# STATE OF OHIO
# DEPARTMENT OF HIGHWAYS

F-FG-U-639(5)

| FED. RI. DIVISION | STATE | PROJECT | F |
|---|---|---|---|
| 2 | OHIO | F-FG-U-639(5) | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

LIMITED ACCESS

This improvement is especially desi through traffic and has been declared access highway or freeway by action of Director of Highways in accordance with visions of Section 5511.02 of the Revis of Ohio.

Box #9

# LIC-161-11.13
# LIC-16-(14.30-18.51)

## GRADE SEPARATION WITH THE NEW YORK CENTRAL RAILROAD CO.
## CITY OF NEWARK, OHIO
## GRANVILLE TOWNSHIP
## LICKING COUNTY

CONVENTIONAL SIGNS

State Line
County Line
Township Line
Section Line
Center Line
Corporation Line
Fence Line
Guard Rail (existing)
Guard Rail (proposed)
Railroads
Power Poles
Telephone Poles
Trees or Stumps (existing)
Existing Right of Way
Limited Access Only —LA—
Right of Way Only —R/W—
Limited Access and Right of Way

INDEX OF SHEETS


| | | | |
|---|---|---|---|
| Title Sheet | 1 | S.R. 16 Interchange | 139 - 185 |
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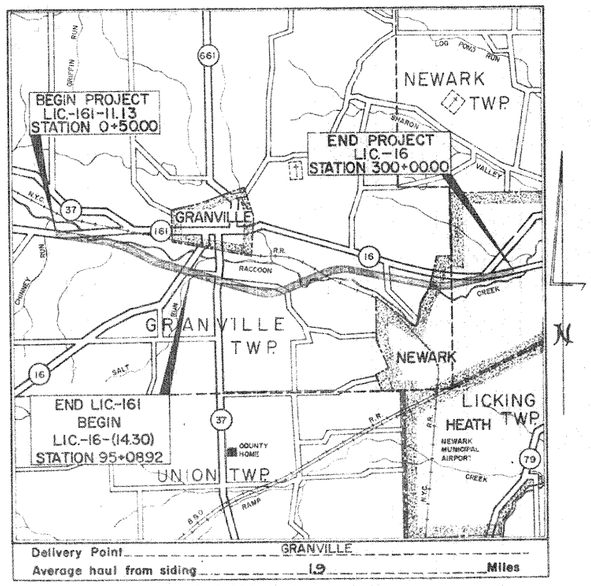



Delivery Point GRANVILLE
Average haul from siding 1.9 Miles

LOCATION MAP

SCALE OF MILES
0 1 2 3 4

Portion to be improved
State Roads
Other Roads

SCALE

| | |
|---|---|
| Plan | 1" = 50' |
| Profile: Horizontal | 1" = 50' |
| Profile: Vertical | 1" = 5' |
| Cross Sections | 1" = 10' |

LINE DATA

| | 100% STATE | RURAL (F) | (FG) RURAL | MUNICIPAL (U) |
|---|---|---|---|---|
| Begin Project "F" | Sta. 0+50 | 68 + 90.00 | Suspend "F" and Begin "FG" | Sta. 167+ 00 | Begin "U" (Newark CL) Sta. 259 + 77.84 |
| End Project Corp. Line, Newark (End "F") | 168+00 | Sta. ~~0 + 50.00~~ Sta. 259 + 77.84 | End "FG" and Resume "F" | Sta. 197+00 | End Project Sta. 300 + 00.00 |
| Deduct "FG" Area | | - 3000 L.F. | | | |
| Net Length of Project | 6,750 L.F. or 1.278 Mi. | ~~22,927.84 L.F. or 4.342 Mi.~~ 16,177.84 L.F. or 3.063 Mi. | 3000.00 L.F. or 0.568 Mi. | 4,022.16 Lin. Ft. or 0.761 Mi. |
| Add Length of Work as Listed on Sheet No. 12 | 1,374.52 L.F. | ~~5,835.24 L.F.~~ 5,160.72 L.F. | 0.00 L.F. | 1000.00 Lin. Ft. |
| Net Length of Work | 8,124.52 L.F. or 1.538 Mi. | ~~28,763.08 L.F. or 5.380 Mi.~~ 21,338.56 L.F. or 4.041 Mi. | 3000.00 L.F. or 0.568 Mi. | 5,022.16 Lin. Ft. or 0.951 Mi. |

Total Length of Project Sta. 0+50.00 to Sta. 300+00.00 = 29,950.00 Lin. Ft. or 5.672 Miles
Total Length of Work ~~29,950.00 + 6,535.24 + 1000.00 = 37,485.24 Lin. Ft. or 7.099 Miles~~
25,850.00 + 1,374.52 + 5,160.72 + 1,000.00 = 37,485.24 Lin. Ft. or 7.099 Miles

Sheets #28, #33, #37 and #38 revised 9-11-61

## 1959 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing of the highways to traffic and that provisions for the maintenance and safety of traffic will be as set forth on these plans and estimates.

Approved Harry C. Brannon
Date 12-8-60 Division Deputy Director
Approved Eugene Hooper
Date 5-25-61 Deputy Director of Planning & Programming
Approved O.M. Freeman
Date 4-20-61 Engineer of Bridges
Approved W. Harmon
Date 5-11-61 Engineer of Location & Design
Approved C.W. McCaughey
Date 5-11-61 Deputy Director of Design & Construction
Approved W.J. Ann
Date 4-21-61 Deputy Director of Right-of-Way
Approved R.H. Berry
Date 5-26-61 First Assistant Director
Approved C.L. Lyle
Date 12-8-60 Director of Public Service — City of Newark
Approved E.T. Preston
Date 5-26-61 Director of Highways

Plan sheets on subject Project were revised as follows:
1. Revised Partial plan shown on sheets No. 1, 2, 12, 13, 16, 18 & 19.
2. Added Right-of-way sheets No. 448B, 449B, 450B, 451B, 452B, 453B (Insert Superseding sheets No. 448, 449, 450, 451, 452, 453)
3. Revised Right-of-way shown on sheets No. 454, 454A, 455 & 456.
REV. 1-16-61 R.B.C.

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER

Supplemental Prints of Standard Construction Drawings

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-T-30-70-71 E No.1 | 10-1-47 | I-8 C.B. | 2-2-A883-2-59 | I-12 | | 7-1-54 | L.J. No.1 | | 7-1-55 | RB-1-55 | 2-2-59 |
| B-T-71R | 3-2-53 | I-8 C.B. | No.6 1-26-59 | I-14G | | 1-22-52 | RI-1 | | 7-15-58 | I-8C&2-3&2-4 | 1-26-59 |
| DR-1 | 1-3-55 | I-8 C.B. | No.8 3-15-60 | I-15 | No.1 | 5-21-53 | S-27 | P.C. 3 | 2-20-45 | AR-1-57 | 2-2-59 |
| F-1 | 9-1-59 | I-8 I | No.2 4-23-59 | I-15 | No.2-A | 8-17-60 | S-27 | P.C. 4 | 1-4-54 | SP 53 | 11-25-58 |
| F-2 | 10-1-58 | | | I-15 | No.4 | 12-1-54 | T-35 | | 1-2-56 | AS-1-54 | 12-1-54 |
| F-3 | 9-1-59 | I-8 MH | No.1 1-26-59 | I-21-23 | | 8-1-56 | T.J. | | 9-12-60 | CSB-2-56 | |
| G-7.07 | 6-1-56 | I-8 MH | No.1-A 1-26-59 | L-3 | | 4-1-50 | L-1 | | 4-1-50 | (5&6,2&3&6) | 2-2-59 |
| I-1,2,3,4,8S | 4-24-58 | | | L-3-A | | 4-1-50 | | | | | |

Supplemental Specifications

| | | |
|---|---|---|
| 18 | REV. | 6-15-59 |
| B-219 | REV. | 3-12-59 |
| M 206.6(b) | | 5-25-56 |
| S-101 | | 12-2-59 |
| M-206, 14 | | 7-15-49 |
| I-124 | REV. | 3-2061 |

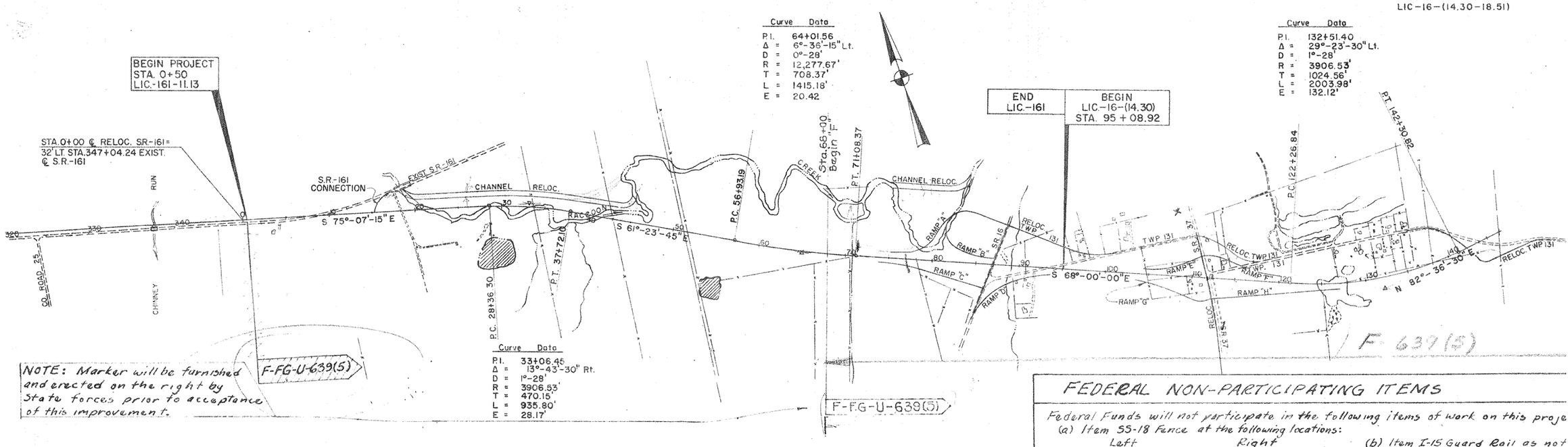
File No.
LICKING COUNTY LIC-161-11.13, LIC-16-(14.30-18.51)
Date of Letting 19
Contract No.

Plans Prepared by:
RACKOFF ASSOCIATES COLUMBUS OHIO
Melvin Rackoff

# SCHEMATIC LAYOUT PLAN

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




Curve Data
P.I. 64+01.56
Δ = 6°-36'-15" Lt.
D = 0°-28'
R = 12,277.67'
T = 708.37'
L = 1415.18'
E = 20.42

Curve Data
P.I. 132+51.40
Δ = 29°-23'-30" Lt.
D = 1°-28'
R = 3906.53'
T = 1024.56'
L = 2003.98'
E = 132.12'

Curve Data
P.I. 33+06.45
Δ = 13°-43'-30" Rt.
D = 1°-28'
R = 3906.53'
T = 470.15'
L = 935.80'
E = 28.17'

NOTE: Marker will be furnished and erected on the right by State forces prior to acceptance of this improvement.

## FEDERAL NON-PARTICIPATING ITEMS

Federal Funds will not participate in the following items of work on this proje

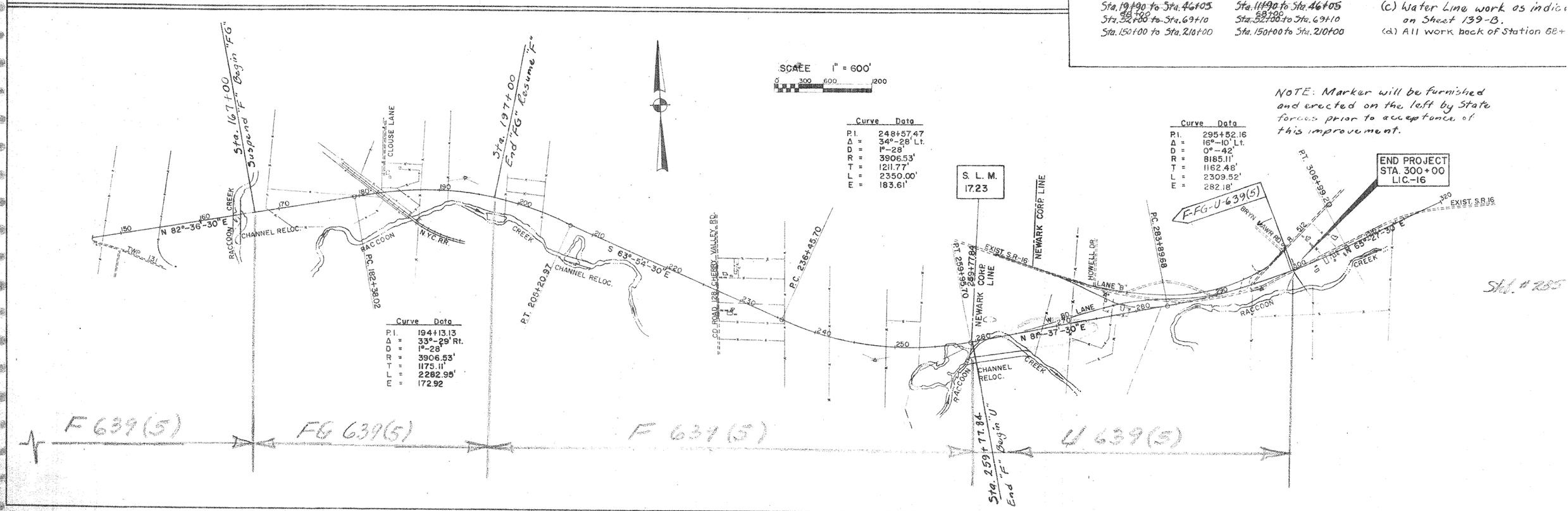
(a) Item SS-18 Fence at the following locations:

| Left | Right |
|---|---|
| ~~Back of Sta. 0+00~~ | ~~Back of Sta. 0+00~~ |
| ~~Sta. 19+90 to Sta. 46+05~~ | ~~Sta. 11+90 to Sta. 46+05~~ |
| ~~Sta. 52+00 to Sta. 69+10~~ | ~~Sta. 52+00 to Sta. 69+10~~ |
| Sta. 150+00 to Sta. 210+00 | Sta. 150+00 to Sta. 210+00 |

(b) Item I-15 Guard Rail as not Sheets 370 and 371.

(c) Water Line work as indic on Sheet 139-B.

(d) All work back of Station 68+




Curve Data
P.I. 248+57.47
Δ = 34°-28' Lt.
D = 1°-28'
R = 3906.53'
T = 1211.77'
L = 2350.00'
E = 183.61'

Curve Data
P.I. 295+52.16
Δ = 16°-10' Lt.
D = 0°-42'
R = 8185.11'
T = 1162.48'
L = 2309.52'
E = 282.18'

Curve Data
P.I. 194+13.13
Δ = 33°-29' Rt.
D = 1°-28'
R = 3906.53'
T = 1175.11'
L = 2282.95'
E = 172.92

NOTE: Marker will be furnished and erected on the left by State forces prior to acceptance of this improvement.

Sht. # 285

SCHEMATIC LAYOUT P

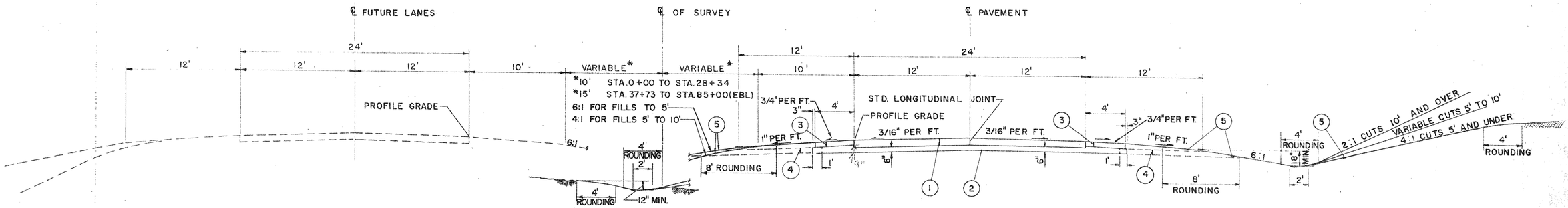
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

3
466

LICKING COUNTY
LIC-161-11.13
LIC.-16-(14.30-18.51)

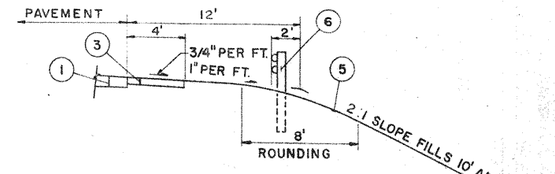
# TYPICAL SECTIONS

## TYPE T-71

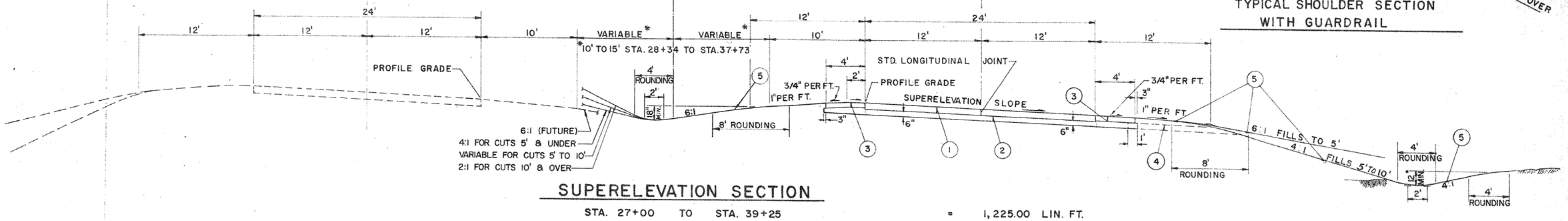



## NORMAL SECTION

| | | | | |
|---|---|---|---|---|
| STA. 00+50 | TO | STA. 27+00 | = | 2,650 LIN. FT. |
| STA. 39+25 | TO | STA. 56+20 | = | 1,695 LIN. FT. |
| STA. 56+20 | TO | STA. 59+95 (PAV'T WIDENING) | = | 375 LIN. FT. |
| STA. 59+95 | TO | STA. 68+01.82 RT. LANE | = | 806.82 LIN. FT. |
| | | | TOTAL | 5,526.82 LIN. FT. |




TYPICAL SHOULDER SECTION
WITH GUARDRAIL




## SUPERELEVATION SECTION

| | | | | |
|---|---|---|---|---|
| STA. 27+00 | TO | STA. 39+25 | = | 1,225.00 LIN. FT. |
| STA. 56+20 | TO | STA. 68+01.82 LT. LANE (TRANSITIONAL) | = | 1,181.82 LIN. FT. |

| ITEM | | DESCRIPTION |
|---|---|---|
| ① | T-71 | 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT. |
| ② | I-22 | SUBBASE, VARIABLE DEPTH. =(.6499 cuyd/sq in FT.-Normal) (.6595 cuyd/sq in FT. Super) |
| ③ | I-18 | 6" STABILIZED CRUSHED AGGREGATE SHOULDERS AND =.1481 Cuyds/sq in FT. APPROACHES W/CALCIUM CHLORIDE INCORPORATED INTO UPPER 3 INCHES (SEE GENERAL NOTE) |
| ④ | I-9 | STONE UNDERDRAINS (NO.2) |
| ⑤ | L-9 | SEEDING AND PROTECTING |
| ⑥ | I-15 | GUARDRAIL |

NOTE:
ALL SLOPES TYPICAL UNLESS OTHERWISE SHOWN ON THE CROSS SECTIONS.

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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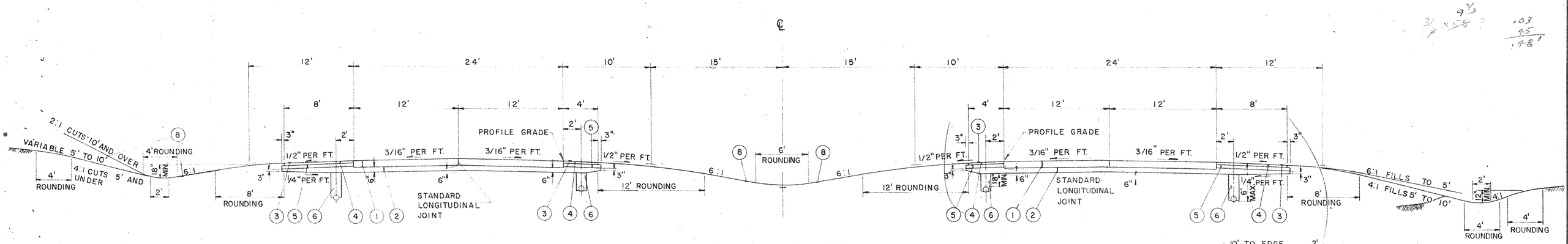
466

LICKING COUNTY
LIC-161-11.13
LIC. 16-(14.30-18.51)

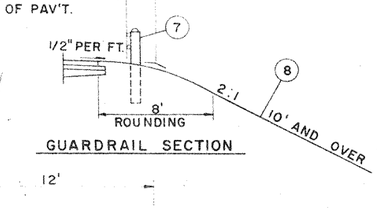
# TYPICAL SECTIONS

## TYPE T-71 PAVEMENT

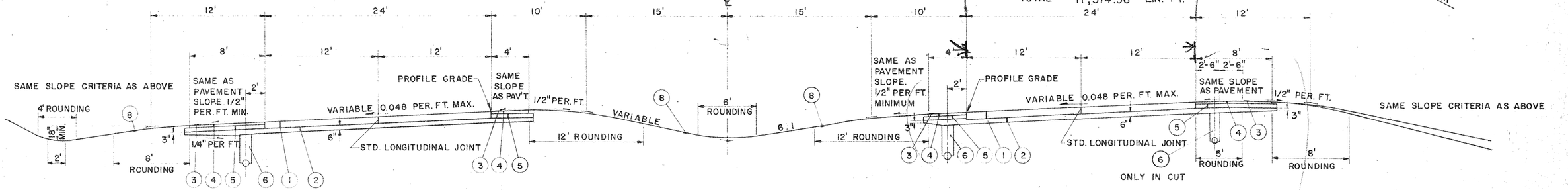



## NORMAL SECTION

| | | | | | | |
|---|---|---|---|---|---|---|
| STA. 68+01.82 | TO | STA. 97+50 | | = | 2,948.18 | LIN. FT. |
| STA. 97+50 | TO | STA. 112+00 | LT. LANE | = | 1,450.00 | LIN. FT. |
| STA. 97+50 | TO | STA. 112+00 | RT. LANE ROCK CUT SEE SHEET NO. 5 | | | |
| STA. 112+00 | TO | STA. 120+75 | | = | 875.00 | LIN. FT. |
| STA. 143+83.33 | TO | STA. 180+85.71 | DEDUCT 225.60 LIN. FT. FOR BRIDGE | | 3,476.78 | LIN. FT. |
| STA. 206+71.43 | TO | STA. 234+95.83 | | = | 2,824.40 | LIN. FT. |
| | | | | TOTAL | 11,574.36 | LIN. FT. |




GUARDRAIL SECTION




## SUPERELEVATED SECTION

| | | | | | |
|---|---|---|---|---|---|
| STA. 120+75 | TO | STA. 143+83.33 | = | 2,308.33 | LIN. FT. |
| STA. 180+85.71 | TO | STA. 206+71.43 | = | 2,585.72 | LIN. FT. |
| STA. 234+95.83 | TO | STA. 259+95.70 | = | 2,499.87 | LIN. FT. |
| | | DEDUCT FOR BRIDGE | | 230.05 | LIN. FT. |
| | | | TOTAL | 7,163.87 | LIN. FT. |

| ITEM | | DESCRIPTION |
|---|---|---|
| ① | T-71 | 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT. |
| ② | I-22 | SUBBASE, VARIABLE DEPTH. |
| ③ | T-31 | BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YD. NO. 6 AGGREGATE AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. IN ONE APPLICATION. SEE PROPOSAL. |
| ④ | B-219 | * 3" WATERPROOFED AGGREGATE BASE COURSE. |
| ⑤ | I-18 | 5" STABILIZED CRUSHED AGGREGATE SHOULDERS AND APPROACHES |
| ⑥ | I-4 | 6" UNDERDRAINS |
| ⑦ | I-15 | GUARDRAIL |
| ⑧ | L-9 | SEEDING AND PROTECTING |

* THICKNESS SHOWN IS "DESIGNED" THICKNESS AS DESCRIBED IN SECTION B-219.01

I-22
Normal .65471 C.Y./Lin. Ft.
Super .67713 C.Y./Lin. Ft.

NOTE:
ALL SLOPES TYPICAL UNLESS OTHERWISE SHOWN ON THE CROSS SECTIONS.

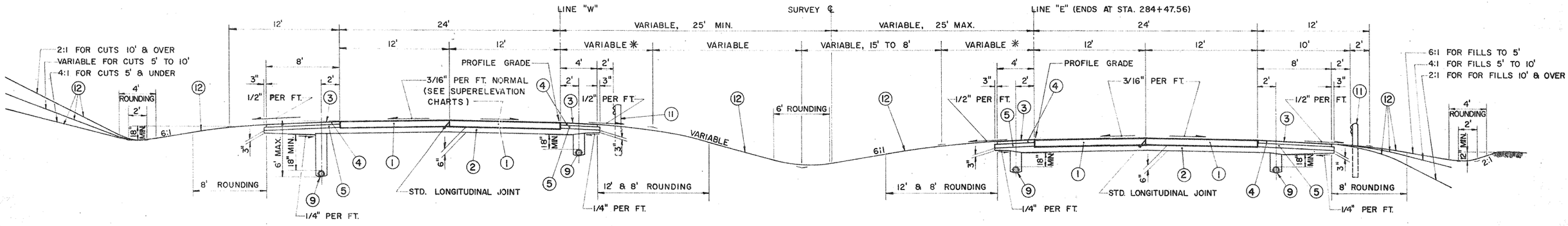
# TYPICAL SECTIONS

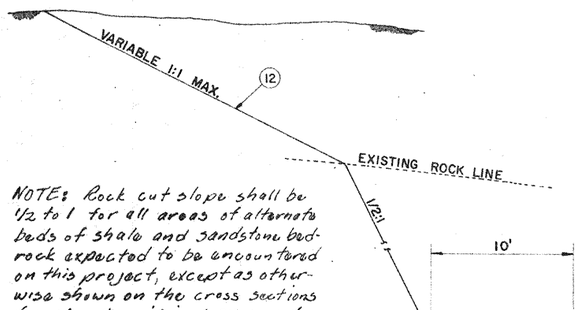
## TYPE T-71

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

5 / 466

LICKING COUNTY
LIC.161-11.13
LIC. 16-(14.30-18.51)

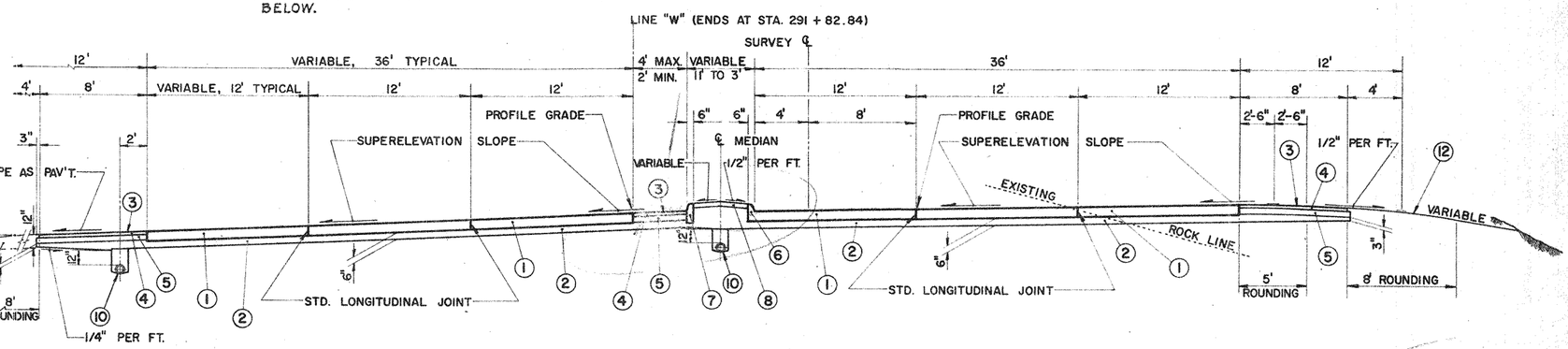



NOTE: Rock cut slope shall be 1/2 to 1 for all areas of alternate beds of shale and sandstone bedrock expected to be encountered on this project, except as otherwise shown on the cross sections for slope transitional areas into and out of the rock cut areas.

† STA. 259+95.70 TO STA. 289+02.00 = 2,906.30 LIN. FT. E.B. LANES
(FOR SUPERELEVATION SECTION SEE SHEET 4)
DEDUCT FOR BRIDGE 234.97 LIN. FT.
TOTAL 2,671.33 LIN. FT. W.B. LANES

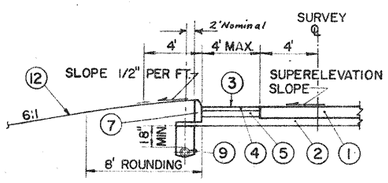
† FOR ROCK CUT AREA STA. 264+80 TO 272+00, SEE BELOW.



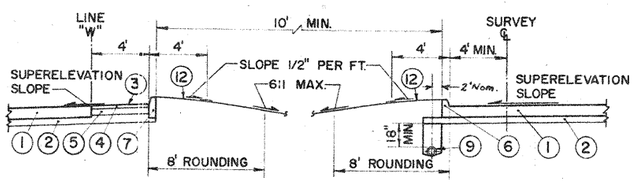

STA. 289+02.00 TO STA. 300+00 = 1,098.00 LIN. FT. FOR SLOPE TREATMENT AHEAD OF STA. 294, SEE CROSS SECTIONS.
FOR MEDIAN DETAIL, STA. 290+85.00 TO STA. 299+38.00 SEE SHEET NO. 6

| ITEM | | DESCRIPTION |
|---|---|---|
| (1) | T-71 | 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT. |
| (2) | I-22 | SUBBASE, VARIABLE DEPTH. |
| (3) | T-31 | BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YD. NO. 6 AGGREGATE AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. IN ONE APPLICATION. (SEE PROPOSAL). |
| (4) | B-219 Δ | 3" WATERPROOFED AGGREGATE BASE COURSE. |
| (5) | I-18 | 5" STABILIZED CRUSHED AGGREGATE SHOULDERS & APPROACHES. |
| (6) | I-12 | CONCRETE CURB, STANDARD TYPE 2-A. |
| (7) | I-12 | CONCRETE CURB, STANDARD TYPE 6. |
| (8) | I-21 | 4" PORTLAND CEMENT CONCRETE MEDIAN, STANDARD TYPE 1. |
| (9) | I-4 | 6" UNDERDRAINS. |
| (10) | I-4 | 6" PIPE UNDERDRAINS, SEC. M-6.4 (h). |
| (11) | I-15 | GUARDRAIL. |
| (12) | L-9 | SEEDING AND PROTECTING. |
| (13) | L-3 | PLACING STOCKPILED TOPSOIL |

Δ THICKNESS SHOWN IS "DESIGNED" THICKNESS AS DESCRIBED IN SEC. B-219.01



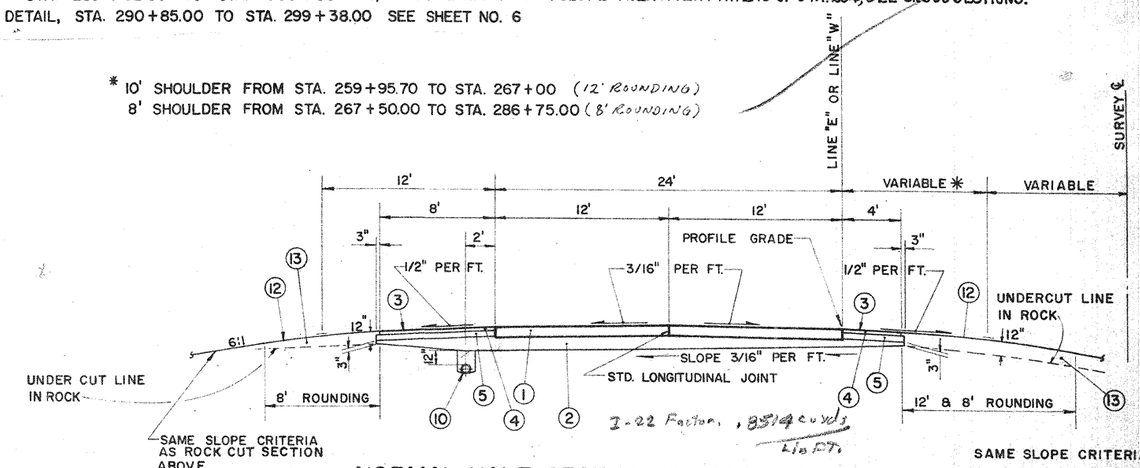

STA. 286+75 TO STA. 286+93
SURVEY ℄




STA. 288+50 TO STA. 289+09
LINE "W"

STA. 286+93 TO STA. 289+02
SURVEY ℄

* 10' SHOULDER FROM STA. 259+95.70 TO STA. 267+00 (12' ROUNDING)
8' SHOULDER FROM STA. 267+50.00 TO STA. 286+75.00 (8' ROUNDING)




## NORMAL HALF SECTION IN ROCK CUT

STA. 97+50 TO STA. 112+00 (SEE SHEET 4 FOR ROUNDING OF MEDIAN SHOULDER)
STA. 264+80 TO STA. 272+00
TOTAL 2,170.00 LIN. FT.

## CURB DETAILS

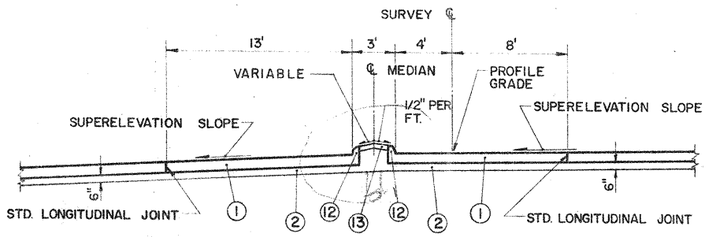
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

6
466

LICKING COUNTY
LIC. 161 - 11.13
LIC. 16 - (14.30-18.51)

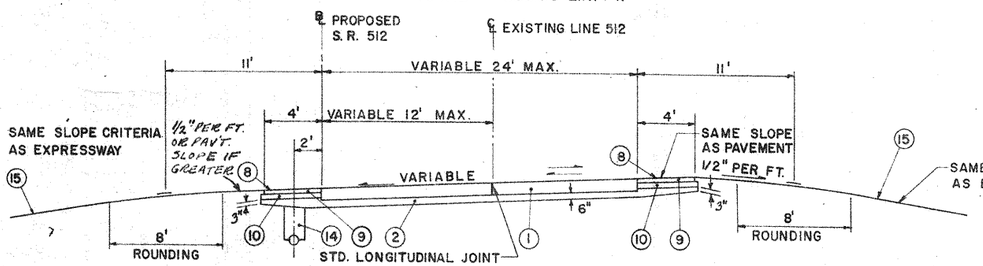
# TYPICAL SECTIONS

## TYPE T-35 & TYPE T-71




### MEDIAN DETAIL

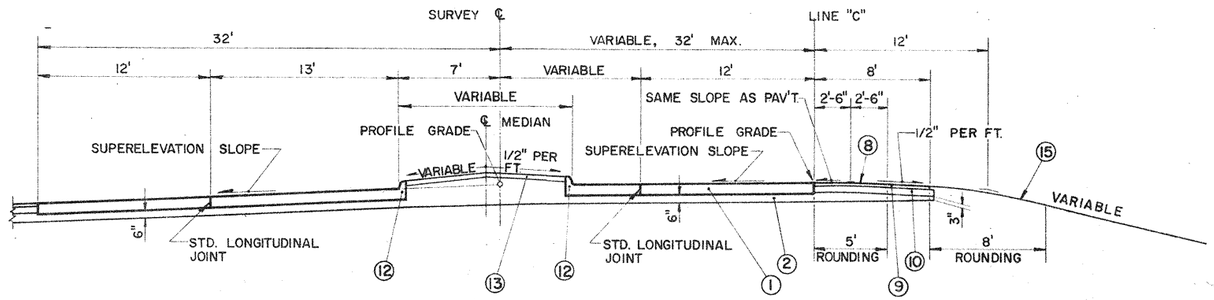
STA. 290 + 85.00 TO STA. 299 + 38
TOTAL 853.00 LIN. FT.



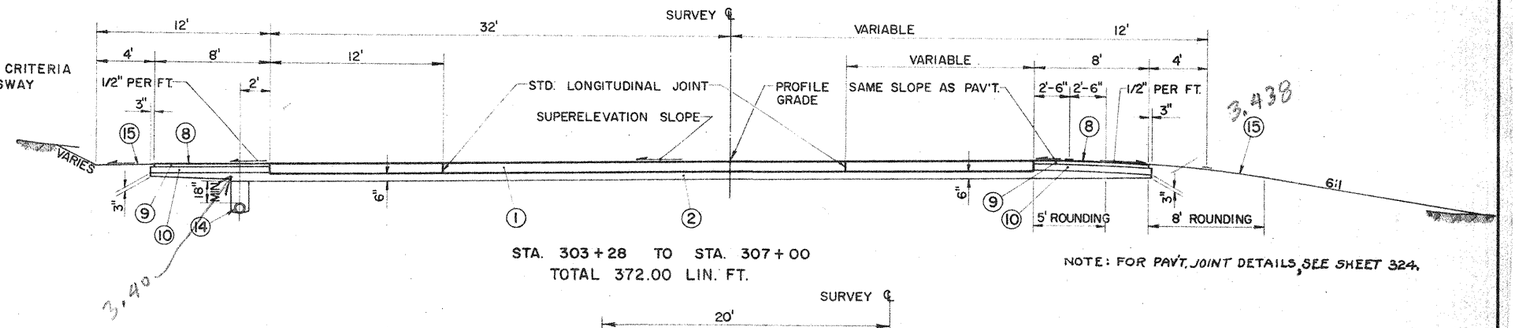

### PROPOSED S.R. 512 - BYRN MAWR EXTENSION

| ITEM | | DESCRIPTION |
|---|---|---|
| (1) | T-71 | 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT. |
| (2) | I-22 | SUBBASE, VARIABLE DEPTH. |
| (3) | T-35 | * 1-1/4" ASPHALTIC CONCRETE SURFACE COURSE, TYPE "C" (70-85). |
| (4) | B-35 | * 1-1/4" ASPHALTIC CONCRETE LEVELING COURSE (70-85). (1" MIN. OVER EXISTING PAVEMENT). |
| (5) | B-35 | * 3" ASPHALTIC CONCRETE BASE COURSE (70-85). |
| (6) | T-30 | BITUMINOUS PRIME COAT, SEC. M-5.7, RT-2 OR RT-3 APPLIED AT THE RATE OF 0.4 GAL'S. PER SQ. YD. |
| (7) | B-19 | 6" AGGREGATE BASE COURSE. |
| (8) | T-31 | BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YD. NO. 6 AGGREGATE AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. IN ONE APPLICATION. (SEE PROPOSAL). |
| (9) | B-219 | *3" WATERPROOFED AGGREGATE BASE COURSE. |
| (10) | I-18 | 5" STABILIZED CRUSHED AGGREGATE SHOULDERS AND APPROACHES. |
| (11) | I-18 | 6" STABILIZED CRUSHED AGGREGATE SHOULDERS AND APPROACHES WITH CALCIUM CHLORIDE INCORPORATED INTO UPPER 3 INCHES. (SEE GENERAL NOTES). |
| (12) | I-12 | CONCRETE CURB, STANDARD TYPE 2-A. |
| (13) | I-21 | 4" PORTLAND CEMENT CONCRETE MEDIAN, STANDARD TYPE 1. |
| (14) | I-4 | 6" UNDERDRAINS. |
| (15) | L-9 | SEEDING AND PROTECTING. |

* THICKNESSES SHOWN ARE "DESIGNED" THICKNESSES AS DESCRIBED IN SECTION T-35.01, B-35.01, AND B-219.01

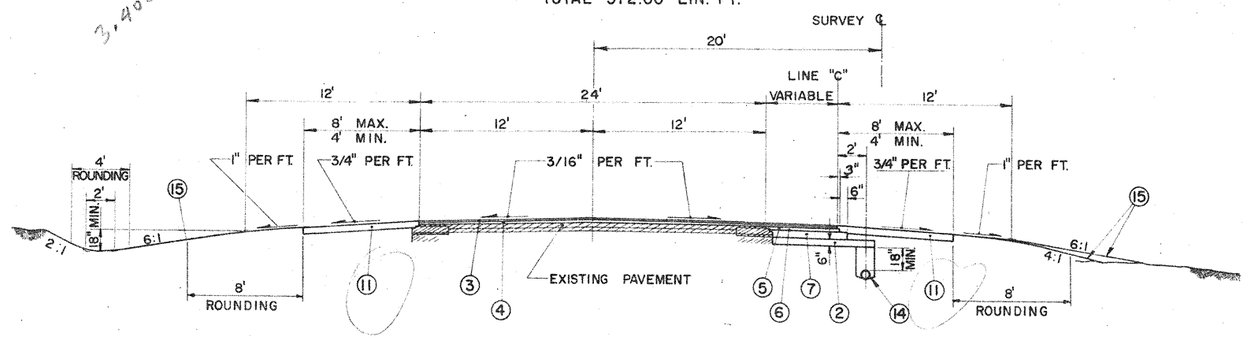



STA. 300 + 00 TO STA. 303 + 28
TOTAL 328.00 LIN. FT.




STA. 303 + 28 TO STA. 307 + 00
TOTAL 372.00 LIN. FT.

NOTE: FOR PAV'T. JOINT DETAILS, SEE SHEET 324.




STA. 307 + 00 TO STA. 309 + 60.90
TOTAL 260.90 LIN. FT.

NOTE: FOR PAVEMENT ELEVATIONS SEE PAVEMENT DETAILS.

NOTE:
ALL SLOPES TYPICAL UNLESS OTHERWISE SHOWN ON THE CROSS SECTIONS.

# TYPICAL SECTIONS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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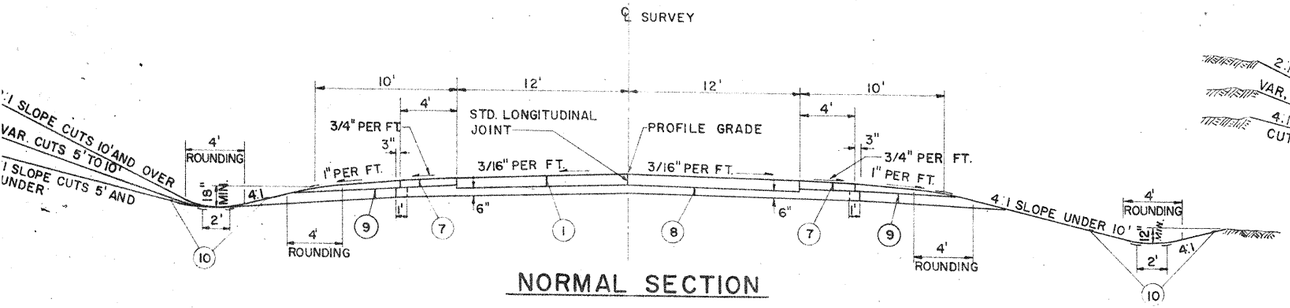
LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

## TYPE T-71




### NORMAL SECTION

**EXISTING S.R. 16**

STA. 742+50 TO 750+25 = 775.00 LIN. FT.

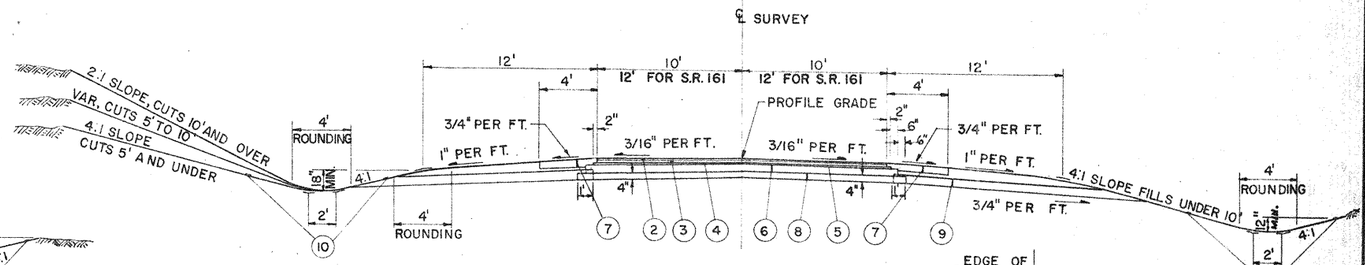
**EXISTING S.R. 16 AT S.R. 512 INTERCHANGE**

STA. 8+00 ℄ SURVEY S.R. 16= TO STA. 11+82.06 ℄ SURVEY S.R. 16= = 382.36 LIN. FT.
STA. 263+90.00 LINE "A-B" TO STA. 267+72.36 LINE "A-B"
DEDUCT FOR BRIDGE 297.24 LIN. FT.
TOTAL 860.12 LIN. FT.

**S.R. 37**

STA. 368+80 TO STA. 372+10 = 330.00 LIN. FT.
DEDUCT FOR BRIDGE 290.16 LIN. FT.
TOTAL 39.84 LIN. FT.

## TYPE T-35



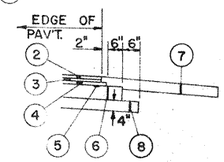

### NORMAL SECTION

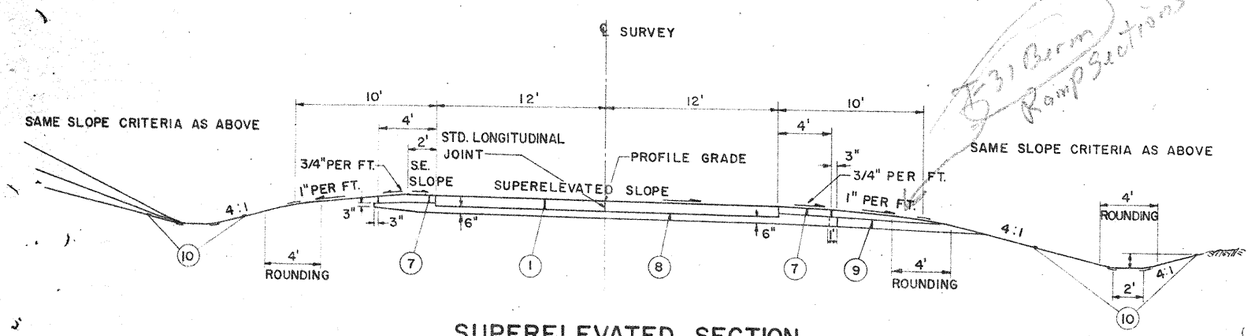
**S.R. 37**

STA. 377+20 TO STA. 378+75
TOTAL 155.00 LIN. FT.

**S.R. 161 CONNECTION**

### PAVEMENT EDGE DETAIL



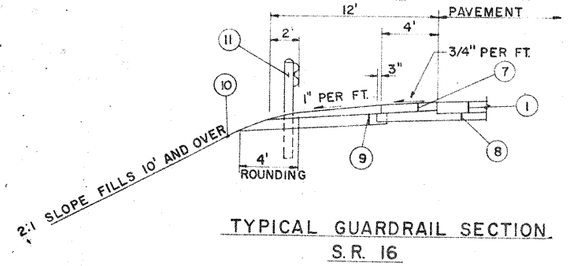

### SUPERELEVATED SECTION

**S.R. 16**

STA. 740+00 TO STA. 742+50
STA. 750+00 TO STA. 757+75
TOTAL 1025.00 LIN. FT.

**S.R. 37**

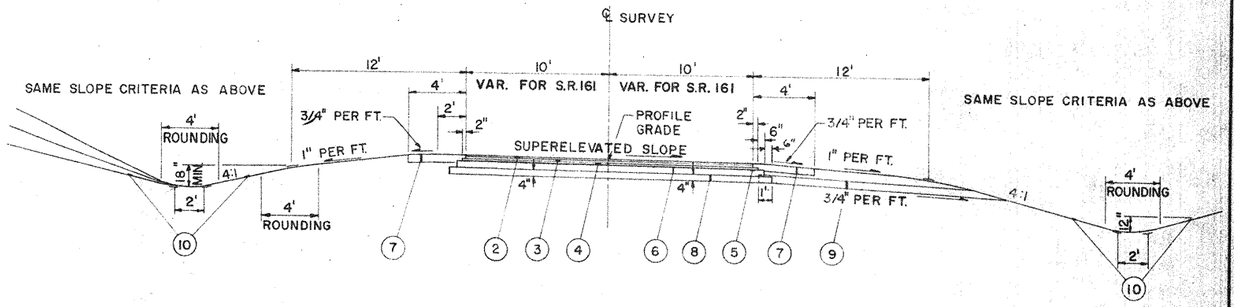
STA. 367+25 TO STA. 368+80
STA. 372+10 TO STA. 373+21
TOTAL 266.00 LIN. FT.




### TYPICAL GUARDRAIL SECTION
S.R. 16

| ITEM | | DESCRIPTION |
|---|---|---|
| (1) | T-71 | 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT. |
| (2) | T-35 | * 1¼" ASPHALTIC CONCRETE SURFACE COURSE TYPE "C" (70-85) |
| (3) | B-35 | * 1¼" ASPHALTIC CONCRETE LEVELING COURSE (70-85) |
| (4) | B-35 | * 1½" ASPHALTIC CONCRETE LEVELING COURSE (70-85) |
| (5) | T-30 | BITUMINOUS PRIME COAT, SEC. 5.7, RT-2 OR RT-3 APPLIED AT THE RATE OF 0.4 GAL. PER SQ. YD. |
| (6) | B-19 | 6" AGGREGATE BASE COURSE |
| (7) | I-18 | 6" STABILIZED CRUSHED AGGREGATE SHOULDERS AND APPROACHES WITH CALCIUM CHLORIDE INCORPORATED INTO UPPER 3 INCHES (SEE GENERAL NOTE) |
| (8) | I-22 | SUBBASE, VARIABLE DEPTH. |
| (9) | I-9 | STONE UNDERDRAIN, NO. 2 |
| (10) | L-9 | SEEDING AND PROTECTING |
| (11) | I-15 | GUARDRAIL |

* THICKNESSES SHOWN ARE "DESIGNED" THICKNESSES AS DESCRIBED IN SECTION T-35.01 AND B-35.01

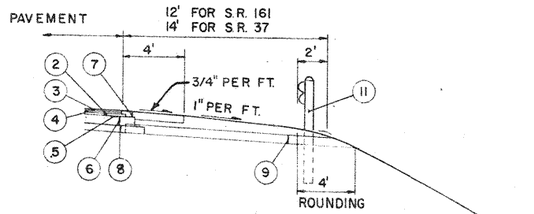



### SUPERELEVATION SECTION

**S.R. 37**

STA. 363+50 TO STA. 367+25
STA. 373+21 TO STA. 377+20
TOTAL 674.00 LIN. FT.

**S.R. 161 CONNECTION**




### TYPICAL GUARDRAIL SECTION

### EXISTING ROADWAY TYPICAL

**S.R. 16**
ROADWAY WIDTH; 40'
PAVEMENT TYPE; T-71 9" P.C.C. PAVEMENT.
PAVEMENT WIDTH; 24'
TYPE SHOULDER TREATMENT; 6" STABILIZED AGGREGATE SHOULDER.
TYPE BASE; I-22 SUBBASE.

**S.R. 37**
ROADWAY WIDTH; 36'
PAVEMENT TYPE; T-35 (1½" T-35)
PAVEMENT WIDTH; 20'
TYPE SHOULDER TREATMENT; NONE.
TYPE BASE; 6" CEMENT TREATED BASE.

# TYPICAL SECTIONS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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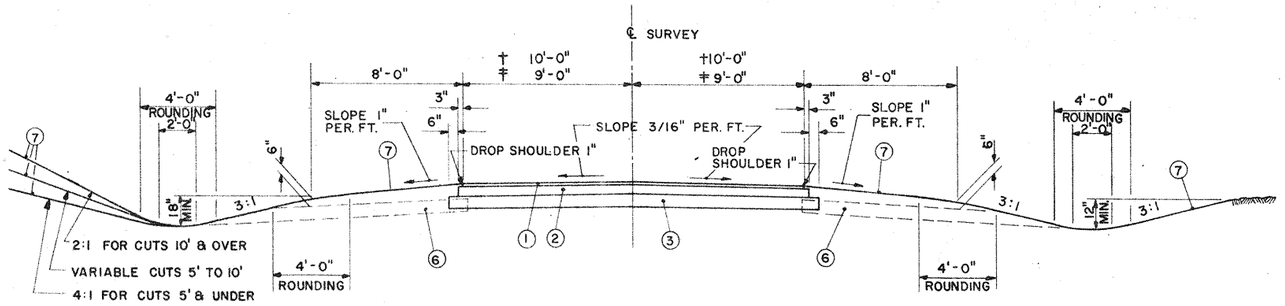
LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

## †HOWELL DRIVE
## †COUNTY RD. 128



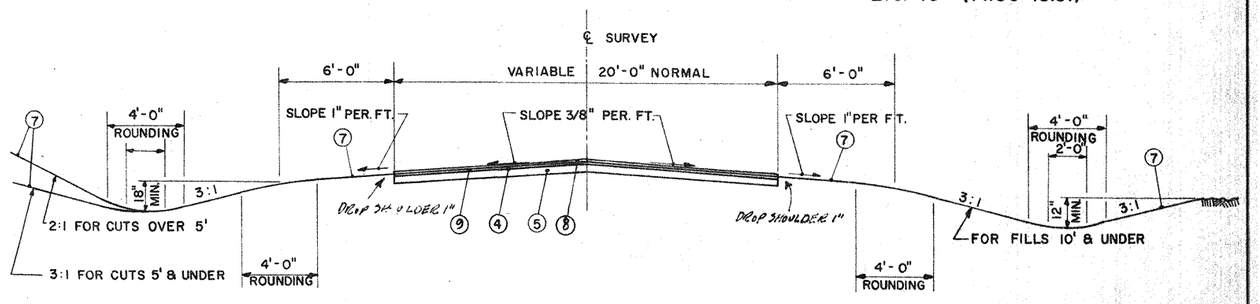

### NORMAL SECTION

HOWELL DRIVE STA. ~~10+16.22~~ 10+76.80 TO STA. 12+25 = ~~208.78~~ 148.2 LIN. FT.

COUNTY RD. 128

| | | | |
|---|---|---|---|
| STA. 5+00 | TO | STA. 7+07.77 = | 207.77 LIN. FT. |
| STA. 9+38.17 | TO | STA. 11+50.00 = | 211.83 LIN. FT. |
| | | TOTAL | 419.60 LIN. FT. |

## TWP. RD. 131

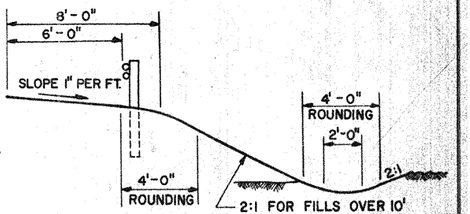


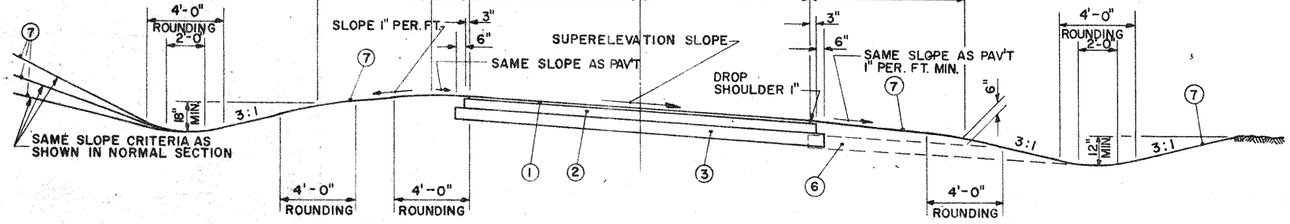

### TWP. RD. 131 RELOCATION

| | | | |
|---|---|---|---|
| STA. 0+62.04 | TO | STA. 7+00 = | 687.96 LIN. FT. |
| STA. 15+00 | TO | STA. 15+50.00 = | 50.00 LIN. FT. |
| STA. 21+75.00 | TO | STA. 24+04.74 = | 229.74 LIN. FT. |
| STA. 27+75.00 | TO | STA. 29+38.00 = | 163.00 LIN. FT. |
| STA. 30+50.00 | TO | STA. 34+00 = | 50.00 LIN. FT. |
| | | TOTAL | 1180.70 LIN. FT. |

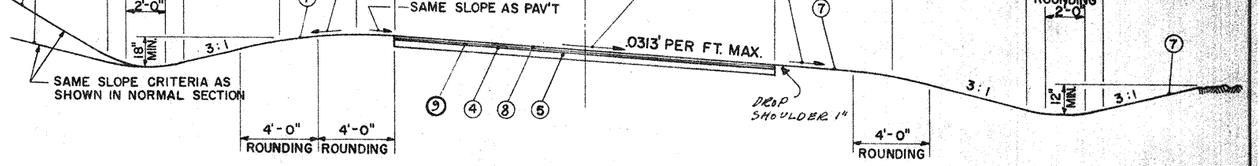
### NORMAL SECTION
### TWP. RD. 131 INTERSECTING M. L.

| | | | |
|---|---|---|---|
| STA. 6+25.00 | TO | STA. 7+03.51 = | 78.51 LIN. FT. |
| STA. 9+32.83 | TO | STA. 10+20.00 = | 87.17 LIN. FT. |
| STA. 12+10.00 | TO | STA. 16+35.00 = | 425.00 LIN. FT. |
| STA. 19+20.00 | TO | STA. 19+50.00 = | 30.00 LIN. FT. |
| | | TOTAL | 620.68 LIN. FT. |




### SUPERELEVATED SECTION




### SUPERELEVATED SECTION

### TWP. RD. 131 RELOCATION

| | | | |
|---|---|---|---|
| STA. 7+50.00 | TO | STA. 15+00 = | 750.00 LIN. FT. |
| STA. 25+51.56 | TO | STA. 27+75.00 = | 223.44 LIN. FT. |
| STA. 29+38.00 | TO | STA. 33+50.00 = | 412.00 LIN. FT. |
| | | TOTAL | 1385.44 LIN. FT. |

### TWP. RD. 131 INTERSECTING M. L.

| | | | |
|---|---|---|---|
| STA. 3+50.00 | TO | STA. 6+25.00 = | 350.00 LIN. FT. |
| STA. 10+20.00 | TO | STA. 12+10.00 = | 190.00 LIN. FT. |
| STA. 16+35.00 | TO | STA. 19+20.00 = | 285.0 LIN. FT. |
| | | TOTAL | 825.00 LIN. FT. |

### LEGEND

| | ITEM | DESCRIPTION |
|---|---|---|
| ① | T-35 | * 1 1/4" ASPHALTIC CONCRETE SURFACE COURSE TYPE C (70-85) |
| ② | B-219 | * 6" WATERPROOFED AGGREGATE BASE COURSE, 2-3" COURSES. |
| ③ | I-22 | 8" SUBBASE |
| ⑨ | B-35 | * 1 1/4" ASPHALTIC CONCRETE LEVELING COURSE (70-85) |
| ④ | T-30 | BITUMINOUS PRIME COAT, M-SEC. 5.7, RT-2 OR RT-3 APPLIED AT THE RATE OF 0.4 GAL. PER SQ. YD. |
| ⑤ | B-19 | 6" AGGREGATE BASE COURSE |
| ⑥ | I-9 | STONE UNDERDRAIN, NO.2 |
| ⑦ | L-9 | SEEDING AND PROTECTING |
| ⑧ | T-35 | * 3/4" ASPHALTIC CONCRETE SURFACE COURSE, TYPE "C" (70-85) |

* THICKNESSES SHOWN ARE "DESIGNED" THICKNESSES AS DESCRIBED IN SECTION T-33.01 AND B-219.01

### EXISTING ROADWAY

| | CO. RD. 128 | TWP. RD. 131 |
|---|---|---|
| RDWY. WIDTH | 26' | 26' |
| PAV'T TYPE | 2" ASPHALT | 3" TO 5" GRAVEL |
| PAV'T WIDTH | 18' | 20' |
| TYPE SHOULDER TREATMENT | NONE | NONE |
| TYPE BASE | 5" AGG. | EARTH |

# TYPICAL SECTIONS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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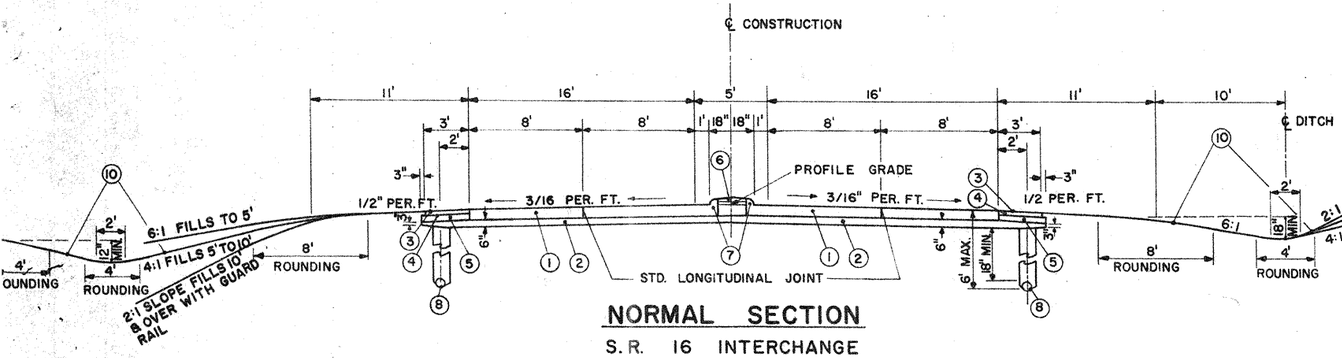
LICKING COUNTY
LIC. 161 - 11.13
LIC. 16 - (14.30 - 18.51) I-22

I-22
3' = 1.354 cu.ft./lin.ft.
4' = 1.771
5' = 2.187
6' = 2.604

3' = 1.486 cu.ft./lin.ft.
4' = 1.887
5' = 2.288
6' = 2.689

## TYPE T-71 PAVEMENT

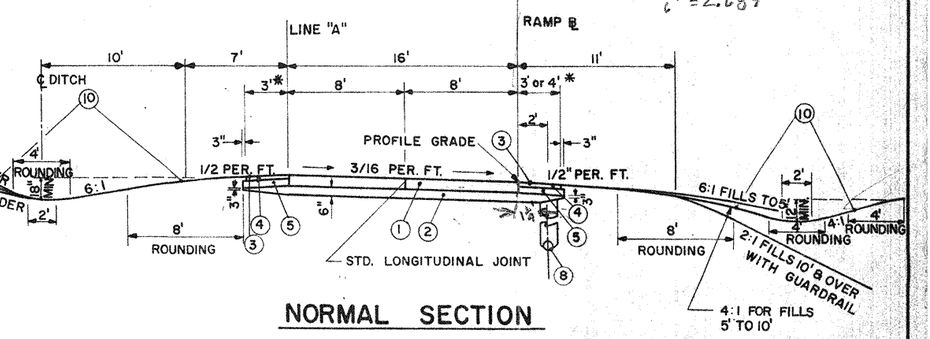
### TWO-WAY RAMP




### NORMAL SECTION

S.R. 16 INTERCHANGE
RAMP "A - B"

### ONE-WAY RAMP DIRECTIONAL ROADWAY



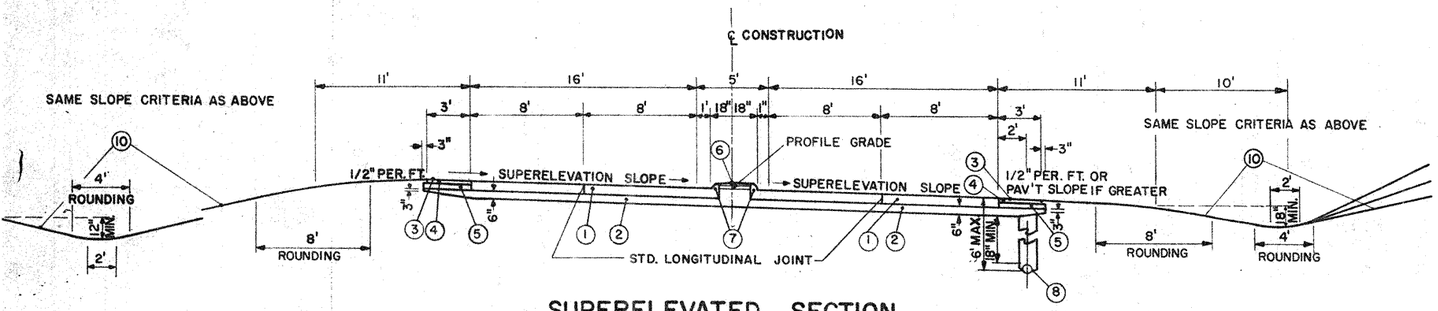

### NORMAL SECTION

S.R. 16 INTERCHANGE
RAMP "A"
RAMP "C"

S.R. 37 INTERCHANGE
RAMP "E"
RAMP "F"
RAMP "G" #109450 End Rock
RAMP "H"

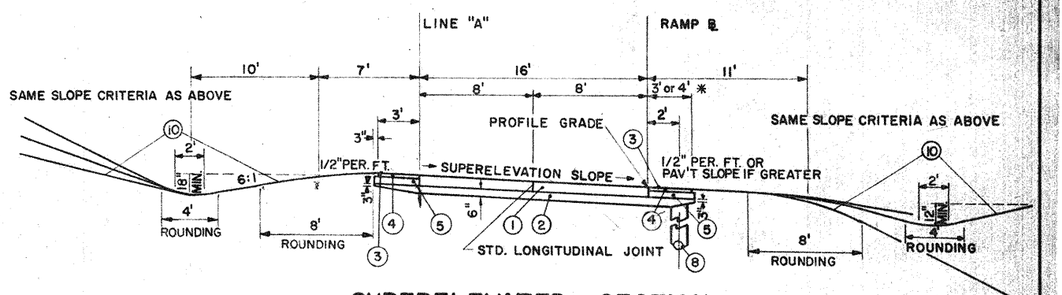
S.R. 512 INTERCHANGE
LINE "A"
LINE "B"

* 4'-0" LINE "A" AND LINE "B" ONLY (WHERE INDICATED ON PAVEMENT DETAILS)




### SUPERELEVATED SECTION

S.R. 16 INTERCHANGE
RAMP "A - B"

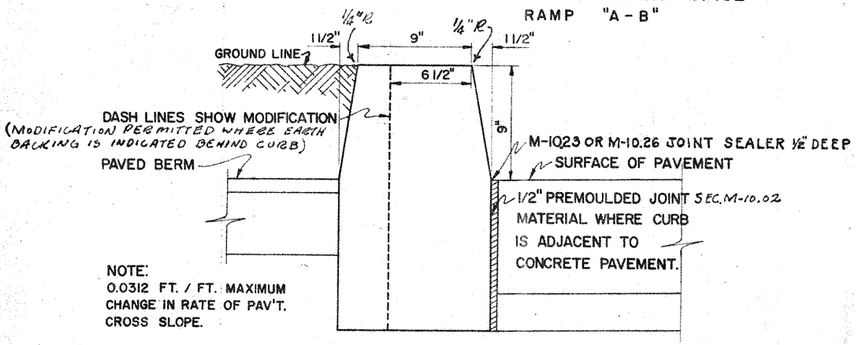



### SUPERELEVATED SECTION

S.R. 16 INTERCHANGE
RAMP "A"
RAMP "B"
LINE "B-B"
RAMP "C"
RAMP "D" ∓

S.R. 37 INTERCHANGE
RAMP "E"
RAMP "F"
RAMP "G"

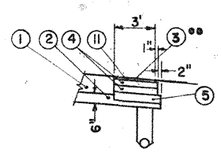
S.R. 512 INTERCHANGE
LINE "A"
LINE "B"




### SPECIAL PORTLAND CEMENT CONCRETE CURB DETAIL

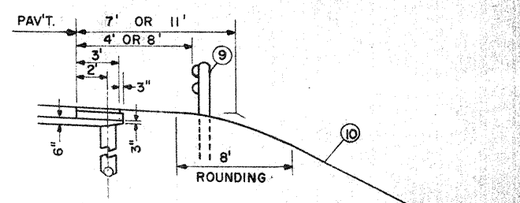
| | ITEM | DESCRIPTION |
|---|---|---|
| (1) | T-71 | 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT. |
| (2) | I-22 | SUBBASE, VARIABLE DEPTH. |
| (3) | T-31 | BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YD. NO. 6 AGGREGATE AND 0.25 GAL. BITUMINOUS MATERIAL PER. SQ. YD. IN ONE APPLICATION. SEE PROPOSAL. |
| (4) | B-219 | * 3" WATERPROOFED AGGREGATE BASE COURSE. |
| (5) | I-18 | 5" STABILIZED CRUSHED AGGREGATE SHOULDERS AND APPROACHES. |
| (6) | I-21 | 4" PORTLAND CEMENT CONCRETE MEDIAN, STD. TYPE-1 |
| (7) | I-12 | CONCRETE CURB, STD. TYPE 2-A |
| (8) | I-4 | 6" UNDERDRAINS |
| (9) | I-15 | GUARDRAIL |
| (10) | L-9 | SEEDING AND PROTECTING |
| (11) | T-35 | * 1 1/4" ASPHALTIC CONCRETE SURFACE COURSE, TYPE "C" (70-85) |

* THICKNESSES SHOWN ARE "DESIGNED" THICKNESSES AS DESCRIBED IN SECTION B-219.01 AND T-35.01




∓ SHOULDER DETAIL
RAMP "D"

●● To be deferred until completion of project.




### TYPICAL GUARDRAIL SECTION

| FED. RD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

# GENERAL NOTES

DESIGN SPEED

THE GEOMETRICS FOR THIS PROJECT HAVE BEEN PLANNED FOR A DESIGN SPEED OF 60 MILES PER HOUR.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

CONSTRUCTION LAYOUT STAKES

SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

SUPERELEVATION

SUPERELEVATED CURVES SHALL BE BUILT WITHOUT CROWN. THE CROWN SHALL BE WORKED OUT OF THE PAVEMENT IN THE PORTION BETWEEN THE BEGINNING OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION EQUALS TWICE THE CROWN.

NON-RIGID PAVEMENT REMOVAL

REMOVAL AND DISPOSAL OF EXISTING NON-RIGID PAVEMENT, UNLESS OTHERWISE INDICATED ON THESE PLANS, SHALL BE MEASURED AND PAID FOR AS ITEM E-1, ROADWAY EXCAVATION.

ITEM E-4 BORROW USING GRANULAR MATERIAL AS PER PLAN

MATERIAL FURNISHED FOR THIS ITEM SHALL BE AS DEFINED IN SEC. E-1.02 (EXCEPT THAT AT LEAST 85 PERCENT BY WEIGHT OF THE GRAINS OR PARTICLES SHALL BE RETAINED ON A NO. 200 SIEVE). IN THE AREA BETWEEN STATIONS 8+50 AND 12+50 THIS MATERIAL MAY BE PLACED BY THE METHOD OF END DUMPING IF SURFACE WATER IS PRESENT AT THE TIME OF CONSTRUCTION. END DUMPING METHODS MAY BE USED UP TO AN ELEVATION TWO FEET ABOVE THE WATER LEVEL. ABOVE THIS ELEVATION, EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH SEC. E-1.08. WHERE END DUMPING IS PERMITTED, NORMAL CLEARING AND GRUBBING SHALL BE PERFORMED BUT THE REQUIREMENTS OF SEC. E-1.04 FOR SCALPING AND COMPACTION OF THE FOUNDATION SHALL BE WAIVED.

FILLING BASEMENTS OUTSIDE NORMAL WORK LIMITS

IN ADDITION TO THE GENERAL REMOVAL REQUIREMENTS OF SEC. E-1.03(C), ALL BASEMENTS OR PORTIONS THEREOF WITHIN THE RIGHT-OF-WAY ON THIS PROJECT BUT BEYOND THE NORMAL SLOPE LINES SHALL BE FILLED TO SURROUNDING GROUND ELEVATION AS DIRECTED BY THE ENGINEER. PRIOR TO FILLING WITHIN THIS AREA, THE BASEMENT FLOORS AND WALLS SHALL BE BROKEN UP OR REMOVED AS PROVIDED UNDER SEC. E-1.03(C) AND ALL HOUSE DRAINS NOT REMOVED SHALL BE PLUGGED AS PROVIDED ELSEWHERE IN THESE NOTES *UNDER THE HEADING "PLUGGING PIPE".*

WHERE BASEMENTS EXTEND BEYOND THE RIGHT-OF-WAY LINE, BUT ARE WITHIN SLOPE EASEMENT OR WORK AGREEMENT LINES, THEY SHALL BE FILLED TO THE ELEVATION OF THE SURROUNDING GROUND AS DIRECTED BY THE ENGINEER BUT THE REQUIREMENTS OF SEC. E-1.03(C) FOR REMOVALS BELOW THE PROPOSED FINISHED SURFACE SHALL BE WAIVED FOR THE PORTIONS EXTENDING BEYOND THE RIGHT-OF-WAY LINE.

PAYMENT FOR ALL OF THE ABOVE, EXCEPT PLUGGING, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION, ITEM E-1.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON STANDARD DRAWING RI-1, AS MODIFIED BY THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

UTILITY ADJUSTMENT

ANY OR ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

FIELD OFFICE

THE CONTRACTOR SHALL, IN ACCORDANCE WITH SEC. S-0.01 (b), PROVIDE, FOR THE EXCLUSIVE USE OF THE STATE's EMPLOYEES, A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 500 SQ. FT. OF FLOOR SPACE. THE CONTRACTOR SHALL HAVE A TELEPHONE INSTALLED AND MAINTAINED IN THIS FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL WIRING AND OUTLETS SUITABLE FOR CONNECTING ELECTRIC LIGHTS AND OFFICE EQUIPMENT IN THE FIELD OFFICE AND PROVIDE 110-VOLT ALTERNATING CURRENT TO THE OFFICE DURING THE ENTIRE PERIOD OF CONSTRUCTION OF THIS PROJECT.

EXCAVATION OF UNSUITABLE MATERIAL

THE MATERIAL BETWEEN STATION 8+50 AND STATION 12+50, AS INDICATED ON THE CROSS SECTIONS, SHALL BE REMOVED AS SHOWN OR AS DIRECTED BY THE ENGINEER AND DISPOSED OF IN ACCORDANCE WITH SEC. E-1.06 OF THE SPECIFICATIONS.

PROTECTION OF PAVEMENTS

SELF-PROPELLED, CRAWLER-DRIVEN MACHINERY, EQUIPPED WITH CLEATS, SHALL NOT BE OPERATED ON THE EXISTING PAVEMENT UNLESS PADS ARE FASTENED TO TRACKS BETWEEN CLEATS SUCH THAT CLEATS WILL BE PREVENTED FROM MAKING CONTACT WITH THE PAVEMENT. CRAWLER EQUIPMENT SHALL BE OPERATED IN A MANNER THAT DAMAGE TO EXISTING OR NEW SURFACE WILL NOT OCCUR.

ITEM I-15, GUARD RAIL REMOVED AND STORED, AS PER PLAN

THIS ITEM SHALL INCLUDE STORAGE ONLY OF THE RAIL ELEMENTS AND INCIDENTAL HARDWARE. THE POSTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF BY HIM.

ITEM SPECIAL DRILLED WELL ABANDONED

THE EXISTING CONCRETE OR STONE SLAB WELL COVER SHALL BE REMOVED AND DISPOSED OF. THE PUMP AND ALL OTHER SALVAGEABLE PARTS SHALL BE CAREFULLY REMOVED AND STORED ON THE ABUTTING PROPERTY. THE CASING SHALL BE CUT OFF AT LEAST TWO FEET BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST TWO FEET BELOW THE PROPOSED SUBGRADE ELEVATION INSIDE PROPOSED PAVEMENT AREAS AND CAPPED WITH CLASS "E" CONCRETE OR A STANDARD THREADED PIPE CAP. THE UNIT PRICE BIG FOR EACH "DRILLED WELL ABANDONED" SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

SEEDING

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN LINES TEN (10) FEET OUTSIDE THE WORK LIMITS, AS SHOWN ON THE CROSS SECTIONS, OR TO THE RIGHT-OF-WAY LINE IF SUCH LINE IS LESS THAN TEN (10) FEET FROM THE WORK LIMITS.

SEEDING FORMULA:

THE FOLLOWING SEED MIXTURE SHALL, IN LIEU OF THE MIXTURES LISTED *IN SEC.* L-9.11, BE USED THROUGHOUT THE LIMITS OF THIS PROJECT;

65% KENTUCKY 31
20% KENTUCKY BLUE GRASS
10% RED TOP
5% ALSIKE CLOVER

AGRICULTURAL LIMING MATERIALS

THE LOCATION AND NEED FOR AGRICULTURAL LIMING MATERIALS WILL BE DETERMINED BY LABORATORY TESTS AFTER ROUGH GRADING OPERATIONS HAVE BEEN PERFORMED. QUANTITIES OF AGRICULTURAL LIMING MATERIALS AS SHOWN ON THE PLANS ARE SUFFICIENT FOR THE ENTIRE PROJECT, BUT WILL BE NON-PERFORMED FOR THE AREAS WHERE TESTS SHOW THAT THE LIMING MATERIAL IS NOT NEEDED. WHERE USED THIS MATERIAL SHALL BE APPLIED AT THE RATE OF 100 POUNDS PER 1000 SQUARE FEET.

ROADSIDE CLEANUP, AS PER PLAN

ITEM L-6, ROADSIDE CLEANUP, AS PER PLAN SHALL COMPLY WITH ALL THE REQUIREMENTS OF ITEM L-6, ROADSIDE CLEANUP AND IN ADDITION THE CONTRACTOR SHALL GRADE ALL DESIGNATED AREAS TO DRAIN AS DIRECTED BY THE ENGINEER. THE AREAS FOR WHICH ROADSIDE CLEANUP, AS PER PLAN IS DESIGNATED SHALL BE SEEDED. BUT SUCH SEEDING SHALL BE PAID FOR UNDER ITEM L-9.

REMOVAL OF EXISTING PIPE

THE REMOVAL OF ALL EXISTING PIPES, HEADWALLS AND / OR APPURTENANCES WITHIN THE LIMITS OF PROPOSED EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED IN THE PLANS.

ROCK SUBGRADE

THE CONTRACTOR SHALL BE PAID FOR THE THICKNESS OF I-22 MATERIAL SHOWN ON THE TYPICAL SECTIONS IN ROCK EXCAVATION AREAS. ANY POCKETS IN THE ROCK BELOW THE PLAN SUBGRADE ELEVATION SHALL DRAIN EITHER LONGITUDINALLY OR LATERALLY AND ALL IRREGULARITIES IN THE ROCK BELOW THIS ELEVATION SHALL BE FILLED WITH I-22 MATERIAL AT NO ADDITIONAL COST TO THE STATE.

CONTRACTION AND EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL IN ALL CASES BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING T. J.

MIXING CALCIUM CHLORIDE AND CRUSHED AGGREGATE

CALCIUM CHLORIDE SHALL BE INCORPORATED INTO THE UPPER THREE INCH (3") COMPACTED THICKNESS OF THE STABILIZED CRUSHED AGGREGATE SHOULDERS AND APPROACHES WHERE SPECIFIED ON THE PLANS. THE MIXING OF THE CHLORIDE WITH THE AGGREGATE SHALL BE ACCOMPLISHED AS PRESCRIBED IN SECTION B-11.12 OF THE SPECIFICATIONS EXCEPT THAT THE RATE OF APPLICATION SHALL BE ONE AND ONE-HALF (1-1/2) POUNDS PER SQUARE YARD IF MIXED IN PLACE OR EIGHTEEN (18) POUNDS PER CUBIC YARD OF COMPACTED MATERIAL IF PLANT MIXED.

AFTER FINAL SHAPING AND COMPACTION OF THE SHOULDERS, THE SURFACE SHALL BE GIVEN AN ADDITIONAL APPLICATION OF CALCIUM CHLORIDE AT THE RATE OF SIX TENTHS (0.6) POUNDS PER SQUARE YARD IN ACCORDANCE WITH THE PROVISIONS OF SECTION B-11.14 OF THE SPECIFICATIONS.

COSTS OF FURNISHING AND APPLYING CALCIUM CHLORIDE WILL BE PAID FOR UNDER ITEM M-10. THE MIXING OF THE CALCIUM CHLORIDE WITH THE CRUSHED AGGREGATE WILL BE PAID FOR AT THE UNIT PRICE PER SQUARE YARD BID FOR ITEM SPECIAL-MIXING CALCIUM CHLORIDE AND CRUSHED AGGREGATE. THE QUANTITY TO BE SO PAID FOR WILL BE THE NUMBER OF SQUARE YARDS OF THREE INCH (3") COMPACTED THICKNESS LAYER INTO WHICH THE CHLORIDE HAS BEEN ACCEPTABLY MIXED.

COSTS OF FURNISHING, HAULING, PLACING, AND COMPACTING THE AGGREGATE AND FOR ALL OTHER LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE STABILIZED SHOULDER SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM I-18.

GUARD RAIL POST ANCHORS

AT LOCATIONS WHERE PIER FOOTINGS INTERFERE WITH INSTALLATION OF FULL LENGTH GUARD RAIL POSTS, SHORT POSTS SHALL BE PROVIDED AND SHALL BE ANCHORED IN ACCORDANCE WITH THE DETAIL SHOWN *ON SHEET 371 OF* THE PLANS. COST OF PROVIDING AND INSTALLING NECESSARY ANCHORS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT OF GUARD RAIL.

SUBGRADE COMPACTION FOR DRIVES AND MAIL BOX TURNOUTS

THE SUBGRADE UNDER B-19 OR T-70 MATERIAL USED ON DRIVES AND MAIL BOX TURNOUTS SHALL BE COMPACTED FOR A DEPTH OF SIX INCHES (6") TO THE DENSITY REQUIREMENTS OF THE TABLE III IN ITEM E-1. PAYMENT FOR SUBGRADE COMPACTION, AS SPECIFIED ABOVE, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION.

EXCAVATION FOR ITEM B-19

EXCAVATION FOR B-19 MATERIAL USED ON SIDE ROAD APPROACHES, MAIL BOX TURNOUTS AND DRIVES HAS BEEN INCLUDED IN EARTHWORK QUANTITIES WHEN SAME IS IN "CUT". WHERE SIDE APPROACHES, MAIL BOX TURNOUTS, AND DRIVES ARE IN "FILL", EXCAVATION FOR B-19 MATERIAL SHALL BE MADE BY THE CONTRACTOR AT HIS OWN EXPENSE IF HE BUILDS THE EMBANKMENT UP TO FINISH GRADE BEFORE PLACING THE B-19 MATERIAL.

HEAVY EQUIPMENT

THE CONTRACTOR SHALL EXERCISE CARE IN THE USE OF HEAVY EQUIPMENT OVER FINISHED WORK AND WILL BE REQURED TO REMOVE AND REPLACE ANY COMPLETED WORK DESTROYED THEREBY. CULVERTS SHALL BE BACKFILLED TO A HEIGHT OF FOUR FEET *ABOVE TOP OF PIPE BEFORE LOADED* EARTH-MOVING EQUIPMENT IS PERMITTED TO CROSS THE TRENCH.

ANY ADDITIONAL FILL AND SUBSEQUENT EXCAVATION REQUIRED TO PROVIDE THIS MINIMUM COVER SHALL BE MADE AT NO ADDITIONAL COST TO THE STATE HEAVY EQUIPMENT SHALL NOT BE OPERATED OVER ANY COMPLETED LAYER OF EMBANKMENT, COMPACTED SUBGRADE, OR SUBBASE IF SUCH OPERATION TENDS TO DESTROY THE SOIL STRUCTURE OR PIPE UNDER DRAINS; HOWEVER, IF SUCH OPERATION CANNOT BE AVOIDED, THE CONTRACTOR WILL BE REQUIRED TO REDUCE THE SIZE OF LOADS TO AN EXTENT THAT DAMAGE DOES NOT OCCUR.

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LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

# GENERAL NOTES

SCARIFICATION OF EXISTING FLEXIBLE PAVEMENT

WITHIN THE LIMITS OF CONSTRUCTION WHERE THE EXISTING FLEXIBLE PAVEMENT WILL HAVE LESS THAN SIX (6) INCHES OF FILL PLACED UPON IT, THE PAVEMENT SHALL BE THOROUGHLY SCARIFIED FOR ITS FULL DEPTH, MIXED WITH SUFFICIENT SOIL AND PROPERLY RECOMPACTED TO INSURE THE ELIMINATION OF ANY PLANES OF SEPARATION BETWEEN IT AND THE EMBANKMENT PLACED THEREON. PAYMENT FOR SCARIFICATION AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

REMOVAL OF TREES AND STUMPS

ALL TREES AND STUMPS LYING WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM E-9 REMOVAL OF TREES AND STUMPS, EXCEPT THAT THOSE TREES AND STUMPS FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

| | RURAL | | URBAN | |
|---|---|---|---|---|
| SIZES | NO. TREES | NO. STUMPS | NO. TREES | NO. STUMPS |
| 12" - 18" | 343 | 2 | 31 | 0 |
| 18" - 24" | 190 | 2 | 46 | 1 |
| 24" - 30" | 75 | 1 | 12 | 0 |
| 30" - 36" | 31 | 0 | 5 | 0 |
| 36" - 42" | 16 | 1 | 4 | 0 |
| 42" - 48" | 6 | 0 | 0 | 1 |
| Over 48" | 6 | 1 | 3 | 0 |

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS.

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

AFTER THE EXISTING PAVEMENT HAS BEEN REMOVED, THE OLD ROADWAY SHALL BE PLOWED, HARROWED, AND DRAGGED TO A SMOOTH GRADE, THE OLD DITCHES FILLED, AND THE ENTIRE AREA SLOPED TO DRAIN AND LEFT IN A NEAT CONDITION READY FOR SEEDING. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PAVEMENT REMOVAL, ITEM E-8. SEEDING SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH ITEM L-9.

CENTERLINE REFERENCE MONUMENTS

MONUMENTS SHALL BE CONSTRUCTED OF CLASS C CONCRETE, CAST-IN-PLACE IN A CIRCULAR HOLE, EIGHT INCHES IN DIAMETER AND FORTY-FOUR INCHES IN DEPTH. TOP OF CONCRETE SHALL BE FINISHED AT A DEPTH OF TWO INCHES BELOW GROUND LEVEL AND THE UPPER SIX INCH PORTION OF THE CONCRETE SHALL BE FORMED. A 6" LONG BY 1/2" DIA. BRASS ROD SHALL BE IMBEDDED IN THE WET CONCRETE AS DIRECTED BY THE ENGINEER TO MARK CENTERLINE AND STATION.

REPLACEMENT

THE CONTRACTOR SHALL REPLACE AT HIS OWN EXPENSE ANY ITEM NOT SPECIFICALLY LISTED FOR REMOVAL THAT IS DAMAGED OR DESTROYED BY HIS OPERATIONS.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS.

UTILITIES

THE CONTRACTOR SHALL NOTIFY, AT LEAST 48 HOURS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRE, POLES, PIPE, CONDUITS, MANHOLES OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. HE SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO AVOID DAMAGES TO ANY AND ALL UTILITIES. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

TREE TO BE SAVED

20" THORNLESS LOCUST 27' RIGHT STATION 1+85 SERVICE ROAD NO. 1 SHALL BE PROTECTED DURING CONSTUCTION, AND SHALL NOT BE DISTURBED UNLESS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE INCLUDED IN THE PRICE BID FOR ITEM E-1 ROADWAY EXCAVATION.

GRADING TOLERANCES

FOR AREAS BETWEEN CURB AND SIDEWALK AND FOR AREAS IN FRONT OF RESIDENCES AND SIMILAR AREAS SPECIFICALLY INDICATED BELOW, THE SEED BED SHALL BE PREPARED TO PROVIDE A SMOOTH SURFACE. ALL STONES LARGER THAN ONE INCH IN DIAMETER SHALL BE REMOVED FROM THE SURFACE OF THE SEED BED. HAND RAKING WILL BE REQUIRED IN AREAS INACCESSIBLE TO MACHINES AND HAND RAKING MAY BE REQUIRED, IF DIRECTED BY THE ENGINEER, IN ALL THE AFOREMENTIONED AREAS IF MACHINES USED DO NOT PROVIDE RESULTS EQUIVALENT TO RESULTS OBTAINED BY HAND RAKING. COST OF THIS ADDITIONAL WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION, ITEM E-1.

THE ABOVE NOTE SHALL BE CONSIDERED TO BE PARTICULARLY APPLICABLE IN THE FOLLOWING AREAS:

STATION 362+00 TO 365+00 LEFT S.R. 37
STATION 21+50 TO 24+50 LEFT TWP. RD. 131
STATION 2+00 TO 5+00 RIGHT S.R. 161
STATION 740+00 TO 744+00 LEFT AND RIGHT S.R. 16 (EXISTING)
STATION 375+50 TO 380+00 LEFT AND RIGHT S.R. 37
STATION 5+00 TO 7+00 LEFT AND RIGHT CO. RD. 128
STATION 9+50 TO 11+75 LEFT AND RIGHT CO. RD. 128
STATION 6+75 TO 18+00 LEFT AND RIGHT S.R. 16 (512 INTERCHANGE)
STATION 302+00 TO 309+60 LEFT AND RIGHT S.R. 16

FIELD DRAINS

ALL FARM TILES WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS AND WHICH CROSS THE ROADWAY SHALL BE REPLACED WITHIN THE RIGHT-OF-WAY LIMITS BY ITEM I-2 CLASS "B" STORM SEWERS UNDER PAVEMENT OR APPROACHES. EXISTING COLLECTORS AND ISLOCATED FARM TILES WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCH. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. THE LOCATION, TYPE, SIZE, AND GRADE OF REQUIRED REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

| | | |
|---|---|---|
| I-2 | 6" Class B Storm Sewer | 200 Lin.Ft. |
| I-2 | 8" Class B Storm Sewers under pavement | 300 Lin.Ft. |
| I-3 | 8" Roadway Drainage | 300 " " |
| I-3 | 10" Outlets for Roadway Drainage | 30 " " |
| I-5 | 10" Pipe Specials for Roadway Drainage | 5 Each |
| I-10 | Dumped Rock Channel Protection | 25 Cu.Yd. |

PLUGGING PIPE

THE UPSTREAM ENDS OF ALL PIPE OR TILE LINES INTERCEPTED BY EARTHWORK OPERATIONS AND, WHERE INDICATED, THE ENDS OF PIPE LINES TO BE ABANDONED IN PLACE SHALL BE EFFECTIVELY BLOCKED AND COVERED. BROKEN PIECES AND PORTIONS OF PIPE OR TILE SHALL BE REMOVED UNTIL A WHOLE LENGTH IS ENCOUNTERED WHICH SHALL BE BLOCKED WITH CONCRETE, FLAT STONE OR BRICK LAID IN MORTAR, OR A PRECAST CLAY OR CONCRETE STOPPER. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

DRAINAGE OF BASE MATERIAL

WHERE THE BASE MATERIAL IS DRAINED BY I-9 STONE UNDERDRAINS OR BY EXTENSIONS OF THE SUBBASE THROUGH THE SHOULDERS TO THE FILL SLOPE OR THE DITCH LINE, THE CONTRACTOR SHALL FINISH, SEED, AND MULCH THE SLOPES SO AS NOT TO IMPEDE DRAINAGE OF THE BASE MATERIAL. THE ACTUAL AREA OF THE OUTCROP OF THE SUBBASE MATERIAL OR THE I-9 UNDERDRAINS SHALL NOT BE SEEDED.

CONNECTIONS TO EXISTING PIPE

AT PLACES WHERE THE PLANS PROVIDE FOR PROPOSED DRAINAGE PIPE TO BE CONNECTED TO EXISTING PIPES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED PIPE. THE COST OF THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

SKEWED CULVERT ENDS

WHERE REQUIRED BY THE STRUCTURE DETAILS, THE SKEWED END SECTIONS OF CULVERT (AND/OR SEWER) PIPE SHALL BE SPECIALLY FABRICATED BY THE MANUFACTURER. THE SHORT SIDE OF ANY SPECIALLY FABRICATED PIPE SECTION SHALL NOT BE LESS THAN TWO (2) FEET LONG.

EROSION CONTROL

ITEMS I-10, I-14, AND L-10 ARE PROVIDED IN THESE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

SODDING

AN 18" WIDTH OF SOD SHALL BE PLACED AROUND THE BACK AND BOTH SIDES OF ALL HEADWALLS, AND ALONG THE EDGES OF ALL PAVED GUTTERS, AND RIPRAP, USING REINFORCED CONCRETE SLAB, AS PER PLAN. THE COST OF THE SODDING SHALL BE PAID FOR AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM L-10 SODDING.

PLACING SOD IN DITCHES

ALL SOD PLACED IN DITCHES SHALL BE LAID WITH THE LONG EDGES OF THE STRIPS PERPENDICULAR TO THE FLOW LINE OF THE DITCH. SUCCESSIVE STRIPS SHALL BE NEATLY MATCHED AND ALL JOINTS STAGGERED OR BROKEN. THE SOD SHALL BE STAKED SECURELY WITH STAKES PLACED ON MAXIMUM TWO (2) FT. CENTERS IN ROWS NOT MORE THAN TWO (2) FEET APART. STAKES IN ADJACENT ROWS SHALL BE STAGGERED. THE STAKES SHALL BE WOOD FROM 1/2" x 3/4" x 12" to 1" x 1" x 24", AS REQUIRED TO HOLD THE SOD, AND SHALL BE DRIVEN FLUSH WITH THE TOP OF THE SOD.

SEALING OF PIPE JOINTS

WHERE CONNECTIONS ARE MADE BETWEEN RIGID AND FLEXIBLE PIPE SECTIONS OR BETWEEN PIPE SECTIONS OF DIFFERENT KIND OR TYPE OF END FABRICATION, WHETHER REQUIRED BY THE PLANS, ARISING FROM PERMISSIBLE USE OF OPTIONAL MATERIALS, OR ENCOUNTERED IN CONNECTION TO EXISTING FACILITIES, THE JOINT SHALL BE SEALED, IF SEALING IS REQUIRED BY THE SPECIFICATIONS, BY MEANS OF A CLASS "E" CONCRETE COLLAR HAVING A MINIMUM THICKNESS OF 6 INCHES AND A MINIMUM LENGTH OF 12 INCHES. PAYMENT FOR SEALING AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

ITEM I-9 STONE UNDERDRAINS, NO. 2

STONE UNDERDRAINS SHALL BE PLACED AT SIXTY (60) FOOT INTERVALS, AT THE PAVEMENT JOINTS, ON EACH SIDE OF NORMAL CROWNED SECTIONS AND AT THIRTY (30) FOOT INTERVALS WITH EVERY OTHER STONE UNDERDRAIN AT THE PAVEMENT JOINT ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS, EXCEPT WHERE I-4 UNDERDRAINS HAVE BEEN PROVIDED.

IN FLEXIBLE PAVEMENT AREAS, STONE UNDERDRAINS SHALL BE PLACED WHERE DIRECTED BY THE ENGINEER.

LOCATION AND SIZE OF PIPES

THE LOCATION, TYPE, DEPTH AND SIZE OF ALL EXISTING PIPES ARE SHOWN AS NEAR EXACT AS THE AVAILABLE INFORMATION WILL PERMIT. THE STATE WILL NOT BE RESPONSIBLE FOR ANY VARIATIONS FOUND DURING CONSTRUCTION.

PRIVATE SEWER TAPS

THIS PLAN MAKES NO PROVISION FOR CONNECTING, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY EXISTING OR NEW PRIVATE DRAINAGE TO THE NEW HIGHWAY DRAINAGE SYSTEM WHEN SUCH PRIVATE DRAINS CARRY EFFLUENT OR DRAINAGE FROM SANITARY OUTLETS, CELLAR DRAINS, OR SINK DRAINS, OR POLLUTED WATER OF ANY KIND. CONNECTIONS MAY BE MADE TO THE EXISTING OR NEW HIGHWAY DRAINAGE SYSTEM WHEN THE WATER CARRIED TO THE PROJECT DRAINAGE SYSTEM DOES NOT COME WITHIN THE CATEGORY OUTLINED ABOVE. ACCEPTABLE WATER INCLUDES FLOW FROM ROOF DRAINS, FIELD DRAINS, AND ENCLOSED NATURAL DRAINAGE SOURCES WHICH WOULD REACH THE ROAD THROUGH NATURAL CHANNELS IF SUCH WATER WAS NOT CONDUCTED ARTIFICIALLY. EXISTING SEWER TAPS WHICH DO NOT CARRY ACCEPTABLE WATER AS DEFINED ABOVE SHALL BE PLUGGED AT THE RIGHT-OF-WAY LINE. PLUGGING SPECIFIED SHALL BE BY MEANS OF CLASS "E" CONCRETE AND PAYMENT THEREFOR SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

ESTIMATED QUANTITIES FOR ACCEPTABLE CONNECTIONS, AS OUTLINED ABOVE, HAVE BEEN INCLUDED WITH THOSE TABULATED UNDER THE GENERAL NOTE ENTITLED "FIELD DRAINS" ABOVE.

RIPRAP, USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN

IN ADDITION TO MEETING THE GENERAL REQUIREMENTS OF SECTIONS I-10.03 AND I-10.05, THE RIPRAP FURNISHED FOR THIS ITEM SHALL BE A 6-INCH REINFORCED CONCRETE SLAB, REINFORCED WITH BARS OR FABRICATED REINFORCEMENT EQUIVALENT TO 3/8-INCH ROUND BARS SPACED AT TWO-FOOT CENTERS, TWO DIRECTIONS, AND PLACED APPROXIMATELY MIDWAY BETWEEN THE TOP AND BOTTOM OF THE SLAB. FORMED CONSTRUCTION JOINTS MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER. REINFORCEMENT SHALL EXTEND THROUGH ALL CONSTRUCTION JOINTS. THE REQUIREMENTS OF SECTION I-10.05 FOR DEPRESSED GROOVES AND THICKENED BOTTOM EDGES IN THIS ITEM SHALL BE WAIVED. IN LIEU THEREOF, CUT-OFF WALLS AS DETAILED ON THE PLANS SHALL BE PROVIDED AND PAYMENT THEREFOR SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

B-35 BASE COURSE

TYPE "A" SURFACE COURSE COMPOSITION MAY BE USED IN THE CONSTRUCTION OF THE ASPHALTIC CONCRETE BASE COURSE ON THIS PROJECT.

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LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

# GENERAL NOTES

# TRAFFIC

GENERAL

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON STATE ROUTES 16, 37, 161, AND 512 AT ALL TIMES BY USE OF COMBINATIONS OF THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT, ITEM S-15 TEMPORARY RUN-AROUNDS, PART-WIDTH CONSTRUCTION AND/OR TEMPORARY ROADWAYS SURFACED WITH T-10 AGGREGATE AND STABILIZED WITH M-10 CHLORIDE, AND TEMPORARY RE-ROUTINGS PERMITTED BY THESE NOTES.

IN AREAS OF PROPOSED TWO-LANE CONSTRUCTION USING NON-RIGID TYPE PAVEMENTS, ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH SPECIFICATION REQUIREMENTS FOR PLACEMENT OF COMPLETED ASPHALTIC CONCRETE COURSES.

TEMPORARY CULVERTS

PAYMENT FOR CONSTRUCTION, MAINTENANCE, AND SUBSEQUENT REMOVAL OF TEMPORARY EXTENSIONS OF EXISTING OR PROPOSED CULVERTS AND SEWERS REQUIRED FOR CONSTRUCTION OF THE ITEM S-15 RUN-AROUNDS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE RUN-AROUNDS.

LIGHTS, SIGNS, AND BARRICADES

THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF SEC. G-7.07, ON THIS PROJECT PERFORM THE FOLLOWING:

(a) PROVIDE, ERECT, AND MAINTAIN MOVABLE GATES ON INTERSECTING ROADS CLOSED TO TRAFFIC AT ALL POINTS WHERE LOCAL TRAFFIC MOVEMENT TERMINATES.

(b) PROVIDE, ERECT, AND MAINTAIN LIGHTS, SIGNS, AND BARRICADES AT THE WORK LIMITS ON ALL INTERSECTING ROADS WHICH REMAIN OPEN TO TRAFFIC.

(c) PROVIDE, ERECT, AND MAINTAIN STANDARD 40" x 24" SIZE "ROAD CLOSED" SIGNS, SIGN SUPPORTS, AND LIGHTS AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

1. ON EXISTING S.R. 16 IN GRANVILLE SOUTH OF THE INTERSECTION OF CHERRY STREET AND BROADWAY DURING CLOSURE OF EXISTING S.R. 16 SOUTHWEST FROM GRANVILLE.
2. ON EXISTING S.R. 161 WEST OF THE S.R. 37 INTERSECTION DURING CONSTRUCTION OF THE S.R. 161 CONNECTION.

LIGHTS, BARRICADES, AND DANGER AND WARNING SIGNS SHALL BE PROVIDED AT LOCATIONS SHOWN ABOVE IN ACCORDANCE WITH SEC. G-7.07. BARRICADES AND GATES SHALL BE AS DETAILED ON STANDARD CONSTRUCTION DRAWING NO. G-7.07. SIGN SUPPORTS AND LIGHTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES"

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING BARRICADES, GATES, LIGHTS, SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "MAINTAINING TRAFFIC".

PART WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY OF BUILDING THIS PROJECT UNDER TRAFFIC AND CONSTRUCTING PORTIONS OF THE PAVEMENT PART AT A TIME, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT ON CENTERLINE IN THE B-19 AND I-22 COURSES.

THIS SHALL BE ACCOMPLISHED BY BUILDING THE B-19 AND I-22 COURSES, PLACED WITH THE FIRST PORTION OF THE PAVEMENT BUILT, AT LEAST EIGHTEEN (18) INCHES BEYOND THE CENTERLINE AND BY SURFACING NO CLOSER THAN EIGHTEEN (18) INCHES TO THIS EDGE OF THE ABOVE COURSES. WHEN THE SECOND PORTION OF THE PAVEMENT IS BUILT, AT LEAST TWELVE (12) INCHES OF THESE PROJECTING COURSES SHALL BE BROKEN DOWN AND THOROUGHLY KEYED IN WITH THE NEWLY PLACED CORRESPONDING COURSES IN THE SECOND PORTION OF THE PAVEMENT BUILT. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT PAVEMENT ITEMS.

TRAFFIC IN S.R. 512 INTERCHANGE AREA

TWO-WAY TRAFFIC SHALL BE MAINTAINED THROUGH THE S.R. 512 INTERCHANGE AREA BY MEANS OF THE FOLLOWING STAGE CONSTRUCTION:

1. MAINTAIN TRAFFIC ON EXISTING S.R. 16 WHILE THE SIDE HILL EXCAVATION BETWEEN STATION 289+00 AND STATION 294+00 IS COMPLETED.
2. CONSTRUCT THE BRYN MAWR EXTENSION AND ROUTE S.R. 512 TRAFFIC ON TO EXISTING S.R. 16.
3. CONSTRUCT S.R. 512 AND RELOCATED S.R. 16 WEST-BOUND FROM BRYN MAWR EXTENSION WESTWARD TO RELOCATED S.R. 16 AT APPROXIMATELY STATION 287+00.
4. CONSTRUCT A TEMPORARY RUN-AROUND WITH CLASS "A" PAVEMENT BETWEEN EXISTING S.R. 16 AND RELOCATED S.R. 16 AT STATION 287+00 AND ROUTE TRAFFIC OVER THIS.

   COST OF THIS SHALL BE INCLUDED IN THE ITEM S-15 LUMP SUM, TEMPORARY RUN-AROUND, CLASS "A".
5. COMPLETE CONSTRUCTION OF THE S.R. 37 INTERCHANGE.
6. CONSTRUCT RELOCATED S.R. 16 EAST-BOUND FROM S.R. 37 TO BRYN MAWR EXTENSION.
7. RE-ROUTE EXISTING S.R. 16 TRAFFIC OVER S.R. 37 AND EAST-BOUND S.R. 16 AND COMPLETE THE CONSTRUCTION OF EXISTING S.R. 16 AND RELOCATED WEST-BOUND S.R. 16.
8. COMPLETE THE CONSTRUCTION OF S.R. 16 EAST OF BRYN MAWR EXTENSION BY PART WIDTH CONSTRUCTION AND TEMPORARY PAVEMENT ON THE SHOULDERS.

S.R. 16 & S.R. 37 INTERCHANGE AREA

CONSTRUCTION OF THE S.R. 37 TEMPORARY RUN-AROUND ROAD SHALL BE COMPLETED FIRST WITH THE CONNECTION OF TWP. RD. 131 EAST OF S.R. 37 CONNECTING TO THE TEMPORARY RUN-AROUND. THIS CONNECTION WILL BE UNDER THE PROPOSED STRUCTURE AND THE PORTION OF TWP. RD. 131 EAST OF S.R. 37 SHALL BE COMPLETED PRIOR TO SUPERSTRUCTURE WORK ON THE S.R. 37 STRUCTURE IS STARTED.

ESTIMATE OF QUANTITIES FOR THE ABOVE ARE:

S-15 TEMPORARY RUN-AROUND CLASS "B" (S.R. 37) AS PER PLAN _____ LUMP.
T-10 AGGREGATE - - - - - - - - - - 75 CU. YDS.
T-10 AGGREGATE MODIFIED - AS PER PLAN --- 75 CU. YDS.
M-10 CALCIUM CHLORIDE - - 3 TONS.

S.R. 37 WILL THEN BE COMPLETED AND RAMPS "D", "E", & "G" AND THE RELOCATED S.R. 16 PORTION BETWEEN EXISTING S.R. 16 & S.R. 37 WILL BE COMPLETED. RAMP 'D' CONNECTION SHALL THEN BE MADE AS FOLLOWS: THE FIRST STAGE OF CONSTRUCTION WILL BE TO PROVIDE A TEMPORARY CONNECTION FROM STATION 740+00 TO RAMP 'D' UTILIZING THE RIGHT SHOULDER AND RIGHT LANE WITH A SMALL AMOUNT OF WIDENING. THE LEFT LANE OF S.R. 16 WILL THEN BE CONSTRUCTED, ALLOWING THIRTY (30) CALENDAR DAYS FOR THIS WORK. THE SECOND STAGE WILL CONSIST OF ROUTING THE TRAFFIC OVER THE NEWLY CONSTRUCTED PORTION UTILIZING THE LEFT SHOULDER. THIRTY (30) CALENDAR DAYS WILL BE ALLOWED FOR THE REMAINDER OF THE CONNECTION CONSTRUCTION.

TRAFFIC WILL BE MAINTAINED BETWEEN S.R. 16 & S.R. 37 BY UTILIZING RAMP "D" AS TWO LANE TRAFFIC, RAMP "E" AS SOUTH-BOUND S.R. 16, AND RAMP "G" AS NORTH-BOUND S.R. 16. A TEMPORARY CROSS-OVER SHALL BE CONSTRUCTED FOR SOUTH-BOUND TRAFFIC TO S.R. 16. EXISTING S.R. 16 SHALL THEN BE CONSTRUCTED WITH TWP. RD. 131 BEING COMPLETED.

THE SHOULDERS ON RAMP "D" SHALL BE CONSTRUCTED AS SHOWN ON THE SPECIAL DETAIL FOR THE RAMP "D" TYPICAL SECTION. AFTER THE RAMP IS NO LONGER USED FOR TWO-WAY THROUGH TRAFFIC, THE T-31 SEAL COAT SHALL BE APPLIED.

ESTIMATE OF QUANTITIES FOR THE ABOVE ARE:

S-15 TEMPORARY RUN-AROUND CLASS "A" (CROSS OVER) AS PER PLAN ----LUMP.
T-10 AGGREGATE - - - - - - - - - - 338 CU. YDS.
T-10 AGGREGATE MODIFIED - AS PER PLAN --- 338 CU. YDS.
M-10 CALCIUM CHLORIDE 13.5 TONS

TWP. RD. 131 INTERSECTING MAINLINE CROSSING STATION 142+44.82

TRAFFIC SHALL BE MAINTAINED ON EXISTING TWP RD. 131 AND ONE-LANE TRAFFIC SHALL BE MAINTAINED AT THE CONNECTIONS OF THE EXISTING WITH THE PROPOSED. ONE-WAY TRAFFIC SHALL BE HELD TO A MINIMUM.

ESTIMATED QUANTITIES FOR THE ABOVE ARE:

T-10 AGGREGATE - - - - - - - - - - 263 CU.YDS.
T-10 AGGREGATE MODIFIED - AS PER PLAN --- 263 CU.YDS.
M-10 CHLORIDE - - - - - - 10.5 TONS

COUNTY RD. 128

TWO LANE TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT WHEN IT SHALL BE NECESSARY TO MAKE THE APPROACH CONNECTIONS, WHERE ONE-WAY TRAFFIC AND HALF WIDTH CONSTRUCTION WILL BE PERMITTED.

ESTIMATED QUANTITIES FOR THE ABOVE ARE:

T-10 AGGREGATE - - - - - - - - - - 225 CU. YDS.
T-10 AGGREGATE MODIFIED - AS PER PLAN --- 225 CU. YDS.
M-10 CHLORIDE - - - - - - 9 TONS

TRAFFIC ON S.R. 161

TWO-WAY TRAFFIC SHALL BE MAINTAINED ON S.R. 161 AT THE BEGINNING OF THE PROJECT, DURING THE CONSTRUCTION OF RELOCATED S.R. 161. A TEMPORARY RUN-AROUND WITH CLASS "B" PAVEMENT HAS BEEN PROVIDED FOR THIS PURPOSE.

THE TEMPORARY RUN-AROUND SHALL BE BUILT TO THE LINE AND GRADES SHOWN ON THE PLANS.

COST OF THE ABOVE SHALL BE INCLUDED IN ITEM S-15 LUMP SUM TEMPORARY RUN-AROUND ROAD AS PER PLAN.

FOLLOWING COMPLETION OF RELOCATED S.R. 161 AND THE S.R. 16 INTERCHANGES, EXISTING S.R. 161 SHALL BE CLOSED TO TRAFFIC DURING THE CONSTRUCTION OF THE S.R. 161 CONNECTION.

THE EMBANKMENT FOR THE S.R. 161 TEMPORARY RUNAROUND ROAD FROM STA. 1+00 AHEAD MAY BE LEFT IN PLACE, AND GRADED TO DRAIN, IF THE CONTRACTOR SO DESIRES, AT NO ADDITIONAL COST TO THE STATE.

ITEM T-10, MODIFIED AS PER PLAN

THE WEIGHTS TO BE USED IN CALCULATING THE YARDAGE TO BE PAID FOR UNDER THIS ITEM SHALL, IF A STANDARD SIZE COARSE AGGREGATE IS FURNISHED, BE THE SAME AS THOSE INDICATED IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR CRUSHER RUN OR BANK RUN MATERIALS.

ITEM T-10 MODIFIED AS PER PLAN

ALL PROVISIONS OF ITEM T-10 TRAFFIC COMPACTED SURFACE COURSE, SHALL BE MET EXCEPT THAT NO. 3 OR NO. 34 AGGREGATE OR THE MATERIAL FROM THE EXISTING PAVEMENT SHALL BE USED.

THE MATERIAL FROM THE EXISTING PAVEMENT MAY BE USED WITHOUT FURTHER TEST FOR GRADATION OR QUALITY. PAYMENT SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR ITEM T-10, TRAFFIC COMPACTED SURFACE COURSE, MODIFIED AS PER PLAN.

AGGREGATE USED FOR T-10, MODIFIED, SHALL BE MEASURED AS DESCRIBED UNDER SECTION T-10.08.

WHEN MATERIALS FROM THE OLD PAVEMENT ARE USED, MEASUREMENT SHALL BE BY VOLUMETRIC MEANS, EITHER VEHICLE BED MEASUREMENT AT THE POINT OF DELIVERY OR BY VOLUMETRIC CALCULATION OF EXISTING PAVEMENT BEFORE AND AFTER REMOVAL.

PAYMENT FOR TEMPORARY ROADWAYS

PAYMENT FOR CONSTRUCTION, MAINTENANCE, AND SUBSEQUENT REMOVAL, WHEREVER REQUIRED, OF TEMPORARY ROADWAYS NOT SEPARATELY ITEMIZED UNDER ITEM S-15, EXCEPT FOR FURNISHING AND PLACING OF ITEMS M-10 CHLORIDE AND T-10 AGGREGATE, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "MAINTAINING TRAFFIC".

TABLE

S-15 TEMPORARY RUN-AROUND ROADS

RURAL

| LOCATION | CLASS | PAVT. WIDTH | RDWY. WIDTH | SEE SHEET NUMBER | ITEM S-15 RUN-AROUND USING PAVEMENT CLASS "A" | ITEM S-15 RUN-AROUND USING PAVEMENT CLASS "B" |
|---|---|---|---|---|---|---|
| S.R. 161 STA. 0-200 TO STA. 9+40 | "B" | 20' | 26' | 23-24 | | Lump |
| CROSS-OVER STA. 100+00 TO 104+00 | "A" | 12' | 18' | 34 | Lump | |
| S.R. 37 STA 361+60 TO STA. 380+00 | "B" | 20' | 26' | 190-192 | | Lump |
| TOTAL TO GEN'L SUMMARY | | | | | Lump | Lump |
| URBAN | | | | | | |
| S.R. 512 INTERCHANGE STA. 285+55 TO STA. 287+00 LINE "W" | "A" | 20' | 26' | 282 | Lump | |
| TOTAL TO GEN'L SUMMARY | | | | | Lump | |

LENGTH OF WORK SIDEROADS

100% State

LIC - 161 - 11.13 (RURAL)

| | |
|---|---|
| BEGIN WORK STA. 0-953.24 TO STA. 0+50 | 1003.24 L.FT. |
| S.R. 161 CONNECTION — STA. 0-21.28 TO STA. 3+50 | 371.28 L.FT. |
| EXISTING S.R. 16 STA. 740+00 TO STA. 757+75 | 1775.00 L.FT. |
| | ~~3149.52~~ L.FT. |

Sub-total (100% State) = 1,374.52 L.F.

"F"

LIC - 16 - (14.30 - 18.51) (RURAL)

TWP. RD. 131 RELOCATED @ STA. 142+44.82

| | |
|---|---|
| STA. 9+23 TO STA. 7+67.05 | 442.05 L.FT. |
| STA. 8+71.33 TO STA. 19+75 | 1163.67 L.FT. |
| S.R. 37 STA. 361+60 TO STA. 380+00 | 1840.00 L.FT. |
| | ~~3885.72~~ L.FT. |
| TOTAL LENGTH TO SHEET 1 (RURAL)(F) | 5,160.72 L.FT. |
| | ~~6555.24~~ L.FT. |

LIC-16-(14.30-18.51) (URBAN)

STA. 300+00 to END WORK STA. 310+00 1000.00 L.F.

TOTAL LENGTH TO SHEET 1 (MUNICIPAL)(U) 1000.00 L.F.

REV. 7-14-81 REG.

# GENERAL SUMMARY

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

13
466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

TYPE CODE 7221

| ITEM | "F" NORMAL PARTICIPATION 11/12 | "F" NORMAL PARTICIPATION 17/18 | RURAL 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 139 | 186 | 234 | 267 | 374 | 466 | SUB-TOTAL "F" | SUB-TOTAL "FG" | URBAN 11/12 | 18 | 273 | 274 | 374 | 466 | 100% STATE | ITEM | QUANTITIES TOTAL RURAL | QUANTITIES TOTAL "U" | GRAND TOTAL | UNIT | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ROADWAY |
| -1 | 542209 | 533,564 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 110,912 | | 648708 | 3768 | | 519,216 | | 18,798 | | 98889 | E-1 | 644,476 | 538,014 | 1,182,490 | Cu. Yds. | Roadway Excavation, Method "B", as per plan. |
| -4 | 72291 | 315886 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 266412 | 56,474 | | | | | | | 188121 | E-4 | 325,886 | | 325,886 | Cu. Yds. | Borrow |
| -1 | 161308 | 204,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 181,456 | 22,544 | | 38,000 | | | | | 20148 | E-1 | 204,000 | 38,000 | 242,000 | Sq. Yds. | Compacted Subgrade. |
| -4 | --- | 3,829 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3829 | | | | | | | | 3829 | E-4 | 3,829 | | 3,829 | Cu. Yds. | Borrow, Using Granular Material, as per Plan. |
| -8 | 1600 | | | 400 | 2,000 | | | | | | | 1,470 | | | | | | | | | | | | | | | | 1600 | | | | | | | 5470 | | | 12,729 | | | | 3870 | E-8 | 5,470 | 12,729 | 18,199 | Sq. Yds. | Removal & Disposal of Existing Pavement, as per plan |
| -9 | Lump | Lump | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Lump | Lump | Lump | | | | | | Lump | E-9 | Lump | Lump | Lump | Lump | Removal of Trees and Stumps. |
| -11 | 3,819 | 8,371 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5046 | 2,725 | Lump | 1,479 | | | | | 1927 | E-11 | 8,371 | 1,479 | 9,850 | M Gal | Water |
| -12 | 128 | | 30 | 38 | 94 | | | | | | | | | | | | | | | | | | | | | | | 128 | | | | | 290 | | | | | 299 | | 162 | E-12 | 290 | 299 | 589 | Lin. Ft. | Pipe Removed, 15" and Under. |
| -12 | 565 | | | | 24 | | | | | | | | | | | | | 42 | | | | | | | | | | | 475 | 48 | | 8 | 597 | | | | | 242 | | 32 | E-12 | 597 | 242 | 839 | Lin. Ft. | Pipe Removed, Over 15". |
| -12 | 42 | | | | | | | | | | | 42 | | | | | | | | | | | | | | | | | | | | | 42 | | | | | | | | E-12 | 42 | | 42 | Lin.Ft. | Pipe Removed for Storage, over 15" |
| -8 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | 11 | | | | | 2 | I-8 | 11 | 2 | 13 | Each | Monument Assemblies, Std. |
| -8 | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 34 | 4 | 30 | 4 | | | | 4 | 9 | I-8 | 34 | 4 | 38 | Each | Centerline Reference Monuments, as per plan |
| -15 | 19,604 | | | 100 | 1100 | 800 | 950 | 650 | 1,487.5 | 1,900 | 800 | 435 (237.5) | 100 | 300 | 12.5 (30.0) | | | 886 | 2,000 | 1771.97 | 1,977.9 | 1760.9 | 2000 | 1988.7 | 6533 | | | 200 | 1955.68 | 4662.5 | 3037.5 | 450 | | | 7225.38 | 5738.8 | | 6181.82 | | | | (1)537.5 | I-15 | 32,568.18 | 6,181.82 | 38,750.0 | Lin. Ft. | Guard Rail, Steel Beam Standard Type (Deep). |
| -15 | --- | | | | | | | | | | | (50) | | | (50) | | | | | (150) | | (150) | | | | | | | | | | | | | | | | | | | (8)175 (46) 225 | I-15 | 400 | | 400 | Lin. Ft. | Guard Rail, Steel Beam Barrier Type (Deep) |
| -15 | 86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 86 | | | | 86 | | | 6 | | | | I-15 | 86 | 6 | 92 | Each | Wood Guard Rail Posts Without Rail. |
| -15 | 400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 400 | | | | 400 | | | 2445 | | | | I-15 | 400 | 2,445 | 2,845 | Lin. Ft. | Guard Rail Removed and Stored, as per plan. |
| -15 | 750 | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1000 | | | 500 | | | | 250 | I-15 | 1000 | 500 | 1500 | Lin.Ft. | Temporary Guard Rail |
| -1 | 1,321 | 1,321 | | | | | | | | | | | | | ( ) indicates "No Federal Participation" | | | | | | | | | | | | | | | | | | | 1321 | | | 1,946 | | | | | L-1 | 1,321 | 1,946 | 3,267 | Cu. Yds. | Topsoil Stockpiled. |
| -3 | 4,870 | 4,870 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4870 | | | 6,075 | | | | | L-3 | 4,870 | 6,075 | 10,945 | Sq. Yds. | Placing Stockpiled Topsoil, Variable Thickness, As Per Plan. |
| -6 | 123 | | | | | | | | | | | | | | | | | | | | | | | | | | | 123 | | | | | 123 | | | | | | | | L-6 | 123 | | 123 | Units | Roadside Cleanup, as per Plan. |
| -9 | 425212 | 549,462 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 478462 | 71,000 | | 149,399 | | | | 53,250 | L-9 | 549,462 | 149,399 | 698,861 | Sq. Yds. | Seeding and Protecting, as per plan |
| -9 | 38.62 | 43.86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 43.27 | 6.39 | | 13.54 | | | | 4.85 | L-9 | 43.86 | 13.54 | 63.40 | Tons | Commercial Fertilizer (12-12-12). |
| -9 | 193.70 | 249.28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 217.35 | 31.95 | | 67.71 | | | | 24.13 | L-9 | 249.28 | 67.71 | 316.99 | Tons | Agricultural Liming Material, as per Plan. |
| -10 | 2524 | | | 68 | | 303 | 167 | 100 | | | 285 | 23 | 12 | | 14 | 15 | 3 | 290 | 247 | 312 | 5 | 228 | 172 | 5 | 5 | 20 | 274 | 219 | 374 | 346 | 17 | 107 | | 3189 | 422 | | | 1019 | 15 | | 665 | L-10 | 3611 | 1034 | 4645 | Sq. Yds. | Sodding, as per plan. |
| -10 | 447 | | | | | | | | | | | | | | | | | | | 77 | | 287 | | | | | | | 188 | 182 | | | | 447 | 287 | | | 41 | | | | L-10 | 734 | 41 | 775 | Sq. Yds. | Sodding for Special Berm and Slope Protection, as per plan |
| T-10 | 901 | 901 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 901 | | | | | | | | T-10 | 901 | | 901 | Cu. Yds. | Traffic Compacted Surface Course for Maintaining Traffic |
| T-10 | 901 | 901 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 901 | | | | | | | | T-10 | 901 | | 901 | Cu Yds. | Traffic Compacted Surface Course for Maintaining Traffic. Modified as per Plan. |
| M-10 | 36 | 39.82 8.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 44.8 | 0.3 | | | | | | 3.18 | M-10 | 44.8 | 0.3 | 45.1 | Tons | Calcium Chloride Furnished and Applied. |
| S-15 | Lump | Lump | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Lump | | Lump | | | | | | S-15 | Lump | Lump | Lump | Lump | Temporary Run-around Roads, using Class "A" Pavement, as per Plan. |
| S-15 | Lump | Lump | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Lump | | | | | | | Lump | S-15 | Lump | | Lump | Lump | Temporary Run-around Roads, using Class "B" Pavement, as per Plan |
| S-24 | | Lump | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Lump | Lump | | | | | | | S-24 | Lump | | Lump | Lump | Removal of One-1 Story Concrete Block Residence and One-Frame Shed, Parcel No. 14-LA. |
| S-24 | | Lump | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Lump | Lump | | | | | | | S-24 | Lump | | Lump | Lump | Removal of One-Frame Garage, Parcel No. 16-LA. |
| S-24 | | --- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Lump | | S-24 | | Lump | Lump | Lump | Removal of One-1 Story Frame and Stone Building, Parcel No. 60-LA. |
| S-24 | | Lump | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Lump | Lump | | | | | | | S-24 | Lump | | Lump | Lump | Removal of One Metal Shed, Parcel No. 42A |

REV. 7-14-61. R.E.C.

# GENERAL SUMMARY

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

14/466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

TYPE CODE 7221

| ITEM | "F" NORMAL PARTICIPATION | | SHEET NO. RURAL | | |

# GENERAL SUMMARY

TYPE CODE 7221

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

15/466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

| M | "F" NORMAL PARTICIPATION 11 | 18 | RURAL 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 139 | 186 | 234 | 267 | 374 | 466 | SUB-TOTAL "F" | SUB-TOTAL "FG" | URBAN 11/12 | 18 | 273 | 274 | 374 | 466 | 100% STATE | ITEM | QUANTITIES TOTAL RURAL | QUANTITIES TOTAL "U" | GRAND TOTAL | UNIT | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | DRAINAGE (Continued) |
| 5 | 300 | 230 | | | | | | | | | | | | | | 44 | | | | | | | | | | | | | | | | | | | 304 | 40 | | | | | | | 74 | I-3 | 344 | | 344 | Lin. Ft. | 8" Roadway Drainage. |
| 1 | | | | | | | | | | 12 | | | | | | | | | | | | | | | | | | | | | | | | | 12 | | | | | | | 12 | I-3 | 12 | | 12 | Lin. Ft. | 12" Roadway Drainage. |
| 1 | | | | | | | | | | | | | | | | | | | | | | 216 | | | | | | | | | | | | | 216 | 216 | | | | | | | I-3 | 216 | | 216 | Lin. Ft. | 30" Roadway Drainage. |
| 5 | | | | | | | | | | 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | | | | | | 10 | I-3 | 10 | | 10 | Lin. Ft. | 6" Outlets for Roadway Drainage, Sec. M-6.4 (c)(h) w/o Perforations |
| 5 | 30 | 20 | | | | | | | | | | | | | | 10 | | | | | | | | | | | | | | | | | | | 30 | 10 | | | | | | | 10 | I-3 | 40 | | 40 | Lin. Ft. | 10" Outlets for Roadway Drainage, Sec. M-6.4 (c). |
| 5 | | | | | | | | | | 10 | | | | | | | | | | | | | | | | | | | | | | | | | 10 | | | | | | | 10 | I-3 | 10 | | 10 | Lin. Ft. | 15" Outlets for Roadway Drainage, Sec. M-6.4 (c). |
| 1 | | 234 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 234 | | | | | 234 | | | | | | | | I-3 | 234 | | 234 | Lin. Ft. | 18" Roadway Drainage with Shallow Cover |
| 1 | | 59339 | | 370 | | | | | | 800 | 3,631 | 3,893 | 3,420 | 3,010 | 4,008 | 3,252 | 3,148 | 3,568 | 4,034 | 3,046 | 3,984 | 1,604 | 2,002 | 2,662 | 4,004 | 2,981 | 3,564 | 2,132 | 1,966 | 4,373 | 2,739 | | | | 59,709 | 8482 | | | 13,527 | | | | 370 | I-4 | 68,191 | 13,527 | 81,718 | Lin. Ft. | 6" Underdrains. |
| 1 | | 1541 | | | | | | | | | | | 300 | 725 | | | | 56 | | | | | | | | | | | | | 460 | | | | 1541 | | | 2,230 | | | | | I-4 | 1541 | 2230 | 3771 | Lin. Ft. | 6" Underdrains, Sec. M-6.4 (h). |
| 1 | | 246 | | | | | | | | | | | | | | | | 246 | | | | | | | | | | | | | | | | | 246 | | | | | | | | I-4 | 246 | | 246 | Lin. Ft. | 12" Underdrains, Sec. M-6.4 (b), as per plan |
| 4 | | 1042 | | 20 | | | | | | | 60 | 100 | 40 | 10 | 60 | 60 | 30 | 90 | 100 | 60 | 40 | 10 | 20 | 2 | 40 | 120 | 40 | 30 | 20 | 110 | 90 | | | | 1062 | 90 | | | 280 | | | | 20 | I-4 | 1152 | 280 | 1432 | Lin. Ft. | 8" Pipe Outlets for Underdrains, Sec. M-6.4 (a). |
| 4 | | 10 | | | | | | | | | | | | | | | | 10 | | | | | | | | | | | | | | | | | 10 | | | | | | | | I-4 | 10 | | 10 | Lin. Ft. | 18" Pipe Outlets for Underdrains, Sec. M-6.4 (a). |
| 5 | | 108 | | 1 | | | | | | | 6 | 13 | 4 | 1 | 8 | 6 | 3 | 8 | 13 | 6 | 4 | 1 | 2 | 2 | 4 | 7 | 6 | 3 | 2 | 10 | 8 | | | | 109 | 9 | | | 29 | | | | 1 | I-5 | 118 | 29 | 147 | Each | 6" Pipe Specials for Underdrains. |
| 5 | | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | | I-5 | 1 | | 1 | Each | 12" Pipe Special for Underdrains, Sec. M-6.4 (b), as per plan |
| 5 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | | I-5 | 1 | | 1 | Each | 6" Pipe Special for Underdrains, Sec. M-6.4 (h) |
| 5 | | 7 | | | | | | | | 1 | | | | | | | | 1 | | 4 | 2 | 2 | 2 | | | | | | | 4 | | | | | 8 | 8 | | | 4 | | | | 1 | I-5 | 16 | 4 | 20 | Each | 12" Pipe Specials for Storm Sewers, Sec. M-6.4 (c). |
| 5 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | | | | | | | | I-5 | 1 | | 1 | Each | 48" Pipe Specials for Storm Sewers, Sec. M-6.6 (a). |
| 5 | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | I-5 | 1 | | 1 | Each | 4" Pipe Specials for Roadway Drainage. |
| 5 | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | I-5 | 1 | | 1 | Each | 8" Pipe Special for Roadway Drainage |
| 5 | .5 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | | | | | | | 1 | I-5 | 5 | | 5 | Each | 10" Pipe Specials for Roadway Drainage. |
| 8 | | 22 | | | | | | | | | 2 | 3 | | | | 1 | 3 | 1 | | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 3 | | | | | | 22 | 4 | | | 6 | | | | | I-8 | 26 | 6 | 32 | Each | Standard No. 2-2-A Catch Basins. |
| 8 | | 5 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | | | | 6 | | | 1 | (1) | | | 1 | I-8 | 6 | 2 | (8) | Each | Standard No. 2-2-B Catch Basins. |
| 8 | | 2 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | (1) | | | | | 2 | | | | | | | | I-8 | 2 | 1 | 3 | Each | Standard No. 6 Catch Basins. |
| 8 | | 8 | | | | | | | | | | | 2 | | | 2 | | 1 | 3 | | | | | | | | | | | | | | | | 8 | | | | 3 | | | | I-8 | 8 | 3 | 11 | Each | Standard No. 8 Catch Basins. |
| 8 | | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 5 | | | | I-8 | | (4) | 4 | Each | Standard No. 2-3 Catch Basins, Modified, as per plan. |
| 8 | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | | 2 | | | | | | | | I-8 | 2 | | 2 | Each | Standard No. 2-4 Catch Basins, Modified as per Plan. |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | I-8 | | 2 | 2 | Each | Standard No. 2-4 Catch Basins, |
| 8 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | | | | | | | | I-8 | 1 | | 1 | Each | Standard No. 2-6 Median Inlet. |
| 8 | | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | | | | 2 | | | | I-8 | 1 | 2 | 3 | Each | Standard No. 2-8 Median Inlet. |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | I-8 | | 3 | 3 | Each | Standard No. 2-10 Median Inlet. |
| 8 | | 2 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | 2 | | | | | | | | I-8 | 2 | 1 | 3 | Each | Standard No. 1 Manhole. |
| 8 | | 11 | | | | | | | | | | | | | | | 1 | 2 | 2 | | | | | | | | 1 | 2 | 3 | | | | | | 11 | | | | 1 | | | | I-8 | 11 | | 11 | Each | Standard No. 1-A Manhole. |
| 9 | | 1332 | 3632 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3632 | | | 430 | | | | 2300 | I-9 | 3,632 | 430 | 4,062 | Lin. Ft. | Stone Underdrains, No. 2. |
| 10 | .25 | 22654 | | | | 24.5 | | 3.5 | | 2 | 26 | 2 | 9 | | | | 1 | | | 5 | 50 | 15.8 | 12.5 | 2.8 | 2.5 | 18 | | | 10 | | 10.4 | 6 | | 3605 | 3914 | 39.6 | | | 548. | 1867 | | 1526 | I-10 | 3831 | 2215 | 6046 | Cu. Yds. | Dumped Rock Channel Protection. |
| 10 | | 124 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 124 | 124 | | | | | | | I-10 | 124. | | 124. | Sq. Yds. | Riprap, Using 6" Reinforced Concrete Slab, as per plan |
| 14 | | 81 | | | | 100 | 100 | | | | 81 | | | | | | | | | | | | | | | | | | | | | | | | 281 | | | | 198 | | | 200 | I-14 | 281 | 198 | 479 | Lin. Ft. | Paved Gutter, Type 1, Std. |
| 14 | | 310 | | | | | | | | | 40 | 60 | | | | 10 | 40 | 10 | | 30 | 20 | 10 | 20 | 10 | 10 | 10 | 40 | 10 | 40 | | | | | | 310 | 50 | | | 80 | | | | I-14 | 360 | 80 | 440 | Lin. Ft. | Paved Gutter, Type 1, Modified as per Plan. |
| 14 | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | 20 | 10 | | | | | | | 30 | | | | | | | | I-14 | 30 | | 30 | Lin. Ft. | Paved Gutter, Type 1, Modified (4' Flat Bottom) as per plan |
| 16 | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | | | | 3 | | | | | | | | I-16 | 3 | | 3 | Each | Inlets Abandoned |
| 1 | | 78.71 | | 0.23 | | | | | | | 0.46 | 0.59 | 0.51 | | | 0.94 | 0.59 | | 1.00 | 0.53 | 0.46 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | | | 2.2 | | 1.84 | | | 86.70 | 934 | 3.8 | | | 3.8 | 17.2 | | 14.69 | S-1 | 97.2 | 20.5 | 117.7 | Cu. Yds. | Concrete for Structures, Class "E". |
| 24 | | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Lump | | | | | S-24 | | Lump | Lump | Lump | Removal of Existing Structures. |

REV. 7-14-61 R.E.C.
Rev. 5-25-61 R.E.C.

# GENERAL SUMMARY

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

16/466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

TYPE CODE 7221

"F" NORMAL PARTICIPATION — SHEET NO.

| RURAL 11 | 12 | 18 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 139 | 186 | 234 | 267 | 374 | 466 | SUB-TOTAL "F" | SUB-TOTAL "FG" | URBAN 11/12 | 18 | 273 | 274 | 374 | 466 | 100% STATE | ITEM | QUANTITIES TOTAL RURAL | QUANTITIES TOTAL "U" | GRAND TOTAL | UNIT | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | |

# QUANTITIES AND SUB-SUMMARIES

| FED. RD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

17 / 466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)

## PAVEMENT - PROJECT LIC.-161-11.13-S.R.161 Relocated Corrected.

| Location | | | Length feet | T-71 sq. yds. | T-35 cu. yds. | T-31 Nº6 Aggr. cu. yds. | T-31 Bit. Mat. gals. | I-9 lin. ft. | I-18 cu. yds. | I-21 sq. yds. | I-22 cu. yds. | M-10 Tons | B-219 cu. yds. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sta. 0 + 50 | - Sta. | 27 + 00 | 2,650 | 7,067 | | | | 900 | 392.60 | | 1,699.20 | | | 2-lane - Dedicated Approach - 15+30 - Lt. |
| Sta. 27 + 00 | - Sta. | 39 + 25 | 1,225 | 3,267 | | | | 380 | 181.50 | | 784.90 | | | 2-lane superelevated |
| Sta. 39 + 25 | - Sta. | 56 + 20 | 1,695 | 4,520 | | | | 560 | 252.00 | | 1,087.00 | | | 2-lane |
| Sta. 56 + 20 | - Sta. | 59 + 85 | 365 | 1,254 | | | | 120 | 54.10 | | 281.90 | | | pavement widening |
| Sta. 59 + 85 | - Sta. | 61 + 85 | 200 | | 12 | | | | | | 33.30 | | | traffic divider |
| Sta. 59 + 85 | - Sta. | 64 + 35 | 450 | 939 | | | | 150 | 51.80 | | 218.90 | | | lt. lane transitional, superelevated |
| Sta. 59 + 85 | - Sta. | 64 + 35 | 450 | 1,154 | | | | 70 | 52.00 | | 262.90 | | | rt. lane transitional, normal |
| Sta. 64 + 35 | - Sta. | 68 + 00 | 365 | 1,947 | | | | 120 | 108.20 | | 468.30 | | | S.R. 161, 4-lane divided |
| | Subtotals | | | 20,148 | 12 | | | 2,300 | 1,092.20 | | 4,836.40 | | | |

## PAVEMENT - PROJECT LIC.-161-11.13-RAMPS & S.R. 16 - INTERCHANGE

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sta. 69 + 00 | - Sta. | 84 + 51.50 | 1,551.50 | 2,276 | | | | | | | 425.90 | | | Ramp 'A' |
| Sta. 77 + 00 | - Sta. | 77 + 98 | 98 | | | | | | | | 32.80 | | | bituminous surface treatment |
| Sta. 83 + 25 | - Sta. | 84 + 51 | 126 | | | | | | | 91 | 50.50 | | | concrete Median |
| Sta. 84 + 51.50 | - Sta. | 91 + 05 | 653.50 | 2,573 | | | | | | 137 | 564.50 | | | Ramp 'AB' |
| Sta. 89 + 30 | - Sta. | 89 + 50 | 20 | | | | | | | | 2.20 | | | bituminous surface treatment |
| Sta. 78 + 41 | - Sta. | 87 + 50 | 859 | 1,361 | | | | | | | 302.80 | | | Ramp 'B' |
| Sta. 87 + 86.50 | - Sta. | 92 + 37.15 | 450.65 | 590 | | | | | | | 195.40 | | | Line 'BB' |
| Sta. 71 + 40 | - Sta. | 86 + 45 | 1.505 | 2,891 | | | | | | | 573.50 | | | Ramp 'C' |
| | Ramp 'C' Extension | | | 225 | | | | | | | 46.00 | | | |
| Sta. 77 + 34 | - Sta. | 77 + 77 | 43 | | | | | | | 34 | 18.70 | | | concrete median Traffic divider |
| Sta. 83 + 09.71 | - Sta. | 95 + 09 | 1,199.29 | 2,181 | | | | | | | 480.00 | | | Ramp 'D' |
| Sta. 84 + 11 | - Sta. | 84 + 42 | 31 | | | | | | | 23 | | | | concrete median Type I |
| Sta. 68 + 00 | - Sta. | 95 + 09 | 2,709 | 8,133 | | | | | | | 2049.70 | | | S.R. 161, lt. lane |
| Sta. 68 + 00 | - Sta. | 95 + 09 | 2,709 | 7,533 | | | | | | | 2008.70 | | | S.R. 161, rt. lane |
| Sta. 740 + 00 | - Sta. | 757 + 75 | 1,477.76 | 3,941 | | | | | | | 656.72 | 0.61 | | S.R. 16 Minus 297.24 For Bridge & Appr. Slabs |
| | SubTotals | | | 31,704 | 28.1 | | | 2,341.05 | 601 | 1,543.72 | 285 | 7,407.42 | 0.61 | 846.41 |
| | ‡ Totals | | | 51,852 | 40.1 | | 7542 | 2,341.05 | 2901 | 2,635.92 | 285 | 12,243.82 | 5.79 | 846.41 |

Totals to next Sheet

## S.R. 16 Relocated

## PAVEMENT - PROJECT LIC.-16-(14.30-18.51) - RAMPS & S.R. 37 - INTERCHANGE

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sta. 95 + 09 | - Sta. | 104 + 67 | 958 | 3,208 | | | | | | | | | lt. lane |
| Sta. 95 + 09 | - Sta. | 104 + 67 | 958 | 3,568 | | | | | | | | | rt. lane |
| Sta. 104 + 67 | - Sta. | 117 + 42 | 1,275 | 6,802 | | | | | | | | | S.R. 16 Relocated |
| Sta. 118 + 10 | - Sta. | 118 + 43 | 33 | | | | | | | 26 | | | concrete median Traffic divider |
| Sta. 104 + 40 | - Sta. | 111 + 20 | 680 | 1,297 | | | | | | | | | Ramp 'E' |
| Sta. 117 + 42 | - Sta. | 121 + 00 | 358 | 1,256 | | | | | | | | | lt. lane |
| Sta. 117 + 42 | - Sta. | 121 + 00 | 358 | 955 | | | | | | | | | rt. lane |
| Sta. 121 + 00 | - Sta. | 144 + 45 | 2,345 | 6,654 | | | | | | | | | lt. lane superelevated |
| Sta. 121 + 00 | - Sta. | 144 + 45 | 2,345 | 4,176 | | | | | | | | | rt. lane superelevated (+ T-31 median Traffic divider) |
| Sta. 100 + 70 | - Sta. | 112 + 44.60 | 1,174.60 | 2,288 | | | | | | | | | Ramp 'G' |
| Sta. 112 + 18.63 | - Sta. | 127 + 75.21 | 1,556.58 | 2,294 | | | | | | | | | Ramp 'H' |
| Sta. 110 + 86.22 | - Sta. | 121 + 00 | 1,013.78 | 1,735 | | | | | | | | | Ramp 'F' |
| Sta. 144 + 45 | - Sta. | 180 + 50 | 3,605 | 17,491 | | | | | | | | | S.R. 16, relocated (deduct for Structure) |
| Sta. 180 + 50 | - Sta. | 207 + 50 | 2,700 | 13,171 | | | | | | | | | S.R. 16, relocated, superelevated (deduct for Structure) |
| Sta. 207 + 50 | - Sta. | 234 + 50 | 2,700 | 14,400 | | | | | | | | | S.R. 16, relocated |
| Sta. 234 + 50 | - Sta. | 259 + 77.89 | 2,527.89 | 13,488 | | | | | | | | | S.R. 16, relocated, superelevated |
| | ‡ Totals | | | 93,396 | | | | | | 26 | | | |

## PAVEMENT - PROJECT LIC.-16-(14.30-18.51) - SIDE-ROADS

| Location | | | Length feet | T-71 sq. yds. | T-30 gals. | T-31 6 Aggr. cu. yd | T-31 Bit. Mat. gals. | I-9 lin. ft. | I-18 cu. yds. | T-35 cu. yds. | I-22 cu. yds. | B-35 cu. yds. Leveling | M-10 Tons | B-219 cu. yds. | B-19 cu. yds. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sta. 363 + 50 | - Sta. | 367 + 25 | 375 | | 115.18 | | | 180 | 53.20 | 29.20 | 108.10 | 67.60 | 0.19 | | 144.80 | S.R.-37, superelevated T-35-pavement |
| Sta. 367 + 25 | - Sta. | 368 + 80 | 155 | 414 | | | | 45 | 22.90 | | 97.20 | | | 6.19 | | S.R.-37, superelevated T-71-pavement |
| Sta. 368 + 80 | - Sta. | 372 + 10 | 330 | 1.06 | | | | 9 | 5.90 | | 27.20 | | | 6.66 | | S.R.-37, T-71-pavement (deduct Structure) |
| Sta. 372 + 10 | - Sta. | 373 + 21 | 111 | 295 | | | | 36 | 16.40 | | 72.00 | | | 2.56 | | S.R.-37, superelevated T-71-pavement |
| Sta. 373 + 21 | - Sta. | 377 + 20 | 399 | | 36.90 | | | 195 | 156.60 | 30.20 | 102.00 | 67.40 | 0.21 | | 154.00 | S.R.-37, superelevated T-35 pavement |
| Sta. 377 + 20 | - Sta. | 378 + 75 | 155 | | 14.600 | | | 96 | 23.00 | 12.20 | 42.30 | 26.80 | 0.07 | | 6.30 | S.R.-37, T-35-pavement |
| Sta. 0 + 13.62 | - Sta. | 6 + 75 | 663 | | 589.0 | | | | | 36.7 | | | | | 245.90 | Twp. Rd. 131 |
| Sta. 6 + 75 | - Sta. | 13 + 50 | 675 | 816 | 373.0 | | | | | 31.25 | 19.4 | | | | 156.10 | Twp. Rd. 131 superelevated (deduct Crossover) |
| | Twp. Rd. 131 Crossover | | | 1,039 | | | | | | | 203.10 | | | | 3.20 | Intersection with S.R. 16 |
| Sta. 13 + 50 | - Sta. | 28 + 75 | 1,525 | | | | | | | | | | | | | Twp. Rd. 131 |
| Sta. 28 + 75 | - Sta. | 34 + 00 | 525 | 325 | | | | | | | | | | | | Twp. Rd. 131 superelevated |
| Sta. 5 + 00 | - Sta. | 11 + 50 | 420 | | | | | 170 | | | | | | | | Co. Rd. 128 (deduct Crossover) |
| | Co. Rd. 128 Crossover | | | 1,305 | | | | | | | | | | | | Intersection with S.R. 16 |
| Sta. 10 + 18.10 | - Sta. | 10 + 76.68 | 50 | 265 | | | | | | | | | | | | Howell Drive Connection (Urban) |
| Sta. 10 + 76.68 | - Sta. | 12 + 25 | 160 | | | | | 110 | | 12.35 | 84.94 | | | 60.74 | | Howell Drive (Urban) |
| Sta. 9 + 38.22 | - Sta. | 10 + 01.80 | 65 | 229 | | | | | | | | | | 2.80 | | Howell Drive Extension (Urban) |
| | † Totals Rural | | | 3,159 | 2905.0 | | | 731 | 193.00 | 236.50 | 1,077.60 | 393.0 | 0.47 | 48.50 | 1,392.10 | |
| | ‡ Totals Urban | | | 494 | | | | 110 | 7.90 | 12.35 | 170.22 | | | 65.24 | | |

Total quantities carried to Sheet 18

Totals Rural
Totals Urban

## RURAL EARTHWORK ITEM E-1

| Station | to Station | Excavation | Embankment |
|---|---|---|---|
| 0 + 00 | 10 + 00 | 2,384 | 6,946 |
| 10 + 00 | 20 + 00 | 4,757 | 29,305 |
| 20 + 00 | 30 + 00 | 996 | 59,585 |
| 30 + 00 | 40 + 00 | 1,598 | 54,064 |
| 40 + 00 | 50 + 00 | 951 | 41,512 |
| 50 + 00 | 60 + 00 | 1,090 | 26,873 |
| 60 + 00 | 70 + 00 | 370 | 45,425 |
| 70 + 00 | 80 + 00 | 582 | 46,881 |
| 80 + 00 | 90 + 00 | 1,919 | 25,815 |
| 90 + 00 | 100 + 00 | 27,133 | 15,159 |
| 100 + 00 | 110 + 00 | 123,323 | 3,797 |
| 110 + 00 | 120 + 00 | 30,951 | 2,041 |
| 120 + 00 | 130 + 00 | 16,477 | 2,337 |
| 130 + 00 | 140 + 00 | 51,214 | 1,293 |
| 140 + 00 | 150 + 00 | 99,959 | 22,491 |
| 150 + 00 | 160 + 00 | 3,737 | 44,675 |
| 160 + 00 | 170 + 00 | 3,287 | 69,154 |
| 170 + 00 | 180 + 00 | 1,598 | 190,322 |
| 180 + 00 | 190 + 00 | 1,089 | 219,867 |
| 190 + 00 | 200 + 00 | 834 | 110,882 |
| 200 + 00 | 210 + 00 | 747 | 53,881 |
| 210 + 00 | 220 + 00 | 39,401 | 25,021 |
| 220 + 00 | 230 + 00 | 16,100 | 449 |
| 230 + 00 | 240 + 00 | 7,755 | 1,067 |
| 240 + 00 | 250 + 00 | 7,058 | 10,951 |
| 250 + 00 | 259 + 77.94 | 1,577 | 135,463 |
| S.R. 16 | | | |
| Sta. 740 + 00 | - 757 + 75 | 4,345 | 57,898 |
| S.R. 37 | | | |
| Sta. 362 + 00 | - 379 + 87 | 1,973 | 34,469 |
| Twp. Rd. 131 | | | |
| Intersecting M | | | |
| Sta. 3 + 00 | - 19 + 50 | 28,438 | 1,705 |
| East & West of S.R. 37 | | | |
| Sta. 21 + 00 | - 33 + 18.69 | 1,277 | 2,335 |
| East of S.R. 16 | | | |
| Sta. 0 + 24 | - 12 + 49 | 3,750 | 12,427 |
| S.R. 161 Connection | | 416 | 1,649 |
| Ramp 'A' | 78 + 40 - 84 + 50 | 77 | 24,359 |
| Ramp 'B' | 79 + 70 - 83 + 58 | 246 | 9,372 |
| Ramp 'A B' | 85 + 00 - 89 + 00 | 733 | 23,102 |
| Ramp 'A B' Line 'BB' | 89 + 50 - 90 + 00 | 0 | 8,718 |
| Ramp 'C' | 78 + 50 - 86 + 00 | 452 | 27,495 |
| Ramp 'D' | 87 + 00 - 92 + 00 | 609 | 14,574 |
| Ramp 'E' | 108 + 00 - 111 + 30 | 12 | 4,900 |
| Ramp 'F' | 111 + 50 - 117 + 35 | 1,021 | 19,089 |
| Ramp 'G' | 104 + 50 - 112 + 00 | 40,876 | 3,180 |
| Ramp 'H' | 112 + 50 - 122 + 00 | 2,452 | 29,185 |
| TOTALS TO SHEET NO. 18 | | 533,564 | (1,519,713) |

## URBAN EARTHWORK ITEM E-1

| | | |
|---|---|---|
| 259 + 77.84 - 270 + 00 | 257,443 | 138,961 |
| 270 + 00 - 280 + 00 | 81,223 | 38,570 |
| 280 + 00 - 290 + 00 | 23,976 | 80,893 |
| 290 + 00 - 300 + 00 | 85,892 | 1,289 |
| 300 + 00 - 310 + 00 | 3,543 | 3,953 |
| S.R. 16 @ 512 INTERCHANGE, HOWELL DR., BRYN MAWR | 67,139 | 1,296 |
| TOTALS TO SHEET NO. 18 | 519,216 | (264,962) |

* 3829 CU. YDS. OF UNSUITABLE MATERIAL INCLUDED IN ITEM E-1 ABOVE. SEE NOTE "EXCAVATION OF UNSUITABLE MATERIAL" ON SHEET 10.

## ITEM E-4 BORROW

| | "F" | "FG" | "U" | 100% STATE |
|---|---|---|---|---|
| Embankment + 15% | 829,500 | 621,550 | 304,706 | 296,620 |
| Less E-1 Excavation | -542,209 | -540,708 | - 3,768 | -538,014 |
| Less Suitable E-3 Exc. (Estimated) | -295,000 | 0 | - 9,000 | -10,000 |
| From Surplus Exc. in "U" portion | -190,000 | - 52,308 | -242,308 | |
| Net Borrow to Sheet 13 | 260,412 | 565,474 | 0 | 188,121 |

REV. 7-14-61 R.E.G.

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

18/466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)

# QUANTITIES AND SUB-SUMMARIES

## PAVEMENT - PROJECT LIC.- 16 - (14.30 - 18.51) - INSIDE CITY of NEWARK CORPORATION LIMITS - 512 INTERCHANGE

| Location | Length feet | T-71 sq. yds. | T-30 gals. | T-31 №6 Aggr. cu. yds. | T-31 Bit. Mat. gals. | I-9 lin. ft. | I-18 cu. yds. | M-10 tons | I-21 sq. yds. | I-22 cu. yds. | B-35 cu. yds. BASE | B-35 cu. yds. LEVEL | B-219 cu. yds. | B-19 cu. yds. | T-35 cu. yds. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sta. 6 + 75 - Sta. 11 + 82 | 482.573 | 1,530 | | | | 280 | 85.00 | 0.28 | | 390.00 | | | | | | Existing S.R. 16 with calcium chloride shoulders |
| Sta. 267 + 72.36 - Sta. 283 + 55. | 1,582.64 | 2,898 | | 7.80 | 242.80 | | 141.40 | | | 689.30 | | | 80.90 | | | Line 'A' (Deduct Howell dr.) Pipe |
| Sta. 270 + 86.55 - Sta. 272 + 25 | 138.45 | | | 1.90 | 57.80 | | 32.20 | | | | | | 19.30 | | | Black top Traffic divider |
| Sta. 280 + 95 - Sta. 281 + 95 | 100 | | | 1.20 | 36.10 | | 20.10 | | | | | | 12.10 | | | Black top Traffic divider |
| Sta. 270 + 86.63 - Sta. 287 + 82.95 | 1,696.32 | 3,086 | | 10.60 | 318.50 | | 186.60 | | | 873.00 | | | 106.00 | | | Line 'B' (Deduct Howell dr.) Pipe |
| Sta. 291 + 41.23 - Sta. 299 + 18.63 | 777.40 | 1,758 | | 5.50 | 169.50 | | 99.30 | | | 428.60 | | | 56.70 | | | Line '512' Proposed |
| Sta. 5 + 48.48 - Sta. 6 + 67.42 | 119.94 | 317 | | .20 | 6.50 | | 3.80 | | | 58.20 | | | 2.20 | | | Survey Line '512' |
| Sta. 0 + 32 - Sta. 2 + 15 | 183 | 711 | | 1.90 | 58.10 | | 34.10 | | | 163.40 | | | 19.40 | | | Brynn Mawr Extension |
| Brynn Mawr | | 130 | | .40 | 9.80 | | 5.80 | | | 33.60 | | | 3.30 | | | existing |
| Sta. 259 + 77.89 - Sta. 259 + 95.70 | 17.81 | 95 | | .40 | 11.90 | | 6.90 | | | 24.20 | | | 4.00 | | | S.R. 16 Relocation |
| Sta. 282 + 50 - Sta. 282 + 96 | 46 | | | | | | | | | 19.90 | | | | | | Standard Concrete median Type 1 |
| Sta. 267 + 72 - Sta. 270 + 00.36 | 228 | 305 | | .90 | 25.50 | | 1.50 | | | 72.00 | | | 8.50 | | | Line 'A B' |
| Sta. 259 + 95.70 - Sta. 284 + 47.56 | 2,451.86 | 6,539 | | 25.00 | 778.00 | | 451.10 | | | 1,692.70 | | | 259.40 | | | Line 'E' |
| Sta. 259 + 95.70 - Sta. 291 + 82.84 | 3,187.14 | 8,701 | | 27.60 | 860.60 | | 498.30 | | | 2,488.60 | | | 286.90 | | | Line 'W' superelevated (deduct Structure) |
| Sta. 283 + 55 - Sta. 284 + 47.56 | 92.56 | 124 | | .40 | 10.30 | | 6.10 | | | 29.20 | | | 3.40 | | | lt. of Survey ℄ superelevated |
| Sta. 284 + 47.56 - Sta. 299 + 38 | 1,490.44 | 8,075 | | 16.30 | 508.10 | | 290.90 | | | 1,734.60 | | | 172.60 | | | Survey ℄ superelevated |
| Sta. 289 + 00 - Sta. 299 + 38 | 1,038 | | | | | | | | | 222.40 | | | | | | concrete median |
| Sta. 299 + 38 - Sta. 300 + 35 | 97 | 690 | | .70 | 21.60 | | 12.40 | | | 131.30 | | | 7.20 | | | Survey ℄ - Line 'C' |
| Sta. 300 + 35 - Sta. 303 + 21 | 286 | 795 | | 2.10 | 63.50 | | 36.60 | | | 179.80 | | | 21.20 | | | Line 'C' lt. lane superelevated |
| Sta. 300 + 35 - Sta. 303 + 21 | 286 | 858 | | 2.10 | 63.50 | | 36.60 | | | 190.80 | | | 21.20 | | | Line 'C' rt. lane superelevated |
| Sta. 300 + 33 - Sta. 303 + 28. | | | | | | | | | 36 | 19.80 | | | | | | concrete medians Type 1 |
| Sta. 303 + 21 - Sta. 306 + 99.20 | 378.20 | 1,891 | | 3.70 | 115.80 | | 66.40 | | 36 | 402.80 | | | 38.50 | | | Line 'C' superelevated |
| Sta. 307 + 00 - Sta. 310 + 00 | 300 | | 72.50 | | | | 33.00 | | | 36.20 | 13.4 | 68.5 | | 30.10 | 34 | resurfacing |
| Subtotals | | 38,503 | 72.50 | 108.70 | 3,357.90 | 280 | 2,061.60 | 0.28 | 36 | 9,880.40 | 13.4 | 68.5 | 1,122.80 | 30.10 | 34 | |

151,677

| | T-71 sq. yds | T-30 gals. | T-31 №6 Aggr. cu. yds. | T-31 Bit. Mat. gals. | T-35 cu. yds. | B-19 cu. yds. | B-35 cu. yds. Leveling | B-219 cu. yds. | I-9 lin. ft. | I-18 cu. yds. | I-21 sq. yds. | I-22 cu. yds. | B-35 cu. yds. Base |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LIC.-161-11.13 | 51,852 | | 75.42 | 2,341.05 | 40.1 | | | 846.41 | 2901 | 2635.92 | 285 | 12,243.82 | |
| LIC.-16-(14.30-18.51) | 93,396 | | 345.90 | 10,778.30 | | | | 3,595.10 | | 6,299.40 | 26 | 23,913.40 | |
| SIDE ROADS | 3,159 | | 1.50 | 45.10 | 236.50 | 1,392.10 | 388.0 | 148.50 | 731 | 193.00 | | 1,077.60 | |
| TOTAL RURAL | 148,407 | 2905.0 | 422.82 | 13,164.45 | 276.60 | 1,392.10 | 388.0 | 4,590.01 | 3632 | 9,128.32 | 311 | 37,234.82 | |
| LIC.-16-(14.30-18.51) | 38,503 | 72.50 | 108.70 | 3,357.90 | 34.00 | 30.10 | 68.50 | 1,122.80 | 280 | 2,061.60 | 36 | 9,880.40 | 13.4 |
| SIDE ROADS | 494 | | .50 | 13.30 | 12.35 | | | 65.24 | 110 | 7.90 | | 170.22 | |
| TOTAL URBAN | 38,997 | 72.50 | 109.20 | 3,371.20 | 46.35 | 30.10 | 68.50 | 1,188.04 | 390 | 2,069.50 | 36 | 10,050.62 | 13.4 |
| Net Connection | | 340 | | | 28.2 | 141.9 | 62.4 | | | | | 97.9 | |

Sheet # 137

## COMPACTED SUBGRADE

| Items | Sq. Yds. Urban | Sq. Yds. Rural |
|---|---|---|
| Pavement (T-71) | 38,997 | 148,407 |
| Pavement (T-35) | 708 | 9,000 |
| Approach Slabs (I-7) | 134 | 800 |
| Paved Shoulder ( (T-31) | 13,300 | 52,658 |
| Deduct for Rock Subgrade | -15,139 | -6,865 |
| Subtotals | 38,000 | 204,000 |
| Total | | 242,000 |

## TOPSOIL

### RURAL

| Location | L-1 Topsoil Stockpile | L-3 Placing Stock Piled Topsoil |
|---|---|---|
| Mainline Sta. 97+00 - Sta. 107+00 | 1,072 Cu. Yds. | 3,721 Sq. Yds. |
| Ramp "G" Sta. 104+50 - Sta. 109+00 | 249 Cu. Yds. | 1,149 Sq. Yds. |
| Total | 1,321 Cu. Yds. | 4,870 Sq. Yds. |

### URBAN

| Location | L-1 Topsoil Stockpile | L-3 Placing Stock Piled Topsoil |
|---|---|---|
| Mainline Sta. 264+80 - Sta. 272+00 | 1,767 Cu. Yds. | 5,592 Sq. Yds. |
| Mainline Sta. 288+75 - Sta. 249+50 | 179 Cu. Yds. | 483 Sq. Yds. |
| Total | 1,946 Cu. Yds. | 6,075 Sq. Yds. |

## E - 1

| Totals from Sheet 17 | E-1 Excavation | Embankment |
|---|---|---|
| RURAL | 533,564 CU. YDS. | 1,519,713 CU. YDS. |
| URBAN | 519,216 CU. YDS. | 264,962 CU. YDS. |

## M-10 (For Special "Mixing" item)

| | | |
|---|---|---|
| RURAL | 8.8 | TONS |
| URBAN | 0.3 | TONS |

## SEEDING

| Items | Sq. Yds. Urban | Sq. Yds. Rural |
|---|---|---|
| Gross Area Between Seeding Limits | 213,638 | 819,019 |
| Deductions: Pavement (Concrete) | 38,785 | 144,466 |
| Deductions: Pavement (Bituminous) | 61 | 410 |
| Deductions: Driveways | 1,631 | 3,490 |
| Deductions: Shoulders | 14,008 | 59,294 |
| Deductions: Service Road included Shoulders | 484 | 2,453 |
| Deductions: Sod Area | 285 | 19,148 |
| Deductions: Paved Ditch | 347 | 312 |
| Deductions: Channel Relocation | 7,334 | 34,800 |
| Deductions: Medians (Concrete) | 470 | 310 |
| Deductions: Approach Slabs | 134 | 790 |
| Deductions: Structures (Rip Rap Areas) | 700 | 4,084 |
| Deductions: Totals | 64,239 | 269,557 |
| Net Area To Be Seeded and Protected | 149,399 | 549,462 |

## UNSUITABLE MATERIAL

| Location | E-1 Excavation of Unsuitable Material | E-4 Barrow Using Granular Backfill (As Per Plan) |
|---|---|---|
| Sta. 8 + 50 - Sta. 12 + 50 | *3,829 Cu. Yds. | 3,829 Cu. Yds. |

* CARRIED TO SHEET 17.

## LIMING & FERTILIZER

| Items | Urban Tons. | Rural Tons. |
|---|---|---|
| Commercial Fertilizer @ 20 lbs. per 1000 Sq. Ft. | 13.54 | 49.86 |
| Agricultural Liming Material a 100 lbs. per 1000 Sq. Ft. | 67.71 | 249.28 |

## WATER CALCULATION

| Items | Gals. per Cu. Yds. | Cu. Yds. Rural | Water Item E-11 M. Gals. | Cu. Yds. Urban | Water Item E-11 M. Gals. |
|---|---|---|---|---|---|
| Roadway Embankment | 5 | 1,519,713 | 7,621 | 264,962 | 1,325 |
| I-18 | 5 | 8,908 | 45 | 2,072 | 10 |
| I-22 | 5 | 36,579 | 183 | 10,134 | 51 |
| B-19 | 5 | 2,539 | 13 | 424 | 3 |
| Compacted Subgrade | 5 | 101,757 | 509 | 18,035 | 90 |
| Subtotal | | | 8,371 | | 1,479 |
| GRAND TOTAL | | 9,850 M. Gals. | | | |

## SPECIAL MIXING CALCIUM CHLORIDE

| | | |
|---|---|---|
| RURAL | 8,355 | SQ. YDS. |
| URBAN | 270.0 | SQ. YDS. |

## TEMPORARY GUARD RAIL

ESTIMATED QUANTITIES FOR THIS ITEM HAVE BEEN INCLUDED IN THE GENERAL SUMMARY, FOR USE AS DIRECTED BY THE ENGINEER, IN CHANNELIZATION OF TRAFFIC FLOW. SEE NOTE IN PROPOSAL FOR DESCRIPTION OF THIS ITEM.

## RUN-AROUND CROSS SECTIONS

ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT END AREAS AND VOLUMES FOR EARTHWORK FOR ITEM S-15 RUNAROUNDS ARE SHOWN ON VARIOUS CROSS SECTION SHEETS THROUGHOUT THESE PLANS. NO VARIATION OF THE SPECIFICATIONS IS INTENDED THEREBY. PAYMENT FOR ALL EARTHWORK REQUIRED FOR S-15 RUNAROUNDS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE RUNAROUNDS. EARTHWORK FIGURES PRE-FIXED BY THE WORD "RUN-AROUND" ARE SHOWN FOR ESTIMATING PURPOSES ONLY AND THE STATE MAKES NO GUARANTEE AS TO THEIR ACCURACY OR COMPLETENESS.

## GENERAL NOTES (CONTINUED)

### GUARD RAIL FLARES.

WHERE PROPOSED GUARD RAIL FLARES ARE CONSTRUCTED OF RAIL ELEMENTS WHICH HAVE NOT BEEN FABRICATED EXACTLY TO FIT THE CURVATURE SHOWN ON THE PLANS, THE TWO END POSTS OF EACH FLARED SECTION SHALL BE ENCASED IN A MINIMUM 4-INCH THICKNESS OF CLASS "E" CONCRETE FOR THE FULL DEPTH OF THE POST BELOW THE GROUND LINE. PAYMENT FOR ENCASEMENT, IF REQUIRED, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE GUARD RAIL.

### ESTIMATED QUANTITIES

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

### DRIVE FLARES.

ALTHOUGH STANDARD TYPE 1 DRIVEWAY DETAILS THROUGHOUT THIS PLAN SHOW THE FLARED PORTION OF THE DRIVE TANGENT TO THE THROUGH PAVEMENT EDGE, CONSTRUCTION OF THESE DRIVE FLARES SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING DR-1, i.e., WITH A 12" OFFSET ADJACENT TO THE THROUGH PAVEMENT.

### CONTRACTOR'S MAINTENANCE RESPONSIBILITY

ON THIS PROJECT, THE CONTRACTOR'S RESPONSIBILITY FOR THE MAINTENANCE OF EXISTING PAVEMENTS ON STATE ROUTES 16, 37, 161, AND 512 SHALL BE LIMITED TO THOSE PORTIONS OF THESE ROUTES LYING WITHIN THE PROPOSED WORK LIMITS OF THIS PROJECT.

# SUPERELEVATION CHARTS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

19
466

LICKING COUNTY
LIC. 161-11.13
LIC. 16 (14.30-18.51)

| STATION | PROFILE GRADE | RT. LANES CTR. | RT. LANES RT. E.P. |
|---|---|---|---|
| P.I. STA. 33+06.10 $D_c$ = 01° 28' MAX. S.E. = 0048 FT. | | | |
| 25+50 | 924.18 | 924.37 | 924.18 |
| 25+75 | 924.23 | 924.42 | 924.23 |
| 26+00 | 924.28 | 924.46 | 924.27 |
| 26+25 | 924.33 | 924.47 | 924.28 |
| 26+50 | 924.38 | 924.46 | 924.27 |
| 26+75 | 924.43 | 924.45 | 924.26 |
| 27+00 | 924.48 | 924.44 | 924.24 |
| 27+25 | 924.53 | 924.43 | 924.23 |
| 27+50 | 924.57 | 924.40 | 924.20 |
| 27+75 | 924.60 | 924.37 | 924.13 |
| 28+00 | 924.63 | 924.34 | 924.05 |
| 28+25 | 924.65 | 924.29 | 923.93 |
| 28+34.37 P C | 924.66 | 924.28 | 923.90 |
| 28+50 | 924.67 | 924.25 | 923.83 |
| 28+75 | 924.68 | 924.20 | 923.71 |
| 29+00 | 924.68 | 924.14 | 923.60 |
| 29+25 | 924.68 | 924.11 | 923.54 |
| 29+50 | 924.67 | 924.09 | 923.51 |
| 29+75 | 924.65 | 924.07 | 923.49 |
| 30+00 | 924.63 | 924.05 | 923.47 |
| 30+25 | 924.60 | 924.02 | 923.44 |
| 30+50 | 924.57 | 923.99 | 923.41 |
| 30+75 | 924.53 | 923.95 | 923.37 |
| 31+00 | 924.48 | 923.90 | 923.32 |
| 31+25 | 924.43 | 923.85 | 923.27 |
| 31+50 | 924.38 | 923.80 | 923.22 |
| 31+75 | 924.33 | 923.75 | 923.17 |
| 32+00 | 924.28 | 923.70 | 923.12 |
| 32+25 | 924.22 | 923.65 | 923.07 |
| 32+50 | 924.18 | 923.60 | 923.02 |
| 32+75 | 924.13 | 923.55 | 922.97 |
| 33+00 | 924.08 | 923.50 | 922.92 |
| 33+25 | 924.03 | 923.45 | 922.87 |
| 33+50 | 923.98 | 923.40 | 922.82 |
| 33+75 | 923.93 | 923.35 | 922.77 |
| 34+00 | 923.88 | 923.30 | 922.72 |
| 34+25 | 923.83 | 923.25 | 922.67 |
| 34+50 | 923.78 | 923.20 | 922.62 |
| 34+75 | 923.73 | 923.15 | 922.57 |
| 35+00 | 923.68 | 923.10 | 922.52 |
| 35+25 | 923.63 | 923.05 | 922.47 |
| 35+50 | 923.58 | 923.00 | 922.42 |

| STATION | PROFILE GRADE | RT. LANES CTR. | RT. LANES RT. E.P. |
|---|---|---|---|
| 35+75 | 923.53 | 922.95 | 922.37 |
| 36+00 | 923.48 | 922.90 | 922.32 |
| 36+25 | 923.43 | 922.85 | 922.27 |
| 36+50 | 923.38 | 922.80 | 922.22 |
| 36+75 | 923.33 | 922.75 | 922.17 |
| 37+00 | 923.28 | 922.73 | 922.23 |
| 37+25 | 923.23 | 922.73 | 922.23 |
| 37+50 | 923.18 | 922.74 | 922.30 |
| 37+73.29 P T | 923.13 | 922.75 | 922.37 |
| 37+75 | 923.13 | 922.76 | 922.38 |
| 38+00 | 923.08 | 922.77 | 922.45 |
| 38+25 | 923.03 | 922.78 | 922.53 |
| 38+50 | 922.98 | 922.79 | 922.58 |
| 38+75 | 922.93 | 922.80 | 922.61 |
| 39+00 | 922.88 | 922.82 | 922.63 |
| 39+25 | 922.83 | 922.83 | 922.64 |
| 39+50 | 922.78 | 922.84 | 922.65 |
| 39+75 | 922.73 | 922.85 | 922.67 |
| 40+00 | 922.68 | 922.85 | 922.66 |
| 40+25 | 922.63 | 922.82 | 922.63 |
| 40+50 | 922.58 | 922.77 | 922.58 |
| 40+75 | 922.53 | 922.72 | 922.53 |

| LT. LANES LT. E.P. | LT. LANES CTR. | STATION | PROFILE GRADE | RT. LANES CTR. | RT. LANES RT. E.P. |
|---|---|---|---|---|---|
| P.I. STA. 132+51.40 $D_c$ = 01° 28' MAX. S.E. = 0.048 FT. | | | | | |
| 920.48 | 920.67 | 119+50 | 920.48 | 920.67 | 920.48 |
| 920.28 | 920.47 | 119+75 | 920.28 | 920.47 | 920.28 |
| 920.06 | 920.25 | 120+00 | 920.08 | 920.27 | 920.10 |
| 919.81 | 920.01 | 120+25 | 919.88 | 920.07 | 919.95 |
| 919.55 | 919.75 | 120+50 | 919.68 | 919.87 | 919.81 |
| 919.27 | 919.49 | 120+75 | 919.48 | 919.67 | 919.67 |
| 919.03 | 919.22 | 121+00 | 919.28 | 919.47 | 919.54 |
| 919.77 | 918.96 | 121+25 | 919.08 | 919.27 | 919.40 |
| 918.48 | 918.70 | 121+50 | 918.88 | 919.09 | 919.28 |
| 918.18 | 918.43 | 121+75 | 918.68 | 918.93 | 919.18 |
| 917.85 | 918.17 | 122+00 | 918.48 | 918.79 | 919.11 |
| 917.53 | 917.91 | 122+25 | 918.28 | 918.65 | 919.03 |
| 917.51 | 917.89 | 122+26.84 P C | 918.27 | 918.65 | 919.03 |
| 917.20 | 917.64 | 122+50 | 918.08 | 918.52 | 918.96 |
| 916.88 | 917.38 | 122+75 | 917.88 | 918.38 | 918.88 |
| 916.58 | 917.13 | 123+00 | 917.68 | 918.23 | 918.78 |
| 916.32 | 916.90 | 123+25 | 917.48 | 918.06 | 918.64 |
| 916.12 | 916.70 | 123+50 | 917.28 | 917.86 | 918.44 |
| 915.92 | 916.50 | 123+75 | 917.08 | 917.66 | 918.24 |
| 915.72 | 916.30 | 124+00 | 916.88 | 917.46 | 918.04 |
| 915.52 | 916.10 | 124+25 | 916.68 | 917.26 | 917.84 |
| 915.34 | 915.92 | 124+50 | 916.50 | 917.08 | 917.66 |
| 915.16 | 915.74 | 124+75 | 916.32 | 916.90 | 917.48 |
| 914.98 | 915.56 | 125+00 | 916.14 | 916.72 | 917.30 |
| 914.82 | 915.40 | 125+25 | 915.98 | 916.56 | 917.14 |
| 914.66 | 915.24 | 125+50 | 915.82 | 916.40 | 916.98 |
| 914.51 | 915.09 | 125+75 | 915.67 | 916.25 | 916.83 |
| 914.37 | 914.95 | 126+00 | 915.53 | 916.11 | 916.69 |
| 914.24 | 914.82 | 126+25 | 915.40 | 915.98 | 916.56 |
| 914.11 | 914.69 | 126+50 | 915.27 | 915.85 | 916.43 |
| 913.99 | 914.57 | 126+75 | 915.15 | 915.73 | 916.31 |
| 913.88 | 914.46 | 127+00 | 915.04 | 915.62 | 916.20 |
| 913.78 | 914.36 | 127+25 | 914.94 | 915.52 | 916.10 |
| 913.69 | 914.27 | 127+50 | 914.85 | 915.43 | 916.01 |
| 913.60 | 914.18 | 127+75 | 914.76 | 915.34 | 915.92 |
| 913.52 | 914.10 | 128+00 | 914.68 | 915.26 | 915.84 |
| 913.44 | 914.02 | 128+25 | 914.60 | 915.18 | 915.76 |
| 913.37 | 913.95 | 128+50 | 914.53 | 915.11 | 915.69 |
| 913.29 | 913.87 | 128+75 | 914.45 | 915.03 | 915.61 |
| 913.22 | 913.80 | 129+00 | 914.38 | 914.96 | 915.54 |
| 913.14 | 913.72 | 129+25 | 914.30 | 914.88 | 915.46 |
| 913.07 | 913.65 | 129+50 | 914.23 | 914.81 | 915.39 |

| LT. LANES LT. E.P. | LT. LANES CTR. | STATION | PROFILE GRADE | RT. LANES CTR. | RT. LANES RT. E.P. |
|---|---|---|---|---|---|
| 912.99 | 913.57 | 129+75 | 914.15 | 914.73 | 915.31 |
| 912.92 | 913.50 | 130+00 | 914.08 | 914.66 | 915.24 |
| 912.84 | 913.42 | 130+25 | 914.00 | 914.58 | 915.16 |
| 912.77 | 913.35 | 130+50 | 913.93 | 914.51 | 915.09 |
| 912.69 | 913.27 | 130+75 | 913.85 | 914.43 | 915.01 |
| 912.62 | 913.20 | 131+00 | 913.78 | 914.36 | 914.94 |
| 912.54 | 913.12 | 131+25 | 913.70 | 914.28 | 914.86 |
| 912.47 | 913.05 | 131+50 | 913.63 | 914.21 | 914.79 |
| 912.39 | 912.97 | 131+75 | 913.55 | 914.13 | 914.71 |
| 912.32 | 912.90 | 132+00 | 913.48 | 914.06 | 914.64 |
| 912.24 | 912.82 | 132+25 | 913.40 | 913.98 | 914.56 |
| 912.17 | 912.75 | 132+50 | 913.33 | 913.91 | 914.49 |
| 912.09 | 912.67 | 132+75 | 913.25 | 913.83 | 914.41 |
| 912.02 | 912.60 | 133+00 | 913.18 | 913.76 | 914.34 |
| 911.94 | 912.52 | 133+25 | 913.10 | 913.68 | 914.26 |
| 911.87 | 912.45 | 133+50 | 913.03 | 913.61 | 914.19 |
| 911.79 | 912.37 | 133+75 | 912.95 | 913.53 | 914.11 |
| 911.72 | 912.30 | 134+00 | 912.88 | 913.46 | 914.04 |
| 911.64 | 912.22 | 134+25 | 912.80 | 913.38 | 913.96 |
| 911.57 | 912.15 | 134+50 | 912.73 | 913.31 | 913.89 |
| 911.49 | 912.07 | 134+75 | 912.65 | 913.23 | 913.81 |
| 911.42 | 912.00 | 135+00 | 912.58 | 913.16 | 913.74 |
| 911.34 | 911.92 | 135+25 | 912.50 | 913.08 | 913.66 |
| 911.27 | 911.85 | 135+50 | 912.43 | 913.01 | 913.59 |
| 911.19 | 911.77 | 135+75 | 912.35 | 912.93 | 913.51 |
| 911.12 | 911.70 | 136+00 | 912.28 | 912.86 | 913.44 |
| 911.04 | 911.62 | 136+25 | 912.20 | 912.78 | 913.36 |
| 910.97 | 911.55 | 136+50 | 912.13 | 912.71 | 913.29 |
| 910.89 | 911.47 | 136+75 | 912.05 | 912.63 | 913.21 |
| 910.82 | 911.40 | 137+00 | 911.98 | 912.56 | 913.14 |
| 910.74 | 911.32 | 137+25 | 911.90 | 912.48 | 913.06 |
| 910.67 | 911.25 | 137+50 | 911.83 | 912.41 | 912.99 |
| 910.59 | 911.17 | 137+75 | 911.75 | 912.33 | 912.91 |
| 910.52 | 911.10 | 138+00 | 911.68 | 912.26 | 912.84 |
| 910.44 | 911.02 | 138+25 | 911.60 | 912.18 | 912.76 |
| 910.37 | 910.95 | 138+50 | 911.53 | 912.11 | 912.69 |
| 910.29 | 910.87 | 138+75 | 911.45 | 912.03 | 912.61 |
| 910.22 | 910.80 | 139+00 | 911.38 | 911.96 | 912.54 |
| 910.14 | 910.72 | 139+25 | 911.30 | 911.88 | 912.46 |
| 910.07 | 910.65 | 139+50 | 911.23 | 911.81 | 912.39 |
| 909.99 | 910.57 | 139+75 | 911.15 | 911.73 | 912.31 |
| 909.92 | 910.50 | 140+00 | 911.08 | 911.66 | 912.24 |
| 909.84 | 910.42 | 140+25 | 911.00 | 911.58 | 912.16 |
| 909.77 | 910.35 | 140+50 | 910.93 | 911.51 | 912.09 |

# SUPERELEVATION CHARTS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

20/166

LICKING COUNTY
LIC. 161-11.13
LIC. 16 (14.30-18.51)

| LT. LANES | | STATION | PROFILE GRADE | RT. LANES | |
|---|---|---|---|---|---|
| LT. E.P | CTR. | | | CTR. | RT. E.P |
| 909.69 | 910.27 | 140+75 | 910.85 | 911.43 | 912.01 |
| 909.62 | 910.20 | 141+00 | 910.78 | 911.36 | 911.94 |
| 909.54 | 910.12 | 141+25 | 910.70 | 911.28 | 911.86 |
| 909.51 | 910.07 | 141+50 | 910.63 | 911.19 | 911.75 |
| 909.51 | 910.03 | 141+75 | 910.55 | 911.06 | 911.59 |
| 909.58 | 910.03 | 142+00 | 910.48 | 910.93 | 911.38 |
| 909.61 | 910.00 | 142+25 | 910.40 | 910.80 | 911.19 |
| 909.63 | 910.01 | 142+30.82 P T | 910.39 | 910.77 | 911.15 |
| 909.67 | 910.00 | 142+50 | 910.33 | 910.66 | 910.99 |
| 909.71 | 909.98 | 142+75 | 910.25 | 910.52 | 910.79 |
| 909.76 | 909.97 | 143+00 | 910.18 | 910.39 | 910.60 |
| 909.76 | 909.95 | 143+25 | 910.10 | 910.30 | 910.44 |
| 909.75 | 909.95 | 143+50 | 910.03 | 910.22 | 910.31 |
| 909.74 | 909.93 | 143+75 | 909.95 | 910.14 | 910.16 |
| 909.73 | 909.92 | 144+00 | 909.88 | 910.07 | 910.03 |
| 909.72 | 909.91 | 144+25 | 909.80 | 909.99 | 909.88 |
| 909.70 | 909.89 | 144+50 | 909.73 | 909.92 | 909.76 |
| 909.65 | 909.84 | 144+75 | 909.65 | 909.84 | 909.65 |
| 909.58 | 909.77 | 145+00 | 909.58 | 909.77 | 909.58 |

P.I. STA. 194+13.10 1.15/24'
$D_C$ = 01° 28' MAX. S.E. = 0.048'/FT.

| | | | | | |
|---|---|---|---|---|---|
| 931.94 | 932.13 | 179+75 | 931.94 | 932.13 | 931.94 |
| 932.10 | 932.29 | 180+00 | 932.10 | 932.28 | 932.08 |
| 932.28 | 932.43 | 180+25 | 932.24 | 932.39 | 932.19 |
| 932.47 | 932.55 | 180+50 | 932.36 | 932.45 | 932.26 |
| 932.61 | 932.64 | 180+75 | 932.45 | 932.48 | 932.29 |
| 932.76 | 932.72 | 181+00 | 932.53 | 932.49 | 932.30 |
| 932.87 | 932.77 | 181+25 | 932.58 | 932.49 | 932.29 |
| 932.96 | 932.81 | 181+50 | 932.61 | 932.45 | 932.25 |
| 933.07 | 932.84 | 181+75 | 932.62 | 932.40 | 932.17 |
| 933.18→ 933.28 | 932.89 | 182+00 | 932.61 | 932.33 | 932.04 |
| 933.27 | 932.92 | 182+25 | 932.57 | 932.22 | 931.87 |
| 933.32 | 932.94 | 182+38.02 P C | 932.56 | 932.18 | 931.80 |
| 933.34 | 932.93 | 182+50 | 932.52 | 932.11 | 931.70 |
| 933.38 | 932.91 | 182+75 | 932.44 | 931.97 | 931.50 |
| 933.41 | 932.88 | 183+00 | 932.35 | 931.82 | 931.29 |
| 933.38 | 932.81 | 183+25 | 932.24 | 931.67 | 931.10 |
| 933.25 | 932.67 | 183+50 | 932.09 | 931.51 | 930.93 |
| 933.10 | 932.52 | 183+75 | 931.94 | 931.36 | 930.78 |
| 932.91 | 932.33 | 184+00 | 931.75 | 931.17 | 930.59 |
| 932.71 | 932.13 | 184+25 | 931.55 | 930.97 | 930.39 |
| 932.48 | 931.90 | 184+50 | 931.32 | 930.74 | 930.16 |
| 932.24 | 931.66 | 184+75 | 931.08 | 930.50 | 929.92 |

| LT. LANES | | STATION | PROFILE GRADE | RT. LANES | |
|---|---|---|---|---|---|
| LT. E.P | CTR. | | | CTR. | RT. E.P |
| 931.97 | 931.39 | 185+00 | 930.81 | 930.23 | 929.65 |
| 931.68 | 931.10 | 185+25 | 930.52 | 929.94 | 929.36 |
| 931.37 | 930.79 | 185+50 | 930.21 | 929.63 | 929.05 |
| 931.04 | 930.46 | 185+75 | 929.88 | 929.30 | 928.72 |
| 930.68 | 930.10 | 186+00 | 929.52 | 928.94 | 928.36 |
| 930.32 | 929.74 | 186+25 | 929.16 | 928.58 | 928.00 |
| 929.92 | 929.34 | 186+50 | 928.76 | 928.18 | 927.60 |
| 929.50 | 928.92 | 186+75 | 928.34 | 927.76 | 927.18 |
| 929.06 | 928.48 | 187+00 | 927.90 | 927.32 | 926.74 |
| 928.60 | 928.02 | 187+25 | 927.44 | 926.86 | 926.28 |
| 928.12 | 927.54 | 187+50 | 926.96 | 926.38 | 925.80 |
| 927.62 | 927.04 | 187+75 | 926.46 | 925.88 | 925.30 |
| 927.09 | 926.51 | 188+00 | 925.93 | 925.35 | 924.77 |
| 926.55 | 925.97 | 188+25 | 925.39 | 924.81 | 924.23 |
| 925.98 | 925.40 | 188+50 | 924.82 | 923.24 | 923.66 |
| 925.40 | 924.82 | 188+75 | 924.24 | 923.66 | 923.08 |
| 924.78 | 924.20 | 189+00 | 923.62 | 923.04 | 922.46 |
| 924.16 | 923.58 | 189+25 | 923.00 | 922.42 | 921.84 |
| 923.54 | 922.96 | 189+50 | 922.38 | 921.80 | 921.22 |
| 922.92 | 922.34 | 189+75 | 921.76 | 921.18 | 920.60 |
| 922.30 | 921.72 | 190+00 | 921.14 | 920.56 | 919.98 |
| 921.68 | 921.10 | 190+25 | 920.52 | 919.94 | 919.36 |
| 921.06 | 920.48 | 190+50 | 919.90 | 919.32 | 918.74 |
| 920.44 | 919.86 | 190+75 | 919.28 | 918.70 | 918.12 |
| 919.82 | 919.24 | 191+00 | 918.66 | 918.08 | 917.50 |
| 919.20 | 918.62 | 191+25 | 918.04 | 917.46 | 916.88 |
| 918.58 | 918.00 | 191+50 | 917.42 | 916.84 | 916.26 |
| 917.96 | 917.38 | 191+75 | 916.80 | 916.22 | 915.64 |
| 917.34 | 916.76 | 192+00 | 916.18 | 915.60 | 915.02 |
| 916.72 | 916.14 | 192+25 | 915.56 | 914.98 | 914.40 |
| 916.10 | 915.52 | 192+50 | 914.94 | 914.36 | 913.78 |
| 915.48 | 914.90 | 192+75 | 914.32 | 913.74 | 913.16 |
| 914.86 | 914.28 | 193+00 | 913.70 | 913.12 | 912.54 |
| 914.24 | 913.66 | 193+25 | 913.08 | 912.50 | 911.92 |
| 913.62 | 913.04 | 193+50 | 912.46 | 911.88 | 911.30 |
| 913.00 | 912.42 | 193+75 | 911.84 | 911.26 | 910.68 |
| 912.38 | 911.80 | 194+00 | 911.22 | 910.64 | 910.06 |
| 911.76 | 911.18 | 194+25 | 910.60 | 910.02 | 909.44 |
| 911.14 | 910.56 | 194+50 | 909.98 | 909.40 | 908.82 |
| 910.52 | 909.94 | 194+75 | 909.36 | 908.78 | 908.20 |
| 909.90 | 909.32 | 195+00 | 908.74 | 908.16 | 907.58 |
| 909.29 | 908.71 | 195+25 | 908.13 | 907.55 | 906.97 |
| 908.69 | 908.11 | 195+50 | 907.53 | 906.95 | 906.37 |
| 908.12 | 907.54 | 195+75 | 906.96 | 906.38 | 905.80 |

| LT. LANES | | STATION | PROFILE GRADE | RT. LANES | |
|---|---|---|---|---|---|
| LT. E.R. | CTR. | | | CTR. | RT. E.P |
| 907.55 | 906.97 | 196+00 | 906.39 | 905.81 | 905.23 |
| 907.01 | 906.43 | 196+25 | 905.85 | 905.27 | 904.69 |
| 906.48 | 905.90 | 196+50 | 905.32 | 904.74 | 904.16 |
| 905.97 | 905.39 | 196+75 | 904.81 | 904.23 | 903.65 |
| 905.48 | 904.90 | 197+00 | 904.32 | 903.74 | 903.16 |
| 905.00 | 904.42 | 197+25 | 903.84 | 903.26 | 902.68 |
| 904.54 | 903.96 | 197+50 | 903.38 | 902.80 | 902.22 |
| 904.10 | 903.52 | 197+75 | 902.94 | 902.36 | 901.78 |
| 903.67 | 903.09 | 198+00 | 902.51 | 901.93 | 901.35 |
| 903.27 | 902.69 | 198+25 | 902.11 | 901.53 | 900.95 |
| 902.87 | 902.29 | 198+50 | 901.71 | 901.13 | 900.55 |
| 902.50 | 901.92 | 198+75 | 901.34 | 900.76 | 900.18 |
| 902.14 | 901.56 | 199+00 | 900.98 | 900.40 | 899.82 |
| 901.80 | 901.22 | 199+25 | 900.64 | 900.06 | 899.48 |
| 901.47 | 900.89 | 199+50 | 900.31 | 899.73 | 899.15 |
| 901.17 | 900.59 | 199+75 | 900.01 | 899.43 | 898.85 |
| 900.87 | 900.29 | 200+00 | 899.71 | 899.13 | 898.55 |
| 900.60 | 900.02 | 200+25 | 899.44 | 898.86 | 898.28 |
| 900.34 | 899.76 | 200+50 | 899.18 | 898.60 | 898.02 |
| 900.10 | 899.52 | 200+75 | 898.94 | 898.36 | 897.78 |
| 899.88 | 899.30 | 201+00 | 898.72 | 898.14 | 897.56 |
| 899.67 | 899.09 | 201+25 | 898.51 | 897.93 | 897.35 |
| 899.48 | 898.90 | 201+50 | 898.32 | 897.74 | 897.16 |
| 899.31 | 898.73 | 201+75 | 898.15 | 897.57 | 896.99 |
| 899.15 | 898.57 | 202+00 | 897.99 | 897.41 | 896.83 |
| 899.02 | 898.44 | 202+25 | 897.86 | 897.28 | 896.70 |
| 898.89 | 898.31 | 202+50 | 897.73 | 897.15 | 896.57 |
| 898.79 | 898.21 | 202+75 | 897.63 | 897.05 | 896.47 |
| 898.70 | 898.12 | 203+00 | 897.54 | 896.96 | 896.38 |
| 898.62 | 898.04 | 203+25 | 897.46 | 896.88 | 896.30 |
| 898.54 | 897.96 | 203+50 | 897.38 | 896.80 | 896.22 |
| 898.46 | 897.88 | 203+75 | 897.30 | 896.72 | 896.14 |
| 898.38 | 897.80 | 204+00 | 897.22 | 896.64 | 896.06 |
| 898.28 | 897.72 | 204+25 | 897.14 | 896.56 | 895.99 |
| 898.15 | 897.61 | 204+50 | 897.06 | 896.51 | 895.97 |
| 897.96 | 897.47 | 204+75 | 896.98 | 896.49 | 896.00 |
| 897.76 | 897.33 | 205+00 | 896.90 | 896.47 | 896.04 |
| 897.59 | 897.21 | 205+20.97 P T | 896.83 | 896.45 | 896.09 |
| 897.56 | 897.19 | 205+25 | 896.82 | 896.45 | 896.08 |
| 897.35 | 897.05 | 205+50 | 896.74 | 896.44 | 896.13 |
| 897.15 | 896.90 | 205+75 | 896.66 | 896.42 | 896.17 |
| 896.97 | 896.78 | 206+00 | 896.58 | 896.40 | 896.19 |
| 896.81 | 896.69 | 206+25 | 896.50 | 896.38 | 896.19 |
| 896.67 | 896.61 | 206+50 | 896.42 | 896.36 | 896.17 |

| LT. LANES | | STATION | PROFILE GRADE | RT. LANES | |
|---|---|---|---|---|---|
| LT. E.P | CTR. | | | CTR. | RT. E.P |
| 896.53 | 896.53 | 206+75 | 896.34 | 896.35 | 896.16 |
| 896.38 | 896.45 | 207+00 | 896.26 | 896.33 | 896.14 |
| 896.24 | 896.37 | 207+25 | 896.18 | 896.31 | 896.12 |
| 896.12 | 896.29 | 207+50 | 896.10 | 896.28 | 896.08 |
| 896.02 | 896.21 | 207+75 | 896.02 | 896.21 | 896.02 |
| 895.94 | 896.13 | 208+00 | 895.94 | 896.13 | 895.94 |

P.I. STA. 248+57.47
$D_C$ = 01° 28' MAX. S.E. = 0.048'/FT.

| | | | | | |
|---|---|---|---|---|---|
| 887.70 | 887.89 | 233+75 | 887.70 | 887.89 | 887.70 |
| 887.62 | 887.81 | 234+00 | 887.62 | 887.81 | 887.62 |
| 887.51 | 887.70 | 234+25 | 887.54 | 887.73 | 887.57 |
| 887.38 | 887.57 | 234+50 | 887.46 | 887.65 | 887.54 |
| 887.24 | 887.43 | 234+75 | 887.38 | 887.57 | 887.52 |
| 887.09 | 887.29 | 235+00 | 887.30 | 887.49 | 887.51 |
| 886.95 | 887.14 | 235+25 | 887.22 | 887.41 | 887.49 |
| 886.81 | 887.00 | 235+50 | 887.14 | 887.33 | 887.47 |
| 887.34 | 886.86 | 235+75 | 887.06 | 887.27 | 887.48 |
| 886.45 | 886.71 | 236+00 | 886.98 | 887.24 | 887.51 |
| 886.24 | 886.57 | 235+25 | 886.90 | 887.23 | 887.56 |
| 886.07 | 886.45 | 236+45.70 | 886.83 | 887.21 | 887.59 |
| 886.03 | 886.43 | 236+50 | 886.82 | 887.21 | 887.61 |
| 885.83 | 886.28 | 236+75 | 886.74 | 887.20 | 887.65 |
| 885.63 | 886.14 | 237+00 | 886.66 | 887.18 | 887.69 |
| 885.46 | 886.02 | 237+25 | 886.58 | 887.14 | 887.70 |
| 885.34 | 885.92 | 237+50 | 886.50 | 887.08 | 887.66 |
| 885.26 | 885.84 | 237+75 | 886.42 | 887.00 | 887.58 |
| 885.18 | 885.76 | 238+00 | 886.34 | 886.92 | 887.50 |
| 885.10 | 885.68 | 238+25 | 886.26 | 886.84 | 887.42 |
| 885.02 | 885.60 | 238+50 | 886.18 | 886.76 | 887.34 |
| 884.94 | 885.52 | 238+75 | 886.10 | 886.68 | 887.26 |
| 884.86 | 885.44 | 239+00 | 886.02 | 886.60 | 887.18 |
| 884.78 | 885.36 | 239+25 | 885.94 | 886.52 | 887.10 |
| 884.70 | 885.28 | 239+50 | 885.86 | 886.44 | 887.02 |
| 884.62 | 885.20 | 239+75 | 885.78 | 886.36 | 886.94 |
| 884.54 | 885.12 | 240+00 | 885.70 | 886.28 | 886.86 |
| 884.46 | 885.04 | 240+25 | 885.62 | 886.20 | 886.78 |
| 884.38 | 884.96 | 240+50 | 885.54 | 886.21 | 886.70 |
| 884.30 | 884.88 | 240+75 | 885.46 | 886.04 | 886.62 |
| 884.22 | 884.80 | 241+00 | 885.38 | 885.96 | 886.54 |
| 884.14 | 884.72 | 241+25 | 885.30 | 885.88 | 886.46 |
| 884.06 | 884.64 | 241+50 | 885.22 | 885.80 | 886.38 |
| 883.98 | 884.56 | 241+75 | 885.14 | 885.72 | 886.30 |
| 883.90 | 884.48 | 242+00 | 885.06 | 885.64 | 886.22 |

# SUPERELEVATION CHARTS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

21/466

LICKING COUNTY
LIC. 161-11.13
LIC. 16 (14.30-18.51)

| LT. LANES | | STATION | PROFILE GRADE | RT. LANES | |
|---|---|---|---|---|---|
| LT. E.P. | CTR. | | | CTR | RT. E.P. |
| 883.82 | 884.40 | 242+25 | 884.98 | 885.56 | 886.14 |
| 883.74 | 884.32 | 242+50 | 884.90 | 885.48 | 886.06 |
| 883.66 | 884.24 | 242+75 | 884.82 | 885.40 | 885.98 |
| 883.58 | 884.16 | 243+00 | 884.74 | 885.32 | 885.90 |
| 883.50 | 884.08 | 243+25 | 884.66 | 885.24 | 885.82 |
| 883.42 | 884.00 | 243+50 | 884.58 | 885.16 | 885.74 |
| 883.34 | 883.92 | 243+75 | 884.50 | 885.08 | 885.66 |
| 883.26 | 883.84 | 244+00 | 884.42 | 885.00 | 885.58 |
| 883.18 | 883.76 | 244+25 | 884.34 | 884.92 | 885.50 |
| 883.10 | 883.68 | 244+50 | 884.26 | 884.84 | 885.42 |
| 883.02 | 883.60 | 244+75 | 884.18 | 884.76 | 885.34 |
| 882.94 | 883.52 | 245+00 | 884.10 | 884.68 | 885.26 |
| 882.86 | 883.44 | 245+25 | 884.02 | 884.60 | 885.18 |
| 882.78 | 883.36 | 245+50 | 883.94 | 884.52 | 885.10 |
| 882.70 | 883.28 | 245+75 | 883.86 | 884.44 | 885.02 |
| 882.62 | 883.20 | 246+00 | 883.78 | 884.36 | 884.94 |
| 882.55 | 883.13 | 246+25 | 883.71 | 884.29 | 884.87 |
| 882.49 | 883.07 | 246+50 | 883.65 | 884.23 | 884.81 |
| 882.44 | 883.02 | 246+75 | 883.60 | 884.18 | 884.76 |
| 882.41 | 882.99 | 247+00 | 883.57 | 884.15 | 884.73 |
| 882.39 | 882.97 | 247+25 | 883.55 | 884.13 | 884.71 |
| 882.38 | 882.96 | 247+50 | 883.54 | 884.12 | 884.70 |
| 882.39 | 882.97 | 247+75 | 883.55 | 884.13 | 884.71 |
| 882.41 | 882.99 | 248+00 | 883.57 | 884.15 | 884.73 |
| 882.44 | 883.02 | 248+25 | 883.60 | 884.18 | 884.76 |
| 882.49 | 882.07 | 248+50 | 883.65 | 884.23 | 884.81 |
| 882.55 | 883.13 | 248+75 | 883.71 | 884.29 | 884.87 |
| 882.63 | 883.21 | 249+00 | 883.79 | 884.37 | 884.95 |
| 882.72 | 883.30 | 249+25 | 883.88 | 884.46 | 885.04 |
| 882.82 | 883.40 | 249+50 | 883.98 | 884.56 | 885.14 |
| 882.93 | 882.51 | 249+75 | 884.09 | 884.67 | 885.25 |
| 883.06 | 883.64 | 250+00 | 884.22 | 884.80 | 885.38 |
| 883.20 | 883.78 | 250+25 | 884.36 | 884.94 | 885.52 |
| 883.36 | 883.94 | 250+50 | 884.52 | 885.10 | 885.68 |
| 883.53 | 884.11 | 250+75 | 884.69 | 885.27 | 885.85 |
| 883.71 | 884.29 | 251+00 | 884.87 | 885.45 | 886.03 |
| 883.90 | 884.48 | 251+25 | 885.06 | 885.64 | 886.22 |
| 884.11 | 884.69 | 251+50 | 885.27 | 885.85 | 886.43 |
| 884.33 | 884.91 | 251+75 | 885.49 | 886.07 | 886.65 |
| 884.57 | 885.15 | 252+00 | 885.73 | 886.31 | 886.89 |
| 884.82 | 885.40 | 252+25 | 885.98 | 886.56 | 887.14 |
| 885.08 | 885.66 | 252+50 | 886.24 | 886.82 | 887.40 |
| 885.36 | 885.94 | 252+75 | 886.52 | 887.10 | 887.68 |

| LT. LANES | | STATION | PROFILE GRADES | RT. LANES | |
|---|---|---|---|---|---|
| LT. EP. | CTR. | | | CTR. | RT E.P |
| 885.65 | 886.23 | 253+00 | 886.81 | 887.39 | 887.97 |
| 885.95 | 886.53 | 253+25 | 887.11 | 887.69 | 888.27 |
| 886.27 | 886.85 | 253+50 | 887.43 | 888.01 | 888.59 |
| 886.60 | 887.18 | 253+75 | 887.76 | 888.74 | 888.92 |
| 886.94 | 887.52 | 254+00 | 888.10 | 888.68 | 889.26 |
| 887.29 | 887.87 | 254+25 | 888.45 | 889.03 | 889.61 |
| 887.64 | 888.22 | 254+50 | 888.80 | 889.38 | 889.96 |
| 887.99 | 888.57 | 254+75 | 889.15 | 889.73 | 890.31 |
| 888.34 | 888.92 | 255+00 | 889.50 | 890.08 | 890.66 |
| 888.69 | 889.27 | 255+25 | 889.85 | 890.43 | 891.01 |
| 889.04 | 889.62 | 255+50 | 890.20 | 890.78 | 891.36 |
| 889.39 | 889.97 | 255+75 | 890.55 | 891.13 | 891.71 |
| 889.74 | 890.32 | 256+00 | 890.90 | 891.48 | 892.06 |
| 890.09 | 890.67 | 256+25 | 891.25 | 891.83 | 892.41 |
| 890.44 | 891.02 | 256+50 | 891.60 | 892.18 | 892.76 |
| 890.79 | 891.37 | 256+75 | 891.95 | 892.53 | 893.11 |
| 891.14 | 891.72 | 257+00 | 892.30 | 892.88 | 893.46 |
| 891.49 | 892.07 | 257+25 | 892.65 | 893.23 | 893.81 |
| 891.84 | 892.42 | 257+50 | 893.00 | 893.58 | 894.16 |
| 892.19 | 892.77 | 257+75 | 893.35 | 893.95 | 894.51 |
| 892+54 | 893.12 | 258+00 | 893.70 | 894.28 | 894.86 |
| 892.89 | 893.47 | 258+25 | 894.05 | 894.63 | 895.21 |
| 893.24 | 893.82 | 258+50 | 894.40 | 894.98 | 895.56 |
| 893.59 | 894.17 | 258+75 | 894.75 | 895.33 | 895.91 |
| 893.95 | 894.53 | 259+00 | 895.10 | 895.67 | 896.25 |
| 894.36 | 894.90 | 259+25 | 895.45 | 896.00 | 896.54 |
| 894.81 | 895.30 | 259+50 | 895.80 | 896.30 | 896.79 |
| 895.28 | 895.72 | 259+75 | 896.15 | 896.58 | 897.02 |
| 895.69 | 896.08 | 259+95.70 P.T. | 896.46 | 896.84 | 897.23 |
| 895.76 | 896.13 | 260+00 | 896.50 | 896.87 | 897.24 |
| 896.23 | 896.54 | 260+25 | 896.85 | 897.16 | 897.47 |
| 896.71 | 896.96 | 260+50 | 897.20 | 897.44 | 897.69 |
| 897.16 | 897.37 | 260+75 | 897.55 | 897.75 | 897.94 |
| 897.59 | 897.78 | 261+00 | 897.90 | 898.09 | 898.21 |
| 897.99 | 898.18 | 261+25 | 898.24 | 898.43 | 898.49 |
| 898.38 | 898.58 | 261+50 | 898.57 | 898.76 | 898.76 |
| 898.76 | 898.94 | 261+75 | 898.88 | 899.07 | 899.00 |
| 899.12 | 899.31 | 262+00 | 899.18 | 899.37 | 899.24 |
| 899.44 | 899.63 | 262+25 | 899.46 | 899.65 | 899.48 |
| 899.72 | 899.91 | 262+50 | 899.72 | 899.91 | 899.72 |
| 899.97 | 890.16 | 262+75 | 899.97 | 890.16 | 899.97 |

| WESTBOUND | | STATION | LINE "W" P.G. | LINE "E" P.G. | EASTBOUND | |
|---|---|---|---|---|---|---|
| LT. E.P. | CTR. | | | | CTR. | RT. E.P. |
| P.I. LINE "W" 278+46.22<br>$D_c$=02°00'<br>MAX. S.E.=0.047'/F.T. | | | | | | |
| 909.30 | 909.49 | 273+00 | 909.30 | | | |
| 909.15 | 909.34 | 273+25 | 909.15 | | | |
| 909.01 | 909.17 | 273+50 | 908.98 | | | |
| 908.87 | 908.97 | 273+75 | 908.78 | | | |
| 908.72 | 908.75 | 274+00 | 908.56 | | | |
| 908.54 | 908.51 | 274+25 | 908.32 | | | |
| 908.36 | 908.25 | 274+50 | 908.06 | | | |
| 908.14 | 907.97 | 274+75 | 907.77 | | | |
| 907.96 | 907.71 | 275+00 | 907.46 | | | |
| 907.77 | 907.45 | 275+25 | 907.13 | | | |
| 907.56 | 907.17 | 275+50 | 906.78 | | | |
| 907.33 | 906.86 | 275+75 | 906.40 | | | |
| 907.06 | 906.54 | 276+00 | 906.01 | | | |
| 906.71 | 906.15 | 276+25 | 905.59 | | | |
| 906.28 | 905.71 | 276+50 | 905.14 | | | |
| 905.82 | 906.25 | 276+75 | 904.68 | | | |
| 905.33 | 904.76 | 277+00 | 904.19 | | | |
| 904.83 | 904.26 | 277+25 | 903.69 | | | |
| 904.29 | 903.72 | 277+50 | 903.15 | | | |
| 903.74 | 903.17 | 277+75 | 902.60 | | | |
| 903.16 | 902.59 | 278+00 | 902.02 | | | |
| 902.57 | 902.00 | 278+25 | 901.43 | | | |
| 901.95 | 901.38 | 278+50 | 900.81 | | | |
| 901.30 | 900.73 | 278+75 | 900.16 | | | |
| 900.64 | 900.07 | 279+00 | 899.50 | | | |
| 899.95 | 899.38 | 279+25 | 898.81 | | | |
| 899.24 | 898.67 | 279+50 | 898.10 | | | |
| 898.51 | 897.94 | 279+75 | 897.37 | | | |
| 897.76 | 897.19 | 280+00 | 896.62 | | | |
| 896.98 | 896.41 | 280+25 | 895.84 | | | |
| 896.18 | 895.61 | 280+50 | 895.04 | | | |
| 895.33 | 894.78 | 280+75 | 894.23 | | | |
| 894.44 | 893.93 | 281+00 | 893.42 | | | |
| 893.50 | 893.06 | 281+25 | 892.61 | | | |
| 892.57 | 892.18 | 281+50 | 891.80 | | | |
| 891.63 | 891.31 | 281+75 | 890.99 | | | |
| 890.70 | 890.44 | 282+00 | 890.18 | | | |
| 889.77 | 889.58 | 282+25 | 889.37 | | | |
| 888.89 | 888.75 | 282+50 | 888.56 | | | |
| 888.01 | 887.94 | 282+75 | 887.75 | | | |
| P.I. SURVEY ℄ 295+52.16<br>$D_c$ = 00° 42'<br>MAX. S.E. = 00165'/F.T. | | | | | | |
| 880.66 | 880.85 | 880.66 | | | | |
| 880.14 | 880.33 | 880.14 | | | | |
| 879.62 | 879.81 | 879.62 | | | | |
| 879.10 | 879.29 | 879.10 | | | | |
| 878.58 | 878.77 | 878.61 | | | | |
| 878.07 | 878.26 | 878.14 | | | | |
| 877.57 | 877.76 | 877.70 | | | | |
| 877.09 | 877.28 | 877.28 | | | | |

# SUPERELEVATION CHARTS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

22/166

LICKING COUNTY
LIC. 161 - 11.13
LIC. 16 ( 14.30 - 18.51)

$D_c$ = 02° 00' RT.

| WESTBOUND LT. E.P. | WESTBOUND CTR. | STATION | LINE "W" P. G. | LINE "E" or SURVEY ℄ P.G. | EASTBOUND CTR. | EASTBOUND RT. E.P. |
|---|---|---|---|---|---|---|
| 887.13 | 887.13 | 283+00 | 886.94 | 876.63 | 876.82 | 876.88 |
| 886.26 | 886.32 | 283+25 | 886.13 | 876.19 | 876.38 | 876.51 |
| 885.39 | 885.51 | 283+50 | 885.32 | 875.76 | 875.95 | 876.13 |
| 884.53 | 884.70 | 283+75 | 884.51 | 875.35 | 875.55 | 875.75 |
| 883.70 | 883.89 | 284+00 | 883.70 | 874.95 | 875.15 | 875.35 |
| 882.89 | 883.08 | 284+25 | 882.89 | 874.58 | 874.78 | 874.98 |
| 882.08 | 882.27 | 284+50 | 882.08 | 874.21 | 874.41 | 874.61 |
| 881.27 | 881.46 | 284+75 | 881.27 | 873.87 | 874.07 | 874.27 |
| 880.45 | 880.64 | 285+00 | 880.46 | 873.54 | 873.74 | 873.94 |
| 879.60 | 879.79 | 285+25 | 879.65 | 873.23 | 873.43 | 873.63 |
| 878.75 | 878.95 | 285+50 | 878.86 | 872.93 | 873.13 | 873.33 |
| 877.92 | 878.12 | 285+75 | 878.09 | 872.66 | 872.86 | 873.06 |
| 877.12 | 877.31 | 286+00 | 877.35 | 872.39 | 872.59 | 872.79 |
| 876.36 | 876.55 | 286+25 | 876.65 | 872.15 | 872.35 | 872.55 |
| 875.61 | 875.81 | 286+50 | 875.98 | 871.92 | 872.12 | 872.32 |
| 874.87 | 875.10 | 286+75 | 875.33 | 871.71 | 871.91 | 872.11 |
| 874.13 | 874.43 | 287+00 | 874.72 | 871.51 | 871.71 | 871.91 |
| 873.43 | 873.78 | 287+25 | 874.13 | 871.33 | 871.53 | 871.73 |
| 872.74 | 873.16 | 287+50 | 873.58 | 871.17 | 871.37 | 871.57 |
| 872.11 | 872.58 | 287+75 | 873.05 | 871.03 | 871.23 | 871.43 |
| 871.57 | 872.06 | 288+00 | 872.56 | 870.90 | 871.10 | 871.30 |
| 871.09 | 871.59 | 288+25 | 872.09 | 870.78 | 870.98 | 871.18 |
| 870.66 | 871.16 | 288+50 | 871.66 | 870.66 | 870.86 | 871.06 |
| 870.25 | 870.75 | 288+75 | 871.25 | 870.54 | 870.74 | 870.94 |
| 869.88 | 870.38 | 289+00 | 870.88 | 870.42 | 870.62 | 870.82 |
| 869.53 | 870.03 | 289+25 | 870.53 | 870.30 | 870.50 | 870.70 |
| 869.22 | 869.72 | 289+50 | 870.22 | 870.18 | 870.38 | 870.58 |
| 868.93 | 869.43 | 289+75 | 869.93 | 870.06 | 870.26 | 870.46 |
| 868.68 | 869.18 | 290+00 | 869.68 | 869.94 | 870.14 | 870.34 |
| 868.45 | 868.95 | 290+25 | 869.45 | 869.82 | 870.02 | 870.22 |
| 868.25 | 868.45 | 290+50 | 869.25 | 869.70 | 869.90 | 870.10 |
| 868.09 | 868.59 | 290+75 | 869.09 | 869.58 | 869.78 | 869.98 |
| 867.96 | 868.46 | 291+00 | 868.96 | 869.46 | 869.66 | 869.86 |
| 867.85 | 868.35 | 291+25 | 868.85 | 869.34 | 869.54 | 869.74 |
| 867.76 | 868.26 | 291+50 | 868.76 | 869.22 | 869.42 | 869.62 |
| 867.67 | 868.17 | 291+75 | 868.67 | 869.10 | 869.30 | 869.50 |

$D_c$ = 02° 30' LT.

$D_c$ = 00° 42' LT.

| LT. LANES LT. E.P. | LT. LANES CTR. | STATION | PROFILE GRADE | RT. LANES CTR. | RT. LANES RT. E.P. |
|---|---|---|---|---|---|
| 867.64 | 868.14 | 291+75 | 868.98 | 869.31 | 869.51 |
| 867.54 | 868.04 | 292+00 | 868.86 | 869.19 | 869.39 |
| 867.41 | 867.96 | 292+25 | 868.74 | 869.07 | 869.27 |
| 867.50 | 867.92 | 292+50 | 868.62 | 868.95 | 869.15 |
| 867.51 | 867.88 | 292+75 | 868.50 | 868.83 | 869.03 |
| 867.52 | 867.84 | 293+00 | 868.38 | 868.71 | 868.91 |
| 867.52 | 867.80 | 293+25 | 868.26 | 868.59 | 868.79 |
| 867.52 | 867.75 | 293+50 | 868.14 | 868.47 | 868.67 |
| 867.47 | 867.68 | 293+75 | 868.02 | 868.35 | 868.55 |
| 867.37 | 867.57 | 294+00 | 867.90 | 868.23 | 868.43 |
| 867.24 | 867.44 | 294+25 | 867.77 | 868.10 | 868.30 |
| 867.11 | 867.31 | 294+50 | 867.64 | 867.97 | 868.17 |
| 866.96 | 867.16 | 294+75 | 867.49 | 867.82 | 868.02 |
| 866.80 | 867.00 | 295+00 | 867.33 | 867.66 | 867.86 |
| 866.63 | 866.83 | 295+25 | 867.16 | 867.49 | 867.69 |
| 866.45 | 866.65 | 295+50 | 866.98 | 867.31 | 867.51 |
| 866.25 | 86645 | 295+75 | 866.78 | 867.11 | 867.31 |
| 866.05 | 866.25 | 296+00 | 866.58 | 866.91 | 867.11 |
| 865.84 | 866.04 | 296+25 | 866.37 | 866.70 | 866.90 |
| 865.63 | 865.83 | 296+50 | 866.16 | 866.49 | 866.69 |
| 865.42 | 865.62 | 296+75 | 865.95 | 866.28 | 866.48 |
| 865.21 | 865.41 | 297+00 | 865.74 | 866.04 | 866.24 |
| 865.00 | 865.20 | 297+25 | 865.53 | 865.86 | 866.06 |
| 864.79 | 864.99 | 297+50 | 865.32 | 865.65 | 865.85 |
| 864.58 | 864.78 | 297+75 | 865.11 | 865.44 | 865.64 |
| 864.37 | 864.57 | 298+00 | 864.90 | 865.23 | 865.43 |
| 864.16 | 864.36 | 298+25 | 864.69 | 865.02 | 865.22 |
| 863.95 | 864.15 | 298+50 | 864.48 | 864.81 | 865.01 |
| 863.74 | 863.94 | 298+75 | 864.27 | 864.60 | 864.80 |
| 863.53 | 863.73 | 299+00 | 864.06 | 864.39 | 864.59 |
| 863.32 | 863.52 | 299+25 | 863.85 | 864.18 | 864.38 |
| 863.11 | 863.31 | 299+50 | 863.64 | 863.97 | 864.17 |
| 862.90 | 863.10 | 299+75 | 863.43 | 863.76 | 863.96 |
| 862.69 | 862.89 | 300+00 | 863.22 | 863.55 | 863.75 |

$D_c$ = 00° 42' LT.

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

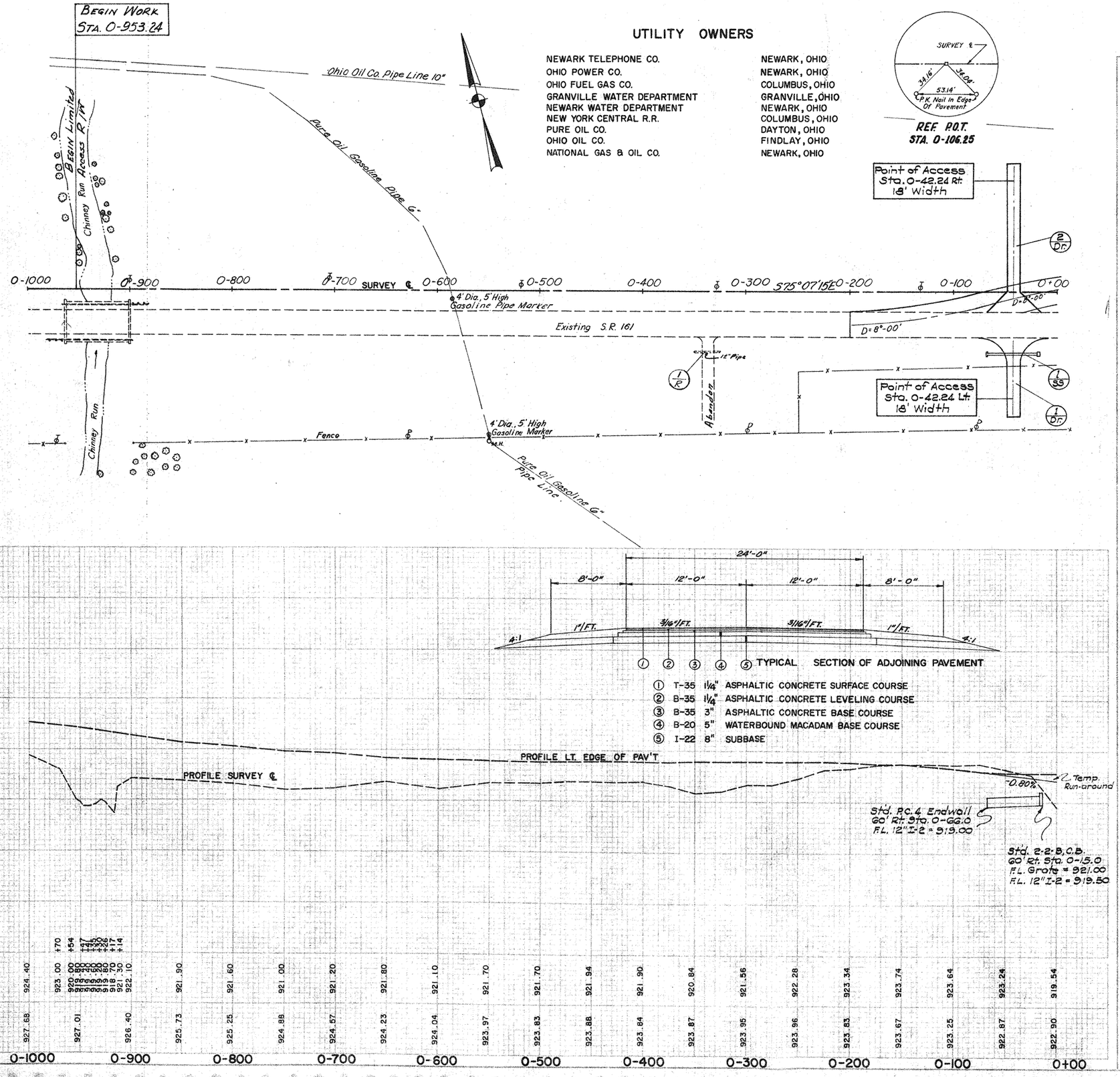
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

23/466

BEGIN WORK
STA. 0-953.24

## UTILITY OWNERS

| | |
|---|---|
| NEWARK TELEPHONE CO. | NEWARK, OHIO |
| OHIO POWER CO. | NEWARK, OHIO |
| OHIO FUEL GAS CO. | COLUMBUS, OHIO |
| GRANVILLE WATER DEPARTMENT | GRANVILLE, OHIO |
| NEWARK WATER DEPARTMENT | NEWARK, OHIO |
| NEW YORK CENTRAL R.R. | COLUMBUS, OHIO |
| PURE OIL CO. | DAYTON, OHIO |
| OHIO OIL CO. | FINDLAY, OHIO |
| NATIONAL GAS & OIL CO. | NEWARK, OHIO |







REF. P.O.T.
STA. 0-106.25




① ② ③ ④ ⑤ TYPICAL SECTION OF ADJOINING PAVEMENT

① T-35 1¼" ASPHALTIC CONCRETE SURFACE COURSE
② B-35 1¼" ASPHALTIC CONCRETE LEVELING COURSE
③ B-35 3" ASPHALTIC CONCRETE BASE COURSE
④ B-20 5" WATERBOUND MACADAM BASE COURSE
⑤ I-22 8" SUBBASE




| | 0-1000 | 0-900 | 0-800 | 0-700 | 0-600 | 0-500 | 0-400 | 0-300 | 0-200 | 0-100 | 0+00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURVEY ℄ | 924.40 | 923.00 | 921.90 | 921.60 | 921.00 | 921.20 | 921.80 | 921.10 | 921.70 | 921.70 | 921.94 |
| | | +70 | | | | | | | | | |
| | | 920.00 | | | | | | | | | |
| | | +54 | | | | | | | | | |
| | | 919.00 | | | | | | | | | |
| | | +47 | | | | | | | | | |
| | | 918.00 | | | | | | | | | |
| | | +40 | | | | | | | | | |
| | | 917.00 | | | | | | | | | |
| | | +33 | | | | | | | | | |
| | | 916.00 | | | | | | | | | |
| | | +26 | | | | | | | | | |
| | | 915.00 | | | | | | | | | |
| | | +19 | | | | | | | | | |
| | | 914.00 | | | | | | | | | |
| | | +11 | | | | | | | | | |
| | | 913.00 | | | | | | | | | |
| | | +4 | | | | | | | | | |
| | | 912.00 | | | | | | | | | |
| | | +14 | | | | | | | | | |
| LT. EDGE OF PAV'T | 927.68 | 927.01 | 926.40 | 925.73 | 925.25 | 924.88 | 924.67 | 924.23 | 924.04 | 923.97 | 923.83 |
| | 0-1000 | 0-900 | 0-800 | 0-700 | 0-600 | 0-500 | 0-400 | 0-300 | 0-200 | 0-100 | 0+00 |

| | 0-1000 | 0-900 | 0-800 | 0-700 | 0-600 | 0-500 | 0-400 | 0-300 | 0-200 | 0-100 | 0+00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURVEY ℄ | 924.40 | 923.00 | 921.90 | 921.60 | 921.00 | 921.20 | 921.80 | 921.10 | 921.70 | 921.70 | 921.94 |
| LT. EDGE OF PAV'T | 927.68 | 927.01 | 926.40 | 925.73 | 925.25 | 924.88 | 924.67 | 924.23 | 924.04 | 923.97 | 923.83 |

| | 0-1000 | 0-900 | 0-800 | 0-700 | 0-600 | 0-500 | 0-400 | 0-300 | 0-200 | 0-100 | 0+00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURVEY ℄ | 921.90 | 920.84 | 921.56 | 922.28 | 923.34 | 923.74 | 923.64 | 923.24 | 919.54 | | |
| LT. EDGE OF PAV'T | 923.88 | 923.84 | 923.87 | 923.95 | 923.96 | 923.83 | 923.67 | 923.25 | 922.87 | 922.90 | |

ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | E-12 Rem. & Reuse 15"ø Under | 3-1 Conc. for Struct. Cl."E" | 15-19 Hand Mixed Base Course | T-35 Asph. Conc. Surface Course | T-30 Bit. Prime Coat | E-2 Excav. for struct. | I-4 Sta. 2-2-8 Catch Basin |
|---|---|---|---|---|---|---|---|---|---|
| | | | Lin.Ft. | Cu.Yds. | Cu.Yds. | Cu.Yds. | Gals. | Cu.Yds. | Each |
| 1-2 | Sta 0-3.40 | Rt. | 30 | | | | | | |
| 1-D: | Sta. 0-42.24 | Lt. | | | 37.8 | | | | |
| 2-D: | Sta. 0-42.24 | Rt. | | | 11.5 | 3.5 | 30 | | |
| 1-55 | Sta. 0-66.0 to 0-15.0 | Rt. | | 0.23 | | | | 1 | 1 |
| TOTAL | | | 30 | 0.23 | 49.3 | 3.5 | 30 | 1 | 1 |

PLAN & PROFILE STA. 0-1000 TO STA. 0+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

24
466

SEE SHEET NO. 369 368 368

Survey E 7
31.27' 33.36'
31.05'
PK. Nail in Edge of pavement

REF. P.O.T.
STA. 2+43.45

PK Nail in Edge of Pavement
33.78'
S 24°42' E 11.55'
Survey E

REF. P.O.T.
STA. 3+61.19

40' Ohio Oil Co.

8" FIELD TILE (Abandon)

Sta. 5+32
Culvt No Lic-161-11.22
Extend Existing 36" Culvt 521
See sheet No 375

4" FIELD TILE TO BE ABANDONED

4" FIELD TILE TO BE ABANDONED

4" FIELD TILE TO BE ABANDONED

Gravel Dr. (Abandon)

Conc. Hd. Wall

6' Temporary Run-Around

D=8°00'

D=8°00'

S75°07'15"E

0 1 2 3 4 5 6 7 8 9 10

+60 +00

6" I-4

Gravel Dr. (Abandon)

Gravel Dr. (Abandon)

Steps Flatwork

12" CMP

24"

36" C.M.P.

15"

19"

20"

2-20"

Dead Tree

Detail 'N'

Sod 6' Wide

Septic Tank

Fr. Barn

2 Sty. Fr. Res.

Shed

Fr. Barn

Feathering

S.L.M. 11.13

BEGIN PROJECT
STA 0+50

I-15 E-8
Gravel & Disposal
Shld. Seam of Exist.
Slope Pvt
Lin. Ft. Sq. Yds

100 400 100

100

ESTIMATED QUANTITIES

| | I-4 | I-5 | E-12 |
|---|---|---|---|
| | 6" Under-drains | 8" Pipe Underdrains | Pipe Cr. Trench 6'-30" under |
| Seeding | | | |
| Sq. Yds. | | | |
| Lin. Ft. | 370 | 10 | 1 |
| Each Lin. Ft. | | 10 | |

T-35
Fertilizer
Cu. Yds.

12.5

38

68

| REF. NO. | STATION TO STATION | SIDE | I-4 | I-5 | E-12 | T-35 | TOTALS |
|---|---|---|---|---|---|---|---|
| | 0+00 - 0+50 | | | | | | |
| 1 | I-4 1+50 to 5+00 | Rt. | 370 | 10 | 1 | 12.5 | 68 370 20 1 38 |
| | I-5 5+15 | Rt. | | 10 | | | |
| 1-R | 3+38 to 4+26 | Rt. | | | | 38 | |
| 2-R | 8+00 to 10+00 | Lt. | | | | | |
| 3-R | 7+00 to 10+00 | Rt. | | | | | |
| 1-D | 8+50 - 9+50 | Rt. | | | | 68 | |

BENCH MARK
Spike in S. side 24" Locust
62' Rt. P.O.T. Sta. 4+75
Elev. - 923.04

923.60 923.76 924.08 924.40 924.72 925.04 925.12 925.18 925.24 925.29 925.34 925.37 925.40 925.42 925.43 925.43 925.43 925.41 925.39 925.36 925.28 925.28 925.08

930 925 920 915

+0.32%
200' V.C.
-0.8%
0.25%
+0.50%
-0.20%
℄ Temporary Runaround
6" I-4
24"
+50 46' Rt.
Rt. 6" I-4 920.67
+00 46' Rt.
Rt. 6" I-4 919.79
+00 80' Rt.
Rt. I-4 Outlet 918.6
Inlet Rt. 916.61
Outlet Rt. 914.39
P.C. STA. 5+00
P.I. STA. 7+00
ELEV. 925.68
P.T. STA. 9+00
400' V.C.

Lt. Edge of Existing Pvt
922.90 923.24 +50 +15 +26 +50 +50 +50 +50 +50 +62 +50 +50 +26 +50

919.5 919.4 919.5 918.9 919.5 920.4 920.6 919.1 919.6 919.3 920.2 920.6 920.3 921.7 922.2 922.1 922.3 922.6 922.9 923.2 923.2 922.8 922.5 921.0 918.1

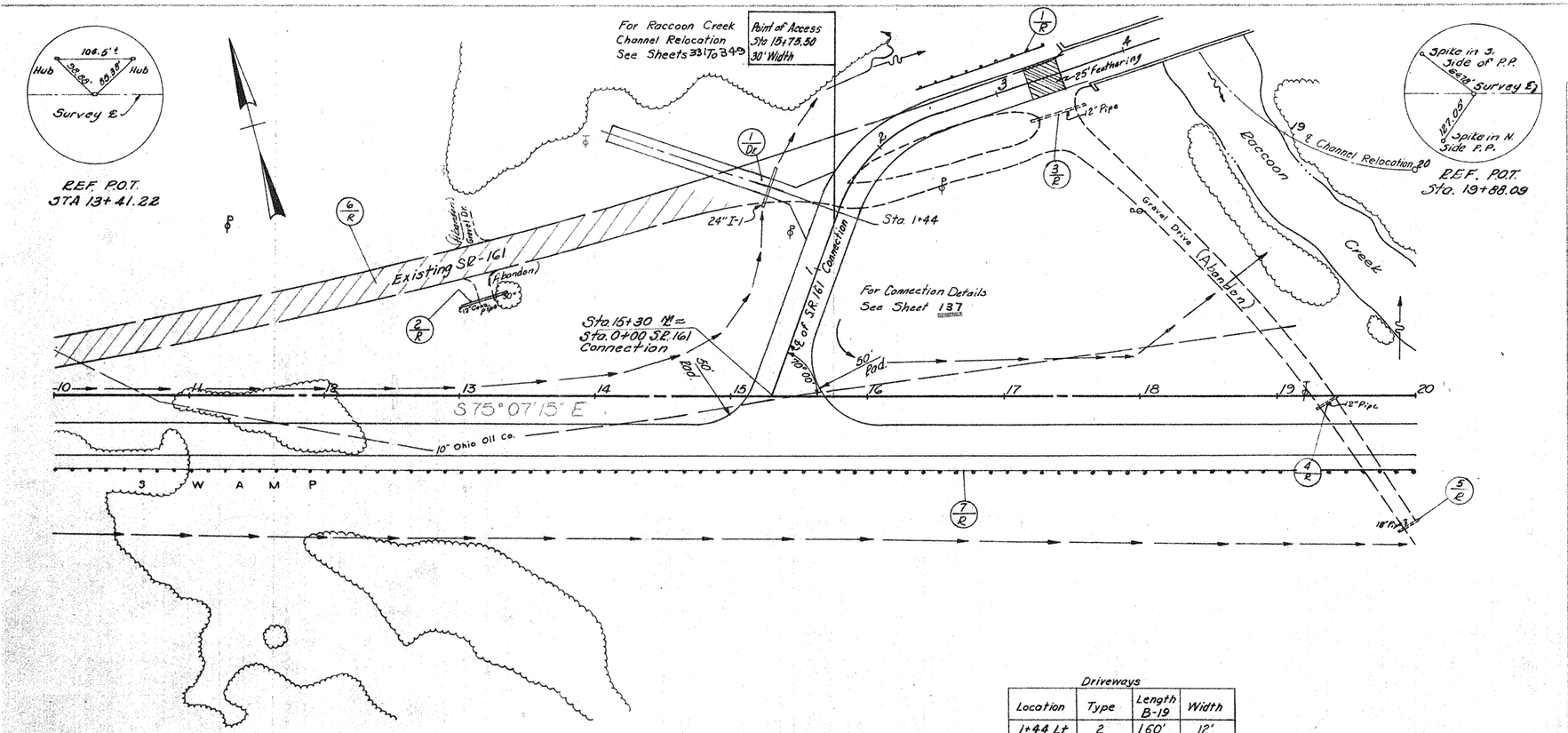
0 1 2 3 4 5 6 7 8 9 10

PLAN & PROFILE STA. 0+00 TO STA. 10+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

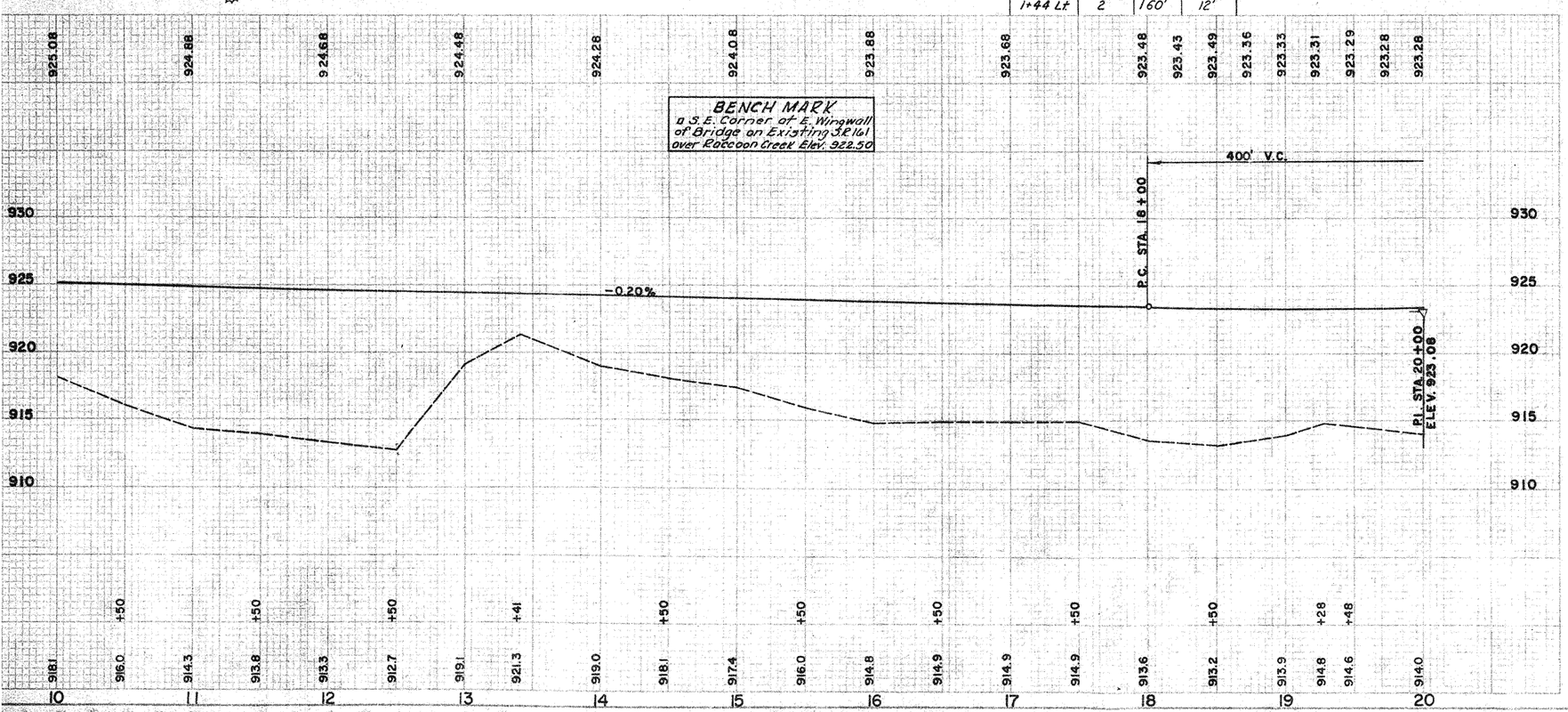
| FEDERAL DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

25
466




Driveways

| Location | Type | Length B-19 | Width |
|---|---|---|---|
| 1+44 Lt | 2 | 160' | 12' |




ESTIMATED QUANTITIES

| REF NO. | STATION TO STATION | SIDE | I-1 24" Pipe for Driveways 6.4(a) Lin. Ft. | B-19 Aggregate Base Course Cu. Yds. | I-15 Guard Rail Steel Beam Deep Lin. Ft. | E-12 Pipe Removal 15" Under Lin. Ft. | E-12 Pipe Removal Over 15" Lin. Ft. | E-8 Removal & Disposal of Exist. Pav't. Sq. Yds. |
|---|---|---|---|---|---|---|---|---|
| 2-R | 13+22 | Lt. | | | | 36 | | |
| 4-R | 19+30 | Rt. | | | | 20' | | |
| 5-R | 19+90 | Rt. | | | | | 24 | |
| 6-R | 10+00 - 15+00 | Lt. | | | | | | 2,000 |
| 7-R | 10+00 - 20+00 | Rt. | | | 1,000 | | | |
| | S.R. 161 Connection | | | | | | | |
| 1-R | 2+45 - 3+45 | Lt. | | | | 100 | | |
| 3-R | 3+25 | Rt. | | | | | 38 | |
| 1-Dr. | 1+44 | Lt. | 32 | 46 | | | | |
| | | | 32 | 46 | 1100 | 94 | 24 | 2,000 |

SEE SHEET NO.

368

PLAN & PROFILE STA. 10+00 TO STA. 2

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. ROAD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

26
466

For Raccoon Creek Channel Relocation See Sheets 331 To 349

℄ of Raccoon Channel Relocation

Survey ℄ — 70.16' Hub — 20.61' Flasher in W. Side 24' Elm 60' N Bank of creek

P.E.F. P.C. STA. 28+36.31

Ohio Oil Co. 10" Line

Sta. 24+00
Culv't No. Lic.-161-1159
124'-42" S-27
See Sheet No. 376

Brush — Raccoon — Trees & Brush — Creek — Trees — Brush

42" S-27

15" — 12" — 12" — 12" — 6-18 — 15" Dead — 2-16" — 3-12" — 2-15" — 4-15" — 2-16" — 12" — 2-18" — 20" — 3-18" — 2-20" — 18" — 12" — 22" — 2-20"

100% State T-70

Trees & Brush — Sod 6' Wide — Sod & Wide — 10" Cottonwood — Type 2 Stream Crossing — 150' Rad. — 30" — 18" — 6" Water Line — Ramp — 3-36"

2000 Rt. Ml. 28+12.82 A.C.
LINE PBS 28+12.82 HOT
P.C. 28+36.30

For Superelevation Tables See Sheet No. 19

Survey Centerline
P.I. Sta. 33+06.45
Δ = 13° 43' 30" Rt.
Dc = 1° 23'
R = 3906.53'
T = 470.15'
L = 935.80'
E = 28.17'

Point of Access
Sta 20+30 Rt.
18' Width

Driveway

| Location | TYPE | Length T-70 7" Thick | Length B-19 | Width |
|---|---|---|---|---|
| 20+30 R.T. | 1 | 102 | 9 | 12' |

BENCH MARK
Spike in N. Side 15" Tree 32' Rt. Sta. 24+54 Elev. 918.35

BENCH MARK
Spike in N. Side 12" Tree 6' Rt. Sta. 28+41 Elev. 913.73

P.T. STA. 22+00
P.I. STA. 23+08
ELEV. 923.08
P.C. STA. 27+00
P.I. STA. 29+00
ELEV. 924.68

+0.20% — −0.20%

400' V.C. — 400' V.C.

Inlet ℄ 903.80
Outlet ℄ 902.60

| 923.28 | 923.28 | 923.29 | 923.31 | 923.33 | 923.36 | 923.39 | 923.43 | 923.48 | 923.68 | 923.88 | 924.08 | 924.28 | 924.48 | 924.53 | 924.57 | 924.60 | 924.63 | 924.65 | 924.67 | 924.68 | 924.68 | 924.67 | 924.65 | 924.63 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| 914.0 | 913.7 | 912.2 | 906.0 | 901.5 | 904.4 | 902.9 | 906.4 | 910.8 | 912.2 | 912.8 | 913.7 | 913.7 | 913.8 | 911.4 | 913.5 | 913.9 | 913.4 | 913.8 | 913.5 | 912.7 | 912.9 | 913.4 | 913.1 | 913.2 | 913.5 | 913.3 | 910.7 | 906.2 | 906.6 | 907.5 | 909.8 | 907.8 | 906.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | +47 | +58 | +65 | +20 | +80 | +31 | +32 | +36 | +50 | +76 | +88 | +08 | +28 | +50 | +75 | | +50 | | | +30 | | +50 | | +50 | | +36 | +60 | +65 | | +28 | +50 | +89 | |

20 21 22 23 24 25 26 27 28 29 30

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | L-10 Sodding Sq. Yds. | T-1 24" Pipe for Driveways 6:4(6) Lin. Ft. | B-19 Aggregate Base Course Cu. Yds. | T-70 Portland Cement Conc. Pav't. Sq. Yds. | T-15 Guard Rail Steel Beam Type Deep 3 Std. Lin. Ft. | T-14 Precast Gutter Std. Type 1 Lin. Ft. | F-10 Dumped Rock Channel Protection Cu. Yds. |
|---|---|---|---|---|---|---|---|---|---|
| 1-Dr | 20+30 | Rt | | 52 | 9 | 189 | | | |
| 1-R | 20+50 - 28+50 | Rt | | | | | 800 | | |
| 1-D | 23+00 - 23+50 | Rt | 34 | | | | | 100 | |
| 2-D | 23+50 - 24+50 | Rt | 34 | | | | | | |
| 3-D | 24+50 - 28+00 | Rt | 235 | | | | | | |
| 4-D | 23+68 | Rt | | | | | | | |
| TOTALS | | | 303 | 52 | 9 | 189 | 800 | 100 | 3.5 |

100% State

368 — 21 — 365

PLAN & PROFILE - STA. 20+30 TO STA. 30

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. ROAD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

27
466

For Raccoon Creek Channel Relocation
See Sheets 331 to 349

℄ of Raccoon Creek Channel Relocation

2000' Rt. ℳ 32+82.97 P.O.S.T.
LINE "R" 32+82.97 P.I.

Survey ℄
Flasher in E. Side 15" Sycamore
Flasher in W. Side 20" Sycamore
Bank of Creek
38.35'

REF. P.I.
STA. 33+06.45

LINE "R"
P.I. Sta. 32+83.75
Δ = 13°43'30" Rt
$D_c$ = 01°28'
$R_c$ = 3906.53'
T = 470.15'
L = 935.80'
E = 28.17'

Flasher in E. Side 15" Sycamore
60.90'
Survey ℄
57.90'
Flasher in E. Side 15" Elm

REF. P.T.
STA. 37+72.11

Sta. 39+00
Culvt No. Lic-161-11.86
220'x84" S-27
See Sheet № 377

S 75° 07' 15" E
S 61° 23' 45" E
S 61° 23' 45" E

LINE "R"

Sod 6' Wide
Raccoon Creek

For Superelevation Tables
See Sheet No 19

Survey Centerline
P.I. Sta 33+06.45
Δ = 13°43'30" Rt.
$D_c$ = 1°23'
R = 3906.53'
T = 470.15'
L = 935.80'
E = 28.17'

2500' Rt. ℳ 37+54.03 P.O.S.T.
LINE "R" 37+18.62 P.T.

P.T. Sta. 37+18.62

BENCH MARK
Spike in S. Side of P.P. 85'
Lt. POC. Sta. 34+50.00
Elev. - 914.81

BENCH MARK
Spike in S. Root of Elm Tree
5' Ft. POC. Sta. 36+90.00
Elev. 910.14

-0.20 %

PT. STA. 31+00
ELEV. 924.48

400' V.C.

Inlet Rl. 903.00
Outlet Rl. 901.50
S-27

924.63 924.60 924.57 924.53 924.48 924.28 924.08 923.88 923.68 923.48 923.28 923.08 922.88 922.68

920 915 910 905 900

30 31 32 33 34 35 36 37 38 39 40

906.3 903.3 904.9 905.3 907.6 908.4 910.8 912.7 913.7 913.8 913.0 913.2 913.3 913.5 913.5 913.4 912.7 912.2 912.2 909.2 905.6 904.2 905.1 905.1 904.4 904.5 905.1 905.4 905.7 906.3 906.0 905.1 903.2 905.8 909.6 909.7 910.6 912.4 913.9 913.8 913.4 913.2 912.8 912.9 912.7 912.9 913.0 912.2 912.2 911.9

ESTIMATED QUANTITIES

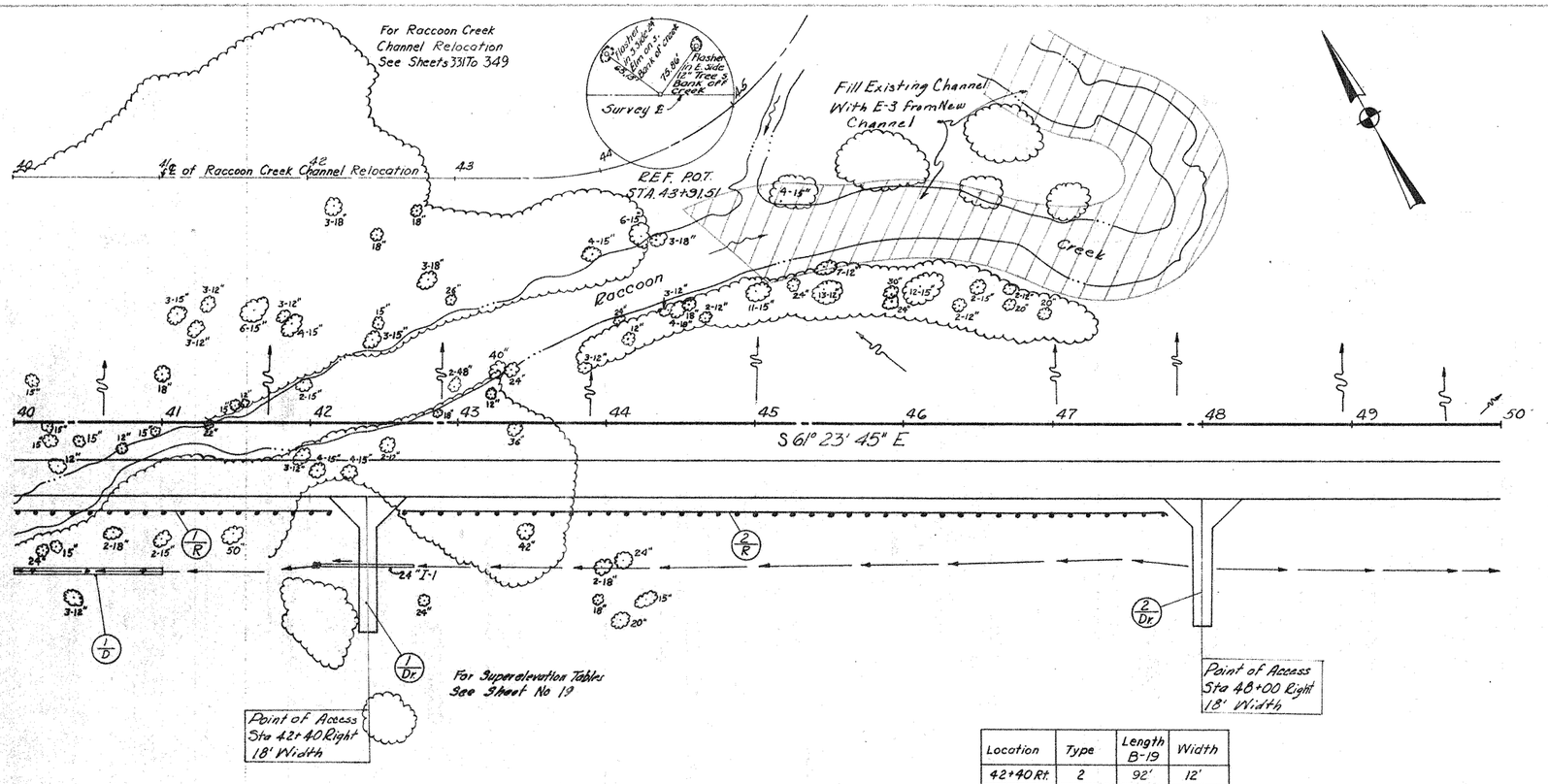
| REF NO | STATION TO STATION | SIDE | L-10 Sodding | F-15 Guard Rail Steel Beam Deep Std. | F-14 Paved Gutter Std. Type I |
|---|---|---|---|---|---|
| | | | Sq. Yds. | Lin. Ft. | Lin. Ft. |
| 1-E | 30+50 – 40+00 | | et. 950 | | |
| 1-D | 31+50 – 33+50 | Rt. | 133 | | |
| 2-D | 39+00 – 40+00 | Rt. | 34 | | 100 |
| | TOTALS | | 167 | 950 | 100 |

PLAN & PROFILE STA. 30+00 TO STA. 40+00

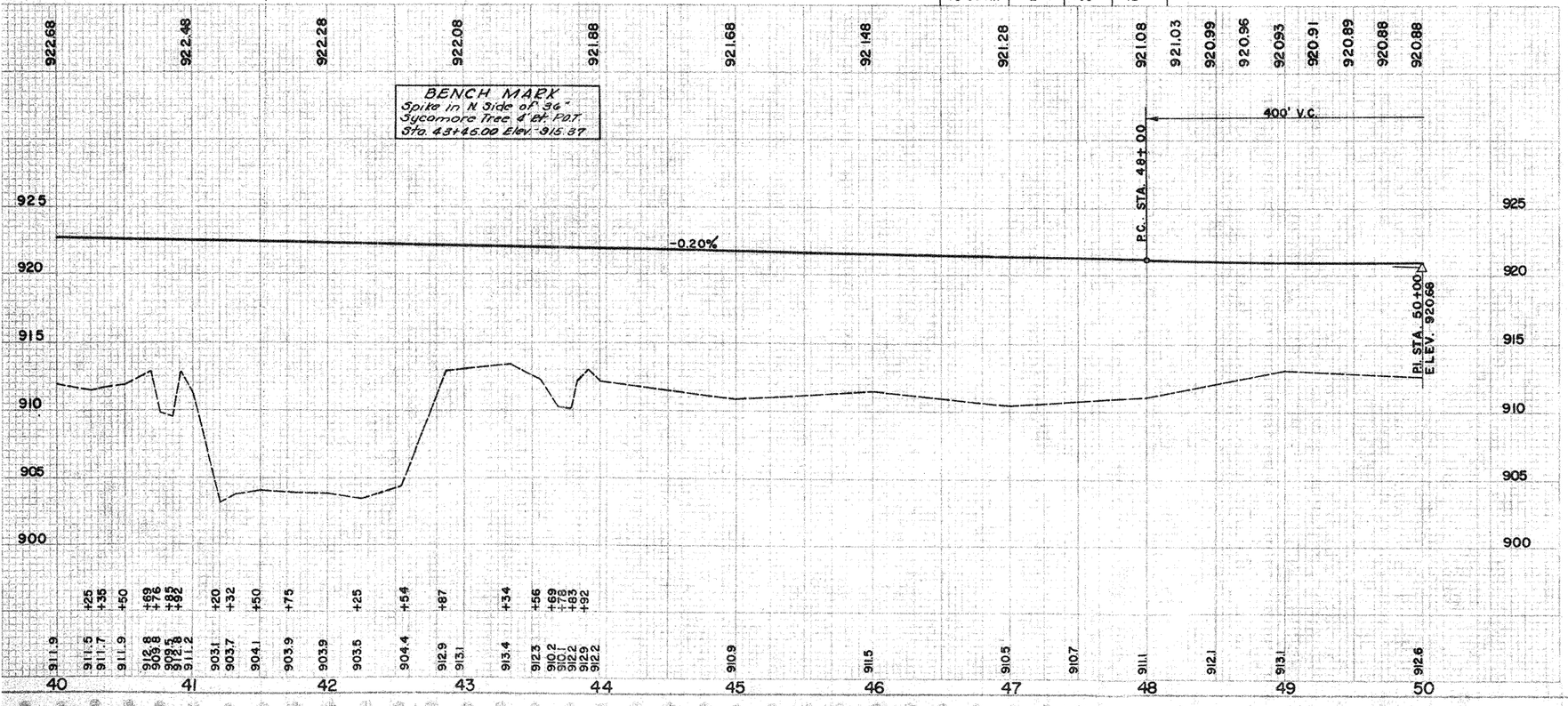
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

28
466




| Location | Type | Length B-19 | Width |
|---|---|---|---|
| 42+40 Rt. | 2 | 92' | 12' |
| 48+00 Rt. | 2 | 86' | 12' |




ESTIMATED QUANTITIES

| REF NO. | STATION TO STATION | SIDE | L-10 Sodding Sq. Yds. | I-1 24" Pipe for Driveways 64(a) Lin. Ft. | B-19 Aggregate Base Course Cu. Yds. | I-15 Guard Rail Steel Beam Post Deep Lin. Ft. | I-10 Quanta Rock Channel Protection Cu. Yds. |
|---|---|---|---|---|---|---|---|
| 1-Dr. | 42+40 | Rt. | | 62 | 2.7 | | 3.5 |
| 2-Dr. | 48+00 | Rt. | | | 2.5 | | |
| 1-P | 40+00 - 42+62.5 | Rt. | | | | 212.5 | |
| 2-P | 42+62.5 - 47+75 | Rt. | | | | 437.5 | |
| 1-D | 40+00 - 41+00 | Rt. | 100 | | | | |
| TOTALS | | | 100 | 62 | 5.2 | 650 | 3.5 |

PLAN & PROFILE STA. 40+00 TO STA. 50+00

LICENSE COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

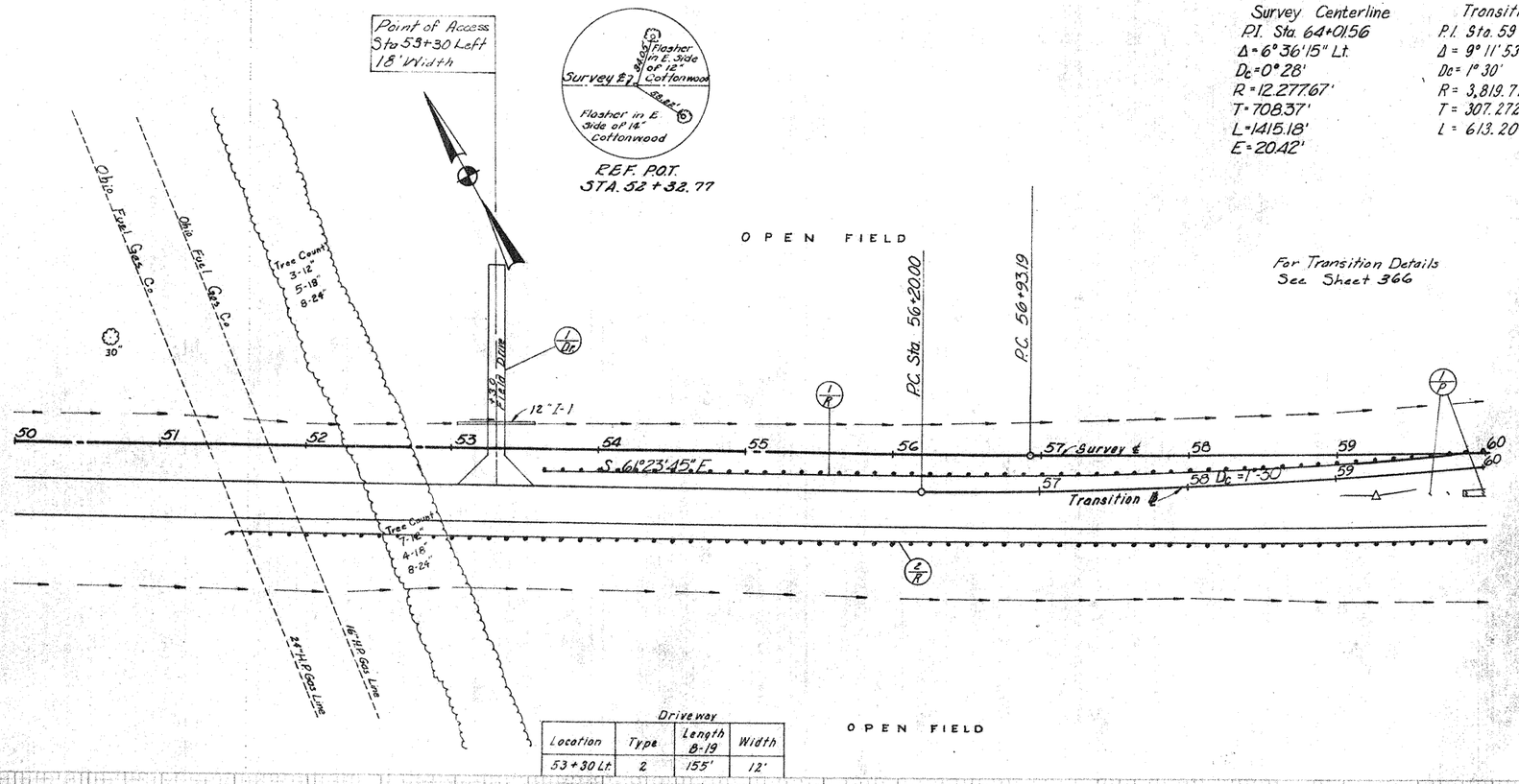
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

29
466

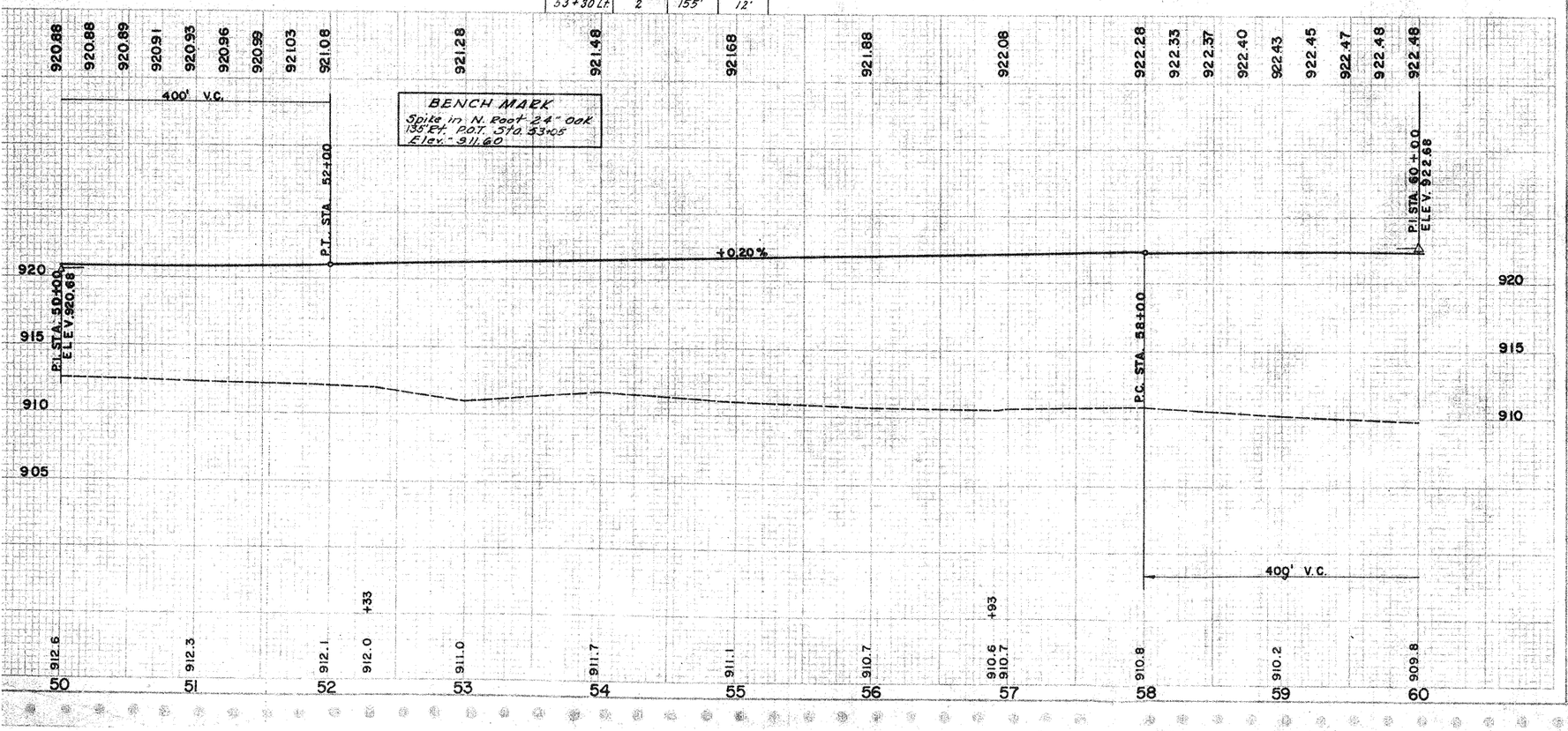
Point of Access
Sta 53+30 Left
18' Width

Survey Centerline
P.I. Sta. 64+01.56
Δ = 6°36'15" Lt.
Dc = 0°28'
R = 12,277.67'
T = 708.37'
L = 1415.18'
E = 20.42'

Transition ℄
P.I. Sta. 59+27.27
Δ = 9°11'53" Lt.
Dc = 1°30'
R = 3,819.719'
T = 307.272'
L = 613.204'




| Location | Type | Length B-19 | Width |
|---|---|---|---|
| 53+30 Lt. | 2 | 155' | 12' |




SEE SHEET NO. 368 366

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | F-1 12" Pipe for Driveways (M-6.4(A)) Lin. Ft. | B-19 Aggregate Base Course Cu. Yds. | F-15 Guard Rail Steel Beam Drop Lin. Ft. | F-23 Precast Conc. Traffic Dividers Each |
|---|---|---|---|---|---|---|
| | | | | | | |
| 1-Dr. | 53+30 | Lt. | 52 | 28.41 | | |
| 1-R | 53+62.5 - 60+00 | Lt. | | | 637.5 | |
| 2-R | 51+50 - 60+00 | Rt. | | | 850 | |
| 1-P | 59+64 - 60+00 | Rt. | | | | 6 |
| TOTALS | | | 52 | 28.41 | 1487.5 | 6 |

PLAN & PROFILE STA. 50+00 TO STA. 60+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| TOTAL SHEETS | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

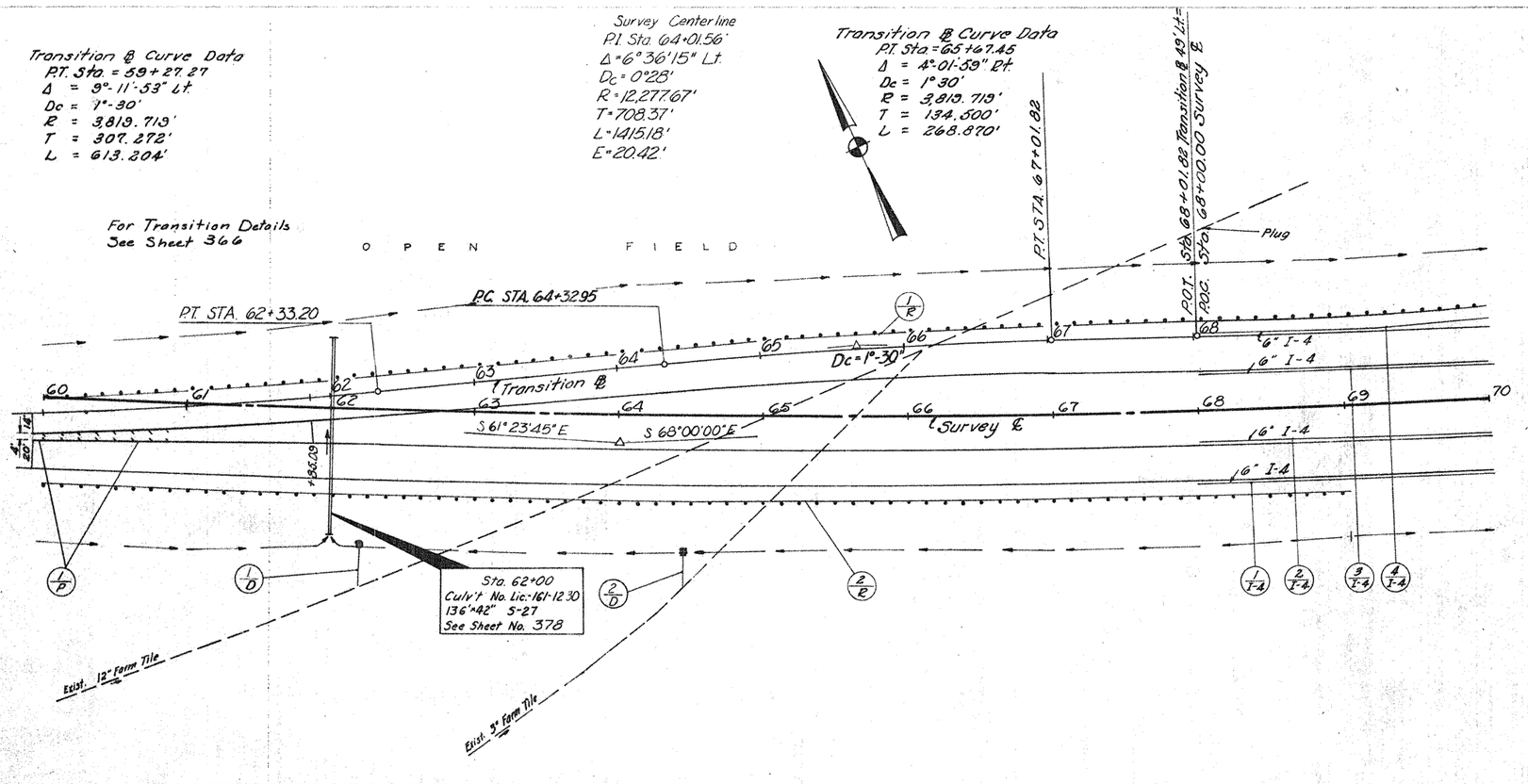
30
466

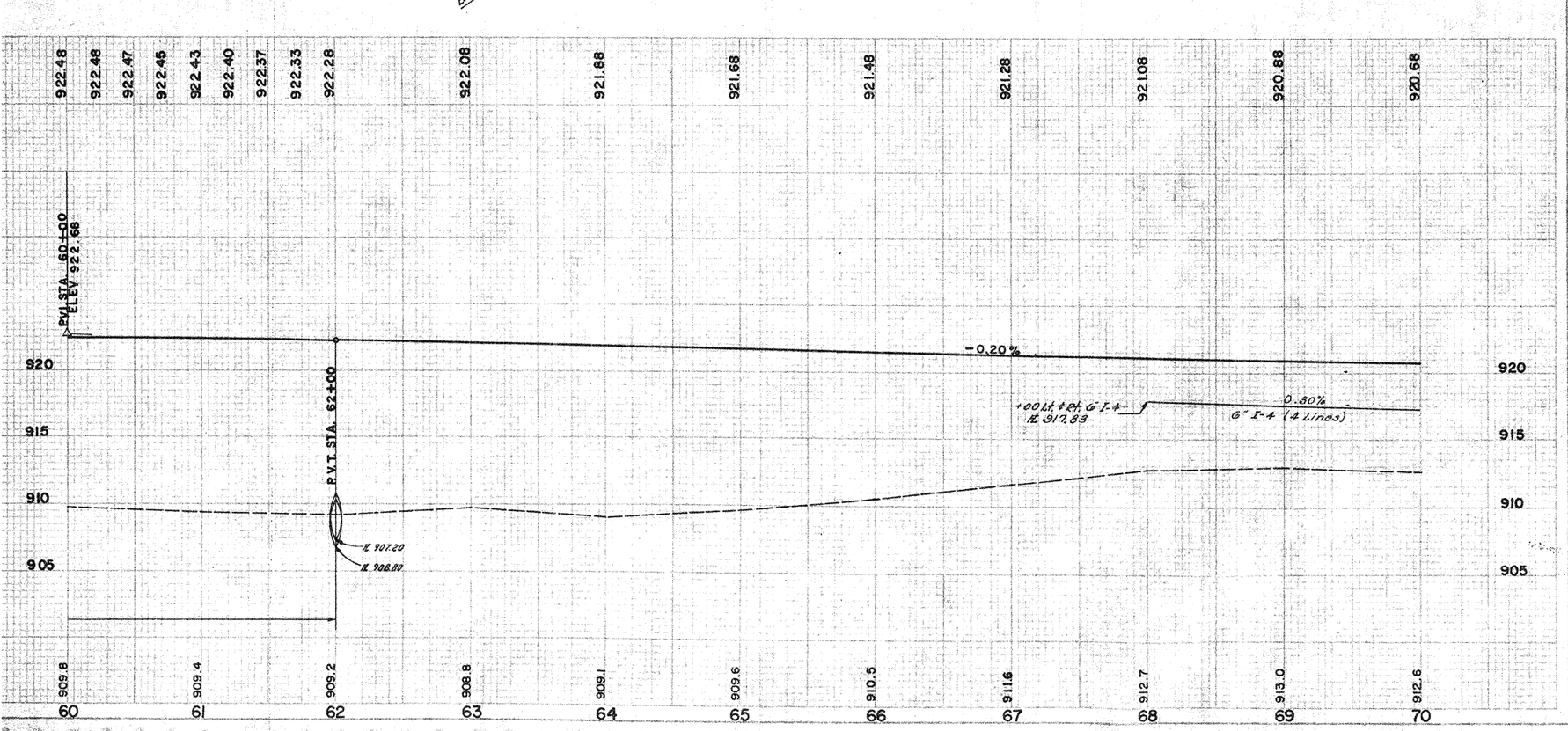
Transition & Curve Data
P.T. Sta. = 59+27.27
Δ = 9°-11'-53" Lt.
Dc = 1°-30'
R = 3819.719'
T = 307.272'
L = 613.204'

Survey Centerline
P.I. Sta. 64+01.56'
Δ = 6°36'15" Lt.
Dc = 0°28'
R = 12,277.67'
T = 708.37'
L = 1415.18'
E = 20.42'

Transition & Curve Data
P.T. Sta. = 65+67.45
Δ = 4°-01-59" Rt.
Dc = 1°30'
R = 3819.719'
T = 134.500'
L = 268.870'

For Transition Details
See Sheet 366




ESTIMATED QUANTITIES

| REF NO. | STATION TO STATION | SIDE | I-4 Under-drain Shallow 6" Lin. Ft. | I-23 Quadrail Precast Steel Beam Concrete Deep Std. Each | I-3 Curb Cuts For Roadway Traffic Drainage Dividers 6" Lin. Ft. | I-3 Roadway Drainage 12" Lin. Ft. | I-3 Roadway Drainage 4" Lin. Ft. | I-5 Pipe Special For Roadway Drainage 12"@ 45° Each | I-5 Each |
|---|---|---|---|---|---|---|---|---|---|
| 1-4 | 63+00 - 70+00 | Rt. | 200 | | | | | | |
| 2-4 | 63+00 - 70+00 | Lt. | 200 | | | | | | |
| 3-4 | 63+00 - 70+00 | Lt. | 200 | | | | | | |
| 4-4 | 63+00 - 70+00 | Lt. | 200 | | | | | | |
| 1-2 | 60+00 - 70+00 | Lt. | | | | 1000 | | | |
| 2-2 | 60+00 - 69+00 | Rt. | | | | 900 | | | |
| 1-D | 62+21 | Rt. | | | 10 | 12 | 10 | 1 | 1 |
| 2-D | 64+46 | Rt. | | | 10 | | | | |
| 1-P | 60+00 - 60+84 | Rt. | | 14 | | | | | |
| TOTALS | | | 800 | 1900 | 14 | 10 | 10 | 12 | 1 |

I-10 Dumped Rock Channel Protection Cu Yds. 2

366

PLAN & PROFILE STA. 60+00 TO STA. 70+00

P.I. Sta. 64+01.56
Δ = 6°36'15" Lt.
Dc = 0°28'
R = 12,277.67'
T = 708.37'
L = 1415.18'
E = 20.42'

Type 2 Stream Crossing
Sta. 71+31
Culvert No. LIC 161 1247
182'x106'x68" S-27
See Sheet No. 379

P.T. 71+08.37

Survey Ø7
40.16' to Hub
42.24' to Hub

P.E.F. P.O.T.
Sta. 71+17.78

Sta. 76+50
Culvert No. Lic.-161-1257
214'x24" S-27
See Sheet #77

For Ramp 'A' S.R.16 Interchange
See Sheets 154 to 167

Raccoon Creek

Ramp "A"

Detail 'W'

Detail 'B'

OPEN FIELD

S. 68°00'00" E

Ramp "C"

N°8 Top

Sod 6' Wide

Type 2 Stream Crossing

RECONST.

For Ramp 'C' S.R.16 Interchange
See Sheets 168 to 172

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| DIST. | STATE | | | |
|---|---|---|---|---|
| 2 | OHIO | | | |

31
466

ESTIMATED QUANTITIES

| REF NO | SIDE | STATION TO STATION | I-10 Dumped Rock Channel Protection Cu Yds. | I-14 Std. Type I Paved Gutter Lin. Ft. | S-25 4" Asbestos Cement Conduit AS 1 Plan Underdrains M 206.14 Lin. Ft. | I-4 8" Pipe Outlets For Underdrains Lin. Ft. | I-4 6" Underdrains Shallow Lin. Ft. | I-5 Pipe Special for Underdrains 6"90 6"60 | SEE SHEET NO |
|---|---|---|---|---|---|---|---|---|---|
| 1-F-4 | Lt. | 70+00 - 72+20 | | | | 10 | 222 | | 369 |
| 2-F-4 | Lt.Rt. | 70+00 - 72+25 | | | | 20 | 444 | | 367 |
| 3-F-4 | Rt. | 70+00 - 78+00 | | | | | 800 | 2 | |
| 4-F-4 | Lt. | 72+30 - 77+00 | | | | | 470 | | |
| 5-F-4 | Lt.Rt. | 72+30 - 79+75 | | | | 20 | 1284 | 2 | 367 |
| 6-F-4 | Lt. | 77+90 - 79+85 | | | | 10 | 216 | 1 | 369 |
| 7-F-4 | Rt. | 78+40 - 80+00 | | | | | 160 | | |
| 8-F-4 | Lt.Rt. | 79+85 - 80+00 | | | | | 30 | | |
| 9-F-4 | Lt. | 79+95 - 80+00 | | | | | 5 | | |
| 1-MD | Lt. | 72+25 - 80+00 | | 29.5 | 52 | | | | 369 |
| 2-MD | Lt. | 79+75 - 80+00 | | 51.5 | 54 | | | | 369 |
| 1-R | Lt. | 70+00 - 77+00 | 14 | | | | | | 373 |
| 2-R | Lt. | 75+00 | 12 | | | | | | 373 |
| 3-R | Rt. | 75+00 | | | | | | | |
| 4-R | Rt. | 70+87.5 - 71+87.5 | | | | | | | |
| 1-D | Rt. | 72+00 - 72+00 | | | | | | | |
| 2-D | Rt. | 71+00 - 71+29.5 | | | | | | | |
| 3-D | Rt. | 71+48.5 - 72+00 | | | | | | | |
| 4-D | Lt. | 71+18 | | | | | | | |
| 5-D | Rt. | 71+69 | | | | | | | |
| 6-D | Rt. | 79+40 - 78+00 | | | | | | | |
| Sub Total | | | 26 | 81 | 106 | 60 | 3631 | 6 | |
| TOTALS | | | 285 | 800 | 0.46 | 40 | 190 | 2 | |

| REF NO | SIDE | STATION TO STATION | I-15 Guard Rail Steel Beam Sealing Deep Std. Lin. Ft. | S-1 Concrete for Structures Class "E" Cu Yds. | I-14 Std. Paved Gutter Mod. As / Plan 1778.1 Lin. Ft. | I-2 SS Under Pipe Backfill M6.8.0.3 12" Lin. Ft. | I-8 Excavation Std. C.B. No. 2 Structures 2-2-4 Each | E-2 Excavation for Structures Cu Yds. |
|---|---|---|---|---|---|---|---|---|
| 1-F-4 | Lt. | 70+00 - 72+20 | | | | | | |
| 2-F-4 | Lt.Rt. | 70+00 - 72+25 | | 0.23 | 20 | 92 | 1 | 1 |
| 3-F-4 | Rt. | 70+00 - 78+00 | | 0.23 | 20 | 96 | 1 | 1 |
| 4-F-4 | Lt. | 72+30 - 77+00 | | | | | | |
| 5-F-4 | Lt.Rt. | 72+30 - 79+75 | 700 | | | | | |
| 6-F-4 | Lt. | 77+90 - 79+85 | | | | | | |
| 7-F-4 | Rt. | 78+40 - 80+00 | | | | | | |
| 8-F-4 | Lt.Rt. | 79+85 - 80+00 | | | | | | |
| 9-F-4 | Lt. | 79+95 - 80+00 | | | | | | |
| 1-MD | Lt. | 72+25 - 80+00 | 100 | | | | | |
| 2-MD | Lt. | 79+75 - 80+00 | | | | | | |
| 1-R | Lt. | 70+00 - 77+00 | 134 | | | | | |
| 2-R | Lt. | 75+00 | 15 | | | | | |
| 3-R | Rt. | 75+00 | 18 | | | | | |
| 4-R | Rt. | 70+87.5 - 71+87.5 | | | | | | |
| 1-D | Rt. | 72+00 - 72+00 | 107 | | | | | |
| 2-D | Rt. | 71+00 - 71+29.5 | | | | | | |
| 3-D | Rt. | 71+48.5 - 72+00 | | | | | | |
| 4-D | Lt. | 71+18 | | | | | | |
| 5-D | Rt. | 71+69 | | | | | | |
| 6-D | Rt. | 79+40 - 78+00 | | | | | | |
| Sub Total | | | 1074 | 0.46 | 40 | 188 | 2 | 2 |
| TOTALS | | | 1074 | 0.46 | 800 | 285 | 2 | 2 |

BENCH MARK
Spike in SW. Side Cottonwood 5' Lt. P.O.T. Sta. 71+24.00
Elev. - 908.85

BENCH MARK
Spike in N. Root Triple Ash on ℄ P.O.T. Sta. 79+57.00
Elev. - 914.61

℄ Sta. 72+25
Std. 2-2-A C.B.
Rt. Window 916.93
Rt. 12" I-2 914.43
Rt. I-4 Outlet 914.76

+30 Rt & Lt. 6" I-4 Inside Rt. 916.97

+20 Lt. Ramp 'A' 6" I-4 Rt. 916.57

+10, 23' Lt & Rt. 6" I-4 Rt. 916.60

+30 Lt. Ramp "A" 6" I-4, Rt. 916.79

-0.30% 6" I-4, 2 Lines Rt & Lt. Inside

6" I-4 Rt. Outside Line

-0.30%

-0.20%

6" I-4 Lt. Ramp 'A' 0.30%

+90 Lt. Outside 6" I-4 Rt. 915.85

+40 Rt. Outside 6" I-4 Rt. 915.75

℄ Sta. 79+75
Std. 2-2-A C.B.
Rt. Window 915.42
Rt. 12" I-2 912.92
Rt. I-4 Outlet 913.25

+85 Lt. Outside 6" I-4 Rt. 915.26

+85 Lt & Rt. Inside 6" I-4 Rt. 915.46

+85 85' Lt. I-4 Outlet Rt. 914.00

+95 Lt. Outside 6" I-4 Rt. 915.44

+00 Lt. Ramp 'A' 6" I-4 Rt. 915.36

Inlet F.L. 910.80

See Ramp 'A' for Continuation

Outlet F.L. Lt. 907.60

+00 Rt. Outside Ramp "C" Rt. 914.83
See Ramp "C" for Continuation

+60 Rt & Lt. Inside 6" I-4 Rt. 915.08

92' Lt. Sta. 72+25
Std. P.C.-4 Endwall
Rt. 12" I-2 910.00

+20, 82' Lt. I-4 Outlet Rt. 915.00

Outlet Rt. 905.29 S-27

Inlet Rt. 905.84 S-27

94' Lt. 80+00
Std. P.C.-4 Endwall
Rt. 12" I-2 912.00

PLAN & PROFILE STA. 70+00 TO STA. 80+00

LICKING COUNTY
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| FED. ROAD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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466

For Ramp 'B' S.R.16 Interchange See Sheets 154 to 167

For Ramp 'C' S.R.16 Interchange See Sheets 168 to 172

For Ramp 'D' S.R.16 Interchange See Sheets 173 to 177

Proposed Structure Data On S.R.16 See Sheet No 143

Sta. 88+50 Culvt No LIC-161-1280 206'-8"-10"×5'-8" S.27 See Sheet No 380

P.O.T. Sta. 748+44.10 S.R. 16 = P.O.T. Sta. 87+25.94 Expressway

P.O.T. Sta. 87+00 Ramp "B"

P.O.T. Sta. 84+45.00

R.E.F. P.O.T. STA. 86+83.84

Survey ℄ — Hub — 71.71' — 62.43' — 110°00' — Hub

Abandon

LESTER FOSTER

Wood Post

9" Sanitary Ln.

Conc. Block

Well & Box

Drive Inn Restaurant

Metal Sign

Trailer

Cable Base for Light Str'd.

1000 Gal. Septic Tank

1250 Gal. Septic Tank

Hydraulic Lift Bldg.

Concrete Slang

Quarry Rock

Detail "H"

Detail "N"

Detail "F"

Detail "B"

Detail "L"

Wood Post

Tree

Ohio Fuel Gas Co.

Conc. Block House Ohio Fuel Gas Co.

Gas Line Marker

Gas Marker

Gas Meter

Gas Meters

R.W. Mon.

Exist. Conc. Appr.

Exist. Twp. Rd. 131

Conc. Hd. Wall

C.M.P.

Underground Storage Tanks

Vent Pipe

Loading Dock

Story Frame Storage Bldg.

H.P. Gas Line

3 rail wood fence

Ramp "C"

Ramp "D"

Exist. S.R. 16

Proj. Sta. 87+00 Ramp "B"

Exist. S.R. 16 Sta. 87+85.94

Proj. Sta. 84+45.00

Sta. 83+69.47

C.S. Sta. 82+45.00

4" P Gas Line

Ramp "B"

For Quantities See Ramp "B"

Fill

Cut

5 3/16"

S 68°00'00" E

71°39'20"

380 N 40°20'40" E, 751

748

247

246

S 83°38'30" E

Detail "N"

Detail "L"

Detail "F"

Detail "B"

Detail "H"

Wood Post

18" Stump

32" Stump

Trailer

Trailer 10-1250 Gal. Septic Tank

1000 Gal Gas Tanks

Concrete Slang

Hydraulic Lift Bldg.

Cable Base for Light Str'd.

Quarry Rock

Abandon

Trailer

Trailer

Trailer

LICKING COUNTY
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| FED. ROAD DIVISION | STATE | PROJECT | | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 2 | OHIO | | | 33 | 466 |

For Twp. Rd. 131
See Sheets 235 to 245

REF. POT.
STA. 92+38.27

Note: For Relocated Water Line Details See Sheets 139-A & 139-B

For Ramp "D" S.R.16 Interchange See Sheets 173 to 177

Detail "N" · Detail "B" · Detail "B"

Sta. 93+56.92 & S.R. 16
Sta. 71+22.30 & TWP. RD. 131

Ramp "D" · Ramp "D"

Ex. Sta. 95+08.92 Ramp D
Ex. Sta. 95+08.92 Survey ℄

Existing Twp. Rd. 131 · Hedge · Gas Line · Gas Meter · Oil Marker · Rel. Valve · 10" Ohio Oil Co. · 11-4 Rail wood fence · Gravel · Shed · 1 Story Frame · 2 Story Frame Res. · Wall · Wood Post · Wood Stake · Fence · Frame Garage · Septic Tank · Well · 2 Water Valves · 14" Stump · Woods · 8-24" Trees · Creek · Pool · Recondit. Ntaj · RIP-RAP brkwtr

6" I-4 · 6" I-4 MG.4(h) · 6" I-4 (4 Lines) · 6" I-4 (3 Line)

+0.80 %

+45 6" I-4 (4 Lines) El. 920.39
+00 6" I-4 (4 Lines) El. 918.43
+65 Rt. Outside 6" I-4 El. 919.80
87' Lt. Sta. 92+50 Std. PC.-4 Endwall El. 30" I-2 914.58
+65 Lt. Outside 6" I-4 El. 920.47
+56.80' Lt. I-4 Outlet El. 919.00
+65 Lt. & Rt. Inside 6" I-4 El. 920.55
+50 Rt. Outside 6" I-4 El. 923.44
+00 Rt. Outside Start 6" I-4 (M.G.4(h)) El. 924.34
+50 Rt. Inside 6" I-4 El. 924.43
+50 Rt. Outside 6" I-4 (M.G.4(h)) El. 926.34
+00 Rt. Outside 6" I-4 (M.G.4(h)) El. 926.68
+00 Lt. (2 Lines) 6" I-4 El. 926.43

Lt. Sta. 92+50 Std. No. 8 C.B. Rt. Grate 920.59 Rt. 30" I-2 916.44 Rt. I-4 Outlet 917.27
Rt. Sta. 92+55 Ramp "D" Std. No. 8 C.B. Rt. Grate 920.91 Rt. 30" I-2 917.00 Rt. I-4 Outlet 918.33

+09.47
9[illegible]8.93
918.48

| | 921.68 | 922.48 | 923.28 | 924.08 | 924.88 | 925.68 | 926.48 | 927.28 | 928.08 | 928.88 | 929.68 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 935 | 930 | 925 | 920 | 915 | 910 | | | | | |

| | 90 | | 91 | | 92 | | 93 | | 94 | | 95 | | 96 | | 97 | | 98 | | 99 | | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 916.6 | 916.0 | 917.2 | 919.9 | 919.9 | 920.6 | 920.6 | 920.7 | 921.2 | 922.8 | 921.9 | 921.9 | 922.5 | 922.6 | 922.3 | 921.7 | 921.3 | 918.8 | 918.5 | 918.3 | 917.7 |
| | +50 | +63 | +70 | +79 | | +38 | +50 | | +33 | +50 | +66 | +78 | | +14 | +29 | +50 | +62 | | | | |
| | | | | | | | | | | | | | | | | | | +94 | +02 | +05 | +22 |
| | | | | | | | | | | | | | | | | | | | | | |
| | 918.3 | 918.5 | 920.1 | 922.1 | 923.7 | 924.2 | 924.4 | 924.2 | 925.7 | 926.7 | 927.6 | 929.3 | 931.0 | 933.2 | 933.2 | 936.5 | | | | | |
| | +23 | +50 | +81 | | | +36 | +50 | | +21 | +50 | +82 | | +21 | +50 | +72 | | | | | | |

ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | E-2 Excavation for Structures Cu. Yds. | I-8 Std. No. 8 Catch Basin Each | I-2 55 under Pay Item 6" Topsoil & Seeding (M.6.0) 30" Sq. Yds. | I-10 Class "B" Plain Concrete for Structures Cu. Yds. | S-1 Class "B" Bonded Concrete for Structures Protection (M.6.1) Cu. Yds. | I-10 Bonded Back Channel Protection (M.6.1) Lin. Ft. | I-4 6" Pipe Outlet for Underdrain Structures Lin. Ft. | I-4 6" Underdrains Skeleton (M.6.4) Lin. Ft. | I-5 Spc. Specials for Underdrains 6"&6"-90° Lin. Ft. | Each |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-I-4 | 90+00 ~ 92+45 | Lt. | | | | | | | | 490 | | |
| 2-I-4 | 90+00 ~ 92+45 | Rt. | | | | | | | | 490 | | |
| 3-I-4 | 92+35 ~ 100+00 | Lt. | | | | | | | 10 | 760 | | 1 |
| 4-I-4 | 92+50 ~ 100+00 | Lt. | | | | | | | 10 | 746 | | 1 |
| 5-I-4 | 92+50 ~ 97+50 | Rt. | | | | | | | 10 | 496 | | 1 |
| 6-I-4 | 92+65 ~ 100+00 | Rt. | | | | | | | 10 | 438 | 300 | 1 |
| I-55 | 92+50 | Lt/Rt. | 1 | 2 | 180 | 12 | 0.51 | 9 | | | | |
| I-2 | 99+00 ~ 100+00 | Lt. | | | | | | | | | | |
| 2-R | 91+30 Twp Rd 131 | Lt. | | | | | | | | | | |
| Subtotal | | | 1 | 2 | 180 | 12 | 0.51 | 9 | 40 | 3420 | 300 | 4 |
| TOTALS | | | 1 | 2 | 190 | 12 | 0.51 | 9 | 40 | 3420 | 300 | 4 |

SEE SHEET NO.: 369, 367, 367, 367, 373

I-16 Special Drilled Steel Beam Abutment Piling Lin. Ft. Each: 100, 1, 100, 1

PLAN & PROFILE STA. 90+00 TO STA. 100+00

LICKING COUNTY
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| SHEET NO. | STATE | | | |
|---|---|---|---|---|
| 2 | OHIO | | | |

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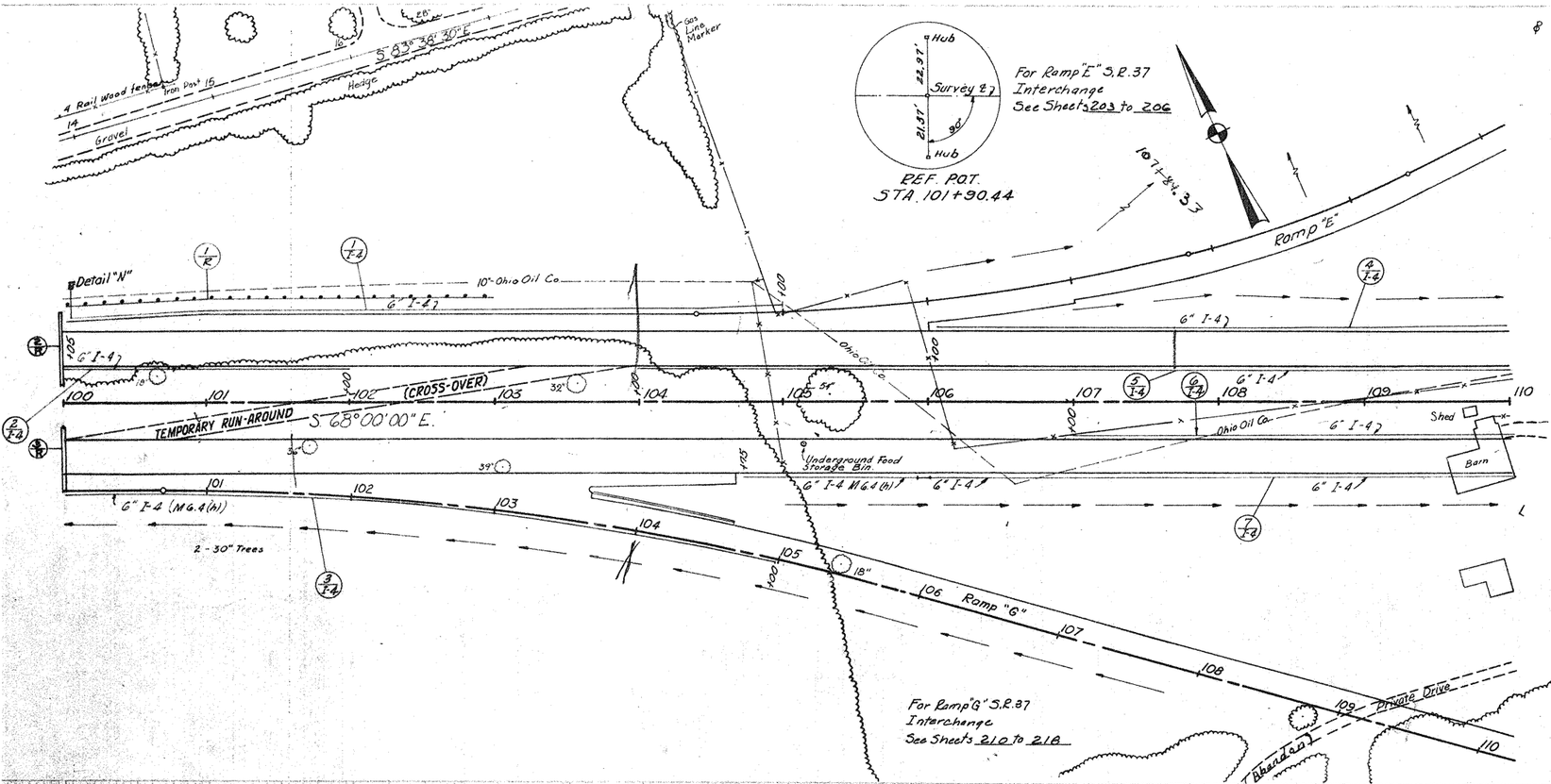
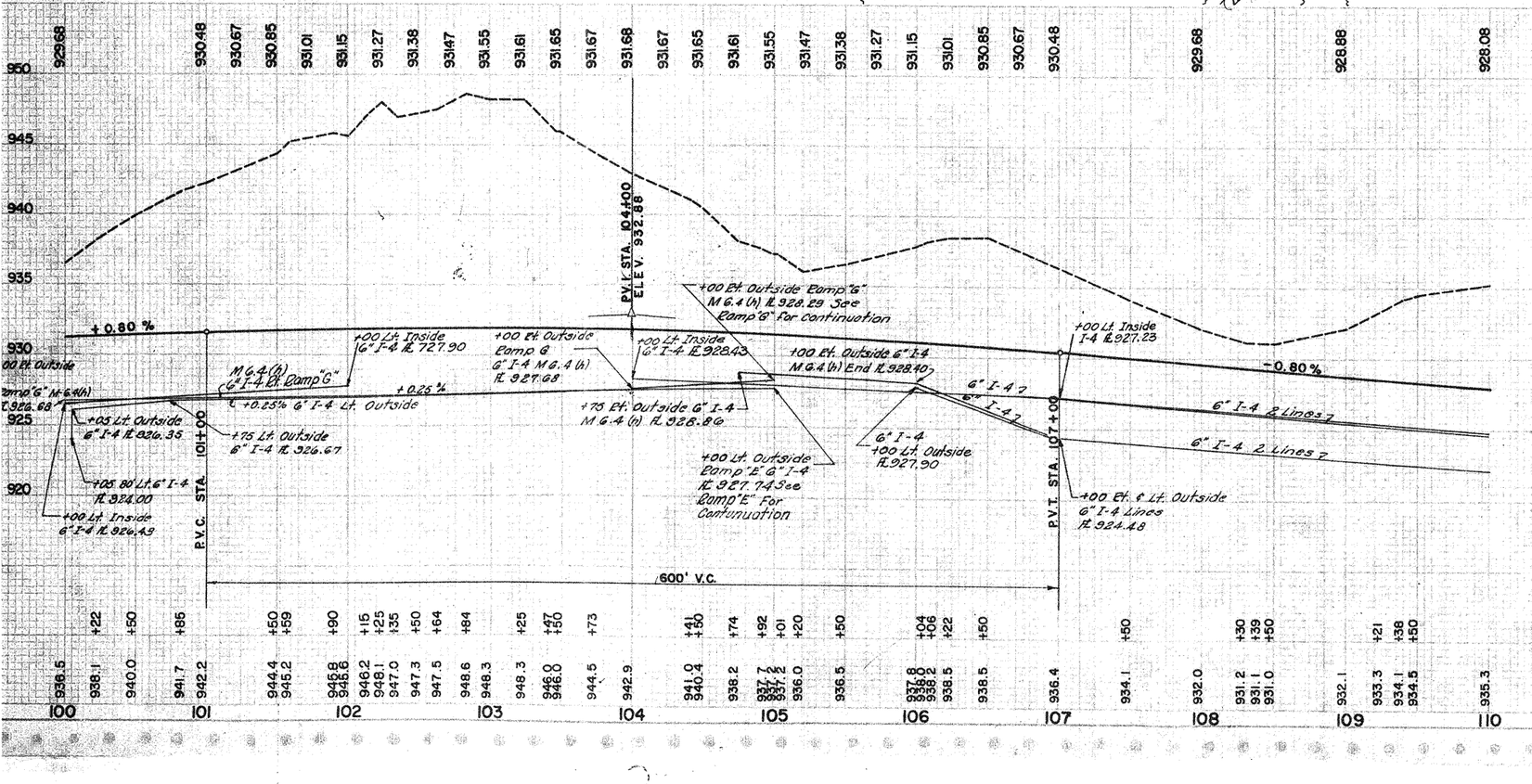
466




ESTIMATED QUANTITIES

| SEE SHEET NO | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | | | |
|---|---|---|---|
| 2 | OHIO | | |

35/466

For Trip. Rd. 131
See Sheets 246 to 253

For Ramp "F" S.R.37
Interchange
See Sheets 208 to 209

REF. POT.
STA. 111+93.20

Survey ℄

For Ramp "H" S.R.37
Interchange
See Sheets 219 to 225

For Superelevation Tables
See Sheet No 19

Sta. 111+63.93 ℄ S.R.16
Sta. 370+32.54 Reloc. S.R.37

Proposed Structure Data On S.R. 37 See Sheet No 191

S. 68°00'00" E.

105°02'20"

Ramp "F"

Ramp "H"

Twp. Rd. 131

Detail "B"

Detail "C"

Ohio Oil Co.

