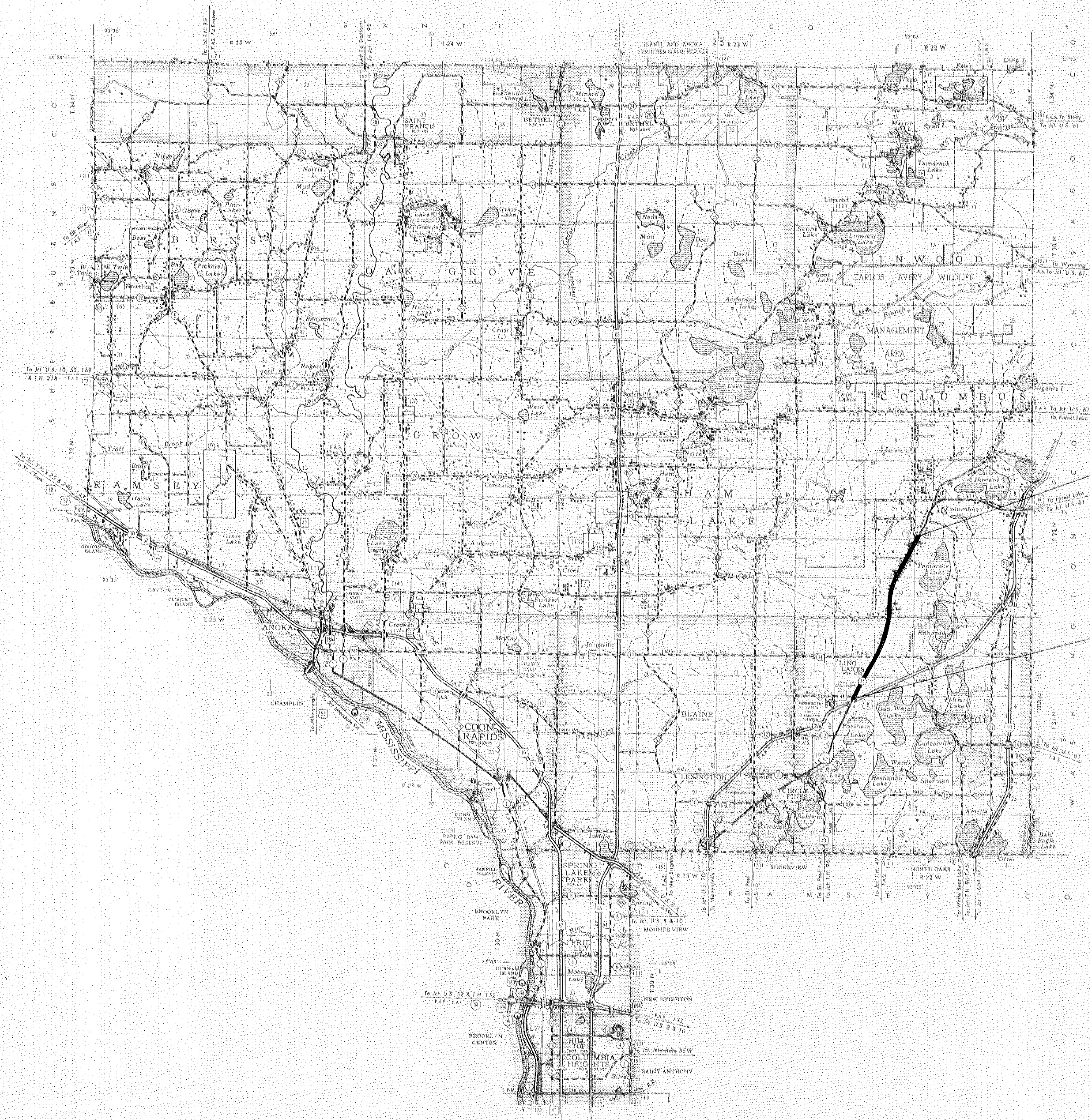
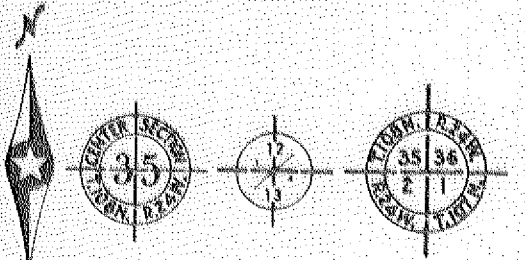


CONVENTIONAL SIGNS

| | |
|--------------------------------------|-------|
| STATE LINE | ----- |
| COUNTY LINE | ----- |
| TOWNSHIP OR RANGE LINE | ----- |
| SECTION LINE | ----- |
| QUARTER LINE | ----- |
| SIXTEENTH LINE | ----- |
| RIGHT-OF-WAY LINE | ----- |
| PRESERV. RIGHT-OF-WAY LINE | ----- |
| CONTROL OF ACCESS LINE | ----- |
| PROPERTY LINE (EXCEPT LAND LINES) | ----- |
| VALUED PLATTED PROPERTY | ----- |
| CORPORATE OR CITY LIMITS | ----- |
| TRUNK HIGHWAY CENTER LINE | ----- |
| RETAINING WALL | ----- |
| RAILROAD | ----- |
| RAILROAD RIGHT-OF-WAY LINE | ----- |
| RIVER OR CREEK | ----- |
| DRY RUN | ----- |
| DRAINAGE DITCH | ----- |
| ELECTRIC POWER LINE | ----- |
| TELEPHONE OR TELEGRAPH LINE | ----- |
| JOINT TELEPHONE AND POWER | ----- |
| CONCRETE | ----- |
| TELEPHONE CABLE-AERIAL | ----- |
| TELEPHONE CABLE-UNDERGROUND | ----- |
| POWER CABLE-UNDERGROUND | ----- |
| GAS MAIN | ----- |
| GULCH | ----- |
| DRAIN DITCH | ----- |
| RAILROAD RIGHT-OF-WAY LINE | ----- |
| RAILROAD SNOW FENCE | ----- |
| WOVEN WIRE FENCE | ----- |
| CORRUGATED METAL FENCE | ----- |
| RAILROAD SNOW FENCE | ----- |
| STONE WALL OR FENCE | ----- |
| WATER PIPE | ----- |
| SEWER PIPE | ----- |
| DRAIN TILE | ----- |
| SPRINGS | ----- |
| MARSH | ----- |
| TIMBER | ----- |
| ORCHARD | ----- |
| BRUSH | ----- |
| NUMBERED | ----- |
| CATCH BASIN | ----- |
| MANHOLE | ----- |
| FIRE HYDRANT | ----- |
| STREET LIGHT | ----- |
| RAILROAD CROSSING SIGN | ----- |
| ELECTRIC WARNING SIGN | ----- |
| CROSSING GATE | ----- |
| CATTLE GUARD | ----- |
| OVERPASS (Highway Over) | ----- |
| UNDERPASS (Highway Under) | ----- |
| BRIDGE | ----- |
| BUILDING (One Story Frame) | ----- |
| F FRAME | ----- |
| C CONCRETE | ----- |
| S STONE | ----- |
| B BRICK | ----- |
| ST STUCCO | ----- |
| IRON PIPE OR BOX | ----- |
| MONUMENT (STONE, CONCRETE, OR METAL) | ----- |
| WOODEN HUB | ----- |
| GRAVEL PIT | ----- |
| SAND PIT | ----- |
| BORROW PIT | ----- |
| ROCK QUARRY | ----- |
| ARKADEE CORNER | ----- |



Fed. Proj. No. _____

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING, BASE, BITUMINOUS & STORM SEWER

County State Aid Highway No. 23

Between JCT. OF N. RAMPS OF 35W & CSAH 23 And 580' N. OF JCT. OF CSAH 23 & CSAH 19

A PT. 40736' S. & 16.81' W. OF THE N. 1/4 COR. SEC. 17, T. 31N., R. 22W. A PT. 702.31' E. & 505.73' N. OF THE S.W. COR. To SEC. 22, T. 32 N., R. 22 W.

Give proper reference to Section, Township and Range.

| | | | | |
|-------------------|------------|------|-------|-------|
| GROSS LENGTH | 23,950,000 | FEET | 4,536 | MILES |
| BRIDGES LENGTH | ----- | FEET | ----- | MILES |
| EXCEPTIONS LENGTH | ----- | FEET | ----- | MILES |
| NET LENGTH | 23,950,000 | FEET | 4,536 | MILES |

- INDEX OF SHEETS
- Sheet No. 1 - Title Sheet & Layout Map
 - No. 2-4 Est. Quantities & Typical Sec.
 - No. 5-6 Drainage Charts
 - No. 7 Storm Sewer Chart
 - No. 8-16 Plan & Profile
 - No. 17 Superelevation
 - No. 18-19 Oak Ln. Sewer Const.
 - No. 20-21 Retention Area Const.
 - No. 22-23 Intersection Const. No. 14 & No. 23
 - No. 24 Drainage Const. 141 st. Ave. W.
 - No. 25 Sewer Const., E. Jct. No. 23 & No. 19
 - No. 26-45 Cross Sections

SCALE

| | |
|----------------|-------------|
| INDEX MAP | 2 Mi. |
| PLAN & PROFILE | VERT. 5' |
| | HORIZ. 100' |
| CROSS SECTIONS | 10' |

END PROJECT S.A.P. 02-623-03 C.T.B.
STA. 256+00

BEGIN PROJECT S.A.P. 02-623-03 C.T.B.
STA. 16+50

DESIGN DESIGNATION

ADT (CURRENT YEAR) 3,600

ADT (FUTURE YEAR) 6,100

T (HEAVY COMMERCIAL) 300-600

9 Ton Design Soil Factor A-3.50%

Design Speed 60 MPH

Design Speed not achieved at:

STA. 81+00 TO STA. 86+00 MPH 55

STA. _____ TO STA. _____ MPH _____

SPECIFICATIONS

THE "STANDARD" SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, DATED JAN. 1, 1978, SHALL GOVERN.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Lawrence K. Henn
COUNTY ENGINEER DATE 6-17-80

ANOKA COUNTY REG. NO. 6549

RECOMMENDED FOR APPROVAL *C.E. Weichselbaum* 6/10/80
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL *Delbert O. O'Connell* 11-12-1980

APPROVED 11/10/80 *Arthur M. Fay*
STATE AID ENGINEER

Minn. Proj. No. _____ County Proj. No. _____

State Proj. No. _____ S.A.P. 02-623-03 C.T.B.

STATEMENT OF ESTIMATED QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL ESTIMATED QUANTITIES | TOTAL FINAL QUANTITIES |
|----------|--|----------|----------------------------|------------------------|
| 2031.503 | FIELD LABORATORY, TYPE-D | EACH | 1 | |
| 2101.501 | CLEARING | ACRE | 3.4 | |
| 2101.502 | CLEARING | TREE | 100 | |
| 2101.506 | GRUBBING | ACRE | 3.4 | |
| 2101.507 | GRUBBING | TREE | 56 | |
| 2104.501 | REMOVE CULVERT PIPE | LIN. FT. | 528 | |
| 2104.501 | REMOVE INTEGRANT CURB | LIN. FT. | 3,739 | |
| 2104.509 | REMOVE CONCRETE DRAINAGE FLUMES | EACH | 8 | |
| 2104.521 | SALVAGE PIPE CULVERT | LIN. FT. | 2,138 | |
| 2104.521 | SALVAGE FENCE | LIN. FT. | 3,543 | |
| 0557.604 | INSTALL FENCE | LIN. FT. | 3,093 | |
| 2105.501 | COMMON EXCAVATION | CU. YD. | 41,073 (P) | |
| 2105.505 | MUCK EXCAVATION | CU. YD. | 309 (P) | |
| 2105.523 | COMMON BORROW (E.V.) | CU. YD. | 15,350 | |
| 2105.525 | TOPSOIL BORROW (L.V.) | CU. YD. | 2,300 | |
| 2130.501 | WATER | M-GALLON | 200 | |
| 2211.501 | AGGREGATE BASE, CLASS-5 | TON | 22,125 | |
| 2331.504 | BITUMINOUS MATERIAL FOR MIXTURE | TON | 632 | |
| 2331.510 | BINDER COURSE MIXTURE | TON | 10,685 | |
| 2331.512 | LEVELING COURSE MIXTURE | TON | 800 | |
| 2341.504 | BITUMINOUS MATERIAL FOR MIXTURE | TON | 800 | |
| 2341.508 | WEARING COURSE MIXTURE | TON | 12,320 | |
| 2357.502 | BITUMINOUS MATERIAL FOR TACK COAT | GALLON | 10,375 | |
| 2501.511 | 15" C.M. PIPE CULVERT | LIN. FT. | 2,832 | |
| 2501.511 | 18" C.M. PIPE CULVERT | LIN. FT. | 404 | |
| 2501.511 | 24" R.C.P. PIPE CULVERT CL.-3 | LIN. FT. | 238 | |
| 2501.511 | 18" R.C.P. PIPE CULVERT CL.-2 | LIN. FT. | 88 | |
| 2501.515 | 15" C.M. PIPE APRONS | EACH | 200 | |
| 2501.515 | 8" C.M. PIPE APRONS | EACH | 20 | |
| 2501.515 | 12" R.C. PIPE APRONS | EACH | 8 | |
| 2501.515 | 15" R.C. PIPE APRONS | EACH | 11 | |
| 2501.515 | 18" R.C. PIPE APRONS | EACH | 2 | |
| 2501.515 | 24" R.C.P. PIPE APRONS | EACH | 7 | |
| 2501.515 | 48" R.C.P. PIPE APRONS | EACH | 2 | |
| 2501.521 | 28" SPAN R.C.P. PIPE-ARCH CULVERT | LIN. FT. | 64 | |
| 2501.521 | 22" SPAN R.C.P. PIPE-ARCH CULVERT CL.-3 | LIN. FT. | 138 | |
| 2501.521 | 28" SPAN R.C.P. PIPE-ARCH CULVERT CL.-3 | LIN. FT. | 172 | |
| 2501.521 | 44" SPAN R.C.P. PIPE-ARCH CULVERT CL.-3 | LIN. FT. | 32 | |
| 2501.525 | 28" SPAN C.M.P. PIPE-ARCH APRONS | EACH | 6 | |
| 2501.525 | 22" SPAN R.C.P. PIPE-ARCH APRONS | EACH | 4 | |
| 2501.525 | 28" SPAN R.C.P. PIPE-ARCH APRONS | EACH | 4 | |
| 2501.525 | 44" SPAN R.C.P. PIPE-ARCH APRONS | EACH | 2 | |
| 2501.571 | INSTALL 15" C.M. PIPE CULVERT | LIN. FT. | 634 | |
| 2501.571 | INSTALL 18" C.M. PIPE CULVERT | LIN. FT. | 92 | |
| 2501.571 | INSTALL 28" SPAN C.M.P. ARCH CULVERT | LIN. FT. | 30 | |
| 2503.511 | 12" R.C. PIPE SEWER CL.-2 | LIN. FT. | 345 | |
| 2503.511 | 12" R.C. PIPE SEWER CL.-3 | LIN. FT. | 301 | |
| 2503.511 | 15" R.C. PIPE SEWER CL.-2 | LIN. FT. | 2,448 | |
| 2503.511 | 15" R.C. PIPE SEWER CL.-3 | LIN. FT. | 166 | |
| 2503.511 | 18" R.C. PIPE SEWER CL.-2 | LIN. FT. | 1,176 | |
| 2503.511 | 21" R.C. PIPE SEWER CL.-2 | LIN. FT. | 1,557 | |
| 2503.511 | 24" R.C. PIPE SEWER CL.-2 | LIN. FT. | 635 | |
| 2506.506 | CONSTRUCT MANHOLES, DESIGN A OR F | LIN. FT. | 67.2 | |
| 2506.506 | CONSTRUCT MANHOLES, DESIGN C OR G | LIN. FT. | 575 | |
| 2506.507 | CONSTRUCT CATCH BASINS, DESIGN A OR F | LIN. FT. | 14.4 | |
| 2506.507 | CONSTRUCT CATCH BASINS, DESIGN C OR G | LIN. FT. | 30.7 | |
| 2506.507 | CONSTRUCT CATCH BASINS, DESIGN H | LIN. FT. | 16.4 | |
| 2506.516 | CASTING ASSEMBLIES | EACH | 36 | |
| 2511.503 | GROUTED RIPRAP | CU. YD. | 46 (P) | |
| 2511.504 | FILTER BLANKET, TYPE-1 | CU. YD. | 2.3 (P) | |
| 2531.501 | CONCRETE CURB AND GUTTER, DESIGN B - 618 | LIN. FT. | 300 | |
| 2575.501 | ROADSIDE SEEDING | ACRE | 26.4 | |
| 2575.502 | SEED MIXTURE NO. 3 | POUND | 1,060 | |
| 2575.505 | SODDING | SQ. YD. | 28,278 | |
| 2575.511 | MULCH MATERIAL TYPE-1 | TON | 53 | |
| 2575.519 | DISC ANCHORING | ACRE | 26.4 | |
| 2575.531 | COMMERCIAL FERTILIZER ANALYSIS 10-10-10 | TON | 6.60 | |

- ① INCLUDES 6,870 CU. YDS. SUBCUT.
- ② FOR FRONT YARD AREAS TO BE SODDED.
- ③ INCLUDES 1,743 TON FOR ROAD APPROACHES, 2,890 TON FOR ENTRANCES.
- ④ INCLUDES 605 TON FOR ROAD APPROACHES.
- ⑤ INCLUDES 590 TON FOR ROAD APPROACHES, 1,870 TON FOR ENTRANCES, 22 TON FOR ISLANDS.

STANDARD PLATES

| PLATE NO. | DESCRIPTION |
|-----------|---|
| 0003 A | SPECIFICATION REFERENCE TO STANDARD PLATES |
| 3000 H | REINFORCED CONCRETE PIPE |
| 3006 C | GASKET JOINT FOR R.C. PIPE |
| 3040 E | CORRUGATED METAL PIPE CULVERT |
| 3100 F | CONCRETE APRON FOR REINFORCED CONCRETE PIPE |
| 3100 D | CONC. APRON FOR R.C. PIPE-ARCH PIPE |
| 3122 I | METAL APRON FOR C.M. PIPE-ARCH |
| 3123 G | METAL APRON FOR C.M. PIPE |
| 4000 H | MANHOLE OR CATCH BASIN |
| 4002 D | MANHOLE OR CATCH BASIN |
| 4005 K | MANHOLE OR CATCH BASIN |
| 4006 J | MANHOLE OR CATCH BASIN |
| 4010 E | CONCRETE ADJUSTING RING |
| 4011 D | PRECAST CONCRETE BASE |
| 4101 B | RING CASTING FOR MANHOLE OR CATCH BASIN |
| 4110 D | COVER CASTING FOR MANHOLE |
| 4126 E | CATCH BASIN FRAME CASTING |
| 4140 D | SPECIAL GRATE CASTINGS FOR CATCH BASIN |
| 4149 C | GRATE CASTING FOR CATCH BASIN |
| 4161 E | CURB BOX CASTING FOR CATCH BASIN |
| 4180 G | MANHOLE OR CATCH BASIN STEP |
| 7100 E | CONCRETE CURB & GUTTER DESIGN-B |
| 8000 G | STANDARD BARRICADES |
| 9000 B | APPROACHES & ENTRANCES |
| 9102 C | SODDING AT PIPE CULVERT ENDS |

SALVAGE & INSTALL FENCE

| STATION | LOC. | SALVAGE | INSTALL | REMARKS |
|-----------------|------|---------|---------|-------------------|
| 17+15 - 17+60 | LT | 83 | 45 | INCLUDES LINE FE. |
| 33+54 | RT | 11 | 0 | LINE FE. |
| 49+82 - 50+35 | RT | 82 | 73 | INCLUDES LINE FE. |
| 51+13 - 52+16 | LT | 121 | 103 | INCLUDES LINE FE. |
| 70+34 | LT | 24 | 0 | LINE FE. |
| 80+02 - 102+50 | RT | 648 | 648 | INCLUDES LINE FE. |
| 105+82 - 110+04 | RT | 502 | 542 | INCLUDES LINE FE. |
| 111+32 | RT | 22 | 0 | LINE FE. |
| 113+70 - 114+70 | LT | 100 | 100 | INCLUDES LINE FE. |
| 110+58 - 121+10 | LT | 161 | 161 | INCLUDES LINE FE. |
| 121+93 | LT | 16 | 0 | LINE FE. |
| 133+86 - 135+18 | RT | 155 | 132 | INCLUDES LINE FE. |
| 164+10 - 165+07 | RT | 103 | 67 | INCLUDES LINE FE. |
| 167+42 - 169+44 | RT | 238 | 212 | CHAIN LINK FE. |
| 174+31 - 176+19 | RT | 250 | 218 | INCLUDES LINE FE. |
| 193+00 | RT | 20 | 0 | LINE FE. |
| 189+75 | RT | 20 | 20 | INCLUDES LINE FE. |
| 204+70 - 206+00 | LT | 51 | 35 | INCLUDES LINE FE. |
| 208+88 - 212+00 | LT | 371 | 321 | INCLUDES LINE FE. |
| 209+20 - 211+24 | RT | 321 | 304 | INCLUDES LINE FE. |
| 212+73 | RT | 22 | 0 | LINE FE. |
| 218+20 - 220+32 | RT | 252 | 212 | INCLUDES LINE FE. |

