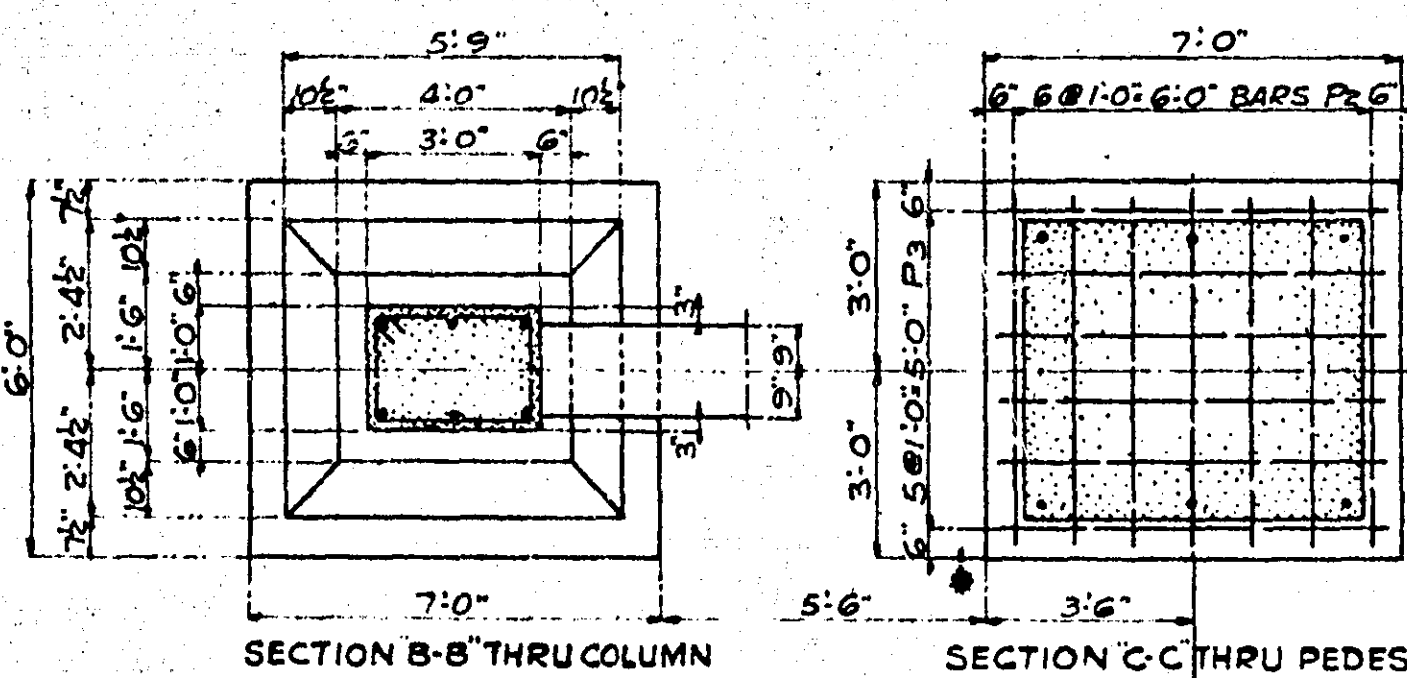
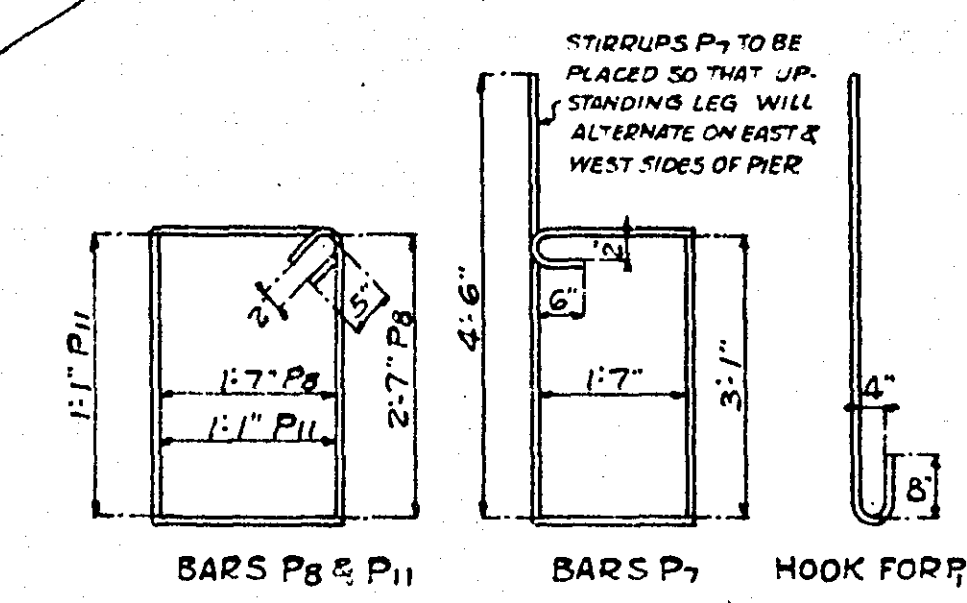


GENERAL ELEVATION

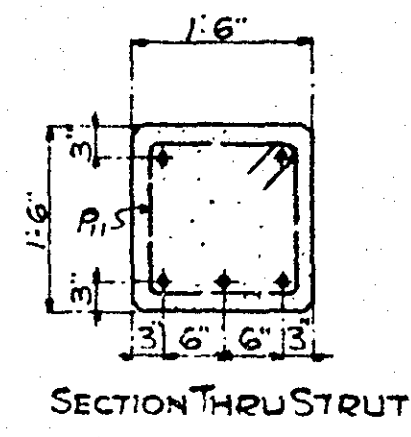
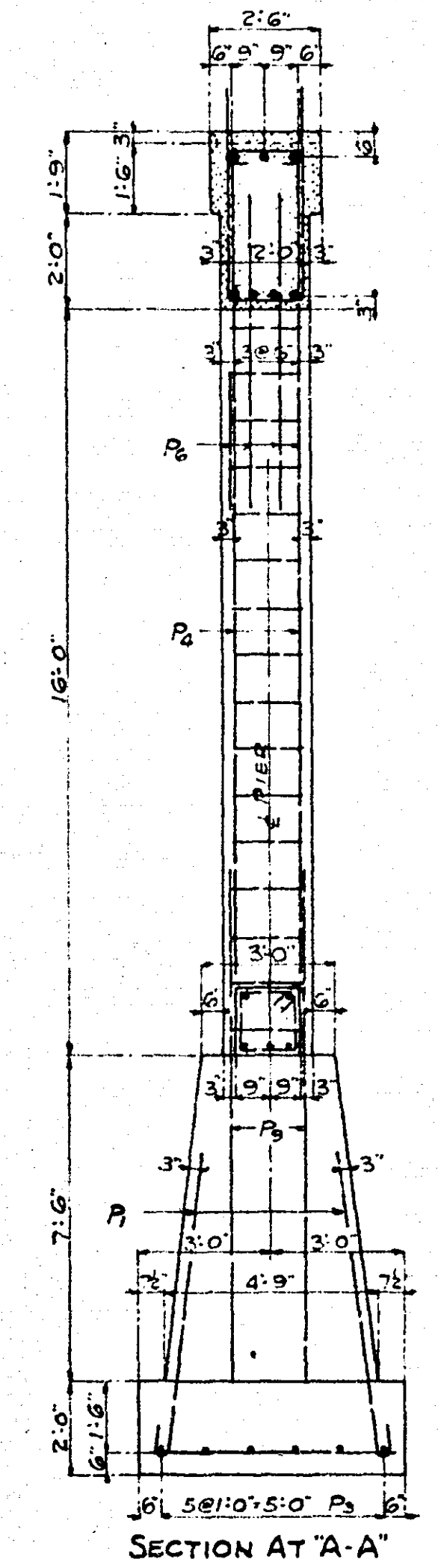
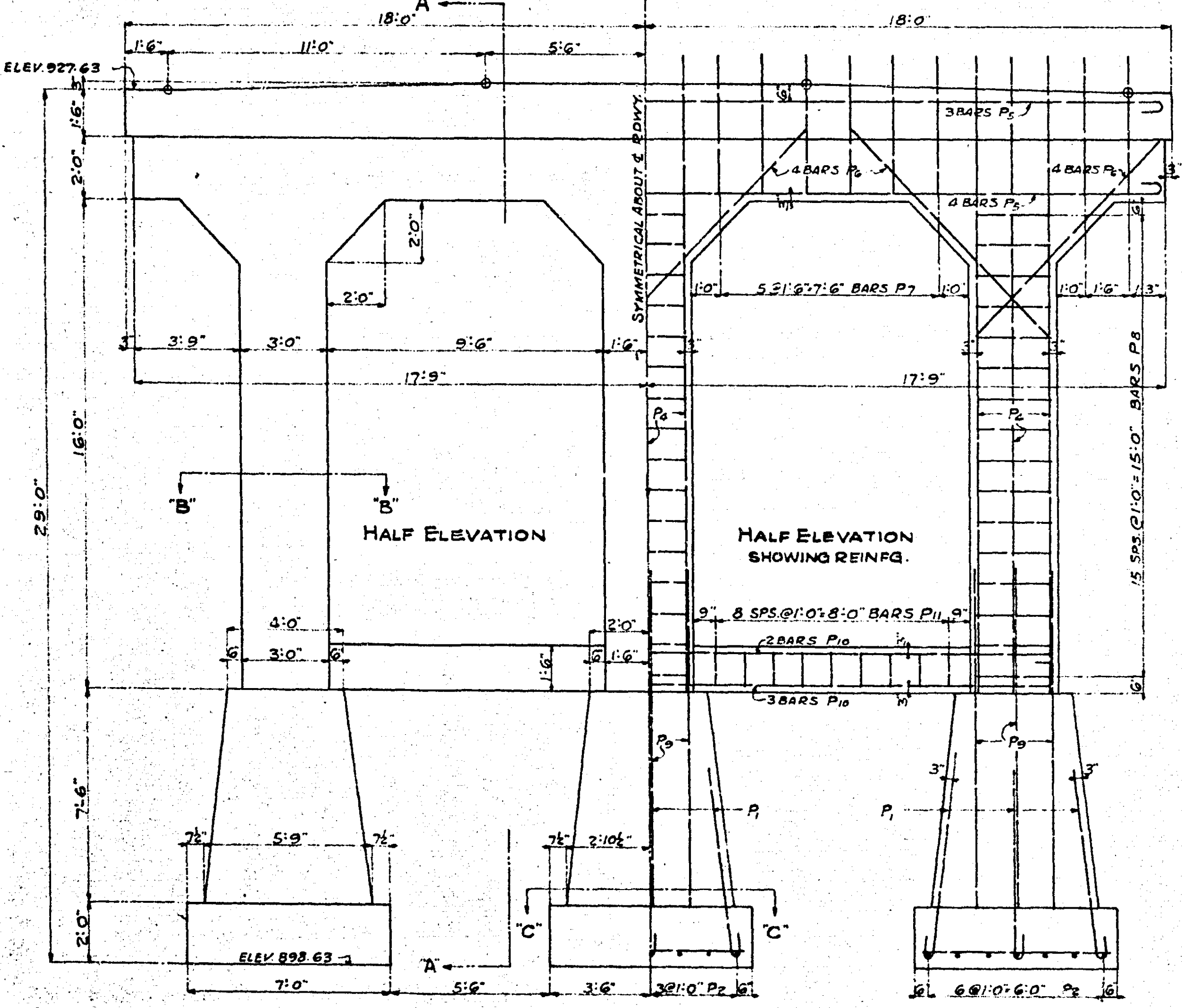


MAKE TWO PIERS THUS



CONSTRUCTION NOTES:-
 CONCRETE M.I.X. CLASS 'D' CONC., SCREENED MATERIALS SAME AS FOR CLASS 'A' CONC., MIXED 1 PART CEMENT, 2 PARTS SAND AND APPROXIMATELY 3 1/2 PARTS OF COARSE AGGREGATE; USE ING NOT LESS THAN 6.4 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
 ALL EDGES OF CONCRETE ABOVE TOP OF FOOTING TO BE FINISHED TO A 3/4\"/>