Gas Meter

2 Story Frame Res.

1 Story Frame Res.

Frame Garage

Shed

Septic Tank

2" M.P. Gas Line

Under 69.5 kv

Grave

Good Fair

Sta. 111+24.3

109+47 2-2A NEW #8

Route Twp. (Gravel) Abandoned

BENCH MARK
Spike in Power Pole 63.4' Lt. Pat. Sta. 111+03.6 Elev. 930.72

Sta. 110+75 ℄
Std. 2-2-A C.B.
℄ Window 924.06
℄ 12" I-2 921.50
℄ I-4 921.83

+45 Lt. Inside 6" I-4 ℄ 924.47

+60 Lt. Inside 6" I-4 ℄ 921.89

+00 Lt. Rt. Outside 6" I-4 ℄ 922.09

+45 Lt. Outside 6" I-4 ℄ 921.97

43' Lt. Sta. 110+74 Ramp "E"
Std. P.C.-4 Endwall
℄ 12" I-2 920.85

6" I-4 2 Lines (Inside)

6" I-4 2 Lines (Outside)

-0.80%

Sta. 117+00 71' Lt.
Std. No. 8 C.B.
℄ Window 920.00
℄ 24" I-2 913.40
℄ 18" I-2 913.90
℄ I-4 914.73

Sta. 117+00 ℄
Std. No. 8 C.B.
℄ Window 919.23
℄ 24" I-2 913.19
℄ I-4 914.52

Sta. 118+40 56' Lt
Std. No. 6 C.B.
℄ Window 920.91
℄ 12" I-2 916.91

Sta. 118+40 14' Rt.
Std. No. 1 M.H.
Elev. Grate 920.77
℄ 36" I-2 911.77
℄ 12" I-2 913.77
℄ 24" I-2 912.77
℄ I-4, 914.10

+18 Rt. Inside 6" I-4 ℄ 918.29

42' Rt. Sta. 118+15 Ramp "H"
Std. P.C.-4 Endwall
℄ 24" I-2 923.00

23' Lt. Sta. 32+00 TWP. Rd. 131
Std. P.C.-4 Endwall
℄ 18" I-2, 914.50

+85 Lt. Inside 6" I-4 ℄ 919.35

+86 Lt. Outside 6" I-4 ℄ 916.59

+00 Lt. Ramp "F" 6" I-4 ℄ 915.34

+14 Lt. Outside 6" I-4 ℄ 916.08

+0.5 Lt. Inside 6" I-4 ℄ 919.25

6" I-4 2 Lines (Inside)

+18 Rt. Outside 6" I-4 ℄ 915.64

24" @ 0.30%

36" @ 0.91%

+40 Lt. Outside 6" I-4 ℄ 916.16

+19 Lt. Inside 6" I-4 ℄ 919.28

+45 Rt. & Lt. Inside 6" I-4 ℄ 918.07
6" I-4 2 Lines (Inside)

+45 Rt. Outside 6" I-4 ℄ 915.32

ESTIMATED QUANTITIES

| SIDE | STATION TO STATION | F-2 Excavation for Structures Cu Yds | I-8 Std. No. 6 C.B. Each | I-8 Std. No. 8 C.B. Each | I-8 Std. No. 8 Manhole Each | I-8 Std. 2-2-A C.B. Each | I-8 Std. 2-2-4 Curb Basin Each | L-10 Seeding Sq Yds | I-5 Special Guard Rail Drilled Posts Each | I-15 Guard Rail Steel Beam W-Beam Approach (Barrier) Lin. Ft. | I-15 Concrete for Steel Beam Rail Approach (Barrier) Lin. Ft. | S-1 Std. Type Concrete for Bridge Parapet, Headwalls, Curbs, Wing Walls etc. (Plain Class "C") Cu Yds | F-14 Std. Type Outlets for Bridge Underdrains Lin. Ft. | F-4 8" Shallow Underdrains Lin. Ft. | F-4 6" Underdrains Lin. Ft. | STORM SEWERS (UNDERSTRUCTURE) M1.3(6)=MC810 M1.3(12)=MC1215 M1.3(24)=MC2430 | STORM SEWERS (UNDERSTRUCTURE) M2.4(6)=MC810 M2.4(12)=MC1215 M2.4(24)=MC2430 | I-2 U/D Pipe Sewers Cl. C (Std.) for Underdrains 4" & 6" | I-2 U/D Pipe Sewers Cl. C (Std.) for Underdrains 8" & 10" | I-2 U/D Pipe Sewers Cl. C (Std.) 12" | I-2 U/D Pipe Sewers Cl. C (Std.) 18" | I-2 U/D Pipe Sewers Cl. C (Std.) 24" | T-5 Pipe Sewers Cl. C (Std.) 12" | T-5 Pipe Sewers Cl. C (Std.) 18" | T-5 Pipe Sewers Cl. C (Std.) 24" | T-5 Pipe Sewers Cl. C (Std.) 36" | T-5 Pipe Sewers Cl. C (Std.) 60" | T-5 Pipe Sewers Cl. C (Std.) 72" | T-5 Pipe Sewers Cl. C (Std.) 24" | T-5 Pipe Sewers Cl. C (Std.) 36" | T-5 Pipe Sewers Cl. C (Std.) 60" | T-5 Pipe Sewers Cl. C (Std.) 72" | T-5 Pipe Sewers Cl. C (Std.) 6"x60° 6" HWE | T-5 Pipe Sewers Cl. C (Std.) 24" | T-5 Pipe Sewers Cl. C (Std.) 36" | T-5 Pipe Sewers Cl. C (Std.) 6"x60° 6" HWE | T-5 Pipe Sewers Cl. C (Std.) 24" | T-5 Pipe Sewers Cl. C (Std.) 36"

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| PLAN DIVISION | SHEET | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

36
466

P.I. Sta 132+51.40
Δ = 29°23'30" Lt.
$D_c$ = 1°28'
R = 3906.53'
T = 1024.56'
L = 2003.98'
E = 132.12'

Survey ℄ P.C. Hub POST. Sta. 124+47.30

REF. P.C. STA. 122+26.84

12' oil Line

4-P.

Guard Rail

P.C. 122+26.84

1237+45

5.40'

1294+95

Detail "A"

Detail "B"

Detail "B"

Detail "F"

Detail "N"

S 68° 00' 00" E

RAMP "H"

℄ Field Tile

10" Ohio Oil Co.

Rest Twp.

Uniform Width

For Ramp "H" S.R. 37 Interchange See Sheets 219 to 225 Details Sheet 233

BENCH MARK
Spike in E. Side Power Pole 304' Lt. Rat. Sta 120+08.00 Elev. = 919.79

14' Lt. Sta. 122+00
Std. No. 1 Manhole
Rt. MH Cover 918.06
Rt. 18" I-2 910.06
Rt. 36" I-2 908.56
Rt. 42" I-2 908.06
Rt. I-4 910.89

71' Lt. Sta. 122+00
Std. No. 2-2-AC.B.
Rt. Window 917.93
Rt. 18" I-2 914.10
Rt. I-4 914.93

63' Lt. Sta. 122+00
Std. 2-2-A C.B.
Rt. Window 915.20
Rt. 18" I-2 912.20
Rt. I-4 912.42

400' V.C.

P.V.C. STA. 124+00

P.V.T. STA. 128+00

P.V.I. STA. 126+00
ELEV. 915.28

14' Lt. Sta. 127+00
Std. No. 1-A Manhole
Cover Elev. 914.39
Rt. 12" I-2 908.62
Rt. 36" I-2 906.62
Rt. 42" I-2 906.12
Rt. 54" I-2 905.12
Rt. I-4 908.95

On ℄ Sta. 127+00
Std. 2-2-A C.B.
Rt. Window 911.72
Rt. 12" I-2 908.74

+93 Rt. I-4 Rt. 911.82

+78 Lt. I-4 Rt. 911.88

+95 Rt. Inside I-4 Rt. 911.83

+105 Lt. Inside I-4 Rt. 911.75

+95 Rt. Inside I-4 Rt. 915.27

+105 Lt. Outside I-4 Rt. 912.46

+80 Lt. Outside Ramp "H" I-4 Rt. 912.32 See Ramp "H" For Continuance

+30 Lt. Outside I-4 Rt. 912.52

+78 Lt. Inside I-4 915.41

-0.80%

-0.30%

I-4 Lt & Lt. Inside

I-4 Lt Outside

I-4 2 Lines

354' 36" I-2 -0.31%

496' 42" I-2 -0.39%

496' 54" I-2 -0.30%

+80 Rt. Outside Ramp "H" I-4 Rt. 912.32 See Ramp "H" For Continuance

+95 Rt. Outside I-4 Rt. 909.08

L+95.37' Rt. I-4 Outlet Rt. 908.50

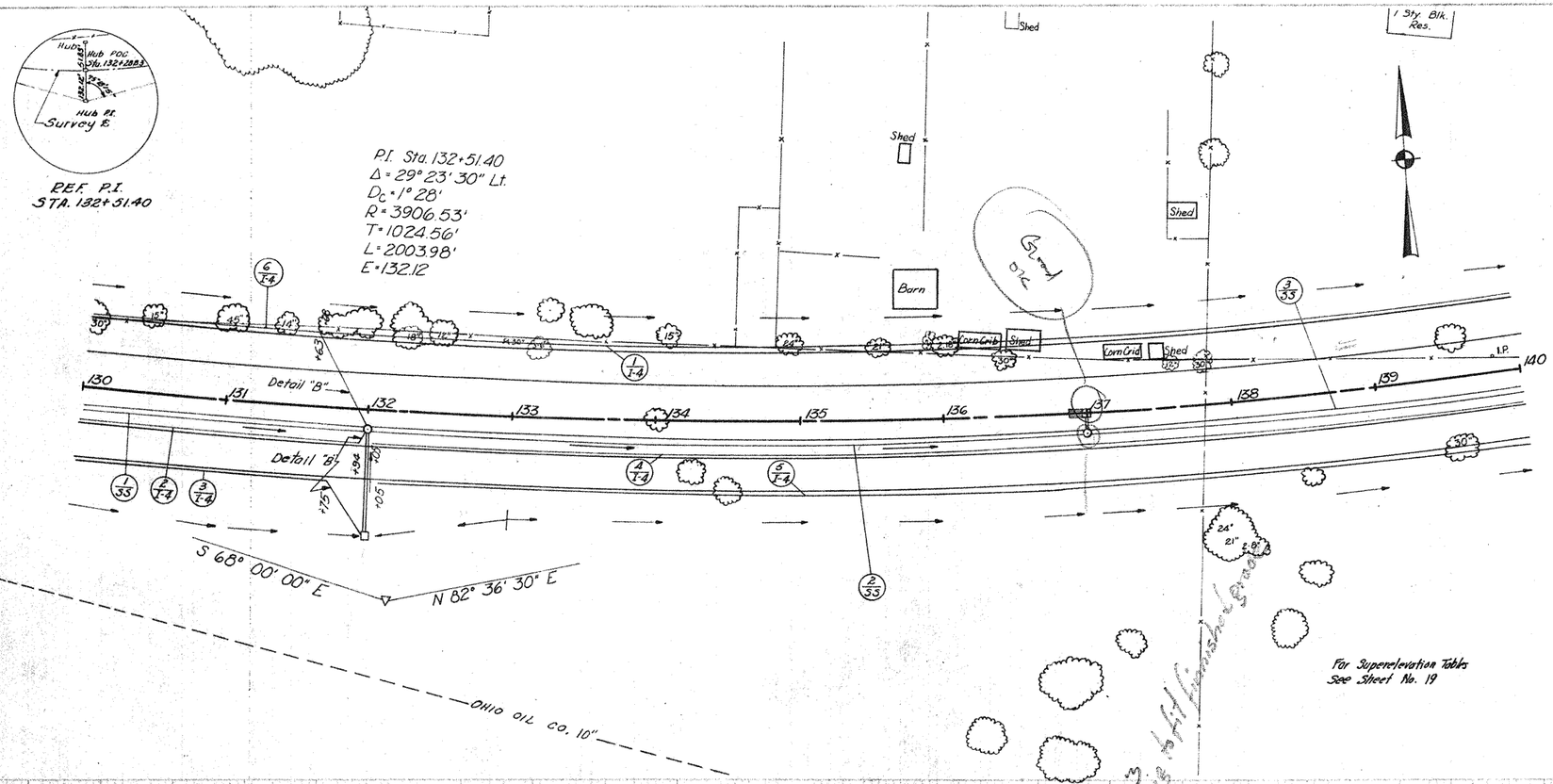
99' Rt. Sta. 127+00 Rt. -4 Endwall Rt. 36" I-2 908.00

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | I-2 Storm Sewers Under Pvmt. (Wet) 12" | I-2 (Wet) 18" | I-4 Std. MH. No. 1 | I-8 Std. MH. No. 1-A | I-8 Std. MH. No. 2-2-A | I-8 Excavation Std. C.B. No. 2-2-A | I-10 Sodding | I-10 Dumped 8" Rip-Rap Channel Underdrains Perforated (Wet) | I-4 6" Underdrains | I-5 6" Pipe Special Underdrains 6'-0" & 6'-6" Deep Shallow | I-5 Drainage 10" Outlet Pipe Spec. for Block-to-Block Drainage 8"x8" | I-3 Drainage Structure Complete 8" Class "E" Mix (C) | I-5 Pipe Spec. for Block-to-Block Drainage 8"x8" | I-3 Concrete & Asbestos Cement Pipe

LICENSED COUNTY | STATE | PROJECT | | 37
2 | OHIO | | | 466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




ESTIMATED QUANTITIES

| Item | Unit | Sta. to Sta. | Quantity |
|---|---|---|---|
| I-8 Std. C.B. Std. M.H. | No. | | |
| No. 8 | No. | 140+00 – 132+00 | 1 |
| 1-A | No. | 132+00 – 130+00 | 1 |
| 2-2A | Each | 130+00 – 132+05 | 1 |
| | | 132+05 – 140+00 | 1 |
| | | 140+00 – 131+63 | 1 |
| I-8 Std. Bank Gutter Sodding | Sq. Yds. | | |
| | | 140+00 – 131+68 | 10 |
| | | 132+00 – 130+00 | 10 |
| | | 140+00 – 132+05 | 10 |
| | | 131+63 – 130+00 | 10 |
| I-4 6" Pipe Underdrains | Lin. Ft. | | |
| | | 140+00 – 131+68 | 832 |
| | | 132+00 – 130+00 | 206 |
| | | 140+00 – 132+05 | 795 |
| | | 131+63 – 130+00 | 224 |
| I-4 6" Pipe Underdrains Sections Perf. or Apor. Underdrains Under Roadway | Lin. Ft. | | |
| | | 140+00 – 131+68 | 294 |
| | | 132+00 – 130+00 | 206 |
| | | 140+00 – 132+05 | 795 |
| | | 131+63 – 130+00 | 224 |
| I-5 Under Part of Apor. Wks @ Wks @ Wells @ Wells @ | Each | | |
| | | 140+00 – 132+00 | 1 |
| | | 132+00 – 130+00 | 1 |
| | | 140+00 – 132+05 | 1 |
| | | 131+63 – 130+00 | 1 |
| I-2 Apor. Wells @ Wks @ Wells @ | Each | | |
| | | 140+00 – 132+00 | 1 |
| | | 132+00 – 130+00 | 1 |
| | | 140+00 – 132+05 | 1 |
| | | 131+63 – 130+00 | 1 |
| 6" Pipe Underdrains Under Roadway | Lin. Ft. | | |
| | | 140+00 – 132+00 | 198 |
| | | 132+00 – 130+00 | 436 |
| | | 140+00 – 132+05 | 238 |
| 12" Lin. Ft. Cir. Pf. | | | |
| | | 140+00 – 132+00 | 12 |
| | | 132+00 – 130+00 | 12 |
| | | 140+00 – 132+05 | 12 |
| | | 131+63 – 130+00 | 12 |
| 54" Lin. Ft. Cir. Pf. | | | |
| | | 140+00 – 132+00 | 992 |
| | | 132+00 – 130+00 | 74 |
| | | 140+00 – 132+05 | 348 |
| | | 131+63 – 130+00 | 30 |
| TOTALS | | | 3 |
| | | | 10 |
| | | | 1 |
| | | | 2 |
| | | | 1 |
| | | | 1 |

PLAN & PROFILE STA. 130+00 TO 140+00

LICKING COUNTY
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| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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466

For Twp. Rd. 131
See Sheets 254 to 266
Details Sheet 365

Point of Access
Sta 142+02.50
24' Width

Point of Access
Sta 143+06
24' Width

For Superelevation Tables
See Sheet No 19

P.I. Sta. 132+51.40
Δ = 29° 23' 30" Lt.
Dc = 1° 28'
R = 3906.53
T = 1024.56'
L = 2003.98'
E = 132.12'

REF. P.T.
STA. 142+30.82

BENCH MARK
Spike in N. Side 16" Ash
135' Rt. P.O.T. Sta. 146+74.7
Elev. 916.95

N. 82° 36' 30" E.

-0.30%
-0.49%
-0.71%
-0.3%

492' 54" I-2
500' 54" I-2

Existing Twp. Rd. 131
10' Relocated Twp. Rd. 131

Pig Shelters
Corn Crib
Grand
Pond
Septic Tank
Well
1 Story Frame Res.
1 Story Block Res.
Barn
Silo
Concrete Silo
Metal Shed
Sod 6" Wide
Remove Existing Asphalt
(Abandon)

23' Rt. Sta. 7+00 Twp. Rd. 131
Std. No. 8 Catch Basin
Fl. Grate 905.42
Fl. 30" I-2 902.42
Fl. I-4 Outlet 903.00

On ℄ Sta. 141+96
Std. No. 8 Catch Basin
Fl. Grate 907.11
Fl. 30" I-2 902.12
Fl. I-4 Outlet 905.00

+80 - 60' Lt. Fl. 6" I-4 903.61

+00 Rt. Inside 6" I-4 Fl. 907.83

+90 Rt. Inside I-4 Fl. 907.26

+00 E I-4 Rt. Outside Fl. 906.24

+00 6" I-4 Lt. Outside Fl. 903.92

14' Rt. Sta. 7+04 Twp. 131 Fl. 6" I-4 903.40

29' Rt. Sta. 11+30 Twp. 131 Fl. 6" I-4 903.61

+50 6" I-4 Lt. Outside Fl. 903.51

+85 6" I-4 Outside Fl. 905.03

14' Lt. Sta. 7+04 Twp. 131 Fl. 6" I-4 903.80

+32 - 14' Lt and Rt. Sta. 9+82 Twp. 131 Fl. 905.75

14' Rt. Sta. 141+96
Std. No. 1-A Manhole
Cover Elev. 910.11
Fl. 24" I-2 903.11
Fl. 30" I-2 902.00
Fl. 54" I-2 900.61
Fl. I-4 Outlet 905.00

71' Rt. Sta. 142+00
Std. No. 8 Catch Basin
Fl. Grate 909.70
Fl. 24" I-2 903.65
Fl. I-4 Outlet 904.50

+15 Rt. 904.56

+00 6" I-4 Rt. Inside 906.93

+00 Lt. Inside 6" I-4 Fl. 903.58

+25 Rt. Outside 6" I-4 Fl. 904.44

+70 On ℄ 6" I-4 Fl. 906.60

+65 Lt. Outside 6" I-4 Fl. 903.70

Lt. Outside 6" I-4

+00 83' Lt. I-4 Outlet Fl. 902.00

+05 Lt. Outside 6" I-4 Fl. 903.31

+00 Lt. Outside 6" I-4 Fl. 903.00

14' Rt. Sta. 147+00
Std. No. 1-A Manhole
Cover Elev. 908.39
Fl. 54" I-2 897.06
Fl. I-4 Outlet 905.00

+95 6" I-4 Rt. Inside Fl. 905.74

+05 Rt. 6" I-4 2 Lines Fl. 905.71

+75 Rt. Outside 6" I-4 Fl. 902.98

+95 75' Rt. I-4 Outlet Fl. 901.50

83' Rt. Sta. 147+00
Std. PC-4 Endwall
Fl. 54" I-2 896.50

6" I-4 4 Lines

911.08 910.78 910.48 910.18 909.88 909.58 909.28 908.98 908.68 908.38 908.08

920 915 910 905 900 895

140 141 142 143 144 145 146 147 148 149 150

920.9 921.9 921.8 920.9 920.2 919.4 918.6 918.1 917.0 916.7 916.2 916.4 915.7 915.5 914.8 914.3 914.4 913.5 909.1 904.6 903.4 903.0 898.6 898.0 900.0 903.9 904.7 903.5 903.0 901.8 900.9 900.8 900.9 899.3 898.3 898.5

+50 +50 +50 +30.82 +50 +50 +66 +70 +91 +13 +25 +29 +33 +50 +85 +90 +92 E.W. +25 +45 +55 +60 +71 +81 +87 +92 +09 E.W.

ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | I-4 Pipe Couplers for Underdrains | I-5 Pipe Couplers for Underdrains | I-4 Underdrains 8" | 18" | 12"x6" | 6"x90° | 6"x60° | I-8 Std. M.H. Structures No. 1A Each | I-8 Concrete for Structures Class "E" Cu. Yds. | E-2 Excavation for Structures Cu. Yds. | I-8 Std. No. 8 Catch Basin Each | E-8 Storm Sewer Pipe M&E Mix 54" | E-12 Removal of Pipe Culverts 15" | F-15 Special Guard Rail Steel Posts Each | F-22 Subbase Cu. Yds. | L-10 Sodding Sq. Yds. | S-1 Structures Class "E" Cu. Yds. | S-29 Drainage of Structures No. 2 Aggregate Cu. Yds. | I-4 Underdrains Shallow Deep Lin. Ft. | I-4 Underdrains Wrapped 12" Lin. Ft. | I-4 Underdrains Wrapped 6" Lin. Ft. | SEE SHEET NO. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-I-4 | 140+00 - 141+80 | Lt. | | | | | | | | | | | | | | | | | | | | | | 368 |
| 2-I-4 | 140+00 - 141+90 | Rt. | | | | | | | | | | | | | | | | | | | | | | 367 |
| 3-I-4 | 140+00 - 141+85 | Rt. | | | | | | | | | | | | | | | | | | | | | | 367 |
| 4-I-4 | 142+65 - 145+00 | Lt. | | | | | | | | | | | | | | | | | | | | | | 369 |
| 5-I-4 | 144+00 - 150+00 | Lt. | | | | | | | | | | | | | | | | | | | | | | 367 |
| 6-I-4 | 143+00 - 146+95 | Rt. | | | | | | | | | | | | | | | | | | | | | | 367 |
| 7-I-4 | 143+25 - 146+75 | Rt. | | | | | | | | | | | | | | | | | | | | | | |
| 8-I-4 | 145+05 - 150+00 | Lt. | | | | | | | | | | | | | | | | | | | | | | |
| 9-I-4 | 147+05 - 150+00 | Rt. | | | | | | | | | | | | | | | | | | | | | | |
| 10-I-4 | 144+50 - 147+00 | Rt. | | | | | | | | | | | | | | | | | | | | | | |
| 11-I-4 | 141+96 - 142+70 | ℄ | | | | | | | | | | | | | | | | | | | | | | |
| 1-S-55 | 140+00 - 141+80 | Rt. | | | | | | | | 1 | | | | | | | | | | | | | | 373 |
| 2-S-55 | 141+96 | Et. | | | | | | | | | | | 1 | | | | | | | | | | | 373 |
| 3-S-55 | 141+96 | Lt. | | | | | | | | | | | 2 | | | | | 8 | | | | | | |
| 4-S-55 | 141+96 - 147+00 | Rt. | | | | | | | | 1 | | | | | | | | 12 | | | | | | |
| 5-S-55 | 147+00 | Et. | | | | | | | | | | 2 | | | | | | | 0.96 | 2 | | | | |
| 1-0 | 143+00 - 145+00 | Lt. | | | | | | | | | | | | | | | | | | | | | | |
| 2-0 | 145+00 - 147+00 | Rt. | | | | | | | | | | | | | | | | | | | | | | |
| 3-0 | 145+42 | Et. | | | | | | | | | | | | | | | | | | | | | | |
| 1-R | 145+07 - 150+00 | Lt. | | | | | | | | | | | | | | | | | | | | | | |
| 2-R | 146+07 - 150+00 | Rt. | | | | | | | | | | | | | | | | | | | | | | |
| 3-R | 140+20 | ℄ | | | | | | | | | | | | | | | | | | | | | | |
| 12-I-4 | 7+04 - 7+30 TWP. 131 | Lt. | | | | | | | | | | | | | | | | | | | | | | |
| 13-I-4 | 142+15 - 9+32 TWP. 131 | Et. | | | | | | | | | | | | | | | | | | | | | | |
| TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Sub Total

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | |
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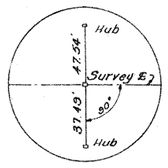
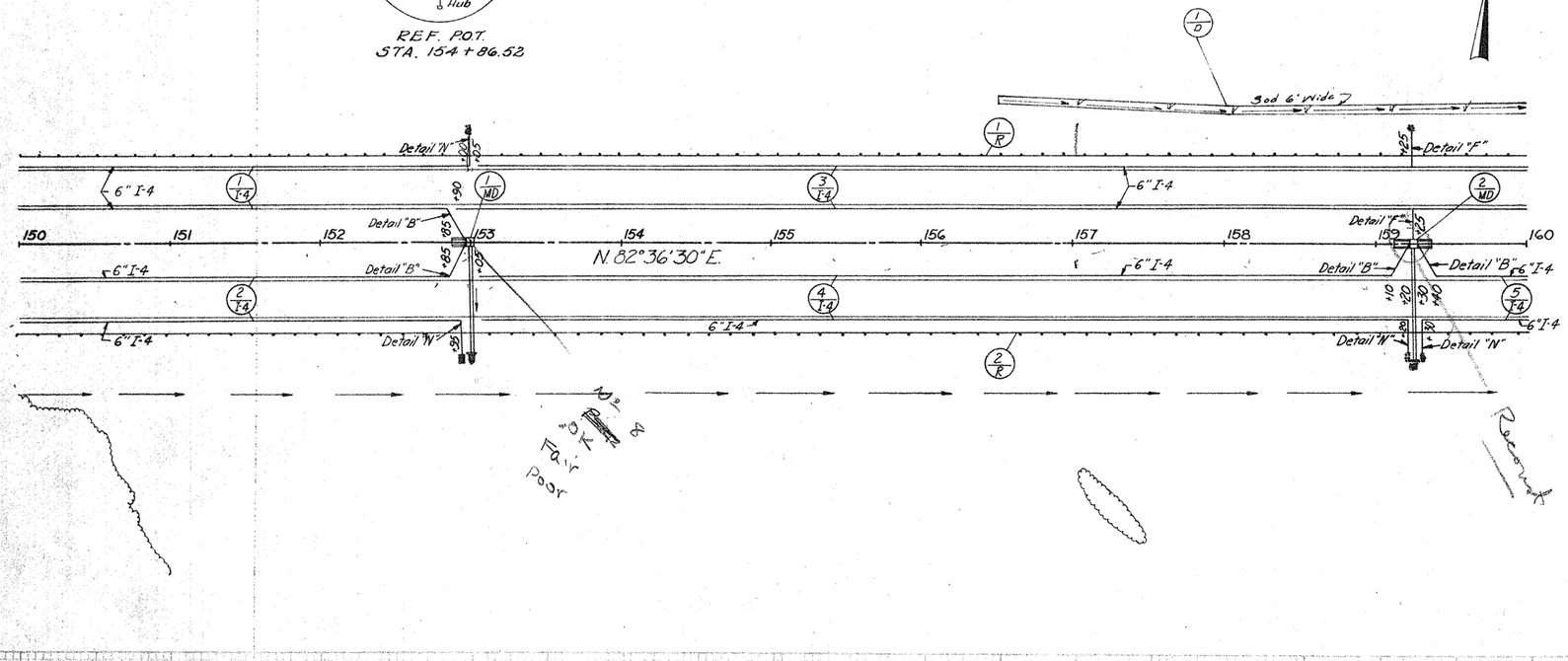
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

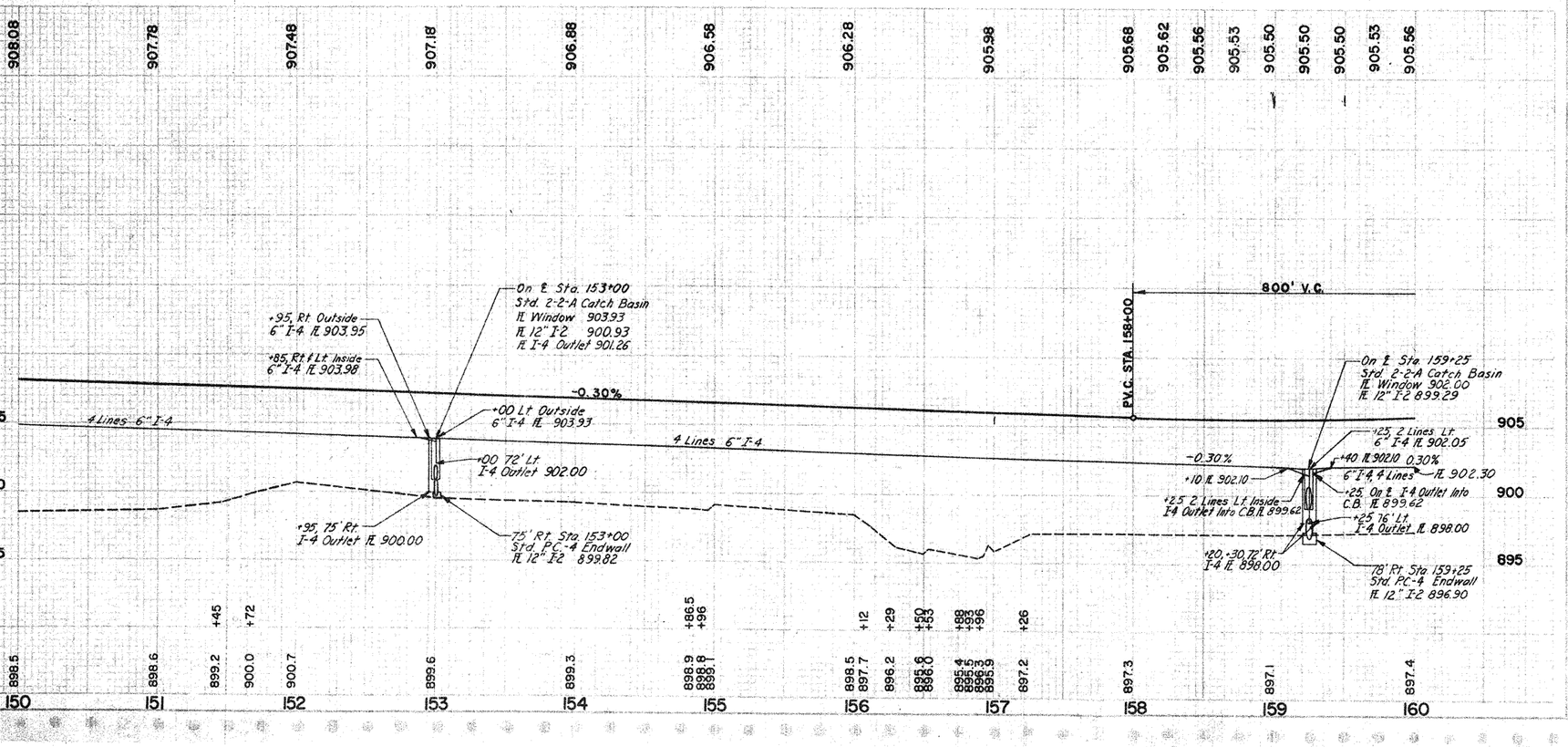
| SHEET NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

39
466




REF. P.O.T.
STA. 154+86.52




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | | E-2 Excavation Cu. Yds. | I-8 Structures Each | I-2 Structures Each | I-14 Lin. Ft. | S-1 Lin. Ft. | I-10 Cu. Yds. | I-10 Cu. Yds. | L-10 Sq. Yds. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 55 Under | Std. C.B. | 8" Pipe Outlets for Underdrains | Paved Gutter Concrete for Dumped Rock Shielding | | | | |
| | | | | Std. 2-2-A | 6" Pipe Underdrains | Std. 604.01 Modified Type 6" Integral Curb | | | | |
| | | | | | | 12" | | | | |
| | | | | | | Class "C" | | | | |
| | | | | | | At Rt. Pier | | | | |
| 1-I-4 | 150+00 - 153+00 | Lt. | | | | 608 | | | | |
| 2-I-4 | 150+00 - 152+95 | Rt. | | | | 606 | | | | |
| 3-I-4 | 152+90 - 160+00 | Lt. | | | | 1430 | | | | |
| 4-I-4 | 153+05 - 159+20 | Rt. | | | | 1240 | | | | |
| 5-I-4 | 159+30 - 160+00 | Rt. | | | | 150 | | | | |
| 1-R | 150+00 - 160+00 | Lt. | | | | | | | | |
| 2-R | 150+00 - 160+00 | Rt. | | | | | | | | |
| 1-MD | 153+00 | ℄ Rt. | | 1 | 1 | 74 | 10 | .23 | 2.5 | 5 |
| 2-MD | 159+25 | ℄ Lt. | | 1 | 1 | 76 | 20 | .30 | 2.5 | 8 |
| 1-D | 156+50 - 160+00 | Lt. | 234 | | | | | | | |

| | I-5 6" Pipe Specials For Underdrains Each | I-4 8" Pipe Outlets for Underdrains Each | I-4 6" Steel Beam Guard Rail Type Each | I-15 Lin. Ft. |
|---|---|---|---|---|
| 1-I-4 | 1 | 1 | | |
| 2-I-4 | 1 | 1 | | |
| 3-I-4 | | 2 | | |
| 4-I-4 | 1 | 1 | | |
| 5-I-4 | 1 | 1 | | |
| 1-R | | | | 1000 |
| 2-R | | | | 1000 |
| 1-MD | | | 1 | |
| 2-MD | | | 1 | |
| 1-D | | | | |

| SEE SHEET NO. | |
|---|---|
| 36749 | |
| 36749 | |
| 368 | |
| 36749 | |
| 36749 | |
| 373 | |
| 373 | |

| TOTALS | Sub Total | 2 | 2 | 150 | 30 | 0.53 | 50 | 247 |
|---|---|---|---|---|---|---|---|---|
| | | 4 | 4 | 2 | 13 | | 100 | 4034 |
| | | | | | 4 | | | 2000 |

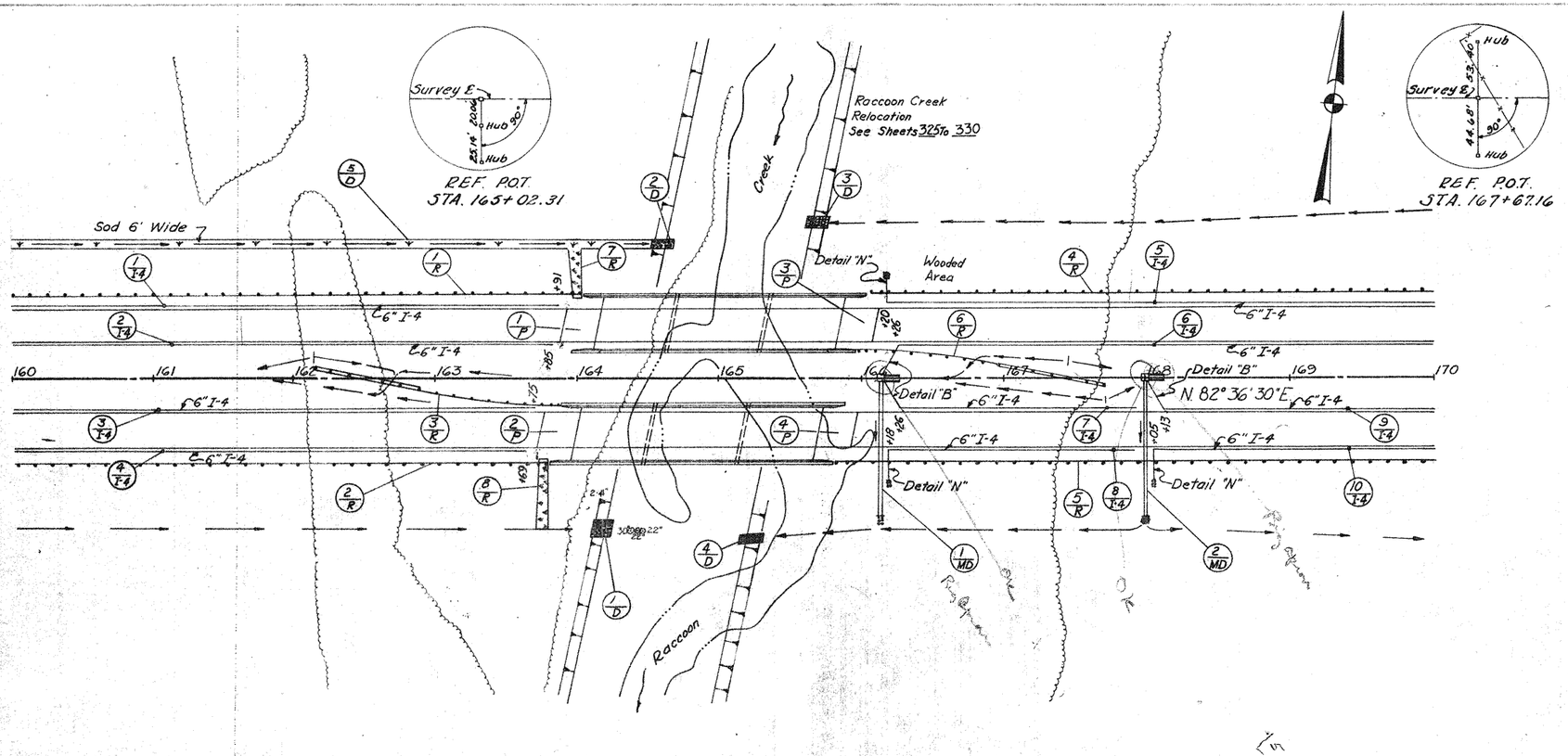
PLAN & PROFILE STA. 150+00 TO STA. 160+00

LICENSE PLATE

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)






ESTIMATED QUANTITIES

| REF NO. | STATION TO STATION | SIDE | E-2 Excavation Str. C.B. and Inlet Trenches 2'-2-4 Cu. Yds. | F-8 Precast Gutter Concrete for Dumped Rock Slope Protection as Per Plan Each | F-14 Paved Gutter Concrete for Dumped Rock Slope Protection as Per Plan Lin. Ft. | S-1 Excavation for Dumped Rock Slope Protection Cu. Yds. | I-10 Dumped Rock Slope Protection Cu. Yds. | L-10 Sodding Sq. Yds. | L-10 Sodding for 35' Under Port Access Berm Sq. Yds. | I-2 (464) 12" Pipe Culverts (705.01) (M.S.) 12" Lin. Ft. | I-5 Catch Basins Type 2-2A (705.02) (M.S.) 12" Each | I-5 Catch Basins Type 2-2A Under-drains 6"-60°-90° Each | I-5 Pipe Culverts (705.01) (M.S.) 12" 6"-60°-90° Each |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-I-4 | 160+00 - 163+91 | Lt. | | | | | | | | | | | |
| 2-I-4 | 160+00 - 163+85 | Lt. | | | | | | | | | | | |
| 3-I-4 | 160+00 - 163+75 | Rt. | | | | | | | | | | | |
| 4-I-4 | 160+00 - 163+69 | Rt. | | | | | | | | | | | |
| 5-I-4 | 166+20 - 170+00 | Lt. | | | | | | | | | | | |
| 6-I-4 | 166+28 - 170+00 | Lt. | | | | | | | | | | | |
| 7-I-4 | 166+28 - 167+95 | Rt. | | | | | | | | | | 1 | 1 |
| 8-I-4 | 166+16 - 167+95 | Rt. | | | | | | | | | | 1 | 1 |
| 9-I-4 | 168+13 - 170+00 | Rt. | | | | | | | | | | | |
| 10-I-4 | 168+05 - 170+00 | Rt. | | | | | | | | | | 1 | 1 |
| 1-MD | 166+13 | Rt. | 1 | 1 | 10 | 0.23 | 2.5 | 5 | | | | | |
| 2-MD | 168+00 | Rt. | 1 | 1 | 10 | 0.23 | 2.5 | 5 | | | | | |
| 1-R | 160+00 - 164+07 | Lt. | | | | | | | | | | | |
| 2-R | 160+00 - 163+82 | Rt. | | | | | | | | | | | |
| 3-R | 162+55 - 163+03 | Rt./Lt. | | | | | | | | | | | |
| 4-R | 166+87 - 170+00 | Lt. | | | | | | | | | | | |
| 5-R | 165+82.3 - 170+00 | Rt. | | | | | | | | | | | |
| 6-R | 165+99 - 167+74 | Lt./Rt. | | | | | | | | | | | |
| 7-R | 164+04 | Lt. | | | | | | | | | | | |
| 8-R | 163+78 | Rt. | | | | | | | | | | | |
| 1-P | 163+89.75 - 164+14.75 | Lt. | | | | | | 18 | | | | | |
| 2-P | 163+73.99 - 163+98.99 | Rt. | | | | | | 9 | | | | | |
| 3-P | 165+90.35 - 166+15.35 | Lt. | | | | | | 9 | | | | | |
| 4-P | 165+74.59 - 165+99.59 | Rt. | | | | | | | | | | | |
| 1-D | 164+10 | Rt. | | | | | | | | | | | |
| 2-D | 164+60 | Lt. | | | | | | | | | | | |
| 3-D | 165+70 | Lt. | | | | | | | | | | | |
| 4-D | 165+20 | Rt. | | | | | | | | | | | |
| 5-D | 160+00 - 164+53 | Lt. | | | | | | 902 | | | | | |
| Sub Total | | | 2 | 2 | 20 | 0.46 | 50 | 312 | 77 | 124 | 58 | 4 | 6 |
| TOTALS | | | 2 | 2 | 20 | 0.46 | 50 | 312 | 77 | 124 | 58 | 4 | 6 |

| REF NO. | STATION TO STATION | SIDE | I-7 Concrete Approach Slabs 7"-13" Sq. Yds. | I-15 Guard Rail Steel Beam 3rd. Lin. Ft. | I-15 Guard Rail Steel Beam Dbl. Face 3rd. Lin. Ft. | I-15 Bridge Parapet Barrier Lin. Ft. | I-4 8" Pipe for Underdrains (M-6.01(a)) Lin. Ft. | I-4 6" Underdrain Shallow Lin. Ft. | I-22 Sub-base Cu. Yds. |
|---|---|---|---|---|---|---|---|---|---|
| 1-I-4 | 160+00 - 163+91 | Lt. | | | | | | | 391 |
| 2-I-4 | 160+00 - 163+85 | Lt. | | | | | | | 385 |
| 3-I-4 | 160+00 - 163+75 | Rt. | | | | | | | 375 |
| 4-I-4 | 160+00 - 163+69 | Rt. | | | | | | | 369 |
| 5-I-4 | 166+20 - 170+00 | Lt. | | | | | 10 | | 384 |
| 6-I-4 | 166+28 - 170+00 | Lt. | | | | | 10 | | 386 |
| 7-I-4 | 166+28 - 167+95 | Rt. | | | | | 10 | | 172 |
| 8-I-4 | 166+16 - 167+95 | Rt. | | | | | 10 | | 182 |
| 9-I-4 | 168+13 - 170+00 | Rt. | | | | | 10 | | 200 |
| 10-I-4 | 168+05 - 170+00 | Rt. | | | | | 10 | | 202 |
| 1-MD | 166+13 | Rt. | | | | | | | |
| 2-MD | 168+00 | Rt. | | | | | | | |
| 1-R | 160+00 - 164+07 | Lt. | 369 | 407 | | | | | |
| 2-R | 160+00 - 163+82 | Rt. | 367 | 382 | * 75 | | | | |
| 3-R | 162+55 - 163+03 | Rt./Lt. | 367 | 100 | | | | | |
| 4-R | 166+87 - 170+00 | Lt. | 369 | 313 | | | | | |
| 5-R | 165+82.3 - 170+00 | Rt. | 367 | 417.7 | * 75 | | | | |
| 6-R | 165+99 - 167+74 | Lt./Rt. | 369 | 100 | | | | | |
| 7-R | 164+04 | Lt. | 367 | | | | | | |
| 8-R | 163+78 | Rt. | 367 | | | | | | |
| 1-P | 163+89.75 - 164+14.75 | Lt. | | 370 | | | | | |
| 2-P | 163+73.99 - 163+98.99 | Rt. | | | | | | | |
| 3-P | 165+90.35 - 166+15.35 | Lt. | | | | | | | |
| 4-P | 165+74.59 - 165+99.59 | Rt. | | | | | | | |
| 1-D | 164+10 | Rt. | | 370 | | | | | |
| 2-D | 164+60 | Lt. | | | | | | | |
| 3-D | 165+70 | Lt. | | | | | | | |
| 4-D | 165+20 | Rt. | | | | | | | |
| 5-D | 160+00 - 164+53 | Lt. | | 372 | | | | | |
| Sub Total | | | | 372 | | | | | |
| TOTALS | | | 26668 | 17197 | * 50 | 60 | 3046 | 20 | |

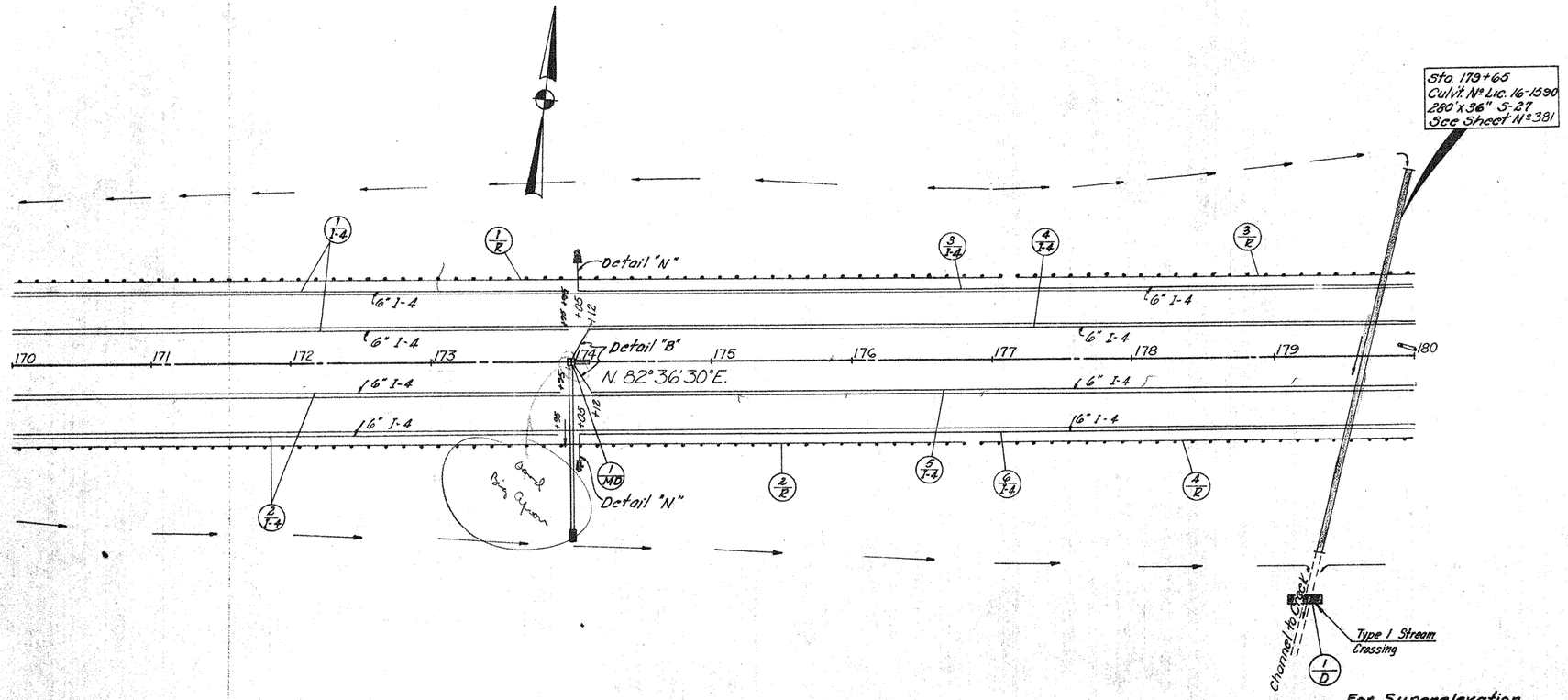
* = 1/2 Federal Participation

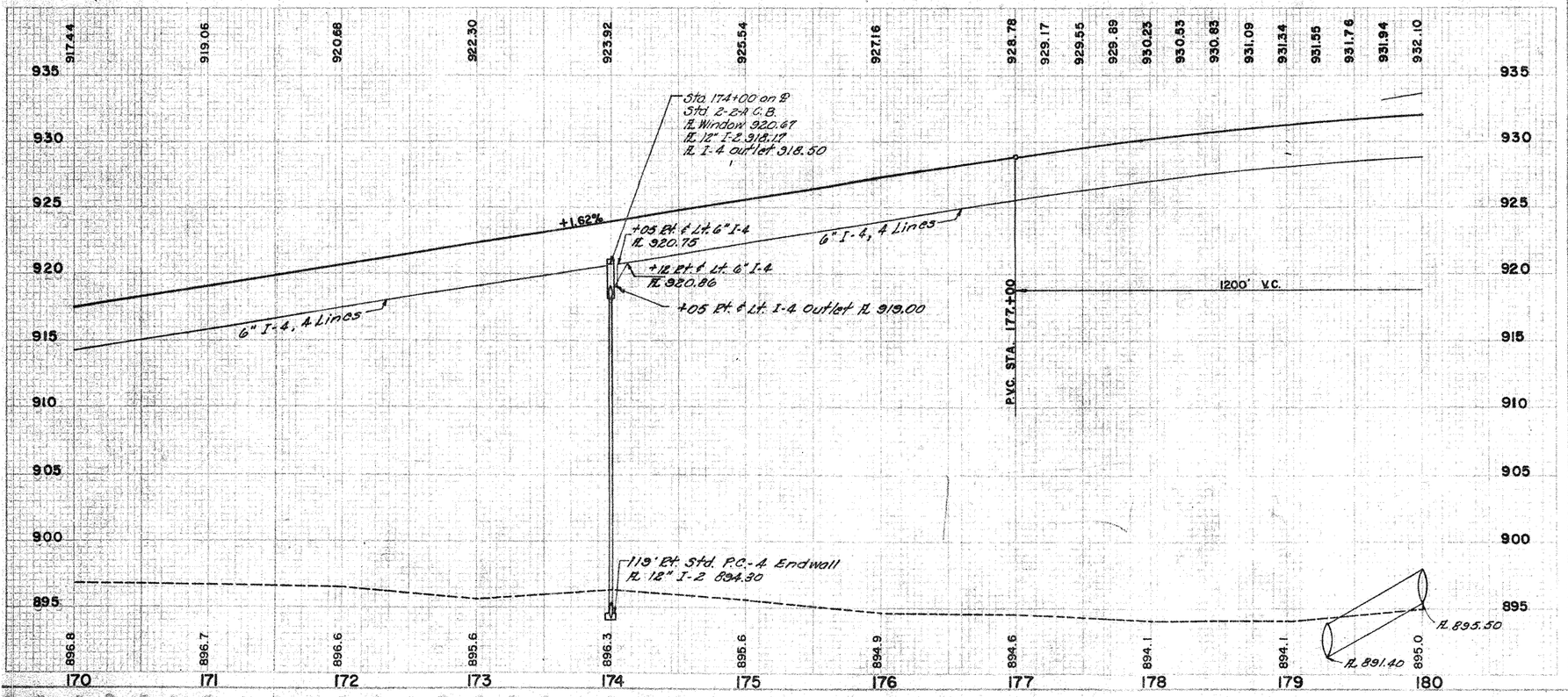
PLAN & PROFILE STA. 160+00 TO STA. 170+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| PLAN NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

41/466




ESTIMATED QUANTITIES

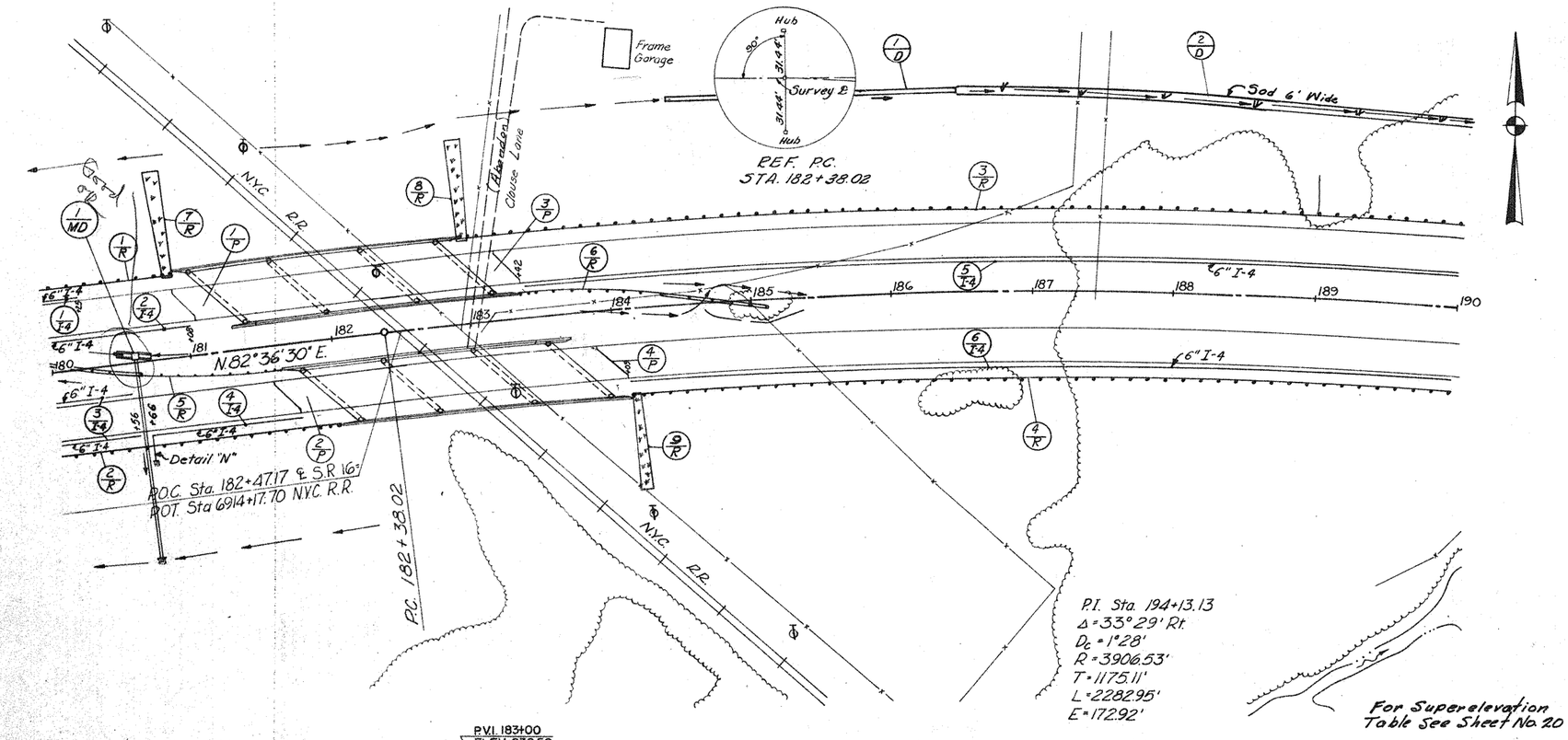
| ITEM | DESCRIPTION | UNIT | TOTAL | SEE SHEET NO |
|---|---|---|---|---|
| E-2 | Excavation for Structures | Cu. Yds. | 13 | |
| I-8 | Std. Catch Basin | Each | 1 | 367 |
| S-1 | Concrete Retaining Structures Class "S" Portland | Cu. Yds. | 2.5 | 367 |
| I-10 | Dumped Rock Channel | Cu. Yds. | 0.83 | 367 |
| L-10 | Sodding | Sq. Yds. | 5 | 367 |
| I-4 | 6" Pipe Underdrain | Lin. Ft. | 730 | 369 |
| | | | 730 | 367 |
| | | | 602 | 367 |
| | | | 600 | 367 |
| | | | 600 | 369 |
| | | | 602 | 369 |
| I-4 | 4" Pipe Underdrain | Lin. Ft. | 62 | 367 |
| I-2 | Storm Sewers Class III (ASTM C-76) | 12" Lin. Ft. | 54 | 367 |
| I-3 | Pipe Culverts, Sec. (A) or (B) | 12" Each | 2 | 367 |
| I-14 | Guard Rail Steel Beam Deep Std. | Lin. Ft. | 6995<br>682.3<br>287.6<br>308.3 | 367 |
| L-15 | | | | |

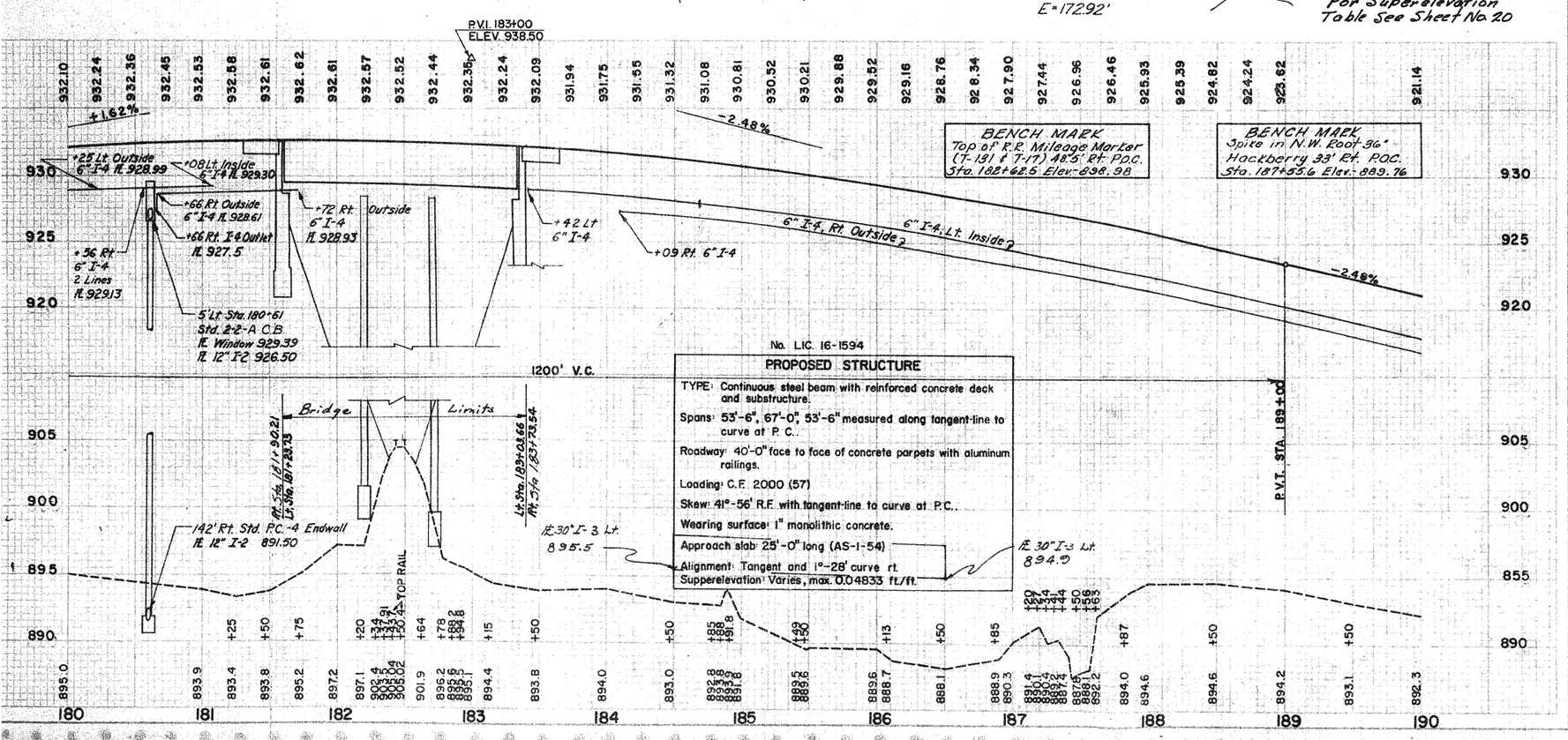
| | | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SHEET NO. | STATE | | |
|---|---|---|---|
| 2 | OHIO | | |

42
466




No. LIC. 16-1594

**PROPOSED STRUCTURE**

TYPE: Continuous steel beam with reinforced concrete deck and substructure.

Spans: 53'-6", 67'-0", 53'-6" measured along tangent-line to curve at P.C..

Roadway: 40'-0" face to face of concrete parpets with aluminum railings.

Loading: C.F. 2000 (57)

Skew: 41°-56' R.F. with tangent-line to curve at P.C..

Wearing surface: 1" monolithic concrete.

Approach slab: 25'-0" long (AS-1-54)

Alignment: Tangent and 1°-28' curve rt.

Supperelevation: Varies, max. 0.04833 ft./ft.

ESTIMATED QUANTITIES

| SHEET NO. | SIDE | STATION TO STATION | E-2 Excavation for Structures Cu. Yds. | I-8 Std. C.B. 2-2A Each | S-1 Concrete for Structure Class "E" Cu. Yds. | I-10 Dumped Rock Slope Protection Cu. Yds. | I-10 Sodding Sq. Yds. | I-4 6" Underdrains Shallow Lin. Ft. | I-4 8" Pipe Outlets for Pipe or Stone Drains Lin. Ft. | I-2 Steel Sheet Piling (M44-5) (M44-6) (M44-7) Sq. Ft. | I-5 Pipe Underdrains 12" Lin. Ft. | I-5 Pipe Underdrains 12" Lin. Ft. | I-5 Pipe Underdrains 6" Lin. Ft. | I-3 Pipe for Roadway Drainage 30" Lin. Ft. | I-4 Pipe Culverts (M46) 30" Bevel Type 1 Each | I-4 Pipe Culverts (M46) 30" Bevel Type 1 Each | I-4 Pipe Culverts (M46) 30" Bevel Type 1 Each |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-MD | | 180+61 | | 1 | 1 | 0.23 | 2.5 | 8 | | | | | | | | | |
| 1-P | Lt. | 180+00 - 180+25 | | | | | | 25 | | | | | | | | | |
| 2-P | Lt. | 180+00 - 181+08 | | | | | | 108 | | | | | | | | | |
| 3-P | Rt. | 180+00 - 180+56 | | | | | | 112 | | | | | | | | | |
| 4-P | Rt. | 180+65 - 181+72 | | | | | | 110 | | | | | | | | | |
| 5-P | Lt. | 183+42 - 190+00 | | | | | | 658 | | | | | | | | | |
| 6-P | Rt. | 184+09 - 190+00 | | | | | | 591 | | | | | | | | | |
| 1-R | Lt. | 180+00 - 180+87.2 | 87.2 | | | | | | | | | | | | | | |
| 2-R | Rt. | 180+00 - 181+91.7 | 191.7 | | | | | | | | | | | | | | |
| 3-R | Lt. | 183+11.5 - 190+00 | 698.9 | | | | | | | | | | | | | | |
| 4-R | Rt. | 184+08 - 190+00 | 583.1 | | | | | | | | | | | | | | |
| 5-P | ℄ | 179+85.2 - 181+60 | 100 | *75 | | | | | | | | | | | | | |
| 6-P | ℄ | 183+36.5 - 185+11.3 | 100 | *75 | | | | | | | | | | | | | |
| 7-R | Lt. | 180+82 | | | | | | | | | | | | | | | |
| 8-R | Lt. | 183+06 | | | | | | | | | | | | | | | |
| 9-R | Rt. | 184+10 | | | | | | | | | | | | | | | |
| 1-P | Lt. | 180+98.73 - 181+23.73 | | | | | | | | | | | | | | | |
| 2-P | Rt. | 181+65.21 - 181+90.21 | | | | | | | | | | | | | | | |
| 3-P | Lt. | 183+03.66 - 183+28.66 | | | | | | | | | | | | | | | |
| 4-P | Rt. | 183+73.54 - 183+98.54 | | | | | | | | | | | | | | | |
| 1-D | Lt. | 184+50 - 186+60 | | | | | 10 | 220 | | | | | | | | | |
| 2-D | Lt. | 186+60 - 190+00 | | | | | | | | | | | | | | | |
| TOTALS | | | 1609 | *150 | 1 | 0.23 | 12.5 | 228 | 1604 | 10 | 68 | 78 | 2 | 216 | 1 | 1 | 1 |

| SHEET NO. | SIDE | STATION TO STATION | I-7 Concrete Approach Slab 7"-9" Sq. Yds. | I-22 Sodding for Special Berm, Slope & Slope Protection Sq. Yds. | I-15 Guardrail Steel Beam Deep Sect. Lin. Ft. | I-15 Guardrail Steel Beam Deco Barrier Lin. Ft. |
|---|---|---|---|---|---|---|
| 1-MD | | 180+61 | | 369 | | |
| 1-P | Lt. | 180+00 - 180+25 | | | | |
| 2-P | Lt. | 180+00 - 181+08 | | | | |
| 3-P | Rt. | 180+00 - 180+56 | | | | |
| 4-P | Rt. | 180+65 - 181+72 | | | | |
| 5-P | Lt. | 183+42 - 190+00 | | 367 | | |
| 6-P | Rt. | 184+09 - 190+00 | | | | |
| 1-R | Lt. | 180+00 - 180+87.2 | | | 87.2 | |
| 2-R | Rt. | 180+00 - 181+91.7 | | | 191.7 | |
| 3-R | Lt. | 183+11.5 - 190+00 | | | 698.9 | |
| 4-R | Rt. | 184+08 - 190+00 | | | 583.1 | |
| 5-P | ℄ | 179+85.2 - 181+60 | | 370 | 100 | *75 |
| 6-P | ℄ | 183+36.5 - 185+11.3 | | 370 | 100 | *75 |
| 7-R | Lt. | 180+82 | | 372 | | |
| 8-R | Lt. | 183+06 | | 372 | | |
| 9-R | Rt. | 184+10 | | 372 | | |
| 1-P | Lt. | 180+98.73 - 181+23.73 | 66.67 | 98 | | 5 |
| 2-P | Rt. | 181+65.21 - 181+90.21 | 66.67 | 98 | | 5 |
| 3-P | Lt. | 183+03.66 - 183+28.66 | 66.67 | 91 | | 5 |
| 4-P | Rt. | 183+73.54 - 183+98.54 | 66.67 | | | 5 |
| 1-D | Lt. | 184+50 - 186+60 | | | | |
| 2-D | Lt. | 186+60 - 190+00 | | | | |
| TOTALS | | | 266.69 | 20 | 1609 | *150 |

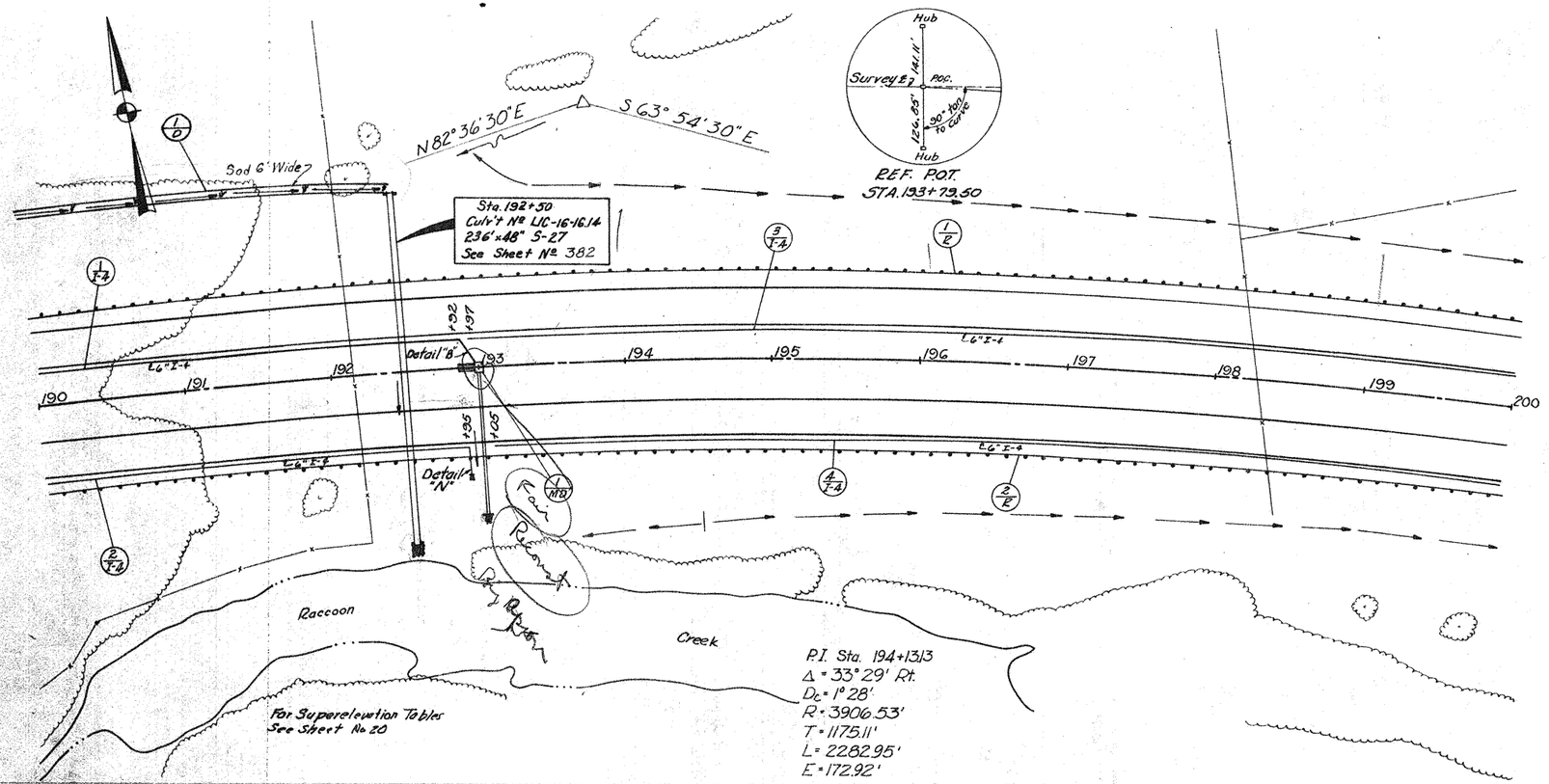
* = No Federal Participation

216

PLAN & PROFILE STA. 180+00 TO STA. 190+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SHEET NO. | STATE | PROJECT | | 43 |
|---|---|---|---|---|
| 2 | OHIO | | | 466 |



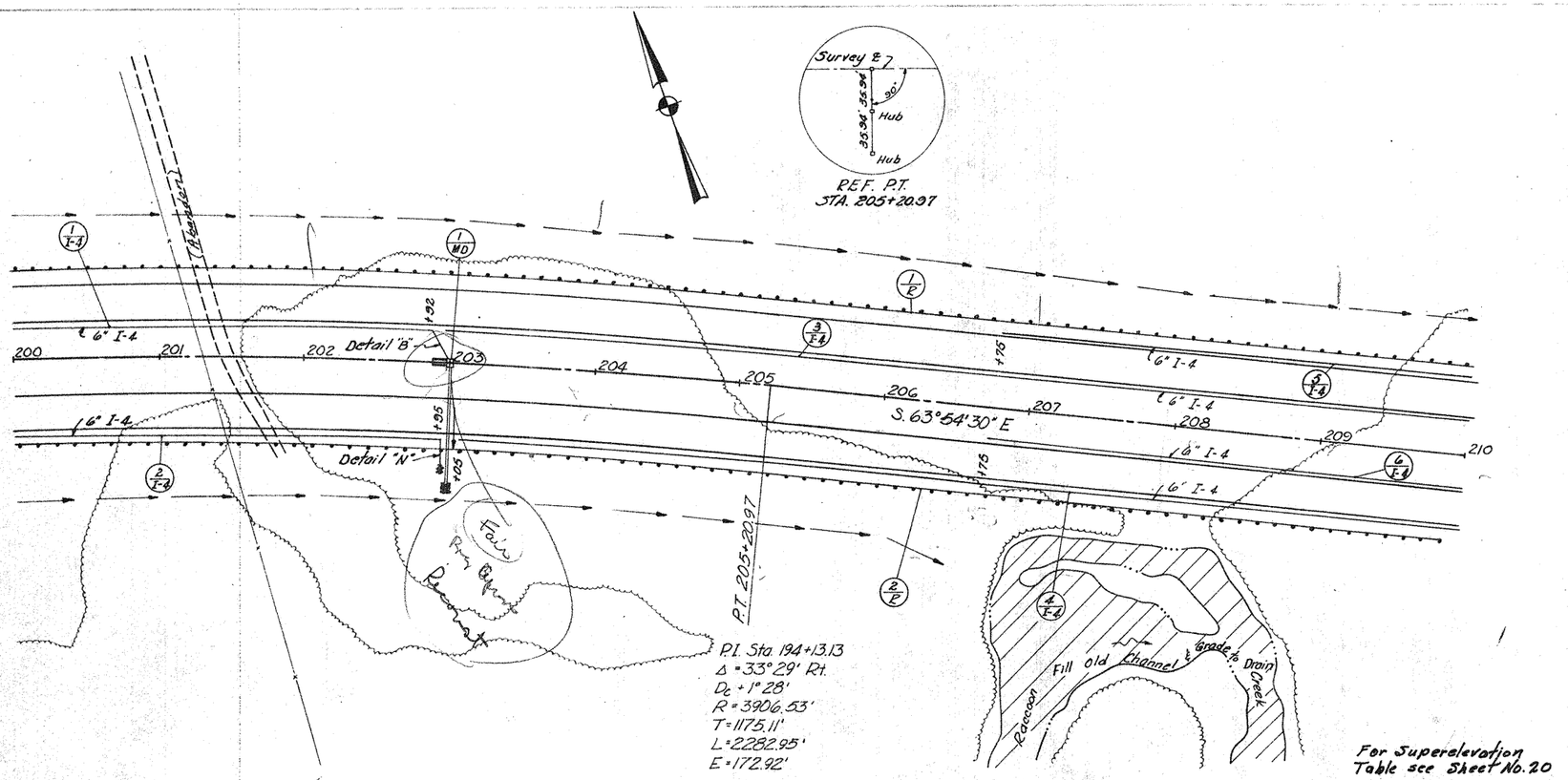

ESTIMATED QUANTITIES

| SEE SHEET NO | | |

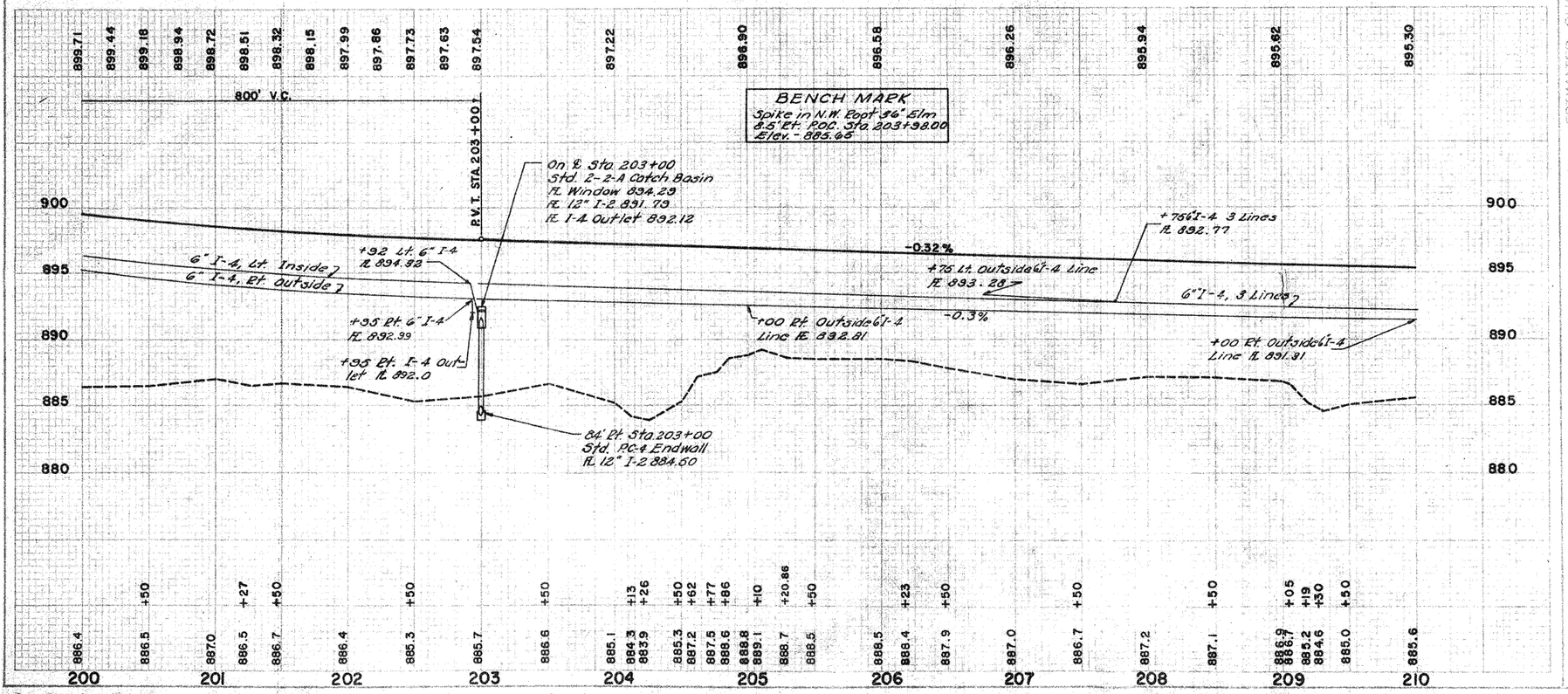
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| DIST. | STATE | PROJECT | | |
|---|---|---|---|---|
| 2 | OHIO | | | |

44
466




For Superelevation Table see Sheet No. 20




ESTIMATED QUANTITIES

| NO. | ITEM | DESCRIPTION | SEE SHEET NO. | 1 | 2 | 20 | 2652 | 1089.7 |
|---|---|---|---|---|---|---|---|---|
| I-6 | I-4 | Pipe Special 6" Type Cut For Underdrains Under 6"-60 6"-90 M=6.4 (a) | | 1 | 1 | 20 | 2652 | 1089.7 |
| | | Each | Each | 10 | 1 | | | |
| | | Lin. Ft. | Lin. Ft. | 10 | 1 | | | |
| I-4 | I-4 | 6" Underdrains Shallow | | 304 | | | | |
| | | Lin. Ft. | Lin. Ft. | 300 | | | | |
| | | | | 703 | | | | |
| | | | | 695 | | | | |
| | | | | 325 | | | | |
| | | | | 326 | | | | |
| I-15 | I-4 | Guard Rail Steel Beam Guard Std. | | 367 | | | | |
| | | Lin. Ft. | Lin. Ft. | 369 | | | | |
| | | | | 373 | | | | |
| | | | | 1007.8 | | | | |
| | | | | 981.9 | | | | |

| NO. | ITEM | DESCRIPTION | SEE SHEET NO. | 1 | 1 | 84 | 10 | 0.23 | 2.5 | 5 |
|---|---|---|---|---|---|---|---|---|---|---|
| E-2 | I-8 | Excavation Std. C & S For Structures 2-24 | | 1 | 1 | 84 | 10 | 0.23 | 2.5 | 5 |
| | | Cu. Yds. | Each | Lin. Ft. | Cu. Yds. | | | | | |
| I-2 | I-14 | 3.5 Under Std. Reed Concrete Dumped Apr. No. 5(a) Mod. as Structures Channel/Sodding or No. 8(b)12 per plans class 'E' Protection | | | | | | | | |
| | | Cu. Yds. | | | | | | | | |
| I-10 | L-10 | Sodding | | | | | | | | |
| | | Lin. Ft. | | | | | | | | |

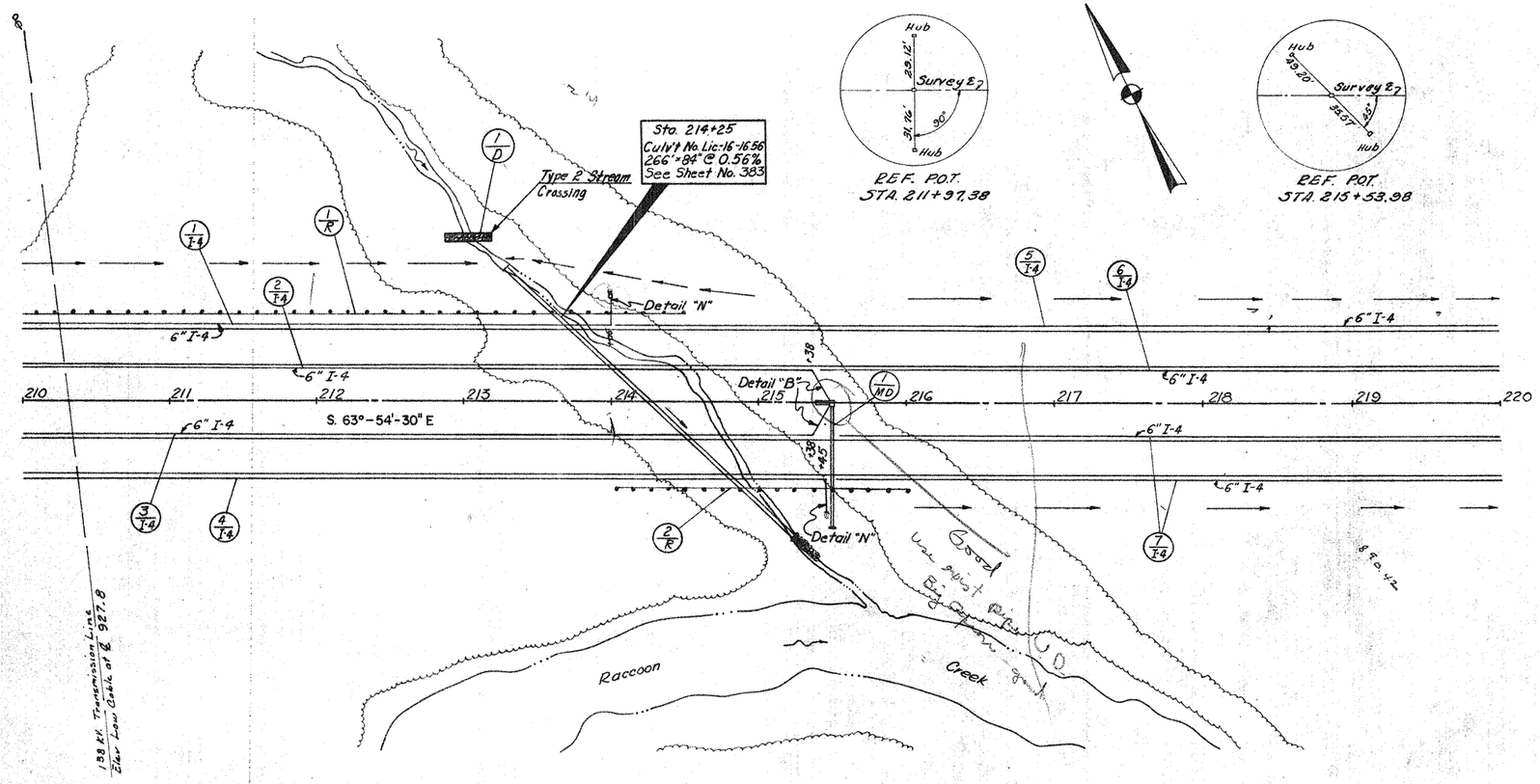
| STATION | TO STATION | SIDE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-4 | 200+00 | ~ 202+92 | Lt. | | | | | | | |
| 1-4 | 200+00 | ~ 202+35 | Rt. | | | | | | | |
| 1-4 | 202+97 | ~ 210+00 | Lt. | | | | | | | |
| 1-4 | 203+05 | ~ 210+00 | Rt. | | | | | | | |
| 1-4 | 206+75 | ~ 210+00 | Lt. | | | | | | | |
| 1-4 | 206+75 | ~ 210+00 | Rt. | | | | | | | |
| MO | 203+00 | | ℄ | 1 | 1 | 84 | 10 | 0.23 | 2.5 | 5 |
| 1-2 | 200+00 | ~ 210+00 | Lt. | | | | | | | |
| 2-2 | 200+00 | ~ 209+89.80 | Rt. | | | | | | | |
| TOTALS | | | | 1 | 1 | 84 | 10 | 0.23 | 2.5 | 5 |

PLAN & PROFILE STA. 200+00 TO STA. 210+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RT. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

45/466




ESTIMATED QUANTITIES

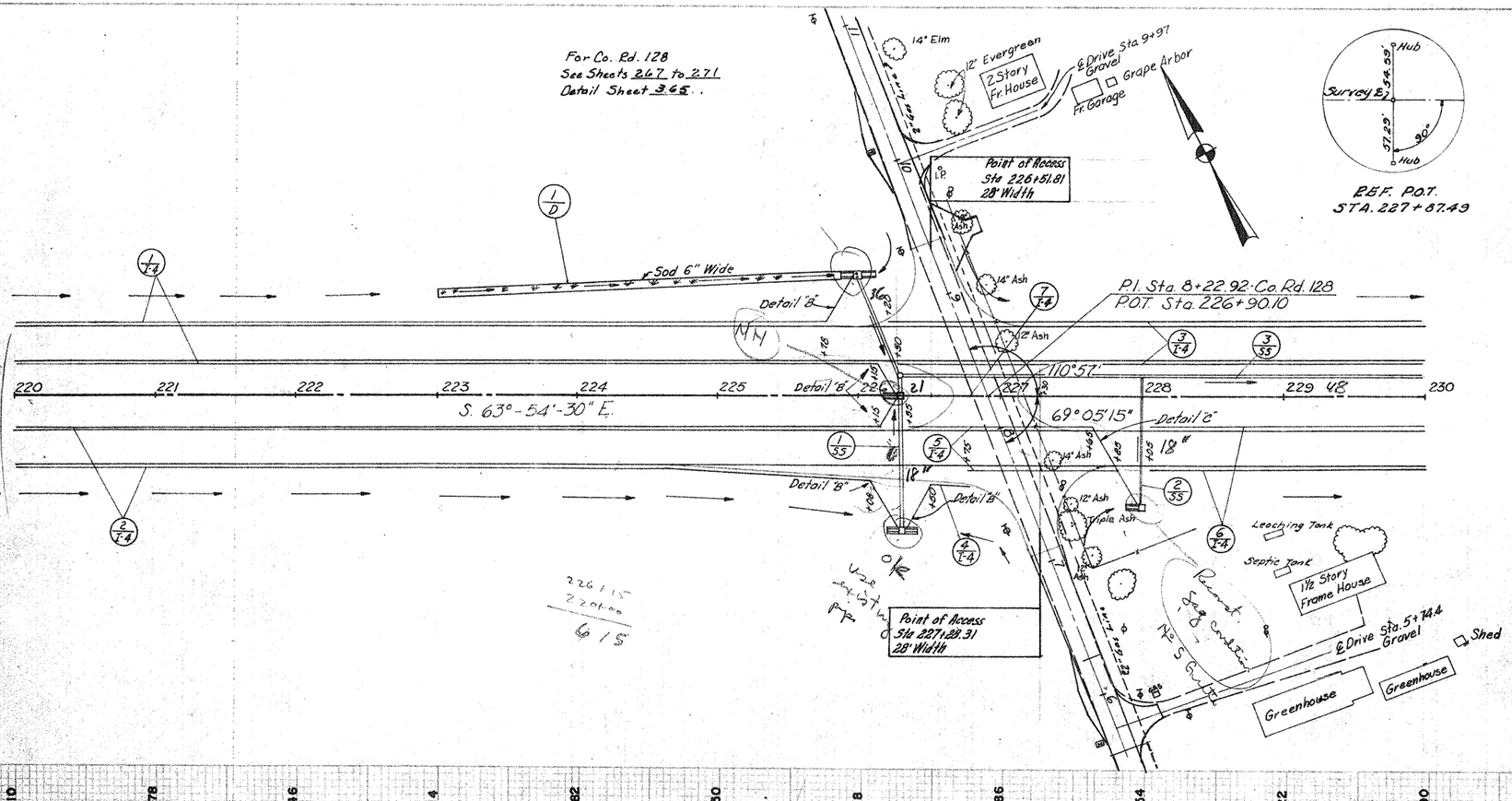
| SEE SHEET NO. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| 369 | | | | | | | | | | | |
| 367 | | | | | | | | | | | |
| 367 | | | | | | | | | | | |
| 369 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 373 | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
|

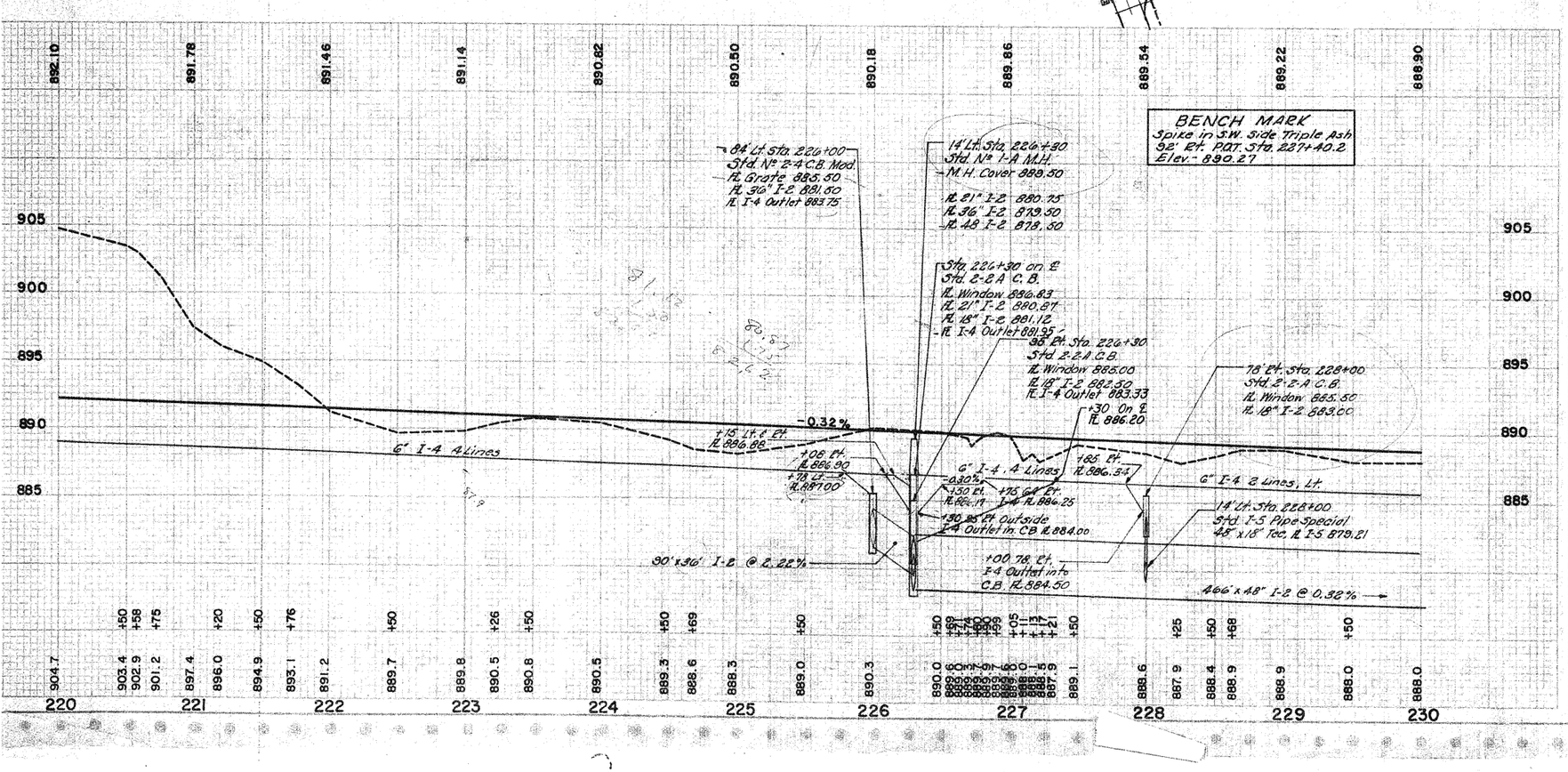
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

46
466

For Co. Rd. 128
See Sheets 267 to 271
Detail Sheet 365.




ESTIMATED QUANTITIES

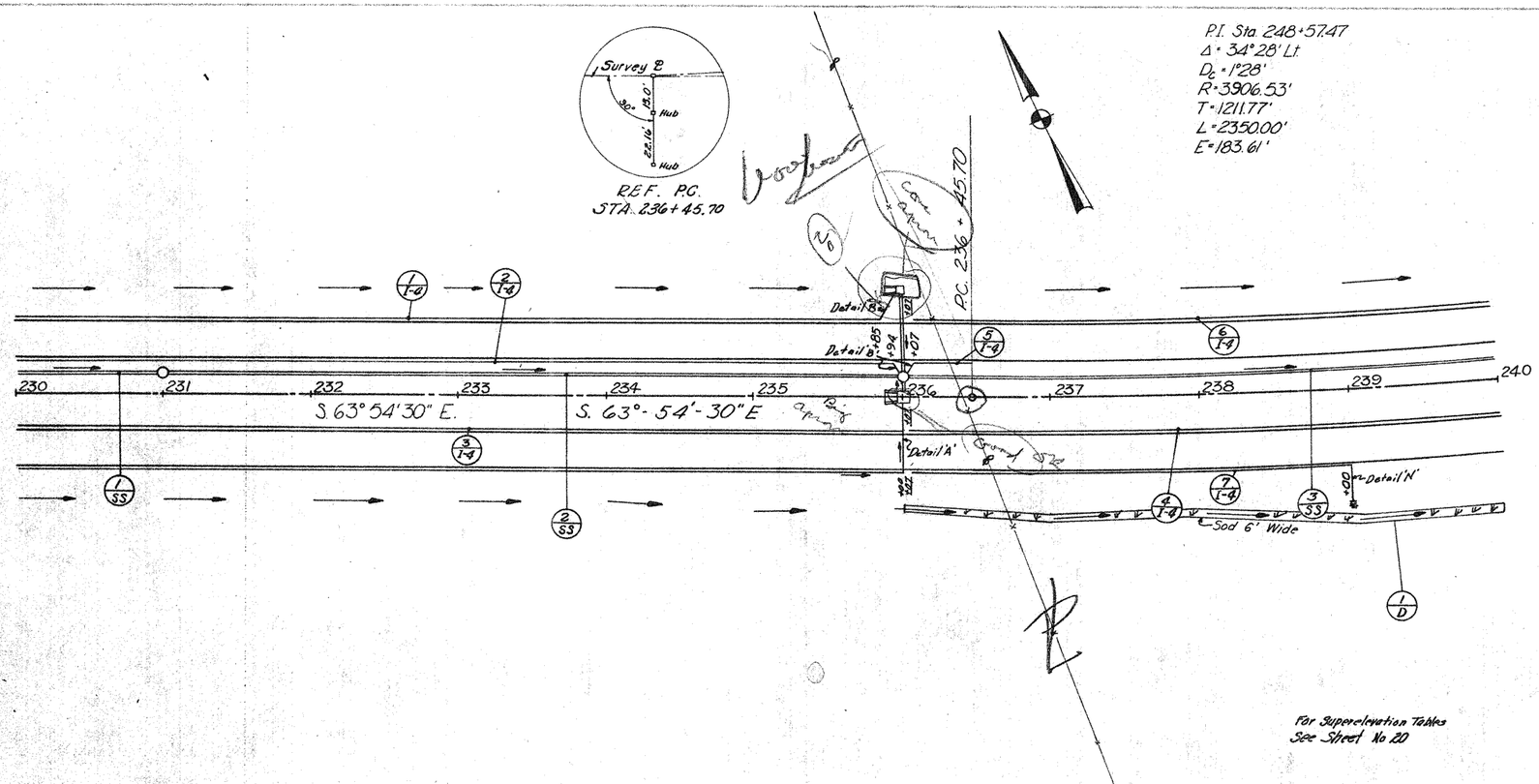
| REF. NO. | STATION TO STATION | SIDE | Sodding Sq Yds. I-10 | Std. M.H. 1-A Each I-8 | Std. Catch Basin 2-2-A Each I-8 | Std. Catch Basin 2-4 (Mod.) or Underground Connections (Per Plan) Each I-8 | 6" Pipe Outlets for Shallow Each I-4 | Paved Gutter Modified As Per Plan Type 2 Lin. Ft. I-14 | Pipe Culverts 18" (M.S.) or Equivalent Lin. Ft. I-5 | Stream Spreader Each I-5 | Under Drains 18" 21" 36" 48" Lin. Ft. Lin. Ft. Lin. Ft. Lin. Ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1T-4 | 220+00 ~ 226+30 | Lt. | | | | | 70 | | | 2 | |
| 2T-4 | 220+00 ~ 226+30 | Rt. | | | | | 20 | | | 2 | |
| 3T-4 | 226+20 ~ 230+00 | Lt. | | | | | 750 | | | | |
| 4T-4 | 226+30 ~ 226+75 | Rt. | | | | | 50 | 10 | | 1 | |
| 5T-4 | 226+35 ~ 228+00 | Rt. | | | | | 295 | 10 | | 1 | |
| 6T-4 | 228+05 ~ 230+00 | Rt. | | | | | 390 | | | | |
| 7T-4 | 226+30 | Lt+Rt. | | | | | 90 | 10 | | | |
| 1-S5 | 226+30 | Lt+Rt. | 17 | 1 | 2 | 1 | | 30 | | | 94 12 74 |
| 2-S5 | 228+00 | Lt+Rt. | 3 | | 1 | | | 10 | 1 | | 88 |
| 3-S5 | 226+30 ~ 230+00 | Lt. | | | | | | | | | |
| 1-D | 223+00 ~ 225+89 | Lt. | | | | | | | | | |
| Sub Total | | | 20 | 1 | 3 | 1 | 1395 | 120 | 40 | 7 | 182 12 74 |
| TOTALS | | | 20 | 1 | 3 | 1 | 1395 | 120 | 40 | 7 | 182 12 74 |

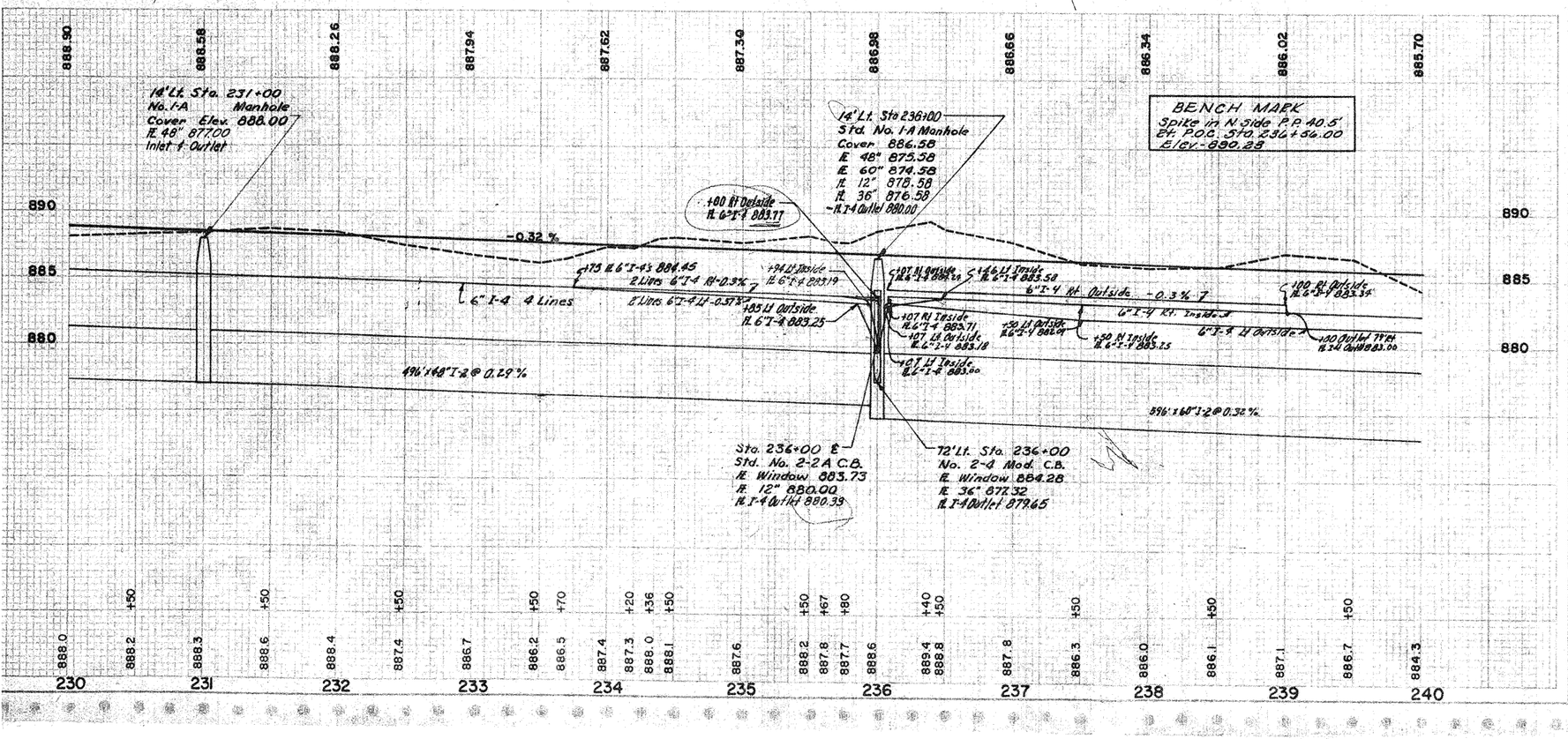
PLAN & PROFILE STA. 220+00 TO STA. 230+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| STATE NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

47
466




ESTIMATED QUANTITIES

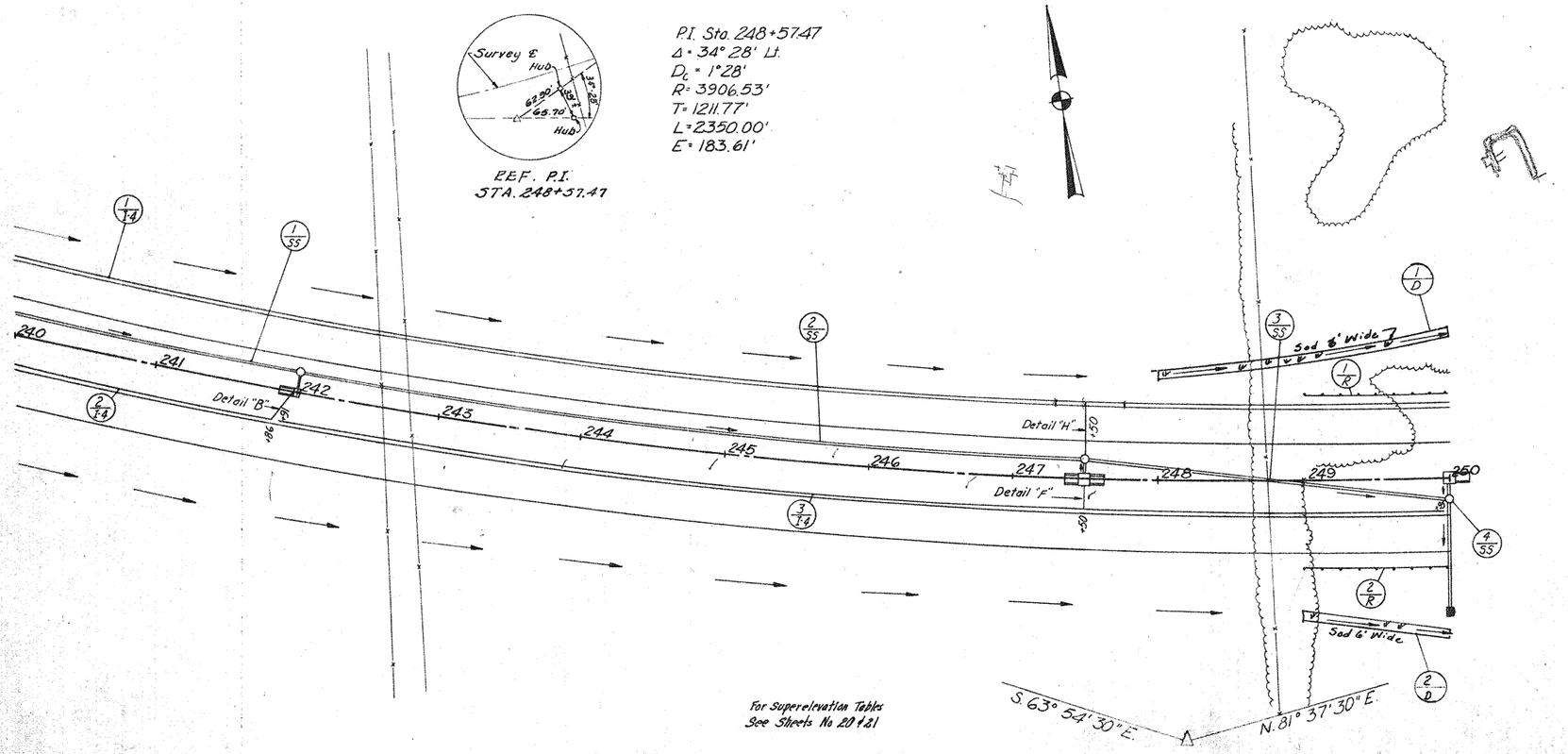
| REF. NO. | STATION TO STATION | SIDE | I-2 Storm Sewer Class A Type 2 (Mod.) (M&S 601.44, 601.46 & 601.46 Mod.) 12" Dia. Lin. Ft. | I-2 Storm Sewer Class A Type 2 (Mod.) (M&S 601.44, 601.46 & 601.46 Mod.) 36" Dia. Lin. Ft. | I-4 Paved Gutter Mod. as/ Plan Type I (M&S 611.01 Mod.) Lin. Ft. | I-4 6" Pipe Outlets for Under-drains M-4.4(a) Lin. Ft. | I-4 6" Pipe under-drains Shallow Lin. Ft. | I-8 Std. C.B. 2-2A Each | I-8 No. 2-4 Std. I-A Mod. C.B. Manhole Each | I-10 Sodding Sq. Yds. | I-5 6" Pipe Specials For Underdrains 6"90° Ea. | I-5 6" Pipe Specials For Underdrains 6"60° Ea. | I-14 Paved Gutter Type I (Mod. as) Plan Ea. Lin. Ft. | SEE SHEET NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-I-4 | 230+00 - 235+85 | Lt. | | | | 10 | 595 | | | | | | | 367 |
| 2-I-4 | 230+00 - 235+94 | Lt. | | | | 10 | 594 | | | | | | | 367 |
| 3-I-4 | 230+00 - 236+00 | Rt. | | | | | 236 | | | | | | | 367 |
| 4-I-4 | 236+05 - 240+00 | Rt. | | | | 10 | 395 | | | | | | | 369 |
| 5-I-4 | 236+07 - 236+46 | Lt. | | | | | 39 | | | | | | | 367 |
| 6-I-4 | 236+05 - 240+00 | Lt. | | | | 10 | 395 | | | | | | | 369 |
| 7-I-4 | 236+05 - 239+00 | Rt. | | | | | 310 | | | | | | | 373 |
| 1-SS | 230+00 - 231+00 | Lt. | | 98 | | | | | | | | | | |
| 2-SS | 231+00 - 236+00 | Lt. | | 496 | | | | 1 | 1 | 267 | | | 10 | |
| 3-SS | 236+00 - 240+00 | Lt. | 398 | | | | | | 1 | | | | | |
| 1-D | 236+00 - 240+00 | Rt. | | | | | | | | | | | | |
| Sub Total | | | 398 | 594 | 56 | 40 | 3564 | 1 | 2 | 274 | 10 | 12 | 56 | |
| | | | 3 | 1 | 2 | 6 | 10 | | | | | | | |
| ALS | | | 398 | 594 | 58 | 46 | 3574 | 1 | 2 | 274 | 10 | 12 | 56 | |

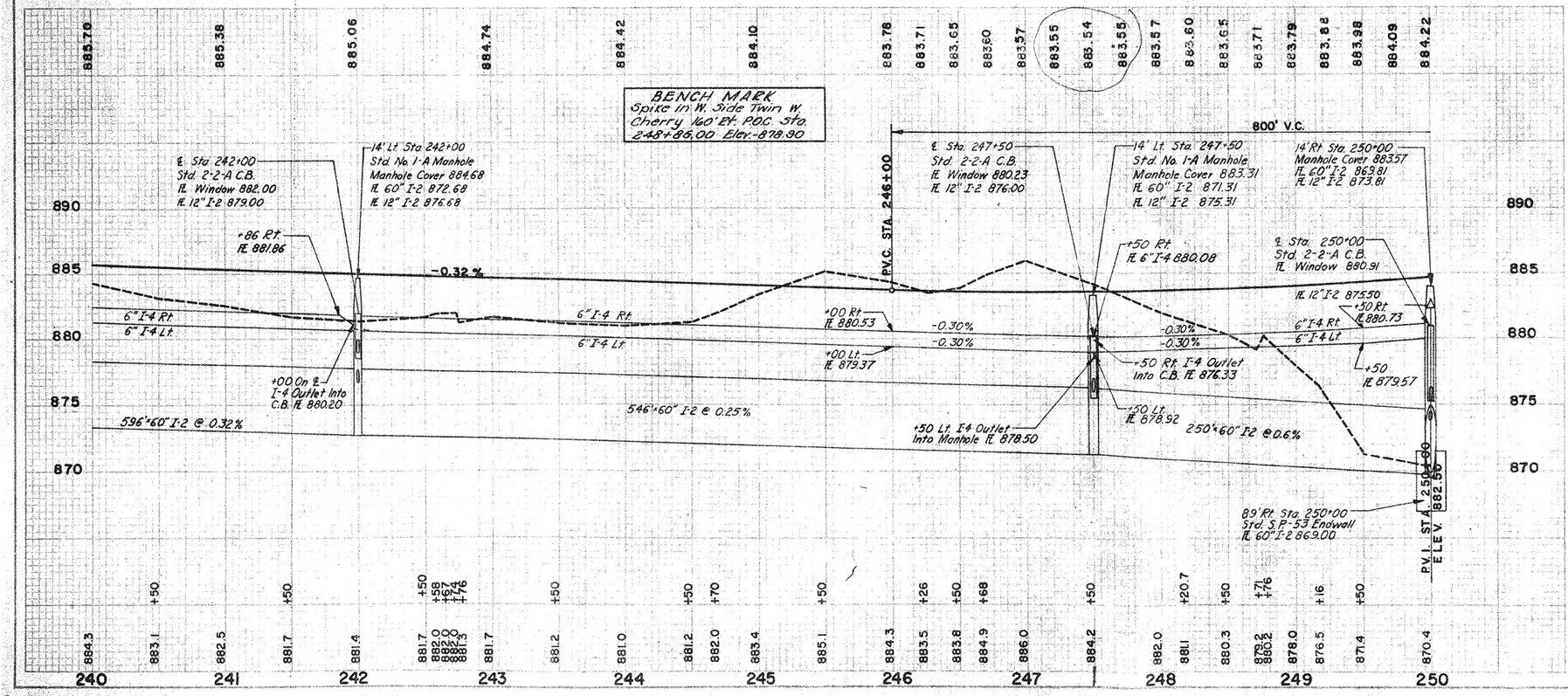
PLAN & PROFILE STA. 230+00 TO STA. 24

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SHEET NO. | STATE | DESCRIPTION | |
|---|---|---|---|
| 2 | OHIO | | |

48
466




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | E-2 Excavation for Structures Cu. Yds. | I-8 Std. Catch Basin Manhole 2-2-A Each | I-8 Std. Manhole 1-A Each | I-14 Paved Gutter Modified Asphalt Lin. Ft. | S-1 Concrete for Bituminous Structures Type I Cu. Yds. | I-10 Bed Scaling Channel Protection Cu. Yds. | I-2 Storm Sewers Class A Reinf. Conc. Pipe (Mk.56) (Mk.66) or Bit. Coated (Mk.56) (Mk.66) 12" 60" Sq. Yds. | 12" 60" Lin. Ft. | 12" 60" Lin. Ft. | Lin. Ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-F-4 | 240+00 - 250+00 | Lt. | | | | | | | | | | |
| 2-F-4 | 240+00 - 241+86 | Rt. | | | | | | | | | | |
| 3-F-4 | 241+91 - 249+95 | Rt. | | | | | | | | | | |
| 1-S5 | 240+00 - 242+00 | Lt. | | 1 | 1 | | | | | 3 | 12 | 198 |
| 2-S5 | 242+00 - 247+50 | Lt. | | 1 | 1 | | | | | 7 | 12 | 546 |
| 3-S5 | 247+50 - 250+00 | Lt. Rt. | | | 1 | | | | | | 12 | 250 |
| 4-S5 | 250+00 | Rt. | 5 | 1 | | 10 | 10 | 2.2 | 8 | | 12 | 72 |
| 1-R | 249+00 - 250+00 | Lt. | | | | | | | | 194 | | |
| 2-R | 249+00 - 250+00 | Rt. | | | | 20 | | | | 67 | | |
| 1-D | 248+00 ~ 250+00 | Lt. | | | | | | | | | | |
| 2-D | 249+00 ~ 250+00 | Rt. | | | | | | | | | | |
| Sub. Total | | | 5 | 3 | 3 | 40 | 10 | 2.2 | 8 | 271 | 36 | 1066 |

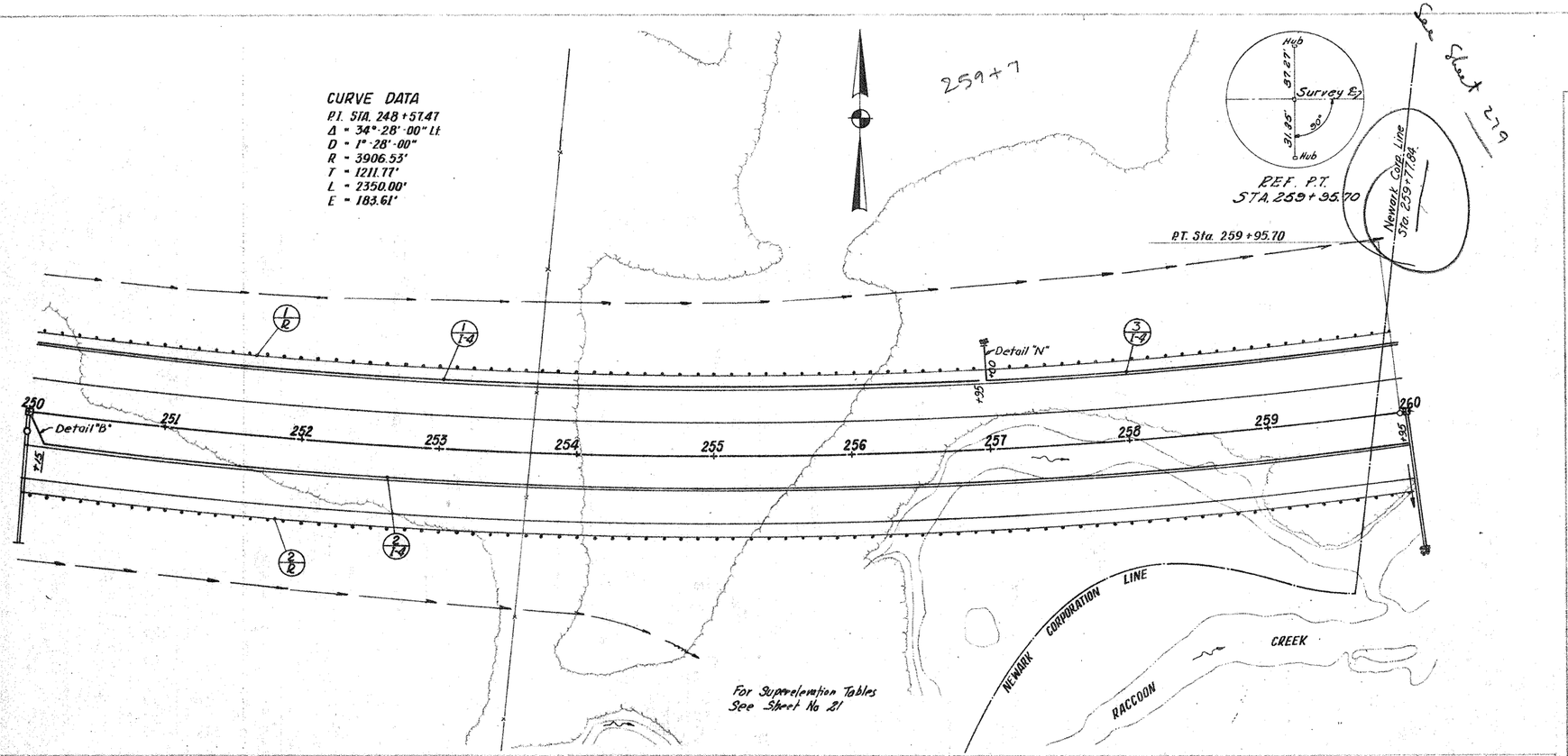
| | | | I-4 6" Pipe Underdrains | I-4 6" Pipe Underdrains Lin. Ft. | I-5 6" Pipe Specials for Underdrains Each | I-5 6"-60° ℄-Tee Underdrains Each | I-15 Guard Rail Steel Beam Type 3 (Std.) Lin. Ft. |
|---|---|---|---|---|---|---|---|
| SEE SHEET NO. | 368 | | | | | | |
| | 367 | | | | | | |
| | 368 | | | | | | |
| | 373 | | | | | | |
| | 373 | | | | | | |
| | 373 | | | | | | |
| | | | | | | | 100 |
| | | | | | | | 100 |
| | | | 1 | 10 | 1 | | |
| | | | 1 | 10 | | | |
| | | | | | 1 | 1 | |
| | | | | | | | |

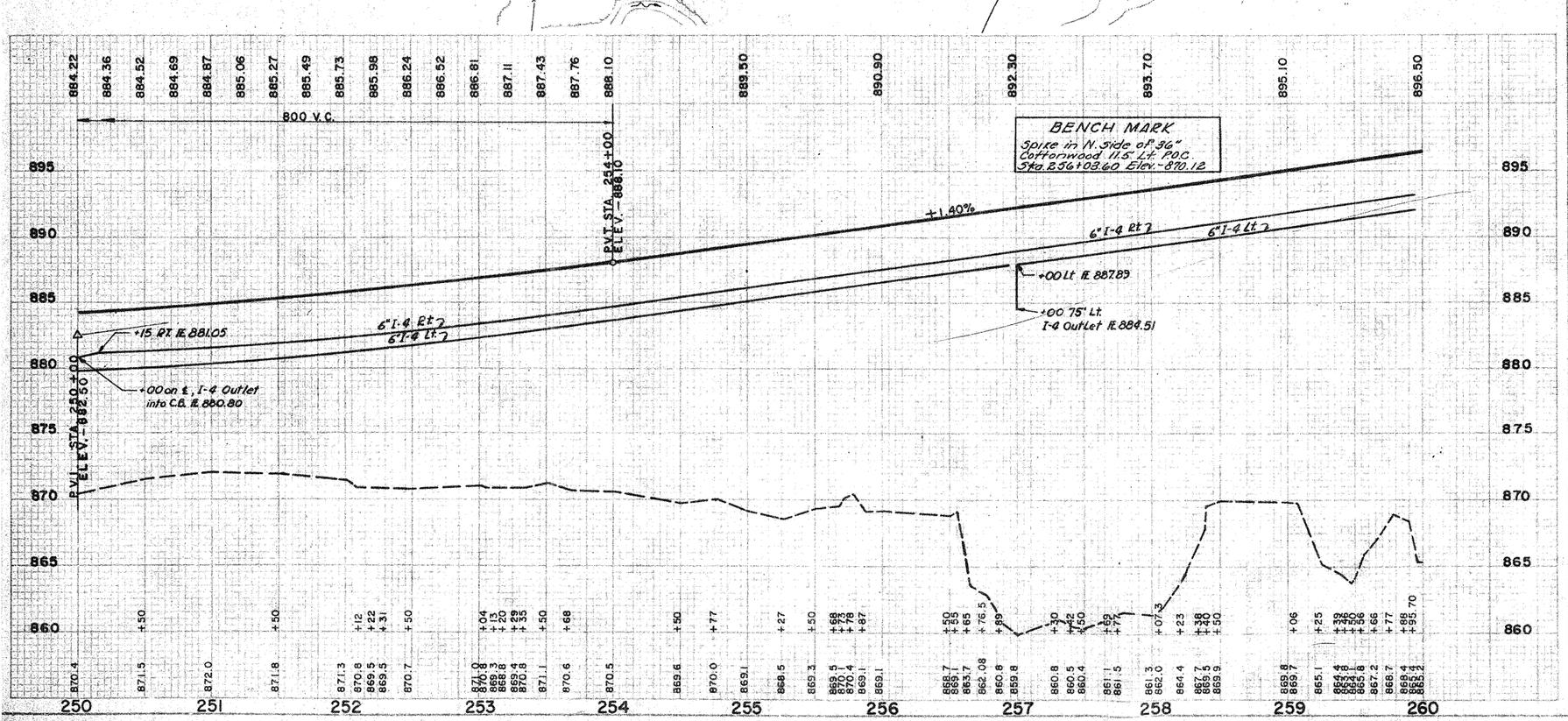
PLAN & PROFILE STA. 240+00 TO STA. 250

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SECTION | STATE | | |
|---|---|---|---|
| 2 | OHIO | | |

49
466




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | L-10 Sodding Sq. Yds. | I-15 Guard Rail Steel Beam Deep Std. Lin. Ft. | I-4 6" Pipe Underdrains Lin. Ft. | I-5 6" Pipe Specials Outlets for Underdrains Each | I-9 6" Under-drains Shallow Lin. Ft. | I-60 6"-90° Each |
|---|---|---|---|---|---|---|---|---|
| 11-9 | 250+00 - 256+95 | Lt. | | | | | 695.00 | |
| 21-4 | 250+15 - 259+77.84 | Rt. | | | | | 977.84 | 10 |
| 31-9 | 257+00 - 259+77.84 | Lt. | | | | | 292.84 | 10 |
| 1-2 | 250+00 - 259+77.84 | Lt. | | 977.84 | | | | |
| 2-2 | 250+00 - 259+77.84 | Rt. | | 977.84 | | | | |
| | Sub Total | | 1955.68 | | 1965.68 | 20 | 1987.68 | 20 |
| | TOTALS | | | | | 2 | | 2 |

SEE SHEET NO. 367 369

PLAN & PROFILE STA. 250+00 TO STA. 260+00

Shts 50 thru 139
X-Sections
SR. 161 Pav't Details
S.R. 161 Sections

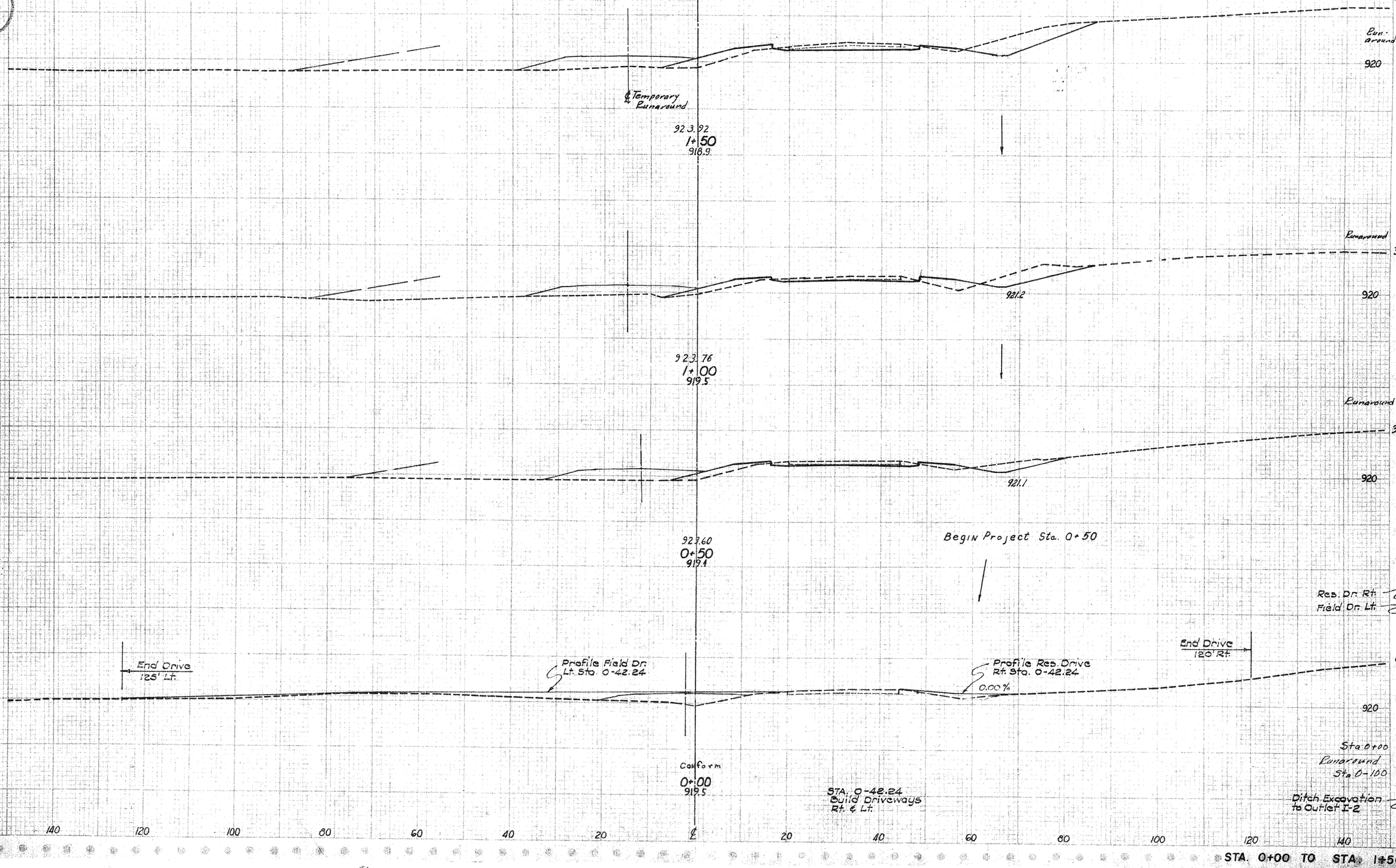
LIC-16-11.13
LIC-16-(14.30-18.51)

CROSS-SECTIONS

2

50/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



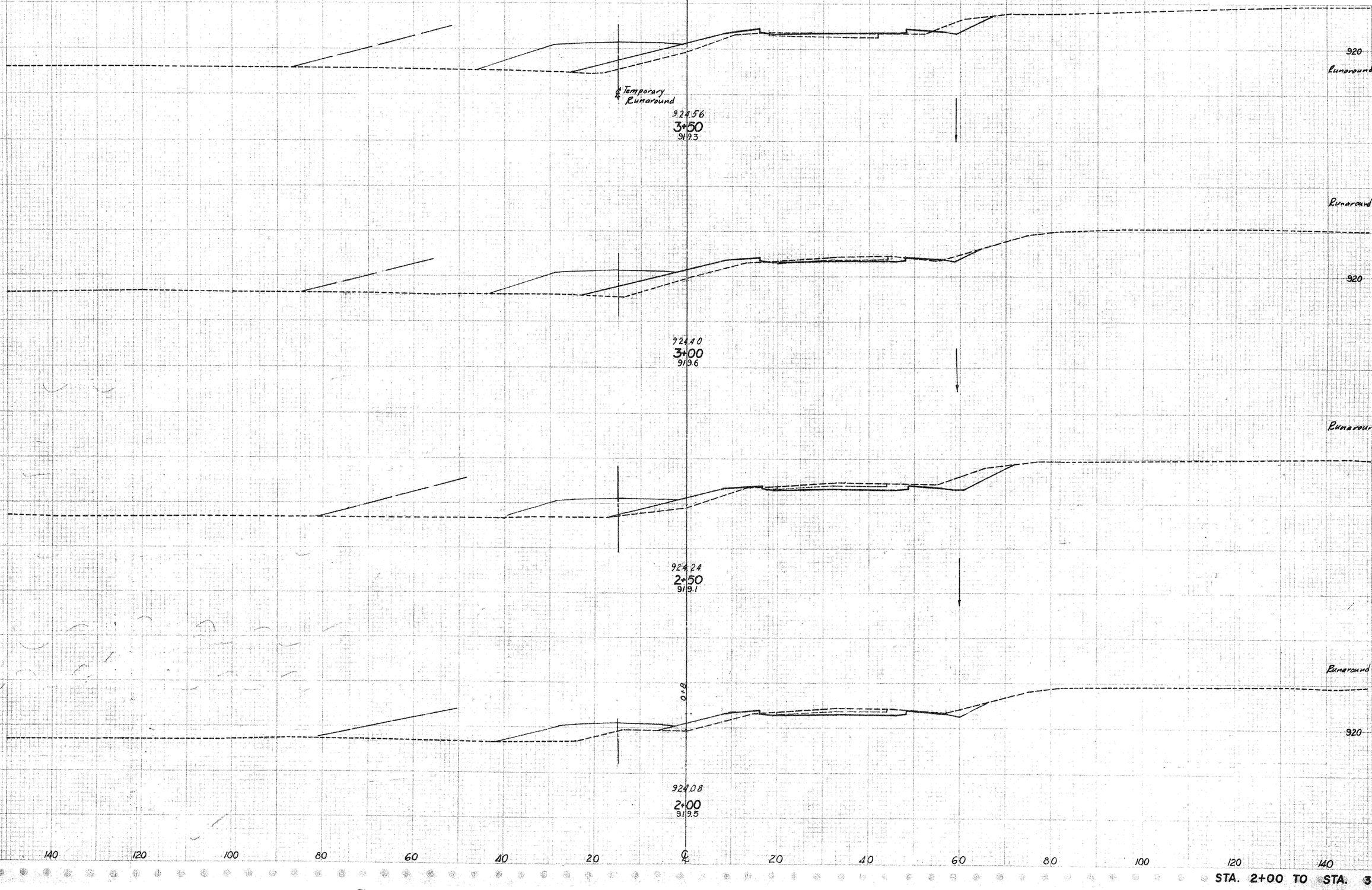

| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| | 96 | 47 | | |
| Run-around | 0 | 68 | 0 | 11 |
| | | | 120 | 85 |
| Runaround | 0 | 58 | 0 | 113 |
| | 34 | 45 | | |
| | | | 61 | 69 |
| Runaround | 0 | 64 | 0 | 101 |
| | 32 | 30 | | |
| | | | 30 | 28 |
| Res. Dr. Rt. | | | 15 | 5 |
| Field Dr. Lt. | | | 10 | 30 |
| | 0 | 0 | | |
| Sta. 0+00 | 0 | 45 | | |
| Runaround | | | 0 | 83 |
| Sta. 0-100 | 0 | 0 | | |
| Ditch Excavation to Outlet I-2 | | | 10 | |

STA. 0+00 TO STA. 1+50

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

51
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 920 | 28 | 72 | | |
| Runaround | 0 | 155 | 0 | 255 |
| | | | 58 | 140 |
| Runaround | 0 | 120 | 0 | 195 |
| | 35 | 79 | | |
| 920 | | | | |
| | | | 164 | 110 |
| Runaround | 0 | 90 | 0 | 153 |
| | 142 | 40 | | |
| | | | 271 | 64 |
| Runaround | 0 | 75 | 0 | 132 |
| | 137 | 35 | | |
| 920 | | | | |
| | | | 229 | 71 |

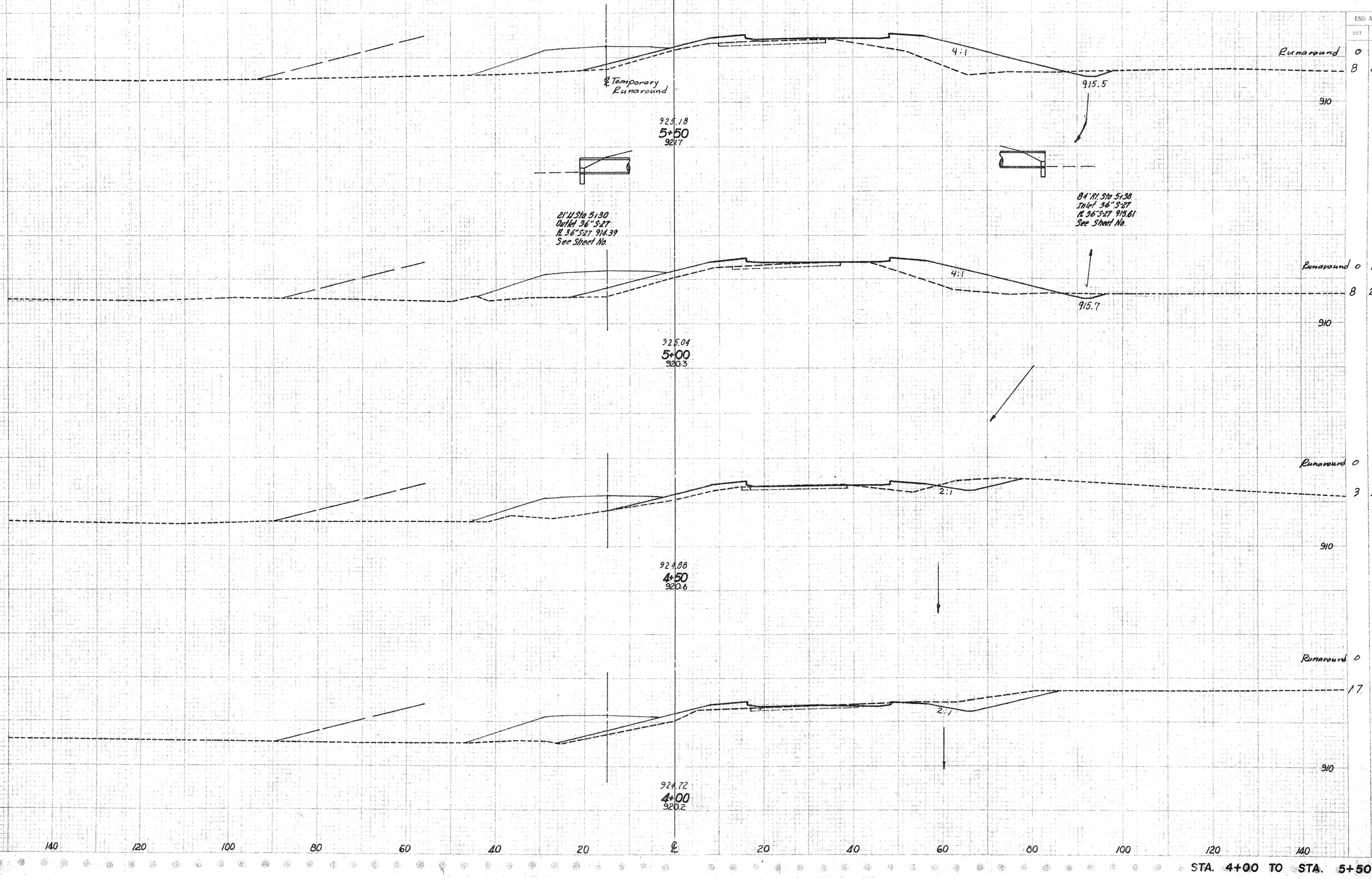
STA. 2+00 TO STA. 3+50

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS. |

| F.A. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

52
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| Runaround | 0 | 135 | 0 | 263 |
| | 8 | 200 | | |
| | | | 15 | 375 |
| Runaround | 0 | 138 | 0 | 241 |
| | 8 | 205 | | |
| | | | 10 | 299 |
| Runaround | 0 | 122 | 0 | 234 |
| | 3 | 59 | | |
| | | | 19 | 97 |
| Runaround | 0 | 130 | 0 | 264 |
| | 17 | 46 | | |
| | | | 42 | 109 |

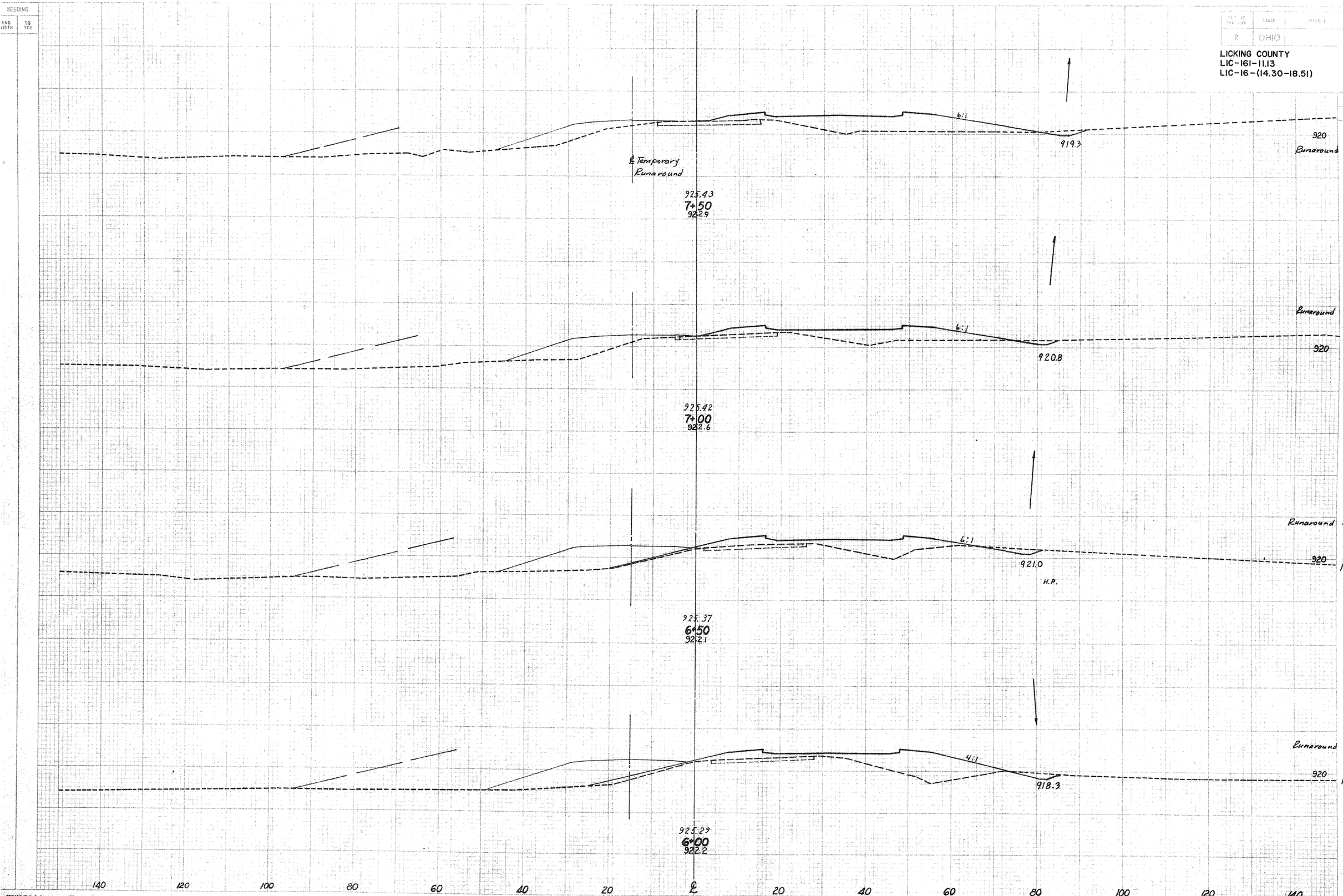
STA. 4+00 TO STA. 5+50

PRINTED IN U.S.A. CRONAFLEX CLOTH

| SEC. NO. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

53
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



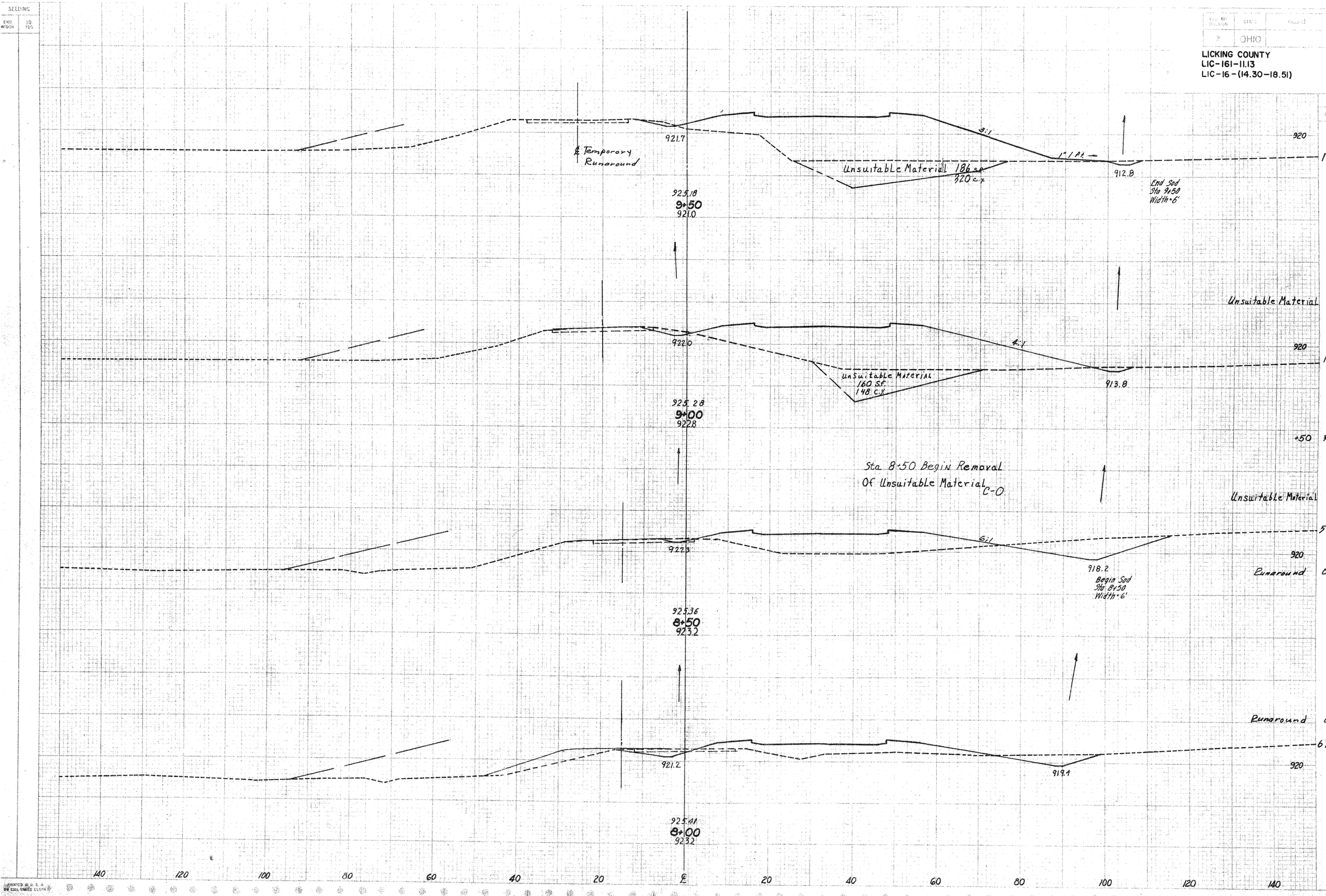

| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| | 7 | 197 | | |
| Runaround | 0 | 78 | 0 | 167 |
| | | | 19 | 316 |
| Runaround | 0 | 102 | 0 | 236 |
| | 13 | 144 | | |
| | | | 22 | 258 |
| Runaround | 0 | 152 | 0 | 280 |
| | 11 | 135 | | |
| | | | 21 | 319 |
| Runaround | 0 | 160 | 0 | 274 |
| | 12 | 209 | | |
| | | | 19 | 379 |

STA. 6+00 TO STA. 7+50

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

54
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| | 15 | 626 | | |
| | | | 31 | 1214 |
| | | | 320 | |
| | 18 | 625 | | |
| +50 | 31 | 394 | 71 | 818 |
| | | | 148 | |
| | 59 | 259 | | |
| Runaround | 0 | 0 | 0 | 54 |
| | | | 117 | 376 |
| Runaround | 0 | 58 | 0 | 126 |
| | 67 | 147 | | |
| | | | 69 | 323 |

STA. 8+00 TO STA. 9+50

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS |

| FED. NO. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

55
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| 25 | | 700 | | |
| | | | | |
| 50 | 29 | 660 | 76 | 3063 |
| | | | | 361 |
| 920 | | | | |
| 16 | | 955 | | |
| | | | | 3169 |
| | 41 | | | |
| | | | | 1939 |
| 920 | | | | |
| 6 | | 756 | | |
| | | | | 2817 |
| | 19 | | | |
| | | | | 1165 |
| 920 | | | | |
| 4 | | 600 | | |
| | | | | 1261 |
| | 18 | | | |
| | | | | 400 |

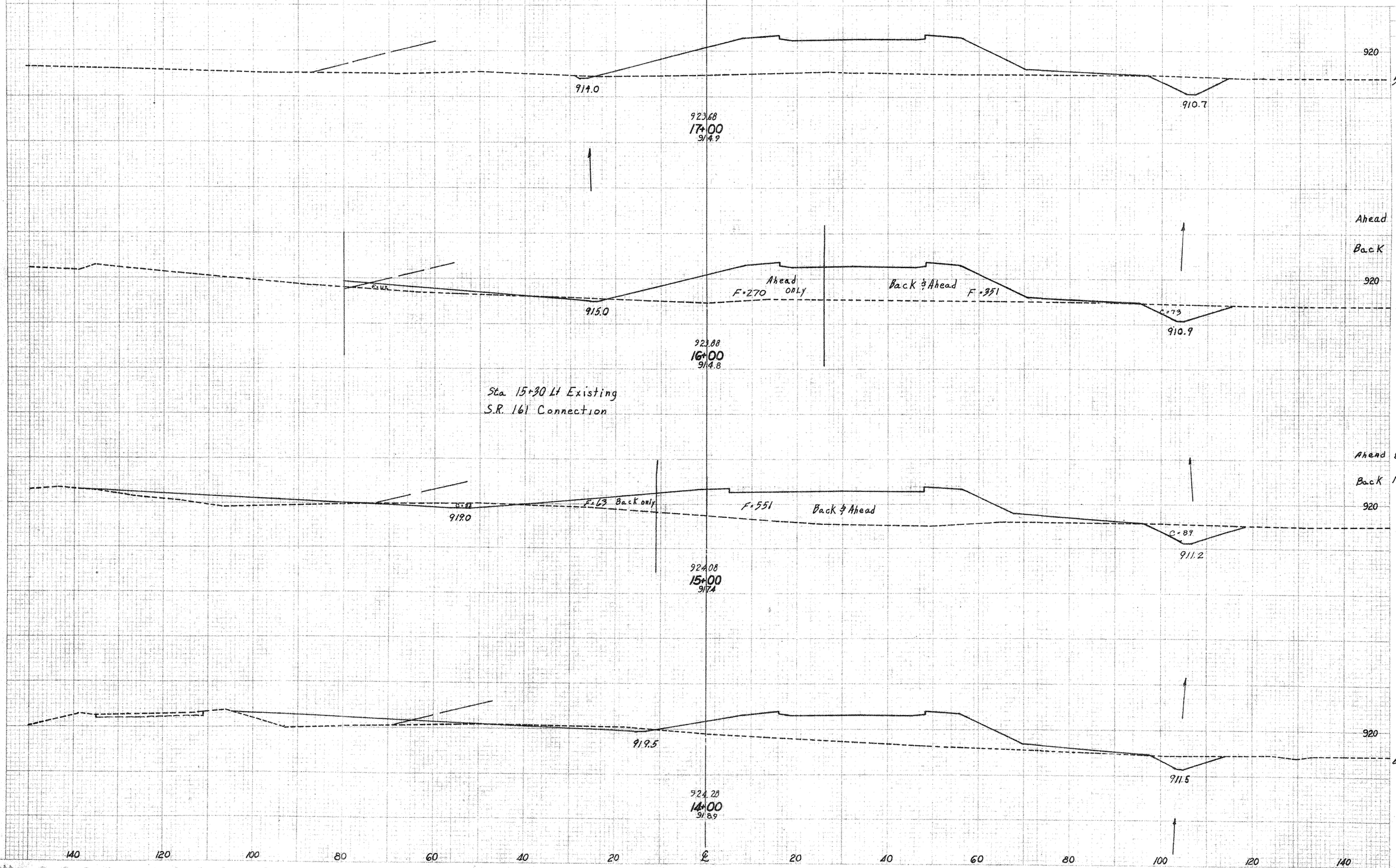
920.6
911.8
924.48
13+00
913.1
Sta. 12+50 End Removal of Unsuitable Material
C-0
Cy-361
Unsuitable Material
920.8
912.0
Unsuitable Material
924.68
12+00
913.3
C= 390 s.f.
V= 1935 c.y.
Unsuitable Material
921.1
912.9
Unsuitable Material
924.88
11+00
913.3
C= 385 s.f.
V= 1165 c.y.
Unsuitable Material
921.4
912.7
Unsuitable Material
925.08
10+00
913.1
C= 215 S.F.
V= 400 C.Y.
Unsuitable Material

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 10+00 TO STA. 13+00

PRINTED ON U. S. A. CRISCUIL-TRACE CLOTH

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



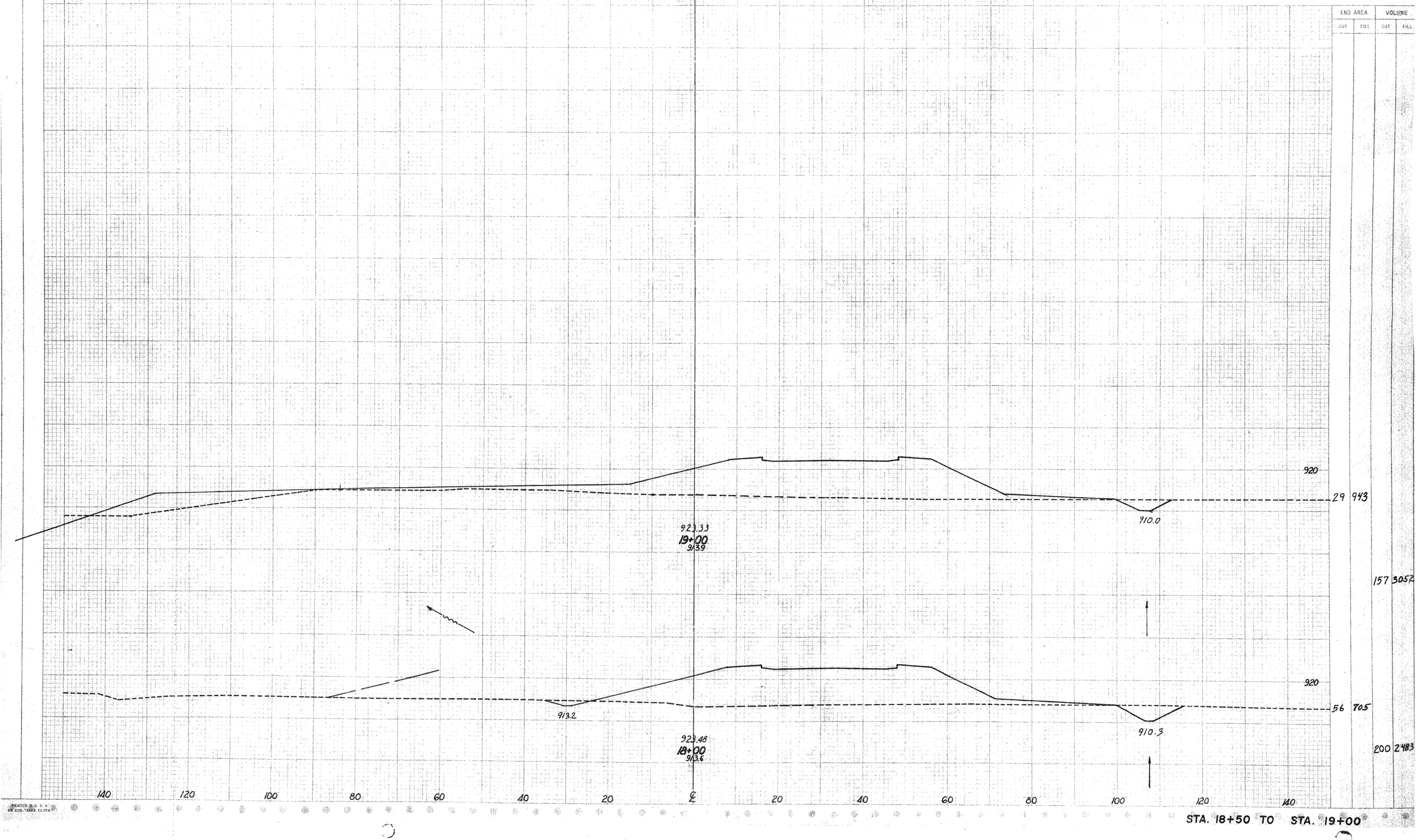

| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| | 52 | 636 | | |
| | | | 244 | 2405 |
| Ahead | 79 | 663 | | |
| Back | 73 | 351 | | |
| | | | 311 | 2246 |
| Ahead | 89 | 551 | | |
| Back | 121 | 694 | | |
| | | | 310 | 2193 |
| | 63 | 490 | | |
| | | | 163 | 2290 |

STA. 14+00 TO STA. 17+00

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

57
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

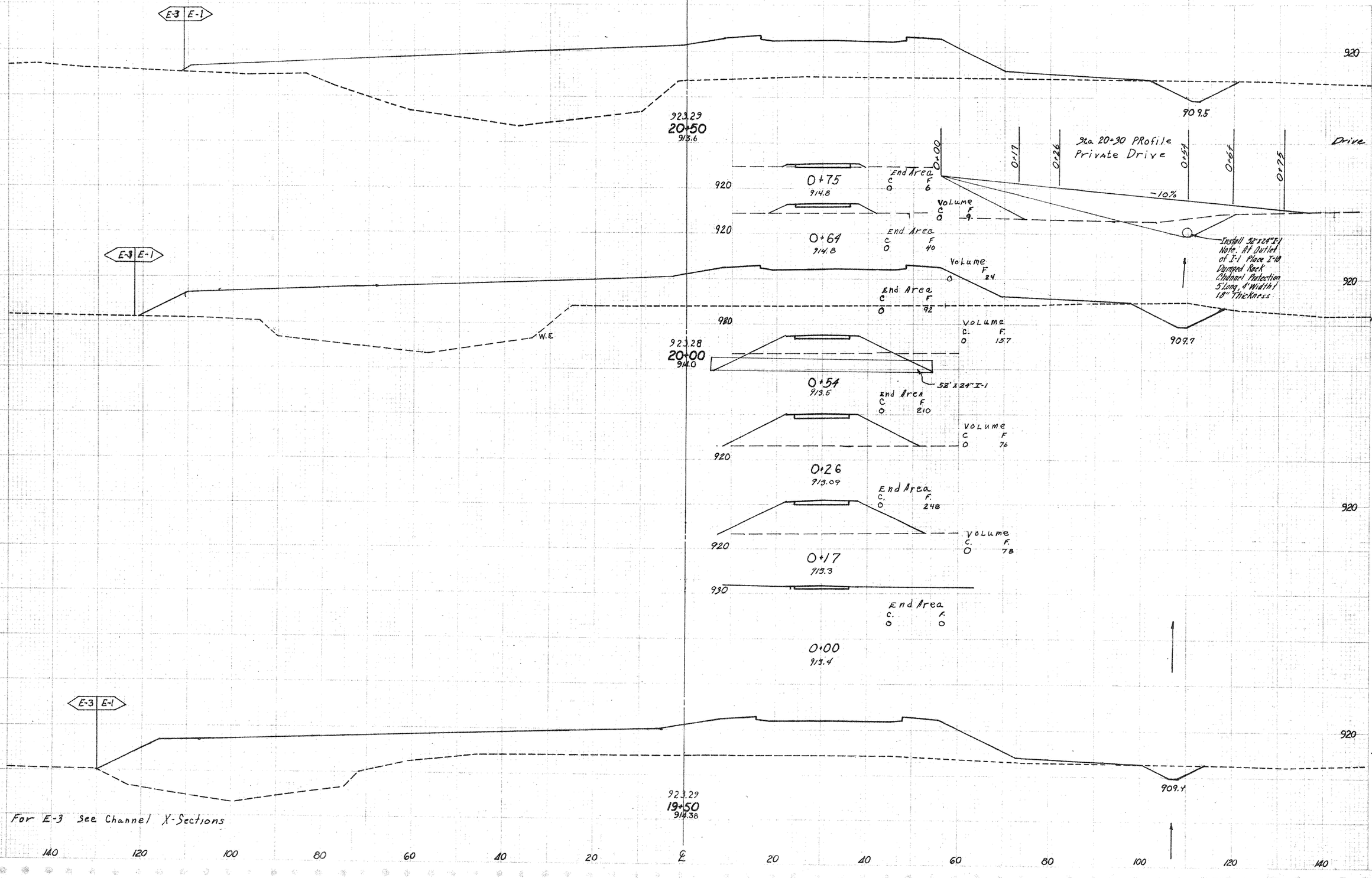



STA. 18+50 TO STA. 19+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| 84 | | 1700 | | |
| Drive | | | 0 | 314 |
| | | | 228 | 3192 |
| 920 | | | | |
| 162 | | 1747 | | |
| 920 | | | | |
| 184 | | | | 3138 |
| 920 | | | | |
| 37 | | 1642 | | |
| 61 | | 2447 | | |

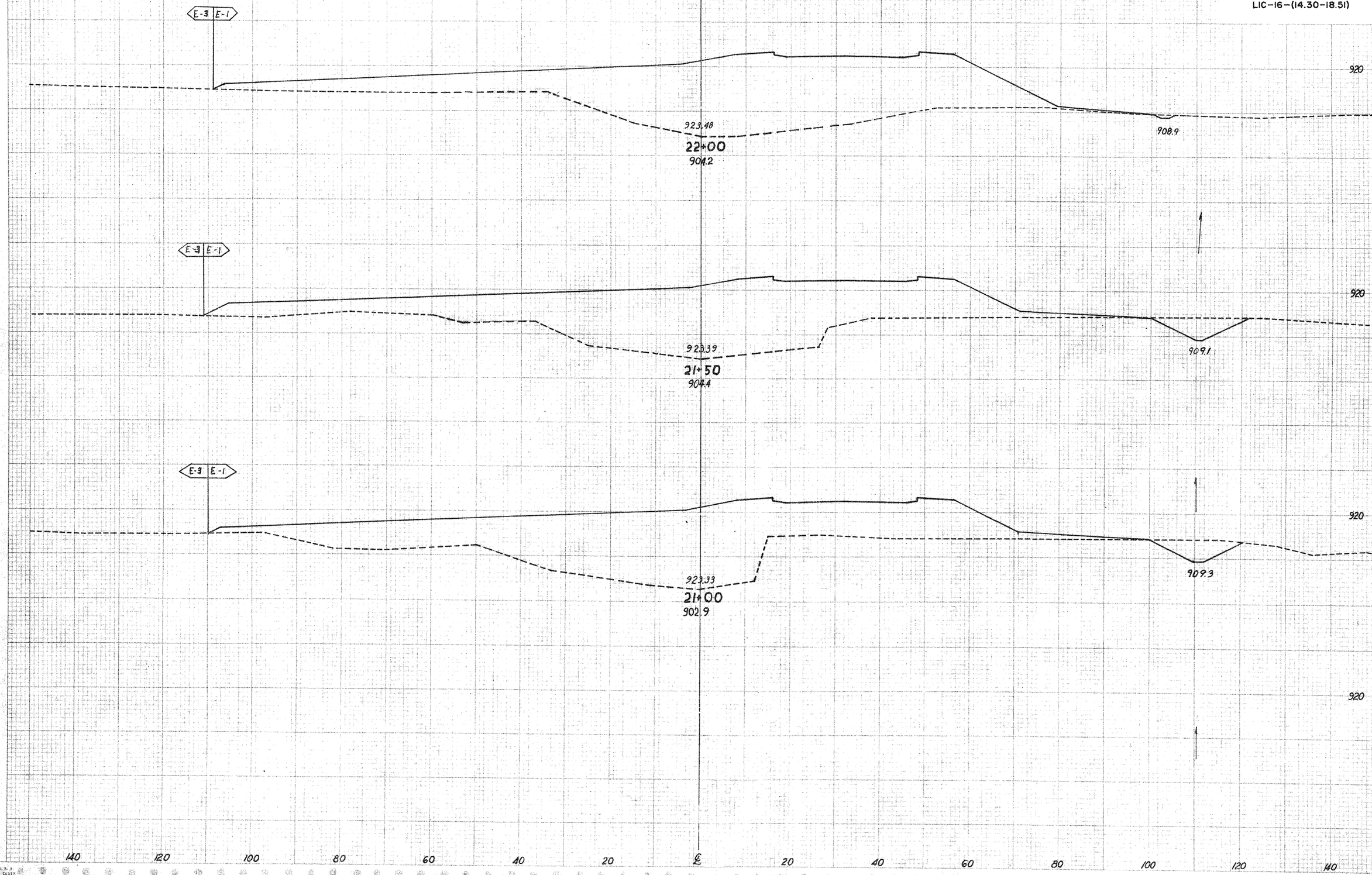



STA. 19+50 TO STA. 20+50

PRINTED IN U.S.A.
W. KOCH TRACE CLOTH

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 2 | 1796 | | |
| | | 91 | 3142 |
| 96 | 1597 | | |
| | | 165 | 3045 |
| 82 | 1692 | | |
| | | 154 | 3141 |

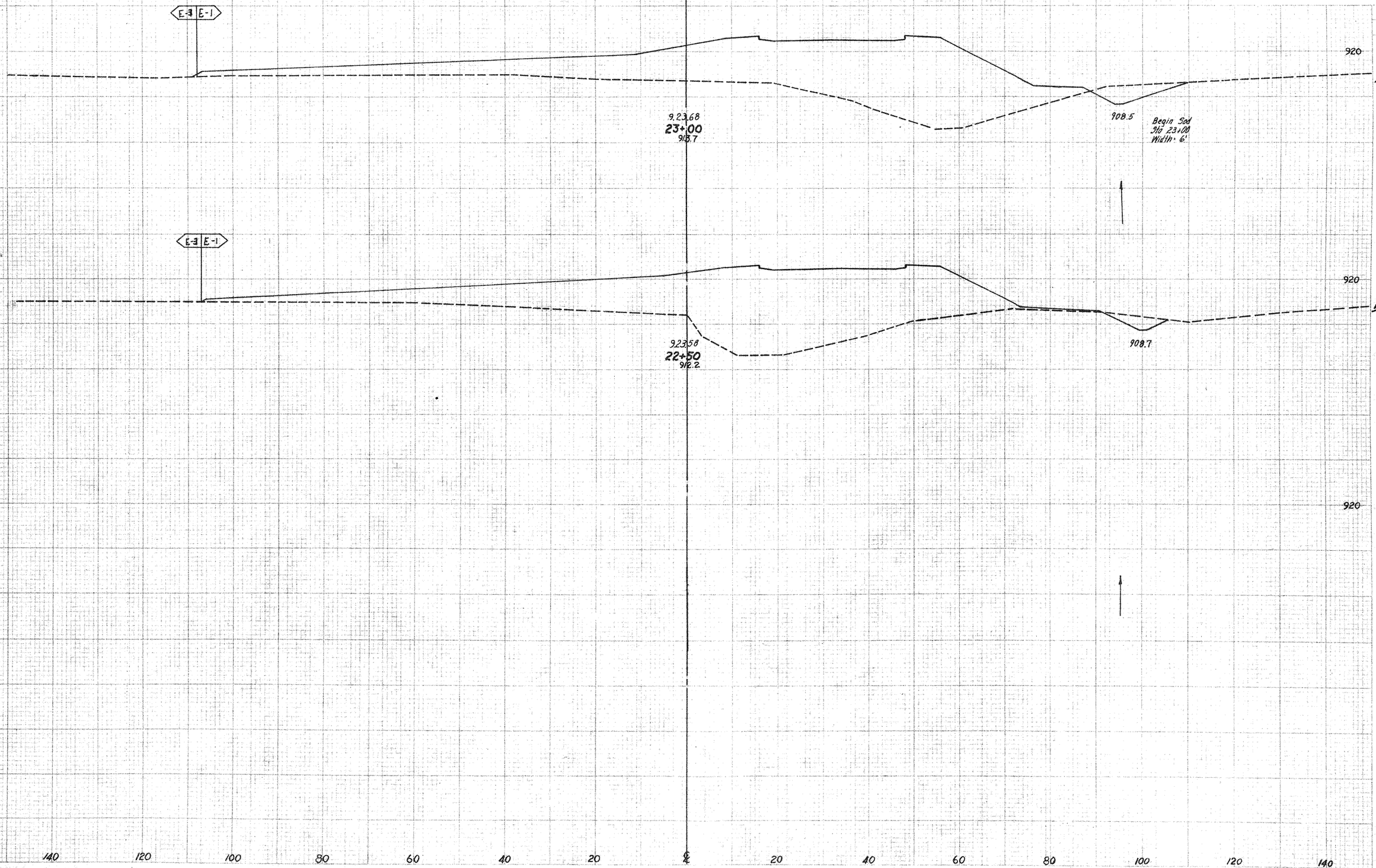
STA. 21+00 TO STA. 22+00

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS. |

| DIV. OF HIGHWAYS | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

60
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | 38 | | 1398 |
| | 81 | | 2698 |
| | 50 | | 1462 |
| | 48 | | 2937 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

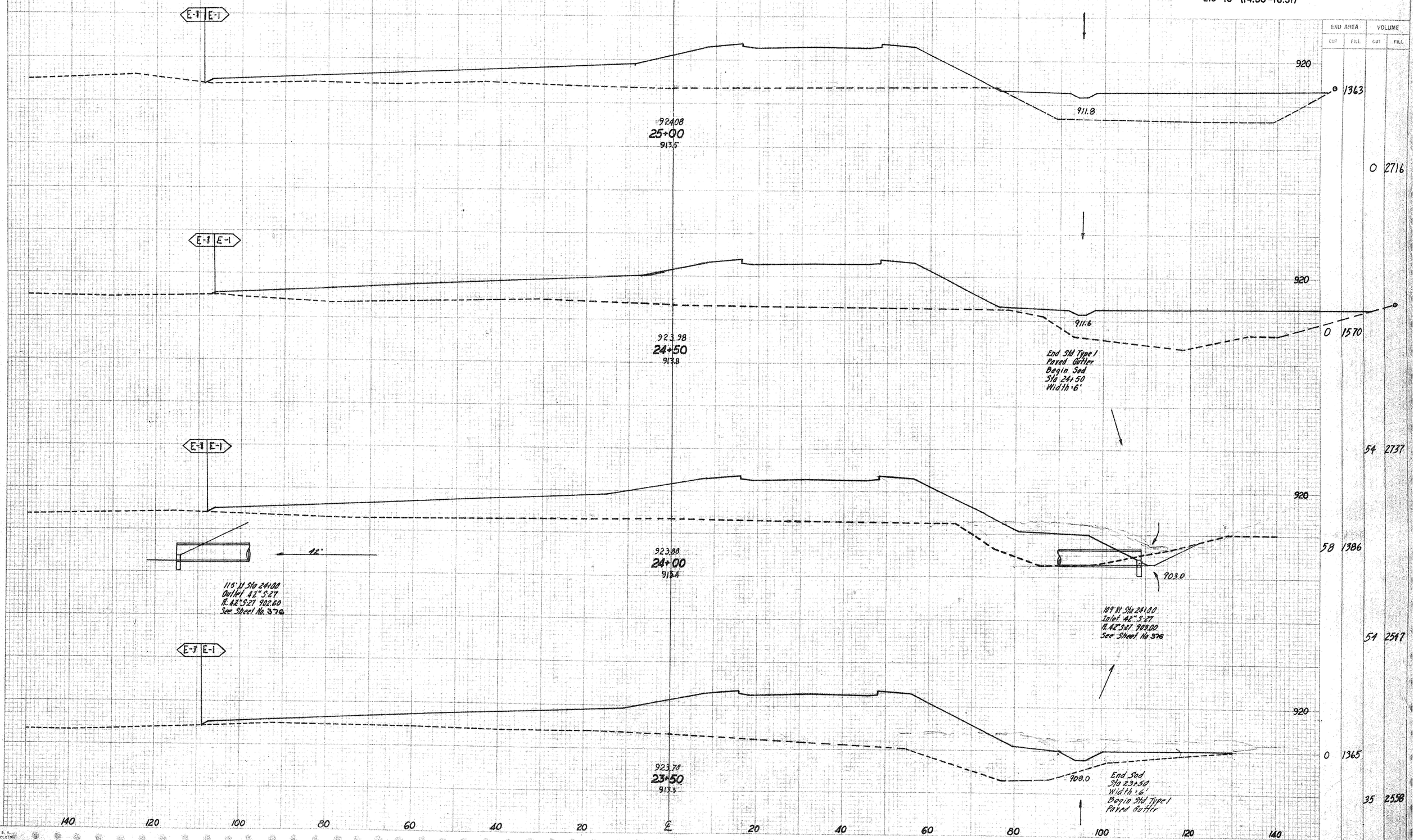
STA. 22+50 TO STA. 23+00

PRINTED IN U.S.A.
KEUFFEL TRACE CLOTH

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

61/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



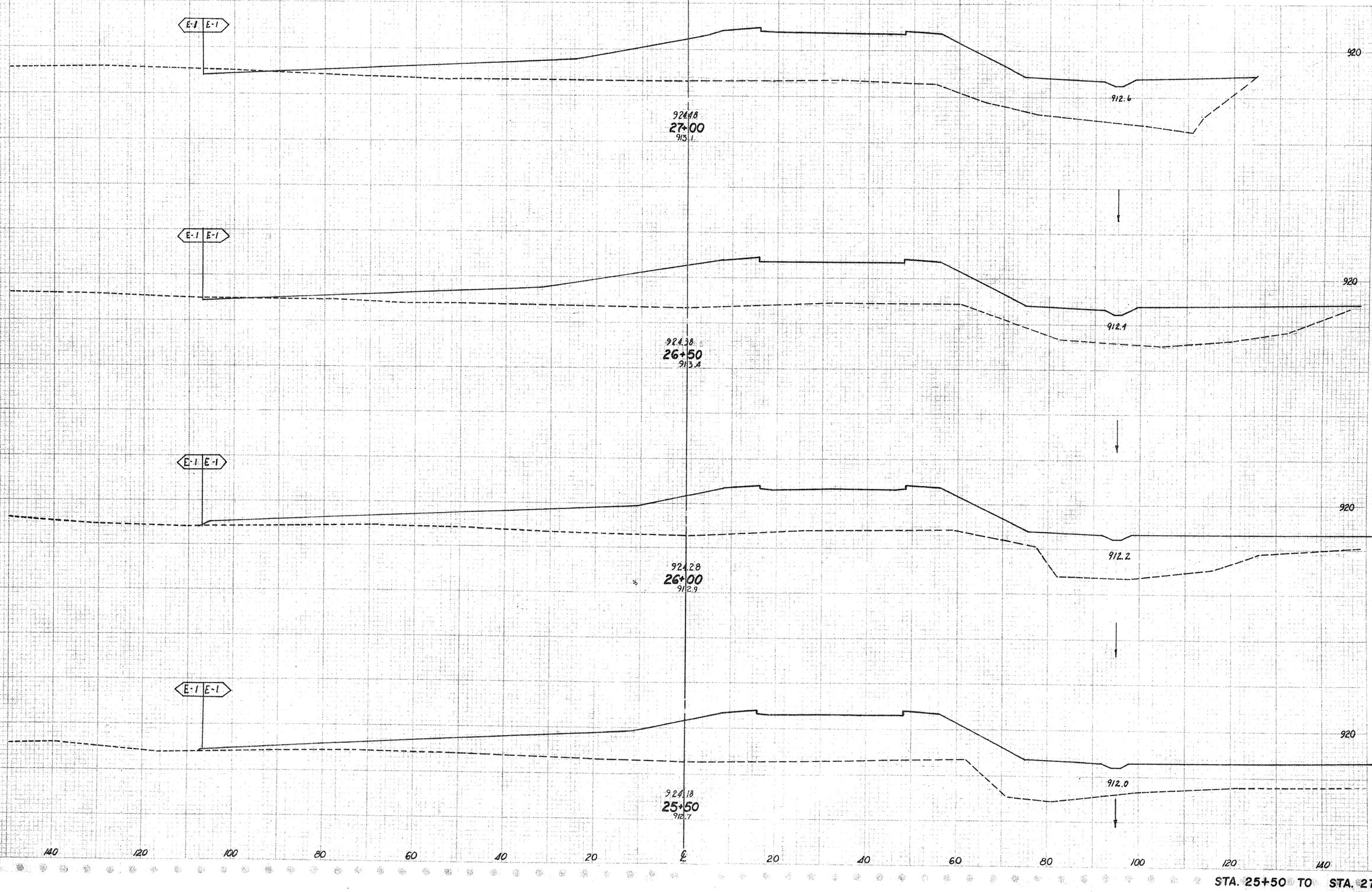

STA. 23-50 TO STA. 25+00

| SEEDING | |
|---|---|
| END WIDTH | SQ YDS |

| FED. ROAD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

62
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 0 | 1504 | | |
| | | 0 | 2715 |
| | 1461 | | |
| | | | 2805 |
| | 1569 | | |
| | | | 2908 |
| | 1572 | | |
| | | | 2750 |

PRINTED IN U.S.A.
CLEVELAND, OHIO

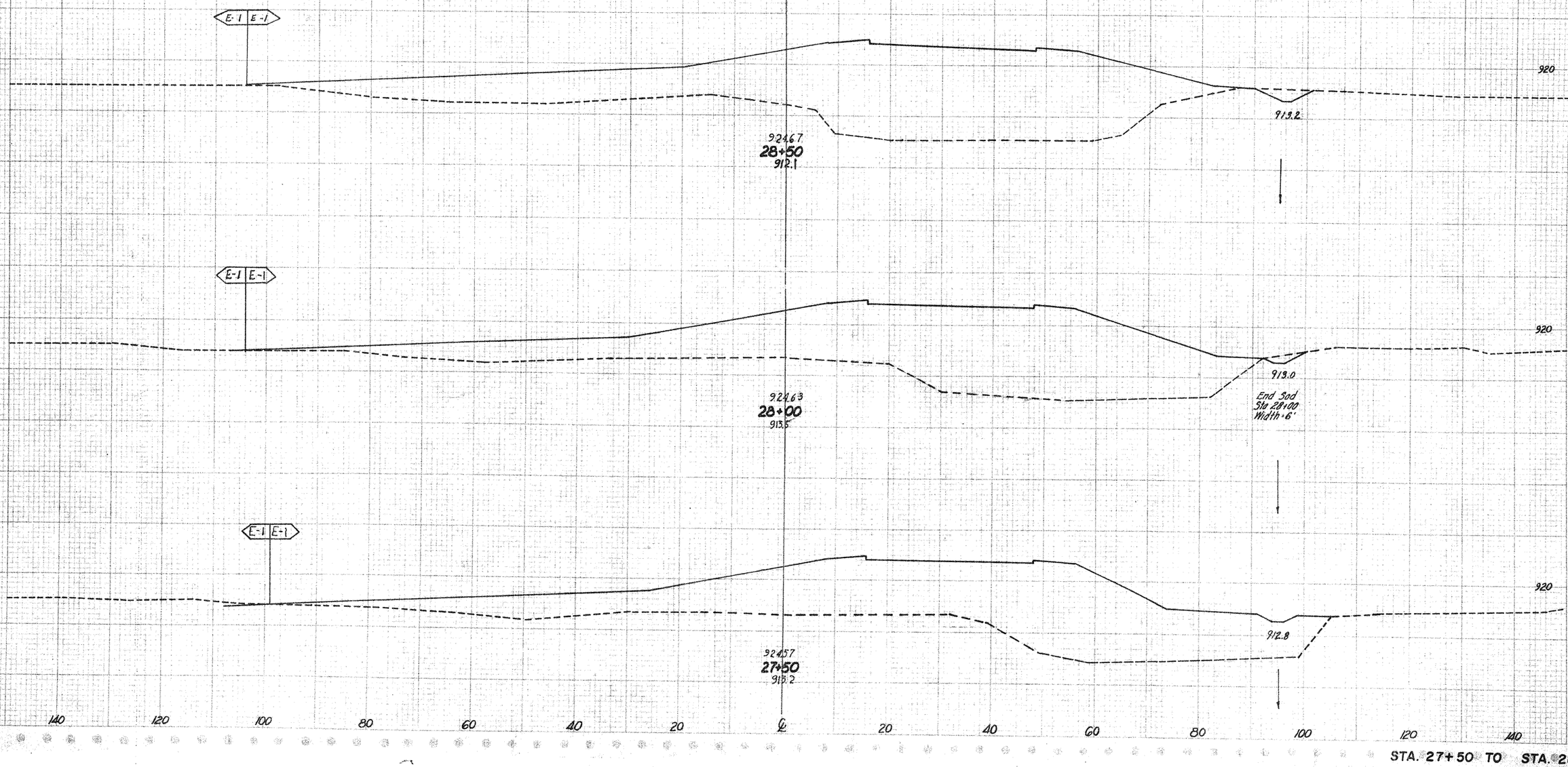
STA. 25+50 TO STA. 27+00

| SEEDING | |
|---|---|
| LND WIDTH | SQ. YDS |

| STATE | PROJECT |
|---|---|
| OHIO | |

63
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| 11 | 1751 | | |
| | | 19 | 3145 |
| 6 | 1646 | | |
| | | 6 | 3060 |
| 1659 | | | |
| | | 2929 | |

STA. 27+50 TO STA. 28+50

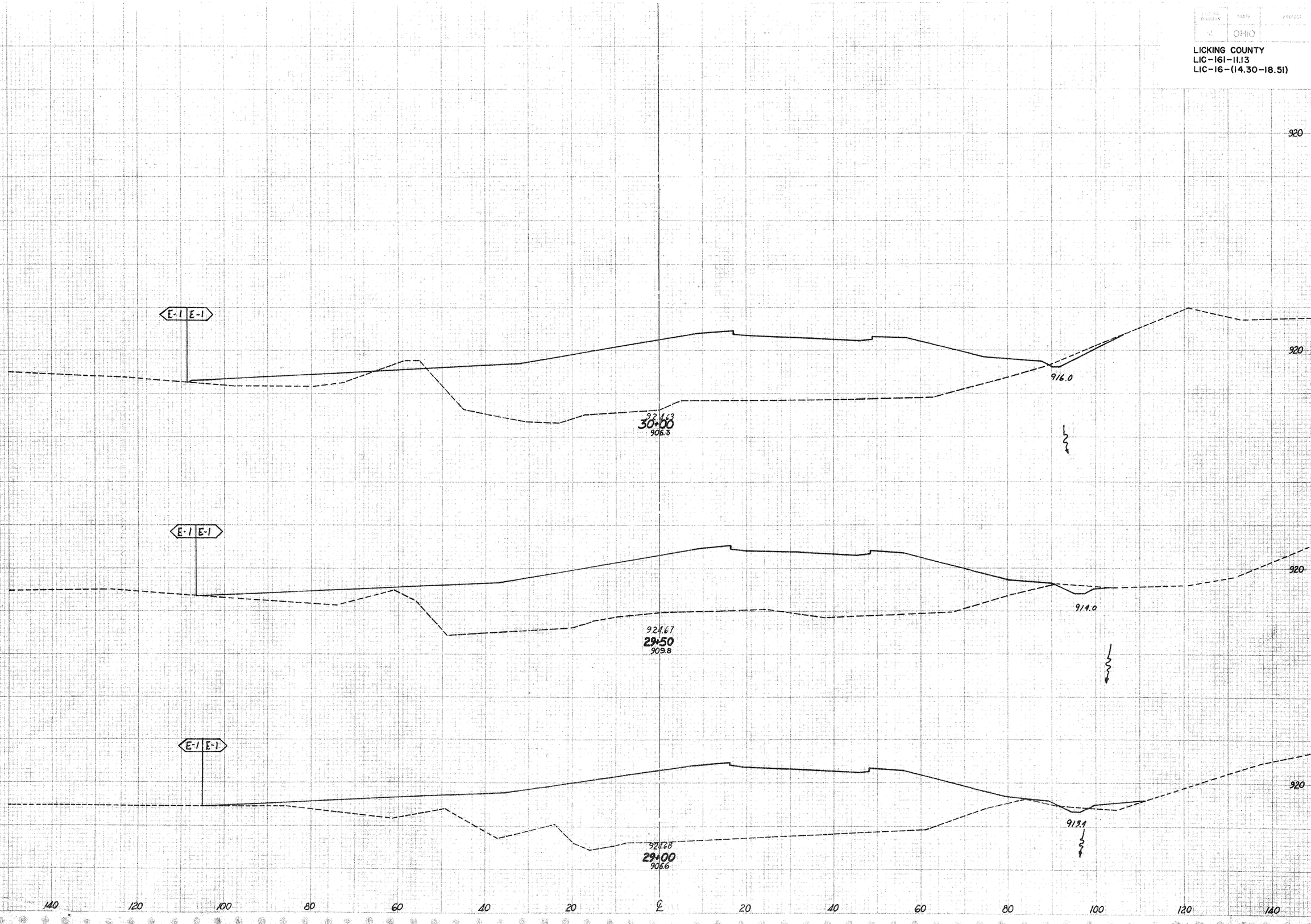
SEEDING

END WIDTH 39 105

| DIST. | STATE | PROJECT |
|---|---|---|
| 6 | OHIO | |

64
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | 920 | | |
| | | 15 | 1824 |
| | 920 | | |
| | | 25 | 3134 |
| | | 12 | 1915 |
| | 920 | | |
| | | 17 | 3477 |
| | | 6 | 1827 |
| | 920 | | |
| | | 19 | 3325 |

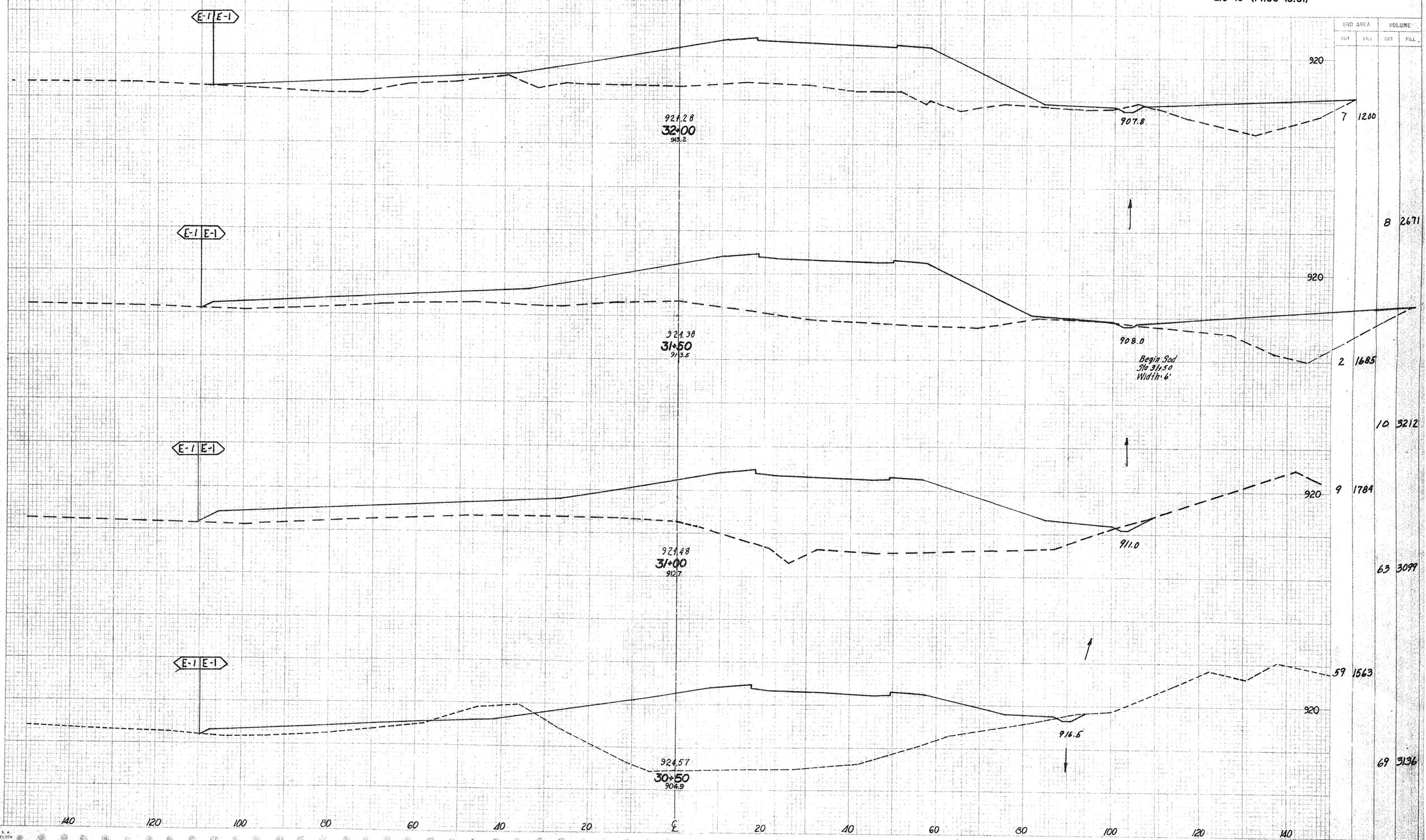
PRINTED BY G. S. A.
ON CEIL. TRANS. PAPER

STA. 29+00 TO STA. 30+00

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

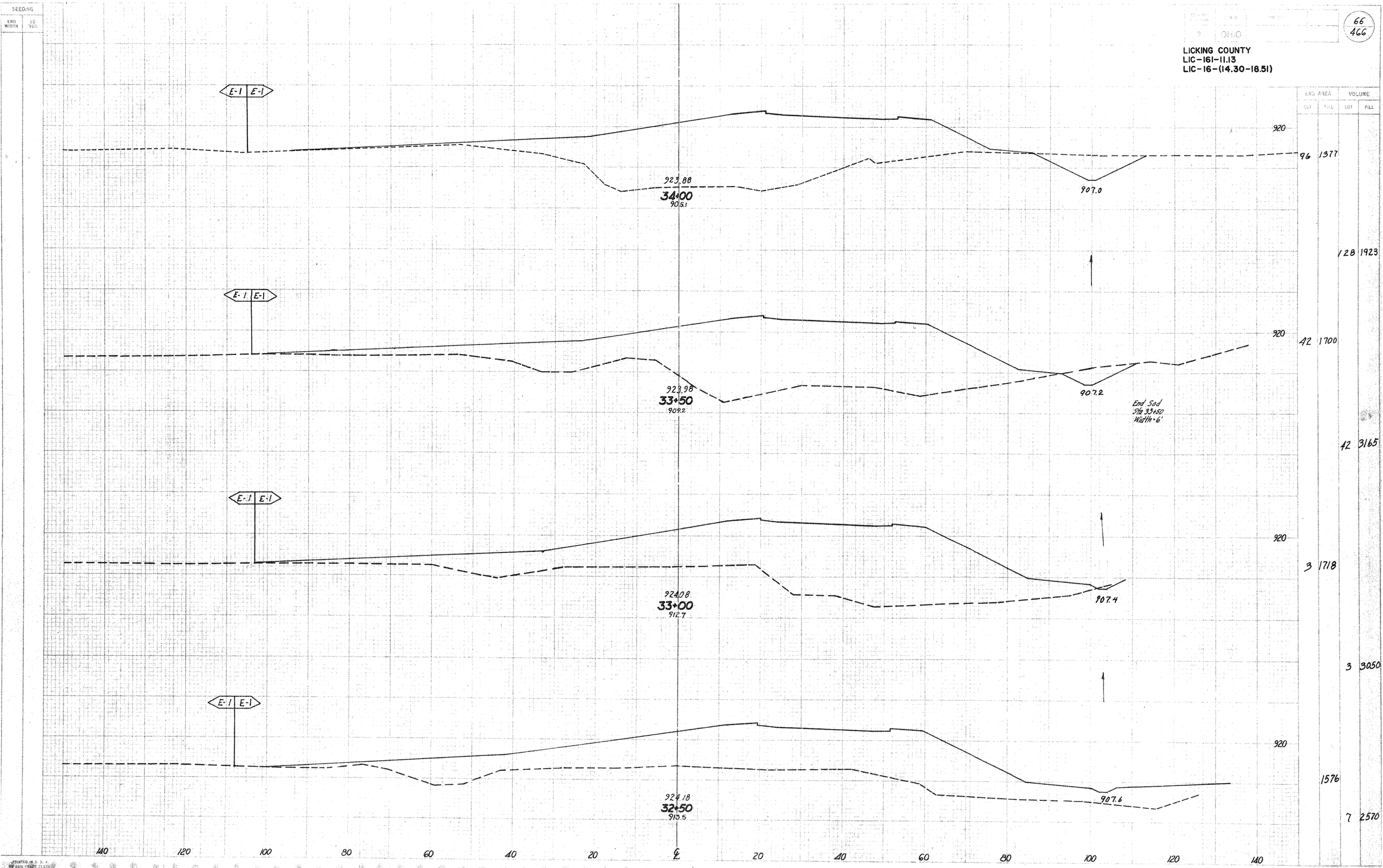
65
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STA 30+50 TO STA. 32+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 96 | 1377 | | |
| | | 128 | 1923 |
| 42 | 1700 | | |
| | | 42 | 3165 |
| 3 | 1718 | | |
| | | 3 | 3050 |
| | 1576 | | |
| | | 7 | 2570 |

STA. 32+50 TO STA. 34+00

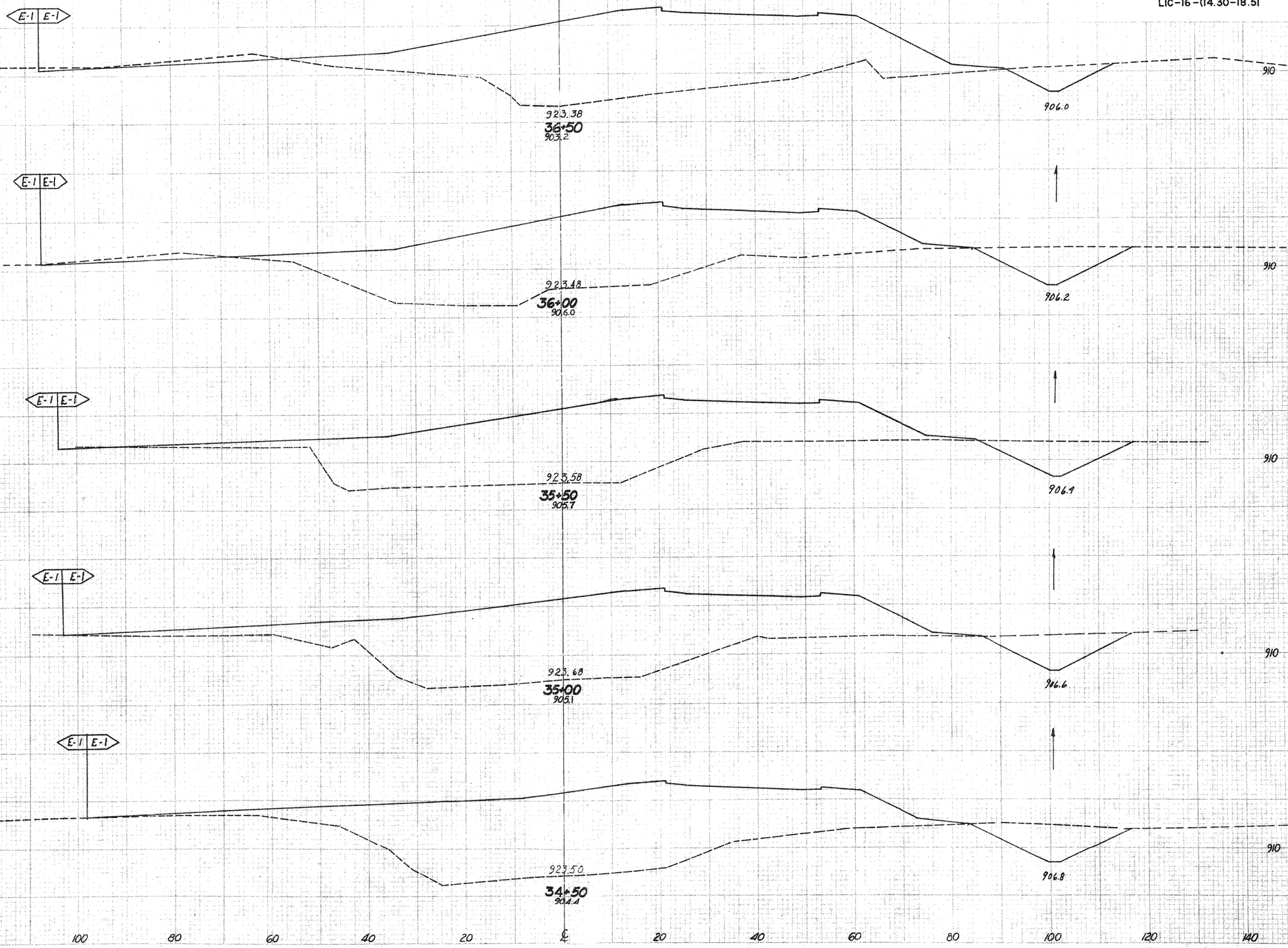
| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

67
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51

SEEDING

| END WIDTH | SQ YDS |
|---|---|
| | |




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 94 | 1465 | | |
| | | 241 | 271 |
| 166 | 1465 | | |
| | | 270 | 298 |
| 126 | 1557 | | |
| | | 220 | 287 |
| 112 | 1547 | | |
| | | 232 | 295 |
| 139 | 1647 | | |
| | | 218 | 288 |

STA. 34+50 TO STA. 36+50

PRINTED IN U.S.A.
ON LINEN TRACE CLOTH

SEEDING

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |

68
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

E-1 | E-1

922.88
**39+00**
912.9

Begin Std Type I
Paved Gutter
Sta 39+00

910

1090

116' Lt Sta 39+00
Outlet 84" S-27
Lt 84" S-27 901.50
See Sheet No. 377

106' Rt Sta 39+00
Inlet 84" S-27
Rt 84" S-27 903.00
See Sheet No. 377

2028

E-1 | E-1

922.98
**38+50**
912.9

910

1100

2119

E-1 | E-1

923.08
**38+00**
913.2

910

1189

2411

E-1 | E-1

923.18
**37+50**
913.8

910

1415

2627

E-1 | E-1

923.28
**37+00**
910.6

910

1422

87

2673

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 37+00 TO STA. 39+00

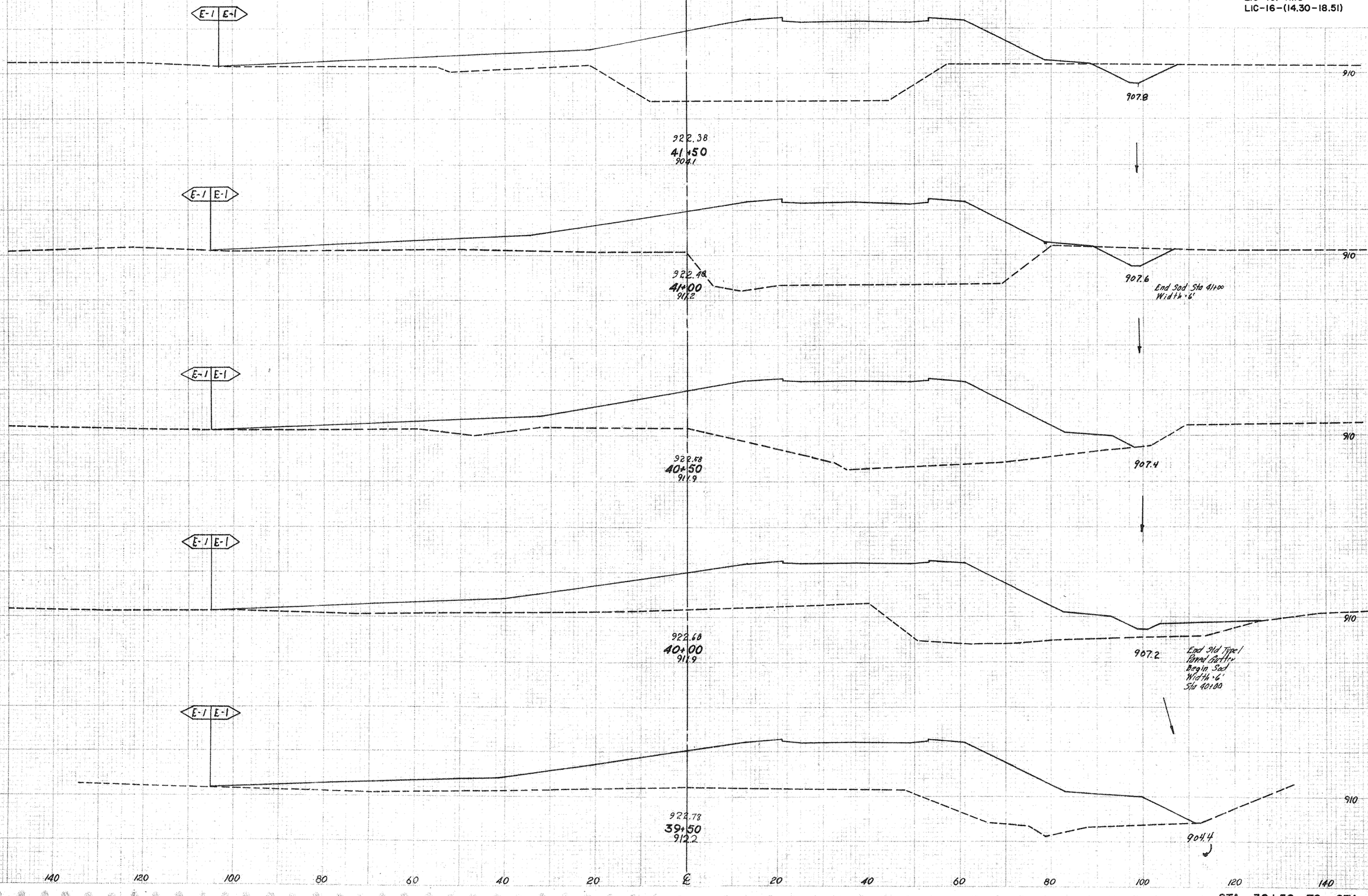
PRINTED IN U. S. A.
KEUFFEL & ESSER CO.

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS. |

| SEC. NO. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

69
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 33 | 1419 | | |
| | | 73 | 2659 |
| 46 | 1453 | | |
| | | 43 | 2785 |
| | 1555 | | |
| | | | 2786 |
| | 1454 | | |
| | | | 2695 |
| | 1457 | | |
| | | | 2358 |

STA. 39+50 TO STA 41+50

SEEDING

| END WIDTH | SQ YDS |
|---|---|

| FED'L ROAD DIST'N | STATE | ROUTE | SHEET NO. |
|---|---|---|---|
| 2 | OHIO | | |

70
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | 45 | 1313 | | |
| | | | 86 | 2418 |
| 910 | 48 | 1299 | | |
| | | | 55 | 2338 |
| 910 | 11 | 1226 | | |
| | | | 53 | 2338 |
| 910 | 46 | 1299 | | |
| | | | 41 | 56 |
| | | | 187 | 2550 |
| 910 | 156 | 1455 | | |
| | | | 175 | 2661 |

921.88
44+00
912.2

908.8

E-1 E-1

921.98
43+50
912.7

908.6

E-1 E-1

922.08
43+00
913.1

908.4

E-1 E-1

922.18
42+50
904.4

908.2

E-1 E-1

922.28
42+00
903.9

0+80
915.5

End Area
C 33 F 0

0+70
917.0

End Area
C 75 F 0

0+55
917.0

End Area
C 121 F 0

Volume
C 20 F 0

Volume
C 121 F 8

Drive way

-8% Field Drive Sta 42+40

0+20
0+55
0+70
0+80

End area
C 12 F

Volume
C F 53

End Area
C 0 F 70

908.0

Install 62"x24" "T-1
Note: At Outlet of T-1
Place I-10 Dumped Rock
Channel Protection
5' Long, 4' Width f 18"
Thickness.

0+20
914.0

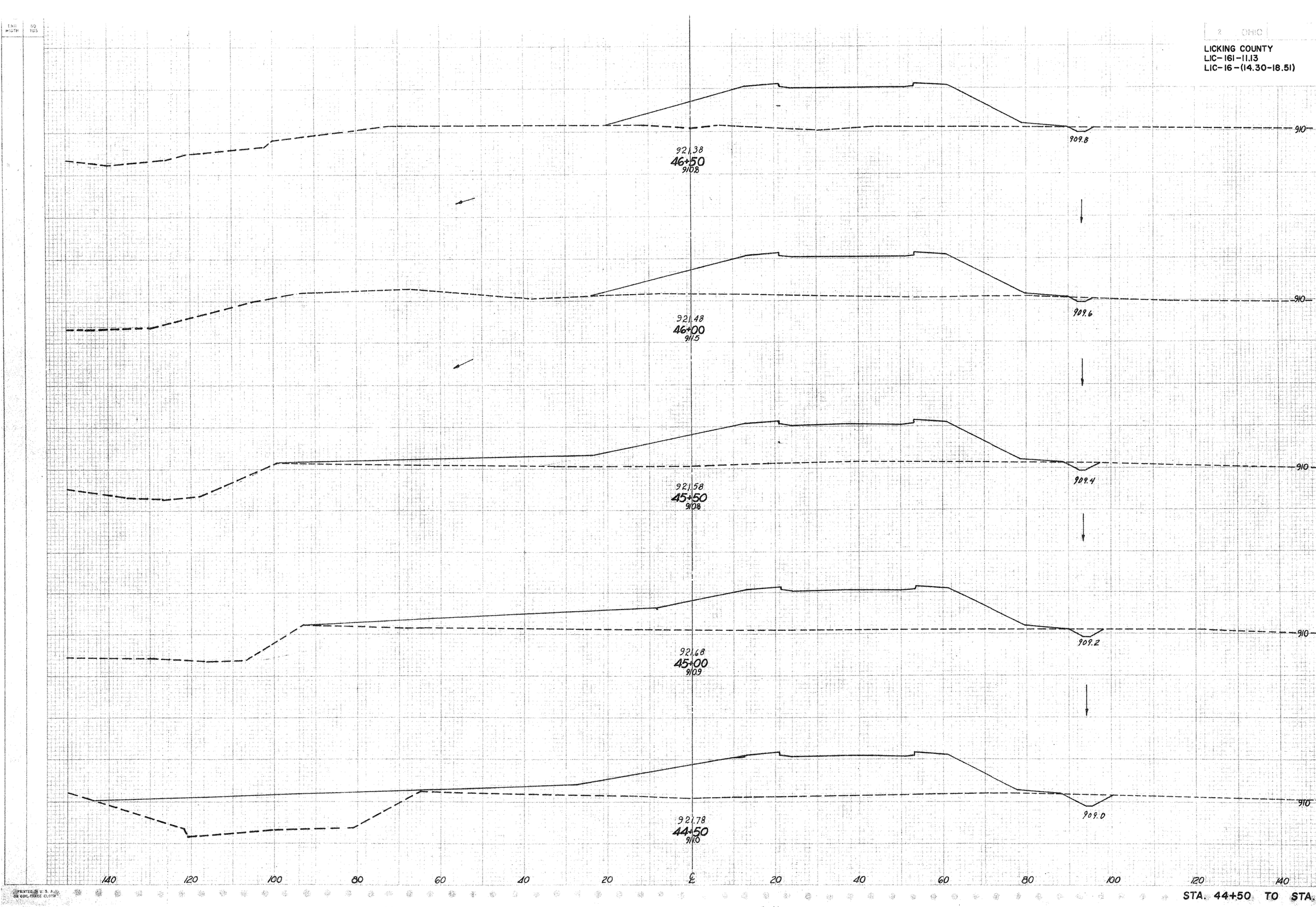
910
916

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 42+00 TO STA. 44+00

PRINTED IN U.S.A.
ON DIAL TRACE CLOTH

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



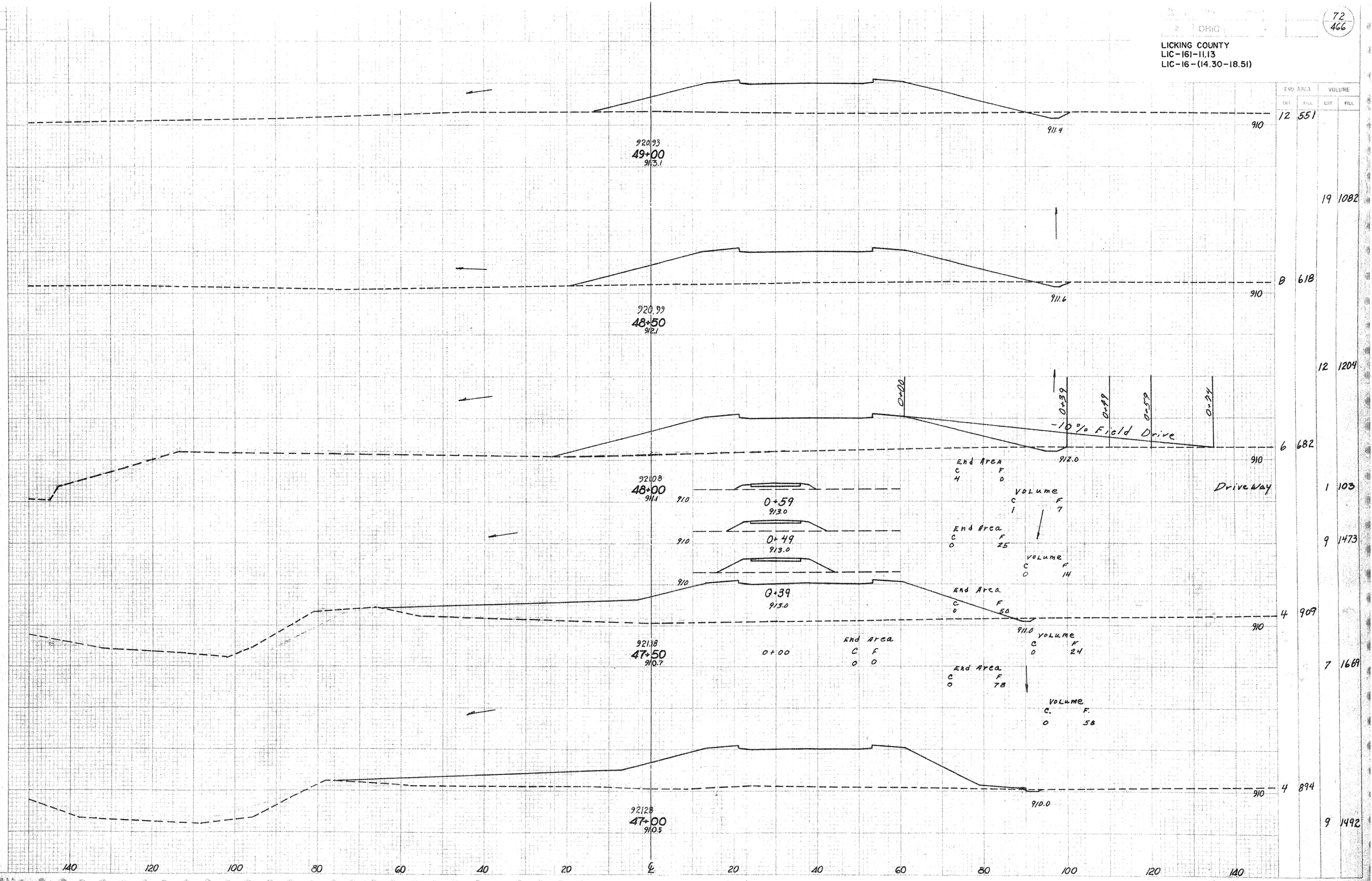

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| 5 | 717 | | |
| | | 10 | 1330 |
| 6 | 719 | | |
| | | 16 | 1490 |
| 11 | 890 | | |
| | | 20 | 1733 |
| 11 | 982 | | |
| | | 28 | 2130 |
| 19 | 1319 | | |
| | | 59 | 2437 |

STA. 44+50 TO STA. 46+50

PRINTED IN U.S.A. ON CURL-TRACE CLOTH

2 OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 12 | 551 | | |
| | | 19 | 1082 |
| 8 | 618 | | |
| | | 12 | 1204 |
| 6 | 682 | | |
| | | 1 | 103 |
| | | 9 | 1473 |
| 4 | 909 | | |
| | | 7 | 1669 |
| 4 | 894 | | |
| | | 9 | 1492 |

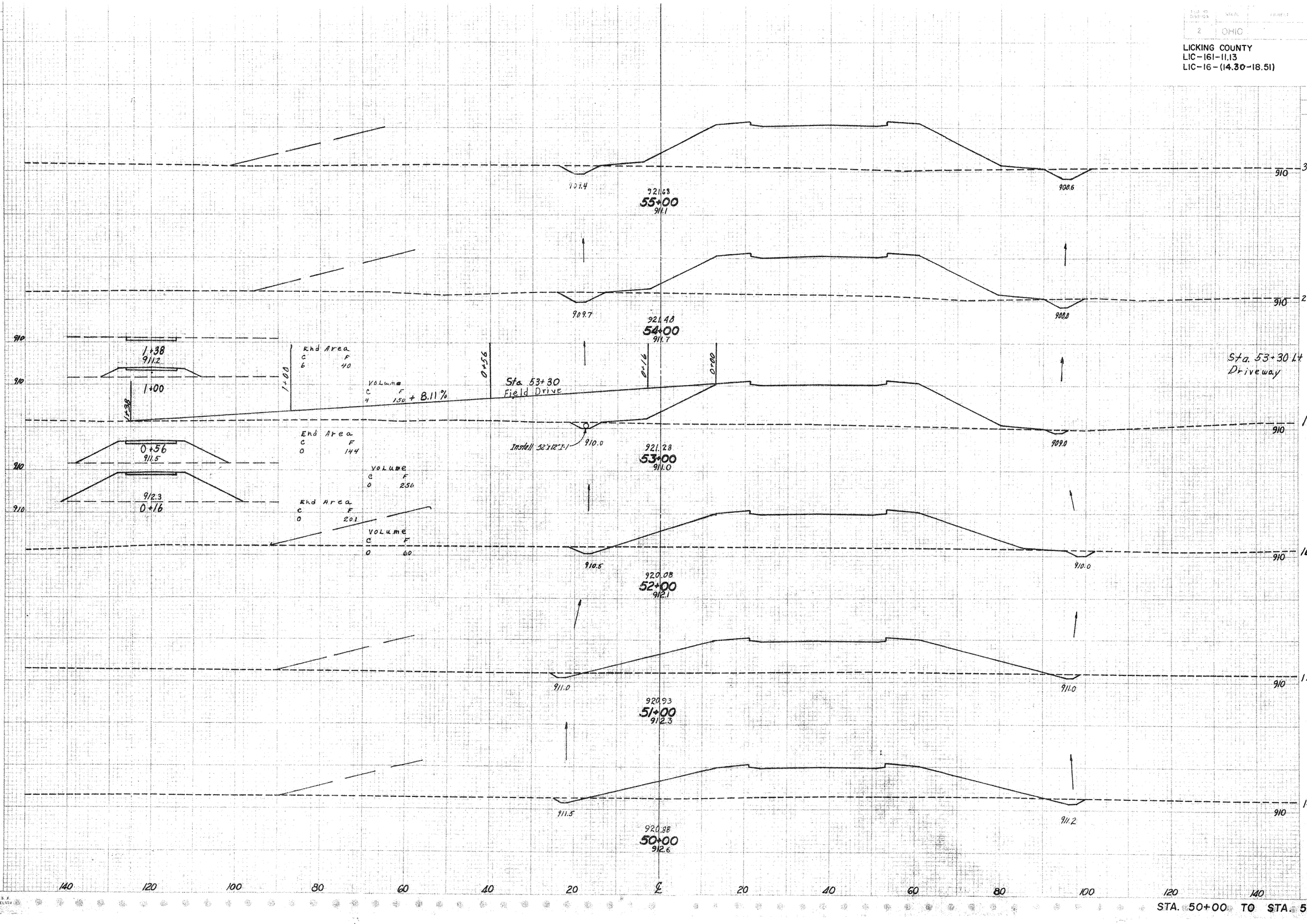
STA. 47+00 TO STA. 49+00

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS. |

| DISTRICT | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLU |
|---|---|---|
| CUT | FILL | CUT |
| 32 | 704 | |
| | | 109 |
| 27 | 638 | |
| | | 76 |
| 4 | 4 | |
| 14 | 658 | |
| | | 56 |
| 16 | 610 | |
| | | 52 |
| 12 | 623 | |
| | | 48 |
| 14 | 571 | |
| | | 48 |




STA. 50+00 TO STA. 55+00

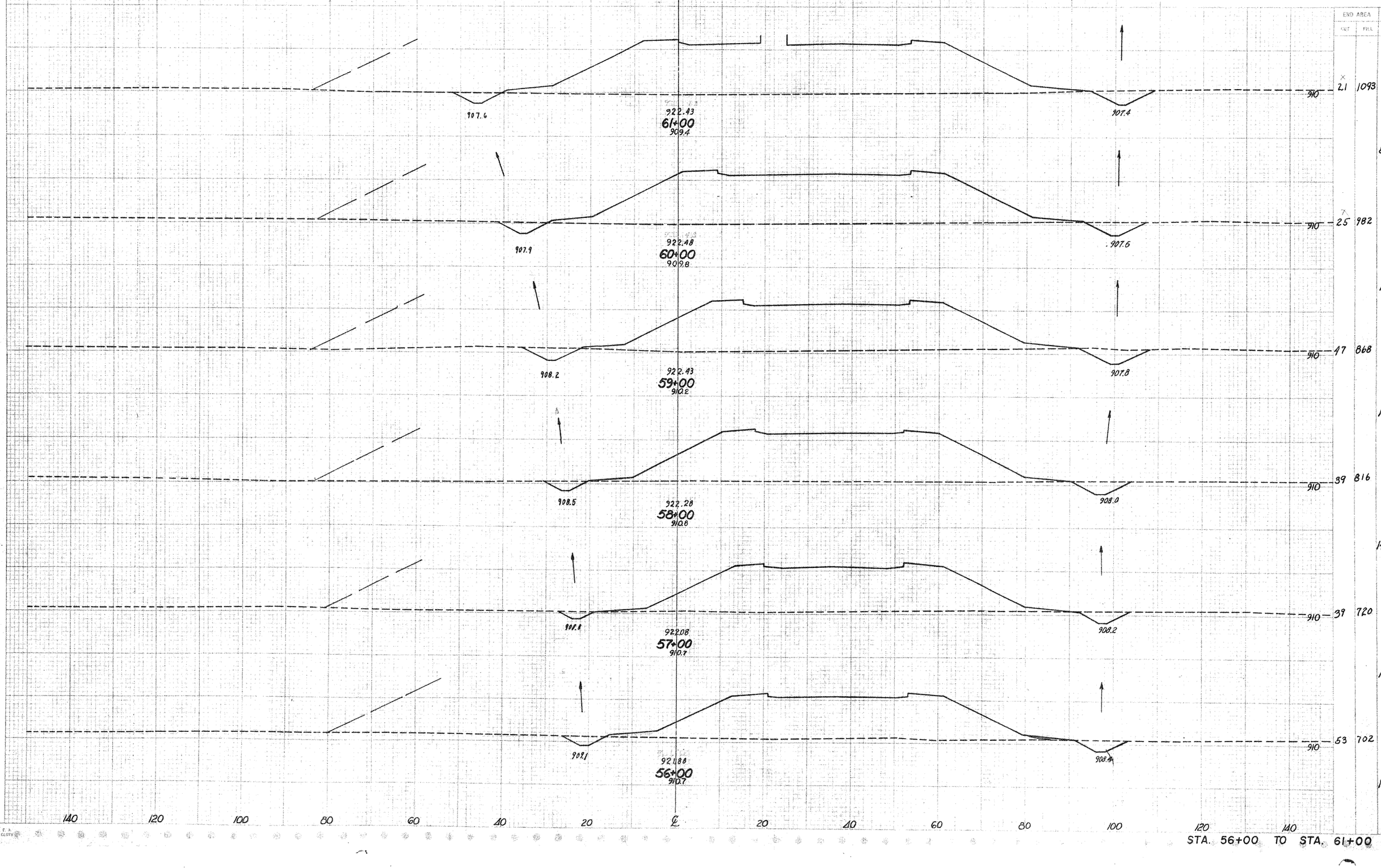
SECT. NO.

| END WIDTH | SQ. YDS. |
|---|---|

| SECTION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

74
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



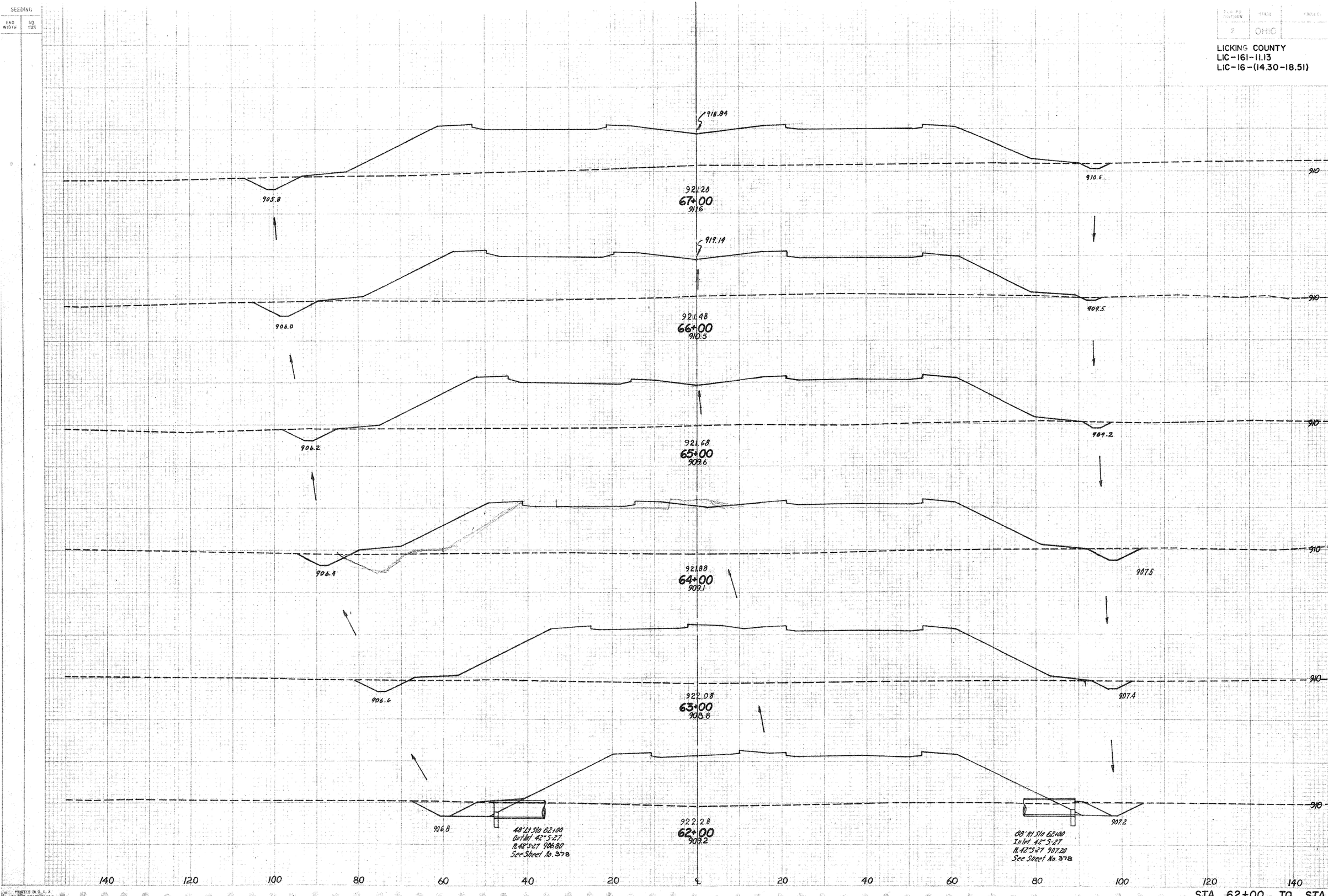

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 21 | 1093 | | |
| | | 85 | 3843 |
| 25 | 982 | | |
| | | 133 | 3926 |
| 47 | 868 | | |
| | | 159 | 3119 |
| 39 | 816 | | |
| | | 141 | 2845 |
| 39 | 720 | | |
| | | 170 | 2633 |
| 53 | 702 | | |
| | | 139 | 2604 |

STA. 56+00 TO STA. 61+00

PRINTED IN U.S.A.
KEUFFEL & ESSER CO.

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 4 | 1371 | | |
| | | 11 | 5151 |
| 2 | 1412 | | |
| | | 15 | 5495 |
| 6 | 1555 | | |
| | | 30 | 5752 |
| 10 | 1551 | | |
| | | 39 | 5624 |
| 11 | 1522 | | |
| | | 46 | 5161 |
| 14 | 1265 | | |
| | | 65 | 3793 |

STA. 62+00 TO STA. 67+00

SEEDING

| END WIDTH | SQ. YDS. |
|---|---|

OHIO

76
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 15 | | 1450 | | |
| 910 | | | | |
| | | | 80 | 532 |
| 28 | | 1426 | | |
| 910 | | | | |
| | | | 61 | 482 |
| 6 | | 1180 | | |
| 910 | | | | |
| | | | 33 | 412 |
| 13 | | 1048 | | |
| 910 | | | | |
| | | | 31 | 412 |
| 4 | | 1179 | | |
| 910 | | | | |
| | | | 24 | 1656 |
| 9 | | 1335 | | |
| 910 | | | | |
| | | | 24 | 482 |

Ramp "A"

Ramp "C"

917.48

912.0

905.7

920.08
73+00
910.7

Elev. Med. 2nd int. 917.26

6:1 6:1

Sta 72+25 on ℄
Std 2-2A C.B.
Rt. Window 916.93
Rt. 12"I-2 914.43

92"x12"I-2 @ 4.81%

92"LT Sta 72+25
Std PC-4 Endwall
Rt. 12"I-2 910.00

2:1

917.34

Ramp "C"

905.5

920.28
72+00
911.5

Sta. 71+40
Begin Ramp C Taper

910.0

End Std Type I
Paved Gutter
Sta 72+00
Begin Sod
Width = 8'

℄ Exist Channel

96"LT Sta 71+22
Outlet 106'68"S.27
Rt. 106'68"S.27 905.29
See Sheet No.

917.64

911.5

86"RT Sta 71+39
Inlet 106'68"S28
Rt. 106'68"S2T 905.84
See Sheet No. 379

Begin Std Type I
Paved Gutter
Sta 71+00

905.0

920.48
71+00
911.8

Sta. 71+31

Ramp "A"

917.94

912.5

905.2

920.68
70+00
912.6

Sta. 69+00
Begin Ramp A Taper

919.24

Note: Sta 69+00 Rt.
Block ditch to
Elev. 914.00

913.0

905.4

920.88
69+00
913.0

919.54

911.5

905.6

921.08
68+00
912.7

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 68+00 TO STA. 73+00

SEEDING

| END WIDTH | SQ. YDS. |
|---|---|

## ESTIMATED QUANTITIES
for Culvert Normal to ℄ Sta. 76+50

| | |
|---|---|
| E-2 Excavate for Structures | 100 Cu. Yds. |
| E-3 Channel Excavation | 2 Cu. Yds. |
| I-10 Dumped Rock Channel Prot. | 18 Cu. Yds. |
| S-1 Concrete for Endwalls Class "E" | .8 Cu. Yds. |
| S-27 24" Pipe for Rdwy Culvert Sec. M-6.6 (b) or Sec M-6.8 (b) | 214 Lin. Ft. |

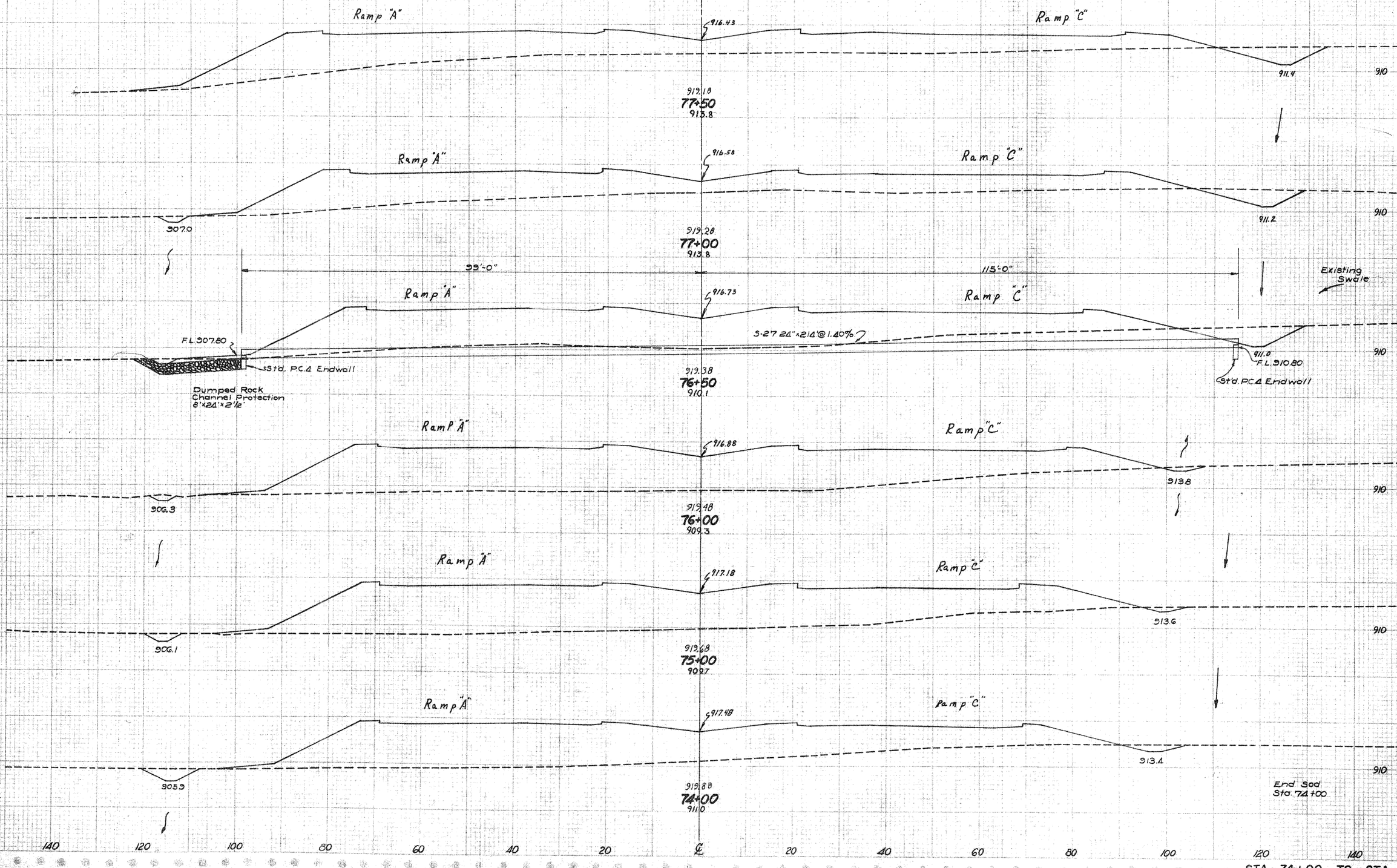
Note: Quantities carried to Sheet No. 37A

## CULVERT DATA
Normal to ℄ Sta. 76+50
Type Pipe Culvert Std Drws. S-27, RC, 3&4
Size 24" x 214'
Work Required: Install pipe culvert as shown. Excavate Inlet and outlet channels. Place Dumped Rock Channel Protection @ outlet

FED. AID DIVISION | STATE: OHIO | PROJECT

77
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

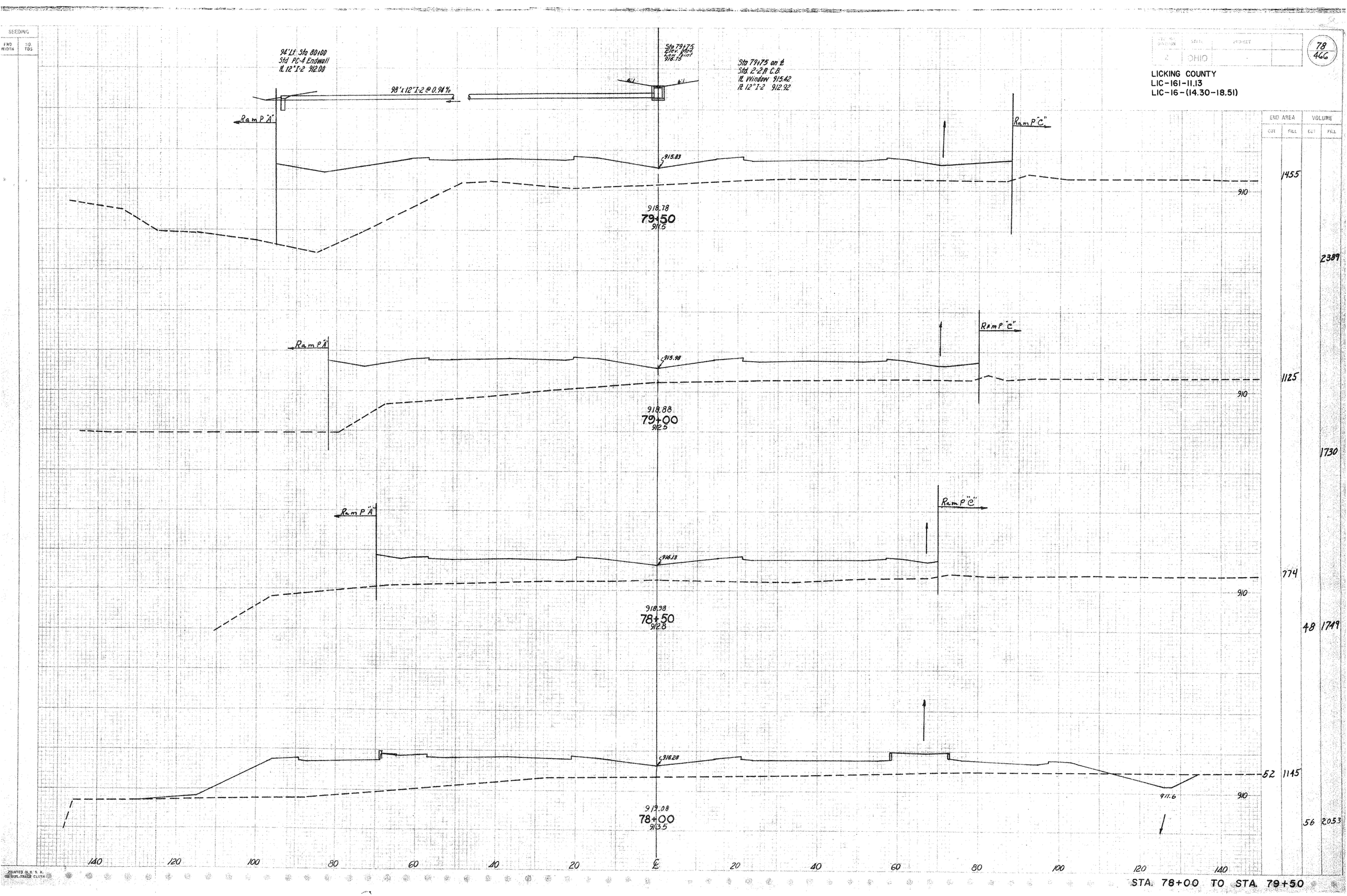



| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 9 | 1072 | | |
| | | 19 | 1854 |
| 11 | 930 | | |
| | | 20 | 2047 |
| 11 | 1281 | | |
| | | 24 | 2721 |
| 15 | 1489 | | |
| | | 61 | 5443 |
| 18 | 1450 | | |
| | | 93 | 5009 |
| 32 | 1255 | | |
| | | 87 | 5009 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 74+00 TO STA. 77+50

PRINTED IN U.S.A.
SUN PRINTS CLEVELAND




| | | | |
|---|---|---|---|
| 2 | OHIO | | |

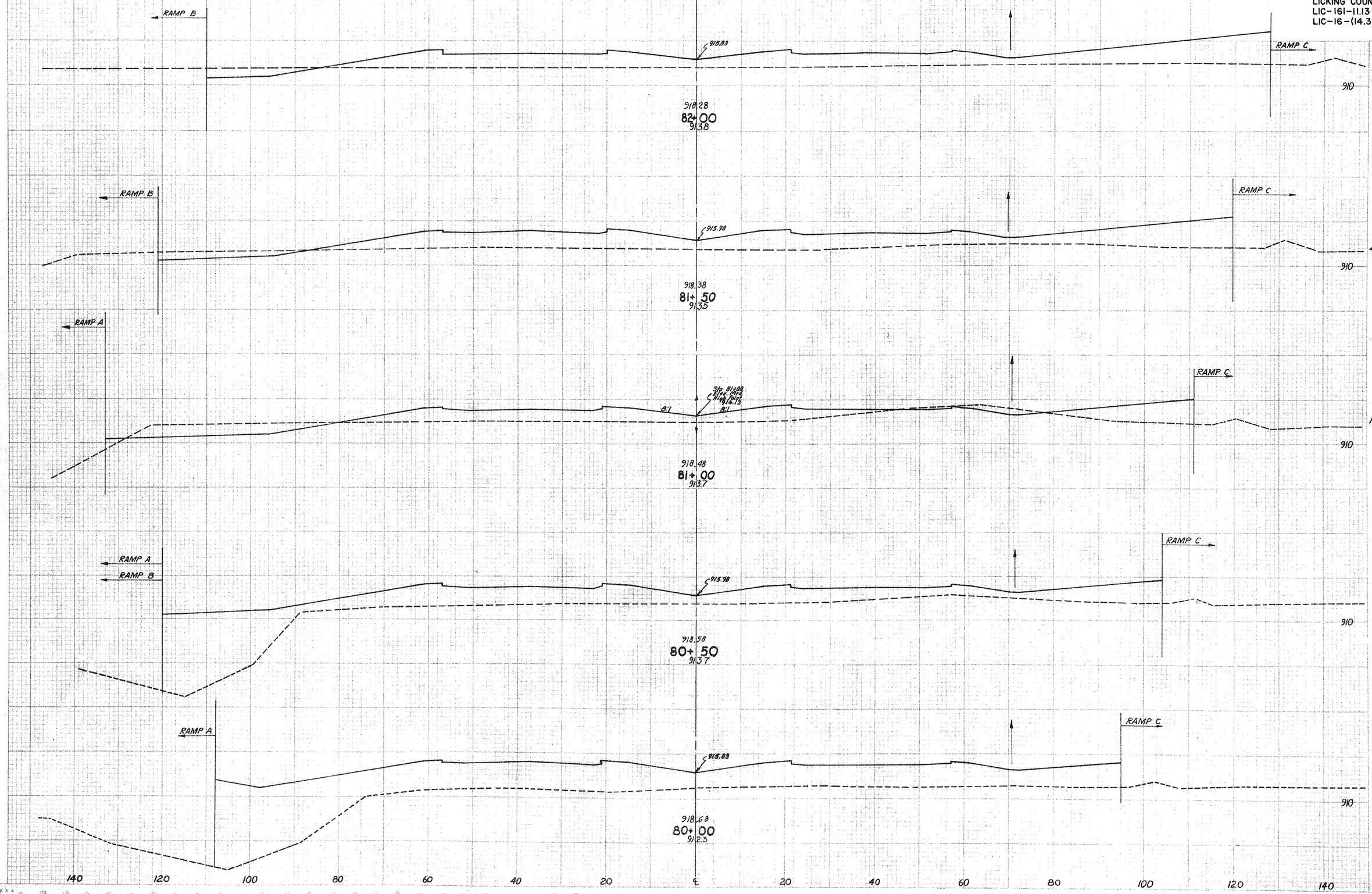
78
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| | 1455 | | |
| | | | 2389 |
| | 1125 | | |
| | | | 1730 |
| | 774 | | |
| | | 48 | 1749 |
| 52 | 1145 | | |
| | | 56 | 2053 |

STA. 78+00 TO STA. 79+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

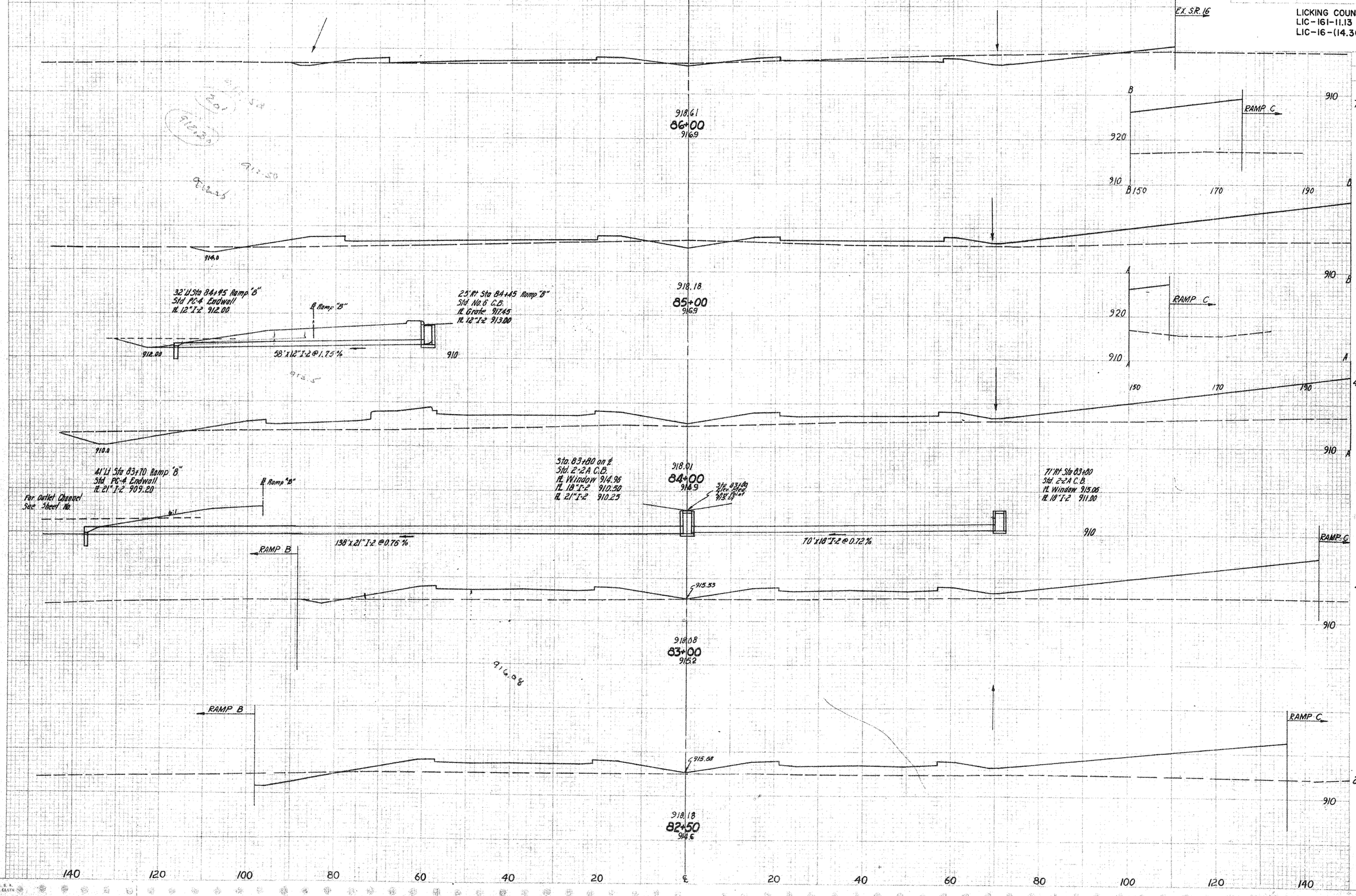



| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 43 | 745 | | |
| | | 80 | 1339 |
| 43 | 701 | | |
| | | 165 | 1028 |
| 135 | 409 | | |
| | | 125 | 1350 |
| | | 1050 | |
| | | | 2223 |
| | | 1351 | |
| | | | 2599 |

STA. 80+00 TO STA. 82+00

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 79 | 160 | | |
| | | 178 | 1809 |
| 17 | 817 | | |
| | | 115 | 3172 |
| 45 | 896 | | |
| | | 91 | 2945 |
| 4 | 684 | | |
| | | 31 | 1231 |
| | 650 | | |
| 29 | 158 | | |
| | | 67 | 1292 |

STA. 82+00 TO STA. 86+00

SEEDING
ENG WORK | SQ YDS

81
466

LICKING COUNTY
LIC-16|-11.13
LIC-16-(14.30-18.51)

RAMP D

STA. 88+50 ARCH
10'-8" x 6'-11" S-28

STA. 88+75
OUTLET S-27
916.0
I.E. 909.5

STA. 88+30 RT.
INLET S-28
I.E. 910.5

EX. S.R. 16

100' Lt. Sta. 88+50
Std. PC-4 Endwall
I.E. 12" I-2 914.00

I-10 Dumped Rock Channel
Protection 8' Long x 3' Width
x 30" Thickness.

112' x 12" I-2 @ 0.42%

Sta. 88+18 on ℄
Std. 2-2A C.B.
I.E. Window 916.97
I.E. 12" I-2 914.47

920.48
88+50
917.2

920.08
88+00
918.4

919.68
87+50
919.0

919.38
87+13
919.5

919.28
87+00
917.9

917.5
917.0
916.5
916.0

6:1
4:1

A
B
920
910

150
170
190

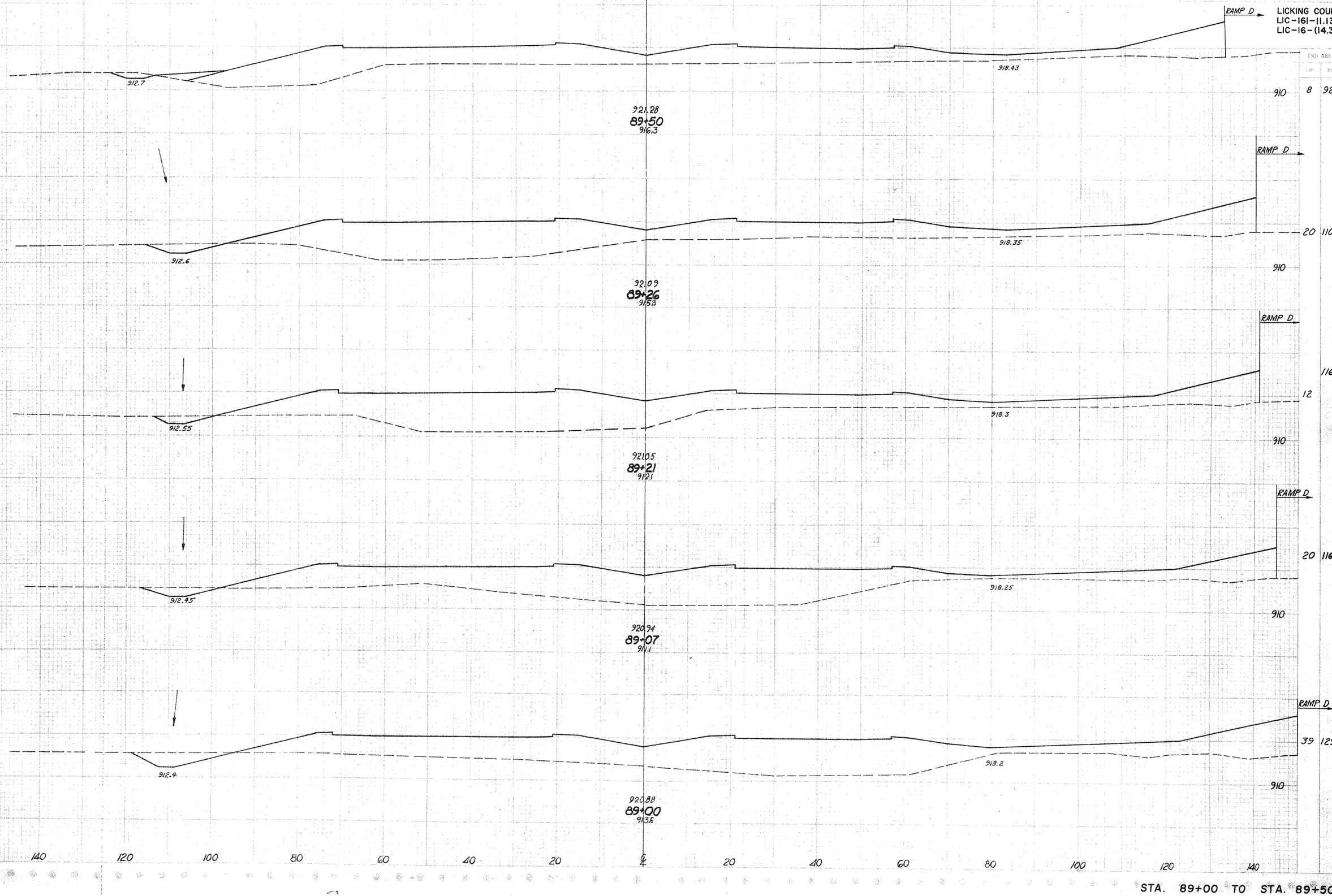
140
120
100
80
60
40
20
℄
20
40
60
80
100
120
140

| ENG AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 20 | 581 | | |
| | | 111 | 681 |
| 100 | 154 | | |
| | | 281 | 2617 |
| 134 | | | |
| 204 | 154 | | |
| 28 | 255 | | |
| 195 | 218 | | |
| 85 | 85 | | |
| 160 | 136 | | |
| 443 | 548 | | |

STA. 87+00 TO STA. 88+50

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

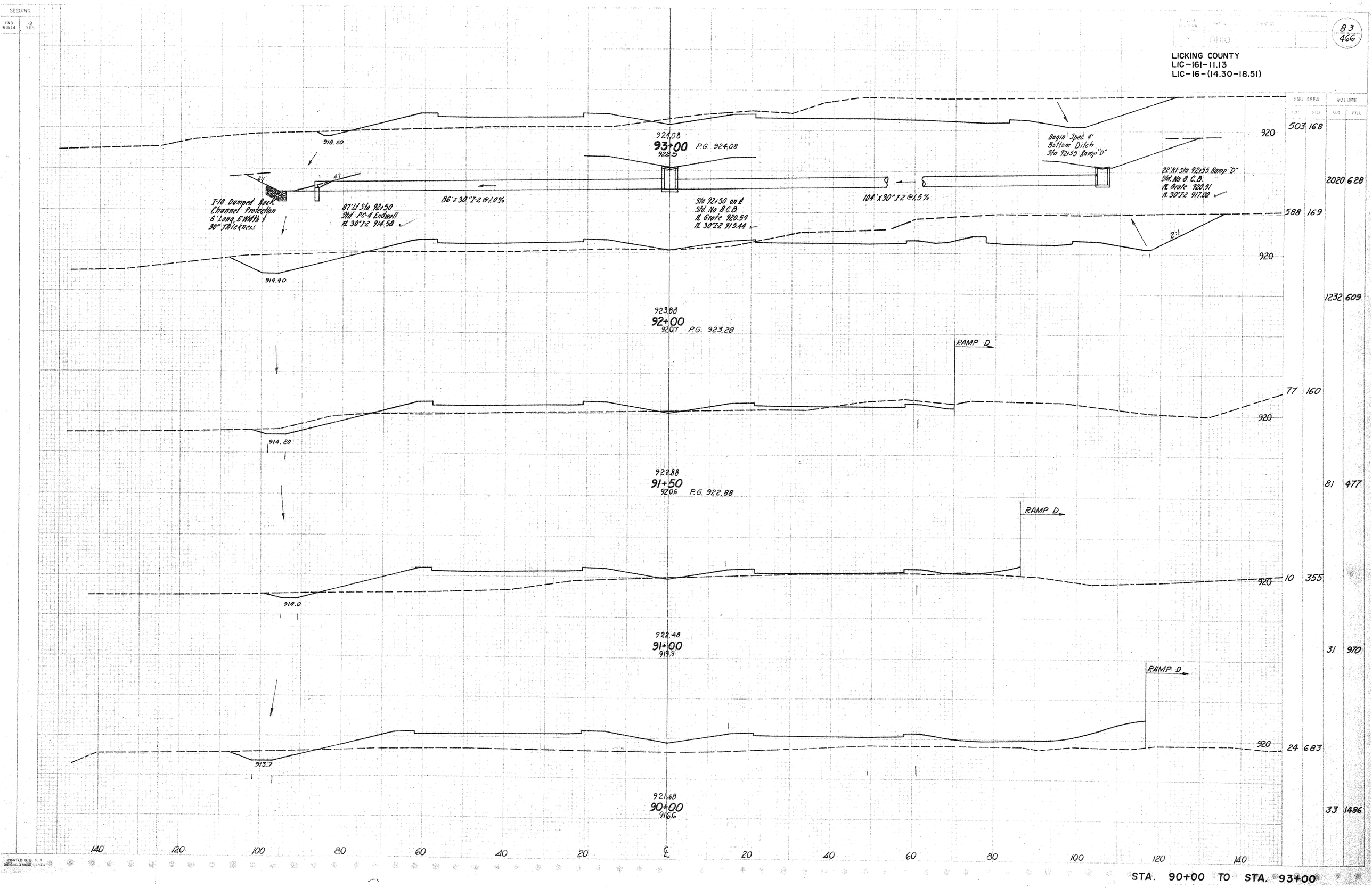
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 8 | 922 | | |
| | | 12 | 902 |
| 20 | 1108 | | |
| | | 3 | 210 |
| | 1161 | | |
| 12 | | | |
| | | 8 | 603 |
| | | | 2 |
| 20 | 1165 | | |
| | | 8 | 305 |
| 39 | 1290 | | |
| | | 55 | 1732 |

STA. 89+00 TO STA. 89+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STA. 90+00 TO STA. 93+00

SEEDING

| END WIDTH | SQ. YDS. |
|---|---|

84
466

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 302 | 374 | | |
| | | 628 | 2283 |
| 37 | 859 | | |
| | | 94 | 2956 |
| 14 | 737 | | |
| | | 280 | 2078 |
| 137 | 385 | | |
| | | 1183 | 1024 |

930 919.4

923.28
97+00
923.9

930 919.1

926.48
96+00
919.5

930 918.8 922.7

925.68
95+00
918.4

930 918.5

924.88
94+00
919.6

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 94+00 TO STA. 97+00

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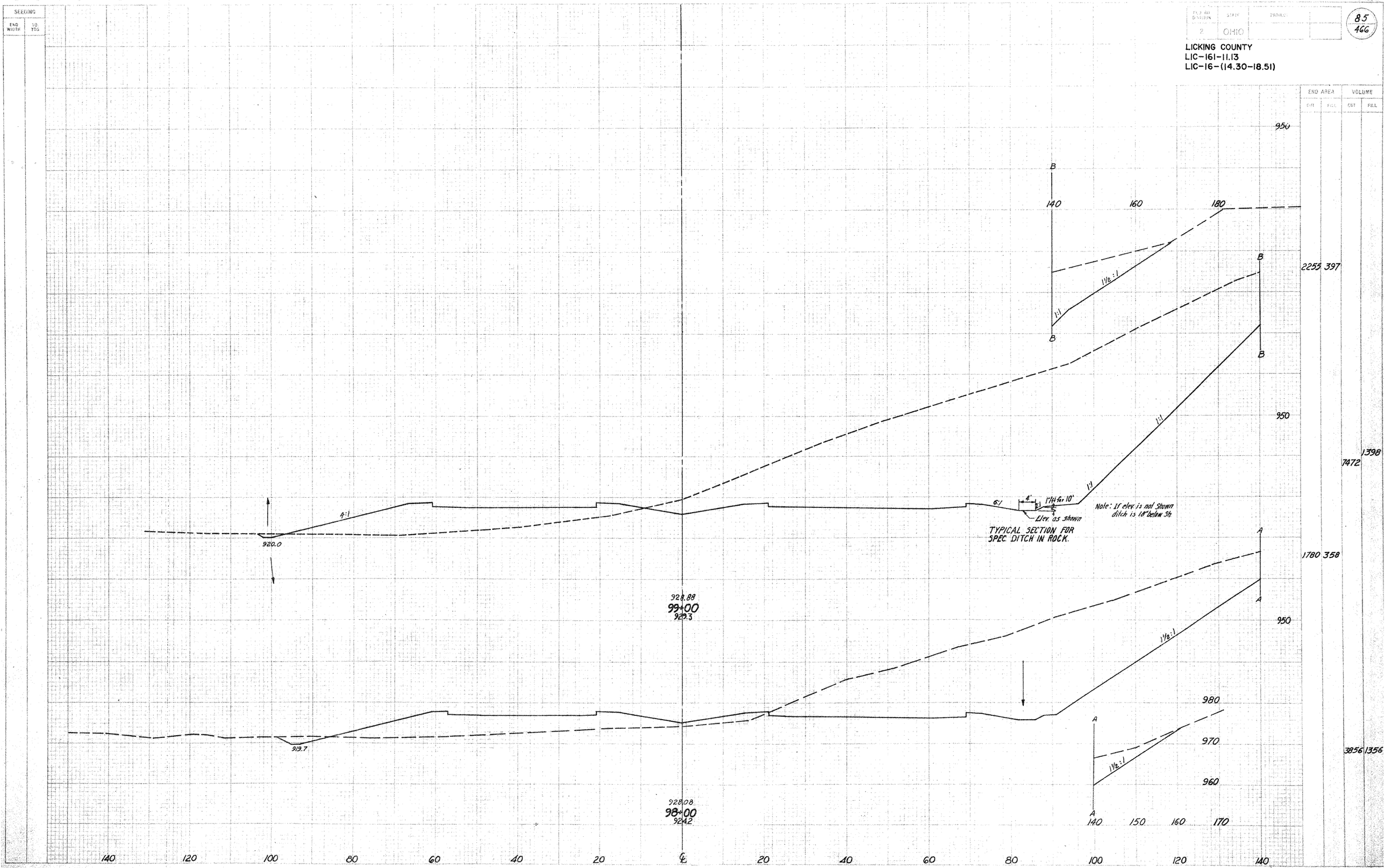
ON SOIL-TRACE CLOTH

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

85
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



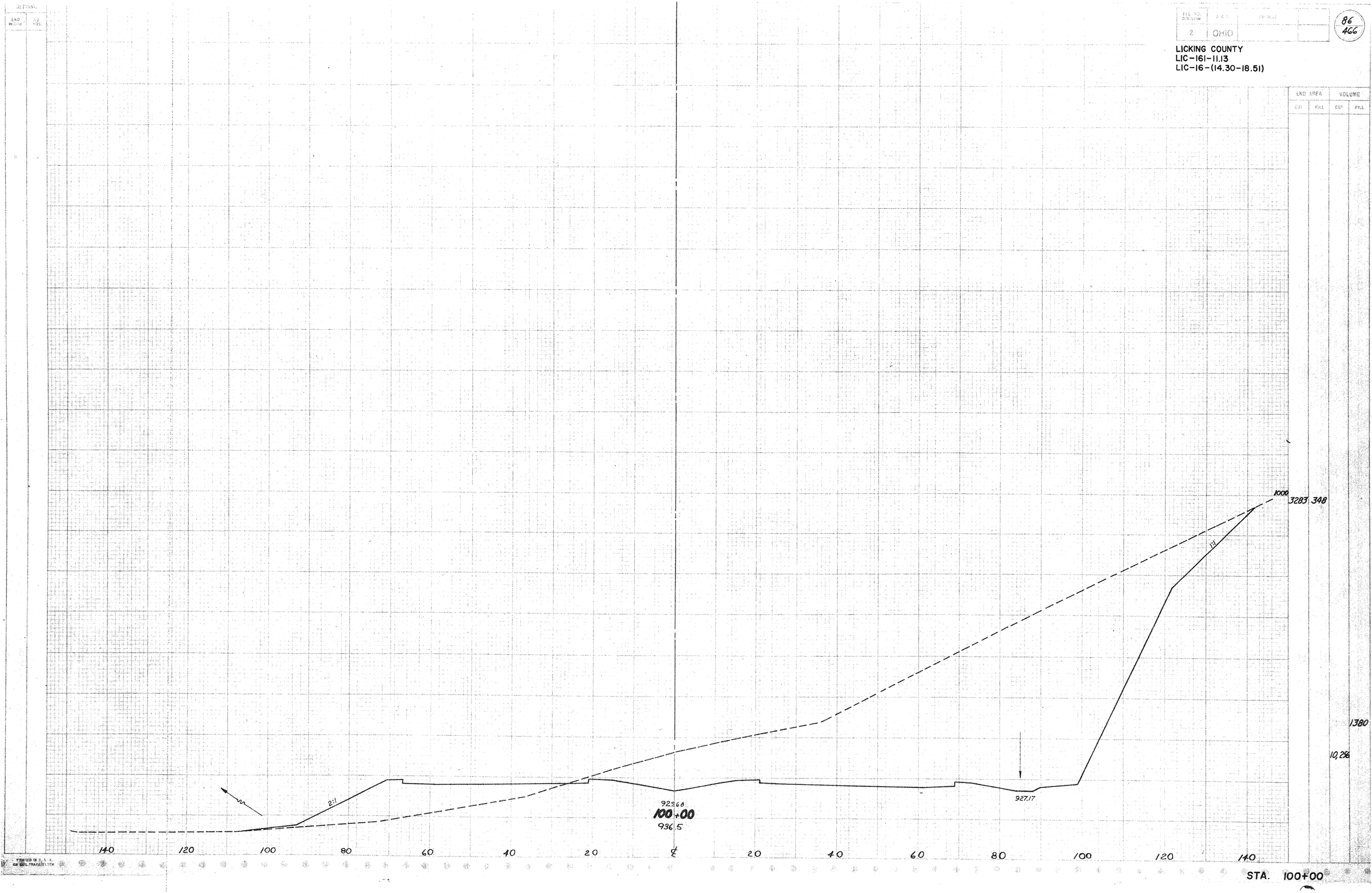

STA. 98+00 TO STA. 99+00

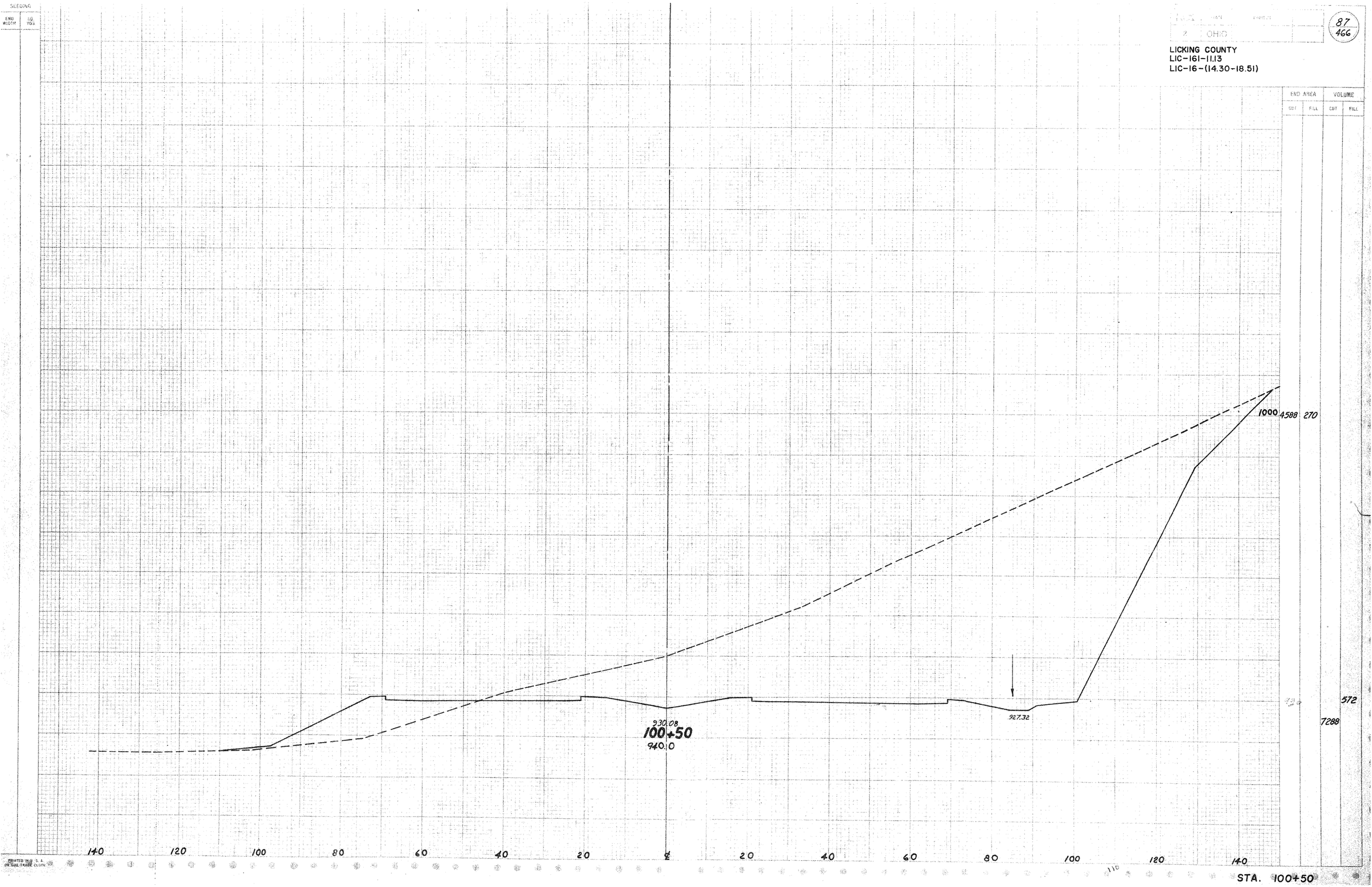
| FILE NO. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

86
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| BEFORE | | END AREA | | VOLUME | |
|---|---|---|---|---|---|
| END WEIGHT | SQ. YDS. | CUT | FILL | CUT | FILL |
| | | | | | |





SEEDING
END WIDTH
SQ. YDS.
2 OHIO
87
466
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)
END AREA
VOLUME
CUT
FILL
CUT
FILL
1000
4588
270
572
7288
930.08
100+50
940.0
927.32
140
120
100
80
60
40
20
℄
20
40
60
80
100
120
140
STA. 100+50

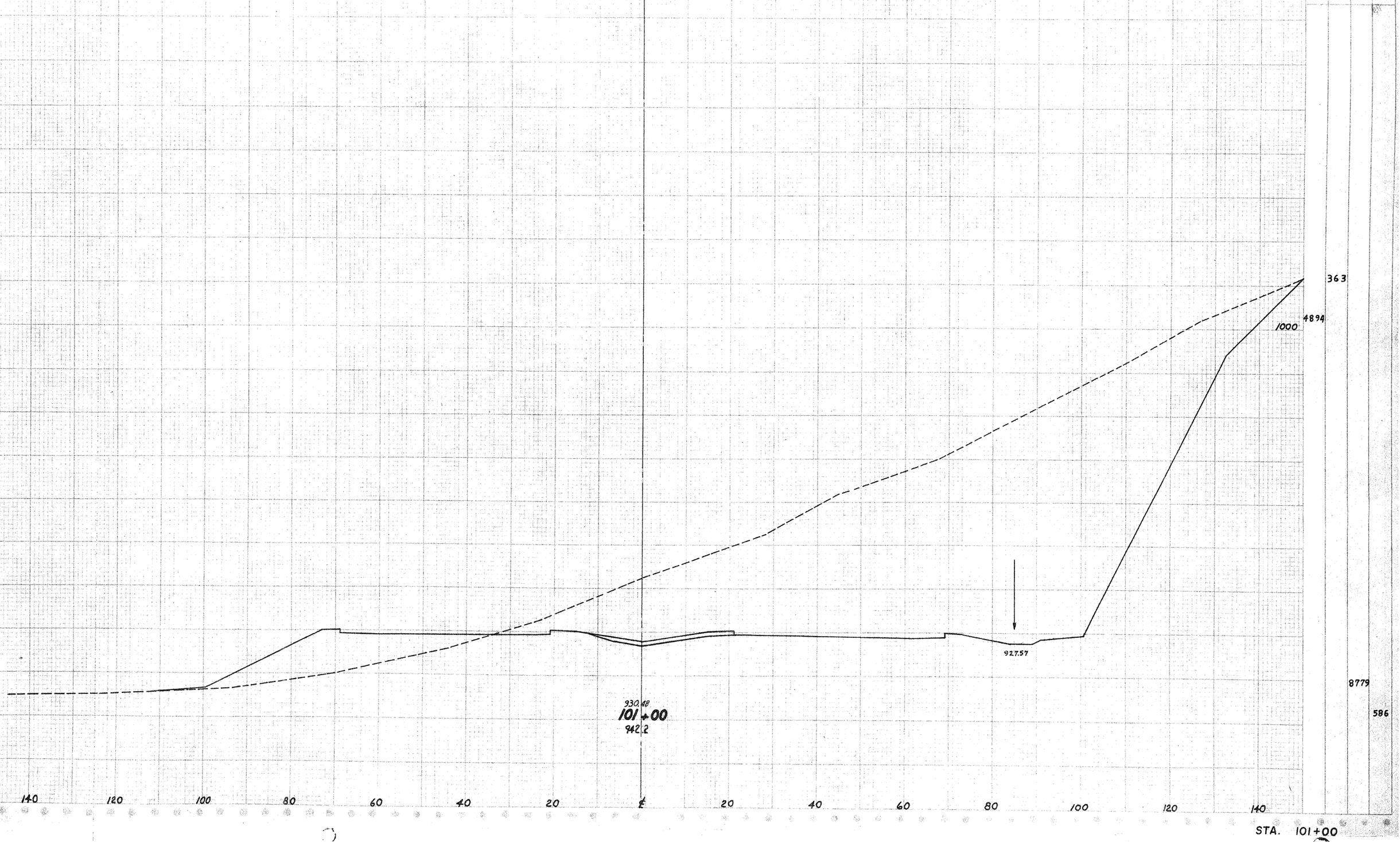
END WIDTH | CU YDS

2 | OHIO

88
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |

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ON KEUFFEL ESSER CLOTH

SEEDING

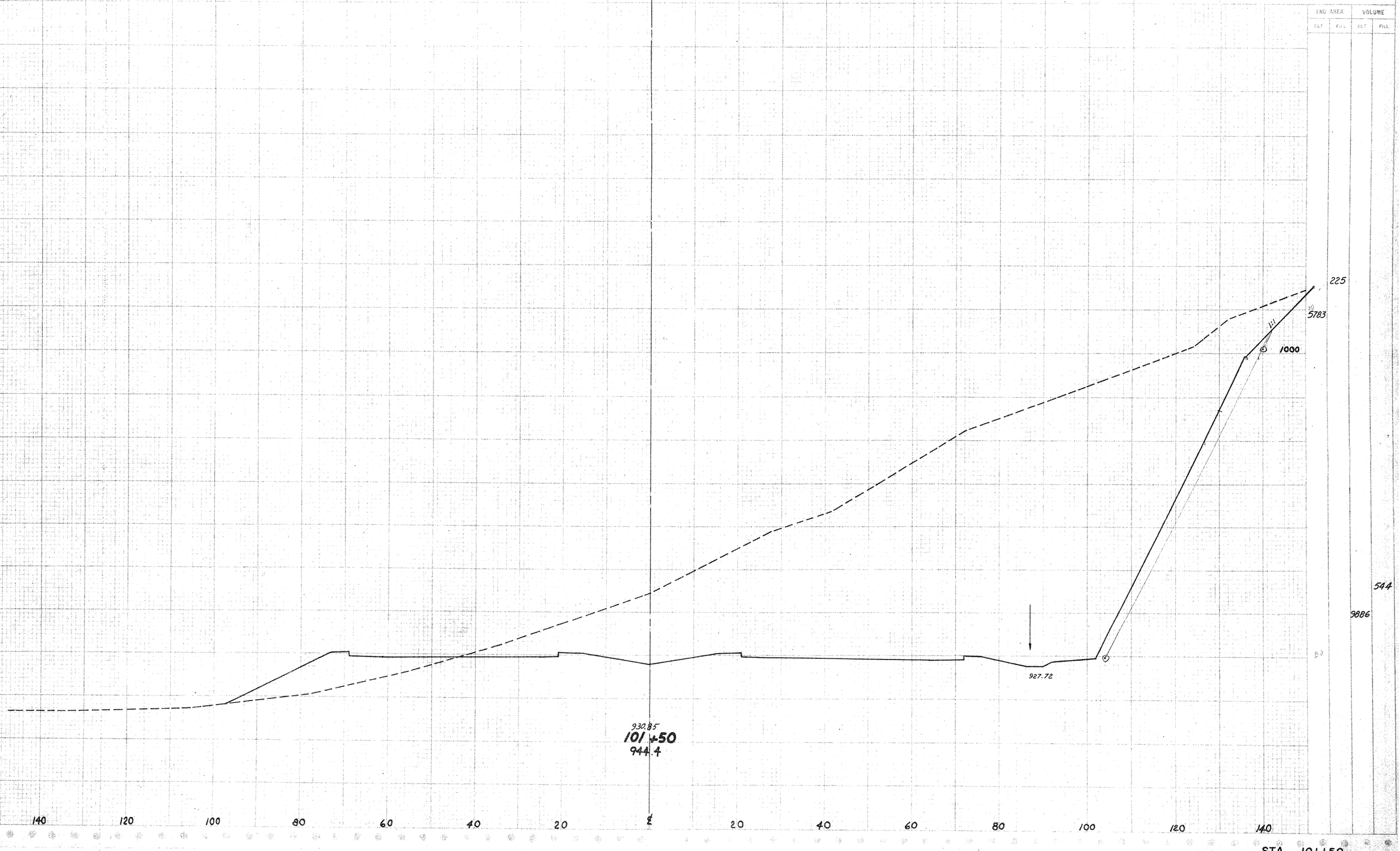
| END WIDTH | SQ YDS |
|---|---|
| | |

| STATE | PROJECT |
|---|---|
| OHIO | |

89
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |




STA. 101+50

PRINTED IN U. S. A.
KEUFFEL & ESSER CO. TRACE CLOTH

SEEDING

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |

90
466

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

43

5729

1000

341

10659

927.87

931.15

102+00

945.6

120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140 160

STA. 102+00

PRINTED IN U.S.A.
DIESEL TRANS CLOTH

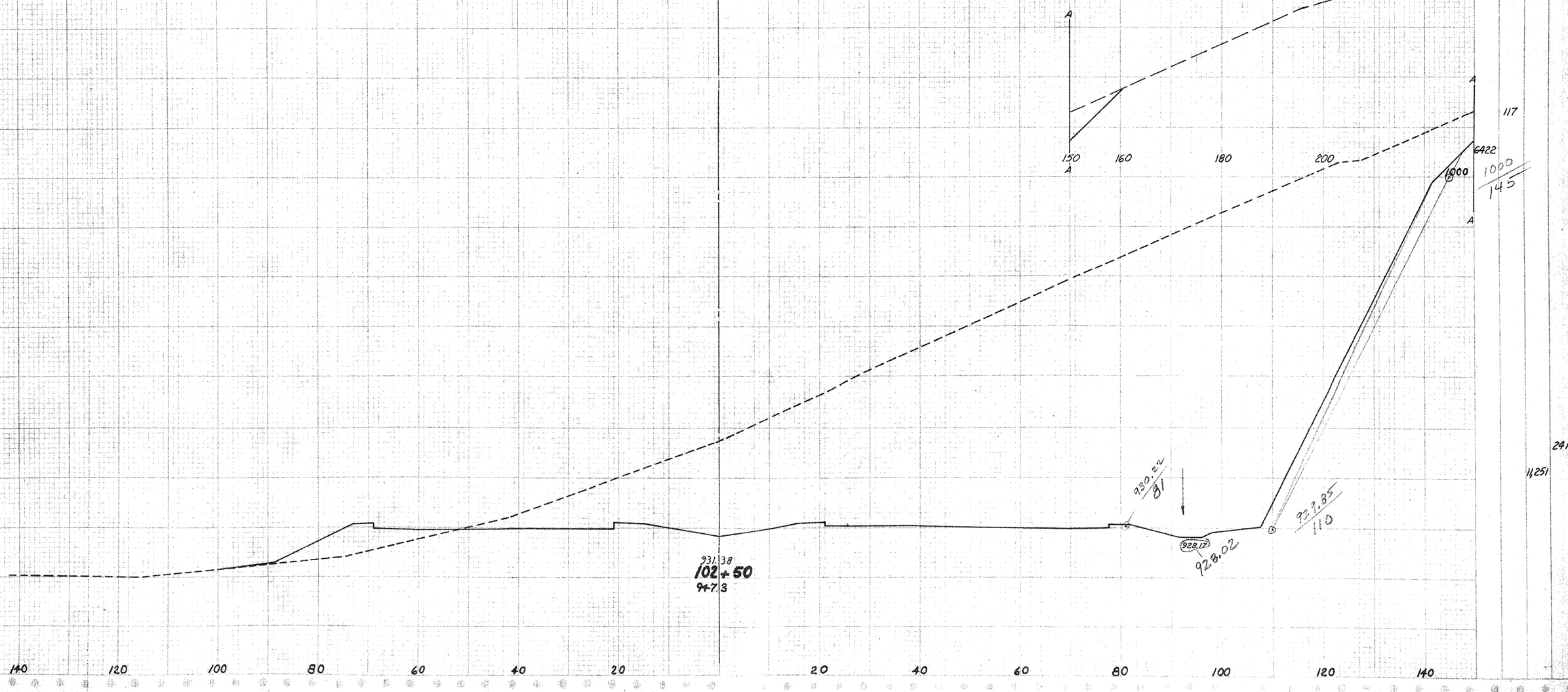
| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS. |

| FED. DIV. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

91/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |

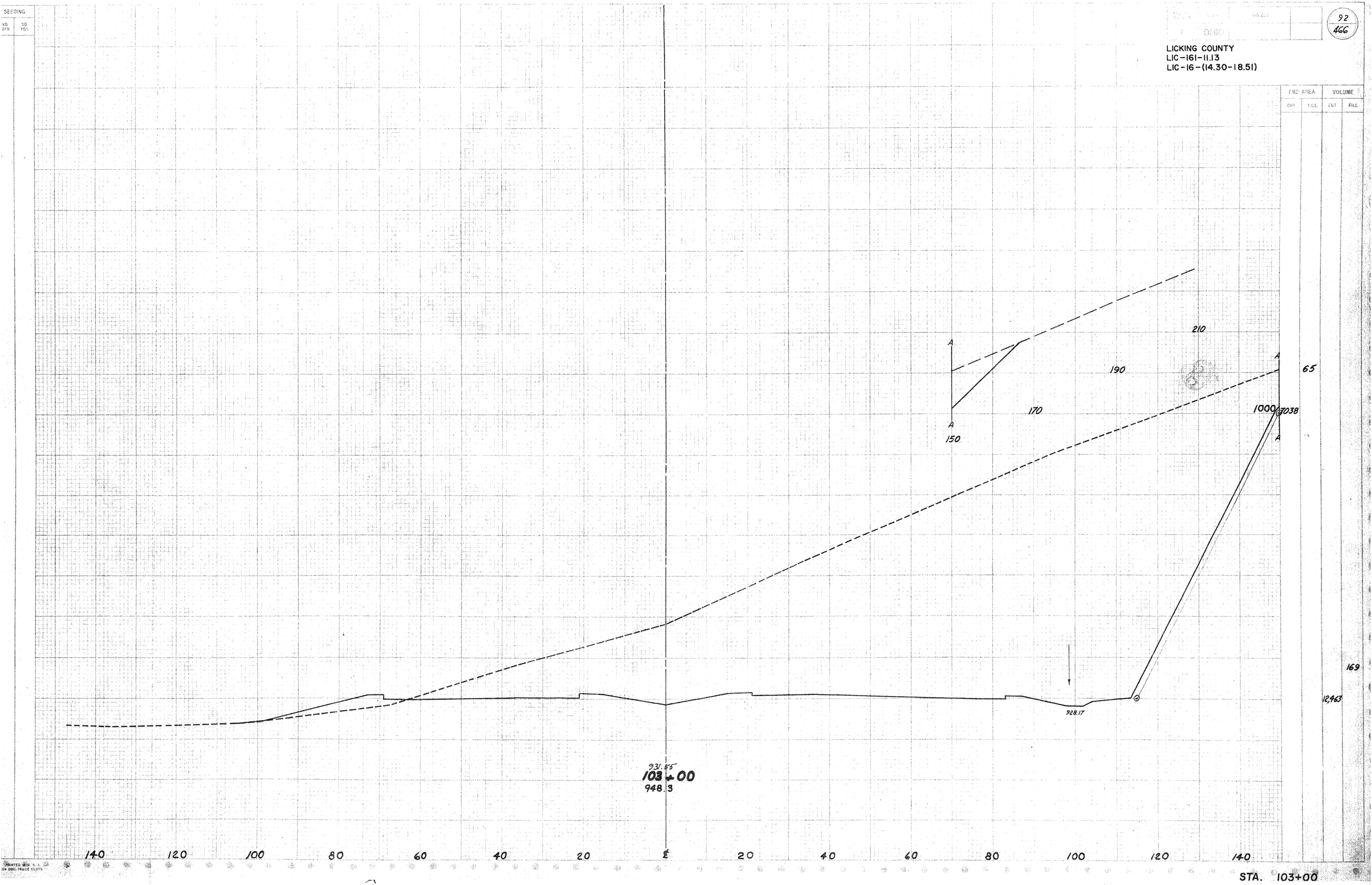



STA. 102+50

PRINTED IN U.S.A.
ON CURL-TRACE CLOTH

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STA. 103+00

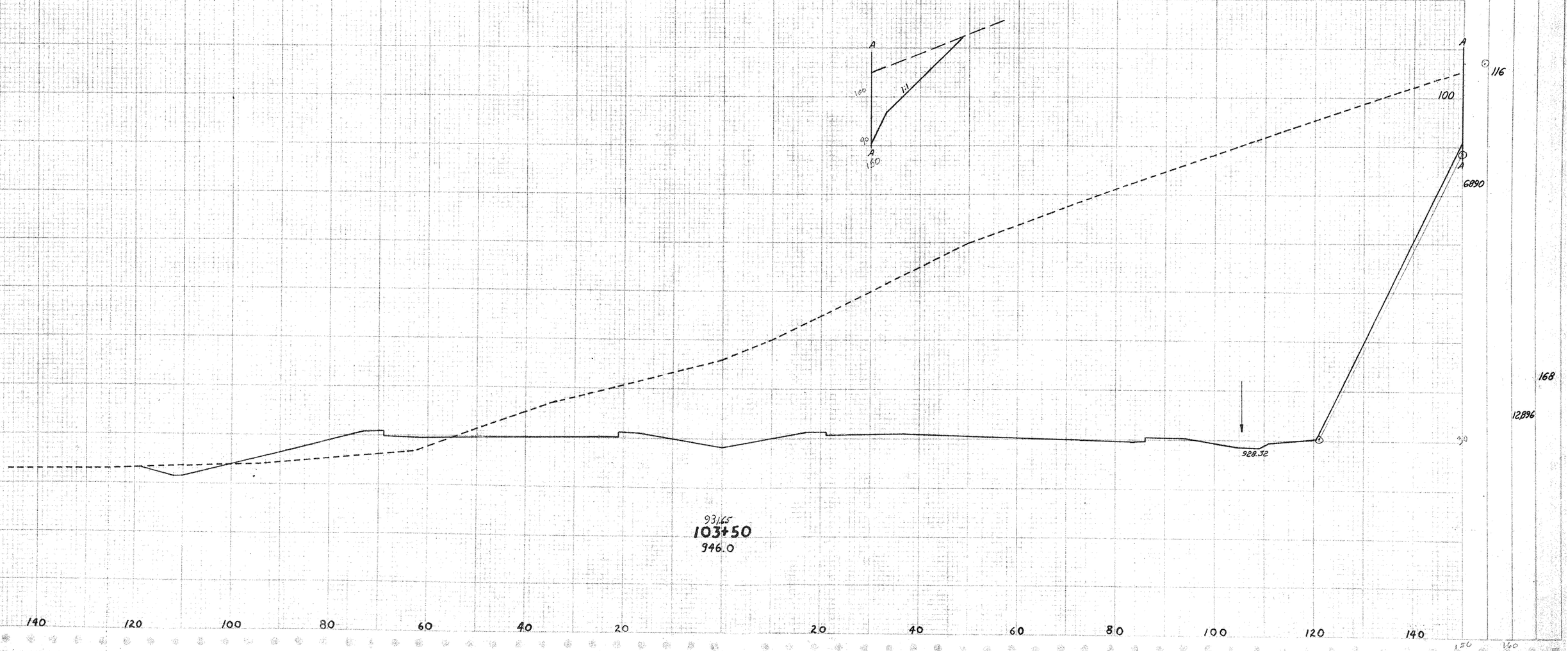
| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS |

| FED. ROUTE NUMBER | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

93
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |




93/65
103+50
946.0

STA. 103+50

OHIO

94
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL

150 170 190

1000 B

900 B

AHEAD 2062.45

BACK 6790.45

980

Butt LINE FOR QUANTITIES AHEAD

960 B 12,176 159

BACK ONLY

BACK & AHEAD

940

928.61

931.65
104+50
940.4

150 170 190

A

1000 A

1000 6360 127

980

A

960 225

12268

940

928.47

931.68
104+00
942.9

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140 150 160

STA 104+00 TO STA. 104+50

PRINTED IN U.S.A. ON KEUFFEL & ESSER CO. CUT-TRACE CLOTH

| FED. RD. DIV. NO. | STATE | PROJECT | | |
|---|---|---|---|---|
| 2 | OHIO | | | |

95
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

GRADING

| END WIDTH | SQ YDS |
|---|---|

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 960 | | | | |
| | 1617 | | | 3078 |
| 970 | | | | |
| | 1707 | | | 3393 |
| 980 | | | | |
| | 1958 | 30 | | 3665 |

RAMP G

930.48
**107+00**
936.4

RAMP G

931.15
**106+00**
937.8

RAMP G

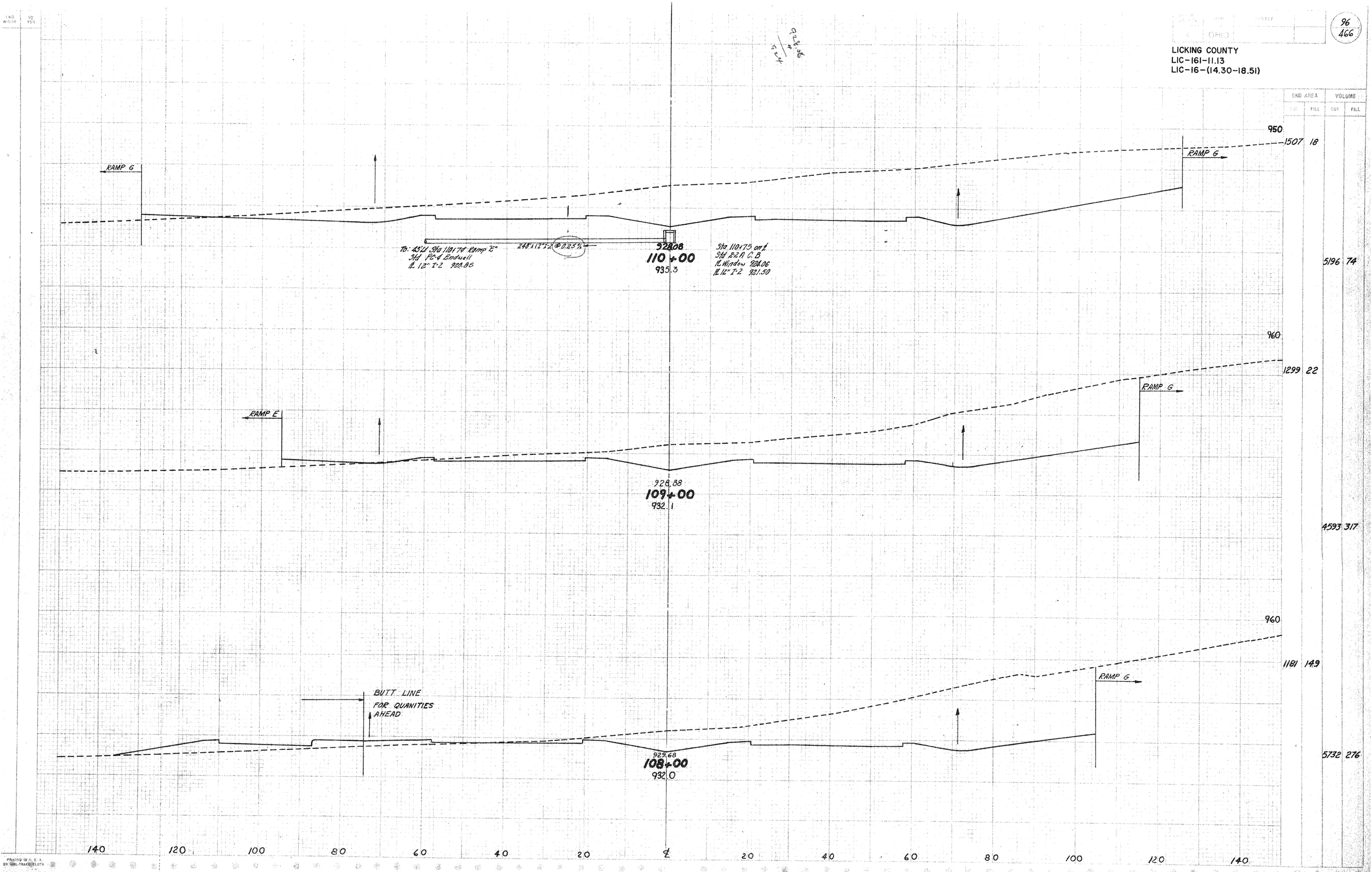
931.55
**105+00**
937.2

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 105+00 TO STA. 107+00

POINTER 49 U. S. A.
CROSS SECTION TRACING CLOTH

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STA. 108+00 TO STA. 110+00

2 OHIO

97
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| RAMP H 940 | | | | |
| | 350 | 183 | | |
| 924.88 | | | | |
| 114+00 | | | | |
| 926.4 | | | | |
| RAMP H | | | | |
| | | | 1759 | 339 |
| RAMP F | | | | |
| 940 | | | | |
| | 600 | | | |
| 925.68 | | | | |
| 113+00 | | | | |
| 926.9 | | | | |
| | | | 3126 | |
| 950 | | | | |
| STRUCTURE | | | | |
| | 1088 | | | |
| STRUCTURE | | | | |
| 926.48 | | | | |
| 112+00 | | | | |
| 933.0 | | | 5426 | 0 |
| RAMP G | | | | |
| 950 | | | | |
| | 1842 | | | |
| STRUCTURE | | | | |
| | | | 6202 | 33 |
| 927.28 | | | | |
| 111+00 | | | | |
| 933.6 | | | | |

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 111+00 TO STA. 114+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

SEEDING
PRD | SD
EM | 10

| END AREA | | VOLUME | |
|---|---|---|---|
| | SQ. | CU. | FEL. |
| 920 | 724 | 0 | |
| | | 3230 | 7 |
| 920 | 1020 | 4 | |
| | | 3024 | 91 |
| 920 | 611 | 45 | |
| | | 2222 | 265 |
| 920 | 589 | 98 | |
| | | 1880 | 574 |
| 920 | 926 | 212 | |
| | | 1437 | 732 |

RAMP H

920.88
119+00
923.3

RAMP H

68' x 12" I-2 @ .46%

56' Lt Sta. 118+40
Std. No.8 C.B.
R. Grate 920.91
R. 12" I-2 916.91

SEE RAMP F

184' 24" I-2 @ 5.6%

M-6.6(b) or 6.8(b)

TO STD PC-4
ENDWALL
42" R1 STA 119+15
RAMP "H"

921.68
118+00
927.0

14' Rt. Sta. 118+40
Std No. 1 M.H
M.H. Cover 920.77
R. 12" I-2 913.77
R. 24" I-2 912.77
R. 36" I-2 911.77

RAMP F

RAMP H

170' x 18" I-2 @ 0.36%

168' x 18" I-2 @ 0.35%

ok

68' x 24" I-2 @ 0.31%

920.48

71' Lt Sta. 117+00
Std. No.8. C.B.
R. Grate 920.0
R. 24" I-2 913.40
R. 18" I-2 913.90

℄ Sta. 117+00
Std. No.8 C.B.
R. Grate 919.23
R. 24" I-2 913.19

922.48
117+00
926.9

RAMP F

RAMP H

921.28

921.28

923.28
116+00
923.7

RAMP F

RAMP H

922.08

922.08

924.08
115+00
923.7

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 115+00 TO STA. 119+00

PRINTED IN U.S.A. ON KEUFFEL-ESSER CLOTH

| DISTRICT | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

99
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

914.88 / 66.5'
915.12 / 45'
916.30 / 37'
(6:1)
DITCH
913.38 / 75.5'-77.5'
916.88
124+00
917.5
915.62 / 72'
916.08 / 61'
916.58 / 49'
917.13 / 37'
6:1
914.12 / 81-83.5'
917.68
123+00
918.7
916.89 / 72'
917.35 / 61'
917.85 / 49'
918.17 / 37'
(6:1)
68'x18" I-2 @ 2.24%
56'x18" I-2 @ 7.2%
RAMP H
917.43
915.39 / 81-83'
83' Lt Sta. 122+00
Std. 2-2A C.B.
R Window 918.20
R 18" I-2 912.20
918.48
122+00
920.1
14 Rt. Sta. 122+00
No.1 Sta. M.H.
M.H.Cover 918.06
R 18" I-2 910.06
R 36" I-2 908.86
R 42" I-2 908.06
71' Rt. Sta 122+00
Std. 2-2A C.B.
R Window 917.10
R 18" I-2 914.10
50'
918.07 / 72'
918.53 / 61'
919.03 / 48'
919.22 / 37'
RAMP H
917.80
(6:1)
916.57 / 81-83'
919.28
121+00
922.1
RAMP H
918.08
920.08
120+00
924.3

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | 424 | | | |
| | | | 1802 | |
| | 549 | | | |
| 910 | | | | |
| | | | 2002 | |
| | 532 | | | |
| 910 | | | 2233 | |
| 910 | | | 2552 | |
| | 704 | | | |
| 910 | | | 2645 | |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 120+00 TO STA. 124+00

PRINTED IN U. S. A.
EAGLE-TRACE-SOUTH

100
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

SEEDING

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 702 | | | |
| | | 2506 | 26 |
| 651 | 14 | | |
| | | 1344 | 283 |
| 75 | 139 | | |
| | | 207 | 665 |
| 37 | 220 | | |
| | | 131 | 885 |
| 34 | 258 | | |
| | | 848 | 478 |

914.38
129+00
917.3

913.50

914.68
128+00
917.2

913.30 / 61
913.88 / 49
914.46 / 37

911.80 / 70-72

Sta 127+00 on ℄
Std 2-2A C.B.
Ft. Window 911.72
Ft. 12"I-2 908.74

915.04
127+00
913.2

12'X12'I-2@1.0%

82'x36" I-2@1.68%

14' Rt Sta 127+00
Std No. 1-A M.H.
M.H. Cover 914.39
Ft. 12"I-2 908.62
Ft. 36"I-2 906.62
Ft. 42"I-2 906.12
Ft. 54"I-2 905.12

99' Rt Sta 127+00
Std PC-4 Endwall
Ft. 36"I-2 909.00

913.79 / 61
914.37 / 49
914.95 / 37

912.29 / 70-72

912.0

915.53
126+00
912.3

914.40 / 61
914.98 / 49
915.56 / 37

916.14
125+00
913.3

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 125+00 TO STA. 129+00

PRINTED IN U.S.A.
ON CURL-TRADE CLOTH

SECOING

| END WIDTH | SQ. YDS. |
|---|---|

| DIST. NO. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

101
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 710 | | | |
| | | 1856 | 28 |
| 292 | 15 | | |
| | | 756 | 646 |
| 116 | 334 | | |
| | | 1663 | 619 |
| 782 | | | |
| | | 3000 | |
| 838 | | | |
| | | 2852 | |

912.88
134+00
915.9

913.18
133+00
911.7

913.48
132+00
911.1

74"x24" I-2 @ 1.0%

14' Rt. Sta. 132+00
Std. No. 1-A M.H
COVER 913.0
Æ 24" I-2 906.0
Æ 54" I-2 903.50

90' Rt. Sta. 132+00
Std. No. 8 C.B
R. GRATE 910.00
Æ 24" I-2 906.75

913.16

913.78
131+00
911.3

913.8

914.08
130+00
911.0

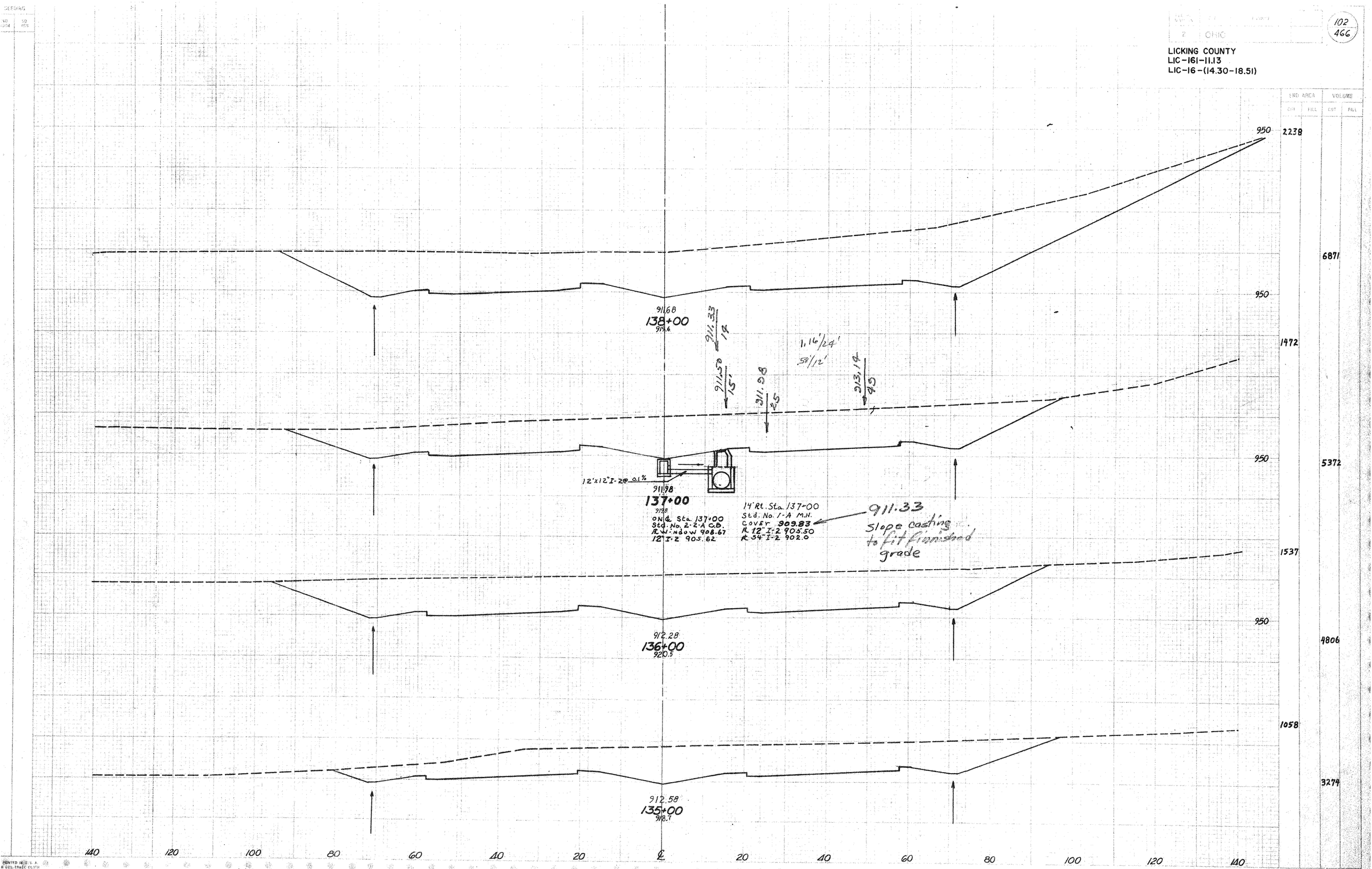
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 130+00 TO STA. 134+00

PRINTED IN U. S. A.
ON REEL TRACE CLOTH

2 OHIO

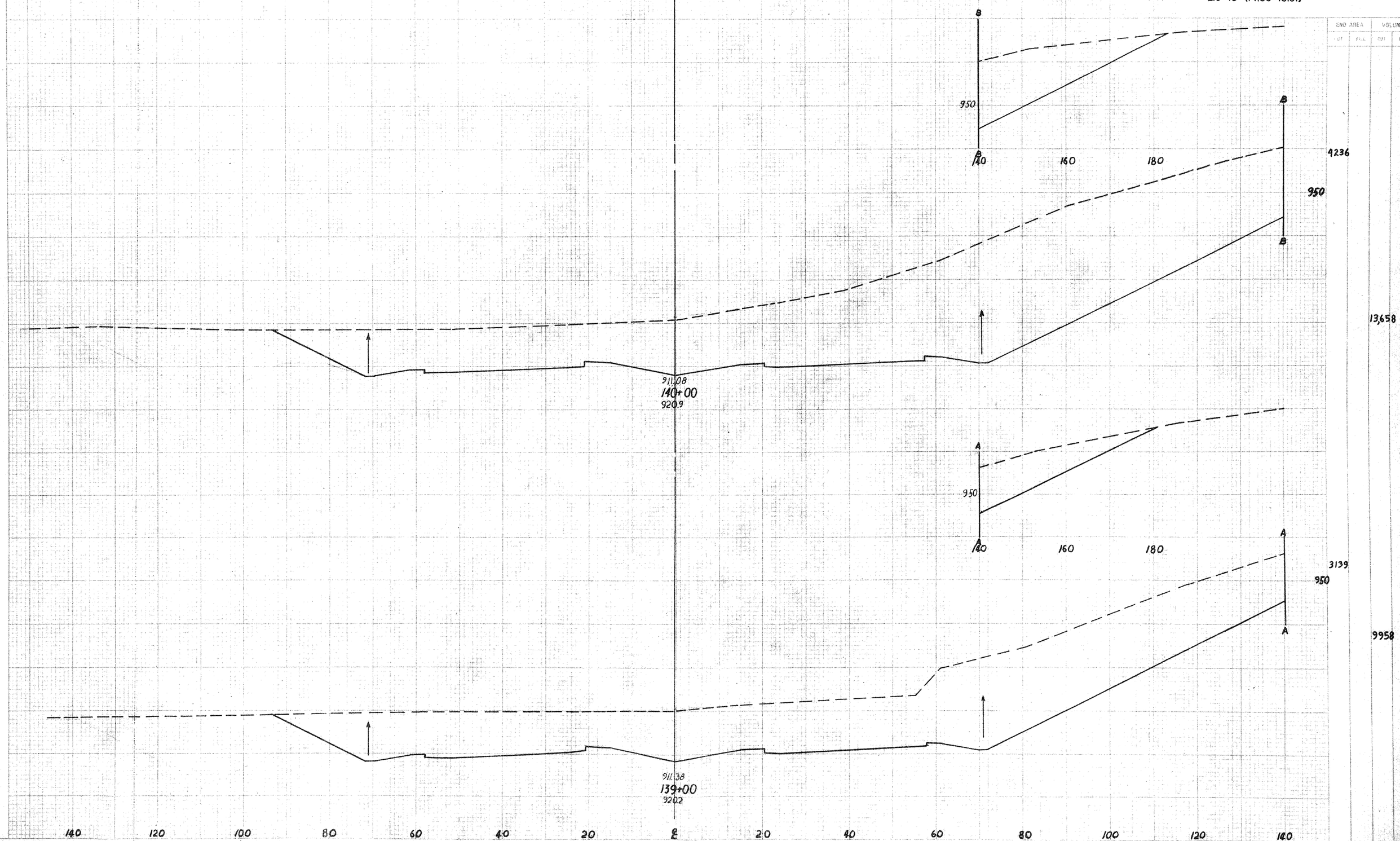
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STA. 135+00 TO STA. 138+00

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



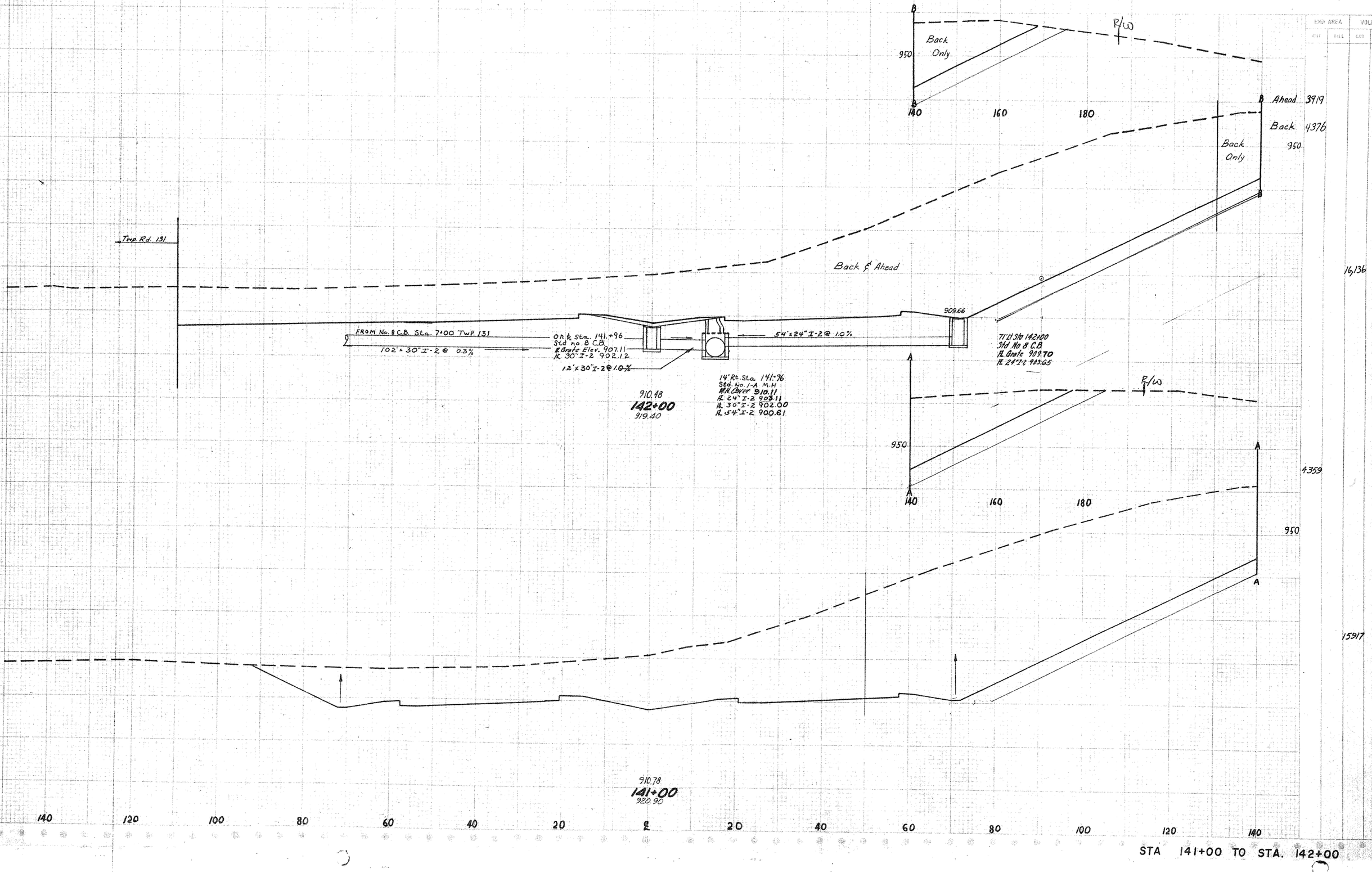

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | 13,658 | |
| | | 9958 | |

STA. 139+00 TO STA. 140+00

104
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |




16/136

STA 141+00 TO STA. 142+00

SEEDING

| END WIDTH | SQ YDS |
|---|---|

| FED. AID PROJECT | STATE | PROJECT | |
|---|---|---|---|
| | OHIO | | |

105
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

SEEDING

| END WIDTH | SQ YDS |
|---|---|

OHIO

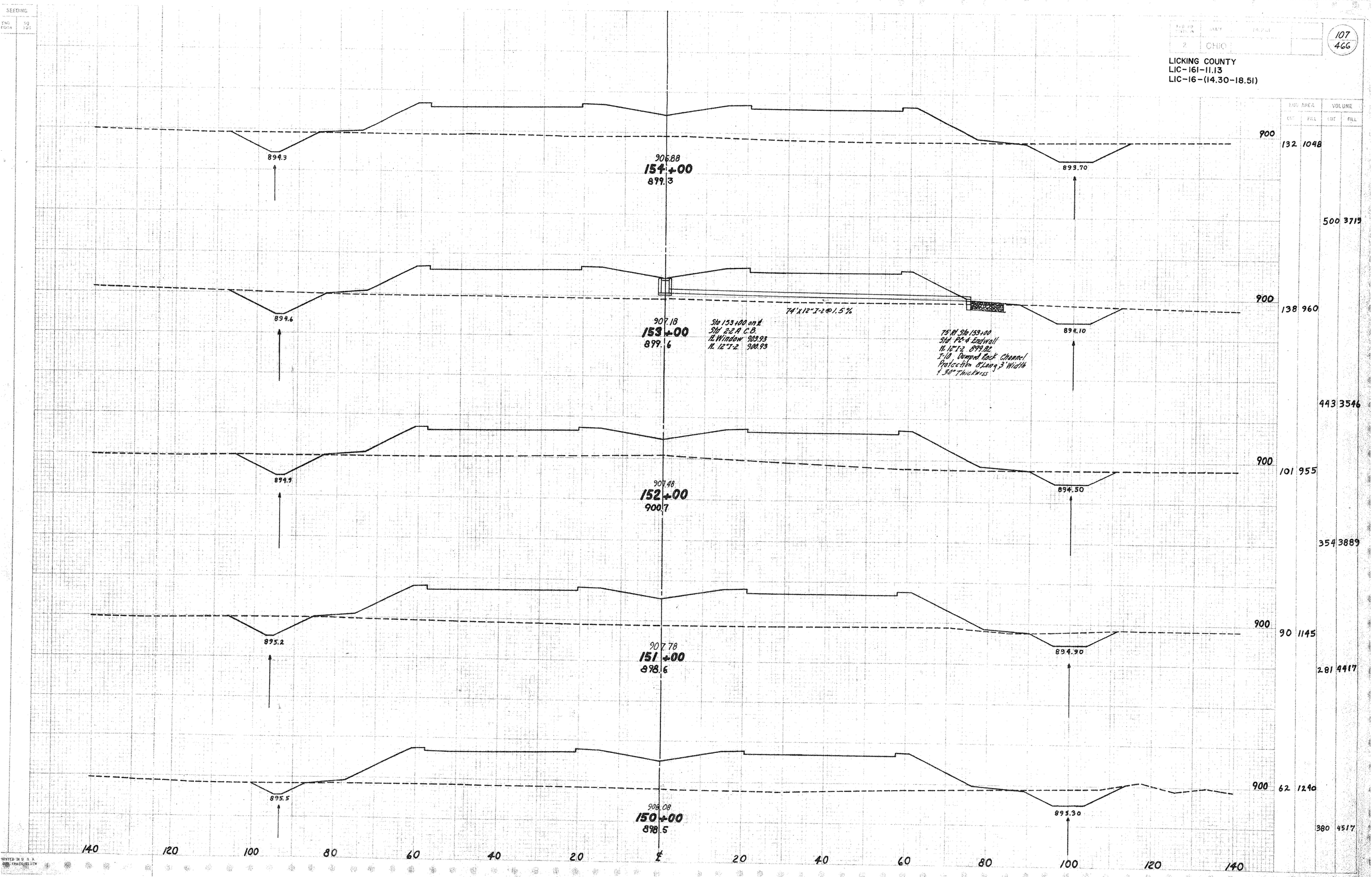
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

106
466

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | | 250 | 1199 |
| | | | |
| | | | |
| | | |

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

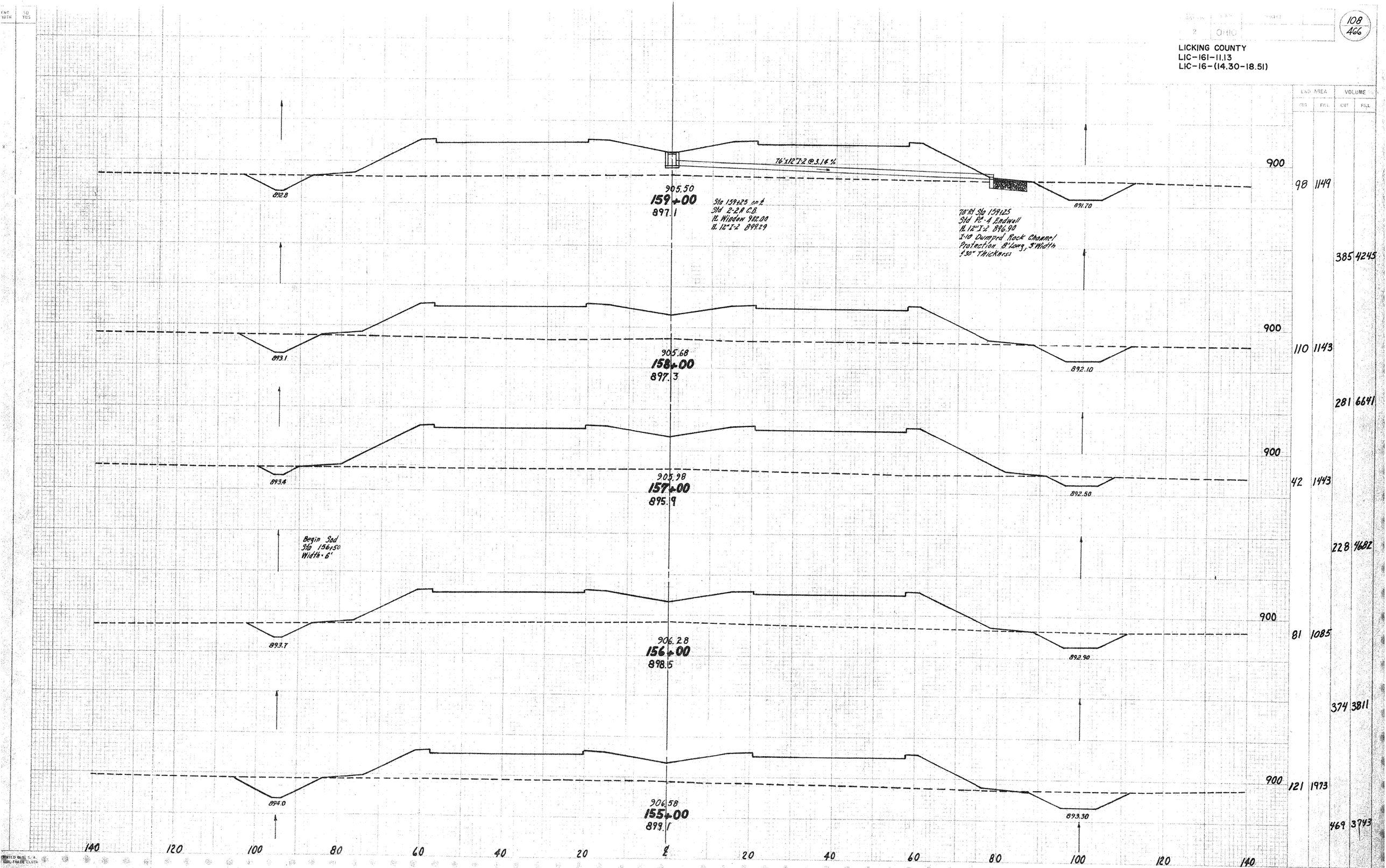
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STA. 150+00 TO STA. 154+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



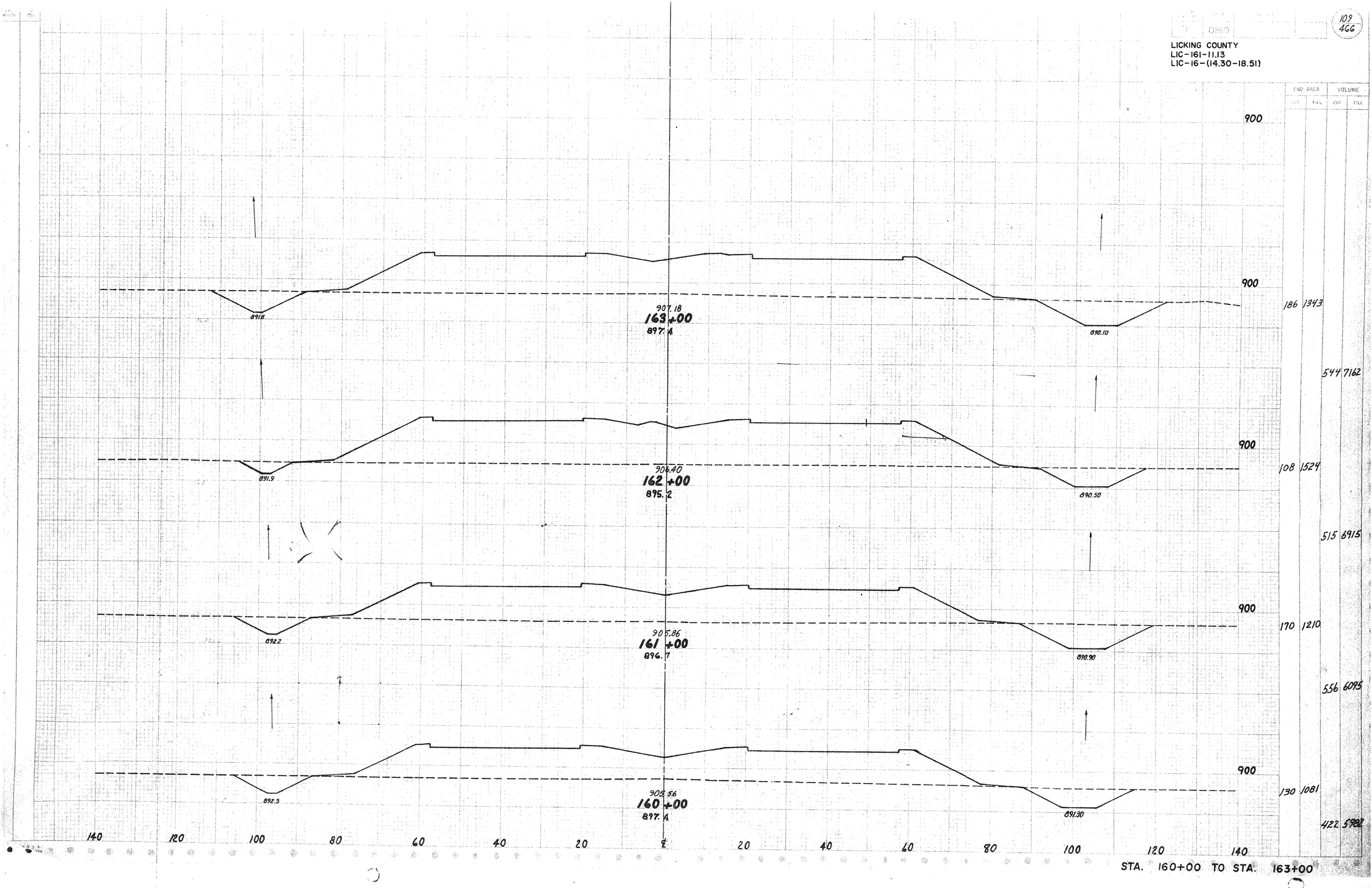

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 98 | 1149 | | |
| | | 385 | 4245 |
| 110 | 1143 | | |
| | | 281 | 6641 |
| 42 | 1443 | | |
| | | 228 | 4682 |
| 81 | 1085 | | |
| | | 374 | 3811 |
| 121 | 1973 | | |
| | | 469 | 3743 |

STA. 155+00 TO STA. 159+00

OHIO

109
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

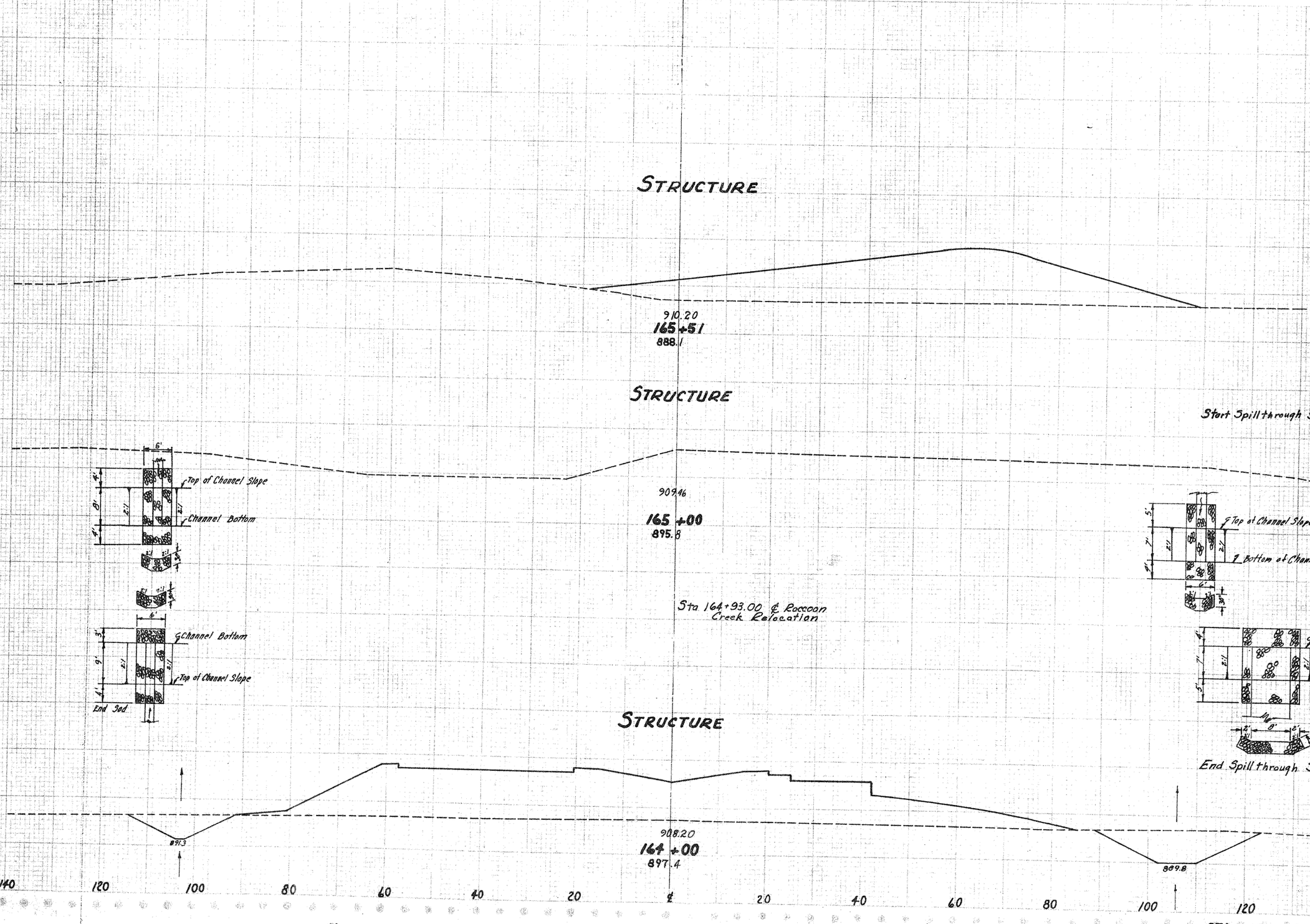



STA. 160+00 TO STA. 163+00

| FED. ROAD DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

110/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

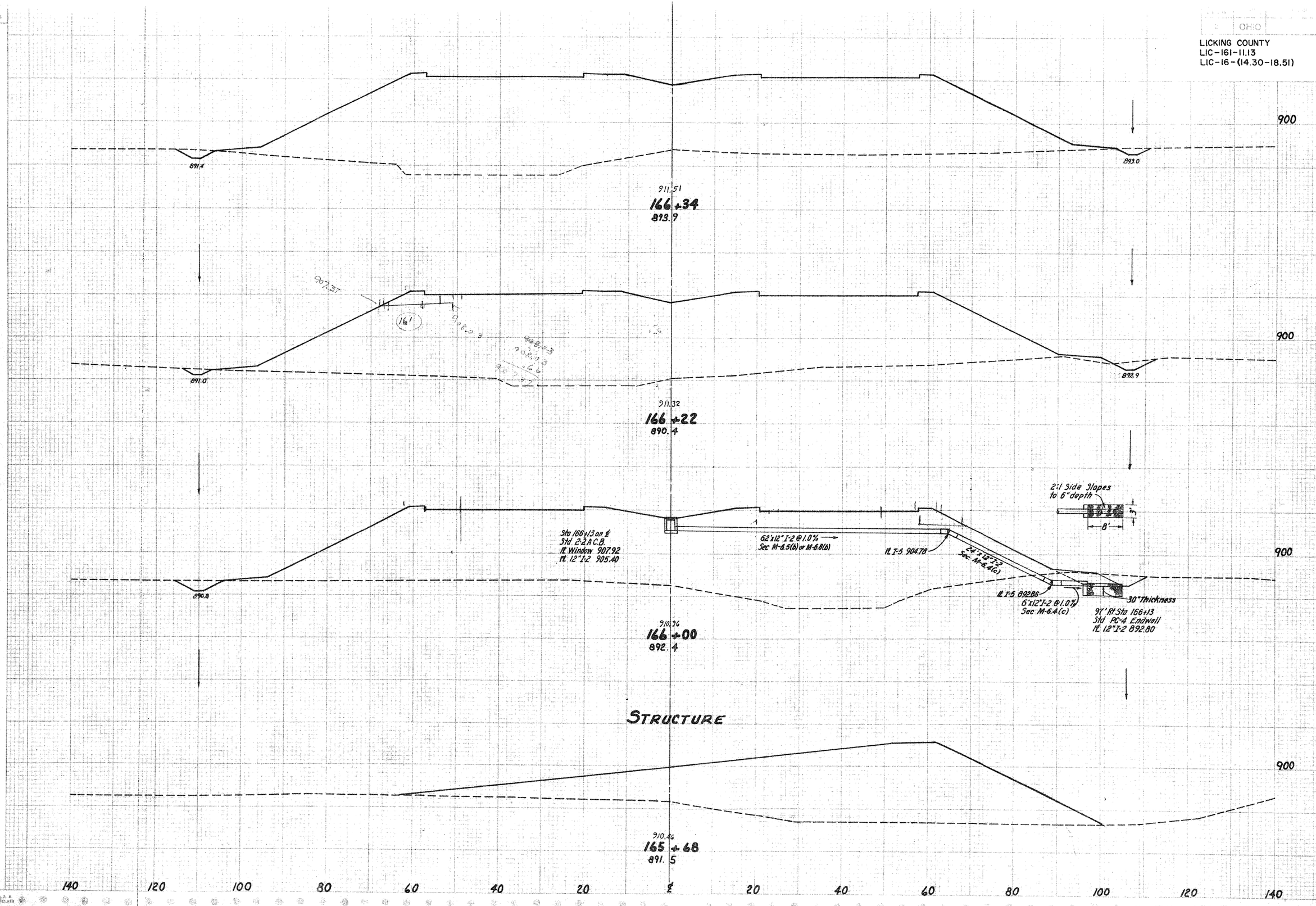



| STA | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 900 | | | | |
| 900 | | | | |
| | 0 | 861 | | |
| | | | | 0 686 |
| Start Spillthrough Sta 165+43 | 0 | 0 | | |
| 900 | | | | |
| 900 | | | | |
| End Spillthrough Sta 164+42 | 0 | 0 | | |
| | | | | 164 1004 |
| 900 | | | 210 | 1290 |
| | | | | 733 6728 |

STA. 164+00 TO STA. 165+51

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 16 | 3043 | | |
| | | 6 | 1328 |
| 11 | 2932 | | |
| | | 18 | 1526 |
| 32 | 2813 | | |
| | | 19 | 2576 |
| 0 | 1533 | | |
| | | 0 | 1195 |

STA. 165+68 TO STA. 166+00

SEEDING

| END WIDTH | SQ YDS |
|---|---|

112
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | 900 | | |
| 53 | 3264 | | |
| | | | |
| | | 252 | 11,245 |
| | 900 | | |
| 83 | 2808 | | |
| | | | |
| | | 265 | 9643 |
| | 900 | | |
| 60 | 2399 | | |
| | | | |
| | | 183 | 8980 |
| | 900 | | |
| 39 | 2450 | | |
| | | | |
| | | 24 | 2375 |
| | 900 | | |
| 12 | 2680 | | |
| | | 8 | 1696 |

893.7
917.44
**170+00**
896.8
893.4

893.4
915.82
**169+00**
897.9
895.7

2:1 Side Slopes to a 6" depth 7
8'

893.1
914.20
**168+00**
898.1

Sta 168+00 on ℄
Std. 2-2.9 C.B.
Rt. Window 910.95
Rt. 12"I-2 908.40

62'x 12" I-2 @ 1.0 %
Sec M-6.5(b) or M-6.8(b)

Rt. I-5 907.78

22'x 12"I-2 Sec M-6.4(c)

6'x12"I-2@1.0%
Sec M-6.4(c)

896.0

Rt. I-5 896.06
6'x12"I-2 @ 1%
M-6.4(c)

97'(2) Sta 168+00
Std PC-4 Endwall
Rt. 12"I-2 896.00
I-10 Dumped Rock Channel Protection 8' Long, 3' Width & 30" Thickness.

