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26 STD. DRWGS.
3 CULVERT SHEETS

COMMONWEALTH OF KENTUCKY

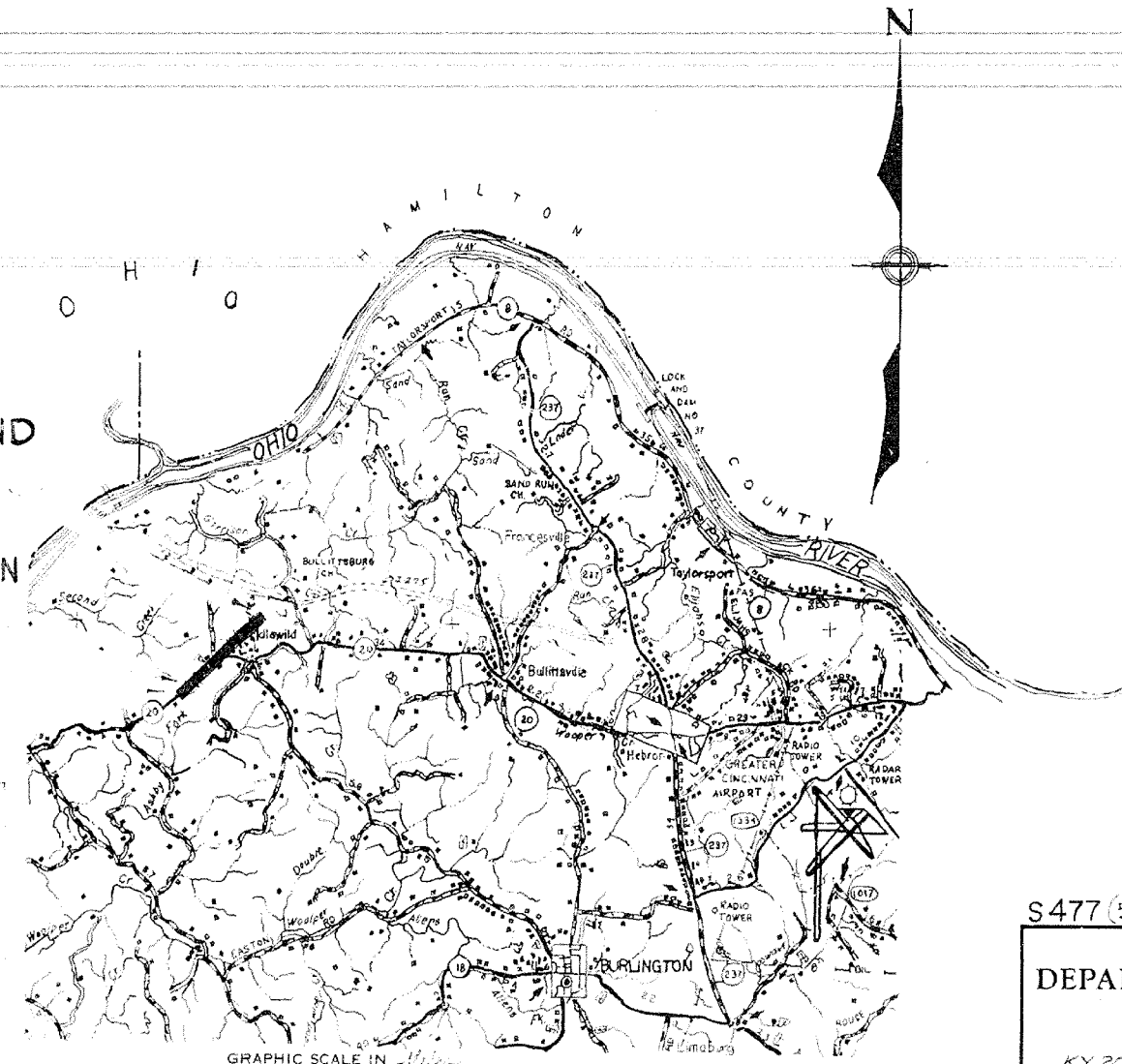
DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

BOONE COUNTY
S477(5)

SUBSECTION OF CONTRACT S477(5) SP8-930-1
8-930-1C1 GRADE, DRAIN AND SURFACE FROM STA. 28+50 TO STA. 85+50.

Boone Co. S477(5)			
FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.
7	KY	1970	41



STA. 85+50 END
S477(5)

STA. 28+50 BEGIN
S477(5)

STA. 12+00 BEGIN
APPROACH

FROM STATION 28+50 TO STATION 41+80 THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT.

FROM STATION 41+80 TO STATION 85+50 THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY. ACCESS SHALL BE PROVIDED ONLY WHERE SPECIFICALLY INDICATED ON PLANS.

DESIGN CRITERIA	
CLASS OF HIGHWAY	TYPE I
TYPE OF TERRAIN	FLAT TO SLIGHT MTD
DESIGN SPEED	50 M.P.H.
REQUIRED A.P.S.D. MIN.	475'
REQUIRED P.S.D. MIN.	3000'
LEVEL OF SERVICE	C
A.D.T. PRESENT	NONE (1969)
A.D.T. FUTURE	9010 (1969)
D.H.V.	800
CLOSURE COST	60,040
TRAFFIC	10%
DESIGNED	
P.S.D. HORIZONTAL	25.6%
P.S.D. VERTICAL	20.4%
P.S.D. COMBINED (TOTAL)	4.1
LEVEL OF SERVICE	C
MAX. DISTANCE W/O PASSING	975 M.
UNRESTRICTED 1500 SIGHT DISTANCE	197'

LAYOUT MAP

CONVENTIONAL SIGNS	
UNIMPROVED ROAD	
GRADE AND DRAINED ROAD	
SOIL SURFACE ROAD	
METAL SURFACE ROAD	
LOW TYPE BITUMINOUS ROAD	
PAVED ROAD	
COUNTY LINE	
CORPORATE LIMIT	
SURVEY LINE	
PROPOSED RIGHT OF WAY	
GRADE LINE	
GROUND LINE	
TRAVELED WAY	
RAILROAD	
FENCES (EXCEPT STONE & HEDGE)	
STONE FENCE	
HEDGE FENCE	
TREES & STUMPS	
POLE LINE	
TELEPHONE POLES	
PIPE CULVERT	
CONCRETE CULVERT & BRIDGE	
LARGE STREAM	
SMALL STREAM	
BENCH MARKS	
ROAD INTERSECTIONS	
MARSH	
BUILDINGS	

S477(5) R/L S477(4)

KENTUCKY
DEPARTMENT OF HIGHWAYS
COUNTY OF
BOONE

KY 20 - 1275 CONNECTOR
ROAD

STATE PROJECT No. 8-930 DATE 1970

SURVEYED BY *W. B. Johnson* DISTRICT ENGINEER

SURVEY APPROVED BY *W. B. Johnson* DISTRICT ENGINEER

PLAN CHECKED BY *W. B. Johnson* DISTRICT ENGINEER

SURVEY AND PLAN APPROVED BY *W. B. Johnson* DISTRICT ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

APPROVED: *W. B. Johnson* DISTRICT ENGINEER

DIVISION ENGINEER DATE

LETTING DATE 1-16-70

FISCAL YEAR	SHEET NO.	TOTAL SHEETS
70	12	635

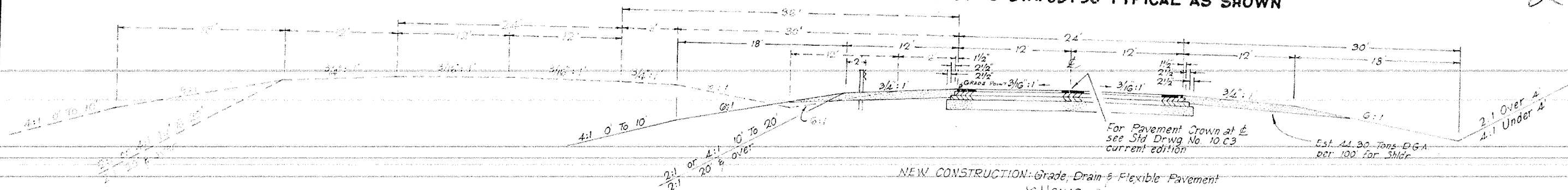
2

— MAIN LINE — TANGENT

ULTIMATE CONSTRUCTION

INITIAL CONSTRUCTION

STA. 12+00 TO STA. 28+50 IN TRANSITION
STA. 28+50 TO STA. 85+50 TYPICAL AS SHOWN



NEW CONSTRUCTION: Grade, Drain & Flexible Pavement
USING

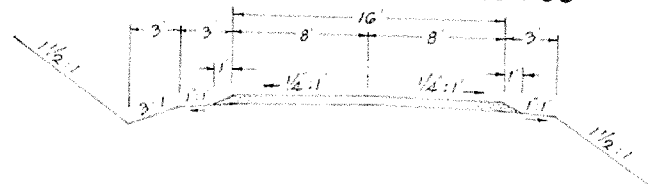
- Approximately 19" Base — [1 1/2" Compacted Dense Graded Aggregate Base
5" Class I Base — [Compacted Bituminous Concrete Base (2-2 1/2 courses)]
- Tack Coat — [0.10 Gal. per sq. yd. Apply as directed by the Engineer]
- Approximately 1 1/2" Class I Surface — [Compacted Bituminous Concrete Surface, Type "A"]
- Stabilized Shoulder — [5" Compacted Dense Graded Aggregate Base
2.0 Lbs. per sq. yd. Calcium Chloride]

NOTE: See Sheet No. 2a. for Super-elevated
Typical Section of Main Line.

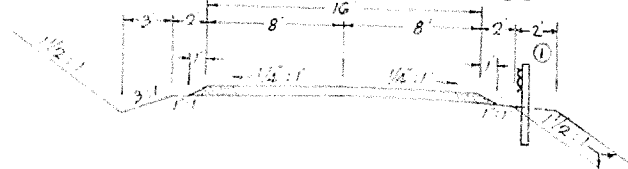
ENTRANCES

- Approximately 6 1/2" Base — [4" Compacted Dense Graded Aggregate Base
2 1/2" Class I Base — [Compacted Bituminous Concrete Base]
- Tack Coat — [0.10 Gal. per sq. yd. Apply as directed by the Engineer]
- Approximately 1 1/2" Class I Surface — [Compacted Bituminous Concrete Surface, Type "A"]

APPROACH LT. STA. 43+00



APPROACH LT. STA. 66+50



① Shoulder shall be
widened 2' where Steel
Beam Guard Rail is to
be installed.

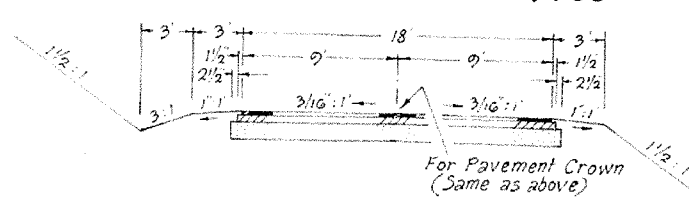
NEW CONSTRUCTION: Grade, Drain And Traffic Bound Base
USING

Crushed Limestone Size No. 610 applied loose equal to 2" compacted depth

OR

River Gravel Size No. 710 applied loose equal to 2" compacted depth
River Gravel shall conform to Specification G12.4.2-B
River Gravel Maintenance Floater Course.

APPROACH RT. STA. 47+50



For Pavement Crown
(Same as above)

- Approximately 10 1/2" Base — [8" Compacted Dense Graded Aggregate Base
2 1/2" Class I Base — [Compacted Bituminous Concrete Base]
- Tack Coat — [0.10 Gal. per sq. yd. Apply as directed by the Engineer]
- Approximately 1 1/2" Class I Surface — [Compacted Bituminous Concrete Surface, Type "A"]

See Cross Sections for slopes outside the
limits of the shoulder.

LINEN CROSS SECTIONS SHEETS ARE
SUITABLE FOR FINAL QUANTITIES

MAIN LINE SUPERELEVATED

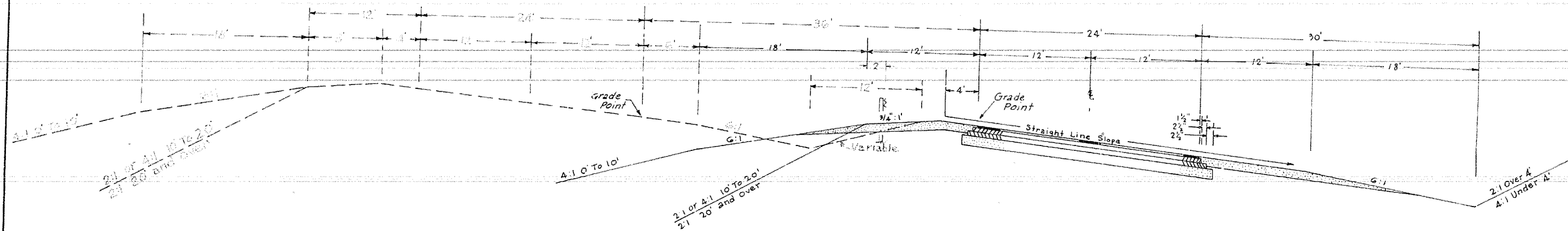
BOONE CO. 5477(5)

FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1970	12.0	635

2A

ULTIMATE CONSTRUCTION

INITIAL CONSTRUCTION
STA. 12+00 TO STA. 28+50 IN TRANSITION
STA. 28+50 TO STA. 85+50 TYPICAL AS SHOWN



NOTE: See Sheet No. 2 for
Surfacing Schedule

See Cross Sections for slopes outside the
limits of the shoulder.

