

NOTES:
 Elevations are based on Road Division Datum
 All stations are marked with a cross or Iron Pin.
 Notes are taken from Survey Book #240

REVISIONS:
 1. M.K. 12/13/21 G.J.P.
 2. N. 1/14/22 G.J.P.
 3. M.K. 1/14/22 G.J.P.
 4. M.K. 1/14/22 G.J.P.

EDWARD N. HINES
 VICE-MANAGER

MICHAEL J. CURRIEN
 CHAIRMAN

PETER M. SCHNEIDER
 COMMISSIONER

WAYNE COUNTY ROAD COMMISSIONERS
 DETROIT, MICHIGAN

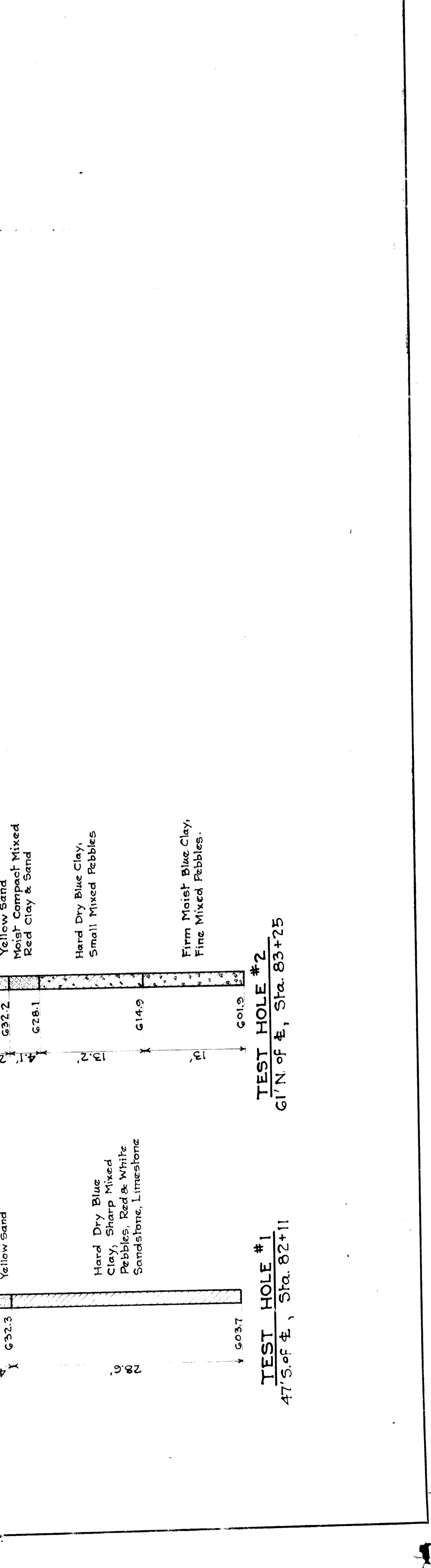
SURVEY PLAN (HOLLEY)
DAVISON AVE. - G.T.W.R.R.
 GRADE SEPN. N^o

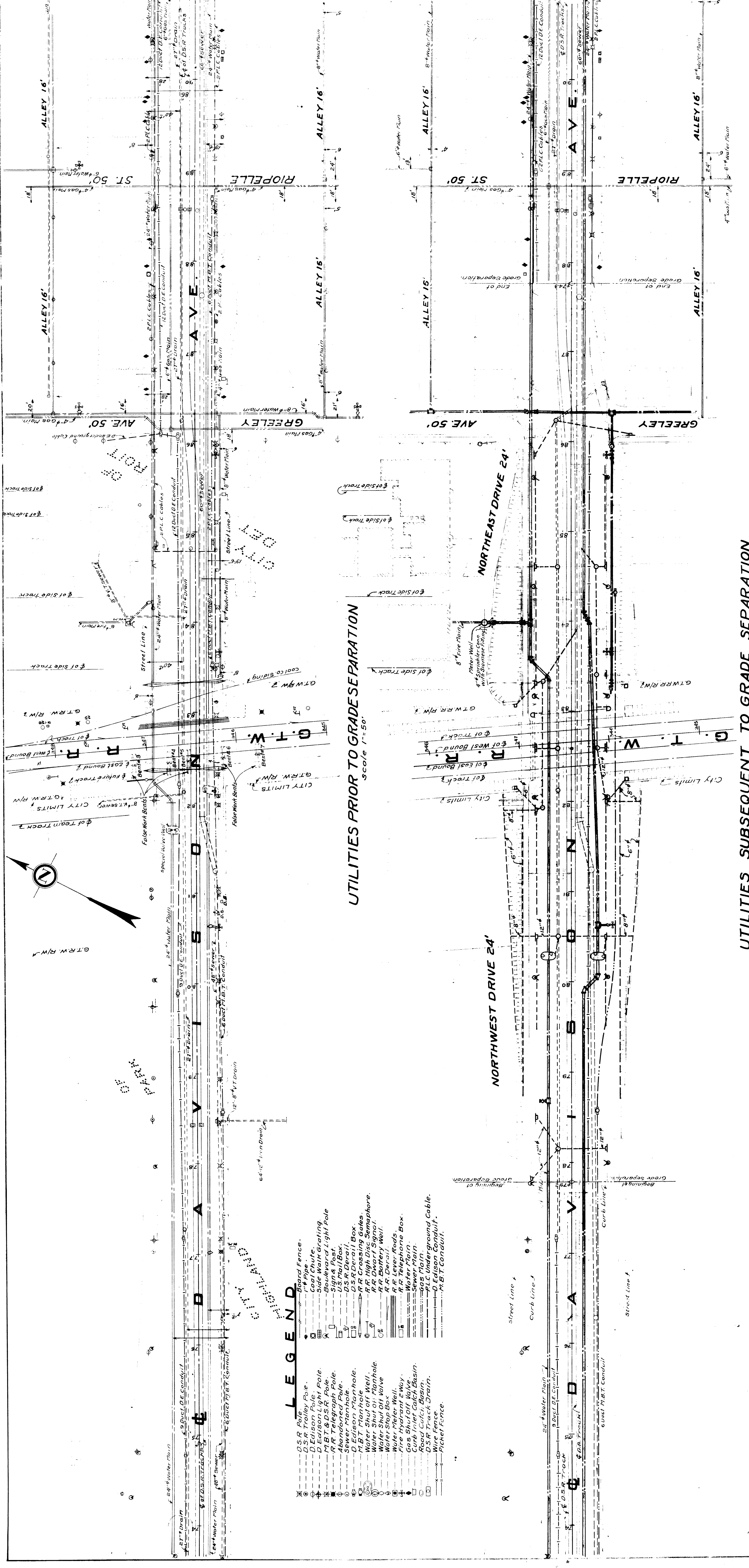
APPROVED BY: *[Signature]*
 DATE: 8-2-35
 SCALE: 1" = 50'

APPROVED BY: *[Signature]*
 DATE: 10-22-35

JOB NO. **546**
 SHEET NO. **2**

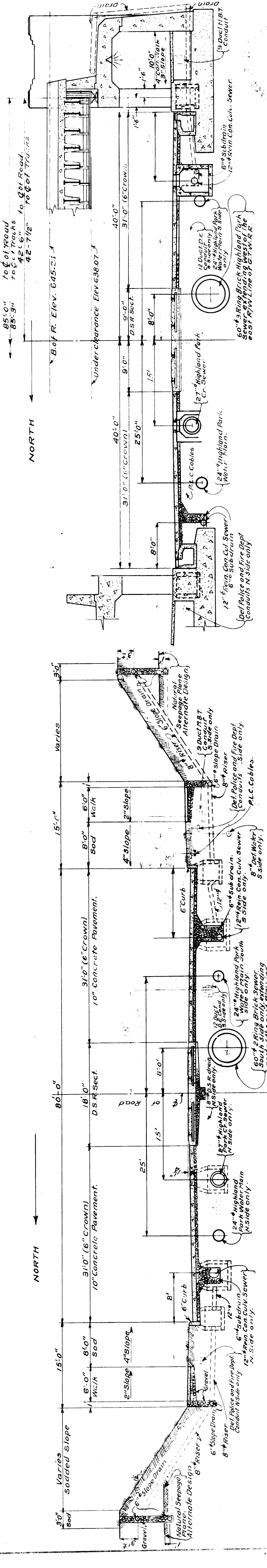
- Legend**
- Trolley Pole & D.S.R. Pole
 - × D.E. Pole
 - o R.R. Pole
 - o Manhole
 - o Car Catch Basin
 - o Light Post
 - o Water Gate or Shut-Off
 - o Gas Shut-Off
 - o Tree
 - o Hydrant
 - o Monument-Set
 - o Iron Found





- LEGEND**
- Board Fence.
 - D.S.R. Pole by Eye.
 - Coal Chute.
 - Side Walk Grating.
 - D Edison Light Pole.
 - M.B.T. & D.S.R. Pole.
 - RR Telegraph Pole.
 - Signal Post.
 - Sewer Manhole.
 - D.S.R. Manhole.
 - D Edison Manhole.
 - RR Crossing Gates.
 - RR High Disc Semaphore.
 - Water Shut off Well.
 - Water Shut off Manhole.
 - Water Shut off Valve.
 - Water Stop Box.
 - RR Lever.
 - RR Telephone Box.
 - RR Telephone Pole.
 - Sewer Main.
 - Gas Main.
 - PLC Underground Cable.
 - D.S.R. Track Drain.
 - Wire Fence.
 - Picket Fence.

UTILITIES SUBSEQUENT TO GRADE SEPARATION
Scale 1"=50'

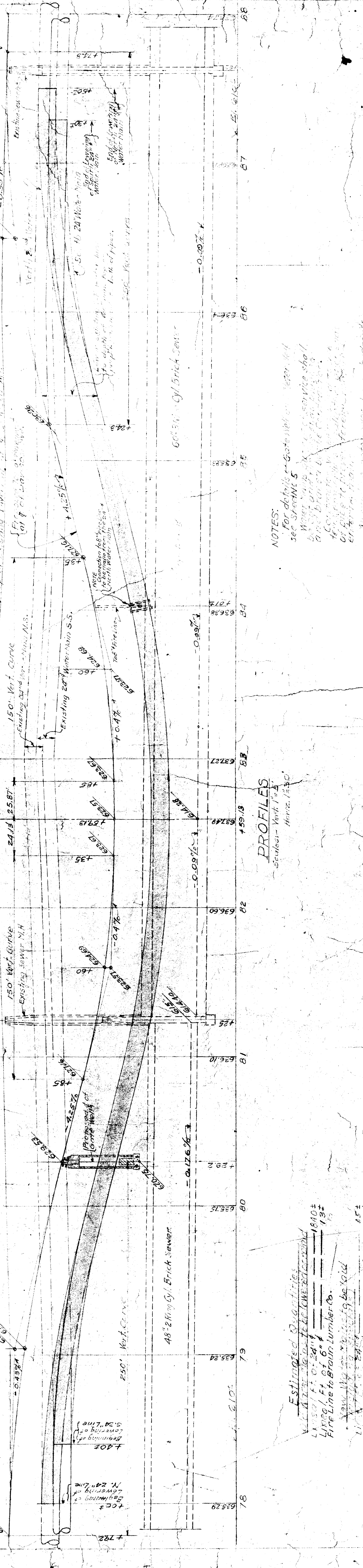
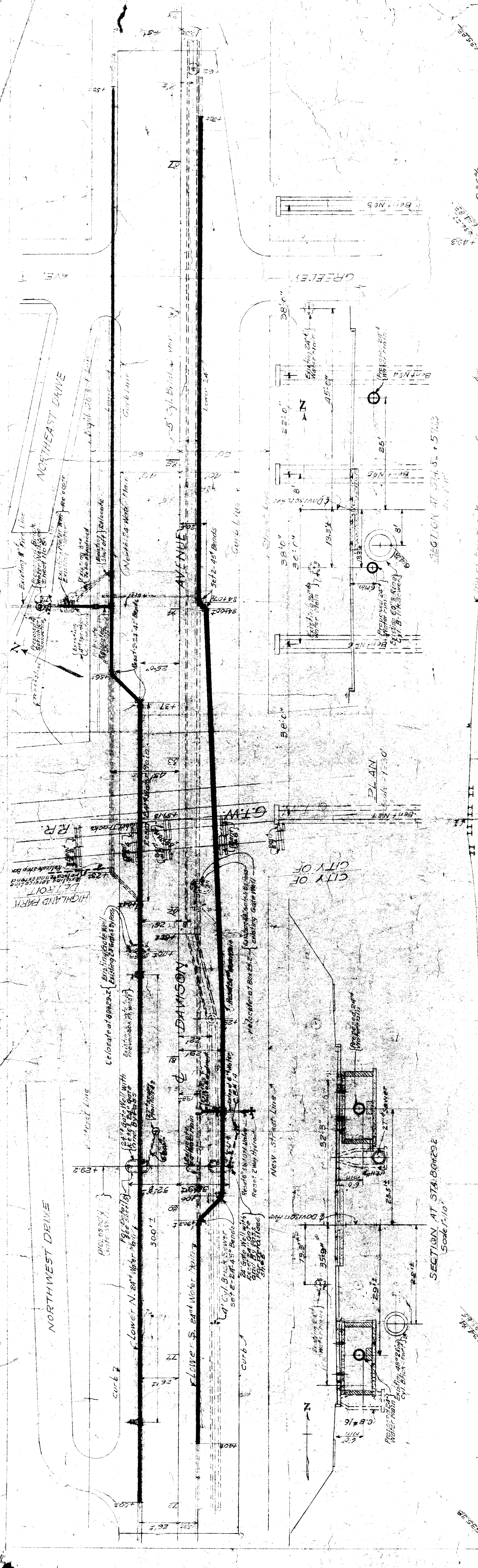


NOTE

Time of construction of all utilities shall be subject to approval of the Engineer. The installation of such utilities including the excavation, laying, and covering of same, shall be done by the contractor responsible for the same. The contractor shall be held responsible for the proper construction of all utilities. The contractor shall be held responsible for the proper construction of all utilities. The contractor shall be held responsible for the proper construction of all utilities.

P.W.A. DOCKET NO. MICH. 1120F
FIELD Notes in book No. 240
BOARD OF WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN
CHAIRMAN
JOHN F. BRENNING
VICE CHAIRMAN
CHARLES L. WILSON
COMMISSIONER
UTILITY PLAN
DAVISON AVE. G.T.W.R. (MOLLEY DIV)
GRADE SEPN. NO.

JOB NO. 546
DATE: 9-20-38
DRAWN BY: A. J. ...
CHECKED BY: ...
APPROVED BY: ...
SCALE: 1"=10'
SHEET NO. 3



REVISIONS

| No. | Date | Description |
|-----|----------|-------------|
| 1 | 10-27-28 | As Shown |
| 2 | 10-27-28 | As Shown |

JOB NO. 10-27-28

DATE 10-27-28

BY [Signature]

CHECKED [Signature]

APPROVED [Signature]

ENGINEER [Signature]

SCALE 1" = 10'

NOTES:

For details - Gate pits - see sheet 5

Water service shall be installed in accordance with the Detroit Water Dept. specifications.

Any gate pits or sewer connections shall be constructed in accordance with the Detroit Water Dept. specifications.

Means and shall be 6" of cover.

ESTIMATED QUANTITIES

| | |
|-------------------------------|-------|
| 48" x 24" x 6" Lumber | 1840± |
| Line to Brum Lumber Co. | 13± |
| Various sizes of pipe to void | 45± |
| Gate Wets (Francis) | 2 |
| 10" x 10" Manholes | 1 |

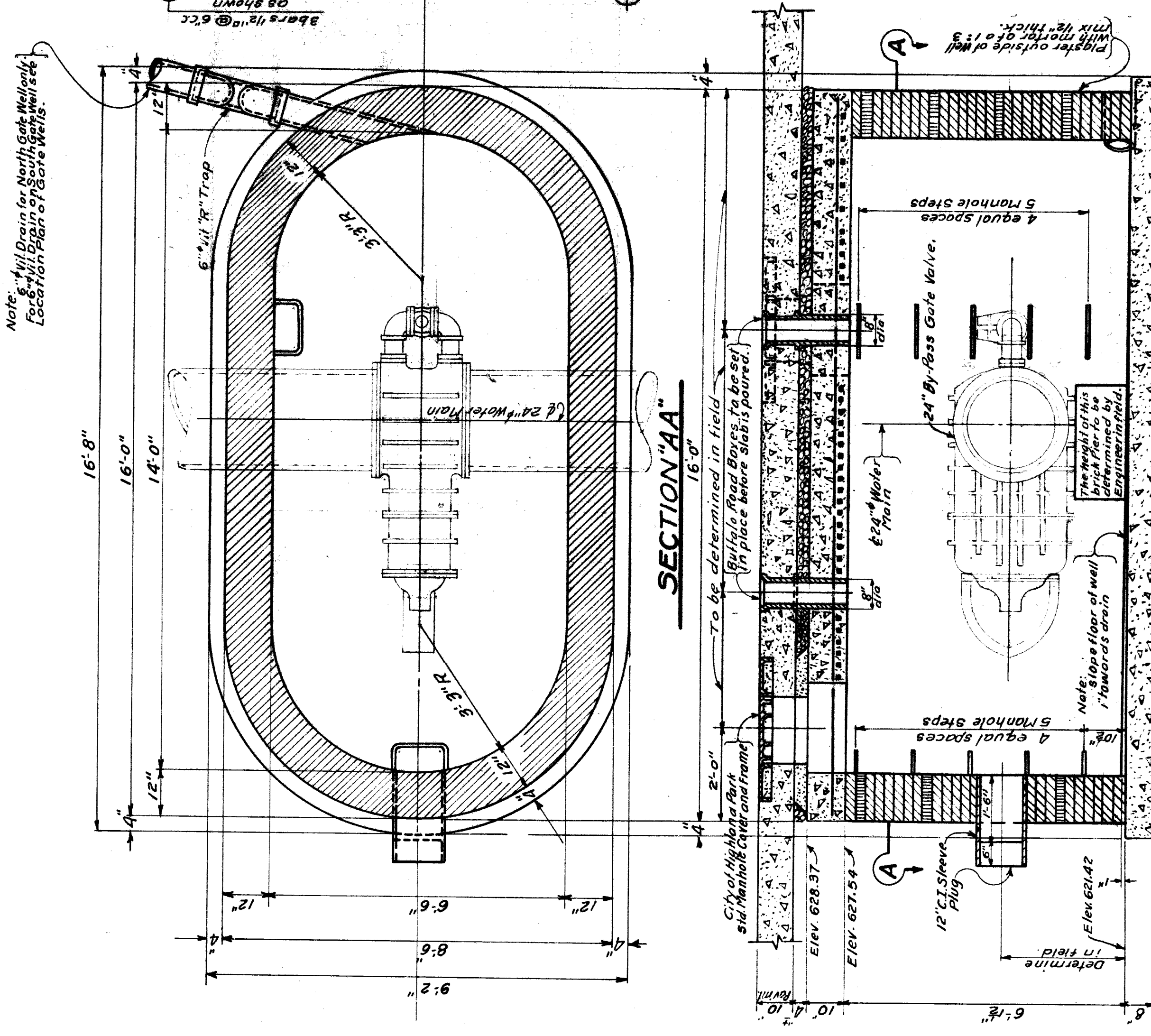
WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN, Chairman
JOHN F. BRESNAN, Vice Chairman
GABRIEL J. HANCOCK, Member
EVA DONNET, N. MICHIGAN, TRCO

HIGHLAND PARK WATER LINES
DANSON AVE. - 21 MILE STATION

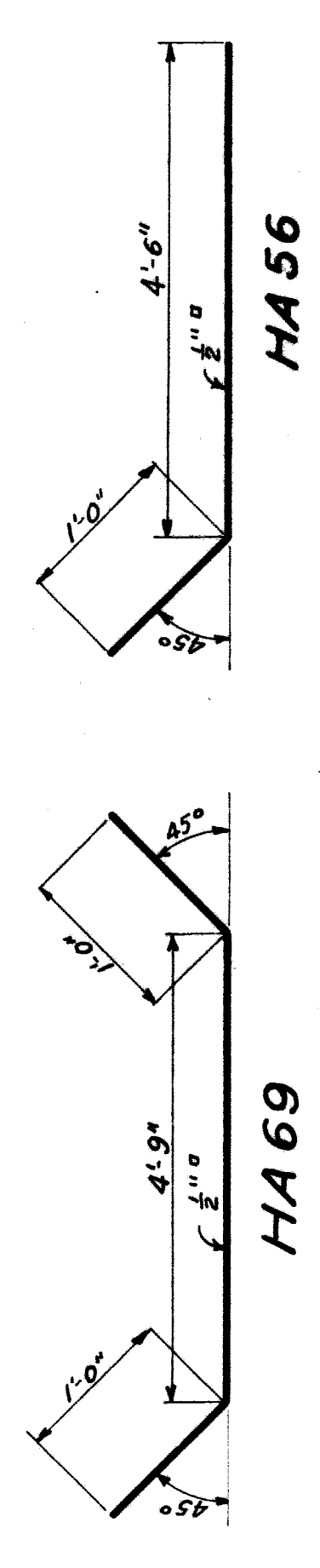
ST. ANTHONY'S CATHEDRAL
175

SCHEMATIC

Note: 1/2" Drain for North Gate Well. For 6" x 12" Drain for South Gate Well. See Location Plan of Gate Wells.

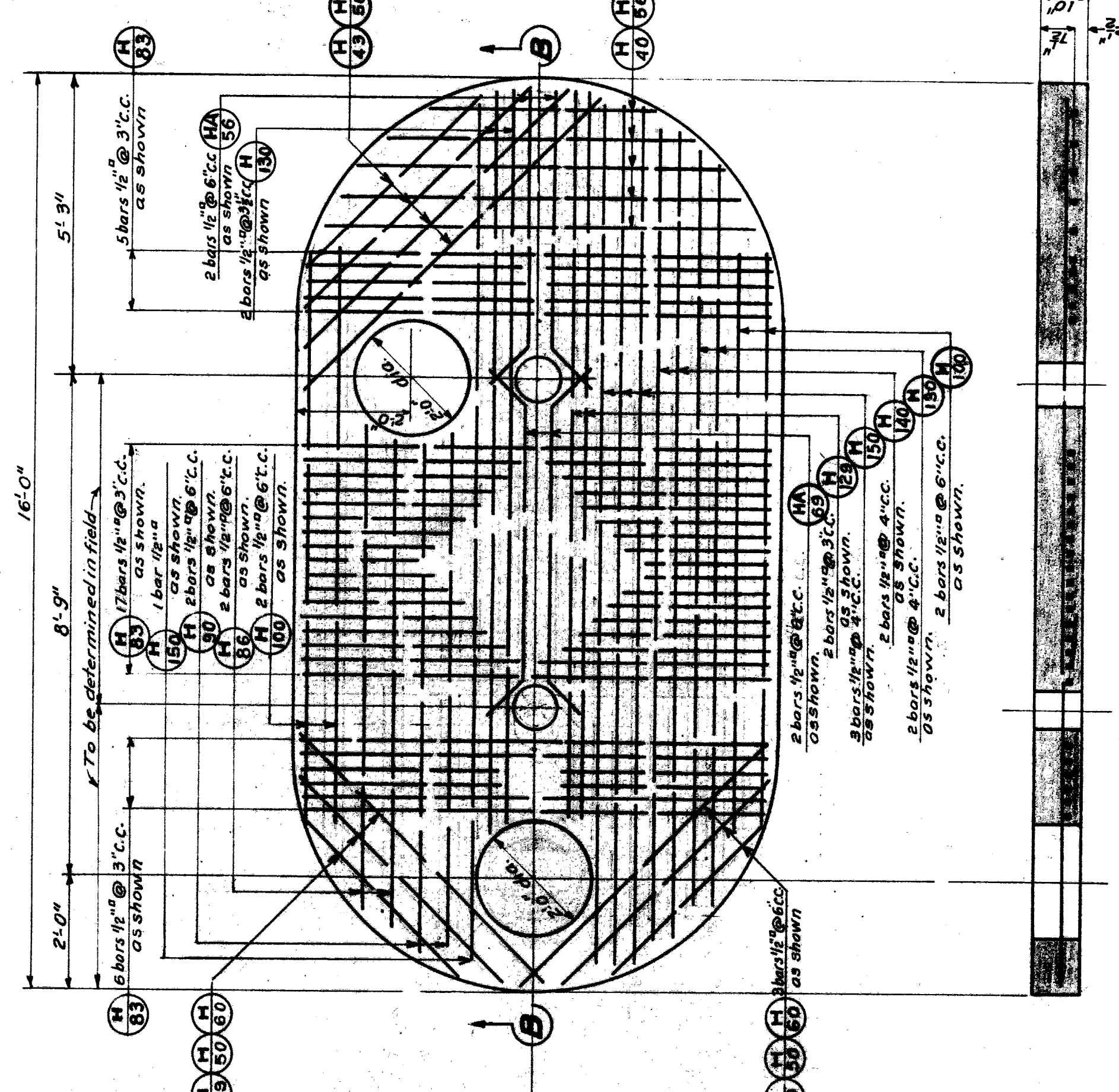


**LONGITUDINAL SECTION
DETAILS OF GATE WELL**
NORTH WELL as shown.
SOUTH WELL opposite hand except as noted.
Scale 1/4" = 1'-0"

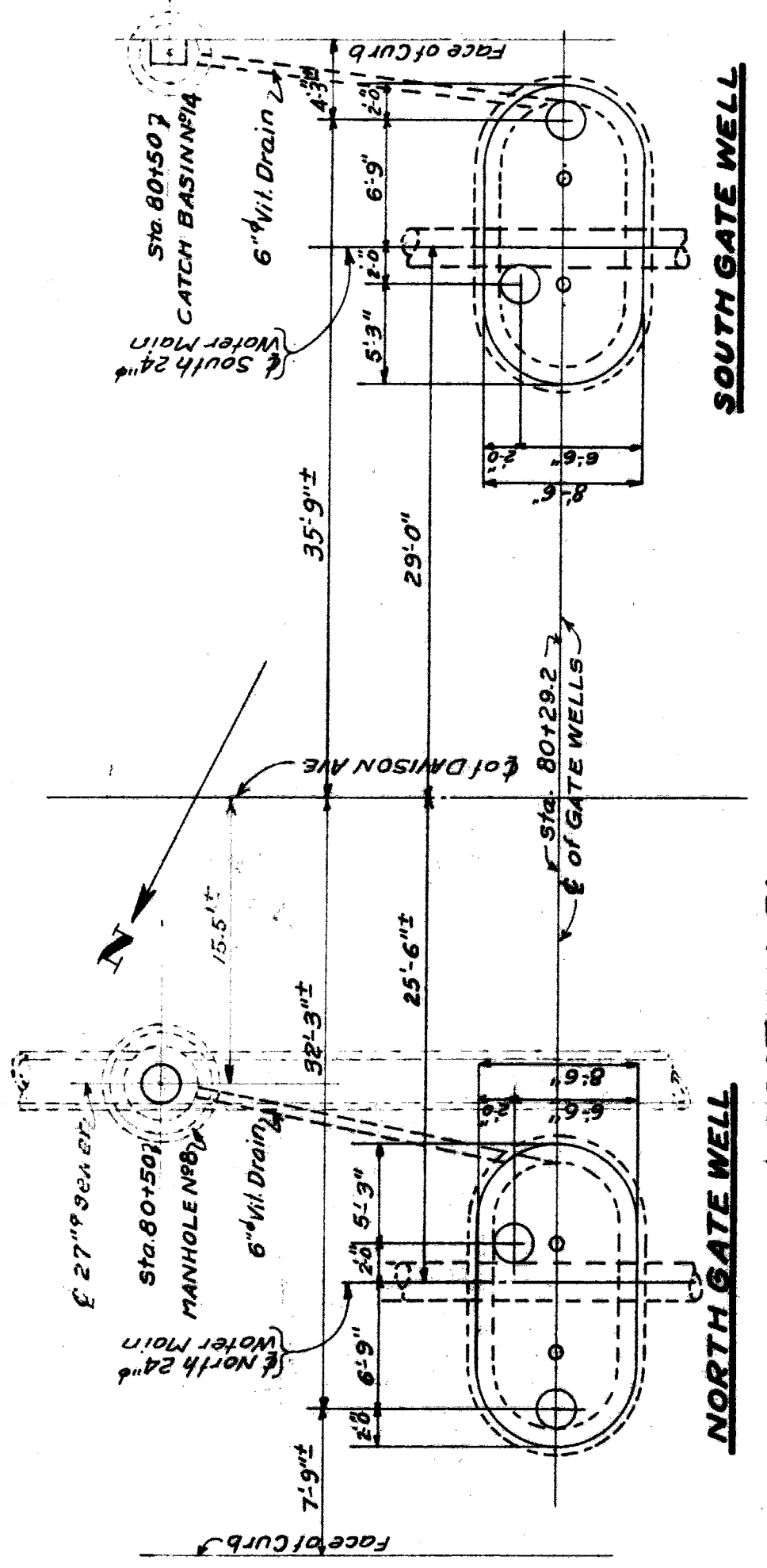


BILL OF REINFORCING BARS

| MARK | NUMBER | SIZE | LENGTH | REMARKS |
|-------|--------|------|--------|----------|
| H-39 | 2 | 1/2" | 3'-3" | Straight |
| H-40 | 1 | 1/2" | 4'-0" | " |
| H-43 | 1 | 1/2" | 4'-3" | " |
| H-50 | 2 | 1/2" | 3'-0" | " |
| H-55 | 2 | 1/2" | 3'-6" | " |
| H-60 | 2 | 1/2" | 6'-0" | " |
| H-65 | 2 | 1/2" | 6'-0" | " |
| H-70 | 1 | 1/2" | 7'-3" | " |
| H-75 | 1 | 1/2" | 7'-3" | " |
| H-80 | 2 | 1/2" | 8'-3" | " |
| H-85 | 2 | 1/2" | 8'-0" | " |
| H-90 | 2 | 1/2" | 8'-0" | " |
| H-100 | 2 | 1/2" | 10'-0" | " |
| H-105 | 2 | 1/2" | 10'-0" | " |
| H-110 | 2 | 1/2" | 11'-0" | " |
| H-120 | 2 | 1/2" | 11'-0" | " |
| H-130 | 2 | 1/2" | 11'-0" | " |
| H-140 | 2 | 1/2" | 11'-0" | " |
| H-150 | 2 | 1/2" | 11'-0" | " |
| HA-25 | 2 | 1/2" | 5'-6" | Bent |
| HA-26 | 2 | 1/2" | 6'-9" | " |



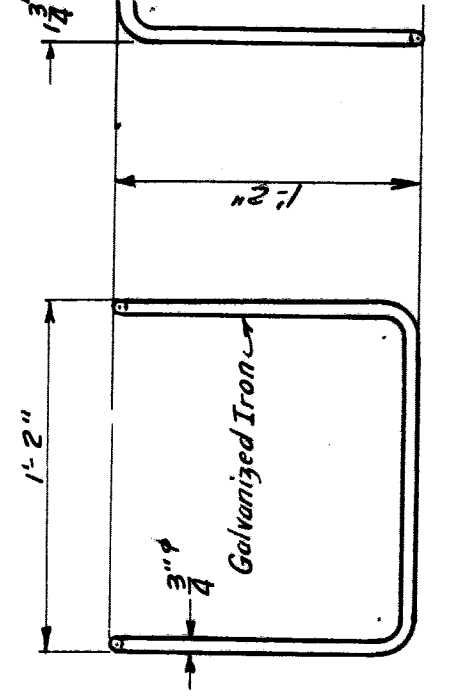
**SECTION "BB"
COVER SLAB**
Scale 1/4" = 1'-0"



LOCATION PLAN OF GATE WELLS
Scale 1/8" = 1'-0"

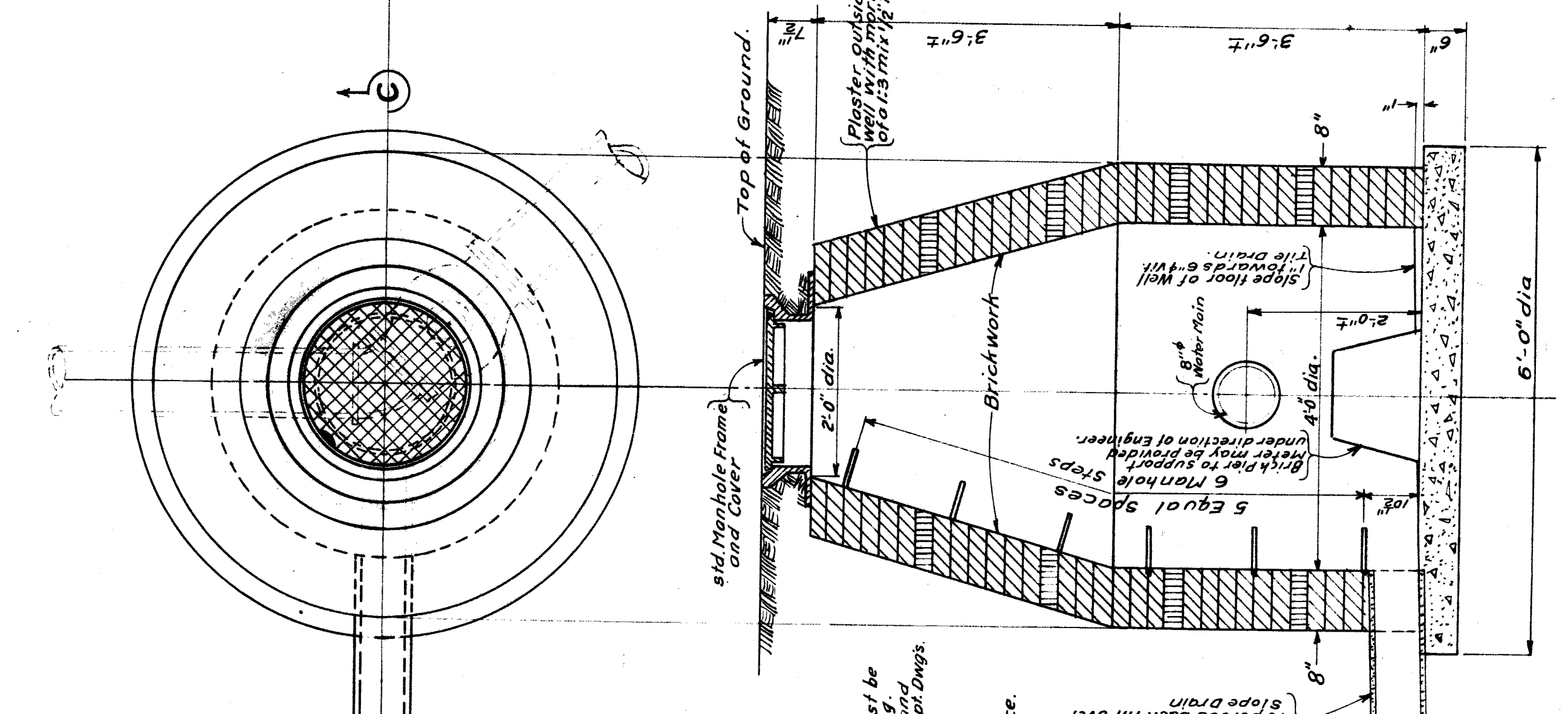
NOTES
SPECIFICATIONS: See CONTRACT DOCUMENTS.
CONCRETE: Grade "B" for 3000 psi.
AGGREGATES: Course Designation C-2; Fine Designation S-1
REINFORCING STEEL: All bars to be determined bars of intermediate grade as specified in A.S.T.M. Standard Specifications for Billet Steel Reinforcing Bars (Designation A-15-35 and subsequent revisions). All bars shall be securely tagged before shipping to the job. No concrete shall be placed until bars to be enclosed are securely fastened in place.
Gate and Meter Wells to be constructed with every seventh course of brick laid as stretchers.
Gate and Meter Wells to be plastered on the outside with a mortar of 1:3 mix 3/4" thick.
Tops of manholes and road boxes where set in pavement shall conform to grade and elevation of the pavement.
Manhole Frame and Cover and Road Box used on Gate Well shall conform to the standards of the City of Highland Park.
Manhole Frame and Cover for Meter Well shall conform to Wayne County Road Commission Standard as shown on Road Dept. Dwg. Sh. N-258711 C-17-2.

