

SAFETY ON THIS JOB
DEPENDS ON YOU

| REVISIONS | | | | | |
|-----------|------|------|---------------------------------------|---------|----------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
| 3 | △ | | REVISED TO CONFORM TO AMENDMENT NO. 2 | 5-16-54 | W.P. |
| | | | | | |
| | | | | | |
| | | | | | |

| INDEX OF SHEETS FOR STRUCTURE 157 | |
|-----------------------------------|--|
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| 1-33 | TOPOGRAPHY |
| 1-34 | SITE PLAN |
| 1-35 | GENERAL PLAN AND SECTIONS |
| 1-36 | ACCESS ROAD |
| 1-37 | MASONRY PLAN AND SECTIONS |
| 1-38 | MASONRY DETAILS |
| 1-39 | REINFORCEMENT - SPILLWAY STRUCTURE DETAILS NO. 1 |
| 1-40 | REINFORCEMENT - SPILLWAY STRUCTURE DETAILS NO. 2 |
| 1-41 | REINFORCEMENT - DOWNSTREAM STRUCTURE AND DOWNSTREAM WINGWALL CAP |
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| 1-44 | WINGWALLS |
| 1-45 | HANDRAIL DETAILS NO. 1 |
| 1-46 | HANDRAIL DETAILS NO. 2 |
| 1-47 | EMBEDDED METALS AND MISCELLANEOUS DETAILS |
| 1-48 | WARNING SIGNS AND ANCHOR DETAILS |
| 1-49 | SAFETY BARRIER DETAILS |
| 1-50 | CONTROL HOUSE AND STILLING WELLS |
| 1-51 | GATE HOIST - GENERAL ARRANGEMENT |
| 1-52 | GATE HOIST - ASSEMBLY |
| 1-53 | GATE HOIST - DETAILS NO. 1 |
| 1-54 | GATE HOIST - DETAILS NO. 2 |
| 1-55 | CONTROL HOUSE AND HYDRAULIC PIPING |
| 1-56 | CONTROL HOUSE ELECTRICAL |
| 1-57 | ELECTRICAL - CONDUIT PLAN |
| 1-58 | ELECTRICAL - SCHEMATIC WIRING DIAGRAM AND MISC. DETAILS |
| 1-59 | LOG OF BORINGS |
| 1-60 | LOG OF BORINGS |

- GENERAL NOTES:
- ELEVATIONS ARE IN FEET AND TENTHS AND REFERRED TO MEAN SEA LEVEL.
 - ALL ELEVATIONS ARE ABOVE REFERENCE PLANE, UNLESS PRECEDED BY A MINUS (-) SIGN.
 - ALL STATIONING IS ALONG ϕ CANAL, RANGE 1000.
 - COORDINATES ARE BASED ON THE STANDARD PLANE RECTANGULAR COORDINATE SYSTEM FOR THE EAST ZONE OF FLORIDA.
 - ALL AZIMUTH (0°=SOUTH) REFER TO GRID.
 - F.C.E. (FLOOD CONTROL EVERGLADES) STATIONS ARE C. OF E. TRAVERSE DISKS SET IN CONCRETE MONUMENTS OR 4" IRON PIPES AND ARE BENCH MARKS.
 - FOR STRUCTURE 96, THE STEEL SHEET PILE WEIR AND THE GATED CULVERT STRUCTURES INDEX IN SPLETS, SEE SHEETS NO. 25, 26, AND 33 RESPECTIVELY.

LEGEND

| | |
|--|-----------------------------|
| | CANAL 54 SECTION 2 SPILLWAY |
| | LEVEE AND DESIGNATION |
| | STRUCTURE NUMBER |
| | CULVERT |
| | SPILLWAY |
| | HURRICANE GATE |
| | PUMPING STATION |
| | RAILROAD |
| | COUNTY LINE |
| | ROAD OR HIGHWAY |