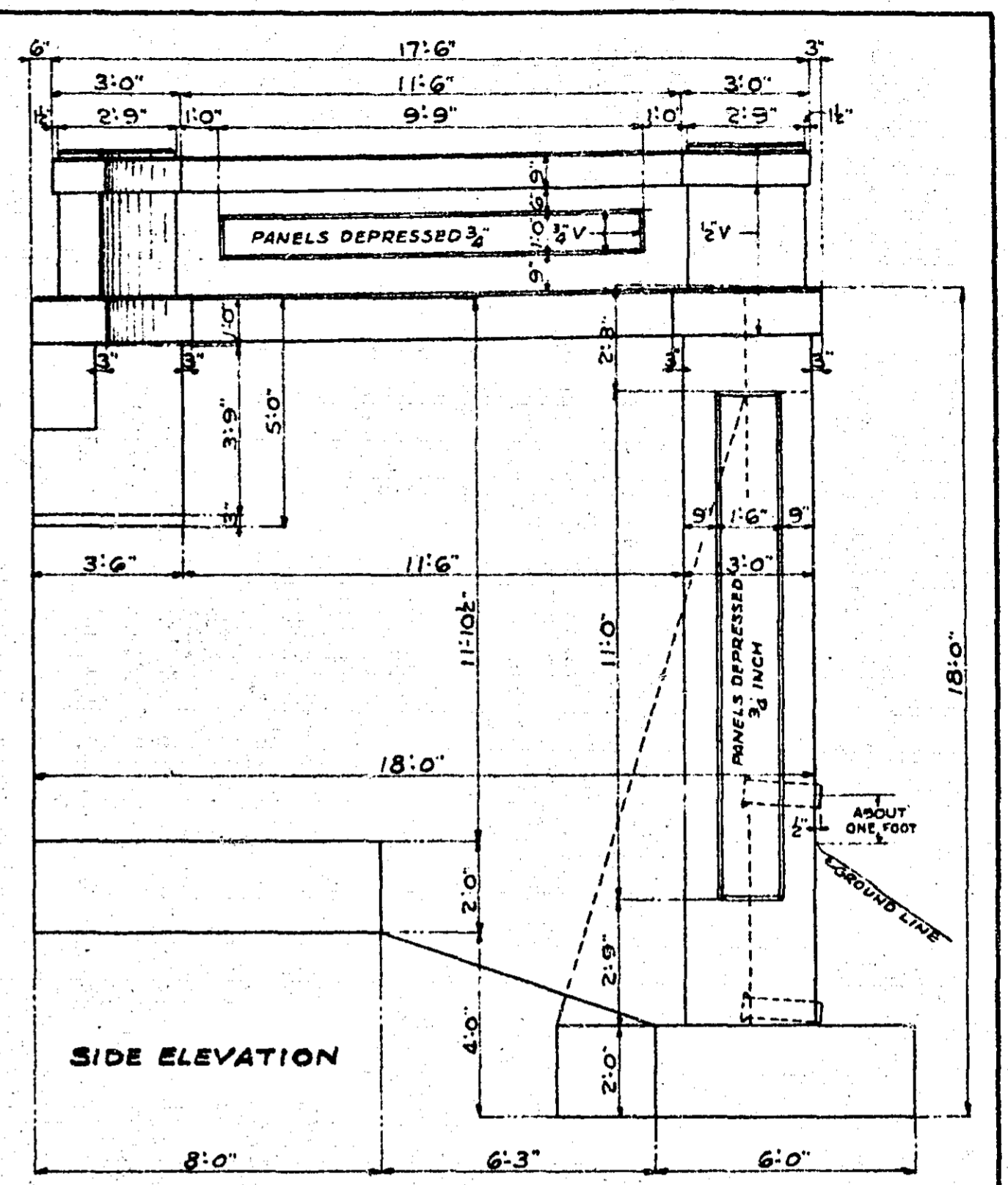
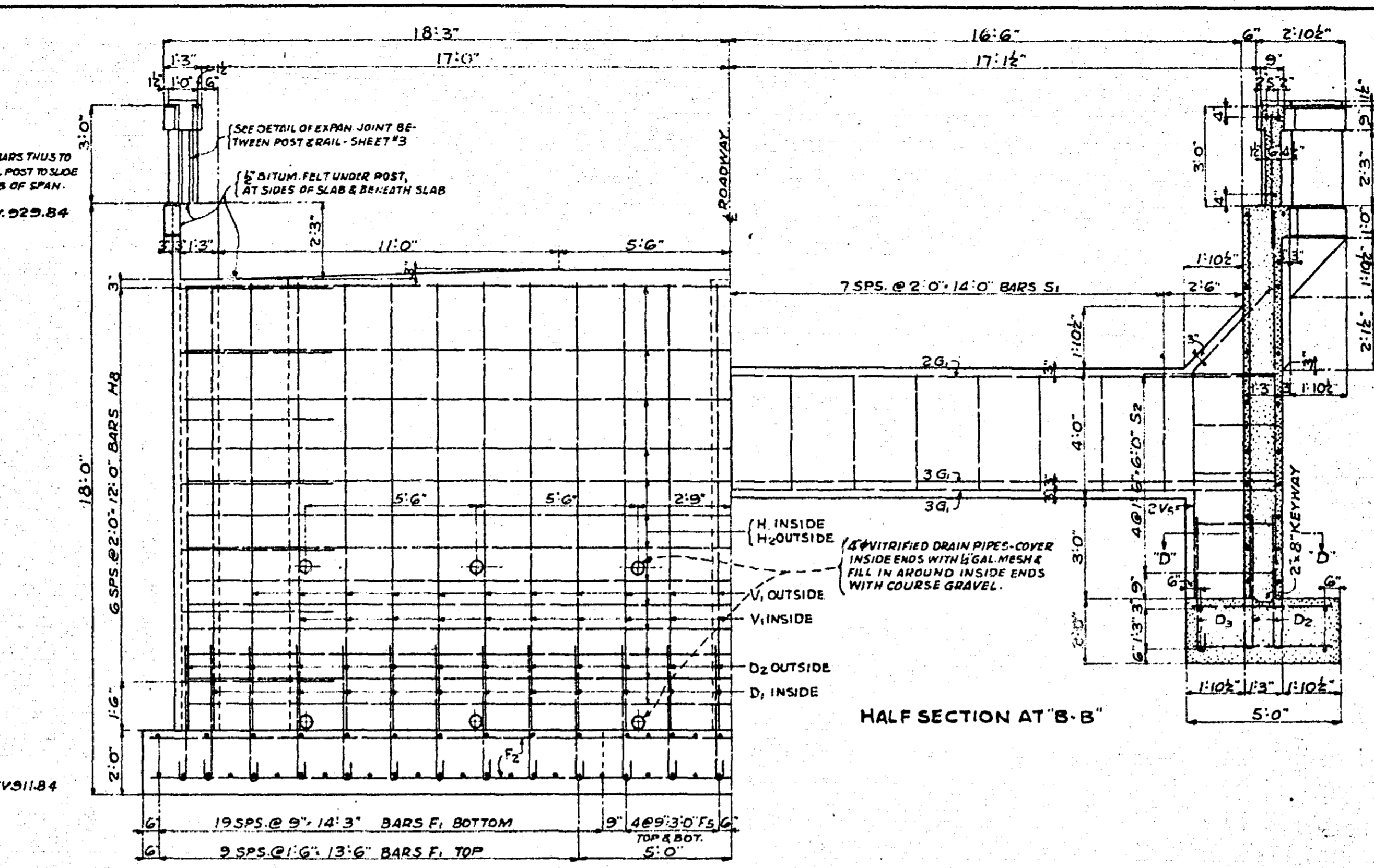
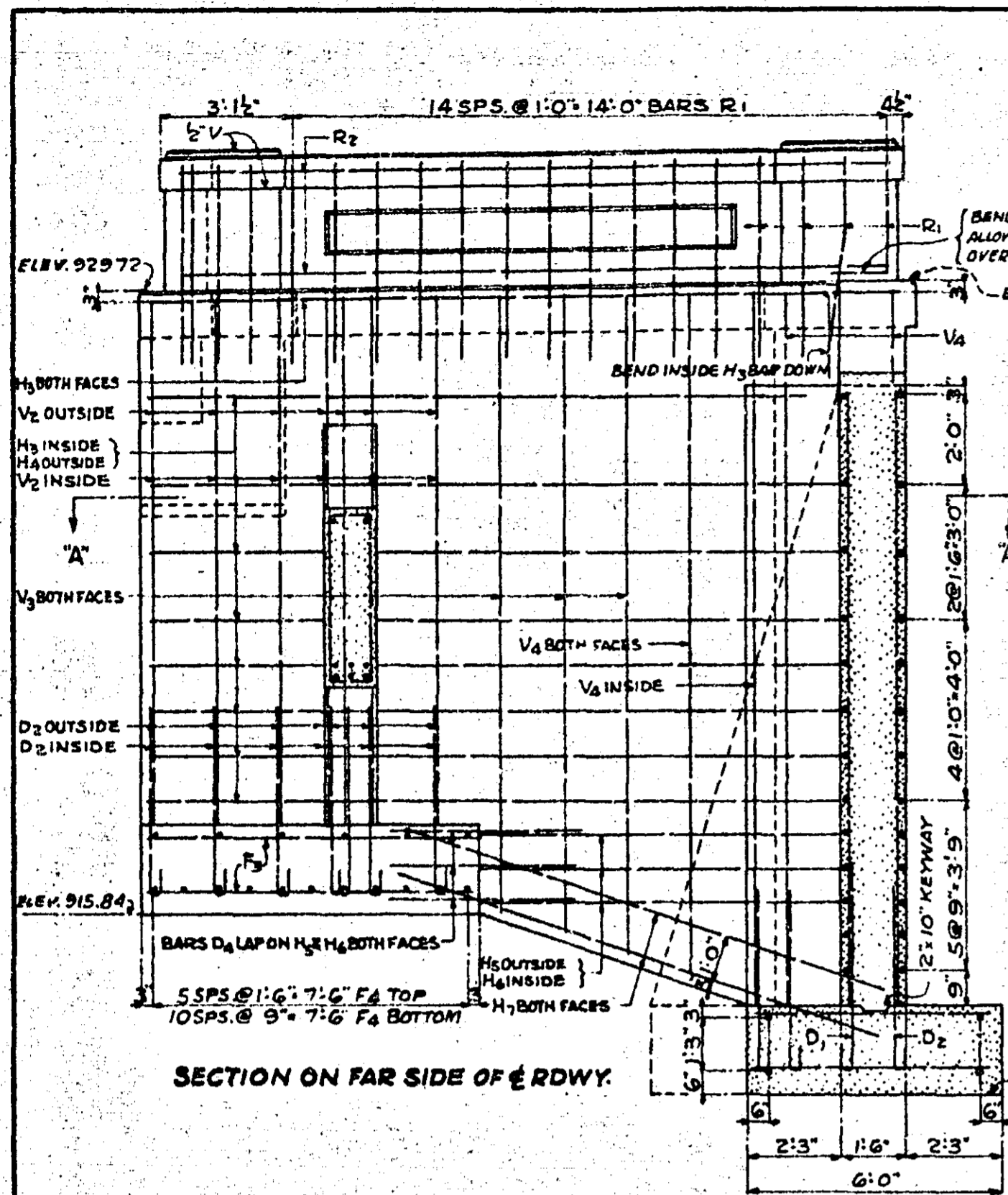
| BILL OF REINFORCING BARS FOR TWO PIERS | | | | |
|----------------------------------------|------|--------|-------|--------------------|
| BAR NO. | SIZE | LENGTH | SHAPE | LOCATION |
| P1 | 3/8" | 1'-0" | HOOK | DOWELS - FOOTING |
| P2 | 4/8" | 5'-6" | STRT. | FOOTING - TRANSV. |
| P3 | 3/8" | 6'-6" | " | " LONGIT. |
| P4 | 3/8" | 20'-9" | " | COLUMNS - VERT. |
| P5 | 1/2" | 37'-3" | HOOK | GIRDER - HORIZ. |
| P6 | 4/8" | 10'-0" | STRT. | FILLETS - DIAGONAL |
| P7 | 3/8" | 11'-6" | BENT | GIRDER - STIRRUPS |
| P8 | 3/8" | 9'-4" | " | COLUMN - HOOPS |
| P9 | 3/8" | 12'-0" | STRT. | PEDESTAL - VERT. |
| P10 | 1/2" | 29'-9" | HOOK | STRUT - LONGIT. |
| P11 | 3/8" | 5'-4" | BENT | STIRRUPS |
| TOTAL REINFG STEEL FOR TWO PIERS | | | | 7055 LBS |
| " CONCRETE | | | | 98.5 C.Y. |



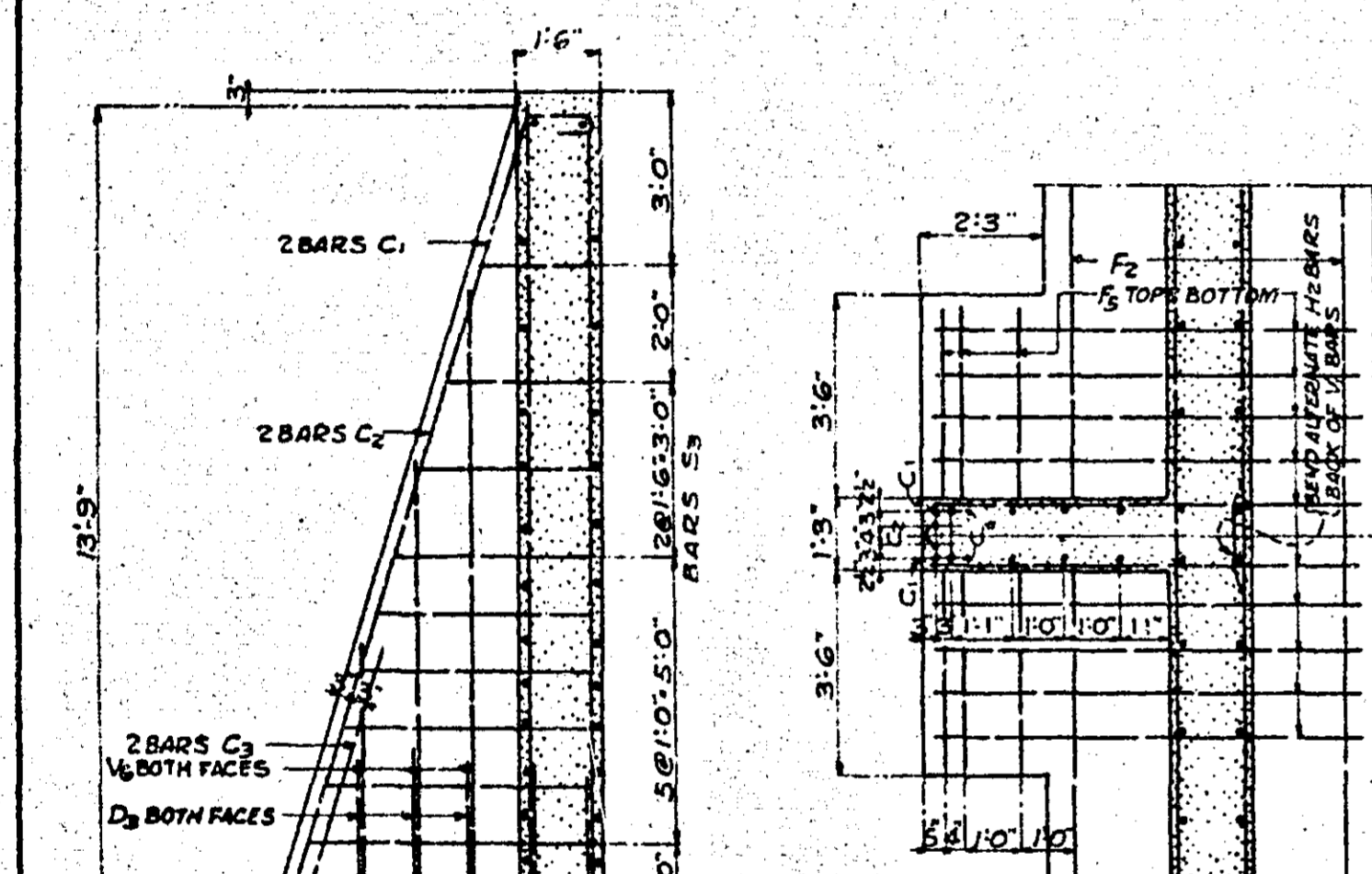
TRUNK HIGHWAY NO. 63
 STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS
 GENERAL ELEVATION & DETAILS OF PIERS
 FOR THREE REINFD. CONC. SLAB SPANS - 34 FT. ROWY.
 OVER MINNESOTA TRANSFER RY.
 IN THE VILLAGE OF NEW BRIGHTON
 BRIDGE NO. 4533
 SEC. 29 T. 30N. R. 23W.
 MOUNDSVIEW TWP. RAMSEY COUNTY
 APPROVED MAY 19, 1926

