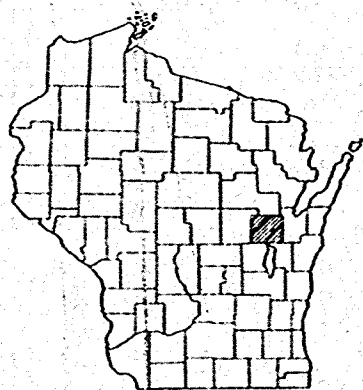


INDEX OF SHEETS

SHEET NO. 1	TITLE
SHEET NO. 2	TYPICAL CROSS SECTIONS
SHEET NO. 2	ESTIMATE OF QUANTITIES
SHEET NO. 2	MISCELLANEOUS QUANTITIES
SHEET NO. 3-31	RIGHT OF WAY PLAT
SHEET NO. 4-7	PLAN AND PROFILE STA. 0+11 TO STA. 106+32
SHEET NO. 8-16	STANDARD DETAILS
SHEET NO. 17-18	DRAINAGE STRUCTURES
SHEET NO. 19-27	CROSS SECTIONS



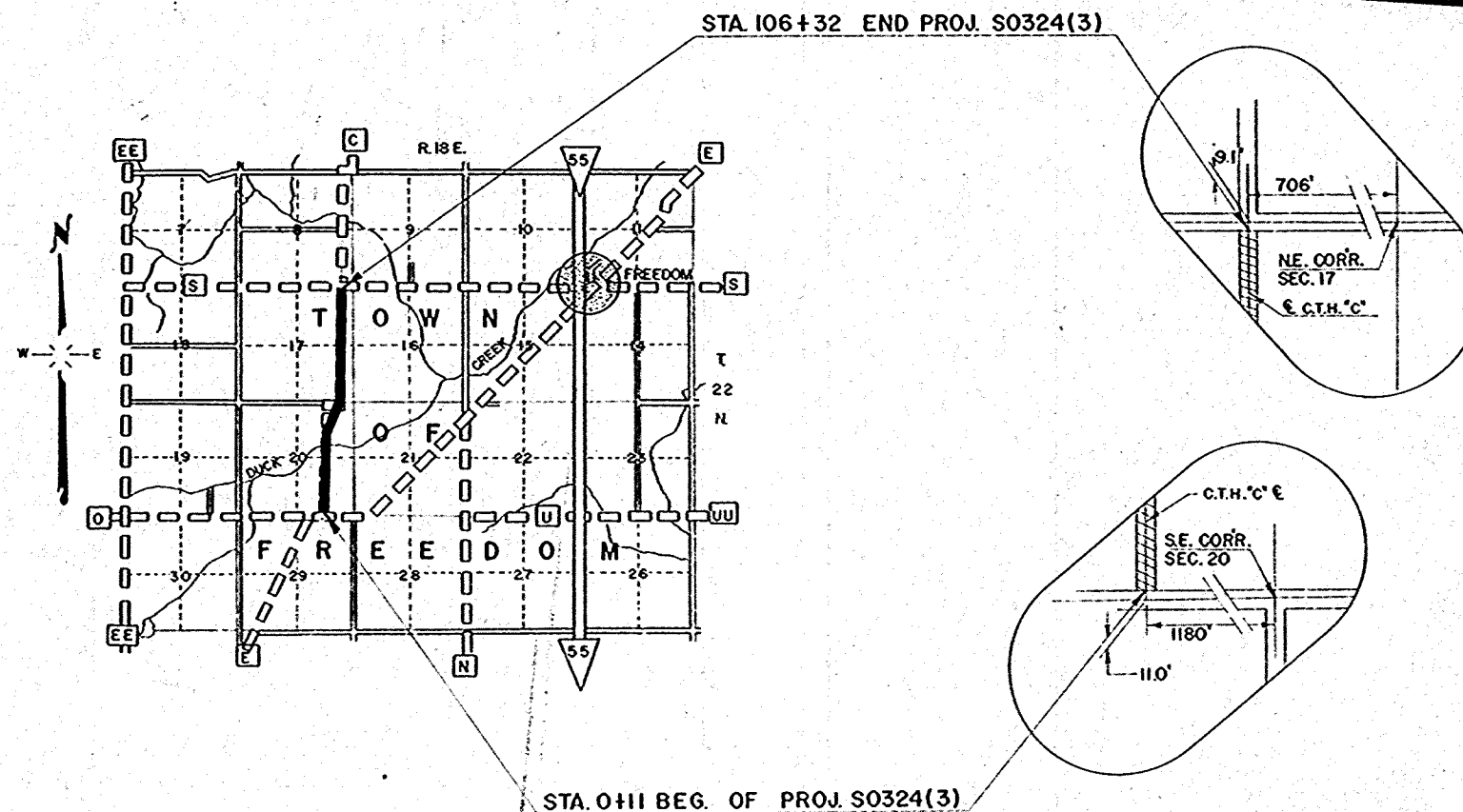
STATE OF WISCONSIN STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED C.T.H. "E" - C.T.H. "S" ROAD C.T.H. "C" OUTAGAMIE COUNTY PROJECT S 0324(3)

SCALES
PLAN 1 IN. = 100 FT.
PROFILE HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
CROSS SECTIONS HOR. 1 IN. = 5 FT. VERT. 1 IN. = 5 FT.

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT	FEDERAL DIVISION OFFICE	SHEET NUMBER	TOTAL SHEETS
446	324.0	11.3	WIS. 4	1	27

APPROVED FOR
County Engineer
C-8
Date _____ Title _____

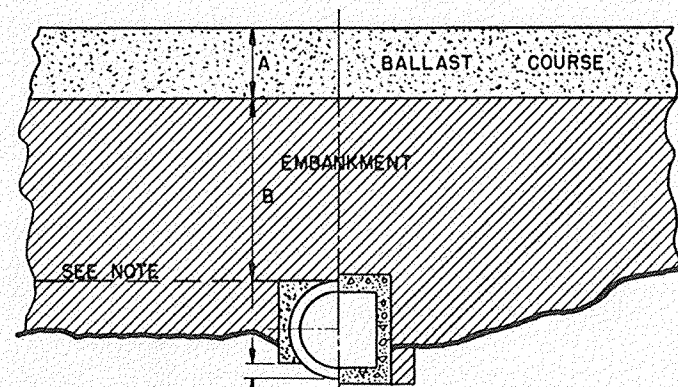


CONVENTIONAL SIGNS	
STATE LINE	-----
COUNTY LINE	-----
TOWNSHIP OR RANGE LINE	-----
SECTION LINE	-----
NEW RIGHT OF WAY LINE	-----
PRESENT RIGHT OF WAY LINE	-----
WIRE FENCE { WOVEN BARBED	-----
CUT LINE	-----
CORPORATE OR CITY LIMITS	-----
PROPERTY LINE	-----
TRAVELED WAY OR P.E.	-----
RAILROADS	-----
BASE OR SURVEY LINE	-----
CULVERTS IN PLACE	-----
CULVERTS REQUIRED	-----
DROP INLET	-----
POWER POLE	-----
TELEPHONE OR TELEGRAPH POLE	-----
RIGHT OF WAY MARKERS	-----
REFERENCE STAKE FOR HUSBS ONLY	-----
MARSH	-----
HEDGE	-----
TREES	-----
GROUND ELEVATION	-----
GRADE ELEVATION	-----

LAYOUT
SCALE 0 1/4 1/2 1 MILE
TOTAL NET LENGTH OF CENTERLINE = 2.012 MI.

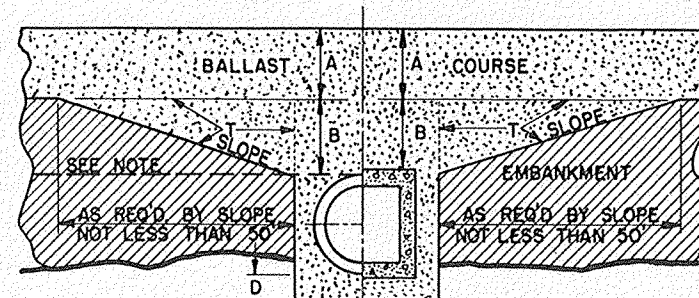
STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.
SURVEYOR R.D.N. NOTE BOOK 10896, 10887
DIVISION ENGINEER C.W.M. NO. CHECKED
DISTRICT ENGINEER C.H.M. NO. CHECKED
CORRECT: DATE 6-3-57 *[Signature]*
RECOMMENDED FOR APPROVAL: DATE 6/28/57 *[Signature]*
APPROVED: DATE 6/28/57 *[Signature]*
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED: _____ DATE _____
DISTRICT ENGINEER

S0324(3)



HALF SECTION - PIPE CULVERTS HALF SECTION - BOX CULVERTS

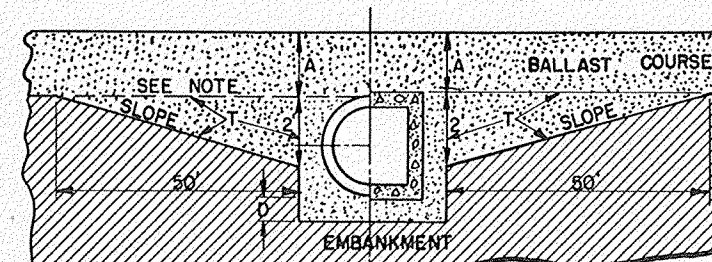
TREATMENT WHEN A+B IS OVER 5 FT.



HALF SECTION - PIPE CULVERTS HALF SECTION - BOX CULVERTS

TREATMENT WHEN A+B IS FROM 0 TO 5 FT.

SLOPE: NOT STEEPER THAN 25:1



HALF SECTION - PIPE CULVERTS HALF SECTION - BOX CULVERTS

TREATMENT WHEN B = 0

SLOPE: NOT STEEPER THAN 25:1

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN HERE SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILS ARE NOT APPLICABLE FOR PRIVATE ENTRANCE CULVERTS.

DETAILS APPLY TO BOTH PIPE AND CONCRETE BOX CULVERTS UNLESS OTHERWISE SHOWN ON OTHER PARTS OF THE PLAN OR IN THE CONTRACT.

EXCAVATION FOR AREAS MARKED "T" WILL BE PAID FOR AT THE CONTRACT UNIT PRICES FOR PERTINENT ITEMS OF "ROADWAY AND DRAINAGE EXCAVATION", WHEN SUCH EXCAVATION CONSISTS OF MATERIAL NOT PLACED UNDER THE CURRENT CONTRACT. BACKFILL IN THESE AREAS TO BE PAID FOR AT THE PERTINENT UNIT PRICE BID FOR "SAND GRAVEL FILL" OR FOR MATERIAL USED.

THE ELEVATION OF THE EXISTING GROUND OR PREVIOUSLY PLACED AND COMPACTED EMBANKMENT SHALL BE AT LEAST IN THE PLANE OF THE

TOP OF THE PROPOSED CULVERT PRIOR TO EXCAVATING THE TRENCH.

IN THE CASE OF CONCRETE BOX CULVERTS, THE EXCAVATION BELOW THE BOTTOM AND NECESSARY TO PREPARE THE TRENCH WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR "EXCAVATION FOR STRUCTURES, CULVERTS."

IN THE CASE OF PIPE CULVERTS, ALL EXCAVATION FOR FORMING THE BED SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAR FOOT OF THE SEVERAL TYPES AND SIZES OF CULVERT PIPE.

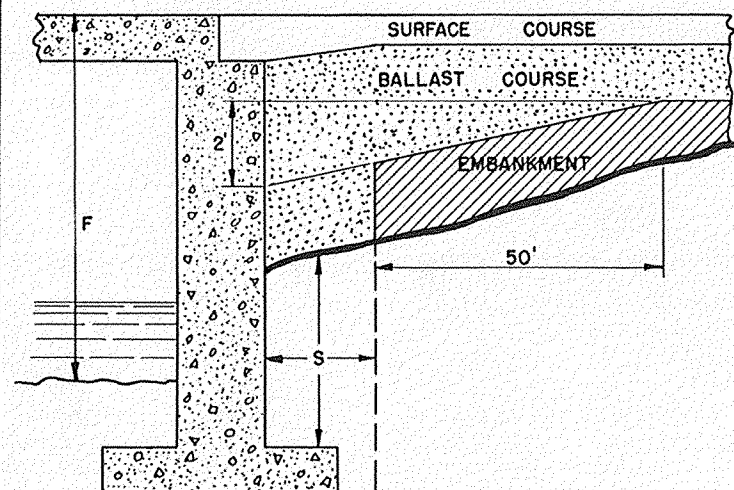
IN EITHER CASE, BACK FILL WILL BE PAID FOR AT THE PERTINENT CONTRACT PRICE FOR THE MATERIAL USED.

A - DEPTH OF BALLAST COURSE.

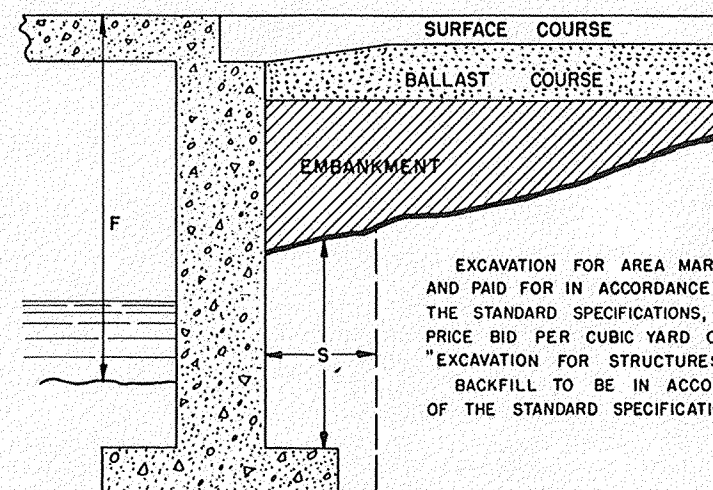
B - DISTANCE FROM TOP OF CULVERT TO BOTTOM OF BALLAST.

D - VARIABLE. DEPTH OF BALLAST BELOW CULVERT. MINIMUM-12"

F - DISTANCE FROM FINISHED SURFACE TO STREAM BED.



TREATMENT WHEN F IS LESS THAN 10 FT.



TREATMENT WHEN F IS 10 FT. OR MORE.

EXCAVATION FOR AREA MARKED "S" SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH SECTION 2107.04 OF THE STANDARD SPECIFICATIONS, AND AT THE CONTRACT UNIT PRICE BID PER CUBIC YARD OF ORIGINAL VOLUME FOR "EXCAVATION FOR STRUCTURES, BRIDGES." BACKFILL TO BE IN ACCORDANCE WITH SECTION 2107.03 OF THE STANDARD SPECIFICATIONS.