892.8
912.58
**167+00**
896.0
893.5

891.8
911.77
**166+50**
895.5
893.1

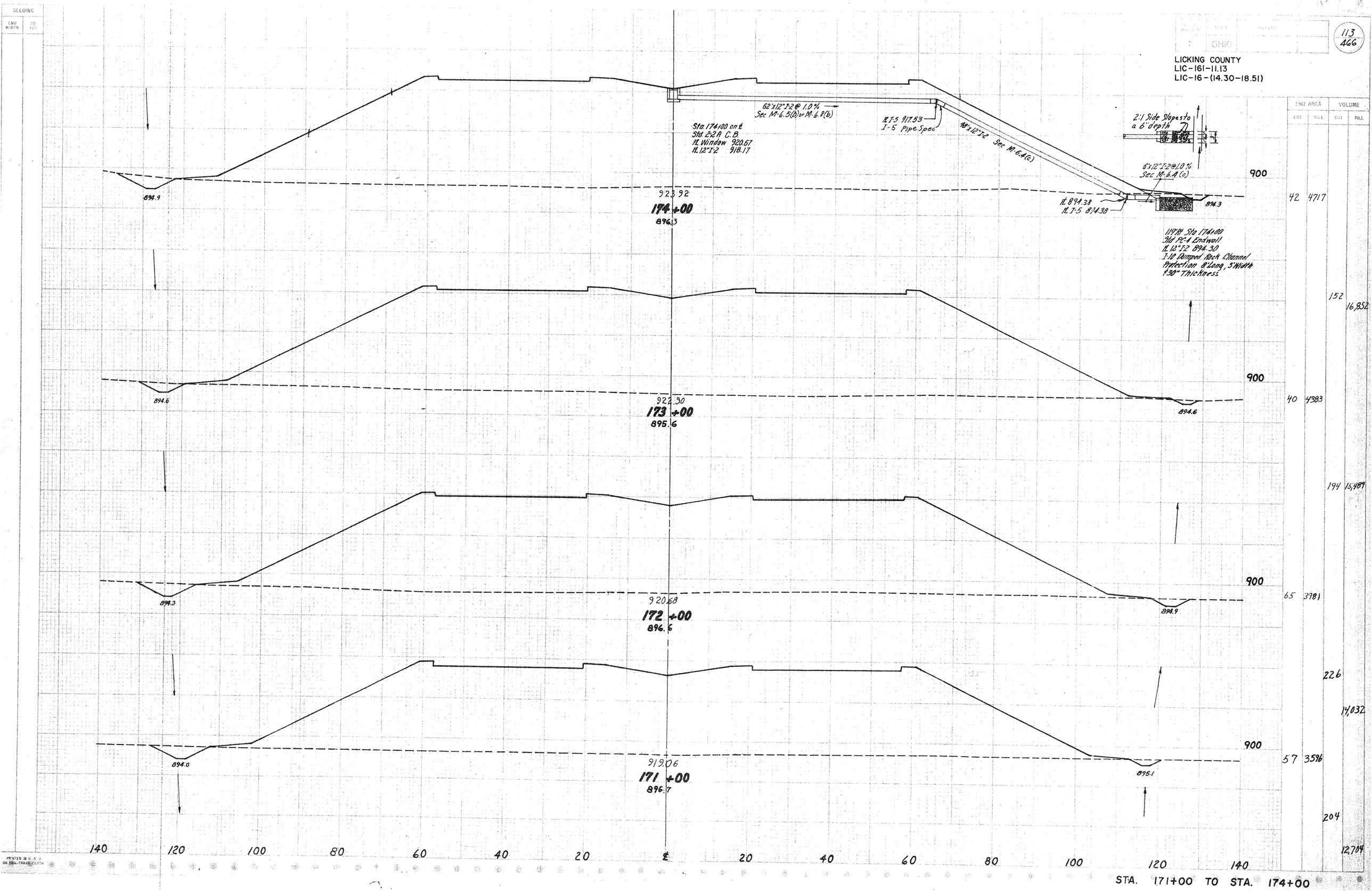
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 166+50 TO STA. 170+00

PRINTED IN U. S. A.

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 42 | 4717 | | |
| | | 152 | 16,852 |
| 40 | 4383 | | |
| | | 194 | 15,489 |
| 65 | 3981 | | |
| | | 226 | 14,032 |
| 57 | 3596 | | |
| | | 204 | 12,704 |

STA. 171+00 TO STA. 174+00

SEEDING

| YD | LD |
|---|---|
| STR | TWS |

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

114
466

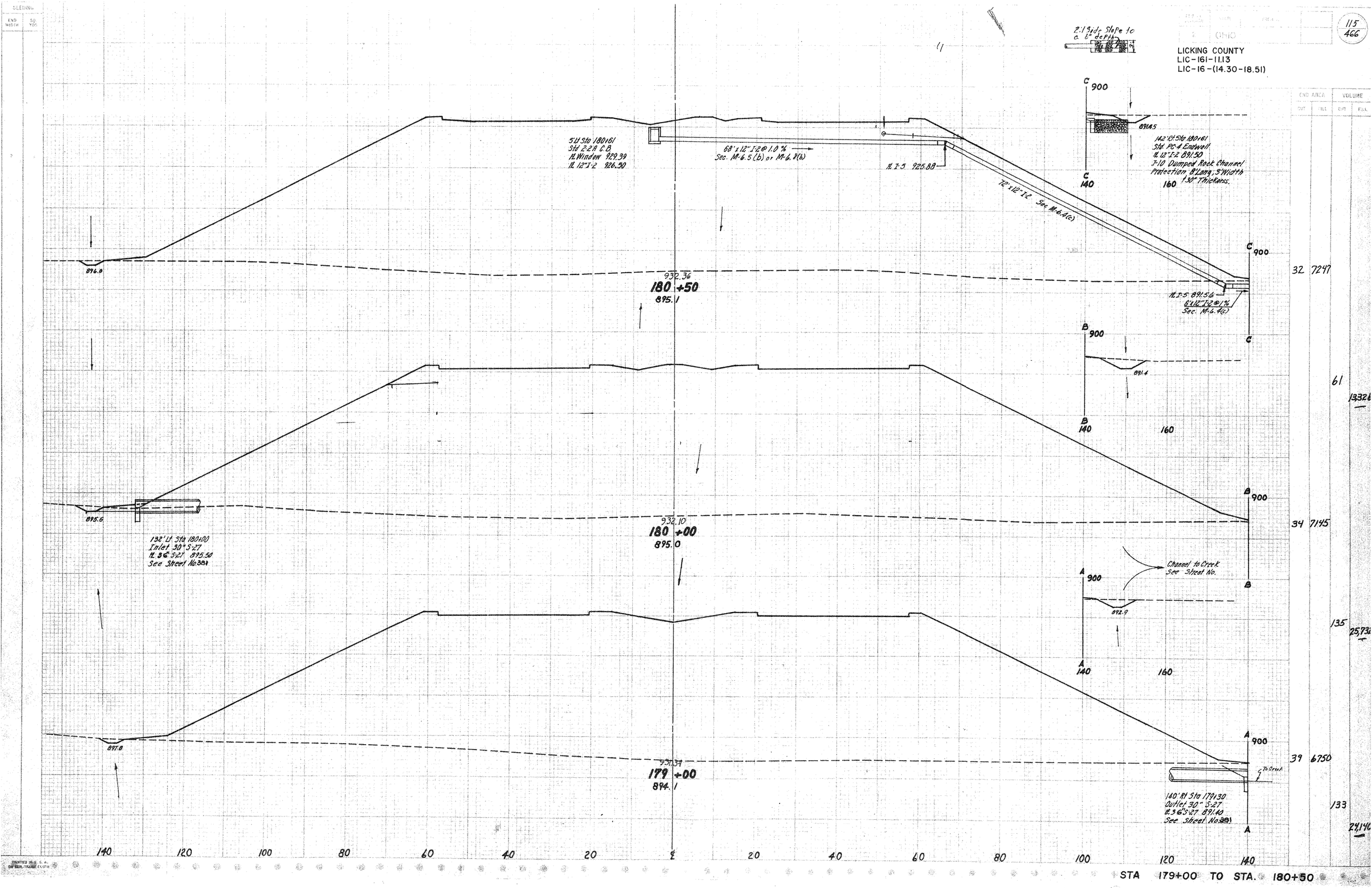
| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 178+00 | | | | |
| | 33 | 6285 | | |
| 177+00 | | | | 115 |
| | 29 | 5674 | | 22947 |
| 176+00 | | | | |
| | 50 | 5639 | | |
| 175+00 | | | | |
| | 33 | 5156 | | |

146 20351
154 19991
139 18287

STA. 175+00 TO STA. 178+00

PRINTED IN U. S. A.
SEAL IMAGE CLOTH

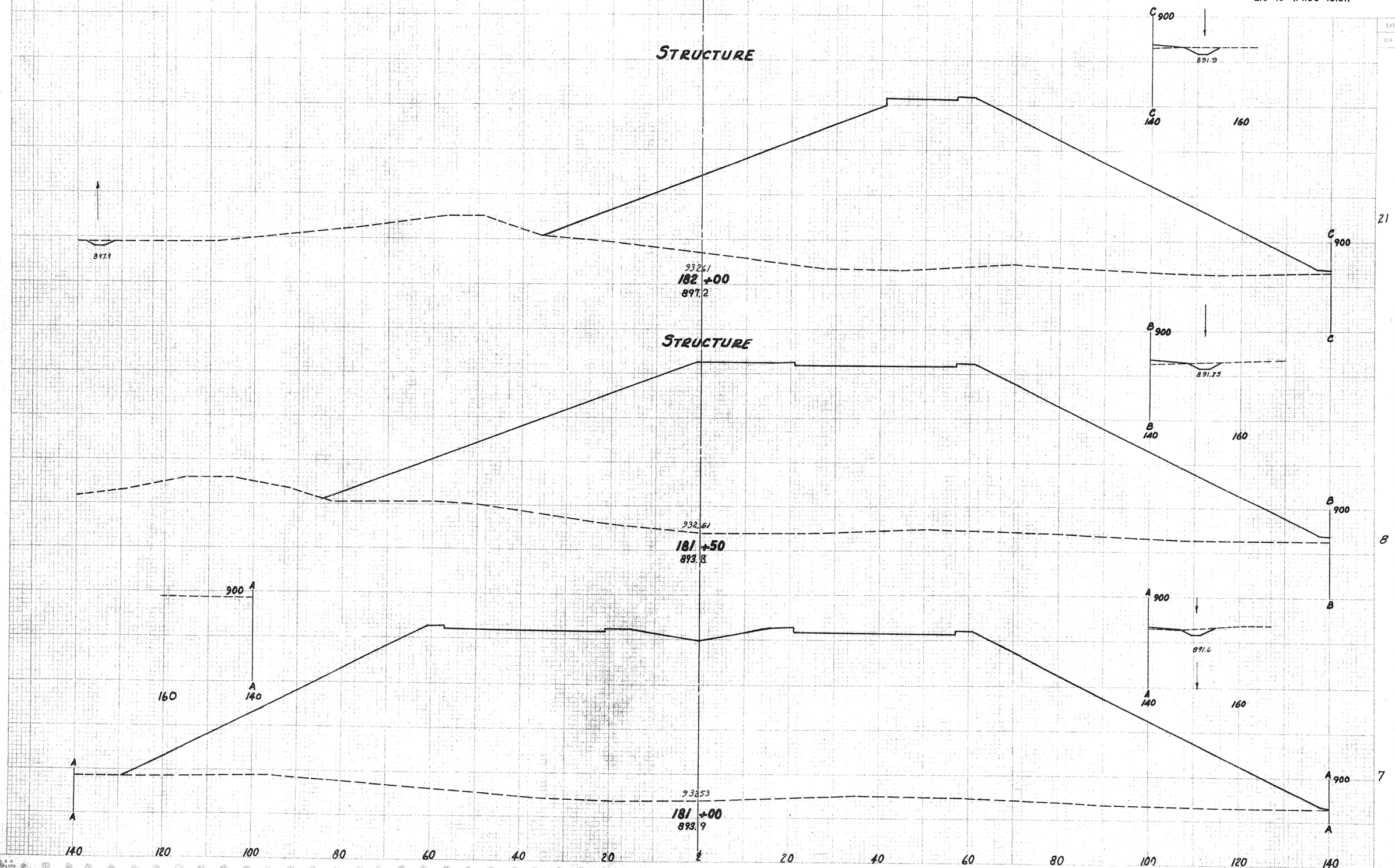
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 32 | 7247 | | |
| | | 61 | 13,326 |
| 34 | 7145 | | |
| | | 135 | 25,732 |
| 39 | 6750 | | |
| | | 133 | 24,140 |

STA 179+00 TO STA. 180+50

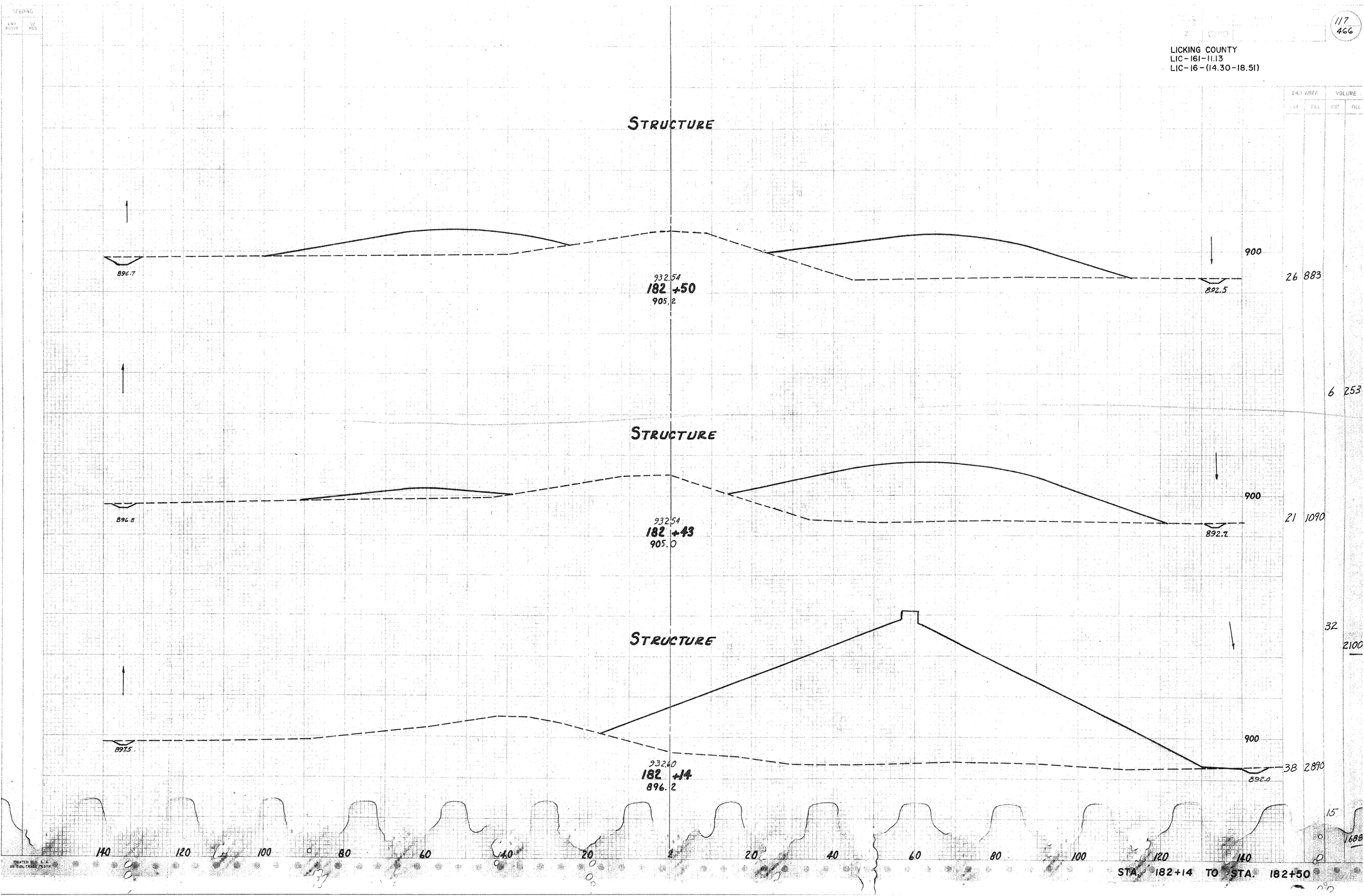
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 21 | 3670 | | |
| | | 27 | 8433 |
| 8 | 5438 | | |
| | | 14 | 11,714 |
| 7 | 7213 | | |
| | | 36 | 13,389 |

STA. 181+00 TO STA. 182+00

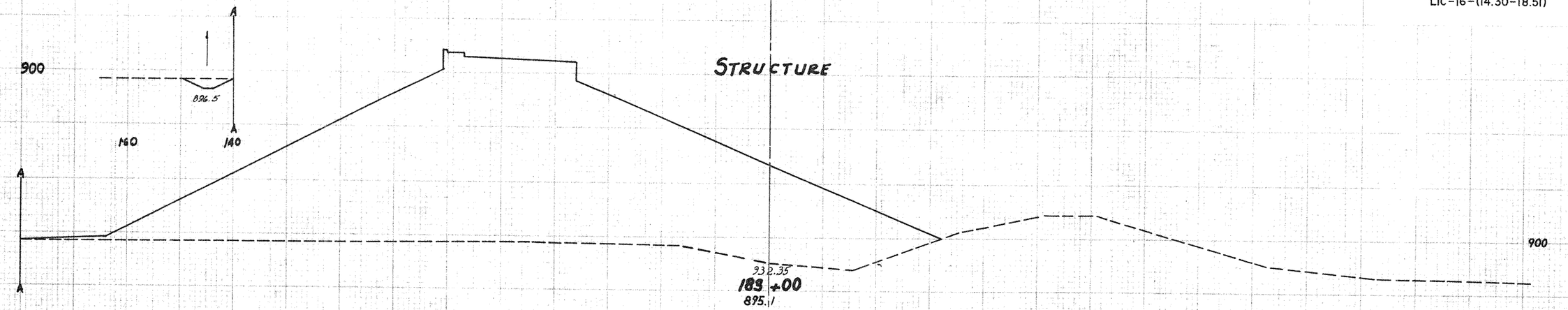
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

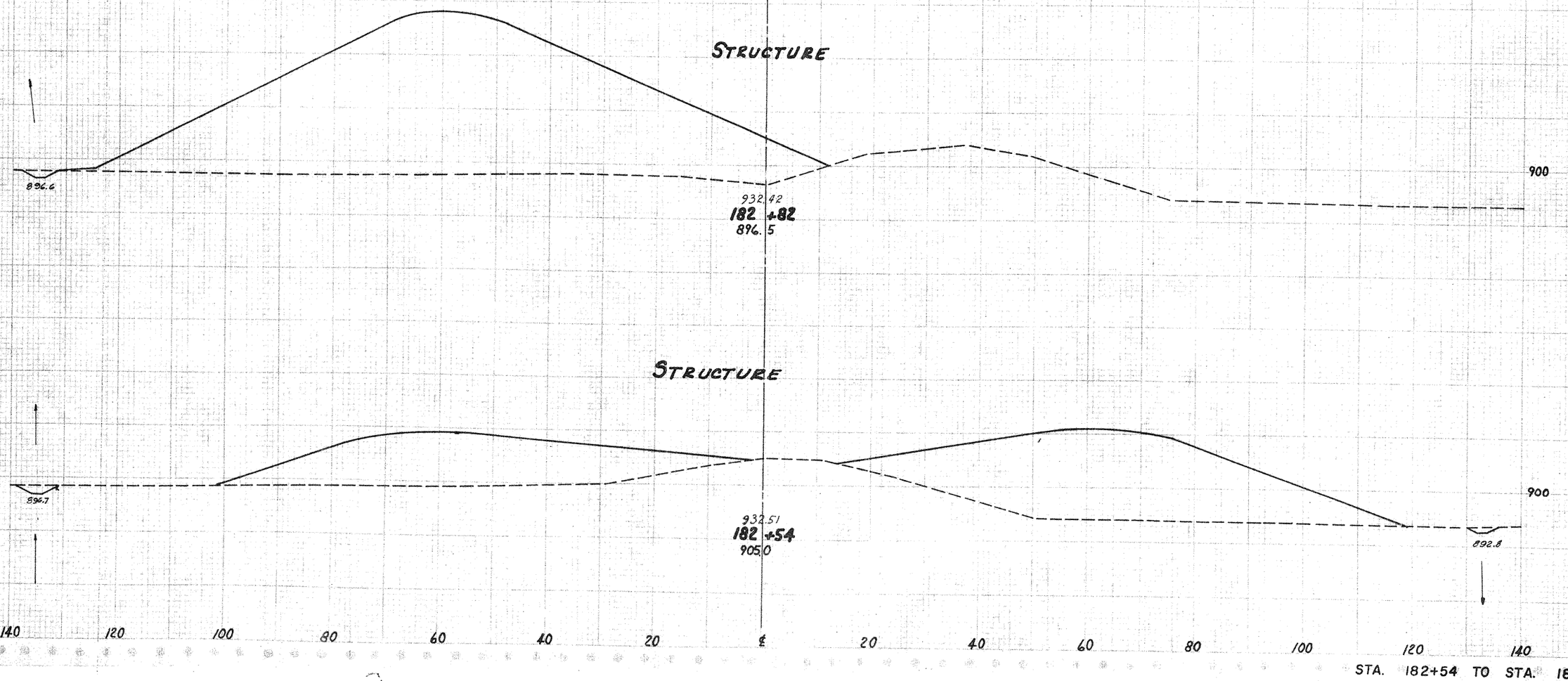



STA. 182+14 TO STA. 182+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |

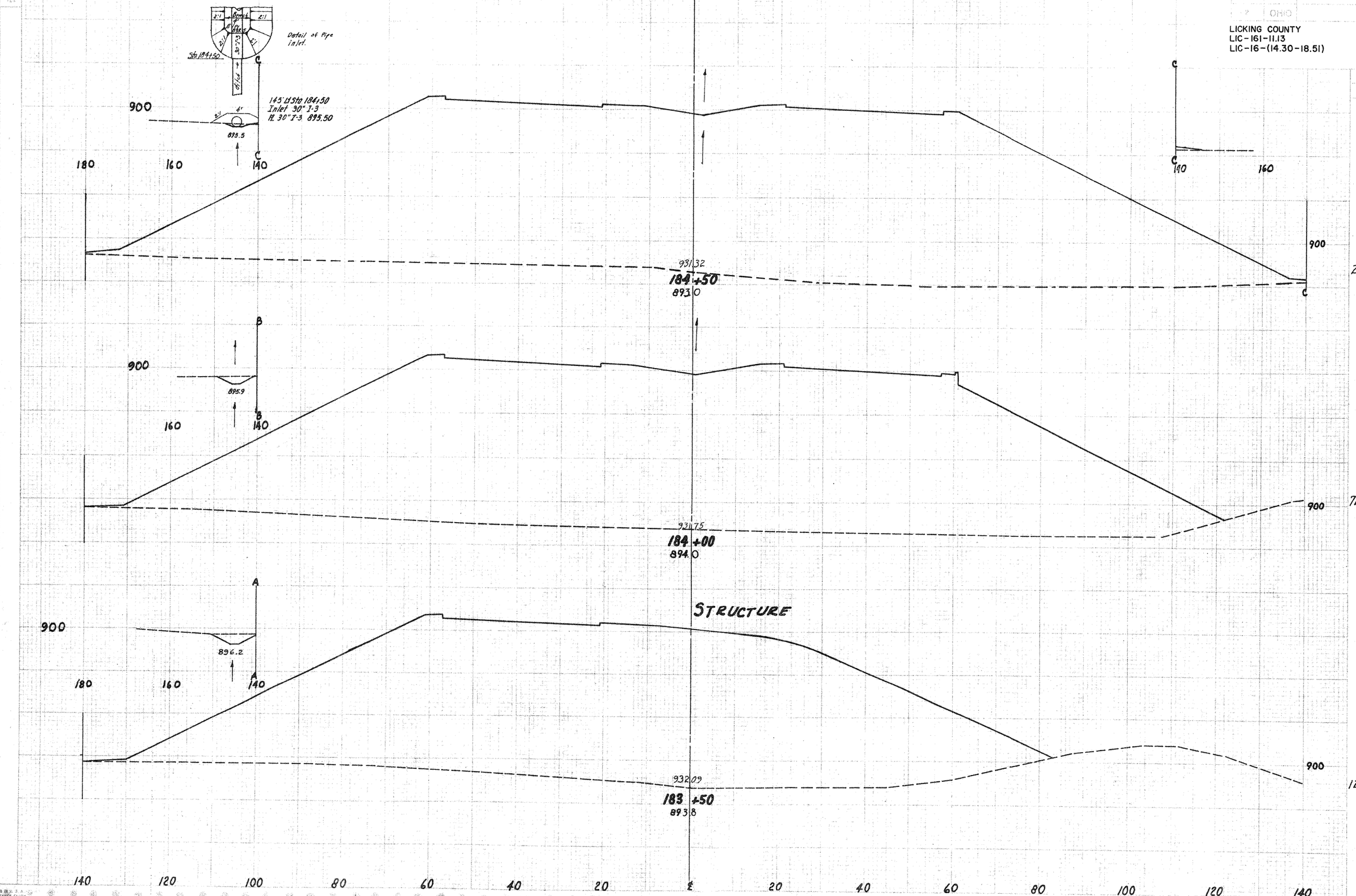



| | |
|---|---|
| 10 | 2150 |
| 14 | 2590 |
| 3 | 188 |

STA. 182+54 TO STA. 183+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 24 | 7180 | | |
| | | 89 | 13,169 |
| 72 | 7043 | | |
| | | 78 | 11,528 |
| 12 | 5408 | | |
| | | 31 | 7887 |

STA. 183+50 TO STA. 184+50

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS. |

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

120
466

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 4 | | 6908 | | |
| | | | 8 | 13,26 |
| 5 | | 7415 | | |
| | | | 12 | 13451 |
| 8 | | 7113 | | |
| | | | 30 | 13,23 |

900
677.8
92.52
186 +00
889.6
B
900
180 160 B 140
B
677.9
930.21
185 +50
889.6
900
818.0
ditch thru Guard Rail 184+80
A
180 160 140
A
900
930.81
185 +00
891.8
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 185+00 TO STA. 186+00

PRINTED IN U.S.A. ON CURL TRADE CLOTH

SEEDING

| END WIDTH | SQ. YDS. |
|---|---|

| DIV. NO. | STATE | PROJECT |
|---|---|---|
| 2 | 0410 | |

121
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | | | |
| | | |

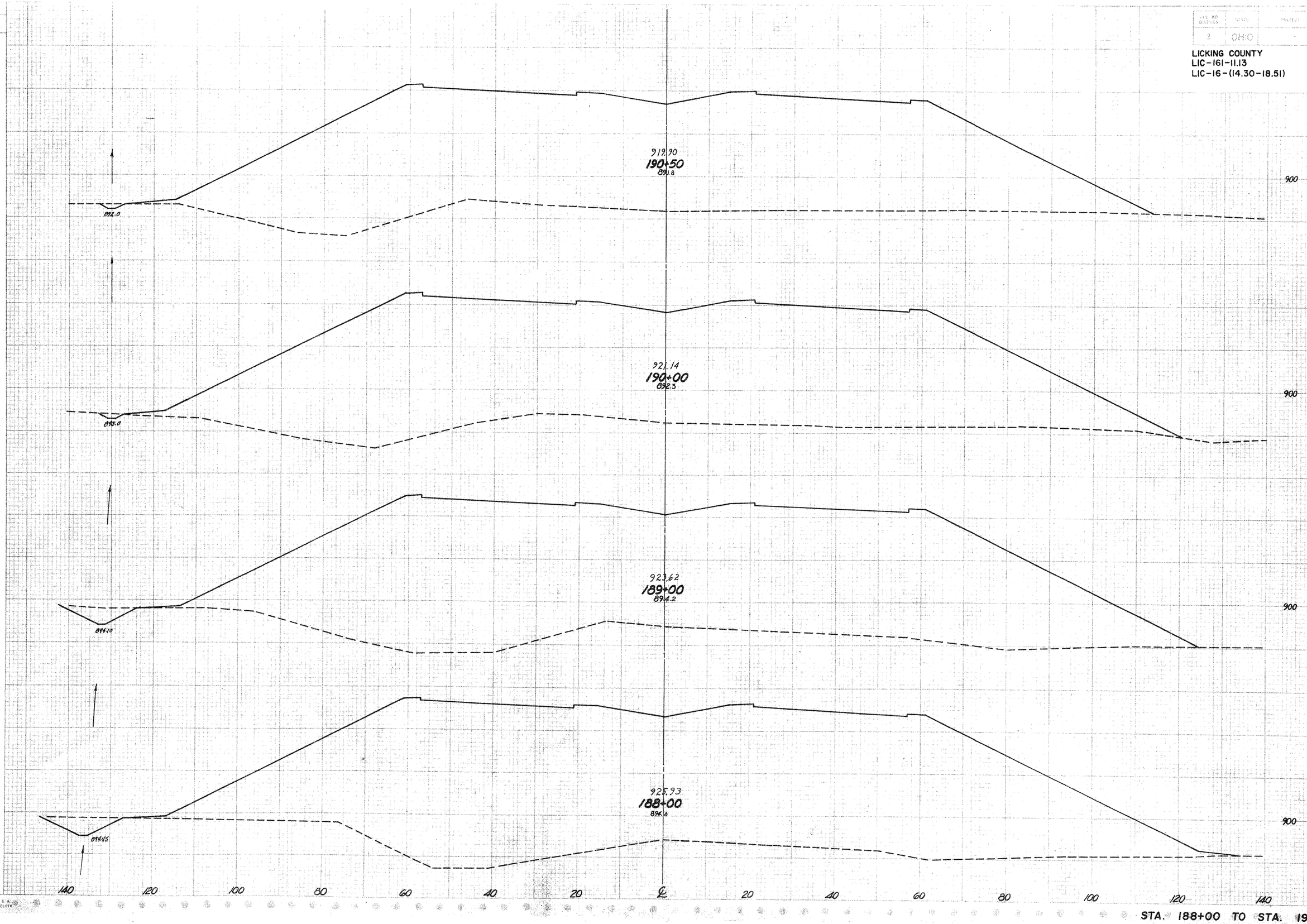
SEEDING

| END WIDTH | SQ YDS |
|---|---|

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | - | |

122
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| | | | | |
| 4 | 4975 | | | |
| | | | | |
| 7 | 9479 | | | |
| | | | | |
| 4 | 5263 | | | |
| | | | | |
| 85 | | | | 20,282 |
| | | | | |
| 42 | 5689 | | | |
| | | | | |
| 169 | | | | 21,989 |
| | | | | |
| 49 | 6185 | | | |
| | | | | |
| 99 | | | | 12,055 |

STA. 188+00 TO STA. 190+50

PRINTED IN U.S.A.
ON KEUFFEL & ESSER CLOTH

SEEDING

| END WIDTH | SQ. YDS. |
|---|---|

| STATE | PROJECT |
|---|---|
| OHIO | |

123
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

913.70
193+00
891.1

Sta 193+00 on ℄
Std 2-2 A.C.B.
1-12" Window 910.45
1-12"I-2 907.95

68'x12"I-2@6.0%
See M-6.5(b) or M-6.8(b)

1-I-5 903.99

10'x12"I-2 ⊕ Sec M-6.4(c)

8'x12"I-2@6.0%
Sec M-6.4(c)

10'

1-I-5 894.49

97'-8" Sta 193+00
Std RC-4 Endwall
1-12"I-2 894.00
I-1.0 Dumped Rock Channel
Protection 10' Long, 3'Wide
& 30" Thickness

914.94
192+50
890.8

119'-4" Sta 192+50
Inlet 48"S-27
1-48"-S-27 886.00
See Sheet No. 382

117'-8" Sta 192+50
Outlet 48"S-27
1-48"-S-27 888.50
See Sheet No.

126'-8" Sta 192+50
Outlet 36"S-27
1-883.00
See Sheet No. 382

End Sod
Sta. 192+50
Width=6'

916.18
192+00
890.4

888.7

917.42
191+50
891.1

888.7

918.66
191+00
891.3

891.0

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 0 | 3483 | | |
| | | 7 | 6885 |
| 7 | 3953 | | |
| | | 8 | 7598 |
| 2 | 4253 | | |
| | | 37 | 8239 |
| 38 | 4645 | | |
| | | 55 | 8782 |
| 21 | 4840 | | |
| | | 23 | 9088 |

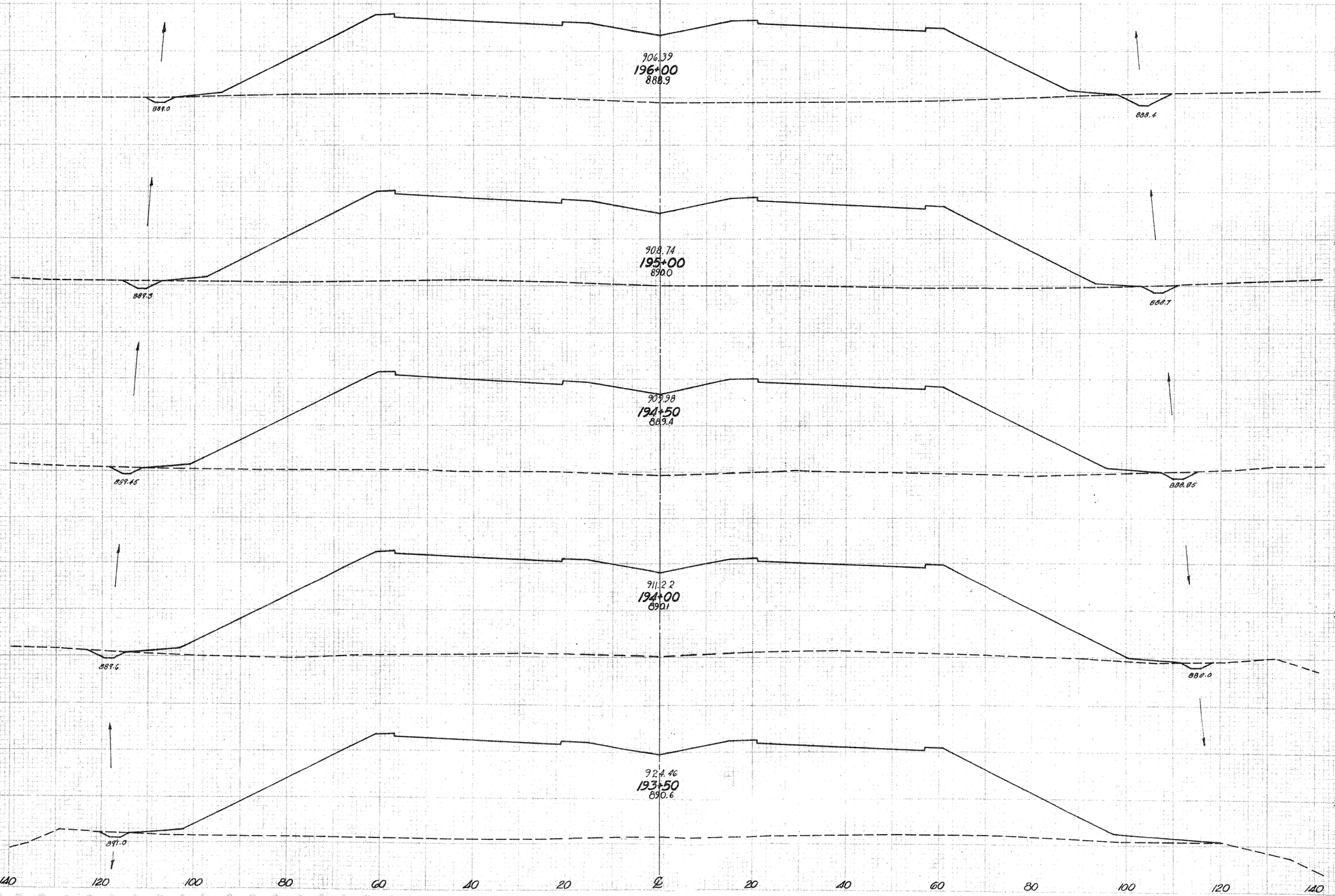
900 900 900 900 900

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 191+00 TO STA. 193+00

PRINTED IN U.S.A.
THE COLUMBUS CLIPS

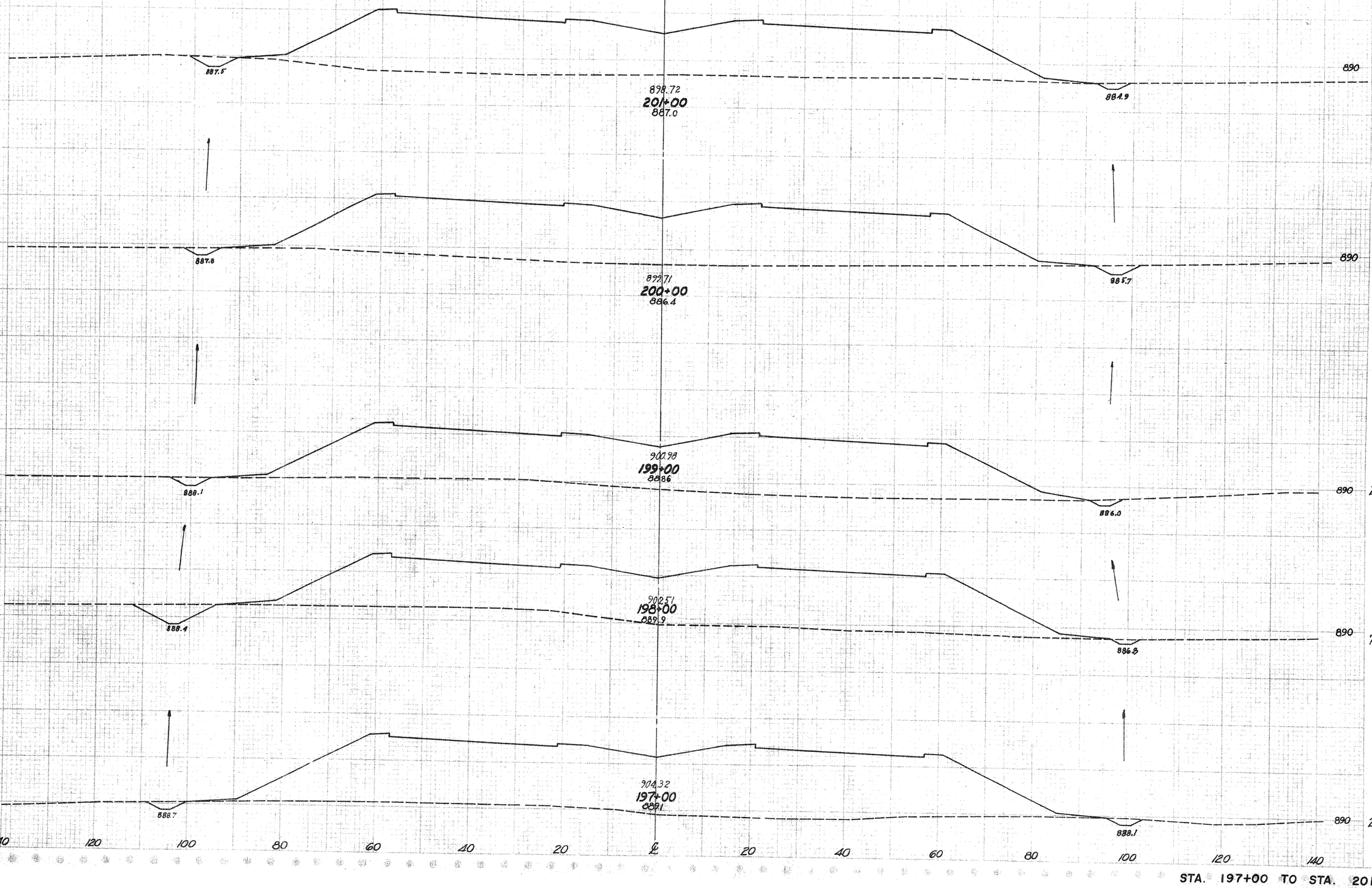
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 26 | 2547 | | |
| | | 74 | 1421 |
| 14 | 2967 | | |
| | | 22 | 567 |
| 10 | 3165 | | |
| | | 21 | 600 |
| 13 | 3322 | | |
| | | 19 | 532 |
| 7 | 2425 | | |
| | | 6 | 547 |

STA. 193+50 TO STA. 196+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

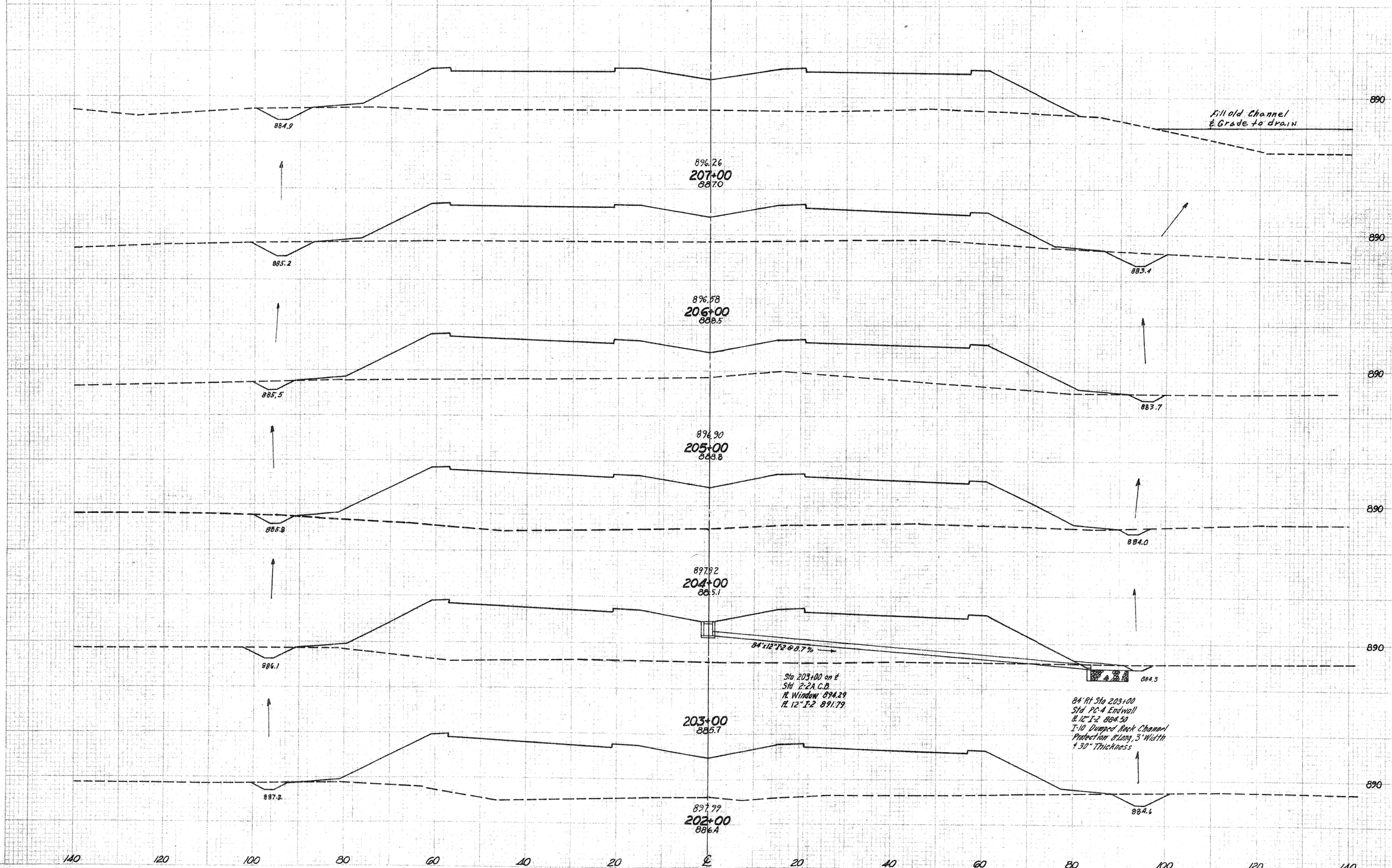



| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| | 890 | | |
| 20 | 1637 | | |
| | | 89 | 6080 |
| 28 | 1646 | | |
| | | 96 | 6204 |
| 24 | 1704 | | |
| | | 174 | 6232 |
| 70 | 1661 | | |
| | | 183 | 7024 |
| 29 | 2132 | | |
| | | 102 | 8665 |

STA. 197+00 TO STA. 201+00

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

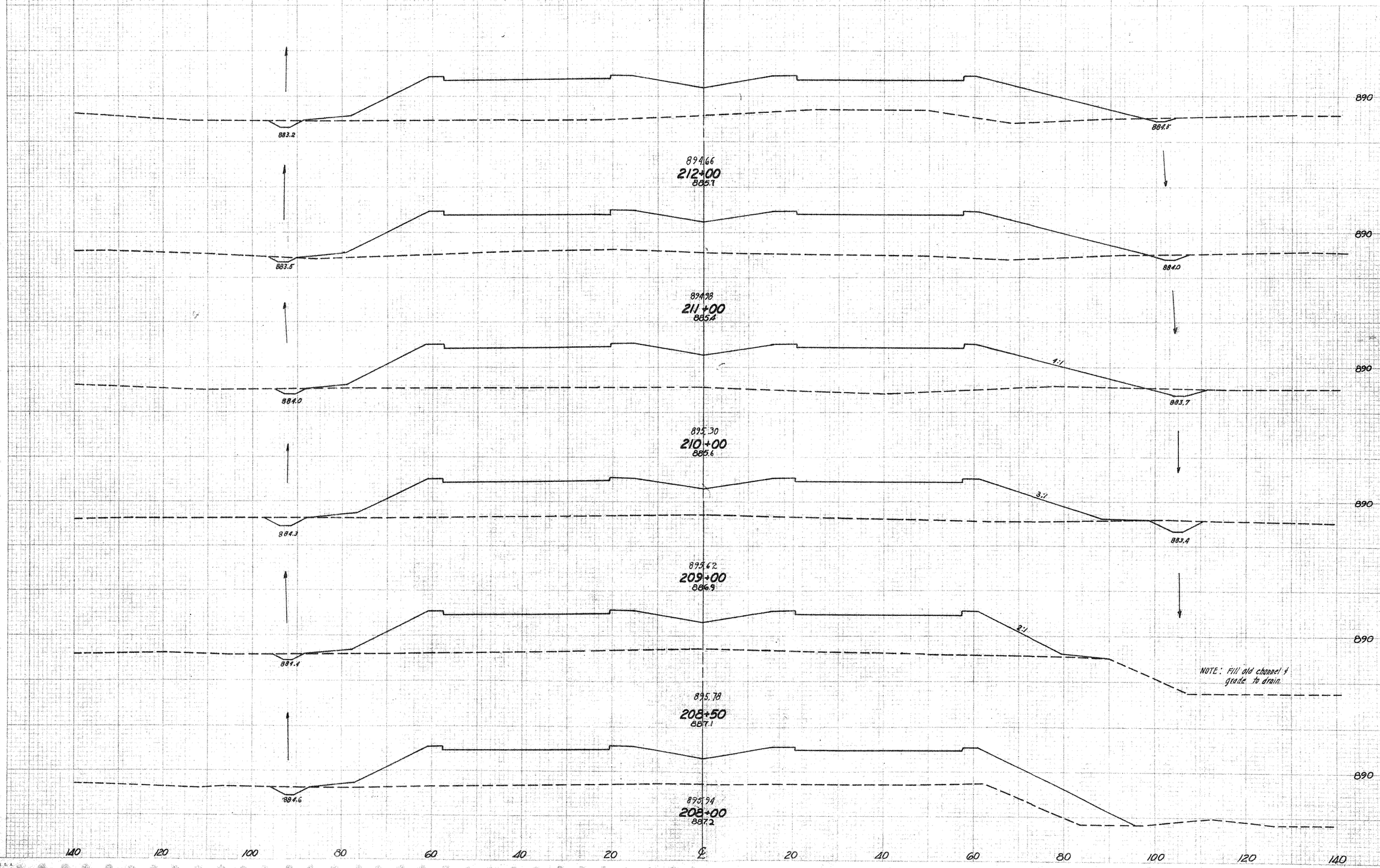



| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 20 | 1536 | | |
| | | 139 | 4656 |
| 45 | 978 | | |
| | | 117 | 3959 |
| 18 | 1160 | | |
| | | 57 | 5119 |
| 13 | 1604 | | |
| | | 59 | 5863 |
| 19 | 1562 | | |
| | | 81 | 5824 |
| 25 | 1583 | | |
| | | 83 | 5963 |

STA. 202+00 TO STA. 207+00

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 6 | 1235 | | |
| | | 19 | 4772 |
| 4 | 1342 | | |
| | | 17 | 5058 |
| 5 | 1389 | | |
| | | 24 | 4850 |
| 8 | 1230 | | |
| | | 14 | 2639 |
| 7 | 1620 | | |
| | | 14 | 3028 |
| 8 | 1650 | | |
| | | 70 | 5900 |

STA. 208+00 TO STA. 212+00

SEEDING

| END | NO. |
|---|---|
| TOP | TOS |

84' Rt. Sta 215+50
Std PC-4 Endwall
Rt. 12"I-2 881.50

84'x12"I-2@6.9%

Sta 215+50 on ℄
Std 2-2A C.B.
Rt. Window 890.29
Rt. 12"I-2 887.29

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

128
466

890

890

880

890

890

890

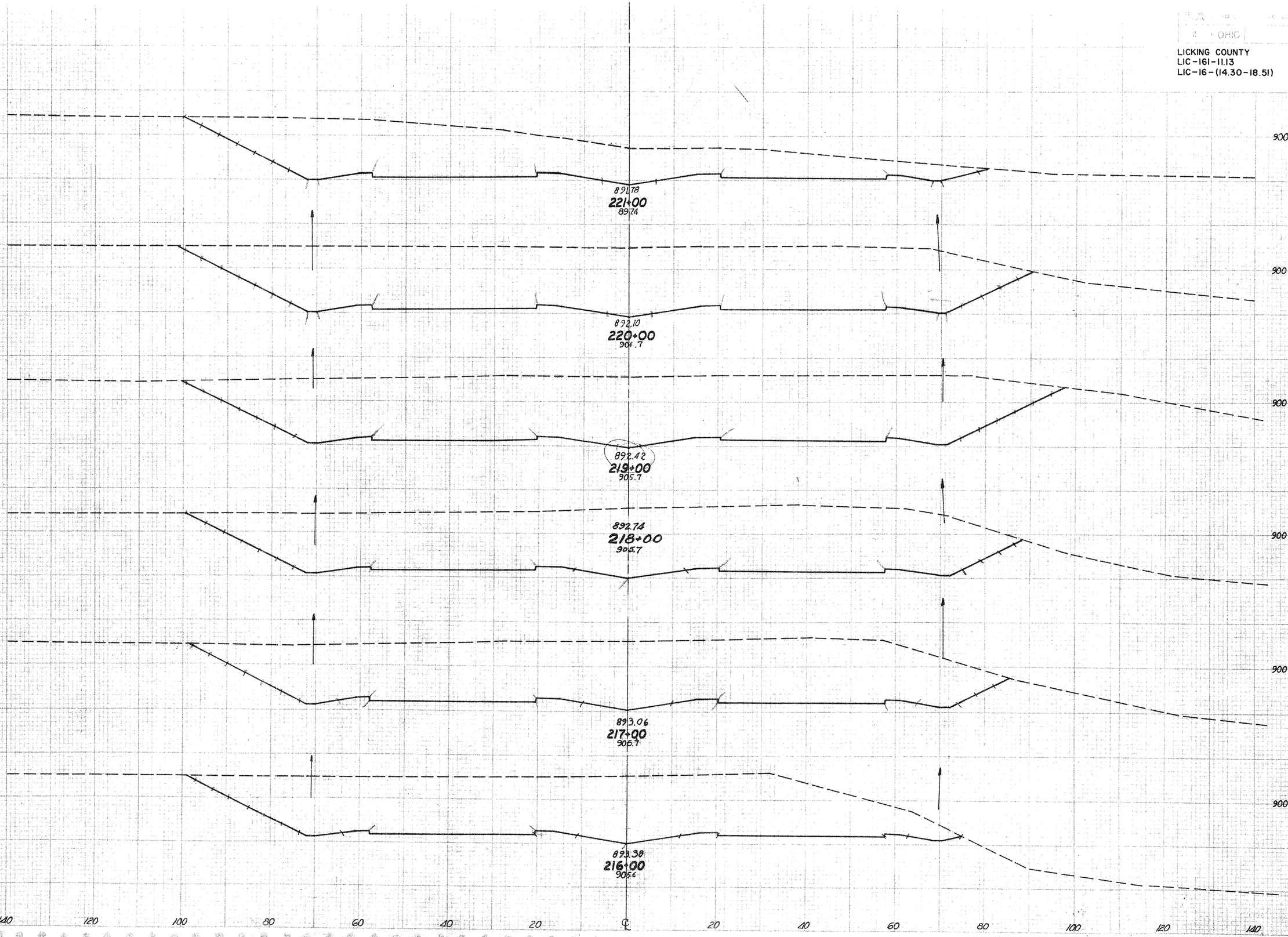
SEEDING

| END WIDTH | SQ. YDS |
|---|---|



OHIO

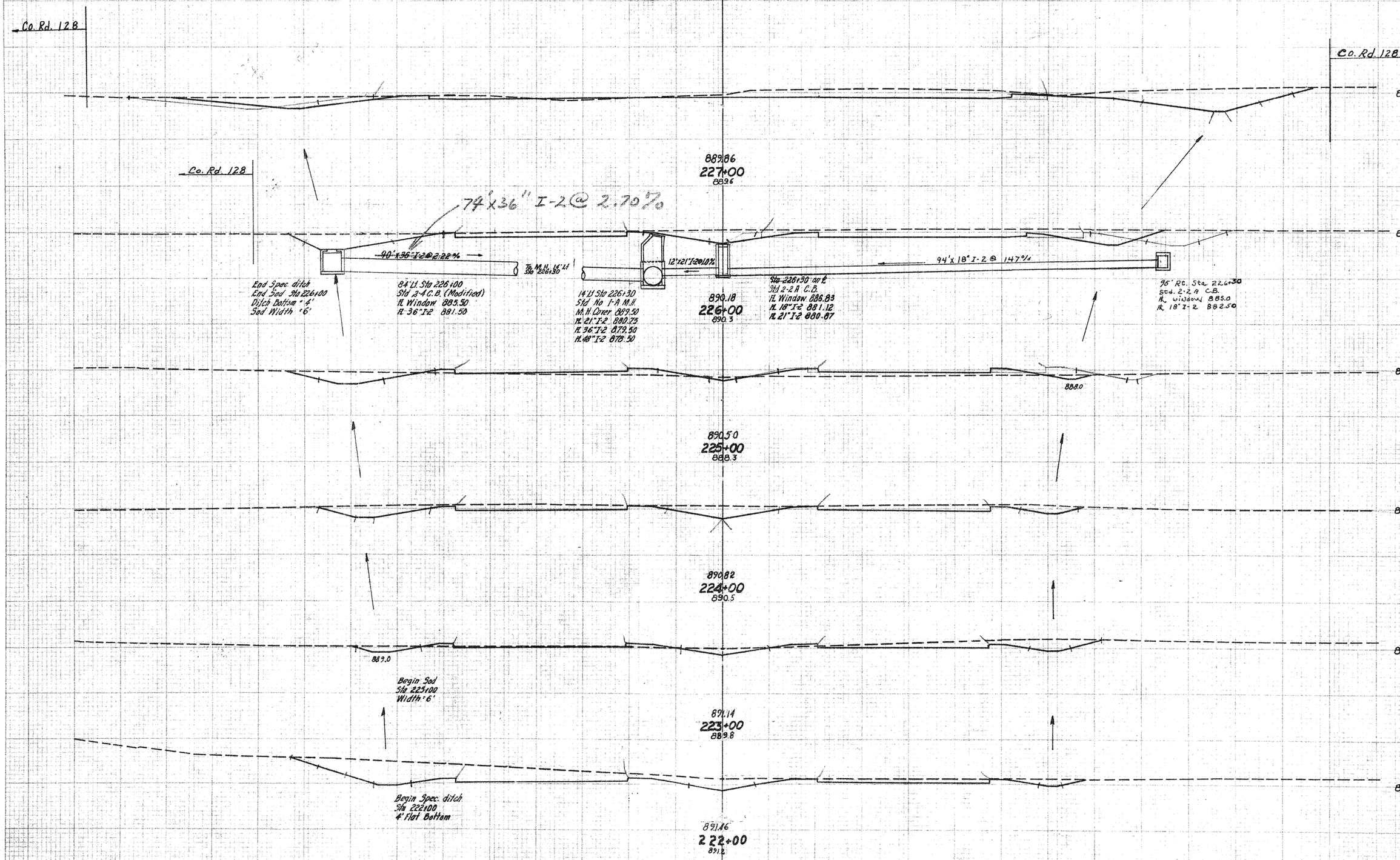
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| 900 | | | |
| | 1355 | | 6843 |
| 900 | | | |
| | 2340 | | 8945 |
| 900 | | | |
| | 2490 | | 8880 |
| 900 | | | |
| | 2305 | | 8324 |
| 900 | | | |
| | 2190 | | 7630 |
| 900 | | | |
| | 1930 | | 4706 1313 |

STA. 216+00 TO STA. 221+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 890 | 348 | | | |
| | | | 1163 | |
| 890 | 280 | | | |
| | | | 639 | 176 |
| 890 | 65 | 95 | | |
| | | | 481 | 176 |
| 890 | 195 | | | |
| | | | 539 | 33 |
| 890 | 96 | 18 | | |
| | | | 817 | 33 |
| 890 | 345 | | | |
| | | | 3148 | |

STA. 222+00 TO STA. 227+00

SEEDING

| END WIDTH | SQ. YDS |
|---|---|

| FED. ROAD DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

131/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | 82 | | 14 |
| | | 485 | 30 |
| | 180 | | 2 |
| | | 670 | 7 |
| | 182 | | 20 |
| | | 615 | 15 |
| | 150 | | 6 |
| | | 618 | 11 |
| | 200 | | 0 |
| | | 681 | 20 |
| | 168 | | 5 |
| | | 814 | 1141 |

888.94
233+00
886.7
890
885.5

888.26
232+00
888.4
890
885.8

888.58
231+00
888.3
890
886.1
14" Lt. Sta. 231+00
Std. No. 1-A M.H.
M.H. Cover 888.0
R. 48" I-2 877.0
E. 48" I-2 877.0

889.90
230+00
888.0
890
886.4

889.22
229+00
888.9
890
886.7

890
886.6
ditch from Co. Rd 12.8

889.54
228+00
888.6
14" Lt. Sta 228+00
I-5 Pipe Special
48"x18" Tee
R. I-5 877.96
R. 879.21
88' x 18" I-2 @ 3.17%

78' Rt Sta 228+00
Std 2-2A C.B.
R. Window 885.50
R. 18" I-2 883.00
Co. Rd 12.8
890
ditch from Co. Rd. 12.8

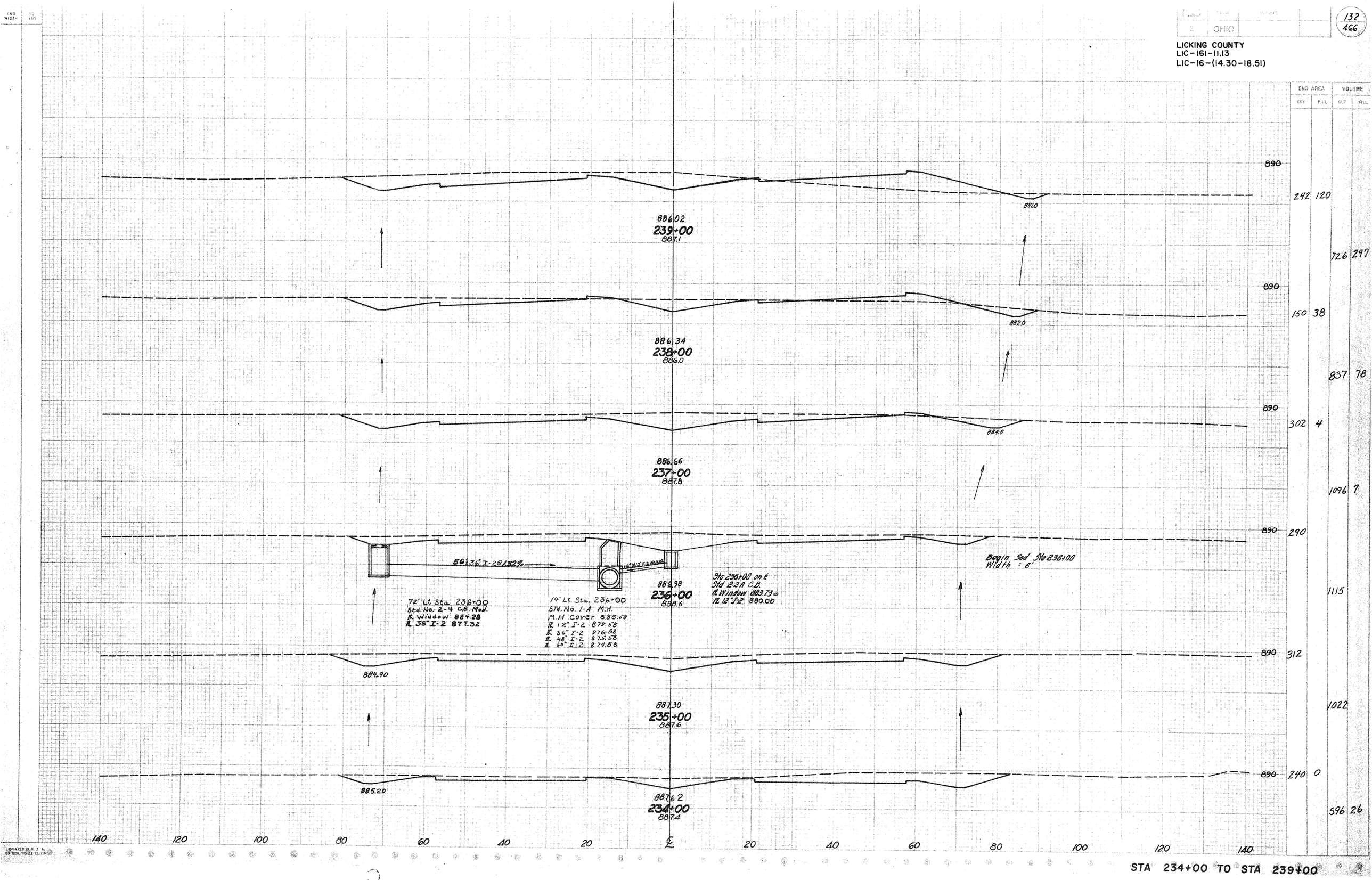
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 228+00 TO STA. 233+00

PRINTED IN U. S. A.
DIX CLOTH TRACE CLOTH

| DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STA 234+00 TO STA 239+00

SEEDING

| END WIDTH | SQ. YDS. |
|---|---|

| SECTION | COUNTY | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

133
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 880 | 200 | 137 | | |
| | | | 552 | 661 |
| 880 | 98 | 220 | | |
| | | | 265 | 811 |
| 880 | 45 | 218 | | |
| | | | 283 | 830 |
| 880 | 118 | 230 | | |
| | | | 556 | 867 |
| 880 | 182 | 238 | | |
| | | | 481 | 826 |
| 880 | 78 | 208 | | |
| | | | 593 | 607 |

884.10
245+00
883.4

878.8

884.42
244+00
881.0

879.1

884.74
243+00
881.7

879.4

14' Lt. Sta. 242+00
Std. No. 1-A M.H.
M.H. COVER 884.68
Fl. 12" I-2 876.68
Fl. 60" I-2 872.68

879.7

885.06
242+00
881.4

℄ Sta. 242+00
Std. 2-2-A C.B.
Fl. Window 882.0
Fl. 12" I-2 877.0

12"x12" I-2 12.3%

885.38
241+00
882.5

880.0

End Sod
Sta. 240+00
Width = 6'

885.70
240+00
884.3

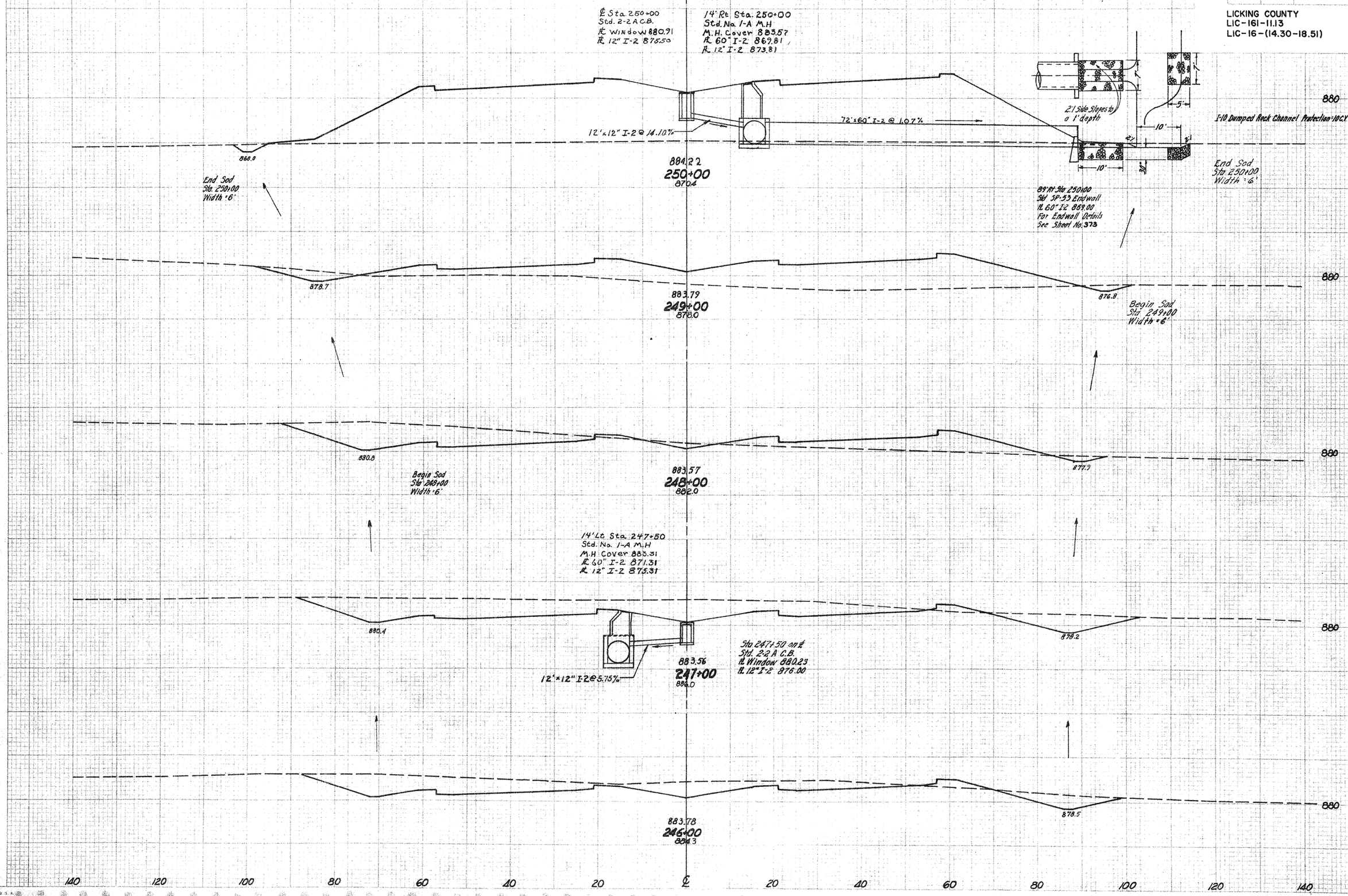
880.3

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

PRINTED ON NO. 3 A
OR EQUAL TRACE CLOTH

STA. 240+00 TO STA. 245+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 880 | 19 | 1975 | | |
| | | | 93 | 4893 |
| 880 | 31 | 667 | | |
| | | | 569 | 1369 |
| 880 | 276 | 172 | | |
| | | | 1531 | 346 |
| 880 | 551 | 15 | | |
| | | | 1689 | 61 |
| 880 | 361 | 18 | | |
| | | | 1039 | 287 |

STA. 246+00 TO STA. 250+00

| STATE DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

135
466

LICKING COUNTY
LIC-16I-11.13
LIC-16-(14.30-18.51)

SEEDING

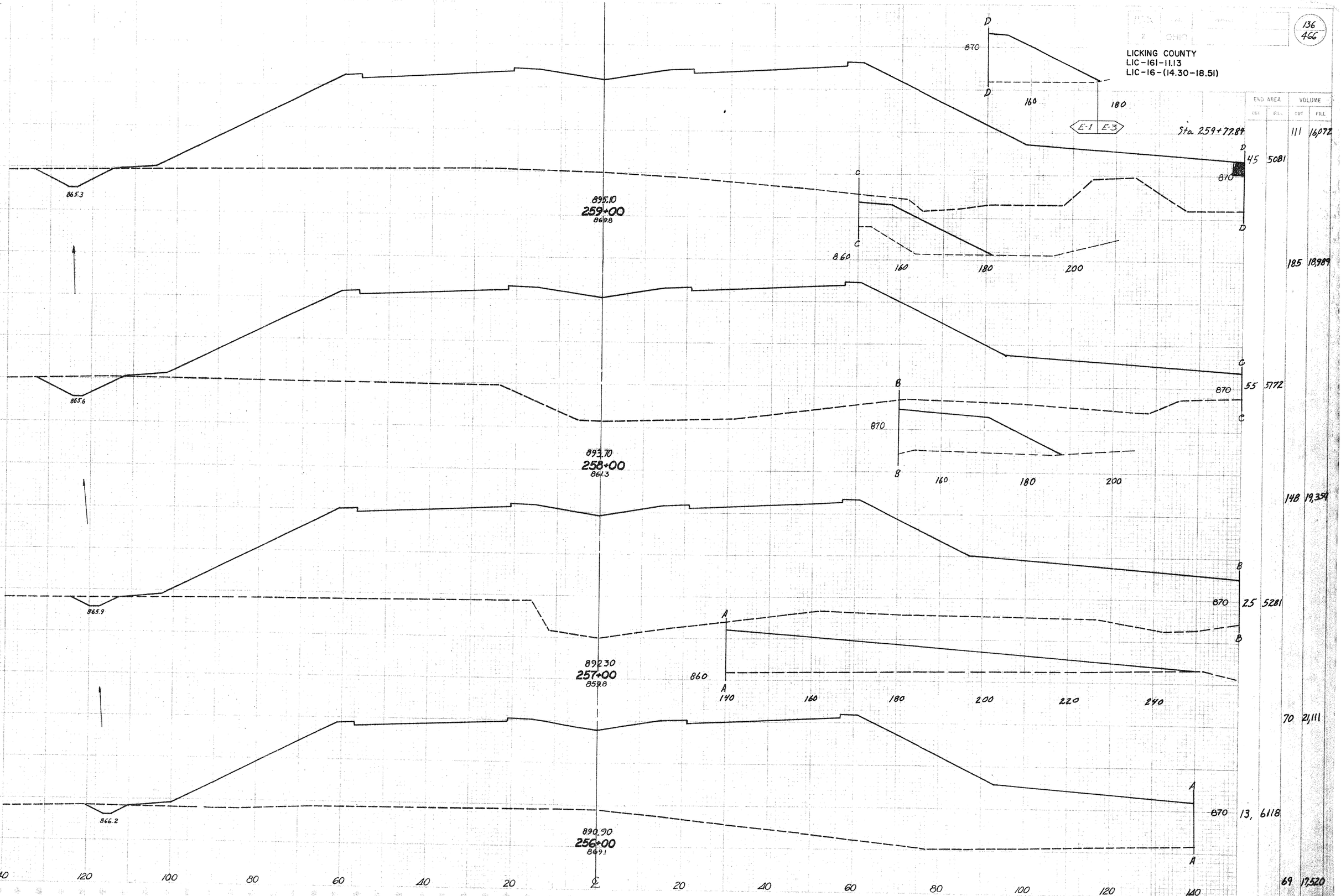
| END WIDTH | SQ. YDS. |
|---|---|

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 889.50 255+00 869.1 | | | | |
| 870 | 24 | 3342 | | |
| | | | 137 | 11,136 |
| 888.10 254+00 870.5 | | | | |
| 870 | 50 | 2672 | | |
| | | | 198 | 9282 |
| 886.81 253+00 871.0 | | | | |
| 870 | 57 | 2340 | | |
| | | | 257 | 8017 |
| 885.73 252+00 871.3 | | | | |
| 870 | 82 | 1989 | | |
| | | | 259 | 7000 |
| 884.87 251+00 872.0 | | | | |
| 870 | 58 | 1791 | | |
| | | | 143 | 6975 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

PRINTED IN U. S. A.
HIGHWAY TRAINING CENTER

STA. 251+00 TO STA. 255+00


136
466
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)
E-1
E-3
Sta 259+77.84
END AREA
VOLUME
CUT
FILL
111 16,072
45 5081
185 18,989
55 5772
148 19,359
25 5281
70 21,111
13, 6118
69 17,520
895.10
259+00
869.8
865.3
860
893.70
258+00
861.3
865.6
865.9
892.30
257+00
859.8
866.2
890.90
256+00
869.1
870
140
160
180
200
220
240
140
120
100
80
60
40
20
℄

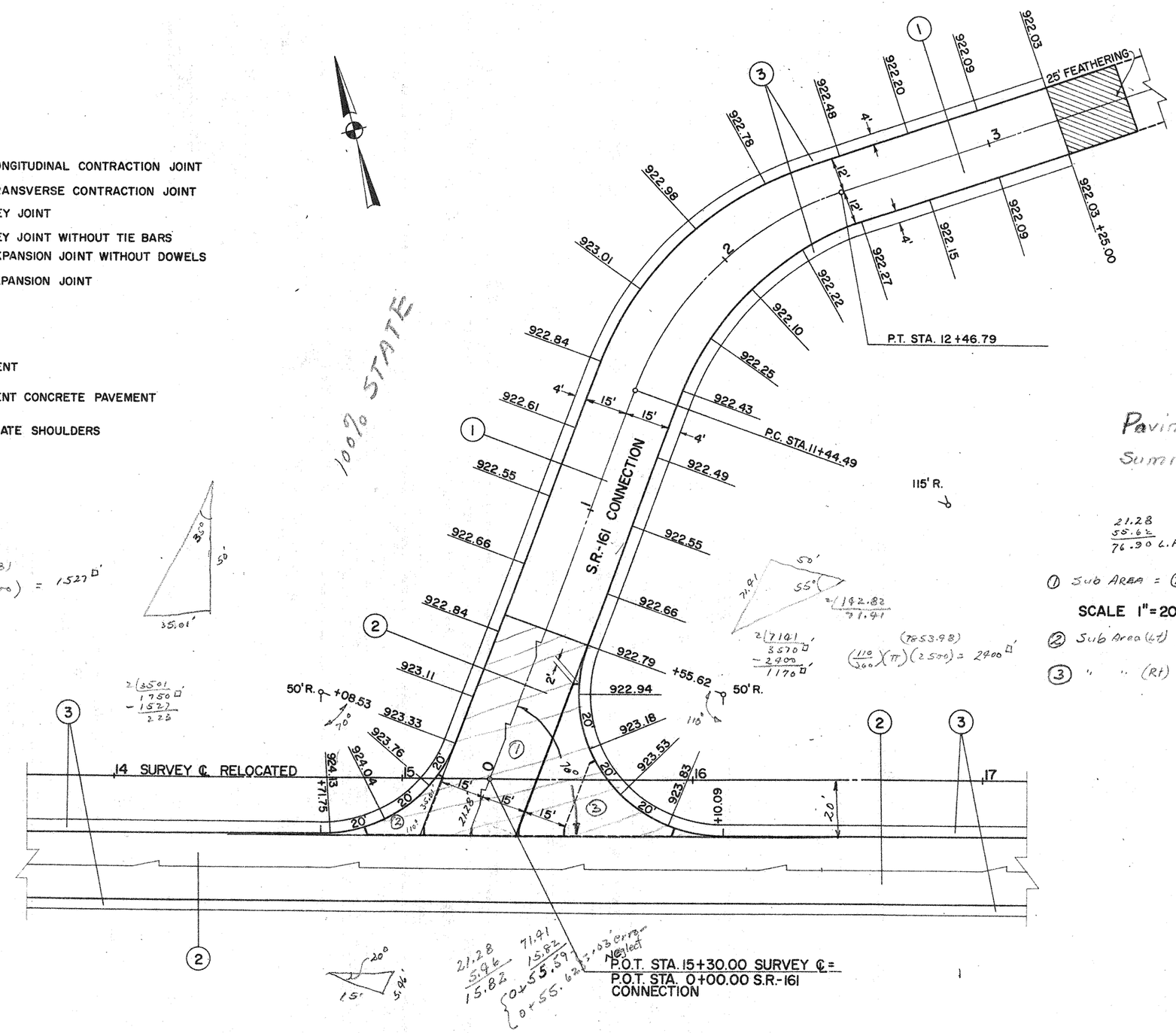
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

137/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT

(1) T-35 ASPHALTIC CONCRETE PAVEMENT
(2) T-71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(3) I-18 STABILIZED CRUSHED AGGREGATE SHOULDERS




Paving Quantities not summarized on sheet #17

21.28
55.62
76.90 L.F.

(1) Sub AREA = (76.90)(30) = 2307 □'

SCALE 1" = 20'

(2) Sub Area (Lt) = 223 □'

(3) " " (Rt) = 1170 □'

9 | 3700 □'
411 S.Y.

T-71

(2)(.097222) (7853.98)
$\left(\frac{80}{360}\right)(\pi)(2500) = 1527$ □'

2 | 3501
1750 □'
− 1527
223

2 | 142.82
71.41

2 | 7141
3570 □'
− 2400
1170 □'

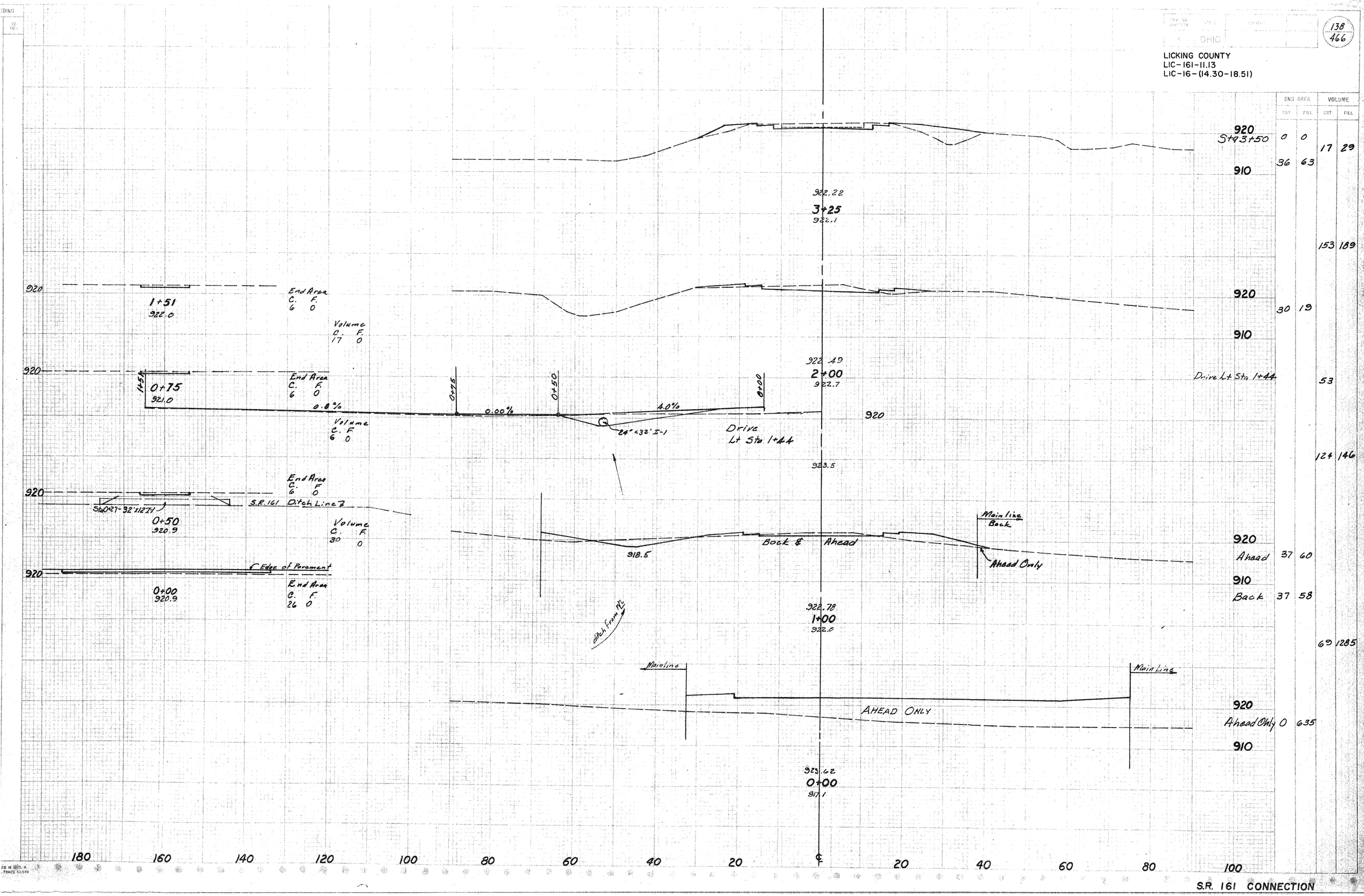
(7853.98)
$\left(\frac{110}{360}\right)(\pi)(2500) = 2400$ □'

21.28
5.96
15.82

71.41
15.82
0+55.59
0+55.62
.03' error Neglect

S.R.-161 CONNECTION PAVEMENT DETAIL

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| Sta 3+50 | 0 | 0 | | |
| | | | 17 | 29 |
| | 36 | 63 | | |
| | | | 153 | 189 |
| | 30 | 19 | | |
| Drive Lt Sta 1+44 | | | 53 | |
| | | | 124 | 146 |
| Ahead | 37 | 60 | | |
| Back | 37 | 58 | | |
| | | | 69 | 1285 |
| Ahead Only | 0 | 635 | | |

S.R. 161 CONNECTION

(3)

INCludes { S.R. 16, 37 Interchanges
Wilcox Drive Relocation

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

(139/466)

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)

# S.R. 16 INTERCHANGE SUB-SUMMARY

From sht 155

| STATION | SHEET NO. | E-12 Pipe Removed, 15" & Under (Lin. Ft.) | I-15 Guard Rail Steel Beam Std. Type (Deep) (Lin. Ft.) | L-10 Sodding (Sq. Yds.) | L-10 Sodding for Special Berm & Slope Protection (Sq. Yds.) | S-25 4" Asbestos Cement Conduit Sec. M-206.14 as per Plan (Lin. Ft.) | E-2 Excavation for Structures (Cu. Yds.) | I-1 12" Pipe for Drives M-6.4(b) (Lin. Ft.) | I-8 Std. No. 6 Catch Basin (Each) | I-2 12" Storm Sewers Sec. M-6.4(c) (Lin. Ft.) | I-2 12" Class "A" Storm Sewers (Lin. Ft.) | I-2 12" S.S. Under Pavt. or App. M-6.5 (b) or M-6.8(b) (Lin. Ft.) | I-4 6" Underdrains (Lin. Ft.) | I-4 8" Pipe Outlets for Underdrains Sec. M-6.4(a) (Lin. Ft.) | I-5 6" Pipe Specials for Underdrains (Each) | I-5 12" Pipe Specials for S.S. Sec. M-6.4(c) (Each) | I-8 Std. No. 2-2-B Catch Basins (Each) | I-8 Std. No. 2-6 Median Inlet (Each) | I-8 Std. No. 2-8 Median Inlet (Each) | I-10 Dumped Rock Channel Protection (Cu. Yds.) | I-16 Inlets Abandoned (Each) | S-1 Concrete for Structures, Class "E" (Cu. Yds.) | B-19 Aggregate Base Course (Cu. Yds.) | T-30 Bit. Prime Coat Sec. M-5.7, RT-2 or RT-3 (Gal.) | T-35 Asph. Conc. Surface Course, Type "C" (Sq. Yds.) | T-70 7" Portland Cement Concrete Pavement (Sq. Yds.) | I-7 Reinf. Conc. Approach Slab (T = 13") (Sq. Yds.) | I-12 Standard Type "2-A" Concrete Curb (Lin. Ft.) | I-12 Standard Type "6" Concrete Curb (Lin. Ft.) | I-12 Special Port. Cem. Conc. Curb, as per Plan (Lin. Ft.) | I-21 4" Port. Cem. Conc. Median, Std. Type 1 (Sq. Yds.) | I-22 Subbase (Cu. Yds.) | E-8 Removal & Disposal of Existing Pavement (Sq. Yds.) | L-6 Roadside Cleanup as per Plan (Units) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INSIDE RAMP | 141 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 123 |
| RAMP "A" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75+14.94 to 84+51.50 | 154 | | 750 | 1 | | 26 | 1 | | | 18 | | 26 | 620 | 20 | 1 | 2 | | | 1 | 3.7 | | 0.23 | | | | | | 226.5 | | 200 | | | | | |
| RAMP "B" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 78+41.17 to 87+00 | 155 | | | 1 | | 27 | 1 | | (1) | | | 58 | 724 | 20 | 2 | | | | | | | 0.23 | | | | | | 267 | 150 | | 103 | | | | |
| RAMP "A-B" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 84+51.50 to 91+15.63 | 156 | | 837.5 | 1 | | 47 | 1 | | | 24 | | 30 | 1203 | 30 | 3 | 2 | | | 1 | 3.7 | | 0.23 | | | | | | 1239 | | | 136 | | | | |
| RAMP "C" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 73+73.37 to 81+00 | 168 | | | 200 | | 27 | | | | | | | 320 | 10 | 1 | | | | | | | | | | | | | 105 | 100 | | 23 | | | | |
| 81+00 to 86+54.91 | 169 | | 525 | | | 26 | | | | | | | 563 | | | | | | | | | | | | | | | | | | | | | | | |
| RAMP "D" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 83+09.71 to 90+00 | 173 | | 737.5 | 1 | | | 1 | | | | | 72 | 689 | 20 | 2 | | | 1 | | 1.9 | | 0.23 | | | | | | | | | | | | | |
| 90+00 to 95+08.92 | 174 | | | | | 26 | | | | | | | 254 | 10 | 1 | | | | | | | | | | | | | | | 200 | | | | | |
| STATE ROUTE 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 734+00 to 744+00 | 142 | 28 | 212.5 | 2 | | | 2 | | 1 | | 66 | | | | | | | 1 | | | | 0.46 | 5.4 | 4.4 | 1.8 | 96 | | | | | | | 800 | |
| 744+00 to 754+00 | 143 | | 700 | 1 | 188 | 72 | 1 | | | | | 116 | | | | | | 1 | | 3 | | 0.23 | | | | 209 | 133.34 | | | | 10 | | | |
| 754+00 to 764+00 | 144 | | 400 | | | | | | | | | | | | | | | | | | | | 52.8 | | | | | | | | | | 800 | |
| SERVICE RD. NO. 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0+00 to 7+94.86 | | 100 | 500 | 167 | | | 1 | 60 | | | | 62 | | | | | | 1 | | | 1 | 0.23 | 402.2 | 109.2 | 15.2 | 142 | | | | | | | | |
| TOTALS TO GENERAL SUMMARY | | 128 | 4,662.5 | 374 | 188 | 251 | 8 | 60 | X 2 | 42 | 66 | 36.4 | 4,373 | 110 | 10 | 4 | 4 | 1 | 1 | 10.4 12.3 | 1 | 1.84 | 460.4 | 113.6 | 17.0 | 238 447 | 133.34 | 1,837.5 | 250 | 400 | 262 | 10 | 1600 | 123 |

Not summarized

| FED. RD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

139-A
466

LIC-161-11.13
LIC-16-(14.30-18.51)

Sta. 742+39, 30' Rt.
Install 90° Bend
& New Valve.

Prop. C.B.

Ex. 12" W. Line

Exist. R/W

Exist. Service Top

Sta. 0+91, 28' Rt.
Install 22½° & 11¼°
Horiz. Bends

Ex. 12" W. Line

Exist. R/W

℄ Ramp 'D'

Remove exist. Fire Hydrant. Store at Village of Granville Water Plant.

Ex. 12" Water Line

Exist. R/W

Prop. R/W

Sta. 1+00, 40' Rt.
Install 45°
Horiz. Bend

Sta. 2+00, 31' Rt.
Install 22½°
Horiz. Bend

PROP. RELOC. WATER LINE

Sta. 2+75, 45' Rt.
Install 11¼°
Horiz. Bend

Sta. 3+52, 58' Rt.
Install 5⅝°
Vert. Bend

Sta. 3+64, 59' Rt.
Install 11¼°
Horiz. Bend

Sta. 4+80, 45' Rt.
Install 11¼°
Horiz. Bend

Sta. 5+00, 43' Rt.
Install 11¼°
Horiz. Bend

Sta. 5+71, 38' Rt.
Install 45° & 22½°
Horiz. Bends

Prop. R/W

Exist. 1" Service Top

Gas Line

Exist. 15" R/W

Exist. 12" Water Line

Exist. Pipe Sleeve

℄ S.R. 161

Exist. R/W

M/L Sta. 90+42
132' Rt.

M/L Sta. 90+30.5
210' Rt.

15'

Encase
70'

Encase Exist. & Proposed Water Main within the L/A Limits, Using 24" Nestable Corrugated Metal Pipe

M/L Sta. 90+89
130' Lt.

Exist. 12" Water Line

Sta. 2+74
32' Rt.

Sta. 2+72.5
24' Rt.

Encase
92'

Prop. R/W

Twp. Road 131

PROP. RELOC. WATER LINE

Prop. R/W

Sta. 753+76, 30' Rt.
Install 90° Bend
& New Valve

Sta. 0+75
Install 54' Lt.
11¼° Vert. Bend

Sta. 2+61, 54' Lt.
Install 3 Bends
45°, 22½° & 11¼°

**NOTE :-** Reset Service Tops & Stops on new water line to replace those being removed from existing line where directed by the Engineer.

**NOTE :-** Existing water Line S.R. 16, Sta. 742+39 to M/L Sta. 90+35, (132' Rt.) to be removed and delivered to the Village of Granville Water Plant and stored as directed by the Water Superintendent.

**NOTE :-** Encase existing and proposed 12" water line using 24" Nestable Corrugated Metal Pipe, As per Plan.

**NOTE :-** The new water line shall be constructed in two phases. The first phase shall be between Twp. Rd. 131, Sta. 2+43 and S.R. 16, Sta. 753+80. After this section has been constructed and placed into service, the existing water line within these limits shall be removed and relaid as part of the second phase.

940
935
930
925
920
915
910
905

Drive

Begin Water Line Relocation, 30' Rt. Sta. 742+39

The 22½° Bend @ Sta. 2+00 shall be rotated to provide the required Vertical Bend

Drive

Service Road

Ramp 'D'

Encase Exist. & Proposed Water Main within the L/A Limits using 24" Nestable Corrugated Metal Pipe

Encase

Install 5⅝° Vert. Bend

M/L Sta. 90+30.5
210' Rt.

M/L Sta. 90+42
132' Rt.

Exist. 24" C.M.P. Sleeve

Main Line

M/L Sta. 90+89
130' Lt.

Township Road 131

Encase

Existing Water Line to Remain in Place

Sta. 2+74
40' Rt.

End Water Line Reloc. 30' Rt. Sta. 753+76

Install 11¼° Vert. Bend

930
925
920
915

# WATER LINE DETAILS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

139-B
466

LIC-161-11.13
LIC-16-(14.30-18.51)

# WATER LINE NOTES

## EXISTING UTILITIES :~

All existing surface, subsurface, or overhead structures are not necessarily shown on the water line drawings. The State of Ohio makes no guarantees as to their accuracy or completeness. See R/W and Plan and Profile Sheets for Utilities not shown on water line plans.

The Contractor shall make such investigations as are necessary to determine the extent to which existing surface, subsurface or overhead structures may interfere with the prosecution of the work.

## WATER SERVICE :~

Work shall be scheduled and coordinated so as to minimize inconvenience to the Village due to loss in water service. The Contractor shall not disrupt any water service without permission of the Engineer.

## VALVES :~

Valves shall be Iron Bodied, Bronze Mounted, A.W.W.A. double disc. parallel seat type, M. & H. figure no. 67 M or approved equal, shall have non-rising bronze stem, shall open by turning to the left, shall be operated by a 2" square operating nut, and have mechanical joint ends. The valves shall be designed for a working pressure of 150 p.s.i. and a hydrostatic pressure of 300 p.s.i.

## PAINTING :~

All pipe accessories such as steel, bolts, etc., which are not encased in concrete, shall be painted with a bitumastic paint such as Gilsonite, or approved equal, after assembly in the work.

## MISCELLANEOUS CONNECTIONS :~

The Contractor shall furnish all test plugs and caps, blowoff tops and disinfection connections that will be required for the job. Payment shall be included in the unit prices bid for the various I-124 items.

## WORK SCHEDULE :~

The Contractor must submit a work schedule to the Engineer, who will in turn submit it to the Superintendent of the Granville Water Department for his approval. Water Lines will be laid in accordance with the approved work schedules.

## NIGHT WORK :~

Night work and/or week-end work may be ordered when such work must be done at these times to protect the water supply.

## TESTING :~

For the "Hydrostatic Test", the normal operating pressures will be furnished by the Engineer who shall obtain them from the Granville Water Department.

## VALVE BOXES :~

Valve boxes shall be Clow F-2450 with bases to fit valve sizes furnished, or approved equal.

## NEW WATER MAINS :~

All new water lines shall be A.W.W.A. CL-150 Mechanical Joint, cast iron with a thin bituminous-coated lining (Enameline or approved equal) complying with A.S.A. A21.4 except as to thickness and with an outside coating of Bitumastic Enamel, or an approved equal, unless otherwise shown on the Plans.

## BLOCKING AND BACKING :~

No separate payment will be made for concrete backing as required by the specifications. Payment therefor shall be included in the unit prices bid for the various I-124 items. Concrete backing shall consist of Class "E" Concrete.

## GRANULAR BACKFILL :~

All water mains and fittings under pavement shall be back-filled with granular material meeting the grading requirements of Sec. I-22.02. Payment for all costs including labor and materials shall be included in the unit prices bid for the various I-124 items.

## ITEM I-2 ENCASEMENT PIPE, AS PER PLAN

Material furnished for this item shall be bituminous coated galvanized corrugated metal nestable pipe as manufactured by Armco Drainage and Metal Products, Inc., or an approved equal. The minimum gage shall be 12. The pipe and coating shall meet the appropriate material requirements of Sec. M-6.4 except that the pipe sections shall be held together by stitches, bolts, or other metal fasteners in accordance with recommendations and details of the manufacturer. Length of pipe sections and base metal composition of the fastening devices shall also be in accordance with details of the manufacturer.

The work of installing the encasement pipe shall be so prosecuted that a minimum length of the existing water line shall be unsupported at any one time.

The water main shall be supported within the encasement pipe by blocking or bracing approved by the Engineer or by bedding the main in sand or other granular material approved by the Engineer. Bedding material, if used, shall occupy at least 85% of the cross-sectional area of the encasement pipe outside the main.

Payment for all of the above shall be included in the unit price bid for the Item I-2 Encasement Pipe.

# GENERAL SUMMARY

## WATER LINE QUANTITIES

F-639(5) TYPE CODE Y060

| Item No. | Quantities 40% Granville, 60% Project | Quantities 100% Village of Granville | Total | Unit | Description |
|---|---|---|---|---|---|
| I-124 | +548 | 0 | 548 | Lin. Ft. | 12" New Water Main, Class 150, Cast Iron, Mechanical Joint |
| I-124 | -474 | 0 | 474 | Lin. Ft. | 12" Water Main Removed and Relaid, As per Plan |
| I-124 | 0 | 1 | 1 | Each | Fire Hydrant Removed and Stored, As per Plan |
| I-124 | 0 | +753 | 753 | Lin. Ft. | 12" Water Main Removed and Stored, As per Plan |
| I-124 | 2 | 0 | 2 | Each | 12" Valve and Box, Mechanical Joint, As per Plan |
| I-124 | 1 | 0 | 1 | Each | 12"-5⅝° Mechanical Joint-Mechanical Joint Bend |
| I-124 | 7 | 0 | 7 | Each | 12"-11¼° Mechanical Joint-Mechanical Joint Bend |
| I-124 | +4 | 0 | 4 | Each | 12"-22½° Mechanical Joint-Mechanical Joint Bend |
| I-124 | 3 | 0 | 3 | Each | 12"-45° Mechanical Joint-Mechanical Joint Bend |
| I-124 | 2 | 0 | 2 | Each | 12"-90° Mechanical Joint-Plain End Bend |
| I-124 | 3 | 0 | 3 | Each | Service Stops and Boxes Removed and Reset |
| I-124 | (2) | 0 | 2 | Each | 12" Solid Leaded Sleeve |
| I-2 | 468 | 0 | 468 | Lin. Ft. | 24" Encasement Pipe, as per plan |

(3)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

(140/466)

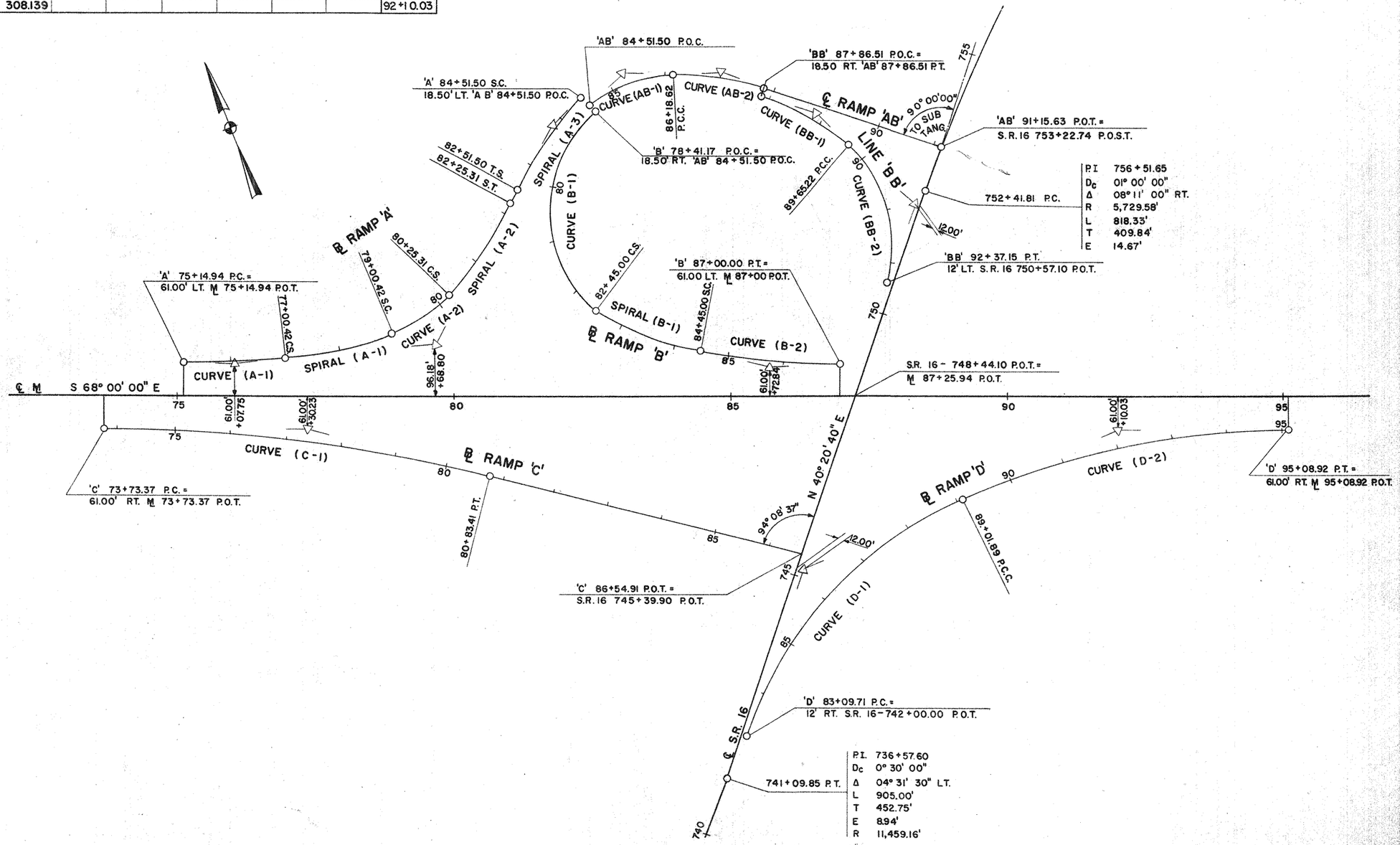
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

Lic-161-11.13
Lic-16-(14.30-18.51)

Shts 140-233
S.R. 16 Interchange
S.R. 37 "
Wilcox Drive Relocation

## CURVE DATA

| RAMP | CURVE/SPIRAL | $R_c$ | $D_c$ | $\Delta_c$ | $L_c/L_s$ | $T_c$ | $\Delta_1+\Delta_2$ | K | $\Theta_s$ | P | LT | ST | P.I. STA. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | CURVE (A-1) | 1,909.86 | 03°00'00" | 05°33'52" | 185.48 | 92.814 | | | | | | | 76+07.75 |
| A | SPIRAL (A-1) | | | | 200.00 | | 19°22'13" | | | 3.882 | 124.060 | 77.866 | |
| A | CURVE (A-2) | 350.00 | 16°22'13" | 20°26'42" | 124.89 | 63.117 | | | | | | | 79+70.37 |
| A | SPIRAL (A-2) | | | | 200.00 | | | 99.728 | 16°22'13" | 4.748 | 133.908 | 67.189 | |
| A | SPIRAL (A-3) | | | | 200.00 | | | 99.534 | 21°27'33" | 6.211 | 134.326 | 67.570 | |
| A B | CURVE (AB-1) | 248.50 | 23°03'24" | 38°31'57" | 167.121 | 86.859 | | | | | | | |
| A B | CURVE (AB-2) | 478.50 | 11°58'27" | 20°06'10" | 167.886 | 84.815 | | | | | | | |
| B | CURVE (B-2) | 1,432.394 | 04°00'00" | 10°12'00" | 255.00 | 127.838 | | | | | | | |
| B | SPIRAL (B-1) | | | | 200.00 | | 28°54'40" | | | 6.054 | 126.506 | 77.842 | 83+22.84 |
| B | CURVE (B-1) | 230.00 | 24°54'40" | 100°35'53" | 403.83 | 277.026 | | | | | | | 81+18.20 |
| B B | CURVE (BB-1) | 460.00 | 12°27'20" | 22°15'33" | 178.71 | 90.494 | | | | | | | |
| B B | CURVE (BB-2) | 230.00 | 24°54'40" | 67°44'27" | 271.93 | 154.381 | | | | | | | 91+19.60 |
| C | CURVE (C-1) | 2,864.789 | 02°00'00" | 14°12'03" | 710.042 | 356.856 | | | | | | | 77+30.23 |
| D | CURVE (D-1) | 716.197 | 08°00'00" | 47°22'28" | 592.181 | 314.198 | | | | | | | |
| D | CURVE (D-2) | 1,432.394 | 04°00'00" | 24°16'52" | 607.028 | 308.139 | | | | | | | 92+10.03 |



| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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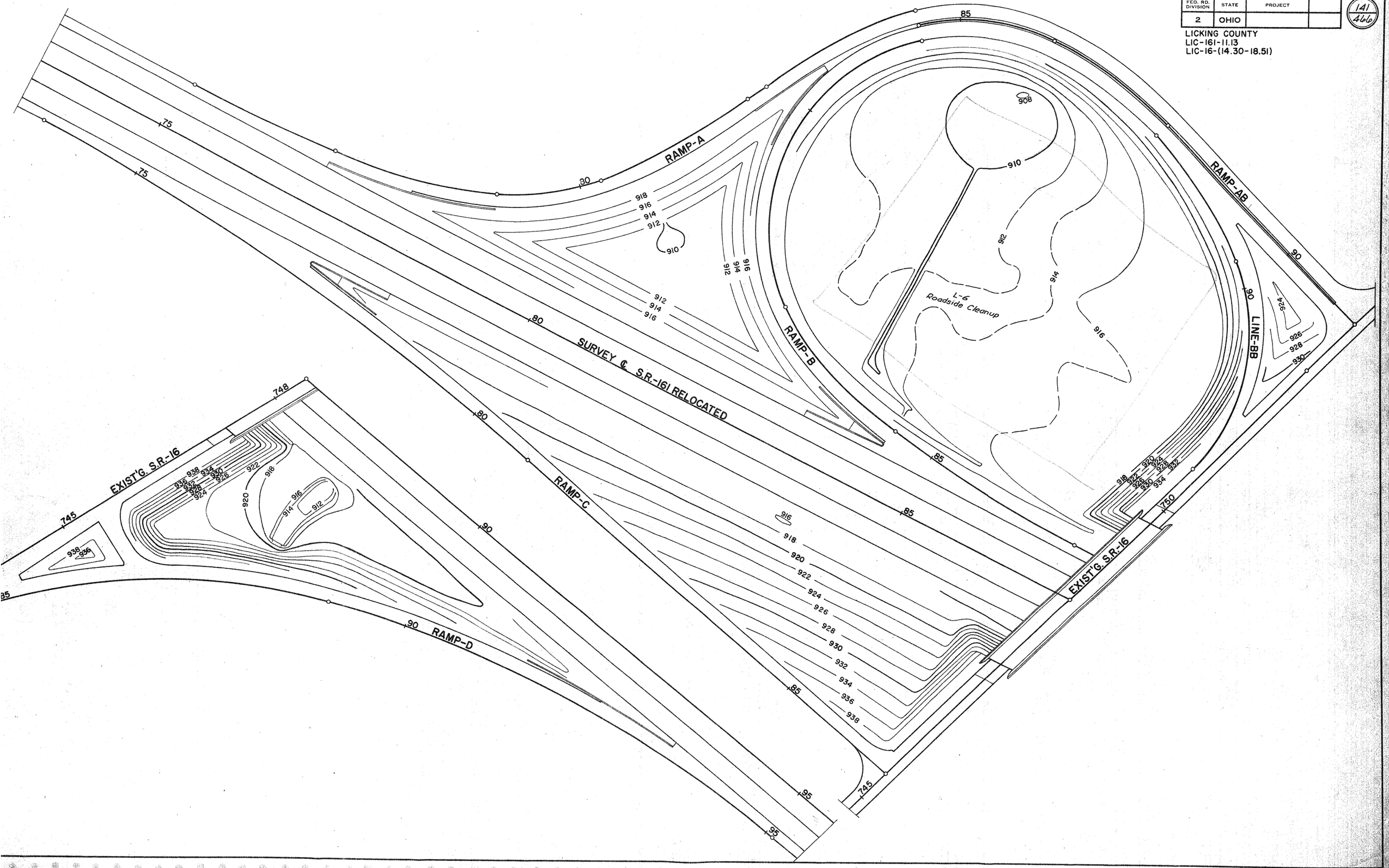
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




GRADING PLAN RAMPS-A, AB, B, C, D & LINE-BB S.R.-16 INTERCHANGE

LICENSE AND PROJECT | STATE | PROJECT | | 142/466

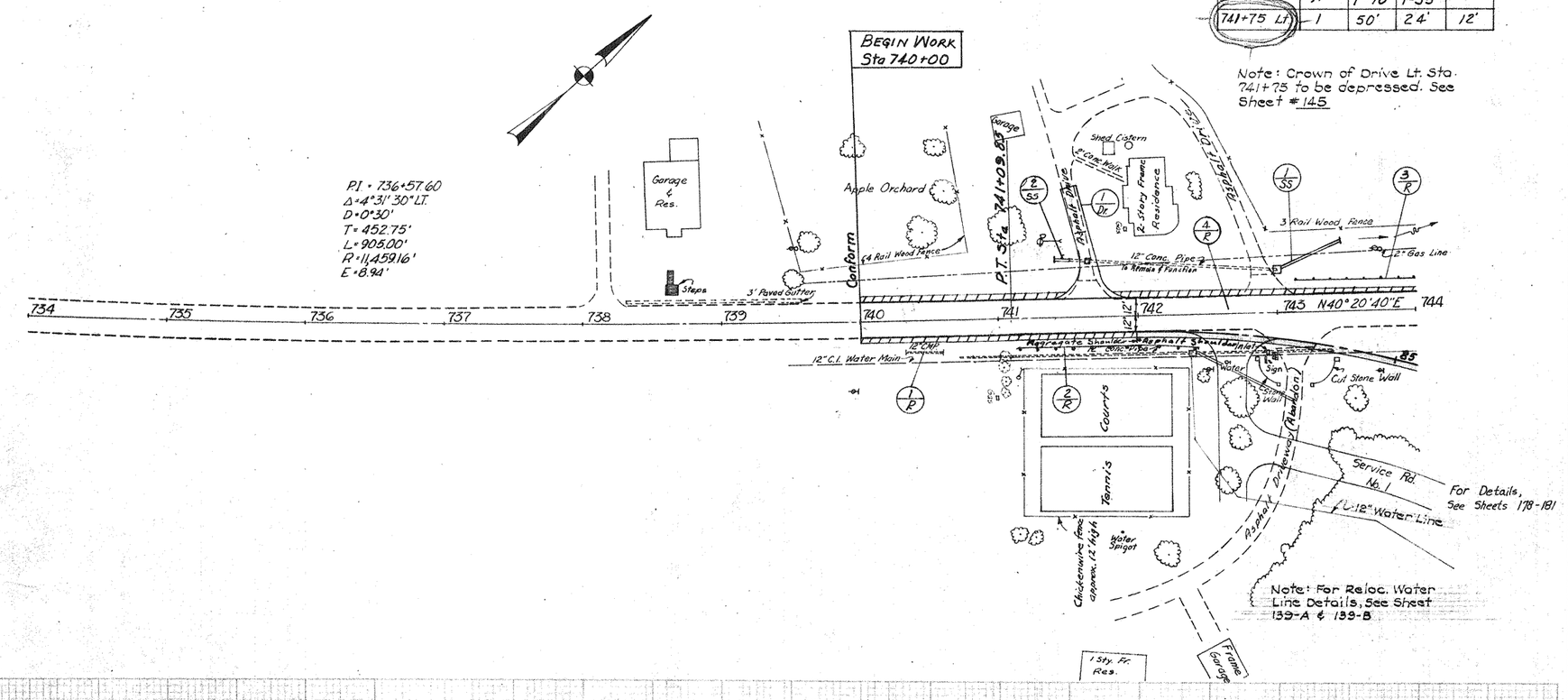
2 | OHIO | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

## DRIVEWAYS

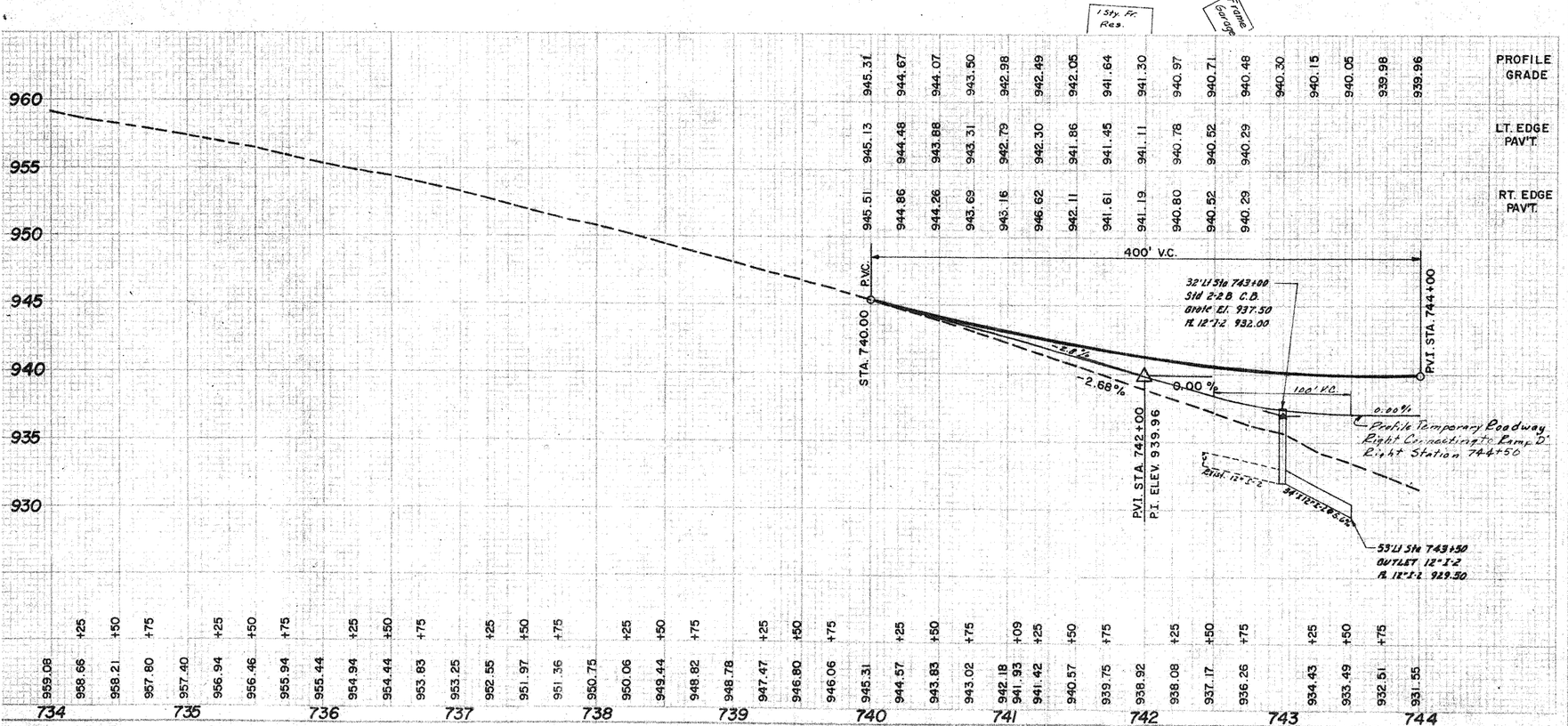
| Location | Type | Length T-70 | Length T-35 | Width |
|---|---|---|---|---|
| 741+75 Lt. | 1 | 50' | 24' | 12' |

Note: Crown of Drive Lt. Sta. 741+75 to be depressed. See Sheet #145




For Details, See Sheets 178-181

Note: For Reloc. Water Line Details, See Sheet 139-A & 139-B




| | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | | | | |
|---|---|---|---|---|
| 1 | | | | 143 |
| 2 | OHIO | | | 466 |

For Ramp 'C'
See Sheets 168 to 172
Details Sheet 181

For Ramps "A-B" & "B-B"
See Sheets 164 to 167
Details Sheet 178

For Ramp 'D'
See Sheets 173 to 177
Details Sheet 180

For Quantities
See Ramp "D"

For Twp. Rd. 131
See Sheets 235 to 245
Details Sheet 178 & 183 & 235

Ramp "C"
Ramp "D"
Ramp "A-B"
Ramp "B-B"
Twp. Rd. 131
Abandon
Existing Twp. Rd 131

3 Rail Wood Fence
4 Rail Wood Fence
2" Gas Line
The Ohio Fuel Gas Co. 4" Gas Line
Ohio Fuel Gas Co. Conc. Blk. hse.
Wood Post
Well
Conc. Blk. Drive-Inn Restaurant
Sign
End Power Line
12" C.M.P.
24" C.M.P.
18" C.M.P.
Asphalt Shoulders
Aggregate Shoulders
Gas Line Marker
12" C.I. Water Main
Tele. M.H.
F.P. Water
End Tele. Line
Concrete Island
4-1000 Gal. Gas Tanks
Hydraulic Lift Base
1 Story Block Res.
Grease Pit
1000 Gal. Septic Tank. 1150 Gal. Septic Tank
Fr. Shed
A.B. Storm
Conc. Hd. Wall
Gas
Gas line Markers
Elec. Manhole
Underground Tele. Cable
Existing 12" C.I. Water Main
Existing 8" Sanitary Sewer
Existing 6" Gas Main
Existing 1250 Gal. Septic Tank
34' Storage Bldg.
Existing 12" Water Line
Relocated 12" Water Line
Existing 8" Water Line
Existing 6" Water Line
Existing 4" Water Line
Existing 2" Water Line
Existing 8" Gas Line
Existing 6" Gas Line
Existing 4" Gas Line
Existing 2" Gas Line
Existing 8" Sanitary Sewer
Existing 6" Sanitary Sewer
Existing 4" Sanitary Sewer
Existing 2" Sanitary Sewer
Existing 8" Storm Sewer
Existing 6" Storm Sewer
Existing 4" Storm Sewer
Existing 2" Storm Sewer

S 68°00'00" E 86
N 40°20'40" E
71°39'20"
S 68°38'30" E
S 49°39'20" E
P.O.T. STA. 748+44.10 S.R. 16 =
P.O.T. STA. 87+25.94 Expressway
Existg S.R. 16 753+22.74 P.O.S.T. =
Ramp "A-B" 91+15.63 P.O.T.
Existg S.R. 16 753+22.73 P.O.C. =
Sta. 0+00 Twp. Rd. 131 Rela.
P.C. Sta. 732+41.81
P.I. Sta 756+51.65
$D_c$ = 1°00'
Δ = 08°11' Rt.
L = 818.33'
T = 409.84'
E = 14.67'

Note: For Reloc. Water Line Details, See Shts. 139-A & 139-B

T-10 Not Summarized
See #183 +2.35

744 745 746 747 748 749 750 751 752 753 754

939.96 939.96 939.96 939.96 939.94 939.88 939.77 939.63 939.44 939.21 938.94 938.63 938.27 937.88 937.44 936.96 936.44 935.88 935.27 934.63 933.94 933.21 932.44 931.63 930.77 929.88 928.94 927.96 924.96 923.99

PROFILE GRADE

LT. EDGE PAV'T.

RT. EDGE PAV'T.

940 935 930 925 920 915

0.00% Begin Approach Slab Sta 747+04.23
End Approach Slab Sta 747+29.23
P.C. STA. 747+00
Sta. 747+29.23
Bridge 247.24' Limits
Sta 749+76.47
End Approach Slab Sta 750+01.47
P.I. STA. 750+00
ELEV. 939.96
0.00%
Begin Approach Slab Sta 749+76.47
4.00%
600' V.C.
P.T. STA. 753+00
4.00%
P.C. STA. 753+75
400' V.C.

935.69 935.10 934.51 933.89 933.23 932.53 931.78 930.99 930.15 929.23 928.25
935.68 935.08 934.44 933.75 933.02 932.25 931.43 930.53 929.60 928.65 927.67

BRIDGE NO. LIC-161-1277

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.

SPAN: 46'-6", 66'-0"-76'-6", 53'-6" center to center brgs.

ROADWAY: 30'-0" f/f, 2'-3" safety curbs with concrete parapet and aluminum railing.

LOADING: CF 400

SKEW: 18° 20' 40" Rt. Forward

WEARING SURFACE: 1" Monolithic Concrete

ALIGNMENT: Tangent

APPROACH SLAB: 25'-0" Long

57' RT. STA. 752+64
STD. P-C-4 ENDWALL
FL 12" I-2 912.00

58' LT. STA. 752+72
STD. 2-28 CATCH BASIN
FL GRATE 923.00
FL 12" I-2 920.00

931.55 930.62 929.56 928.57 927.65 926.74 925.94 925.15 924.39 923.03 921.92 920.95 920.13 919.54 919.10 918.85 918.68 918.54 918.41 918.21 918.04 917.87 917.77 917.62 917.48

744+00 744+25 744+50 744+75 745+00 745+25 745+50 745+75 746+00 746+50 747+00 747+50 748+00 748+50 749+00 749+50 750+00 750+50 751+00 751+50 752+00 752+50 753+00 753+50 754+00

ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | I-2 Steel Beam Per Pound Sec. M 183 (A) or M 183 (B) Lin. Ft. | F-8 Structural Steel 2-2-8 Catch Basin Each | L-10 Soading Sq. Yds. | S-1 Structural Steel Lin. Ft. | F-10 Concrete Saddle Approach Slabs 7" Pavement Sq. Yds. | E-2 Class "C" Concrete Cu. Yds. | F-2 Concrete Saddle Approach Slabs 7" 13" Pavement Sq. Yds. | S-25 Excavation Guard Rail Concrete Conduit As 1 Plan W 206.14 Lin. Ft. | S-15 Steel Beam Guard Rail Lin. Ft. | F-10 Dumped Rock Channel Protection Cu. Yds. | 41, E Rock Channel Protection Cu. Yds. | E-2 Exc. for Structures Cu. Yds. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-R | 744+00 - 745+00 | Lt. | | | | | | | | | 100.0 | | | |
| 2-R | 746+24.23 - 747+11.23 | Lt. | | | | | | | | | 81.5 | | | |
| 3-R | 745+23.23 - 747+23.23 | Rt. | | | | | | | | | 150.0 | | | |
| 4-R | 749+88.47 - 750+57.47 | Lt. | | | | | | | | | 750 | | | |
| 5-R | 749+39.57 - 752+56.47 | Rt. | | | | | | | | | 262.5 | | | |
| 6-R | 745+60 | ℄ | | | | | | | | | | | | |
| 7-R | 750+20 | ℄ | | | | | | | | | | | | |
| 8-2 | 753+25 to 754+00 | ℄ | | | | | | | | | | | | |
| | | ℄ | | | | | | | | 36 | | | | |
| | | ℄ | | | | | | | | 36 | | | | |
| | | ℄ | | | | 25 | | | | | | | | |
| 1-S | 752+68 | ℄ | 116 | 1 | 1 | | | | | | | | | |
| | | ℄ | | | | 3 | | | | | | | | |
| 1-P | 747+04.23 - 749+29.23 | ℄ | | | | | | | | | | | | |
| 2-P | 749+76.47 - 750+01.47 | ℄ | | | | | | | | | | | | |
| | | ℄ | | | | | | | | | | | | |
| 1-D | 749+87 | Lt. | | | | | | | | | | | | |
| 2-D | 749+98 | ℄ | | | | | | | | | | | | |
| TOTALS | | | 116 | 1 | 1 | 3 | 72 | 0.23 | 1 | | | | | |

| SEE SHEET NO. | | |
|---|---|---|
| 369 | I-22 | 5 |
| 369 | | 5 |
| 372 | | 28 |
| 372 | | 90 |

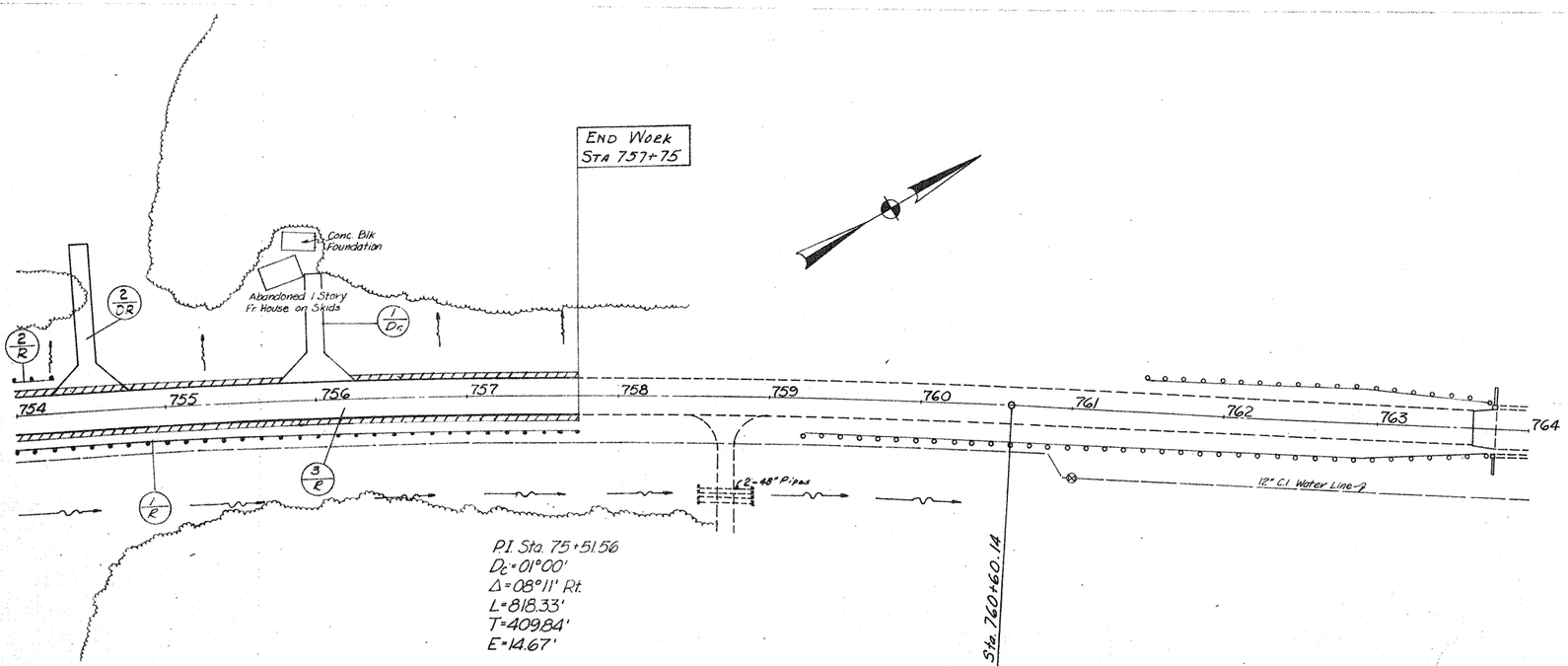
EXIST. S.R. 16 PLAN & PROFILE STA. 744+00 TO STA. 754+00

188 | 133.34 | 10

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

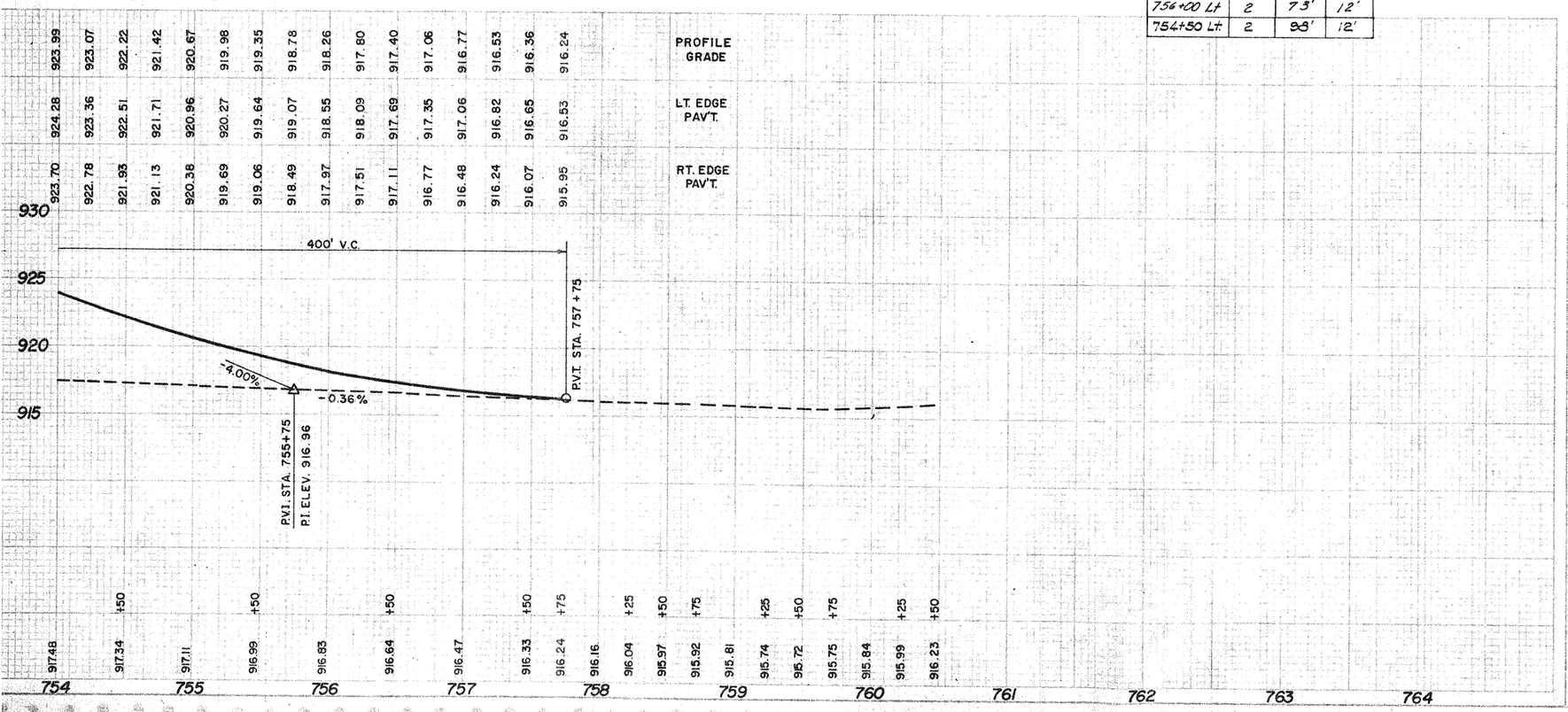
| | | | |
|---|---|---|---|
| 2 | OHIO | | |

144
466




## DRIVEWAYS

| Location | Type | Length B-19 | Width |
|---|---|---|---|
| 756+00 Lt | 2 | 73' | 12' |
| 754+50 Lt. | 2 | 98' | 12' |



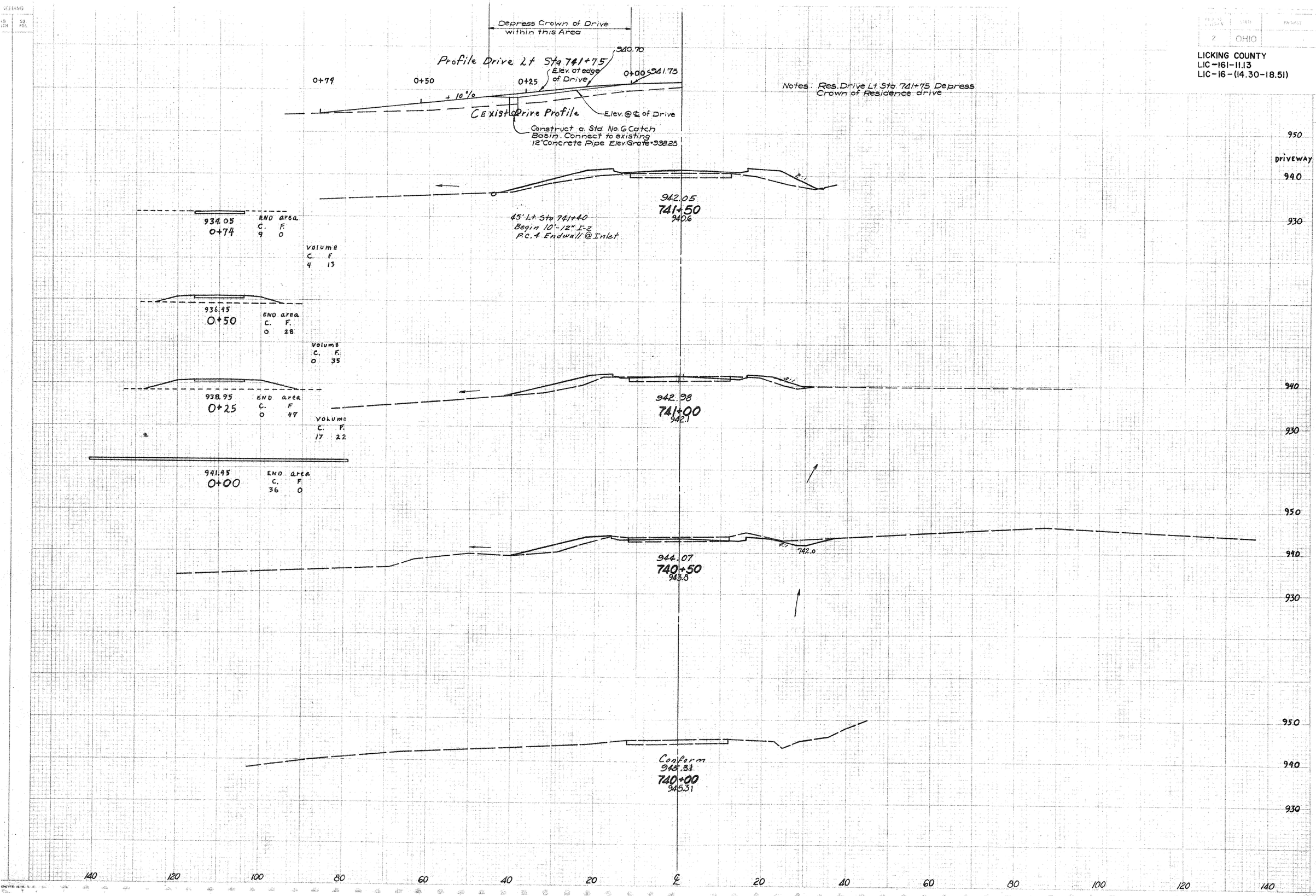

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | B-19 Crushed Aggregate Base Course Cu. Yd. | I-15 Guard Rail Steel Beam Deep Std. Lin. Ft. | E-8 Removal & Disposal of Existing Pavement Sq. Yds. |
|---|---|---|---|---|---|
| 1-Dc | 756+00 | Lt | 23.6 | | |
| 1-R | 754+00 ~ 757+75 | Rt. | | 375 | |
| 2-R | 754+00 ~ 754+25 | Lt | | 25 | |
| 3-R | 754+75 ~ 757+75 | | | | 800 |
| 2-DR | 754+50 | Lt. | 29.2 | | |
| TOTALS | | | 52.8 | 400 | 800 |

S.R. 16 PLAN & PROFILE STA. 754+00 TO STA. 764+00

| FEDERAL DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 950 | | | | |
| DRIVEWAY | | | 21 | 70 |
| 940 | | 80 | | |
| 930 | | | | |
| | | | | 74 |
| 940 | 3 | 53 | | |
| 930 | | | | |
| | | | 3 | 49 |
| 950 | | | | |
| 940 | | 33 | | |
| 930 | | | | |
| | | | | 31 |
| 950 | | | | |
| 940 | | | | |
| 930 | | | | |

SR 16 STA 740+00 TO STA 741+50

FILE NO. | STATE | PROJECT
2 | OHIO |

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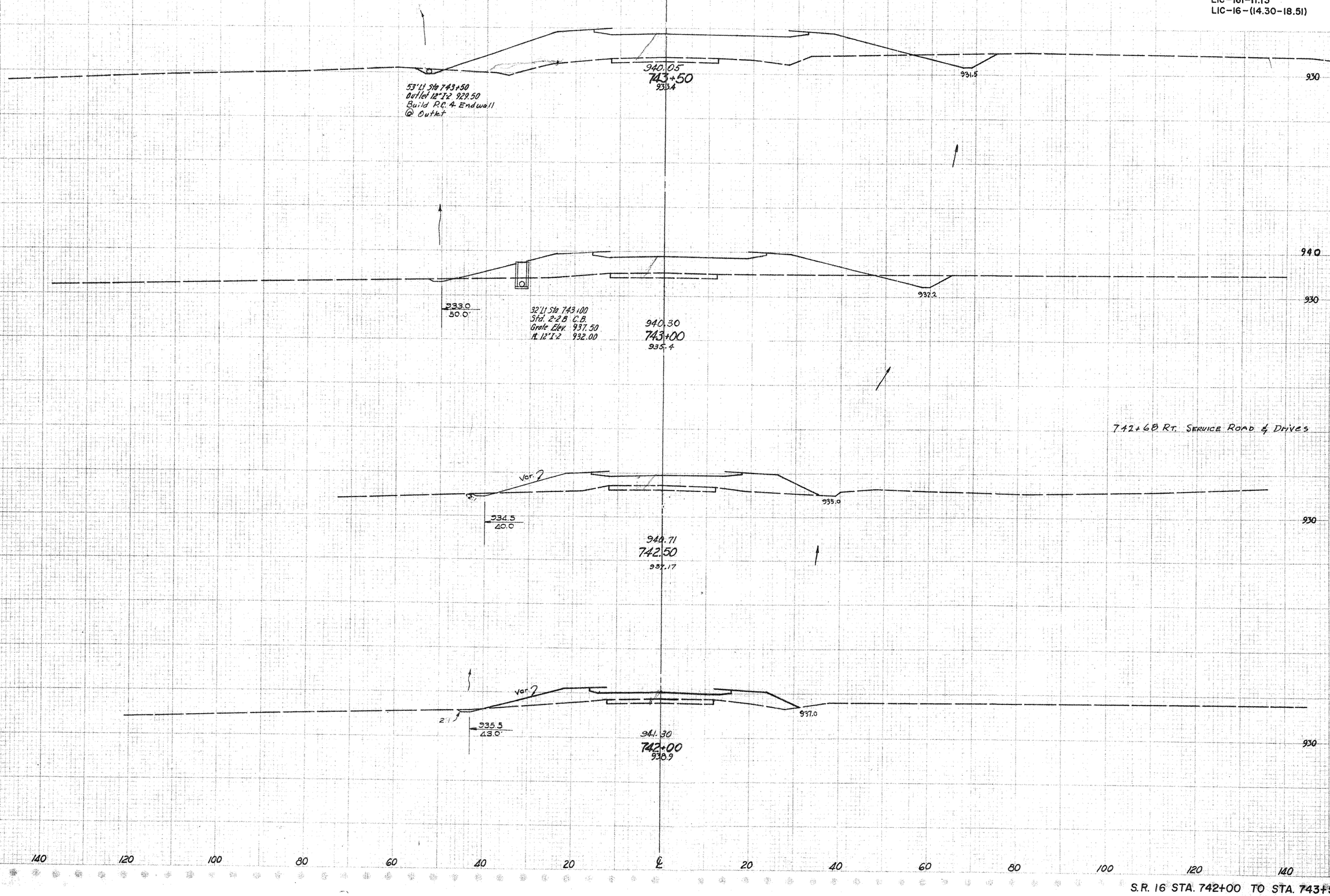
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 39 | 510 | | |
| | | 68 | 769 |
| 34 | 321 | | |
| | | 31 | 483 |
| | | 726 | 6,033 |
| 1 | 201 | | |
| | | 2 | 294 |
| 2 | 117 | | |
| | | 2 | 182 |

S.R. 16 STA. 742+00 TO STA. 743+50

| FED. RD. DIV. NO. | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

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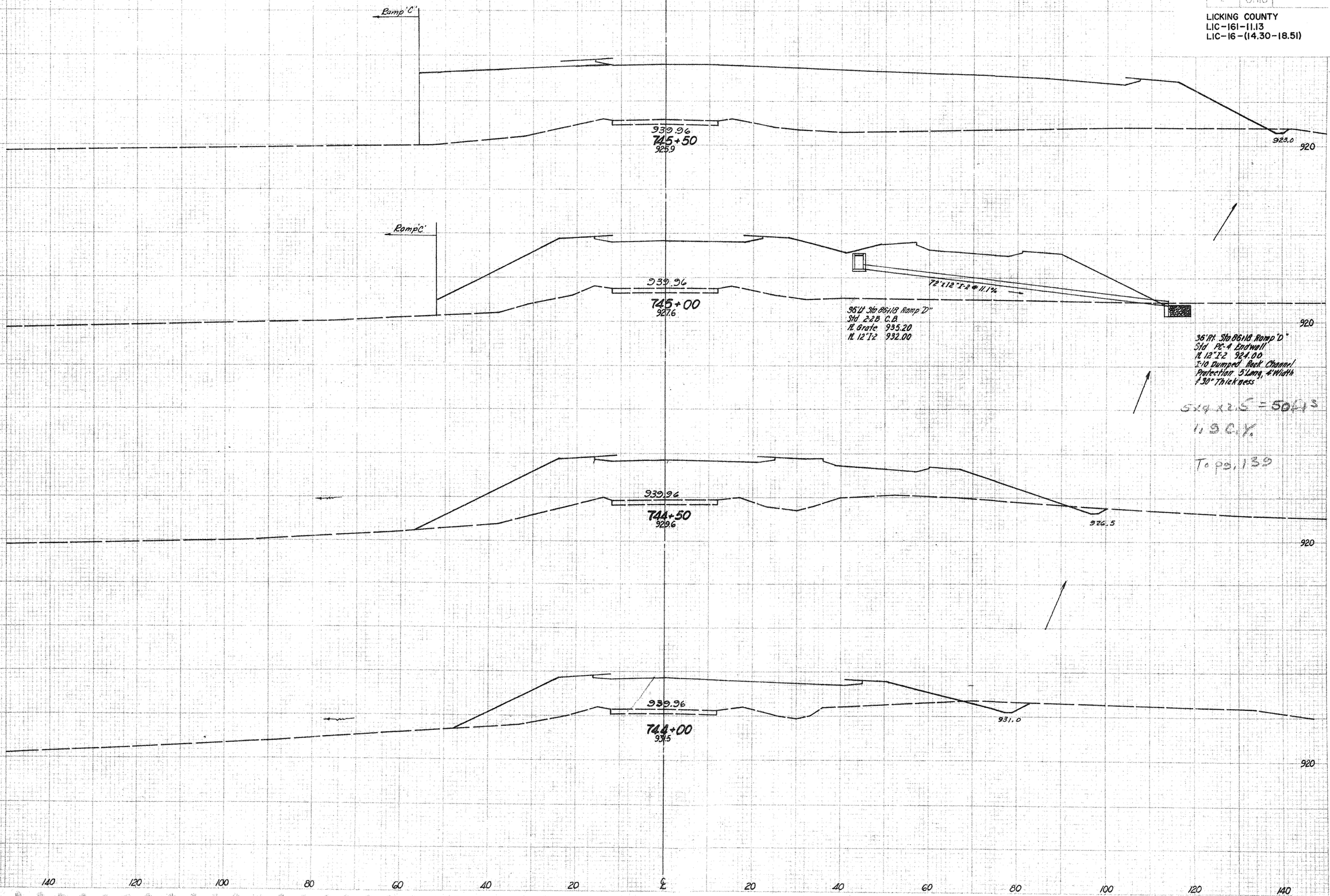
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

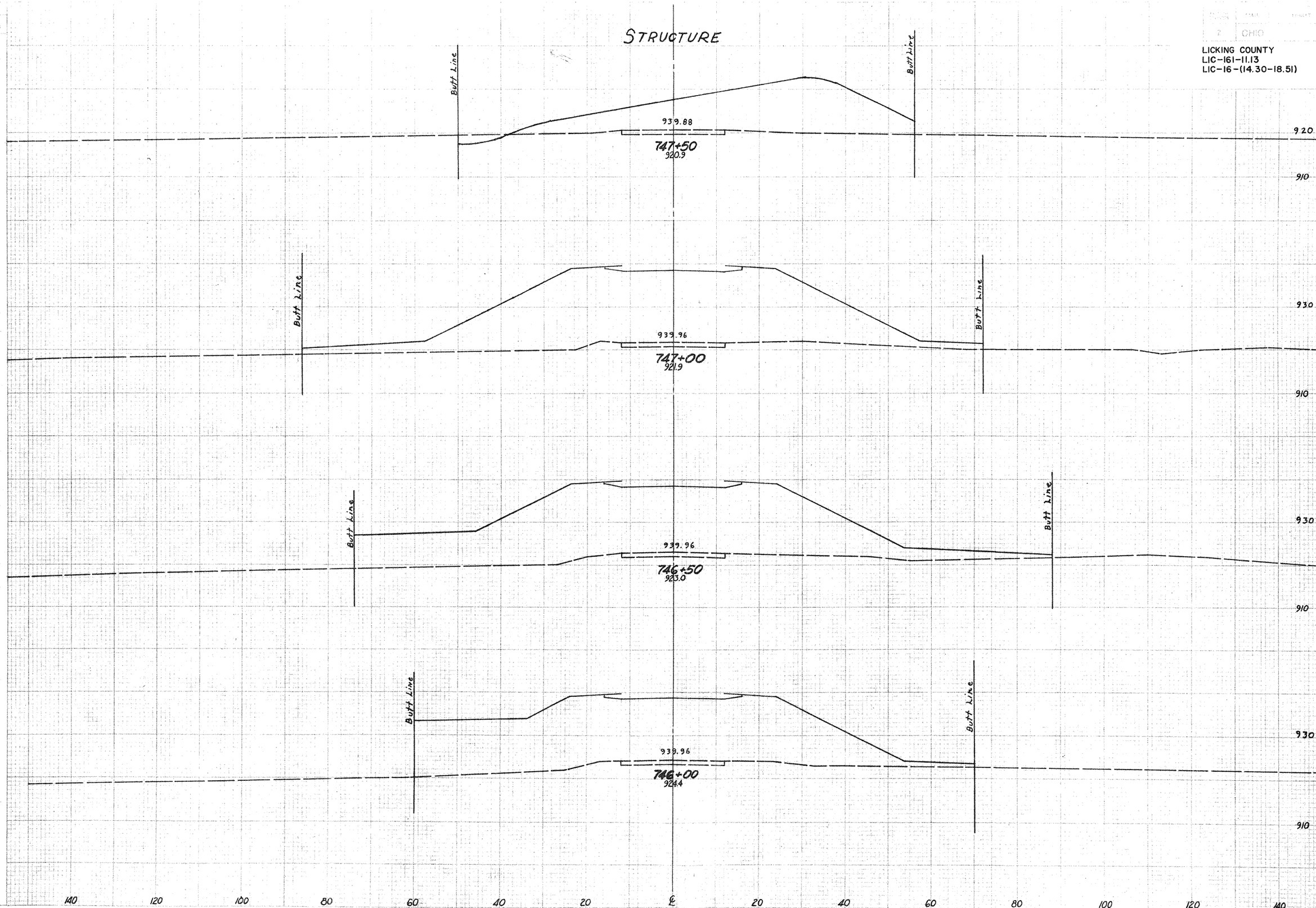



| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 4 | | 2137 | | |
| 8 | | | | 3546 |
| 5 | | 1693 | | |
| 14 | | | | 2581 |
| 10 | | 1095 | | |
| 39 | | | | 1654 |
| 23 | | 691 | | |
| 57 | | | | 1112 |

S.R. 16 STA. 744+00 TO STA. 745+50

2 CHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 20 | 679 | | |
| | | 19 | 2084 |
| | 1572 | | |
| | | | 2972 |
| | 1658 | | |
| | | | 2977 |
| | 1557 | | |
| | | 4 | 3420 |

S.R. 16 STA. 746+00 TO STA. 747+50

SEEDING

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |

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466

LICKING COUNTY
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LIC-16-(14.30-18.51)

STRUCTURE
937.88
749+50
918.8

STRUCTURE
938.63
749+00
919.1

STRUCTURE
939.21
748+50
919.5

STRUCTURE
939.63
748+00
920.1

920
910
920
910
920
910

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

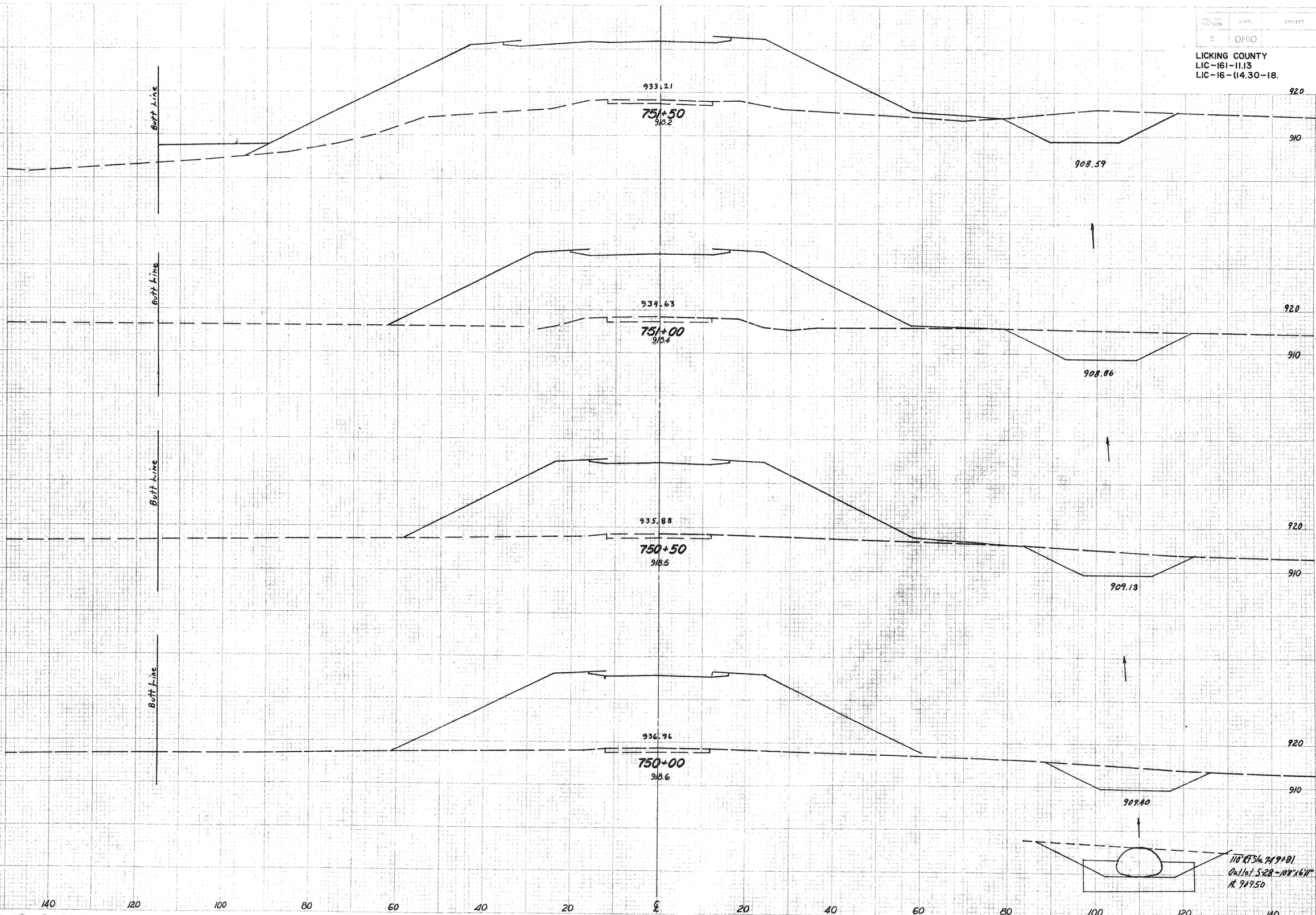
S.R. 16 STA. 748+00 TO STA. 749+50

PRINTED IN U.S.A.
CROSS-TRADE CLOTH

| FED. ROAD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

150
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| 910 | 396 | 1796 | | |
| 920 | | | 731 | 2979 |
| 910 | 394 | 1416 | | |
| 920 | | | 563 | 2595 |
| 910 | 294 | 1387 | | |
| 920 | | | 544 | 2710 |
| 910 | 293 | 1540 | | |
| | | | 271 | 1426 |

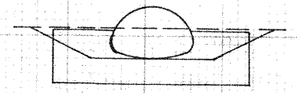
S.R. 16 STA. 750+00 TO STA. 751+50

SEEDING

| REVISED DATE ON | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

151
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



81' Rt. Sta. 753+68
Outlet 10'-8"x6'-11" S-28
Under Twp Rd 131
Rt 907.00
See Sheet No. 388

Twp 131 Connection

923.69
753+50
917.62

Twp 131 Connection

927.96
753+00
917.77

58' Lt Sta 752+72
Std. 2-2.8 C.B.
Rt. Grate 923.00
Rt. 12" I-2 920.00

116'-12"-I-2 @ 6.90% →

920
910

57' Rt Sta 752+64
Std. PC-4 Endwall
Rt 12" I-2 912.00
I-10 Dumped Rock Channel
Protection 5' Long, 6' Width
+ 30" Thickness

88' Rt. Sta. 752+78
Inlet 10'-8"x6'-11" S-28
Under Twp. Rt. 131
Rt 907.90
See Sheet No. 388

929.88
752+50
917.87

908.05

931.63
752+00
918.04

908.32

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| 92 | | 1932 | | |
| | | | 187 | 3761 |
| 920 | | | | |
| 110 | | 2130 | | |
| | | | 269 | 3974 |
| 920 | | | | |
| 181 | | 2162 | | |
| | | | 328 | 4208 |
| 920 | | | | |
| 173 | | 2383 | | |
| | | | 270 | 3869 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

PRINTED IN U.S.A.
DRAWING TRACED BY

S.R. 16 STA 752+00 TO STA. 753+50

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

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466

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | 920 | | |
| | | | 89 |
| | | | 260 |
| | 920 | | |
| | | | 192 |
| | | | 170 |
| | | | 463 |
| | 920 | | |
| | | | 308 |
| | | | 698 |
| | 920 | | |
| | | | 496 |
| | | | 85 2202 |

919.35
755+50
916.99

920.67
755+00
917.11

End Drive
110' Lt

Profile Field Drive
Lt. Sta. 754+50

15%

922.22
754+50
917.34

Field Drive
Lt Sta. 754+40

923.99
754+00
917.48

906.8

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

S.R. 16 STA. 754+00 TO STA. 755+50

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466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

758+50
916.97

758+00
916.16

+75 Conform

916.36
757+50
916.33

911.55
0+70
End area C 4 F 0
Volume C 2 F 15

916.77
757+00
916.47

913.55
0+50
End area C 0 F 39
Volume C 0 F 52

917.40
756+50
916.64

916.05
0+25
End area C 0 F 73

Sta 756+00 Field Drive
+10%
Volume C 17 F 34

918.26
756+00
916.83

End area C 36 F 0

918.35
0+00

Driveways

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| | 0 | 0 | | |
| 920 | | | 5 | 12 |
| | 12 | 25 | | |
| 920 | | | 19 | 42 |
| | 9 | 20 | | |
| 920 | | | 44 | 38 |
| | | | | |
| 920 | | | | |
| | 21 | | | |
| | | | | 149 |
| | 38 | 140 | | |
| 920 | | | 35 | 180 |
| | 54 | | | |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

S.R. 16 STA. 756+00 TO STA 758+50

154
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

RAMP-A PLAN & PROFILE STA.75+14.94 TO STA.84+51.50

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | E-2 | T-8 | S-1 | L-10 | L-18 | T-4 | T-8 | | | | | | | | | | | | | | | | SEE SHEET NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Excavation for Structure Cu. Yds. | 3/4" Modified Inlet Each | Concrete Structure No. 2-B Class 'E' Each | Guarding Saddling Steel Deep Each Lin. Ft. | 8" Pipe Outlets under Storm drains Underdrain M-6.4(a) Lin. Ft. | 6" Shallow Underdrain M-6.4(b) Lin. Ft. | Place Specials as under Item 608 or 609 for Underdrain M-6.4(c) Each | Mat'l for Item 608 or 609 for Underdrain M-6.4(c) Each | 12" Lin. Ft. | 18" Lin. Ft. | 24" Lin. Ft. | 30" Lin. Ft. | 36" Lin. Ft. | 42" Lin. Ft. | 48" Lin. Ft. | 54" Lin. Ft. | 60" Lin. Ft. | 66" Lin. Ft. | 72" Lin. Ft. | 78" Lin. Ft. | 84" Lin. Ft. | 90" Lin. Ft. | 96" Lin. Ft. | |
| | TOTALS | | 1 | 1 | 0.23 | 1 | 750 | 20 | 620 | 1 | 2 | 26 | 18 | 26 | 2 | 37 | 226.5 | 200 | | | | | | | |
| 1-R | 77+00 - 84+50 | Lt | | | | | 760 | | | | | | | | | | | | | | | | | | 369 |
| 2-L | 69+00 | ℄ | | | | | | | | | | | | 26 | | | | | | | | | | | |
| 1-R | 82+25 - 84+51.50 | Lt | | | | | | | | | | | | | | | 226.5 | | | | | | | | 367 |
| 2-P | 77+00.42 - 79+00.42 | Et | | | | | | | | | | | | | | | | 200 | | | | | | | |
| 1-S8 | 82+50 | | | 1 | 1 | 0.23 | 1 | | | | | 2 | 26 | 18 | | | 3.7 | | | | | | | | 367 |
| 2-P | 77+00.42 - 79+00.42 | Et | | | | | | | | | | | | | | | | 200 | | | | | | | |
| 1-P | 82+25 - 84+51.50 | Et | | | | | | | | | | | | | | | 226.5 | | | | | | | | |
| 1-L4 | 77+00 - 82+40 | Lt | | | | | | 10 | 555 | 1 | | | | | | | | | | | | | | | 368 |
| 2-L4 | 82+60 - 83+25 | Et | | | | | | 10 | 65 | | | | | | | | | | | | | | | | |
| 1-S8 | 82+50 | | | 1 | 1 | 0.23 | 1 | | | | | 2 | 26 | 18 | | | 3.7 | | | | | | | | 367 |

| REF NO | STATION TO STATION | SIDE | 6" Welded Jumped Gauge Cut-6 Cu. Yds. | 12" Welded Jumped Gauge Cut-12 Lin. Ft. | 12" Welded Jumped Gauge Cut-12 Lin. Ft. | SEE SHEET NO |
|---|---|---|---|---|---|---|
| | | | 3-S8 | 1-10 | 2-12 | 1-12 |

| REF NO | STATION TO STATION | SIDE | Special Mat'l for Item 609 or 610 for Guardrail Anchor Type Each | Special Fabrication 2-A Each | Special Mat'l for Item 609 or 610 for Guardrail Anchor Type Each | Special Fabrication 2-A Each |
|---|---|---|---|---|---|---|
| | | | M246.14 | | M246.14 | |

OHIO OIL CO

GAS LINE

PC STA 78+41.17 RAMP-B=
18.5 Rt. PC STA 84+51.50 RAMP-AB

SC STA 84+51.50 RAMP-A=
18.5 Lt. PC STA 84+51.50 RAMP-AB

RAMP-B

TS STA 82+51.50

ST STA 82+25.31

Sta 80+75
108 x 18" S-27
See Sheet No 384

RAMP-A

Creek

CS STA 80+25.31

Fill Old Channel Grade to Drain

Detail

SC STA 79+00.42

Raccoon

CS STA 77+00.42

SURVEY ℄

PC STA 75+14.94 RAMP-A=
8 Lt. POT STA 75+14.94 SURVEY ℄

16 Et Sta 82+50 Std 2-B Median Inlet
IE Window 320.00, IE 18" I-3 316.00
IE I-4 Outlet 317.09

+85 Ft. 6" I-4 IE 317.74

6" I-4 -0.86%

+40 Lt. 6" I-4 IE 317.00

PV.T STA 81+00

6" I-4 -0.86%

+80 Lt. IE 314.08

PV.I STA 79+00
ELEV. 317.33

400' V.C.

-0.64% 6" I-4

+00, 20 Lt. 6" I-4 Outlet IE 313.0

100 Lt. 6" I-4 IE 315.36

See Main Line for continuation

PV.C STA 77+00

GRAPHIC GRADE

+0.86%

34 Lt. Sta 84+30 Std 2-A Endwall
IE 12" I-2 303.00

IE 309.60 Inlet S-27

IE 308.00 Outlet S-27

| RIGHT EDGE OF PAV'T OR CURB | PROFILE GRADE |
|---|---|
| 922.07 | +51.50 |
| 921.85 | |
| 921.63 | |
| 921.42 | |
| 921.20 | |
| 920.99 | |
| 920.77 | |
| 920.56 | |
| 920.34 | |
| 920.13 | |
| 919.91 | |
| 919.70 | |
| 919.48 | |
| 919.27 | |
| 919.05 | |
| 918.85 | |
| 918.67 | |
| 918.52 | |
| 918.38 | |
| 918.27 | |
| 918.18 | |
| 918.12 | |
| 918.08 | |
| 918.06 | |
| 918.07 | |
| 918.10 | |
| 918.16 | |
| 918.24 | |
| 918.34 | |
| 918.46 | |
| 918.61 | |
| 918.74 | |
| 918.87 | |
| 918.96 | |
| 919.05 | |
| 919.12 | |
| 919.19 | |
| 919.25 | |
| 919.33 | |

925 920 915 910 905 900 895

906.0 908.0 908.0 908.0 907.9 908.1 908.2 908.5 906.8 907.5 907.6 896.2 907.0 908.3 909.7 910.9 903.4 908.7 908.4 907.9

84 83 82 81 80 79 78 77 76 75

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SECTION | STATE | | |
|---|---|---|---|
| 2 | OHIO | | |

155/466

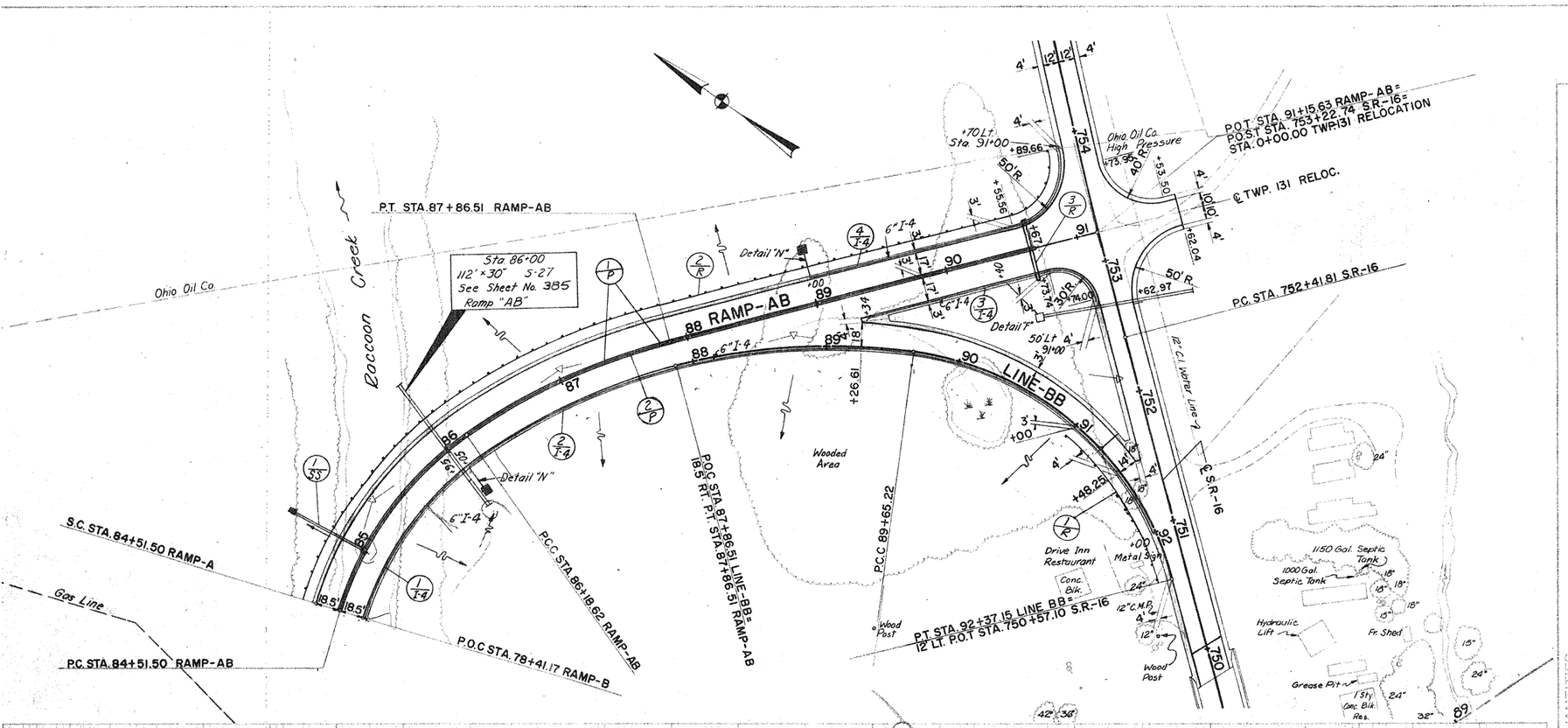
Drive Inn Restaurant
P.T. STA. 87+00 RAMP-B= 61' Lt. P.O.I. STA. 87+00 SURVEY ℄
24" C.M.P.
12" C.M.P.
12"
Wood Post
Wood Post
42" 36"
Wood Post
S.C. STA. 84+51.50 RAMP-A
P.C. STA. 84+51.50 RAMP-AB
P.O.C. 78+41.17 RAMP-B
18.5' 18.5'
S.C. STA. 84+45.00
C.S. STA. 82+45.00
85 Sta. 9.47
Wood Post
Wood Post
Wood Post
83+69.47
Detail "N"
Detail "F"
P.O.T. STA. 748+44.10 S.R. 16=
P.O.T. STA. 87+25.94 SURVEY ℄
℄ S.R. 16
747
750
SURVEY ℄
Ohio Fuel Gas Co.
Creek
RAMP-A
RAMP-B
Raccoon
6" I-4
H.P. Gas Line
16.94
16.36
83+69.47
17+54
16+54
16+04
78
79
80
81
82
83
84
85
86
87

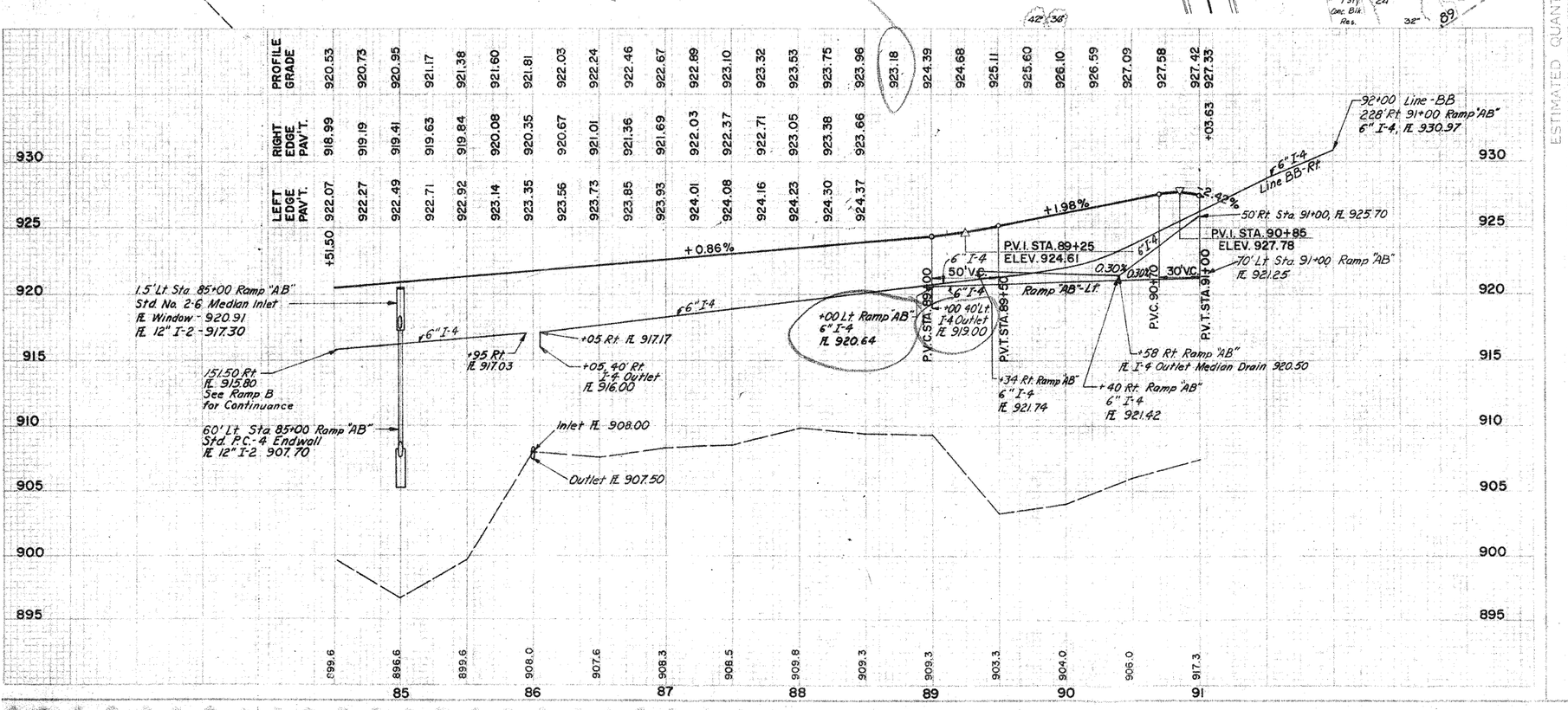
| | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | | | | |
|---|---|---|---|---|
| | | | | |
| 2 | OHIO | | | |

156
466



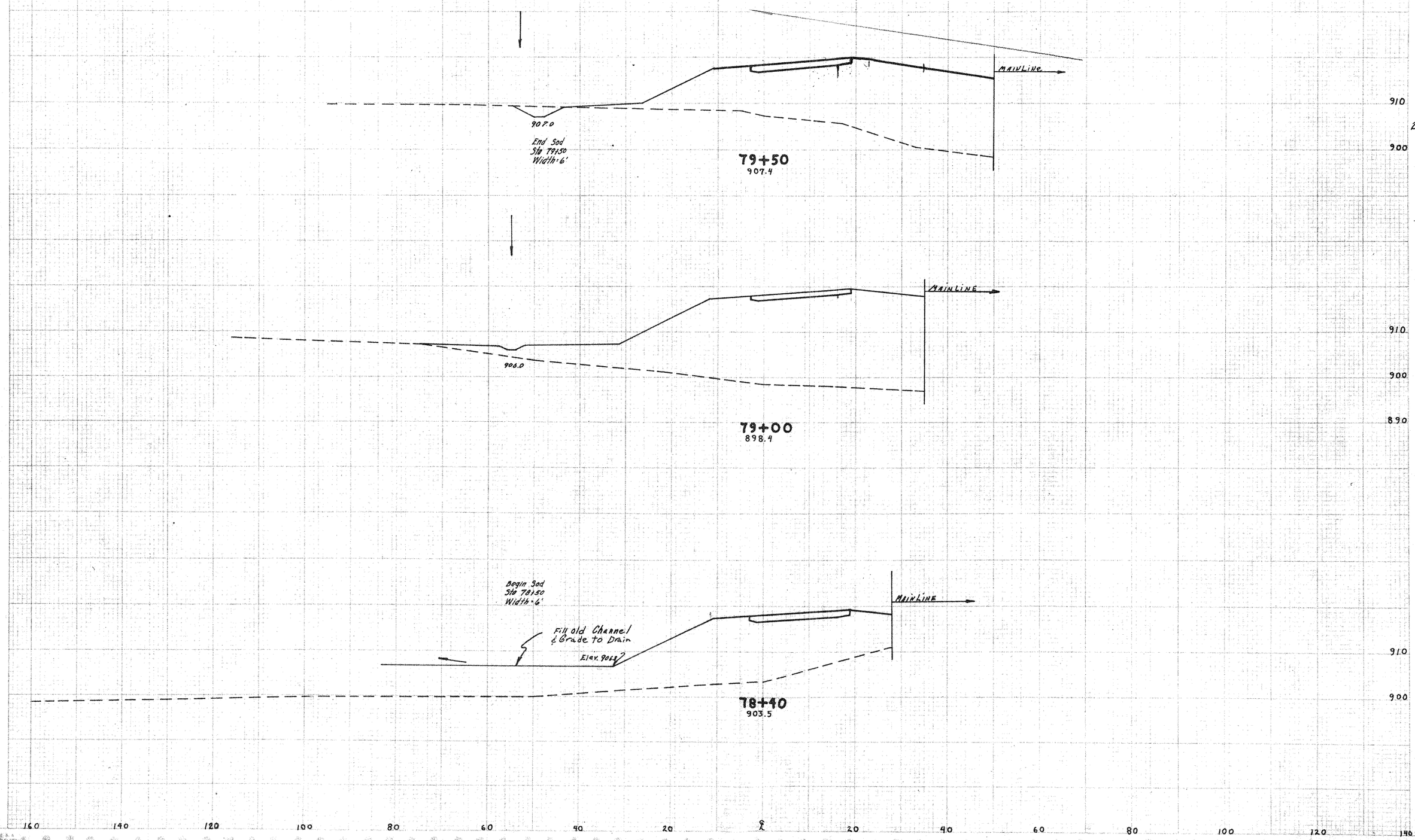

ESTIMATED QUANTITIES

| SHEET NO | | | |

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

157
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



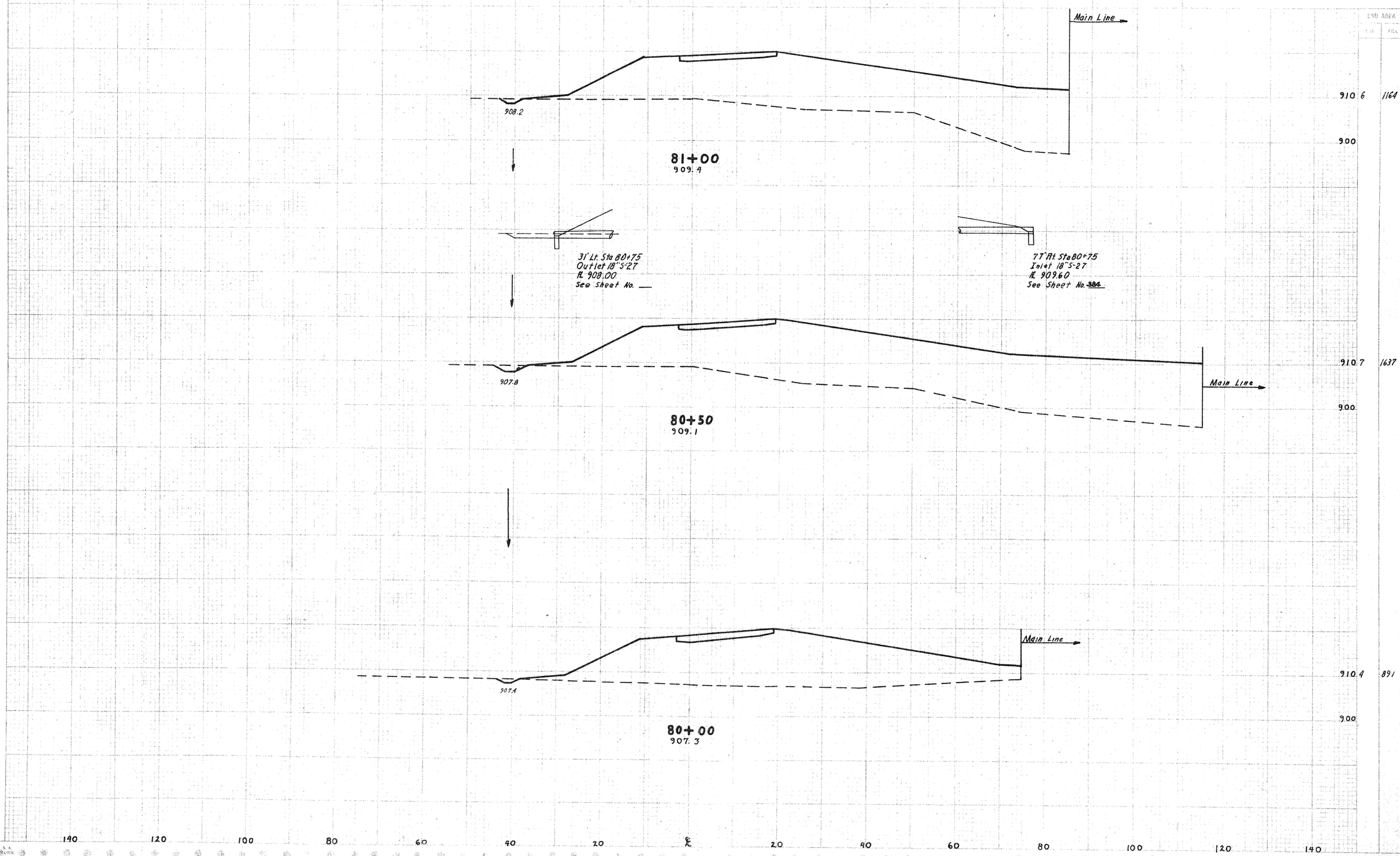

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 23 | 1014 | | |
| | | 21 | 2118 |
| | 1273 | | |
| | | | 2209 |
| | 715 | | |

RAMP "A" STA. 78+40 TO STA. 79+00

158
466

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

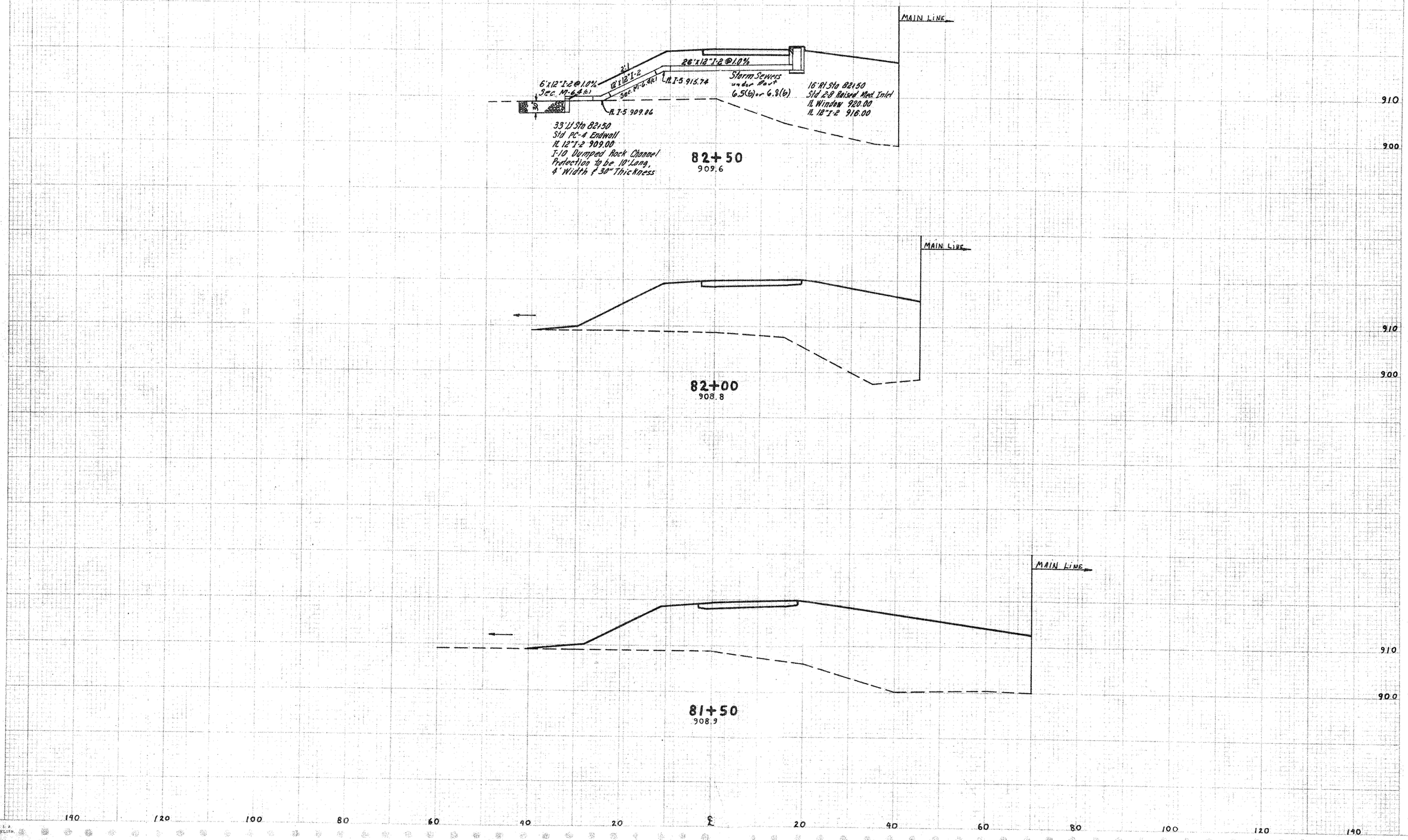



| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 910 | 6 | 1164 | | [illegible] |
| 900 | | | | |
| | | | 12 | 2593 |
| 910 | 7 | 1637 | 10 | 2341 |
| 900 | | | | |
| 910 | 4 | 891 | | |
| 900 | | | | |
| | | | 25 | 1764 |

RAMP "A" STA 80+00 TO STA 81+00

| FED. ROAD DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| ENG. AREA CUT | ENG. AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| | 849 | | |
| | | | 1624 |
| | 905 | | |
| | | | 1926 |
| | 1174 | | |
| | | 6 | 2165 |

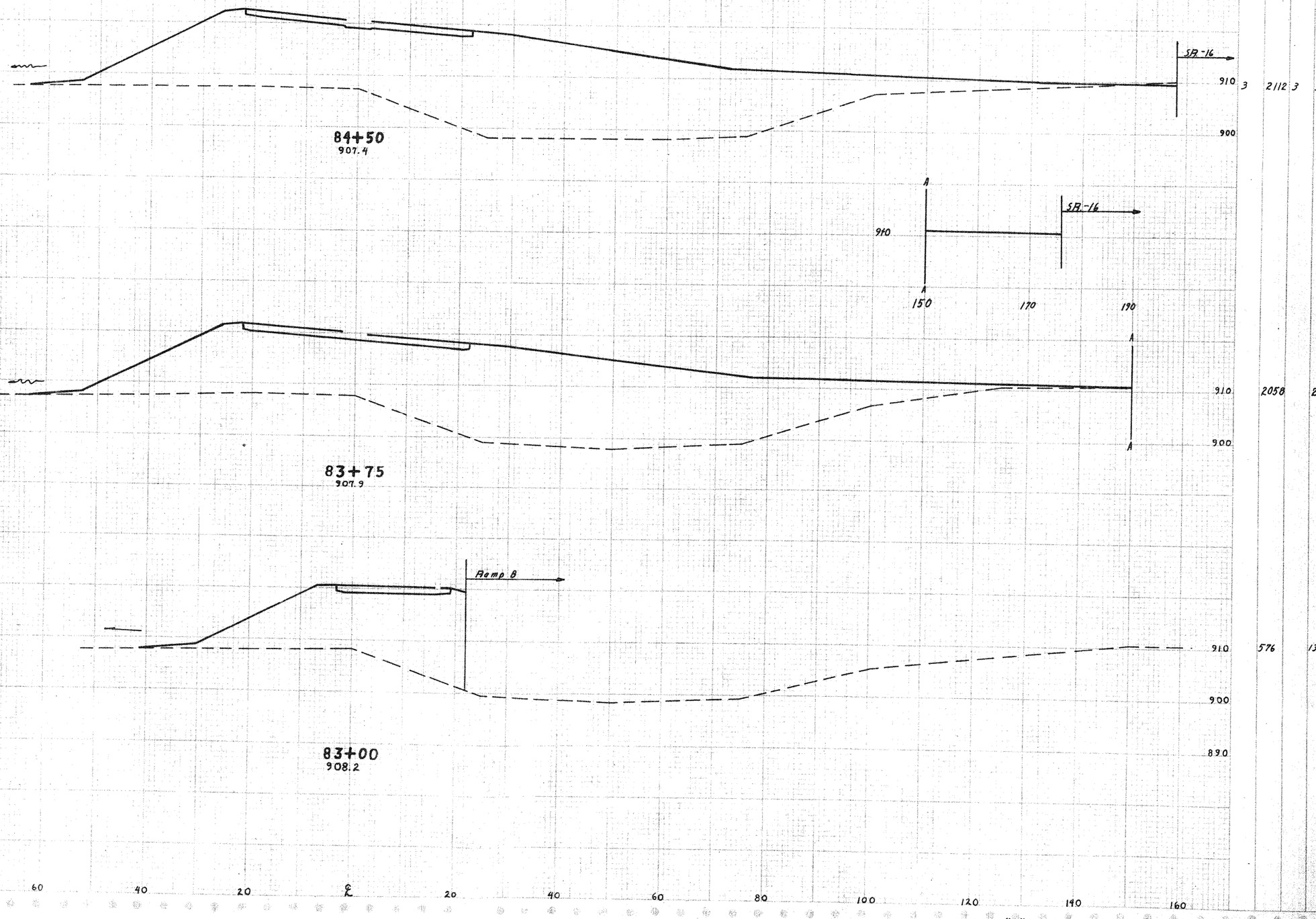
RAMP "A" STA. 81+50 TO STA. 82-50

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

160
466

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 84+50 | 3 | 2112 | 3 | 3861 |
| 83+75 | | 2058 | | 2439 |
| 83+00 | | 576 | | 1319 |




RAMP "A" STA. 83+00 TO STA. 84+50

OHIO

161
460

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | 850 | | 1685 |
| | 970 | | 3631 |
| | 1481 | | |

S-R-16

Ramp A

916.45
**81+00**
907.3

SR-16

RAMP "A"

916.98
**80+50**
900.5

SR-16

RAMP "A"

911.80
**79+70**
898.3

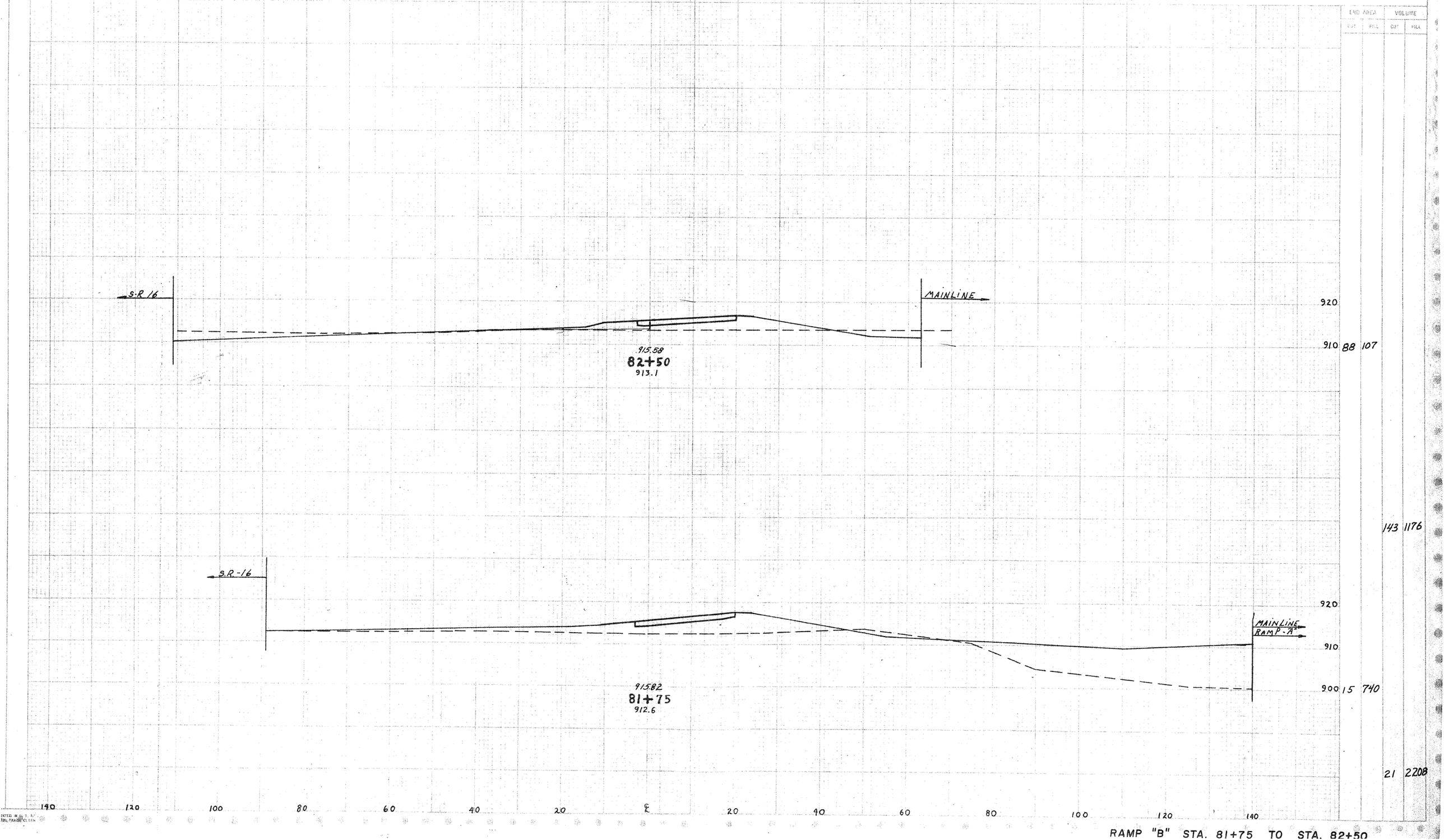
920
910
900
920
910
900
910
900
890

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "B" STA. 79+70 TO STA. 81+50

162
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 88 | 107 | | |
| | | 143 | 1176 |
| 15 | 740 | | |
| | | 21 | 2208 |

RAMP "B" STA. 81+75 TO STA. 82+50

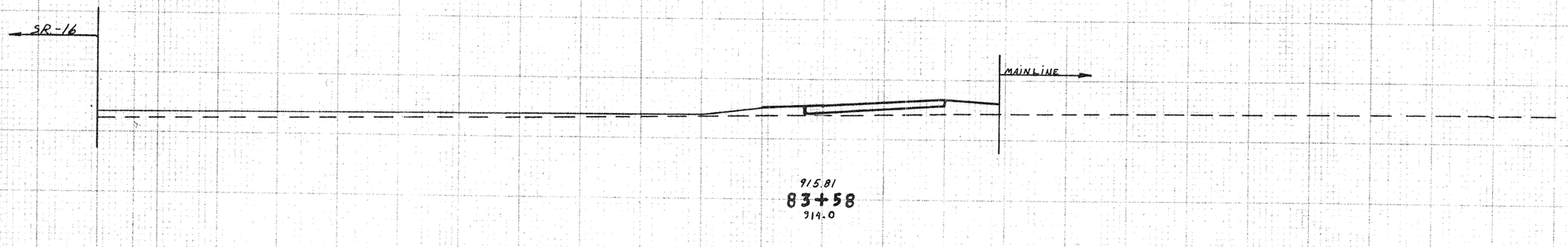
SEEDING

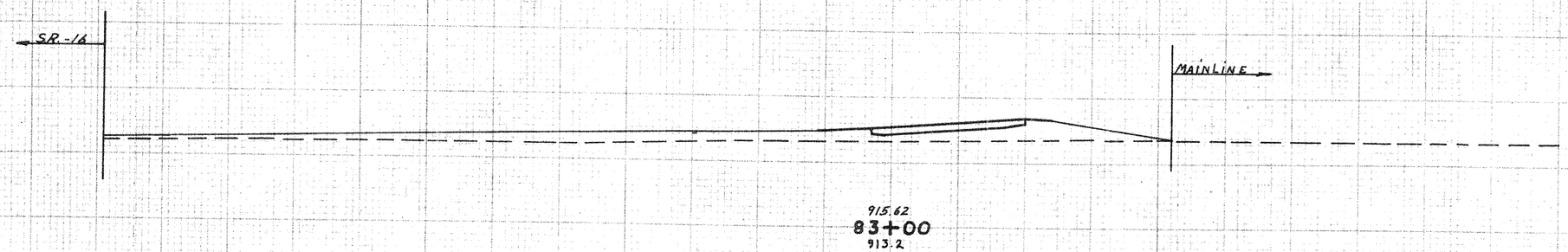
| LB. | LB. YDS. |
|---|---|
| | |

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

163
A66

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

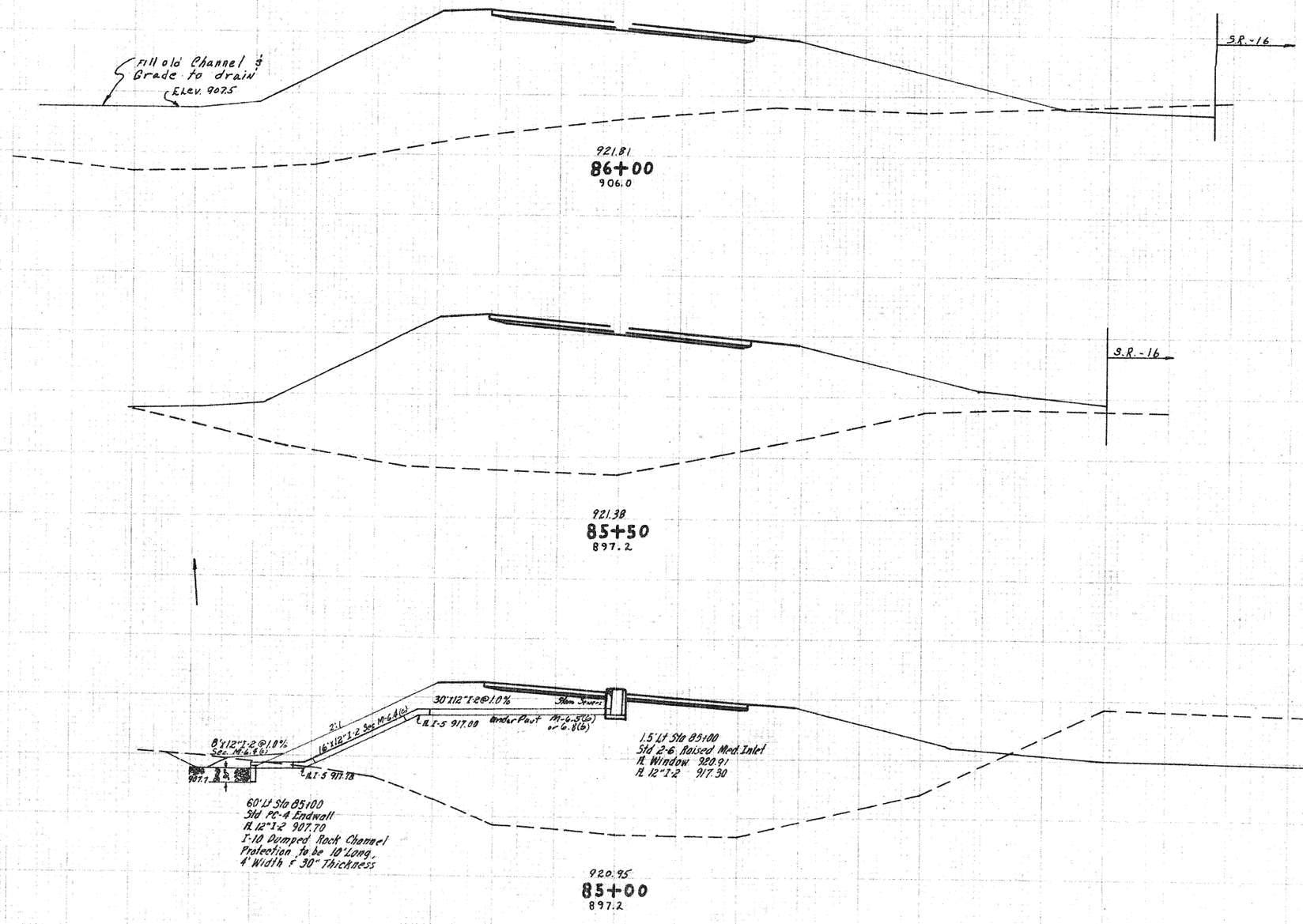



| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | | | |
| | | |

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

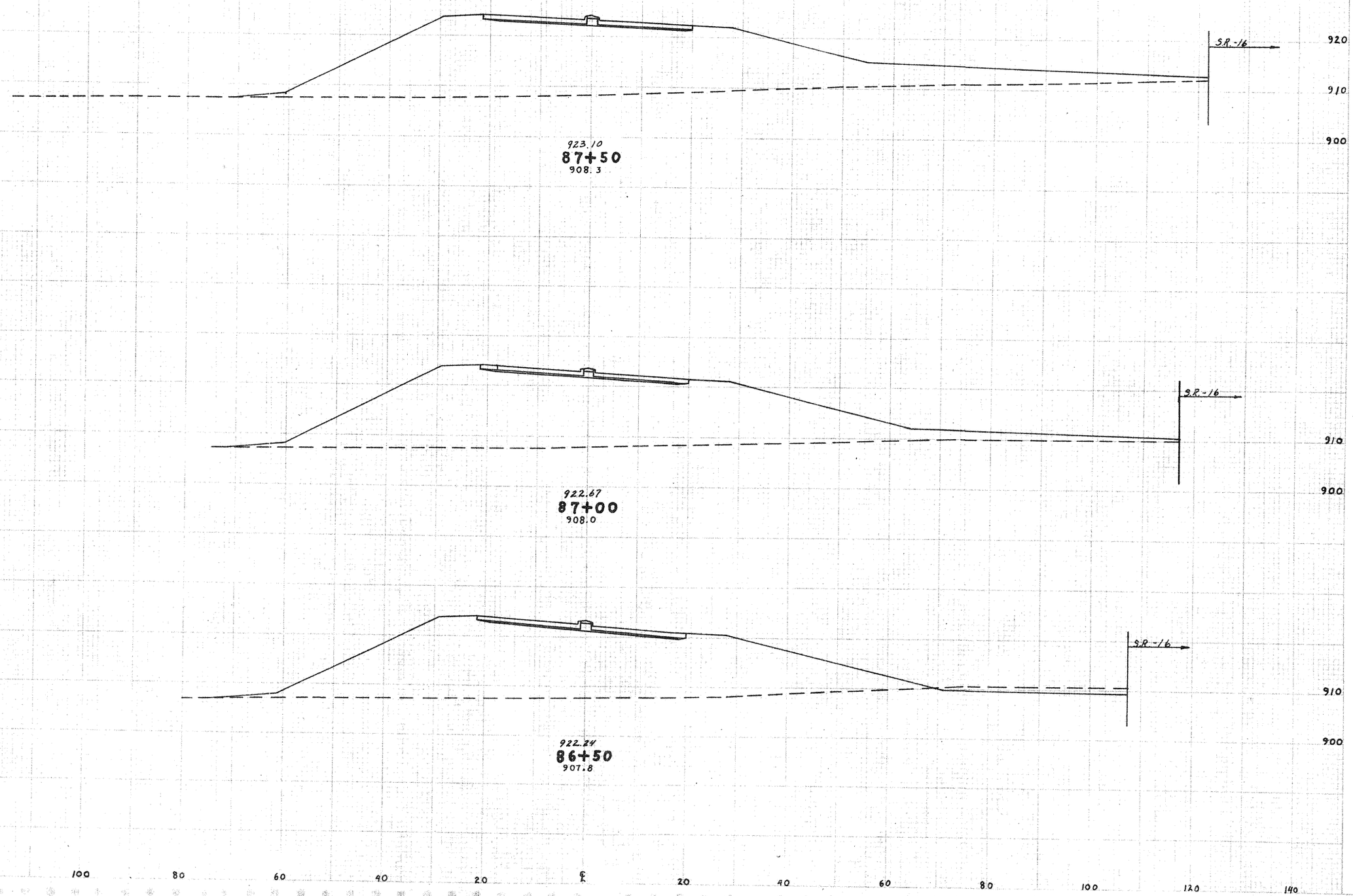



| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | | 20 | | 1640 |
| 900 | | | | |
| | | 19 | | 3454 |
| 910 | | 0 | | 2090 |
| 900 | | | | |
| 890 | | | 328 | 3513 |
| 910 | | | 408 | 1709 |
| 900 | | | | |
| 890 | | | 317 | 1440 |

160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

165
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



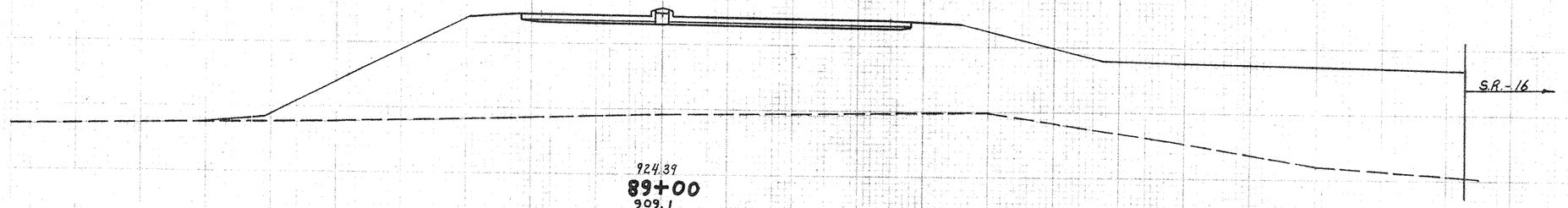

| ENG AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | 1420 | | |
| | | | 2566 |
| | 1351 | | |
| | | | 2346 |
| | 1183 | | |
| | | 19 | 2614 |

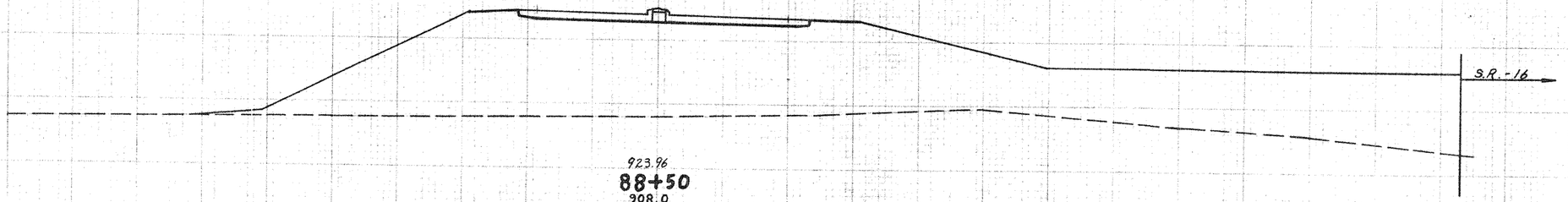
RAMP "AB" STA. 86+50 TO STA. 87+50

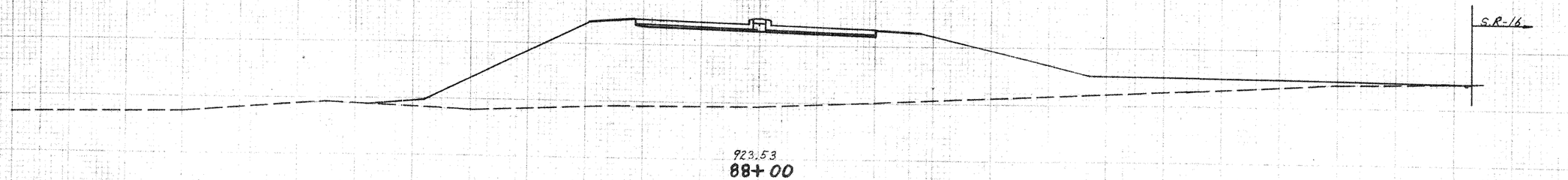
166
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| | | | | |
| 924.39 | | | | |
| 89+00 | | | | |
| 909.1 | | | 1400 | |
| | | | | |
| 923.96 | | | | |
| 88+50 | | | | |
| 908.0 | | | 1190 | |
| | | | | |
| 923.53 | | | | |
| 88+00 | | | | |
| 909.9 | | | 1271 | |
| | | | | |
| | | | | 2398 |
| | | | | 2279 |
| | | | | 2492 |



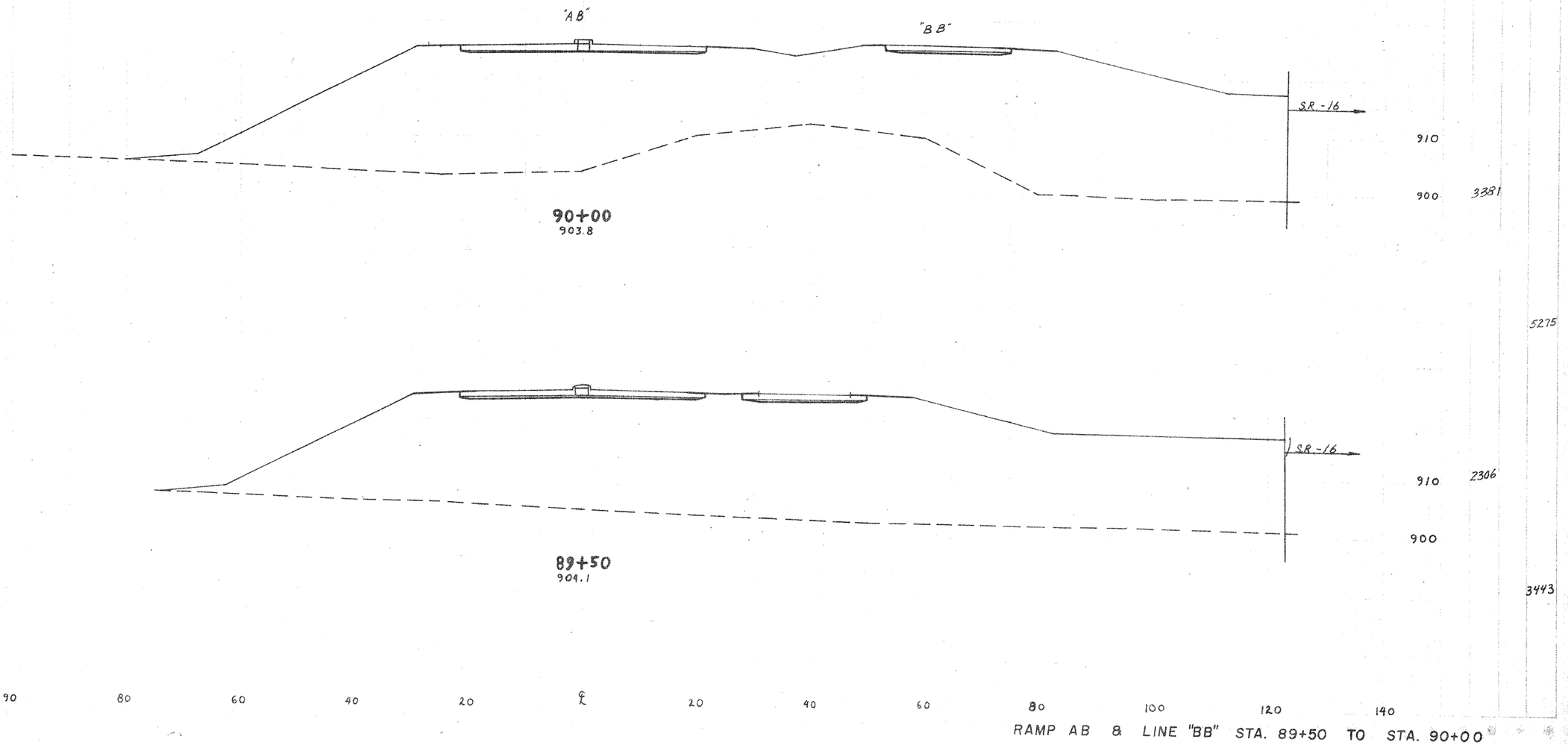




140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "AB" STA 88+00 TO STA 89+00

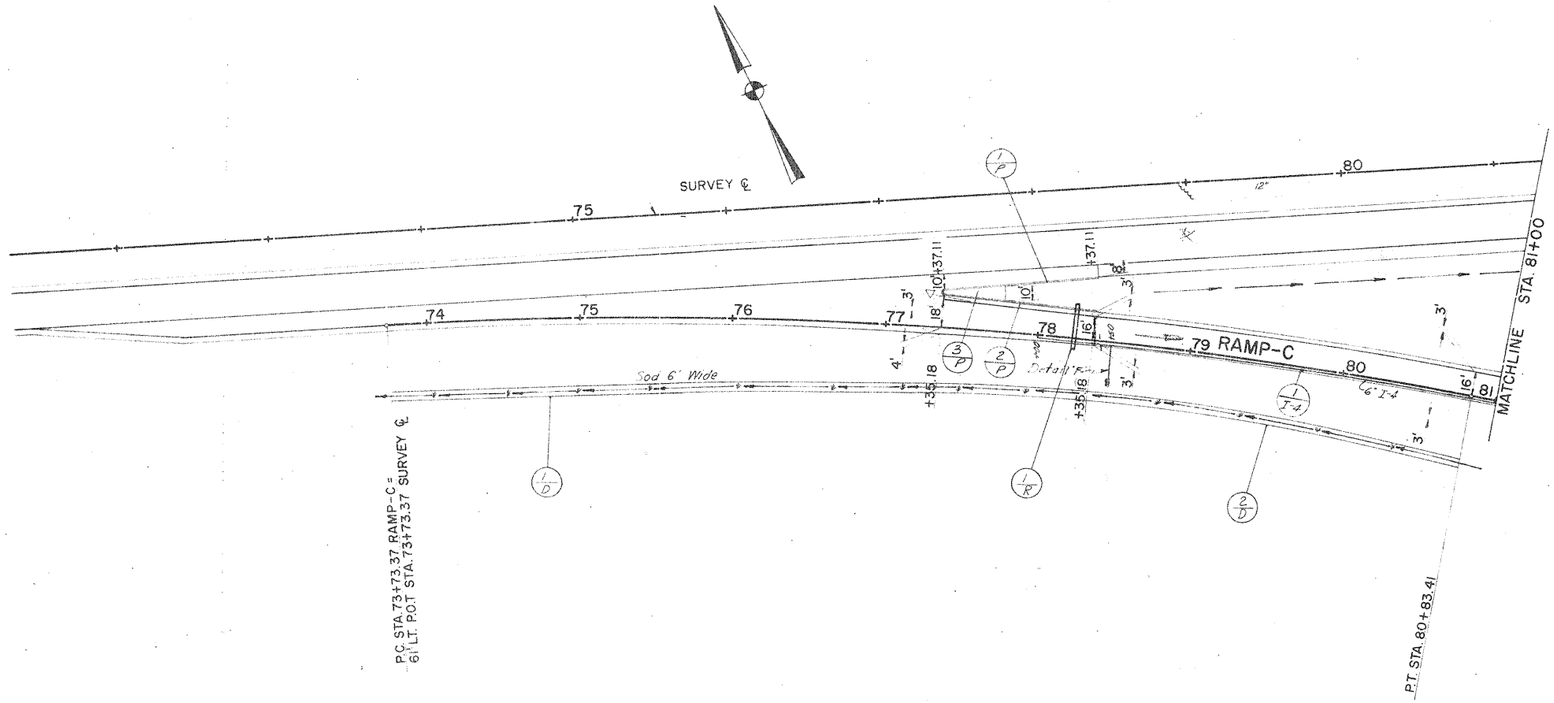
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

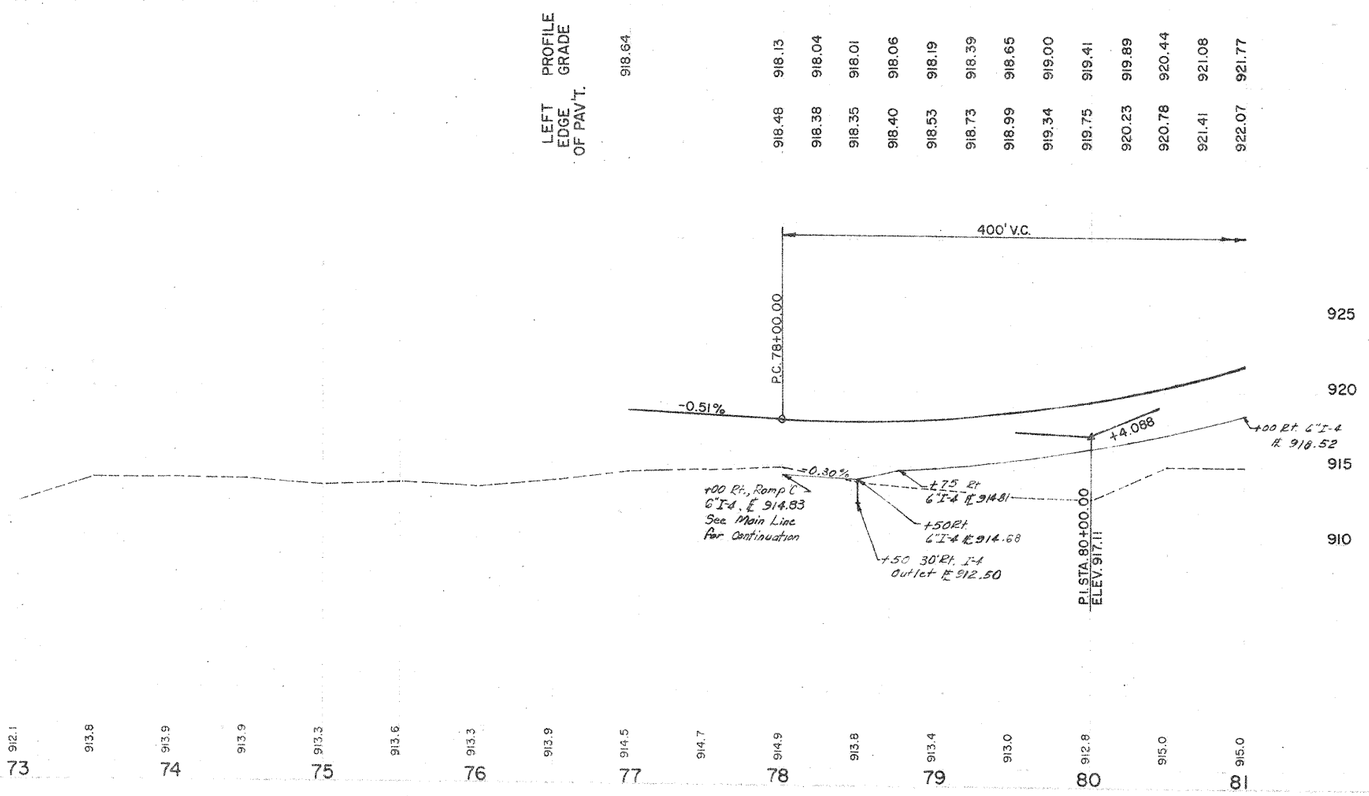



RAMP AB & LINE "BB" STA. 89+50 TO STA. 90+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

168
466




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | I-4 | I-5 | S-25 | I-10 |
| | | | | 5" Under 8" Pipe | Pipe Spec. Asbestos | | |
| | | | | Drains | Cutlet for Under Drains | Concrete Conduit | Seeding |
| | | | | Shallow | Underdrains Trench | As Plan | |
| | | | | Lin. Ft. | Lin. Ft. | Ea. | Sq. Yds |
| I-4 | 78+00 - 81+00 | Rt. | 320 | 10 | 1 | | |
| I-P | 78+25 | ℄ | | | | 27 | |
| I-D | 73+73.37 - 78+00 (See Mainline) | Rt. | | | | | 200 |
| 2-D | 78+00 - 81+00 | | | | | | |
| 1-P | 77+37.11 (PT) - 78+37.11 (PT) | | | | | 27 | |
| 2-P | 77+35.18 - 78+35.18 | | | | | 4 | |
| 3-P | 77+33.68 - 77+75 | | | | | 4 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TOTALS | 320 | 10 | 1 | 27 | 200 | | |

368

105 100 23

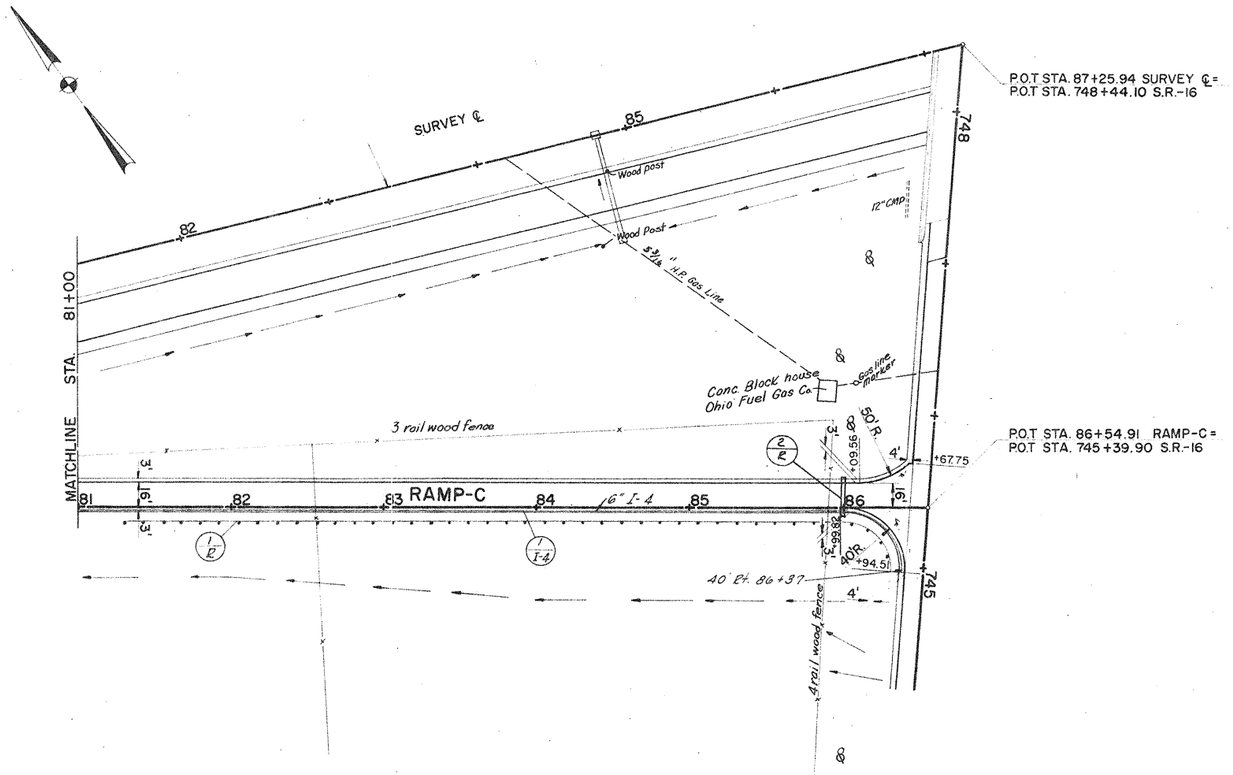
105 100 23

RAMP-C PLAN & PROFILE STA. 73+73.37 TO STA. 81+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

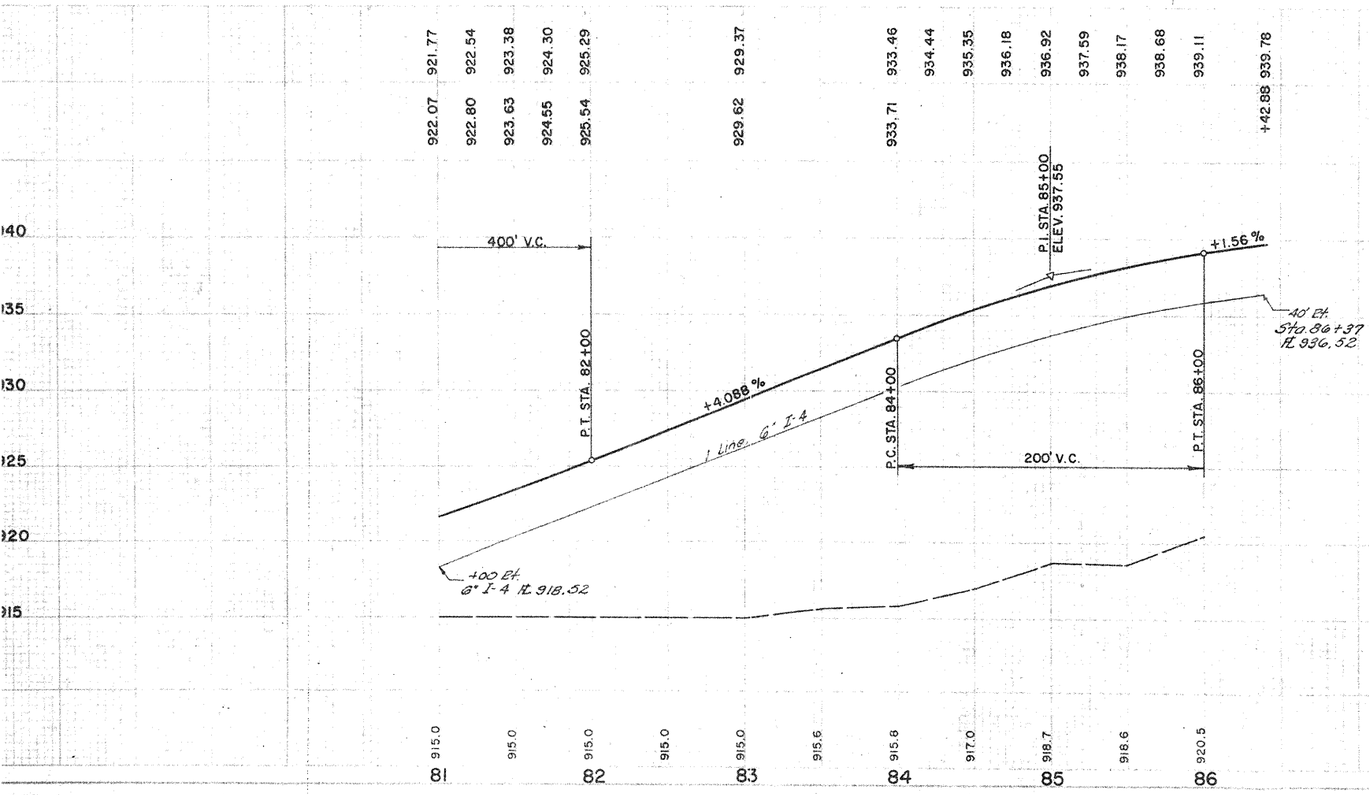
169
466

369




P.O.T STA. 87+25.94 SURVEY ℄ =
P.O.T STA. 748+44.10 S.R.-16

P.O.T STA. 86+54.91 RAMP-C =
P.O.T STA. 745+39.90 S.R.-16




PROFILE GRADE

LEFT EDGE OF PAV'T.