TOTAL = 3,543 3,093

BASIS OF PLANNED QUANTITIES

- 2211 AGGREGATE BASE CL. 5, 145 LBS. PER CU. FT. COMPACTED
- 2331 PLANT MIXED BINDER COURSE BITUMINOUS MIXTURE 165 LBS. / S.Y. PER 1/2" THICKNESS BITUMINOUS MATERIAL FOR MIXTURE 5% BY WT.
- 2341 PLANT MIXED WEARING COURSE BITUMINOUS MIXTURE 165 LBS. / S.Y. PER 1/2" THICKNESS BITUMINOUS MATERIAL FOR MIXTURE 5.5% BY WT.
- 2357 BITUMINOUS MATERIAL FOR TACK COAT 0.05 GAL. / S.Y.

| STATION | LOCATION |
|---------|----------|
| 33-80 | RT. |
| 37-33 | RT. |
| 52+55 | LT. |
| 100-50 | LT. |
| 131+67 | LT. |
| 161+22 | RT. |
| 164+47 | RT. |
| 192+04 | RT. |

TOTAL = 8

SODDING

| STATION | LOC. | S Y |
|---------------------------|------|-------|
| 20+30 - 34+70 | LT | 3,500 |
| 23+00 - 25+00 | RT | 432 |
| 33+50 - 37+00 | RT | 812 |
| 43+00 - 48+00 | RT | 1,077 |
| 55+00 - 56+05 | RT | 251 |
| 56+00 - 61+00 | LT | 1,318 |
| 64+20 - 65+10 | LT | 328 |
| 68+88 - 75+12 | RT | 2,057 |
| 73+00 - 76+00 | LT | 688 |
| 78+00 - 80+15 | LT | 378 |
| 84+88 - 90+00 | LT | 844 |
| 88+00 - 91+70 | RT | 701 |
| 103+00 - 104+10 | RT | 250 |
| 105+00 - 107+00 | LT | 463 |
| 113+75 - 122+50 | LT | 1,009 |
| 121+00 - 128+00 | RT | 1,450 |
| 113+75 - 143+00 | RT | 272 |
| 166+85 - 172+10 | LT | 731 |
| 170+00 - 172+00 | RT | 787 |
| 192+80 - 193+80 | RT | 322 |
| 205+00 - 206+00 | RT | 662 |
| 208+00 - 217+83 | RT | 3,018 |
| 219+00 - 220+50 | LT | 442 |
| 213+30 - 214+25 | LT | 290 |
| 220+15 - 227+70 | LT | 314 |
| 235+00 - 237+00 | LT | 207 |
| 241+11+25 | LT | 2,523 |
| 241+11+25 (SLEEPER) | LT | 400 |
| OAK LANE STA. 14+90-16+20 | LT | 290 |

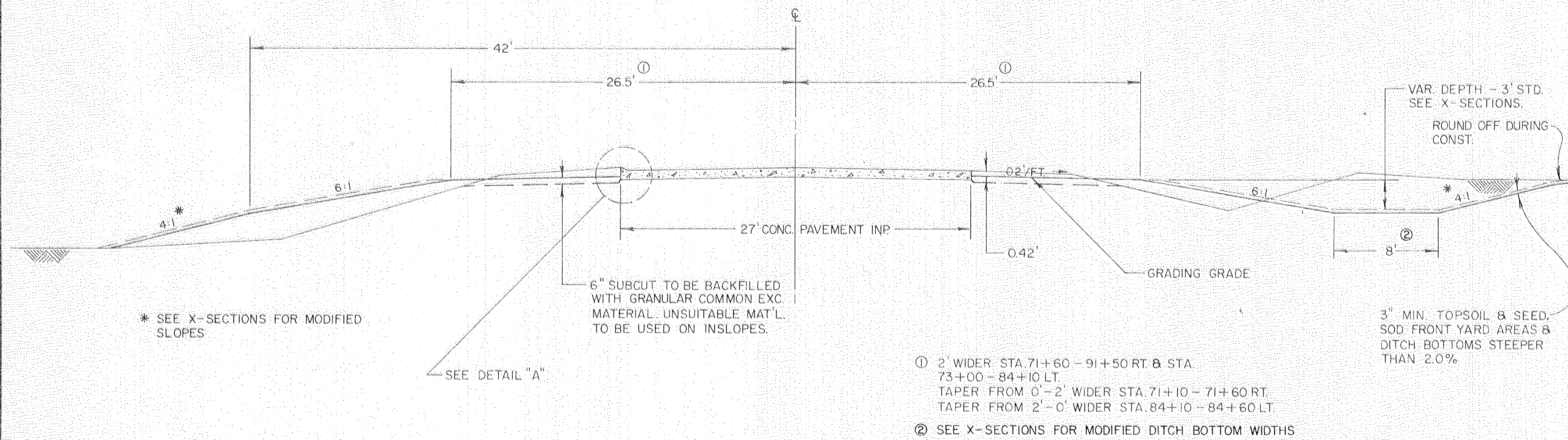
TOTAL = 28,278

Fed. Proj. No.

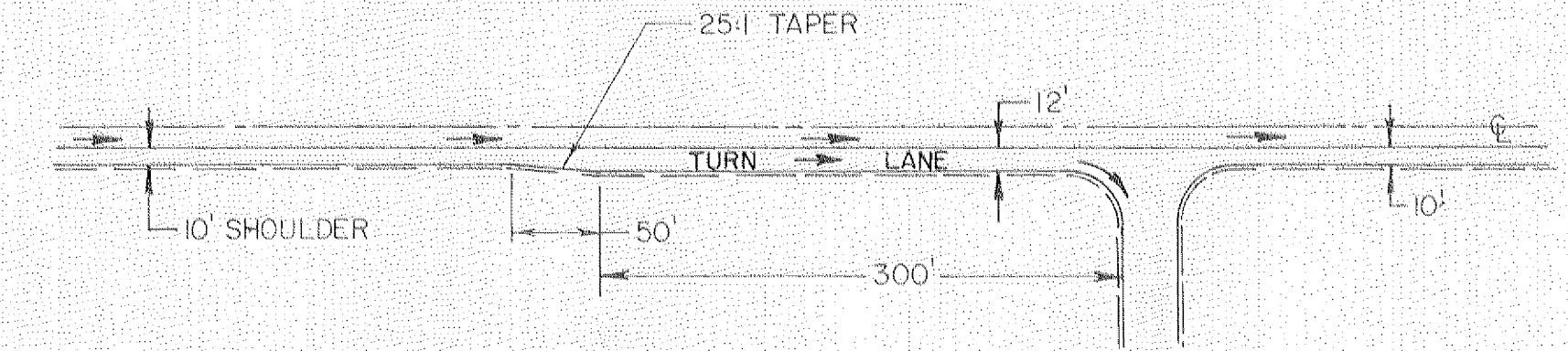
| STATION (TO STATION) | LOC. | CLEARING AND GRUBBING | |
|------------------------|-----------|-----------------------|--------------------|
| | | CLEARING TREE ACRE | GRUBBING TREE ACRE |
| 18+00 - 19+15 | 56-63 LT | .10 | .10 |
| 19+15 | 31' RT | 3 | 1 |
| 20+00 | 37' RT | 1 | 1 |
| 20+08 | 45' LT | 1 | 1 |
| 20+08 - 23+16 | 34-56' RT | .20 | .20 |
| 23+30 - 23+70 | 41' RT | 14 | 14 |
| 24+07 - 24+00 | 38' RT | 3 | 3 |
| 24+04 - 24+72 | 26' LT | | 3 |
| 24+08 | 49' RT | 4 | 2 |
| 27+31 - 27+31 | 15' LT | 2 | 2 |
| 28+03 - 28+32 | 42-50' LT | .05 | .05 |
| 28+00 - 28+05 | 45' LT | 2 | 2 |
| 29+20 - 29+05 | 44' LT | 2 | 2 |
| 31+30 - 31+61 | 41-45' LT | 3 | 3 |
| 32+11 - 32+22 | 45' LT | 4 | 4 |
| 33+28 | 34' LT | 4 | 1 |
| 34+30 - 37+73 | 35-08' LT | .15 | .15 |
| 37+27 - 37+55 | 41' RT | 3 | 3 |
| 39+00 - 40+28 | 35' RT | 3 | 3 |
| 50+00 - 50+00 | 35-73' LT | .10 | .10 |
| 50+15 - 50+47 | 45' RT | 4 | 4 |
| 51+13 - 54+31 | 40-46' LT | .15 | .15 |
| 67+41 - 67+41 | 35-40' LT | 2 | 2 |
| 68+51 - 69+19 | 42-50' LT | .05 | .05 |
| 73+80 | 41' RT | 1 | 1 |
| 74+81 - 74+01 | 50' RT | 2 | 2 |
| 78+25 - 78+40 | 41-51' RT | .05 | .05 |
| 81+37 | 74' RT | 1 | 1 |
| 83+00 - 80+00 | 35-60' RT | .30 | .30 |
| 80+41 - 80+58 | 41' RT | 4 | 4 |
| 80+16 | 39' LT | | 1 |
| 90+05 | 38' RT | 1 | 1 |
| 91+32 - 91+35 | 43' RT | 5 | 5 |
| 103+03 - 103+36 | 38' RT | 3 | 2 |
| 104+47 - 105+35 | 39' RT | 3 | 3 |
| 106+03 | 43' RT | 1 | 1 |
| 100+15 | 47' LT | 1 | 1 |
| 100+41 - 100+16 | 35-55' RT | .25 | .25 |
| 107+24 - 108+02 | 35-50' LT | .15 | .15 |
| 110+55 | 45' LT | 1 | 1 |
| 110+62 | 43' LT | 1 | 1 |
| 111+14 | 25' LT | | 1 |
| 116+49 | 41' LT | | 1 |
| 116+60 - 117+06 | 50-63' RT | .05 | .05 |
| 118+34 - 118+00 | 42' LT | 3 | 3 |
| 119+64 | 46' LT | 1 | 1 |
| 120+02 | 46' LT | 1 | 1 |
| 121+78 | 48' LT | 1 | 1 |
| 122+22 | 50' LT | 1 | 1 |
| 131+57 | 50' RT | 1 | 1 |
| 147+58 - 147+01 | 34-42' LT | .05 | .05 |
| 148+50 - 148+12 | 42-45' RT | .05 | .05 |
| 152+15 - 152+00 | 40-57' RT | .05 | .05 |
| 182+36 | 42' RT | 2 | 1 |
| 194+19 - 194+52 | 40-52' RT | .05 | .05 |
| 208+00 | 47' LT | 1 | 1 |
| 212+12 - 212+67 | 42-48' LT | 3 | 2 |
| 214+44 - 215+27 | 52-54' LT | .05 | .05 |
| 214+44 - 215+30 | 28-50' RT | .05 | .05 |
| 221+21 - 231+08 | 46' RT | .50 | .50 |
| 232+67 - 232+06 | 46' RT | 2 | 2 |
| 233+32 - 234+62 | 40-53' RT | .10 | .10 |
| 234+89 - 236+20 | 48-53' RT | .10 | .10 |
| 235+75 | 55' LT | 1 | 1 |
| 237+30 - 237+44 | 40-50' LT | .05 | .05 |
| 242+00 | 41' LT | 1 | 1 |
| 251+17 - 253+73 | 41-54' RT | .20 | .20 |
| 251+04 - 251+78 | 38-45' LT | 3 | 3 |
| * OAK LANE ALIGNMENT * | | | |
| 8+47 - 10+10 | 0-5' LT | 10 | 10 |
| 11+84 - 14+53 | 27-50' LT | 25 | 25 |
| 16+40 - 18+50 | 30-50' LT | 20 | 20 |

ALL DIMENSIONS NOMINAL

TYPICAL GRADING SECTION



TYPICAL RIGHT TURN LANE



| STATION | LOC. |
|-----------------|------|
| 16+40 - 25+35 | LT. |
| 30+00 - 34+80 | RT. |
| 35+10 - 39+90 | LT. |
| 45+70 - 50+50 | RT. |
| 56+10 - 60+90 | RT. |
| 64+30 - 69+10 | LT. |
| 112+30 - 117+10 | RT. |
| 127+00 - 141+00 | LT. |
| 144+50 - 149+30 | RT. |
| 190+30 - 195+10 | LT. |
| 220+20 - 225+00 | LT. |
| 250+30 - 255+10 | LT. |

SPECIAL DETAILS

THE CONTRACTOR SHALL REMOVE AND STOCKPILE IF NECESSARY, SUFFICIENT TOPSOIL MATERIAL WITHIN THE EXCAVATION AREAS AND AREAS ON WHICH EMBANKMENTS WILL BE PLACED, FOR TOPSOIL COVERING ON THE NEW SLOPES AND DITCH BOTTOMS. THIS WILL REQUIRE APPROXIMATELY 12,722 CU. YDS. TO PROVIDE A MINIMUM COVER OF 3". THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO COMMON EXCAVATION.

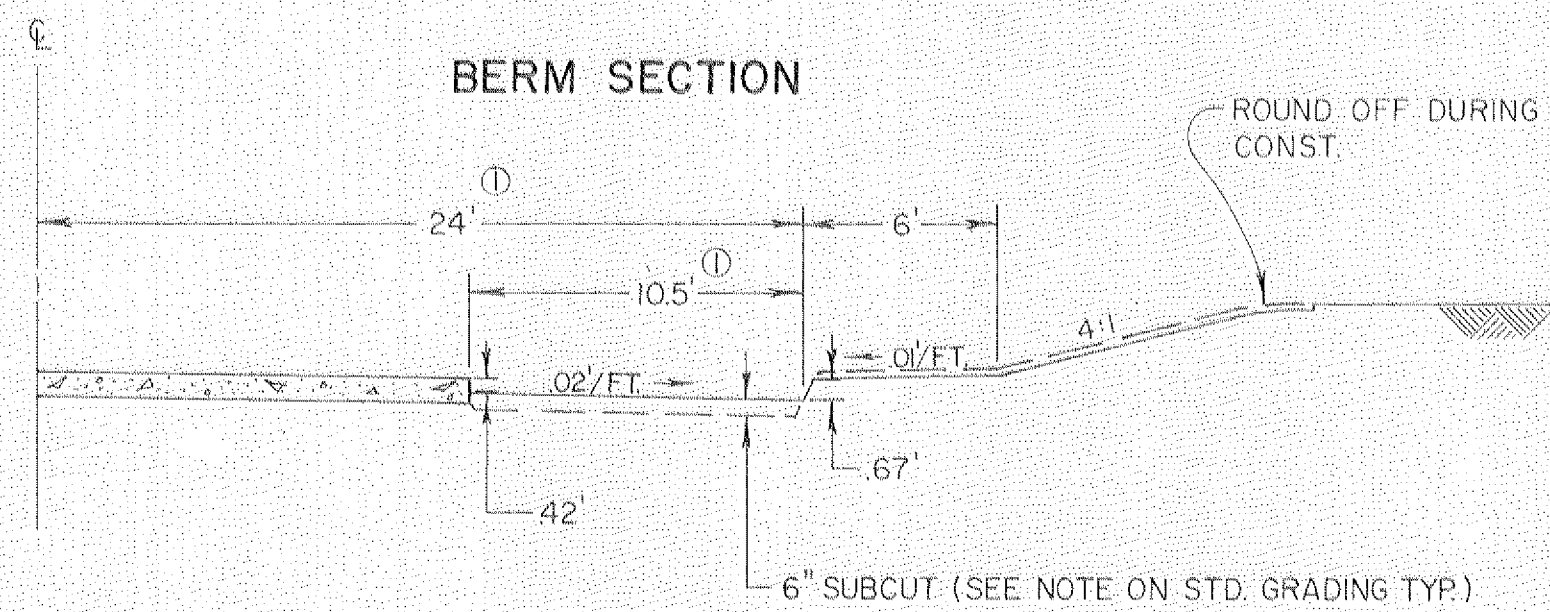
TOPSOIL BORROW, ITEM NO. 2105.525, SHALL BE USED FOR FRONT YARD AREAS TO BE SODDED.

UNSUITABLE MATERIAL FOUND IN SUBCUTS WILL BE USED TO CONSTRUCT INSLOPES OR ELSEWHERE AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL BACKFILL SUBCUTS TO GRADING GRADE WITH GRANULAR MATERIAL FROM WITHIN THE CONSTRUCTION LIMITS. THIS WORK WILL BE CONSIDERED AS INCIDENTAL TO GRADING OPERATIONS.

EXCESS MUCK MATERIAL (APPROXIMATELY 279 CU. YDS.) SHALL BE DISPOSED OF BY THE CONTRACTOR OUTSIDE THE RIGHT OF WAY OR USED AS TOPSOIL DRESSING IN AREAS APPROVED BY THE ENGINEER.

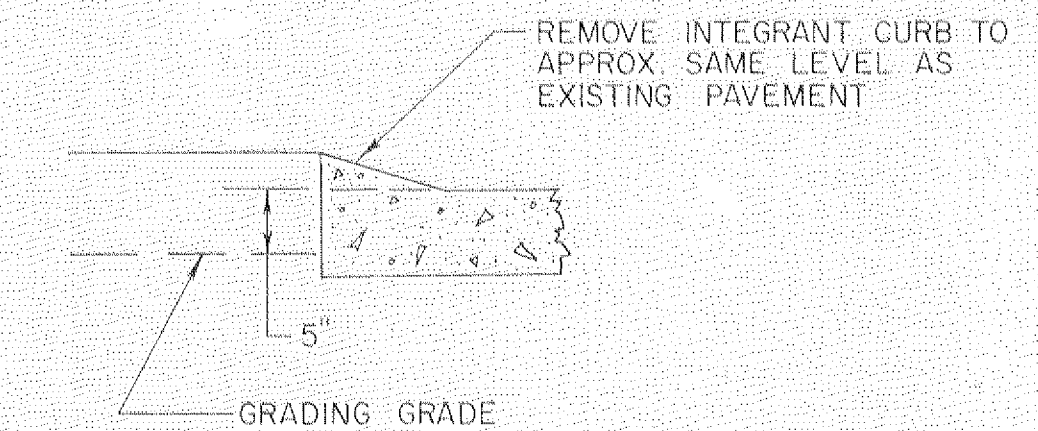
RETENTION POND EXCAVATION ON STORM SEWER OUTFALL LINE IS DESIGNATED AS BORROW PIT "A" AND EXCAVATION MATERIAL SHALL BE USED IN EARTHWORK BALANCES THAT REQUIRE BORROW MATERIAL. THE REMAINING BORROW MATERIAL NEEDED SHALL BE FURNISHED BY THE CONTRACTOR FROM SOURCES SELECTED BY HIM OUTSIDE THE RIGHT OF WAY.