EXCAVATION AND BACKFILL FOR PIPE CULVERTS - BOX CULVERTS ABUTMENTS

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

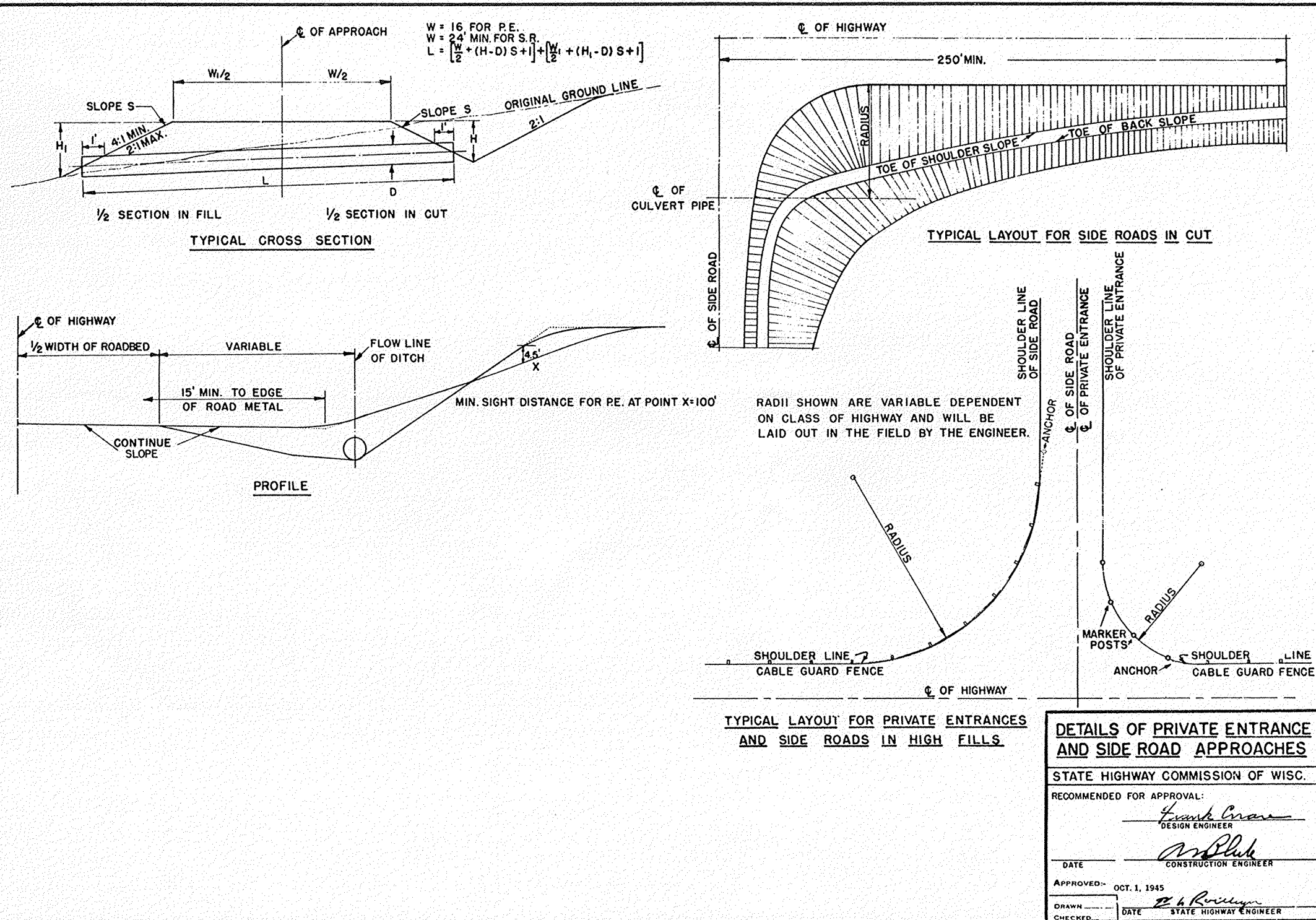
Frank M. ...
DESIGN ENGINEER

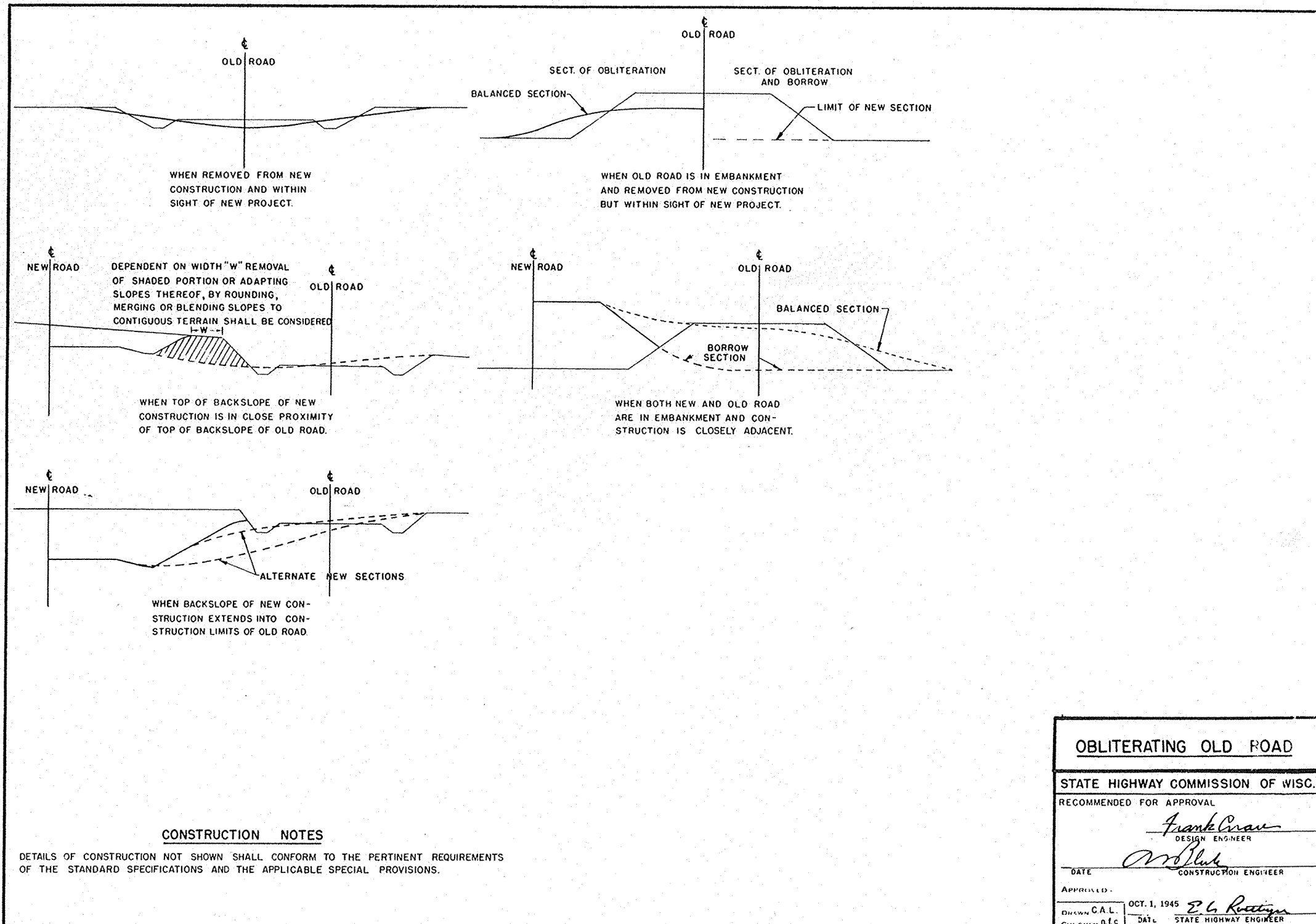
...
CONSTRUCTION ENGINEER

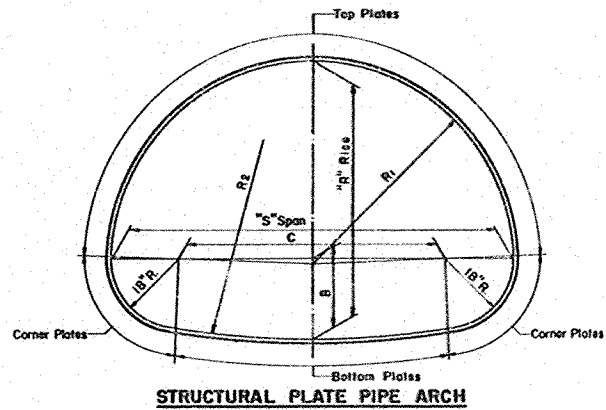
APPROVED OCT. 1, 1945

DRAWN N.F.C.
CHECKED F.C.

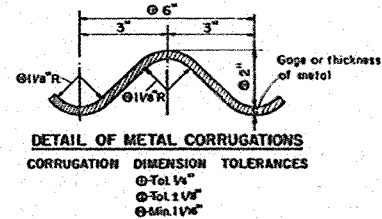
E. G. ...
STATE HIGHWAY ENGINEER







STRUCTURAL PLATE PIPE ARCH



GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, Sections 2412 and 3116 and the applicable Special Provisions.

TOLERANCES

Pipe Arch size dimensions are subject to manufacturing tolerances and the ratio of rise (R) to span (S) shall not exceed a tolerance of 5% plus or minus.

Metal corrugation dimension tolerances shall not exceed pertinent dimensions shown elsewhere on this drawing.

EMBANKMENT—Minimum for C Culverts

For Flexible Type Pavement, the minimum depth of embankment or cover over top of Pipe Arch (finished construction) shall be "S/10 or 1'-0" minimum.

For Rigid Type Pavement, the minimum depth of embankment over top of Pipe Arch shall be "S/14 or a minimum of 6" cushion between pipe and pavement.

EMBANKMENT—Maximum for C Culverts

The maximum depth of embankment shall be 15 feet (finished construction).

Adequate cover protection for Pipe Arches shall be provided at all times during construction operations to preclude any damage to structures.

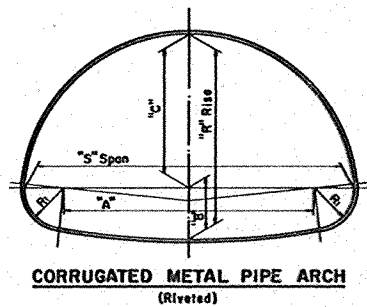
Strutting of Pipe Arches will not be required during construction unless specifically called for on the plans or the applicable Special Provisions.

TABLE OF PROPERTIES
STRUCTURAL PLATE PIPE ARCH

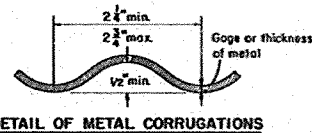
SPAN Nominal Size	Dimensions taken from inside crests of corrugations							Table of Metal Gages — Minimum Acceptable																
	Fabricators' Size Min. Acceptable "S" Span — "R" Rise	R/S Ratio	Area Sq.Ft.	B In.	C In.	R _i In.	R _e In.	H-20 LOADING																
								Depth of Embankment in Feet																
								1	2	3	4	5	6	7	8	9	10	11	12	13	14			
6 Feet	6'-1" x 4'-7"	.75	22	21.0	37.0	36.7	76.4	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
7 "	7'-0" x 5'-1"	.73	28	21.4	48.0	42.3	104.5	10	12	12	12	12	12	12	12	12	12	12	12	12	10	12	10	11
8 "	7'-11" x 5'-7"	.70	35	21.7	59.0	47.7	138.4	10	10	10	12	12	12	12	12	12	12	12	12	10	10	10	10	11
9 "	8'-10" x 6'-1"	.69	43	21.8	70.0	53.0	179.2	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8		
10 "	9'-9" x 6'-7"	.67	52	21.9	81.0	58.3	228.0	8	8	10	10	10	10	10	10	10	10	10	10	8	8	8	8	
11 "	10'-11" x 7'-1"	.65	61	25.1	95.0	65.8	180.8	8	8	8	10	10	10	10	10	10	10	8	8	8	7	7		
12 "	11'-10" x 7'-7"	.64	71	25.2	106.0	71.1	217.0	7	8	8	8	8	8	8	8	8	8	8	8	7	5	5		
13 "	12'-10" x 8'-4"	.65	85	24.0	118.0	77.2	315.2	5	7	8	8	8	8	8	8	8	8	7	7	5	5	3		
14 "	13'-11" x 8'-7"	.62	93	28.9	131.0	84.4	220.8	5	5	7	7	8	8	8	7	7	5	5	3	3	1			
15 "	14'-10" x 9'-1"	.61	105	28.9	142.0	89.5	254.9	3	5	5	7	7	7	7	7	5	3	3	1	1	—			
16 "	15'-10" x 9'-10"	.62	122	27.4	154.0	95.4	339.1	1	3	5	5	7	7	7	5	3	3	1	1	—	—			
16.5 "	16'-7" x 10'-1"	.61	131	28.7	163.0	99.8	333.8	—	1	3	3	5	5	5	3	1	1	1	—	—	—			

Note: For sizes of Structural Plate Pipe Arch between those shown in the table, the gage shall be interpolated (based on table data) where possible; otherwise the gage of the next larger size shown in the table shall be used.

STRUCTURAL PLATE PIPE ARCH



CORRUGATED METAL PIPE ARCH
(Riveted)



GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, Sections 2411 and 3116 and the applicable Special Provisions.

TOLERANCES

Tolerance from the dimensions detailing size and shape will be permissible providing equivalent capacity and strength are attained.

EMBANKMENT—Minimum for C Culverts

For Flexible Type Pavement, the minimum depth of embankment or cover over top of Pipe Arch (finished construction) shall be "S/10 or 9" minimum.

For Rigid Type Pavement, the minimum depth of embankment over top of Pipe Arch shall be "S/14 or a minimum of 3" cushion between pipe and pavement.

EMBANKMENT—Maximum for C Culverts

The maximum depth of embankment shall be 10 feet (finished construction).

Adequate cover protection for Pipe Arches shall be provided at all times during construction operations to preclude any damage to structures.

TABLE OF DIMENSIONS
CORRUGATED METAL PIPE ARCH

CORRUGATED METAL PIPE ARCH										Round Pipe of Approx. Equal Periphery	
Gage (Min. Acceptable)	"S" Span Inches	"R" Rise Inches	"A" Inches	"B" Inches	"C" Inches	R _i Inches	R/S Ratio	Area Sq. Ft.		Area Sq. Ft.	Diam. Inches
16	18	11	10	4 1/2	6 1/2	3 1/2	.61	1.1		1.23	15
16	22	13	14	4 3/4	8 1/4	4	.59	1.6		1.77	18
16	25	16	17	5 1/4	10 3/4	4	.64	2.2		2.41	21
14	29	18	20	5 1/2	12 1/2	4 1/2	.62	2.8		3.14	24
14	36	22	26	6 1/4	15 3/4	5	.61	4.4		4.91	30
12	43	27	32	7	20	5 1/2	.63	6.4		7.07	36
12	50	31	38	8	23	6	.62	8.7		9.62	42
12	58	36	44	9 1/4	26 3/4	7	.62	11.4		12.57	48
12	65	40	49	10 1/2	29 1/2	8	.62	14.3		15.90	54
10	72	44	54	11 3/4	32 1/4	9	.61	17.6		19.64	60

NOTE: All Dimensions measured from inside crest of corrugations.

CORRUGATED METAL PIPE ARCH

STRUCTURAL PLATE PIPE ARCH CORRUGATED METAL PIPE ARCH

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

5-27-57
DATE

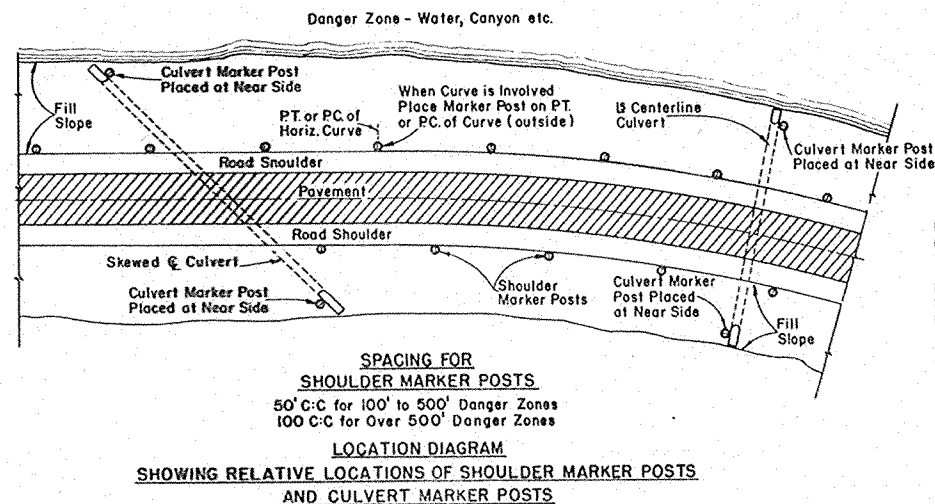
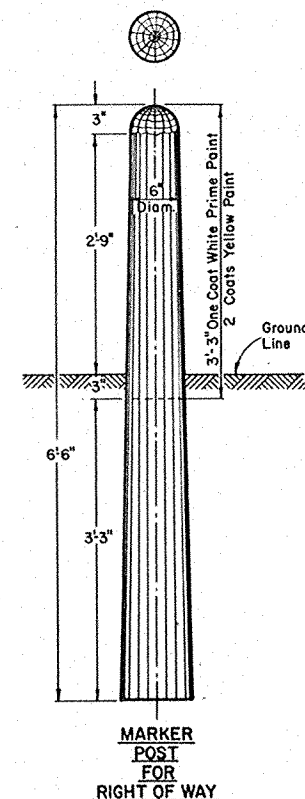
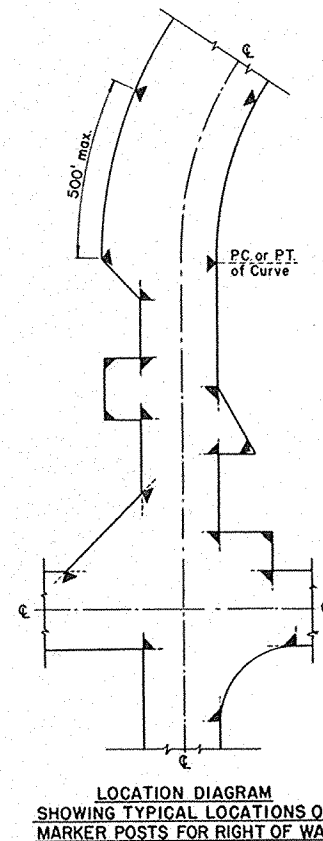
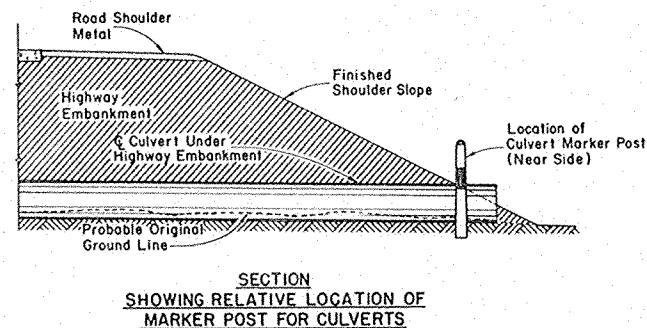
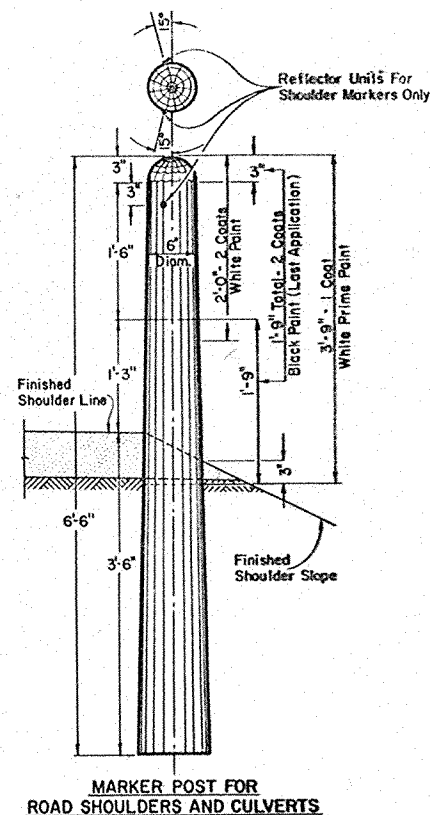
APPROVED:

5/28/57
DATE

J. L. Pitt
ENGINEER OF DESIGN

E. C. Rottiers
STATE HIGHWAY ENGINEER

PLATE NO. 6-5.3.1



MARKER POSTS FOR ROAD SHOULDERS AND CULVERTS

MARKER POST FOR RIGHT OF WAY

GENERAL NOTES:

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications Sections 2523, 4124 and 4125 and the applicable Special Provisions.

All posts for Road Shoulder Markers, Culvert Markers and Right of Way Markers are identical except for Painting and Reflector Units. All Posts shall be round and untreated and shall be either Northern White Cedar, Southern Yellow Pine, Norway Pine, White Pine or Jack Pine.