W. Hoffman
 BRIDGE ENGR.
Carl A. Cook
 COMM. OF HIGHWAYS

6895

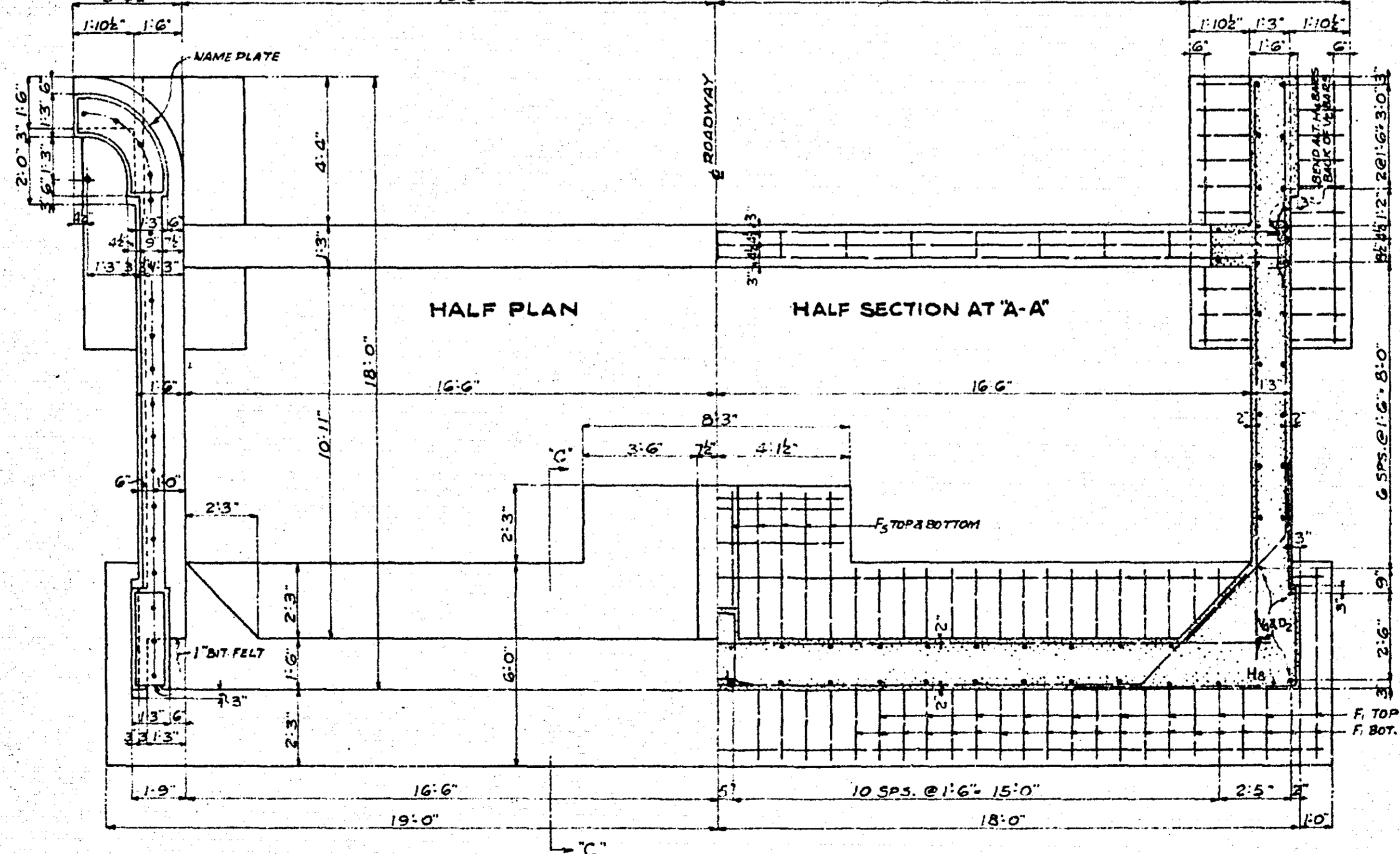
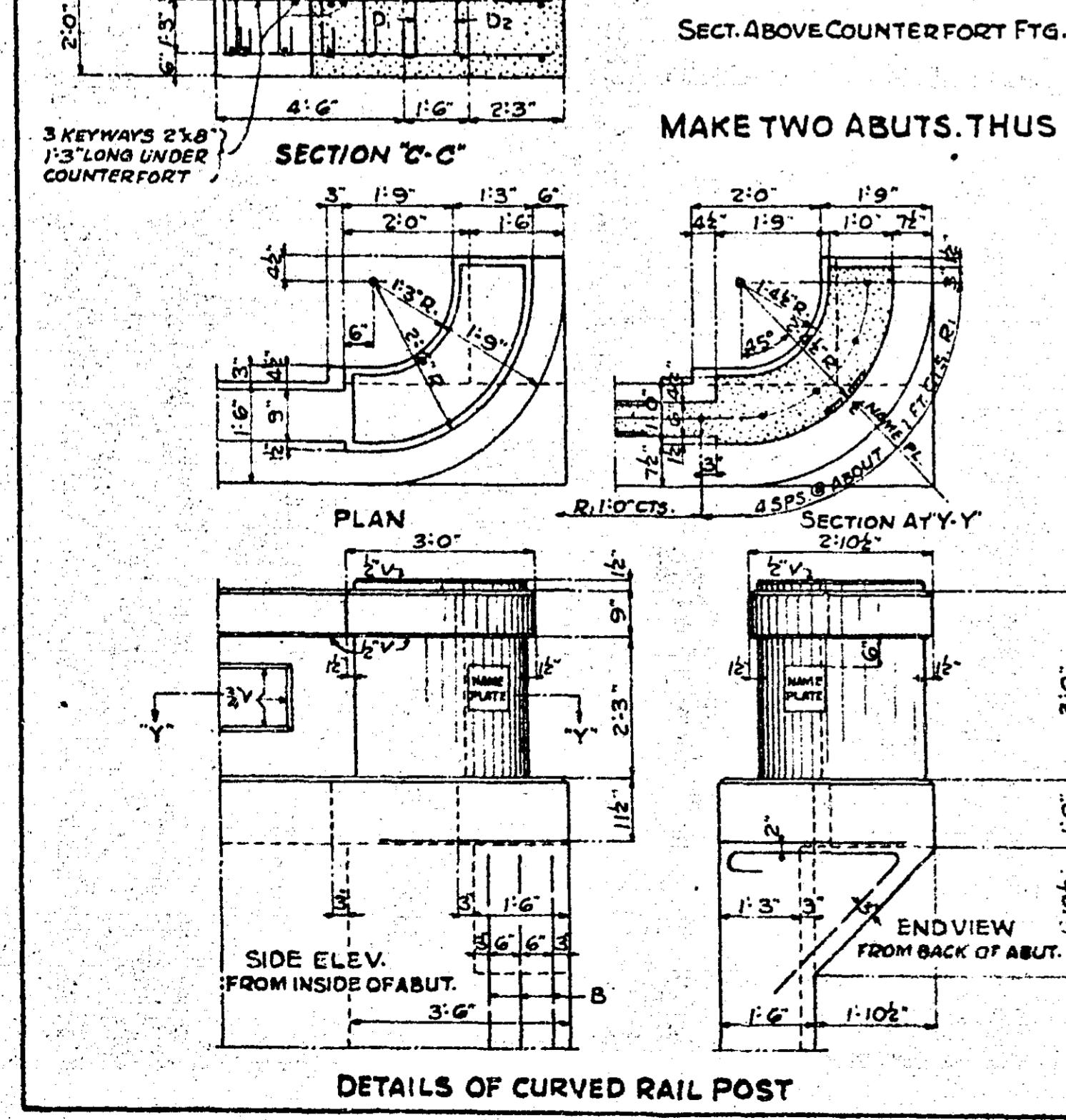


CONSTRUCTION NOTES
 CONCRETE MIX: CLASS 'D' CONC. SCREENED MATERIALS SAME AS FOR CLASS 'A' CONCRETE, MIXED ONE PART CEMENT, 2 PARTS SAND & APPROXIMATELY 3 1/2 PARTS OF COARSE AGGREGATE, USING NOT LESS THAN 6.4 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
 * CUT TWO BARS FROM EACH V6 BAR AS BILLED, ONE LONG & ONE SHORT. NAME PLATES TO BE SAME AS STD NAME PLATE NO. 2 EXCEPT BENT TO 2 1/2" OUTSIDE RADIUS. ALL EDGES OF CONCRETE ABOVE TOP OF FOOTING TO BE FINISHED TO A 3/4" BEVEL UNLESS OTHERWISE NOTED.
 ALL VERTICAL EDGES OF RAIL TO BE FINISHED TO A 1/2" BEVEL. NAME PLATES SAME AS STD NAME PLATE NO. 2 EXCEPT BENT TO 2 1/2" OUTSIDE RADIUS.



SECT. ABOVE COUNTERFORT FTG.

MAKE TWO ABUTS. THIS



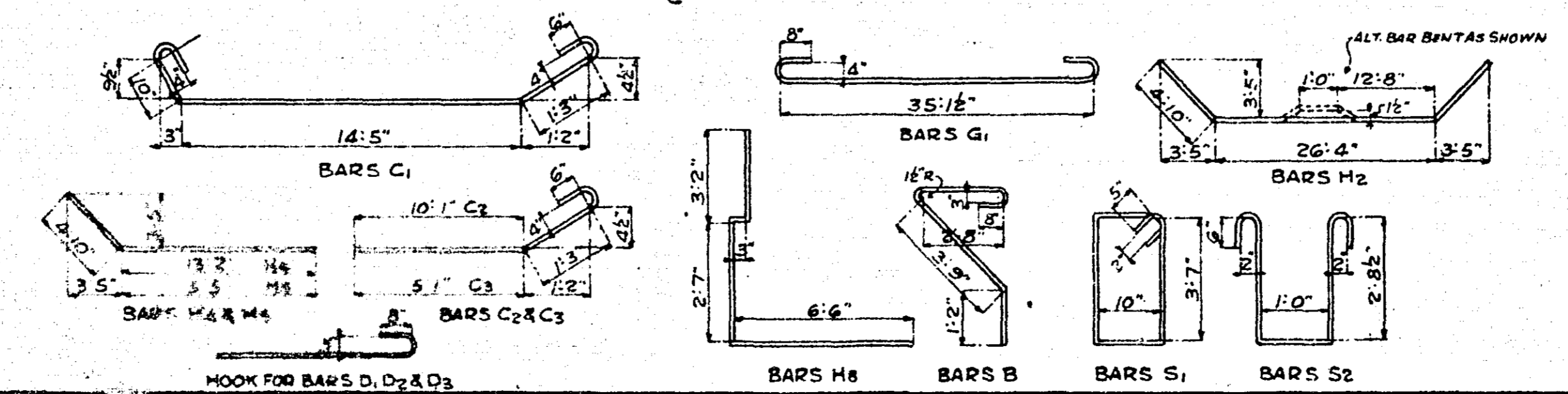
| NO. | X | LENGTH |
|-----|-------|--------|
| 1 | 2'-1" | 6'-10" |
| 2 | 2'-8" | 8'-0" |
| 3 | 3'-2" | 9'-0" |
| 4 | 3'-8" | 10'-0" |
| 5 | 4'-0" | 11'-8" |
| 6 | 4'-8" | 12'-8" |
| 7 | 5'-0" | 12'-8" |
| 8 | 5'-4" | 13'-4" |

TOTAL LIN. FT. 187'-8"

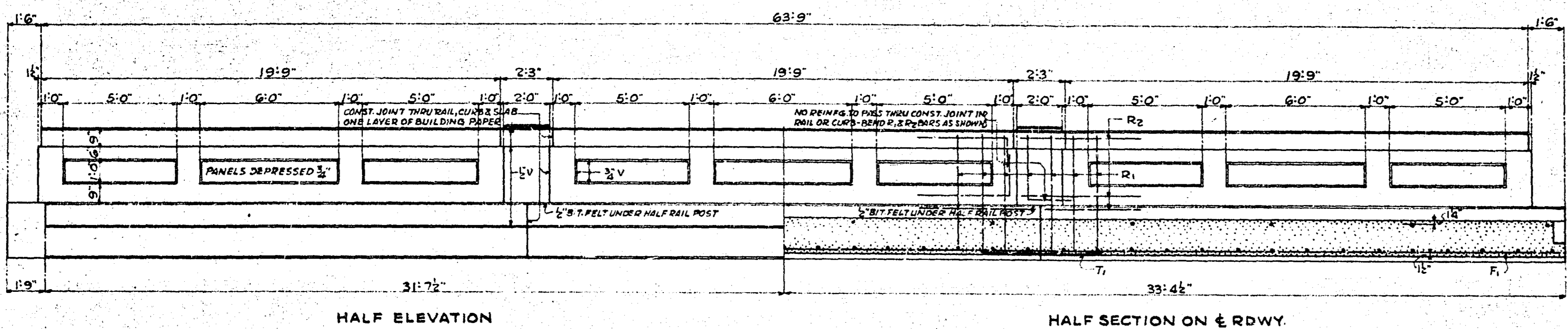
| BAR NO. | SIZE | LENGTH | SHAPE | LOCATION |
|---------|------|---------|-------|-------------------------|
| D1 | 40 | 5'-0" | HOOK | FOOTING DOWELS |
| D2 | 112 | 4'-6" | " | " |
| D3 | 30 | 5'-6" | " | " |
| D4 | 24 | 4'-0" | STRT. | " |
| F1 | 120 | 5'-9" | " | FRONT FTG. TRANSV. |
| F2 | 8 | 37'-6" | " | " LONGIT. |
| F3 | 16 | 7'-9" | " | BACK " |
| F4 | 68 | 4'-9" | " | " TRANSV. |
| F5 | 52 | 8'-0" | " | COUNTERFORT FTG. |
| H1 | 26 | 35'-0" | " | FRONT WALL HORIZ. |
| H2 | 26 | 36'-0" | BENT | " |
| H3 | 40 | 17'-6" | STRT. | SIDE " |
| H4 | 32 | 18'-0" | BENT | " |
| H5 | 12 | 10'-3" | " | " |
| H6 | 12 | 9'-6" | STRT. | " |
| H7 | 16 | 12'-0" | " | " |
| H8 | 28 | 12'-6" | BENT | FRONT PILASTER - HORIZ. |
| V1 | 84 | 13'-8" | STRT. | WALL VERT. |
| V2 | 52 | 11'-9" | " | SIDE " |
| V3 | 24 | 14'-6" | " | " |
| V4 | 24 | 15'-9" | " | " |
| V5 | 8 | 10'-6" | BENT | WALL BEAM - VERT. |
| V6 | 6 | 15'-0" | STRT. | COUNTERFORT - VERT. |
| G1 | 16 | 37'-2" | HOOK | GIRDER - LONGIT. |
| S1 | 30 | 9'-10" | BENT | " STIRRUPS |
| S2 | 20 | 7'-9" | " | WALL BEAM - STIRRUPS |
| S3 | " | " | " | COUNTERFORT. |
| C1 | 4 | 18'-10" | BENT | " |
| C2 | 4 | 12'-6" | " | " |
| C3 | 4 | 7'-6" | " | " |
| B | 12 | 9'-0" | " | RAIL BRACKET |
| R1 | 76 | 4'-6" | STRT. | " VERT. |
| R2 | 12 | 17'-6" | " | HORIZ. |

