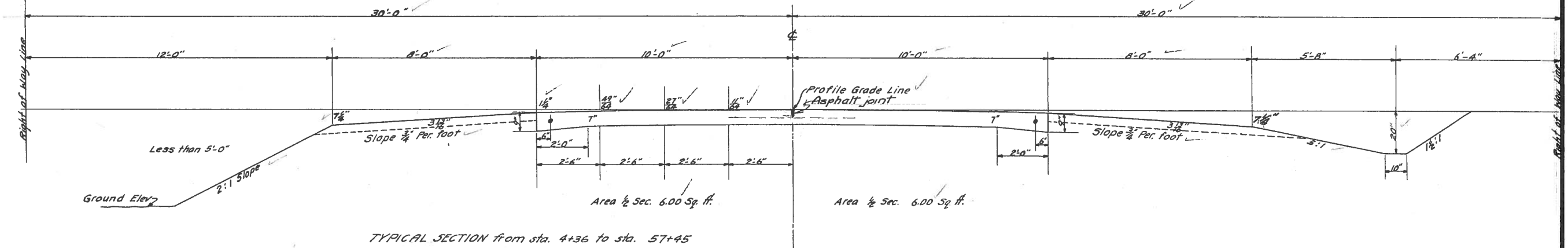


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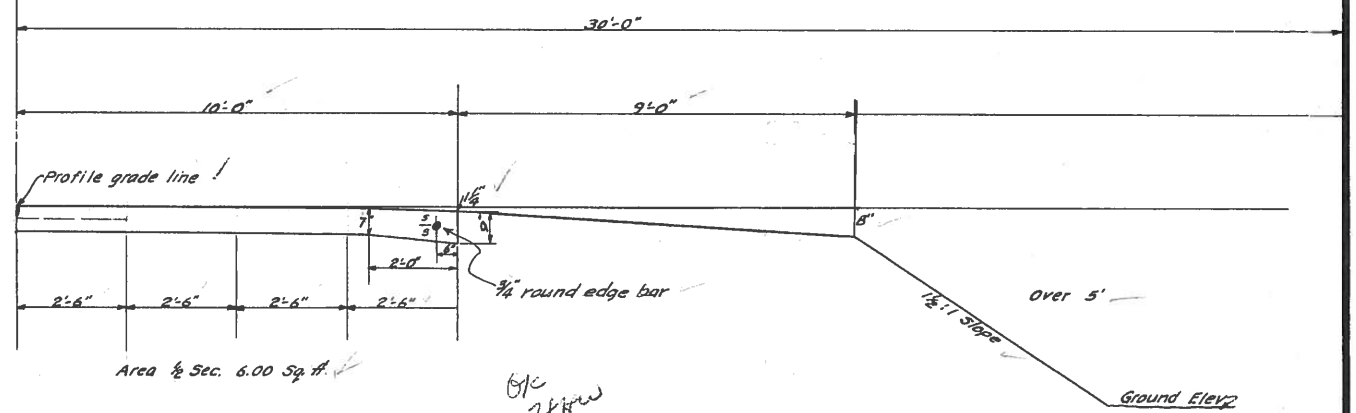
TYPE - C
ITEM T-7
CONSTRUCTION DRAWING NO 98 OR 100



TYPICAL SECTION from sta. 4+36 to sta. 57+45

Note: Pavement on all curves will be superelevated and on all curves where the degree of curvature is 5° or more will be widened.
Note: Rough grading will be completed to the cross-sections indicated by the broken line. All earth below the broken line for the width of pavement and the full widths of the berms shall be scarified to the depth of the sub-grade and parallel to the slope of the broken line before any excavated material is placed on the shoulders. The sub-grade shall then be prepared as provided for in the specifications for the type of pavement to be built and the material removed from the subgrade or adjacent there to be placed on the shoulders. Above Note to apply only on Approach Curves.

SPECIAL NOTE - In the preparation of rough grade on this project the Contractor shall so conduct his work that the material from the existing 14 ft. macadam pavement shall be used in constructing the shoulders, embankment at driveways, mailboxes, etc. This special handling of material from the existing pavement shall be under direct supervision of the Engineer in charge and shall be considered a part of Item R-1 and included in the price bid per cu. yd. for unclassified excavation.



