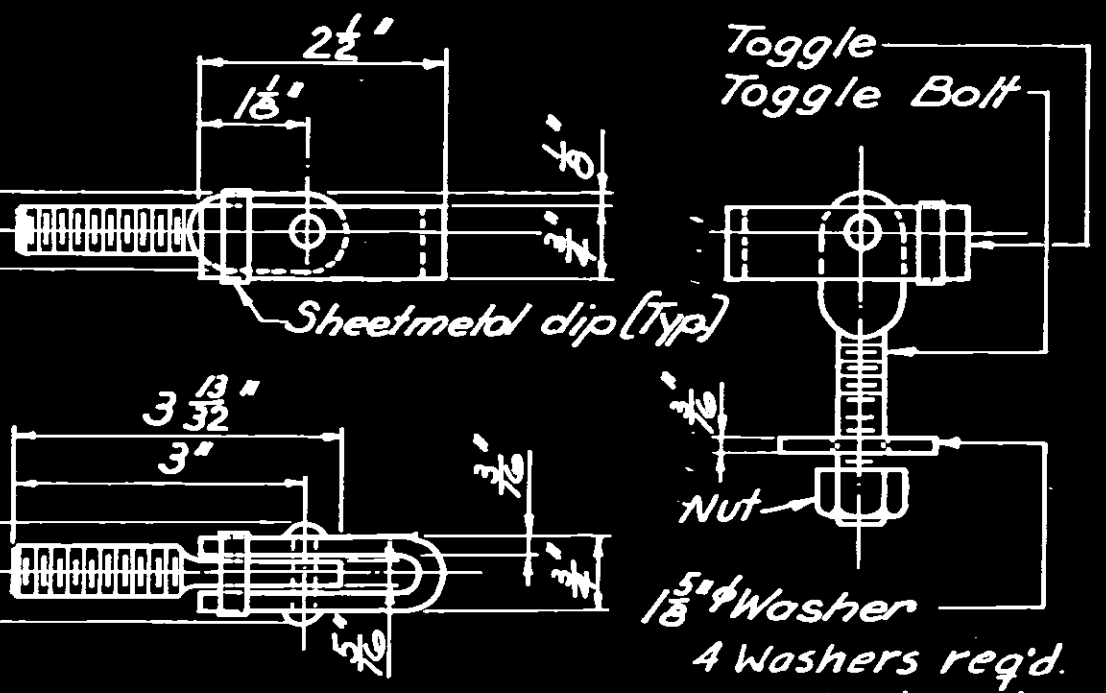
- ANCHOR BOLTS** shall be one of the following:
1. Tempered steel bolts conforming to the requirements of A.A.S.H.O. designation M-164 (A.S.T.M.-A-325) and galvanized in accordance with A.S.T.M.-A-123
 2. Stainless steel bolts conforming to A.S.T.M. designation A-276 and of a type and condition having an ultimate tensile strength of not less than 18,000 p.s.i. Threads shall be class 2A rolled threads.

Top Nuts shall conform to the same specifications as bolts.

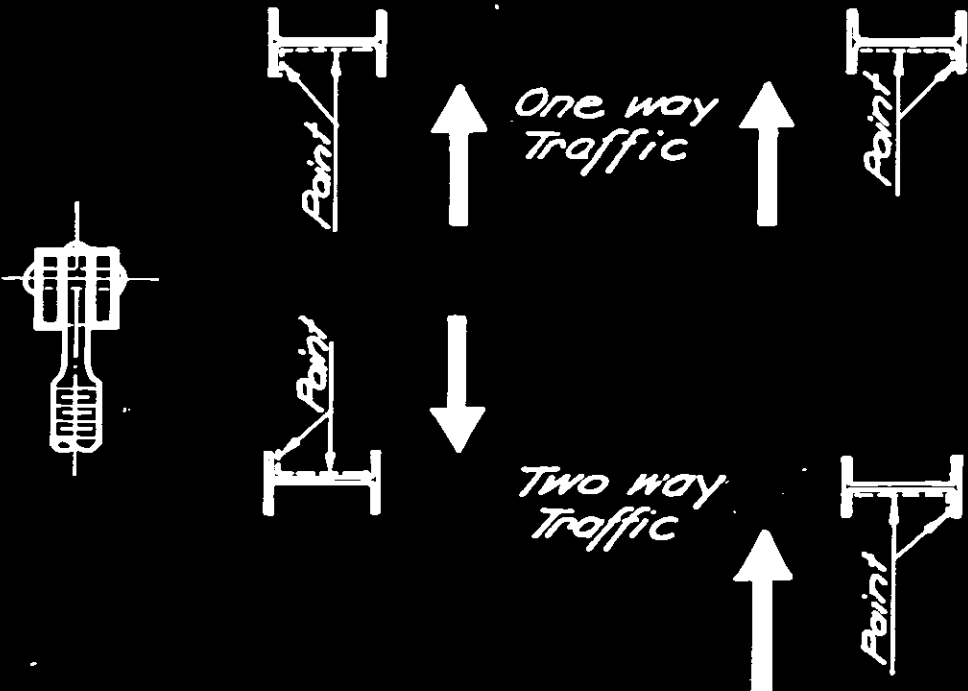
Bottom Nuts shall be ungalvanized steel nuts conforming to A.A.S.H.O. designation M-164 (A.S.T.M.-A-325) All nuts shall have threads of class 2B tolerance.