TOTAL REINFG. STEEL FOR TWO ABUTS. 10,915 LBS.
 CONCRETE " " " 175.0 C.Y.
 2 SPECIAL NAME PLATES DATED 1926 BR. NO. A533 (SEE NOTES)
 24" CSA VITRIFIED DRAIN PIPE

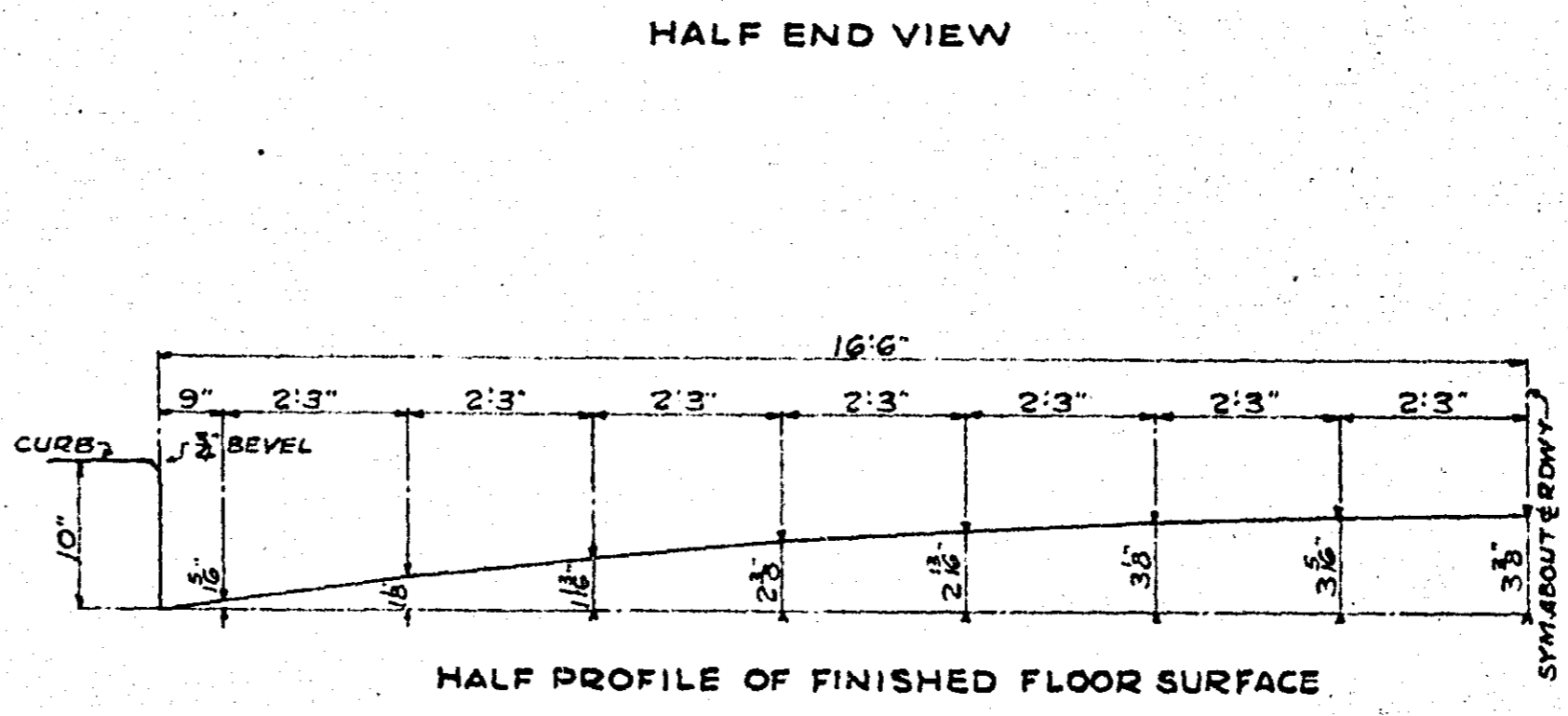
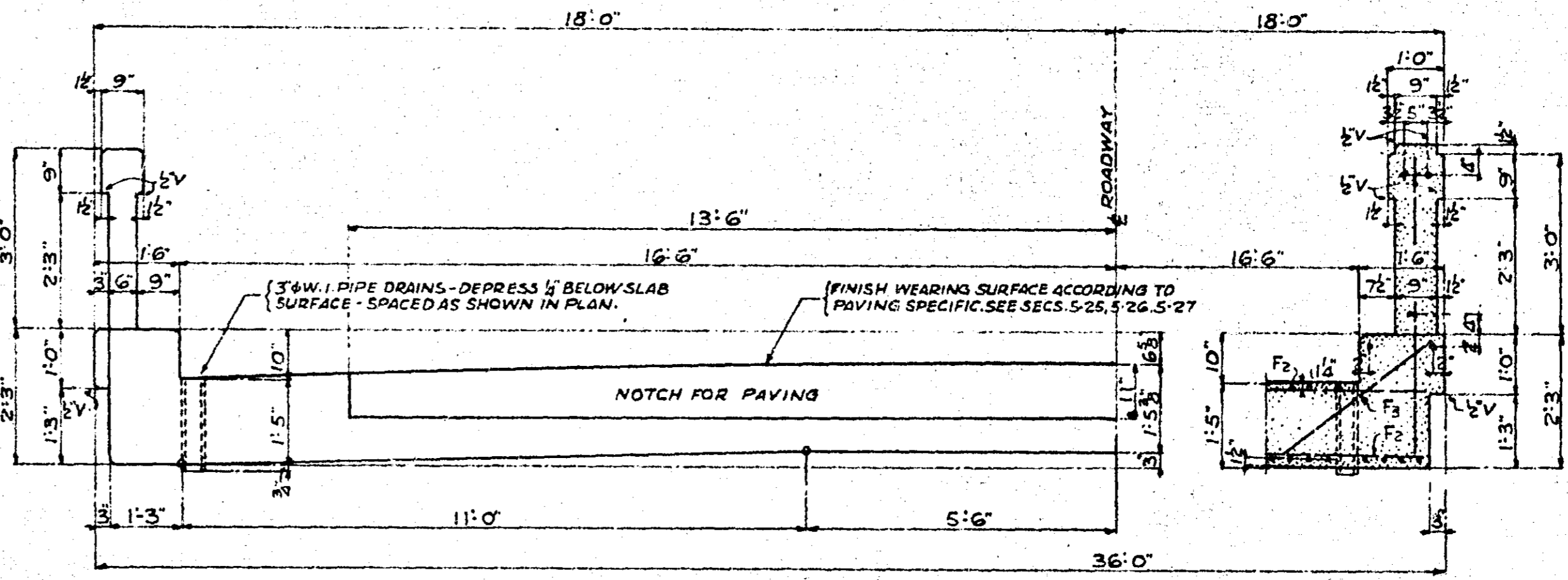
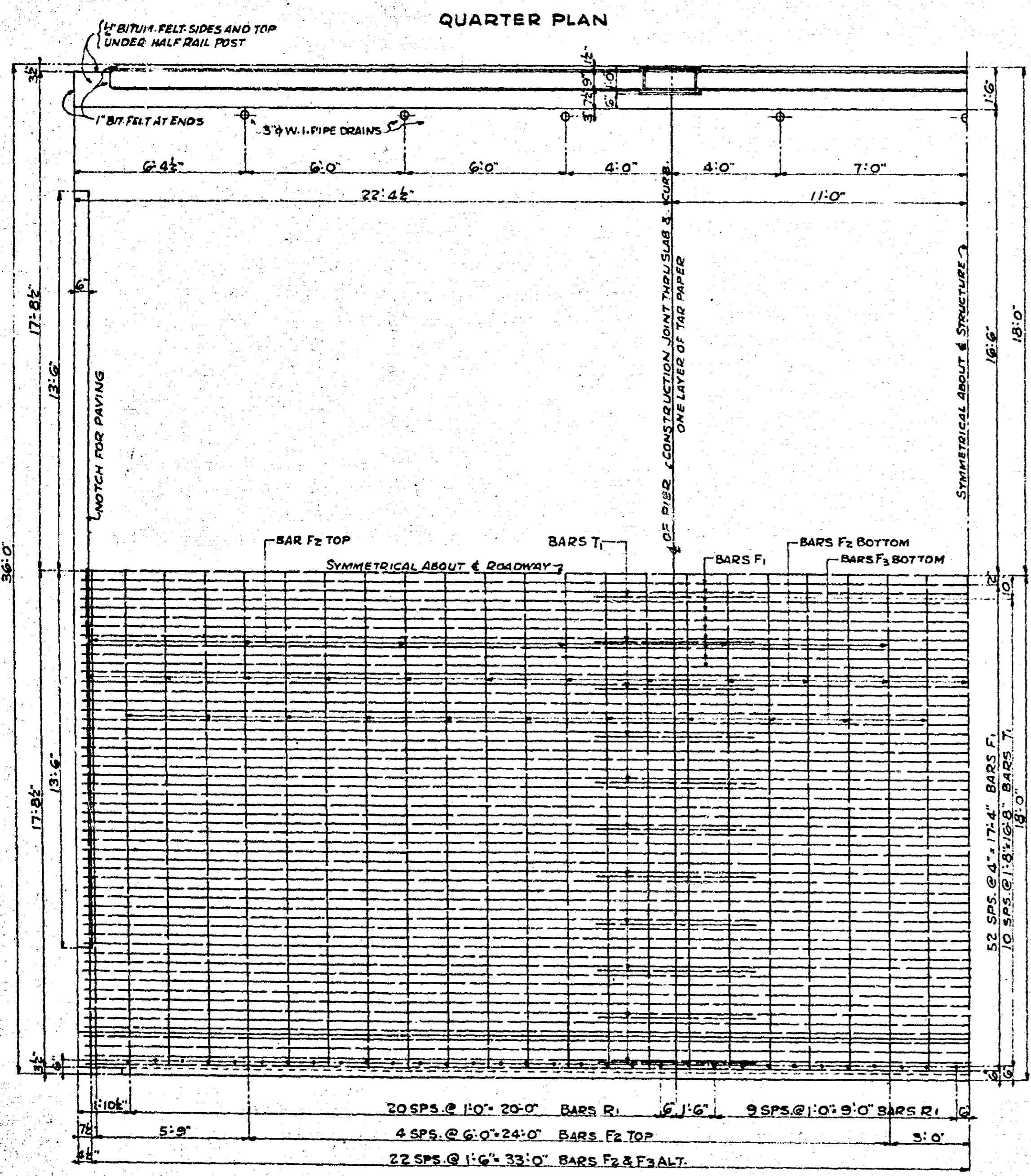
TRUNK HIGHWAY NO. 63
 STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS
 REINFD. CONCRETE "U" ABUTMENTS
 FOR THREE REINFD. CONC. SLAB SPANS - 34 FT. RDWY.
 OVER MINNESOTA TRANSFER RY.
 IN THE VILLAGE OF NEW BRIGHTON.
 BRIDGE NO. 4533
 SEC. 29 T. 30N. R. 23W.
 MOUNDSVIEW TWP. RAMSEY COUNTY
 APPROVED MAY 19, 1926.
 MICROFILMED
 RAMSEY CO. ENGR.



| BILL OF REINFORCING BARS FOR THREE SPANS | | | | | |
|----------------------------------------------------------|-----|------|---------|-------|-----------------|
| BAR | NO. | SIZE | LENGTH | SHAPE | LOCATION |
| F1 | 318 | 3/4" | 21'-10" | STRT. | SLAB - LONGIT. |
| F2 | 35 | 1/2" | 35'-3" | " | TRANSV |
| F3 | 22 | 1/2" | 37'-0" | BENT | " |
| R1 | 128 | 1/2" | 4'-6" | STRT. | RAIL - VERT. |
| R2 | 30 | 1/2" | 21'-6" | " | & CURB - HORIZ. |
| T1 | 44 | 1/2" | 6'-0" | " | SLAB OVER PIERS |
| TOTAL REINFG. STEEL FOR 3 SPANS 12,785 LBS. | | | | | |
| CONCRETE " 3 " 140.0 C.Y. | | | | | |
| 18 PCS. 3" W.I. PIPE 1'-5 1/2" LONG | | | | | |
| 2 PCS. BITUM. FELT 18" x 2' x 40'-0" BRIDGE SEAT - ABUT. | | | | | |
| 4 " " " 9" x 2' x 1'-4 1/2" UNDER POSTS | | | | | |
| 4 " " " 9" x 2' x 1'-0" " " SPAN | | | | | |
| 4 " " " 10" x 1' x 3'-2" BET. POSTS RAIL - ABUT. | | | | | |
| 4 " " " 18" x 1' x 2'-3" BET. CURBS - SPAN | | | | | |



CONSTRUCTION NOTES:-
 CONCRETE MIX: CLASS "D" CONC. SCREENED MATERIALS SAME AS FOR CLASS "A"
 CONC., MIXED ONE PART CEMENT, 2 PARTS SAND AND APPROXIMATELY
 3 1/2 PARTS OF COARSE AGGREGATE, USING NOT LESS THAN 6.4
 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE
 ALL HORIZONTAL EDGES OF CONC. TO BE FINISHED TO A 3/8" BEVEL UNLESS OTHER-
 WISE NOTED.
 ALL VERTICAL EDGES TO BE FINISHED TO A 1/2" BEVEL.
 SLAB SPANS TO BE BUILT WITH ONE HALF INCH OF CAMBER.