QUANTITIES (For 1 GATE WELL)
2 Sld. City of Highland Park Manhole Covers & Frames - 412 lbs. each.
2-8" Buffalo Road Boxes
10 Manhole Steps
Reinforcing Steel - 495 lbs.
Brick - 15 cu yds.
1-12" Cast Iron Sleeve with cast iron plug
1-6" Vitrified 12" Trap
6" Vitrified drain tile - 40 L.F.



MANHOLE STEP
Scale 1/2" = 1'-0"

4 bars 1/2" @ 6" c.c. as shown
5 bars 1/2" @ 6" c.c. as shown



**SECTION "CC"
METER WELL**
Scale 3/4" = 1'-0"

QUANTITIES
1-Road Dept. Sld. Manhole Frame and Cover - 410 lbs. min.
6 Manhole Steps
Concrete - 0.5 cu yds.
Brick - 930
6" Vitrified drain tile - 5 L.F.

P.W.A. DOCKET NO. MICH. 1120 F.

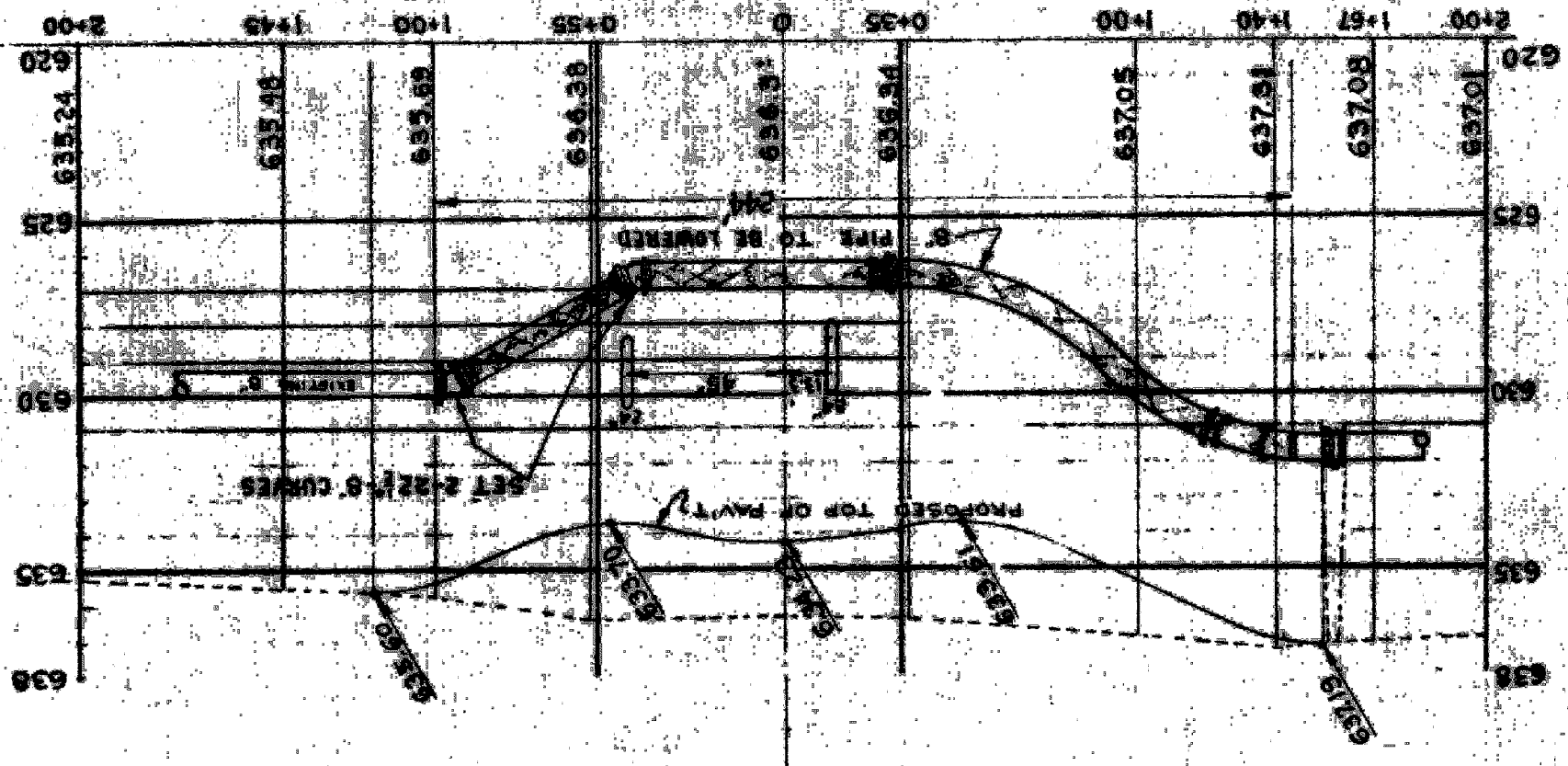
BOARD OF
WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
MICHAEL J. O'BRIEN
CHAIRMAN
JOHN F. BRENNAN
VICE CHAIRMAN

CHARLES L. WILSON
COMMISSIONER

**GATE DETAILS OF
DAVISON AVE. G.T.W.R.R. (HOLLEY DIV.)
GRADE SEP. N.2**

DESIGNED BY: J. L.
DRAWN BY: J. L.
CHECKED BY: J. L.
DATE: 10-8-38
APPROVED: J. L.
ISSUE NO. 3
JOB NO. 546
DATE: 10-22-38
APPROVED: COUNTY HIGHWAY ENGINEER
REG. CIVIL ENG. 5

PROFILE ON & OF GREELEY AVE.
 SCALES: HORIZ. 1"=50' VERT. 1"=5'



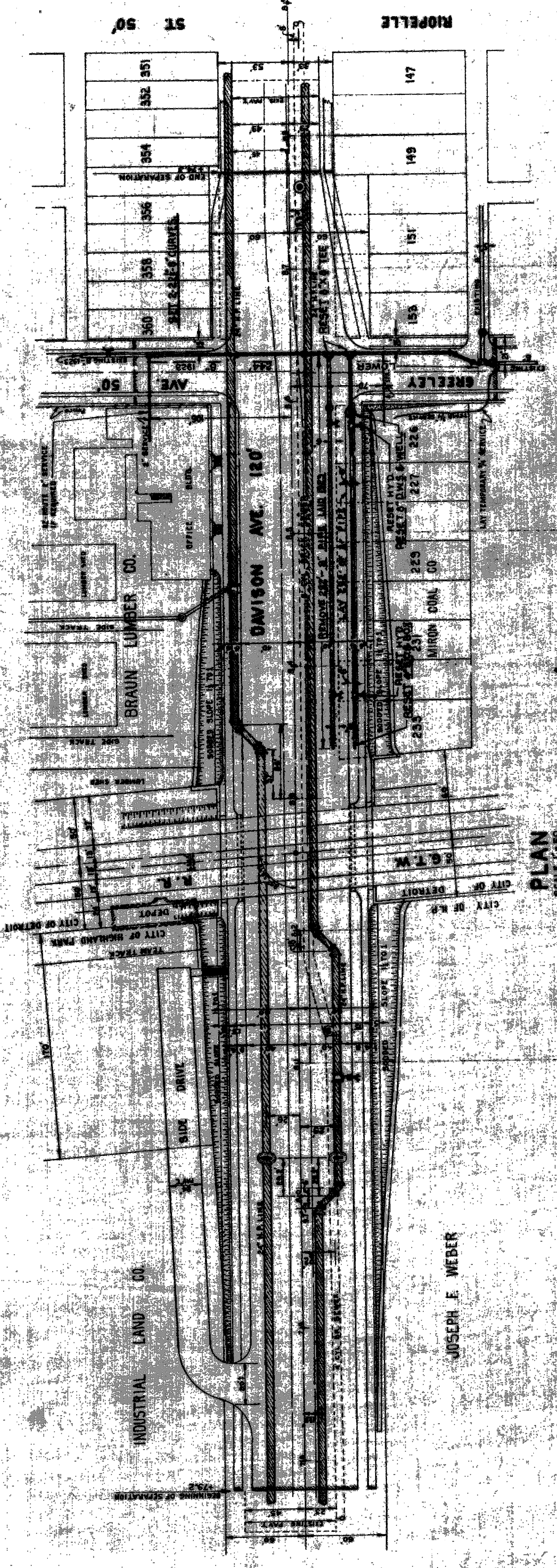
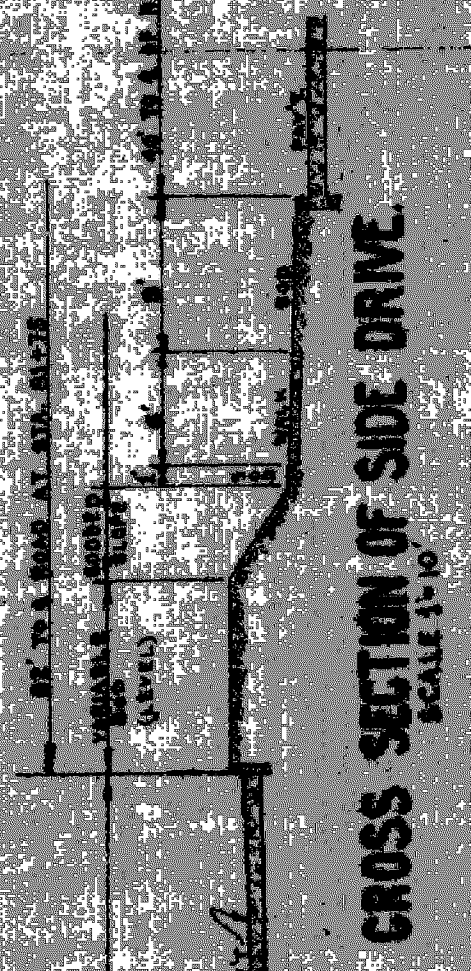
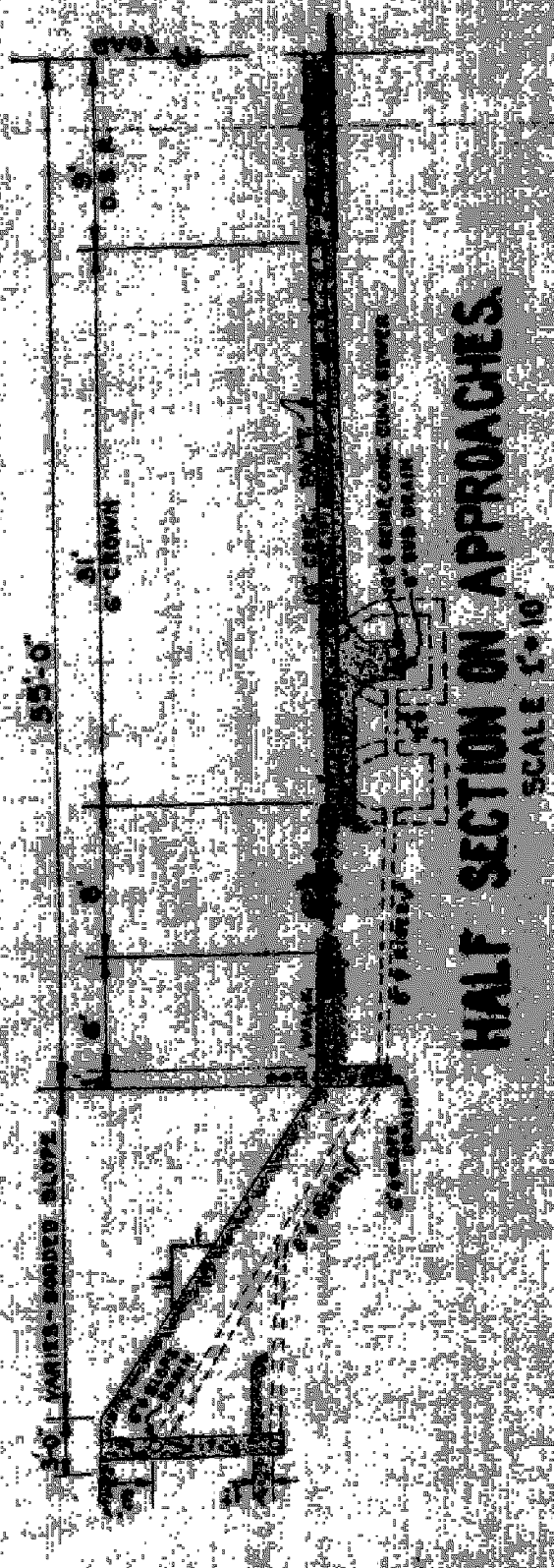
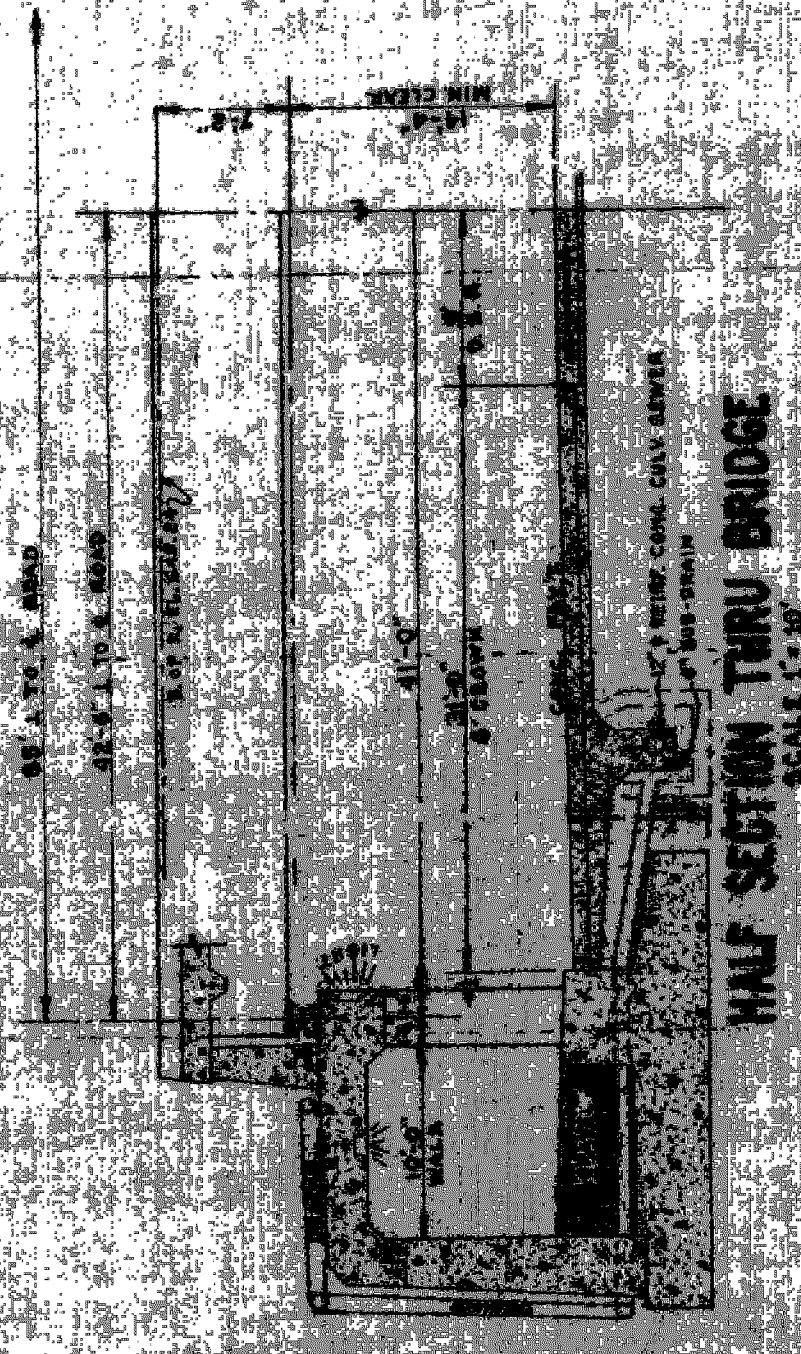
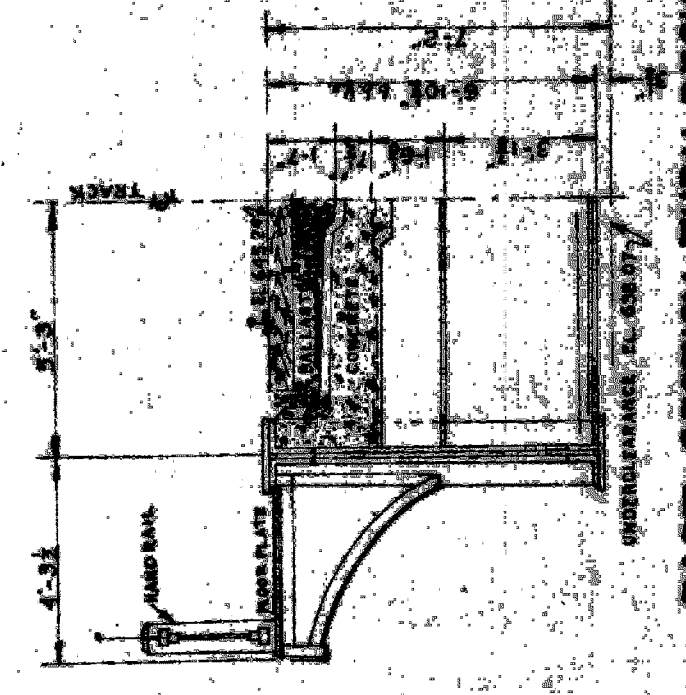
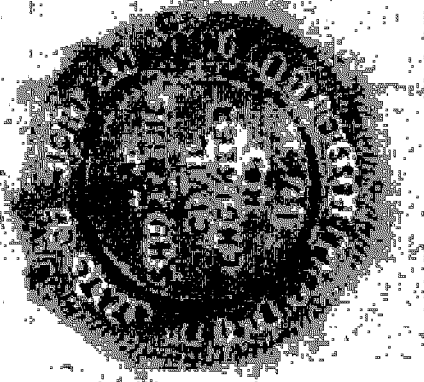
NOTE:
 ALL TRENCHES IN PAVEMENT
 TO BE BACKFILLED WITH
 SAND.

NOTE:
 DO NOT USE THIS DRAWING
 FOR HIGHLAND PARK MAINS USE
 SHEET NO. 4

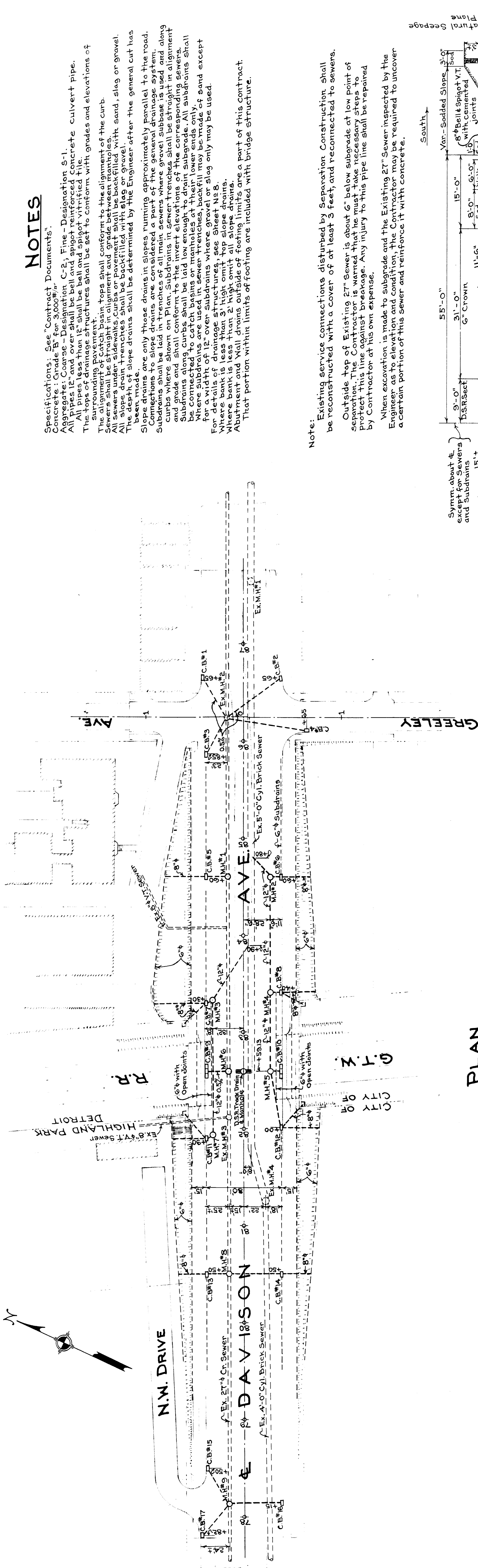
PWA PROJECT NO. MICH. 1120-F
 BOARD OF
 WAYNE COUNTY ROAD COMMISSIONERS
 DETROIT, MICHIGAN
 MICHAEL J. O'BRIEN JOHN C. BREINING
 CHARLES L. WILSON

DETROIT WATER BOARD LINES
 DAVISON AVENUE-G.T.W.R.R.
 GRADE SEPARATION

JOB NO.
 546
 DATE
 10-22-28



PROFILE ON &
 SCALES: HORIZ. 1"=50' VERT. 1"=5'

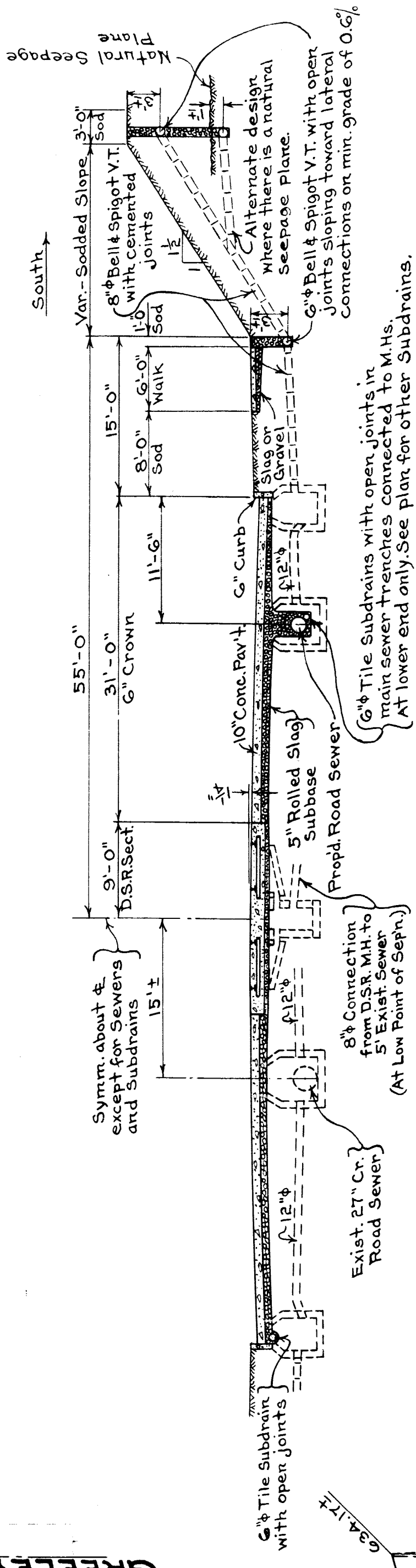


NOTES

Specifications: See "Contract Documents".
 Concrete: Grade "B" for 3000#
 Aggregate: Coarse - Designation C-2, Fine - Designation S-1.
 All pipes 12" and over shall be bell and spigot reinforced concrete culvert pipe.
 All pipes less than 12" shall be bell and spigot vitrified tile.
 The depth of the trench shall be set to conform with grades and elevations of surrounding pavement.
 The alignment of catch basins shall conform to the alignment of the curb.
 Sewers shall be straight in alignment and grade between manholes.
 All slope drains shall be constructed with a 2% slope.
 The depth of slope drains shall be determined by the Engineer after the general cut has been made.
 Slope drains are only those drains in slopes running approximately parallel to the road.
 Connections to slope drains are considered a part of the general drainage system.
 Connections to existing sewers shall be made in a trench where gravel subbase is used and along curbs where shown on plan. Subdrains in slopes shall be laid out in straight alignment and grade and shall conform to the invert elevations of the corresponding sewer.
 Subdrains along curbs shall be laid low enough to drain subgrade. All subdrains shall be connected to catch basins or manholes at their lower ends only.
 Where subdrains are used in sewer trenches, backfill may be made of sand except on a 12" or 15" over subdrains where gravel or slag may be used.
 For a 12" or 15" over subdrains, backfill shall be gravel or slag.
 Where bank is less than 2' high omit all slope drains.
 Abutment and Manhole drains outside of footing limits are a part of this contract.
 That portion within limits of footing are included with bridge structure.

Note: Existing service connections disturbed by Separation Construction shall be reconstructed with a cover of at least 3 feet, and reconnected to sewers.
 Outside top of Existing 27" Sewer is about 6" below subgrade at low point of pavement. The Contractor is warned that he must take necessary steps to prevent any possible Sewer Breakage. Any injury to this pipe line shall be repaired by Contractor at his own expense.
 When excavation is made to subgrade and the Existing 27" sewer inspected by the Engineer as to elevation and condition, the Contractor may be required to uncover a certain portion of this sewer and reinforce it with concrete.

TYPICAL SECTION ON APPROACHES
 Scale: 1" = 10'

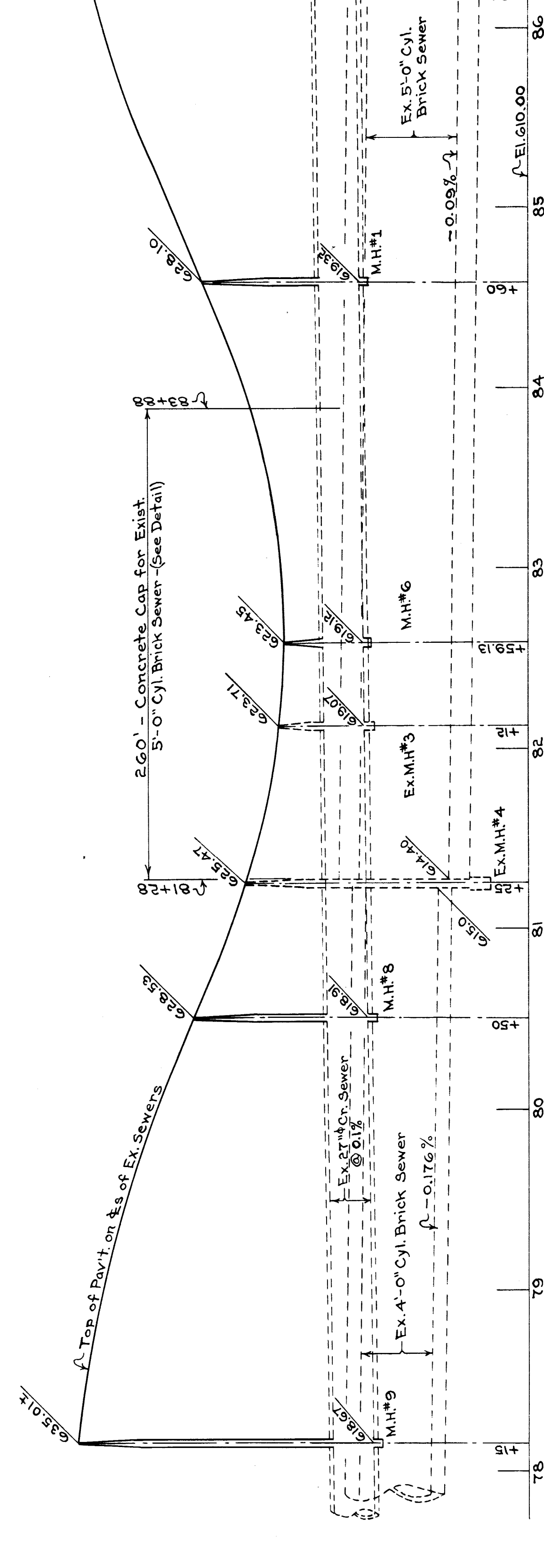


QUANTITIES

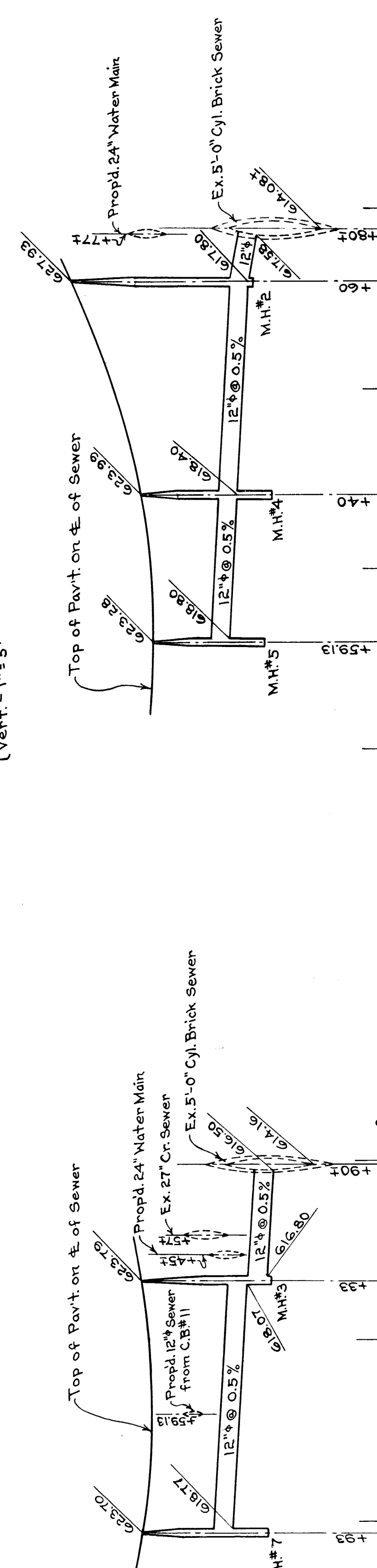
| | |
|---|-------------|
| 6" x 8" Vit. Tile Slope Drains (B & S) | 2180 L.F. |
| GENERAL DRAINAGE | |
| 6" x 8" Vit. Tile Subdrains (B & S) | 1240 L.F. |
| 8" x 8" " Connections to Slope Drains (B & S) | 330 L.F. |
| 6" x 8" " Drains - About Walks and Toes (B & S) | 415 L.F. |
| 12" Reinf. Conc. Culvert Pipe (B & S) | 1060 L.F. |
| Manholes | 9 |
| Catch Basins | 17 |
| Ex. Manholes to be rebuilt to meet new grade | 4 |
| 8" x 8" Vit. Tile Connections to Abut. Manholes | 85 L.F. |
| Concrete in Cap for 5" Sewer | 191 Cu.Yds. |
| Reinf. Steel in Cap " " " | 5965 # |

Note: The D.S.R. shall install its Track Drain and Manhole at Low Point of Sepn. and connect into drainage system as shown.

