

N.R.H.-513-F

| FED. RD. DIST. NO. | STATE | F.A.P. PROJECT | FISCAL YEAR |
|--------------------|-------|----------------|-------------|
| 10 | OHIO | 513-F | 1933 |

MADISON COUNTY
S.H. 241 SEC. B(Pt.)+C

PROPOSAL #1

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DELAWARE ~ LONDON RD.

S.H. 241 SEC. B(Pt.)+C PET. N^o.
MADISON COUNTY

BUREAU OF CONSTRUCTION
NET LENGTH OF PROJECT 23,454 LIN. FT.



The Standard Specifications of the STATE OF OHIO Department of Highways, together with the Supplemental Specifications for National Recovery Highway Projects in force on date of contract will govern this improvement.
I, hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that detours will be provided as shown on the plans and estimates, and certify that the right-of-way, 60ft. wide is available for the construction, maintenance and repair of the above highway.

Approved: _____
Date _____ Resident District Deputy Director

Approved: *H. D. Johnson*
Date *6-2-33* Resident Division Deputy Director

Approved: *Clmer Hilty*
Date *7/19/33* Deputy Director Bureau of Construction

Approved: _____
Date _____ Deputy Director Bureau of Maintenance

Approved: _____
Date _____ Deputy Director Bureau of Bridges

Approved: *H. P. Chapman*
Date *7-19-33* Chief Engineer, 1st Asst. Director

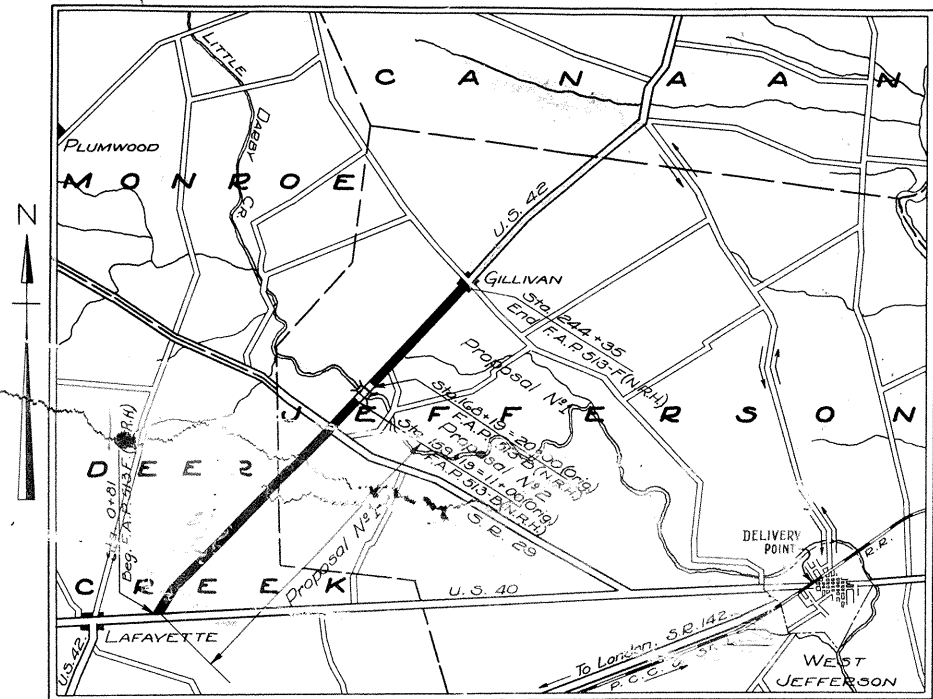
Approved: *W. J. Well*
Date *7-19-33* Director, Of Highways

Recommended for Approval: _____
Date _____ District Engineer Bureau of Public Roads

Recommended for Approval: _____
Date _____ Chief Engineer Bureau of Public Roads

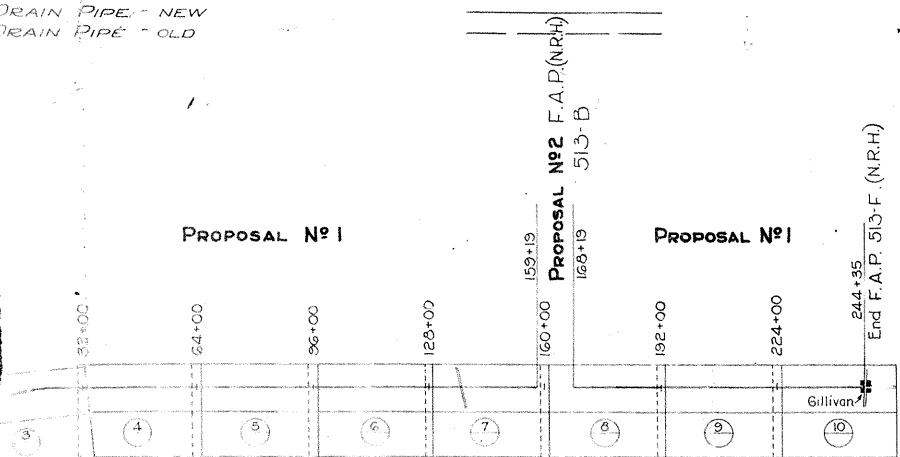
Approved: _____
Date _____ Chief of Bureau

- ~ CONVENTIONAL SIGNS ~
- STATE LINE
 - COUNTY LINE
 - TOWNSHIP LINE
 - RADICAL LINE
 - PROPERTY LINE NOT FENCED
 - GENERAL LINE
 - CITY VILLAGE LINE
 - FENCE
 - HEDGE
 - TELEPHONE OR TELEGRAPH
 - STEAM RAILROAD
 - ELECTRIC LINE
 - GUARD RAIL
 - DRAIN PIPE - NEW
 - DRAIN PIPE - OLD



LOCATION PLAN
Scale Of Miles.
0 1 2 3

PORTION TO BE IMPROVED
DETOURS SHOWN THUS
IMPROVED ROADS



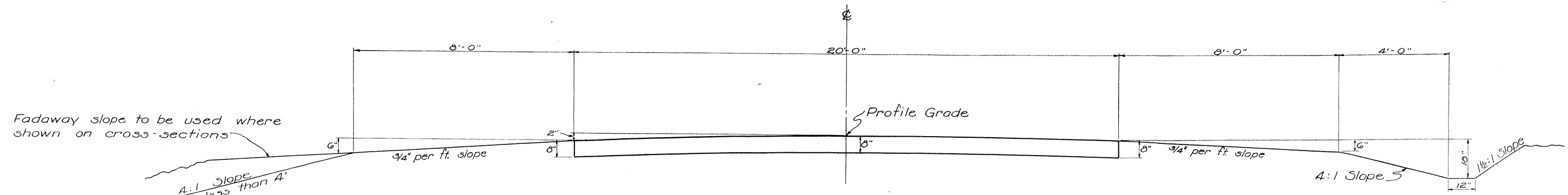
INDEX BY SHEETS

| SCALES | | INDEX OF SHEETS | | P. |
|--------------------|---------|-----------------------|--|-------|
| PLAN | 1"=100' | TITLE PAGE | | 1 |
| PROFILE VERTICAL | 1"=10' | TYPICAL CROSS SECTION | | 2 |
| PROFILE HORIZONTAL | 1"=100' | PLANS & PROFILE | | 3-10 |
| CROSS SECTIONS | 1"=5' | CROSS SECTIONS | | 11-23 |
| | | STRUCTURAL PLANS | | 24-27 |
| | | SUMMARY SHEET | | 28 |

SUPPLEMENTAL PRINTS OF STRUCTURAL STANDARDS DRAWINGS N^o T-70-J, 300, 305, BC-A, SC-A, AS-31, I-15, & Div. 6 Drainage Std.

| CHECKING RECORD | | |
|--------------------------------|--------|---------|
| OFFICE | BY | DATE |
| RESIDENT DIVISION | E.L.L. | 6-7-33 |
| CENTRAL CONST. CENTRAL-BRIDGES | | |
| BUR. OF PUBLIC ROADS | SEB | 7-10-33 |

TYPICAL SECTION



Fillaway slope to be used where shown on cross-sections

A:1 Slope fills less than 4'

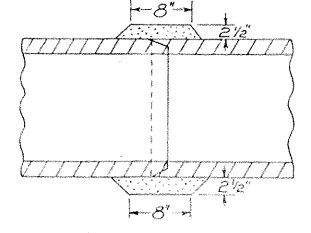
IN FILL

IN CUT

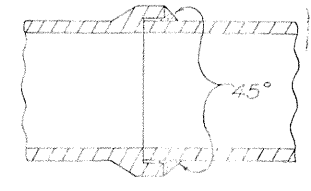
Earthwork has been calculated from this theoretical typical grading section.

To Be Used Between Sta. 0+81 & 159+19 ✓
and between Sta. 168+19 & 244+35

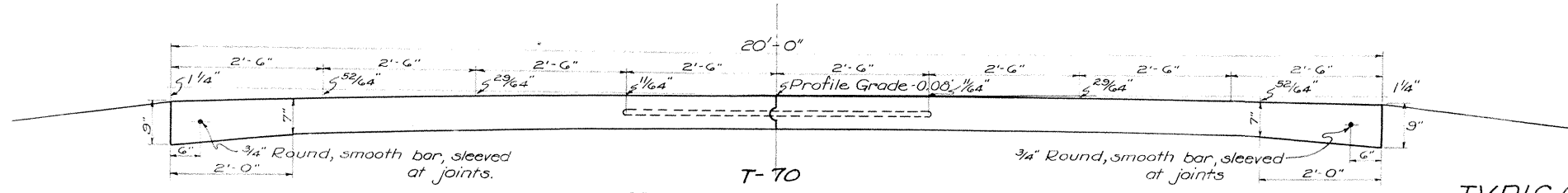
MODIFIED JOINT



BELL & SPIGOT JOINT



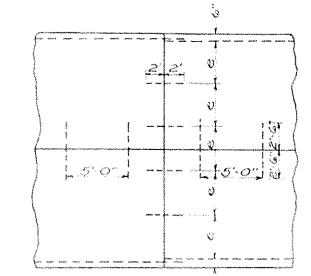
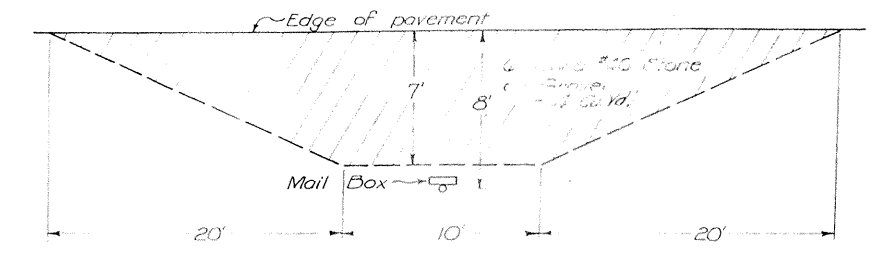
Concrete pipe used as an alternate for V.S.P. encased in cem. jts. shall be cemented as shown in the accompanying sketch.



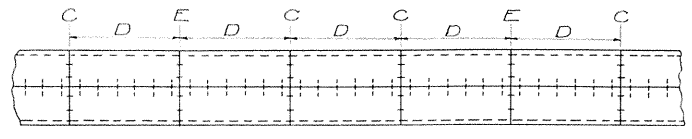
T-70
TYPICAL SECTION
For
CONCRETE PAVEMENT

Including: - Center Joint, dowels and edge bars as per Std. Dr. T-70-J and including transverse expansion and contraction jts. as per Standard Drawing T-70-J as per specifications
Berm and Ditch section to be same as shown on theoretical typical grading section.
Limestone Sand conforming to specifications may be used.

TYPICAL MAIL BOX APPROACH



DETAIL OF TRANSVERSE JT.



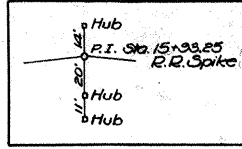
C - Contraction joint.
E - Expansion joint (Sept. 15 to May 15).
D - 25' for gravel aggregate.
D - 30' for stone or slag aggregate.

DETAIL SHOWING CENTER JOINT & FREQUENCY OF TRANSVERSE JOINTS.

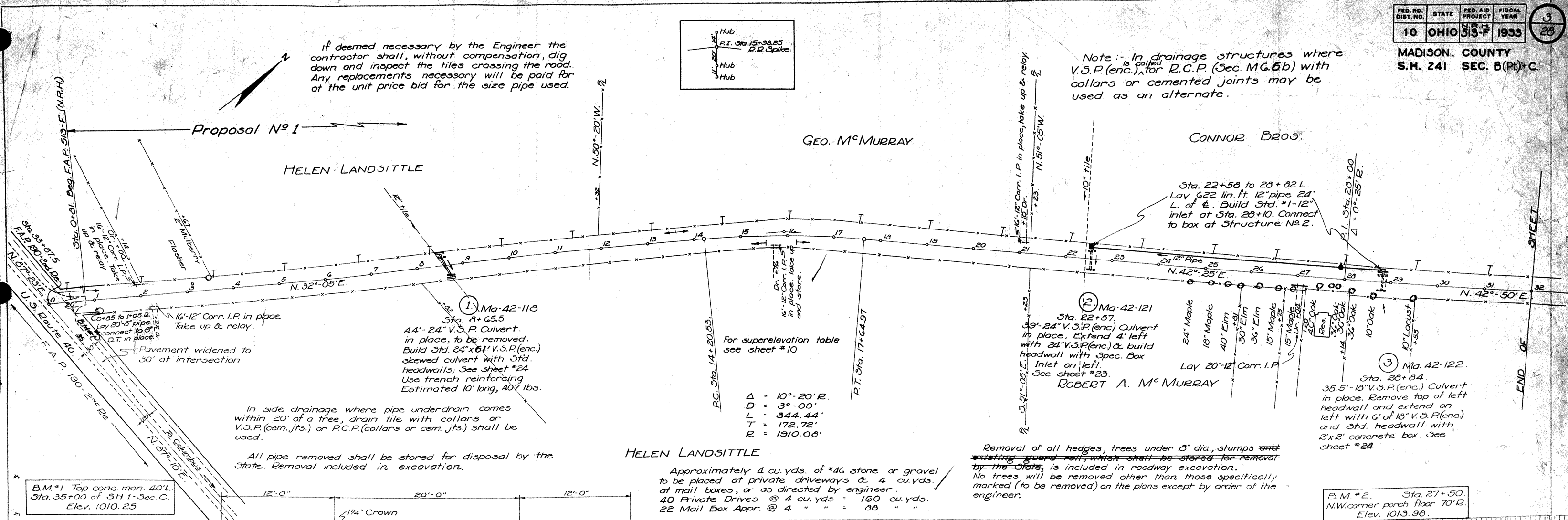
Note: Grade line has been laid, cross sections plotted and yardage calculated for a theoretical typical section for a 20 ft. pavement having a uniform 8" depth and a 2" crown as shown above
For the typical concrete pavement to be used as shown having a 1/4" crown the grade of the edge of the pavement shall be lowered 0.0164' for equal yardage, the elevation of the ditch remaining the same.
The center line grade shall be lowered by the amount of the difference in crown between the theoretical and the concrete typical section plus the difference in the edge grades or a total of (0.0625 + 0.0164 = 0.0789) or 0.08 ft.

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If deemed necessary by the Engineer the contractor shall, without compensation, dig down and inspect the tiles crossing the road. Any replacements necessary will be paid for at the unit price bid for the size pipe used.



Note: In drainage structures where V.S.P. (enc.) for R.C.P. (Sec. MG.6b) with collars or cemented joints may be used as an alternate.



In side drainage where pipe underdrain comes within 20' of a tree, drain tile with collars or V.S.P. (cem. jts.) or R.C.P. (collars or cem. jts.) shall be used.

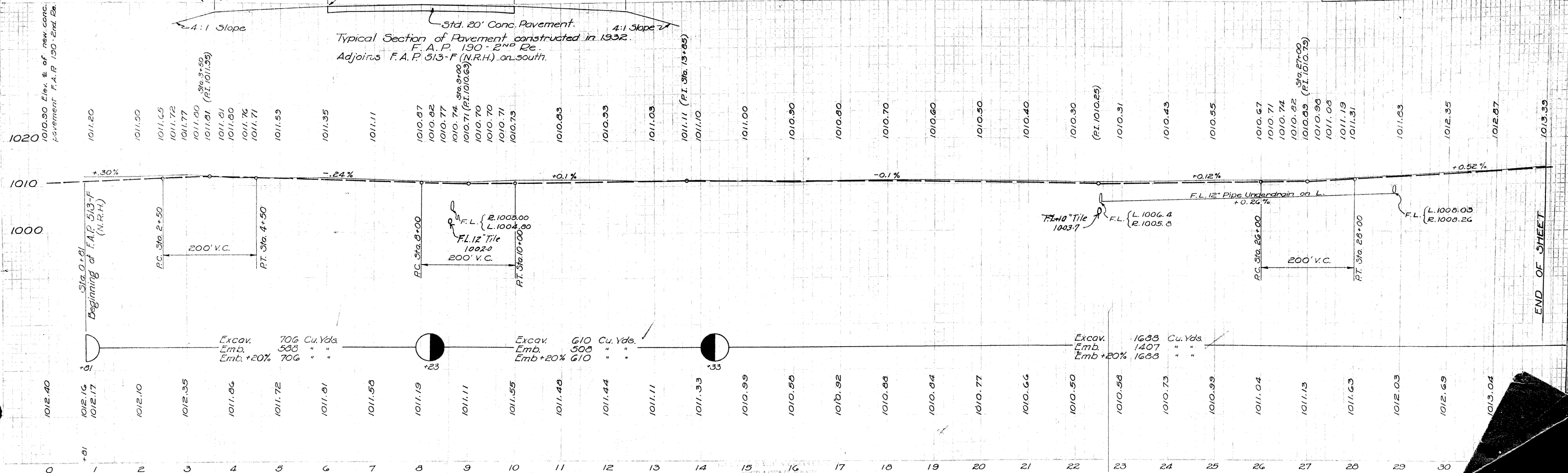
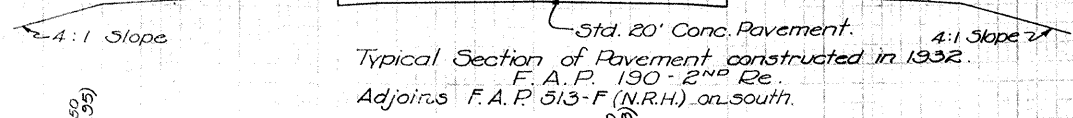
All pipe removed shall be stored for disposal by the State. Removal included in excavation.

HELEN LANDSITTLE

Approximately 4 cu. yds. of #46 stone or gravel to be placed at private driveways & 4 cu. yds. at mail boxes, or as directed by engineer.
40 Private Drives @ 4 cu. yds. = 160 cu. yds.
22 Mail Box Appr. @ 4 " " = 88 " "

Removal of all hedges, trees under 8" dia., stumps ~~and existing guard rail, which shall be stored for removal by the State~~, is included in roadway excavation. No trees will be removed other than those specifically marked (to be removed) on the plans except by order of the engineer.

B.M. #2. Sta. 27+50. N.W. corner porch floor 70' R. Elev. 1013.98.



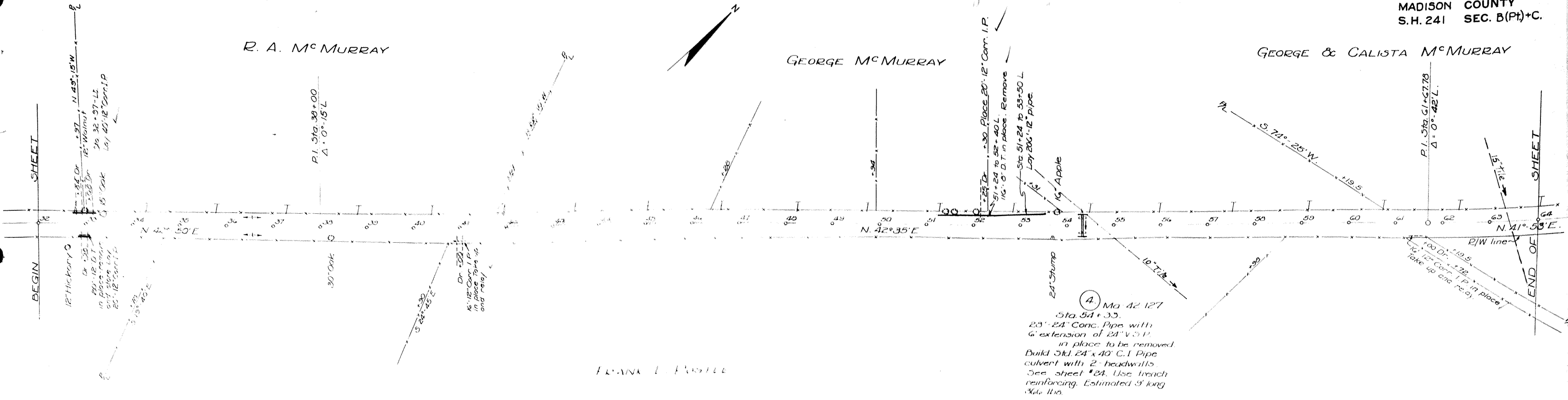
MADISON COUNTY
S.H. 241 SEC. B(Pt)+C.

R. A. M^cMURRAY

GEORGE M^cMURRAY

GEORGE & CALISTA M^cMURRAY

FRANK L. POSTLE

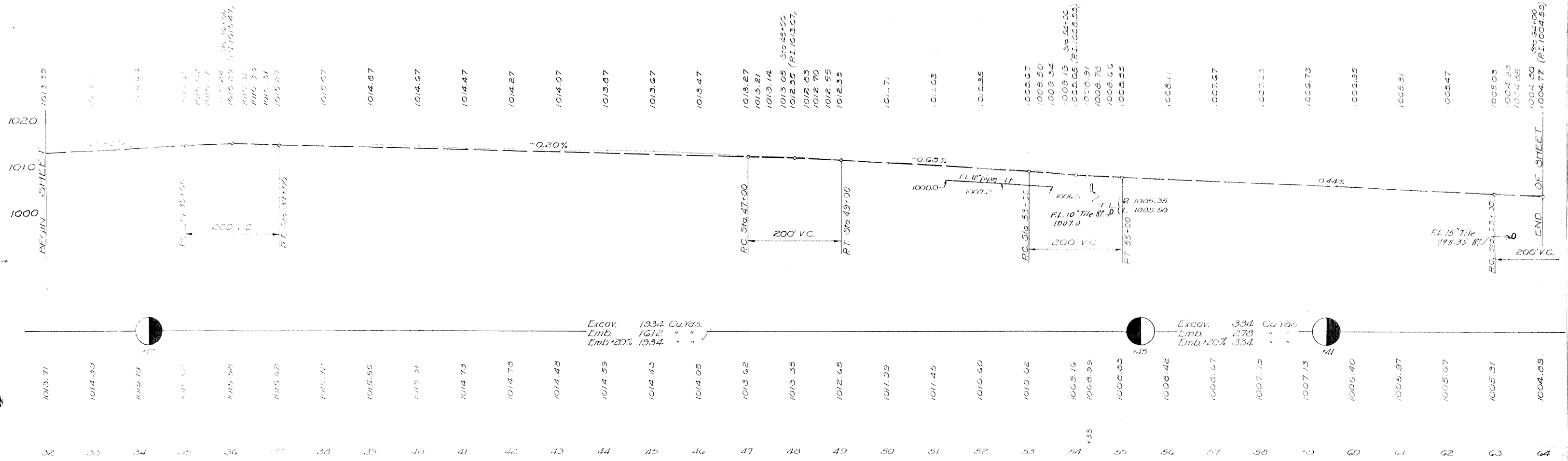


4. Mo 42 127
Sta 54+35.
23\"/>

B.M. #3
Spike in top of 12\"/>

B.M. #4
Sta. 42+50.
Spike in top of 16\"/>

B.M. #5
Spike in side of post 27\"/>

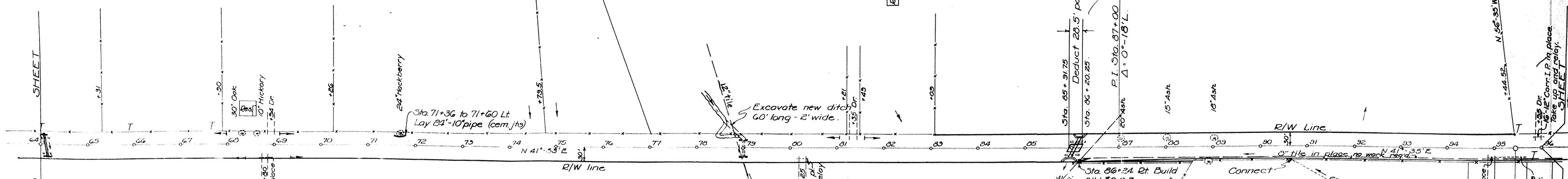


Excav. 1934 Cu Yds.
Emb. 1612 " " "
Emb +20% 1934 " " "

Excav. 334 Cu Yds
Emb. 273 " " "
Emb +20% 334 " " "

GEORGE & CALISTA McMURRAY

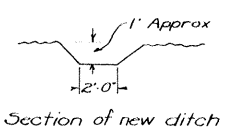
ESTATE OF MELVINA MARK



Ma-42-129
Sta. 64+11
29' x 24" Conc. Pipe with 4' extensions at 24" V.S.P. (enc) on both ends, in place to be removed. Build Sta. 24' x 42" C.I.P. culvert with headwalls. See sheet #24. Use trench reinforcing. Estimated 3' long, 3.6 Cu. Yds.

GEORGE & CALISTA McMURRAY

Ma-42-132
Sta. 79+00
39' x 24" Solid C.I.P. Culvert in place. No work req'd on Str. Construct new ditch as shown 7 Cu. Yds. Structure Excavation.



Note: Expansion joints shall be placed at the ends of the approach slabs and also at a distance of 70' from the abutments as provided under the Specifications.