TYPICAL SECTIONS

Scale in Feet



CONSTRUCTION NOTES

Berms slopes and ditches shall be finished to conform to cross-sections as shown for each station and put in shape for immediate seeding.

There shall be no open ditches along yards and drives and where the new grade is finished above the present grade at yards and drives the slope shall continue back to conform with the berm slope.

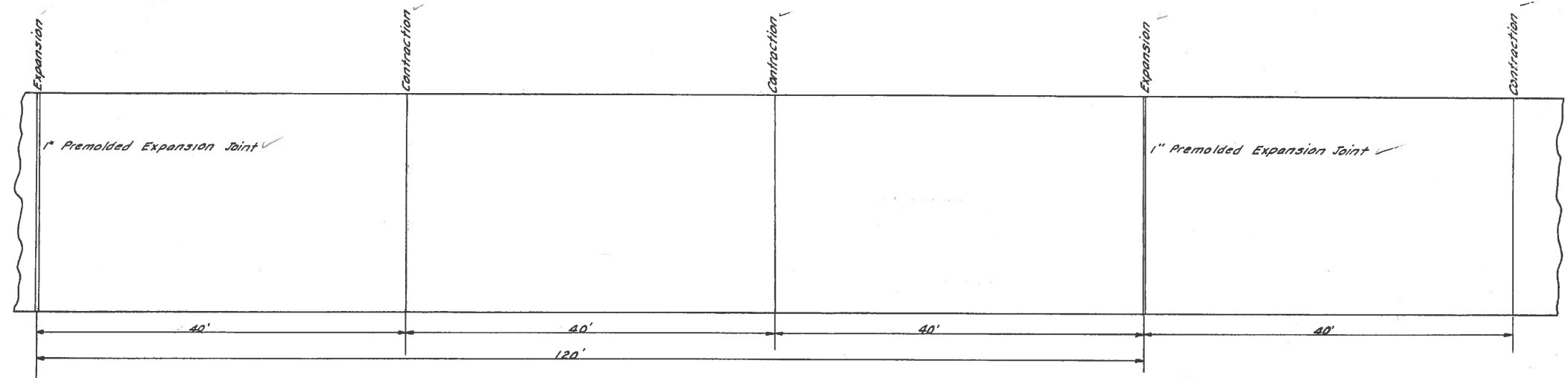
The price bid per lin. ft. for side road drainage shall include the connection of all lateral drains encountered during the progress of the work. All necessary "Ys" or "Ts" to be provided by the contractor.

All material removed from roadway which are not to be used as per contract shall be piled neatly on right of way not more than 300 feet from place of removal, for disposal by the Department of Highways.

All monuments or land markers found by the Contractor during progress of work shall not be disturbed until Engineer has established witnesses to same.

Joints where size of tile change, special connections, lateral connections and up stream ends of tile drains shall be thoroughly sealed and covered with concrete.

Contractor shall remove no trees within limits of right of way unless he is directed to do so by the Engineer in charge.



DETAIL SHOWING SPACING OF EXPANSION AND CONTRACTION JOINTS DWG. NO 95
Center Joint to be constructed as per Standard Dwg. No 98 OR 100
Transverse Construction Joints to be constructed as per Standard Dwg. No 96.