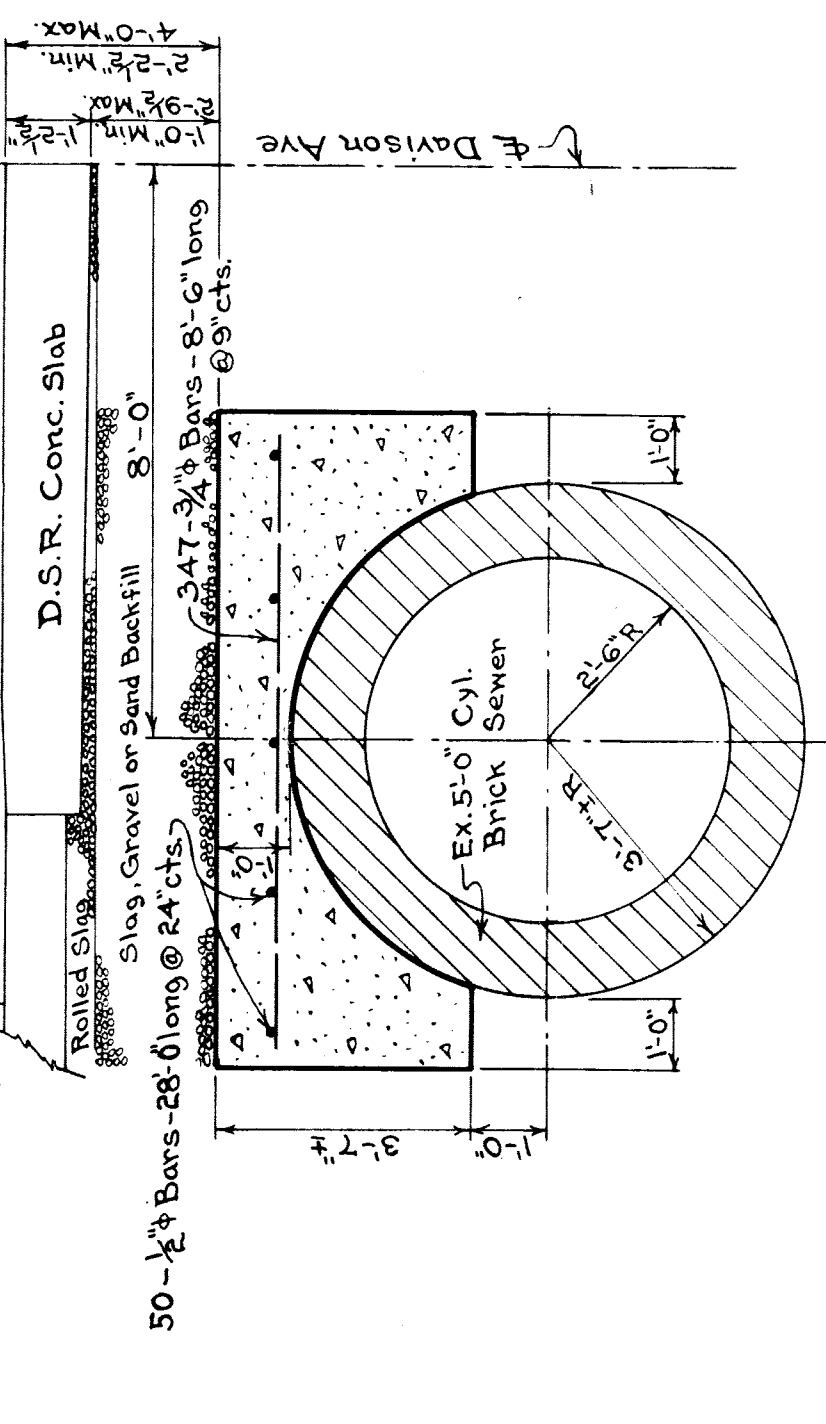
PROFILE ON E.S. OF EXISTING SEWERS
 Scales: Horiz. - 1" = 50'
 Vert. - 1" = 5'



PROFILE ON E. OF PROPOSED SEWER - N. SIDE
 Scales: Horiz. - 1" = 50'
 Vert. - 1" = 5'

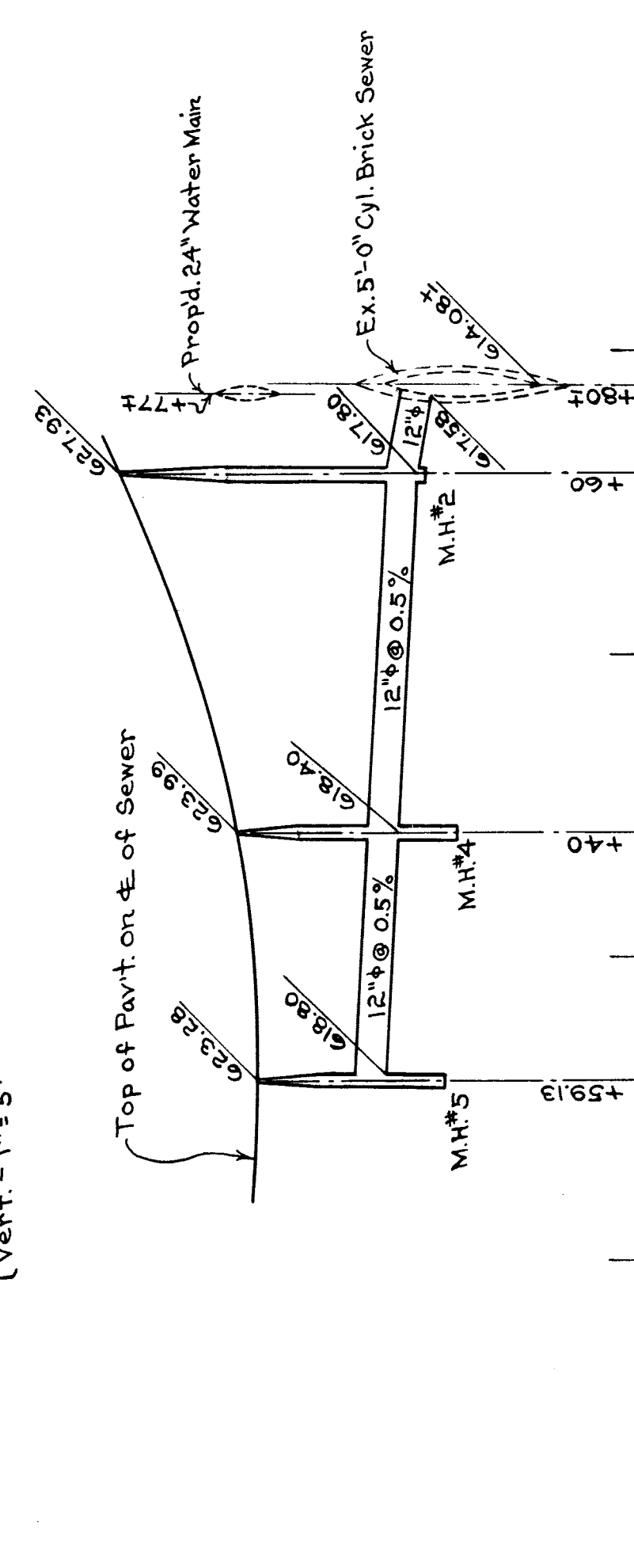


TYPICAL SECTION OF CONC. CAP FOR 5" SEWER
 Scale: 3/8" = 1'-0"



Note: Conc. Cap with slag, gravel or sand backfill shall be constructed between Sta. 81+28 and Sta. 83+86, i.e. where cover over existing sewer is 5'-0" or less.

PROFILE ON E. OF PROPOSED SEWER - S. SIDE
 Scales: Horiz. - 1" = 50'
 Vert. - 1" = 5'



P.W.A. DOCKET NO. MICH. 1120-F

BOARD OF
 WAYNE COUNTY ROAD COMMISSIONERS
 DETROIT, MICHIGAN
 MICHAEL J. O'BRIEN
 CHAIRMAN
 JOHN F. BRENNING
 VICE-CHAIRMAN

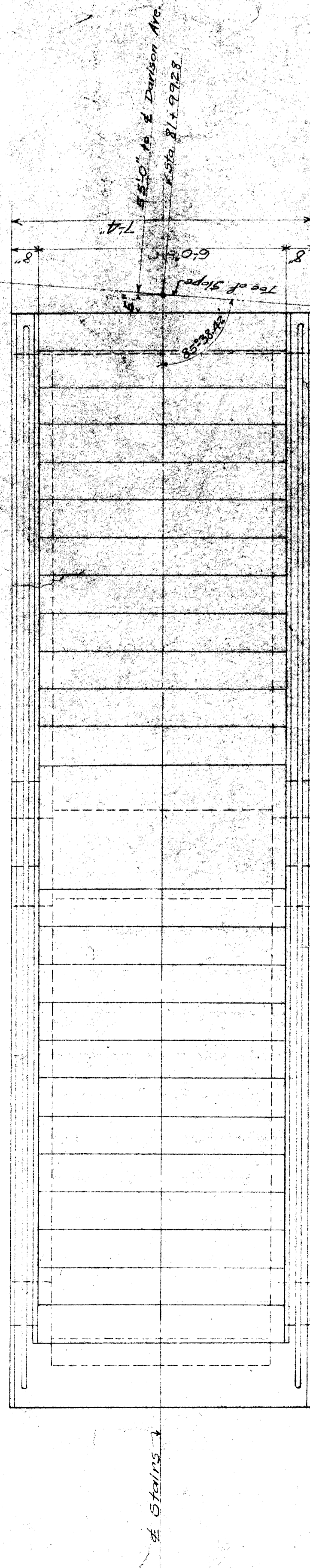
DRAINAGE PLAN
 DAVISON AVE. - G.T.W.R.R. (HOLLEY)
 GRADE SEPN.

DESIGNED BY G.J.P. DRAWN BY G.J.P.
 CHECKED BY J.P. R. DATE 10-1-37
 APPROVED BY M.J. SHAWLITZ DATE 10-1-37
 COUNTY HIGHWAY ENGINEER

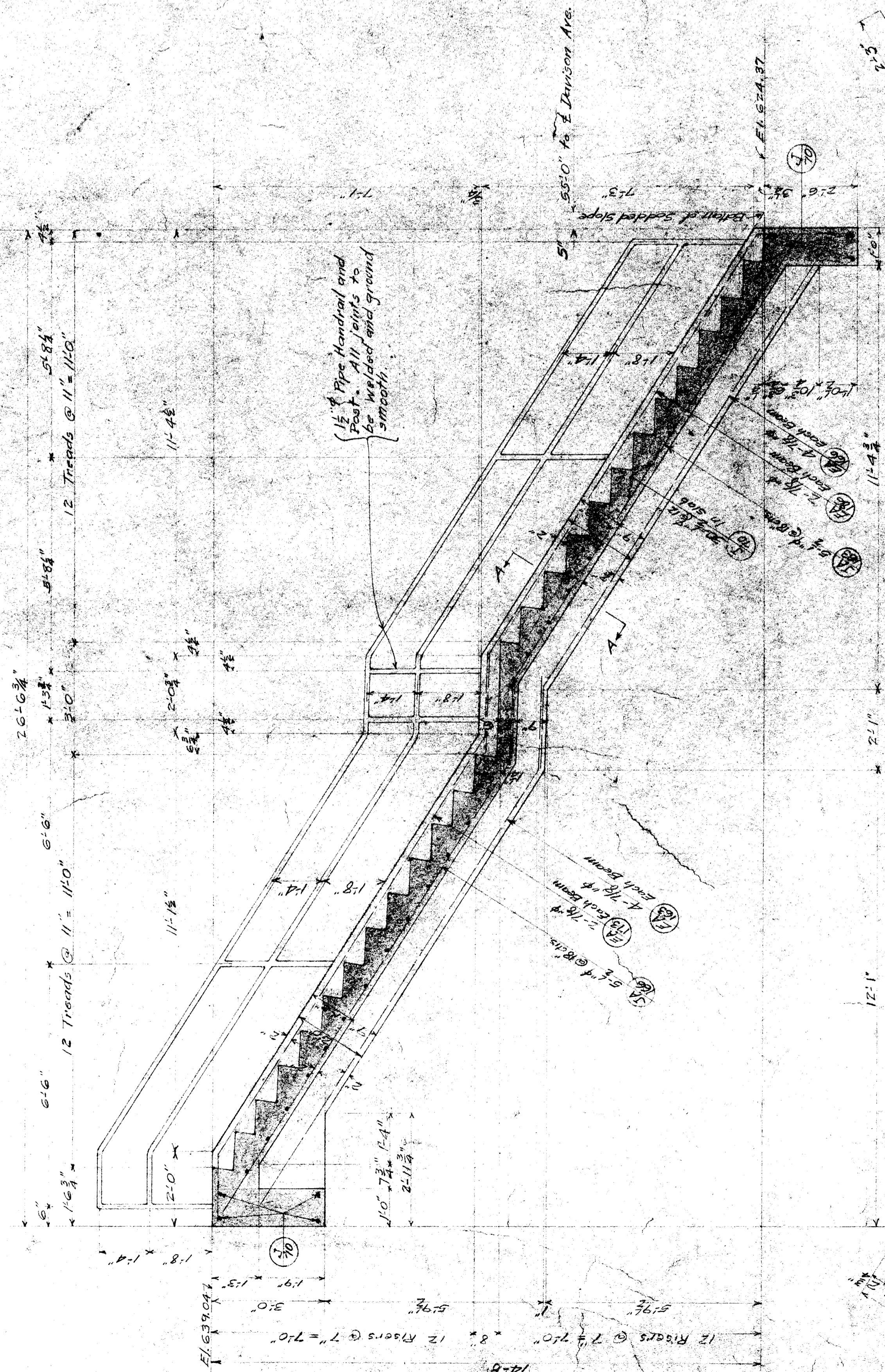
JOB NO. 546

DATE 10-1-37
 BY J.P. R.
 APPROVED BY M.J. SHAWLITZ
 COUNTY HIGHWAY ENGINEER

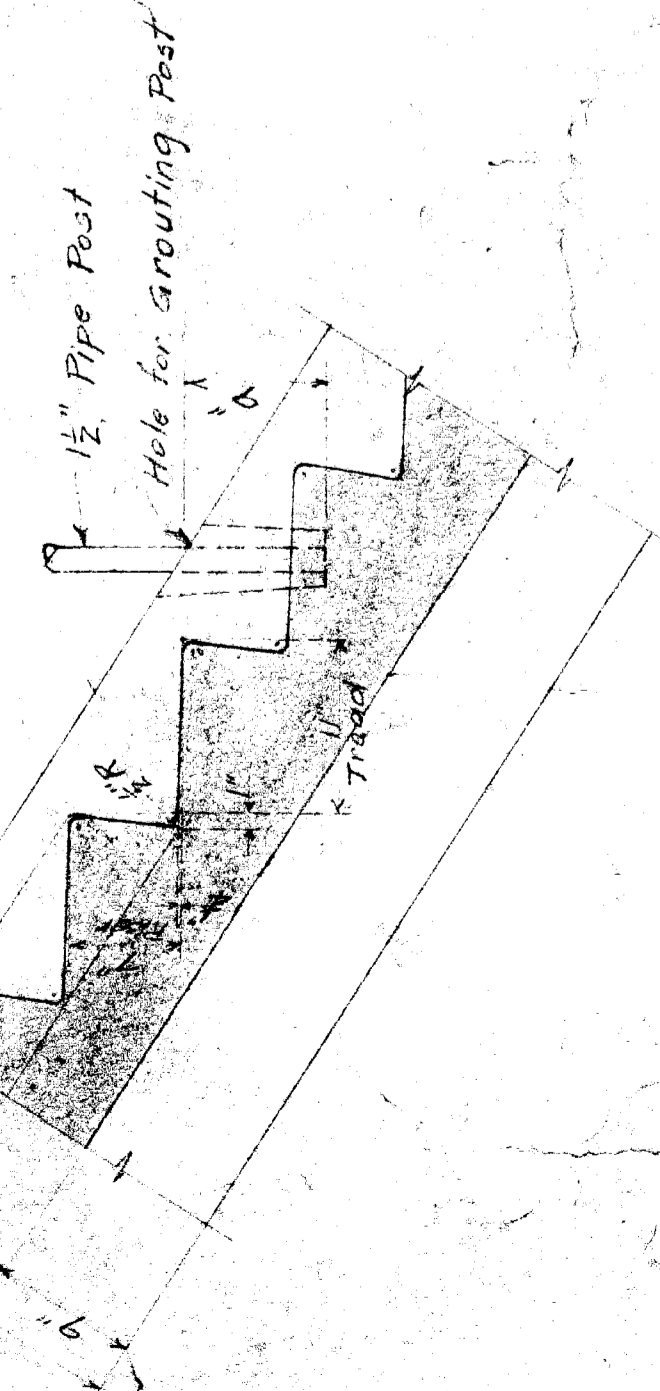
7



PLAN
Scale: 1/2" = 1'-0"



SECTIONAL ELEVATION
Scale: 1/2" = 1'-0"



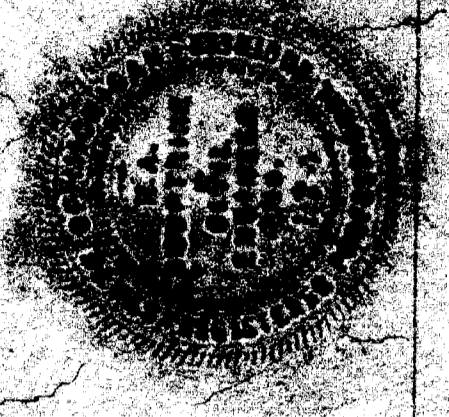
DETAIL OF STEPS AND POST SETTING
Scale: 1" = 1'-0"

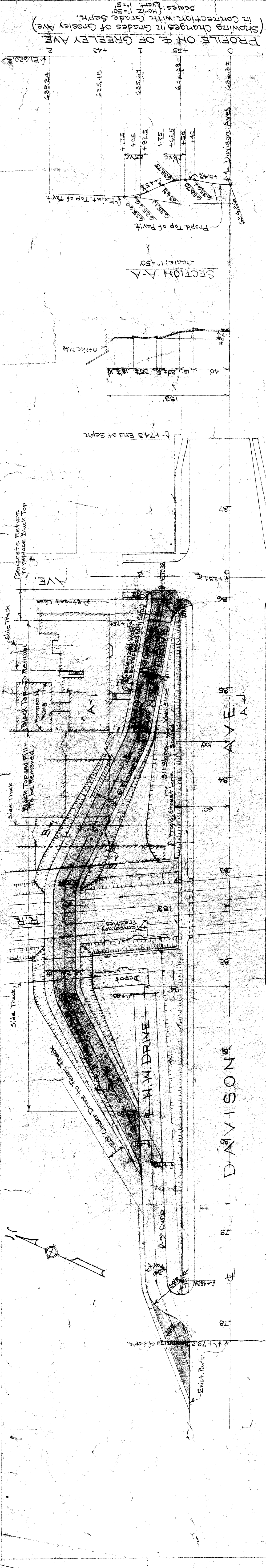
| Mark | No. | Size | Length | Remarks |
|------|-----|------|--------|----------|
| JAI | 58 | 1/2" | 7'-0" | Stringer |
| JAI | 63 | 5" | 16'-3" | Beam |
| EAI | 63 | 8" | 16'-6" | " |
| EAI | 66 | 8" | 16'-3" | " |
| EAI | 73 | 4" | 17'-3" | " |
| EAI | 76 | 4" | 18'-5" | " |

QUANTITIES
Concrete 9.3 Cu. Yds.
Reinf. Steel 111.5 Lbs.
Hand-oil 60 Lbs.

Specifications: See Contract Documents.
Concrete: Grade 3 for 3000 psi.
Rubbing: All exposed surfaces shall be rubbed as soon as forms are removed. No cement grout shall be used on vertical surfaces except corners. No exposed corners shall be beveled except where shown on plans or at direction of the Engineer.
Aggregates: Coarse; Designation C-2. Fine; Designation S-1.
Reinforcing Steel: All bars to be fabricated bars of intermediate grade as specified in the A.S.T.M. Standard Specification for Bullet Steel Reinforcing Bars (Serial Designation A-18.35 and subsequent revisions). Bars shall be securely welded together at each intersection. At splices, bars shall lap for a distance of 48 diameters, except where additional lap is required by the Plans or by the Engineer and be secured by wire together. All bars shall be secured, tagged before shipping to the job. No concrete shall be placed until bars to be placed are securely fastened in place.
Paint on Handrail: One shop coat and two field coats as specified for structural steel.

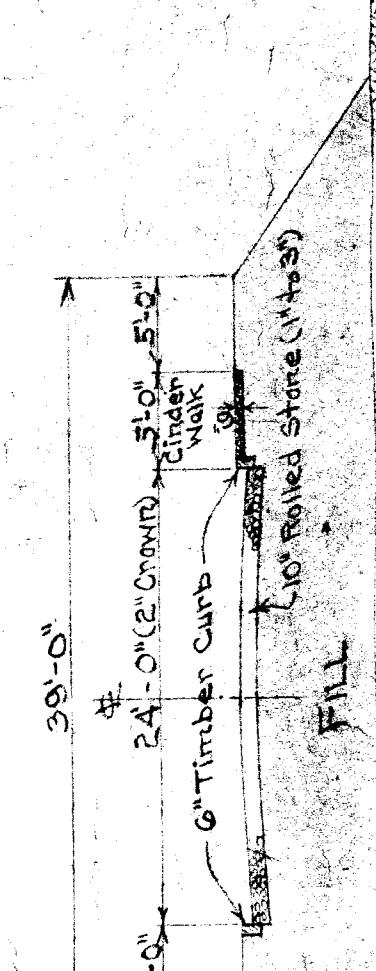
FWADOCKET No. MICH. 11207
WAYNE COUNTY BOARD OF COMMISSIONERS
STAIR DETAILS
DAVISON AVE. - GLENN PARK
JOB NO. 546
DATE 1/15/24





- SUGGESTED PROGRAM FOR WORK IN CONNECTION WITH CONSTRUCTING DETOUR ON BRAUN LBR. CO. PROPERTY**
- 1 Cut off front end of sheds and replace front doors etc. in new location. (Moving Contractor)
 - 2 Prepare site of relocated office. do
 - 3 Dig new basement 3600 Sq. Ft. in area. do
 - 4 Construct basement and foundation walls so as to provide 12" front floor grade to the ground level. The North Wing of the office becomes the North Wing of the new location. Provide toilet facilities in basement, incl. entrance there to. do
 - 5 Move gates in present fence back to close lanes between buildings. do
 - 6 Construct 24 ft. detour pavement of Lincoln 3 inch limestone rolled - 10" thick with 1/2 inch traffic. 3' separated to DAVISON after grade separation. is built. (Grade Sepr. Contr.)
 - 7 Remove that portion of the detour at the 4% grade and the Greeley Ave. return. (Grade Sepr. Contr.)
 - 8 Replace south end of sheds to line up with front of office and move fence and gates to this line. (Moving Contractor)
 - 9 Rebuild the Greeley Ave. return with concrete. Build concrete curbs and walks along the 50 ft. drive from Greeley Ave. to the West end of office. (Grade Sepr. Contr.)
 - 10 Sod in front of office and slope along Davison Ave. do
 - 11 Place broyer stone on parking area between top of slope and front of sheds where necessary to finish surface. do
 - 12 Construct 20 ft. Choker Drive to Teat Track on West side. do

Note:
It is the intent to put the buildings moved and cut off in the same condition as when work was started.



SECTION B-B
Scale: 1"=10'

PLAN
Scale: 1"=50'

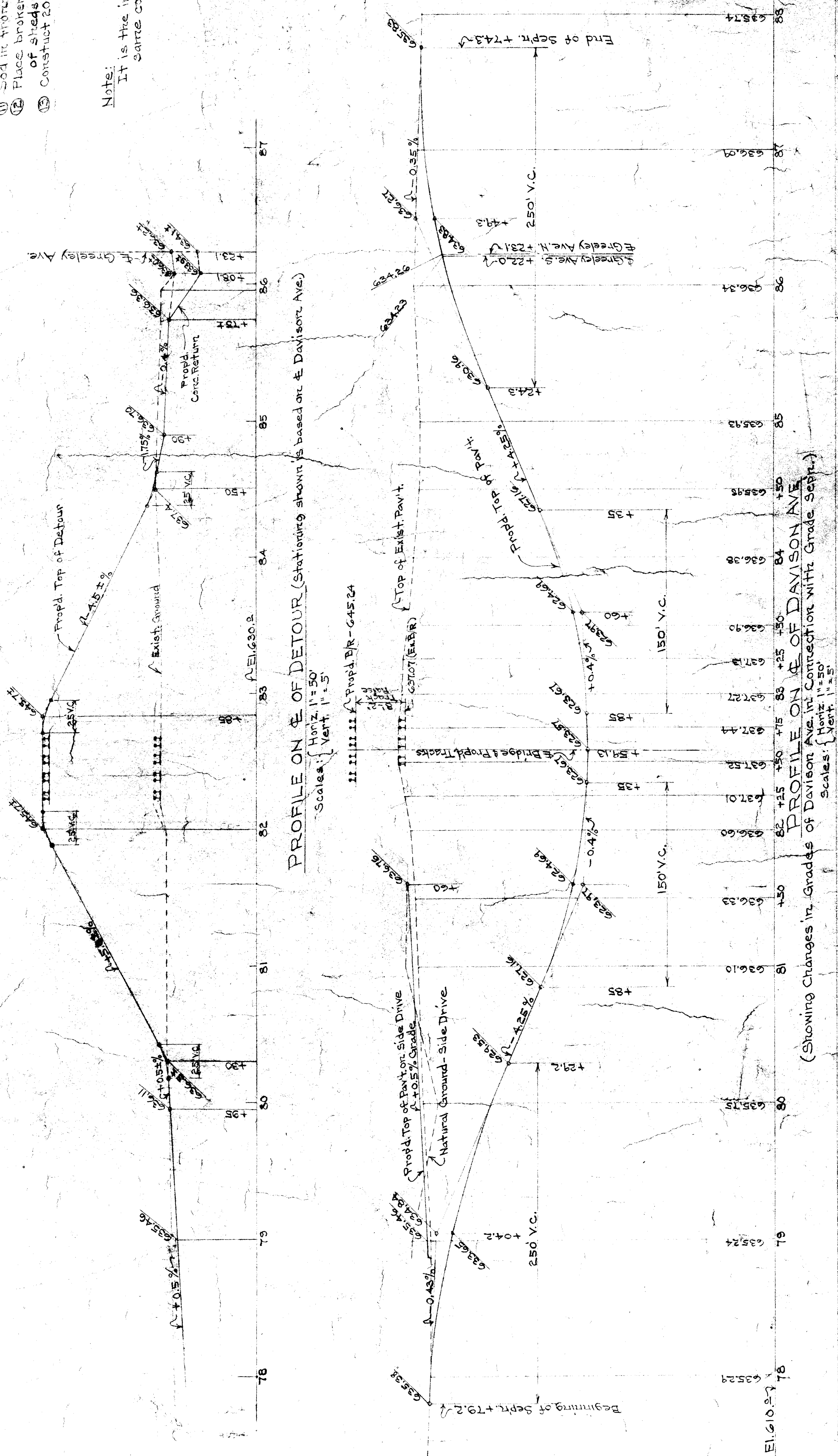


EXHIBIT "X"

P.M.A. DOCKET NO. MICH. 1120F

BOARD OF
WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICH.

MICHAEL J. SOBRIEN
JOHN F. BRENNING
CHARLES L. WILSON
COMMISSIONERS

DETOUR LAYOUT & BUILDING REVISIONS ON
BRAUN LUMBER CO. PROPERTY AND
CHANGES IN GRADES OF DAVISON AVE &
Greeley Ave. IN CONNECTION WITH GRADE SEPR.
ON DAVISON AVE - S.T. W.R. (Docket 574)

Drawn By: G.D.P. Checked By: A.P.K.
Subscale: 1"=25' Scale: As Shown. Original: 1"=10' (See Docket)

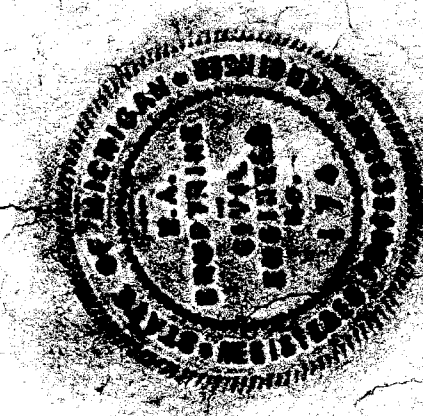
Approved: *[Signature]*
Approved: *[Signature]*

Capacity Highway Engineer

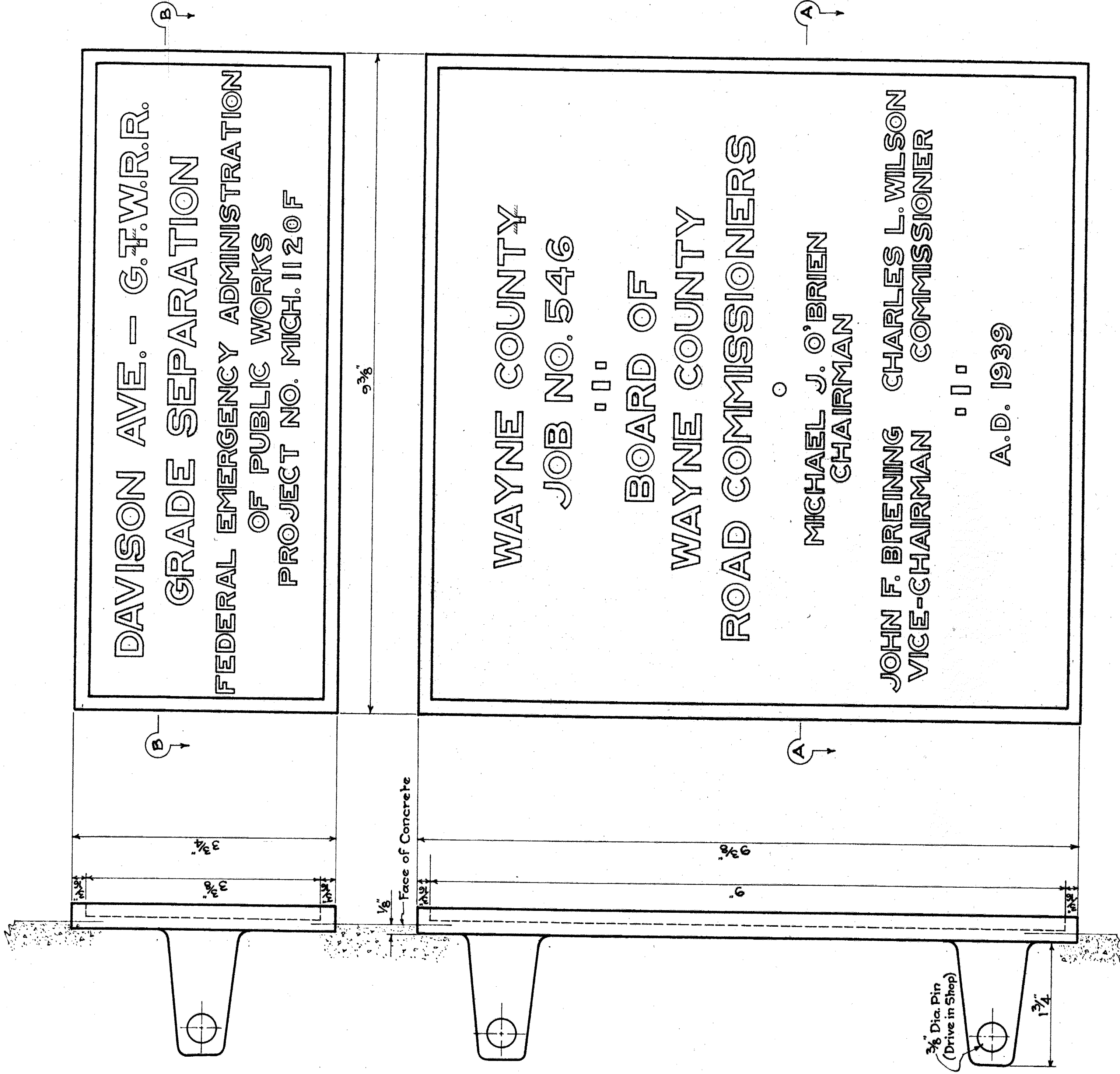
REVISIONS
Misc. Changes
G.P. 10-1-30
Sheet No. Original
Subscale: 1"=25'

JOB NO.
546
DATE
10-1-38

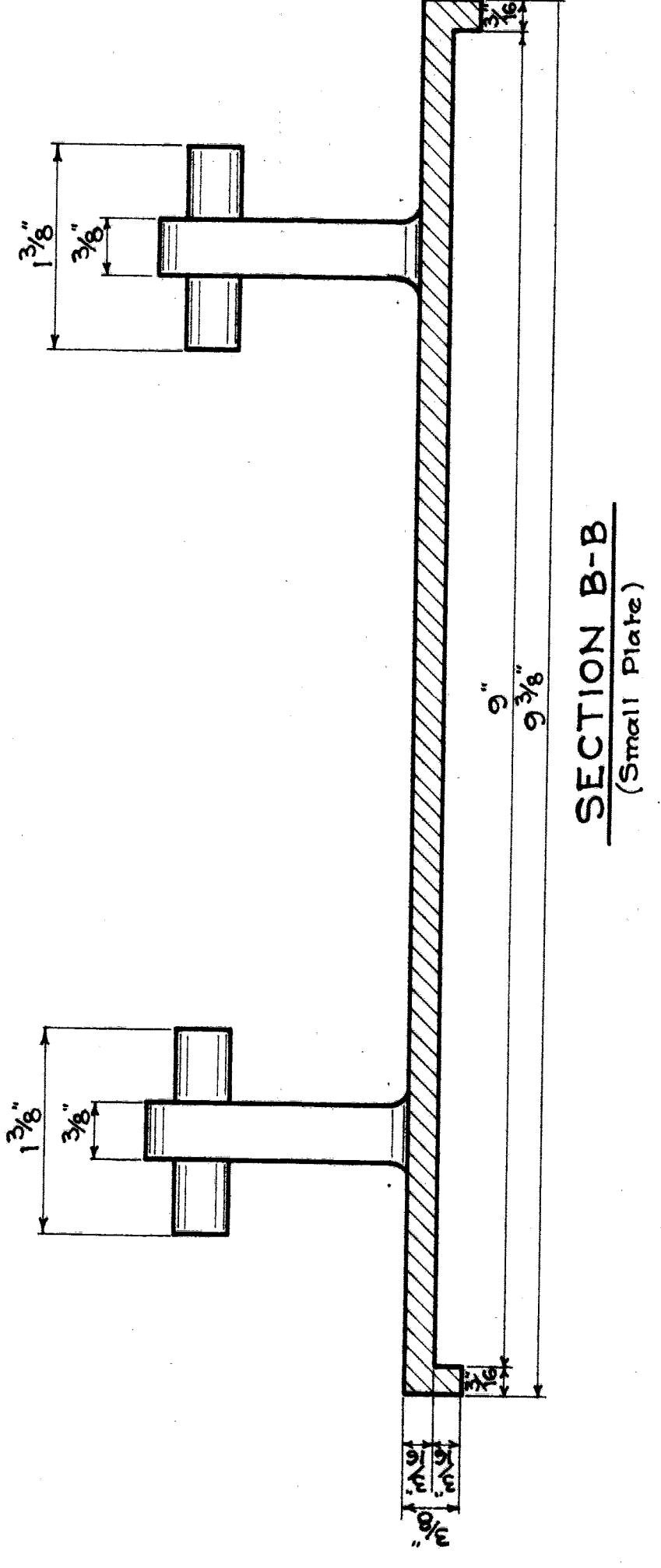
SHEET NO.
12



PROFILE ON E OF DAVISON AVE
Showing Changes in Grades of Davison Ave. in Connection with Grade Sepr.
Scale: 1"=50' Horiz, 1"=5' Vert.