DETAIL OF RAIL POST OVER ABUT. PILASTER
 SHOWING RECESSED EXPAN. JOINT BETWEEN
 RAIL & RAIL POST - CONST. JOINT OVER PIERS
 TO BE MADE SIMILAR.
 BITUM. FELT TO BE CUT AND BENT TO FIT EXPAN.
 JOINT RESECURED TO RECESSED END OF POST
 WITH ROOFING COMPOUND.
 TAR PAPER IN CONST. JOINTS TO BE HELD IN
 PLACE IN SAME MANNER.

QUARTER PLAN - SHOWING REINFG.
 RAIL NOT SHOWN

TRUNK HIGHWAY NO. 63
 STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS
 THREE 20 FT. REINFD. CONC. SLAB SPANS - 34 FT. RDWY.
 OVER MINNESOTA TRANSFER RAILWAY
 IN THE VILLAGE OF NEW BRIGHTON
 BRIDGE NO. 4533

SEC. 29 T. 30 N. R. 23 W.
 MOUNDSVIEW TWP. RAMSEY COUNTY
 APPROVED MAY 19, 1926.

M. J. ...
 BRIDGE ENGR.
 ...
 COMM. OF HIGHWAYS

PLANS SYMBOLS

| | |
|-----------------------------------|--------------------------------------|
| STATE LINE | SPRINGS |
| COUNTY LINE | MARSH |
| TOWNSHIP OR RANGE LINE | TIMBER |
| SECTION LINE | ORCHARD |
| QUARTER LINE | BRUSH |
| SIXTEENTH LINE | NURSERY |
| RIGHT OF WAY LINE | CATCH BASIN |
| PRESENT RIGHT OF WAY LINE | FIRE HYDRANT |
| CONTROL OF ACCESS LINE | CATTLE GUARD |
| PROPERTY LINE (Except Land Lines) | OVERPASS (Highway Over) |
| VACATED PLATTED PROPERTY | UNDERPASS (Highway Under) |
| CORPORATE OR CITY LIMITS | BRIDGE |
| TRUNK HIGHWAY CENTER LINE | BUILDING (One Story Frame) |
| RETAINING WALL | F FRAME C CONCRETE |
| RAILROAD | S STONE T TILE |
| RAILROAD RIGHT OF WAY LINE | B BRICK ST STUCCO |
| RIVER OR CREEK | IRON PIPE OR ROD |
| DRY RUM | MONUMENT (STONE, CONCRETE, OR METAL) |
| DRAINAGE DITCH | WOODEN HUB |
| DRAIN TILE | GRAVEL PIT |
| CULVERT | SAND PIT |
| DROP INLET | BORROW PIT |
| GUARD RAIL | ROCK QUARRY |
| BARBED WIRE FENCE | |
| WOVEN WIRE FENCE | |
| CHAIN LINK FENCE | |
| RAILROAD SNOW FENCE | |
| STONE WALL OR FENCE | |
| HEDGE | |
| RAILROAD CROSSING SIGN | |
| RAILROAD CROSSING BELL | |
| ELECTRIC WARNING SIGN | |
| CROSSING GATE | |
| MEANDER CORNER | |

UTILITIES SYMBOLS

| | |
|------------------------------------------|----------------------------|
| POWER POLE LINE | CONDUIT |
| TELEPHONE OR TELEGRAPH POLE LINE | TELEPHONE CABLE IN CONDUIT |
| JOINT TELEPHONE AND POWER ON POWER POLES | ELECTRIC CABLE IN CONDUIT |
| ON TELEPHONE POLES | TELEPHONE WARMHOLE |
| ANCHOR | BURIED TELEPHONE CABLE |
| STEEL TOWER | BURIED ELECTRIC CABLE |
| STREET LIGHT | AERIAL TELEPHONE CABLE |
| PEDESTAL TELEPHONE CABLE TERMINAL | SEWER (SANITARY OR STORM) |
| GAS MAIN | SEWER WARMHOLE |
| WATER MAIN | |

PIT DATA

PIT NO. _____ Located in Dead Haul

PIT NO. _____ Located in Dead Haul

SCALES

LAYOUT MAP.....3/4 INCH = 5280 FEET

PLAN.....1 INCH = 50 FEET

PROFILE.....1 INCH = 50 FEET HORIZ.
1 INCH = 5 FEET VERT.

CROSS SECTIONS.....1 INCH = 10 FEET

OTHER SCALES AS NOTED.

THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1972 SHALL GOVERN

S.A.P. NO. 62-677-02 C.T.B.

GROSS LENGTH 2262 FEET 0.4286 MILES
 BRIDGES LENGTH _____ MILES
 EXCEPTIONS LENGTH _____ MILES
 NET LENGTH 2262 FEET 0.4286 MILES

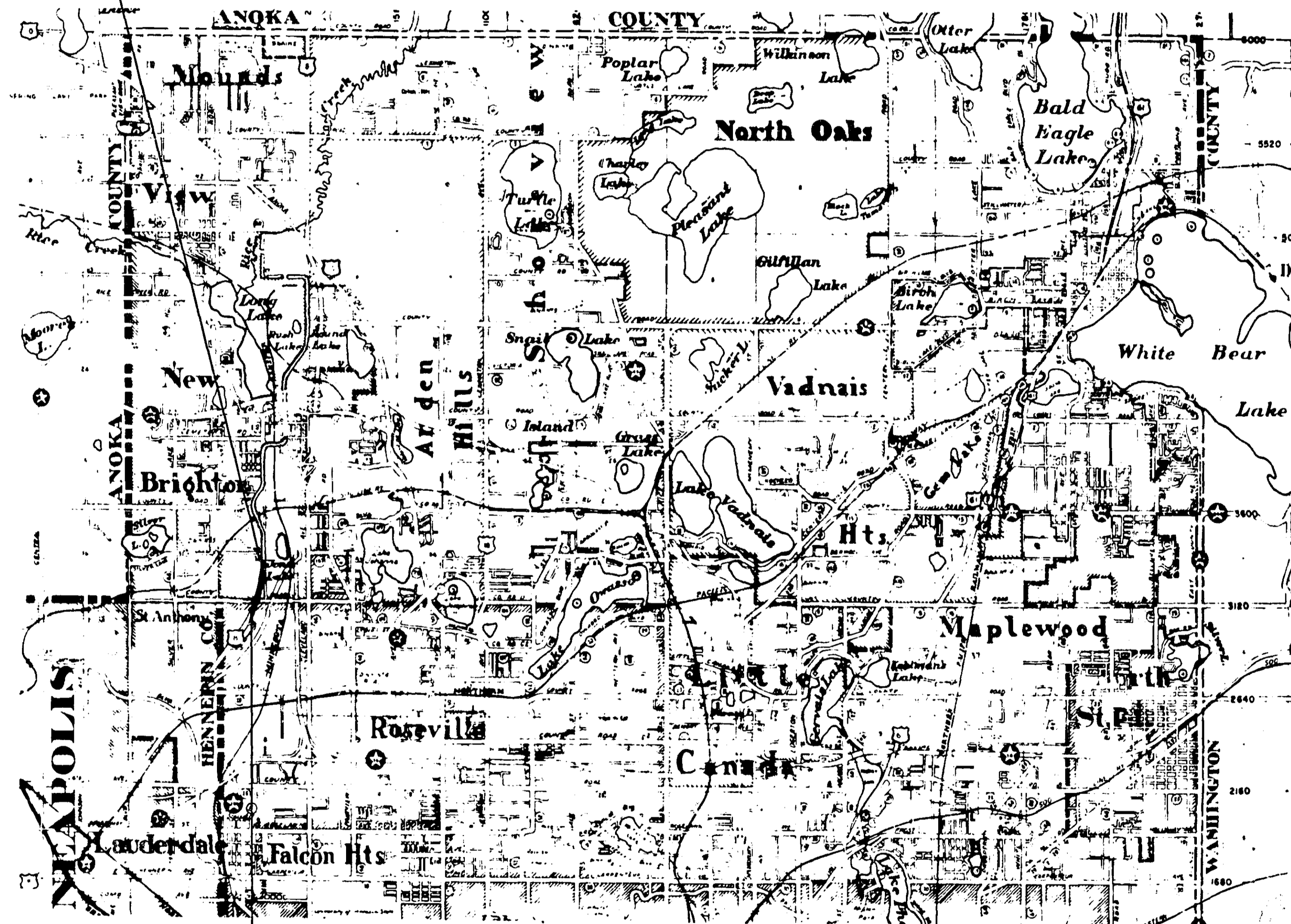
END S.A.P. NO. 62-677-02 C.T.B.
 STA. 56+45

BEGIN S.A.P. NO. 62-677-02 C.T.B.
 STA. 32+00

DESIGN DESIGNATION

S.A.P. NO. 62-677-02 C.T.B.

ADT (CURRENT YEAR) 1970 = 6550
 ADT (FUTURE YEAR) 1990 = 15000
 DHV = _____
 D (DIRECTIONAL DISTRIBUTION) = _____
 T (HEAVY COMMERCIAL) = 350
 DESIGN LOAD = 9 TON
 SOIL FACTOR = 100 %



**OFFICE OF COUNTY ENGINEER
 RAMSEY COUNTY**

CONSTRUCTION PLAN FOR
 CONCRETE CURB & GUTTER & BITUMINOUS PAVEMENT

COUNTY STATE AID HIGHWAY NO. 77

S.A.P. NO. 62-677-02 C.T.B.

BETWEEN COUNTY ROAD D AND 6TH ST SW.

FROM A POINT 526.50 FEET SOUTHWESTERLY OF THE INTERSECTION OF C.S.A.H. NO. 77 AND CO. ROAD D. SECTION 5, T.29N, R.23W. TO A POINT 422.10 FEET SOUTHERLY OF THE INTERSECTION OF C.S.A.H. NO. 77 AND 5TH STREET SOUTHWEST

INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
|-----------|----------------------------------------|
| 1 | TITLE SHEET AND LAYOUT MAP |
| 2 | ESTIMATED QUANTITIES SHEET |
| 3 | TYPICAL SECTIONS & STAN. DETAIL PLATES |
| 4 | DRAINAGE |
| 5-9 | PLAN & PROFILE |
| 10-14 | CROSS SECTIONS |

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

RECOMMENDED FOR APPROVAL _____ DATE _____
 DIRECTOR OF SAFETY

RECOMMENDED FOR APPROVAL *Donald J. Felt* DATE *8-2-72*
 COUNTY ENGINEER

APPROVED _____ DATE _____
 CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED *Hayle C. Beaumais* DATE *7-25-72*
 MAYOR OF NEW BRIGHTON

APPROVED *Garrett W. Cohen* DATE *8-7-72*
 CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED _____ DATE _____
 MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL *James J. Sobon* DATE *10-11-72*