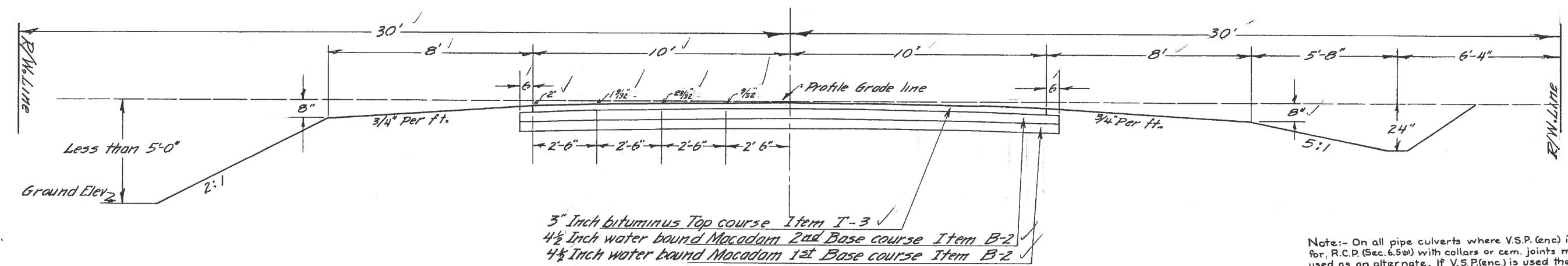
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2-a
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TYPICAL SECTION

TYPE BITUMINOUS MACADAM
CONSTRUCTION DRAWING NO 137



3" Inch bituminous Top course Item T-3
4 1/2" Inch water bound Macadam 2nd Base course Item B-2
4 1/2" Inch water bound Macadam 1st Base course Item B-2

TYPICAL SECTION -- From Sta 4+36 to Sta 57+45

Note: Yardage cross-sections have been calculated for a 9" x 9" Concrete Pavement, 20 ft wide, with a 1/4" crown. For Bituminous Macadam, type the center line grade is to be raised (See computations).

Concrete

- 1728 sq in = Total end Area
- 178 " " = End Area in crown
- 1550 " " = End Area below crown
- 20' = 240 in = Width of pavement
- 1550 ÷ 240 = 6.46 in = 5.38 ft (Average depth below crown line)

Bituminous Macadam

- 240 x 3 = 720 sq.in. Total end area Top course
- 285 sq.in = End Area in crown
- 720 - 285 = 435 sq.in. end Area top course below crown
- 435 ÷ 240 = 1.81 in average depth of top course below crown
- 1.81 + 9 = 10.81 in. = 9.0 ft.

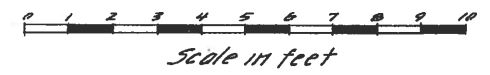
$$16X = 21Y + [2(0.5(.75 - Y))] \\ 16X = 21Y + .75Y \text{ or } 16X - 20Y = .75 \\ X + Y + .538 = .9 \text{ or } X + Y = .362 \\ \frac{16X - 20Y = .75}{20X + 20Y = 7.24} \\ \frac{36X = 7.49}{X = .2219'}$$

.2219' + .0625' (diff in crowns) = .28' amount of E Grade to be raised for bituminous Macadam.

Note: For special construction and sub-grade notes see sheet No 2.

Note: - On all pipe culverts where V.S.P. (enc) is called for, R.C.P. (Sec. 6.5a) with collars or cem. joints may be used as an alternate. If V.S.P. (enc) is used the V.S.P shall be single strength. (Sec. 6.8b).
On side drainage where V.S.P. is called for it will be understood to mean double strength V.S.P. with open joints (Sec. 6.8a); Reinf. conc. pipe (Sec. 6.5a) may be used as an alternate. Item 1-4 of Specifications will govern.
On side drainage where V.S.P. (cem. jts) is called for it will be understood to mean double strength V.S.P. (Sec. 6.8a). Reinf. conc. pipe (Sec. 6.5a) may be used as an alternate. Item 1-B of Specifications will govern.