2B

FOR SURFACING

		LIN. FT.	MILES	14" DGA BASE	8" DGA BASE	5" BIT BASE	2 1/2" BIT BASE	1 1/2" BIT SURFACE	TRAFFIC BOUND BASE
				S Q U A R E					Y A R D S
GROSS LENGTH NO DEDUCTIONS		5700.0	1.079						
NET LENGTH NO DEDUCTIONS		5700.0	1.079						
AREAS	MAIN LINE	STA 28150 TO 89150		15886		15490		15200	
		STA 12100 TO STA 28150		4348		4234		4150	
	APPROACHES	LT STA 43100							
		RT STA 47150			① 832		① 816	① 807	500
		LT STA 66150							② 2367
T O T A L				20234	832	19724	816	20157	2867

① Includes 83 sq. yds. for curve widening.

② Includes 197 sq. yds. for curve widening.

BASIS FOR CLASS I ESTIMATE

APPROXIMATE THICKNESS OF COURSE IN INCHES	POUNDS PER SQUARE YARD	
	LIMESTONE	CALCAREOUS GRAVEL
1 1/2	165	164
2 1/2	275	273
5	530	545

In addition to the quantities computed on the basis of the above tabulation an additional quantity of approximately 5% has been added to the totals as a contingency item to be used only where needed as may be directed by the Engineer on construction.

SURFACING QUANTITIES

Boone Co. 5477(5)

FISCAL YEAR	SHEET NO.	TOTAL SHEETS
70	12	635

2C

ITEM

UNIT

MAIN LINE

APPROACHES

STA. 12+00
TO
STA. 28+50

RT STA. 47+50

LT STA. 43+00

LT STA. 66+50

TOTAL

QUANTITIES

FLEXIBLE PAVEMENT WITH THE FOLLOWING COMPONENTS

DENSE GRADED AGGREGATE BASE WITH THE FOLLOWING AGGREGATE

Crushed Limestone	④ ①	Ton	② 18150	③ 4890	385				23425
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AND BITUMINOUS CONCRETE BASE CLASS I WITH ONE OF THE FOLLOWING COARSE AGGREGATES

Crushed Limestone	④	Ton	4500	1245	120				5865
Crushed Gravel	④	Ton	4460	1230	115				5805

AND BITUMINOUS CONCRETE SURFACE CLASS I WITH ONE OF THE FOLLOWING COARSE AGGREGATES

Crushed Limestone	④	Ton	1330	375	70				1775
Crushed Gravel	④	Ton	1325	370	70				1765

WITH

Bituminous Tack Coat	Emulsified Asphalt SS-1h	④		785	225	40			1050
	OR								
	Cut-back Asphalt RC-250	④		1570	440	80			2090
	OR								

AND

Calcium Chloride (Shoulders)		Ton	18.7	48					23.5
------------------------------	--	-----	------	----	--	--	--	--	------

AND WITH

TRAFFIC BOUND BASE WITH ONE OF THE FOLLOWING AGGREGATES

Crushed Limestone Size No 610		Ton				50	225	275
Crushed Limestone Size No 610 for Entrances and Maintenance of Traffic			105	55			25	245
OR								
River Gravel Size No 710		Ton				50	230	280
River Gravel Size No 710 for Entrances and Maintenance of Traffic			170	55			25	250

① Estimated at 115 Lbs per sq yd. per inch of depth.

② Includes 5315 Tons for Stabilized Shoulder. See Typical Section for estimated quantity per 100'.

③ Includes 1355 Tons for Stabilized shoulder.

④ Includes quantities for Residential and Field Entrances.

GENERAL SUMMARY

BOONE CO. 5477(5)
KY 20-275 CONNECTOR RD.
FISCAL YEAR 1970 SHEET NO. 122 TOTAL SHEET 131

SHEET NO.	STATION TO STATION	CLEARING AND GRUBBING	EXCAVATION			WATER	FINAL DRESSING CLASS "A"	REMOVING		PAVED DITCH, TYPE 1	CLASS "A" CONCRETE	STEEL REINFORCEMENT	RIGHT-OF-WAY FENCE	EIGHT-OF-WAY MARKER (RURAL TYPE)	STEEL BEAM GUARD RAIL TYPE 1	GUARD RAIL END TREATMENT TYPE 1	GUARD RAIL TERMINAL SECTION TYPE 1-B	CLASS "A" CONCRETE FOR STEPS	4" CONCRETE SIDEWALK	HANDRAIL TYPE "B"	DITCH BOX INLET TYPE 1	FIELD LABORATORY FACILITIES	SODDING	AGRICULTURAL LIME/STONE	10-20-30 FERTILIZER	SEEDING AND PROTECTION WITH METHOD 2, BLOWN-ON-BITUMINOUS TREATED MULCH
			STRUCTURE UNCLASSIFIED	ROADWAY	BORROW			PIPE																		
UNIT TO BID ON		ACRE	CU. YD.			1000 GAL.	100' STA.	LIN. FT.	30 YD.	CU YD.	LB.	LIN. FT.	EACH	LIN. FT.	EACH	CU YD.	30 YD.	LIN. FT.	EACH	LUMP SUM	30 YD.	TON	50 YD.			
APPROACH TO MAINLINE																										
3-4	12100 - 28150			3313	1800																					
	ADDED FOR CONTINGENCIES			891																						
	FROM PIPE DRAINAGE SHEETS		414	239						10.36																
	ADDED FOR EMBANKMENT BENCHING			1118																						
	ADDED FOR SURFACE DITCHES			275																						
TOTAL APPROACH TO MAINLINE		6.8	414	10776	1800	101	-	30		236.9	10.4			14	400	4	-	2.0	10.6	2.8	1		432	187	29	27680
MAINLINE																										
4-5	28150 - 50129			33205																						
5	50129 - 76155			151279	12832																					
5-6	76155 - 85150			29879																						
	ADDED FOR CONTINGENCIES			21436																						
	FROM PIPE DRAINAGE SHEETS		317	87						22.16	714															
	ADDED FOR EMBANKMENT BENCHING			4645																						
	ADDED FOR SURFACE DITCHES			1160																						
TOTAL MAINLINE		① 403	317	① 241691	① 12832	① 1540	57.0	30		② 1201.7	22.2	714	7175	30	3650	16	6	-	-	-	1		1421	1165	179	171239
APPROACH LT. STA. 66+50																										
	FROM PIPE DRAINAGE SHEETS		49							10.32	414															
TOTAL APPROACH LT. STA. 66+50			49	-						100.4	10.3	414	-	17	575	6	-	-	-	-	1					
TOTAL PROJECT		47.1	780	252467	14632	③ 1641	④ 57.0	60		1539.0	42.9	1128	7175	61	4625	26	6	2.0	10.6	2.8	3	LUMP SUM	1853	138.4	213	203491
① Includes quantities for Approaches Lt. Sta. 43100, Rt. Sta. 47150 & Lt. Sta. 66150																										

- ① Includes quantities for Approaches Lt. Sta. 43100, Rt. Sta. 47150 & Lt. Sta. 66+50.
 - ② Includes quantity for Approach Rt. Sta. 47150.
 - ③ Estimated 10 Gal. of water per Cu yd. common excavation or common borrow excavation used in embankment.
 - ④ The unit price bid per 100' Sta. for Final Dressing within the limits of the project shall include payment in full for Final Dressing of approaches.
 - ⑤ With regard to Bureau of Public Roads participation, the cost of this item is to be charged to Construction Engineering.
- Boone Co. 5 477(5) is to be combined in the proposal with Boone Co. I 275 (22) 0 and bid as one project. This is to notify the bidder that payment will be made for only one set of Field Laboratory facilities for the total contract.

CULVERT QUANTITIES ARE NOT INCLUDED IN GENERAL SUMMARY.

PIPE SUMMARY

SIZE	ALTERNATE	ITEM	APPROACH TO MAINLINE	MAINLINE	APPROACH RT. STA. GG+50	TOTAL PROJECT
CULVERT PIPE						
18"	A	REINFORCED CONCRETE, CLASS III				
	B	16 GAGE B.C.C.M.	572	280		852
18"	A	REINFORCED CONCRETE, CLASS III				
	B	16 GAGE B.C.C.M.		132		132
30"	A	REINFORCED CONCRETE, CLASS III				
	B	14 GAGE B.C.C.M.		294		294
30"	A	REINFORCED CONCRETE, CLASS III				
	B	14 GAGE B.C.C.M.		200		200
48"	A	REINFORCED CONCRETE, CLASS III				
	B	12 GAGE B.C.C.M.			68	68
	C	10 GAGE B.C.C.A.A. (2)				
	A	REINFORCED CONCRETE, CLASS III				
18"	B	16 GAGE B.C.C.M.			120	120
	C	16 GAGE B.C.C.A.A. (2)				
ENTRANCE PIPE						
15"	A	REINFORCED CONCRETE, CLASS III				
	B	16 GAGE C.I.A.	120	28	28	176
	C	16 GAGE CORRUGATED ALUMINUM ALLOY				
18"	A	REINFORCED CONCRETE, CLASS III				
	B	16 GAGE C.M.	-	140	-	140
	C	16 GAGE CORRUGATED ALUMINUM ALLOY				
(1) PERFORATED PIPE						
8"		SEE STD. DRWG. NO. 11.51 FOR PERMISSIBLE ALTERNATE				1000
NON-PERFORATED PIPE						
8"		Same ALTERNATE AS PERFORATED PIPE				120

- (1) Perforated Pipe shall be constructed in accordance to Standard Drawings Nos. 11.51, 11.52, 11.53, 11.54 and 11.55 current editions where and as directed by the Engineer on construction.
- (2) Bituminous Coated Corrugated Aluminum Alloy.

CULVERT SUMMARY

SHEET NO.	STATION	SIZE	SKEN	INLET	OUTLET	DRAWING NUMBER	FILL ON CULVERT	CLASS "A" CONCRETE	STEEL REINFORCEMENT	EXCAVATION	CHANNEL CHANGE			
				BLEV	LENGTH					COMMON	SOLID ROCK			
UNIT TO BID ON														
5	G8+50.00 M.L.	6'X5'X291' RC BOX CULVERT	15" RT.	672.0	117.5	607.2	173.5	174.21	55.8	314.8	877.85	130	20	SEE ROAD PLANS
TOTAL PROJECT														
										314.8	877.85	130	20	

CULVERT QUANTITIES ARE NOT INCLUDED IN GENERAL SUMMARY

BOONE CO. 5477(5)
Ky 20-1275 Connector Rd.
FISCAL YEAR NO. 70 12 63

2E

NOTES

Boone Co S 477 (5)

70 46 F

CURVES

All curves to be banked and widened according to standards or as directed. Super-elevation for special cases to be authorized by the District Engineer.

All curves to be super-elevated according to standards.

DRAINAGE STRUCTURES

The Contractor is not to order material for drainage structures until the quantities have been checked by the Engineer.

The location of inlet structures shown on the plans is approximate and the structures are to be shifted to the low point as directed to obtain proper drainage.

WARNING SIGNS

Drawings for standard warning signs for the protection of traffic will be furnished by the District Engineer.

PAVED DITCHES

Paved ditches shall be constructed where needed and to such widths as may be approved by the Engineer and the locations and widths of ditches indicated on the plans are for the purpose of estimating quantities only. The Contractor is not to order materials for paved ditches until authorized to do so by the Engineer.

SLOPES

Slopes shall be rounded in conformity with Std Draw No 1002 current edition.

PIPE

All culvert pipe shall be installed as indicated on Standard Drawings Nos 1122 - 1123 - 1123 and 1124 current edition as applicable.

When a bituminous mastic joint sealer is used to seal the joints in pipe culverts (Art 415.3 G - 4.5) the jointing surface shall be prepared with a primer recommended by the manufacturer of the jointing material or with an approved emulsified asphalt.

Leak holes when provided in culvert pipe shall be closed after the pipe is in place by coating the areas around the holes on the outside of the pipe with a bituminous mastic, placing a piece of sheet metal over the mastic and coating the entire area with an additional coat of the mastic. The area covered by each coat of the mastic shall be in excess of that of the metal sheet. The metal sheet shall be of such dimensions as will provide for a lap of not less than 2 inches beyond the perimeter of the hole.

Payment for pipe bends, wyes, tees and other shapes will be made at the unit price bid per linear foot for pipe. The size of the pipe will be considered that of the largest diameter involved in each joint. Measurement will be along the center axis of the pipe to end of the main member and from end of branch member to the outside wall of the main member.

Where pipe is shown with less than 2 cover the Engineer on construction shall investigate the feasibility of lowering pipe to obtain a minimum of 2 of cover over pipe below subgrade elevation.

ROADWAY EXCAVATION - CLASSIFICATION

Without regard to the materials encountered, all roadway and drainage excavation shall be unclassified and shall be designated as "Roadway Excavation" in plans to distinctly understand that any reference to rock, earth, or any other material on the plans or cross-sections, whether in numbers, words, letters or lines, is solely for the Department's information and is not to be taken as indication of classified excavation or the quantity of either rock, earth or any other material involved. The bidder must draw his own conclusion as to the conditions to be encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the materials encountered are not in accord with the Classification shown.

WASTE

Waste material in excess of that wasted within the right-of-way limits shall be disposed of off the right-of-way at sites acquired by the Contractor and approved by the Engineer at no additional cost to the Department.