Ma-42-133
Sta. 86+06
8'-6" Span x 4'-0" I beam Riv & Concrete Slab Culvert 34' long - 29' R'd'y. in place. to be removed. Build special skewed slab bridge 8'-10" span, 4'-0" clear height, 42'-0" wide, 36' clear roadway with 8' approach slabs. Sta. 85+31.75 to 86+20.25 deduct 23.5' of pavement. See sheet #25

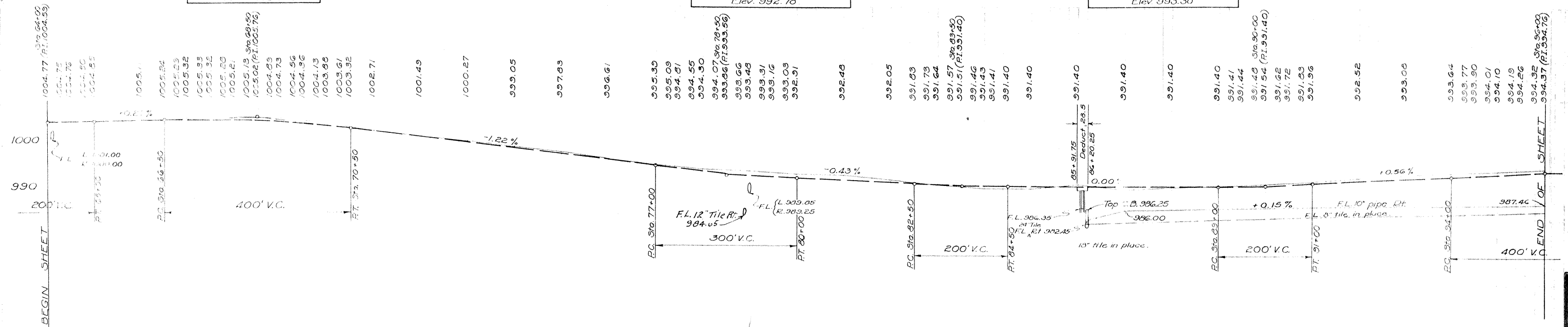
Sta. 85+24 to 99+20 Rt. 396' 8" tile in place, take up and relay. Estimated amount of 8" pipe for replacement - 100 lin. ft.

Jos. H. JOHNSON

B.M. #6 Sta. 63+27
Spike in root 30' Oak 24" L. Elev. 1005.83

B.M. #7 Sta. 79+06
N.E. corner Conc. headwall 19' R. Elev. 992.78

B.M. #8 Sta. 36+06
N.E. corner Conc. headwall 15' R. Elev. 993.30



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1004.05 | 1004.32 | 1005.21 | 1005.42 | 1005.65 | 1005.86 | 1005.94 | 1004.31 | 1002.73 | 1001.45 | 1000.39 | 999.19 | 998.04 | 996.71 | 995.53 | 994.60 | 994.22 | 993.76 | 993.60 | 992.44 | 991.45 | 990.73 | 990.73 | 991.77 | 990.45 | 991.00 | 991.21 | 991.70 | 992.10 | 993.00 | 993.81 | 994.11 | 994.92 | 995.21 |
| 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | |

Excav. 100' Cu. Yds.
Emb. 73.9 " "
Emb+20% 83.7 " "

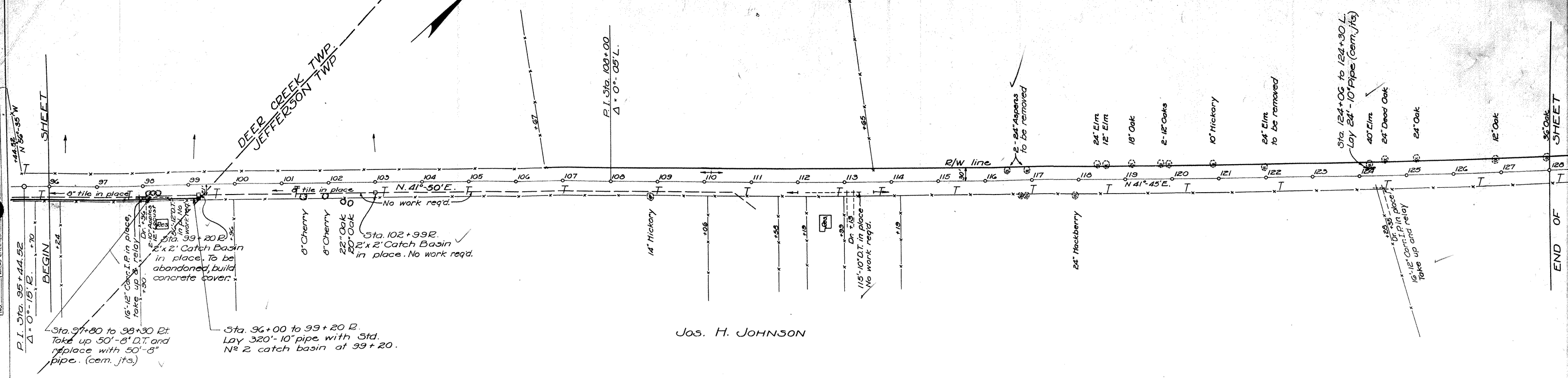
Excav. 1245 Cu. Yds.
Emb. 1030 " "
Emb+20% 1245 " "

Excav. 2024 Cu. Yds.
Emb. 1637 " "
Emb+20% 2024 " "

MADISON COUNTY
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ESTATE OF MELVINA MARK

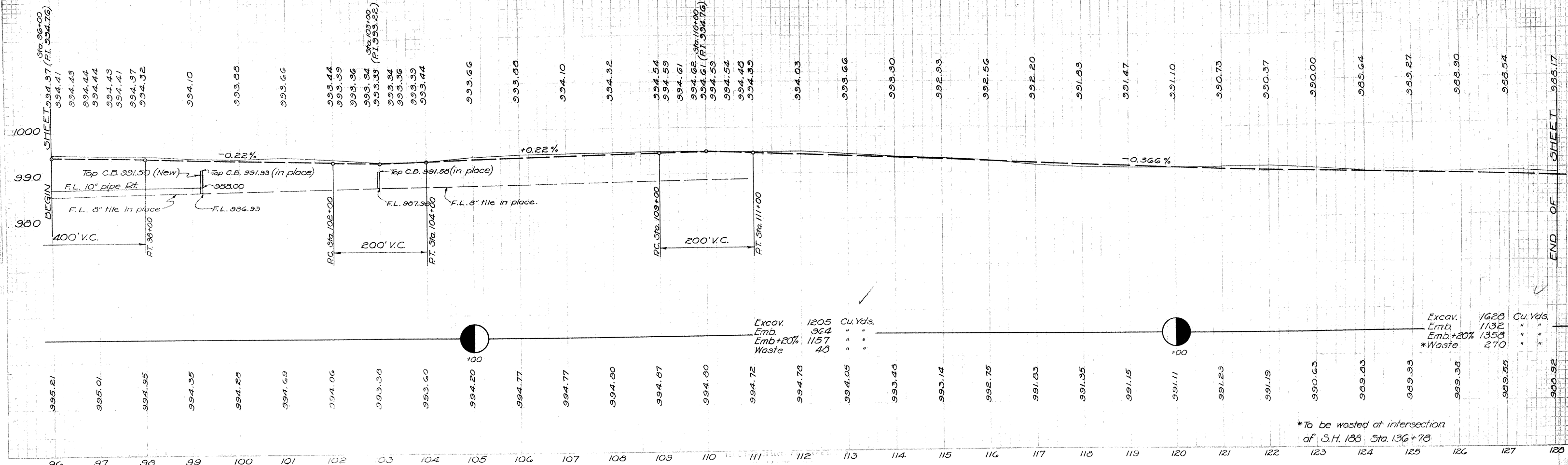
Jos. H. JOHNSON



B.M.*9. Sta. 97+91.
Conc. foundation for Car. Post 30'R.
Elev. 994.78.

B.M.*10. Sta. 108+90.
Spike in root 14" Hickory 31'R.
Elev. 993.48.

B.M.*11. Sta. 124+17
Spike in root 40" Elm 23'L.
Elev. 989.99.



| | | |
|----------|------|----------|
| Excav. | 1205 | Cu. Yds. |
| Emb. | 364 | " " |
| Emb.+20% | 1157 | " " |
| Waste | 48 | " " |

| | | |
|----------|------|----------|
| Excav. | 1628 | Cu. Yds. |
| Emb. | 1132 | " " |
| Emb.+20% | 1358 | " " |
| *Waste | 270 | " " |

*To be wasted at intersection
of S.H. 188 Sta. 136+78

ESTATE OF MELVINA MARK

ELIZABETH HARBAGE (DOWER) & RIDDLE SIDNER

WILLIAM & KATHERINE GRASSLE

JOS. H. JOHNSON

Sta. 135+00 to 138+00 Left
Build 40' type D-2 Guard Rail.

Ma-29-96A

Sta. 136+78.1
Build Concrete Intersection
Extra pavement 452.5 sq. yds.
See sheet #27

Sta. 136+74.2 L.
Build 12'x60' V.S.P. (enc) Culvert
20' Left of E. See sheet #26
Use trench Reinf. Est. 8' long, 651 lbs.

Sta. 136+80 to 138+00 Lt.
Place 60 cu. yds. stone or
gravel for filling sta. app.

Sta. 137+00 to 138+44 Lt.
Lay 144'-12" pipe connect
to 12" V.S.P. (enc) at Sta.
137+00.

PROPOSAL No 1

F.A.P. 513-BNRH
Proposal #2

Sta. 155+90 to 159+19 Lt.
Lay 326'-8" pipe with Spec.
#1 Inlets at Sta. 155+90
and at Sta. 158+90

Sta. 159+02 to 159+19 Rt.
Build 17' type D Guard Rail.

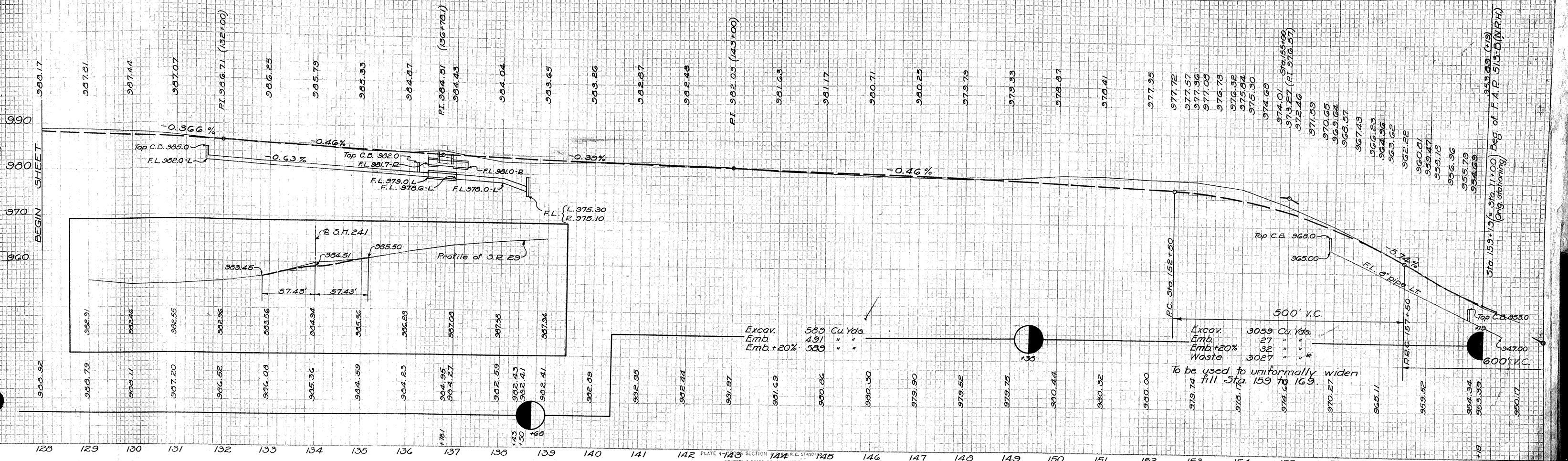
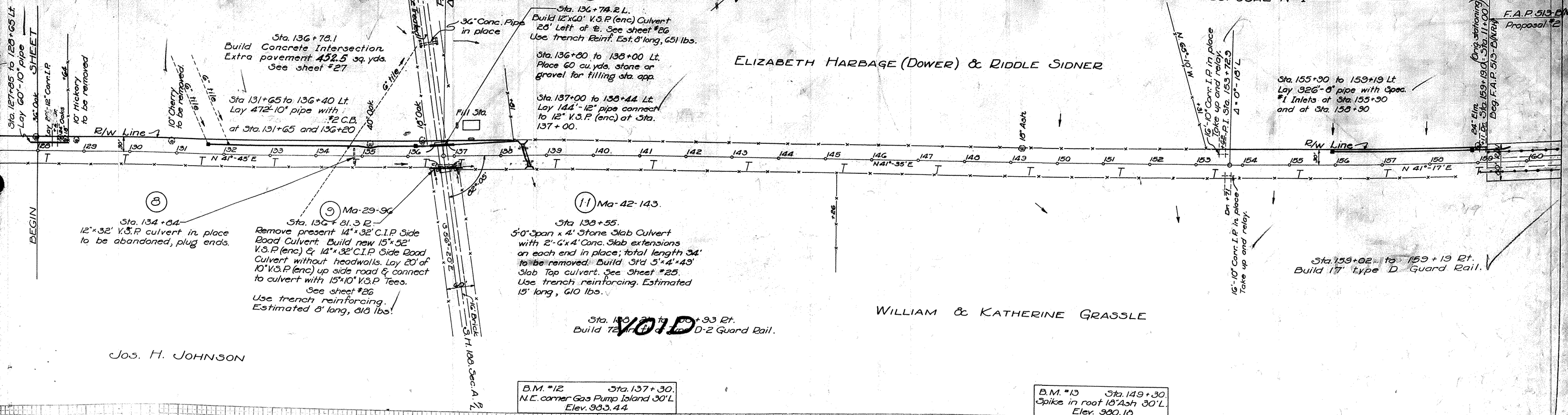
Ma-29-96

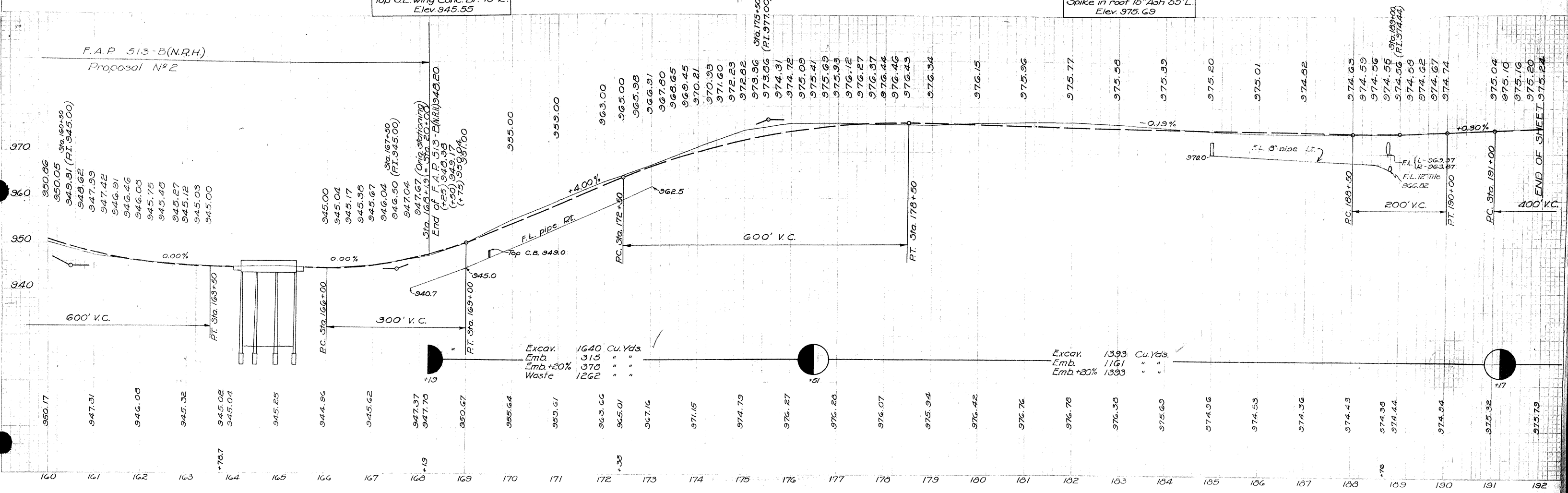
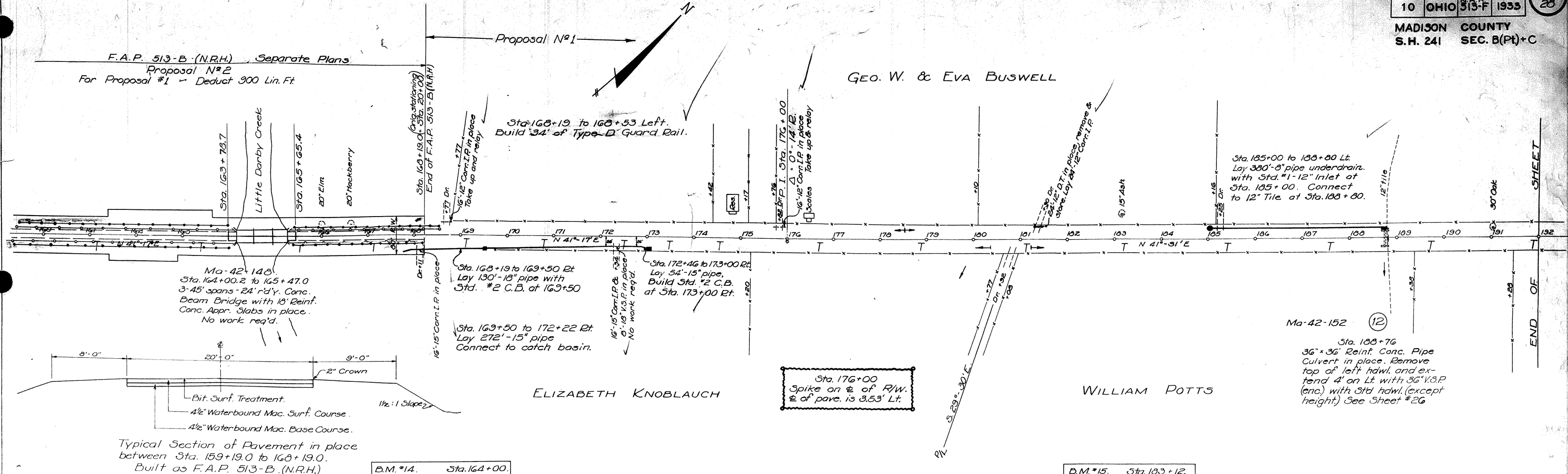
Ma-42-143
Sta. 138+55.
5'-0" span x 4' Stone Slab Culvert
with 2'-6"x4' Conc. Slab extensions
on each end in place; total length 34'
to be removed. Build Std 5'x4'x43'
Slab Top culvert. See Sheet #25.
Use trench reinforcing. Estimated
15' long, 610 lbs.

VOID
Sta. 140+00 to 143+93 Rt.
Build Type D-2 Guard Rail.

B.M. #12 Sta. 137+30.
N.E. corner Gas Pump Island 30'L
Elev. 983.44

B.M. #13 Sta. 149+30.
Spike in root 18' Ash 30'L
Elev. 980.18



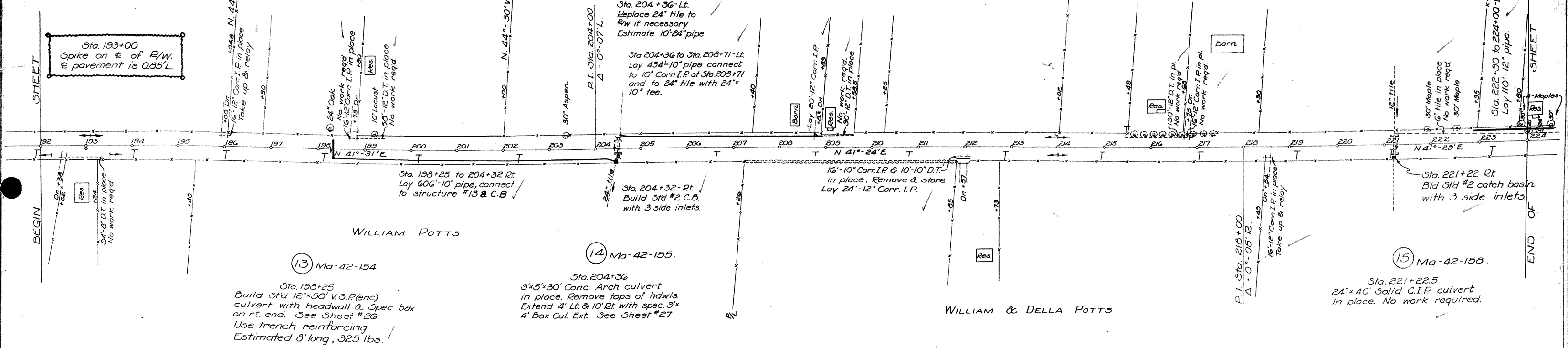


GEORGE W. & EVA BUSWELL

JOHN LYONS

HANNAH ALICE CALHOUN

ALVAH & ALICE CALHOUN



(13) Ma-42-154

(14) Ma-42-155

(15) Ma-42-158

Sta. 198+25
Build Std 12"x50' V.S.P. (enc) culvert with headwall & Spec box on rt. end. See Sheet #26
Use trench reinforcing
Estimated 8' long, 325 lbs.

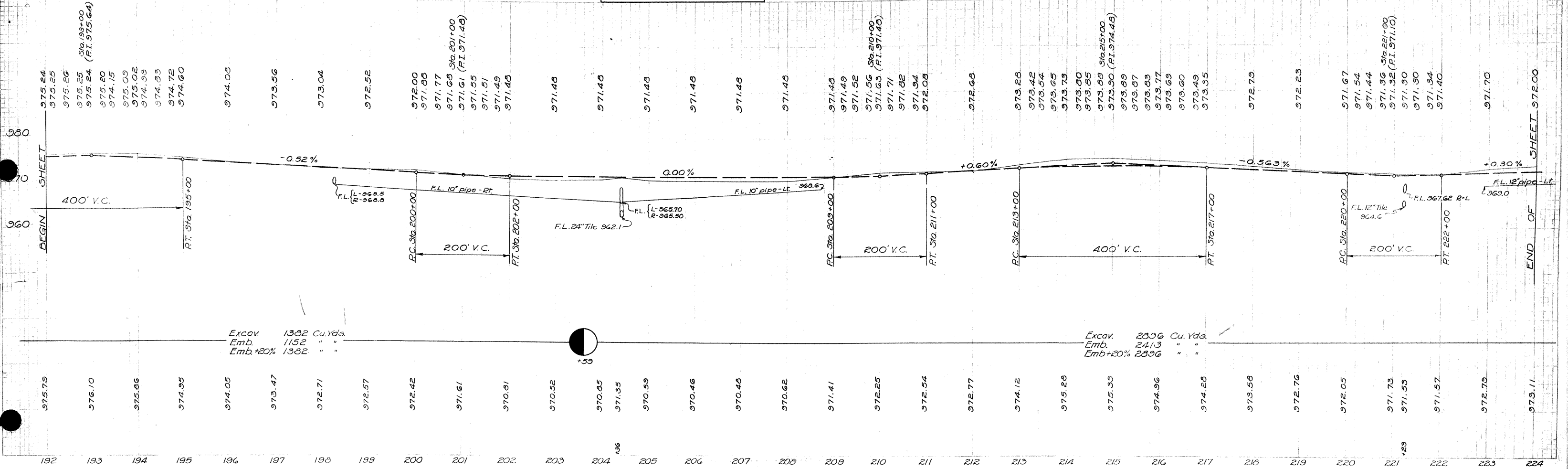
Sta. 204+36
9'x5'x30' Conc. Arch culvert in place. Remove tops of h/w's. Extend 4'-Lt. & 10'-Rt. with spec. 3'x4' Box Cul. Ext. See Sheet #27

Sta. 221+22.5
24"x40' Solid C.I.P. culvert in place. No work required.