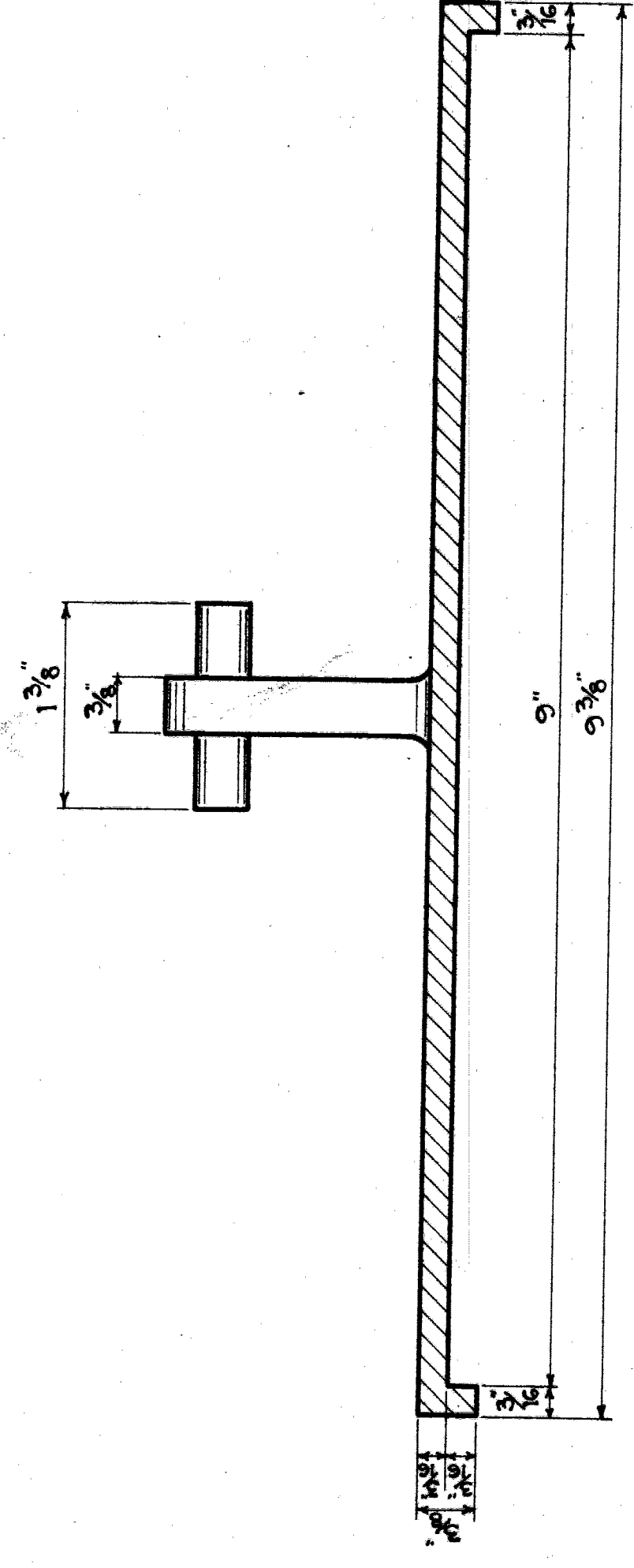
END VIEWS



SECTION B-B
(Small Plate)

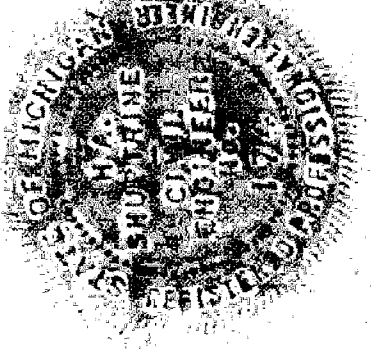
SPECIFICATION

Name Plates shall be made of Bronze composed of 88% ± Copper; 10% Zinc; 2% Tin. Letters to set out as indicated on the drawing. The face of the letters and the borders of the plates to be burnished and the background to be stippled and to have a dark oxidized finish.

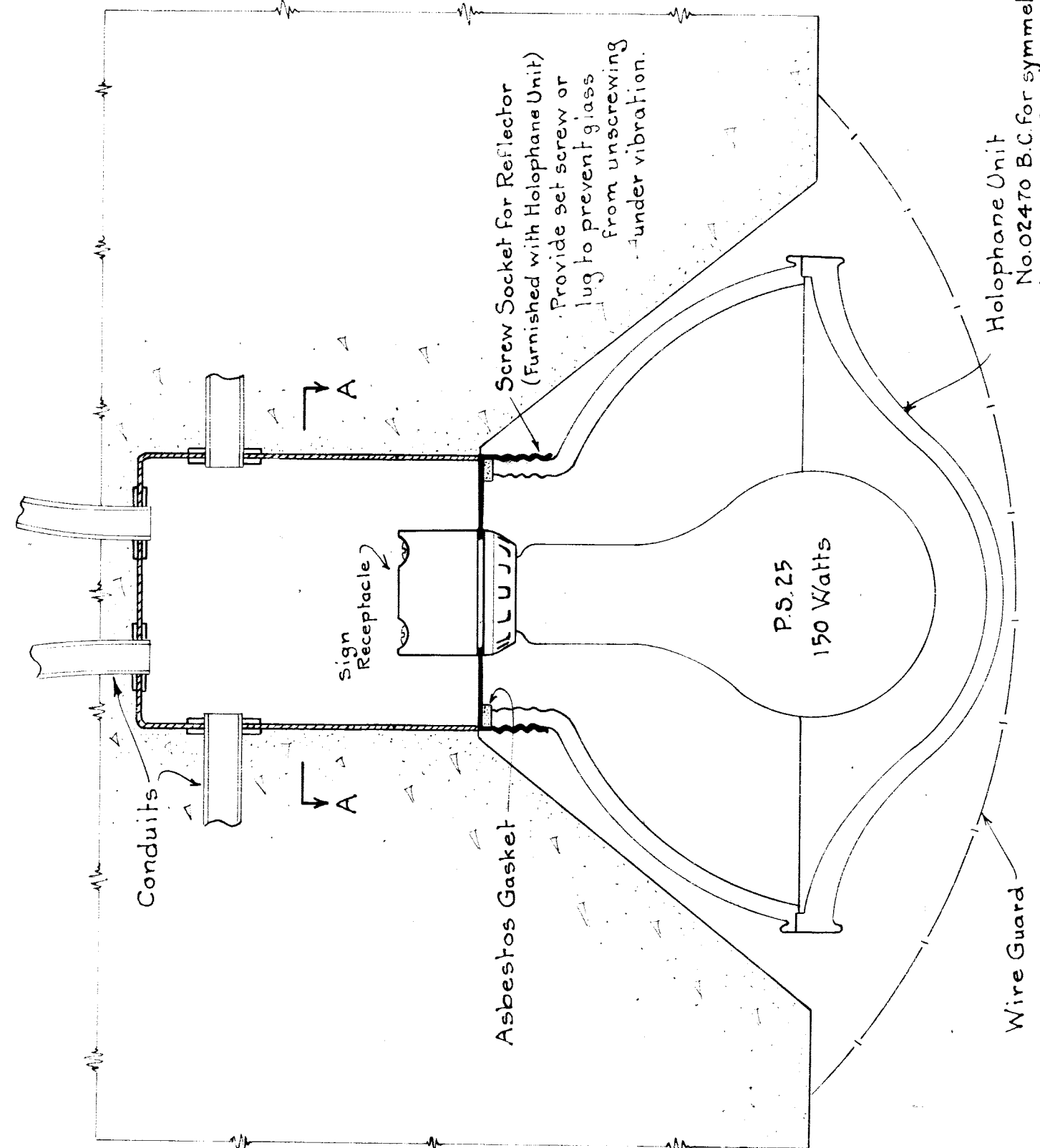


SECTION A-A
(Large Plate)

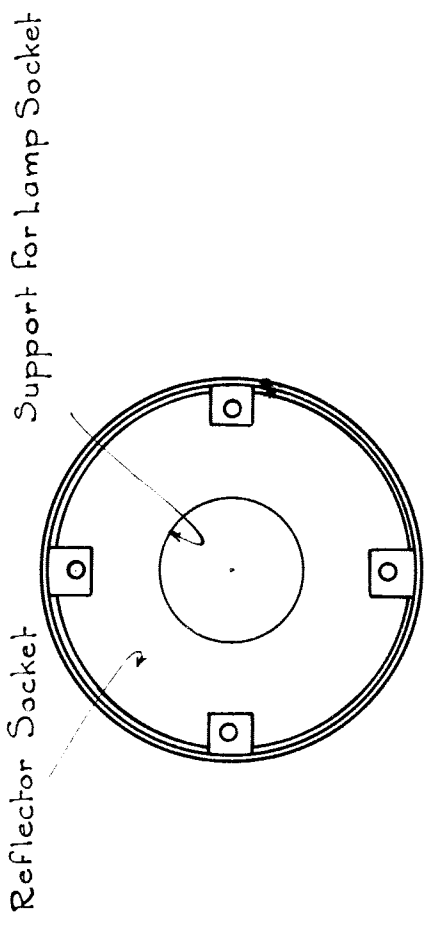
2 required of each as shown.



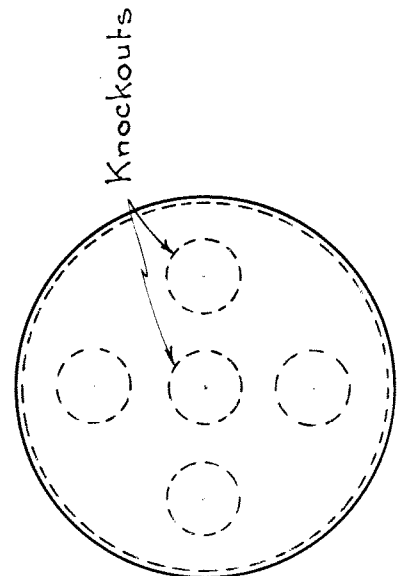
| | |
|--|--|
| P.W.A. DOCKET NO. MICH. 1120-F BOARD OF WAYNE COUNTY ROAD COMMISSIONERS DETROIT, MICHIGAN MICHAEL J. O'BRIEN CHAIRMAN JOHN F. BREINING VICE-CHAIRMAN CHARLES L. WILSON COMMISSIONER | |
| NAME PLATES DETAILS DAVISON AVE. - G.T.W.R.R. GRADE SEPARATION HOLLEY MICH. | |
| DESIGNED BY: M.L.K. DATE: 10-15-39 | DRAWN BY: M.L.K. SCALE: Full Size CHECKED BY: M.L.K. APPROVED: M.L.K. DATE: 10-22-39 |
| JOB NO. 546 ISSUE NO. 1 10-22-39 | SHEET NO. 13 |



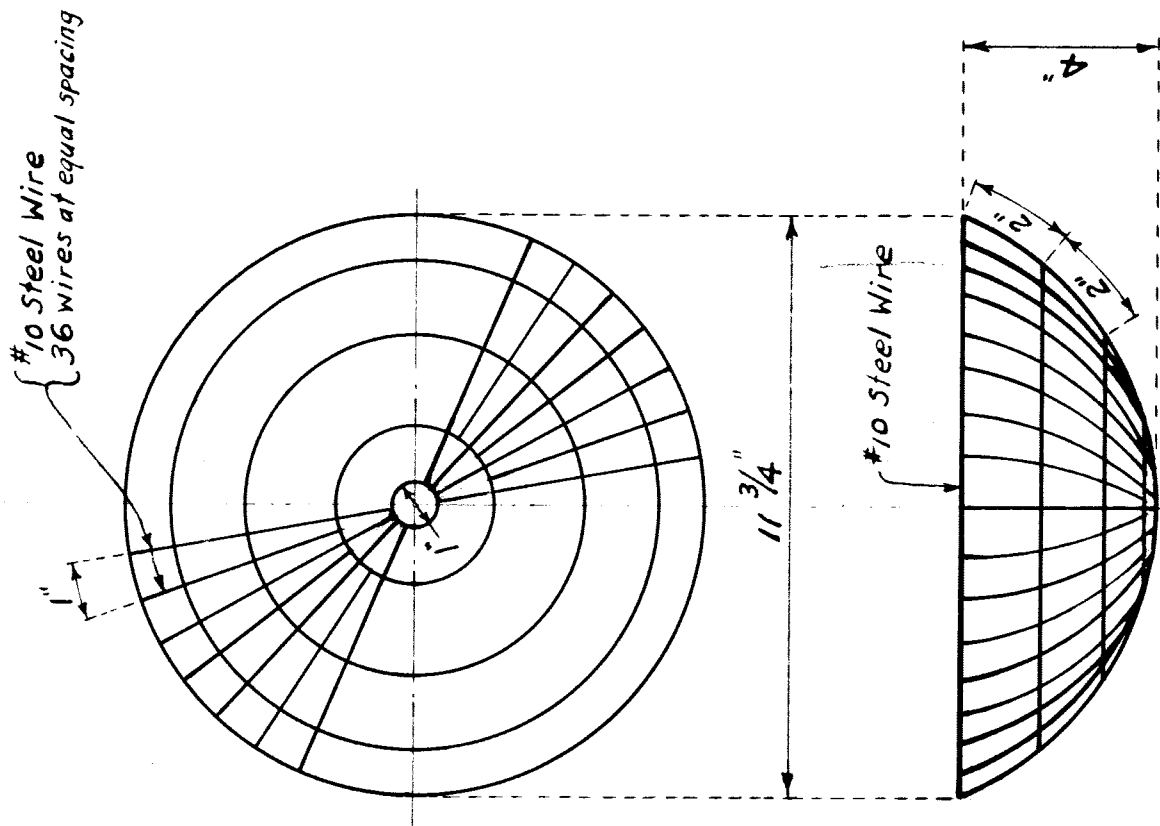
SECTION OF ASSEMBLY
Scale 6"=1'-0"



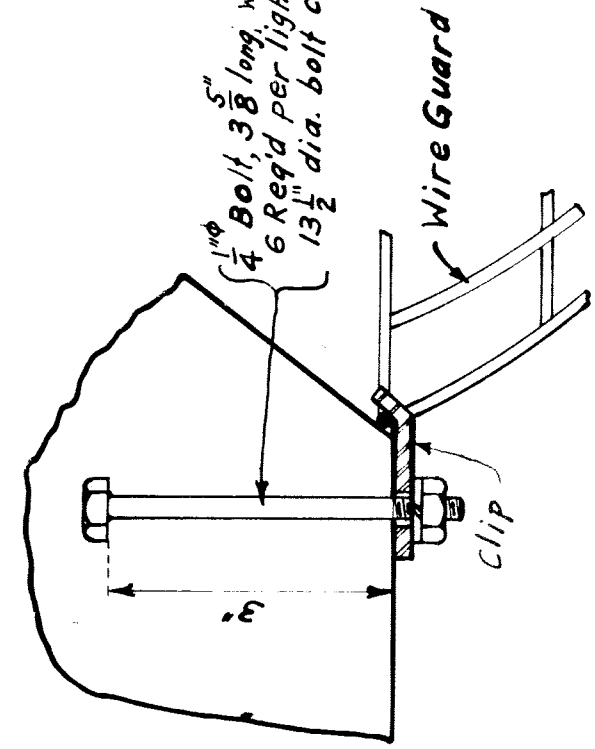
SECTION A-A



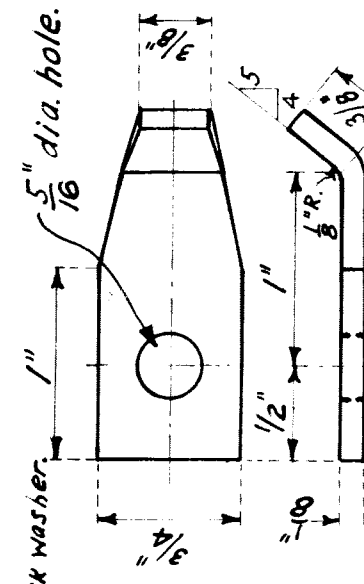
TOP VIEW



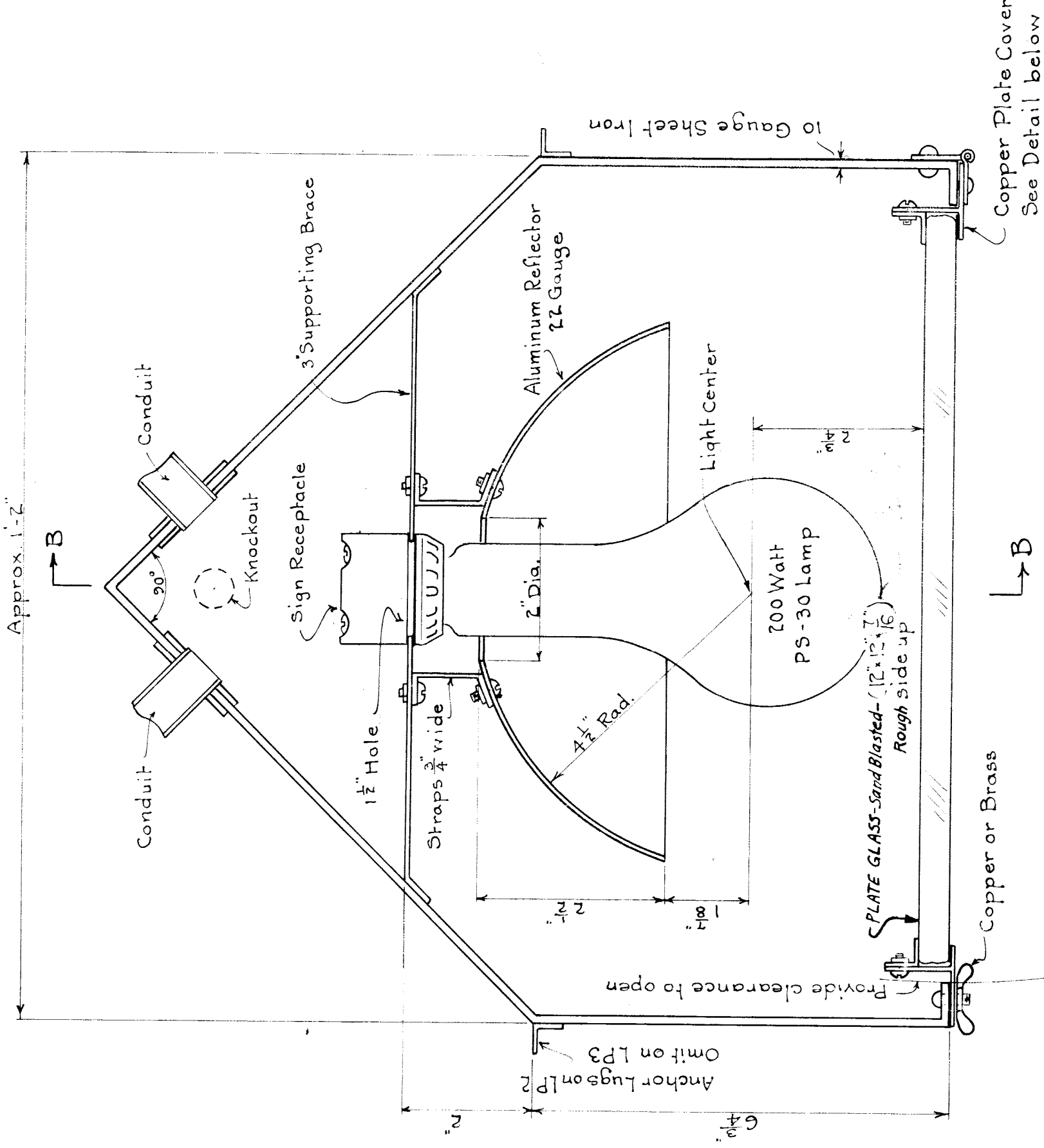
WIRE GUARD
FOR LIGHTING UNIT LPI or LPI-A
Scale 1/2"=1'-0"



METHOD OF ATTACHING WIRE GUARD
Scale 1/2"=1'-0"

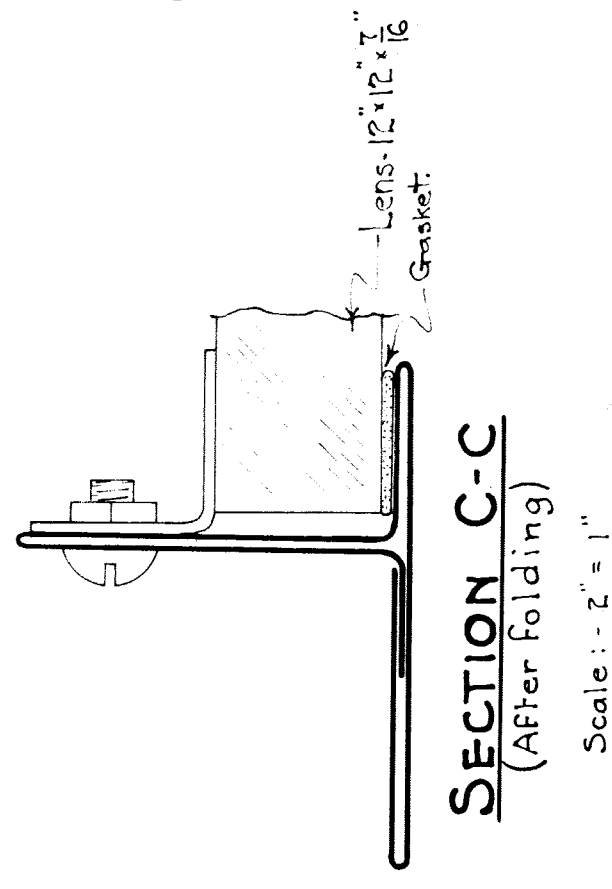


DETAIL OF CLIP FOR WIRE GUARD
MATERIAL - Brass
6 Req'd per lighting unit



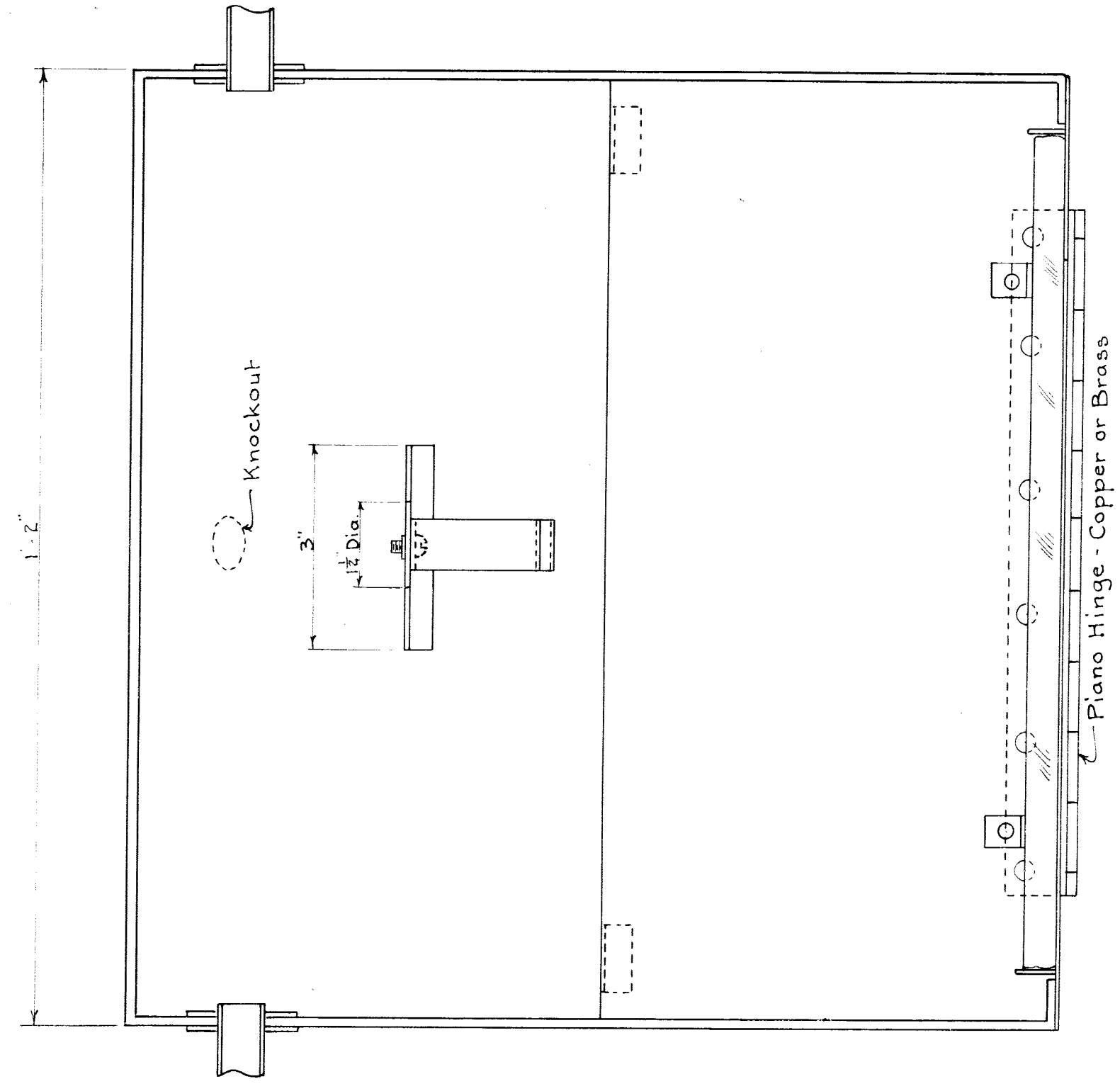
SECTION OF ASSEMBLY
Scale 6"=1'-0"

Note - All iron and steel surfaces to be covered with two coats of an approved gray paint. Boxes are to be encased in concrete, and shall be built water-tight.

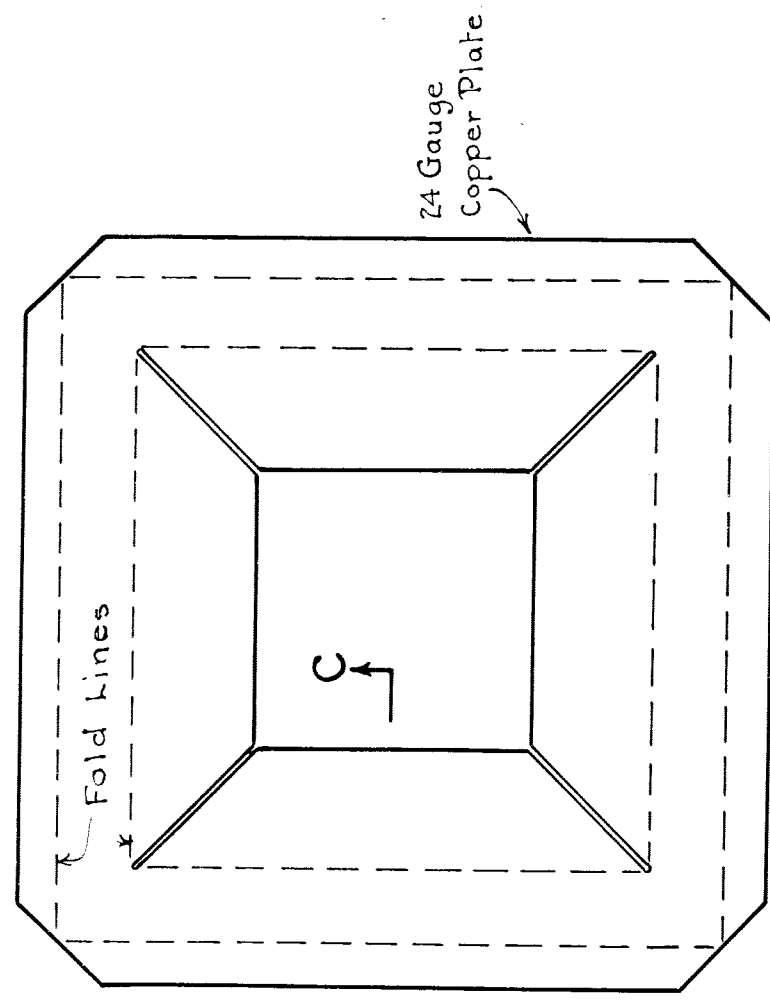


SECTION C-C
(After folding)
Scale 1/2"=1'-0"

SUBWAY LIGHTING UNITS
LP2 - With Anchor Lugs
LP3 - Without Anchor Lugs



SECTION B-B THRU BOX
Scale 6"=1'-0"



LENS FRAME
Scale 3/4"=1'-0"

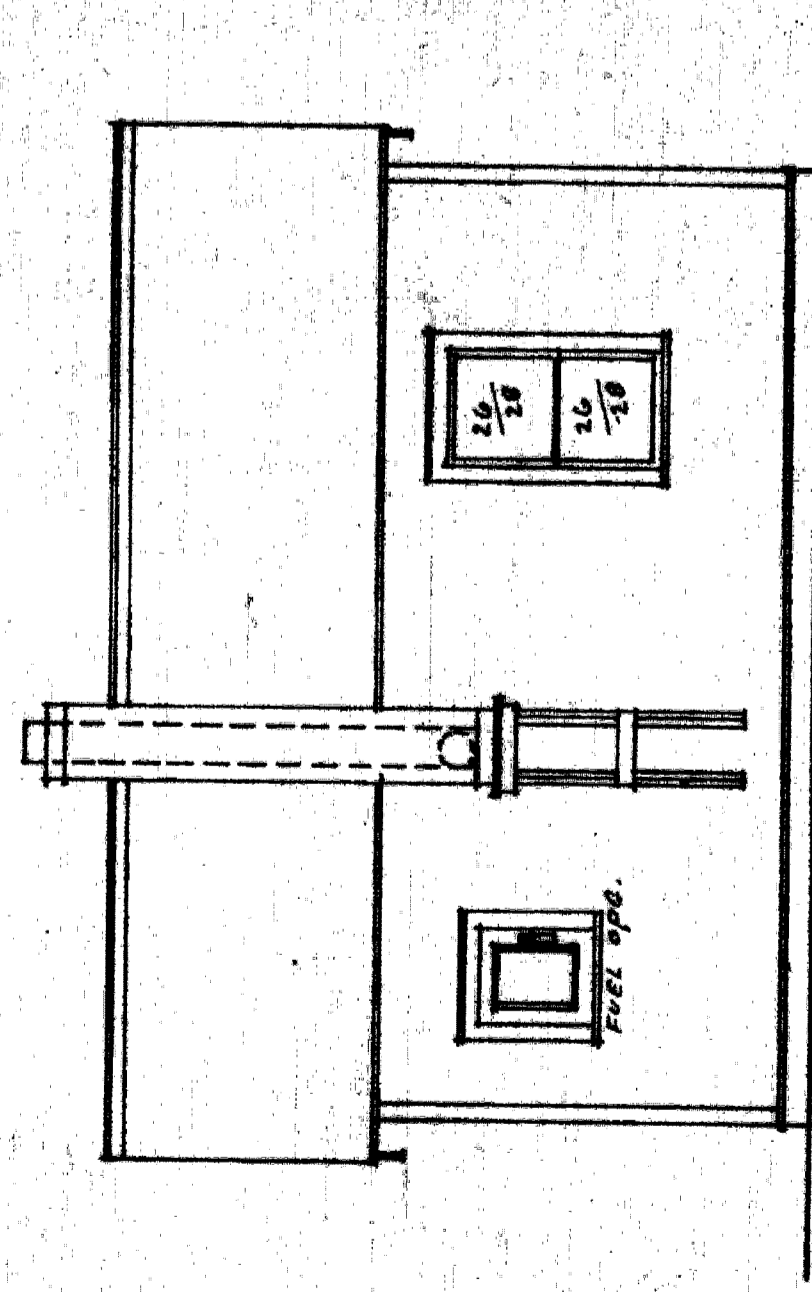
PWA DOCKET MICH. 1120-F

BOARD OF WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN
WM. F. BUTLER, CHAIRMAN
JOHN S. HAGGERTY, COMMISSIONER
EDWARD N. HINES, COMMISSIONER

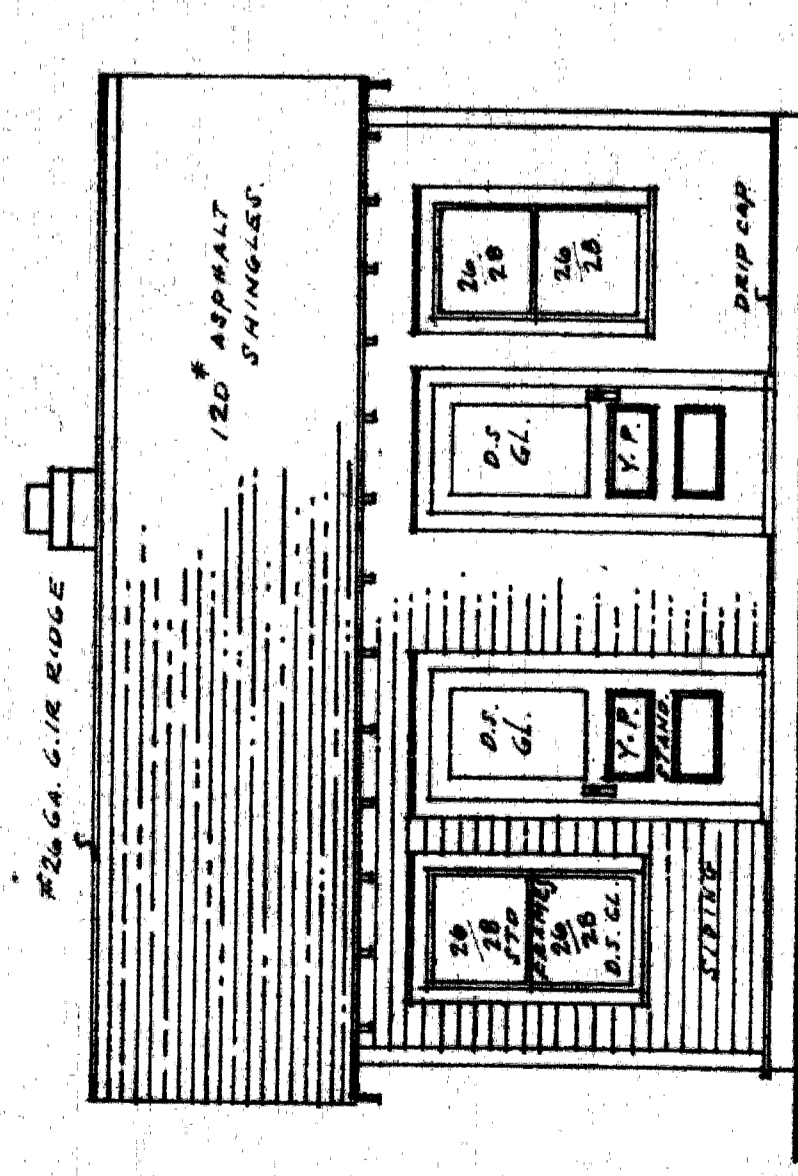
STANDARD LIGHTING UNITS
GRADE SEPARATIONS

TRACED BY W. J. D. DRAWN BY J. W. C. CHECKED BY F. H. C.
DATE 1-29-29 SCALES AS SHOWN CORRECT BY J. H. C. CHECKED DESIGNER
APPROVED *[Signature]* APPROVED *[Signature]*
REVISIONS:
Removed Shock
Wire Guard detail
3-1-29 F.H.C.
Dimensions on
Reflector of LP2 & 3
to match with
LP1
3-1-29 W.J.D.
Added note on
Asbestos Gasket
3-1-29 W.J.D.
Scale of Lens Frame
changed to 3/4"=1'-0"
2-1-29 W.J.D.
2-1-29 W.J.D.