UNANTICIPATED WASTE

Unanticipated waste material resulting from slides only shall either be wasted within the right-of-way limits at sites designated by the Engineer or hauled off the right-of-way at sites acquired by the Department.

CLEARING

No payment will be allowed for clearing on this project except for Unanticipated Waste resulting from slides only.

WATER

Estimated 10 Gallons of Water per Cubic Yard of Common excavation or Common Borrow excavation used in embankment.

WING OR TAIL DITCH

The Contractor shall construct the normal ditch in such a way that the water will turn coming out of the cut and be directed away from the fill. In order to avoid future fill damage it is necessary to cut into original ground for a given distance below and beyond the fill slope. The location of this ditch shall be determined by the Engineer; however, it shall be as far away from the fill as practicable.

EXISTING UTILITIES

The Contractor shall use all possible care in excavating on this project so as not to disturb any existing utilities, whether shown on the plans or not shown on the plans. Elevations and locations of existing utilities are approximate only. Any utilities disturbed or damaged by the Contractor through carelessness during his construction operations shall be replaced by the Contractor at no extra cost to the Department.

SELECTED SOILS

Low-bearing soils, identified herein as Soils Nos. 2 and 4, shall not be used in the top 12 inches of subgrade in all sections, and when encountered within the top 12 inches of subgrade in all sections shall be removed and replaced with Selected Soils having a C.B.R. value of 4.0 or greater, identified herein as Soils Nos. 1 and 3.

The Contractor shall conduct grading operations in such a manner as to allow ample quantities of "Selected Soils" to be held in reserve or stockpiled as necessary to provide the required topping for fills and subgrade replacement in cuts. No direct payment will be allowed for such necessary manipulation as double-handling or hauling between balance points.

FROM STA 28150 TO STA 47180
THE CONTROL OF ACCESS ON THIS
PROJECT SHALL BE BY PERMIT

FROM STA 47180 TO STA 85150 THIS
PROJECT IS A PARTIALLY CONTROLLED
ACCESS HIGHWAY ACCESS SHALL BE PROVIDED
ONLY WHERE SPECIFICALLY INDICATED ON PLANS

2 F

Right-of-way fence shall be installed 2' inside the right-of-way line and for along lines other than the right-of-way line where indicated on the plans by use of the following symbol: 

Right-of-way markers shall be installed along right-of-way lines between such limits as may be indicated by use of the following symbol: 

Right-of-way markers will not be required where Right-of-way fence is used.

BORROW

In addition to the requirements set up by the Special Notes for Borrow, attached to the proposal, borrow material shall weigh not less than 26 pounds per cubic foot dry weight Standard Proctor Density and shall be capable of being compacted to the specified extra compaction density (Art 101.3 4-5). In addition, material that is to be used in the top 12" of subgrade shall have a C.B.R. of 4.0 or greater.

Borrow material shall be obtained off the right-of-way from sites acquired by the Contractor and approved by the Engineer at no expense to the Department. All such material shall weigh not less than 26 pounds per cubic foot dry weight Standard Proctor Density, and shall be capable of being compacted to the specified extra compaction density (Art 101.3 4-5). In addition, material that is to be used in the top 12" of subgrade shall have a C.B.R. of 4.0 or greater.

BUILDING REMOVAL

The following list of improvements are to be removed by road contractor, incidental to clearing and grubbing:

Parcel Number

1

5

Improvements

1 Three Car Garage and 1 Shed

1 Story Frame Residence

All other buildings within the right-of-way limits on this project are to be removed by others provided, however, that any remaining foundations or debris shall be removed by the Contractor. Payment for this work shall be included in the unit price bid per acre for Clearing and Grubbing.

UTILITIES

The following utility companies have facilities to be relocated and/or adjusted on subject project:

Union Light, Heat and Power Company

Cincinnati and Suburban Bell Telephone Company

The Department has executed agreements with these companies and both companies have been authorized to proceed with their work. All work is to be completed by February 15, 1970.

NOTES

Boone Co 3 477 (5)

FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1970		

26

SURFACING NOTES

Blending of coarse and/or fine aggregate will be permitted provided a separate cold feed bin and feeder is employed for each size and type of aggregate. Blending in stockpile will not be permitted.

Asphalt Cement PAC-5 shall be used in all Class I Mixtures.

Crushed sand, natural sand, conglomeration sand, or blends thereof, in combination with mineral filler (when required) shall be used in the Bituminous Concrete Class I Surface Course for shoulders.

The bituminous surfacing shall not be completed on the cross roads until they have ceased to be used as haul roads for the main line surfacing quantities.

Tack Coat shall be used if so directed by the Engineer.

Bituminous Tack Coat SS-1h shall be diluted with an equal quantity of water (Section 603 of the Standard Specifications) prior to application. The rate of application shall be approximately 0.10 gal per sq yd. The cost of the water and the cost of application shall be incidental to the cost of Bituminous Tack Coat (SS-1h).

SIGNS

The contract for signs may be awarded prior to completion of the surfacing contract and the surfacing Contractor will be required to cooperate with the signs Contractor in every way.

FINAL DRESSING

The unit price bid per 100' Sta. for Final Dressing within the limits of the project shall include payment in full for Final Dressing of approaches.

GUARD RAIL

Steel Beam Guard Rail locations shown on the plans are approximate and may be changed if so directed by the Engineer on Construction.

Steel Beam Guard Rail shall be installed where directed on construction.

The Standard Specifications for Road and Bridge Construction, edition of 1965 with the following Special Specifications Revisions, Provisions, and Notes will apply on this project:

Special Provision No. 7A for Construction Identification Signs on Federal Aid Highway Projects
Special Provision No. 15 Relating to Bid Proposal Guaranty and Contract Bonds

Special Provision No. 29 for Field Laboratory Facilities

Special Provision No. 30B for Membrane Curing of Concrete Structures

Special Provision No. 42 for Mixing Dense Graded Aggregate

Special Provision No. 56 for Nuclear Gages

Special Provision No. 57B for Seeding and Protection

Special Provision No. 61A for Sign and Lintrestone Post

Special Provision No. 75 Operation of Construction Vehicles over Pavement and Structures

Special Provision No. 76 Corrugated Metal Pipe, Pipe Arches and Underdrains

Special Provision No. 78 Manufactured (Crushed) Limestone Sand

Special Provision No. 46B Water Pollution Controls

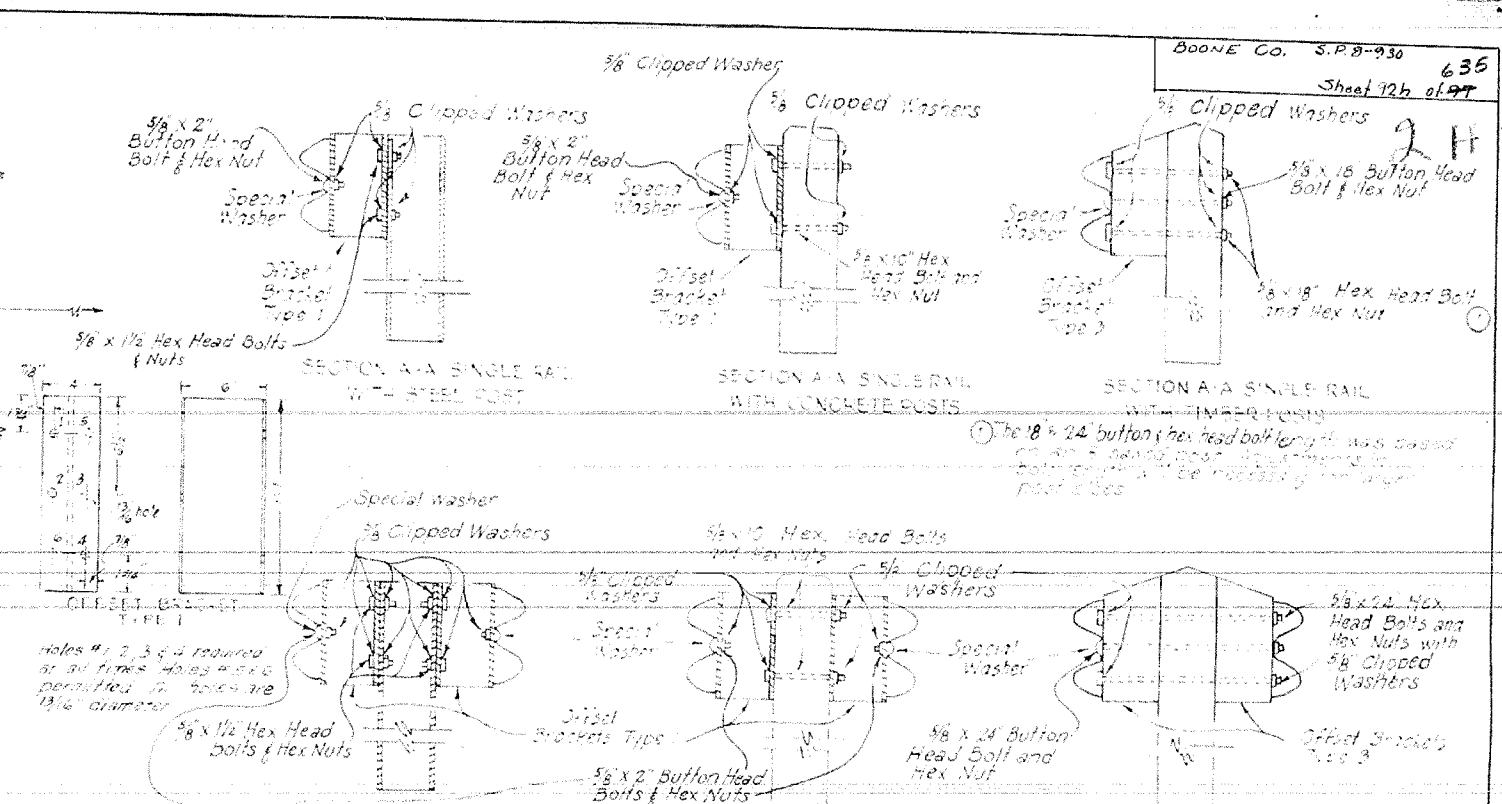
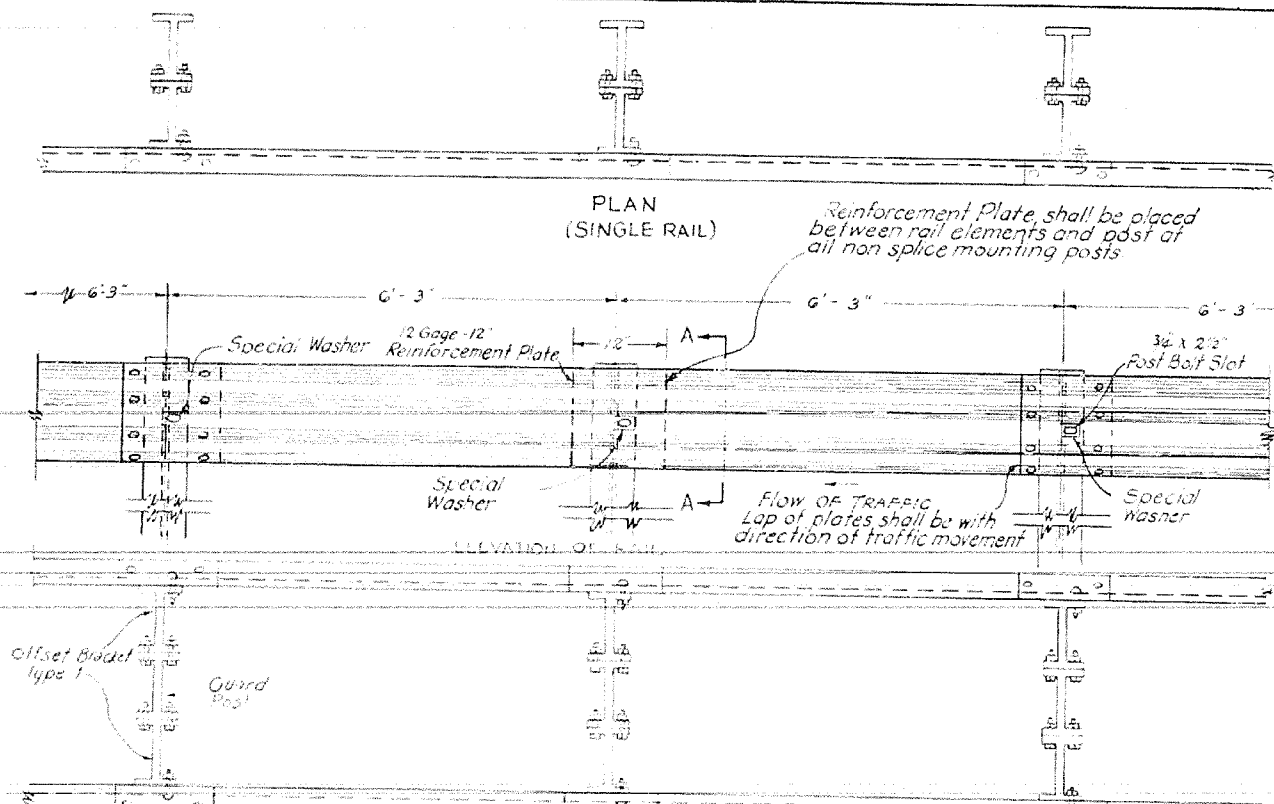
PR 1273 (Rev. 10-64) Required Contract Provisions

Chronological Listing of Revisions to the 1965 Edition of the Standard Specifications