B.M. #16 Sta. 192+40
Conc. Fdn. for Pipe Gate Post 30'R.
Elev. 976.10

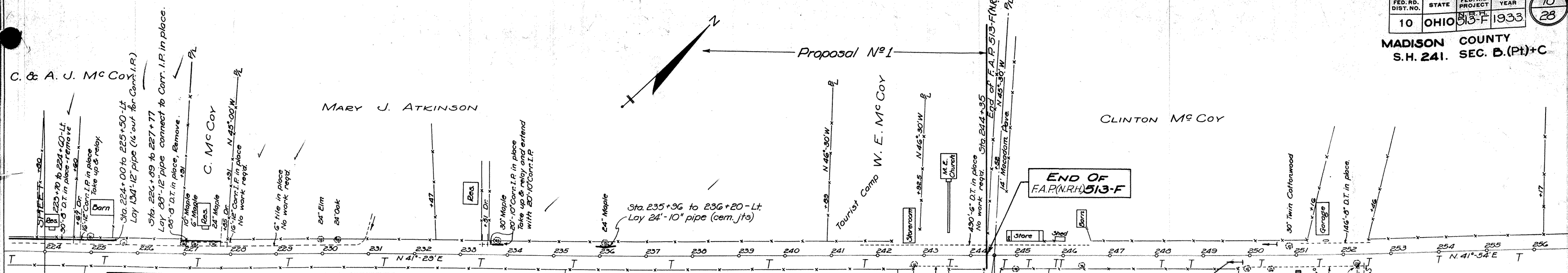
B.M. #17 Sta. 204+40
Top N.E. corner Conc. Hdwl. 14'R.
Elev. 972.83

B.M. #18 Sta. 217+39
Spike in root 24' Maple 28'L.
Elev. 972.10



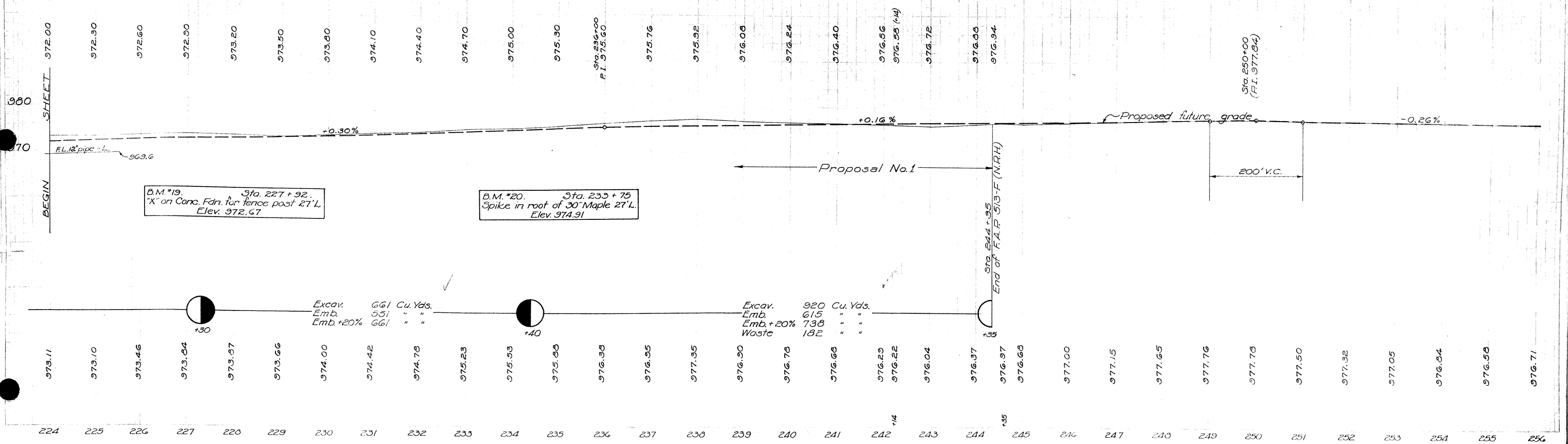
Excav. 1382 Cu. Yds.
Emb. 1152 " "
Emb.+20% 1382 " "

Excav. 2396 Cu. Yds.
Emb. 2413 " "
Emb.+20% 2896 " "



SUPERELEVATION TABLE
P.C. Sta. 14+20.53. P.T. Sta. 17+64.97. D = 3° Rt.

| Left Edge | | Center | | Right Edge | |
|-------------------|------------|----------|-------------|------------|------------|
| Add to Right Edge | Edge Grade | Station | Grade Elev. | Width | Edge Grade |
| 0.00 | 1010.85 | 13+20.53 | 1011.05 | 10.00 | 1010.85 |
| 0.08 | 1010.91 | 13+25 | 1011.06 | | 1010.89 |
| 0.14 | 1011.05 | 13+50 | 1011.08 | | 1010.91 |
| 0.20 | 1011.19 | 13+75 | 1011.10 | | 1010.93 |
| 0.30 | 1011.31 | 14+00 | 1011.10 | | 1010.93 |
| 0.40 | 1011.39 | 14+20.53 | 1011.08 | | 1010.91 |
| 0.50 | 1011.40 | 14+25 | 1011.07 | | 1010.90 |
| 0.62 | 1011.50 | 14+50 | 1011.05 | | 1010.88 |
| 0.72 | 1011.58 | 14+70.53 | 1011.03 | | 1010.86 |
| | 1011.57 | 14+75 | 1011.02 | | 1010.85 |
| | 1011.55 | 15+00 | 1011.00 | | 1010.83 |
| | 1011.52 | 15+25 | 1010.97 | | 1010.80 |
| | 1011.50 | 15+50 | 1010.95 | | 1010.78 |
| | 1011.47 | 15+75 | 1010.92 | | 1010.75 |
| | 1011.45 | 16+00 | 1010.90 | | 1010.73 |
| | 1011.42 | 16+25 | 1010.87 | | 1010.70 |
| | 1011.40 | 16+50 | 1010.85 | | 1010.68 |
| | 1011.37 | 16+75 | 1010.82 | | 1010.65 |
| | 1011.35 | 17+00 | 1010.80 | | 1010.63 |
| 0.72 | 1011.34 | 17+14.97 | 1010.79 | | 1010.62 |
| 0.67 | 1011.27 | 17+25 | 1010.77 | | 1010.60 |
| 0.55 | 1011.13 | 17+50 | 1010.75 | | 1010.58 |
| 0.48 | 1011.05 | 17+64.97 | 1010.74 | | 1010.57 |
| 0.43 | 1010.94 | 17+75 | 1010.72 | | 1010.55 |
| 0.31 | 1010.84 | 18+00 | 1010.70 | | 1010.53 |
| 0.19 | 1010.69 | 18+25 | 1010.67 | | 1010.50 |
| 0.07 | 1010.55 | 18+50 | 1010.65 | | 1010.48 |
| 0.00 | 1010.47 | 18+64.97 | 1010.64 | 10.00 | 1010.47 |



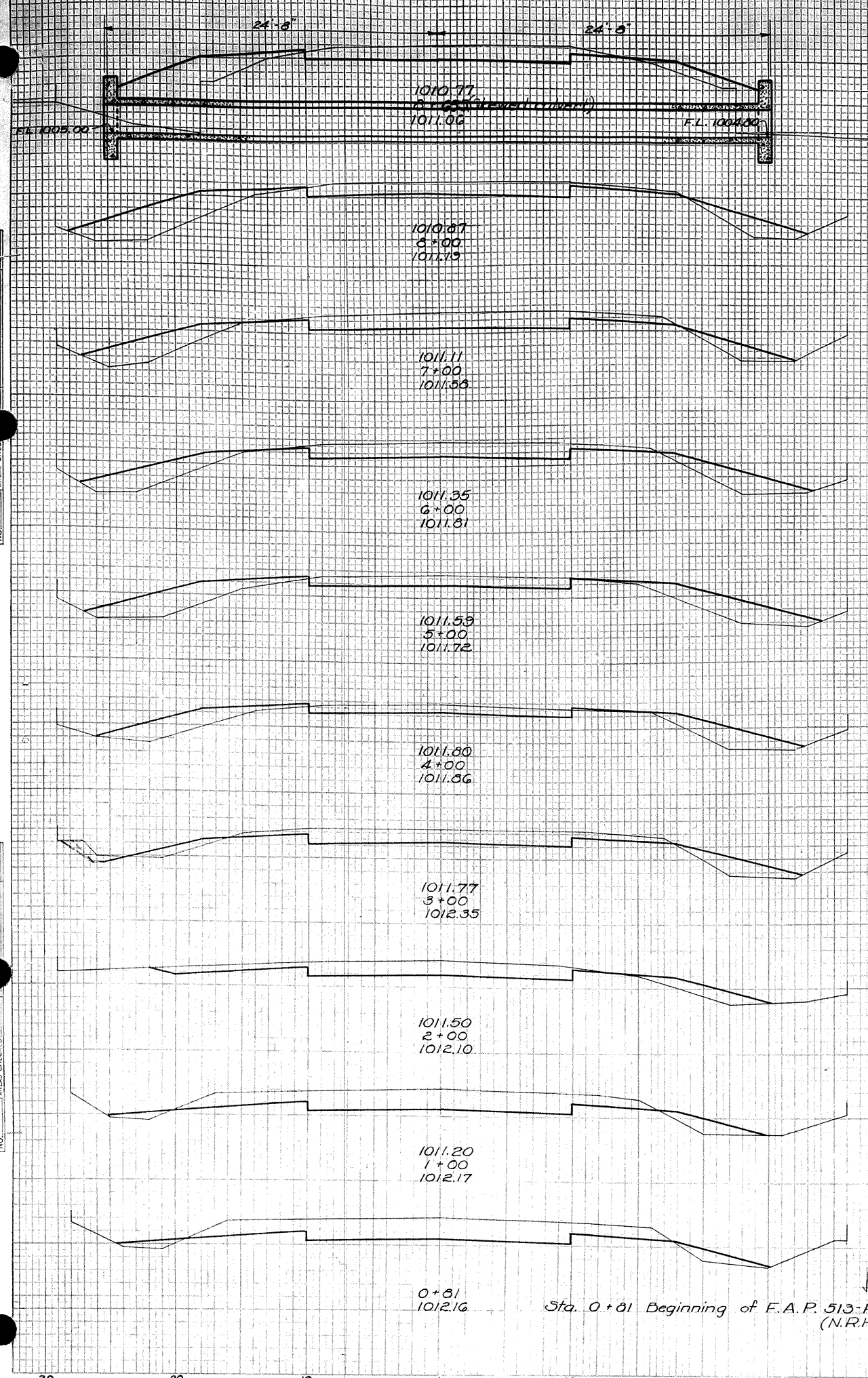
B.M. #19. Sta. 227+92.
"X" on Conc. Fdn. for fence post 27'L.
Elev. 972.67

B.M. #20. Sta. 233+75
Spike in roof of 30' Maple 27'L.
Elev. 974.91

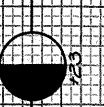
B.M. #21. Sta. 243+67
Aluminum Gov. Bench in N. wall
of Church 180' Lt. Gov. level 977.5
Elev. 977.66

B.M. #22. Sta. 251+03
S.W. corner bottom Conc. step 35'R.
Elev. 979.26

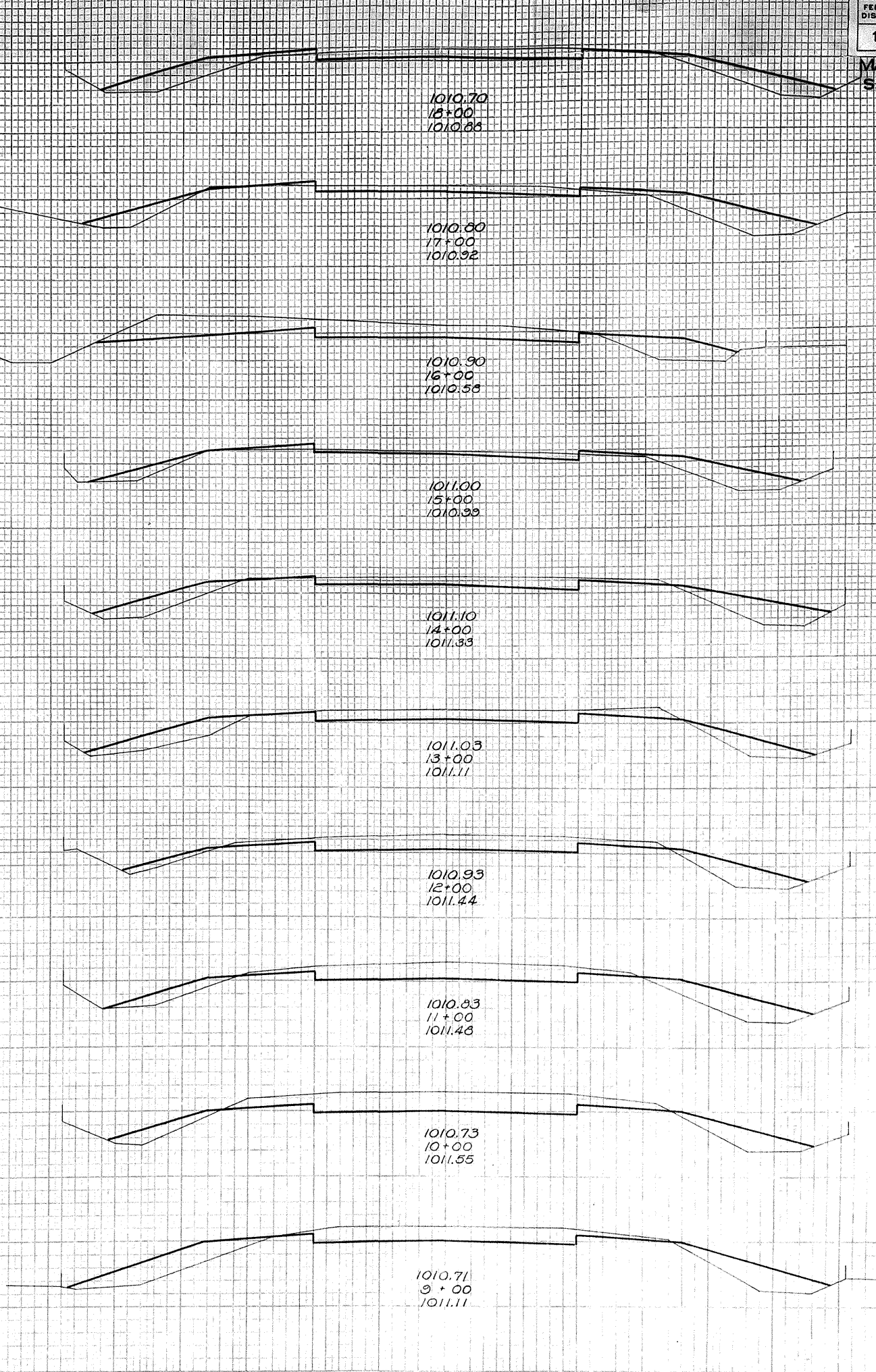
MADISON COUNTY
S.H. 241 SEG. B (Pt) & C



| Sta. | End Area | Cu. Yds. |
|---------|----------|----------|
| | Cut | Fill |
| 1010.77 | 23 | 42 |
| 1011.06 | 34 | 59 |
| | 54 | 93 |
| 1010.87 | 21 | 33 |
| 1011.19 | 20 | 34 |
| | 91 | 102 |
| 1011.11 | 28 | 22 |
| 1011.56 | 98 | 91 |
| 1011.35 | 25 | 27 |
| 1011.81 | 74 | 113 |
| 1011.59 | 15 | 34 |
| 1011.72 | 54 | 111 |
| 1011.80 | 14 | 26 |
| 1011.86 | 80 | 72 |
| 1011.77 | 29 | 13 |
| 1012.35 | 113 | 37 |
| 1011.50 | 32 | 7 |
| 1012.10 | 143 | 24 |
| 1011.20 | 45 | 6 |
| 1012.17 | 33 | 4 |
| 0+81 | 50 | 5 |



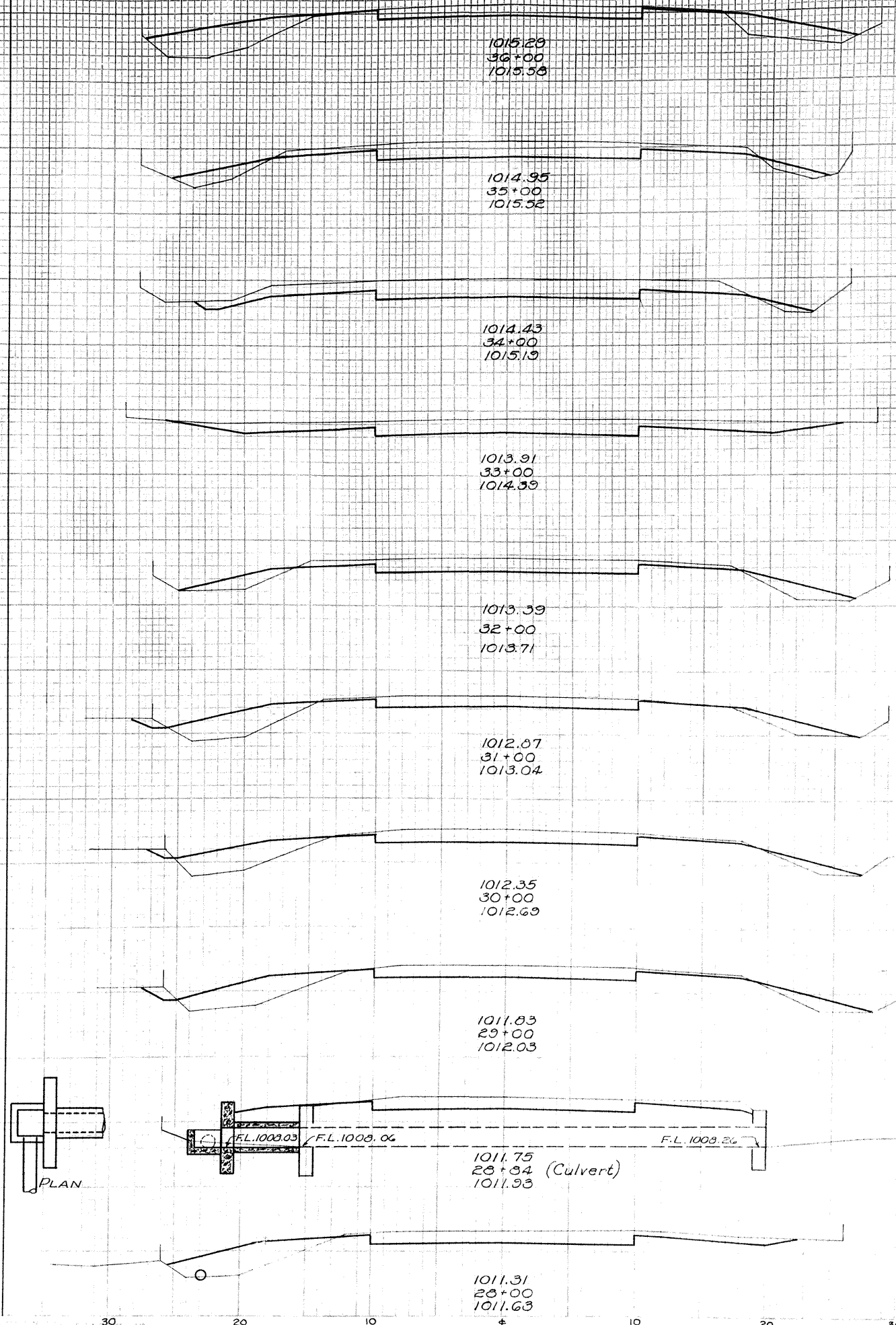
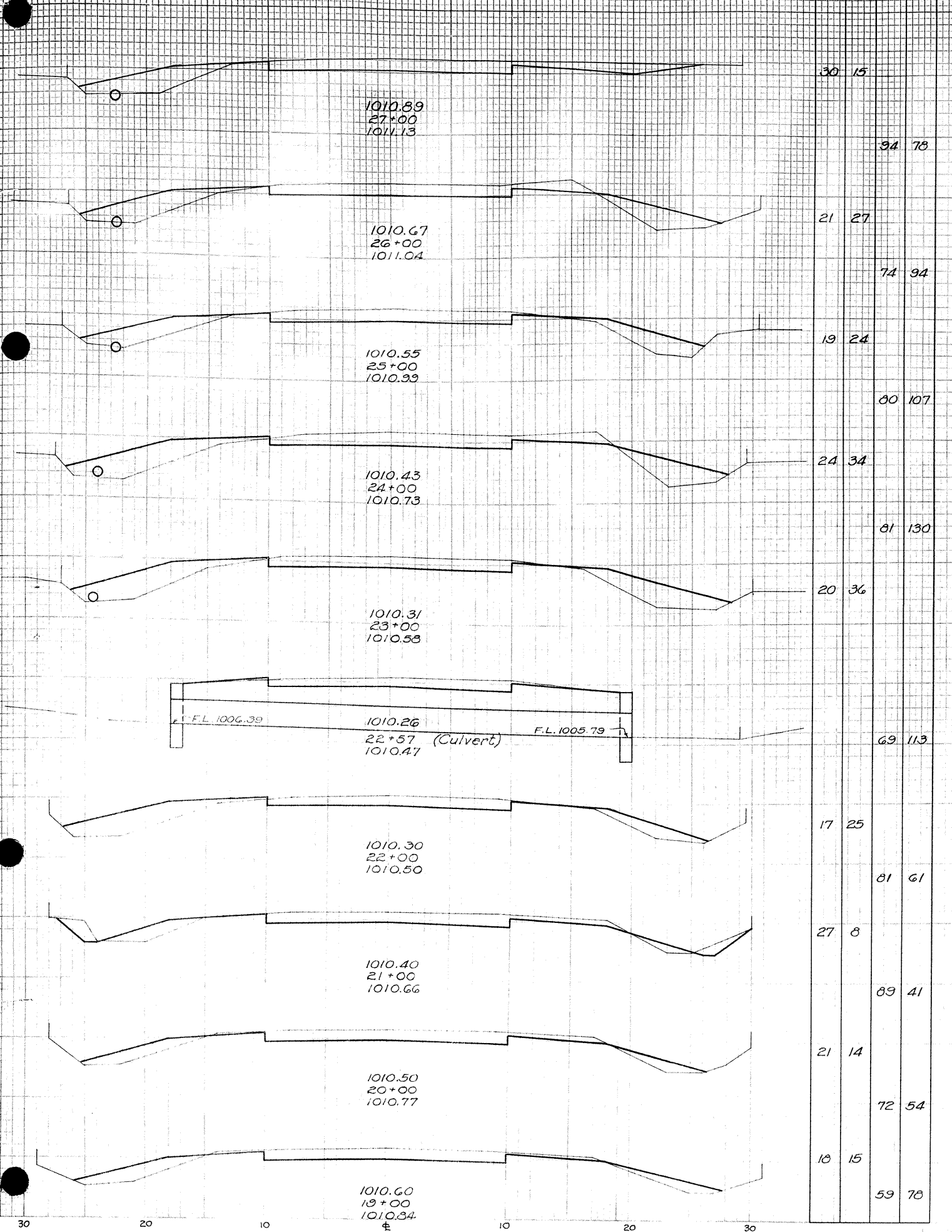
Excav. Emb. + 20%
706 Cu. Yds.
500
706



| Sta. | End Area | Cu. Yds. |
|---------|----------|----------|
| | Cut | Fill |
| 1010.70 | 14 | 27 |
| 1010.65 | | 46 |
| | 11 | 26 |
| 1010.80 | | 98 |
| 1010.92 | | 72 |
| 1010.90 | 42 | 13 |
| 1010.59 | | 89 |
| 1011.00 | 6 | 21 |
| 1010.99 | | 22 |
| | | 33 |
| | | 11 |
| 1011.10 | 12 | 24 |
| 1011.53 | | 67 |
| 1011.03 | 24 | 22 |
| 1011.11 | | 100 |
| 1010.93 | 30 | 14 |
| 1011.44 | | 109 |
| 1010.83 | 29 | 19 |
| 1011.48 | | 130 |
| 1010.73 | 41 | 19 |
| 1011.55 | | 128 |
| 1010.71 | 28 | 32 |
| 1011.11 | | 31 |

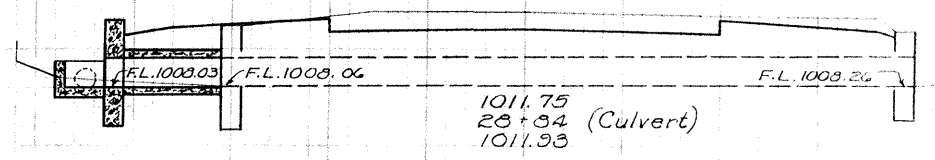
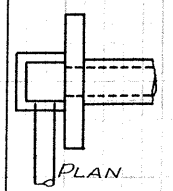
Excav. Emb. + 20%
610 Cu. Yds.
500
610

MADISON COUNTY
S.H. 241 SEG. B(P) & C

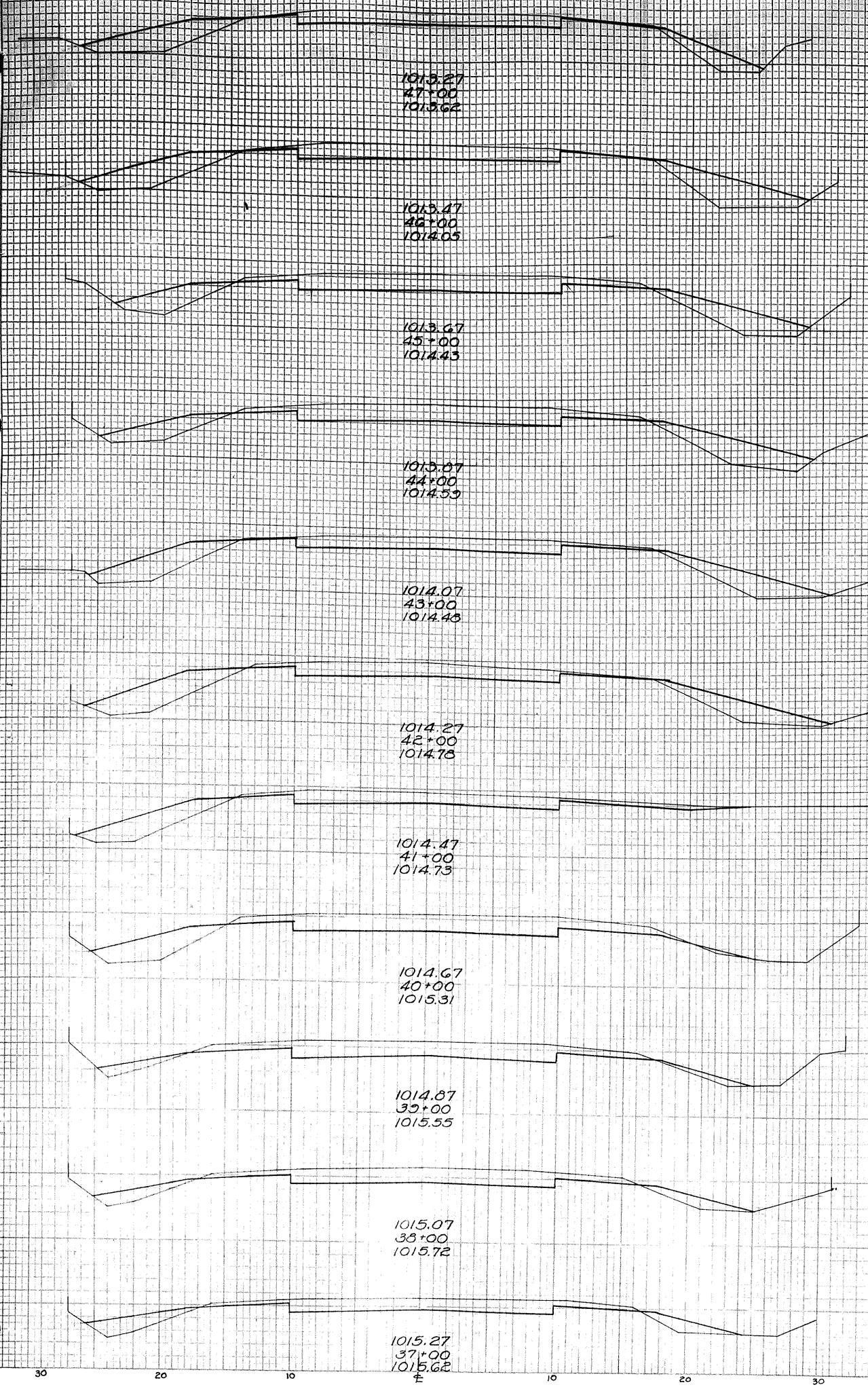


| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |
| 17 | 25 |
| 30 | 10 |
| 104 | 16 |
| 126 | 22 |
| 22 | 4 |
| 38 | 2 |
| 159 | 4 |
| 48 | 0 |
| 135 | 24 |
| 25 | 13 |
| 74 | 63 |
| 15 | 21 |
| 69 | 74 |
| 22 | 19 |
| 80 | 74 |
| 21 | 21 |
| 12 | 11 |
| 21 | 17 |
| 76 | 51 |
| 28 | 16 |
| 107 | 57 |