ANCHOR BOLT SIZES refer to the threaded portion of the bolt. Threaded portion of rods may be upset but anchor bolt stock shall have a diameter not less than that at the root of the thread.

ANCHOR BOLT DETAIL



- TOGGLE MATERIAL** - 1015 H.R. Steel pickled and oiled. Round edge A.S.T.M. A-303-58T.
- TOGGLE BOLT MATERIAL** - 1/2" 13 N.C. 1335 C.R. Steel heat treated R.C. 32-38 A.S.T.M.-A-354.
- WASHER MATERIAL** - SAE 1020 H.R. Steel PL. A.S.T.M.-A-7, break sharp edges.
- NUT MATERIAL** - 1/2" 13 American heavy hex. nut-1035 C.R. Steel-heat treated A.S.T.M.-A-325.
- CADMIUM PLATING ON STEEL** - Type N.S. 0005" thick - A.S.T.M.-A-165-55 (All parts).



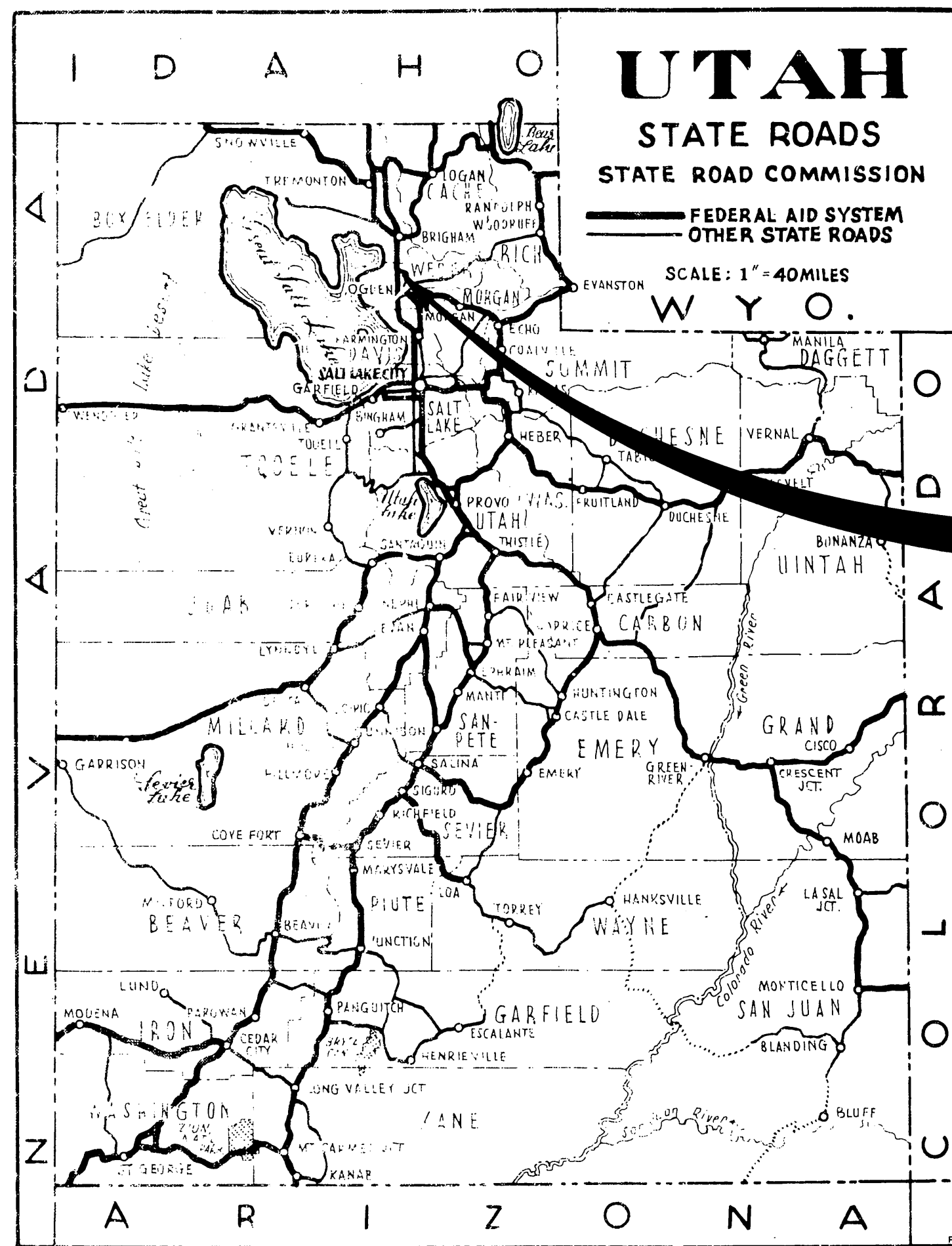
Payment for painting shall be included in contract price for Railing.