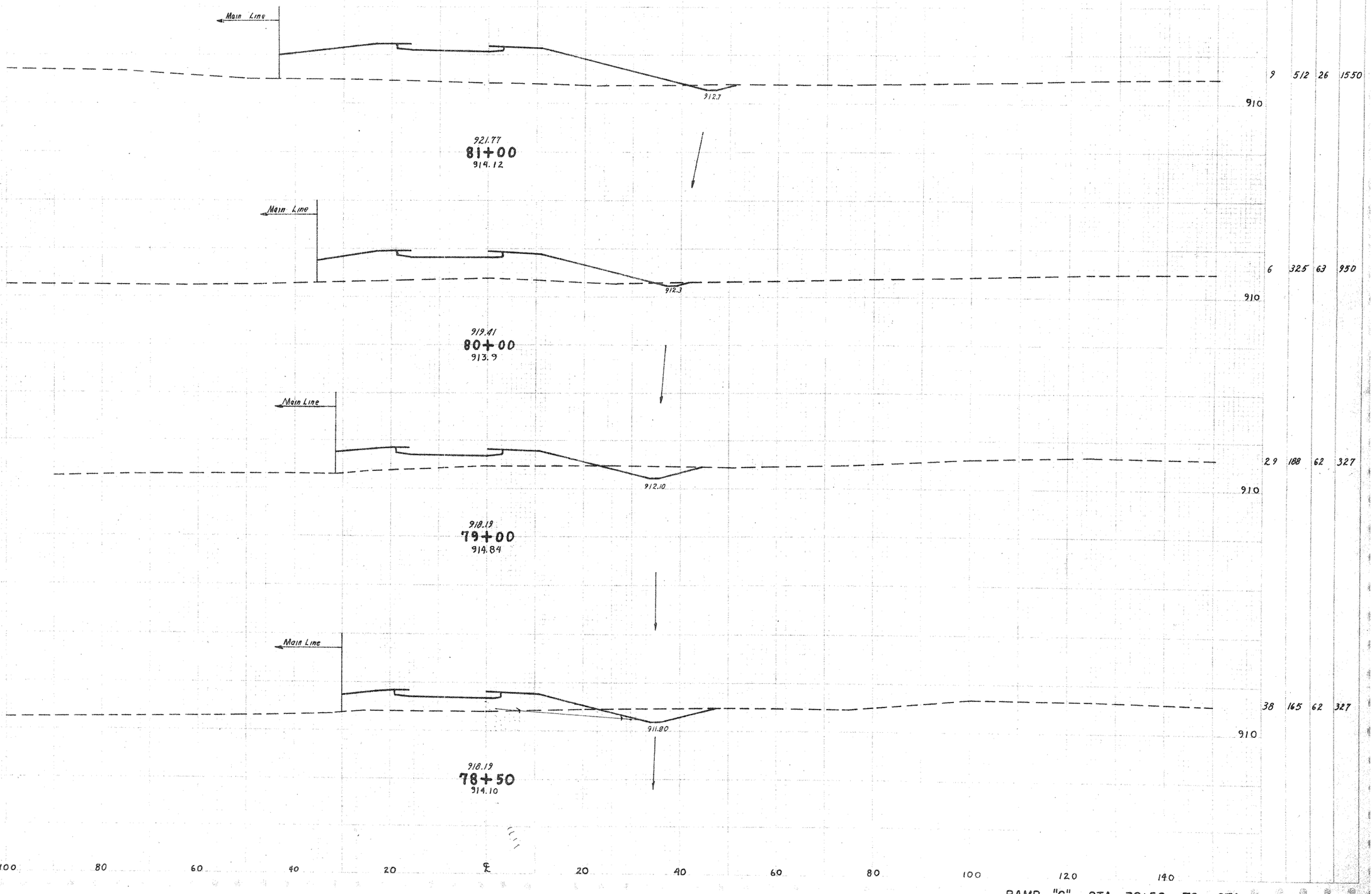
| | | | | | |
|---|---|---|---|---|---|
| I-4 | I-15 | 5-25 | | | |
| 6 | Guardrail Anchors | | | | |
| Under | Other | Concrete | | | |
| Drains | Drains | Barrier | | | |
| Shallow | Deep | Ft. | | | |
| Lin. Ft. | Lin. Ft. | Lin. Ft. | | | |
| | | | I-4 | 81+00 - 86+37 | Eh 363 |
| | | | I-2 | 81+25 - 86+37 | Eh 525 26 |
| | | | 2-R | 86+00 | ℄ |

| TOTALS | | |
|---|---|---|
| 563 | 525 | 26 |

RAMP-C PLAN & PROFILE STA. 81+00 TO STA. 86+54.91

170
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



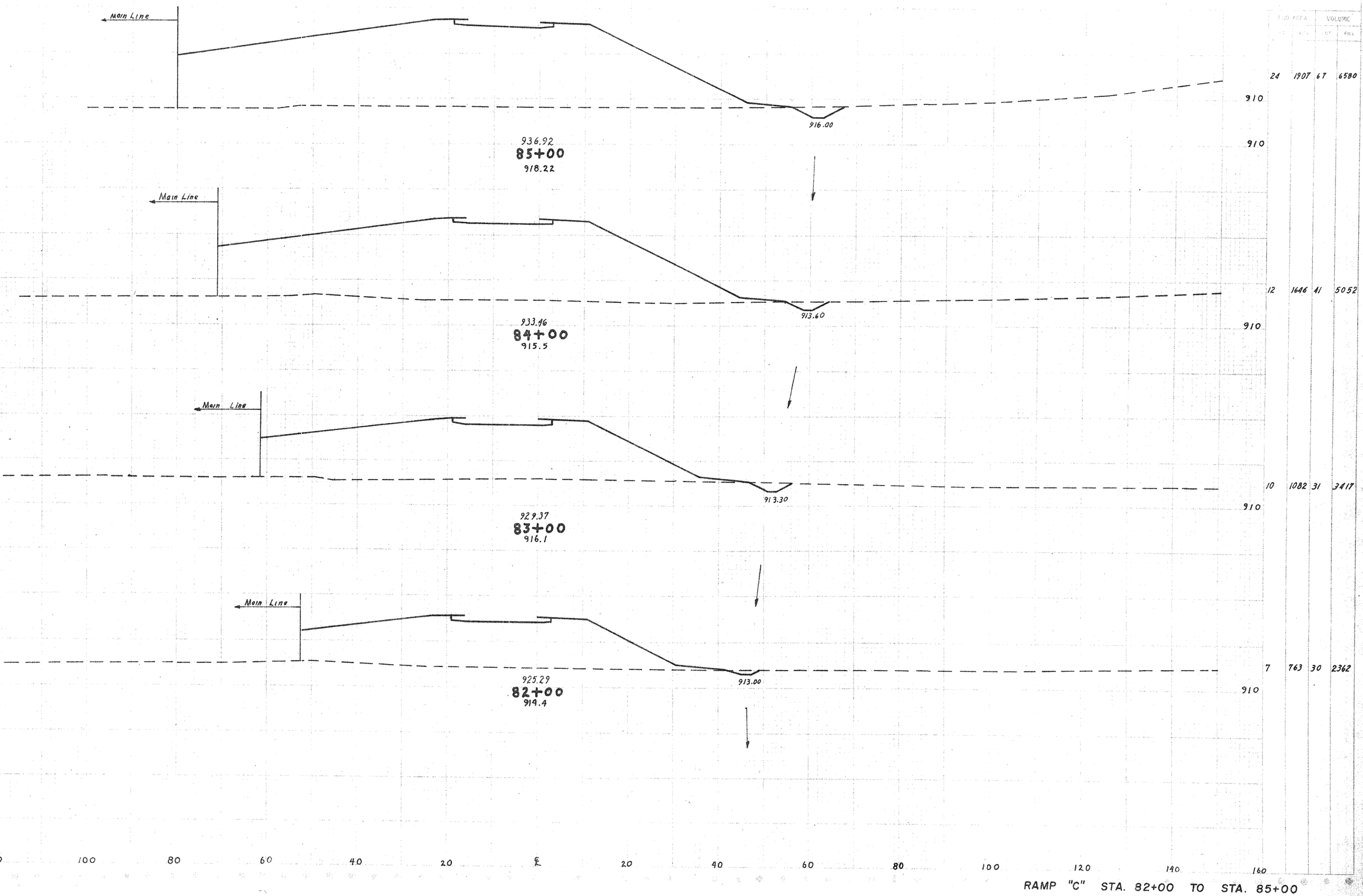

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | 9 | 512 | 26 | 1550 |
| 910 | 6 | 325 | 63 | 950 |
| 910 | 29 | 188 | 62 | 327 |
| 910 | 38 | 165 | 62 | 327 |

RAMP "C" STA. 78+50 TO STA. 81+00

171
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | VOLUME | |
|---|---|---|
| | CUT | FILL |
| 24 | 1907 | 67 |
| 12 | 1646 | 41 |
| 10 | 1082 | 31 |
| 7 | 763 | 30 |

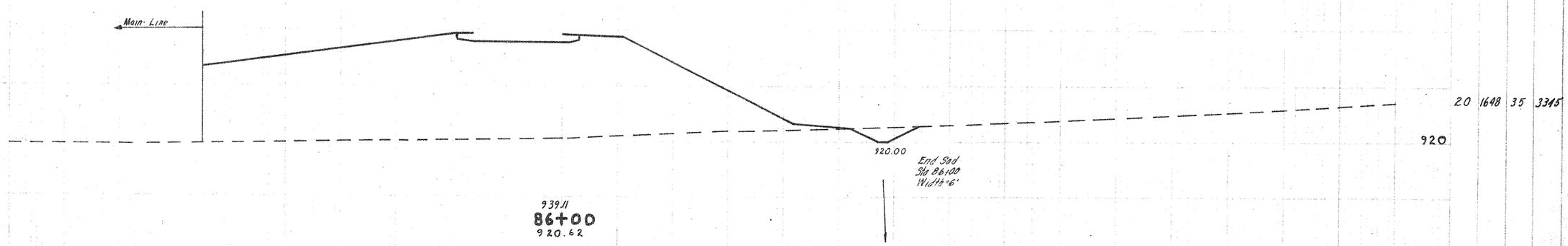


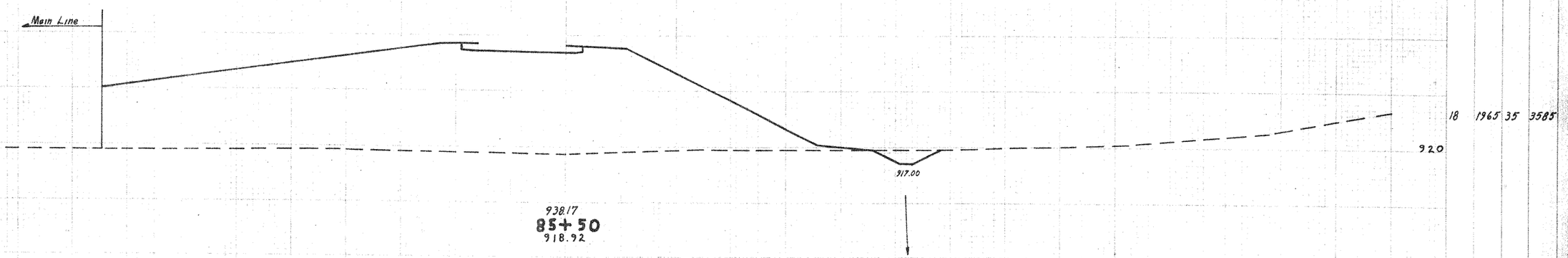

RAMP "C" STA. 82+00 TO STA. 85+00

172
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| STA | AREA CUT | AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 86+00 | 20 | 1648 | 35 | 3345 |
| 85+50 | 18 | 1965 | 35 | 3585 |



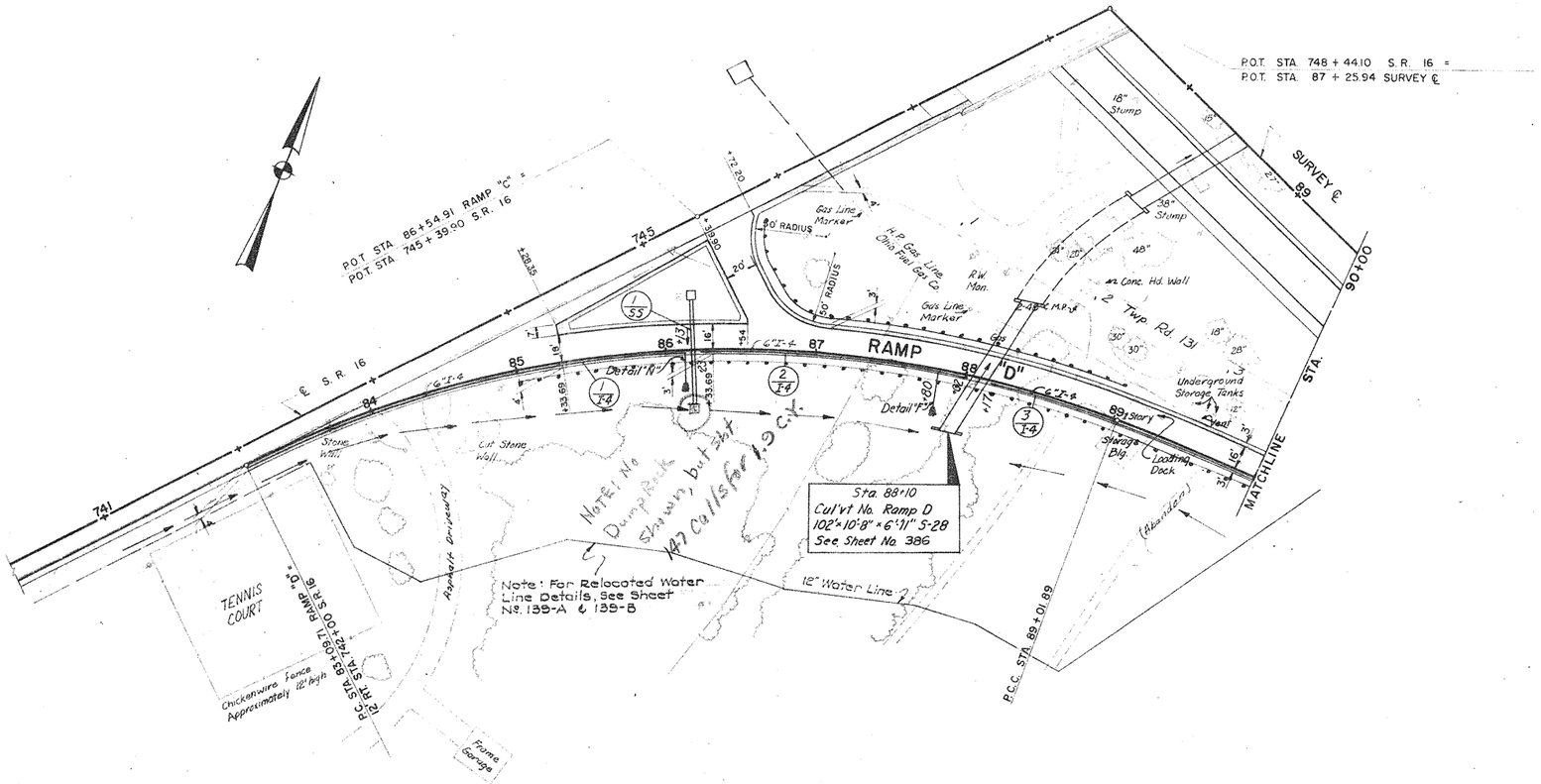



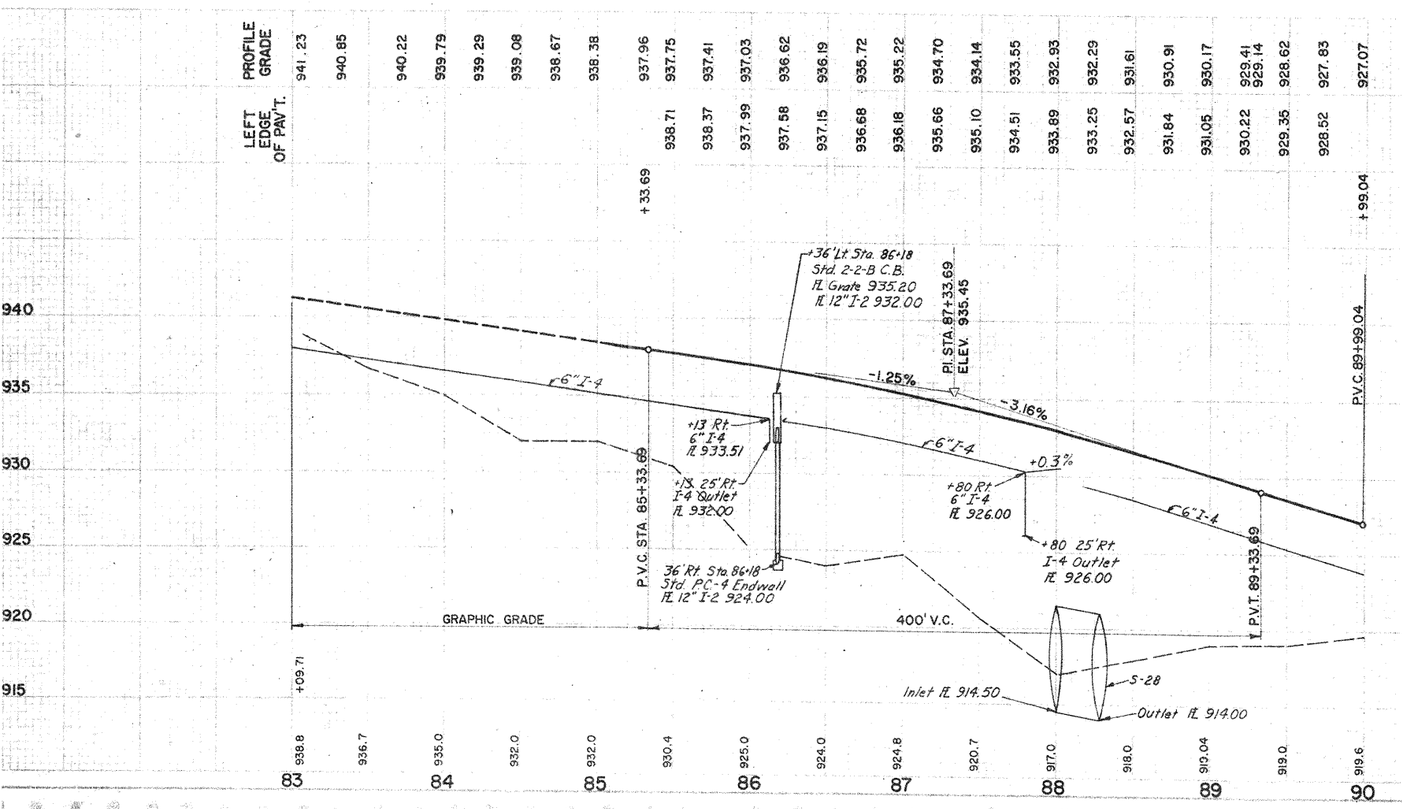

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "C" STA. 85+50 TO STA. 86+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

173
466

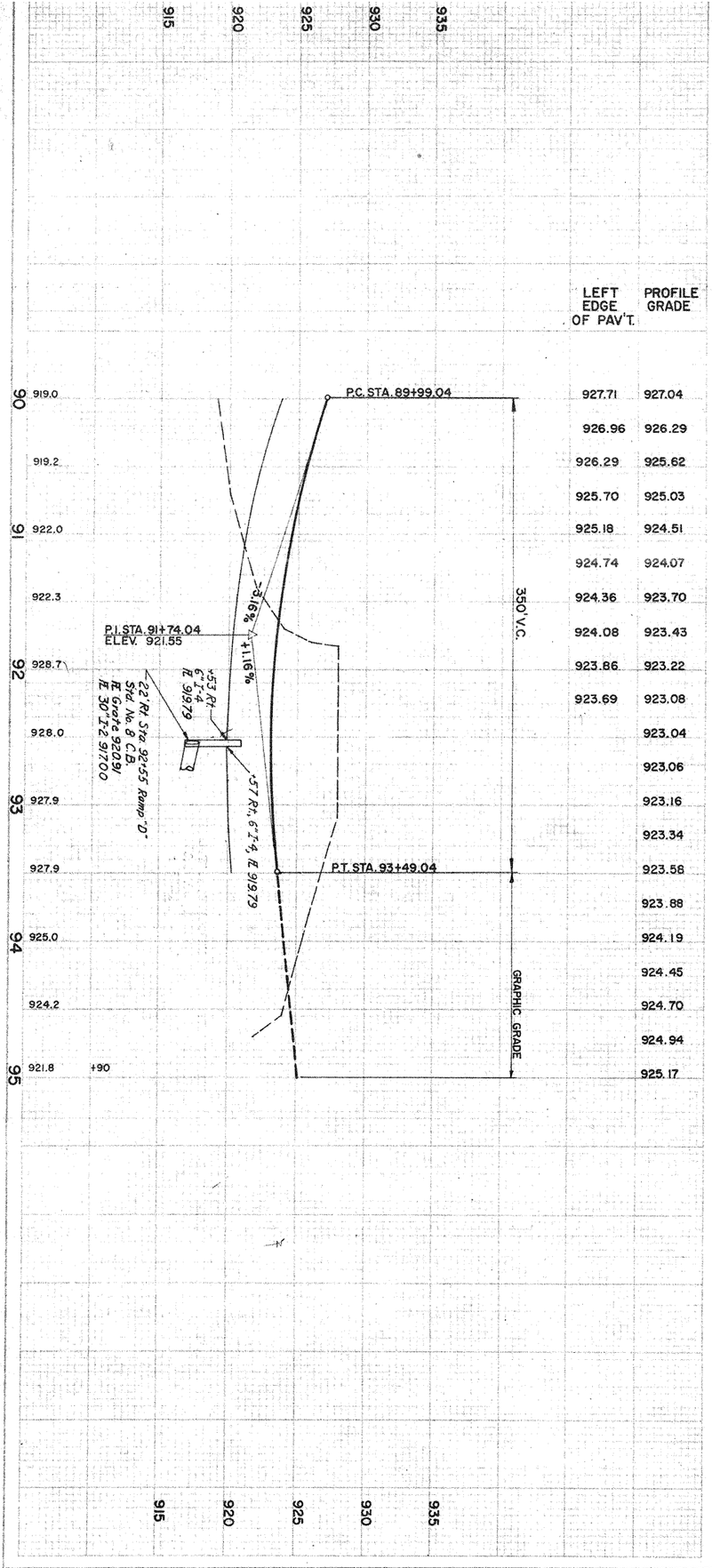


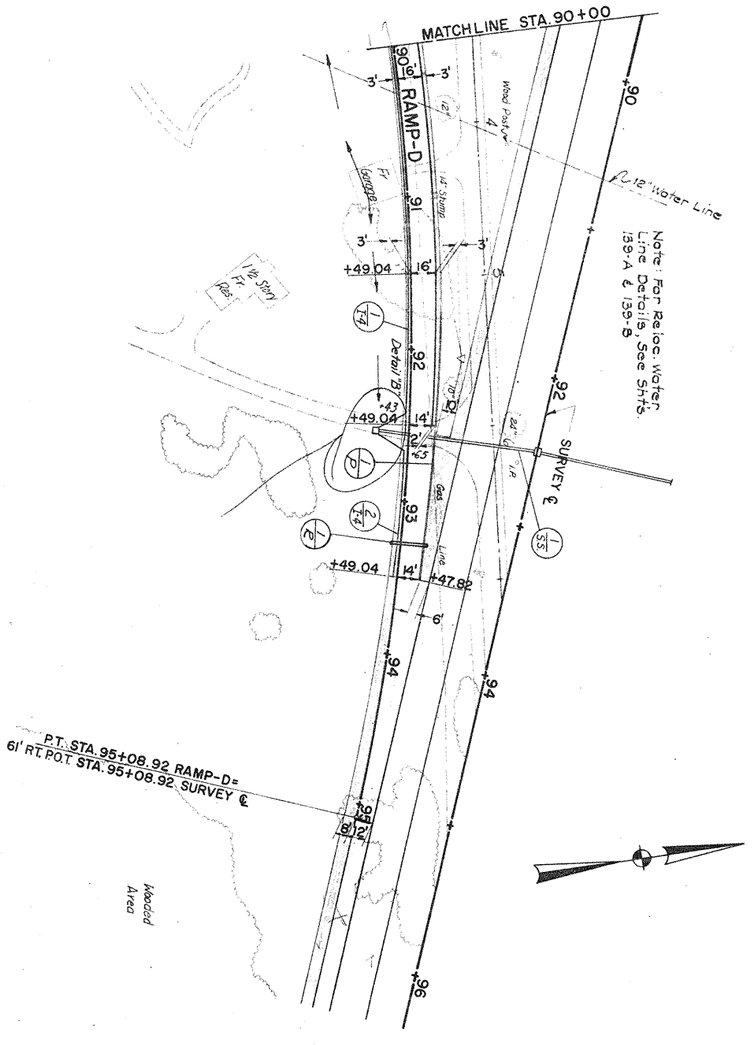




Summary to Sht 139

Cont'd on Sht 147

| | | |




## ESTIMATED QUANTITIES

| REF. NO | STATION TO STATION | SIDE | I-4 6" Pipe Outlets for Underdrains Lin. Ft. | I-4 6" Underdrains Shallow Lin. Ft. | I-5 6" Pipe Special for Underdrains 6"-60° Each | S-25 4" Polyethylene Corrugated Conduit Lin. Ft. | I-18 Concrete Curb Special Lin. Ft. | SEE SHEET NO. |
|---|---|---|---|---|---|---|---|---|
| 1I-4 | 90+00 - 92+53 | Rt. | 10 | 254 | 1 | | | 367 |
| 2I-4 | See Main Line | | | | | | | |
| 1-S5 | See Main Line | | | | | | | |
| 1-L | 93+90 | ℄ | | | | 26 | | 369 |
| 1-P | 91+49.04 - 93+49.04 | Lt. | | | | | 200 | |
| TOTALS | | | 10 | 254 | 1 | 26 | 200 | |

RAMP-D PLAN & PROFILE STA. 90+00 TO STA. 95+08.92

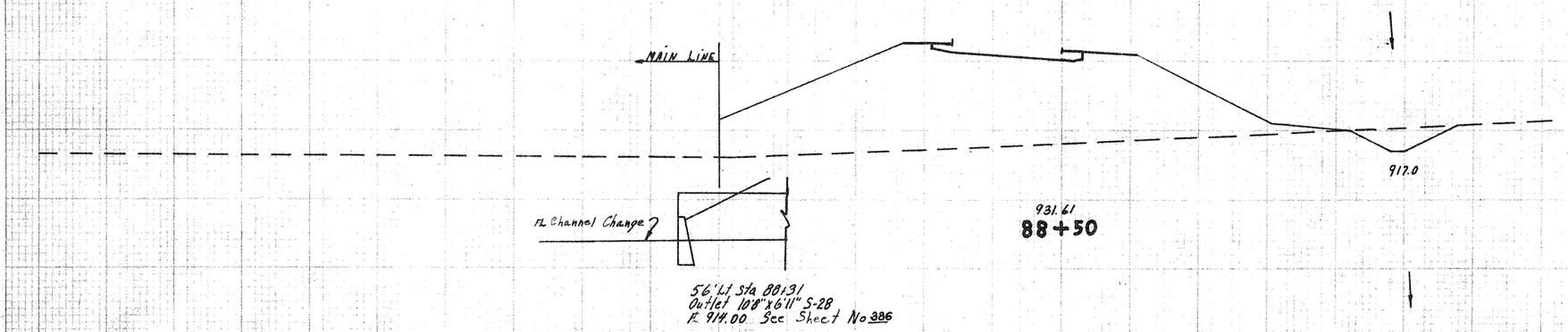
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

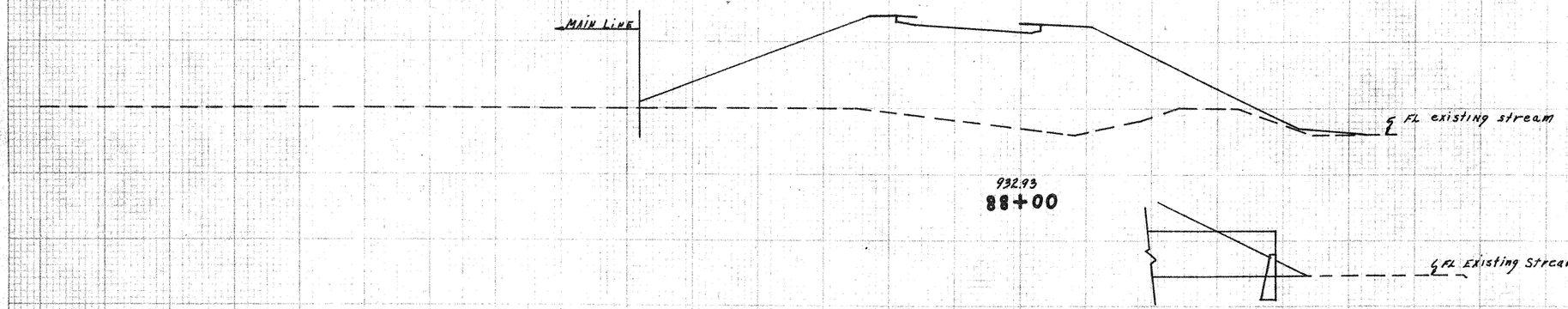
2 OHIO

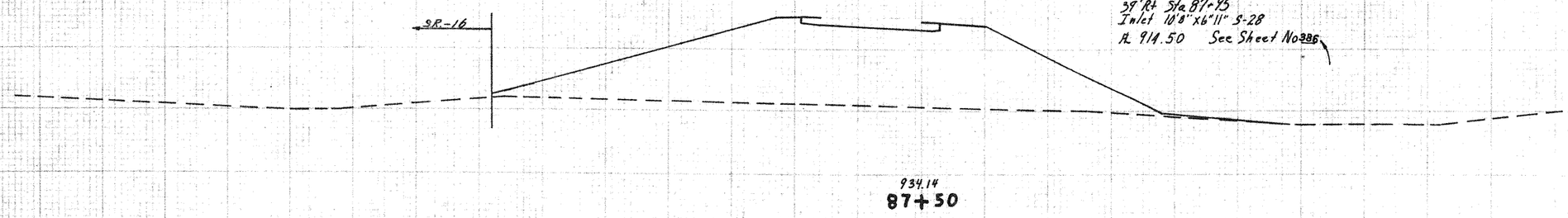
174
466

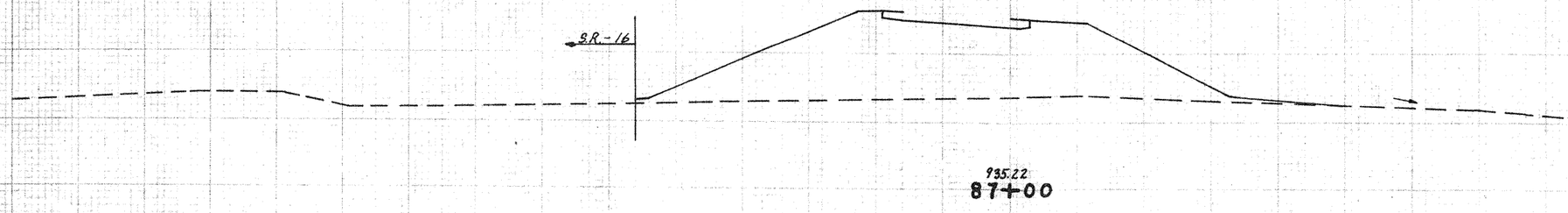
OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



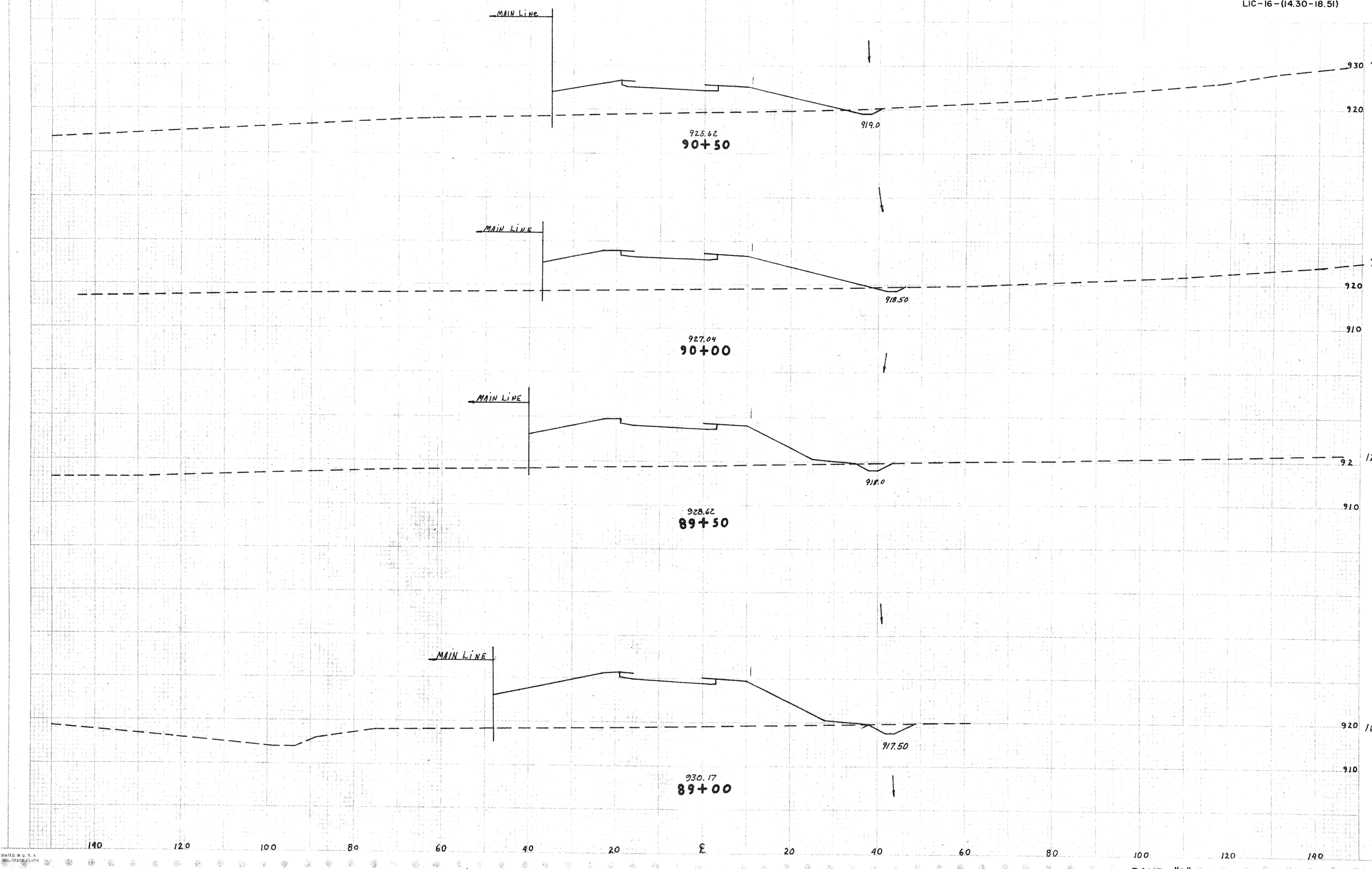




| STA | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 920 | 32 | 910 | | |
| 910 | | | | |
| | | | 30 | 1722 |
| 920 | | | | |
| 910 | | | 950 | |
| | | | | 1760 |
| 920 | | | 951 | |
| 910 | | | | |
| | | | | 1546 |
| 920 | | | 719 | |
| 910 | | | | 4383 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "D" STA. 87+00 TO STA. 88+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

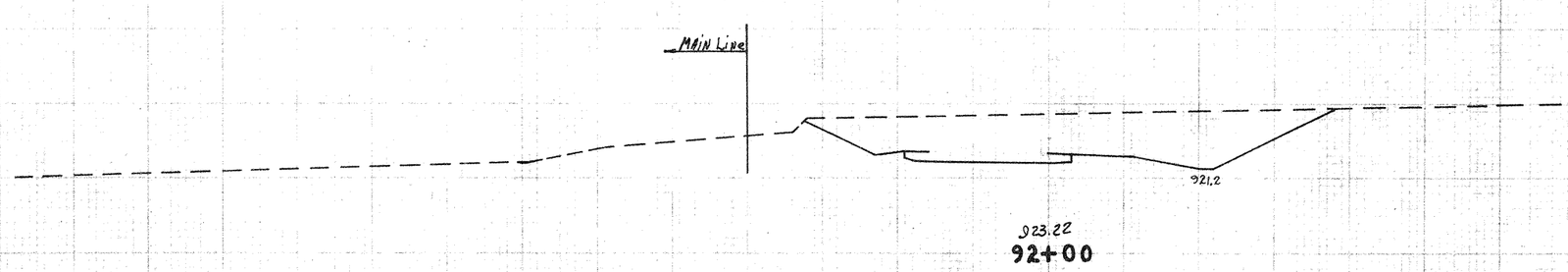



| END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|
| 7 | 364 | |
| | | 13 805 |
| 7 | 505 | |
| | | 18 1011 |
| 12 | 587 | |
| | | 26 1243 |
| 16 | 755 | |
| | | 44 1542 |

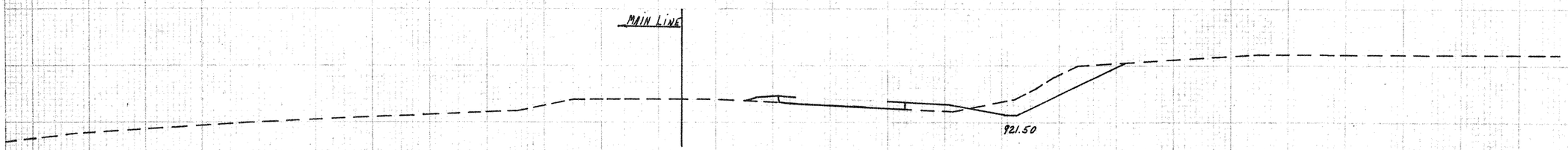
RAMP "D" STA. 89+00 TO STA. 90+50

177
466

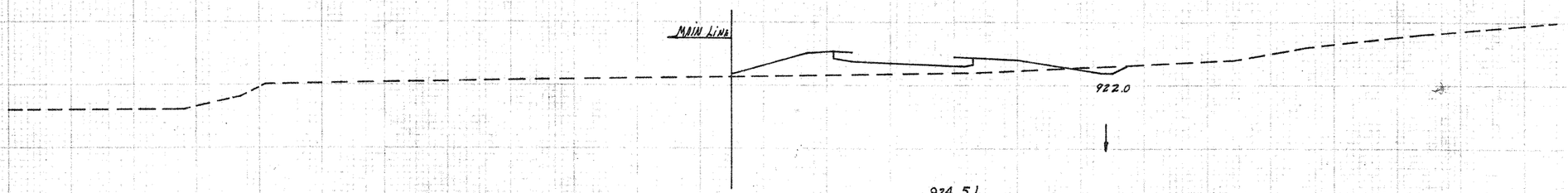
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




923.22
**92+00**




923.70
**91+50**




924.51
**91+00**

| | END AREAS | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 930 | 367 | | | |
| 920 | | | | |
| 910 | | | 400 | 19 |
| 930 | 65 | 20 | | |
| 920 | | | | |
| 910 | | | 66 | 112 |
| 930 | 6 | 101 | | |
| 920 | | | | |
| 910 | | | 12 | 131 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "D" STA. 91+00 TO STA. 92+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | | | | |
|---|---|---|---|---|
| | | | | |
| 2 | OHIO | | | |

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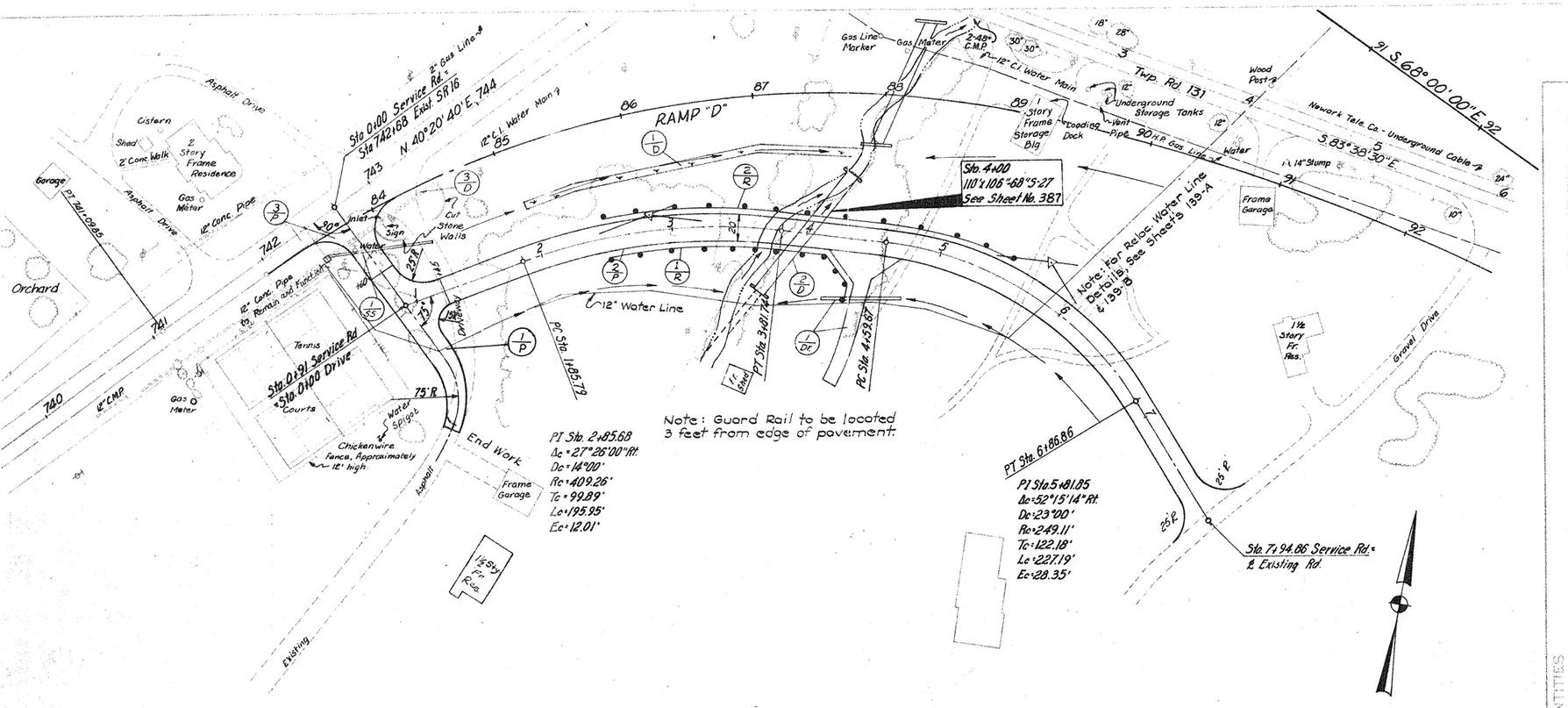
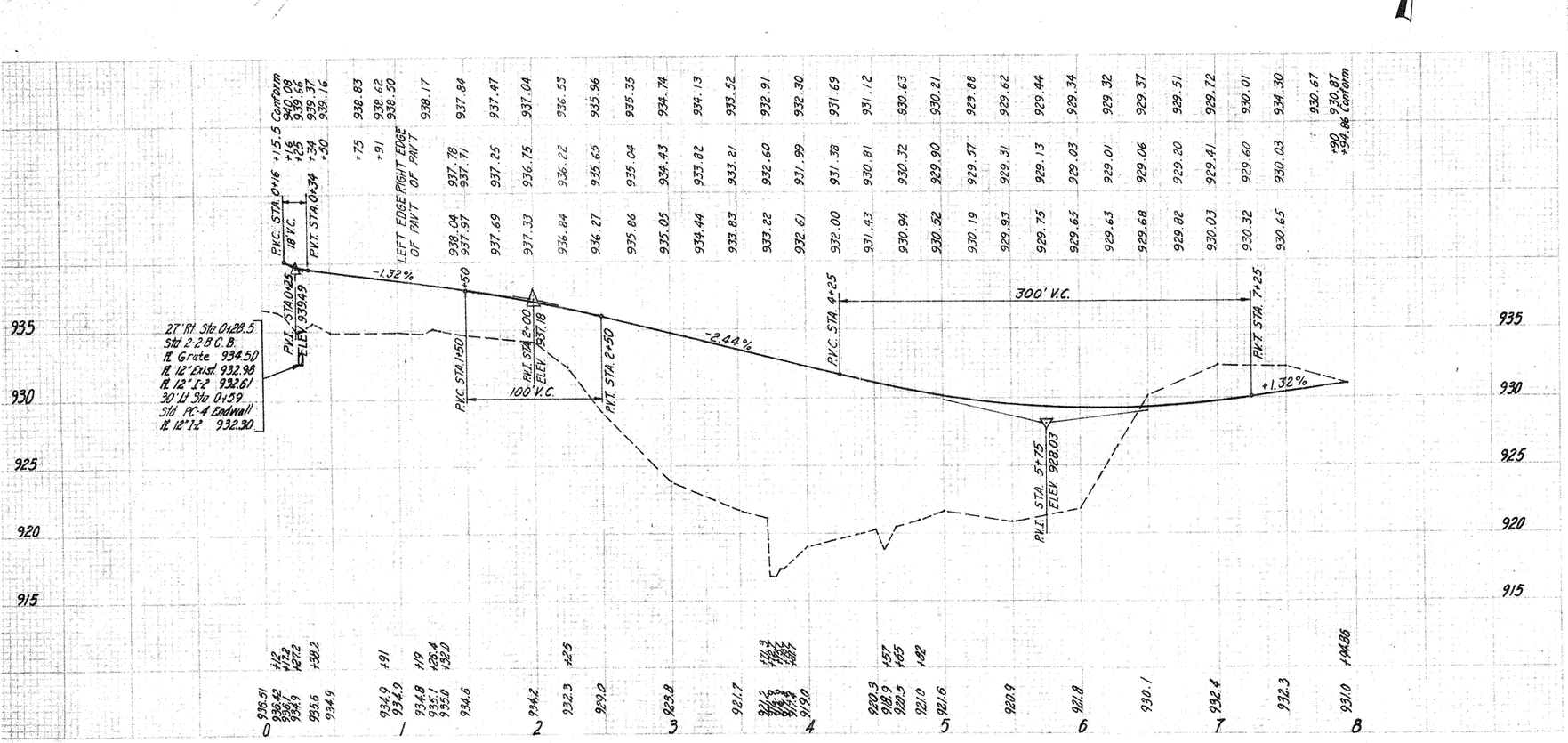



ESTIMATED QUANTITIES

| ITEM | DESCRIPTION | UNIT | TOTALS | 142 | 15.2 | 4022 | 1052 | 167 | 60 | 1 | 500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| T-20 | Portland Cement Concrete Surface Course | Sq. Yds. | | | 15.2 | 528 | 109.2 | | | | |
| T-35 | Asph. Conc. Surface Course | Cu. Yds. | | | | 323.1 | | | | | |
| B-19 | Aggr. Base Bit. Prime Coat & Tack Coat | Sq. Yds. | | 142 | | | | | | | |
| T-30 | | | | | | | | | | | |
| L-10 | Sodding | Sq. Ft. | | | | | 144 | | | | |
| T-1 | Pipe for Drives 12" | Lin. Ft. | | | | | 26.3 | | 60 | | |
| T-8 | Std. No. 2-2-B Catch Basin | Each | | | | | | | | 1 | |
| 1-P | 1+04 Drive to 0+60 Service Rd. | Lt. | | | | | | | | | |
| 2-P | 0+45 - 7+95 | Lt. | | | | | | | | | |
| 3-P | 0+15 - 0+60 | Lt. | | | | | | | | | |
| 1-D | 2+00 - 4+30 | Lt. | | | | | | | | | |
| 2-D | See Sheet No. 387 | Lt. | | | | | | | | | |
| 3-D | 0+28 | Lt. | | | | | | | | | |
| 1-R | 4+45 | Rt. | | | | | 26.3 | | 60 | | |
| 1-55 | 0+41 | Lt. | | | | | | | | 1 | |
| 1-R | 2+50 - 4+32 | Rt. | | | | | | | | | |
| 2-R | 2+50 - 5+50 | Lt. | | | | | | | | | |

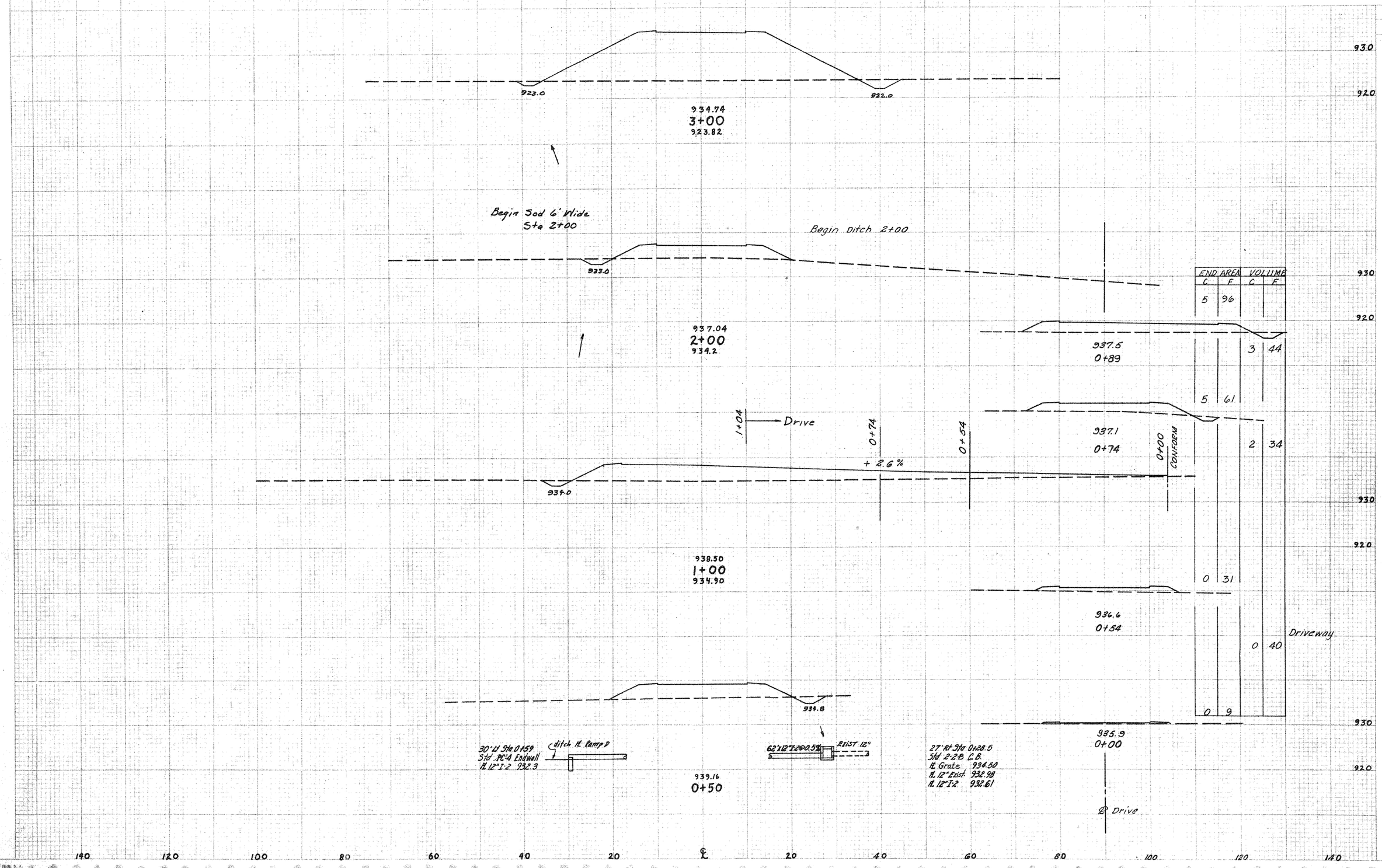
| ITEM | DESCRIPTION | UNIT | TOTALS | 1 | 62 | 0.23 | 200 300 |
|---|---|---|---|---|---|---|---|
| E-2 | Excavation for Structures | Cu. Yds. | | | 1 | 62 | 0.23 |
| 1-2 | 12" S.S. Under Rd. & Rip Rap Structures | Lin. Ft. | | | | | |
| S-1 | Concrete for Structures Class "E" | Cu. Yds. | | | | | |
| I-15 | G. Rail Std. Type Deep | Lin. Ft. | | | | | |

| ITEM | DESCRIPTION | UNIT | TOTALS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E-12 | Pipe Removal 15" and Under | Lin. Ft. | | 100 | | | | | | | 100 |
| I-16 | Inlet Adjusted | Each | | 1 | | | | | | | 1 |

PLAN & PROFILE SERVICE ROAD NO. 1

| | | |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA C | END AREA F | VOLUME C | VOLUME F |
|---|---|---|---|
| 5 | 96 | | |
| | | 3 | 44 |
| 5 | 61 | | |
| | | 2 | 34 |
| 0 | 31 | | |
| | | 0 | 40 |
| 0 | 9 | | |

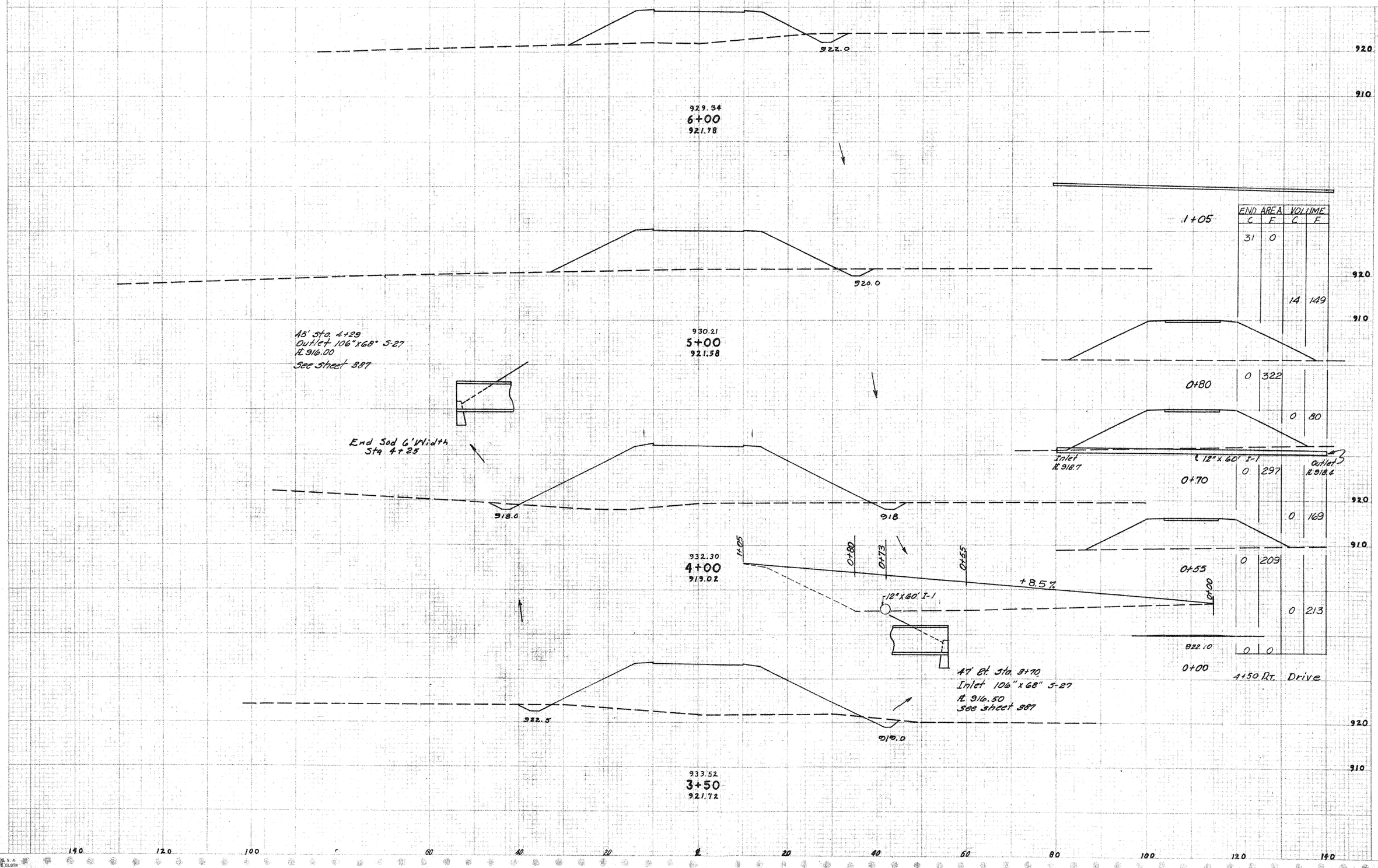
| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 16 | 541 | | |
| | | 39 | 587 |
| 5 | 93 | | |
| | | 19 | 220 |
| 5 | 145 | | |
| | | 10 | 144 |
| | | 5 | 118 |
| 6 | 110 | | |

SERVICE ROAD NO. 1 STA. 0+50 TO STA. 3+00

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

180
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA C | END AREA F | VOLUME C | VOLUME F |
|---|---|---|---|---|
| 1+05 | 31 | 0 | | |
| | | | 14 | 149 |
| 0+80 | 0 | 322 | | |
| | | | 0 | 80 |
| 0+70 | 0 | 297 | | |
| | | | 0 | 169 |
| 0+55 | 0 | 209 | | |
| | | | 0 | 213 |
| 0+00 | 0 | 0 | | |

| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 920 | 11 | 282 | | |
| 910 | | | | |
| | | | 33 | 642 |
| 920 | 7 | 411 | | |
| 910 | | | | |
| | | | 33 | 1031 |
| 920 | 11 | 703 | | |
| 910 | | | | |
| | | | 24 | 1157 |
| | | | 14 | 611 |
| 920 | 15 | 547 | | |
| 910 | | | | |
| | | | 29 | 1007 |

SERVICE ROAD NO. 1 STA. 3+50 TO STA. 6+00

OHIO

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LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| 0 | 0 | | |
| | | | |
| | | 242 | 0 |
| | | | |
| 139 | 0 | | |
| | | | |
| | | 278.522 | |

CONFORM

7+94

928.0

929.72
7+00

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

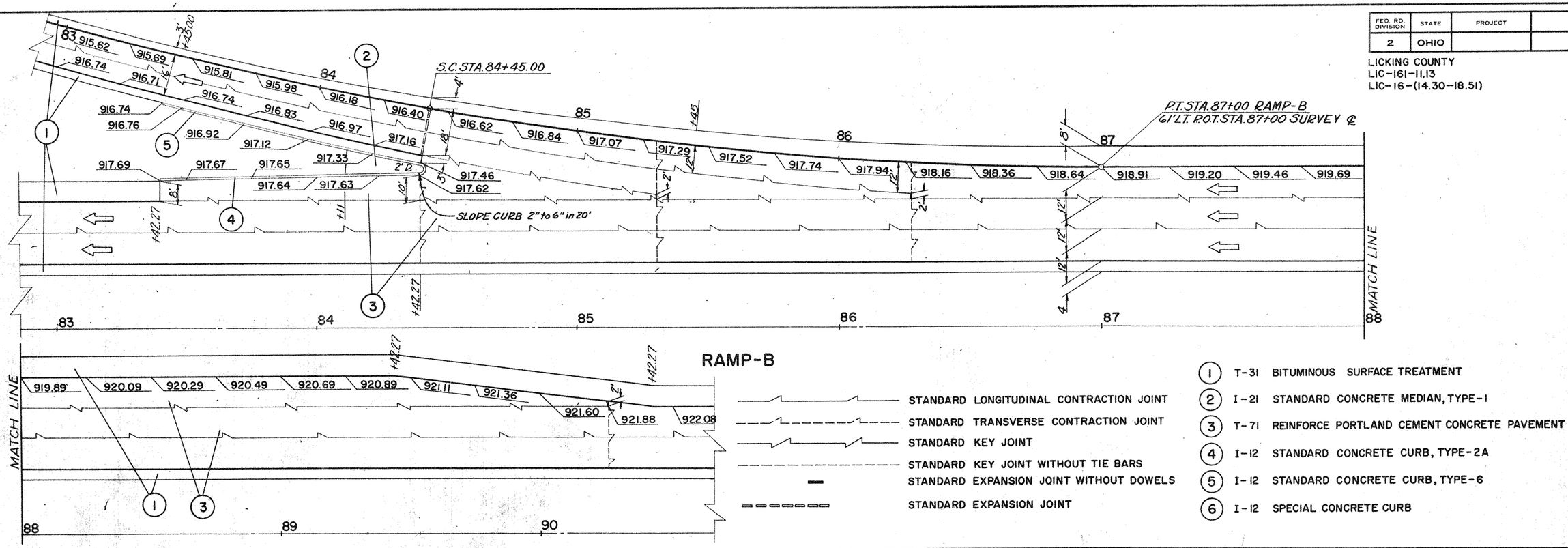
920 910 920 910

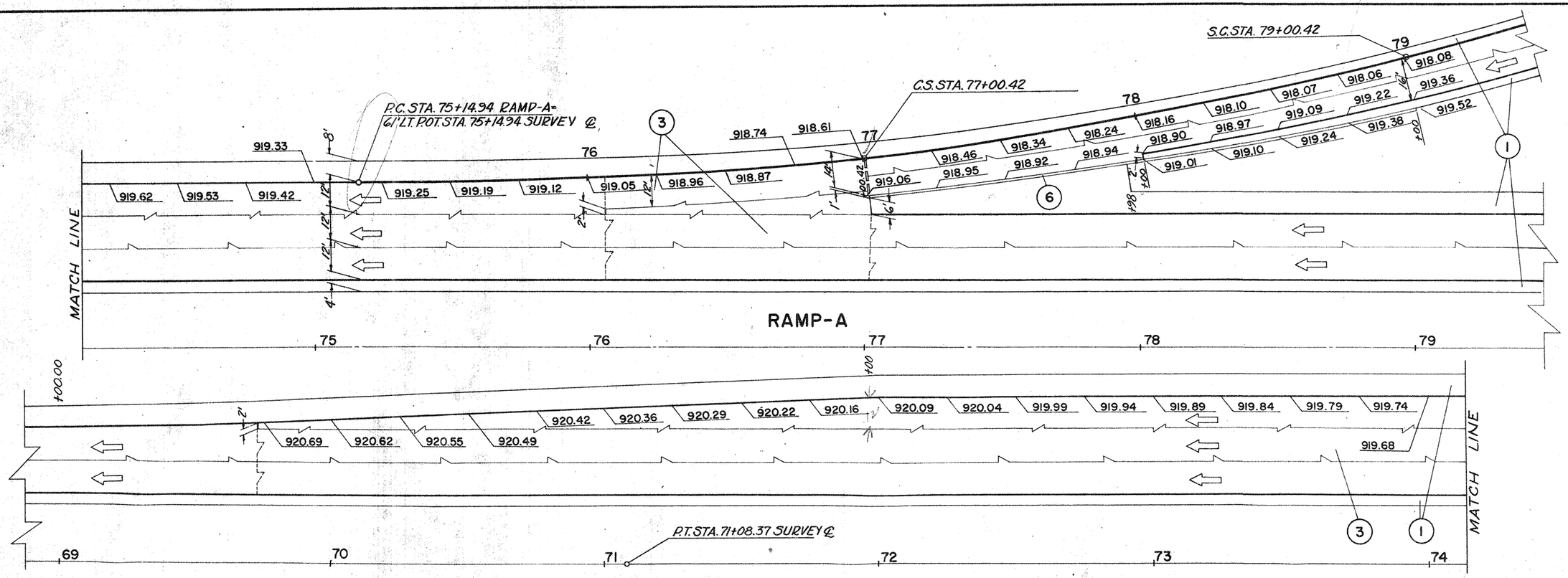
SERVICE ROAD NO.1 STA. 7+00 TO STA. 7+94

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

182
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




SR-16 INTERCHANGE RAMPS-A & B PAVEMENT DETAILS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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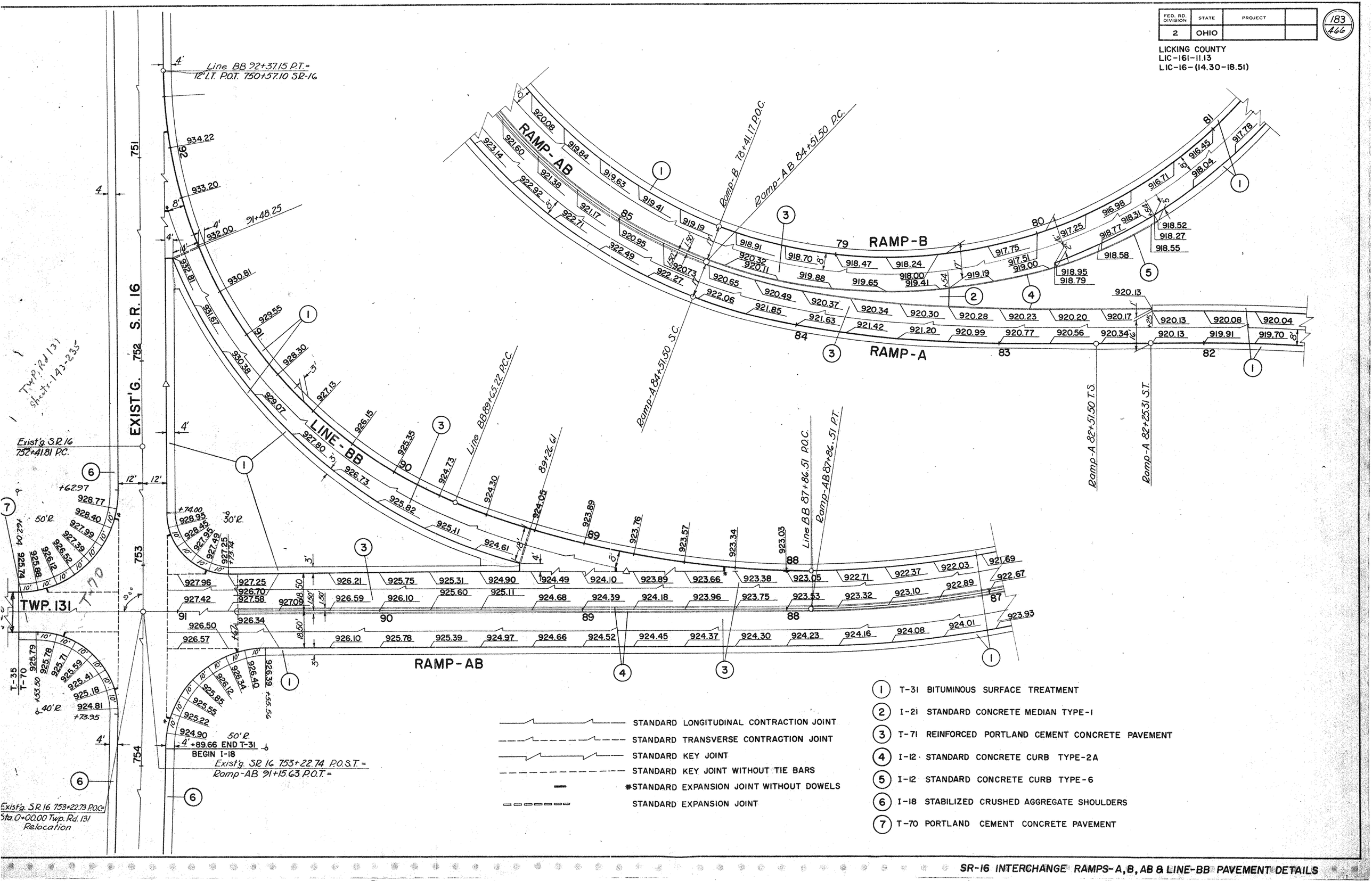
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

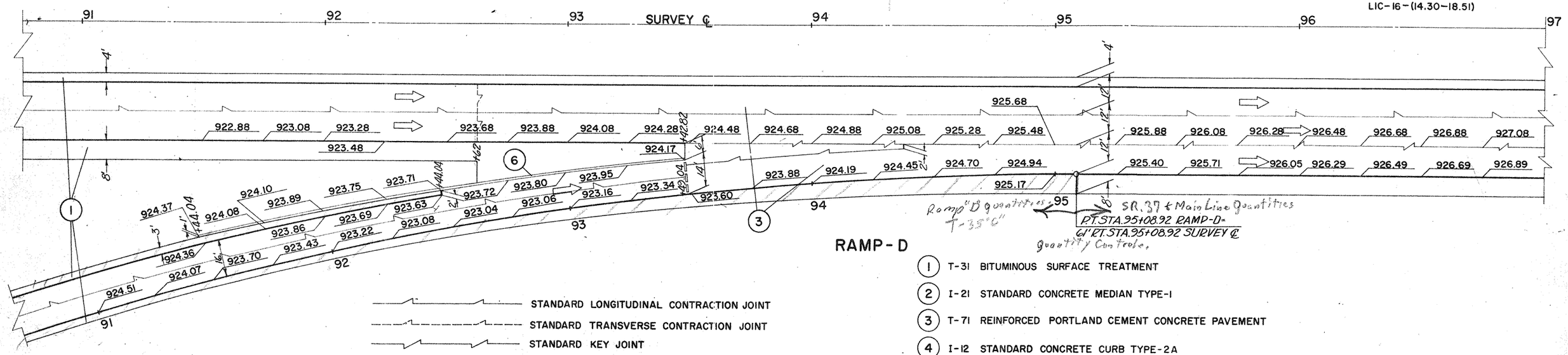



SR-16 INTERCHANGE RAMPS-A, B, AB & LINE-BB PAVEMENT DETAILS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

184
466

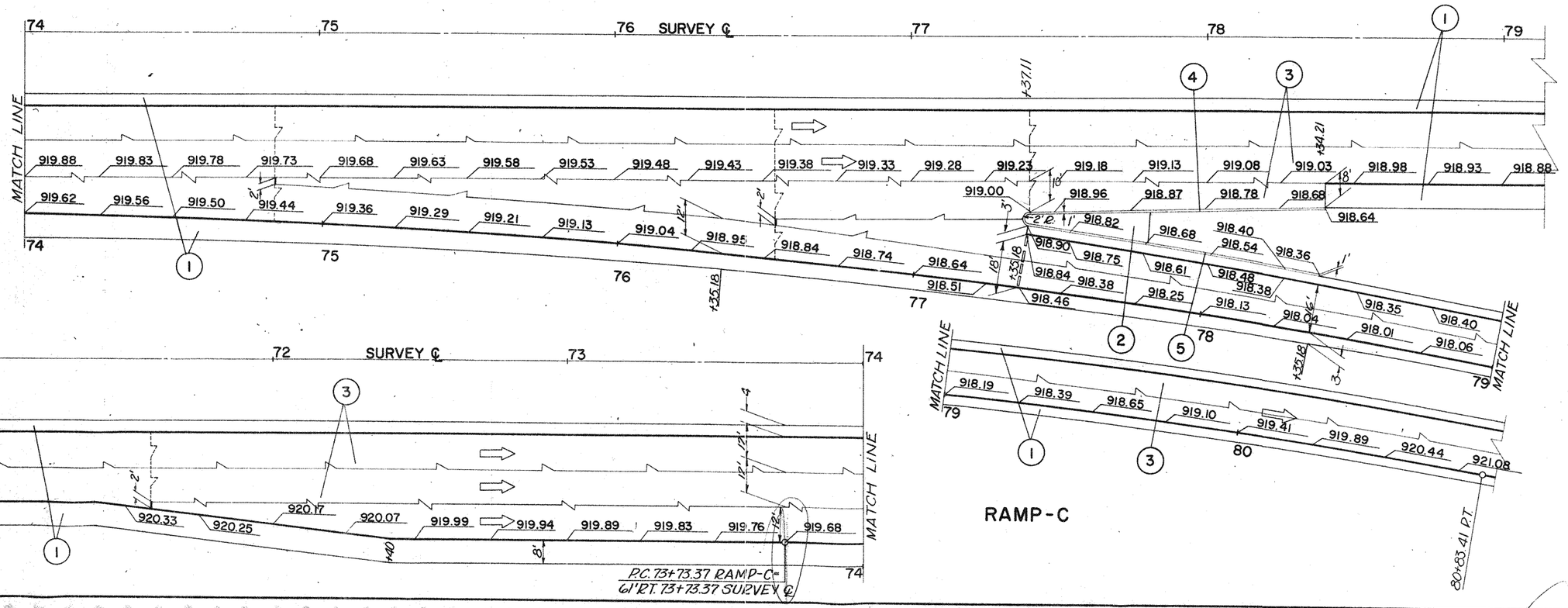
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




RAMP-D

STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT

1. T-31 BITUMINOUS SURFACE TREATMENT
2. I-21 STANDARD CONCRETE MEDIAN TYPE-1
3. T-71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
4. I-12 STANDARD CONCRETE CURB TYPE-2A
5. I-12 STANDARD CONCRETE CURB TYPE-6
6. I-12 SPECIAL CONCRETE CURB

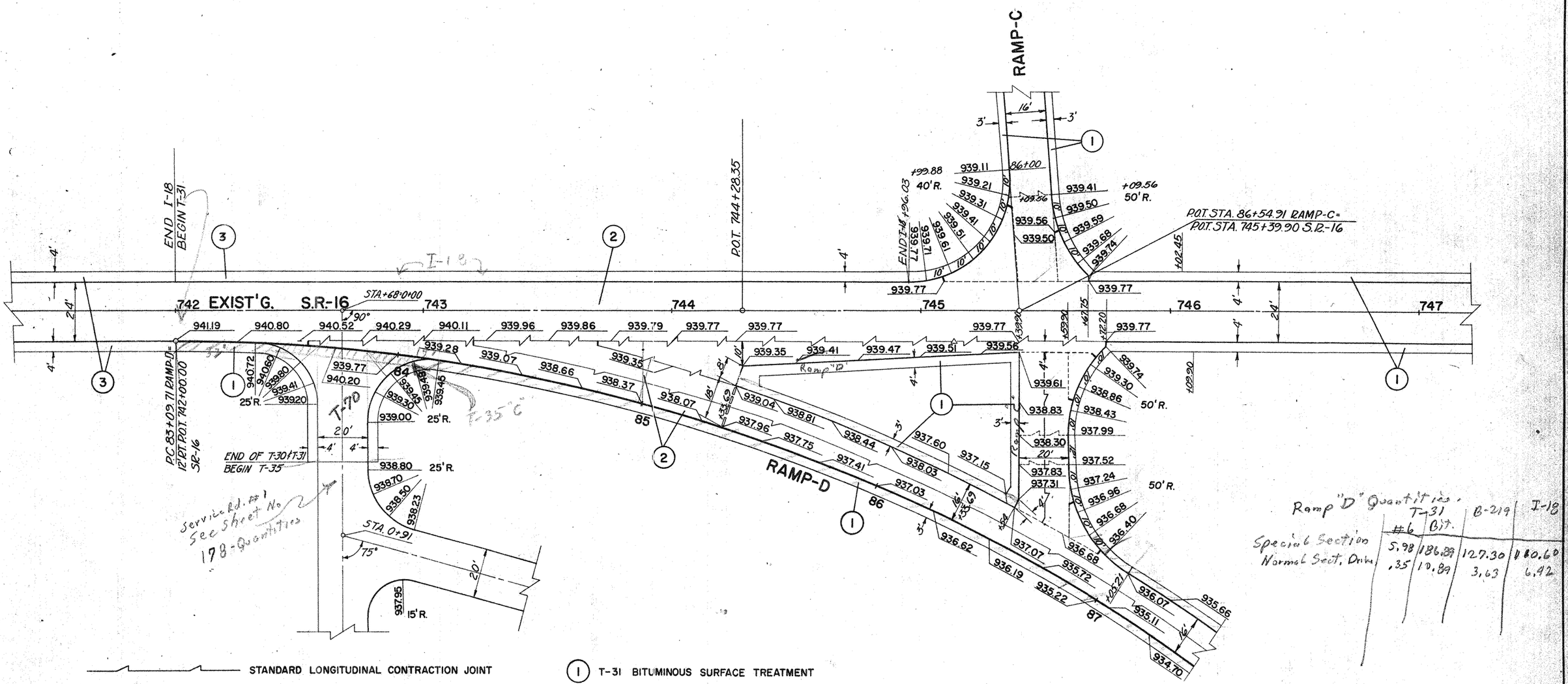



RAMP-C

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

185/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




Ramp "D" Quantities

| | T-31 #6 | T-31 Bit. | B-219 | I-18 |
|---|---|---|---|---|
| Special Section | 5.98 | 186.89 | 127.30 | 180.60 |
| Normal Sect. Drive | .35 | 10.89 | 3.63 | 6.42 |

STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT

(1) T-31 BITUMINOUS SURFACE TREATMENT
(2) T-71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(3) I-18 STABILIZED CRUSHED AGGREGATE SHOULDERS

SR-16 INTERCHANGE RAMP-D&C PAVEMENT DETAILS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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466

LICKING COUNTY
LIC. -161-11.13
LIC - 16 - (14.30 - 18.51)

# S.R. 37 INTERCHANGE SUB-SUMMARY

| STATION | SHEET NO. | I-10 Dumped Rock Channel Protection | E-12 | I-15 GUARD RAIL | | L-10 | | S-25 | I-3 | I-1 PIPE FOR DRIVEWAYS, SEC. M-6.4 (a) | | | I-4 | | | I-5 | I-16 | I-15 | B-19 | T-30 | T-35 | I-7 | I-12 STANDARD CONCRETE CURB | | | I-21 | I-22 | I-8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Steel Beam Standard Type (Deep) | Removed and Stored | Sodding | Sodding for Special Berm and Slope Protection | 4" Asbestos Cement Conduit, Sec. M-206.14, as per Plan | 18" Pipe for Rdwy Drain with shallow Cover | 12" | 18" | 24" | 6" Underdrains | 6" Underdrains, Sec. M-6.4 (h) | 8" Pipe Outlets for Underdrains, Sec. M-6.4 (a) | 6" Pipe Specials for Underdrains | Inlets Abandoned | Wood G.R. Posts w/o Rail | Aggregate Base Course | Bituminous Prime Coat, Sec. M-5.7, RT-2 or RT-3 | Asphaltic Concrete Surface Course, Type "C" (10-85) | Reinforced Concrete Approach Slab (T = 13") | Type "2-A" | Type "C" | Special Portland Cement Concrete Curb as per Plan | 4" Portland Cement Concrete Median Pav't, Std. Type 1 | Subbase | Std. 2-2-B Catch Basin |
| | | Cu. Yd. | Lin. Ft. | Lin. Ft. | | Sq. Yds. | | Lin. Ft. | Lin. Ft. | Lin. Ft. | | | Lin. Ft. | | | Each | Each | Each | Cu. Yds. | Gal. | Cu. Yds. | Sq. Yds. | Lin. Ft. | | | Sq. Yds. | Cu. Yds. | Each |
| STATE ROUTE 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 356 + 00 to 365 + 00 | 190 | | | 137.5 | 175 | | | | | | | 98 | | | | | | 86 | 101.0 | 138.0 | 19.3 | | | | | | |
| 365 + 00 to 375 + 00 | 191 | | 225 | 650.0 | 225 | | 182 | 72 | | | | | | | | | 2 | | | | | 133.34 | | | | | 10 | |
| 375 + 00 to 385 + 00 | 192 | | 250 | | | | | | 234 | | 24 | | | | | | | | 138.6 | 238.2 | 34.3 | | | | | | | |
| RAMP "E" | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 104 + 40.00 to 111 + 32.37 | 203 | | | 225.0 | | | | 66 | | | | | 585 | | 10 | 1 | | | | | | | | | 200 | | | |
| RAMP "F" | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110 + 74.32 to 121 + 00 | 206 | | | 325.0 | | | | 53 | | | | | 732 | | 30 | 3 | | | | | | | 100 | 100 | | 23 | | |
| RAMP "G" | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 + 70.00 to 106 + 00 | 210 | | | | | | | 26 | | | | | | 100 | | | | | | | | | 100 | 100 | | 23 | | |
| 106 + 00 to 112 + 56.60 | 211 | | | 312.5 | | | | 26 | | | | | 362 | 360 | 20 | 1 I-M-6.4(h) | | | | | | | | | | | | |
| RAMP "H" | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 112 + 06.63 to 122 + 00 | 219 | | | 1387.5 | | 346 | | 32 | | | | | 1060 | | 30 | 3 | | | | | | | | | | | | |
| 122 + 00 to 127 + 75.21 | 220 | | | | | | | 26 | | | | | | | | | | | | | | | | | 233.53 | | | |
| WILLCOX DRIVE RELOCATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 + 00 to 12 + 12.67 | 227 | 6 | | | | | | | | 46 | 106 | | | | | | | | 246 | 707 | 90 | | | | | | | 1 |
| TOTALS TO GENERAL SUMMARY | | 6 | 475 | 3037.5 | 400 | 346 | 182 | 301 | 234 | 46 | 130 | 98 | 2739 | 460 | 90 | 8 1 (I-M-6.4(h)) | 2 | 86 | 485.6 | 1083.2 | 143.6 | 133.34 | 200 | 200 | 433.53 | 46 | 10 | 1 |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

187
466

LICKING COUNTY
LIC-161-11.13
LIC-16 (14.30-18.51)

EXIST. CURVE DATA
P.I. STA. 366+67.30
Δ 7° 35' 25" LT.
Dc 0° 30' 18.28"
R 11,343.98'
T 752.50'
L 1502.80'
E 24.93'

LEGEND
— — — ℄ EXISTING S.R.-37
— · — ℄ PROPOSED S.R.-37

PROP. S.R. 37 STA. 378+69.78 P.O.T. BACK=
EXIST. S.R. 37 STA. 378+75.00 AHD.

P.T. STA. 375+60.39 PROP.

STA. 374+21.20 EXIST. AHD.=
STA. 374+26.81 EXIST. BACK

P.T. STA. 374+17.60

SURVEY ℄

P.O.T. STA. 111+63.93 SURVEY ℄ =
P.O.T. STA. 370+32.54 PROP.

COMMON POINT

PROP. CURVE DATA
P.I. STA. 374+61.12
Δ 1° 59' 08" LT.
Dc 1° 00' 00"
R 5729.58'
T 99.29'
L 198.56'
E 0.86'

P.C. STA. 373+61.83

74°57' 40"

P.T. STA. 367+16.88

PROP. CURVE DATA
P.I. STA. 365+57.49
Δ 3° 11' 19" LT.
Dc 1° 00' 00"
R 5729.58'
T 159.47'
L 318.86'
E 2.22'

P.C.C. STA. 363+98.02

EXIST. CURVE DATA
P.I. STA. 361+56.45
Δ 2° 24' 58" LT.
Dc 0° 30' 00"
R 11,459.16'
T 241.65'
L 483.22'
E 2.55'

P.C. STA. 359+14.80 PROP.
P.C. STA. 359+14.80 EXIST.

P.C. STA. 373+61.83
(SEE DETAIL)

P.O.T. STA. 111+32.37 RAMP-E =
P.O.T. STA. 372+82.54 S.R.-37

375

P.O.T. STA. 110+74.32 RAMP-F =
P.O.T. STA. 372+69.54 S.R.-37

P.C. STA. 104+40.00 RAMP-E =
61' LT. P.O.T. STA. 104+40.00
SURVEY ℄

P.C.C. STA. 107+82.72

P.T. STA. 109+43.09

CURVE E-2

RAMP-E

110

78°30'00"

CURVE F-1

90°

P.C. STA. 111+38.77

P.T. STA. 112+67.77

RAMP-F

115

P.C. STA. 116+72.56

P.T. STA. 121+00.00 RAMP-F =
61' LT. P.O.T. 121+00.00 SURVEY ℄

CURVE F-2

120

P.C. STA. 122+26.84

130

105 CURVE E-1

100 S 68° 00' 00" E 105 110 115 SURVEY ℄ S.R.16 RELOCATED 120 125 CURVE-S

370

74°57'40"

P.O.T. STA. 111+63.93 SURVEY ℄ =
P.O.T. STA. 370+32.54 S.R.-37

CURVE G-1

105

P.C. STA. 100+70.00 RAMP-G
61' RT. P.O.T. STA. 100+70.00
SURVEY ℄

RAMP-G

110

P.T. STA. 105+91.50

P.C. STA. 110+63.30

P.T. STA. 111+86.47

90°00'00"

CURVE G-2

P.O.T. STA. 112+06.63 RAMP-H =
P.O.T. STA. 367+82.54 S.R.-37

115

120

RAMP-H

125

P.C. STA. 127+75.21 RAMP-H =
61' RT. POC STA. 127+75.21
SURVEY ℄

P.O.T. STA. 112+56.60 RAMP-G=
P.O.T. STA. 367+82.54 S.R.-37

63°00'14"

P.C.C. STA. 363+98.02
(SEE DETAIL)

N 06° 57' 40" E
365

S.R.-37

| CURVE No. | P.I. STA. | Δc | Dc | Rc | Tc | Lc |
|---|---|---|---|---|---|---|
| | | | | | | |
| CURVE E-1 | 106+12.18 | 13° 40' 31" LT. | 4° 00' 00" | 1,432.394' | 172.176' | 342.715' |
| CURVE E-2 | 108+63.24 | 12° 49' 49" LT. | 8° 00' 00" | 716.197' | 80.528' | 160.378' |
| | | | | | | |
| CURVE F-1 | 112+05.02 | 32° 08' 12" RT. | 24° 54' 40" | 230.00' | 66.248' | 129.005' |
| CURVE F-2 | 118+87.88 | 17° 05' 52" LT. | 4° 00' 00" | 1,432.394' | 215.32' | 427.44' |
| | | | | | | |
| CURVE G-1 | 103+32.38 | 15° 38' 42" RT. | 3° 00' 00" | 1,909.859' | 262.382' | 521.500' |
| CURVE G-2 | 111+26.40 | 30° 41' 02" LT. | 24° 54' 41" | 230.000' | 63.102' | 123.173' |
| | | | | | | |
| CURVE S | 132+51.40 | 29° 23' 30" LT. | 1° 28' 00" | 3,906.53' | 1,024.56' | 2,003.98' |
| | | | | | | |

S.R.-37 INTERCHANGE ALIGNMENT PLAN

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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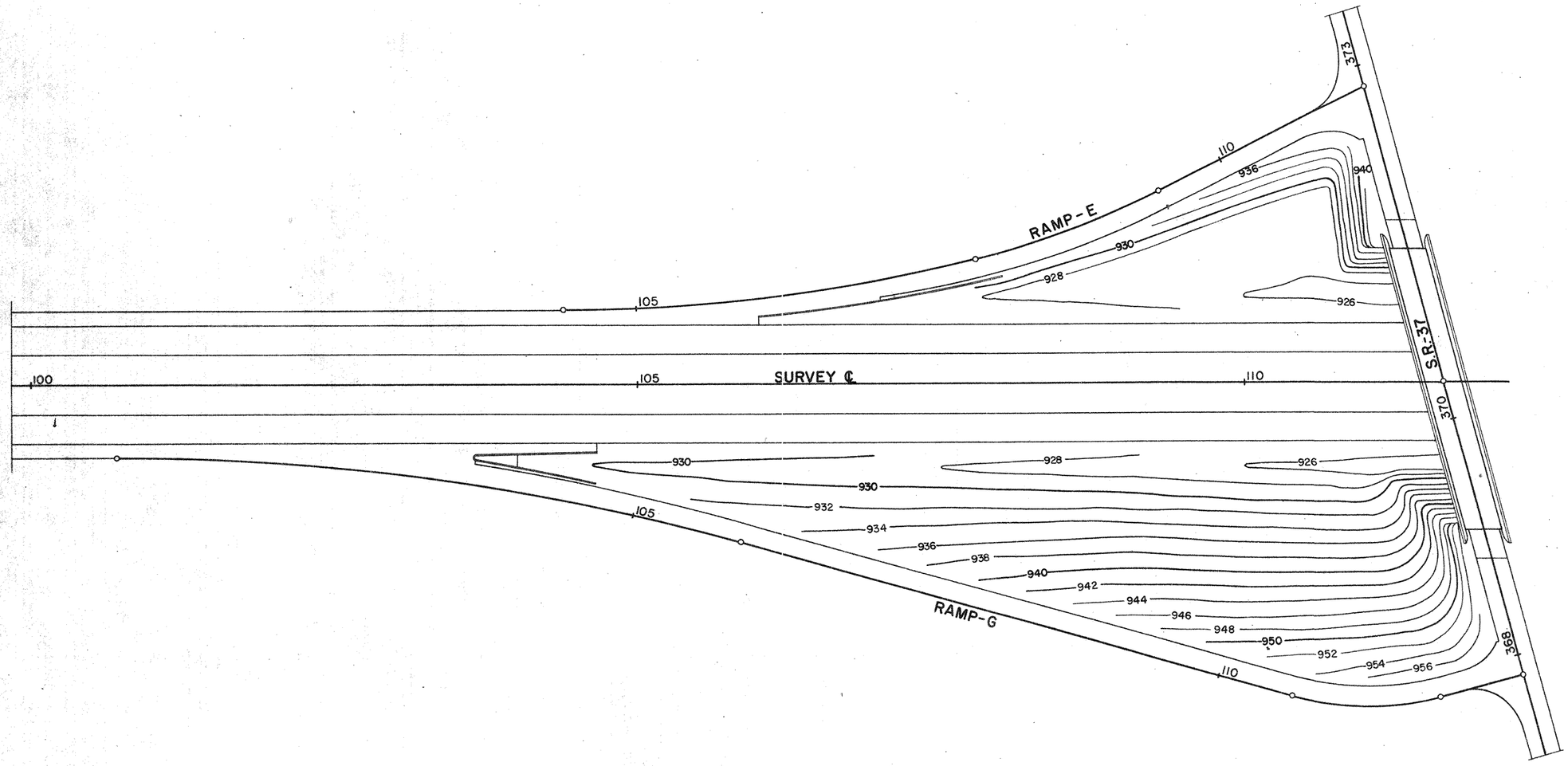
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

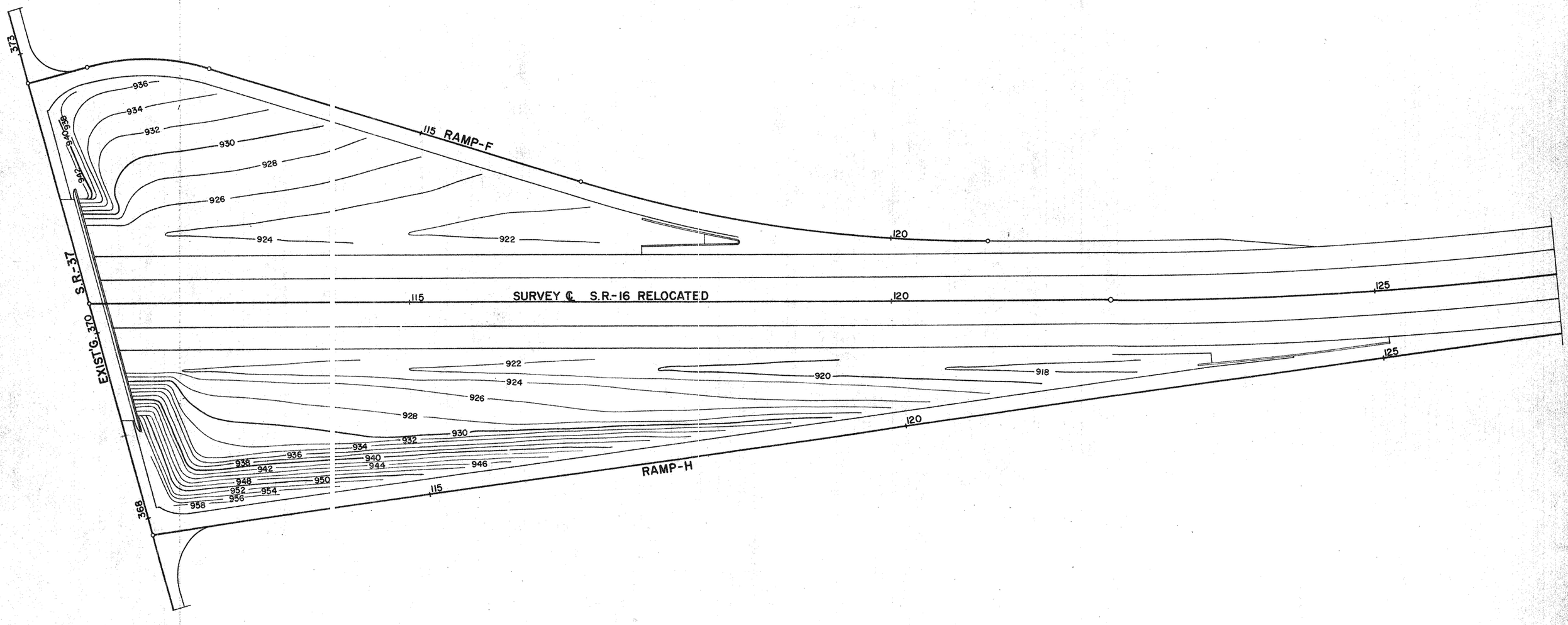



GRADING PLAN RAMPS-E & G S.R.-37 INTERCHANGE

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

189/466

LICKING COUNTY
LIC-161- 11.13
LIC-16 -(14.30-18.51)

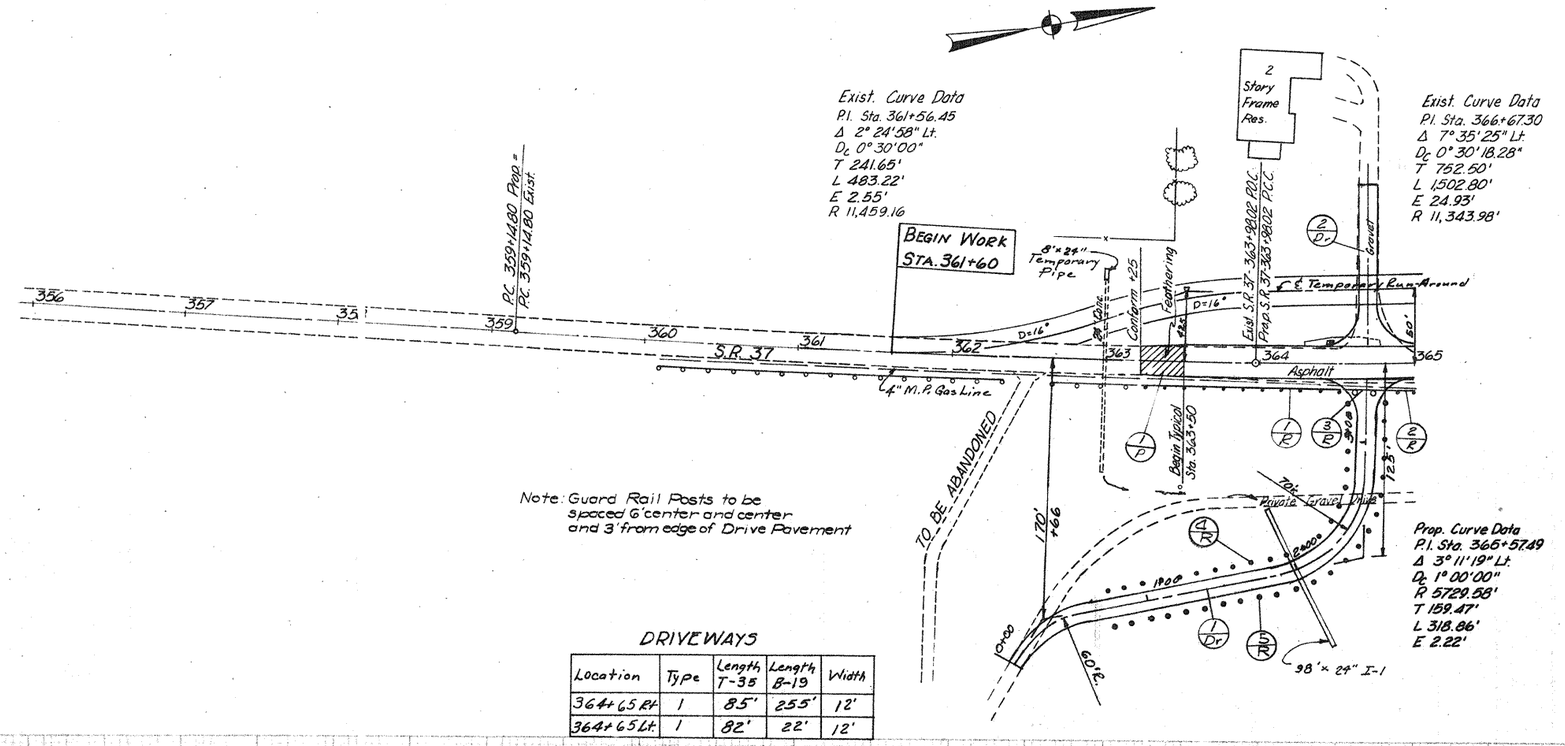



GRADING PLAN RAMPS - F & H S.R.-37 INTERCHANGE

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

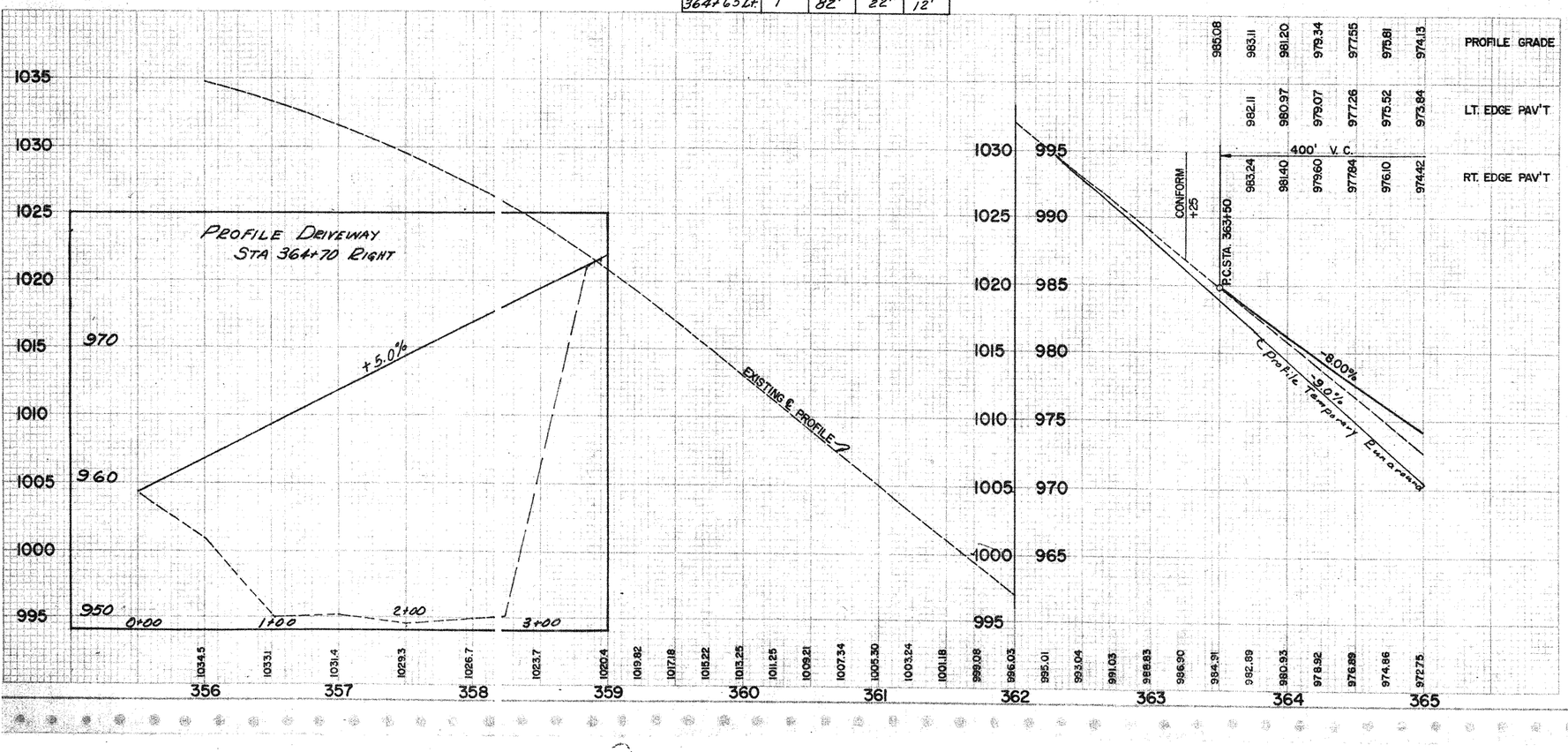
| SEC. NO. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

190/466




DRIVEWAYS

| Location | Type | Length T-35 | Length B-19 | Width |
|---|---|---|---|---|
| 364+65 Rt | 1 | 85' | 255' | 12' |
| 364+65 Lt. | 1 | 82' | 22' | 12' |




ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | B-19 Crushed Bituminous Aggregate Prime Base Course Cu. Yds. | T-30 Asphaltic Quarry Concrete Surface Course Type 'C' Gals. | T-35 Asphaltic Quarry Concrete Surface Course Type 'C' Cu. Yds | I-15 Sand Bag Guard Rail Stored Lin. Ft. | I-15 Round Bail Piers for Wood Dreamgard S.R. Posts M.C. Ht. without Rail Stored Each | I-1 Round Bail Piers for Wood Dreamgard S.R. Posts M.C. Ht. with 24" Rail Each Lin. Ft. | I-15 |
|---|---|---|---|---|---|---|---|---|---|
| 1-DE | 364+65 With Mailbox Turn-out | Rt | 76.6 | 70 | 8.8 | | | 98' | |
| 2-DE | 364+65 With Mailbox Turn-out | Lt | 24.6 | 68 | 8.7 | | | | |
| 1-P | 363+25 ~ 364+50 | Rt | | | | 125 | | | 43 |
| 2-E | 364+87.5 ~ 365+20 | Rt | | | | 12.5 | | | 43 |
| 3-E | 363+25 ~ 365+00 | Rt | | | | 175 | | | |
| 1-P | 363+25 ~ 363+50 | ℄ | | | 1.8 | | | | |
| 4-R | Drive Sta 0+75 - 3+25 | Lt. | | | | | | | |
| 5-R | Drive Sta 0+75 - 3+25 | Rt. | | | | | | | |
| TOTALS | | | 101 | 138 | 19.3 | 137.5 | 175 | 98 | 86 |

PLAN & PROFILE S.R. 37 STA. 356+00 TO STA. 365+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| DIST. DIVISION | STATE | | |
|---|---|---|---|
| 2 | OHIO | | |

191.
466

P.O.T. Sta. 112+56.60 Ramp 'G'
P.O.T. Sta. 367+82.54 S.R. 37

Hub
180°
Survey ℄
Stake Relocated
60'
Hub

REF. P.O.T.
STA. 111+93.20

Exist. Curve Data
P.I. Sta. 366+67.30
Δ 7°35'25" Lt.
$D_c$ 0°30'18.28"
T 752.50'
L 1,502.80'
E 24.93'
R 11,343.98'

For Wilcox Drive
See Sheets 227 to 230

P.T. Sta. 361+66.88

For Ramp 'G'
See Sheets 210 to 218
Detail Sheet 232

Shed
Conc. Blk. & Frame Barn
Fr. Shed
Gas
Water Line
Septic Tank
2 Story Frame Res.
Gravel
Stone Water Trough
Exist. 111+63.93
S.R. 37 370+32.54
℄ Temporary Eunarmed
Prop. ℄
Asphalt Shoulder
Aggregate Shoulder
4" M.P. Gas Line
Guard Rail
Sta. 367+24.11 Ahd
124+30.98 Bk
See Sheet No.
For Quantities See Ramp "G"
For Quantities See Ramp "H"
Abandon
Private Gravel Drive
End Asphalt Pav't. Begin P.C.C. Pav't.
Sta. 367+46.08 P.T.
S.R. 37
N. 6°57'40" E.
74°57'40"
112
RAMP "G"
RAMP "H"
113
114
Prop. Curve Data
P.I. Sta. 365+57.49
Δ 3°11'19" Lt.
$D_c$ 1°00'00"
R 5729.58'
T 159.47'
L 318.86'
E 2.22'
For Ramp 'H'
See Sheets 219 to 225
114.56 @ 00°08'13" Lt. 112
S 12.16 Relocated
TWP 131
S 84°10'12" E. 200.62
2" M.P. Gas Line
Gravel
Frame Garage
2 Sty. Fr. Res.
Wall
Septic Tank
1 Story Frame Res.
T.P.
Shed
For Ramp 'F'
See Sheets 206 to 209
RAMP "F"
Prop. Curve Data.
P.I. Sta. 374+61.12
Δ 1°59'08" Lt.
$D_c$ 1°00'00"
R 5729.58'
T 99.29'
L 198.56'
E 0.86'
O.I.R.
For Ramp 'E'
See Sheets 203 to 205
Detail Sheet 232
For Twp. Rd. 131
See Sheets 246 to 253
Detail Sheet 247
P.O.T. Sta. 111+32.37 Ramp 'E'
P.O.T. Sta. 372+82.54 S.R. 37
Exist. 373+61.83 P.C.
RAMP "E"
6.6" Gas Line
TWP 131
S 83°38'30" E.
Gravel
Sign
Sta. 373+61.83 P.C.
Newark Tele. Co. Underground Cable
2" M.P. Gas Line
Aggregate Shoulder
4" M.P. Gas Line
End P.C.C. Pav't. 373+20.95
Begin Asphalt Pav't.
50' R.
40' R.
Gravel
Shed
P.O.T. Sta. 302+69.54 S.R. 37
P.O.T. Sta. 110+74.32 Ramp 'E'
P.O.T. Sta. 375+19.78 Reloc. Twp 131 ℄
P.O.C. Sta. 24+65.35 Reloc. S.R. 37 ℄
Shed
Barn
℄ TWP 131 RELOCATION

BENCH MARK
Spike in Power Pole 69.4' Lt. P.O.T.
Sta. 1..+09.6 Elev. - 930.72

BRIDGE NO. LIC. 16-1461

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.

SPANS: 55'-6", 69'-6", 65'-0", 45'-6"

ROADWAY: 30'-0" f/f, 2'-3" safety curbs with concrete parapet and aluminum railing.

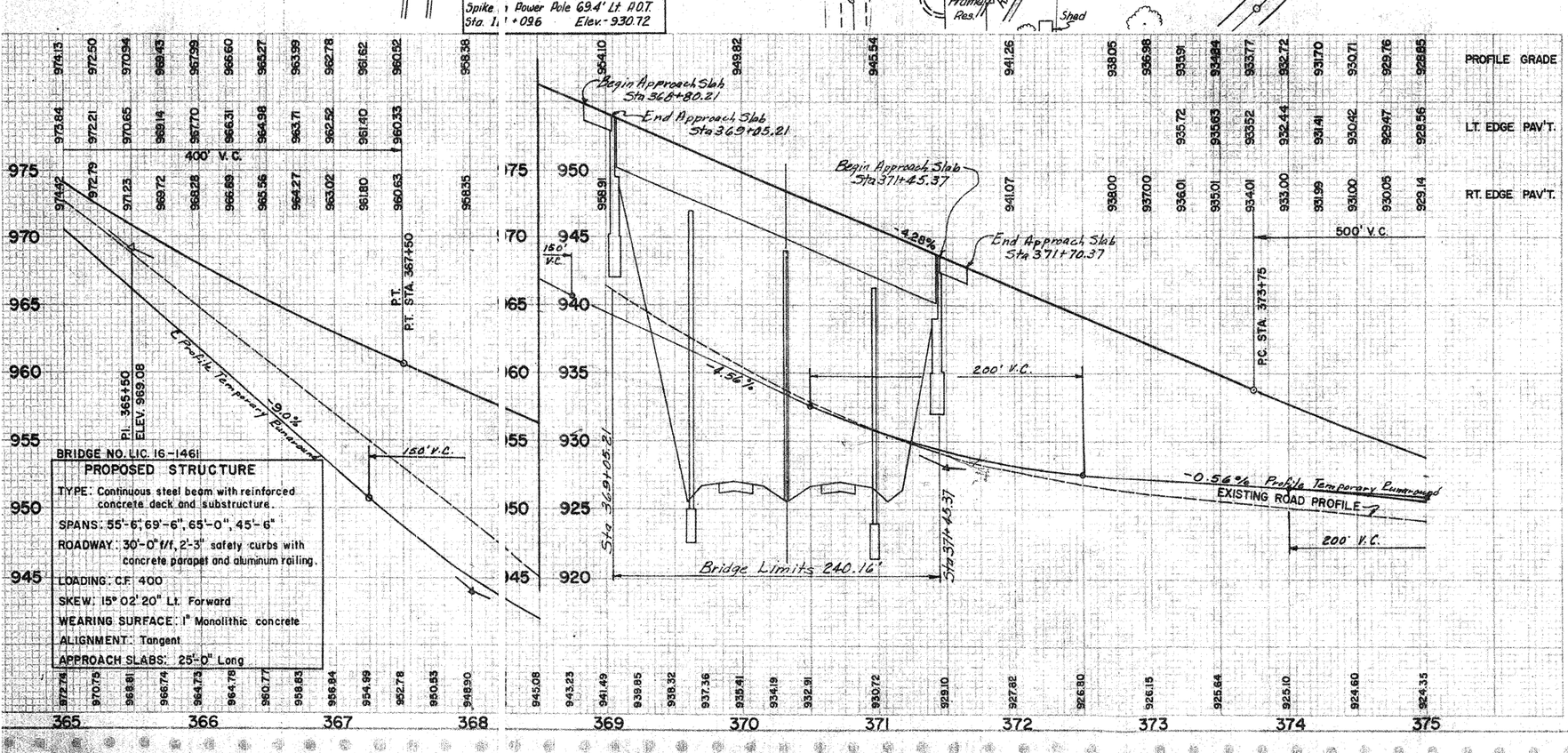
LOADING: C.F. 400

SKEW: 15° 02' 20" Lt. Forward

WEARING SURFACE: 1" Monolithic concrete

ALIGNMENT: Tangent

APPROACH SLABS: 25'-0" Long




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | I-15 Guard Rail & Asbestos Steel Beam Guard Rail (Deep) Lin. Ft. | I-15 5-25 Guard Rail & Asbestos Steel Beam Guard Rail (Deep) Sec. At 106.14 Lin. Ft. | I-10 Sodding Re-Sodding Berm & Slope Restoration Sq. Yds. | I-22 Seeding & Mulching Berm & Slope Restoration Sq. Yds. | F-7 Concrete Approach Slab Sq. Yds. | F-12 Pipe Culvert Removal 15" to 13" Oval Sq. Yds. | Lin. Ft. |
|---|---|---|---|---|---|---|---|---|---|
| 1-R | Sta. 365+17 | | 36 | | | | | | |
| 2-R | Sta. 372+35 | | 36 | | | | | | |
| 3-R | Sta. 366+65 to Sta. 367+30 | Lt. | | 15.0 | | | | | |
| 4-R | Sta. 371+55 to Sta. 372+17 | Rt. | | 62.5 | | | | | |
| 5-R | Sta. 371+57 to Sta. 372+20 | Lt. | | 62.5 | | | | | |
| 6-R | Sta. 373+13 to Sta. 374+25 | Lt. | | 112.5 | | | | | |
| 7-R | Sta. 373+15 to Sta. 374+25 | Rt. | | 112.5 | | | | | |
| 8-R | Sta. 365+00 to Sta. 367+25 | Rt. | 225 | | 225 | | | 50' | |
| 9-R | Sta. 375+00 | Lt. | | | | | | 175 | |
| 10-R | Sta. 368+80 to Sta. 370+60 | Lt. | | | | 90 | | | |
| 11-R | Sta. 371+60 | Lt. | | | | 90 | | | |
| 12-R | Sta. 371+58 | Rt. | | | | | | | |
| TOTALS | | | 450 | 72 | 225 | 180 | 10 | 133.34 | 225 |

| REF. NO. | STATION TO STATION | SIDE | F-15 Inlets Abandon | Each | |
|---|---|---|---|---|---|
| 1-P | Sta. 368+80.21 to Sta. 369+05.21 | ℄ | | | 5 |
| 2-P | Sta. 371+45.37 to Sta. 371+70.37 | ℄ | | | 5 |

| SEE SHEET NO. | |
|---|---|
| 369 | |
| 369 | |
| 372 | |
| 372 | |

2

2

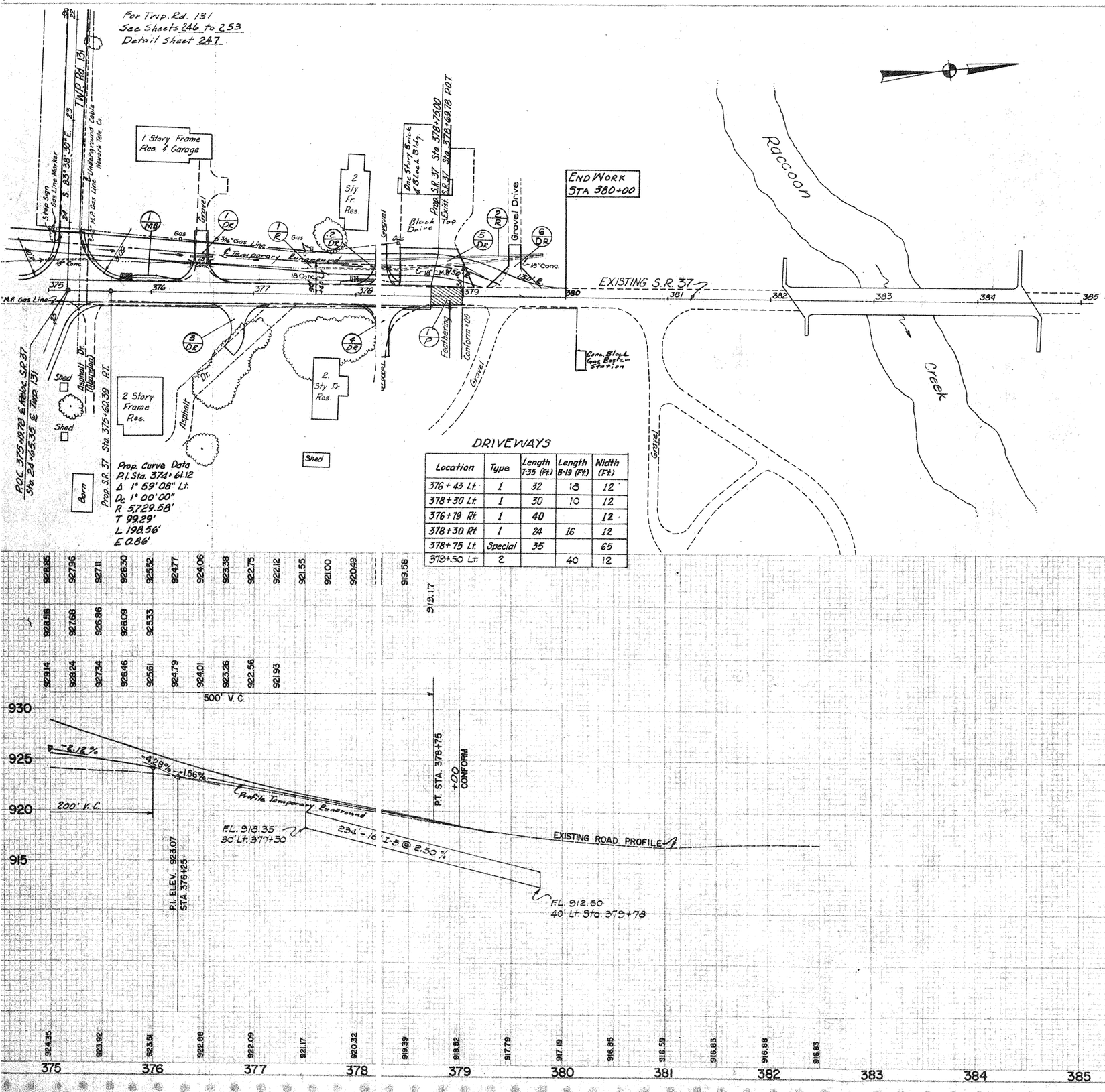
PLAN & PROFILE S.R. 37 STA. 365+00 TO STA. 375+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

192
466

For Twp. Rd. 131
See Sheets 246 to 253
Detail Sheet 247




## DRIVEWAYS

| Location | Type | Length T-35 (Ft.) | Length B-19 (Ft.) | Width (Ft.) |
|---|---|---|---|---|
| 376+43 Lt. | 1 | 32 | 18 | 12 |
| 378+30 Lt. | 1 | 30 | 10 | 12 |
| 376+79 Rt. | 1 | 40 | | 12 |
| 378+30 Rt. | 1 | 24 | 16 | 12 |
| 378+75 Lt. | Special | 35 | | 65 |
| 379+50 Lt. | 2 | | 40 | 12 |




## ESTIMATED QUANTITIES

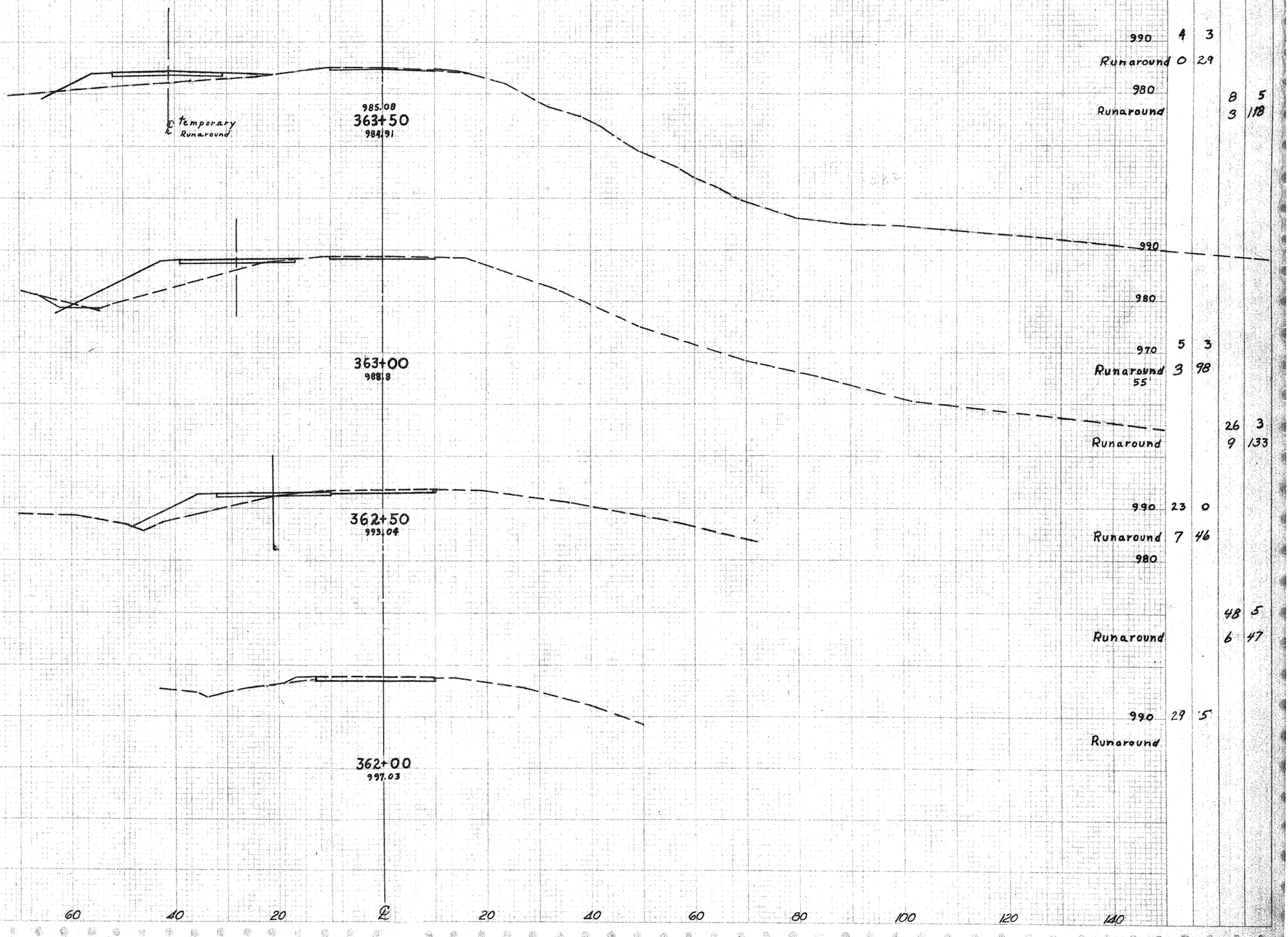
| REF NO. | STATION TO STATION | SIDE | I-1 18" Pipe for Driveways Sec. M-4.06 Lin. Ft. | B-19 Crushed Aggregate Base Course Cu. Yds. | T-30 Bituminous Prime Coat Sec. M-5.1, M-5.4 or M-5.5 Gal. | T-35 Asph. Conc. Surface Course Type "C" Cu. Yds. | E-12 Pipe Removed, Over 15" Lin. Ft. | I-5 18" Pipe Reinf. Conc. w/Shallow Cover Lin. Ft. |
|---|---|---|---|---|---|---|---|---|
| 1-DR | 376+43 | Lt. | 24 | 15.7 | 32.6 | 5.2 | 18 | |
| 2-DR | 378+30 ~ Mail Box Turn Out | Lt. | | 11.0 | 24.6 | 3.9 | | |
| 3-DR | 376+79 | Rt. | | 20.0 | 34.0 | 5.4 | | |
| 4-DR | 378+30 | Rt. | | 25.8 | 24.6 | 3.9 | | |
| 5-DR | 378+75 | Lt. | | 49.2 | 101.0 | 10.5 | | |
| 6-DR | 379+50 | Lt. | | 14.6 | | | 232 | |
| 1-R | 377+52 - 379+78 | Lt. | | | | | | 234 |
| 2-R | 377+50 - 379+78 | Lt. | | | | 2.2 | | |
| 1-P | 378+69.78 - 379+00 | ℄ | | | | | | |
| 1-MB | 376+00 | Lt. | | 8.1 | 21.4 | 3.2 | | |
| TOTALS | | | 24 | 133.6 | 238.2 | 34.3 | 250 | 234 |

PLAN & PROFILE S.R. 37 STA. 375+00 TO STA 385+00

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

193
466

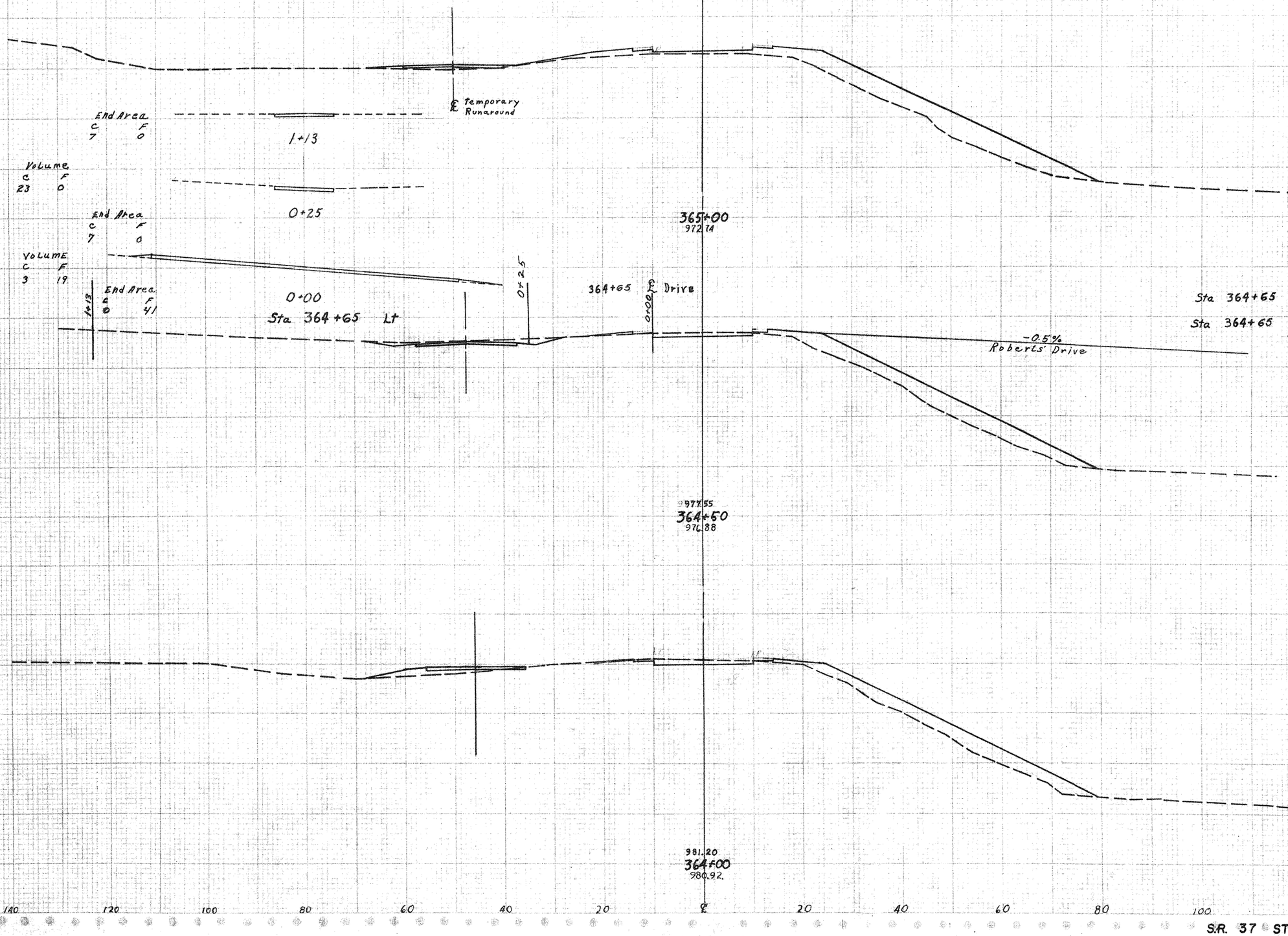
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 990 | 4 | 3 | | |
| Runaround | 0 | 29 | | |
| 980 | | | 8 | 5 |
| Runaround | | | 3 | 118 |
| 990 | | | | |
| 980 | | | | |
| 970 | 5 | 3 | | |
| Runaround | 3 | 98 | | |
| 55 | | | | |
| | | | 26 | 3 |
| Runaround | | | 9 | 133 |
| 990 | 23 | 0 | | |
| Runaround | 7 | 46 | | |
| 980 | | | | |
| | | | 48 | 5 |
| Runaround | | | 6 | 47 |
| 990 | 29 | 5 | | |
| Runaround | | | | |

S.R. 37 STA. 362+00 TO STA. 363+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| | 0 | 182 | | |
| | | | 12 | 297 |
| Runaround | 11 | | | 10 |
| | | | 26 | 19 |
| | | | 44 | 10249 |
| | 13 | 138 | | |
| | | | 31 | 213 |
| Runaround | 15 | | | 14 |
| | 20 | 92 | | |
| Runaround | | 16 | 22 | 88 |
| | | | | 15 |

| SEEDING | |
|---|---|
| END DEPTH | SQ. YDS. |

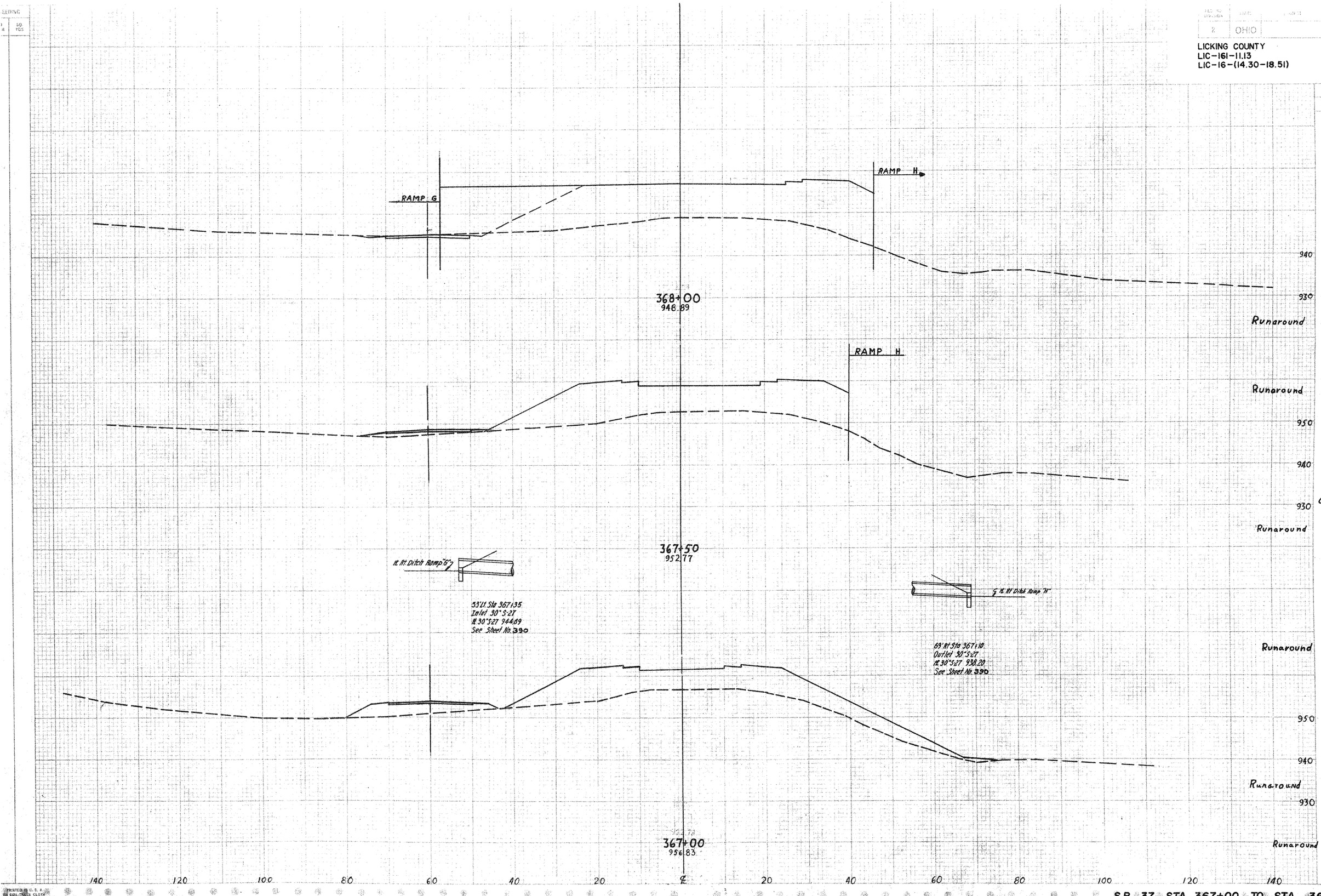
| REF. NO. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

185
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | | | |
| | | |

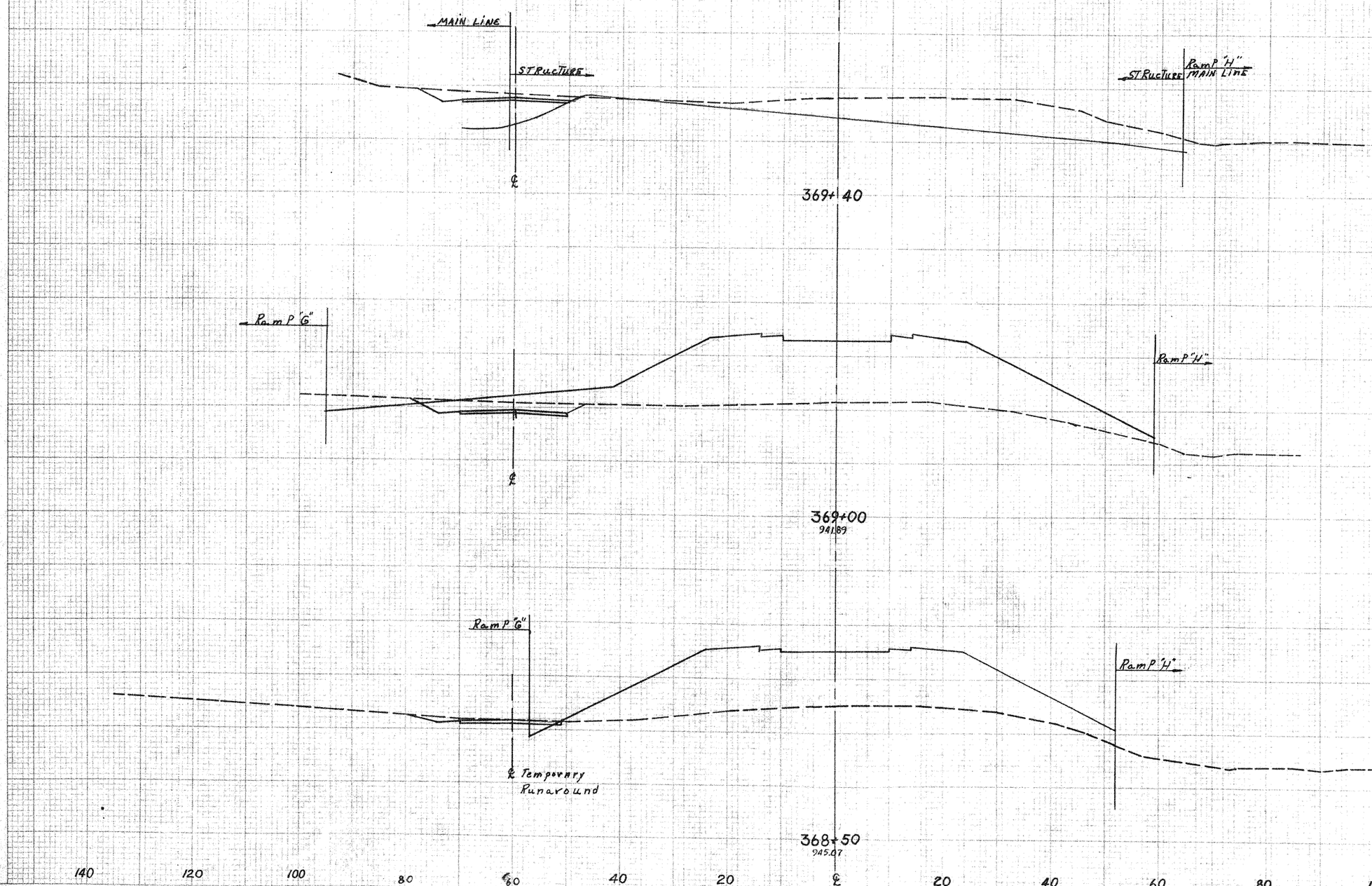
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| | 0 | 1137 | | |
| Runaround | 6 | | | |
| | | | 0 | 1671 |
| Runaround | | | 6 | 10 |
| | 0 | 668 | | |
| Runaround | | 11 | | |
| | | | | 1106 |
| Runaround | | | | 81 |
| | 0 | 527 | | |
| Runaround | | 76 | | |
| | | | 0 | 1017 |
| Runaround | | | | 154 |

S.R. 37 STA. 367+00 TO STA. 368+00

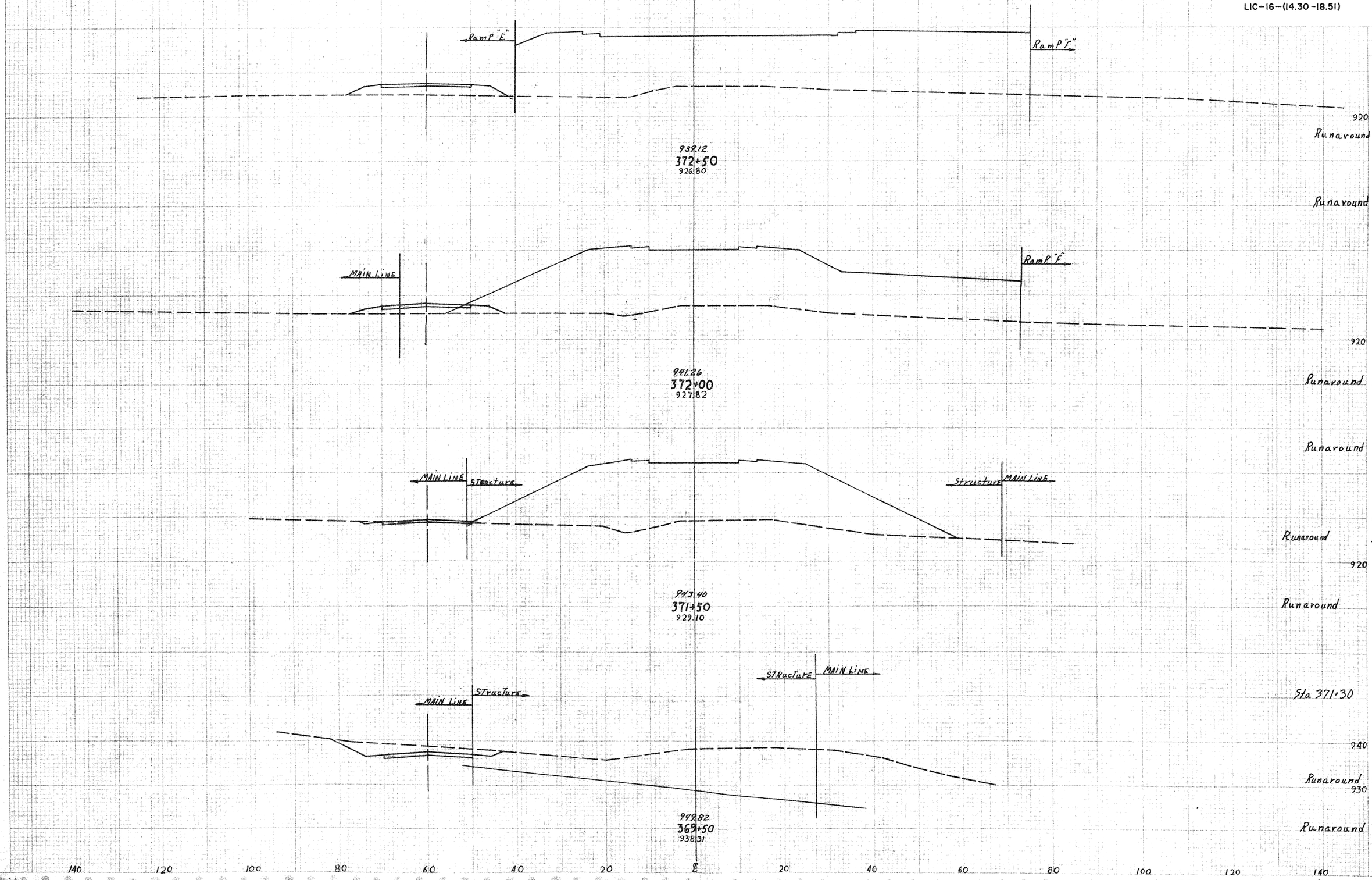
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| Runaround | 42 | 0 | | |
| Runaround | | | 75 | 0 |
| 37 Sta. 369+25 | 0 | 0 | | |
| | | | 19 | 459 |
| | 40 | 991 | | |
| Runaround | 59 | 0 | | |
| | | | 50 | 1698 |
| Runaround | | | 69 | 0 |
| | 14 | 843 | | |
| Runaround | 15 | 0 | | |
| | | | 0 | 1833 |
| Runaround | | | 19 | 0 |

S.R. 37 STA. 368+50 TO STA. 369+40

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 920 | 0 | 1500 | | |
| Runaround | 0 | 79 | | |
| | | | 0 | 2672 |
| Runaround | | | | 118 |
| 920 | 0 | 1386 | | |
| Runaround | 0 | 48 | | |
| | | | 0 | 2302 |
| Runaround | | | 5 | 53 |
| | 0 | 1100 | | |
| Runaround | 5 | 9 | | |
| 920 | | | | |
| Runaround | | | | |
| Sta 371+30 | 0 | 0 | | |
| 940 | | | | |
| Runaround | 75 | 0 | | |
| 930 | | | | |
| Runaround | | | 22 | 0 |

S.R. 37 STA. 369+50 TO STA. 372+50

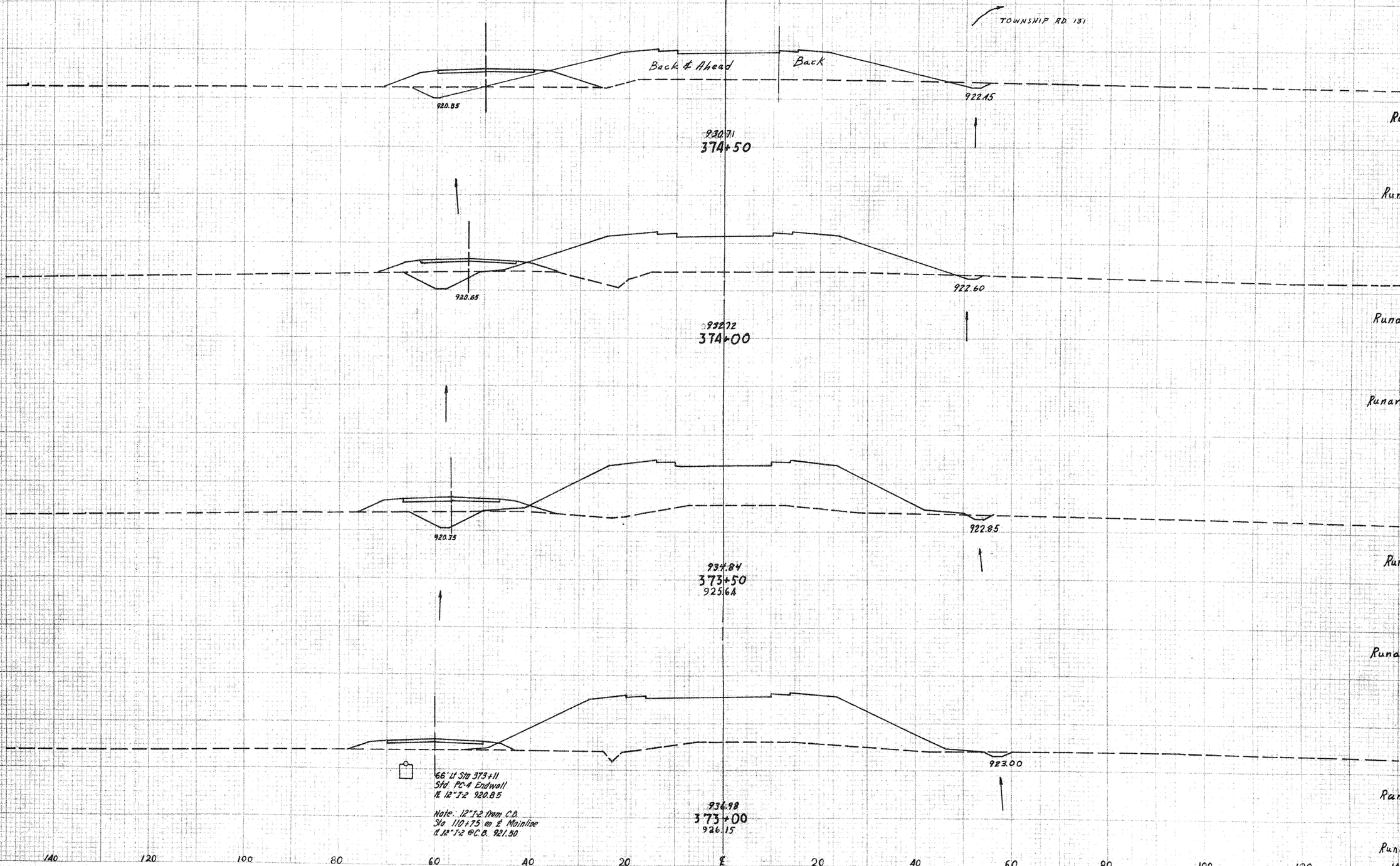
SEEDING

| END WIDTH | SQ YDS |
|---|---|
| | |

| FED. RT. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

199
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| Ahead | | 260 | | |
| 930 | | | | |
| Back | 26 | 439 | | |
| 920 | | | | |
| Runaround | 0 | 125 | | |
| | | | 57 | 935 |
| Runaround | | | 0 | 179 |
| | | | | |
| 920 | 35 | 570 | | |
| Runaround | 0 | 68 | | |
| | | | 65 | 1101 |
| Runaround | | | 0 | 183 |
| 930 | | | | |
| 920 | 35 | 619 | | |
| Runaround | 0 | 130 | | |
| | | | 37 | 1285 |
| Runaround | | | 0 | 175 |
| | | | | |
| 920 | 5 | 768 | | |
| Ranaround | 0 | 59 | | |
| | | | 5 | 1613 |
| Runaround | | | 0 | 128 |

PRINTED IN U. S. A.
DE EUPL. TRACK CLOTH

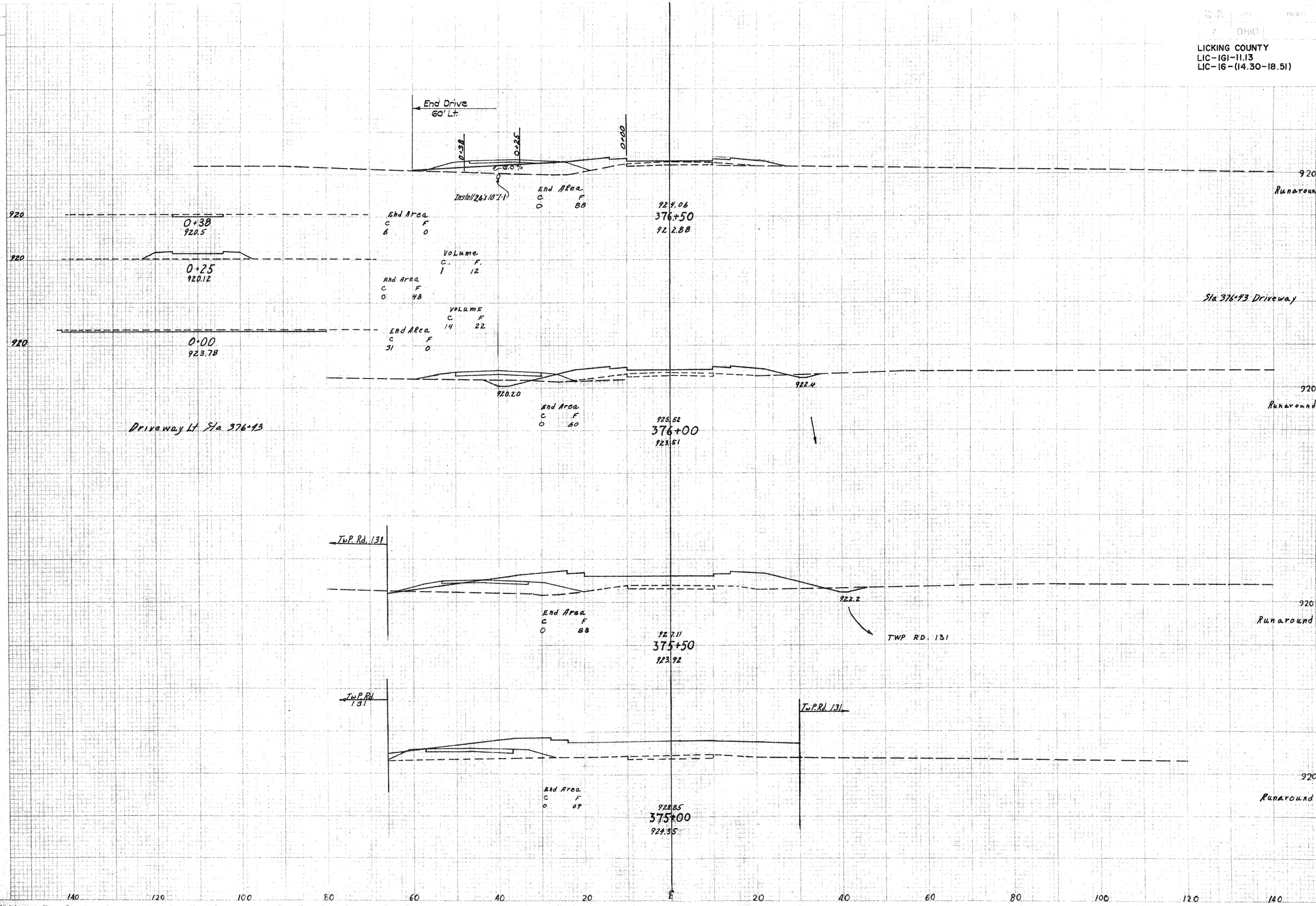
S.R. 37 STA. 373+00 TO STA. 374+50

SEEDING
0 IN | 50. YDS

OHIO

200
466

LICKING COUNTY
LIC-16I-11.13
LIC-16-(14.30-18.51)

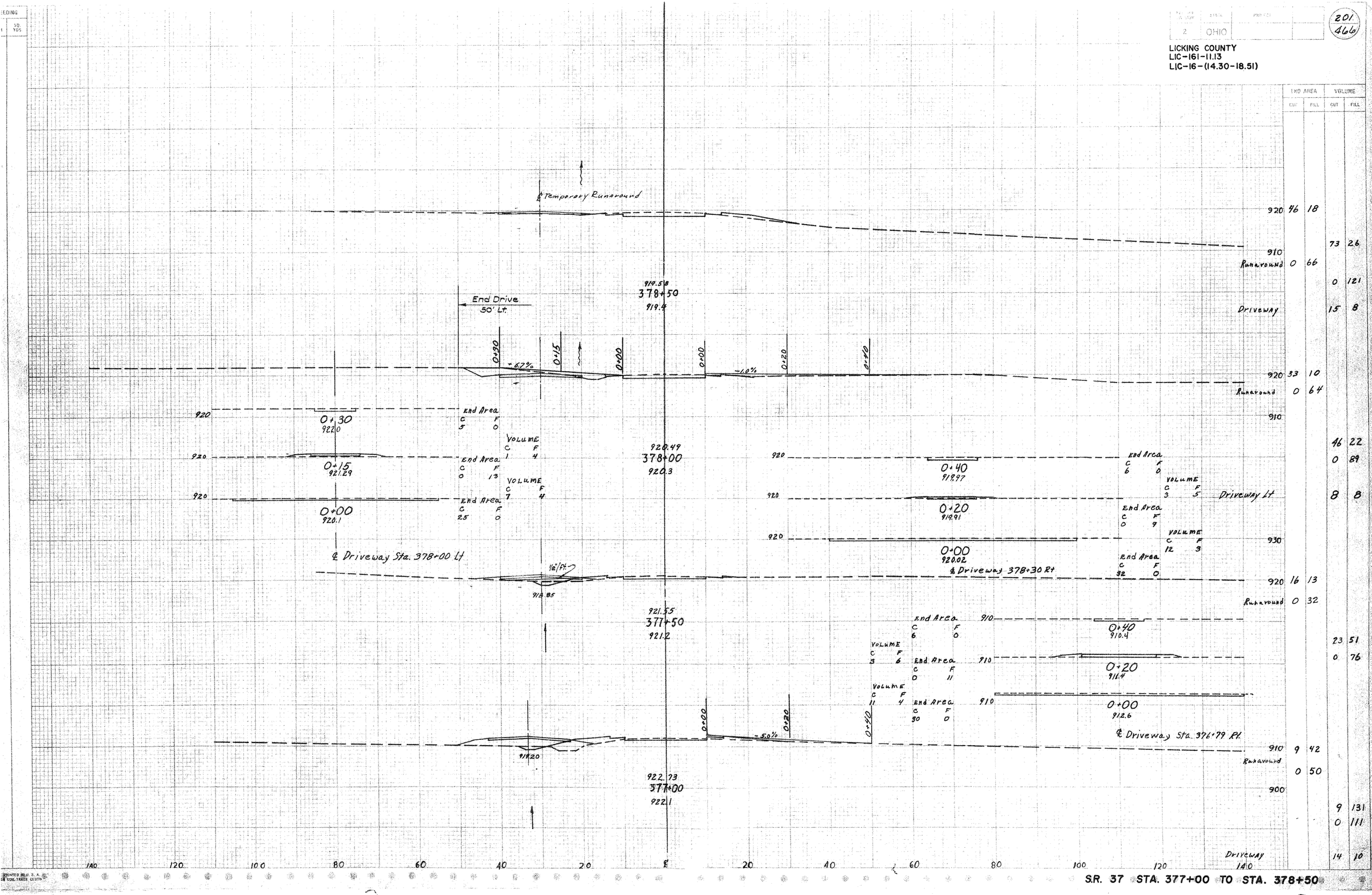



| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| | | | | |
| 920 | 0 | 99 | | |
| Runaround | | | | 137 |
| | | | 20 | 204 |
| | | | 15 | 34 |
| | 22 | 121 | | |
| 920 | | | | |
| Runaround | | | | 137 |
| | | | 29 | 399 |
| | 9 | 310 | | |
| 920 | | | | |
| Runaround | | | | 144 |
| | | | 9 | 647 |
| 920 | | | 389 | |
| Runaround | | | | 144 |

PRINTED ON U. S. A. OR SEMI-TRANS CLOTH

S.R. 37 STA 375+00 TO STA. 376+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

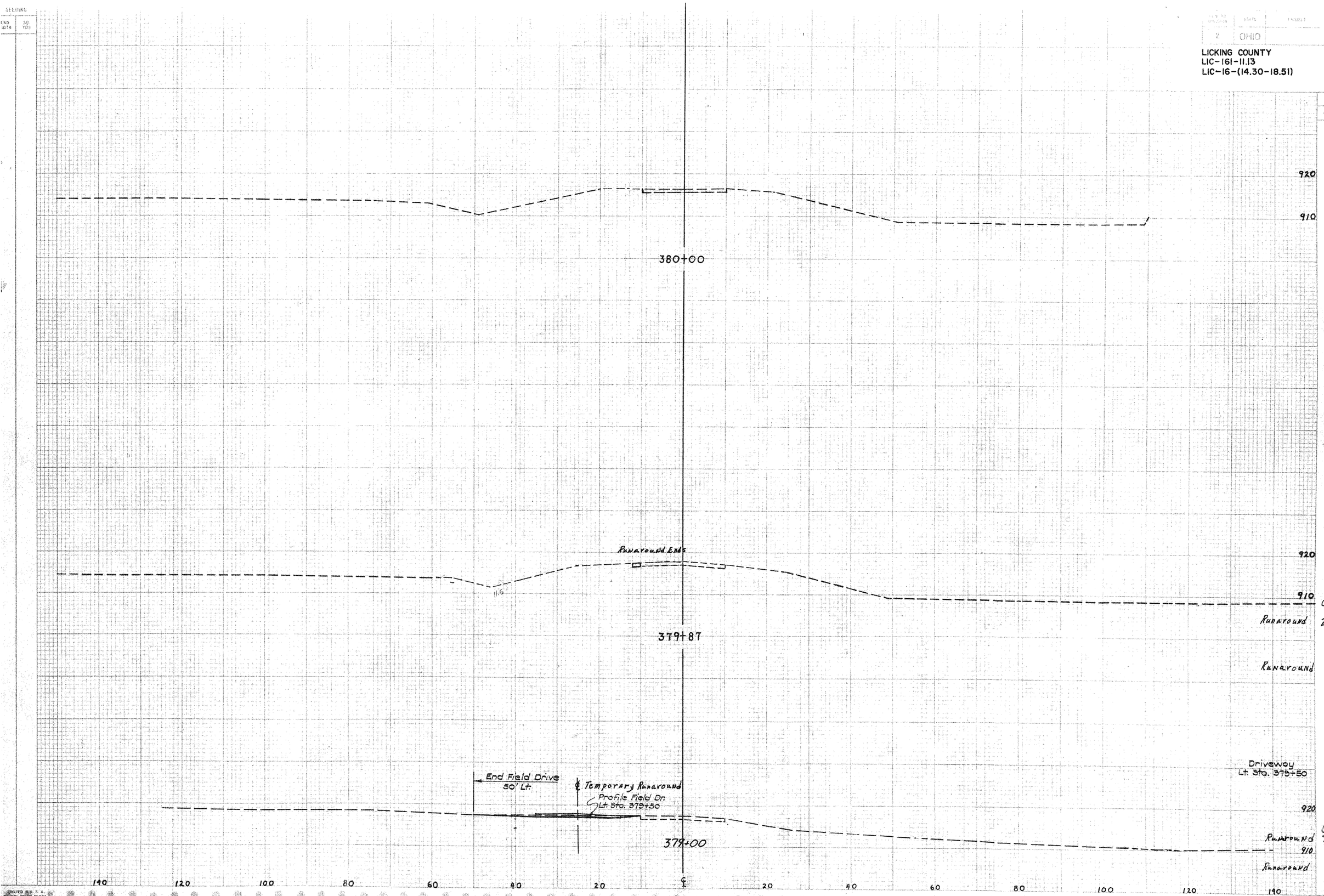



| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 920 | 46 | 18 | | |
| | | | 73 | 26 |
| 910 Runaround | 0 | 66 | | |
| | | | 0 | 121 |
| Driveway | | | 15 | 8 |
| 920 | 33 | 10 | | |
| Runaround | 0 | 64 | | |
| 910 | | | | |
| | | | 46 | 22 |
| | | | 0 | 89 |
| Driveway Lt | | | 8 | 8 |
| 930 | | | | |
| 920 | 16 | 13 | | |
| Runaround | 0 | 32 | | |
| | | | 23 | 51 |
| | | | 0 | 76 |
| 910 | 9 | 42 | | |
| Runaround | 0 | 50 | | |
| 900 | | | | |
| | | | 9 | 131 |
| | | | 0 | 111 |
| Driveway | | | 14 | 10 |

S.R. 37 STA. 377+00 TO STA. 378+50

| | | | |
|---|---|---|---|
| 2 | OHIO | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



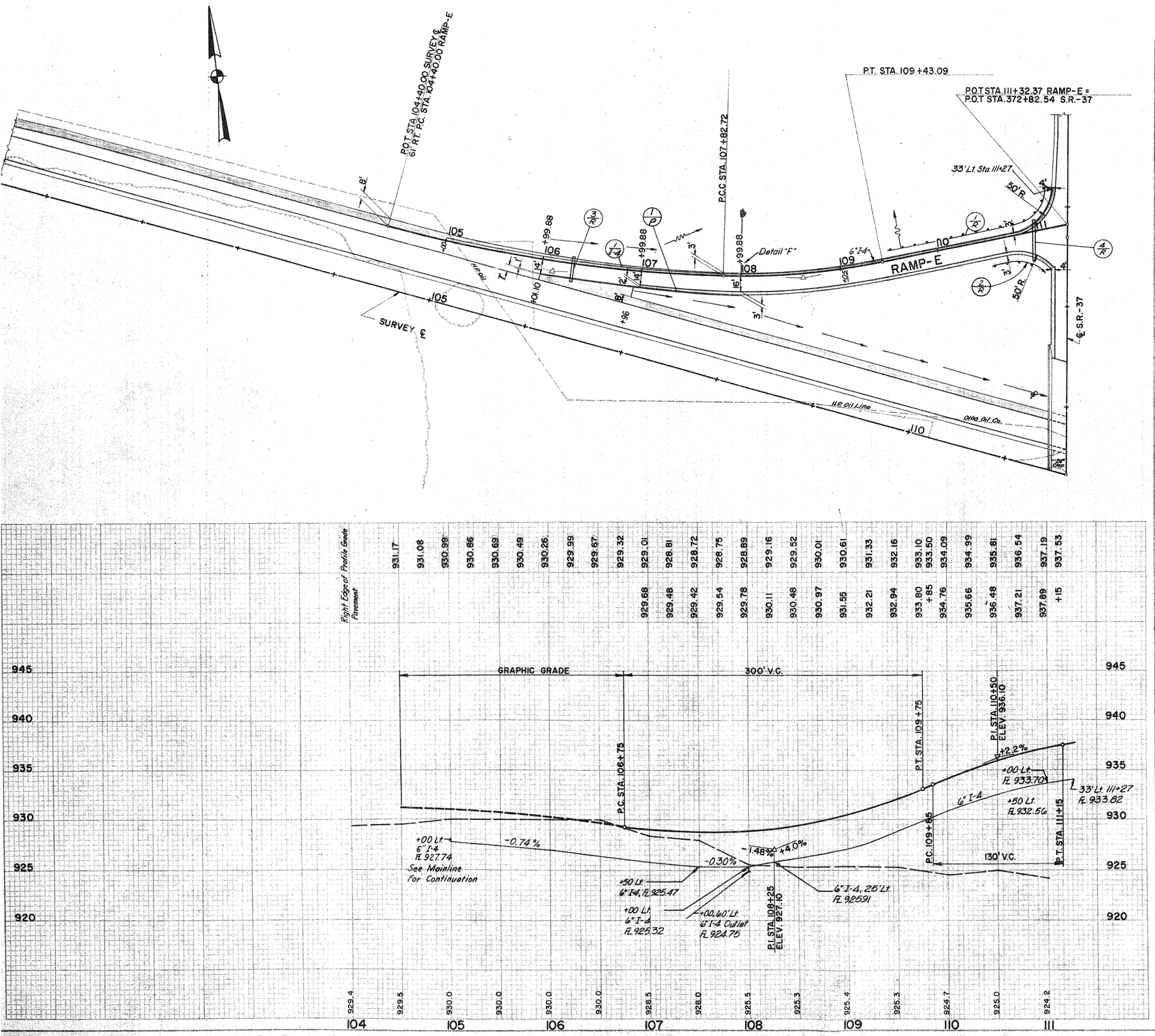

| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| | 0 | 0 | | |
| Runaround | 2 | 0 | | |
| | | | 0 | 0 |
| Runaround | | | 14 | 8 |
| Driveway Lt. Sta. 379+50 | | | 20 | |
| | 0 | 0 | | |
| Runaround | 7 | 5 | | |
| | | | 43 | 17 |
| Runaround | | | 58 | 24 |

S.R. 37 STA. 379+00 TO STA. 380+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |






ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | S-25 4" Asbestos Cement Conduit As 1 Plan M 206.14 Lin. Ft. | I-12 Special Part. Cem. Conc. Curb, as per Plan Lin. Ft. | I-15 Guard Rail Steel Beam Deep Std. Lin. Ft. | I-4 6" Underdrains Lin. Ft. | I-4 8" Pipe Outlets for Underdrains Lin. Ft. | I-5 Pipe Specials for Underdrains 6" Tee Each |
|---|---|---|---|---|---|---|---|---|
| 1-I-4 | 106+05 - 111+27 | Lt. | | | | 585 | 10 | 1 |
| 1-R | 109+50 - 111+27 | Lt. | | | 175 | | | |
| 2-R | 110+50 - 111+00 | Rt. | | | 50 | | | |
| 3-R | 106+25 | ℄ | 26 | | | | | |
| 4-R | 111+00 | ℄ | 40 | | | | | |
| 1-P | 105+99.88 ~ 107+99.88 | Rt. | | 200 | | | | |
| TOTALS | | | 66 | 200 | 225 | 585 | 10 | 1 |

SEE SHEET NO. 368 369 369 232

RAMP-E PLAN & PROFILE STA. 104+40 TO STA. 111+32.37

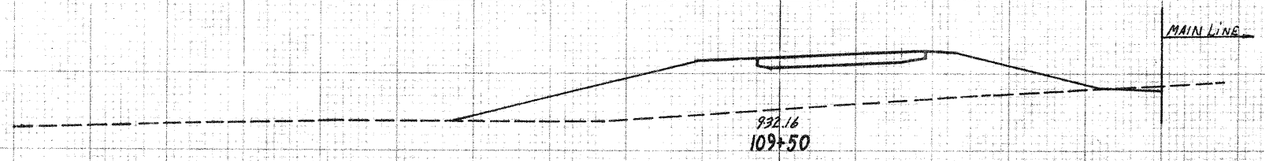
SEEDING

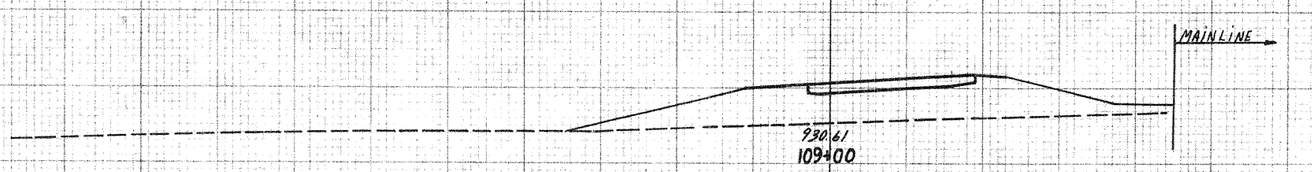
| END WIDTH | SQ. YDS |
|---|---|

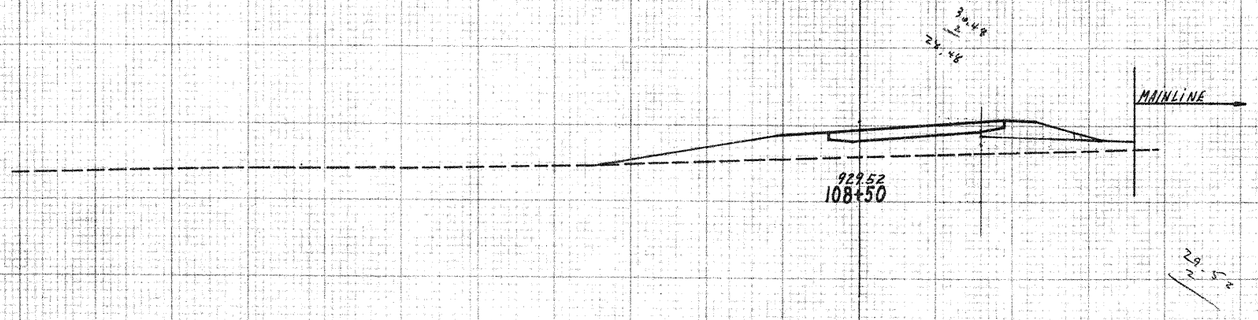
| SEC. NO. | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

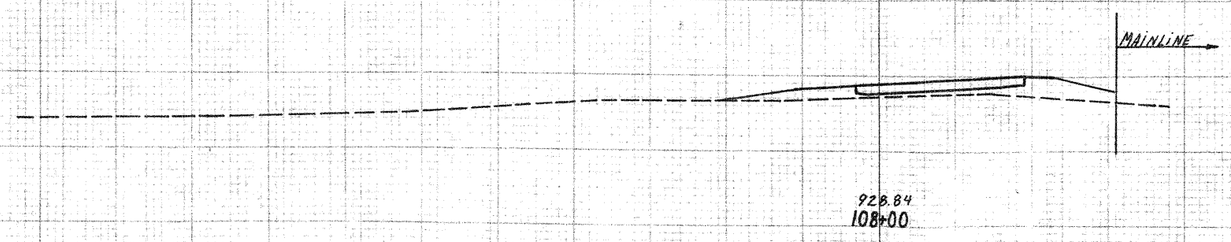
209/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 930 | 6 | 382 | | |
| 920 | | | 6 | 608 |
| | 0 | 275 | | |
| 930 | | | | |
| 920 | | | | 416 |
| 930 | 0 | 174 | | |
| | | | | 232 |
| 930 | 0 | 77 | | |
| 920 | | | | 71 |
| Sta. 107+50 | 0 | 0 | | |

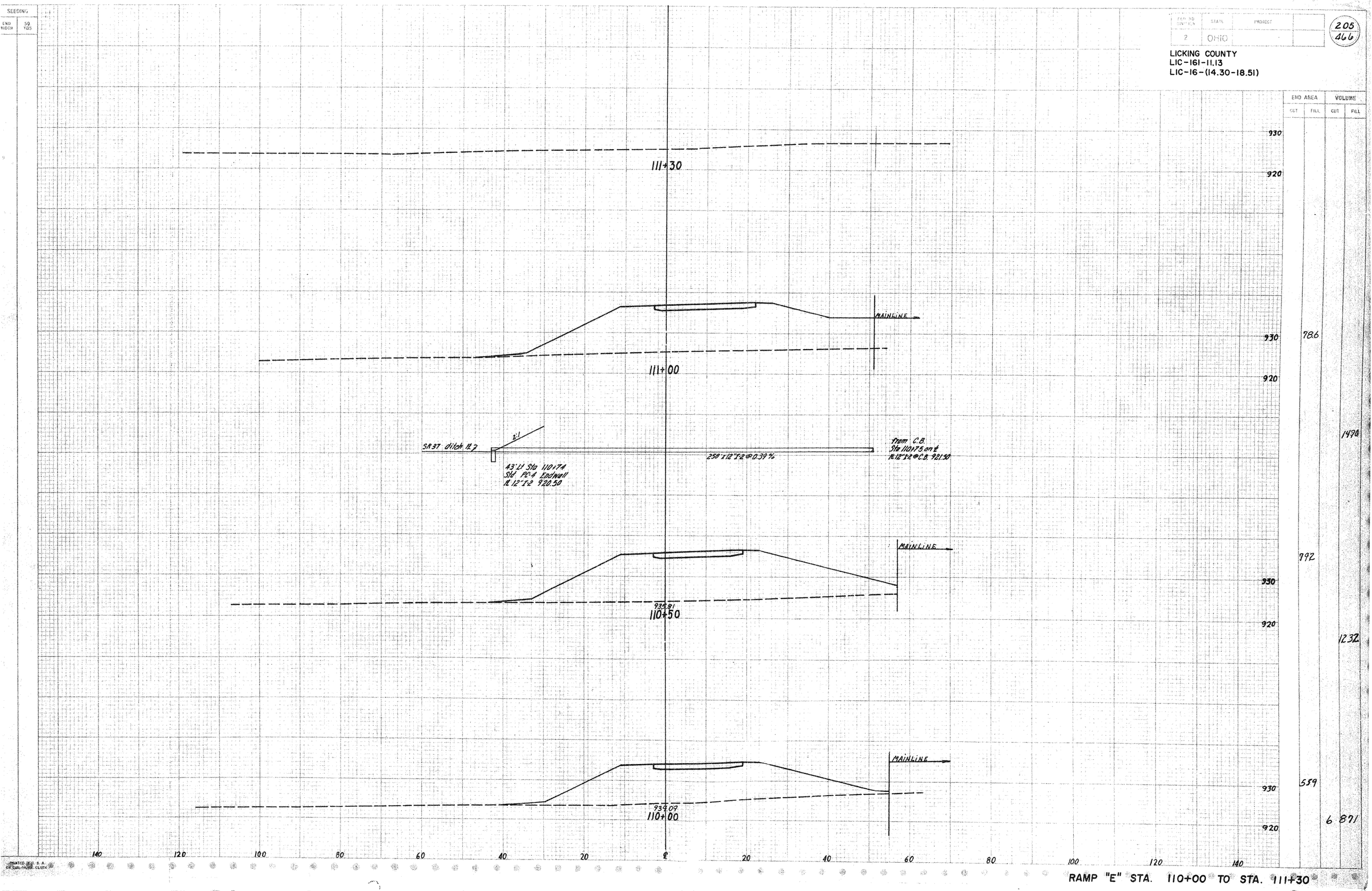
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

RAMP "E" STA. 108+00 TO STA. 109+50

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

205
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

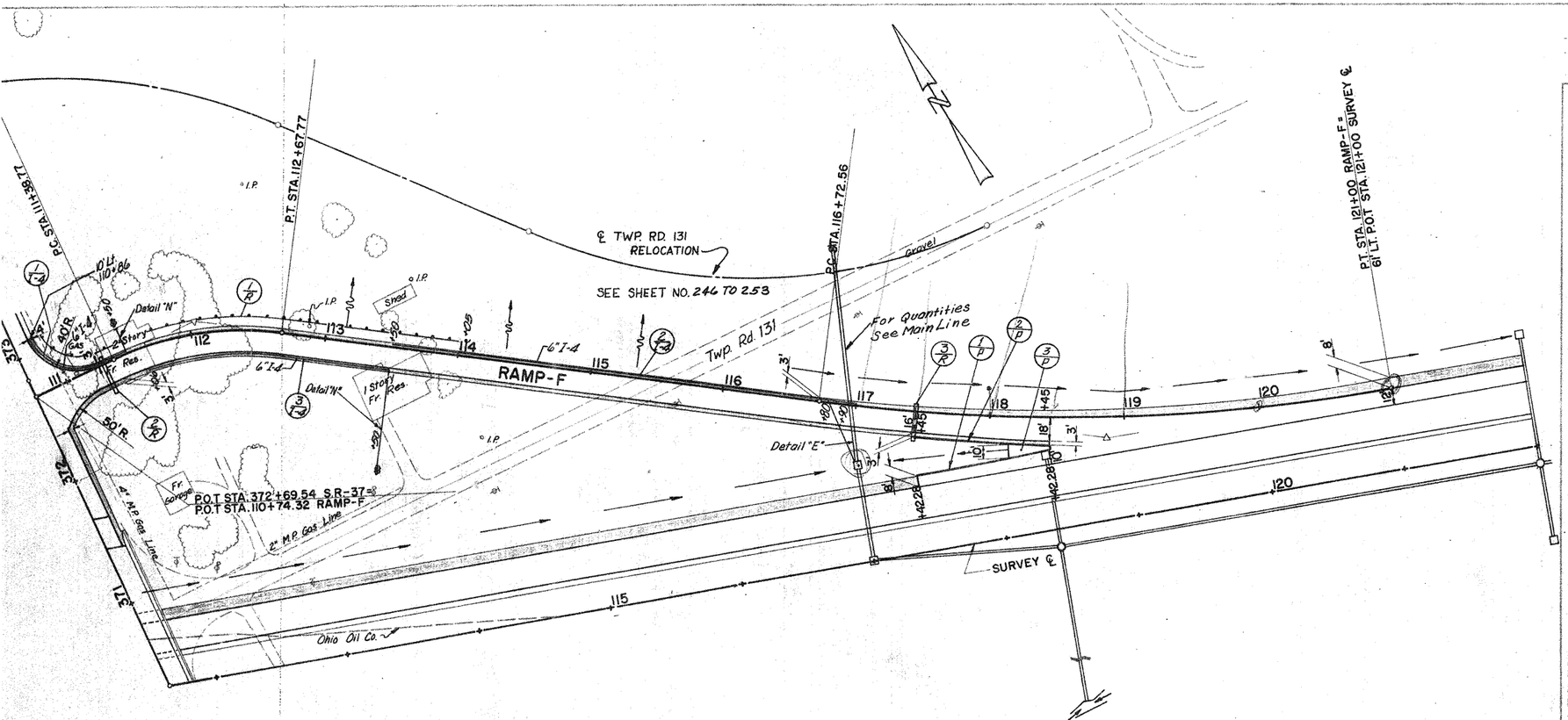


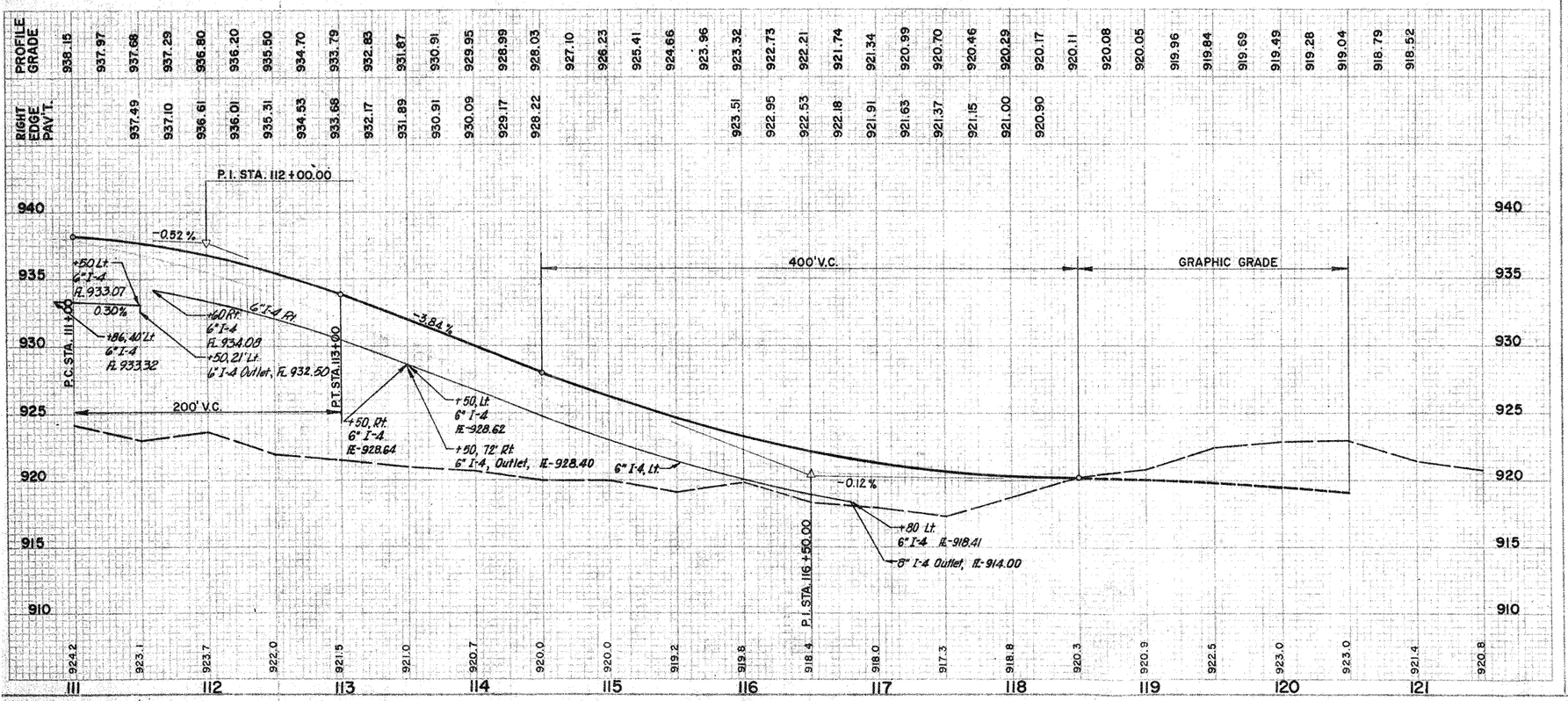

RAMP "E" STA. 110+00 TO STA. 111+30

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| TO REVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

206/466




ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | I-5 Reinforced Concrete Pipe Culverts, Class 3 | SEE SHEET NO |
|---|---|---|---|---|
| 1-T4 | 110+89 - 111+50 | Lt. | | 368 |
| 2-T4 | 113+30 - 117+05 | Lt. & Rt. | | 368 |
| 3-T4 | 117+60 - 131+30 | Rt. | | 369 |
| 1-R | 110+97 - 114+05 | Lt. | 325 | 369 |
| 2-R | 111+25 | Rt. | 26 | 369 |
| 3-R | 117+45 | Rt. | 27 | 369 |
| 1-P | 117+42.28 (ML) - 118+42.28 (ML) | Lt. | | 233 |
| 2-P | 117+45.00 - 118+45.00 | Rt. | | 233 |
| 3-P | 118+10.00 (ML) - 118+42.28 (ML) | Lt. | | 233 |
| TOTALS | | | 325 | |

| REF NO | STATION TO STATION | SIDE | I-12 Standard Type "6" Concrete Median Curb Lin. Ft. | I-21 4" Portland Cem. Conc. Median Ext. Std. Type 1 Sq. Yds. | I-18 Standard Type "2-4" Concrete Curb Lin. Ft. | SEE SHEET NO |
|---|---|---|---|---|---|---|
| 1-P | 117+42.28 (ML) - 118+42.28 (ML) | Lt. | 100 | 23 | 100 | 233 |
| 2-P | 117+45.00 - 118+45.00 | Rt. | 100 | 23 | 100 | 233 |
| 3-P | 118+10.00 (ML) - 118+42.28 (ML) | Lt. | | | 100 | 233 |
| TOTALS | | | 200 | 46 | 300 | |

| REF NO | STATION TO STATION | SIDE | I-25 4" Asbestos Cement Conc. Pipe Underdrain Lin. Ft. | SEE SHEET NO |
|---|---|---|---|---|
| 1-U | 111+39 - 111+65 | Lt. | 26 | 53 |
| 2-U | 111+65 - 112+92 | Lt. | 27 | 53 |
| TOTALS | | | 53 | |

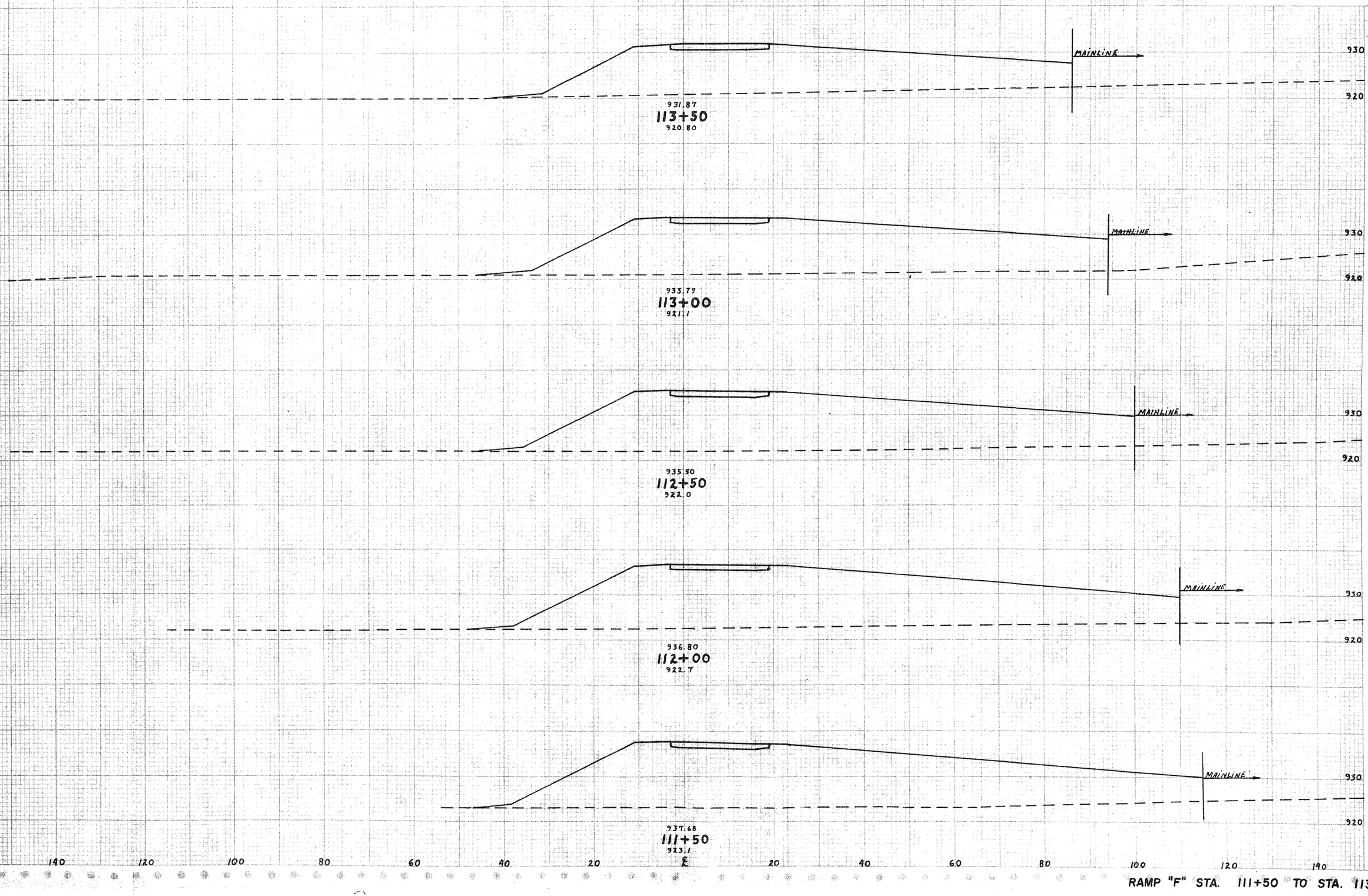
RAMP-F PLAN & PROFILE STA. 110+74.32 TO STA. 121+00

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS. |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

207
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



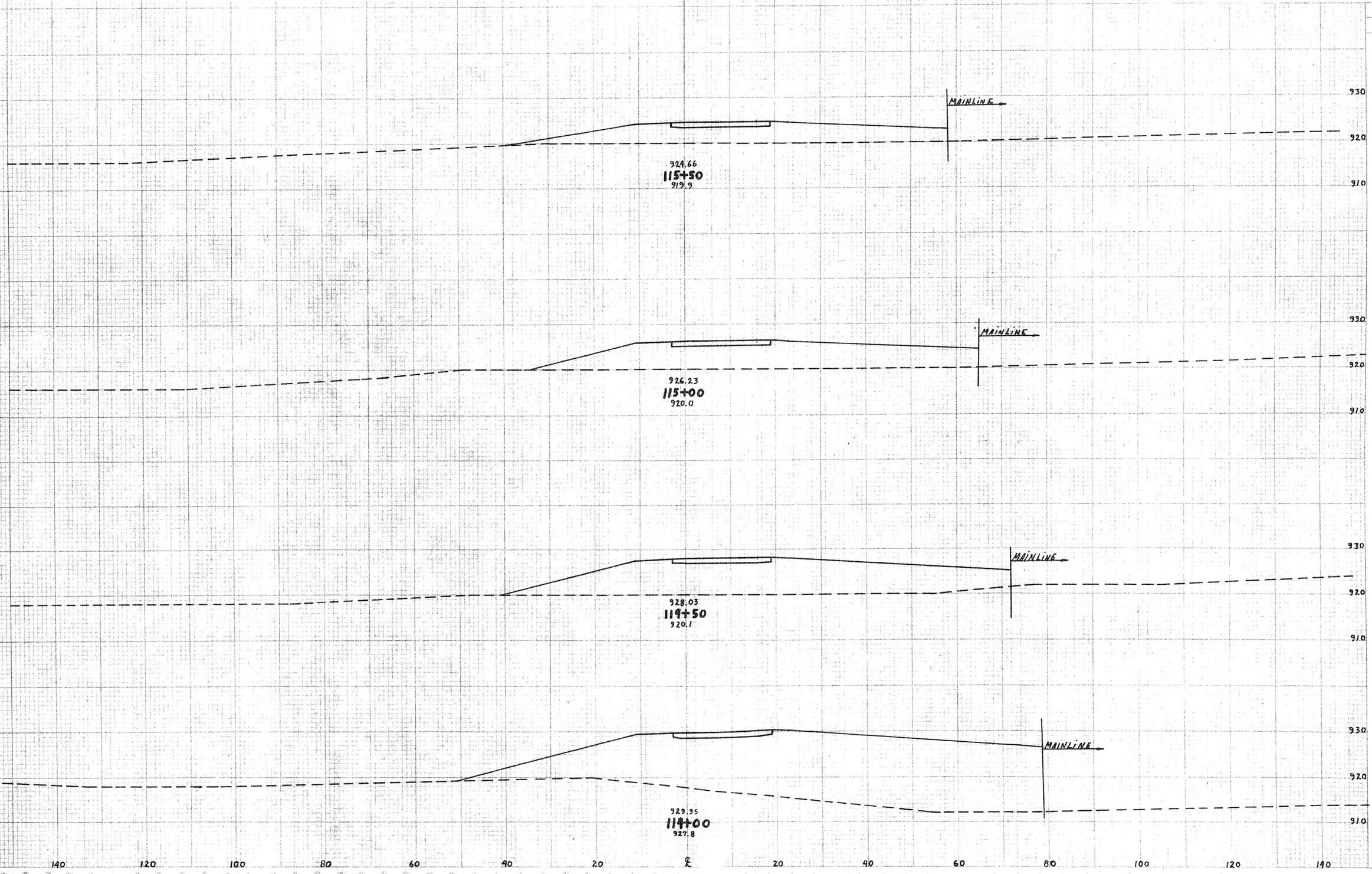

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | 945 | | |
| | | | 2030 |
| | 1248 | | |
| | | | 2431 |
| | 1378 | | |
| | | | 2682 |
| | 1519 | | |
| | | | 2888 |
| | 1600 | | |
| | | | 2209 |

RAMP "F" STA. 111+50 TO STA. 113+50

PRINTED IN U.S.A.
BY BUREAU OF PUBLIC ROADS

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



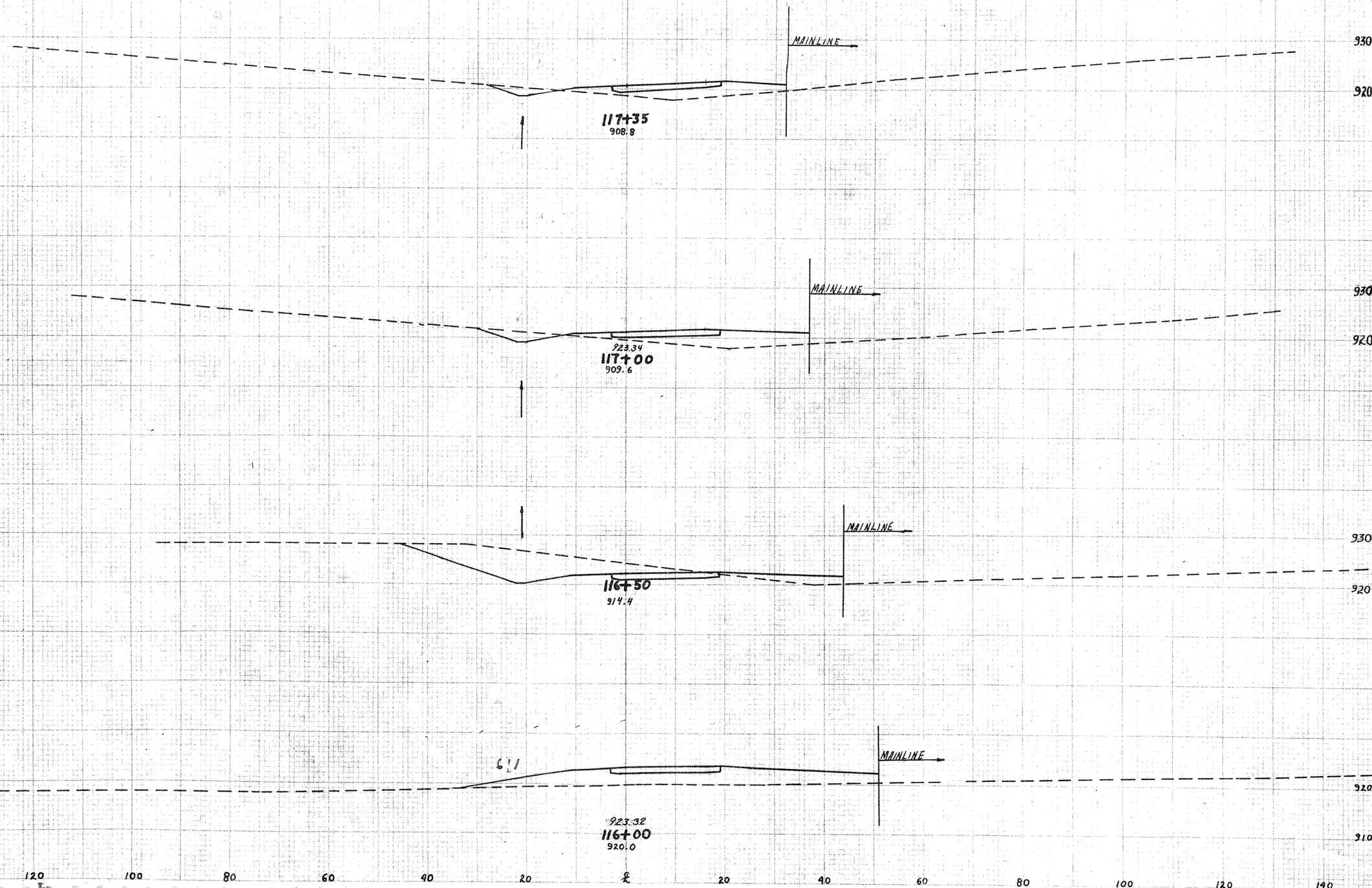

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| | 329 | | |
| | | | 758 |
| | 490 | | |
| | | | 1083 |
| | 680 | | |
| | | | 1988 |
| | 1469 | | |
| | | | 2235 |

RAMP "F" STA. 114+00 TO STA. 115+50

OHIO

209
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



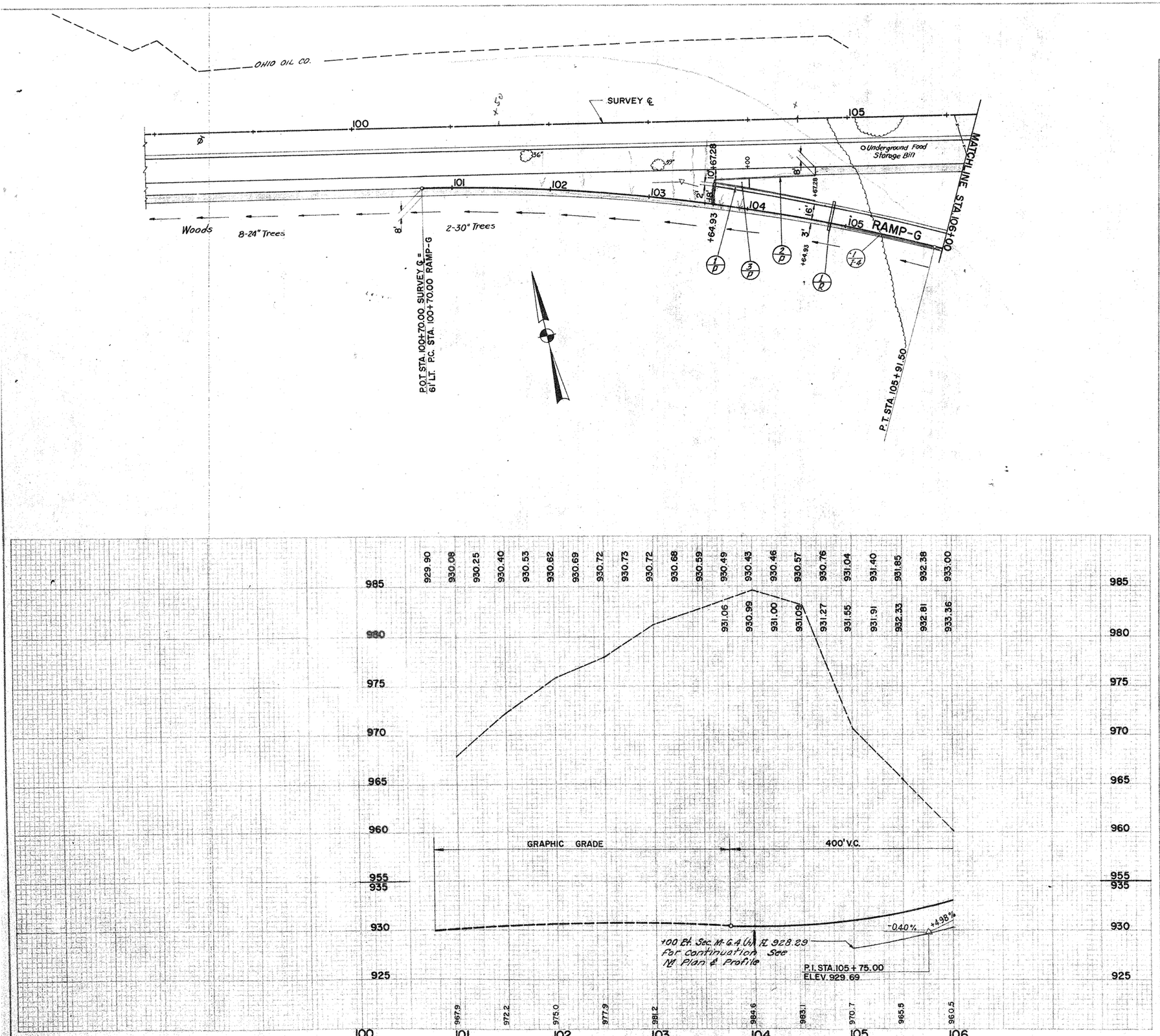

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 930 | 10 | 85 | | |
| 920 | | | | |
| | | | 21 | 109 |
| 930 | 23 | 83 | | |
| 920 | | | | |
| | | | 391 | 123 |
| 930 | | | | |
| | 219 | 50 | | |
| 920 | | | | |
| | | | 406 | 46 |
| | 219 | | | |
| 920 | | | | |
| | | | 203 | 507 |
| 910 | | | | |

RAMP "F" STA. 116+00 TO STA. 117+35

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

210
466




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | I-4 6" Under-drains M-6.4 (h) Lin. Ft. | S-25 4" Asbestos concrete conduit Cl. Plan M-206.14 Lin. Ft. | I-12 Standard Type 2-A Concrete Curb Lin. Ft. | I-12 Standard Type "G" Concrete Curb Lin. Ft. | I-21 4" Portland Cem. Conc. Median Pavt. Std. Type 1 Sq. Yds. |
|---|---|---|---|---|---|---|---|
| 1-4 | 105+00 ~ 106+00 | Rt. | 100 | | | | |
| 1-R | 104+75 | ℄ | | 26 | | | |
| 1-P | 103+64.93 ~ 104+64.93 | Lt. | | | | 100 | |
| 2-P | 103+67.28(ML) ~ 104+67.28(ML) | Rt. | | | 100 | | |
| 3-P | 103+67.28(ML) ~ 104+00(ML) | Rt. | | | | | 23 |
| TOTALS | | | 100 | 26 | 100 | 100 | 23 |

SEE SHEET NO.

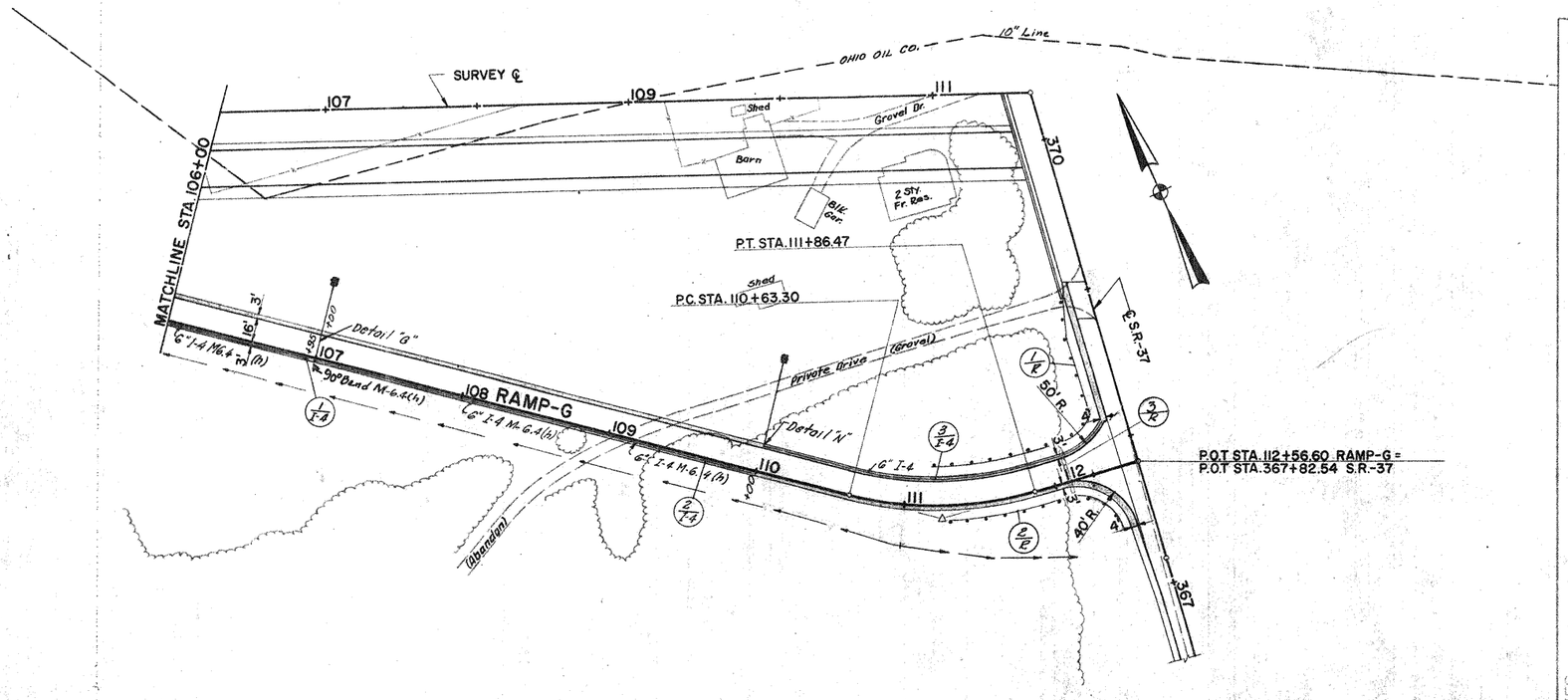
369
232
232
232

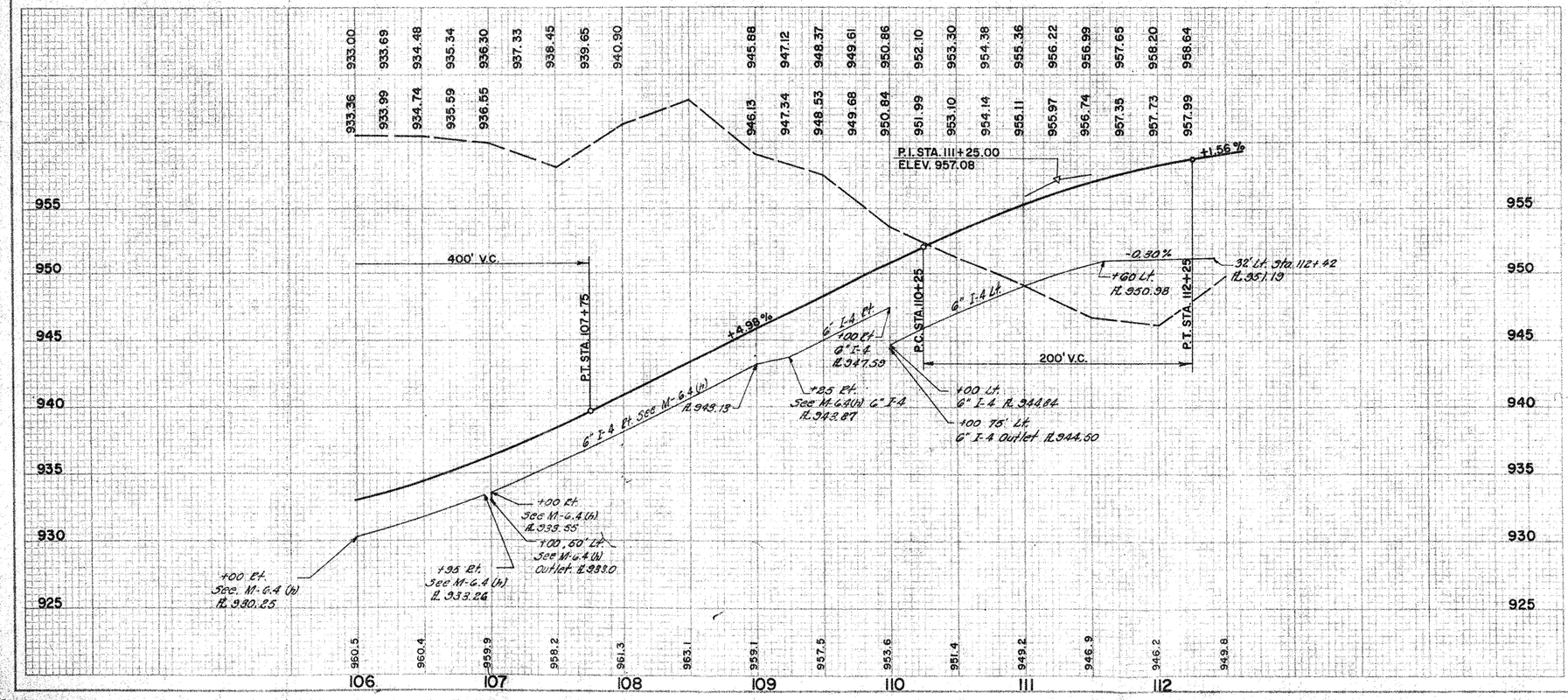
RAMP-G PLAN & PROFILE STA. 100+70 TO STA. 106+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

211/466




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | SEE SHEET NO | I-4 6" Underdrains | I-4 6" Pipe Outlet Deep Shallow-M-4(h) | I-5 6" Pipe Serrated Underdrain Deep 90° drains | I-15 Guardrail Steel Beam Lin. Ft. | S-25 4" Asbestos Cement Conduit AS-206.14 Lin. Ft. |
|---|---|---|---|---|---|---|---|---|
| | | | | Lin. Ft. | Lin. Ft. | Each | Lin. Ft. | Lin. Ft. |
| 1-4 | 106+00 – 106+95 | Ft. | 368 | | | | | |
| 2-4 | 107+00 – 110+00 | Ft. | 369 | 95 | 10 | 1 | | |
| 3-4 | 110+00 – 112+42 | Lt. | 369 | 78 | 10 | 1 | | |
| 1-2 | 111+21 – 368+34.3 (SR37) | Lt. | | 284 | 284 | | 187.5 | |
| 2-2 | 111+29 – 367+42 (SR 37) | Ft. | | 362 | | | 125 | |
| 3-2 | 112+10 | ℄ | | 360 | | | | 26 |
| | SUBTOTALS | | | 284 78 362 | 294 | 2 | 312.5 | 26 |

RAMP-G PLAN & PROFILE STA. 106+00 TO STA. 112+56.60

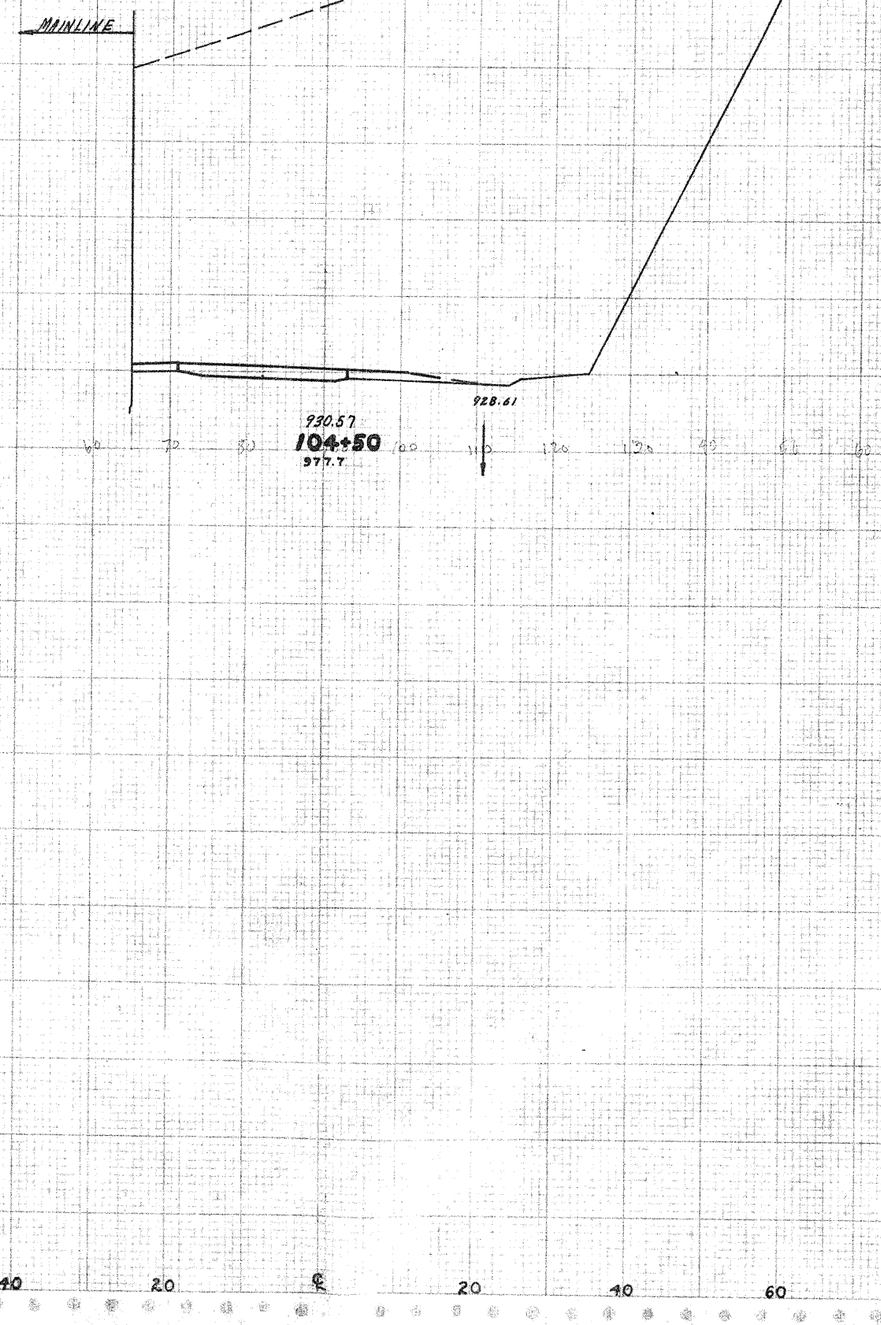
| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS |

| FED. AID DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

212/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| Ahead | 4036 | | | |
| Back | 0 | 0 | | |




RAMP "G" STA. 104+50

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS |

| PUBLIC DIVISION | | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

218
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FI |

1000

2354

5424

MAINLINE

931.85

105+50

957.74

929.89

931.93

930

1000 3504

6981

MAINLINE

931.04

105+00

964.61

929.08

930.91

930

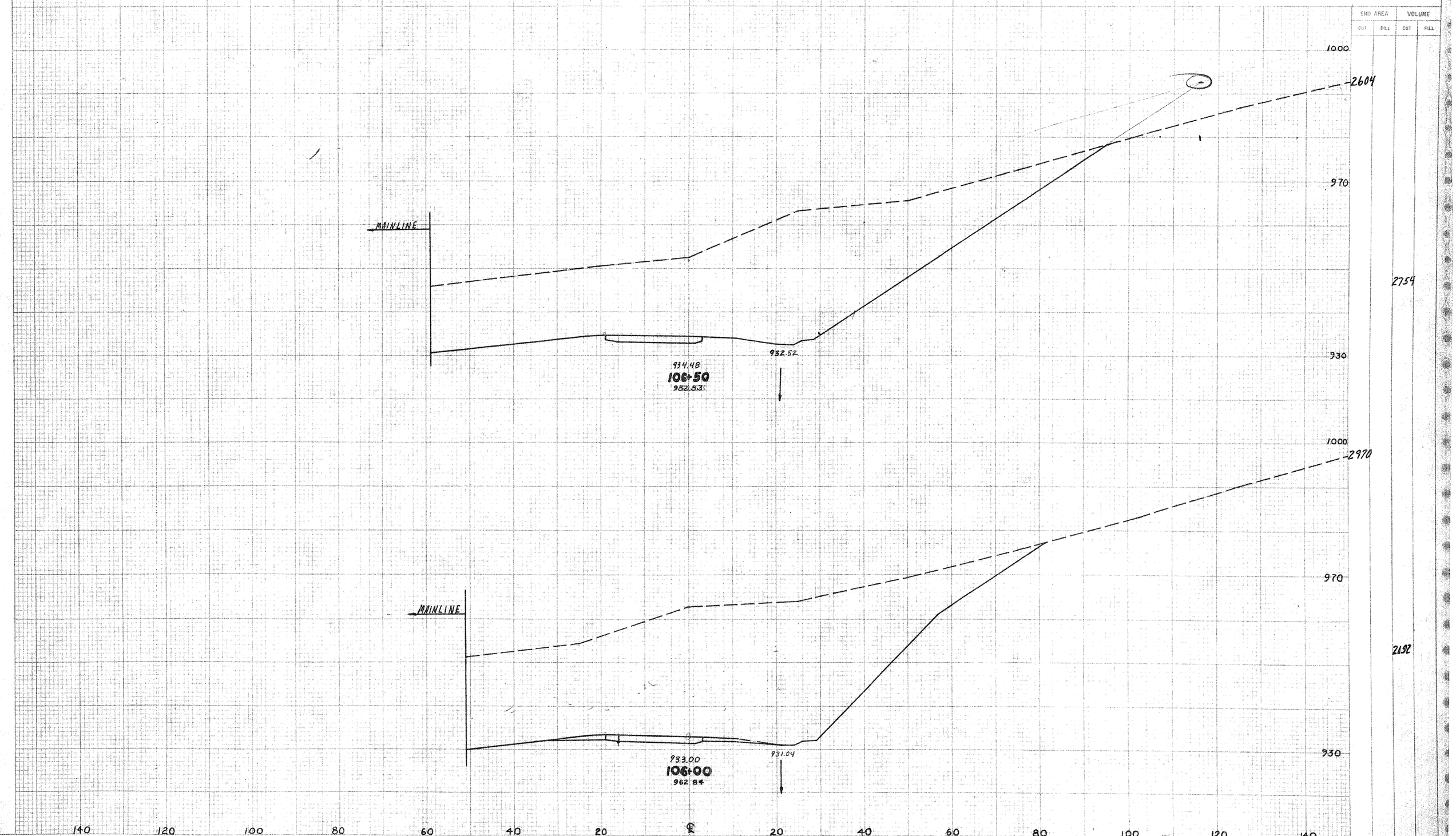
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "G" STA. 105+00 TO STA. 105+50

PRINTED IN U.S.A.
CAMCOL-TRACE CLOTH

| | | |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



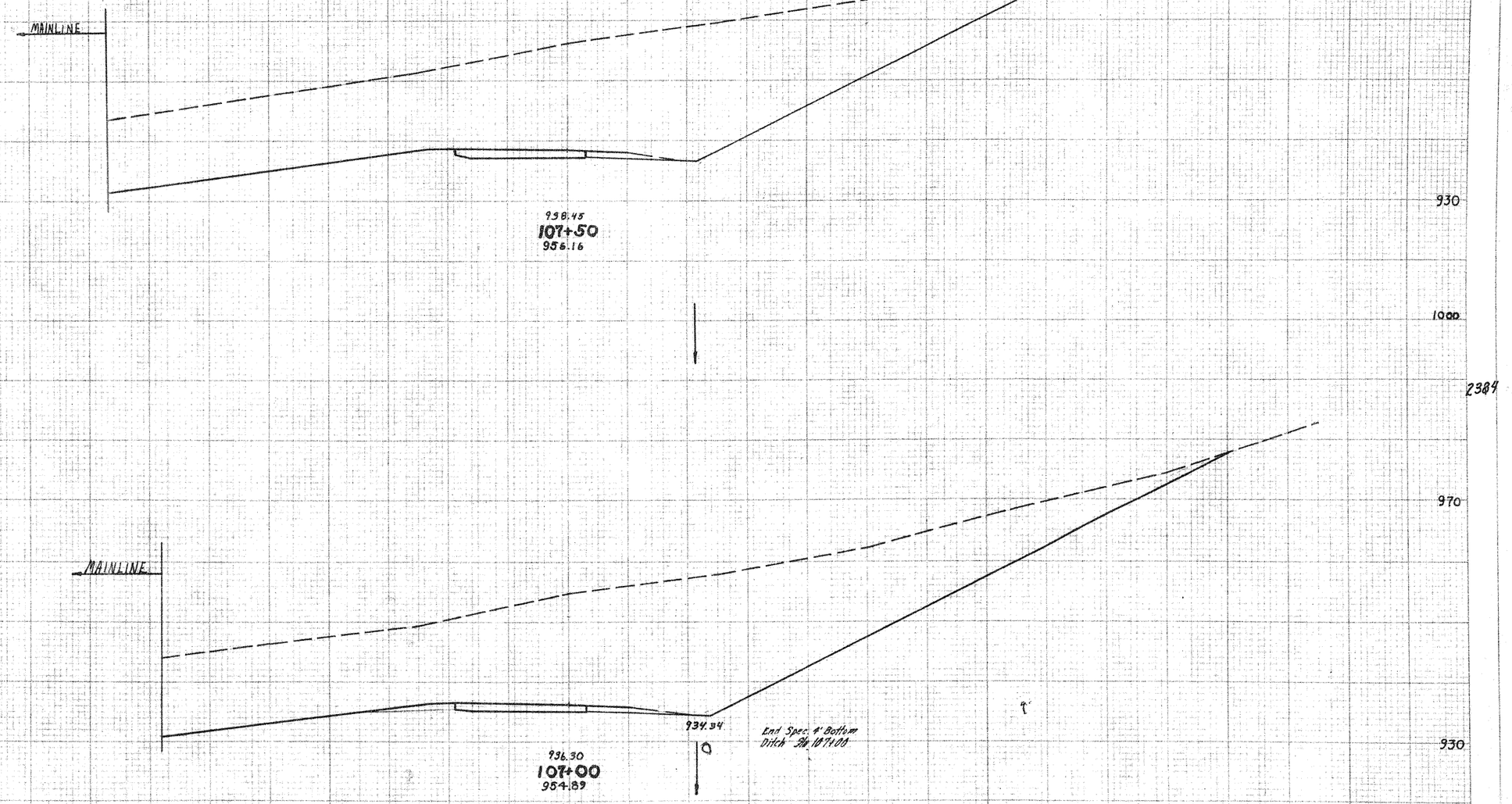

RAMP "G" STA. 106+00 TO STA. 106+50

| SHEET NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

215
466

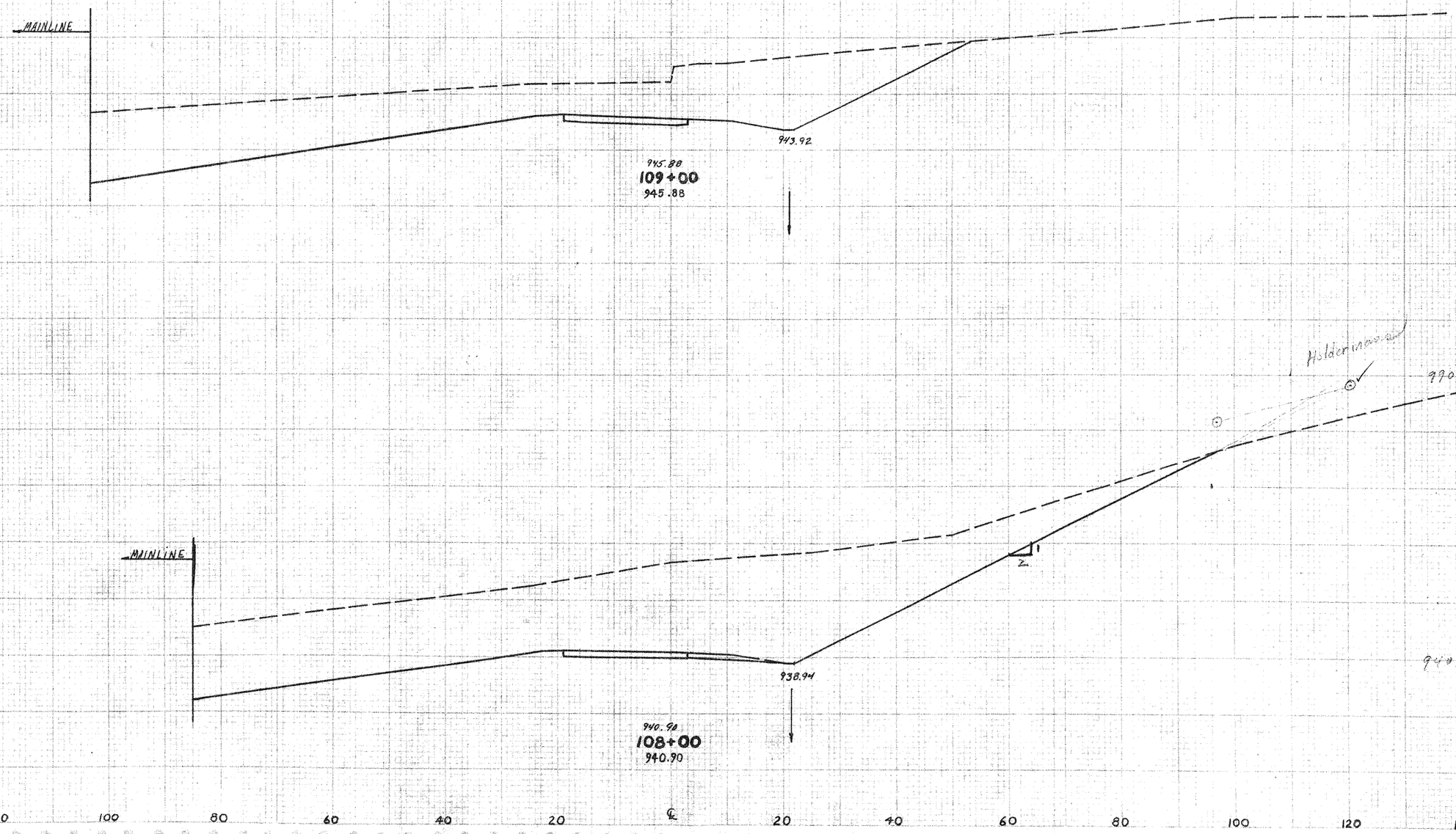
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | 1000 | | |
| | 2408 | | |
| | | 4437 | |
| | 930 | | |




RAMP "G" STA. 107+00 TO STA 107+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



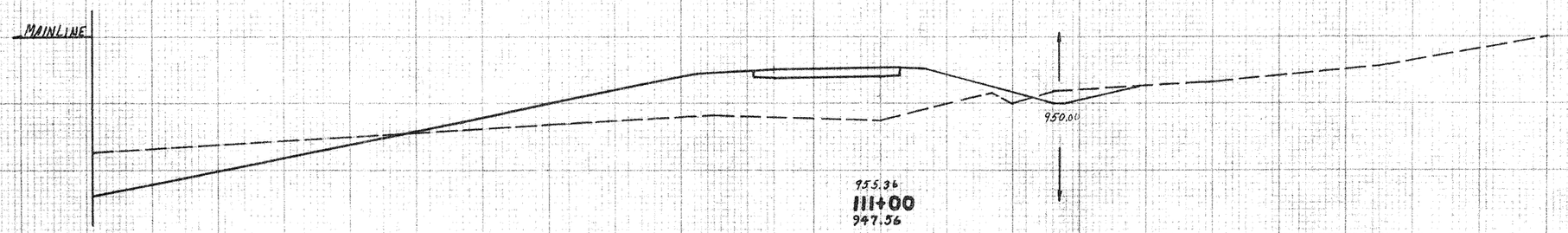

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 1000 | | | | |
| 940 | | | | |
| 1000 | | | | |
| 930 | | | | |

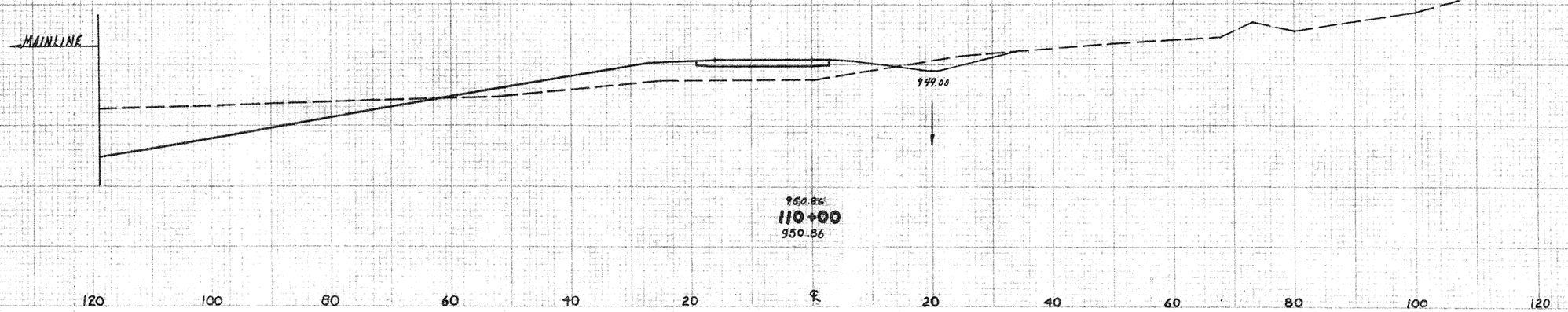
RAMP "G" STA. 108+00 TO STA. 109+00

| | STATE | | |
|---|---|---|---|
| 2 | OHIO | | |

217
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



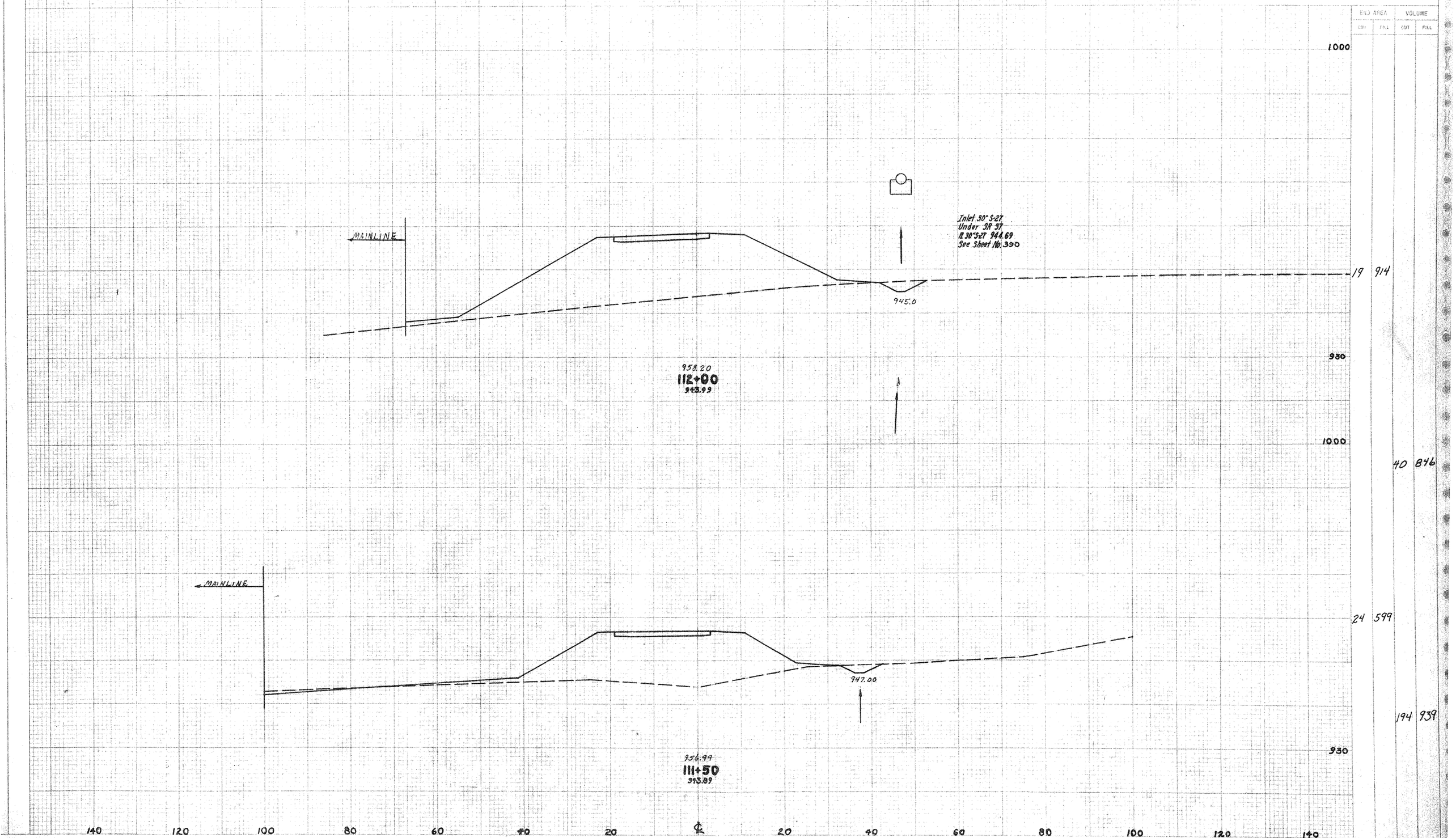

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 1000 | | | | |
| 970 | 185 | 415 | | |
| 930 | | | 707 | 1082 |
| 1000 | | | | |
| 970 | 197 | 169 | | |
| 930 | | | 2902 | 313 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "G" STA. 110+00 TO STA. 111+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

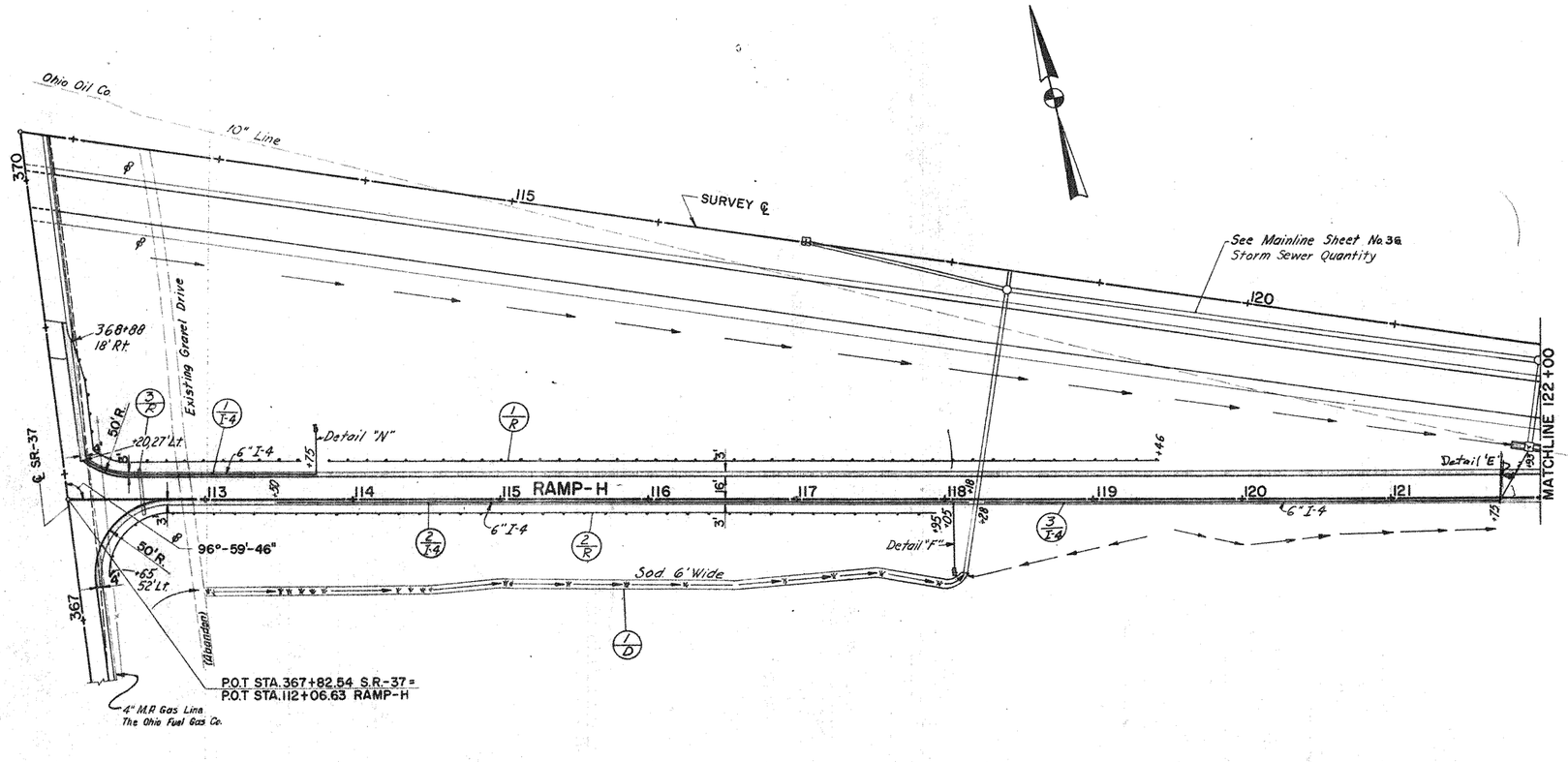


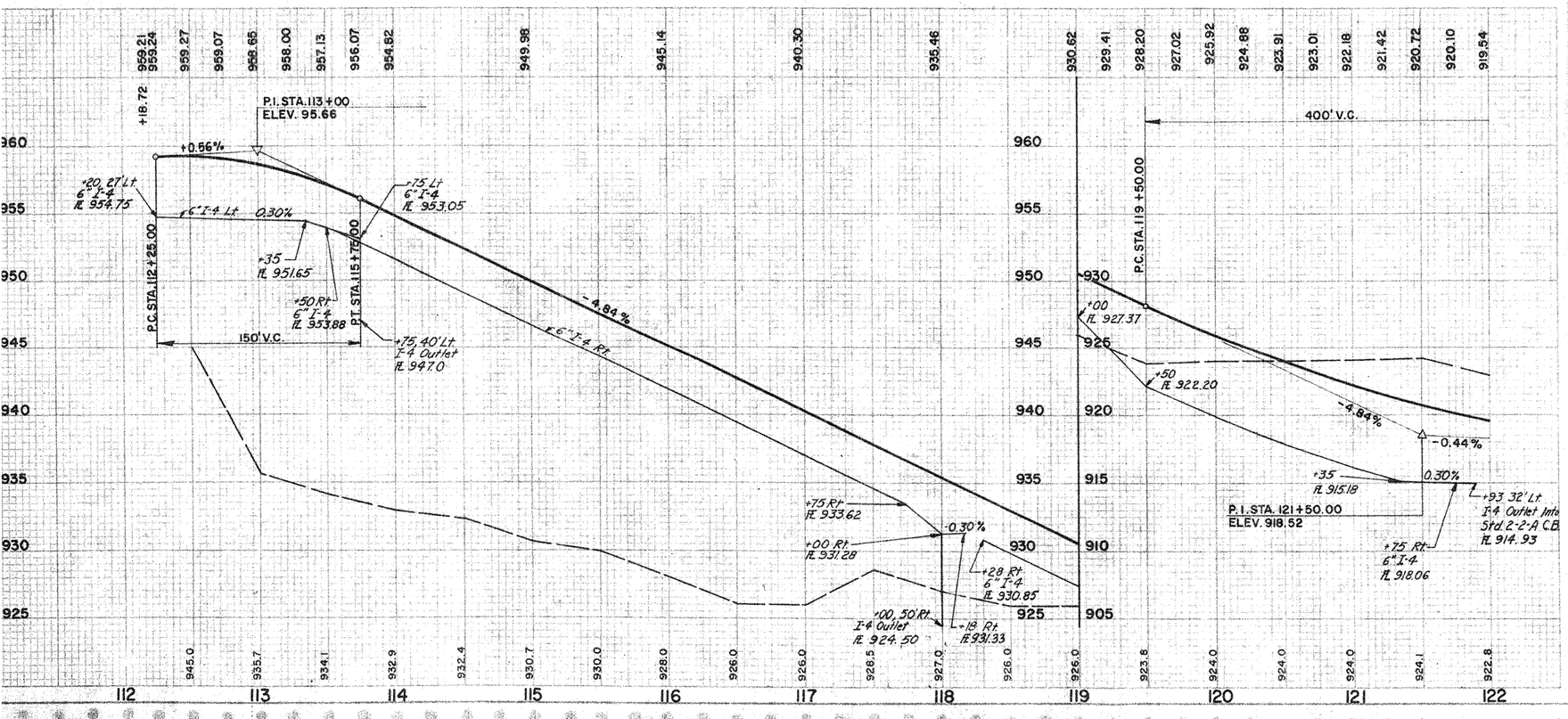

RAMP "G" STA 111+50 TO STA. 112+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| DIST. NO. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

219/466




ESTIMATED QUANTITIES

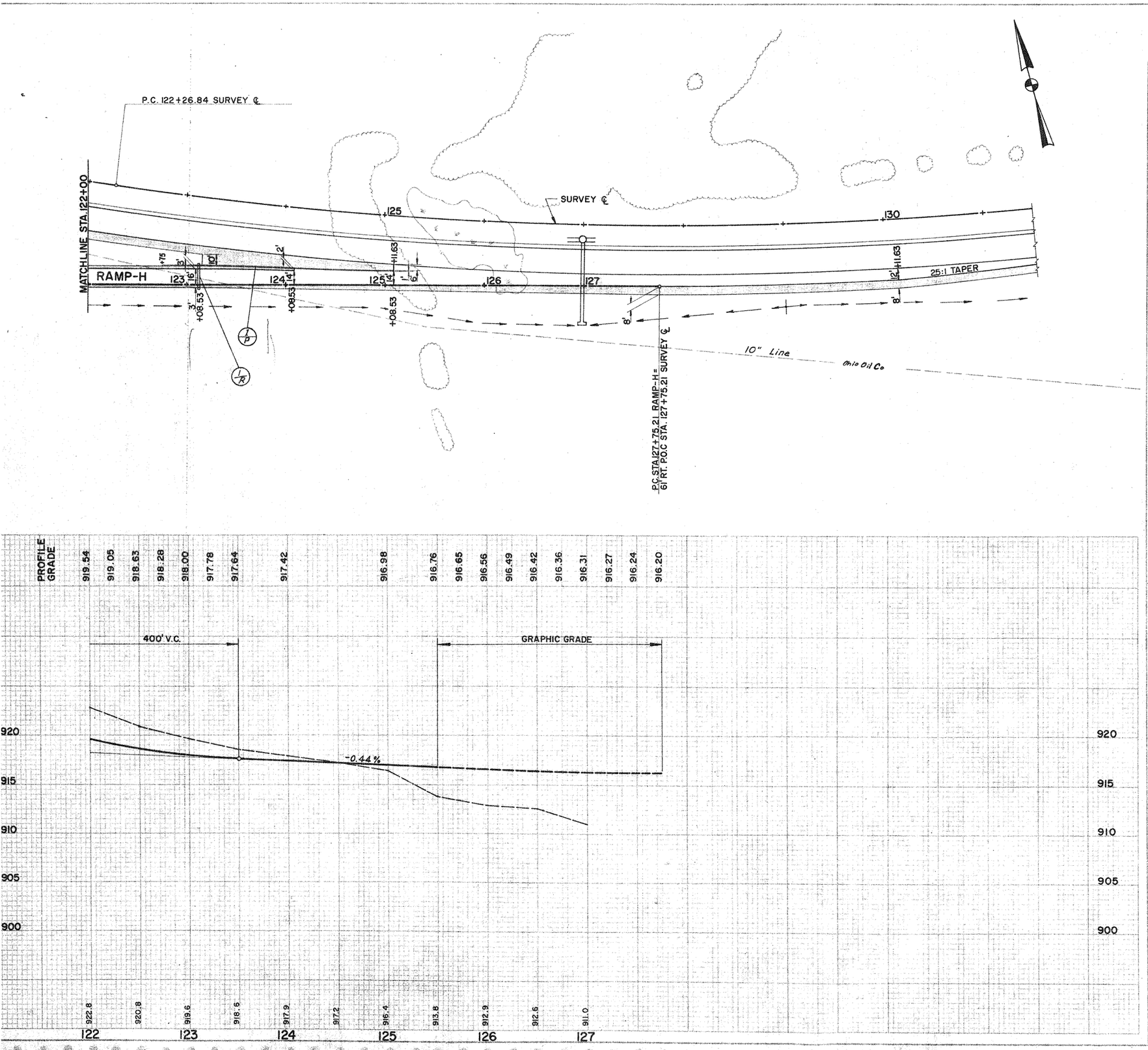
| REF NO | STATION TO STATION | SIDE | I-5 6" Pipe Specials For Underdrains | I-4 6" Underdrain | I-15 8" Pipe Steel Beam Guard Rail Anchor Assembly Type 4 | I-4 8" Pipe Underdrains Type 4 (Thick) | S-25 2"-Asbestos Cement Conduit As Per Plan | L-10 Seeding Sq. Yds. | SUB-TOTALS | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 178 | | | | | 1 | 3 |
| 1 I-4 | 112+20 - 113+75 | Lt. | 1 | 508 | | | | | 1 | |
| 2 I-4 | 113+50 - 118+18 | Rt. | 1 | 72 | | | | | 1 | |
| 3 I-4 | 118+28 - 121+93 | Rt. | | 302 | | 10 | | | 302 | 1060 |
| 1-R | 368+87 (S.R.37) - 119+46 | Lt. | | | | 10 | | | 758 | 1060 |
| 2-R | 112+35 - 117+95 | Rt. | | | | 10 | | | 1 | |
| 3-R | 112+57 | ℄ | | | | 10 | | | 1 | |
| | | | | | | 800 | 1,387.5 | 346 | 1,387.5 | 30 |
| 1-D | 112+97 - 118+15 | Rt. | | | | 587.5 | | 32 | 346 | 32 |
| | | | | | | | | | | |

RAMP-H PLAN & PROFILE STA. 112+06.63 TO STA. 122+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

220
466




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | S-25 4" Asbestos Cement Conduit as per Plan M-206.14 Lin. ft. | I-12 Special Part. Cem. Conc. Curb as per Plan Lin. Ft. |
|---|---|---|---|---|
| 1-R | 123+10 | ℄ | 26 | |
| 1-P | 122+75.00 ~ 125+08.53 | Lt. | | 233.53 |
| TOTALS | | | 26 | 233.53 |

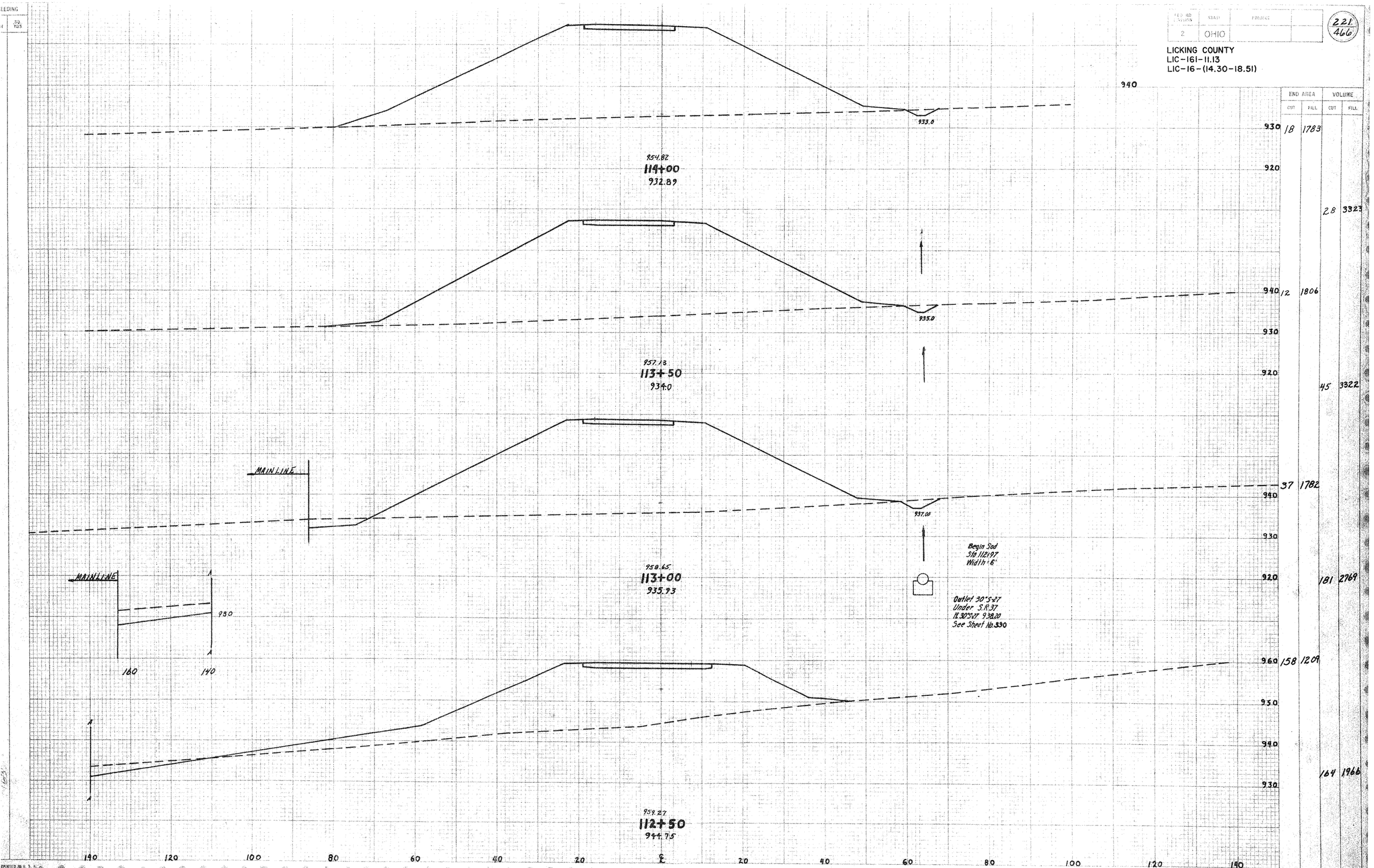
SEE SHEET NO.
369
233

RAMP-H PLAN & PROFILE STA.122+00 TO STA.127+75.21

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

221
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

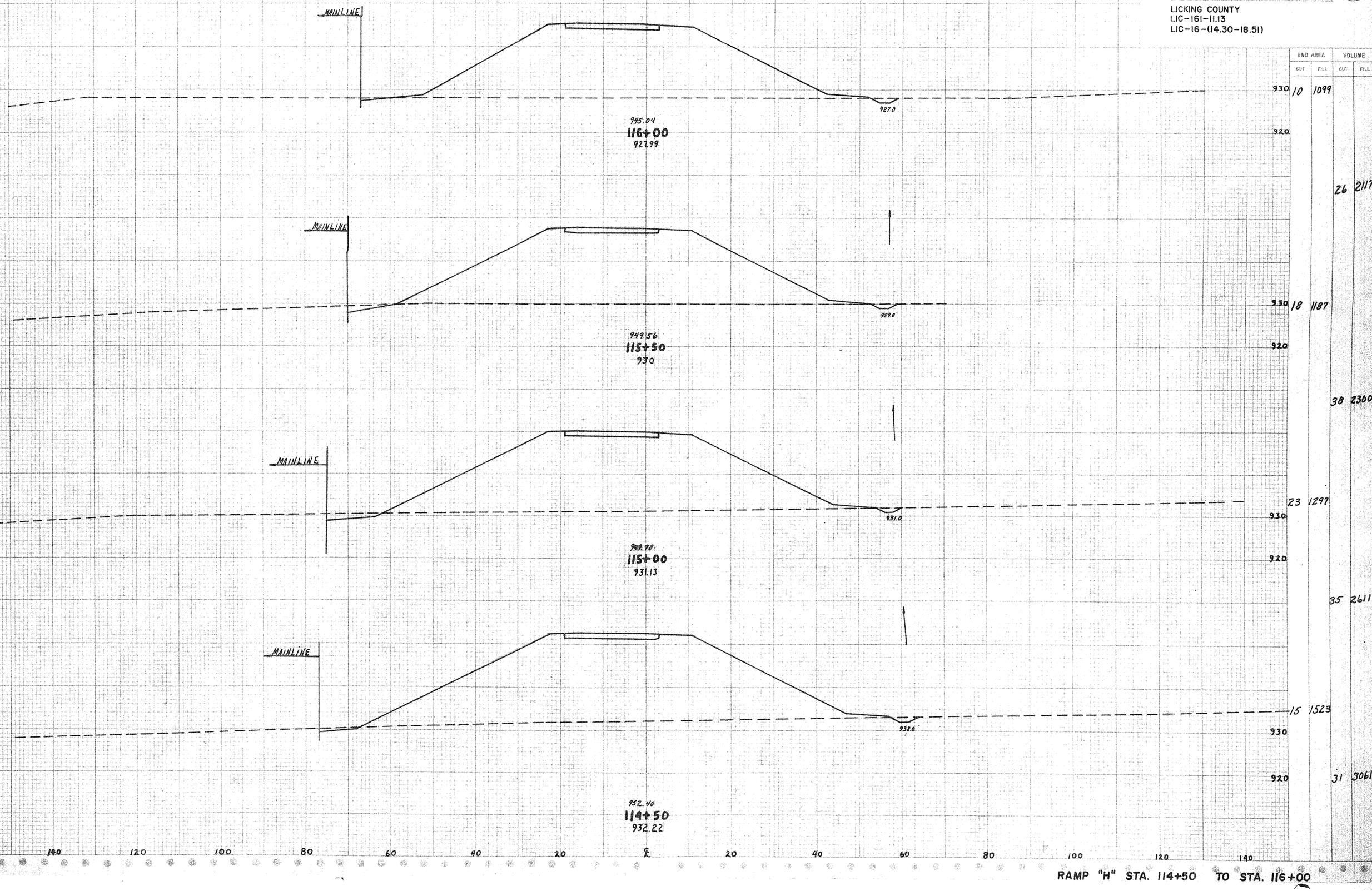



| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 930 | 18 | 1783 | | |
| 920 | | | | |
| | | | 28 | 3323 |
| 940 | 12 | 1806 | | |
| 930 | | | | |
| 920 | | | | |
| | | | 45 | 3322 |
| 940 | 37 | 1782 | | |
| 930 | | | | |
| 920 | | | 181 | 2769 |
| 960 | 158 | 1209 | | |
| 950 | | | | |
| 940 | | | | |
| 930 | | | 164 | 1966 |

RAMP "H" STA. 112+50 TO STA. 114+00

| | | | |
|---|---|---|---|
| 2 | OHIO | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



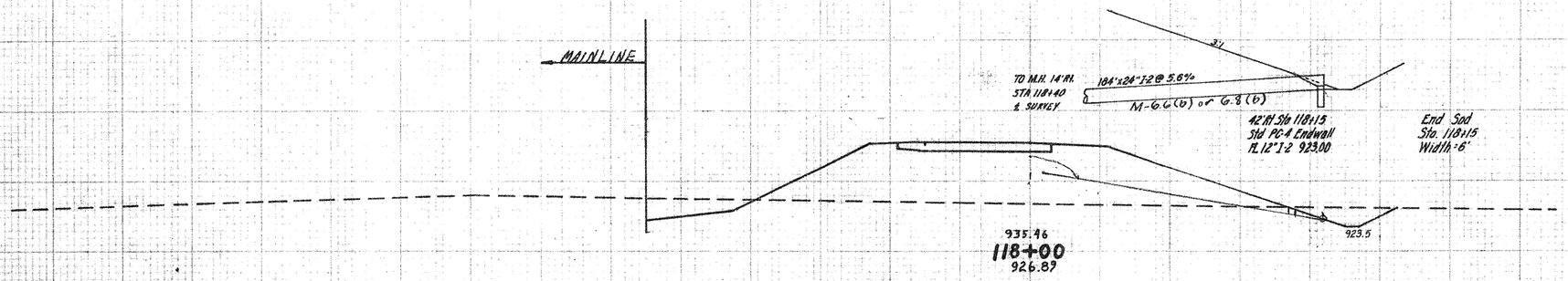

| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 930 | 10 | 1099 | | |
| 920 | | | | |
| | | | 26 | 2117 |
| 930 | 18 | 1187 | | |
| 920 | | | | |
| | | | 38 | 2300 |
| 930 | 23 | 1297 | | |
| 920 | | | | |
| | | | 35 | 2611 |
| 930 | 15 | 1523 | | |
| 920 | | | 31 | 3061 |

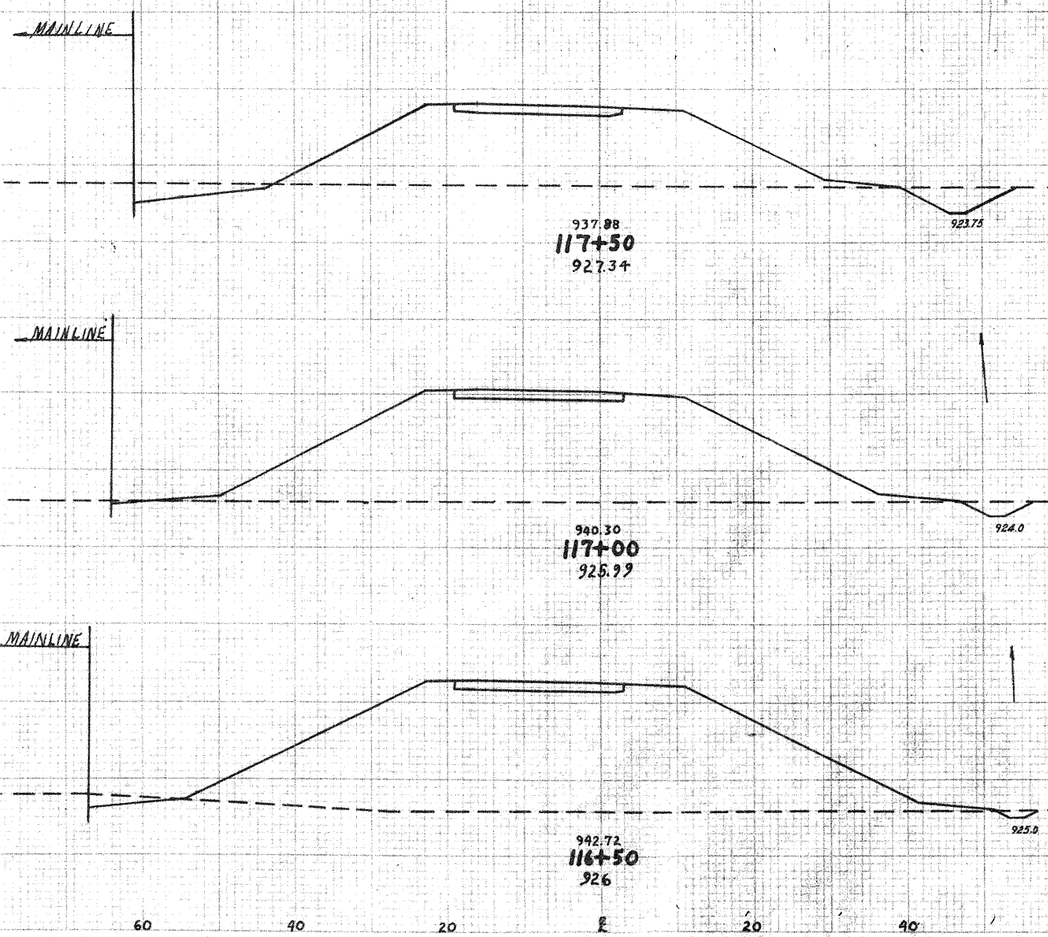
RAMP "H" STA. 114+50 TO STA. 116+00

223
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

EDING
59 YDS



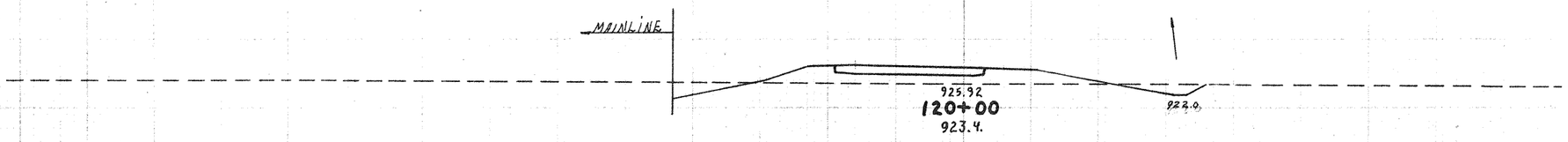

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| 930 64 | 450 | | |
| 920 | | | |
| | | | 121 | 918 |
| 930 67 | 542 | | |
| 920 | | | |
| | | 75 | 1321 |
| 920 14 | 885 | | |
| 920 | | | |
| | | 33 | 1838 |
| 930 22 | 1100 | | |
| 920 | | 30 | 2036 |

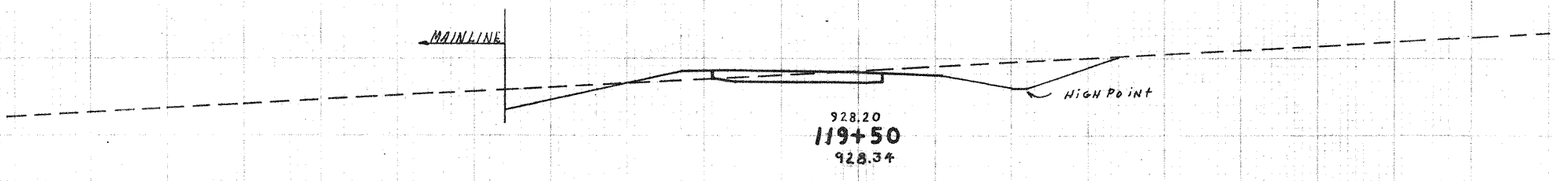
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

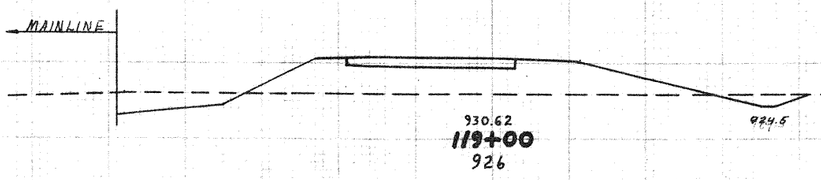
PRINTED IN U.S.A.
COAL TRADES CLOTH

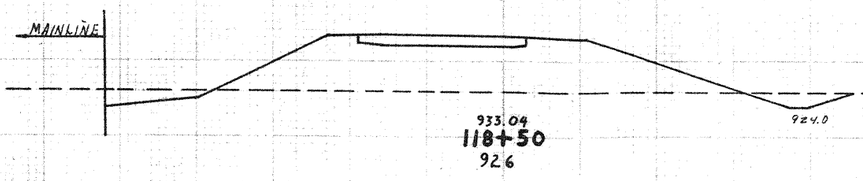
RAMP "H" STA. 116+50 TO STA. 118+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 930 | | | | |
| 920 | 25 | 75 | | |
| | | | 119 | 79 |
| 930 | 103 | 10 | | |
| 920 | | | | |
| | | | 137 | 199 |
| 930 | | | | |
| | 45 | 205 | | |
| 920 | | | | |
| | | | 88 | 514 |
| 930 | | | | |
| | 50 | 350 | | |
| 920 | | | | |
| | | | 106 | 741 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "H" STA. 118+50 TO STA. 120+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 930 | | | | |
| 238 | | | | |
| 920 | | | | |
| | | | 499 | |
| 930 | | | | |
| 281 | | | | |
| 920 | | | | |
| | | | 431 | |
| 930 | | | | |
| 185 | | | | |
| 920 | | | | |
| | | | 160 | |
| 930 | | | | |
| 88 | | | | |
| 920 | | | | |
| | | | 105 | 90 |

MAINLINE
919.54
122+00
922.7

MAINLINE
920.72
121+50
924.1

MAINLINE
922.18
121+00
924.0

MAINLINE
923.91
120+50
924.0

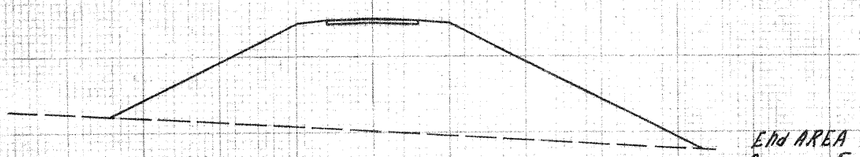
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "H" STA. 120+50 TO STA. 122+00

| | | | |
|---|---|---|---|
| 2 | OHIO | | |

226
466

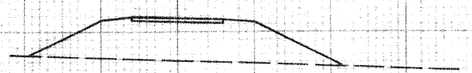
LICKING COUNTY
LIC.-161-11.13
LIC-16-(14.30-18.51)



964.3
**1+00**
950+00

End AREA
C F
0 714

VOLUME
C F
0 826



961.7
**0+50**
956.0

End AREA
C F
0 178

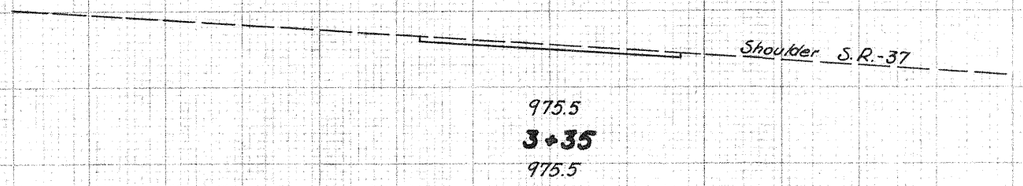
VOLUME
C F
11 165



959.14
**0+00**
959.14

End AREA
C F
12 0

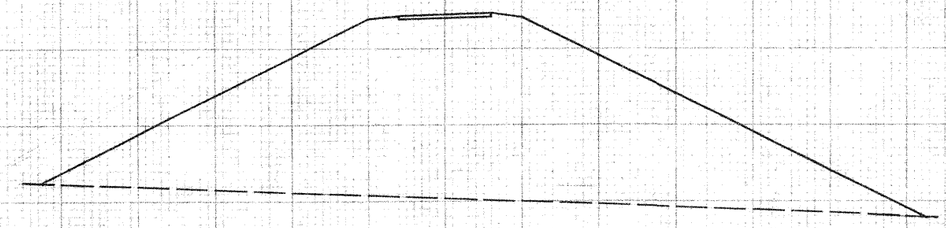
40 30 20 10 10 20 30 40 50




975.5
**3+35**
975.5

End AREA
C F
32 0

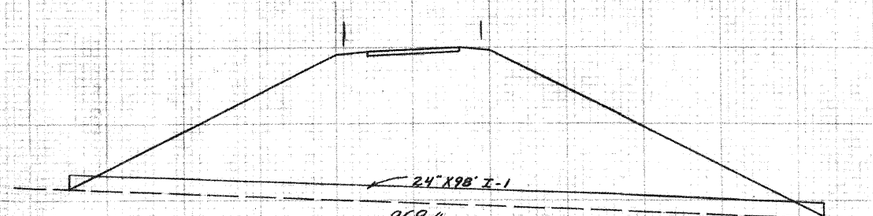
VOLUME
C F
0 1521



974.4
**2+75**
950.1

End AREA
C F
0 1507

VOLUME
C F
0 3563




969.4
**2+00**
949.5

End AREA
C F
0 1058

VOLUME
C F
0 3282

40 30 20 10 10 20 30 40 50 60

ROBERTS DRIVE STA. 0+00 TO STA. 3+35 (RT. S.R. 37)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

227
466

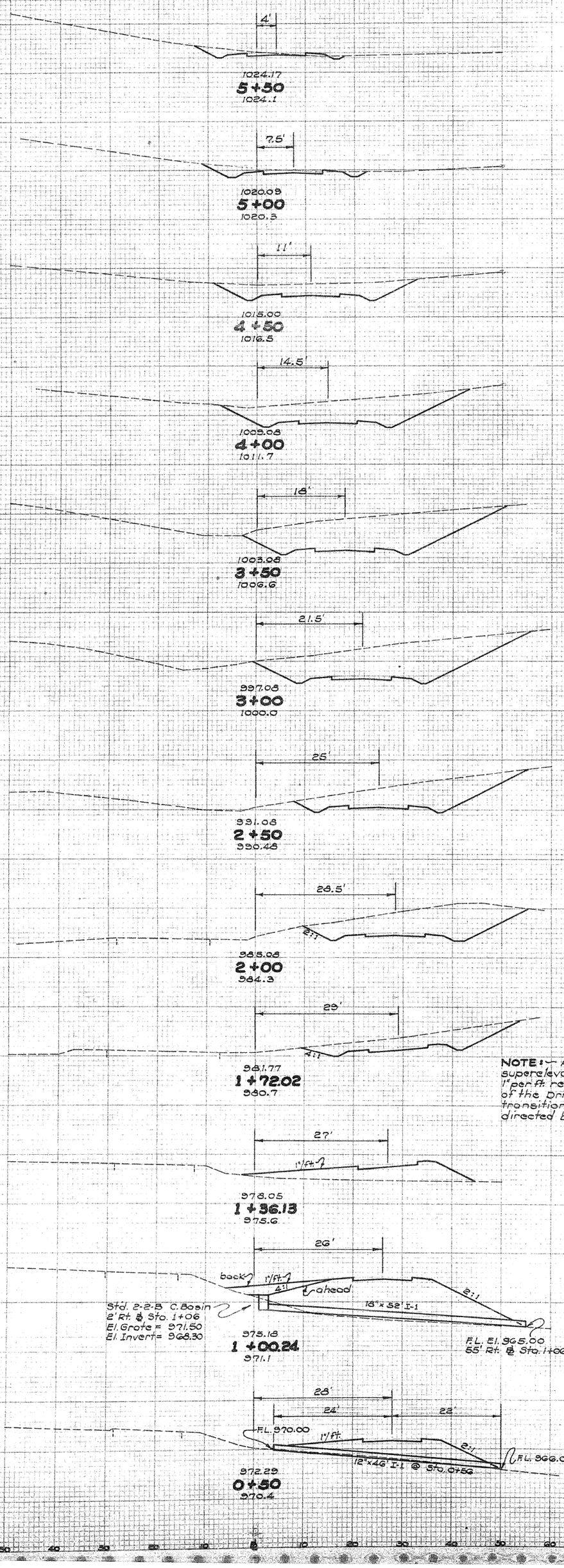
LIC-161-11.13
LIC-16-(14.30-18.51)

## ESTIMATED QUANTITY

| Item | Description | Quantity | |
|---|---|---|---|
| E-1 | Roadway Excavation, Method "B", As per Plan | 2984 | C.Y. |
| | Embankment | 2013 | C.Y. |
| I-1 | 12" Pipe for Driveways, Sec. M-6.4 (a) | 46 | L.F. |
| I-1 | 18" Pipe for Driveways, Sec. M-6.4 (a) | 106 | L.F. |
| I-8 | Standard Nº. 2-2-8, Catch Basin | 1 | Each |
| I-10 | Dumped Rock Channel Protection | 6 | C.Y. |
| T-30 | Bituminous Prime Coat, Sec. M-5.7, R.T.-2 or R.T.-3 | 707 | Gals. |
| T-35 | Asphaltic Concrete Surface Course, Type "C" (70-85) | 90 | C.Y. |
| B-19 | Crushed Aggregate Base Course | 246 | C.Y. |

S.R. 37
STA. 364+85 S.R. 37 = & STA. 0+00 RT.
P.C.C. 363+98.02
364
P.C. 1+00.24
12" C.M.P.
12" V.S.P.
Stone Wall
P.T. 1+72.02
Stone Wall
Constr. Limits
Constr. Limits
Posts only
P.I. 1+36.51
Δ = 20°-06' Lt.
D = 28°
R = 204.68'
T = 36.27'
L = 71.79'
E = 6.19'
12"x46' I-1
18"x52' I-1
365
365+15 S.R. 37 = & STA. 0+00 ℄ DRIVE
Tangent to Curve
366
NOTE :- Place 2 Cu.Yds. I-10 Dumped Rock Chan. Protection at outlet of each drive pipe (6'x6'x18")
NOTE :- See X-Sec's. of Drive for offset distance from ℄ to ℄ of Drive between Sta. 0+00 to Sta. 6+35.53.
P.C. 5+71.25
P.T. 6+35.53
P.C. 6+87.95
P.T. 8+12.39
P.I. = 7+82.33
Δ = 112° Rt.
D = 90°
R = 63.66'
T = 54.38'
L = 124.44'
E = 50.18'
F.L. 1027.0
F.L. 1024.0
18"x54' I-1
Normal to ℄ Sta. 7+65.0
P.C. 9+10.53
P.T. 9+75.53
P.I. = 9+43.17
Δ = 90°-00' Lt.
D = 90°
R = 63.66'
T = 63.66'
L = 99.96'
E = 31.80'
P.C. 10+84.19
P.T. 11+36.57
P.I. = 11+43.79
Δ = 47°-12' Lt.
D = 90°
R = 63.66'
T = 27.79'
L = 52.40'
E = 9.53'
NOTE :- Do not disturb the two trees, 13.1' Rt. Sta. 11+01 and 12.0' Lt. Sta. 11+20.
Δ = 15°-12' Rt. Sta. = 12+12.67
Δ = 18°-34' Rt. Sta. = 12+94.85
End Drive Sta. 12+18.67
150' V.C.
+9.12%
MATCH LINE
+3.32%
+12.00%
200' V.C.
100' V.C.
+5.50%
+3.1%
E. Prop. S.R. 37
20' V.C.
P.I. = 0+30 El. = 971.19
P.I. = 1+30 El. 976.28 +47
P.I. = 5+30 El. = 1024.66
B.M. Sp. in 24" Treq, 10' Lt. Sta. 5+55 El. 1026.02
E.P. +10 +20 +30 +40 +50 +36.13 +72.02 +90 +95.03
+30 +45 +00 +40 +60 +80 +55 +12.67
+43.05
+25.26 +12.67
0+00 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
50 40 30 20 10 00 90 80 70 60
1080 1070 1060 1050

WILLCOX DRIVE RELOCATION




**NOTE:** — All curves shall be superelevated at the rate of 1" per ft. revolved about the ℄ of the Drive. The necessary transitions shall be as directed by the Engineer.

| | | | | |
|---|---|---|---|---|
| | | | 63 | 6 |
| 23 | 2 | | | |
| | | | 52 | 3 |
| 33 | 1 | | | |
| | | | 120 | 1 |
| 97 | 0 | | | |
| | | | 458 | 0 |
| 192 | 0 | | | |
| | | | 444 | 0 |
| 287 | 0 | | | |
| | | | 527 | 0 |
| 282 | 0 | | | |
| | | | 421 | 0 |
| 172 | 0 | | | |
| | | | 346 | 0 |
| 202 | 0 | | | |
| | | | 161 | 0 |
| 109 | 0 | | | |
| | | | 73 | 73 |
| 0 | 110 | | | |
| | | 0 | 286 | |
| Ahead | 0 | 317 | | |
| Back | 0 | 348 | | |
| | | | 0 | 445 |
| | 0 | 130 | | |
| | | | 0 | 96 |
| 0+10 | 0 | 0 | | |

0+50 ~ 5+50

LIC-161-11.13
LIC-16-(14.30-18.51)

2 OHIO

228
466

| FED. RD. DIV. NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

229
466

LIC-161-11.13
LIC-16-(14.30-18.51)

| | | |

| End Area | Cu. Yds. |
|---|---|
| Cut / Fill | Cut / Fill |
| 0 / 6 | 12 / 10 |
| 11 / 20 | 20 / 5 |
| 3 / 34 | |

| DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

230
466

LIC-161-11.13
LIC-16-(14.30-18.51)

END DRIVE
STA. 12+12.67

12+50
1060.00

12+25
1057.62

12+12.67
1056.26

11+80
1052.46

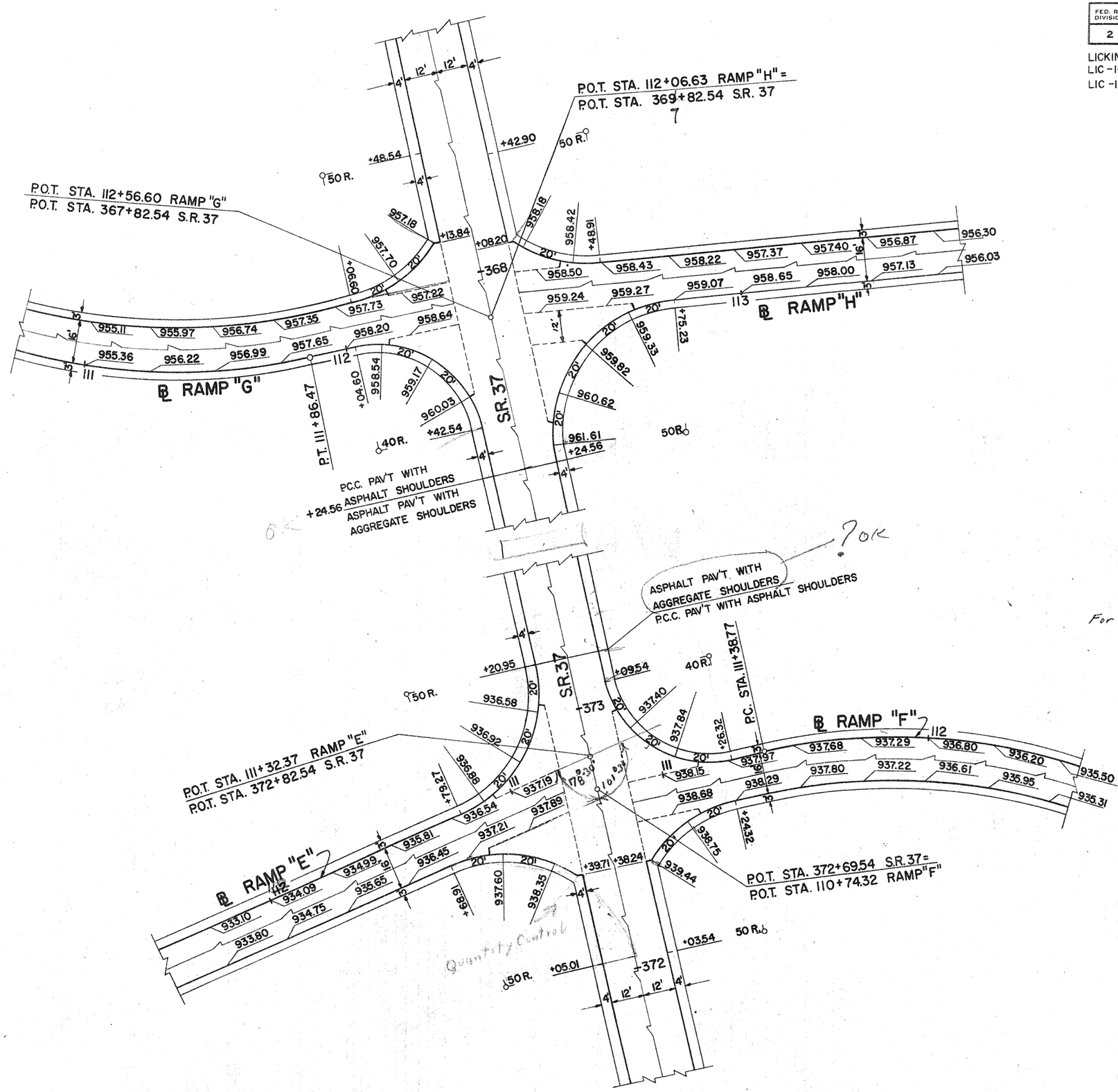
11+60
1050.2

11+60 ~ 12+50

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

231
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

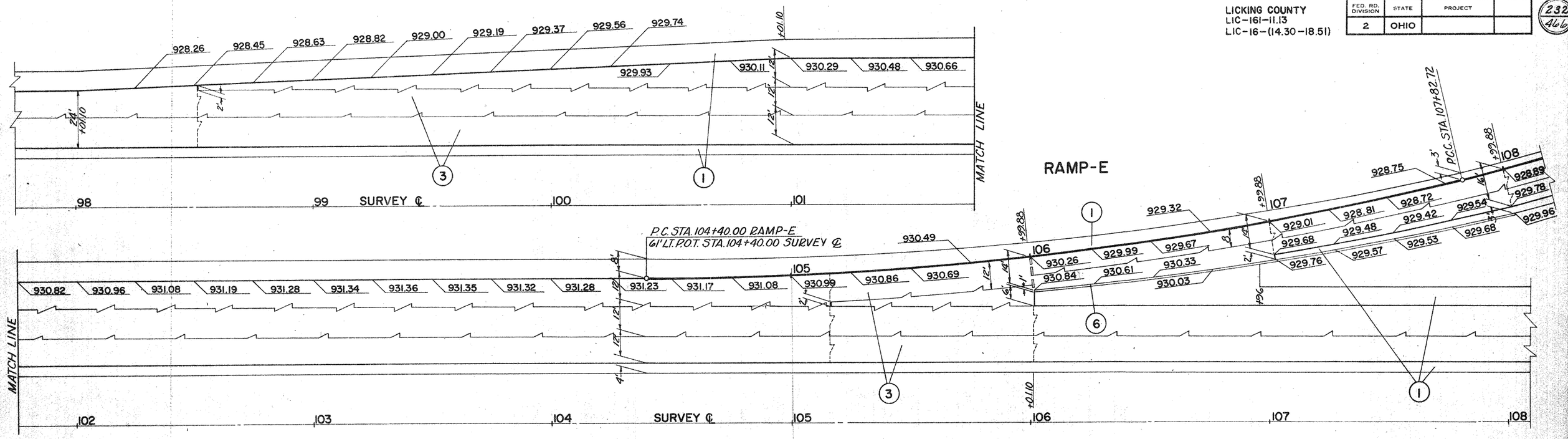


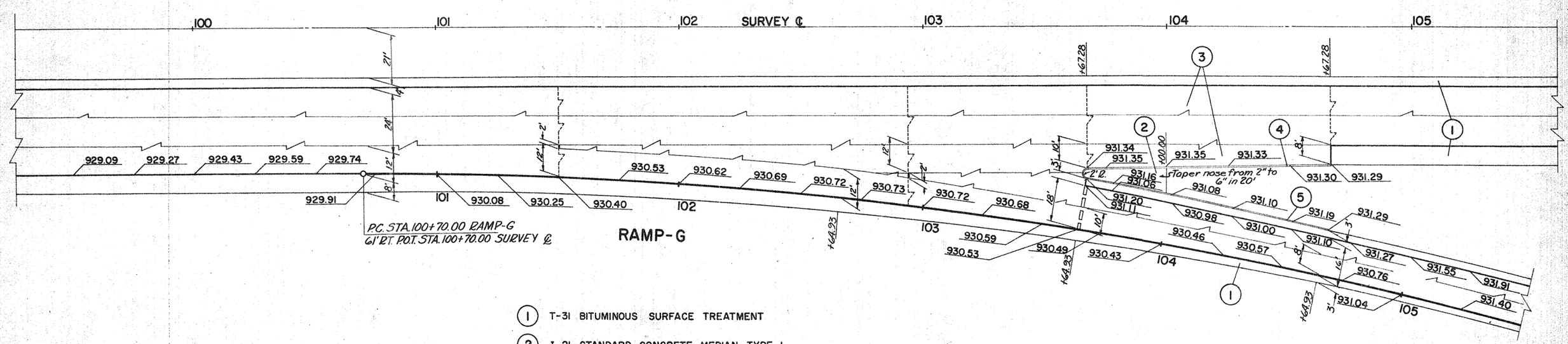

S.R.-37 INTERCHANGE RAMP TERMINALS -PAVEMENT DETAILS

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

232
466




STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT

(1) T-31 BITUMINOUS SURFACE TREATMENT
(2) I-21 STANDARD CONCRETE MEDIAN TYPE-1
(3) T-71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(4) I-12 STANDARD CONCRETE CURB TYPE-2A
(5) I-12 STANDARD CONCRETE CURB TYPE-6
(6) I-12 SPECIAL CONCRETE CURB

SR-37 INTERCHANGE RAMPS-E & G PAVEMENT DETAILS

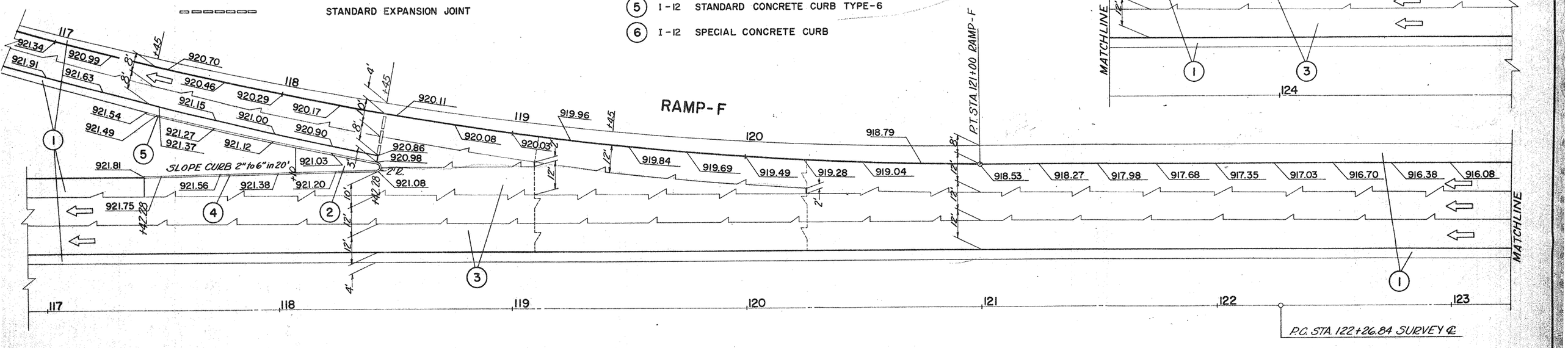
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

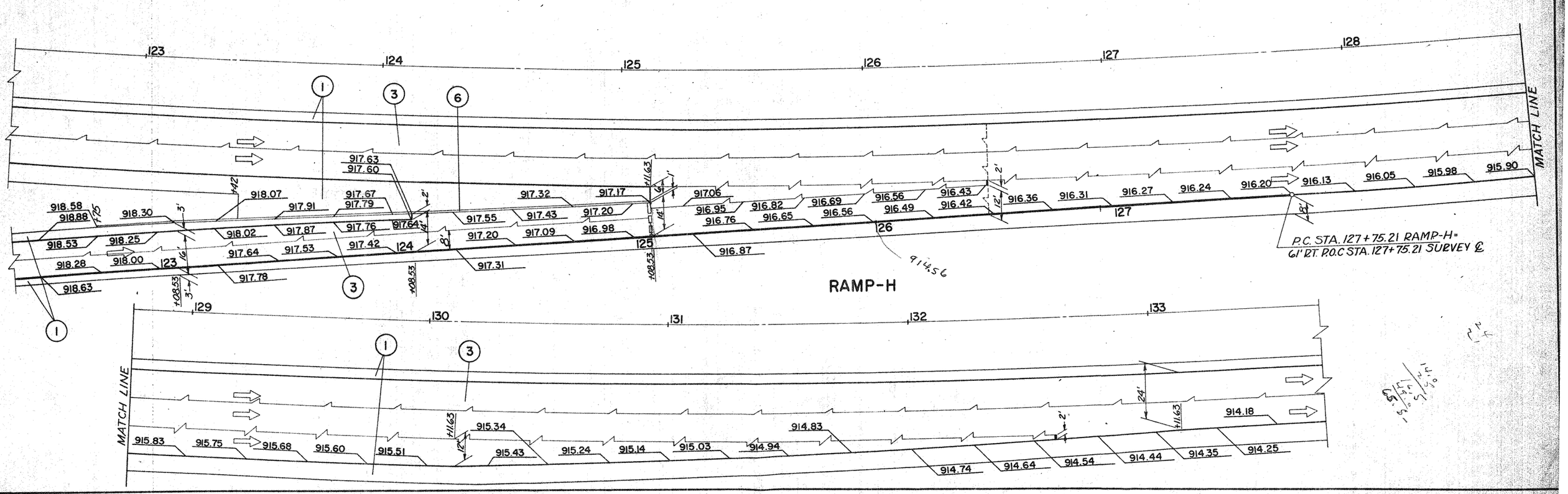
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

233
466

STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT

(1) T-31 BITUMINIOUS SURFACE TREATMENT
(2) I-21 STANDARD CONCRETE MEDIAN TYPE-1
(3) T-71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(4) I-12 STANDARD CONCRETE CURB TYPE-2A
(5) I-12 STANDARD CONCRETE CURB TYPE-6
(6) I-12 SPECIAL CONCRETE CURB




SR-37 INTERCHANGE RAMPS-H & F PAVEMENT DETAILS

Granville Bypass

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

234
466

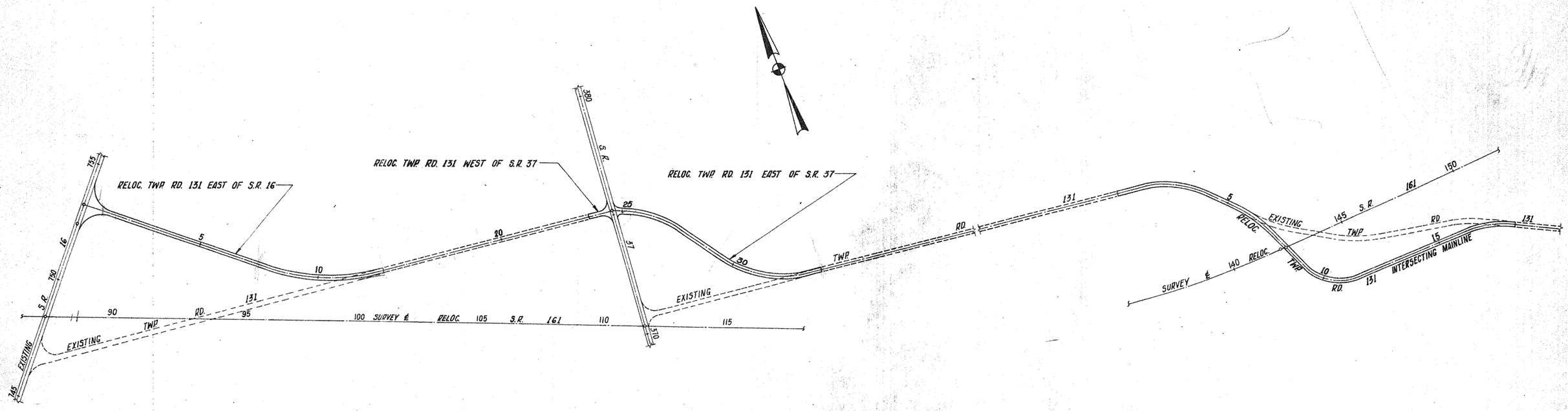
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

# TWP. RD. 131 SUB-SUMMARY

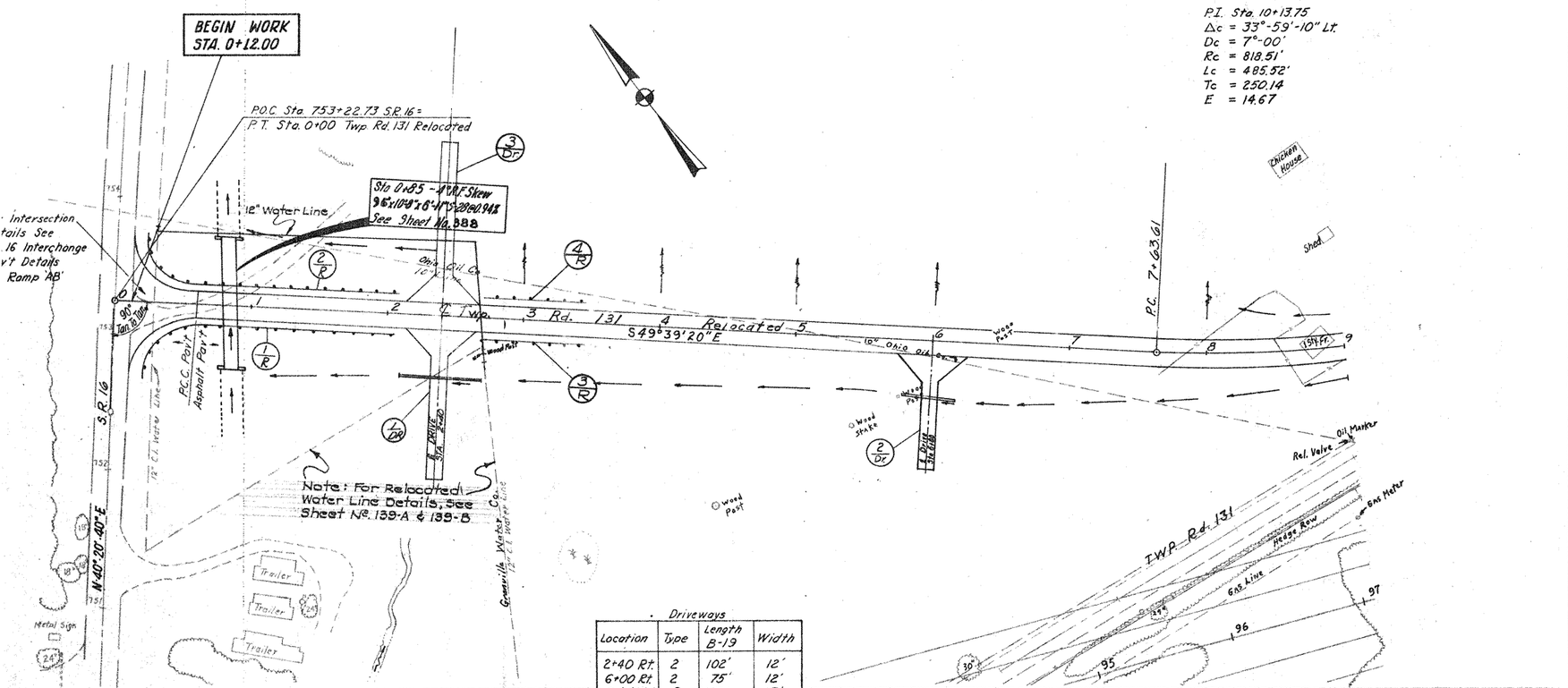
Shts 234 Thru 329

Twp Rd 131
Co Rd 128
(Municipal) SR 512 Interchange

| STATION | SHEET NUMBER | E-12 Pipe Removed, Over 15" Lin. Ft. | I-15 Guard Rail Steel Beam Standard Type (Deep) Lin. Ft. | L-10 Sodding Sq. Yds. | I-1 Pipe For Driveways, Sec. M-6.4(a) 12" Lin. Ft. | I-1 Pipe For Driveways, Sec. M-6.4(a) 18" Lin. Ft. | B-19 Crushed Aggregate Base Course Cu. Yds. | T-20 7" Pvm. Concrete, EXT. | T-35 Asphaltic Concrete Surface Course, Type "C" (70-85) Cu. Yds. |
|---|---|---|---|---|---|---|---|---|---|
| 0+12 - 0+62 | | | | | | | | 209 | |
| 0+00 to 9+00 | 235 | | 350 | | 36 | 60 | 87 | | |
| 9+00 to 20+00 | 236 | | | | 84 | | 38.7 | | 1.5 |
| 20+00 to 29+00 | 246 | | | | | | | | 1.5 |
| 29+00 to 38+00 | 247 | | | | | | | | 1.5 |
| 3+00 to 12+00 | 254 | | | | 56 | | 20.3 | | 1.5 |
| 12+00 to 20+00 | 255 | 48 | 100 | 17 | 34 | | 21 | | 1.5 |
| TOTALS TO GENERAL SUMMARY | | 48 | 450 | 17 | 210 | 60 | 166 | | 7.5 ✓ |



See Sht. #183




ESTIMATED QUANTITIES

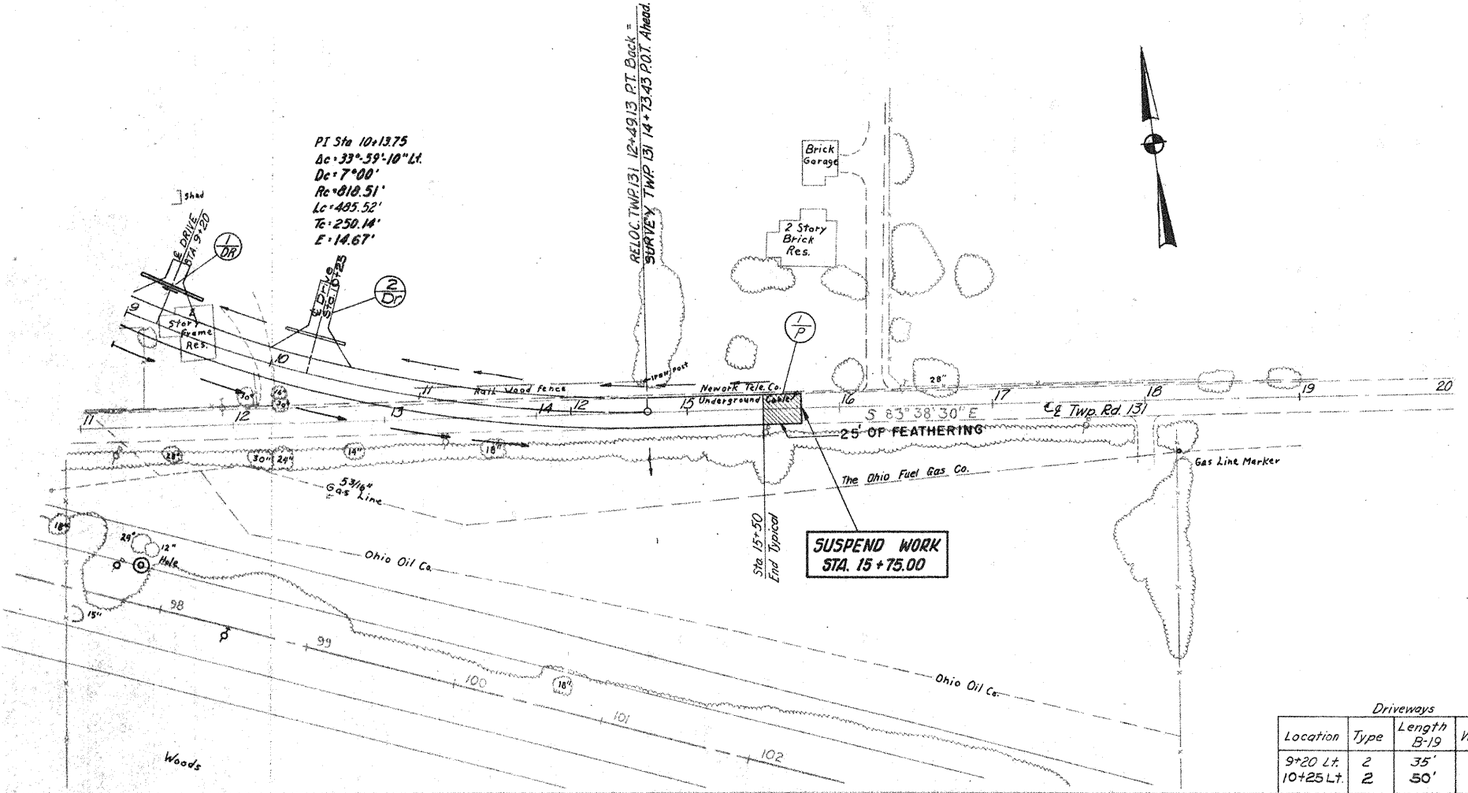
| REF. NO. | STATION TO STATION | SIDE | B-19 Crushed Aggregate Base Course Cu. Yds. | I-15 Guard Rail Steel Beam Deep Std. Lin. Ft. | I-1 Pipe for Driveways M6.4(a) 12" 18" Lin. Ft. Lin. Ft. |
|---|---|---|---|---|---|
| 1-Dr. | 2+40 | Rt. | 30 | | 36 60 |
| 2-Dr. | 6+00 | Rt. | 24 | | |
| 3-Dr. | 2+40 | Lt. | 33 | | |
| 1-R | 752+56.47 S.R. 16 - Sta. 2+05± | Rt. | | 200 | |
| 2-R | 753+75.00 S.R. 16 - Sta. 2+04± | Lt. | | 200 | |
| 3-R | 2+70 - 3+45 | Rt. | | 75 | |
| 4-R | 2+70 - 3+45 | Lt. | | 75 | |
| TOTALS | | | 87 | 350 | 36 60 |

TWP. RD. 131 RELOCATION PLAN & PROFILE STA. 0+00 TO STA. 9+00

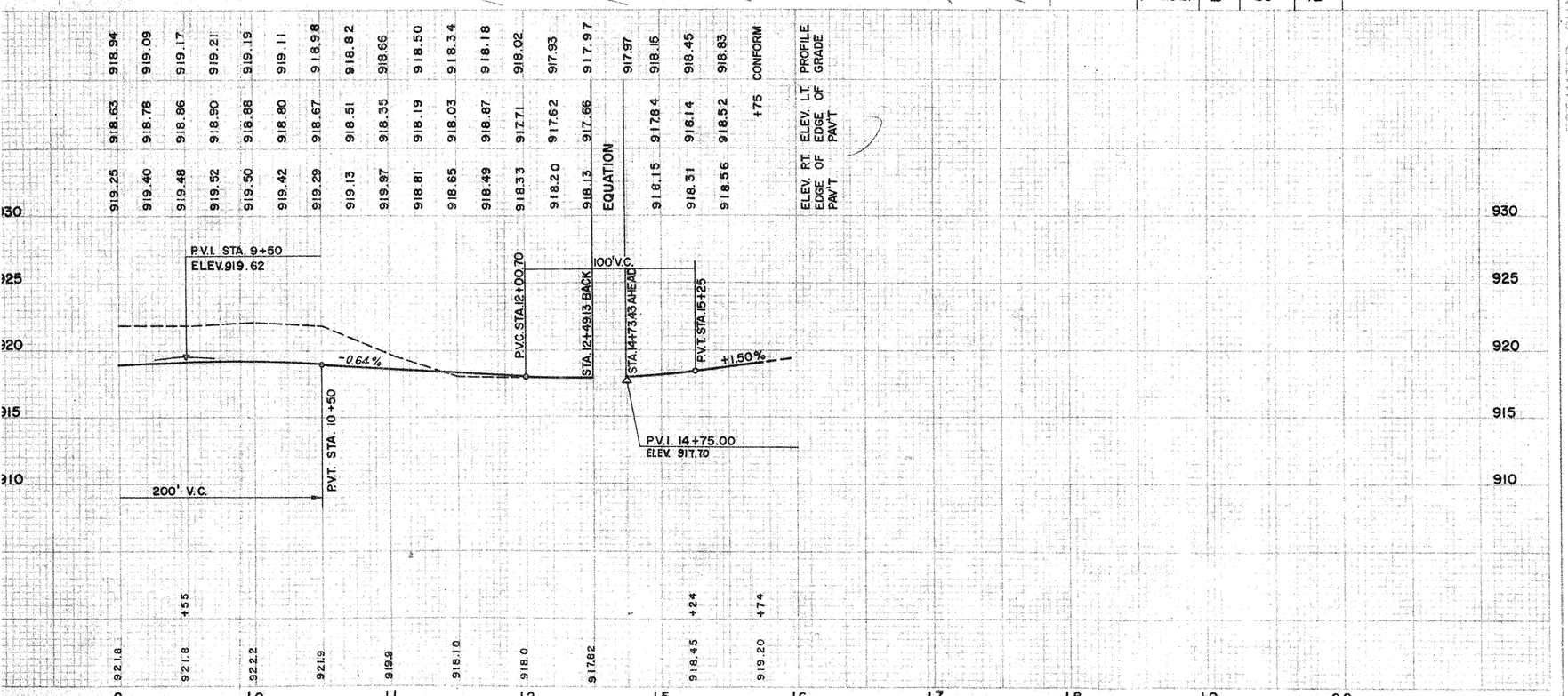
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| CO. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

236
466




| Driveways | | | |
|---|---|---|---|
| Location | Type | Length B-19 | Width |
| 9+20 Lt. | 2 | 35' | 12' |
| 10+25 Lt. | 2 | 50' | 12' |



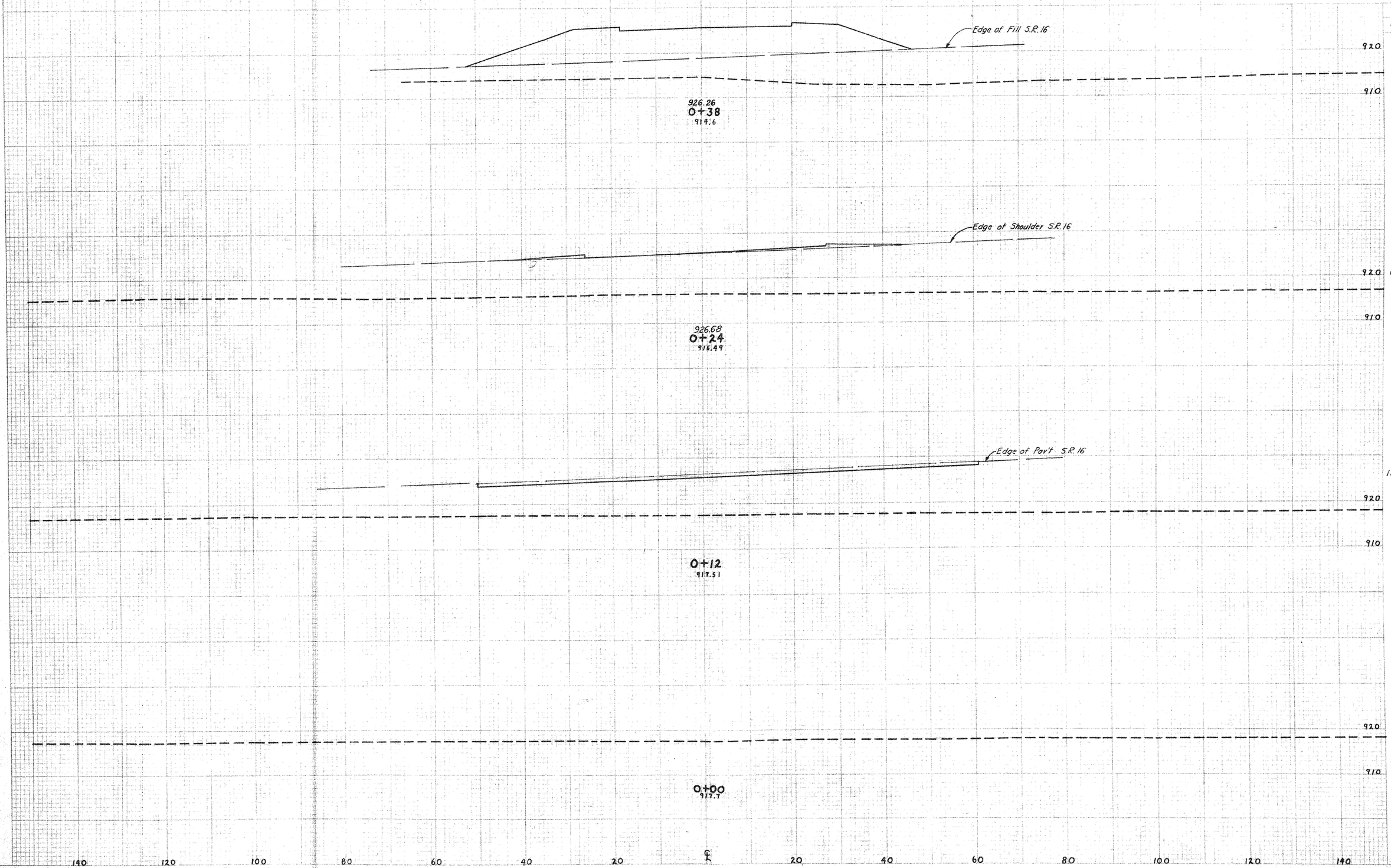

ESTIMATED QUANTITIES.

| REF NO | STATION TO STATION | SIDE | B-19 Crushed Aggregate Base Course Cu. Yds. | 1-1 12" Pipe for Driveways M6.1(a) Lin. Ft. | T-35 Asphaltic Concrete Surface Course Type C (1½") Cu. Yds. |
|---|---|---|---|---|---|
| 1-Dr.<br>2-Dr. | 9+20<br>10+25 | Lt.<br>Lt. | 15.2<br>18.5 | 44<br>40 | |
| 1-P | 15+50 ~ 15+75 | ℄ | | | 1.5 |
| TOTALS | | | 33.7 | 84 | 1.5 |

TWP. RD. 131 RELOCATION PLAN & PROFILE STA. 9+00 TO STA. 20+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

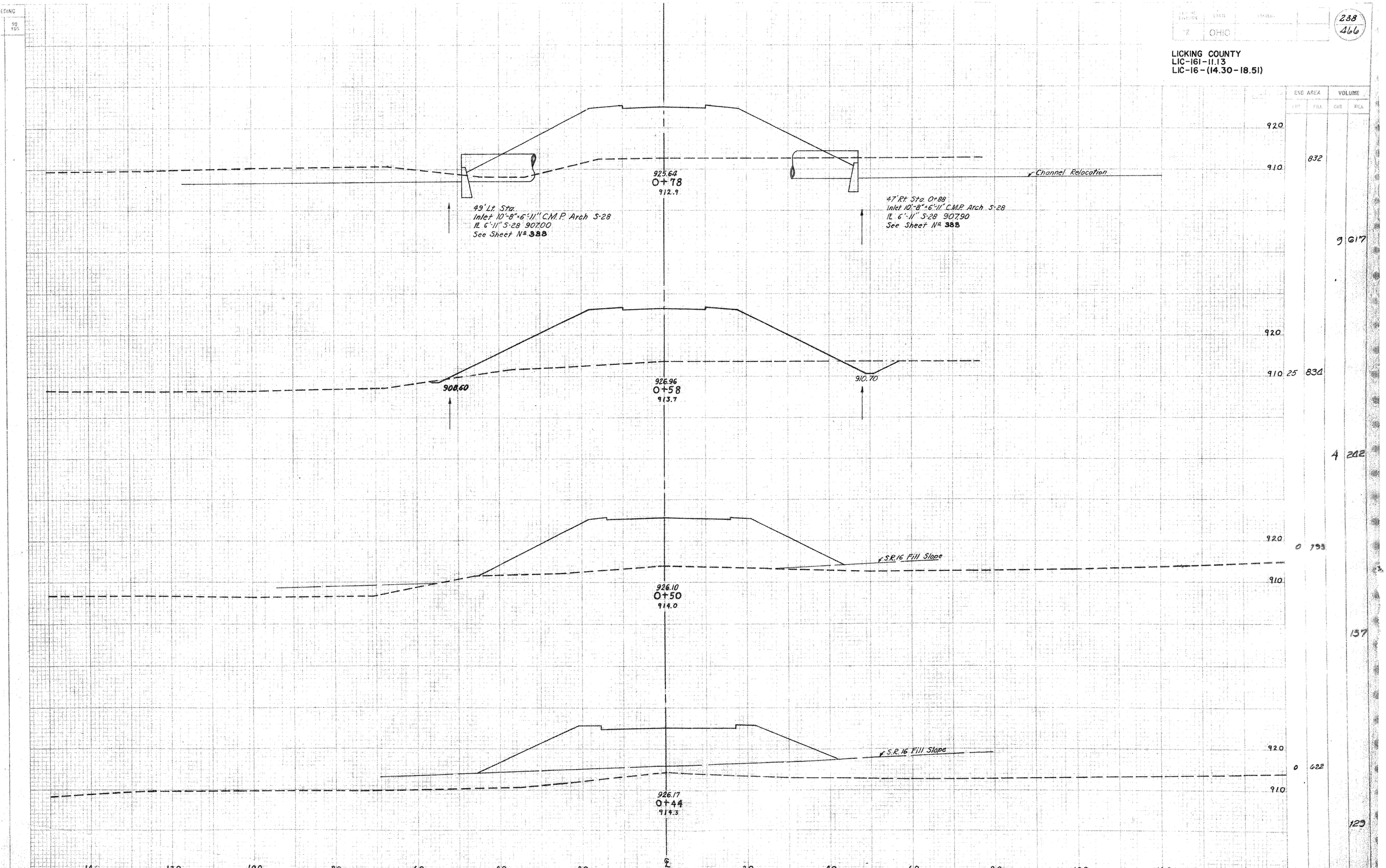



| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| 0 | | 535 | | |
| 910 | | | | |
| | | | | 147 |
| 920 | 0 | 25 | | |
| 910 | | | | |
| | | | 25 | 6 |
| 111 | 0 | | | |
| 920 | | | | |
| 910 | | | | |
| | | | 25 | |
| 920 | | | | |
| 910 | | | | |

TWP. RD. 131 RELOCATION EAST OF S.R. 16 STA. 0+00 TO STA. 0+38

| FEDERAL DIVISION | STATE | PROJECT |
|---|---|---|
| 12 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



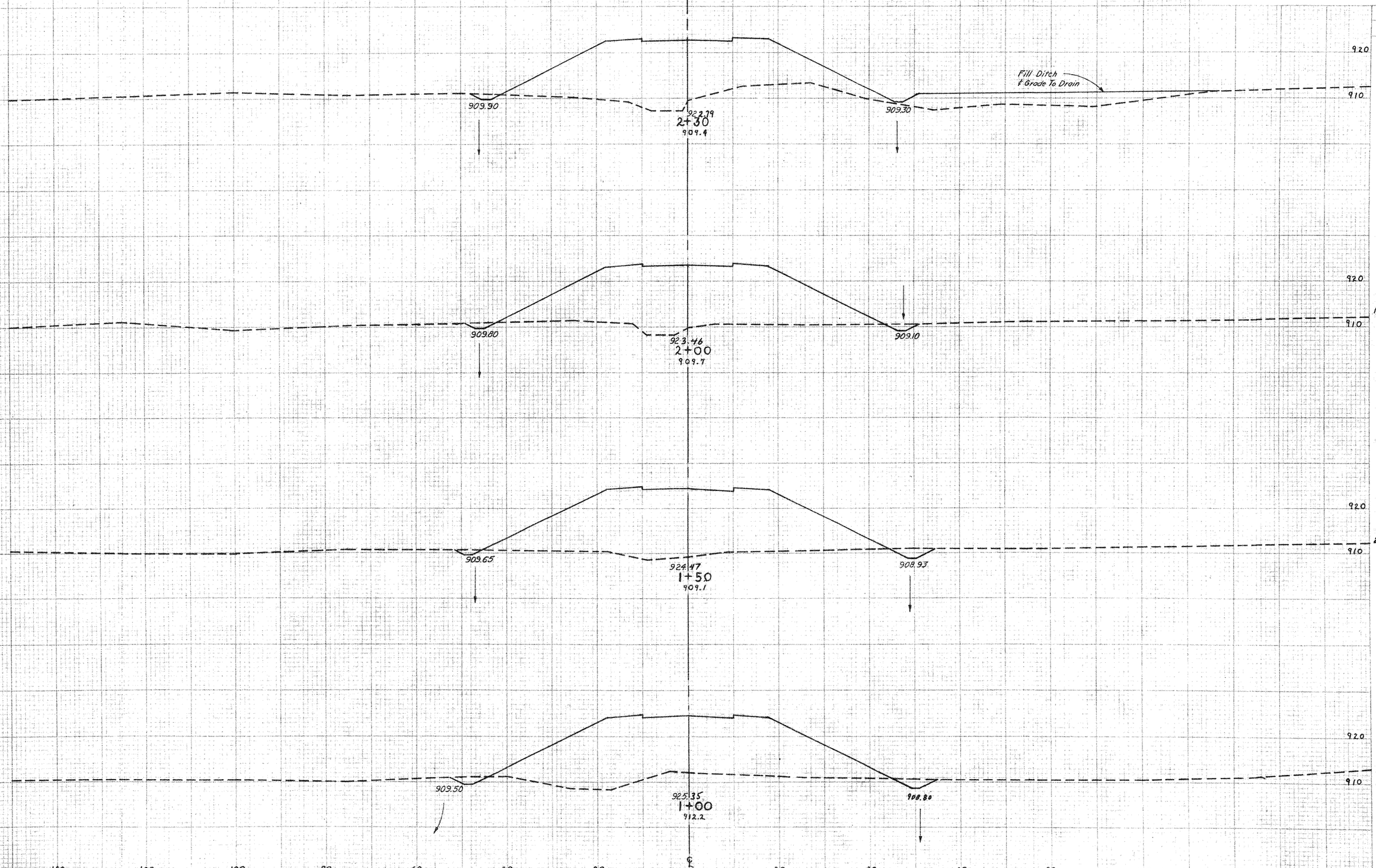

| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 920 | | | | |
| 910 | | 832 | | |
| | | | 9 | 617 |
| 920 | | | | |
| 910 | 25 | 834 | | |
| | | | 4 | 242 |
| 920 | 0 | 793 | | |
| 910 | | | | |
| | | | | 137 |
| 920 | 0 | 622 | | |
| 910 | | | | |
| | | | | 129 |

TWP. RD. 131 RELOCATION EAST OF S.R.16 STA. 0+44 TO STA. 0+78

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

239/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 5 | | 913 | | |
| | | | 10 | 944 |
| 13 | | 786 | | |
| | | | 31 | 1552 |
| 20 | | 853 | | |
| | | | 35 | 1617 |
| 22 | | 854 | | |
| | | | | 686 |

TWP. RD. 131 RELOCATION EAST OF SR. 16 STA. 1+00 TO STA. 2+30

OHIO

240
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| | 93 | 301 | | |
| | | | 110 | 706 |
| | 26 | 505 | | |
| | | | 43 | 880 |
| | | | 31 | 644 |
| | | | 5 | 272 |
| | | | 0 | 985 |
| | | | 2 | 703 |
| | | | 22 | 611 |
| | | | 22 | 750 |

919.90
3+50
913.8

909.85

921.11
3+00
911.8

909.70

End Area
C F
7 0

Volume
C F
8 339

End Area
C. F.
0 281

Twp. Rd. 131 Fill

0+45

Volume
C. F.
0 173

922.10
2+59
910.8

909.55

End Area
C F
0 268

Twp. Rd. 131 Fill

0+28

Volume
C. F.
7 99

End Area
C. F.
18 0

Edge of Pav't

Profile Driveway Rt. Sta. 2+40

0+18

Volume
C. F.
7 0

End Drive
125' Lt.

8%

Profile Driveway
Lt. Sta. 2+40

10%

Fill Ditch
& Grade To Drain

Install 60'x18" C.M.P.

Edge of Pav't

End Area
C. F.
26 0

922.32
2+50
907.4

0+00

Field Drive
Sta. 2+40

Field Drive
2+40 Lt.

0+00 0+08 0+28 0+45

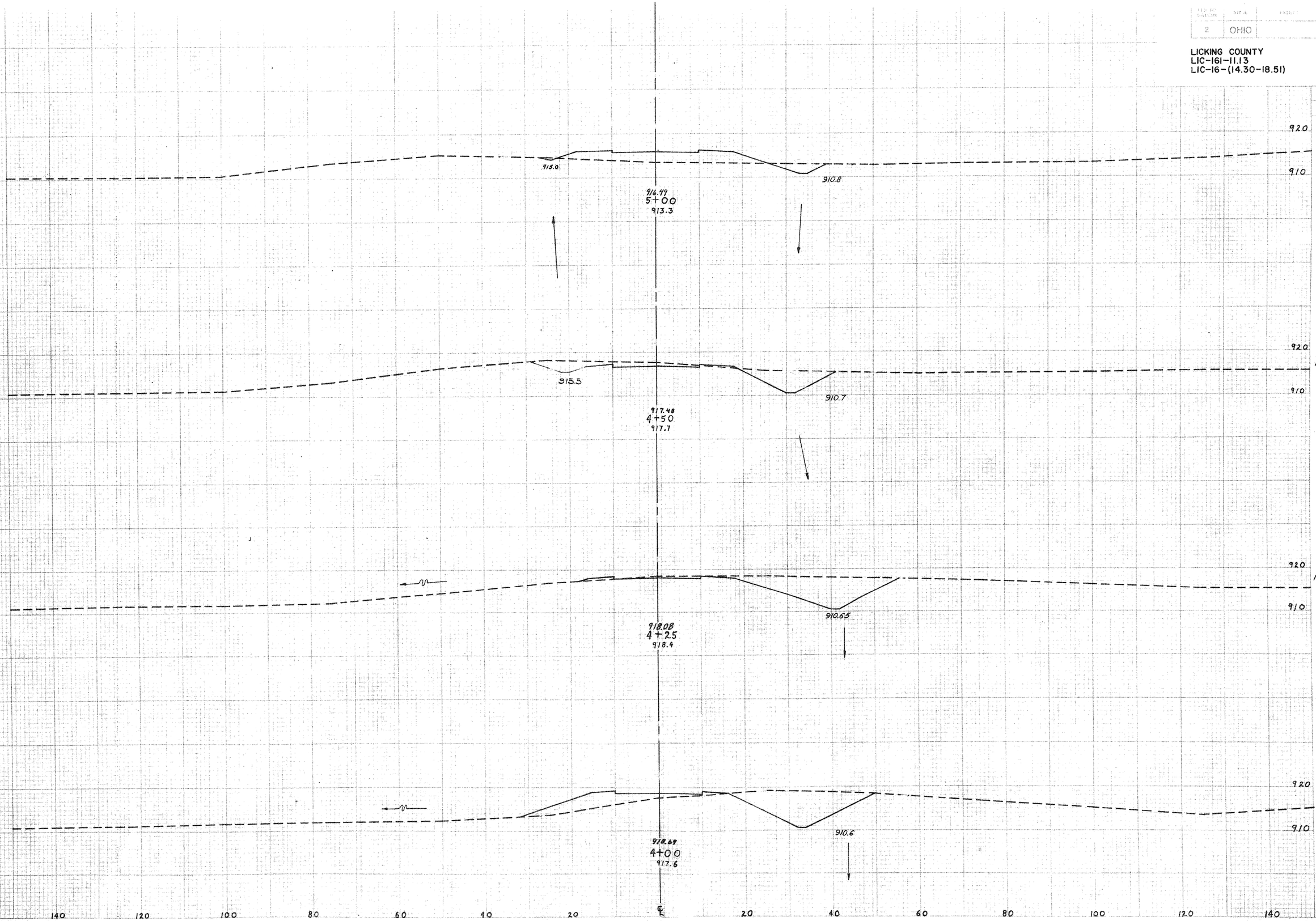
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

TWP. RD. 131 RELOCATION EAST OF S.R. 16 STA. 2+50 TO STA. 3+50

| | | | |
|---|---|---|---|
| 2 | OHIO | | |

241
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

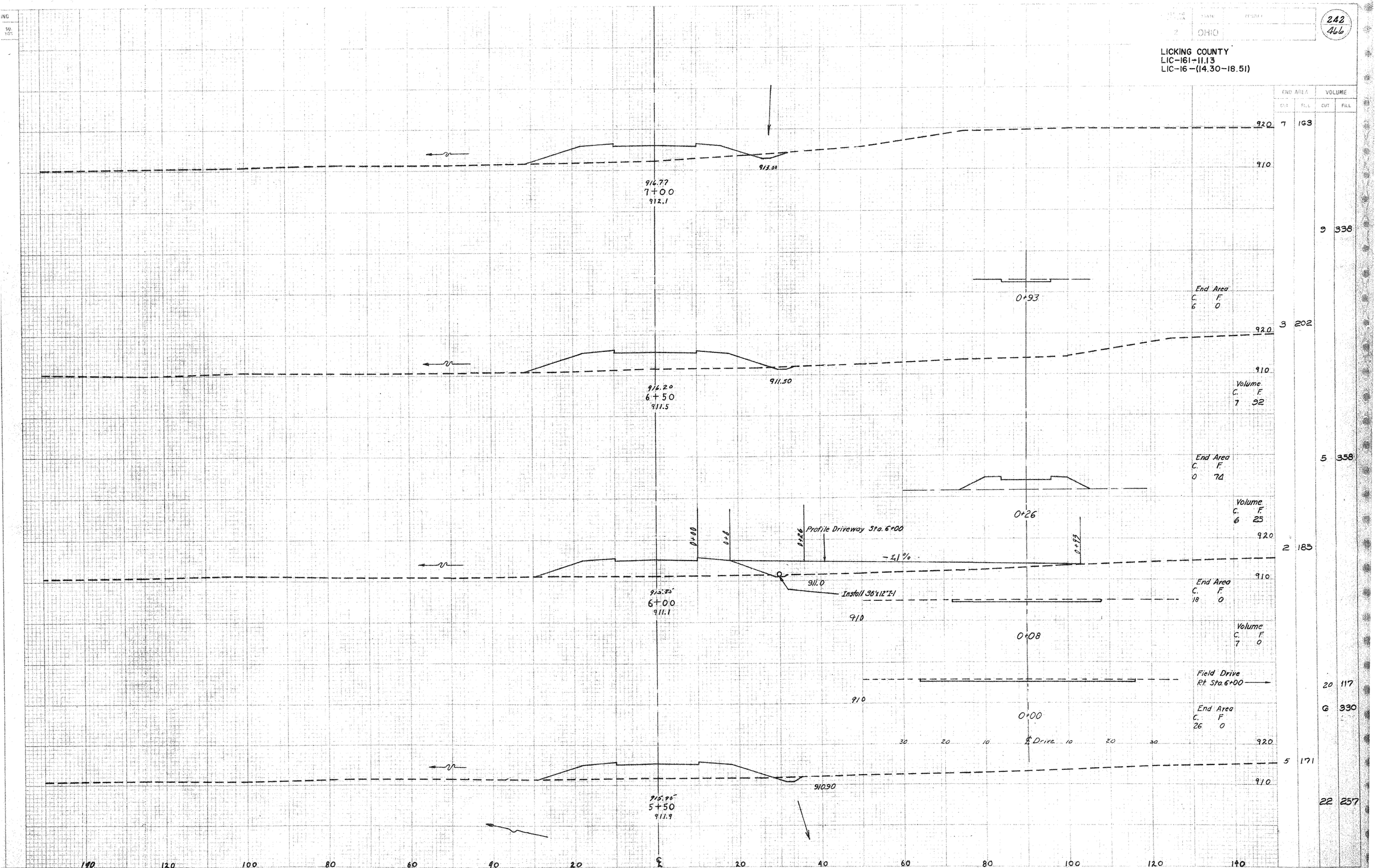



| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | 19 | 106 | | |
| 910 | | | | |
| | | | 142 | 100 |
| 920 | 136 | 2 | | |
| 910 | | | | |
| | | | 135 | 3 |
| | | | | 194 |
| 920 | 165 | 4 | | |
| 910 | | | | |
| | | | 183 | 82 |
| 920 | 157 | 86 | | |
| 910 | | | | |
| | | | 231 | 358 |

TWP. RD. 131 RELOCATION EAST OF S.R. 16 STA. 4+00 TO STA. 5+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



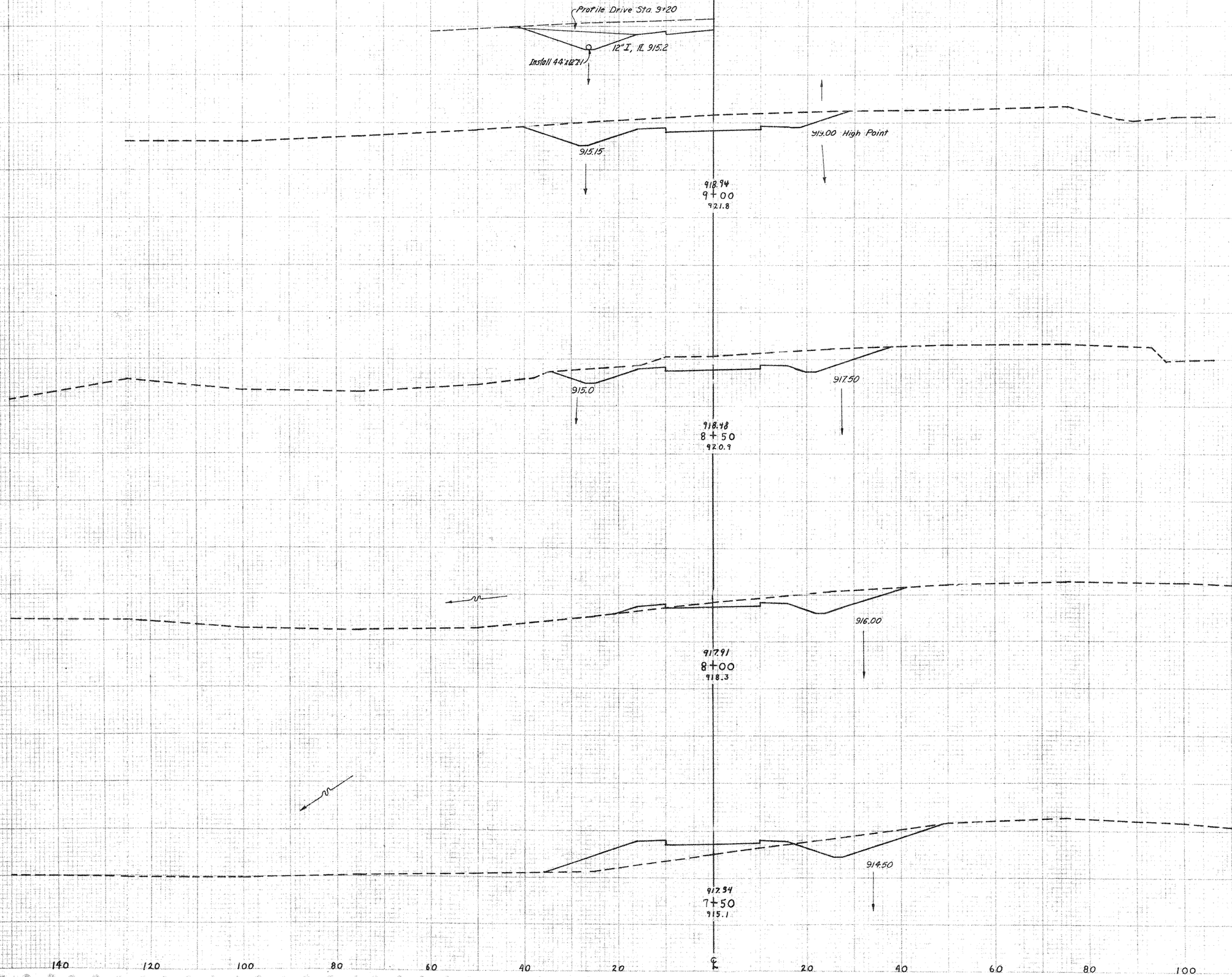

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 7 | 163 | | |
| | | 9 | 338 |
| 3 | 202 | | |
| | | 5 | 358 |
| 2 | 185 | | |
| | | 20 | 117 |
| | | 6 | 330 |
| 5 | 171 | | |
| | | 22 | 257 |

TWP. RD. 131 RELOCATION EAST OF S.R. 16 STA. 5+50 TO STA. 7+00

| SHEET NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

243
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| Field Drive Sta. 9+20 → 920 | 195 | 0 | 4 | |
| 910 | | | | |
| | | | 343 | |
| 920 | 175 | 0 | | |
| 910 | | | 258 | 8 |
| 920 | 104 | 9 | | |
| 910 | | | 162 | 137 |
| 920 | 71 | 139 | | |
| 910 | | | 72 | 279 |

TWP. RD. 131 RELOCATION EAST OF S.R. 16 STA. 7+50 TO STA. 9+00

EDING
SQ YDS

| FED. RD. DIV. NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

244
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| 910 | 57 | 3 | | |
| | | | 262 | 3 |
| 920 | 186 | | | |
| 910 | | | | |
| | | | 403 | |
| 920 | | | 249 | 30 |
| 910 | | | | |
| | | | 418 | |
| 920 | 253 | | | |
| 910 | | | 456 | |

915.75
9+86.66
11+00
919.7

915.6
9+98
10+50
921.9

End Drive
90° Lt.

70%

Profile Driveway
Lt. Sta. 10+25

915.43

Install 40'-12"I-1

9+9.19
10+00
922.2

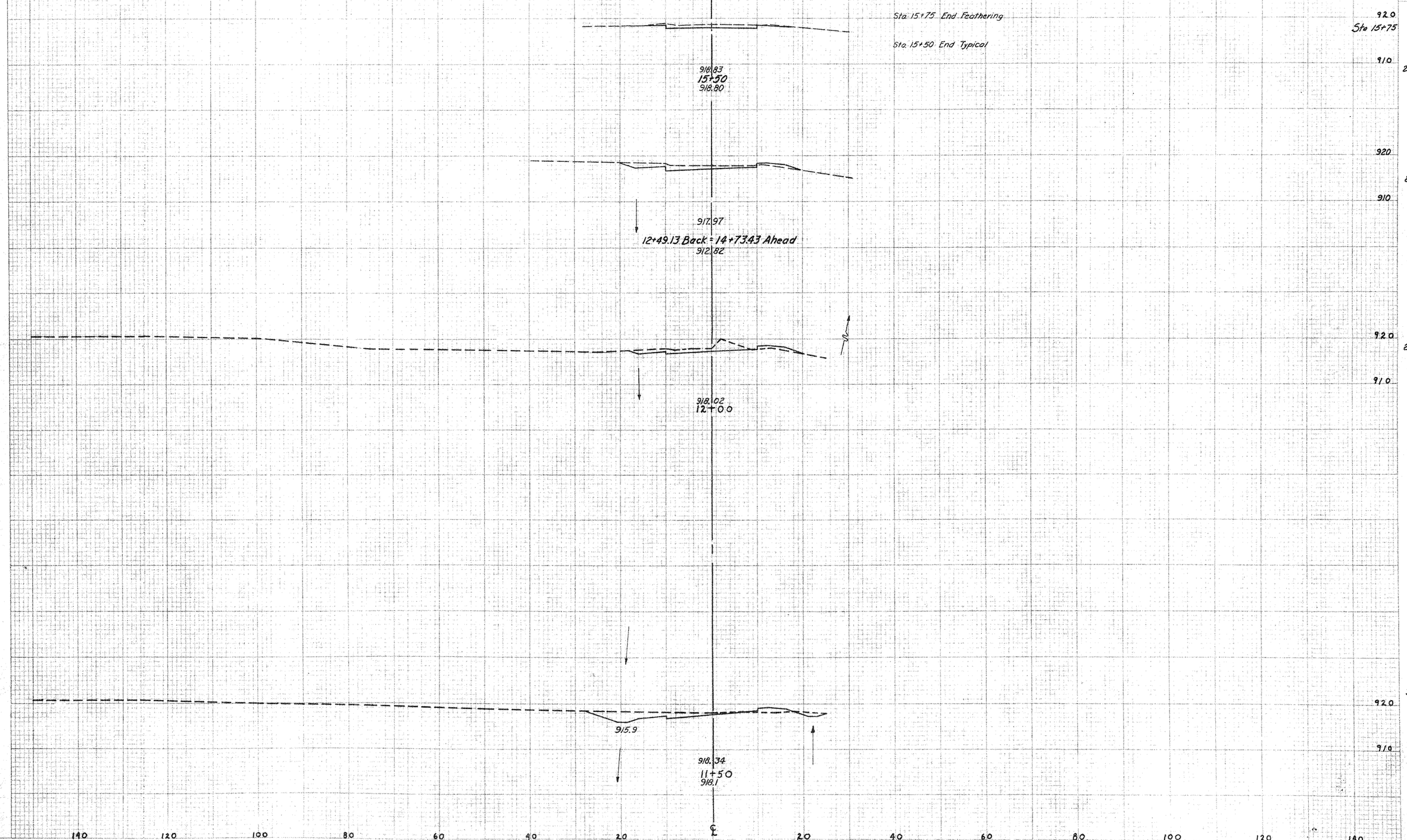
Driveway
Sta. 10+25 Lt.

915.53
9+19.20
9+55
921.8

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

TWP. RD. 131 RELOCATION EAST OF S.R. 16 STA. 9+55 TO STA. 11+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| Sta 15+75 | 0 | 0 | | |
| | | | 11 | 0 |
| | 23 | 0 | | |
| | | | 24 | 2 |
| | 25 | 5 | | |
| | | | 46 | 11 |
| | 25 | 7 | | |
| | | | 57 | 14 |
| | 36 | 8 | | |
| | | | 123 | 10 |

TWP. RD. 131 RELOCATION EAST OF S.R. 16 STA. 11+50 TO STA. 15+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

246/466

SUSPEND WORK STA. 24+55.35

RESUME WORK STA. 24+76.00

RESUME WORK STA. 21+50.00

5 3/16" Gas Line

Septic Tank

Gar. 1 Story Frame Res.

2 Story Frame Res.

Well

Barn

Shed

Gar. 1 Story Fr. Res.