Excav. + 20%
Emb. + 20%
1600 Cu. Yds.
1407 "

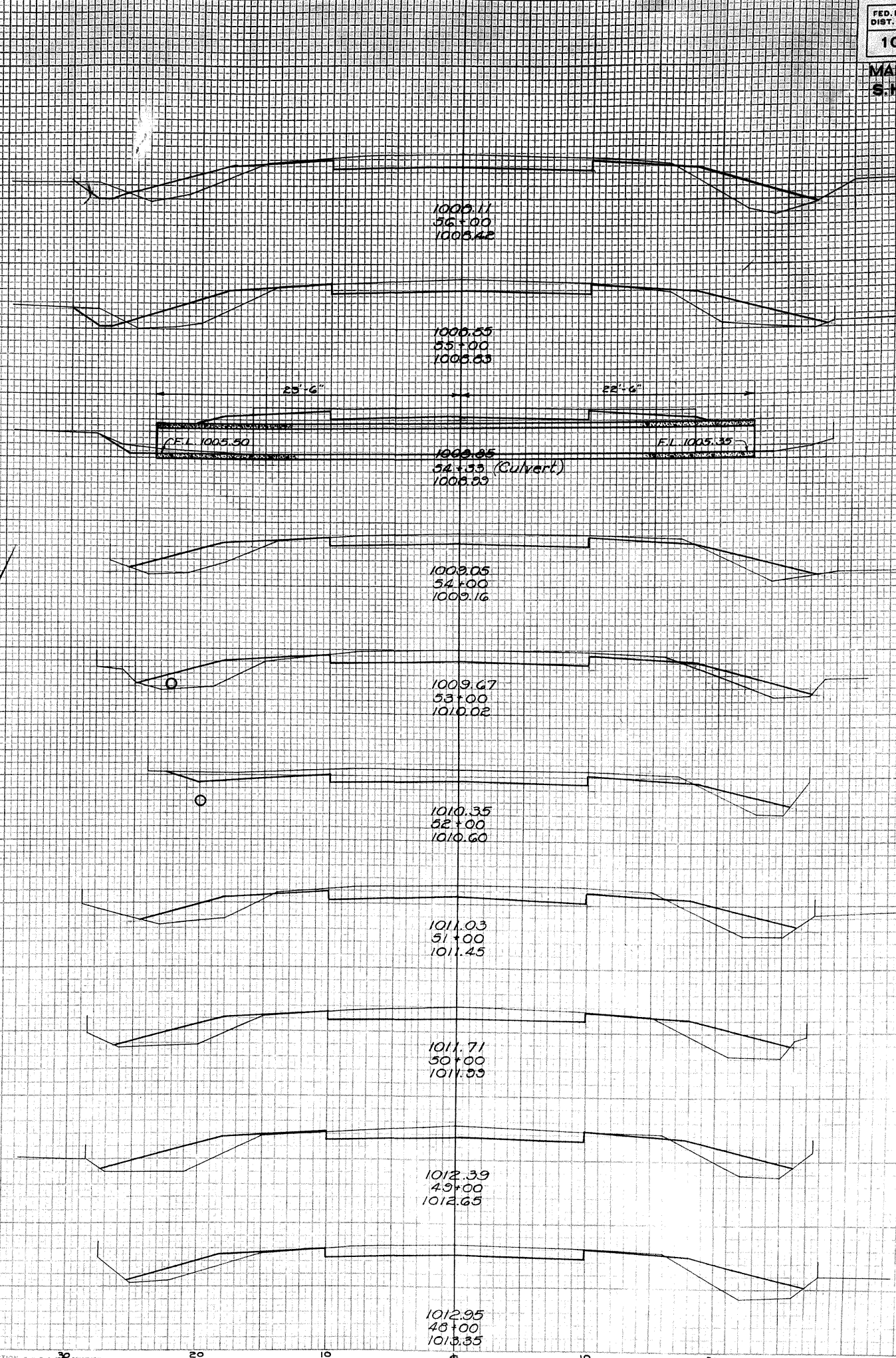


MADISON COUNTY
S.H. 241 SEC. 5(P) & G



| End Area | Cu. Yds. |
|----------|----------|
| 15 | 27 |
| 76 | 115 |
| 23 | 35 |
| 104 | 109 |
| 33 | 24 |
| 122 | 85 |
| 33 | 22 |
| 104 | 91 |
| 23 | 27 |
| 07 | 85 |
| 24 | 19 |
| 99 | 63 |
| 26 | 15 |
| 109 | 54 |
| 33 | 14 |
| 122 | 39 |
| 33 | 7 |
| 117 | 35 |
| 30 | 12 |
| 106 | 46 |
| 27 | 13 |
| 81 | 70 |

1934 Cu. Yds.
16.72
1934
Excav
Emb.
Emb. + 20%

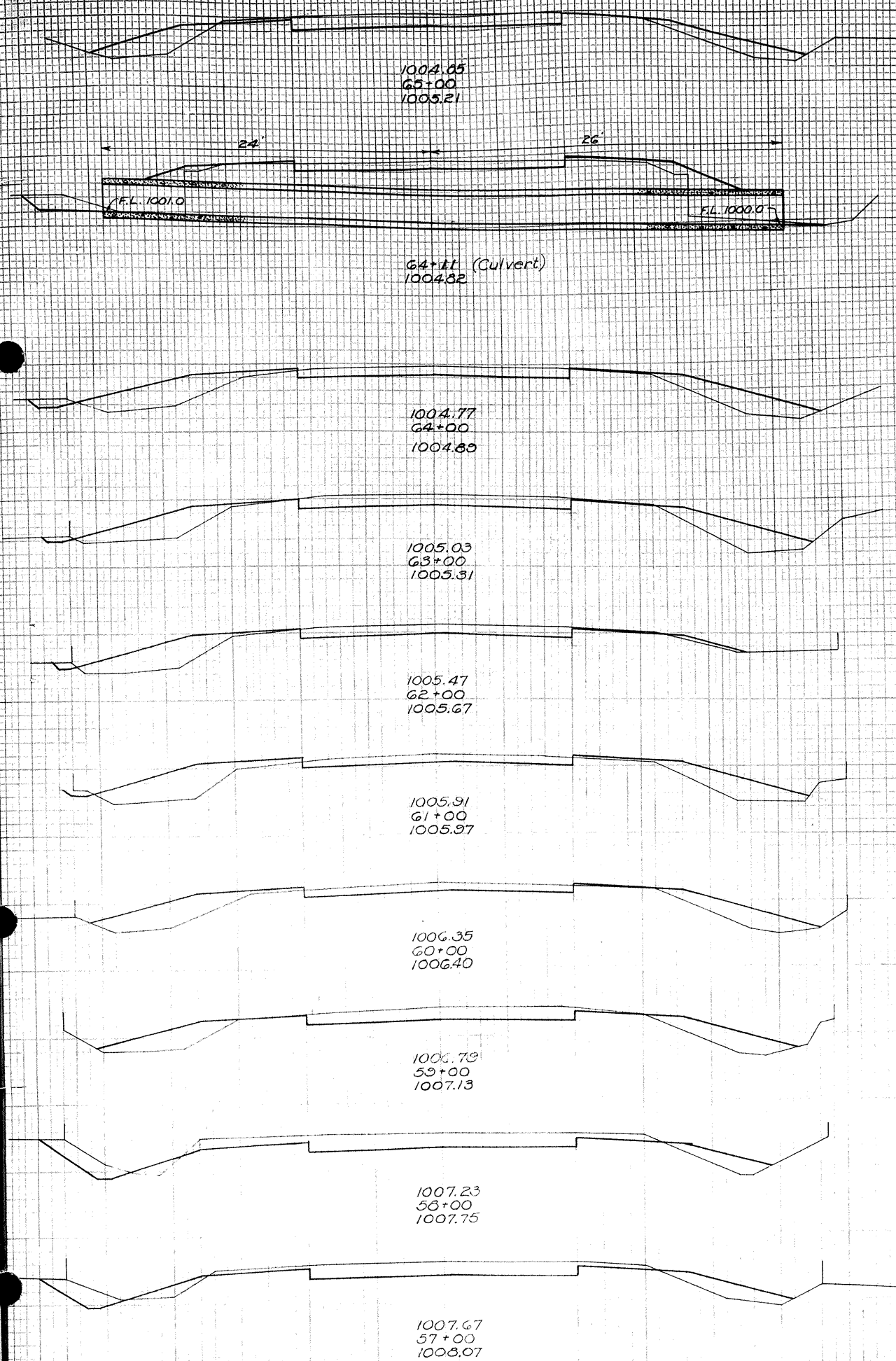


| End Area | Cu. Yds. |
|----------|----------|
| 20 | 25 |
| 37 | 33 |
| 67 | 107 |
| 90 | 40 |
| 16 | 30 |
| 47 | 82 |
| 22 | 33 |
| 26 | 30 |
| 20 | 21 |
| 76 | 80 |
| 21 | 22 |
| 87 | 50 |
| 26 | 5 |
| 91 | 52 |
| 23 | 23 |
| 74 | 96 |
| 17 | 29 |
| 65 | 106 |
| 18 | 28 |
| 69 | 96 |
| 16 | 24 |
| 63 | 94 |

MADISON COUNTY
S.H. 241 SEC. 8 (P) 4-9

| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |

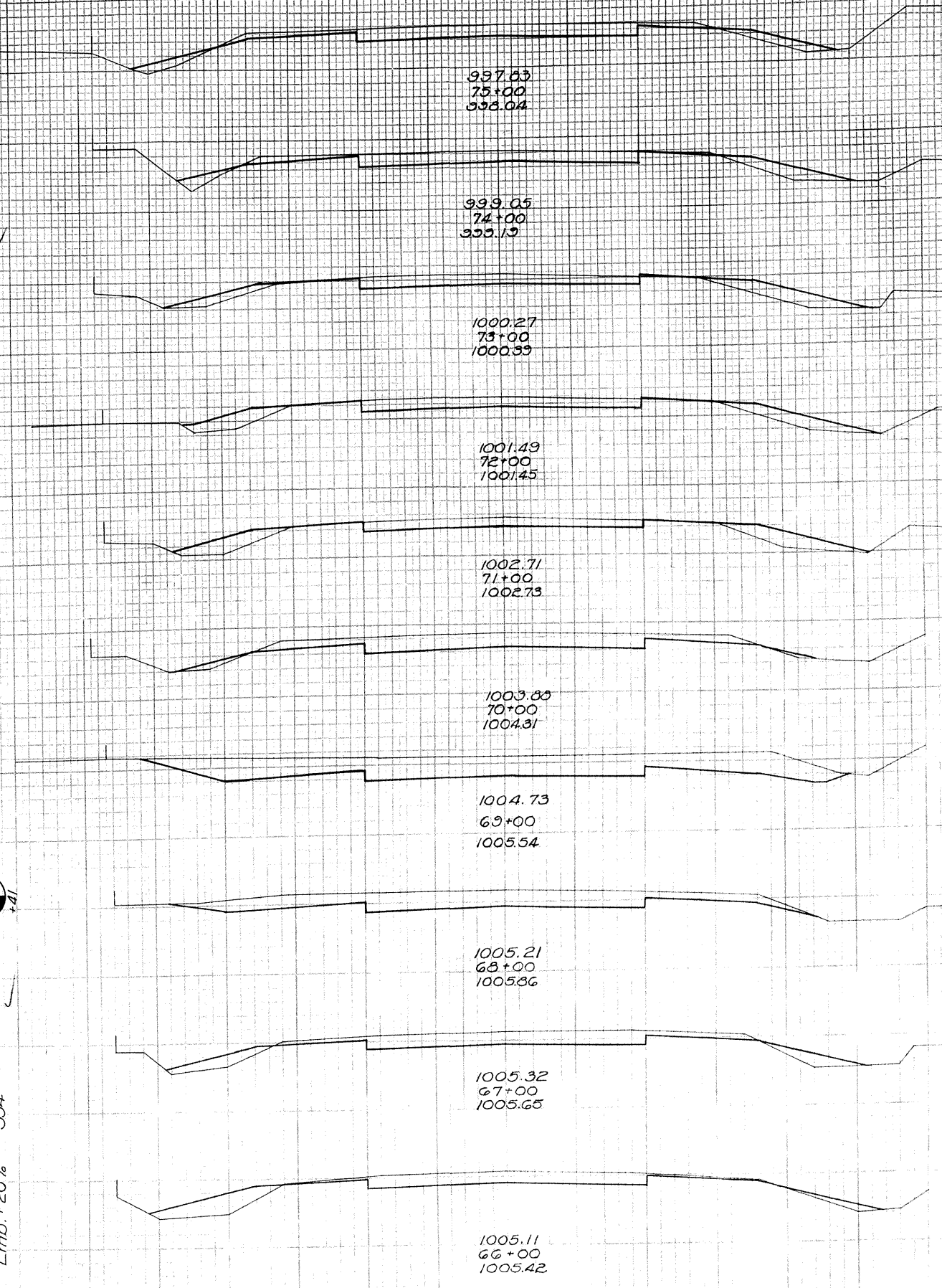
| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |



| | | | |
|-----|-----|--|--|
| 20 | 18 | | |
| 60 | 94 | | |
| 16 | 39 | | |
| 6 | 15 | | |
| 13 | 34 | | |
| 59 | 122 | | |
| 19 | 32 | | |
| 67 | 94 | | |
| 17 | 19 | | |
| 54 | 104 | | |
| 12 | 37 | | |
| 43 | 130 | | |
| 11 | 33 | | |
| 34 | 63 | | |
| 57 | 106 | | |
| 25 | 43 | | |
| 20 | 24 | | |
| 93 | 63 | | |
| 30 | 10 | | |
| 100 | 43 | | |
| 24 | 13 | | |
| 81 | 70 | | |

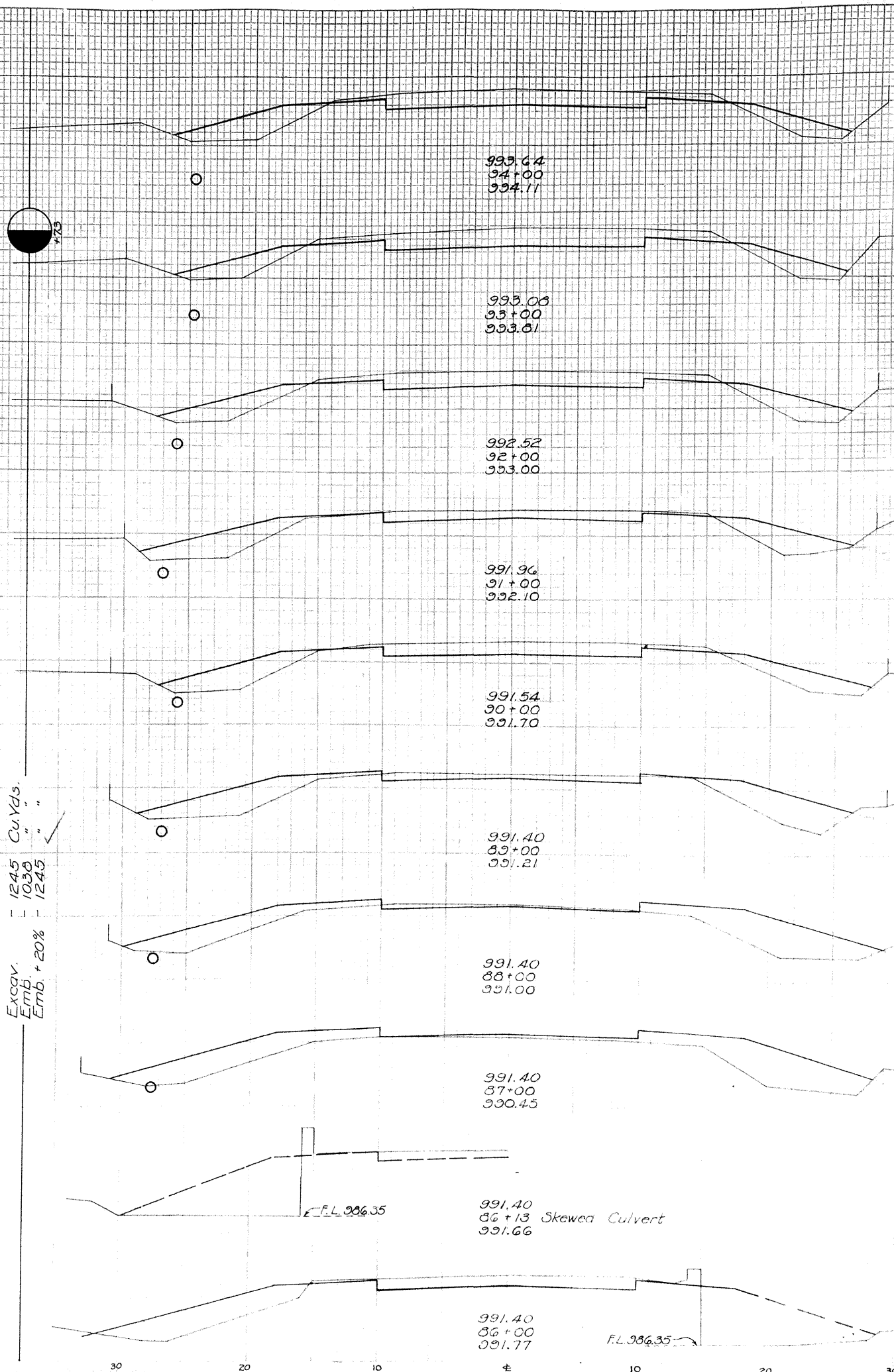
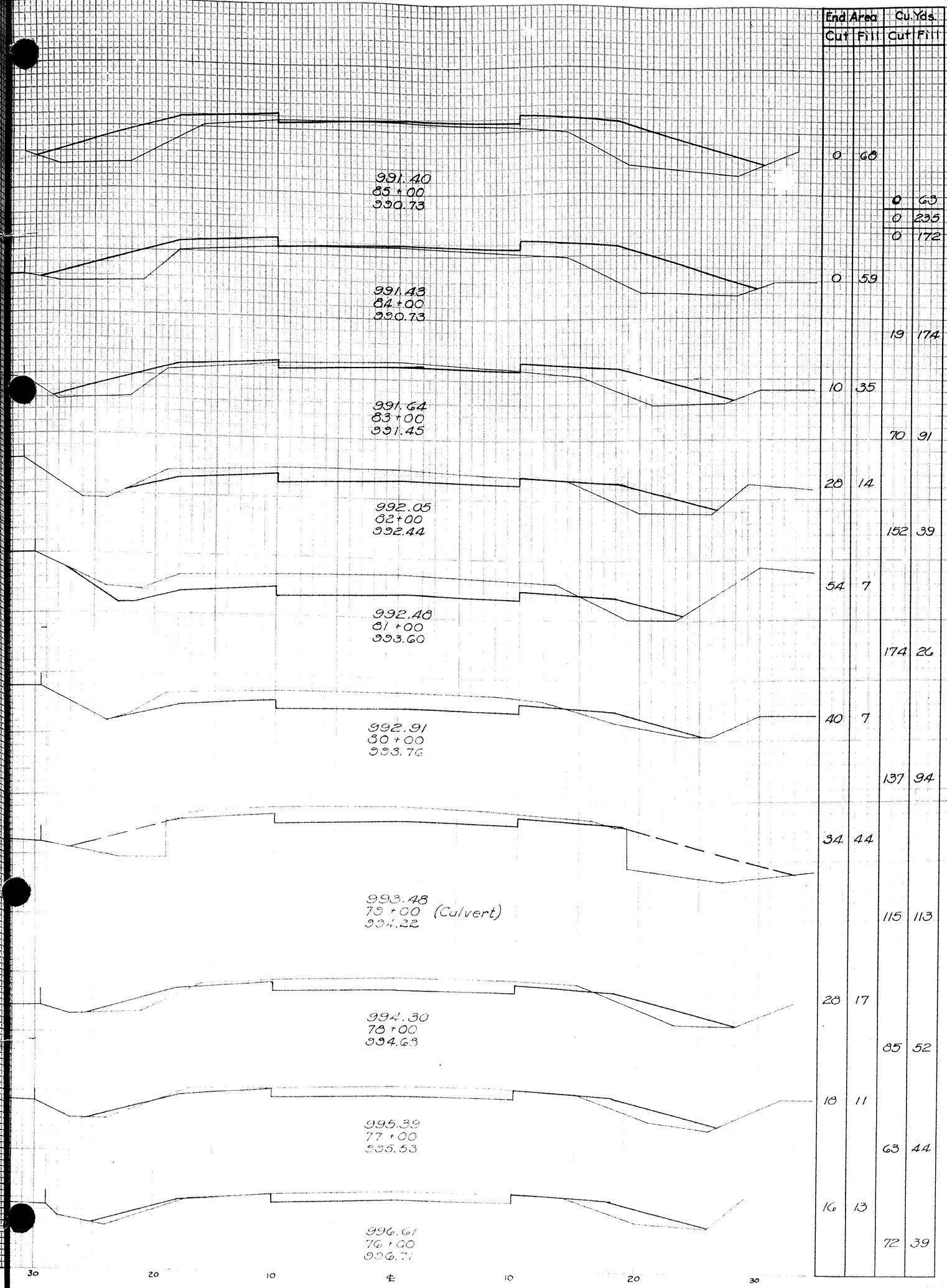
Excav. 887 Cu.Yds.
 Emb. " " "
 Emb. + 20% " " "

Excav. 334 Cu.Yds.
 Emb. 278 " "
 Emb. + 20% 334 " "



| | | | |
|-----|----|--|--|
| 23 | 0 | | |
| 80 | 37 | | |
| 20 | 12 | | |
| 47 | 46 | | |
| 16 | 13 | | |
| 54 | 44 | | |
| 13 | 11 | | |
| 43 | 41 | | |
| 10 | 11 | | |
| 69 | 24 | | |
| 27 | 2 | | |
| 45 | 2 | | |
| 165 | 4 | | |
| 120 | 2 | | |
| 62 | 0 | | |
| 187 | | | |
| 39 | 0 | | |
| 109 | 17 | | |
| 20 | 9 | | |
| 74 | 41 | | |
| 20 | 13 | | |
| 74 | 57 | | |

MADISON COUNTY
S.H. 241 SEC. 3 (Pt.) 2-9



| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |
| 0 | 60 |
| 0 | 63 |
| 0 | 235 |
| 0 | 172 |
| 0 | 59 |
| 19 | 174 |
| 10 | 35 |
| 70 | 91 |
| 28 | 14 |
| 152 | 39 |
| 54 | 7 |
| 174 | 26 |
| 40 | 7 |
| 137 | 94 |
| 34 | 44 |
| 115 | 113 |
| 28 | 17 |
| 85 | 52 |
| 18 | 11 |
| 63 | 44 |
| 16 | 13 |
| 72 | 39 |

| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |
| 20 | 25 |
| | 115 |
| 34 | 18 |
| | 117 |
| 29 | 26 |
| | 80 |
| | 104 |
| 14 | 30 |
| | 69 |
| | 109 |
| 23 | 29 |
| | 65 |
| | 133 |
| 12 | 43 |
| | 26 |
| | 103 |
| 2 | 50 |
| | 4 |
| | 237 |
| 0 | 72 |
| | 33 |
| | 252 |
| 18 | 64 |
| | 33 |
| | 244 |