DESIGN NOTES

- f_a = 6,000 p.s.i., cast Post
- f_a = 21,000 p.s.i., Alum. Rail
- f_s = 20,000 p.s.i., Plate Post
- f_s = 34,800 p.s.i., Steel Rail

TOGGLE BOLT DETAIL

UTAH STATE DEPARTMENT OF HIGHWAYS SALT LAKE COUNTY, UTAH STRUCTURES DIVISION			
31ST ST. TO HOT SPRINGS I-15 OVER 2700 NO. RAILING DETAILS			
DESIGNED BY: JRP	CHECKED BY: RW	PROJECT NUMBER: F158(2) 342	1st. Cont.
DRAWN BY: JEM	CHECKED BY: H.H.G.	PROJECT NUMBER: 14467-38-20	
QUANTITIES BY: JFM	CHECKED BY: H.H.G.	STATION: WEBER	COUNTY: WEBER
APPROVAL DATE: May 19, 1967	DATE: 4/16/67	GROUP LEADER: U.S. Mansour	
NO.	BY	DATE	REVISIONS
NO.	BY	DATE	REVISIONS



STATE OF UTAH STATE ROAD COMMISSION

PLANS OF PROPOSED STATE ROAD

FEDERAL AID PROJECT

I-15-8 (22342) ~ 1ST CONTRACT (2 STRUCTURES)