RECOMMENDED FOR APPROVAL *William J. D.* DATE *9-29-72*
 DISTRICT STATE ENGINEER

APPROVAL *John J. Foy* DATE *10-10-72*
 STATE AID ENGINEER

Frank Anker
 9-25-72 2242

Kim Bell
 8-29-75

CONFORMING TO
 MINN. RECORDS

STATEMENT OF ESTIMATED QUANTITIES

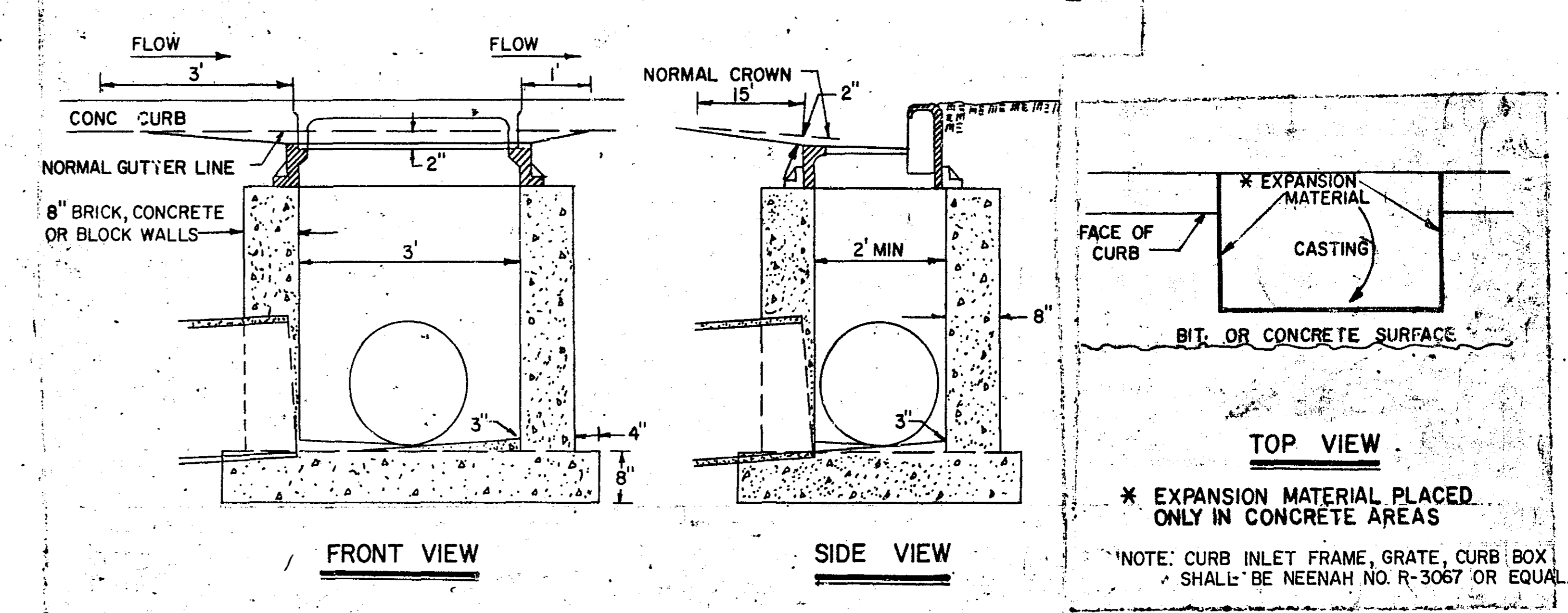
COUNTY ROAD #77

| ITEM NO. | ITEM | UNIT | SAP 62-677-02 | | | | TOTAL ESTIMATED QUANTITIES | TOTAL FINAL QUANTITIES |
|------------------|------------------------------------------|-------------|---------------|---------|------------|--------|----------------------------|------------------------|
| | | | QUANTITIES | | QUANTITIES | | | |
| | | | EST. | FINAL | EST. | FINAL | | |
| 2104.505 | REMOVE PAVEMENT | SQUARE YARD | 6,200 | 8,809 | | 6,200 | 8,809 | |
| 2104.523 | SALVAGE HYDRANTS | EACH | 5 | 4 | | 5 | 4 | |
| 2105.501 | COMMON EXCAVATION | CU. YDS. | 25,369 | 27,451 | | 25,369 | 27,451 | |
| 2130.501 | WATER | (M) GAL. | 50 | 76 | | 50 | 76 | |
| 2211.501 | AGGREGATE BASE, CLASS 5 | TON | 670 | 2,831.3 | | 670 | 2,831.3 | |
| 2101.502 | CLEARING | TREE | 0 | 2 | | 0 | 2 | |
| 2331.504 | BITUMINOUS MATERIAL FOR MIXTURE | TON | 315 | 388.1 | | 315 | 388.1 | |
| 2331.514 | BASE COURSE MIXTURE | TON | 9,450 | 8,613.4 | | 9,450 | 8,613.4 | |
| 2341.504 | BITUMINOUS MATERIAL FOR MIXTURE | TON | 395 | 279.3 | | 395 | 279.3 | |
| 2341.508 | WEARING COURSE MIXTURE | TON | 2270 | 2,525.1 | | 2,270 | 2,525.1 | |
| 2341.510 | BINDER COURSE MIXTURE | TON | 1870 | 2,203.8 | | 1,870 | 2,203.8 | |
| 2357.502 | BITUMINOUS MATERIAL FOR TACK COAT | GAL. | 4975 | 5,000 | | 4,975 | 5,000 | |
| 2358.501 | BITUMINOUS MATERIAL FOR PRIME COAT | GAL. | 200 | 660 | | 200 | 660 | |
| 2101.507 | GRUBBING | TREE | 0 | 2 | | 0 | 2 | |
| 2503.511 | 12" REINFORCED CONCRETE SEWER, CLASS 4 | LINEAR FOOT | 771 | 733.5 | | 771 | 733.5 | |
| 2503.511 | 15" REINFORCED CONCRETE SEWER, CLASS 4 | LINEAR FOOT | 131 | 137.0 | | 131 | 137.0 | |
| 2503.511 | 18" REINFORCED CONCRETE SEWER, CLASS 4 | LINEAR FOOT | 99 | 114.0 | | 99 | 114.0 | |
| 2503.511 | INSTALL 24" C.M. PIPE | LINEAR FOOT | 0 | 40.0 | | 0 | 40.0 | |
| 2506.509 | CONSTRUCT CATCH BASIN, DESIGN RC2 | EACH | 15 | 15 | | 15 | 15 | |
| 2506.522 | ADJUST FRAME AND RING CASTING | EACH | 16 | 16 | | 16 | 16 | |
| 2521.501 | 4" CONCRETE WALK | SQUARE FOOT | 14,789 | 15,596 | | 14,789 | 15,596 | |
| 2506.511 | RECONSTRUCT MANHOLES | LINEAR FOOT | 0 | 15.9 | | 0 | 15.9 | |
| 2531.501 | CONCRETE CURB AND GUTTER, DESIGN B624 | LINEAR FOOT | 6,476 | 6,454 | | 6,476 | 6,454 | |
| 2535.501 | BITUMINOUS CURB | LINEAR FOOT | 950 | 1,514 | | 950 | 1,514 | |
| 2575.505 | SODDING | SQUARE YARD | 19,000 | 13,390 | | 19,000 | 13,390 | |
| 2575.531 | COMMERCIAL FERTILIZER, ANALYSIS 12-12-12 | TON | 0.4 | 1.3 | | 0.4 | 1.3 | |
| 2575.551 | TOPSOIL BORROW | CU. YDS. | 1,000 | 1,430 | | 1,000 | 1,430 | |
| Supplemental # 1 | ADJUST HYDRANT | LUMP SUM | 0 | 0 | | 0 | 1 | |
| | RELOCATE HYDRANT | LUMP SUM | 0 | 0 | | 0 | 1 | |
| | WATERMAIN RECONSTRUCTION | LUMP SUM | 0 | 0 | | 0 | 1 | |
| | CASTING ASSEMBLIES | LUMP SUM | 0 | 0 | | 0 | 1 | |
| # 2 | TRAFFIC CONTROL BARRICADES | LUMP SUM | 0 | 0 | | 0 | 1 | |
| 504.666 | INSTALL HYDRANT | EACH | 5 | 5 | | 5 | 5 | |
| 565.632 | CONCRETE HANDHOLES | HANDHOLE | 8 | 8 | | 8 | 8 | |
| 565.635 | RIGID METALLIC CONDUIT, 3" | LINEAR FOOT | 268 | 267 | | 268 | 267 | |
| 565.635 | RIGID METALLIC CONDUIT, 4" | LINEAR FOOT | 221 | 230 | | 221 | 230 | |

STATEMENT OF ESTIMATED QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL ESTIMATED QUANTITIES | | TOTAL FINAL QUANTITIES | |
|----------|--------------------------------------|-------------|----------------------------|-------|------------------------|-------|
| | | | ESTIMATED | FINAL | ESTIMATED | FINAL |
| | NON-PARTICIPATING WATER MAIN SYSTEM | | | | | |
| 2104.521 | SALVAGE 6" C.I.P. WATERMAIN | LINEAR FOOT | | | 65 | 0 |
| 2104.523 | SALVAGE 6" GATE VALVE | EACH | | | 3 | 2 |
| 2104.523 | SALVAGE 12" GATE VALVE | EACH | | | 1 | 0 |
| 504.601 | 6" WATER MAIN D.I.P. | LINEAR FOOT | | | 402 | 413 |
| 504.601 | 8" WATER MAIN D.I.P. | LINEAR FOOT | | | 442 | 471 |
| 504.601 | 10" WATER MAIN D.I.P. | LINEAR FOOT | | | 840 | 790 |
| 504.601 | 12" WATER MAIN D.I.P. | LINEAR FOOT | | | 125 | 93 |
| 504.622 | 6" WATER GATE VALVE | VALVE | | | 2 | 5 |
| 504.622 | 8" WATER GATE VALVE | VALVE | | | 1 | 1 |
| 504.622 | 10" WATER GATE VALVE | VALVE | | | 1 | 1 |
| 504.622 | 12" WATER GATE VALVE | VALVE | | | 1 | 1 |
| 504.623 | 12" x 6" TEE FITTING | TEE | | | 1 | 0 |
| 504.623 | 10" x 6" TEE FITTING | TEE | | | 3 | 3 |
| 504.623 | 8" x 6" TEE FITTING | TEE | | | 2 | 1 |
| 504.624 | 12" x 12" CROSS FITTING | CROSS | | | 1 | 1 |
| 504.625 | 12" PIPE PLUG | PLUG | | | 2 | 2 |
| 504.626 | 12" x 10" PIPE REDUCER | REDUCER | | | 1 | 1 |
| 504.626 | 10" x 8" PIPE REDUCER | REDUCER | | | 1 | 1 |
| 504.626 | 8" x 6" PIPE REDUCER | REDUCER | | | 1 | 1 |
| 504.628 | 8" PIPE BEND 11 1/4° | BEND | | | 2 | 2 |
| 504.628 | 10" PIPE BEND 11 1/4° | BEND | | | 1 | 1 |
| 504.628 | 12" PIPE BEND 11 1/4° | BEND | | | 2 | 0 |
| 504.628 | 6" PIPE BEND 22 1/2° | BEND | | | 2 | 2 |
| 504.665 | INSTALL 6" CAST IRON PIPE WATER MAIN | LINEAR FOOT | | | 65 | 0 |
| 504.612 | 1" COPPER WATER SERVICE CONNECTION | LINEAR FOOT | | | 130 | 120 |
| 504.666 | INSTALL 12" GATE VALVE | EACH | | | 1 | 1 |
| 504.630 | 1" CORPORATION COCK | CONNECTION | | | 10 | 0 |
| 504.634 | 1" WATER VALVE AND BOX | ASSEMBLY | | | 10 | 0 |

CATCH BASIN DESIGN NO. R.C.-2



| HYDRANT CHART | | | |
|---------------|----------|---------|------------|
| REMOVE | | INSTALL | |
| STATION | LOCATION | STATION | LOCATION |
| 37+75 | 12' LT. | 37+75 | 41' LT. |
| 42+27 | 8' RT. | 42+27 | 43' LT. |
| 36+10 | 93' LT. | INSTALL | 13'± SOUTH |
| 46+00 | 33' LT. | 13+63 | 46' LT. |
| 52+40 | 28' LT. | 52+40 | 41' LT. |

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS.
DONE BY: *W.S.B.*
DATE: 12-27-75

REVISED
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Thomas R. Baker
Date: 9-25-72 Reg. No. 2042
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Thomas R. Baker
Date: 7-18-72 Reg. No. 7177

SCALE: 1" = 50'

CONSTRUCTION
C CURVE DATA
P.I. STA. 42+27.06
Δ = 32° 50'
D = 5° 00'
T = 337.73'
L = 656.67'
R = 1145.92'

B LINE
CURVE DATA
P.I. STA. 42+53.27
Δ = 38° 53'
D = 6° 00'
T = 337.07'
L = 648.06'
R = 954.93'

C CURVE DATA
P.I. STA. 33+00
Δ = 2° 35' 13"
D = 1° 17' 37"
T = 100.00'
L = 199.988'
R = 4429.345

P.I. STA. 37+12.12 C.S.A.H. NO. 77
S STA. 9+76.23 CO. RD. D
(From sheet 10)

B LINE
P.I. STA. 37+26.50

NOTE:
REVISED LEFT TURN SLOT
TO 200'. 6-8-73

NOTE:
Existing Road = 27' concrete pavement
with bituminous overlay.

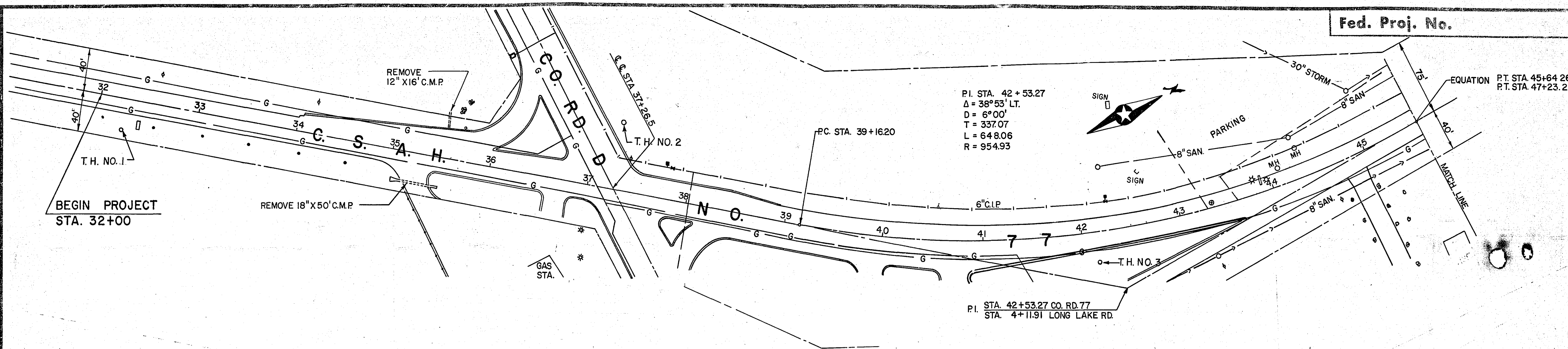
| F. & I. HANDHOLES (PULLBOXES) | | |
|-------------------------------|-------|----------|
| NO. | STA. | LOCATION |
| 1 | 36+32 | LT. 45' |
| 2 | 36+37 | LT. 5' |
| 3 | 36+63 | RT. 40' |
| 4 | 36+72 | LT. 64' |
| 5 | 37+53 | RT. 64' |
| 6 | 37+60 | LT. 40' |
| 7 | 37+87 | RT. 5' |
| 8 | 37+89 | RT. 39' |

REVISED R.S.C. PLAN 6-7-73 R.W.W.
(QUANTITIES WILL NOT CHANGE)

WATERMAIN
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Quentin K. Wood
Date: 11/30/72 Reg. No. 8251

REVISED
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Wm. A. Miller
Date: 9-25-72 Reg. No. 2042

ASBUILT PLAN
CONFORMING TO
CONSTR. RECORDS
DONE BY: K.S.G.
DATE: 12-23-75
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Wm. A. Miller
Date: 7-18-72 Reg. No. 7177
APPROVED: R.L.K. 6-21-72