Excav. 1245
Emb. 1038
Emb. + 20% 1245



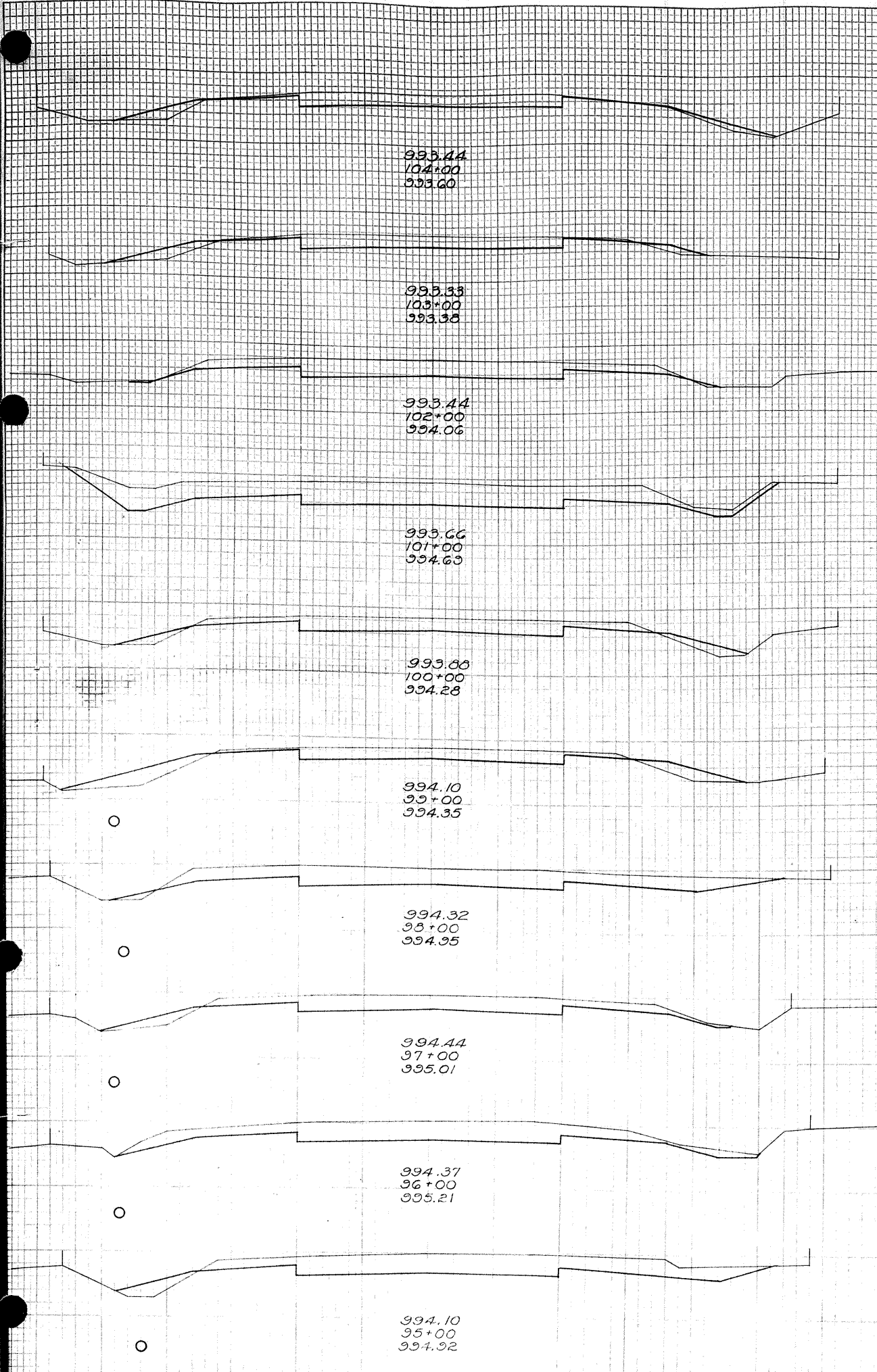
F.L. 206.35

991.40
86+13 Skewed Culvert
991.66

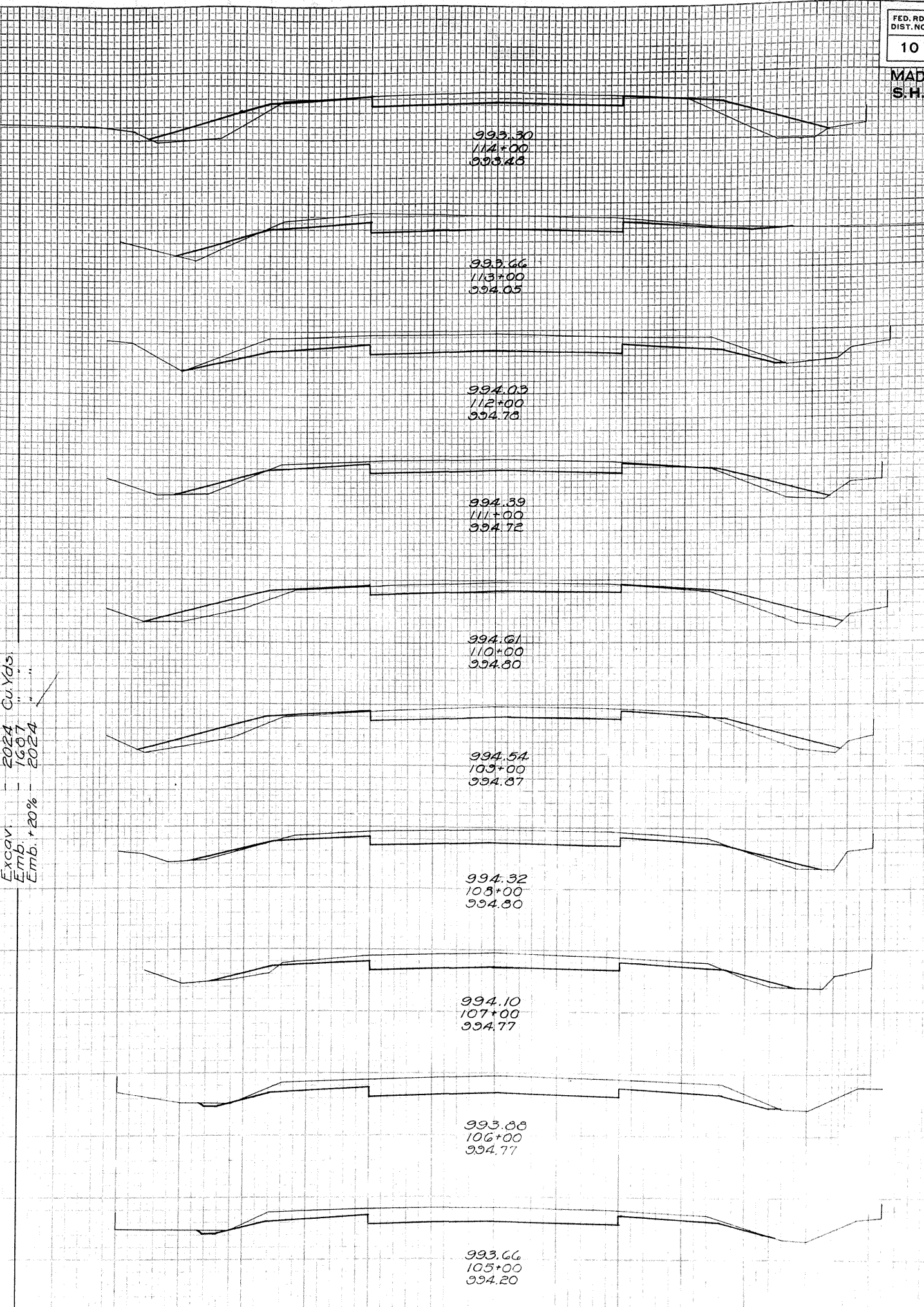
F.L. 206.35

991.40
86+00
991.77

MADISON COUNTY
S.H. 241 SEC. B (P1) & C



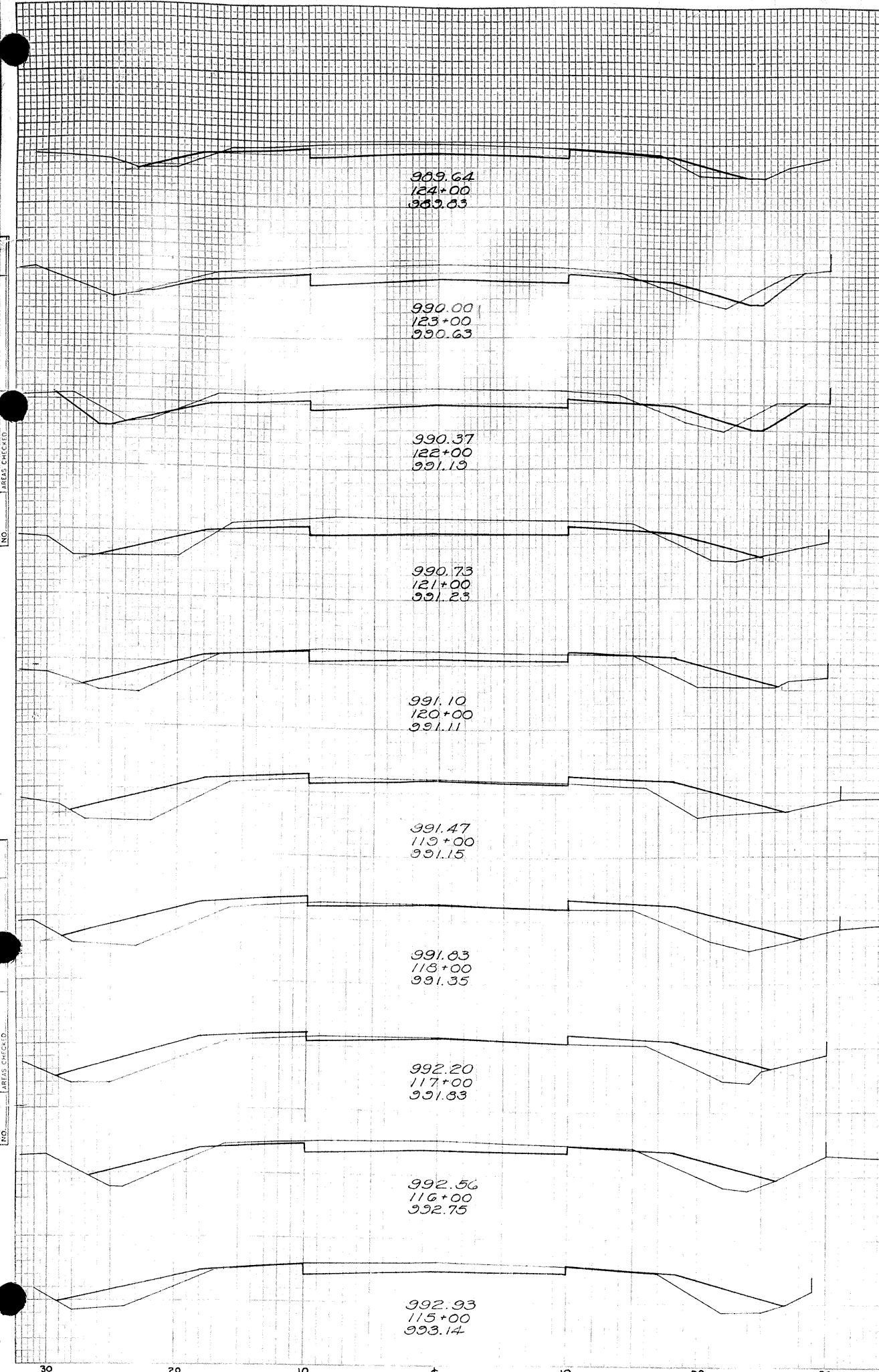
| End Area | Cu. Yds. | Cut | Fill | Cut | Fill |
|----------|----------|-----|------|-----|------|
| 16 | 6 | | | | |
| 61 | 20 | | | | |
| 17 | 5 | | | | |
| 95 | 9 | | | | |
| 33 | 0 | | | | |
| 185 | 0 | | | | |
| 67 | 0 | | | | |
| 178 | 11 | | | | |
| 29 | 6 | | | | |
| 89 | 39 | | | | |
| 19 | 15 | | | | |
| 128 | 30 | | | | |
| 50 | 1 | | | | |
| 159 | 9 | | | | |
| 36 | 4 | | | | |
| 159 | 7 | | | | |
| 50 | 0 | | | | |
| 183 | 9 | | | | |
| 49 | 5 | | | | |
| 143 | 56 | | | | |



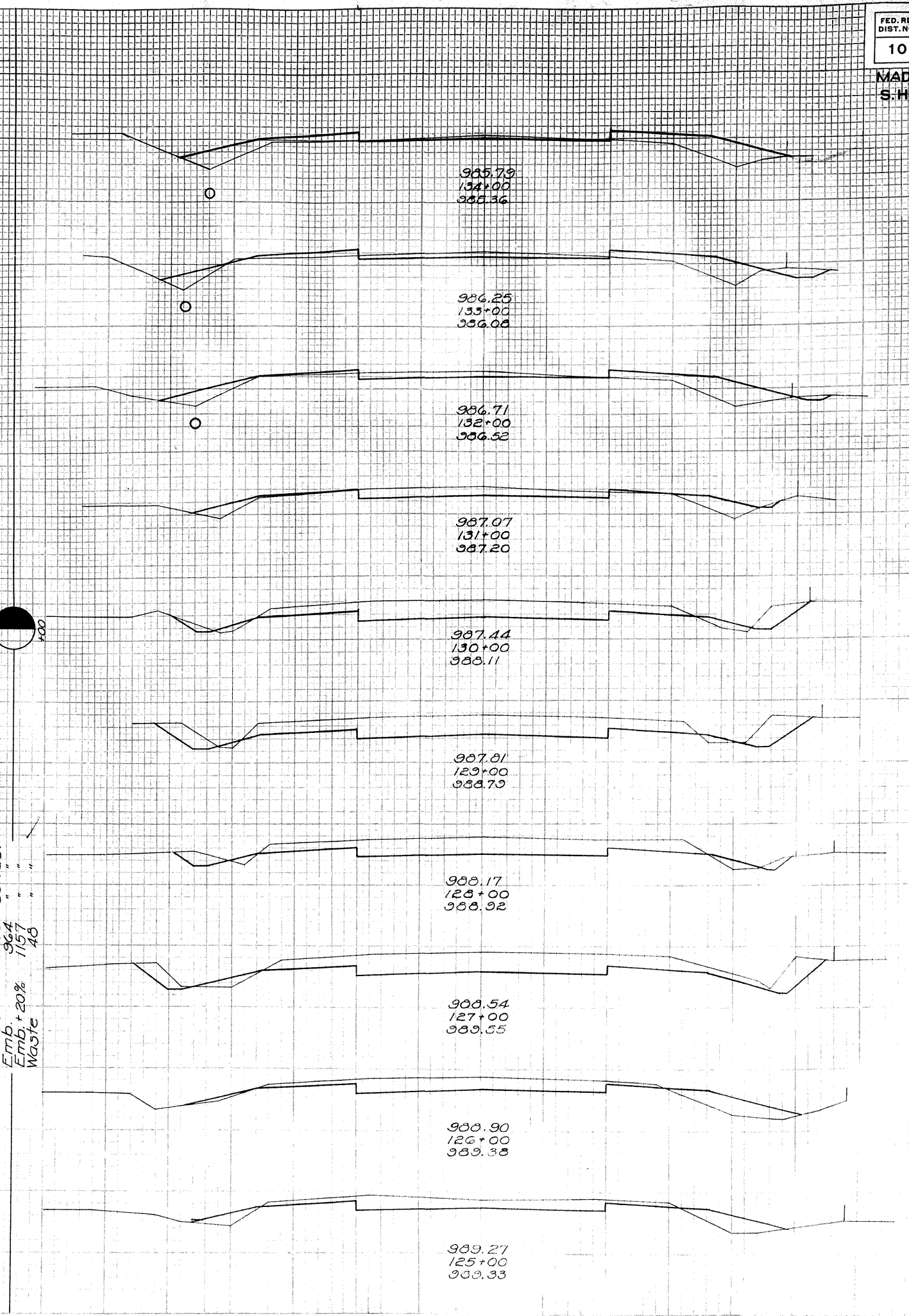
| End Area | Cu. Yds. | Cut | Fill | Cut | Fill |
|----------|----------|-----|------|-----|------|
| 16 | 22 | | | | |
| | | 85 | 46 | | |
| 30 | 3 | | | | |
| | | 140 | 6 | | |
| 50 | 0 | | | | |
| | | 133 | 19 | | |
| 22 | 10 | | | | |
| | | 67 | 57 | | |
| 14 | 21 | | | | |
| | | 59 | 70 | | |
| 18 | 17 | | | | |
| | | 89 | 37 | | |
| 30 | 3 | | | | |
| | | 109 | 13 | | |
| 29 | 4 | | | | |
| | | 139 | 7 | | |
| 46 | 0 | | | | |
| | | 159 | 0 | | |
| 40 | 0 | | | | |
| | | 104 | 11 | | |

Excav. Emb. + 20%
2024 Cu. Yds.
1697
2024

MADISON COUNTY
S.H. 241 SEC. 8(P) & E



| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |
| 81.30 | |
| 20.6 | |
| 102.20 | |
| 35.5 | |
| 139.19 | |
| 40.5 | |
| 135.37 | |
| 33.15 | |
| 65.67 | |
| 13.21 | |
| 35.113 | |
| 6.40 | |
| 19.159 | |
| 4.46 | |
| 15.156 | |
| 4.38 | |
| 35.111 | |
| 15.22 | |
| 56.85 | |
| 15.24 | |
| 57.85 | |



| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |
| 3.25 | |
| 26.81 | |
| 11.19 | |
| 37.76 | |
| 9.22 | |
| 44.59 | |
| 15.10 | |
| 107.24 | |
| 43.3 | |
| 189.9 | |
| 59.2 | |
| 189.9 | |
| 43.3 | |
| 174.11 | |
| 51.3 | |
| 144.24 | |
| 27.10 | |
| 94.37 | |
| 24.10 | |

Excav
Emb.
Emb. + 20%
Waste

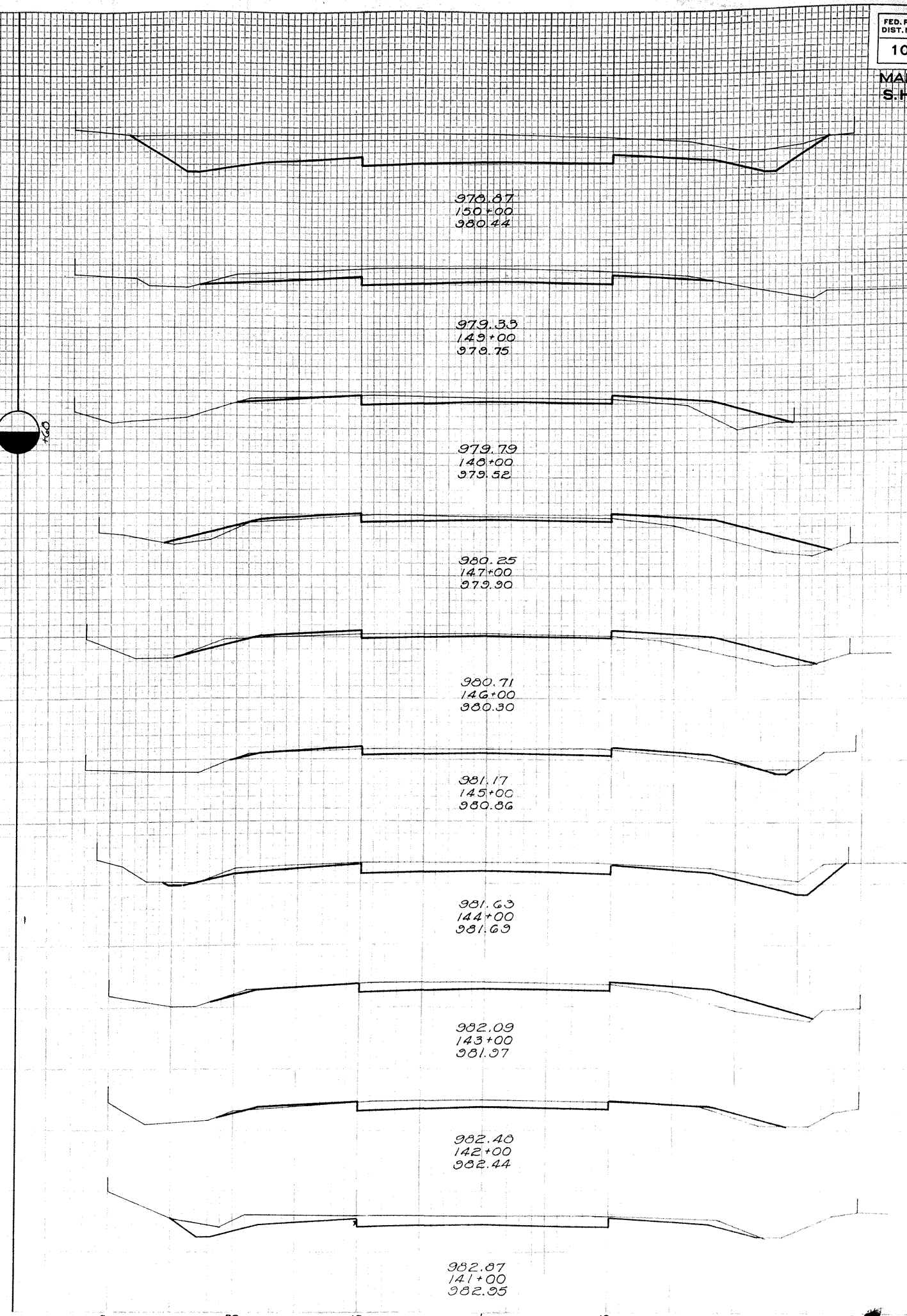
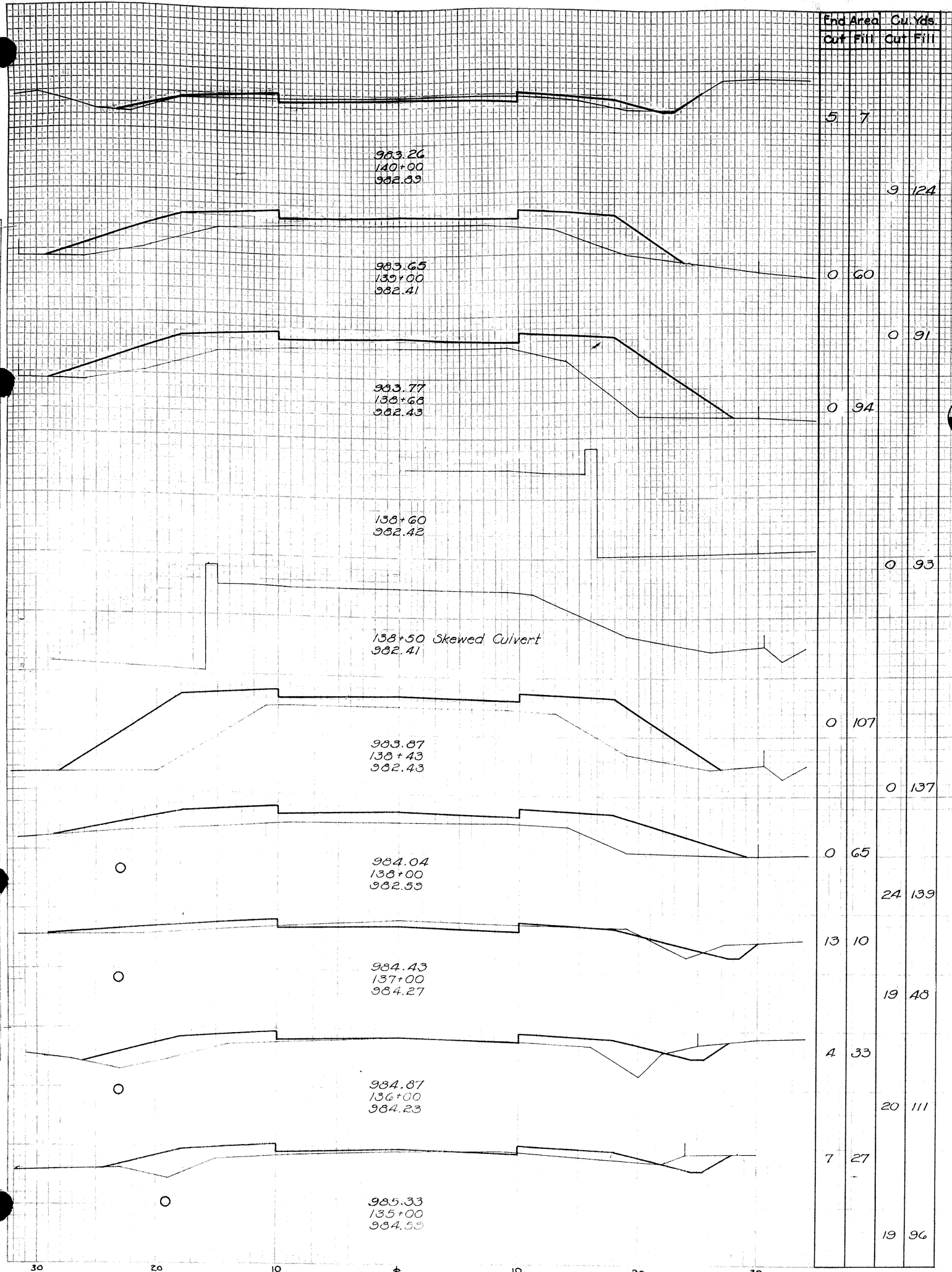
1205 Cu. Yds.
964
1157
45

Excav
Emb.
Emb. + 20%
Waste

1620 Cu. Yds.
1132
1358
270

to be wasted at intersection of S.H. 241 & 70.1

MADISON COUNTY
S.H. 241 SEC. 5 (P) & G



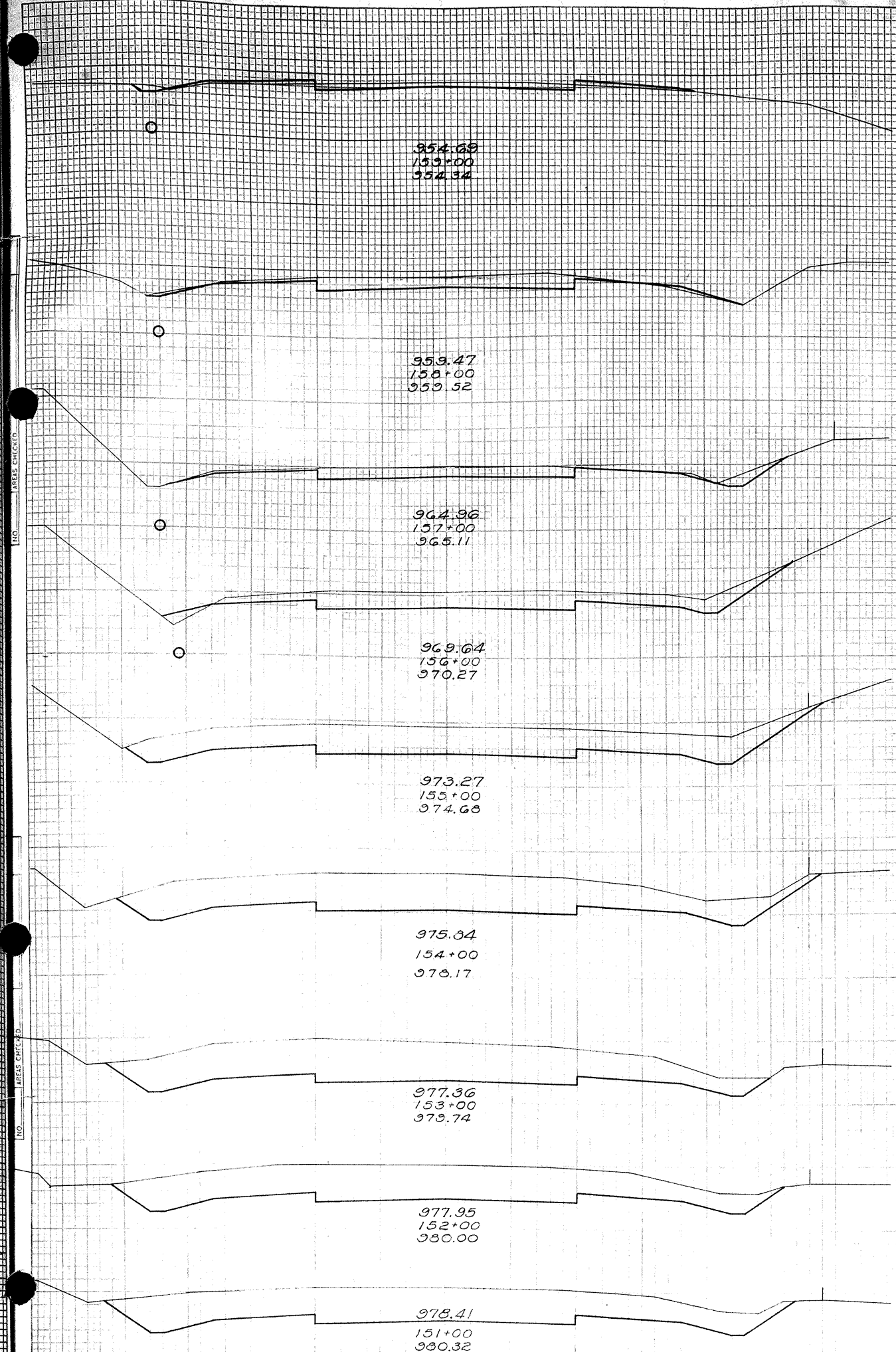
| Sta. | End Area | Cu. Yds. |
|--------|----------|----------|
| | Cut | Fill |
| 140+00 | 166 | 0 |
| 139+00 | 267 | 0 |
| 138+00 | 101 | 0 |
| 137+00 | 34 | 0 |
| 136+00 | 81 | 20 |
| 135+00 | 10 | 11 |
| 134+00 | 31 | 61 |
| 133+00 | 7 | 22 |
| 132+00 | 24 | 72 |
| 131+00 | 6 | 17 |
| 130+00 | 26 | 43 |
| 129+00 | 8 | 6 |
| 128+00 | 59 | 11 |
| 127+00 | 24 | 0 |
| 126+00 | 67 | 22 |
| 125+00 | 12 | 12 |
| 124+00 | 46 | 28 |
| 123+00 | 13 | 3 |
| 122+00 | 80 | 6 |
| 121+00 | 30 | 0 |
| 120+00 | 65 | 13 |