MARKER POSTS FOR RIGHT OF WAY

Right of Way Marker Posts shall be erected in advance of Grading Operations. Posts may be shaped and painted prior to erection. Any damaged areas occurring to paint surface during erection or other subsequent operations must be repainted prior to acceptance.

Posts shall be placed at the outer limits of the Highway Right of Way, but entirely within the Right of Way and shall be so placed that the outer edge of the posts shall be tangent to the Right of Way line or lines extended. The exact location of all Right of Way Posts shall be staked in the field by the Engineer.

Reflector Units for Right of Way Marker Posts will not be required.

REFLECTOR UNITS

Reflector Units shall have plastic crystal lens 7/8" in diameter. Unit assembly shall be a minimum of 7/8" in length. Reflector Units shall be furnished with flared expanding metal clips for wood mounting. Units shall be mounted in tightest fit possible and securely staked in posts. Reflector Units shall be installed in Road Shoulder Marker Posts only.

BID ITEMS

No. 2523-5 Marker Posts.....Each
No. 2523-6 Marker Posts for Right of Way.....Each

MARKER POSTS & MARKER POSTS FOR RIGHT OF WAY

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

5/16/57
DATE

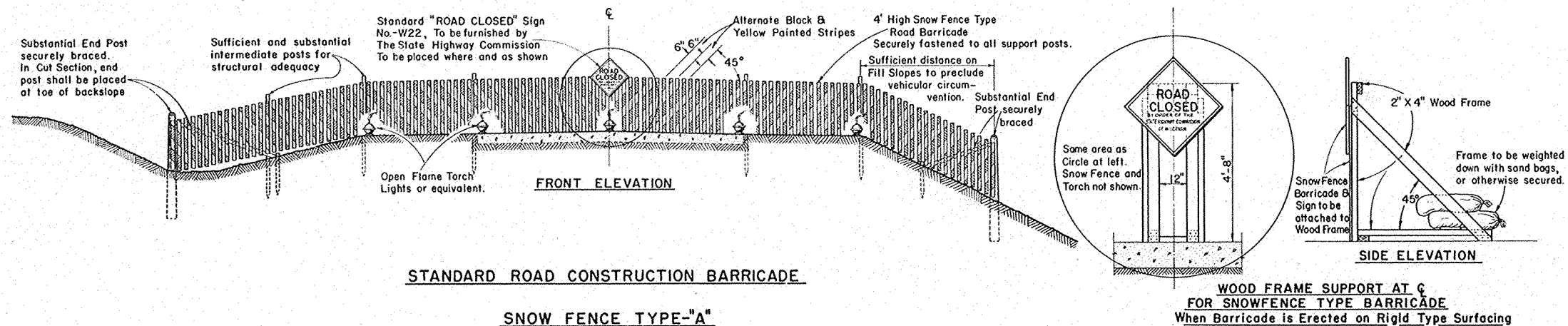
APPROVED:

5/16/57
DATE

J. P. Pitt
ENGINEER OF DESIGN

E. L. Rottling
STATE HIGHWAY ENGINEER

PLATE NO. 7-1.3.3.



GENERAL NOTES

The Contractor shall construct, place and maintain barricades as shown on this drawing and as required by the Standard Specifications Section 1107 for the duration of the project. Barricades shall be painted and structurally maintained for maximum visibility at all times. Provision shall be made in the construction of barricades to provide for ingress and egress for local access as may be required.

ALTERNATE DESIGNS

Contractors may submit to the Engineer for approval, designs for Barricades other than shown on this drawing, and upon the Engineer's approval may be used as alternates.

MEASUREMENT & PAYMENT

All Barricades, unless otherwise provided for in the Plans and/or Special Provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

CONSTRUCTION BARRICADE

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

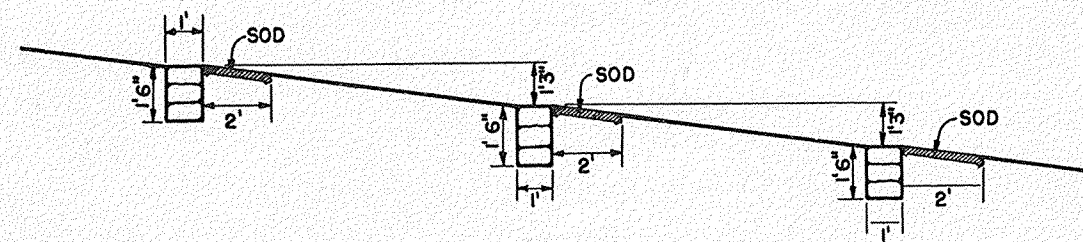
6/2/55
DATE

J. A. Pelt
ENGINEER OF DESIGN

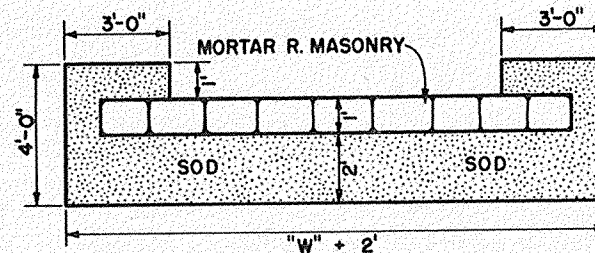
APPROVED:

6/2/55
DATE

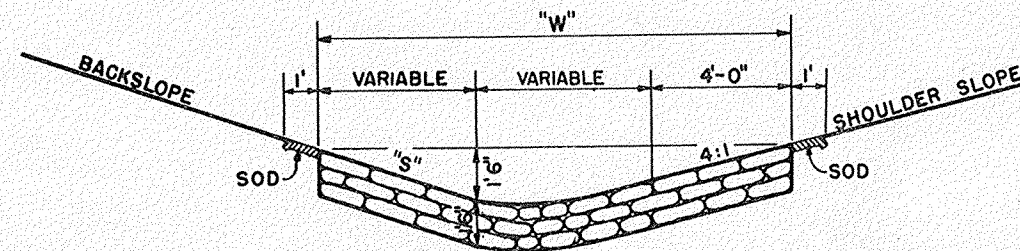
E. C. Rustigen
STATE HIGHWAY ENGINEER



PROFILE OF DITCH GRADE



PLAN VIEW SHOWING SOD



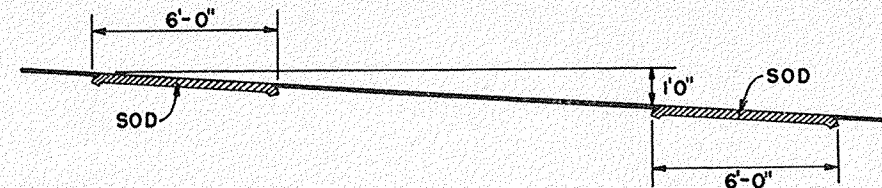
SECTION

MORTAR RUBBLE MASONRY

QUANTITIES			
"S"	"W"	SOD SQ. YD.	EACH CU. YD.
2:1	12'	4.0	0.67
3:1	13.5'	4.33	0.75
4:1	15'	4.67	0.83

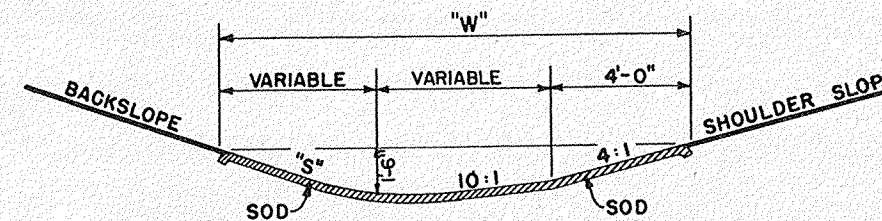
CONSTRUCTION NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PROFILE OF DITCH GRADE

NOTE: NUMBER REQUIRED WILL BE DETERMINED BY VERTICAL SPACING.



SECTION

SOD DITCH CHECKS

QUANTITIES		
"S"	"W"	EACH SQ. YD.
2:1	12'	8
3:1	13.5'	9
4:1	15'	10

DITCH CHECKS MORTAR RUBBLE MASONRY & SOD

STATE HIGHWAY COMMISSION OF WISC.

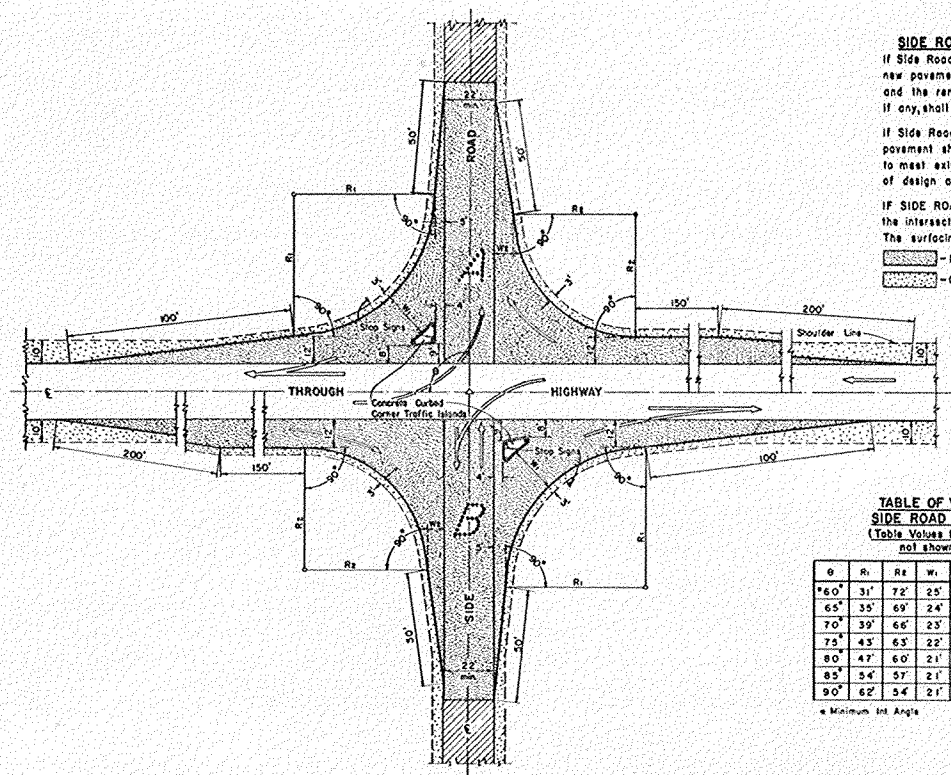
RECOMMENDED FOR APPROVAL:

Frank Chase
DESIGN ENGINEER

W. Blum
CONSTRUCTION ENGINEER

DATE:
APPROVED:
DRAWN DIV 9
CHECKED M.F.C.

E.L. Rottman
STATE HIGHWAY ENGINEER



SIDE ROAD SURFACING NOTE
 If Side Road is not presently surfaced, new pavement shall be placed as shown, and the remainder to construction limits, if any, shall be gravel or crushed stone surfaced.
 If Side Road is presently paved, new pavement shall be placed only as necessary to meet existing pavement, and to limits of design as shown.
 IF SIDE ROAD IS THE CONSTRUCTION PROJECT, the intersection geometrics remain as shown. The surfacing shall be same as for the project.

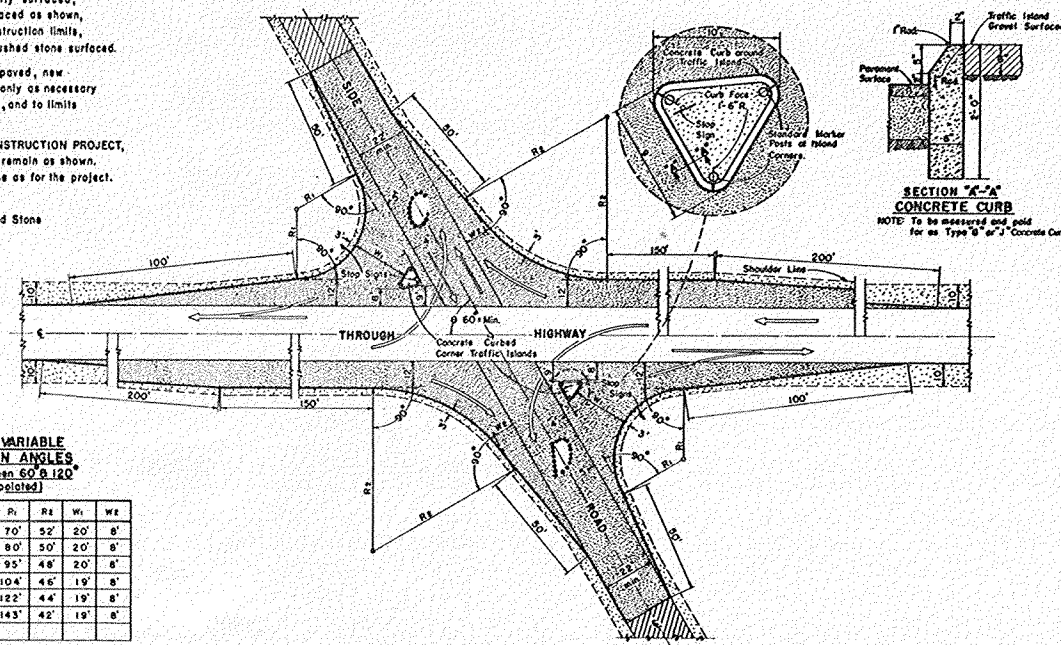
— Pavement
 — Gravel or Crushed Stone

TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	W ₁	W ₂	θ	R ₁	R ₂	W ₁	W ₂
60°	31'	72'	25'	10'	95°	70'	32'	20'	8'
65°	35'	69'	24'	9'	100°	80'	30'	20'	8'
70°	39'	66'	23'	8'	105°	95'	48'	20'	8'
75°	43'	63'	22'	8'	110°	104'	46'	19'	8'
80°	47'	60'	21'	8'	115°	122'	44'	19'	8'
85°	54'	57'	21'	8'	120°	143'	42'	19'	8'
90°	62'	54'	21'	8'					

• Minimum Int. Angle

• Maximum Int. Angle



SECTION "A-A" CONCRETE CURB
 NOTE: To be measured and paid for as Type "B" or "J" Concrete Curb

MAJOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used only when current ADT on Through Highway is 1500 or over, and on Side Road is Over 200

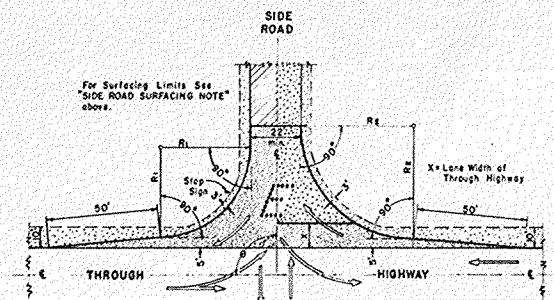


TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	θ	R ₁	R ₂
60°	40'	50'	95°	45'	49'
65°	40'	50'	100°	50'	48'
70°	40'	50'	105°	55'	47'
75°	40'	50'	110°	60'	46'
80°	40'	50'	115°	65'	45'
85°	40'	50'	120°	70'	44'
90°	40'	50'			

• Minimum Int. Angle

• Maximum Int. Angle

MINOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used when current ADT on Through Highway is Less than 1500 or on Side Road is Less than 200

GENERAL NOTES

Designs "A", "B", "C", "D", or "E" may be used interchangeably in combination or separately for any one complete intersection depending upon Traffic Volume, intersection angle and Surfacing of each approach roadway.

Details on this drawing are for Minimum Design Only, and not applicable to Special Conditions, as shown elsewhere on the plans.