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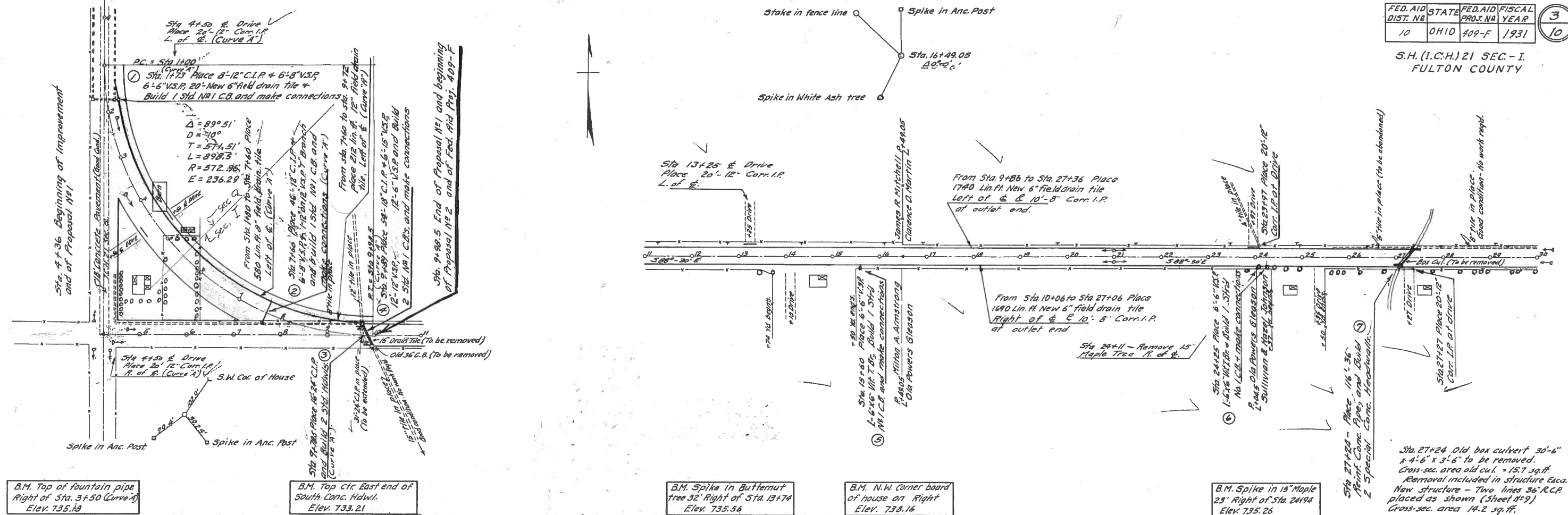


ITEM	SQ YDS.	LIMESTONE		SLAG	
		Tons per sq yd	Tons	Tons per sq yd	Tons
4 1/2" First Base Course	15255.1	.25875	3994	.21375	3261
4 1/2" Sec. Base Course	15255.1	.25875	3994	.21375	3261
5" Bit. Top Course	14537.4	.165	2400	.135	1963
TOTALS			10388		8485

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B.M. Top of fountain pipe Right of Sta. 3+50 (Curve A) Elev. 735.13

B.M. Top Ctr. East end of South Conc. Hdwl. Elev. 733.21

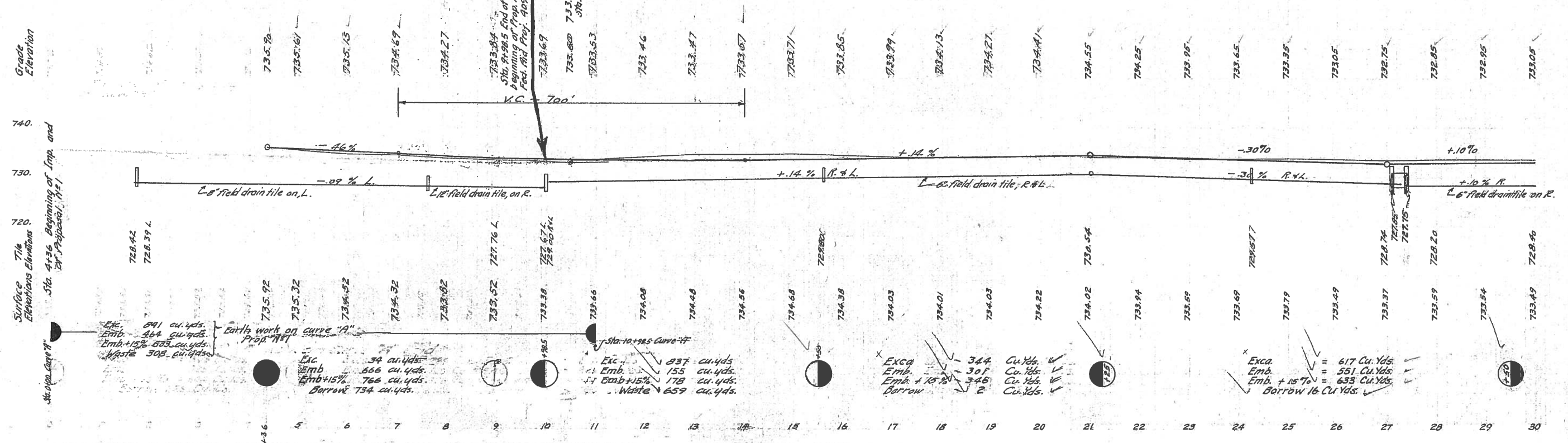
B.M. Spike in Butternut tree 32' Right of Sta. 13+74 Elev. 735.56