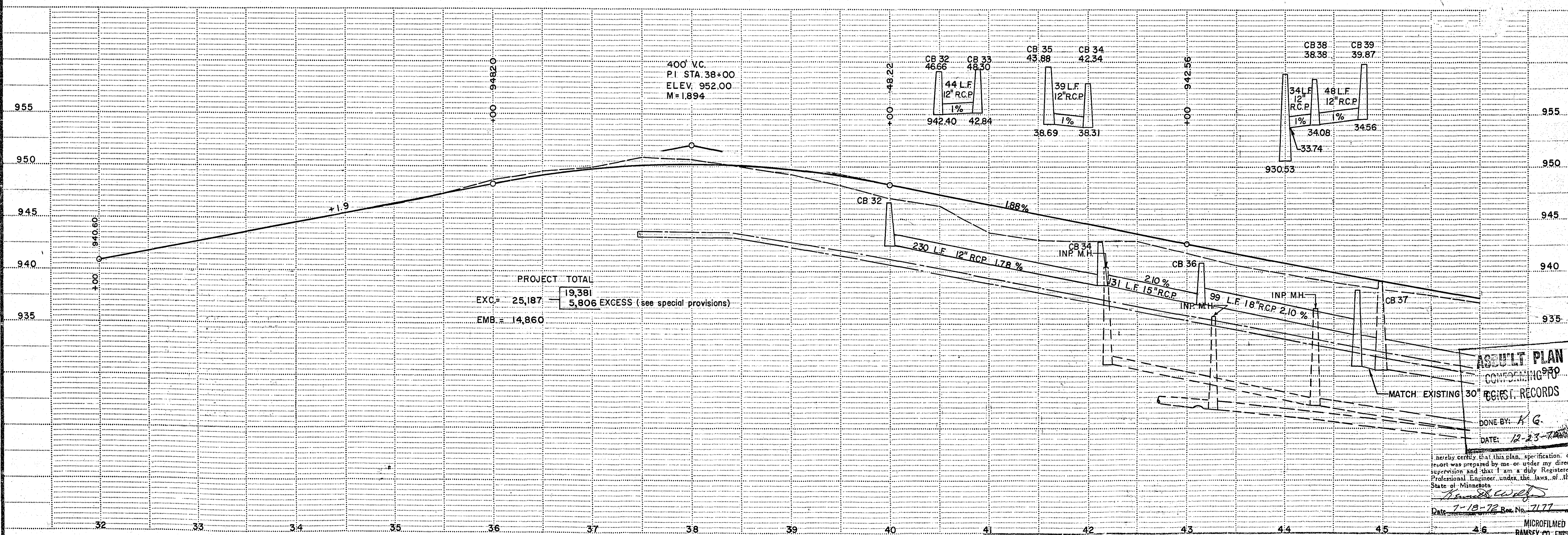
P.I. STA. 42+53.27
 $\Delta = 38^\circ 53' \text{ LT.}$
 $D = 6^\circ 00'$
 $T = 337.07$
 $L = 648.06$
 $R = 954.93$

P.I. STA. 42+53.27 CO. RD. 77
 STA. 4+11.91 LONG LAKE RD.

SEE SHEET NO. 5 FOR CONSTRUCTION PLAN

" NOTE "

CONTRACTOR SHALL VERIFY DEPTH OF EXISTING 30" STORM SEWER PRIOR TO STORM SEWER CONSTRUCTION.

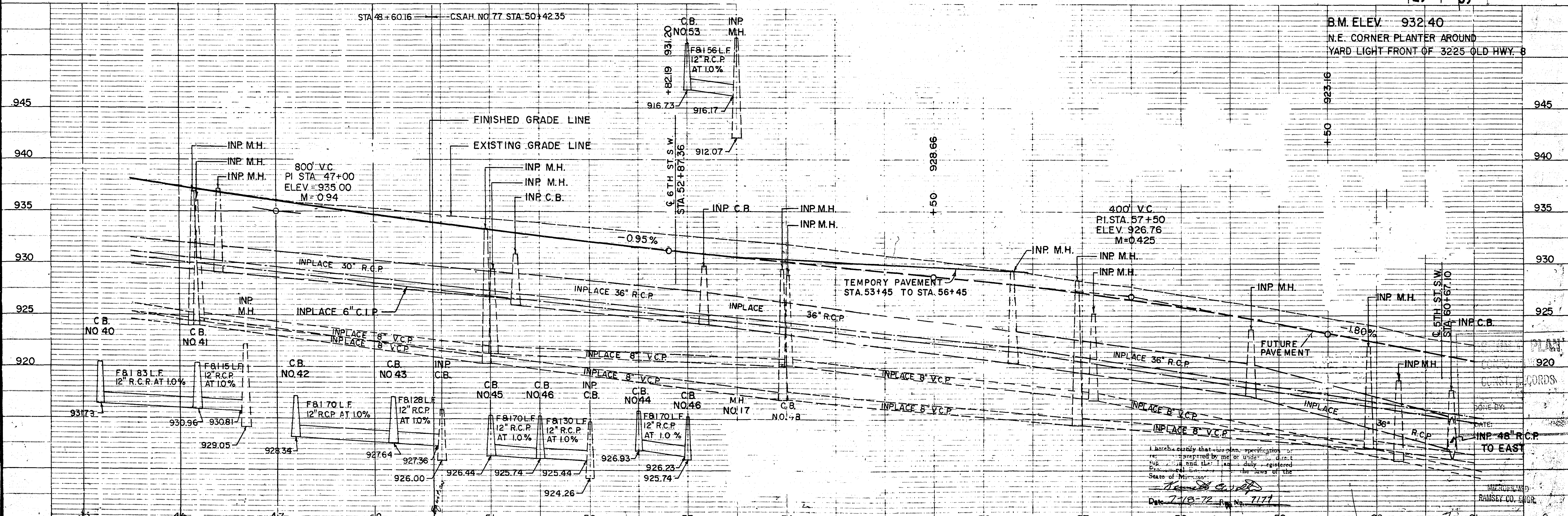
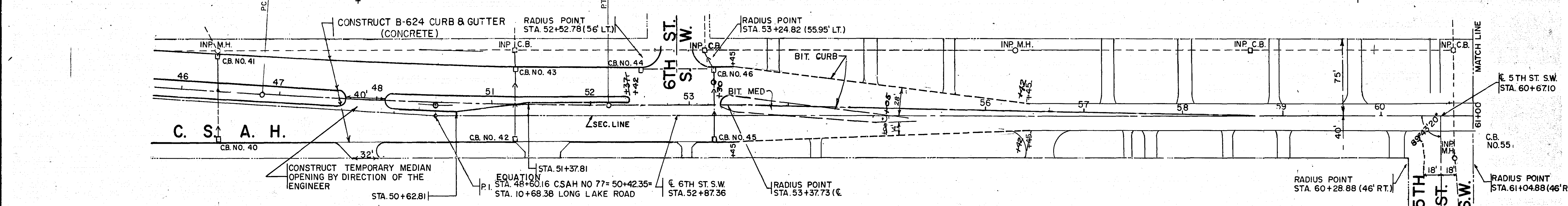
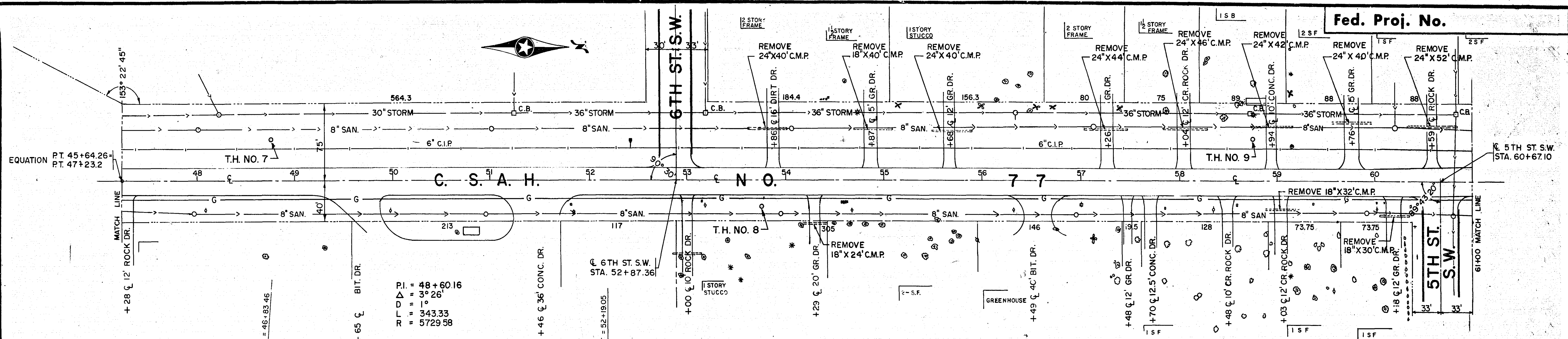


PROJECT TOTAL
 EXC = 25,187
 EMB = 14,860
 19,381
 5,806 EXCESS (see special provisions)

ASBUILT PLAN
 CORRIGENDUM NO. 930
 REGIST. RECORDS
 DONE BY: A.G.
 DATE: 12-23-12

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
[Signature]
 Date: 7-18-12 Rev. No. 2177

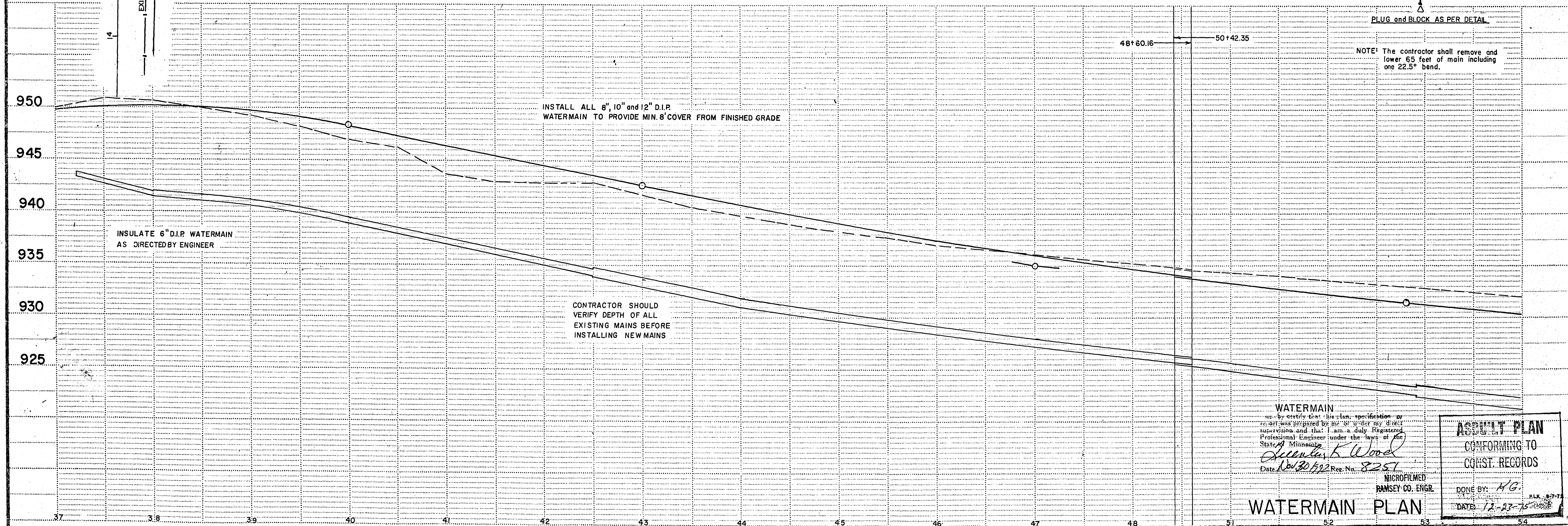
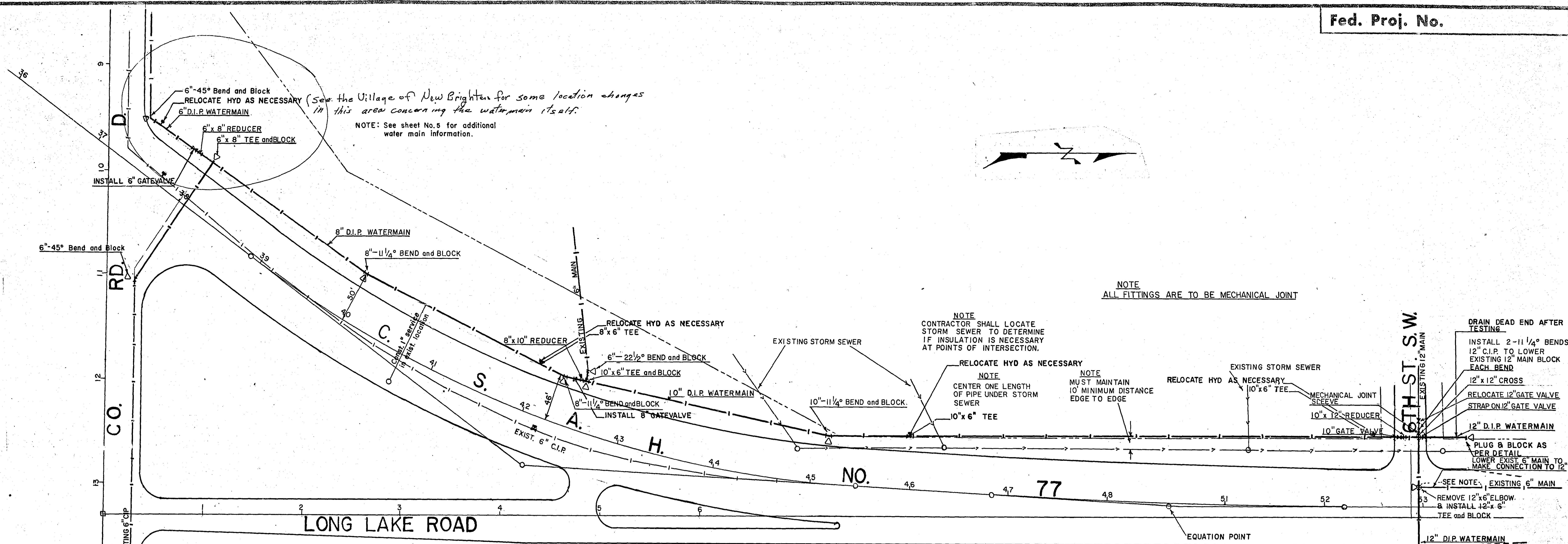
SINGLE PLAN DOTTED
 H. A. REEDS CO., MINNEAPOLIS, ST. PAUL



I hereby certify that the plan, specification or report prepared by me or under my direct supervision and that I am a duly registered Engineer in the State of Wisconsin.