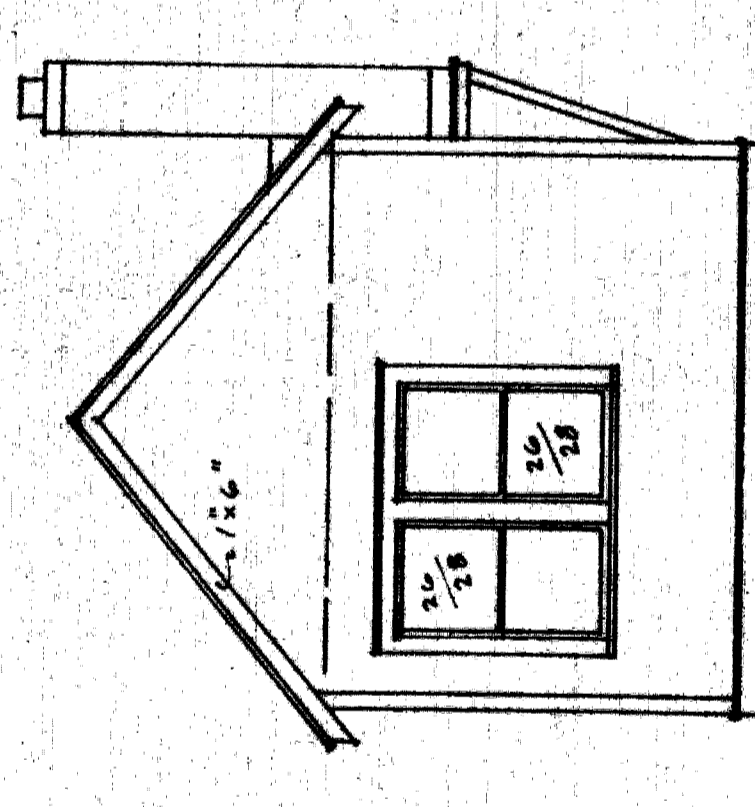
JOB NO. 7
DATE 7-19-28
ENGINEER MANAGER



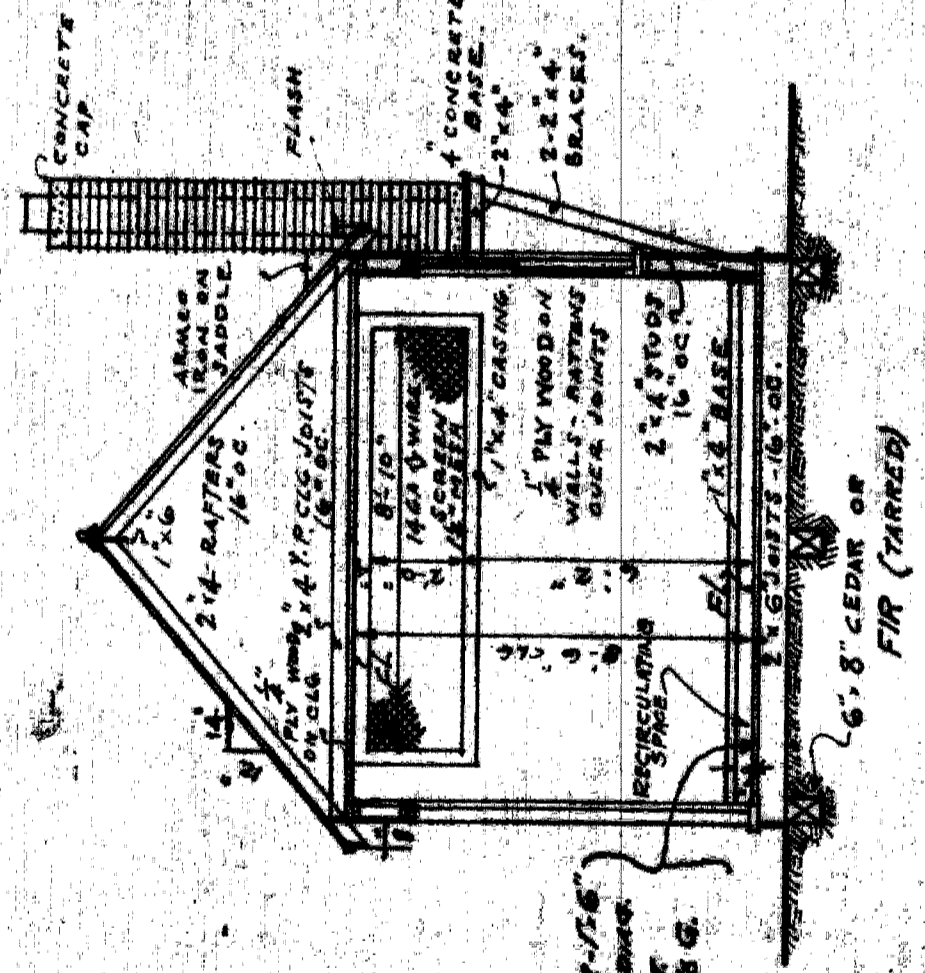
FRONT



REAR

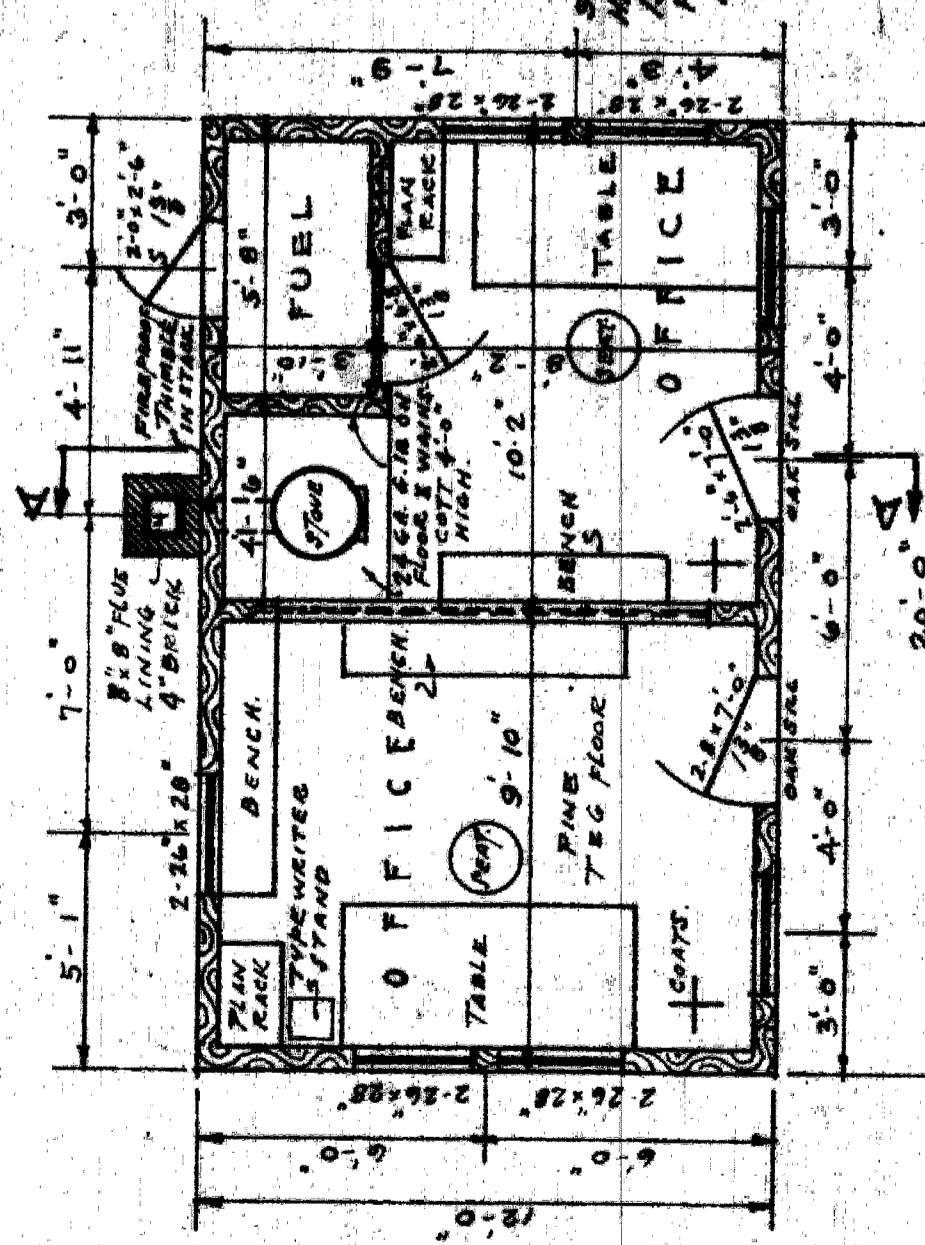


SIDE



SECTION A-A

PLAN



SCALE 1/4" = 1'-0"

-NOTE-

GENERAL REQUIREMENTS:

1. ONLY NEW MATERIALS & PREVIOUSLY UNUSED FIXTURES SHALL BE USED
2. ALL FRAMING LUMBER SHALL BE #2 YELLOW PINE. ALL EXTERIOR WOOD FINISH INCLUDING SASH SHALL BE WHITE PINE OR CYPRESS. FINISH LUMBER INCLUDING FINISH FLOORING SHALL BE NO. 1 YELLOW PINE
3. ALL INTERIOR SURFACES SHALL BE CEILED WITH 7/8" APPROVED PLY WOOD, EXCEPT WHERE OTHERWISE NOTED. ALL JOINTS TO BE FACED WITH 1/4" x 1 1/2" STRIP CLEATS
4. FULL SIZED WINDOWS TO BE CHECK RAILED & COUNTER BALANCED WITH C.I. WEIGHTS. 7 SETS OF WINDOW SHADES TO BE PROVIDED.
5. ALL EXTERIOR WOOD SURFACES & INTERIOR WALLS & CEILINGS TO RECEIVE TWO (2) COATS OF APPROVED PAINT, QUALITY & COLOR TO BE ACCEPTABLE TO THE ENGINEER. ALL INTERIOR WOOD FINISH INCLUDING FLOORS SHALL BE STAINED & FINISHED WITH TWO (2) COATS OF AN APPROVED VARNISH.
6. PROVIDE ALL NECESSARY HARDWARE FOR DOORS & WINDOWS. THE EXTERIOR DOORS ARE TO BE PROVIDED WITH CYLINDER LOCKS. PROVIDE FOUR (4) KEYS EACH FOR DOORS TO THE ENGINEERS OFFICES.

EQUIPMENT: THE CONTRACTOR SHALL PROVIDE:-

1. ONE (1) SHEET STEEL FIRST AID CABINET, APPROXIMATELY 18" x 24" FULLY EQUIPPED.
2. TWO (2) BENCHES, TWO (2) DRAFTING STOOLS
3. TWO (2) METAL WASTE BASKETS AND TWO (2) CUSHIONED CHAIRS.
4. TWO (2) WATER PAILS AND A SUPPLY OF PAPER CUPS.
5. ONE (1) METAL WASH BASIN AND SUFFICIENT PAPER TOWELS & SOAP.
6. ONE (1) SANITARY LATRINE AS DESCRIBED IN THE SPECIFICATIONS.
7. TWO (2) TABLES 3'-6" x TWO (2) PLAN FILES
8. PROVIDE SCREEN DOORS (STOCK PATTERN) WITH 1/2" MESH GALVA SCREEN WIRE CLOTH AT ENTRANCES - ALSO SCREENS FOR WINDOWS - FULL HEIGHT

LIGHTING:

1. ONE (2) DROP CORD (OVER TABLE) TWO (2) CEILING LIGHTS AND ONE (1) WALL SWITCH IN EACH ROOM.
2. ALL OUTLETS TO BE EQUIPPED WITH SHADES AND 100 WATT LAMPS. CONTRACTOR SHALL PROVIDE NECESSARY WIRING, FUSE BOX, SPARE FUSES AND BULBS.

SERVICE: CONTRACTOR SHALL FURNISH:-

1. TWO (2) DESK ATTACHED SINGLE PARTY TELEPHONE WITH LINES OF MICHIGAN BELL TELEPHONE COMPANY
2. FACILITIES FOR MAINTAINING A TEMPERATURE OF AT LEAST 72° IN ALL WEATHER.
3. REPAIR MAINTENANCE & JANITOR SERVICE TO BE PLACED ON SYSTEMATIC ROUTINE ACCEPTABLE TO THE ENGINEER.



P.W.A. DOCKET No. - MICH. 1120F

BOARD OF
WAYNE COUNTY ROAD COMMISSIONERS
DETROIT, MICHIGAN

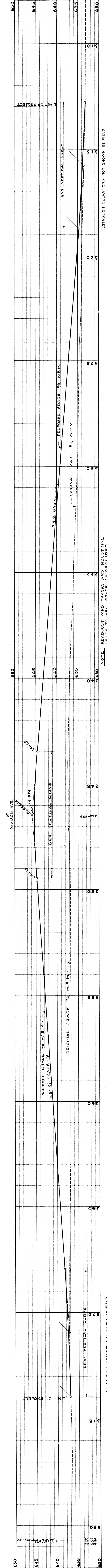
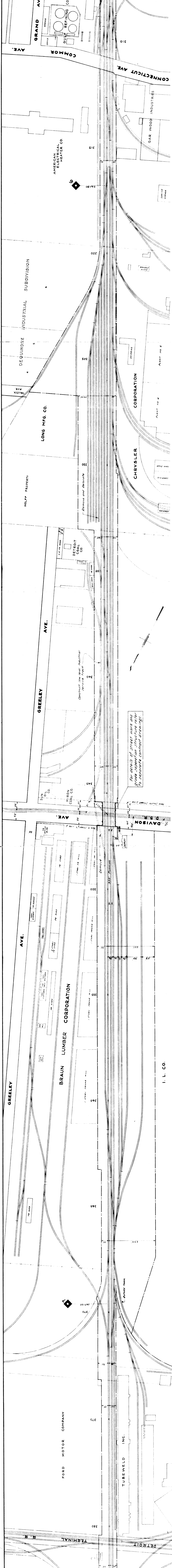
MICHAEL J. O'BRIEN
CHARLES L. WILSON
JOHN Y. BREITENING

ENGINEERS FIELD OFFICE
DAVISON AVE. - 61W.R.R. (MOLLY) DIV.
GRADE SEPARATION

Drawn By: G. L. BIRD
Checked By: G. L. BIRD
Date: Oct. 1937

REVISIONS

NO. 546
DATE 10-22-38



ESTABLISH ELEVATIONS NOT SHOWN IN FIELD

NOTE: READJUST YARD TRACKS AND INDUSTRIAL LEADS TO NEW GRADE AS REQUIRED.

SCALE: AS NOTED

SCALE: HORIZ. 1" = 100 FT. VERT. 1" = 5 FT.

PLAN AND PROFILE OF MAIN TRACKS

P.W.A. DOCKET NO. MICHIGAN 1120-F

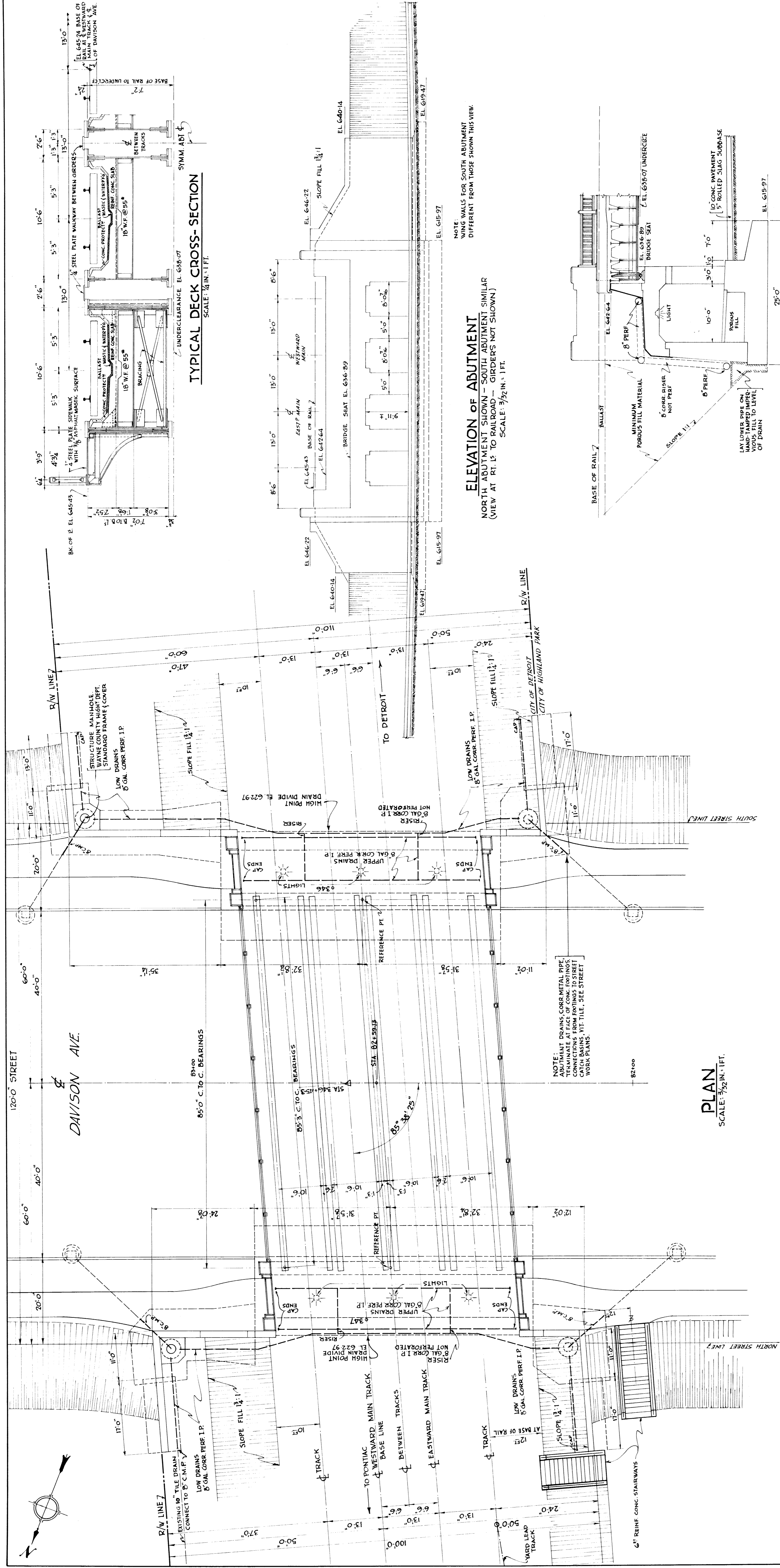
EXHIBIT "B"

Approved: County Hwy. Eng. for Wayne Co. Road Comm.
 Approved: Chief Engineer for Grand Trunk Western B.R.
 Approved: City Engineer for City of Detroit.
 Approved: City Engineer for City of Highland Park.

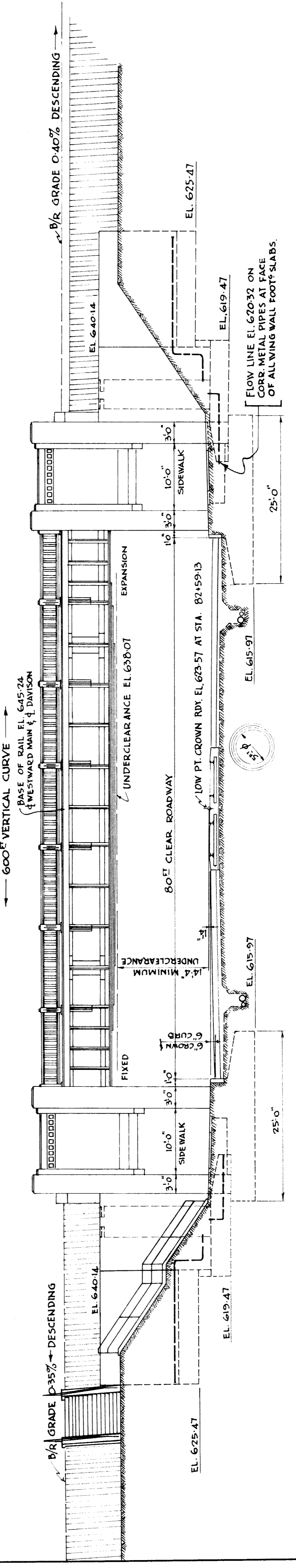
**GRAND TRUNK WESTERN RAILROAD
 DAVISON AVE. GRADE SEPARATION
 DETROIT & HIGHLAND PARK, MICHIGAN
 TRACK PLAN & PROFILE**

SCALE AS NOTED
 UNL. NO. 6289
 DATE: AUG. 11, 1938
 SHEET 61 OF SHEETS

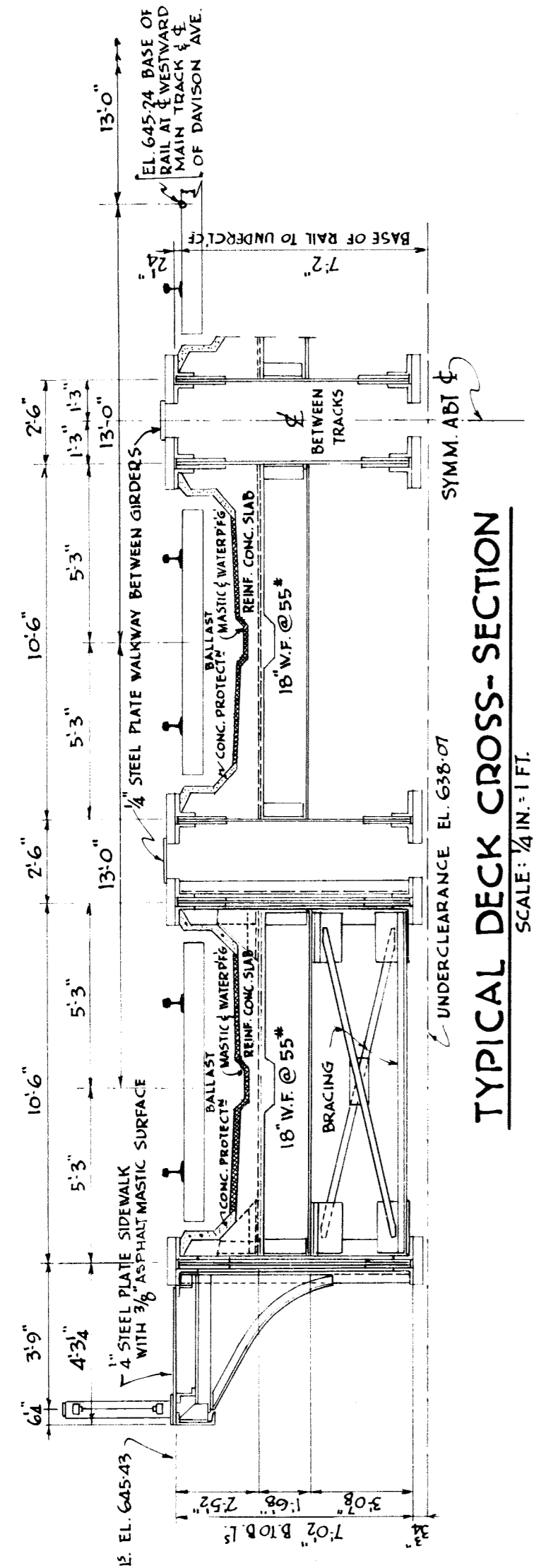
REVISED NORTH OF DAVISON AVE., SEPT. 28, 1938.



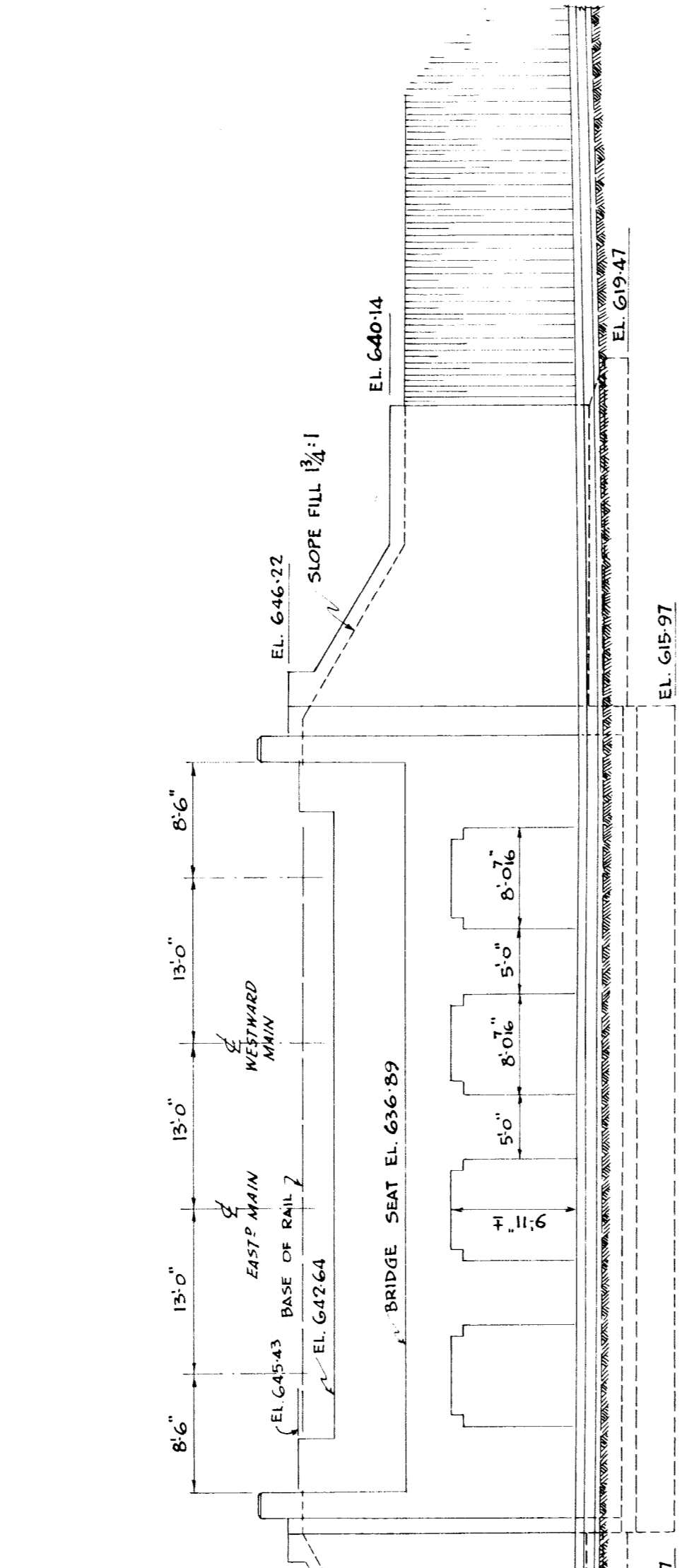
PLAN
SCALE: 3/32 IN. = 1 FT.



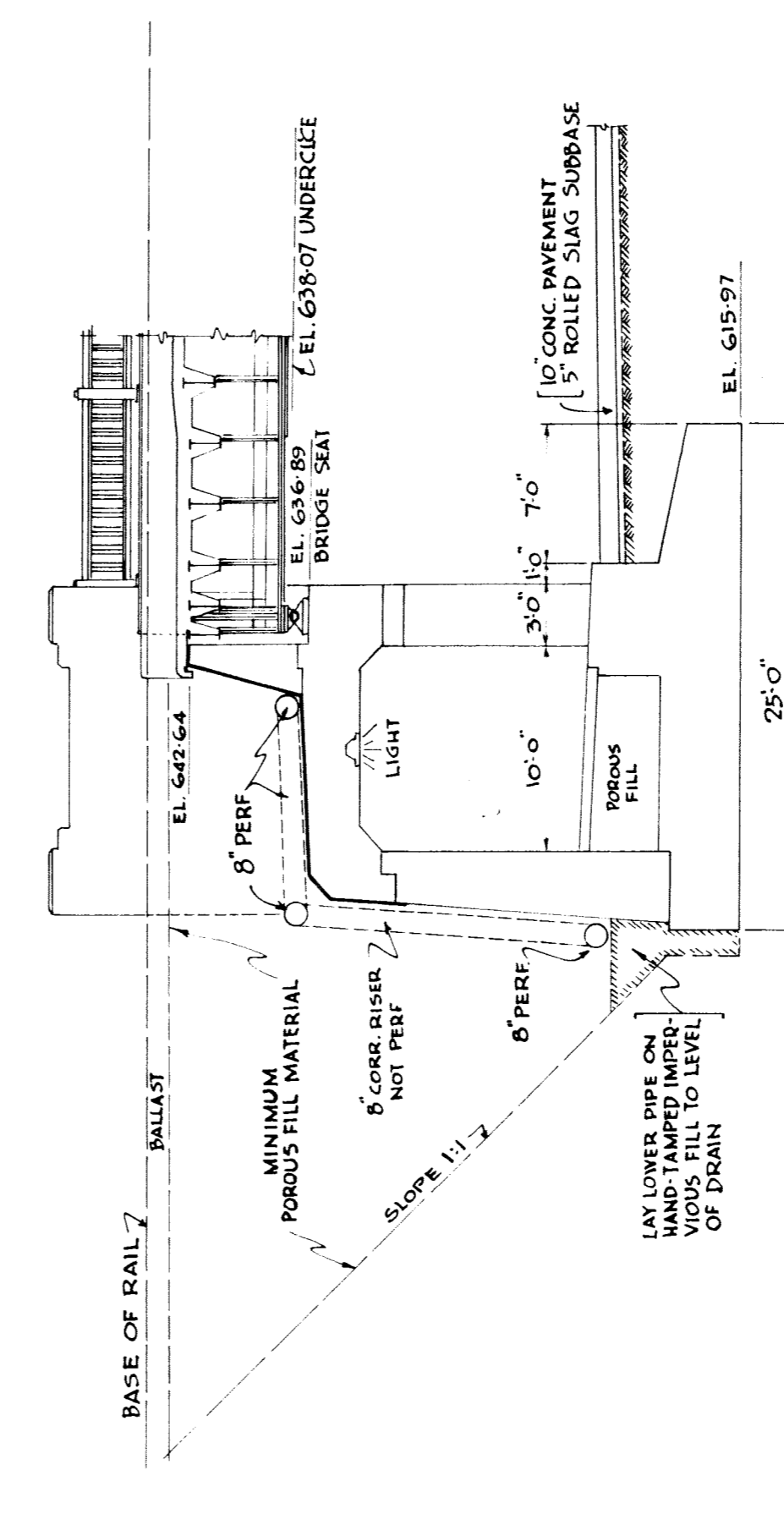
ELEVATION
SCALE: 3/32 IN. = 1 FT.