B.M. N.W. Corner board of house on Right Elev. 738.16

B.M. Spike in 15' Maple 23' Right of Sta. 24+94 Elev. 735.26

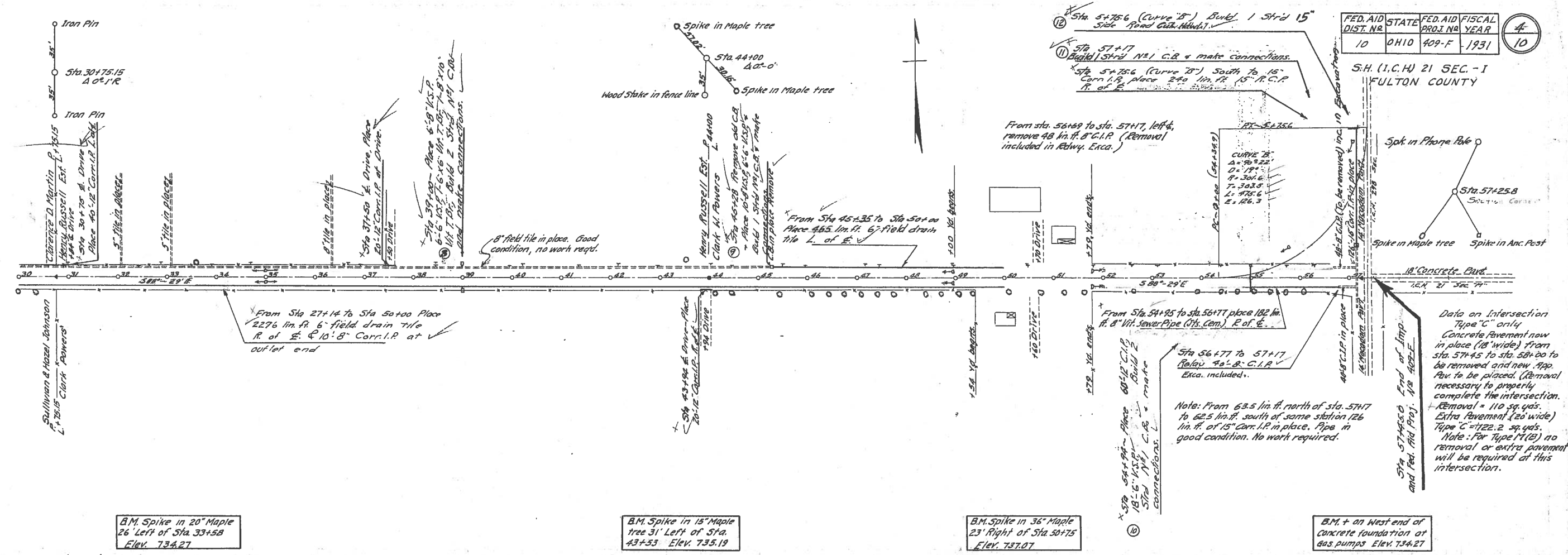
Grade line shown is crown of finished Pavement. Type "C"