DESIGN & LAYOUT DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS (RURAL IN CHARACTER)

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

DATE: 1/2/57

APPROVED

DATE: 1/4/57

DATE:

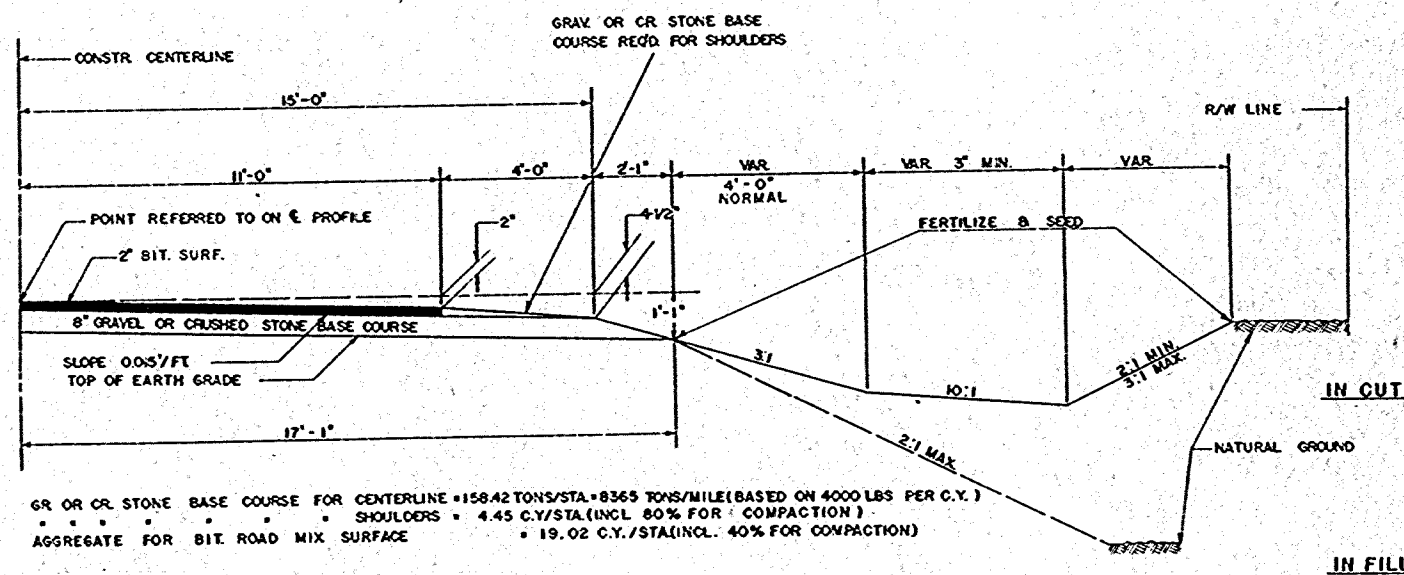
ENGINEER OF DESIGN

STATE HIGHWAY ENGINEER

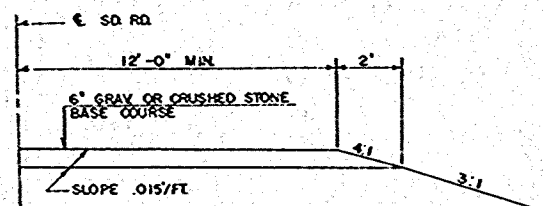
PLATE NO. 9-112

CONTRACT NO. 18283

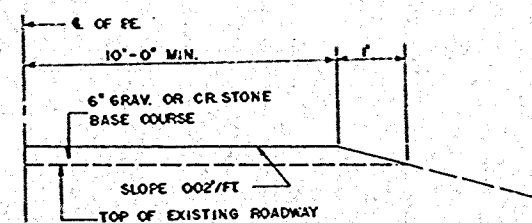
PROJECT	SHEET NO.	TOTAL SHEETS
S 0324 (3)	2	27

[illegible]

1/2 NORMAL TYPICAL FINISHED SECTION



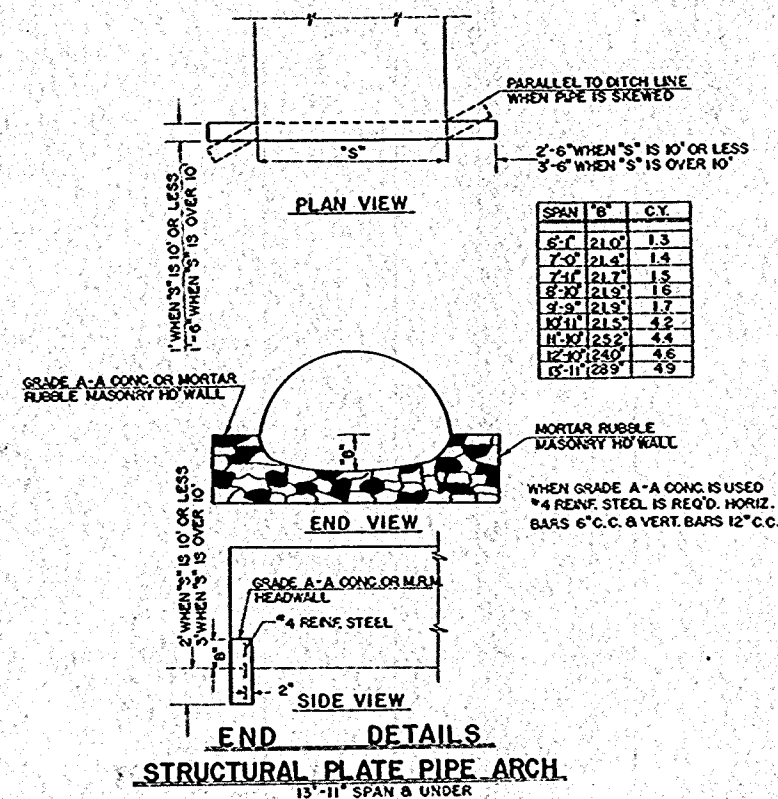
1/2 SECTION FOR SIDE ROADS



1/2 SECTION FOR P.E'S

GRAY: OR GR. STONE BASE COURSE	
LOCATION	TONS
CENTERLINE	16,850
P.E.'S. & S.D. RD'S.	550
TOTAL	17,400
SHOULDERS	500 C.Y.

CULVERT PIPES					
STATION	LOCATION	DIA.	LENGTH	TYPE	MARKERS
3+77	℄	24"	62'	C.P.	2
25+00	℄	24"	58'	"	2
26+00	P.E. LT.	18"	36'	"	
47+90	℄	7'-SPAN	60'	S.P.P.A.	2
54+65	℄	36"	52'	C.P.	2
62+40	P.E. RT.	24"	32'	"	
82+30	P.E. RT.	24"	32'	"	
83+70	F.E. LT.	24"	32'	"	
90+75	P.E. LT.	24"	32'	"	
95+00	P.E. RT.	24"	34'	"	
104+90	℄	24"	44'	"	2
12 P.E.'S. @	18" X 32'		384'	"	



UNCLASSIFIED EXCAVATION	
CROSS SECTION TOTAL	23,583 C.Y.
CHANNEL CHANGE-STA. 34 +70	2,400 C.Y.

STEEL PLATE BEAM GUARD			
STA.	- STA.	SIDE	LIN. FT.
34+13	- 34+55	RT.	41.5
34+85	- 35+27	LT.	41.5

MARKER POSTS	
LOCATION	NO. POSTS
FOR CULVERTS	10
FOR SHOULDER DELINEATION - UNDISTRIBUTED	10

GENERAL NOTES

CONSTRUCTION DETAILS NOT SHOWN HERE SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ON ALL HORIZONTAL CURVES HAVING SUPERELEVATION THE NORMAL CROWN SHALL BE REMOVED AND THE PAVEMENT SURFACE, BASE COURSE AND EARTH GRADE SHALL RESULT IN A STRAIGHT LINE SLOPE ACROSS THE ENTIRE WIDTH OF ROADBED. LONGITUDINAL DRAINAGE MUST BE MAINTAINED.

FOR SIDE ROAD INTERSECTIONS USE "MINOR SIDE ROAD INTERSECTION DETAILS" SHOWN ON PLATE NO. 9-1.1.

STANDARD DETAILS

EXC. & BACKFILL FOR ABUTMENTS	1-2.1.1
DETAILS OF P.E.'S & SD. RD'S.	1-3.1.1
OBLITERATING OLD ROAD	1-4.1.1
STRUCT. PLATE PIPE ARCH	6-5.3.1
MARKER POSTS	7-1.3.1
STEEL PLATE BEAM GUARD	7-2.4.2
CONSTR. BARRICADE	7-4.1.2
M.R.M. DITCH CHECKS	8-1.3.1
DESIGN LAYOUTS FOR SD. RD'S.	9-1.1.2

TYPICAL CROSS SECTION

FOR

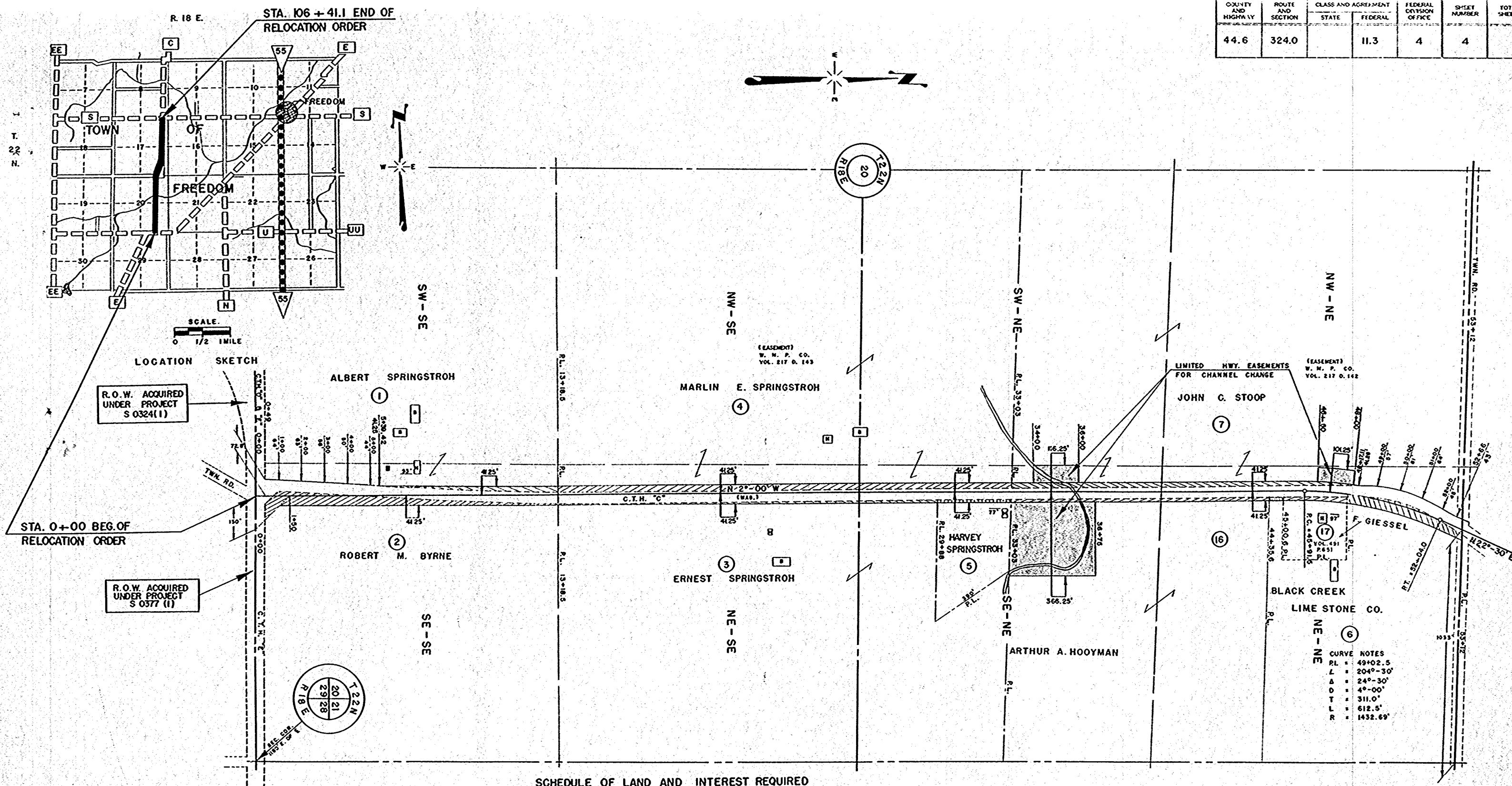
30 FT. ROADBED - 22 FT BIT. PAV'T.

AND

MISCELLANEOUS CONSTRUCTION DETAILS

SCALE VARIABLE

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT	FEDERAL DIVISION OFFICE	SHEET NUMBER	TOTAL SHEETS
44.6	324.0	STATE	FEDERAL	4	4



SCHEDULE OF LAND AND INTEREST REQUIRED

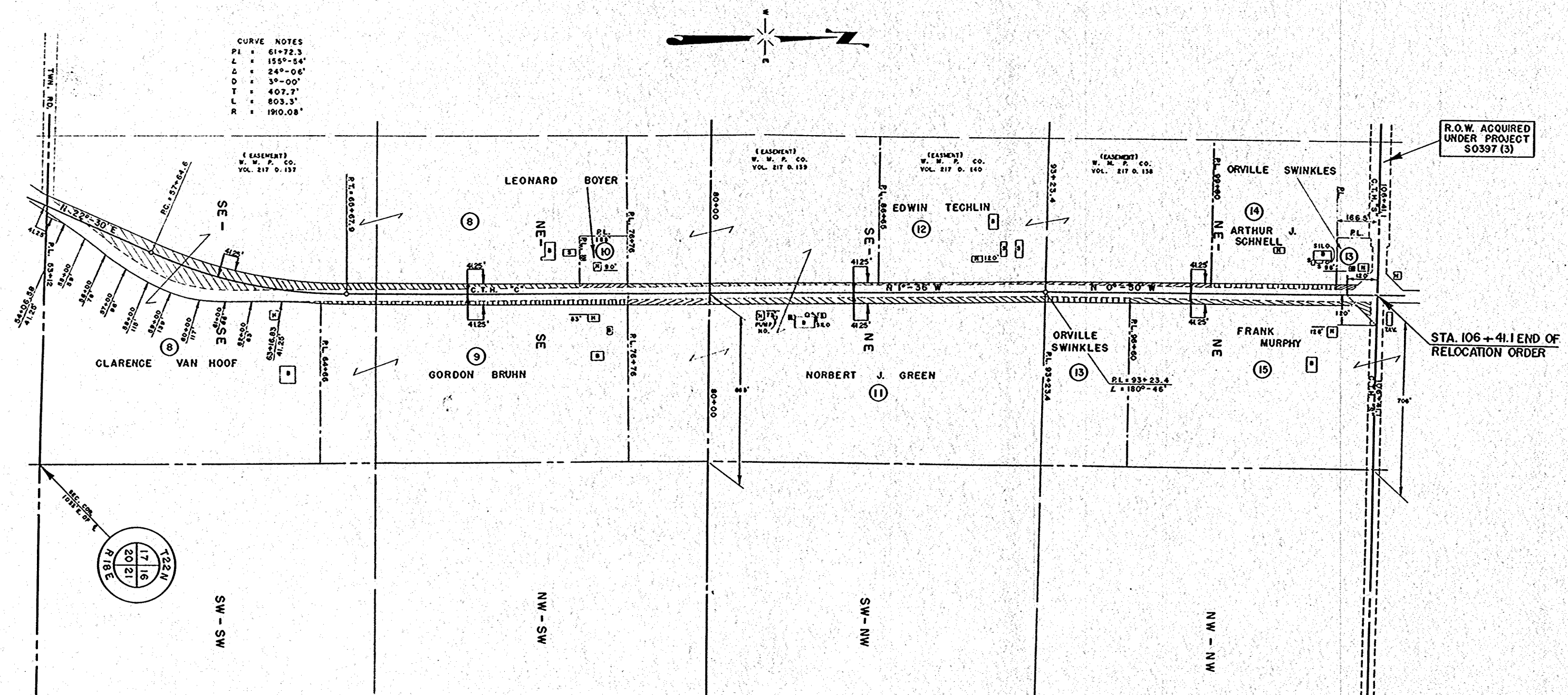
NO.	OWNER	ACRES REQ'D.	RODS OF FENCING TO MOVE	RODS OF FENCING TO BUILD	INTEREST REQUIRED
1	ALBERT SPRINGSTROH	0.25	3		HIGHWAY EASEMENT
2	ROBERT M. BYRNE	0.95	78		"
3	ERNEST SPRINGSTROH	0.23	97		"
4	MARLIN E. SPRINGSTROH	1.22	111		"
5	HARVEY SPRINGSTROH	0.07			"
6	BLACK CREEK LIMESTONE CO.	0.61	31		"
7	JOHN C. STOOP	0.57	74		HWY.EASE.INCLUDING LIMITED HWY.EASE.
16	ARTHUR A. HOOYMAN	0.36	68		HWY.EASE.INCLUDING LIMITED HWY.EASE.
17	FRANK GIESSEL	0.14			HIGHWAY EASEMENT

STATE HIGHWAY COMMISSION OF WISCONSIN
 PLAT OF RIGHT OF WAY REQUIRED
 PROJECT S 0324(3)
 C.T.H. "E" - C.T.H. "S"
 C.T.H. "C" OUTAGAMIE COUNTY ROAD

SCALE
 0' 100' 200' 400'

LENGTH - 2.015 MILES
 MAY 9 1957
 DATED APRIL 5 1957

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT	FEDERAL DIVISION OFFICE	SHEET NUMBER	TOTAL SHEETS
44.6	324.0	STATE FEDERAL	11.3	4	4.1



SCHEDULE OF LAND AND INTEREST REQUIRED

NO.	OWNER	ACRES REQ'D.	RODS OF FENCING TO MOVE	RODS OF FENCING TO BUILD	INTEREST REQUIRED
8	CLARENCE VAN HOOF	2.50	118		HIGHWAY EASEMENT
9	GORDON BRUHN	0.42	61		"
10	LEONARD BOYER	0.07			"
11	NORBERT J. GREEN	1.15	137		"
12	EDWIN TECHLIN	0.29	47		"
13	ORVILLE SWINKLES	0.20			"
14	ARTHUR J. SCHNELL	0.17	22		"
15	FRANK MURPHY	0.45	42		"

STATE HIGHWAY COMMISSION OF WISCONSIN
 PLAT OF RIGHT OF WAY REQUIRED
 PROJECT S 0324 (3)
 C.T.H. "E" - C.T.H. "S"
 C.T.H. "C" OUTAGAMIE COUNTY ROAD

SCALE
 0' 100' 200' 400'
 LENGTH - 2.015 MILES

MAY 9, 1957
 DATED APRIL 9, 1957

BENCH MARKS				
NO.	STATION	DESCRIPTION		ELEV.
1	296	SPKE IN 20" MAPLE	85' OUT	797.71
2	6166	" " 24" OAK	63' LT	789.15
3	16113	" " 24" ELM	40' RT	757.30

*BM 30 CTH "E"

APPELTON - FREEDOM ROAD
STA. 297+00 END PROJ. S0324(1)
STA. 297+00 BEG PROJ. S0377(1)

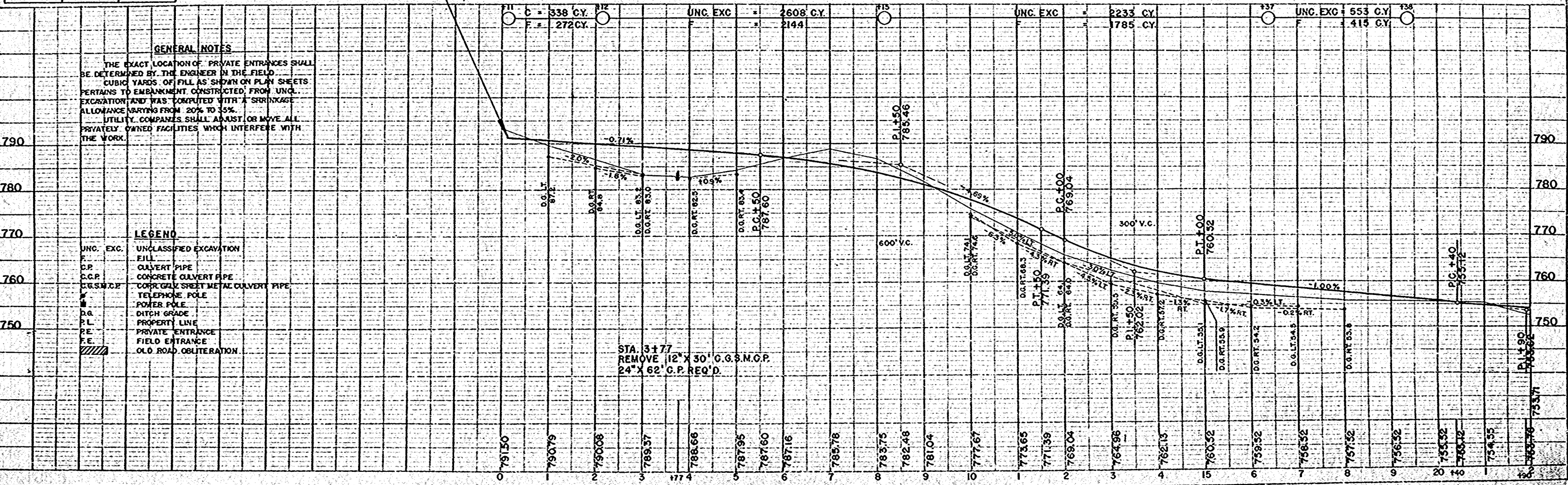
EQUATION: STA. 0+00 CTH "E" - CTH "S" ROAD
* STA. 297+40.62 APPELTON - FREEDOM ROAD

NET LENGTH OF CENTERLINE		
STATION	TO STATION	LEN. FT.
0+11	20+00	1989

STA. 0+11 BEGINNING OF
PROJ. S 0324 (3)

STA. 10+00 P.E. LT.
18" X 32' C.P. REQ'D.