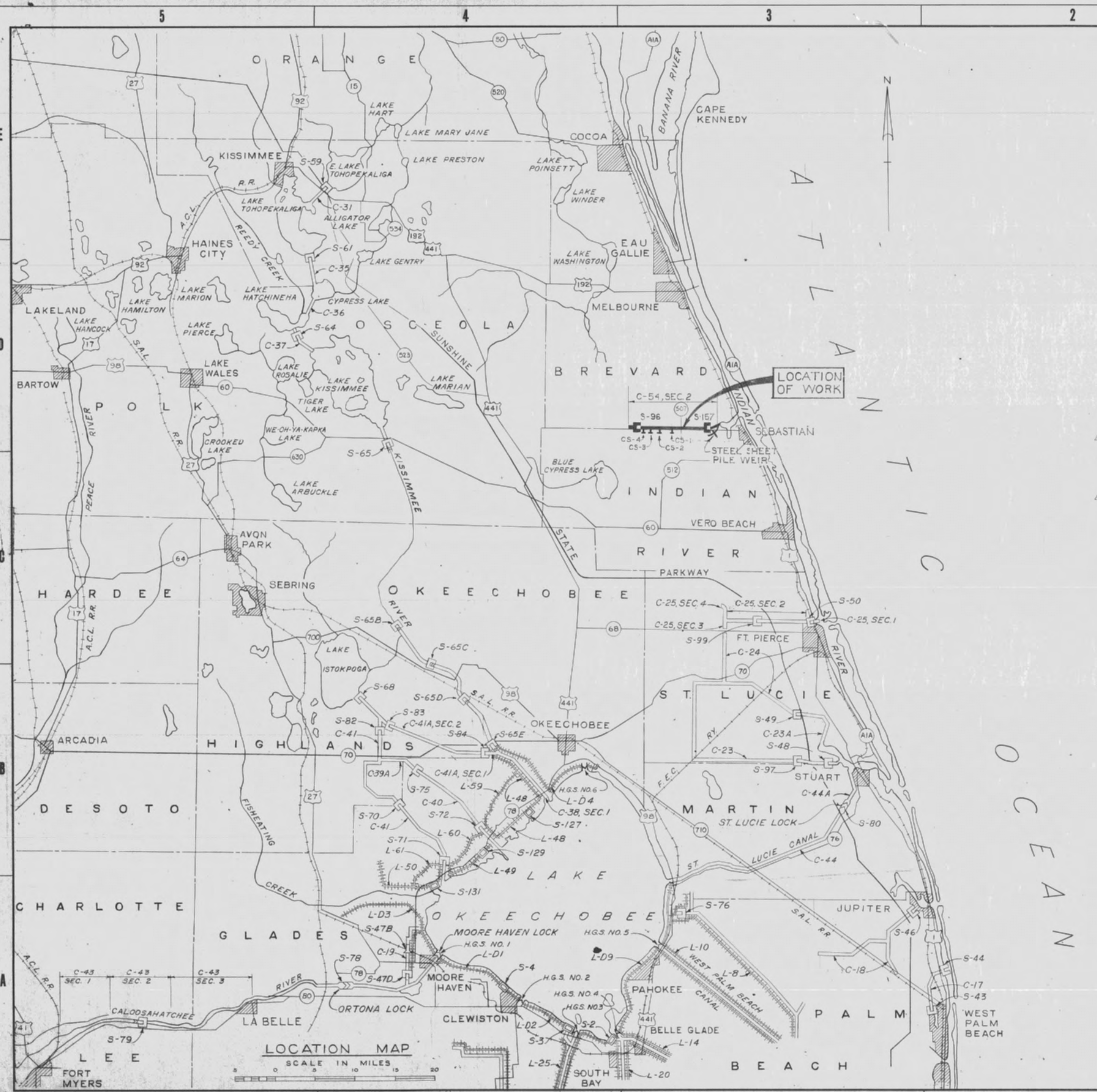
RECORD DRAWING NOTE

"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

COMPLETED OR UNDER CONSTRUCTION

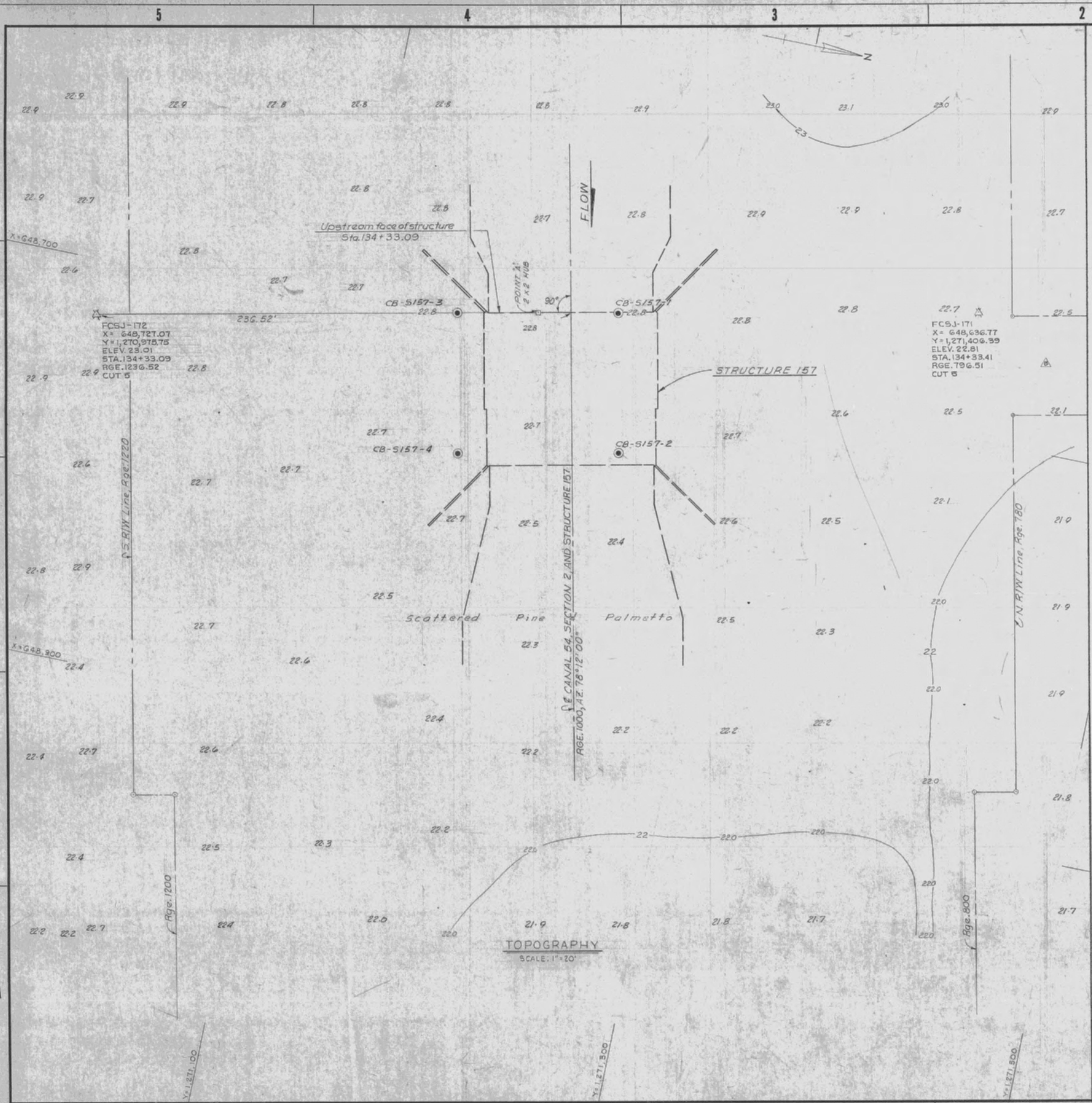
AS BUILT

| | |
|--|---|
| PREPARED BY: DESIGNED BY: CHECKED BY: APPROVED BY: DATE: 28 APRIL 1954 SCALE: AS SHOWN SHEET: 1 OF 7 | U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE CORPS OF ENGINEERS JACKSONVILLE, FLORIDA CENTRAL AND SOUTHERN FLORIDA PROJECT FOR FLOOD CONTROL AND OTHER PURPOSES CANAL 54, SECTION 2 STRUCTURES 157 AND 96, GATED CULVERT STRUCTURES C-1, C-2, C-3, C-4 AND STEEL SHEET PILE WEIR LOCATION MAP AND INDEX |
|--|---|



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| REVISIONS | | | | |
|-----------|------|--|---------|-------------|
| NO. | SYM. | DESCRIPTION | DATE | APPROVED |