1 Story Con. Block Res.

Concrete

Gravel

Gas Meter

2" M.P. Gas Line Ft. Newark Tele. Co. Underground Cable

Sta 24+07 66'x18"S-27@0.29%
See Sheet No. 389

Gas Marker Stop Sign

P.T. Sta 375+60.39

P.I. Sta. 26+52.72
Δc = 30°00'00" Rt.
Dc = 14°00'
Rc = 409.26'
Tc = 109.66'
Lc = 214.29'

Tan to C. S 83°38'30" E

50°38'36" Tan to Curve

For Intersection detail see next Sheet 191

P.C. 25+43.06

P.I. 27+57.55

Two L3 Rel. Loc. S 53°38'06" E.

MATCHLINE STA. 29+00

P.O.C. 375+19.78 & Reloc. S.R. 37
Sta. 24+65.35 & Reloc. Twp. 131

5 3/16" Gas Line The Ohio Fuel Gas Co.

P.C. Sta. 373+61.83

S.R. 37

4" M.P. Gas Line The Ohio Fuel Gas Co.

2 Story Frame Res.

Wells

Septic Tank

I.P.

Shed

RAMP 115

1 Sty. Fr. Res.

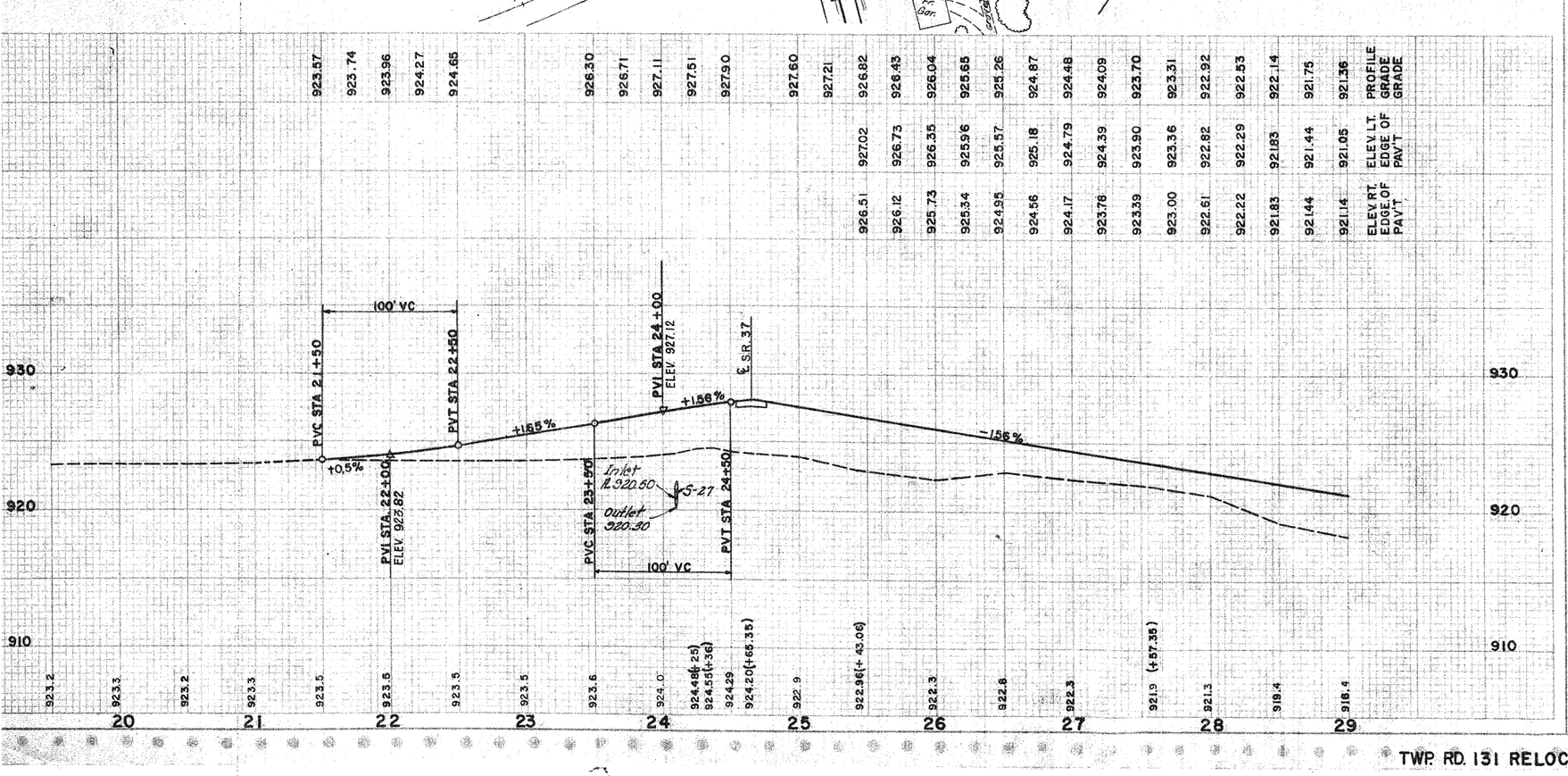
Fr. Gar.

RAMP "E"

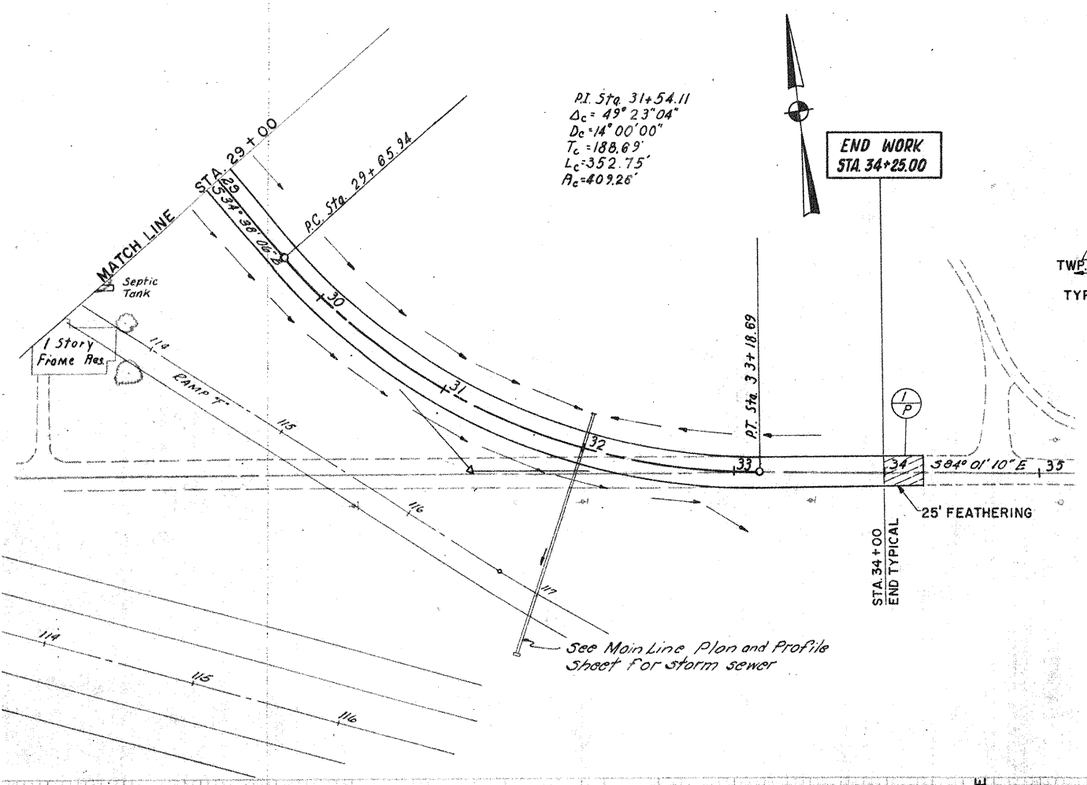
NOTE:
SEE FOLLOWING SHEET FOR PAVEMENT DETAIL.

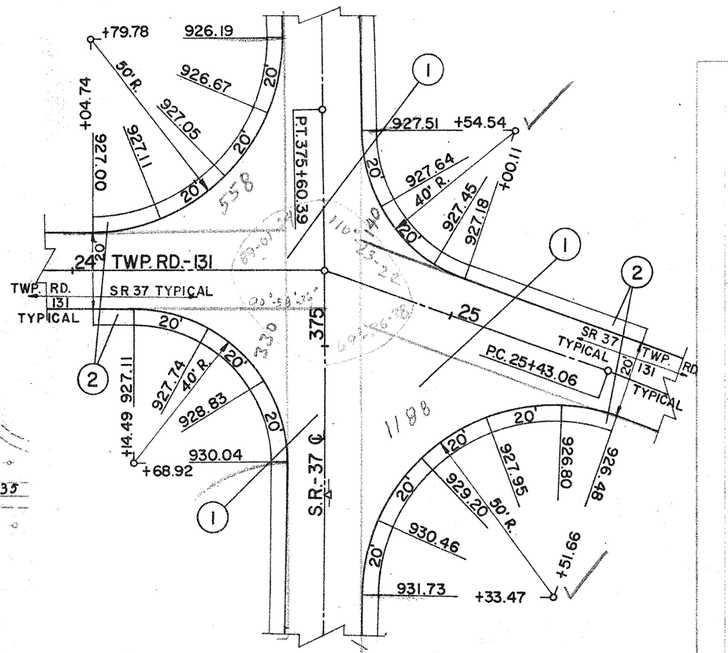
ESTIMATED QUANTITIES

| REF NO. | STATION TO STATION | SIDE | |
|---|---|---|---|
| | | | T-36 Rem. Conc. Surface Course (1 1/2") (40-85) Cu. Yds. |
| 1-P | 21+50 - 21+75 | & | 1.5 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTALS | | | 15 |




TWP. RD. 131 RELOCATION PLAN & PROFILE STA. 20+00 TO STA. 29+00



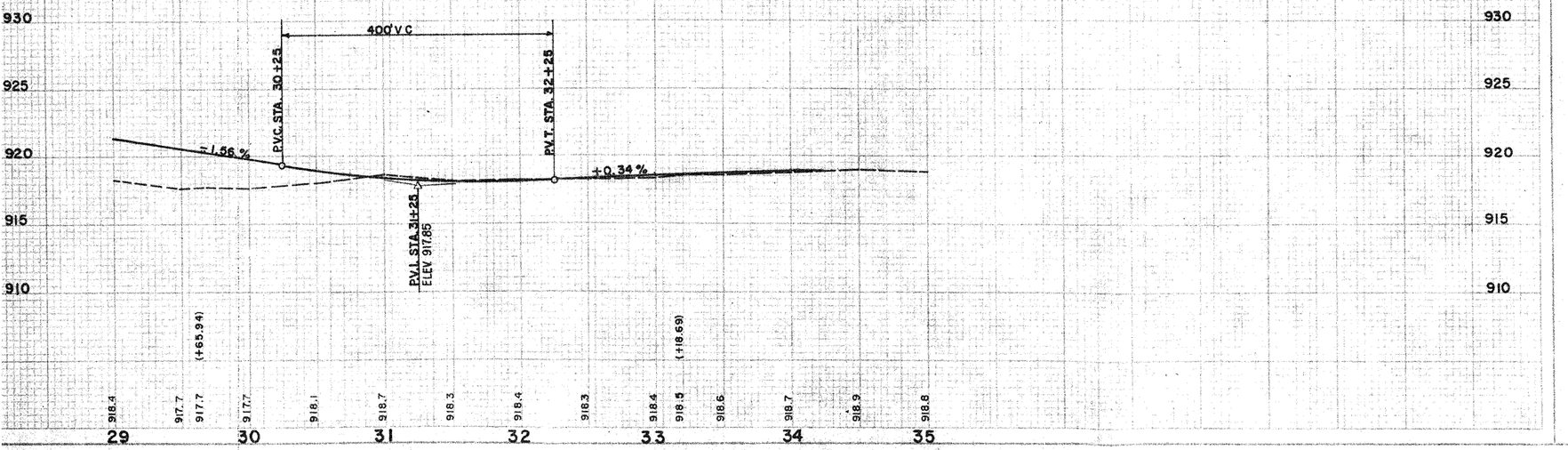




(1) T-35 ASPHALTIC CONCRETE PAVEMENT

(2) I-18 STABILIZED CRUSHED AGGREGATE SHOULDERS

## CONNECTION DETAIL

| STA. | PROFILE GRADE | ELEV. LT. EDGE OF PAV'T. | ELEV. RT. EDGE OF PAV'T. |
|---|---|---|---|
| 29 | 921.36 | 921.05 | 921.14 |
| | 920.97 | 920.66 | 920.89 |
| | 920.58 | 920.26 | 920.64 |
| | 920.19 | 919.88 | 920.40 |
| | 919.80 | 919.49 | 920.71 |
| | 919.47 | 919.10 | 919.72 |
| | 919.05 | 919.74 | 919.36 |
| | 918.75 | 919.44 | 919.06 |
| | 918.51 | 918.20 | 918.82 |
| | 918.33 | 918.02 | 918.64 |
| | 918.20 | 917.89 | 918.51 |
| | 918.14 | 917.83 | 918.45 |
| | 918.13 | 917.82 | 918.44 |
| | 918.19 | 917.88 | 918.50 |
| | 918.27 | 917.96 | 918.58 |
| | 918.36 | 918.05 | 918.67 |
| | 918.44 | 918.13 | 918.69 |
| | 918.53 | 918.22 | 918.64 |
| | 918.60 | 918.30 | 918.58 |
| | 918.70 | 918.39 | 918.52 |
| | 918.78 | 918.47 | 918.48 |




ESTIMATED QUANTITIES

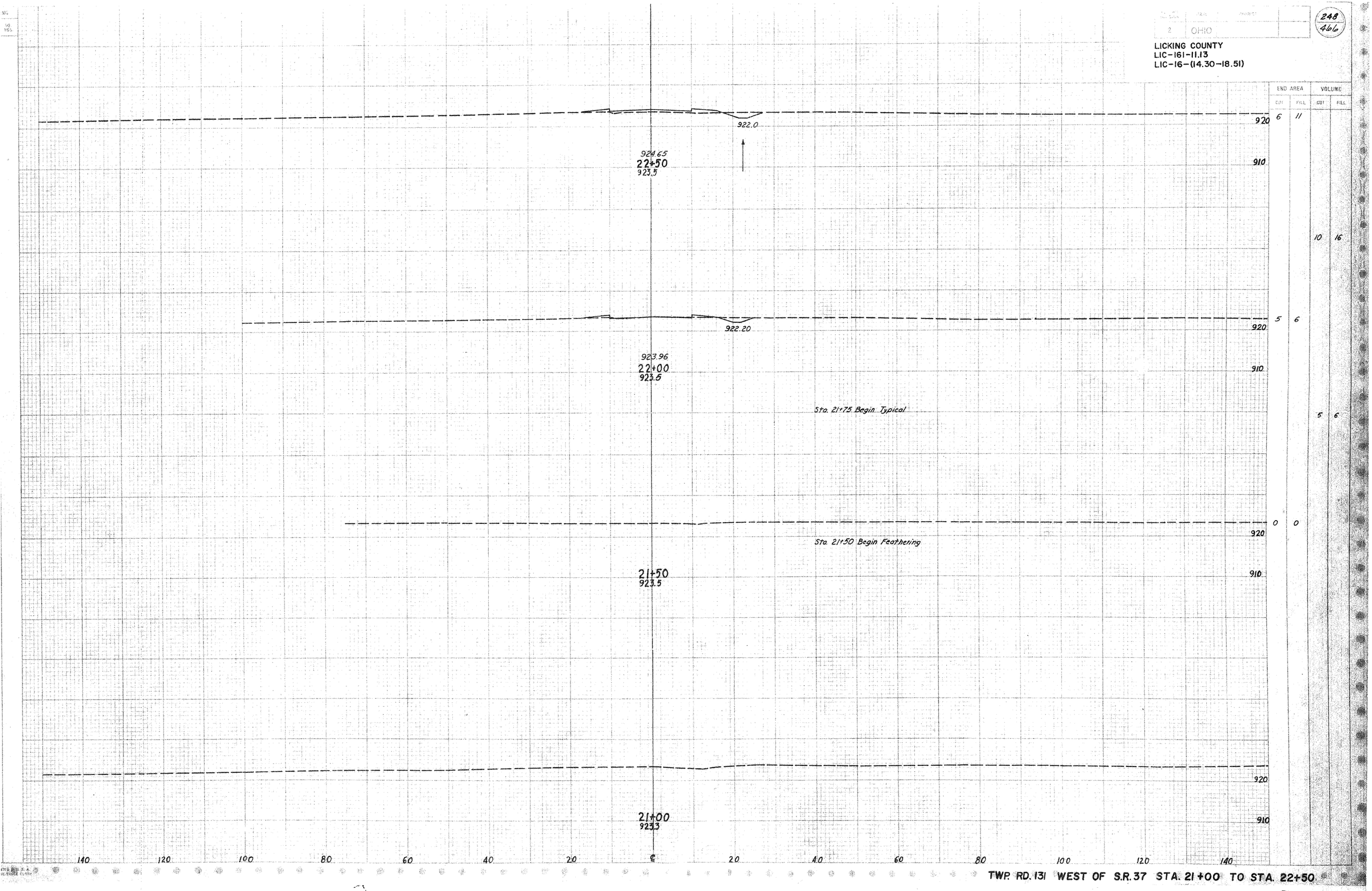
| REF. NO. | STATION TO STATION | SIDE | T-35 Asph. Conc. Surface Course Type "C" (70-85) Cu. Yds. |
|---|---|---|---|
| 1-P | 34+00 ~ 34+25 | ℄ | 1.5 |
| TOTALS | | | 1.5 |

TWP. RD. 131 RELOCATION PLAN & PROFILE STA. 29+00 TO STA. 35+00

| DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

248
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



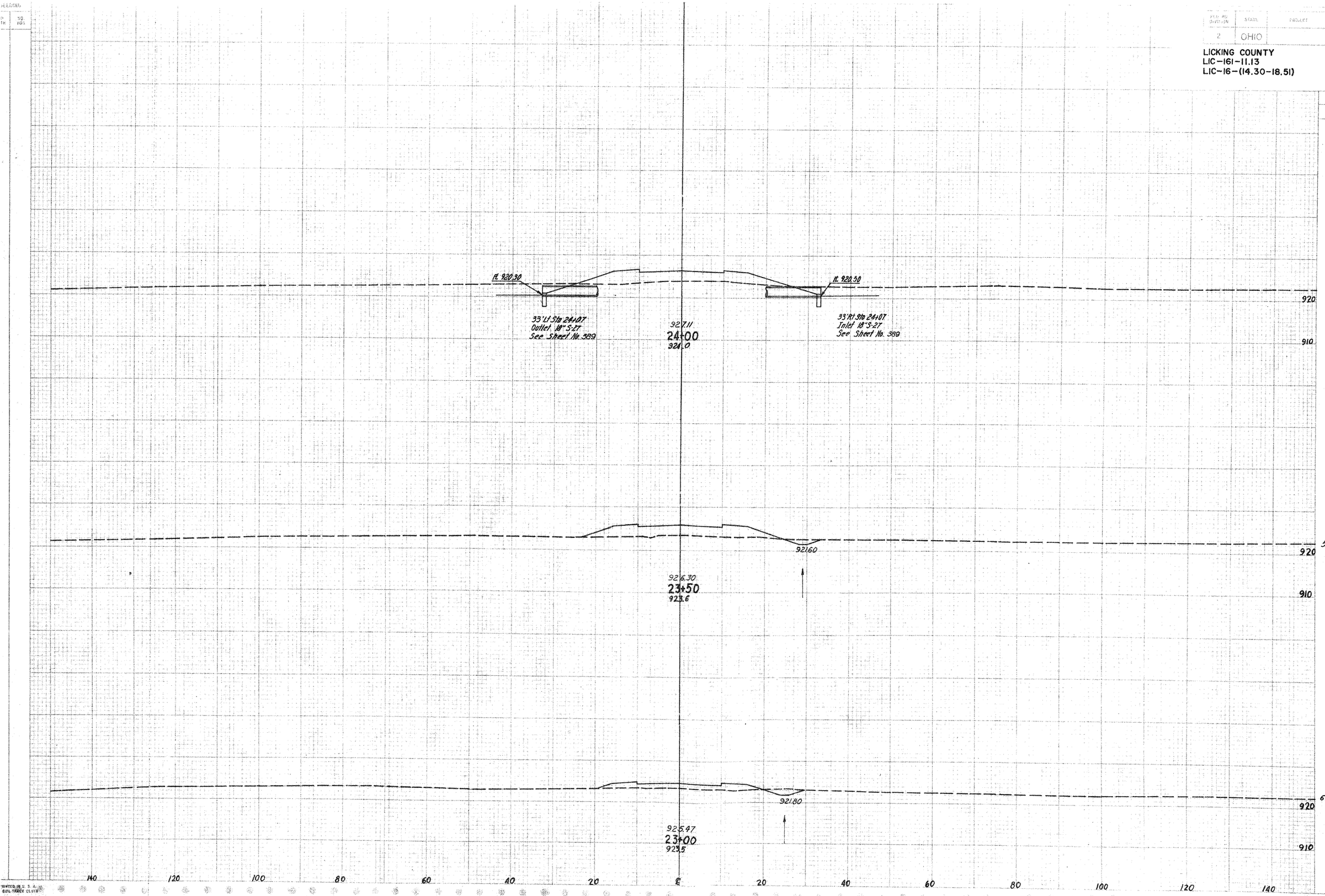

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | 6 | 11 | | |
| 910 | | | | |
| | | | 10 | 16 |
| 920 | 5 | 6 | | |
| 910 | | | | |
| | | | 5 | 6 |
| 920 | 0 | 0 | | |
| 910 | | | | |
| 920 | | | | |
| 910 | | | | |

TWP. RD. 131 WEST OF S.R. 37 STA. 21+00 TO STA. 22+50

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

249
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



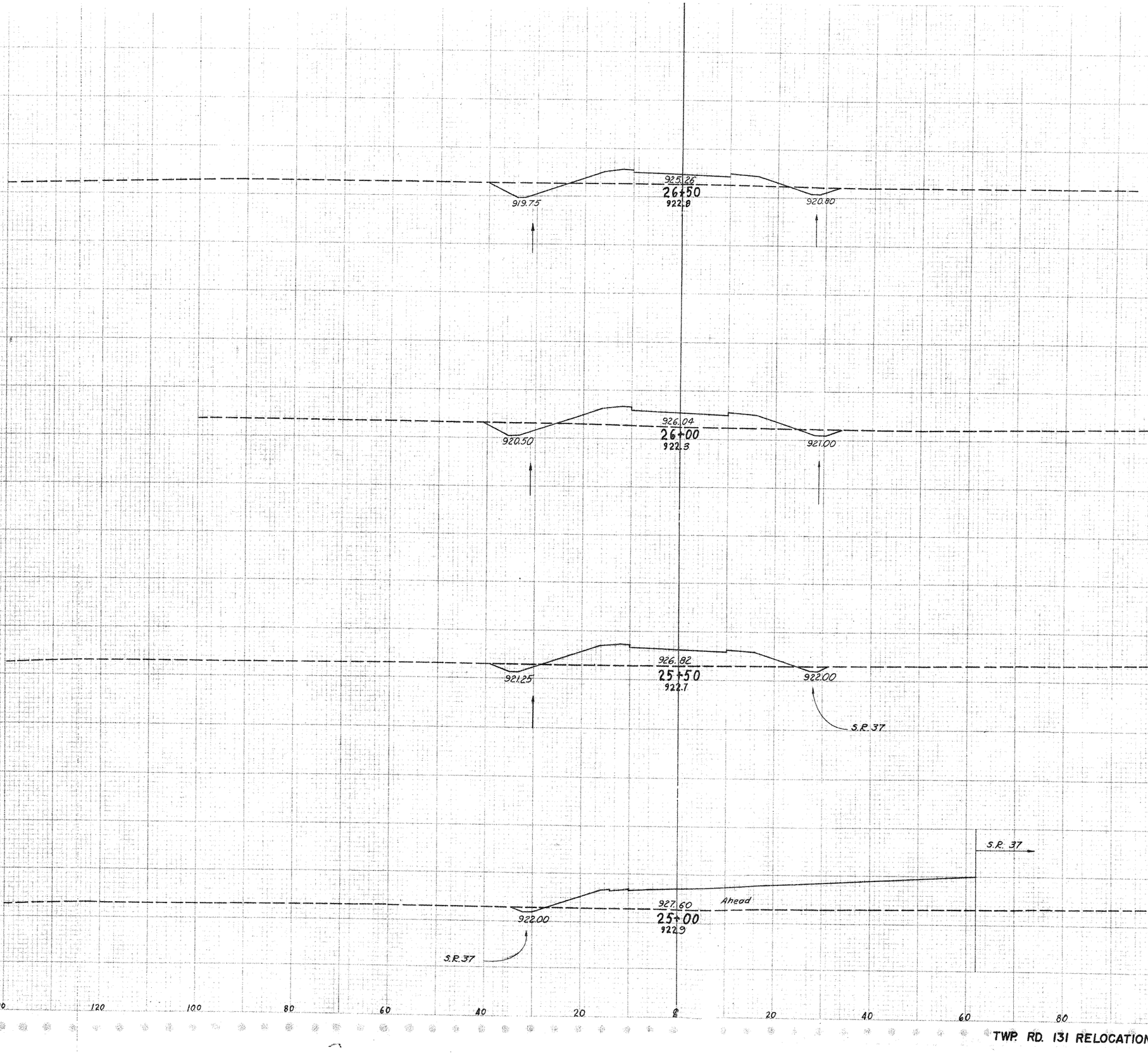

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| | 111 | | |
| | | 5 | 195 |
| 5 | 100 | | |
| | | 10 | 131 |
| 6 | 42 | | |
| | | 11 | 49 |

TWP. RD. 131 WEST OF S.R.37 STA. 23+00 TO STA. 24+00

| FED. ROAD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 5 | OHIO | | |

250/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



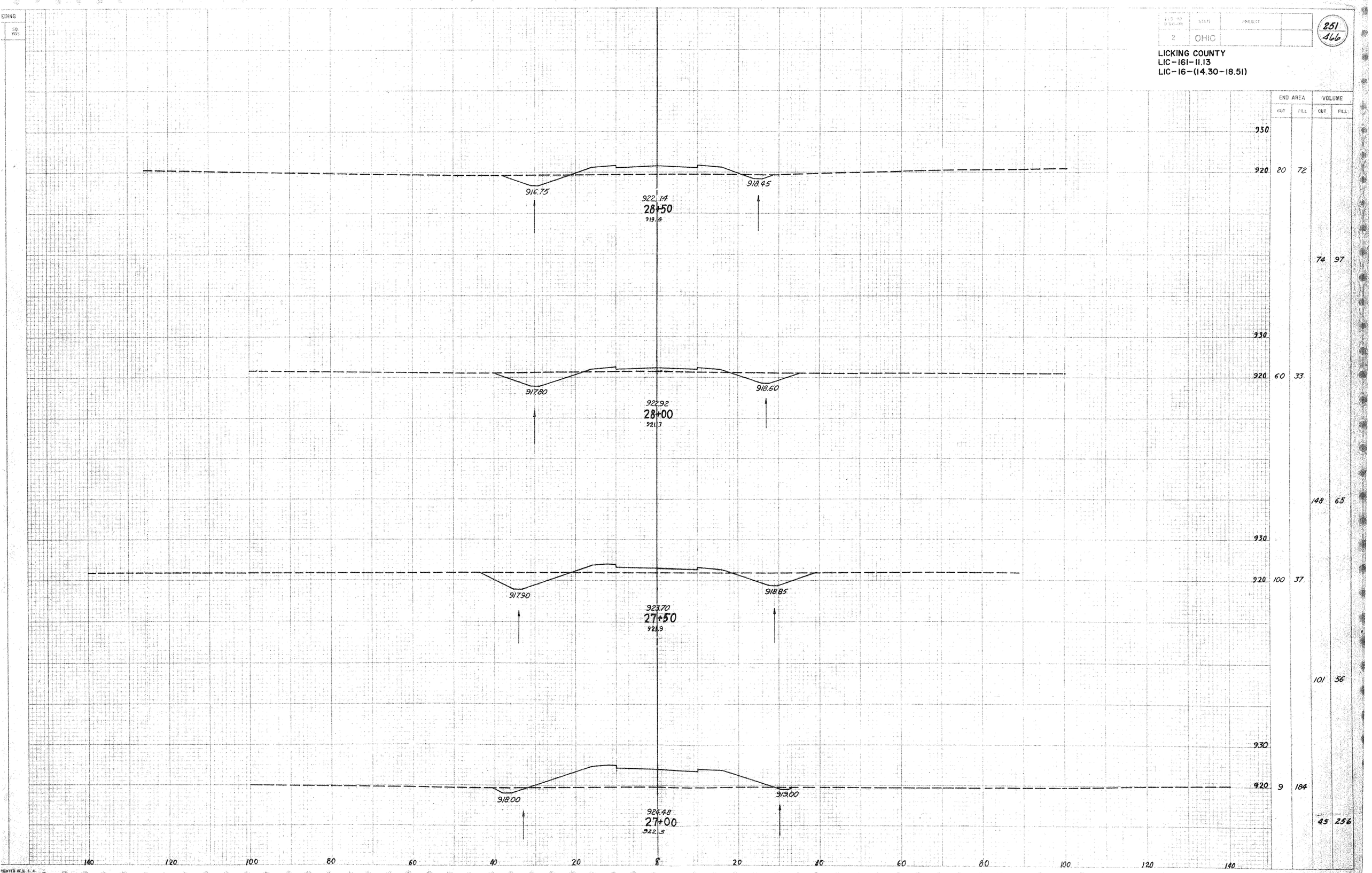

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 930 | | | | |
| 920 | 39 | 92 | | |
| | | | 62 | 197 |
| 930 | | | | |
| 920 | 28 | 120 | | |
| | | | 41 | 250 |
| 930 | | | | |
| 920 | 16 | 150 | | |
| | | | 19 | 538 |
| 930 | | | | |
| Ahead | 4 | 430 | | |
| 920 | | | | |
| Back | 0 | 0 | | |

TWP. RD. 131 RELOCATION EAST OF S.R. 37 STA. 25+00 TO STA. 26+50

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

251
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 920 | 20 | 72 | | |
| | | | 74 | 97 |
| 920 | 60 | 33 | | |
| | | | 148 | 65 |
| 920 | 100 | 37 | | |
| | | | 101 | 56 |
| 920 | 9 | 184 | | |
| | | | 45 | 256 |

TWP. RD. 131 RELOCATION EAST OF S.R 37 STA. 27+00 TO STA. 28+50

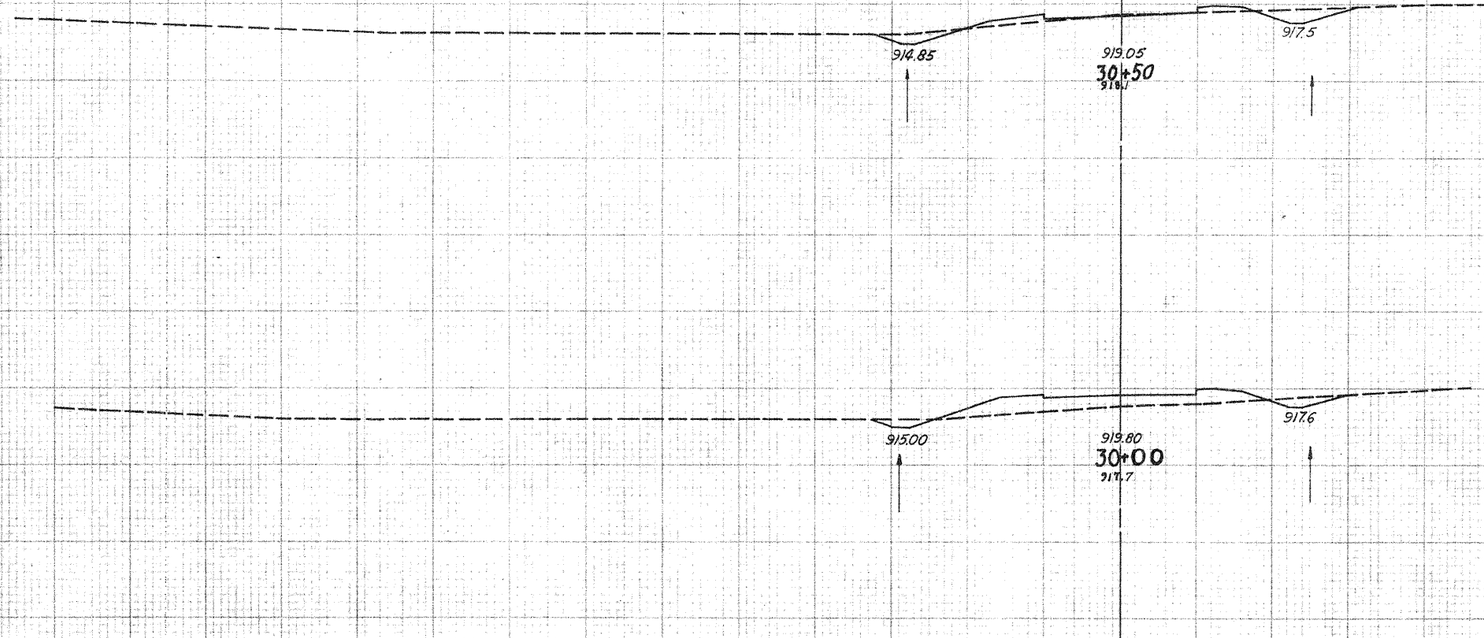
SEEDING

| NO. | DATE | BY |
|---|---|---|

| SHEET NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

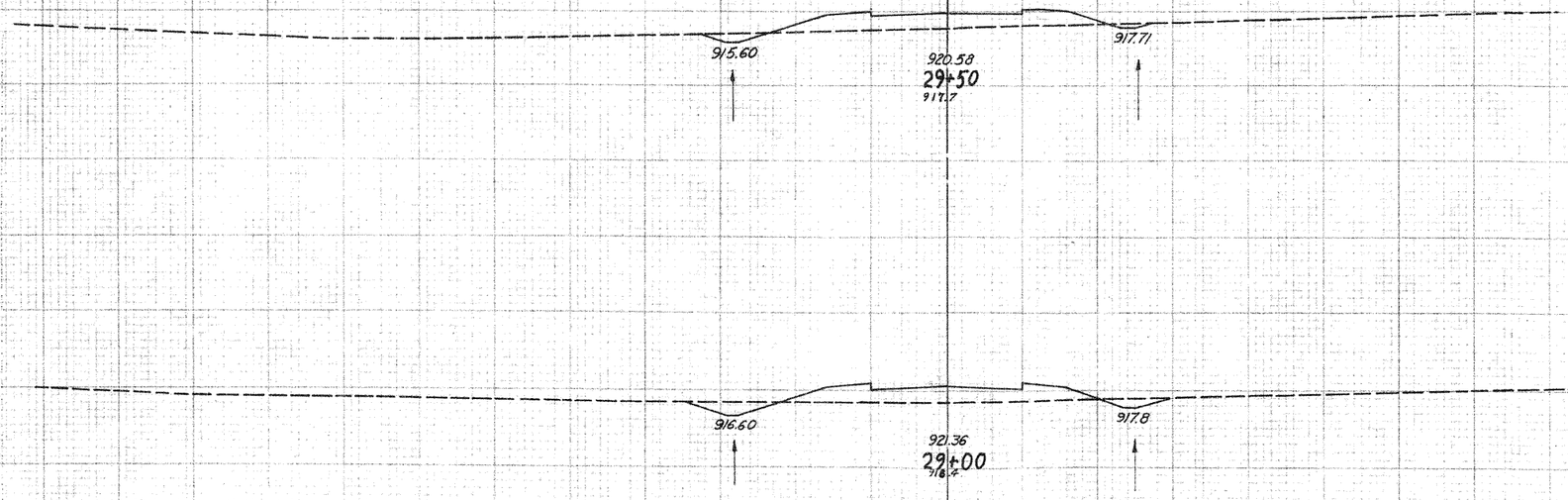
252
466

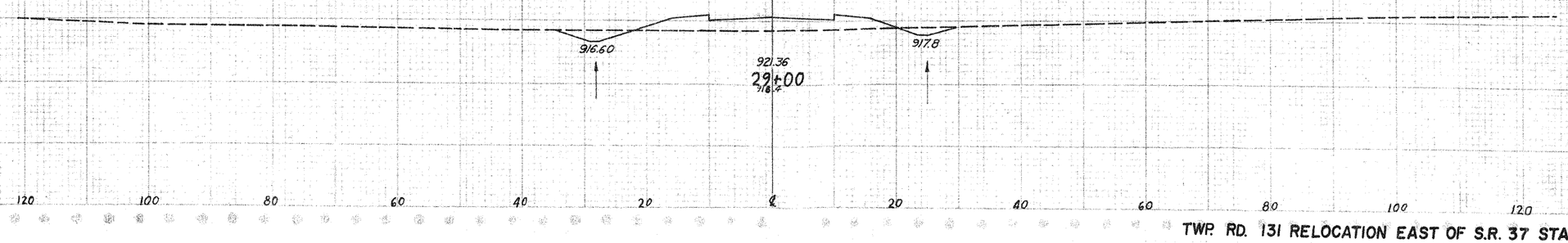
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)









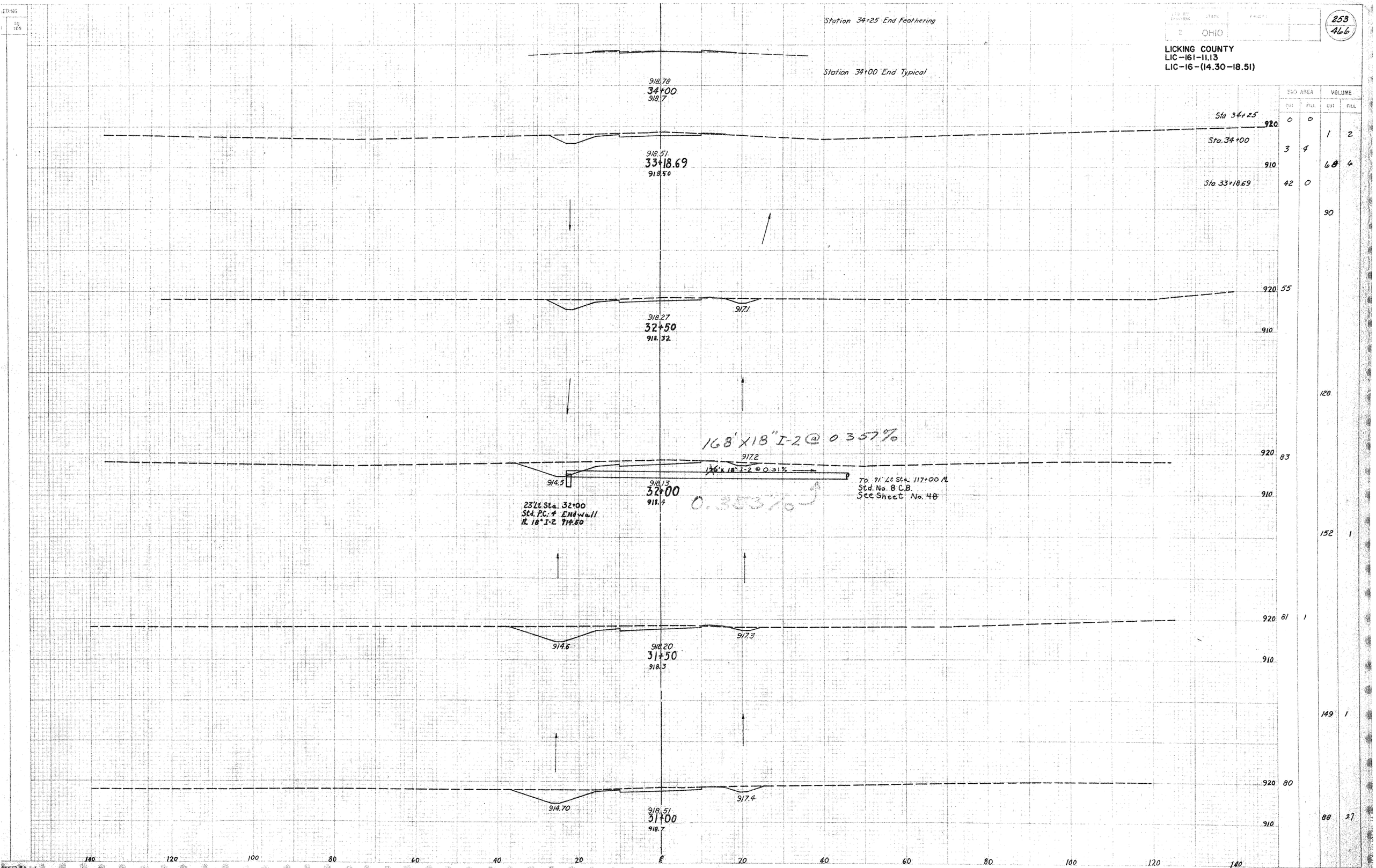

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | 15 | 29 | | |
| 910 | | | | |
| | | | 24 | 92 |
| 920 | 11 | 70 | | |
| 910 | | | | |
| | | | 17 | 56 |
| 920 | 7 | 90 | | |
| 910 | | | | |
| | | | 17 | 155 |
| 920 | 11 | 77 | | |
| 910 | | | 29 | 138 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

TWP. RD. 131 RELOCATION EAST OF S.R. 37 STA. 29+00 TO STA. 30+50

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



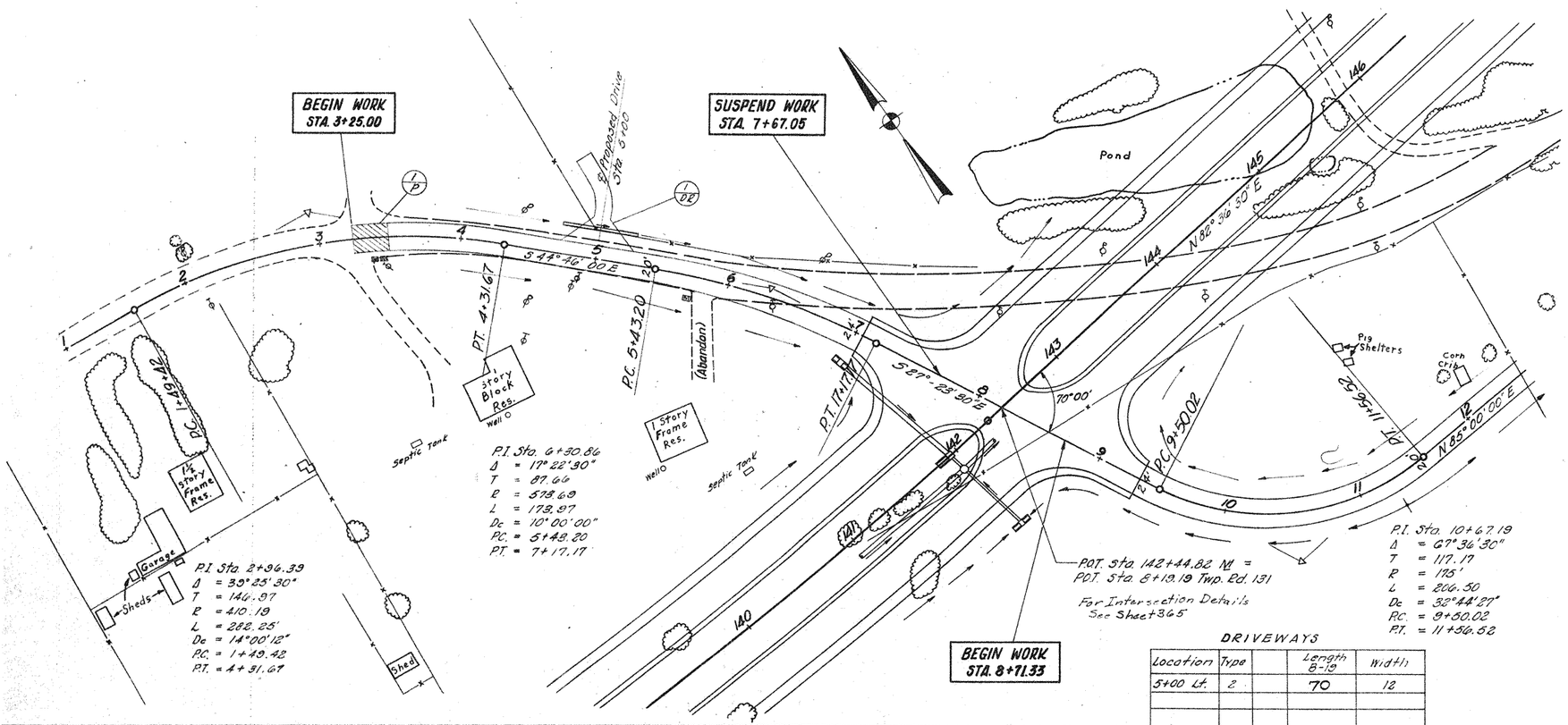

| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| Sta 34+25 | 0 | 0 | | |
| | | | 1 | 2 |
| Sta. 34+00 | 3 | 4 | | |
| | | | 68 | 6 |
| Sta 33+18.69 | 42 | 0 | | |
| | | | 90 | |
| | 55 | | | |
| | | | 128 | |
| | 83 | | | |
| | | | 152 | 1 |
| | 81 | 1 | | |
| | | | 149 | 1 |
| | 80 | | | |
| | | | 88 | 27 |

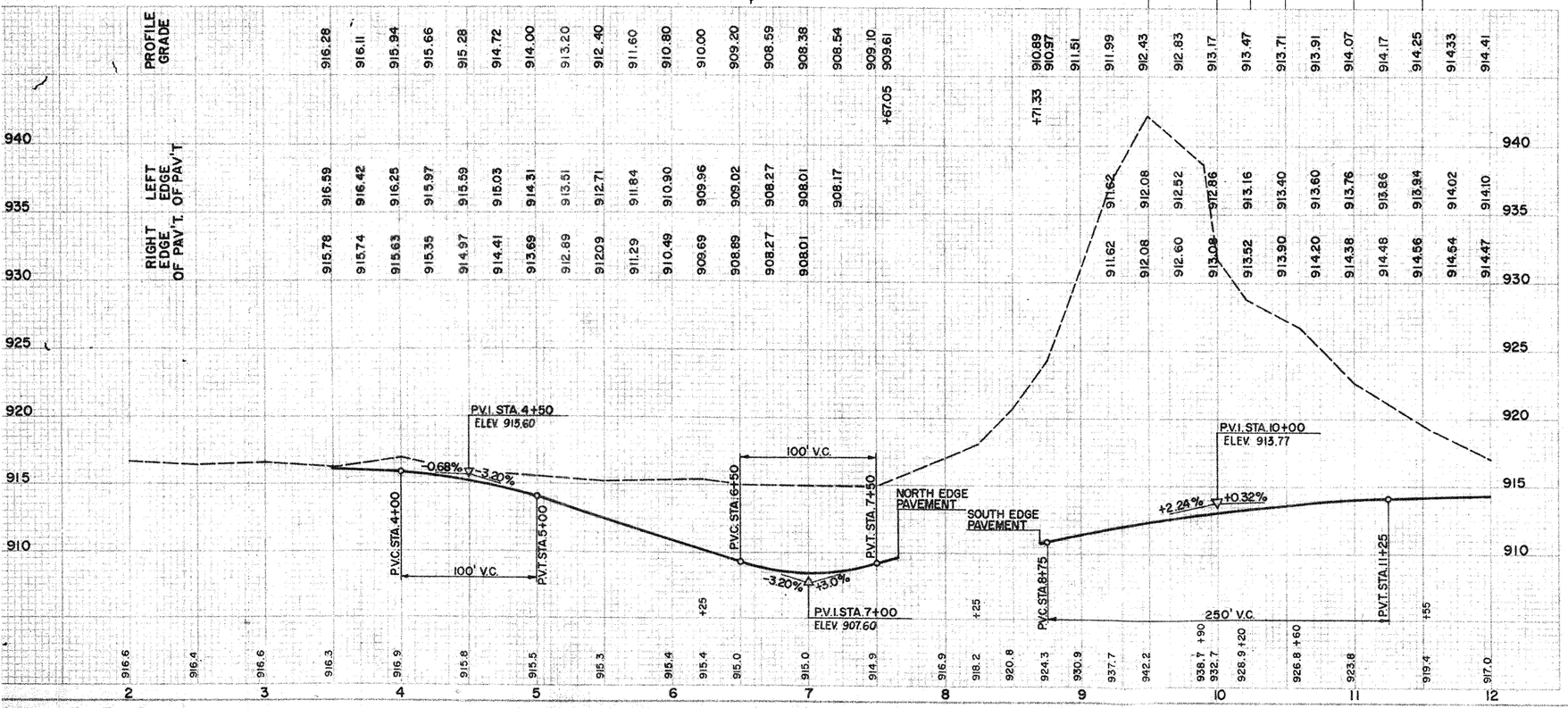
TWP. RD. 131 RELOCATION EAST OF S.R. 37 STA. 31+00 TO STA. 34+00

LICENSE COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. NO. | STATE | PROJ. | | |
|---|---|---|---|---|
| 2 | OHIO | | | |

254
466




TWP. RD. 131 PLAN & PROFILE INTERSECTING Mt. STA. 2+00 TO STA. 12+00

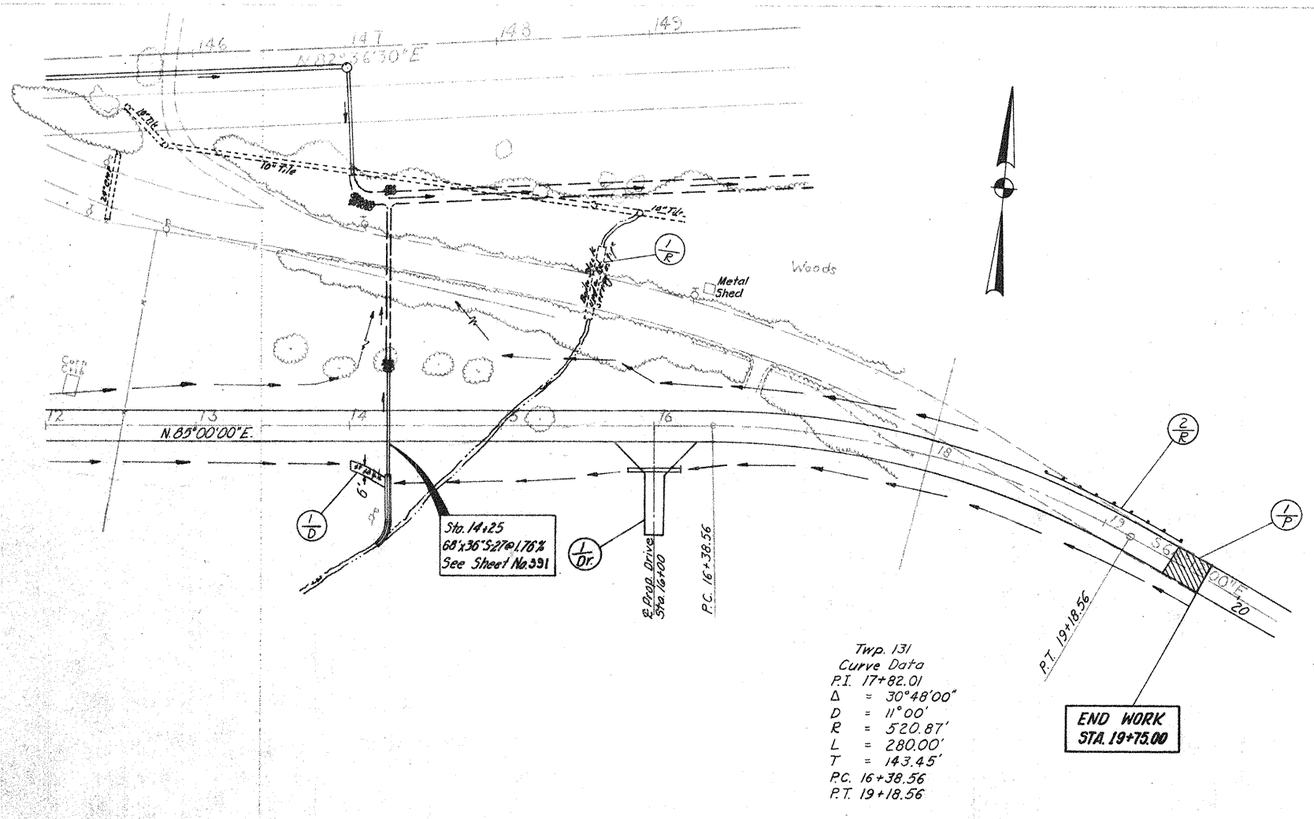
ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | 8-19 | | 7-35 |
|---|---|---|---|---|---|
| | | | Type 2 Approach Pavement Sta. Mix Asph. Base 12" Course | | Asph. Conc. Surface Course (Type 2) (12-0.5) |
| | | | Lin. Ft. | Cu. Yds. | Cu. Yds. |
| 102 | Sta. 5+00 | Lt. | 56 | 24.3 | |
| 1-P | Sta. 9+25 - 9+50 | Rt. | | | 1.5 |
| TOTALS | | | 56 | 24.3 | 1.5 |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

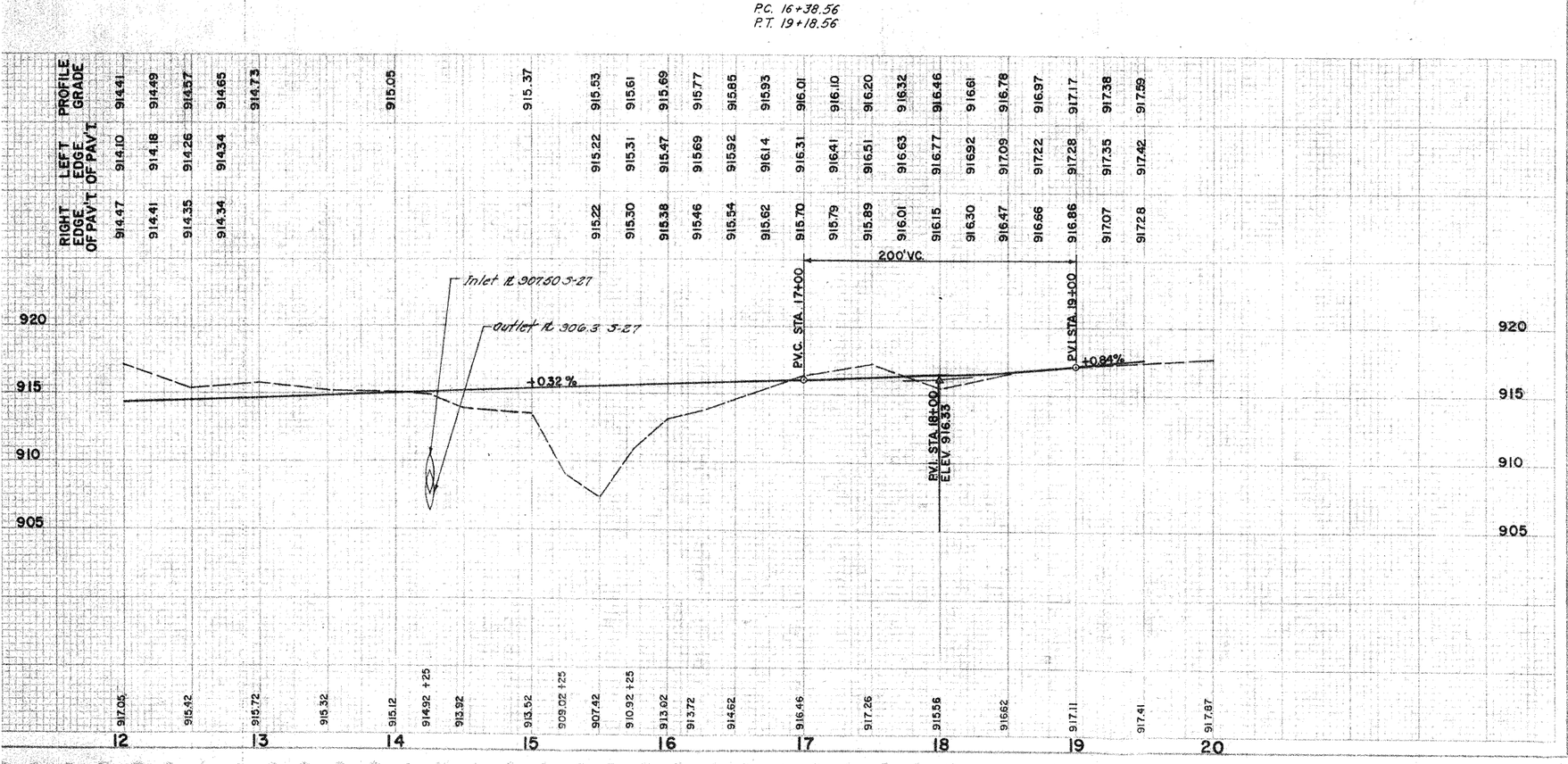
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

255/466




Twp. 131
Curve Data
P.I. 17+82.01
Δ = 30°48'00"
D = 11°00'
R = 520.87'
L = 280.00'
T = 143.45'
P.C. 16+38.56
P.T. 19+18.56

| | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|
| RIGHT EDGE OF PAV'T | 914.47 | 914.41 | 914.35 | 914.34 | 915.22 | 915.30 | 915.38 | 915.46 | 915.54 |
| LEFT EDGE OF PAV'T | 914.10 | 914.18 | 914.26 | 914.34 | 915.22 | 915.31 | 915.47 | 915.69 | 915.92 |
| PROFILE GRADE | 914.41 | 914.49 | 914.57 | 914.65 | 915.53 | 915.61 | 915.69 | 915.77 | 915.85 |
| | 915.05 | | 915.37 | | | | | | |
| | 915.42 | 915.72 | 915.32 | 915.12 | 914.92 +25 | 913.92 | 913.52 | 909.02 +25 | 907.42 |
| | 910.92 +25 | 913.62 | 913.72 | 914.62 | 916.46 | 917.26 | 915.56 | 916.62 | 917.11 |
| | 917.41 | 917.87 | | | | | | | |




ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | L-10 Sodding Sq. Yds | E-12 Removal of Pipe Over 15" Lin. Ft | T-35 Rock Cut, Shale, Surf. Cut, Connection Type "C" (70.83) Cu. Yds | T-45 Steel Rail Connection Beam Deep Std. Lin. Ft | B-19 Crushed Aggregate Base Course Cu. Yds. | 1-1 12" Pipe for Driveways M&A(B) |
|---|---|---|---|---|---|---|---|---|
| 1-R | 15+55 ~ 18+50 | Lt. | | 48 | | | 100 | |
| 2-R | | Lt. | | | | | | |
| 1-D | 14+00 ~ 14+25 | Rt. | 17 | | | | | |
| 1-P | 19+50 ~ 19+75 | ℄ | | | 15 | | | |
| 1-Dr. | 16+00 | Lt. | | | | 21 | | 34 |
| TOTALS | | | 17 | 48 | 15 | 100 | 21 | 34 |

TWP. RD. 131 PLAN & PROFILE INTERSECTING ℄ STA. 12+00 TO STA. 20+00

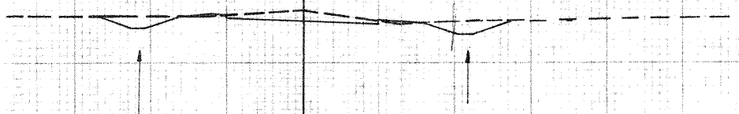
2 OHIO

256
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



915.28
4+50
915.81



915.94
4+00
916.95

Sta. 3+50 Begin Typical

Sta. 3+25 Begin Feathering

916.28
3+50
916.33

3+00
916.60

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| | 80 | | | |
| 910 | | | | |
| | | | 128 | |
| 920 | 58 | | | |
| 920 | | | | |
| | | | 71 | |
| 920 | 18 | | | |
| 910 | | | | 90 |
| Sta 3+25 | 0 | 0 | | |
| 920 | | | | |
| 910 | | | | |

60 40 20 ℄ 20 40 60

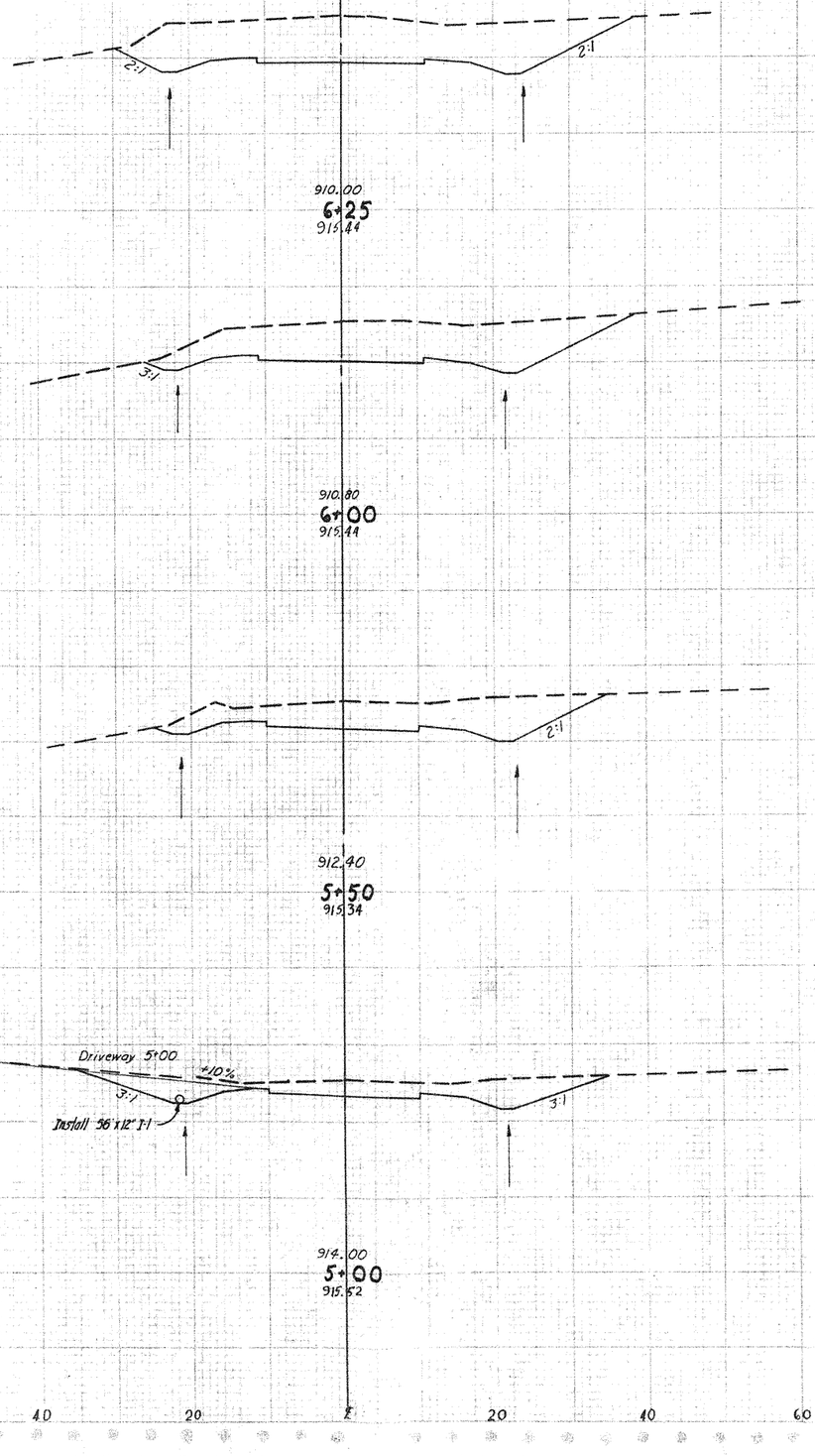
TWP. RD. 131 INTERSECTING ℄ STA. 3+00 TO STA. 4+50

PRINTED IN U.S.A.
CUT-TRACE CLOTH

| U.S. ROUTE DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

257
466

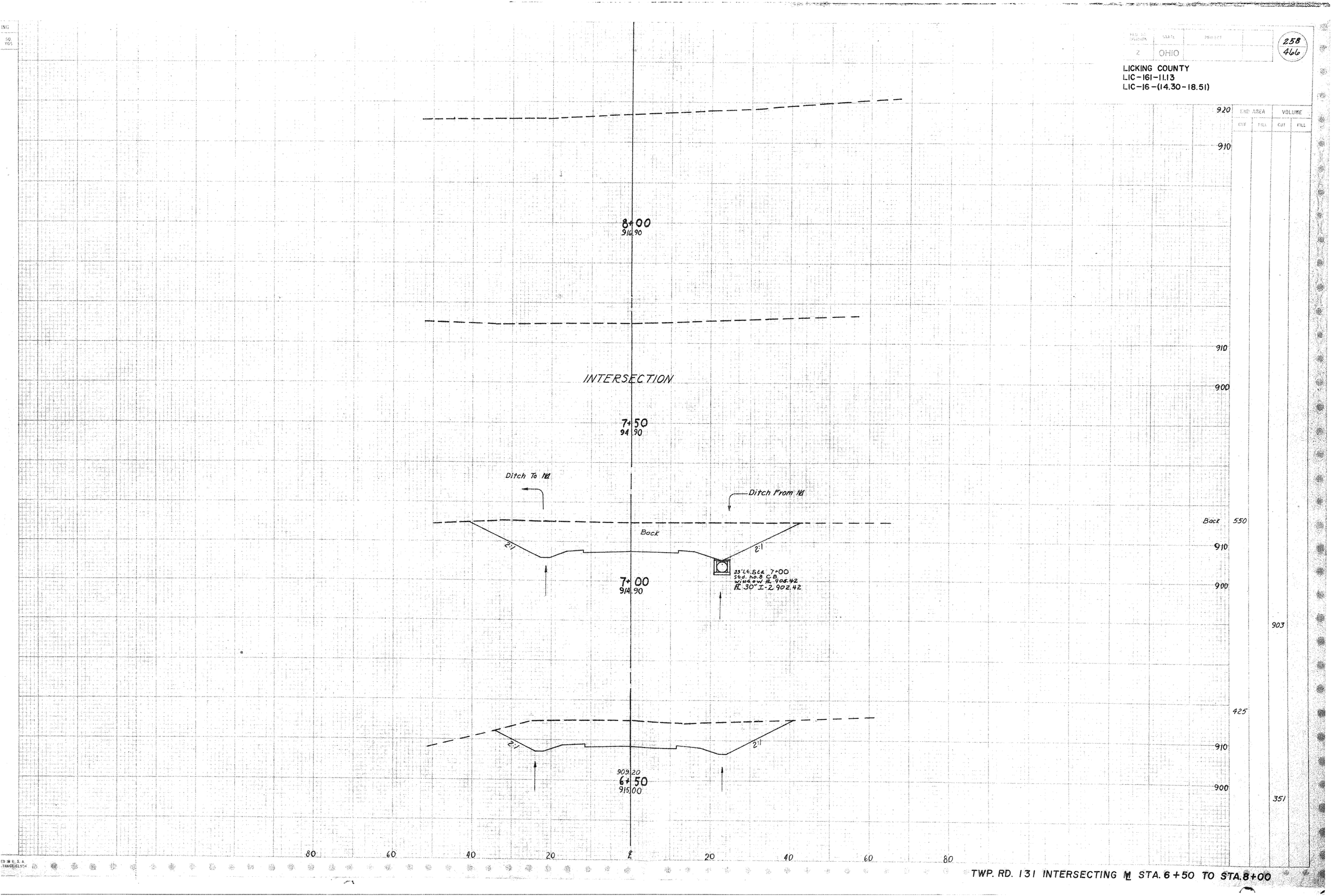
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



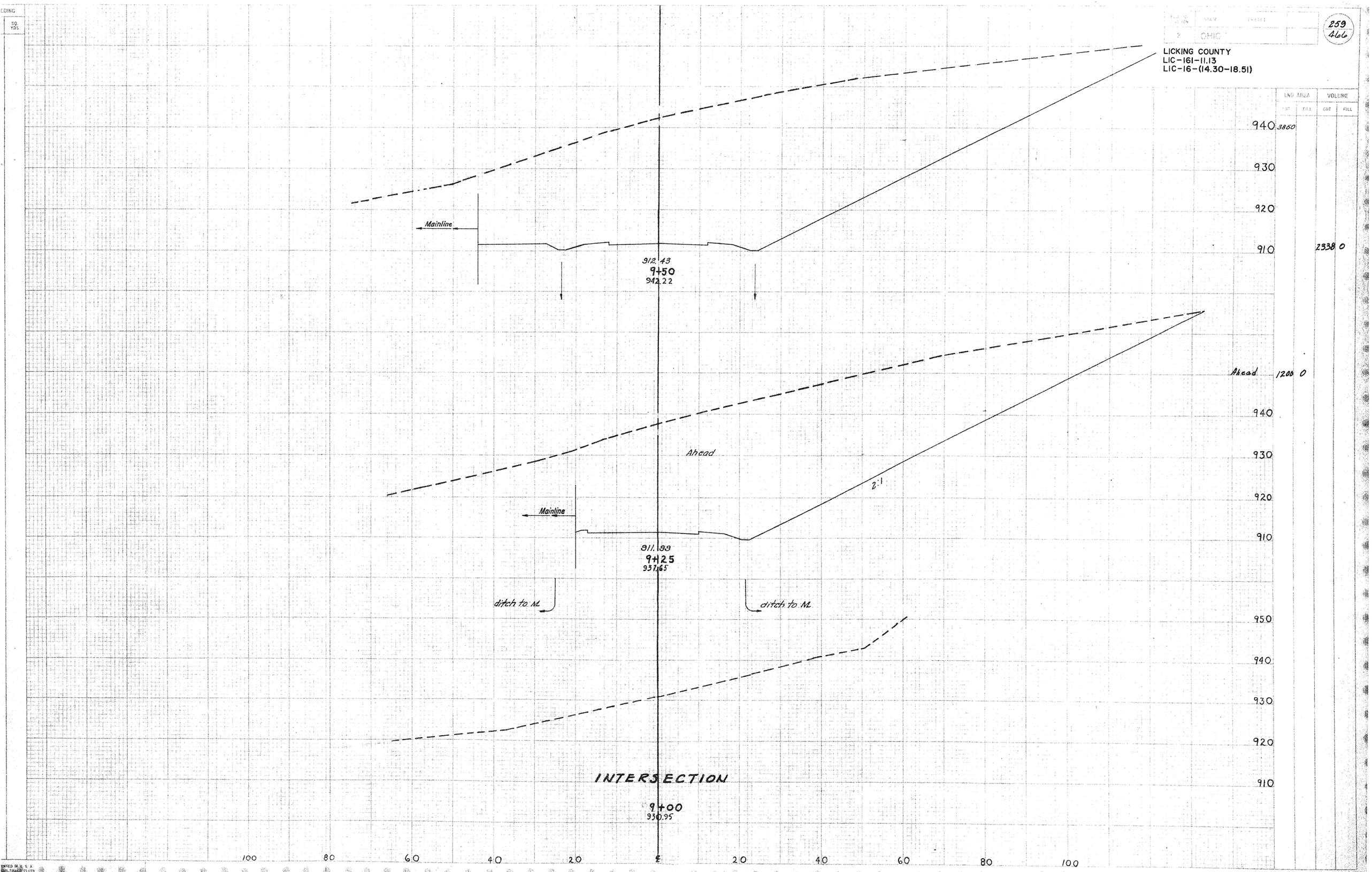

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 920 | | | | |
| 910 | 330 | | | |
| | | | 282 | |
| 920 | 275 | | | |
| 910 | | | | |
| | | | 495 | |
| 920 | 205 | | | |
| 910 | | | | |
| | | | 331 | |
| 920 | | | | |
| 910 | | | | |
| | | | 215 | |
| | | | 4 | |

DRIVEWAY
LT. STA. 5+00

TWP. RD. 131 INTERSECTING ℄ STA. 5+00 TO STA. 6+25




TWP. RD. 131 INTERSECTING M STA. 6+50 TO STA. 8+00

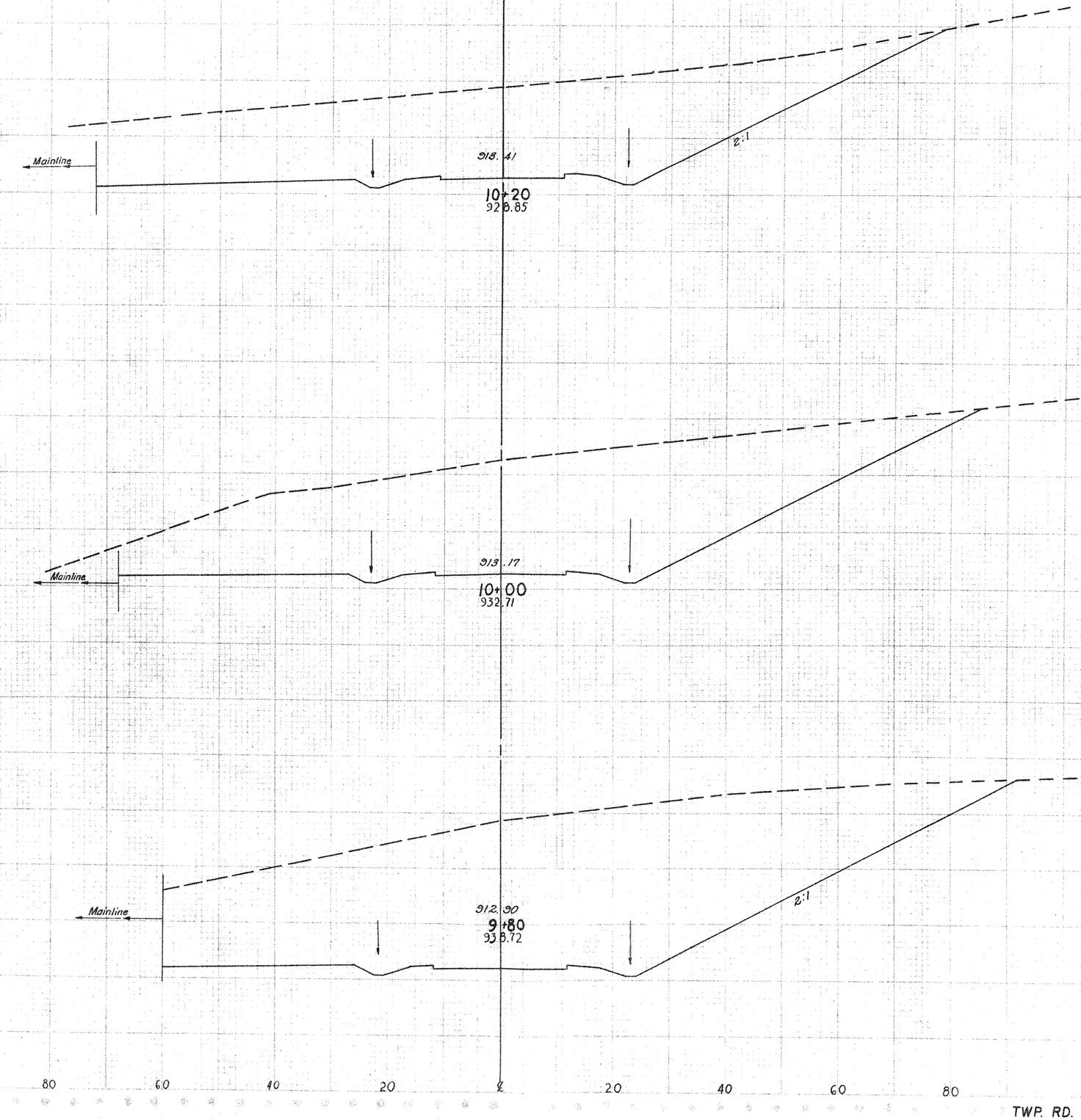



TWP. RD. 131 INTERSECTING ML STA. 9+00 TO STA. 9+50

STATE: OHIO

260
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



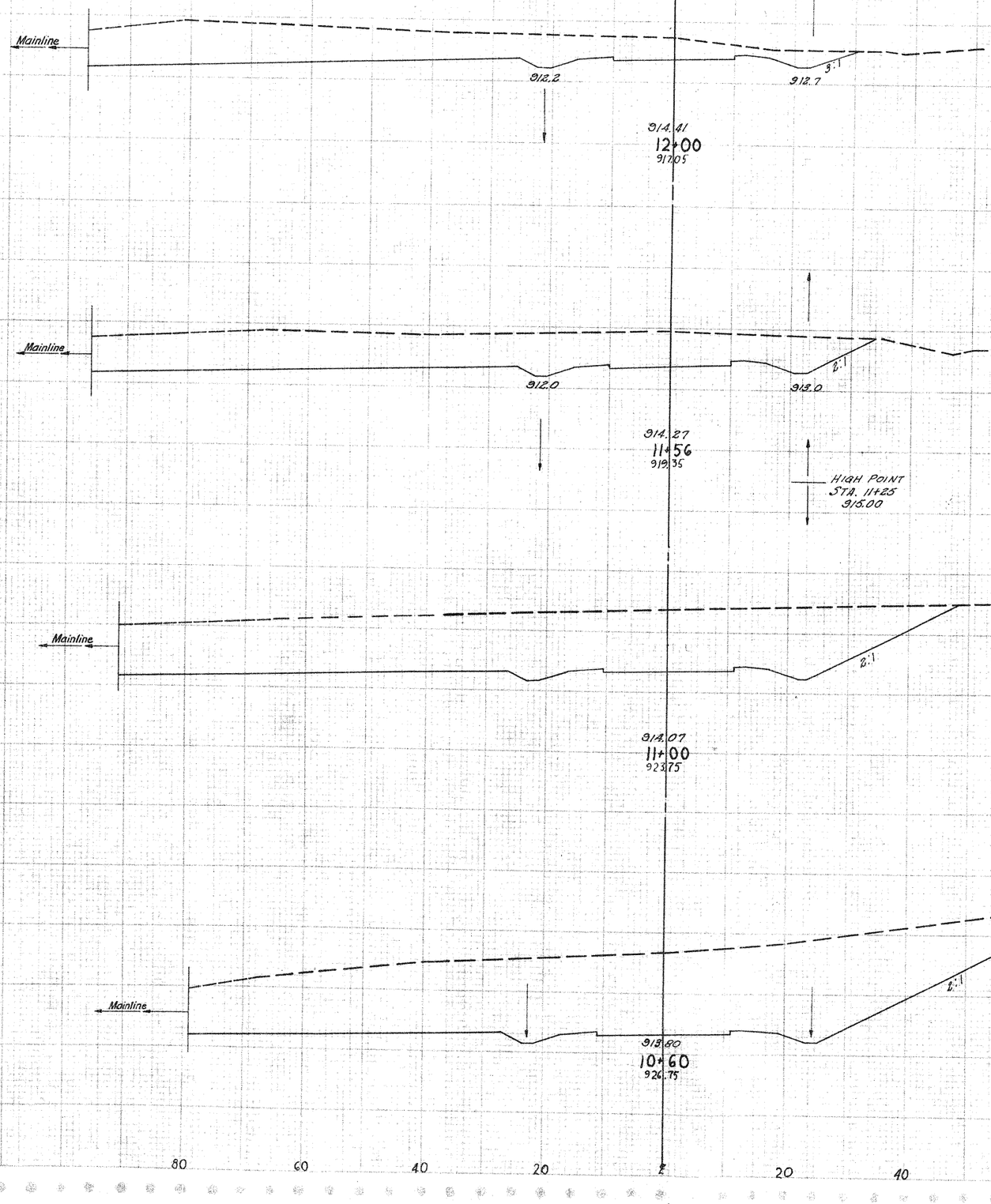

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | 930 | | |
| | 1943 | | |
| | 920 | | |
| | | | 1564 |
| 2280 | | | |
| | 930 | | |
| | 920 | | 952 |
| | 910 | | |
| | | 3059 | |
| | 940 | | |
| | 930 | | |
| | 920 | | 5257 |

TWP. RD. 131 INTERSECTING ℄ STA. 9+80 TO STA. 10+20

261
466

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

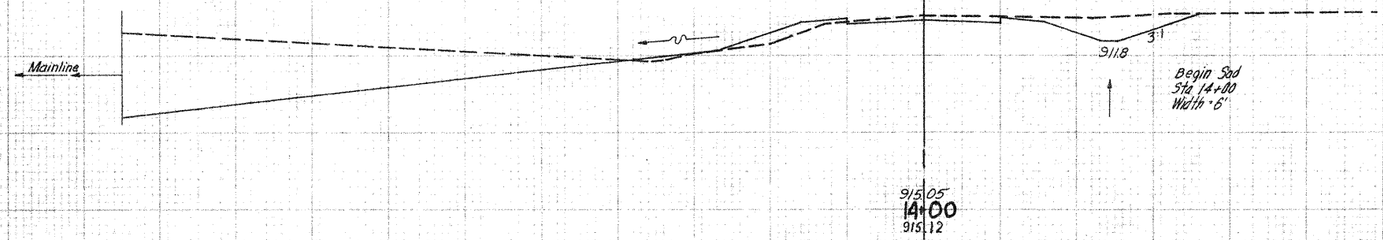



| AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | 910 | 640 |
| | | | 1165 |
| | | 790 | |
| | | 910 | |
| | | | 2146 |
| | | 1279 | |
| | | 920 | |
| | | | 2070 |
| | | 1526 | |
| | | 930 | |
| | | 920 | |
| | | | 2569 |

80 60 40 20 0 20 40 60 80

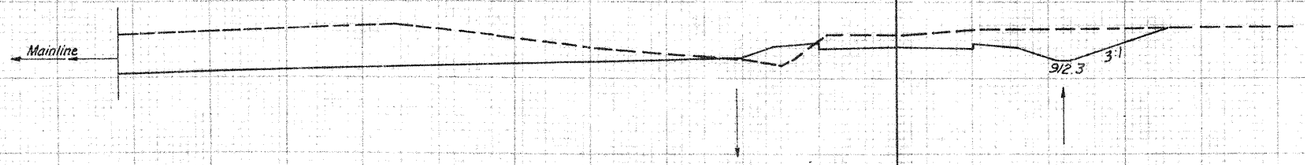
TWP. RD. 131 INTERSECTING ℄ STA. 10+60 TO STA. 12+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)













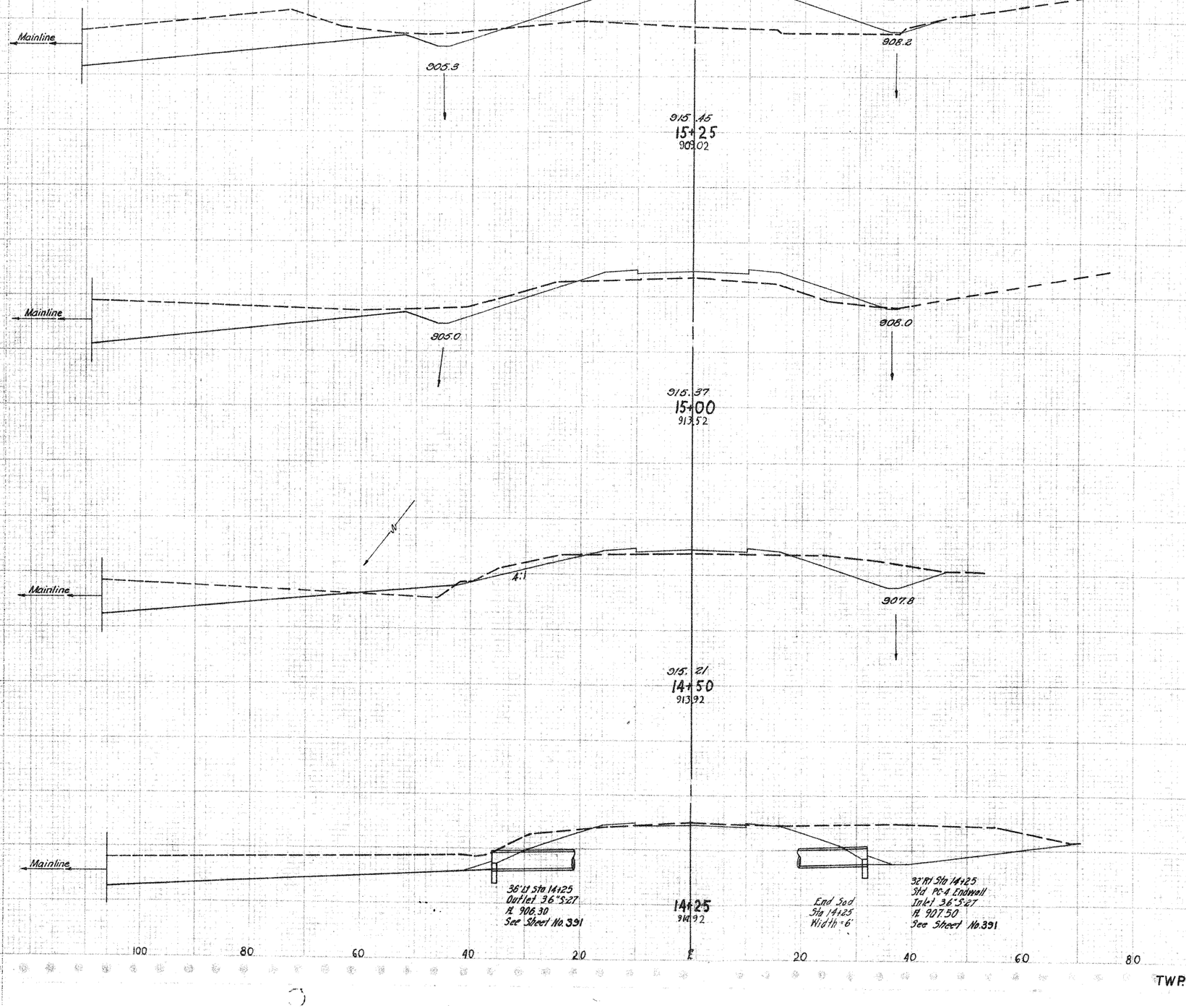
| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | 455 | 18 | | |
| 900 | | | 771 | 17 |
| 910 | 378 | 0 | | |
| | | | 253 | 14 |
| 910 | 435 | 15 | | |
| | | | 880 | 19 |
| 910 | 515 | 5 | | |
| | | | 1069 | |

100 80 60 40 20 E 20 40 60 80

TWP. RD. 131 INTERSECTING ℄ STA. 12+50 TO STA. 14+00

263
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

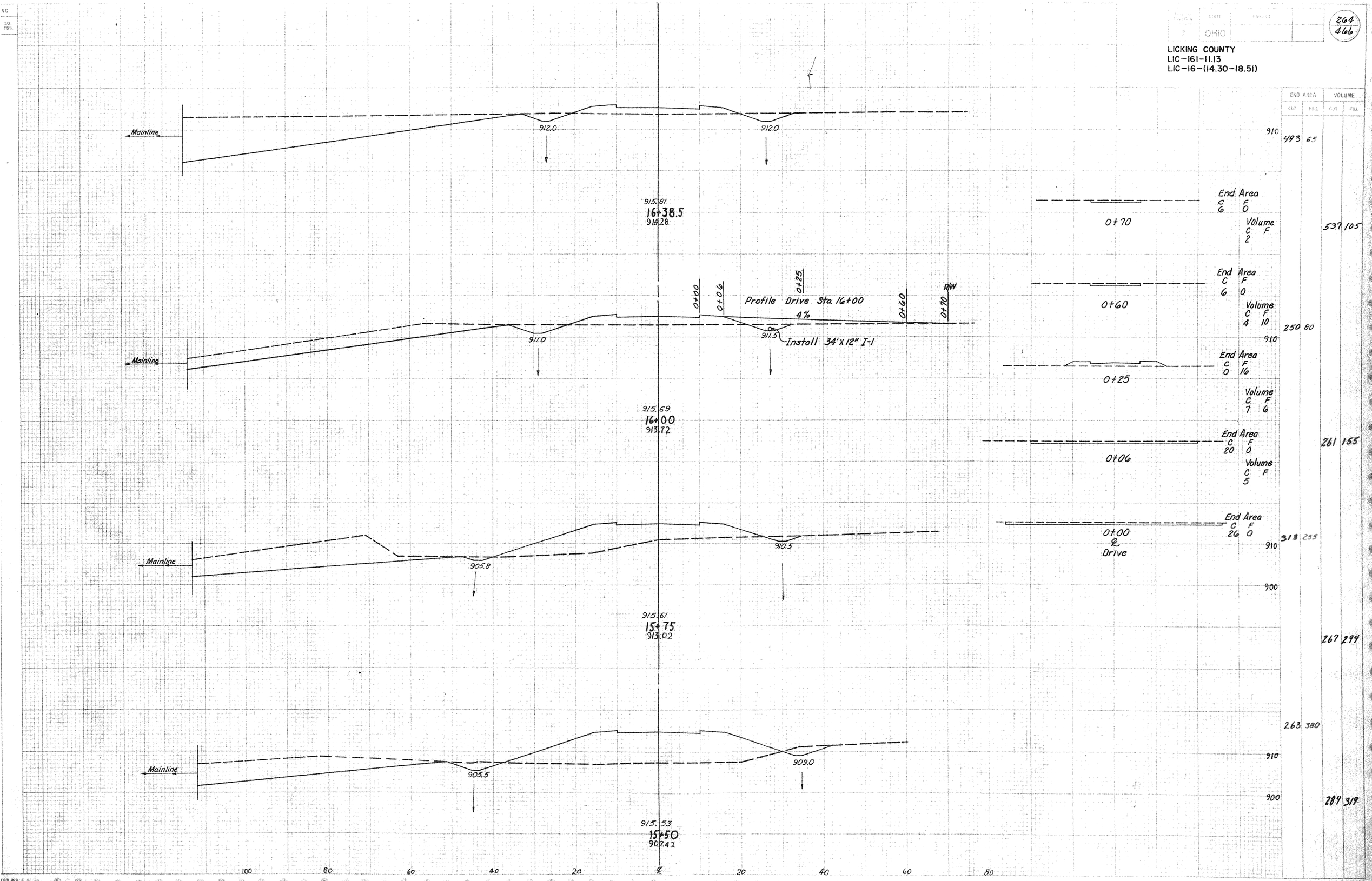



| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | 350 | 308 | | |
| 900 | | | | |
| | | | 307 | 180 |
| | 313 | 80 | | |
| 910 | | | | |
| 900 | | | | |
| | | | 294 | 121 |
| 910 | 305 | 51 | | |
| 900 | | | | |
| | | | 428 | 12.1 |
| | 620 | 211 | | |
| 910 | | | | |
| 900 | | | 498 | 106 |

TWP. RD. 131 INTERSECTING ℄ STA. 14+25 TO STA. 15+25

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

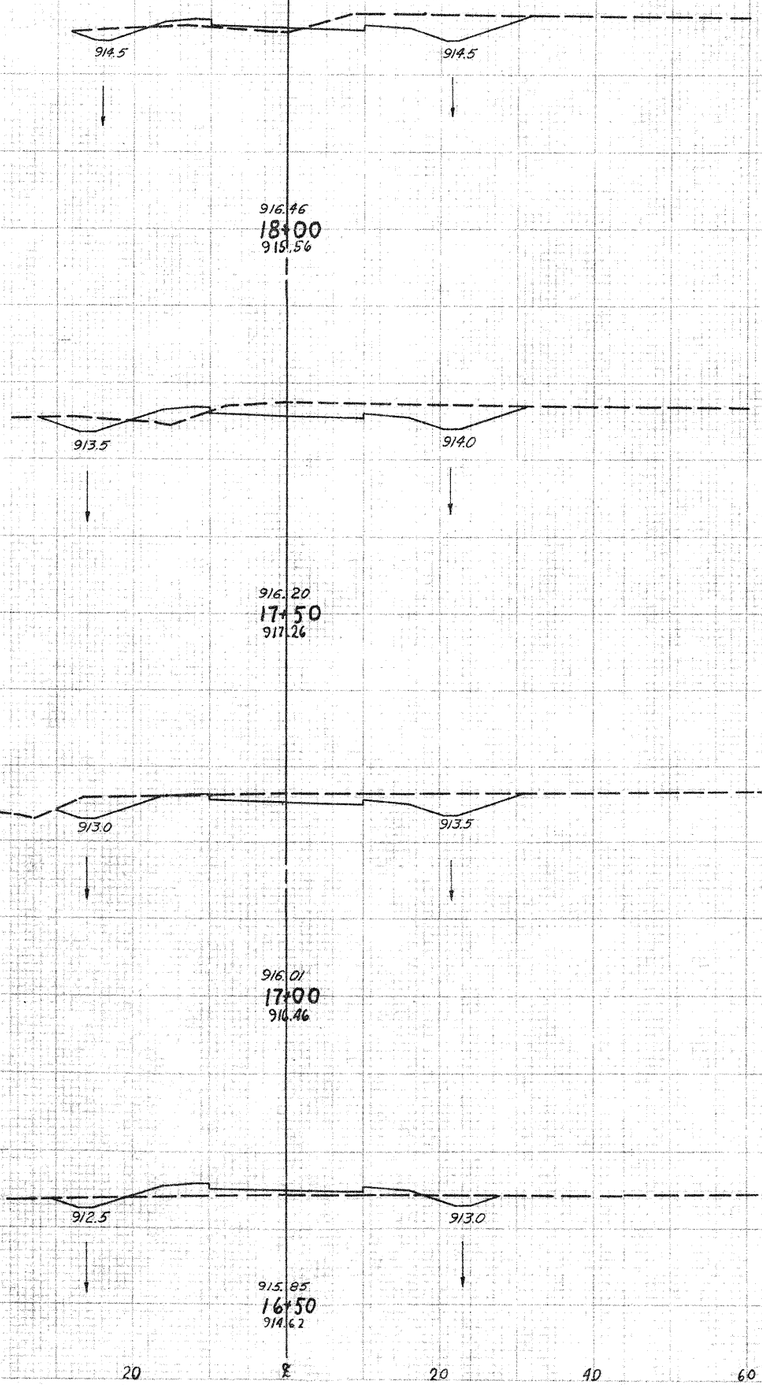



| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 910 | 493 | 65 | | |
| | | | 537 | 105 |
| | 250 | 80 | | |
| | | | 261 | 155 |
| | 313 | 255 | | |
| | | | 267 | 294 |
| | 263 | 380 | | |
| | | | 284 | 319 |

TWP. RD. 131 INTERSECTING M STA. 15+50 TO STA. 16+38.5

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | 80 | 5 | | |
| | | | 162 | 28 |
| 910 | 95 | 25 | | |
| | | | 167 | 24 |
| 910 | 85 | | | |
| | | | 107 | 35 |
| 910 | 30 | 38 | | |
| | | | 107 | 21 |

TWP. RD. 131 INTERSECTING ℄ STA. 16+50 TO STA. 18+00

OHIO

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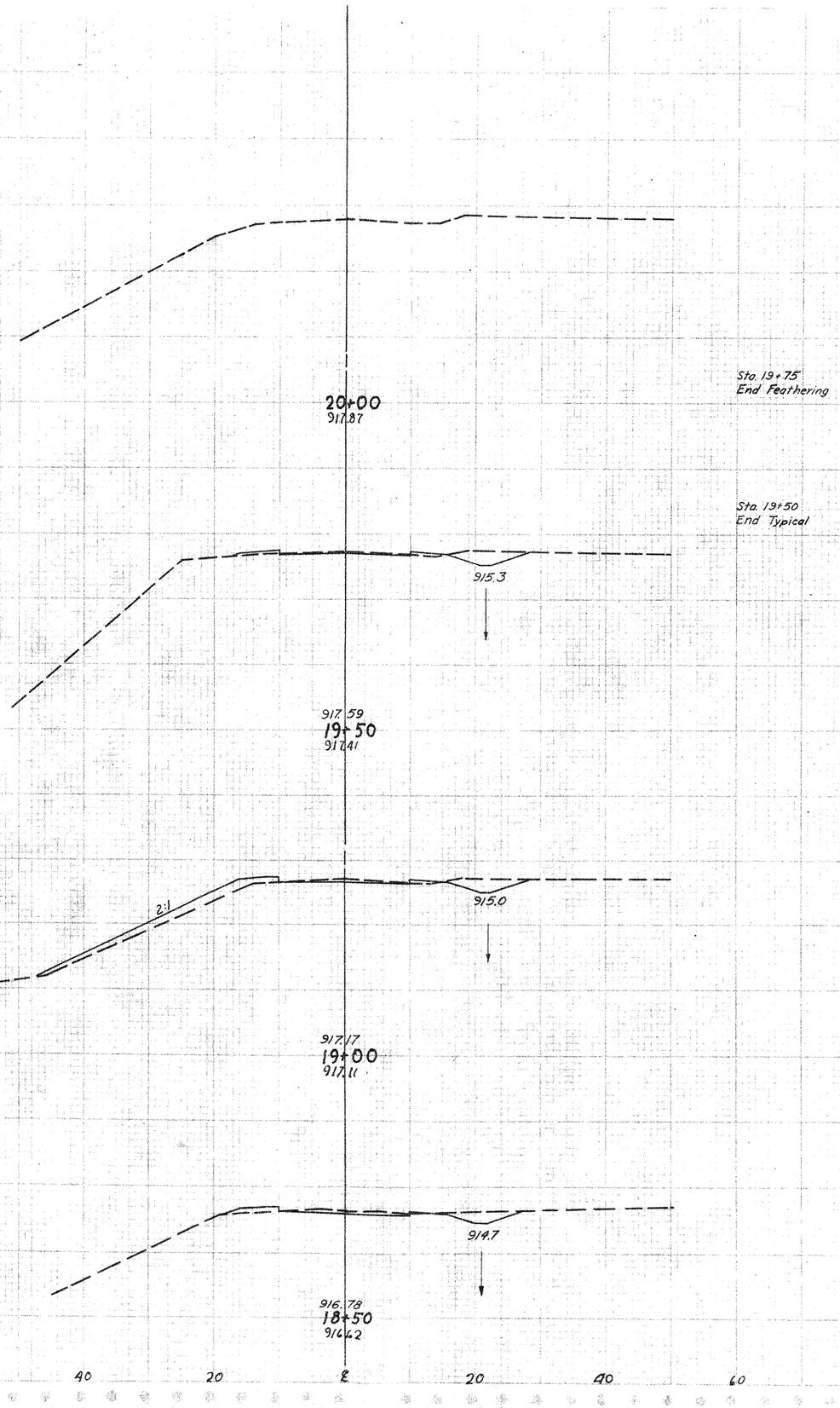
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



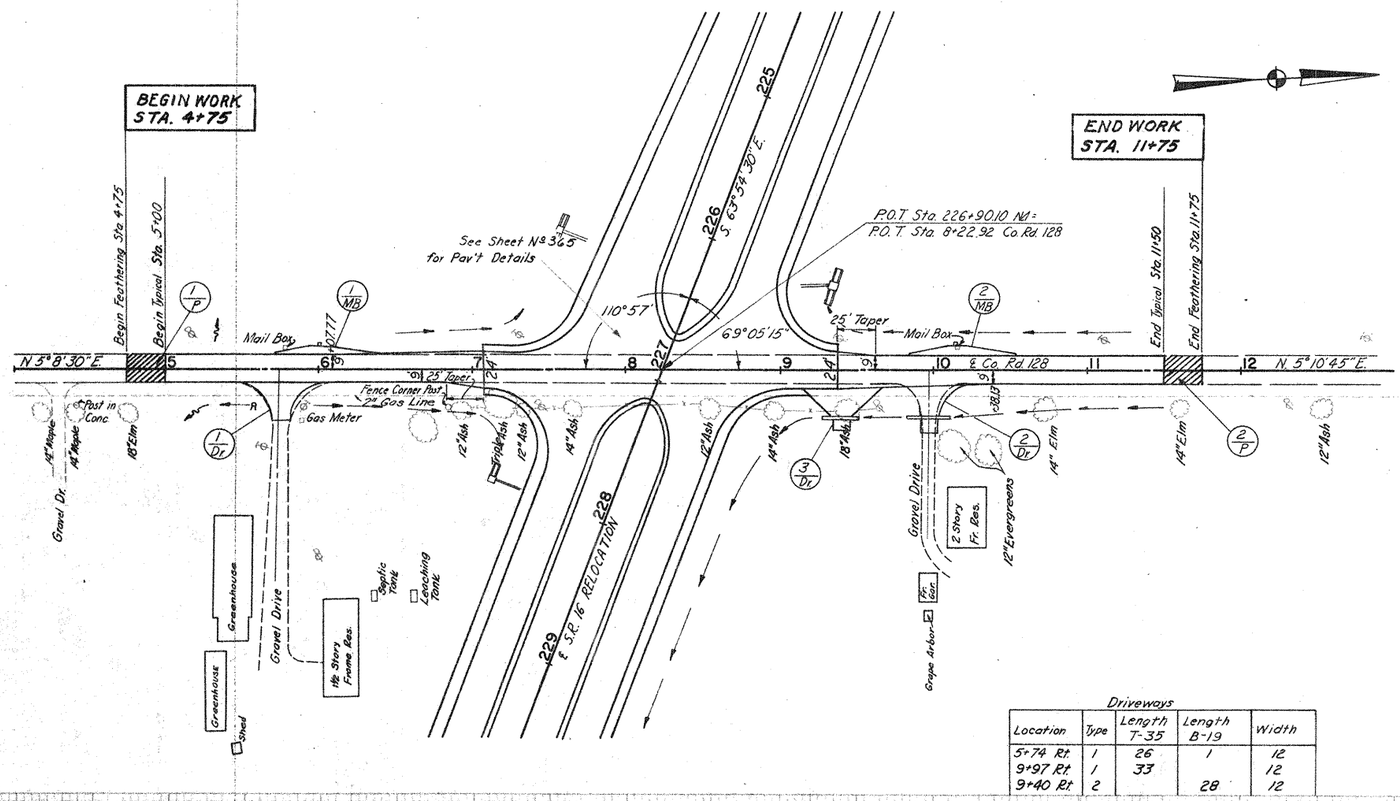

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | | | | |
| 900 | | | | |
| Sta. 19+75 | 0 | 0 | | |
| | | | 12 | 6 |
| | 25 | 11 | | |
| 910 | | | | |
| 900 | | | | |
| | | | 50 | 57 |
| | 29 | 50 | | |
| 910 | | | | |
| 900 | | | | |
| | | | 56 | 54 |
| | 30 | 8 | | |
| 910 | | | | |
| 900 | | | 102 | 13 |

TWP. RD. 131 INTERSECTING ℄ STA. 18+50 TO STA. 20+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

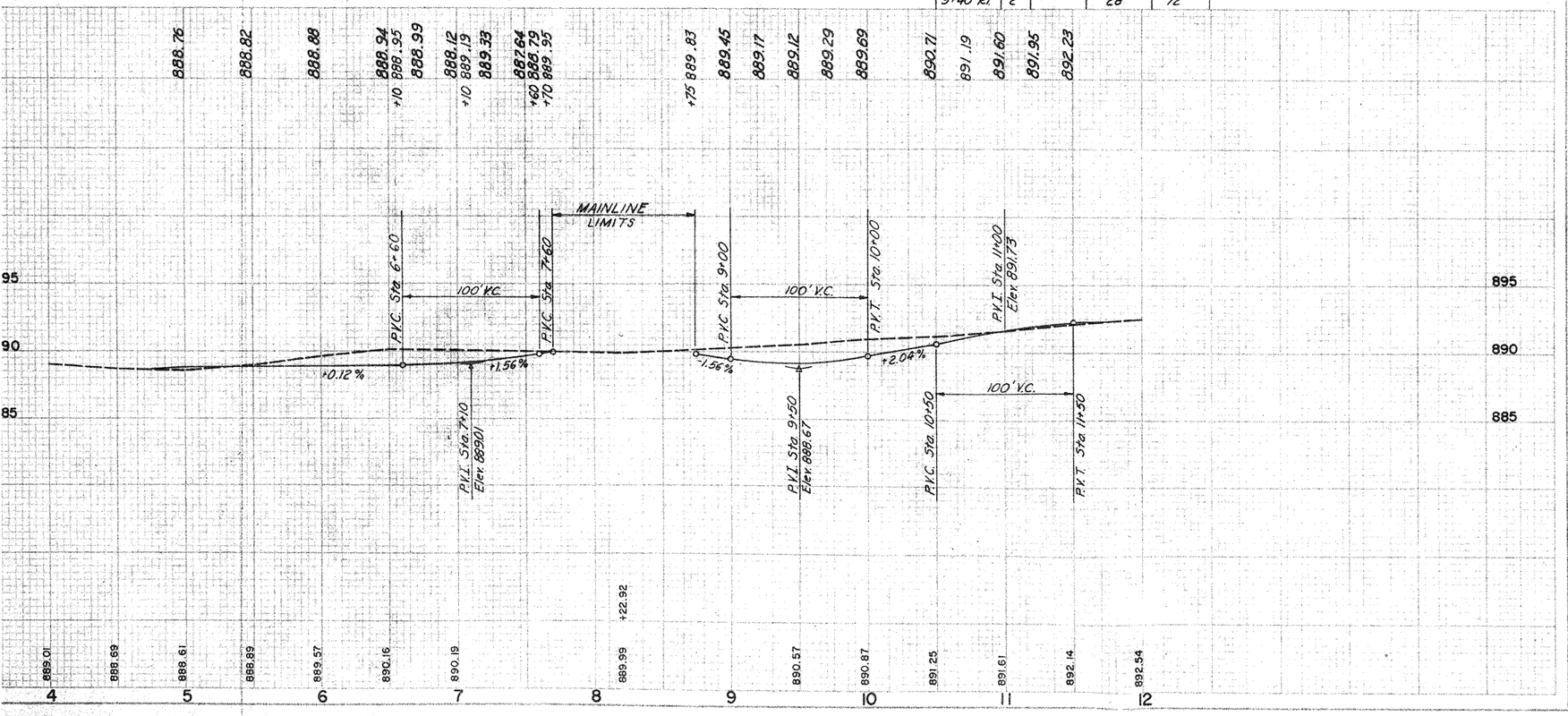
| SHEET NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

867
466




Driveways

| Location | Type | Length T-35 | Length B-19 | Width |
|---|---|---|---|---|
| 5+74 Rt | 1 | 26 | 1 | 12 |
| 9+97 Rt | 1 | 33 | | 12 |
| 9+40 Rt | 2 | | 28 | 12 |




ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | T-35 Asphaltic concrete Surface Course Cu Yds. | B-19 Aggregate Base Course Cu Yds. | F-1 Pipe for Driveways M.E.%(6) 12" Lin. Ft. | T-30 Bituminous Prime Coat Gal. |
|---|---|---|---|---|---|---|
| 1-MB | 6+00 | Lt. | 1.7 | 4.3 | | 13.6 |
| 2-MB | 10+15 | Lt. | 1.7 | 4.3 | | 13.6 |
| 1-Dr. | 5+74 | Rt. | 4.6 | 11.5 | | 24.6 |
| 2-Dr. | 9+97 | Rt. | 5.1 | 12.7 | 28 | 27.9 |
| 3-Dr. | 9+40 | Rt. | | 13.7 | 26 | |
| 1-P | 4+75 - 5+00 | ℄ | 1.5 | | | |
| 2-P | 11+50 - 11+75 | ℄ | 1.5 | | | |
| TOTALS | | | 16.1 | 46.5 | 54 | 79.7 |

PLAN & PROFILE COUNTY ROAD 128

| FED. AID PROJECT | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

268
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| | 45 | 10 | | |
| | | | 21 | 5 |
| Sta 4+75 | 0 | 0 | | |

888.76
5+00
888.61

880

880

4+50
888.69

880

4+00
889.01

880

3+50
889.06

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

COUNTY ROAD 128 STA. 3+50 TO STA. 5+00

STATE: OHIO

269
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

Expressway

Expressway

886.0

886.20

887.00
7+00
890.19

887.10

886.30

888.94
6+50
890.16

8864

888.88
6+00
889.57

Profile Drive Rt. Sta. 5+74
+1%
Existing Drive Profile

Resident
Drive
Sta. 5+74 Rt.

888.82
5+50
888.89

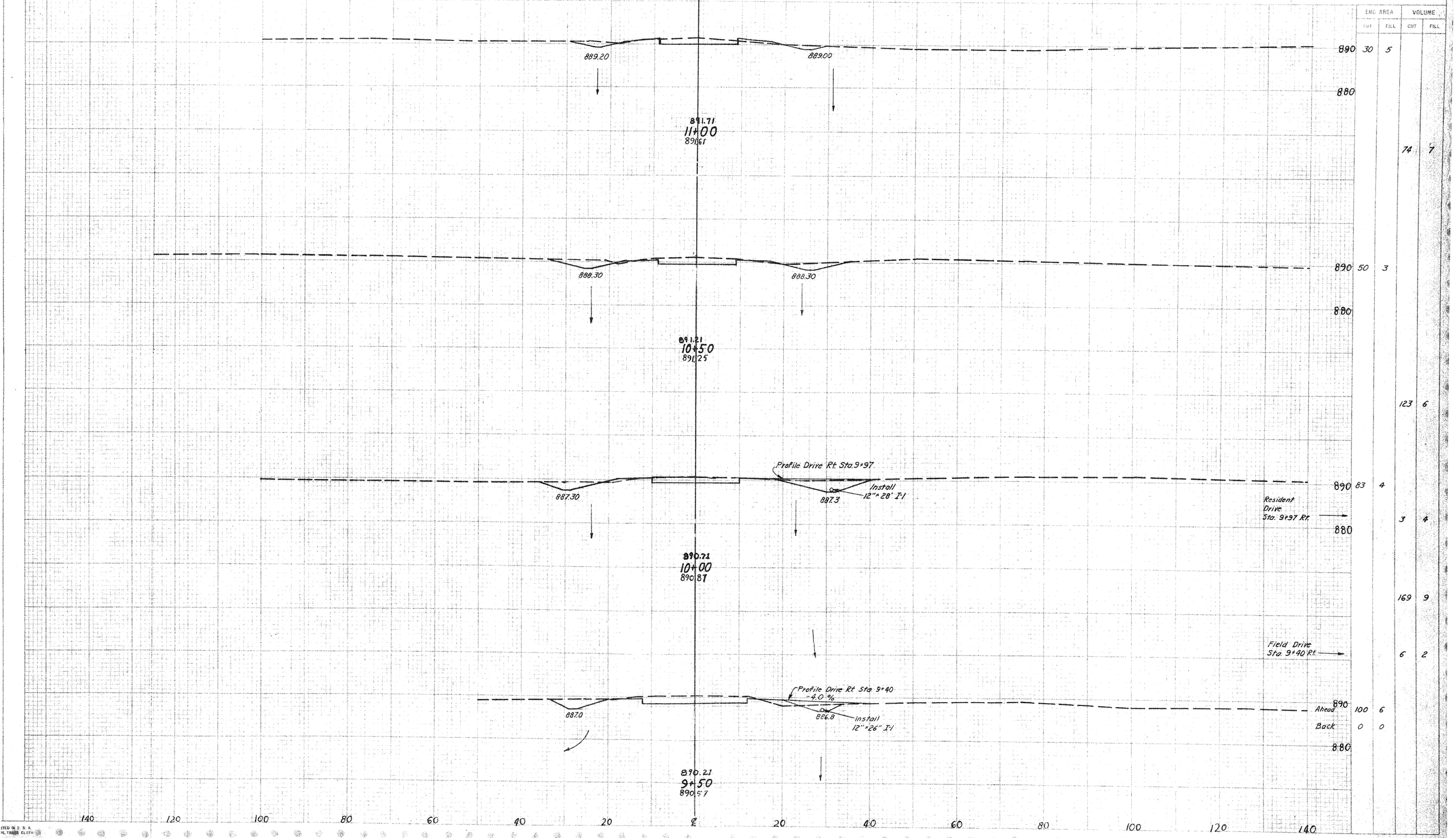
| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| Ahead | 0 | 0 | | |
| 890 | | | | |
| Back | 104 | | | |
| 880 | | | | |
| | | | 207 | |
| 890 | 120 | | | |
| 880 | | | | |
| | | | 167 | |
| | 60 | 5 | | |
| 880 | | | | |
| | | | 4 | 5 |
| | | | 84 | 9 |
| | 31 | 5 | | |
| 880 | | | | |
| | | | 70 | 14 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

COUNTY ROAD 128 STA. 5+50 TO STA. 7+00

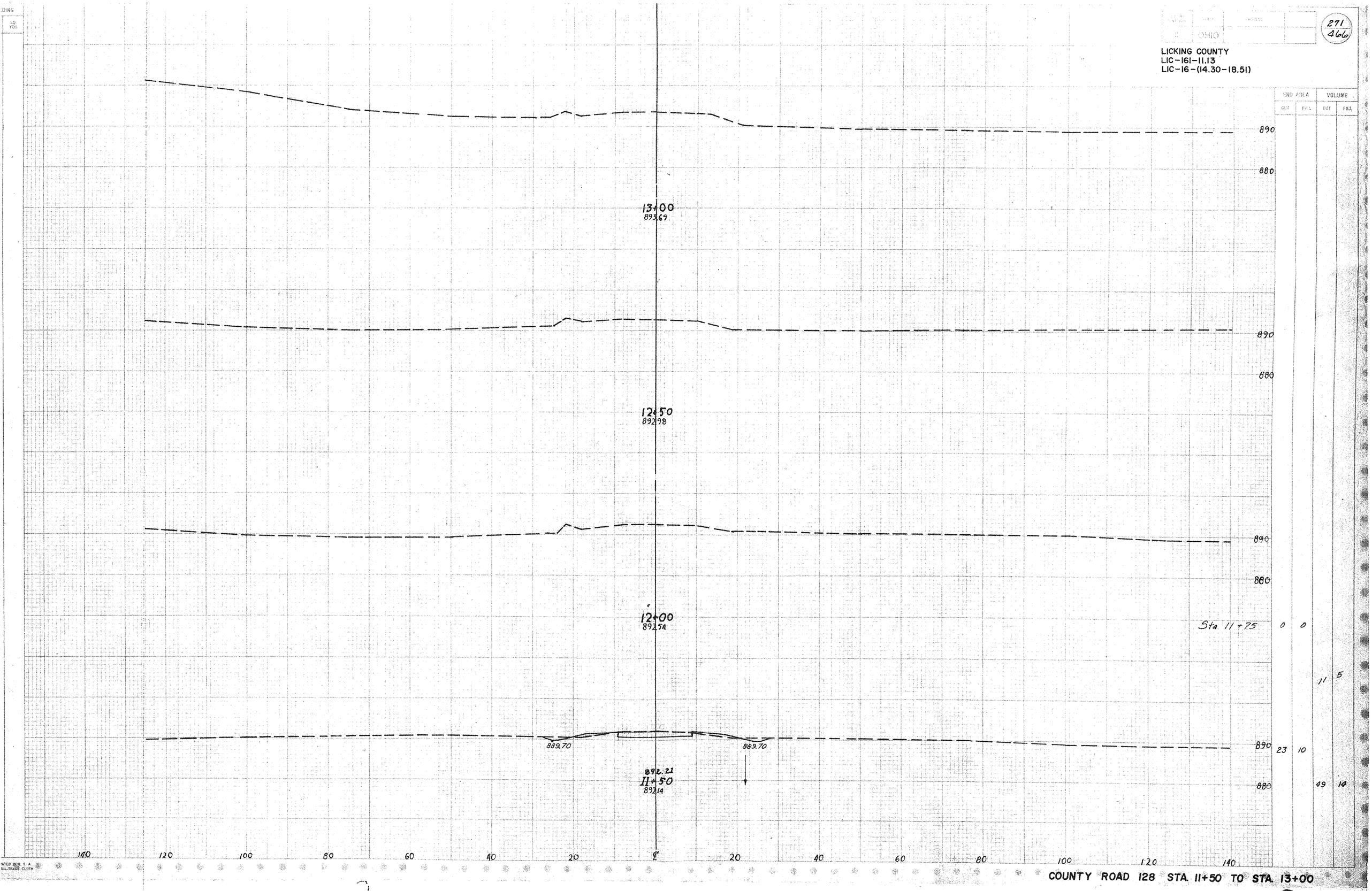
2 OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 890 | 30 | 5 | | |
| 880 | | | | |
| | | | 74 | 7 |
| 890 | 50 | 3 | | |
| 880 | | | | |
| | | | 123 | 6 |
| 890 | 83 | 4 | | |
| Resident Drive Sta. 9+97 Rt. → | | | 3 | 4 |
| 880 | | | | |
| | | | 169 | 9 |
| Field Drive Sta. 9+40 Rt. → | | | 6 | 2 |
| 890 | | | | |
| Ahead | 100 | 6 | | |
| Back | 0 | 0 | | |
| 880 | | | | |

COUNTY ROAD 128 STA. 9+50 TO STA. 11+00




COUNTY ROAD 128 STA. 11+50 TO STA. 13+00

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

272
466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

# S.R. 512 INTERCHANGE SUB-SUMMARY

| REF. | STATION | SHEET NO. | E-8 | I-15 | | | SPECIAL | S-25 | I-4 | | | I-5 | | | | S-24 | I-8 | B-19 | T-30 | T-35 | T-70 | I-7 | I-12 | | | I-21 | I-22 | I-1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Removal and Disposal of Existing Pavement | Guard Rail Steel Beam Standard Type (Deep) | Wood Guard Rail Posts Without Rail | Guard Rail, Removed and Stored | Drilled Well Abandoned | 4" Asbestos Cem. Conduit Sec. M-206.14 as per Plan | 6" Under drains | 6" Underdrains Sec. M-6.4 (h) | 8" Pipe Outlets for Underdrains Sec. M-6.4 (a) | PIPE SPECIALS FOR UNDERDRAINS 6" 60° Bend | 6" 90° Bend | 6"x6" Tee | 6"x6" Wye | Removal of Existing Structures | Std 2-2-8 Catch Basin | Aggregate Base Course | Bituminous Prime Coat Sec. M-57, RT-2 or RT-3 | Asphaltic Concrete Surface Course Type C (10-85) | Portland Cement Concrete Pavement | Reinforced Concrete Approach Slab (T-18) | CONCRETE CURB Standard Type "2-A" | CONCRETE CURB Standard Type 6 | Special Port. Cem. Conc. Curb as per Plan | 4" Portland Cem. Conc. Median Pavt. Std. Type I | Subbase | Pipe For Driveways Sec. M-6.4 (a) 12" | Pipe For Driveways Sec. M-6.4 (a) 24" |
| | | | Sq. Yds. | Lin. Ft. | Each | Lin. Ft. | Each | Lin. Ft. | Lin. Ft. | | | Each | | | | Lump | Each | Cu. Yds. | Gal. | Cu. Yds. | Sq. Yds. | Sq. Yds. | Lin. Ft. | | | Sq. Yds. | Cu. Yds. | Lin. Ft. | |
| 1-R | 259+77.84 - 264+50.00 | 279 | | 472.16 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-R | 259+77.84 - 266+25.00 | 279 | | 647.16 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3-R | 5+75 - 10+00 | 279 | | | | 425 | | | | | | | | | | | | | | | | | | | | | | | |
| 4-R | 5+78 - 9+78 | 279 | | | | 400 | | | | | | | | | | | | | | | | | | | | | | | |
| 5-R | 6+78 - 8+65.5 | 279 | | 187.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6-R | 269+97 - 273+00 | 279 | | 303 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-Dr. | 9+00 | 279 | | | | | | | | | | | | | | | | 11.6 | | | 117 | | | | | | | | |
| 2-Dr. | 10+00 | 279 | | | | | | | | | | | | | | | | 48.7 | 114.8 | 16.0 | | | | | | | | | |
| 3-Dr. | 13+50 | 279 | | | | | | | | | | | | | | | 1 | 29.6 | | | | | | | | | | 42 | |
| 4-Dr. | 13+82 | 279 | | | | | | | | | | | | | | | | 24.7 | | | | | | | | | | 30 | |
| 1-MB | 9+15 | 279 | | | | | | | | | | | | | | | | 4.3 | 12.2 | 1.7 | | | | | | | | | |
| 2-MB | 12+80 | 279 | | | | | | | | | | | | | | | | 4.3 | 12.2 | 1.7 | | | | | | | | | |
| 1-P | | 279 | | | | | | | | | | | | | | | | 106.0 | 306 | 42.5 | | | | | | | | | |
| 2-P | 262+70.63 - 273+00 Line A-B | 279 | 2740 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-I4 | 259+77.84 - 263+95 Line 'W' | 279 | | | | | | | 417 | | | | | | | | | | | | | | | | | | | | |
| 2-I4 | 259+77.84 - 265+00 Line 'W' | 279 | | | | | | | 522 | | | 1 | | | | | | | | | | | | | | | | | |
| 3-I4 | 260+05 - 266+60 Line 'E' | 279 | | | | | | | 605 | 87 | 10 | | 1 | | | | | | | | | | | | | | | | |
| 4-I4 | 260+00 - 265+50 Line 'E' | 279 | | | | | | | 550 | | 10 | 1 | | | | | | | | | | | | | | | | | |
| 5-I4 | 264+00 - 271+40 Line 'W' | 279 | | | | | | | 120 | 640 | 10 | | 1 | | | | | | | | | | | | | | | | |
| 6-I4 | 266+66 - 273+00 Line 'E' | 279 | | | | | | | 60 | 574 | | | | | | | | | | | | | | | | | | | |
| 7-I4 | 271+44 - 273+00 Line 'W' | 279 | | | | | | | 210 | 46 | | | | | | | | | | | | | | | | | | | |
| 8-I4 | 272+50 - 273+00 Line 'E' | 279 | | | | | | | 50 | | | | | | | | | | | | | | | | | | | | |
| 9-I4 | 267+72 - 273+00 Line 'B' | 279 | | | | | | | 528 | | | | | | | | | | | | | | | | | | | | |
| 10-I4 | 267+72 - 272+00 Line 'A' | 279 | | | | | | | 428 | | | | | | | | | | | | | | | | | | | | |
| 7-O | 280+50 Line 'B' | 282 | | | | | | | | | | | | | | Lump | | | | | | | | | | | | | |
| 9-O | 285+00 Line 'B' | 282 | | | | | | | | | | | | | | Lump | | | | | | | | | | | | | |
| 7-R | 279+06 - 284+93.5 Line 'W' | 282 | | 587.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8-R | 278+39 - 280+01.5 Line 'W' | 282 | | 162.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9-R | 282+10 - 289+00 Line 'B' | 282 | | | | 670 | | | | | | | | | | | | | | | | | | | | | | | |
| 10-R | 274+32 - 275+52 Line 'B' | 282 | | | | | | 138 | | | | | | | | | | | | | | | | | | | | | |
| 11-R | 273+40 Line 'A' | 282 | | | | | | 26 | | | | | | | | | | | | | | | | | | | | | |
| 12-R | 275+83 - 277+38 Line 'A' | 282 | | 175.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13-R | 276+24 - 278+11.5 Line 'A' | 282 | | 187.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14-R | 278+50 - 287+00 Line 'B' | 282 | | 850.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15-R | 282+00 Line 'B' | 282 | | | | | | 28 | | | | | | | | | | | | | | | | | | | | | |
| 16-R | 277+50 - 289+00 | 282 | | 1150.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17-R | 281+70 | 282 | | | | | | 42 | | | | | | | | | | | | | | | | | | | | | |
| 18-R | 283+56 - 287+65 Line 'B' | 282 | 729 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19-R | 275+57 - 276+32 Line 'W' | 282 | | 75.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20-R | 273+00 - 276+84.5 Line 'W' | 282 | | 384.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21-R | 286+70 Line 'B' | 282 | | | | | 1 | | | | | | | | | | | 54.4 | 157 | 21.8 | | | | | | | | | |
| 22-R | 276+75 Line 'A' | 282 | | | | | 1 | | | | | | | | | | | | | | | 66.67 | | | | | 5.0 | | |
| | | | | | | | | | | | | | | | | | | | | | | 66.67 | | | | | 5.0 | | |
| 3-P | 273+00 - 274+85 Line 'B' | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-P | 274+55.51 - 276+90.51 Line 'W' | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5-P | 278+75.48 - 279+00.48 Line 'W' | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6-P | 273+00 - 274+72 Line 'A' - 'B' | 282 | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6-P | 284+00 - 289+00 | 282 | 1384 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7-P | 279+93 - 281+93 | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8-P | 281+93.80 - 282+95 Line 'W' | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9-P | 286+75 - 289+00 | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10-P | 288+50 - 289+00 Line 'B' | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 106 | 101 | 200 | 30 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 205 | 20 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | |
| TOTALS TO SHEET NO. | | 273 | 5803 | 5181.82 | | 1495 | 2 | 234 | 3490 | 1347 | 30 | 2 | 2 | | | Lump | 1 | 283.6 | 602.2 | 83.7 | 117 | 133.34 | 311 | 171 | 200 | 30 | 10.0 | 72 | |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

273
466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

# S.R. 512 INTERCHANGE SUB-SUMMARY

| REF. | STATION | SHEET NO. | | E-8 | I-15 | | | SPECIAL | S-25 | | I-4 | | | I-5 | | | | S-24 | I-8 | B-19 | T-30 | T-35 | T-70 | I-7 | I-12 | | | I-21 | I-22 | I-1 | | T-70 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Removal and Disposal of Existing Pavement | Guard Rail Steel Beam Standard Type (Deep) | Wood Guard Rail Posts Without Rail | Guard Rail, Removed and Stored | Drilled Well Abandoned | 4" Asbestos Cem. Conduit Sec. M-206.14 as per Plan | | 6" Underdrains | 6" Underdrains Sec. M-6.4 (h) | 8" Pipe Outlets for Underdrains Sec. M-6.4 (a) | PIPE SPECIALS FOR UNDERDRAINS 6" 60° Bend | 6" 90° Bend | 6"x6" Tee | 6"x6" Wye | Removal of Existing Structures | Std 2-2-8 Catch Basin | Aggregate Base Course | Bituminous Prime Coat, Sec. M-5.7, RT-2 or RT-3 | Asphaltic Concrete Surface Course, Type "C" (110-85) | 7" Portland Cement Concrete Pavement | Reinforced Concrete Approach Slab (T-13") | CONCRETE CURB Standard Type "2-A" | Standard Type 6 | Special Part. Cem. Conc. Curb as per Plan | 4" Portland Cem. Conc. Median Pav't. Std. Type 1 | Subbase | Pipe for Driveways, Sec. M-6.4 (a) 12" | 24" | 8" Portland Cement Concrete Pavement | | |
| | | | | Sq. Yds. | Lin. Ft. | Each | Lin. Ft. | Each | Lin. Ft. | | Lin. Ft. | | | Each | | | | Lump | Each | Cu. Yds. | Gal. | Cu. Yds. | Sq. Yds. | Sq. Yds. | Lin. Ft. | | | Sq. Yds. | Cu. Yds. | Lin. Ft. | | Sq. Yd. | | |
| 11-I-4 | 273+00 ~ 276+50 Line "W" | 282 | | | | | | | | | 361 | | 10 | | 1 | | | | | | | | | | | | | | | | | | |
| 12-I-4 | 273+00 ~ 278+50 | 282 | | | | | | | | | 566 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 13-I-4 | 273+00 ~ 278+46 | 282 | | | | | | | | | 555 | | 10 | | | | | | | | | | | | | | | | | | | | |
| 14-I-4 | 278+55 ~ 281+85 | 282 | | | | | | | | | 590 | | 10 | 1 | 1 | | 1 | | | | | | | | | | | | | | | | |
| 15-I-4 | 279+18 ~ 286+00 | 282 | | | | | | | | | 695 | | 10 | | 1 | | | | | | | | | | | | | | | | | | |
| 16-I-4 | 281+95 ~ 284+00 | 282 | | | | | | | | | 226 | | 10 | | 1 | | | | | | | | | | | | | | | | | | |
| 17-I-4 | 282+60 ~ 286+40 | 282 | | | | | | | | | 436 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 18-I-4 | 286+60 ~ 289+00 | 282 | | | | | | | | | 240 | | | | | | | | | | | | | | | | | | | | | | |
| 19-I-4 | 286+00 ~ 289+00 | 282 | | | | | | | | | 200 | 100 | | | | | | | | | | | | | | | | | | | | | |
| 20-I-4 | 273+00 ~ 281+00 Line "B" | 282 | | | | | | | | | 818 | | 10 | | 1 | | | | | | | | | | | | | | | | | | |
| 21-I-4 | 272+00 ~ 275+90 Line "A" | 282 | | | | | | | | | 392 | | 10 | | 1 | | | | | | | | | | | | | | | | | | |
| 22-I-4 | 274+10 ~ 277+00 Line "A" | 282 | | | | | | | | | 217 | | 10 | 2 | | | | | | | | | | | | | | | | | | | |
| 23-I-4 | 276+75 ~ 278+48 Line "A" | 282 | | | | | | | | | 173 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 24-I-4 | 278+55 ~ 282+50 Line "A" | 282 | | | | | | | | | 427 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 25-I-4 | 281+05 ~ 285+80 Line "B" | 282 | | | | | | | | | 511 | | 10 | | | | 1 | | | | | | | | | | | | | | | | |
| 3-D | 275+00 Line "B" | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 82 | | |
| 5-D | 274+25 Line "A" | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 70 | | | |
| 15-D | 11+00 Howell Drive | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| 23-R | 289+00 ~ 299+00 | 285 | | | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24-R | 289+00 ~ 299+00 | 285 | | | | | 950 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25-R | 294+80 Proposed Line 512 | 285 | | | | | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | |
| 26-R | 299+45 Proposed Line 512 | 285 | | | | | | | 36 | | | | | | | | | | | | | | | | | | | | | | | | |
| 27-R | 299+43 | 285 | | | | | | | 84 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5-DR | 296+55 Proposed Line 512 | 285 | | | | | | | | | | | | | | | | | | | | | | 225 | | | | | | | 40 | | |
| 6-DR | 303+60 | 285 | | | | | | | | | | | | | | | | | | | | | | 159 | | | | | | | | | |
| 7-DR | 303+70 | 285 | | | | | | | | | | | | | | | | | | | | | | 183 | | | | | | | | | |
| 8-DR | 304+60 | 285 | | | | | | | | | | | | | | | | | | | | | | 156 | | | | | | | | | |
| 11-P | 289+00 ~ 299+38 | 285 | | | | | | | | | | | | | | | | | | | | | | | 1874 | | | 291 | | | | | |
| 12-P | 289+00 ~ 291+09 Line "W" | 285 | | | | | | | | | | | | | | | | | | | | | | | | 209 | | | | | | | |
| 13-P | 293+40 ~ 295+80 Prop. Line 512 | 285 | | | | | | | | | | | | | | | | | | | | | | | | | 240 | | | | | | |
| 14-P | 289+00 ~ 305+00 | 285 | | 4270 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15-P | 300+35 ~ 303+28 | 285 | | | | | | | | | | | | | | | | | | | | | | | 495 | | | 355 | | | | | |
| 16-P | 0+10 ~ 6+65 Line 512 | 285 | | 1456 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26-I-4 | 289+00 ~ 295+25 Prop. Line 512 | 285 | | | | | | | | | 120 | 500 | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 27-I-4 | 295+25 ~ 299+50 Prop. Line 512 | 285 | | | | | | | | | 423 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 28-I-4 | 289+00 ~ 289+95 | 285 | | | | | | | | | 156 | | 10 | | 1 | | | | | | | | | | | | | | | | | | |
| 29-I-4 | 290+05 ~ 292+98 | 285 | | | | | | | | | | 283 | 10 | | | | | | | | | | | | | | | | | | | | |
| 30-I-4 | 293+05 ~ 295+10 | 285 | | | | | | | | | 455 | | 10 | | 1 | 1 | | | | | | | | | | | | | | | | | |
| 31-I-4 | 295+20 ~ 295+98 | 285 | | | | | | | | | 68 | | 10 | | | | | | | | | | | | | | | | | | | | |
| 32-I-4 | 295+20 ~ 299+38 | 285 | | | | | | | | | 420 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 33-I-4 | 289+80 LINE 512 ℄ ~ 299+80 SURVEY ℄ | 285 | | | | | | | | | 245 | | 10 | | 1 | | | | | | | | | | | | | | | | | | |
| 34-I-4 | 296+05 ~ 299+38 | 286 | | | | | | | | | 323 | | 10 | | | | | | | | | | | | | | | | | | | | |
| 35-I-4 | 6+65 512 SURVEY ℄ ~ 303+15 SURVEY ℄ | 285 | | | | | | | | | 505 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 36-I-4 | 303+25 ~ 305+00 | 285 | | | | | | | | | 175 | | | | | | | | | | | | | | | | | | | | | | |
| 28-R | 308+40 ~ 308+70 | 287 | | | | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9-DR | 306+10 | 287 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 177 | |
| 10-DR | 306+93 | 287 | | | | | | | | | | | | | | | | | | | 28.7 | 59.1 | 8.2 | | | | | | | | | | |
| 11-DR | 307+39 | 287 | | | | | | | | | | | | | | | | | | | 27.6 | 56.8 | 7.9 | | | | | | | | | | |
| 12-DR | 308+29 | 287 | | | | | | | | | | | | | | | | | | | 14.3 | 29.6 | 4.1 | | | | | | | | | | |
| 13-DR | 308+80 | 287 | | | | | | | | | | | | | | | | | | | 14.3 | 29.6 | 4.1 | | | | | | | | | | |
| 17-P | 305+00 ~ 309+50 | 287 | | 1200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 37-I-4 | 305+00 ~ 309+78 | 287 | | | | | | | | | 485 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| 38-I-4 | 307+00 ~ 309+78 | 287 | | | | | | | | | 275 | | 10 | 1 | | | | | | | | | | | | | | | | | | | |
| TOTALS FROM SHEET NO. 272 | | | | 5803 | 5181.82 | | 1495 | 2 | 234 | | 3490 | 1347 | 30 | 2 | 2 | | | Lump | 1 | 2836 | 602.2 | 83.7 | 117 | 133.34 | 311 | 171 | 200 | 30 | 10.0 | 72 | | | | |
| TOTALS TO GENERAL SUMMARY | | | | 12,729 | 6181.82 | 6 | 2445 | 2 | 384 | | 13,527 | 2230 | 280 | 29 | | | | Lump | 1 | 368.5 | 777.3 | 108.0 | 838 | 133.34 | 2680 | 380 | 440 | 678 | 10.0 | 192 | 122 | 177 | | |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

274/466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)

# S.R. 512 INTERCHANGE SUB-SUMMARY

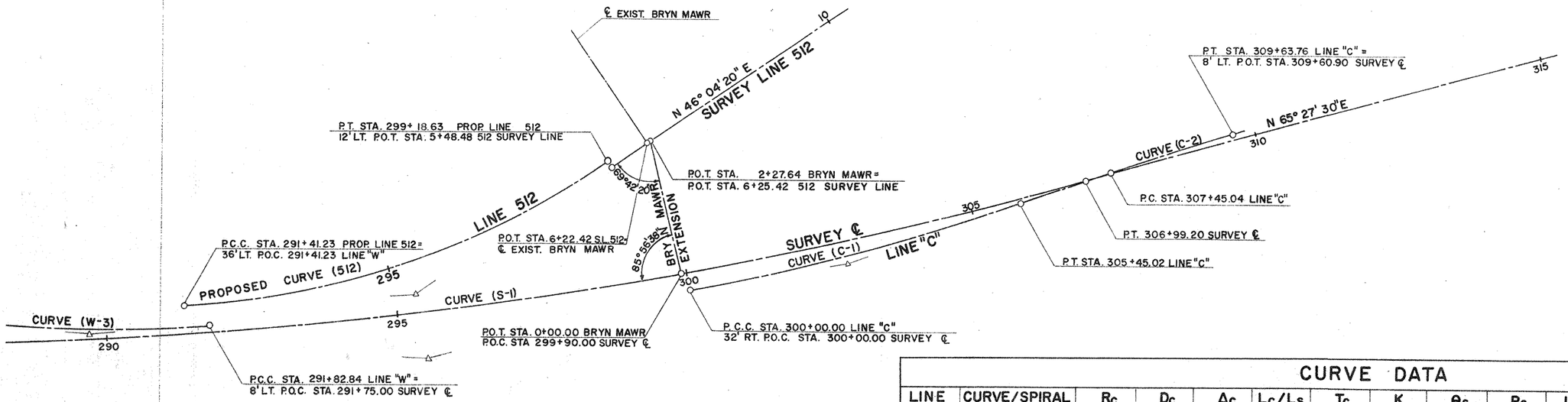
| REF. | STATION | | SHEET NO. | E-12 PIPE REMOVED 15" & Under (Lin. Ft.) | E-12 PIPE REMOVED Over 15" (Lin. Ft.) | L-10 Sodding (Sq. Yds.) | L-10 Sodding for Special Berm and Slope Protection (Sq. Yds.) | E-2 Excavation for Structures (Cu. Yds.) | E-3 Channel Excavation (Cu. Yds.) | I-2 STORM SEWERS Sec. M-6.4 (c) 12" (Lin. Ft.) | I-2 STORM SEWERS Sec. M-6.4 (c) 18" (Lin. Ft.) | I-2 STORM SEWERS Sec. M-6.5 (a) or Sec. M-6.8 (a) 21" (Lin. Ft.) | I-2 STORM SEWERS Sec. M-6.6 (a) or Sec. M-6.8 (b) 30" (Lin. Ft.) | I-2 STORM SEWERS Sec. M-6.6 (c) or Sec. M-6.8 (a) 36" (Lin. Ft.) | I-2 STORM SEWERS UNDER PAVEMENT OR APPROACHES M-6.6 (b) or 6.8 (b) 30" (Lin. Ft.) | I-2 STORM SEWERS UNDER PAVEMENT OR APPROACHES Sec. M-6.5 (b) or Sec. M-6.8 (b) 12" (Lin. Ft.) | I-2 STORM SEWERS UNDER PAVEMENT OR APPROACHES Sec. M-6.5 (b) or Sec. M-6.8 (b) 18" (Lin. Ft.) | I-2 STORM SEWERS UNDER PAVEMENT OR APPROACHES Sec. M-6.6 (a) or Sec. M-6.8 (b) 24" (Lin. Ft.) | I-2 STORM SEWERS UNDER PAVEMENT OR APPROACHES Sec. M-6.6 (a) or Sec. M-6.8 (b) 30" (Lin. Ft.) | I-2 STORM SEWERS UNDER PAVEMENT OR APPROACHES Sec. M-6.6 (a) or 6.8 (b) 36" (Lin. Ft.) | I-5 12" Pipe Specials for S.S., Sec. M-6.4 (c) (Each) | I-8 STANDARD No. 2-2-A (Each) | I-8 STANDARD No. 2-2-B (Each) | I-8 CATCH BASINS No. 6 (Each) | I-8 CATCH BASINS No. 8 (Each) | I-8 CATCH BASINS No. 2-3 Modified (Each) | I-8 CATCH BASINS No. 2-4 (Each) | I-8 MEDIAN INLETS Standard No. 2-8 (Each) | I-8 MEDIAN INLETS Standard No. 2-10 (Each) | I-8 MANHOLES Standard No. 1 (Each) | I-8 MANHOLES Standard No. 1-A (Each) | I-10 Dumped Rock Channel Protection (Cu. Yds.) | I-14 PAVED GUTTER Type 1 (Lin. Ft.) | I-14 PAVED GUTTER Type 1, Modified, as per Plan (Lin. Ft.) | S-1 Concrete for Structures, Class "E" (Cu. Yds.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-D | 263+25 | 265+00 | 279 | | | 66 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-D | 268+60 | | 279 | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 198 | | |
| 1-MD | 260+00 | | 279 | | | | | | | 30 | | | | | | 64 | | | | 2 | 1 | | | | | | | | | | | | | | |
| 2-MD | 279+08 | | 282 | | | | | | | 58 | | | | | | | | | | | | | | | | | | | | | | | 3.7 | | 10 | 0.23 |
| 3-MD | 281+92 | | 282 | | | 1 | | 1 | | 26 | | | | | | 40 | | | | 2 | | 1 | | | | | | | | | | | 5.6 | | | 0.23 |
| 4-D | 275+00 | Line 'B' | 282 | | 48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3.7 | | | 0.23 |
| 6-D | 279+00 | Line 'B' | 282 | 85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8-D | 279+70 | Line 'B' | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30.5 | | | |
| 10-D | 286+75 | Line 'A' | 282 | | 124 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11-D | 285+30 | | 282 | | 70 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12-D | 286+00 | 288+85 | 282 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 500.0 | | | |
| 13-D | 277+00 | 284+00 | 282 | | | 467 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14-D | 285+50 | 288+00 Line 'B' | 282 | | | 177 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16-D | 278+43 | Line 'W' | 282 | | | | 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-SS | 275+70 | Line 'A' - 278+50 Line 'E' | 282 | | | 6 | | 1 | | | 38 | | 146 | | 128 | 40 | | 122 | 64 | | 1 | | | 3 | | | | 1 | | | | 2.3 | | 10 | 0.51 |
| 2-SS | 282+50 | | 282 | | | 10 | | 1 | | | | | | | | | 126 | | | | 1 | | | | | | | | | | | 2.3 | | 20 | 0.30 |
| 17-D | 299+90 | Line 512 | 285 | 140 | | | | | | 58 | | | | | | | | | | | | 1 | | | | | | | | | | 5.6 | | | 0.23 |
| 18-D | 296+90 | | 285 | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-MD | 290+00 | | 285 | | | 1 | | 1 | 32 | | | | | | | 74 | | | | | | | | | | | | | 1 | | | | | | | 0.23 |
| 5-MD | 293+00 | | 285 | | | 1 | | 1 | 33 | | | | | | | 74 | | | | | | | | | | | | | 1 | | | | | | | 0.23 |
| 6-MD | 296+00 | | 285 | | | 1 | | 1 | 17 | | | | | | | 74 | | | | | | | | | | | | | | 1 | | | | | | 0.23 |
| 7-MD | 303+21 | | 285 | | | | | | | | | | | | | 48 | | | | | | | | | | | | | | 1 | | | | | | 0.23 |
| 3-SS | 295+15 | | 285 | | | 10 | | 1 | 123 | | | | | | | | 180 | | | | 1 | | | | | | | | | | | | | | | |
| 4-SS | 299+38 | | 285 | | | 6 | | 1 | | | | | | | | 146 | | | | | 1 | | | | | | | | | | | | | 20 | 0.30 |
| 5-SS | 301+90 | 305+00 | 285 | | | 5 | | | | | | 128 | | | | | | 178 | | | 1 | | | | 1 | | | | | 1 | | | | 10 | 0.23 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | |
| 6-SS | 305+00 | 305+50 | 287 | | | | | | | | | | | | | | | 48 | | | 1 | | | | | | | | | | | | | | |
| 7-SS | 305+50 | 307+75 | 287 | | | | | | | | | | | | | | | 221 | | | 2 | | | | | | | | | | | | | | |
| 8-SS | 307+75 | 308+62 | 287 | | | | | | | | | | | | | | | 83 | | | 1 | | | | | | | | | | | | | | |
| 9-SS | 308+62 | 309+80 | 287 | | | | | | | | | | | | | | | 114 | | | | | | | | | | | | | | | | | |
| 10-SS | 309+80 | | | | | 5 | | 6 | | | | | | 240 | | | | | 56 | | | | | | | | | | | 2 | | | | | | 0.59 |
| TOTALS TO GENERAL SUMMARY | | | | 299 | 242 | 756 | 41 | 14 | 205 | 114 | 38 | 128 | 146 | 240 | 128 | 560 | 306 | 766 | 64 | 56 | 4 | 6 | 1 | 1 | 3 | 4 | 2 | 2 | 3 | 1 | | 548.10 | 198 | 80 | 3.51 |

172 520 2 5 ~~543.7~~ 553.7 3.54

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

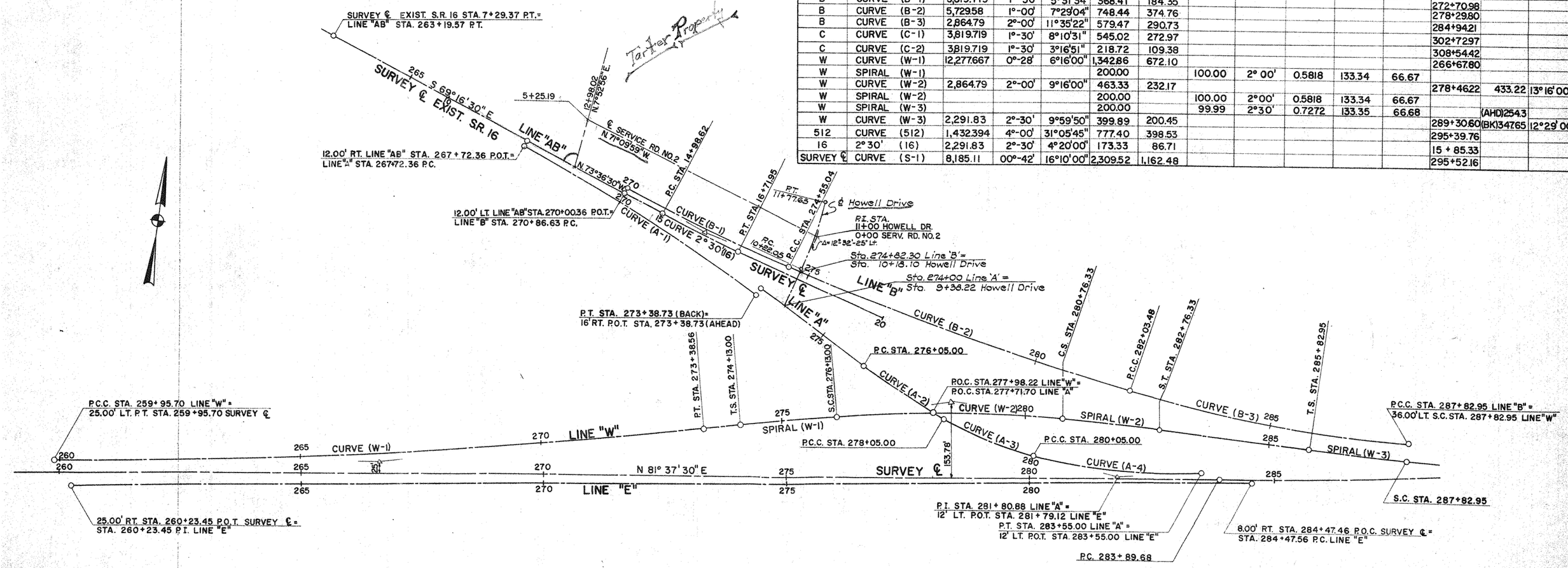
275/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




## CURVE DATA

| LINE | CURVE/SPIRAL | $R_C$ | $D_C$ | $\Delta_C$ | $L_C/L_S$ | $T_C$ | K | $\Theta_S$ | $P_S$ | L.T. | S.T. | P.I STA. | $T_S$ | $\Delta$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | CURVE (A-1) | 3,819.719 | 1°-30' | 8°29'44" | 566.37 | 283.70 | | | | | | 270+56.07 | | |
| A | CURVE (A-2) | 1,432.394 | 4°-00' | 8°00'00" | 200.00 | 100.16 | | | | | | 277+05.16 | | |
| A | CURVE (A-3) | 716.197 | 8°-00' | 16°00'00" | 200.00 | 100.65 | | | | | | 279+05.65 | | |
| A | CURVE (A-4) | 1,432.394 | 4°-00' | 14°00'00" | 350.00 | 175.88 | | | | | | 281+80.88 | | |
| B | CURVE (B-1) | 3,819.719 | 1°-30' | 5°31'34" | 368.41 | 184.35 | | | | | | 272+70.98 | | |
| B | CURVE (B-2) | 5,729.58 | 1°-00' | 7°29'04" | 748.44 | 374.76 | | | | | | 278+29.80 | | |
| B | CURVE (B-3) | 2,864.79 | 2°-00' | 11°35'22" | 579.47 | 290.73 | | | | | | 284+94.21 | | |
| C | CURVE (C-1) | 3,819.719 | 1°-30' | 8°10'31" | 545.02 | 272.97 | | | | | | 302+72.97 | | |
| C | CURVE (C-2) | 3,819.719 | 1°-30' | 3°16'51" | 218.72 | 109.38 | | | | | | 308+54.42 | | |
| W | CURVE (W-1) | 12,277.667 | 0°-28' | 6°16'00" | 1,342.86 | 672.10 | | | | | | 266+67.80 | | |
| W | SPIRAL (W-1) | | | | 200.00 | | 100.00 | 2° 00' | 0.5818 | 133.34 | 66.67 | | | |
| W | CURVE (W-2) | 2,864.79 | 2°-00' | 9°16'00" | 463.33 | 232.17 | | | | | | 278+46.22 | 433.22 | 13°16'00" |
| W | SPIRAL (W-2) | | | | 200.00 | | 100.00 | 2°00' | 0.5818 | 133.34 | 66.67 | | | |
| W | SPIRAL (W-3) | | | | 200.00 | | 99.99 | 2°30' | 0.7272 | 133.35 | 66.68 | | | |
| W | CURVE (W-3) | 2,291.83 | 2°-30' | 9°59'50" | 399.89 | 200.45 | | | | | | (AHD)254.3 | | |
| 512 | CURVE (512) | 1,432.394 | 4°-00' | 31°05'45" | 777.40 | 398.53 | | | | | | 289+30.60 | (BK)347.65 | 12°29'00" |
| 16 | 2°30' (16) | 2,291.83 | 2°-30' | 4°20'00" | 173.33 | 86.71 | | | | | | 295+39.76 | | |
| SURVEY ℄ | CURVE (S-1) | 8,185.11 | 00°-42' | 16°10'00" | 2,309.52 | 1,162.48 | | | | | | 15 + 85.33 | | |
| | | | | | | | | | | | | 295+52.16 | | |

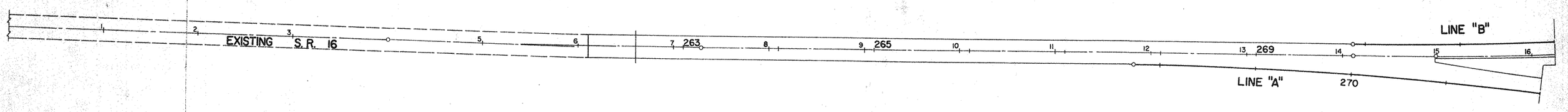


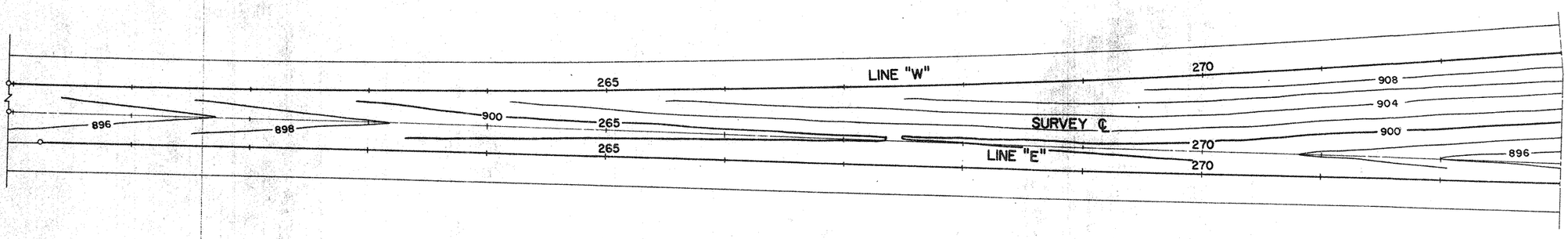

ALIGNMENT PLAN 512 INTERCHANGE

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

276
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



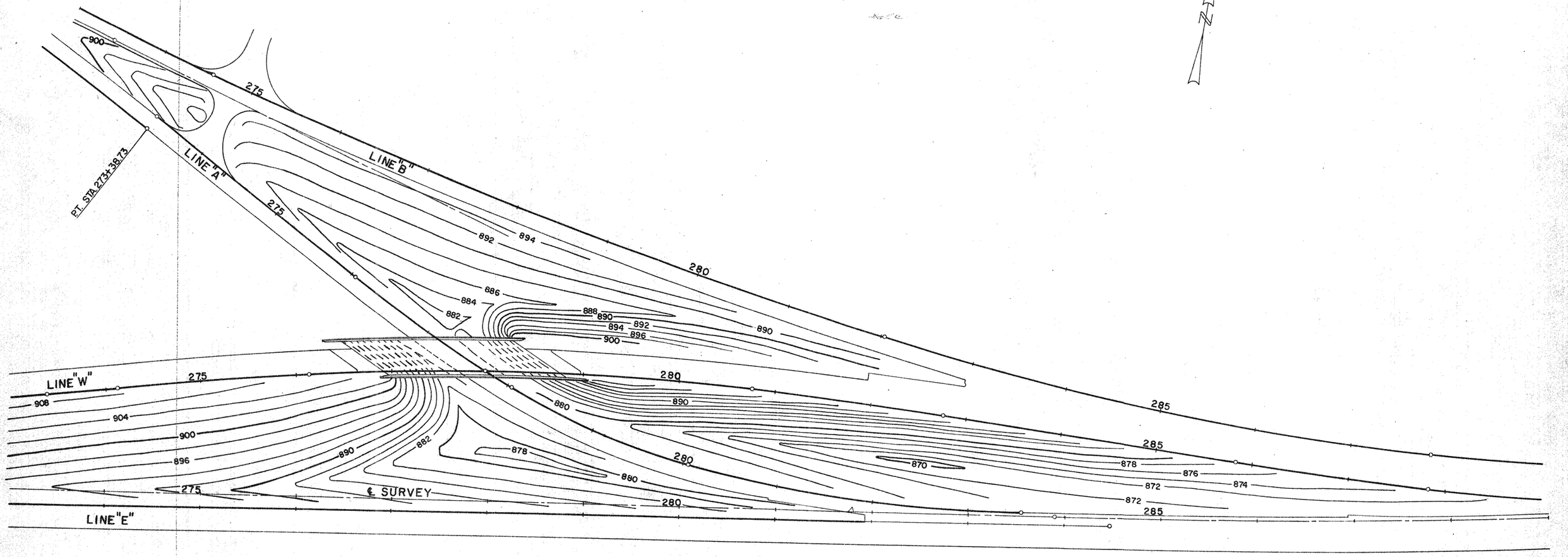




S.R. 512 INTERCHANGE GRADING PLAN

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

277
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

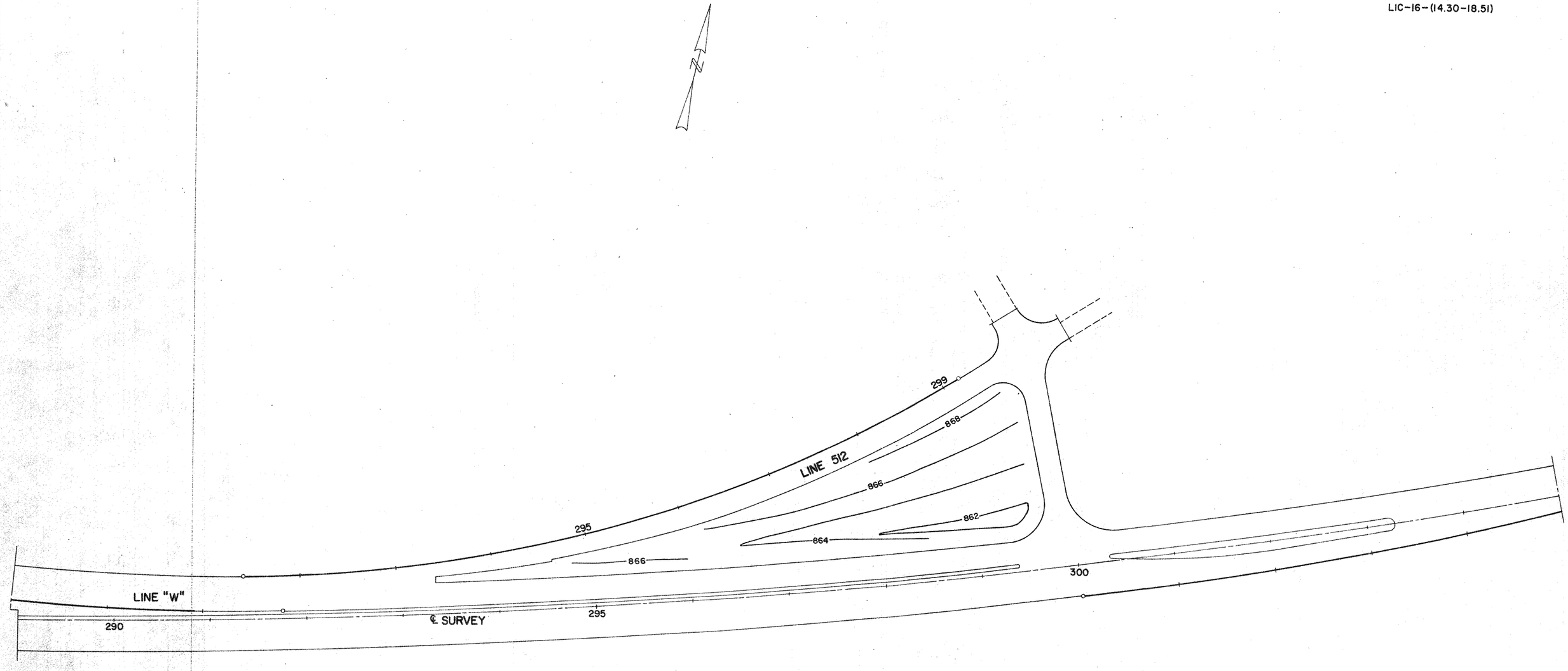



S.R. 512 INTERCHANGE GRADING PLAN

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

278
166

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




S.R. 512 INTERCHANGE GRADING PLAN

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

279
466

Exist. S.R. 16
CURVE DATA
P.I. Sta. 5+64.69
Δ=1°09'10"
D=0°21'00"
R=16370.23'
L=329.27'
T=164.69'
E=0.83'

P.C. STA. 4+00
P.O.C. STA. 6+59.70 ℄ SURVEY S.R. 16 =
P.O.C. STA. 262+50.00 LINE "A-B"
BEGIN FEATHERING STA 6+75
BEGIN FULL DEPTH STA. 7+00
P.T. STA. 7+29.37 ℄ SURVEY S.R. 16 =
P.T. STA. 263+19.67 LINE "A-B"
BEGIN TYPICAL SECTION STA. 8+00
P.C. STA. 270+86.63 LINE "A-B" =
P.O.T. STA. 270+00.36 LINE "B"
12.00' LT. P.O.T. STA. 270+00.36 LINE "A-B" =
P.C. STA. 270+86.63 LINE "B"
12.00' RT. P.O.T. STA. 267+72.36 LINE "A" =
P.C. STA. 267+72.36 LINE "A"
Begin Limited Access R/W
MATCH LINE STA. 273+00
MATCH LINE STA. 272+00

BEGIN WORK
5+75

EXISTING S. R. 16
S 68°01'20" E.
S 69°16'30" E.
N 71°09'59" W
Service Rd. No. 2
LINE "A"
LINE "B"
LINE "E"
LINE "W"
℄ Exist.
℄ Prop. Dr. Sta. 10+00
℄ Proposed Dr. Sta. 13+50
℄ Proposed Dr. Sta. 13+92
SURVEY ℄

House
Blacktop Private Drive
12" C.M.P.
3' x 3' Pedestals, 4' High
12" C.M.P.
1000 Gal. Septic Tank
Well
18" Conc. To Remain & Function
2" Gas Line
Gas Meter
The National Rd. & Pk. Co.
6" C.I. Water Main
Fire Hydrant
11kv Elec. Line
Newark Elec. Co. Underground Cable
R-25
Star Oil Co.
Brick Garage
1 Sty. Brick Res.
Conc. Ret. Wall
2 Story Fr. Res.
Overflow Pipe
5'x5'x10' Conc. Septic Tank
Asphalt Dr.
Wire Fence
Hydrant
Hub
Survey ℄
Hub
REF. P.O.T. STA. 267+16.28
One Story Fr. & Stone Summer House
Detail 'N'
Detail 'B'
Detail 'B'
Detail 'N'
Raccoon Creek
P.C.C. STA. 259+95.70 LINE "W" =
25.00' LT. P.T. STA. 259+95.70 SURVEY ℄
P.T. STA. 259+95.70 SURVEY ℄
P.T. STA. 260+23.45 LINE "E" =
25.00' RT. P.O.T. STA. 260+23.45 SURVEY ℄

| DRIVEWAYS & MAIL BOX APPROACHES | | | | | |
|---|---|---|---|---|---|
| LOCATION | TYPE | LENGTH B-19 | LENGTH T-35 | LENGTH T-70 | WIDTH |
| 9+00 | 1 | 39 | | 65' | 12' |
| 9+15 | M.B. | | | | |
| 10+00 | 2 | 186 | 186 | | 12' |
| 13+50 | 2 | 80 | | | 12' |
| 13+10 | M.B. | | | | |
| 13+82 | 2 | 78 | | | 12' |

11+44
113'
10+00
50'
10+79
57'
60° R
40° R
5+25.19
+74.11
+86.55
+86.55

FOR RACCOON CREEK CHANNEL RELOCATION SEE SHEETS 325 TO 330

For Superelevation table See Sheet No. 21

PLAN: S.R. 16, STA. 0+00 TO STA. 260+59.50 LINE "A-B" STA. 262+50 TO STA. 267+72.36 LINE "A", STA. 267+72.36 TO STA. 272+00 LINE "B" STA. 270+86.63 TO 273+00 LINE "E" STA. 260+23.45 TO STA. 273+00 & LINE "W" STA. 259+95.70 TO STA. 273+00

| | | | | |
|---|---|---|---|---|
| | | | | |
| 2 | OHIO | | | |

280
166

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

BENCH MARK
Spike in S. Side 16" Cottonwood
140' Lt. Sta. 262+36.00
Survey E. Elev. - 866.68

BENCH MARK
Spike in S. Foot 20" Twin W.
Cherry 9' Lt. P.O.T. Sta.
267+32.8 Survey E. Elev. 918.94

P.V.C. STA. 261+00

Sta. 260+00 E
Std. 2-2A C.B
IE. Window 893.25
IE. 12" I-2 890.00
IE. 18" S Edwl. 876.50

+05 IE. Rt
Outlet 893.32

+15 Lt
IE. 893.46

+05, 100' Rt
I-4 Outlet
IE. 890.00

+00 2 Lines Inside
I-4 Outlet Into C.B.
IE. 890.50

+1.40%

6"I-4 2 Lines Lt.

6"I-4 2 Lines Rt.

+00,85' Lt
I-4 Outlet IE. 895.00

LINE-W

LINE-E

6"I-4 1 Line +85
I-4 IE. 900.04

+00
Begin M-6.4(h)
IE. 900.75

+00 Lt Outside
IE. 898.85

+25
IE. 898.36

+50
IE. 898.44

0.30%

1400' V.C.

1300' V.C.

P.V.C. STA. 267+50

P.V.I. STA. 268+00
ELEV. 907.70

P.V.I. STA. 274+00
ELEV. 916.10

P.V.C. STA. 275+00

+1.40%

-3.24%

0.30%

LINE-W

+90
IE. 906.83

+00
IE. 906.44

+40
IE. 906.80

+44
IE. 906.99

6"I-4 2 Lines

1-Line, 6"I-4 M-6.4(h)

+25
IE. 906.15

-2.08%

End M-6.4(h)

898.83 -0.30% +62 +66

+65
898.48

+0.30%

6"I-4 1-Line (Outside)
M-6.4(h)
+75
Begin 6.4(h)

+62, +66 Rt.
IE. 899.09

-0.30%

LINE-E

+00
IE. 898.39

1-Line 6"I-4 (Outside) M-6.4(h)

+40
IE. 89.70

+50
894.31

6"I-4 2 Lines

LINE-E 8 LINE-W PROFILES, STA. 260+00 TO STA. 275+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| FED. RD. DIVISON | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

281
466

BENCH MARK
Nail in 6" 606. 25' Lt. P.O.T. Sta. 0+50.00 ℄ Survey S.R.16 Elev.- 913.26

BENCH MARK
Nail in 6" 606 25' Lt. P.O.T. Sta. 3+76.00 ℄ Survey S.R.16 Elev.-930.82

BENCH MARK
Top of Fire Hydrant 2.9 Rt. P.O.C. Sta. 5+48.00 ℄ Survey S.R.16 Elev.-927.00

BENCH MARK
Nail in Top of Guard Rail Post 11' Lt. P.O.T. Sta. 866+46.80 Line "A-B" Elev. 927.08

BENCH MARK
Nail in 6" 3' Rt. P.O.C. Sta. 270+40.00 Line "A" Elev.- 917.93

SERVICE ROAD NO. 2

| | | |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

282
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

NOTE: The 40' listed for (1/65) on sht. 274 was to drain 2-2-B to M.H. (2/HD) was not summarized
C.O. Non-performs 40' Additional Quan. Found

MATCH LINE

STA 272+00

STA 273+00

STA 274+00

STA 275+00

STA 276+00

STA 277+00

STA 278+00

STA 279+00

STA 280+00

STA 281+00

STA 282+00

STA 283+00

STA 284+00

STA 285+00

STA 286+00

STA 287+00

STA 288+00

STA 289+00

STA 290+00

STA 291+00

STA

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

LINE "W" 907.46 907.13 906.78 906.40 906.01 905.59 905.14 904.68 904.19 903.69 903.15 902.60 902.02 901.43 900.81 900.16 899.50 898.81 898.10 897.37 896.62 895.84 895.04 893.42 890.18 886.94 883.70 880.46 879.65 878.86 878.09 877.35 876.65 875.98 875.33 874.72 874.13 873.58 873.05 872.56

LINE "E" 893.14 891.06 888.98 886.90 884.82 882.74 880.66 878.58 878.07 877.57 877.09 876.63 876.19 875.76 875.35 874.95 874.58 874.21 873.87 873.54 873.23 872.93 872.66 872.39 872.15 871.97 871.71 871.51 871.33 871.17 871.03 870.90

**BENCH MARK**
N.W. Corner, Bott. Step to House 240' Lt. P.O.T. Sta. 278+70.00 Survey E Elev. 901.28

**BENCH MARK**
P.K. Nail in Top of Post 5' Rt. P.O.T. Sta. 284+42.00 Line "W" Elev. - 876.25

**BENCH MARK**
SE. Corner S. Side Conc. Base to Army of Republic Monument 3' Rt. P.O.C. Sta. 288+60.00 Line W Elev. 869.96

872.09 870.88 869.68

870.42 869.94 8.00 RT. LINE SURVEY ℄ "W"

1,300' V.C.

P.V.T. STA. 280+50.00

15' Lt. Sta. 278+50 Line "A" Std No. 1 MH Cover Elev. 885.00 E 30" I-2 875.50

5' Rt. Sta. 279+08 Line "W" Std 2-2B C.B. Rf. Grate 898.89 Rf. 12" I-2 896.00

52' Lt. Sta. 282+50 Std. No. E-2A C.B. Rf. Window 869.00 Rf. 18" I-2 866.00

STA. 284+47.56 LINE "E" BK = 8.00' RT. STA. 284+47.46 SURVEY ℄ AH.

600' V.C.

P.V.C. STA. 282+00

P.V.T. STA. 288+00

600' V.C.

P.V.C. STA. 285+00

6" I-4 1 Line (Inside)

Rf. 901.89

Rf. I-4 Outlet Rt. 899.90

Bridge Limits 184.3'

Sta. 278+90.31

Sta. 279+75.28

+18

6" I-4 1 Line

-3.24%

LINE 'W'

4' Lt. Sta. 281+92 Std No. 6 C.B. Rf. Grate 878.00 Rf. 12" I-2 874.50

6" I-4 2 Lines

LINE 'E'

+45 Rt. Outside Rf. 6" I-4 882.71

+17 Rt. Rf. 883.30

+55 Rt. 6" I-4 Unkn. Rf. 882.50

I-4 Outlet Rf. 879.00 (Outside)

-2.08%

+85 Lt. Line 'E' Rf. 6" I-4 877.72

6" I-4 2 Lines, Line 'E'

+00 Lt. Line 'E'

6" I-4, 1 Line Line 'E'

See Line 'B' Profile For 6" I-4 Construction Rf. 883.23

14.6' x 30" I-2 @ 0.69%

I-4 Outlet Rf. 879.00 (Outside)

69' Lt. Sta. 278+50 Line "E" Std. No. 3-C.B. Rf. Grate 876.50 Rf. 30" I-2 871.50 Rf. I-4 873.50 (Inside)

64' 30" I-2 @ 6.25%

128' x 30" I-2 @ 2.34%

LINE 'W'

+00 Lt. Line 'A' Rf. 876.87 See Profile Sheet Line 'A' For Continuation

+87 Rt. Line 'E', Rf. 873.0 6" I-4 Outlet

+97 Rt. Line 'E' 6" I-4 Rf. 875.39

+20 Lt. Line 'A' Rf. 874.63

Line "E" 300' Rt. Survey ℄

+00 Rt. Rf. 874.10

+00 Lt. Rf. 873.87

+00, 27' Rt. I-4 Outlet Rf. 873.00

+35 Lt. Rf. 874.45

+80 Lt. Rf. 874.60

6" I-4 Rt. Line 'E'

6" I-4 Lt. Line 'E' Rf. 873.38

+00, Line 'E' Rt. Rf. 872.10

-0.48%

+00 Lt. Line 'W' Begin 6" I-4, M-6.4(1h) Rf. 868.82

-0.36%

6" I-4 Lt. Survey ℄

6" I-4 5' Lt. Survey ℄

6" I-4 M-6.4(1h) Line 'W' Lt.

+40 Rf. 867.80

+95, 5' Lt. Survey ℄ Rf. 866.59

+50 Lt. Line 'W' Rf. 869.49

+75, 55' Rt. I-4 Outlet Rf. 866.00

+95, 70' Rt. I-4 Outlet Rf. 863.00

P.V.I. STA. 288+25.00
ELEV. - 869.93

P.V.I STA. 285+00
ELEV. 872.34

Rf. 856.50

70' Rt. Sta. 278+50 Line "E" Std. P.C. -4 Endwall Rf. 30" I-2 868.60

47' Rt. Sta. 279+45 Line "W" Std. P.C. -4 Endwall Rf. 12" I-2 879.72

70' Rt. Sta. 281+92 Std. P.C. 4 Endwall Rf. 12" I-2 864.50

+50, 40' Lt. Line 'A' I-4 Outlet Into C.B. Rf. 866.83

75' Rt. Sta. 282+60 Std. P.C. 4 Endwall Rf. 18" I-2 862.50

+00, 60' Rt. ℄ Survey I-4 Outlet Rf. 867.00

+35, 55' Lt. Line 'B' I-4 Outlet Rf. 868.00

910 905 900 895 890 885 880 875 870 865 860 855

**BRIDGE NO. LIC. 16-1788L**

**PROPOSED STRUCTURE**

TYPE: Continous steel beam with reinforced concrete deck and substructure
SPAN: 53'-6", 68'-6", 55'-0"
ROADWAY: 40'-0" face to face of concrete parapets with aluminum railings.
LOADING: C.F. 2000
SKEW: 55° 26'26" with reference chord.
WEARING SURFACE: 1" Monolithic concrete.
ALIGNEMENT: 2° 00' Curve.
APPROACH SLAB: 25'-0" long. (special)
SUPERELEVATION: .047 ft. per ft.

+03 +03 +03 +53 +04 +54 +04 +04 +04 +04 +04 +05 +06 +56 +06 +06 +06 +05 +56 +07 +57 +08

LINE "W" 898.6 896.4 897.7 898.5 896.3 876.4 870.5 868.7 872.9 877.3 875.5 870.4 866.9 863.5 860.5 868.7 869.0 870.0 870.1 874.6 882.8

LINE "E" 897.8 896.9 896.6 896.0 879.7 871.1 870.1 867.7 868.3 867.0 866.6 858.9 862.9 869.3 867.3 872.9 871.7 872.1 870.9 870.5 871.9

300' RT. LINE SURVEY ℄ "W"

275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290

LINE "E" & LINE "W" PROFILES, STA. 275+00 TO STA. 290+00

LICKING COUNTY
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| FED.RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

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466

LINE-B: 907.49 906.49 905.40 904.30 903.20 902.10 901.00 899.95 898.98 898.11 897.33 896.63 896.03 895.52 895.11 894.78 894.55 894.40 894.39 894.32 894.31 894.30 894.29 894.28 894.27 894.26 894.25 894.24 894.23 894.19 894.11 893.98 893.81 893.59 893.32 893.01 892.65 892.24 891.79 891.29 890.74 890.15 889.51 888.82 888.09 887.31 886.48 885.67 884.83 884.02 883.22 882.43 881.66 880.88 880.07 879.27 878.46 877.64 876.81 876.09 875.35 874.60 873.82 873.07 872.32 871.64 LINE-B

+38.73 BK.
+38.73 AH.
+60

LINE-A: 904.06 903.02 901.96 900.87 899.76 898.62 897.47 896.32 895.69 895.42 894.27 893.12 892.00 890.93 889.93 888.97 888.08 887.24 886.46 885.74 885.07 884.46 883.91 883.41 882.98 882.59 882.27 882.00 881.76 881.52 881.28 881.04 880.80 880.56 880.32 880.08 879.84 879.60 879.36 879.12 878.82 878.49 878.12 877.72 877.31 876.90 876.48 876.08 875.73 875.40

LINE-A RT E.P.: 895.17 894.02 892.89 891.82 890.82 889.88 888.97 888.19 887.45 886.76 886.14 885.58 885.05 884.59 884.18 883.85 883.57 883.33 883.14 883.00 882.83 882.61 882.37 882.13 881.88 881.57 881.21

LINE-A LT. EDGE

LINE-A RT. EDGE

920 915 910 905 900 895 890 885 880 875 870 865 860

P.V.C. STA. 273+00

300' V.C.

P.V.T. STA. 276+00

75' Lt. Sta. 275+35 Line "W"
Std. 2-2A C.B.
Rt. Window 895.50
Rt. 18" I-2 891.50

36' Rt. Sta. 275+90 Line "A"
Std. No. 8 C.B.
Rt. Grate 885.10
Rt. 18" I-2 880.50
Rt. 24" I-2 880.00

16' Lt. Sta. 278+50 Line "A"
Std. No. 1 MH
Rt. MH. Cover 885.00
Rt. 30" I-2 875.50

P.V.I. STA. 274+50
ELEV. 894.40

GRAPHIC GRADE

19' Lt. Sta. 277+00 Line "A"
Std. No. 8 C.B.
Rt. Grate 881.05
Rt. 24" I-2 877.00
Rt. 30" I-2 876.80

450' V.C.

P.V.C. 278+50

59' Lt. Sta. 278+50 Line "E"
Std. No. 8 C.B.
Rt. Grate 876.50
Rt. 30" I-2 871.50

P.V.I. 280+75
ELEV. - 894.13

P.V.T. 283+00

BENCH MARK
Nail in ℄ 150' E. of Howell
Drive 44 Ft. POC. Sta. 276+90.0
Line "B" Elev. - 900.11

BENCH MARK
NE. Corner, Top Pedestal 80'
Ft. POC. Sta. 278+98.00
Line "B" Elev. 889.25

-4.40%
-4.50%
-4.60%
-0.044%
-3.40%
-0.30%
-0.95%

LINE-A
LINE-B
LINE B

6" I-4 Lt. Line B
6" I-4 Rt. Line A
6" I-4 Lt.
6" I-4 Lt. Line A
6" I-4 Lt. Line A'
6" I-4 Lt. Line W
6" I-4 Rt. Line A'

+00 Lt. 6" I-4 Rt. 891.14
+00 Rt. 889.94
+00 Rt. 888.54
+70 Lt. Line A Rt. 886.68
+90 Rt. Line A 6" I-4 Rt. 883.14
+64 Lt. Rt. 880.90
+74 Lt. Line A Rt. 880.66
+80.35 Rt. Line A' & I-4 Outlet into C.B. Rt. 868.50
+00.36' Lt. I-4 Outlet 880.00
+00.19' Lt. Line A' I-4 Outlet into C.B. Rt. 879.70
+40 Lt. Line A Rt. 878.37
+50.15' Lt. Line A' I-4 Outlet Into M.H. Rt. 878.00

P.V.C. 272+75
P.V.C. 274+00
P.V.I. STA. 276+00
ELEV. 893.92
P.V.T. STA. 278+00

400' V.C.

For Continuation Of S.S. See Line 'W' Sheet No 282

See Line 'W' Profile For Continuation

See Profile Sheet Line E For Continuation Of 6" I-4

For Continuation Of S.S. See Line 'E' Sheet No 285

GRAPHIC GRADE

LINE-B

LINE-A

LINE-B: 917.1 +74 914.6 +01 913.4 +51 911.9 +76 910.8 +99 908.3 +47 907.5 +74 903.4 +74 899.9 +49 898.8 +74 897.6 +98 892.5 +74 890.8 +75 877.7 +86 869.3 +90 866.3 +95 865.8 +98 864.2 +01 863.7 +02 860.7 +52 859.9 +02 858.0 +03 LINE-B

LINE-A: 914.0 +67 912.0 +93 910.7 +17 905.7 +66 904.4 +95 902.4 +93 899.7 +70 898.0 +95 898.4 +21 898.2 +99 900.4 +58 901.3 +79 900.2 +19 896.1 +79 873.1 +36 869.8 +91 867.2 +97 868.0 +99 867.0 865.8 LINE-A

272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287

PLAT & CROSS SECTION CO. N.Y. STANDARD
KUPPEL & ESSER CO. N.Y.

PROFILES: LINE-A STA. 271+50.00 TO STA. 283+50.00
LINE-B STA. 271+50.00 TO STA. 287+82.95

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

285/466

LICKING COUNTY
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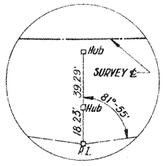
LIC-16-(14.30-18.51)




REF. P.I. SURVEY ℄
STA. 295+52.16

DRIVEWAYS

| LOCATION | TYPE | LENGTH T-10 | WIDTH |
|---|---|---|---|
| 296+55 LT. | 1 | 62' | 24' |
| 303+60 LT. | 1 | 45' | 22' |
| 303+70 RT. | 1 | 42' | 28' |
| 304+60 RT. | 1 | 32' | 30' |

P.C.C. STA. 291+41.23 ℄ PROPOSED 512=
36' LT P.O.C. STA. 291+41.23 LINE "W"

P.C. STA. 291+82.84 LINE "W" ℄
8' LT. P.O.C. STA. 291+75.00 SURVEY ℄

P.T. STA. 299+18.63 PROP. L 512=
12.00' LT P.O.T. STA. 5+48.48 512 SURVEY LINE

End Limited Access R/W

P.O.T. STA. 6+22.42 LINE 512=
℄ EXISTING BYRN MAWR
P.O.T. STA. 6+25.42 LINE 512=
P.O.T. STA. 2+27.64 BYRN MAWR EXTEN.

℄ Survey 512

Cover For Water Pump

1¼" Gas Line

PROP. LINE 512

END WORK
STA. 6+67.42

6" W.L.

Byrn MAWR Ext.

End Limited Access R/W

500 Gal. Septic Tank

Nursery

Detail 'B'

Detail 'F'

Detail 'A'

Detail 'N'

6" I-4

24" RCP

20:1 Taper

The Hollanrod Gas & Oil Co.

2" Gas Line The Ohio Fuel Gas Co.

4" Gas Line

Island

Service Station

Sign

M.B.

Meter Vaults

Metal Quonset Hut

TO BE ABANDONED

P.O.C. STA. 299+90.00 SURVEY ℄=
P.O.T. STA. 0+00 BYRN MAWR EXTEN.
P.C.C. STA. 300+00.0 LINE 'C'
32' RT. P.O.C. STA. 300+00.00 SURVEY ℄

For Superelevation Table
See Sheet No. 22

END PROJECT
STA. 300+00

PLAN: PROPOSED B 512 P.C.C. STA. 291+41.23 TO P.T. STA. 299+18.63, LINE "W" P.O.C. STA. 289+00 TO P.O.C. STA. 291+82.84
SURVEY P.T. STA. 289+00 TO P.O.C. STA. 305+00

LICKING COUNTY
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| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

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RT. EDGE PAVEMENT "512"

BENCH MARK
P.K. Nail in ø# SQUARE N.W. of intersection of SR 14 & 512 N.S. of SR 14 Elev.-872.64

BENCH MARK
P.K. Nail in ø# SQUARE, 21' Rt. P.O.C. Sta. 296+20.00 Prop. Line 512 Elev. ~ 871.50

21' Lt. Sta. 95+25 Line 512
Std. 2-2-A C.B.
Ft. Window 863.00
Ft. 18" I-2 860.00

150' V.C.
P.V.C. 294+50.00
P.V.T. 296+00
P.V.I. 298+00
ELEV. - 867.77

GRAPHIC GRADE
+1.04%
-1.04%
+0.20%
-0.30%
M-6.4
-0.30%
+00 Ft. 863.69
End M-6.4(h)
+25 Lt. Ft. 862.70
6"I-4
+12 Lt. Ft. 862.06
+25.21' Lt. I-4 Outlet Into C.B. Ft. 861.70
P.V.I. STA. 295+25.00
ELEV. - 864.91
+25.21' Lt. I-4 Outlet Into C.B. 861.70
+35 Lt. Ft. 862.06
6"I-4 Lt.
P.V.C. 297+50.00
100' V.C.
P.V.T. 298+50.00
+75 Lt. Ft. 864.24
+41.23 Lt. See Survey ℄ For Continuation
6"I-4 Lt.
M-6.4(h)
+25 Ft. 864.22

PROPOSED 512 LINE

STA. 99+18.63 ℄ PROP. 512 = 12.00' LT. STA. 5+48.49 512 SURVEY ℄

BENCH MARK
□ in S.W. Corner of cover for Water Pump, 52 Lt. POT. Sta. 5+95.00 ℄ Survey SR 512 Elev. 869.73

BENCH MARK
P.K. Nail in ø# SQUARE 25' Lt. P.O.T. Sta. 9+00 ℄ Survey SR 512 Elev. - 866.57

+0.20 %
+00 Ft. 6"I-4 Lt. 864.83
+65 Rt. 6"I-4 Ft. 864.95
+50 Rt. 6"I-4 Ft. 869.61
Note 6"I-4 Outlets On Nl At Byrn Mawr Extension Return

S.R. 512 SURVEY LINE

LINE "W"

4' Lt. Sta. 290+00
Std. NO. 2-8 Median Inlet
Ft. Window 869.57
Ft. 12" I-2 863.99

70' Rt. Sta. 290+00
Std. P.C. Endwall
Ft. 12" I-2 862.99

P.V.T. STA. 291+25.00

8.00' RT. SURVEY ℄

-0.48%
-0.36%
6"I-4 M-6.4(h)
Line W. Lt. +41.23 Lt. Ft. 864.54 See 512 Line For Continuation

BENCH MARK
P.K. Nail in ø# SQUARE 15' Rt. P.O.C. Sta. 296+38.00 Survey ℄ Elev.-868.27

4' Lt. Sta. 293+00
Std. 2-8 Median Inlet
Ft. Window 868.14
Ft. 12" I-2 866.56

70' Rt. Sta. 293+00
Std. P.C.A. Endwall
Ft. 12" I-2 863.56

P.V.I. STA. 295+00
ELEV. - 867.42

79' Rt. Sta. 295+15
Std. P.C.A. Endwall
Ft. 18" I-2 858.00

SURVEY ℄

6"I-4 5' Lt. Survey ℄
+98.5' Lt. I-4 Outlet Into Median Inlet Ft. 865.63
-0.30%
+40 33' Lt. 6"I-4 Ft. 864.32
+75 Ft. 864.22
P.V.C. STA. 294+00
200' V.C.
+10.5' Lt. ℄ Ft. 864.01
+00.5' Lt. I-4 Outlet Into C.B. Ft. 863.33
+00.33' Lt. Ft. 863.33
+10.5' Lt. Ft. 863.20
+10.75' Rt. I-4 Outlet Ft. 852.50
P.V.T. STA. 296+00
-0.84 %
6"I-4 5' Lt.
6"I-4 33' Lt.

4' Lt. Sta. 296+00
Std. 2-10 Median Inlet
Ft. Window 866.34
Ft. 12" I-2 862.76

70' Rt. Sta. 296+00
Std. P.C.A. Endwall
Ft. 12" I-2 861.76

BENCH MARK
□ Cut in S.W. End of Pump Island @ Texaco Sta. 142' Lt. POC. Sta. 297+49.0 Survey ℄ Elev. 867+89

4' Lt. Sta. 299+38
Std. 2-10 Median Inlet
Ft. Window 863.50
Ft. 12" I-2 857.90

70' Lt. Sta. 299+35
Std. 2-2-A C.B.
Ft. Window 861.50
Ft. 12" I-2 859.50

+40 Lt. Ft. 6"I-4 860.01
Note Underdrains Continuous Up Byrn Mawr Extension To Return @ S.R. 512
+38.5' Lt. I-4 Outlet Into C.B. Ft. 860.49
+10.33 Lt. Ft. 860.20
+35.70' Lt. I-4 Outlet Into C.B. Ft. 859.70
+05.55' Lt. Ft. 859.32
+67 Lt. Ft. 6"I-4 859.51
6"I-4 Lt.

80' Rt. Sta. 299+38
Std. P.C.A. Endwall
Ft. 12" I-2 855.00

54' Lt. Sta. 301+95
Std. 2-2-A C.B.
Ft. Window 858.72
Ft. 21" I-2 854.00

41' Lt. Sta. 303+21
Std. No. 2-3 C.B. Without Window
Ft. Grate 859.47
Ft. 12" I-2 853.16
Ft. 21" I-2 852.41
Ft. 24" I-2 852.16

7' Rt. Sta. 303+21
Std. No. 2-10 Raised Median Inlet
Ft. Window 960.41
Ft. 12" I-2 856.78

+15 Lt. Ft. 856.79
6"I-4 Lt.
124'+21" I-2@ 1.29%
226'+24" I-2@ 0.50%
+21.44' Lt. I-4 Outlet Into C.B. Ft. 856.50

SURVEY ℄

PROFILES: PROPOSED S.R. 512 LINE S.R. 512 SURVEY LINE LINE "W" 290+00 TO 291+75.00 & SURVEY ℄ - 290+00 TO 305+

| | | | |
|---|---|---|---|
| | | | |
| 2 | OHIO | | |

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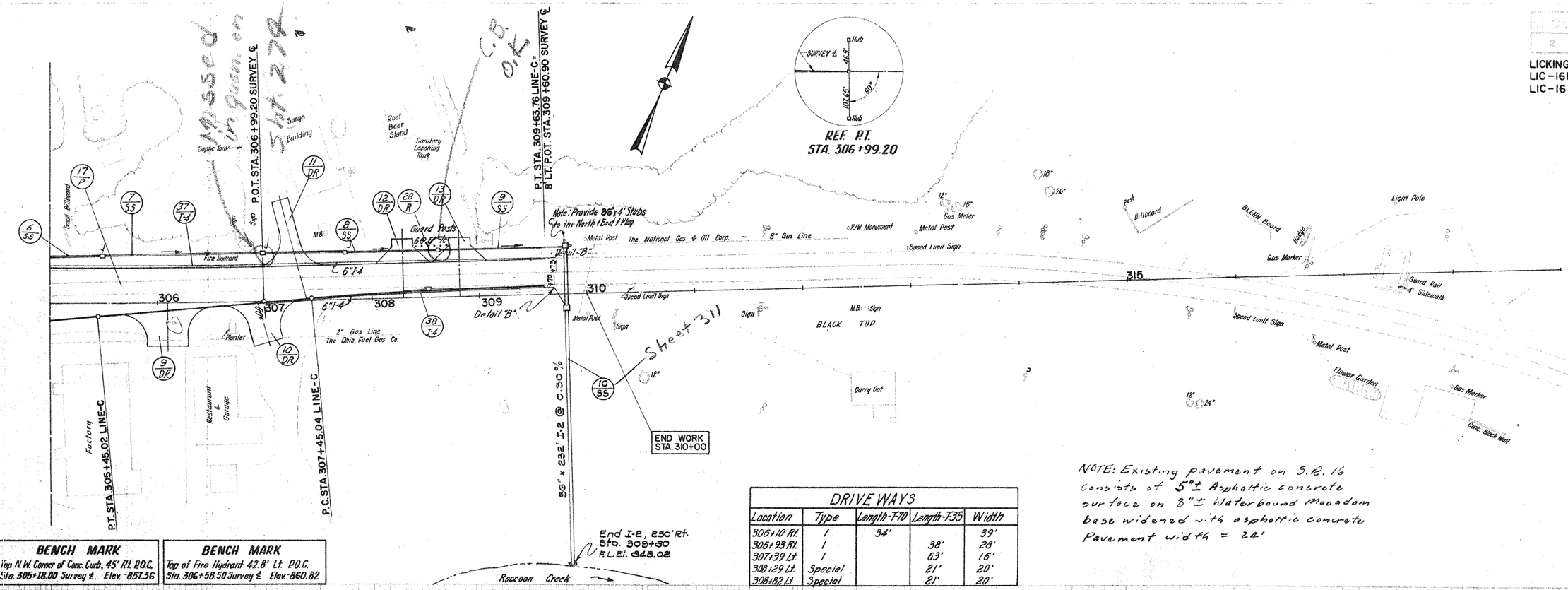
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



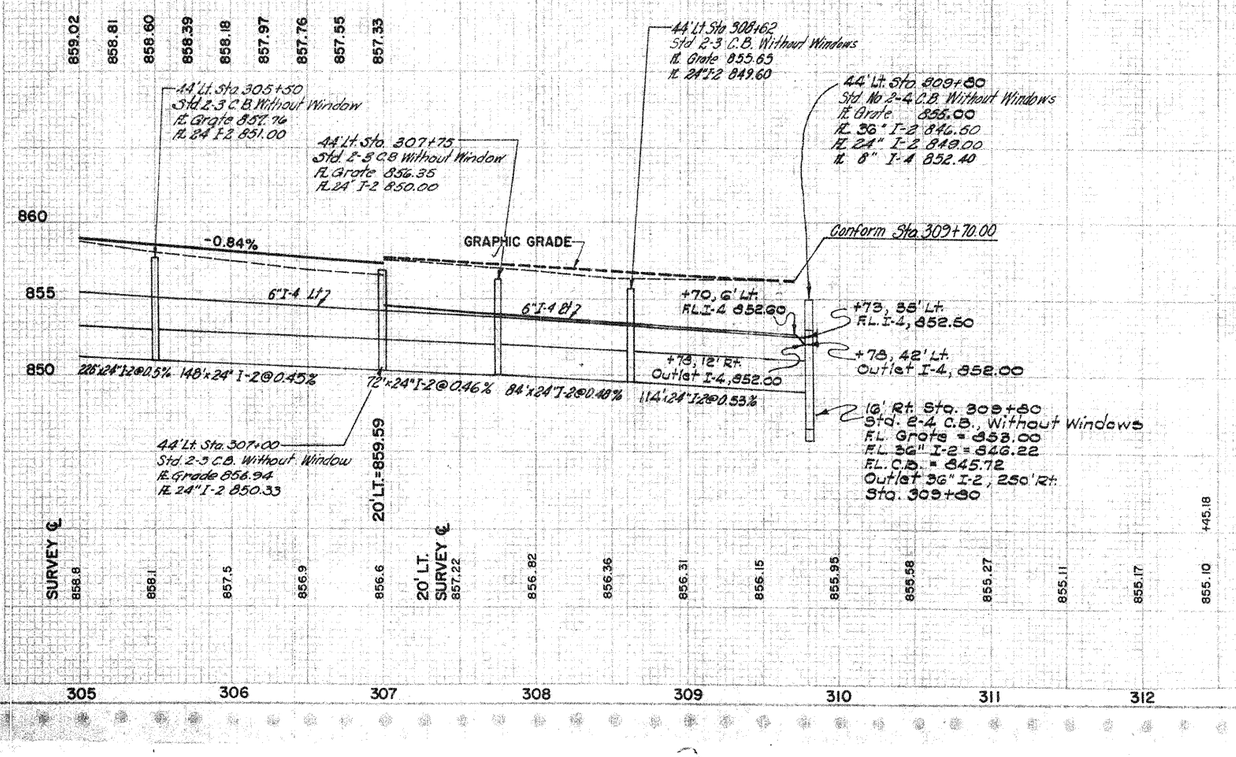

**BENCH MARK**
Top N.W. Corner of Conc. Curb, 45' Rt. P.O.C. Sta. 305+18.00 Survey ℄ Elev. -857.56

**BENCH MARK**
Top of Fire Hydrant 42.8' Lt. P.O.C. Sta. 306+58.50 Survey ℄ Elev. -860.82

## DRIVE WAYS

| Location | Type | Length-T-10 | Length-T-35 | Width |
|---|---|---|---|---|
| 306+10 Rt. | 1 | 34' | | 39' |
| 306+93 Rt. | 1 | | 38' | 28' |
| 307+39 Lt. | 1 | | 63' | 16' |
| 308+29 Lt. | Special | | 21' | 20' |
| 308+82 Lt. | Special | | 21' | 20' |

NOTE: Existing pavement on S.R. 16 consists of 5"I Asphaltic concrete surface on 8"I Waterbound Macadam base widened with asphaltic concrete Pavement width = 24'




PLAN & PROFILE STA. 305+00 TO STA. 310+00

SEEDING

| END WIDTH | SQ. YDS. |
|---|---|

| REGION DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| FILL | FILL | CUT | FILL |
| 24 | 7330 | | |
| | | 100 | 23,150 |
| 30 | 5175 | | |
| | | 115 | 20,850 |
| 32 | 4068 | | |
| | | 32 | 4575 |

**262+00**
864.1

LINE "W"
899.30
Line 'W'

LINE "W"
899.18
Line 'E'

C
870
860
140
C
864.4

C
870
C
160
180
E-1 E-1
C
870
C

**261+00**
859.2

LINE "W"
897.90

LINE "W"
897.90

B
870
B
160
180
E-1 E-1
B
870
B

C
140
C
864.7

**260+00**
865.2

LINE "W"
896.50

896.50

Sta. 260+00 on ℄
Std. 2-2A C.B.
Rt. Window 893.25
Rt. 12" I-2 890.00

64'x12"I-2@1.0% Sec. M-6.5(b) or M-6.8(b)
Rt. I-5 889.36

24'x12"I-2 Sec. M-6.4(c)
2:1

Rt. I-5 876.58
6'x12"I-2@1.0%
Sec. M-6.4(c)

3.7 C.Y.
100' Rt Sta 260+00
Std. PE-4 Endwall
Rt. 12"I-2 876.50
I-10 Dumped Rock Channel Protection 10' Long, 4' Width & 30" Thickness

A
860
A
160
180
E-1 E-1
A
860
A

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

Start Urban
Sta. 259+77.84

STA. 260+00 TO STA. 262+00

PRINTED IN U.S.A.
CULLOTYPE CLOTH

OHIO

289
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |

870
130
902.10
LINE "W"
LINE "E"
900.98
E-1 E-1
870
190 180 180
867.9
870 40 7817

Begin Std Type I
Paved Gutter
Sta. 263+25

S-28 Culvert Inlet
132' Lt Sta. 263+20

℄ 862.00

264+00
859.1

98 27,430

90070
900.20
870
140 160 180
870 13 6995

263+00
860.0

69 26,526

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 263+00 TO STA. 264+00

SEEDING

| END WIDTH | SQ YDS |
|---|---|

| FED. NO. | STATE | SHEET |
|---|---|---|
| 2 | OHIO | |

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466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | | 1529 | 6461 |
| | | 1498 | 12,536 |
| 88 | 3077 | | |
| | | 119 | 13,791 |

950

E-1 E-1

860

140 160 180 200

End Std Type I
Paved Gutter
Sta 265+00

LINE W

903.50

LINE E

901.51

**265+00**
884.26

Begin Rock Undercut
Station 264+80

860

E-1 E-1

140 160 180 200

LINE W

902.80

LINE E

901.28

894.1

**264+50**
859.0

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 264+50 TO STA. 265+00

PRINTED IN U.S.A.
CHARTPAK TRACE CLOTH

| | | | |
|---|---|---|---|
| | 2 | OHIO | |

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466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | | | |
| | | |

SEEDING

| END WIDTH | SQ YDS |
|---|---|

| STATE | COUNTY | PROJECT |
|---|---|---|
| OHIO | | |

292
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |

980
960
940
920
900

960
940
920

15,459

906.30
LINE "W"
90183
LINE "E"
267+00
966.19
Rock Cut

25,788 0

980
960
940
920
900

H.P.
266-64

Fill Old Channel & Grade to Drain

12,385

905.60
LINE "W"
LINE "E"
266+50
961.2
Rock Cut

21,208 0

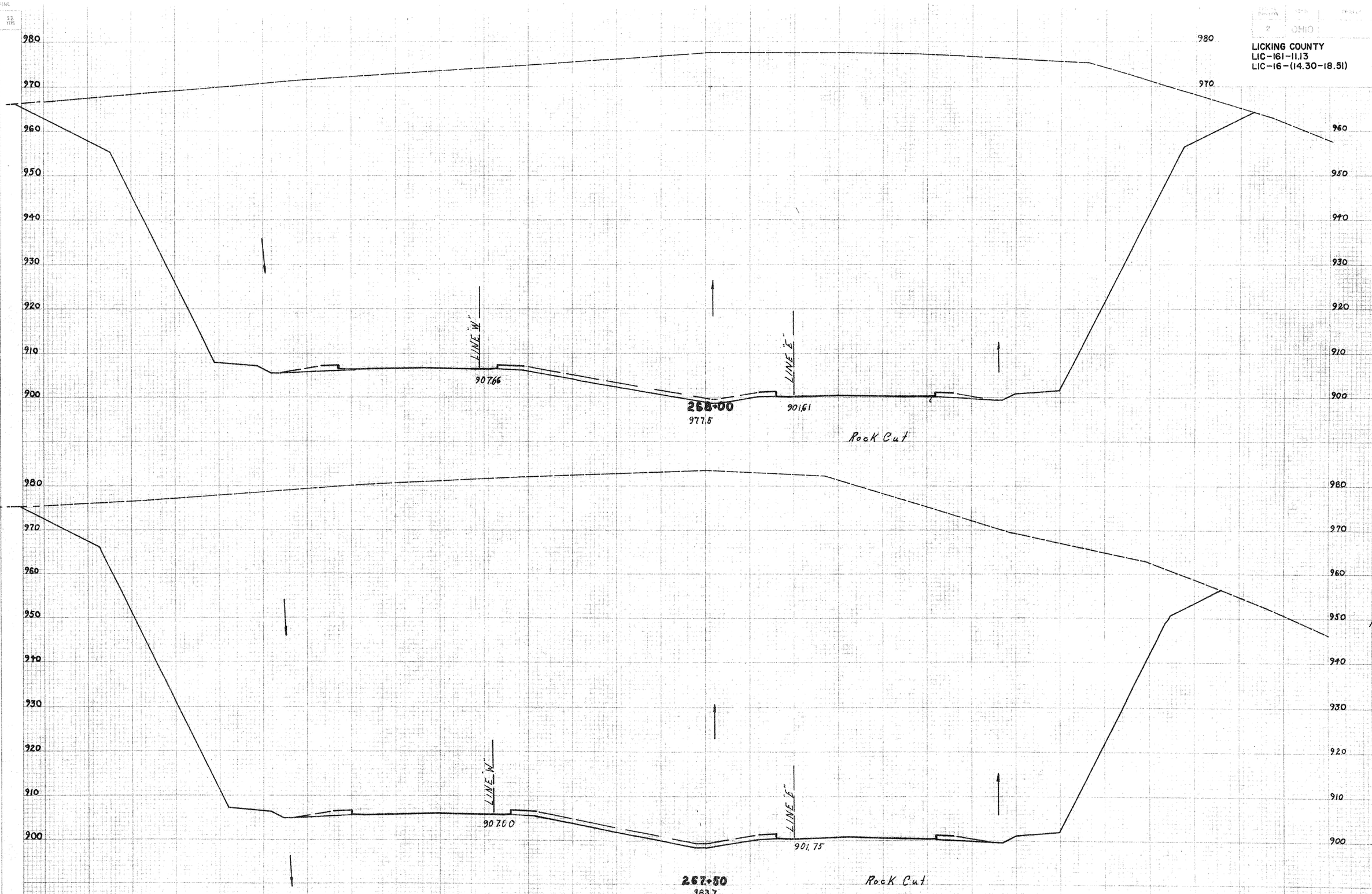
160 140 120 100 80 60 40 20 20 40 60 80 100 120

STA. 266+50 TO STA. 267+00

PRINTED IN U.S.A.
DIETZGEN TRACING CLOTH

REGION 2 STATE OHIO PROJECT

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | 16,087 | |
| | | | 30,383 0 |
| | | 16725 | |
| | | | 29801 0 |

STA. 267+00 TO STA. 268+00

| SEEDING | |
|---|---|
| END WIDTH | SQ. YDS |

| FED. AID DIVISION | STATE | PROJECT |
|---|---|---|
| 5 | OHIO | |

294
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |

970
960
950
940
930
920
910
900

960
950
940
930
920
910
900

10,344

44,671 0

LINE "W"
909.38
270+02

270+00
950.6

LINE "E"
900.43

Rock Cut

970
960
950
940
930
920
910
900

970
960
950
940
930
920
910
900

13,778

55,307 0

LINE "W"
908.70
269+01

269+00
963.3

LINE "E"
901.15

Rock Cut

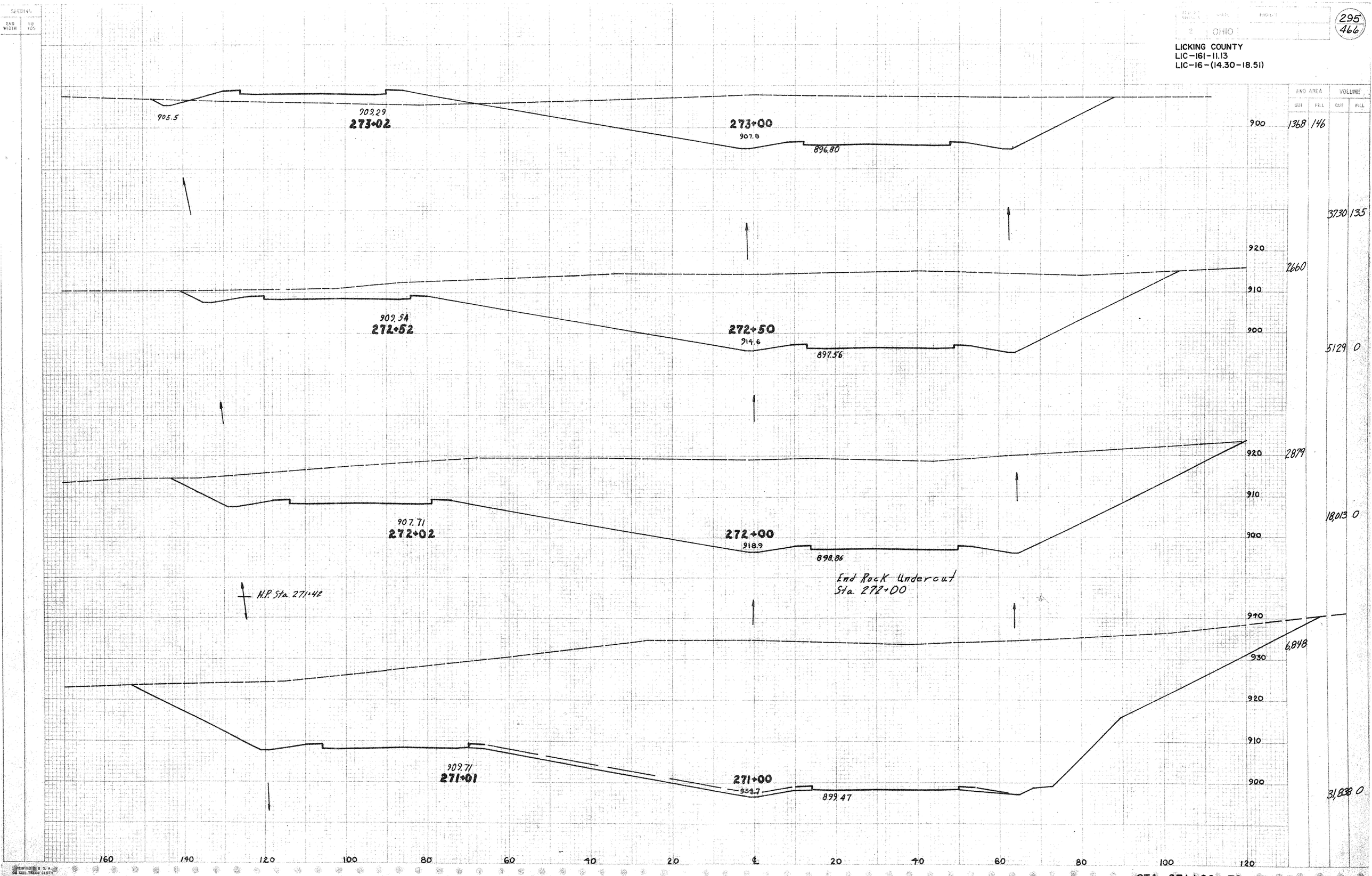
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

PRINTED IN U. S. A.
ON DUPLITONE CLOTH

STA. 269+00 TO STA. 270+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 1368 | 146 | | |
| | | 3730 | 135 |
| 2660 | | | |
| | | 5129 | 0 |
| 2879 | | | |
| | | 18,013 | 0 |
| 6,848 | | | |
| | | 31,838 | 0 |

STA. 271+00 TO STA. 273+00

SEEDING

| NO DTH | SC YDS |
|---|---|

| | | | |
|---|---|---|---|
| | | | |
| 2 | OHIO | | |

296/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| 3660 | | | |
| | | 4824 | 97 |
| 1550 | 105 | | |
| | | 4515 | 1657 |
| | | 888 | 790 |
| | | 2756 | 2848 |
| | | 600 | 788 |
| | | 2171 | 2450 |
| | | 572 | 575 |
| | | 3593 | 1335 |

S.R. 16

883.08
277+19

903.09
277+53
LINE "W"

277+50
894.1

887.94

Begin Sod
Sta 277+00
Width 60'

3:1

LINE "A"

884.26
276+59

904.13
277+03
LINE "W"

4:1

277+00
895.8

888.98

3:1

LINE "A"

LINE "W"

3:1

905.96
276+03

70'LT Sta 275+95 Line "W"
Std 2-2A C.B.
Rt. Window 895.50
NOTE: GATE VALVES Rt 18"I-2 891.50
C.C.S. 276+98
276+03

6:1

276+00
896.9

891.06

3:1

LINE "W"

4:1

907.43
275+03

276+00
898.0

893.14

3:1

LINE "W"

3:1

908.50
274+02

274+00
899.1

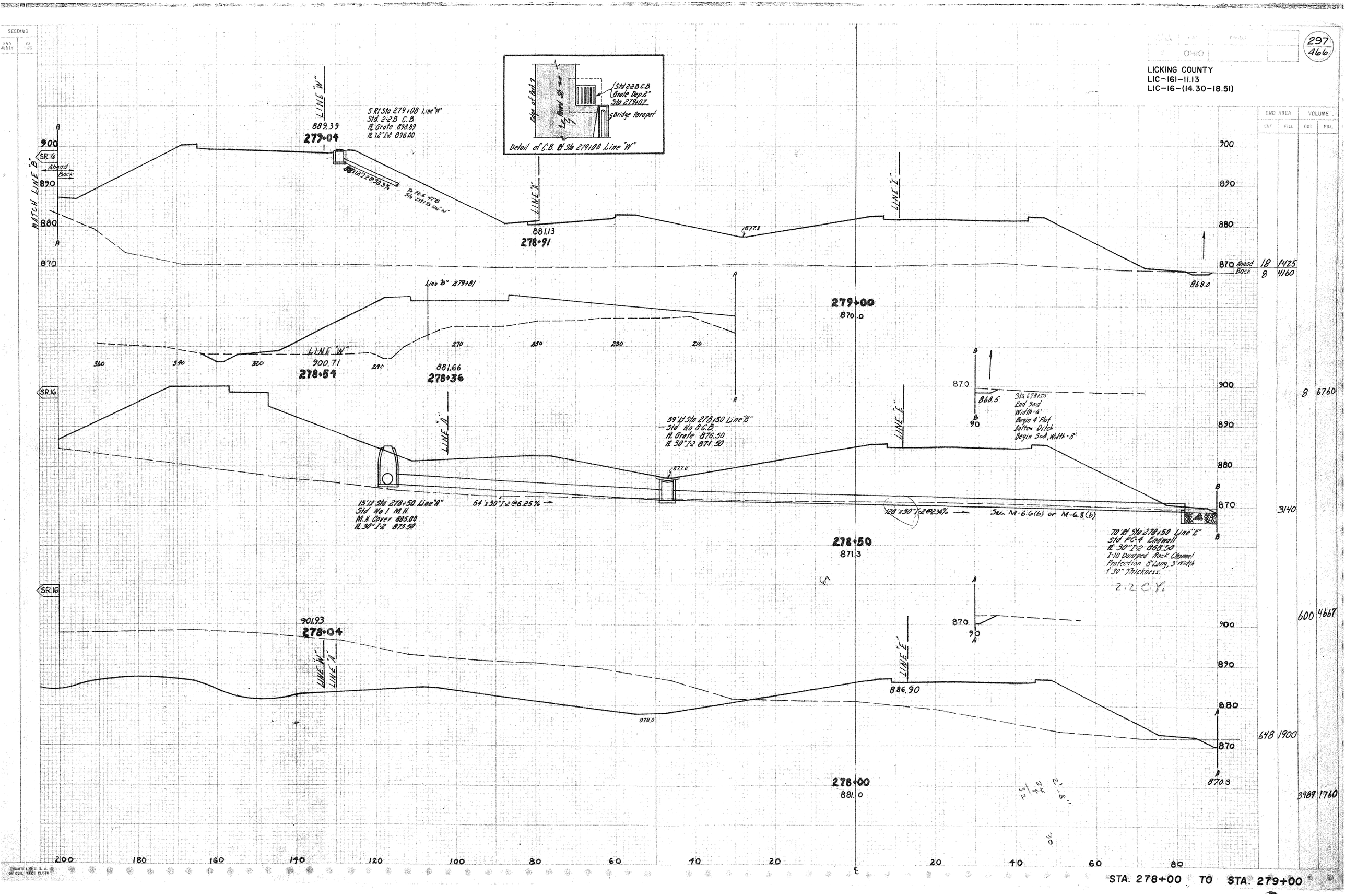
895.10

3:1

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80

STA. 274+00 TO STA. 277+50

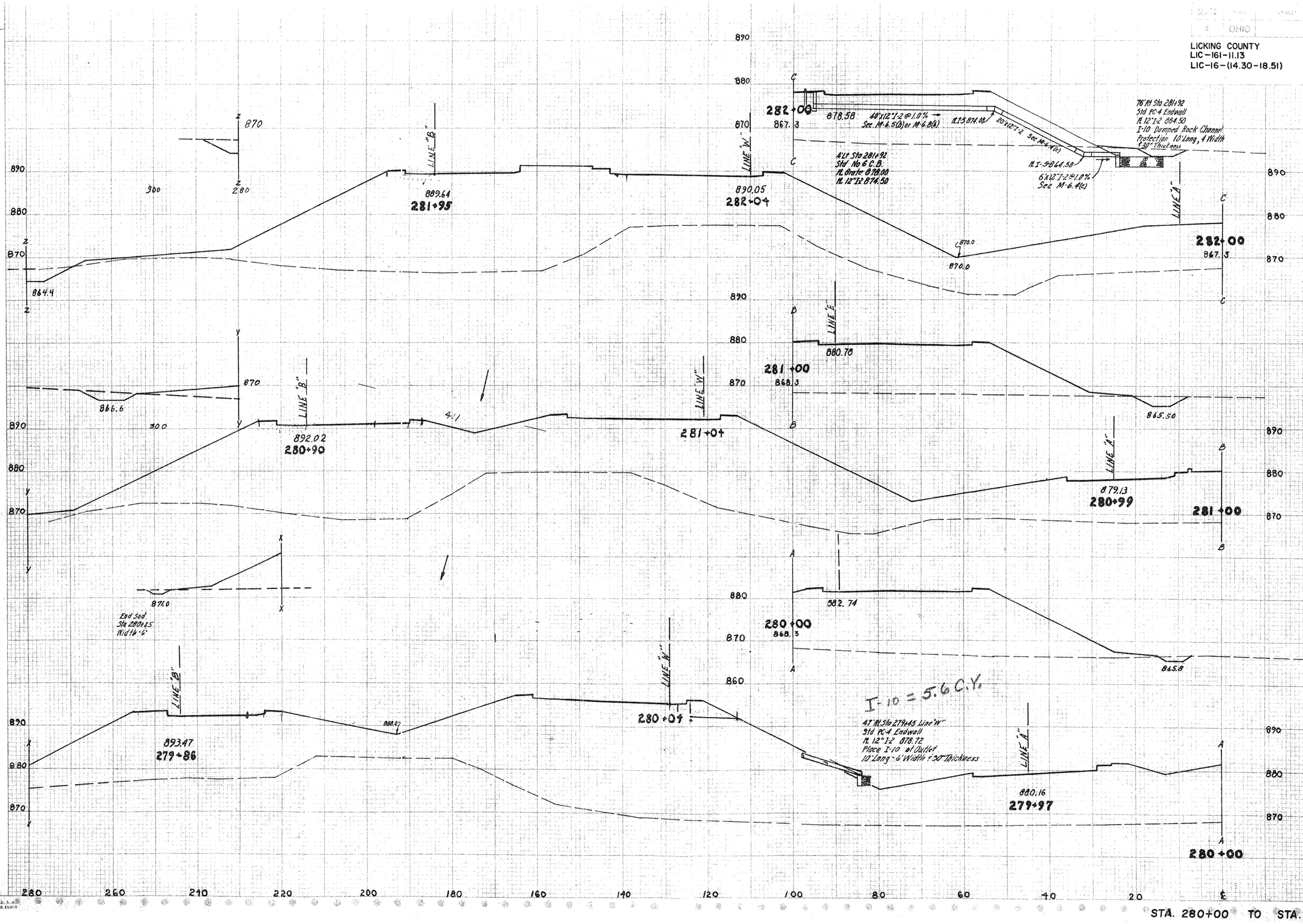
PRINTED IN U.S.A.
ON CARLTON CLOTH



297
466
OHIO
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)
END AREA
VOLUME
CUT
FILL
Detail of C.B. Rt Sta 279+08 Line "W"
Std 2-2B C.B.
Grate Dep. 2"
Sta 279+07
Bridge Parapet
Edge of Part 7
Paved Sh.
LINE "W"
889.39
279+04
5' Rt Sta 279+08 Line "W"
Std 2-2B C.B.
Pl. Grate 898.89
Pl. 12" I-2 896.00
LINE "A"
881.13
278+91
877.2
LINE "E"
868.0
Ahead
Back
MATCH LINE "B"
SR.16
Line "B" 279+81
279+00
870.0
LINE "W"
900.71
278+54
881.66
278+36
LINE "A"
59' Lt Sta 278+50 Line "E"
Std No 8 C.B.
Pl. Grate 876.50
Pl. 30" I-2 871.50
877.0
868.5
Sta 278+50
End Sod
Width = 6'
Begin 4' Flat
Bottom Ditch
Begin Sod, Width = 8'
15' Lt Sta 278+50 Line "A"
Std No 1 M.H.
M.H. Cover 885.00
Pl. 30" I-2 875.50
64' x 30" I-2 @ 6.25%
128' x 30" I-2 @ 2.34%
Sec. M-6.6(b) or M-6.8(b)
70' Rt Sta 278+50 Line "E"
Std PC-4 Endwall
Pl. 30" I-2 868.50
I-10 Dumped Rock Channel
Protection 8' Long, 3' Width
& 30" Thickness.
2.2 C.Y.
278+50
871.3
901.93
278+04
LINE "W"
LINE "A"
LINE "E"
886.90
878.0
870.3
278+00
881.0
Ahead 18 1425
Back 8 4160
8 6760
3140
600 4667
648 1900
3989 1760
STA. 278+00 TO STA. 279+00

2 OHIO

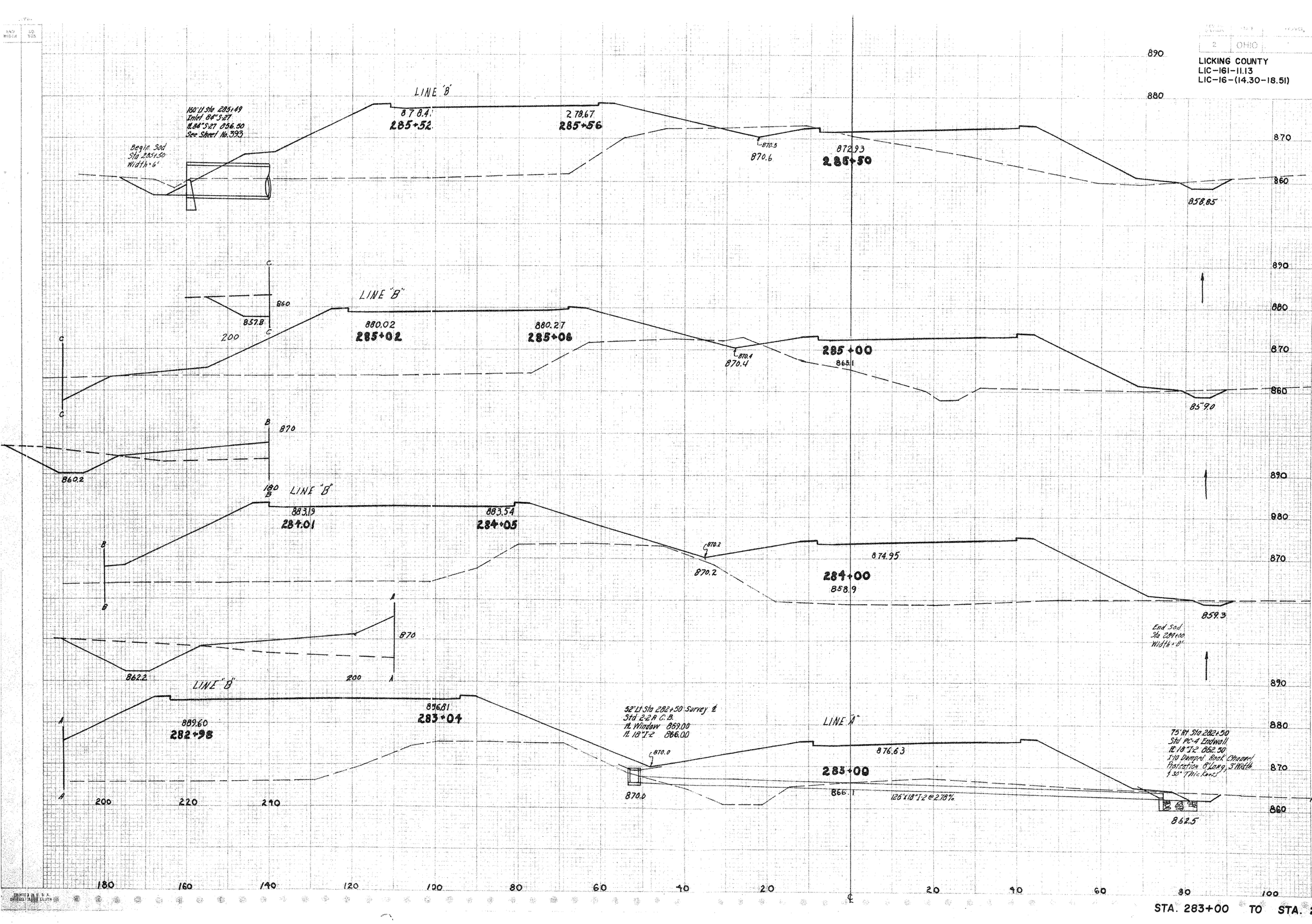
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



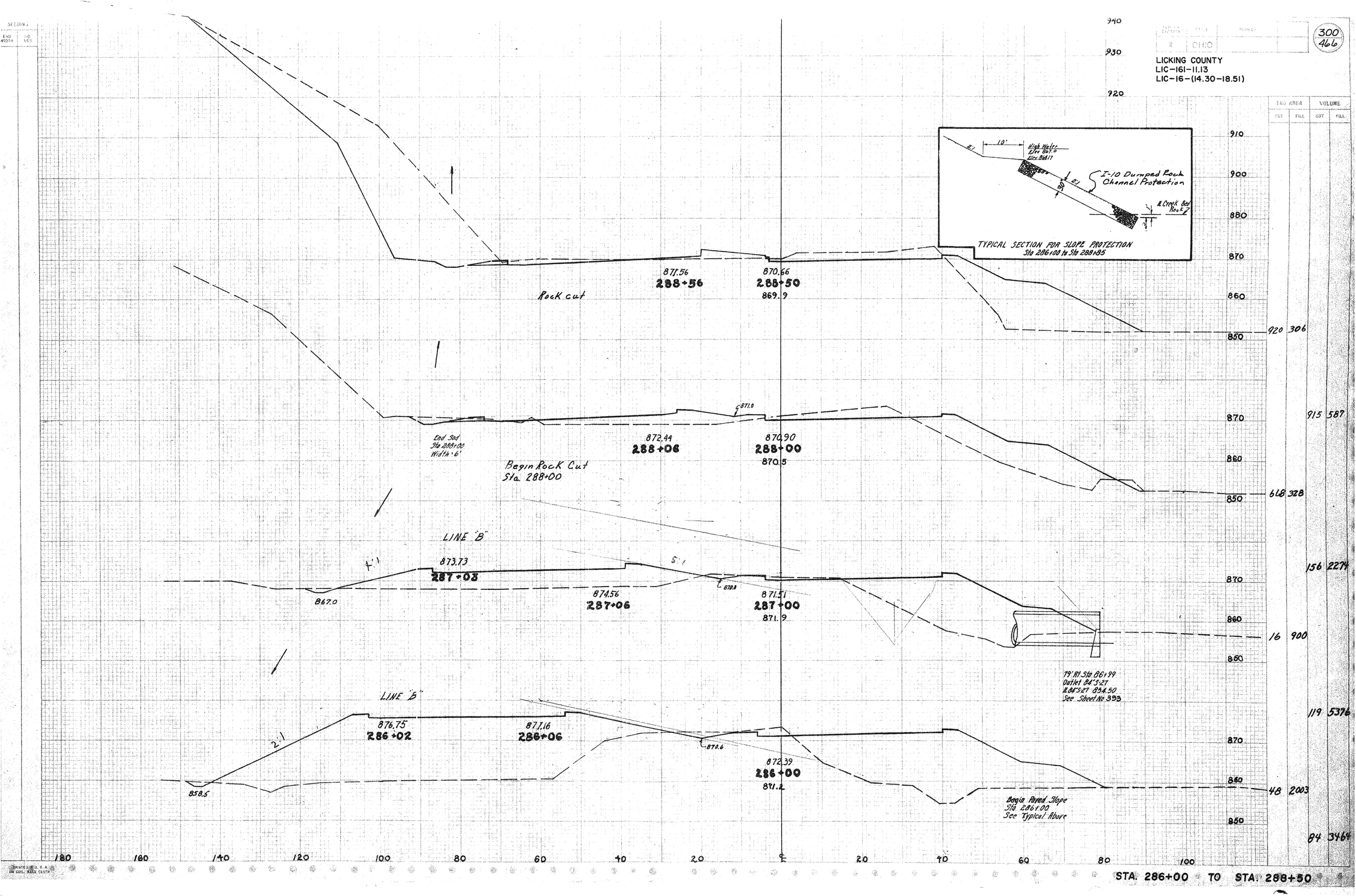

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 52 | 3970 | | |
| | | 200 | 15,445 |
| 56 | 4370 | | |
| | | 128 | 16,019 |
| 13 | 4280 | | |
| | | 57 | 16,86 |

STA. 280+00 TO STA. 282+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 42 | 1738 | | |
| 149 | 3549 | | |
| 119 | 2094 | | |
| 417 | 9489 | | |
| 106 | 3025 | | |
| 470 | 11305 | | |
| 148 | 3080 | | |
| 370 | 13056 | | |



300
466
2
OHIO
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)
TYPICAL SECTION FOR SLOPE PROTECTION
Sta 286+00 to Sta 288+85
I-10 Dumped Rock Channel Protection
High Water
Elev 867.0
Elev 868.17
Creek Bed Rock
Rock cut
871.56
288+56
870.66
288+50
869.9
End Sod
Sta 288+00
Width 6'
872.44
288+06
870.90
288+00
870.5
Begin Rock Cut
Sta. 288+00
LINE "B"
873.73
287+03
874.56
287+06
871.51
287+00
871.9
867.0
79' Rt Sta 86+99
Outlet 84" S-27
Ill 84" S-27 854.50
See Sheet No 393
LINE "B"
876.75
286+02
877.16
286+06
872.39
286+00
871.2
858.5
Begin Paved Slope
Sta 286+00
See Typical Above
END AREA
VOLUME
CUT
FILL
920 306
915 587
668 328
156 2274
16 900
119 5376
48 2003
84 3464
STA. 286+00 TO STA. 288+50

SEEDING

END WIDTH | 30 | 105

FED. RD. DIVISION: 2 | STATE: OHIO | PROJECT:

301/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | | | |
| | | |

302
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | 6402 | 0 |
| | | 22847 | 0 |
| | | 5935 | 0 |
| | | 10,232 | 0 |

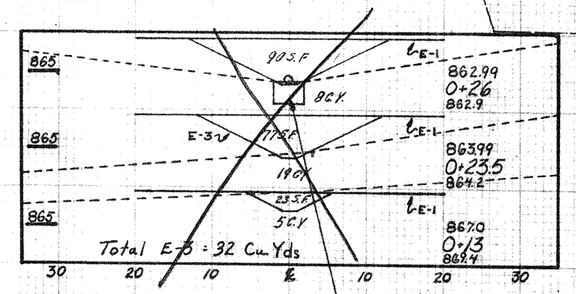
69' Rt Sta 290+97
Std Conc. Steps
See Std Drawing RS-1
Length = 8'
Rise = 6"
Tread = 12"
5 Foot Bridge
5 Steps

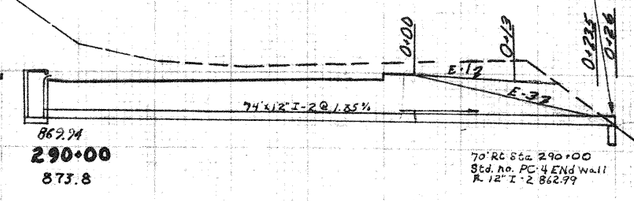
869.46
291+00
877.1

Rock Cut

868.93
291+08

4' Lt. Sta 290+00
Std No. 2-B Median Inlet
FL Window 869.57
FL 12" I-2 863.99




Rock Cut

869.61
290+08

862.94
290+00
873.8

70' Rt Sta 290+00
Std. no. PC-4 End Wall
R. 12" I-2 862.99

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

STA. 290+00 TO STA. 291+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 4820 | | | |
| | | 9960 | |
| 5948 | | | |
| | | 22,871 | |

970
960
950
940
930
920
910
900
890
880
870
860
850

980
970
960
950
940
930
920
910
900

86862
292+50 Rock Cut
879.9

86886
292+00 Rock Cut
872.0

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

STA. 292+00 TO STA. 292+50

| ROAD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 5 | OHIO | | |

304
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | | 1308 | |
| | | 3365 | |
| | | 2330 | |
| | | 5611 | |
| | | 3735 | |
| | | 7914 | |

LINE 5:12

End Rock Cut
Sta. 294+00 W.B.

867.90
**294+00**
870.7

LINE 5:12

Rock Cut

868.14
**293+50**
873.7

LINE 5:12

4'11. Sta 293+00
Std. 2-8 Med. Inlet
Rt. Window 868.14
Rt. 12" I-2 864.56

Rock Cut

868.38
**293+00**
877.8

74'±12" I-2 @ 1.35%

70' Rt. Sta 293+00
Std PC-4 Endwall
Rt. 12" I-2 863.56

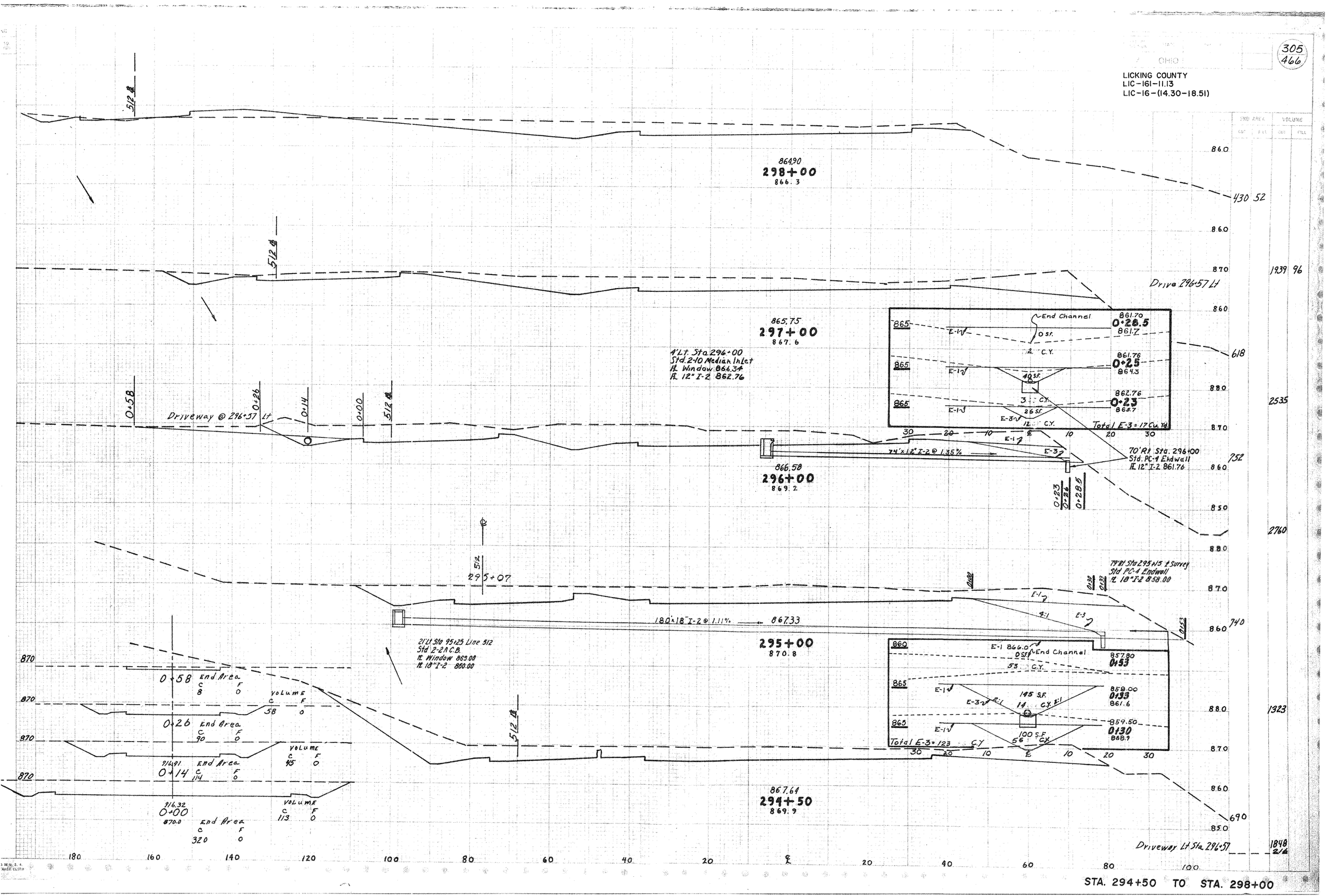
**OUTLET CHANNEL X-SECT.**

865 — 0 Sq.Ft. — 863.56 — 0+35
E-1 — 6 C.Y. — 6 Cu.Yds. — 863.56
865 — 40 Sq.Ft. — 863.65 — 0+28
E-3 — 5 Cu.Yds. — 867.6
5 C.Y.
E-1 Grade Line 2
865 — 47 Sq.Ft. — 863.65 — 0+25
Total E-3 = 33 Cu.Yds. — 22 Cu.Yds. — 863.2

30 20 10 ℄ 10 20 30

160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120

STA. 293+00 TO STA. 294+00


305
466
OHIO
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)
END AREA
VOLUME
CUT
FILL
864.90
298+00
866.3
865.75
297+00
867.6
866.58
296+00
869.2
295+07
867.33
295+00
870.8
867.64
294+50
869.9
Driveway @ 296+57 Lt
Drive 296+57 Lt
Driveway Lt Sta. 296+57
4' Lt. Sta. 296+00
Std. 2-10 Median Inlet
Pl. Window 866.34
Pl. 12" I-2 862.76
74'x12" I-2 @ 1.35%
70' Rt Sta. 296+00
Std. PC-4 Endwall
Pl. 12" I-2 861.76
79' Rt Sta 295+15 ℄ Survey
Std PC-4 Endwall
Pl. 18" I-2 858.00
180'x18" I-2 @ 1.11%
21' Lt Sta 95+25 Line 512
Std 2-2A C.B.
Pl. Window 865.00
Pl. 18" I-2 860.00
End Channel
Total E-3 = 17 Cu. Yd.
Total E-3 = 123 C.Y.
0+58 End Area C 8 F 0
Volume C 58 F 0
0+26 End Area C 90 F 0
Volume C 45 F 0
0+14 End Area C 114 F 0
0+00 End Area C 320 F 0
Volume C 113 F 0
STA. 294+50 TO STA. 298+00

| FED. ROAD DIV. | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

306
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| 228 | 220 | | |
| | | 405 | 416 |
| 210 | 230 | | |
| | | 538 | 380 |
| 372 | 180 | | |
| | | 685 | 350 |
| 370 | 198 | | |
| | | 1480 | 463 |

870
860

7+00 - 512 Survey
40 20 ℄ 20 40

6+50 - 512 Survey
40 20 ℄ 20 40

862.80
300+50
862.4

BRYNMAWR EXTENSION

862.38
300+00
863.1

B
860
180 160 B

70' Lt. Sta. 299+35
Std. 2-2A C.B.
Fl. Window 861.5
Fl. 12" I-2 859.5

4' Lt. Sta. 299+38
Std. No. 2-10 Med Inlet
Fl. Window 863.50
Fl. 12" I-2 857.90

B
B

64'x12" I-2 @ 2.5%

82'x12" I-2 @ 3.5%

80' Rt. Sta. 299+38
Std. PE-4 Endwall
Fl. 12" I-2 855.00

LINE 512

"A"
260 240 220 200 190 180 "A"

863.64
299+50
863.7

"A"
"A"

864.06
299+00
864.7

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 299+00 TO STA. 300+50

| STATE | PROJECT | |
|---|---|---|
| OHIO | | |

307
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| ENG. AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 60 | 210 | | |
| | | 120 | 426 |
| 70 | 250 | | |
| | | 278 | 472 |
| 230 | 260 | | |
| | | 398 | 472 |
| 200 | 250 | | |
| | | 396 | 435 |

860

861.12
302+50
860.0

860

861.54
302+00
860.6

Note: Begin fadeaway ditch
Lt. Sta 301+95

54' Lt Sta 301+90
Std. 22A C.B.
Lt. Window 858.72
Lt. 2/12 854.00

860

861.96
301+50
861.2

860

862.38
301+00
861.8

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 301+00 TO STA. 302+50

OHIO

308
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 35 | 65 | | |
| | | 46 | 139 |
| | | 5 | 233 |
| 15 | 85 | | |
| | | 65 | 181 |
| 55 | 110 | | |
| | | 97 | |
| | | 98 | 296 |
| 50 | 210 | | |
| | | 102 | 389 |

860
859.44
304+50
859.0

860
862.31
0+31
862.4
End Area C 6 F 0
VOLUME C 51 F 0
860
861.01
0+19
863.0
End Area C 119 F 0
VOLUME C 13 F 0
860
860.0
0+6
862.51
End Area C 109 F 0
℄
860
859.71
0+00
861.92
End Area C 188 F 0
℄ DRIVEWAY LT Sta 303+59

Driveway @ Sta 303+59
0+31
0+6
0+00

VOLUME C 33 F 0

859.86
304+00
859.3

0+00

0+30
DRIVEWAY 303+76 RT
-10%

0+65

Driveway at Sta 303+70 Rt
860
860
0+66
End Area C 8 F 0
VOLUME C 5 F 53
860
0+30
End Area C 0 F 80
VOLUME C 0 F 180
860
End Area C 0 F 244
860
0+00
957.52
DRIVEWAY 303+59 LT

860.28
303+50
859.4

48"x12'-2" @ 7.54%
44' Lt Sta 303+21
Std 2-3 C.B. Without Window
Rt Grate 859.47
Rt 12"-2 853.16
Rt 21"-2 852.41
Rt 24"-2 852.16

7' Rt Sta 303+21
Std 2-10 Raised Median Inlet
Rt Window 860.41
Rt 12"-1-2 856.78

860.70
303+00
859.7

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 303+00 TO STA. 304+50

OHIO

309
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

858.36
306+50
85.69

858.18
306+00
857.6

44"/1.9Ha 305+50
Stl 2-3 C.B. Without Window
Rt. Grate 857.76
Rt. 24"12 851.00

858.60
305+50
858.3

858.02
305+00
858.8

0+00
0+23
Driveway 306+10
0+33

860
860
860
860
860
860
860

End Area
C F
19 0
0+33

End Area
C F
0 25
0+23

End Area
C F
0 10
0+00

VOLUME
C F
4 5

VOLUME
C F
0 15

Driveway 306+10

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 60 | 25 | | |
| | | 100 | 56 |
| 48 | 35 | | |
| | | 118 | 56 |
| 80 | 25 | | |
| | | 4 | 20 |
| | | 111 | 68 |
| 40 | 48 | | |
| | | 70 | 105 |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 305+00 TO STA. 306+50

OHIO

310
466

LICKING COUNTY
LIC-16|-11.13
LIC-16-(14.30-18.51)

Driveway Lt Sta. 308+82
-.06%
44' Lt Sta 308+62
Std. 2-3 CB. Without Windows
Rt Grate 855.50
Rt 24" I-2 849.50
856.37
308+50
855.9

Driveway Lt Sta. 308+29
-.03%
856.64
308+00
856.0

44' Lt Sta 307+75
Std 2-3 C.B. Without Windows
Rt Grate 856.35
Rt 24" I-2 850.00
857.35
307+50
856.4

857.06
307+00
856.6

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 860 Driveway Lt 308+82 | 35 | 15 | 4 | |
| | | | 78 | 28 |
| Driveway Lt Sta. 308+29 860 | 48 | 15 | 4 | |
| | | | 96 | 24 |
| 860 | 55 | 10 | | |
| Driveway Rt | | | 6 | 14 |
| | | | 98 | 28 |
| ℄ Driveway Sta. 306+93 Rt 860 | 50 | 20 | | |
| | | | 102 | 43 |
| Driveway Lt | | | 94 | 3 |

End Area C 10 F 0 — 862.5 0+45 862.5
End Area C 73 F 0 — 859.3 0+21 860.8
End Area C 48 F 0 — 858.3 0+9 859.0
End Area C 15 F — 857.4 0+00 857.0
Volume C 29 F 0
Volume C 43 F 0
Volume C 22 F
0+45 | 0+21 | 0+9 | 0+00
Driveway 307+39 Lt. 7.5%

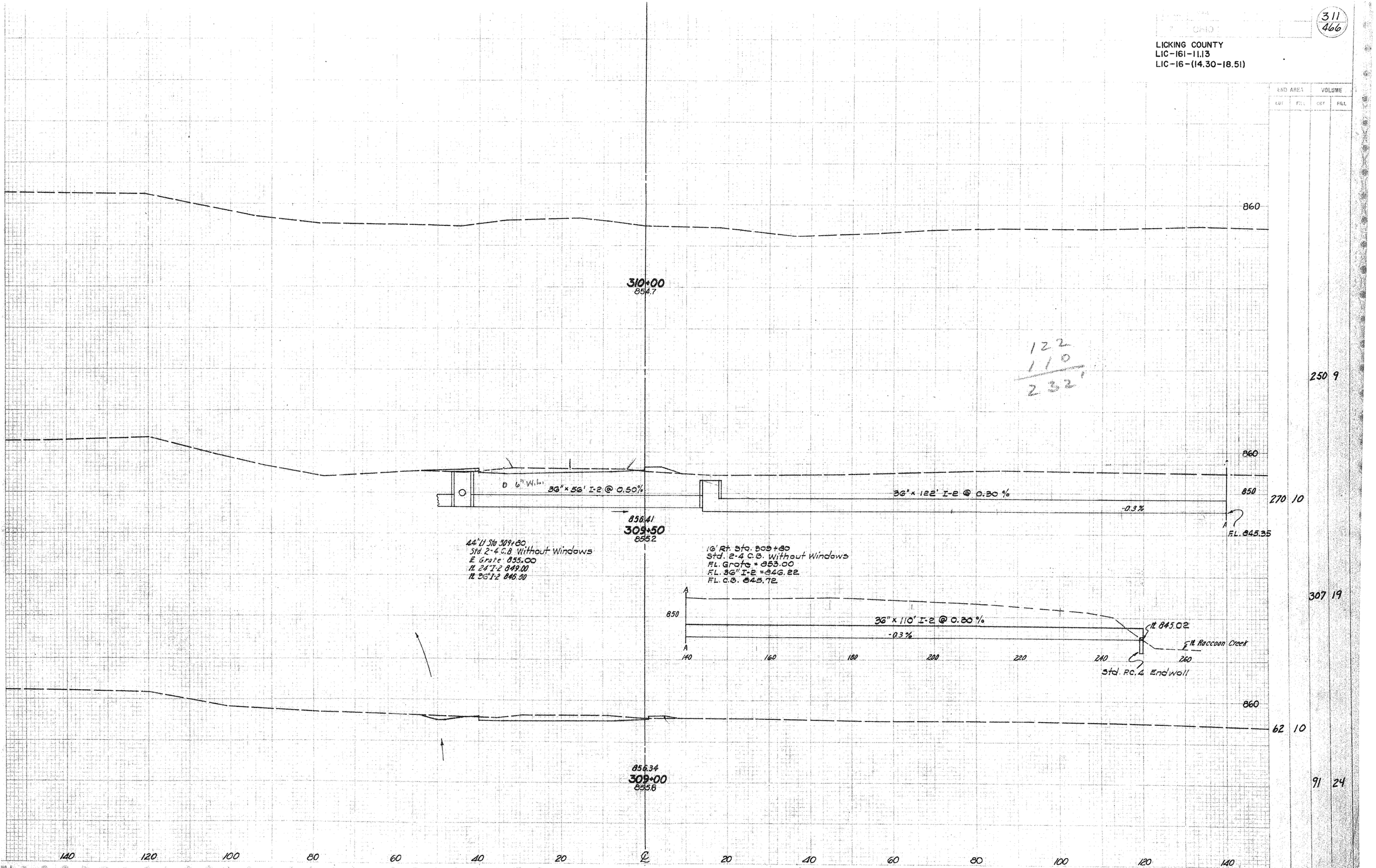
0+00 | 0+23 | 0+34
Driveway 306+93 Rt

End Area C 9 F 0 — 856.0 0+34 856.0
End Area C 0 F 21 — 857.0 0+23 856.0
End Area C 7 F 0 — 857.06 0+00 856.78
Volume C 2 F 4
Volume C 4 F 10

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 307+00 TO STA. 308+50

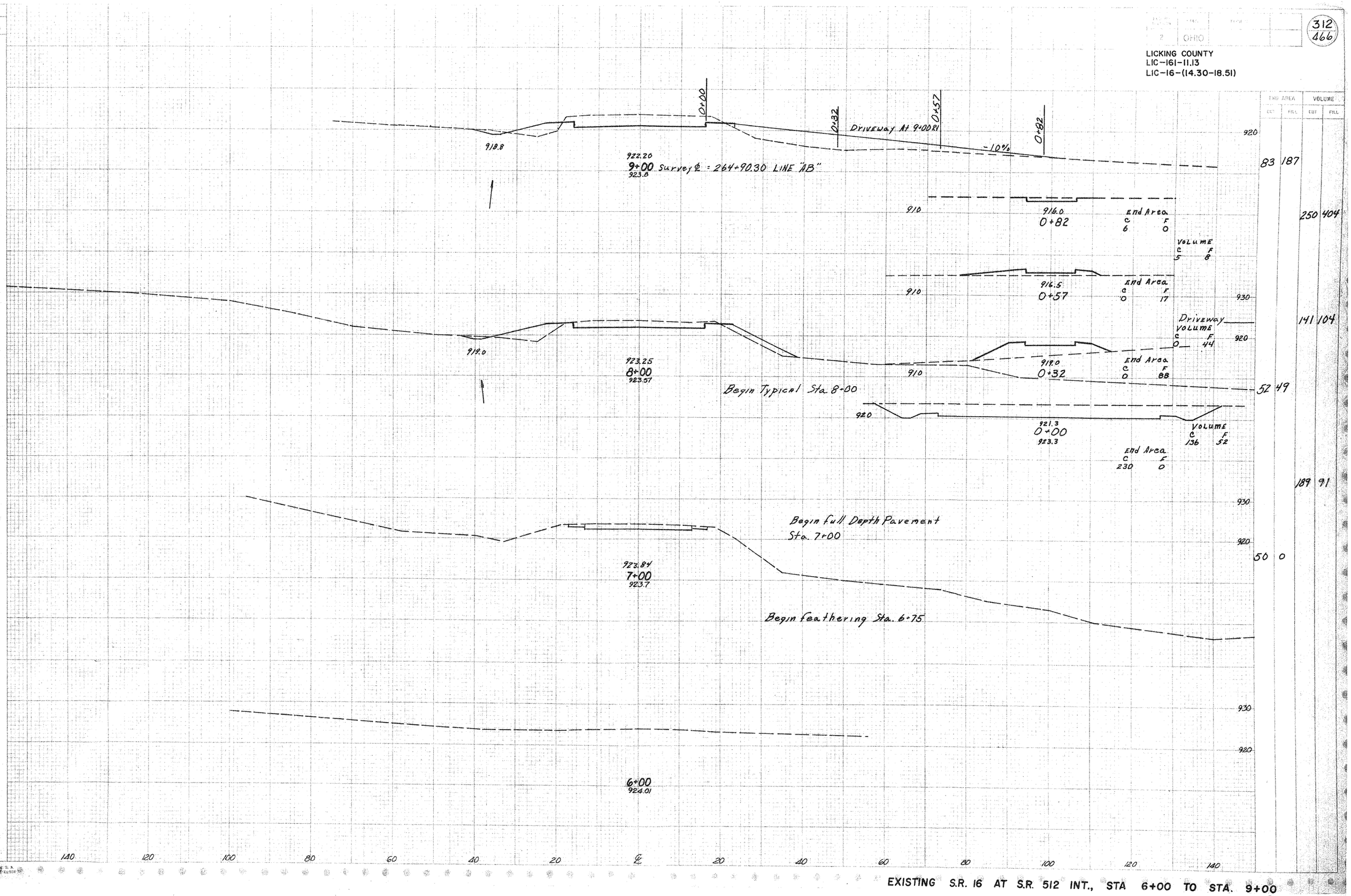
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STA. 309+00 TO STA. 310+00

OHIO

LICKING COUNTY
LIC-16I-11.13
LIC-16-(14.30-18.51)



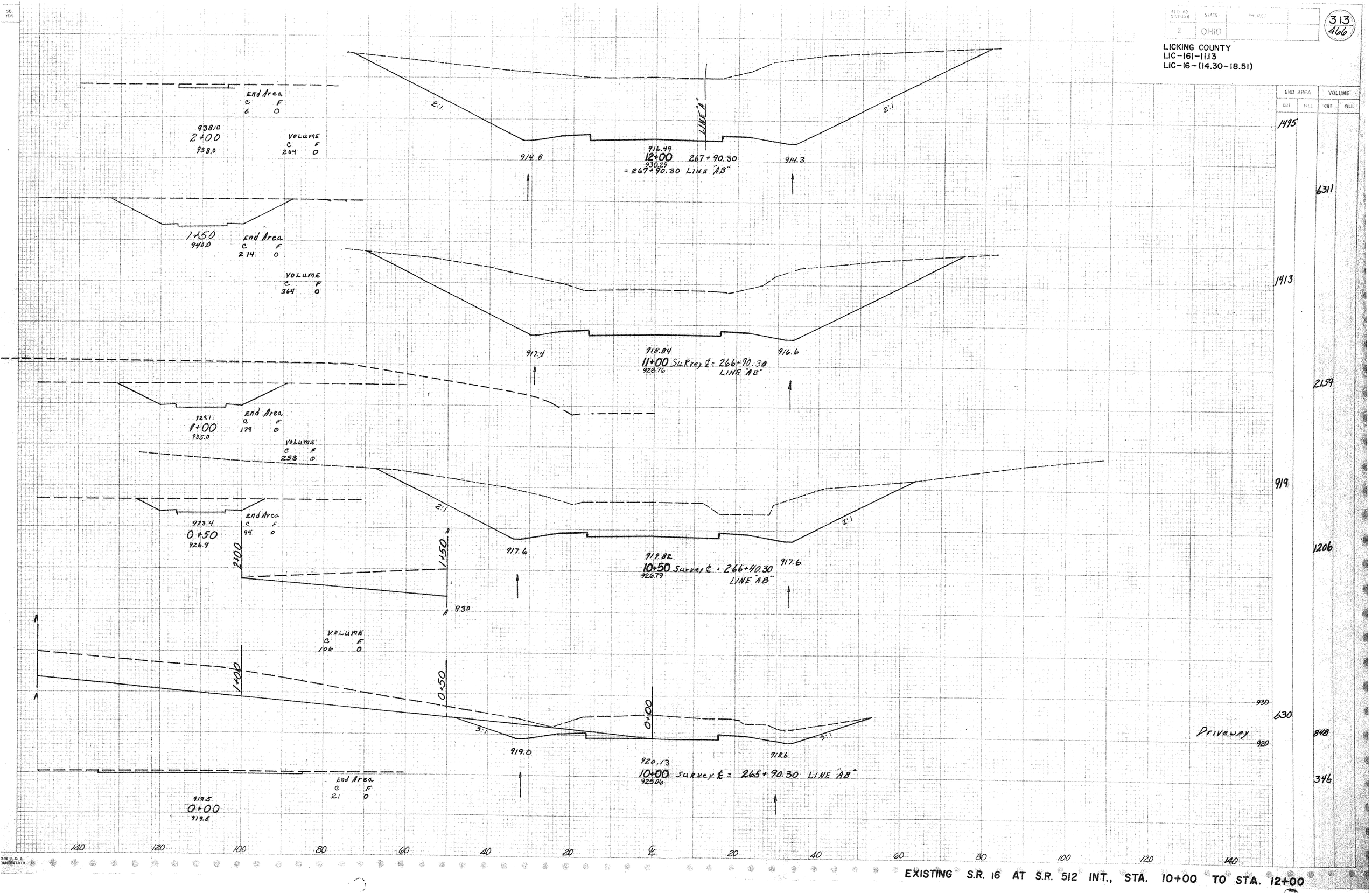

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 83 | 187 | | |
| | | 250 | 404 |
| | | 141 | 104 |
| 52 | 49 | | |
| | | 189 | 91 |
| 50 | 0 | | |

EXISTING S.R. 16 AT S.R. 512 INT., STA 6+00 TO STA. 9+00

| 413 RD DIVISION | STATE | SHEET |
|---|---|---|
| 2 | OHIO | |

313
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|
| 1495 | | | |
| | | 6311 | |
| 1413 | | | |
| | | 2139 | |
| 919 | | | |
| | | 1206 | |
| 930 | | | |
| 920 | | 630 | |
| | | 848 | |
| | | 346 | |

Driveway

EXISTING S.R. 16 AT S.R. 512 INT., STA. 10+00 TO STA. 12+00

| FED. AID DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

314
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 930 | | | | |
| Driveway | | | 1085 | |
| 920 | 1273 | | 282 | |
| | | 431 | | |
| | | | | 509 |
| | | | 1197 | |
| 668 | | | | |
| 930 | | | | |
| | 1313 | | | |
| | | | | 3808 |
| 940 | | | | |
| | 1429 | | | |
| 930 | | | | |
| 920 | | | | |
| | 1452 | | | |
| 940 | | | | |
| 930 | 1708 | | | |
| | | | | 5143 |

End Area C 0 F 140
925.62
4+00
Volume C 0 F 153
908.3
910.41
14+00 Survey ℄
922.39
269+90.30 LINE "AB"
908.3
LINE "A"
13+92
Ground Line @ 13+50 Rt.
Profile Driveway @ 13+50 Rt.
0.25
0.50
0.25
0.94
0.00
+10%
Driveway at 13+92 [Right]
End Area C 0 F 190
927.50
4+25
Volume C 0 F 465
908.1
911.24
13+75 Survey ℄ = 269+65.30 LINE "AB"
908.9
920
0+94
Volume 9
End Area C 0 F 60 0
Volume C 0 F 187 0
Sta 13+49.30 Lt
Service Rd #2
End Area C 0 F 145
931.81
5+00
Volume C 0 F 87
911.5
13+00 Survey ℄ = 268+90.30 LINE "AB"
927.43
911.4
LINE "A"
920
End Area C 0 F 450 0
Volume C 0 F 602 0
920.4
0+75
917.7
End Area C 0 F 850 0
922.3
0+50
918.2
Volume C 0 F 528 0
End Area C 0 F 50 0
End Area C 0 F 290 0
End Area C 0 F 430 0
End Area C 0 F 42
932.50
5+25.19
Service Rd. No. 2
912.2
914.37
12+75 Survey ℄ = 268+65.30 LINE "AB"
928.43
912.1
LINE "A"
920
924.5
0+25
921.7
Backslope of Ditch
Volume C 0 F 158 0
12"x30' I-1
12"x62'2-1
F.L. 907.50
F.L. 910.10
Std. 2-2-8 Catch Basin
15' Rt. Drive Sta. 0+12
Elev. Grate = 910.60
F.L. C. Basin = 908.50
(Drive Rt. Sta. 13+92)
921.5
0+00
910.5
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

EXISTING S.R. 16 AT S.R. 512 INT., STA. 12+75 TO STA. 14+00

OHIO

315
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

End Area
C F
153 0

916.69
2+25

VOLUME
C F
95 0

LINE "B"

LINE "A"

15+75 Survey ℄
913.60

903.29
272+48

903.49
271+64

End Area
C F
53 0

919.40
2+75

VOLUME
C F
25 8

LINE "B"

LINE "A"

15+25 Survey ℄
916.22

905.43
271+99

905.55
271+13

End Area
C F
0 18

920.98
3+00

VOLUME
C F
0 169

LINE "B"

LINE "A"

14+98.62 Survey ℄
917.29

906.61
271+72

906.59
270+86.5

End Area
C F
0 104

923.99
3+75

VOLUME
C F
0 113

LINE "B"

LINE "A"

909.48
270+99

909.01
270+13

14+25 Survey ℄
921.13

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 920 | | | |
| 910 | 1402 | | |
| | | 2390 | |
| 920 | | | |
| 910 | 1179 | | |
| | | 1108 | |
| 920 | | | |
| 910 | 1122 | | |
| | | 3277 | |
| 920 | | | |
| 910 | 1269 | | |
| | | 1177 | |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

EXISTING S.R. 16 AT S.R. 512 INT., STA. 14+25 TO STA. 15+75

| SHEET NO. | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

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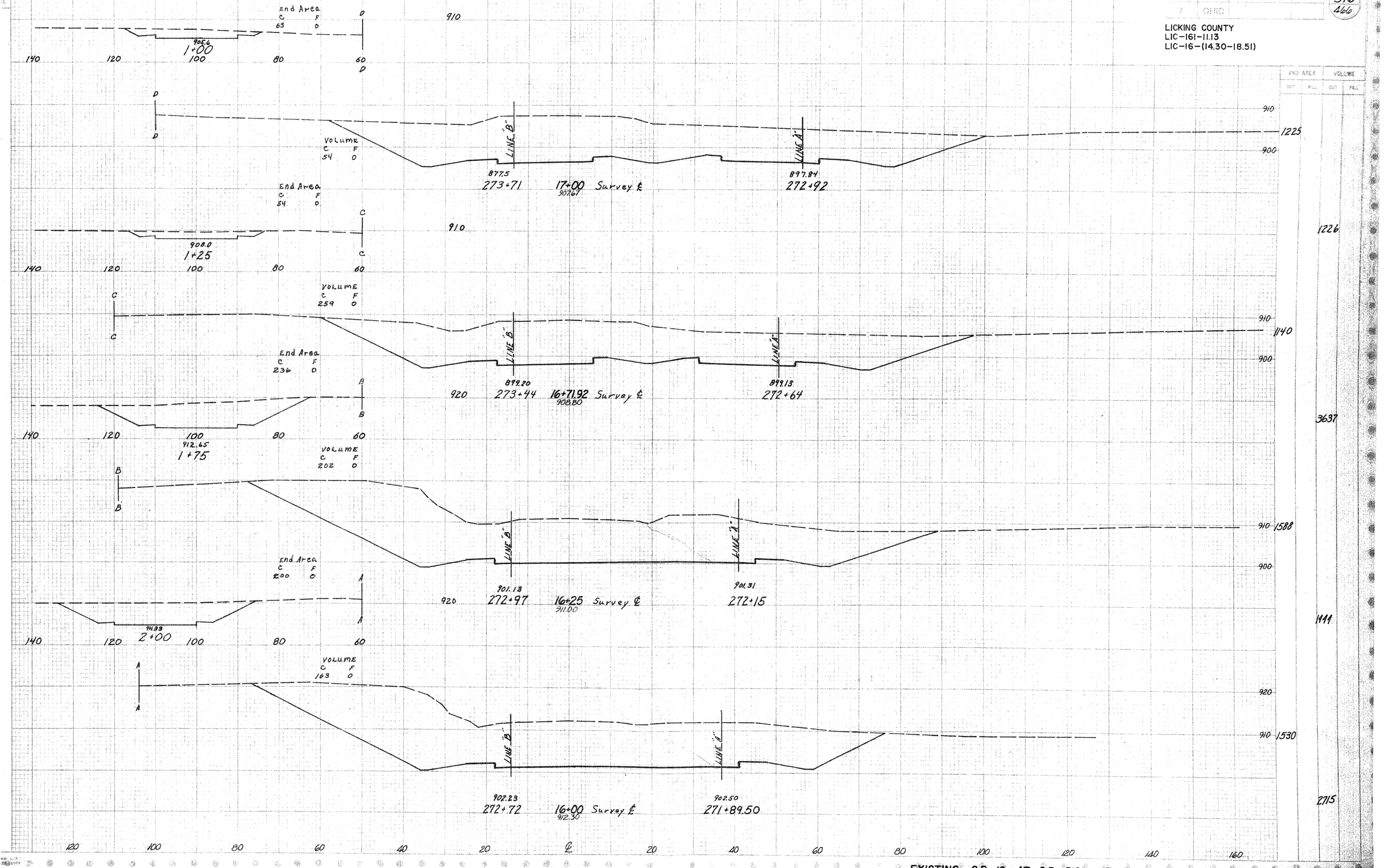
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREAS | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |




EXISTING S.R. 16 AT S.R. 512 INT., STA. 16+00 TO STA. 17+00

OHIO

317
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 900 | 1677 | | | |
| 890 | | | 1522 | |
| 910 | | | | |
| 900 | 1610 | | | |
| | | | 5462 | |
| 910 | | | | |
| 900 | 1388 | | | |
| | | | 3499 | |

2:1 4:1 LINE "B" 890.2 894.40 275+73

LINE "A" 889.09 274+97

19+00 Survey ℄ 899.48

2:1 4:1 LINE "B" 890.3 894.54 275+50

18+75 Survey ℄ 900.19

LINE "A" 890.08 274+71

End Area
C F
207 0

140 120 100 80 60 900
899.02
0+25

Volume
C F
574 0

30' 40'
24' Lt Sta 273+65 Line "A"
R 12" I-1 891.84
890
22' Lt. Sta. 274+35 Line "A"
R 12" I-1888.06

SECTION ALONG PIPE Lt. LINE "A"

2:1 4:1 LINE "B" 892.2 896.03 274+50

17+75 Survey ℄ 904.70

LINE "A" 894.57 273+68.5

100 80 60 40 20 ℄ 20 40 60 80 100 120 140 160 180

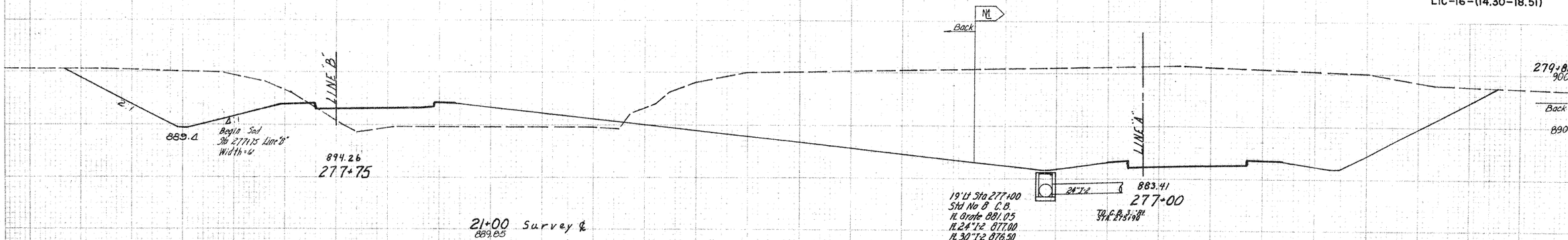
EXISTING S.R. 16 AT S.R. 512 INT., STA. 17+75 TO STA. 19+00

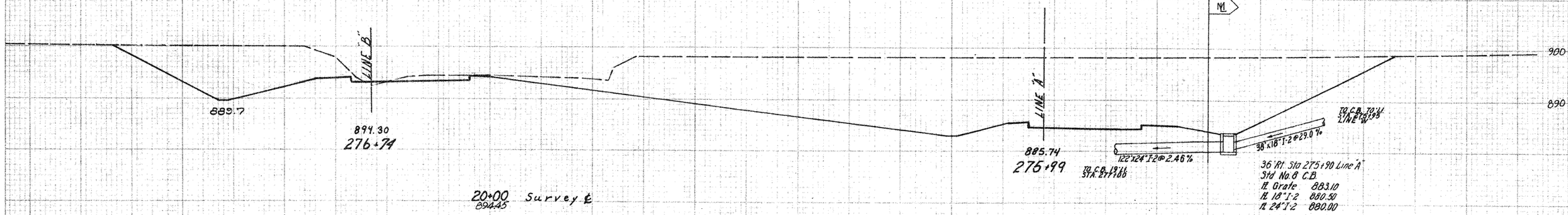
318
466

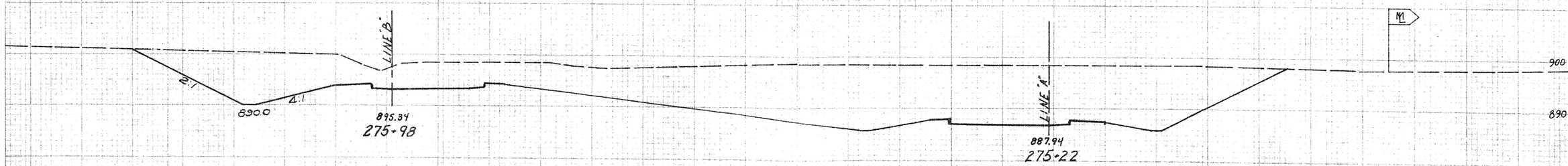
OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | EXC. AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 279+86 | 0 | 0 | | |
| 900 | | | | |
| Back | 1011 | 186 | | |
| 890 | | | | |
| | | | 4561 | 348 |
| 900 | 1452 | 2 | | |
| 890 | | | | |
| | | | 4456 | 3 |
| 900 | 1756 | | | |
| 890 | | | | |
| | | | 1589 | |



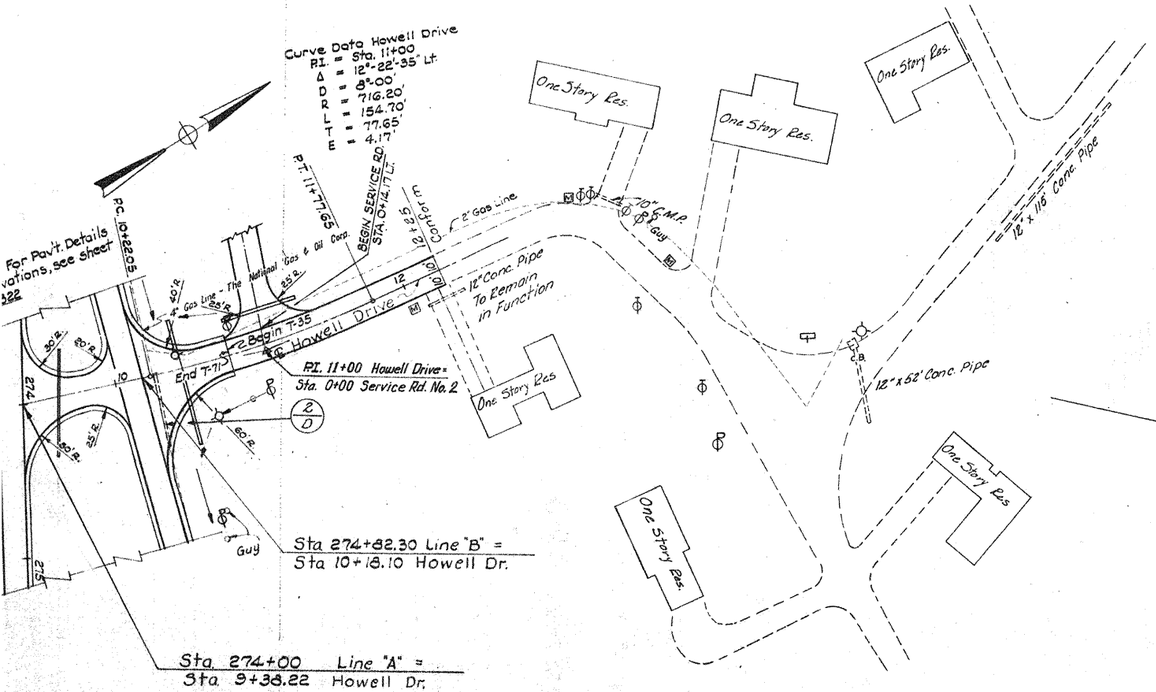

80 60 40 20 ℄ 20 40 60 80 100 120 140 160 180 200

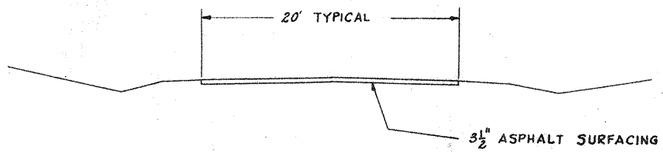
EXISTING S.R. 16 AT S.R. 512 INT., STA. 19+25 TO STA. 21+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

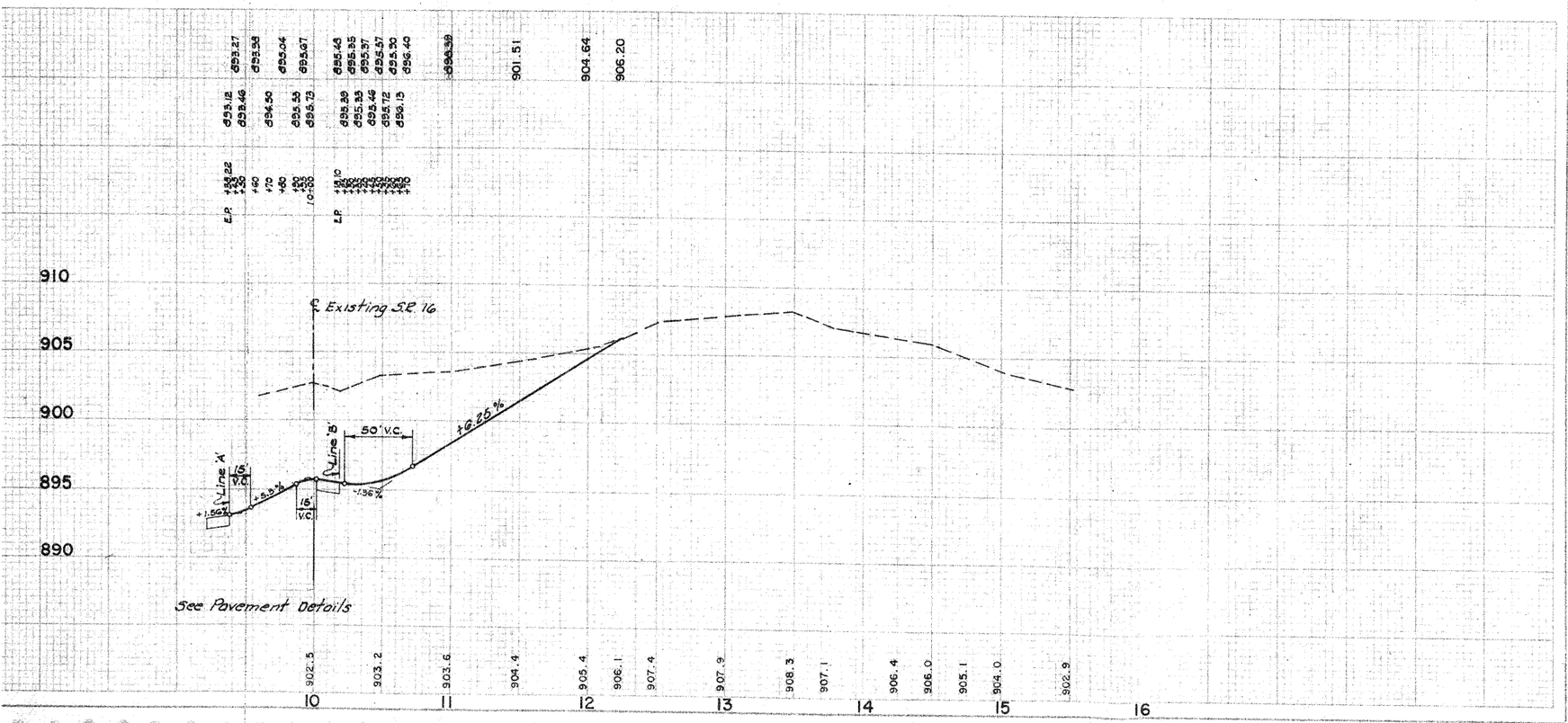
| FEDERAL DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

319/466




TYPICAL SECTION EXISTING HOWELL DR.




ESTIMATED QUANTITIES

| REF NO. | STATION TO STATION | SIDE | |
|---|---|---|---|
| 2.0 | | | See Sht Quantity Sheet |
| TOTALS | | | |

HOWELL DR. PLAN & PROFILE STA. 9+25.91 TO 14+03

STATE OHIO

320
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| | | | |
| | 30 | | 209 |
| | 196 | | 5333 |
| | 380 | | |
| | 679 | | 9805 |

910
900

12+50
906.5

CONForm Sta. 12+25

910
900

904.64
12+00
905.3

910
900

901.57
11+50
904.2

910
900

898.39
11+00
903.10

910
900

893.5
895.48
10+50
903.2

for I-1 Pipe See S.R.-16 Cross Sections

31'-0" 51'-0"
I-1 24" x 82' @ 2.00%
℄ E. 892.2
E. 890.56

Inlet I-1 Under Dr.
25' Lt Sta 274+51.5 Line B'

SECTION ALONG
PIPE UNDER HOWELL DR.

Outlet I-1 Under Dr.
25.5Lt Sta 275+33.5

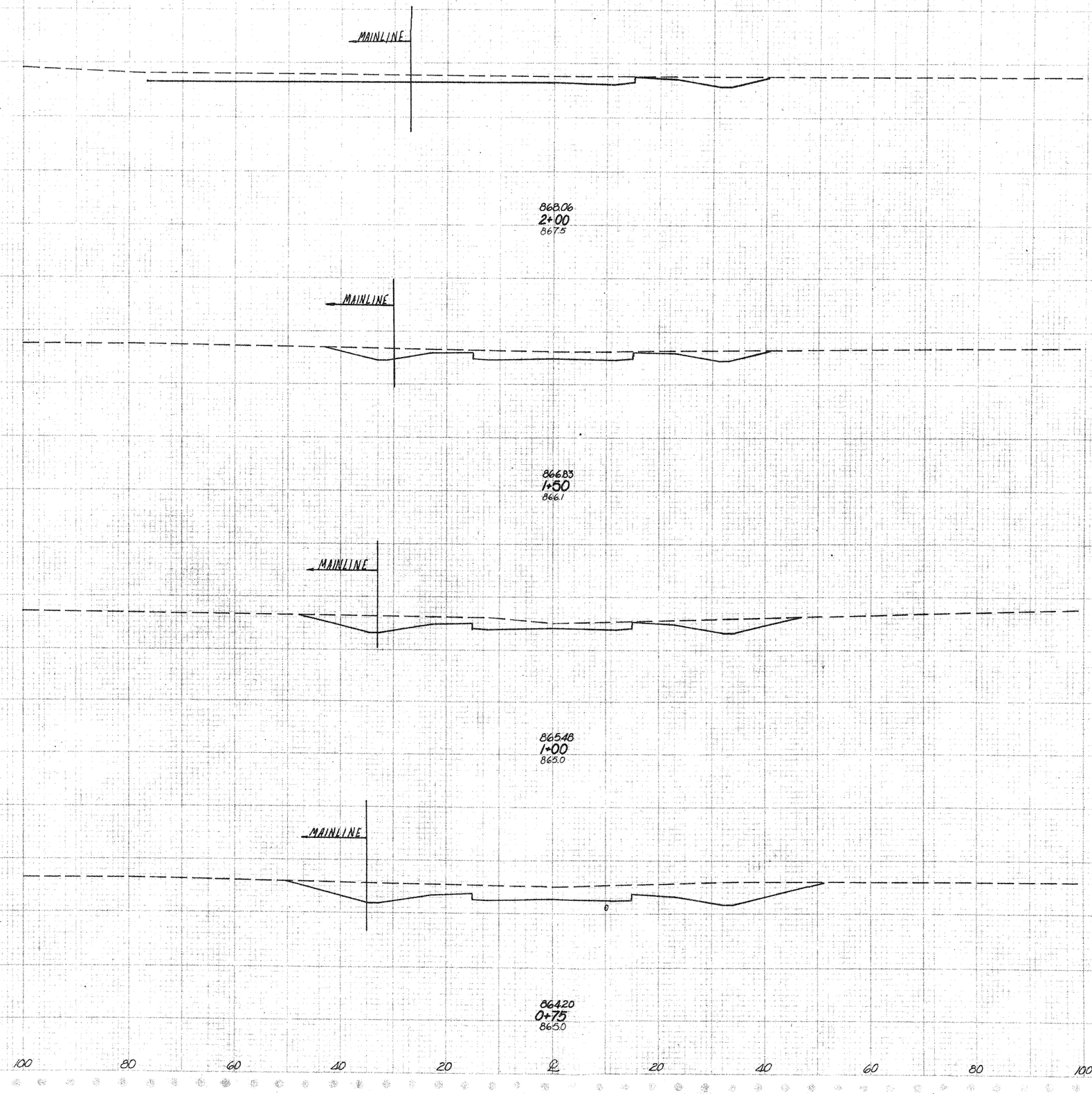
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

HOWELL DRIVE

OHIO

321
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 860 | 92 | | | |
| | | | 186 | |
| 870 | 109 | | | |
| 860 | | | | |
| | | | 238 | |
| 870 | 148 | | | |
| 860 | | | | |
| | | | 187 | |
| 870 | | 255 | | |
| 860 | | | | |

BRYN MAWR EXTENSION

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

322
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

P.C. 280+05.00
LINE-A
P.C. STA. 284+47.56 LINE-E
P.C. STA. 283+89.68 SURVEY ℄
P.T. STA. 283+55.00 LINE-A
284 SURVEY ℄
LINE "E"
BEGIN T-35 10+76.80
℄ HOWELL DR.
P.O.C. STA. 274+82.30 LINE B =
P.O.T. STA. 10+18.10 HOWELL DR.
274+55.04 P.C.C.
P.O.T. STA. 274+00 LINE A =
P.O.T. STA. 9+38.22 HOWELL DR.
P.T. STA. 273+38.73 LINE-A
LINE-B
LINE-A
12' LT. P.O.T. STA. 270+00.36 LINE-AB =
P.C. STA. 270+86.63 LINE-B
LINE-AB
12' RT. P.O.T. STA. 267+72.36 LINE-AB
P.C. STA. 267+72.36 LINE-A

STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT

(1) T-31 BITUMINOUS SURFACE TREATMENT
(2) I-18 STABILIZED CRUSHED AGGREGATE SHOULDER
(3) T-71 REINFORCED P.C.C. PAVEMENT
(4) T-35 ASPHALTIC CONCRETE PAVEMENT
(5) I-12 SPECIAL CONCRETE CURB

S.R. 512 INTERCHANGE LINES A, AB, & B PAVEMENT DETAILS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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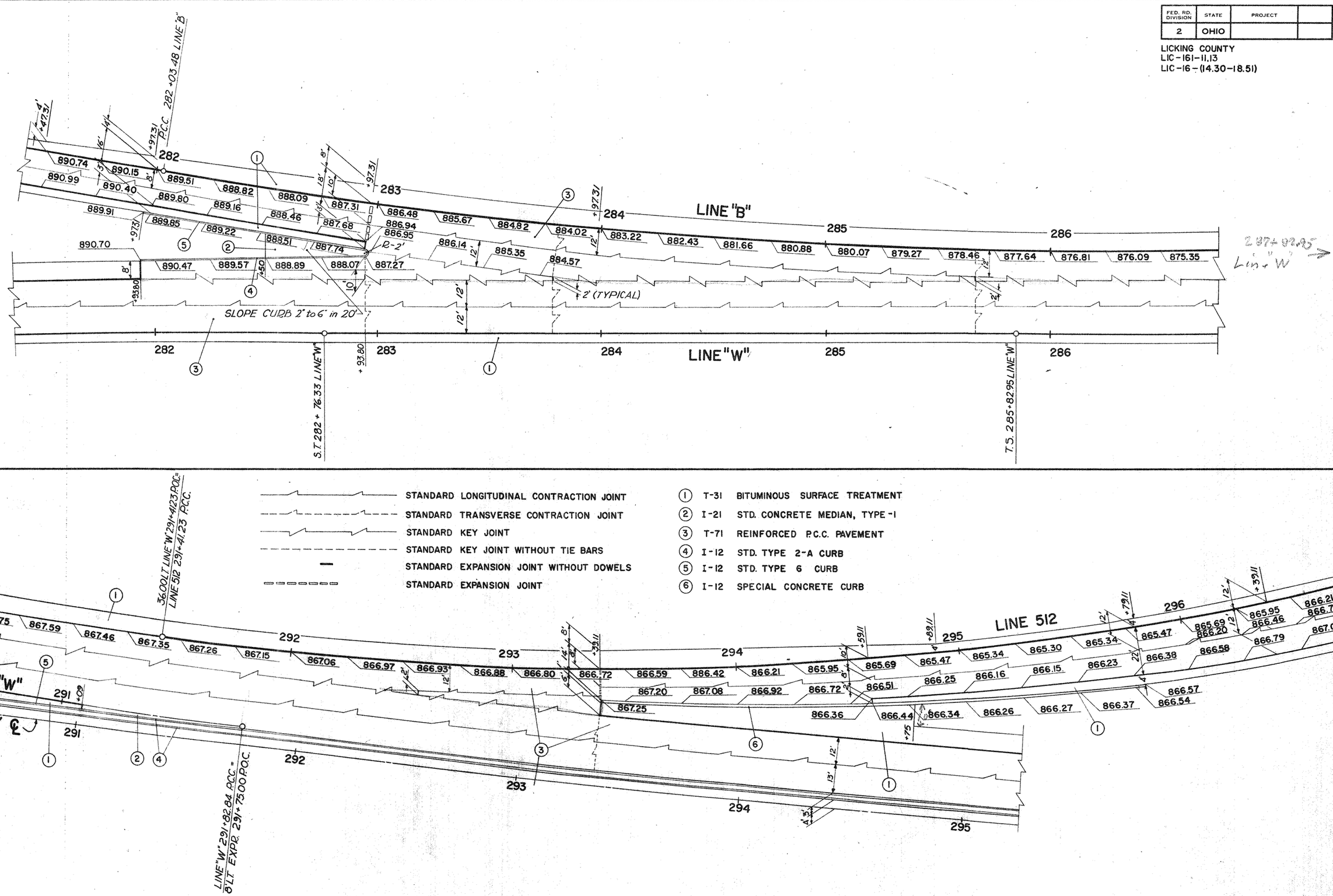
466

LICKING COUNTY
LIC-161-11,13
LIC-16-(14.30-18.51)




STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT

(1) T-31 BITUMINOUS SURFACE TREATMENT
(2) I-21 STD. CONCRETE MEDIAN, TYPE-1
(3) T-71 REINFORCED P.C.C. PAVEMENT
(4) I-12 STD. TYPE 2-A CURB
(5) I-12 STD. TYPE 6 CURB
(6) I-12 SPECIAL CONCRETE CURB




S.R. 512 INTERCHANGE LINES 512 & "B" PAVEMENT DETAILS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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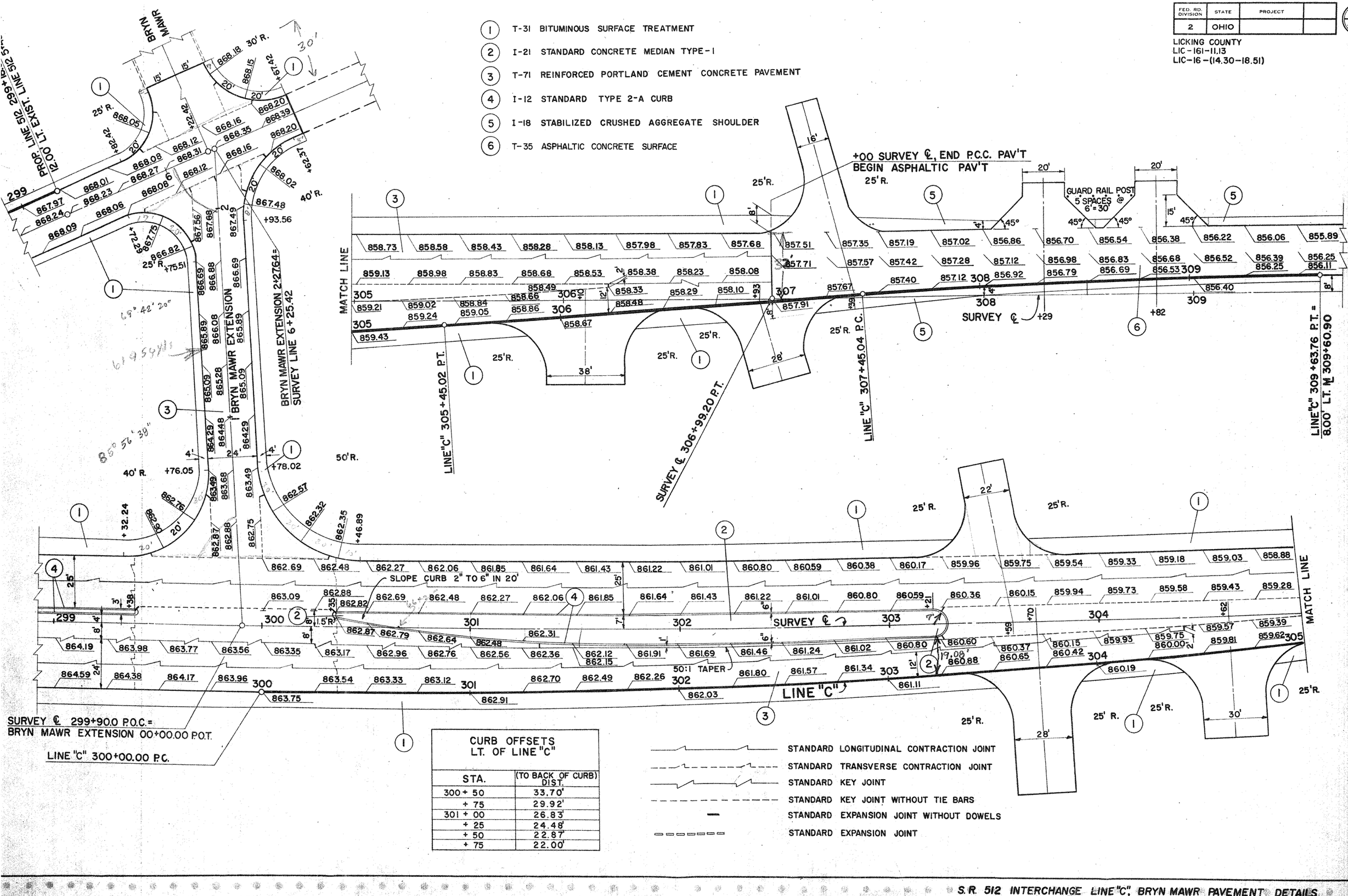
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

(1) T-31 BITUMINOUS SURFACE TREATMENT
(2) I-21 STANDARD CONCRETE MEDIAN TYPE-1
(3) T-71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(4) I-12 STANDARD TYPE 2-A CURB
(5) I-18 STABILIZED CRUSHED AGGREGATE SHOULDER
(6) T-35 ASPHALTIC CONCRETE SURFACE




| CURB OFFSETS LT. OF LINE "C" | |
|---|---|
| STA. | (TO BACK OF CURB) DIST. |
| 300+50 | 33.70' |
| +75 | 29.92' |
| 301+00 | 26.83' |
| +25 | 24.48' |
| +50 | 22.87' |
| +75 | 22.00' |

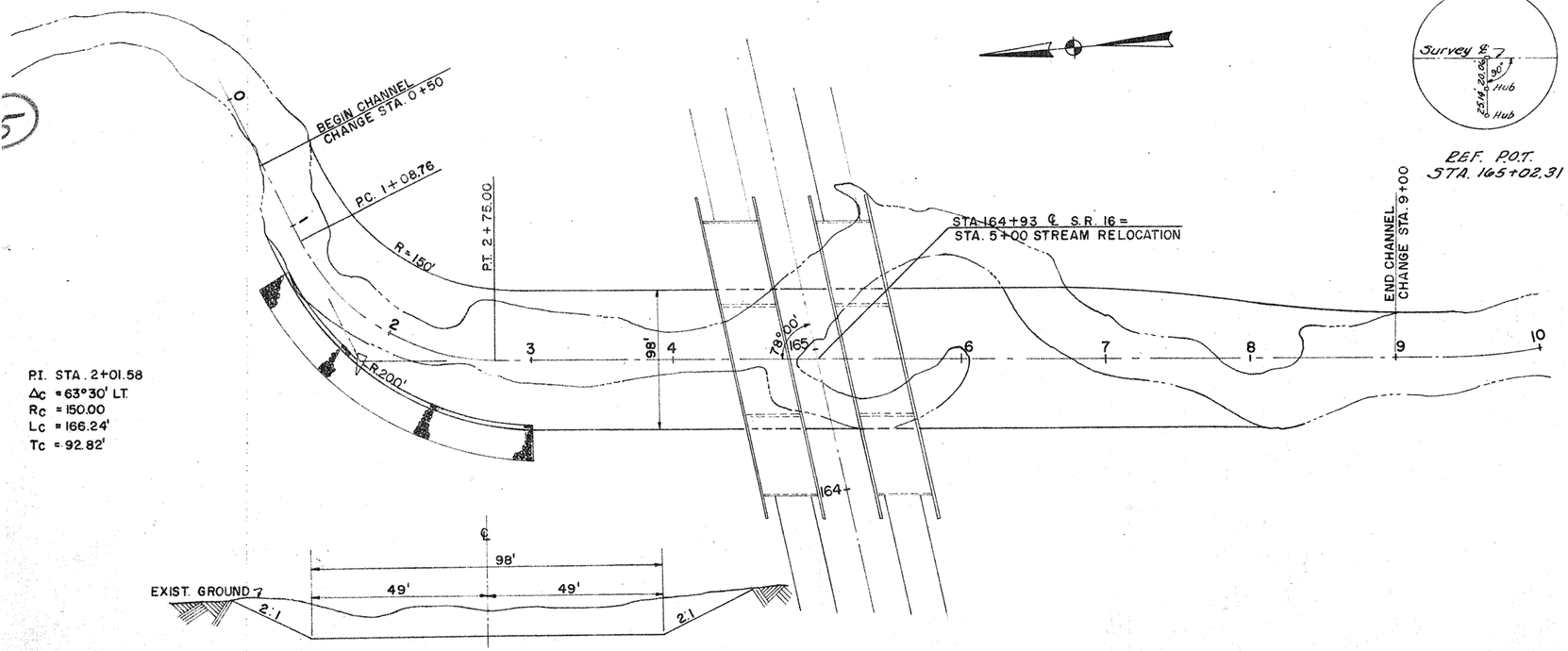
STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT

S.R. 512 INTERCHANGE LINE "C", BRYN MAWR PAVEMENT DETAILS

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SHEET NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

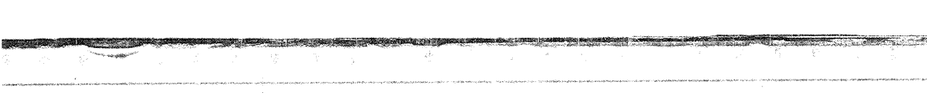
325
466




P.I. STA. 2+01.58
$\Delta c$ = 63°30' LT.
Rc = 150.00
Lc = 166.24'
Tc = 92.82'

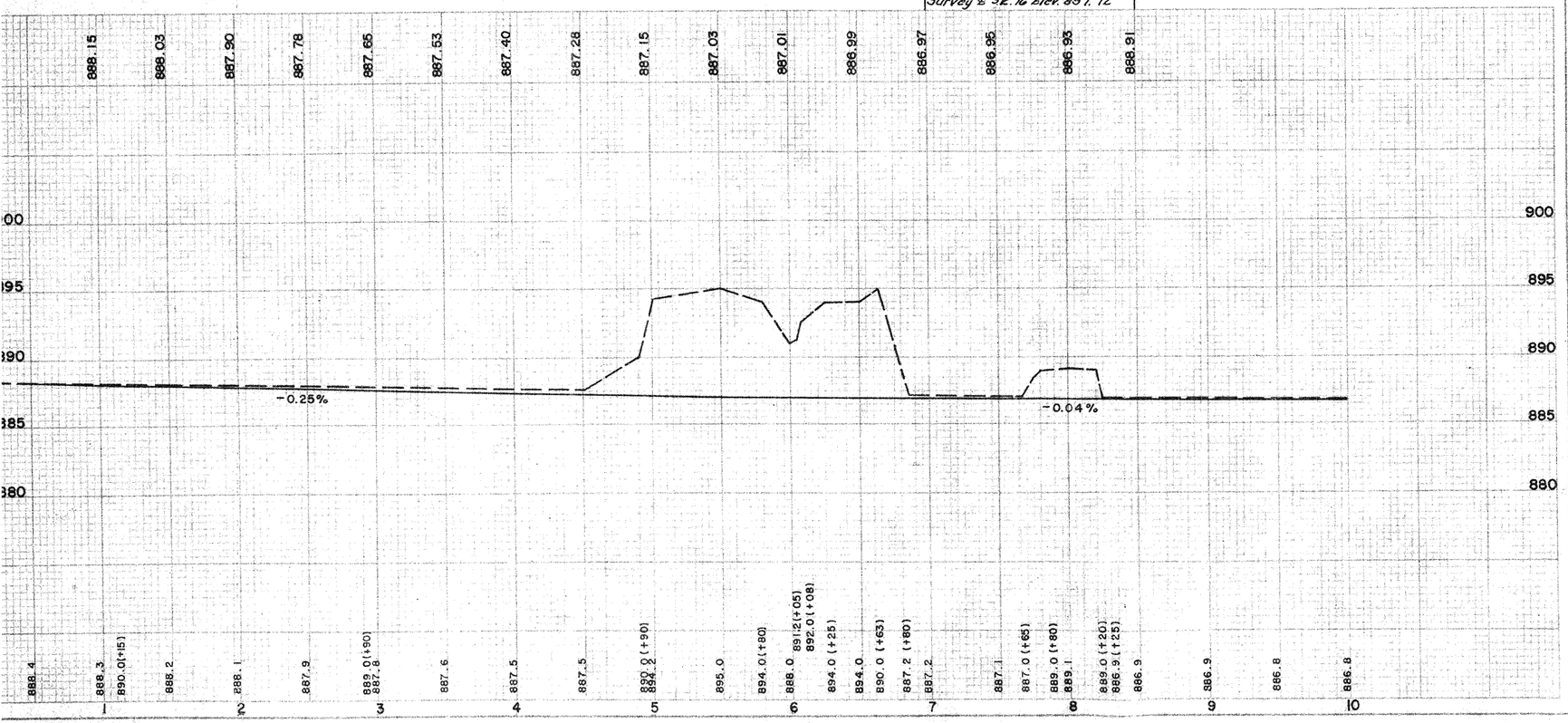



TYPICAL NORMAL
CHANNEL SECTION
SCALE 1" = 20'




REF. P.O.T.
STA. 165+02.31

BENCH MARK
Spike in N. face of 22" Walnut
61.5' Rt. P.O.T. Sta. 164+11.90
Survey ℄ S.R. 16 Elev. 897.72



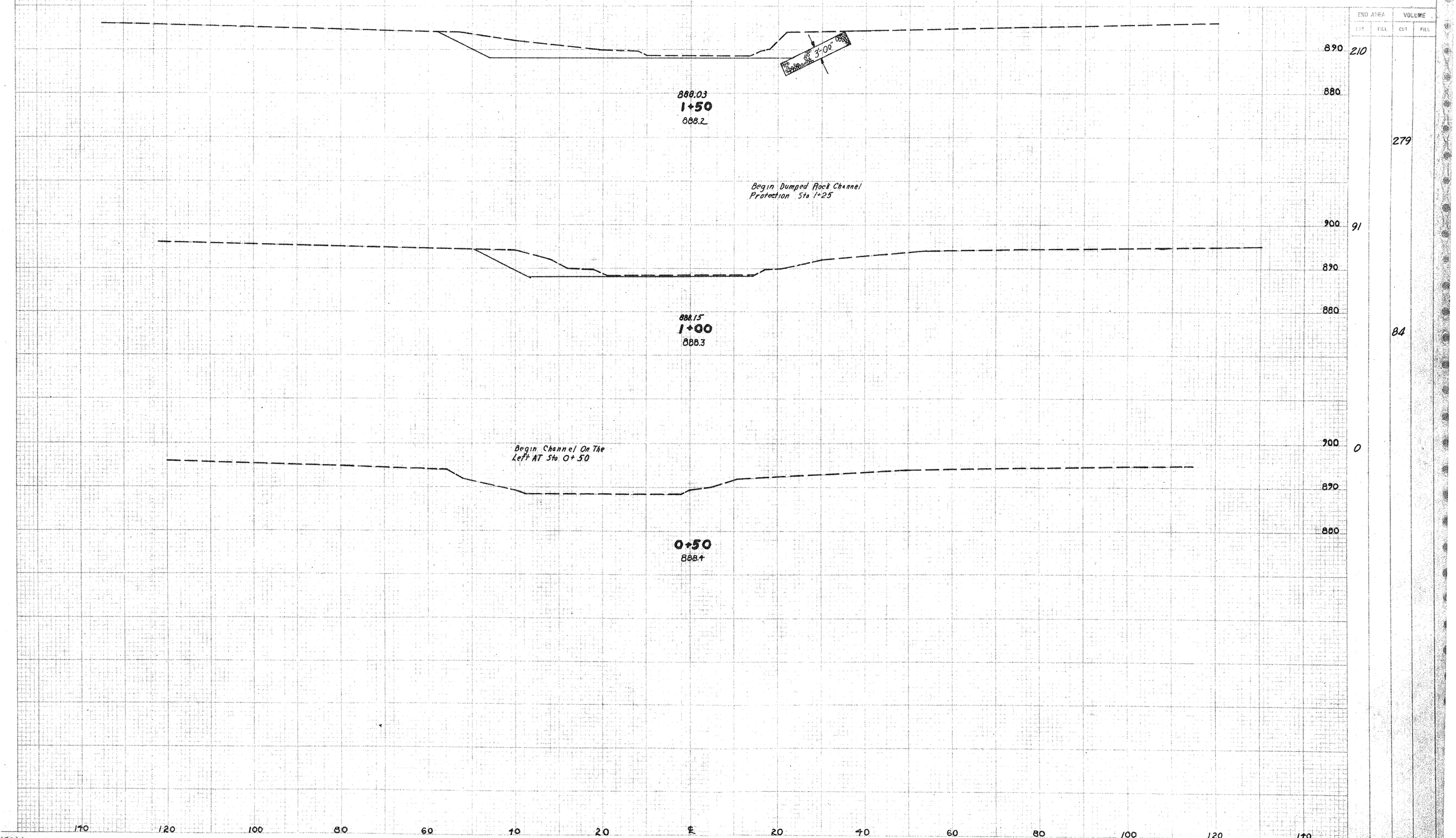

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | E-3 Channel Excavation Cu. Yd. | I-10 Dumped Rock Channel Protection Cu. Yd. |
|---|---|---|---|---|
| | 0+50 ~ 9+00 | | 10,688 | 692 |
| | 1+25 ~ 3+00 | Rt. | | 692 |
| TOTALS Transferred to Sheet No. - 4.14 | | | 10,688 | 692 |

RACCOON CREEK CHANNEL RELOCATION STA. 1+00 TO STA. 10+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




RACCOON CREEK CHANNEL RELOCATION STA. 0+50 TO STA. 1+50

OHIO

327
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

887.53
**3+50**
887.6

887.65
**3+00**
887.8

End Dumped Rock Channel
Protection Sta 3+00

3.00'

887.78
**2+50**
887.9

887.90
**2+00**
888.1

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 890 | 365 | | | |
| 880 | | | 670 | |
| 900 | 359 | | | |
| 890 | | | | |
| 880 | | | 684 | |
| 900 | 365 | | | |
| 890 | | | | |
| 880 | | | 654 | |
| 900 | 326 | | | |
| 890 | | | | |
| 880 | | | 469 | |

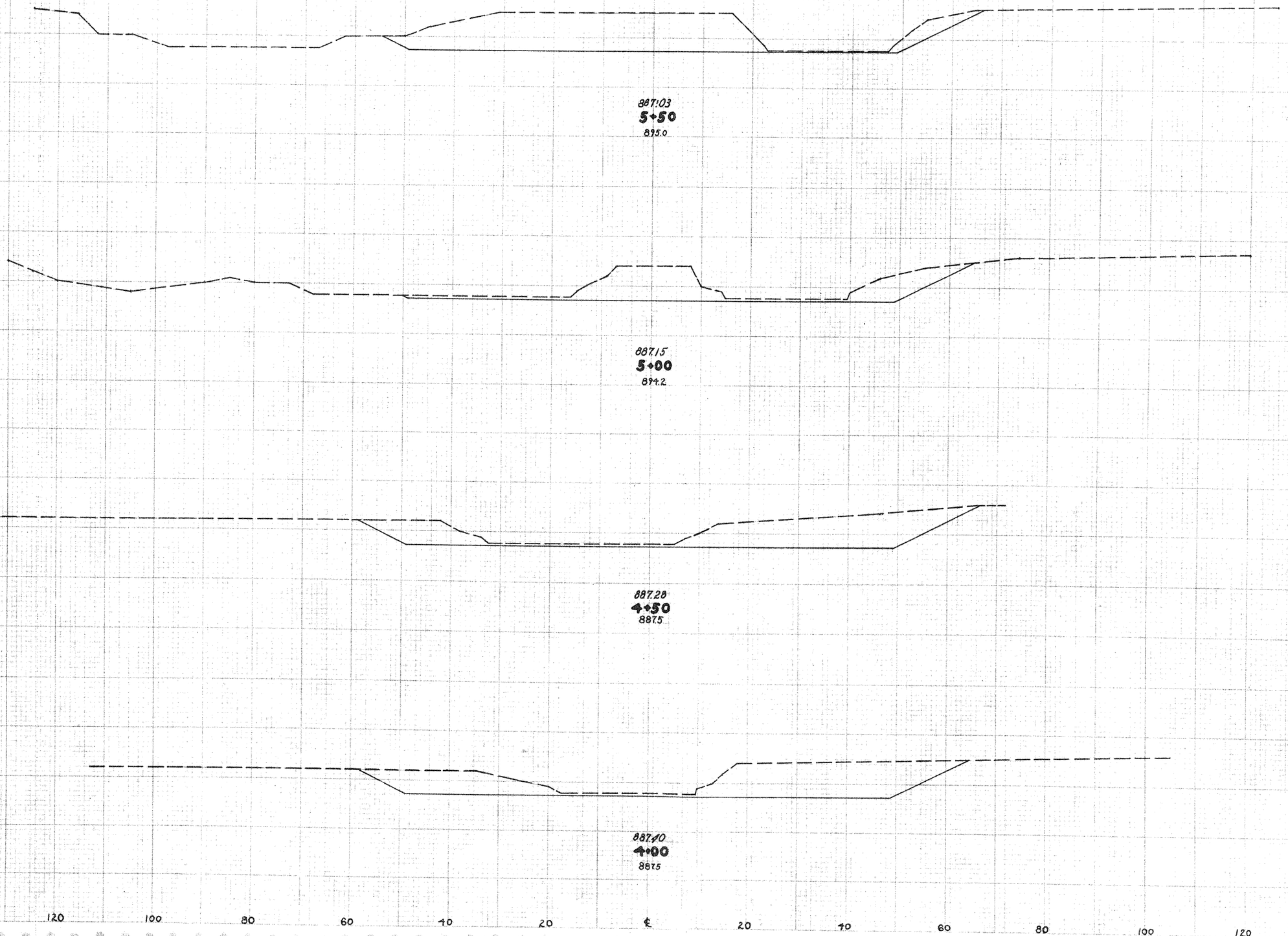
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RACCOON CREEK CHANNEL RELOCATION STA. 2+00 TO STA. 3+50

STATE OHIO

328
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

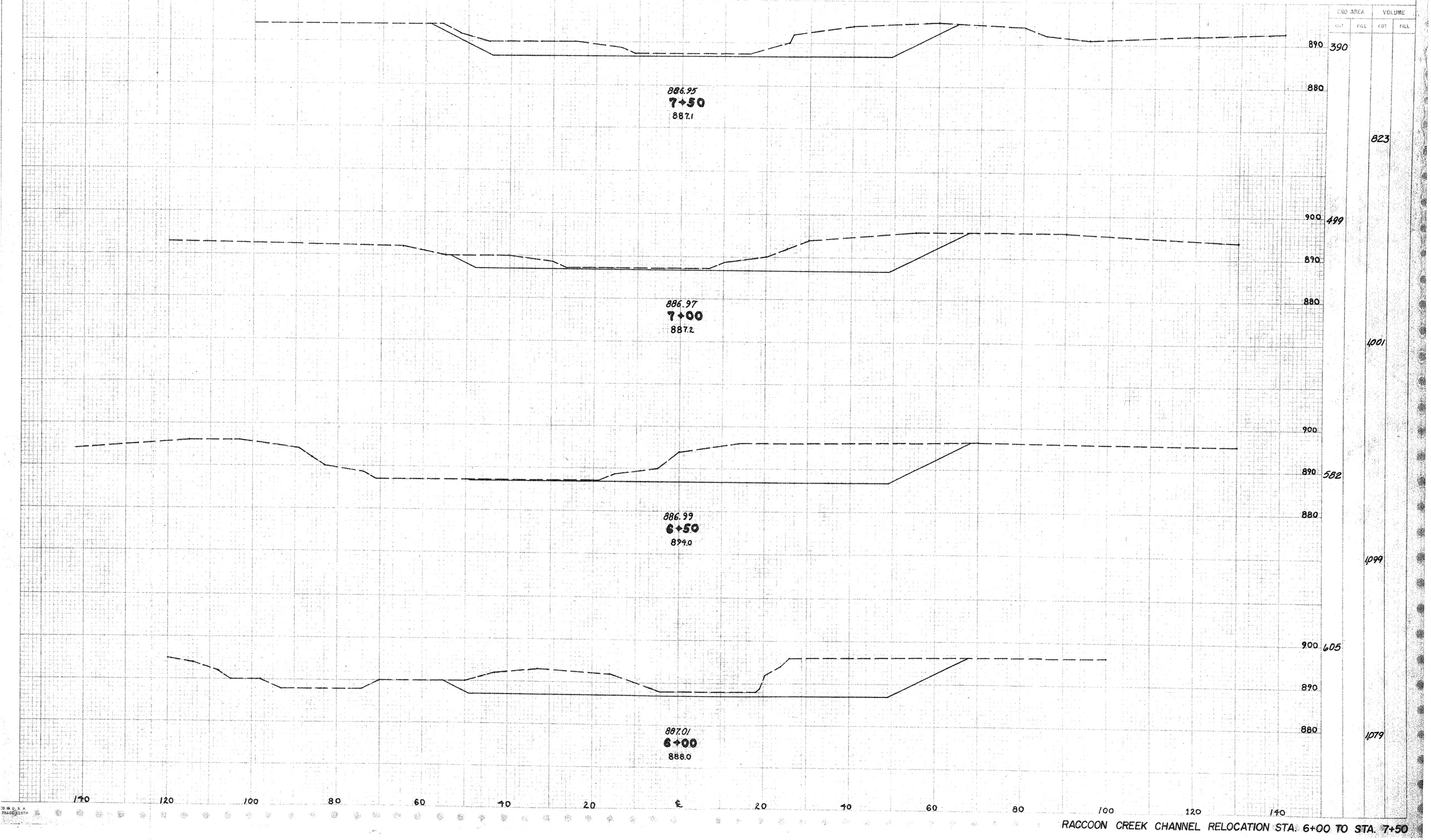



| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 890 | 560 | | | |
| 880 | | | 785 | |
| 900 | 268 | | | |
| 890 | | | | |
| 880 | | | 656 | |
| 900 | 392 | | | |
| 890 | | | | |
| 880 | | | 844 | |
| 900 | 469 | | | |
| 890 | | | | |
| 880 | | | 794 | |

RACCOON CREEK CHANNEL RELOCATION STA. 4+00 TO STA 5+50

| FED. RD. DIVISION | STATE | PROJECT |
|---|---|---|
| 2 | OHIO | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 390 | | | |
| | | 823 | |
| 499 | | | |
| | | 1,001 | |
| 582 | | | |
| | | 1,099 | |
| 605 | | | |
| | | 1,079 | |

RACCOON CREEK CHANNEL RELOCATION STA. 6+00 TO STA. 7+50

STATE OHIO

330
446

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| END AREA | | VOLUME | |
|---|---|---|---|
| CUT | FILL | CUT | FILL |
| 0 | | 63 | |
| 68 | | 203 | |
| 151 | | 501 | |

9+50
886.8

9+00
886.9

886.91
8+50
886.9

886.93
8+00
889.1

RACCOON CREEK CHANNEL RELOCATION STA. 8+00 TO STA. 9+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SHEET NO. | STATE | | |
|---|---|---|---|
| 2 | OHIO | | |

331/466

RACCOON

S.R. 161

P.C. Sta. 18+08.45

P.I. Sta. 19+13.80
$\Delta_c$ 59°20'15"
$D_c$ 30°58"
$R_c$ 185.00'
$T_c$ 105.38'
$L_c$ 191.58'

P.T. Sta. 20+00 Channel = 165' Lt. P.O.T. Sta. 20+00 Survey ℄

Existing

CULTIVATED FIELD

Ohio Oil Co.