BERM SECTION



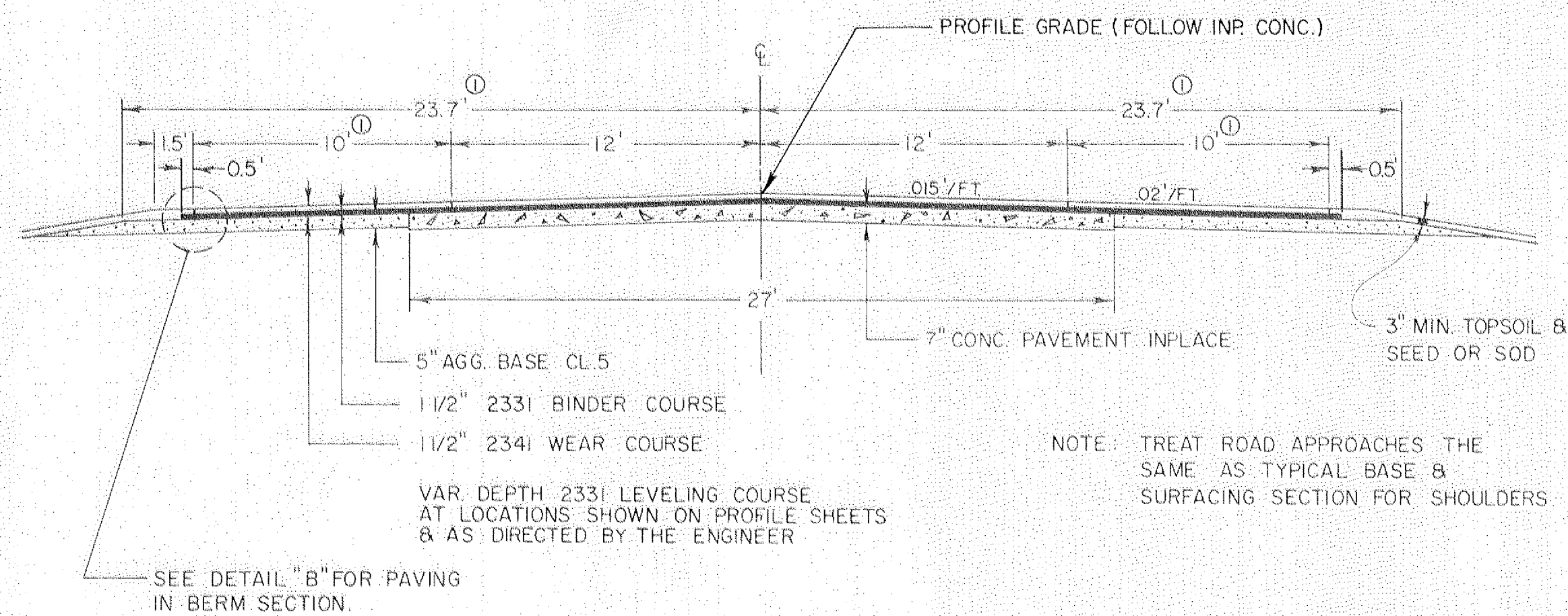
| STATION | LOC. |
|-----------------|------|
| 33+50 - 34+75 | RT. |
| 59+90 - 63+30 | RT. |
| 74+50 - 76+25 | LT. |
| 81+53 - 85+50 | LT. |
| 86+50 - 90+50 | RT. |
| 105+40 - 106+90 | LT. |
| 225+75 - 227+50 | LT. |

DETAIL "A"

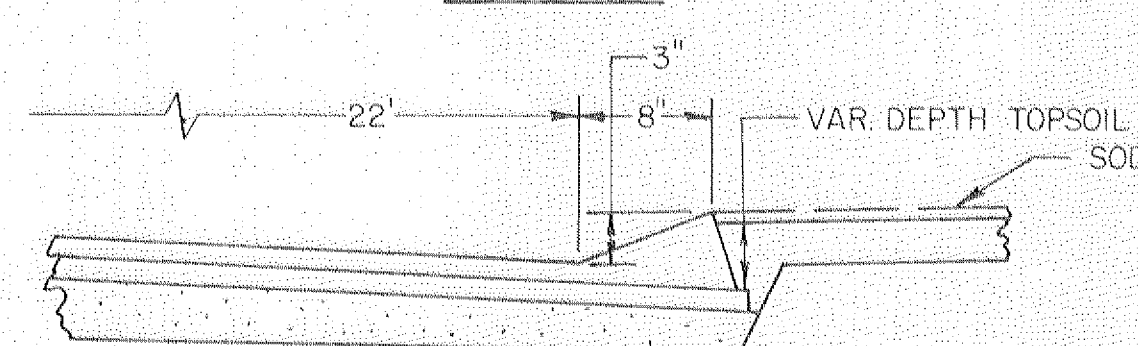


| STATION | LOCATION | LIN. FT. |
|-----------------|----------|---------------|
| 30+56 - 37+60 | RT. | 704 |
| 49+56 - 53+07 | LT. | 351 |
| 82+48 - 85+10 | LT. | 262 |
| 99+28 - 104+00 | LT. | 472 |
| 130+75 - 138+75 | LT. | 800 |
| 159+15 - 165+76 | RT. | 661 |
| 188+47 - 193+56 | RT. | 509 |
| | | TOTALS= 3,759 |

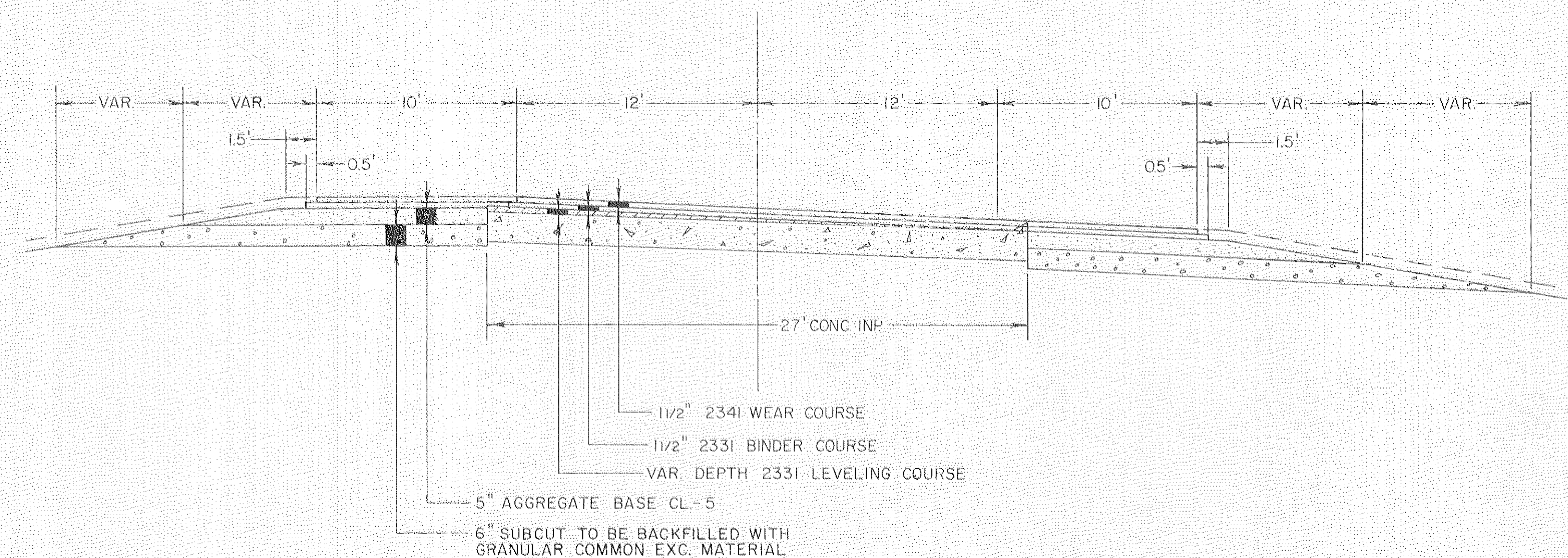
TYPICAL BASE & SURFACING SECTION

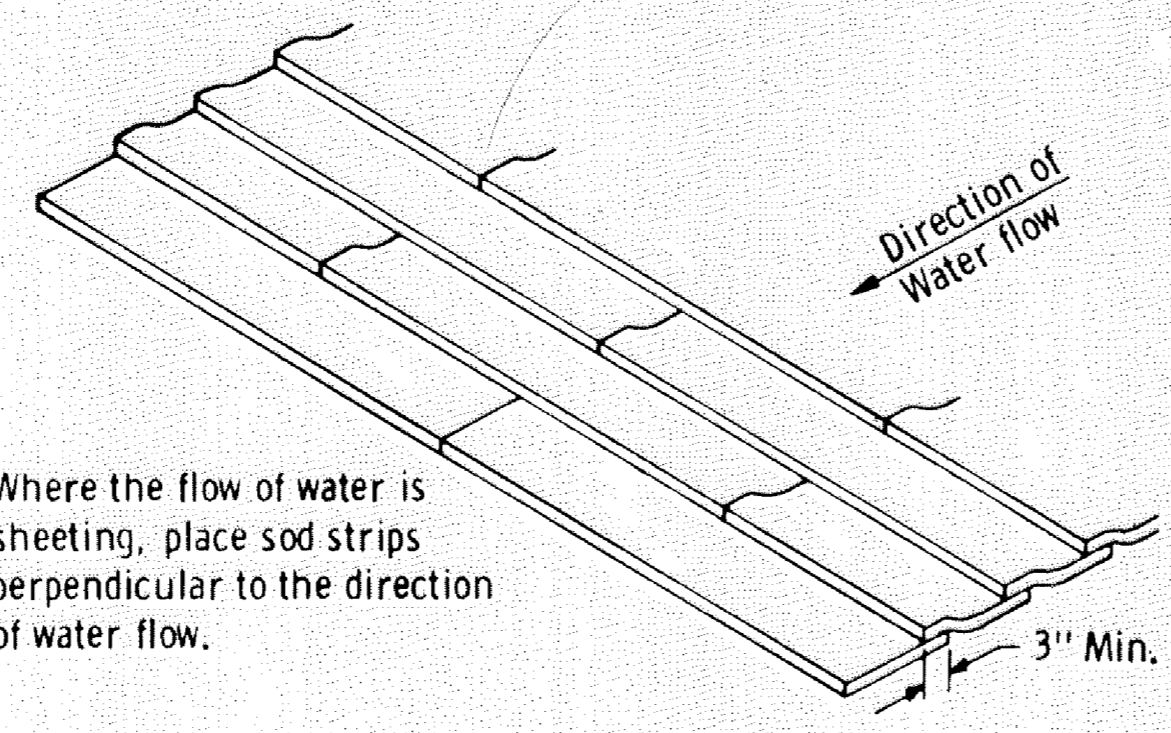


DETAIL "B"



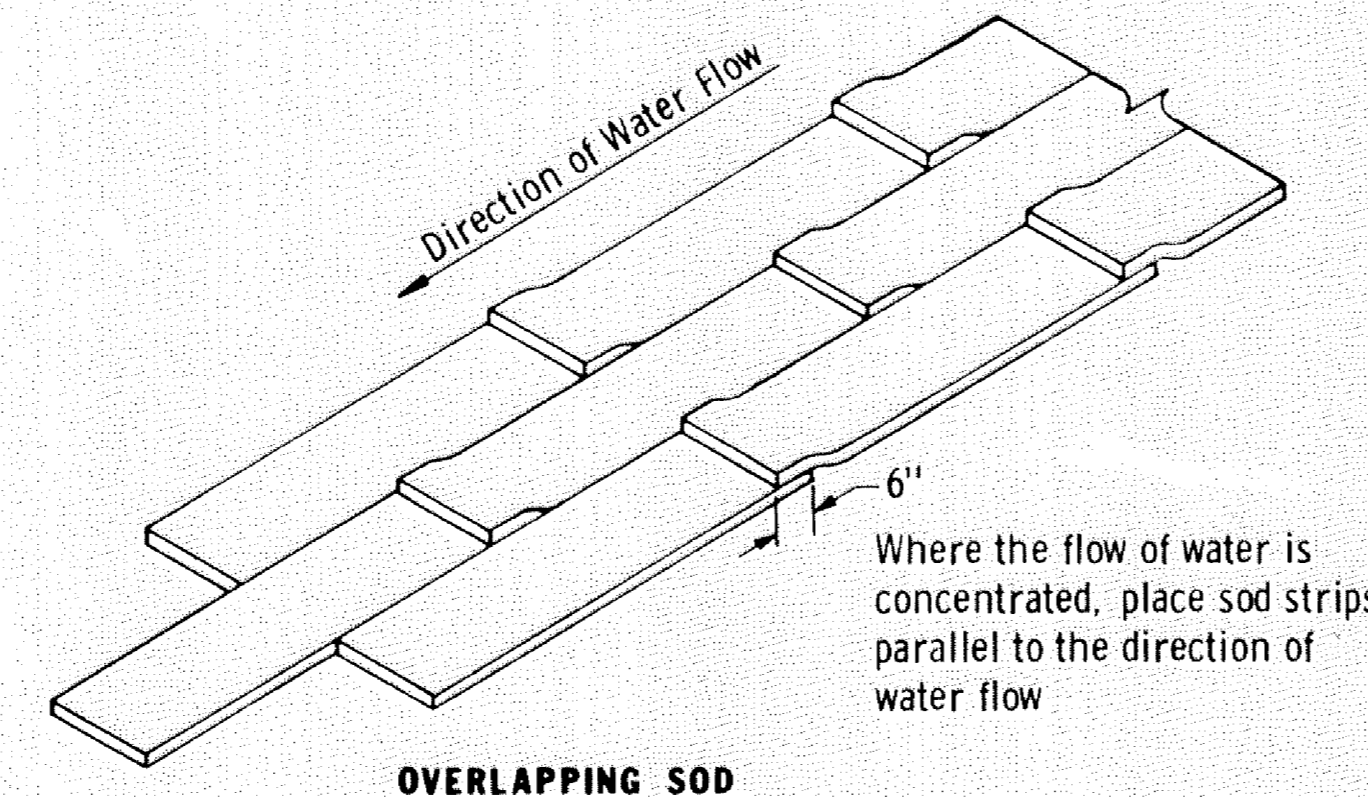
TYPICAL BASE & BITUMINOUS SECTION IN SUPER ELEVATION





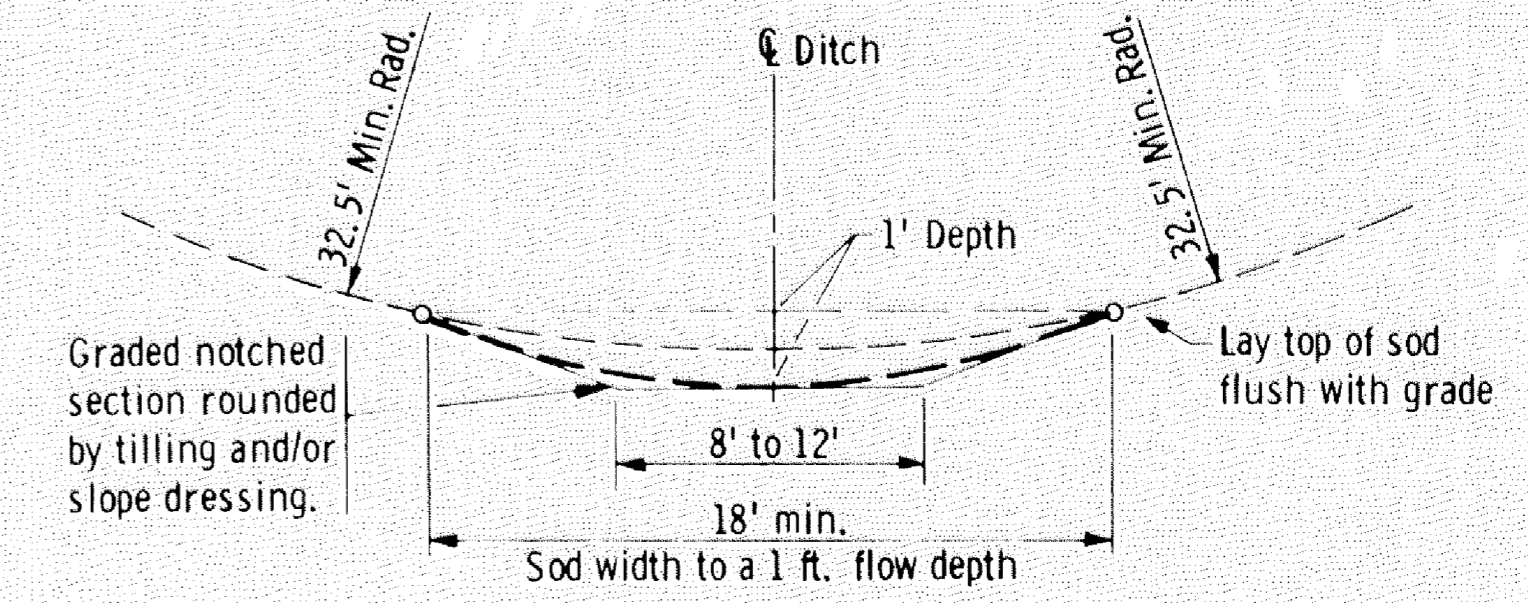
Where the flow of water is sheeting, place sod strips perpendicular to the direction of water flow.

SHINGLING SOD



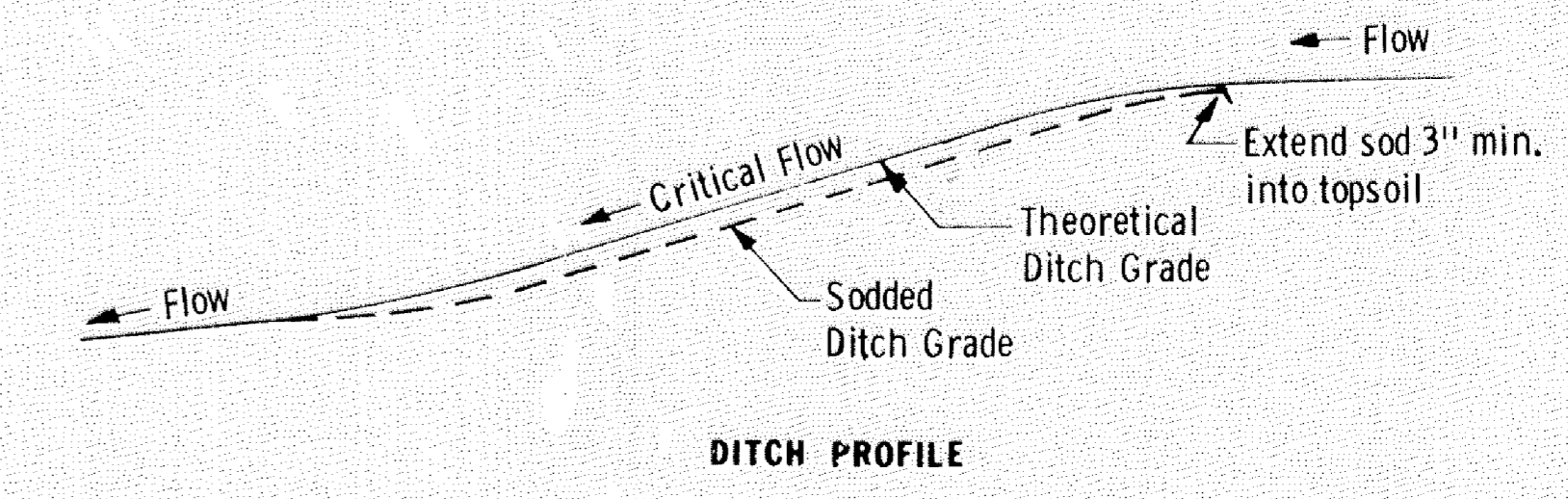
OVERLAPPING SOD

SPECIAL SOD PLACEMENT TECHNIQUES



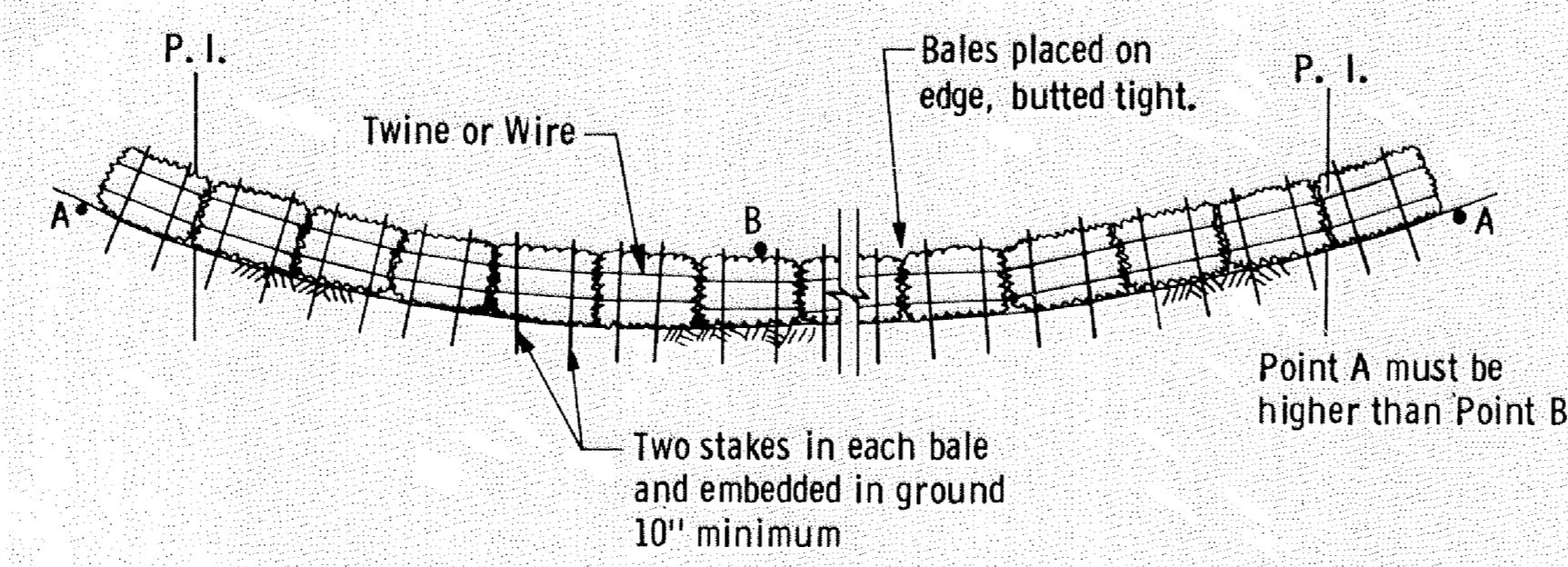
SODDED DITCH CROSS SECTION

Ditches having a minimum radius of 32.5 feet and requiring sod shall be constructed according to the above details. Where ditch radius is less than 32.5 feet, notching is not required. Sod a minimum of 18 feet in width.