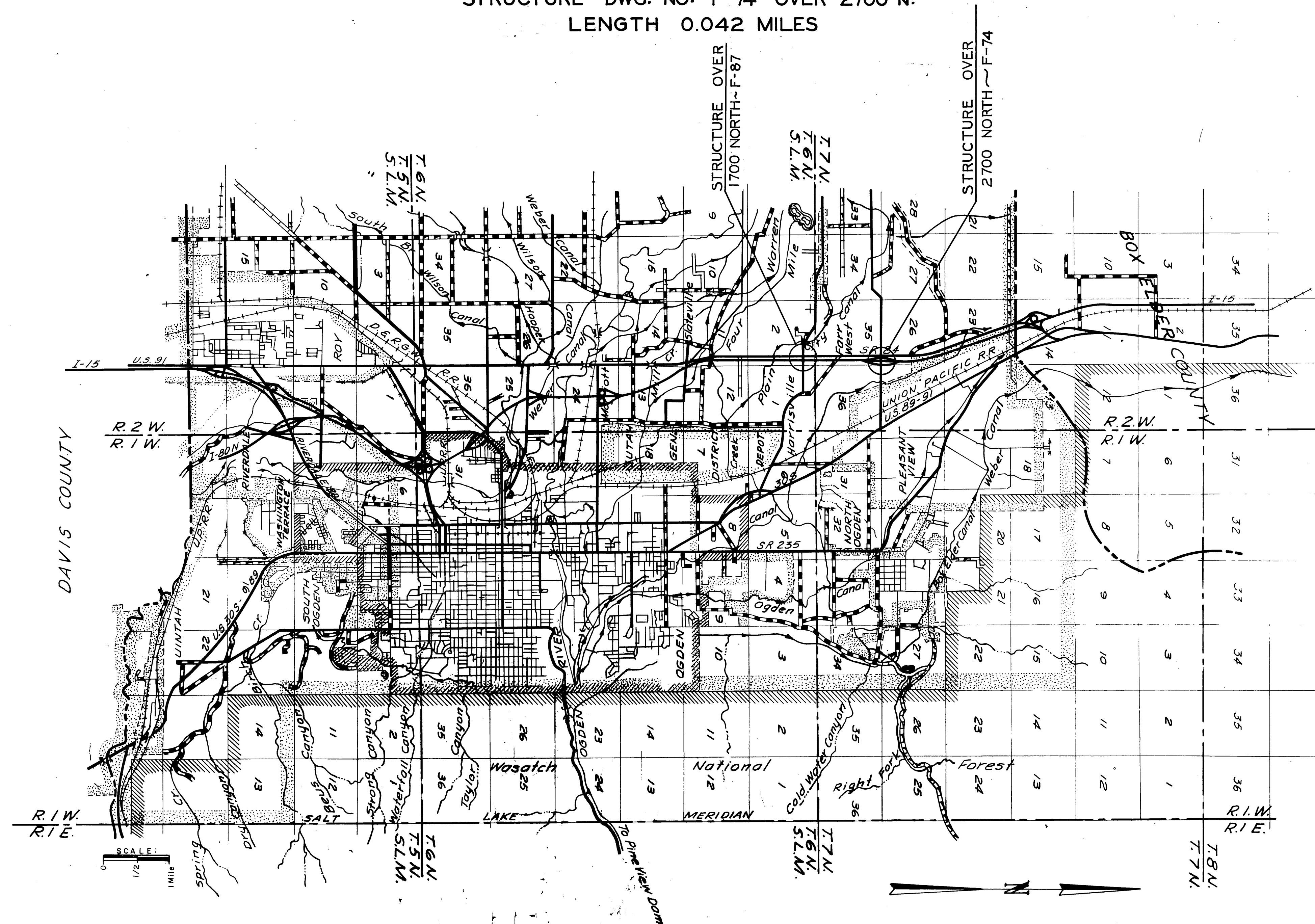
**300 NORTH TO HOT SPRINGS
WEBER COUNTY**

STRUCTURE DWG. NO. F-87 OVER 1700 N.
STRUCTURE DWG. NO. F-74 OVER 2700 N.
LENGTH 0.042 MILES

I-15-8 (22342) ~ 1ST CONTRACT (2 STRUCT.)
300 NORTH TO HOT SPRINGS

INDEX TO SHEETS

SHEET NO.	DESCRIPTION	DRAWING NO.
1	TITLE SHEET	
2	SUMMARY SHEET	
3-6	PLAN & PROFILE	
7-22	STRUCTURE	F-87 1384+07.20
23-35	STRUCTURE	F-74 1446+38.20
36-40	CONSTRUCTION SIGNING	745-1(A-E)
41	CONSTR. IDENTIFICATION SIGNS	745-6