S.P. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S0324 (3)	4	27



BENCH MARKS			
NO	STATION	DESCRIPTION	ELEV
4		SPIKE IN APPLE TREE 65RT	751.04
5	32+75	PTMK SW COR 1ST STEP	60RT 747.77
6	39+55	SPIKE IN P. POLE	18LT 754.36
7	46+18	" " 14" BOX ELDER	46RT 773.62
8	57+00	" " 20" ELM	200' RT 765.64

STA. 26+00 P.E. LT.
18" X 36" C.P. REQ'D.

STA. 42+00 - P.E. LT.
18" X 32" C.P. REQ'D.

DIST. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S0324 (3)	5	27

JOHN C. STOOB

TYPICAL SECTION OF PROPOSED CHANNEL CHANGE

STA. 34+70
UNC. EXC. = 2,400 C.Y. TO BE
WASTE IN OLD CHANNEL
RIP RAP 40 C.Y.

LIMITED HIGHWAY EASEMENT

REMOVE 6" X 4" X 21.4 CONCCULV.

15 C.Y.
RIP RAP REQ'D.

LIMITED HIGHWAY
EASEMENT REQ'D.
STA. 35+85.9
30' SPAN 16' RD'WY.
CONC. SLAB SPAN
BRIDGE REMOVE.

CH.CH. CURVE NOTES
P.I. = 5+00
L = 254'-00'
Δ = 74°-00'
D = 40'-00'
T = 110.2'
LG = 185.0'

NOTES
491025
204'-30"
24'-30"
4'-00"
31.0'
612.5'
SE = 0065'/FT.

STA. 44+65 - P.E. RT.
18" X 32" C.P. REQ'D.

STA. 22+25 - P.E. RT.
REMOVE 12" X 20" BOILER PIPE
18" X 32" C.P. REQ'D.

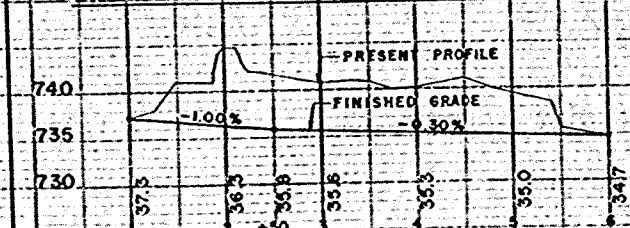
NET LENGTH OF CENTERLINE		
STATION TO STATION	LIN. FT.	
20+00 50+00	2973.34	
34+56.67 34+83.33	26.66	

---CONT. 182
---CONT. 3

STA. 32+50 - P.E. RT.
REMOVE 4" X 22" TILE
18" X 32" C.P. REQ'D.

STA. 33+20 F.E. RT.
18" X 32" C.P. REQ'D.

PROFILES OF CH.CH. STA. 34+70



STA. 35+82
REMOVE OLD BRIDGE
30' REINF. CON. STEEL GIRDER SPAN
16' ROADWAY

STA. 47+90
7' SPAN 60" S.P.P.A. REQ'D.
SKEW 30° R.H.F.
NO. 10 GAGE
NL = 68.5' DISCH = 68.0
SEE SHEET NO. 2 FOR
HEADWALL DETAILS
CUT ENDS ON SKEW NO. END BEVELS REQ'D.

STRUCT. PLATE PIPE ARCH

1 - E CONSTR.
E PIPE 7
32.6' - 27.4'
BASIS FOR PAYMENT

STA. 34+70
25' R.C. SLAB SPAN BRIDGE REQ'D.
28' CLEAR ROADWAY SEE DRAWINGS X 16632 & X 16633

STA. 25+00
REMOVE 18" X 32" C.G.S.M.C.P.
24" X 58" C.P. REQ'D.

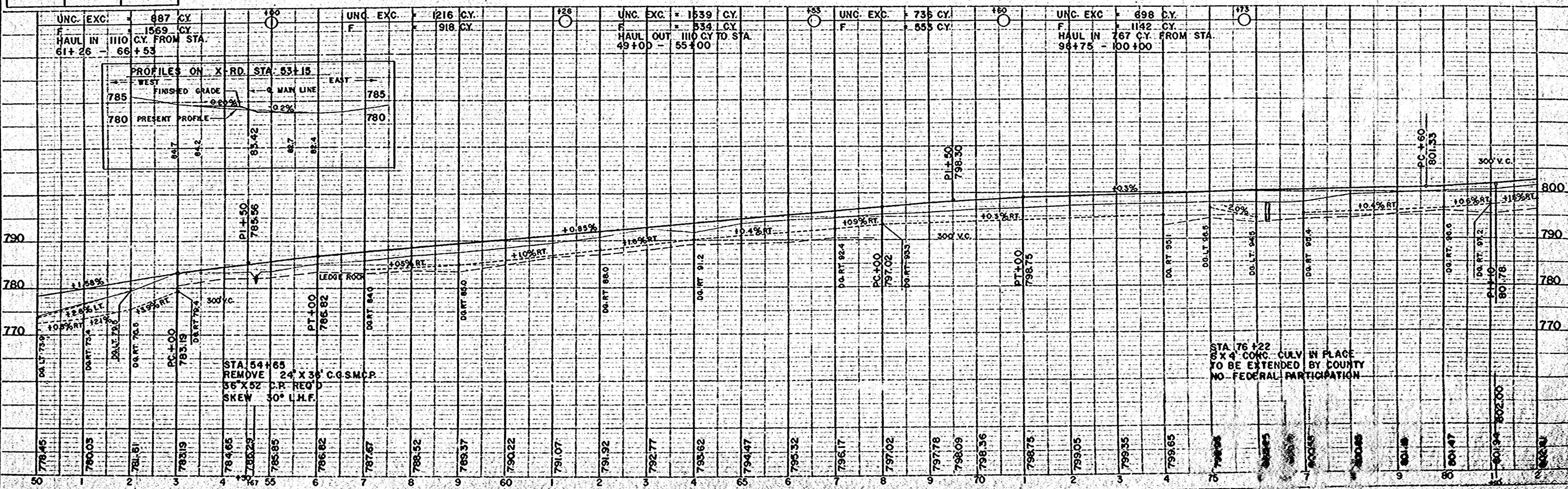
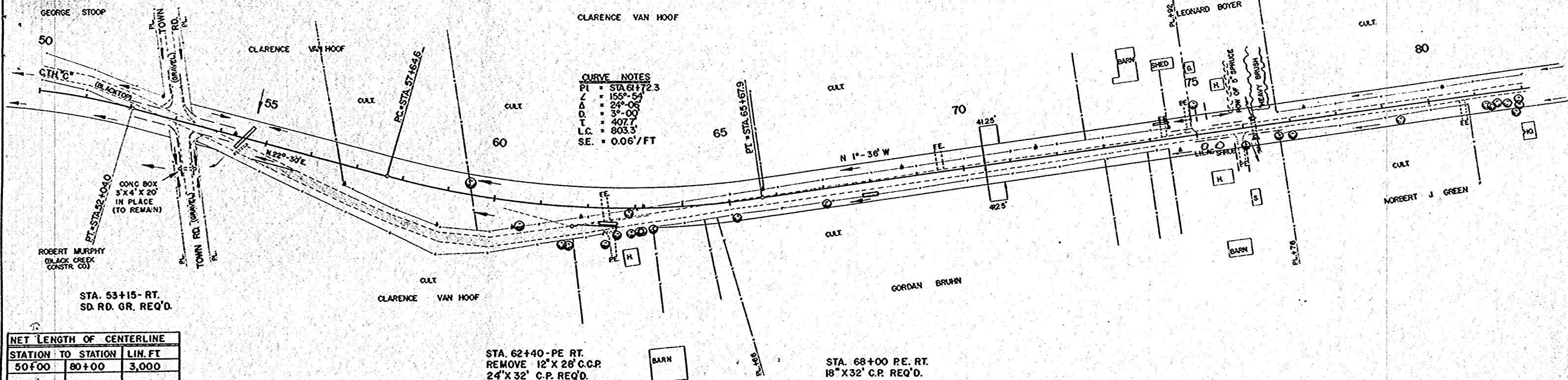
BENCH MARKS				
NO.	STATION	DESCRIPTION	ELEV.	
8	57+00	SPIKE IN 20" ELM 200' RT	785.64	
9	63+10	" " 18" MAPLE 65' RT	792.87	
10	74+55	" " 8" " 65' RT	797.78	
11	81+23	" " 10" APPLE 60' RT	799.19	

STA. 53+15 - LT.
SD. RD. GR. REQ'D.

STA. 74+30 - F.E. LT.
18" X 32' C.P. REQ'D.

STA. 75+10 RE. LT.
GR. ENT. REQ'D.

S.P. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 0324(S)	6	27



BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
11	81+23	SPIKE IN 10" APPLE 60' RT	799.19
12	90+94	" 18" MAPLE 40' LT	808.97
13	103+77	" 20" BOX ELDER 55' RT	814.88
14	106+80	S.W. COR. OF 1 ST. STEP OF TAV. ENTR. 64' RT	

STA. 90+75 - P.E. LT.
REMOVE 12"X16' C.G.S.M.C.P.
24'X32' C.P. REQ'D.

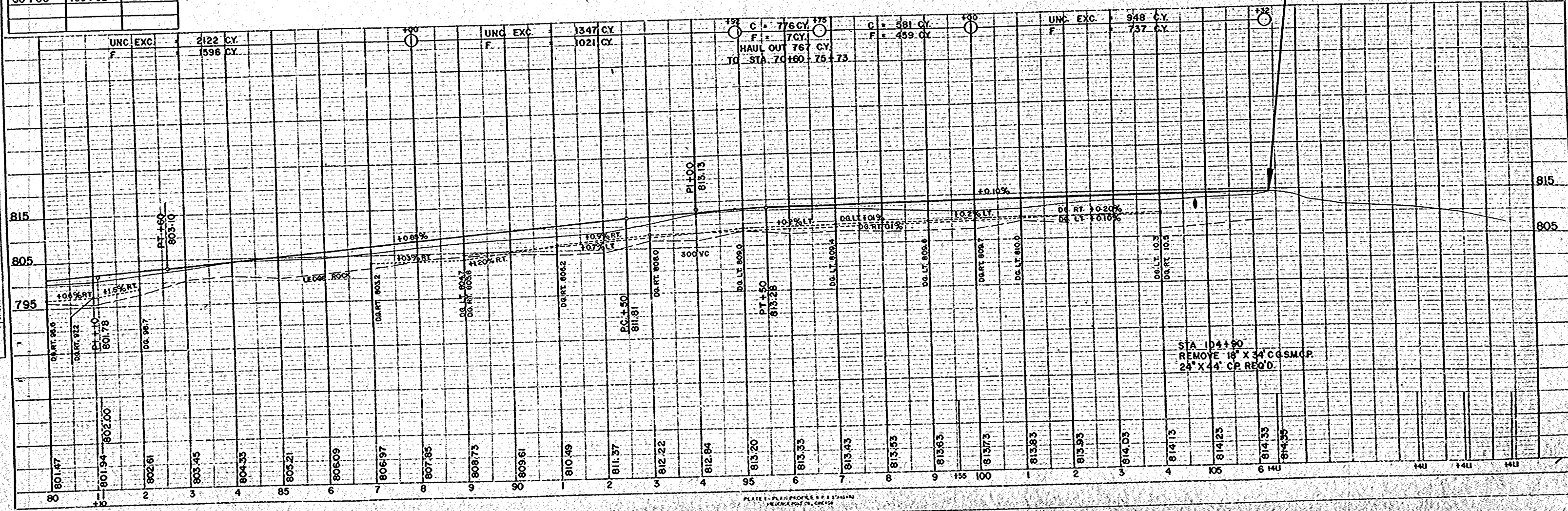
STA. 102+75 - P.E. LT.
REMOVE 18"X16' C.G.S.M.C.P.
18'X32' C.P. REQ'D.

STA. 105+40 - P.E. LT.
18'X32' C.P. REQ'D.

STA. 83+70 - F.E. LT.
24'X32' C.P. REQ'D.

STA. 82+30 - P.E. RT.
24'X32' C.P. REQ'D.

NET LENGTH OF CENTERLINE		
STATION TO STATION	LINE	FEET
80+00 TO 106+32	2632	

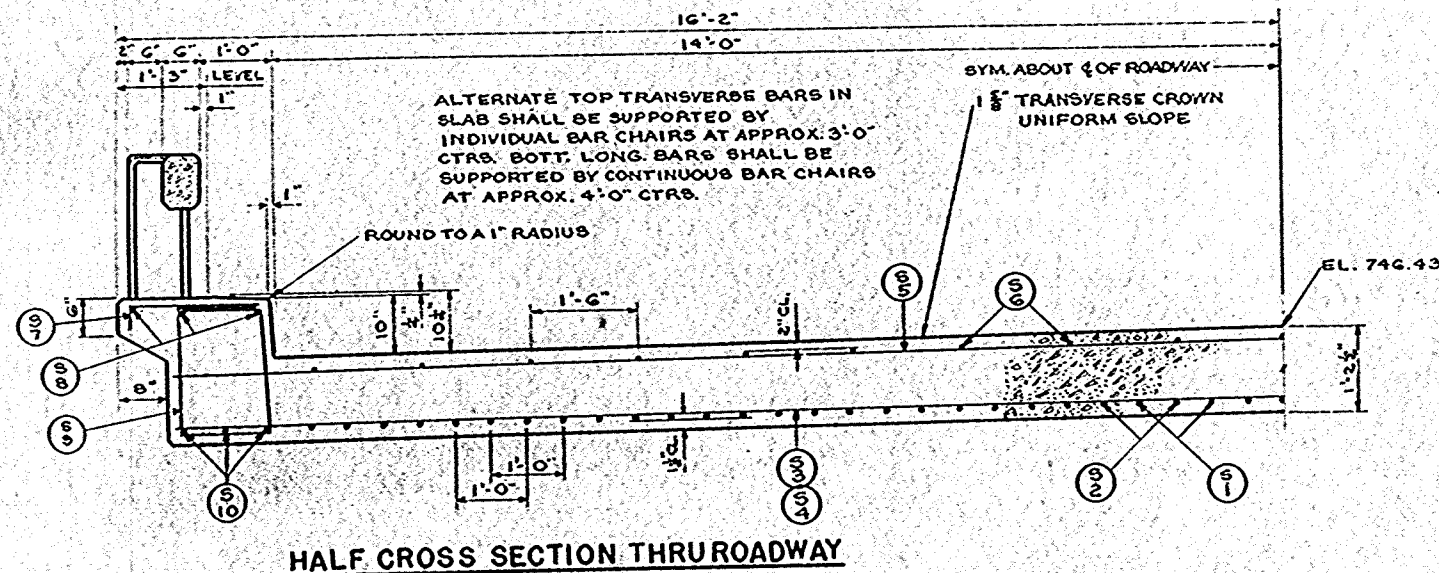


PLAN
NOTE: SEE SHEET S-0324(3) FOR PLAN VIEW OF THIS PROJECT.

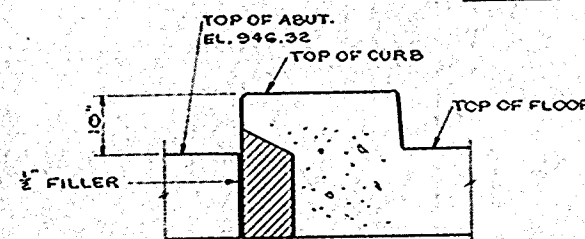
PROFILE
NOTE: SEE SHEET S-0324(3) FOR PROFILE VIEW OF THIS PROJECT.