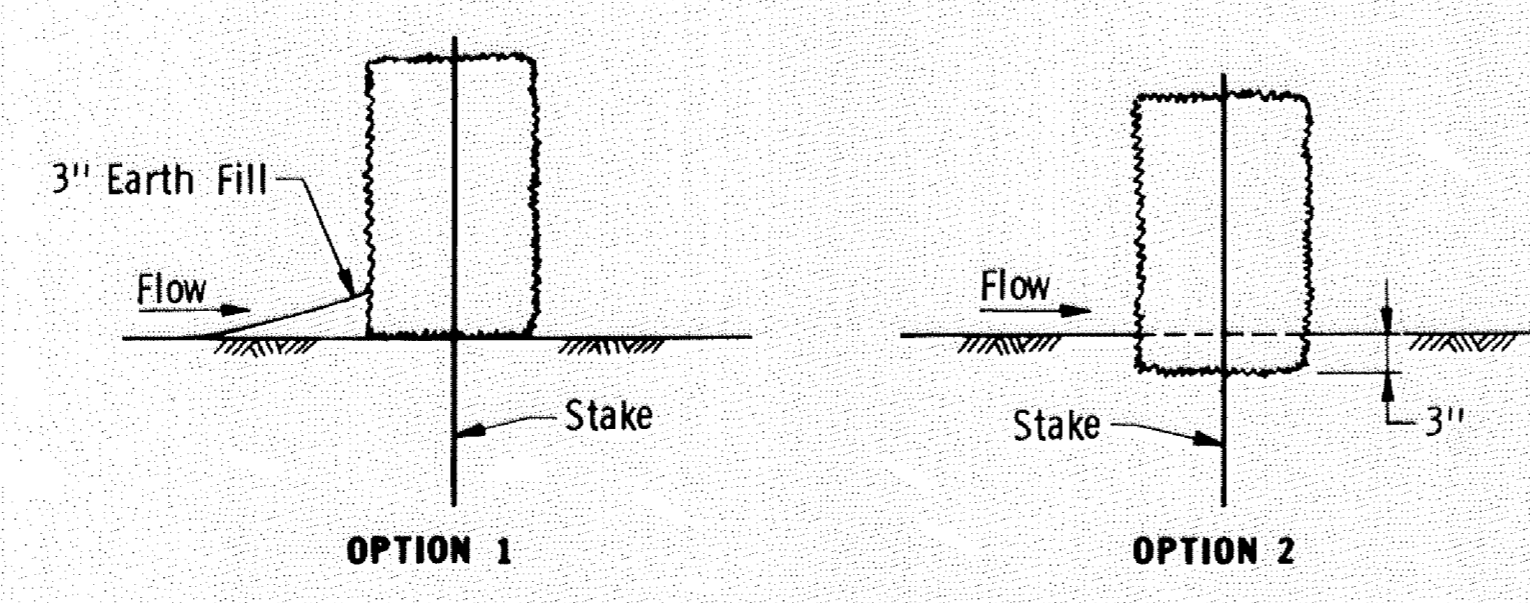


DITCH PROFILE

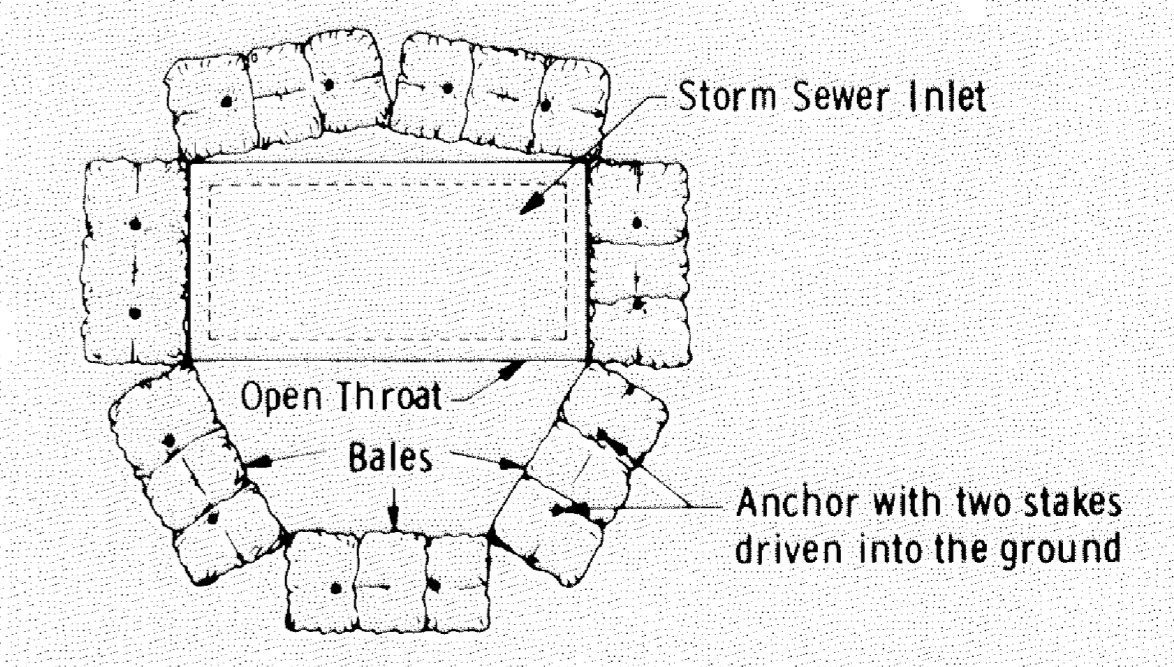
SODDED DITCH DETAILS



BALE HAY OR STRAW DITCH CHECK



DITCH CHECK SECTIONS



BALE DIVERSION TO PROTECT STORM SEWER INLETS

| STATION | LOCATION | IN PLACE | REMARKS | REMOVE SALVAGE | | PORTABLE CULVERTS | | | | | | | | | | | | | |
|---------|----------|-----------------------|----------------------------|----------------------|---------------------|-------------------|----------|---------|---------|---------|---------|----------------|---------|----------------|---------|----------------|---------|---------|---------|
| | | | | PORT. CULV. LIN. FT. | PORT. CULV. CU. YD. | EAC. CU. YD. | 500-DING | 15" CMP | | 16" CMP | | 22" SPAN RCP-A | | 24" SPAN RCP-A | | 28" SPAN RCP-A | | 48" RCP | |
| | | | | | | | | IN. FT. | IN. FT. | IN. FT. | IN. FT. | IN. FT. | IN. FT. | IN. FT. | IN. FT. | IN. FT. | IN. FT. | IN. FT. | IN. FT. |
| 20+31 | LT. | | LILAC ST. | | | | 23 | | | | | | | | | | | | |
| 21+25 | C | | | | | | 29 | | | | | | | | | | | | |
| 22+12 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 23+52 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 24+38 | RT. | | NO CULV. REQ. | | | | | | | | | | | | | | | | |
| 24+88 | LT. | | NO CULV. REQ. | | | | | | | | | | | | | | | | |
| 26+35 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 27+45 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 29+35 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 30+30 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 31+42 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 32+45 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 33+15 | RT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 33+51 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 34+92 | LT. | | 77 TH. ST. NO CULV. | | | | | | | | | | | | | | | | |
| 35+10 | RT. | | 77 TH. ST. NO CULV. | | | | | | | | | | | | | | | | |
| 37+12 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 39+00 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 40+70 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 42+44 | RT. | 18" X 30" C.M.P. | | 30 | | | 17 | | | | | | | | | | | | |
| 44+23 | RT. | 18" X 30" C.M.P. | | 30 | | | 17 | | | | | | | | | | | | |
| 45+94 | RT. | 18" X 30" C.M.P. | | 30 | | | 17 | | | | | | | | | | | | |
| 47+21 | RT. | 15" X 26" C.M.P. | | 26 | | | 17 | | | | | | | | | | | | |
| 47+50 | C | | | | | | 29 | | | | | | | | | | | | |
| 49+84 | RT. | 12" X 32" R.C.P. | | 32 | | | 17 | | | | | | | | | | | | |
| 50+85 | RT. | 24" X 44" C.M.P. | OAK LANE NO CULV. | 44 | | | 17 | | | | | | | | | | | | |
| 52+32 | LT. | 15" X 50" C.M.P. | NO CULV. REQ. | 50 | | | | | | | | | | | | | | | |
| 54+43 | C | 24" X 62" R.C.P. | SEE STORM SEW. CHART 62 | | | | | | | | | | | | | | | | |
| 54+77 | LT. | 15" X 30" C.M.P. | | 30 | | | 17 | | | | | | | | | | | | |
| 54+15 | RT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 56+49 | RT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 56+85 | LT. | 15" X 26" C.M.P. | NO CULV. REQ. | 28 | | | 17 | | | | | | | | | | | | |
| 57+69 | LT. | 15" X 30" C.M.P. | NO ENT REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 58+82 | LT. | 15" X 40" C.M.P. | | 40 | | | 17 | | | | | | | | | | | | |
| 59+55 | LT. | 12" X 42" C.M.P. | NO CULV. REQ. | 42 | | | 17 | | | | | | | | | | | | |
| 59+79 | RT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 61+49 | RT. | | LOIS LN. NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 61+99 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 64+08 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 64+12 | LT. | | 75 TH. ST. NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 64+25 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 65+18 | LT. | 15" X 30" C.M.P. | | 30 | | | 17 | | | | | | | | | | | | |
| 65+82 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 67+12 | RT. | 15" X 30" C.M.P. | | 30 | | | 17 | | | | | | | | | | | | |
| 67+67 | LT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 68+44 | RT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 69+44 | LT. | 18" X 30" C.M.P. | | 30 | | | 17 | | | | | | | | | | | | |
| 71+51 | RT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 71+95 | RT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 72+89 | LT. | | VICKI LN. NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 73+38 | RT. | 12" X 40" C.M.P. | NO CULV. REQ. | 40 | | | 17 | | | | | | | | | | | | |
| 75+08 | LT. | 15" X 40" C.M.P. | NO CULV. REQ. | 40 | | | 17 | | | | | | | | | | | | |
| 75+27 | RT. | 15" X 60" C.M.P. | JAMES ST. NO CULV. REQ. | 60 | | | 17 | | | | | | | | | | | | |
| 76+17 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 77+70 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 78+50 | LT. | 28" SPAN X 50" C.M.P. | A. RELOC. & EXTENDING AP. | 30 | | | 40 | | | | | | | | | | | | |
| 80+53 | LT. | | C.S.A.H. 14. NO CULV. REQ. | | | | 40 | | | | | | | | | | | | |
| 80+67 | RT. | | C.S.A.H. 14. NO CULV. REQ. | | | | 40 | | | | | | | | | | | | |
| 82+97 | RT. | | REMOVE RD. APP. | | | | | | | | | | | | | | | | |
| 83+90 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 84+68 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 84+78 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 85+88 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 87+38 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 87+92 | RT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 88+73 | RT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 89+26 | LT. | 15" X 30" C.M.P. | | 30 | | | 17 | | | | | | | | | | | | |
| 89+37 | RT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 90+08 | RT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 91+13 | RT. | 15" X 30" C.M.P. | NO CULV. REQ. | 30 | | | 17 | | | | | | | | | | | | |
| 91+76 | RT. | 15" X 44" C.M.P. | 126 TH. AVE. N.W. | 44 | | | 23 | | | | | | | | | | | | |
| 94+48 | C | 24" X 56" R.C.P. | | 56 | | | 29 | | | | | | | | | | | | |
| 100+87 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 104+18 | RT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 105+73 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 106+53 | LT. | | NO CULV. REQ. | | | | 17 | | | | | | | | | | | | |
| 109+13 | LT. | 12" X 26" C.M.P. | | 28 | | | 17 | | | | | | | | | | | | |
| 110+93 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 111+05 | RT. | | | | | | 17 | | | | | | | | | | | | |
| 111+30 | LT. | 15" X 26" C.M.P. | | 26 | | | 17 | | | | | | | | | | | | |
| 113+65 | LT. | 15" X 26" C.M.P. | | 26 | | | 17 | | | | | | | | | | | | |
| 114+44 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 116+41 | LT. | 15" X 26" C.M.P. | | 36 | | | 17 | | | | | | | | | | | | |
| 117+20 | RT. | | EVERGREEN TRAIL | | | | 23 | | | | | | | | | | | | |
| 118+64 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 119+18 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 119+83 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 121+34 | LT. | | | | | | 17 | | | | | | | | | | | | |
| 122+00 | LT. | | | | | | 17 | | | | | | | | | | | | |

SHEET 1 OF 2 SHEETS

DRAINAGE

STORM SEWER SYSTEM

| NO | STATION | LOCATION | REMARKS | TYPE | DESIGN | LIN. F.T. | SODDING APRON ENDS | TOP | OUTLET | F&I CASTING ASSEMBLY | DRAINS TO | R.C.P. SEWER PIPE | | | | | |
|-----|---------|--------------|--|------|--------|-----------|--------------------|--------|--------|----------------------|----------------|-------------------|------|------|------|------|------|
| | | | | | | | | | | | | 12" | 15" | 18" | 21" | 24" | |
| 1 | 29+00 | 17' RT. | F. & I. 12" R.C.P. APRON LT., 15" R.C.P. APRON RT. | M.H. | C OR G | 5.6 | 16 S.Y. | 915.26 | 909.76 | A | M.H.#2 | 56' | 213' | | | | |
| 2 | 31+00 | 17' RT. | F. & I. 12" R.C.P. APRON LT. | M.H. | C OR G | 5.2 | 8 S.Y. | 914.07 | 909.00 | A | M.H.#3 | 55' | 100' | | | | |
| 3 | 32+00 | 17' RT. | F. & I. 12" R.C.P. APRON LT., 15" R.C.P. APRON RT. | M.H. | C OR G | 5.0 | 16 S.Y. | 913.50 | 908.60 | A | C.B.#4 | 55' | 27' | | | | |
| 4 | 34+50 | 23.9' RT. | F. & I. 15" R.C.P. APRON LT. | C.B. | C OR G | 3.8 | 9 S.Y. | 911.63 | 907.60 | B | DITCH | | 120' | | | | |
| 5 | 51+00 | 17' RT. | F. & I. 18" R.C.P. APRON LT. 50+48 | M.H. | A OR F | 7.4 | 10 S.Y. | 906.93 | 899.60 | A | M.H.#6 | | | | 124' | | |
| 6 | 54+43 | 17' RT. | F. & I. 15" R.C.P. APRON LT. | M.H. | A OR F | 8.4 | 8 S.Y. | 906.42 | 898.15 | A | C.B.#7 | | 55' | | | | 31' |
| 7 | 54+30 | 45' RT. | | C.B. | C OR G | 4.7 | | 902.60 | 898.01 | C | M.H.#25 | | | | | | 324' |
| 8 | 57+25 | 17' RT. | | M.H. | A OR F | 8.1 | | 907.73 | 899.74 | A | M.H.#6 | | | | | 282' | |
| 8A | 57+25 | 39' RT. | | C.B. | C OR G | 4.5 | | 905.45 | 901.00 | C | M.H.#8 | 22' | | | | | |
| 8B | 57+25 | 35' LT. | | C.B. | C OR G | 4.9 | | 905.85 | 901.02 | C | M.H.#8 | 52' | | | | | |
| 9 | 60+15 | 23.9' RT. | | C.B. | A OR F | 7.9 | | 908.88 | 900.76 | B | M.H.#8 | | | | | 290' | |
| 10 | 60+00 | 35' LT. | | C.B. | C OR G | 5.0 | | 907.95 | 903.00 | C | C.B.#9 | 61' | | | | | |
| 11 | 63+20 | 23.9' RT. | | C.B. | A OR F | 6.5 | | 908.31 | 901.66 | B | C.B.#9 | | | | | 305' | |
| 11A | 63+50 | 40' LT. | | C.B. | C OR G | 3.9 | | 906.00 | 902.18 | C | C.B.#11 | | 71' | | | | |
| 12 | 66+50 | 17' RT. | F. & I. 12" R.C.P. APRON LT. & RT. | M.H. | C OR G | 4.8 | 16 S.Y. | 907.29 | 902.60 | A | C.B.#11 | 76' | | | | 330' | |
| 13 | 70+00 | 17' RT. | F. & I. 15" R.C.P. APRON LT. | M.H. | C OR G | 4.5 | 8 S.Y. | 907.69 | 903.30 | A | M.H.#12 | | 55' | | | 350' | |
| 14 | 72+50 | 17' RT. | | M.H. | C OR G | 4.5 | | 908.47 | 904.03 | A | M.H.#13 | | | | 250' | | |
| 14A | 72+50 | 40' RT. | | C.B. | H | 2.3 | | 906.35 | 904.15 | C | M.H.#14 | 23' | | | | | |
| 15 | 74+00 | 17' RT. | | M.H. | C OR G | 4.6 | | 908.92 | 904.10 | A | M.H.#14 | | | | 150' | | |
| 15A | 74+00 | 37' RT. | | C.B. | H | 2.8 | | 907.25 | 904.50 | C | M.H.#15 | 20' | | | | | |
| 15B | 74+00 | 40' LT. | | C.B. | H | 2.4 | | 906.95 | 904.63 | C | M.H.#15 | 57' | | | | | |
| 16 | 76+00 | 17' RT. | F. & I. 15" R.C.P. APRON LT. | M.H. | C OR G | 4.3 | 8 S.Y. | 909.57 | 905.35 | A | M.H.#15 | | 201' | 111' | | | |
| 16A | 76+00 | 37' RT. | | C.B. | H | 2.6 | | 907.95 | 905.45 | C | M.H.#16 | 20' | | | | | |
| 17 | 81+65 | 23.9' LT. | F. & I. 12" R.C.P. APRON RT. | C.B. | C OR G | 3.9 | 8 S.Y. | 914.10 | 910.35 | B | DITCH | 78' | | | | | |
| 18 | 120+50 | 17' RT. | F. & I. 18" R.C.P. APRON RT. | M.H. | A OR F | 6.3 | 11 S.Y. | 911.83 | 905.67 | A | POND | | | | | 32' | |
| 19 | 123+70 | 17' RT. | F. & I. 12" R.C.P. APRON LT. & RT. | M.H. | C OR G | 5.1 | 16 S.Y. | 911.50 | 906.50 | A | M.H.#18 | 21' | | | | 320' | |
| 20 | 125+40 | 17' RT. | F&I 15" RCP APRON LT. | M.H. | C OR G | 4.3 | 16 S.Y. | 911.38 | 907.14 | A | M.H.#19 | 23' | 225' | | | | |
| 21 | 249+00 | 17' RT. | | M.H. | C OR G | 5.4 | | 908.83 | 903.54 | A | M.H.#22 | | 54' | | | | |
| 21A | 249+00 | 38' RT. | | C.B. | H | 3.4 | | 907.05 | 903.75 | C | M.H.#21 | 21' | | | | | |
| 21B | 249+00 | 39' LT. | | C.B. | H | 2.9 | | 906.65 | 903.82 | C | M.H.#21 | 56' | | | | | |
| 22 | 250+54 | 17' RT. | F. & I. 15" R.C.P. APRON RT. 251+00 | M.H. | A OR F | 6.7 | 8 S.Y. | 908.57 | 902.00 | A | M.H.#23 | | 30' | | | | |
| 23 | 3+50 | OUTFALL LINE | RT. 250+54 | M.H. | A OR F | 8.4 | | 907.00 | 898.67 | A | M.H.#24 | | 350' | | | | |
| 24 | 7+00 | OUTFALL LINE | F. & I. 15" R.C.P. APRON | M.H. | A OR F | 6.6 | 9 S.Y. | 901.70 | 895.17 | A | SWAMP | | 175' | | | | |
| 25 | 3+80 | OUTFALL LINE | RT. 54+30 | M.H. | A OR F | 8.7 | | 905.10 | 896.15 | A | M.H.#26 | | | | | 236' | |
| 26 | 6+16 | OUTFALL LINE | F&I 24" RCP APRON | M.H. | A OR F | 6.6 | 16 S.Y. | 901.80 | 895.32 | A | RETENTION POND | | | | | | 44' |
| 27 | 11+35 | OUTFALL LINE | F&I 15" RCP APRONS FOR INLET & OUTLET | M.H. | C OR G | 4.2 | 16 S.Y. | 898.40 | 894.25 | A | DITCH | | 134' | | | | |

DRAINAGE -- OAK LANE

| STATION | LOCATION | IN PLACE | REMARKS | REMOVE PORT. CULV. LIN.F.T. | SOD-DING SQ. YD. | F&I. PORTABLE CULVERTS | | | | | |
|----------|----------|---------------------------|---------|-----------------------------|------------------|------------------------|-----|----------|-----|----------|-----|
| | | | | | | 15" CMP | | 28" SPAN | | 44" SPAN | |
| | | | | | | LIN.F.T. | AP. | LIN.F.T. | AP. | LIN.F.T. | AP. |
| 12+45 | LT. | 12" X 20" C.M.P. | | 21' | 17 | | | 30 | 2 | | |
| 16+29 | LT. | 24" X 18" C.M.P. | | 18' | 42 | | | 28 | 2 | | |
| 18+39 | C | 30" X 32" R.C.P. & C.M.P. | | 32' | 50 | | | | | 32 | 2 |
| TOTALS = | | | | 70' | 109 | 0 | 0 | 58 | 4 | 32 | 2 |