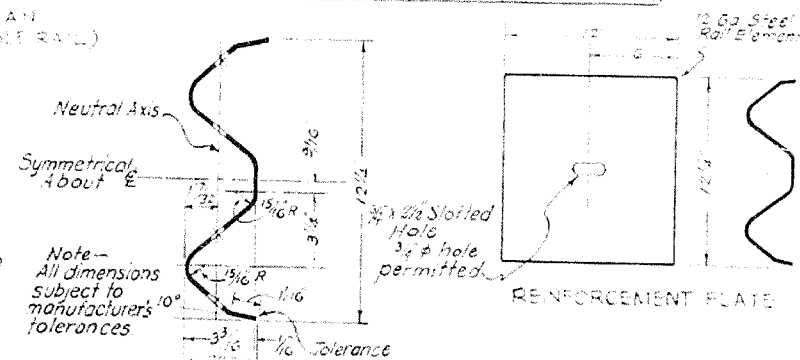
Erosion Control Notes

TRAFFIC

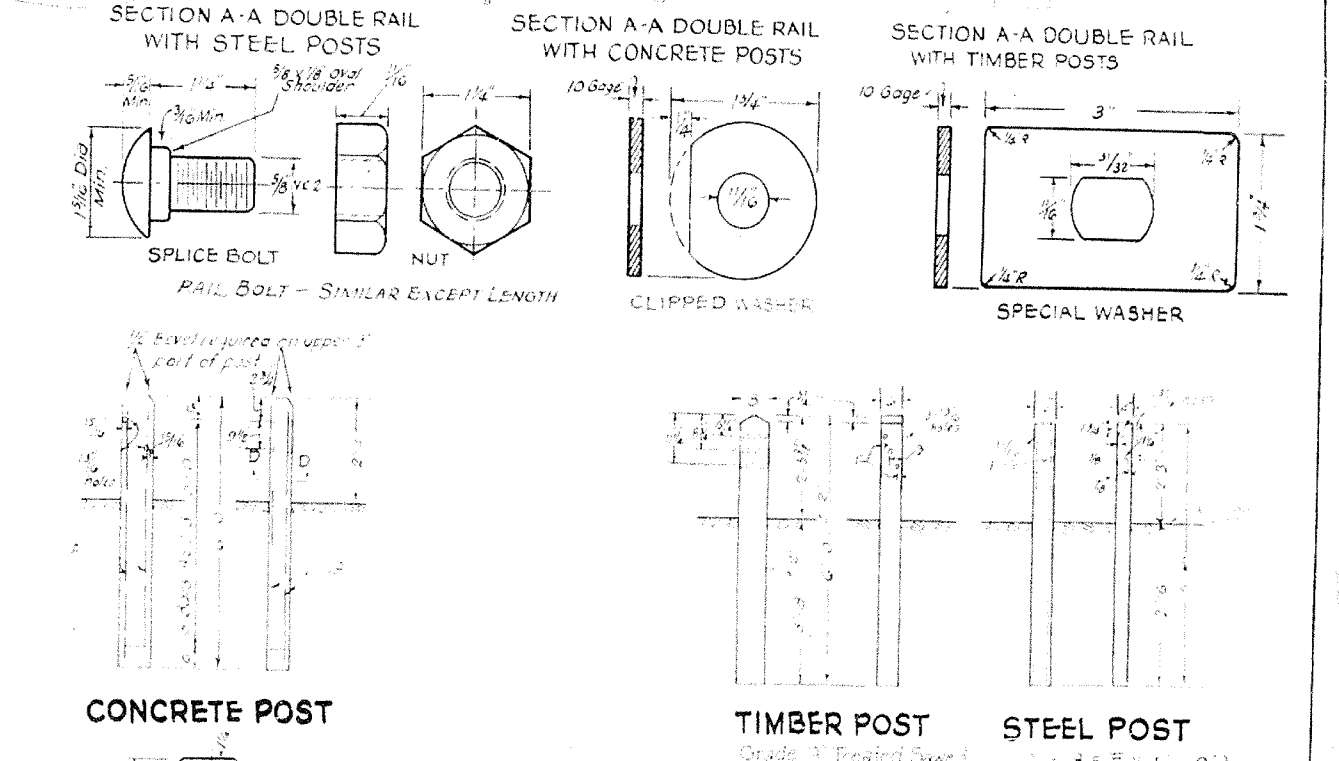
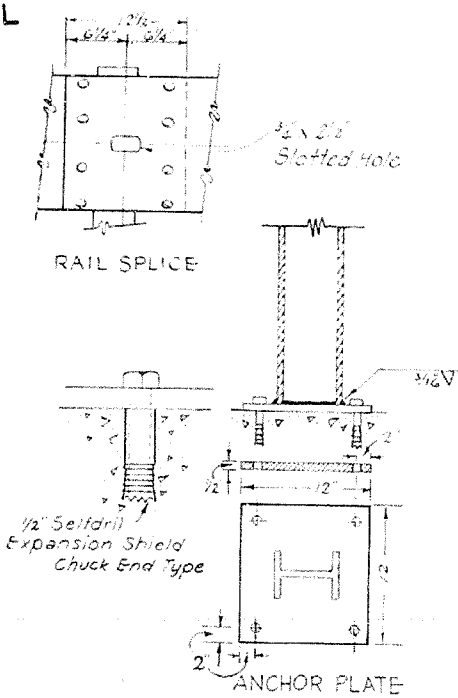
All traffic shall be maintained from the beginning of the project (approximate Station 12+00) to approximate Sta 43+00 where a temporary connection with the existing road can be made. When the approach at Sta 47+50 is completed, traffic can be routed over the existing road via the approach and the temporary connection at Sta 43+00 can be obliterated. The existing old road is to be utilized until new construction, including the proposed approach left of Sta 66+50, is completed and opened to traffic. Upon completion of the new construction and approach at Sta 66+50, the existing road at Sta 66+25 can be closed and the high embankment section and remainder of new Ky 20 can be constructed.



GENERAL NOTES
 Reinforcement Plates shall be placed between rail elements and post at all non-splice mounting posts.
 The rail element shall be shop curved when the placement of guard rail is on a curve having a radius of 150 feet or less. No additional payment shall be allowed for this work.
 The same type of rail element, post, fastenings and accessories shall be used throughout the work.
 All specification references are to the current edition of the Kentucky Department of Highways' Standard Specifications.
 Anchor plates shall be used when it is necessary to shorten a post as the result of a near or at grade culvert, box inlet, or other rigid obstructions.
MATERIAL SPECIFICATIONS
RAIL: The guard rail shall meet the requirements of Article 645.3.0 and shall be galvanized in accordance with Article 645.4.0.
BOLTS, NUTS, AND WASHERS: Bolts, nuts and washers shall be to the dimensions shown and galvanized in accordance with Article 645.4.0.
POSTS: **CONCRETE POST** shall meet the requirements of Article 653.3.0 and shall be cured in accordance with Article 404.3.3.0.
STEEL POST shall be galvanized and meet the requirements of Article 653.4.0.
TIMBER POST Sawn treated posts conforming to Article 653.3.2 may be installed with guardrail. Painting will not be required for treated posts.



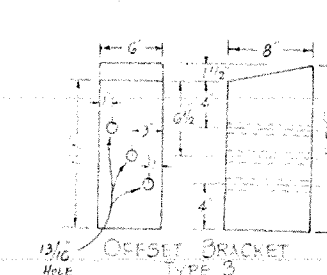
ANCHOR PLATE: Anchor plates shall be made of the same material as the post and shall be shop welded and galvanized after fabrication with same galvanizing requirements as the post.
BID ITEMS
 Steel Beam Guard Rail Type 1 shall be 12 ga. single rail with 6'-3" post spacing - Unit: Linear Feet
 Steel Beam Guard Rail Type 2 shall be 10 ga. single rail with 12'-6" post spacing - Unit: Linear Feet
 Steel Beam Guard Rail Type 3 shall be 12 ga. double rail with 6'-3" post spacing - Unit: Linear Feet
 Steel Beam Guard Rail Type 4 shall be 10 ga. double rail with 12'-6" post spacing - Unit: Linear Feet
 Offset Bracket Type 3 shall meet the same requirements as noted above for Timber Post
 Offset Bracket Type 1 shall meet the same requirements as noted for the Steel Post



SECTION D-D

MARK	TYPE	NUMBER EACH POST	BAR SIZE	LENGTH FT	LENGTH IN	LOCATION
A1	Str	2	5	5	0	Vertical Bars
A2	T	5	2	2	1	Tie Bars

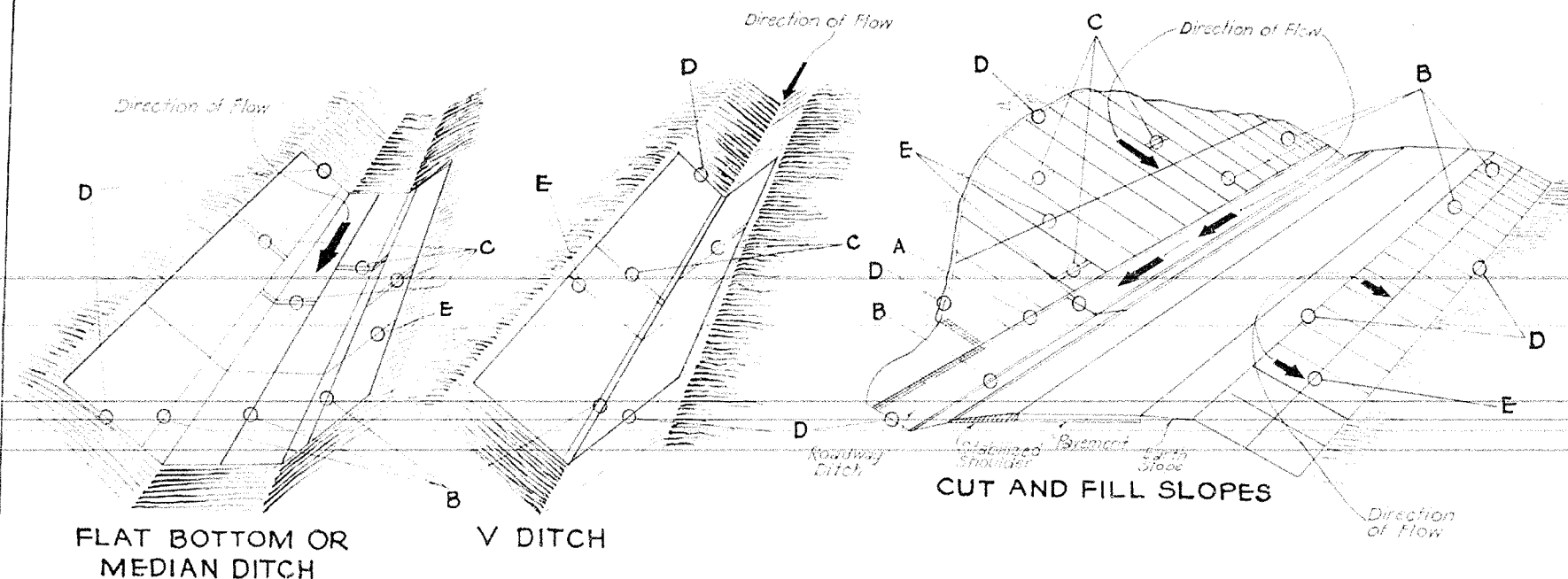
BILL OF REINFORCEMENT FOR CONCRETE POST



COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS

**STEEL BEAM
 GUARD RAIL**

CONTINUOUS INSTALLATION

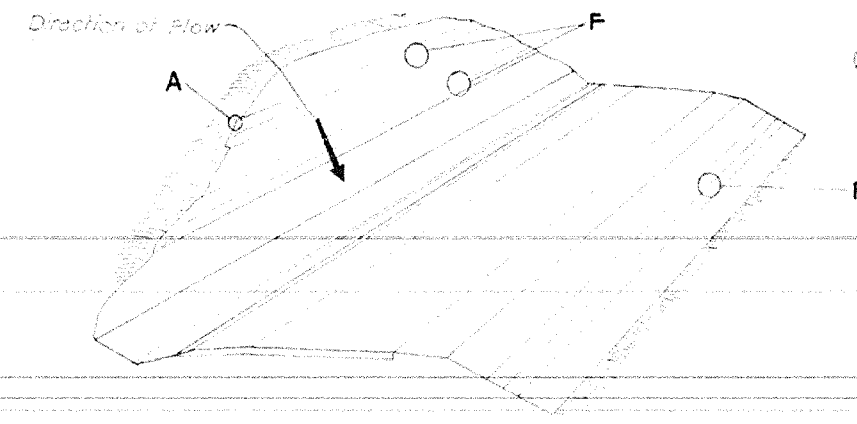


FLAT BOTTOM OR
MEDIAN DITCH

V DITCH

CUT AND FILL SLOPES

STRIP INSTALLATION (EROSION CHECK STRIP)



CUT AND FILL SLOPES

NOTES

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Method of measurement and basis of payment shall be in accordance with Special Provisions or Standard Specifications, as applicable.

MATERIAL REQUIREMENTS

Matting shall be an open plain weave of unbleached jute yarn. The yarn shall be loosely twisted, shall have an average twist of at least 1 1/2 turns per inch, and shall not vary more than one-half its normal diameter. The matting shall be furnished in rolled strips of approximately 15 yards in length, 48" in width, which shows 78 warp ends per width and 41 weft ends per yard, and shall weigh and average of 1.2 pounds per yard. A tolerance of $\pm 5\%$ shall be permitted for the width, weave and weight.