BENCH MARK		
NO.	STATION	ELEV.
5	32+7500	747.77

COUNTY	SECTION	STATE	FEDERAL	PROJECT	SHEET NO.	TOTAL SHEETS
4463240	11.3	4	50324(3)	17	27	

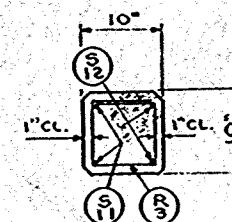


HALF CROSS SECTION THRU ROADWAY

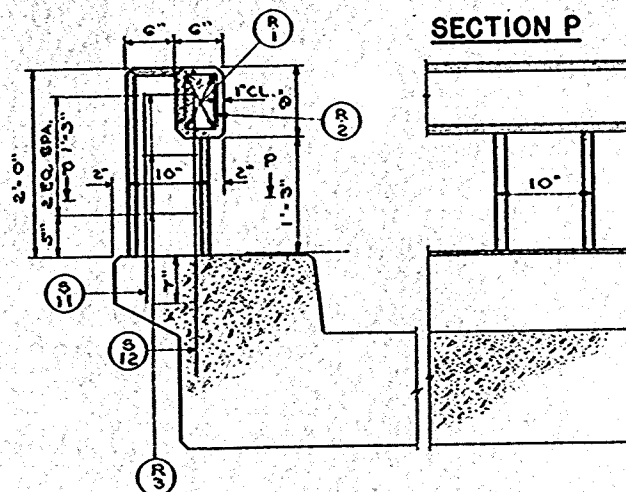


ABUTMENT DETAILS

SHADED PORTION TO BE POURED WITH SUPERSTRUCTURE.



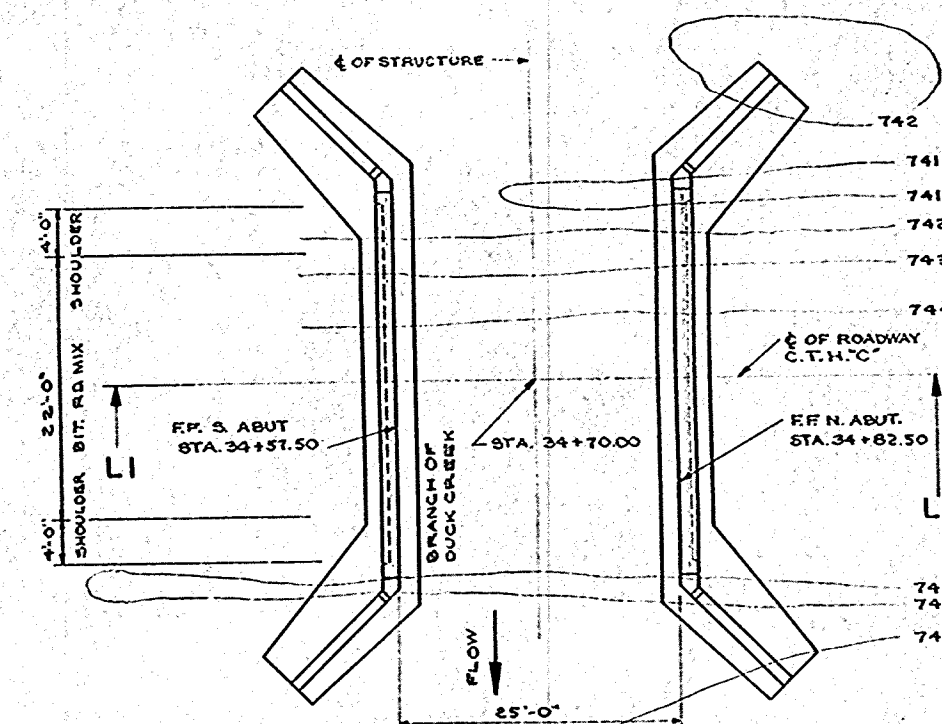
SECTION P



RAILING DETAILS

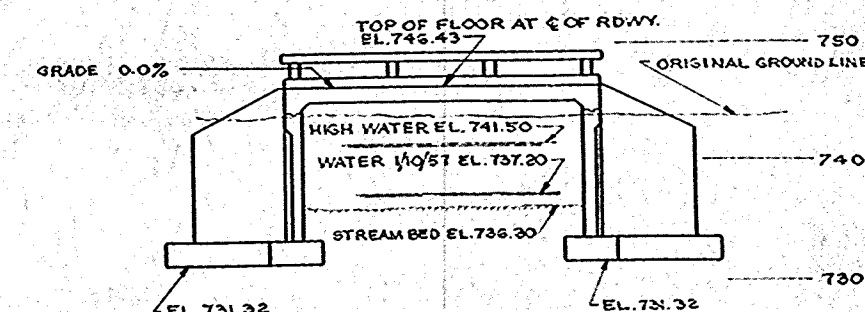
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
CONCRETE MASONRY IN SUPERSTRUCTURE AND ABUTMENTS SHALL BE GRADE "AA".
CONCRETE MASONRY IN RAILINGS AND POSTS SHALL BE GRADE "X".
BEVEL ALL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE SPECIFIED.
BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
USE OF STRUCTURAL GRADE BAR STEEL REINFORCEMENT IS PROHIBITED.
ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH GRANULAR BACKFILL TO THE ORIGINAL GROUND LINE. PAYMENT WILL BE MADE ONLY FOR THE MATERIAL ACTUALLY PLACED WITHIN THE LIMITS SPECIFIED FOR EXCAVATION FOR STRUCTURES.



LAYOUT

SINGLE SPAN R.C. SLAB 25'-0" CLEAR SPAN
28'-0" ROADWAY ON CLOSED R.C. ABUTS.



SECTION L.I

† THE DESIGN OF THIS STRUCTURE IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES A.A.S.H.O. EDITION OF 1953.

LIST OF DRAWINGS

1. LAYOUT & SUPERSTRUCTURE X16632
2. ABUTMENTS X16633

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER	ABUTS	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.		450	450
GRANULAR BACKFILL	C.Y.		260	260
CONCRETE MASONRY GRADE "AA" *	C.Y.	44.9	993	144.7
CONCRETE MASONRY GRADE "X"	C.Y.	1.1		1.1
BAR STEEL REINFORCEMENT	LB.	7,420	3,210	10,630
NON BID ITEMS				
EXPANSION JOINT FILLER	SIZE	1/2"	7/8"	1 1/4"
MEMBRANE WATERPROOFING	S.F.		78	78
4" TILE DRAINS	L.F.		12	12

* DESIGN STRESS (C) = 1400 PSI

DETAIL A

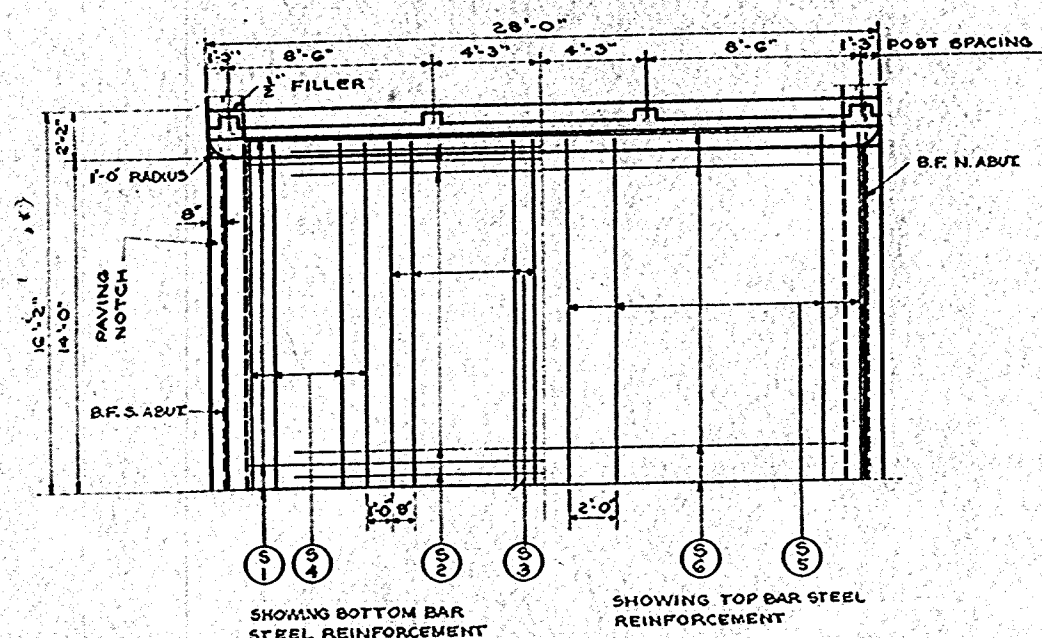
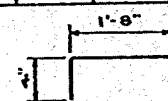
DETAIL B

BILL OF BARS

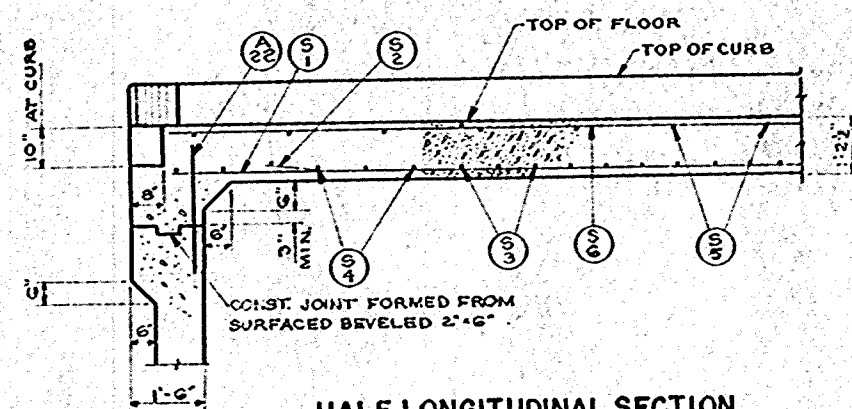
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

FOUR MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
FLOOR & CURB	S 1	28	9	26'-0"	FLOOR BOTT. LONG.	
	S 2	27	9	21'-0"	" " " "	
	S 3	18	5	30'-6"	" " " " TRANS.	
	S 4	12	4	30'-6"	" " " " TOP	
	S 5	14	4	30'-6"	" " " " LONG.	
	S 6	19	4	26'-0"	" " " " LONG.	
	S 7	54	4	2'-0"	CURB " " TRANS.	A
	S 8	6	6	27'-0"	" " " " LONG.	
	S 9	54	5	6'-6"	" " " " BOTT. LONG.	B
	S 10	6	9	26'-0"	" " " " BOTT. LONG.	
	S 11	16	5	2'-3"	" " " " 4 RAILING POST	
	S 12	16	5	3'-0"	" " " " " "	
POST & RAILING	R 1	8	5	27'-9"	RAILING	
	R 2	56	2	2'-3"	" " " "	*
	R 3	24	3	3'-3"	" " " "	*

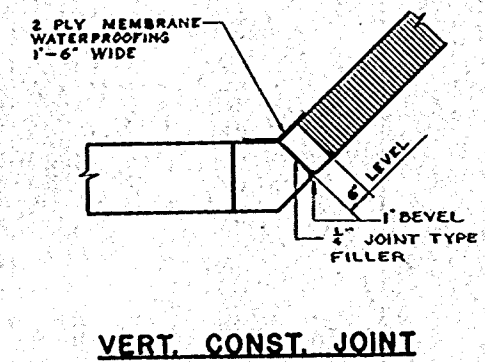
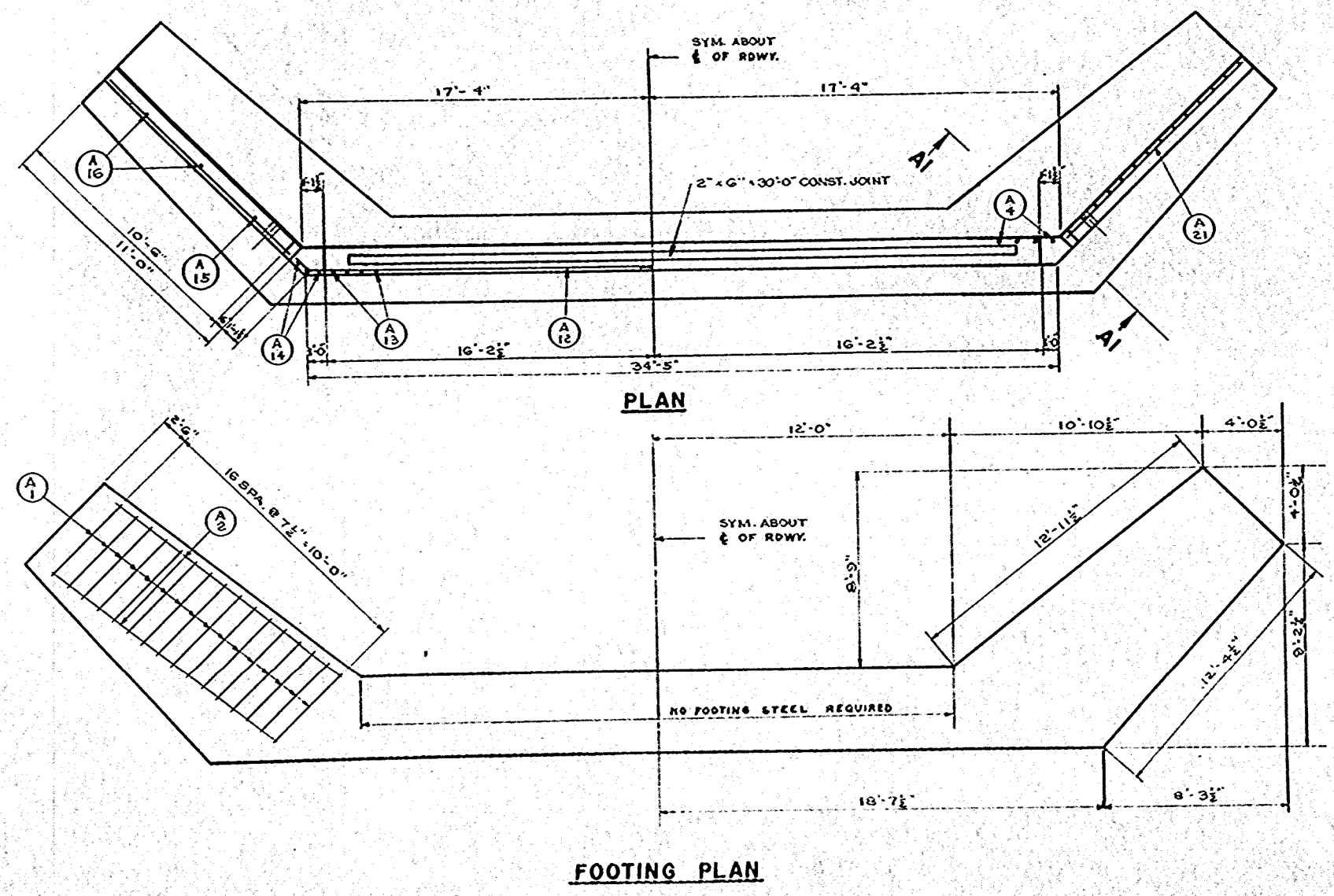
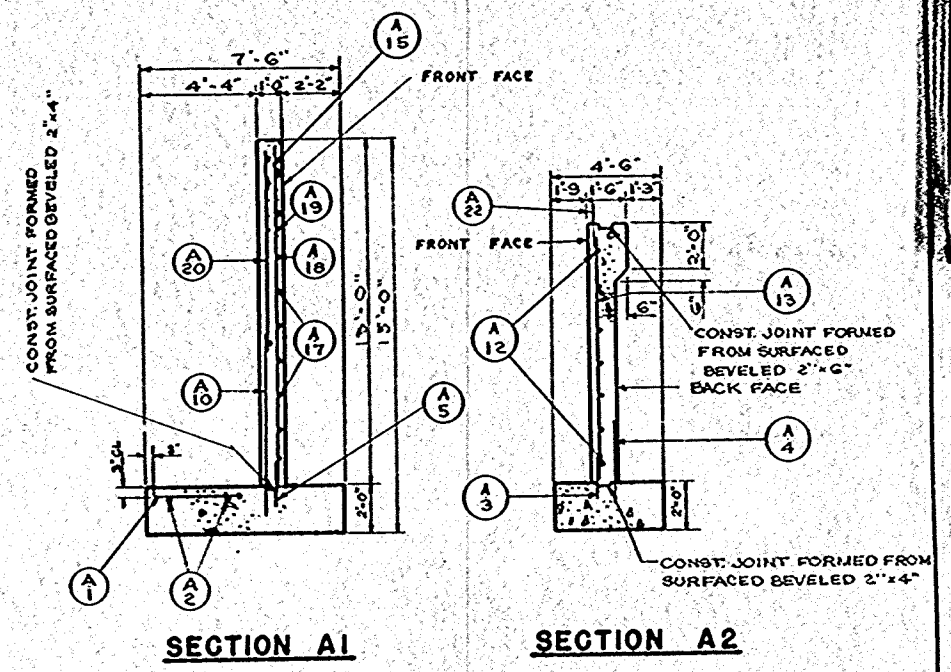
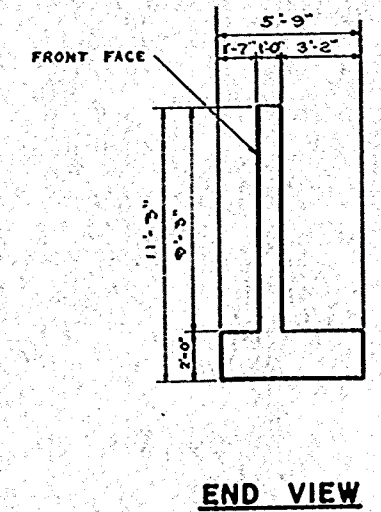
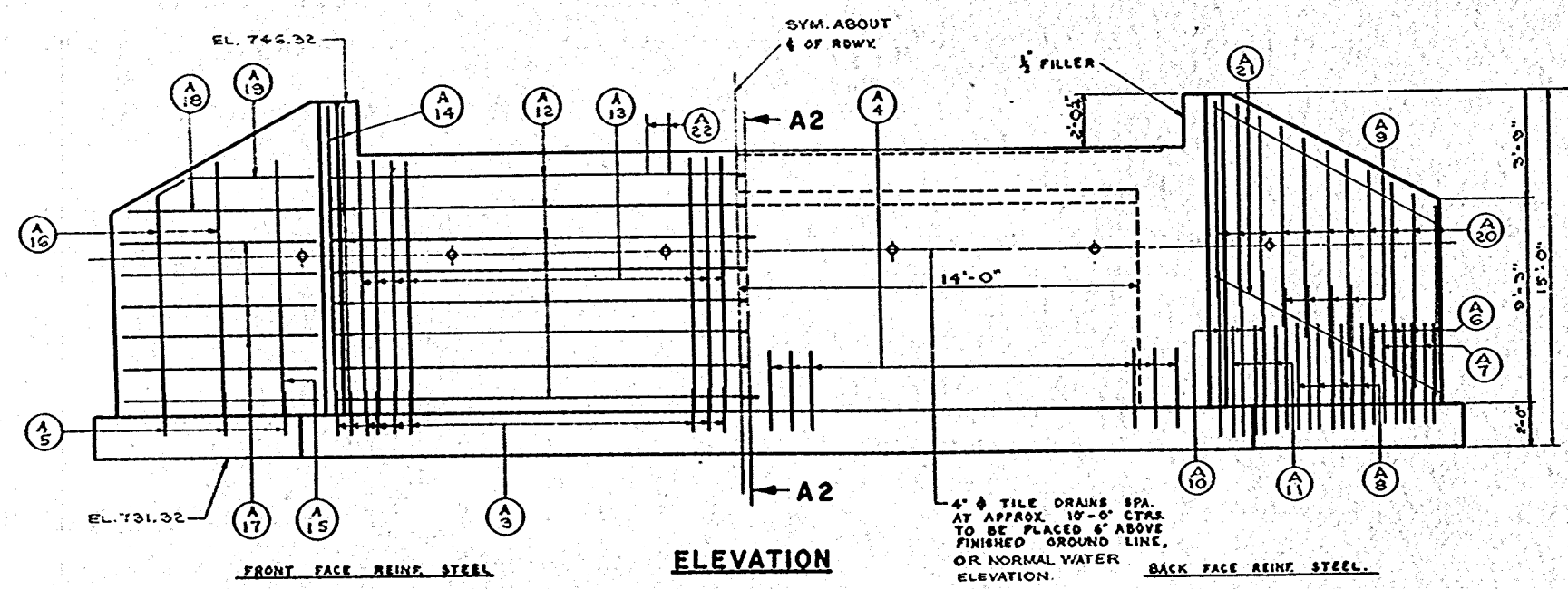
* BEND IN FIELD