| 2 | △ | REVISED TO CONFORM TO AMENDMENT NO. 2. | 5-16-66 | [Signature] |
| 1 | △ | REVISED R/W LINE TO ACCY. MOD. TO CONTE. NO. 66-108. | 12-1-67 | [Signature] |
| | | | | |
| | | | | |
| | | | | |

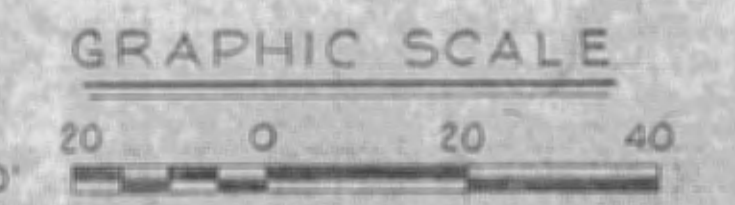


LEGEND

| | |
|-------|--|
| 20.6 | ELEVATION |
| 20 | CONTOUR AND DESIGNATION |
| △ | HORIZONTAL AND VERTICAL CONTROL MONUMENT |
| ● | CORE BORING LOCATION AND DESIGNATION |
| CB-14 | CORE BORING LOCATION AND DESIGNATION |
| R/W 2 | RIGHT OF WAY LIMIT |

- NOTES:
1. FOR GENERAL NOTES, SEE SHEET NO. 32
 2. SURVEY MADE SEPT. 1965, REFER TO PLANE TABLE D.O. FILE NO. 496-29,268.
 3. FOR LOGS OF BORINGS SEE SHEET NO. 28 & 29.
 4. ALL STATIONING IS ALONG CANAL 54 SECTION 2, RANGE 1000.

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.