Excav. 589 Cu.Yds.
Emb. 491
Emb. +20% 589

AREAS CHECKED

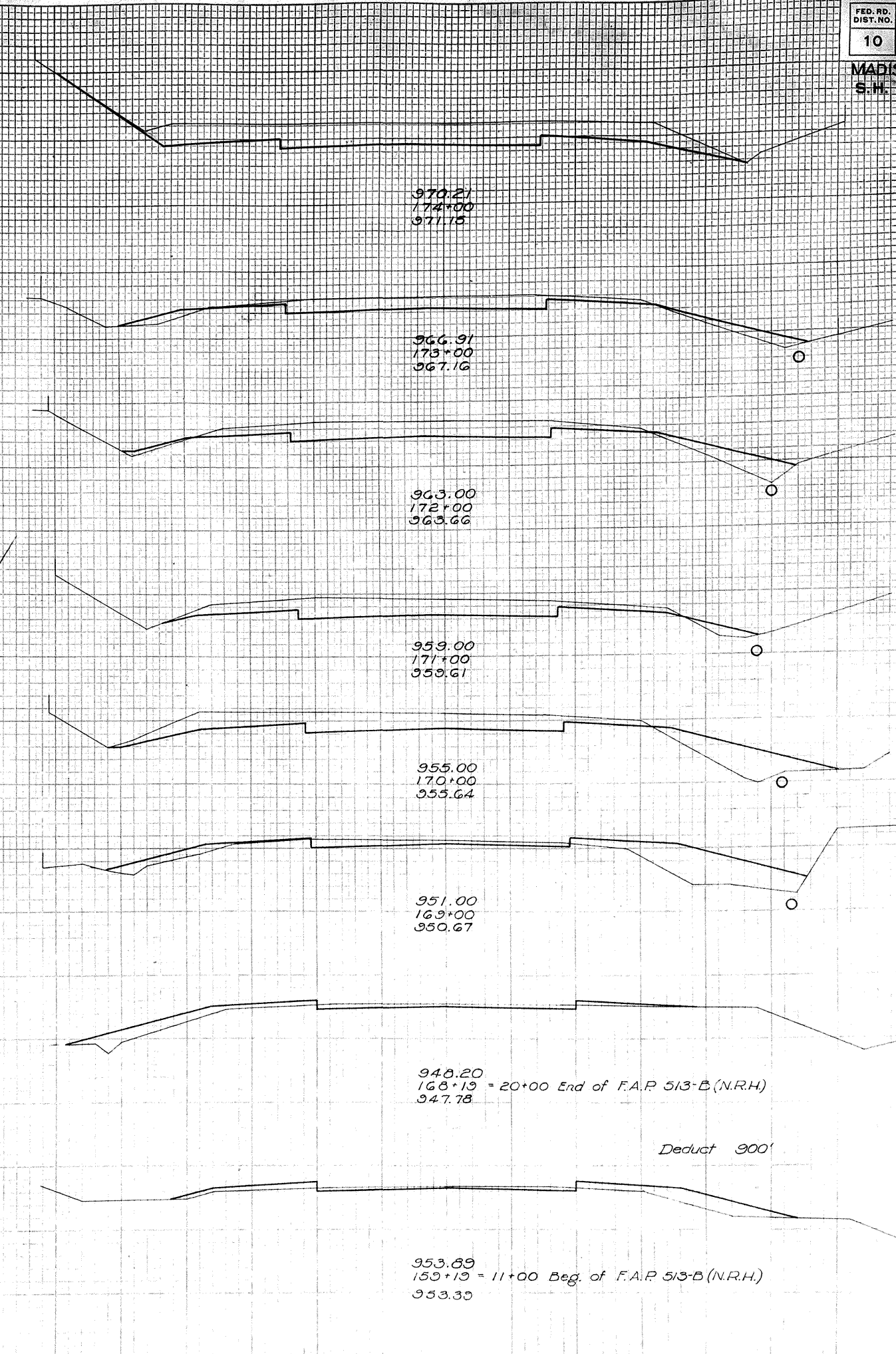
AREAS CHECKED

MADISON COUNTY
S.W. 24th SEG. 5 (P) & S



| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |
| 19 | 6 |
| 74 | 15 |
| 27 | 1 |
| 102 | 2 |
| 28 | 0 |
| 148 | 2 |
| 52 | 1 |
| 291 | 2 |
| 105 | 0 |
| 439 | 0 |
| 132 | 0 |
| 492 | 0 |
| 134 | 0 |
| 470 | 0 |
| 120 | 0 |
| 444 | 0 |
| 120 | 0 |
| 426 | 0 |

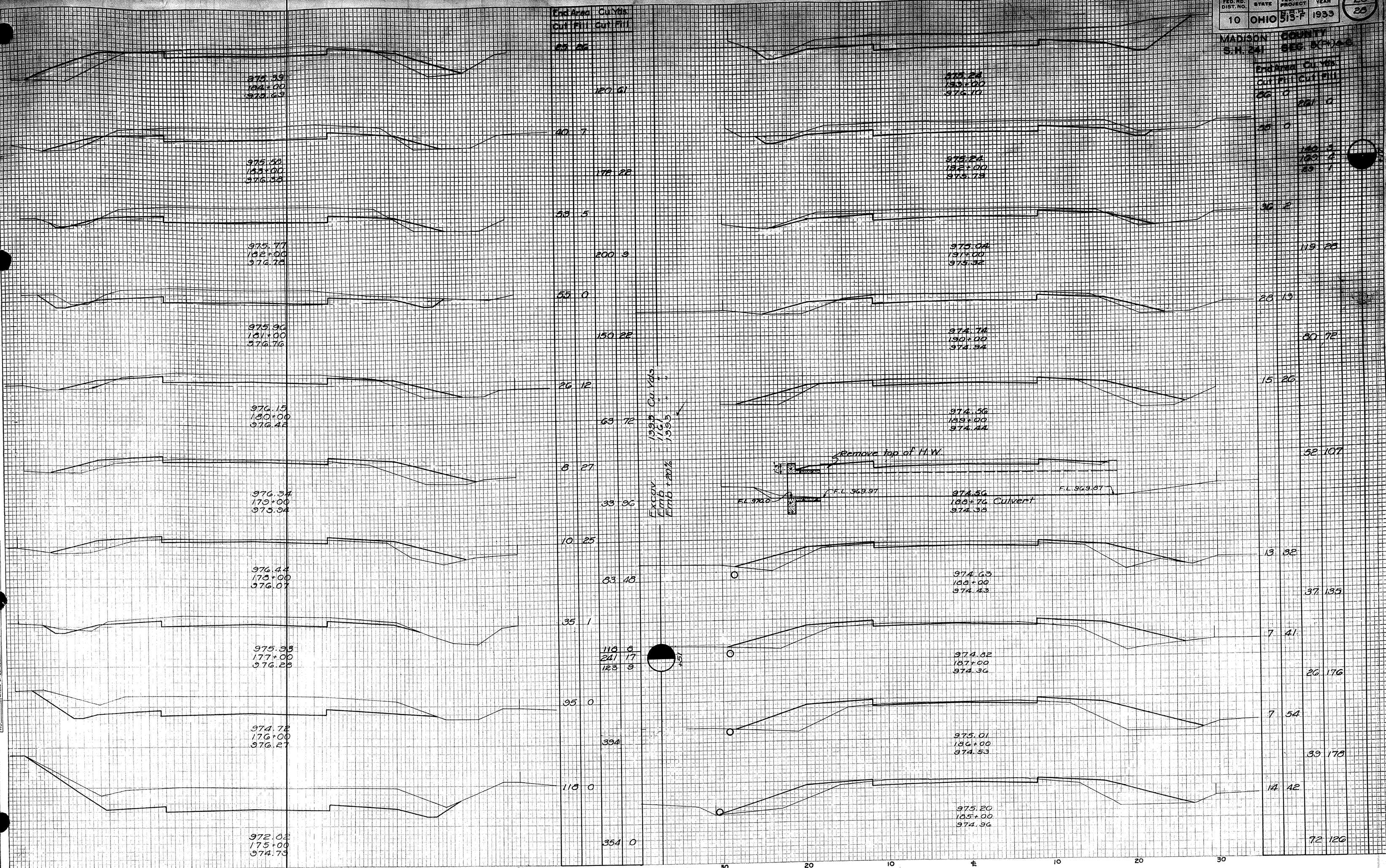
Excav. 3059
Emb. + 20% 27
Waste 32
3087

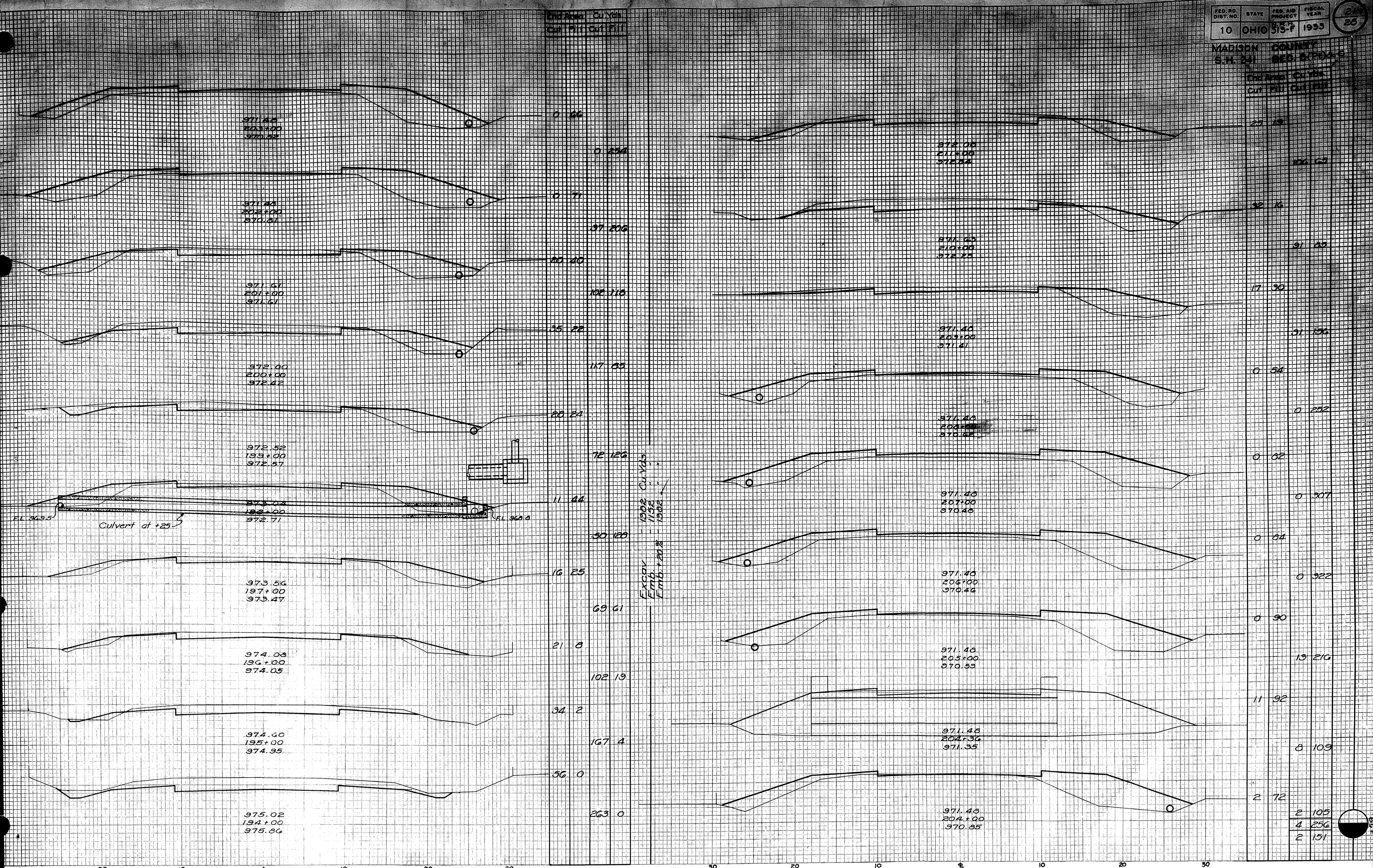


| End Area | Cu. Yds. |
|----------|----------|
| Cut | Fill |
| 70 | 0 |
| 101 | 20 |
| 25 | 11 |
| 117 | 41 |
| 38 | 11 |
| 148 | 26 |
| 42 | 3 |
| 174 | 43 |
| 52 | 20 |
| 117 | 100 |
| 11 | 34 |
| 32 | 76 |
| 10 | 17 |
| 7 | 17 |
| 7 | 8 |

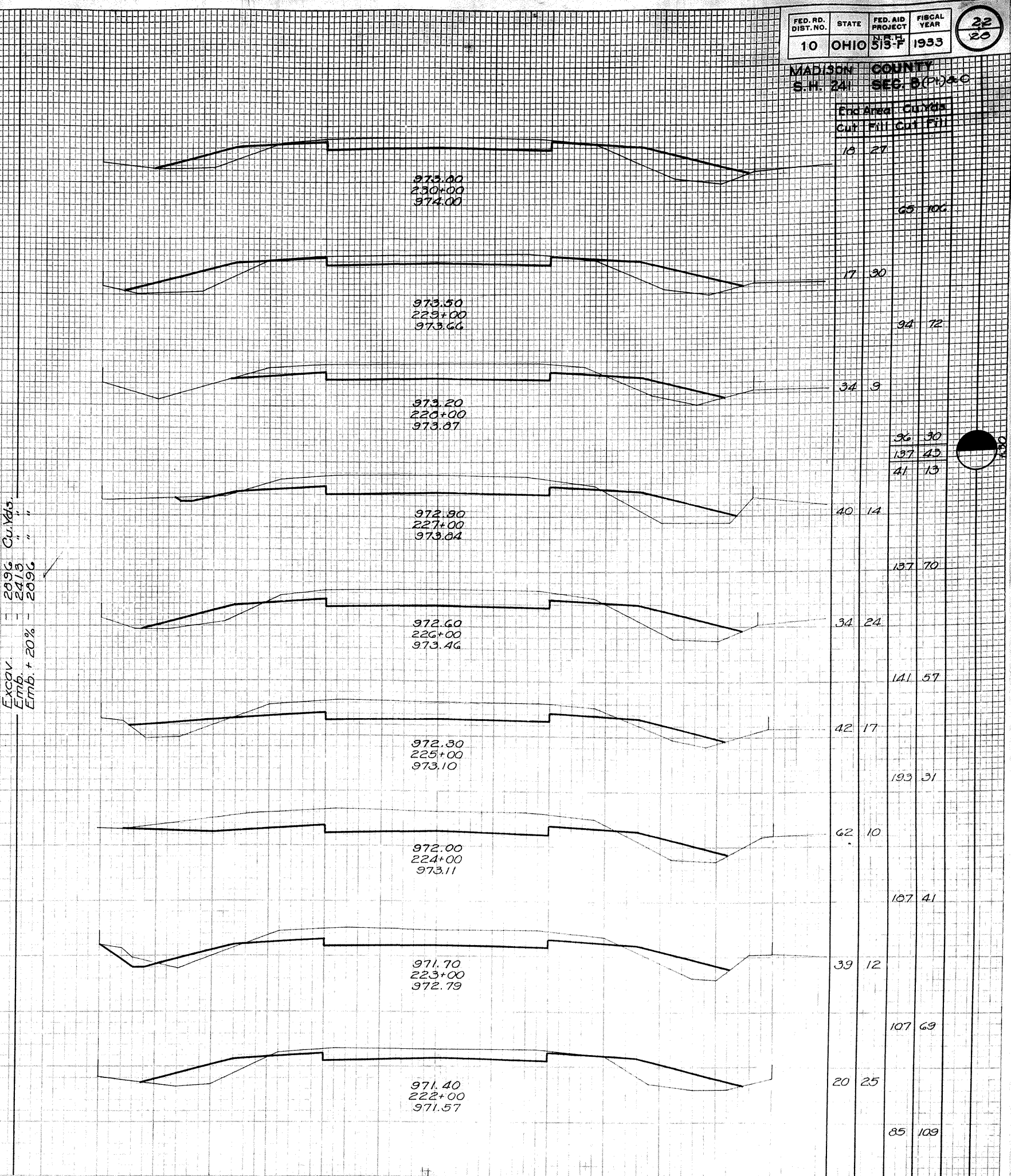
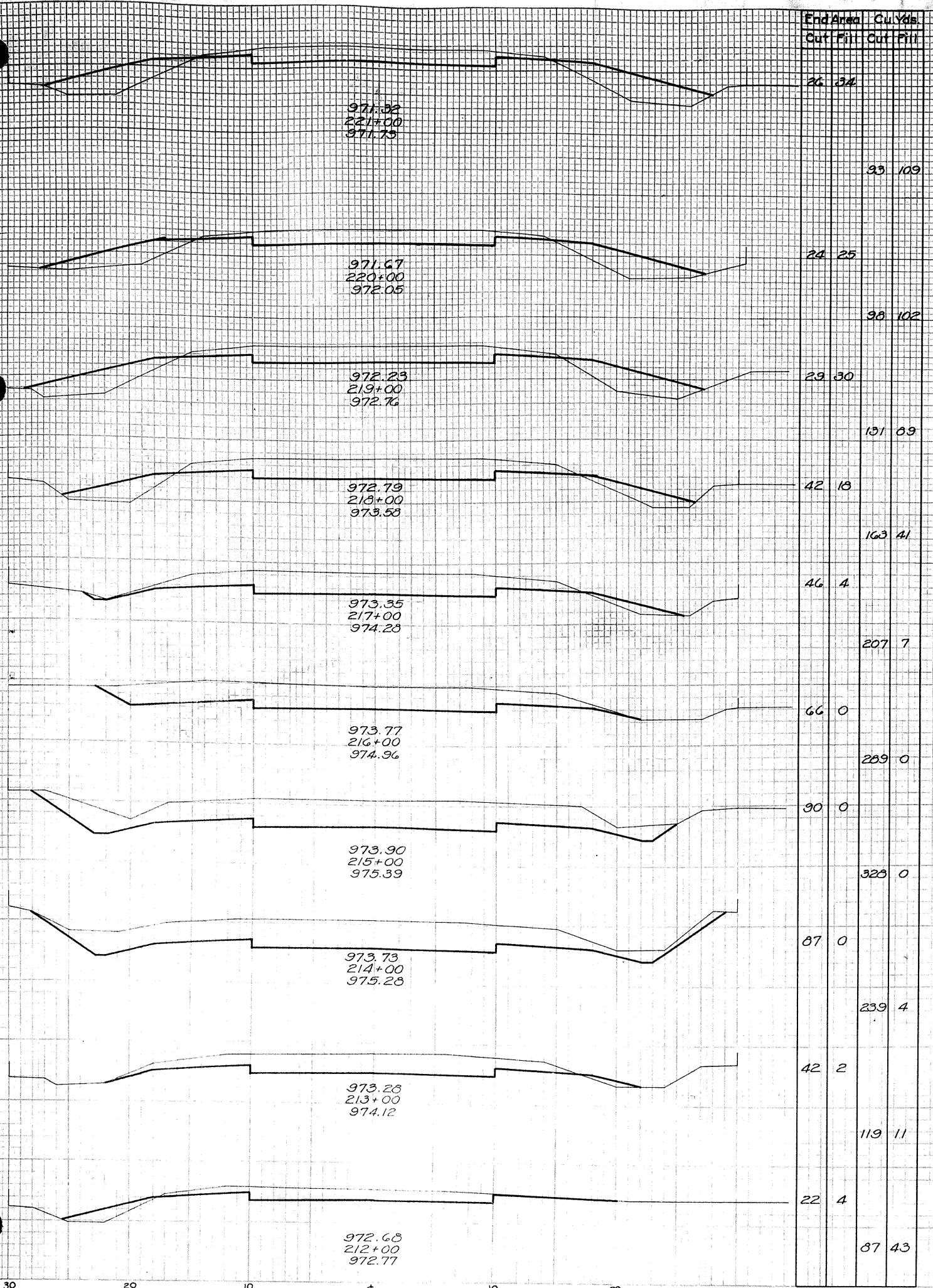
Excav. 1640
Emb. + 20% 370
Waste 370
1262

MADISON COUNTY
S.H. 241 SEG. 5 (P. 46)

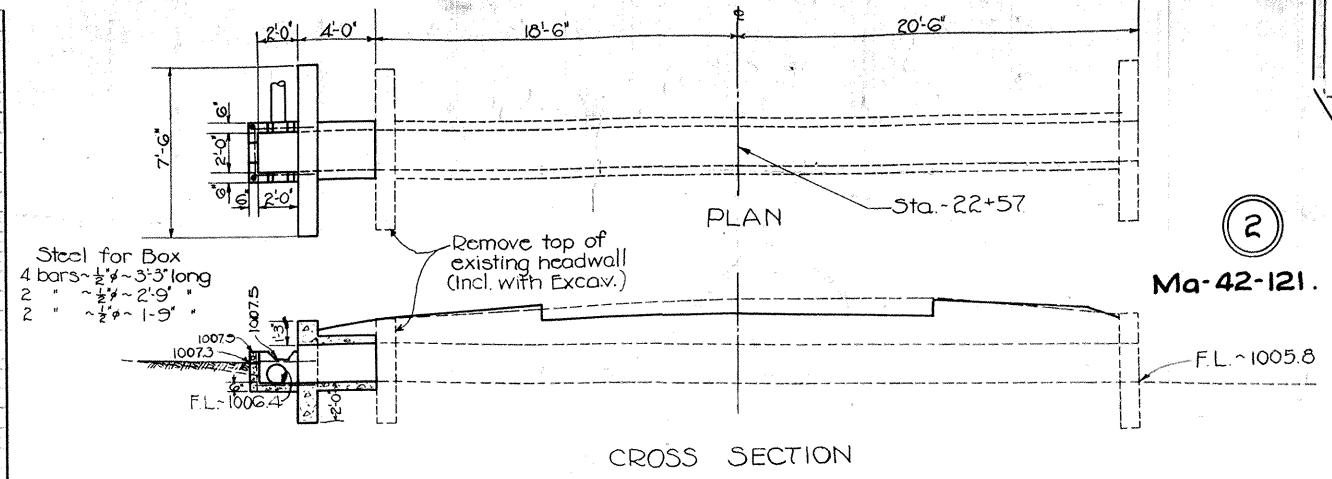
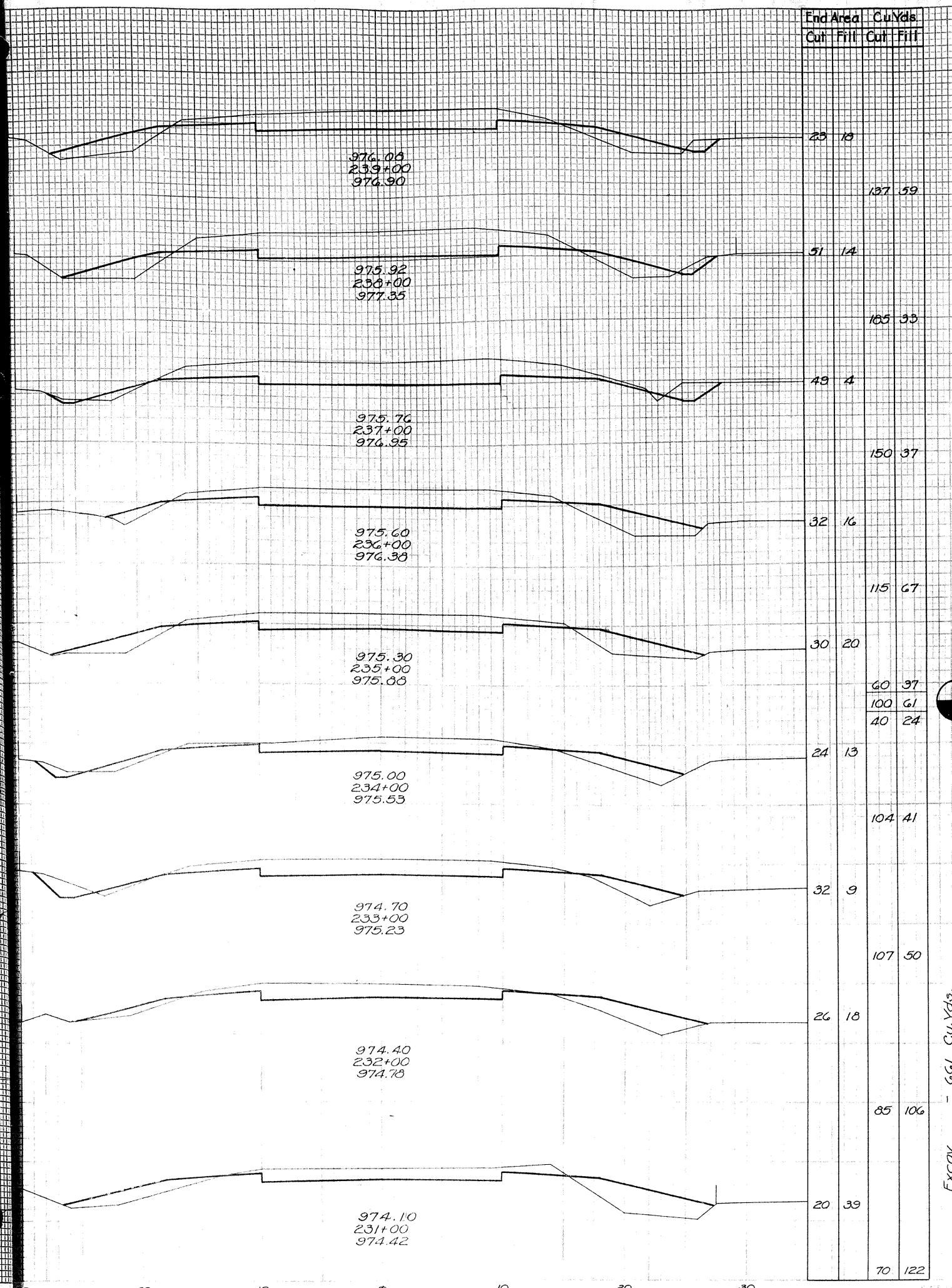




MADISON COUNTY
S.W. 24 SEC. 8 (P) & C



Excav. Emb. + 20%
2096 Cu. Yds.
2413
2096



Culvert Data

Type - Std. V.S.P. (enc) Ext. - Std. Dr. No 300
 Size - 24' x 4'-0" Left
 Work Required - Extend present 24' x 39' V.S.P. (enc) Culvert 4' left with 24' V.S.P. (enc). Build headwall and special box inlet on left. & connect 12" pipe. Remove top of existing headwall on left.