HALF PLAN



HALF LONGITUDINAL SECTION



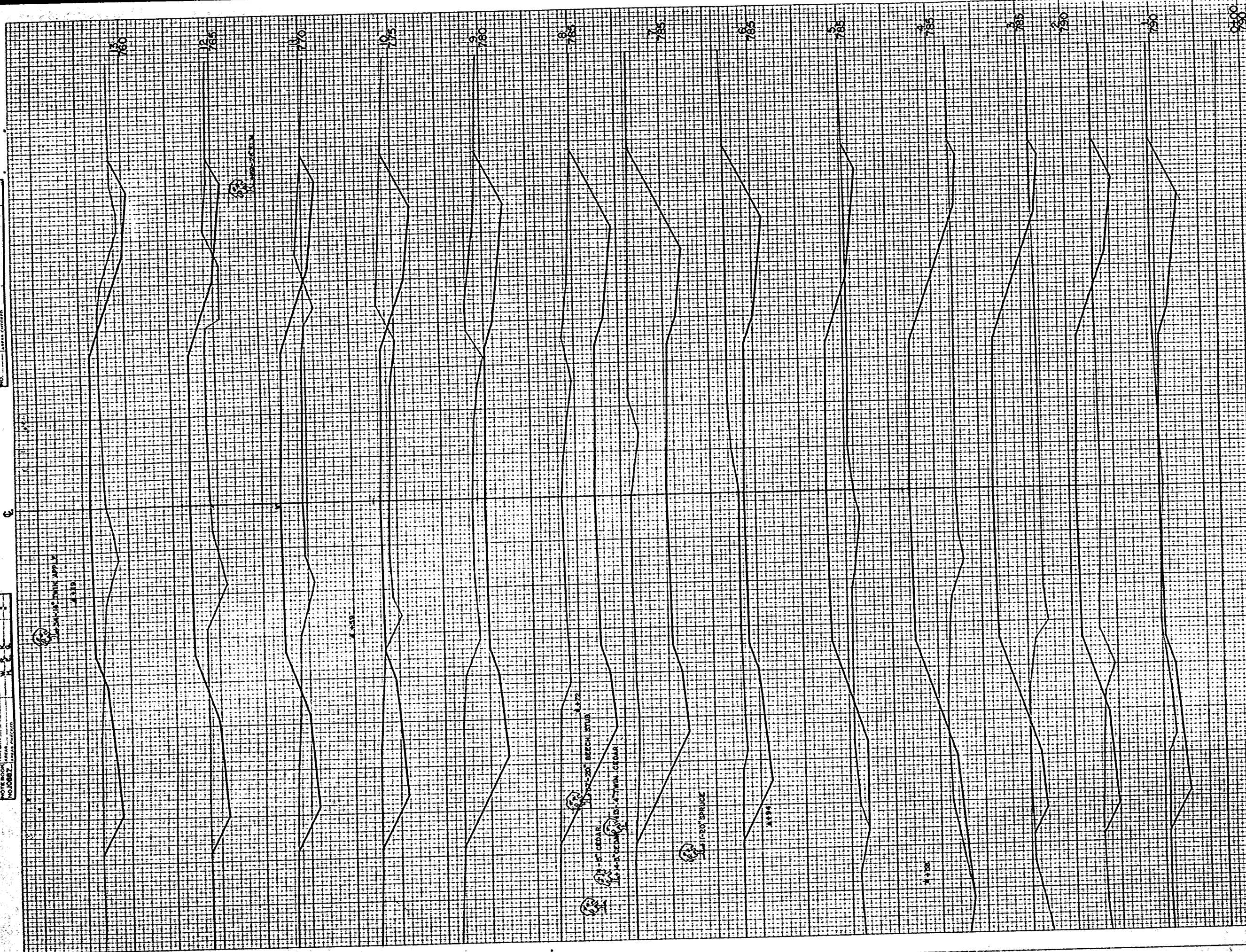
BILL OF BARS 3,210 #

FOUR MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
A 1	68	4	5-3	7 1/2	FOOTING WINGS	HEEL
A 2	8	4	10-9	SHOWN	"	TIE BARS
A 3	134	4	2-0	6 1/2	"	4 BODY F.F.
A 4	110	4	3-9	7 1/2	"	"
A 5	12	4	2-0	SHOWN	"	WINGS F.F.
A 6	18	4	3-3	1-0	"	"
A 7	12	4	3-3	1-0	"	"
A 8	16	5	3-6	1-0	"	"
A 9	16	5	5-0	1-0	"	"
A 10	12	6	6-3	1-0	"	"
A 11	12	6	4-0	1-0	"	"
A 12	28	4	18-6	1-6	BODY HORIZ. F.F.	
A 13	122	4	10-9	6 1/2	"	VERT. "
A 14	12	4	12-9	6 1/2	"	"
A 15	4	4	11-6	SHOWN	WING	"
A 16	8	4	10-0	"	"	"
A 17	24	4	10-6	1-6	"	HORIZ. "
A 18	4	4	8-6	1-6	"	"
A 19	4	4	4-6	1-6	"	"
A 20	44	4	9-0	1-0	"	VERT. B.F.
A 21	8	4	11-3	SHOWN	"	TIE BARS "
A 22	64	4	2-9	1-0	BODY VERT. TOP F.F.	

EMBEDMENT FOR BAR STEEL REINFORCEMENT:
 "A3" TO "A7" INCL. 1'-0"
 "A8" AND "A9" 1'-3"
 "A10" AND "A11" 1'-6"
 "A22" 1'-0"

FINAL SURVEY	DATE
NOTED	
NOTEBOOK	
NO.	

ORIGINAL SURVEY	DATE
NOTED	
NOTEBOOK	
NO.	



OFFICE		PROJECT		NUMBER		SHEETS	
WIS. 4		S 0324 (3)		19		27	
STATION	DISTANCE	YARDAGE					
		EXCAVATION					
0							
1	122						6
2	204						191
3	300						600
4	61						819
5	99						602
6	324						198
7	844						0
8	1089						0
9	835						0
10	493						70
11	259						259
12	152						357
13	154						270
SHEET TOTAL		477				2300	

FINAL
SURVEY
NOTED
NO.

ORIGINAL
SURVEY
NOTED
NO.

9750

9750

9750

9750

9750

9750

9750

9750

9750

9750

9750

9750

9750

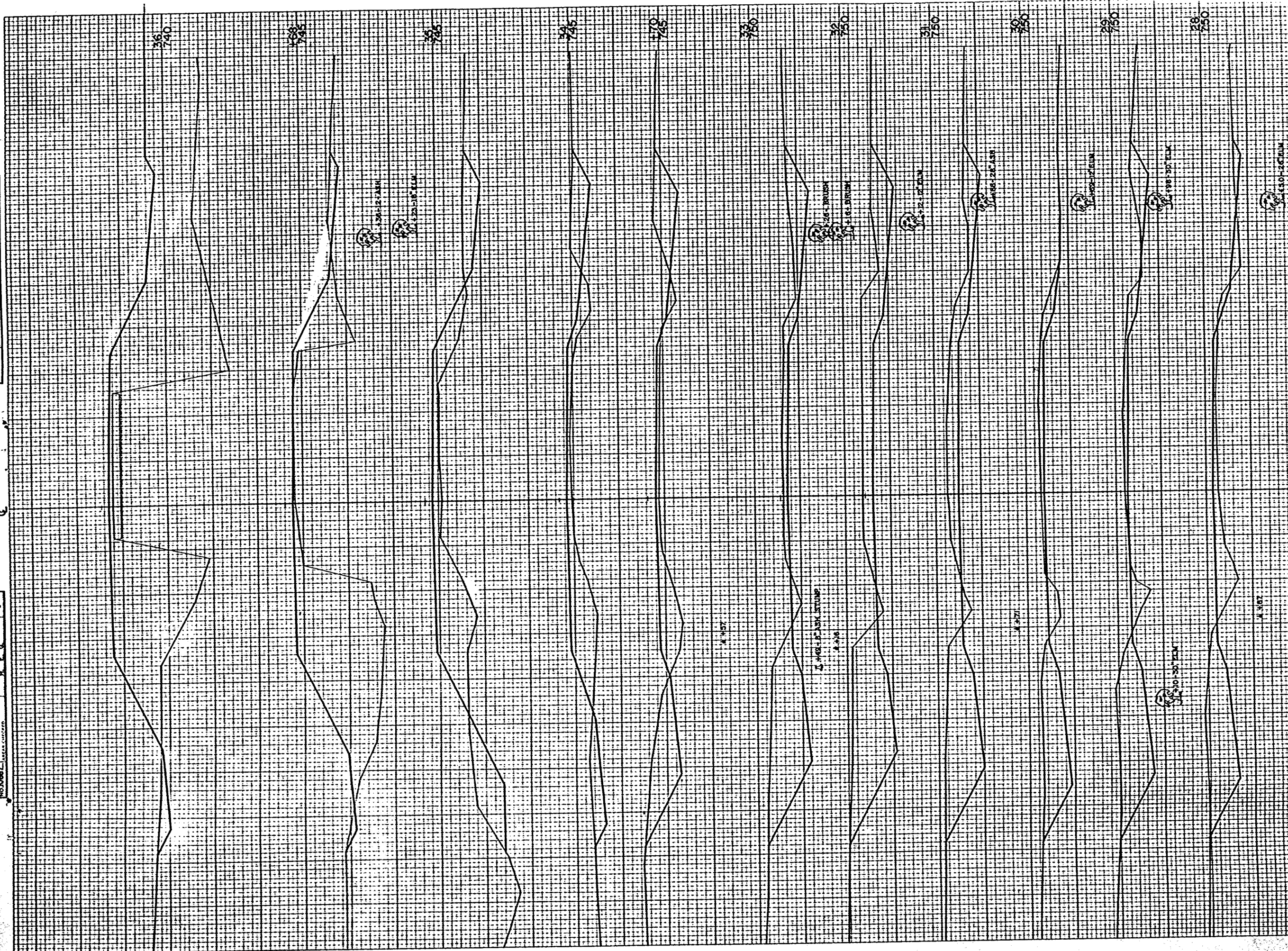
9750

SCALE 1"=25'

S.P.A. DISTRICT OFFICE		PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4		S 0324 (5)	20	27
STATION	DISTANCE		VARDAGE	
	TO	FROM	EXCAVATION	
13				147
14	148			230
15	152			250
16	153			256
17	155			245
18	161			170
19	166			56
20	348			22
21	546			0
22	441			52
23	140			238
24	74			435
25	65			504
26	300			365
27	133			239
SHEET TOTAL			2738	5098

FINAL
SURVEY
NOTE BOOK
NO. 10802

ORIGINAL
SURVEY
NOTE BOOK
NO. 10802



B.P.M. DISTRICT OFFICE		PROJECT	NUMBER	SHEETS
WIS. 4		S 0324 (3)	21	27
SCALE 1"=5'	STATION	DISTANCE	YARDAGE	
			EXCAVATION	CUT
	27			
		167		169
	28			
		274		78
	29			
		281		28
	30			
		344		19
	31			
		454		7
	32			
		480		7
	33			
		228		54
	34			
		52		52
	35			
		93		281
	36			
		94		357
	37			
		0		0
	38			

FINAL SURVEY
 DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 NO. _____

ORIGINAL SURVEY
 DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 NO. _____

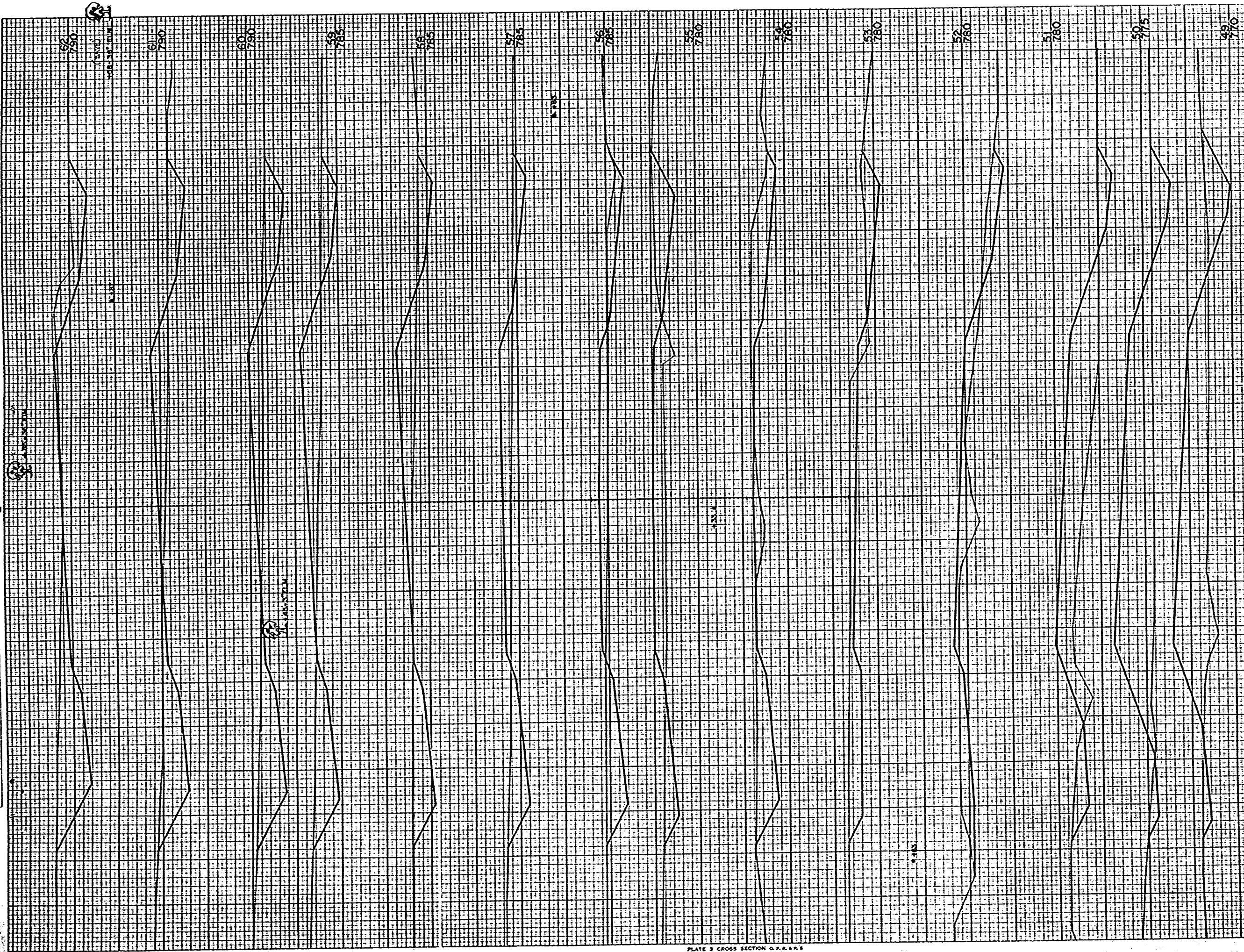
S.P.A. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0324 (3)	22	27

STATION	DISTANCE	BARRELS	EXCAVATION
36	26	226	
35	33	136	
34	38	280	
33	43	29	
32	46	26	
31	48	165	
30	220	106	
29	293	46	
28	366	37	
27	265	62	
26	324	39	
25	30	40	
24	165	165	
23			
22			
21			
20			
19			
18			
17			
16			
15			
14			
13			
12			
11			
10			
9			
8			
7			
6			
5			
4			
3			
2			
1			
0			
Sheet Total	270	1813	