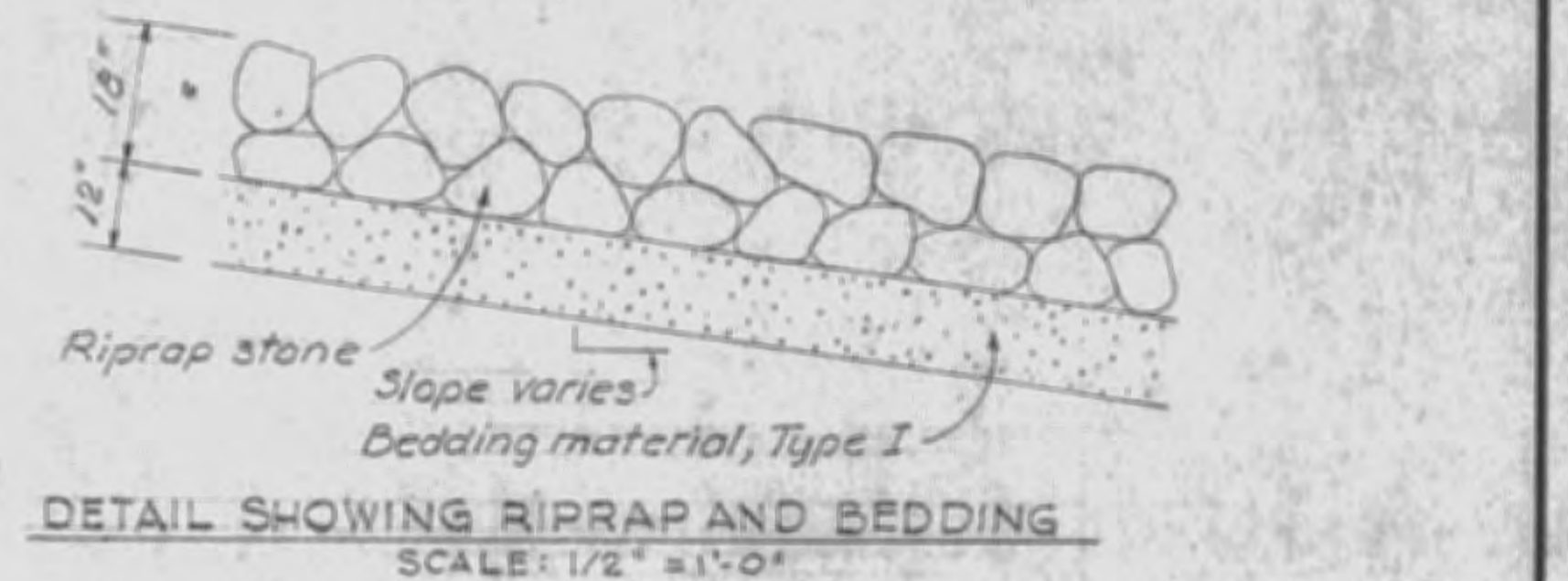
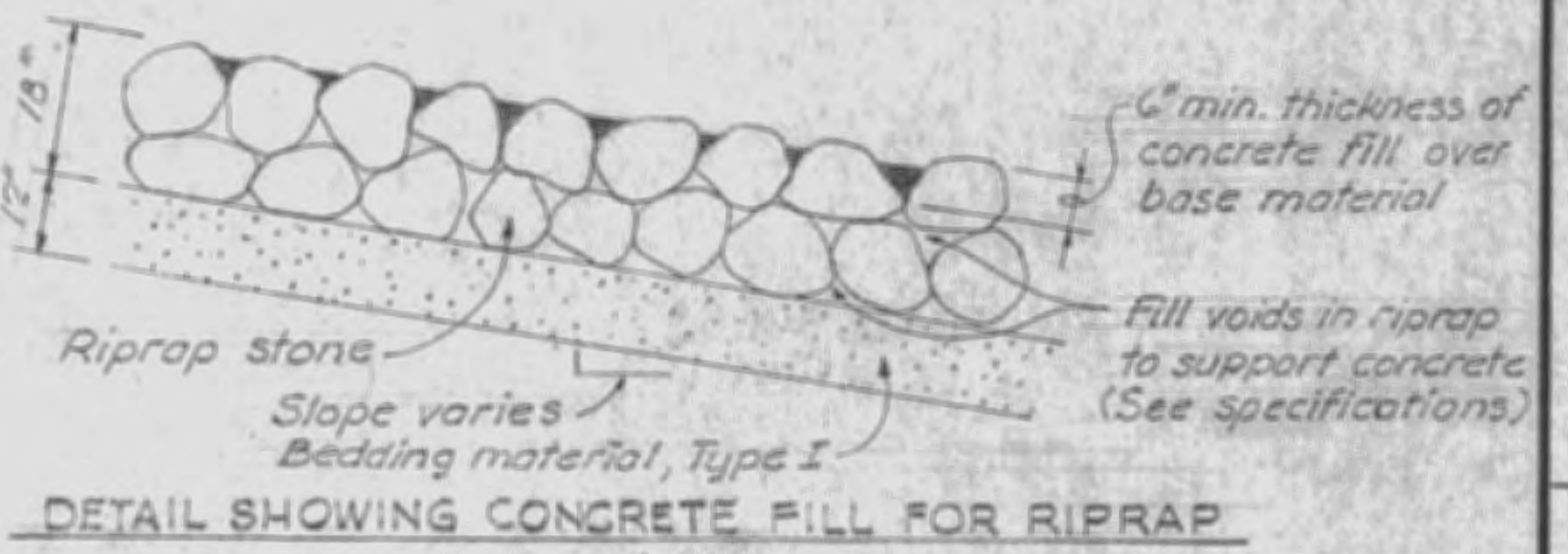
AS-BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE 157
 TOPOGRAPHY

| | | | | | |
|-----|---------|---------------|----------|------|---------|
| DNS | DATE BY | DATE | SCALE | DATE | SHEET |
| ASB | T.M.R. | 28 APRIL 1966 | AS SHOWN | 1966 | 2 OF 72 |