Estimated Quantities

| | |
|----------------------------------------|--------------|
| Excavation | 4 Cu. Yds. |
| 24' V.S.P. (enc), incl. 1-8 conc. enc. | 4 Lin Ft. |
| 1-5 1/2 Concrete | 2.0 Cu. Yds. |
| Reinforcing Steel | 80 Lbs. |

Excav. Emb. +20%
 661 Cu. Yds.
 551
 661

Excav. Emb. +20% Waste
 920 Cu. Yds.
 615
 738
 1082

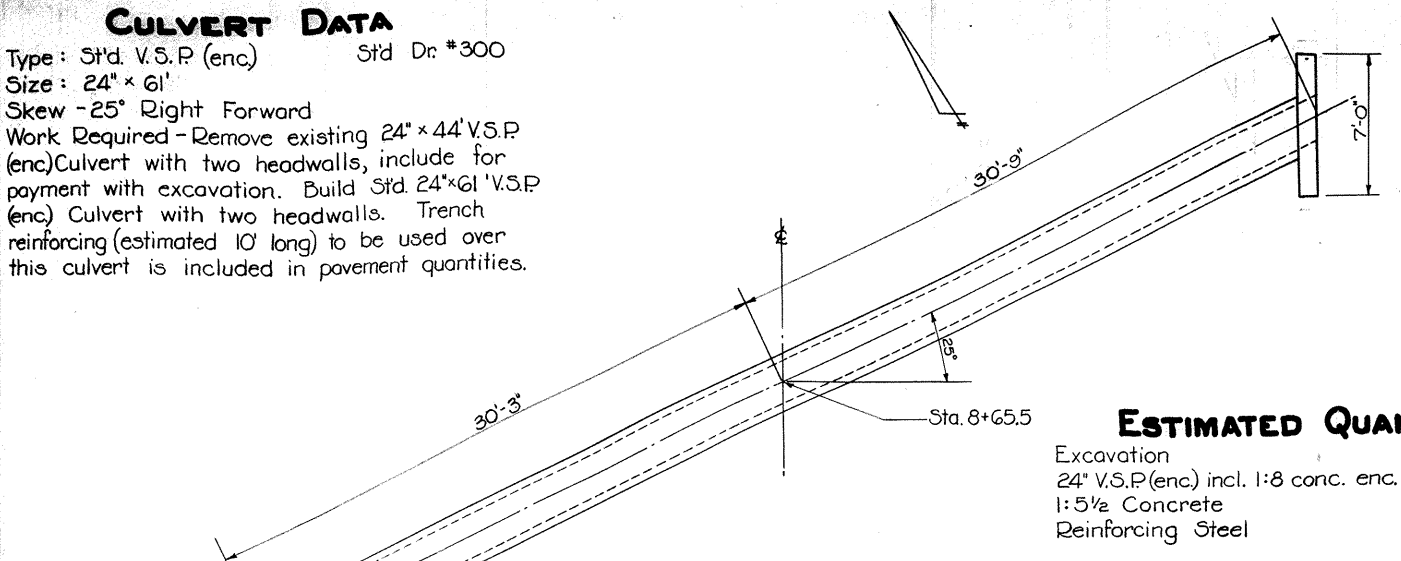
2

Ma-42-121.

244+35 End F.A.P. 513-F(N.R.H.)

CULVERT DATA

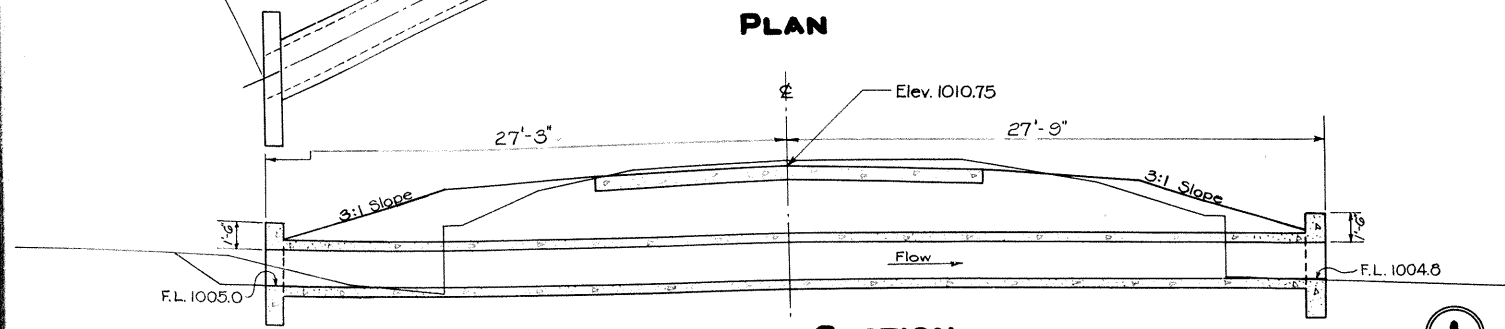
Type: Std. V.S.P (enc) Std. Dr. #300
 Size: 24" x 61"
 Skew -25° Right Forward
 Work Required - Remove existing 24" x 44' V.S.P (enc) Culvert with two headwalls, include for payment with excavation. Build Std. 24" x 61' V.S.P (enc) Culvert with two headwalls. Trench reinforcing (estimated 10' long) to be used over this culvert is included in pavement quantities.



PLAN

ESTIMATED QUANTITIES

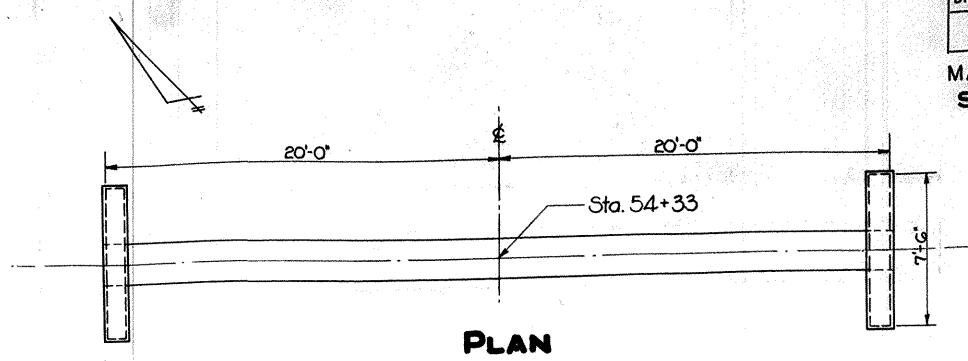
| | |
|--------------------------------------|-------------|
| Excavation | 56 Cu.Yds. |
| 24" V.S.P (enc) incl. 1:8 conc. enc. | 62 Lin. Ft. |
| 1:5/2 Concrete | 2.8 Cu.Yds. |
| Reinforcing Steel | 65 Lbs. |



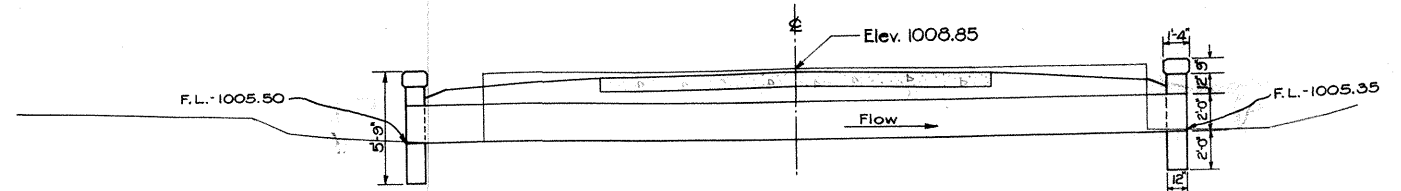
CROSS SECTION

Ma-42-118 **STA. 8+65.5**

1



PLAN



CROSS SECTION

CULVERT DATA

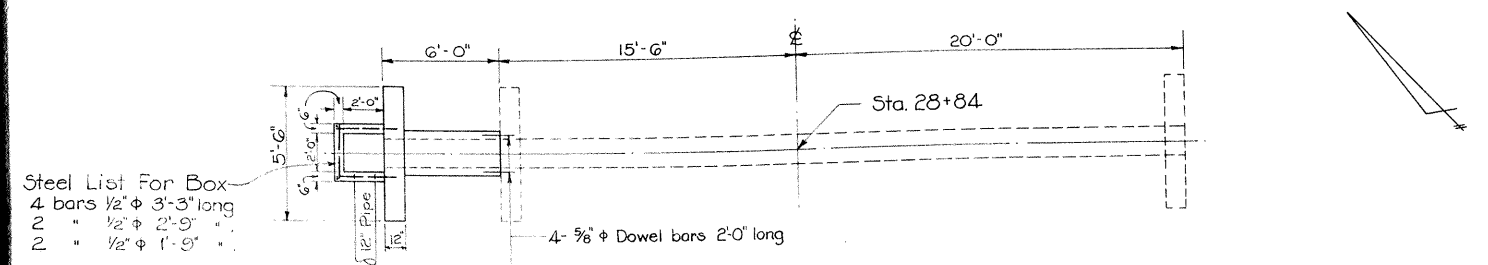
Type: Std. C.I.P Culvert Std. Dr. #300
 Size: 24" x 40'
 Work Required:- Remove 28' of 24" Conc. Pipe & 6' of 24" V.S.P (enc) with two headwalls, include for payment with Excavation. Build Std. 24" x 40' C.I.P Culvert with headwalls. Trench reinforcing (estimated 9' long) to be used over this culvert is included in pavement quantities.

ESTIMATED QUANTITIES

| | |
|-------------------------------------|-------------|
| Excavation | 22 Cu.Yds. |
| Solid Cast Iron Pipe (24" Diameter) | 40 Lin. Ft. |
| 1:5/2 Concrete | 3.1 Cu.Yds. |
| Reinforcing Steel | 65 Lbs. |

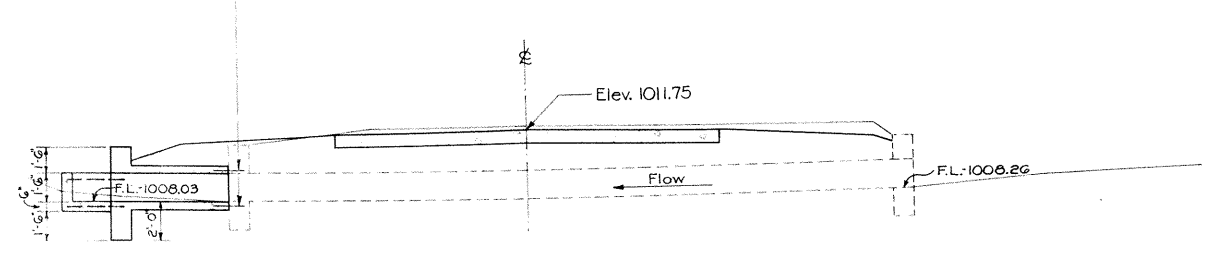
4

Ma-42-127. **STA. 54+33**



Steel List For Box
 4 bars 1/2" φ 3'-3" long
 2 " 1/2" φ 2'-9" "
 2 " 1/2" φ 1'-9" "

PLAN



CROSS SECTION

CULVERT DATA

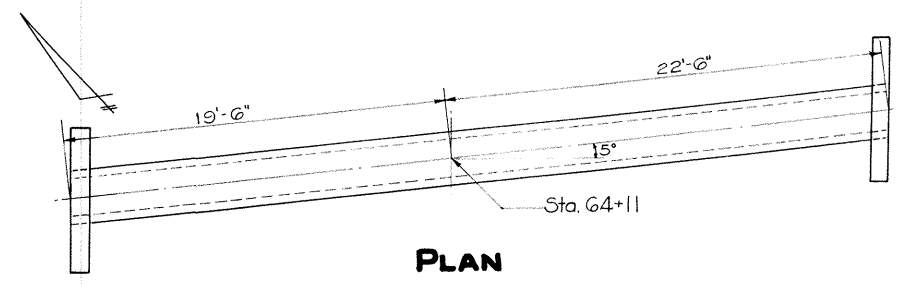
Type: Std. V.S.P (enc) Extension, Std. Dr. #300
 Size: 18" x 6'-0" Extension
 Work Required:- Extend existing 18" x 35.5' V.S.P (enc) Culvert with 6' of 18" V.S.P (enc) on left. Remove top of left hdwl., include for payment with Excavation. Build Std Hdwl. & 2' x 2' Box inlet on left.

ESTIMATED QUANTITIES

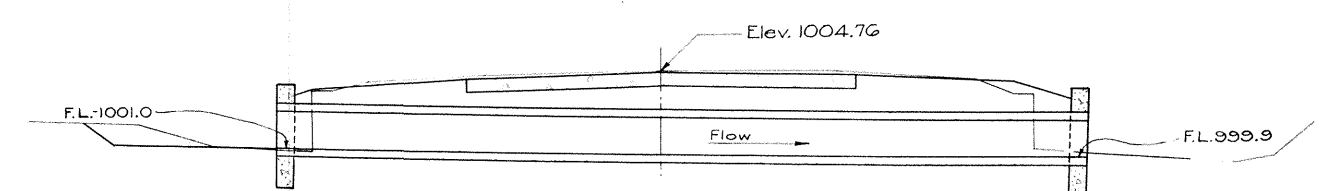
| | |
|---------------------------------------|-------------|
| Excavation | 8 Cu.Yds. |
| 18" V.S.P (enc), incl. 1:8 conc. enc. | 6 Lin. Ft. |
| 1:5/2 Concrete | 1.7 Cu.Yds. |
| Reinforcing Steel | 73 Lbs. |
| Dowel Holes | 4 Lin. Ft. |

3

Ma-42-122. **STA. 28+84**



PLAN



CROSS SECTION

CULVERT DATA

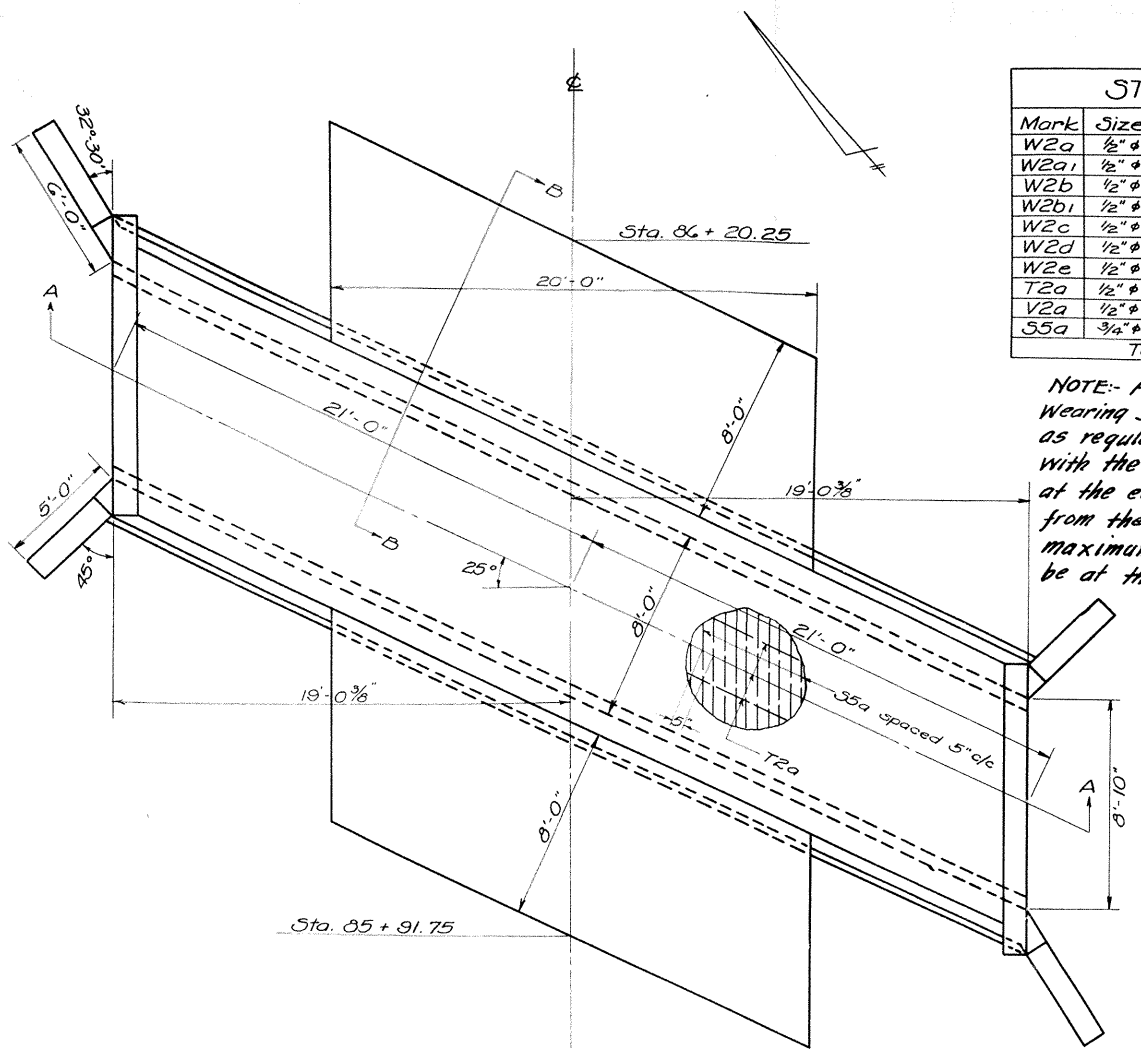
Type: Std. C.I.P Culvert Std. Dr. #300
 Size: 24" x 42'
 Skew -5° Right Forward.
 Work Required:- Remove 29' of 24" Conc. Pipe & 8' of 24" V.S.P (enc) with two headwalls, include for payment with Excav. Build Std. 24" x 42' C.I.P Culvert with std. headwalls. Trench reinforcing (estimated 9' long) to be used over this culvert included in pavement quantities.

ESTIMATED QUANTITIES

| | |
|-----------------|-------------|
| Excavation | 32 Cu.Yds. |
| 24" Solid C.I.P | 42 Lin. Ft. |
| 1:5/2 Concrete | 2.3 Cu.Yds. |
| Rein. Steel | 65 Lbs. |

5

Ma-42-129. **STA. 64+11**



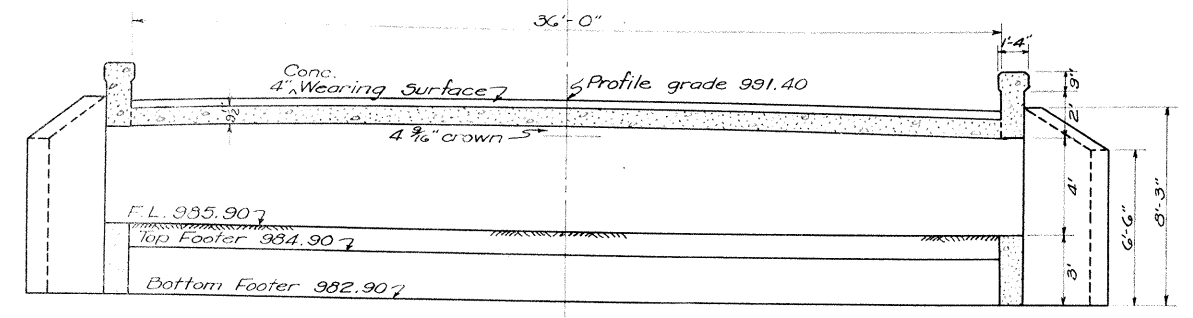
| Mark | Size | Shape | N ^o | Length | Weight |
|-------|--------|-------|----------------|--------|--------|
| W2a | 1/2" φ | Bent | 10 | 10'-6" | 70 |
| W2a1 | 1/2" φ | " | 10 | 11'-6" | 77 |
| W2b | 1/2" φ | " | 8 | 7'-3" | 39 |
| W2b1 | 1/2" φ | " | 8 | 8'-3" | 44 |
| W2c | 1/2" φ | Str. | 12 | 6'-6" | 52 |
| W2d | 1/2" φ | " | 4 | 8'-9" | 23 |
| W2e | 1/2" φ | Bent | 16 | 5'-0" | 53 |
| T2a | 1/2" φ | Str. | 36 | 22'-0" | 529 |
| V2a | 1/2" φ | " | 88 | 7'-0" | 412 |
| S5a | 3/4" φ | " | 100 | 9'-6" | 1427 |
| Total | | | | | 2726 |

NOTE: A 20' center strip of the 4" concrete wearing surface shall have the same crown as regular 20' pavement so as to conform with the pavement, any additional thickness at the edges of the 20' width shall be deducted from the remainder of wearing surface and maximum wedge thickness deducted shall be at the headwalls.

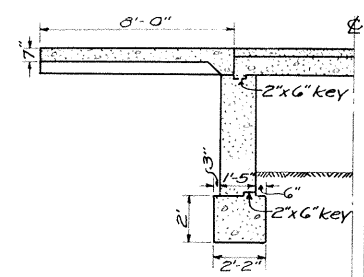
7.
Sta. 86+06
Ma-42-133.

Type - Special Slab Bridge.
Standard Drawings SC-A & AS-31.
Size - 8'-10" x 4' x 42' - 36' clear roadway.
Work Req'd - Remove present 8'-6" x 4' x 34' I-beam & conc. slab top culvert (incl. in excav.). Build special skewed slab bridge with 8" apr. slabs. Deduct 28.5' for pavement.