21 22 S 75°07'15"E 23 24 25 26 27 28

Private Gravel Drive

Fill Old Channel And Grade To Drain

CULTIVATED FIELD

BRUSH

CREEK

Ohio Oil Co.

18 20 22 24 26 28

S 75°07'15"E SURVEY ℄

903.00 +08 902.93 902.85 902.77 902.69 902.61 902.53 902.45 902.37 902.30 902.22

915 910 905 900

-0.079%

915 910 905 900

903.1 +08 903.0 902.9 913.2 913.0 912.9 915.2 +81 914.9 915.0 914.2 914.8 +27 914.5 +35 914.3 915.1 915.1 913.5 913.8 915.2 915.4 914.9 916.2 916.0 915.8 915.2 915.0

18 19 20 21 22 23 24 25 26 27 28

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE |
|---|---|---|
| | | |

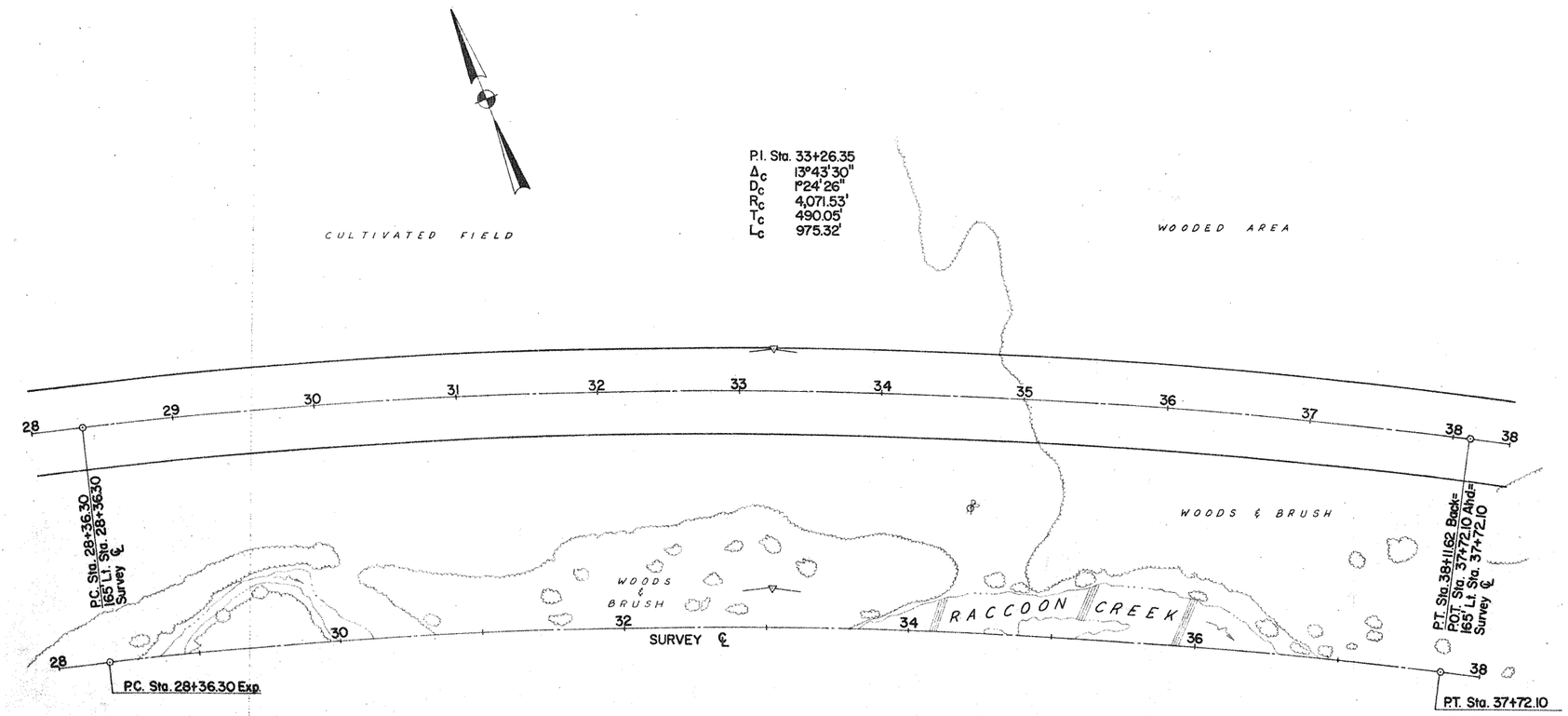
TOTALS

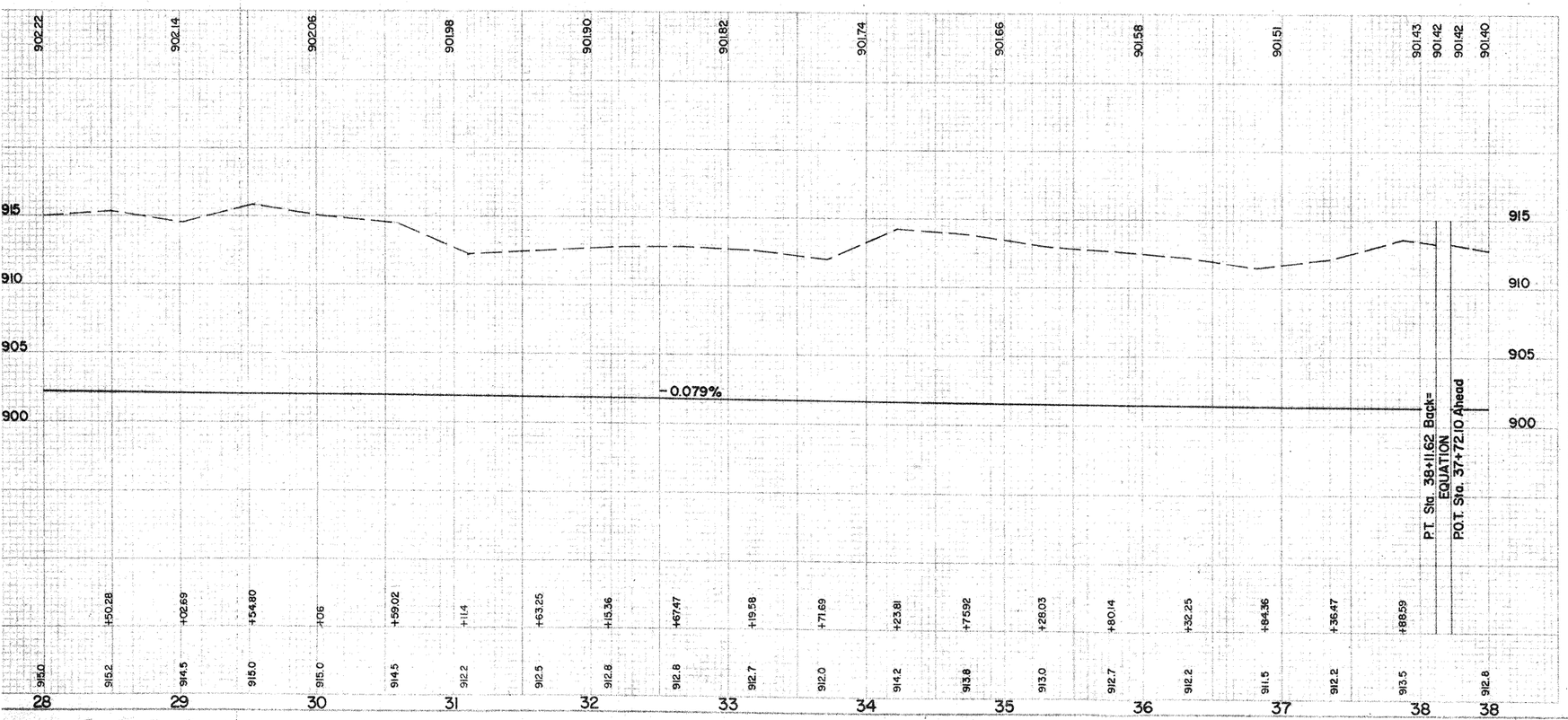
RACCOON CREEK CHANNEL RELOCATION PLAN & PROFILE STA. 18+00 TO STA. 28+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | | | | |
|---|---|---|---|---|
| | | | | |
| 2 | OHIO | | | |

332
466



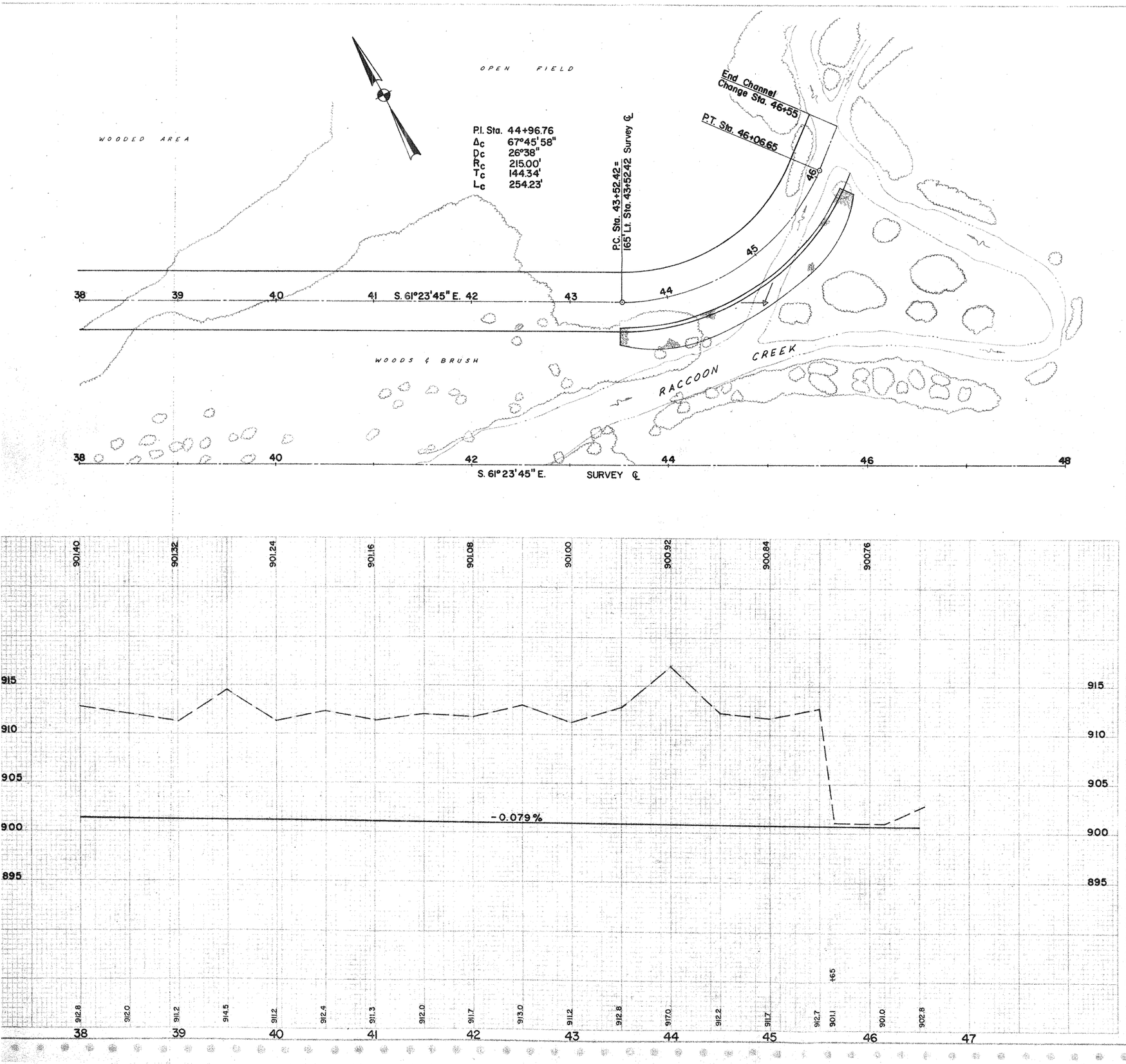

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE |
|---|---|---|
| | | |
| | | |
| | | |

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | | | |
|---|---|---|---|
| 2 | OHIO | | |

333
466




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | E-3 Channel Excavation Cu. Yd. | F-10 Dumped Rock Channel Protection Cu. Yd. | E-1 Roadway Excavation Cu. Yd. |
|---|---|---|---|---|---|
| | 18+08 - 20+50 | | 4,629 | | |
| | 18+25 - 20+00 | Rt. | | 630 | |
| | 43+50 - 46+00 | Rt. | | 855 | |
| | 20+50 - 44+00 | | | | 86,408 |
| | 44+00 - 46+55 | | 7,156 | | |
| TOTALS | Transferred to Sheet No. - 374 | | 11,785 | 1,485 | 86,408 |

RACCOON CREEK CHANNEL RELOCATION PLAN & PROFILE STA.38+00 TO STA.47+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

E-3 | E-1

3'-0"

902.85
20+00
912.9

End Dump Rock Channel
Protection Station 20+00

E-3 | E-1

3'-0"

902.93
19+00
913.2

See Main Line Cross Sections
for E-1 Quantities

E-3 | E-1

8'-0"

12'-0"

3'-0"

902.97
18+50
902.9

Begin Dumped Rock Chanel
Protection Station 18+25

18+08
903.0

910 824
900
1244
920
910 520
900
593
920
910 120
900
93
920
910 0
900

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RACCOON CREEK CHANNEL RELOCATION STA. 18+08 TO STA. 20+00

335
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

℄ Channel Change

M

910

902.73
21+50
914.2

M

910

902.77
21+00
913.0

M

910

902.78
20+81
914.0

M

910

6'0"-0"
30'-0"
30'-0"

902.81
20+50
913.2

End E-3 Channel Excavation
Begin E-1 Roadway Excavation
Sta. 20+50

21+50
910.4

910 964

1809

910 990

21+00
909.9

698

910 994

20+81
907.5

12'-0
Shoulder

℄ Pavement

Future Construction

Bench Slope ½"/ft

2018

E-1 910 1,024
E-3 1,024

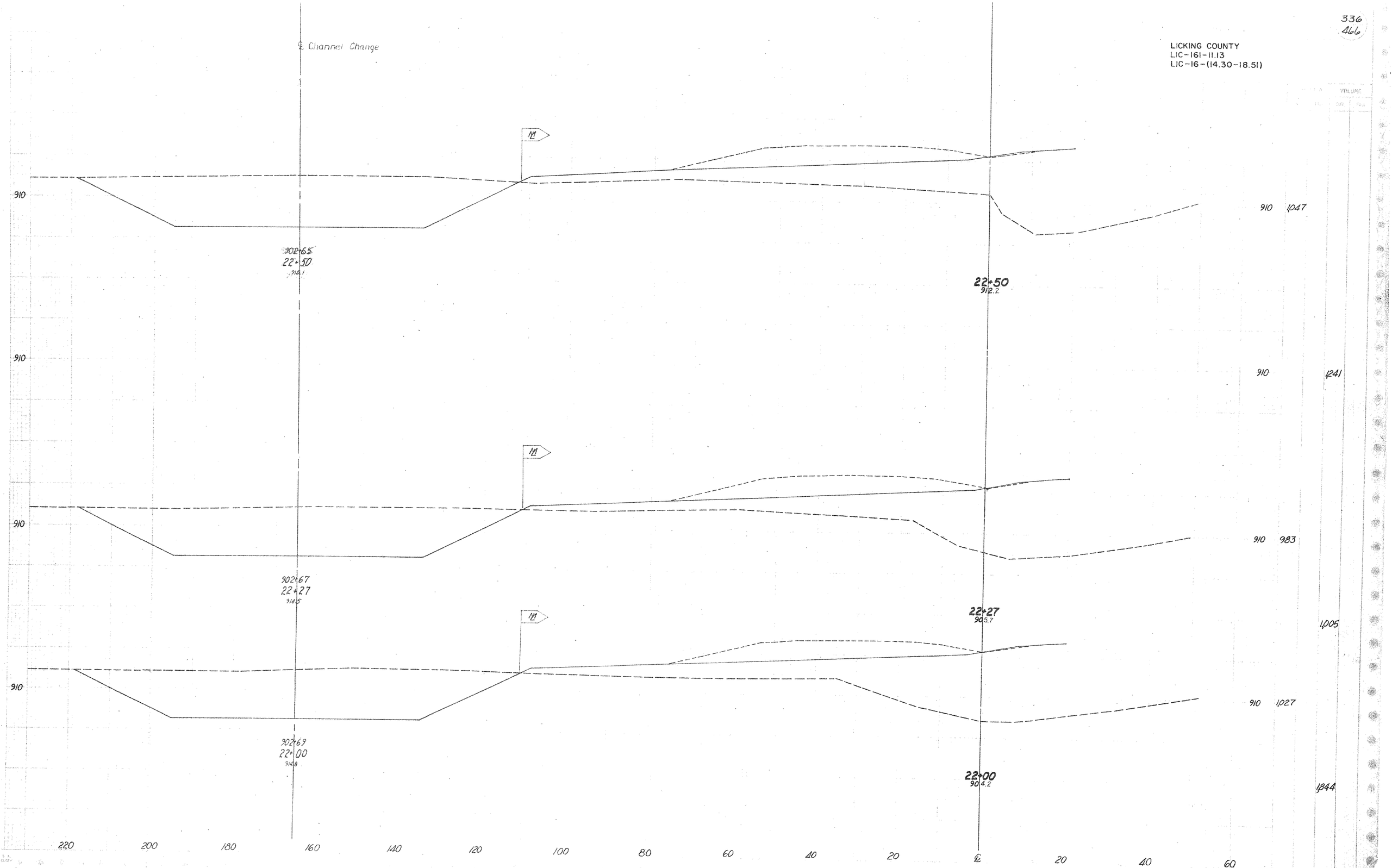
20+50
913.6

2100

220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60

RACCOON CREEK CHANNEL RELOCATION STA. 20+50 TO STA. 21+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




RACCOON CREEK CHANNEL RELOCATION STA. 22+00 TO STA. 22+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

℄ Channel Change

M

910

902.49
24+50
915.2

910 1,093

M

24+50
913.8

1,888

910

902.53
24+00
913.8

2:1

115' Lt. Sta. 24+00 ℄ Survey
Outlet 42" S-27
See Sheet No 376

910 946

M

24+00
913.4

1,711

910

902.57
23+50
913.1

910 902

M

23+50
913.5

1,794

910

902.61
23+00
913.1

910 1035

23+00
913.7

1,928

220 200 180 ℄ 160 140 120 100 80 60 40 20 ℄ 20 40 60

RACCOON CREEK CHANNEL RELOCATION STA. 23+00 TO STA. 24+50

℄ Channel Change

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

910

902.33
26+50
916.2

26+50
916.9

910 1149

910

902.37
26+00
916.2

26+00
916.9

910 1132

910

902.41
25+50
916.9

25+50
912.7

910 1093

910

902.45
25+00
913.5

25+00
913.5

910 1122

2100

2048

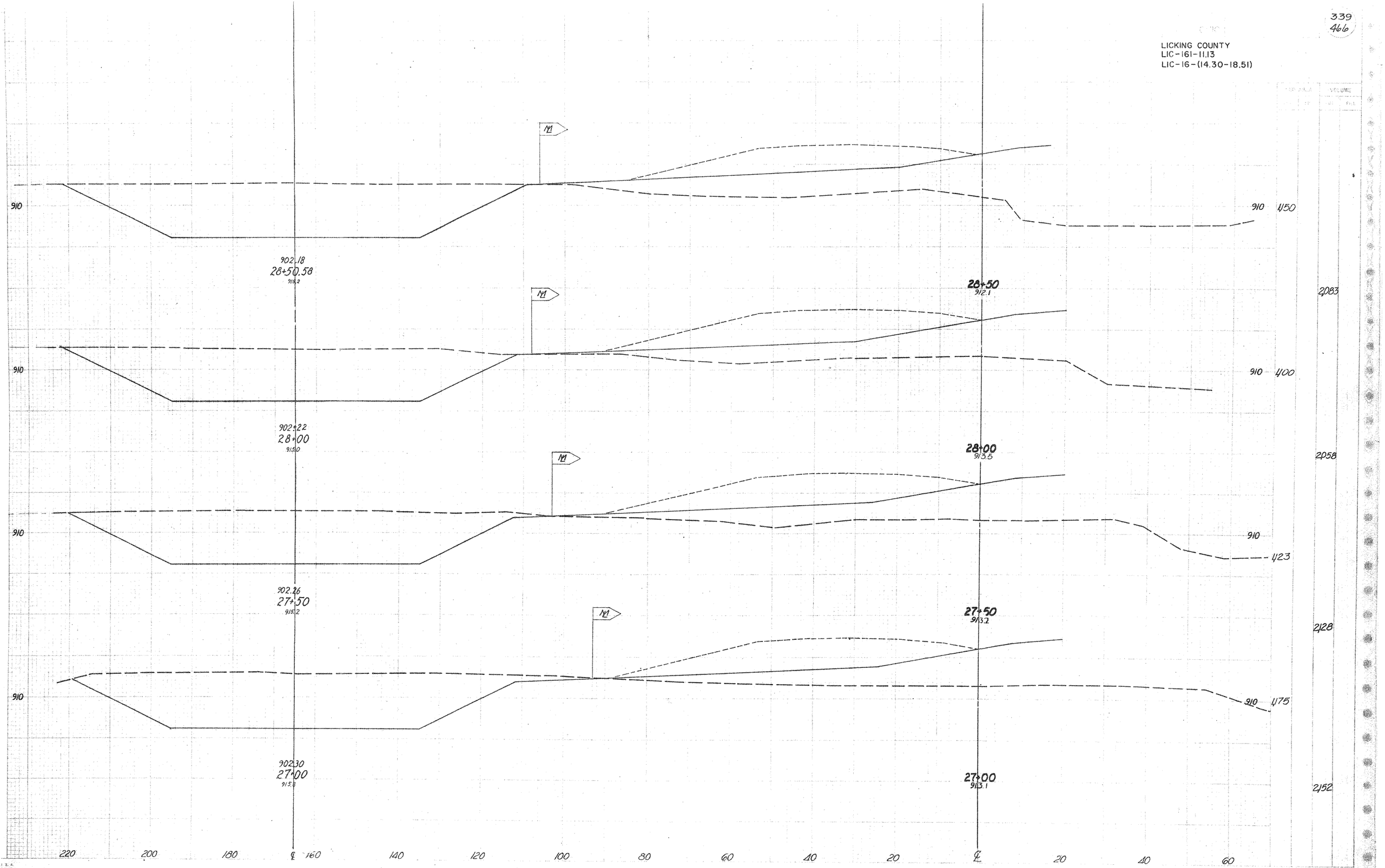
2051

2051

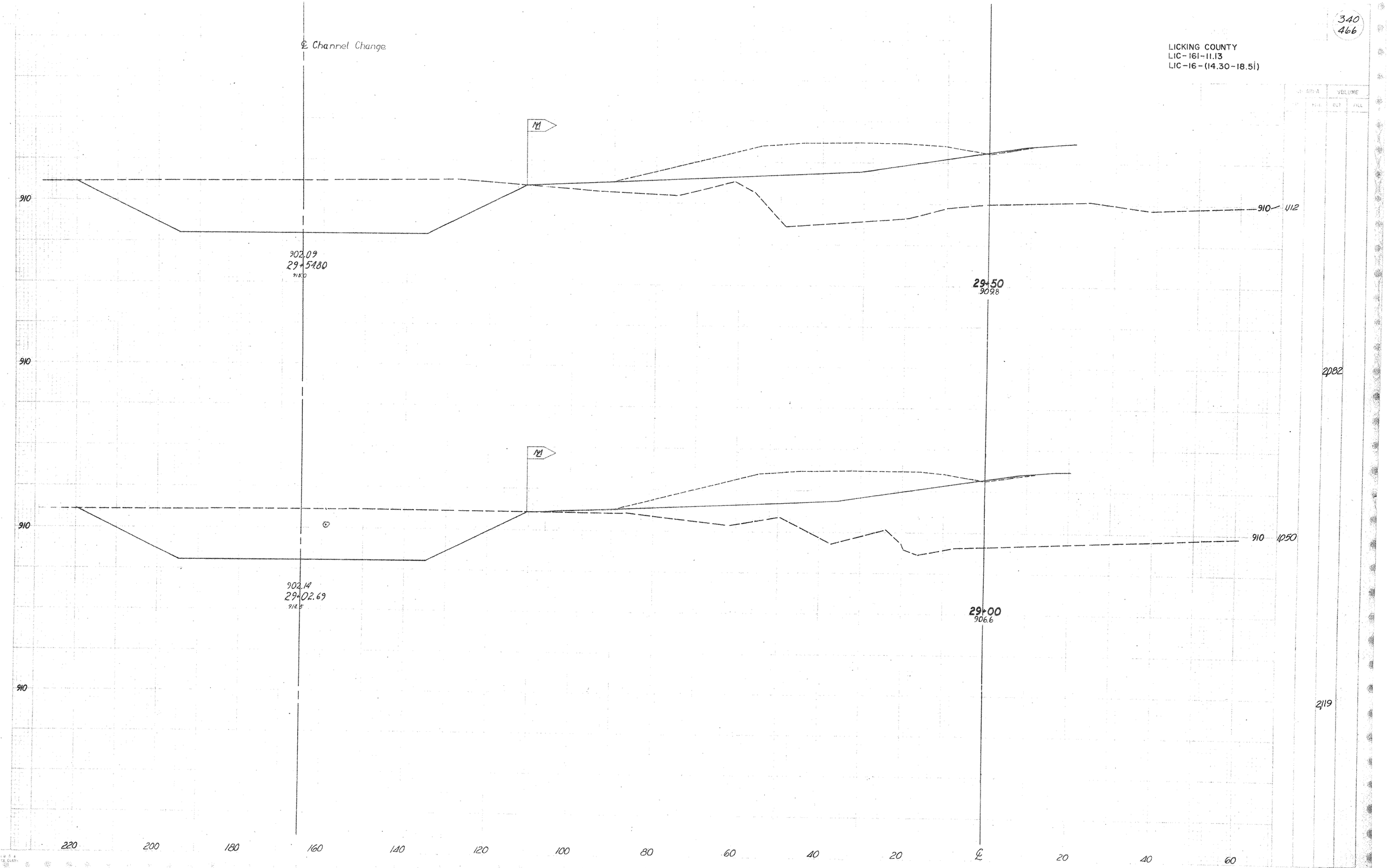
220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60

RACCOON CREEK CHANNEL RELOCATION STA. 25+00 TO STA. 26+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

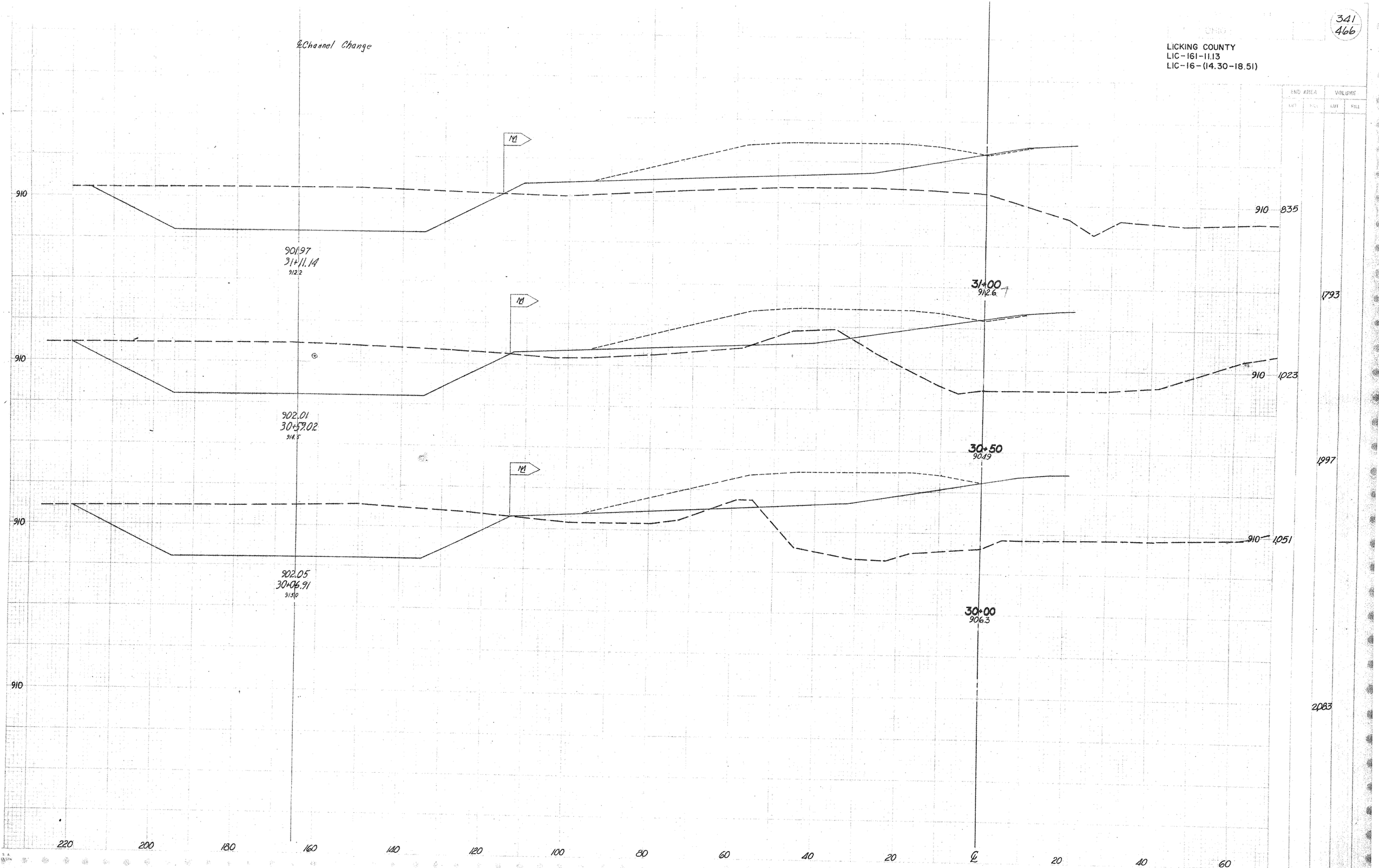



RACCOON CREEK CHANNEL RELOCATION STA. 27+00 TO STA. 28+50




RACCOON CREEK CHANNEL RELOCATION STA. 29+00 TO STA. 29+50

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




RACCOON CREEK CHANNEL RELOCATION STA. 30+00 TO STA. 31+00

OHIO

342
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

℄ Channel Change

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 892 | | | | |
| 910 | | | 1803 | |
| 910 980 | | | | |
| | | | 1920 | |
| 910 976 | | | | |
| | | | 1847 | |
| 910 942 | | | | |
| | | | 1749 | |
| 910 874 | | | | |
| | | | 1649 | |

910

901.76
33+71.69
9.20

33+50
909.2

910

901.81
33+19.58
9.33

33+00
912.7

910

901.85
32+67.47
9.35

32+50
913.5

910

901.89
32+15.36
9.29

32+00
913.2

910

901.93
31+63.25
9.25

31+50
913.5

220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60

RACCOON CREEK CHANNEL RELOCATION STA. 31+50 TO STA. 33+50

2 OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

℄ Channel Change

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 910 | 952 | | | |
| | | | 1893 | |
| 910 | 1010 | | | |
| | | | 2012 | |
| 910 | 1075 | | | |
| | | | 2022 | |
| 910 | 1020 | | | |
| | | | 1841 | |

901.60
35+80.14
912.7

35+50
906.7

901.64
35+28.03
913.0

35+00
906.1

901.68
34+75.92
913.8

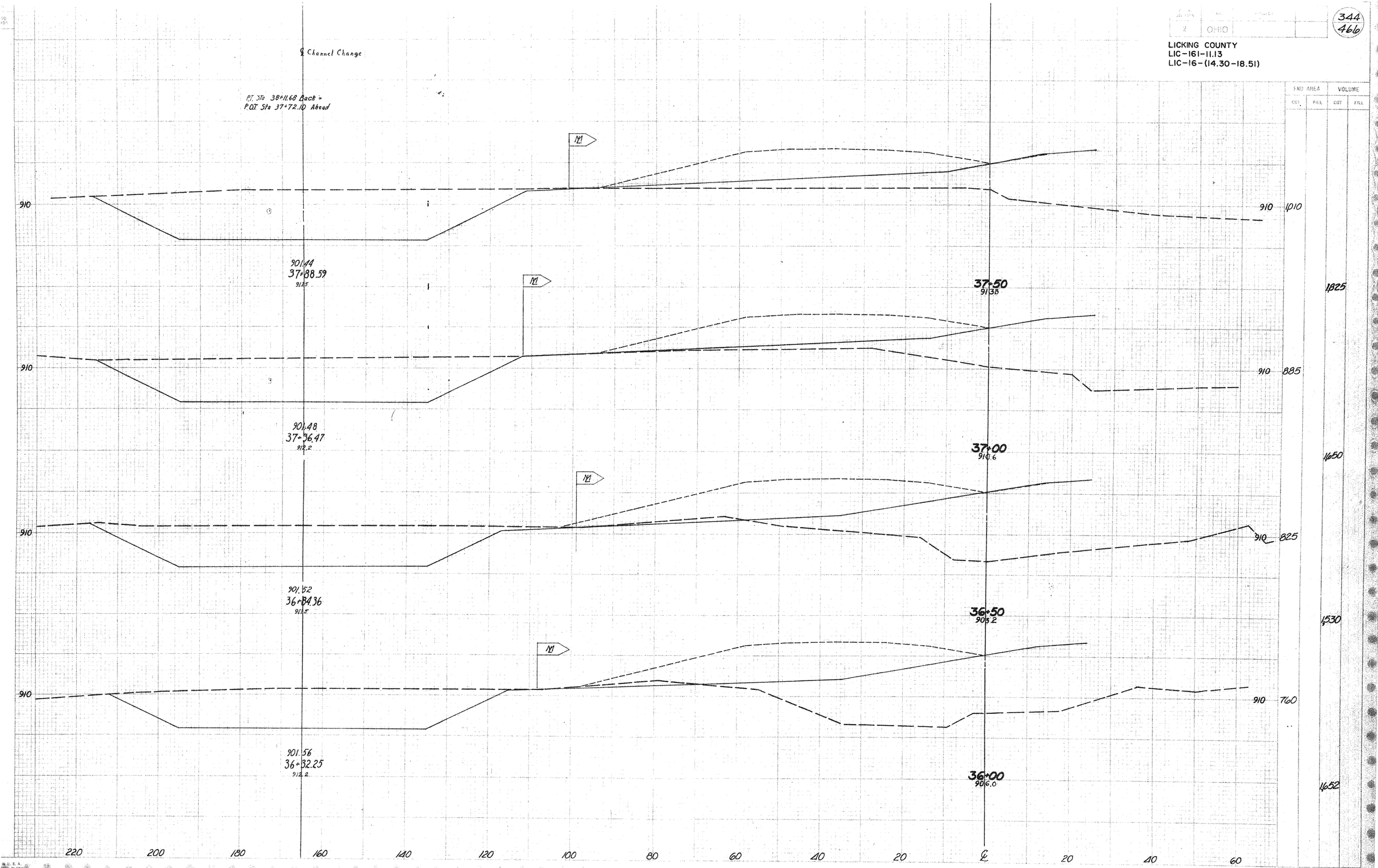
34+50
904.4

901.72
34+23.81
914.2

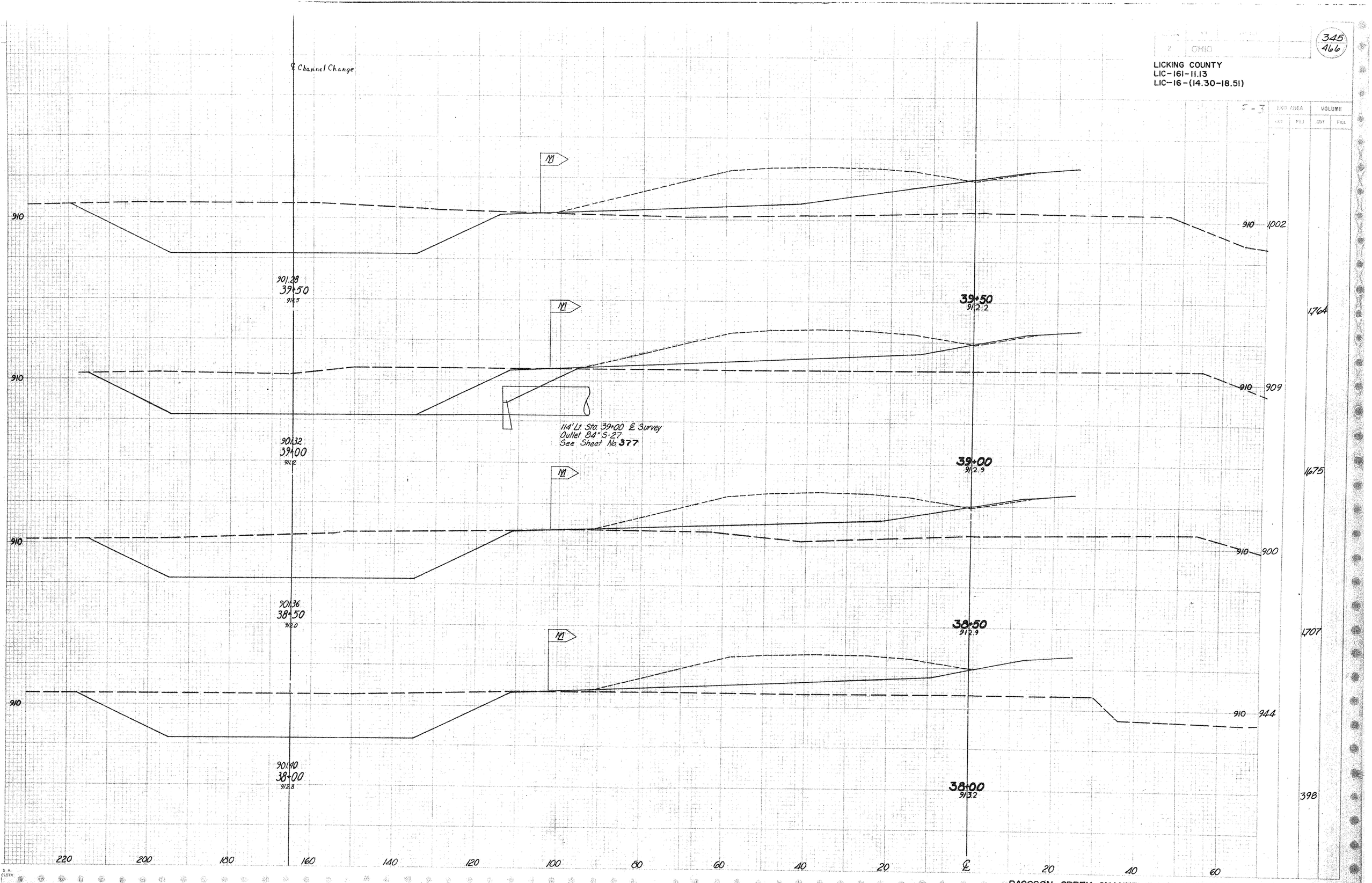
34+00
905.1

220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60

RACCOON CREEK CHANNEL RELOCATION STA. 34+00 TO STA. 35+50




RACCOON CREEK CHANNEL RELOCATION STA. 36+00 TO STA. 37+50




RACCOON CREEK CHANNEL RELOCATION STA. 38+00 TO STA. 39+50

OHIO

346
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

℄ Channel Change

| STA | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 41+50 | 904.1 | | | |
| | | | 1639 | |
| 41+00 | 911.2 | | | |
| | | | 1434 | |
| 40+50 | 911.9 | | | |
| | | | 1604 | |
| 40+00 | 911.9 | | | |
| | | | 1698 | |

910 905

910 865

910 900

910 832

901.12
41+50
913.0

911.4
5.6
905.8

901.16
41+00
911.3

901.20
40+50
913.1

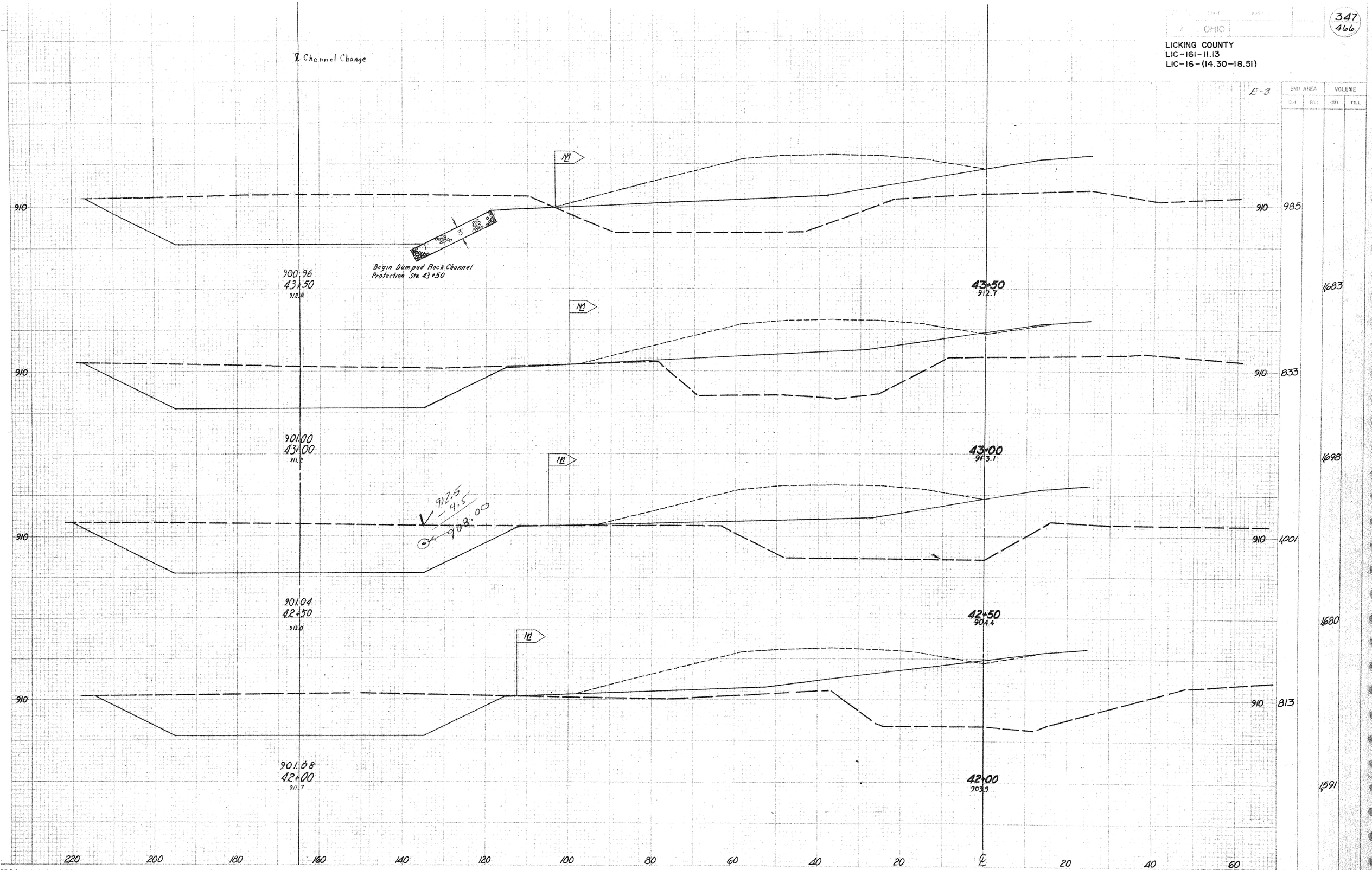
901.24
40+00
911.2

220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60

RACCOON CREEK CHANNEL RELOCATION STA. 40+00 TO STA. 41+50

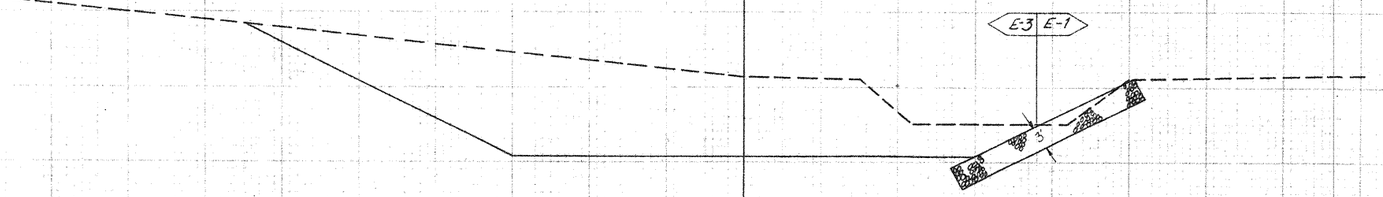
OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

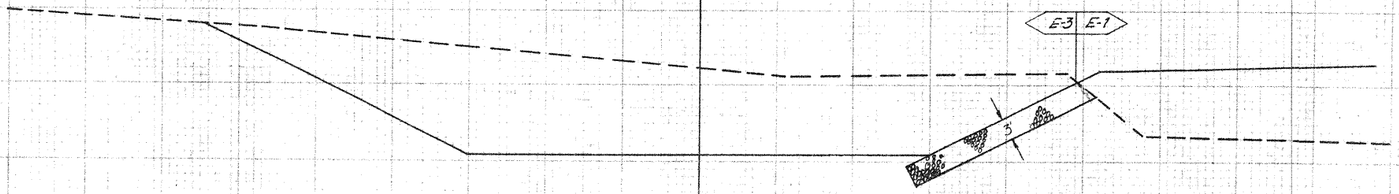



RACCOON CREEK CHANNEL RELOCATION STA. 42+00 TO STA. 43+50

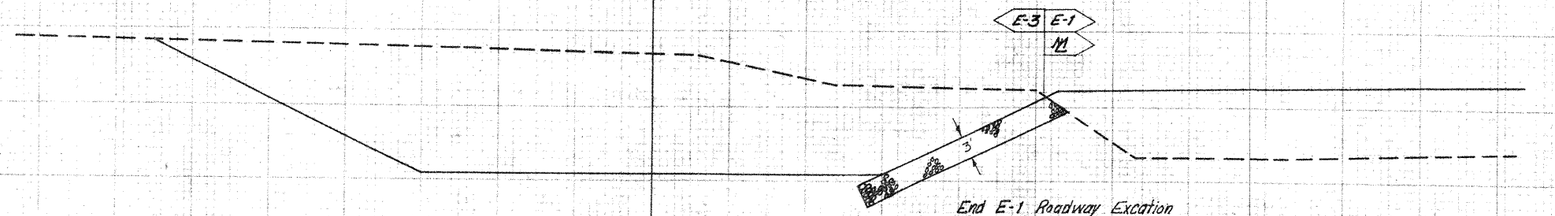
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




900.84
45+00
911.7




900.88
44+50
912.2




End E-1 Roadway Excation
Begin E-3 Channel Excavation
Sta. 44+00

900.92
44+00
917.0

| ℄ E-3 | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 910 | 880 | | | |
| 900 | | | | |
| 890 | | | 1806 | |
| 910 | 1070 | | | |
| 900 | | | | |
| 890 | | | 2241 | |
| E-3 | 1350 | | | |
| E-1 | 1,350 | | | |
| 910 | | | | |
| 900 | | | | |
| 890 | | | 2162 | |

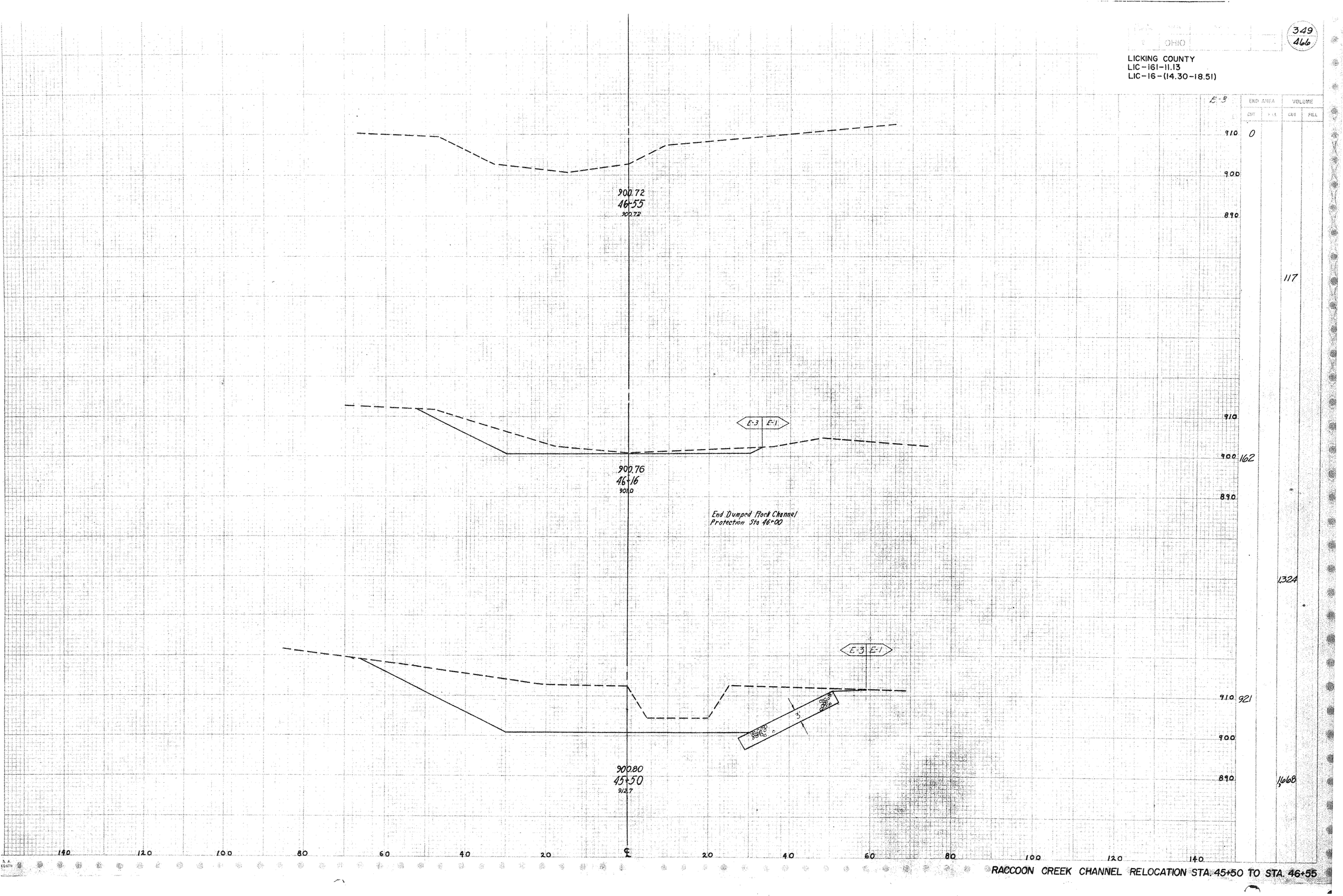
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RACCOON CREEK CHANNEL RELOCATION STA. 44+00 TO STA. 45+00

OHIO

349
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



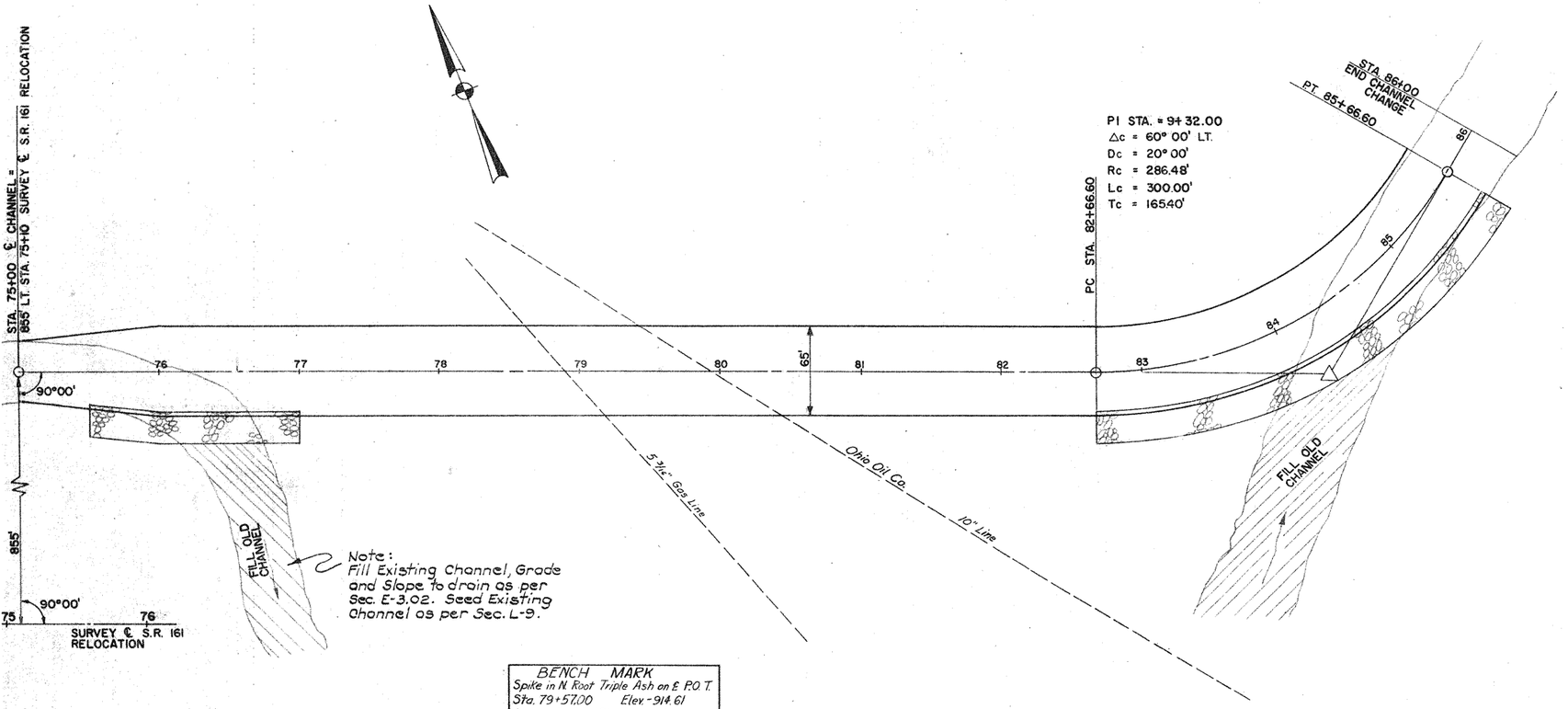

| E-3 | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 910 | 0 | | | |
| 900 | | | 117 | |
| 890 | | | | |
| 910 | | | | |
| 900 | 162 | | | |
| 890 | | | 1,324 | |
| 910 | 921 | | | |
| 900 | | | | |
| 890 | | | 1,668 | |

RACCOON CREEK CHANNEL RELOCATION STA. 45+50 TO STA. 46+55

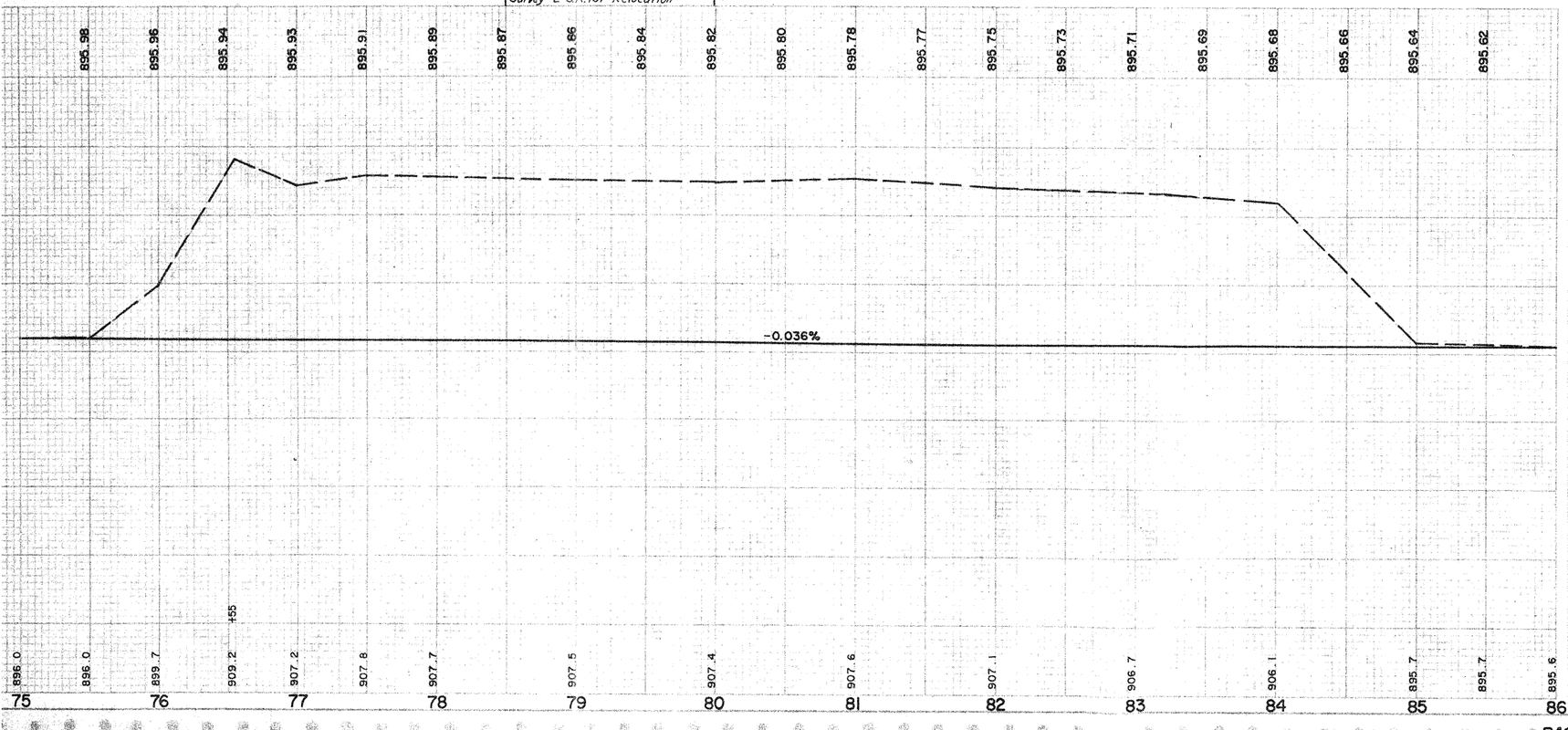
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| DESIGN | DATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

350/466




BENCH MARK
Spike in N. Root Triple Ash on ℄ P.O.T.
Sta. 79+57.00 Elev.-914.61
Survey ℄ S.R. 161 Relocation




ESTIMATED QUANTITIES

| REF. NO. | STATION TO STATION | SIDE | E-3 Channel Excavation cu. Yd. | I-10 Dumped Wet Channel Protection cu. Yd. | E-1 Roadway Excavation cu. Yd. |
|---|---|---|---|---|---|
| | 75+00 - 77+00 | | 3,906 | | |
| | 75+50 - 77+00 | Rt. | | 502 | |
| | 82+66.60 - 85+66.60 | Rt. | | 1134 | |
| | 77+00 - 83+00 | | | | 24,164 |
| | 83+00 - 86+00 | | 6,369 | | |
| TOTALS Transferred to Sheet No. - 37.4 | | | 10,275 | 1636 | 24,164 |

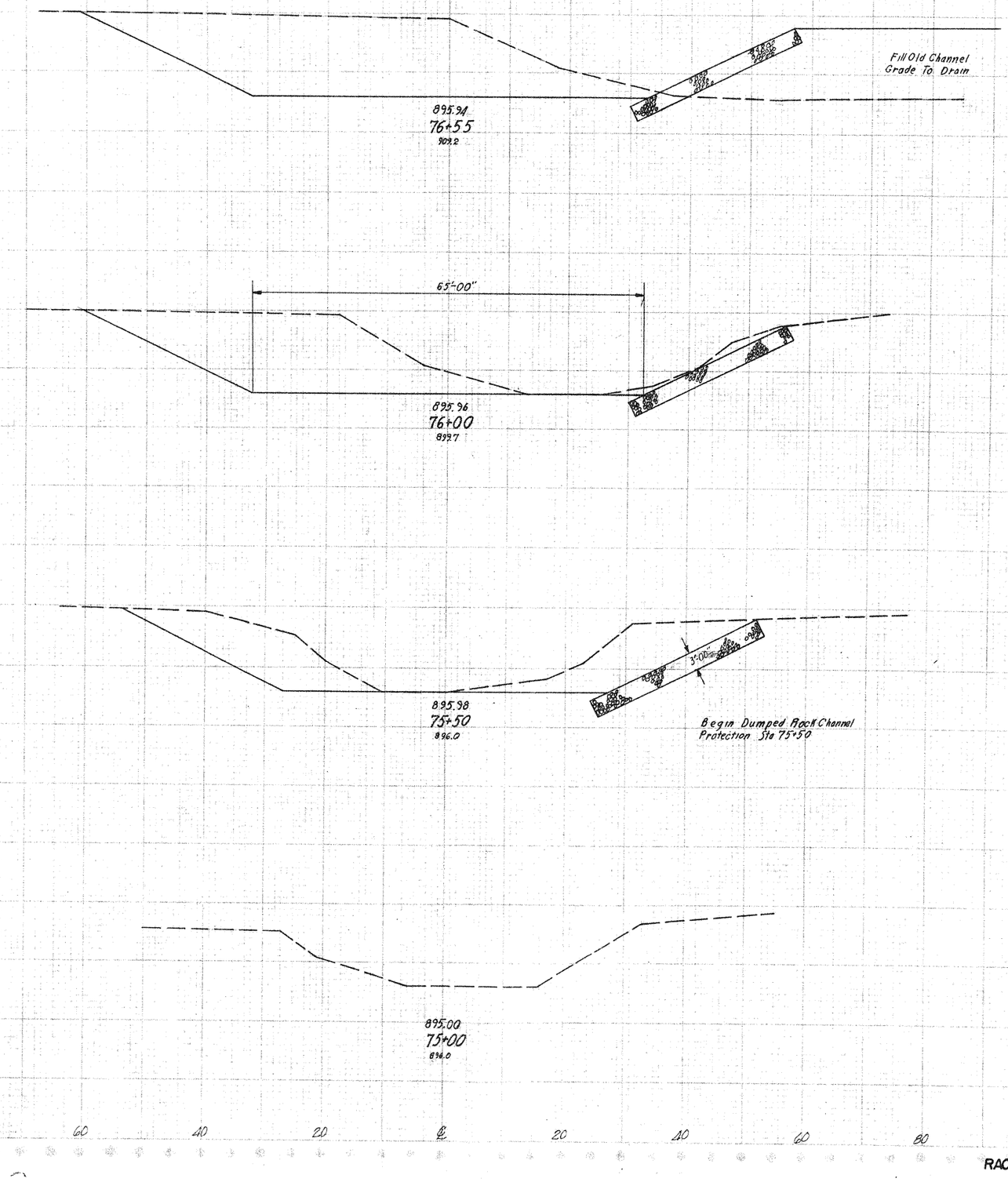
SEE SHEET NO

RACCOON CREEK CHANNEL RELOCATION STA. 75+00 TO STA. 86+00

OHIO

351
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 900 | 876 | | | |
| 890 | | | | 1487 |
| | 584 | | | |
| 900 | | | | |
| 890 | | | | 434 |
| | 425 | | | |
| 900 | | | | |
| 890 | | | | 392 |
| 900 | 0 | | | |
| 890 | | | | |

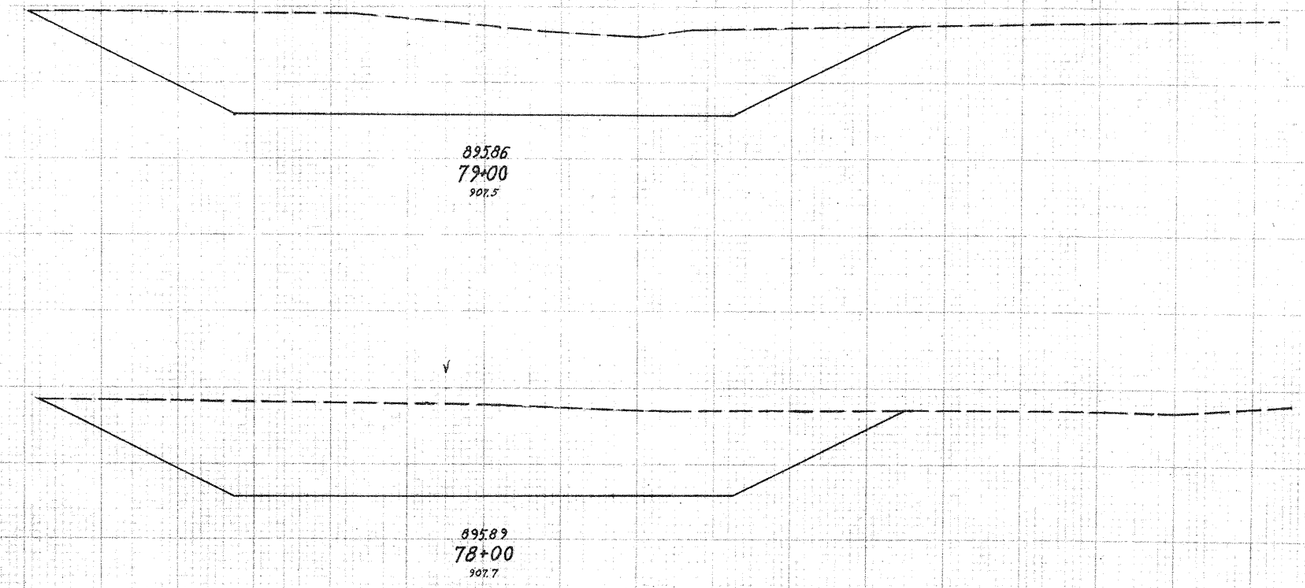
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

RACCOON CREEK CHANNEL RELOCATION STA. 75+00 TO STA. 76+55

| DIVISION | STATE | PROJECT |
|---|---|---|
| 7 | OHIO | |

352
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

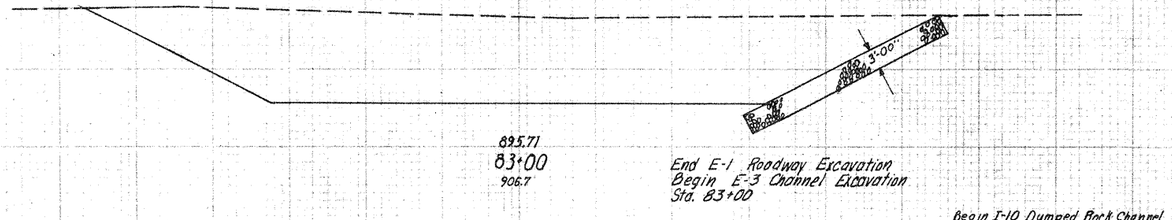



| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 900 | 1120 | | | |
| 890 | | | 3987 | |
| | 1033 | | | |
| 900 | | | | |
| 890 | | | 1930 | |
| | 1051 | | | |
| 900 | | | | |
| 890 | | | 1932 | |
| E-1 | 1036 | | | |
| E-3 | 1036 | | | |
| 900 | | | | |
| 890 | | | 1593 | |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RACCOON CREEK CHANNEL RELOCATION STA. 77+00 TO STA. 79+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

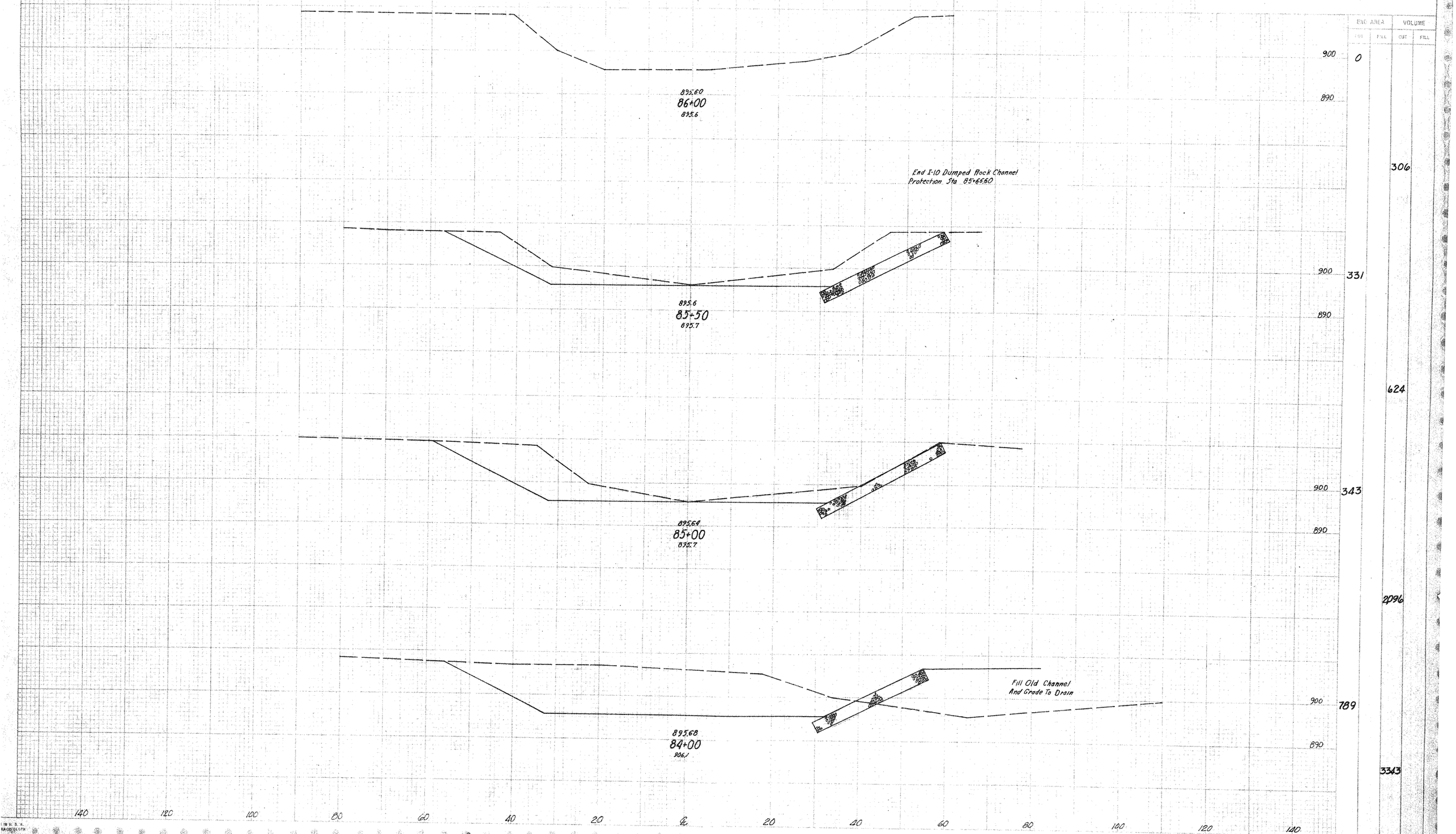



| | | END AREA | | VOLUME | |
|---|---|---|---|---|---|
| | | CUT | FILL | CUT | FILL |
| E-3 | 900 | 1016 | | | |
| E-1 | | 1,016 | | | |
| | 890 | | | | |
| | | | | 3811 | |
| | | 1042 | | | |
| | 900 | | | | |
| | 890 | | | | |
| | | | | 3937 | |
| | 900 | 1084 | | | |
| | 890 | | | | |
| | | | | 3996 | |
| | 900 | 1074 | | | |
| | 890 | | | | |
| | | | | 4064 | |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RACCOON CREEK CHANNEL RELOCATION STA. 80+00 TO STA. 83+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 900 | 0 | | | |
| 890 | | | | |
| | | | 306 | |
| 900 | 331 | | | |
| 890 | | | | |
| | | | 624 | |
| 900 | 343 | | | |
| 890 | | | | |
| | | | 2096 | |
| 900 | 789 | | | |
| 890 | | | | |
| | | | 3343 | |

RACCOON CREEK CHANNEL RELOCATION STA. 84+00 TO STA. 86+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SHEET NO. | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

355
466

POC STA. 204+90.25

202 203 204 205 206 207 SURVEY ℄ 208 209 210

90°00' TAN TO CURVE

PT STA. 205+20.97

401.97'

M.L. CURVE DATA
PI STA. 194+13.13
Δc = 33° 29' RT.
Dc = 1°-28'
Rc = 3906.53'
Lc = 2282.95'
Tc = 1175.11'
E = 172.92'

Note: Log Jam Consists of 12" To 42" Trees & Logs

NOTE: FILL OLD CHANNEL & GRADE TO DRAIN.

Log Jam

Woods
Small Trees & Saplings

205 88°02' 206 207 208 209 210

Raccoon Creek

Log Jam

Woods

BEGIN CHANNEL CHANGE STA. 205+00

END CHANNEL CHANGE STA. 210+00

BENCH MARK
Spike in N.W. Root 36" Elm 8.5' Rt.
POC Sta. 203+98.00 Elev. 885.65
Survey ℄

875.50 875.00 874.50 874.00 873.50 873.00 872.50 872.00 871.50

885
880
875
870
85
80
75
70

EL. EXISTING CHANNEL

-1.0%

EL. EXISTING CHANNEL

876.0 876.7 877.1 879.5 878.2 876.2 877.1 885.1 885.9 885.6 884.9 884.1 883.7 874.8 872.0 871.0

+25 +27 +40 +15 +41

205 206 207 208 209 210

ESTIMATED QUANTITIES

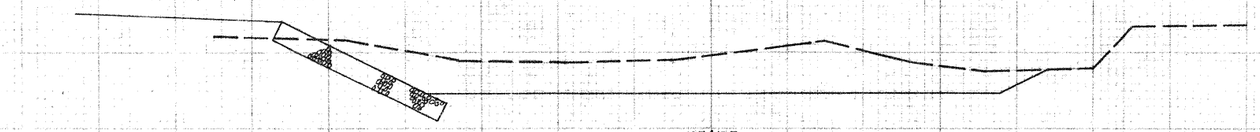
| REF NO | STATION TO STATION | SIDE | E-3 Channel Excavation Cu Yd | I-10 Dumped Rockchannel Protection Cu Yd |
|---|---|---|---|---|
| | 205+50 ~ 206+75 | Lt. | 12,346 | 332 |
| | TOTALS Transferred to Sheet No. -374 | | 12,346 | 332 |

RACCOON CREEK CHANNEL RELOCATION PLAN & PROFILE STA. 205+00-210+0

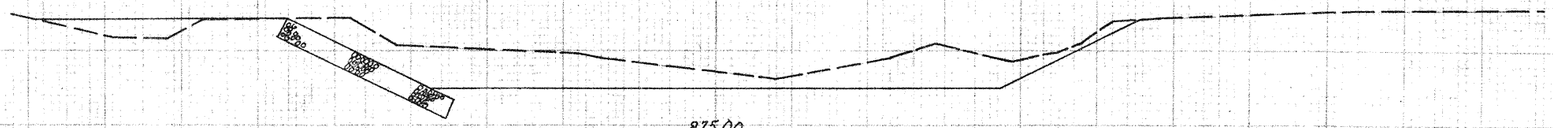
OHIO

356
466

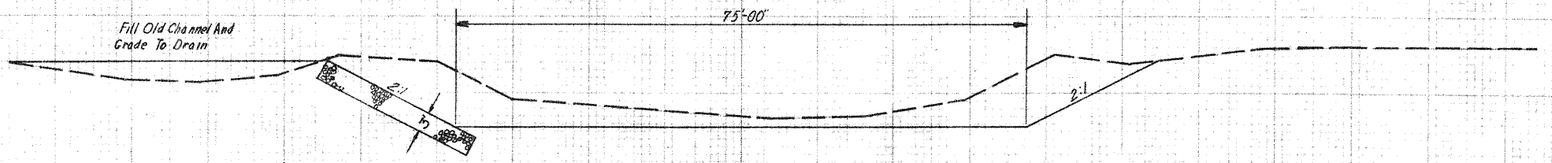
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



874.75
206+25
873.5

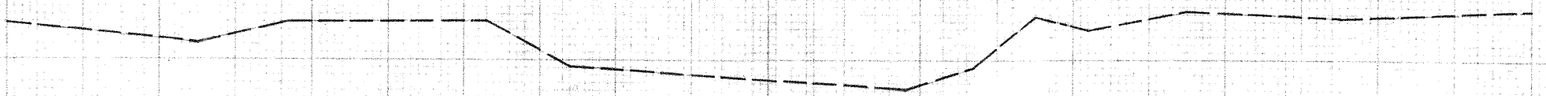


875.00
206+00
872.1




875.50
205+50
876.7

Begin I-10 Dumped Rock Channel
Protection Sta. 205+50



876.00
205+00
877.3

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 890 | | 380 | | |
| 870 | | | | 349 |
| 890 | | 379 | | |
| 870 | | | | 692 |
| 890 | | 368 | | |
| 870 | | | | 341 |
| 890 | | | 0 | |
| 870 | | | | |

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RACCOON CREEK CHANNEL RELOCATION STA. 205+00 TO STA. 206+25

OHIO

357
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 873.00<br>208+00<br>885.6 | | 1155 | | 2078 |
| 873.50<br>207+50<br>885.9 | | 1089 | | 1926 |
| 874.00<br>207+00<br>885.1 | | 991 | | 1175 |
| 874.50<br>206+50<br>877.1 | | 278 | | 305 |

End I-10 Dumped Rock Channel Protection Sta. 206+75

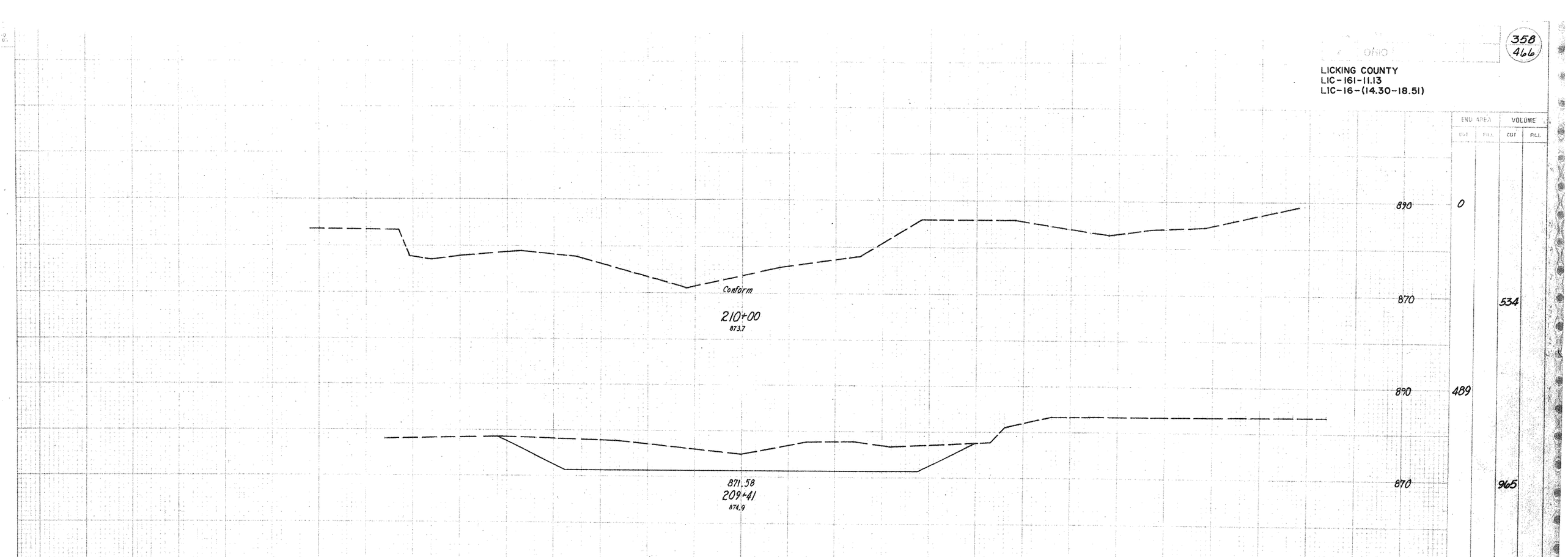
Fill Old Channel And Grade To Drain

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RACCOON CREEK CHANNEL RELOCATION STA. 206+50 TO STA. 208+00

OHIO

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 890 | 0 | | | |
| 870 | | | 534 | |
| 890 | 489 | | | |
| 870 | | | 965 | |
| 890 | 782 | | | |
| 870 | | | 1,818 | |
| 890 | 1,181 | | | |
| 870 | | | 2,163 | |

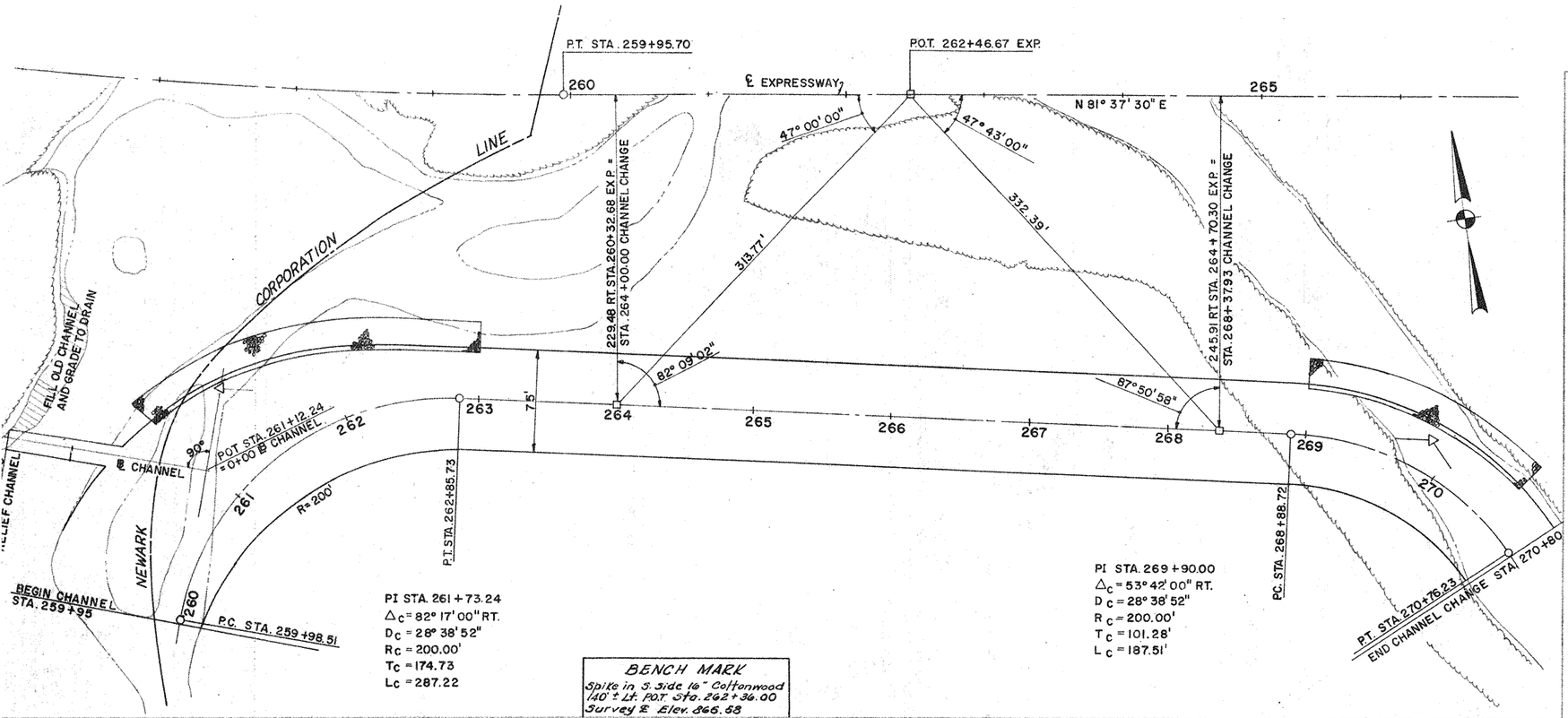
RACCOON CREEK CHANNEL RELOCATION STA.208+50 TO STA. 210+00

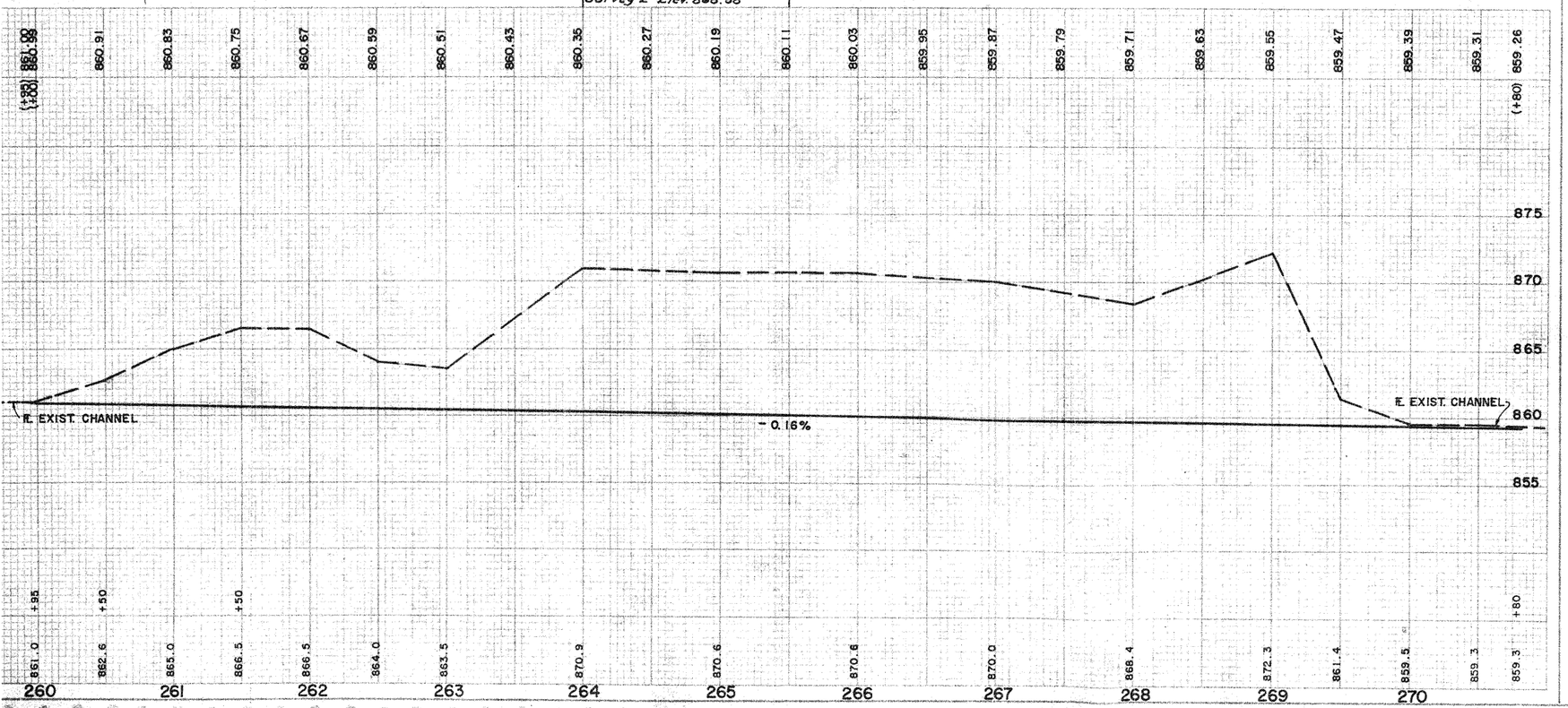
U.S.A.

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| SECTION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

359
466



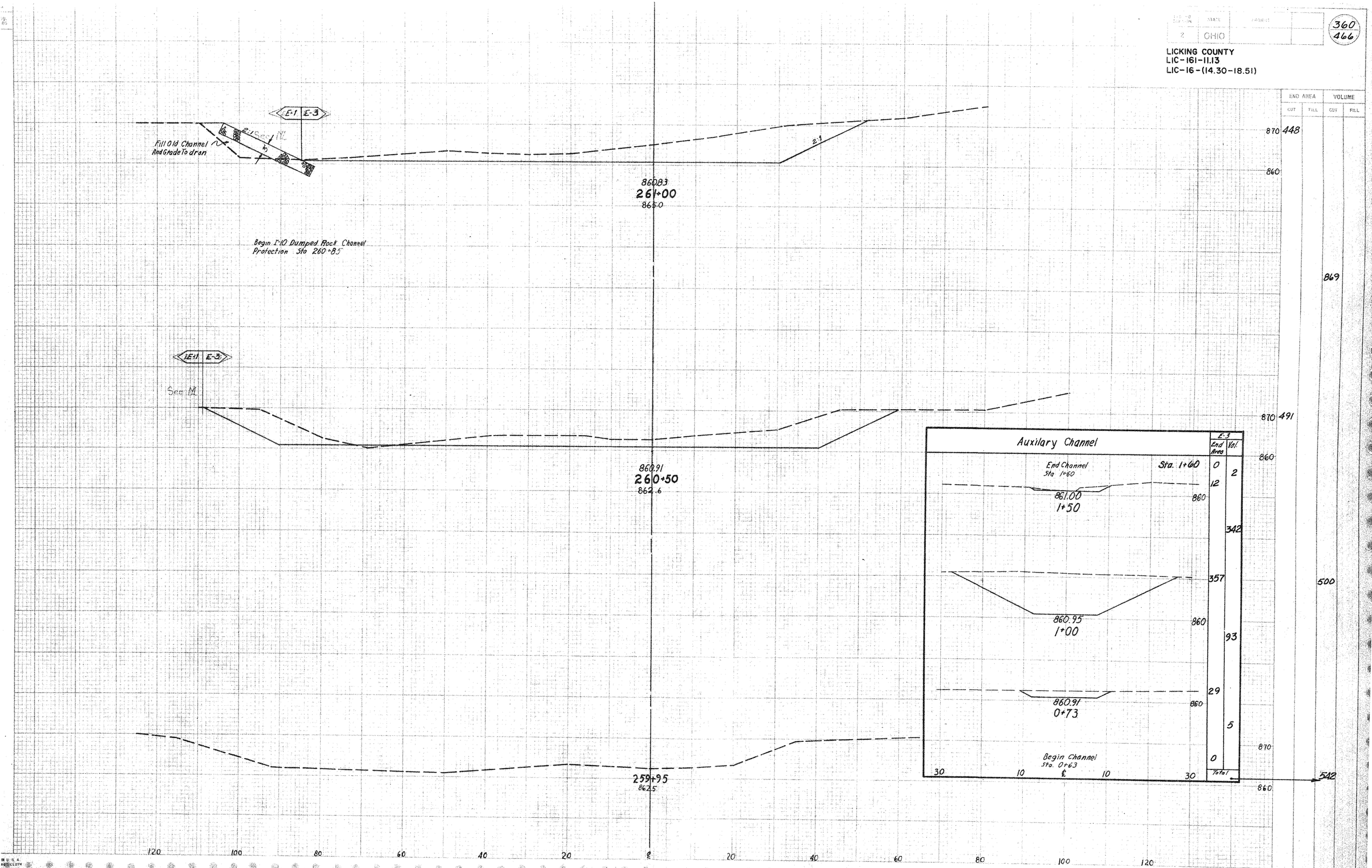




ESTIMATED QUANTITIES

| SHEET NO. | STATION TO STATION | SIDE | E-3 Channel Excavation Cu. Yd. | I-10 Dumped Rock Channel Protection Cu. Yd. | E-1 Roadway Excavation Cu. Yd. |
|---|---|---|---|---|---|
| | 259+95 - 264+00 | Rt. | 7,744 | | |
| | 260+85 - 263+11.5 | Lt. | | 945 | |
| | 268+88.72 - 270+80 | Lt. | | 722 | |
| | 264+00 - 269+00 | | | | 18,798 |
| | 269+00 - 270+80 | | 1,866 | | |
| TOTALS Transferred to Sheet No. - 374 | | | 9,610 | 1667 | 18,798 |

RACCOON CREEK CHANNEL RELOCATION STA. 259+95 TO STA. 270+80

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

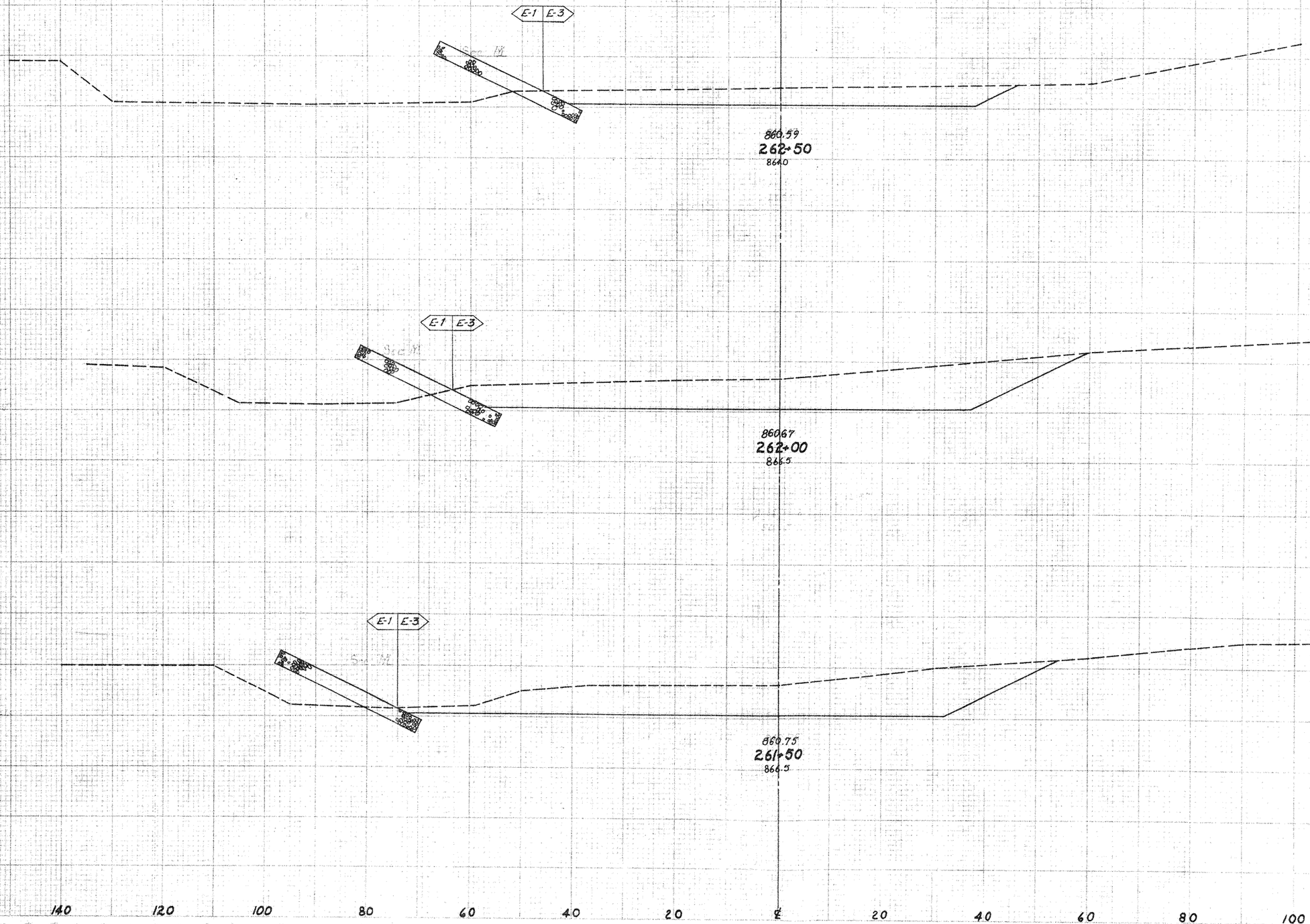



RACCOON CREEK CHANNEL RELOCATION STA. 259+95 TO STA. 261+00

| FED. AID DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

361
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



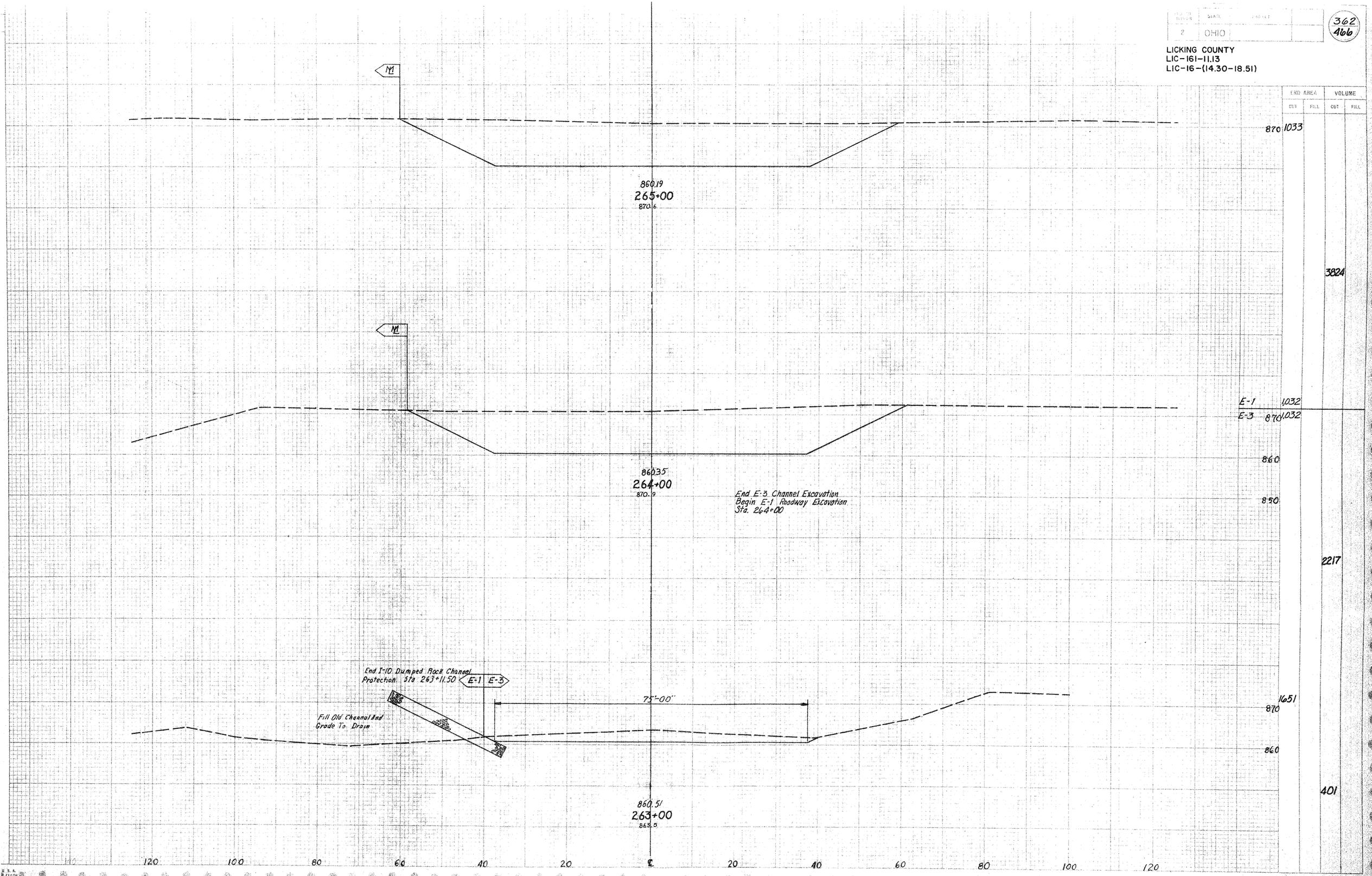

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 870 | | 268 | | |
| 860 | | | | 889 |
| 870 | | 692 | | |
| 860 | | | | 1276 |
| 870 | | 686 | | |
| 860 | | | | 1050 |

RACCOON CREEK CHANNEL RELOCATION STA. 261+50 TO STA. 262+50

| | | | |
|---|---|---|---|
| 2 | OHIO | | |

362
466

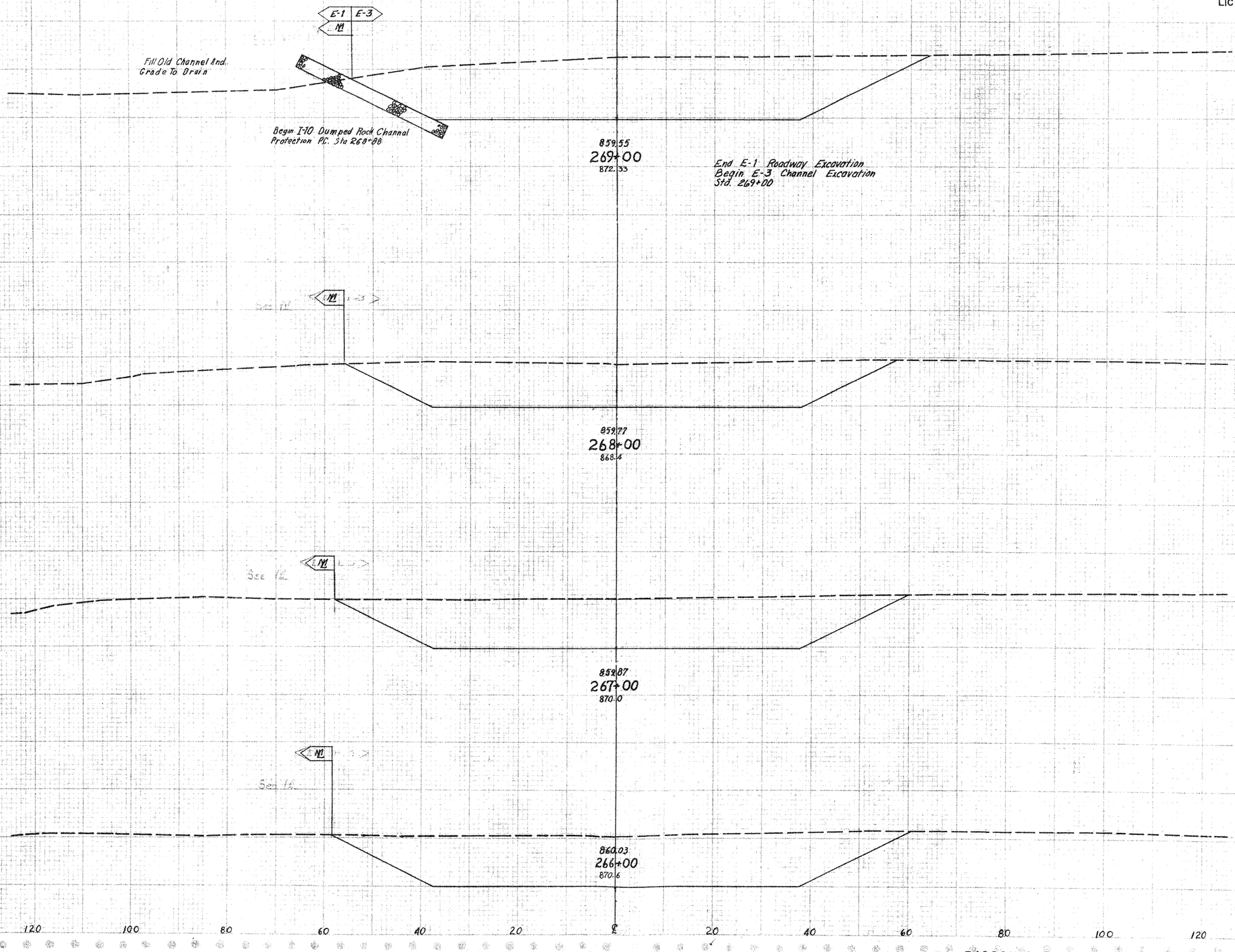
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL |
|---|---|---|---|---|
| 870 | 1033 | | | |
| | | | 3824 | |
| E-1 | 1,032 | | | |
| E-3 870 | 1,032 | | | |
| 860 | | | | |
| 850 | | | | |
| | | | 2217 | |
| 870 | 1651 | | | |
| 860 | | | | |
| | | | 401 | |

RACCOON CREEK CHANNEL RELOCATION STA. 263+00 TO 265+00

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



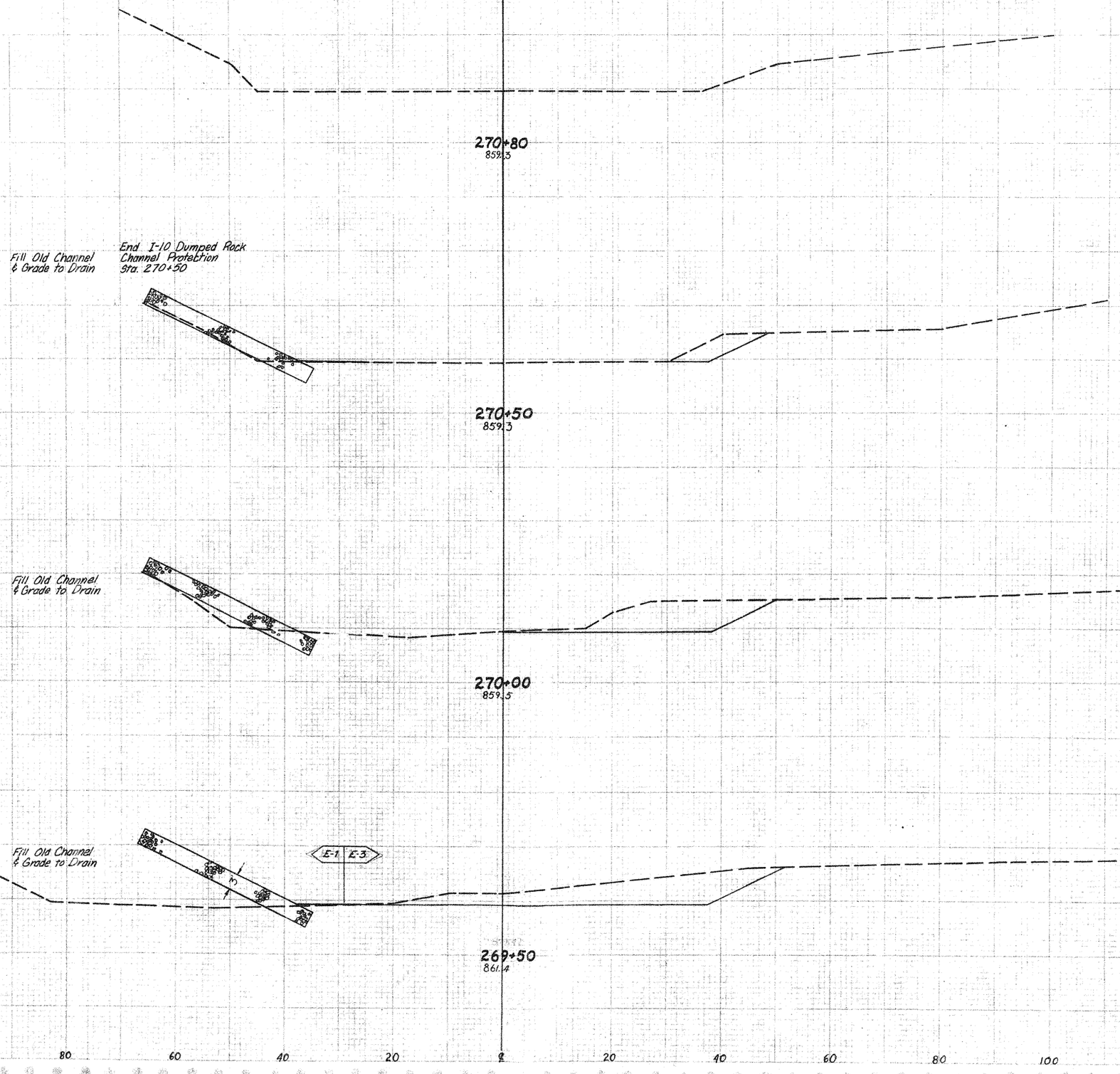

| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| E-3 870 | 1,205 | | | |
| E-1 | 1,205 | | | |
| 860 | | | | |
| | | | 3846 | |
| 872 | | | | |
| 870 | | | | |
| 860 | | | | |
| | | | 3480 | |
| 870 | 1007 | | | |
| 860 | | | | |
| | | | 3800 | |
| 870 | 1045 | | | |
| | | | 3848 | |

RACCON CREEK CHANNEL RELOCATION STA 266+00 TO STA 269+00

OHIO

364
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | END AREA | | VOLUME | |
|---|---|---|---|---|
| | CUT | FILL | CUT | FILL |
| 870 | | | | |
| 860 | 0 | | | |
| 850 | | | | |
| | | | 24 | |
| 870 | 43 | | | |
| 860 | | | | |
| 850 | | | | 168 |
| | | | 138 | |
| 860 | | | | |
| 850 | | | | 343 |
| | | | 232 | |
| 860 | | | | |
| 850 | | | | 1,331 |

RACCON CREEK CHANNEL RELOCATION STA. 269+50 TO STA. 270+80

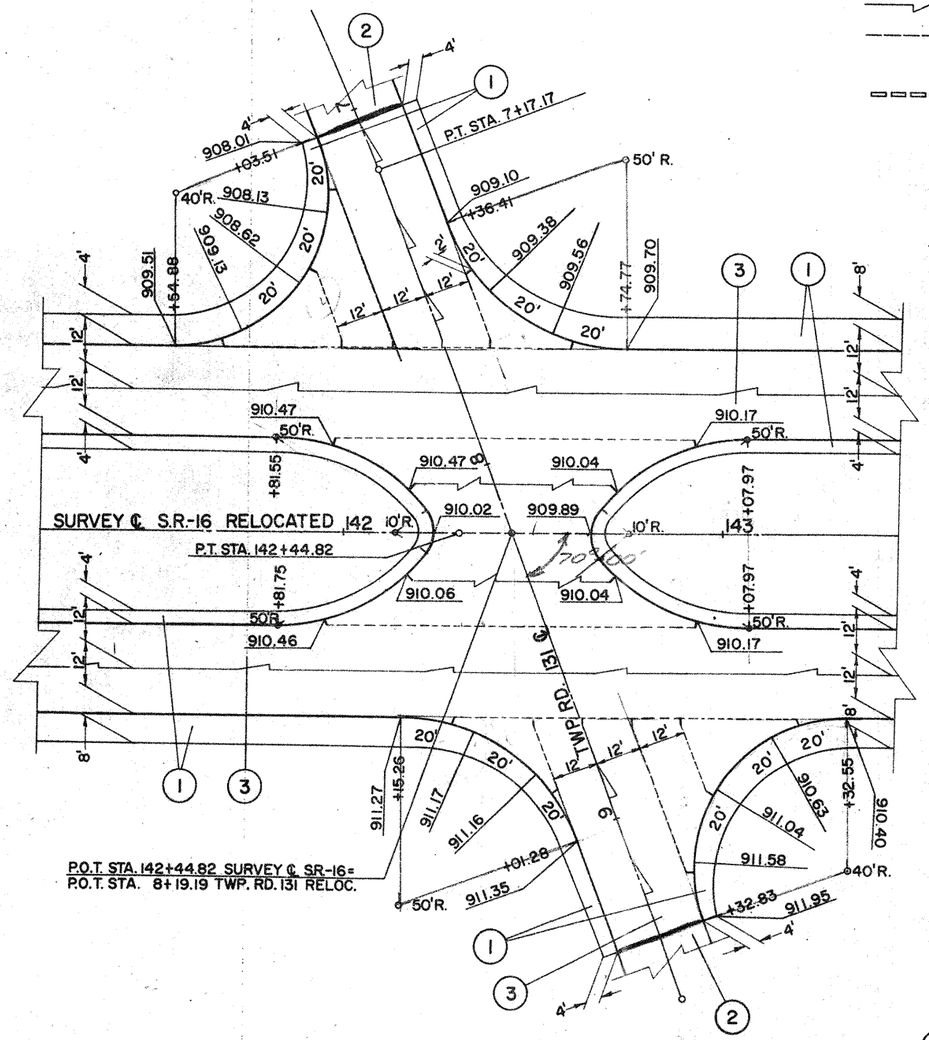
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

365
466

LICKING COUNTY
LIC-161- 11.13
LIC-16-(14.30-18.51)

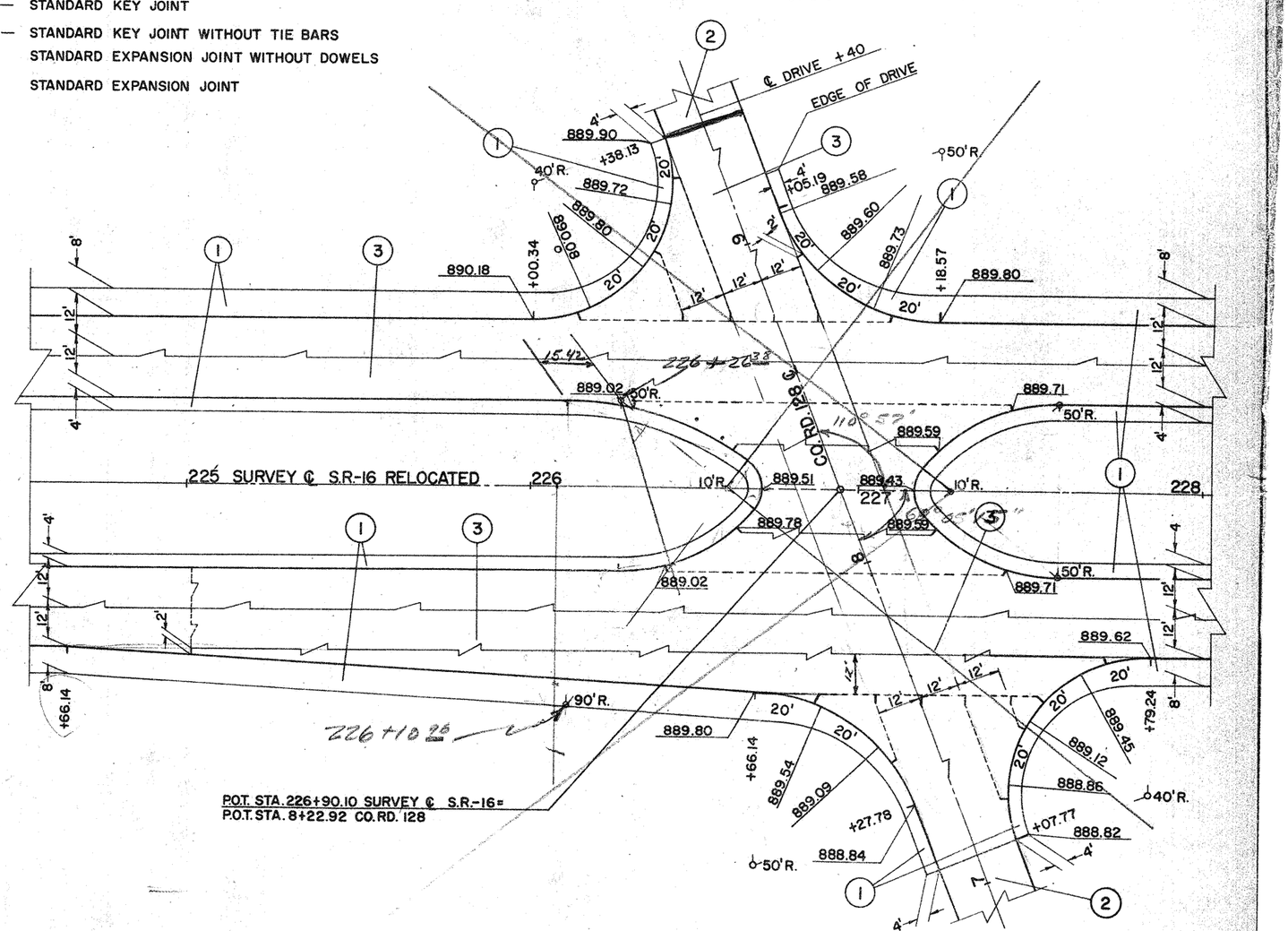
C.O median width assumed to be 45'

STANDARD LONGITUDINAL CONTRACTION JOINT
STANDARD TRANSVERSE CONTRACTION JOINT
STANDARD KEY JOINT
STANDARD KEY JOINT WITHOUT TIE BARS
STANDARD EXPANSION JOINT WITHOUT DOWELS
STANDARD EXPANSION JOINT




TWP. RD. 131 INTERSECTING ℄

Area = 912 S.Y




CO. RD. 128 INTERSECTING ℄

Area = 1110 S.Y assuming 45° throat
" 1100 " " 43.17' "

(1) T-31 BITUMINOUS SURFACE TREATMENT
(2) T-35 ASPHALTIC CONCRETE PAVEMENT
(3) T-71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

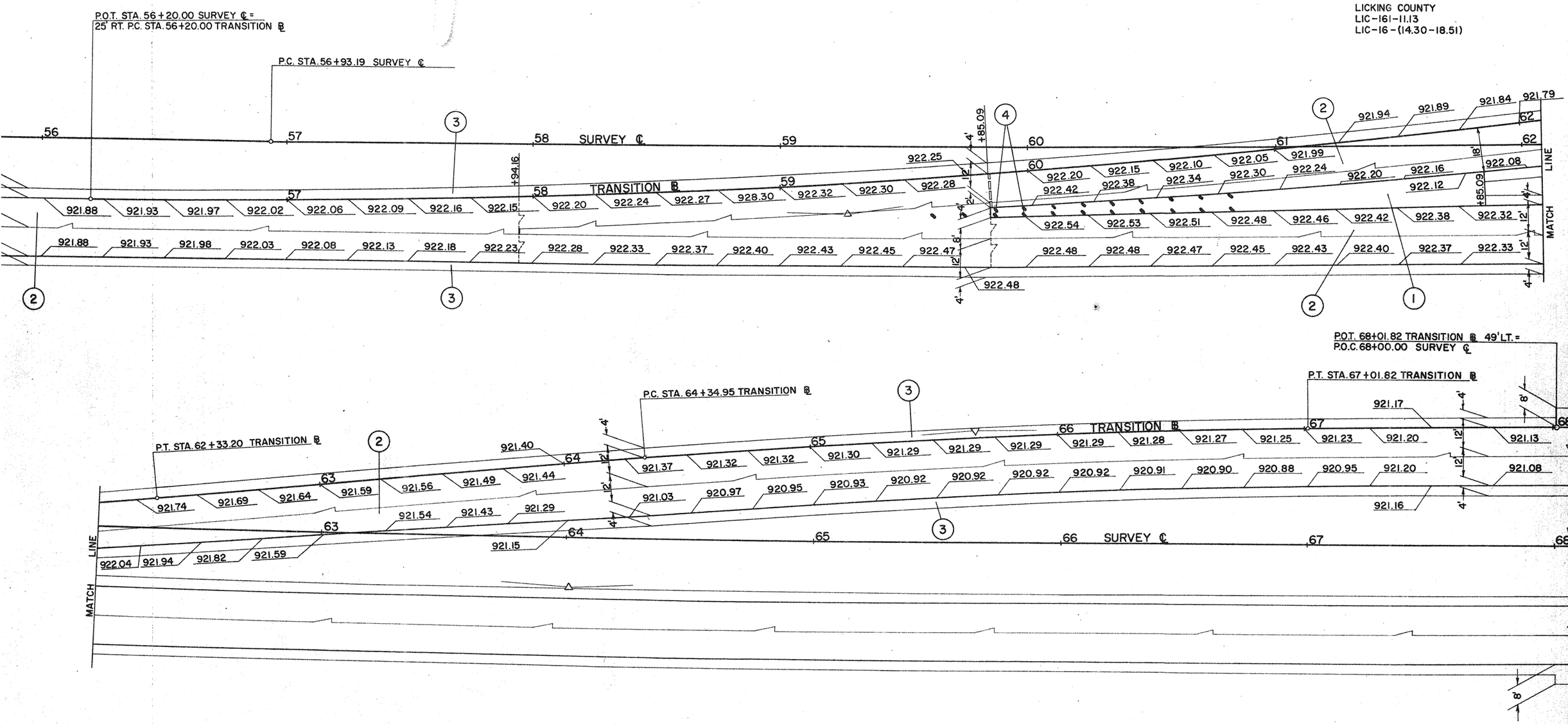
Apx Scale 1" = 40'

TWP. RD. 131 & CO. RD. 128 INTERSECTING ℄ - PAVEMENT DETAILS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

366
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




STANDARD LONGITUDINAL CONTRACTION JOINT

STANDARD TRANSVERSE CONTRACTION JOINT

STANDARD KEY JOINT

STANDARD KEY JOINT WITHOUT TIE BARS

STANDARD EXPANSION JOINT WITHOUT DOWELS

STANDARD EXPANSION JOINT

(1) T-35 2" ASPHALTIC CONCRETE SURFACE COURSE, TYPE "C" (70-85)

(2) T-71 PORTLAND CEMENT CONCRETE PAVEMENT

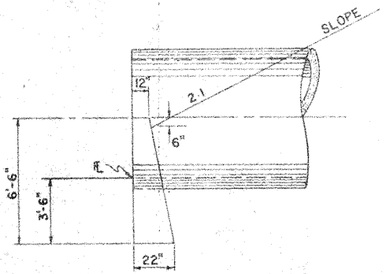
(3) I-18 STABILIZED CRUSHED AGGREGATE SHOULDERS

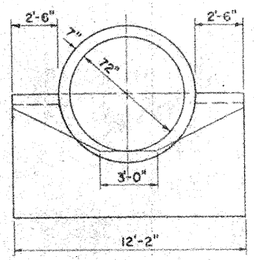
(4) I-21 PRECAST CONCRETE TRAFFIC DIVIDER

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

367/466

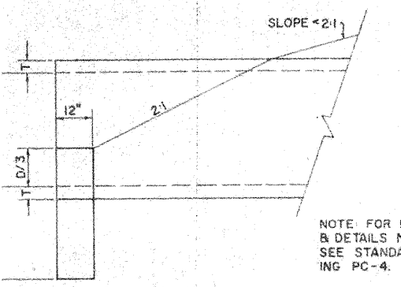
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



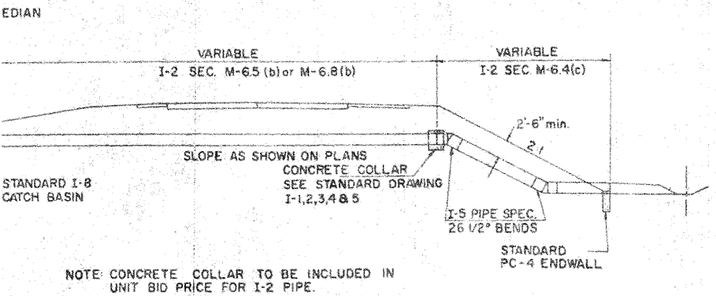

NOTE: FOR DETAILS NOT SHOWN HEREON SEE STD. DRAWING SP-53

SP-53 ENDWALL FOR 72" PIPE



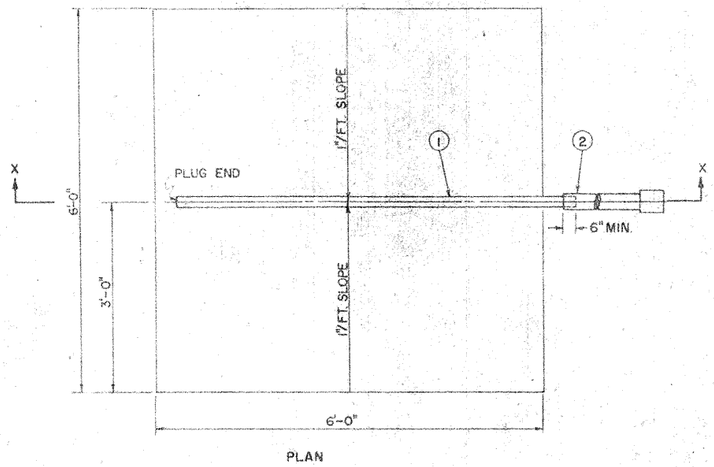

NOTE: FOR DIMENSIONS & DETAILS NOT SHOWN SEE STANDARD DRAWING PC-4.

L OF SLOPE TREATMENT AT PC-4 ENDWALLS

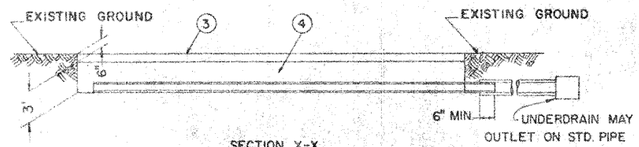



NOTE: CONCRETE COLLAR TO BE INCLUDED IN UNIT BID PRICE FOR I-2 PIPE.

MEDIAN OUTLET DETAIL IN HIGH FILL




PLAN

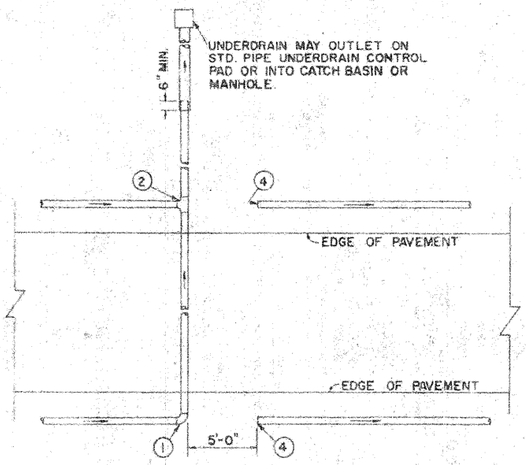



SECTION X-X

SPRING DRAINAGE DETAIL

① ITEM I-4 6" PIPE UNDERDRAINS.
② ITEM I-4 10'x8" I-4 OUTLET PIPE SEC. M-6.4(a)

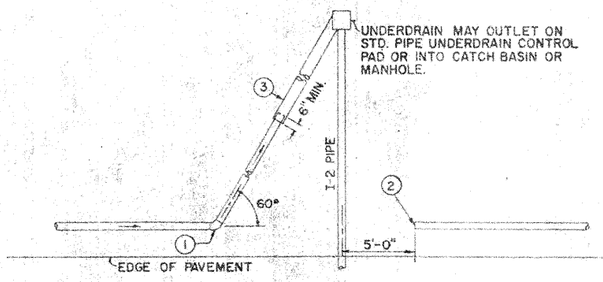
③ ITEM I-22 6" SUBBASE
④ ITEM S-29 DRAINAGE OF STRUCTURES, NO. 2 AGGREGATE.




UNDERDRAIN OUTLET DETAIL "A"

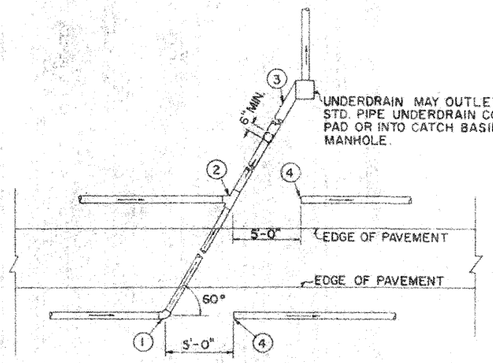
① 90° ELBOW 6" DIA.
② T-BRANCH 6" SPUR, 6" BARREL
③ 10'x8" I-4 OUTLET PIPE, SEC. M-6.4(a)

④ PLUGS FOR 6" DIAMETER




UNDERDRAIN OUTLET DETAIL "B"

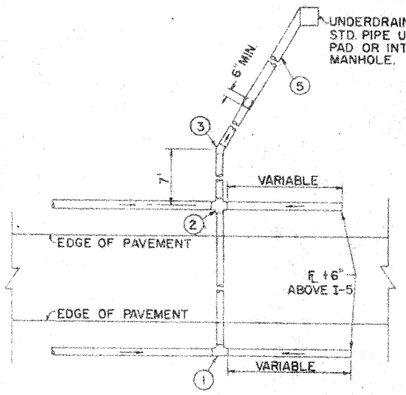
① 60° CURVE 6"
② PLUG FOR 6" DIA.
③ 10'x8" I-4 OUTLET PIPE SEC M-6.4(a)




UNDERDRAIN OUTLET DETAIL "C"

① 60° CURVE 6"
② Y-BRANCH 6" SPUR, 6" BARREL
③ 10'x8" I-4 OUTLET PIPE SEC. M-6.4(a)
④ PLUGS FOR 6" DIAMETER

NOTE:
1. ALL PIPE 6" I-4 UNDERDRAIN UNLESS OTHERWISE SHOWN.
2. FOR UNDERDRAINS LOCATIONS SEE TYPICAL SECTIONS AND PLAN SHEETS.



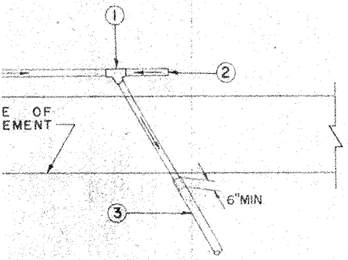

UNDERDRAIN OUTLET DETAIL "D"

① T-BRANCH, 6" SPUR, 6" BARREL
② DOUBLE T-BRANCH, 6" SPURS, 6" BARREL
③ 30° CURVE 6"
④ PLUGS FOR 6" DIAMETER
⑤ 10'x8" I-4 OUTLET PIPE, SEC. M-6.4(a)

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

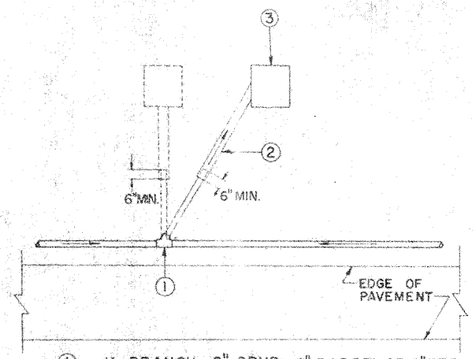
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

368
466



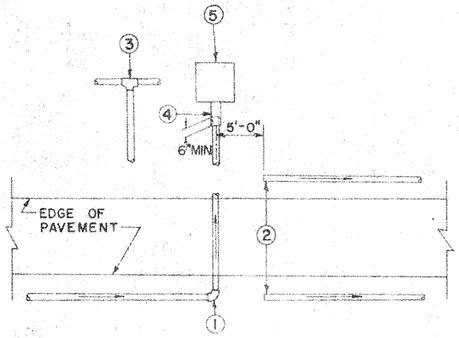

-BRANCH, 6" SPUR, 6" BARREL
LUG FOR 6" DIA.
' X 8" I-4 PIPE OUTLET, SEC. M-6.4 (a)

DETAIL "E"



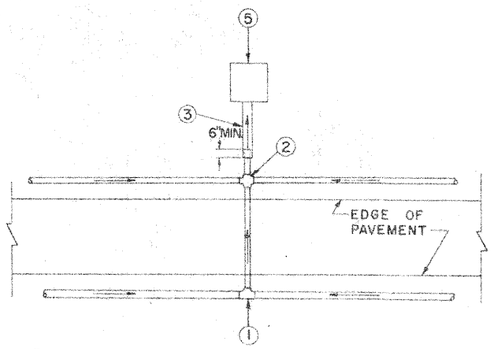

① Y-BRANCH, 6" SPUR, 6" BARREL OR 6" TEE
② 10' X 8" I-4 PIPE OUTLET, SEC. M-6.4 (a)
③ UNDERDRAIN MAY OUTLET ON STD. PIPE UNDERDRAIN CONTROL PAD OR INTO CATCH BASIN OR MANHOLE.

DETAIL "F"



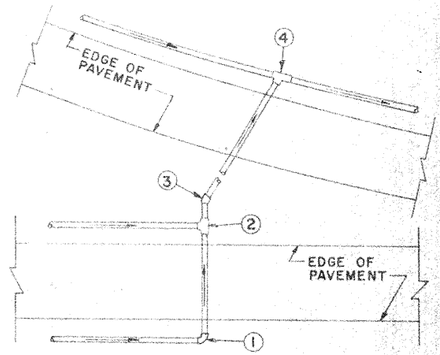

① 90° BEND, 6"
② 2 PLUGS FOR 6" DIA.
③ T-BRANCH, 6" SPUR, 6" BARREL
④ 10' x 8" I-4 PIPE OUTLET, SEC. M-6.4 (a)
⑤ UNDERDRAIN MAY OUTLET ON STD. PIPE UNDERDRAIN CONTROL PAD OR INTO CATCH BASIN OR MANHOLE.

DETAIL "G"




① T-BRANCH, 6" SPUR, 6" BARREL
② DOUBLE T-BRANCH, 6" SPURS, 6" BARREL
③ 10' X 8" I-4 PIPE OUTLET, SEC. M-6.4 (a)
④ UNDERDRAIN MAY OUTLET ON STD. PIPE UNDERDRAIN CONTROL PAD OR INTO CATCH BASIN OR MANHOLE.

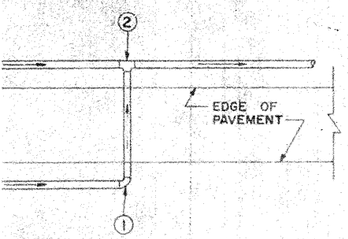
DETAIL "H"




① 90° BEND, 6"
② T-BRANCH, 6" SPUR, 6" BARREL
③ 45° CURVE, 6" L.R. OR 60° CURVE
④ Y-BRANCH, 6" SPUR, 6" BARREL

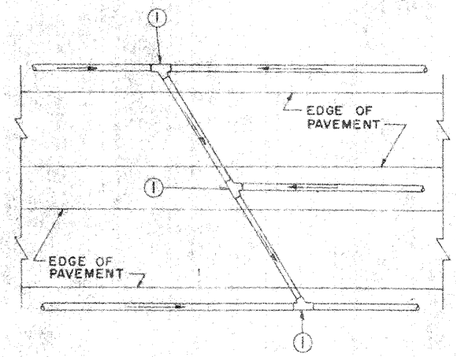
DETAIL "I"

NOTE: 1. ALL PIPE 6" I-4 UNDERDRAIN UNLESS OTHERWISE SHOWN.
2. FOR UNDERDRAIN LOCATIONS SEE TYPICAL SECTIONS AND PLAN SHEETS.



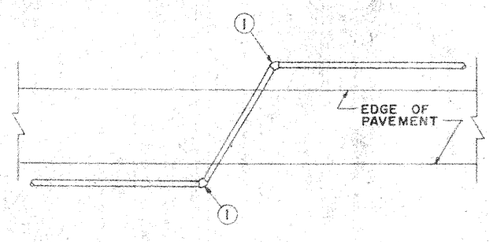

0° BEND, 6"
-BRANCH, 6" SPUR, 6" BARREL

DETAIL "L"




① Y-BRANCH, 6" SPUR, 6" BARREL

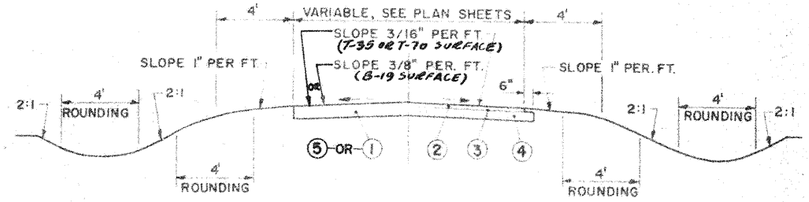
DETAIL "K"




① 60° BEND, 6"

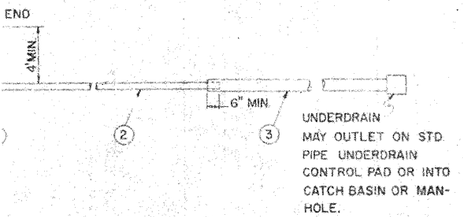
DETAIL "M"

NOTE: FOR DIMENSIONS & DETAILS NOT SHOWN SEE STD. DRAWING D. R.-1.



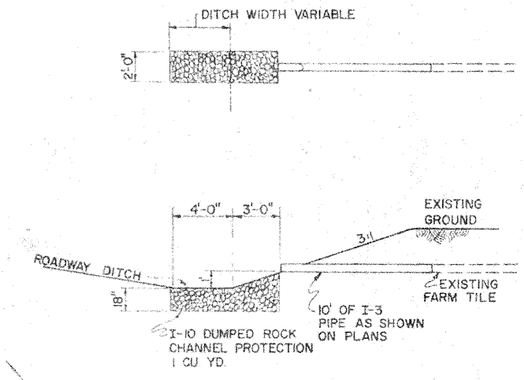

| | | |
|---|---|---|
| ① | ITEM B-19 | 8" CRUSHED AGGREGATE BASE COURSE FOR PRIVATE DRIVES.<br>6" CRUSHED AGGREGATE BASE COURSE FOR FIELD DRIVES. |
| ② | ITEM T-35 | 2" ASPHALTIC CONCRETE SURFACE COURSE, TYPE "C" |
| ③ | ITEM T-30 | BITUMINOUS PRIME COAT, SEC. M-5.7, RT.-2 OR R.T. 3 APPLIED AT THE RATE OF 0.40 GAL. PER SQ. YD. |
| ④ | ITEM B-19 | 5" CRUSHED AGGREGATE BASE COURSE FOR RESIDENTIAL.<br>7" CRUSHED AGGREGATE BASE COURSE FOR COMMERICAL. |
| ⑤ | ITEM T-70 | 7" PORTLAND CEMENT CONCRETE PAVEMENT FOR PRIVATE DRIVES<br>8" PORTLAND CEMENT CONCRETE PAVEMENT FOR COMMERCIAL |

TYPICAL SECTION FOR DRIVEWAY

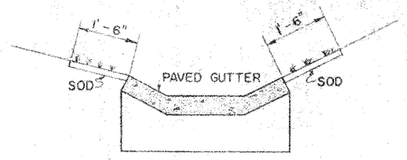



UNDERDRAIN OUTLET DETAIL "N"

① 90° ELBOW 6" DIAMETER
② 6" I-4 UNDERDRAIN PIPE
③ 10'x8" I-4 OUTLET PIPE SEC. M-6.4(a)

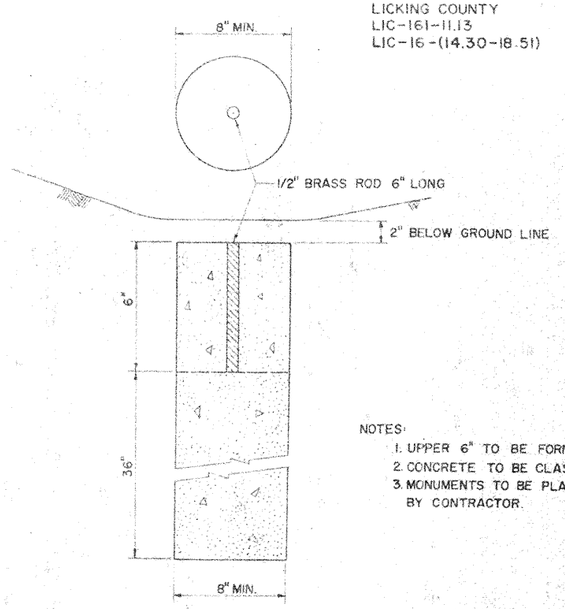



DETAIL OF I-3 OUTLETTING INTO DITCH ROADWAY



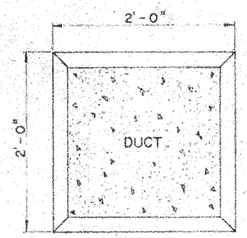

DETAIL OF SOD AT PAVED GUTTERS

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




NOTES:
1. UPPER 6" TO BE FORMED.
2. CONCRETE TO BE CLASS "C".
3. MONUMENTS TO BE PLACED BY CONTRACTOR.

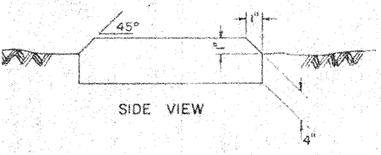
CENTERLINE REFERENCE MONUMENT DETAIL



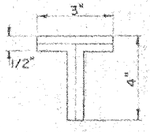

TOP VIEW




SECTION A-A

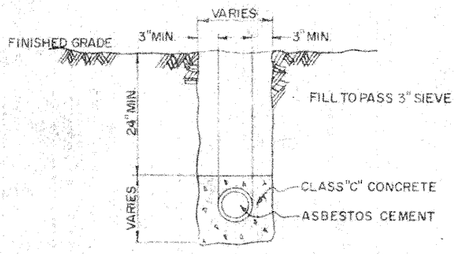



SIDE VIEW



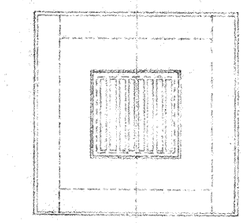

TYPICAL SYMBOL

CONCRETE MARKER

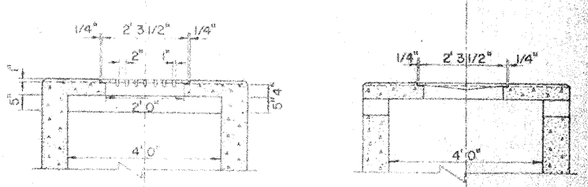



CONDUIT TRENCH & ENCASEMENT

NOTES:
1. THE WORD "DUCT" SHALL BE IMPRESSED IN THE TOP OF THE CONCRETE MARKER USING LETTERS OF THE TYPE AND DIMENSIONS SHOWN.
2. CONDUIT SHALL BE ENCASED BY CLASS "C" CONCRETE HAVING A MIN. THICKNESS OF THREE (3) INCHES, SHALL HAVE AT LEAST 24" COVER BELOW SUBGRADE AND SHALL BE PITCHED TO DRAIN. ENDS OF CONDUIT SHALL EXTEND TWO FEET BEYOND EDGE OF SHOULDER PAVEMENT OR BACK OF CURB. ONE NO. 10 AWG GALVANIZED STEEL DRAG WIRE SHALL BE LEFT IN EACH CONDUIT AND ENDS OF CONDUIT SHALL BE CAPPED BUSHINGS.
3. EXCAVATION AND BACK FILL SHALL CONFORM WITH THE APPLICABLE PROVISIONS OF ITEM E-2.
4. CONCRETE MARKERS, MANUFACTURED IN ACCORDANCE WITH DETAILS SHOWN ABOVE SHALL BE PLACED OVER EACH END OF EACH UNDERGROUND CONDUIT. MARKERS SHALL BE INSTALLED FLAT ON THE GROUND, PROJECTING ONE INCH ABOVE FINISHED GRADE. COST OF FURNISHING AND INSTALLING MARKERS AND CONCRETE FOR ENCASEMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM S-25 ASBESTOS-CEMENT CONDUIT, SEC. M-206.14 AS PER PLAN.



NOTES:
1. FOR DETAILS AND DIMENSIONS NOT SHOWN, SEE STANDARD CONSTRUCTION DRAWING 1-8 C.B. 2-3 & 2-4.
2. WHEN CATCH BASIN IS USED ON CONTINOUS SLOPE, OMIT WINDOW ON DOWNSTREAM SIDE OF CATCH BASIN.




STANDARD NO. 2-4 C.B. (MODIFIED)

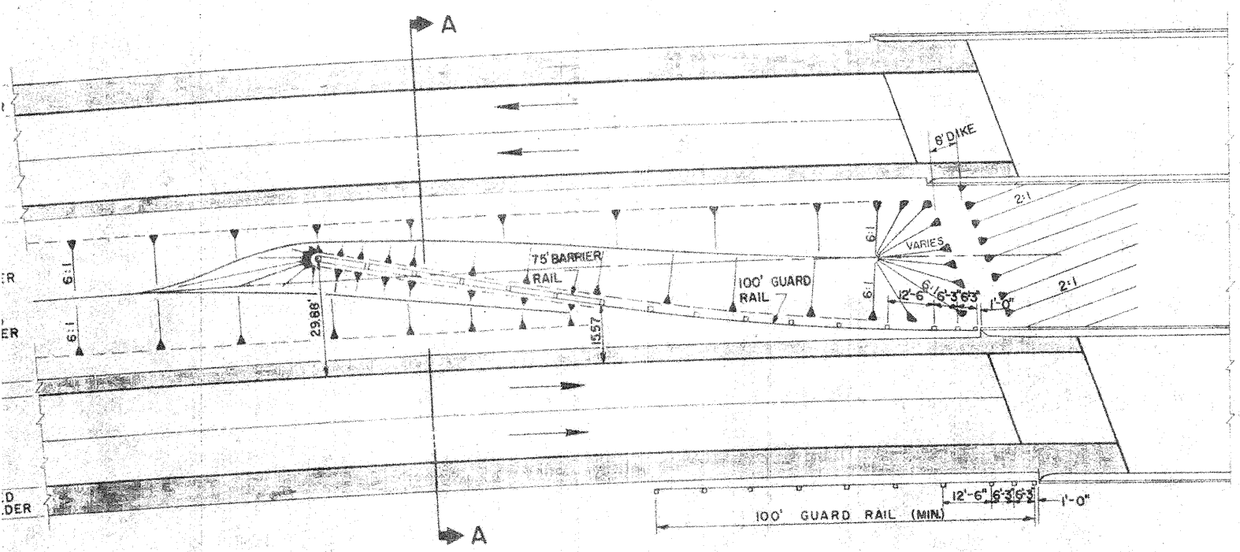
# GUARD RAIL PROTECTION

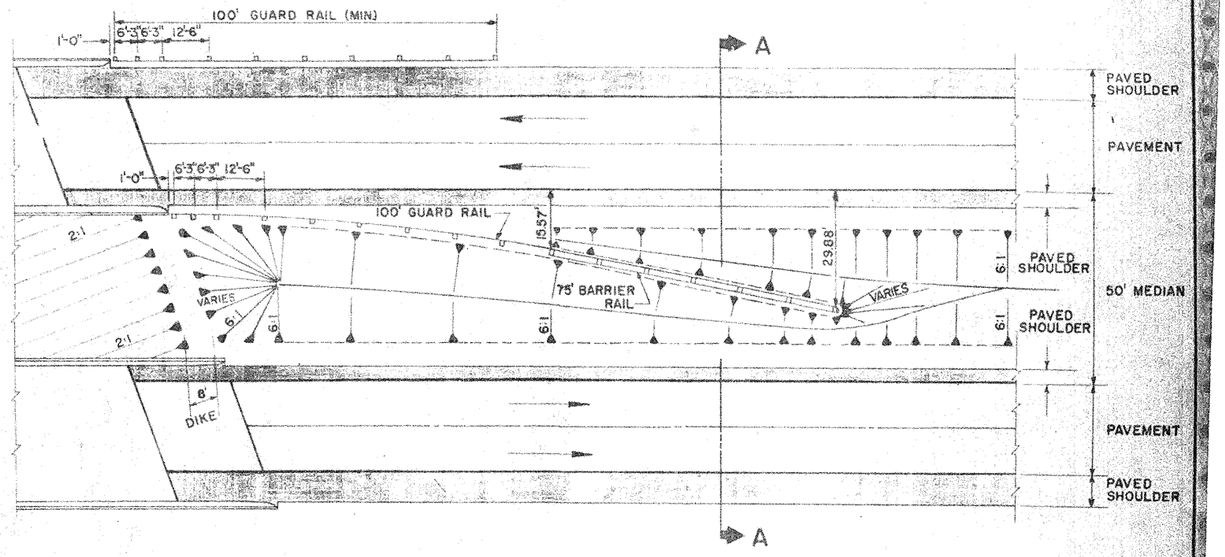
## FOUR LANE DIVIDED, 50' MEDIAN, AT TWIN STRUCTURES

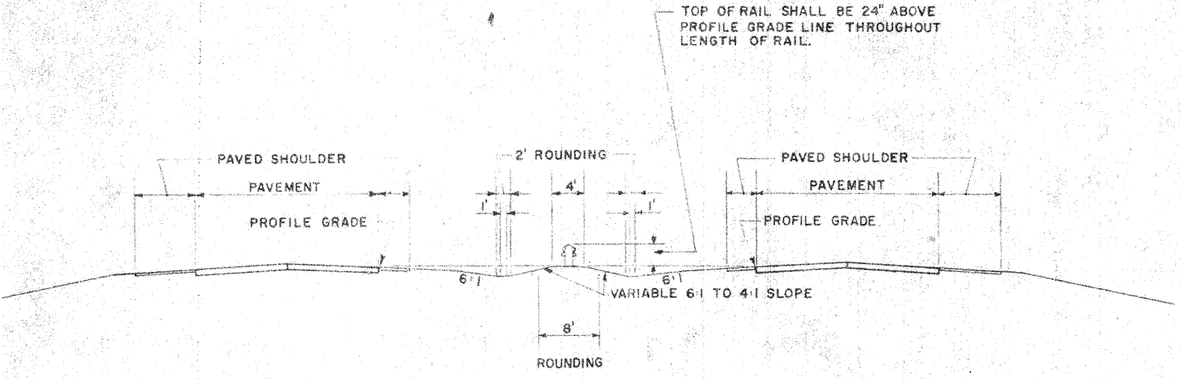
| HIGHWAY DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

370/466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




SECTION A-A

| DISTANCE BETWEEN EDGE OF PAVEMENT AND FACE OF GUARD RAIL. | |
|---|---|
| POST | OFFSET |
| 1/2 | 6.04 |
| 1 | 6.15 |
| 2 | 6.60 |
| 3 | 7.35 |
| 4 | 8.40 |
| 5 | 9.75 |
| 6 | 11.39 |
| 7 | 13.33 |
| 8 | 15.57 |

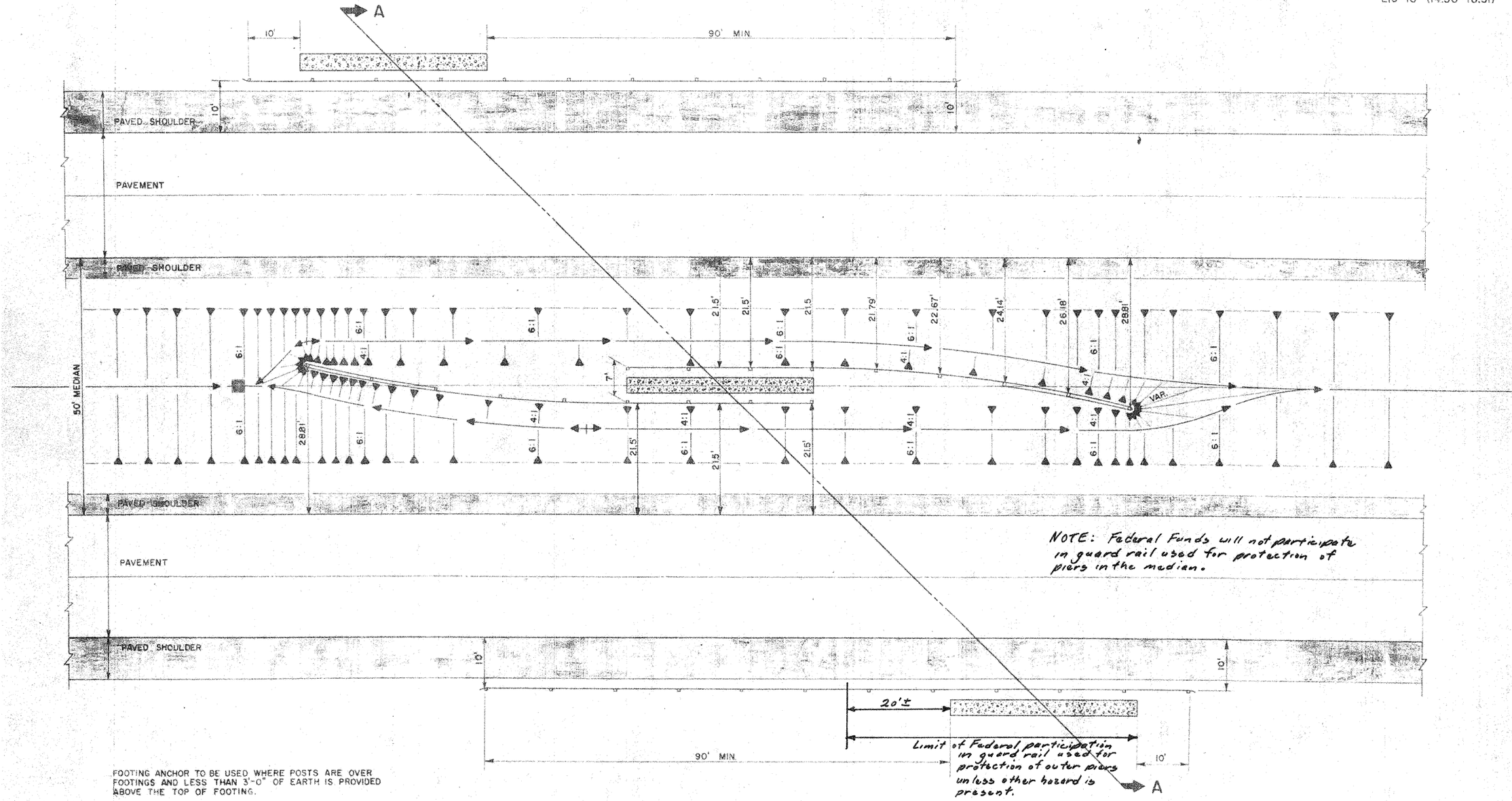
NOTE: Federal Funds will not participate in the Barrier Guard Rail shown in the detail above

# GUARD RAIL PROTECTION
## FOUR LANE DIVIDED, 50' MEDIAN, AT PIERS

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

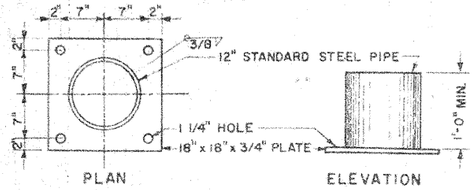
371/466

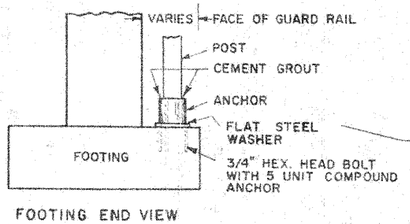
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




NOTE: Federal Funds will not participate in guard rail used for protection of piers in the median.

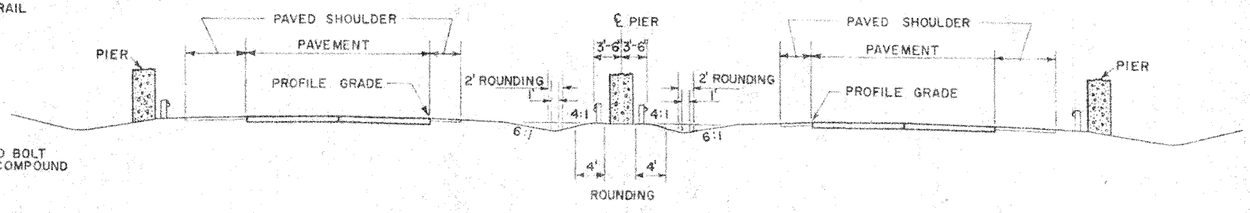
FOOTING ANCHOR TO BE USED WHERE POSTS ARE OVER FOOTINGS AND LESS THAN 3'-0" OF EARTH IS PROVIDED ABOVE THE TOP OF FOOTING.




FOOTING END VIEW

FOOTING ANCHOR




SECTION A-A

| | | | |
|---|---|---|---|
| 2 | OHIO | PROJECT | |

372
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

# SPECIAL BERM & SLOPE PROTECTION

PRIOR TO PLACEMENT OF SOD IN THE BERM AND SLOPE, GALVANIZED POULTRY FENCE SHALL BE PLACED ON THE FINISHED GRADE IN STRANDS WHICH SHALL BE AT RIGHT ANGLES TO THE DIRECTION OF FLOW. EACH STRAND SHALL BE STAKED SECURELY ON TOP AND BOTTOM WITH STAKES SPACED AT FOUR FOOT INTERVALS.

STAKES SHALL BE 1"x 1"x 8" WOOD STAKES AND SHALL BE PERPENDICULAR TO THE GROUND AND FLUSH WITH THE TOP OF THE SOD.

THE FENCE SHALL BE STRAIGHT LINE POULTRY FENCE OR EQUIVALENT WITH STRAND WIDTH OF FOUR FEET, HAVING A TWO INCH MESH AND ALL WIRES NO. 20 GAUGE.

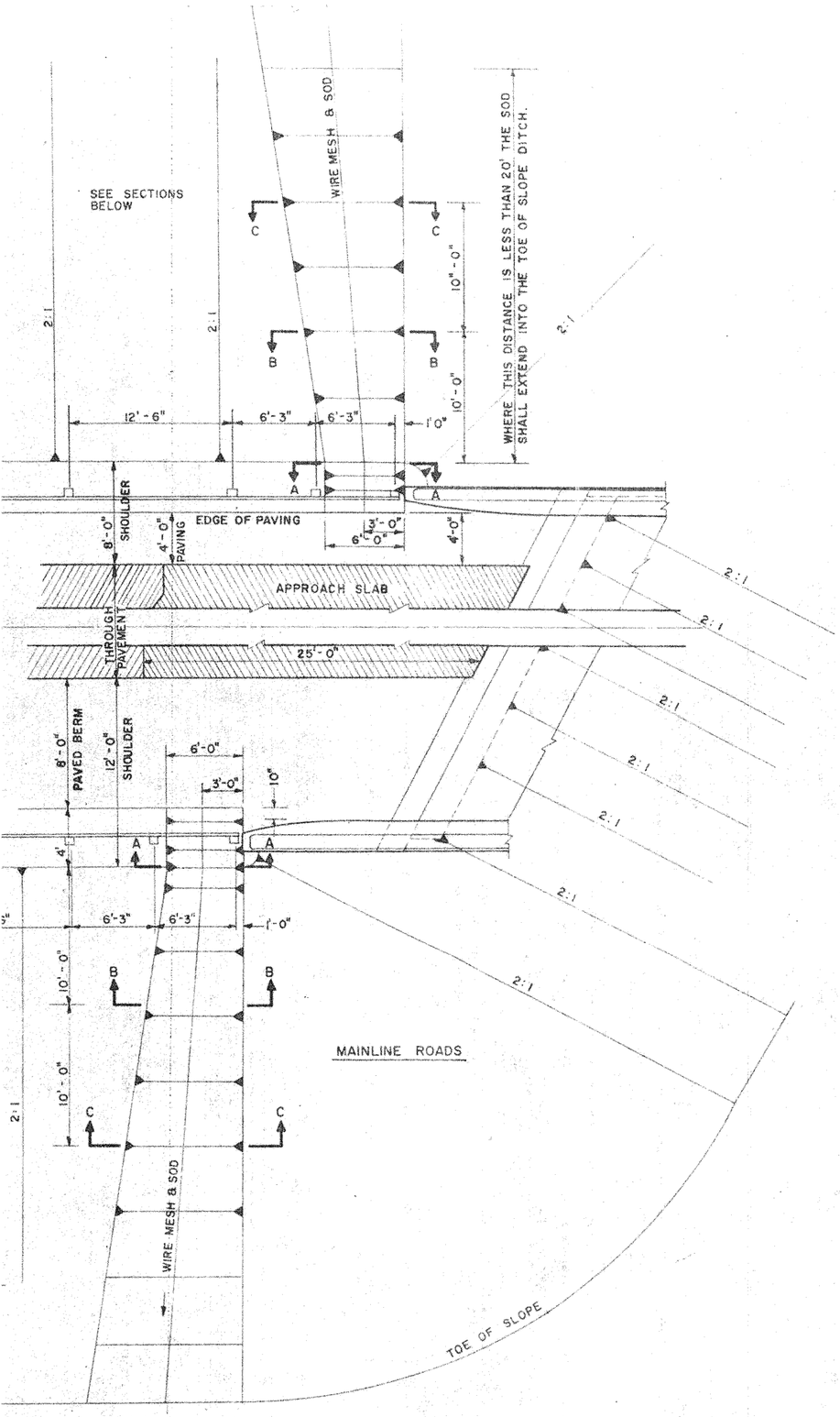
THE STRANDS OF FENCING SHALL BE FASTENED TOGETHER AT TWELVE INCH INTERVALS BY MEANS OF HOG RINGS.

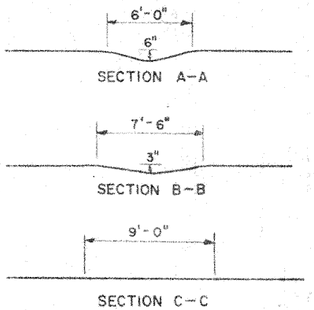
THE FENCE SHALL BE SECURED TO THE WOOD STAKES BY METAL STAPLES.

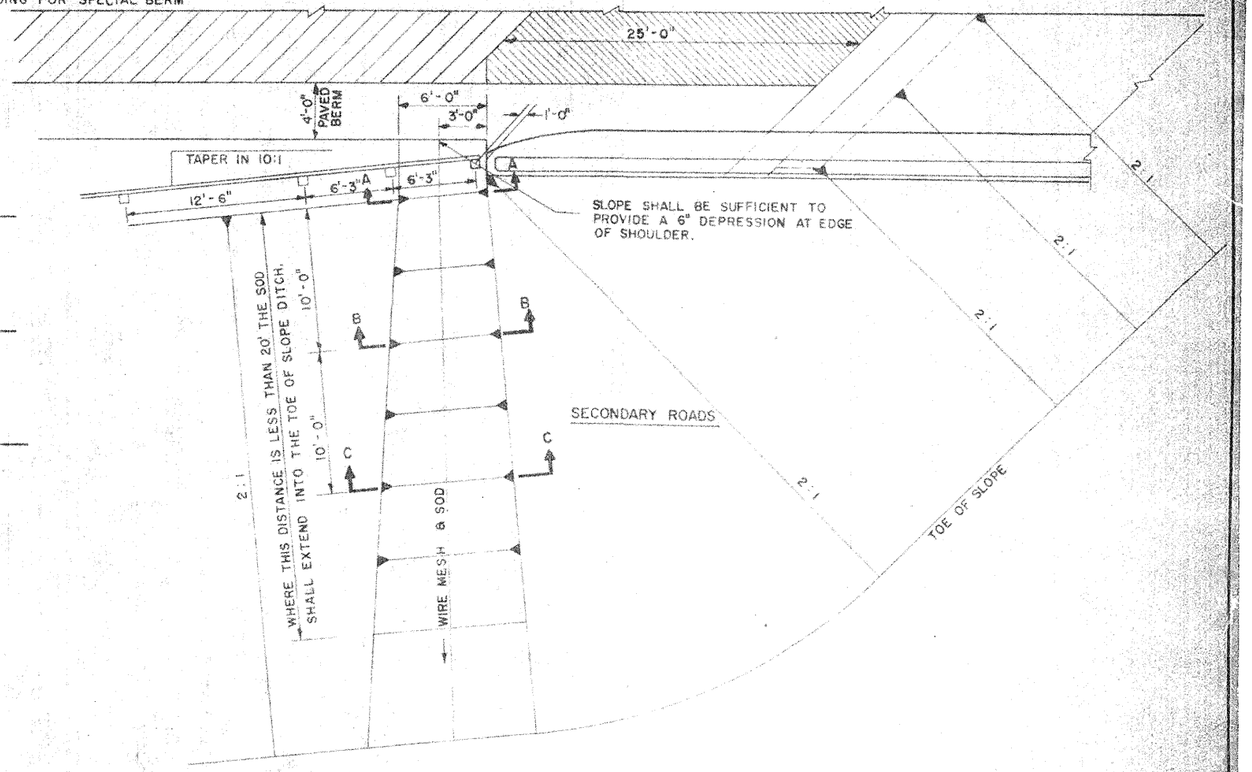
SOD SHALL BE LAID IN ACCORDANCE WITH CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION L-10.07.

THIS ITEM IS REQUIRED ONLY WHERE RATE OF SIDE SLOPE IS STEEPER THAN 6:1.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM L-10 SODDING FOR SPECIAL BERM AND SLOPE PROTECTION.



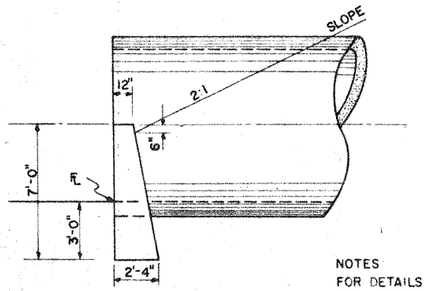




SPECIAL BERM & SLOPE PROTECTION DETAILS

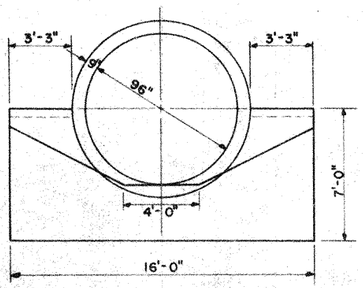
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

373/466

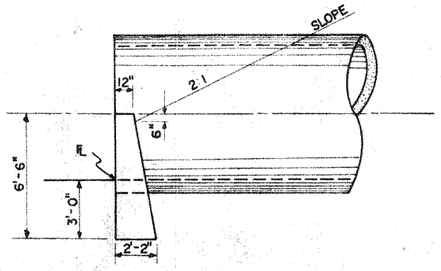
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

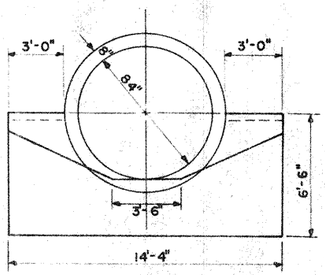



NOTES
FOR DETAILS & DIMENSIONS NOT SHOWN HERE ON SEE STD. DRAWING SP-53.

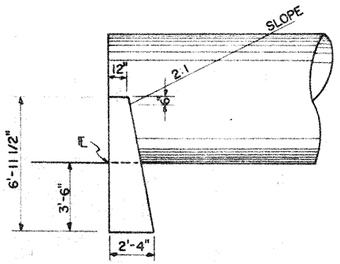


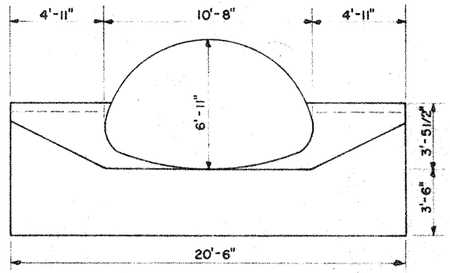

SP-53 ENDWALL FOR 96" PIPE



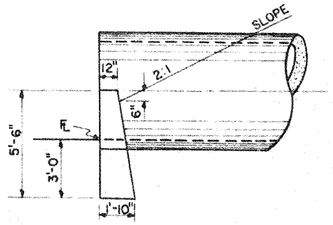



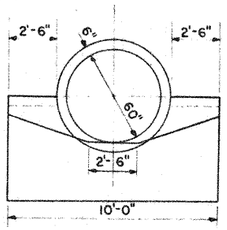

SP-53 ENDWALL FOR 84" PIPE



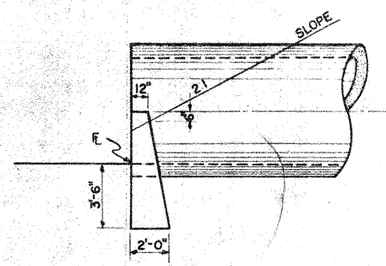



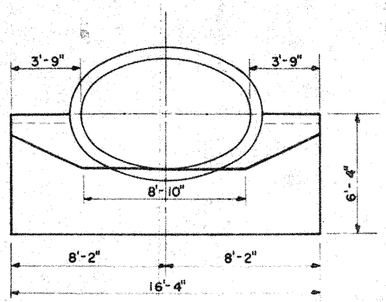

SP-53 ENDWALL FOR CMP ARCH 10'-8"x6'-11"



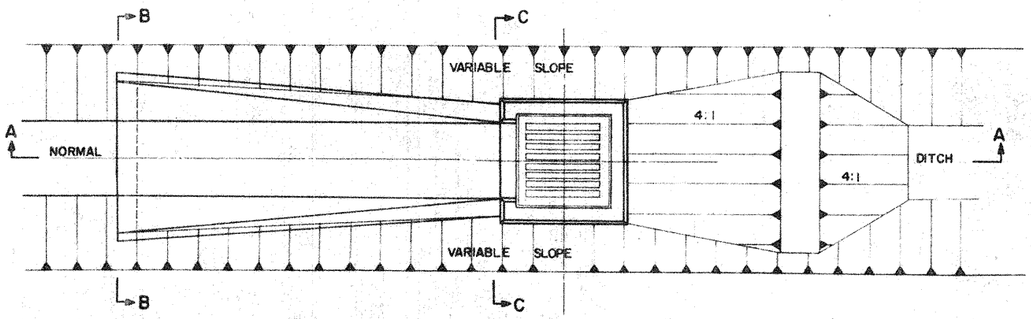



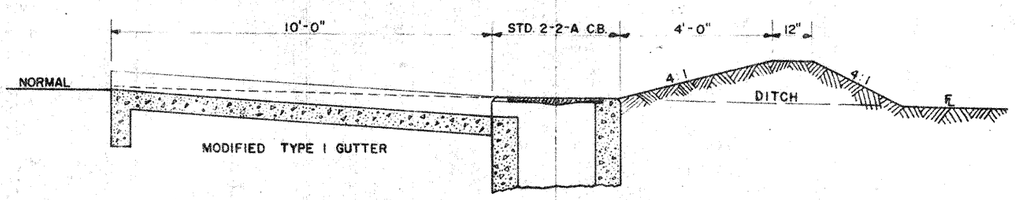

SP-53 ENDWALL FOR 60" PIPE



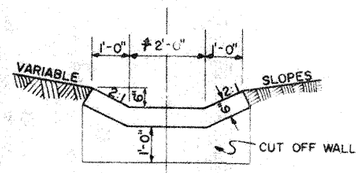

FOR 106"x68" ELLIPTICAL CONCRETE PIPE



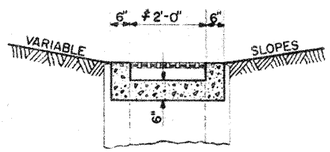




SECTION A-A

MODIFIED TYPE I PAVED GUTTER WITH STD. 2-2A C.B.




SECTION B-B




SECTION C-C

NOTES:

1. FOR ALL DIMENSIONS & DETAILS NOT SHOWN SEE STD. DRAWINGS I-8 C.B. 2-2-A & 2-2-B AND I-14 G.
2. IN SAGS OMIT DITCH BLOCK AND USE GUTTER ON EACH SIDE OF C.B.
3. THE COST OF THE PAVED GUTTER IS INCLUDED IN THE BID PRICE FOR ITEM I-14 STD. TYPE I PAVED GUTTER MODIFIED AS PER PLAN. THE COST OF THE DITCH BLOCK IS INCLUDED IN THE UNIT BID PRICE FOR ITEM E-1 ROADWAY EXCAVATION.

≠NOTE: THIS DIMENSION SHALL BE FOUR (4) FEET WHEN MODIFIED PAVED GUTTER IS USED AT MODIFIED 2-4 CATCH BASINS AND IN THAT CASE THE GUTTER WILL BE PAID FOR AS MOD. TYPE 1 PAVED GUTTER (4 FT. FLAT BOTTOM).

# SUB SUMMARY STRUCTURES 20' SPAN & UNDER

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

374
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

| Station & Skew | Structure Number | E-2 Excavation for Structure Cu. Yds. | E-3 Channel Excavation Cu. Yds. | I-10 Dumped Rock Channel Protection Cu. Yds. | I-10 Riprap Using 6" Reinforced Concrete Slab As Per Plan Sq. Yds. | L-10 Sodding Sq. Yds. | S-1 Concrete For Structures, Class "E" Cu. Yds. | S-27 Pipe For Roadway Culverts: Sec. M-6.6 (b) or Sec. M-6.8(b) 18" Lin. Ft. | 30" Lin. Ft. | 36" Lin. Ft. | Sec. M-6.4(d) 10 Gage 24" Lin. Ft. | 36" Lin. Ft. | Sec. M-6.6(b) 42" Lin. Ft. | 84" Lin. Ft. | Sec. M-6.6(c) 42" Lin. Ft. | Sec. M-6.6(d) or Sec. M-6.4(a) 8 Gage 48" Lin. Ft. | Sec. M-6.6(c) 30" Lin. Ft. | Sec. M-206(b) 106"x68 Lin. Ft. | S-28 Sectional Corrugated Metal Structure: 84" Sec. M-6.4(g) 8-7 Gage Lin. Ft. | 10'-8"x6'-11" Sec. M-6.4 (g) 7-5 Gage Lin. Ft. | 5-3 Gage Lin. Ft. | E-12 Pipe Removed over 15" Lin. Ft. | E-1 Roadway Excavation Method "B" Cu. Yds. | See Sheet No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5+32 4°R.F. | LIC-161-1122 | 9 | | | | 6 | 2.92 | | | 42 | | | | | | | | | | | | | 8 | | 375 |
| 24+00 0° | LIC-161-1159 | 422 | 78 | | | 6 | 1.52 | | | | | | | | 224 | | | | | | | | | | 376 |
| 39+00 0° | LIC-161-1186 | 104 | 1289 | | | 8 | 8.5 | | | | | | | 220 224 | | | | | | | | | | | 377 |
| 62+00 0° | LIC-161-1230 | 31 | | 6 | | 7 | 1.52 | | | | | | 136 | | | | | | | | | | | | 378 |
| 71+31 5°R.F. | LIC-161-1247 | 102 | 170 | 21 | 26.3 | 8 | 8.90 | | | | | | | | | | | | 182 | | | | | | 379 |
| 76+50 0° | LIC-161-1257 | 100 | 2 | 18 | | | 0.8 | | | | 214 | | | | | | | | | | | | | | 77 |
| 88+50 14°L.F. | LIC-161-1280 | 126 | 1254 | | | 8 | 8.90 | | | | | | | | | | | | 206 | | | | | | 380 |
| 179+65 14°L.F. | LIC-16-1590 | ✓ 6 | 264 | | | 6 | 1.18 | | | | | 280 | | | | | | | | | | | | | 381 ✓ |
| 192+50 0° | LIC-16-1617 | ✓ 311 | | 6 | | 6 | 1.72 | | | | | | | | | | 236 | | | | | | | | 382 ✓ |
| 214+25 47°R.F. | LIC-16-1656 | 116 | 270 | 39 | | 8 | 8.22 | | | | | | | 266 | | | | | | | | | | | 383 |
| 80+75 0° | RAMP "A" | 14 | | | | 2 | 0.60 | 108 | | | | | | | | | | | | | | | | | 384 |
| 86+00 0° | RAMP "AB" | 6 | | | | 4 | 1.02 | | 130 | | | | | | | | | | | | | | | 340 | 385 |
| 88+10 21°L.F. | RAMP "D" | 57 | 641 | | | 9 | 14.7 | | | | | | | | | | | | | | | 102 | | | 386 |
| 4+00 33°L.F. | SERVICE RD. | 70 | 119 | | 57 | 8 | 8.9 | | | | | | | | | | | | 110 | | | | | | 387 |
| 0+85 4°R.F. | TWP. 131 | 80 | 246 | 30 | | 8 | 14.5 | | | | | | | | | | | | | | 96 | | | | 388 |
| 24+07 0° | TWP. 131 | 23 | | | | 3 | 0.6 | 66 | | | | | | | | | | | | | | | | | 389 |
| 367+24 11°L.F. | S.R. 37 | 169 | | 6 | | 5 | 1.02 | | | | | | | | | | | 124 | | | | | | | 390 |
| 14+25 0° | TWP. 131 | 90 | 790 | 26 | 40 | 5 | 1.18 | | | 68 | | | | | | | | | | | | | | | 391 |
| 16+00 to 47+00 | Raccoon Creek | | 11,785 | 1435 | | | | | | | | | | | | | | | | | | | | 86,408 | 333 |
| 75+00 to 86+00 | Raccoon Creek | | 10,275 | 1836 | | | | | | | | | | | | | | | | | | | | 24,164 | 350 |
| 205+00 to 210+00 | Raccoon Creek | | 12,346 | 332 | | | | | | | | | | | | | | | | | | | | | 355 |
| Totals to General Summary Rural | | 1,836 | 39,529 | 3605 | 123.3 | 107 | 86.70 | 174 | 130 | 110 | 214 | 280 | 136 | 490 | 224 | 236 | | 124 | 498 | | | 96 | 102 | 8 | 110,912 | |
| 263+15 2°L.F. | LIC-16-1748 | 78 | 963 | | | 8 | 8.7 | | | | | | | | | | | | | 268 | | | | | 392 |
| 286+50 32°R.F. | LIC-16-1758 | 120 | 1290 | | | 7 | 8.5 | | | | | | | 280 | | | | | | | | | | | 393 |
| 259+95 to 270+80 | Raccoon Creek | | 9,610 | 1667 | | | | | | | | | | | | | | | | | | | | 18,798 | 359 |
| Totals to General Summary Urban | | 198 | 11,863 | 1,667 | | 15 | 17.2 | | | | | | | 280 | | | | | | 268 | | | | 18,798 | |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

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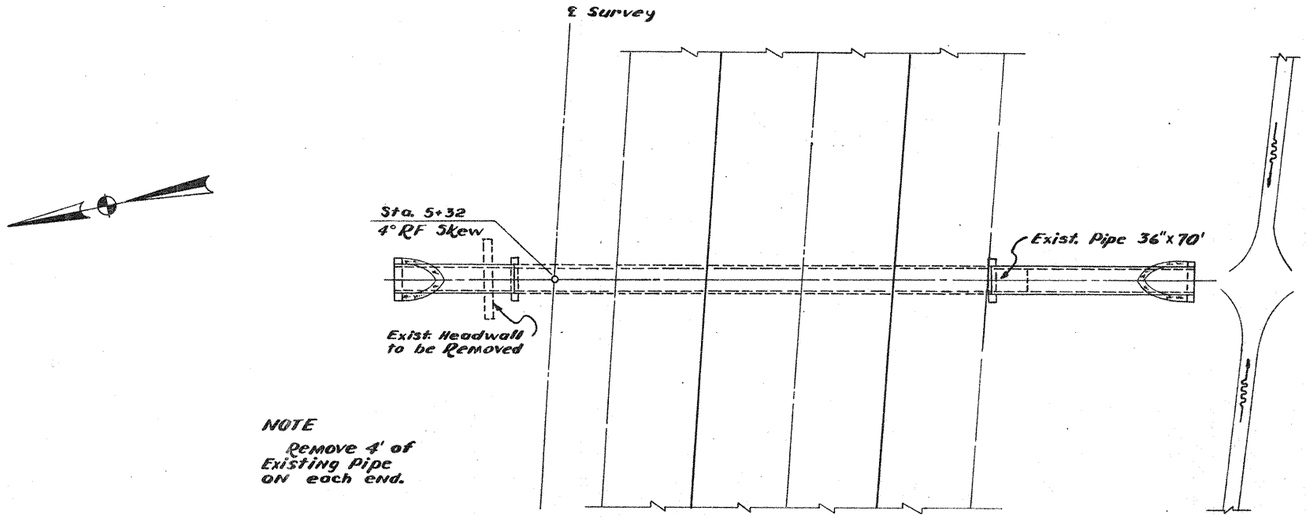
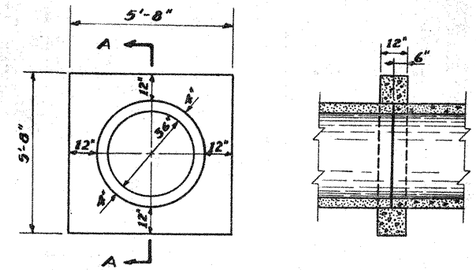
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



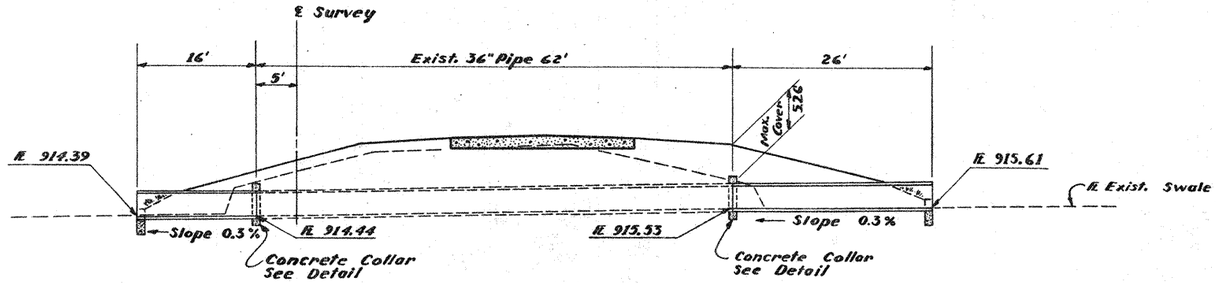

NOTE
Remove 4' of Existing Pipe on each end.

DA 12 Acres
Q25 39 cfs
Scale 1"=10'




CONCRETE COLLAR DETAIL

NOTE
Concrete Collar to be Constructed of Class "E" Concrete Meeting the Requirements of Item S-1 Concrete for Structures.




930
920
910

ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 9 Cu. Yds. |
| E-12 | Pipe Remove over 15" | 8 Lin. Ft. |
| L-10 | Sodding | 6 Sq. Yds. |
| S-1 | Concrete for Structures Class "E" | 2.92 Cu. Yds. |
| S-27 | 36" Pipe for Roadway Culverts | 42 Lin. Ft. |

CULVERT DATA

Type: S-27 Pipe for Roadway Culverts Sec. M6.6(b) or Sec. M6.8(b) Std. Type PC-4 Endwalls
Size: 42" x 36"

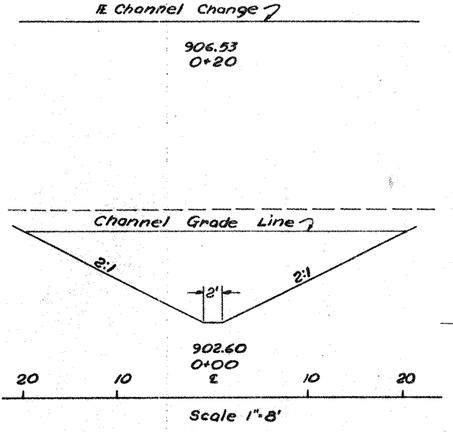
Culvert No. LIC-161-11.22

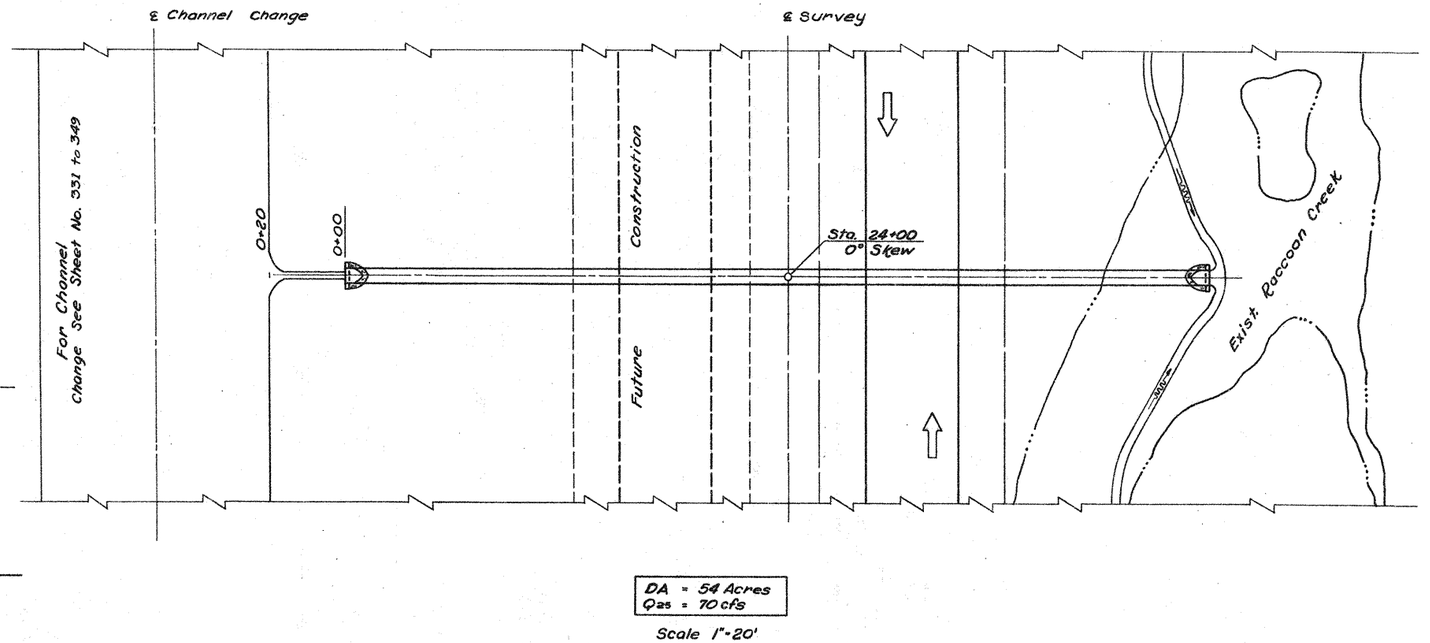
CULVERT SECTION - STA. 5+32

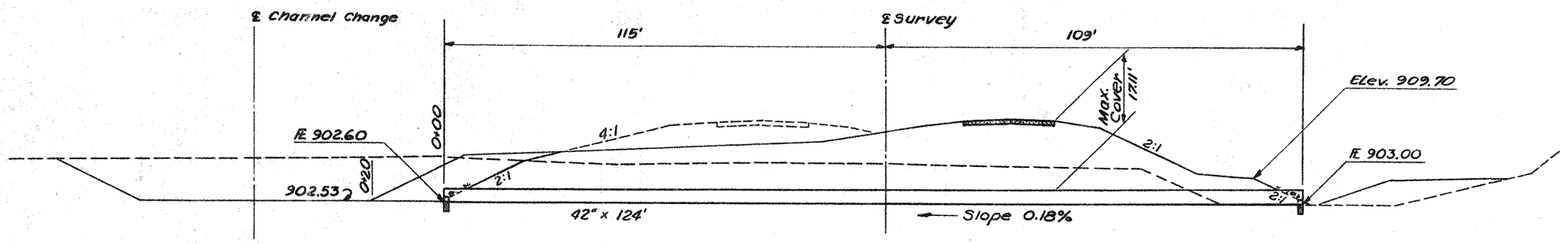
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

376
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 422 Cu.Yds. |
| E-3 | Channel Excavation | 78 Cu.Yds. |
| L-10 | Sodding | 6 Sq.Yds. |
| S-1 | Concrete for Structures, Class "E" | 1.52 Cu.Yds. |
| S-27 | 42" Pipe for Roadway Culverts | 224 Lin.Ft. |

CULVERT DATA

| | |
|---|---|
| TYPE | S-27 Pipe for Roadway Culverts Sec. M6.6 (c) Std. Type PC-4 Endwalls |
| SIZE | 42" x 224' |

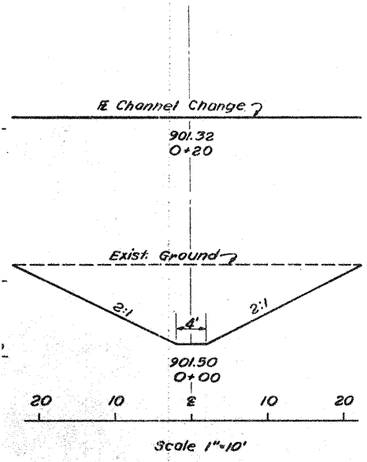
Culvert No. LIC-161-11 59

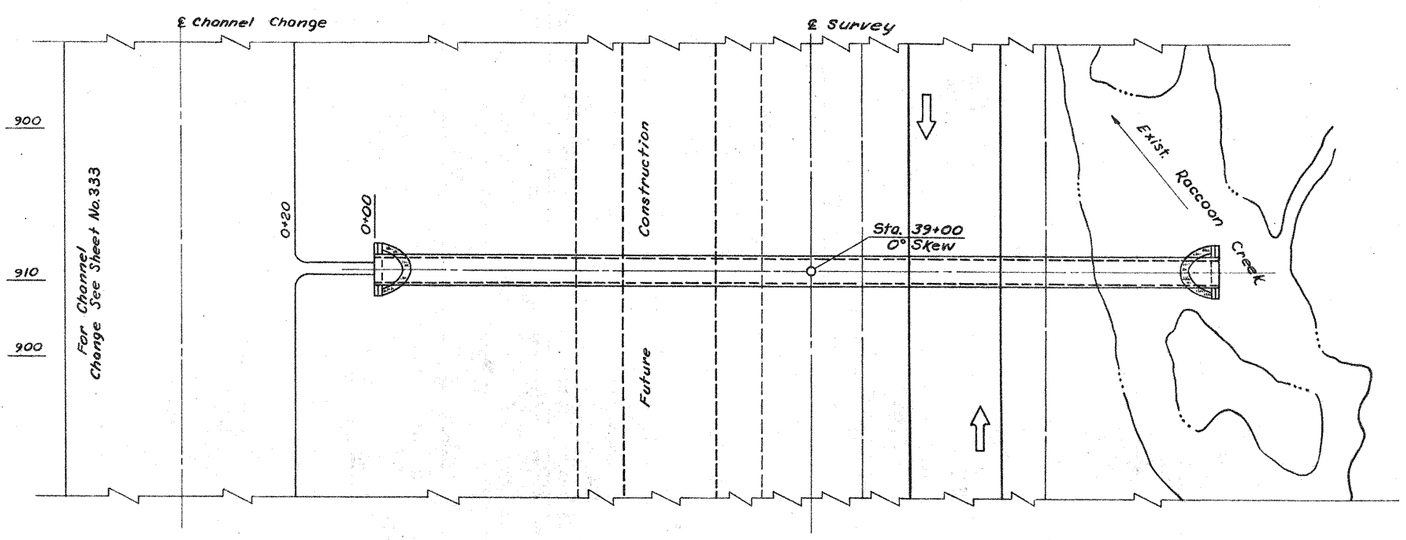
CULVERT SECTION — STA. 24+00

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

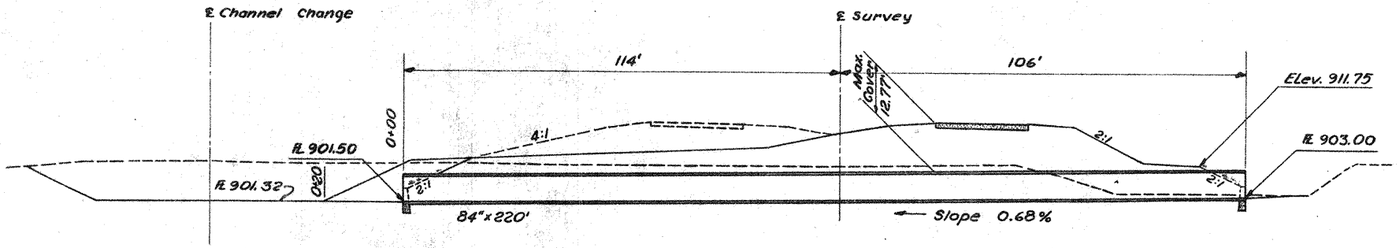
377
466

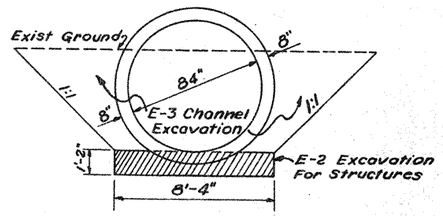
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




DA = 640 Acres
Q25 = 421 cfs
Scale 1"=20'




TYPICAL SECTION FOR PIPE EXCAVATION
Scale 1"=4'

920
910

ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 104 Cu. Yds. |
| E-3 | Channel Excavation | 1289 Cu. Yds. |
| L-10 | Sodding | 8 Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | 8.5 Cu. Yds. |
| S-27 | 84" Pipe for Roadway Culverts | 220 Lin. ft. |

CULVERT DATA

TYPE S-27 Pipe for Roadway Culverts
Sec. M-6.6 (b) SP-53 Endwalls
SIZE 84" x 220'

For Endwall Details
See Sheet No. 373

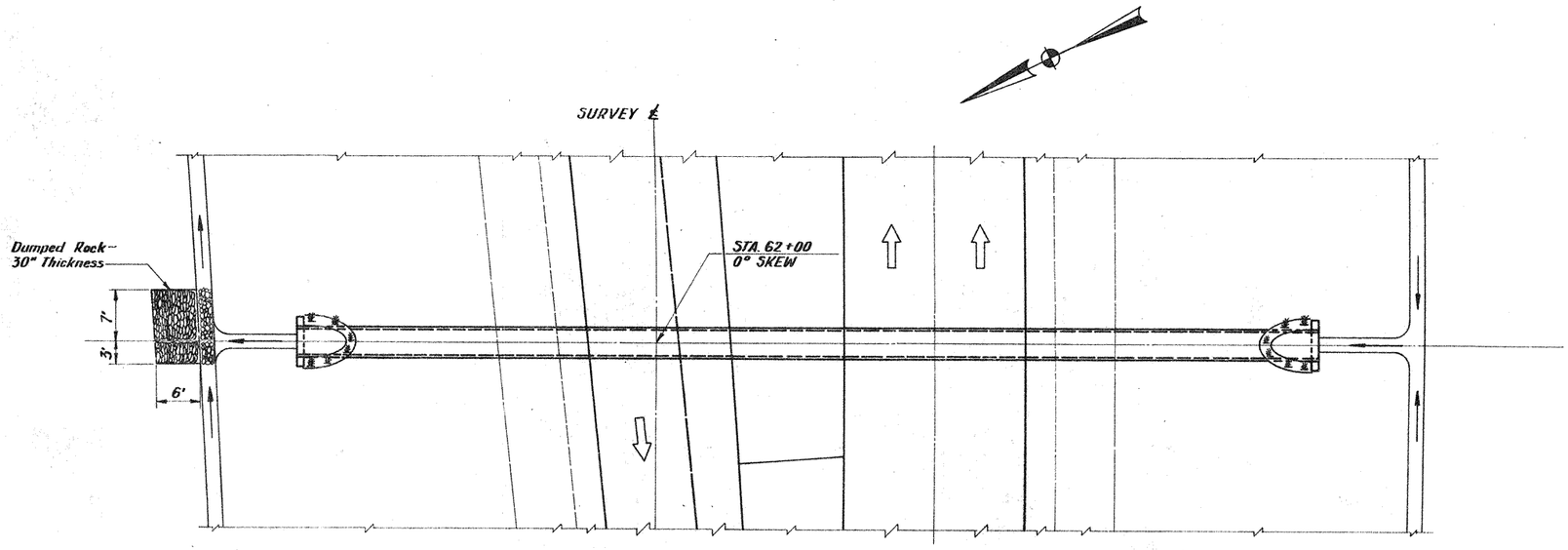
Culvert No. LIC-161-1186

CULVERT SECTION - STA. 39+00

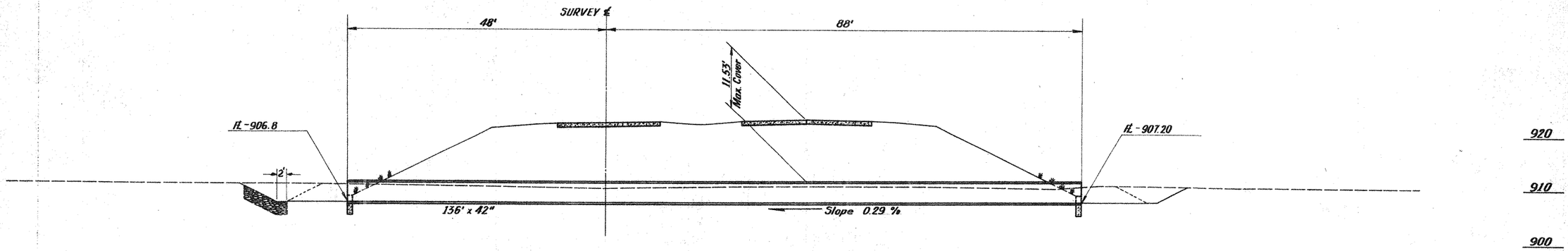
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

378
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




D.A. = 55 Acres
Q25 = 85 c.f.s.
SCALE: 1" = 10'




ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 31 Cu. Yds. |
| L-10 | Sodding | 7 Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | 1.52 Cu. Yds. |
| S-27 | 42" Pipe for Roadway Culverts | 136 Lin. Ft. |
| I-10 | Dump Rock Channel Protection | 6 Cu. Yds. |

CULVERT DATA

TYPE: S-27 Pipe for Roadway Culverts, Sec. M-6.6 (b)
Std. Type PC.-4 Endwalls
SIZE: 136' x 42"

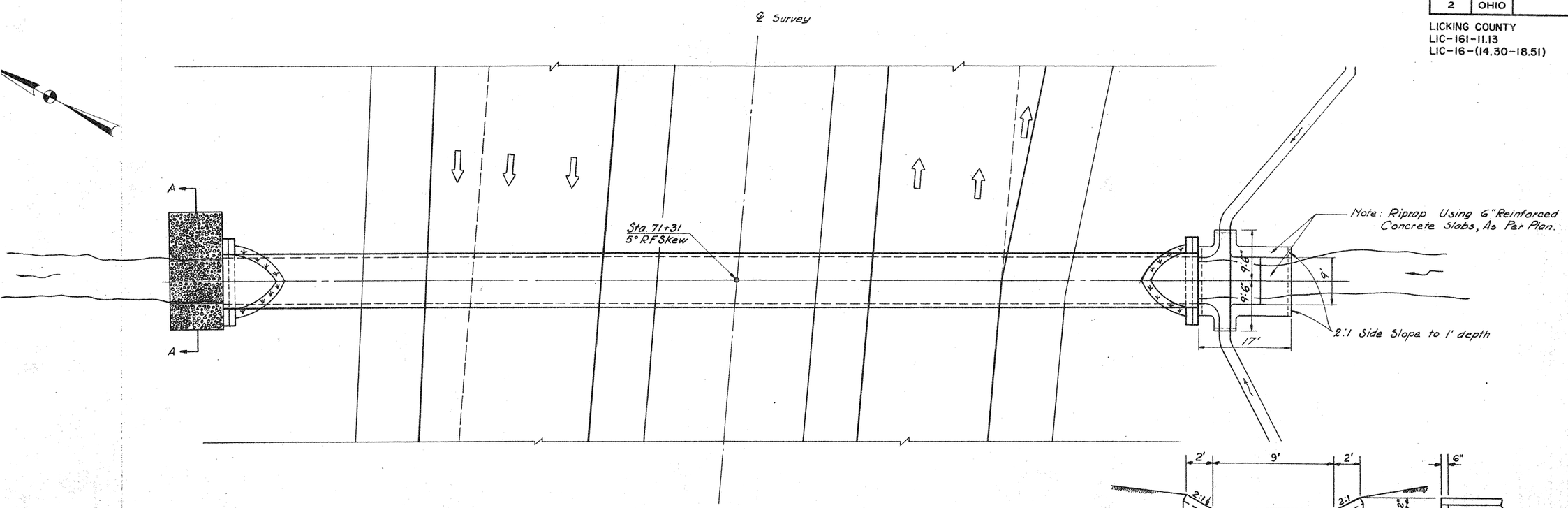
Culvert No. LIC-161-12.30

CULVERT SECTION - STA. 62+00

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

379
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)





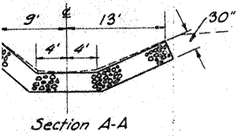


DETAIL - CUT-OFF WALL FOR CONCRETE RIPRAP
SCALE 1"=4'

For Endwall Details See Sheet N° 373

Q25 = 436 cfs
DA = 640 Acres

Scale 1"=10'




Section A-A







TYPICAL SECTION FOR PIPE EXCAVATION
Scale ¼"=1'-0"

910
900

ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structure | 102 Cu. Yds. |
| E-3 | Channel Excavation | 170 Cu. Yds. |
| I-10 | Dumped Rock Channel Protection | 21 Cu. Yds. |
| I-10 | Riprap Using 6" Reinforced Concrete, As Per Plan | 26.3 Sq. Yds. |
| L-10 | Sodding | 8 Sq. Yds. |
| S-1 | Concrete for Structure, Class "E" | 8.9 Cu. Yds. |
| S-27 | 106"x 68" Pipe for Roadway Culvert | 182 Lin. Ft. |

CULVERT DATA

Type: S 27 Pipe for Roadway Culvert, See M-206.6 (b).
Std. Type SP 53 Endwalls.
Size 182' x 106"x 68"

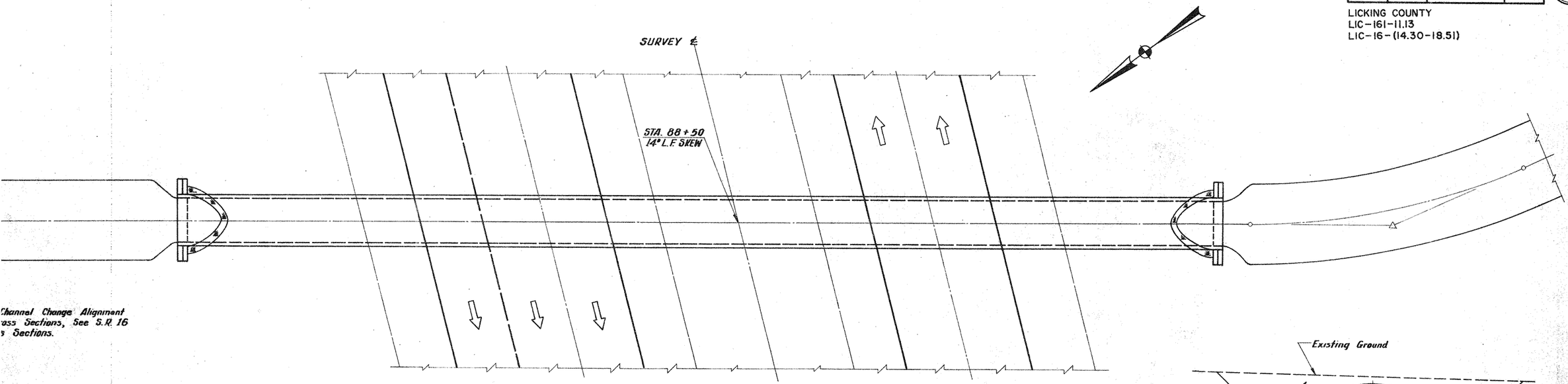
Culvert No. LIC-161-12 47

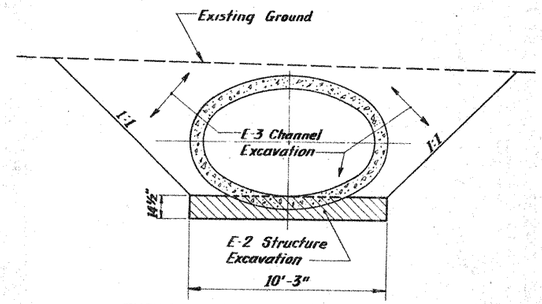
CULVERT SECTION - STA. 71+31

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

380
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

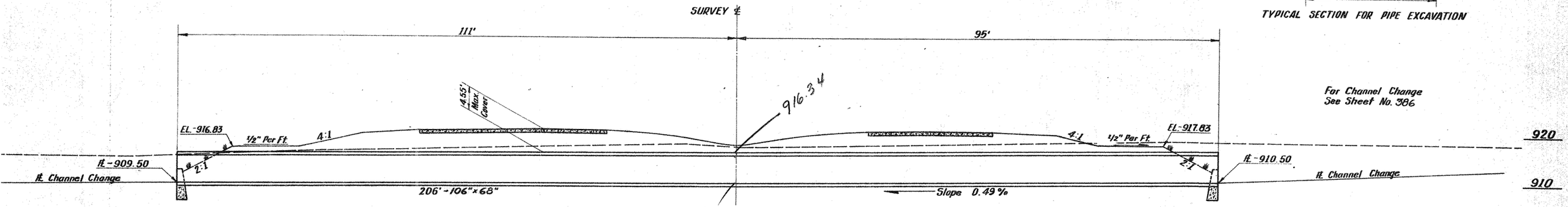



TYPICAL SECTION FOR PIPE EXCAVATION

| | |
|---|---|
| D.A. | 720 Acres |
| Q25 | 458 c.f.s. |

SCALE: 1" = 10'




For Channel Change
See Sheet No. 386

For Endwall Details
See Sheet No. 373

## ESTIMATED QUANTITIES

| | | | |
|---|---|---|---|
| E-2 | Excavation for Structures | 126 | Cu. Yds. |
| E-3 | Channel Excavation | 1,254 | Cu. Yds. |
| L-10 | Sodding | 8 | Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | 8.90 | Cu. Yds. |
| S-27 | Pipe for Roadway Culverts. | 206 | Lin. Ft. |

## CULVERT DATA

TYPE: S-27 Pipe for Roadway Culvert, Sec. M-206.6 (b). Std. Type S.P. 53 Endwall.

SIZE: 206'-106"× 68"

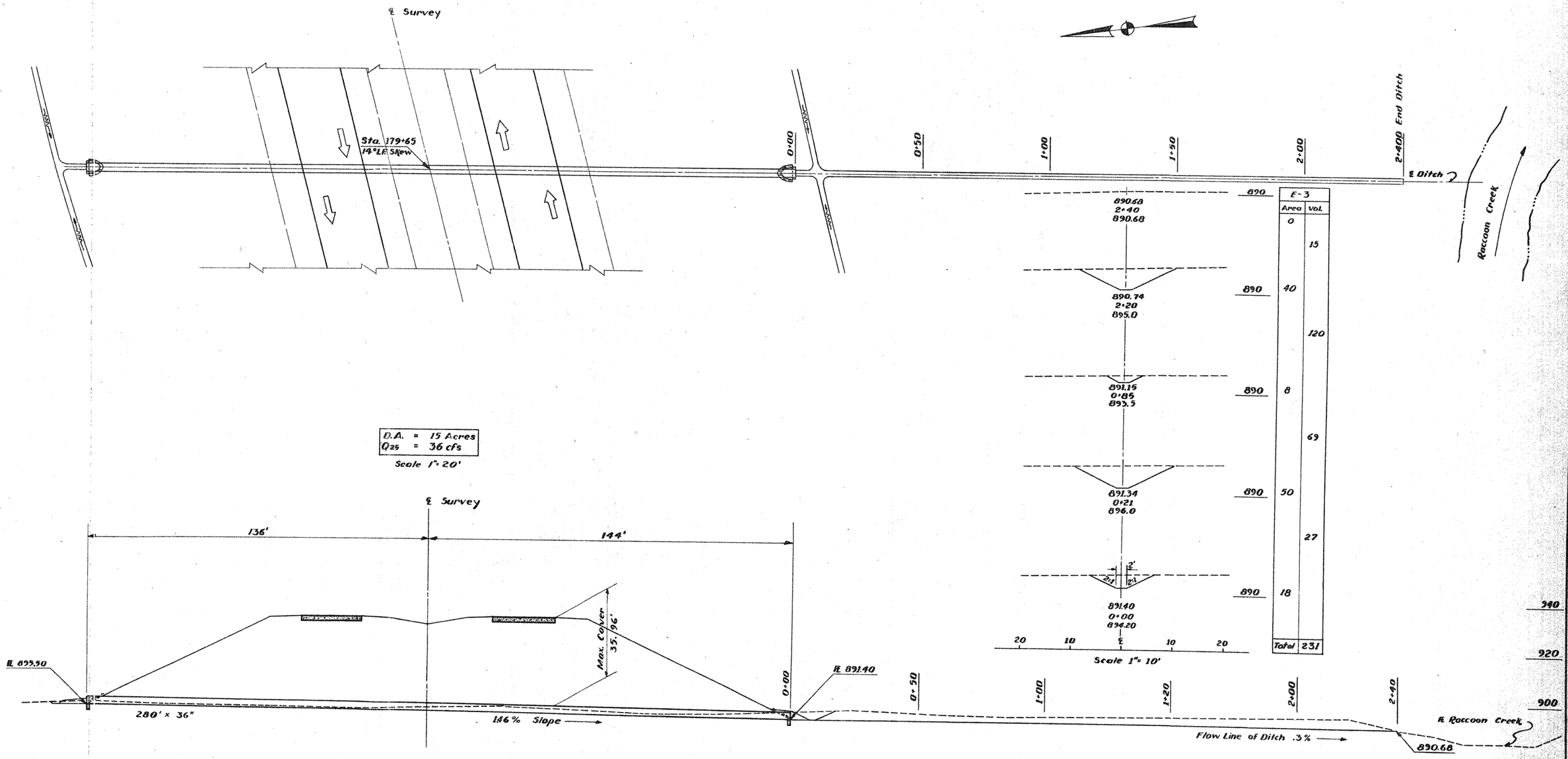
Culvert No. LIC-161-12 80

CULVERT SECTION - STA. 88+50

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

381
4606

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




## ESTIMATED QUANITITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 6 Cu. Yds. |
| E-3 | Channel Excavation | 264 Cu. Yds. |
| L-10 | Sodding | 6 Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | 1.18 Cu. Yds. |
| S-27 | 36" Pipe for Roadway Culverts | 280 Lin. Ft. |

## CULVERT DATA

Type: S-27 Pipe for Roadway Culerts
Sec. M-6.4(d) 10 gage, Std. pc-4 Endwalls
Size: 280'x 36"

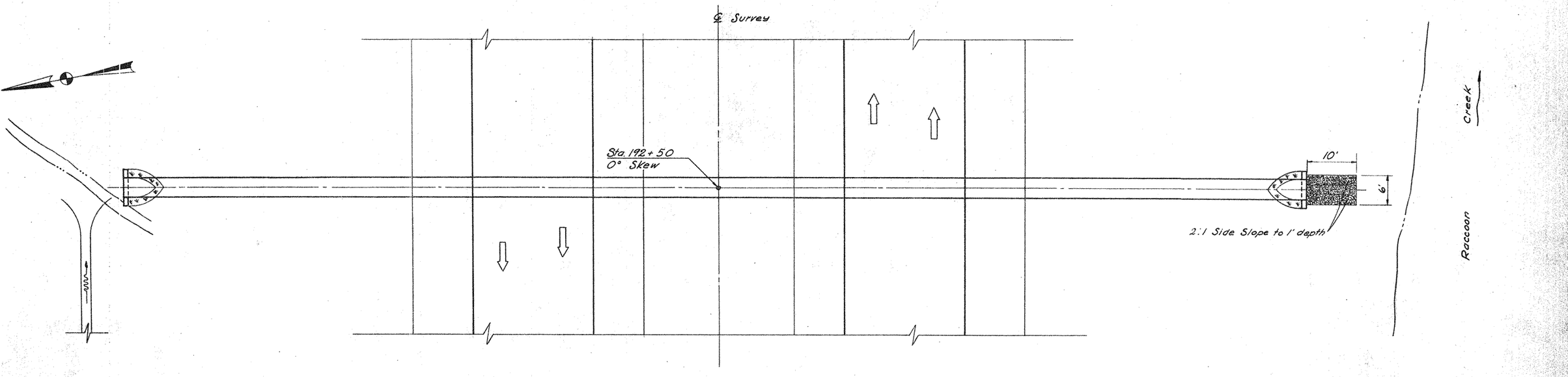
Culvert No. LIC-16-1590

CULVERT SECTION - STA. 179+65

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

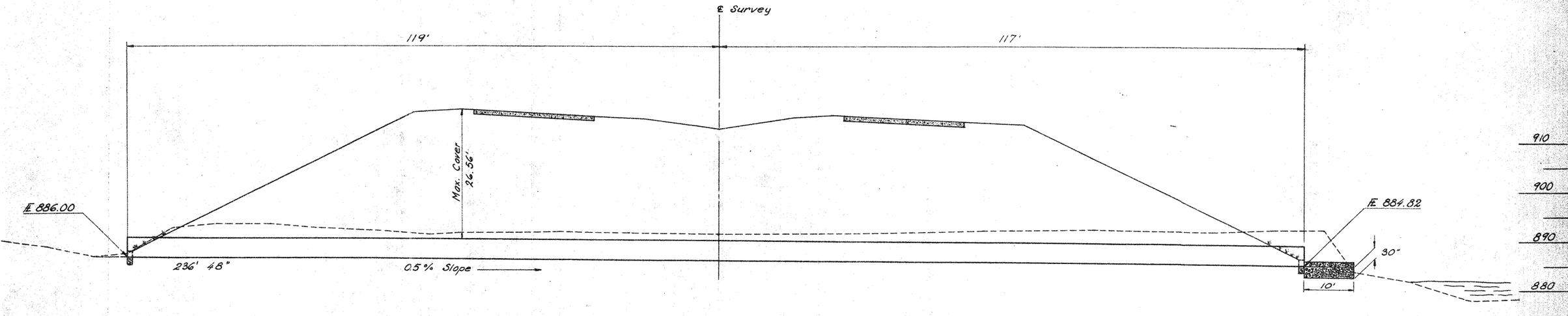
382
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




DA = 35 Acres
Q25 = 66 cfs

Scale 1"=10'




ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 311 Cu. Yds. |
| I-10 | Dumped Rock Channel Protection | 6 Cu. Yds. |
| L-10 | Sodding | 6 Sq. Yds. |
| S-1 | Concrete for Structure Class "E" | 1.72 Cu. Yds. |
| S-27 | 48" Pipe for Roadway Culverts | 236 Lin. Ft. |

CULVERT DATA

Type: S-27 Pipe for Roadway Culverts Sec. M-6.6 (d) or Sec. M-6.4 (d), 8 gage Std., Type PC-4 Endwalls
Size 236'x 48"

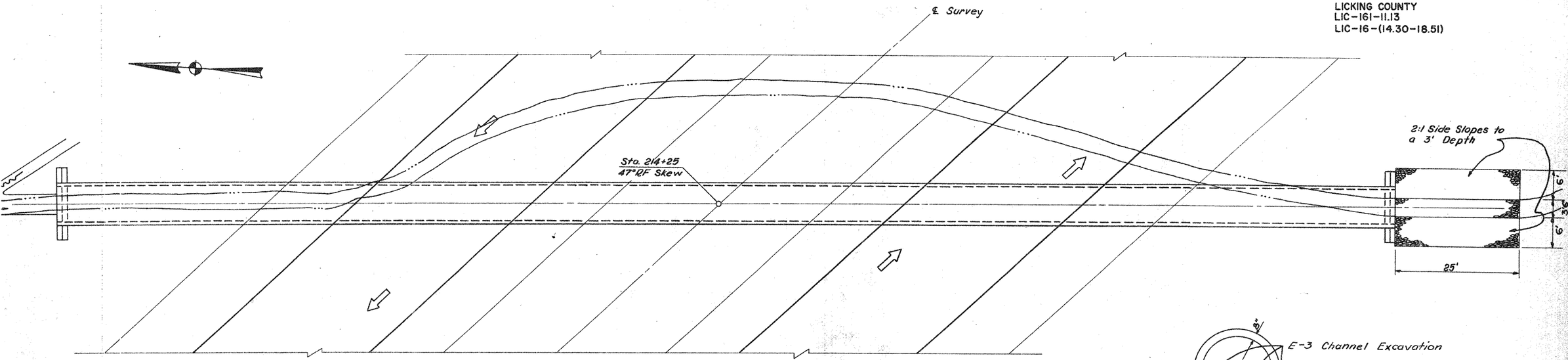
**Culvert No. LIC-16-1617**

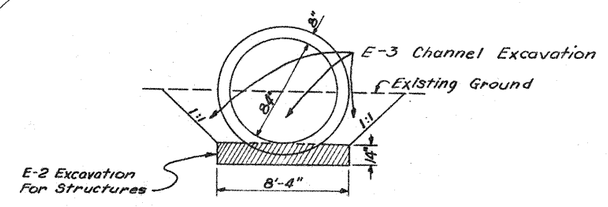
CULVERT SECTION - STA. 192+50

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

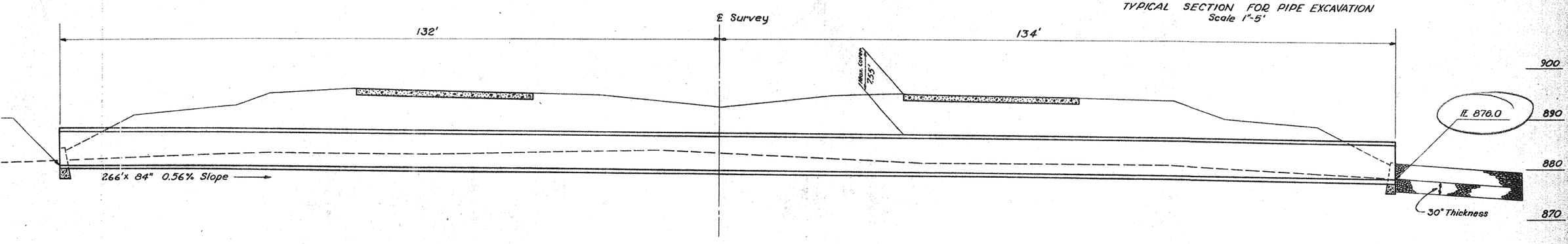
383
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




TYPICAL SECTION FOR PIPE EXCAVATION
Scale 1"-5'




ESTIMATED QUANTITIES

| | | | |
|---|---|---|---|
| E-2 | Excavation For Structures | 116 | Cu.Yds. |
| E-3 | Channel Excavation | 270 | Cu.Yds. |
| I-10 | Dumped Rock Channel Protection | 39 | Cu.Yds. |
| L-10 | Sodding | 8 | Sq.Yds. |
| S-1 | Concrete For Structures, Class "E" | 8.22 | Cu.Yds. |
| S-27 | 84" Pipe For Roadway Culverts | 266 | Lin.Ft. |

CULVERT DATA

Type: S-27 Pipe For Roadway Culverts
Sec. M-6.6(b)
Std. Type SP 53 Endwalls
Size: 266' x 84"

For Endwall Details
See Sheet No. 373

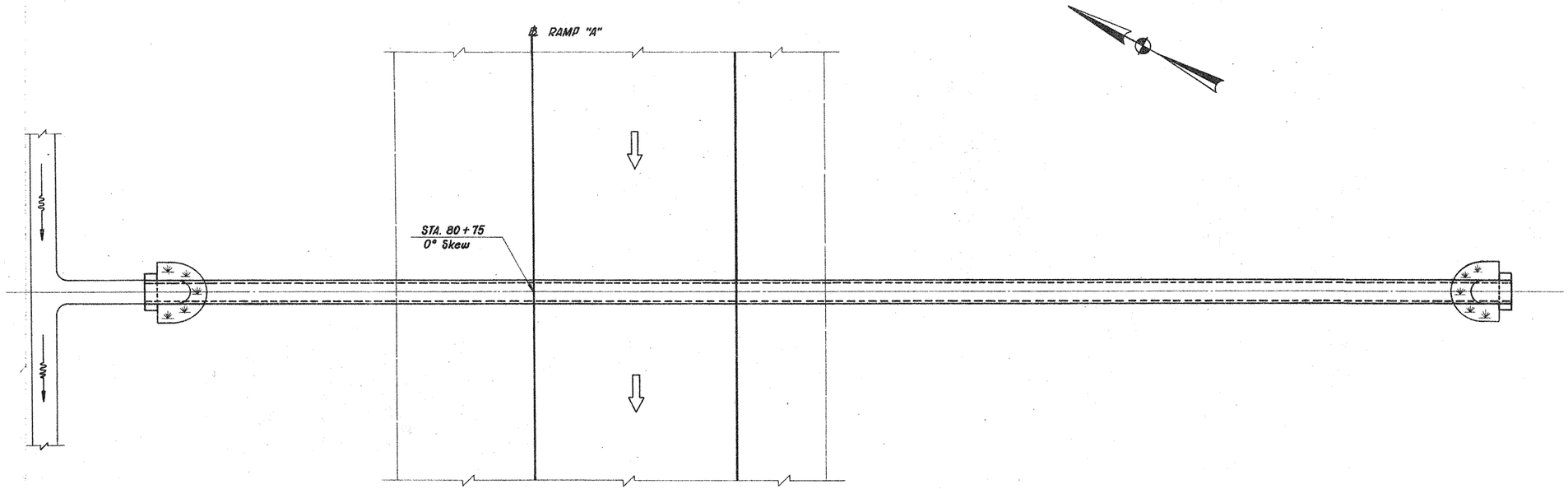
Culvert No. LIC-16-16.56

CULVERT SECTION - STA. 214+25

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

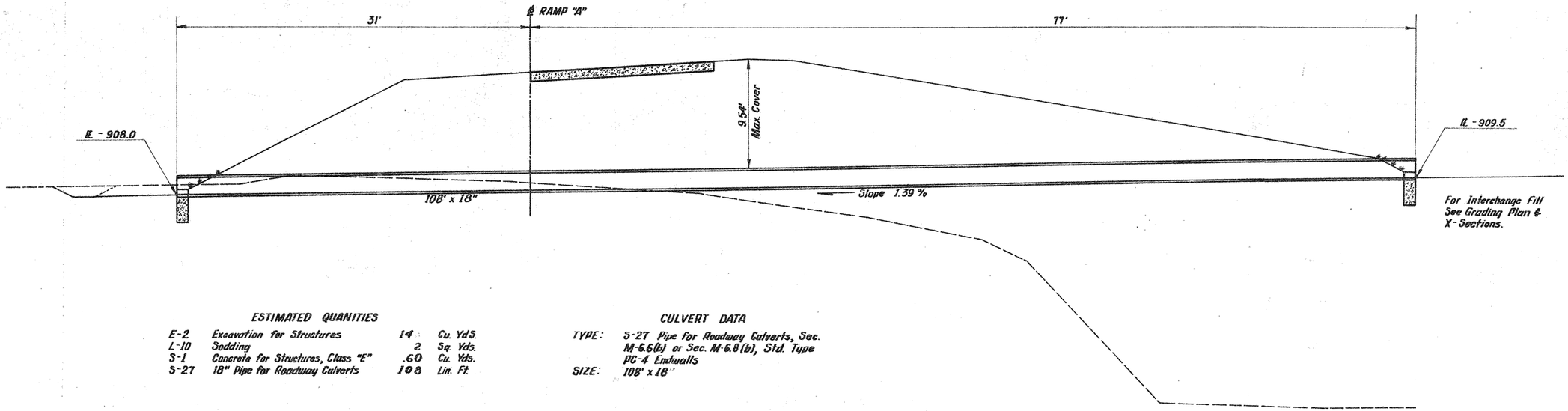
384
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




D.A. = 3 Acres
Q25 = 14 cfs

SCALE: 1" = 5'




## ESTIMATED QUANITIES

| | | | |
|---|---|---|---|
| E-2 | Excavation for Structures | 14 | Cu. Yds. |
| L-10 | Sodding | 2 | Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | .60 | Cu. Yds. |
| S-27 | 18" Pipe for Roadway Culverts | 108 | Lin. Ft. |

## CULVERT DATA

TYPE: S-27 Pipe for Roadway Culverts, Sec. M-6.6(b) or Sec. M-6.8(b), Std. Type PC-4 Endwalls

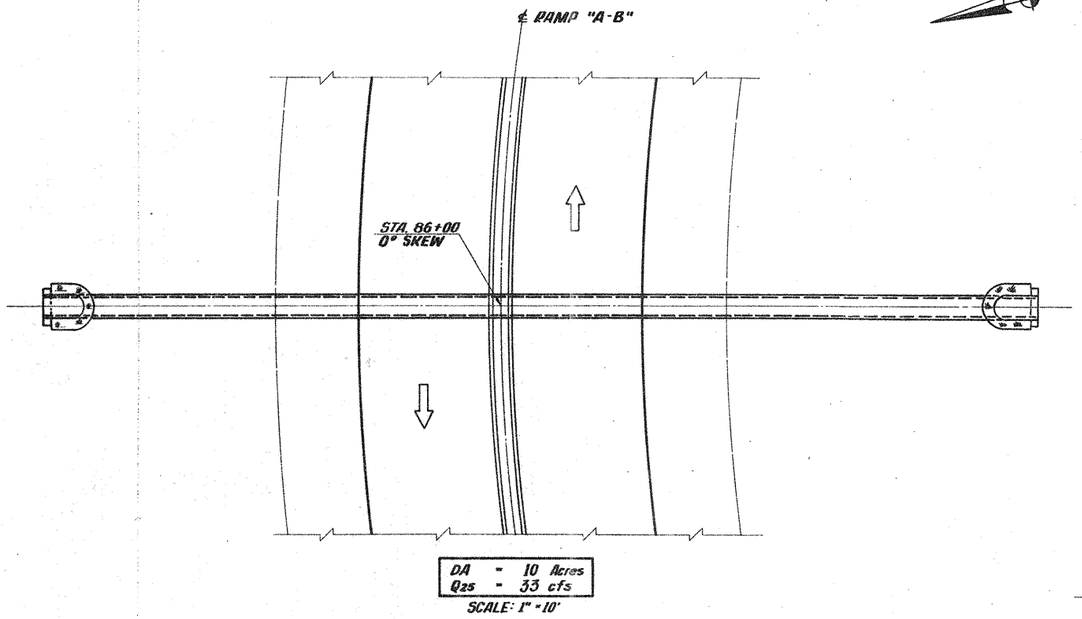
SIZE: 108' x 18"

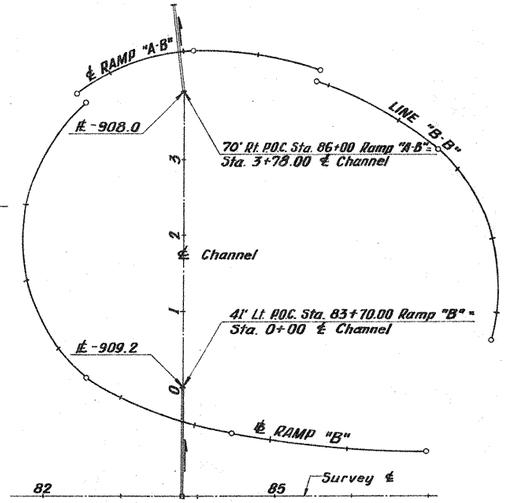
CULVERT SECTION - S.R. 16 INTERCHANGE
RAMP "A" STA. 80+75

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

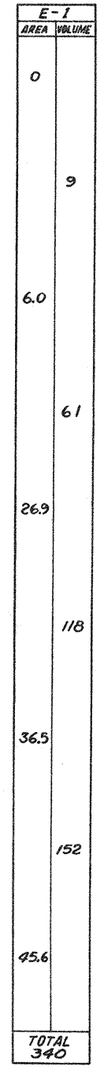
385
466

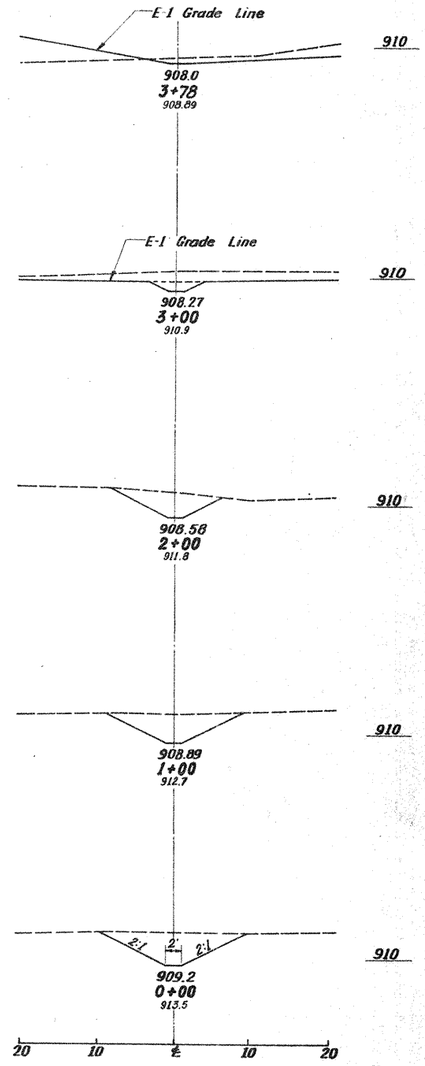
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



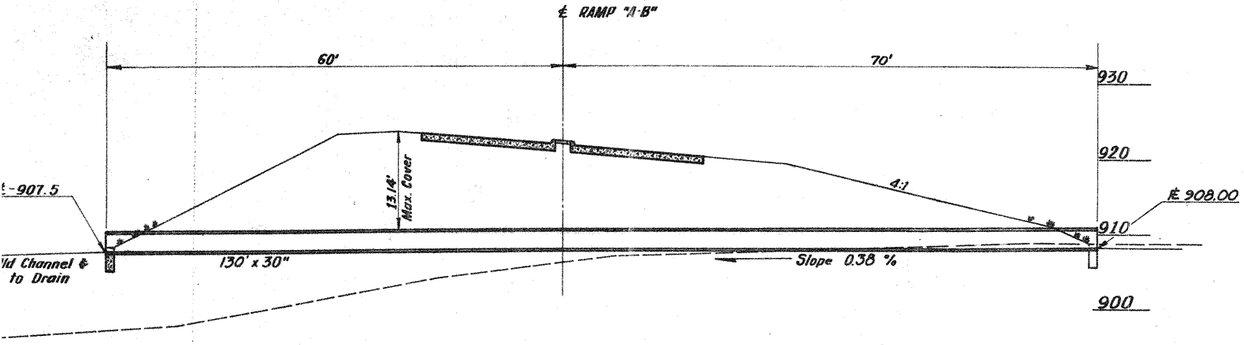




PLAN - CHANNEL LOCATION




CHANNEL X-SECTIONS




## ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 6 Cu. Yds. |
| E-1 | Roadway Excavation | 340 Cu. Yds. |
| L-10 | Sodding | 4 Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | 1.02 Cu. Yds. |
| S-27 | 30" Pipe for Roadway Culverts | 130 Lin. Ft. |

## CULVERT DATA

TYPE: S-27 Pipe for Roadway Culverts, Sec. M-6.8(b) or Sec. M-6.6(b), Std. Type P.C.-4 Endwalls.

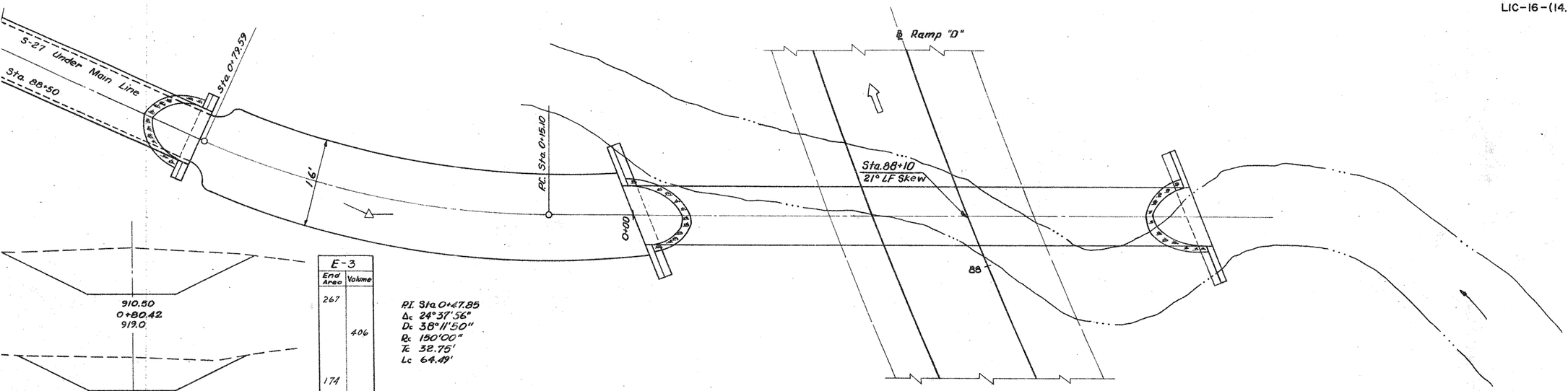
SIZE: 130' x 30"

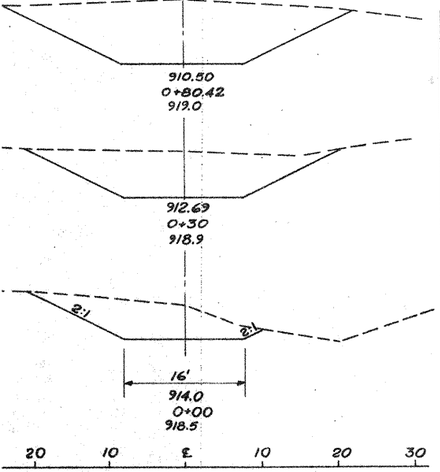
CULVERT SECTION - S.R. 16 INTERCHANGE
RAMP "A-B" STA. 86+00

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

386
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



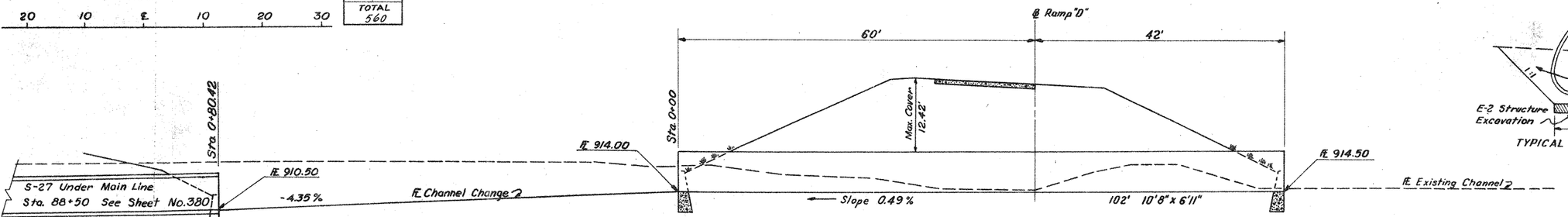



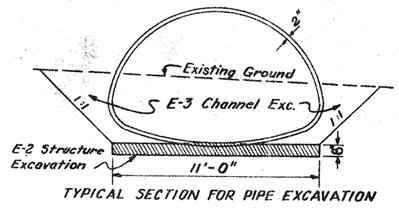

| E-3 | |
|---|---|
| End Area | Volume |
| 267 | |
| | 406 |
| 174 | |
| | 154 |
| 103 | |
| TOTAL | 560 |

P.I. Sta 0+67.85
Δc 24°37'56"
Dc 38°11'50"
Rc 150'00"
Tc 32.75'
Lc 64.49'

| | |
|---|---|
| Q25 | = 455cfs |
| D.A. | = 717 Acres |

Scale 1"=10'




TYPICAL SECTION FOR PIPE EXCAVATION

930
920
910

## ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation For Structure | 57 Cu. Yds. |
| E-3 | Channel Excavation | 641 Cu. Yds. |
| L-10 | Sodding | 9 Sq. Yds. |
| S-1 | Concrete For Structures, Class "E" | 14.7 Cu. Yds. |
| S-28 | 10'8" x 6'11" Sectional Corrugated Metal Structures | 102 Lin. Ft. |

## CULVERT DATA

Type: S-28 Sectional Corrugated Metal Structures, Sec. M-6.4(g), 5-3 Gage Std. Type S.R 53 Endwalls.

Size: 102' x 10'8" x 6'11"

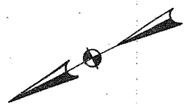
For Endwall Details
See Sheet No. 373

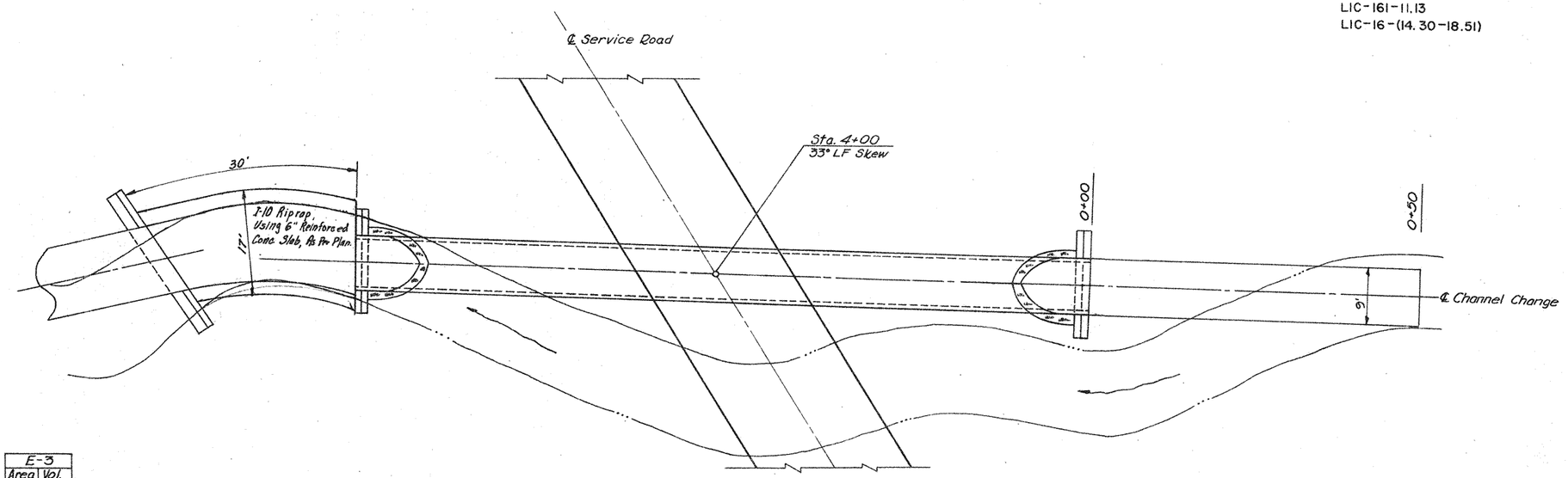
CULVERT SECTION - S.R. 16 INTERCHANGE
RAMP "D" STA. 88+10

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

387/466

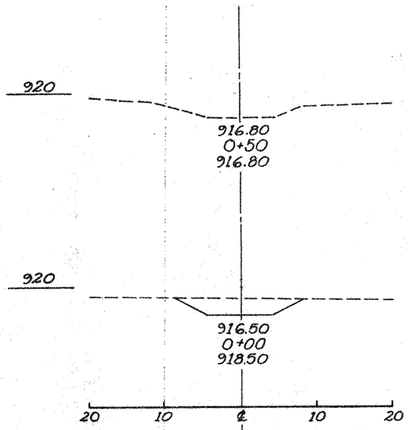
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)





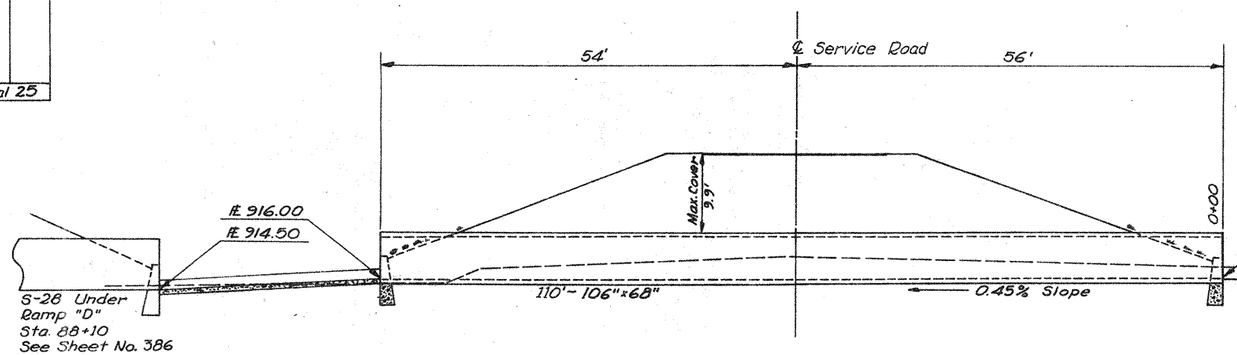

D.A. 715 Acres
Q25 453 cfs

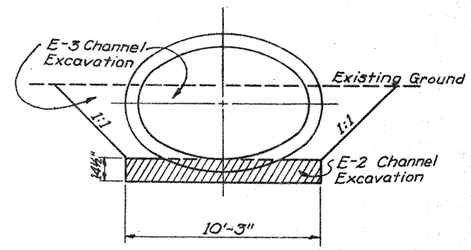
Scale 1"=10'




CHANNEL X-SECTIONS

| E-3 | |
|---|---|
| Area | Vol. |
| 0 | |
| | 25 |
| 26 | |
| Total 25 | |




TYPICAL SECTION FOR PIPE EXCAVATION
Scale 1/4"=1'0"

## ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 70 Cu. Yds. |
| E-3 | Channel Excavation | 119 Cu. Yds. |
| I-10 | Riprap, Using 6" Reinforced Concrete Slab, as per plan | 57 Sq. Yds. |
| L-10 | Sodding | 8 Sq. Yds. |
| S-1 | Concrete for Structure, Class "E" | 8.9 Cu. Yds. |
| S-27 | 106"x68" Pipe for Roadway Culvert | 110 Lin. Ft. |

## CULVERT DATA

Type: S-27 Pipe for Roadway Culvert, See M-206.6 (b), Std. Type SD-53 Endwalls.
Size 110'-106" x 68"

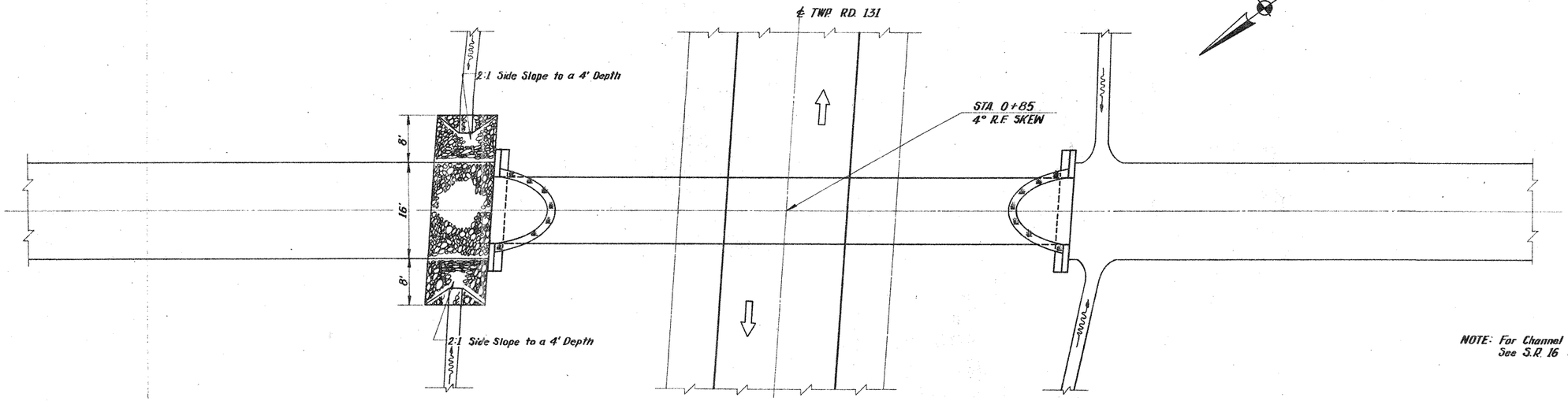
For Endwall Details See Sheet No. 373

CULVERT SECTION - SERVICE ROAD STA. 4+00

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

388
466

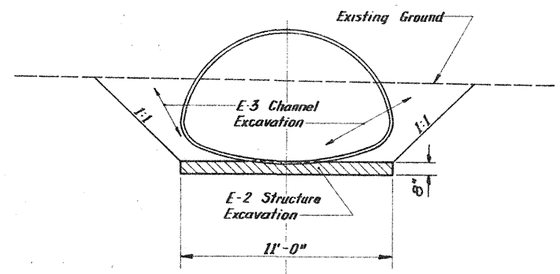
LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)



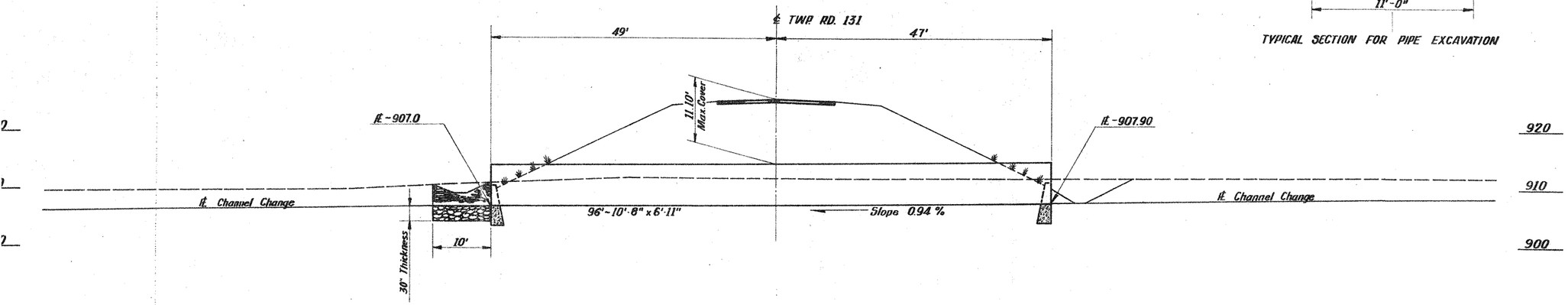

NOTE: For Channel Sections & Alignment See S.R. 16 Cross Sections.

D.A. = 725 Acres
$Q_{25}$ = 462 cfs

SCALE: 1" = 10'




TYPICAL SECTION FOR PIPE EXCAVATION




## ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 80 Cu. Yds. |
| E-3 | Channel Excavation | 296 Cu. Yds. |
| I-10 | Dumped Rock Channel Protection | 30 Cu. Yds. |
| L-10 | Sodding | 8 Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | 145 Cu. Yds. |
| S-28 | Sectional Corrugated Metal Structures | 96 Lin. Ft. |

## CULVERT DATA

TYPE: S-28 Sectional Corrugated Metal Structures, Sec. M-6.9 (g), 7-5 Gage Std. Type SP 53 Endwalls.

SIZE: 96'-10'-8" x 6'-11"

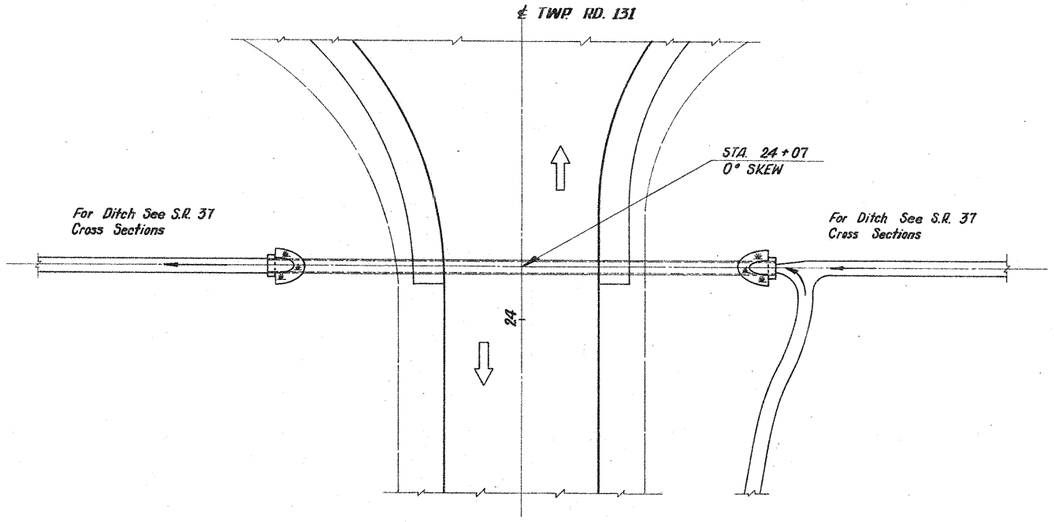
For Endwall Details See Sheet No. 373

CULVERT SECTION — TWP. RD. 131
STA. 0+85

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

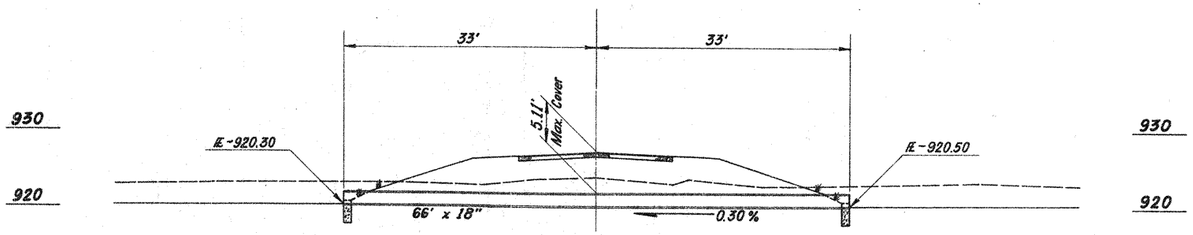
389
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




| | | |
|---|---|---|
| D.A. | 3 | Acres |
| Q25 | 6 | c.f.s. |

SCALE: 1" = 10'




## ESTIMATED QUANTITIES

| | | | |
|---|---|---|---|
| E-2 | Excavation for Structures | 23 | Cu. Yds. |
| L-10 | Sodding | 3 | Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | 0.6 | Cu. Yds. |
| S-27 | 18" Pipe for Roadway Culverts | 66 | Lin. Ft. |

## CULVERT DATA

TYPE: S-27 Pipe for Roadway Culverts, Sec. M-6.6(b) or Sec. M-6.8 (b). Sta., Type PC-4 Endwalls

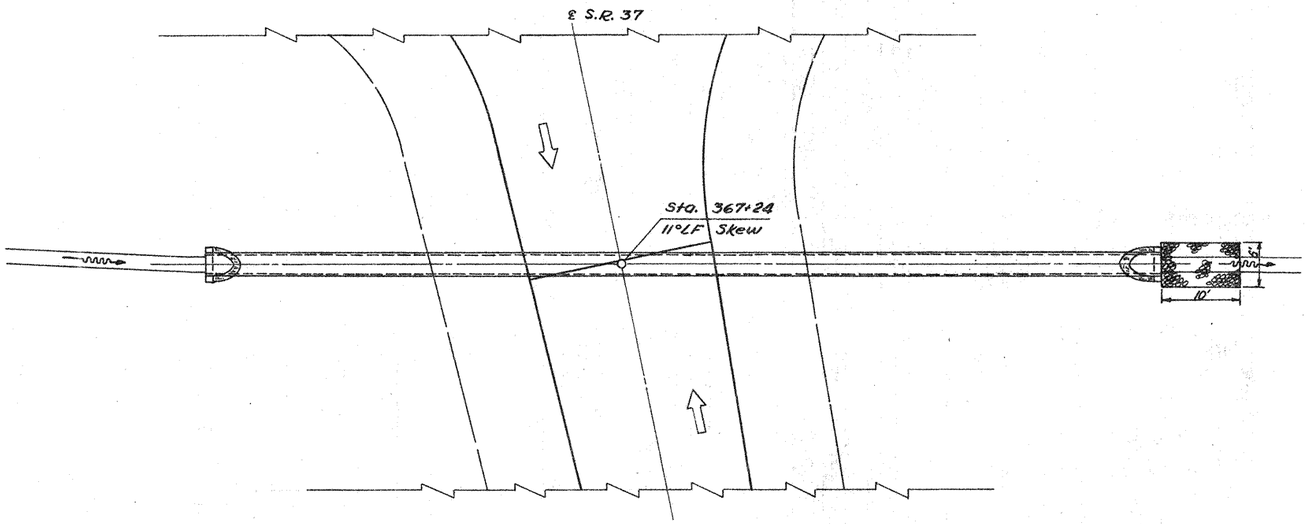
SIZE: 66'×18"

CULVERT SECTION - TWP. RD. 131
STA. 24+07

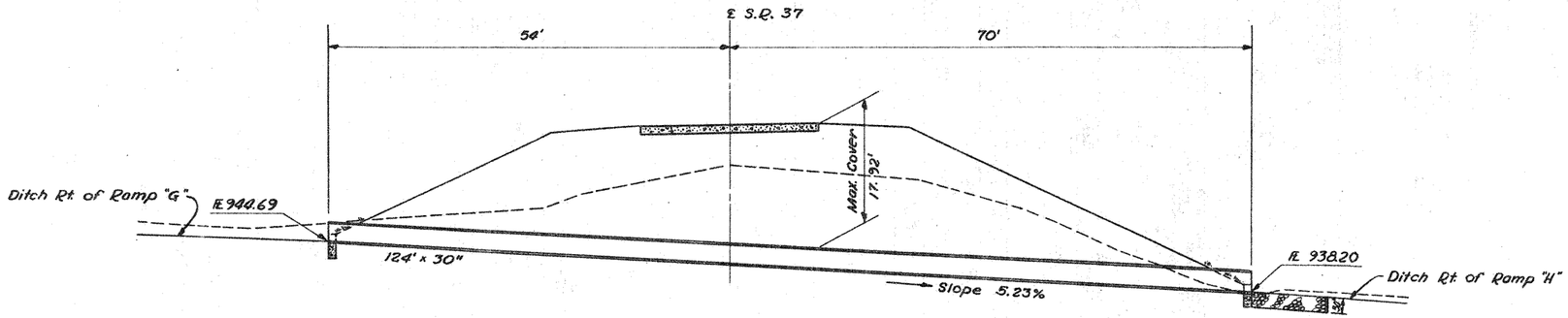
| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

390
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




DA = 30 Acres
Q25 39 c.f.s.
Scale = 1"-10'




## ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 169 Cu. Yds. |
| L-10 | Sodding | 5 Sq. Yds. |
| S-1 | Concrete for Structures, Class "E" | 1.02 Cu. Yds. |
| S-27 | 30" Pipe for Roadway Culverts. | 124 Lin. Ft. |
| I-10 | Dumped Rock Channel Protection | 6 Cu. Yds. |

## CULVERT DATA

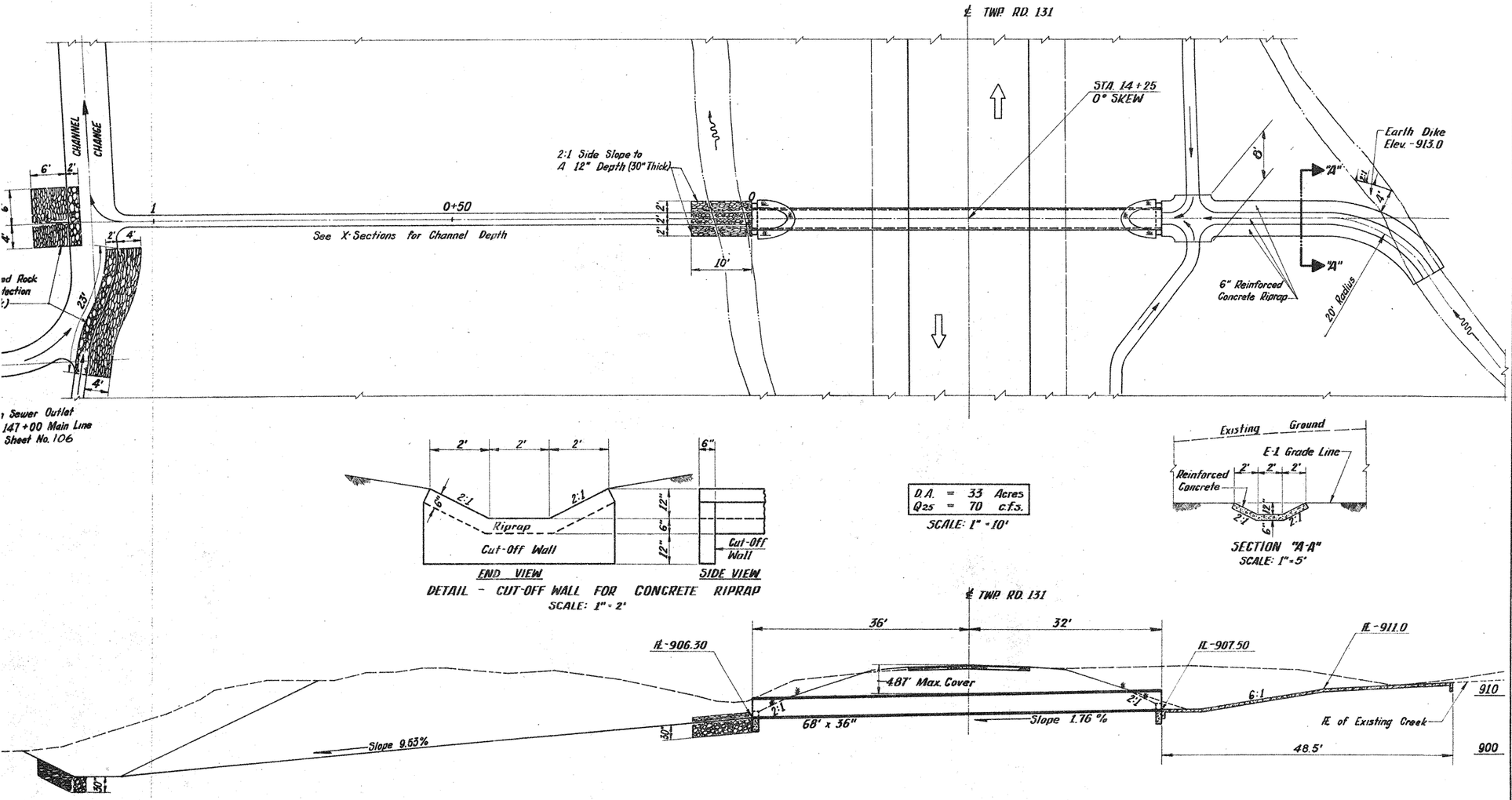
| | |
|---|---|
| TYPE | S-27 Pipe for Roadway Culverts, Sec. M-6.6 (c), Std. Type RC-4 Endwalls |
| SIZE | 124' x 30" |

S.R. 37 CULVERT SECTION - STA. 367+24

| STATE | PROJECT | | |
|---|---|---|---|
| 2 | OHIO | | |

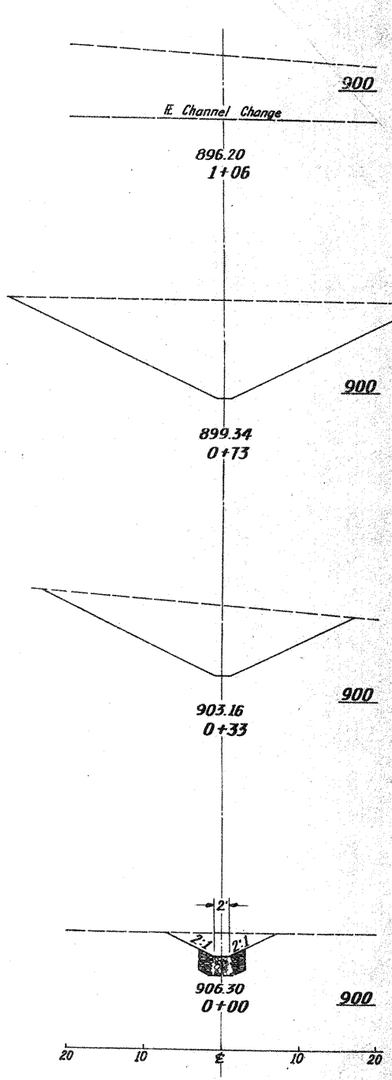
391
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)




E-3

| AREA | VOLUME |
|---|---|
| 0 | |
| | 227 |
| 371 | |
| | 420 |
| | 199 |
| | 137 |
| 27 | |
| TOTAL | 784 Cu.Yds. |




OUTLET CHANNEL X-SECTIONS

## ESTIMATED QUANTITIES

| | | |
|---|---|---|
| E-2 | Excavation for Structures | 90 Cu. Yds. |
| E-3 | Channel Excavation | 790 Cu. Yds. |
| L-10 | Sodding | 50 Sq. Yds. |
| I-10 | Riprap, Using 6" Reinforced Concrete Slab, as per Plan. | 40 Sq. Yds. |
| I-10 | Dumped Rock Channel Protection | 26 Cu. Yds. |
| S-1 | Concrete for Structures, Class "E" | 1.18 Cu. Yds. |
| S-27 | 36" Pipe for Roadway Culverts | 68 Lin. ft. |

## CULVERT DATA

TYPE: S-27 Pipe for Roadway Culverts, Sec. M-6.6(b) or Sec. M-6.8(b). Std. Type PC-4 Endwalls.

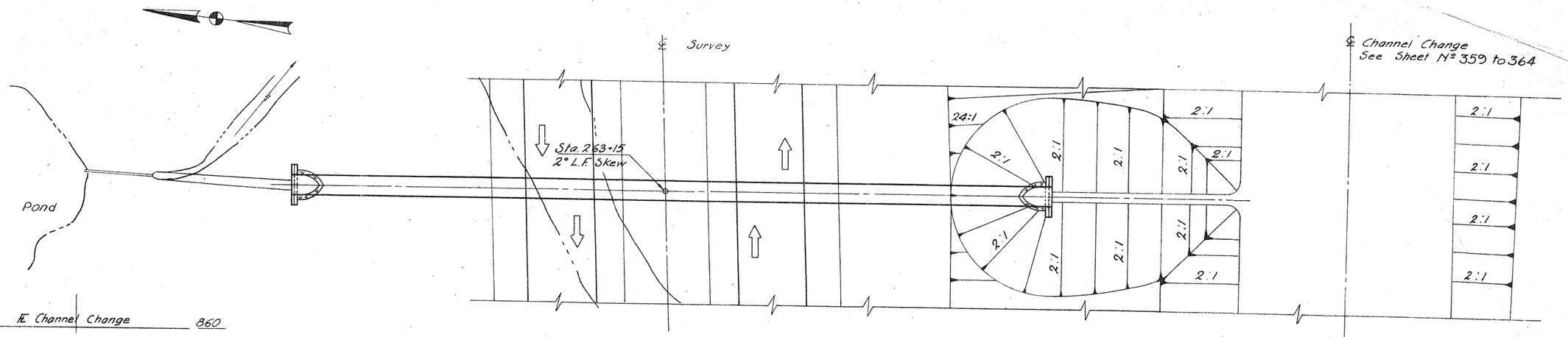
SIZE: 68' x 36"

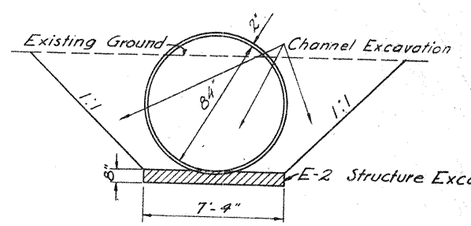
CULVERT SECTION - TWP. RD. 131 INTERSECTING M
STA. 14+25

DIVISION 2 OHIO

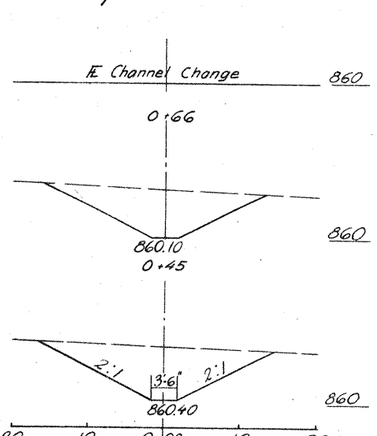
332
466

LICKING COUNTY
LIC-161-11.13
LIC-16-(14.30-18.51)

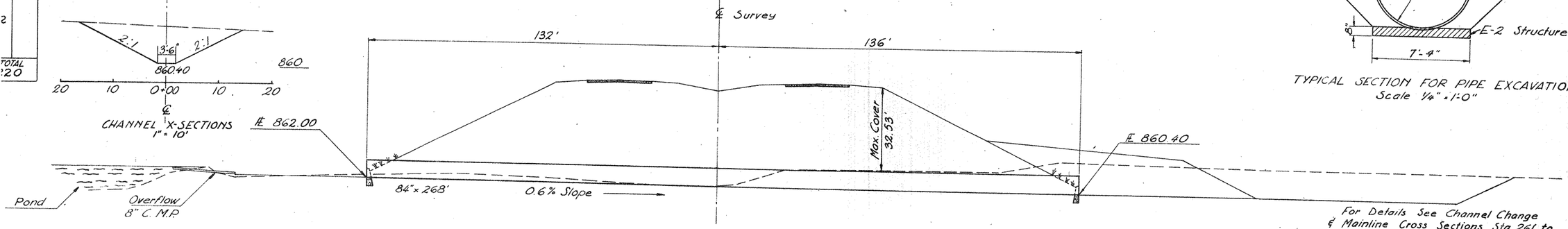



TYPICAL SECTION FOR PIPE EXCAVATION
Scale ¼" = 1'-0"




CHANNEL X-SECTIONS
1" = 10'




ESTIMATED QUANTITIES

| | | | |
|---|---|---|---|
| E-2 | Excavation for Structures | 78 | Cu. Yds |
| E-3 | Channel Excavation | 963 | Cu. Yds. |
| L-10 | Sodding | 8 | Sq. Yds. |
| S-1 | Concrete for Structures Class "E" | 8.7 | Cu. Yds. |
| S-28 | 84" Sectional Corrugated Metal Structures | 268 | Lin. Ft. |

CULVERT DATA

Type — S-28 Sectional Corrugated Metal Structures Sec. M-6.4(g) 8-7 Gage Std. Type SP-53 Endwalls

Size — 84"x 268'

For Endwall Details
See Sheet Nº 373

Culvert No. LIC-16-1748

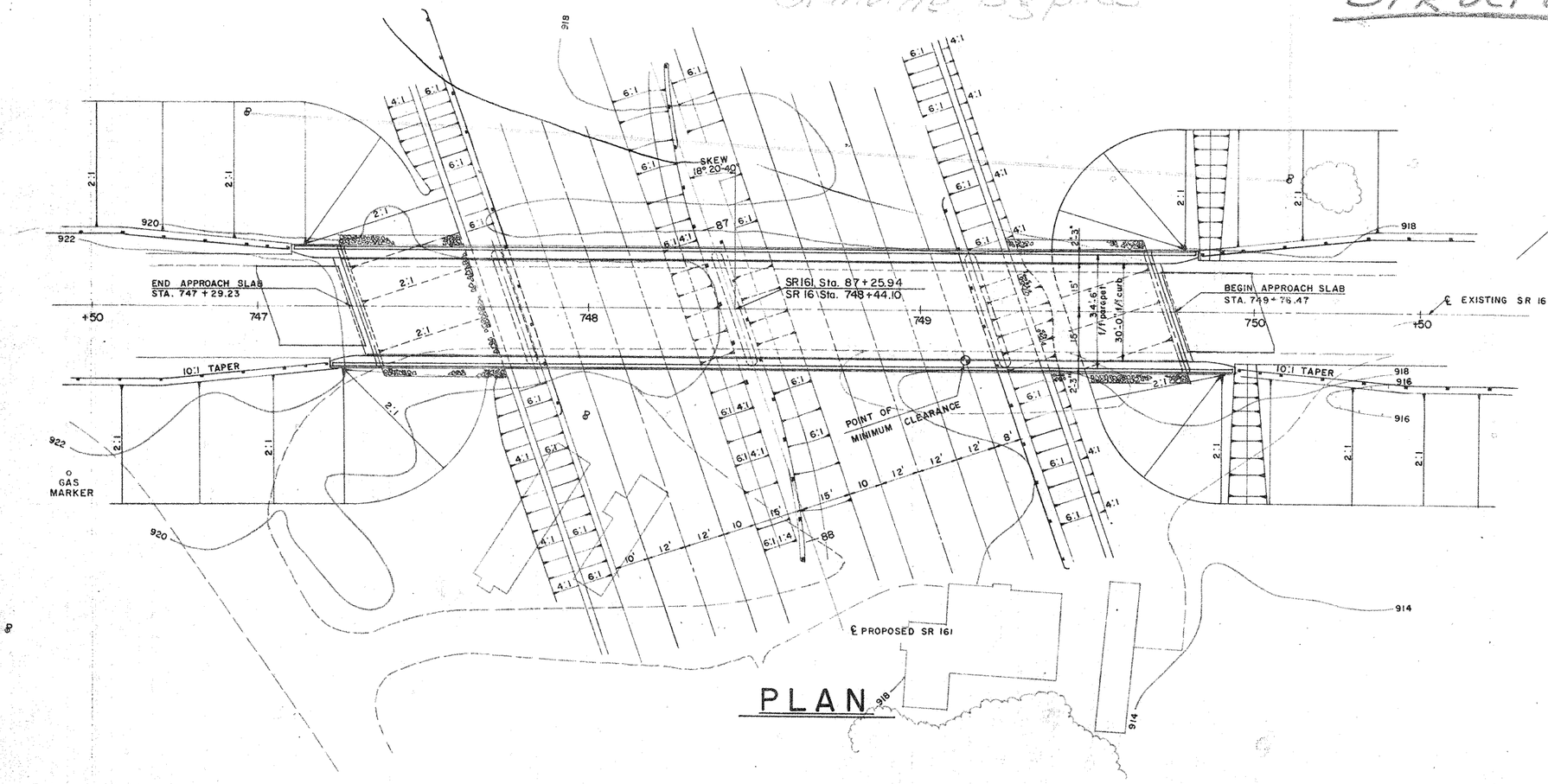
CULVERT SECTION - STA. 263+15

Granville Bypass

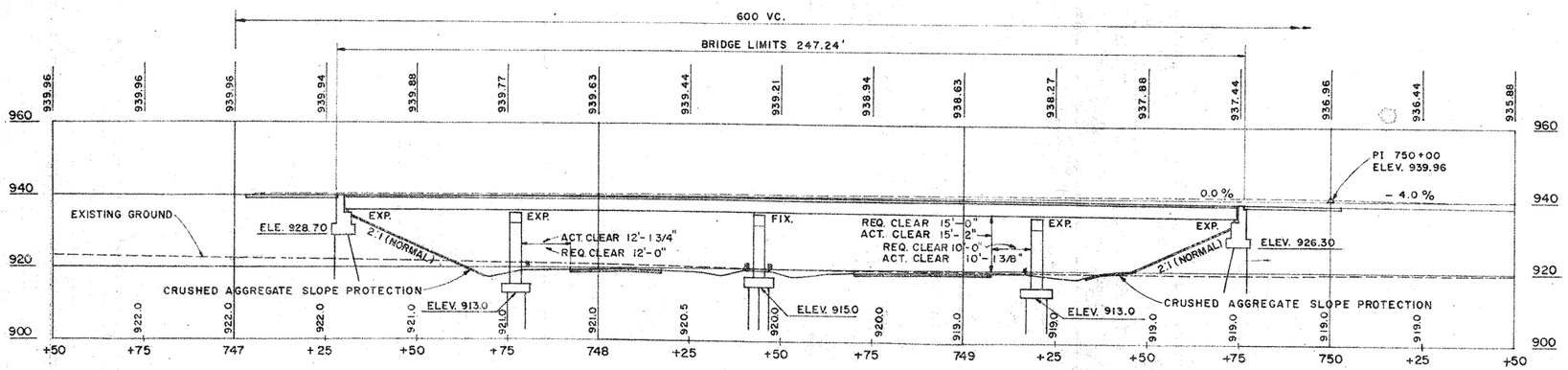
# STRUCTURES

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)




FOUNDATION SOUNDINGS:
Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site.
This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or Division office, but the State does not guarantee the accuracy thereof.




PROFILE

All piles are 12" cast-in-place reinforced concrete piles.

Estimated average pay-length for piles:
Piers 70 ft.
Abutments 60 ft.

## PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.

SPANS: 46'-6", 66'-0", 76'-6", 53'-6" center to center brgs.

ROADWAY: 30'-0" f/f, 2'-3" safety curbs with concrete parapets and aluminum railing.

LOADING: CF 400

SKEW: 18° 20' 40 Rt. Forward

WEARING SURFACE: 1" Monolithic Concrete

ALIGNMENT: Tangent

APPROACH SLABS: 25'-0" Long

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

## SITE PLAN

BRIDGE NO. LIC-161-1277
UNDER EXISTING SR 16

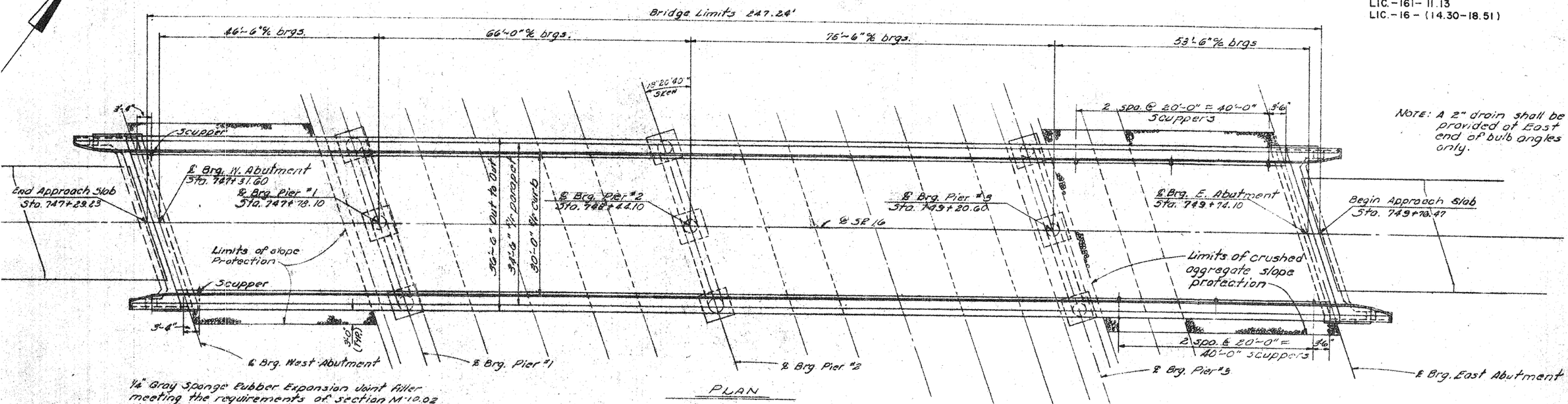
LICKING COUNTY STA. 747+29.23

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| F.A. | E.D.A. | G.M. | R.J.W. | 66 | 8-3-60 | |

| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

395
466

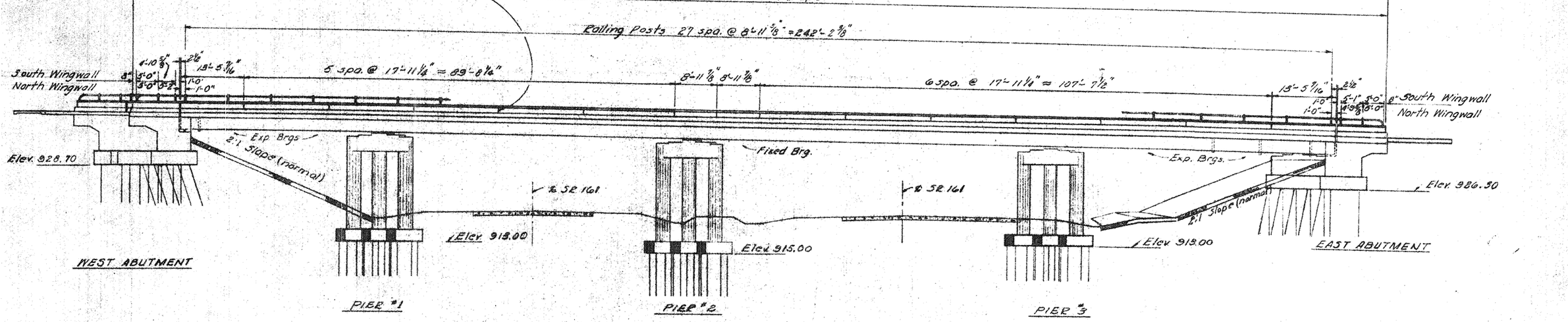
LICKING COUNTY
LIC.-161- 11.13
LIC.-16 - (14.30-18.51)




PLAN

Note: A 2" drain shall be provided at East end of bulb angles only.

¼" Gray Sponge Rubber Expansion Joint Filler meeting the requirements of Section M-10.02 Type I. (included with Item 3-14 for payment.)




ELEVATION

NOTES:

(1) A 2" drain shall be provided at East end of bulb angles only.

(2) Railing tubing shall be continuous through the first post on the end of the abutment wingwalls.

For General Notes see sheet (396)

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

GENERAL PLAN AND ELEVATION
BRIDGE NO. LIC. 161-1277
UNDER EXISTING S.R. 16
LICKING COUNTY STA. 747+29.23

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | F.A. | 66 | 6-3-60 | |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

396
466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

## GENERAL NOTES

**REFERENCE** shall be made to:
Supplemental Specifications S-101 dated 12-2-59.
Standard Drawings RB-1-55 revised 2-2-59.
Standard Drawings CSB-2-56 sheet 1, 2 and 3 revised 2-2-59.
Standard Drawings AR-1-57 revised 2-2-59.
Supplemental Specification M-206.14 dated 7-15-49.
**DESIGN SPECIFICATIONS**: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

**EXCAVATION**: Quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

PILES: Piles shall be driven to a minimum bearing capacity of 36 tons per pile for the abutments and 45 tons per pile for the piers.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

WELDING: Welding of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

*STEEL: See Proposal regarding A-373 Steel.*

*MACHINE FINISH: The top of the bridge deck slab shall be machine finished in accordance with the Proposal Note "Machine Finishing of Bridge Deck Slabs."*

| ESTIMATED QUANTITIES | | | | | | | | AS BUILT | |
|---|---|---|---|---|---|---|---|---|---|
| ITEM | TOTAL | UNIT | DESCRIPTION | SUPER | ABUT. | PIER | GEN. | | |
| | | | | | | | | | |
| E2 | 384 | Cu Yds | Unclassified Excavation | | 200 | 184 | | | |
| | | | | | | | | | |
| S1 | 282 | Cu. Yds. | Class C Conc. Superstructure | 282 | | | | | |
| S1 | 75 | Cu Yds. | Class C Conc Piers (above footings) | | | 75 | | | |
| S1 | 60 | Cu Yds. | Class E Conc. Pier Footings | | | 60 | | | |
| S1 | 75 | Cu. Yds. | Class E Conc. Abuts. (above footings) | | 75 | | | | |
| S1 | 60 | Cu Yds. | Class E Conc. Abut. Footings | | 60 | | | | |
| | ~~95519~~ | | | | ~~6692~~ | ~~18094~~ | | | |
| S4 | ~~94384~~ | Lbs. | Reinforcing Steel | 70733 | ~~8830~~ | ~~16871~~ | | | |
| S7 | 257400 | Lbs. | Structural Steel | 257400 | | | | | |
| S8 | 257400 | Lbs. | Field Painting Of Structural Steel as per plan | 257400 | | | | | |
| | | | | | | | | | |
| S14 | 535.83 | Lin Ft. | Railing (aluminum rail & supports, & conc. parapet) | 535.83 | | | | | |
| S16 | Lump | Sum | First Test Pile | | | | | | |
| S18 | 4410 | Lin Ft. | 12" Cast-in-place Reinforced Conc. Piles | | 1680 | 2730 | | | |
| S29 | 8 | Each | Scuppers | 8 | | | | | |
| S29 | 28 | Cu Yds. | Porous Backfill | | 28 | | | | |
| I10 | 388 | Sq. Yds. | Crushed Aggregate Slope Protection | | | | 388 | | |
| S25 | 268 | Lin. Ft. | 2" Electric Conduit (Fibre) | 268 | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

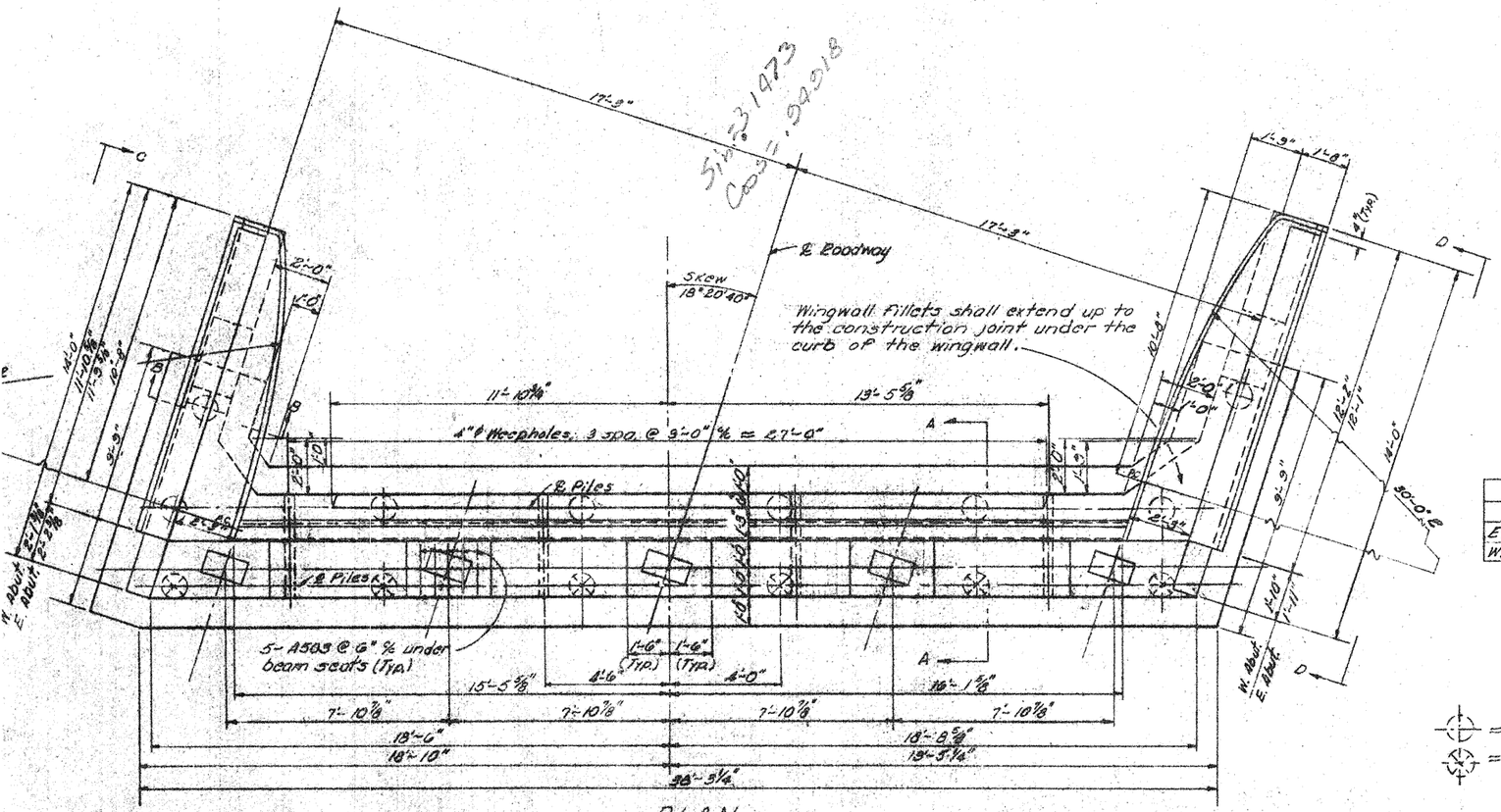
GENERAL NOTES
AND
ESTIMATED QUANTITIES
BRIDGE NO. LIC.161-1277
UNDER EXISTING SR.16
LICKING COUNTY STA. 747+29.23

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | EDA. | | F.A. | 66 | 8-3 60 | 3-8-60 |

| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

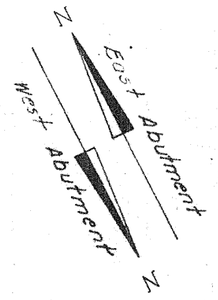
397/466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30-18.51)










| ELEVATION | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Location | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | Elev. "F" | Elev. "G" | Elev. "H" | Elev. "I" | Elev. "J" |
| E. Abutment | 933.04 | 933.11 | 933.18 | 933.02 | 932.85 | 926.30 | 935.97 | 935.82 | 937.28 | 937.10 |
| W. Abutment | 935.42 | 935.55 | 935.67 | 935.56 | 935.44 | 928.70 | 938.40 | 938.42 | 939.68 | 939.71 |

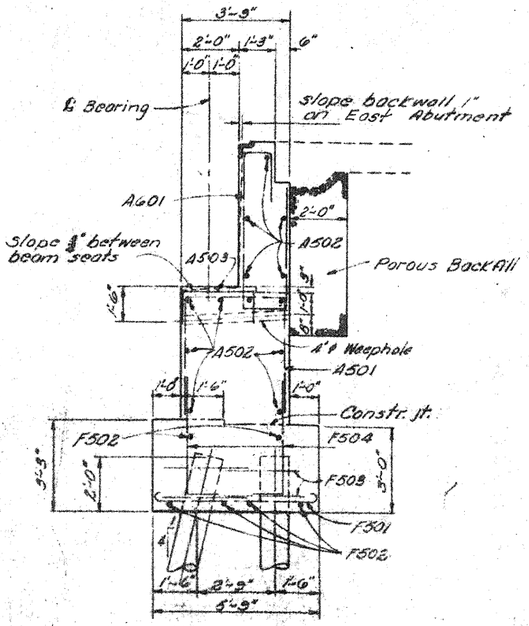
Note: Dimensions I & J are given of the forward edge of the 2" edge bar.