FINAL SURVEY	DATE
NOTED	
NOTED	
NOTED	
NOTED	
NOTED	

ORIGINAL SURVEY	DATE
NOTED	
NOTED	
NOTED	
NOTED	
NOTED	

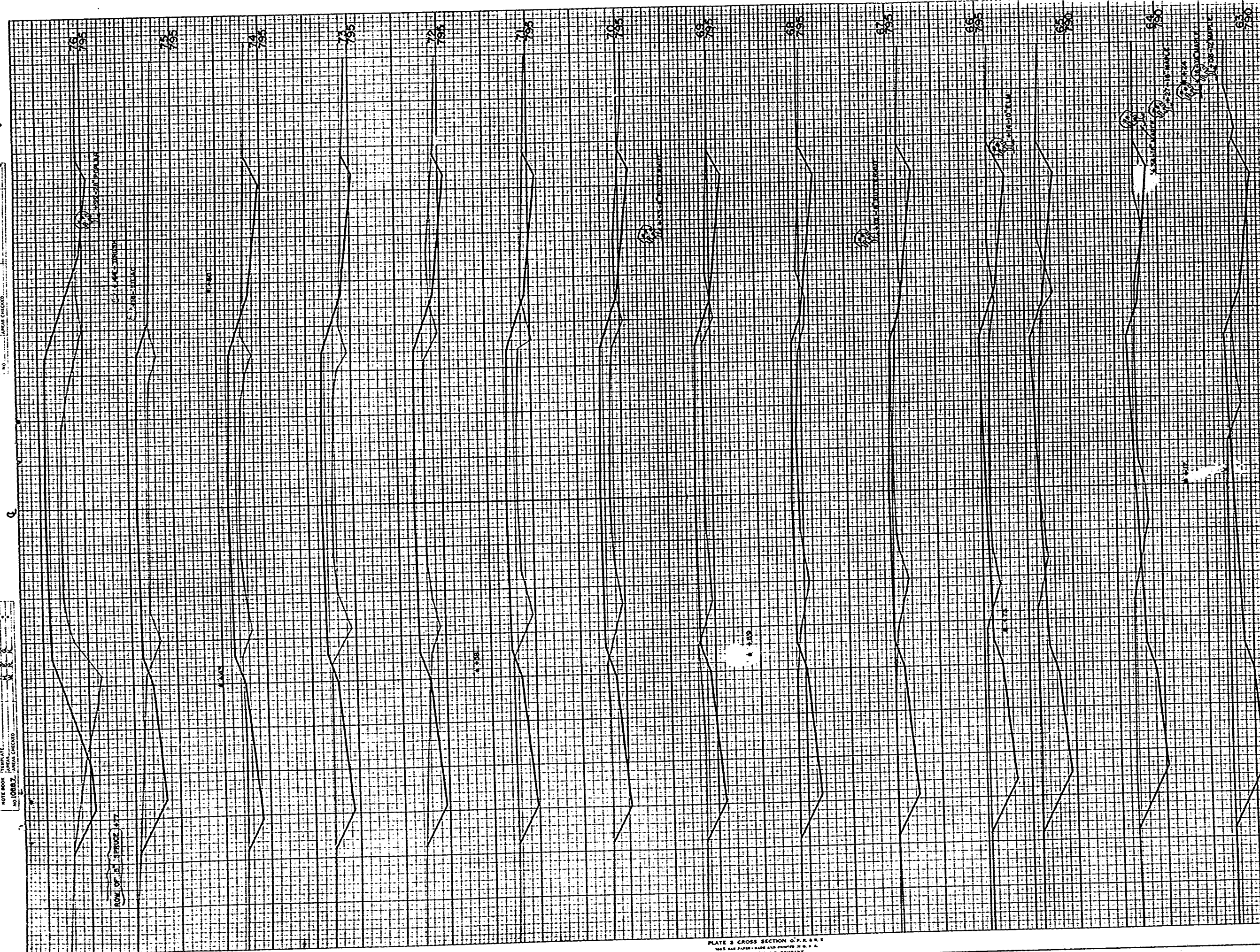
OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WYS. 4	S 0324 (3)	23	27



STATION	VARDAGE		TOTAL
	EXCAVATION	UND.	
48		0	43
49		52	556
50		60	515
51		113	287
52		128	74
53		253	24
54		202	113
55		168	160
56		157	150
57		168	144
58		163	172
59		220	152
60		221	122
61		332	72
62			
SHEET TOTAL		2356	2356

ORIGINAL SURVEY	SUMMED	BY	DATE
NOTE BOOK	PLANTED	BY	DATE
NO. 10887	AREAS CHECKED	BY	DATE

OFFICE	PROJECT	NUMBER	SHEETS
WIS. 4	S 0324 (3)	24	27

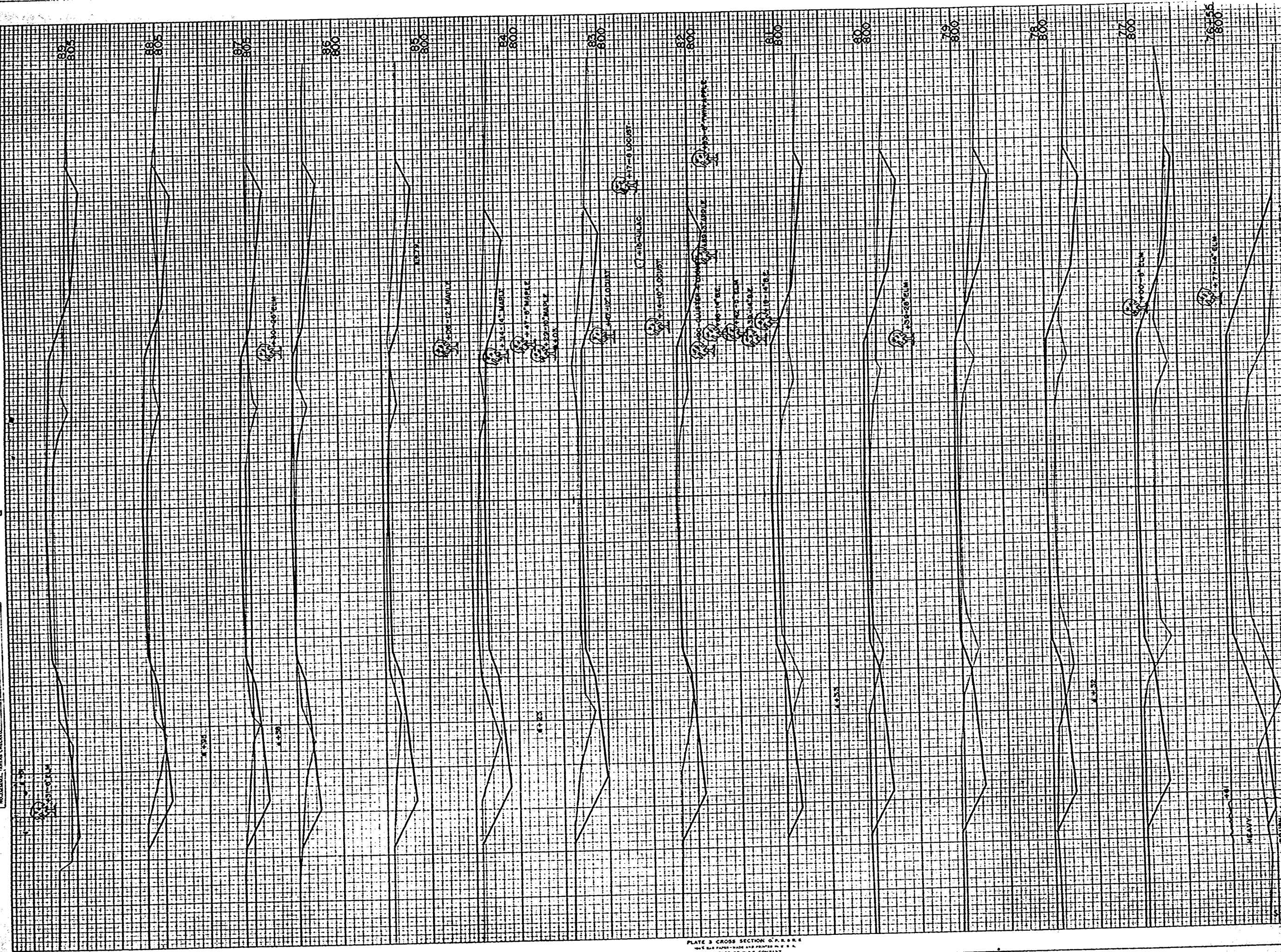


STATION	VERTICAL ELEVATION	REL
62	370	30
63	320	61
64	256	69
65	256	72
66	207	85
67	165	107
68	185	127
69	56	159
70	167	193
71	167	204
72	143	206
73	135	213
74	150	206
75	56	320
76		
SHEET TOTAL	2778	206

PLATE 3 CROSS SECTION O. P. R. & R. I.
100% RAG PAPER - MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY

DATE: 10/1/54
 FINAL SURVEY
 SURVEY
 NOTE BOOK
 AREA CHECKED
 NO.

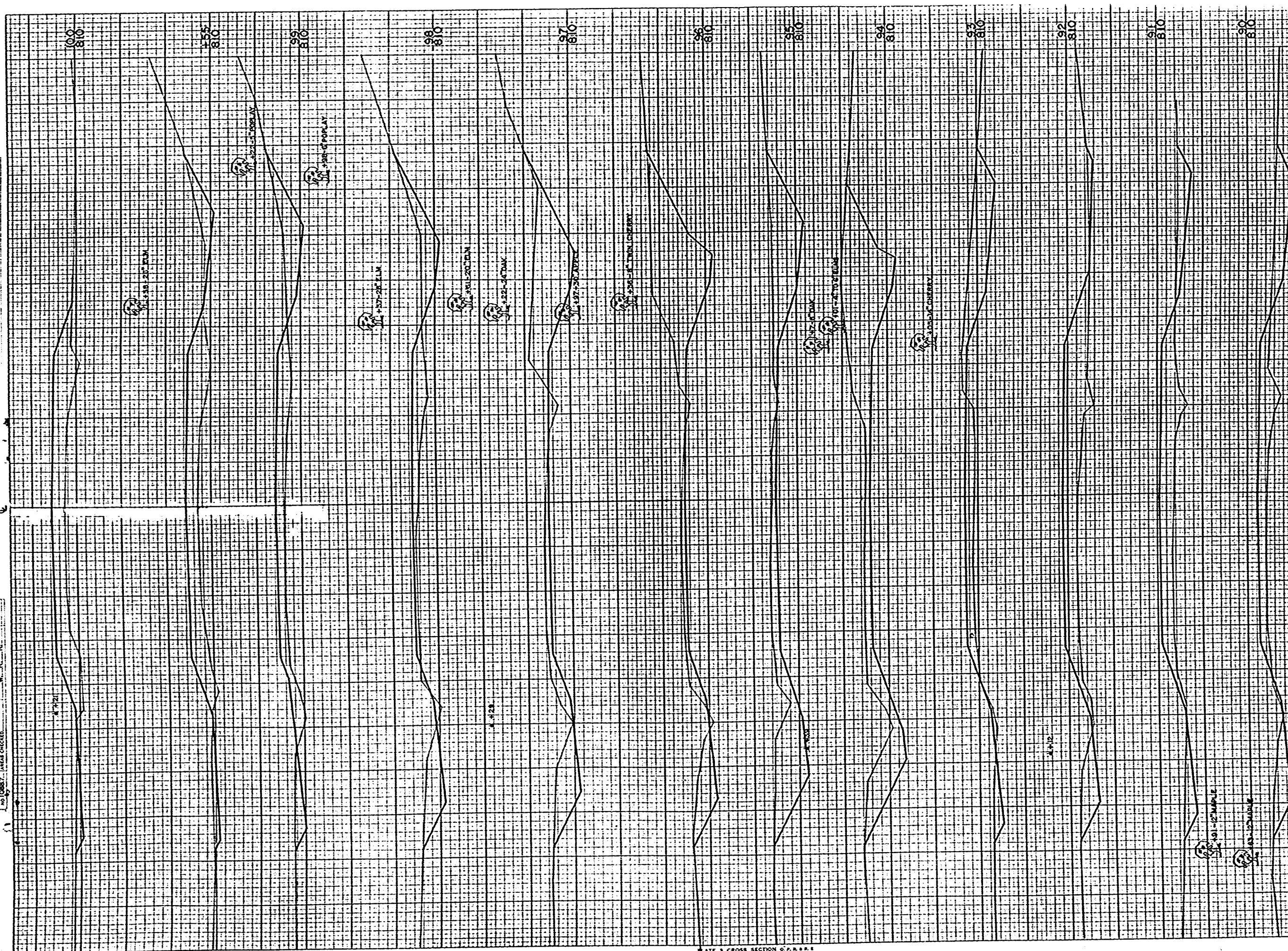
DATE: 10/1/54
 ORIGINAL SURVEY
 SURVEY
 NOTE BOOK
 AREA CHECKED
 NO.



STATION		DISTANCE		YARDAGE	
UNCL		EXCAVATION		FILL	
76	30				269
77	43				194
78	158				265
79	161				171
80	202				128
81	146				135
82	117				109
83	211				33
84	200				0
85	253				6
86	169				39
87	157				74
88	150				87
89	119				13
SHEET TOTAL		225		623	

ORIGINAL	DATE
SURVEY	1-57
NOTED	1-57
TEMPLATE	2-57
NOTE BOOK	2-57

B.P. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
W.S. 4	S 0324 (3)	26	27



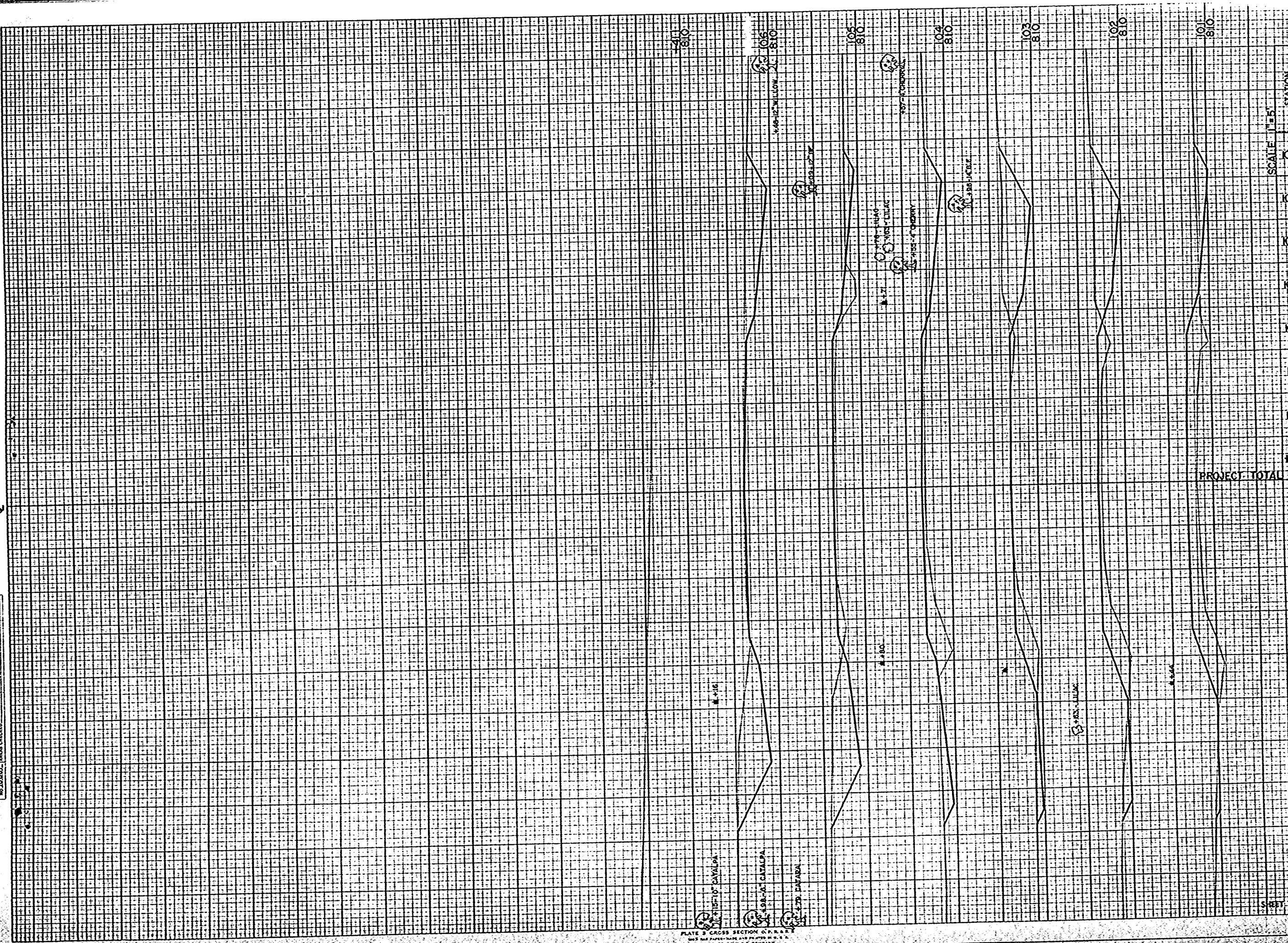
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
80	18		143
81	18		200
91	65		286
92	186		220
93	346		60
94	461		0
95	426		2
96	417		7
97	267		61
98	135		150
99	34		124
100	24		122
SHEET TOTAL		2,865	3,245

PLATE 3 CROSS SECTION O. P. R. & B.
100% RAG PAPER-MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY

FINAL SURVEY	DATE
SURVEYED	BY
NOTED	BY
NO. 10887	AREA CHECKED

ORIGINAL SURVEY	DATE
SURVEYED	BY
NOTED	BY
NO. 10887	AREA CHECKED

BPR OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0324(3)	21	27



STATION	YARDAGE	
	EXCAVATION	FILL
101	46	28
102	117	165
103	163	100
104	150	85
105	143	70
106	244	28
107	65	0
140	23583	18202
PROJECT TOTAL		