Staples shall be U-shaped and made from steel wire of No. 8, 9, 10, or 11 gage as needed for installation conditions. The staples shall have a minimum width of 1" and a minimum length of 6". All staples shall be driven flush with the soil surface.

CONSTRUCTION REQUIREMENTS

Application

Matting shall be installed in the manner and at locations shown on the plans, in the proposal, or as directed by the Engineer, all in accordance with this Standard Drawing.

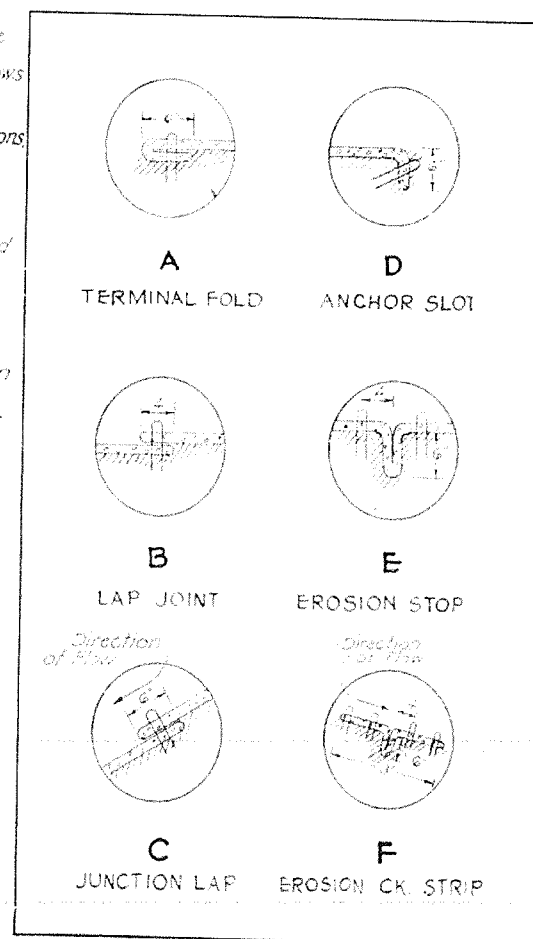
Continuous Installation (Ditch and Slope Protection)

- (1) Lay matting flat and parallel to the direction of the flow of water.
- (2) Bury ends of matting as detailed in accordance with installation and legend.
- (3) Overlap adjoining ends of strips a minimum of 3' with upgrade end on top (junction lap). Stagger junction laps a minimum of 1'.
- (4) Install erosion stops at 40-50 intervals. Fold matting into a 6" deep trench constructed at right angles to the water flow and tamp soil firmly against fold. Staple along lines 4" on each side and parallel to the erosion stop.
- (5) Space staples a maximum of 3' apart in rows along each edge and in the middle of the matting. Space staples in middle row alternately with those at the edge. Double the number of staples along the overlapping edges of paralleling strips.
- (6) Space staples 10' apart along and paralleling anchor slots, erosion stops and terminal folds.

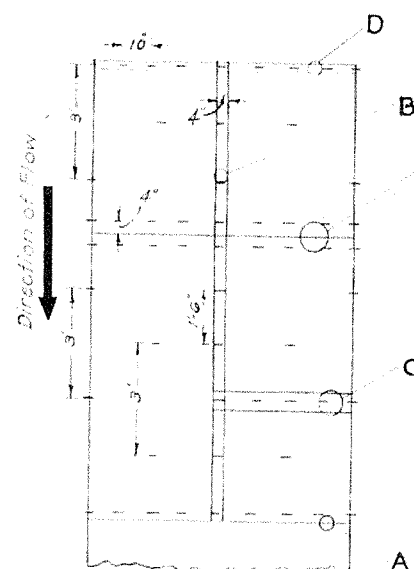
Strip Installation (Slope Protection) (Erosion Check Strip)

- (1) Install matting on slopes perpendicular to flow of water.
- (2) Fold the center of a single strip of matting into a 6" deep trench across the slope and tamp soil firmly against fold (Erosion Check Strip).
- (3) The number of strips to be placed on each slope shall be determined on the basis of 20 foot spacings on the slope. The required number of strips shall be evenly distributed on the slope, not to exceed 20' apart. On slopes under twenty feet in slope distance, one strip shall be centered on the slope.
- (4) Place staples 3' apart along the outside edge of the strip and 1'-6" apart along lines 4" on each side and parallel to the fold.

LEGEND

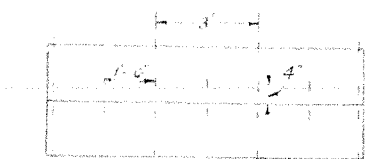


STAPLING DIAGRAM



CONTINUOUS INSTALLATION

APPROXIMATELY 250 STAPLES REQUIRED
PER 4' X 225' ROLL OF MATTING

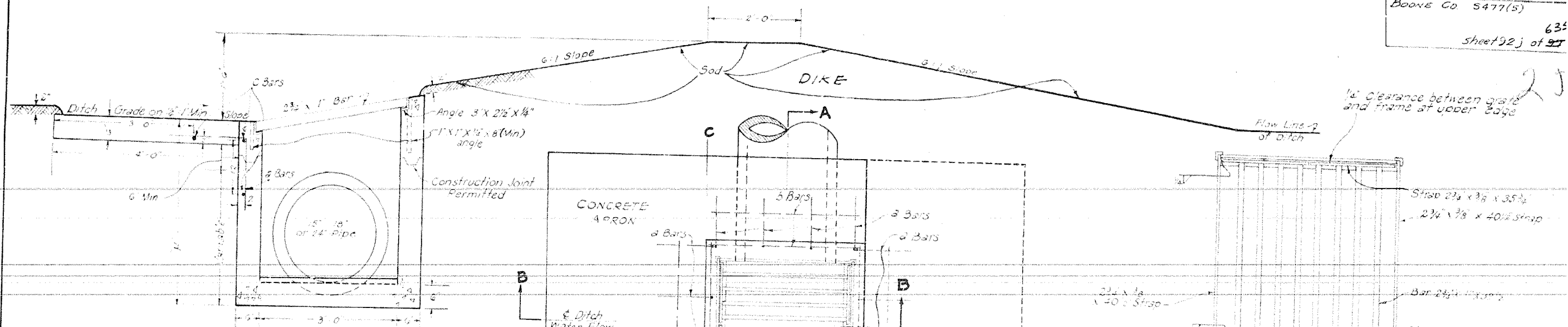


STRIP INSTALLATION

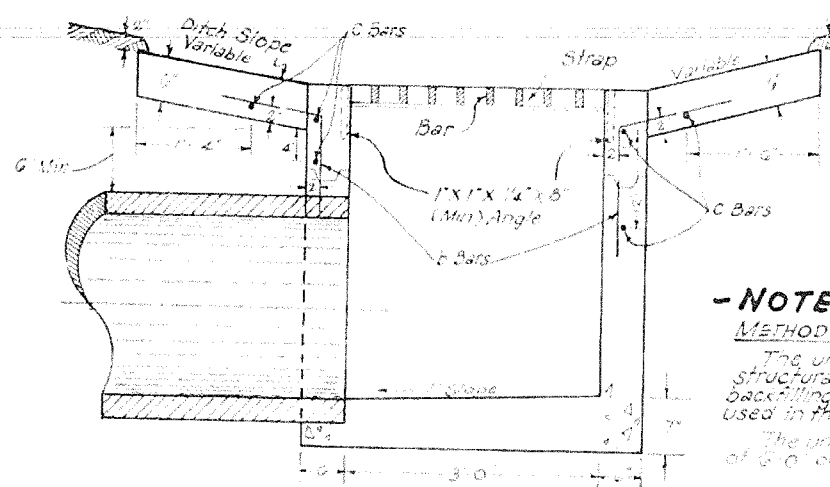
APPROXIMATELY 450 STAPLES REQUIRED
PER 4' X 225' ROLL

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

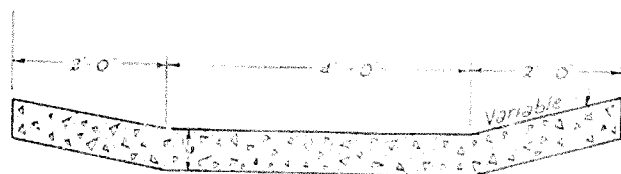
MATting



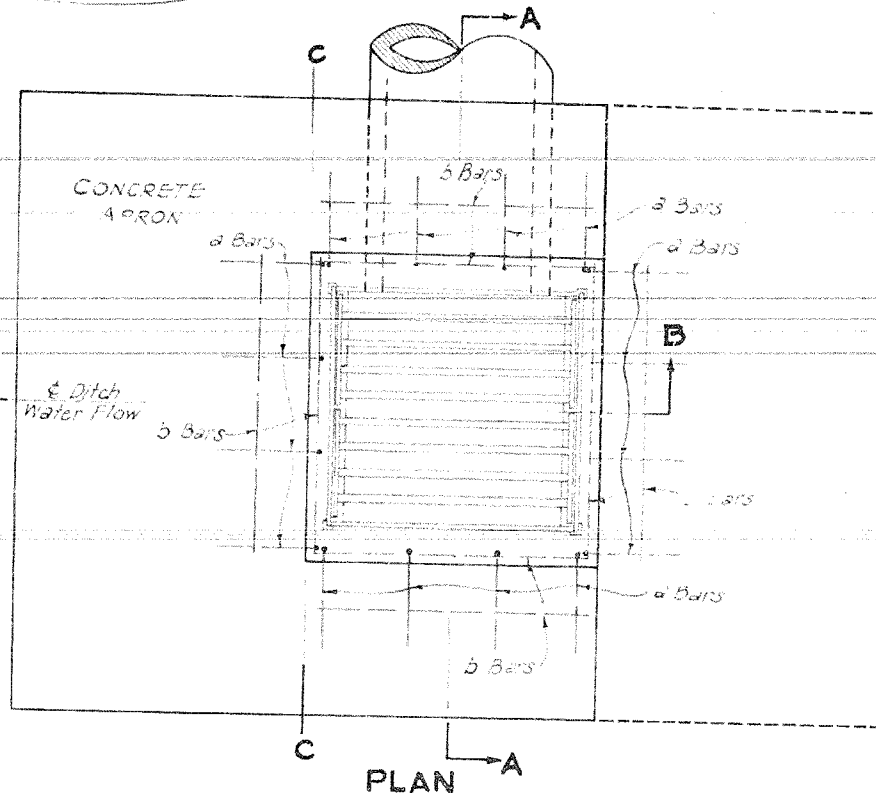
SECTION B-B



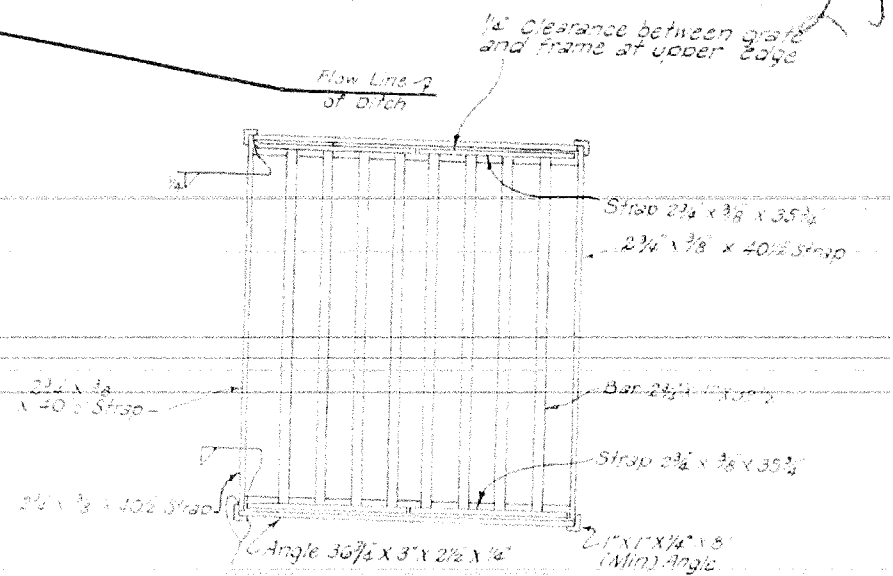
SECTION A-A



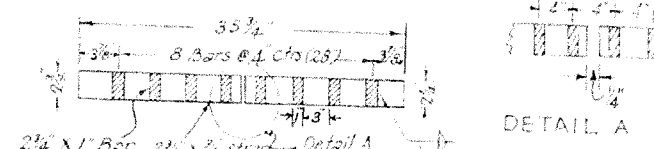
SECTION C-C



PLAN



PLAN OF GRATE & FRAME



SECTIONAL VIEW OF GRATE

-NOTES-

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

The unit price bid for each ditch box inlet Type I shall include all concrete, steel reinforcement, structural steel, frame and grate, concrete apron, excavation, construction of the down stream dike backfilling all excavated areas around the outside of the box with D & A. Base or other base aggregates used in the mainline pavement construction, and all other materials and labor necessary for its construction.

The unit price bid for each ditch box inlet Type I shall constitute payment for a box having an "H" dimension of 6'-0" or less.

Sodding shall be paid for at the contract unit price per square yard and is not included in the unit price bid for the Box Inlet.

Size and location of Pipe shall be as shown on the plans. Payment for all pipe within the limits of the structure shall be included in the unit price bid for the Box Inlet.