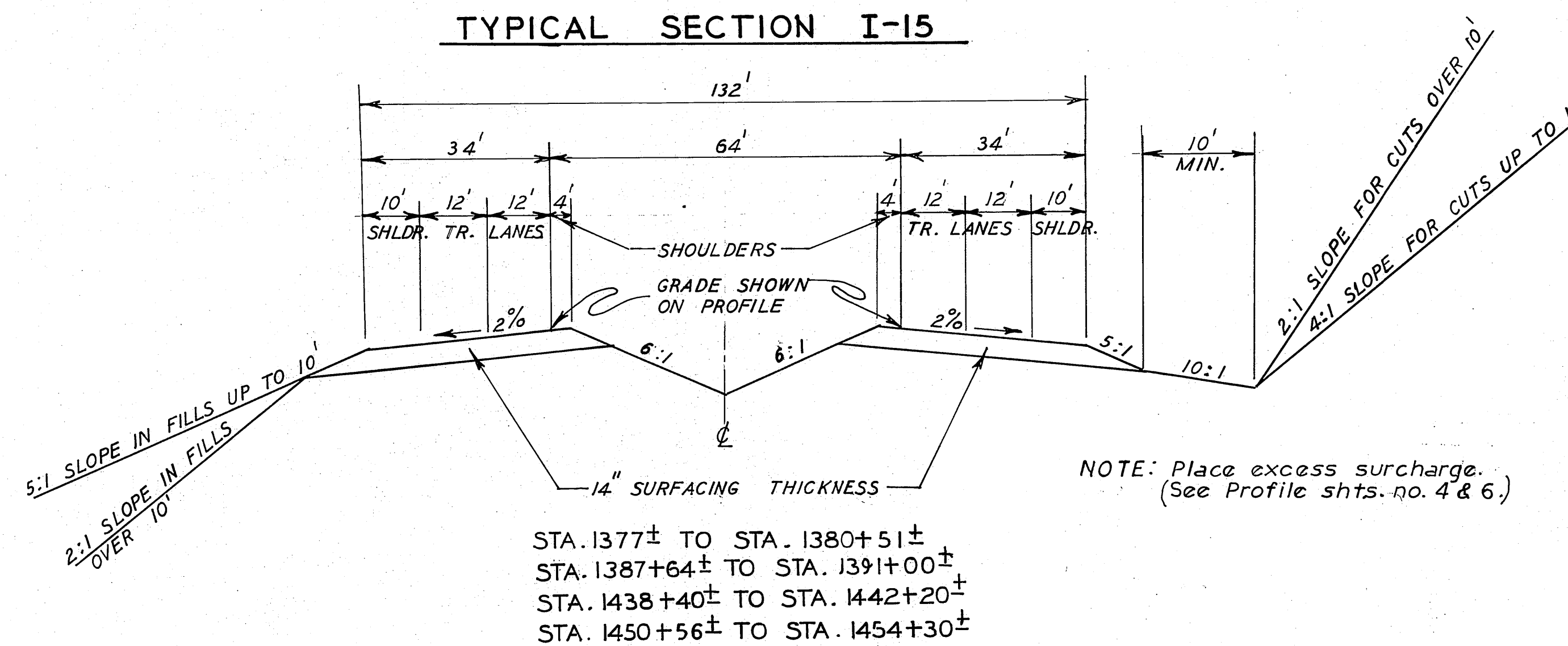
UTAH STATE DEPARTMENT OF HIGHWAYS
RECOMMENDED FOR APPROVAL JUNE 1967
G. L. Stewart
ENGINEER ROADWAY DESIGN DIVISION
RECOMMENDED FOR APPROVAL JUNE 1967
David E. Smart
ENGINEER ROAD PRECONSTRUCTION
APPROVED: JUNE 1967
Blaine J. Kay
STATE HIGHWAY ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED: _____
DIVISION ENGINEER DATE

LINEAR SUMMARY					
STRUC. NUMBER		STATION TO STATION		LIN. FT.	
F-87	S.B.L.	1383+53.82	1384+60.58	106.76	
F-87	N.B.L.	1383+53.82	1384+60.58	106.76	
F-74	S.B.L.	1445+81.45	1446+94.95	113.50	
F-74	N.B.L.	1445+81.45	1446+94.95	113.50	

SUMMARY OF ITEMS		
QUANTITY	UNIT	ITEM
27,200	CU. YD.	UNCLASSIFIED ROADWAY EXCAVATION
4800	MAN-HR.	FLAGGING
	LUMP	MOBILIZATION