TYPICAL DECK CROSS-SECTION
SCALE: 1/4 IN. = 1 FT.



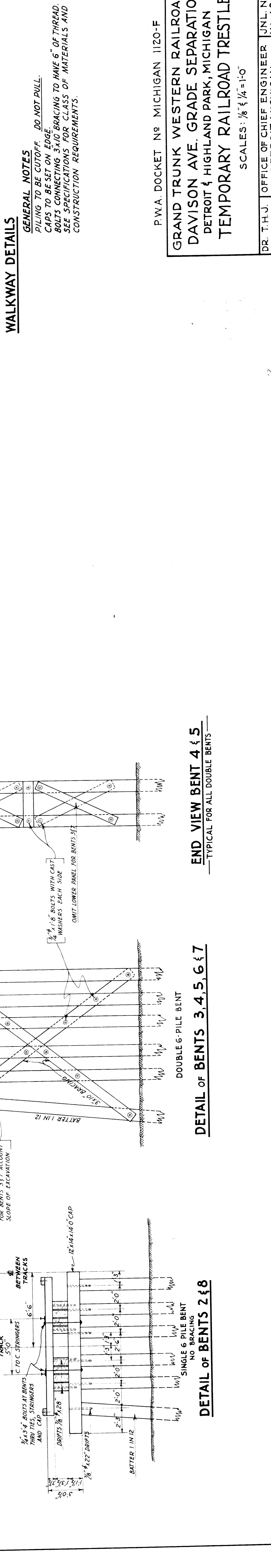
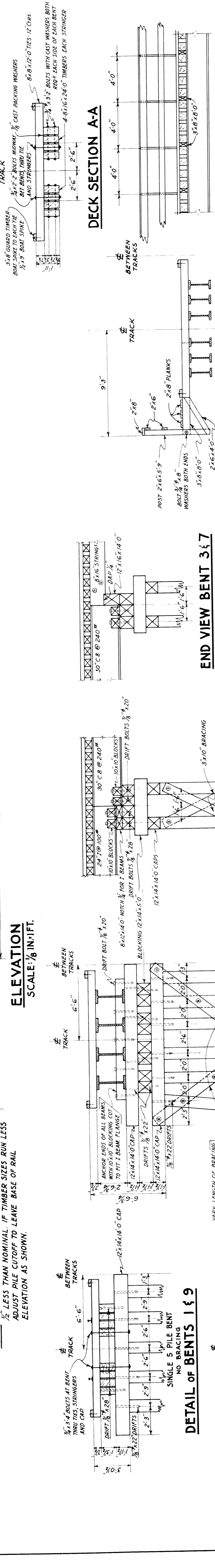
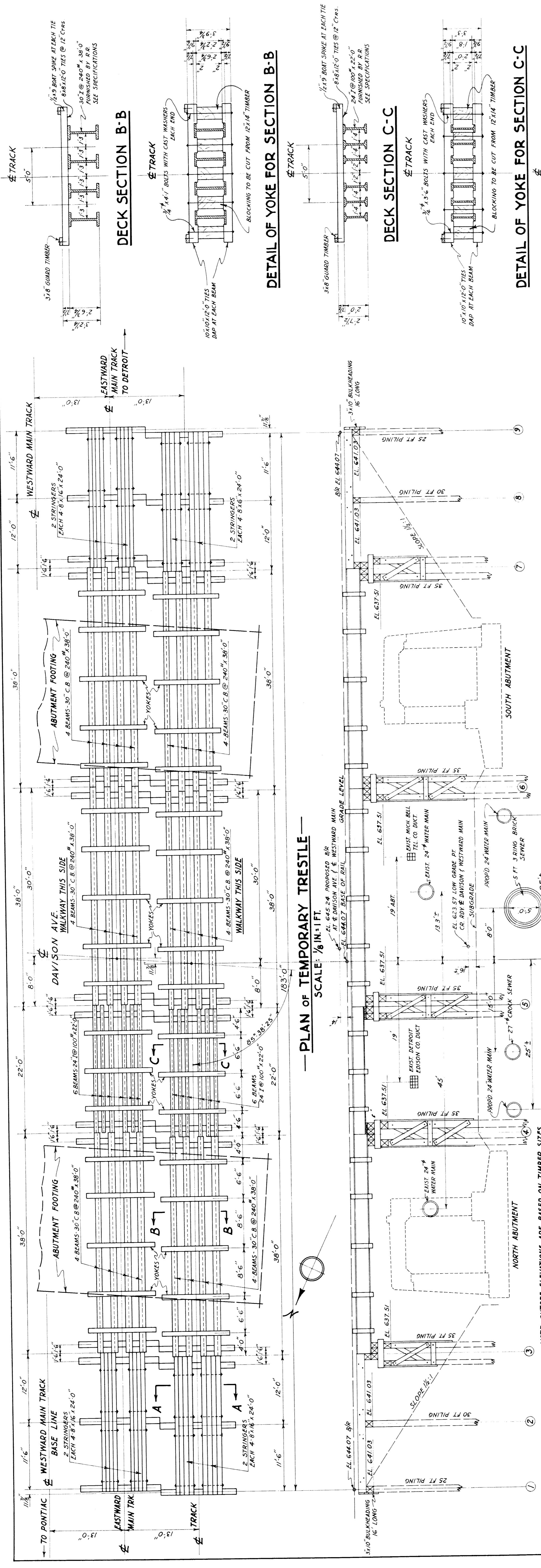
ELEVATION OF ABUTMENT
NORTH ABUTMENT SHOWN - SOUTH ABUTMENT SIMILAR (VIEW AT R.I. 15' TO RAILROAD - GIRDERS NOT SHOWN)
SCALE: 3/32 IN. = 1 FT.



TYPICAL CROSS-SECTION OF ABUTMENT
NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR
SCALE: 1/8 IN. = 1 FT.

PR. A. DOCKET N° MICHIGAN 1120-F
GRAND TRUNK WESTERN RAILROAD
DAVISON AVE. GRADE SEPARATION
DETROIT & HIGHLAND PARK, MICHIGAN
GENERAL STRUCTURE PLAN

DR. T.H.J. OFFICE OF CHIEF ENGINEER
TR. T.H.J. DETROIT, MICH.
CL. R.E.M. O.C.T. 1938
JOURNAL N° W. 6290
FILE
SCALES AS NOTED
ISSUE N° 7
DATE 11-19
SHEET G2



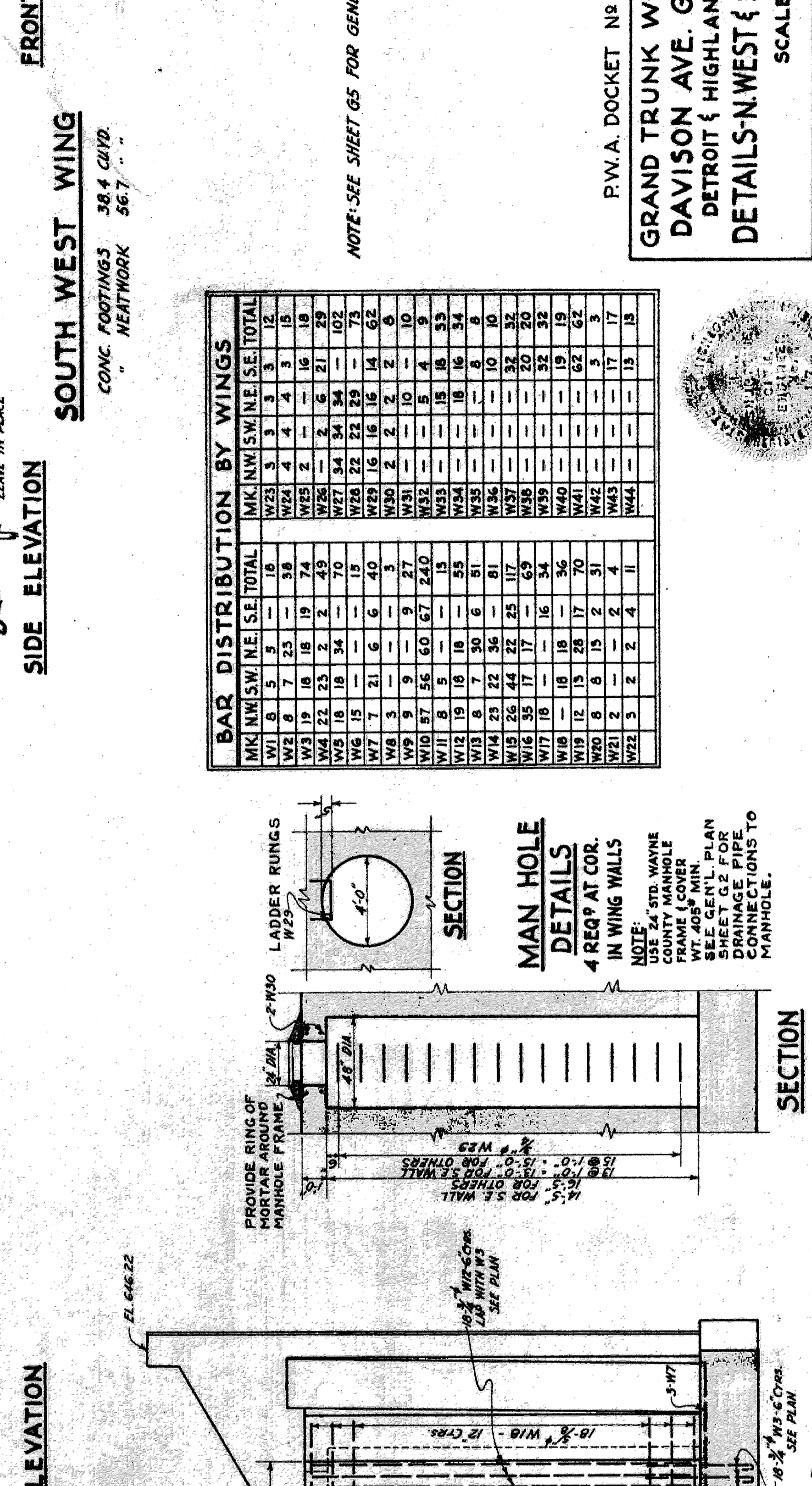
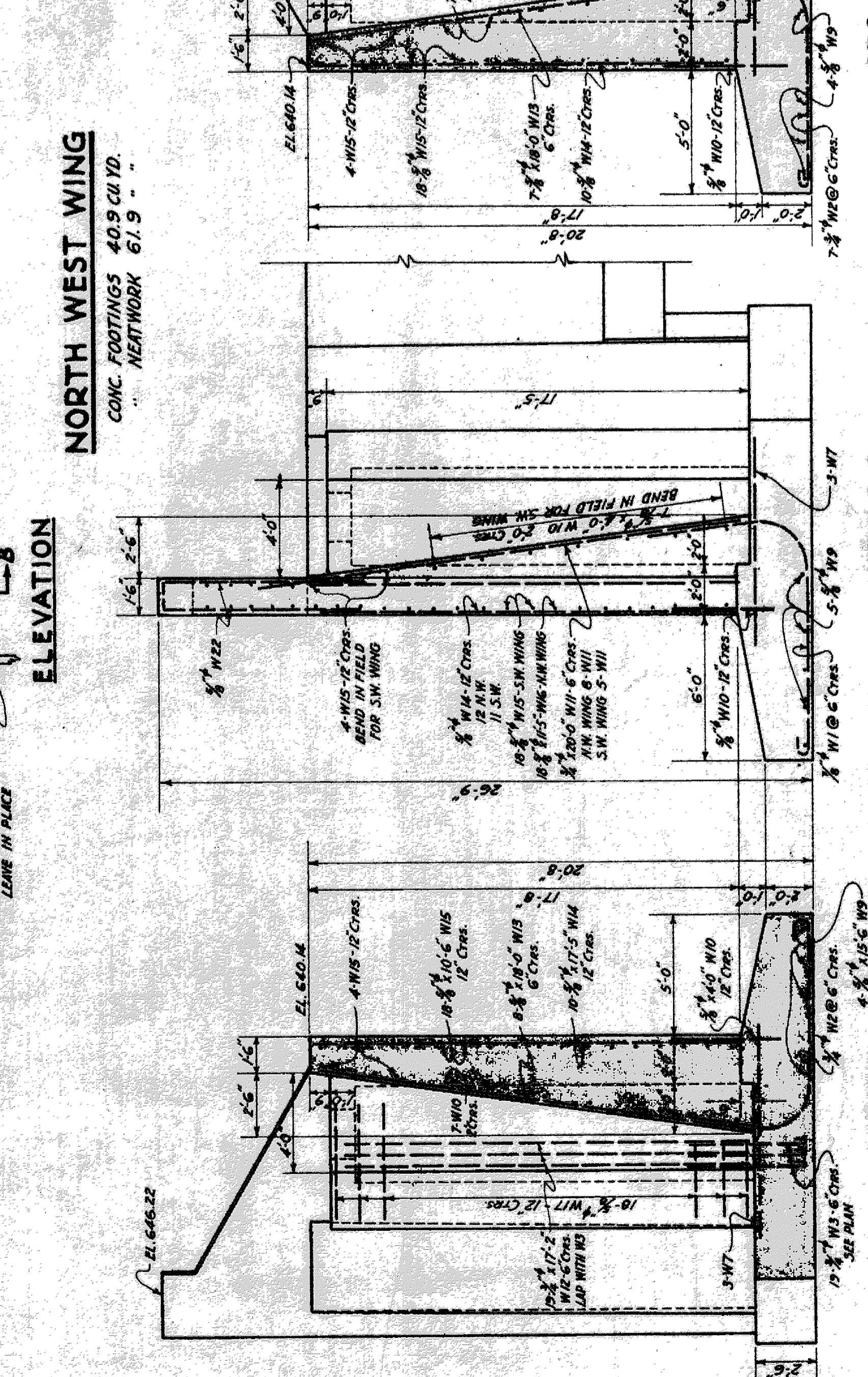
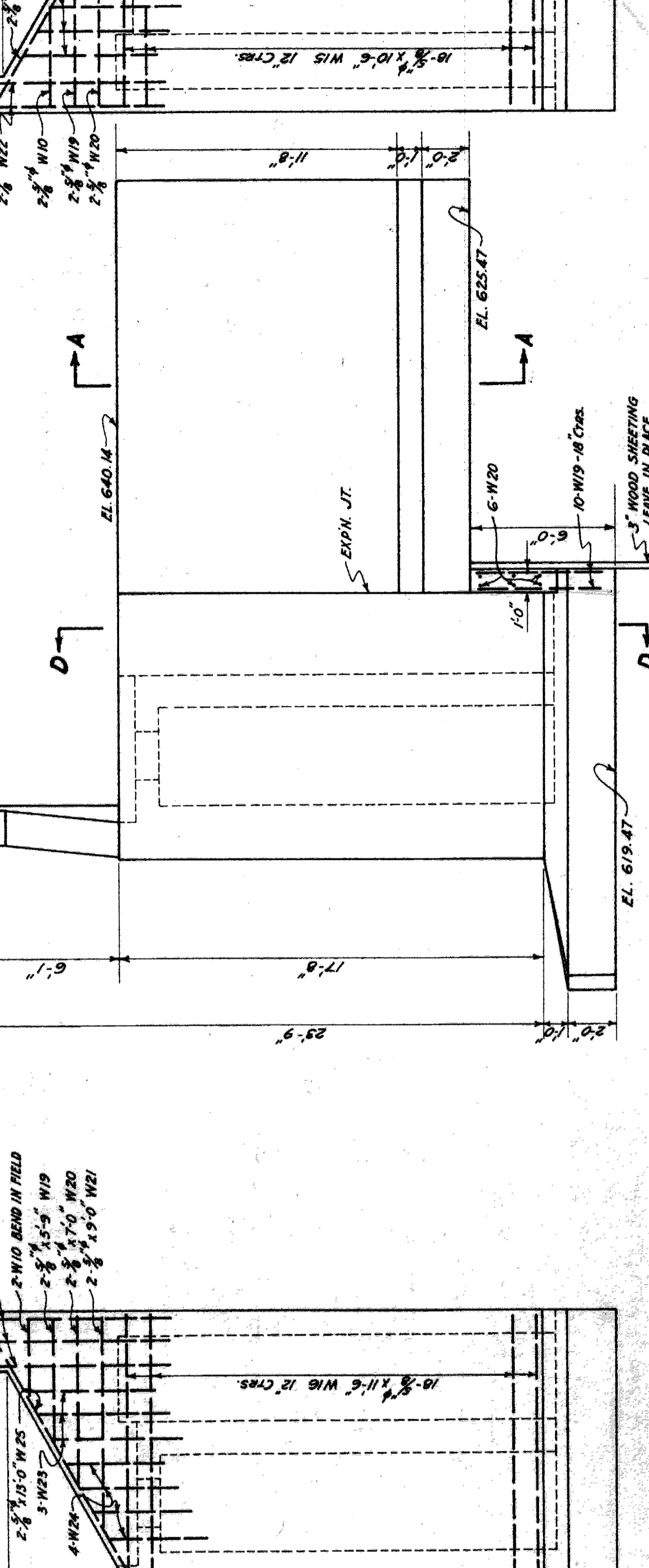
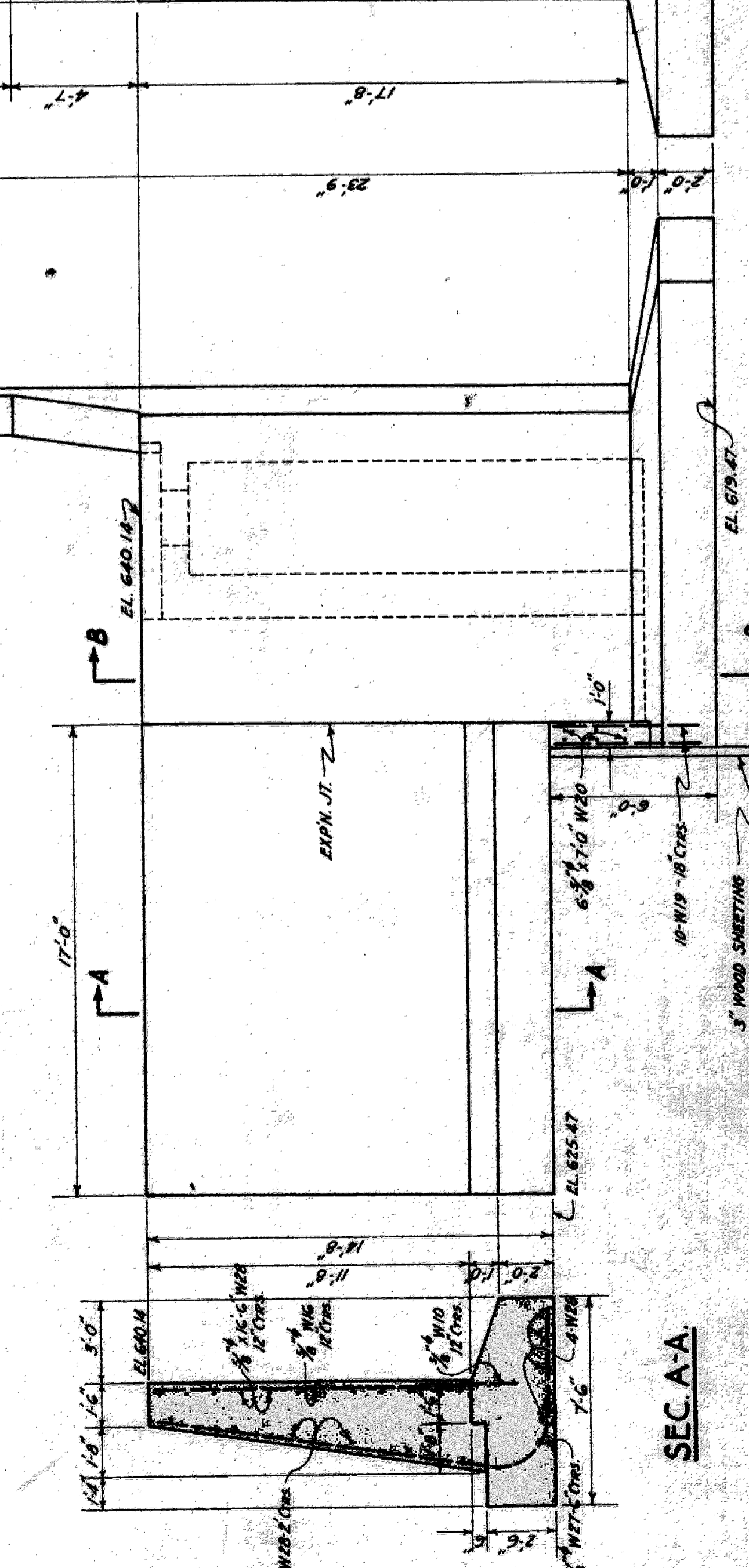
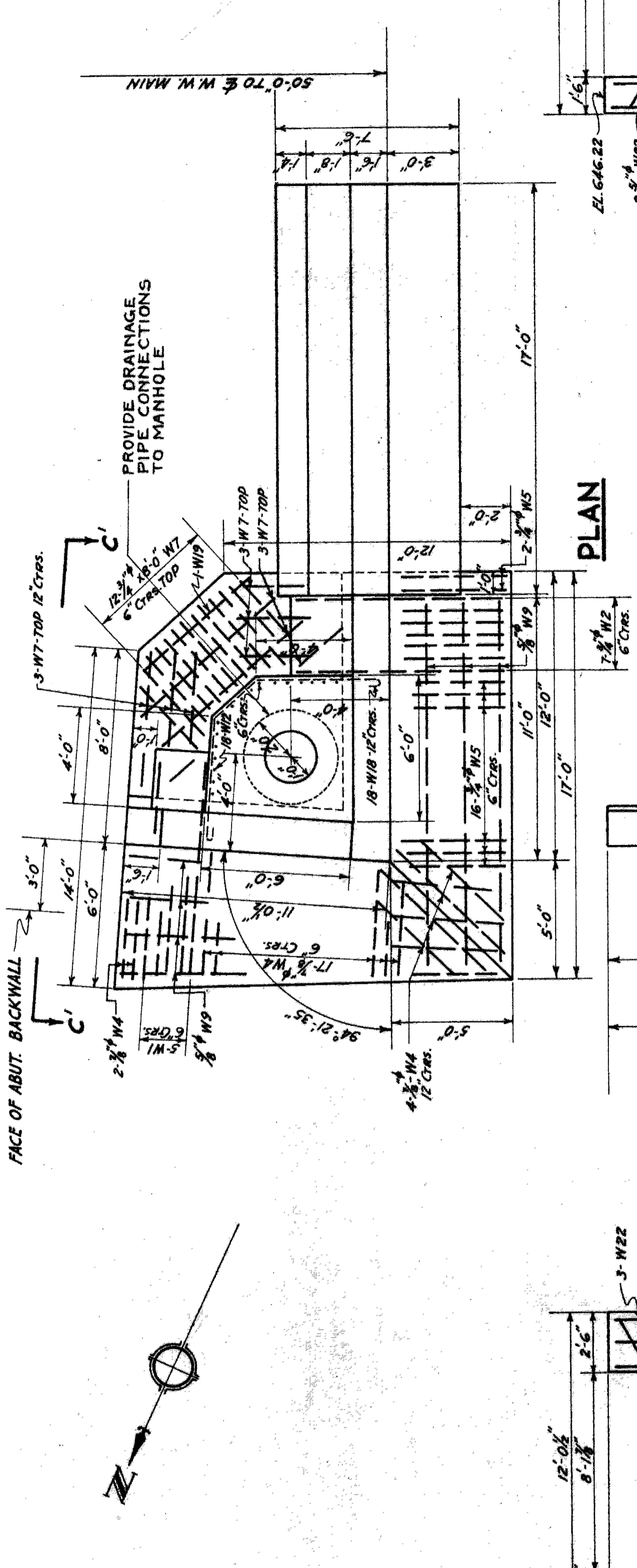
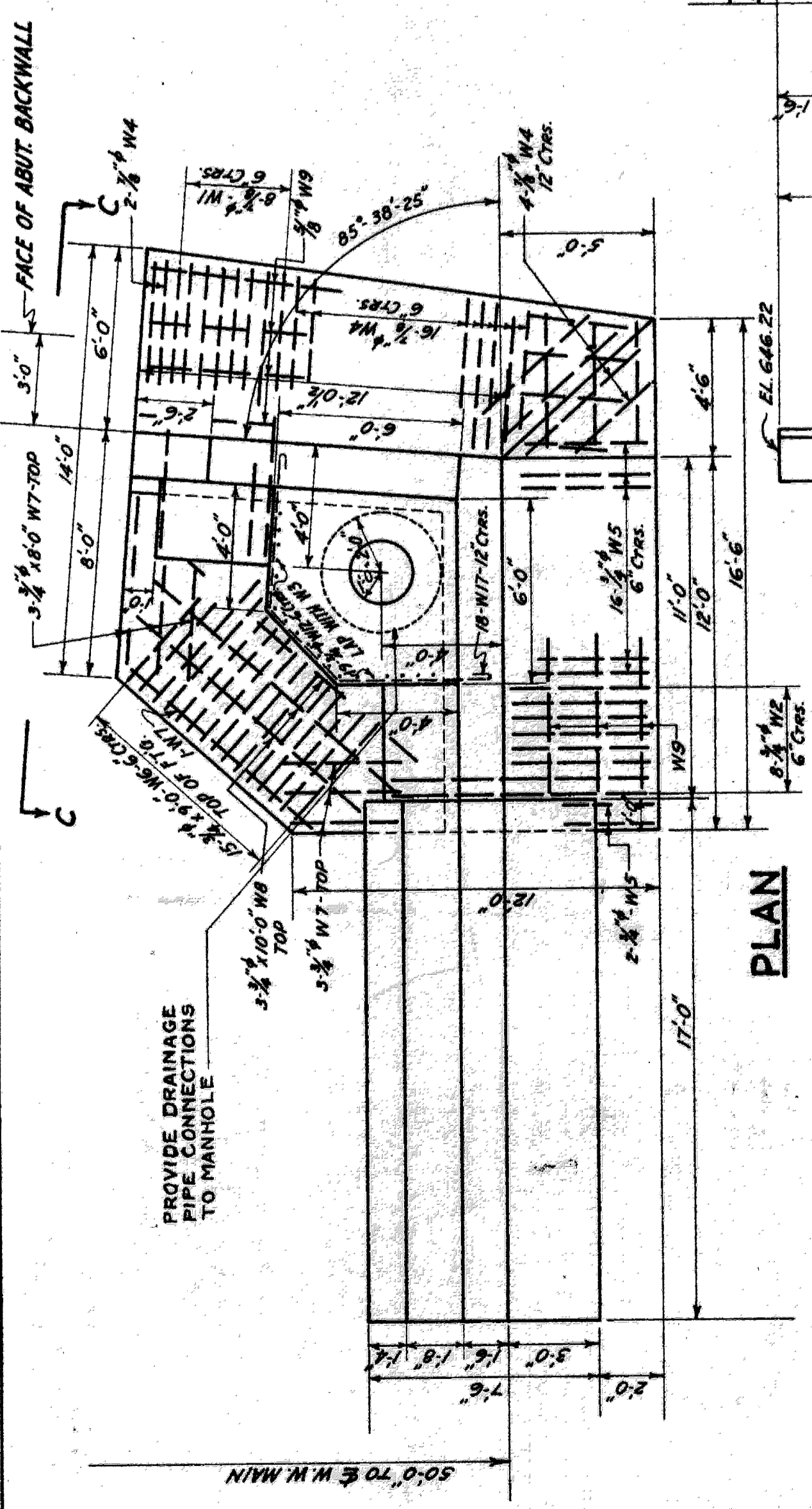
GENERAL NOTES
PILING TO BE CUTOFF DO NOT PULL.
CAPS TO BE SET ON EDGE.
BOLTS CONNECTING 3x10 BRACING TO HAVE 6" OF THREAD.
SEE SPECIFICATIONS FOR CLASS OF MATERIALS AND CONSTRUCTION REQUIREMENTS.