MATERIAL REQUIREMENTS AND QUANTITIES

- (1) All Concrete shall be Class A. 210 Cu Yd of Concrete is required for a box 3'-0" in height when a box is on a grade. Should a box be placed in a sag the amount of concrete required for a box 3'-0" in height is 270 Cu Yd. The rate of increase or decrease in height in either case shall be 0.25 Cu Yd per foot.
- (2) Structural Steel for the frame & grate shall have the following minimum physical properties and shall not be required to be painted (a) yield 36,000 p.s.i. minimum, (b) Tensile Strength 58,000 p.s.i. minimum, (c) Elongation 21% in 2 inch minimum. Notarized statements (3 copies) on the physical properties of the steel shall be furnished the Kentucky Department of Highways by the producer or supplier. Approximate weight of frame is 51 pounds and grate 122.5 pounds each or 233.5 pounds total. The grate shall be made in two equal parts using the overall dimensions as shown except that 1/4" distance shall be allowed between grate halves. (See Detail A).
- (3) Reinforcing Steel shall meet the requirements of Section 601 of the Standard Specifications. The amount of steel required for a box on a grade is 73 pounds. The amount of steel required for box in a sag is 93 pounds.

CONSTRUCTION REQUIREMENTS

When a box inlet is placed in a sag, omit the earth dike and longitudinal slope on the grate and provide concrete apron on each side of the box inlet.

Backfilling for the box inlet shall be completed prior to construction of the apron and shall be compacted in six (6) inch layer.

The box as detailed shall be used for a box having a "H" dimension of 6'-0" or less. When the dimension "H" is greater than 6'-0" a detail drawing shall be provided.

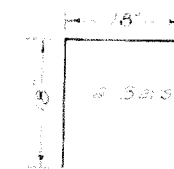
See Pipe Sheets for approximate height of each structure.

SPECIFICATIONS

The Department's current edition of the Standard Specifications for Road and Bridge Construction shall apply.

BILL OF REINFORCEMENT

MARK	NO.	SIZE	LENGTH	APPROXIMATE SPACING	TYPE
a	10016	#5#	3'-0"	12 C to C	Bent
b	9012		3'-9"	As Shown	S"



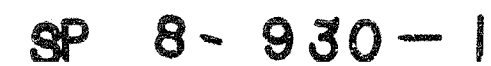
DETAIL OF BENT BAR

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS

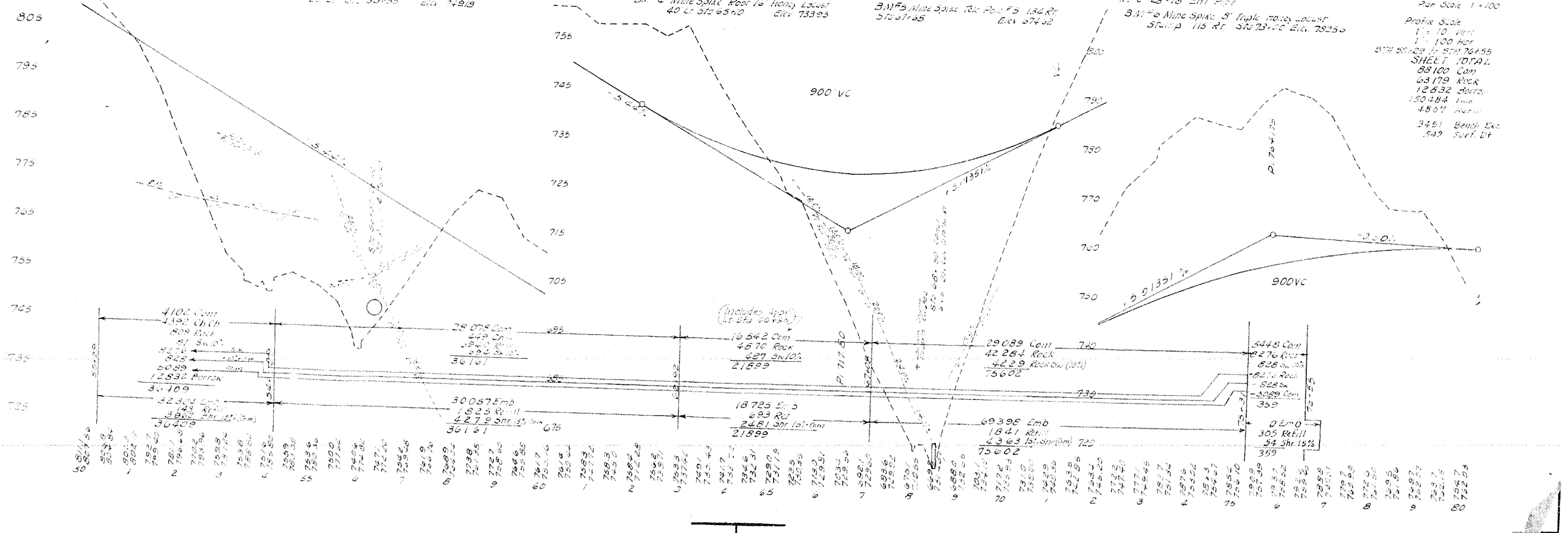
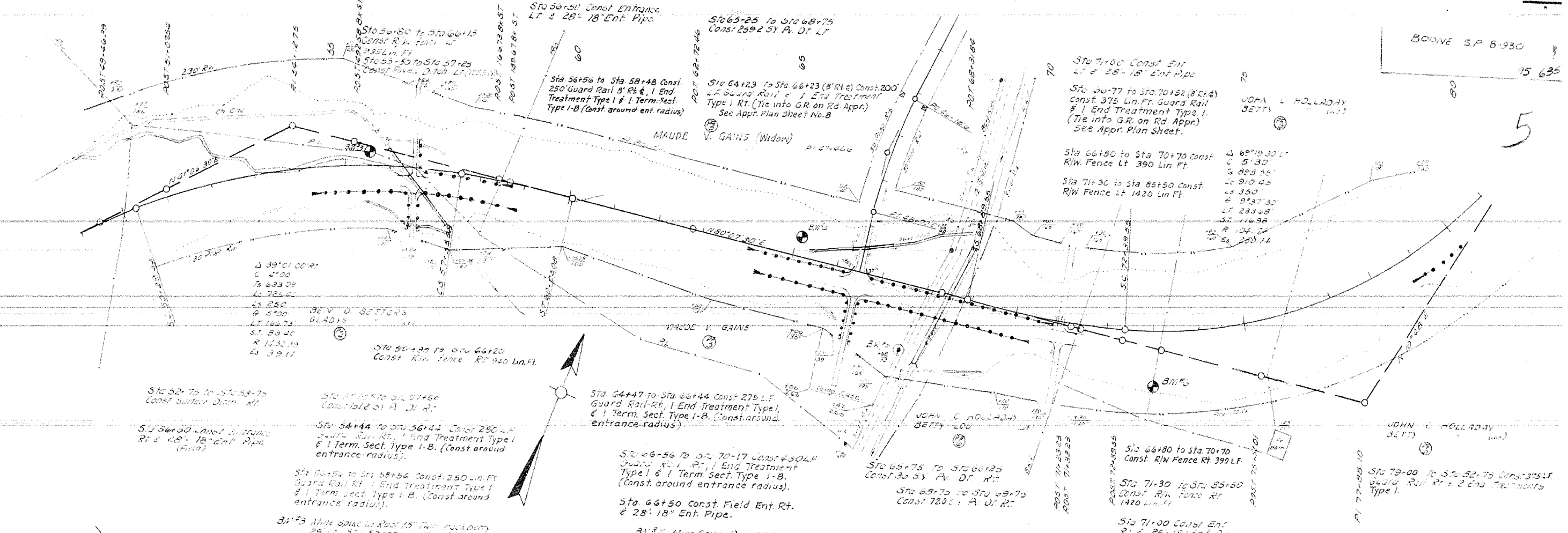
15"-18" & 24"
 DITCH BOX INLET
 TYPE I

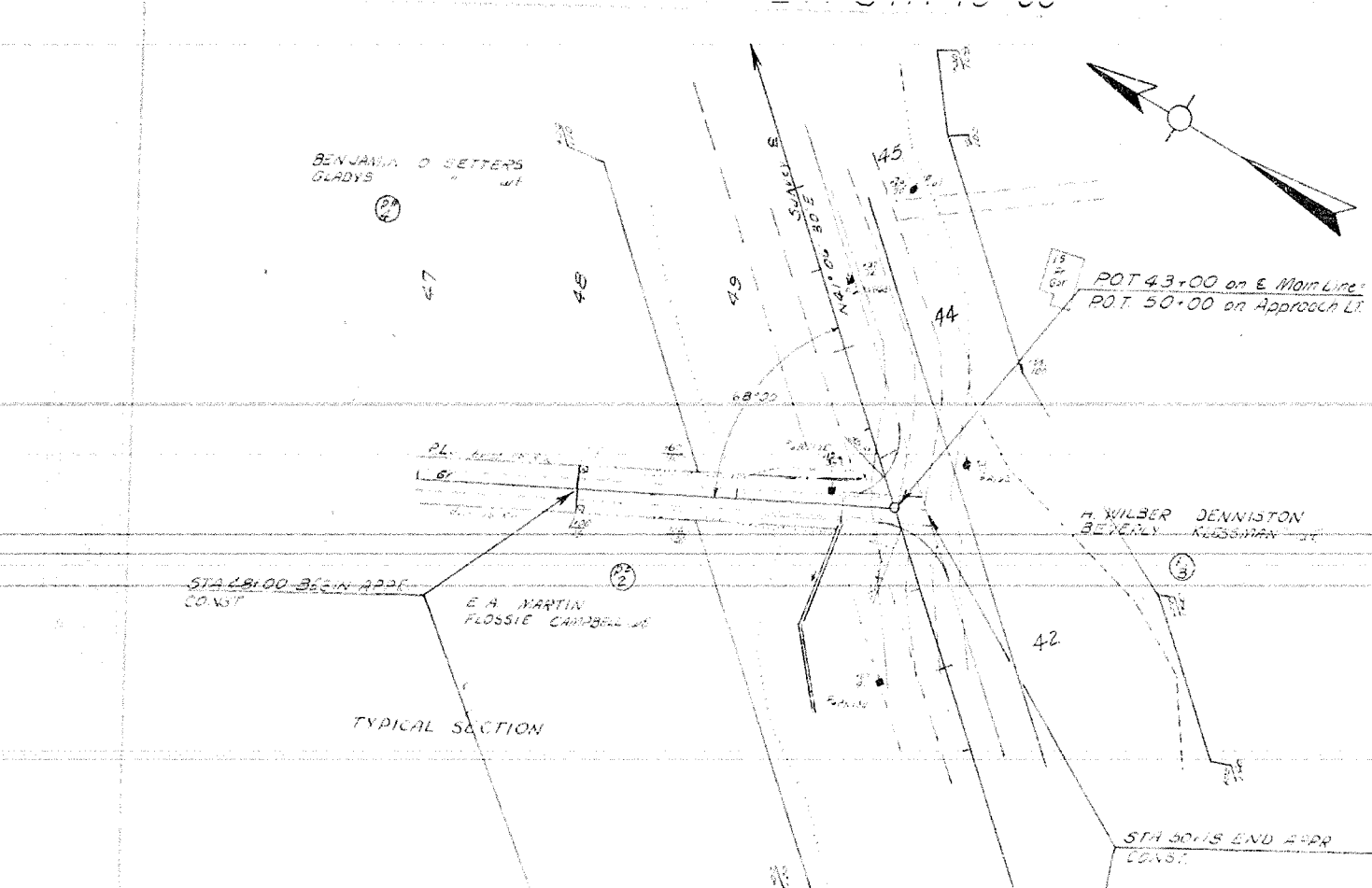
CONSOLIDATED TELEPHONE
FLORENCE KY.