Note: Fed. Aid does not apply on Proposal No. 1



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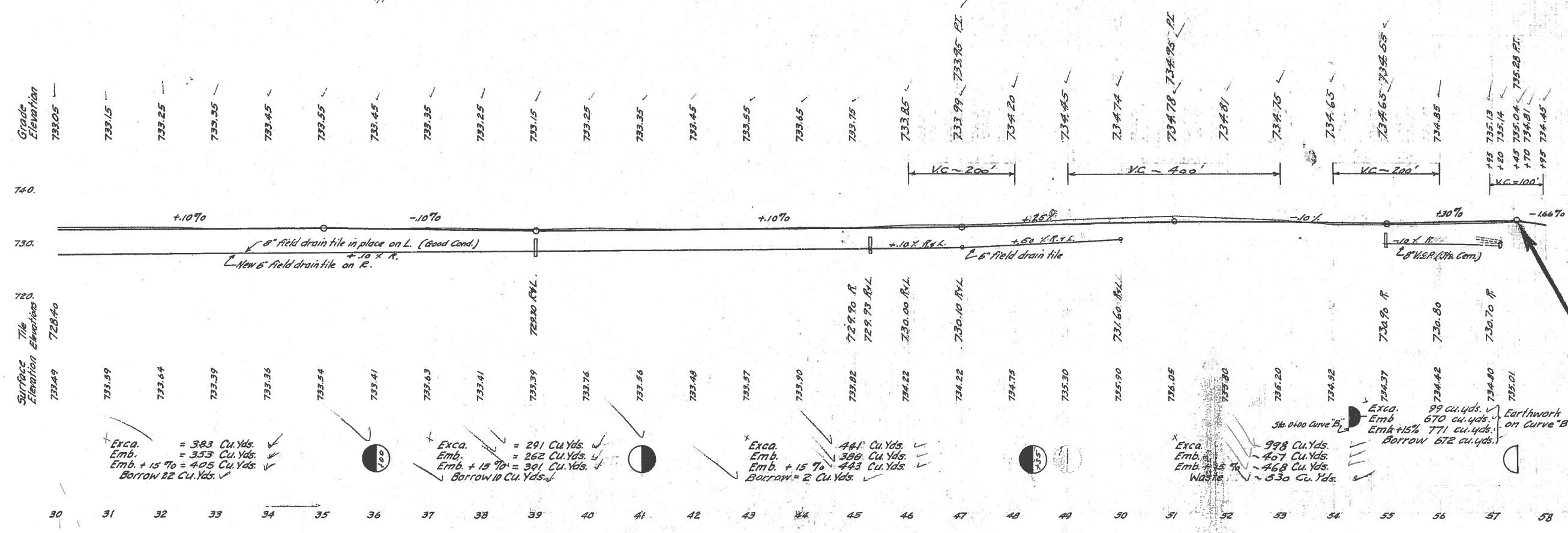
B.M. Spike in 20" Maple
26' Left of Sta. 33+58
Elev. 734.27

B.M. Spike in 15" Maple
tree 31' Left of Sta.
43+53 Elev. 735.19

B.M. Spike in 36" Maple
23' Right of Sta. 50+75
Elev. 737.07

B.M. + on West end of
Concrete foundation of
Gas pumps Elev. 734.27

Grade line shown is crown of finished Pavement, Type "C"



See Sheet No. 8 for profile of Curve "B"

Sta. 57+45.0 End of Imp. and Fed. Aid Proj. No. 409-F

Exca. = 383 Cu. Yds.
Emb. = 353 Cu. Yds.
Emb. + 15% = 405 Cu. Yds.
Borrow 22 Cu. Yds.

Exca. = 291 Cu. Yds.
Emb. = 262 Cu. Yds.
Emb. + 15% = 301 Cu. Yds.
Borrow 10 Cu. Yds.

Exca. = 441 Cu. Yds.
Emb. = 388 Cu. Yds.
Emb. + 15% = 443 Cu. Yds.
Borrow = 2 Cu. Yds.

Exca. = 998 Cu. Yds.
Emb. = 407 Cu. Yds.
Emb. + 15% = 468 Cu. Yds.
Waste = 530 Cu. Yds.

Exca. = 99 cu. yds.
Emb. = 670 cu. yds.
Emb. + 15% = 771 cu. yds.
Borrow 672 cu. yds.

Earthwork on Curve "B"