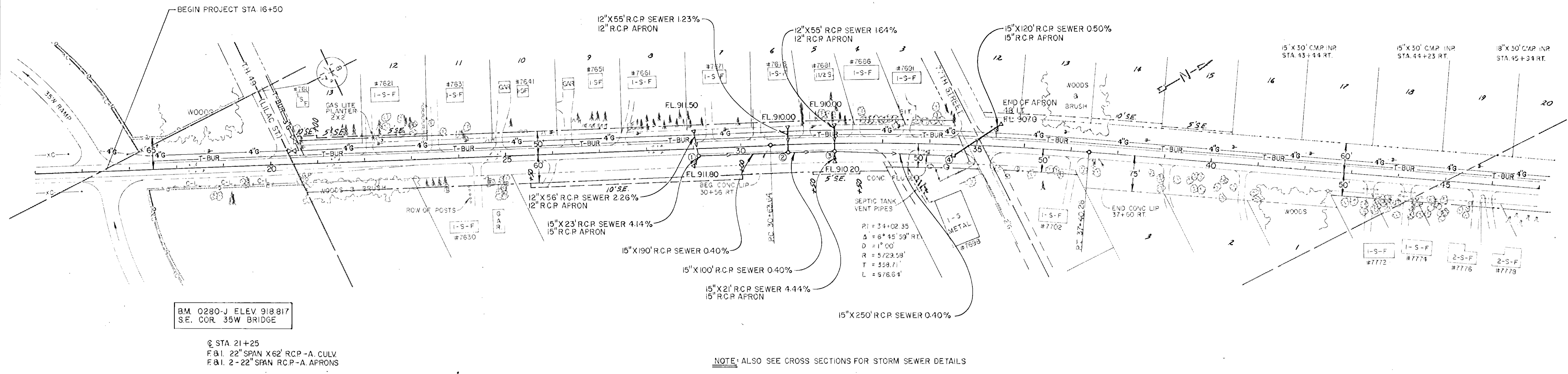
CASTING SCHEDULE

| ASSEMBLY | ITEM | CASTING NO. | QUANTITIES |
|----------|----------------------|-------------|------------|
| A | FRAME COVER | 700-7 | 21 |
| | | 711 | |
| B | FRAME GRATE CURB BOX | 801 | 4 |
| | | 810 | |
| | | 821B | |
| C | FRAME GRATE | 700-7 | 11 |
| | | 721 | |

B.M. 1 ELEV. 917.80
TOP N.E. COR. BRICK PLANTER
STA. 22+20 HO. 7621

B.M. 2 ELEV. 913.56
TOP N.E. COR. FR. STEP
HOUSE NO. 7676

B.M. 3 ELEV. 908.57
TOP S.W. COR. BOT. STEP
HOUSE NO. 7772

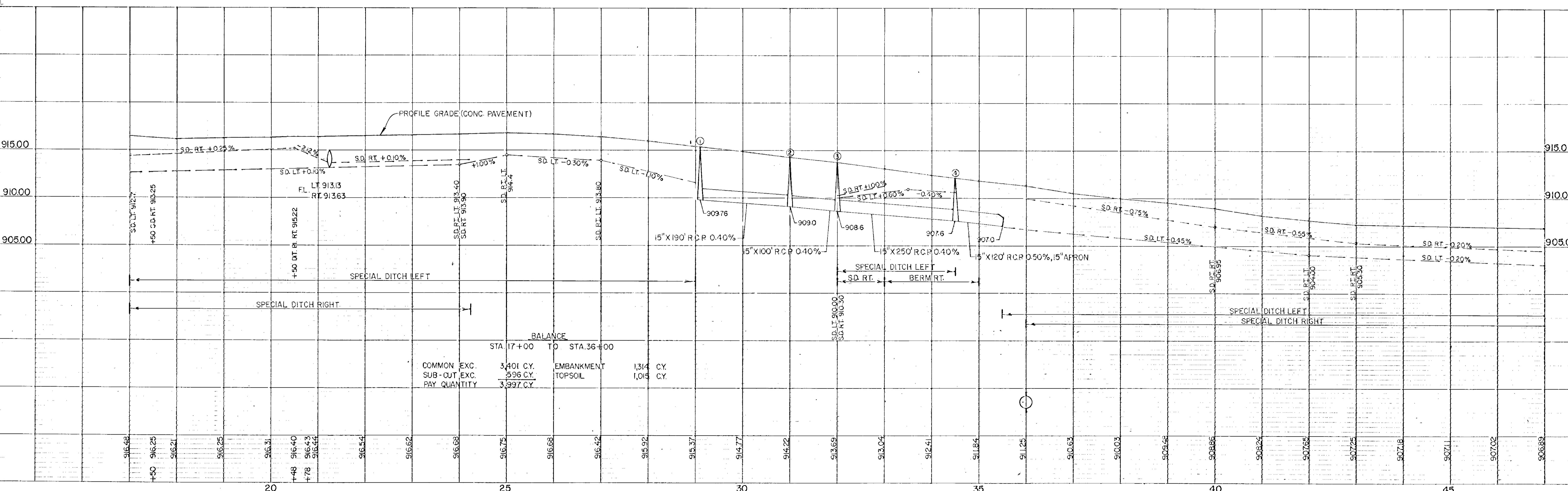


B.M. 0280-J ELEV. 918.817
S.E. COR. 35W BRIDGE

Q STA 21+25
F&I. 22" SPAN X 62' RCP-A. CULV.
F&I. 2-22" SPAN RCP-A. APRONS

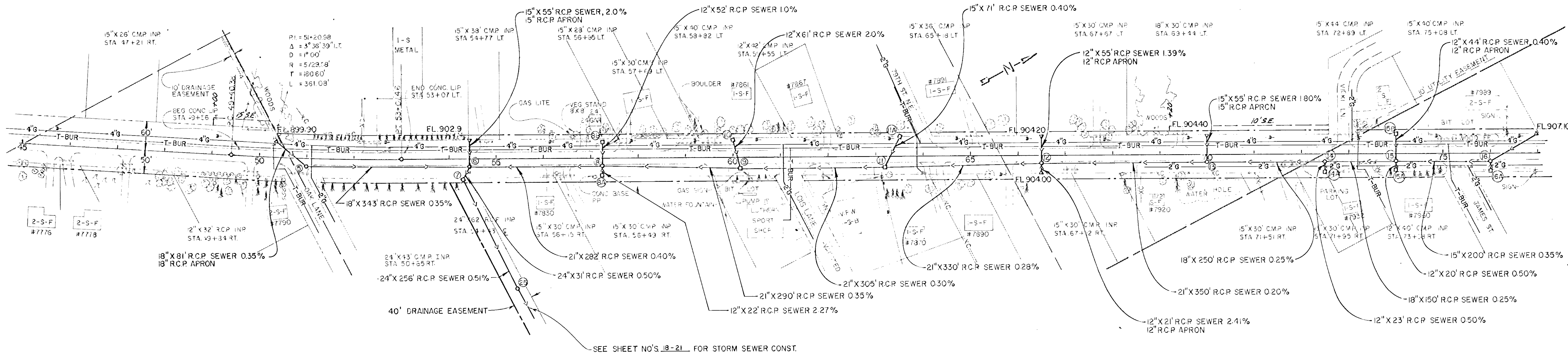
NOTE: ALSO SEE CROSS SECTIONS FOR STORM SEWER DETAILS

NOTE: CONSTRUCT BIT. LIP RT. STA. 33+50 TO 77th ST.

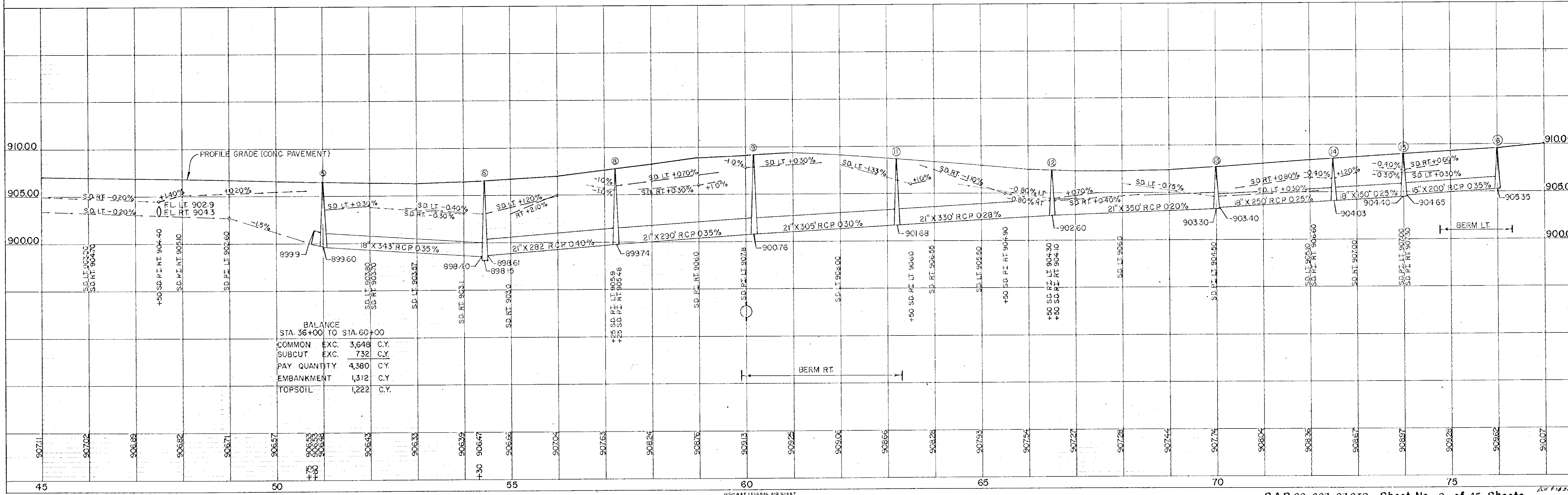


BALANCE
STA. 17+00 TO STA. 36+00

| | | | |
|--------------|-----------|------------|-----------|
| COMMON EXC. | 3,401 CY. | EMBANKMENT | 1,314 CY. |
| SUB-CUT EXC. | 396 CY. | TOPSOIL | 1,016 CY. |
| PAY QUANTITY | 3,997 CY. | | |



NOTE: ALSO SEE CROSS SECTIONS FOR STORM SEWER DETAILS



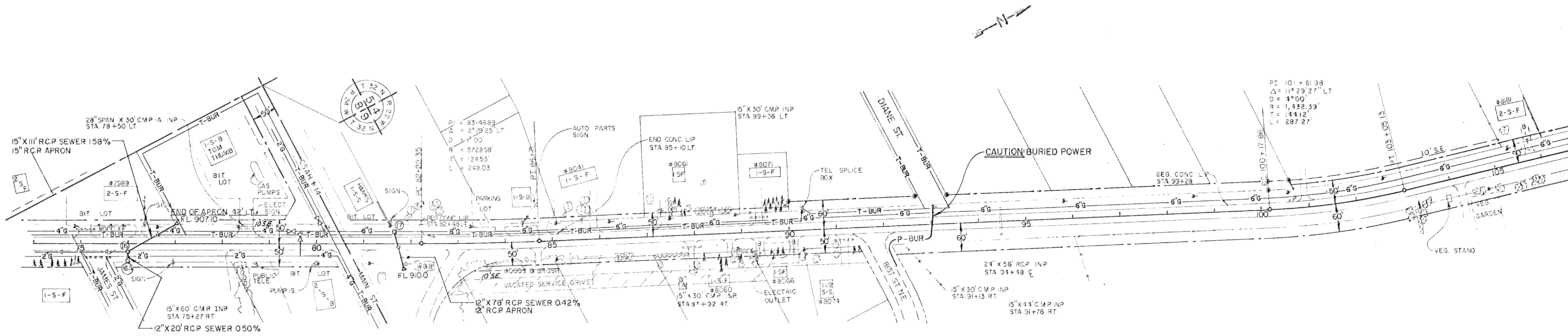
BALANCE
STA. 36+00 TO STA. 60+00

| | | |
|--------------|-------|------|
| COMMON EXC. | 3,648 | C.Y. |
| SUBCUT EXC. | 732 | C.Y. |
| PAY QUANTITY | 4,380 | C.Y. |
| EMBANKMENT | 1,312 | C.Y. |
| TOPSOIL | 1,222 | C.Y. |

BM #6, ELEV. 914.41
TOP SE. COR. CONC. APRON
EASTERLY ENT. OF HANK'S CAFE

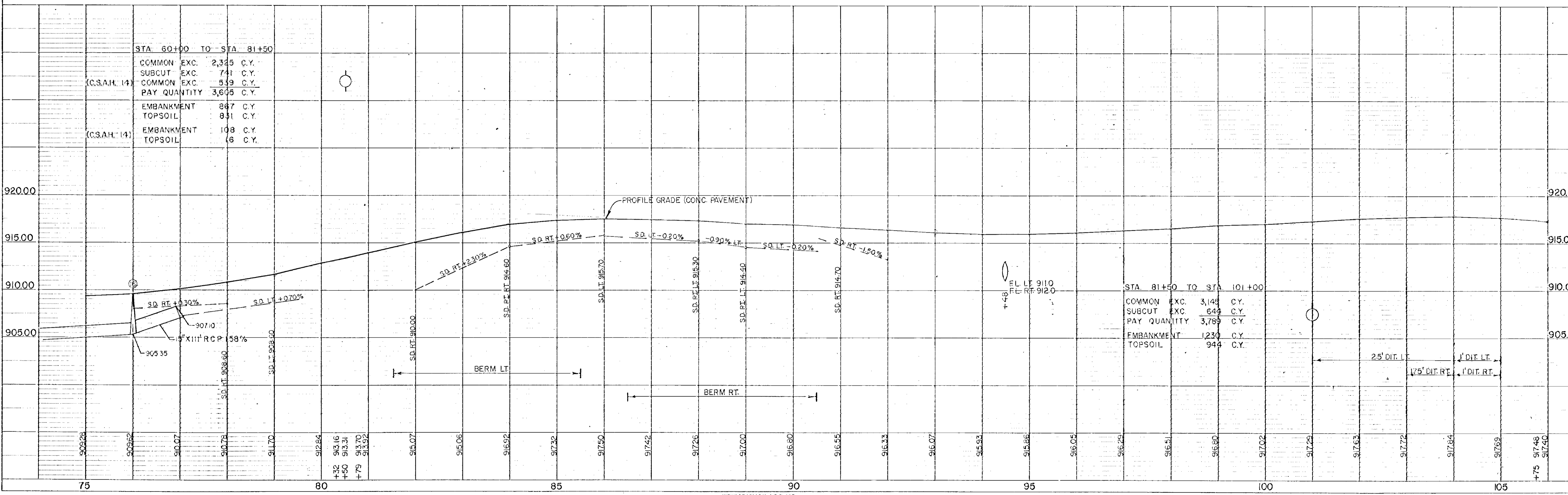
BM #7, ELEV. 918.08
TOP SW. COR. TOP STEP, S'LY SET
HOUSE NO. 8060

BM #8, ELEV. 920.97
TOP NE. COR. TOP STEP
HOUSE NO. 8181



NOTE: ALSO SEE SHEET NOS. 22 & 23 FOR INTERSECTION CONSTRUCTION DETAILS

NOTE: ALSO SEE CROSS SECTIONS FOR STORM SEWER DETAILS



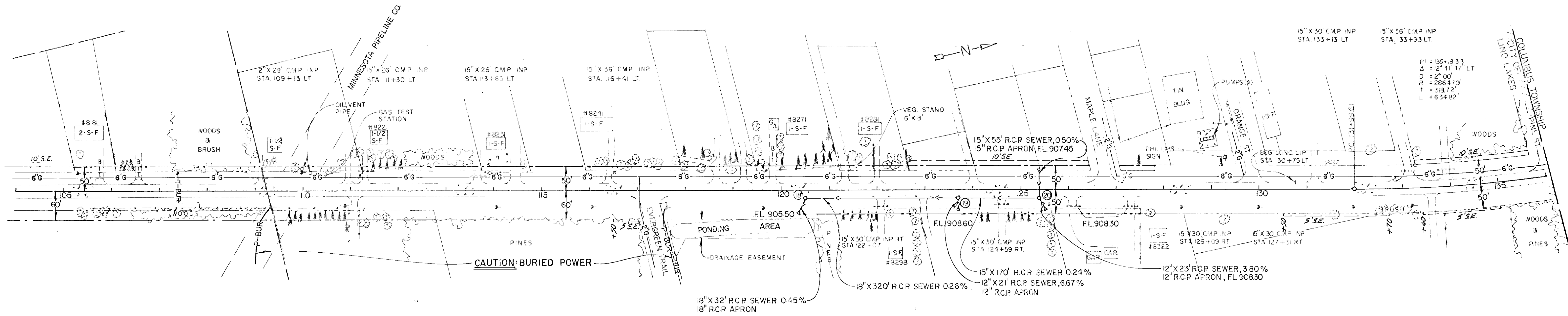
BM #8, ELEV. 920.97
TOP N.E. COR. TOP STEP
HOUSE NO. 8161

CAUTION: 16" PIPELINE CROSSING

BM #9, ELEV. 913.63
TOP S.E. COR. TOP STEP
HOUSE NO. 8231

BM #10, ELEV. 913.25
TOP N.W. COR. TOP STEP
HOUSE NO. 8322

BM #11, ELEV. 913.35
R.R. SPIKE IN FACE OF 24" OAK
60' LT. OF STA. 135+15



NOTE: SEE ALSO CROSS SECTIONS FOR STORM SEWER DETAILS

| | | | | |
|--------------|------|-------------|------|-------------|
| BALANCE | | STA. 101+00 | TO | STA. 141+00 |
| COMMON | EXC. | 6,978 | C.Y. | |
| SUBCUT | EXC. | 1,271 | C.Y. | |
| PAY QUANTITY | | 8,249 | C.Y. | |
| EMBANKMENT | | 2,407 | C.Y. | |
| TOPSOIL | | 2,146 | C.Y. | |

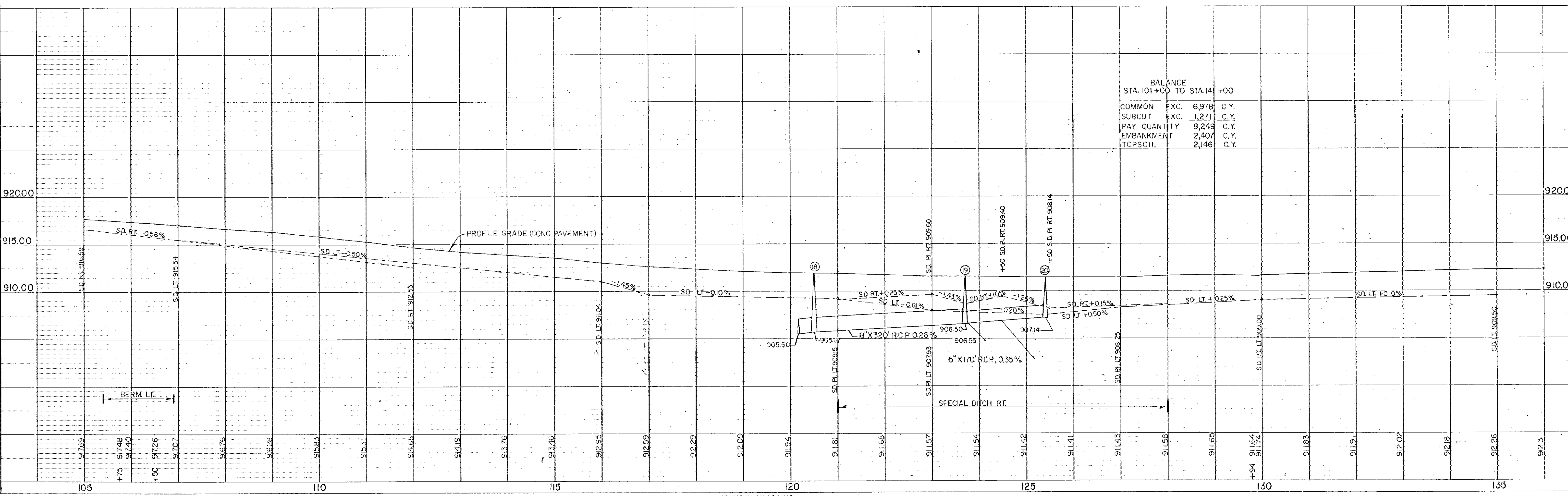
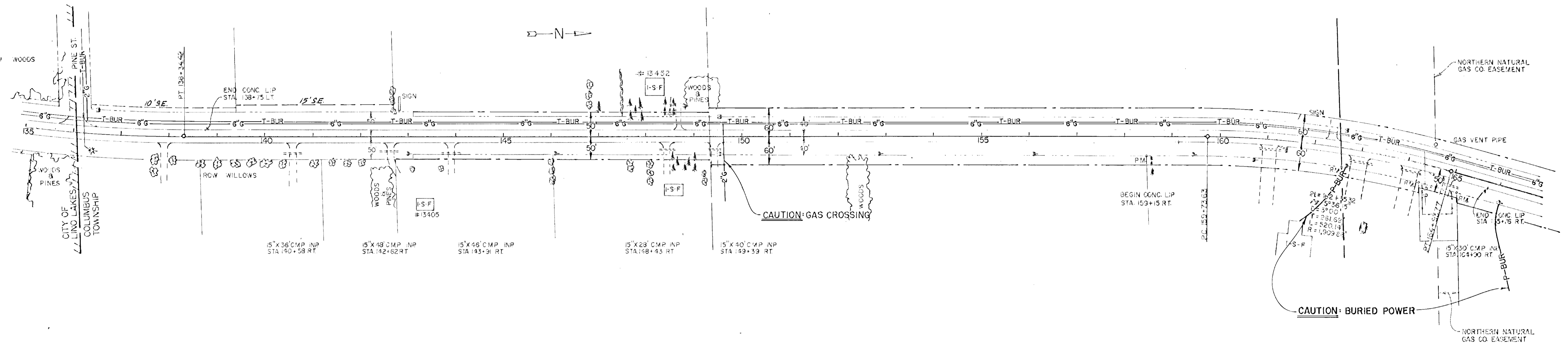