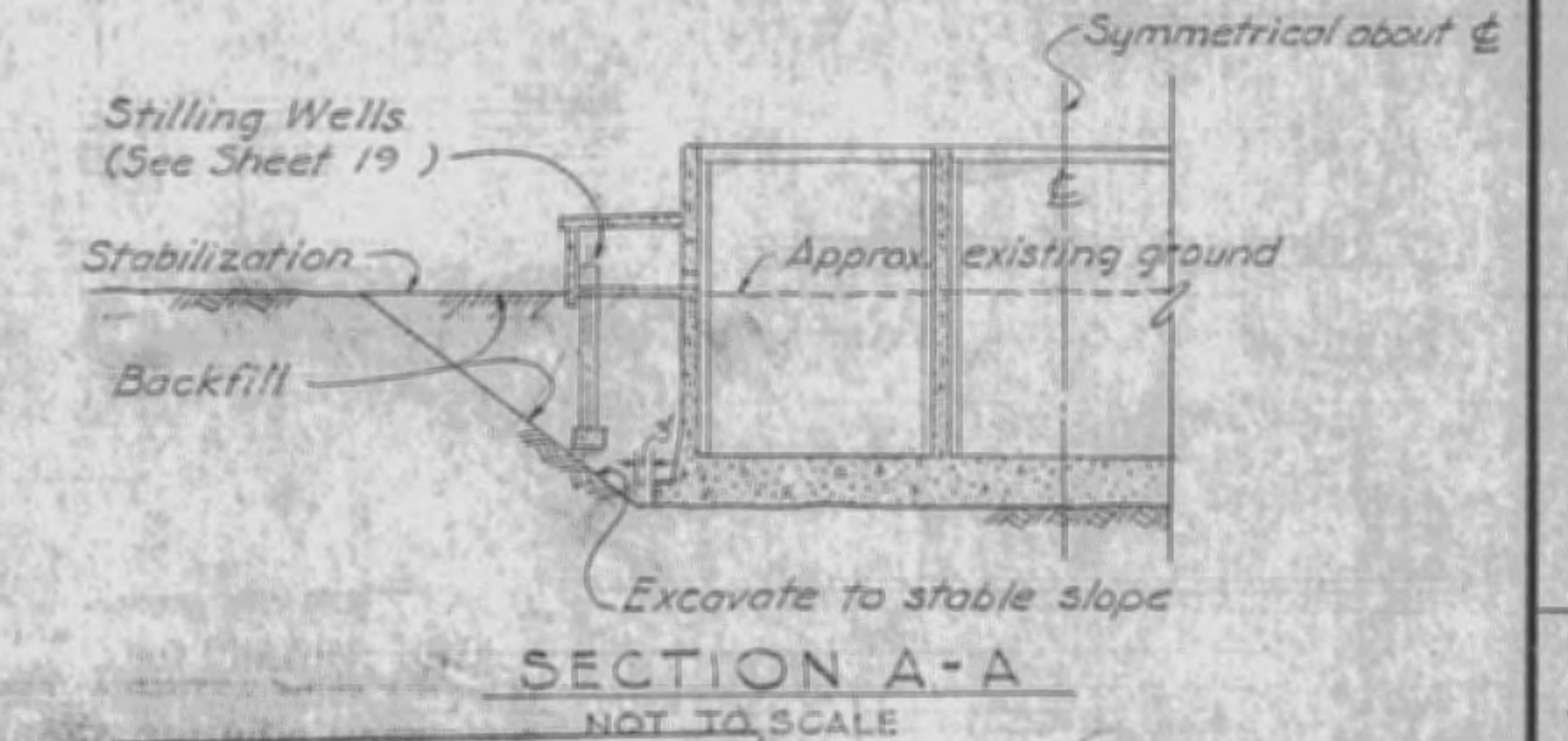
D. O. FILE NO. 496-29,370 496-30,952

| REVISIONS | | | | |
|-----------|--------|---|---------|----------|
| NO. | SYMBOL | DESCRIPTION | DATE | APPROVED |
| 16 | △ | Revised to conform to amend. No. 2 | 5/4/62 | WJR |
| 4 | △ | Added Access Road details and limits of grading to acc. amend. No. 3 | 5/16/62 | WJR |
| 2 | △ | REVISED LOCATION OF U.S. AND D.S. WARNING SIGNS TO ACCOMPANY MOD. TO CONT. CIV. ENG. 20-109 | 7/26/62 | WJR |
| 1 | △ | CONTRACT LIMITS OF RIPRAP ON UPSTREAM SIDE OF STRUCTURE TO ADJUST TO CONTRACT NO. 496-109 | 1/28/62 | WJR |
| 1 | △ | RELOCATED ACCESS ROAD TO ADJUST TO CONTRACT NO. 496-109 | 1/24/62 | WJR |

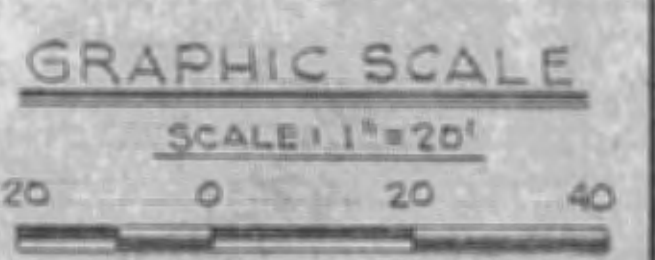


- LEGEND
- △ HORIZONTAL AND VERTICAL CONTROL MONUMENT
 - INDICATES LIMITS OF RIPRAP AND BEDDING
 - INDICATES CONTRACT PAYMENT ITEMS
 - INDICATES DIRECTION OF EXISTING SLOPE
 - INDICATES DIRECTION OF REQUIRED SLOPE
 - lon 3 INDICATES RATIO OF EXISTING SLOPE
 - lon 3 INDICATES RATIO OF REQUIRED SLOPE
 - INDICATES LIMITS OF CONCRETE FILL FOR RIPRAP (SEE DETAIL THIS SHEET)
 - GRASSING LIMITS
 - JUTE EROSION MATTING LIMITS
 - STABILIZATION
 - DEWATERING LIMITS

- NOTES:
- FOR GENERAL NOTES, SEE SHEET 1.
 - FOR RIGHT-OF-WAY CONTROL, SEE D.O. FILE NO. 496-29,360, SHEET 11.
 - FOR LOGS OF BORINGS, SEE SHEETS 28 AND 29.
 - FOR TOPOGRAPHY, SEE SHEET 2.
 - WITHIN THE LIMITS OF STRUCTURE AS SHOWN ON THE SITE PLAN, ALL FILL AND BACKFILL SHALL BE COMPACTED, EXCEPT MATERIAL PLACED IN THE WET.