SP 8 - 930 - 5

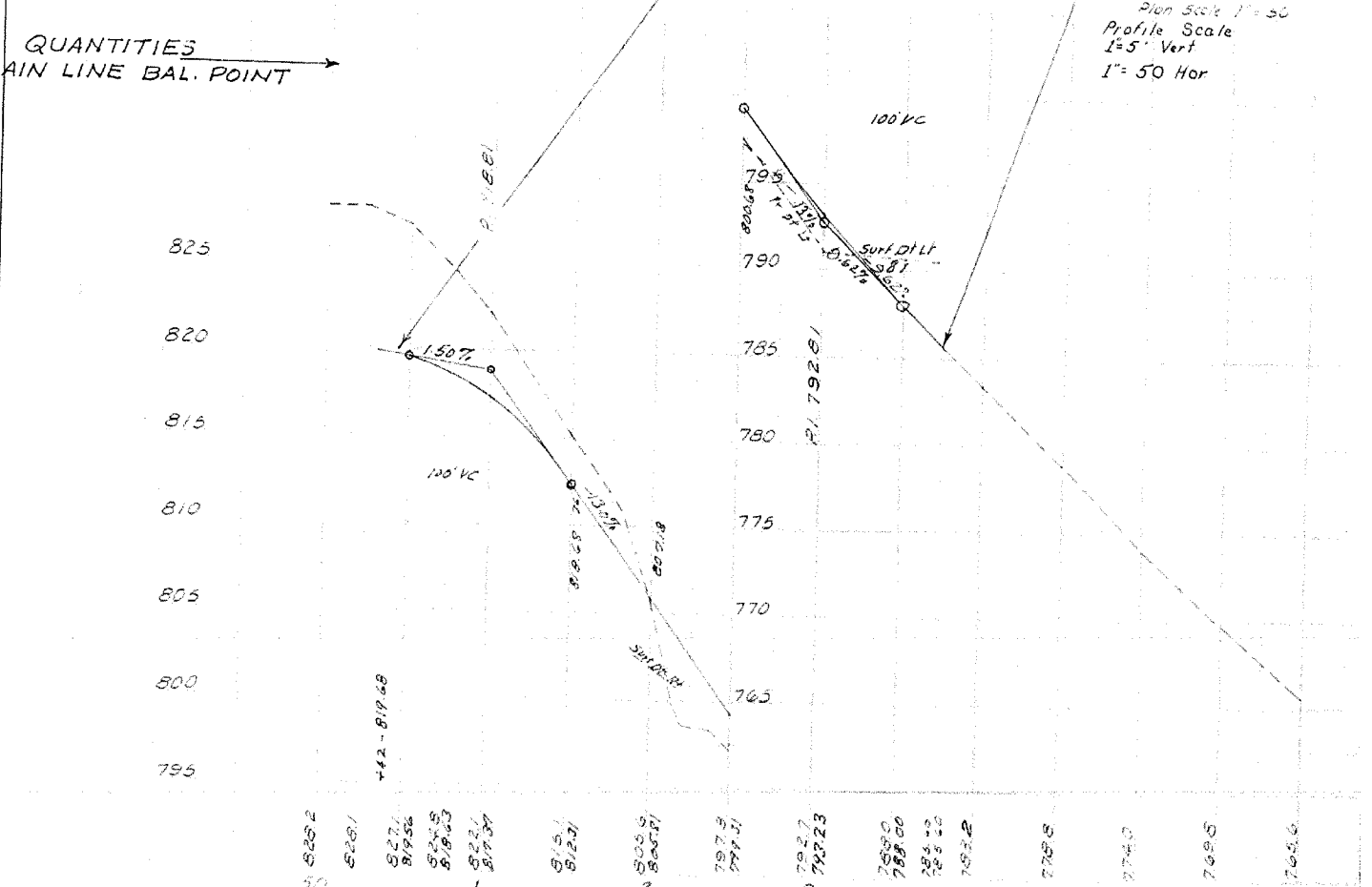
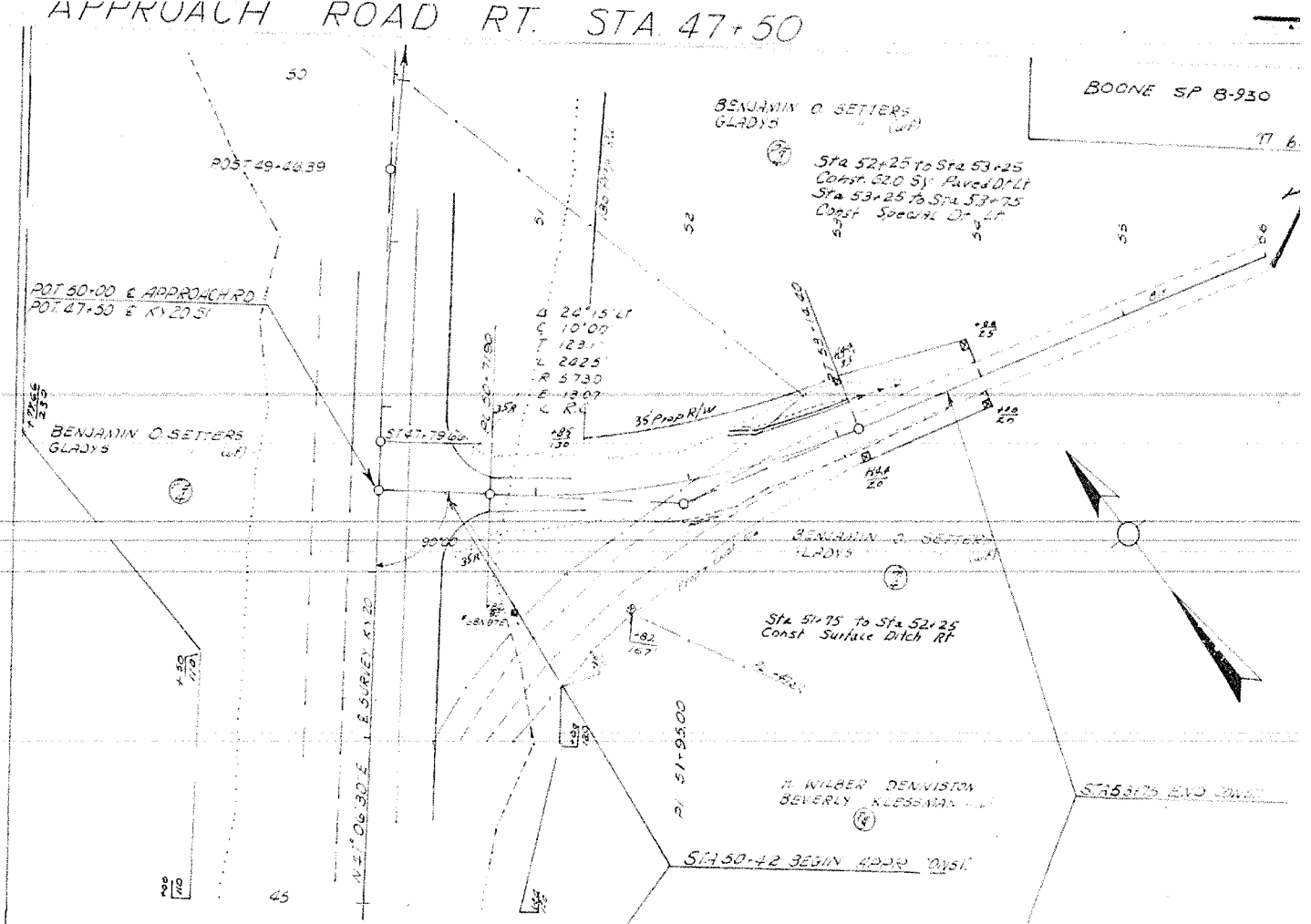
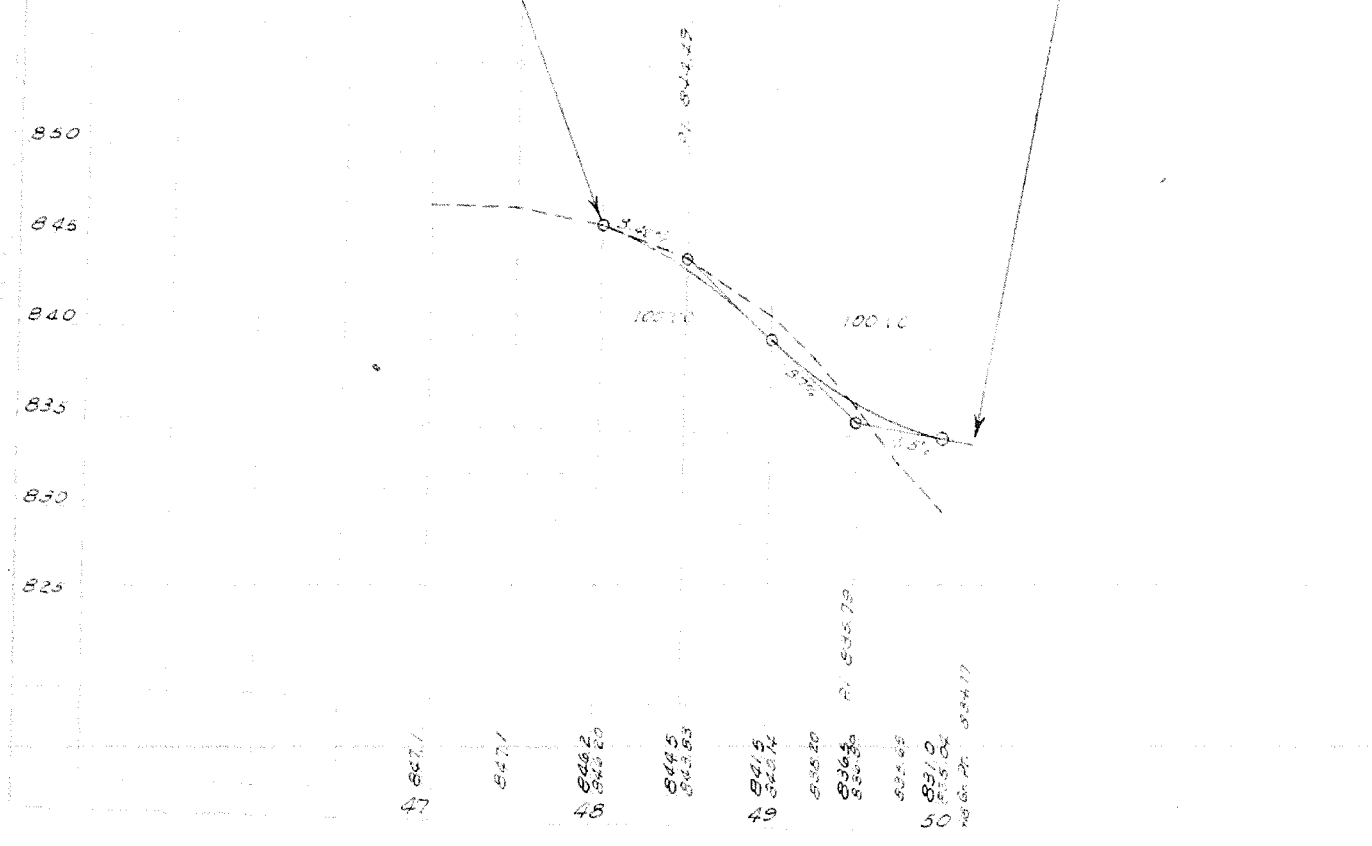


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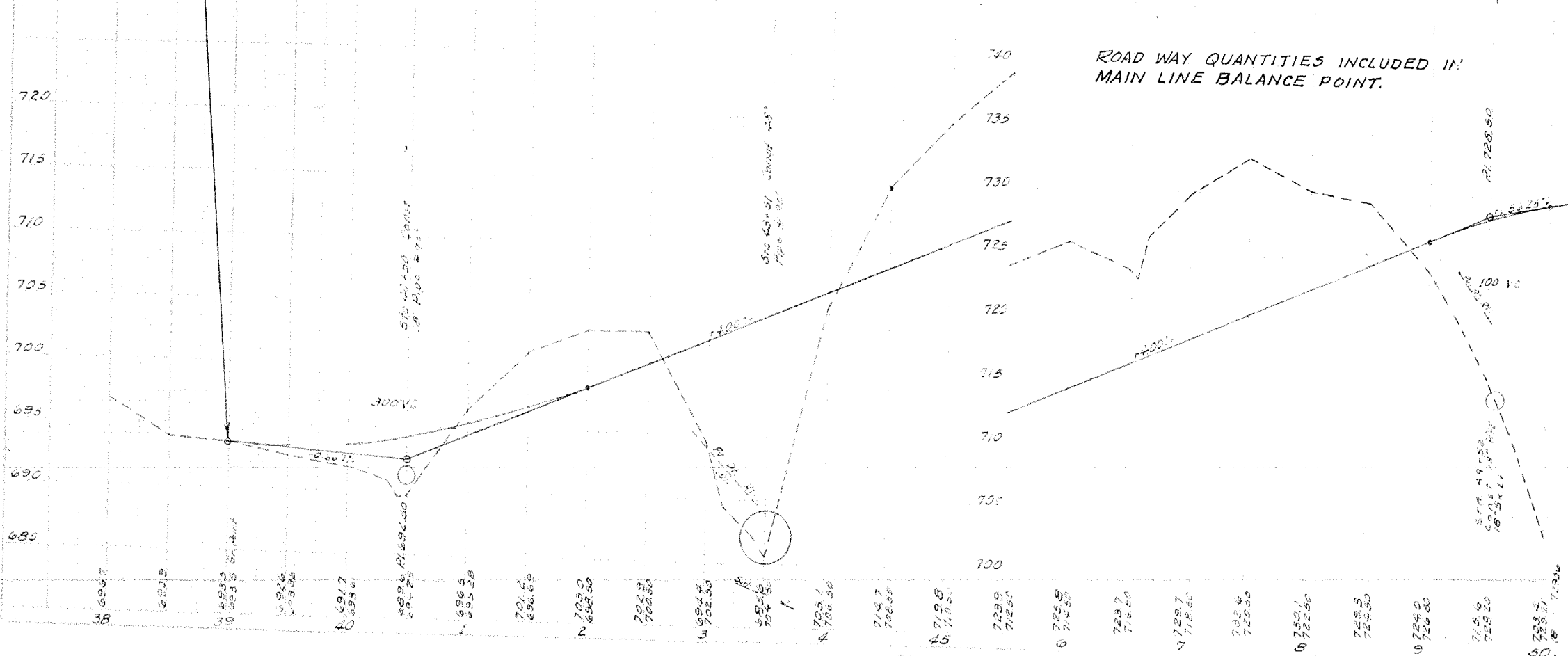
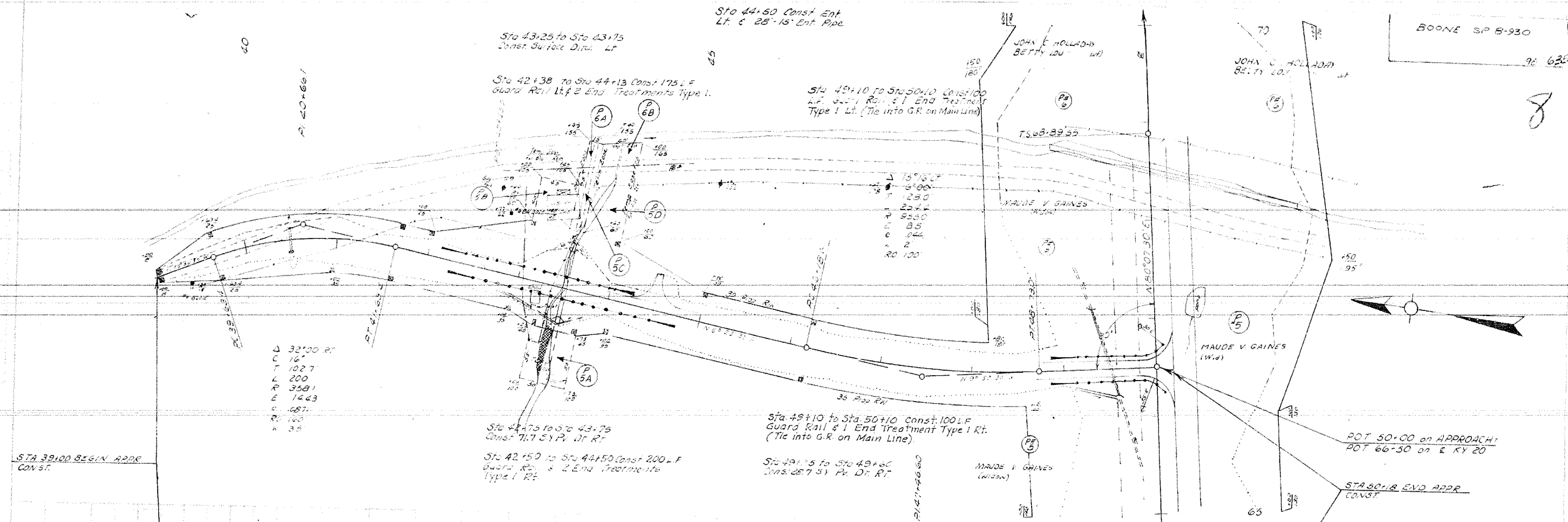