REVISIONS	BY	DATE	BY

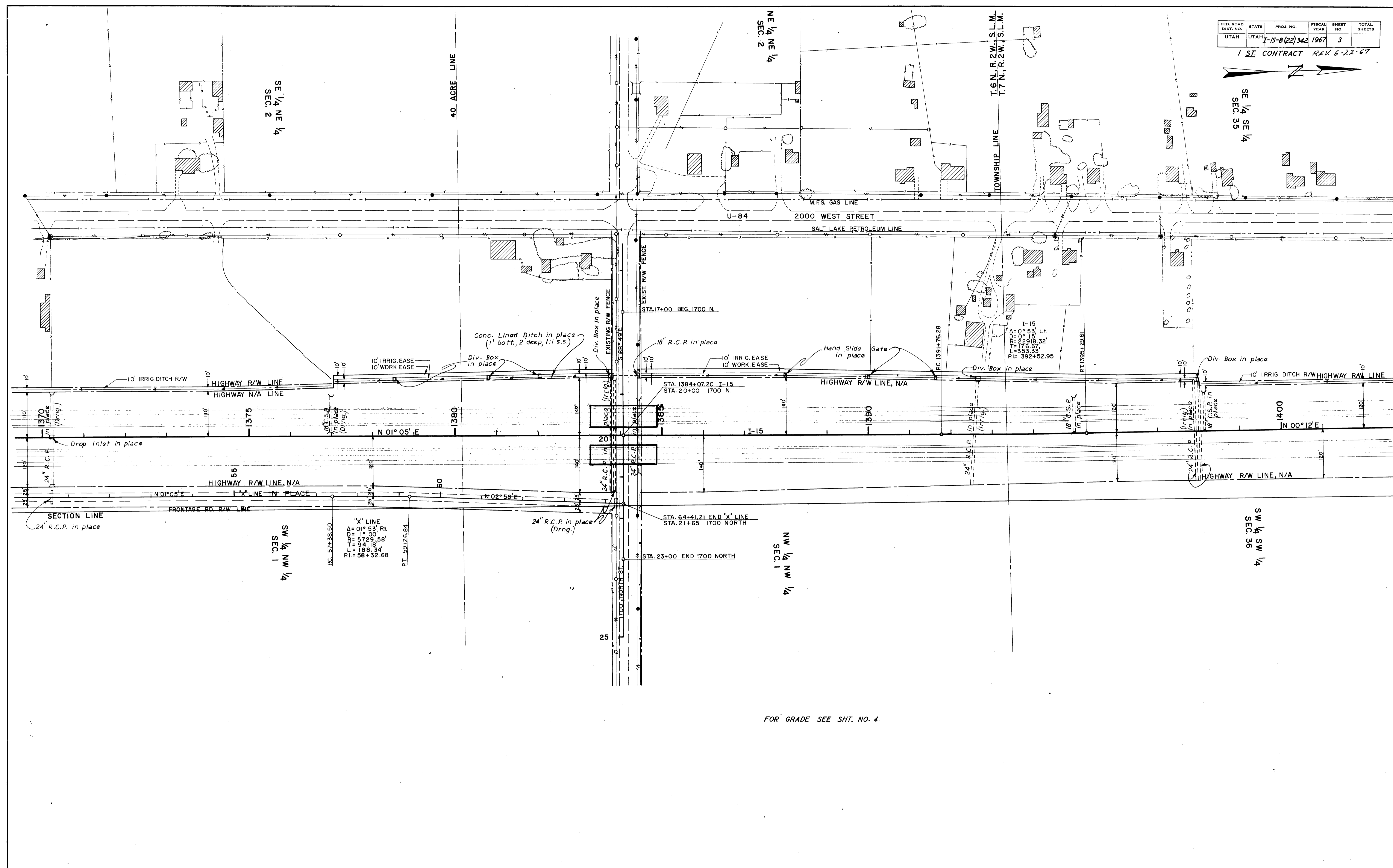


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
UTAH	UTAH	1-15-8 (22) 342	1967	3	