= Vertical piles
= Battered piles 1:4

NOTES:

EMBANKMENT: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment and piles driven.

POROUS BACKFILL 2 foot thick, full length of abutment and wings shall extend up to the underside of the approach slab or to the finished ground surface.




RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

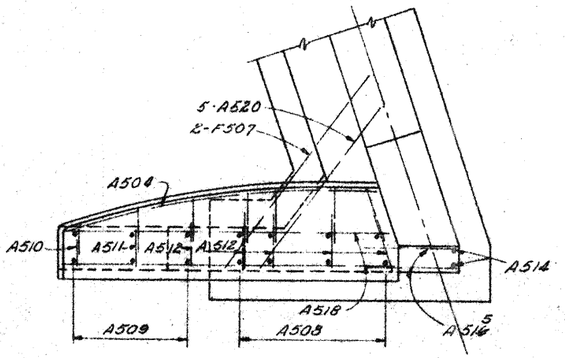
ABUTMENT DETAILS
BRIDGE NO. LIC. 161-1277
UNDER EXISTING S.R. 16
LICKING COUNTY STA. 747+29.23

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | F.A. | | 8-3-60 | |

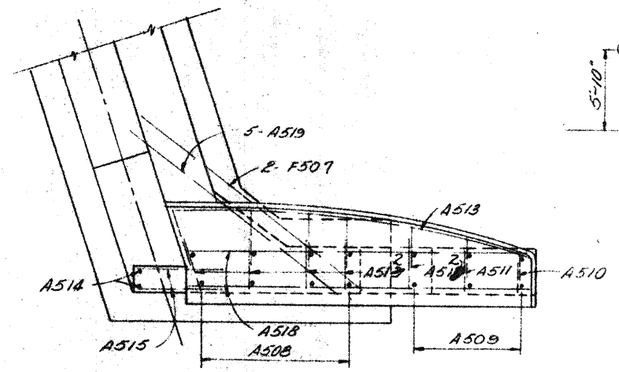
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

398
466

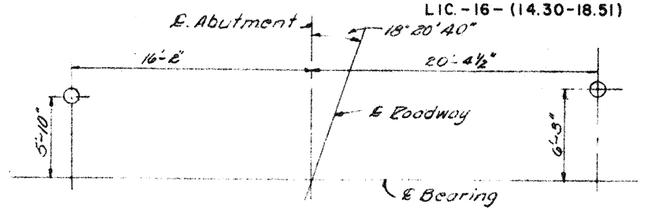
LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)




SIDEWALK AND FILLET STEEL
Plan view of C-C



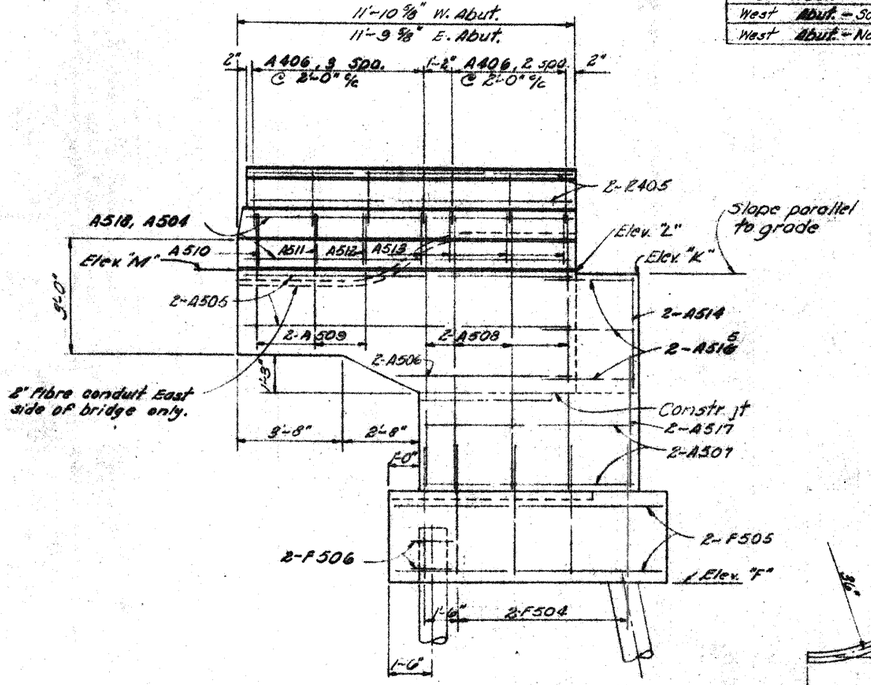

SIDEWALK AND FILLET STEEL
Plan view of D-D



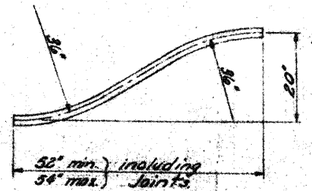

WINGWALL PILE LOCATION PLAN

NOTE:
Concrete Parapets are included in Item 514 for payment

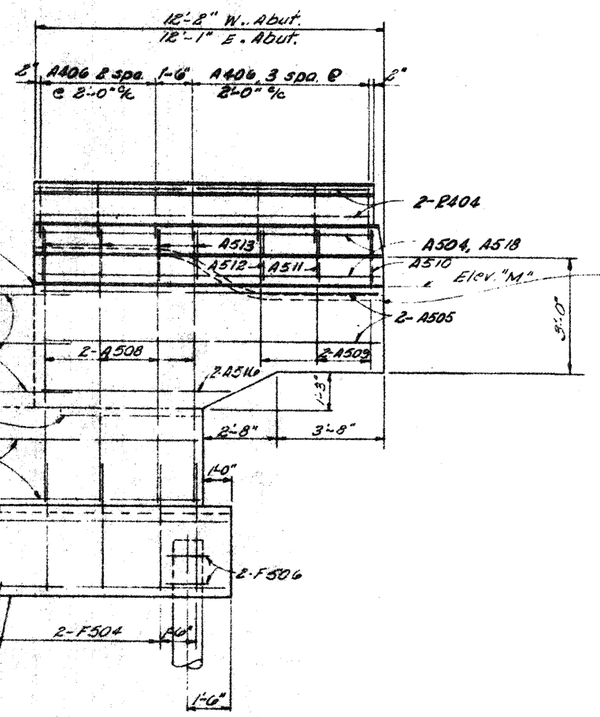
| ELEVATIONS | | | |
|---|---|---|---|
| LOCATIONS | Elev. "K" | Elev. "L" | Elev. "M" |
| East Abut. - South Wingwall | 936.22 | 936.30 | 936.07 |
| East Abut. - North Wingwall | 936.43 | 936.51 | 936.30 |
| West Abut. - South Wingwall | 938.80 | 938.89 | 938.91 |
| West Abut. - North Wingwall | 938.89 | 938.91 | 938.93 |



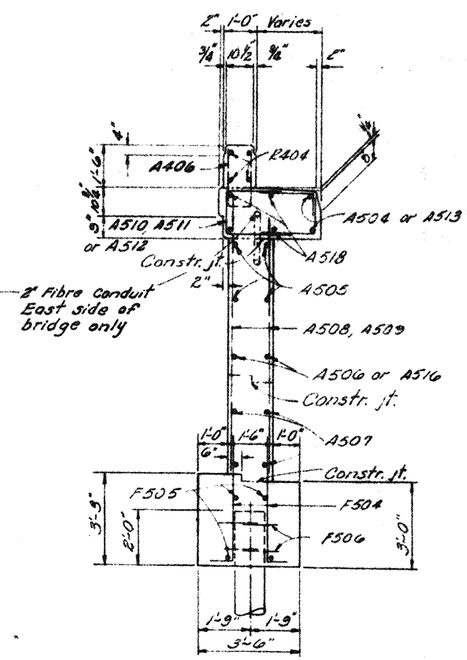

ELEVATION VIEW C-C




OFFSET BENDS OF FIBRE CONDUIT




ELEVATION VIEW D-D




SECTION B-B

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

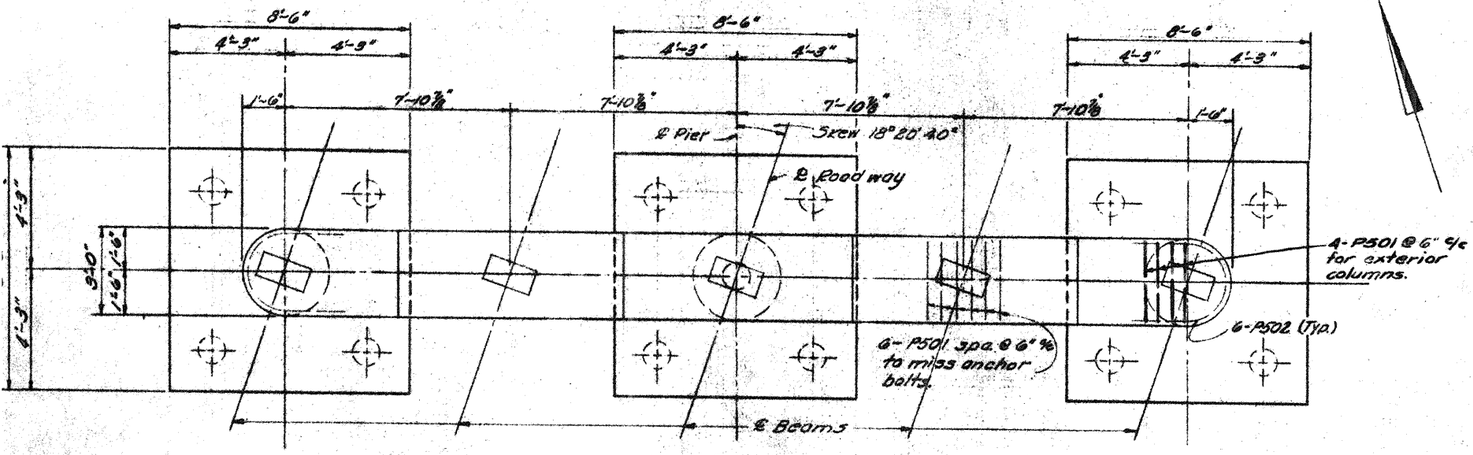
ABUTMENT DETAILS
BRIDGE NO. LIC. 161-1277
UNDER EXISTING S.R. 16
LICKING COUNTY STA. 747+29.23

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | F.A. | 66 | 8-3-60 | 3-8-62 |

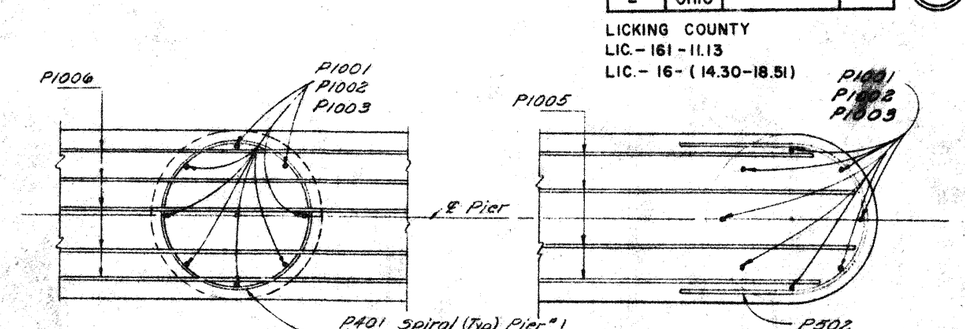
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

399
466

LICKING COUNTY
LIC.- 161 - 11.13
LIC.- 16- ( 14.30-18.51)



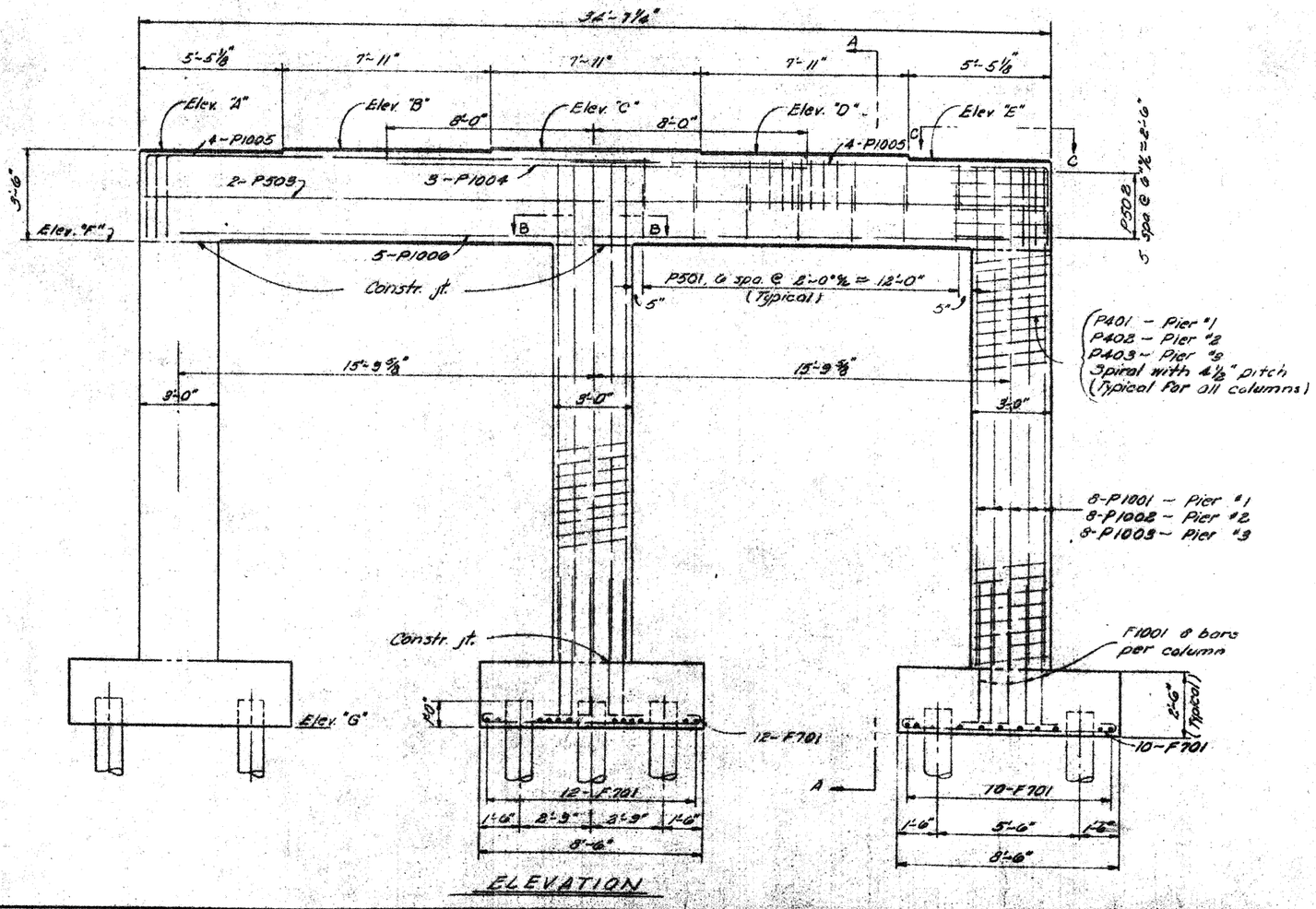

PLAN



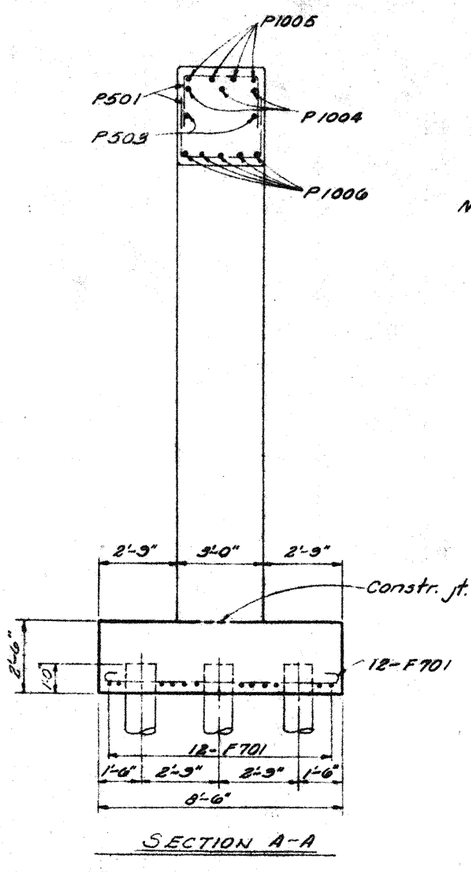

SECTION B-B

VIEW C-C

| ELEVATIONS | | | | | | | |
|---|---|---|---|---|---|---|---|
| Location | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | Elev. "F" | Elev. "G" |
| Pier "1 | 934.90 | 935.01 | 935.11 | 934.98 | 934.85 | 931.35 | 918.00 |
| Pier "2 | 934.27 | 934.36 | 934.46 | 934.31 | 934.17 | 930.67 | 915.00 |
| Pier "3 | 933.38 | 933.46 | 933.54 | 933.41 | 933.23 | 929.73 | 913.00 |




ELEVATION




SECTION A-A

Note: When placing reinforcing steel in pier caps, special care shall be taken to allow clearance for the anchor bolts.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

PIER DETAILS
BRIDGE NO. LIC. 161-1277
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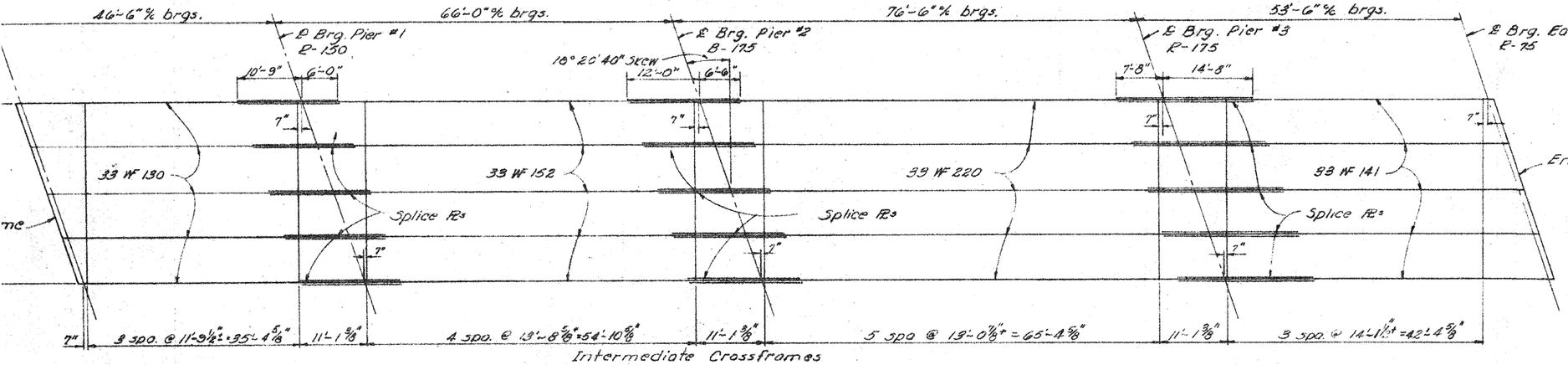
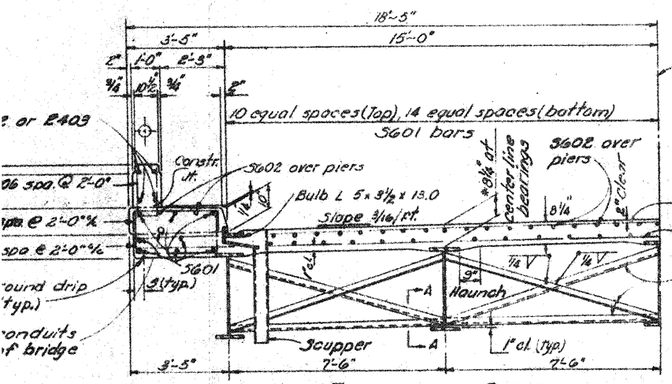
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

400 466

LICKING COUNTY
LIC.-161- 11.13
LIC. -16-(14.30-18.51)




FRAMING PLAN




Note: Slab thickness shown includes 1" monolithic wearing surface

* This is the norminal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

DEFLECTION AND CAMBER

| | SPAN 1 | | SPAN 2 | | SPAN 3 | | SPAN 4 | |
|---|---|---|---|---|---|---|---|---|
| | Ext. | Int. | Ext. | Int. | Ext. | Int. | Ext. | Int. |
| Weight of beams | 0 | 0 | 0 | 0 | 3/16 | 3/16 | 0 | 0 |
| Remaining dead load | 1/8 | 3/16 | 3/16 | 1/4 | 3/8 | 1/2 | 3/16 | 3/16 |
| Vertical curve | 1/4 | 1/4 | 1/2 | 1/2 | 3/4 | 3/4 | 1/4 | 1/4 |
| Total | 3/8 | 7/16 | 11/16 | 3/4 | 1 5/16 | 1 11/16 | 7/16 | 7/16 |
| Required shop camber | 0 | 0 | 0 | 0 | 1 3/16 | 1 7/16 | 0 | 0 |

Note: If required camber is 0 fabricate with any natural camber up.

NOTES:

PAINTING: After erection and after the shop coat has been cleaned and, where necessary, repainted in accordance with Sec. 8.04, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams and all sides of the bottom flange of the outside beam.

REFERENCES shall be made to: Standard Drawing CSB-2-56 for end crossframe and dam, scupper and bulb angle gutters, and curb plate details. Standard Drawing LB-1-55 for rocker and bolster details.

BEAM SPLICE WELDING PROCEDURE

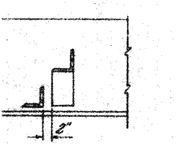
(1) Raise end of beam at second pier 1 1/4".

(2) Butt-weld beam flanges and web at the first pier using following sequence: make two passes on each flange, then two on the web: repeat using one pass at each location, **until welds are complete.**

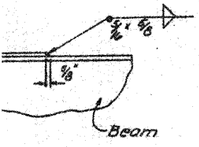
(3) Weld top and bottom flange moment plate of the first pier.

(4) Lower end of beam at second pier.

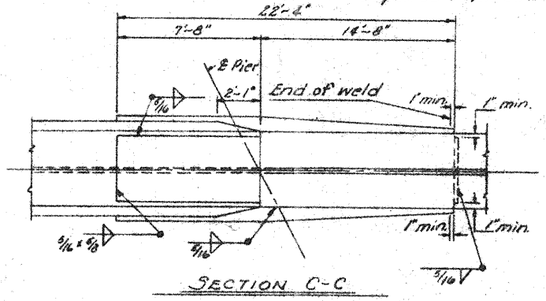
(5) Make splice at second and succeeding pier in the same manner, raising the end of the beam 2 3/16" at the pier and 1/16" at the abutment.

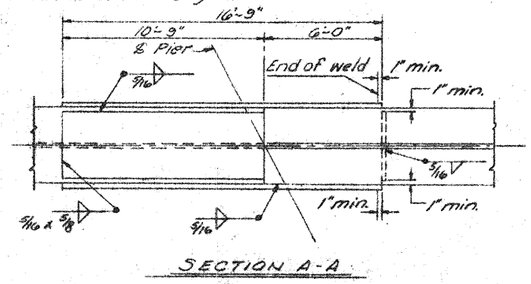


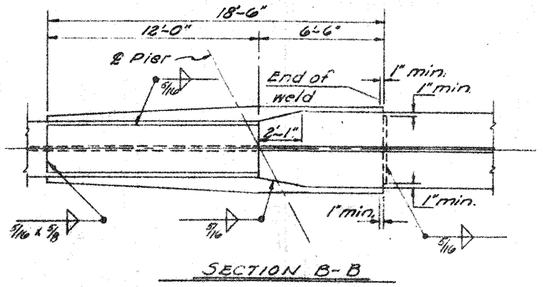

SECTION A-A

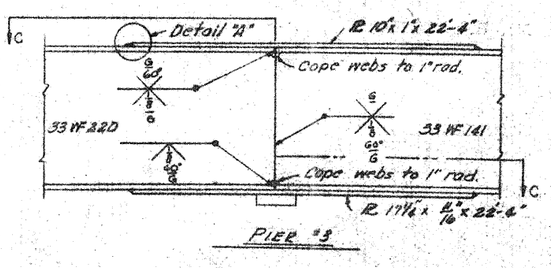


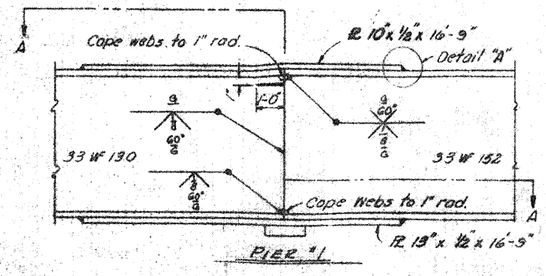

IL 2" End Fillet Weld

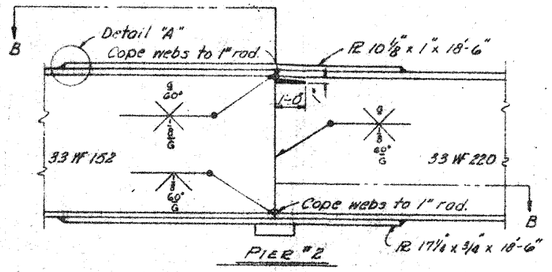



RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

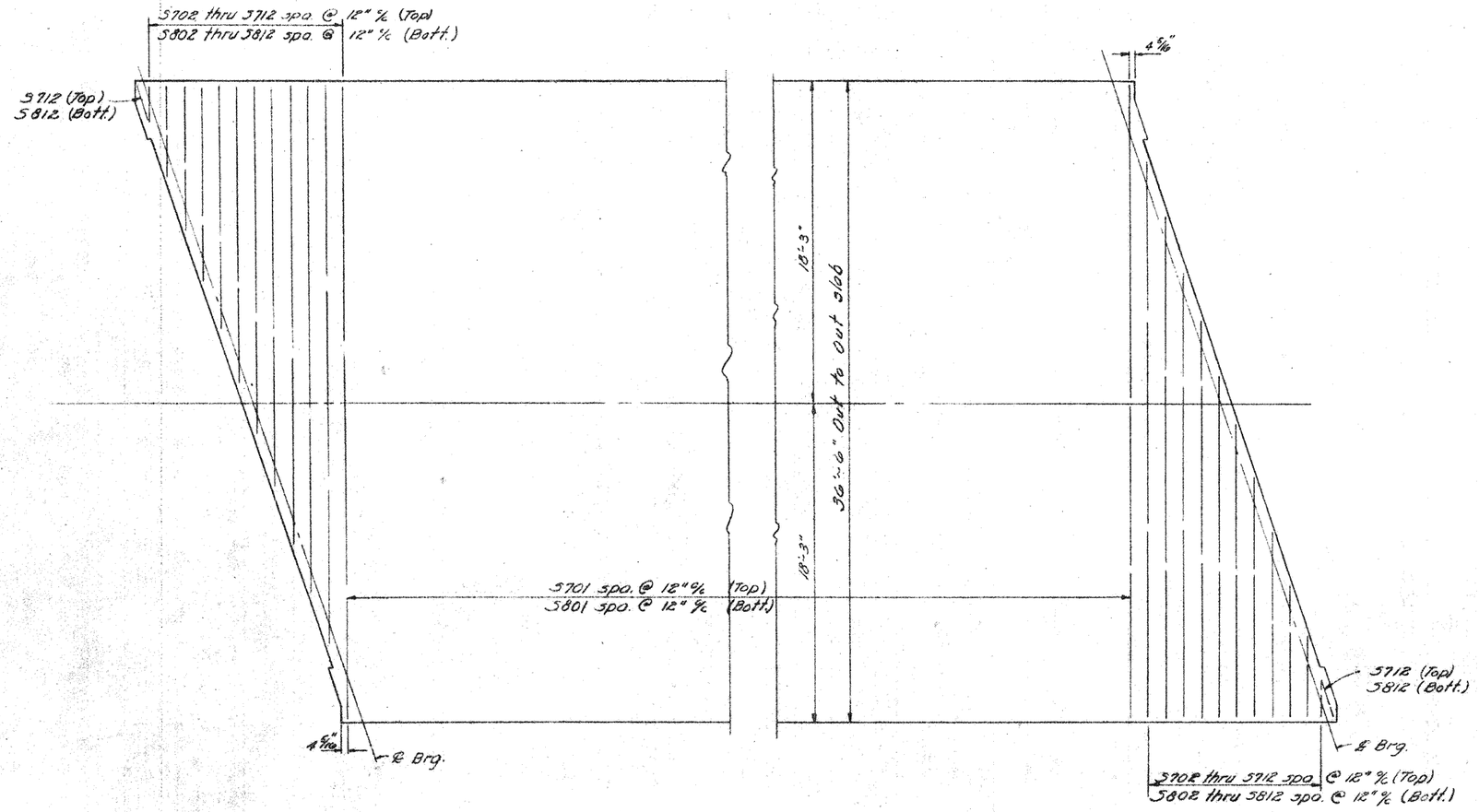
SUPERSTRUCTURE DETAILS
BRIDGE NO. LIC. 161-1277
UNDER EXISTING S.R. 16
LICKING COUNTY STA. 747+29.23

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | F.A. | E.E. | 8-3-60 | |

| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

401/466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)




DETAIL OF TRANSVERSE BARS FOR THE DECK

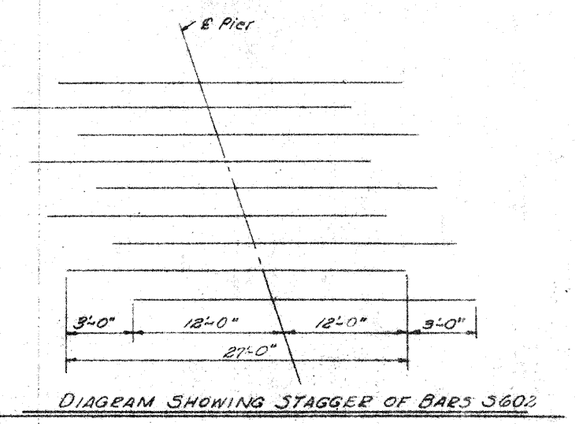



DIAGRAM SHOWING STAGGER OF BARS 3602

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. LIC. 161-1277
UNDER EXISTING S.R. 16
LICKING COUNTY STA. 747+ 29.23

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | F.A. | 66. | 8-3 60 | |

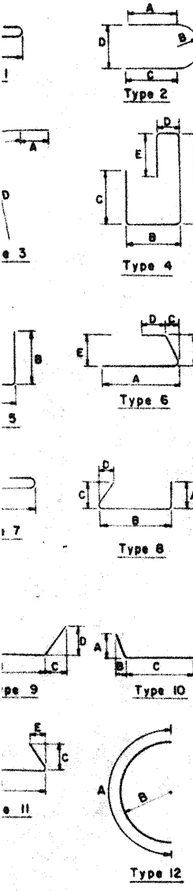
# REINFORCING STEEL LIST

| FED. RD. DIVISION | STATE | PROJECT | | |
|---|---|---|---|---|
| 2 | OHIO | | | |

402
466

LICKING COUNTY
LIC-161-11.13
LIC.-16-(14.30-18.51)

## BENDING DIAGRAM




E COLUMN FOR "TYPE"
S STRAIGHT BARS.

## ABUTMENTS

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| R404 | 8 | 11-9 | | | INCLUDED WITH RAILING | | | | | |
| R405 | 8 | 11-5 | | | FOR PAYMENT | | | | | |
| S406 | 28 | 4-8 | 89 | 5 | 0-8 | 2-2 | 2-2 | | | |
| A501 | 40 | 9-6 | 396 | 5 | 3-5 | 3-1 | 3-3 | | | |
| A502 | 26 | 37-0 | 1003 | S | | | | | | |
| A503 | 50 | 3-1 | 161 | 5 | 2-4 | 0-6 | 0-6 | | | |
| A504 | 4 | 11-1 | 46 | 3 | 0-6 | 10-7 | 0 | 30-0 | | |
| A505 | 8 | 11-6 | 96 | S | | | | | | |
| A506 | 4 | 6-0 | 25 | S | | | | | | |
| A507 | 16 | 7-4 | 122 | S | | | | | | |
| A508 | 32 | 8-1 | 270 | S | | | | | | |
| A509 | 24 | ~~23~~ 30 | ~~188~~ 238 | S | | | | | | |
| A510 | 8 | 3-0 | 25 | 5 | 1-3 | 1-0 | 1-0 | | | |
| A511 | 8 | 4-0 | 33 | 5 | 1-3 | 1-6 | 1-6 | | | |
| A512 | 40 | 5-0 | 209 | 5 | 1-3 | 2-0 | 2-0 | | | |
| A513 | 4 | 12-9 | 53 | 3 | 2-2 | 10-7 | | 30-0 | | |
| A514 | 8 | ~~23~~ 30 | ~~302~~ 382 | S | | | | | | |
| A515 | 24 | 3-6 | 88 | S | | | | | | |
| A516 | 4 | 6-3 | 26 | S | | | | | | |
| A517 | 16 | 5-4 | 89 | S | | | | | | |
| A518 | 16 | 11-6 | 192 | S | | | | | | |
| A519 | 10 | 10-0 | 104 | S | | | | | | |
| A520 | 10 | 7-0 | 73 | S | | | | | | |
| A601 | 82 | 11-0 | 1354 | 4 | 4-6 | 1-5 | 3-2 | 0-11 | 1-6 | |
| F501 | 40 | 6-7 | 274 | 1 | 5-5 | | | | | |
| F502 | 12 | 38-0 | 476 | S | | | | | | |
| F503 | ~~488~~ | 8-5 | ~~3514~~ | 5 | 1-8 | 3-6 | 3-6 | | | |
| F504 | 120 | 5-0 | 625 | 5 | 0-9 | 4-6 | | | | |
| F505 | 16 | 9-4 | 156 | S | | | | | | |
| F506 | 16 | 6-1 | 102 | 5 | 1-8 | 2-4 | 2-4 | | | |
| F507 | 8 | 8-6 | 71 | S | | | | | | |
| | | TOTAL | ~~6650~~ 92 | | | | | | | |

## PIERS

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| F701 | 192 | ~~9~~ 8-10 | 3859 | 1 | 8-2 | | | | | |
| F1001 | 72 | 6-5 | 1988 | 5 | 1-5 | 5-4 | | | | |
| P501 | 162 | 8-3 | 1394 | 5 | 2-6 | 3-0 | 3-0 | ~~2'-7"~~ | | |
| P502 | 36 | 7-3 | 272 | 2 | 1-7 | 1-~~3½~~ | 1-7 | ~~1-3½~~ | | |
| P503 | 6 | 31-10 | 199 | S | | | | | | |
| P1001 | 24 | 19-1 | 1970 | S | | | | | | |
| P1002 | 24 | 16-5 | 1695 | S | | | | | | |
| P1003 | 24 | 17-6 | 1807 | S | | | | | | |
| P1004 | 9 | 16-0 | 620 | S | | | | | | |
| P1005 | ~~12~~ | 21-9 | ~~1125~~ | 5 | 19-1 | 3-0 | | | | |
| P1006 | 15 | 31-8 | 2044 | S | | | | | | |
| | ~~24~~ | TOTAL | ~~16971~~ 18094 | | | | | | | |

## SUPERSTRUCTURE

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| R401 | 16 | 13-1 | | | INCLUDED WITH RAILING | | | | | |
| R402~~3~~ | 16 | 17-7 | | | FOR PAYMENT. | | | | | |
| R402~~2~~ | 88 | 8-7 | | | | | | | | |
| S406 | 268 | 4-9 | 850 | 5 | 0-8 | 2-2 | 2-2 | | | |
| S501 | 244 | 4-2 | 1,060 | 5 | 3-0 | 0-8 | 0-9 | | | |
| S502 | 244 | 4-9 | 1,209 | 5 | 3-0 | 1-0 | 1-0 | | | |
| S601 | 409 | 38-3 | 23,592 | S | | | | | | |
| S602 | 66 | 27-0 | 2,677 | S | | | | | | |
| S701 | 232 | 36-2 | 17,151 | S | | | | | | |
| S702 | 2 | 33-0 | 135 | S | | | | | | |
| S703 | 2 | 29-10 | 122 | S | | | | | | |
| S704 | 2 | 26-8 | 109 | S | | | | | | |
| S705 | 2 | 23-6 | 96 | S | | | | | | |
| S706 | 2 | 20-4 | 83 | S | | | | | | |
| S707 | 2 | 17-2 | 70 | S | | | | | | |
| S708 | 2 | 14-0 | 57 | S | | | | | | |
| S709 | 2 | 10-10 | 44 | S | | | | | | |
| S710 | 2 | 7-8 | 31 | S | | | | | | |
| S711 | 2 | 4-6 | 18 | S | | | | | | |
| S712 | 4 | 1-4 | 11 | S | | | | | | |
| S801 | 232 | 36-2 | 22,403 | S | | | | | | |
| S802 | 2 | 33-0 | 176 | S | | | | | | |
| S803 | 2 | 29-10 | 159 | S | | | | | | |
| S804 | 2 | 26-8 | 142 | S | | | | | | |
| S805 | 2 | 23-6 | 126 | S | | | | | | |
| S806 | 2 | 20-4 | 109 | S | | | | | | |
| S807 | 2 | 17-2 | 91 | S | | | | | | |
| S808 | 2 | 14-0 | 75 | S | | | | | | |
| S809 | 2 | 10-10 | 58 | S | | | | | | |
| S810 | 2 | 7-8 | 41 | S | | | | | | |
| S811 | 2 | 4-6 | 24 | S | | | | | | |
| S812 | 4 | 1-4 | 14 | S | | | | | | |
| | | TOTAL | 70,733 | | | | | | | |

## REPLACEMENT BARS

| | | | | | | |
|---|---|---|---|---|---|---|
| RE401 | 1 | 5-3 | S | | | |
| RE402 | 1 | 5-3 | 12 | 5-3 | 1-4 | |
| RE501 | 1 | 5-7 | S | | | |
| RE601 | 2 | 5-11 | S | | | |
| RE701 | 2 | 6-3 | S | | | |
| RE801 | 2 | 6-6 | S | | | |
| RE901 | 1 | 7-3 | S | | | |

## SPIRAL REINFORCEMENT

| MARK | NO. | LENGTH | CORE | PITCH | TURNS | SPACERS | WEIGHT |
|---|---|---|---|---|---|---|---|
| P401 | 3 | 15-10¼ | 32 | 4½ | 46 | 4 | 900 |
| P402 | 3 | 13-2 | 32 | 4½ | 39 | 4 | 720 |
| P403 | 3 | 14-2⅞ | 32 | 4½ | 41 | 4 | 795 |
| | | | | | TOTAL | | 2415 |

## NOTES

BAR SIZE; Is indicated in bar mark. The first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar.

REPLACEMENT BARS; If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in sec 402 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING BARS; The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "No. of Turns" shown is the "Length" divided by the pitch, plus three turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to item S-4. 1½ closed coils shall be provided at the ends of each spiral unit. Four or three steel channel, tee or angle spacers, weighing approximately 0.68 lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

HORIZONTAL PARAPET REINFORCING; These bars are included with the railing for payment.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

REINFORCING STEEL LIST
BRIDGE NO. LIC. 161-1277
UNDER EXISTING SR 16

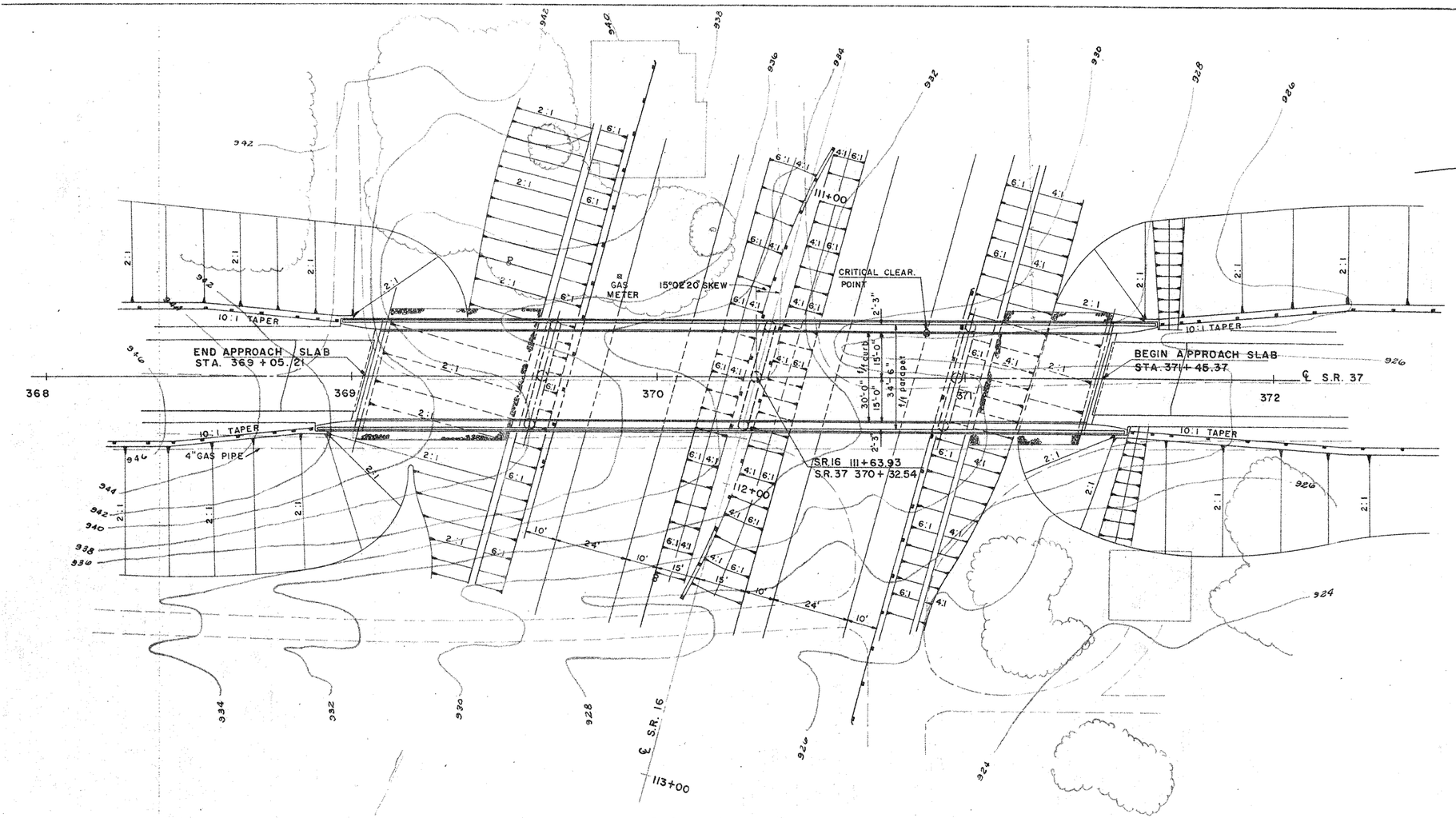
LICKING COUNTY STA. 747+29.23

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | F.D.A. G.M. | | F.A. | 66 | 8-3 60 | 5-8-62 |

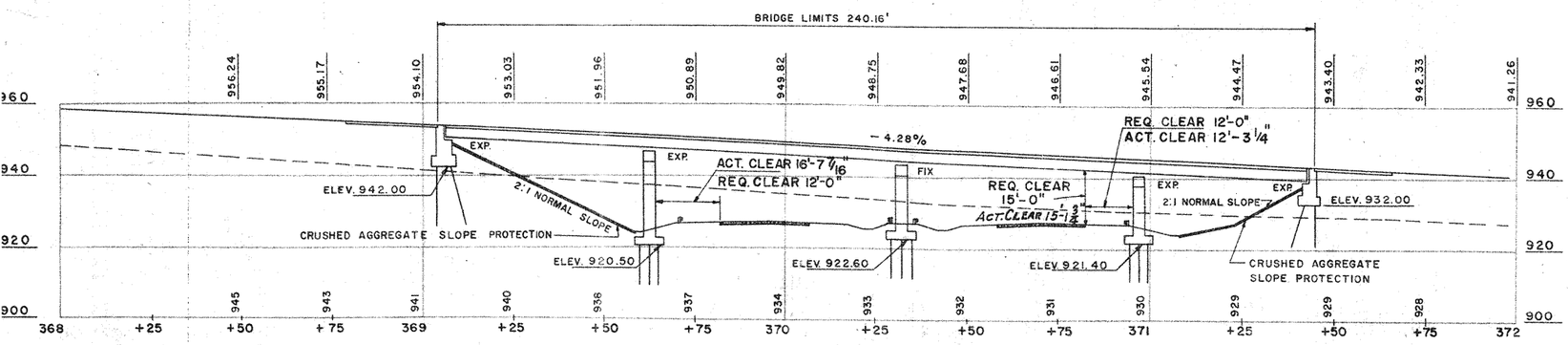
| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

403
466

LICKING COUNTY
LIC.-16!-11.13
LIC.- 16-(14.30-18.51)




# PLAN




# PROFILE

All piles are 12" cast-in-place reinforced concrete piles.

Estimated average pay-length for piles:
Piers 45 ft.
Abutments 35 ft.

FOUNDATION SOUNDINGS:
Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

## PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.

SPANS: 55'-6", 69'-6", 65'-0", 45'-6" center to center brgs.
ROADWAY: 30'-0" f/f, 2'-3" safety curbs with concrete parapets and aluminum railing
LOADING: C F 400
SKEW: 15°02' 20" Lt. Forward
WEARING SURFACE: 1" Monolithic Concrete
ALIGNMENT: Tangent
APPROACH SLABS: 25' Long

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

SITE PLAN
BRIDGE NO. LIC. 16-1461
UNDER S.R. 37

LICKING COUNTY STA. 369+05.21

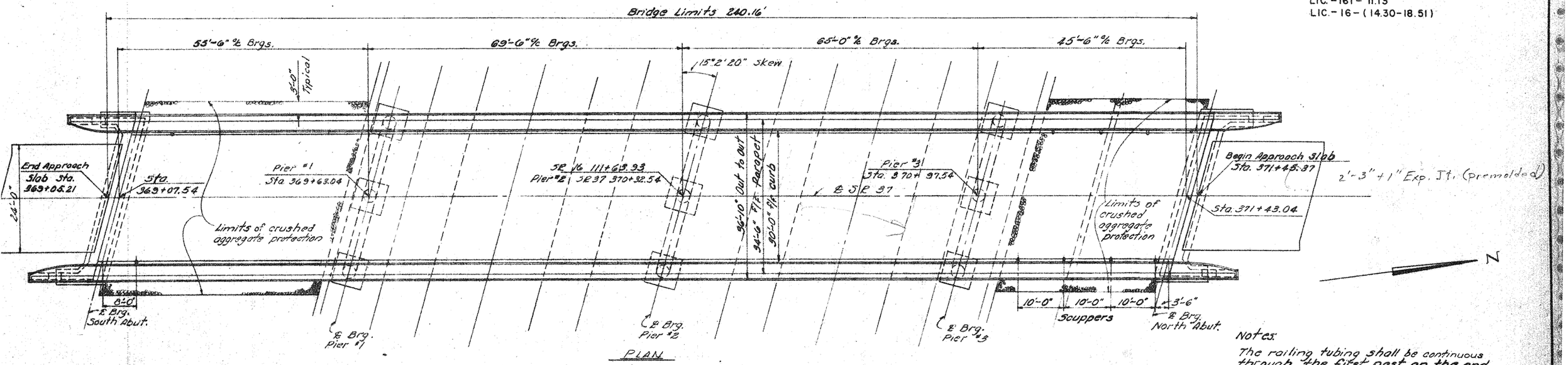
| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| F.A. | E.D.A. | | R.J.W. | 66 | 8-3 60 | |

| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

404
406

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

240.00'



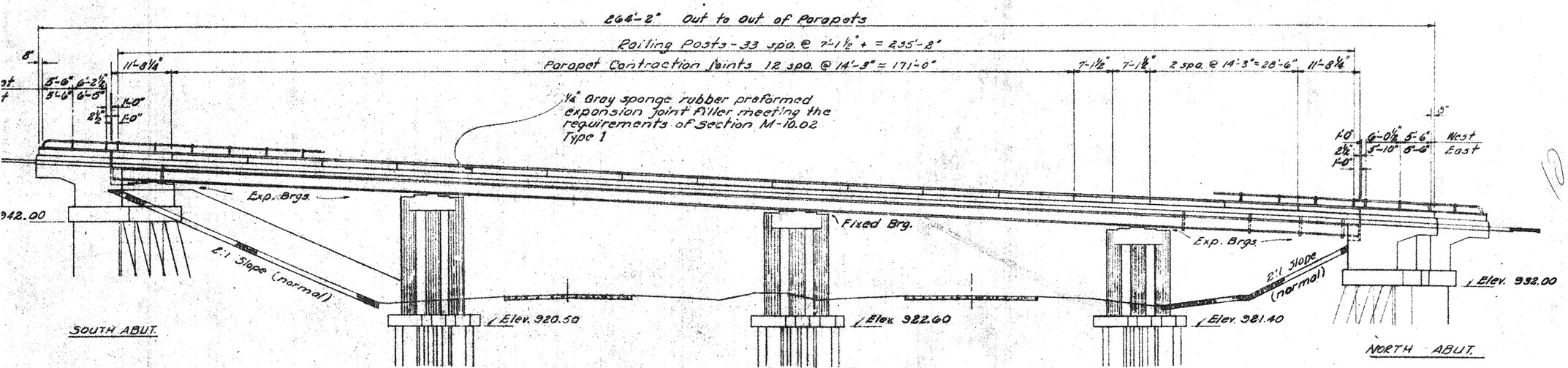

PLAN

Notes:

The railing tubing shall be continuous through the first post on the end of the abutment wingwalls.

A 2" dia. standard pipe drain shall be provided at north end of bulb angle only.

Additional notes see sheet (405)




ELEVATION

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

GENERAL PLAN AND ELEVATION
BRIDGE NO. LIC. 16 1461
UNDER S.R. 37

LICKING COUNTY STA. 369+05.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | E.D.A. | | F.A. | | 8-5-60 | |

| FED. RD. DIVISION | STATE | PROJECT | | |
|---|---|---|---|---|
| 2 | OHIO | | | |

405/466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

## GENERAL NOTES

REFERENCE shall be made to:
Supplemental Specifications S-101 dated 12-2-59
Standard Drawings RB-1-55 revised 2-2-59
Standard Drawings CSB-2-56 sheet 1,2 and 3 revised 2-2-59
Standard Drawings AR-1-57 revised 2-2-59.
Supplemental Specification M-206.14 dated 7-15-49.
DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

EXCAVATION: Quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

PILES: Piles shall be driven to a minimum bearing capacity of 35 tons per pile for the abutments and 45 tons per pile for the piers.

CONCRETE DECK PLACING In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

WELDING: Welding of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

*STEEL: See Proposal regarding A-373 Steel*

*MACHINE FINISH: The top of the bridge deck slab shall be machine finished in accordance with the Proposal Note "Machine Finishing of Bridge Deck Slabs."*

| ESTIMATED QUANTITIES | | | | | | | | AS BUILT | |
|---|---|---|---|---|---|---|---|---|---|
| ITEM | TOTAL | UNIT | DESCRIPTION | SUPER. | ABUT. | PIER | GEN. | | |
| | | | | | | | | | |
| E2 | 340 | Cu.Yds. | Unclassified Excavation | | 171 | 169 | | | |
| | | | | | | | | | |
| S1 | 274 | Cu. Yds. | Class C Conc. Superstructure | 274 | | | | | |
| S1 | 80 | Cu.Yds. | Class C Conc. Piers (above footings) | | | 80 | | | |
| S1 | 60 | Cu.Yds. | Class E Conc. Pier Footings | | | 60 | | | |
| S1 | 78 | Cu.Yds. | Class E Conc. Abuts. (above footings) | | 78 | | | | |
| S1 | 61 | Cu.Yds. | Class E Conc. Abut. Footings | | 61 | | | | |
| | 94,392 | | | 70338 | 6529 | 17525 | | | |
| S4 | ~~96172~~ | Lbs. | Reinforcing Steel | ~~69585~~ | ~~6440~~ | 20147 | | | |
| S7 | 223600 | Lbs. | Structural Steel | 223600 | | | | | |
| S8 | 223600 | Lbs. | Field Painting Of Structural Steel as per plan | 223600 | | | | | |
| | | | | | | | | | |
| S14 | 528.33 | Lin.Ft. | Railing (aluminum rail & supports, & conc. parapet) | 528.33 | | | | | |
| S16 | Lump | Sum | First Test Pile | | | | | | |
| S18 | 2625 | Lin.Ft. | 12" Cast-in-place Reinforced Conc. Piles | | 1365 | 1260 | | | |
| S29 | 10 | Each | Scuppers | 10 | | | | | |
| S29 | 27 | Cu.Yds | Porous Backfill | | 27 | | | | |
| I10 | 439 | Sq.Yds. | Crushed Aggregate Slope Protection | | | | 439 | | |
| S25 | 265 | LIN.FT. | 2" Electric Conduit (Fibre) | 265 | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

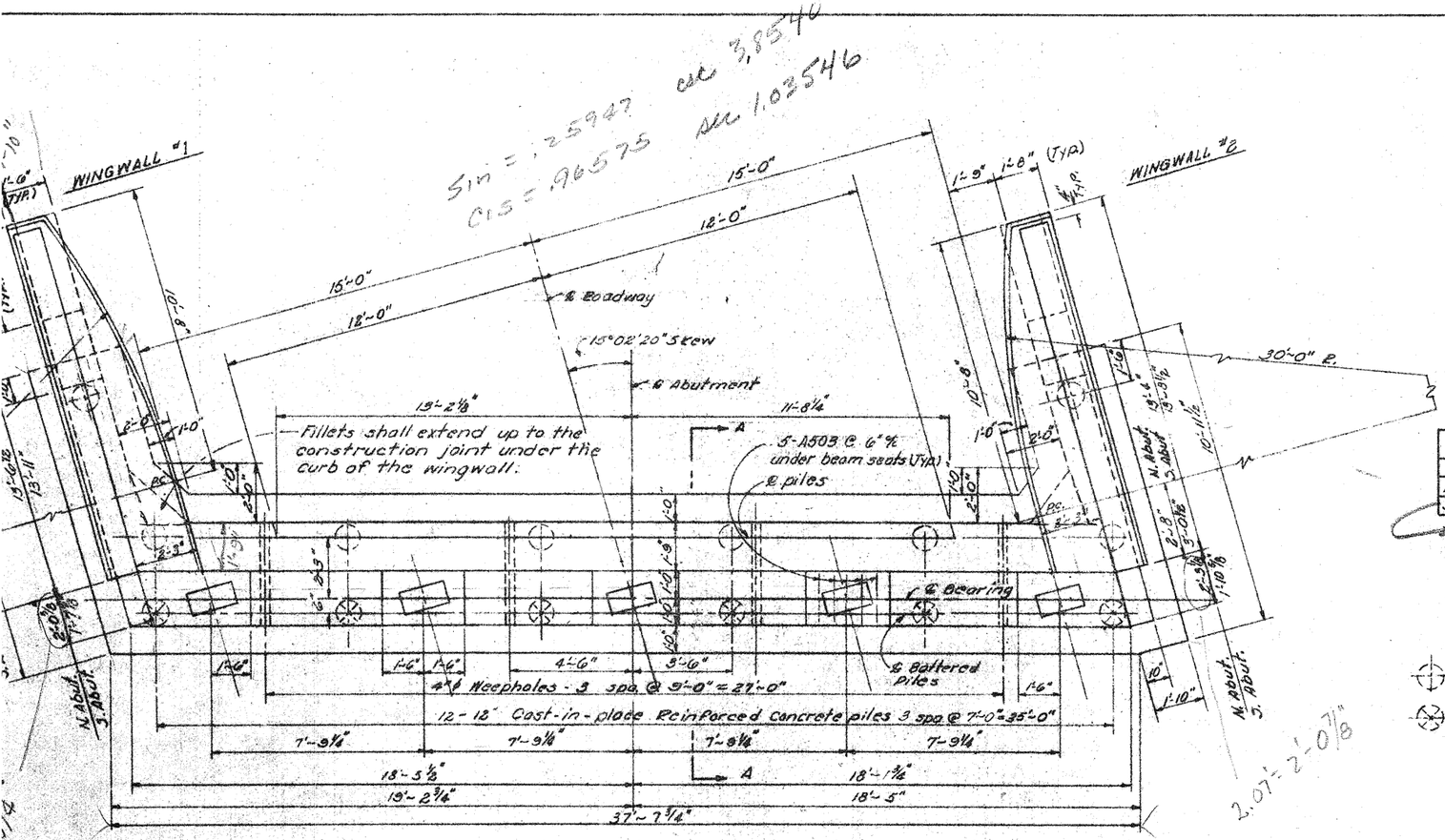
GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. LIC.16-1461
UNDER S.R. 37
LICKING COUNTY STA. 369+05.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | EDA. | | F.A. | 66 | 8-3-60 | 3-8-62 |

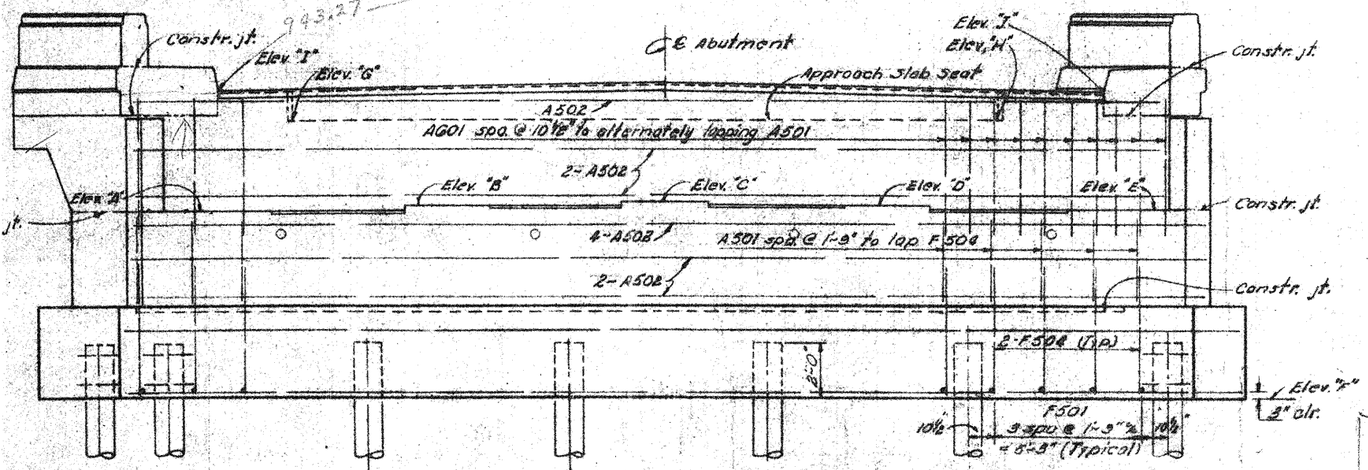
| FED. RD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

406
466

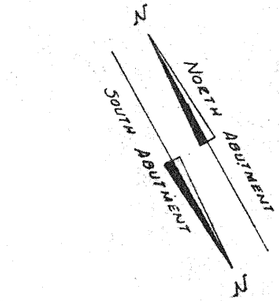
LICKING COUNTY
LIC.-161-11.13
LIC. - 16 -(14.30 - 18.51)




PLAN




ELEVATION




ELEVATIONS

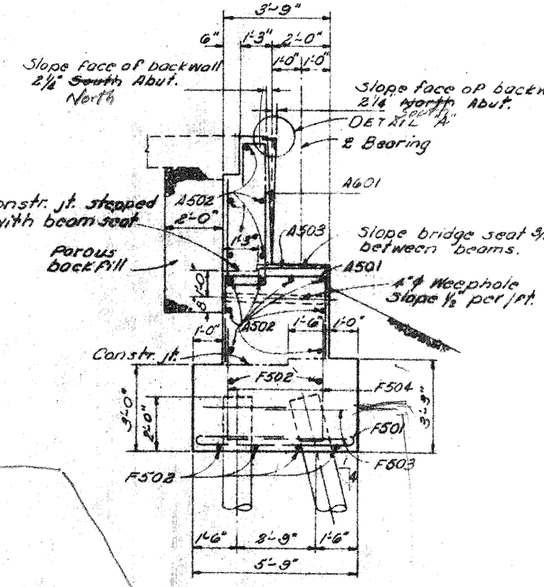
| Location | Elev. A | Elev. B | Elev. C | Elev. D | Elev. E | Elev. F | Elev. G | Elev. H | Elev. I | Elev. J |
|---|---|---|---|---|---|---|---|---|---|---|
| North Abutment | 938.81 | 939.01 | 939.21 | 939.18 | 939.15 | 942.00 | 941.94 | 942.22 | 943.27 | 943.41 |
| South Abutment | 949.13 | 949.16 | 949.19 | 948.99 | 948.79 | 942.00 | 952.30 | 952.82 | 953.75 | 953.41 |

Note: Elevations I and J are given to the top of 2" edge bar at the face of curb.

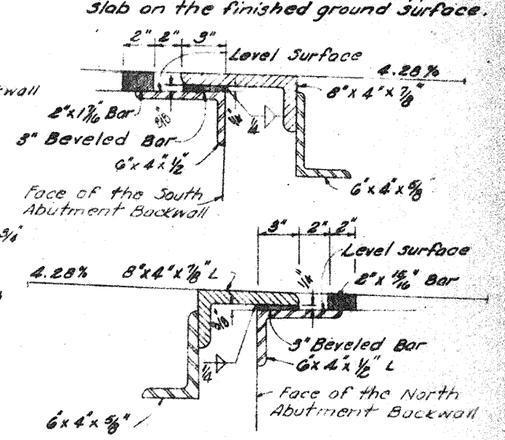
= Vertical pile
= Battered pile (1:4)

NOTES:

EMBANKMENT: The embankment shall be placed and compacted to the level of the intersection between the embankment slope and the abutment wall, after which excavation shall be made for the abutment and piles driven
POROUS BACKFILL, 2 foot thick, full length of abutment and wings shall extend up to the underside of the approach slab on the finished ground surface.




SECTION A-A




DETAIL "A"

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

ABUTMENT DETAILS
BRIDGE NO. LIC. 16-1461
UNDER S.R. 37

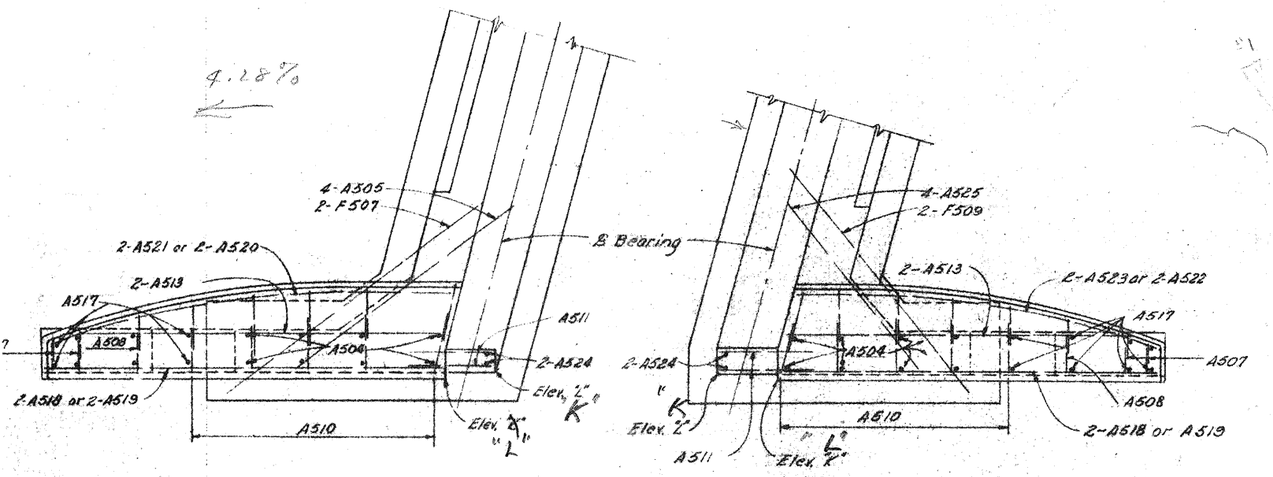
LICKING COUNTY STA. 369+05.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | E.D.A. | | F.A. | | 8-3-60 | |

| FED. RD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

407
466

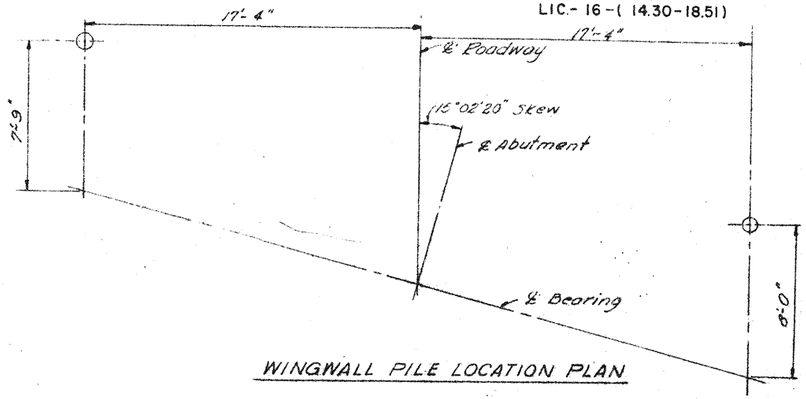
LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - ( 14.30 - 18.51)




SIDEWALK AND FILLET STEEL
Location Plan Wingwall #1



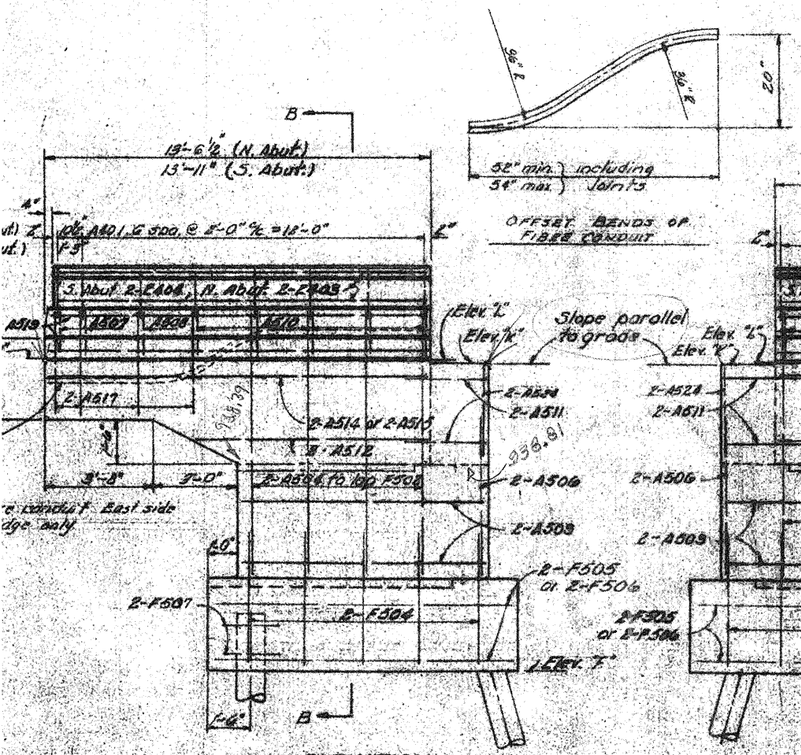

SIDEWALK AND FILLET STEEL
Location Plan Wingwall #2

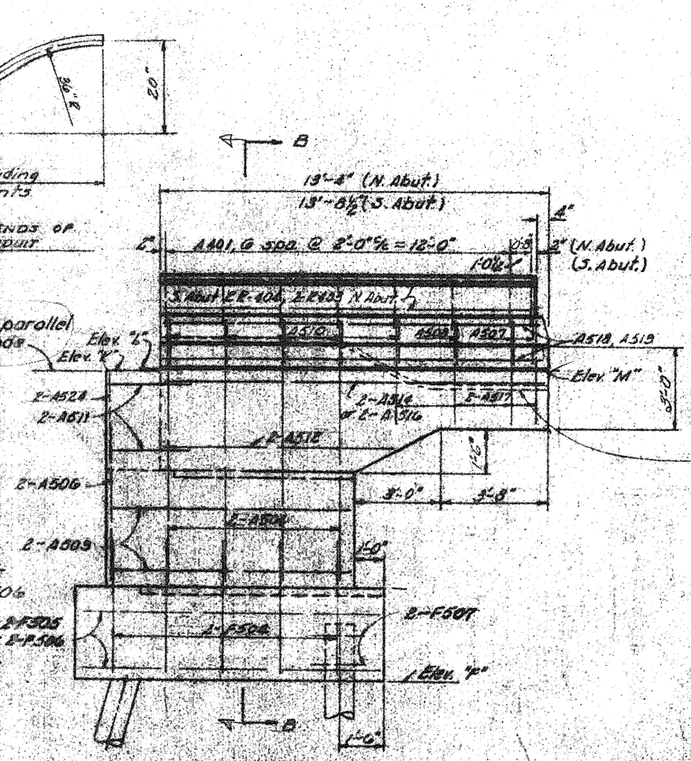


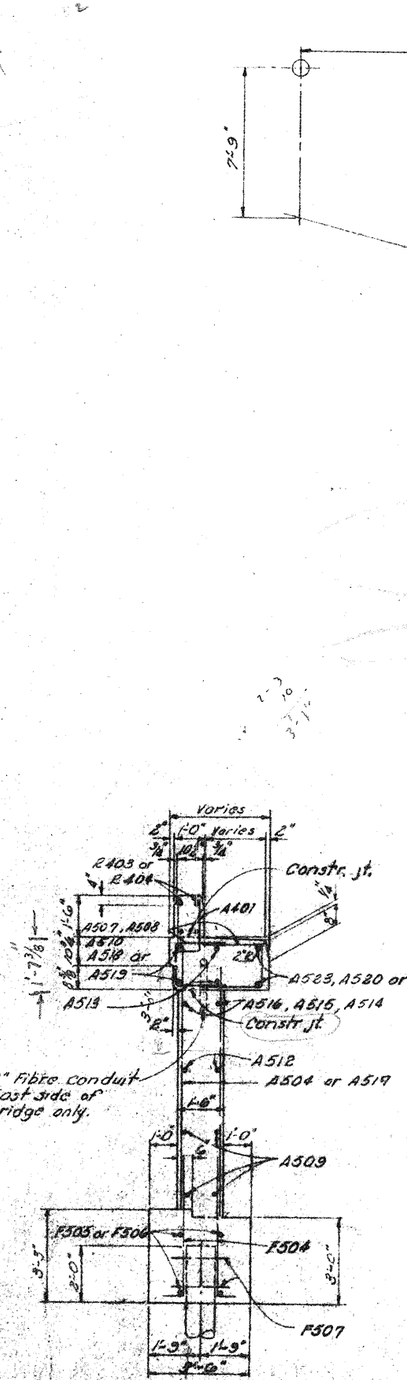

WINGWALL PILE LOCATION PLAN

| LOCATION | ELEVATIONS | | | | | |
|---|---|---|---|---|---|---|
| | ELEV. K | | ELEV. L | | ELEV. M | |
| | W.W. #1 | W.W. #2 | W.W. #1 | W.W. #2 | W.W. #1 | W.W. #2 |
| North Abut. | 943.38 | 943.11 | 943.46 | 942.85 | 941.88 | 942.28 |
| South Abut. | 952.87 | 952.46 | 952.95 | 952.54 | 953.62 | 953.21 |

952.90 952.56 952.98 952.64 953.57 953.23




NOTES:

Concrete Parapets: are included in Item 5-14 for payment.

Reinforcing Steel Location: N.S. indicates near side. F.S. indicates far side.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

ABUTMENT DETAILS
BRIDGE NO. LIC. 16-1461
UNDER S.R. 37

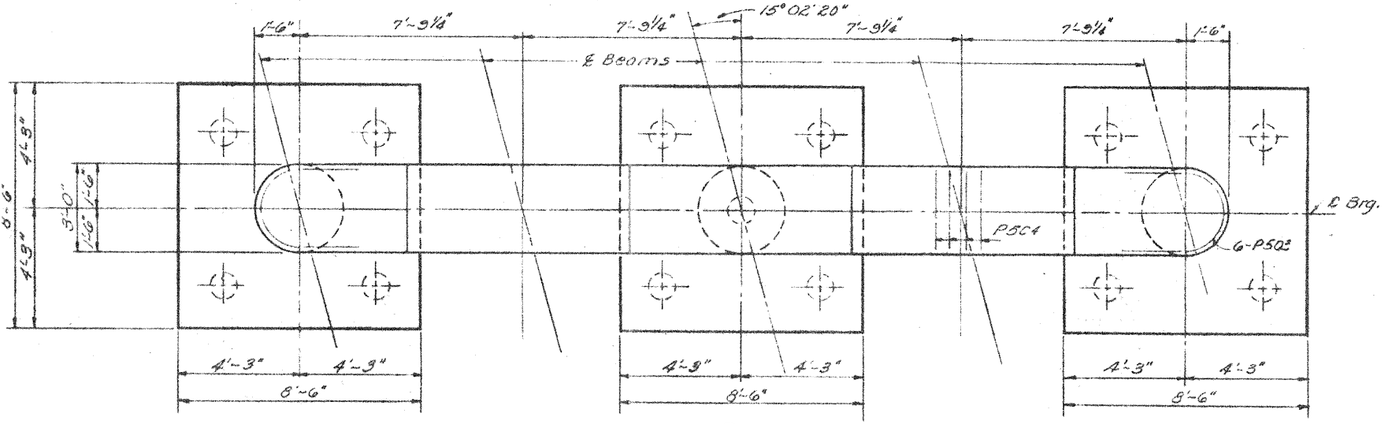
LICKING COUNTY STA. 3691+03.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Approved |
|---|---|---|---|---|---|---|
| H.A. | E.D.A. | | F.A. | ff | 8-5-80 | |

| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

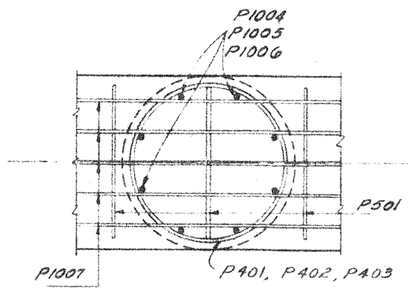
408
466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30-18.51)

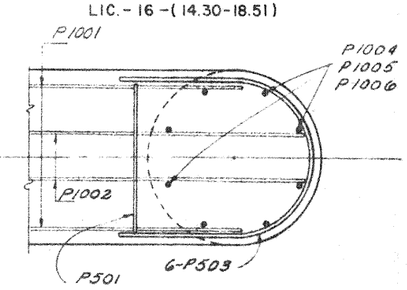



PLAN

Note : 4 extra P504 under each interior bearing seat @ 6" spa. to miss anchor bolts.

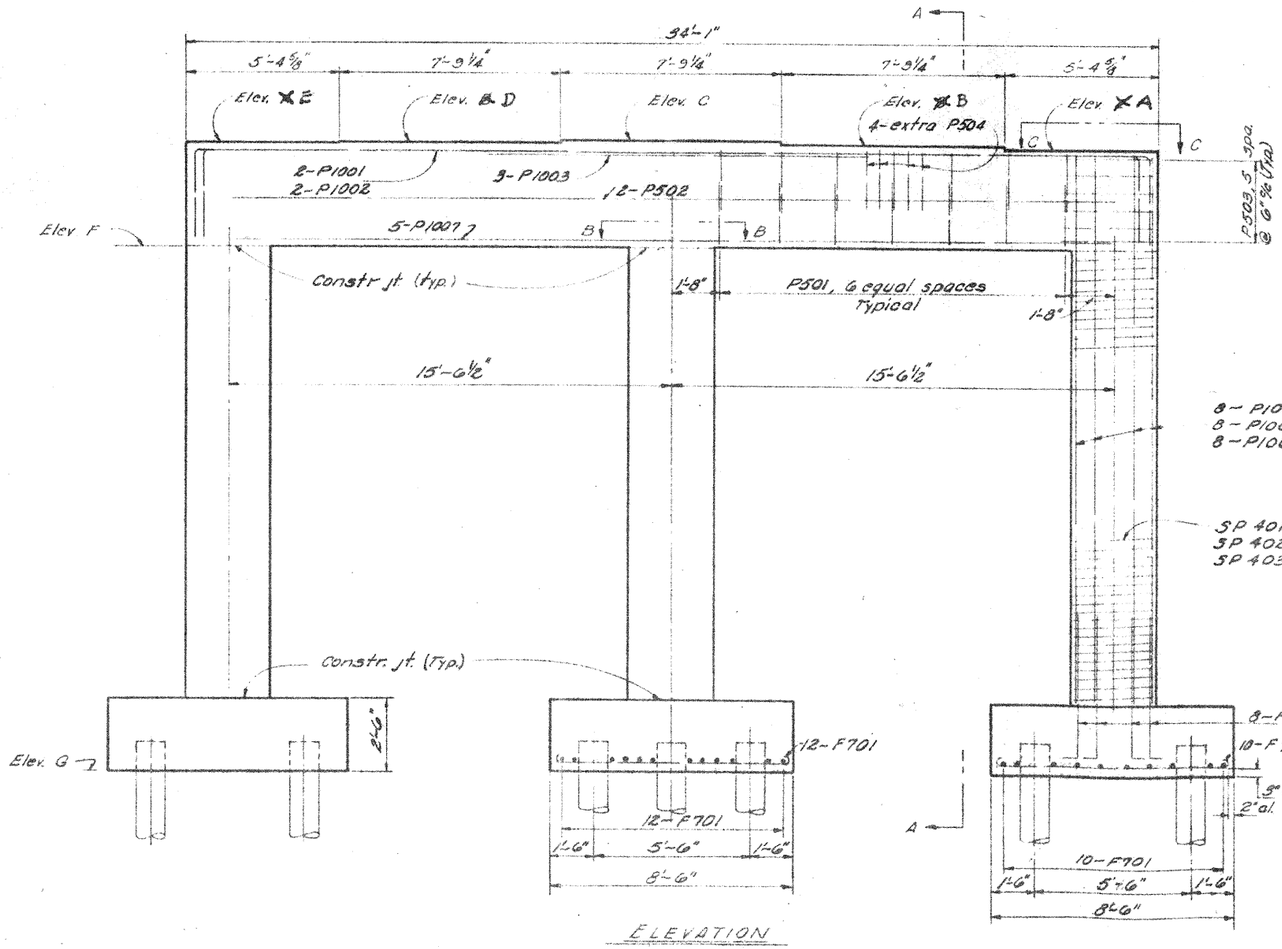



SECTION B-B

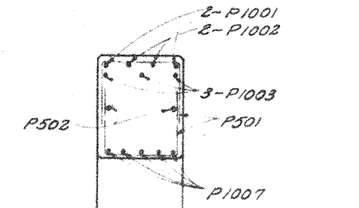


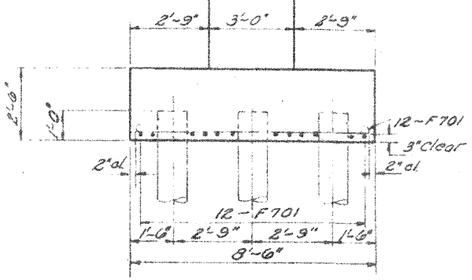

VIEW C-C

| ELEVATIONS | | | | | | | |
|---|---|---|---|---|---|---|---|
| LOCATION | A | B | C | D | E | F | G |
| PIER #1 | 946.49 | 946.51 | 946.54 | 946.34 | 946.13 | 942.63 | 920.50 |
| PIER #2 | 943.50 | 943.53 | 943.56 | 943.36 | 943.16 | 939.66 | 922.60 |
| PIER #3 | 940.74 | 940.77 | 940.80 | 940.60 | 940.40 | 936.90 | 921.40 |




ELEVATION




SECTION A-A

Note: When placing reinforcing steel in the pier caps, special care shall be taken to allow clearance for the anchor bolts.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

PIER DETAILS
BRIDGE NO. LIC. 16-1461
UNDER S.R. 37

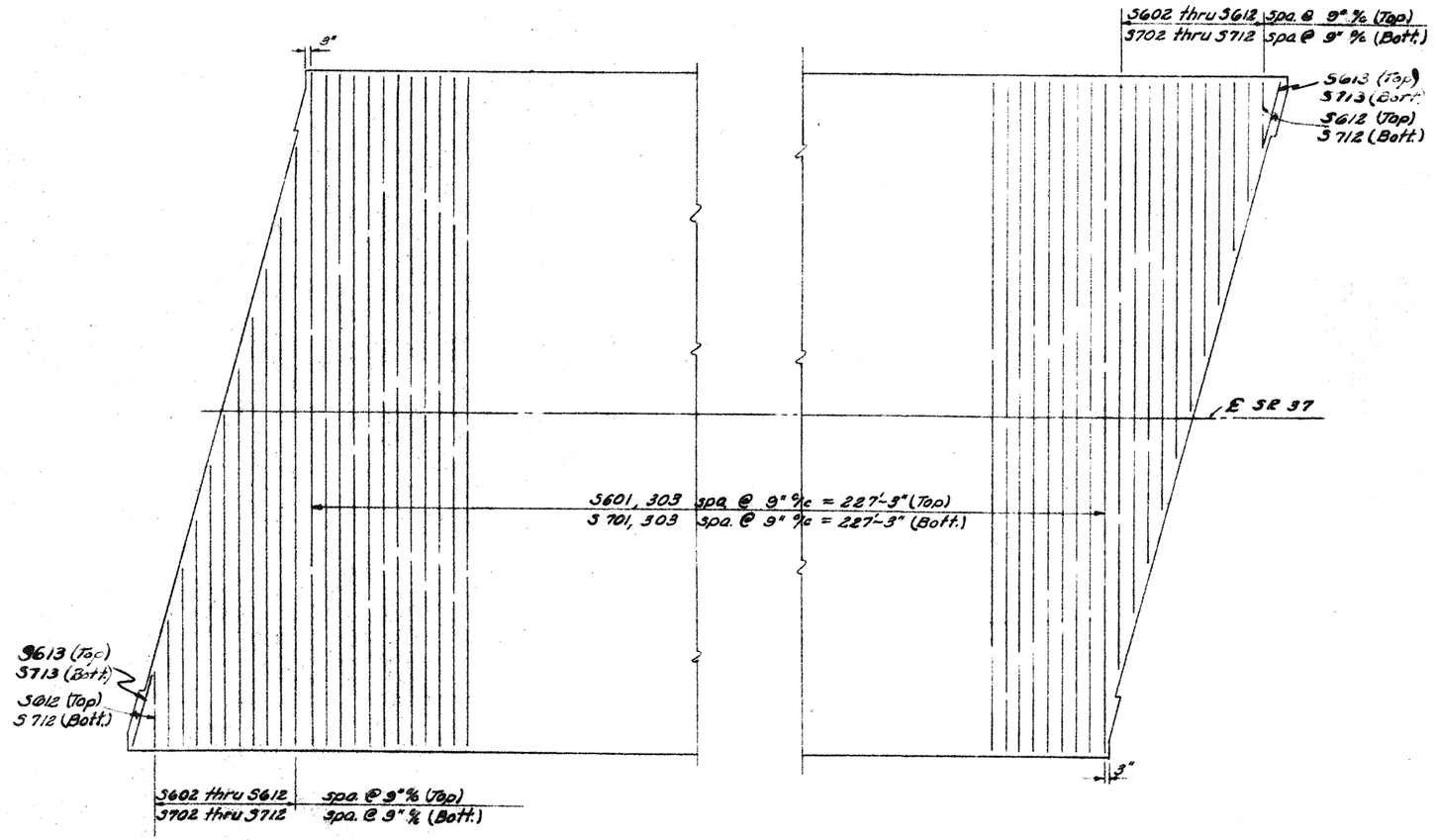
LICKING COUNTY STA. 369+05.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| HA | EDA | | FA | [illegible] | 8-3-60 | 9-19-61 |

| FED. RD DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

A10
A66

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)




PLACEMENT OF TRANSVERSE SLAB REINFORCING

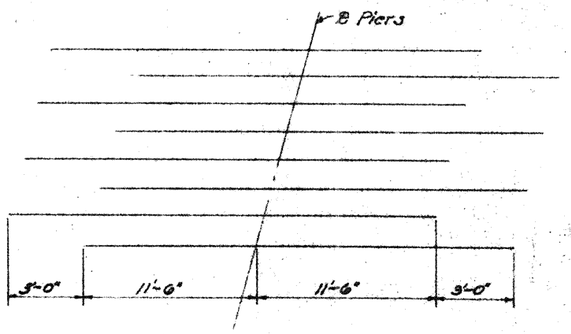



DIAGRAM SHOWING STAGGER BARS 3614

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. LIC. 16-1461
UNDER SR. 37

LICKING COUNTY STA. 369+05.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | E.D.A. | | F.A. | [illegible] | 8-3 60 | 3-8-62 |

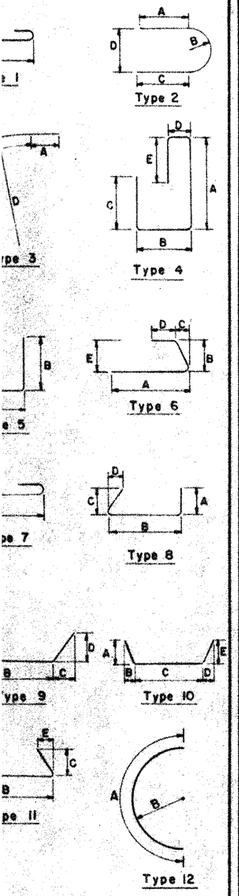
# REINFORCING STEEL LIST

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

411/466

LICKING COUNTY
LIC.-161- 11.13
LIC. -16 -(14.30-18.51)

BENDING DIAGRAM




| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| **ABUTMENTS** | | | | | | | | | | |
| R403 | 8 | 12-8 | | S | INCLUDED WITH RAILING FOR PAYMENT. | | | | | |
| R404 | 8 | 13-0 | | S | | | | | | |
| A501 | 40 | 9-7 | 400 | 5 | 3-5 | 3-1 | 3-4 | | | |
| A502 | 26 | 36-8 | 994 | S | | | | | | |
| A503 | 50 | 2-11 | 152 | 5 | 2-2 | 0-6 | 0-6 | | | |
| A504 | 32 | 8-6 | 284 | S | | | | | | |
| A505 | 8 | 6-5 | 54 | S | | | | | | |
| A506 | 8 | 5-3 | 44 | S | | | | | | |
| A507 | 16 | 2-5 | 40 | 5 | 1-2 | 0-9 | 0-9 | | | |
| A508 | 8 | 3-5 | 29 | 5 | 1-2 | 1-3 | 1-3 | | | |
| A509 | 16 | 8-4 | 139 | S | | | | | | |
| A510 | 40 | 4-5 | 184 | 5 | 1-2 | 1-9 | 1-9 | | | |
| A511 | 16 | 3-5 | 57 | S | | | | | | |
| A512 | 8 | 8-0 | 67 | S | | | | | | |
| A513 | 8 | 12-0 | 100 | S | | | | | | |
| A514 | 4 | 13-0 | 54 | S | | | | | | |
| A515 | 2 | 13-7 | 28 | S | | | | | | |
| A516 | 2 | 13-4 | 28 | S | | | | | | |
| A517 | 32 | ~~4-13-6~~ | ~~136~~ 117 | S | | | | | | |
| A518 | 4 | 12-10 | 54 | S | | | | | | |
| A519 | 4 | 13-2 | 55 | S | | | | | | |
| A520 | 2 | 13-9 | 29 | 3 | 3-3 | 10-6 | | | | |
| A521 | 2 | 14-2 | 30 | 3 | 3-8 | 10-6 | | | | |
| A522 | 2 | 12-7 | 26 | 3 | 2-1 | 10-6 | | | | |
| A523 | 2 | 12-10 | 27 | 3 | 2-4 | 10-6 | | | | |
| A524 | 8 | 4-4 | 36 | S | | | | | | |
| A525 | 8 | 7-5 | 62 | S | | | | | | |
| A601 | 82 | 11-1 | 1365 | 4 | 4-7 | 1-5 | 3-3 | 0-10 | 1-6 | |
| A401 | 32 | 4-8 | 100 | 5 | 6½ | 2-2 | 2-2 | | | |
| F501 | 40 | 7-1 | 296 | 1 | 5-5 | | | | | |
| F502 | 12 | 38-6 | 481 | S | | | | | | |
| F503 | 48 | 7-1 | 355 | 5 | 1-8 | 2-10 | 2-10 | | | |
| F504 | ~~186~~ 86 | 5-2 | ~~433~~ 539 | 5 | 0-9 | 4-7 | | | | |
| F505 | 8 | 10-5 | 87 | S | | | | | | |
| F506 | 8 | 10-8 | 89 | S | | | | | | |
| F507 | 9 4 | 5-2 | 22 | ~~85~~ | ~~1-8~~ | ~~1-8~~ | ~~1-8~~ | | | |
| F508 | 7 16 | 4-9 | 79 | ~~85~~ | ~~1-8~~ | ~~1-8~~ | ~~1-8~~ | | | |
| F509 | 8 4 | 6-2 | 26 | S | | | | | | |
| | | TOTAL | ~~6440~~ 6529 | | | | | | | |

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| **PIERS** | | | | | | | | | | |
| P1001 | 6 | 36-7 | 945 | 5 | 31-1 | 3-1 | 3-1 | | | |
| P1002 | 6 | 39-1 | 1009 | 5 | 33-7 | 3-1 | 3-1 | | | |
| P1003 | 9 | 13-7 | 526 | S | | | | | | |
| P1004 | 24 | 22-10 | 2358 | S | | | | | | |
| P1005 | 24 | 17-9 | 1833 | S | | | | | | |
| P1006 | 24 | 16-3 | 1678 | S | | | | | | |
| P1007 | 15 | 31-1 | 2006 | S | | | | | | |
| P501 | 84 | 7-4 | 643 | 5 | 2-7 | 2-6 | 2-6 | | | |
| P502 | 6 | 31-1 | 195 | S | ~~1'-7½"~~ | | ~~1'-7½"~~ | | | |
| P503 | 36 | 7-5 | 278 | 2 | ~~2-4~~ | 1-4 | ~~2-4~~ | 2-8 | | |
| P504 | 36 | 5-6 | 207 | 5 | 2-7 | 1-7 | 1-7 | | | |
| F1001 | 72 | 6-5 | 1988 | 5 | 1-5 | 5-4 | | | | |
| F701 | 192 | 9-10 | 3859 | 1 | 8-2 | | | | | |
| | | TOTAL | 17525 | | | | | | | |

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| **SUPERSTRUCTURE** | | | | | | | | | | |
| R402 | 16 | 11-4 | | S | INCLUDED WITH RAILING FOR PAYMENT. | | | | | |
| R405 | 112 | 13-11 | | S | | | | | | |
| R406 | 16 | 6-9 | | S | | | | | | |
| S501 | 238 | 3-8 | 910 | 5 | 2-11 | 0-6 | 0-6 | | | |
| S502 | 238 | 5-2 | 1283 | 5 | 2-11 | 1-3 | 1-3 | | | |
| S601 | 304 | 36-2 | 16510 | S | | | | | | |
| S602 | 2 | 33-0 | 98 | S | | | | | | |
| S603 | 2 | 30-2 | 90 | S | | | | | | |
| S604 | 2 | 27-4 | 82 | S | | | | | | |
| S605 | 2 | 24-6 | 74 | S | | | | | | |
| S606 | 2 | 21-8 | 65 | S | | | | | | |
| S607 | 2 | 18-10 | 57 | S | | | | | | |
| S608 | 2 | 16-0 | 48 | S | | | | | | |
| S609 | 2 | 13-2 | 40 | S | | | | | | |
| S610 | 2 | 10-4 | 31 | S | | | | | | |
| S611 | 2 | 7-6 | 23 | S | | | | | | |
| S612 | 2 | 4-7 | 14 | S | | | | | | |
| S613 | 2 | 4-0 | 12 | S | | | | | | |
| S614 | 72 | 26-0 | 2812 | S | | | | | | |
| S615 | 462 | 35-10 | ~~24965~~ 24112 | S | | | | | | |
| | ~~448~~ | | | | | | | | | |
| S701 | 304 | 36-2 | 22473 | S | | | | | | |
| S702 | 2 | 33-0 | 135 | S | | | | | | |
| S703 | 2 | 30-2 | 123 | S | | | | | | |
| S704 | 2 | 27-4 | 112 | S | | | | | | |
| S705 | 2 | 24-6 | 100 | S | | | | | | |
| S706 | 2 | 21-8 | 89 | S | | | | | | |
| S707 | 2 | 18-10 | 77 | S | | | | | | |
| S708 | 2 | 16-0 | 65 | S | | | | | | |
| S709 | 2 | 13-2 | 54 | S | | | | | | |
| S710 | 2 | 10-4 | 42 | S | | | | | | |
| S711 | 2 | 7-6 | 31 | S | | | | | | |
| S712 | 2 | 4-7 | 19 | S | | | | | | |
| S713 | 2 | 4-0 | 16 | S | | | | | | |
| S401 | 238 | 4-8 | 741 | 5 | 0-6½ | 2-2 | 2-2 | | | |
| | | TOTAL | ~~2181~~ 70338 | | | | | | | |

**REPLACEMENT BARS**

| | | | | | | |
|---|---|---|---|---|---|---|
| RE 1001 | 1 | 7-3 | S | | | |
| RE 701 | 1 | 6-3 | S | | | |
| RE 601 | 3 | 5-11 | S | | | |
| RE 501 | 1 | 5-7 | S | | | |
| RE 401 | 1 | 5-3 | S | | | |
| RE 402 | 1 | 5-3 | 12 | 5-3 | 1-4 | |

**SPIRAL REINFORCEMENT**

| MARK | NO. | LENGTH | CORE | PITCH | TURNS | SPACERS | WEIGHT |
|---|---|---|---|---|---|---|---|
| Sp.401 | 3 | 19.64 | 32 | 4½ | 55 | 4 | 1070 |
| Sp.402 | 3 | 14.57 | 32 | 4½ | 42 | 4 | 815 |
| Sp.403 | 3 | 13.00 | 32 | 4½ | 38 | 4 | 737 |
| | | | | | TOTAL | | 2622 |

## NOTES

BAR SIZE; Is indicated in bar mark. The first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar.

REPLACEMENT BARS; If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in sec. 402 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING BARS; The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The " No. of Turns" shown is the "Length" divided by the pitch, plus three turns (total number of closed coils), expressed as the nearest whole number.

Spiral reinforcing bars shall not have deformations but shall in other respects conform to item S-4. 1½ closed coils shall be provided at the ends of each spiral unit. Four or three steel channel, tee or angle spacers, weighing approximately 0.68 lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

HORIZONTAL PARAPET REINFORCING; These bars are included with the railing for payment.

HE COLUMN FOR "TYPE"
ES STRAIGHT BARS.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

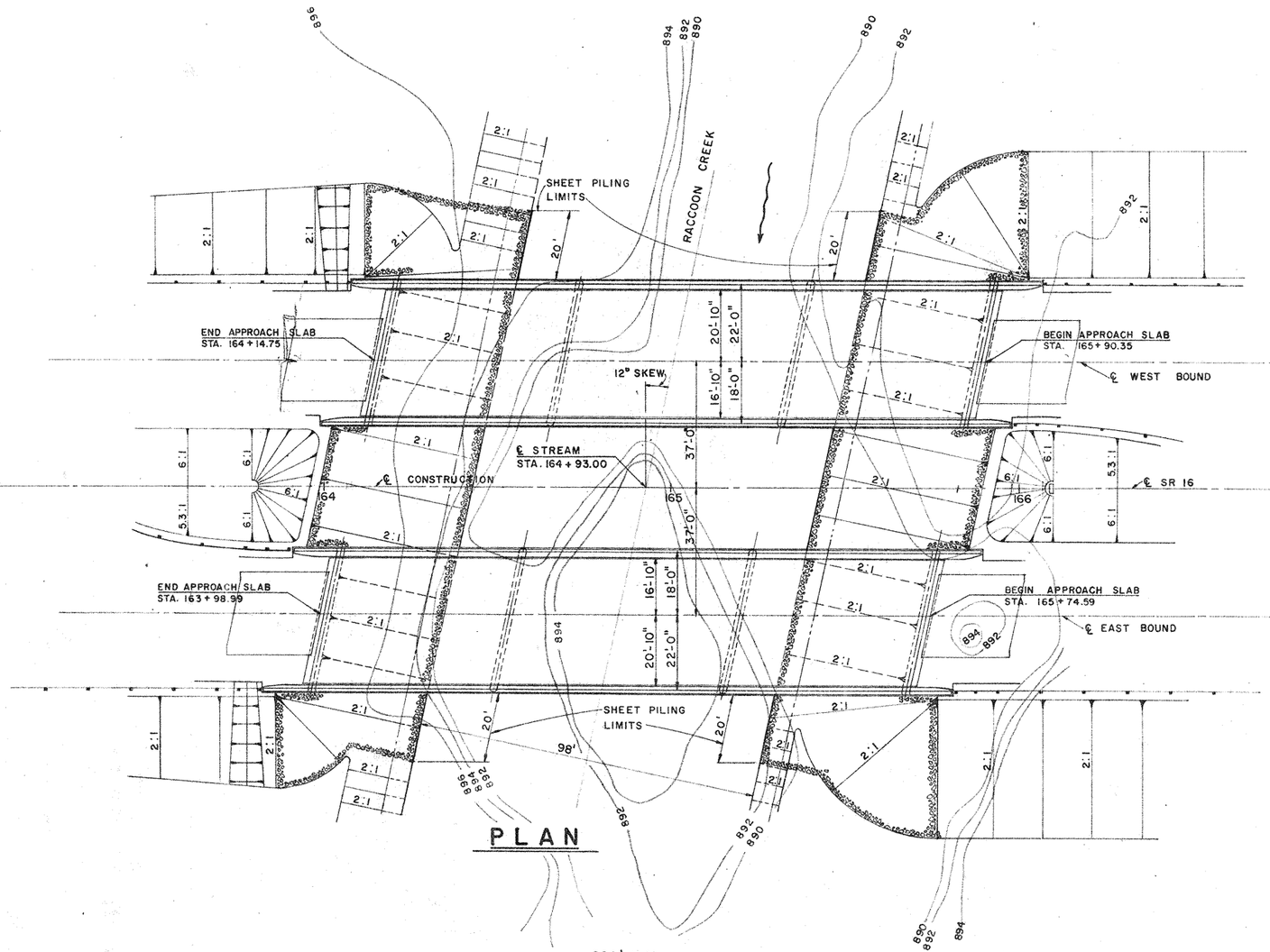
REINFORCING STEEL LIST
BRIDGE NO. LIC. 16-1461
UNDER S.R. 37
LICKING COUNTY STA. 369+05.21

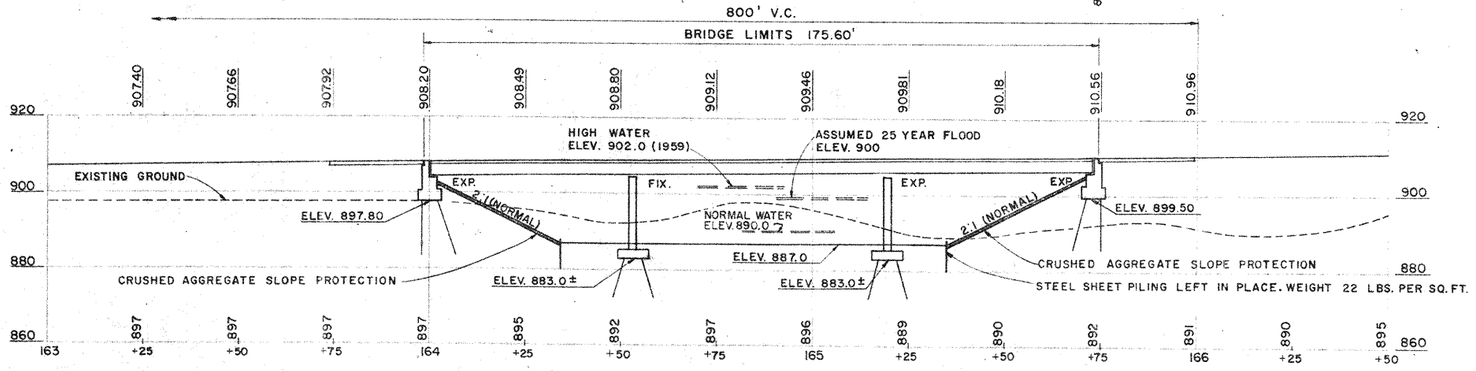
| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | E.D.A. G.M. | | F.A. | 66 | 8-3 60 | 3-8-62 |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

412
466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30-18.51)




PROFILE
ALONG EAST BOUND LANES

All piles are 12" cast-in-place reinforced concrete piles.

Estimated average pay-length for piles:
Piers 40 ft.
Abutments 30 ft.

FURNISHED WATERWAY OPENING:
ASSUMED 25 YEAR FLOOD = 1560 SQ. FT.

CURVE DATA
P.V.I. St. 162+00; El. 904.48
V.C. = 800'
$G_1$ = -0.3%
$G_2$ = +1.62%

FOUNDATION SOUNDINGS:
Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: 52'-6", 66'-0", 52'-6".
ROADWAY: 40'-0" face to face of concrete parapets with aluminum railings.
LOADING: C.F. 2000 (57).
SKEW: 12° 0' L.F.
WEARING SURFACE: 1" Monolithic Concrete.
ALIGNMENT: Tangent.
APPROACH SLAB: 25'-0" long.

105 + 66 = 171
34.5 + 5 = 172.5

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

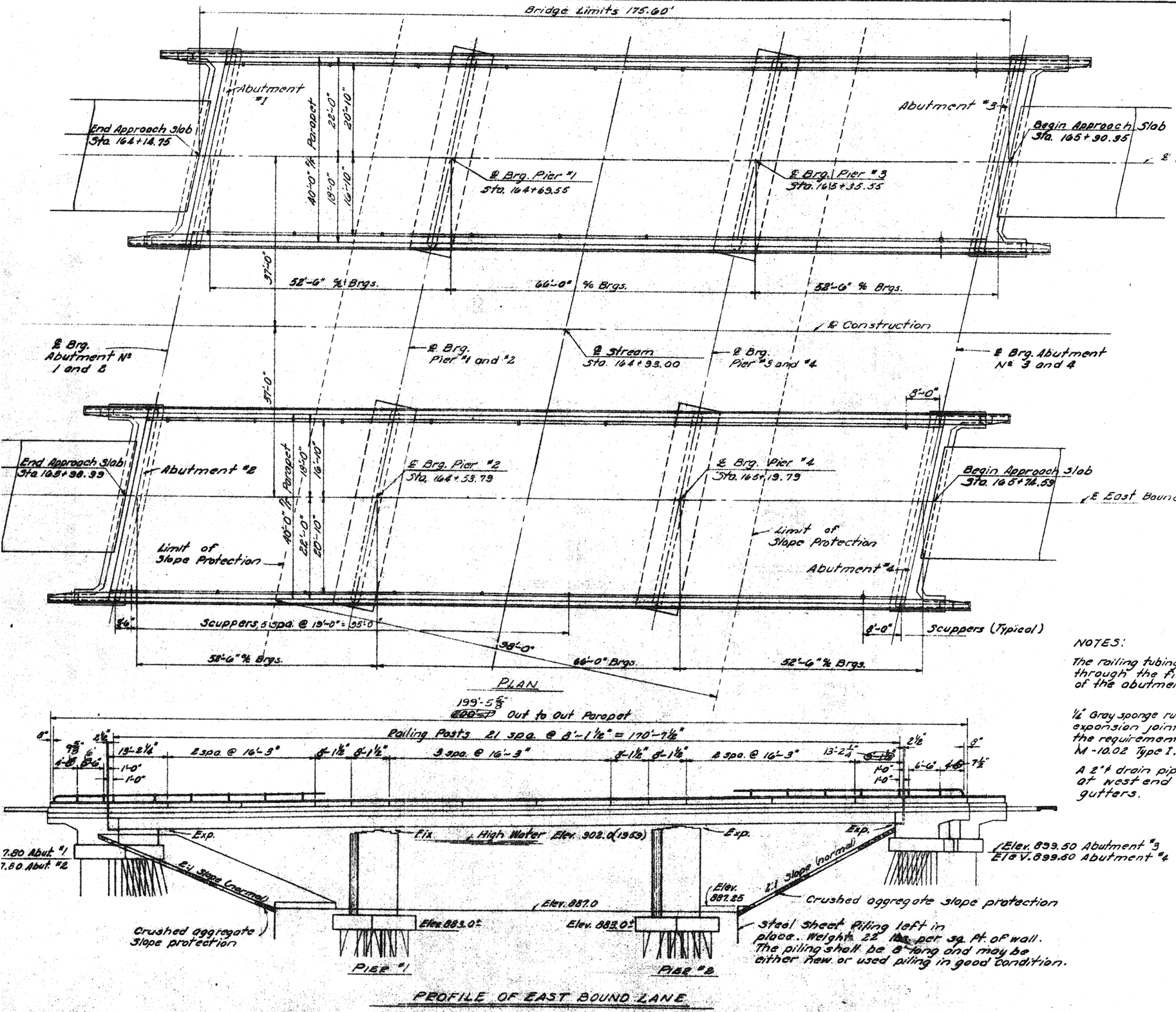
SITE PLAN
BRIDGE Nº LIC. 16-1560 L AND R
OVER RACCOON CREEK
LICKING COUNTY
STA. 164+14.75
STA. 163+98.99

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| F.A. | E.D.A. G.M. | G.M. | J.R.W. | GE | 8-3 60 | |

| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

413/466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)




NOTES:

The railing tubing shall be continuous through the first post on the end of the abutment wingwalls.

½" Gray sponge rubber preformed expansion joint filler meeting the requirements of Section M-10.02 Type I.

A 2"ϕ drain pipe shall be provided at west end of all bulb angle gutters.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# GENERAL PLAN AND ELEVATION

BRIDGE NO. LIC. 16-1560 L AND R
OVER RACCOON CREEK
LICKING COUNTY STA. 164+14.75
STA. 163+98.99

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| J.R.W. | E.D.A. | | F.A. | 66. | 8-3-60 | 3-8-62 |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

44/466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

## GENERAL NOTES

REFERENCE shall be made to:
Supplemental specifications S-101 dated 12-2-59
Standard Drawings CSB-2-56 sheet 1, 2 and 3 revised 2-2-59
Standard Drawings AR-1-57 revised 2-2-59

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

EXCAVATION: Quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

PILES: Piles shall be driven to a minimum bearing capacity of 34 tons per pile for the abutments and 45 tons per pile for the piers.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

WELDING: Welding of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

CRUSHED AGGREGATE SLOPE PROTECTION: shall be placed from toe of slope to top of slope and shall be continuous under the bridges extending 20 feet beyond the outside facias of the bridges. The slope protection shall also cover the cones to a line forming a right angle with the centerline of construction.

STEEL: See Proposal regarding A-373 Steel.

MACHINE FINISH: The top of the bridge deck slabs shall be machine finished in accordance with the Proposal Note "Machine Finishing of Bridge Deck Slabs."

## ESTIMATED QUANTITIES (2 BRIDGES)

| ITEM | TOTAL | UNIT | DESCRIPTION | SUPER. | ABUT. | PIER | GEN. | | |
|---|---|---|---|---|---|---|---|---|---|
| E2 | Lump | Sum | Cofferdams, Cribs and sheeting | | | | | | |
| E2 | 843 | Cu.Yds. | Unclassified Excavation | | 560 | 283 | | | |
| E2 | 2608 | Sq.Ft. | Steel Sheet Piling, left in place | | | | 2608 | | |
| S1 | 448 | Cu.Yds. | Class C Conc. Superstructure | 448 | | | | | |
| S1 | 242 | Cu.Yds. | Class C Conc. Piers (above footings) | | | 242 | | | |
| S1 | 145 | Cu.Yds. | Class E Conc. Pier Footings | | | 145 | | | |
| S1 | 166 | Cu.Yds. | Class E Conc. Abuts. (above footings) | | 166 | | | | |
| S1 | 140 | Cu.Yds. | Class E Conc. Abut. Footings | | 140 | | | | |
| | 168617 | | | 137285 | | 16729 | | | |
| S4 | ~~158535~~ | Lbs. | Reinforcing Steel | ~~128249~~ 28249 | 14603 | ~~15683~~ | | | |
| S7 | 377600 | Lbs. | Structural Steel | 377600 | | | | | |
| S8 | 377600 | Lbs. | Field Painting Of Structural Steel, as per plan. | 377600 | | | | | |
| | | | | | | | | | |
| S14 | 800.33 | Lin.Ft. | Railing (aluminum rail & supports, & conc. parapet) | 800.33 | | | | | |
| S16 | Lump | Sum | First Test Pile | | | | | | |
| S18 | 3920 | Lin.Ft. | 12" Cast-in-place reinforced Conc. Piles | | 1680 | 2240 | | | |
| S29 | 28 | Each | Scuppers | 28 | | | | | |
| S29 | 49 | Cu.Yds. | Porous Backfill | | 49 | | | | |
| E3 | 10,688 | Cu.Yds. | Channel Excavation | | | | 10,688 | | |
| I10 | 1900 | Sq.Yds. | Crushed Aggregate Slope Protection | | | | 1900 | | |
| I10 | 692 | Cu.Yds. | Dumped Rock Channel Protection | | | | 692 | | |
| | | | | | | | | | |

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

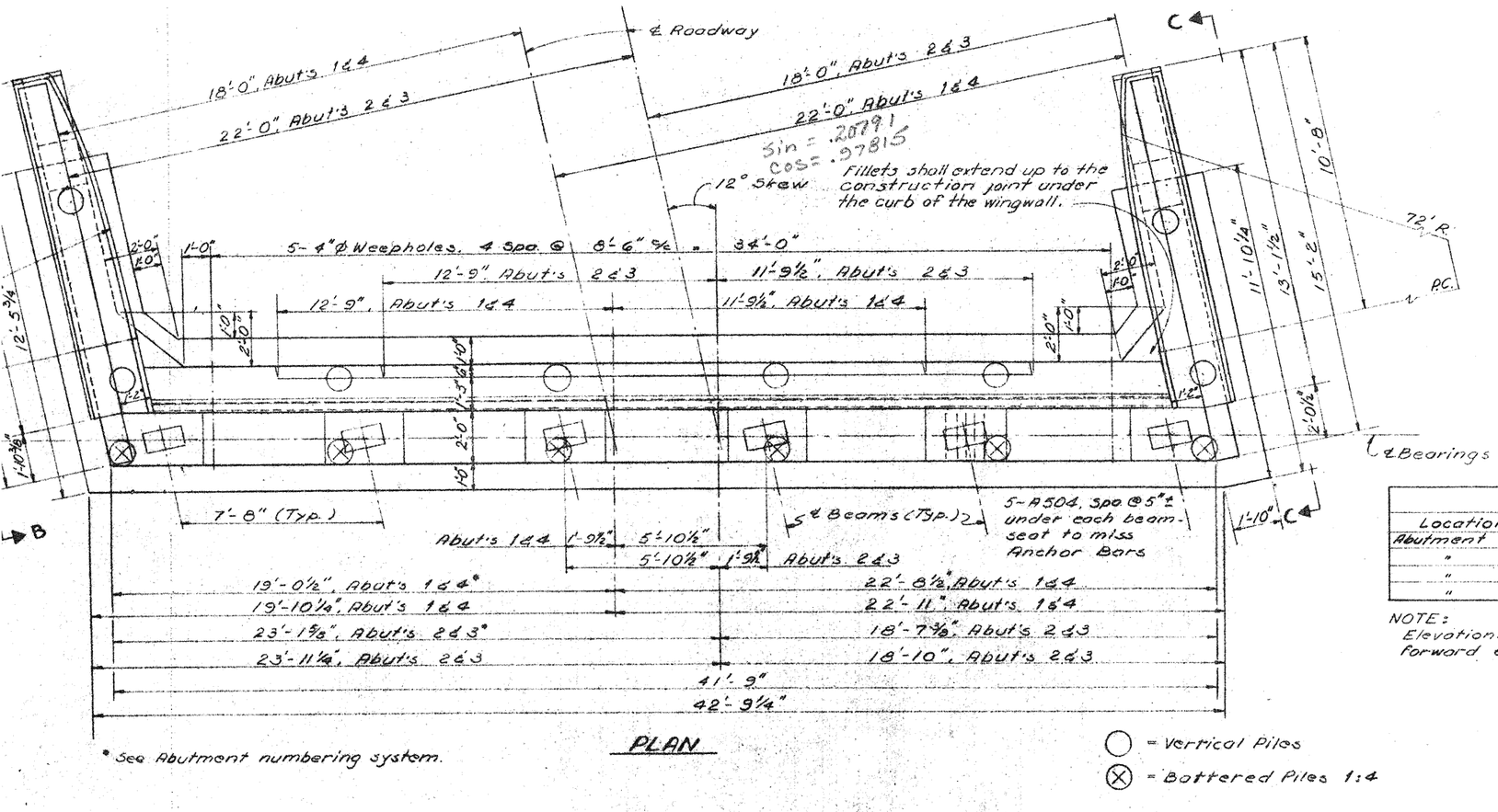
GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. LIC. 16-1560 L AND R
OVER RACCOON CREEK
LICKING COUNTY STA. 164+14.75
163+98.99

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | E.D.A. | | F.A. | 66 | 8-3-60 | 5-29-62 |

| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

215/466

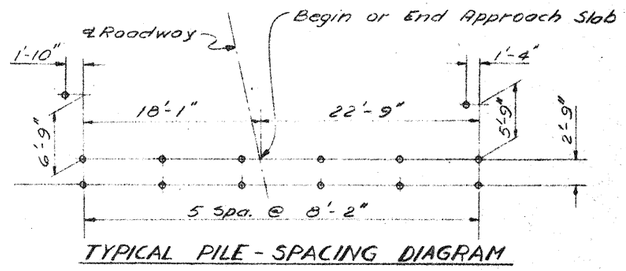
LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)




* See Abutment numbering system.

PLAN

○ = Vertical Piles
⊗ = Battered Piles 1:4

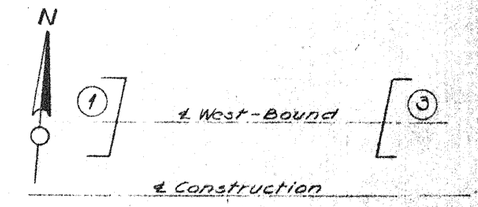



TYPICAL PILE-SPACING DIAGRAM

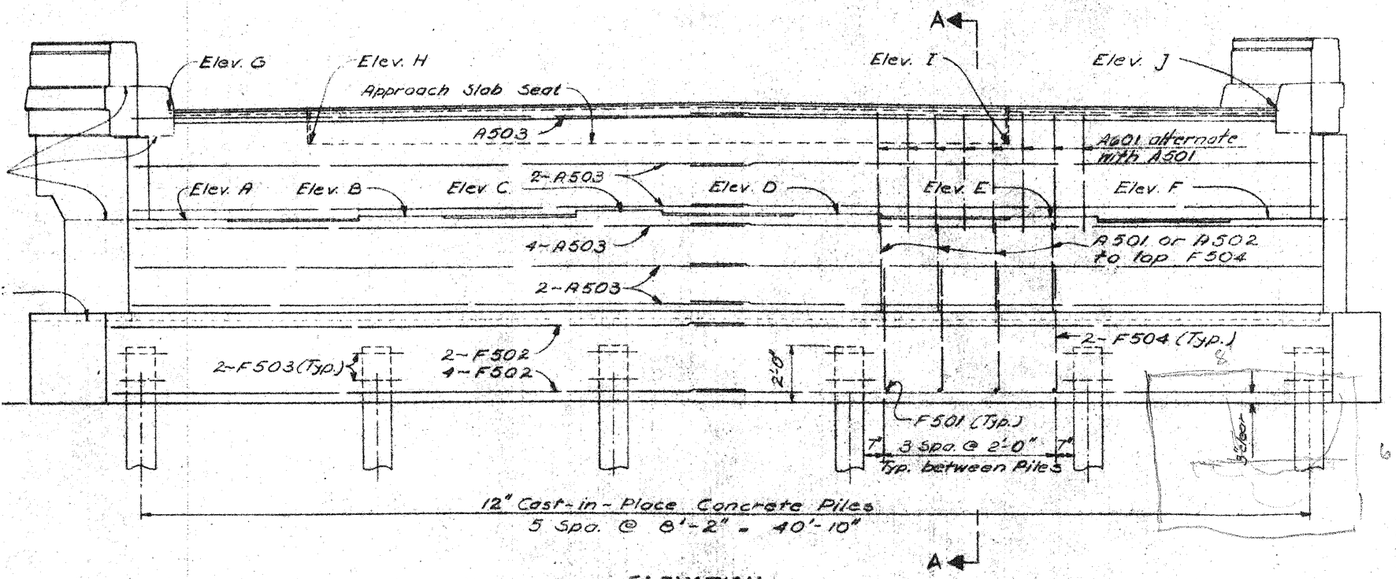
TABLE OF ELEVATIONS

| Location | | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Abutment | 1 | 904.39 | 904.52 | 904.66 | 904.62 | 904.52 | 904.42 | 908.26 | 907.01 | 907.07 | 908.29 | 897.80 |
| " | 2 | 904.14 | 904.27 | 904.41 | 904.49 | 904.39 | 904.29 | 908.01 | 906.83 | 906.89 | 908.16 | 897.80 |
| " | 3 | 906.31 | 906.90 | 906.99 | 907.08 | 906.89 | 906.74 | 910.73 | 909.51 | 909.43 | 910.67 | 899.50 |
| " | 4 | 906.61 | 906.70 | 906.79 | 906.71 | 906.56 | 906.42 | 910.53 | 909.26 | 909.18 | 910.34 | 899.50 |

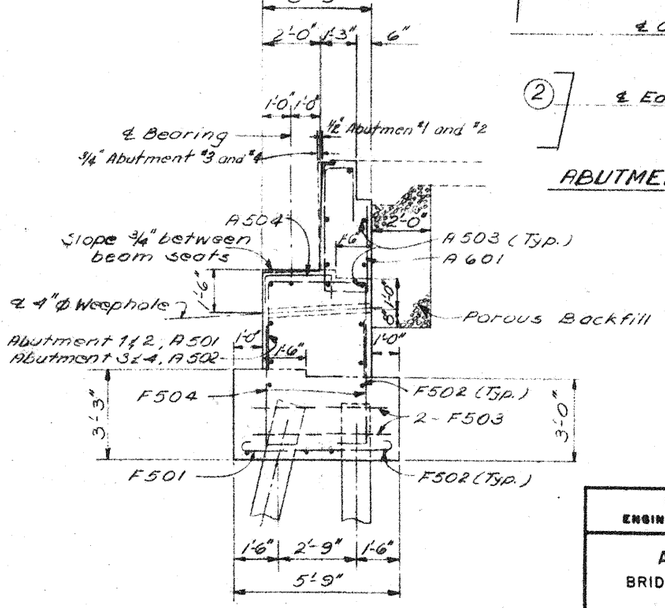
NOTE:
Elevations G and J are given at the forward edge of the 2" edge bar.




ABUTMENT-NUMBERS




ELEVATION



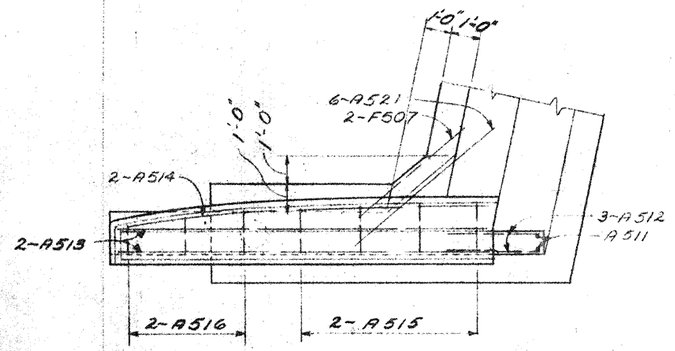

SECTION A-A

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

ABUTMENT DETAILS
BRIDGE NO. LIC. 16-1560 L AND R
OVER RACCOON CREEK
LICKING COUNTY
STA. 164+14.75
STA. 163+98.99

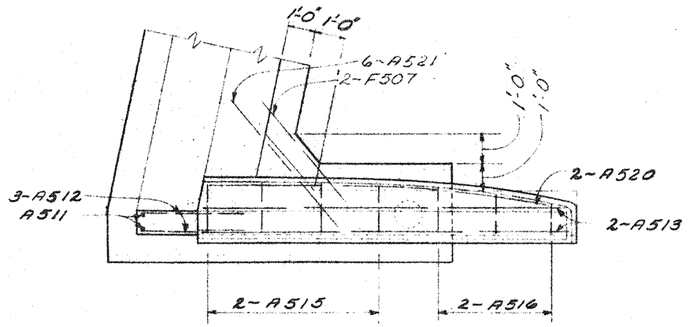
| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| C.B.R. | C.B.R. | | J.R.W. | 66 | 8-3-60 | |

Note: The embankment shall be placed and compacted to the level of the intersection between the embankment slope and the abutment wall, after which excavation shall be made for the abutment and piles driven.




CURB - AND FILLET STEEL

Note: Porous Backfill, 2 foot thick, full length of abutment and wings shall extend up to the underside of the approach slab or to the finished ground surface.




CURB - AND FILLET STEEL

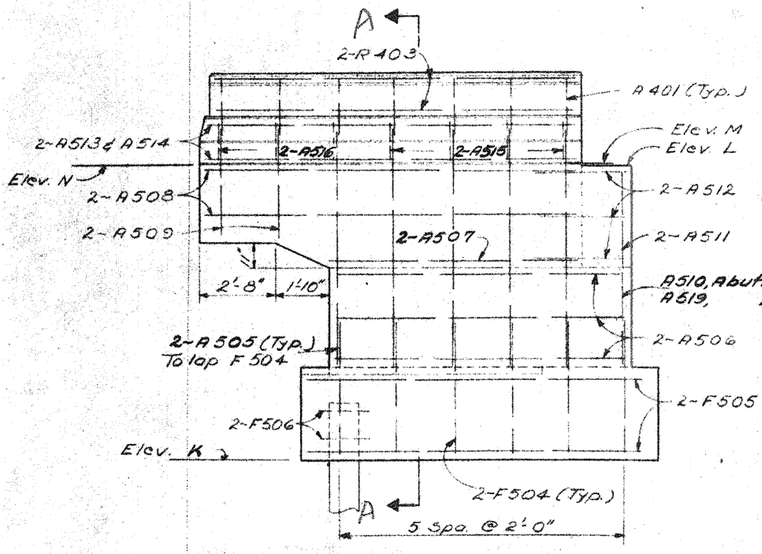
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

414
466

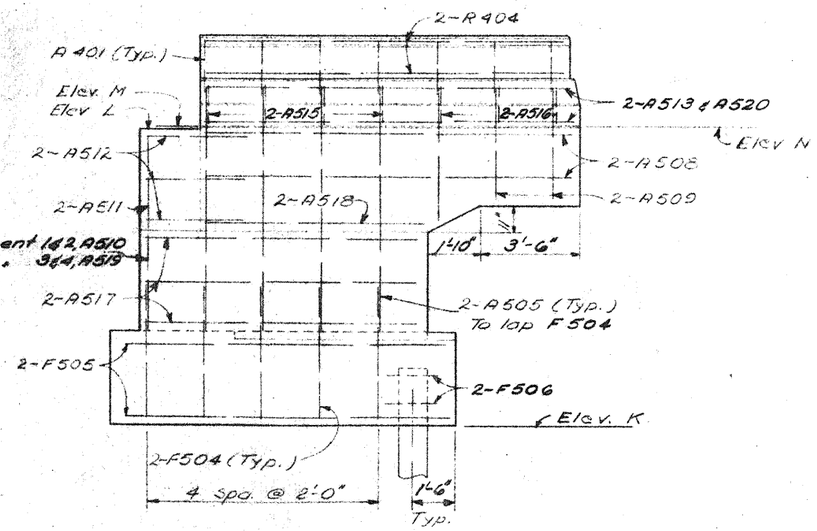
LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)

TABLE OF ELEVATIONS

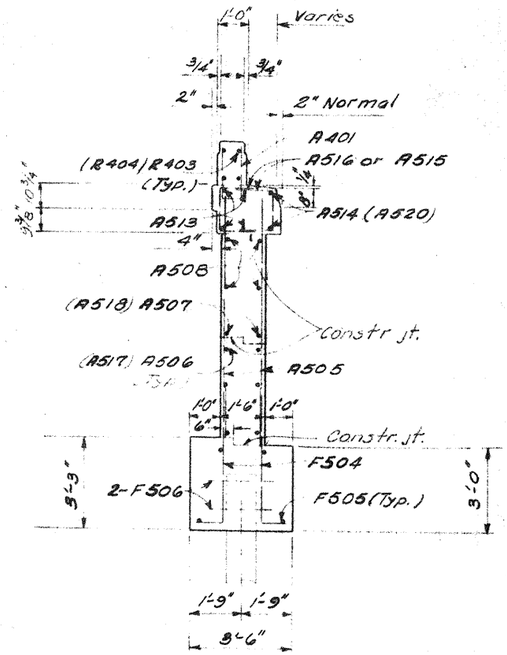
| Location | | | L | M | N |
|---|---|---|---|---|---|
| Abutment 1 | North | W.W. | 907.42 | 907.48 | 907.31 |
| " | South | " | 907.38 | 907.44 | 907.28 |
| " 2 | North | " | 907.29 | 907.35 | 907.19 |
| " | South | " | 907.13 | 907.19 | 907.02 |
| " 3 | North | " | 909.79 | 909.90 | 910.10 |
| " | South | " | 909.71 | 909.82 | 910.02 |
| " 4 | North | " | 909.59 | 909.70 | 909.89 |
| " | South | " | 909.39 | 909.50 | 909.69 |




VIEW B - B




VIEW C - C




SECTION A-A

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

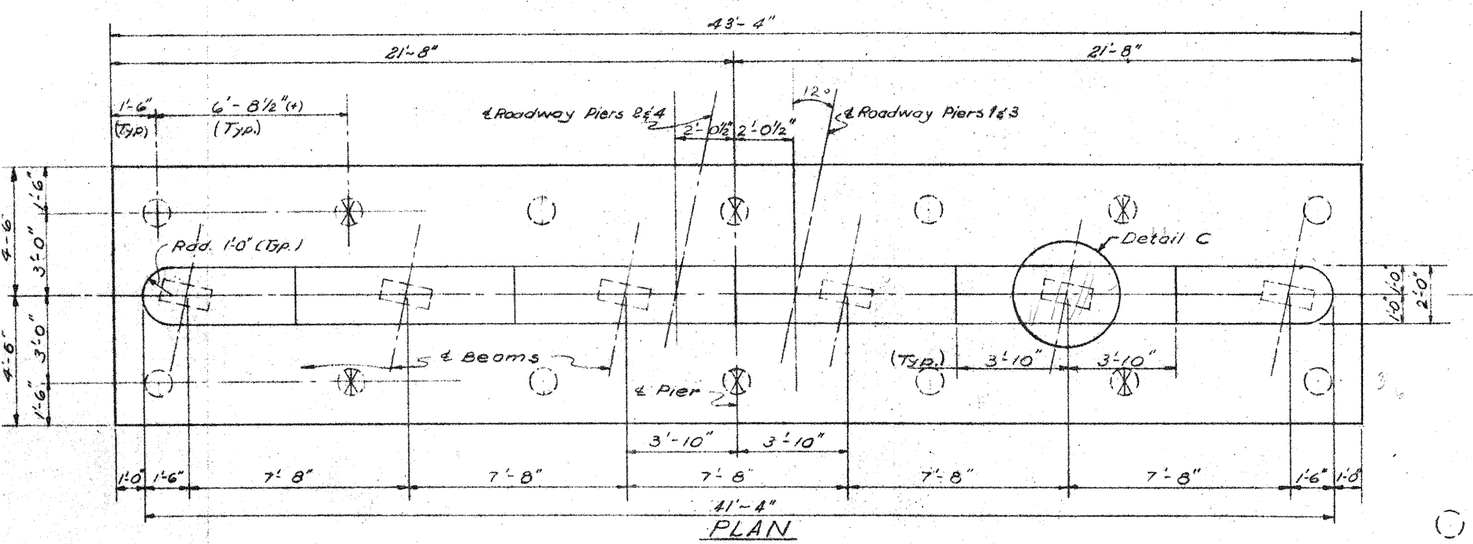
ABUTMENT DETAILS
BRIDGE NO. LIC. 16 - 1560 L AND R
OVER RACCOON CREEK
LICKING COUNTY
STA. 164 + 14.75
STA. 163 + 98.99

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| C.B.R. | C.B.R. | | J.R.W. | 66 | 8-3 60 | |

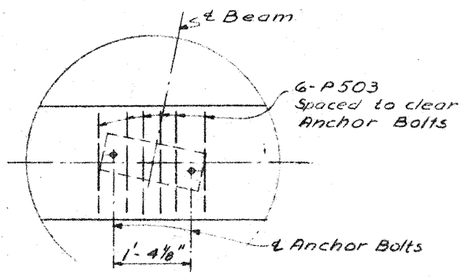
| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

417
416

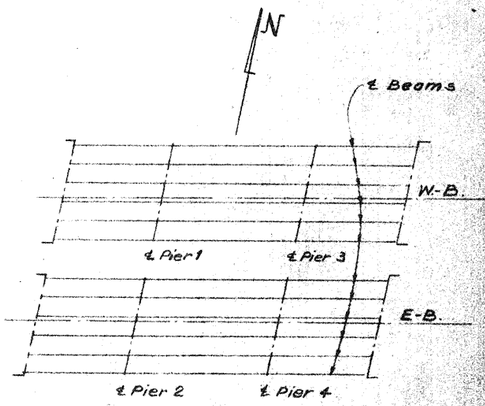
LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)




PLAN

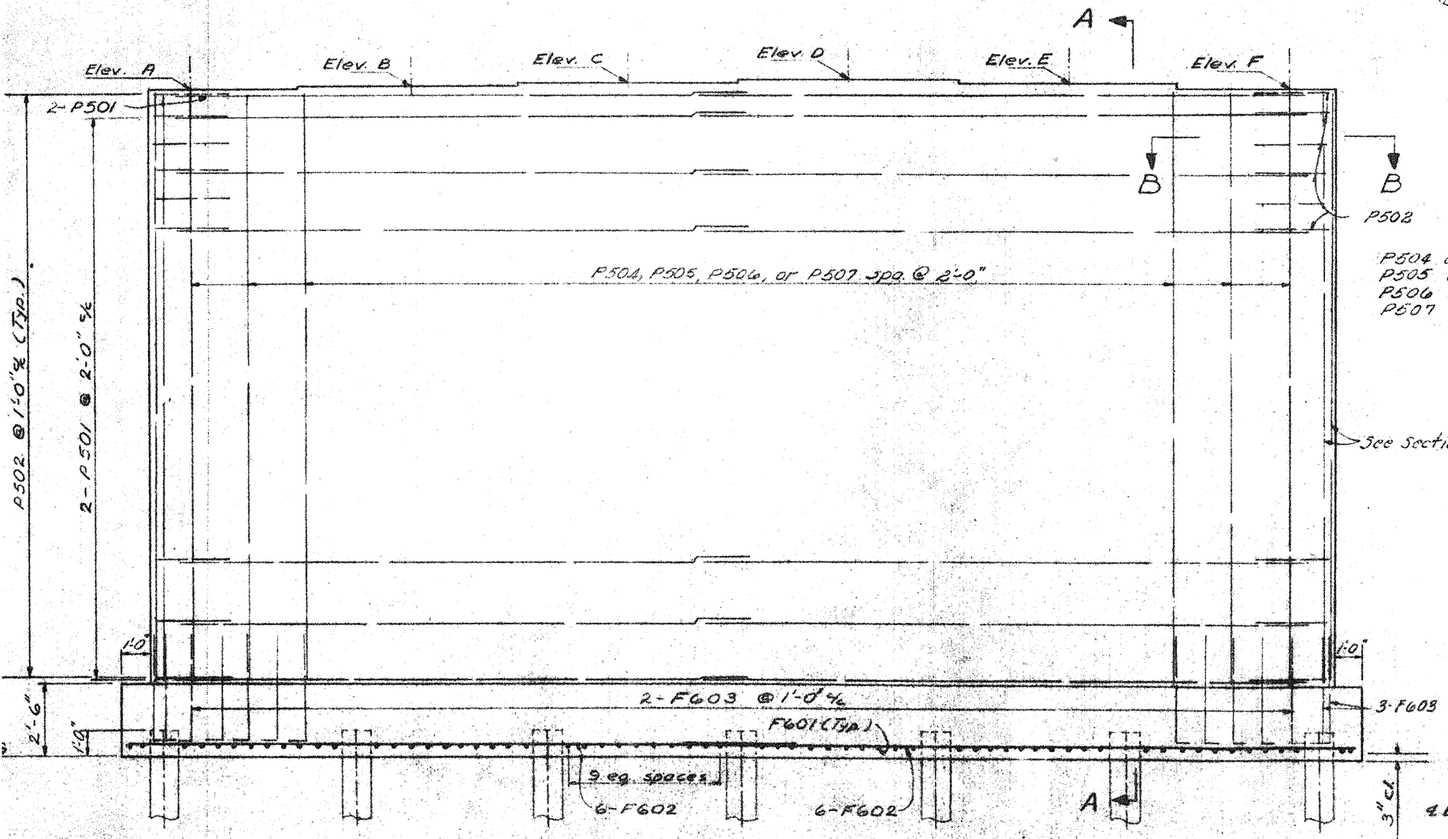



DETAIL C

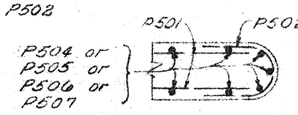



LOCATION DIAGRAM

LEGEND
- Straight Piles
- Bollered Piles (1:4)




ELEVATION




SECTION B-B

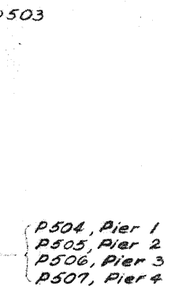
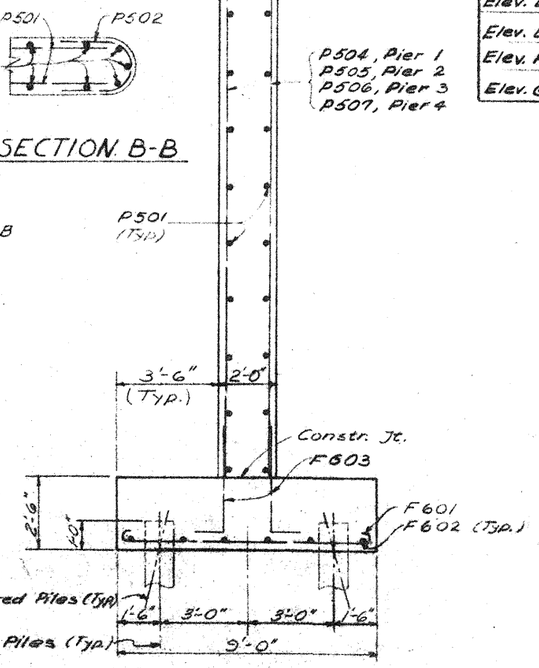



TABLE OF ELEVATIONS

| | West - Bound | | East - Bound | |
|---|---|---|---|---|
| | Pier 1 | Pier 3 | Pier 2 | Pier 4 |
| Elev. A | 905.10 | 905.94 | 904.95 | 905.76 |
| Elev. B | 905.20 | 906.03 | 905.04 | 905.85 |
| Elev. C | 905.29 | 906.13 | 905.14 | 905.95 |
| Elev. D | 905.33 | 906.16 | 905.06 | 905.86 |
| Elev. E | 905.20 | 906.02 | 904.92 | 905.72 |
| Elev. F | 905.06 | 905.88 | 904.78 | 905.58 |
| Elev. G | 883.00 | 883.00 | 883.00 | 883.00 |




SECTION A-A

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

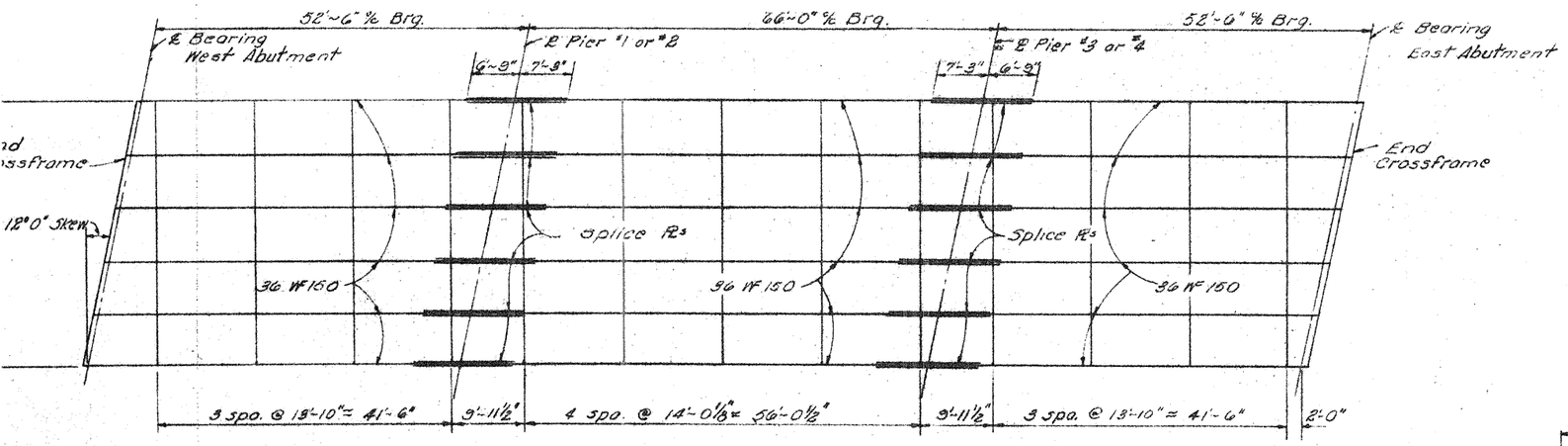
PIER DETAILS
BRIDGE NO. LIC. 16 - 1560 L AND R
OVER RACCOON CREEK
LICKING COUNTY
STA. 164+14.75
STA. 163+98.99

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | C.R. | | H.A. | 66 | 8-3-60 | |

| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

418
466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)




FRAMING PLAN

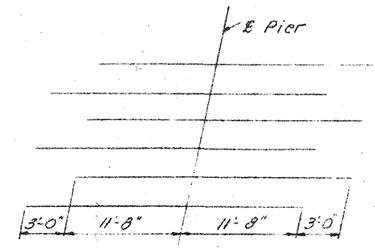
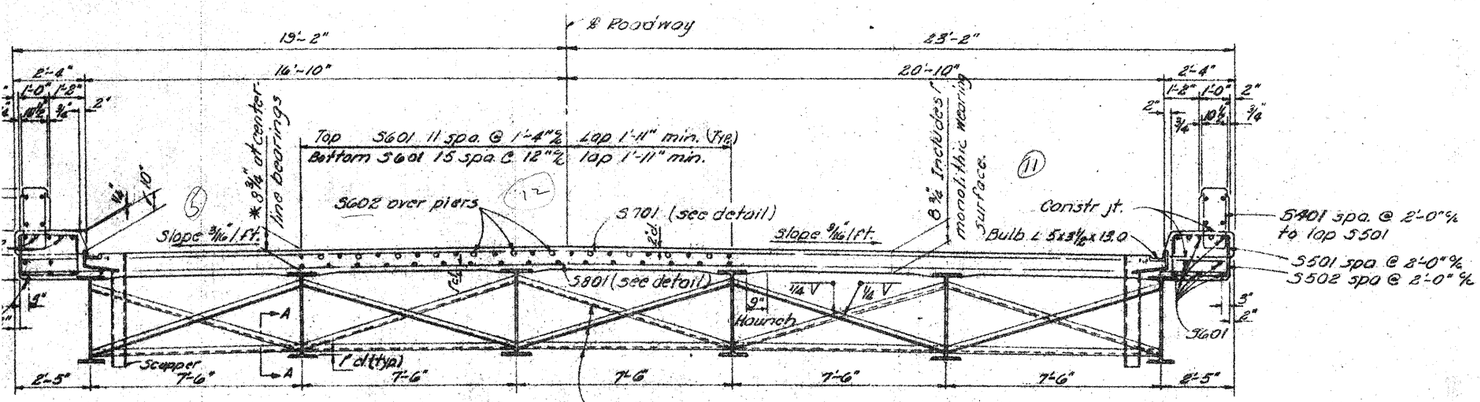
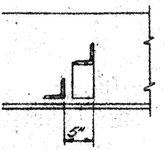


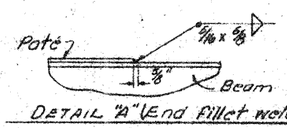

DIAGRAM SHOWING STAGGER OF BARS S602




TRANSVERSE SECTION




SECTION A-A




DETAIL "A" (End fillet weld)

BEAM SPLICE WELDING PROCEDURE

(1) Raise the abutment ends of the beams 1⅛"

(2) Butt-weld the beam flanges and web, using the following: make two passes on each flange, then two on the web: repeat, using one pass of each location, until welds are completed.

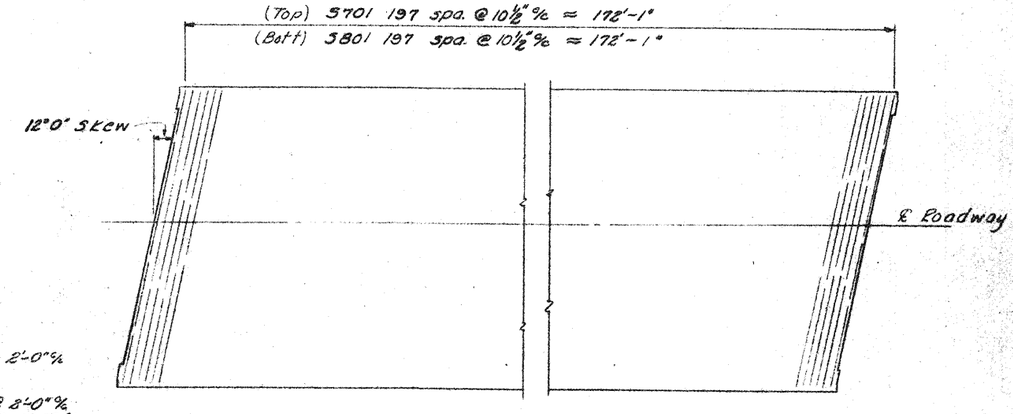
(3) Weld the bottom and top moment plates.

(4) Lower the beam ends to final position.

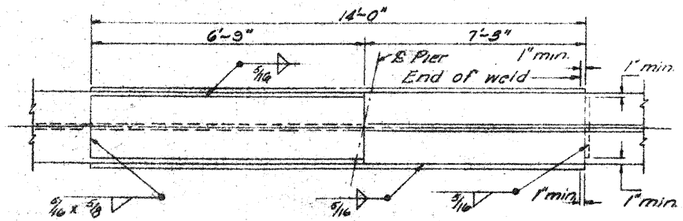
DEFLECTION AND CAMBER

| tion | Span #1 | | Span #2 | | Span #3 | |
|---|---|---|---|---|---|---|
| | Int. | Ext. | Int. | Ext. | Int. | Ext. |
| ht of steel | 1/32 | 1/32 | 9/64 | 9/64 | 1/32 | 1/32 |
| ming dead load | 13/64 | 3/16 | 3/32 | 1/4 | 13/64 | 3/16 |
| al curve | - 1/32 | 3/32 | 5/32 | - 5/32 | - 1/32 | 3/32 |
| | 9/64 | 1/8 | 11/64 | 1/8 | 9/64 | 1/8 |
| er Reqd. | 0 | 0 | 0 | 0 | 0 | 0 |

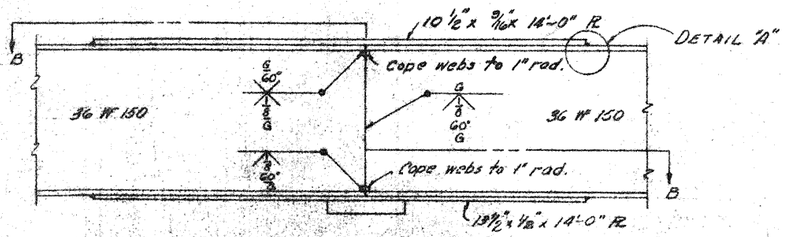
ricate with any natural camber up.




PLACEMENT OF TRANSVERSE SLAB REINFORCING




SECTION B-B




SPLICE PLATE DETAILS

NOTES:

PAINTING: After erection and after the shop coat has been cleaned and where necessary, repainted in accordance with Sec. 904, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams, and all sides of the bottom flange of the outside beams.

REFERENCE: Shall be made to: Standard Drawing C.S.E.-2-56 for end crossframe, end dam, scupper and bulb angle gutter, curb plate details, and bearing plates.

*This is normal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. LIC. 16-1560 L AND R
OVER RACCOON CREEK
LICKING COUNTY
STA. 164+14.75
STA. 163+88.99

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| J.R.W. | E.D.A. | | H.A. | AA | 8-3-60 | |

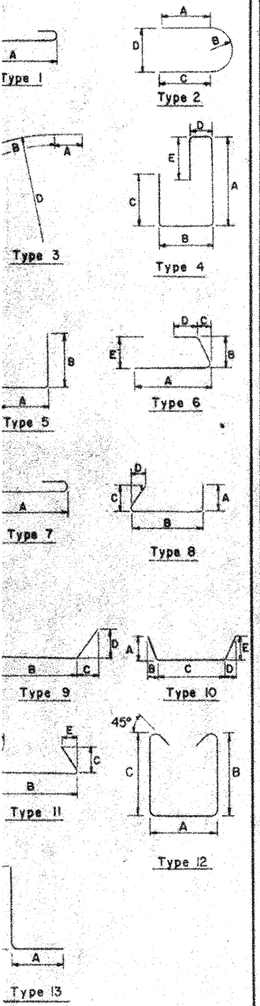
# REINFORCING STEEL LIST

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

419R 466

LICKING COUNTY
LIC - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)

## BENDING DIAGRAM




N THE COLUMN FOR "TYPE"
ICATES STRAIGHT BARS.

## ABUTMENTS

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| F501 | 80 | 6-7 | 549 | 1 | 5-5 | | | | | |
| F502 | 48 | 22-10 | 1143 | S | | | | | | |
| F503 | 96 | 8-5 | 843 | 5 | 1-8 | 3-6 | 3-6 | | | |
| F504 | 248 | 5-6 | 1424 | 5 | 1-0 | 4-7 | | | | |
| F505 | 32 | 11-3 | 376 | S | | | | | | |
| F506 | 32 | 6-3 | 209 | 5 | 1-8 | 2-5 | 2-5 | | | |
| F507 | 16 | 4-8 | 78 | S | | | | | | |
| A401 | 56 | 4-6 | 168 | 5 | 0-8 | 2-0 | 2-0 | | | |
| A501 | 40 | 9-3 | 386 | 5 | 3-5 | 2-11 | 3-2 | | | |
| A502 | 40 | 10-3 | 428 | 5 | 3-5 | 3-5 | 3-8 | | | |
| A503 | 104 | 21-8 | 2350 | S | | | | | | |
| A504 | 120 | 2-9 | 344 | 5 | 2-0 | 0-6 | 0-6 | | | |
| A505 | 72 | 5-7 | 419 | S | | | | | | |
| A506 | 24 | 10-0 | 250 | S | | | | | | |
| A507 | 8 | 8-2 | 68 | S | | | | | | |
| A508 | 32 | 12-10 | 428 | S | | | | | | |
| A509 | 32 | 3-3 | 109 | S | | | | | | |
| A510 | 4 | 2-8 | 11 | S | | | | | | |
| A511 | 16 | 3-7 | 59 | S | | | | | | |
| A512 | 48 | 4-5 | 221 | S | | | | | | |
| A513 | 32 | 12-9 | 426 | S | | | | | | |
| A514 | 8 | 12-8 | 106 | 3 | 2-6 | 10-2 | | 72-0 | | |
| A515 | 64 | 4-3 | 284 | 5 | 1-4 | 1-7 | 1-7 | | | |
| A516 | 48 | 2-5 | 121 | 5 | 1-4 | 0-8 | 0-8 | | | |
| A517 | 24 | 9-5 | 236 | S | | | | | | |
| A518 | 8 | 7-5 | 62 | S | | | | | | |
| A519 | 4 | 3-3 | 14 | S | | | | | | |
| A520 | 8 | 12-2 | 102 | 3 | 2-0 | 10-2 | | 72-0 | | |
| A521 | 48 | 6-5 | 321 | S | | | | | | |
| A601 | 196 | 10-5 | 3068 | 4 | 4-0 | 1-5 | 2-8 | 0-11 | 2-0 | |
| | | TOTAL | 14603 | | | | | | | |
| R403 | 16 | 12-8 | | S | INCLUDED WITH RAILING FOR | | | | | |
| R404 | 16 | 12-6 | | S | PAYMENT | | | | | |

## PIERS

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| F601 | 256 | 10-0 | 3845 | 1 | 8-8 | | | | | |
| F602 | 48 | 22-7 | 1628 | S | | | | | | |
| F603 | 336 | 4-7 | 2313 | 5 | 4-3 | 0-6 | | | | |
| P501 | 176 | 20-0 | 3671 | S | | | | | | |
| P502 | 168 | 5-9 | 1007 | 2 | 1-7 | 0-10 | 1-7 | 1-8 | | |
| P503 | 144 | 3-5 | 513 | 5 | 1-8 | 1-0 | 1-0 | | | |
| P504 | 46 | 19-3 | 924 | S | | | | | | |
| P505 | 46 | 19-0 | 912 | S | | | | | | |
| P506 | 46 | 20-1 | 964 | S | | | | | | |
| P507 | 46 | 19-10 | 952 | S | | | | | | |
| | | TOTAL | 16729 | | | | | | | |

## SUPERSTRUCTURE

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| S401 | 348 | 4-5 | 1027 | 5 | 0-8 | 2-0 | 2-0 | | | |
| S501 | 348 | 2-9 | 998 | 5 | 1-10 | 0-7 | 0-7 | | | |
| S502 | 348 | 4-3 | 1543 | 5 | 1-10 | 1-4 | 1-4 | | | |
| S601 | 820 | 36-0 | 44339 | S | | | | | | |
| S602 | 128 | 26-4 | 5063 | S | | | | | | |
| S701 | 792 | 22-7 | 36559 | S | | | | | | |
| S801 | 792 | 22-7 | 47756 | S | | | | | | |
| | | TOTAL | 137,285 | | | | | | | |
| R401 | 32 | 12-10 | | S | INCLUDED WITH RAILING FOR | | | | | |
| R402 | 112 | 15-11 | | S | PAYMENT | | | | | |
| R405 | 64 | 7-9 | | S | | | | | | |

## REPLACEMENT BARS

| | | | |
|---|---|---|---|
| RE401 | 1 | 5-3 | S |
| RE501 | 1 | 5-7 | S |
| RE601 | 4 | 5-11 | S |
| RE701 | 2 | 6-3 | S |
| RE801 | 2 | 6-6 | S |

## SPIRAL REINFORCEMENT

| MARK | NO. | LENGTH | CORE | PITCH | TURNS | SPACERS | WEIGHT |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## NOTES

BAR SIZE is indicated in bar mark. The first digit where three digits are used, and the first two where four are used indicate the bar size number.

REPLACEMENT BARS; If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. S-4.02 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING BARS; The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The " No. of Turns" shown is the "Length" divided by the pitch, plus three turns ( total number of closed coils ), expressed as the nearest whole number.

Spiral reinforcing bars shall not have deformations but shall in other respects conform to item S-4. 1½ closed coils shall be provided at the ends of each spiral unit. Four or three steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

*This sheet supersedes sheet 419. 3-8-62*

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

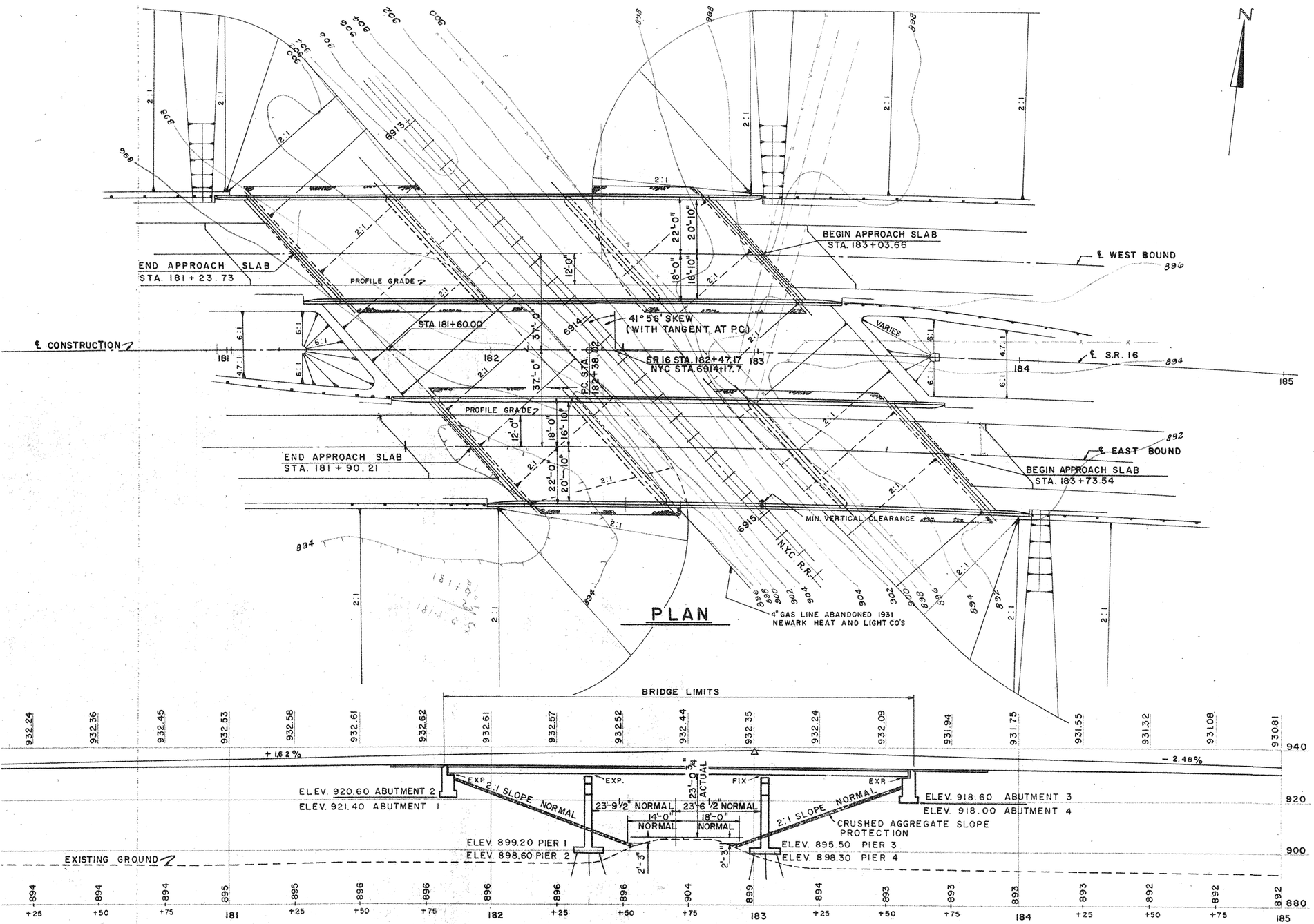
REINFORCING STEEL LIST
BRIDGE NO. LIC. 16-1560 L AND R
OVER RACCOON CREEK
LICKING COUNTY
STA. 164+14.75
STA. 163+98.99

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | E.D.A. | | RAK | [illegible] | 2:13 62 | |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

420/466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30-18.51)




FOUNDATION SOUNDINGS:
Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

## CURVE DATA

PI = 194 + 13.13
△ = 33° 29' Rt.
D = 1° 28'
R = 3906.53

PVI = 183 + 00
VC = 1200'
EL. = 938.50
$G_1$ = + 1.62%
$G_2$ = - 2.48%

## PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: 53'-6", 67'-0", 53'-6" measured along tangent at P.C.
ROADWAY: 40'-0" face to face of concrete parapets with aluminum railings.
LOADING: C.F. 2000 (57)
SKEW: 41° 56' Rt. Fw'd. with tangent line to curve at P.C.
WEARING SURFACE: 1" Monolithic concrete.
ALIGNMENT: Tangent and 1° 28' Curve Rt.
APPROACH SLAB: 25'-0" long.
SUPERELEVATION: Varies, max. 0.04833 ft/ft.

## PROFILE

ALONG EAST BOUND LANES
PROFILE GRADE LINE

Min. required vertical clearance = 23'-0"
Min. required horizontal clearance from center line of track is 18'-0" easterly and 14'-0" westerly.

Estimated average pay-length for piles: 45 ft.

All piles are 12" cast-in-place reinforced concrete piles.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

SITE PLAN
BRIDGE NO. LIC. 16-1594 L AND R
OVER N.Y.C. R.R.
LICKING COUNTY STA. 181 + 23.73 STA. 181 + 90.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | F.A. | | 9.22 60 | |

| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

421
466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

NOTE:
Railing panel lengths, parapet joint spacing and out to out of parapet dimensions are true length; i.e, along curve and tangent at ℄ of parapet.

Parapet quantities are included in item 5-14 for payment.

A 2" pipe drain shall be provided at East end of bulb L gutters except for East bound lanes North side.

208'-4 7/8" Out-to-Out Parapet
9-Parapet Joints spa. @ 16'-5 7/8" = 148'-4 7/8"
21-Railing Panels spa. @ 8'-2 15/16" ± = 173'-1 3/16"

13'-4 7/16"
8'-0 3/4"
1'-0"
1'-0"
2 1/2"
8'-6" Scupper 5'-0" Typ.
8'-3"
8'-2 7/8"
8'-2 7/8"
8'-3"
18'-4 7/16"
4'-5"
8'-0 1/8"
0'-8"
4'-6"
1'-0"
1'-0"
2 1/2"
Scupper 3'-6"
Wingwall #8
Bulb L Gutter
Pier #1
Pier #3
Abutment #3
℄ Roadway West Bound Lane
Begin Approach Slab Sta. 183+03.66
9'-6"
Wingwall #7
8'-0 1/2"
4'-6"
0'-8"
2 1/2"
1'-0"
42'-4" Out to Out
22'-0"
20'-10"
18'-0"
16'-10"
37'-0"
8'-3 1/4"
8'-3 1/4"
8'-3 1/4"
4 Scuppers - 3 spa @ 14'-0" = 42'-0"
Bulb L Gutter
Abutment #1
Wingwall #3
3'-6"
2'-6"
19'-4 5/16"
7'-3 3/4"
1'-0"
0'-8"
4'-6"
9-Parapet Joints spa. @ 16'-6 1/2" = 148'-10 1/2"
21-Railing Panels spa. @ 8'-3 1/4" ± = 173'-8 1/4"
203'-9 3/8" Out to Out Parapet
41° 56' skew (Typ.) all bearing lines
53'-6" ℄ Brgs.
67'-0" ℄ Brgs. (along tangent)
53'-6" ℄ Brgs. (along tangent)
℄ Construction
Sta. 181+60.00
181
182
183
Tangent to ℄ constr. curve P.C. 183+60
℄ constr.
N

C D E
ation B is given for P.T.

| PAVEMENT ELEVATIONS | | | | |
|---|---|---|---|---|
| WESTBOUND | | | EASTBOUND | |
| Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" |
| 932.50 | 932.70 | 932.45 | | |
| 932.62 | 932.89 | 932.60 | | |
| 932.73 | 932.39 | 932.53 | | |
| 932.85 | 933.13 | 932.53 | 932.71 | 932.01 |
| 932.98 | 933.24 | 932.49 | 932.72 | 931.82 |
| 933.09 | 933.35 | 932.43 | 932.72 | 931.62 |
| 933.17 | 933.44 | 932.36 | 932.69 | 931.39 |
| 933.23 | 933.50 | 932.25 | 932.64 | 931.14 |
| 933.26 | 933.54 | 932.13 | 932.57 | 930.87 |
| 933.25 | 933.51 | 932.00 | 932.46 | 930.64 |
| | | | 932.33 | 930.52 |
| | | | 932.16 | 930.34 |
| | | | 931.98 | 930.16 |

812'-1 3/4" Out to Out Parapet
9-Parapet Joints spa. @ 16'-7 1/2" = 148'-7 1/2"
21-Railing Panels spa. @ 8'-5 11/16" ± = 176'-5 1/2"
181'-9.02
0'-8"
4'-6"
1'-0"
13'-5"
7'-3"
3'-3 3/4"
2 1/2"
8'-5 3/4"
8'-5 3/4"
8'-5 3/4"
13'-5"
4'-5"
8'-0"
4'-6"
0'-8"
1'-0"
Wingwall #6
Abutment #4
Pier #2
Pier #4
℄ East Bound
End Approach Slab Sta. 181+90.21
℄ Roadway East Bound Lane
Begin Approach Slab Sta. 193+73.54
48'-4" Out to Out
20'-10"
16'-10"
22'-0"
18'-0"
8'-4 3/16"
8'-4 3/16"
8'-4 3/16"
8'-4 3/16"
4 Scuppers - 3 spa @ 14'-0" = 42'-0"
Bulb L Gutter
Wingwall #1
Wingwall #5
3'-6"
2'-6"
0'-8"
4'-6"
1'-0"
7'-3 3/4"
2 1/2"
19'-6 7/16"
21-Railing Panels spa @ 8'-4 3/4" ± = 175'-8 1/8"
9-Parapet Joints spa. 16'-6 3/16" ± = 150'-6 3/4"
205'-9 1/2" Out to Out Parapet
2 1/2"
18'-6 7/16"
8'-0 1/4"
0'-8"
4'-6"
1'-0"
Pay Limits for Item 5-14
Pay limit for Item 5-14 (typ.)

PLAN

nt #1 Elev. 921.40
nt #2 Elev. 920.60
2:1 Slope (normal)
Slope Protection
℄ N.Y.C. R.R.
2:1 Slope (normal)
Slope Protection
Elev. 918.60 Abutment #3
Elev. 918.00 Abutment #4
Pier #1 Elev. 899.20
Pier #2 Elev. 898.60
Elev. 895.50 Pier #3
Elev. 898.30 Pier #4
PIER #1
PIER #3

ELEVATION
along West bound lanes

NOTE:
The railing tubing shall be continuous through the first post on the end of the abutment wingwalls.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# GENERAL PLAN AND ELEVATION

BRIDGE NO. LIC 16-1594 L AND R
OVER N.Y.C. R. R.
LICKING COUNTY
STA. 181+23.73
STA. 181+90.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | J.R.W. | 66 | 9.22 60 | |

| FED. HD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

122
466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

## GENERAL NOTES

**REFERENCE** shall be made to:
Supplemental Specification S-101 dated 12-2-59
Standard Drawings RB-1-55 revised 2-2-59
Standard Drawings CSB-2-56 sheet 1, 2 and 3 revised 2-2-59
Standard Drawings AR-1-57 revised 2-2-59

**DESIGN SPECIFICATIONS**: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

**EXCAVATION**: Quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

**PILES**: Piles shall be driven to a minimum bearing capacity of 45 tons per pile for the piers.

**FOUNDATION BEARING PRESSURE**: Abutment footings are designed for a maximum bearing pressure of 2.6 tons per sq. ft.

**CONCRETE DECK PLACING**: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

**WELDING**: Welding of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

*STEEL: See Proposal regarding A-373 Steel.*
*MACHINE FINISH: The top of the bridge deck slabs shall be machine finished in accordance with the Proposal Note "Machine Finishing of Bridge Deck Slabs."*

**CONSTRUCTION CLEARANCE**: Of 20'-0" vertically above the top of the railroad rails and 8'-0" horizontally from the center of tracks shall be maintained at all times

**SHEETING AND BRACING**: Before construction is started, eight sets of prints showing details of the sheeting and bracing to be used for excavation adjacent to the railroad tracks shall be submitted to the Director for approval by the Department of Highways and by the Railroad Company.

**ALIGNING RAILROAD TRACKS**: After the contractor has conpleted all excavation and backfill adjacent to the railroad tracks in compliance with Sec. E-2.04 and E-2.08 of the Construction and Material Specifications, subject to the supervision of the Railroad Company, nothing in Sec. E-2.04, E-2.08 or G-8.07 of the Specifications shall be construed to hold the Contractor liable for aligning and re-surfacing the railroad tracks.

**RAILROAD AERIAL LINES** shall be relocated by the railroad, the Contractor shall use all precautions necessary to see that the lines are not disturbed during the relocation of these lines. The cost of the relocation shall be included in the railroad force account work.

## ESTIMATED QUANTITIES

| ITEM | TOTAL | UNIT | DESCRIPTION | SUPER | ABUT. | PIER | GEN. |
|---|---|---|---|---|---|---|---|
| E2 | 1150 | Cu.Yds. | Unclassified Excavation | | 753 | 397 | |
| S1 | 452 | Cu.Yds. | Class C Conc. Superstructure | 452 | | | |
| S1 | 326 | Cu.Yds. | Class C Conc. Piers (above footings) | | | 326 | |
| S1 | 104 | Cu.Yds. | Class E Conc. Pier Footings | | | 104 | |
| S1 | 302 | Cu.Yds. | Class E Conc. Abuts. (above footings) | | 302 | | |
| S1 | 118 | Cu.Yds. | Class E Conc. Abut. Footings | | 118 | | |
| | ~~498~~ | | | ~~181~~ | ~~353~~ | ~~964~~ | |
| S4 | 185 ~~273~~ | Lbs. | Reinforcing Steel | 127~~830~~ | 19~~319~~ | 38~~224~~ | |
| S7 | 449403 | Lbs. | Structural Steel | 449403 | | | |
| S8 | 449403 | Lbs. | Field Painting Of Structural Steel as per plan | 449403 | | | |
| S14 | 830.07 | Lin.Ft. | Railing (aluminum rail & supports, & conc. parapet) | | | | 830.07 |
| S16 | Lump | Sum | First Test Pile | | | | |
| S18 | 3240 | L.n.Ft. | 12" Cast-in-place Reinforced Conc. Piles | | | 3240 | |
| S29 | 12 | Each | Scuppers | 12 | | | |
| S29 | 63 | Cu.Yds. | Porous Backfill | | | | 63 |
| I-10 | 1510 | Sq.Yds. | Crushed Aggregate Slope Protection | | | | 1510 |

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

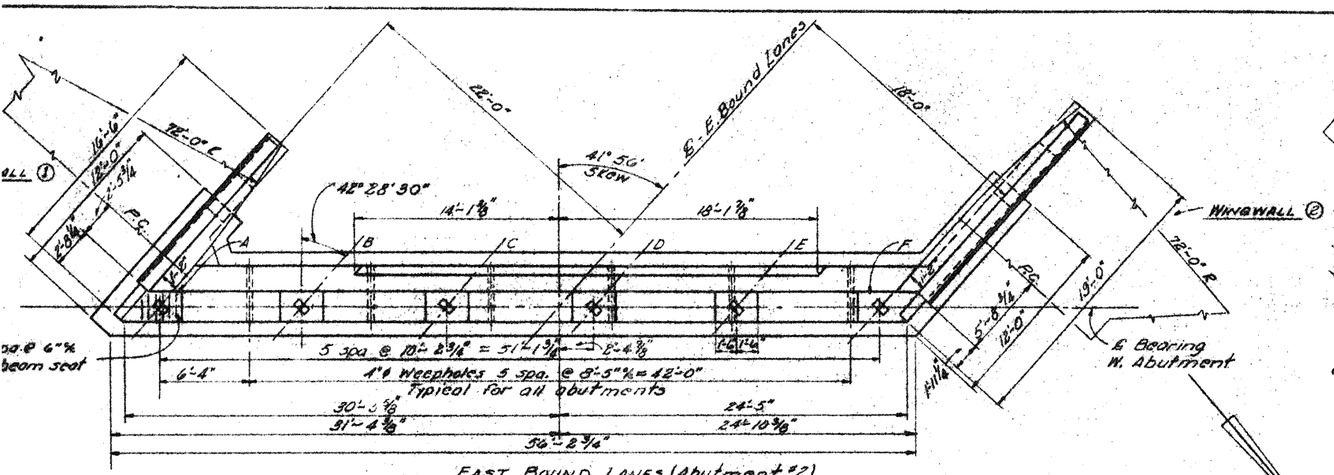
GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. LIC. 16 - 1594 L AND R
OVER N.Y.C. R.R.
LICKING COUNTY STA. 181+23.73 181+90.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | E.D.A. | | F.A. | ll | 9.22.60 | 3-8-62 |

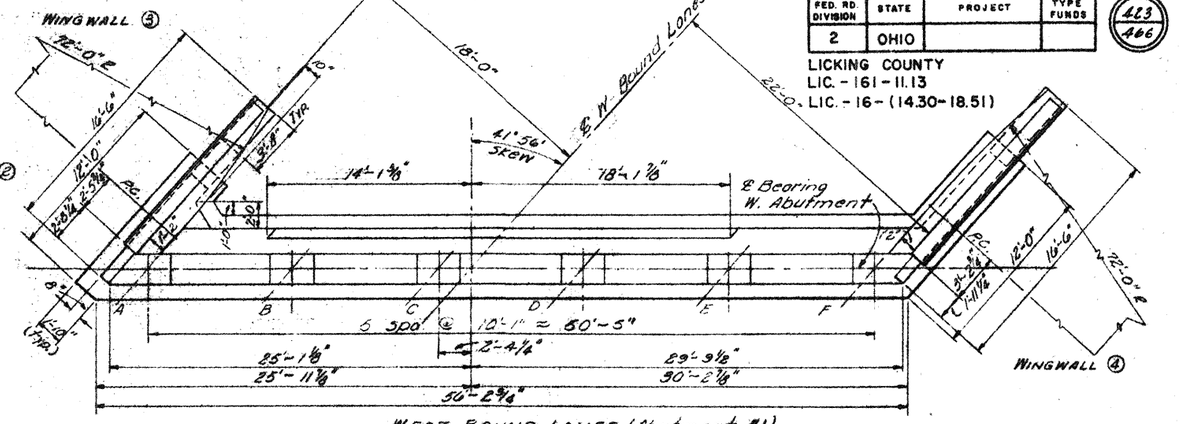
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)

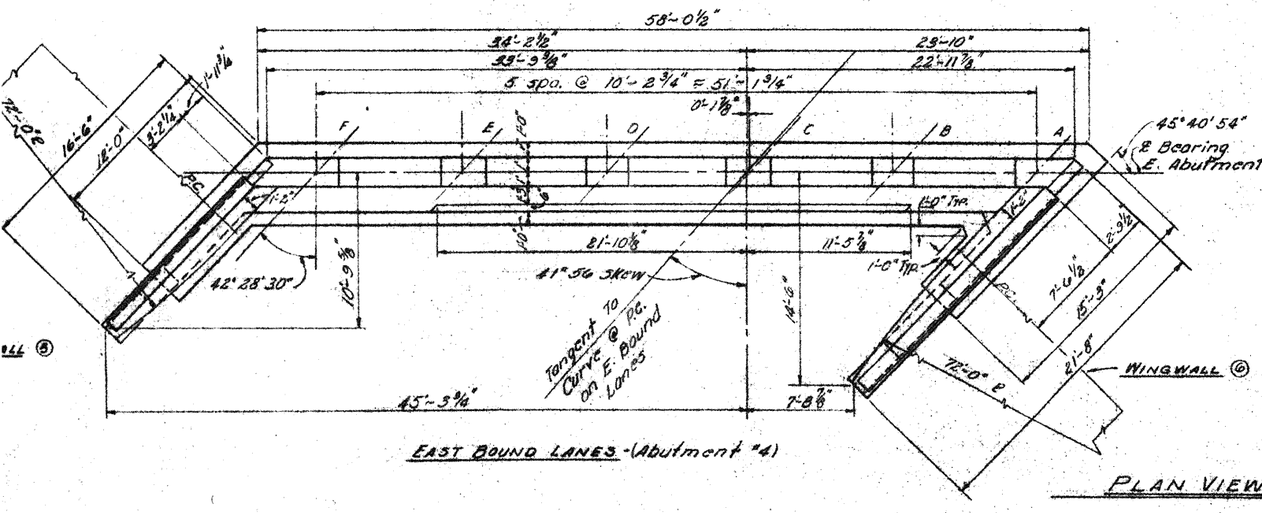
423
466



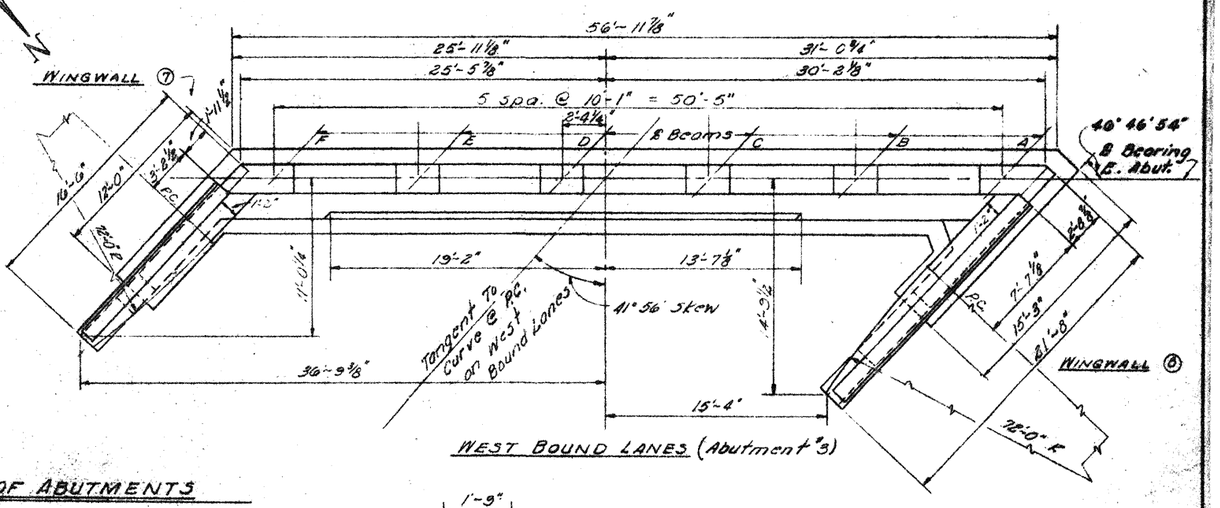

EAST BOUND LANES (Abutment #2)




WEST BOUND LANES (Abutment #1)

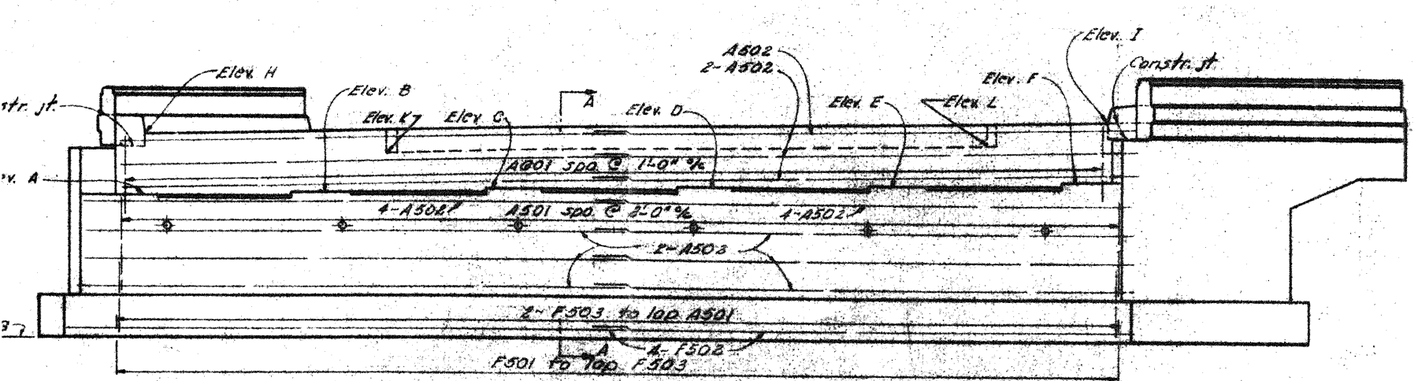



EAST BOUND LANES - (Abutment #4)




WEST BOUND LANES (Abutment #3)

## PLAN VIEW OF ABUTMENTS

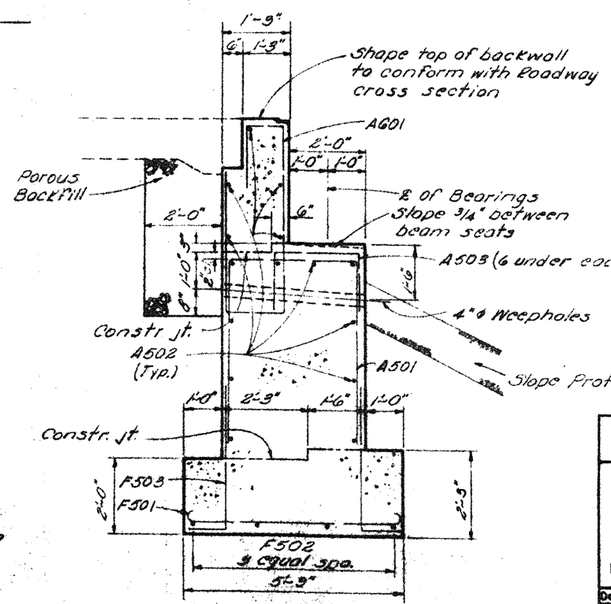



TYPICAL ELEVATION

TABLE OF ELEVATIONS

| Location | Elev. A | Elev. B | Elev. C | Elev. D | Elev. E | Elev. F | Elev. G | Elev. H | Elev. I | Elev. K | Elev. L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Abutment #2 | 928.28 | 928.38 | 928.30 | 926.99 | 929.17 | 928.93 | 920.60 | 931.74 | 932.71 | 930.70 | 931.89 |
| Abutment #1 | 929.13 | 929.28 | 929.26 | 928.41 | 929.43 | 929.20 | 921.40 | 931.80 | 933.20 | 931.20 | 931.53 |
| Abutment #4 | 928.91 | 928.52 | 928.11 | 927.71 | 927.81 | 928.50 | 918.00 | 928.59 | 930.12 | 930.71 | 928.38 |
| Abutment #3 | 929.85 | 930.09 | 929.73 | 928.44 | 929.07 | 928.29 | 918.60 | 930.25 | 932.80 | 930.94 | |

Note:
Elevations H and I given at front of 2" edge bar.




SECTION A-A

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

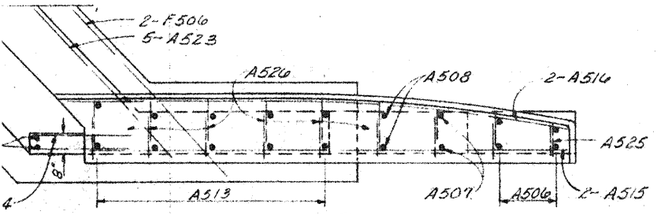
ABUTMENT DETAILS
BRIDGE NO. LIC. 16-1594 L AND R
OVER N.Y.C. R. R.
LICKING COUNTY
STA. 181+23.73
STA. 181+90.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | J.R.W. | 66 | 9.22 60 | 5-8-62 |

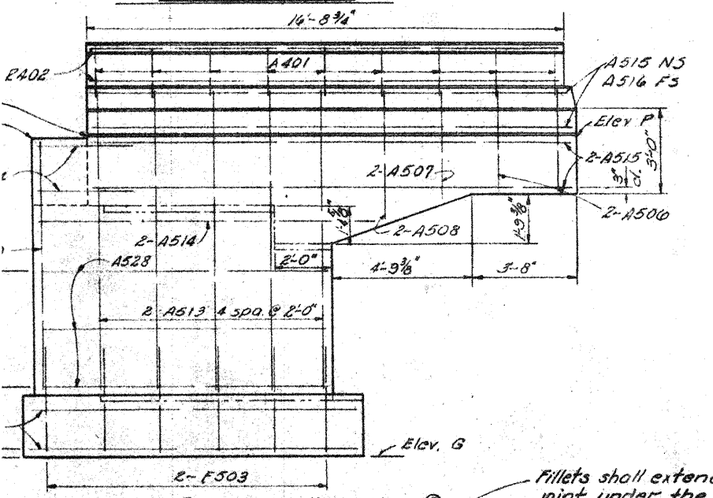
| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

424
466

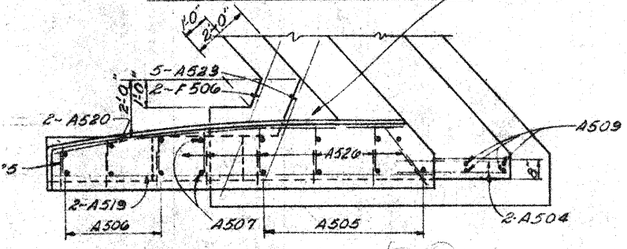
LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30-18.51)



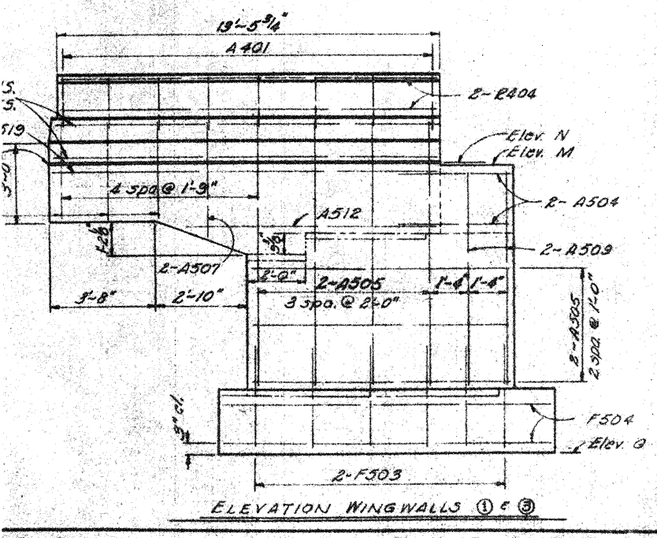

PLAN WINGWALL ②




ELEVATION WINGWALL ②

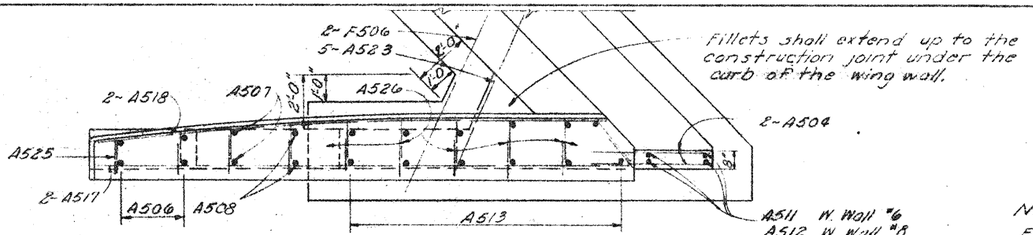



PLAN WINGWALLS ① & ③

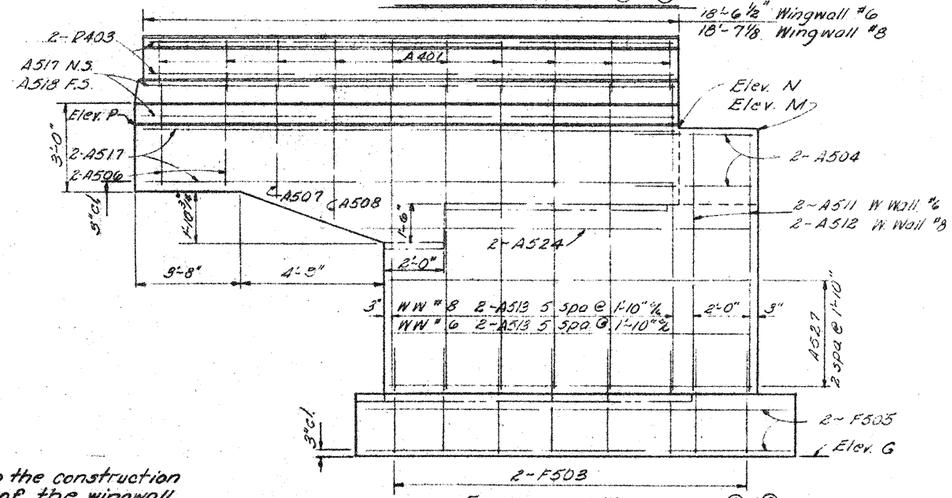



ELEVATION WINGWALLS ① & ③

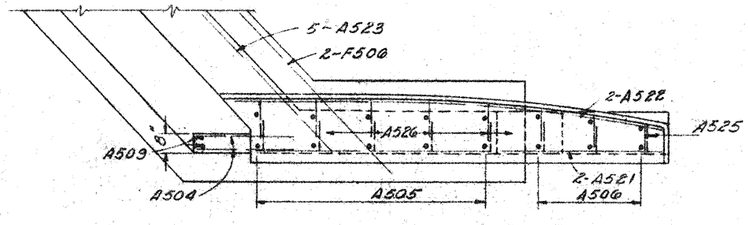
Fillets shall extend up to the construction joint under the curb of the wingwall.



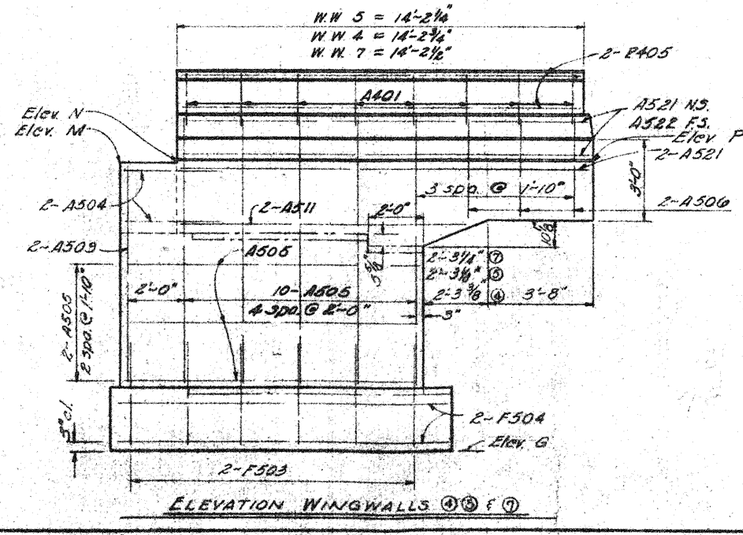

PLAN WINGWALLS ⑥ & ⑧



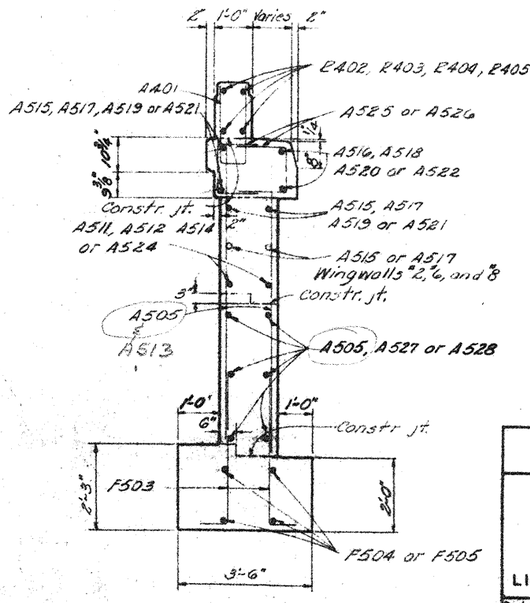

ELEVATION WINGWALLS ⑥ & ⑧




PLAN WINGWALLS ④ ⑤ & ⑦




ELEVATION WINGWALLS ④ ⑤ & ⑦




TYPICAL SECTION THRU WINGWALL

NOTES:

Embankment: The embankment shall be placed and compacted up to the finished slope and to the level of the sub-grade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

Porous Backfill, 2 foot thick, full length of abutment and wings shall extend up to the underside of the approach slab or to the finished ground surface.

Concrete Parapets are included in item 5-14 for payment.

N.S. - near side
F.S. - far side

ELEVATIONS

| WINGWALL № | M | N | P |
|---|---|---|---|
| 1 | 930.80 | 930.90 | 931.03 |
| 2 | 931.81 | 931.88 | 931.86 |
| 3 | 931.62 | 931.70 | 931.68 |
| 4 | 931.64 | 931.71 | 931.61 |
| 5 | 929.34 | 929.40 | 929.28 |
| 6 | 931.41 | 931.48 | 931.35 |
| 7 | 931.13 | 931.20 | 931.11 |
| 8 | 932.47 | 932.57 | 932.59 |

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# ABUTMENT DETAILS

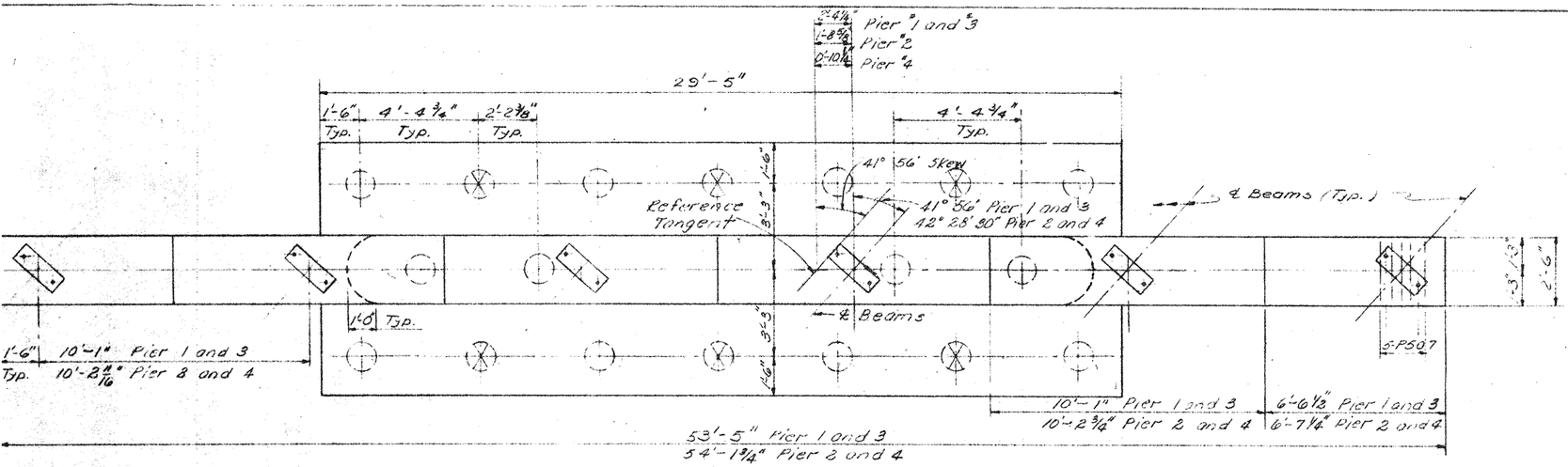
BRIDGE NO. LIC. 16-1594 L AND R
OVER N.Y.C. R. R.
LICKING COUNTY
STA. 181+23.73
STA. 181+90.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | J.R.W. | 66 | 9.22.60 | |

| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

425
466

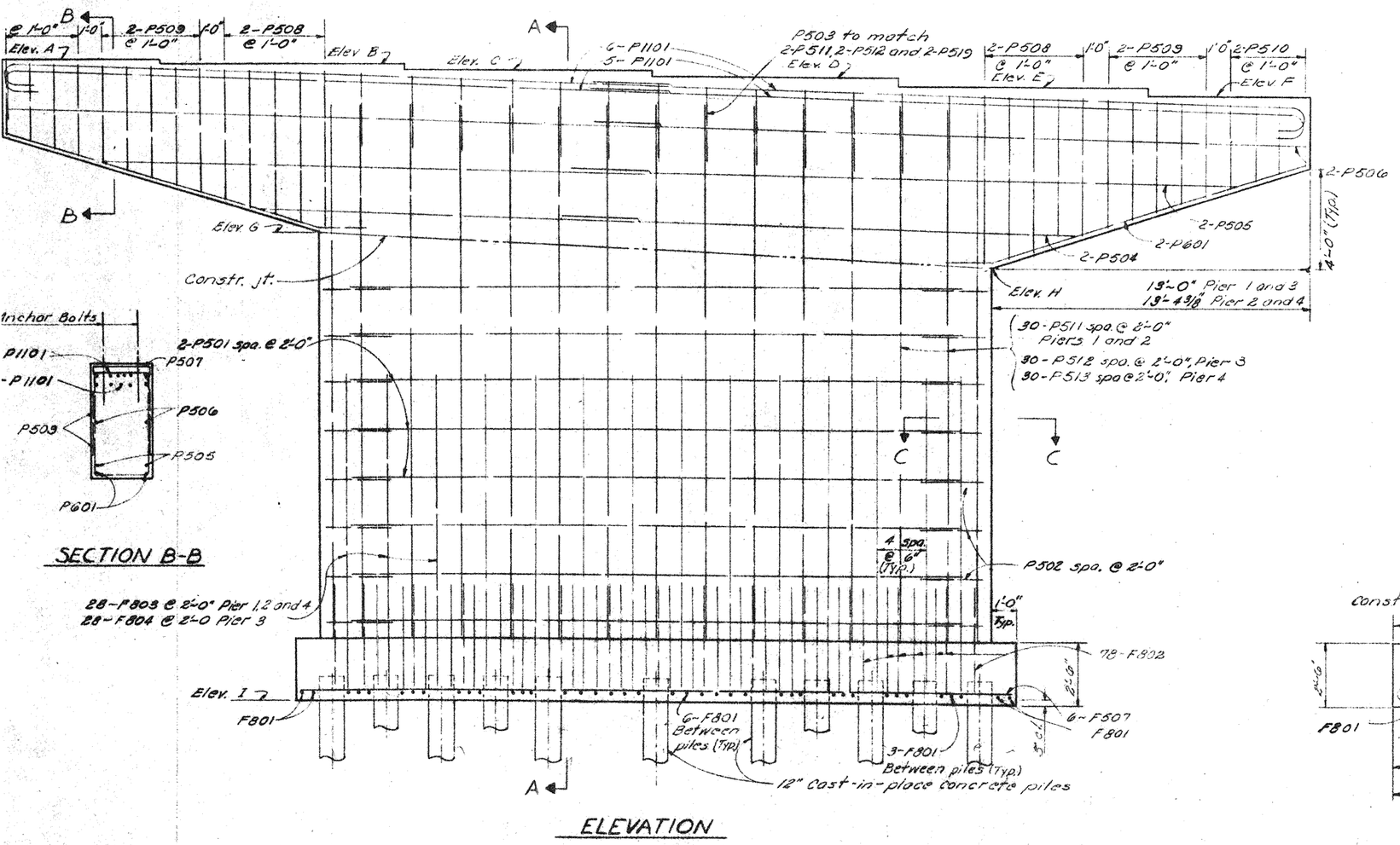
LICKING COUNTY
LIC.-161-11.13
LIC-16-(14.30-18.51)




PLAN

| Elevations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I |
| Pier #1 | 929.30 | 929.59 | 929.48 | 929.36 | 929.21 | 929.03 | 922.30 | 922.03 | 899.20 |
| " #2 | 929.23 | 928.98 | 928.70 | 928.41 | 928.09 | 927.73 | 921.98 | 920.75 | 898.60 |
| " #3 | 929.71 | 929.96 | 929.73 | 929.48 | 929.22 | 928.93 | 922.71 | 921.93 | 895.50 |
| " #4 | 929.16 | 928.78 | 928.40 | 928.01 | 927.62 | 927.20 | 921.77 | 920.20 | 898.30 |

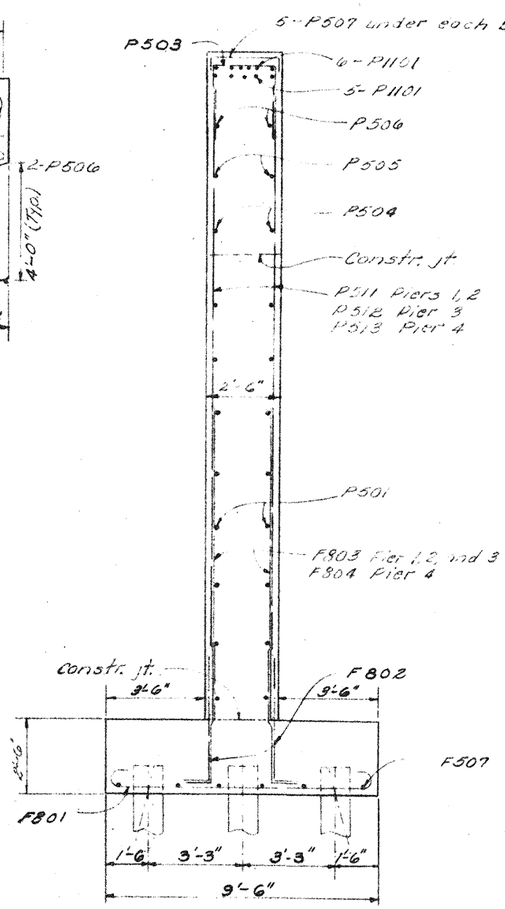
○ = Vertical
⊗ = Battered piles 1:4



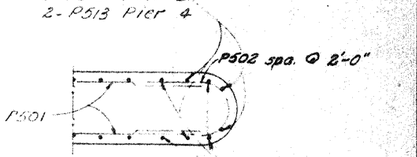

ELEVATION

SECTION B-B

SECTION C-C




SECTION A-A




NOTE:
special care shall be taken in placing reinforcing steel in the top of Pier Cap so that it will not interfere with Anchor Bolts.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

PIER DETAILS
BRIDGE NO. LIC. 16 - 1594 L AND R
OVER N.Y.C. R.R.
LICKING COUNTY
STA. 181 + 23.73
STA. 181 + 90.21

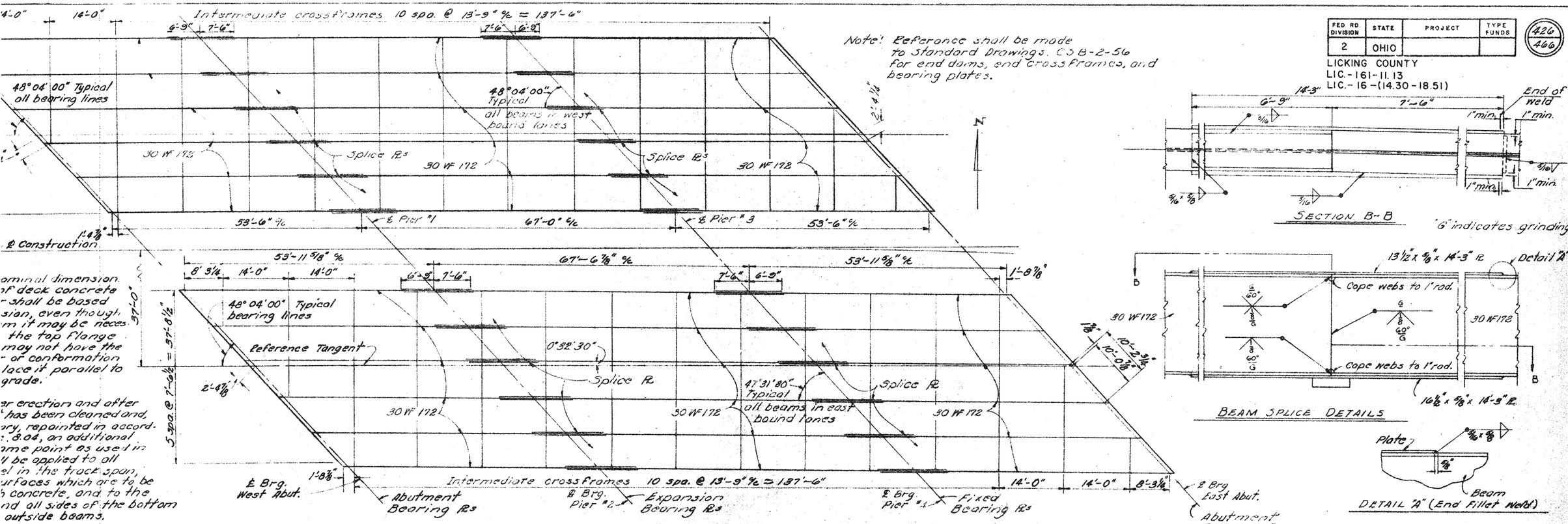
| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | C.R. | | F.A. | | 9.22 60 | |

| FED RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

426
466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)

Note: Reference shall be made to Standard Drawings. CSB-2-56 for end dams, end crossframes, and bearing plates.




FRAMING PLAN



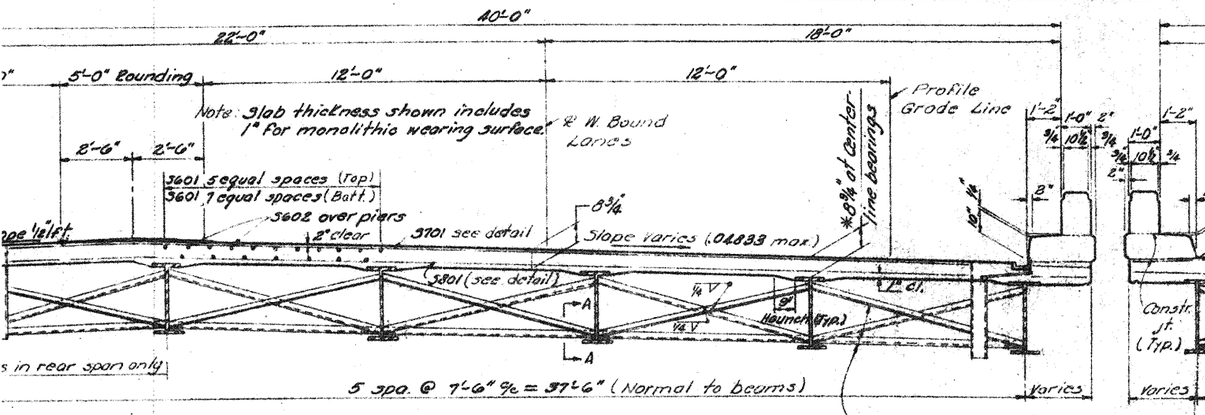

"6" indicates grinding



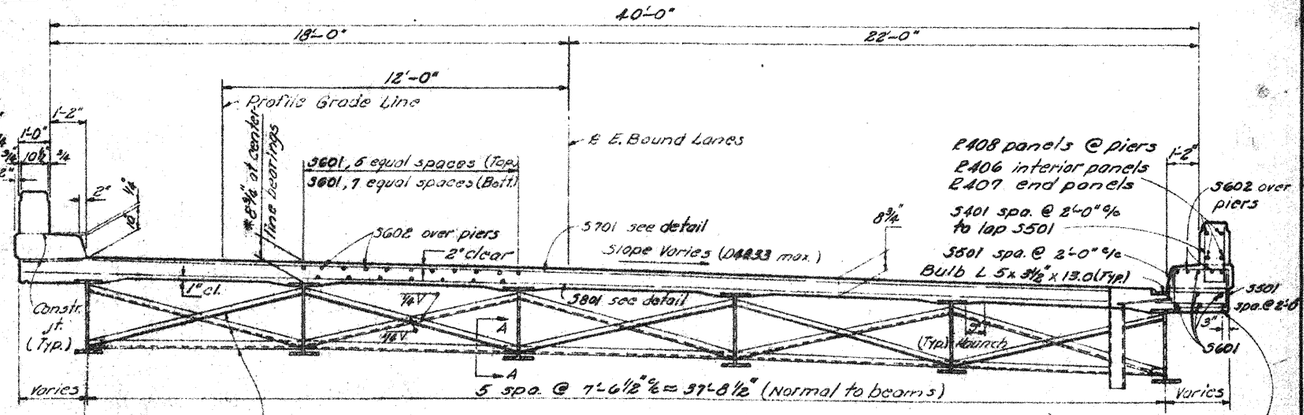

BEAM SPLICE DETAILS




DETAIL "A" (End Fillet Weld)



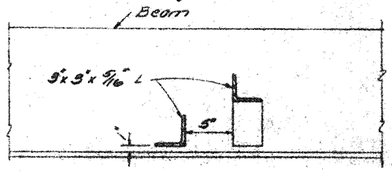

WEST BOUND TRANSVERSE SECTION




EAST BOUND TRANSVERSE SECTION

Intermediate crossframe L 3"x3"x 5/16". Weld both sides of vertical leg and top side of horizontal leg to beam with 1/4 continuous fillet weld.

Note: See sheet 427 for transverse reinforcing steel layout.




SECTION A-A

BEAM SPLICE PROCEDURE

(1) Raise the abutment end of the beam 1 5/8"

(2) Butt-weld the beam flanges and web using the following sequence: make two passes of each flange, then two on the web; repeat using one pass at each location, until welds are completed.

(3) Weld the top and bottom moment plates.

(4) Lower the beam end to the final position.

DEFLECTION AND CAMBER

| Location | Span #1 Int. | Span #1 Ext. | Span #2 Int. | Span #2 Ext. | Span #3 Int. | Span #3 Ext. |
|---|---|---|---|---|---|---|
| Weight of beams | 5/64 | 5/64 | 1/16 | 1/16 | 5/64 | 5/64 |
| Remaining dead load | 5/16 | 5 5/64 | 2 1/64 | 2/16 | 5/16 | 2 1/64 |
| Vertical Curve | 5/32 | 5/32 | 1/64 | 1/64 | 1/32 | 1/32 |
| Total | 33/64 | 9/16 | 33/32 | 33/64 | 33/64 | 9/16 |
| Required shop camber | 0 | 0 | 0 | 1" | 0 | 0 |

Note: Fabricate with natural camber up.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

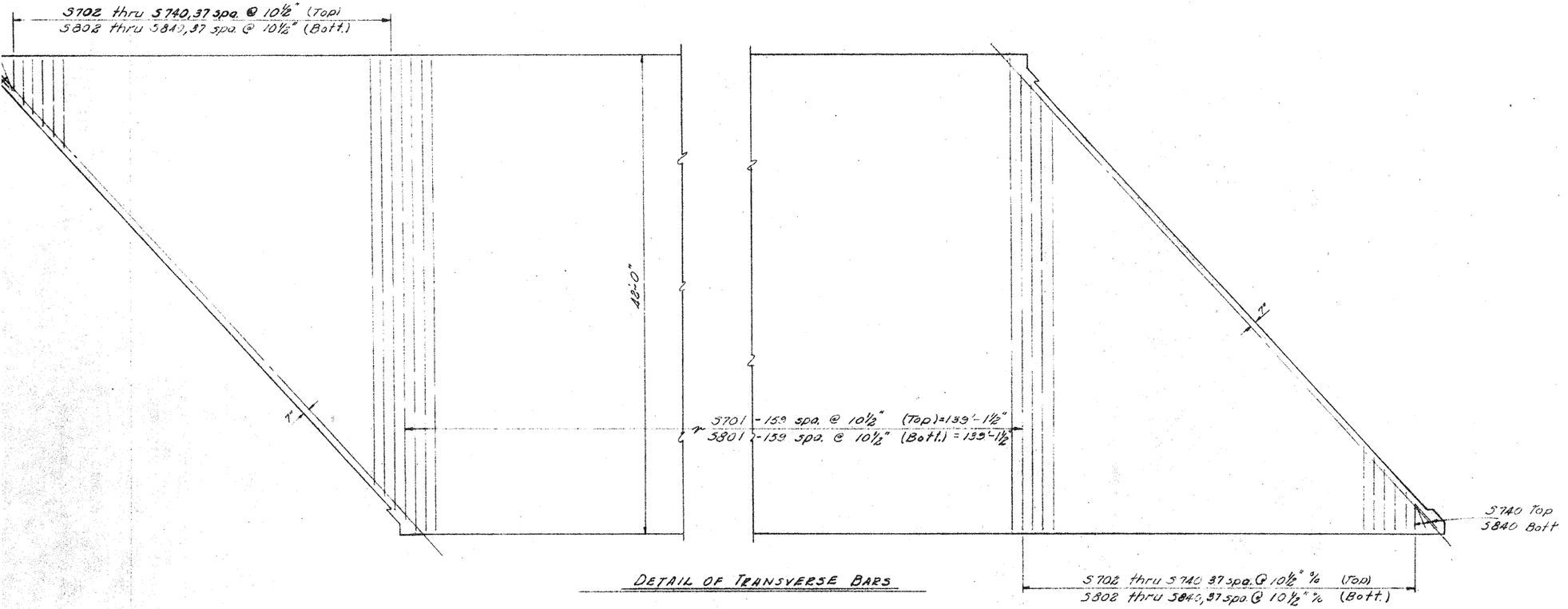
SUPERSTRUCTURE DETAILS
BRIDGE NO. LIC. 16-1594 L AND R
OVER N.Y.C. R.R.
LICKING COUNTY
STA. 181+23.73
STA. 181+90.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | J.R.W. | 66 | 9.22 60 | |

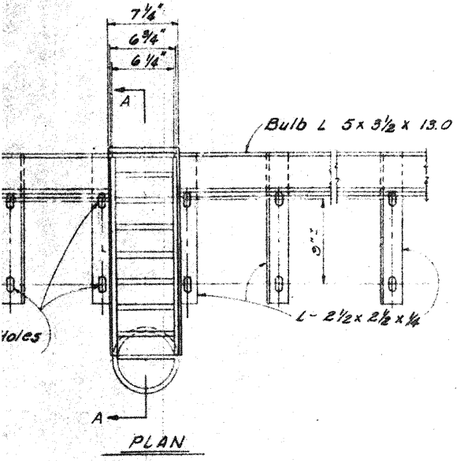
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

427
466

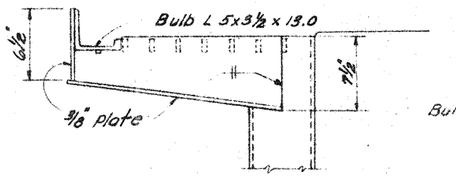
LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)



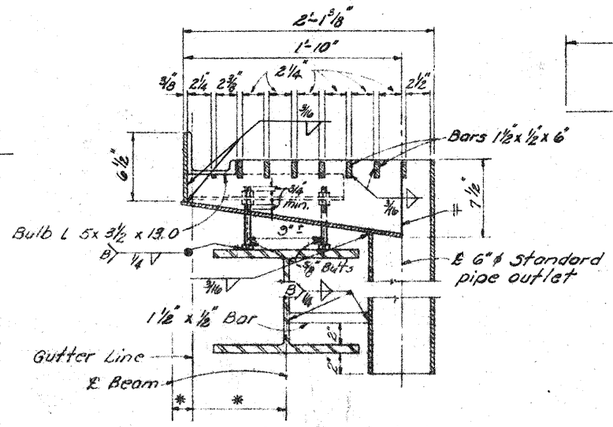

DETAIL OF TRANSVERSE BARS




PLAN




ELEVATION




SECTION A-A

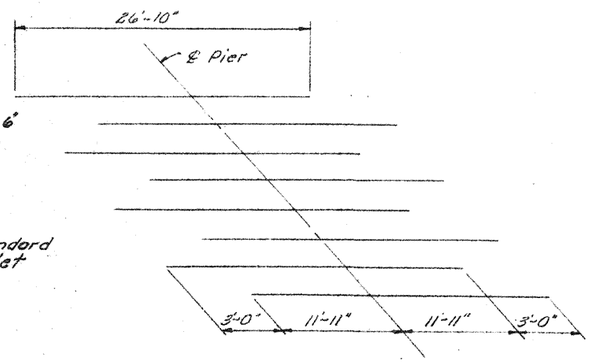
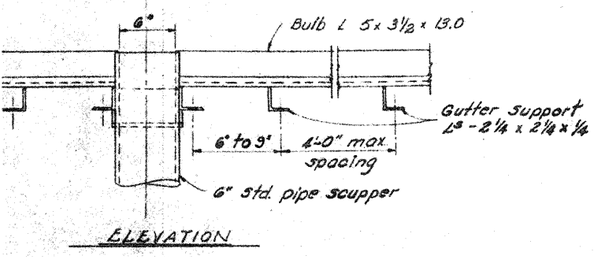



DIAGRAM SHOWING STAGGER OF BARS 3602




ELEVATION

Note: Gutters shall be accurately adjusted for alignment and grade, with allowance for dead load deflection, before concrete is placed. Gutters shall not be used for supporting finishing machines without strength modifications approved by the Director.

* Extreme position of ℄ beam with relation to gutter line. Length of L 2½ x 2½ x ¼ shall be adjusted accordingly.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. LIC.16-1594 L AND R
OVER N.Y.C. R. R.
LICKING COUNTY STA. 181+23.73
STA. 181+90.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| R.J.W. | E.D.A. | | J.R.W. | C.C. | 9.22 60 | |

# REINFORCING STEEL LIST

| FED. NO. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

428/466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - (14.30 - 18.51)

## ABUTMENTS

| MARK | NO | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| F501 | 109 | 6-7 | 748 | 1 | 5-5 | | | | | |
| F502 | 32 | 30-3 | 1009 | S | ~~27~~ 43 | | | | | |
| F503 | ~~21~~ 22 | 8-2 | ~~267~~ 276 | 5 | 1-0 | 7-4 | 0 | | | |
| F504 | 24 | 11-8 | 296 | S | | | | | | |
| F505 | 8 | 14-11 | 124 | S | | | | | | |
| F506 | 16 | 6-6 | 108 | S | | | | | | |
| A401 | 69 | 4-0 | 183 | 5 | 0-6 | 1-10 | 1-10 | | | |
| A501 | 109 | 13-4 | 1516 | 5 | 3-5 | 5-1 | 5-1 | | | |
| A502 | 120 | 30-0 | 3755 | S | | | | | | |
| A503 | 144 | 4-11 | 738 | 5 | 2-0 | 1-7 | 1-7 | | | |
| A504 | 32 | 4-5 | 147 | S | | | | | | |
| A505 | 76 | 9-4 | 740 | S | | | | | | |
| A506 | 42 | 3-6 | 153 | S | | | | | | |
| A507 | 10 | 3-10 | 40 | S | | | | | | |
| A508 | 6 | 4-7 | 29 | S | | | | | | |
| A509 | 14 | 7-9 | 113 | S | | | | | | |
| A510 | 2 | 8-7 | 18 | S | | | | | | |
| A511 | 10 | 9-9 | 102 | S | | | | | | |
| A512 | 8 | 9-1 | 76 | S | | | | | | |
| A513 | 34 | 10-2 | 361 | S | | | | | | |
| A514 | 2 | 12-0 | 25 | S | ~~10~~ 3 | | | | | |
| A515 | ~~62~~ 61 | 16-6 | ~~34~~ | S | 6-3 | | | | | |
| A516 | 2 | 17-2 | 36 | 3 | 6-3 | 10-11 | | | | |
| A517 | 12 | 18-4 | 229 | S | | | | | | |
| A518 | 4 | 17-6 | 73 | 3 | 6-7 | 10-11 | | | | |
| A519 | 8 | 13-4 | 110 | S | | | | | | |
| A520 | ~~4~~ 12 | ~~29~~ 13-4 | 551 | 3 | | 10-11 | | | | |
| A521 | 12 | 14-0 | 175 | S | | | | | | |
| A522 | 6 | 14-10 | 93 | 3 | 3-11 | 10-11 | | | | |
| A523 | 40 | 7-0 | 292 | S | | | | | | |
| A524 | 4 | 13-6 | 56 | S | | | | | | |
| A525 | 16 | 2-9 | 46 | 5 | 1-4 | 0-10 | 0-10 | | | |
| A526 | 122 | 3-9 | 477 | 5 | 1-4 | 1-4 | 1-4 | | | |
| A527 | 12 | 12-8 | 159 | S | | | | | | |
| A528 | 6 | 10-0 | 63 | S | | | | | | |
| A601 | 218 | 13-4 | 4366 | 4 | 5-6 | 1-5 | 4-2 | 0-11 | 2-0 | |
| | | TOTAL | 19219 | | | | | | | |
| | | | 19353 | | | | | | | |
| R402 | 4 | 16-4 | | S | INCLUDED WITH RAILING FOR PAYMENT | | | | | |
| R403 | 8 | 18-2 | | S | | | | | | |
| R404 | 8 | 13-1 | | S | | | | | | |
| R405 | 12 | 13-8 | | S | | | | | | |

## PIERS

| MARK | NO | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| F507 | 24 | 29-0 | 726 | S | | | | | | |
| F801 | 160 | 11-4 | 4842 | 1 | 9-2 | | | | | |
| F802 | 312 | 4-11 | 4093 | 5 | 0-8 | 4-6 | 0 | | | |
| F803 | 84 | 13-5 | 3009 | 5 | 0-8 | 13-0 | 0 | | | |
| F804 | 28 | 17-5 | 1302 | 5 | 0-8 | 17-0 | 0 | | | |
| P501 | 92 | 25-0 | 2399 | S | | | | | | |
| P502 | 92 | 6-4 | 608 | 2 | 1-7 | 1-0 | 1-7 | 2-0 | | |
| P503 | 52 | 7-5 | 402 | 5 | 2-2 | 2-9 | 2-9 | | | |
| P504 | 16 | 18-6 | 309 | S | | | | | | |
| P505 | 16 | 24-0 | 401 | S | | | | | | |
| P506 | 16 | 28-0 | 467 | S | | | | | | |
| P507 | 120 | 3-7 | 448 | 5 | 2-2 | 0-10 | 0-10 | | | |
| P508 | 80 | 9-11 | 828 | 5 | 2-2 | 4-0 | 4-0 | | | |
| P509 | 80 | 8-9 | 730 | 5 | 2-2 | 3-5 | 3-5 | | | |
| P510 | 64 | 7-3 | 484 | 5 | 2-2 | 2-8 | 2-8 | | | |
| P511 | 60 | 26-10 | 1680 | S | | | | | | |
| P512 | 30 | 31-0 | 970 | S | | | | | | |
| P513 | 30 | 26-6 | 830 | S | | | | | | |
| P601 | 16 | 15-5 | 371 | 9 | 0 | 13-6 | 1-9 | 0-7 | | |
| P1101 | 88 | 28-6 | ~~11055~~ 13325 | 7 | ~~30-1~~ 28-6 | | | | | |
| | | TOTAL | ~~38224~~ 38964 | | | | | | | |

## SUPERSTRUCTURE

| MARK | NO | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| S401 | 352 | 4-3 | 999 | 5 | 0-6 | 2-0 | 2-0 | | | |
| S501 | 704 | ~~4-7~~ 3'-11" | ~~3365~~ 2876 | 5 | 1-8 | ~~1-8~~ 1-3 | ~~1-7~~ 1-3 | | | |
| | | | 144 | | | | | | | |
| S601 | 760 | 35-2 | ~~4030~~ | S | | | | | | |
| S602 | 116 | 26-10 | 4675 | S | | | | | | |
| S701 | 318 | 41-8 | 27082 | S | | | | | | |
| S702 | 4 | 40-8 | 332 | S | | | | | | |
| S703 | 4 | 39-8 | 324 | S | | | | | | |
| S704 | 4 | 38-8 | 316 | S | | | | | | |
| S705 | 4 | 37-8 | 307 | S | | | | | | |
| S706 | 4 | 36-8 | 299 | S | | | | | | |
| S707 | 4 | 35-8 | 292 | S | | | | | | |
| S708 | 4 | 34-8 | 283 | S | | | | | | |
| S709 | 4 | 33-8 | 275 | S | | | | | | |
| S710 | 4 | 32-8 | 267 | S | | | | | | |
| S711 | 4 | 31-8 | 259 | S | | | | | | |
| S712 | 4 | 30-8 | 251 | S | | | | | | |
| S713 | 4 | 29-8 | 243 | S | | | | | | |
| S714 | 4 | 28-8 | 234 | S | | | | | | |
| S715 | 4 | 27-8 | 226 | S | | | | | | |
| S716 | 4 | 26-8 | 218 | S | | | | | | |
| S717 | 4 | 25-8 | 210 | S | | | | | | |
| S718 | 4 | 24-8 | 202 | S | | | | | | |
| S719 | 4 | 23-8 | 193 | S | | | | | | |
| S720 | 4 | 22-8 | 185 | S | | | | | | |
| S721 | 4 | 21-8 | 177 | S | | | | | | |
| S722 | 4 | 20-8 | 169 | S | | | | | | |
| S723 | 4 | 19-8 | 161 | S | | | | | | |
| S724 | 4 | 18-8 | 153 | S | | | | | | |
| S725 | 4 | 17-8 | 144 | S | | | | | | |
| S726 | 4 | 16-8 | 136 | S | | | | | | |
| S727 | 4 | 15-8 | 128 | S | | | | | | |
| S728 | 4 | 14-8 | 120 | S | | | | | | |
| S729 | 4 | 13-8 | 112 | S | | | | | | |
| S730 | 4 | 12-8 | 104 | S | | | | | | |
| S731 | 4 | 11-8 | 95 | S | | | | | | |
| S732 | 4 | 10-8 | 87 | S | | | | | | |
| S733 | 4 | 9-8 | 79 | S | | | | | | |
| S734 | 4 | 8-8 | 71 | S | | | | | | |
| S735 | 4 | 7-8 | 63 | S | | | | | | |
| S736 | 4 | 6-8 | 55 | S | | | | | | |
| S737 | 4 | 5-8 | 46 | S | | | | | | |
| S738 | 4 | 4-8 | 38 | S | | | | | | |
| S739 | 4 | 3-8 | 30 | S | | | | | | |
| S740 | 12 | 2-8 | 63 | S | | | | | | |
| S801 | 318 | 41-8 | 35377 | S | | | | | | |
| S802 | 4 | 40-8 | 434 | S | | | | | | |
| S803 | 4 | 39-8 | 424 | S | | | | | | |
| S804 | 4 | 38-8 | 413 | S | | | | | | |
| S805 | 4 | 37-8 | 402 | S | | | | | | |
| S806 | 4 | 36-8 | 392 | S | | | | | | |
| S807 | 4 | 35-8 | 381 | S | | | | | | |
| S808 | 4 | 34-8 | 370 | S | | | | | | |
| S809 | 4 | 33-8 | 360 | S | | | | | | |
| S810 | 4 | 32-8 | 349 | S | | | | | | |
| S811 | 4 | 31-8 | 338 | S | | | | | | |
| S812 | 4 | 30-8 | 328 | S | | | | | | |
| S813 | 4 | 29-8 | 317 | S | | | | | | |
| S814 | 4 | 28-8 | 305 | S | | | | | | |
| S815 | 4 | 27-8 | 295 | S | | | | | | |

## SUPERSTRUCTURE

| MARK | NO | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| S816 | 4 | 26-8 | 285 | S | | | | | | |
| S817 | 4 | 25-8 | 272 | S | | | | | | |
| S818 | 4 | 24-8 | 263 | S | | | | | | |
| S819 | 4 | 23-8 | 253 | S | | | | | | |
| S820 | 4 | 22-8 | 242 | S | | | | | | |
| S821 | 4 | 21-8 | 231 | S | | | | | | |
| S822 | 4 | 20-8 | 221 | S | | | | | | |
| S823 | 4 | 19-8 | 210 | S | | | | | | |
| S824 | 4 | 18-8 | 199 | S | | | | | | |
| S825 | 4 | 17-8 | 189 | S | | | | | | |
| S826 | 4 | 16-8 | 178 | S | | | | | | |
| S827 | 4 | 15-8 | 167 | S | | | | | | |
| S828 | 4 | 14-8 | 157 | S | | | | | | |
| S829 | 4 | 13-8 | 146 | S | | | | | | |
| S830 | 4 | 12-8 | 135 | S | | | | | | |
| S831 | 4 | 11-8 | 125 | S | | | | | | |
| S832 | 4 | 10-8 | 114 | S | | | | | | |
| S833 | 4 | 9-8 | 103 | S | | | | | | |
| S834 | 4 | 8-8 | 93 | S | | | | | | |
| S835 | 4 | 7-8 | 82 | S | | | | | | |
| S836 | 4 | 6-8 | 71 | S | | | | | | |
| S837 | 4 | 5-8 | 61 | S | | | | | | |
| S838 | 4 | 4-8 | 50 | S | | | | | | |
| S839 | 4 | 3-8 | 39 | S | | | | | | |
| S840 | 12 | 2-8 | 84 | S | | | | | | |
| | | TOTAL | ~~127830~~ 128181 | | | | | | | |
| R406 | 144 | 16-4 | | S | INCLUDED WITH RAILING FOR PAYMENT | | | | | |
| R407 | ~~31~~ 64 | 13-1 | | S | | | | | | |
| R408 | 64 | 8-0 | | S | | | | | | |

## REPLACEMENT BARS

| | | | |
|---|---|---|---|
| RE401 | 1 | 5-3 | S |
| RE501 | 2 | 5-7 | S |
| RE601 | 4 | 5-11 | S |
| RE701 | 2 | 6-3 | S |
| RE801 | 3 | 6-6 | S |
| RE901 | 2 | 7-7 | S |

## SPIRAL REINFORCEMENT

| MARK | NO | LENGTH | CORE | PITCH | TURNS | SPACERS | WEIGHT |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## NOTES

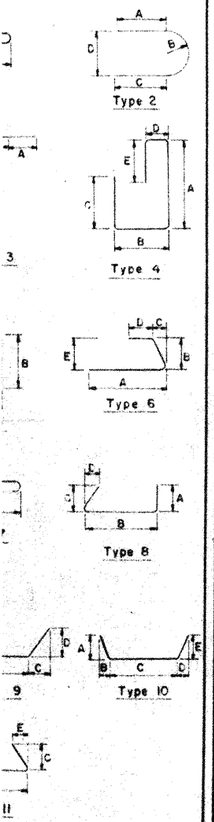
BAR SIZE; Is indicated in bar mark. The first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar.

REPLACEMENT BARS; If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in sec. 402 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING BARS; The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "No. of Turns" shown is the "Length" divided by the pitch, plus three turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to item S-4. 1½ closed coils shall be provided at the ends of each spiral unit. Four or three steel channel, tee or angle spacers, weighing approximately 0.68 lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

HORIZONTAL PARAPET REINFORCING; These bars are included with the railing for payment.

## BENDING DIAGRAM



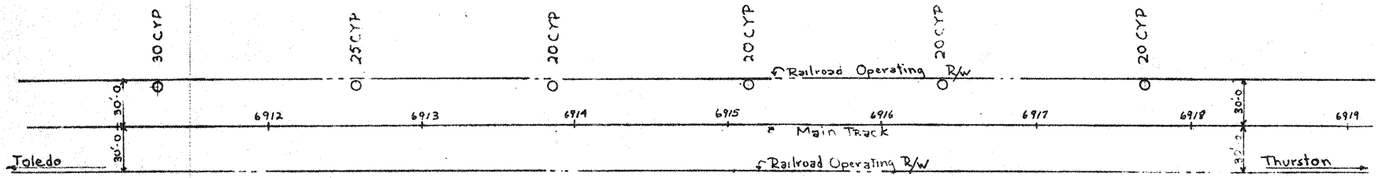

COLUMN FOR "TYPE" STRAIGHT BARS.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

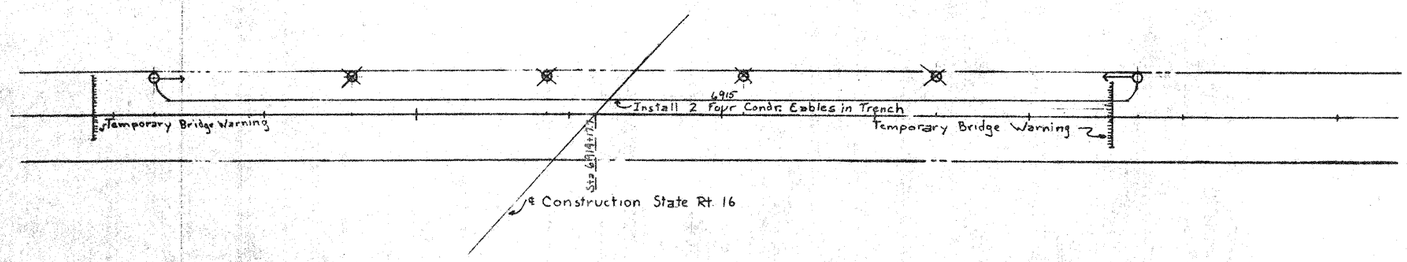
REINFORCING STEEL LIST
BRIDGE NO. LIC. 16-1594 L AND R
OVER N.Y.C. R. R.
LICKING COUNTY
STA. 181+23.73
STA. 181+90.21

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | G.M. | | J.R.W. | 66 | 9.22.60 | 3-8-62 |

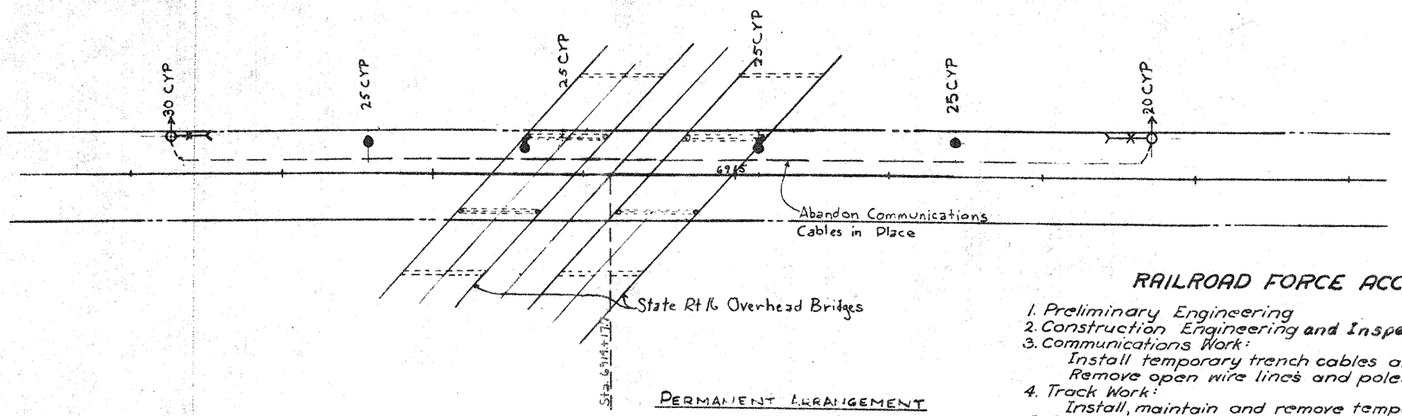
LICKING COUNTY
LIC 161 - 11.13
LIC 16 - (14.30 - 18.51)



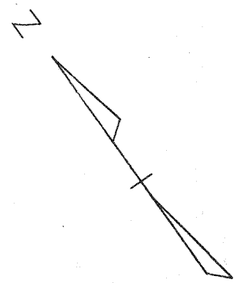

EXISTING ARRANGEMENT

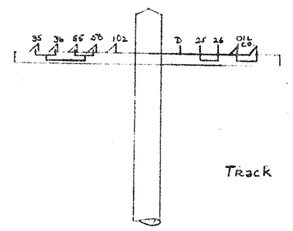



TEMPORARY ARRANGEMENT




PERMANENT ARRANGEMENT






POLE LINE
Existing and Permanent

LEGEND:

- ○ Existing Pole
- ⊗ Pole to be removed
- ● New Pole
- ○→ Anchor and Guy to be installed
- ○✕ Anchor and Guy to be removed
- ○ Push Brace to be installed

NOTE:
All labor and the furnishing of all material in connection with changes as shown on this sheet and called for in the estimate will be performed by the N.Y.C.R.R. force account.

## RAILROAD FORCE ACCOUNT WORK

1. Preliminary Engineering
2. Construction Engineering and Inspection
3. Communications Work:
   Install temporary trench cables and abandon in place
   Remove open wire lines and poles and restore in permanent location.
4. Track Work:
   Install, maintain and remove temporary tell-tales.
5. Protection of Railroad traffic
6. Accounting
7. Insurance

Highway Bridge No. LIC-16-1591 L&R

| NYC SYSTEM | OFFICE OF CHIEF ENGINEER | CHICAGO, ILL. |
|---|---|---|

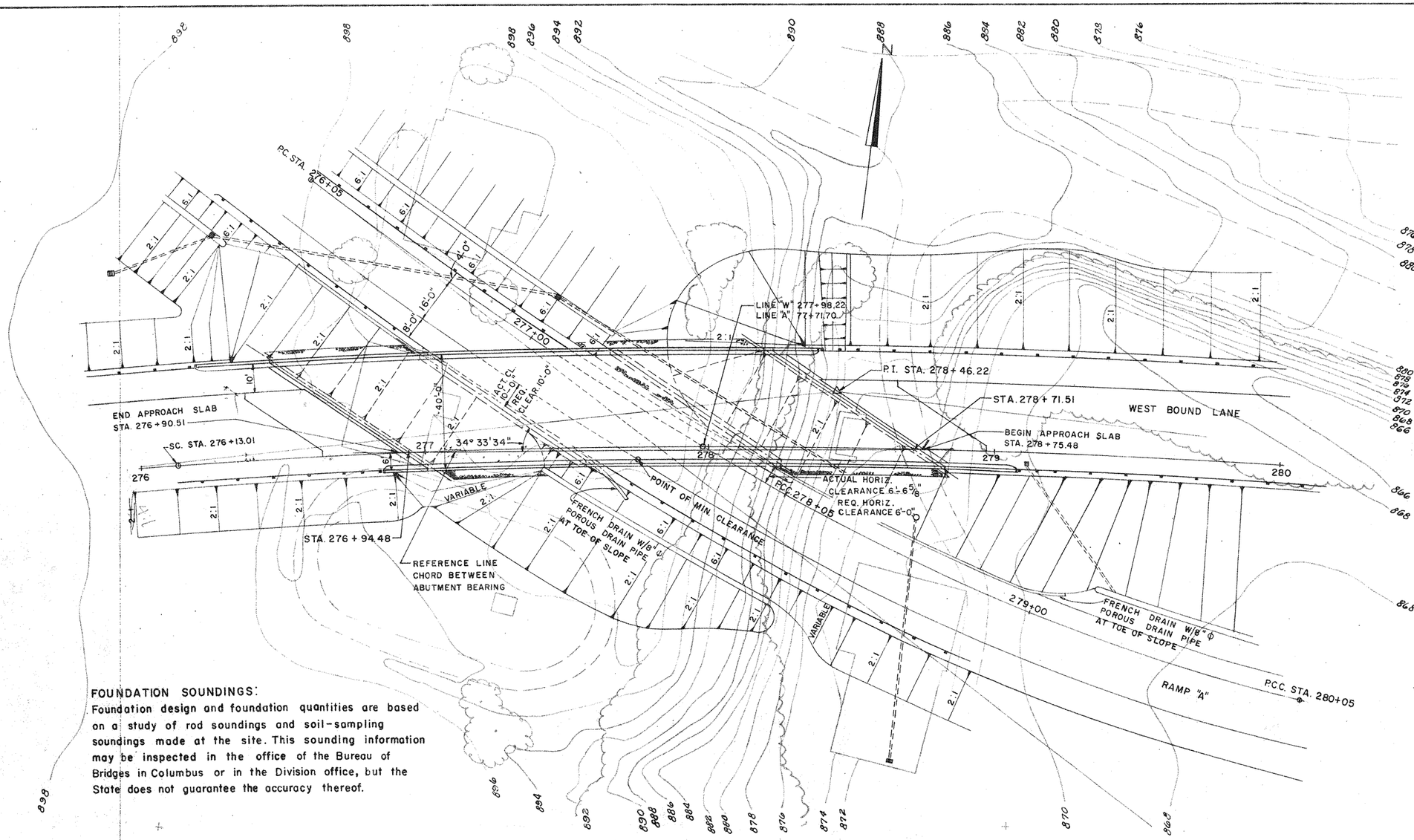
PROPOSED DUAL OVERHEAD HIGHWAY BRIDGES
STATE RT. 16 RELOC.
1.4 miles S/E of
GRANVILLE, OHIO
PROPOSED COMMUNICATIONS LINE CHANGES

| SOUTHERN DISTRICT | OHIO CENTRAL DIVISION | PLAN Nº 7355 |
|---|---|---|
| SCALE: 1" = 50' | Sept. 9, 1960 | V.S. 301 | FILE Nº 121-205 |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

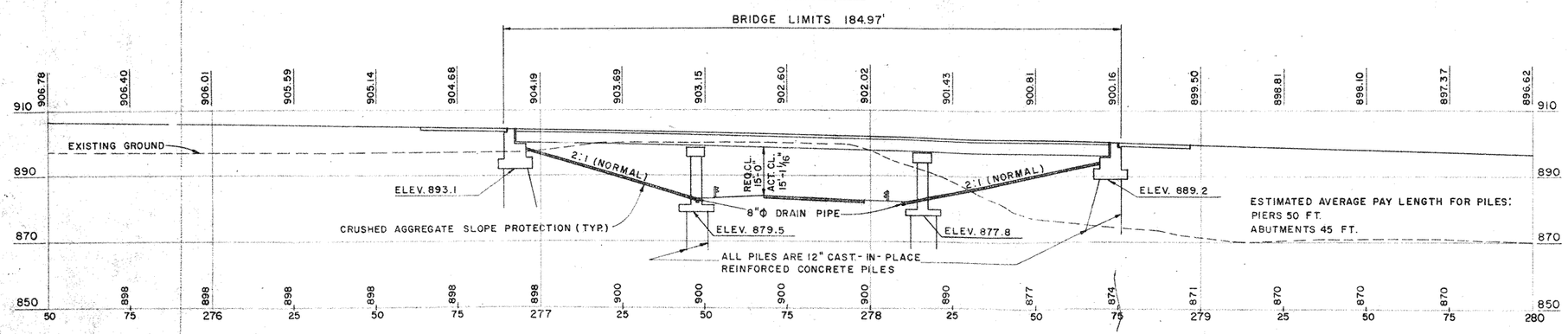
430/466

LICKING COUNTY
LIC.-161-11.13
LIC.-16-(14.30-18.51)




FOUNDATION SOUNDINGS:
Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

## PLAN




## PROFILE

## PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: 53-6", 68'-6" and 55'-0" along reference chord.

ROADWAY: 40'-0" face to face of concrete parapets with aluminum railings.
LOADING: C.F. 2000
SKEW: 55° - 26' - 26" with reference chord.

WEARING SURFACE: 1" Monolithic concrete.
ALIGNMENT: 2° Curve
APPROACH SLAB: 25'-0 long.
SUPERELEVATION: 0.047 ft. per ft.

## CURVE DATA

### VERTICAL CURVE
WEST BOUND LANE

P.V.I. = STA. 274+00, ELEV. 916.10
$G_1$ = + 1.4%, $G_2$ = - 3.24%
V.C. = 1300'

### VERTICAL CURVE RAMP "A"

P.V.I. = STA. 276+00, ELEV. 883.92
$G_1$ = - 4.60%, $G_2$ = - .96%
V.C. = 400'

### HORIZONTAL CURVE
WEST BOUND LANE

| | |
|---|---|
| Δ = 13° 16' 00" | $R_C$ = 2864.789' |
| $\Delta_C$ = 09° 16' 00" | $L_C$ = 463.33' |
| $D_C$ = 02° 00' 00" | $T_C$ = 232.173' |

### HORIZONTAL CURVE RAMP "A"

| | |
|---|---|
| $D_C$ = 04° 00' 00" | $D_C$ = 08° 00' 00" |
| $R_C$ = 1432.394' | $R_C$ = 716.197' |
| $L_C$ = 200.00" | $L_C$ = 200.00' |
| $\Delta_C$ = 08° 00' 00" | $\Delta_C$ = 16° 00' 00" |
| $T_C$ = 100.163' | $T_C$ = 100.654" |

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# SITE PLAN

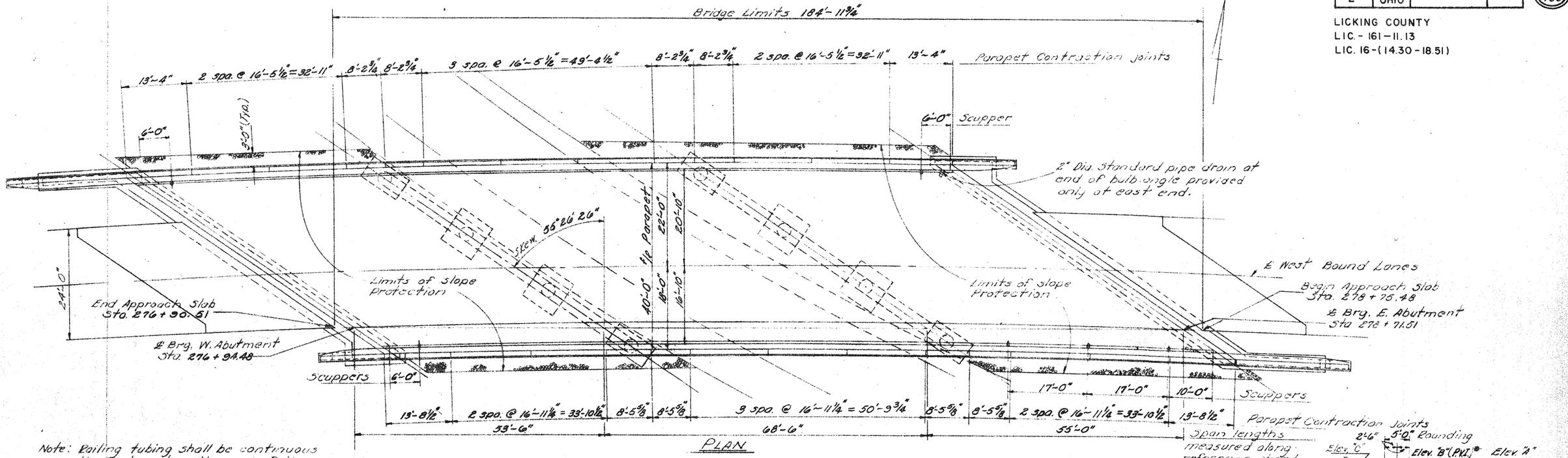
BRIDGE NO. LIC.16 - 1788 L
OVER EXISTING SR.16
LICKING COUNTY STA. 276+90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| F.A. | E.D.A. | G.M. | J.W. | [illegible] | 9.6 60 | |

| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

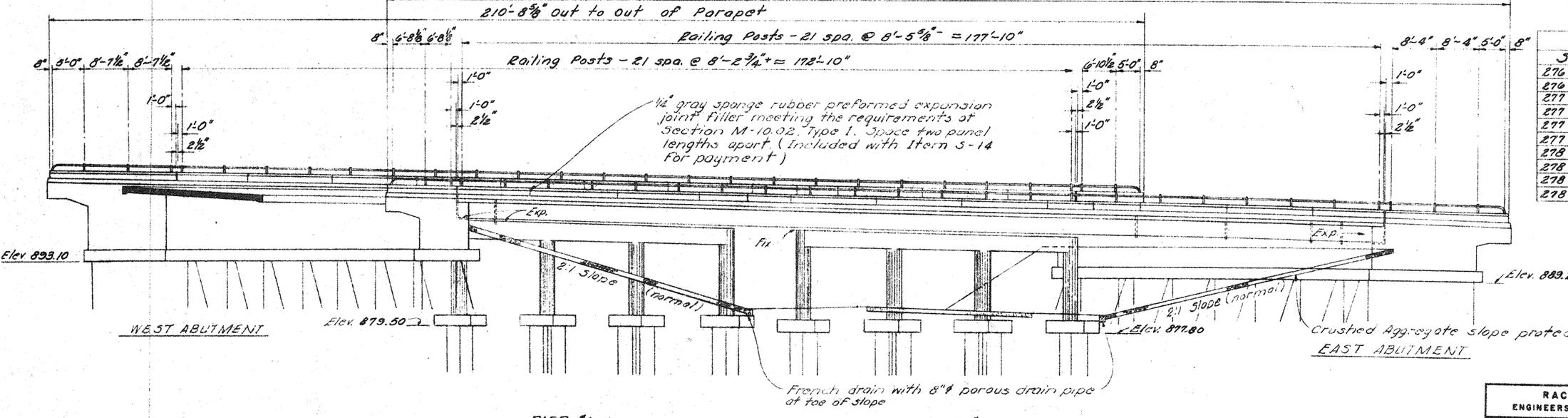
431
466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. 16 - (14.30 - 18.51)




PLAN

Note: Railing tubing shall be continuous the first post on the end of the abutment wingwalls.




ELEVATION

TABLE OF ELEVATIONS

| Sta | "A" | "B" | "C" |
|---|---|---|---|
| 276+50 | 904.91 | 906.39 | 906.12 |
| 276+75 | 904.45 | 905.93 | 905.66 |
| 277+00 | 903.96 | 905.44 | 905.17 |
| 277+25 | 903.46 | 904.94 | 904.67 |
| 277+50 | 902.92 | 904.40 | 904.13 |
| 277+75 | 902.45 | 903.93 | 903.66 |
| 278+00 | 902.37 | 903.85 | 903.58 |
| 278+25 | 901.79 | 903.27 | 903.00 |
| 278+50 | 901.20 | 902.68 | 902.41 |
| 278+75 | 900.58 | 902.06 | 901.79 |

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# GENERAL PLAN AND ELEVATION

BRIDGE NO. LIC. 16 - 1788 L
OVER EXISTING S.R. 16
LICKING COUNTY STA. 276 + 90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | G.M. | E.D.A. | F.A. | 666 | 9.6 60 | |

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

432/466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. - 16 - ( 14.30 - 18.51)

## GENERAL NOTES

REFERENCE shall be made to:
Supplemental Specifications S-101 dated 12-2-59.
Standard Drawings CSB-2-56 sheet 1, 2 and 3 revised 2-2-59.
Standard Drawings AR-1-57 revised 2-2-59.
Supplemental Specification M-206.14 dated 7-15-49
DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

EXCAVATION: Quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

PILES shall be driven to a minimum bearing capacity of 40 tons per pile for the abutments and 48 tons per pile for the piers.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor be made in the shop.

*STEEL: See Proposal regarding A-373 Steel.*

*MACHINE FINISH: The top of the bridge deck slab shall be machine finished in accordance with the Proposal Note "Machine Finishing of Bridge Deck Slabs."*

| ESTIMATED QUANTITIES | | | | | | | | AS BUILT | |
|---|---|---|---|---|---|---|---|---|---|
| ITEM | TOTAL | UNIT | DESCRIPTION | SUPER | ABUT. | PIER | GEN. | | |
| E 2 | 515 | Cu.Yds. | Unclassified Excavation | | 359 | 156 | | | |
| S 1 | 237 | Cu.Yds. | Class C Conc. Superstructure | 237 | | | | | |
| S 1 | 87 | Cu.Yds. | Class C Conc. Piers (above footings) | | | 87 | | | |
| S 1 | 40 | Cu.Yds. | Class E Conc. Pier Footings | | | 40 | | | |
| S 1 | 183 | Cu.Yds. | Class E Conc. Abuts. (above footings) | | 183 | | | | |
| S 1 | 120 | Cu.Yds. | Class E Conc. Abut. Footings | | 120 | | | | |
| S 4 | ~~103509~~ 102421 | Lbs. | Reinforcing Steel | ~~68894~~ 63766 | ~~11439~~ 11748 | ~~23176~~ 20907 | | | |
| S 7 | 201600 | Lbs. | Structural Steel | 201600 | | | | | |
| S 8 | 201600 | Lbs. | Field Painting Of Structural Steel as per plan | 201600 | | | | | |
| S 14 | 428.32 | Lin.Ft. | Railing (aluminum railing & supports, & conc. parapet) | | | | 428.32 | | |
| S 16 | Lump | Sum | First Test Pile | | | | | | |
| S 18 | 3220 | Lin.Ft. | 12" Cast-in-place Reinforced Conc. Piles | | 1620 | 1600 | | | |
| S 29 | 6 | Each | Scuppers | 6 | | | | | |
| S 29 | 56 | Cu.Yds. | Porous Backfill | | 56 | | | | |
| I 10 | 650 | Sq.Yds. | Crushed Aggregate Slope Protection | | | | 650 | | |
| S 25 | 211 | Lin.Ft. | 2" Electric Conduit (Fibre) | 211 | | | | | |
| S 3 | 11 | Lin.Ft. | Waterproofing, Premolded Sealing Strip | | 11 | | | | |

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

GENERAL NOTES
ESTIMATED QUANTITIES
BRIDGE NO. LIC. 16 - 1788 L
OVER EXISTING S.R. 16
LICKING COUNTY STA. 276 + 90.51

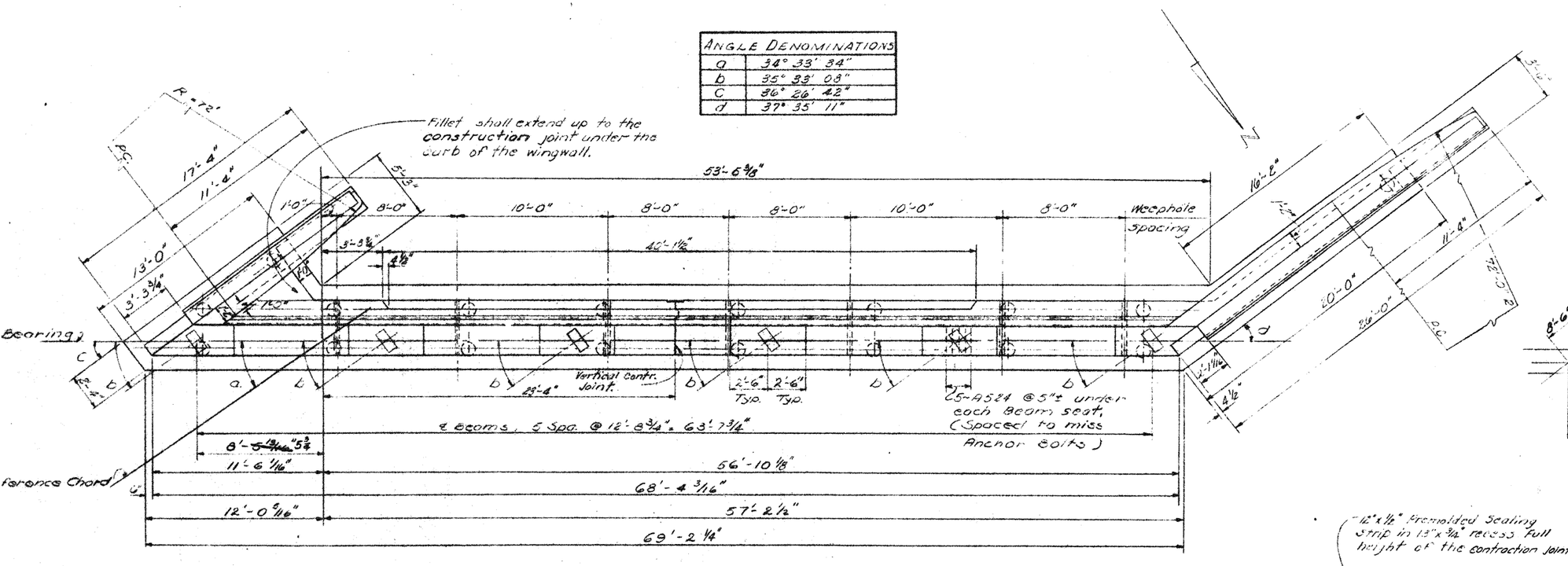
| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | G.M. | | F.A. | 666. | 9.6 60 | 3-8-62 |

| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

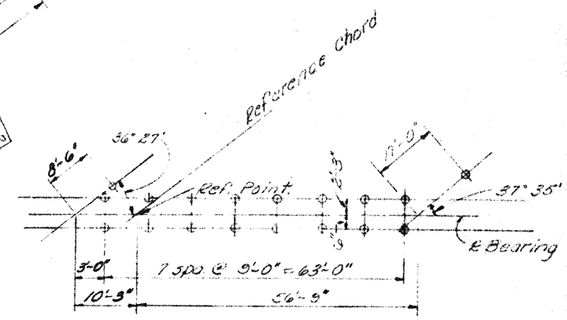
493
496

LICKING COUNTY
LIC.-161-11.13
LIC. 16-(14.30-18.51)

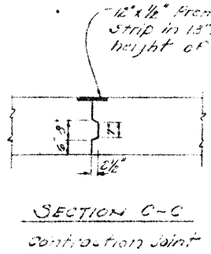
| ANGLE DENOMINATIONS | |
|---|---|
| a | 34° 33' 34" |
| b | 35° 33' 08" |
| c | 36° 26' 42" |
| d | 37° 35' 11" |




PLAN



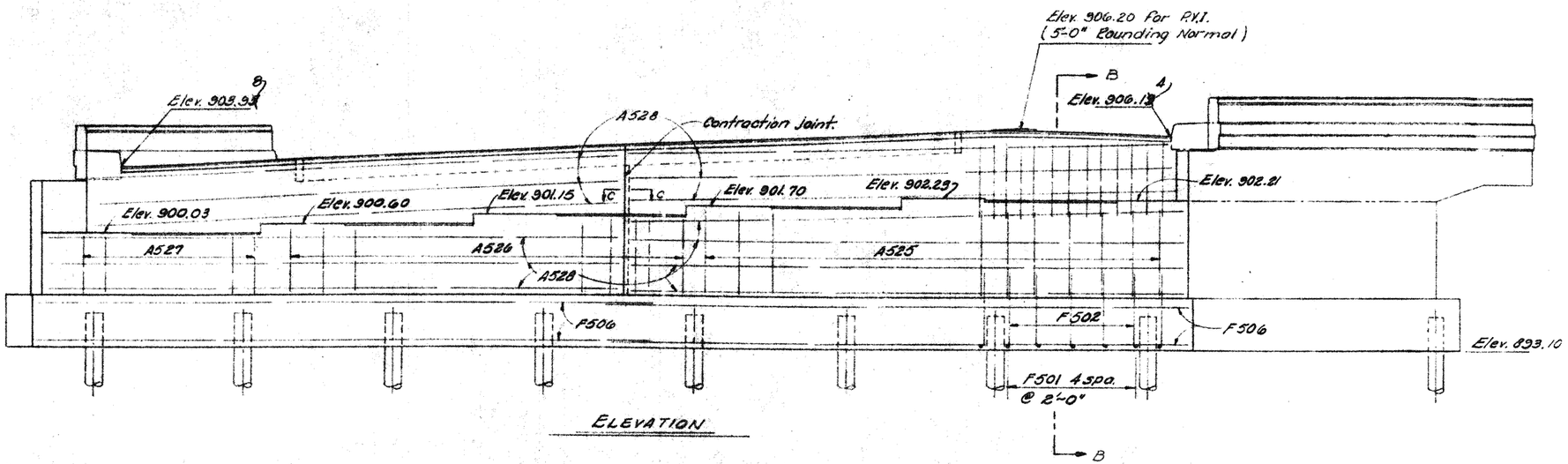

PILING PLAN




SECTION C-C
Contraction Joint




SECTION B-B




ELEVATION

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# WEST ABUTMENT DETAILS

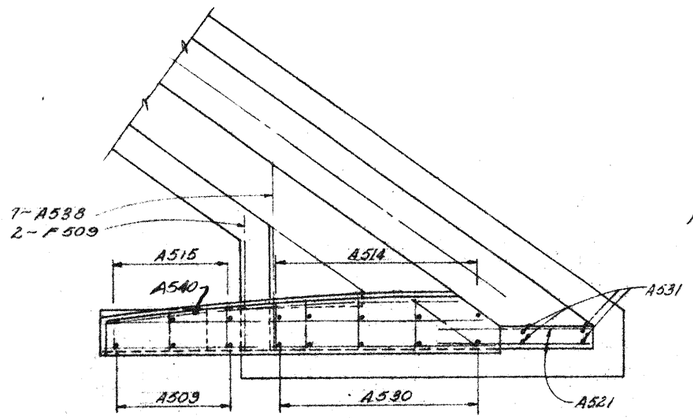
BRIDGE NO. LIC. 16-1788 L
OVER EXISTING S.R. 16
LICKING COUNTY STA. 276+90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | C.R. | | F.A. | [illegible] | 9.6 60 | 9-19-61 3-8-62 |

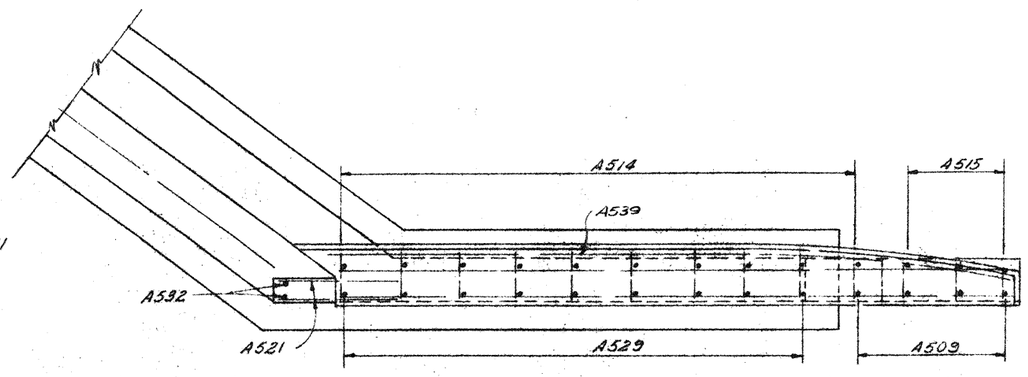
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

434/466

LICKING COUNTY
LIC.-161-11.13
LIC.16-(14.30-18.51)

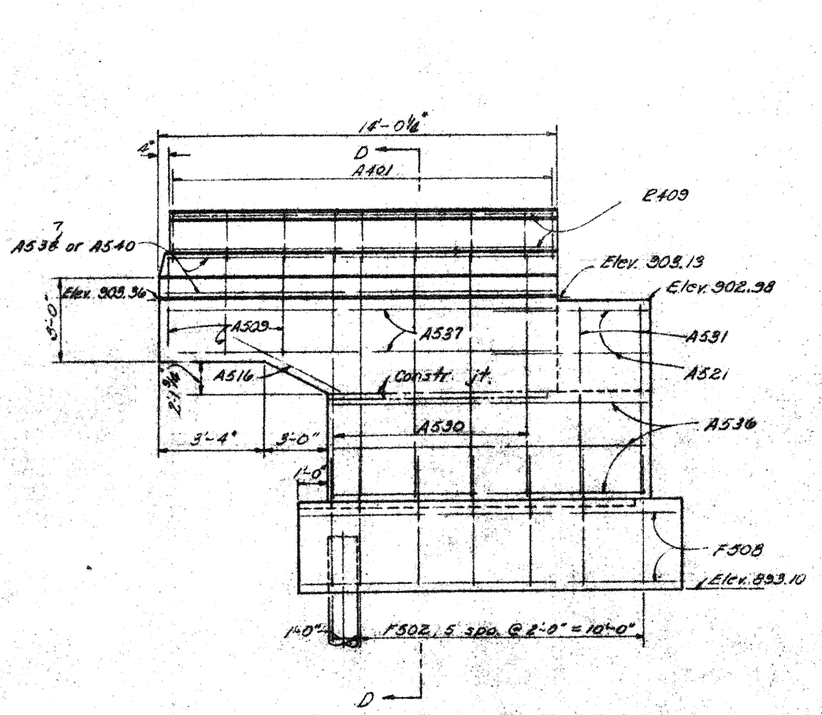



SIDEWALK AND FILLET STEEL
LOCATION PLAN WINGWALL #1

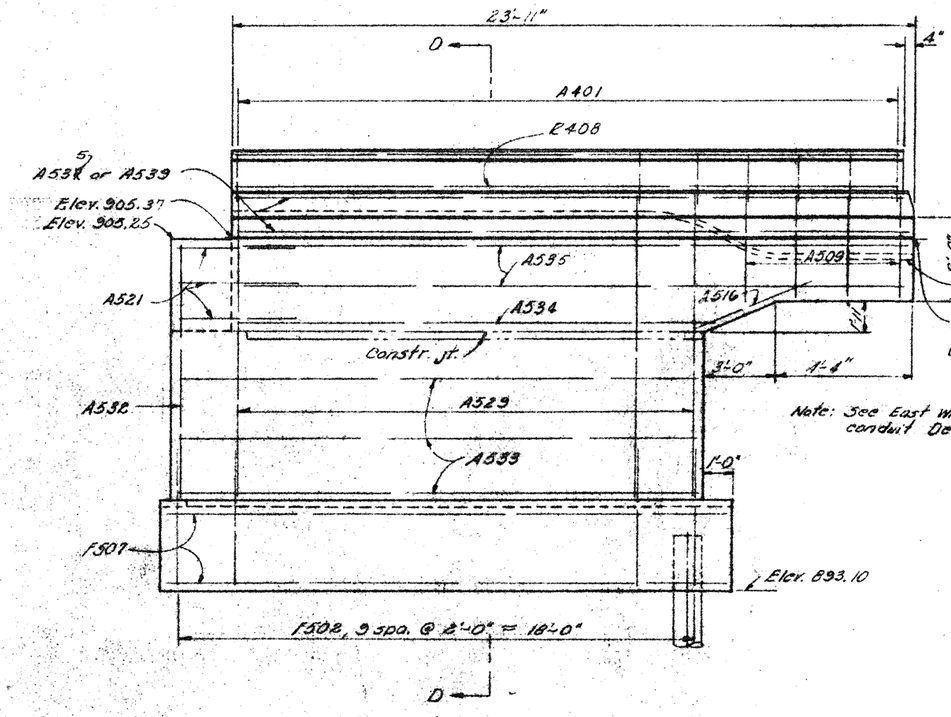



SIDEWALK AND FILLET STEEL
LOCATION PLAN WINGWALL #2

Porous Backfill, 2 feet thick, full length of abutment and wings shall extend up to the approach slab or the finished ground surface.

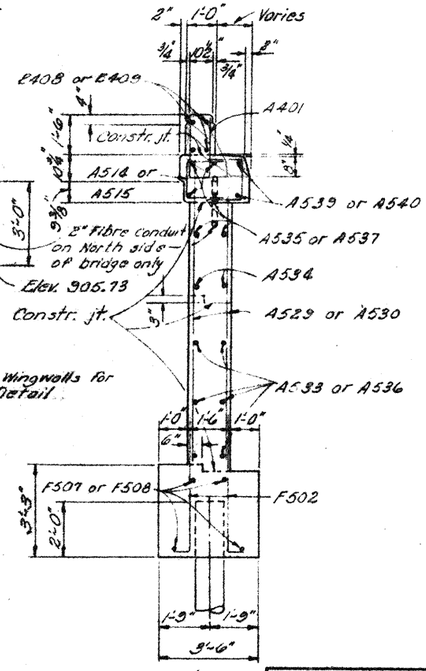



VIEW B-B
Wingwall #1




VIEW C-C
Wingwall #2

Note: See East Wingwalls for conduit Detail




SECTION D-D

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# WEST ABUTMENT DETAILS

BRIDGE NO. LIC.16-1788 L
OVER EXISTING S.R.16
LICKING COUNTY STA. 276+90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | EDA. | | F.A. | [illegible] | 9-5-60 | 3-3-61 |

| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

495
496

LICKING COUNTY
LIC. - 161 - 11.13
LIC. 16 - (14.30 - 18.51)

| ANGLE DENOMINATIONS | | | |
|---|---|---|---|
| a | 34° 33' 34" | d | 33° 30' 42" |
| b | 35° 33' 08" | e | 32° 03' 41" |
| c | 32° 03' 54" | | |

22"

Fillet shall extend up to the construction joint under the curb of the wingwall.

R. = 72'
P.C.
17'-4"
11'-4"
13'-0"
1'-0"
3'-7 3/8"
1'-0"
1'-0"
2'-4 1/2"
Bearing
d
b
e
59'-2 3/4"
7'-0" 8'-0" 10'-0" 10'-0" 10'-0" 7'-0" 3'-0" Weephole spacing
1'-1 1/8"
℄ Roadway
59'-11 1/8"
3'-5"
Contraction joint
(5-A524 @ 5"ℓ under each Beam Seat (Spaced to miss Anchor Bolts)
4 spa. @ 12'-8 3/4" = 50'-11"
℄ Beams (Typ.) 25'-10"
Reference chord
2'-6" Typ. 2'-6" Typ.
8'-6 8 1/8"
18'-3 1/4"
63'-5 1/8"
74'-6 1/8"
63'-11 1/2"
75'-4 1/8"
11'-1"
11'-4 1/2"

PLAN

Reference Point
Ref. Chord
33° 30' 42"
32° 03' 41"
3'-6"
℄ Bearing
2'-9"
7 spa @ 10'-0" = 70'-0"
1'-0"
62'-9"
11'-0"

PILING PLAN

17'-3 1/2"
2'-0"
11'-4"
22'-6 1/2"
27'-7"
R. = 72'
P.C.
e
1'-3"

Elev. 902.48
Elev. 902.51 for P.V.I. (3'-0" Founding Normal)
A
A504
contraction Joint
A601
Elev. 899.78
Elev. 898.59
Elev. 898.50
Elev. 898.00
Elev. 897.42
Elev. 896.76
Elev. 895.96
A503
A504
A502
A601
F503
F502
F501 9 spa @ 1'-9" = 8'-9" (Typical)
382.2

ELEVATION

12" x 1/2" Premolded Sealing Strip in 13" x 3/4" recess. Full height of the contraction joint.
2 3/8"
2 1/2"

SECTION D-D
Contraction Joint

6" 1'-3" 2'-0"
1'-0" 1'-0"
1 1/2"
℄ Brg.
1601
1504
Constr. jt.
2'-0"
Porous Backfill
6"
Slope 3/4" between beam seats
1'-6"
A501, A502 or A503
4" ϕ Weephole
Top of Slope
1'-0" 2'-3" 6" 1'-0"
A504
Constr. jt.
3'-0"
2'-0"
F503
1502
3'-3"
2'-4"
F503
F501
1'-6" 2'-9" 1'-6"
5'-9"

SECTION A-A

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# EAST ABUTMENT DETAILS

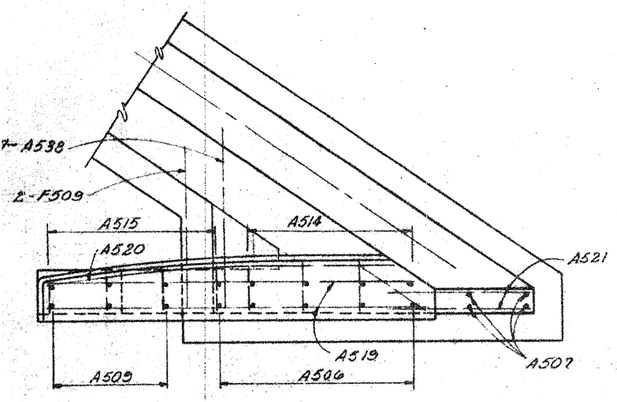
BRIDGE NO. LIC. 16 - 1788 L
OVER EXISTING S.R. 16.
LICKING COUNTY STA. 276 + 90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | C.R. | | F.A. | 666 | 9.6 60 | 9-13-61 1-19-62 |

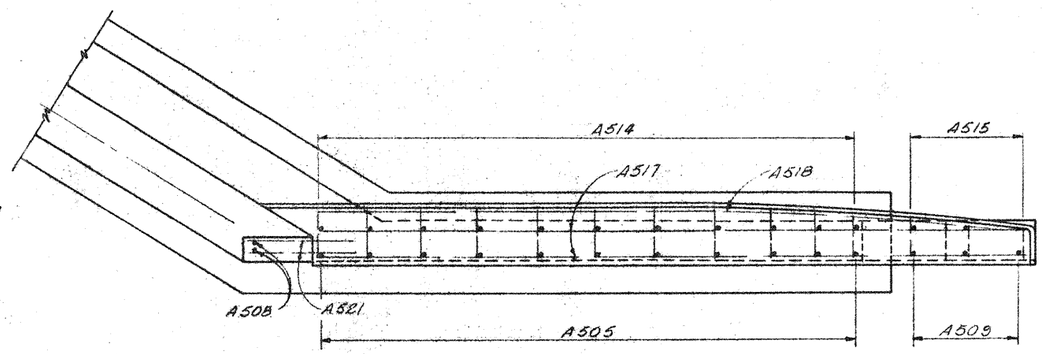
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

436
466

LICKING COUNTY
LIC. - 161 - 11.13
LIC. 16-(14.30-18.51)



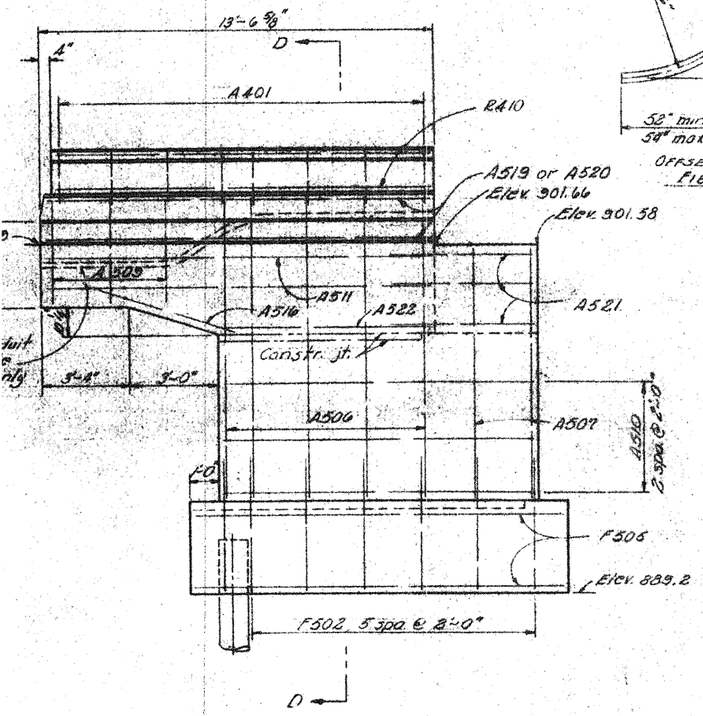

SIDEWALK AND FILLET STEEL
LOCATION PLAN WINGWALL #3



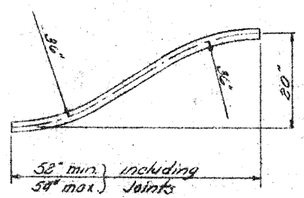

SIDEWALK AND FILLET STEEL
LOCATION PLAN WINGWALL #4

Porous Backfill, 2 feet thick, full length of abutment and wings shall extend up to the approach slab or to the finished ground surface.

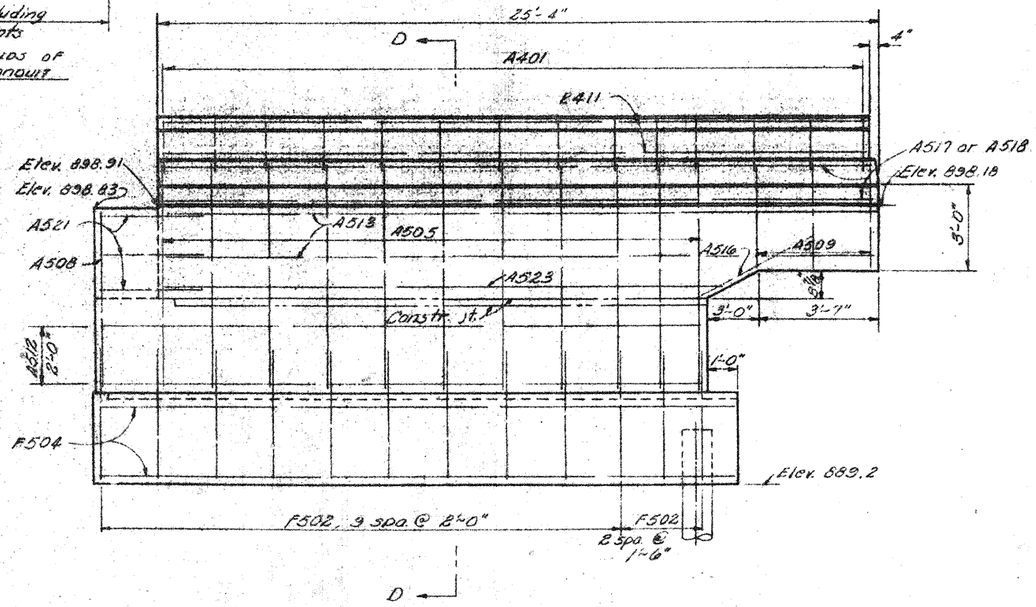
Procedure: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the east abutment, after which excavation shall be made for the abutment and pier #2



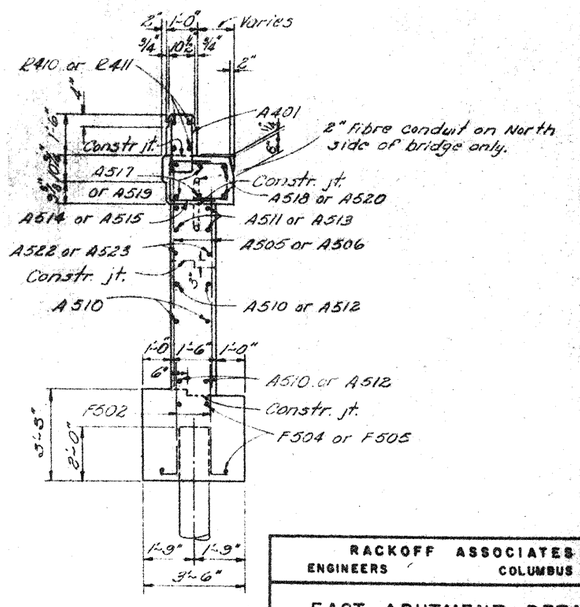

VIEW B-B
Wingwall #3




OFFSET BENDS OF FIBRE CONDUIT




VIEW C-C
Wingwall #4




SECTION D-D

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# EAST ABUTMENT DETAILS

BRIDGE NO. LIC. 16 - 1788 L
OVER EXISTING S.R. 16

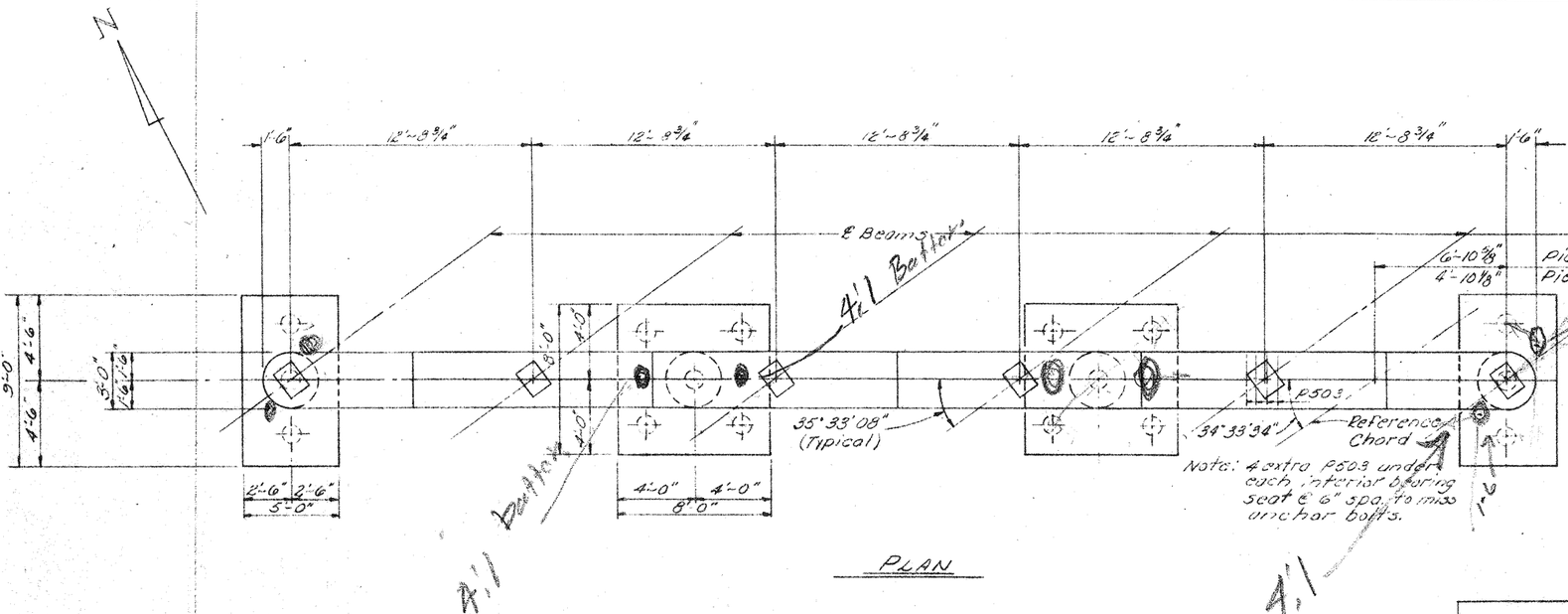
LICKING COUNTY STA. 276 + 90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | E.D.A. | | F.A. | [illegible] | 9.6 60 | |

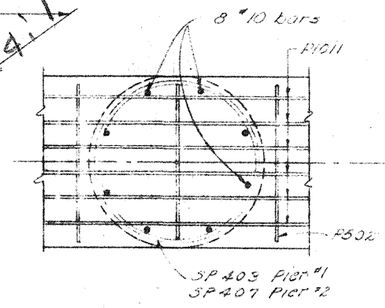
| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

437
466

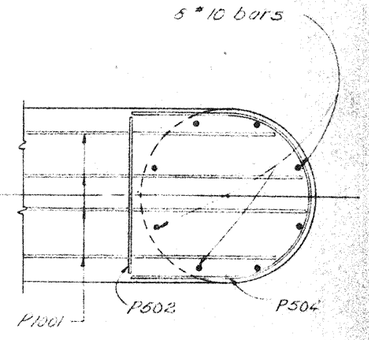
LICKING COUNTY
LIC. – 161 – 11.13
LIC. 16 – (14.30 – 18.51)




PLAN




SECTION C-C

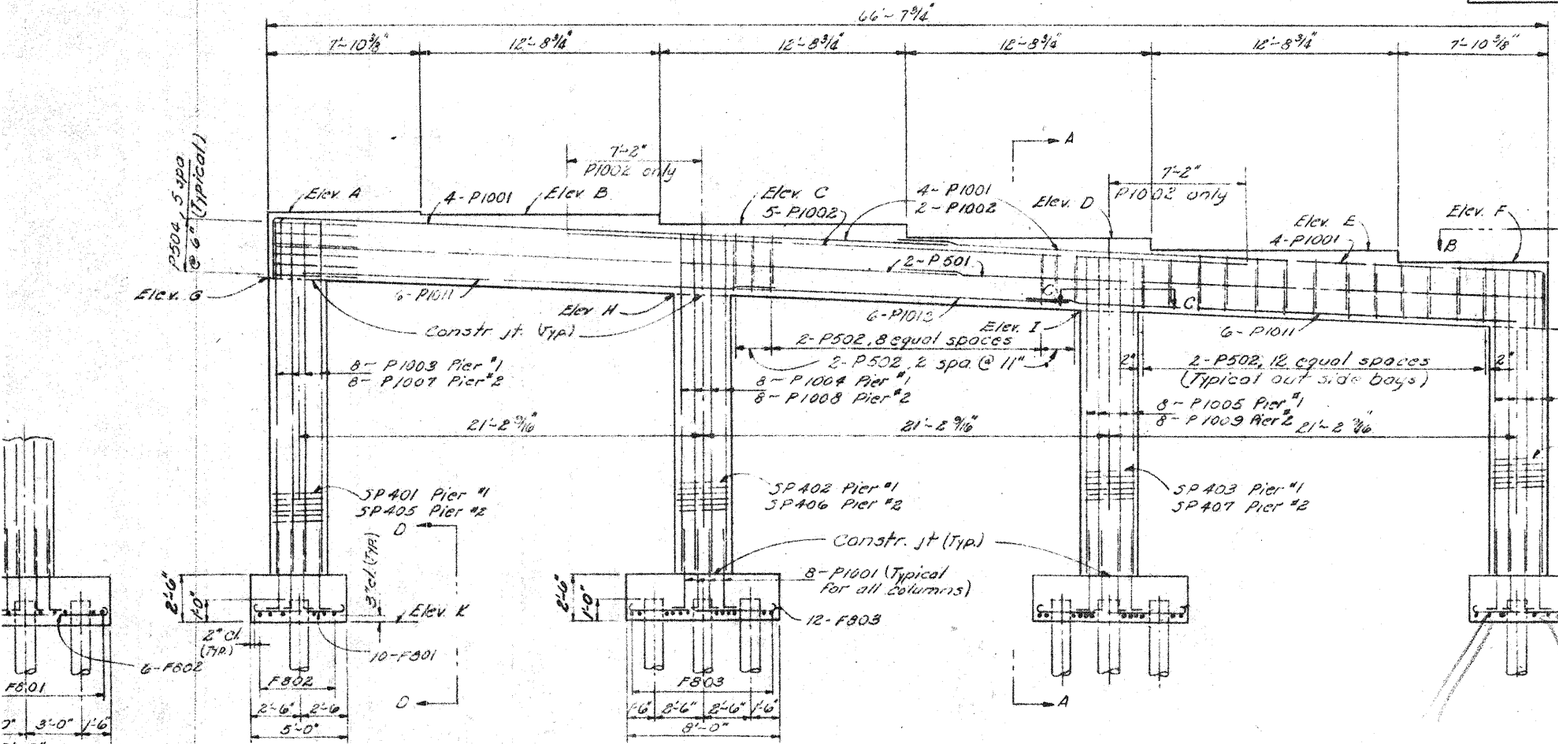



VIEW B-B

ELEVATIONS

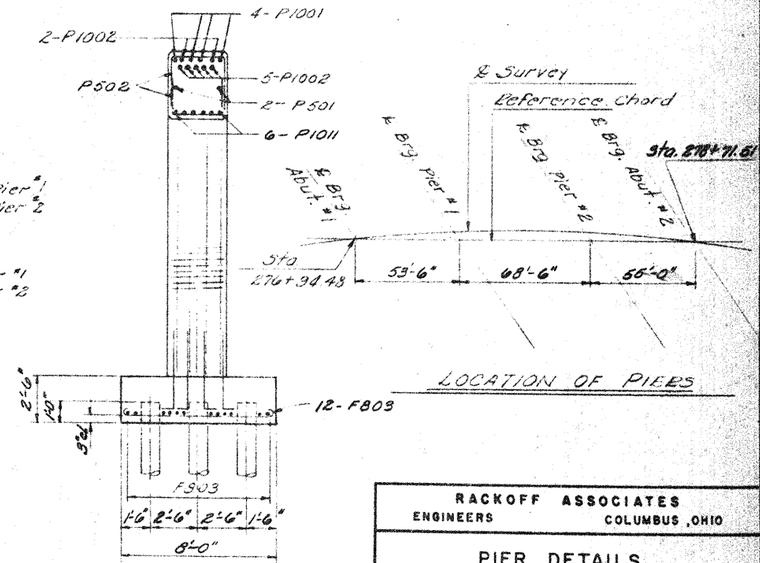
| LOCATION | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PIER #1 | 901.21 | 901.14 | 900.58 | 900.02 | 899.45 | 898.88 | 897.52 | 896.76 | 895.99 | 895.12 | 879.50 |
| PIER #2 | 899.89 | 899.80 | 899.23 | 898.65 | 898.04 | 897.48 | 896.21 | 895.39 | 894.57 | 893.75 | 877.90 |

Note: All piles are 12"ϕ Cast-in-place reinforced concrete piles.




ELEVATION

SECTION D-D




LOCATION OF PIERS

SECTION A-A

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

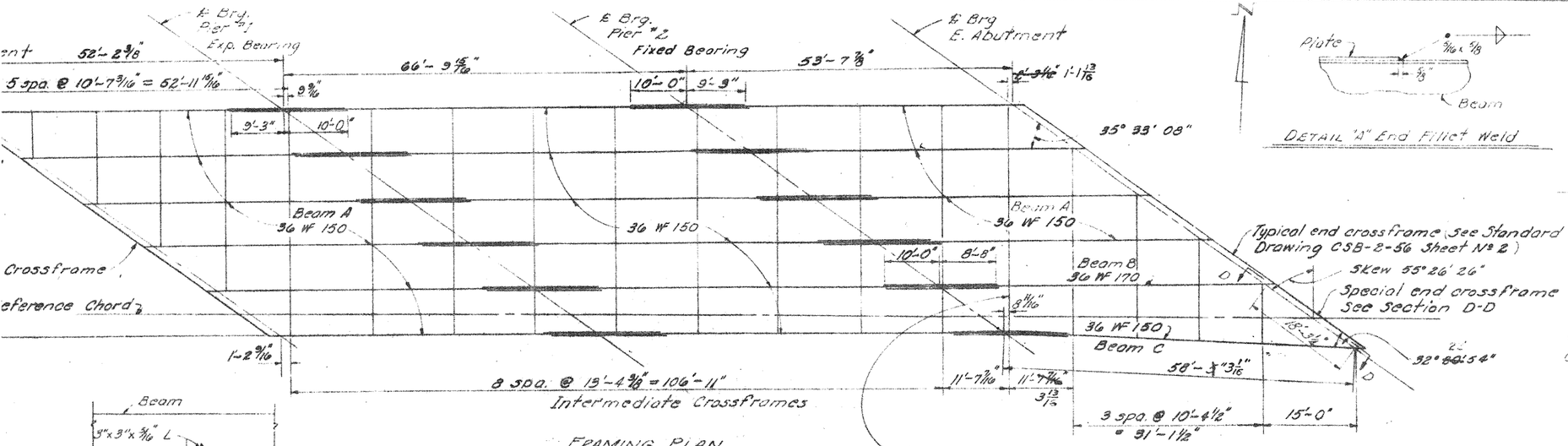
PIER DETAILS
BRIDGE NO. LIC. 16 – 1788 L
OVER EXISTING S.R. 16
LICKING COUNTY STA. 276 + 90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | E.D.A. | | R.J.W. | 666 | 9.6 60 | |

| FED. RD DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

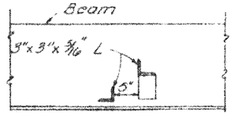
438/466

LICKING COUNTY
LIC.- 161 - 11.13
LIC.- 16 - (14.30 - 18.51)




FRAMING PLAN

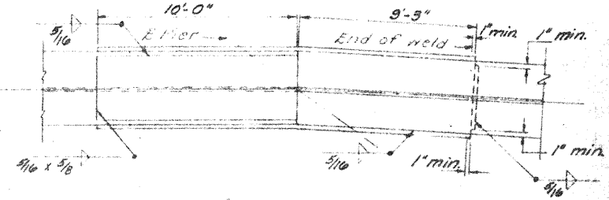
This crossframe between beams B and C to be L's 4 x 4 x 9/16 with a top chord of L 4 x 8 x 5/16. This crossframe is to be welded in position prior to lowering of ends of beams.



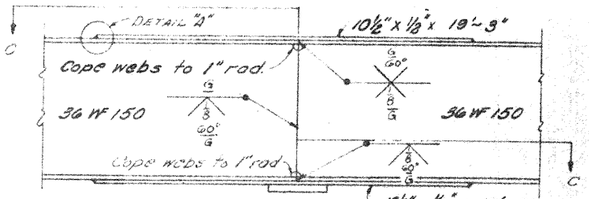

SECTION A-A



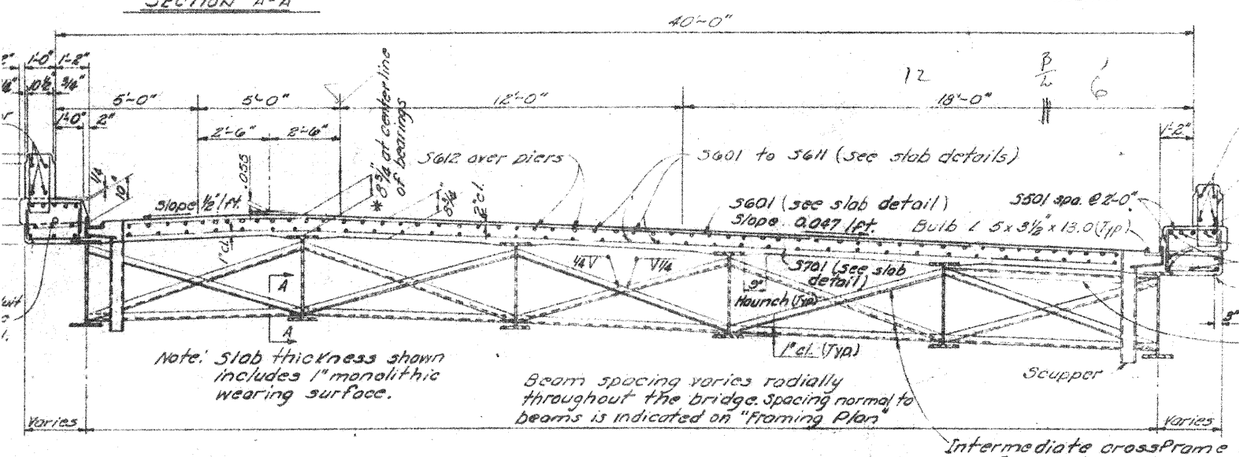

DETAIL "A" End Fillet Weld




SECTION C-C

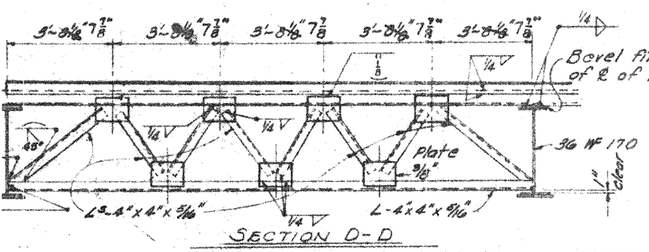



BEAM SPLICE DETAILS
BEAM C




RADIAL TRANSVERSE SECTION

Note: See sheet for transverse reinforcing steel layout




SECTION D-D

DEFLECTION AND CAMBER

| Location | Span #1 | | Span #2 | | Span #3 | | | |
|---|---|---|---|---|---|---|---|---|
| | Int. | Ext. | Int. | Ext. | Int. | Ext. | Beam B | Beam C |
| Weight of beams | 11/16 | 11/16 | 11/16 | 11/16 | 11/16 | 11/16 | 11/16 | 11/16 |
| Remaining Dead Load | 3/16 | 3/16 | 3/16 | 3/16 | 1/2 | 1/2 | 3/16 | 3/16 |
| Vertical Curve | 1/8 | 1/8 | 1/4 | 1/4 | 1/8 | 1/8 | 1/8 | 3/16 |
| Horizontal Curve | -1/16 | ± 1/16 | - 1/8 | ± 1/8 | - 1/16 | + 1/16 | - 1/16 | - 1/16 |
| Total | 5/16 | 1/16 / 3/16 | 1/2 | 3/4 / 1/2 | 3/8 | 1/2 | 5/16 | 1/2 |
| Required Shop Camber | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

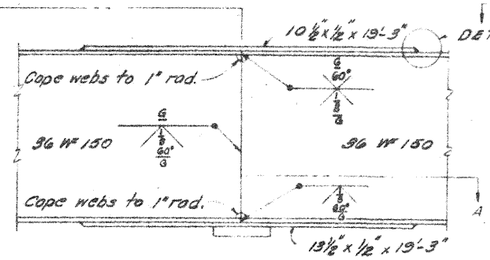
Note: Fabricate with natural camber up.
Where table shows ±, + is for left exterior beam and - is for right exterior beam.