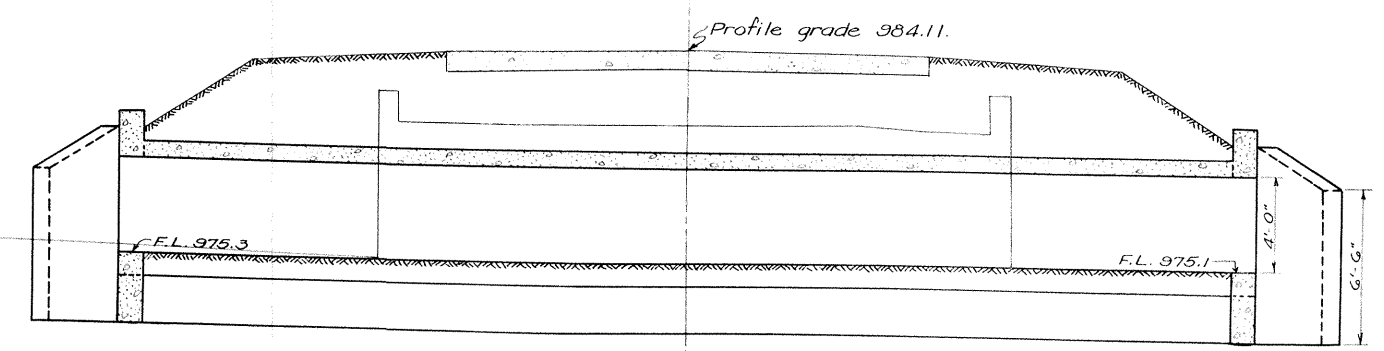
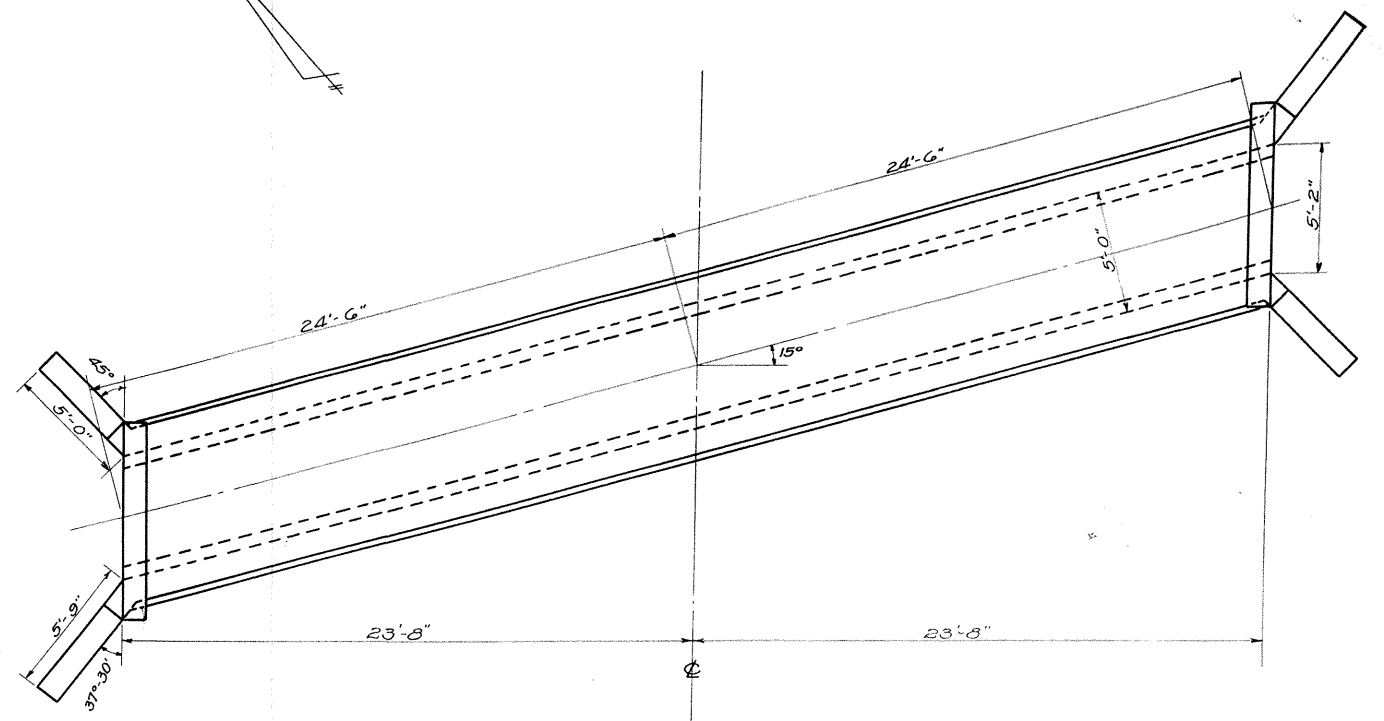
| | | |
|----------------------------|------|----------|
| Excavation | 95 | Cu. Yds. |
| Concrete 1:1 1/2 (Footers) | 11.3 | " " |
| Concrete 1:5 1/2 | 36.6 | " " |
| Rein. Steel | 2726 | Lbs. |
| 7" Reinf. Conc. Apr. Slab | 35.6 | Sq. Yds. |
| 4" Conc. Wear. Surface | 43.5 | " " |



SECTION A-A



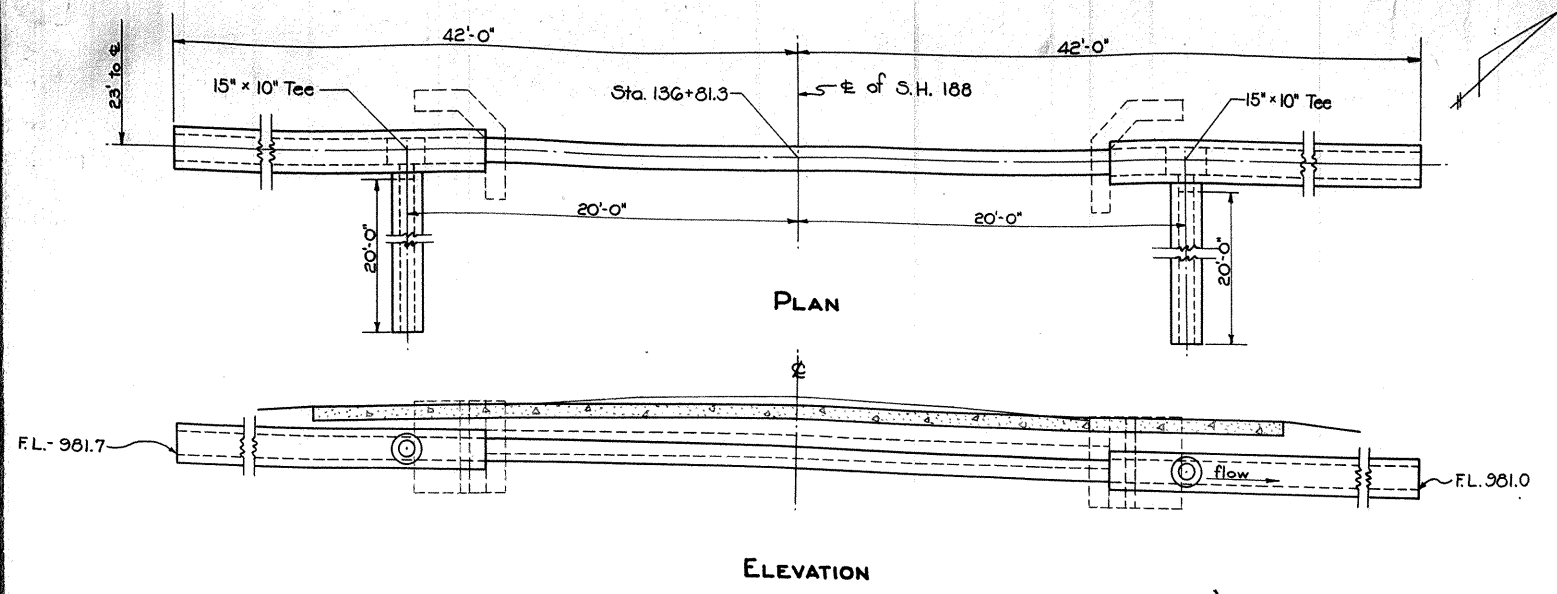
SECTION B-B



11.
Sta. 138+55.
Ma-42-143

CULVERT DATA
Type: Std. Slab Top Culvert
Std. Drawing SC-A
Size: 5' x 4' x 49'.
Work Req'd: Remove present 5'-0" x 4' x 34' stone & conc. slab top culvert. Build Std. skewed 5' x 4' x 49' slab top culvert. Trench reinforcing (estimated 15' long) to be used over this culvert included in pavement quantities.
Removal of structure included for payment in roadway excavation.

| | | |
|----------------------------|------|----------|
| Excavation | 88 | Cu. Yds. |
| Concrete 1:1 1/2 (Footers) | 13.2 | " " |
| Concrete 1:5 1/2 | 33.1 | " " |
| Rein. Steel | 2170 | Lbs. |



CULVERT DATA

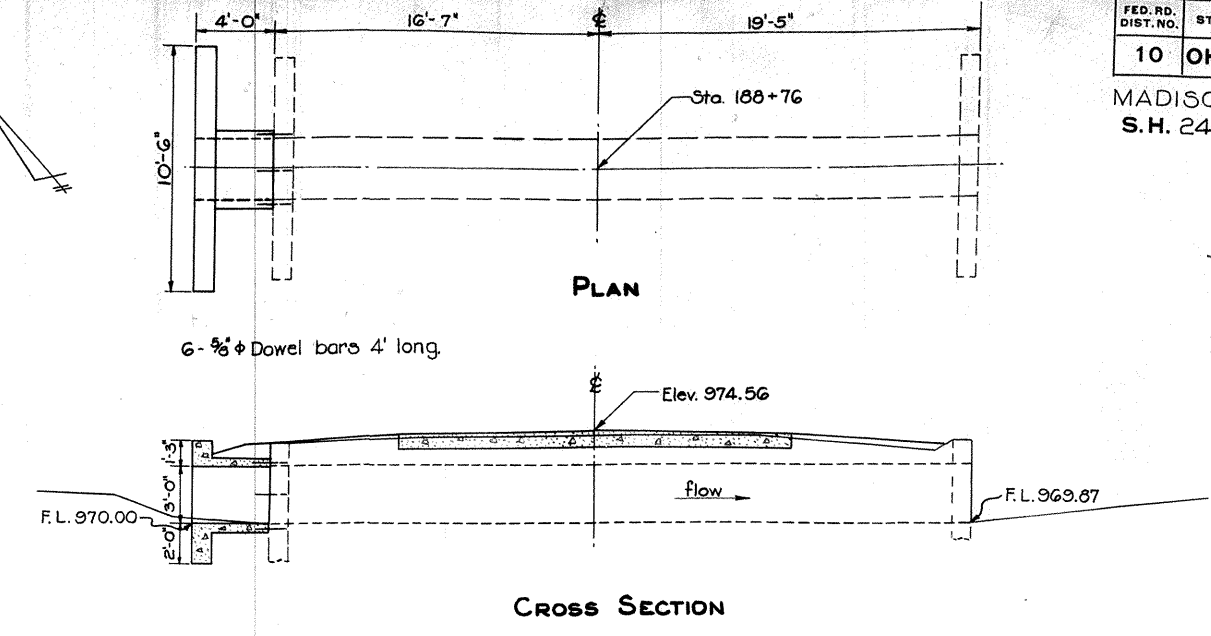
Type: Std. V.S.P (enc) & C.I.P Side Road Culvert, Std. Dr. #300
 Size: 15" V.S.P x 52" x 14" C.I.P x 32'
 Work Required - Remove present 14" x 32" C.I.P side rd culvert with 2 hdwls. include for payment with Excavation.
 Build new Side Road Culvert without hdwls using the 32' of 14" C.I.P & 28' of 15" V.S.P (enc) Place 15" x 10" V.S.P (enc) Tees as shown & lay 20' of 10" V.S.P (enc) up each side of side rd. Trench reinforcing (estimated 8' long) to be used over this culvert included in pavement quantities.

ESTIMATED QUANTITIES

| | |
|-------------------------------------------------|-------------|
| Excavation | 42 Cu.Yds. |
| 15" V.S.P (enc), incl. 1:8 conc. enc. | 48 Lin. Ft. |
| 10" " " | 40 " " |
| 15" x 10" V.S.P (enc) Tee, incl. 1:8 conc. enc. | 2 only |
| 14" C.I.P relaid | 32 Lin. Ft. |

9

Ma-29-96 STA. 136+81.3-RT.



CULVERT DATA

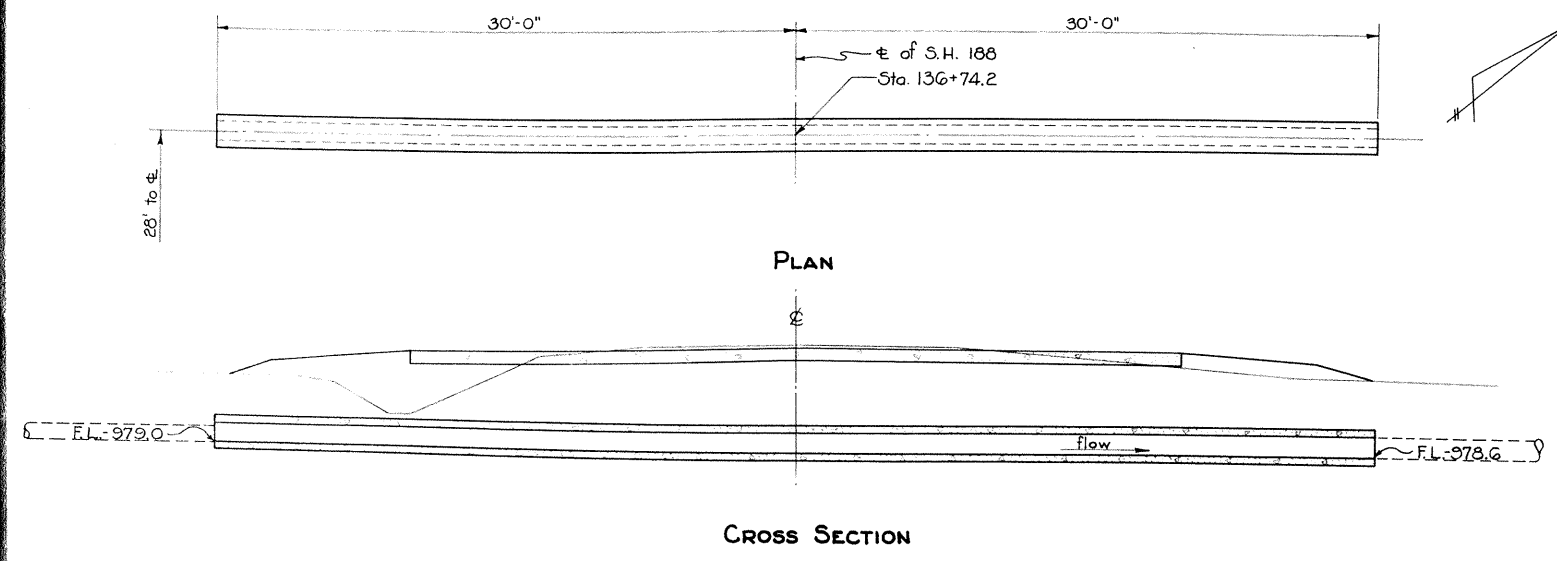
Type: Std. V.S.P (enc) Culvert Ext. Std. Dr. #300
 Size: 36" x 4' Ext
 Work Required: Remove top of existing headwall on left, include for payment with Excavation. Extend present structure on left with 4' of 36" V.S.P (enc) and build headwall

ESTIMATED QUANTITIES

| | |
|------------------------------------------|-------------|
| Excavation | 5 Cu.Yds. |
| 36" V.S.P (enc) including 1:8 conc. enc. | 4 Lin. Ft. |
| 1:5 1/2 Concrete | 2.3 Cu.Yds. |
| Reinforcing Steel | 58 Lbs. |
| Dowel Holes | 6 Lin. Ft. |

12

Ma-42-152 STA. 188+76



CULVERT DATA

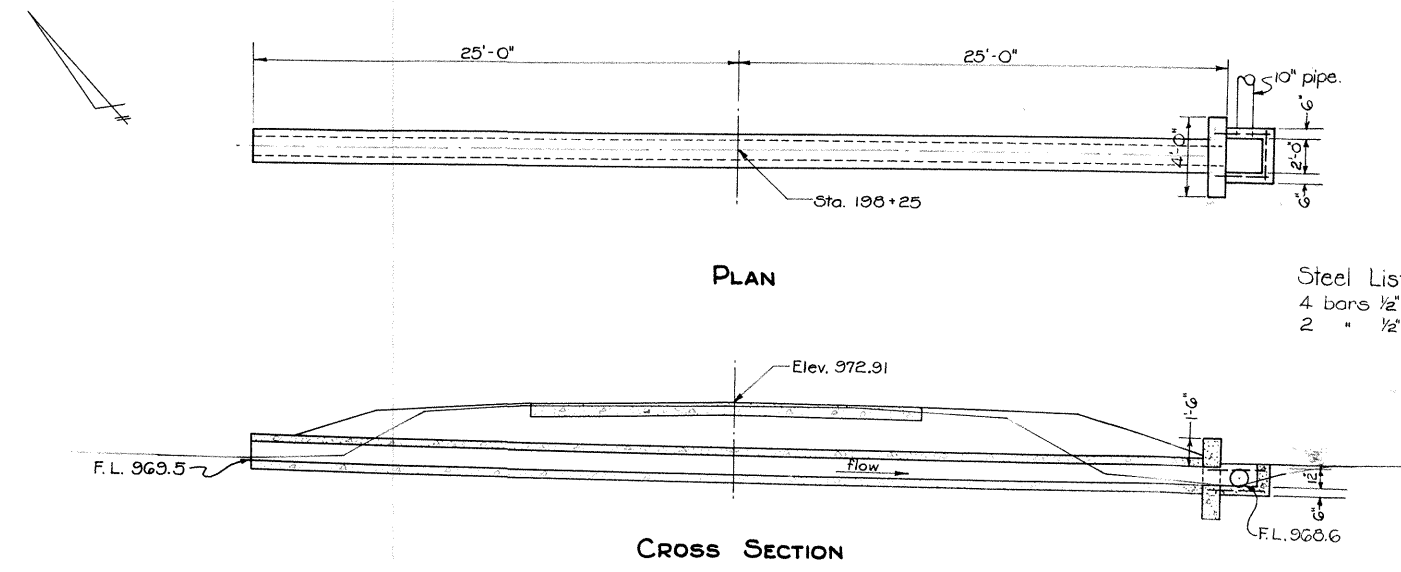
Type: Std. V.S.P (enc) Side Road Culvert ~ Std. Dr. #300
 Size: 12" x 60'
 Work Required: Build Std. 12" V.S.P (enc) Side Road Culvert without headwalls. Trench reinforcing (estimated 8' long) to be used over this culvert included in pavement quantities.

ESTIMATED QUANTITIES

| | |
|-------------------------------------------|-------------|
| Excavation | 43 Cu.Yds. |
| 12" V.S.P (enc), including 1:8 Conc. enc. | 60 Lin. Ft. |

10

Ma-29-96 A STA. 136+74.2-LT.



CULVERT DATA

Type: Std. V.S.P (enc) Culvert Std. Dr. #300 & CE-A
 Size: 12" x 50'
 Work Required: Build Std 12" x 50' V.S.P (enc) culvert without headwall on left & with 2' x 2' box inlet on right. Trench reinforcing (estimated 8' long) to be used over this culvert included in pavement quantities.

ESTIMATED QUANTITIES

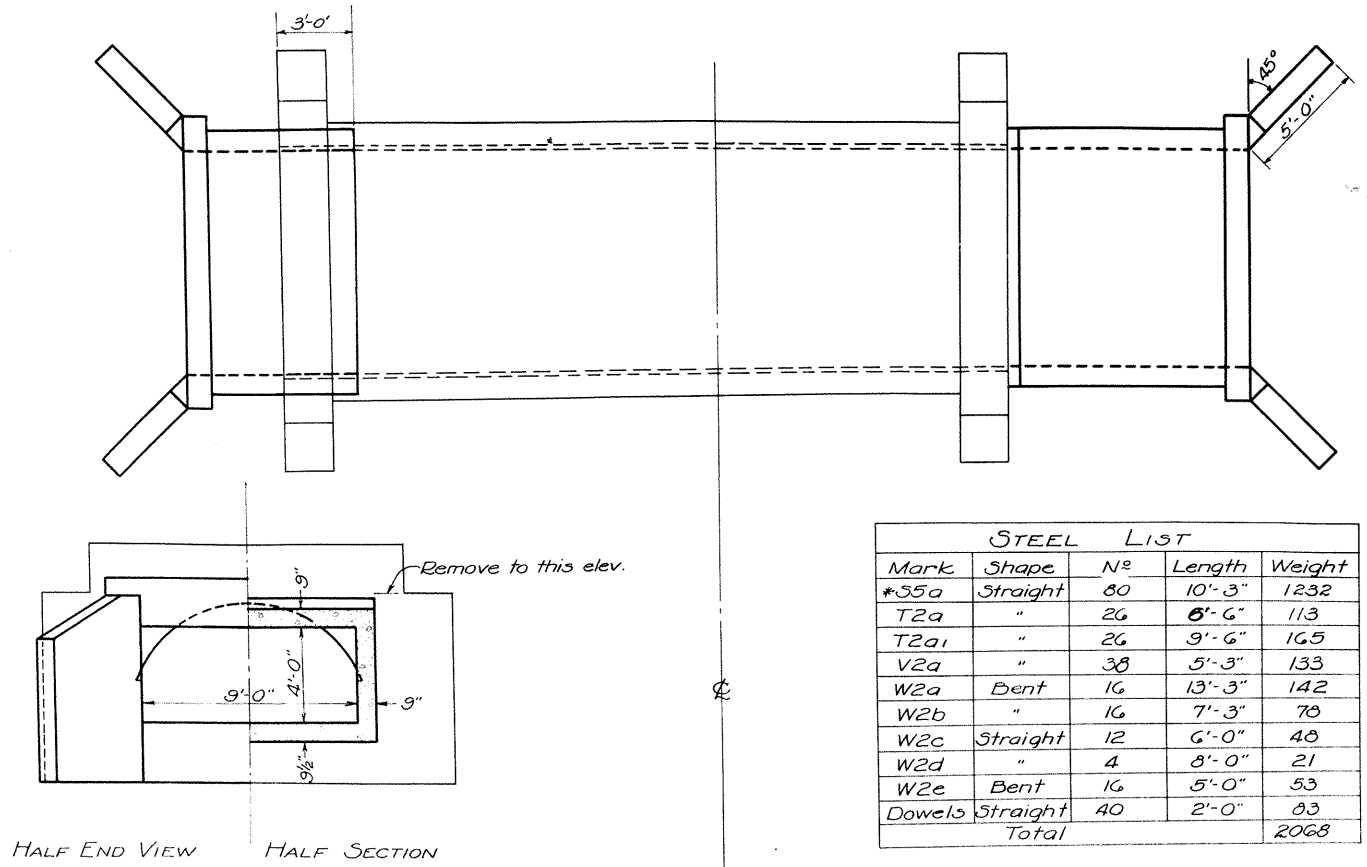
| | |
|------------------------------------------|-------------|
| Excavation | 21 Cu.Yds. |
| 12" V.S.P (enc) including 1:8 conc. enc. | 50 Lin. Ft. |
| 1:5 1/2 Concrete | 1.1 Cu.Yds. |
| Reinforcing Steel | 52 Lbs. |

13

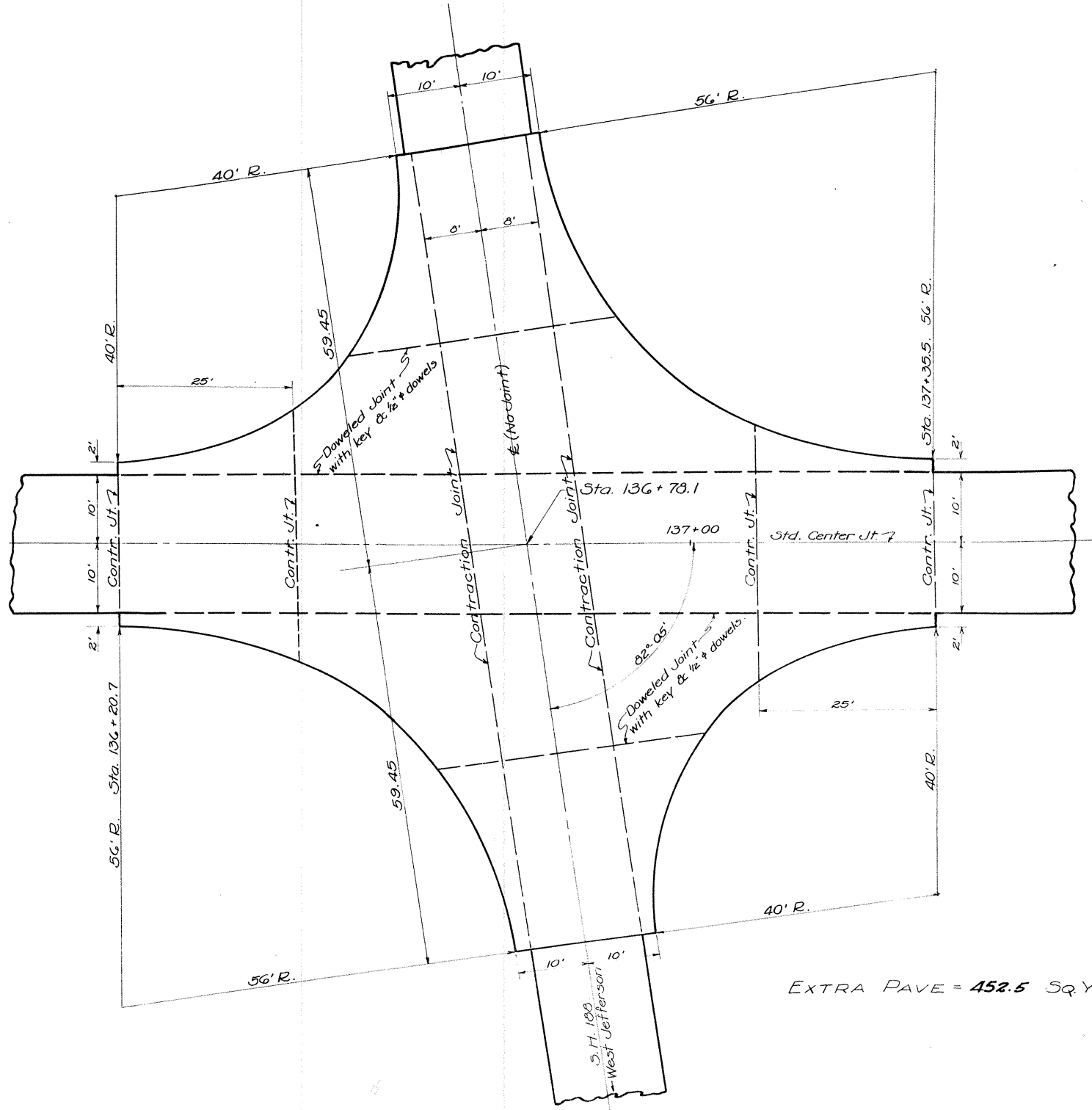
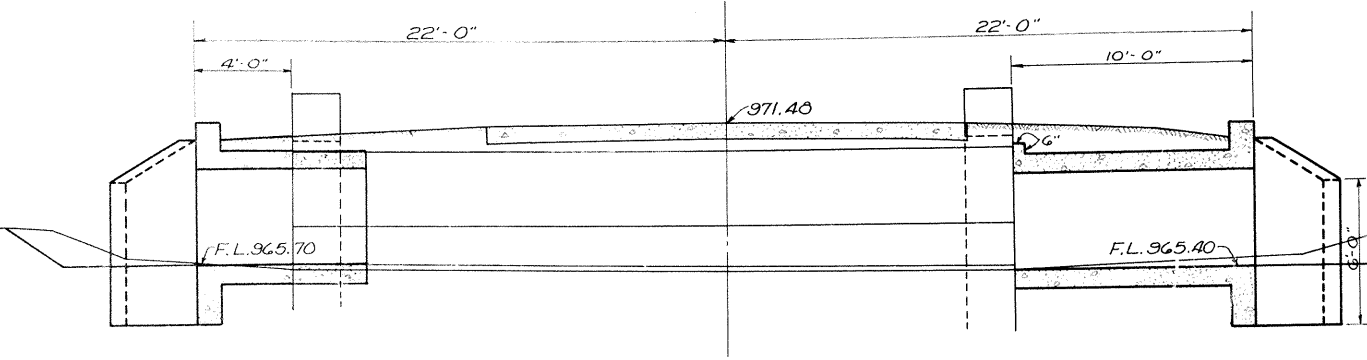
Ma-42-154 STA. 198+25

Steel List For Box
 4 bars 1/2" x 3'-3" long.
 2 " 1/2" x 2'-9" "

Note: The intersection shall be built so as to maintain traffic on Route 29 at all times.



*Spaced @ 5' cts.



EXTRA PAVE = 452.5 SQ YDS.

CULVERT DATA

Type - Conc. Box Ext'n. - Std. Drawing BC-A
 Size - 9'x4'x 7'L. & 10'R.
 Work Req'd. - Remove tops of headwalls of present 9x5x30' conc. arch culvert. Extend 7' left and 10' right with 9'x4' conc. box. 16' trench reinforcing to be used in pavement above structure (included in pavement quantities). Remove 3' of existing culvert on left. (Include with Excav. for Payment.)

14.
 Sta. 204+36.
 Ma-42-155

ESTIMATED QUANTITIES

Excavation 30 Cu. Yds.
 Concrete 1:5 1/2 218 " "
 Reinforcing Steel 2068 Lbs.
 Dowel Holes 40 Lin. Ft.