P.W.A. DOCKET No MICHIGAN 1120-F
GRAND TRUNK WESTERN RAILROAD
DAVISON AVE. GRADE SEPARATION
DETROIT & HIGHLAND PARK, MICHIGAN
TEMPORARY RAILROAD TRESTLE

SCALE: 1/8" & 1/4" = 1'-0"

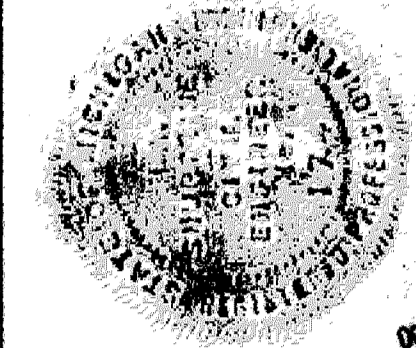
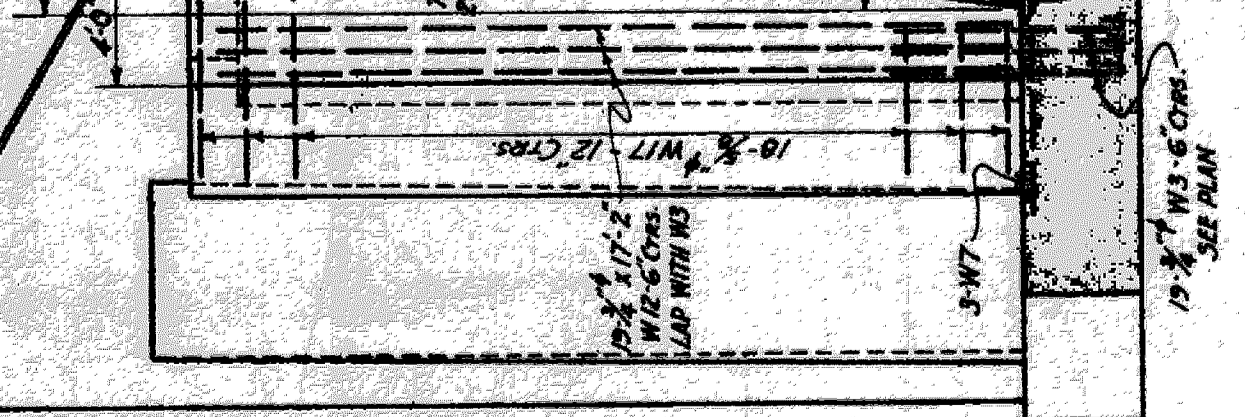
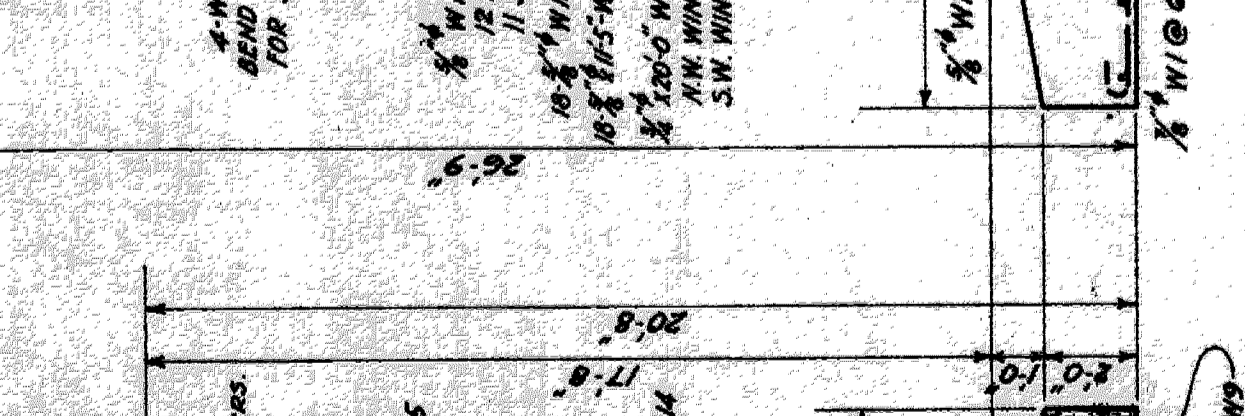
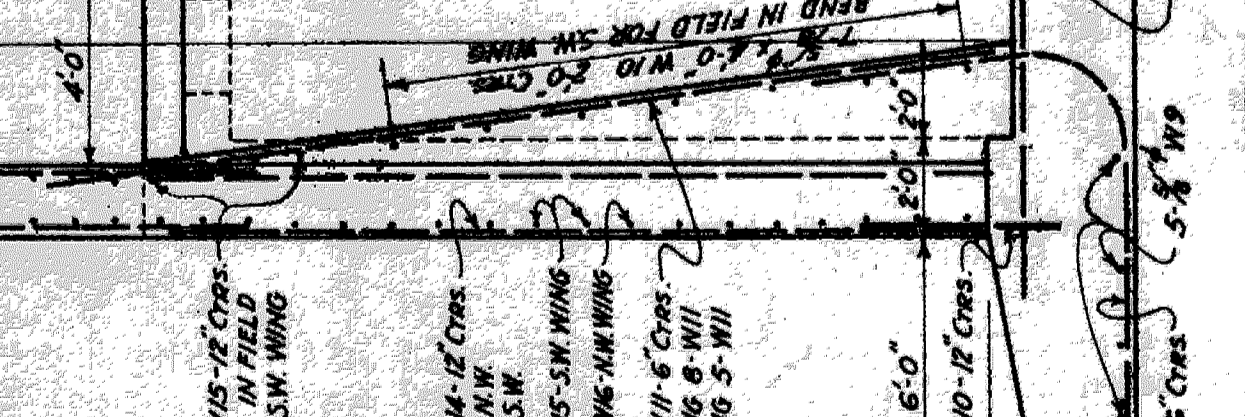
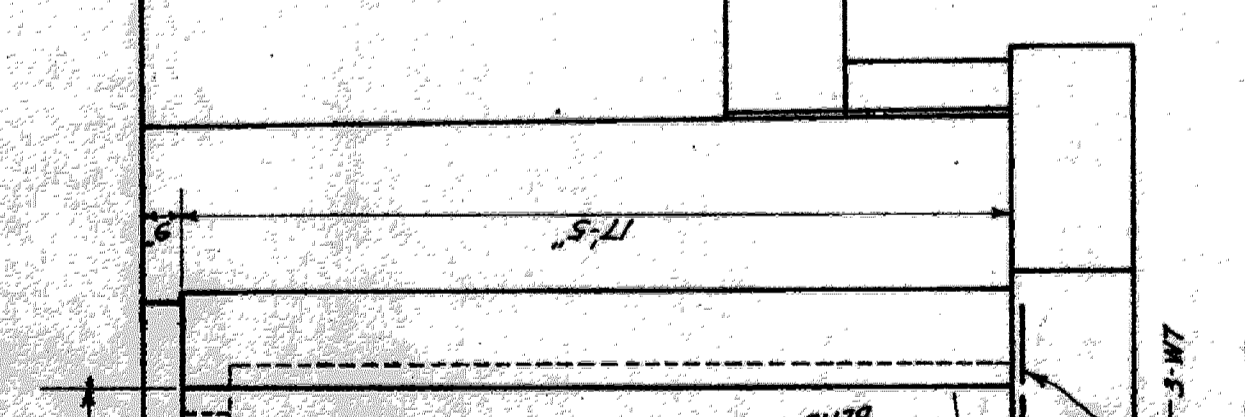
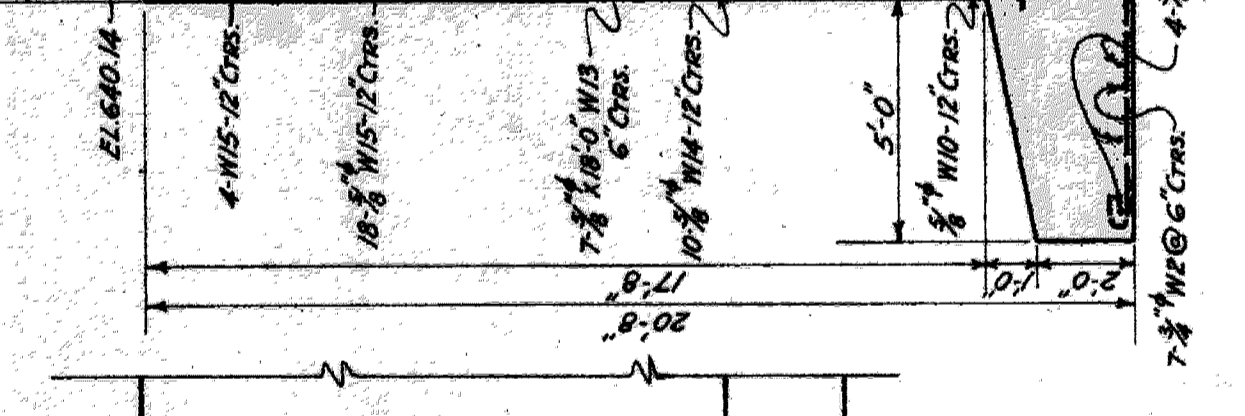
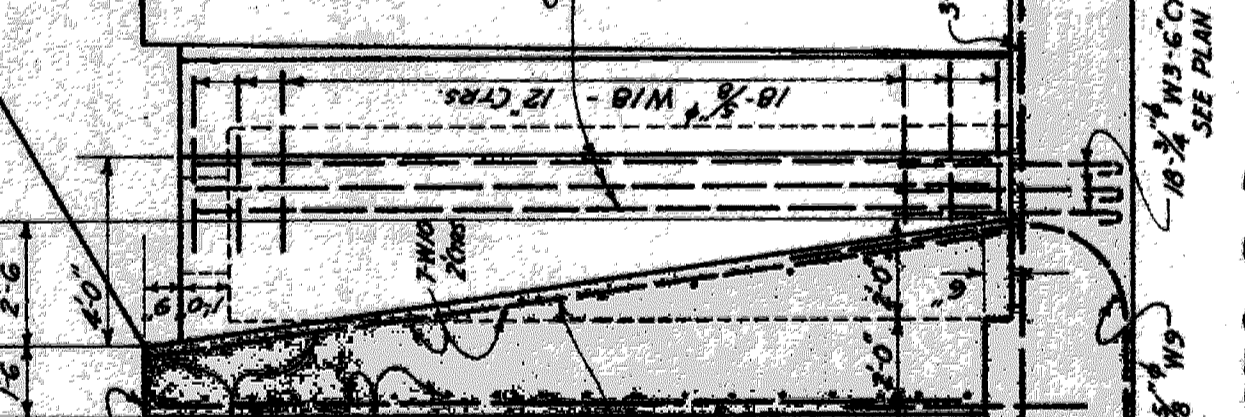
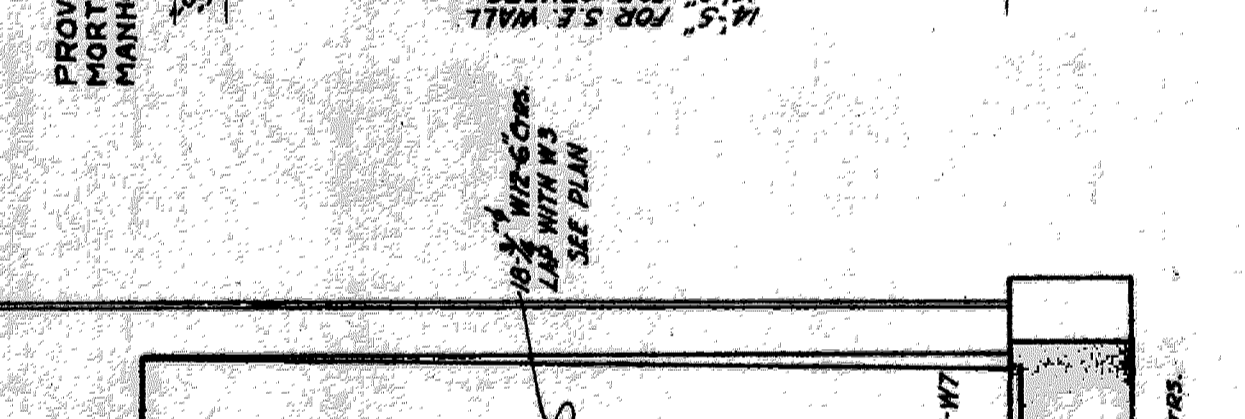
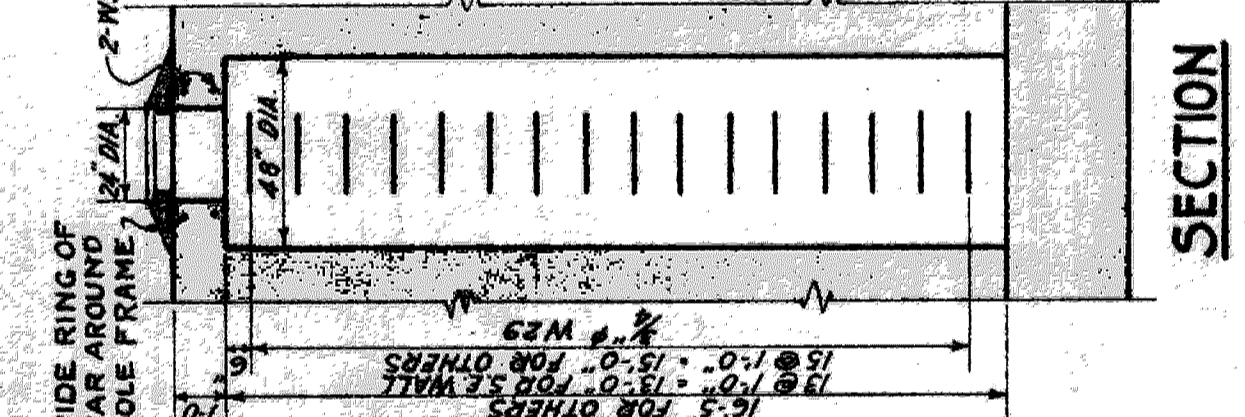
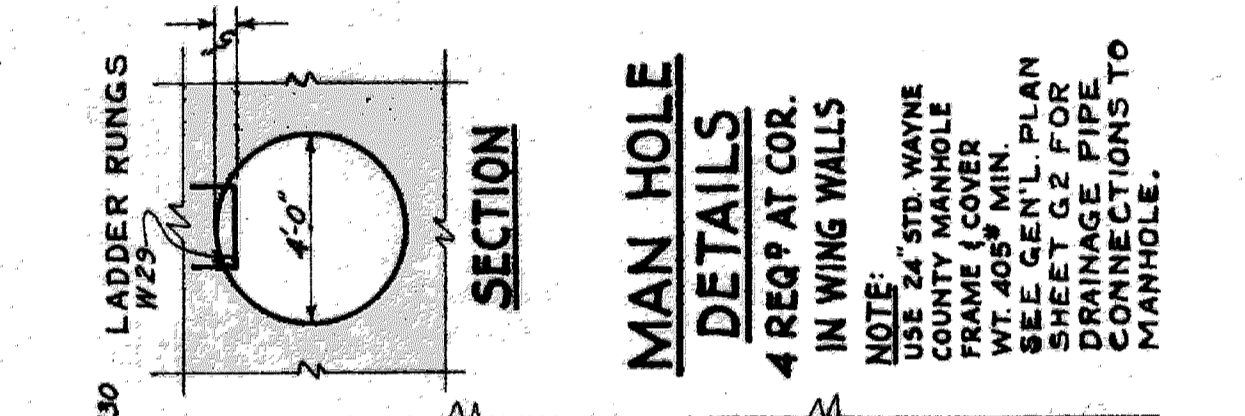
ISSUE No 2
DATE: 10-1-19

DR. T.H.J. OFFICE OF CHIEF ENGINEER JNL: NO.
TR. E.R.S. DETROIT, MICHIGAN W-6291
CH. R.A.V. JULY, 1938
SHEET G 3 OF SHEETS



BAR DISTRIBUTION BY WINGS

| MARK | N | W | S | E | SE | TOTAL |
|------|---|---|---|---|----|-------|
| W1 | 8 | 5 | 5 | 1 | 1 | 20 |
| W2 | 8 | 5 | 5 | 1 | 1 | 20 |
| W3 | 8 | 5 | 5 | 1 | 1 | 20 |
| W4 | 8 | 5 | 5 | 1 | 1 | 20 |
| W5 | 8 | 5 | 5 | 1 | 1 | 20 |
| W6 | 8 | 5 | 5 | 1 | 1 | 20 |
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| W8 | 8 | 5 | 5 | 1 | 1 | 20 |
| W9 | 8 | 5 | 5 | 1 | 1 | 20 |
| W10 | 8 | 5 | 5 | 1 | 1 | 20 |
| W11 | 8 | 5 | 5 | 1 | 1 | 20 |
| W12 | 8 | 5 | 5 | 1 | 1 | 20 |
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| W14 | 8 | 5 | 5 | 1 | 1 | 20 |
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| W25 | 8 | 5 | 5 | 1 | 1 | 20 |
| W26 | 8 | 5 | 5 | 1 | 1 | 20 |
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| W40 | 8 | 5 | 5 | 1 | 1 | 20 |
| W41 | 8 | 5 | 5 | 1 | 1 | 20 |
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| W46 | 8 | 5 | 5 | 1 | 1 | 20 |
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| W49 | 8 | 5 | 5 | 1 | 1 | 20 |
| W50 | 8 | 5 | 5 | 1 | 1 | 20 |
| W51 | 8 | 5 | 5 | 1 | 1 | 20 |
| W52 | 8 | 5 | 5 | 1 | 1 | 20 |
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| W58 | 8 | 5 | 5 | 1 | 1 | 20 |
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| W60 | 8 | 5 | 5 | 1 | 1 | 20 |
| W61 | 8 | 5 | 5 | 1 | 1 | 20 |
| W62 | 8 | 5 | 5 | 1 | 1 | 20 |
| W63 | 8 | 5 | 5 | 1 | 1 | 20 |
| W64 | 8 | 5 | 5 | 1 | 1 | 20 |
| W65 | 8 | 5 | 5 | 1 | 1 | 20 |
| W66 | 8 | 5 | 5 | 1 | 1 | 20 |
| W67 | 8 | 5 | 5 | 1 | 1 | 20 |
| W68 | 8 | 5 | 5 | 1 | 1 | 20 |
| W69 | 8 | 5 | 5 | 1 | 1 | 20 |
| W70 | 8 | 5 | 5 | 1 | 1 | 20 |
| W71 | 8 | 5 | 5 | 1 | 1 | 20 |
| W72 | 8 | 5 | 5 | 1 | 1 | 20 |
| W73 | 8 | 5 | 5 | 1 | 1 | 20 |
| W74 | 8 | 5 | 5 | 1 | 1 | 20 |
| W75 | 8 | 5 | 5 | 1 | 1 | 20 |
| W76 | 8 | 5 | 5 | 1 | 1 | 20 |
| W77 | 8 | 5 | 5 | 1 | 1 | 20 |
| W78 | 8 | 5 | 5 | 1 | 1 | 20 |
| W79 | 8 | 5 | 5 | 1 | 1 | 20 |
| W80 | 8 | 5 | 5 | 1 | 1 | 20 |
| W81 | 8 | 5 | 5 | 1 | 1 | 20 |
| W82 | 8 | 5 | 5 | 1 | 1 | 20 |
| W83 | 8 | 5 | 5 | 1 | 1 | 20 |
| W84 | 8 | 5 | 5 | 1 | 1 | 20 |
| W85 | 8 | 5 | 5 | 1 | 1 | 20 |
| W86 | 8 | 5 | 5 | 1 | 1 | 20 |
| W87 | 8 | 5 | 5 | 1 | 1 | 20 |
| W88 | 8 | 5 | 5 | 1 | 1 | 20 |
| W89 | 8 | 5 | 5 | 1 | 1 | 20 |
| W90 | 8 | 5 | 5 | 1 | 1 | 20 |
| W91 | 8 | 5 | 5 | 1 | 1 | 20 |
| W92 | 8 | 5 | 5 | 1 | 1 | 20 |
| W93 | 8 | 5 | 5 | 1 | 1 | 20 |
| W94 | 8 | 5 | 5 | 1 | 1 | 20 |
| W95 | 8 | 5 | 5 | 1 | 1 | 20 |
| W96 | 8 | 5 | 5 | 1 | 1 | 20 |
| W97 | 8 | 5 | 5 | 1 | 1 | 20 |
| W98 | 8 | 5 | 5 | 1 | 1 | 20 |
| W99 | 8 | 5 | 5 | 1 | 1 | 20 |
| W100 | 8 | 5 | 5 | 1 | 1 | 20 |



P.W.A. DOCKET NO. MICHIGAN 1120-F
GRAND TRUNK WESTERN RAILROAD
DAVISON AVE. GRADE SEPARATION
DETROIT & HIGHLAND PARK, MICHIGAN
DETAILS-N.WEST & S.WEST WING WALLS
 SCALE: 1/4" = 1'-0"

DR. M. J. B. OFFICE OF CHIEF ENGINEER JNL. NO. W-6294
 TR. E. R. S. DETROIT, MICHIGAN
 CH. R. E. M. SEPT. 1938
 SHEET 66 OF SHEETS

ISSUE NO. 1
 DATE 10-22-1938

VIEW C.C.
 VIEW C.C. OP. HAND

VIEW C.C.
 VIEW C.C. OP. HAND

VIEW C.C.
 VIEW C.C. OP. HAND

VIEW C.C.
 VIEW C.C. OP. HAND

NOTE-SEE SHEET 65 FOR GENERAL STRUCTURE NOTES.

FRONT ELEVATION

SOUTH WEST WING
 CONC. FOOTINGS 38.4 CU YD.
 NEATWORK 56.7

SIDE ELEVATION

ELEVATION

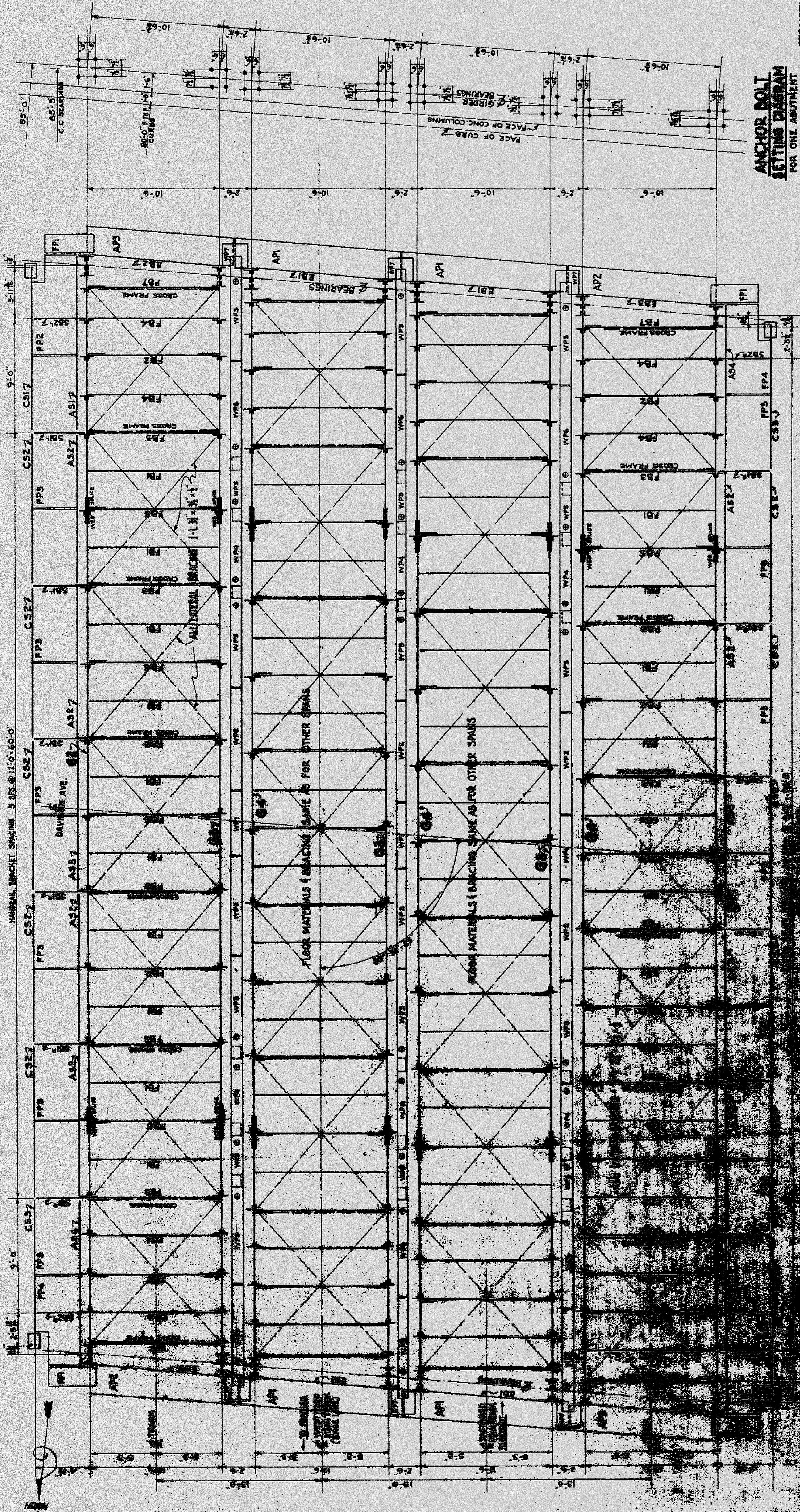
NORTH WEST WING
 CONC. FOOTINGS 40.9 CU YD.
 NEATWORK 61.9

ELEVATION

SEC. A-A

SEC. B-B

SEC. D-D



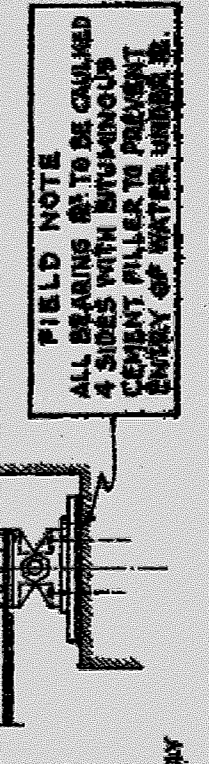
ANCHOR BOLT SETTING DIAGRAM FOR ONE ABUTMENT

STRUCTURAL STEEL MEMBER
 FOUR SINGLE SPANS, CONSISTING OF GIRDERS, FLOOR BEAMS, BALLAST APPROACH CROSS AND LATERAL BRACING, ROLLED STEEL SLAB BEAMS INCLUDING ORIGIN STEEL JOISTS, AND ALL MATERIALS FOR THE BRIDGE AND APPROACHES. ALSO ANGLES, STRAINERS, FLOOR PLATES, BEARING PLATES, BRACKET PLATES, BRACKET CONNECTIONS, AND CONNECTIONS. ALSO MATERIALS FOR THREE STEEL PLATE WALKWAYS BETWEEN GIRDERS, AND THEIR CONNECTIONS. ALL AS DETAILED AND SHOWN.

TABLE OF STRESSES

| MEMBER | LOAD | MOMENT, FT-LB | MAX. SHEAR, LB. | SECTION |
|-------------|-------|---------------|-----------------|-----------------------------------|
| GIRDERS | D.L. | 3,087,200 | 144,925 | WEB, 24" x 1/2" |
| | L.L. | 4,356,275 | 235,935 | FLG, 15" x 4" x 80x116" |
| | T. | 2,526,640 | 136,850 | SIDE PL., 4" x 18" x 1/2" |
| | TOTAL | 9,970,115 | 517,710 | CONC., 48" x 18" x 1/2" EACH FLG. |
| FLOOR BEAMS | D.L. | 16,600 | 7,900 | 18" WIDE FLANGE BEAM @ 35° |
| | L.L. | 59,500 | 21,600 | SEC. MOD. = 982 IN ⁴ |
| | T. | 59,500 | 21,600 | FLANGE 7 1/2" x 1/2" x 1/2" |
| | TOTAL | 155,600 | 51,100 | |

PIER MEMBER ASSEMBLY
 1- TOP CASTING TS
 2- TOP CASTING TS
 3- TURNED WELLS 24" x 24" ONLY
 4- BRACING 2" x 1/2"
 5- TURNED WELLS 24" x 24" ONLY
 6- TURNED WELLS 24" x 24" ONLY



FIELD NOTE
 ALL BEAMS TO BE COILED
 SEC. MOD. = 982 IN⁴
 COMPANY PULLER TO PRESENT
 SURVEY OF WATER UNDER

BRACING WITH
 ALL BRACING TO BE FORTIFIED ON TOP
 OF ALL GIRDERS AND FLOOR BEAMS
 BY 1" x 1/2" x 1/2" BRACKET

STEEL BRACING (CURRENT)
 ALL BRACING TO BE FORTIFIED ON TOP
 OF ALL GIRDERS AND FLOOR BEAMS
 BY 1" x 1/2" x 1/2" BRACKET

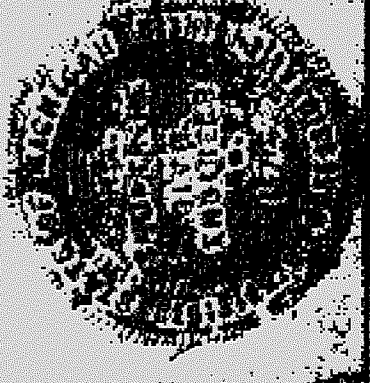
STEEL BRACING (CURRENT)
 ALL BRACING TO BE FORTIFIED ON TOP
 OF ALL GIRDERS AND FLOOR BEAMS
 BY 1" x 1/2" x 1/2" BRACKET

STEEL BRACING (CURRENT)
 ALL BRACING TO BE FORTIFIED ON TOP
 OF ALL GIRDERS AND FLOOR BEAMS
 BY 1" x 1/2" x 1/2" BRACKET

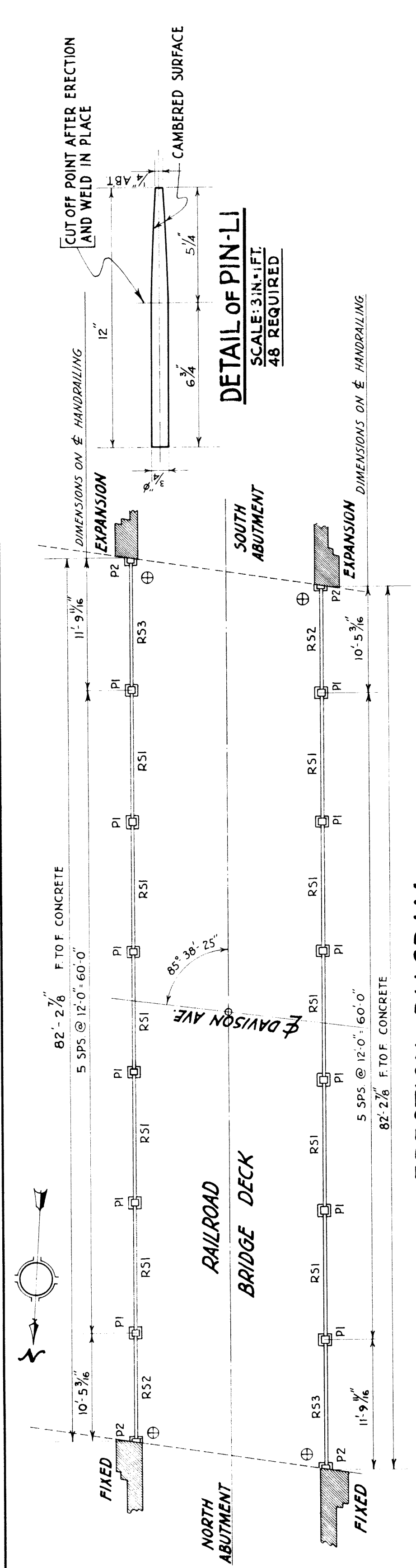
STEEL BRACING (CURRENT)
 ALL BRACING TO BE FORTIFIED ON TOP
 OF ALL GIRDERS AND FLOOR BEAMS
 BY 1" x 1/2" x 1/2" BRACKET

STEEL BRACING (CURRENT)
 ALL BRACING TO BE FORTIFIED ON TOP
 OF ALL GIRDERS AND FLOOR BEAMS
 BY 1" x 1/2" x 1/2" BRACKET

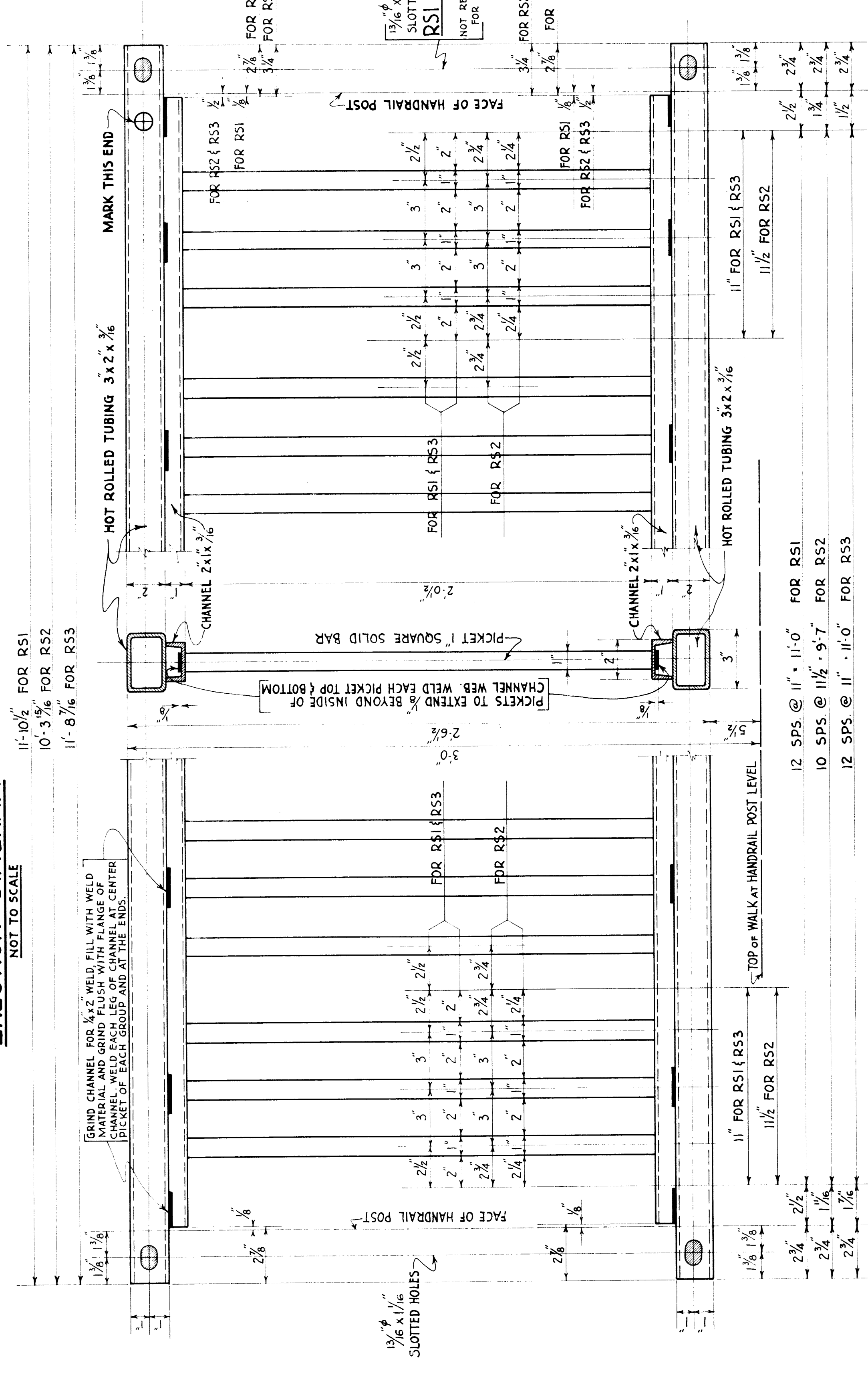
P.W.A. DOCKET NO. MICHIGAN 1120-F
GRAND TRUNK WESTERN RAILROAD
DAVISON AVE. GRADE SEPARATION
 DETROIT & HIGHLAND PARK, MICHIGAN
STRUCTURAL STEEL
ERECTION DIAGRAM
 SCALE: 1/4" = 1'-0"
 DE. T.H.J. OFFICE OF CHIEF ENGINEER
 TR. L.W.S. DETROIT, MICHIGAN
 C.H. RAY SEPT. 1926
 SHEET 68 OF 108



ISSUE NO. 1
 DATE: 10-1-26



ERECTION DIAGRAM
NOT TO SCALE



HANDRAIL SECTIONS RSI, RS2, RS3.
SCALE: 3 IN. = 1 FT.

REQUIRED: 10 RSI, 2 RS2, 2 RS3.