ROADWAY QUANTITIES
INCLUDE IN MAIN LINE BAL. POINT



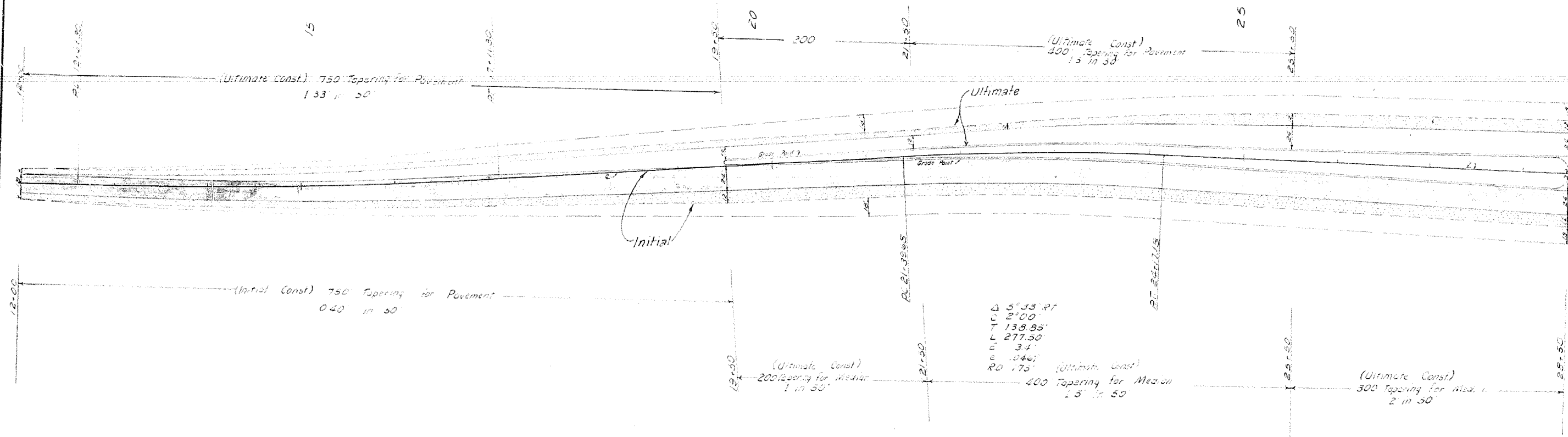
APPROACH ROAD LT. STA 66 + 50.00



9

NOTE: On Initial Construction --
 Transition 5" D.G.A. Shldr on left from 6' at Sta 12+00
 To 12' at Sta 12+50 ~ 12' shoulder to continue throughout
 as shown on Typical Section

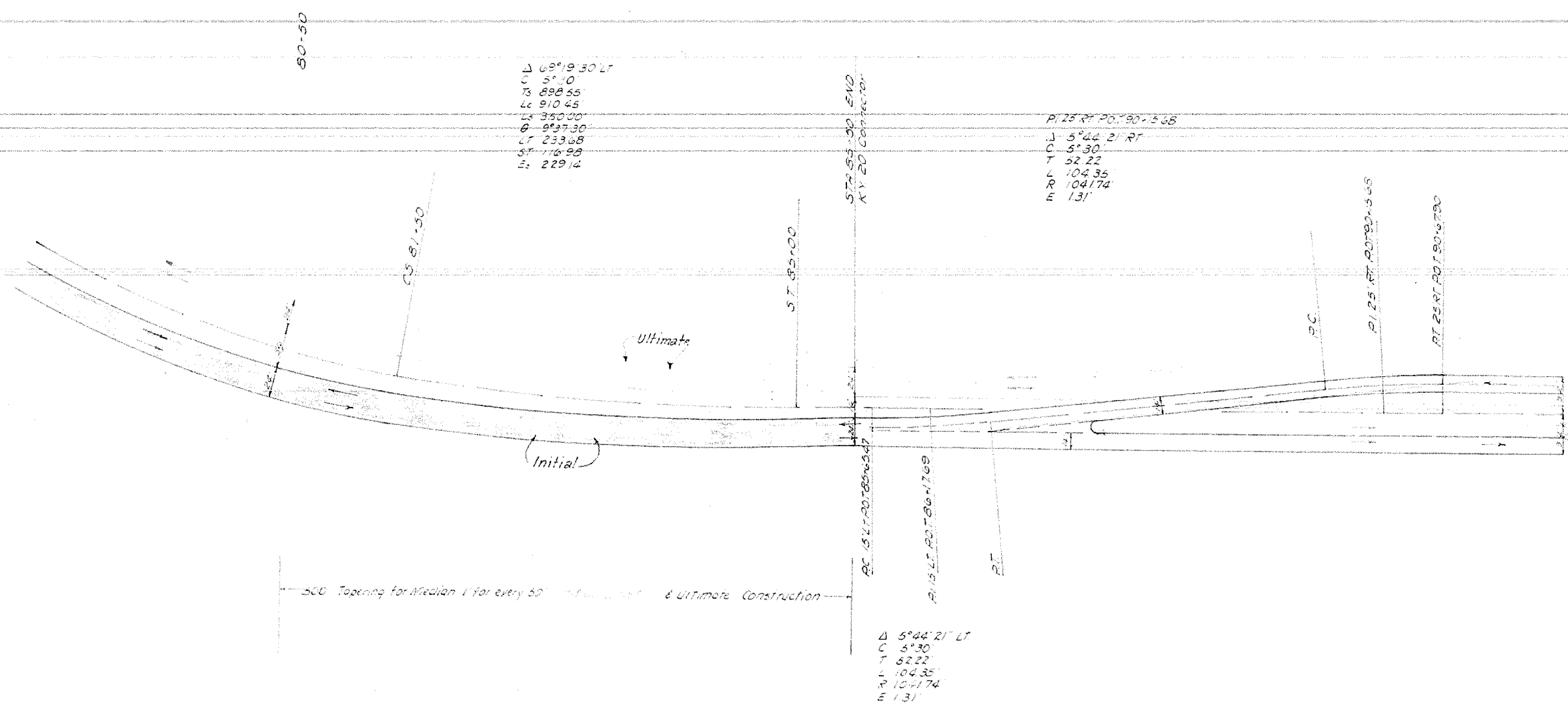
Δ 5°30'21"
 L 1120'
 T 225.18'
 E 250'
 E 4.4'
 E 1022'
 R 175'



KY 20 CONNECTOR
 ULTIMATE & INITIAL CONSTRUCTION

SCALE 1"=50'

10

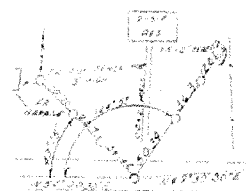


KY 20 CONNECTOR

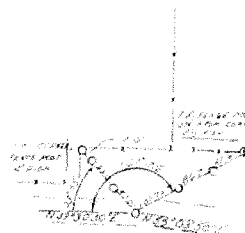
SCALE 1"=50'

BOONE CO. D.P. 8-930

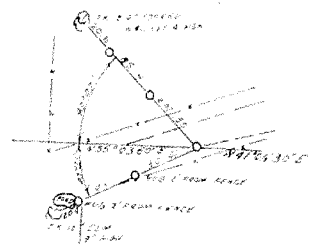
FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	101	635



RPI 14+86.40



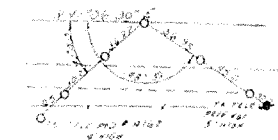
RPI 22+78.53 (Spike)



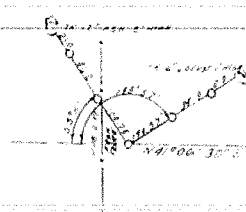
RPI 32+93.92 (Hub)



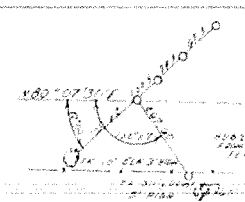
RTS 47+79.66 (Hub)



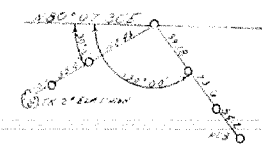
RPOT 43+62.77 (Hub)



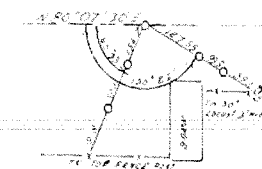
RPOST 51+07.5 (Hub)



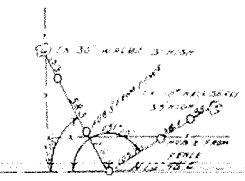
RPOST 139.67 B.K.S.T. (Hub)



RPOT 62+72.46 (Hub)



RPOST 75+51.01 (Hub)



RST 85+00.00 (Hub)

BENCH MARK SUMMARY

NO.	DESCRIPTION	LOCATION	ELEV.
1	MINE SPIKE POWER POLE	22' Lt. Sta. 33+40	834.88
2	MINE SPIKE POWER POLE	100' Rt. Sta. 43+60	836.03
3	MINE SPIKE ROOT 15" TWIN HACKBERRY	29' Lt. Sta. 55+55	749.18
4	MINE SPIKE ROOT 16" HONEY LOCUST	40' Lt. Sta. 65+10	733.93
5	MINE SPIKE TELE POLE #5134	Rt. Sta. 67+68 (turn hub) Ts 68+89	674.62
6	MINE SPIKE 8" TRIPLE HONEY LOCUST STUMP	115' Rt. Sta. 73+00	782.56
7	MINE SPIKE BASE 24" WILD CHERRY	75' RT Sta. 82+10	739.24
8	BOAT SPIKE IN SIDE OF 6" WILD CHERRY	472' Rt. Sta. 131+82 (1-2-3)	784.26

RIGHT OF WAY SUMMARY SHEET

12

PARCEL NO	NAME	TOTAL AREA OF TRACT		PERMANENT R.W. ACQUIRED		EASEMENTS		AREA SEVERED				EXCESS PURCHASED		PORTION REMAINING		REMARKS
		ACRES	SQ. FT.	ACRES	SQ. FT.	PERMANENT SQ. FT.	TEMPORARY SQ. FT.	LEFT		RIGHT		ACRES	SQ. FT.	ACRES	SQ. FT.	
								ACRES	SQ. FT.	ACRES	SQ. FT.					
1	NELLIE GRANT (WID.)	196.97	8,580,013	3.87	168,785		900	193.10						193.1	8,411,436	DB 110
2	E. A. MARTIN FLOSSIE CAMPBELL (WIF)	571.62	22,284,167	6.22	270,748			51.79		453.61				51.79	22,015,287	By Planimeter p 468
3	WILLIAM WARKKE	24.50	1,067,220	1.00	43,075					23.5				23.5	1,024,145	DB 25 P 271 DB 95 P 265 DB 67 P 61
4	BENJAMIN O SETTERS GLADYS (WIF)	35.50	1,546,380	7.27	316,650			7.64		20.59				20.59	1,425,730	DB 177 P 339
5	MAUDE V. GAINES (WIDOW)	224.0	9,757,440	10.77	469,354	1425	23140	211.39		1.84				213.23	9,546,086	DB 83 P 173
6	JOHN C. HOLLADAY BETTY LOU (WIF)	94.96	4,136,957	10.07	438,810			30.57		54.32				30.57	3,698,147	DB 64 P 20
7	WILLIAM H. MOORE MARY A (WIF)	55.00	2,405,800	1.99	86,675					53.01				53.01	2,319,125	DB 160 P 507
8	WILLIAM F. CHAPMAN JANE S (WIF)	45.00	1,960,200											45.00	1,960,200	DB 101 P 451 DB 150 P 538

Note: Permanent R.W. acquired - permanent use only
area severed - Total area of tract

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY