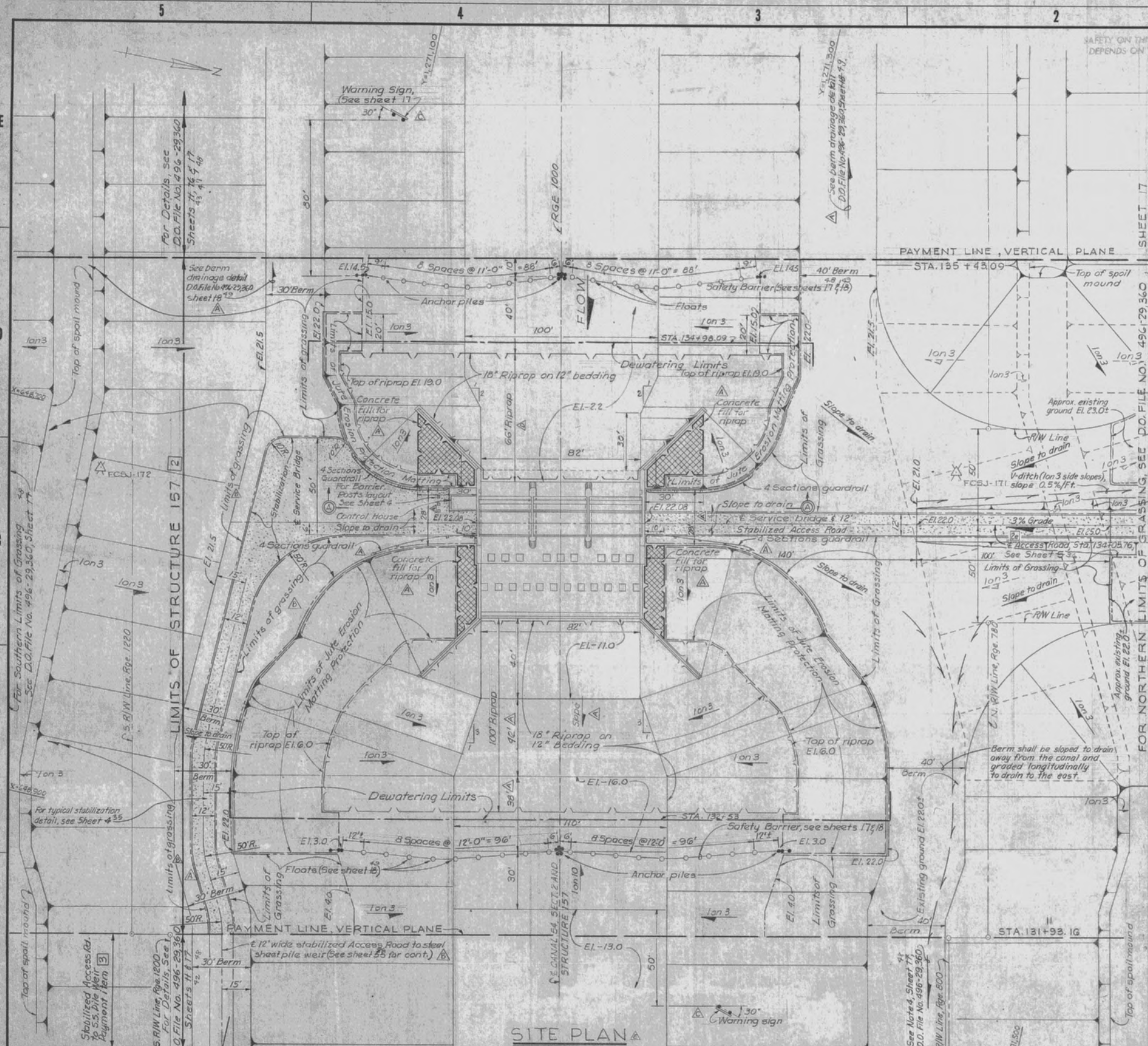
REGARD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.



AS BUILT
U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE 157
SITE PLAN

| | | | |
|--------|---------------|-------------------------------|----------------------|
| D.W.S. | DRY BY B.A.R. | REV. NO. OF THE SERIES 100-00 | SHEET NO. |
| M.G.L. | DRY BY T.M.R. | DATED: 26 APRIL 1962 | F |
| A.S.P. | | SCALE: AS SHOWN | DATED: 20 APRIL 1962 |
| | | | SHEET 34 OF 34 |

D. O. FILE NO. 496-29,360-496-30,952



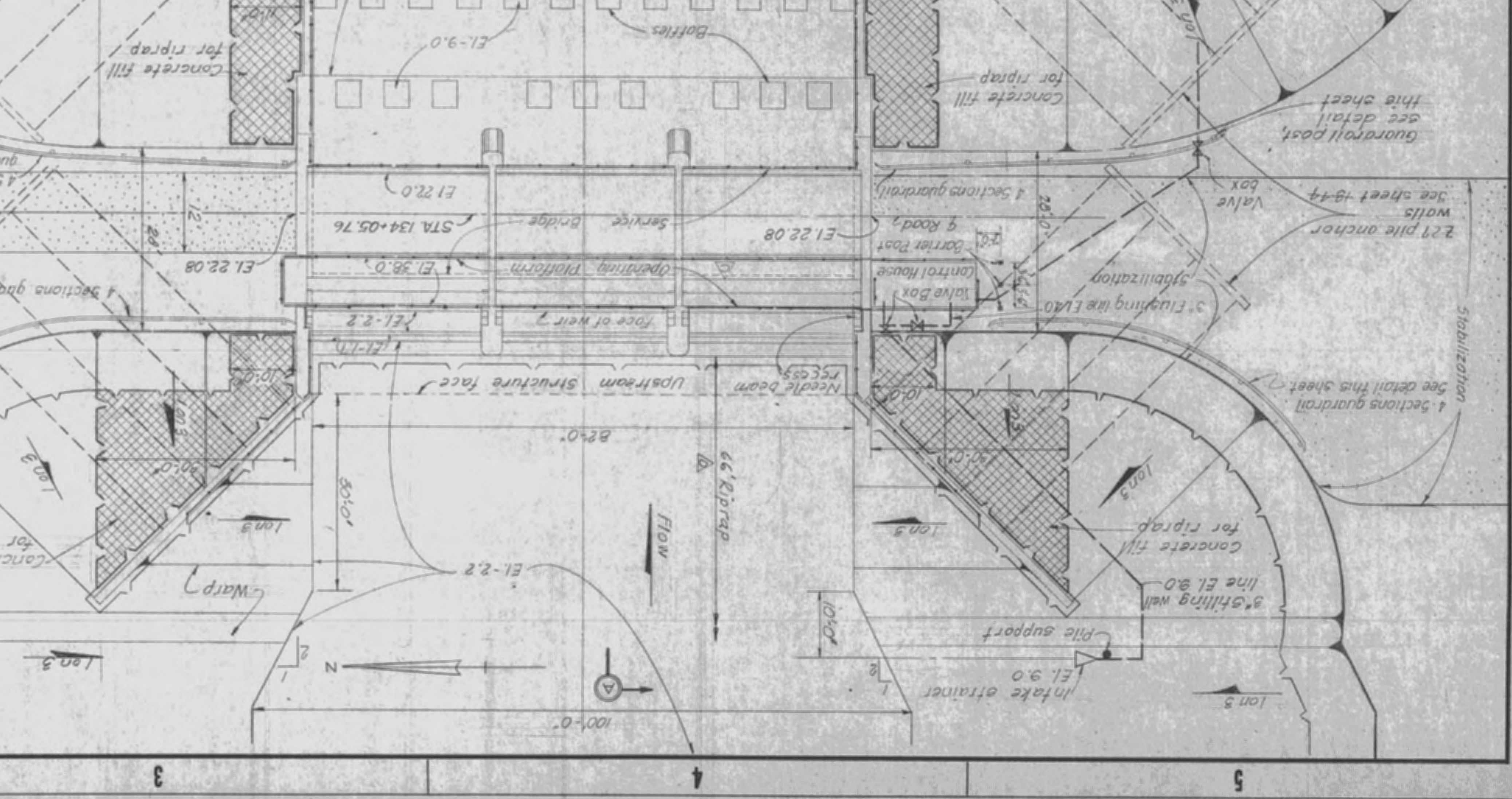