Handwritten Signature

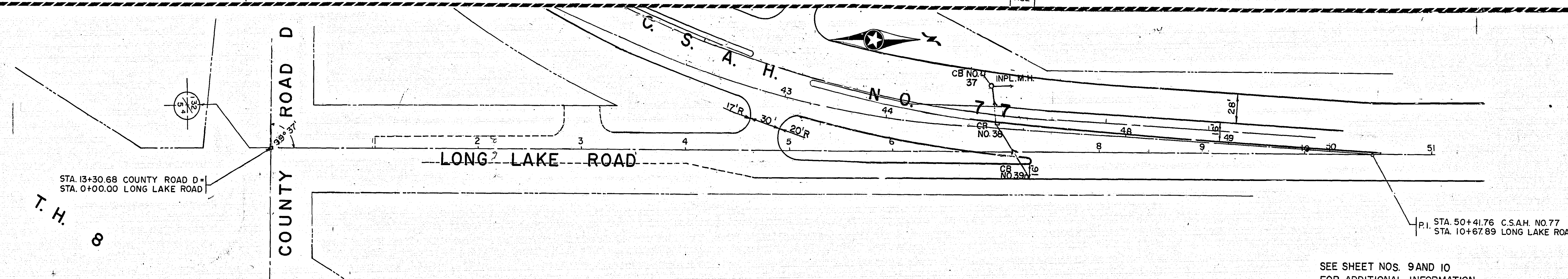
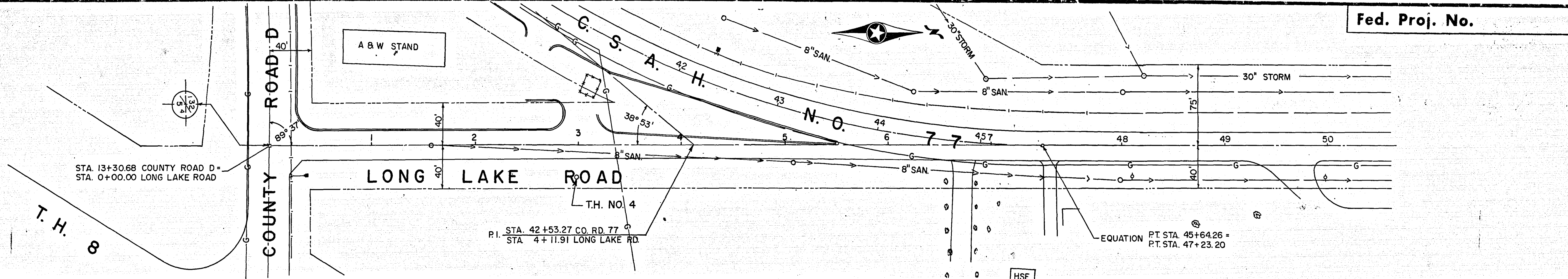
Date: 7-18-77 No. 7171



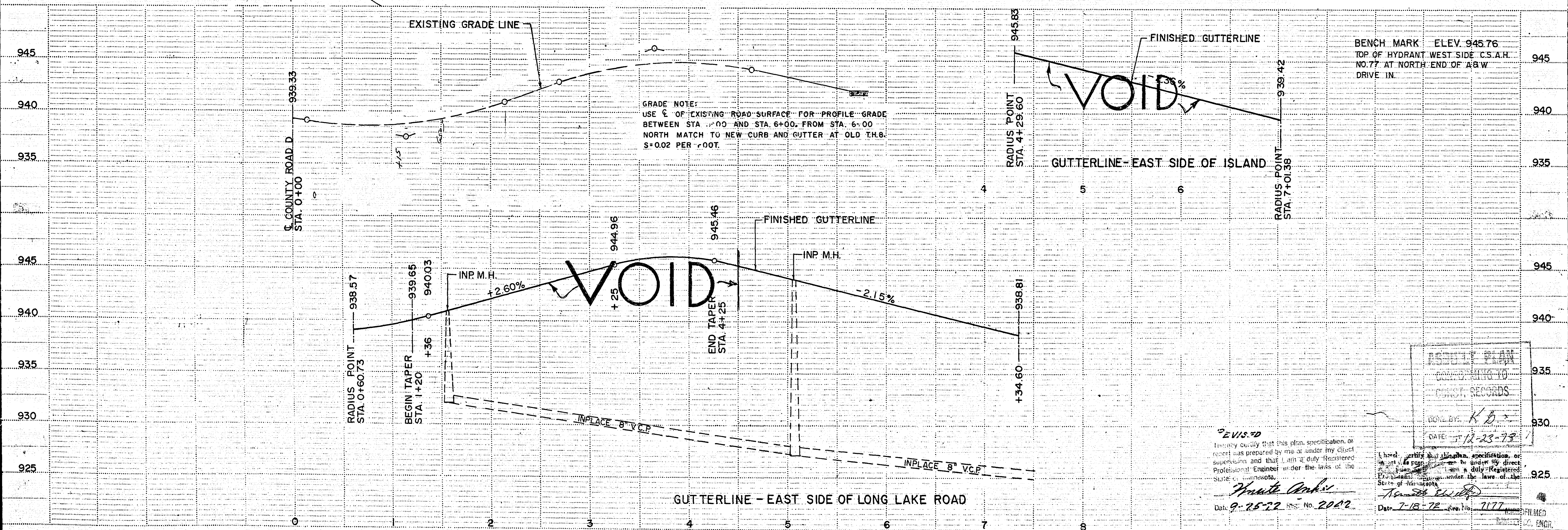
WATERMAIN
I certify that the plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
William K. Wood
Date: Nov 30, 1992 Rev. No. 8257
MICROFILMED
RAMSEY CO. ENGR.

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: H.G.
DATE: 12-23-95

WATERMAIN PLAN



SEE SHEET NOS. 9 AND 10 FOR ADDITIONAL INFORMATION



GRADE NOTE:
USE $\frac{1}{2}$ OF EXISTING ROAD SURFACE FOR PROFILE GRADE BETWEEN STA. 0+00 AND STA. 6+00. FROM STA. 6+00 NORTH MATCH TO NEW CURB AND GUTTER AT OLD T.H. 8. S=0.02 PER FOOT.

BENCH MARK ELEV. 945.76
TOP OF HYDRANT WEST SIDE C.S.A.H. NO. 77 AT NORTH END OF A&W DRIVE IN.

SEVIS-70
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Therese A. Davis
Date: 9-25-72 No. 2002

REVISION PLAN
CORRECTING TO
CIVIL RECORDS
DATE: 12-23-78
DATE: 7-18-72 No. 7177
REGISTERED PROFESSIONAL ENGINEER

STATION-ELEVATION

EXCAVATION EMBANKMENT

STATION-ELEVATION

Fed. Proj. No.

EXCAVATION EMBANKMENT

SUB-TOTALS - CU. YDS. CU. YDS. SUB-TOTALS

36+00 48.7

40+00 48.9

422 277

35+50 47.4

39+50 49.7

421 282

35+00 46.6

39+00 50.2

436 281

34+50 45.5

38+50 50.8

516 285

34+00 44.6

38+00 50.8

588 284

33+50 43.5

37+50 50.5

551 274

33+00 42.7

37+00 49.8

538 289

32+50 41.7

36+50 94.5

574 287

32+00 94.8

36+50 94.5

533 275

404 303

373 490

395 715

325 748

282 783

266 829

223 708

173 581

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 7-18-72 Res. No. 7177

S.A.P. NO. 62-677-02 C.T.B.

Sheet No. 10 of 14 Sheets

MICROFILMED
RAMSEY CO. ENGR.

6895

FUNCTIONAL CROSS SECTION - OPEN DOTTED
E. A. ROBERTS CO. MINNEAPOLIS, ST. PAUL

STATION-ELEVATION

45+00 38.3

+50 39.0

44+00 39.8

+50 40.6

43+00 41.7

+50 42.9

42+00 42.9

+50 43.1

41+00 43.7

40+50 44.3

EXCAVATION EMBANKMENT

SUB-TOTALS CU. YDS. SUB-TOTALS

493 336

474 298

388 315

383 417

389 277

413 291

404 328

369 323

359 320

382 280

STATION-ELEVATION

+50 34.5

48+00 34.8

+50 35.7

47+00 36.2

+50 36.6

46+00 37.0

45+46 37.7

EXCAVATION EMBANKMENT

SUB-TOTALS CU. YDS. SUB-TOTALS

603 315

641 307

649 318

658 320

656 331

628 322

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Herbert S. Smith
Date 7-18-72 Reg. No. 7177

FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. BODGES CO. MINNEAPOLIS, ST. PAUL

STATION-ELEVATION

6

EXCAVATION EMBANKMENT

SUB-TOTALS CU. YDS. CU. YDS. SUB-TOTALS

STATION-ELEVATION

6

Fed. Proj. No.

EXCAVATION EMBANKMENT

SUB-TOTALS CU. YDS. CU. YDS. SUB-TOTALS

52+72 32.69

217 89

52+50 32.85

287 124

53+50 32.04

52+00 33.22

665 214

581 102

51+50 33.63

667 274

53+18 32.28

181 83

51+00 34.00

629 304

53+03 32.48

195 82

50+50 34.45

592 322

52+88 32.54

593 321

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Samuel W. P.
Date: 7-18-72 Rev. No. 7177

MICROFILMED
RAMSEY CO. ENGR.

S. A. P. NO. 62-677-02 C.T.B.

Sheet No. 12 of 14 Sheets

6895

FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. - MINNEAPOLIS - ST. PAUL

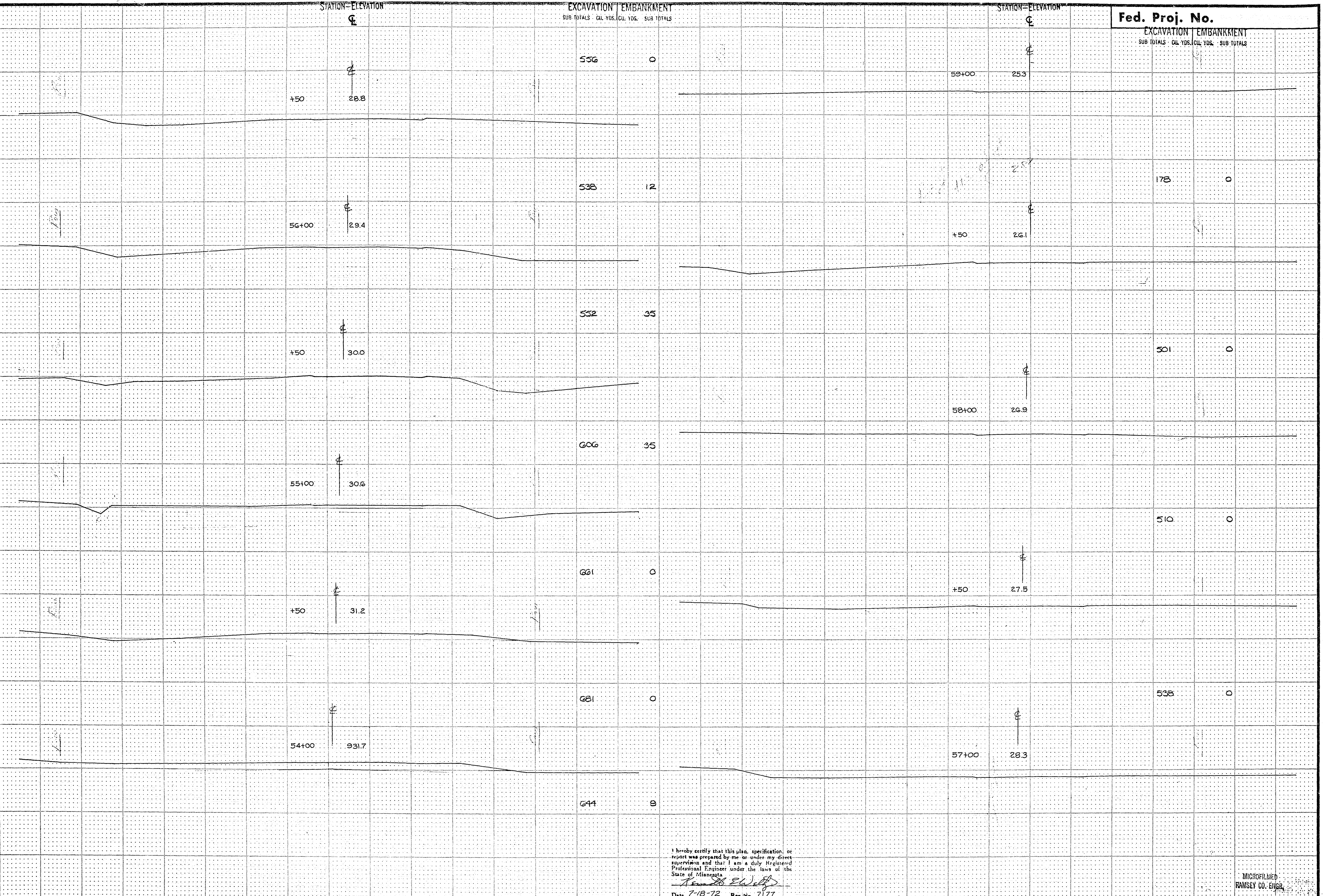
STATION-ELEVATION

EXCAVATION EMBANKMENT

STATION-ELEVATION

Fed. Proj. No.

EXCAVATION EMBANKMENT



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Raymond E. Wells

Date: 7-18-72 Rev. No. 2177

MICROFILMED
RAMSEY CO. ENGR.

S. A. P. NO. 62-677-02 C.T.B.

Sheet No. 13 of 14 Sheets

6895

FUNCTIONAL CROSS SECTION - OPEN DOTTED
R. A. ROGERS CO. - MINNEAPOLIS, ST. PAUL

20 0 20 40 60 80 100

EXC.
C.Y.

EMB.
C.Y.

7+00

MATCH LINE

100 219

6+00

MATCH LINE

950

940

5+00

MATCH LINE

65 657

950

940

4+00

5+00

70 796

950

940

3+00

35 439

950

940

2+00

12 193

950

940

1+00

1:1+50

19 163

950

940

NOTE: 0+36 VERTICAL SECTION BACK

11 38

REVISED

0+00

C. COUNTY ROAD "D"

372

2505

Thurston
9-25-72

40

NOTE:

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Wisconsin.
Thomas E. ...
T. B. ... Reg. No. 777

30

20 0 20 40 60 80 100