1 ST. CONTRACT REV 6-22-67



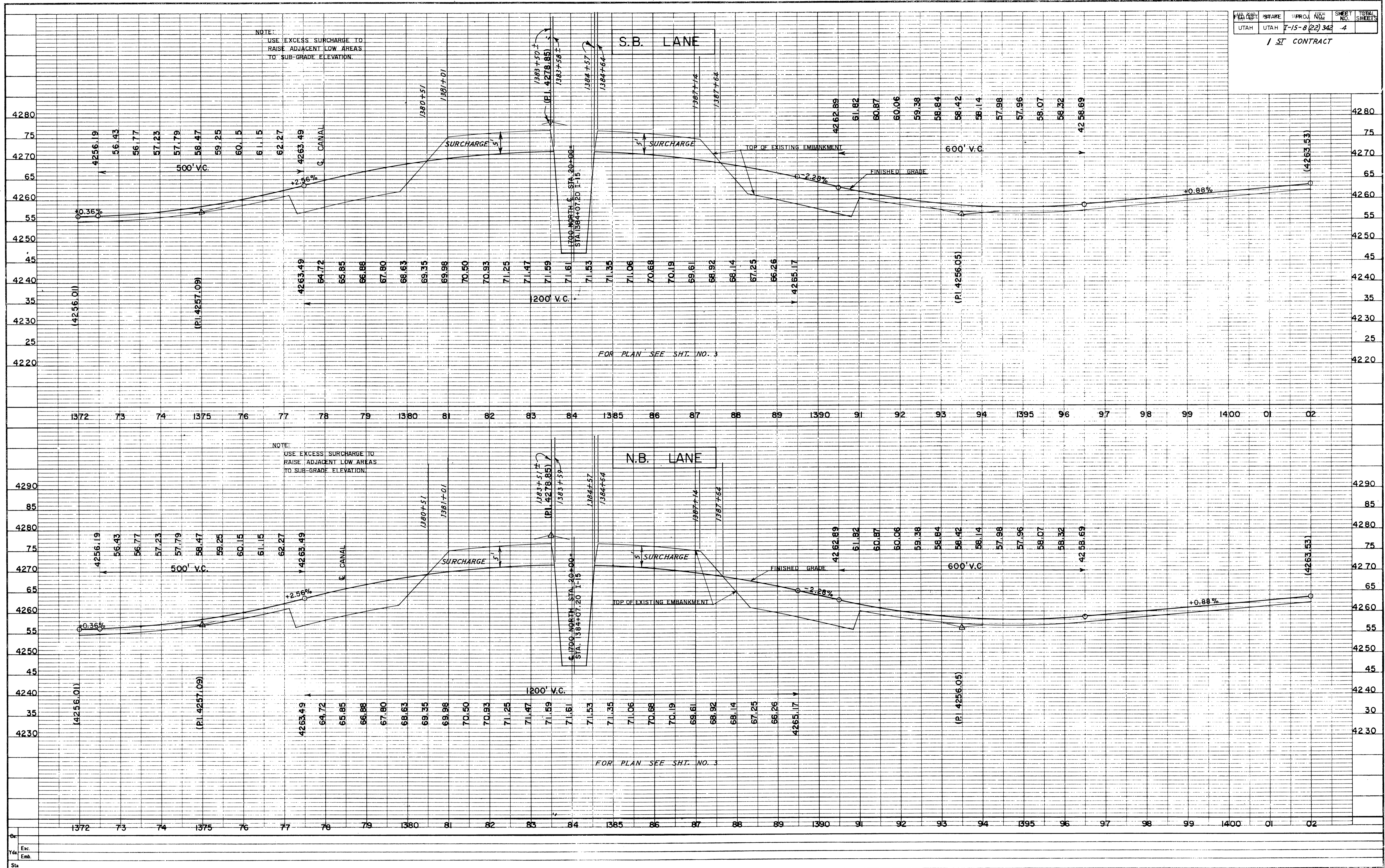
REVISIONS	DATE	BY



FOR GRADE SEE SHT. NO. 4.

STATE	PROJECT	ALPHA	SHEET	TOTAL
UTAH	UTAH	7-15-8 (22)	343	4

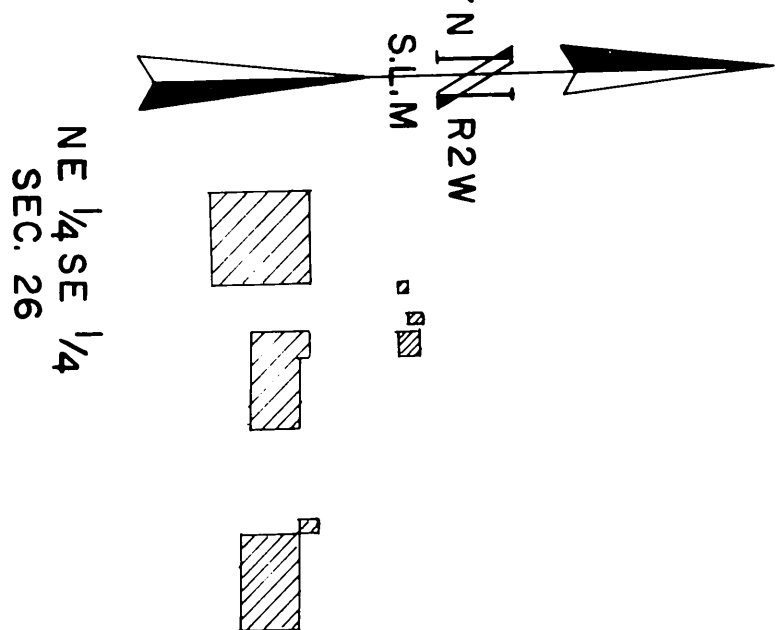
1 ST CONTRACT



Exc.
Emb.
Sta.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
UTAH	UTAH	7-15-8(22)342	1967	5	