PLATE 1 - SINGLE PLAN AND PROFILE LINES DOT

BM #11, ELEV. 913.35
 RR SPIKE IN FACE OF 24" OAK
 60' LT. OF STA. 135+15

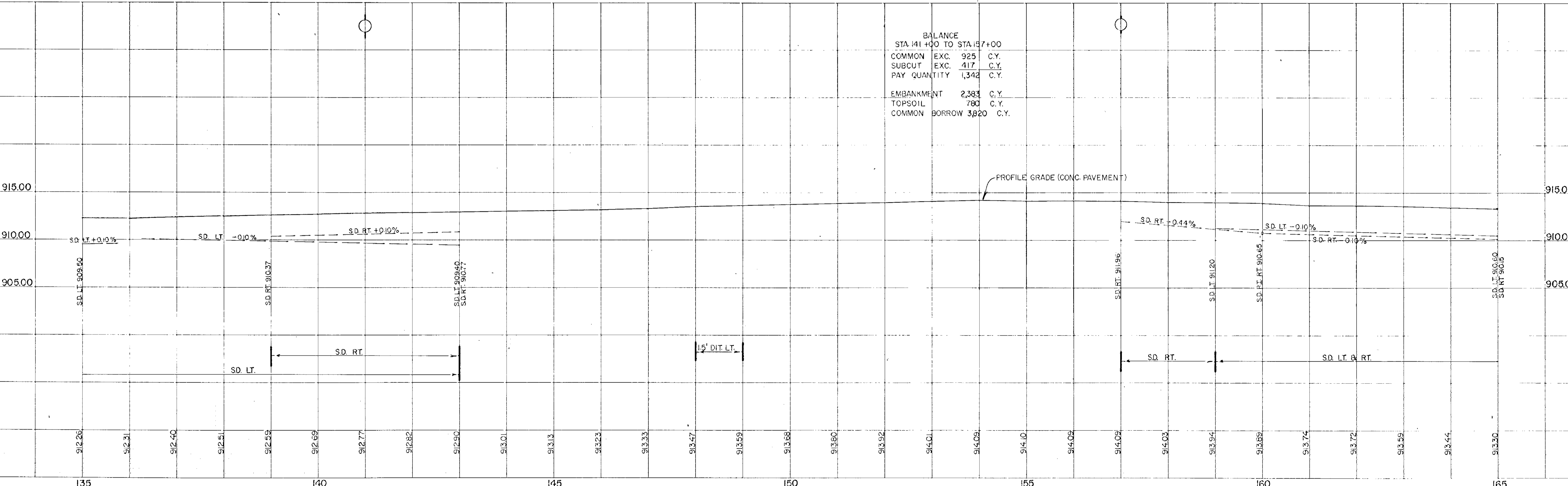
B.M. # 12 ELEV. 913.01
 DBL. SPIKE IN PP
 60' W. OF STA. 149+03 LT.
 HOUSE #13452

**CAUTION: 20" HIGH-PRESSURE
 GAS CROSSING**



BALANCE
 STA 141+00 TO STA 157+00

| | | | |
|---------------|------|-------|------|
| COMMON | EXC. | 925 | C.Y. |
| SUBCUT | EXC. | 417 | C.Y. |
| PAY QUANTITY | | 1,342 | C.Y. |
| EMBANKMENT | | 2,383 | C.Y. |
| TOPSOIL | | 780 | C.Y. |
| COMMON BORROW | | 3,820 | C.Y. |

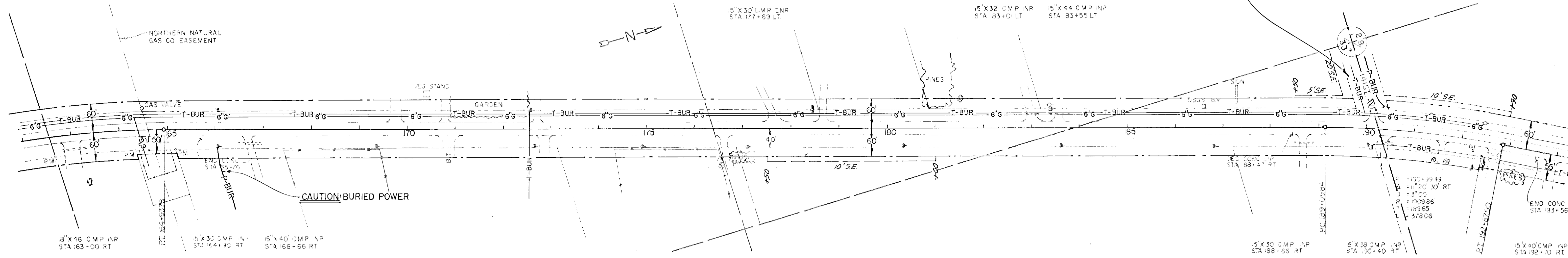


B.M. #14, ELEV. 914.31
DBLE SPIKE IN PP
200' LT. OF STA. 178+75

USGS B.M. "26 RDS" ELEV. 908.07
PLUG SET IN CONC.
41' LT. OF STA. 186+62

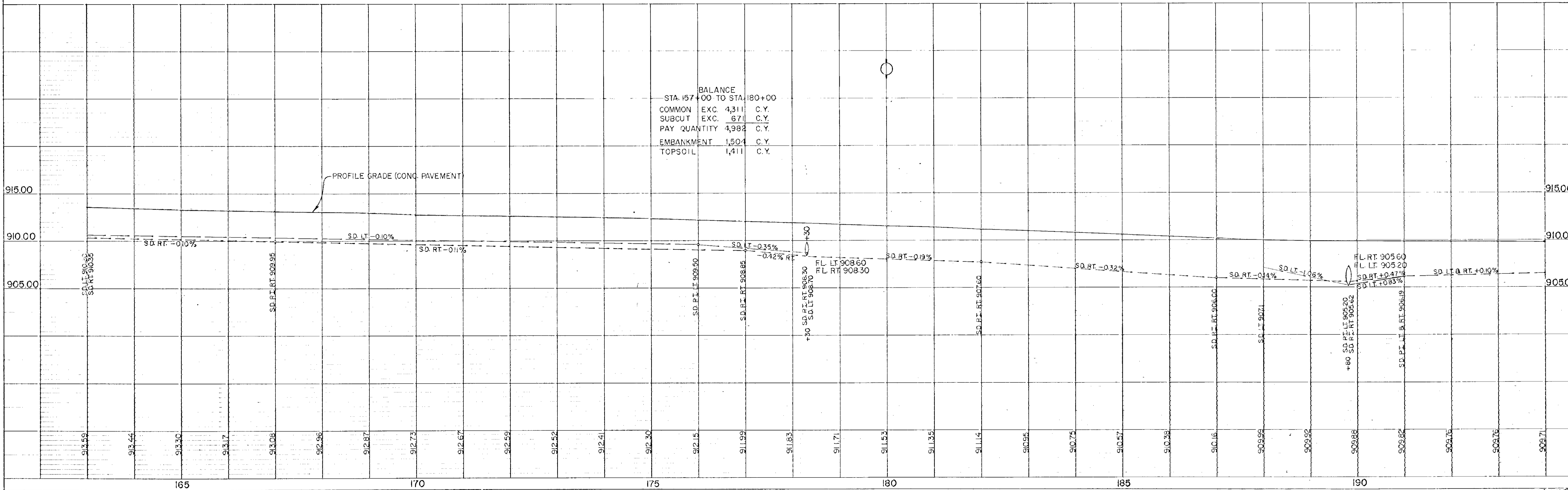
**CAUTION: 20" HIGH-PRESSURE
GAS CROSSING**

FOR DITCH CONSTRUCTION
SEE SHEET NO. 22



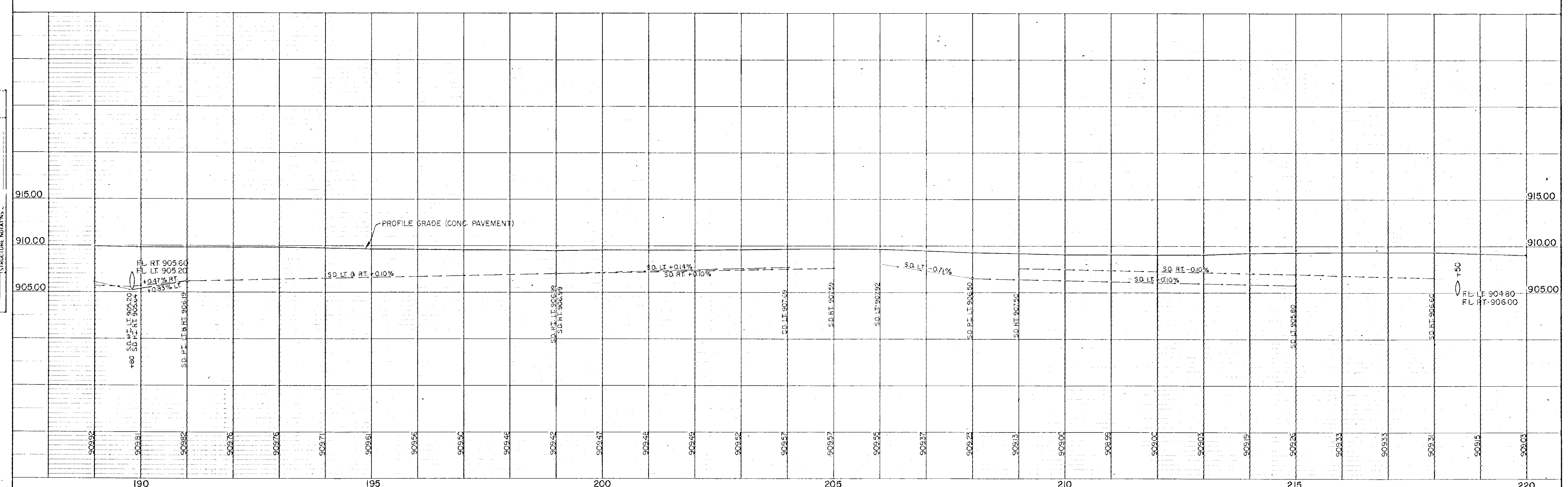
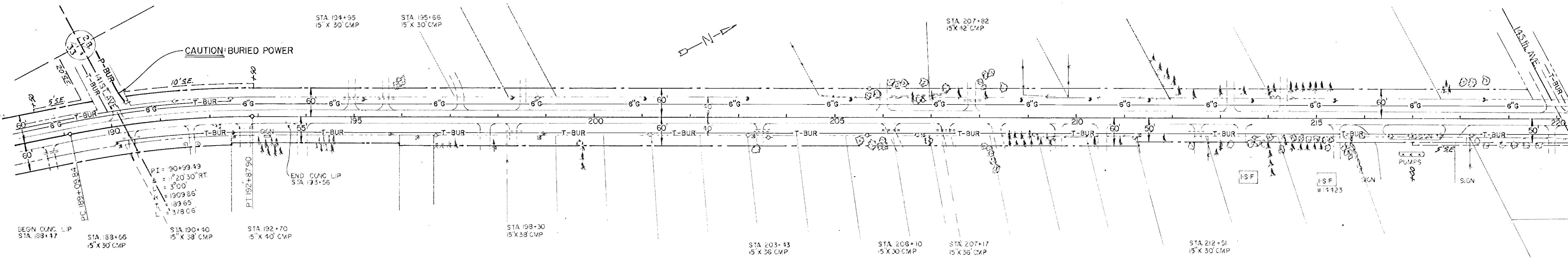
BALANCE
STA 157+00 TO STA 180+00

| | | |
|--------------|-------|------|
| COMMON EXC. | 4,311 | C.Y. |
| SUBCUT EXC. | 871 | C.Y. |
| PAY QUANTITY | 4,982 | C.Y. |
| EMBANKMENT | 1,504 | C.Y. |
| TOPSOIL | 1,411 | C.Y. |



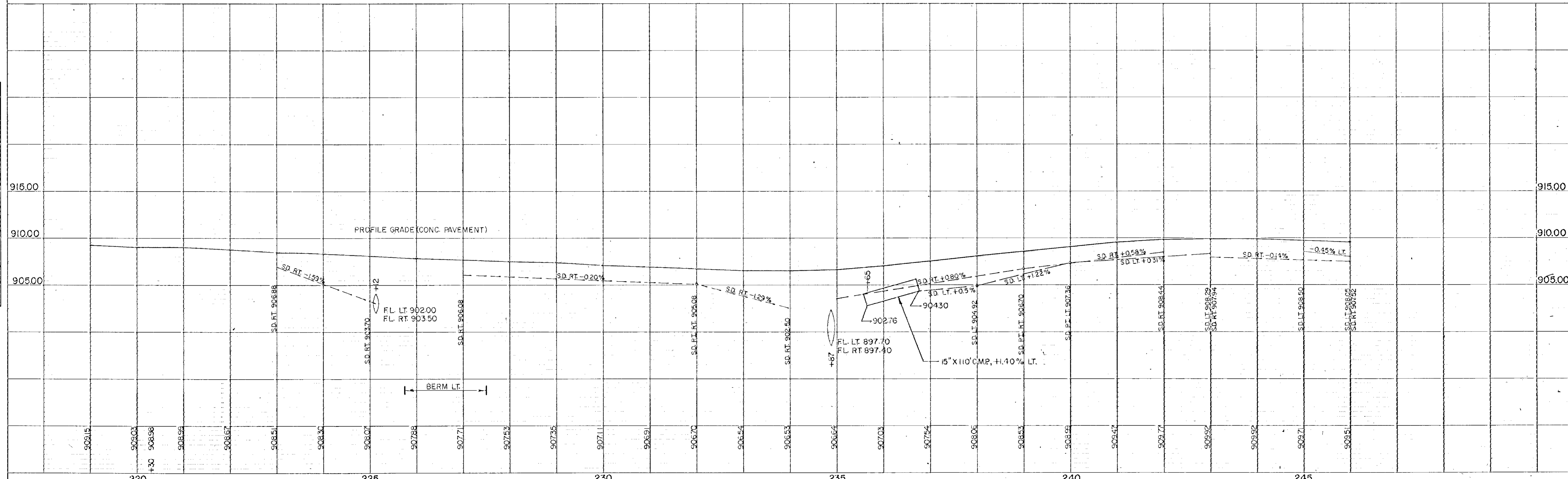
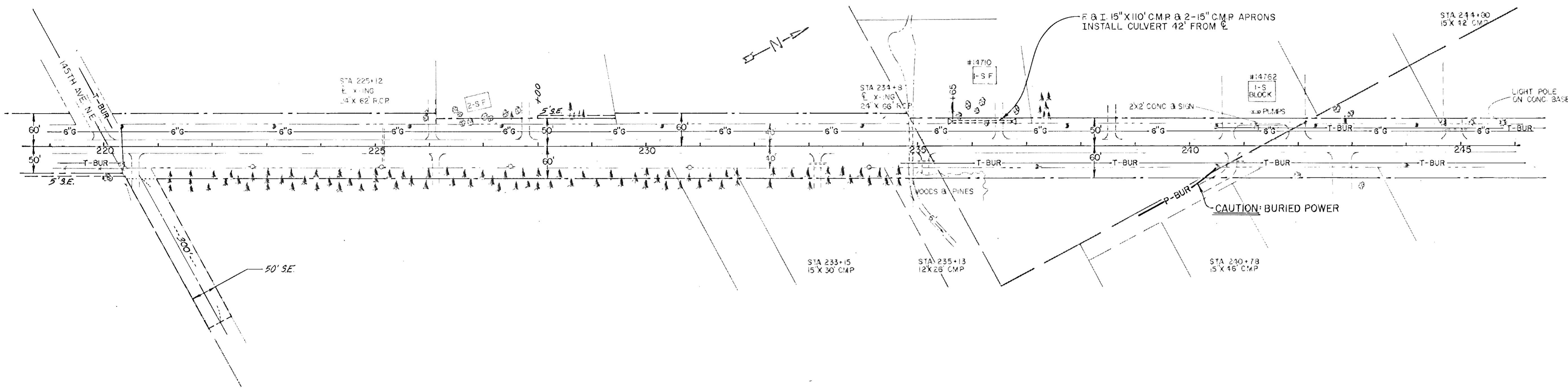
B.M. #15, ELEV. 913.83
 DBLE SPIKE IN PP
 200' LT OF STA. 194+55