12 SPS @ 11' - 11\"/>

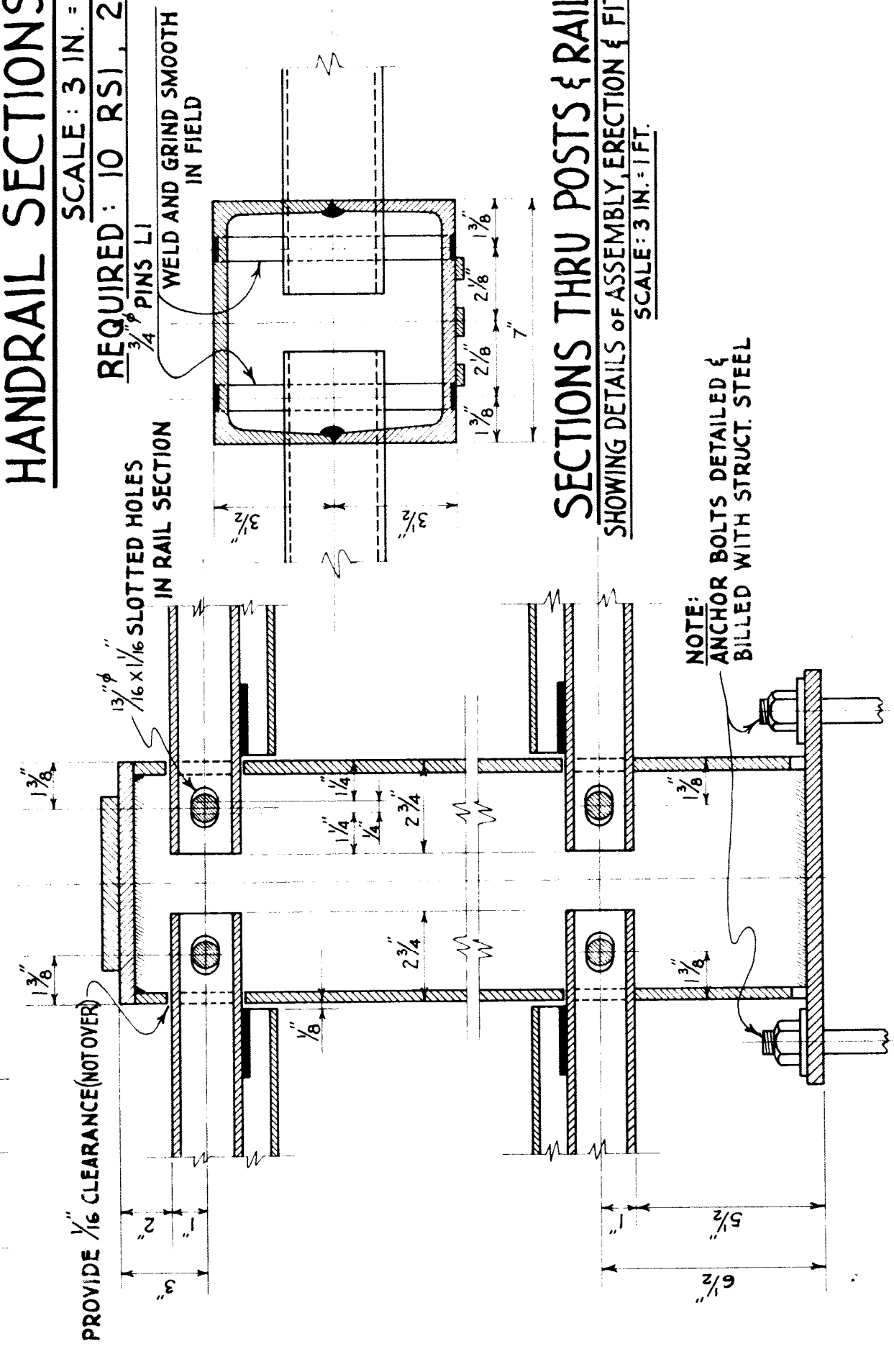
10 SPS @ 11 1/2' - 9' - 7\"/>

12 SPS @ 11' - 11\"/>

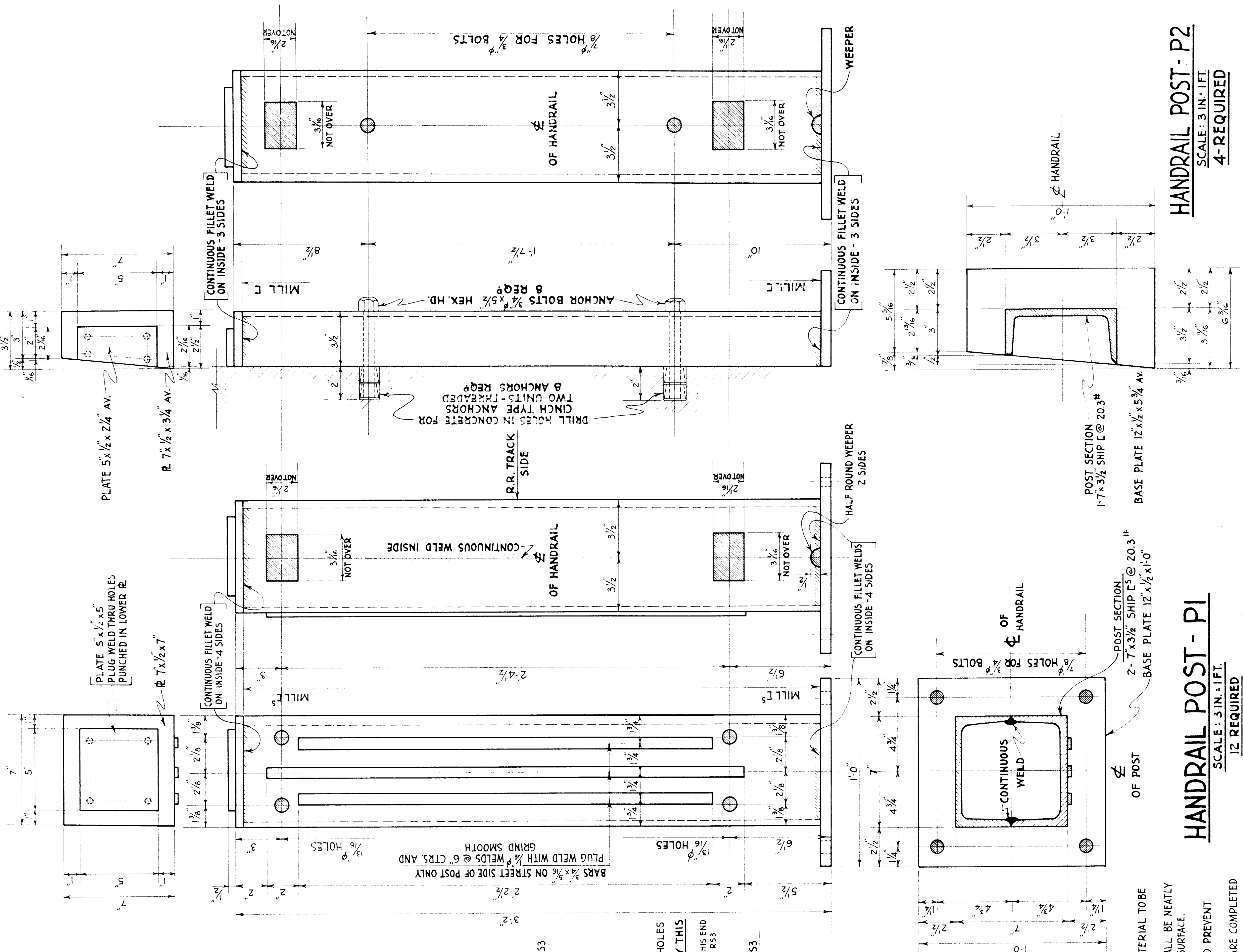
GENERAL NOTES

- MATERIALS: TUBING SHALL BE HOT ROLLED MILD STEEL S.A.E. SPEC. 1010. ALL OTHER MATERIAL TO BE STRUCTURAL GRADE STEEL A.S.T.M. SPEC. A-7-36.
- WELDING: SHALL CONFORM TO THE BEST PRACTICE FOR FUSION WELDING. ALL WELDS SHALL BE NEATLY MADE ON EXPOSED SURFACES. THE WELDS SHALL BE GROUND FLUSH WITH THE SURFACE. SURFACES TO BE WELDED AND WELDS SHALL BE THOROUGHLY CLEANED.
- FABRICATION: ALL RAILS AND POSTS SHALL BE HELD IN A TEMPLATE SO CONSTRUCTED AS TO PREVENT DISTORTION DURING WELDING.
- SLOTS AND PIN HOLES SHALL BE CUT IN POSTS AFTER THE RAILING SECTIONS ARE COMPLETED SO THAT THE CORRECT LOCATION OF PIN HOLES MAY BE MADE.
- THE CLEARANCE TO PERMIT SLIDING IN THE WALL OF THE POST SHALL BE HELD TO A MINIMUM SHOP ASSEMBLY. RAILING AND POSTS SHALL BE ASSEMBLED IN THE SHOP AND MATCH MARKED FOR FIELD ERECTION. PAINTING: SEE CONTRACT DOCUMENTS.

SECTIONS THRU POSTS & RAILING
SHOWING DETAILS OF ASSEMBLY, ERECTION & FITTING
SCALE: 3 IN. = 1 FT.



NOTE: ANCHOR BOLTS DETAILED & BILLED WITH STRUCT. STEEL



HANDRAIL POST - P1
SCALE: 3 IN. = 1 FT.

12 REQUIRED

HANDRAIL POST - P2
SCALE: 3 IN. = 1 FT.

4 REQUIRED

GENERAL NOTES (continued):
SLOTS AND PIN HOLES SHALL BE CUT IN POSTS AFTER THE RAILING SECTIONS ARE COMPLETED SO THAT THE CORRECT LOCATION OF PIN HOLES MAY BE MADE.
THE CLEARANCE TO PERMIT SLIDING IN THE WALL OF THE POST SHALL BE HELD TO A MINIMUM SHOP ASSEMBLY. RAILING AND POSTS SHALL BE ASSEMBLED IN THE SHOP AND MATCH MARKED FOR FIELD ERECTION. PAINTING: SEE CONTRACT DOCUMENTS.

P.W.A. DOCKET NO MICHIGAN 1120-F
GRAND TRUNK WESTERN RAILROAD
DAVISON AVE. GRADE SEPARATION
DETROIT & HIGHLAND PARK, MICHIGAN
BRIDGE HANDRAILING DETAILS
SCALES AS NOTED

DR. T. H. J. OFFICE OF CHIEF ENGINEER
TR. E. R. S. DETROIT, MICHIGAN
CH. R. A. W. SEPT. 1938.
JNL. NO. W-6299
SHEET 611 OF SHEETS

ISSUE No. 1
DATE 11/19/38

BAR LIST - ABUTMENTS

| LOCATION | MARK # | REF SIZE | TOT LENGTH | BENDING DIAGRAM |
|-------------------------------|--------|----------|---------------|-----------------|
| FOOTING | Q1 | 122 | 1 1/4" 34'-6" | |
| | Q2 | 62 | 1 1/4" 27'-0" | |
| | Q3 | 60 | 1 1/4" 23'-9" | |
| | Q4 | 122 | 1 1/4" 25'-9" | |
| | Q5 | 12 | 1 1/4" 24'-0" | |
| FOOTING BEAM | Q6 | 60 | 3/4" 23'-6" | |
| | Q7 | 40 | 1 1/8" 28'-0" | |
| | Q8 | 20 | 1 1/8" 18'-0" | |
| | Q9 | 40 | 1 1/8" 34'-0" | |
| STIRRUPS FOOTING BEAM | Q10 | 96 | 3/8" 24'-6" | |
| BACKWALL DOWELS | Q11 | 140 | 1" 6'-0" | |
| COLUMNS | Q12 | 348 | 1 1/8" 20'-0" | |
| BACKWALL | Q13 | 122 | 1" 17'-0" | |
| BACKWALL & DECK | Q14 | 180 | 3/4" 22'-0" | |
| DIAG. BACKWALL & DECK | Q15 | 122 | 1" 10'-0" | |
| COL. BRACKETS | Q16 | 64 | 5/8" 5'-0" | |
| DIAG. IN COLUMNS | Q17 | 32 | 3/4" 4'-6" | |
| COLUMN TIES | Q18 | 228 | 1" 11'-5" | |
| | Q19 | 152 | 2" 13'-2" | |
| BEAM OVER COLUMNS | Q20 | 24 | 1" 32'-0" | |
| | Q21 | 24 | 1" 26'-0" | |
| | Q22 | 12 | 1" 17'-0" | |
| STIRRUPS BEAM OVER COLUMNS | Q23 | 48 | 5/8" 15'-6" | |
| DECK | Q24 | 41 | 3/8" 14'-5" | |
| | Q25 | 172 | 1" 16'-9" | |
| | Q26 | 84 | 1" 19'-0" | |
| DOWELS IN BALLAST WALL | Q27 | 228 | 5/8" 8'-0" | |
| LONG. DECK & BALL WALL | Q28 | 72 | 3/8" 21'-0" | |
| PYLONS | Q29 | 64 | 1" 15'-6" | |
| | Q30 | 36 | 1" 13'-5" | |
| | Q31 | 36 | 1" 13'-5" | |
| BALLAST WALL & PORTAL | Q32 | 72 | 5/8" 6'-0" | |
| CONNECT TO WINGS | Q33 | 36 | 3/4" 8'-4" | |
| | Q34 | 36 | 3/4" 7'-4" | |
| VERT. AT WINGS | Q35 | 30 | 1" 18'-0" | |
| | Q36 | 18 | 3/4" 12'-6" | |
| PORTAL AT ENDS OF DECK | Q37 | 32 | 1 1/4" 5'-10" | |

BAR LIST - ABUTMENTS (CONTINUED)

| LOCATION | MARK # | REF SIZE | TOT LENGTH | BENDING DIAGRAM |
|---------------------|--------|----------|-------------|-----------------|
| PORTALS | Q38 | 112 | 5/8" 13'-6" | |
| | Q39 | 40 | 5/8" 10'-0" | |
| | Q40 | 32 | 5/8" 10'-4" | |
| FOOTING STIRRUPS | Q41 | 80 | 7/8" 17'-4" | |
| DECK STIRRUPS | Q42 | 120 | 5/8" 12'-8" | |

BAR LIST - WING WALLS

| LOCATION | MARK # | REF SIZE | TOT LENGTH | BENDING DIAGRAM |
|-----------------------|--------|----------|-------------|-----------------|
| FOOTING | W1 | 18 | 3/4" 17'-8" | |
| FOOTING | W2 | 38 | 3/4" 15'-4" | |
| FOOTING | W3 | 74 | 3/4" 6'-3" | |
| FOOTING | W4 | 49 | 7/8" 10'-0" | |
| FOOTING | W5 | 70 | 3/4" 9'-0" | |
| TOP OF FOOTING | W6 | 15 | 3/4" 9'-0" | |
| | W7 | 40 | 3/4" 8'-0" | |
| | W8 | 3 | 3/4" 10'-0" | |
| | W9 | 27 | 3/4" 15'-6" | |
| FOOTING & WALL | W10 | 240 | 3/4" 4'-0" | |
| VERT. IN WALL | W11 | 13 | 3/4" 20'-0" | |
| VERT. AROUND M.H. | W12 | 55 | 3/4" 17'-2" | |
| WALLS & FOOTING | W13 | 51 | 5/8" 18'-0" | |
| VERT. FACE OF WALLS | W14 | 81 | 5/8" 17'-5" | |
| HOR. WALLS & FOOTING | W15 | 117 | 5/8" 10'-6" | |
| | W16 | 69 | 5/8" 11'-5" | |
| AROUND M HOLES | W17 | 34 | 5/8" 15'-4" | |
| | W18 | 36 | 5/8" 14'-3" | |
| WALLS & FOOTING | W19 | 70 | 5/8" 5'-6" | |
| | W20 | 31 | 5/8" 7'-0" | |
| HOR. IN WALLS | W21 | 4 | 5/8" 9'-0" | |
| VERT. IN WINGS | W22 | 11 | 5/8" 17'-0" | |
| | W23 | 12 | 5/8" 12'-0" | |
| | W24 | 15 | 5/8" 9'-0" | |
| WALLS | W25 | 18 | 5/8" 13'-0" | |
| FOOTING | W26 | 29 | 5/8" 12'-0" | |
| | W27 | 102 | 5/8" 19'-5" | |
| FOOTING & WALLS | W28 | 73 | 5/8" 16'-6" | |
| LADDER IN MAN-HOLES | W29 | 62 | 3/4" 3'-9" | |
| AROUND ORG. - M HOLES | W30 | 8 | 5/8" 8'-6" | |
| FOOTING | W31 | 10 | 3/4" 17'-2" | |

BAR LIST - WING WALLS (CONTINUED)

| LOCATION | MARK # | REF SIZE | TOT LENGTH | BENDING DIAGRAM |
|--------------------------------|--------|----------|--------------|-----------------|
| FOOTING | W32 | 9 | 3/4" 24'-6" | |
| WALL | W33 | 33 | 3/4" 18'-0" | |
| | W34 | 34 | 5/8" 23'-6" | |
| FOOTING | W35 | 8 | 7/8" 17'-5" | |
| | W36 | 10 | 3/4" 16'-6" | |
| | W37 | 32 | 5/8" 14'-4" | |
| | W38 | 20 | 5/8" 8'-0" | |
| BACK OF WALL AROUND M HOLES | W39 | 32 | 5/8" 16'-0" | |
| VERT. IN WALL | W40 | 19 | 3/4" 15'-2" | |
| | W41 | 62 | 3/4" 15'-5" | |
| | W42 | 3 | 5/8" 21'-0" | |
| FOOTING | W43 | 17 | 5/8" 16'-11" | |
| WALL | W44 | 13 | 5/8" 9'-5" | |

BAR LIST - DECK

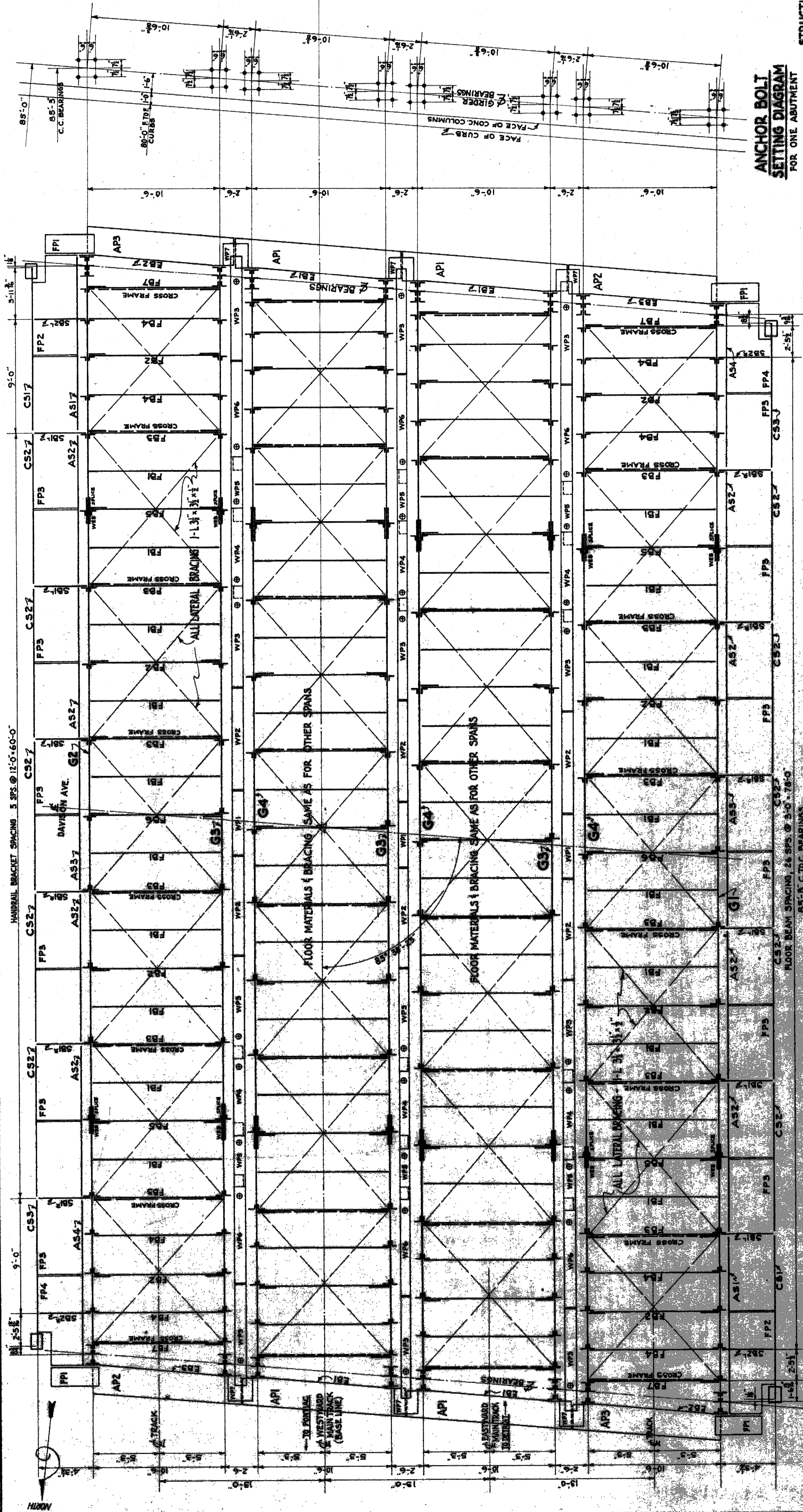
| LOCATION | MARK # | REF SIZE | TOT LENGTH | BENDING DIAGRAM |
|--|--------|----------|-------------------|-----------------|
| THRU FL. BEAMS | D1 | 696 | 1 1/4" 3'-5" | |
| TRANSVERSE | D2 | 564 | 1 1/4" 10'-0" | |
| LONG. TOP & BOT. | D3 | 392 | 1 1/4" 13'-6" | |
| TOP AT BREAK IN DECK | D4 | 64 | 1 1/4" 17'-6 1/2" | |
| LONGITUDINAL | D5 | 120 | 1 1/4" 15'-5" | |
| LONG. AT ENDS | D6 | 48 | 1 1/4" 10'-4" | |
| LONG. AT BREAK IN DECK | D7 | 48 | 1 1/4" 8'-9" | |
| BOOT AT BREAK IN DECK | D8 | 64 | 1 1/4" 8'-0" | |
| LONG. TOP & BOT. ENDS | D9 | 152 | 1 1/4" 10'-6" | |
| TRANSVERSE TIFB | D10 | 280 | 1 1/4" 10'-5" | |
| | D11 | 200 | 1 1/4" 10'-5" | |
| | D12 | 40 | 1 1/4" 10'-4" | |
| TRANSVERSE - ENDS | D13 | 12 | 5/8" 11'-9" | |
| | D14 | 12 | 5/8" 13'-0" | |
| | D15 | 12 | 5/8" 11'-6" | |
| | D16 | 12 | 5/8" 12'-9" | |
| BETWEEN GUSSETS | D17 | 96 | 1 1/4" 6'-4" | |
| | D18 | 16 | 1 1/4" 5'-9" | |
| THRU STEEL | D19 | 160 | 5/8" 20'-0" | |
| AT SIDES | D20 | 720 | 5/8" 2'-4" | |
| UNDER DRAIN | D21 | 24 | 1 1/4" 14'-5 1/2" | |
| | D22 | 24 | 1 1/4" 15'-0" | |
| | D23 | 24 | 1 1/4" 7'-6" | |
| | D24 | 24 | 1 1/4" 8'-4 1/2" | |
| | D25 | 24 | 1 1/4" 12'-3" | |
| AT ENDS | D26 | 12 | 5/8" 4'-7" | |
| | D27 | 36 | 5/8" 5'-9" | |
| | D28 | 12 | 5/8" 3'-10" | |
| | D29 | 36 | 5/8" 6'-2" | |
| | D30 | 48 | 5/8" 3'-2" | |
| THRU Z BAR | D31 | 24 | 5/8" 0'-8" | |
| | D32 | 48 | 5/8" 0'-10" | |
| | D33 | 56 | 5/8" 1'-6" | |
| END FLOOR BEAM | D34 | 48 | 1 1/4" 1'-10" | |
| 1800 SQ. FT. OF 4" x 4" WIRE MESH N° 8 GA. | | | | |

NOTE: SEE SHEET G5 FOR GENERAL STRUCTURE NOTES.

| REINFORCING STEEL | ESTIMATED WEIGHT |
|-------------------|------------------|
| ABUTMENT | 8488 |
| WING WALLS | 1252 |
| DECK | 1242 |
| TOTAL WT. TONS | 109.82 |

PWA DOCKET N° MICHIGAN 1120-F
GRAND TRUNK WESTERN R. R.
DAVISON AVE. GRADE SEPARATION
 DETROIT & HIGHLAND PARK - MICHIGAN
REINFORCING BAR SCHEDULE

NOT TO SCALE



ANCHOR BOLT SETTING DIAGRAM
FOR ONE ABUTMENT

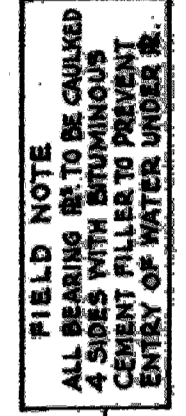
STRUCTURAL STEEL REQUIRED
FOUR SINGLE SPANS, CONSISTING OF GIRDERS, FLOOR BEAMS, BALLAST AFRONS CROSS AND LATERAL BRACING, ROLLED STEEL SLAB BEARINGS INCLUDING CARBON STEEL CASTINGS, PINS, PHOSPHOR BRONZE BRONZE PLATES AND CONNECTIONS.
ALSO MATERIALS FOR TWO SIDEWALKS CONSISTING OF CANTILEVER BRACKETS, CHANNEL CONNECTIONS AND CONNECTIONS.
ALSO MATERIALS FOR THREE STEEL PLATE WALKWAYS BETWEEN GIRDERS, AND THEIR CONNECTIONS.
ALL AS DETAILED AND SHOWN.

ERECTOR'S NOTE

SET IN PLACE AND PUT IN POSITION ON TOP OF DECK CONCRETE AND MAKE BRASSHORN BOLT POSITIONS DIRECT.

ERECTOR'S NOTE

SET IN PLACE AND PUT IN POSITION ON TOP OF DECK CONCRETE AND MAKE BRASSHORN BOLT POSITIONS DIRECT.



PIES MEMBER ASSEMBLY

- 1-TOP CASTING TS
- 2-TURNED BOLT B5
- 3-TURNED BOLT B5
- 4-TURNED BOLT B5
- 5-TURNED BOLT B5
- 6-TURNED BOLT B5
- 7-TURNED BOLT B5
- 8-TURNED BOLT B5
- 9-TURNED BOLT B5
- 10-TURNED BOLT B5
- 11-TURNED BOLT B5
- 12-TURNED BOLT B5
- 13-TURNED BOLT B5
- 14-TURNED BOLT B5
- 15-TURNED BOLT B5
- 16-TURNED BOLT B5
- 17-TURNED BOLT B5
- 18-TURNED BOLT B5
- 19-TURNED BOLT B5
- 20-TURNED BOLT B5

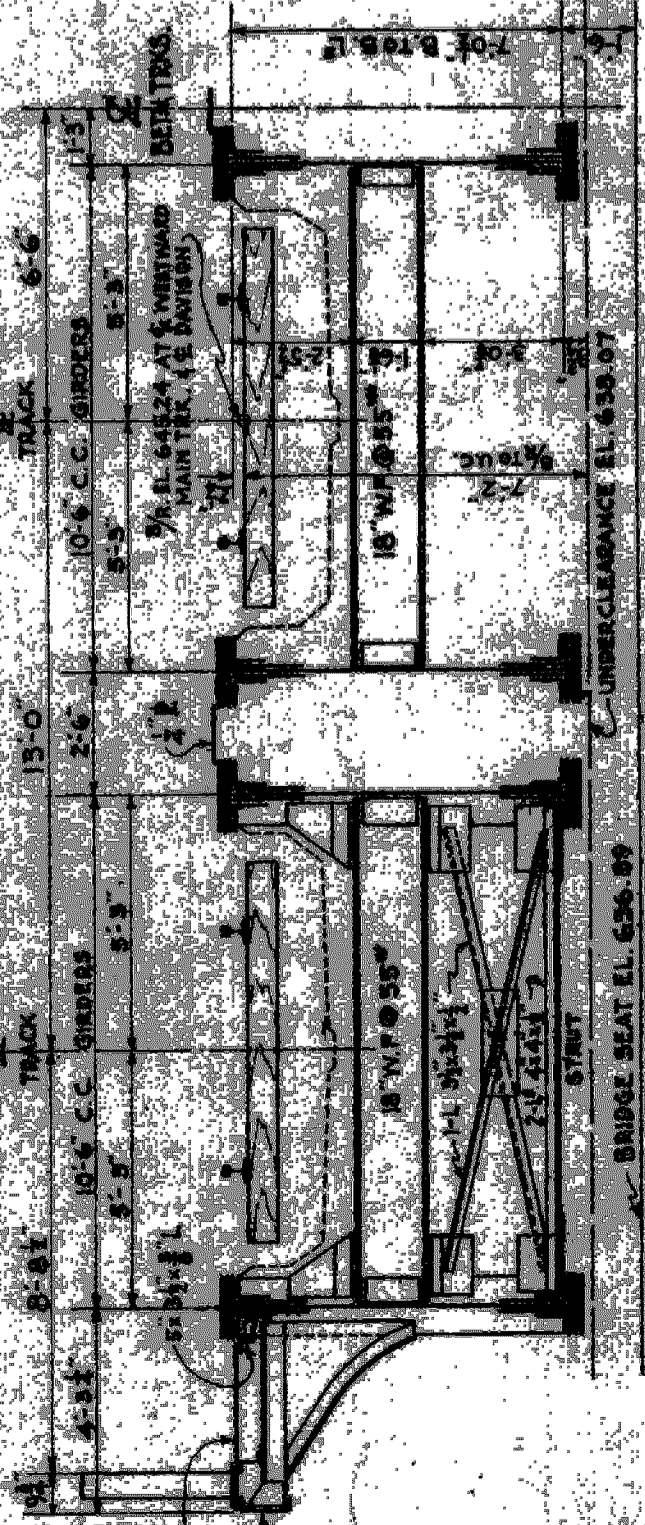
| TABLE OF STRESSES | | SECTION | |
|-------------------|-------|-----------------|-----------------|
| MEMBER | LOAD | MAX. MOM. FT-LB | MAX. SHEAR, LB. |
| GIRDERS | D.L. | 3,087,200 | 144,925 |
| | L.L. | 4,356,275 | 235,935 |
| | I. | 2,526,640 | 136,850 |
| | TOTAL | 9,970,115 | 517,710 |
| FLOOR BEAMS | D.L. | 16,600 | 7,900 |
| | L.L. | 59,500 | 21,600 |
| | I. | 59,500 | 21,600 |
| | TOTAL | 135,600 | 51,100 |

GENERAL NOTES

- DESIGN - A.R.A. SPECIFICATIONS FOR STEEL RAILWAY BRIDGES (CURRENT)
- LOADING - E72 WITH FULL IMPACT
- MATERIALS - STRUCTURAL STEEL AS PER A.S.T.M. SPECIFICATION - A7-36
- RIVET STEEL - A141-33
- CARBON STEEL CASTINGS - A27-36T, GRADE B-1
- PHOSPHOR BRONZE PLATES - B100-35T, CLASS 'B'
- PAINT MATERIALS - SEE SPECIFICATIONS
- FABRICATION - TO BE IN ACCORDANCE WITH AREA SPECIFICATIONS FOR STEEL RAILWAY BRIDGES. SEE DETAIL SHEETS FOR SPECIAL REQUIREMENTS.
- RIVETS - 1" THRU WEB & FLANGES OF GIRDERS; 3/4" OTHER PARTS, UNLESS NOTED.
- OPEN HOLES - 1/4" THRU WEB & FLANGES OF GIRDERS; 3/8" OTHER PARTS, UNLESS NOTED.
- PAINTING - SEE SPECIFICATIONS.
- MILLY SHOP INSPECTION - SEE SPECIFICATIONS.
- ERECTOR'S NOTE - SEE SPECIFICATIONS.
- SHOP DRAWINGS - FABRICATOR SHALL FURNISH DETAILS FOR CHECKING AND INKED LINEN TRACINGS OF ALL SHOP DRAWINGS FOR PERMANENT RECORD.

GENERAL NOTES

- NOTE - ALL FLOOR BEAMS 18" WIDE @ 35"
- ALL FOUR BRIDGES ALIKE EXCEPT FOR SIDEWALKS.
- ALL GIRDERS ALIKE EXCEPT FOR SIDEWALK CONNECTIONS & DIAGONAL BRACING.
- GIRDERS TO BE SET LEVEL.
- PIES MEMBER ASSEMBLY
- 1-TOP CASTING TS
- 2-TURNED BOLT B5
- 3-TURNED BOLT B5
- 4-TURNED BOLT B5
- 5-TURNED BOLT B5
- 6-TURNED BOLT B5
- 7-TURNED BOLT B5
- 8-TURNED BOLT B5
- 9-TURNED BOLT B5
- 10-TURNED BOLT B5
- 11-TURNED BOLT B5
- 12-TURNED BOLT B5
- 13-TURNED BOLT B5
- 14-TURNED BOLT B5
- 15-TURNED BOLT B5
- 16-TURNED BOLT B5
- 17-TURNED BOLT B5
- 18-TURNED BOLT B5
- 19-TURNED BOLT B5
- 20-TURNED BOLT B5



TYPICAL DECK CROSS-SECTION

SECTION SHOWN FOR 1/2 OF BRIDGE. OTHER HALF SIMILAR. VIEWS SHOW SECTION AT BRACE PANEL, AND SECTION AT W.F. FLOOR BEAM

P.W.A. DOCKET NO MICHIGAN 1120-F
GRAND TRUNK WESTERN RAILROAD
DAVISON AVE. GRADE SEPARATION
DETROIT & HIGHLAND PARK, MICHIGAN
STRUCTURAL STEEL
ERECTION DIAGRAM
SCALE: 1/4" IN. = 1 FT.
DR. TH.J. OFFICE OF CHIEF ENGINEER JUN. NO. 1
TR. L.W.S. DETROIT, MICHIGAN W-6296
CH. R.A.W. SEPT. 1938 FILE



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SHEET 08 OF SHEETS