1ST CONTRACT



NE 1/4 SE 1/4
SEC. 26

SE 1/4 SE 1/4
SEC. 26

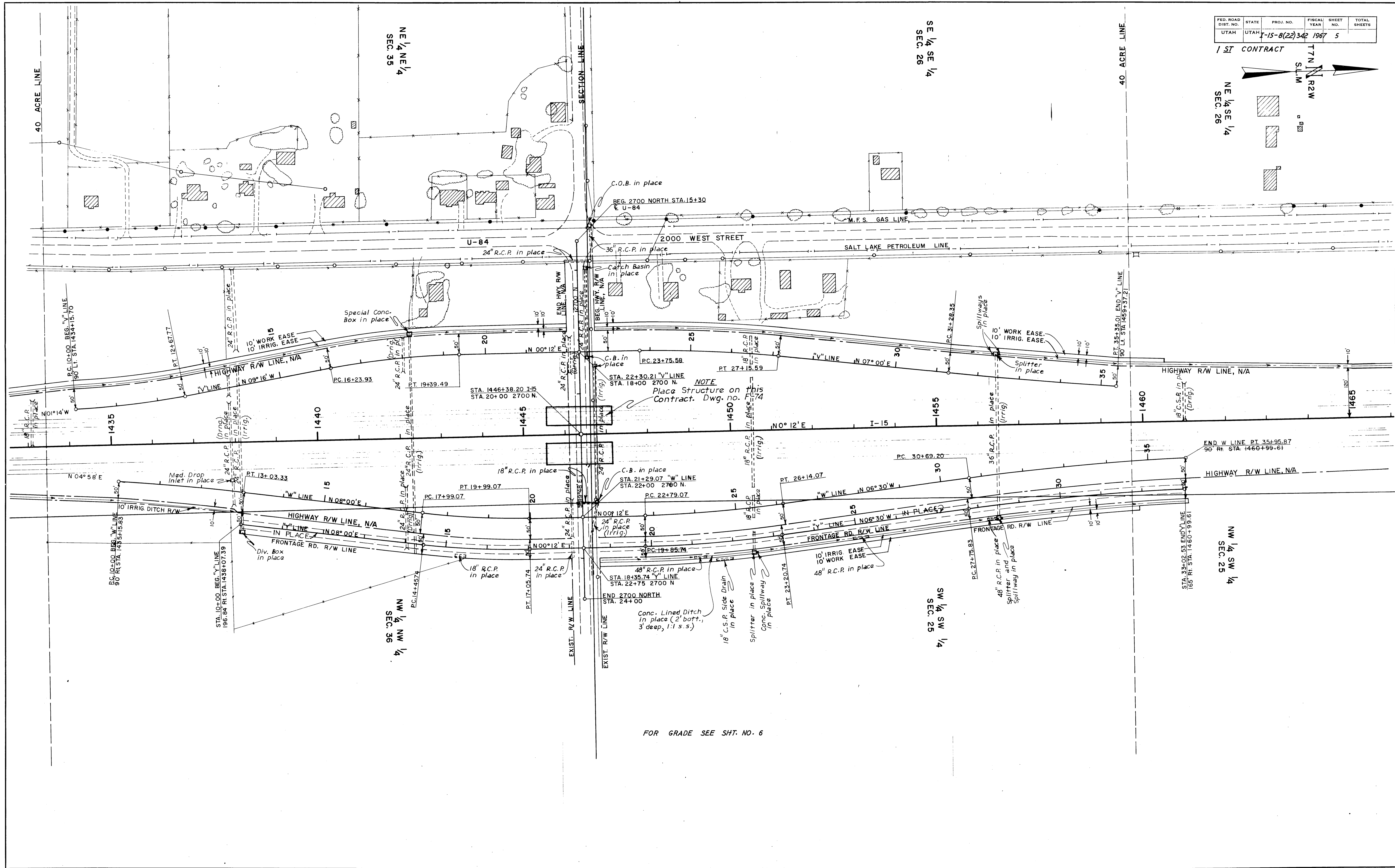
NE 1/4 NE 1/4
SEC. 35

NW 1/4 SW 1/4
SEC. 25

SW 1/4 SW 1/4
SEC. 25

FOR GRADE SEE SHT. NO. 6

REVISIONS	DATE	BY



NOTE
Placa Structure on this
Contract. Dwg. no. F-74

Conc. Lined Ditch
in place (2' bott.,
3' deep, 1:1 s.s.)

18" C.S.P. Side Drain
in place

Splitter in place

Conc. Spillway
in place

48" R.C.P. in place

10' IRRIG. EASE
10' WORK EASE

48" R.C.P. in place

36" R.C.P. in place

18" R.C.P. in place

24" R.C.P. in place

18" R.C.P. in place

24" R.C.P. in place

24" R.C.P. in place