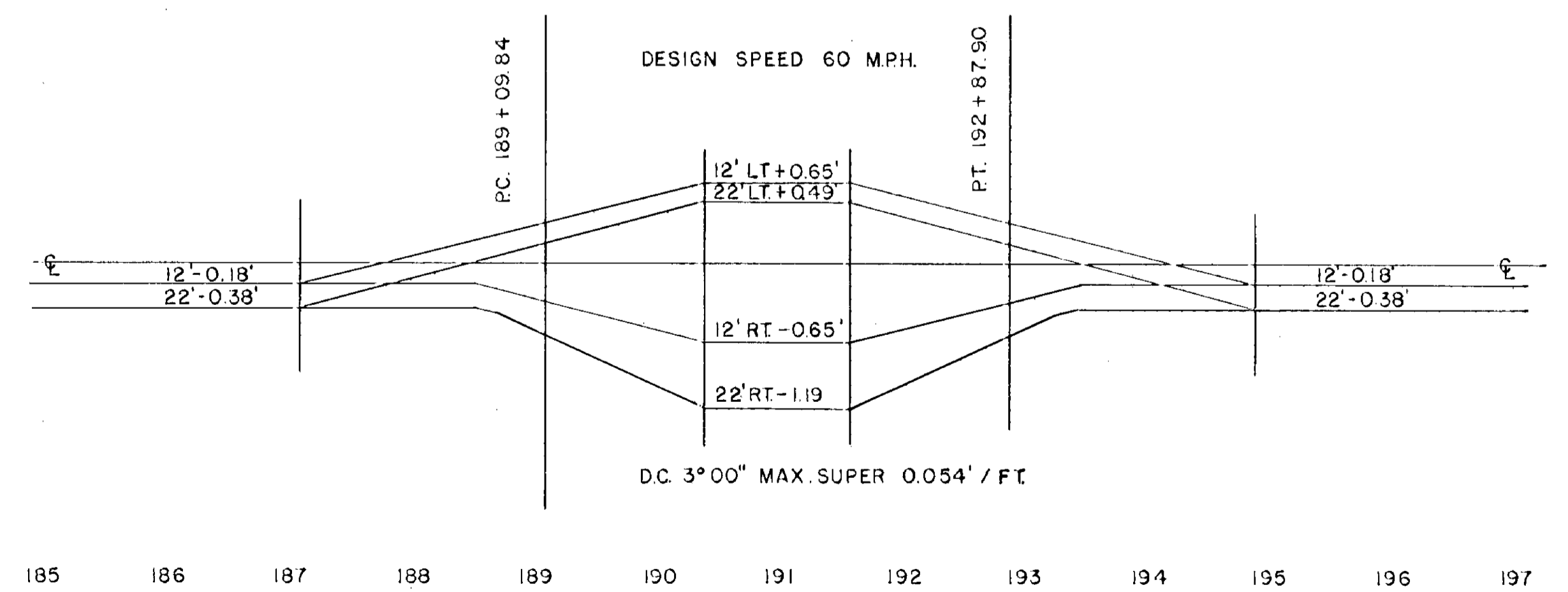
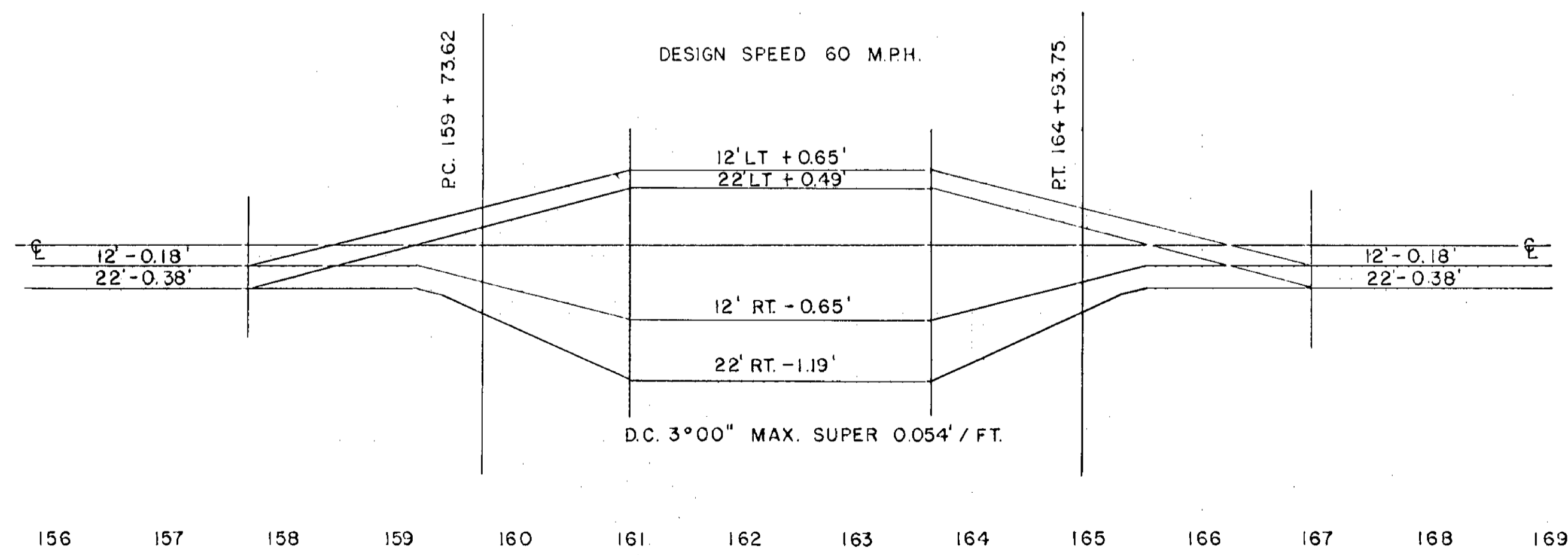
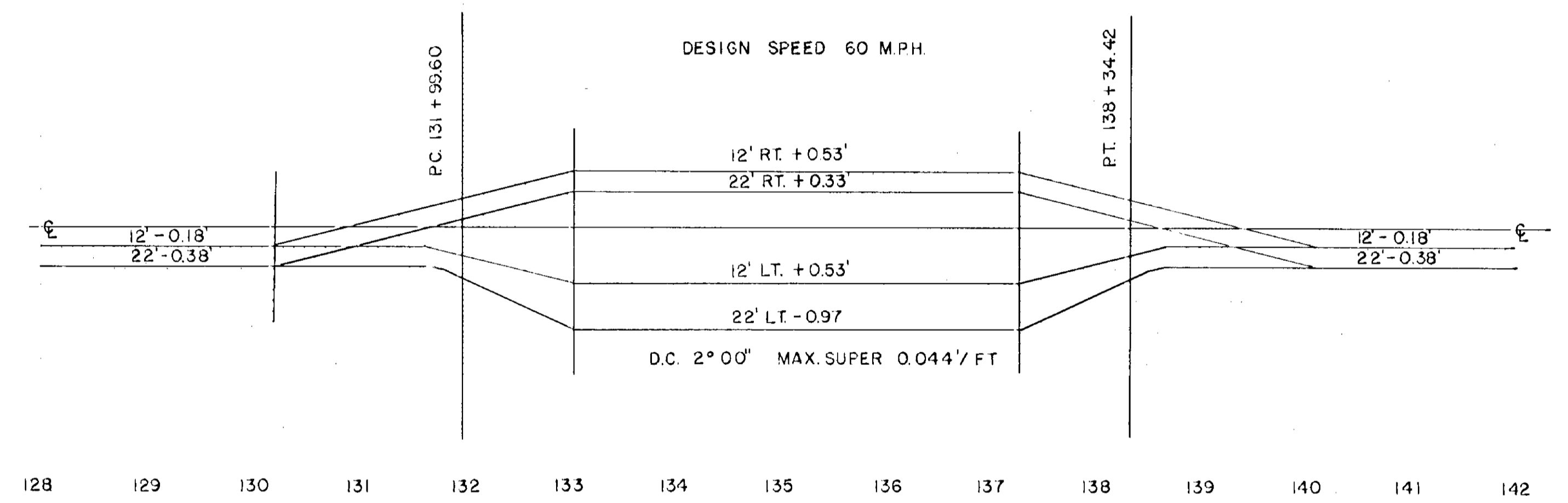
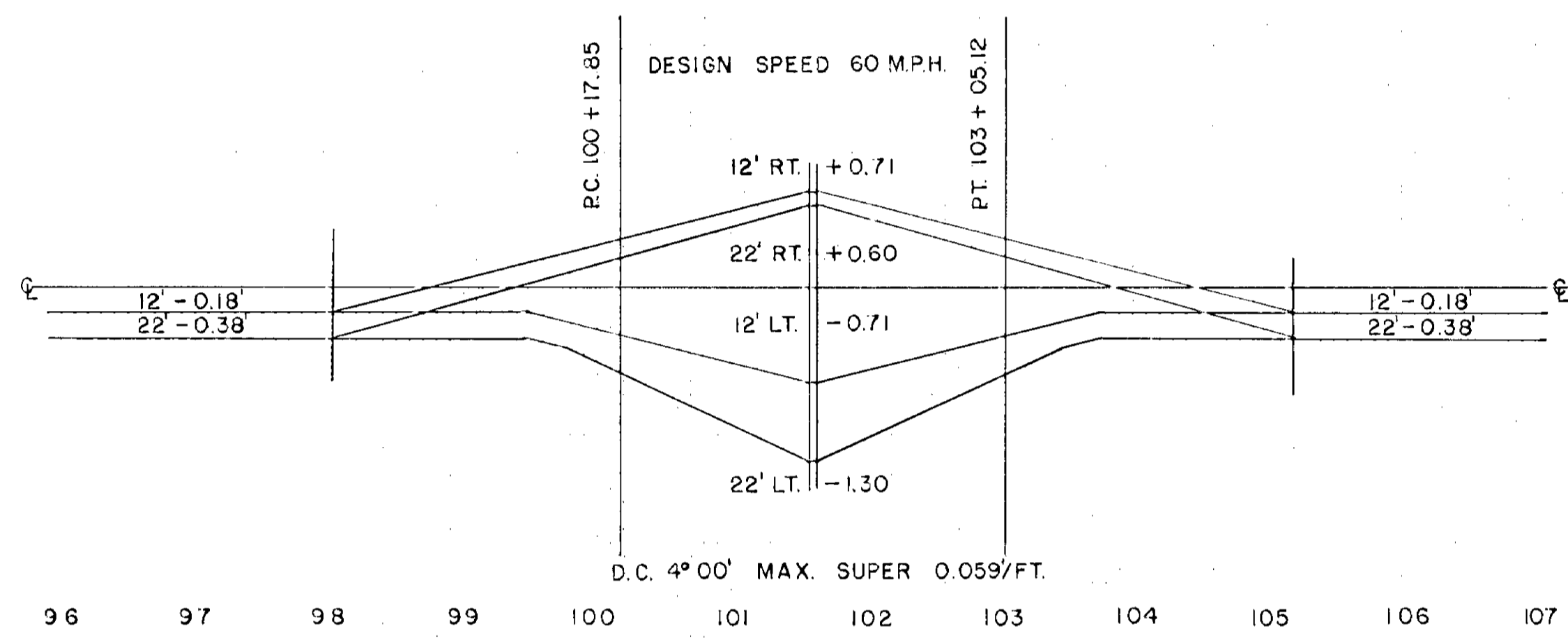
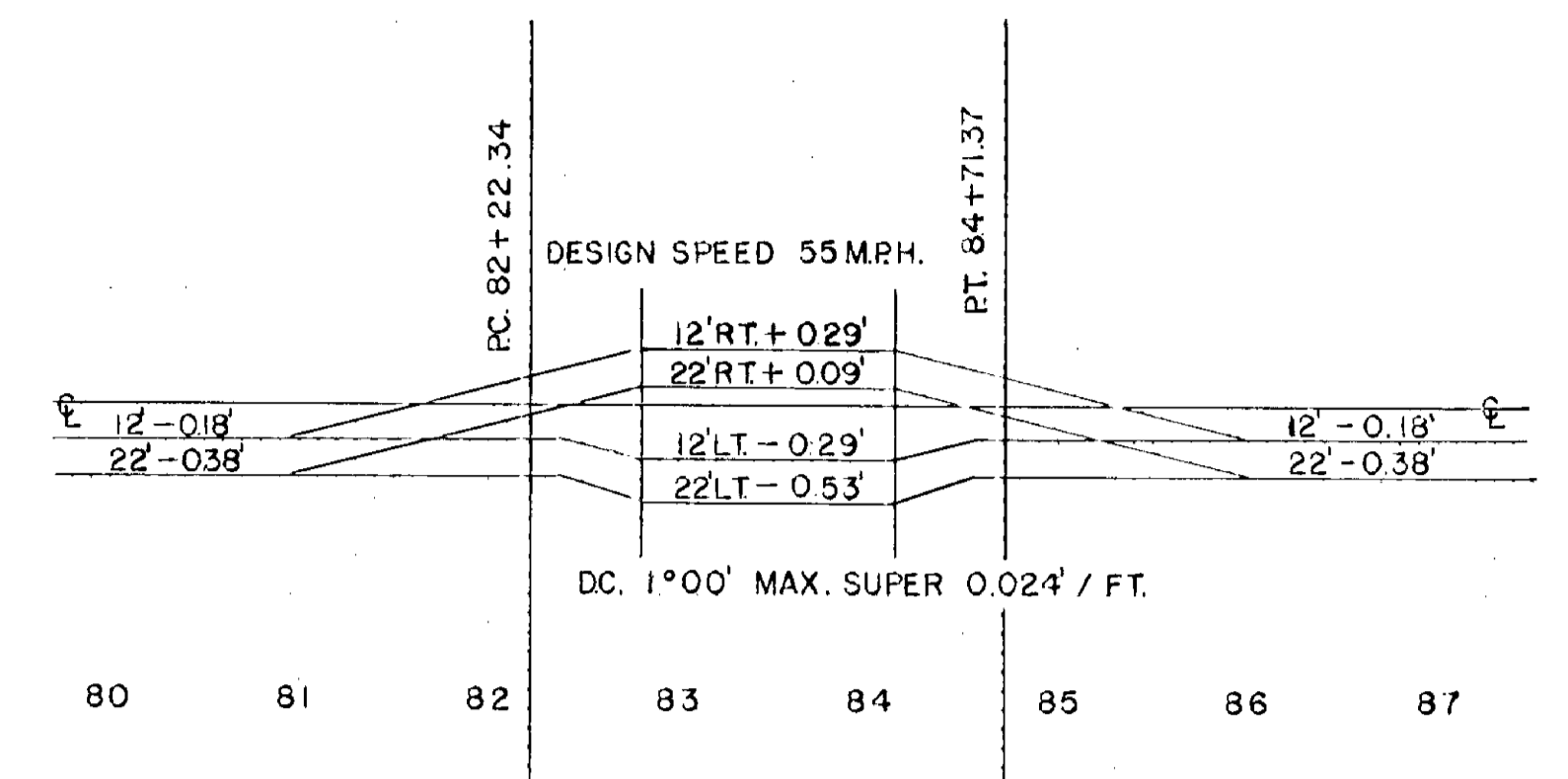
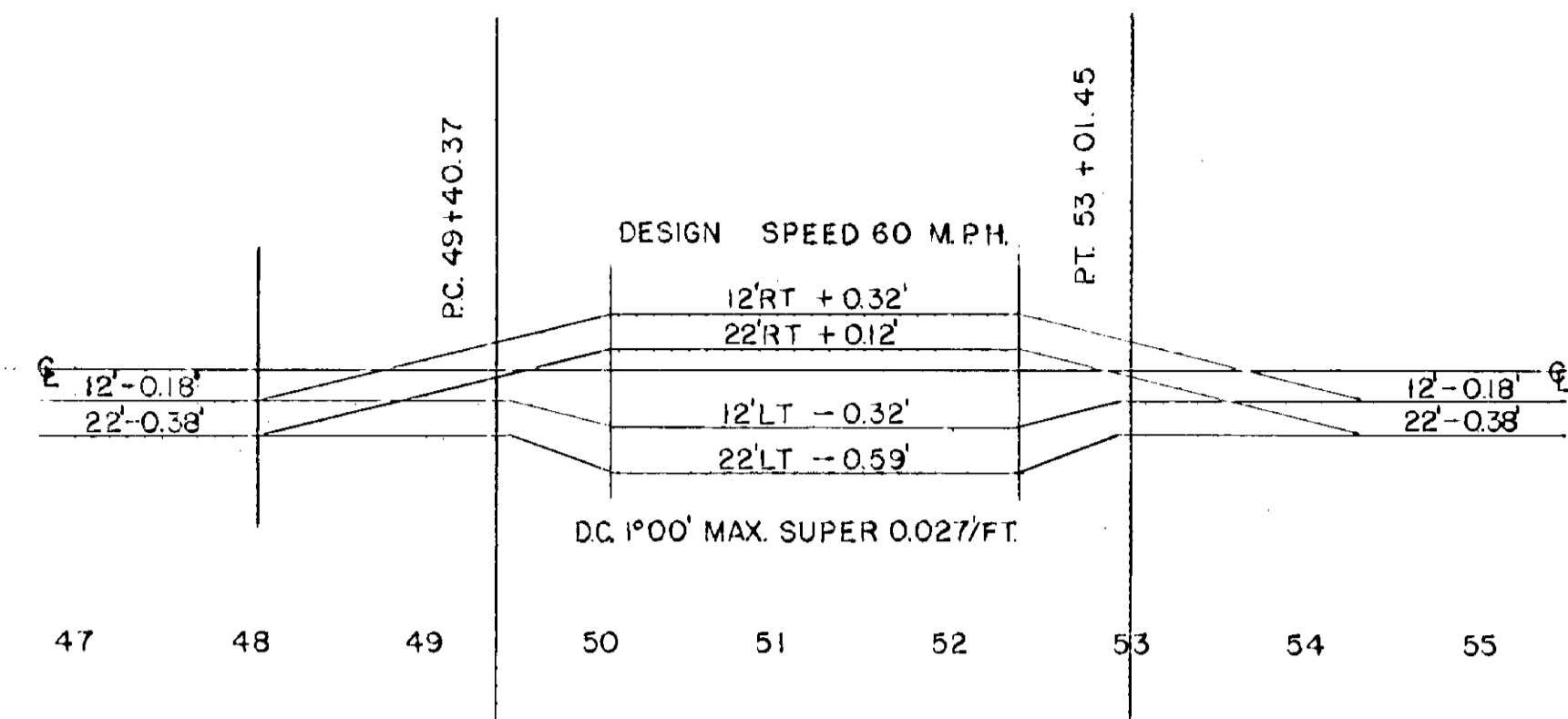
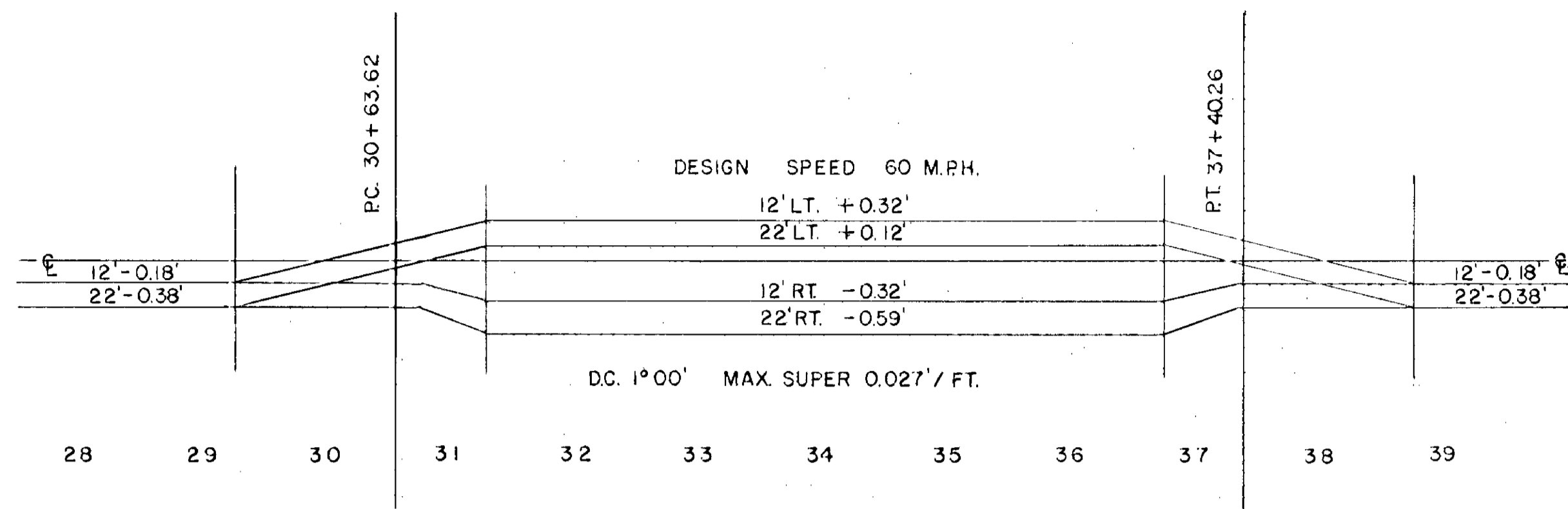
B.M. #16, ELEV. 907.10
 TOP NE. COR. TOP STEP HO #14328
 205' LT OF STA. 208+35



BM. #17, ELEV. 911.12
 TOP SE. COR. 2ND STEP FROM BOT.
 2-S-F, 70' LT. OF STA. 227+00

BM. #18, ELEV. 907.83
 TOP SE. COR. BOT. STEP, EASTERLY SET
 HO. #14710, 100' LT. OF STA. 236+24

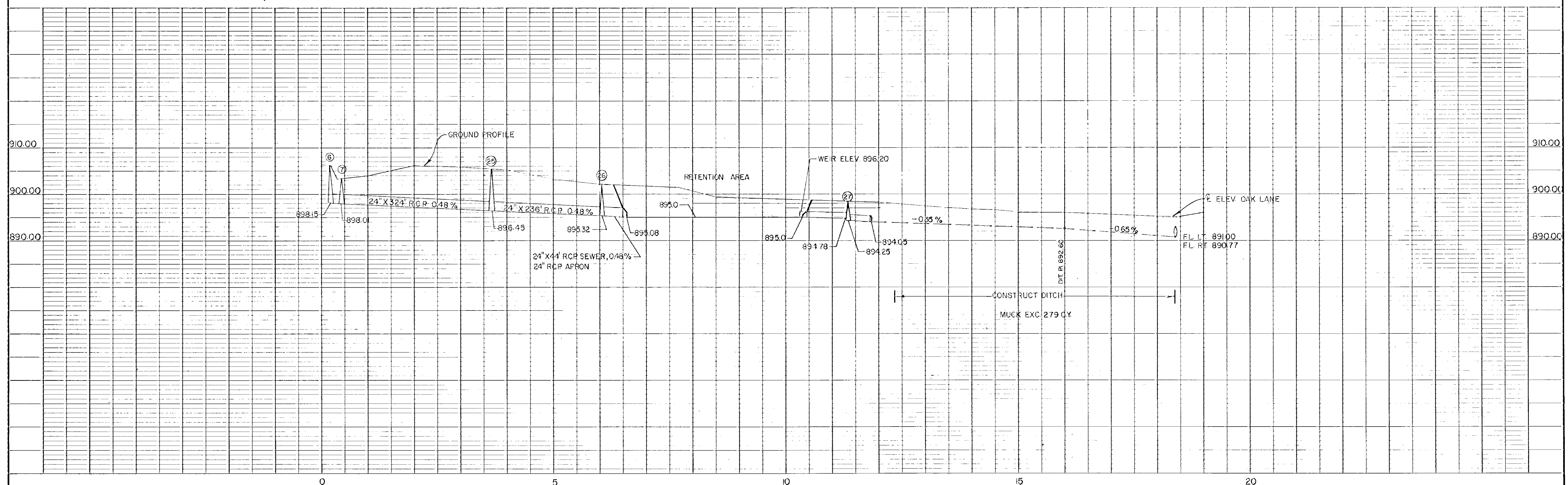
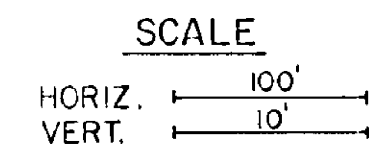
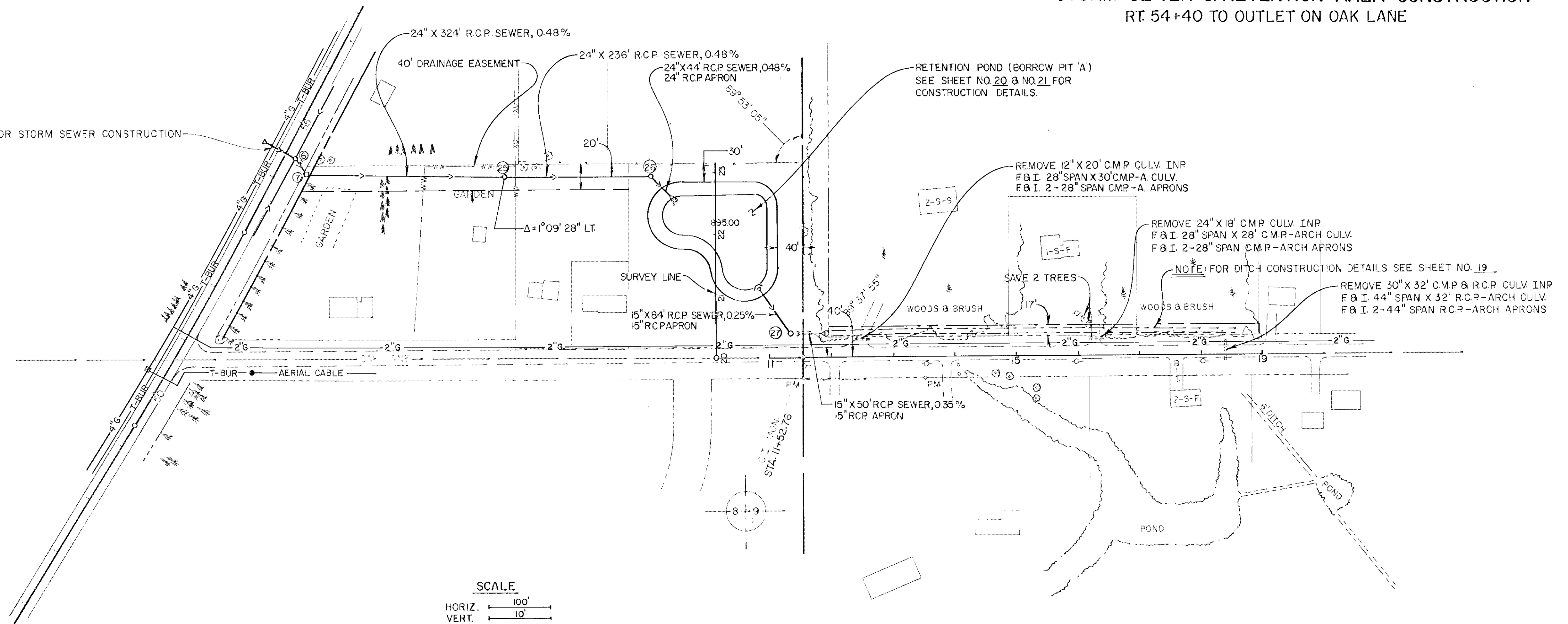