NOTES

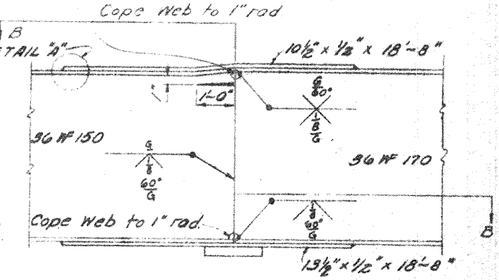
* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

Painting: After erection and after the shop coat has been cleaned and, where necessary repainted in accordance with Sec. 8.04, an additional coat of the same paint as used in the shop shall be applied over the outside face of the outside steel beams, and all sides of the bottom flange of the outside beams.

Reference shall be made to: Standard Drawing CSB-2-56 for end crossframes and dam, scupper and bulb angle details, curb plate details and bearing plates.




BEAM SPLICE DETAILS
BEAM A




BEAM SPLICE DETAILS
BEAM B

BEAM SPLICE WELDING PROCEDURE

(1) Raise the abutment end of beam A and B 1", beam C 1/4"
(2) Butt-weld the beam flanges and web using following sequence: make two passes on each flange, then two on the web; repeat using one pass at each location, until welds are completed.
(3) Weld the bottom and top moment plates.
(4) Weld four angle crossframe between beams B and C in position.
(5) Lower the beam end to the final position.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

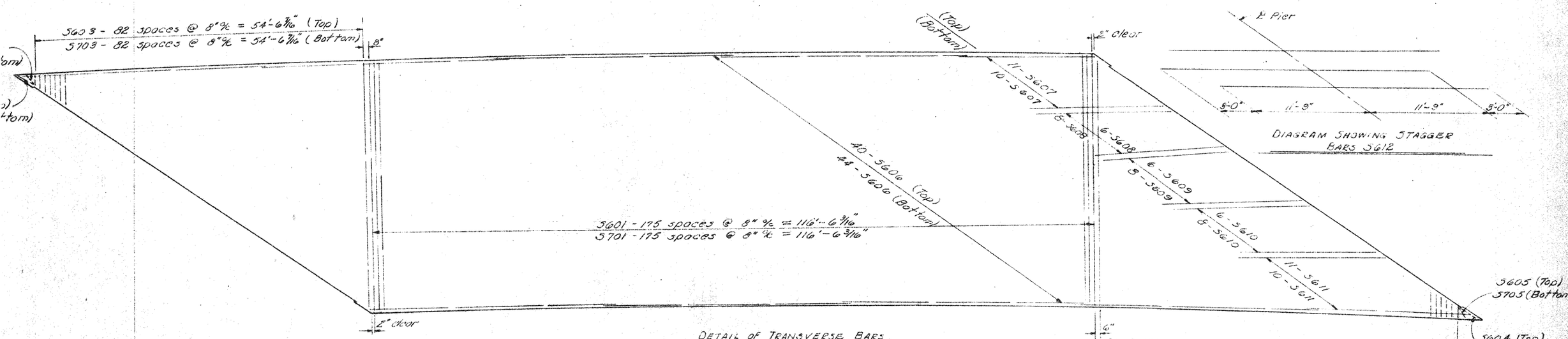
SUPERSTRUCTURE DETAILS
BRIDGE NO. LIC. 16 - 1788 L
OVER EXISTING S.R. 16
LICKING COUNTY STA. 276 + 90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | E.D.A. | | R.J.W. | 666 | 9.6 60 | 9-19-61 |

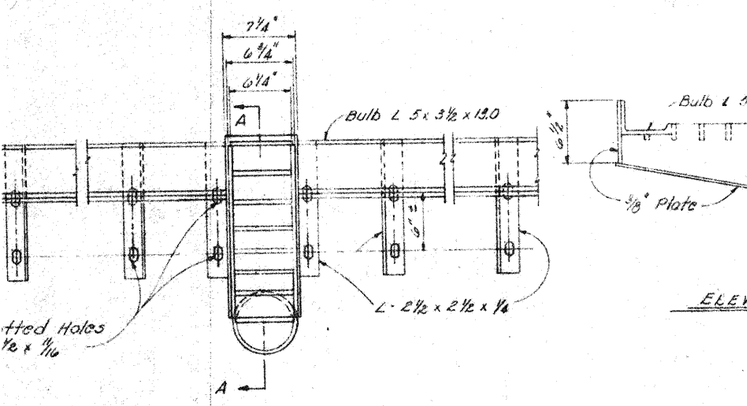
| FED. RD. DIVISION | STATE | PROJECT | TYPE FUNDS |
|---|---|---|---|
| 2 | OHIO | | |

439
466

LICKING COUNTY
LIC.- 161 - 11.13
LIC.- 16- (14.30-18.51)



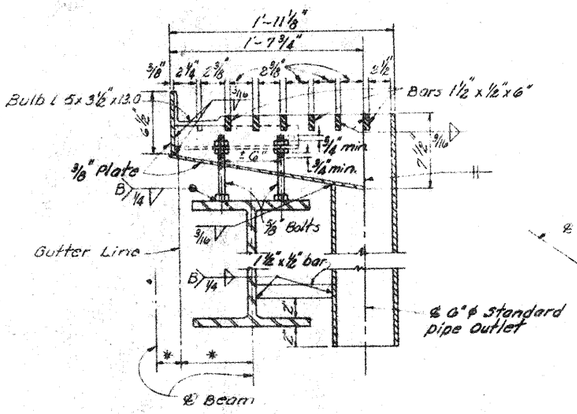

DETAIL OF TRANSVERSE BARS

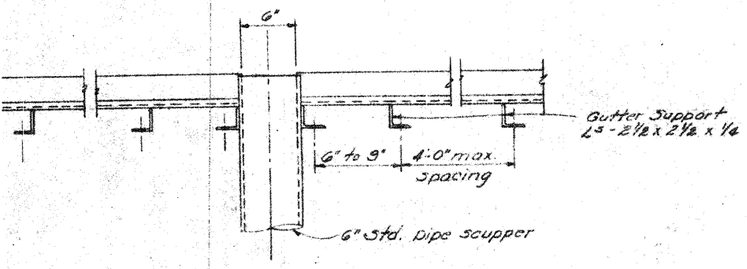



PLAN




ELEVATION

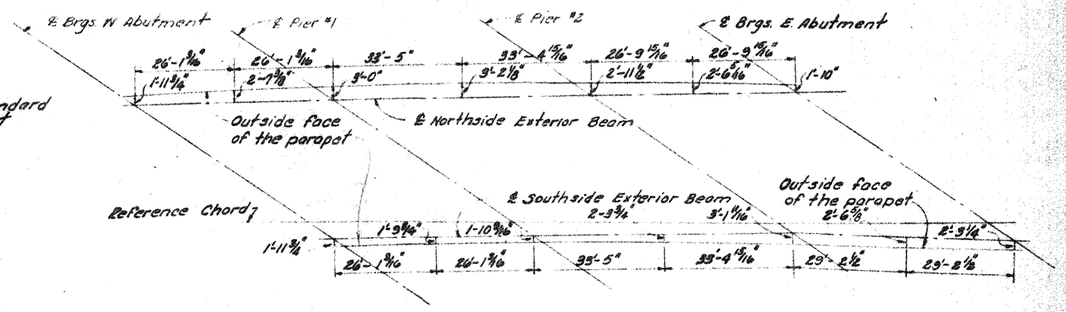



ELEVATION

Note: Gutters shall be accurately adjusted for alignment and grade, with allowance for dead load deflection, before concrete is placed. Gutters shall not be used for supporting finishing machines without strength modifications approved by the Director.

* Extreme position of ℄ beam with relation to gutter line. Length of L 2 1/2 x 2 1/2 x 1/4 shall be adjusted accordingly.




PLAN OF PARAPET OVERHANG

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

# SUPERSTRUCTURE DETAILS

BRIDGE NO. LIC. 16 - 1788 L
OVER EXISTING S.R. 16

LICKING COUNTY STA. 276 + 90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| H.A. | E.D.A. | | R.J.W. | 666 | 9-6-60 | |

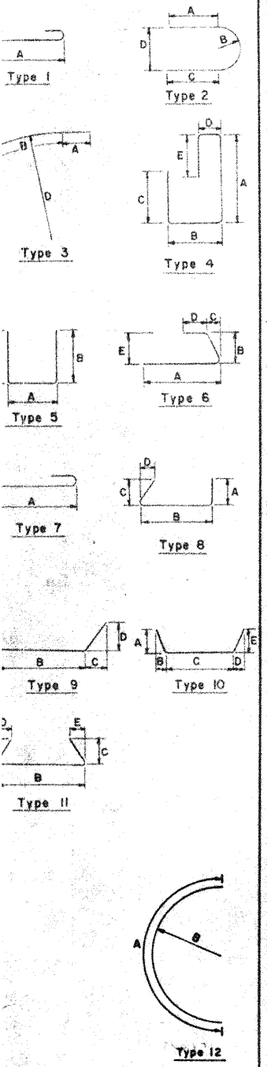
# REINFORCING STEEL LIST

| FED. RD. DIVISION | STATE | PROJECT | |
|---|---|---|---|
| 2 | OHIO | | |

440R
466

LICKING COUNTY
LIC.-161-11.13
LIC.16-(14.30-18.51)

## BENDING DIAGRAM




IN THE COLUMN FOR "TYPE"
ICATES STRAIGHT BARS.

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| **ABUTMENTS** | | | | | | | | | | |
| **EAST ABUTMENT** | | | | | | | | | | |
| F501 | 43 | 6-7 | 295 | 1 | 5-5 | | | | | |
| F502 | 124 | 5-1 | 657 | 5 | 0-8 | 4-7 | 0 | | | |
| F503 | 12 | 38-6 | 482 | S | | | | | | |
| F504 | 4 | 22-0 | 92 | S | | | | | | |
| F505 | 4 | 13-6 | 56 | S | | | | | | |
| F509 | 2 | 6-0 | 13 | S | | | | | | |
| A401 | 22 | 3-3 | 48 | 5 | 0-6 | 1-6 | 1-6 | | | |
| A501 | 10 | 9-10 | 103 | 5 | 3-5 | 3-4 | 3-4 | | | |
| A502 | 14 | 11-6 | 168 | 5 | 3-5 | 4-2 | 4-2 | | | |
| A503 | 18 | 13-10 | 260 | 5 | 3-5 | 5-4 | 5-4 | | | |
| A504 | 30 | 37-8 | 1179 | S | | | | | | |
| A505 | 22 | 8-0 | 184 | S | | | | | | |
| A506 | 10 | 10-6 | 110 | S | | | | | | |
| A507 | 4 | 8-10 | 37 | S | | | | | | |
| A508 | 2 | 6-2 | 13 | S | | | | | | |
| A509 | 12 | 3-6 | 44 | S | | | | | | |
| A510 | 6 | 11-6 | 72 | S | | | | | | |
| A511 | 4 | 13-3 | 55 | S | | | | | | |
| A512 | 4 | 21-0 | 88 | S | | | | | | |
| A513 | 4 | 25-0 | 104 | S | | | | | | |
| A514 | 32 | 4-7 | 153 | 5 | 1-4 | 1-9 | 1-9 | | | |
| A515 | 12 | 2-9 | 34 | 5 | 1-4 | 0-10 | 0-10 | | | |
| A516 | 4 | 5-0 | 21 | S | | | | | | |
| A517 | 4 | 25-0 | 104 | S | | | | | | |
| A518 | 2 | 26-2 | 55 | 3 | 15-0 | 11-2 | 0 | 72 | | |
| A519 | 4 | 13-5 | 56 | S | | | | | | |
| A520 | 2 | 11-4 | 24 | 3 | 0-2 | 11-2 | 0 | 72 | | |
| A521 | 12 | 5-0 | 62 | S | | | | | | |
| A522 | 2 | 7-0 | 15 | S | | | | | | |
| A523 | 2 | 18-6 | 39 | S | | | | | | |
| A524 | 30 | 4-11 | 154 | 5 | 2-0 | 1-7 | 1-7 | | | |
| A538 | 7 | 6-0 | 44 | S | | | | | | |
| A601 | 80 | 10-10 | 1307 | 4 | 4-3 | 1-5 | 2-11 | 0-11 | 1-11 | |
| **WEST ABUTMENT** | | | | | | | | | | |
| F501 | 37 | 6-7 | 254 | 1 | 5-5 | | | | | |
| F502 | 106 | 5-1 | 562 | 5 | 0-8 | 4-7 | | | | |
| F506 | 12 | 35-5 | 443 | S | | | | | | |
| F507 | 4 | 19-8 | 82 | S | | | | | | |
| F508 | 4 | 12-8 | 53 | S | | | | | | |
| F509 | 2 | 6-0 | 13 | S | | | | | | |
| A401 | 22 | 3-3 | 48 | 5 | 0-6 | 1-6 | 1-6 | | | |
| A509 | 14 | 3-6 | 51 | S | | | | | | |
| A514 | 30 | 4-7 | 143 | 5 | 1-4 | 1-9 | 1-9 | | | |
| A515 | 12 | 2-9 | 34 | 5 | 1-4 | 0-10 | 0-10 | | | |
| A516 | 4 | 5-0 | 21 | S | | | | | | |
| A521 | 10 | 5-0 | 52 | S | | | | | | |
| A524 | 30 | 4-11 | 154 | 5 | 2-0 | 1-7 | 1-7 | | | |
| A525 | 16 | 13-6 | 225 | 5 | 3-5 | 5-2 | 5-2 | | | |
| A526 | 15 | 11-0 | 172 | 5 | 3-5 | 3-11 | 3-11 | | | |
| A527 | 7 | 10-0 | 73 | 5 | 3-5 | 3-5 | 3-5 | | | |
| A528 | 30 | 34-2 | 1069 | S | | | | | | |
| A529 | 18 | 10-4 | 194 | S | | | | | | |
| A530 | 10 | 8-3 | 86 | S | | | | | | |
| A531 | 4 | 6-9 | 28 | S | | | | | | |
| A532 | 2 | 9-0 | 19 | S | | | | | | |
| A533 | 6 | 18-1 | 113 | S | | | | | | |
| A534 | 2 | 16-3 | 34 | S | | | | | | |
| A535 | 8 | 23-7 | 197 | S | | | | | | |
| A536 | 6 | 10-8 | 67 | S | | | | | | |
| A537 | 8 | 13-8 | 114 | S | | | | | | |
| A538 | 7 | 6-0 | 44 | S | | | | | | |
| A539 | 2 | 24-7 | 51 | 3 | 13-5 | 11-2 | 0 | 72 | | |
| A540 | 2 | 12-2 | 25 | 3 | 1-0 | 11-2 | 0 | 72 | | |
| A601 | 74 | 10-10 | 1204 | 4 | 4-3 | 1-5 | 2-11 | 0-11 | 1-11 | |
| | | TOTAL | 11,748 | | | | | | | |
| R408 | 4 | 23-3 | | } INCLUDED WITH RAILING FOR PAYMENT | | | | | | |
| R409 | 4 | 13-4 | | | | | | | | |
| R410 | 4 | 12-10 | | | | | | | | |
| R411 | 4 | 24-8 | | | | | | | | |

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| **PIERS** | | | | | | | | | | |
| F801 | 40 | 6-10 | 730 | 1 | 4-8 | | | | | |
| F802 | 24 | 10-10 | 694 | 1 | 8-8 | | | | | |
| F803 | 96 | 9-10 | 2520 | 1 | 9-10 | | | | | |
| F1001 | 64 | 6-8 | 1836 | 5 | 1-5 | 5-7 | | | | |
| P501 | 8 | 33-10 | 282 | S | | | | | | |
| P502 | 156 | 7-7 | 1234 | 5 | 2-8 | 2-7 | 2-7 | | | |
| P503 | 32 | 4-7 | 153 | 5 | 2-8 | 1-1 | 1-1 | | | |
| P504 | 24 | 7-4 | 184 | 2 | 1-7 | 1-4 | 1-7 | 2-8 | | |
| P1001 | 16 | 37-9 | 2599 | 5 | 3-0 | 35-0 | 0 | | | |
| P1002 | 18 | 35-6 | 2139 | S | | | | | | |
| P1003 | 8 | 18-9 | 645 | S | | | | | | |
| P1004 | 8 | 18-1 | 622 | S | | | | | | |
| P1005 | 8 | 17-6 | 602 | S | | | | | | |
| P1006 | 8 | 16-5 | 565 | S | | | | | | |
| P1007 | 8 | 19-1 | 657 | S | | | | | | |
| P1008 | 8 | 18-4 | 631 | S | | | | | | |
| P1009 | 8 | 17-11 | 617 | S | | | | | | |
| P1010 | 8 | 16-8 | 574 | S | | | | | | |
| P1011 | 24 | 26-0 | 2685 | S | | | | | | |
| P1012 | 12 | 18-2 | 938 | S | | | | | | |
| | | TOTAL | 20,907 | | | | | | | |

| MARK | NO. | LENGTH | WEIGHT | TYPE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|
| **SUPERSTRUCTURE** | | | | | | | | | | |
| S401 | 196 | 4-3 | 556 | 5 | 0-6 | 2-0 | 2-0 | | | |
| S501 | 392 | 3-9 | 1534 | 5 | 1-8 | 1-2 | 1-2 | | | |
| S601 | 176 | 41-8 | 11015 | S | | | | | | |
| S602 | 121 | | 3943 | S | Length 41-3½ to 2-1¼ changing 4⅛ per bar | | | | | |
| S603 | 83 | | 2770 | S | Length 41-5¼ to 3-0 changing 5⅝ per bar | | | | | |
| S604 | 2 | 3-10 | 12 | S | | | | | | |
| S605 | 2 | 3-0 | 9 | S | | | | | | |
| S606 | 336 | 40-0 | 20187 | S | | | | | | |
| S607 | 21 | 22-10 | 720 | S | | | | | | |
| S608 | 14 | 23-9 | 499 | S | | | | | | |
| S609 | 14 | 24-8 | 519 | S | | | | | | |
| S610 | 14 | 25-7 | 538 | S | | | | | | |
| S611 | 21 | 26-11 | 844 | S | | | | | | |
| S612 | 62 | 26-6 | 2468 | S | | | | | | |
| S701 | 176 | 41-8 | 14989 | S | | | | | | |
| S702 | 121 | | 5366 | S | Length 41-3½ to 2-1¼ changing 4⅛ per bar | | | | | |
| S703 | 83 | | 3769 | S | Length 41-5¼ to 3-0 changing 5⅝ per bar | | | | | |
| S704 | 2 | 3-10 | 16 | S | | | | | | |
| S705 | 2 | 3-0 | 12 | S | | | | | | |
| | | TOTAL | 69,766 | | | | | | | |
| R401 | 28 | 16-1 | | S | } INCLUDED WITH RAILING FOR PAYMENT | | | | | |
| R402 | 16 | 7-10 | | S | | | | | | |
| R403 | 8 | 13-0 | | S | | | | | | |
| R404 | 28 | 16-7 | | S | | | | | | |
| R405 | 16 | 8-1 | | S | | | | | | |
| R406 | 8 | 13-4 | | S | | | | | | |
| **REPLACEMENT BARS** | | | | | | | | | | |
| RE1001 | 1 | 7-3 | | S | | | | | | |
| RE801 | 1 | 6-6 | | S | | | | | | |
| RE701 | 2 | 6-3 | | S | | | | | | |
| RE601 | 3 | 5-11 | | S | | | | | | |
| RE501 | 1 | 5-7 | | S | | | | | | |
| RE401 | 1 | 5-3 | | S | | | | | | |
| RE402 | 1 | 5-3 | | 12 | 5-3 | 1-4 | | | | |

## SPIRAL REINFORCEMENT

| MARK | NO. | LENGTH | CORE | PITCH | TURNS | SPACERS | WEIGHT |
|---|---|---|---|---|---|---|---|
| SP401 | 1 | 15.52 | 32 | 4½ | 44 | 4 | 284 |
| SP402 | 1 | 14.76 | 32 | 4½ | 42 | 4 | 271 |
| SP403 | 1 | 14.00 | 32 | 4½ | 40 | 4 | 258 |
| SP404 | 1 | 13.12 | 32 | 4½ | 38 | 4 | 245 |
| SP405 | 1 | 15.91 | 32 | 4½ | 45 | 4 | 291 |
| SP406 | 1 | 15.09 | 32 | 4½ | 43 | 4 | 278 |
| SP407 | 1 | 14.27 | 32 | 4½ | 41 | 4 | 264 |
| SP408 | 1 | 13.45 | 32 | 4½ | 39 | 4 | 252 |
| | | | | | | TOTAL | 2143 |

## NOTES

BAR SIZE is indicated in bar mark. The first digit where three digits are used, and the first two where four are used indicate the bar size number.

REPLACEMENT BARS; If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. S-4.02 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING BARS; The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "No. of Turns" shown is the "Length" divided by the pitch, plus three turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to item S-4. 1½ closed coils shall be provided at the ends of each spiral unit. Four or three steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

*This sheet supersedes sheet 440.*
*3-9-62*

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

REINFORCING STEEL LIST
BRIDGE NO. LIC. 16-1788 L
OVER EXISTING SR. 16
LICKING COUNTY STA. 276+90.51

| Designed | Drawn | Traced | Checked | Reviewed | Date | Revised |
|---|---|---|---|---|---|---|
| | E.D.A. | | RAK | 666 | 2-13-62 | |

## GENERAL INFORMATION

### INTRODUCTION

The project consists of a major relocation of SR 16 and 161 (Granville by-pass), beginning on existing SR 161, approximately 1 mile west of Granville and extending eastward for approximately 1.71 miles, terminating approximately 900 feet east of existing SR 16.

The proposed grade indicates the following:

SR 16 and 161 - fill embankment, ranging from 0 to as much as 22 feet in height.

Existing SR 16 - fill embankment, ranging between 0 and 19 feet in height.

Ramp "A" - fill embankment, on the order of 10 to 13 feet in height.

Ramp "B" - fill embankment, as much as 17 feet in height.

Ramp "C" - fill embankment, from 4 to 18 feet in height.

Ramp "D" - cut ranging between 0 and 8 feet deep; fill embankment ranging between 0 and 14 feet in height.

Twp. Rd. No. 131 Relocation - cut, 4 feet in depth, and fill embankment as high as 12 feet.

### GEOLOGY OF THE SITE

The project is located almost entirely within the limits of an old, deeply filled valley of Deep Stage age, presently being incised by Raccoon Creek and partly on the lower portion of the south valley wall. Local bedrock, comprised of shale and sandstone bedrock, of Mississippian age, is overlain by thick valley fill (on the order of 100 feet thick) which in turn is overlain by thin alluvium.

### EXPLORATION

Exploratory borings were made by means of truck mounted mechanical earth auger and hand auger (in areas of difficult access), between May 16 and June 7, 1960.

### INVESTIGATIONAL FINDINGS

SR 16 and 161 - embankment foundation materials consist largely of wet, somewhat compressible silts, in the A-4a and A-4b classifications, and gravels, in the A-1-a and A-1-b classifications, as deep as 30 feet. Between approximately stations 4+50 and 6+50, left of centerline, and 9+00 and 13+00, right of centerline, peats were encountered at ground surface to a depth of as much as 10 feet and, for the most part, underlain by organic silts and clays.

Existing SR 16 - embankment foundation materials and materials occurring immediately below proposed grade are comprised of sandy silt, sand and gravel, in the A-4a, A-1-b, and A-2-4 classifications. It is noted that wet, slightly organic silt was encountered at station 750+60, at a depth of 17 to at least 30 feet.

Ramp "A" - embankment foundation materials are comprised predominantly of silts, in the A-4a and A-4b classifications, underlain by gravel and sand. It is noted that wet silt was encountered between stations 80+40 and 87+10, to a depth of as much as 27 feet.

Ramp "B" - embankment foundation materials are composed predominantly of wet sandy silts, in the A-4a classification, somewhat compressible.

Ramp "C" - embankment foundation materials are comprised of unstratified intervals of silts, sandy silts, and gravels, to some extent with high moisture contents and compressible.

Ramp "D" - materials occurring immediately below proposed grade are comprised of gravel and silt, in the A-1-a and A-4b classifications; embankment foundation materials are comprised of similar material, gravels and silts, in the A-1-b and A-4a classifications.

Twp. Rd. No. 131 Relocation - materials occurring immediately below proposed grade and in the embankment foundation are comprised of gravels and silts, in the A-1-a, A-1-b, and A-4 classifications.

## LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 601 SAMPLES TESTED

| DESCRIPTION | H. R. B. CLASS | OHIO CLASS | % AGG. | % C. SAND | % F. SAND | % SILT | % CLAY | LIQUID LIMIT | PLASTICITY INDEX | WATER CONTENT | SAMPLES TESTED |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gravel and/or stone fragments | A-1-a(0) | A-1-a | 69 | 15 | 7 | 5 | 4 | 25 | 0 | 14 | 82 |
| Gravel and/or stone fragments with sand | A-1-b(0) | A-1-b | 48 | 23 | 13 | 10 | 6 | 17 | 1 | 16 | 60 |
| Fine sand | A-3 (0) | A-3 | 13 | 27 | 51 | - 9 - | | NP | NP | 21 | 4 |
| Coarse and fine sand | —— | A-3a | 5 | 17 | 53 | 15 | 10 | NP | NP | 23 | 30 |
| Gravel and/or stone fragments with sand and silt | A-2-4(0) | A-2-4 | 45 | 16 | 13 | 16 | 10 | 27 | 5 | 17 | 32 |
| Gravel and/or stone fragments with sand, silt, and clay | A-2-7(0) | A-2-7 | 42 | 19 | 14 | 12 | 13 | 54 | 16 | 34 | 13 |
| Sandy silt | A-4 (4) | A-4a | 10 | 7 | 28 | 35 | 20 | 25 | 2 | 23 | 107 |
| Silt | A-4 (8) | A-4b | 1 | 1 | 7 | 62 | 29 | 28 | 2 | 26 | 172 |
| Elastic silt and clay with organic material | A-5 (5) | A-5 | 7 | 13 | 29 | 39 | 12 | 70 | 3 | 54 | 2 |
| Silt and clay | A-6 (9) | A-6a | 10 | 4 | 8 | 42 | 36 | 34 | 13 | 27 | 29 |
| Silty clay | A-6 (11) | A-6b | 3 | 5 | 4 | 45 | 43 | 37 | 17 | 27 | 9 |
| Elastic clay | A-7-5(20) | A-7-5 | 1 | 4 | 11 | 49 | 35 | 87 | 32 | 71 | 12 |
| Clay | A-7-6(15) | A-7-6 | 2 | 1 | 4 | 45 | 48 | 47 | 23 | 34 | 31 |
| Compact peat | | | VISUAL CLASSIFICATION | | | | | | | | 6 |
| Compact fibrous peat | | | VISUAL CLASSIFICATION | | | | | | | | 1 |
| Woody fibrous peat | | | VISUAL CLASSIFICATION | | | | | | | | 1 |
| Fibrous peat | | | VISUAL CLASSIFICATION | | | | | | | | 3 |
| Silty sedimentary peat | | | VISUAL CLASSIFICATION | | | | | | | | 2 |
| Unclassified material | | | | | | | | | | | 5 |

Auger boring - plan view.

Auger boring plotted to vertical scale only.

Sod and/or Topsoil =X'=Approximate depth.

Berm material

NOTE: Small vertical figures beside borings indicate loss on ignition. e.g.15%. ● Water content nearly equal to or greater than liquid limit.

NOTE: Figures beside borings indicate water content in percent. e.g.15. ⊖ Indicates a non-plastic material with high water content.

—W Free water.

Samples Tested
Lab. Nos.So.
56996-57038 incl.
57398-57442 incl.
58199-58228 incl.
58233-58362 incl.
59403-59425 incl.
59426-59460 incl.
59507-59560 incl.
59806-60012 incl.

# SOIL PROFILE

LICKING COUNTY

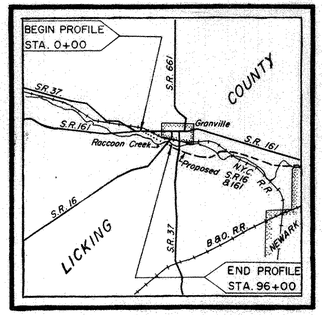
LIC-16&161-(14.30-18.51)&(11.13)

1/36

**Part I** OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.




LOCATION MAP

*Recon — I.M. — 5/13/60*
*Drilling — C.E.G., J.R.G., B.D.L. — 5/16/60 — 6/7/60*
*Drafting — R.A.W. - 7-6-60*

SOIL PROFILE
LICKING COUNTY
LIC-168 16I-(14.30-18.51)8(11.13)
Part I OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

2/36

# SUMMARY OF SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

S. R. 16 & 161

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0+00 | 15'Rt | 0.5-3.0 | 18 | 6 | 11 | 23 | 42 | 36 | 12 | 30 | A-6a * |
| | | 3.0-5.5 | 0 | 1 | 12 | 57 | 30 | 26 | 9 | 22 | A-4b |
| | | 5.5-8.0 | 36 | 15 | 12 | 13 | 24 | 35 | 13 | 24 | A-6a |
| | | 8.0-11.5 | 47 | 15 | 8 | 12 | 18 | 39 | 20 | 28 | A-2-6 |
| | | 11.5-15.0 | 58 | 22 | 4 | 9 | 7 | 28 | 6 | 19 | A-1-b |
| 3+00 | 15'Rt | 0.5-2.5 | 29 | 14 | 15 | 27 | 15 | NP | NP | 8 | A-1a * |
| | | 2.5-7.5 | 32 | 18 | 13 | 17 | 20 | 25 | 7 | 16 | A-1a |
| | | 7.5-11.0 | 48 | 15 | 10 | 13 | 14 | 33 | 16 | 26 | A-2-6 |
| | | 11.0-16.0 | 43 | 20 | 11 | 18 | 8 | NP | NP | 16 | A-2-4 |
| | | 16.0-21.0 | 49 | 20 | 10 | 15 | 6 | NP | NP | 17 | A-1-b |
| 4+25 | 80'Lt | 1.0-2.0 | 0 | 1 | 4 | 49 | 46 | 50 | 17 | 53 | A-7-5 |
| | | 2.0-6.0 | Dark Brown Compact Peat | | | | | | | 110 | Visual |
| | | 6.0-6.5 | 0 | 7 | 19 | 49 | 25 | NP | NP | 56 | A-4a |
| | | 6.5-8.5 | Dark Brown Compact Peat | | | | | | | 116 | Visual |
| | | 8.5-9.0 | 0 | 1 | 7 | 60 | 32 | NP | NP | 29 | A-4b |
| | | 9.0-10.0 | 42 | 6 | 8 | 32 | 12 | NP | NP | 20 | A-4a |
| 4+25 | 40'Lt | 1.0-3.5 | 0 | 3 | 8 | 50 | 39 | NP | NP | 62 | A-4b |
| | | 3.5-4.5 | 0 | 2 | 4 | 53 | 41 | 87 | 45 | 62 | A-7-5 |
| | | 4.5-5.0 | 77 | 2 | 5 | 7 | 9 | NP | NP | 39 | A-1-a |
| 4+75 | 42'Lt | 1.0-3.0 | 0 | 0 | 1 | 45 | 54 | 44 | 20 | 33 | A-7-6 |
| | | 3.0-4.0 | 42 | 5 | 10 | 22 | 21 | 35 | 15 | 34 | A-6a |
| 5+20 | 100'Lt | 0.0-2.0 | 0 | 0 | 4 | 51 | 45 | 50 | 13 | 45 | A-7-5 |
| | | 2.0-6.0 | 0 | 1 | 1 | 47 | 51 | 42 | 16 | 37 | A-7-6 |
| | | 6.0-7.0 | 0 | 3 | 8 | 54 | 35 | 63 | 41 | 38 | A-7-5 |
| | | 7.0-8.0 | 66 | 5 | 4 | 15 | 10 | 32 | 9 | 27 | A-2-4 |
| 5+20 | 75'Lt | 0.0-2.5 | 0 | 1 | 5 | 51 | 43 | 48 | 12 | 51 | A-7-5 |
| | | 2.5-4.0 | Dark Brown to Black Compact Fibrous Peat | | | | | | | 121 | Visual |
| | | 4.0-6.0 | Gravel | | | | | | | 38 | Visual |
| 5+20 | 50'Lt | 1.0-4.0 | Dark Brown Fibrous Peat | | | | | 305 | — | 222 | Visual |
| | | 4.0-6.0 | 57 | 12 | 11 | 11 | 9 | NP | NP | 24 | A-1-b |
| 5+20 | 7'Rt | 0.5-3.5 | 50 | 21 | 8 | 9 | 12 | 24 | 6 | 12 | A-1-b * |
| | | 3.5-8.0 | 56 | 22 | 10 | 6 | 6 | NP | NP | 13 | A-1-a |
| | | 8.0-9.0 | 0 | 8 | 9 | 69 | 14 | 54 | 9 | 37 | A-5 |
| | | 9.0-10.0 | Black Compact Peat | | | | | | | 65 | Visual |
| | | 10.0-12.0 | Black Compact Peat, Gravel Mixture | | | | | | | 24 | Visual |
| | | 12.0-15.0 | 59 | 16 | 10 | 9 | 6 | 25 | 8 | 20 | A-2-4 |
| | | 15.0-20.0 | 58 | 16 | 10 | 9 | 7 | NP | NP | 17 | A-1-b |
| 5+20 | 42'Rt | 0.5-2.5 | 46 | 23 | 10 | 9 | 9 | NP | NP | 10 | A-1-b |
| | | 2.5-5.0 | 34 | 20 | 20 | 20 | 6 | NP | NP | 10 | A-2-4 |
| | | 5.0-7.0 | 30 | 14 | 16 | 30 | 10 | NP | NP | 17 | A-4a |
| | | 7.0-9.5 | 26 | 17 | 20 | 24 | 13 | NP | NP | 29 | A-4a |
| | | 9.5-10.5 | Black Compact Peat, Gravel Mixture | | | | | | | 36 | Visual |
| | | 10.5-15.0 | 48 | 27 | 11 | 10 | 4 | NP | NP | 16 | A-1-b |
| | | 15.0-20.0 | 64 | 17 | 5 | 10 | 4 | NP | NP | 16 | A-1-a |
| 5+35 | 68'Rt | 0.0-2.0 | Black Compact Peat, Gravel Mixture | | | | | | | 93 | Visual |
| | | 2.0-7.0 | 74 | 15 | 4 | - 7 - | | NP | NP | 14 | A-1-a |
| | | 7.0-12.0 | 67 | 7 | 2 | - 4 - | | NP | NP | 17 | A-1-a |
| | | 12.0-15.0 | 67 | 19 | 6 | - 8 - | | NP | NP | 11 | A-1-a |
| 5+45 | 32'Lt | 0.0-3.0 | 0 | 1 | 3 | 47 | 49 | 42 | 20 | 31 | A-7-6 |
| | | 3.0-4.0 | 24 | 18 | 16 | 25 | 17 | 30 | 8 | 27 | A-4a |
| | | 4.0-8.0 | 63 | 13 | 8 | 8 | 8 | 39 | 14 | 18 | A-1-b |
| | | 8.0-12.0 | 61 | 23 | 10 | - 6 - | | NP | NP | 15 | A-1-a |
| | | 12.0-15.0 | 74 | 21 | 3 | - 2 - | | NP | NP | 12 | A-1-a |
| 5+88 | 40'Lt | 0.0-1.0 | 27 | 1 | 3 | 34 | 35 | 42 | 15 | 46 | A-7-6 |
| | | 1.0-3.0 | 0 | 1 | 4 | 51 | 44 | 42 | 23 | 41 | A-7-6 |
| | | 3.0-7.0 | 42 | 8 | 13 | 12 | 25 | NP | NP | 28 | A-4a |
| | | 7.0-12.0 | 50 | 28 | 13 | - 9 - | | NP | NP | 16 | A-1-a |
| | | 12.0-15.0 | 69 | 20 | 6 | - 5 - | | NP | NP | 14 | A-1-a |
| 6+12 | 90'Lt | 1.0-3.0 | Dark Brown Compact Peat | | | | | | | 94 | Visual |
| | | 3.0-4.0 | Dark Brown Compact Peat | | | | | | | 80 | Visual |
| | | 4.0-7.0 | Dark Brown Compact Peat | | | | | | | 131 | Visual |
| | | 7.0-9.0 | 0 | 0 | 7 | 66 | 27 | 54 | 20 | 34 | A-7-6 |
| | | 9.0-10.0 | 58 | 6 | 8 | 22 | 6 | NP | NP | 17 | A-2-4 |
| 6+45 | 45'Lt | 1.0-3.0 | 24 | 0 | 3 | 30 | 43 | 50 | 23 | 45 | A-7-6 |
| | | 3.0-6.0 | 0 | 1 | 3 | 48 | 48 | 45 | 22 | 37 | A-7-6 |
| | | 6.0-9.0 | 0 | 1 | 1 | 65 | 33 | NP | NP | 28 | A-4b |
| | | 9.0-14.0 | 62 | 4 | 2 | - 2 - | | NP | NP | 15 | A-1-a |
| | | 14.0-20.0 | 62 | 22 | 9 | - 7 - | | NP | NP | 15 | A-1-a |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9+00 | CL | 0.5-2.5 | 46 | 18 | 9 | 16 | 11 | NP | NP | 10 | A-2-4 # |
| | | 2.5-6.0 | 50 | 14 | 11 | 11 | 14 | 27 | 11 | 12 | A-2-6 |
| | | 6.0-7.0 | 40 | 18 | 11 | 15 | 16 | 26 | 6 | 12 | A-2-4 |
| | | 7.0-8.0 | 57 | 24 | 10 | - 9 - | | NP | NP | 8 | A-1-a |
| | | 8.0-10.5 | 0 | 3 | 6 | 47 | 44 | 82 | 21 | 34 | A-7-5 |
| | | 10.5-13.5 | 0 | 2 | 5 | 46 | 47 | 36 | 14 | 29 | A-6a |
| | | 13.5-19.0 | 0 | 2 | 18 | 53 | 27 | NP | NP | 36 | A-4b |
| | | 19.0-22.0 | 19 | 4 | 17 | 39 | 21 | 25 | 5 | 20 | A-4a |
| 9+00 | 60'Rt | 0.0-3.0 | Brown Fibrous Peat | | | | | | | 103 | Visual |
| | | 3.0-8.0 | 77 | 9 | 3 | 8 | 3 | NP | NP | 18 | A-1-a |
| | | 8.0-13.0 | 68 | 21 | 8 | - 9 - | | NP | NP | 13 | A-1-a |
| | | 13.0-15.0 | 68 | 21 | 7 | - 4 - | | NP | NP | 12 | A-1-a |
| 9+35 | 41'Rt | 0.0-2.0 | Brown to dark Silty Sedimentary Peat | | | | | 238 | 75 | 182 | Visual |
| | | 2.0-5.0 | 0 | 1 | 15 | 59 | 25 | 69 | 23 | 46 | A-7-5 |
| | | 5.0-8.0 | 0 | 5 | 19 | 58 | 18 | 86 | 46 | 79 | A-7-5 |
| | | 8.0-11.0 | 72 | 9 | 11 | - 9 - | | NP | NP | 17 | A-1-a |
| | | 11.0-15.0 | 69 | 19 | 6 | - 6 - | | NP | NP | 15 | A-1-a |
| 10+00 | 50'Rt | 0.0-2.0 | 0 | 1 | 7 | 43 | 49 | 44 | 19 | 56 | A-7-6 |
| | | 2.0-4.0 | 0 | 0 | 4 | 53 | 43 | 37 | 13 | 35 | A-6a |
| | | 4.0-9.0 | 0 | 12 | 42 | 8 | 38 | NP | NP | 16 | A-4a |
| | | 9.0-10.0 | 0 | 21 | 11 | 3 | 65 | NP | NP | 27 | A-4a |
| 10+00 | 100'Rt | 0.0-5.0 | Dark Brown Fibrous Silty Peat | | | | | 257 | 76 | 205 | Visual |
| | | 5.0-10.0 | 0 | 4 | 38 | 26 | 32 | NP | NP | 53 | A-4a |
| 10+50 | 125'Lt | 1.0-3.0 | 0 | 0 | 2 | 53 | 45 | 36 | 11 | 28 | A-6a |
| | | 3.0-6.0 | 0 | 0 | 4 | 80 | 16 | 46 | 16 | 27 | A-6b |
| | | 6.0-9.0 | 0 | 3 | 12 | 53 | 32 | 36 | 16 | 40 | A-6b |
| | | 9.0-11.0 | 11 | 25 | 29 | 22 | 13 | NP | NP | 27 | A-3a |
| | | 11.0-13.0 | 0 | 1 | 33 | 46 | 20 | NP | NP | 36 | A-4a |
| | | 13.0-15.0 | 63 | 18 | 8 | - 11 - | | NP | NP | 15 | A-1-a |
| | | 15.0-17.0 | 0 | 2 | 18 | 56 | 24 | NP | NP | 26 | A-4b |
| | | 17.0-22.0 | 0 | 0 | 1 | 57 | 42 | 28 | 7 | 21 | A-4b |
| | | 22.0-27.0 | 0 | 0 | 1 | 62 | 37 | NP | NP | 33 | A-4b |
| | | 27.0-30.0 | 0 | 0 | 1 | 60 | 39 | 29 | 9 | 32 | A-4b |
| 10+50 | 65'Lt | 0 0-5.0 | 46 | 20 | 8 | 13 | 11 | 25 | 5 | 13 | A-1-b |
| | | 5.0-10.0 | 58 | 17 | 7 | 8 | 9 | 23 | 3 | 14 | A-1-a |
| | | 10.0-13.0 | 0 | 1 | 9 | 47 | 43 | 37 | 14 | 28 | A-6a |
| | | 13.0-15.0 | 0 | 1 | 21 | 55 | 23 | 25 | 2 | 27 | A-4b |
| | | 15.0-18.0 | 50 | 22 | 12 | 7 | 9 | NP | NP | 18 | A-1-b |
| | | 18.0-22.0 | 57 | 20 | 10 | 10 | 3 | NP | NP | 14 | A-1-b |
| | | 22.0-27.0 | 0 | 1 | 2 | 70 | 27 | NP | NP | 22 | A-4b |
| | | 27.0-30.0 | 0 | 1 | 1 | 65 | 33 | NP | NP | 33 | A-4b |
| 10+50 | CL | 0.0-3.0 | 47 | 19 | 9 | 12 | 13 | 29 | 13 | 11 | A-2-6 |
| | | 3.0-4.5 | 28 | 12 | 7 | 26 | 27 | 38 | 14 | 27 | A-6a |
| | | 4.5-6.5 | 0 | 1 | 21 | 47 | 31 | 28 | 9 | 24 | A-4a |
| | | 6.5-8.5 | 0 | 1 | 34 | 44 | 21 | NP | NP | 27 | A-4a |
| | | 8.5-10.0 | 0 | 7 | 53 | 23 | 17 | NP | NP | 31 | A-4a |
| | | 10.0-12.0 | 0 | 1 | 48 | 33 | 18 | NP | NP | 26 | A-4a |
| | | 12.0-15.5 | Dark Gray Woody Fibrous Peat | | | | | | | 310 | Visual |
| | | 15.5-20.0 | 0 | 4 | 6 | 64 | 26 | 26 | 3 | 32 | A-4b |
| | | 20.0-25.0 | 0 | 0 | 1 | 72 | 27 | 27 | 4 | 31 | A-4b |
| | | 25.0-27.0 | 0 | 0 | 0 | 61 | 39 | 28 | 6 | 32 | A-4b |
| | | 27.0-30.0 | 0 | 0 | 1 | 64 | 35 | 28 | 7 | 32 | A-4b |
| 10+50 | 40'Rt | 0.0-3.0 | 0 | 1 | 8 | 43 | 48 | 46 | 17 | 35 | A-7-5 |
| | | 3.0-4.5 | 0 | 1 | 14 | 51 | 34 | NP | NP | 37 | A-4b |
| | | 4.5-6.0 | 0 | 1 | 15 | 50 | 34 | 28 | 10 | 28 | A-4b |
| | | 6.0-9.0 | 0 | 9 | 73 | 9 | 10 | NP | NP | 23 | A-3a |
| | | 9.0-10.5 | 44 | 19 | 23 | - 14 - | | NP | NP | 17 | A-1-b |
| | | 10.5-12.0 | 15 | 18 | 36 | 18 | 13 | NP | NP | 23 | A-3a |
| 11+00 | 50'Rt | 0.0-3.0 | 0 | 1 | 9 | 48 | 42 | 42 | 16 | 29 | A-7-6 |
| | | 3.0-6.0 | 0 | 1 | 17 | 47 | 35 | 29 | 12 | 24 | A-6a |
| | | 6.0-9.0 | 0 | 1 | 45 | 37 | 17 | NP | NP | 34 | A-4a |
| | | 9.0-11.0 | 52 | 15 | 15 | 9 | 9 | NP | NP | 15 | A-1-b |
| | | 11.0-12.0 | Gray Silty Sedimentary Peat | | | | | | | 66 | Visual |
| | | 12.0-18.0 | 0 | 1 | 1 | 63 | 35 | NP | NP | 32 | A-4b |
| | | 18.0-25.0 | 0 | 0 | 1 | 64 | 35 | NP | NP | 33 | A-4b |
| | | 25.0-30.0 | 0 | 0 | 1 | 64 | 35 | NP | NP | 29 | A-4b |
| 11+00 | 100'Rt | 0.0-4.0 | 0 | 0 | 5 | 53 | 42 | 53 | 22 | 33 | A-7-5 |
| | | 4.0-6.0 | 0 | 0 | 4 | 56 | 40 | 42 | 17 | 44 | A-7-6 |
| | | 6.0-12.0 | 0 | 0 | 13 | 59 | 28 | NP | NP | 38 | A-4b |
| 11+60 | 66'Rt | 0.0-3.0 | 0 | 0 | 7 | 47 | 46 | 39 | 14 | 31 | A-6a |
| | | 3.0-5.0 | 0 | 0 | 24 | 49 | 27 | 28 | 8 | 28 | A-4a |
| | | 5.0-7.0 | 0 | 1 | 53 | 29 | 17 | NP | NP | 27 | A-4a |
| | | 7.0-10.0 | 35 | 15 | 18 | 25 | 7 | NP | NP | 17 | A-2-4 |
| | | 10.0-15.0 | 45 | 33 | 11 | - 11 - | | NP | NP | 17 | A-1-b |
| | | 15.0-21.0 | 49 | 31 | 10 | - 10 - | | NP | NP | 15 | A-1-b |
| | | 21.0-26.0 | 28 | 10 | 27 | 18 | 17 | NP | NP | 10 | A-2-4 |
| | | 26.0-30.0 | 26 | 1 | 18 | 19 | 36 | NP | NP | 10 | A-4a |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12+00 | CL | 0.0-2.0 | 0 | 2 | 6 | 54 | 38 | 47 | 14 | 49 | A-7-5 |
| | | 2.0-4.0 | 0 | 3 | 11 | 50 | 33 | NP | NP | 57 | A-4b |
| | | 4.0-9.0 | 0 | 1 | 63 | 24 | 12 | NP | NP | 30 | A-4a |
| | | 9.0-13.0 | 0 | 1 | 59 | 25 | 15 | NP | NP | 31 | A-4a |
| | | 13.0-18.0 | 0 | 0 | 2 | 69 | 29 | NP | NP | 29 | A-4b |
| | | 18.0-22.0 | 0 | 0 | 2 | 67 | 31 | 27 | 5 | 28 | A-4b |
| | | 22.0-24.0 | 26 | 2 | 4 | 52 | 16 | NP | NP | 25 | A-4b |
| | | 24.0-30.0 | 68 | 13 | 8 | 7 | 4 | NP | NP | 13 | A-1-a |
| 12+50 | 75'Rt | 0.0-3.0 | 0 | 9 | 31 | 34 | 26 | 41 | 17 | 39 | A-7-6 |
| | | 3.0-6.0 | 0 | 1 | 33 | 44 | 22 | NP | NP | 31 | A-4a |
| | | 6.0-8.0 | 0 | 1 | 66 | 22 | 11 | NP | NP | 27 | A-3a |
| 14+00 | 110'Lt | 0.5-2.0 | 61 | 14 | 6 | 10 | 9 | NP | NP | 8 | A-1-b |
| | | 2.0-3.0 | 9 | 9 | 14 | 41 | 27 | 26 | 8 | 17 | A-4a |
| | | 3.0-4.0 | 1 | 3 | 9 | 57 | 30 | NP | NP | 24 | A-4b |
| | | 4.0-7.0 | 0 | 1 | 4 | 46 | 45 | 46 | 26 | 26 | A-7-6 |
| | | 7.0-8.0 | 13 | 5 | 35 | 24 | 23 | NP | NP | 20 | A-4a |
| | | 8.0-10.0 | 47 | 16 | 7 | 12 | 18 | 48 | 25 | 28 | A-2-7 |
| | | 10.0-15.0 | 80 | 10 | 4 | 3 | 3 | NP | NP | 15 | A-1-a |
| | | 15.0-20.0 | 73 | 19 | 4 | - 4 - | | NP | NP | 13 | A-1-a |
| 14+00 | CL | 1.0-5.0 | 27 | 27 | 10 | 14 | 22 | 35 | 19 | 21 | A-6b |
| | | 5.0-9.0 | 66 | 11 | 5 | 12 | 6 | NP | NP | 19 | A-1-b |
| | | 9.0-12.0 | 10 | 13 | 17 | 41 | 19 | NP | NP | 11 | A-4a |
| | | 12.0-17.0 | 23 | 9 | 15 | 37 | 16 | 18 | 4 | 12 | A-4a |
| | | 17.0-22.0 | 34 | 12 | 14 | 25 | 15 | 17 | 4 | 10 | A-4a |
| 14+00 | 120'Rt | 0.5-4.0 | 0 | 0 | 25 | 53 | 22 | 23 | 4 | 25 | A-4b |
| | | 4.0-7.0 | 0 | 1 | 18 | 55 | 26 | 25 | 8 | 30 | A-4b |
| | | 7.0-9.0 | 0 | 0 | 10 | 82 | 28 | NP | NP | 33 | A-4b |
| | | 9.0-10.0 | 0 | 2 | 67 | 23 | 8 | NP | NP | 27 | A-3a |
| | | 10.0-14.0 | 65 | 11 | 9 | 12 | 3 | NP | NP | 18 | A-1-a |
| | | 14.0-17.0 | 62 | 11 | 9 | 15 | 4 | NP | NP | 18 | A-1-b |
| | | 17.0-22.0 | 1 | 1 | 5 | 67 | 26 | NP | NP | 27 | A-4b |
| | | 22.0-27.0 | 0 | 0 | 1 | 73 | 26 | NP | NP | 31 | A-4b |
| | | 27.0-30.0 | 0 | 0 | 1 | 66 | 33 | 25 | 6 | 20 | A-4b |
| 17+00 | CL | 1.0-7.0 | 0 | 2 | 9 | 56 | 33 | 27 | 7 | 22 | A-4b |
| | | 3.0-6.0 | 0 | 1 | 43 | 35 | 21 | NP | NP | 21 | A-4a |
| | | 6.0-10.0 | 0 | 1 | 55 | 27 | 17 | NP | NP | 25 | A-4a |
| | | 10.0-13.0 | 0 | 9 | 73 | - 18 - | | NP | NP | 24 | A-3a |
| | | 13.0-14.0 | 0 | 4 | 45 | 34 | 17 | NP | NP | 53 | A-4a |
| | | 14.0-15.0 | 25 | 21 | 18 | 22 | 14 | 29 | 8 | 27 | A-4a |
| | | 15.0-20.0 | 0 | 0 | 1 | 71 | 28 | NP | NP | 28 | A-4b |
| | | 20.0-25.0 | 0 | 1 | 3 | 69 | 27 | NP | NP | 31 | A-4b |
| | | 25.0-30.0 | 0 | 0 | 1 | 70 | 29 | NP | NP | 29 | A-4b |
| 20+00 | 175'Lt | 0.4-5.0 | 0 | 0 | 24 | 46 | 28 | 30 | 6 | 24 | A-4a |
| | | 5.0-8.0 | 0 | 1 | 61 | 25 | 13 | NP | NP | 20 | A-4a |
| | | 8.0-11.0 | 0 | 1 | 37 | 44 | 18 | NP | NP | 37 | A-4a |
| | | 11.0-14.0 | 29 | 25 | 24 | - 22 - | | NP | NP | 22 | A-1-b |
| | | 14.0-23.0 | 0 | 1 | 5 | 64 | 30 | 28 | 6 | 28 | A-4b |
| | | 23.0-30.0 | 0 | 1 | 3 | 66 | 30 | 25 | 3 | 21 | A-4b |
| 20+00 | CL | 0.5-4.0 | 0 | 3 | 43 | 35 | 19 | NP | NP | 18 | A-4a |
| | | 4.0-7.0 | 0 | 0 | 30 | 46 | 21 | NP | NP | 35 | A-4a |
| | | 7.0-9.0 | 0 | 3 | 63 | 22 | 12 | NP | NP | 34 | A-3a |
| | | 9.0-12.0 | 31 | 15 | 34 | 13 | 7 | NP | NP | 25 | A-2-4 |
| | | 12.0-19.0 | 58 | 19 | 15 | - 8 - | | NP | NP | 13 | A-1-a |
| | | 19.0-24.0 | 3 | 2 | 3 | 56 | 36 | 26 | 6 | 28 | A-4b |
| | | 24.0-26.0 | 0 | 2 | 1 | 60 | 39 | 29 | 10 | 28 | A-4b |
| | | 26.0-29.0 | 16 | 8 | 9 | 45 | 22 | 21 | 5 | 16 | A-4a |
| | | 29.0-30.0 | 50 | 27 | 13 | - 10 - | | NP | NP | 13 | A-1-a |
| 20+25 | 50'Rt | 0.5-4.0 | 0 | 3 | 51 | 34 | 12 | NP | NP | 14 | A-4a |
| | | 4.0-7.0 | 0 | 1 | 24 | 53 | 22 | NP | NP | 26 | A-4b |
| | | 7.0-8.0 | 0 | 1 | 38 | 44 | 17 | NP | NP | 30 | A-4a |
| | | 8.0-10.0 | Wood Fragments | | | | | | | | Visual |
| | | 10.0-13.0 | 20 | 9 | 54 | 13 | 5 | NP | NP | 23 | A-3a |
| | | 13.0-19.0 | 77 | 12 | 7 | - 4 - | | NP | NP | 18 | A-1-a |
| | | 19.0-24.0 | 18 | 2 | 3 | 50 | 27 | 22 | 4 | 26 | A-4b |
| | | 24.0-30.0 | 61 | 21 | 7 | - 11 - | | NP | NP | 10 | A-1-a |
| 20+25 | 100'Rt | 0.5-5.0 | 0 | 0 | 29 | 48 | 23 | NP | NP | 26 | A-4a |
| | | 5.0-9.0 | 0 | 1 | 55 | 32 | 12 | NP | NP | 35 | A-4a |
| | | 9.0-12.0 | 0 | 1 | 51 | 34 | 14 | NP | NP | 38 | A-4a |
| | | 12.0-14.0 | 65 | 18 | 11 | - 6 - | | NP | NP | 17 | A-1-a |
| | | 14.0-19.0 | 81 | 11 | 4 | - 4 - | | NP | NP | 16 | A-1-a |
| | | 19.0-23.0 | 62 | 17 | 7 | 10 | 4 | NP | NP | 9 | A-1-a |
| | | 23.0-25.0 | 25 | 13 | 17 | 32 | 13 | NP | NP | 9 | A-1a |
| | | 25.0-30.0 | 74 | 15 | 7 | - 4 - | | NP | NP | 13 | A-1-a |
| 23+00 | CL | 0.2-9.0 | 0 | 1 | 23 | 48 | 28 | NP | NP | 31 | A-4a |
| | | 9.0-15.0 | 44 | 21 | 8 | - 4 - | | NP | NP | 15 | A-1-b |
| | | 15.0-18.0 | 72 | 18 | 4 | - 6 - | | NP | NP | 13 | A-1-a |
| | | 18.0-25.0 | 0 | 0 | 8 | 70 | 22 | NP | NP | 26 | A-4b |
| | | 25.0-30.0 | 0 | 1 | 3 | 61 | 35 | NP | NP | 26 | A-4b |
| ▼ 12+50 | 75'Rt | 8.0-14.0 | 78 | 9 | 4 | 6 | 3 | NP | NP | 17 | A-1-a |
| | | 14.0-19.0 | 30 | 10 | 15 | 27 | 18 | NP | NP | 15 | A-4a |
| | | 19.0-23.0 | 21 | 9 | 14 | 51 | 5 | 22 | 4 | 12 | A-4b |
| | | 23.0-26.0 | 70 | 13 | 6 | 6 | 5 | NP | NP | 12 | A-1-a |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25+00 | 80'Lt | 0.4-6.0 | 0 | 3 | 42 | 34 | 21 | NP | NP | 22 | A-4a |
| | | 6.0-10.0 | 0 | 3 | 49 | 31 | 17 | 46 | NP | 61 | A-5 |
| | | 10.0-14.0 | 71 | 15 | 8 | - 6 - | | NP | NP | 15 | A-1-a |
| | | 14.0-24.0 | 0 | 1 | 1 | 58 | 40 | NP | NP | 28 | A-4b |
| | | 24.0-30.0 | 56 | 20 | 9 | - 15 - | | NP | NP | 14 | A-1-a |
| 25+00 | CL | 0.4-5.0 | 0 | 1 | 24 | 50 | 25 | NP | NP | 27 | A-4b |
| | | 5.0-10.0 | 0 | 1 | 30 | 46 | 21 | NP | NP | 32 | A-4a |
| | | 10.0-13.0 | 0 | 2 | 46 | 33 | 16 | NP | NP | 32 | A-4a |
| | | 13.0-22.0 | 66 | 21 | 9 | - 4 - | | NP | NP | 18 | A-1-a |
| | | 22.0-30.0 | 79 | 12 | 4 | - 5 - | | NP | NP | 11 | A-1-a |
| 25+00 | 50'Rt | 0.2-6.0 | 0 | 3 | 36 | 44 | 18 | NP | NP | 24 | A-4a |
| | | 6.0-9.0 | 0 | 3 | 55 | 30 | 12 | NP | NP | 30 | A-4a |
| | | 9.0-16.0 | 76 | 14 | 5 | - 5 - | | NP | NP | 13 | A-1-a |
| | | 16.0-25.0 | 64 | 21 | 8 | - 7 - | | NP | NP | 13 | A-1-a |
| 26+00 | 175'Lt | 0.4-8.0 | 0 | 0 | 23 | 49 | 28 | NP | NP | 24 | A-4a |
| | | 8.0-15.0 | 46 | 27 | 15 | - 10 - | | NP | NP | 19 | A-1-b |
| | | 15.0-23.0 | 0 | 2 | 4 | 63 | 31 | NP | NP | 26 | A-4b |
| | | 23.0-30.0 | 0 | 0 | 2 | 64 | 34 | NP | NP | 28 | A-4b |
| 26+00 | CL | 0.3-7.0 | 0 | 1 | 29 | 47 | 23 | NP | NP | 22 | A-4a |
| | | 7.0-9.0 | 0 | 0 | 46 | 33 | 18 | NP | NP | 25 | A-4a |
| | | 9.0-15.0 | 58 | 18 | 18 | - 6 - | | NP | NP | 18 | A-1-a |
| | | 15.0-24.0 | 0 | 0 | 2 | 60 | 38 | NP | NP | 24 | A-4b |
| | | 24.0-30.0 | 0 | 0 | 2 | 67 | 31 | NP | NP | 24 | A-4b |
| 32+00 | CL | 0.4-6.0 | 0 | 2 | 71 | 15 | 12 | NP | NP | 17 | A-3a |
| | | 6.0-10.0 | 0 | 1 | 47 | 34 | 18 | NP | NP | 28 | A-4a |
| | | 10.0-12.0 | 19 | 43 | 25 | - 13 - | | NP | NP | 15 | A-1-b |
| | | 12.0-20.0 | 25 | 7 | 9 | 41 | 18 | NP | NP | 23 | A-4a |
| | | 20.0-24.0 | 16 | 6 | 8 | 50 | 20 | NP | NP | 23 | A-4b |
| | | 24.0-30.0 | 82 | 9 | 4 | - 5 - | | NP | NP | 12 | A-1-a |
| * 32+00 | 50' Rt | Note: See below, this column | | | | | | | | | |
| 33+00 | 175'Lt | 0.4-6.0 | 0 | 0 | 10 | 55 | 35 | 38 | 9 | 32 | A-4b |
| | | 6.0-9.0 | 0 | 0 | 16 | 56 | 28 | 29 | 9 | 26 | A-4b |
| | | 9.0-15.0 | 0 | 4 | 50 | 29 | 17 | NP | NP | 35 | A-4a |
| | | 15.0-19.0 | 5 | 1 | 3 | 60 | 31 | NP | NP | 25 | A-4b |
| | | 19.0-22.0 | 69 | 14 | 6 | 4 | 7 | NP | NP | 10 | A-1-a |
| | | 22.0-26.0 | 6 | 2 | 8 | 50 | 34 | 23 | 6 | 25 | A-4b |
| | | 26.0-30.0 | 0 | 0 | 0 | 53 | 47 | 28 | 7 | 23 | A-4b |
| 34+80 | CL | 0.4-7.0 | 0 | 1 | 39 | 40 | 20 | NP | NP | 20 | A-4a |
| | | 7.0-11.0 | 0 | 0 | 1 | 63 | 36 | NP | NP | 21 | A-4b |
| | | 11.0-14.0 | 60 | 21 | 12 | - 7 - | | NP | NP | 14 | A-1-a |
| | | 14.0-16.0 | 7 | 33 | 49 | - 11 - | | NP | NP | 23 | A-3a |
| | | 16.0-24.0 | 0 | 0 | 4 | 63 | 33 | NP | NP | 22 | A-4b |
| | | 24.0-30.0 | 0 | 0 | 1 | 50 | 49 | 24 | 7 | 19 | A-4b |
| 37+50 | CL | 0.4-6.0 | 0 | 1 | 37 | 33 | 29 | NP | NP | 26 | A-4a |
| | | 6.0-9.0 | 0 | 1 | 48 | 32 | 18 | NP | NP | 28 | A-4a |
| | | 9.0-16.0 | 44 | 18 | 23 | 9 | 6 | NP | NP | 20 | A-1-b |
| | | 16.0-22.0 | 0 | 1 | 25 | 56 | 18 | NP | NP | 21 | A-4b |
| | | 22.0-30.0 | 0 | 1 | 12 | 61 | 26 | NP | NP | 23 | A-4b |
| 40+00 | 150'Lt | 0.4-7.0 | 0 | 0 | 9 | 50 | 41 | 32 | 9 | 32 | A-4b |
| | | 7.0-10.0 | 0 | 1 | 16 | 32 | 51 | NP | NP | 45 | A-4a |
| | | 10.0-13.0 | 61 | 15 | 11 | - 13 - | | NP | NP | 16 | A-1-a |
| | | 13.0-18.0 | 0 | 10 | 27 | 37 | 26 | NP | NP | 33 | A-4a |
| | | 18.0-25.0 | 0 | 0 | 1 | 56 | 43 | NP | NP | 32 | A-4b |
| | | 25.0-30.0 | 0 | 0 | 1 | 60 | 39 | 29 | 7 | 33 | A-4b |
| 40+00 | 75'Lt | 0.4-6.0 | 0 | 0 | 8 | 60 | 32 | NP | NP | 28 | A-4b |
| | | 6.0-9.0 | 0 | 2 | 46 | 36 | 16 | NP | NP | 31 | A-4a |
| | | 9.0-12.0 | 71 | 14 | 9 | - 6 - | | NP | NP | 14 | A-1-a |
| | | 12.0-22.0 | 0 | 1 | 2 | 58 | 39 | 28 | 8 | 23 | A-4b |
| | | 22.0-30.0 | 0 | 1 | 6 | 73 | 20 | NP | NP | 22 | A-4b |
| 40+00 | CL | 0.4-5.0 | 0 | 0 | 32 | 46 | 22 | NP | NP | 22 | A-4a |
| | | 5.0-8.0 | 0 | 2 | 50 | 31 | 17 | NP | NP | 24 | A-4a |
| | | 8.0-14.0 | 64 | 10 | 11 | 11 | 5 | NP | NP | 14 | A-1-a |
| | | 14.0-21.0 | 0 | 0 | 2 | 58 | 40 | NP | NP | 26 | A-4b |
| | | 21.0-30.0 | 0 | 0 | 3 | 64 | 33 | NP | NP | 23 | A-4b |
| 43+00 | CL | 1.0-6.0 | 0 | 0 | 15 | 66 | 19 | NP | NP | 20 | A-4b |
| | | 6.0-9.0 | 0 | 1 | 30 | 50 | 19 | NP | NP | 28 | A-4b |
| | | 9.0-12.0 | 18 | 54 | 16 | - 12 - | | NP | NP | 19 | A-1-b |
| | | 12.0-15.0 | 18 | 56 | 18 | - 8 - | | NP | NP | 19 | A-1-b |
| | | 15.0-20.0 | 0 | 0 | 0 | 67 | 33 | NP | NP | 25 | A-4b |
| | | 20.0-25.0 | 0 | 1 | 1 | 60 | 38 | 30 | 10 | 29 | A-4b |
| | | 25.0-30.0 | 0 | 0 | 1 | 72 | 27 | NP | NP | 29 | A-4b |
| 43+00 | 65'Rt | 1.0-5.0 | 0 | 0 | 7 | 67 | 26 | NP | NP | 30 | A-4b |
| | | 5.0-8.0 | 0 | 0 | 24 | 50 | 26

SOIL PROFILE
LICKING COUNTY
LIC-16&161-(14.30-18.51)&(11.13)
OHIO STATE HIGHWAY
TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

3
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## SUMMARY OF SOIL TEST DATA (Cont'd)

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 46+00 | CL | 1.0-6.0 | 0 | 0 | 26 | 50 | 24 | NP | NP | 23 | A-4b |
| | | 6.0-8.0 | 0 | 4 | 71 | 20 | 5 | NP | NP | 25 | A-3a |
| | | 8.0-13.0 | 0 | 15 | 56 | 16 | 13 | NP | NP | 35 | A-3a |
| | | 13.0-18.0 | 0 | 1 | 2 | 74 | 23 | NP | NP | 27 | A-4b |
| | | 18.0-23.0 | 0 | 0 | 1 | 66 | 33 | NP | NP | 28 | A-4b |
| | | 23.0-28.0 | 0 | 0 | 0 | 62 | 38 | NP | NP | 24 | A-4b |
| | | 28.0-30.0 | 0 | 0 | 0 | 64 | 36 | NP | NP | 22 | A-4b |
| 47+00 | CL | 1.0-5.0 | 0 | 0 | 2 | 60 | 38 | 31 | 6 | 27 | A-4b |
| | | 5.0-9.0 | 0 | 0 | 7 | 59 | 34 | NP | NP | 34 | A-4b |
| | | 9.0-12.0 | 1 | 51 | 39 | - 9 - | | NP | NP | 22 | A-1-b |
| | | 12.0-15.0 | 58 | 21 | 13 | -10- | | NP | NP | 18 | A-1-a |
| | | 15.0-16.0 | 0 | 8 | 14 | 48 | 30 | 42 | 14 | 62 | A-7-6 |
| | | 16.0-18.0 | 0 | 0 | 9 | 68 | 23 | NP | NP | 23 | A-4b |
| | | 18.0-20.0 | 3 | 8 | 66 | -23- | | NP | NP | 26 | A-3a |
| | | 20.0-25.0 | 21 | 17 | 52 | -10- | | NP | NP | 18 | A-3 |
| | | 25.0-30.0 | 13 | 31 | 46 | -10- | | NP | NP | 17 | A-3 |
| 47+00 | 50'Rt | 1.0-5.0 | 0 | 1 | 1 | 58 | 40 | 37 | 10 | 29 | A-4b |
| | | 5.0-8.0 | 0 | 0 | 1 | 68 | 31 | NP | NP | 40 | A-4b |
| | | 8.0-10.0 | 0 | 42 | 21 | 20 | 17 | NP | NP | 28 | A-4a |
| | | 10.0-15.0 | 43 | 34 | 11 | -12- | | NP | NP | 17 | A-1-b |
| | | 15.0-17.0 | 0 | 0 | 2 | 71 | 27 | NP | NP | 24 | A-4b |
| | | 17.0-22.0 | 0 | 0 | 11 | 68 | 21 | NP | NP | 21 | A-4b |
| | | 22.0-26.0 | 45 | 36 | 13 | - 6 - | | NP | NP | 15 | A-1-b |
| | | 26.0-30.0 | 18 | 35 | 37 | -10- | | NP | NP | 15 | A-1-b |
| 48+00 | 50'Lt | 1.0-3.0 | 0 | 0 | 10 | 55 | 35 | NP | NP | 30 | A-4b |
| | | 3.0-5.0 | 0 | 1 | 2 | 53 | 44 | 43 | 22 | 20 | A-7-6 |
| | | 5.0-7.0 | 0 | 0 | 2 | 52 | 46 | 44 | 20 | 30 | A-7-6 |
| | | 7.0-11.0 | 0 | 1 | 15 | 60 | 24 | NP | NP | 53 | A-4b |
| | | 11.0-15.0 | 0 | 32 | 32 | 24 | 12 | NP | NP | 37 | A-4a |
| | | 15.0-20.0 | 8 | 23 | 61 | - 8 - | | NP | NP | 22 | A-3 |
| | | 20.0-22.0 | 21 | 30 | 38 | -11- | | NP | NP | 19 | A-1-b |
| | | 22.0-25.0 | 0 | 2 | 34 | 54 | 10 | NP | NP | 23 | A-4b |
| | | 25.0-30.0 | 0 | 4 | 84 | -12- | | NP | NP | 26 | A-3a |
| 48+00 | CL | 1.0-3.0 | 0 | 0 | 2 | 56 | 42 | NP | NP | 28 | A-4b |
| | | 3.0-7.0 | 0 | 0 | 1 | 40 | 59 | 62 | 26 | 23 | A-7-6 |
| | | 7.0-10.0 | 0 | 0 | 0 | 50 | 50 | 46 | 22 | 16 | A-7-6 |
| | | 10.0-14.0 | 0 | 0 | 1 | 58 | 40 | 43 | 12 | 43 | A-7-5 |
| | | 14.0-18.0 | 0 | 0 | 3 | 61 | 36 | 41 | 17 | 40 | A-7-6 |
| | | 18.0-23.0 | 35 | 19 | 33 | -13- | | NP | NP | 15 | A-1-b |
| | | 23.0-28.0 | 53 | 34 | 10 | - 3 - | | NP | NP | 13 | A-1-b |
| | | 28.0-30.0 | 2 | 7 | 67 | -24- | | NP | NP | 20 | A-3a |
| 51+00 | CL | 1.0-5.0 | 0 | 2 | 3 | 40 | 55 | 45 | 28 | 25 | A-7-6 |
| | | 5.0-8.0 | 0 | 2 | 4 | 46 | 50 | 45 | 28 | 25 | A-7-6 |
| | | 8.0-10.0 | 0 | 0 | 5 | 77 | 18 | NP | NP | 26 | A-4b |
| | | 10.0-15.0 | 0 | 2 | 17 | 60 | 21 | NP | NP | 24 | A-4b |
| | | 15.0-19.0 | 0 | 0 | 1 | 61 | 38 | NP | NP | 27 | A-4b |
| | | 19.0-25.0 | 67 | 5 | 4 | - 4 - | | NP | NP | 10 | A-1-a |
| | | 25.0-30.0 | 77 | 16 | 4 | - 3 - | | NP | NP | 13 | A-1-a |
| 53+25 | CL | 1.0-4.0 | 0 | 0 | 2 | 45 | 53 | 51 | 30 | 25 | A-7-6 |
| | | 4.0-7.0 | 0 | 1 | 4 | 63 | 32 | 34 | 13 | 29 | A-6a |
| | | 7.0-10.0 | 8 | 15 | 42 | 24 | 11 | NP | NP | 21 | A-3a |
| | | 10.0-15.0 | 0 | 0 | 10 | 69 | 21 | NP | NP | 23 | A-4b |
| | | 15.0-20.0 | 0 | 0 | 0 | 66 | 34 | 29 | 9 | 23 | A-4b |
| | | 20.0-25.0 | 0 | 0 | 0 | 64 | 36 | 30 | 9 | 23 | A-4b |
| | | 25.0-30.0 | 0 | 1 | 1 | 50 | 48 | 34 | 13 | 23 | A-6a |
| 56+00 | CL | 1.0-5.0 | 0 | 1 | 1 | 31 | 67 | 58 | 34 | 30 | A-7-6 |
| | | 5.0-9.0 | 0 | 1 | 14 | 64 | 21 | 28 | 5 | 26 | A-4b |
| | | 9.0-11.0 | 20 | 10 | 40 | 27 | 3 | NP | NP | 20 | A-3a |
| | | 11.0-16.0 | 0 | 1 | 1 | 56 | 42 | 33 | 10 | 23 | A-4b |
| | | 16.0-21.0 | 0 | 0 | 0 | 67 | 33 | 26 | 2 | 24 | A-4b |
| | | ▼Note: For rest of samples, see below, this column | | | | | | | | | |
| 58+00 | CL | 0.0-5.0 | 0 | 1 | 5 | 58 | 36 | 36 | 14 | 30 | A-6a |
| | | 5.0-9.0 | 0 | 1 | 18 | 39 | 22 | NP | NP | 27 | A-4b |
| | | 9.0-10.5 | 0 | 3 | 35 | 46 | 14 | 20 | 0 | 26 | A-4a |
| | | 10.5-12.0 | 66 | 11 | 8 | 11 | 4 | NP | NP | 15 | A-1-a |
| 60+00 | 50'Rt | 1.0-5.0 | 0 | 2 | 4 | 44 | 50 | 50 | 29 | 25 | A-7-6 |
| | | 5.0-8.0 | 0 | 0 | 6 | 72 | 22 | NP | NP | 26 | A-4b |
| | | 8.0-10.0 | 5 | 10 | 12 | 57 | 16 | NP | NP | 18 | A-4b |
| | | 10.0-12.0 | 36 | 24 | 23 | - 17- | | NP | NP | 17 | A-1-b |
| | | 12.0-14.0 | 0 | 0 | 2 | 68 | 30 | NP | NP | 33 | A-4b |
| | | 14.0-18.0 | 0 | 0 | 1 | 69 | 30 | NP | NP | 24 | A-4b |
| | | 18.0-22.0 | 0 | 0 | 0 | 39 | 61 | 36 | 15 | 27 | A-6a |
| | | 22.0-26.0 | 0 | 0 | 0 | 31 | 69 | 42 | 18 | 27 | A-7-6 |
| | | 26.0-30.0 | 0 | 1 | 0 | 44 | 55 | 36 | 16 | 27 | A-6b |
| 64+00 | CL | 1.0-5.0 | 0 | 1 | 1 | 37 | 61 | 57 | 30 | 28 | A-7-6 |
| | | 5.0-8.0 | 0 | 1 | 11 | 70 | 18 | NP | NP | 24 | A-4b |
| | | 8.0-12.0 | 0 | 3 | 14 | 61 | 22 | NP | NP | 24 | A-4b |
| | | 12.0-17.0 | 0 | 1 | 10 | 65 | 24 | 31 | 9 | 29 | A-4b |
| | | 17.0-22.0 | 0 | 0 | 3 | 67 | 30 | NP | NP | 28 | A-4b |
| | | 22.0-24.0 | 0 | 0 | 1 | 64 | 35 | NP | NP | 35 | A-4b |
| | | 24.0-26.0 | 0 | 20 | 61 | -19- | | NP | NP | 25 | A-3a |
| | | 26.0-30.0 | 0 | 0 | 2 | 75 | 23 | NP | NP | 21 | A-4b |
| ▼56+00 | CL | 21.0-26.0 | 0 | 0 | 1 | 57 | 42 | 28 | 7 | 23 | A-4b |
| | | 26.0-30.0 | 0 | 0 | 1 | 59 | 40 | 33 | 8 | 28 | A-4b |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 64+00 | 19'Rt | 0.6-2.5 | 0 | 1 | 1 | 37 | 61 | 48 | 26 | 28 | A-7-6 |
| | | 2.5-3.5 | 0 | 1 | 1 | 35 | 63 | 48 | 24 | 28 | A-7-6 |
| | | 3.5-5.0 | 0 | 1 | 2 | 39 | 58 | 53 | 32 | 37 | A-7-6 |
| | | 5.0-7.0 | 0 | 0 | 7 | 66 | 25 | 27 | 7 | 31 | A-4b |
| | | 7.0-8.5 | 0 | 1 | 11 | 63 | 20 | 25 | 3 | 27 | A-4b |
| | | 8.5-10.0 | 0 | 4 | 16 | 56 | 24 | 21 | 1 | 26 | A-4b |
| | | 10.0-12.0 | 0 | 1 | 6 | 66 | 27 | 26 | 5 | 28 | A-4b |
| | | 12.0-13.0 | 0 | 0 | 6 | 65 | 29 | 27 | 5 | 28 | A-4b |
| 68+00 | CL | 1.0-5.0 | 0 | 2 | 3 | 58 | 37 | 36 | 16 | 25 | A-6b |
| | | 5.0-9.0 | 0 | 1 | 0 | 45 | 53 | 56 | 33 | 30 | A-7-6 |
| | | 9.0-10.0 | 0 | 0 | 0 | 69 | 31 | 31 | 11 | 26 | A-6a |
| | | 10.0-13.0 | 0 | 0 | 1 | 79 | 20 | NP | NP | 24 | A-4b |
| | | 13.0-18.0 | 0 | 1 | 14 | 66 | 16 | NP | NP | 26 | A-4b |
| | | 18.0-23.0 | 0 | 2 | 12 | 70 | 16 | NP | NP | 29 | A-4b |
| | | 23.0-25.0 | 0 | 1 | 6 | 73 | 20 | NP | NP | 28 | A-4b |
| | | 25.0-30.0 | 0 | 0 | 6 | 69 | 25 | NP | NP | 28 | A-4b |
| 72+00 | 30'Rt | 1.0-3.0 | 14 | 23 | 9 | 15 | 9 | 24 | 4 | 10 | A-1-b |
| | | 3.0-7.0 | 0 | 3 | 6 | 56 | 33 | 35 | 17 | 23 | A-6b |
| | | 7.0-12.0 | 0 | 1 | 2 | 71 | 26 | NP | NP | 26 | A-4b |
| | | 12.0-14.0 | 0 | 1 | 0 | 47 | 52 | 38 | 18 | 26 | A-6b |
| | | 14.0-18.0 | 0 | 0 | 1 | 55 | 44 | 31 | 10 | 28 | A-4b |
| | | 18.0-22.0 | 0 | 1 | 1 | 65 | 33 | 31 | 10 | 24 | A-4b |
| | | 22.0-28.0 | 0 | 0 | 0 | 67 | 33 | 32 | 6 | 25 | A-4b |
| | | 28.0-30.0 | 0 | 3 | 11 | 68 | 18 | NP | NP | 18 | A-4b |
| 74+50 | CL | 1.0-4.0 | 0 | 4 | 7 | 55 | 34 | 33 | 15 | 21 | A-6a |
| | | 4.0-6.0 | 0 | 3 | 11 | 59 | 27 | 31 | 15 | 19 | A-6a |
| | | 6.0-8.0 | 40 | 14 | 10 | 24 | 12 | 26 | 8 | 19 | A-4a |
| | | 8.0-10.0 | 3 | 3 | 8 | 67 | 19 | NP | NP | 25 | A-4b |
| | | 10.0-12.0 | 0 | 1 | 5 | 79 | 15 | NP | NP | 25 | A-4b |
| | | 12.0-17.0 | 0 | 1 | 12 | 72 | 15 | NP | NP | 30 | A-4b |
| | | 17.0-22.0 | 0 | 1 | 16 | 66 | 17 | NP | NP | 30 | A-4b |
| | | 22.0-25.0 | 0 | 0 | 1 | 66 | 31 | 30 | 4 | 30 | A-4b |
| | | 25.0-29.0 | 0 | 0 | 2 | 64 | 34 | 28 | 5 | 32 | A-4b |
| | | 29.0-31.0 | 0 | 0 | 6 | 72 | 22 | NP | NP | 29 | A-4b |
| 78+00 | CL | 1.0-3.0 | 0 | 1 | 8 | 52 | 39 | 33 | 13 | 23 | A-6b |
| | | 3.0-5.0 | 0 | 3 | 9 | 57 | 31 | 36 | 15 | 22 | A-6a |
| | | 5.0-9.0 | 78 | 5 | 5 | 4 | 8 | 28 | 6 | 18 | A-1-a |
| | | 9.0-12.0 | 0 | 1 | 10 | 67 | 22 | NP | NP | 32 | A-4b |
| | | 12.0-15.0 | 0 | 1 | 8 | 69 | 22 | NP | NP | 24 | A-4b |
| | | 15.0-19.0 | 0 | 1 | 6 | 73 | 20 | 24 | 3 | 30 | A-4b |
| | | 19.0-24.0 | 0 | 0 | 6 | 72 | 22 | 26 | — | 29 | A-4b |
| | | 24.0-29.0 | 0 | 0 | 9 | 66 | 25 | NP | NP | 28 | A-4b |
| | | 29.0-31.0 | 24 | 12 | 22 | 29 | 13 | NP | NP | 22 | A-4a |
| 80+00 | 770'Lt | 0.4-6.0 | 0 | 0 | 28 | 46 | 28 | NP | NP | 24 | A-4a |
| | | 6.0-10.0 | 0 | 1 | 53 | 30 | 16 | NP | NP | 29 | A-4a |
| | | 10.0-15.0 | 11 | 13 | 38 | 15 | 8 | NP | NP | 33 | A-3a |
| | | 15.0-23.0 | 0 | 0 | 4 | 71 | 25 | NP | NP | 26 | A-4b |
| | | 23.0-30.0 | 0 | 1 | 2 | 67 | 30 | NP | NP | 29 | A-4b |
| 80+00 | CL | 0.5-4.0 | 0 | 4 | 8 | 46 | 40 | 31 | 11 | 22 | A-6a |
| | | 4.0-8.0 | 41 | 12 | 14 | 19 | 14 | 26 | 10 | 17 | A-2-4 |
| | | 8.0-9.0 | 0 | 1 | 10 | 63 | 26 | 24 | 7 | 26 | A-4b |
| | | 9.0-12.0 | 0 | 0 | 5 | 76 | 19 | NP | NP | 25 | A-4b |
| | | 12.0-17.0 | 59 | 15 | 9 | 12 | 5 | NP | NP | 14 | A-1-b |
| | | 17.0-21.0 | 69 | 13 | 6 | 8 | 4 | NP | NP | 14 | A-1-a |
| 83+50 | CL | 0.5-2.0 | 62 | 15 | 7 | 12 | 4 | NP | NP | 11 | A-1-b |
| | | 2.0-5.0 | 43 | 13 | 14 | 16 | 14 | 29 | 3 | 15 | A-2-4 |
| | | 5.0-7.0 | 0 | 2 | 8 | 63 | 27 | NP | NP | 22 | A-4b |
| | | 7.0-11.0 | 61 | 13 | 5 | 8 | 13 | 39 | 21 | 22 | A-2-6 |
| | | 11.0-12.0 | 9 | 55 | 10 | 18 | 8 | NP | NP | 15 | A-3a |
| | | 12.0-15.0 | 37 | 29 | 18 | -16- | | NP | NP | 17 | A-1-b |
| 87+10 | CL | 0.5-4.0 | 6 | 7 | 17 | 55 | 15 | NP | NP | 15 | A-4b * |
| | | 4.0-9.0 | 32 | 11 | 20 | 22 | 12 | 24 | 8 | 16 | A-2-4 |
| | | 9.0-14.0 | 46 | 16 | 12 | 14 | 12 | 30 | 14 | 17 | A-2-6 |
| | | 14.0-19.0 | 62 | 14 | 11 | 9 | 4 | NP | NP | 19 | A-1-a |
| | | 19.0-25.0 | 71 | 12 | 6 | 9 | 2 | NP | NP | 22 | A-1-a |
| | | 25.0-30.0 | 62 | 18 | 11 | 6 | 3 | NP | NP | 19 | A-1-a |
| 90+00 | CL | 0.4-8.0 | 28 | 7 | 19 | 30 | 16 | 29 | 8 | 19 | A-4a |
| | | 8.0-12.0 | 0 | 20 | 53 | 10 | 17 | NP | NP | 24 | A-3a |
| | | 12.0-20.0 | 29 | 23 | 25 | 9 | 14 | 30 | 13 | 22 | A-2-6 |
| | | 20.0-30.0 | 71 | 11 | 5 | 9 | 4 | NP | NP | 13 | A-1-a |
| 91+00 | CL | 0.0-3.0 | 50 | 6 | 9 | 26 | 9 | 22 | 5 | 18 | A-2-4 |
| | | 3.0-7.0 | 0 | 4 | 17 | 53 | 26 | 33 | 10 | 27 | A-4b |
| | | 7.0-11.0 | 18 | 9 | 21 | 36 | 16 | 21 | 4 | 17 | A-4a |
| | | 11.0-15.0 | 13 | 45 | 17 | 12 | 13 | 25 | 8 | 20 | A-2-4 |
| | | 15.0-18.0 | 4 | 43 | 30 | 12 | 11 | NP | NP | 26 | A-3a |
| | | 18.0-23.0 | 58 | 19 | 8 | 10 | 5 | 23 | 6 | 18 | A-1-a |
| | | 23.0-28.0 | 61 | 15 | 8 | 11 | 5 | NP | NP | 17 | A-1-b |
| | | 28.0-30.0 | 63 | 18 | 6 | 9 | 4 | NP | NP | 17 | A-1-a |
| 92+50 | 14'Lt | 0.0-7.0 | 79 | 12 | 3 | - 6 - | | NP | NP | 7 | A-1-a |
| | | 7.0-12.0 | 43 | 42 | 11 | - 4 - | | NP | NP | 6 | A-1-b |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 95+50 | CL | 0.4-9.0 | 30 | 14 | 22 | 17 | 17 | 28 | 8 | 15 | A-2-4 |
| | | 9.0-16.0 | 0 | 40 | 45 | -15- | | NP | NP | 14 | A-3a |
| | | 16.0-23.0 | 54 | 14 | 11 | 14 | 7 | NP | NP | 19 | A-1-b |
| | | 23.0-30.0 | 72 | 9 | 5 | 8 | 6 | NP | NP | 14 | A-1-a |
| | | RAMP "A" | | | | | | | | | |
| 80+40 | 7'Lt | 0.4-8.0 | 0 | 0 | 13 | 52 | 35 | NP | NP | 28 | A-4b |
| | | 8.0-16.0 | 74 | 13 | 8 | - 5 - | | NP | NP | 11 | A-1-a |
| | | 16.0-24.0 | 66 | 22 | 7 | - 5 - | | NP | NP | 12 | A-1-a |
| | | 24.0-30.0 | 0 | 3 | 1 | 17 | 79 | 38 | 19 | 28 | A-6b |
| 84+20 | CL | 0.4-7.0 | 0 | 0 | 37 | 39 | 24 | NP | NP | 18 | A-4a |
| | | 7.0-10.0 | 0 | 1 | 37 | 44 | 18 | NP | NP | 30 | A-4a |
| | | 10.0-18.0 | 3 | 9 | 61 | 16 | 11 | NP | NP | 17 | A-3a |
| | | 18.0-27.0 | 0 | 0 | 3 | 65 | 32 | NP | NP | 23 | A-4b |
| | | 27.0-30.0 | 30 | 9 | 14 | 33 | 14 | NP | NP | 15 | A-4a |
| 87+10 | CL | 0.5-4.0 | 0 | 1 | 26 | 48 | 25 | NP | NP | 26 | A-4a |
| | | 4.0-8.0 | 0 | 1 | 38 | 46 | 15 | NP | NP | 28 | A-4a |
| | | 8.0-13.0 | 32 | 8 | 13 | 30 | 17 | 20 | 6 | 9 | A-4a |
| | | 13.0-18.0 | 16 | 10 | 12 | 35 | 27 | 19 | 6 | 12 | A-4a |
| | | 18.0-20.0 | 25 | 11 | 14 | 31 | 19 | 18 | 4 | 12 | A-4a |
| 89+70 | 28'Lt | 0.5-4.0 | 27 | 10 | 11 | 30 | 22 | 23 | 7 | 11 | A-4a |
| | | 4.0-5.0 | 11 | 6 | 10 | 43 | 30 | 20 | 5 | 16 | A-4a |
| | | 5.0-7.0 | 12 | 25 | 33 | 21 | 9 | NP | NP | 22 | A-3a |
| | | 7.0-12.0 | 70 | 16 | 5 | - 9- | | NP | NP | 12 | A-1-a |
| | | 12.0-15.0 | 54 | 25 | 9 | -12- | | NP | NP | 15 | A-1-a |
| | | 15.0-20.0 | 18 | 31 | 39 | -12- | | NP | NP | 24 | A-3a |
| 90+48 | CL | 0.0-2.0 | 0 | 1 | 6 | 49 | 44 | 34 | 11 | 38 | A-6a |
| | | 2.0-8.0 | 72 | 16 | 5 | - 7- | | NP | NP | 14 | A-1-a |
| | | 8.0-15.0 | 73 | 16 | 6 | - 5- | | NP | NP | 14 | A-1-a |
| | | RAMP "B" | | | | | | | | | |
| 73+30 | 73'Lt | 0.0-2.0 | 11 | 2 | 8 | 32 | 47 | 33 | 11 | 44 | A-6a |
| 81+70 | 8'Rt | 0.5-5.0 | 24 | 9 | 12 | 28 | 27 | 35 | 14 | 24 | A-6a |
| | | 5.0-10.0 | 56 | 19 | 7 | 13 | 5 | NP | NP | 10 | A-1-b |
| | | 10.0-15.0 | 63 | 15 | 7 | 11 | 4 | NP | NP | 14 | A-1-a |
| | | 15.0-16.0 | 8 | 38 | 45 | - 9- | | NP | NP | 25 | A-3 |
| | | 16.0-20.0 | 39 | 36 | 16 | - 9- | | NP | NP | 15 | A-1-b |
| | | RAMP "C" | | | | | | | | | |
| 80+00 | 30'Lt | 0.5-3.0 | 17 | 13 | 11 | 35 | 24 | 26 | 11 | 14 | A-6a |
| | | 3.0-7.0 | 39 | 21 | 8 | 10 | 22 | 45 | 22 | 20 | A-2-7 |
| | | 7.0-8.0 | 31 | 29 | 15 | 12 | 13 | 29 | 10 | 20 | A-2-4 |
| | | 8.0-13.0 | 51 | 16 | 7 | 15 | 11 | 36 | 10 | 26 | A-2-4 |
| | | 13.0-15.0 | 67 | 11 | 5 | 9 | 8 | NP | NP | 18 | A-1-b |
| 83+50 | 53'Lt | 0.5-5.0 | 0 | 1 | 9 | 59 | 31 | 28 | 10 | 24 | A-4b |
| | | 5.0-9.0 | 41 | 8 | 14 | 22 | 15 | 23 | 6 | 17 | A-4a |
| | | 9.0-11.0 | 0 | 1 | 6 | 61 | 32 | NP | NP | 23 | A-4b |
| | | 11.0-16.0 | 0 | 2 | 3 | 64 | 31 | NP | NP | 24 | A-4b |
| | | 16.0-19.0 | 0 | 1 | 4 | 64 | 31 | 22 | 3 | 27 | A-4b |
| | | 19.0-20.0 | 0 | 12 | 18 | 44 | 26 | NP | NP | 20 | A-4a |
| | | 20.0-25.0 | 58 | 10 | 12 | 15 | 5 | NP | NP | 14 | A-1-b |
| | | RAMP "D" | | | | | | | | | |
| 87+65 | 35'Lt | 0.4-5.0 | 53 | 20 | 9 | 12 | 6 | NP | NP | 10 | A-1-b |
| | | 5.0-12.0 | 46 | 17 | 10 | 14 | 13 | 37 | 19 | 16 | A-2-6 |
| | | 12.0-20.0 | 58 | 13 | 9 | 13 | 7 | NP | NP | 18 | A-1-b |
| 90+10 | 5'Rt | 0.4-7.0 | 6 | 9 | 30 | 38 | 17 | NP | NP | 17 | A-4a |
| | | 7.0-14.0 | 5 | 9 | 63 | 12 | 11 | NP | NP | 16 | A-3a |
| | | 14.0-20.0 | 57 | 19 | 8 | 10 | 6 | 26 | 7 | 19 | A-2-4 |
| 92+90 | 28'Lt | 0.4-6.0 | 43 | 9 | 11 | 18 | 19 | 34 | 12 | 19 | A-6a |
| | | 6.0-10.0 | 33 | 13 | 16 | 21 | 17 | 33 | 14 | 20 | A-6a * |
| | | 10.0-15.0 | 70 | 20 | 5 | - 5 - | | NP | NP | 6 | A-1-a * |
| | | 15.0-20.0 | 69 | 15 | 5 | 7 | 4 | NP | NP | 9 | A-1-a |
| 95+50 | 20'Rt | 0.4-7.0 | 0 | 3 | 5 | 52 | 40 | 36 | 10 | 25 | A-4b * |
| | | 7.0-16.0 | 0 | 39 | 31 | 16 | 14 | 24 | 5 | 20 | A-3a |
| | | 16.0-23.0 | 56 | 23 | 5 | 9 | 7 | 28 | 7 | 15 | A-2-4 |
| | | 23.0-28.0 | 52 | 19 | 7 | 16 | 6 | NP | NP | 16 | A-1-b |
| | | 28.0-30.0 | 31 | 13 | 14 | 29 | 13 | NP | NP | 16 | A-4a |
| | | TWP. RD. NO. 131 RELOC. | | | | | | | | | |
| 88+45 | CL | 0.4-7.0 | 64 | 9 | 8 | 12 | 7 | NP | NP | 6 | A-1-b |
| | | 7.0-14.0 | 11 | 44 | 26 | 3 | 16 | 30 | 12 | 16 | A-2-6 |
| | | 14.0-17.0 | 48 | 16 | 12 | 15 | 9 | NP | NP | 13 | A-1-b |
| | | 17.0-20.0 | 61 | 17 | 6 | 11 | 5 | NP | NP | 14 | A-1-b |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 89+50 | CL | 0.5-4.0 | 64 | 13 | 8 | 6 | 9 | 28 | 4 | 15 | A-1-a |
| | | 4.0-9.0 | 4 | 1 | 8 | 63 | 23 | NP | NP | 25 | A-4b |
| | | 9.0-14.0 | 0 | 2 | 20 | 54 | 24 | NP | NP | 23 | A-4b |
| | | 14.0-17.0 | 4 | 8 | 22 | 48 | 18 | NP | NP | 26 | A-4a |
| | | 17.0-20.0 | 38 | 27 | 20 | -15- | | NP | NP | 22 | A-1-b |
| | | 20.0-25.0 | 72 | 11 | 5 | 9 | 3 | NP | NP | 14 | A-1-a |
| 93+25 | 40'Rt | 0.5-3.0 | 40 | 17 | 16 | 16 | 11 | NP | NP | 12 | A-2-4 |
| | | 3.0-8.0 | 0 | 1 | 28 | 47 | 24 | 27 | 9 | 22 | A-4a |
| | | 8.0-11.0 | 33 | 11 | 12 | 22 | 22 | 35 | 10 | 21 | A-4a |
| | | 11.0-13.0 | 56 | 9 | 8 | 15 | 13 | 31 | 10 | 22 | A-2-4 |
| | | 13.0-17.0 | 72 | 10 | 5 | 8 | 5 | NP | NP | 11 | A-1-a |
| | | 17.0-22.0 | 47 | 24 | 12 | 11 | 6 | NP | NP | 15 | A-1-b |
| 95+05 | 50'Lt | 0.5-5.0 | 0 | 0 | 6 | 58 | 36 | 34 | 10 | 24 | A-4b |
| | | 5.0-9.0 | 0 | 2 | 7 | 48 | 43 | 44 | 25 | 23 | A-7-6 |
| | | 9.0-12.0 | 60 | 7 | 7 | 15 | 11 | 31 | 5 | 30 | A-2-4 |
| | | 12.0-17.0 | 73 | 8 | 5 | 10 | 4 | NP | NP | 20 | A-1-a |
| | | 17.0-22.0 | 68 | 16 | 4 | 9 | 3 | NP | NP | 13 | A-1-a |
| 95+82 | 3'Lt | 0.5-4.0 | 20 | 12 | 17 | 30 | 21 | 28 | 8 | 18 | A-4a * |
| | | 4.0-9.0 | 61 | 17 | 7 | 10 | 5 | NP | NP | 6 | A-1-a |
| | | 9.0-12.0 | 43 | 17 | 11 | 20 | 9 | NP | NP | 11 | A-2-4 |
| | | 12.0-16.0 | 54 | 12 | 9 | 18 | 7 | NP | NP | 12 | A-1-b |
| 98+30 | 15'Lt | 0.5-3.0 | 4 | 3 | 10 | 57 | 26 | 23 | 6 | 21 | A-4b * |
| | | 3.0-5.0 | 44 | 13 | 12 | 19 | 15 | 26 | 9 | 21 | A-2-4 * |
| | | 5.0-8.0 | 0 | 17 | 55 | 13 | 15 | NP | NP | 13 | A-3a |
| | | 8.0-12.0 | 60 | 9 | 7 | 16 | 8 | NP | NP | 11 | A-1-b |
| 100+50 | 25'Lt | 0.5-3.0 | 0 | 3 | 5 | 48 | 44 | 34 | 12 | 33 | A-6a |
| | | 3.0-6.0 | 2 | 11 | 9 | 44 | 34 | 34 | 7 | 27 | A-4a |
| | | 6.0-8.0 | 0 | 3 | 4 | 50 | 43 | 38 | 16 | 23 | A-6b |
| | | 8.0-12.0 | 45 | 21 | 7 | 14 | 13 | 28 | 10 | 12 | A-2-4 |
| | | 12.0-17.0 | 65 | 12 | 6 | 11 | 6 | 23 | 9 | 18 | A-2-4 |
| | | 17.0-22.0 | 47 | 20 | 10 | 15 | 8 | NP | NP | 20 | A-1-b |
| | | 22.0-25.0 | 72 | 13 | 3 | 10 | 2 | NP | NP | 16 | A-1-a |
| | | 25.0-30.0 | 16 | 8 | 14 | 37 | 25 | 21 | 6 | 13 | A-4a |
| | | EXISTING S. R. 16 | | | | | | | | | |
| 740+00 | 18'Lt | 0.5-4.0 | 10 | 9 | 17 | 45 | 19 | 20 | 5 | 13 | A-4a * |
| | | 4.0-8.0 | 10 | 14 | 17 | 38 | 21 | 19 | 3 | 16 | A-4a |
| | | 8.0-10.0 | 19 | 9 | 14 | 37 | 21 | 19 | 3 | 13 | A-4a |
| | | 10.0-13.0 | 16 | 10 | 16 | 38 | 20 | NP | NP | 12 | A-4a |
| | | 13.0-14.0 | 12 | 11 | 16 | 37 | 24 | 24 | 6 | 15 | A-4a |
| | | 14.0-15.0 | 27 | 39 | 12 | 14 | 8 | NP | NP | 8 | A-1-b |
| 743+35 | 18'Lt | 0.5-4.0 | 28 | 8 | 12 | 33 | 21 | 24 | 6 | 17 | A-4a |
| | | 4.0-9.0 | 65 | 10 | 9 | 10 | 6 | 22 | 2 | 15 | A-1-b |
| | | 9.0-15.0 | 60 | 26 | 5 | 6 | 3 | NP | NP | 7 | A-1-a |
| 745+50 | 18'Lt | 1.0-2.0 | 0 | 2 | 3 | 59 | 36 | 27 | 6 | 20 | A-4b |
| | | 2.0-5.0 | 50 | 8 | 9 | 19 | 14 | 20 | 5 | 12 | A-2-4 |
| | | 5.0-10.0 | 3 | 5 | 19 | 47 | 26 | 24 | 5 | 17 | A-4a |
| | | 10.0-15.0 | 43 | 22 | 9 | 14 | 12 | 29 | 10 | 15 | A-2-4 |
| | | 15.0-17.0 | 44 | 16 | 14 | 17 | 9 | 23 | 9 | 17 | A-2-4 |
| | | 17.0-19.0 | 20 | 5 | 8 | 51 | 16 | NP | NP | 20 | A-4b |
| | | 19.0-20.0 | 63 | 9 | 10 | 14 | 4 | NP | NP | 11 | A-1-a |
| 747+40 | 22'Rt | 0.4-6.0 | 25 | 7 | 18 | 32 | 18 | NP | NP | 19 | A-4a |
| | | 6.0-15.0 | 54 | 10 | 10 | 14 | 12 | 36 | 18 | 17 | A-2-6 |
| | | 15.0-20.0 | 71 | 10 | 7 | 7 | 5 | 31 | 13 | 17 | A-2-6 |
| 750+60 | 21'Rt | 0.4-6.0 | 32 | 10 | 12 | 24 | 22 | 34 | 15 | 27 | A-6a |
| | | 6.0-12.0 | 53 | 12 | 13 | 12 | 10 | 27 | 8 | 16 | A-2-4 |
| | | 12.0-17.0 | 29 | 15 | 12 | 28 | 16 | 26 | 7 | 22 | A-4a |
| | | 17.0-20.0 | 0 | 2 | 9 | 66 | 23 | NP | NP | 28 | A-4b |
| | | 20.0-28.0 | 0 | 1 | 7 | 59 | 33 | 29 | 2 | 28 | A-4b |
| | | 28.0-30.0 | 0 | 0 | 16 | 64 | 20 | 25 | — | 27 | A-4b |
| 755+30 | 18'Rt | 0.0-5.0 | 57 | 11 | 6 | 18 | 8 | NP | NP | 10 | A-2-4 * |
| | | 5.0-8.0 | 13 | 10 | 14 | 35 | 28 | 28 | 9 | 15 | A-4a |
| | | 8.0-10.0 | 9 | 4 | 12 | 38 | 36 | 35 | 14 | 19 | A-6a |
| | | 10.0-13.0 | 20 | 12 | 22 | 30 | 16 | 25 | 2 | 25 | A-4a |
| | | 13.0-18.0 | 68 | 10 | 8 | 11 | 3 | NP | NP | 17 | A-1-a |
| | | 18.0-22.0 | 57 | 15 | 9 | 14 | 5 | NP | NP | 13 | A-1-b |

# SOIL PROFILE
## LICKING COUNTY
## LIC-16&161-(14.30-18.51)&(11.13)
## Part I OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS. COLUMBUS. OHIO

4/36

N

Existing S.R. 161

℄ Proposed Channel Relocation

NOTE: For cross section of station 32+00, see sheet 12.

℄ Proposed S.R. 16&161

Cultivated field | Weeds | Plowed field | Corn | Wooded

Max. 6' emb. | Max. 10' emb. | Max. 10' emb.

Max. 5' cut | Max. 6' emb.

Pasture | Lawn | Pasture | Swamp Standing water | Plowed field | Weeds | Raccoon Creek | Wooded | Wooded

Granville Gravel Co.

NOTE: For cross sections of stations 14+00, 20+00 and 25+00, see sheet 11.

NOTE: For cross sections of stations 4+50, 5+00 and 5+50, see sheet 9.

NOTE: For cross sections of stations 9+00, 10+00 and 11+00, see sheet 10.

LOG OF OFFSET BORING — 175' Lt. Sod & TS=0.4'

LOG OF OFFSET BORING — 175' Lt. Sod & TS=0.4'

High Water

15' Rt. — Hole caved in at elev. 911.6'

15' Rt. TS=0.5' — Hole caved in at elev. 908.0'

42' Lt. TS=1.0' — Refusal (Hand Auger)

7' Rt. TS=0.5' — Hole caved in at elev. 915.7' — * Organic ** Trace of organic

45' Lt. TS=1.0' — Hole caved in at elev. 905.6'

℄ TS=0.5' — Refusal (Boulders) (Hole caved in at elev. 906.6)

℄ TS=0.5' — Hole caved in at elev. 886.3'

75' Rt. — Trace of Org. — Slightly Org.

℄ TS=1.0' — Hole caved in at elev. 913.0'

℄ TS=1.0' — Trace of Org. — Hole caved in at elev. 911.0'

Sod & TS=0.5' — Trace of Org. — Hole caved in at elev. 907.0'

50' Rt. Sod=0.5' — Trace of Org. — Hole caved in at elev. 903.7' and 894.7'

℄ TS=0.2' — Trace of Org.

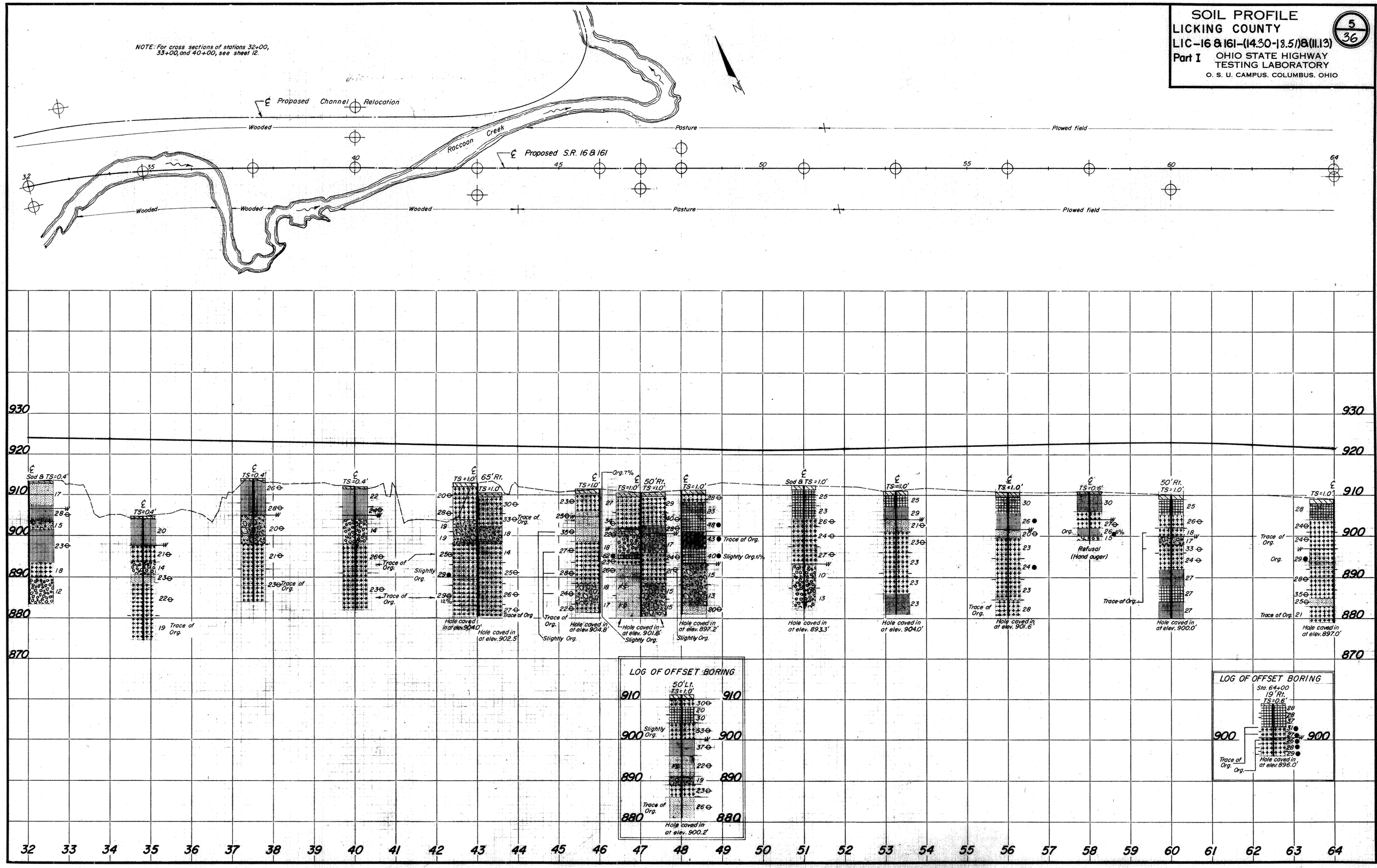
Sod & TS=0.4'

Sod & TS=0.3'

Sod & TS=0.4'

LOG OF OFFSET BORING — 90' Lt. TS=1.0' — Refusal

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32


SOIL PROFILE
LICKING COUNTY
LIC-16 & 161-(14.30-18.51)&(11.13)
Part I
OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO
5
36
NOTE: For cross sections of stations 32+00, 33+00, and 40+00, see sheet 12.
℄ Proposed Channel Relocation
Wooded
Pasture
Plowed field
Raccoon Creek
℄ Proposed S.R. 16 & 161
Wooded
Wooded
Wooded
Pasture
Plowed field
Sod & TS=0.4'
TS=0.4'
TS=0.4'
TS=0.4'
TS=1.0'
65' Rt.
TS=1.0'
Org. 7%
TS=1.0'
50' Rt.
TS=1.0'
TS=1.0'
Sod & TS=1.0'
TS=1.0'
TS=1.0'
TS=0.6'
50' Rt.
TS=1.0'
TS=1.0'
Trace of Org.
Slightly Org.
Trace of Org.
Slightly Org. 6%
Refusal (Hand auger)
Hole caved in at elev. 904.0'
Hole caved in at elev. 902.5'
Hole caved in at elev. 904.8'
Hole caved in at elev. 901.8'
Hole caved in at elev. 897.2'
Hole caved in at elev. 893.3'
Hole caved in at elev. 904.0'
Hole caved in at elev. 901.6'
Hole caved in at elev. 900.0'
Hole caved in at elev. 897.0'
LOG OF OFFSET BORING
50' Lt.
TS=1.0'
Slightly Org.
Trace of Org.
Hole caved in at elev. 900.2'
LOG OF OFFSET BORING
Sta. 64+00
19' Rt.
TS=0.6'
Trace of Org.
Org.
Hole caved in at elev. 896.0'
930
920
910
900
890
880
870
32
33
34
35
36
37
38
39
40
41
42
43
44
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63
64

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51)&(11.13)

Part I OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS. COLUMBUS. OHIO

6/36

Proposed Channel Relocation

Raccoon Creek

Plowed field

Wooded

Corn

Weeds

Trailer Court

Existing Twp. Rd. No. 131

℄ Ramp "A"

℄ Ramp "B"

℄ Ramp "C"

℄ Ramp "D"

℄ Existing S.R. 16

℄ Proposed S.R. 16 & 161

℄ Twp. Rd. No. 131 Relocation (Cont.)

℄ Twp. Rd. No. 131 Relocation

Sta. 91+20, ℄ Proposed Ramp A = Sta. 753+20 ℄ Existing S.R. 16

Sta. 88+20 ℄ Twp. Rd. No. 131 Relocation = Sta. 753+20, ℄ Existing S.R. 16

Sta. 87+25.96 ℄ Proposed S.R. 16 & 161 = Sta. 748+44 ℄ Existing S.R. 16

MATCH LINE

NOTE: For plan view and profile of Existing S.R. 16, see sheet 8

NOTE: For profiles of Ramps "A", "B", "C", "D", and Twp. Rd. No. 131 Relocation, see sheet 7.

Note: Proposed grade of Existing S.R. 161 is elev. 939.5'

LOG OF OFFSET BORING
Sta. 64+00
19' Rt.
TS=0.6'
Trace of Org.
Org.
Hole caved in at elev. 896.0'

LOG OF OFFSET BORING
Sta. 80+00
770' Lt.
Sod &TS=0.4'
Trace of Org.

℄ TS=1.0'
Trace of Org.

℄ TS=1.0'
Trace of Org.
Hole caved in at elev. 899.0'

30' Rt.
TS=1.0'
Trace of Org.
Hole caved in at elev. 910.6 and 898.6

℄ TS=1.0'
Slightly Org.
Trace of Org.
Slightly org.
Hole caved in at elev. 898.5'

℄ TS=1.0'
Trace of Org.
Slightly Org. 5%
Hole caved in at elev. 904.3' and 898.3'

℄ TS=0.5'
Trace of Org.
Hole caved in at elev. 899.1'

℄ TS=0.5'
Hole caved in at elev. 903.3'

℄
Hole caved in at elev. 904.5'

℄
Sod &TS=0.4'

14' Lt.
Hole caved in at elev. 908.0'

℄
Sod &TS=0.4'

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51) 8.01.13

Part I OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

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## Ramp "A"

7'Lt. Sod & TS=0.4'

℄ TS=0.4'

℄ TS=0.5'

(Twp. Rd. No. 131, Reloc. Sta. 68+45, ℄)

28'Lt. Sod=0.5'

Hole caved in at elev. 906.9'

Hole caved in at elev. 903.2

Trace of Org.

Hole caved in at elev. 898.3

## Ramp "B"

(Existing S.R. 16 Sta. 750+60-21'Rt.)

38'Rt.

(Ramp "A"- Sta. 87+10-℄)

20'Rt. TS=0.5'

(Ramp "A"- Sta. 84+20 ℄)

45'Rt. TS=0.4'

8'Rt. TS=0.5'

73'Lt.

Refusal (Hand Auger)

Hole caved in at elev. 903.2

Trace of Org.

Hole caved in at elev. 902.0'

Trace of Org.

## Ramp "C"

30'Lt. TS=0.5'

Hole caved in at elev. 904.0'

53'Lt. TS=0.5'

(Existing S.R. 16 Sta. 745+50-18'Lt.)

20'Lt.

Hole caved in at elev. 912.0'

Hole caved in at elev. 905.5' and 896.5'

## Ramp "D"

(Existing S.R. 16 Sta. 743+35-18'Lt.)

50'Lt.

35'Lt. Sod B TS=0.4'

5'Rt. Sod B TS=0.4'

28'Lt. Sod B TS=0.4'

20'Rt. Sod B TS=0.4'

## Twp. Rd. No. 131 Relocation

℄

℄ Sod B TS=0.5'

Hole caved in at elev. 899.2'

40'Rt. TS=0.5'

Hole caved in at elev. 899.6'

50'Lt. Sod B TS=0.5'

Hole caved in at elev. 899.2'

3'Lt. Sod B TS=0.5'

15'Lt. Sod B TS=0.5'

25'Lt. Sod B TS=0.5'

Hole caved in at elev. 907.6'

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51)&(11.13)

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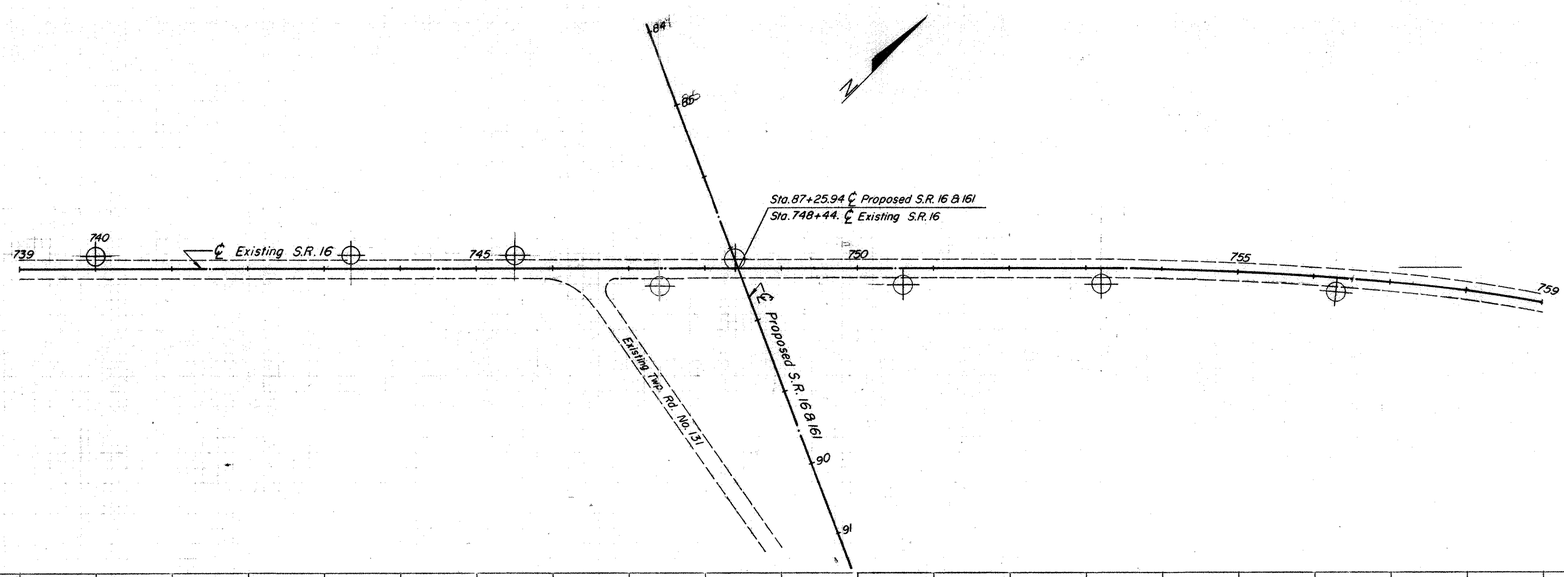
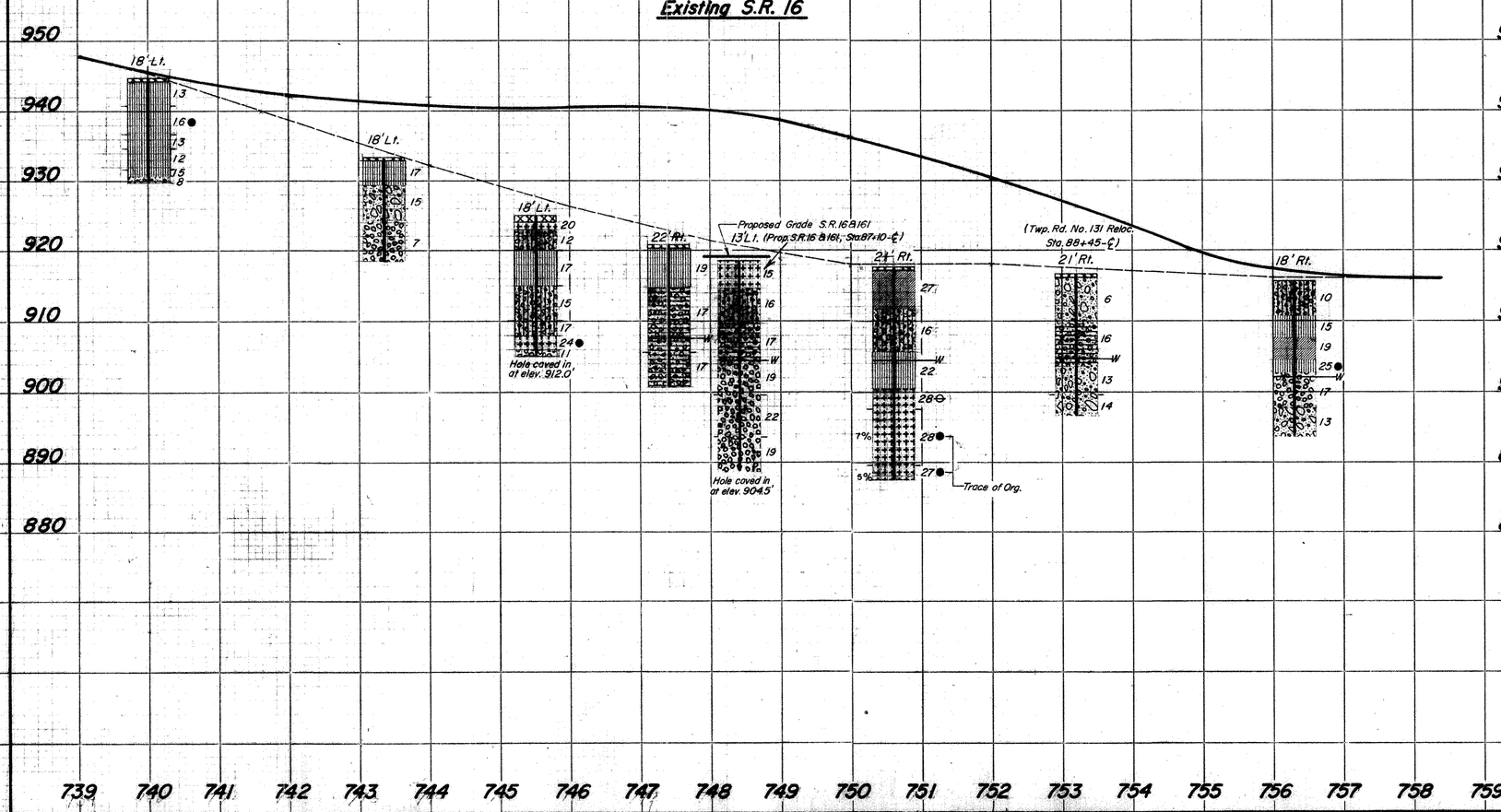
**Part I** OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO




## Existing S.R. 16



SOIL PROFILE
LICKING COUNTY
LIC- 16 & 161-(14.30-18.51) & (11.13)
Part I OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

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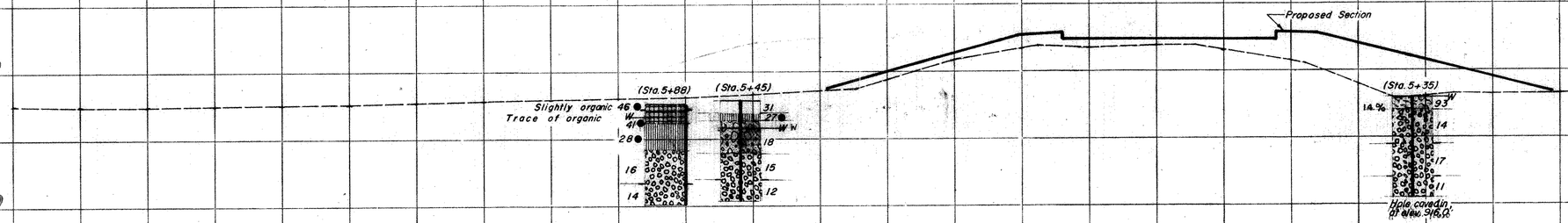
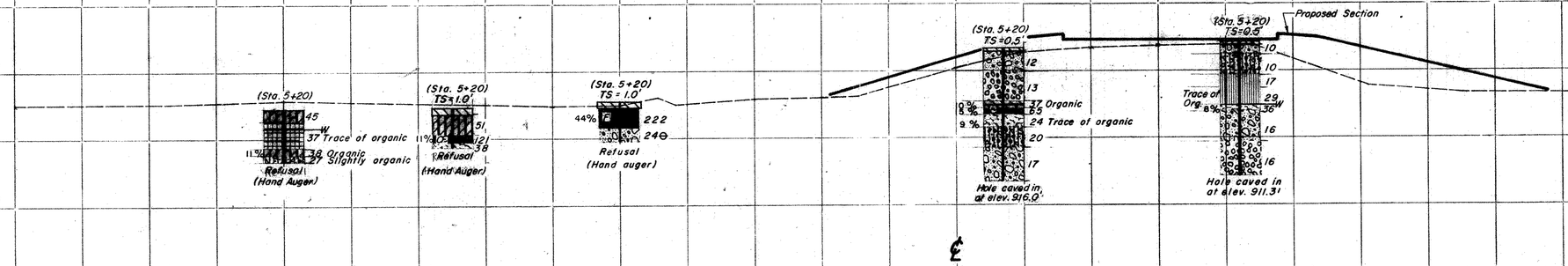
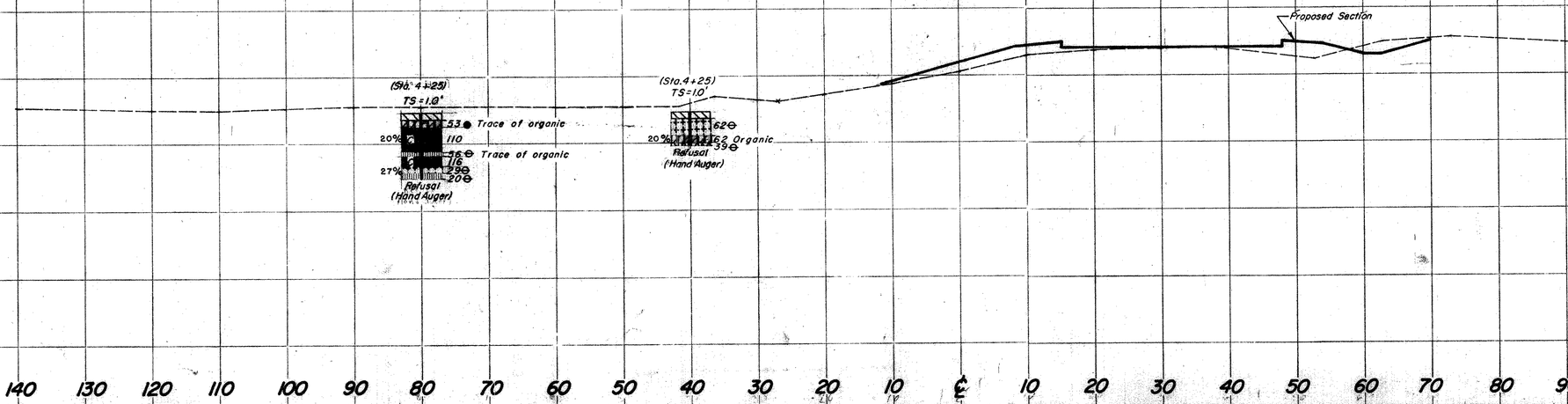
## Cross Section Sta. 5+50




## Cross Section Sta. 5+00




## Cross Section Sta. 4+50

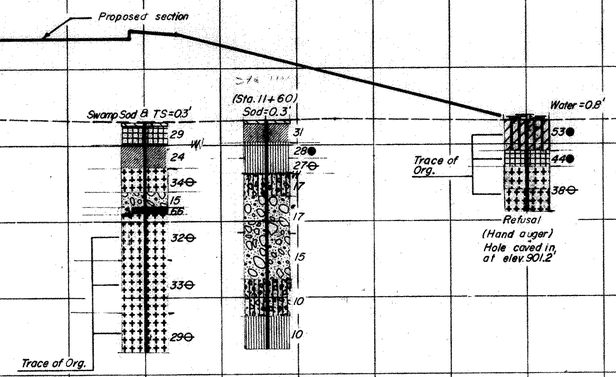



140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140

# SOIL PROFILE
## LICKING COUNTY
## LIC-16&161-(14.30-/8.5/)8(11.3)
## Part I OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

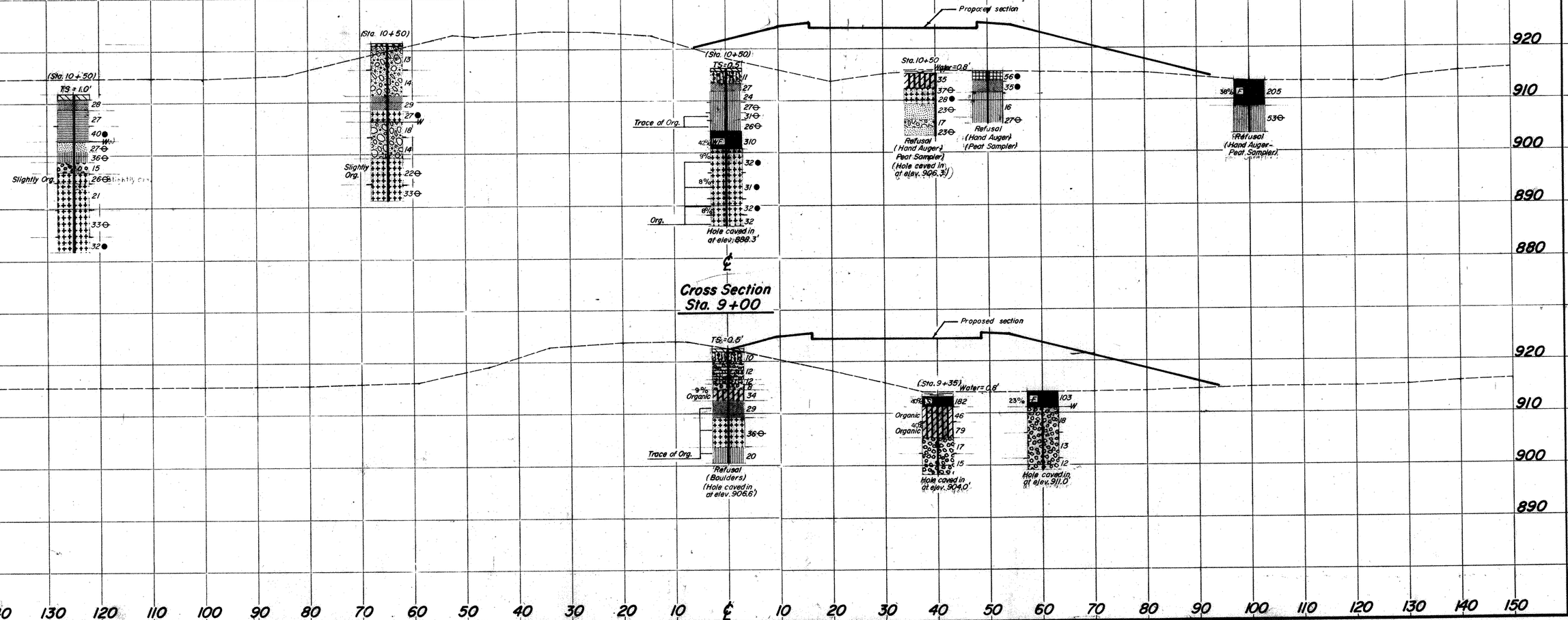
10/36

### Cross Section Sta. 11+00




℄

### Cross Section Sta. 10+00




℄

### Cross Section Sta. 9+00




920 910 900 890 880

140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

# SOIL PROFILE

LICKING COUNTY

LIC-16&161-(14.30-13.51)8(11.13)

Part I

OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

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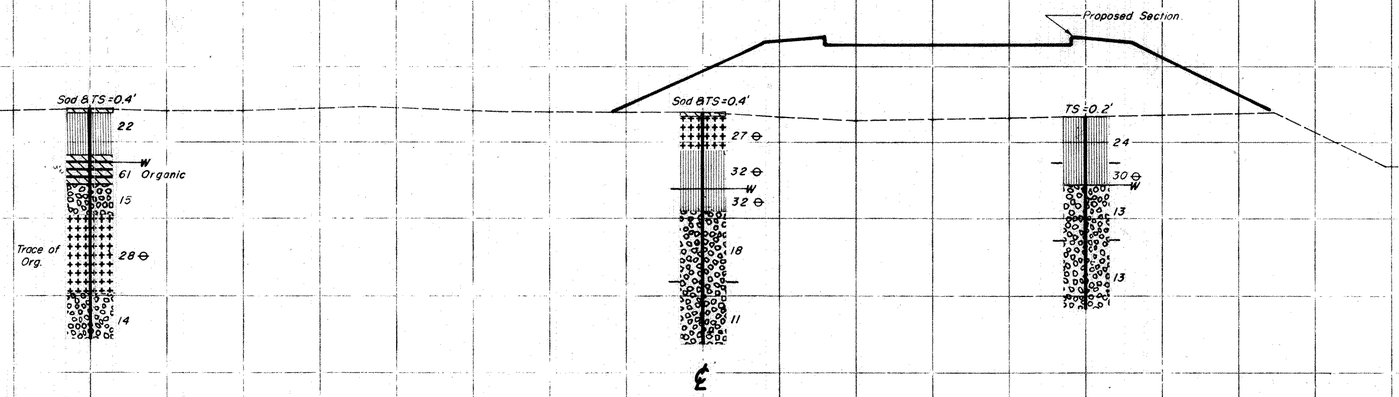
## Cross Section Sta. 25+00

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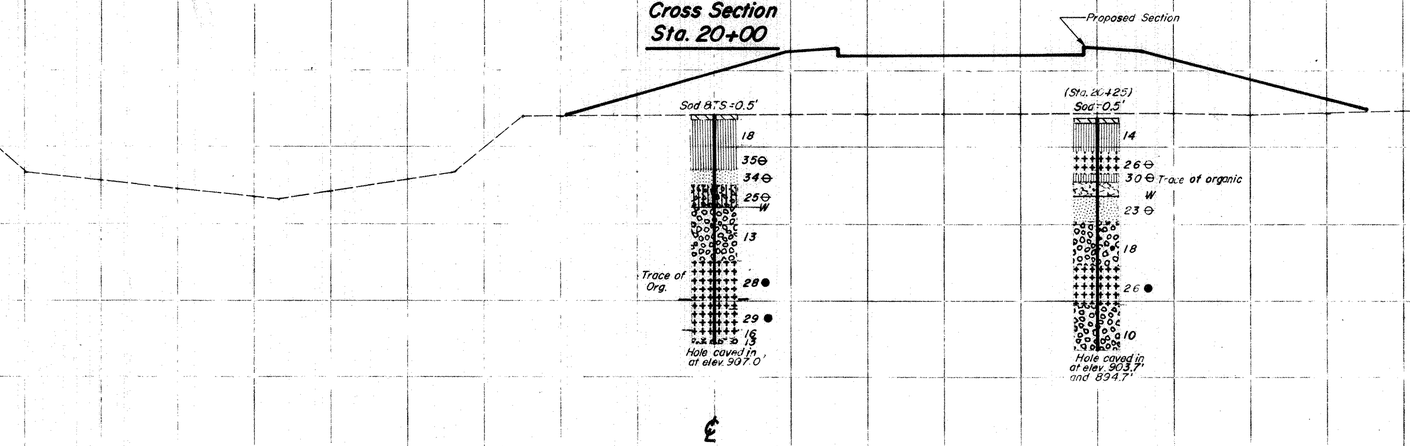


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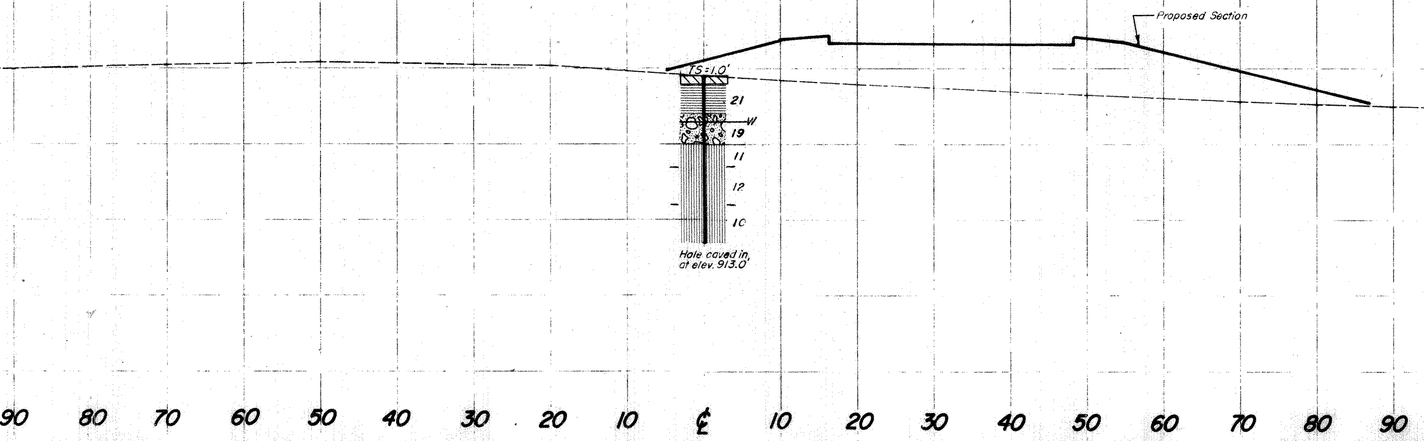


150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51) & (11.13)

Part I OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

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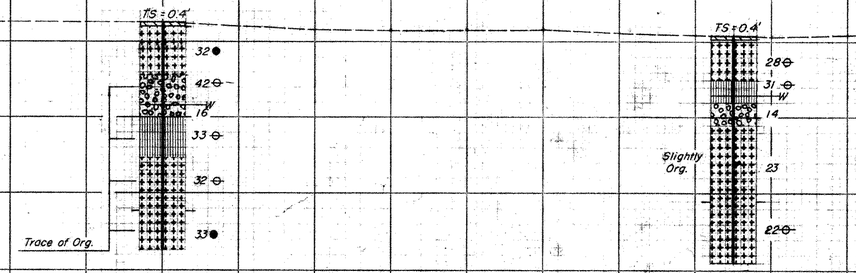
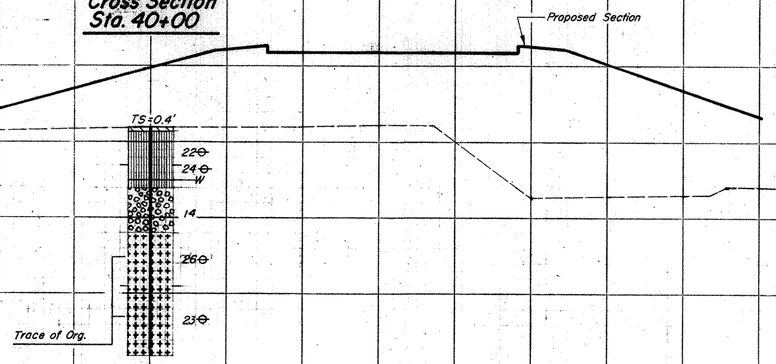
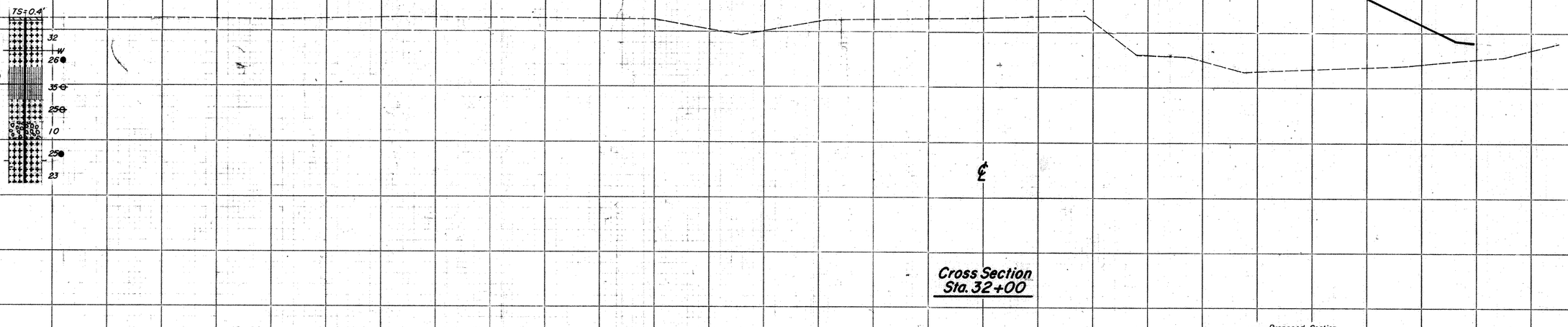
## Cross Section Sta. 40+00

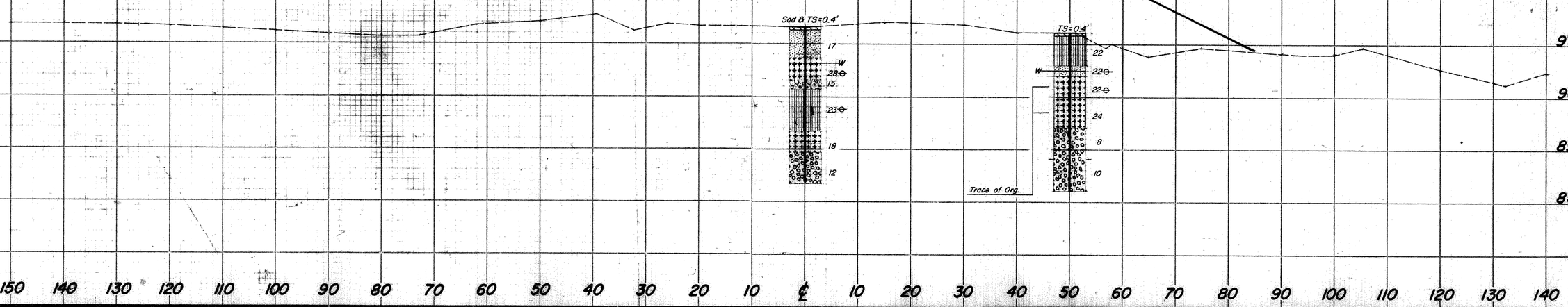



## Cross Section Sta. 33+00




## Cross Section Sta. 32+00




920 910 900 890 880

180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140

## GENERAL INFORMATION

### INTRODUCTION

The project consists of approximately 4.08 miles of a major relocation of S.R.16 and 161 (Granville by-pass), beginning approximately 400 feet east of existing SR 16, extending eastward, terminating approximately 1700 feet east of Existing SR 512. Also included are ramps at the SR 37 Interchange, Twp. Rd. No. 131 Relocation, SR 512 and Ramp "A" (SR 16 Interchange).

The proposed grade indicates the following:

SR 16 and 161 - cuts, generally ranging between 10 to 35 feet deep, but as deep as 77 feet; fill embankment ranging from 0 to as much as 53 feet in height.

Ramp "E" - fill embankment, ranging from 5 to 12 feet in height.

Ramp "G" - cut, 0 to 70 feet deep, fill embankment, 0 to 13 feet in height.

SR 37 - fill embankment, 0 to 18 feet in height.

Twp. Rd. 131 - fill embankment, ranging between 0 and 6 feet in height.

Ramp "F" - fill embankment, ranging between 0 and 14 feet in height.

Ramp "H" - cut, ranging between 0 and 9 feet deep, and fill embankment, not greater than 20 feet in height.

Twp. Rd. No. 131 Relocation - cut, as much as 30 feet deep, and fill embankment, not greater than 2 feet in height.

Ramp "A" (SR 16 Interchange) - fill embankment, on the order of 10 to 20 feet in height.

SR 512 - cut, from 0 to 60 feet deep, fill embankment, as much as 38 feet in height.

### GEOLOGY OF THE SITE

The project is located within the limits and on the north valley wall of a deeply filled valley of Deep Stage age, presently being incised by Raccoon Creek. Valley fill is of glacial origin, reported to be on the order of 100 feet thick. Soil cover on the valley walls is of residual origin, generally of shallow thickness. Local bedrock comprises shale and sandstone, of Mississippian age.

### EXPLORATION

Exploratory borings were made by means of truck mounted mechanical earth auger and hand auger (in areas of difficult access), and rotary-type drill rig between February 15 and June 21, 1960. Soil profile borings were supplemented by drive sample borings made in conjunction with the structure foundation investigations for the project.

### INVESTIGATIONAL FINDINGS

SR 16 & 161

Materials below the proposed grade are comprised of silts, silty clays, sands, and gravels, as well as shale and sandstone bedrock, as follows:

| Approximate Station Interval | Material Immediately Below Grade |
|---|---|
| 99+00 to 104+50 | Shale |
| 104+50 to 121+00 | Silts, silty clay, sands and gravels |
| 121+00 to 131+00 | Silts and gravels |
| 133+50 to 144+50 | Silty clay, sands and clayey gravels |
| 216+00 to 222+00 | Sand and gravel |
| 226+00 to 239+50 | Silty Clay |
| 265+50 to 270+00 | Shale and sandstone |
| 270+00 to 273+00 | Silts, sands and gravels |
| 290+00 to 312+00 | Silts, sand and gravel |

Silts occurring within 3 feet of grade are considered frost susceptible.

Embankment foundation materials are generally comprised of 2 to 24 feet of sandy silt, in the A-4a classification, overlying gravel and some sand. It is noted that the at-surface materials are wet and somewhat compressible between stations 124+00 to 126+00; 131+00 to 133+00; 145+00 to 147+00; 183+00 to 185+00; 192+00 to 214+00; 250+00 to 256+00; 288+00 to 288+00. Fine-textured peat, two to three feet thick, was encountered within the upper 5 feet of foundation at stations 145+40 and 155+70.

Ramp "E" - embankment foundation materials are comprised of silts and clays overlying gravels.

Ramp "G" - through cut in shale between station 103+00 and 107+00; from station 107+00 to 110+50, materials immediately below proposed grade consist of gravel; embankment foundation materials consist of sandy silt.

SR 37 - embankment foundation materials and materials occurring immediately below proposed grade are comprised of sandy silt and silt, in the A-4a and A-4b classifications. Silts occurring within 3 feet of proposed grade are considered frost susceptible.

Twp. Rd. 131 - materials occurring immediately below grade and embankment foundation materials consist of silt and silt clays overlying gravels.

Ramp "F" - embankment foundation materials are composed of gravels, in the A-1-b and A-2-4 classifications, overlain by silt and clay, in the A-6a classification.

Ramp "H" - materials occurring immediately below proposed grade and embankment foundation materials consist of unstratified silts, silt clays and gravels.

Twp. Rd. No. 131 Relocated - materials occurring immediately below proposed grade are comprised of gravels, silts, and clays, in the A-1-b, A-2-4, A-2-6, A-4a, and A-6a classifications.

Ramp "A" - embankment foundation materials consist of somewhat wet silts, silt clays, and gravels to a depth of 40 feet.

SR 512 - cut, as deep as 50 feet on centerline in sandstone and shale between stations 289+00 and 293+00; materials below proposed grade and embankment foundation materials in the remainder are comprised of unstratified silts and gravels.

## LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS - 563 SAMPLES TESTED

| DESCRIPTION | H. R. B. CLASS | OHIO CLASS | % AGG. | % C. SAND | % F. SAND | % SILT | % CLAY | LIQUID LIMIT | PLASTICITY INDEX | WATER CONTENT | SAMPLES TESTED |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gravel and/or stone fragments | A-1-a (0) | A-1-a | 65 | 20 | 8 | - 7 - | | NP | NP | 13 | 78 |
| Gravel and/or stone fragments with sand | A-1-b(0) | A-1-b | 54 | 21 | 11 | 11 | 6 | NP | NP | 12 | 76 |
| Coarse and fine sand | ------ | A-3a | 9 | 25 | 44 | 13 | 9 | NP | NP | 19 | 21 |
| Gravel and/or stone fragments with sand and silt | A-2-4 (0) | A-2-4 | 43 | 14 | 11 | 18 | 11 | 25 | 3 | 17 | 42 |
| Gravel and/or stone fragments with sand, silt, and clay | A-2-6 (1) | A-2-6 | 44 | 17 | 11 | 13 | 15 | 34 | 15 | 19 | 20 |
| Sandy silt | A-4(1) | A-4a | 15 | 9 | 20 | 35 | 21 | 23 | 4 | 18 | 200 |
| Silt | A-4 (8) | A-4b | 1 | 2 | 12 | 59 | 26 | 28 | 4 | 25 | 52 |
| Silt and clay | A-6(8) | A-6a | 15 | 5 | 9 | 40 | 31 | 33 | 12 | 23 | 50 |
| Silty clay | A-6(10) | A-6b | 12 | 7 | 8 | 42 | 31 | 36 | 17 | 25 | 15 |
| Elastic clay with organic material | A-7-5(10) | A-7-5 | 0 | 2 | 21 | 53 | 24 | 45 | 13 | 47 | 2 |
| Clay | A-7-6(12) | A-7-6 | 21 | 8 | 3 | 29 | 39 | 44 | 20 | 33 | 2 |
| Fine-textured peat | | | VISUAL CLASSIFICATION | | | | | | | | 2 |
| Fill material | | | VISUAL CLASSIFICATION | | | | | | | | 1 |
| Weathered sandstone | Overburden | | VISUAL CLASSIFICATION | | | | | | | | |
| Weathered shale | | | VISUAL CLASSIFICATION | | | | | | | | 2 |
| Sandstone | | | VISUAL CLASSIFICATION | | | | | | | | |
| Shale | | | VISUAL CLASSIFICATION | | | | | | | | |

- Auger boring - plan view.
- Drive sample and/or core boring - plan view.
- Auger boring plotted to vertical scale only.
- Drive sample and/or core boring plotted to vertical scale only.

NOTE: Small vertical figures beside borings indicate loss on ignition. e.g. 15%

NOTE: Figures beside borings indicate water content in percent. e.g. 15

- Sod and/or topsoil - X = Approximate depth.
- Berm material
- Number of blows for "Standard Penetration" test. X = number of blows for the first 6 inches. Y = number of blows for the second 6 inches.
- Water content nearly equal to or greater than liquid limit.
- Indicates non-plastic material with high water content.
- Free water
- Static water level

Samples Tested
Lab. Nos. So.

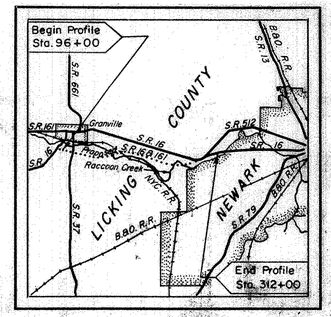
46948 - 46957 incl., 47207 - 47285 incl., 47287 - 47418 incl., 47473 - 47484 incl., 48455 - 48617 incl., 48852 - 48874 incl., 49011 - 49117 incl., 49610. 61712 - 61747 incl.

# SOIL PROFILE
## LICKING COUNTY
## LIC-16 & 161-(14.30-18.51) & (11.13)
## Part II

OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

13/36

NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.




LOCATION MAP

Recon - I.M. - 2/24/60
Drilling Auger - A.J.P., B.D.L., J.R.G. - 2/15/60 - 6/21/60
Drive Sample-Core - K.D.E., W.F.H., D.W.B. - 3/10/60 - 5/11/60
Drafting - R.A.W., L.M.L., W.E.J. -

### PROJECT INDEX

| DRAWING | PLAN VIEW SHEET | PROFILE SHEET |
|---|---|---|
| Sta. 96+00 to 128+00 | 5 | 5 |
| Sta. 128+00 to 160+00 | 6 | 6 |
| Sta. 160+00 to 192+00 | 8 | 8 |
| Sta. 192+00 to 224+00 | 10 | 10 |
| Sta. 224+00 to 256+00 | 11 | 11 |
| Sta. 256+00 to 288+00 | 12 | 12 |
| Sta. 288+00 to 312+00 | 13 | 13 |
| Ramp "E" | 14 | 14 |
| Ramp "F" | 15 | 15 |
| Ramp "G" | 16 | 16 |
| Ramp "H" | 17 | 17 |
| S.R. 37 | 18 | 18 |
| Twp. Rd. No. 131 (SR 37 Interchange) | 19 | 19 |
| Twp. Rd. No. 131 Relocation | 20 | 20 |
| Ramp "A" (Existing S.R. 16 Connection) | 21 | 21 |
| Proposed S.R. 512 | 22 | 22 |
| 98&0 | | |
| CROSS SECTION | PLAN VIEW SHEET | CROSS SECTION SHEET |
| Sta. 100+50 | 7 | 7 |
| Sta. 101+00 | 7 | 7 |
| Sta. 103+00 | 7 | 7 |
| Sta. 104+50 | 7 | 7 |
| Sta. 106+00 | 7 | 7 |
| Sta. 108+50 | 7 | 7 |
| Sta. 115+00 | 7 | 7 |
| Sta. 119+00 | 7 | 7 |
| Sta. 139+00 | 9 | 9 |
| Sta. 140+00 | 9 | 9 |
| Sta. 141+00 | 9 | 9 |
| Sta. 142+00 | 9 | 9 |
| Sta. 145+00 | 9 | 9 |
| Sta. 156+50 | 9 | 9 |
| Sta. 183+00 | 9 | 9 |
| Sta. 202+50 | 9 | 9 |
| Sta. 211+00 | 9 | 9 |
| Sta. 262+00 | 9 | 9 |
| Sta. 266+00 | 9 | 9 |
| Sta. 270+50 | 9 | 9 |
| Sta. 285+50 | 9 | 9 |
| Sta. 290+00 | 10 | 10 |

# SOIL PROFILE
## LICKING COUNTY
## LIC-16 & 161-(14.30-/8.51)&(11.13)
## Part II

OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

14/36

## SUMMARY OF SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTD CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S.R. 16 & 161 | | | | | | | |
| 97+00 | CL | 0.0-3.0 | 0 | 1 | 1 | 59 | 39 | 38 | 18 | 25 | A-6b |
| | | 3.0-10.0 | 30 | 23 | 15 | 19 | 13 | 33 | 14 | 20 | A-2-6 |
| | | 10.0-15.0 | 43 | 20 | 10 | 17 | 10 | 23 | 5 | 14 | A-2-4 |
| | | 15.0-20.0 | 57 | 18 | 6 | 12 | 7 | 25 | 6 | 11 | A-1-b |
| 97+00 | 50'Rt. | 0.0-5.0 | 0 | 1 | 3 | 57 | 39 | 39 | 16 | 26 | A-6b* |
| | | 5.0-8.0 | 16 | 12 | 13 | 37 | 22 | 30 | 15 | 18 | A-6a |
| | | 8.0-15.0 | 41 | 63 | 18 | -15- | NP | NP | 13 | | A-3a |
| 99+00 | 36'Lt. | 0.0-5.0 | 14 | 2 | 7 | 53 | 24 | 29 | 10 | 26 | A-4b |
| | | 5.0-10.0 | 21 | 21 | 17 | 18 | 23 | 32 | 13 | 23 | A-6a |
| | | 10.0-15.0 | 32 | 10 | 14 | 34 | 10 | 31 | 14 | 20 | A-6a |
| | | 15.0-20.0 | 28 | 28 | 21 | 11 | 12 | 27 | 12 | 16 | A-2-6 |
| 100+50 | 75'Lt. | 0.0-7.0 | 18 | 2 | 3 | 44 | 33 | 33 | 13 | 25 | A-6a |
| | | 7.0-14.0 | 0 | 1 | 1 | 66 | 32 | 31 | 8 | 27 | A-4b |
| | | 14.0-20.0 | 35 | 18 | 12 | 20 | 15 | 26 | 9 | 24 | A-2-4 |
| 100+50 | CL | 0.0-1.5 | 64 | 3 | 5 | 19 | 9 | NP | NP | 17 | A-2-4 |
| 102+75 | CL | 0.0-5.0 | 50 | 7 | 8 | 14 | 21 | NP | NP | 8 | A-2-4 |
| 103+00 | 75'Lt. | 0.0-5.0 | 0 | 3 | 6 | 59 | 32 | 30 | 8 | 26 | A-4b |
| | | 5.0-7.0 | 0 | 0 | 0 | 62 | 38 | 37 | 17 | 22 | A-6b |
| | | 7.0-14.0 | 25 | 10 | 15 | 32 | 18 | 37 | 17 | 22 | A-6b |
| | | 14.0-20.0 | 43 | 14 | 8 | 18 | 17 | 32 | 12 | 22 | A-2-6 |
| 103+00 | CL | 0.0-2.0 | 32 | 7 | 13 | 33 | 15 | NP | NP | 25 | A-4a |
| 104+50 | 120'Lt. | 0.0-1.0 | 0 | 0 | 3 | 56 | 41 | 37 | 18 | 27 | A-6b |
| | | 1.0-8.0 | 0 | 0 | 0 | 54 | 46 | 41 | 19 | 28 | A-7-6 |
| | | 8.0-12.0 | 38 | 6 | 12 | 26 | 18 | 31 | 13 | 22 | A-6a |
| | | 12.0-20.0 | 49 | 12 | 7 | 25 | 7 | NP | NP | 10 | A-2-4 |
| 104+50 | 68'Lt. | 0.0-3.0 | 0 | 10 | 16 | 42 | 32 | 37 | 6 | 30 | A-4a |
| | | 3.0-5.0 | 0 | 1 | 1 | 49 | 49 | 36 | 15 | 28 | A-6a |
| | | 5.0-11.0 | 57 | 11 | 11 | 14 | 7 | NP | NP | 13 | A-1-b |
| | | 11.0-17.0 | 75 | 6 | 4 | 9 | 4 | NP | NP | 7 | A-1-a |
| 104+50 | 40'Lt. | 0.0-2.0 | 8 | 3 | 14 | 48 | 27 | 31 | 8 | 33 | A-4a |
| | | 2.0-5.0 | 0 | 0 | 1 | 62 | 37 | 33 | 11 | 28 | A-6a |
| | | 5.0-8.0 | 8 | 12 | 26 | 42 | 12 | NP | NP | 24 | A-4a |
| | | 8.0-15.0 | 52 | 9 | 11 | 23 | 5 | NP | NP | 13 | A-2-4 |
| 106+00 | 210'Rt. | 0.0-7.0 | 12 | 8 | 17 | 32 | 31 | 26 | 7 | 32 | A-4a |
| | | 7.0-13.0 | 51 | 11 | 7 | 20 | 18 | 28 | 14 | 24 | A-6a |
| | | 13.0-17.0 | 64 | 3 | 6 | 12 | 15 | 23 | 10 | 15 | A-2-4 |
| | | 17.0-19.0 | 42 | 8 | 8 | 25 | 17 | 26 | 10 | 9 | A-4a |
| 106+11 | CL | 0.0-5.0 | 0 | 1 | 1 | 66 | 32 | 32 | 10 | 25 | A-4b |
| | | 5.0-10.0 | 0 | 1 | 2 | 55 | 42 | 36 | 20 | 24 | A-6b* |
| | | 10.0-18.0 | 59 | 9 | 9 | 18 | 5 | NP | NP | 12 | A-1-b |
| | | 18.0-20.0 | 12 | 4 | 22 | 53 | 9 | NP | NP | 19 | A-4b |
| | | 20.0-28.0 | 68 | 7 | 8 | 13 | 4 | NP | NP | 12 | A-1-b |
| 108+00 | CL | 0.0-5.0 | 0 | 1 | 4 | 62 | 33 | 29 | 5 | 22 | A-4b |
| | | 5.0-11.0 | 0 | 1 | 3 | 65 | 31 | 27 | 5 | 25 | A-4b |
| | | 11.0-13.0 | 10 | 21 | 18 | 11 | 10 | NP | NP | 13 | A-3a |
| | | 13.0-20.0 | 73 | 10 | 4 | 9 | 4 | NP | NP | 8 | A-1-a |
| 108+50 | 100'Rt. | 0.0-4.0 | 51 | 12 | 10 | 12 | 15 | 30 | 9 | 20 | A-2-4 |
| | | 4.0-10.0 | 70 | 10 | 4 | 11 | 5 | NP | NP | 13 | A-1-b |
| 108+50 | 200'Rt. | 0.0-5.0 | 0 | 3 | 7 | 64 | 26 | 26 | 5 | 21 | A-4b |
| | | 5.0-10.0 | 33 | 13 | 17 | 20 | 17 | 23 | 4 | 19 | A-4a |
| | | 10.0-12.0 | 5 | 52 | 32 | -11- | | NP | NP | 13 | A-3a |
| | | 12.0-17.0 | 41 | 37 | 9 | -13- | | NP | NP | 7 | A-1-b* |
| | | 17.0-22.0 | 56 | 25 | 10 | - 9- | | NP | NP | 7 | A-1-a* |
| 110+10 | 20'Lt. | 0.0-7.0 | 0 | 0 | 2 | 56 | 42 | 35 | 12 | 24 | A-6a* |
| | | 7.0-14.0 | 0 | 1 | 0 | 59 | 40 | 32 | 12 | 25 | A-6a* |
| | | 14.0-20.0 | 64 | 17 | 6 | 8 | 5 | NP | NP | 9 | A-1-a |
| 112+00 | CL | 0.0-5.0 | 29 | 4 | 12 | 39 | 16 | NP | NP | 14 | A-4a |
| | | 5.0-10.0 | 0 | 0 | 0 | 62 | 38 | 34 | 11 | 35 | A-6a* |
| | | 10.0-17.0 | 0 | 4 | 6 | 55 | 35 | 28 | 11 | 24 | A-6a |
| | | 17.0-20.0 | 14 | 28 | 47 | -11- | | NP | NP | 6 | A-3a |
| | | 20.0-26.0 | 62 | 14 | 8 | 9 | 7 | NP | NP | 8 | A-1-b |
| 115+00 | CL | 0.0-5.0 | 0 | 4 | 5 | 49 | 42 | 37 | 14 | 25 | A-6a* |
| | | 5.0-10.0 | 52 | 17 | 9 | 13 | 9 | NP | NP | 11 | A-1-b |
| | | 10.0-15.0 | 46 | 30 | 15 | - 9- | | NP | NP | 10 | A-1-b |
| 115+00 | 200'Rt. | 0.0-5.0 | 53 | 16 | 9 | 14 | 8 | 21 | 3 | 9 | A-1-b |
| | | 5.0-14.0 | 8 | 5 | 14 | 41 | 32 | 31 | 12 | 20 | A-6a |
| 115+00 | 525'Rt. | 0.0-6.0 | 0 | 1 | 2 | 59 | 38 | 33 | 10 | 25 | A-4b |
| | | 6.0-15.0 | 65 | 11 | 8 | 10 | 6 | NP | NP | 9 | A-1-b |
| 117+00 | CL | 0.0-5.0 | 53 | 10 | 10 | 14 | 13 | 25 | 7 | 15 | A-2-4* |
| | | 5.0-12.0 | 62 | 23 | 7 | - 8- | | NP | NP | 7 | A-1-a* |
| | | *ADDITIONAL BORINGS | | | | | | | | | |
| 132+50 | 45'Lt | 0.0-4.0 | 10 | 11 | 6 | 61 | 32 | 32 | 13 | 25 | A-6a |
| | | 4.0-7.0 | 24 | 10 | 9 | 17 | 18 | 31 | 15 | 25 | A-2-6 |
| | | 7.0-12.0 | 33 | 16 | 13 | 29 | 29 | 21 | 7 | 13 | A-4a |
| | | 12.0-20.0 | 19 | 18 | 15 | 37 | 29 | 21 | 5 | 12 | A-4a |
| 132+50 | CL | 0.0-3.0 | 13 | 15 | 5 | 4 | 23 | 47 | 22 | 38 | A-7-6 |
| | | 3.0-9.0 | 60 | 17 | 6 | 7 | 10 | 31 | 13 | 28 | A-2-6 |
| | | 9.0-13.0 | 37 | 9 | 12 | 23 | 19 | 22 | 7 | 11 | A-4a |
| | | 13.0-20.0 | 8 | 10 | 18 | 32 | 34 | 21 | 6 | 14 | A-4a |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTD CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S.R. 16 & 161 | | | | | | | |
| 119+00 | 250'Lt. | 0.0-4.0 | 0 | 2 | 7 | 53 | 38 | 32 | 12 | 25 | A-6a* |
| | | 4.0-8.0 | 41 | 23 | 8 | 18 | 10 | NP | NP | 11 | A-2-4 |
| | | 8.0-12.0 | 59 | 16 | 6 | 12 | 7 | NP | NP | 10 | A-1-b |
| 119+00 | CL | 0.0-5.0 | 0 | 0 | 1 | 59 | 40 | 40 | 19 | 28 | A-6b* |
| | | 5.0-10.0 | 56 | 22 | 5 | 10 | 7 | 39 | 19 | 8 | A-2-6* |
| | | 10.0-15.0 | 59 | 12 | 6 | 16 | 7 | 23 | 7 | 10 | A-2-4 |
| 119+00 | 400'Rt. | 0.0-6.0 | 17 | 22 | 14 | 23 | 24 | 26 | 12 | 18 | A-4a |
| | | 6.0-10.0 | 16 | 40 | 12 | 14 | 18 | 29 | 8 | 17 | A-2-4 |
| | | 10.0-14.0 | 46 | 35 | 10 | : 9- | | NP | NP | 19 | A-1-b |
| | | 14.0-20.0 | 19 | 12 | 18 | 28 | 22 | 20 | 4 | 13 | A-4a |
| 122+00 | CL | 0.0-5.0 | 7 | 5 | 10 | 47 | 31 | 30 | 11 | 22 | A-6a* |
| | | 5.0-9.0 | 14 | 24 | 32 | 17 | 13 | NP | NP | 18 | A-3a |
| | | 9.0-15.0 | 25 | 10 | 15 | 29 | 21 | 21 | 5 | 12 | A-4a |
| 124+80 | CL | 0.0-5.0 | 7 | 9 | 11 | 43 | 30 | 23 | 1 | 21 | A-4a* |
| | | 5.0-7.0 | 39 | 14 | 10 | 20 | 17 | 23 | 1 | 26 | A-4a |
| | | 7.0-15.0 | 76 | 13 | 4 | - 7- | | NP | NP | 17 | A-1-a |
| | | 15.0-20.0 | 11 | 11 | 18 | 35 | 25 | 20 | 5 | 13 | A-4a |
| 126+00 | 75'Rt. | 0.0-4.0 | 0 | 2 | 4 | 53 | 41 | 31 | 14 | 36 | A-6a |
| | | 4.0-7.0 | 27 | 9 | 12 | 28 | 24 | 36 | 10 | 19 | A-4a |
| 126+50 | CL | 0.0-5.0 | 17 | 13 | 19 | 28 | 23 | 27 | 8 | 32 | A-4a* |
| | | 5.0-9.0 | 52 | 9 | 10 | 13 | 16 | 30 | 13 | 22 | A-2-6 |
| | | 9.0-15.0 | 16 | 10 | 16 | 34 | 24 | 21 | 4 | 13 | A-4a |
| 127+45 | CL | 0.0-8.0 | 16 | 1 | 4 | 52 | 27 | 32 | 10 | 30 | A-4b* |
| | | 8.0-15.0 | 50 | 28 | 18 | -14- | | NP | NP | 16 | A-1-a |
| | | 15.0-20.0 | 36 | 10 | 15 | 25 | 14 | 19 | 3 | 11 | A-1a |
| 129+50 | CL | 0.0-4.0 | 0 | 2 | 3 | 55 | 40 | 23 | 1 | 24 | A-4b* |
| | | 4.0-10.0 | 52 | 13 | 9 | 12 | 14 | 40 | 16 | 25 | A-2-6 |
| | | 10.0-15.0 | 19 | 11 | 17 | 32 | 21 | 22 | 6 | 14 | A-4a |
| 132+00 | CL | 0.0-6.0 | 26 | 11 | 13 | 27 | 23 | 29 | 11 | 26 | A-6a* |
| | | 6.0-10.0 | 68 | 6 | 9 | 3 | 14 | 33 | 14 | 19 | A-2-6 |
| | | 10.0-15.0 | 18 | 10 | 16 | 33 | 23 | 20 | 5 | 12 | A-4a |
| | | 15.0-20.0 | 15 | 11 | 18 | 29 | 27 | 28 | 6 | 12 | A-4a |
| 132+00 | 60'Rt. | 0.0-2.0 | 0 | 2 | 3 | 43 | 52 | 38 | 12 | 43 | A-6a* |
| NOTE: For additional borings at stations 132+50 and 135+50 see below (first mod. column) | | 2.0-8.0 | 0 | 1 | 1 | 55 | 43 | 35 | 14 | 29 | A-6a |
| | | 8.0-14.0 | 69 | 9 | 8 | - 6- | | NP | NP | 13 | A-1-a |
| | | 14.0-20.0 | 25 | 9 | 15 | 28 | 23 | 21 | 6 | 13 | A-4a |
| 134+50 | CL | 0.0-5.0 | 34 | 13 | 14 | 15 | 24 | 37 | 15 | 23 | A-6a |
| | | 5.0-9.0 | 40 | 16 | 11 | 8 | 25 | 36 | 25 | 21 | A-2-7* |
| | | 9.0-15.0 | 17 | 9 | 19 | 32 | 23 | 23 | 5 | 14 | A-4a |
| | | 15.0-20.0 | 23 | 9 | 15 | 32 | 21 | 20 | 5 | 12 | A-4a |
| 137+50 | CL | 0.0-3.0 | 21 | 4 | 6 | 38 | 31 | 30 | 11 | 22 | A-6a |
| | | 3.0-8.0 | 25 | 25 | 18 | 19 | 13 | NP | NP | 14 | A-2-4* |
| | | 8.0-15.0 | 3 | 9 | 54 | 14 | 20 | NP | NP | 26 | A-3a* |
| | | 15.0-20.0 | 35 | 6 | 15 | 27 | 17 | 23 | 6 | 15 | A-4a |
| 139+00 | 210'Rt. | 0.0-5.0 | 10 | 4 | 13 | 43 | 30 | 26 | 8 | 19 | A-4a |
| | | 5.0-10.0 | 39 | 6 | 5 | 22 | 28 | 37 | 12 | 18 | A-6a |
| 140+00 | 185'Rt. | 0.0-4.0 | 10 | 7 | 17 | 44 | 22 | 29 | 7 | 15 | A-4a |
| | | 4.0-8.0 | 35 | 7 | 9 | 27 | 22 | 39 | 13 | 15 | A-6a |
| 141+00 | 175'Rt. | 0.0-4.0 | 13 | 4 | 6 | 47 | 30 | 25 | 5 | 21 | A-4a |
| | | 4.0-10.0 | 52 | 4 | 3 | 24 | 17 | 34 | 12 | 14 | A-6a |
| 141+20 | CL | 0.0-4.0 | 0 | 5 | 8 | 51 | 36 | 37 | 15 | 23 | A-6a |
| | | 4.0-8.0 | 37 | 24 | 11 | 9 | 19 | 41 | 20 | 20 | A-2-7 |
| | | 8.0-14.0 | 46 | 17 | 9 | 14 | 14 | 41 | 20 | 27 | A-2-7 |
| | | 14.0-15.0 | 12 | 6 | 7 | 54 | 21 | 28 | 5 | 10 | A-4b |
| 142+00 | 143'Rt. | 0.0-4.0 | 10 | 4 | 7 | 43 | 36 | 38 | 13 | 20 | A-6a |
| | | 4.0-8.0 | 71 | 4 | 6 | 11 | 8 | 28 | 6 | 9 | A-1-b |
| 143+00 | CL | 0.0-3.0 | 0 | 2 | 3 | 56 | 39 | 28 | 5 | 26 | A-4b |
| | | 3.0-7.0 | 26 | 30 | 10 | 21 | 13 | 28 | 5 | 15 | A-2-4* |
| | | 7.0-12.0 | 30 | 22 | 12 | 16 | 20 | 40 | 19 | 21 | A-6a* |
| | | 12.0-18.0 | 34 | 22 | 7 | 10 | 7 | 34 | 15 | 21 | A-2-6 |
| | | 18.0-20.0 | 20 | 10 | 13 | 31 | 26 | 30 | 10 | 15 | A-4a |
| 143+20 | 105'Rt. | 0.0-6.0 | 39 | 2 | 13 | 29 | 17 | 32 | 15 | 21 | A-6b |
| | | 6.0-10.0 | 15 | 20 | 12 | 30 | 23 | 36 | 13 | 15 | A-6a |
| 144+75 | 60'Lt. | 5.0-5.5 | 77 | 10 | 6 | - 7- | | NP | NP | 18 | A-1-a |
| 145+40 | CL | 3.0-4.5 | Brown to Black Fine-Textured Compact Peat | | | | | | | 98 | Visual |
| | | 4.5-5.5 | Dark Gray Gravel Mixed W/Little Peat | | | | | | | 32 | Visual |
| | | *ADDITIONAL BORINGS | | | | | | | | | |
| 132+50 | 80'Rt | 0.0-4.0 | 64 | 13 | 6 | 11 | 6 | 36 | 15 | 20 | A-2-6 |
| | | 4.0-13.0 | 0 | 3 | 3 | 58 | 36 | NP | NP | 26 | A-4b |
| | | 13.0-18.0 | 11 | 12 | 17 | 32 | 18 | 22 | 5 | 15 | A-4a |
| | | 18.0-25.0 | 11 | 13 | 17 | 33 | 26 | 22 | 6 | 20 | A-4a |
| 132+50 | 100'Rt | 0.0-4.0 | 0 | 1 | 1 | 59 | 40 | 40 | 20 | 25 | A-6b |
| | | 4.0-11.0 | 68 | 13 | 3 | 10 | 6 | 34 | 13 | 22 | A-2-6 |
| | | 11.0-13.0 | 8 | 15 | 19 | 34 | 24 | 22 | 6 | 16 | A-4a |
| | | 13.0-20.0 | 8 | 18 | 18 | 38 | 23 | 22 | 7 | 12 | A-4a |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTD CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S.R. 16 & 161 | | | | | | | |
| 146+50 | CL | 0.0-2.0 | 0 | 18 | 21 | 36 | 25 | NP | NP | 24 | A-4a |
| | | 2.0-6.0 | 32 | 15 | 24 | 20 | 9 | NP | NP | 22 | A-2-4 |
| | | 6.0-11.0 | 18 | 10 | 15 | 34 | 23 | 19 | 3 | 24 | A-4a |
| | | 11.0-14.0 | 31 | 11 | 15 | 29 | 14 | NP | NP | 13 | A-4a |
| 148+50 | CL | 0.0-2.0 | 0 | 3 | 18 | 32 | 47 | NP | NP | 27 | A-4a |
| | | 2.0-5.0 | 53 | 9 | 14 | 17 | 7 | NP | NP | 24 | A-1-b |
| | | 5.0-10.0 | 15 | 9 | 16 | 38 | 22 | 21 | 6 | 13 | A-4a |
| | | 10.0-15.0 | 16 | 11 | 18 | 34 | 21 | 20 | 5 | 16 | A-4a |
| 150+50 | CL | 0.0-4.0 | 4 | 20 | 43 | 25 | 8 | NP | NP | 24 | A-3a |
| | | 4.0-6.0 | 41 | 40 | 13 | - 6+ | | NP | NP | 17 | A-1-b |
| | | 6.0-11.0 | 34 | 10 | 12 | 13 | 31 | 24 | 7 | 15 | A-4a |
| 150+50 | 50'Rt. | 0.0-2.0 | 0 | 2 | 6 | 59 | 33 | 37 | 11 | 38 | A-6a |
| | | 2.0-7.0 | 36 | 31 | 14 | 14 | 5 | NP | NP | 24 | A-1-b |
| | | 7.0-12.0 | 21 | 9 | 13 | 35 | 22 | 23 | 6 | 14 | A-4a |
| | | 12.0-15.0 | 20 | 9 | 13 | 37 | 21 | 23 | 8 | 14 | A-4a |
| 154+00 | CL | 0.0-5.0 | 0 | 3 | 33 | 47 | 17 | 24 | 5 | 22 | A-4a |
| | | 5.0-6.5 | 68 | 12 | 10 | -10+ | | NP | NP | 13 | A-1-a |
| | | 6.5-13.0 | 13 | 10 | 16 | 36 | 25 | 25 | 9 | 15 | A-4a |
| 156+70 | 35'Lt. | 0.0-2.0 | 0 | 7 | 31 | 43 | 19 | NP | NP | 26 | A-4a |
| | | 2.0-4.0 | 0 | 4 | 35 | 38 | 23 | 25 | 5 | 28 | A-4a |
| | | 4.0-7.0 | 59 | 10 | 11 | 14 | 7 | NP | NP | 17 | A-1-b |
| | | 7.0-10.0 | 25 | 10 | 9 | 30 | 26 | 23 | 8 | 15 | A-4a |
| 156+70 | CL | 0.0-2.0 | 0 | 3 | 26 | 45 | 24 | NP | NP | 34 | A-4a |
| | | 2.0-5.0 | Dark Gray Compact Fine-Textured Peat | | | | | | | 90 | Visual |
| | | 5.0-9.0 | Sand and Gravel | | | | | | | | Visual |
| 156+70 | 50'Rt. | 0.0-2.0 | 14 | 9 | 11 | 39 | 27 | 23 | 7 | 14 | A-4a |
| | | 2.0-4.0 | 0 | 5 | 21 | 45 | 29 | 35 | 4 | 36 | A-4a |
| | | 4.0-9.0 | 61 | 12 | 7 | 15 | 5 | NP | NP | 16 | A-1-b |
| | | 9.0-12.0 | 13 | 11 | 16 | 40 | 20 | 21 | 6 | 12 | A-4a |
| | | 12.0-15.0 | 55 | 17 | 12 | 12 | 4 | NP | NP | 11 | A-1-b |
| 159+00 | CL | 0.0-3.0 | 0 | 1 | 31 | 46 | 22 | NP | NP | 25 | A-4a |
| | | 3.0-7.0 | 2 | 15 | 46 | 28 | 9 | NP | NP | 25 | A-4a |
| | | 7.0-13.0 | 15 | 8 | 16 | 39 | 22 | NP | NP | 15 | A-4a |
| 162+00 | CL | 0.0-3.0 | 0 | 8 | 32 | 38 | 22 | NP | NP | 24 | A-4a |
| | | 3.0-5.0 | 4 | 13 | 51 | 16 | 13 | NP | NP | 25 | A-3a |
| | | 5.0-12.0 | 11 | 9 | 16 | 37 | 27 | 21 | 6 | 13 | A-4a |
| | | 12.0-17.0 | 13 | 11 | 17 | 36 | 23 | 20 | 3 | 13 | A-4a |
| | | 17.0-20.0 | 49 | 23 | 19 | - 9- | | NP | NP | 15 | A-1-b |
| 162+50 | CL | 0.0-3.0 | 17 | 13 | 40 | 16 | 14 | NP | NP | 21 | A-2-4 |
| | | 3.0-6.0 | 59 | 11 | 11 | 10 | 9 | NP | NP | 18 | A-1-b |
| | | 6.0-10.0 | 12 | 8 | 15 | 45 | 23 | NP | NP | 11 | A-4a |
| | | 10.0-15.0 | 14 | 12 | 17 | 34 | 23 | 20 | 3 | 11 | A-4a |
| 164+40 | CL | 0.0-5.0 | 0 | 1 | 22 | 55 | 22 | 28 | 2 | 28 | A-4b |
| | | 5.0-13.0 | 0 | 1 | 11 | 47 | 28 | 34 | 7 | 11 | A-4a |
| | | 13.0-21.0 | 16 | 4 | 18 | 45 | 7- | 20 | 4 | 11 | A-4a |
| | | 21.0-30.0 | 76 | 17 | 5 | - 2- | | NP | NP | 15 | A-1-a |
| 166+60 | CL | 0.0-4.0 | 0 | 0 | 23 | 54 | 23 | NP | NP | 26 | A-4b |
| | | 4.0-6.0 | 7 | 69 | 16 | - 6- | | NP | NP | 11 | A-3a |
| | | 6.0-9.0 | 62 | 24 | 6 | - 6- | | NP | NP | 19 | A-1-a |
| | | 9.0-17.0 | 15 | 10 | 16 | 35 | 24 | 23 | 4 | 11 | A-4a |
| | | 17.0-23.0 | 10 | 10 | 18 | 36 | 26 | 22 | 8 | 13 | A-4a |
| | | 23.0-30.0 | 35 | 16 | 12 | - 4- | | NP | NP | 14 | A-1-b |
| 166+60 | 48'Rt. | 0.0-5.0 | 0 | 1 | 7 | 58 | 34 | 32 | 10 | 28 | A-4b |
| | | 5.0-9.0 | 76 | 10 | 10 | - 4- | | NP | NP | 16 | A-1-a |
| | | 9.0-15.0 | 24 | 13 | 18 | 27 | 18 | 21 | 6 | 12 | A-4a |
| | | 15.0-22.0 | 10 | 12 | 17 | 39 | 27 | 22 | 7 | 12 | A-4a |
| | | 22.0-30.0 | 50 | 35 | 12 | - 3- | | NP | NP | 12 | A-1-a |
| 167+44 | CL | 0.0-6.0 | 31 | 1 | 22 | 32 | 14 | NP | NP | 20 | A-4a |
| | | 6.0-11.0 | 10 | 11 | 17 | 38 | 23 | 19 | 3 | 11 | A-4a |
| | | 11.0-18.0 | 11 | 11 | 16 | 38 | 24 | 21 | 5 | 13 | A-4a |
| | | 18.0-24.0 | 10 | 11 | 26 | 35 | 18 | NP | NP | 13 | A-4a |
| | | 24.0-30.0 | 38 | 36 | 20 | -11- | | NP | NP | 14 | A-1-b |
| 170+00 | CL | 0.0-4.0 | 0 | 1 | 24 | 44 | 31 | 25 | 6 | 21 | A-4a |
| | | 4.0-6.0 | 0 | 23 | 53 | 15 | 9 | NP | NP | 14 | A-3a |
| | | 6.0-9.0 | 75 | 12 | 5 | - 8- | | NP | NP | 13 | A-1-a |
| | | 9.0-15.0 | 18 | 13 | 16 | 33 | 20 | 20 | 5 | 13 | A-4a |
| | | 15.0-20.0 | 13 | 12 | 17 | 35 | 23 | 20 | 4 | 13 | A-4a |
| 173+00 | CL | 0.0-6.0 | 0 | 6 | 22 | 45 | 27 | 30 | 11 | 22 | A-6a |
| | | 6.0-10.0 | 12 | 11 | 17 | 38 | 22 | 21 | 5 | 10 | A-4a |
| | | 10.0-15.0 | 14 | 11 | 17 | 34 | 24 | 20 | 5 | 12 | A-4a |
| | | 15.0-20.0 | 19 | 11 | 16 | 32 | 22 | 22 | 6 | 12 | A-4a |
| | | *ADDITIONAL BORINGS | | | | | | | | | |
| 133+50 | CL | 0.0-3.0 | 0 | 0 | 1 | 66 | 33 | 32 | 12 | 27 | A-6a |
| | | 3.0-5.0 | 0 | 68 | 26 | 12 | 20 | 27 | 9 | 25 | A-6a |
| | | 5.0-12.0 | 53 | 18 | 9 | 12 | 8 | NP | NP | 20 | A-1-b |
| | | 12.0-20.0 | 8 | 14 | 18 | 33 | 27 | 28 | 7 | 13 | A-4a |

| STATION & OFFSET | | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTD CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S.R. 16 & 161 | | | | | | | |
| 176+00 | CL | 0.0-7.0 | 0 | 0 | 8 | 51 | 41 | 36 | 17 | 24 | A-6b |
| | | 7.0-16.0 | 24 | 8 | 14 | 31 | 23 | 23 | 9 | 11 | A-4a |
| | | 16.0-24.0 | 16 | 10 | 16 | 34 | 24 | 21 | 5 | 14 | A-4a |
| | | 24.0-30.0 | 38 | 51 | 13 | - 3- | | NP | NP | 17 | A-1-b |
| 178+00 | CL | 0.0-3.0 | 0 | 1 | 15 | 48 | 36 | 33 | 11 | 25 | A-6a |
| | | 3.0-8.0 | 0 | 1 | 10 | 55 | 34 | 31 | 10 | 23 | A-4b |
| | | 8.0-10.0 | 34 | 5 | 5 | - 6- | | NP | NP | 13 | A-1-a |
| | | 10.0-15.0 | 11 | 10 | 18 | 35 | 26 | 21 | 7 | 13 | A-4a |
| | | 15.0-19.0 | 8 | 10 | 17 | 39 | 26 | 20 | 4 | 11 | A-4a |
| | | 19.0-25.0 | 34 | 35 | 8 | - 3- | | NP | NP | 15 | A-1-a |
| | | 25.0-30.0 | 60 | 33 | 5 | - 2- | | NP | NP | 12 | A-1-a |
| 180+00 | CL | 0.0-6.0 | 10 | 18 | 27 | 27 | 18 | 21 | 4 | 18 | A-4a |
| | | 6.0-9.0 | 61 | 13 | 12 | -14- | | NP | NP | 15 | A-1-a |
| | | 9.0-15.0 | 15 | 11 | 17 | 33 | 23 | 19 | 5 | 12 | A-4a |
| | | 15.0-20.0 | 16 | 11 | 18 | 35 | 20 | 20 | 6 | 11 | A-4a |
| | | 20.0-26.0 | 63 | 29 | 4 | - 4- | | NP | NP | 14 | A-1-a |
| 181+90 | CL | 0.0-5.0 | 55 | 13 | 9 | 16 | 7 | NP | NP | 13 | A-1-b |
| | | 5.0-12.0 | 16 | 10 | 16 | 35 | 23 | 20 | 6 | 11 | A-4a |
| | | 12.0-18.0 | 19 | 10 | 17 | 37 | 17 | 19 | 4 | 11 | A-4a |
| | | 18.0-30.0 | 67 | 18 | 6 | - 9- | | NP | NP | 14 | A-1-a |
| 182+55 | 75'Rt. | 0.0-4.0 | 0 | 1 | 9 | 50 | 40 | 37 | 13 | 26 | A-6a |
| | | 4.0-8.0 | 3 | 10 | 13 | 27 | 17 | NP | NP | 21 | A-4a |
| | | 8.0-10.0 | 78 | 10 | 5 | - 7- | | NP | NP | 19 | A-1-a |
| | | 10.0-17.0 | 26 | 9 | 15 | 30 | 20 | 21 | 7 | 13 | A-4a |
| | | 17.0-23.0 | 17 | 10 | 17 | 33 | 23 | 20 | 5 | 13 | A-4a |
| | | 23.0-30.0 | 67 | 22 | 5 | - 6- | | NP | NP | 12 | A-1-a |
| 183+00 | CL | 0.0-6.0 | 0 | 1 | 3 | 69 | 27 | 24 | 4 | 22 | A-4b |
| | | 6.0-9.0 | 12 | 8 | 18 | 37 | 25 | 24 | 6 | 15 | A-4a |
| | | 9.0-15.0 | 29 | 11 | 21 | 22 | 17 | 21 | 6 | 12 | A-4a |
| | | 15.0-21.0 | 14 | 10 | 17 | 40 | 19 | 19 | 4 | 12 | A-4a |
| | | 21.0-23.0 | Gray Gravel | | | | | | | | Visual |
| 183+20 | 180'Rt. | 0.0-5.0 | 0 | 0 | 2 | 54 | 44 | 38 | 12 | 34 | A-6a |
| | | 5.0-9.0 | 15 | 11 | 17 | 36 | 23 | 18 | 2 | 10 | A-4a |
| | | 9.0-11.0 | 55 | 16 | 11 | 12 | 6 | 20 | 5 | 13 | A-1-b |
| | | 11.0-17.0 | 22 | 11 | 19 | 31 | 17 | 19 | 4 | 11 | A-4a |
| | | 17.0-25.0 | 67 | 18 | 7 | - 8- | | NP | NP | 11 | A-1-a |
| 184+20 | 120'Rt. | 0.0-5.0 | 0 | 2 | 21 | 43 | 34 | 26 | 6 | 37 | A-4a |
| | | 5.0-7.0 | 0 | 2 | 42 | 39 | 17 | NP | NP | 37 | A-4a |
| | | 7.0-14.0 | 8 | 12 | 19 | 39 | 22 | 19 | 6 | 11 | A-4a |
| | | 14.0-22.0 | 58 | 42 | 3 | - 2- | | NP | NP | 13 | A-1-a |
| 185+00 | 231'Rt. | 0.0-4.0 | 25 | 3 | 18 | 37 | 17 | 30 | 9 | 20 | A-4a |
| | | 4.0-12.0 | 13 | 11 | 16 | 39 | 21 | 19 | 3 | 10 | A-4a |
| | | 12.0-20.0 | 64 | 25 | 6 | - 5- | | NP | NP | 13 | A-1-a |
| 189+00 | CL | 0.0-2.0 | 29 | 7 | 17 | 29 | 18 | 24 | 5 | 19 | A-4a |
| | | 2.0-7.0 | 0 | 3 | 22 | 53 | 22 | 32 | 8 | 28 | A-4b |
| | | 7.0-10.0 | 0 | 11 | 40 | 30 | 19 | NP | NP | 20 | A-4a |
| 192+25 | CL | 0.0-5.5 | 0 | 10 | 24 | 43 | 18 | 26 | 3 | 25 | A-4a |
| | | 5.5-9.5 | 49 | 36 | 8 | - 7- | | NP | NP | 10 | A-1-b |
| 195+50 | CL | 0.0-6.0 | 0 | 0 | 29 | 38 | 23 | NP | NP | 30 | A-4a |
| | | 6.0-8.0 | 40 | 19 | 18 | 14 | 9 | NP | NP | 18 | A-1-b |
| 198+50 | CL | 0.0-2.0 | 22 | 5 | 26 | 30 | 17 | NP | NP | 19 | A-4a |
| | | 2.0-7.0 | 60 | 14 | 9 | 11 | 6 | NP | NP | 11 | A-1-b |
| | | 7.0-11.0 | 65 | 7 | 10 | 13 | 5 | NP | NP | 13 | A-1-b |
| | | 11.0-16.0 | 13 | 11 | 19 | 36 | 21 | NP | NP | 12 | A-4a |
| | | 16.0-20.0 | 43 | 31 | 17 | - 9- | | NP | NP | 12 | A-1-b |
| 198+50 | 75'Rt. | 0.0-5.5 | 0 | 2 | 19 | 54 | 25 | NP | NP | 30 | A-4b |
| | | 5.5-9.0 | 19 | 13 | 20 | 31 | 17 | NP | NP | 12 | A-4a |
| | | 9.0-13.0 | 53 | 22 | 15 | -10- | | NP | NP | 12 | A-1-a |
| 201+40 | CL | 0.0-5.0 | 4 | 4 | 32 | 40 | 20 | NP | NP | 28 | A-4a |
| | | 5.0-7.0 | 15 | 3 | 33 | 31 

# SOIL PROFILE

**LICKING COUNTY**
**LIC-16 & 161-(14.30-18.51) & (11.13)**
**Part II** OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

15/36

## SUMMARY OF SOIL TEST DATA (Cont'd)

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is nonplastic.
*Denotes sample taken at or near grade.

S.R. 16 & 161

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 202+75 | 80'Rt | 0.4-4.0 | 0 | 5 | 36 | 38 | 21 | NP | NP | 27 | A-4a |
| | | 4.0-7.0 | 53 | 32 | 11 | -4- | | NP | NP | 16 | A-1-a |
| | | 7.0-12.0 | 13 | 10 | 18 | 39 | 20 | 18 | 4 | 12 | A-4a |
| | | 12.0-15.0 | 70 | 17 | 10 | -3- | | NP | NP | 15 | A-1-a |
| | | 15.0-20.0 | 52 | 33 | 10 | -5- | | NP | NP | 14 | A-1-a |
| 204+00 | CL | 0.4-5.0 | 0 | 0 | 7 | 66 | 27 | 35 | 14 | 33 | A-6a |
| | | 5.0-7.0 | 0 | 12 | 54 | 22 | 12 | NP | NP | 36 | A-3a |
| | | 7.0-13.0 | 17 | 10 | 16 | 35 | 22 | NP | NP | 13 | A-4a |
| | | 13.0-20.0 | 57 | 30 | 9 | -4- | | NP | NP | 13 | A-1-a |
| 205+25 | CL | 0.4-6.5 | 34 | 15 | 23 | 21 | 7 | NP | NP | 13 | A-2-4 |
| | | 6.5-12.0 | 8 | 9 | 14 | 38 | 31 | 20 | 6 | 14 | A-4a |
| 207+00 | CL | 0.3-4.0 | 0 | 1 | 22 | 54 | 23 | NP | NP | 24 | *A-4b |
| | | 4.0-7.0 | 60 | 11 | 8 | 12 | 9 | NP | NP | 18 | A-1-b |
| | | 7.0-12.0 | 19 | 10 | 20 | 34 | [illegible] | 18 | 3 | 12 | A-4a |
| | | 12.0-17.0 | 13 | 8 | 18 | 43 | 18 | 19 | 5 | 14 | A-4a |
| | | 17.0-20.0 | 41 | 12 | 13 | 22 | 12 | 20 | 4 | 16 | A-2-4 |
| 208+90 | CL | 0.0-2.0 | 0 | 1 | 35 | 43 | 21 | NP | NP | 23 | A-4a |
| | | 2.0-5.0 | 46 | 16 | 16 | 16 | 6 | NP | NP | 10 | A-1-b |
| | | 5.0-9.0 | 63 | 13 | 9 | 10 | 5 | NP | NP | 14 | A-1-a |
| | | 9.0-11.0 | 4 | 3 | 8 | 67 | 18 | NP | NP | 25 | A-4b |
| | | 11.0-15.0 | 53 | 30 | 12 | -5- | | NP | NP | 13 | A-1-a |
| 210+90 | 75'Lt | 0.0-3.0 | 0 | 2 | 31 | 45 | 22 | NP | NP | 28 | A-4a |
| | | 3.0-5.0 | 36 | 14 | 28 | 13 | 9 | NP | NP | 17 | A-1-b |
| | | 5.0-11.0 | 11 | 8 | 42 | 24 | 15 | NP | NP | 30 | A-4a |
| | | 11.0-15.0 | 34 | 14 | 28 | 14 | 10 | NP | NP | 40 | A-2-4 |
| | | 15.0-16.0 | 56 | 22 | 12 | -10- | | NP | NP | 15 | A-1-a |
| 210+90 | CL | 0.0-3.0 | 0 | 1 | 43 | 35 | 21 | NP | NP | 24 | A-4a |
| | | 3.0-9.0 | 21 | 24 | 26 | 18 | 11 | NP | NP | 25 | A-3a |
| | | 9.0-14.0 | 51 | 31 | 13 | -5- | | NP | NP | 15 | A-1-a |
| | | 14.0-18.0 | 49 | 32 | 14 | -5- | | NP | NP | 11 | A-1-b |
| 210+90 | 47'Rt | 0.0-3.0 | 4 | 10 | 31 | 33 | 22 | NP | NP | 22 | A-4a |
| | | 4.0-9.0 | 52 | 19 | 14 | 8 | 7 | NP | NP | 16 | A-1-a |
| | | 9.0-15.0 | 44 | 38 | 13 | -5- | | NP | NP | 17 | A-1-b |
| 212+00 | 60'Rt | 0.0-4.0 | 0 | 1 | 16 | 50 | 33 | 34 | 8 | 33 | A-4b |
| | | 4.0-5.0 | 43 | 17 | 11 | 18 | 11 | NP | NP | 25 | A-2-4 |
| 212+50 | CL | 0.0-2.5 | 32 | 9 | 26 | 21 | 12 | NP | NP | 21 | A-2-4 |
| 214+00 | CL | 0.0-5.0 | 0 | 1 | 23 | 46 | 30 | 28 | 9 | 25 | A-4a |
| | | 5.0-9.0 | 7 | 3 | 32 | 39 | 19 | NP | NP | 25 | A-4a |
| 214+40 | CL | 0.0-2.0 | 21 | 7 | 5 | 35 | 32 | 39 | 12 | 29 | A-6a |
| 216+00 | CL | 0.3-3.0 | 0 | 8 | 32 | 29 | 31 | 26 | 8 | 20 | A-4a |
| | | 3.0-8.0 | 21 | 36 | 21 | 11 | 11 | NP | NP | 10 | A-1-b |
| | | 8.0-14.0 | 63 | 17 | 6 | 9 | 5 | NP | NP | 8 | A-1-a* |
| 218+00 | 100'Rt | 0.3-6.0 | 24 | 9 | 20 | 30 | 17 | 39 | 8 | 21 | A-4a* |
| | | 6.0-9.0 | 20 | 7 | 23 | 28 | 22 | NP | NP | 21 | A-4a |
| | | 9.0-12.0 | 53 | 26 | 17 | -4- | | NP | NP | 10 | A-1-a |
| | | 12.0-15.0 | 8 | 8 | 15 | 39 | [illegible] | 28 | 5 | 16 | A-4a |
| 219+00 | CL | 0.3-4.0 | 18 | 9 | 19 | 30 | 24 | 30 | 10 | 20 | A-4a |
| | | 4.0-10.0 | 59 | 16 | 8 | 10 | 7 | NP | NP | 11 | A-1-b |
| | | 10.0-16.0 | 51 | 22 | 9 | 10 | 8 | NP | NP | 7 | A-1-b |
| 222+75 | CL | 0.5-4.0 | 22 | 9 | 11 | 33 | 25 | 26 | 8 | 19 | A-4a* |
| | | 4.0-10.0 | 52 | 15 | 8 | 14 | 11 | NP | NP | 12 | A-1-b |
| | | 10.0-15.0 | 57 | 23 | 9 | 5 | 6 | NP | NP | 13 | A-1-a |
| 226+78 | CL | 0.3-2.0 | 23 | 16 | 12 | 25 | 24 | 26 | 3 | 15 | A-4a* |
| | | 2.0-6.0 | 0 | 1 | 2 | 56 | 41 | 37 | 17 | 22 | A-6b |
| | | 6.0-12.0 | 51 | 21 | 9 | 11 | 8 | NP | NP | 10 | A-1-b |
| 229+00 | CL | 0.5-3.0 | 0 | 16 | 16 | 36 | 32 | 33 | 12 | 21 | A-6a* |
| | | 3.0-8.0 | 77 | 12 | 4 | -7- | | NP | NP | 9 | A-1-a |
| | | 8.0-12.0 | 57 | 15 | 7 | 13 | 8 | 23 | 3 | 8 | A-1-b |
| 231+15 | CL | 0.5-3.0 | 0 | 2 | 22 | 45 | 31 | 30 | 12 | 19 | A-6a* |
| | | 3.0-6.0 | 34 | 9 | 16 | 22 | 19 | 32 | 12 | 21 | A-6a |
| | | 6.0-12.0 | 71 | 4 | 9 | 12 | 4 | NP | NP | 9 | A-1-b |
| 233+00 | CL | 0.5-5.0 | 41 | 11 | 13 | 18 | 17 | 32 | 12 | 21 | A-2-6* |
| | | 5.0-6.0 | 58 | 5 | 7 | 23 | 7 | NP | NP | 12 | A-2-4 |
| | | 6.0-10.0 | 60 | 11 | 10 | 12 | 7 | NP | NP | 11 | A-1-b |
| | | 10.0-12.0 | 47 | 20 | 13 | 14 | 6 | NP | NP | 8 | A-1-b |
| 236+00 | CL | 0.3-5.0 | 8 | 11 | 15 | 33 | 33 | 33 | 11 | 24 | A-6a* |
| | | 5.0-12.0 | 56 | 22 | 7 | 8 | 7 | NP | NP | 10 | A-1-a |

S.R. 16 & 161

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 239+50 | CL | 0.3-4.0 | 43 | 19 | 12 | 11 | 15 | 27 | 9 | 15 | A-2-4* |
| | | 4.0-5.0 | 25 | 25 | 20 | 18 | 12 | NP | NP | 12 | A-2-4 |
| | | 5.0-10.0 | 48 | 15 | 10 | 18 | 9 | NP | NP | 12 | A-2-4 |
| 239+50 | 60'Rt | 0.3-2.0 | 0 | 3 | 22 | 43 | 32 | 24 | 5 | 19 | A-4a |
| | | 2.0-7.0 | 46 | 17 | 13 | 13 | 11 | NP | NP | 15 | A-1-b |
| 242+50 | CL | 0.2-3.0 | 0 | 3 | 29 | 42 | 26 | 23 | 5 | 22 | A-4a |
| | | 3.0-6.0 | 46 | 17 | 11 | 12 | 14 | 38 | 12 | 17 | A-2-6 |
| | | 6.0-10.0 | 59 | 14 | 7 | 14 | 6 | NP | NP | 8 | A-1-b |
| 244+50 | CL | 0.0-3.0 | 5 | 10 | 16 | 40 | 29 | 23 | 3 | 18 | A-4a |
| | | 3.0-8.0 | 54 | 21 | 6 | 11 | 8 | NP | NP | 8 | A-1-b |
| | | 8.0-12.0 | 53 | 22 | 7 | 11 | 7 | NP | NP | 8 | A-1-b |
| 247+00 | CL | 0.3-2.0 | 30 | 14 | 14 | 18 | 24 | 37 | 15 | 20 | A-6a* |
| | | 2.0-8.0 | 60 | 13 | 7 | 14 | 6 | NP | NP | 8 | A-1-b* |
| 249+75 | CL | 0.0-1.0 | 0 | 1 | 11 | 60 | 28 | 38 | 9 | 33 | A-4b |
| | | 1.0-6.0 | 36 | 11 | 26 | 17 | 10 | NP | NP | 25 | A-2-4 |
| | | 6.0-10.5 | 59 | 16 | 11 | 9 | 5 | NP | NP | 14 | A-1-a |
| 251+50 | CL | 0.5-4.0 | 16 | 42 | 19 | 14 | 9 | NP | NP | 12 | A-3a |
| | | 4.0-9.0 | 72 | 15 | 4 | -9- | | NP | NP | 16 | A-1-a |
| | | 9.0-12.0 | 70 | 15 | 9 | -6- | | NP | NP | 14 | A-1-a |
| 253+20 | 75'Rt | 0.4-3.0 | 0 | 1 | 30 | 47 | 22 | NP | NP | 30 | A-4a |
| | | 3.0-6.0 | 0 | 12 | 45 | 27 | 16 | NP | NP | 31 | A-4a |
| | | 6.0-10.0 | 79 | 8 | 6 | -7- | | NP | NP | 15 | A-1-a |
| | | 10.0-15.0 | 16 | 11 | 16 | 41 | 16 | 18 | 4 | 14 | A-4a |
| | | 15.0-20.0 | 54 | 20 | 14 | -12- | | NP | NP | 19 | A-1-a |
| 253+25 | CL | 0.3-2.0 | 0 | 1 | 20 | 52 | 27 | NP | NP | 40 | A-4b |
| | | 2.0-4.0 | 12 | 10 | 49 | 20 | 9 | NP | NP | 29 | A-3a |
| | | 4.0-9.0 | 76 | 15 | 5 | -4- | | NP | NP | 15 | A-1-a |
| | | 9.0-12.0 | 16 | 14 | 17 | 37 | 16 | 18 | 4 | 13 | A-4a |
| | | 12.0-16.0 | 52 | 32 | 10 | -6- | | NP | NP | 12 | A-1-a |
| | | 16.0-20.0 | 51 | 36 | 9 | -4- | | NP | NP | 13 | A-1-a |
| *254+50 see below (this column) | | | | | | | | | | | |
| 255+68 | CL | 0.4-5.0 | 0 | 1 | 38 | 46 | 15 | NP | NP | 25 | A-4a |
| | | 5.0-9.0 | 75 | 15 | 5 | -5- | | NP | NP | 13 | A-1-a |
| | | 9.0-15.0 | 35 | 8 | 15 | 28 | 14 | 19 | 6 | 11 | A-4a |
| | | 15.0-20.0 | 53 | 32 | 10 | -5- | | NP | NP | 13 | A-1-a |
| 259+00 | 26'Lt | 0.4-7.0 | 19 | 14 | 39 | 21 | 7 | NP | NP | 15 | A-3a |
| | | 7.0-11.0 | 75 | 11 | 6 | -8- | | NP | NP | 12 | A-1-a |
| | | 11.0-15.0 | 54 | 33 | 9 | -4- | | NP | NP | 13 | A-1-a |
| | | 15.0-20.0 | 55 | 30 | 10 | -5- | | NP | NP | 10 | A-1-a |
| 262+00 | 52'Rt | 0.3-6.0 | 29 | 20 | 21 | 21 | 9 | NP | NP | 17 | A-2-4 |
| | | 6.0-9.0 | 82 | 12 | 3 | -3- | | NP | NP | 15 | A-1-a |
| | | 9.0-15.0 | 39 | 14 | 12 | -5- | | NP | NP | 13 | A-1-b |
| | | 15.0-20.0 | 51 | 33 | 10 | -6- | | NP | NP | 12 | A-1-a |
| 262+00 | 115'Rt | 0.4-4.0 | 0 | 1 | 25 | 50 | 24 | NP | NP | 24 | A-4b |
| | | 4.0-7.0 | 47 | 6 | 15 | 21 | 11 | 23 | 3 | 23 | A-2-4 |
| | | 7.0-10.0 | 11 | 9 | 11 | 44 | 25 | 18 | 3 | 22 | A-4a |
| | | 10.0-17.0 | 51 | 34 | 9 | -6- | | NP | NP | 7 | A-1-a |
| | | 17.0-24.0 | 48 | 36 | 12 | -4- | | NP | NP | 14 | A-1-a |
| 262+00 | 250'Rt | 0.4-3.0 | 0 | 3 | 22 | 50 | 25 | 33 | 9 | 32 | A-4b |
| | | 3.0-8.0 | 59 | 13 | 8 | 15 | 5 | NP | NP | 12 | A-1-b |
| | | 8.0-10.0 | 0 | 10 | 87 | -3- | | NP | NP | 26 | A-3a |
| | | 10.0-15.0 | 39 | 47 | 10 | -4- | | NP | NP | 18 | A-1-b |
| | | 15.0-21.0 | 46 | 39 | 10 | -5- | | NP | NP | 14 | A-1-b |
| 263+55 | 70'Rt | 0.4-7.0 | 38 | 6 | 27 | 21 | 8 | NP | NP | 15 | A-2-4 |
| | | 7.0-9.0 | 58 | 21 | 14 | -7- | | NP | NP | 14 | A-1-a |
| | | 9.0-10.0 | 14 | 16 | 22 | 31 | 17 | NP | NP | 13 | A-4a |
| 267+34 | CL | 0.4-5.0 | 60 | 6 | 7 | 21 | 6 | NP | NP | 13 | A-2-4 |
| | | 5.0-10.0 | 43 | 2 | 19 | 28 | 8 | NP | NP | 10 | A-4a |
| 268+50 | CL | 0.4-2.0 | 0 | 3 | 9 | 63 | 25 | 28 | 8 | 23 | A-4b |
| | | 2.0-8.0 | 55 | 2 | 11 | 25 | 7 | NP | NP | 13 | A-2-4 |
| 270+75 | 65'Lt | 0.4-5.0 | 16 | 12 | 14 | 36 | 22 | 33 | 16 | 21 | A-6b |
| | | 5.0-10.0 | 3 | 1 | 7 | 71 | 18 | 27 | 6 | 25 | A-4b |
| | | 10.0-17.0 | 22 | 8 | 16 | 29 | 25 | 28 | 10 | 17 | A-4a |
| | | 17.0-23.0 | 24 | 8 | 15 | 34 | 19 | 28 | 9 | 18 | A-4a |
| | | 23.0-30.0 | 27 | 7 | 15 | 31 | 20 | 24 | 7 | 21 | A-4a |
| 270+75 | CL | 0.4-3.0 | 28 | 13 | 16 | 24 | 19 | 38 | 16 | 16 | A-6b |
| | | 3.0-8.0 | 39 | 27 | 23 | -16- | | NP | NP | 7 | A-1-b |
| | | 8.0-12.0 | 0 | 10 | 30 | 51 | 9 | NP | NP | 19 | A-4b |
| | | 12.0-18.0 | 12 | 11 | 16 | 38 | 23 | 25 | 7 | 17 | A-4a |
| | | 18.0-25.0 | 20 | 19 | 18 | 29 | 14 | 24 | 5 | 16 | A-4a* |
| | | 25.0-29.0 | 19 | 8 | 17 | 37 | 19 | 25 | 9 | 17 | A-4a |
| *254+50 | CL | 0.4-5.0 | 0 | 0 | 19 | 55 | 26 | NP | NP | 38 | A-4b |
| | | 5.0-10.0 | 65 | 21 | 9 | -5- | | NP | NP | 15 | A-1-a |
| | | 10.0-15.0 | 68 | 22 | 5 | -5- | | NP | NP | 13 | A-1-a |
| | | 15.0-20.0 | 48 | 30 | 14 | -8- | | NP | NP | 12 | A-1-b |

S.R. 16 & 161

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 272+50 | CL | 0.4-6.0 | 0 | 0 | 3 | 70 | 27 | 29 | 26 | 21 | A-4b |
| | | 6.0-10.0 | 46 | 15 | 11 | 18 | 10 | 32 | 14 | 15 | A-2-6* |
| | | 10.0-14.0 | 10 | 18 | [illegible] | 20 | 7 | NP | NP | 14 | [illegible] |
| | | 14.0-17.0 | 21 | 8 | 13 | 31 | 27 | 29 | 9 | 18 | A-4a |
| | | 17.0-23.0 | 22 | 15 | 29 | 21 | 13 | NP | NP | 18 | A-2-4 |
| | | 23.0-25.0 | 13 | 6 | 17 | 48 | 16 | NP | NP | 16 | A-4a |
| 274+50 | CL | 0.4-3.0 | 3 | 6 | 12 | 52 | 27 | 25 | 7 | 22 | A-4b |
| | | 3.0-10.0 | 34 | 16 | 19 | 16 | 15 | 26 | 9 | 18 | A-2-4 |
| | | 10.0-15.0 | 38 | 15 | 20 | 18 | 9 | 23 | 6 | 19 | A-2-4 |
| | | 15.0-17.0 | 7 | 3 | 5 | 40 | 45 | 33 | 12 | 21 | A-6a |
| 277+40 | 27'Lt. | 0.0-2.0 | Random fill - cinders, glass, sand, silt, etc. | | | | | | | | Visual* |
| | | 2.0-5.0 | 33 | 15 | 15 | 24 | 13 | NP | NP | 15 | A-4a* |
| | | 5.0-10.0 | 19 | 10 | 15 | 33 | 23 | 22 | 6 | 14 | A-4a |
| | | 10.0-15.0 | 12 | 10 | 15 | 38 | 25 | 24 | 7 | 15 | A-4a |
| 279+00 | 100'Lt. | 0.4-7.0 | 0 | 1 | 21 | 70 | 28 | 25 | 5 | 20 | A-4b |
| | | 7.0-9.0 | 79 | 8 | 5 | -8- | | NP | NP | 20 | A-1-a |
| | | 9.0-15.0 | 11 | 9 | 26 | 32 | 22 | 18 | 2 | 10 | A-4a |
| | | 15.0-19.0 | 17 | 11 | 20 | 32 | 20 | 19 | 4 | 13 | A-4a |
| | | 19.0-25.0 | 58 | 18 | 17 | -8- | | NP | NP | 14 | A-1-a |
| | | 25.0-30.0 | 27 | 18 | 41 | -14- | | NP | NP | 16 | A-3a |
| 279+50 | CL | 0.4-3.0 | 0 | 1 | 13 | 58 | 28 | NP | NP | 22 | A-4b |
| | | 3.0-10.0 | 18 | 19 | 23 | 24 | 16 | 24 | 7 | 18 | A-4a |
| | | 10.0-16.0 | 11 | 9 | 16 | 36 | 28 | 20 | 7 | 12 | A-4a |
| | | 16.0-20.0 | 0 | 2 | 23 | 62 | 13 | NP | NP | 20 | A-4b |
| | | 20.0-25.0 | 32 | 25 | 32 | -11- | | NP | NP | 13 | A-1-b |
| | | 25.0-30.0 | 39 | 22 | 23 | 11 | 5 | NP | NP | 13 | A-1-b |
| 281+00 | 50'Lt. | 0.5-6.0 | 17 | 31 | 28 | 14 | 10 | NP | NP | 14 | A-3a |
| | | 6.0-10.0 | 78 | 8 | 5 | -9- | | NP | NP | 11 | A-1-a |
| | | 10.0-16.0 | 0 | 1 | 6 | 81 | 12 | 31 | 5 | 23 | A-4b |
| | | 16.0-23.0 | 20 | 9 | 16 | 35 | 20 | 21 | 5 | 18 | A-4a |
| | | 23.0-30.0 | 24 | 11 | 15 | 32 | 18 | 22 | 5 | 34 | A-4a |
| 282+00 | CL | 0.4-6.0 | 0 | 1 | 22 | 57 | 20 | NP | NP | 23 | A-4b |
| | | 6.0-11.0 | 65 | 15 | 8 | -12- | | NP | NP | 19 | A-1-a |
| | | 11.0-16.0 | 0 | 1 | 49 | 42 | 8 | NP | NP | 21 | A-4a |
| | | 16.0-20.0 | 0 | 3 | 85 | -12- | | NP | NP | 23 | A-3a |
| 285+50 | CL | 0.3-5.0 | 60 | 11 | 7 | 14 | 8 | 24 | 6 | 11 | A-1-b |
| | | 5.0-11.0 | 39 | 9 | 13 | 24 | 15 | 29 | 10 | 21 | A-4a* |
| | | 11.0-16.0 | 0 | [illegible] | 18 | 54 | 28 | 25 | 23 | 24 | A-4b |
| | | 16.0-18.0 | 8 | 5 | 29 | 39 | 19 | NP | NP | 40 | A-4a |
| | | 18.0-20.0 | 83 | 6 | 6 | -5- | | NP | NP | 15 | A-1-a |
| | | 20.0-25.0 | 0 | 2 | 25 | 65 | 8 | NP | NP | 23 | A-4b |
| | | 25.0-30.0 | 0 | 1 | 21 | 58 | 20 | NP | NP | 16 | A-4b |
| 285+50 | 71'Rt | 0.4-4.0 | 0 | 1 | 8 | 63 | [illegible] | 35 | 11 | 31 | A-6a |
| | | 4.0-7.0 | 82 | 8 | 6 | -4- | | NP | NP | 16 | A-1-a |
| | | 7.0-10.0 | 11 | 2 | 9 | 56 | 22 | 23 | 5 | 16 | A-4b |
| | | 10.0-15.0 | 6 | 2 | 18 | 44 | 30 | 20 | 5 | 17 | A-4a |
| 286+00 | 100'Lt | 0.4-3.0 | 0 | 2 | 32 | 49 | 17 | NP | NP | 32 | A-4a |
| | | 3.0-7.0 | 0 | 4 | 28 | 47 | 21 | 44 | 12 | 51 | A-7-5 |
| | | 7.0-14.5 | 68 | 14 | 7 | 6 | 5 | NP | NP | 18 | A-1-a |
| | | 14.5-18.0 | 34 | 11 | 12 | 30 | 13 | NP | NP | [illegible] | A-4a |
| 288+35 | CL | 0.4-7.0 | 67 | 6 | 10 | 10 | 7 | NP | NP | 11 | A-1-b |
| | | 7.0-11.0 | 0 | 1 | 22 | 50 | 27 | 25 | 6 | 22 | A-4b |
| | | 11.0-12.0 | 8 | 2 | 6 | 52 | 32 | 29 | 9 | 12 | A-4b |
| 289+50 | 175'Lt | 0.2-1.5 | 48 | 9 | 8 | 25 | 10 | NP | NP | 18 | A-2-4 |
| 291+35 | 27'Rt | 0.0-2.0 | Gray Siliceous Shale | | | | | | | 8 | Visual* |
| 291+50 | 28'Rt. | 0.3-2.5 | Gray [illegible] Brown Broken Shale | | | | | | | 8 | Visual* |
| [illegible] | 41'Lt | 0.4-5.0 | 46 | 16 | 10 | 17 | 11 | 23 | 5 | 11 | A-2-4* |
| | | 5.0-9.0 | 49 | 5 | 6 | 25 | 15 | 29 | 8 | 13 | A-4a* |
| | | 9.0-13.0 | 33 | 4 | 11 | 30 | 22 | 26 | 5 | 8 | A-4a |
| 294+00 | 8'Rt | 0.0-5.0 | 56 | 12 | 16 | 7 | 9 | NP | NP | 10 | A-1-b* |
| | | 5.0-10.0 | 30 | 15 | 22 | 15 | 18 | 27 | 12 | 20 | A-2-6 |
| | | 10.0-12.0 | 19 | 6 | 15 | 34 | 26 | 30 | 15 | 14 | A-6a |
| 296+00 | 29'Lt | 0.4-7.0 | 39 | 18 | 11 | 16 | 16 | 33 | 14 | 10 | A-2-6* |
| | | 7.0-11.0 | 71 | 8 | 5 | 13 | 3 | NP | NP | 15 | A-1-b |
| | | 11.0-15.0 | 17 | 10 | 15 | 32 | 26 | 20 | 4 | 15 | A-4a |
| 300+00 | 20'Rt | 0.4-5.0 | 27 | 10 | 17 | 31 | 15 | NP | NP | 24 | A-4a* |
| | | 5.0-9.0 | 12 | 7 | 13 | 39 | 29 | 22 | 5 | 21 | A-4a |
| | | 9.0-15.0 | 0 | 0 | 1 | 50 | 49 | 28 | 8 | 18 | A-4b |

S.R. 16 & 161

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 302+80 | 8'[illegible] | 0.4-5.0 | 65 | 21 | 12 | 15 | 7 | NP | NP | 9 | A-1-b* |
| | | 5.0-9.0 | 30 | 14 | 16 | -10- | | NP | NP | 17 | A-1-b |
| | | 9.0-15.0 | 15 | 9 | 18 | 35 | 23 | 19 | 6 | 17 | A-4a |
| 306+00 | 4'Lt | 0.5-4.0 | 0 | 10 | 41 | 32 | 17 | NP | NP | 16 | A-4a* |
| | | 4.0-10.0 | 72 | 16 | 6 | -6- | | NP | NP | 6 | A-1-a |
| | | 10.0-15.0 | 67 | 14 | 9 | -10- | | NP | NP | 15 | A-1-b |

[illegible]

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 110+25 | 3'Rt | 0.3-3.0 | 0 | 1 | 3 | 64 | 32 | 28 | 6 | 26 | A-4b |
| | | 3.0-7.0 | 16 | 7 | 16 | 28 | 33 | 30 | 11 | 20 | A-6a |
| | | 7.0-13.0 | 50 | 16 | 8 | 17 | 9 | 21 | 3 | 12 | A-2-4 |

RAMP "F"

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 113+10 | 40'Lt. | 0.2-4.0 | 8 | 7 | 11 | 6 | 11 | 6 | NP | 26 | A-4b |
| | | 4.0-10.0 | 67 | 12 | 5 | 9 | 7 | NP | NP | 10 | A-1-b |
| 115+80 | 12'Lt | 0.2-5.0 | 39 | 15 | 10 | 16 | 20 | 32 | 12 | 18 | A-6a |
| | | 5.0-10.0 | 39 | 17 | 11 | 19 | 14 | NP | NP | 15 | A-2-4 |
| | | 10.0-15.0 | 57 | 13 | 9 | 11 | 10 | 18 | 2 | 9 | A-1-b |

RAMP "H"

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 117+95 | 3'Lt | 0.4-5.0 | 18 | 22 | 10 | 25 | 25 | 33 | 16 | 19 | A-6b |
| | | 5.0-10.0 | 67 | 20 | 6 | -7- | | NP | NP | 8 | A-1-b |
| | | 10.0-15.0 | 61 | 16 | 7 | 10 | 6 | 19 | 3 | 7 | A-1-b |
| 122+00 | 17'Rt | 0.4-4.0 | 0 | 2 | 4 | 60 | 34 | 30 | 9 | 22 | A-4b |
| | | 4.0-9.0 | 71 | 11 | 5 | 9 | 4 | 22 | 2 | 8 | A-1-a |
| | | 9.0-15.0 | 20 | 9 | 15 | 34 | 22 | 23 | 5 | 14 | A-4a* |
| 125+00 | CL | 0.4-5.0 | 15 | 12 | 20 | 33 | 20 | 21 | 3 | 23 | A-4a* |
| | | 5.0-9.0 | 44 | 16 | 14 | 13 | 13 | 28 | 8 | 25 | A-2-4 |
| | | 9.0-15.0 | 17 | 11 | 17 | 31 | 24 | 20 | 3 | 12 | A-4a |

S.R. 37

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 364+75 | 15'Rt | 0.2-4.0 | 17 | 5 | 13 | 36 | 29 | 24 | 6 | 16 | A-4a* |
| | | 4.0-10.0 | 53 | 3 | 6 | 25 | 13 | NP | NP | 12 | A-4a |
| 367+30 | 15'Lt | 0.2-5.0 | 41 | 3 | 10 | 30 | 16 | NP | NP | 12 | A-4a |
| | | 5.0-10.0 | 29 | 5 | 12 | 35 | 19 | 22 | 5 | 12 | A-4a |
| 374+80 | 15'Rt | 0.2-2.0 | 18 | 12 | 16 | 30 | 33 | NP | NP | 26 | A-4a* |
| | | 2.0-7.0 | 25 | 14 | 18 | 20 | 23 | 30 | 12 | 23 | A-6a |
| | | 7.0-12.0 | 60 | 17 | 6 | 11 | 6 | NP | NP | 11 | A-1-b |

TWP. RD. NO. 131

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14+45 | 50'Lt | 0.2-5.0 | 24 | 13 | 22 | 18 | 23 | 28 | 10 | 19 | A-4a* |
| | | 5.0-9.0 | 47 | 27 | 8 | 10 | 8 | NP | NP | 10 | A-1-b |
| | | 9.0-15.0 | 42 | 24 | 10 | 17 | 7 | NP | NP | 18 | A-1-b |
| | | 15.0-20.0 | 58 | 18 | 7 | 12 | 5 | NP | NP | 16 | A-1-b |
| 16+60 | 75'Lt | 0.3-5.0 | 47 | 16 | 8 | 13 | 16 | 33 | 13 | 16 | A-2-6* |
| | | 5.0-10.0 | 67 | 8 | 6 | 10 | 9 | 29 | 7 | 23 | A-2-4 |
| | | 10.0-12.0 | 23 | 8 | 14 | 27 | 28 | 20 | 4 | 13 | A-4a |

S. R. 512

| STATION | OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 267+00 | 26'Rt | 0.4-4.0 | 0 | 10 | 16 | 43 | 31 | 25 | 6 | 12 | A-4a |
| | | 4.0-10.0 | 0 | 9 | 17 | 31 | 43 | 33 | 17 | 21 | A-6b |
| 269+25 | 18'Lt | 0.4-4.0 | 0 | 9 | 13 | [illegible] | 47 | 31 | 13 | 18 | A-6a |
| | | 4.0-10.0 | 7 | 13 | 19 | 38 | 23 | 23 | 8 | 24 | A-4a |
| 274+00 | 15'Lt | 0.4-5.0 | 18 | 9 | 14 | 47 | 12 | NP | NP | 16 | A-4a |
| | | 5.0-10.0 | 7 | 12 | 20 | 36 | 25 | 20 | 6 | 13 | A-4a |
| 278+00 | 16'Lt | 0.4-5.0 | 27 | 12 | [illegible] | [illegible] | 13 | NP | NP | 17 | A-4a |
| | | 5.0-8.0 | 12 | 12 | 16 | 33 | 27 | 22 | 6 | 17 | A-4a |
| | | 8.0-14.0 | 17 | 12 | 14 | 31 | 26 | 20 | 6 | 15 | A-4a |
| | | 14.0-20.0 | 13 | 9 | 15 | 37 | 26 | 20 | 6 | 12 | A-4a |
| | | 20.0-25.0 | 9 | 10 | 14 | 38 | 29 | 22 | 7 | 12 | A-4a |
| 282+90 | CL | 0.3-2.0 | 58 | 7 | 8 | 15 | 12 | 29 | 9 | 11 | A-2-4 |
| | | 2.0-5.0 | 48 | 12 | 14 | 19 | 7 | NP | NP | 17 | A-2-4 |
| | | 5.0-11.0 | 8 | 1 | 55 | 29 | 7 | NP | NP | 25 | A-4a |
| | | 11.0-16.0 | 0 | 2 | 5 | 62 | 31 | 21 | 2 | 22 | A-4b |
| | | 16.0-20.0 | 0 | 2 | 5 | 62 | 31 | 21 | 2 | 22 | A-4b |
| 296+00 | CL | 0.0-5.0 | 14 | 17 | 17 | 37 | 15 | NP | NP | 11 | A-4a |
| | | 5.0-10.0 | 84 | 5 | 3 | 5 | 3 | NP | NP | 7 | A-1-a |
| | | 10.0-12.0 | 55 | 12 | 8 | 19 | 6 | NP | NP | 16 | A-1-b |
| 299+00 | 30'Rt | 0.0-7.0 | 91 | 4 | 2 | -3- | | NP | NP | 5 | A-1-a |
| | | 7.0-12.0 | 7 | 11 | 14 | 42 | 26 | 23 | 8 | 13 | A-4a |

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51) & (11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

16/36

NOTE: For profiles of Ramps "E", "F", "G" and "H", and also S.R. 37 and Twp. Rd. No. 131, see sheet 23

℄ Twp. Rd. No. 131 Relocation

Existing Twp. Rd. No. 131

NOTE: For cross sections of stations 101+00 and 103+00, see sheet 26

℄ Ramp "E"

Cultivated field

Wooded

Corn field

℄ Existing S.R. 37

℄ Ramp "F"

℄ Twp. Rd. No. 131 Relocation

Wet area

Wooded

Existing Twp. Rd. No. 131

℄ Proposed S.R. 16 & 161

Sta. 111+72.23 ℄ Proposed S.R. 16 & 161 = Sta. 370+31.16 ℄ Existing S.R. 37

Pasture

Standing water 2/24/60

Pasture

Corn field

NOTE: For cross sections of stations 104+50 and 106+00, see sheet 27

℄ Ramp "G"

NOTE: For cross section of station 100+50, see sheet 25

℄ Ramp "H"

NOTE: For cross section of station 108+50, see sheet 28

NOTE: For cross sections of stations 115+00 and 119+00, see sheet 29

50' Rt. ℄ TS=0.4'

TS=0.5'

36' Lt. Sod B TS=0.4'

Sod=0.2'

Refusal (Hand auger)

Hand Auger-Core Boring ℄ TS=0.2'

Refusal (Hand auger)

Silty clay with sandstone boulders.

Top of Rock-In-Place

Shale, dark-gray, argillaceous, non-fissile, soft with few 0.1' firm zones, extremely weathered, very badly broken and crumbly. Core loss 32%.*

Shale, dark-gray, poorly fissile, medium-firm, badly broken, crumbly in part. Core loss 14%.

* High core loss due in part to mechanical difficulties encountered in 5' run from 927.8' to 922.8'

40' Lt. TS=Sod

Slightly organic

℄ TS=0.4'

Refusal

℄ TS=0.4'

20' Lt. Sod B TS=0.4'

Refusal (Boulders)

Sod B TS=0.4'

Refusal (Boulders)

℄ TS=0.4'

℄ TS=0.4'

Refusal (Boulders)

℄ TS=0.4'

Refusal (Boulders)

℄ TS=0.4'

℄ TS=0.6'

75' Rt. ℄ TS=0.5'

Water elev. 913.6'

℄ TS=0.5'

℄ TS=0.5'

Refusal (Hand auger) (Gravel)

950 940 930 920 910 900 890

96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128

# SOIL PROFILE

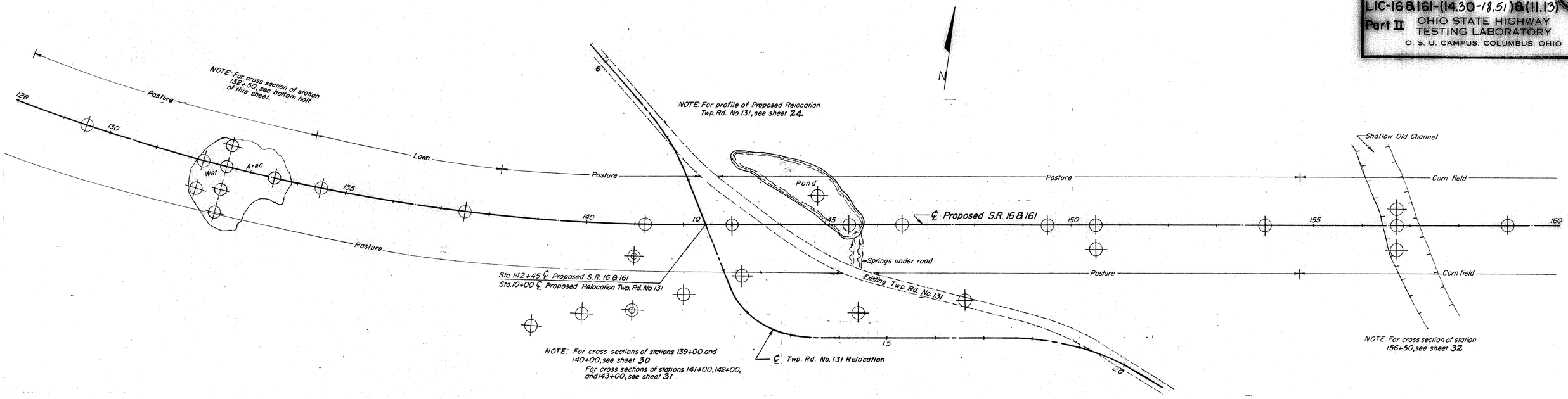
LICKING COUNTY

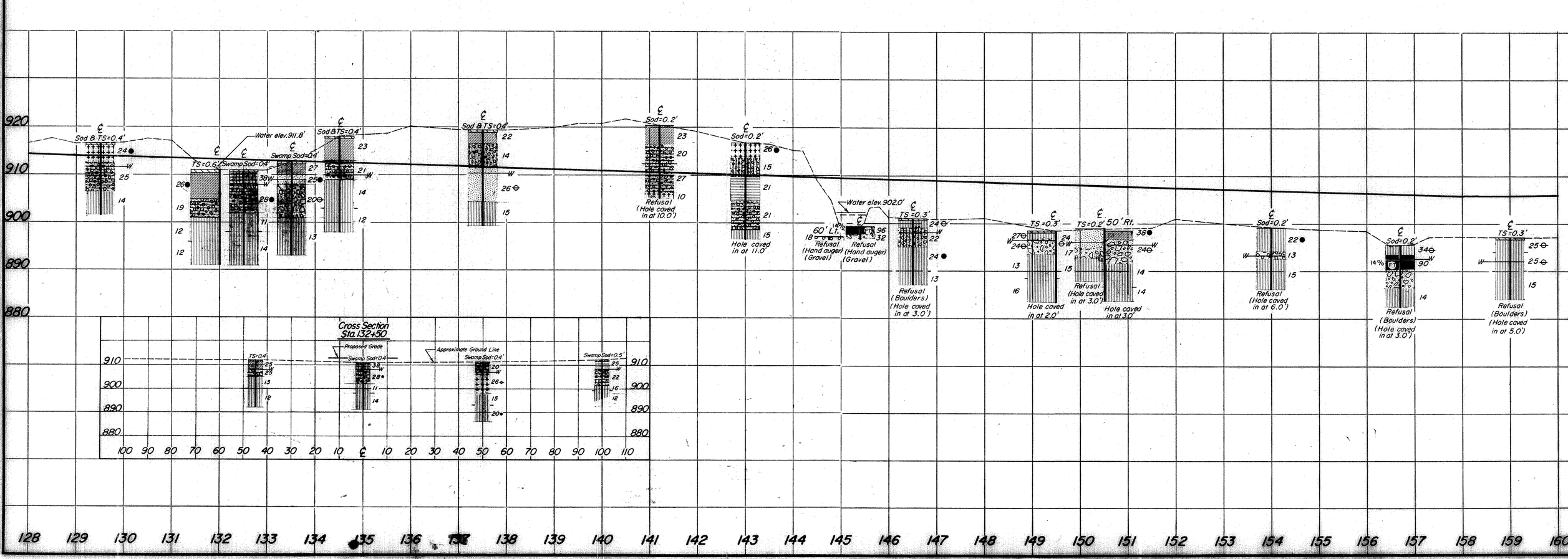
LIC-16&161-(14.30-18.51)&(11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS. COLUMBUS. OHIO

17/36



# SOIL PROFILE

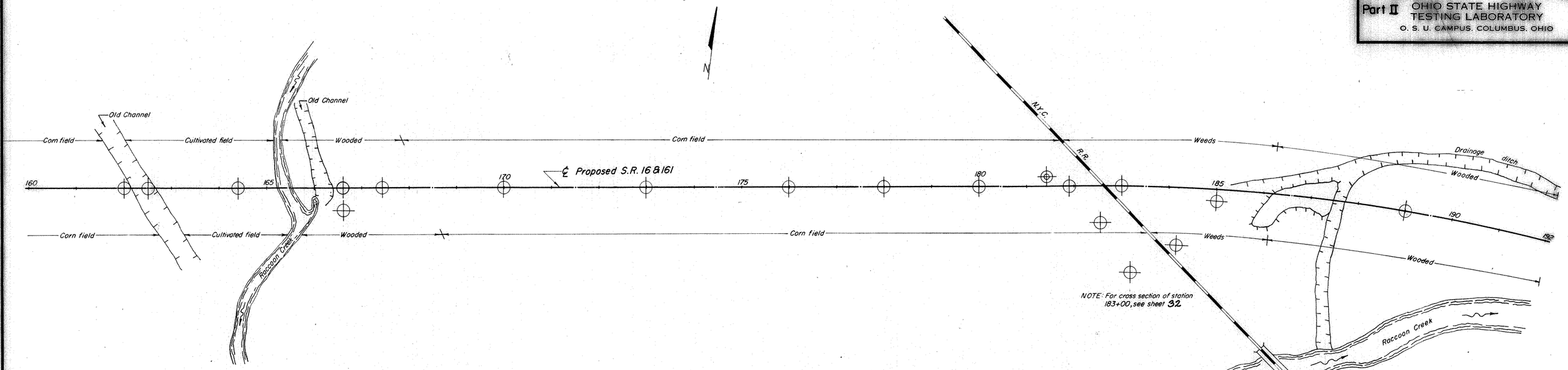
LICKING COUNTY

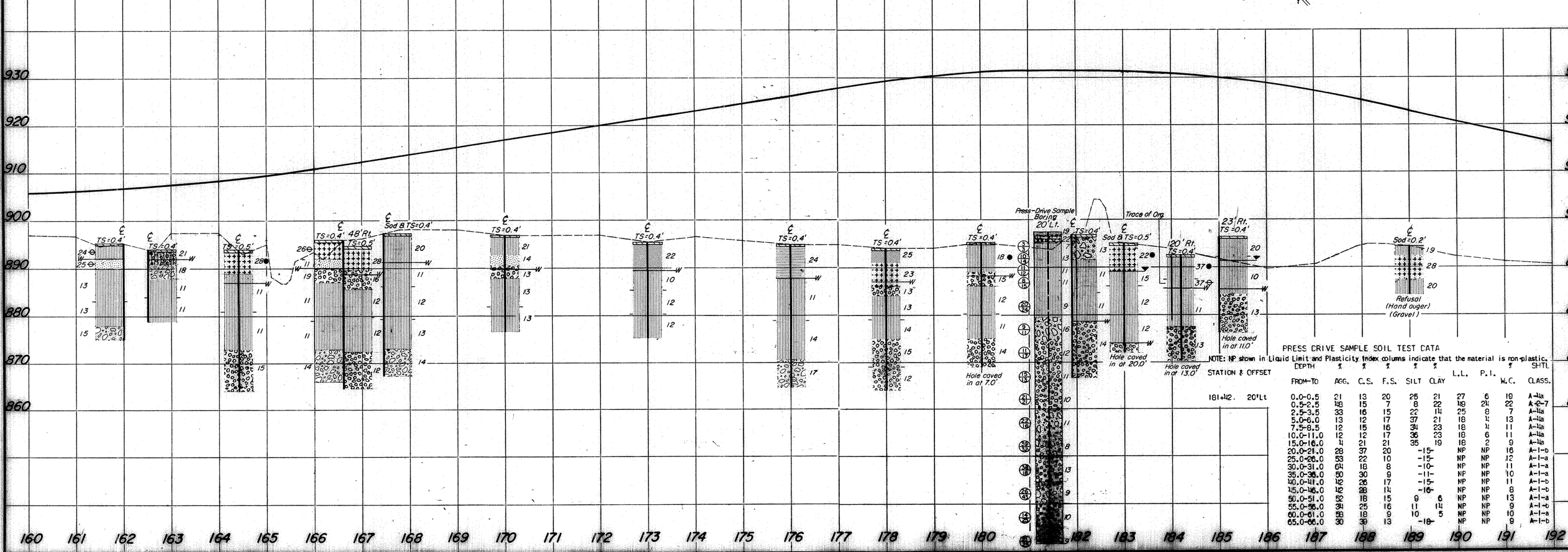
LIC-16 & 161-(14.30-18.51) & (11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS. COLUMBUS. OHIO

18/36




PRESS DRIVE SAMPLE SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicate that the material is non-plastic.

| STATION & OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|
| 181+42. 20'Lt | 0.0-0.5 | 21 | 13 | 20 | 25 | 21 | 27 | 6 | 19 | A-1a |
| | 0.5-2.5 | 48 | 15 | 7 | 8 | 22 | 49 | 24 | 22 | A-2-7 |
| | 2.5-3.5 | 33 | 16 | 15 | 22 | 14 | 25 | 8 | 7 | A-1a |
| | 5.0-6.0 | 13 | 12 | 17 | 37 | 21 | 18 | 4 | 13 | A-1a |
| | 7.5-8.5 | 12 | 15 | 16 | 34 | 23 | 18 | 4 | 11 | A-1a |
| | 10.0-11.0 | 12 | 12 | 17 | 36 | 23 | 18 | 6 | 11 | A-1a |
| | 15.0-16.0 | 14 | 21 | 21 | 35 | 19 | 18 | 2 | 9 | A-1a |
| | 20.0-21.0 | 28 | 37 | 20 | -15- | | NP | NP | 16 | A-1-b |
| | 25.0-26.0 | 53 | 22 | 10 | -15- | | NP | NP | 12 | A-1-a |
| | 30.0-31.0 | 64 | 18 | 8 | -10- | | NP | NP | 11 | A-1-a |
| | 35.0-36.0 | 50 | 30 | 9 | -11- | | NP | NP | 10 | A-1-a |
| | 40.0-41.0 | 45 | 26 | 17 | -15- | | NP | NP | 11 | A-1-b |
| | 45.0-46.0 | 45 | 28 | 14 | -16- | | NP | NP | 8 | A-1-b |
| | 50.0-51.0 | 52 | 18 | 15 | 9 | 6 | NP | NP | 13 | A-1-a |
| | 55.0-56.0 | 34 | 25 | 16 | 11 | 14 | NP | NP | 9 | A-1-b |
| | 60.0-61.0 | 58 | 18 | 9 | 10 | 5 | NP | NP | 10 | A-1-a |
| | 65.0-66.0 | 30 | 39 | 13 | -18- | | NP | NP | 9 | A-1-b |

# SOIL PROFILE

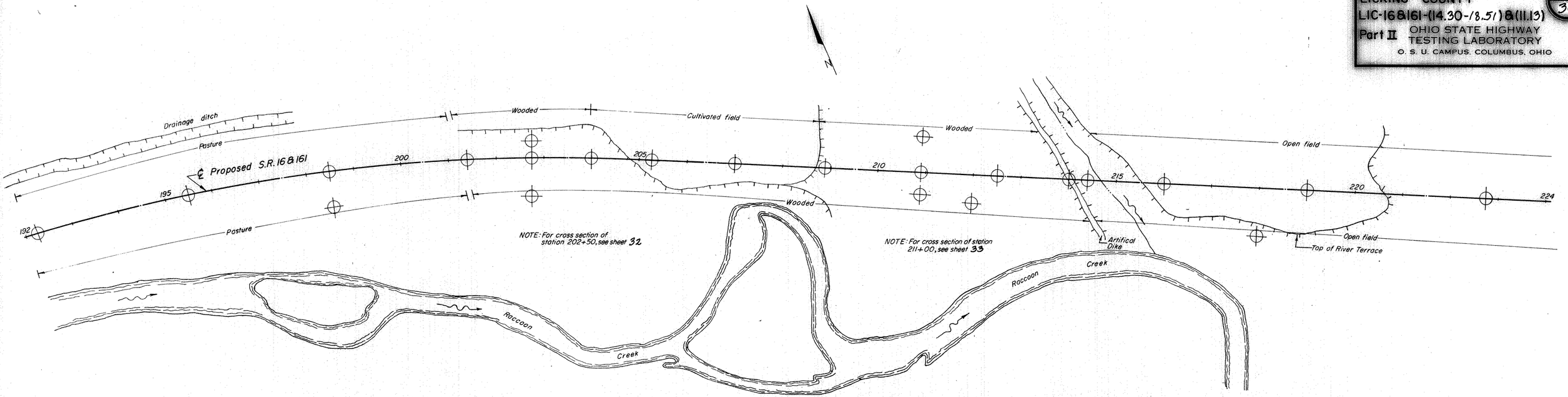
LICKING COUNTY

LIC-16&161-(14.30-/8.51)&(11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

19/36



# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51) & (11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

20/36

NOTE Bituminous pavement is in good condition.

Open field

Sta. 226+90.10 ℄ Proposed S.R. 16 & 161 =
Sta. 42+75 ℄ Existing Co. Rd. No. 128

℄ Proposed S.R. 16 & 161

Existing Co. Rd. No. 128

Weeds

Corn field

Wooded & Weeds

Wooded

Raccoon Creek

224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256

890 880 870 860 850 840

℄ Sod=0.3' 15 22 10

℄ Sod=0.5' 21 9 8

℄ Sod=0.5' 19 21 9

℄ TS=0.5' 21 12 11 8

℄ Sod & TS=0.3' 24 10

℄ TS=0.3' 15 12 12 Refusal (Boulders)

60' Rt. TS=0.3' 19 15 Refusal (Boulders)

℄ TS=0.2' 22 17 8 Refusal (Boulders)

℄ 18 6 8

℄ TS=0.3' 20 8 Refusal (Boulders)

℄ W 33 25 14 Refusal (Boulders) (Hole caved in at 3.0')

℄ Sod=0.5' 12 16 14 Refusal (Hole caved in at 4.0')

75' Rt. TS=0.4' 30 31 W 15 14 19 Trace of Org.

℄ TS=0.3' 29 W 15 13 12 13 Hole caved in at 7.0' Slightly Org.

℄ TS=0.4' 38 W 15 13 12

℄ Sod & TS=0.4' 25 W 13 11 13

# SOIL PROFILE

LICKING COUNTY

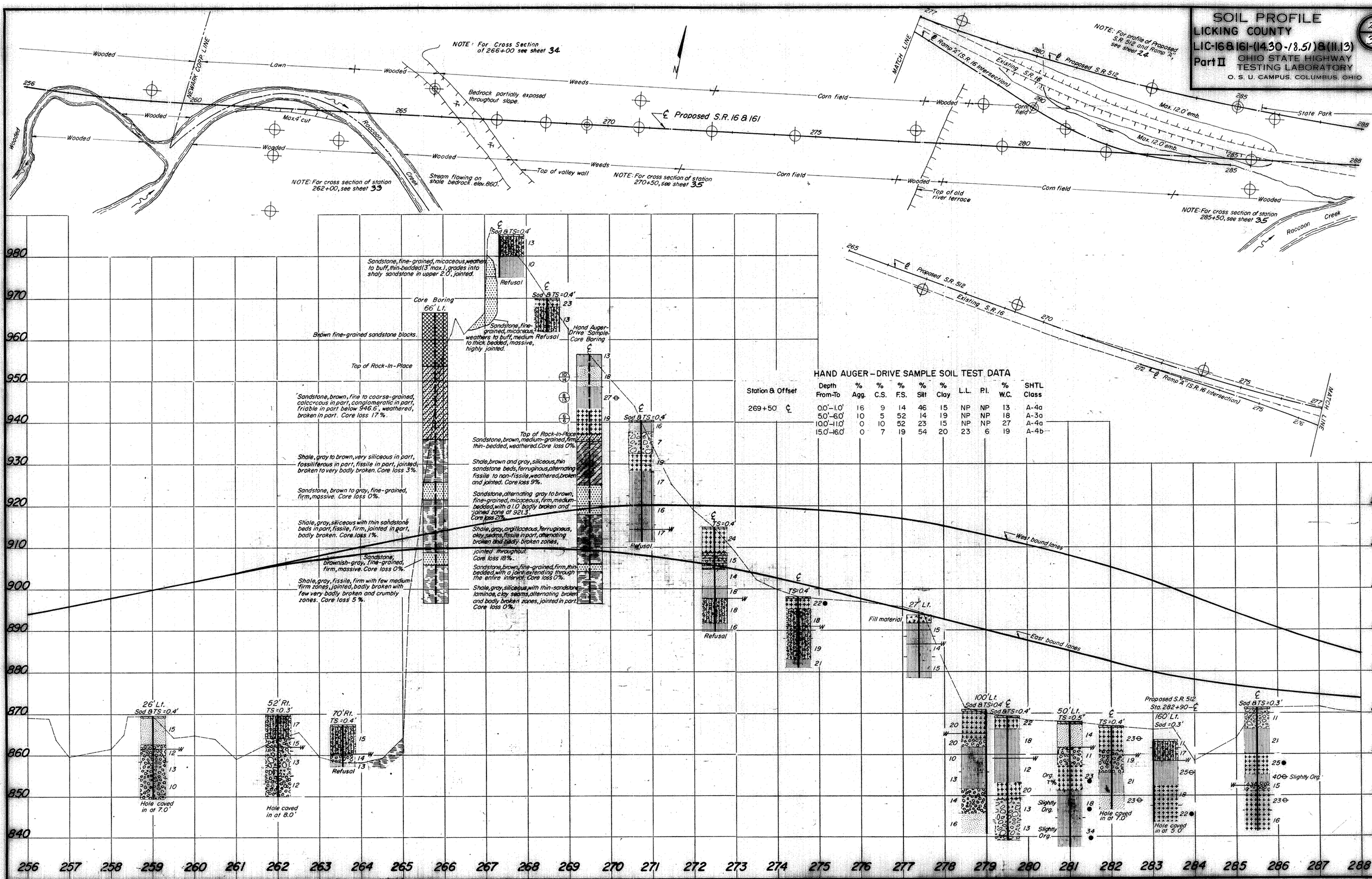
LIC-16&161-(14.30-/8.51)8(11.13)

Part II

OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

21/36




## HAND AUGER – DRIVE SAMPLE SOIL TEST DATA

| Station & Offset | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | L.L. | P.I. | % W.C. | SHTL Class |
|---|---|---|---|---|---|---|---|---|---|---|
| 269+50 ℄ | 0.0'–1.0' | 16 | 9 | 14 | 46 | 15 | NP | NP | 13 | A-4a |
| | 5.0'–6.0' | 10 | 5 | 52 | 14 | 19 | NP | NP | 18 | A-3a |
| | 10.0'–11.0' | 0 | 10 | 52 | 23 | 15 | NP | NP | 27 | A-4a |
| | 15.0'–16.0' | 0 | 7 | 19 | 54 | 20 | 23 | 6 | 19 | A-4b |

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51)&(11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS. COLUMBUS. OHIO

22/36

NOTE: For profile of Proposed S.R.512, see sheet 24

NOTE: For cross section of station 290+00, see sheet 36

State Park

Max. 90.0' cut

℄ Proposed S.R. 512

Existing S.R. 512

℄ Proposed S.R. 16 & 161

Existing S.R. 16

Max. 6' cut

Commercial

Weeds

Nursery

Trees

Weeds & Trees

Wooded & Weeds

Commercial

Weeds

Raccoon Creek

NOTE: Stream is flowing on sandstone. elev. 852.0'

Raccoon Creek

West bound lanes

East bound lanes

℄

Sod & TS=04'

Refusal

27' Rt.

28' Rt.

41' Lt.

8' Rt.

29' Lt.

20' Rt.

8' Rt.

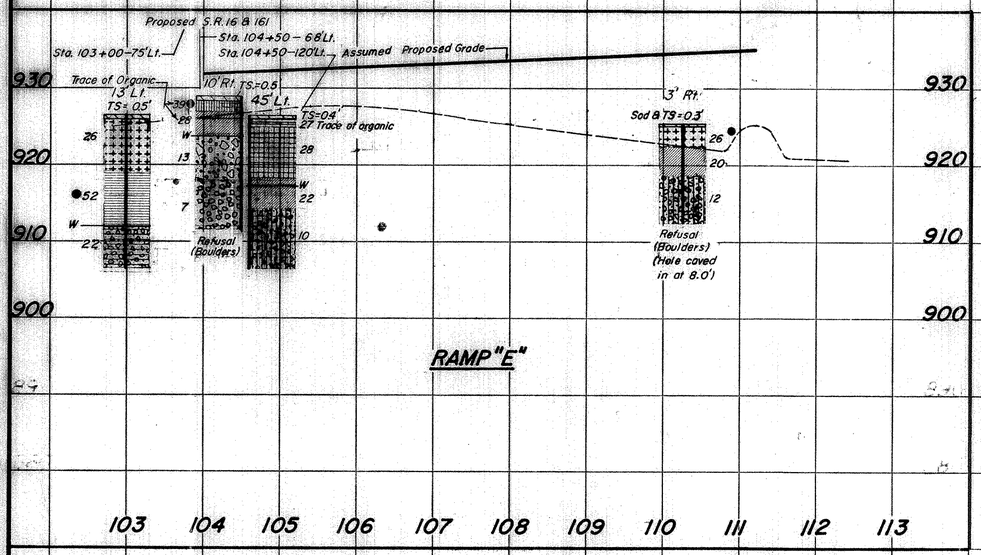
4' Lt.

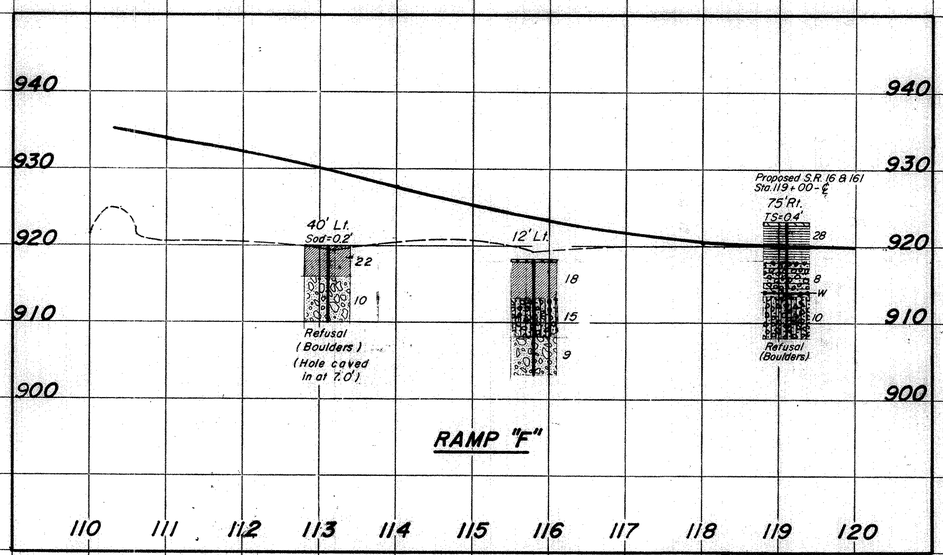
880 870 860 850 840

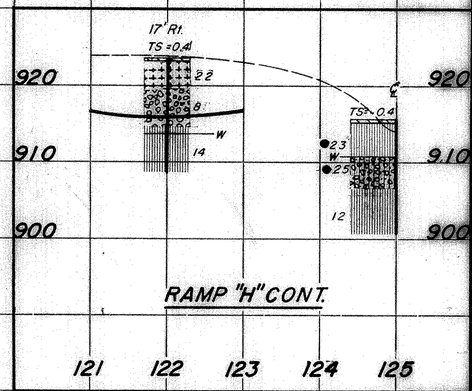
288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312

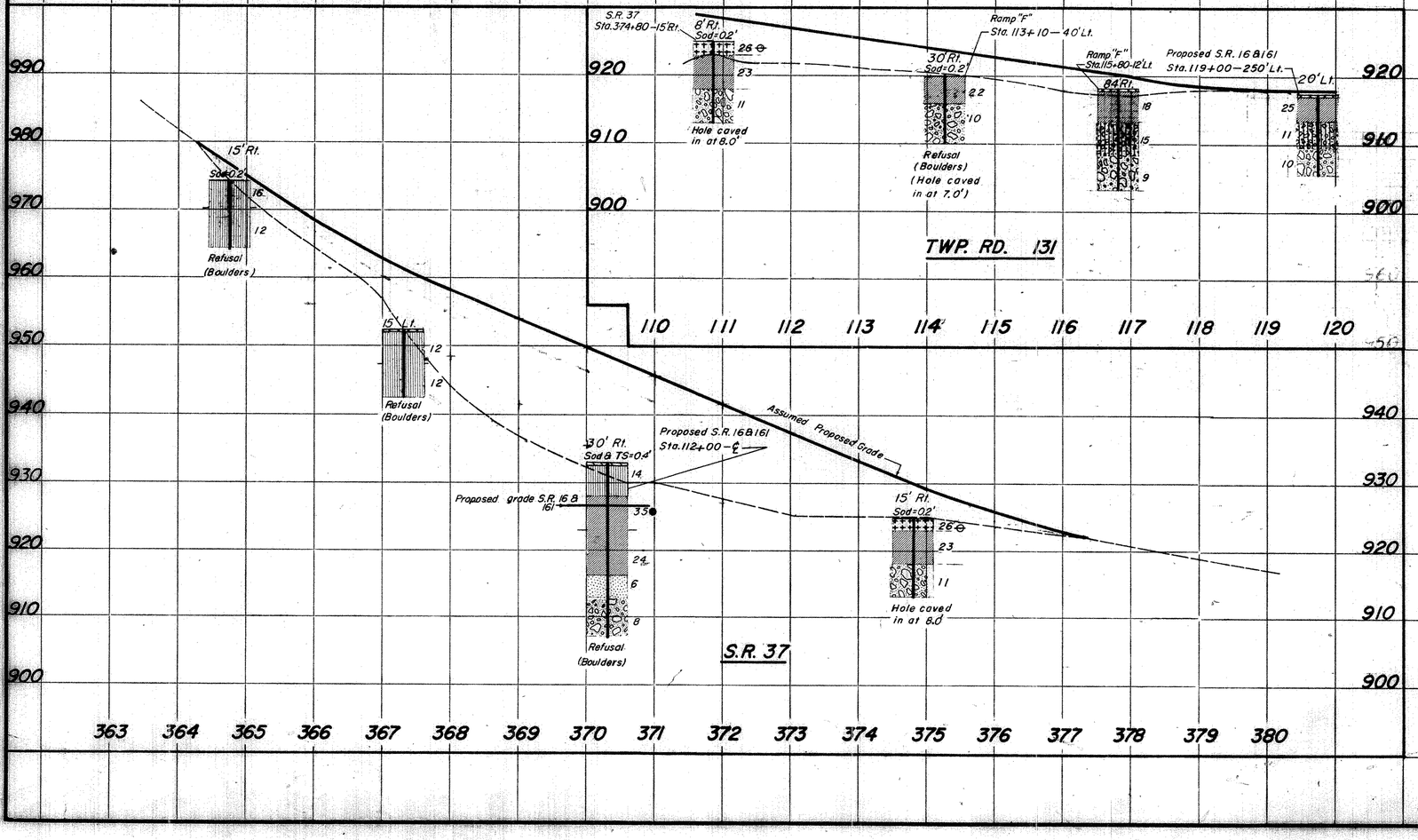
# SOIL PROFILE
LICKING COUNTY
LIC-16 & 161-(14.30-18.51) & (11.13)
Part II OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

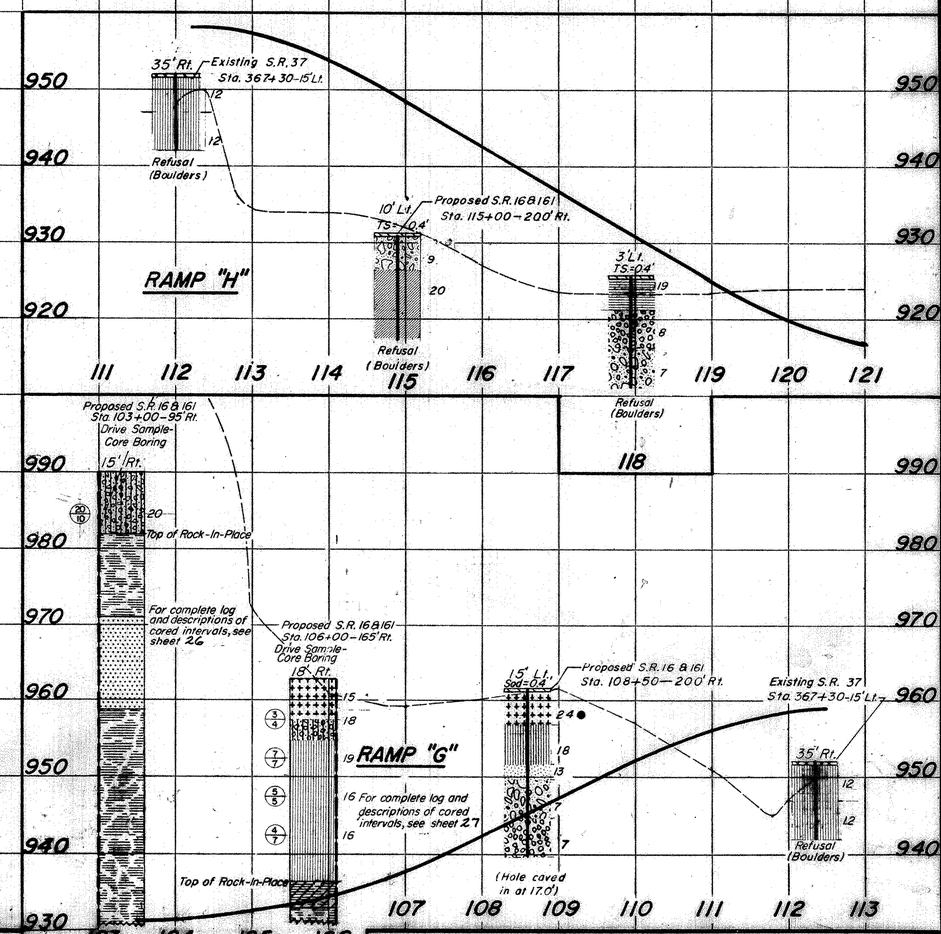
23
36



# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51) & (11.13)

Part II

OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

24/36

Approximate ground line

Proposed S.R. 16 & 161 Sta. 143+00 — ℄

50' Lt. Sod=0.2'

30' Lt. TS=0.4'

Proposed S.R. 16 & 161 Sta. 143+20 — 105' Rt.

50' Lt. Sod=0.2'

75' Lt.

Refusal

Hole caved in at 11.0'

Hole caved in at 10.0'

Twp. Rd. No. 131 Relocation

S.R. 512 Sta. 274+00 — 15 Lt.

35' Lt.

Proposed grade West bound lanes S.R. 16 & 161

Ramp "A"

Proposed S.R. 16 & 161 Sta. 279+00 — 100' Lt.

58' Rt. Sod & TS=0.4'

Proposed S.R. 16 & 161 Sta. 281+00 — 50' Lt.

Press-Drive Sample Boring

5' Rt. TS=0.5'

16' Rt. TS=0.4'

Proposed S.R. 16 & 161 Sta. 282+00 — ℄

Hole caved in at 7.0'

Slightly Organic

Proposed S.R. 16 & 161 Sta. 285+50 — ℄

15' Lt. Sod & TS=0.3'

Slightly Org.

## PRESS DRIVE SAMPLE SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.

| STATION & OFFSET | DEPTH FROM-TO | % AGG. | % C.S. | % F.S. | % SILT | % CLAY | L.L. | P.I. | % W.C. | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|
| Ramp "A" 280+00 CL | 0.0-1.5 | 0 | 4 | 12 | 50 | 34 | NP | NP | 22 | A-4b |
| | 1.5-2.5 | 0 | 3 | 9 | 56 | 32 | 31 | 10 | 22 | A-4b |
| | 2.5-3.5 | 0 | 1 | 19 | 52 | 28 | 28 | 3 | 22 | A-4b |
| | 3.5-4.1 | 8 | 5 | 15 | 46 | 26 | NP | NP | 21 | A-4b |
| | 4.1-5.0 | 52 | 9 | 15 | 14 | 10 | NP | NP | 12 | A-1-b |
| | 5.0-6.0 | 65 | 12 | 11 | 6 | 6 | NP | NP | 25 | A-1-a |
| | 6.0-7.0 | 59 | 11 | 12 | 15 | 3 | NP | NP | 12 | A-1-b |
| | 7.0-8.0 | 70 | 5 | 7 | 16 | 2 | NP | NP | 16 | A-1-b |
| | 8.0-9.0 | 66 | 10 | 7 | 15 | 2 | NP | NP | 14 | A-1-b |
| | 11.0-12.0 | 78 | 1 | 5 | 13 | 3 | NP | NP | 13 | A-1-b |
| | 14.0-15.0 | 0 | 1 | 3 | 68 | 28 | 30 | 10 | 22 | A-6b |
| | 15.0-16.0 | 0 | 4 | 16 | 64 | 16 | NP | NP | 18 | A-4b |
| | 16.0-17.0 | 59 | 13 | 17 | 11 | 2 | NP | NP | 12 | A-1-b |
| | 19.0-20.0 | 64 | 10 | 15 | 9 | 2 | NP | NP | 12 | A-1-b |
| | 22.0-23.0 | 71 | 8 | 10 | 9 | 2 | NP | NP | 10 | A-1-b |
| | 25.0-26.0 | 91 | 3 | 3 | 3 | - | NP | NP | 10 | A-1-b |
| | 27.0-28.0 | 3 | 3 | 30 | 46 | 18 | NP | NP | 17 | A-4b |
| | 30.0-31.0 | 21 | 8 | 23 | 31 | 14 | NP | NP | 15 | A-4b |
| | 32.5-33.5 | 28 | 13 | 15 | 32 | 12 | NP | NP | 11 | A-4b |
| | 35.0-36.0 | 28 | 11 | 25 | 25 | 11 | NP | NP | 14 | A-4b |
| | 37.0-38.0 | 18 | 10 | 24 | 37 | 11 | NP | NP | 12 | A-4b |
| | 40.0-41.0 | 8 | 9 | 21 | 43 | 19 | NP | NP | 17 | A-4b |

25' Rt.

18' Lt.

15' Lt.

16' Lt.

S.R. 512

NOTE: For complete log and description of cored interval of Press-Drive Sample-Core Boring, Sta. 285+00 ℄, see sheet 35

Proposed S.R. 16 & 161 Sta. 286+00 — 100' Lt.

Press-Drive Sample-Core Boring

℄ Sod=0.3'

15' Rt. Sod=0.4'

Slightly Org.

Hole caved in at 5.0'

Refusal (Hole caved in at 8.0')

S.R. 512 Cont.

Rock Section

For description of rock section, see cross section of station 290+00, sheet 36

Proposed S.R. 16 & 161 Sta. 294+00 — 41' Lt.

25' Rt.

Refusal

Proposed S.R. 16 & 161 Sta. 296+00 — 29 Lt.

80' Rt.

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18,51)&(11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

25/36

## Cross Section Sta. 100+50

Hand Auger-Drive Sample Soil Test Data

| Station & Offset | | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | L.L. | P.I. | % W.C. | SHTL Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 100+50 | 88'Rt. | 3.0 – 3.5 | 75 | 3 | 3 | 14 | 5 | NP | NP | 12 | A-1-b |
| | | 4.5 – 5.0 | 78 | 3 | 3 | 11 | 5 | NP | NP | 12 | A-1-b |
| | | 5.0 – 6.0 | 34 | 10 | 23 | 22 | 11 | NP | NP | 20 | A-2-4 |
| 100+50 | 323'Rt. | 5.0 – 6.0 | 33 | 9 | 18 | 22 | 18 | 27 | 10 | 17 | A-4a |

Drive Sample-Core Boring

8/14

17

Top of Rock-In-Place

Sandstone, brown, gray in part, fine-grained, grading to medium-to coarse-grained from 1012.4' to 1007.4', firm, friable in part from elev. 1011.7 to 1008.7, jointed and broken in part, badly broken in top 5.0. Core loss 4%.

Shale, gray, siliceous in part, fissile, firm, jointed and badly broken in part, grading intermittently into a gray, fine-grained sandstone (firm, jointed and badly broken in part). Core loss 3%.

Hand Auger-Drive Sample-Core Boring

4/6

12
12
20

Top of Rock-In-Place

Sandstone, brown, fine-grained, clay seams, shale laminae, firm, medium-bedded, broken and jointed. Core loss 23%.*

* Core loss due to barrel plugging.

Shale, alternating brown and gray, alternating siliceous and argillaceous, clay seams, thin sandstone laminae and beds, fissile in part, firm, broken in part, jointed. Core loss 4%.

Sod=0.2'

17

Refusal (Hand auger)

Proposed section

Ramp "G"

TS=0.5'

25

27

W

24

1080 1070 1060 1050 1040 1030 1020 1010 1000 990 980 970 960 950 940 930 920 910 900

250 300

120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

# SOIL PROFILE

LICKING COUNTY

LIC-16&161-(14.30-18.51)8(11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS. COLUMBUS. OHIO



Drive Sample Soil Test Data

| Station & Offset | | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | L.L. | P.I. | % W.C. | SHTL Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 103+00 | 95'Rt. | 5.0 – 6.0 | 44 | 11 | 14 | 22 | 9 | NP | NP | 20 | A-2-4 |

## Cross Section Sta. 103+00

(Sta. 102+75) Hand Auger-Core Boring TS=0.2'

25

Refusal (Hand auger)

For description of Hand Auger-Core Boring, see profile sheet 16

Top of Rock-In-Place

Proposed section — Ramp "G"

TS=0.5'

26

52

W

22

Drive Sample-Core Boring

20

Top of Rock-In-Place

Shale, gray, argillaceous, with thin sandstone laminae and beds, clay seams, non-fissile, alternating firm to medium-firm, broken and jointed. Core loss 27%.

Sandstone, alternating gray and brown, fine-grained, clay seams, shale laminae and thin beds, firm, massive-bedding, broken and jointed. Core loss 8%.

Shale, alternating brown and gray, argillaceous, clay seams, thin sandstone laminae and beds, partly fissile, firm, broken with a badly broken and jointed zone above 940.0'. Core loss 8%.

Shale, gray, argillaceous, clay seams, thin sandstone laminae, fissile in part, firm. Core loss 0%.

## Cross Section Sta. 101+00

(Sta. 100+50) Hand Auger-Drive Sample-Core Boring

12 / 12 / 20

Top of Rock-In-Place

NOTE: For descriptions of cored intervals, see sheet 25

(Sta. 100+50) Sod=0.2'

17

Refusal (Hand auger)

Proposed section — Ramp "G"

(Sta. 100+50) TS=0.5'

25

27

W

24

1000 990 980 970 960 950 940 930 920 910 900

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51)8(11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

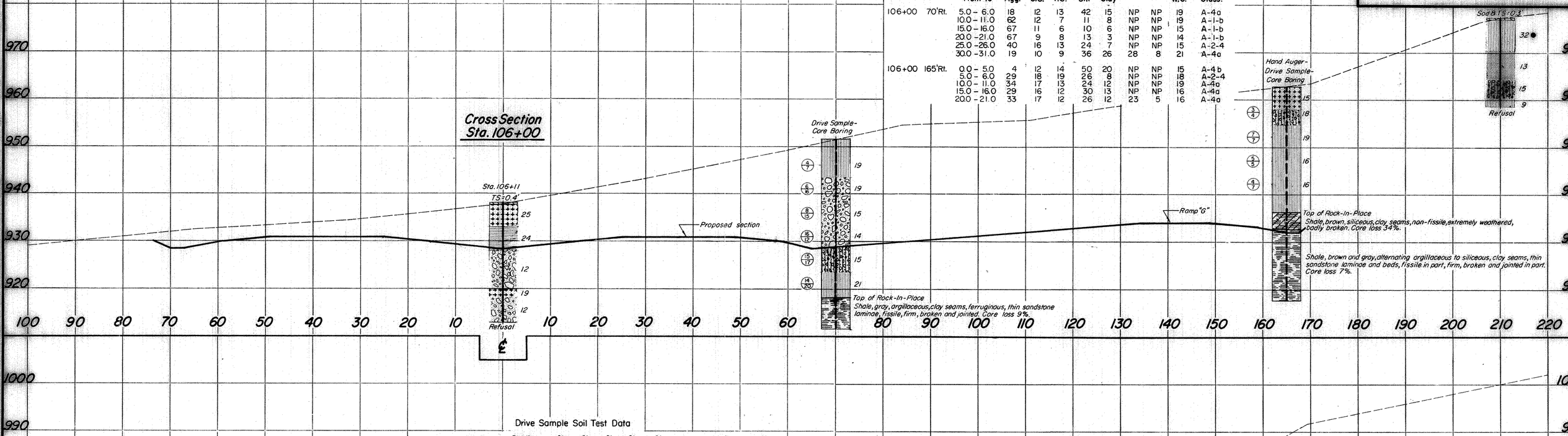
O. S. U. CAMPUS, COLUMBUS, OHIO

27/36

## Hand Auger-Drive Sample Soil Test Data

| Station & Offset | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | L.L. | P.I. | % W.C. | SHTL. Class. |
|---|---|---|---|---|---|---|---|---|---|---|
| 106+00 70'Rt. | 5.0 - 6.0 | 18 | 12 | 13 | 42 | 15 | NP | NP | 19 | A-4a |
| | 10.0 - 11.0 | 62 | 12 | 7 | 11 | 8 | NP | NP | 19 | A-1-b |
| | 15.0 - 16.0 | 67 | 11 | 6 | 10 | 6 | NP | NP | 15 | A-1-b |
| | 20.0 - 21.0 | 67 | 9 | 8 | 13 | 3 | NP | NP | 14 | A-1-b |
| | 25.0 - 26.0 | 40 | 16 | 13 | 24 | 7 | NP | NP | 15 | A-2-4 |
| | 30.0 - 31.0 | 19 | 10 | 9 | 36 | 26 | 28 | 8 | 21 | A-4a |
| 106+00 165'Rt. | 0.0 - 5.0 | 4 | 12 | 14 | 50 | 20 | NP | NP | 15 | A-4b |
| | 5.0 - 6.0 | 29 | 18 | 19 | 26 | 8 | NP | NP | 18 | A-2-4 |
| | 10.0 - 11.0 | 34 | 17 | 13 | 24 | 12 | NP | NP | 19 | A-4a |
| | 15.0 - 16.0 | 29 | 16 | 12 | 30 | 13 | NP | NP | 16 | A-4a |
| | 20.0 - 21.0 | 33 | 17 | 12 | 26 | 12 | 23 | 5 | 16 | A-4a |

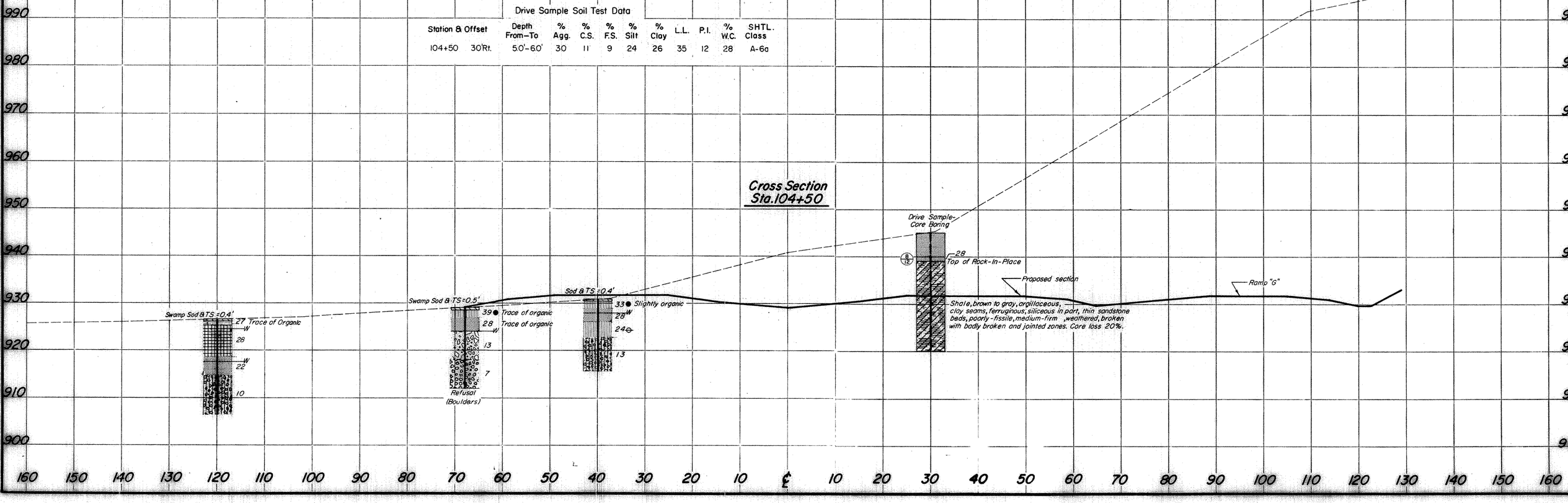
## Cross Section Sta. 106+00




## Drive Sample Soil Test Data

| Station & Offset | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | L.L. | P.I. | % W.C. | SHTL. Class |
|---|---|---|---|---|---|---|---|---|---|---|
| 104+50 30'Rt. | 5.0'-6.0' | 30 | 11 | 9 | 24 | 26 | 35 | 12 | 28 | A-6a |

## Cross Section Sta. 104+50

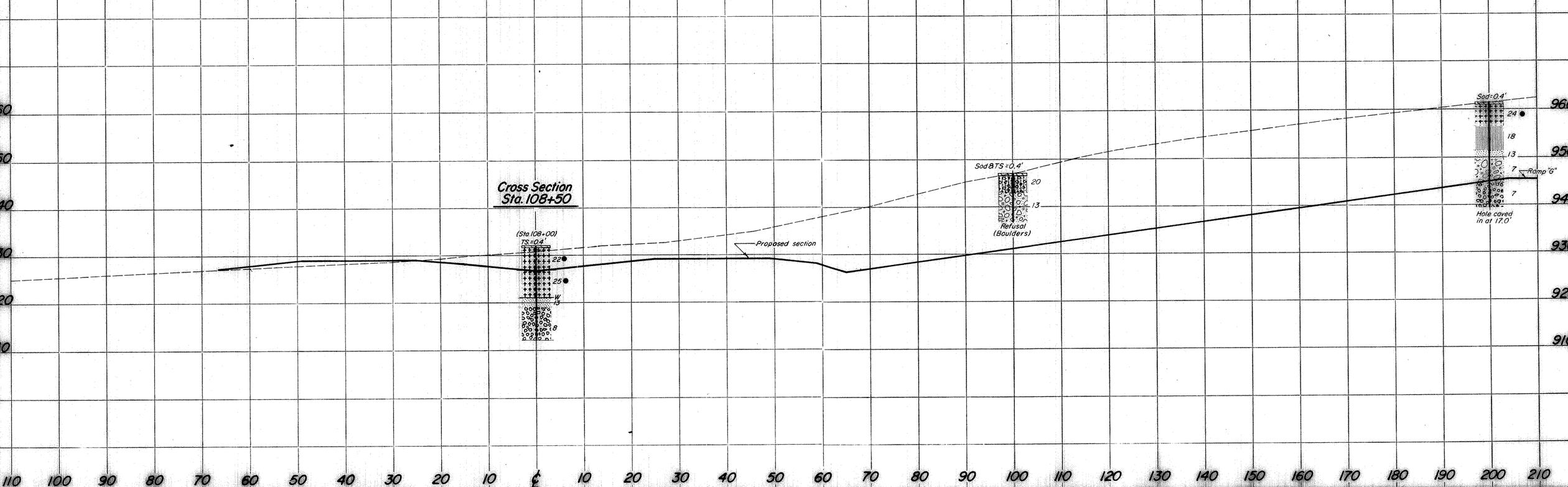


SOIL PROFILE

LICKING COUNTY
LIC-16&161-(14.30-18.51)&(11.13)
Part II OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

28
36

## Cross Section Sta. 108+50



# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51) & (11.13)

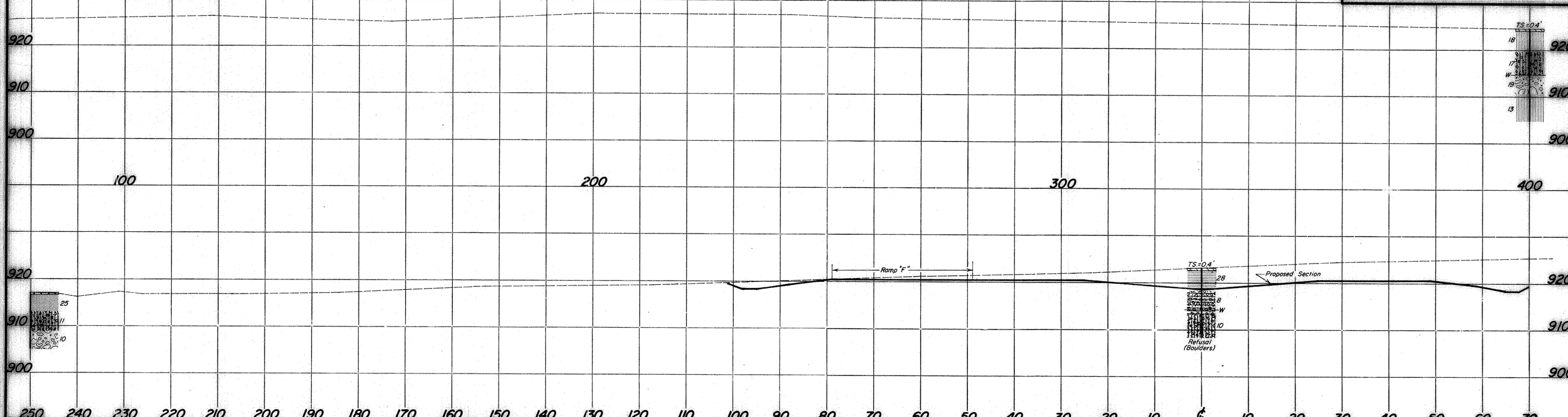
Part II

OHIO STATE HIGHWAY TESTING LABORATORY

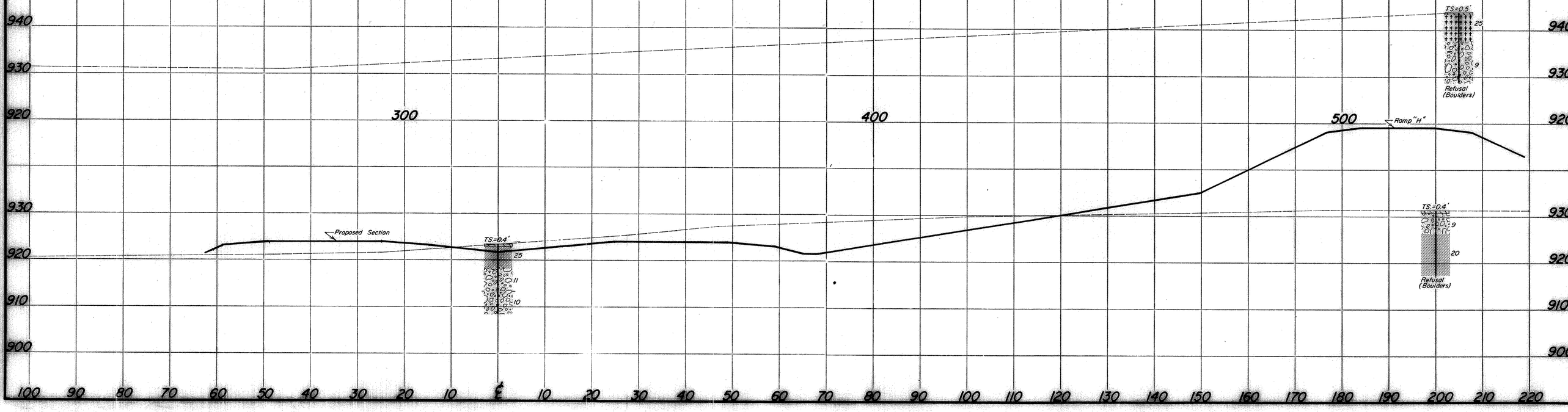
O. S. U. CAMPUS, COLUMBUS, OHIO

29/36

## Cross Section Sta. 119+00




## Cross Section Sta. 115+00



# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51) & (11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

30/36

970
960
950
940
930
920
910
900

Cross Section
Sta. 140+00

Proposed section

℄

TS = 0.4'
15
15
Refusal

970
960
950
940
930
920
910
900

Cross Section
Sta. 139+00

Proposed section

TS = 0.4'
19
18
Refusal

100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51) & (11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

31/36

## Cross Section Sta. 143+00

Sod=0.2'
26
15
21
21
15
Hole caved in at 11.0'

Proposed section

℄

## Cross Section Sta. 142+00

Proposed section

℄

## Cross Section Sta. 141+00

Sta. 141+20
Sod=0.2'
23
20
27
10
Refusal
(Hole caved in at 10.0')

Proposed section

℄

Sta. 143+20
TS=0.4'
21
15
Refusal

℄ Proposed Relocation Twp. Rd. 131

Sod & TS=0.4'
20
9
Refusal

Drive Sample-Core Boring

A-8

19
Top of Rock-In-Place

Shale, brown, siliceous, thin sandstone laminae, clay seams, poorly-fissile in part, medium-firm, weathered, broken with soft crumbly zones, jointed throughout. Core loss 4%.

Shale, gray, siliceous, with clay seams above 908.2', thin sandstone beds, fissile in part, firm, broken and jointed above 908.2'. Core loss 10%.

Auger-Core Boring
Sod & TS=0.4'
21
14
Top of Rock-In-Place

Shale, brown, siliceous, with soft clay seams, fissile, weathered, medium-firm to firm, badly broken, crumbly in part, grading intermittently into a buff, fine-grained, firm, broken sandstone (comprises about 30% of interval). Core loss 0%

Shale, gray, fissile, firm, jointed and broken to badly broken above 908.0' with few thin sandstone beds. Core loss 0%.

### Drive Sample Soil Test Data

| Station & Offset | | Depth From-To | % Agg. | % C.S. | % F.S. | % Silt | % Clay | L.L. | P.I. | % W.C. | SHTL Class |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 141+00 | 65' Rt. | 5.0 - 6.0 | 41 | 14 | 11 | 23 | 11 | NP | NP | 19 | A-2-4 |

940 930 920 910 900 890

940 930 920 910 900

950 940 930 920 910 900

960 950 940 930 920 910 900

120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

# SOIL PROFILE

LICKING COUNTY

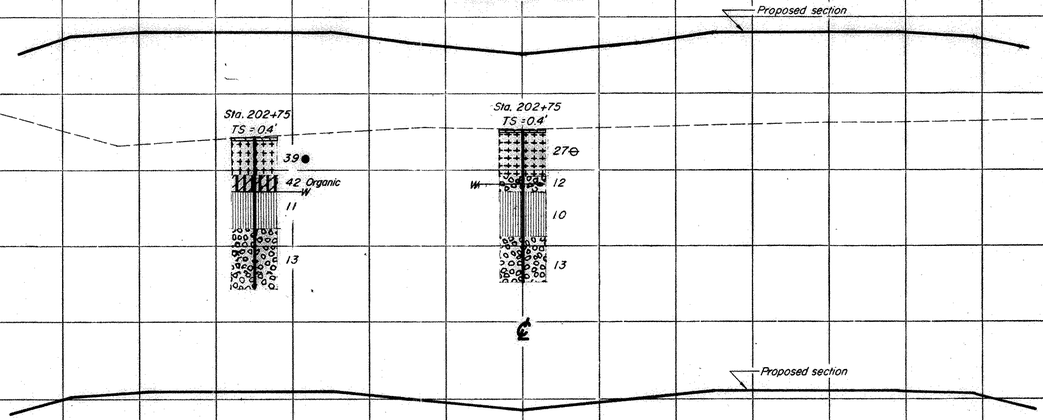
LIC-16 & 161-(14.30-18.51)&(11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

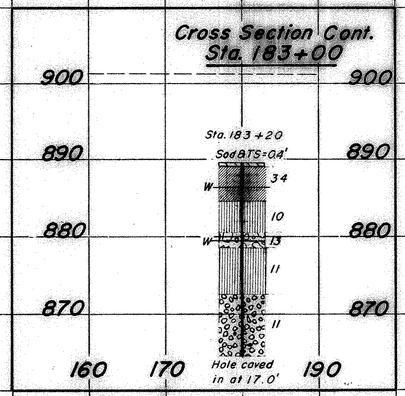
O. S. U. CAMPUS, COLUMBUS, OHIO

32/36

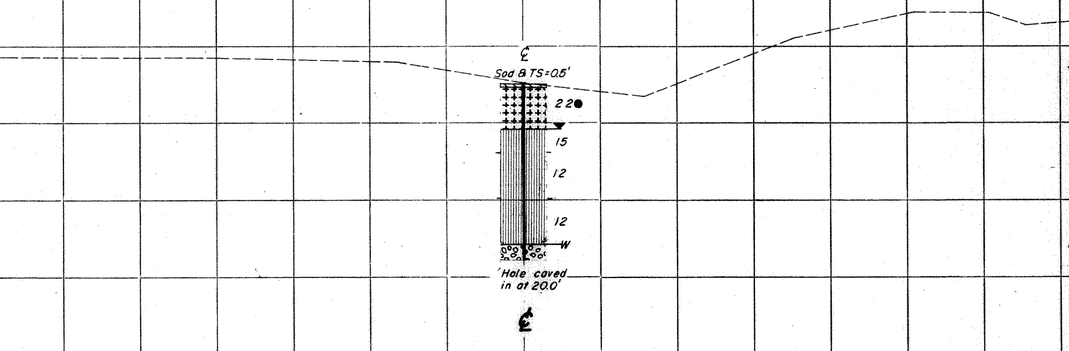
## Cross Section Sta. 202+50



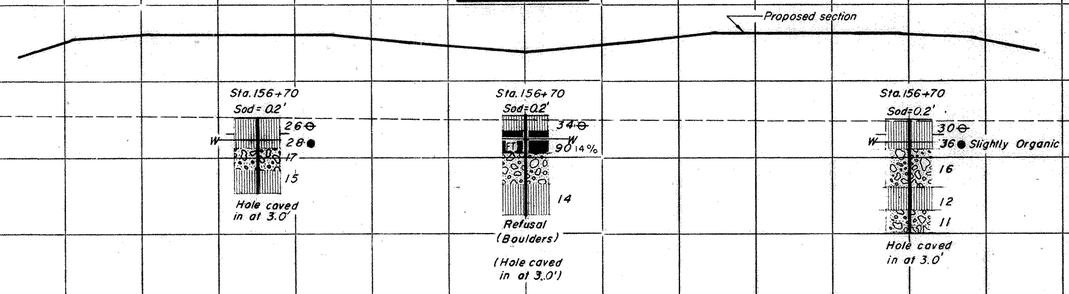

## Cross Section Cont. Sta. 183+00




## Cross Section Sta. 183+00




## Cross Section Sta. 156+50




160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 161-(14.30-18.51)B(11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

33/36

## Cross Section Sta. 262+00

Proposed section

TS=0.3'

17
15 W
13
12

Hole caved in at 8.0'

## Cross Section Cont. Sta. 262+00

Sod & TS=0.4'

32
12
26 W
18
14

Hole caved in at 9.0'

TS=0.4'

24
23
22 W
7
14

Hole caved in at 10.0'

## Cross Section Sta. 211+00

Proposed section

Sta. 210+90

28
17
W
30
40
15

Refusal (Hole caved in at 6.0')

Sta. 210+90

24
25 W
15
11

Refusal (Hole caved in at 6.0')

Sta. 210+90

22 W
16
19
17

Refusal (Hole caved in at 4.0')

900 890 880 870 860 850 840

870 860 200 210 220 230 240 260 880 870 860 850 840

890 880 870 860

890 880 870 860

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

# SOIL PROFILE

LICKING COUNTY

LIC-16 & 16H(14.30-18.51) & (11.13)

Part II OHIO STATE HIGHWAY TESTING LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

34/36

Cross Section
Sta. 266+00

Core Boring
Sta. 265+80

For description of Core Boring, see profile sheet 21

Top of Rock-In-Place

Proposed section

1000 990 980 970 960 950 940 930 920 910 900 890 880

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120

# SOIL PROFILE
LICKING COUNTY
LIC-16 & 161-(14.30-18.51) & (11.13)
Part II OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

35/36

## Cross Section Sta. 285+50

(Sta. 285+00 ℄, Proposed S.R. 512)
Press-Drive Sample-Core Boring

(Sta. 286+00)
Sod - 0.4'
32
51 ● 7%
W
18
15
Refusal
( Hole caved in at 8.0')

Top of Rock-In-Place

Shale, gray, very argillaceous, fissile, medium-soft, with few firm zones, extremely weathered, jointed. Core loss 0%.

Proposed Section

Sod & TS=0.3'
11
21
25 ●
40 ⊖ Slightly Organic
W 15
23 ⊖
16

Sod & TS=0.4'
31
W
16
16
17 ●
Refusal
( Boulders)
( Hole caved in at 5.0')

## PRESS DRIVE SAMPLE SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.

| STATION & OFFSET | | DEPTH FROM-TO | AGG. % | C.S. % | F.S. % | SILT % | CLAY % | L.L. | P.I. | W.C. % | SHTL CLASS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 285+00 | CL | 0.0-1.0 | 0 | 4 | 28 | 44 | 24 | NP | NP | 17 | A-4a |
| | | 1.0-2.5 | 0 | 1 | 22 | 58 | 19 | NP | NP | 27 | A-4b |
| | | 2.5-3.5 | 47 | 16 | 17 | 12 | 8 | NP | NP | 11 | A-1-b |
| | | 3.5-5.5 | 66 | 11 | 12 | -11- | | NP | NP | 12 | A-1-a |
| | | 5.5-6.5 | 71 | 7 | 10 | 8 | 4 | NP | NP | 11 | A-1-a |
| | | 6.5-7.5 | 80 | 7 | 6 | 5 | 2 | NP | NP | 10 | A-1-a |
| | | 7.5-8.5 | 0 | 1 | 1 | 62 | 36 | 24 | 5 | 17 | A-4b |
| | | 8.5-10.0 | 0 | 0 | 0 | 72 | 28 | NP | NP | 18 | A-4b |
| | | 10.0-11.0 | 0 | 2 | 4 | 42 | 52 | 39 | 17 | 20 | A-6b |
| | | 11.0-12.0 | 0 | 0 | 0 | 74 | 26 | NP | NP | 21 | A-4b |
| | | 12.0-13.0 | 0 | 0 | 2 | 61 | 37 | 28 | 7 | 24 | A-4b |
| | | 13.0-14.0 | 0 | 0 | 0 | 63 | 37 | NP | NP | 26 | A-4b |
| | | 15.0-16.0 | 0 | 0 | 0 | 56 | 44 | 26 | 5 | 23 | A-4b |
| | | 17.5-18.5 | 0 | 0 | 0 | 61 | 39 | 28 | 6 | 24 | A-4b |
| | | 20.0-21.0 | 15 | 9 | 28 | 41 | 7 | NP | NP | 13 | A-4a |
| | | 22.5-23.5 | 21 | 9 | 13 | 48 | 9 | NP | NP | 16 | A-4a |
| | | 25.0-26.0 | 13 | 6 | 13 | 41 | 27 | 25 | 7 | 16 | A-4a |
| | | 27.5-28.5 | 21 | 9 | 9 | 35 | 26 | 29 | 6 | 18 | A-4a |
| | | 30.0-31.0 | 0 | 4 | 5 | 51 | 40 | 31 | 8 | 18 | A-4b |

## Cross Section Sta. 270+50

(Sta. 270+75)
Sod & TS= 0.4'
21
W
25 ●
17
18
21 ●

(Sta 270+75)
Sod & TS=0.4'
16
7
19
17
16
17 W
Refusal

Proposed Section

890 880 870 860 850 840 830 820 810 960 950 940 930 920 910 900

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120

SOIL PROFILE
LICKING COUNTY
LIC-16 & 161-(14.30-/8.51)8(11.13)
Part II OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

36/36

Sta. 289+50
Sod=0.2'
Refusal
(Hand auger)

Sandstone, thin-bedded, partially covered.
Sandstone, reddish-brown, jointed, massive.
Sandstone, fine to medium-grained, nodular, jointed, with thin shale lenses, sandstone is conglomeratic in base 0.6'.
Shale, gray, interbedded with thin (2") sandstone beds, 50% shale, 50% sandstone
Sandstone, fine-grained, jointed, medium-bedded.
Shale, gray to yellow, siliceous.
Sandstone, fine-grained, thin-bedded.
Shale, gray, with occasional thin (3") sandstone layer.
Sandstone, fine-grained, micaceous.
Shale, sandy, with thin sandstone beds.
Sandstone, fine-grained, micaceous.
Shale, sandy, with thin (1"-2") occasional sandstone beds (sandstone is fine-grained, micaceous)
Sandstone, fine-grained, micaceous.
Shale, sandy, with thin (1"-2") occasional sandstone beds, (sandstone is fine-grained, micaceous).
Proposed section
Sandstone, gray to yellow, fine-grained, micaceous, massive, persistent in this area.
Sandstone, thin-bedded (Max. 2'), interbedded with shale, gray, proportion varies horizontally from 50% to 75% sandstone.

**Cross Section Sta. 290+00**

990 980 970 960 950 940 930 920 910 900 890 880 870 860 850 840

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100