VERT. 1" = 1'
SCALE: HORZ. 1" = 100'

STORM SEWER & RETENTION AREA CONSTRUCTION
RT. 54+40 TO OUTLET ON OAK LANE

NOTE: ALSO SEE SHEET NOS. 9 & 29 FOR STORM SEWER CONSTRUCTION



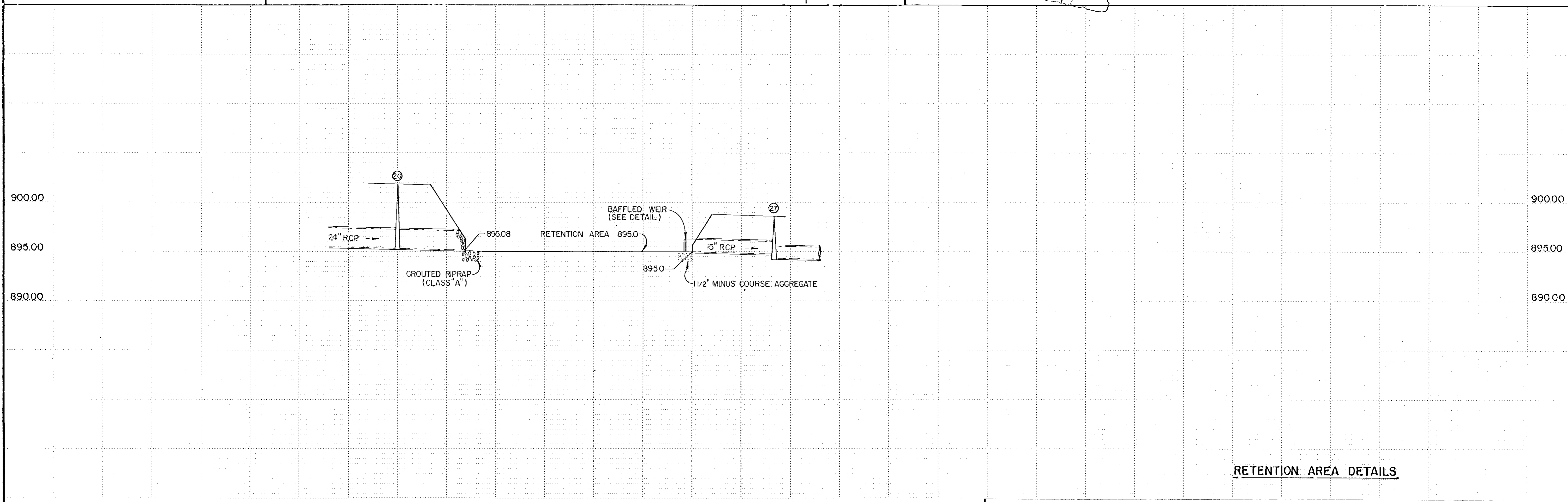
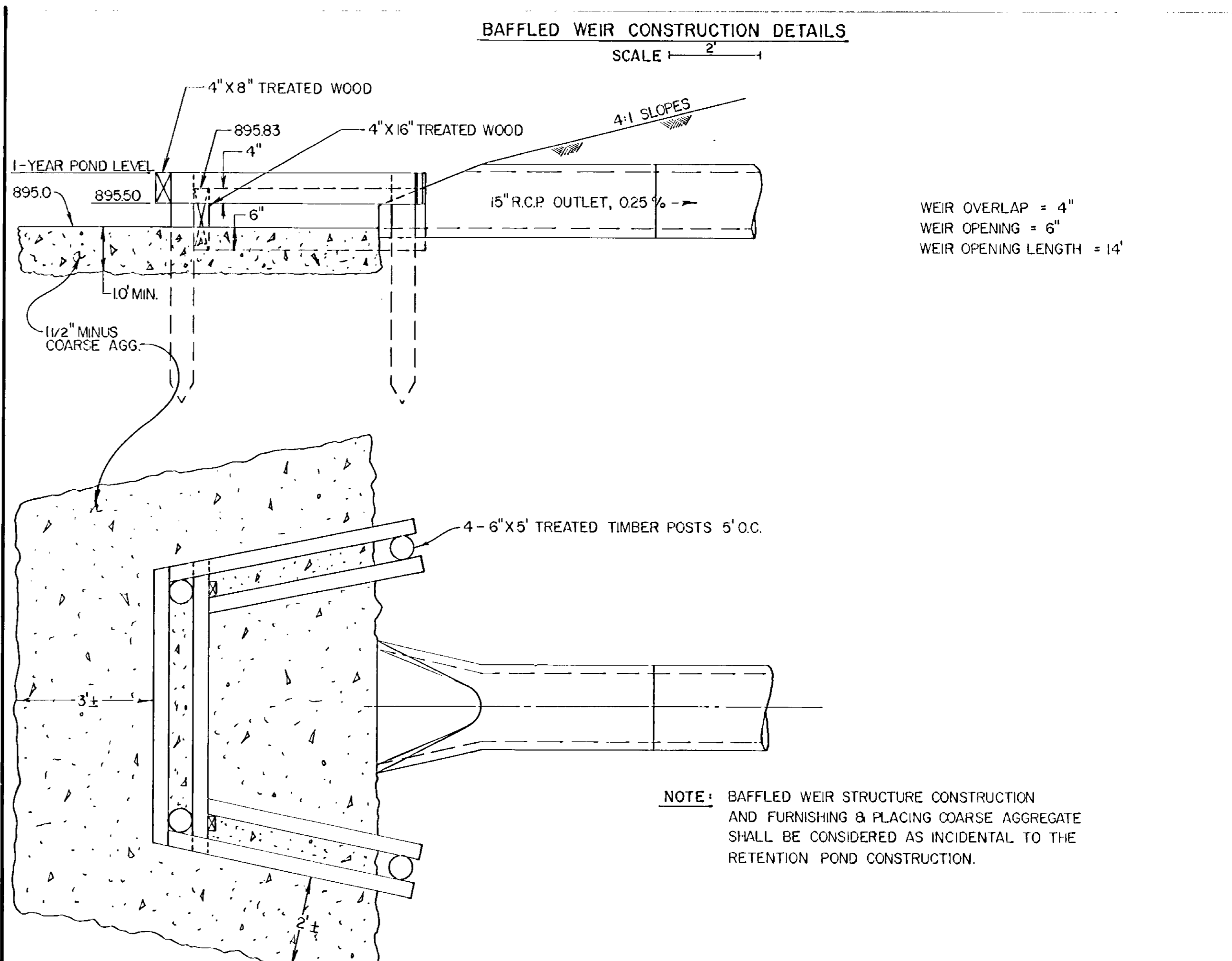
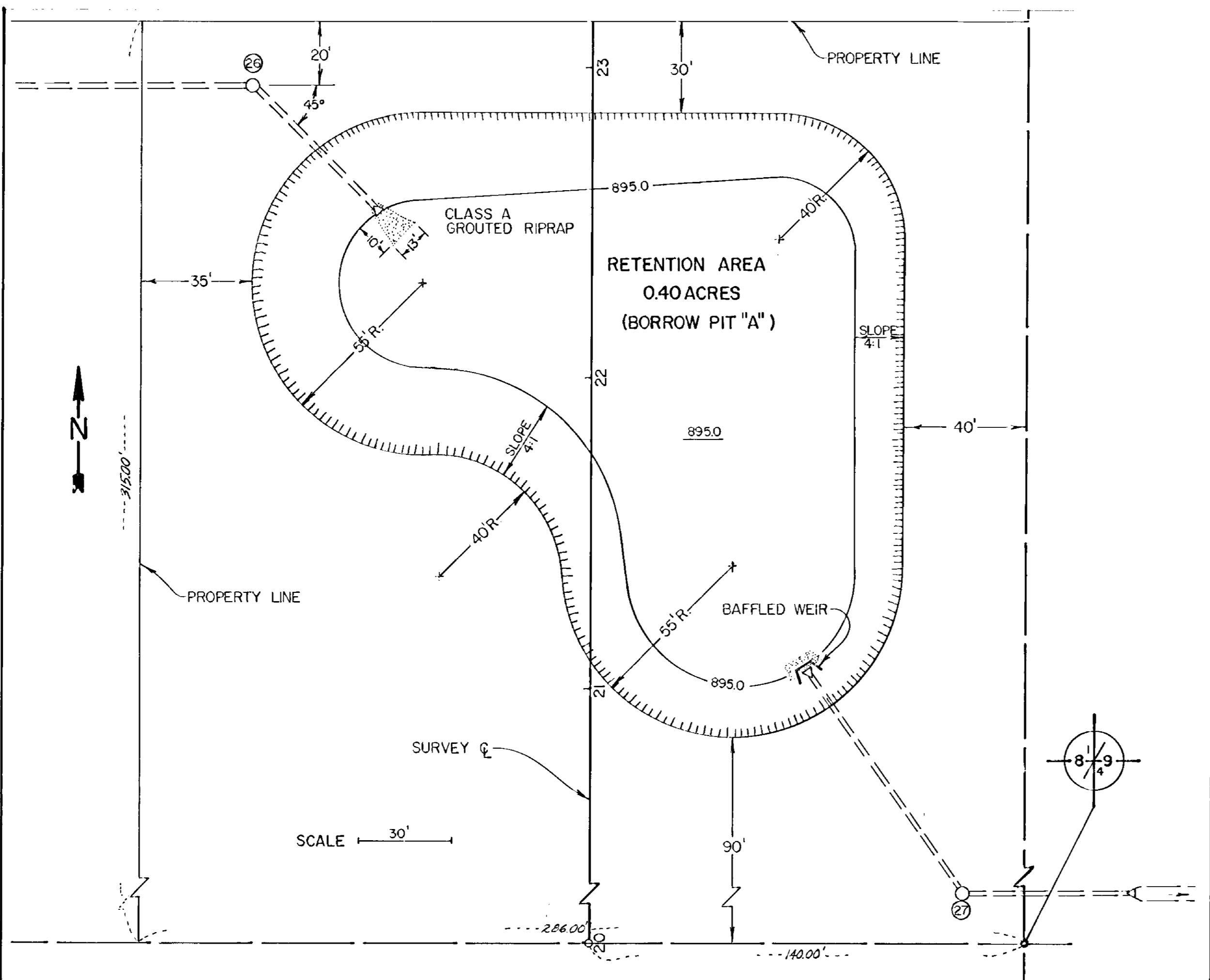
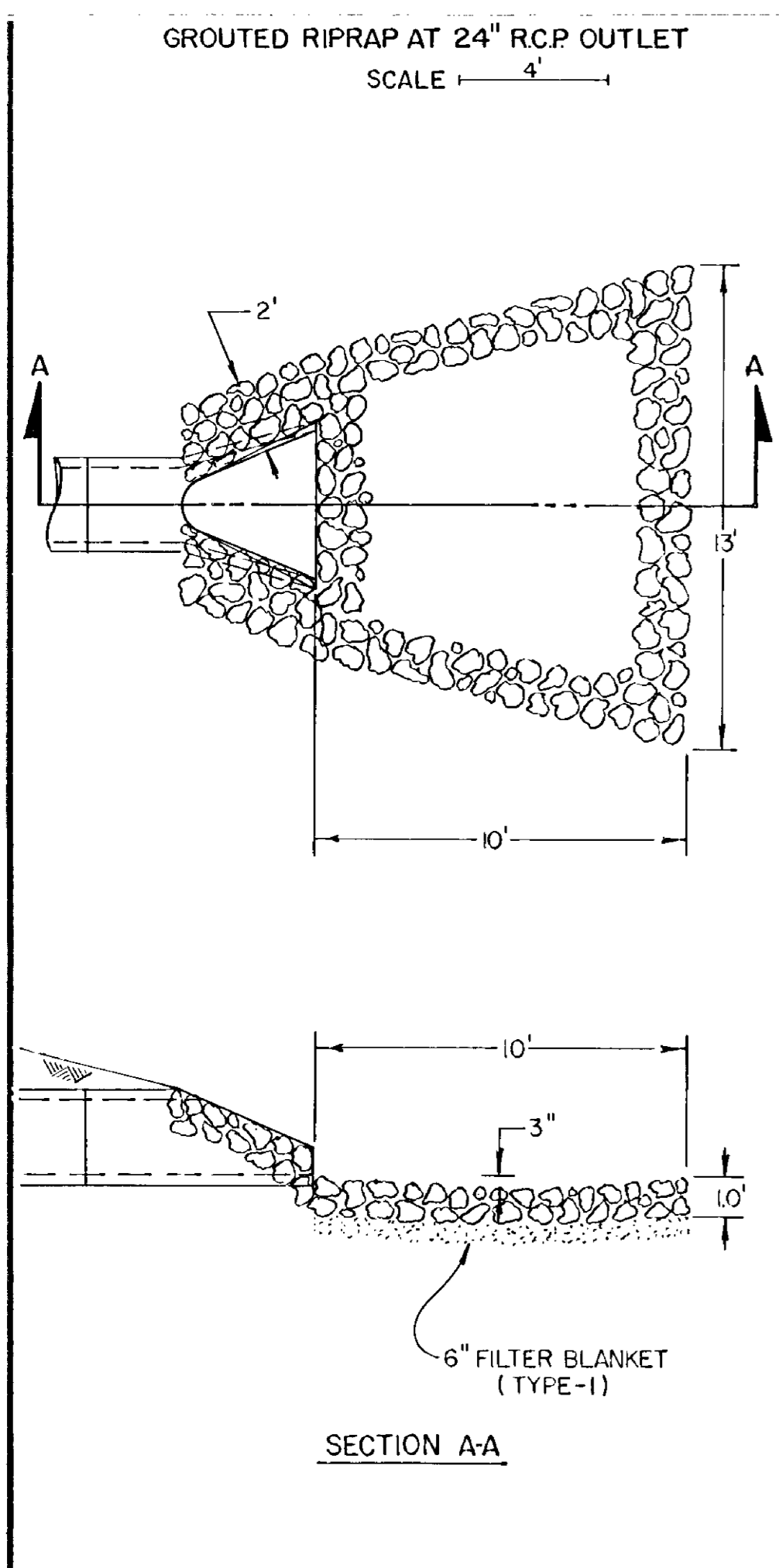


ILLUSTRATION POST - SINGLE PLAN - PROJECT - 12/20

22+88 89980

Exc. 4,974
EMB. 264 T.S.
TOTALY

22+68 89970

287 17 T.S.

22+25 90053

1486 76 T.S.

21+75 90150

1752 85 T.S.

21+10 90050

1335 77 T.S.

20+90 90050

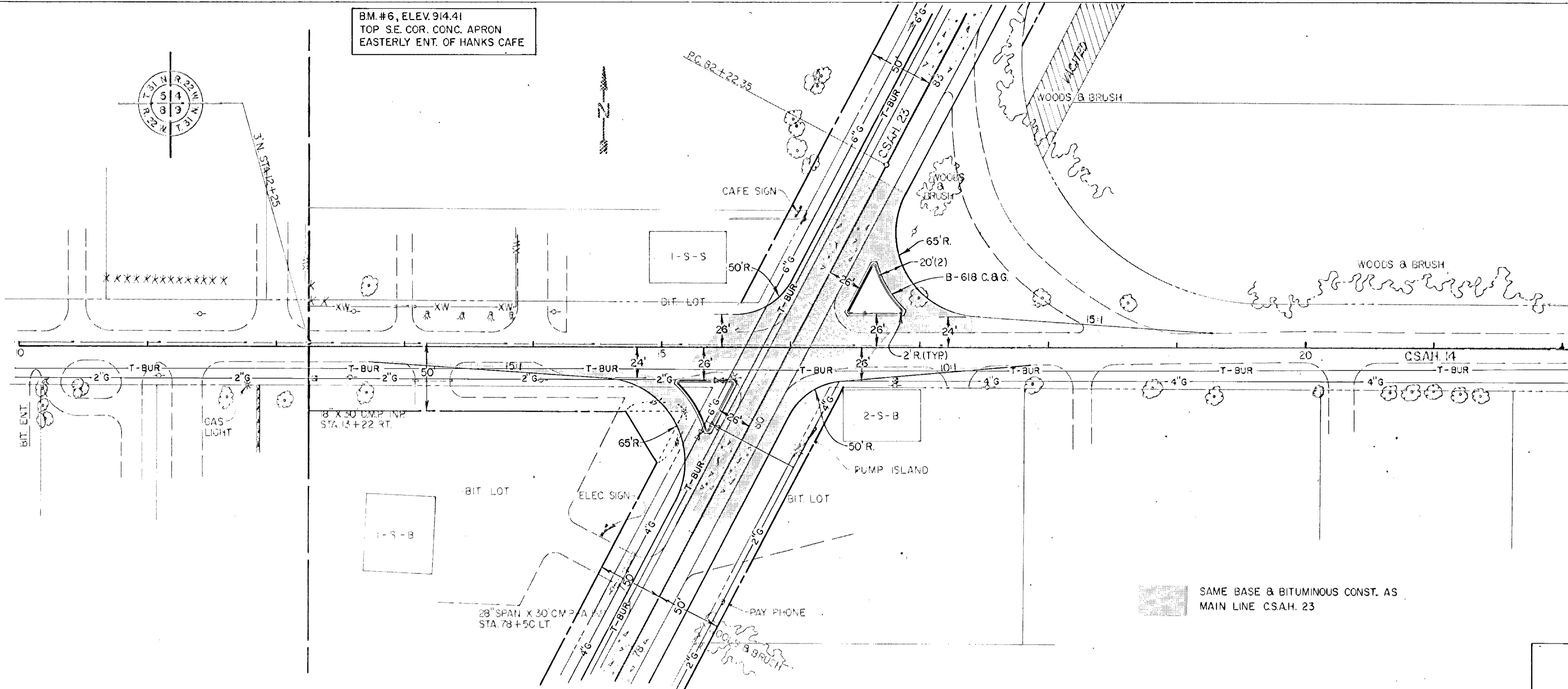
1142 9 T.S.

NOTE: APPROX. 264 CY. OF TOPSOIL MATL. SHALL BE SALVAGED AND USED FOR TOPSOIL DRESSING ON RETENTION AREA. THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO EXCAVATION.

RETENTION AREA — BORROW PIT 'A'

RESERVE POST CROSS SECTION 10/1 10/13/94

BM.#6, ELEV.914.41
 TOP S.E. COR. CONC. APRON
 EASTERLY ENT. OF HANKS CAFE



**INTERSECTION CONSTRUCTION
 JCT. CSAH. 14 & CSAH. 23**