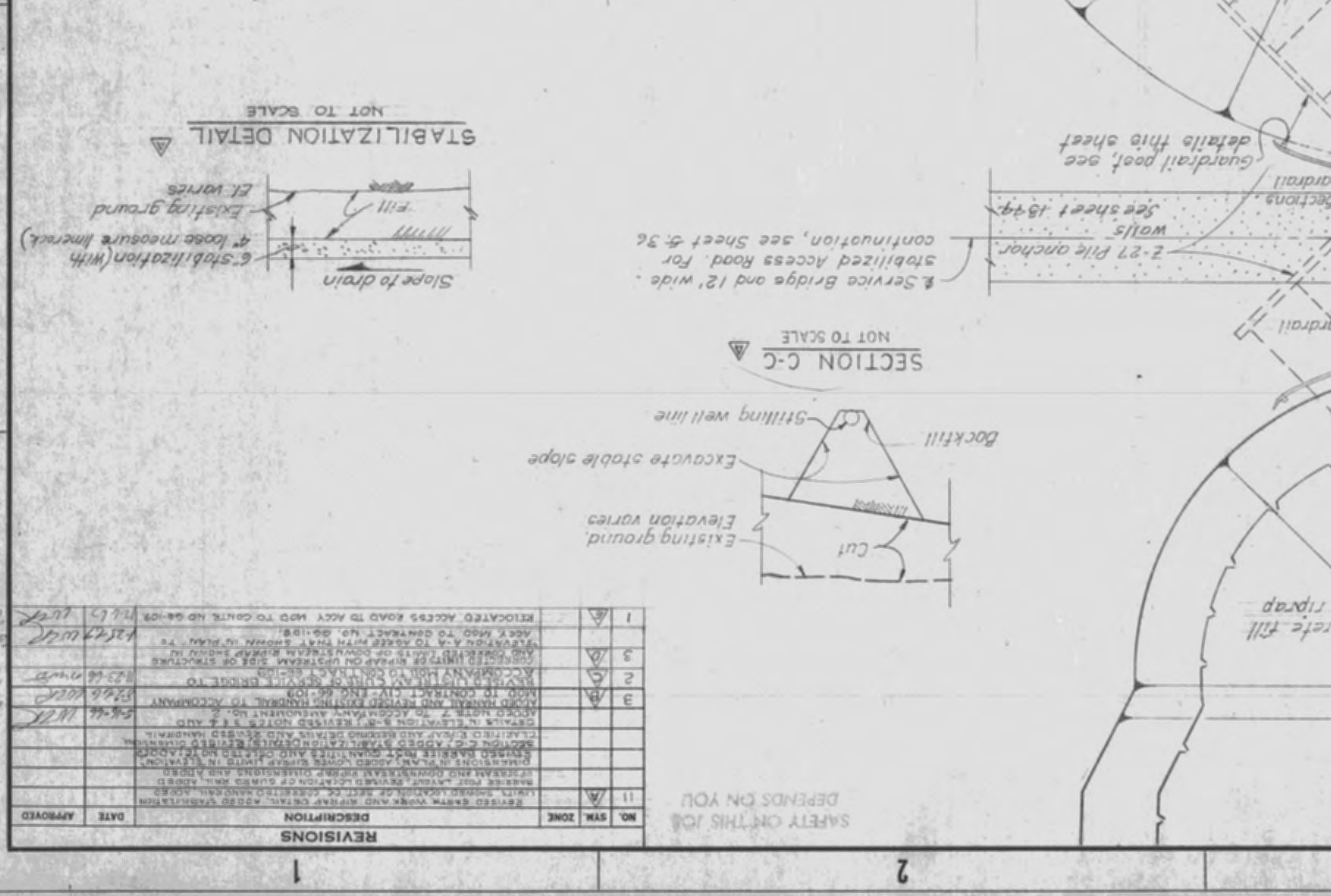
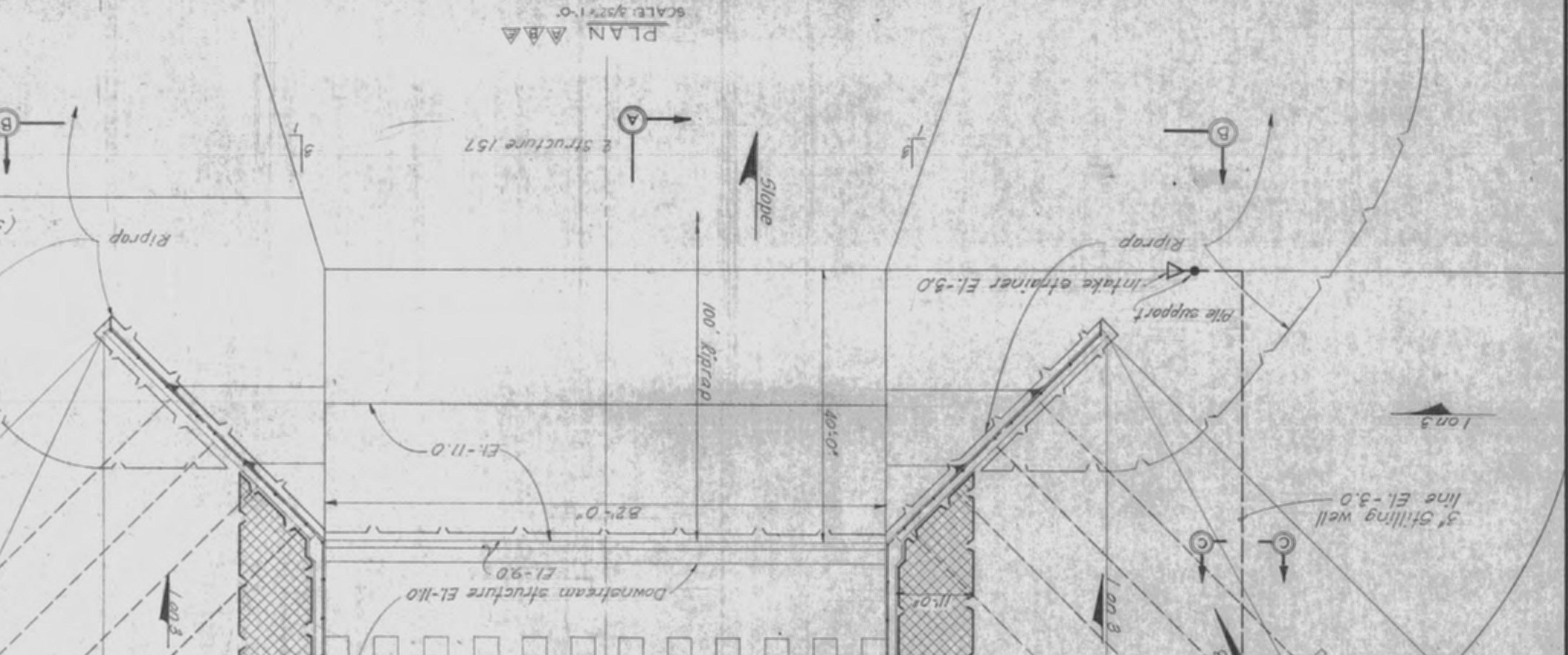
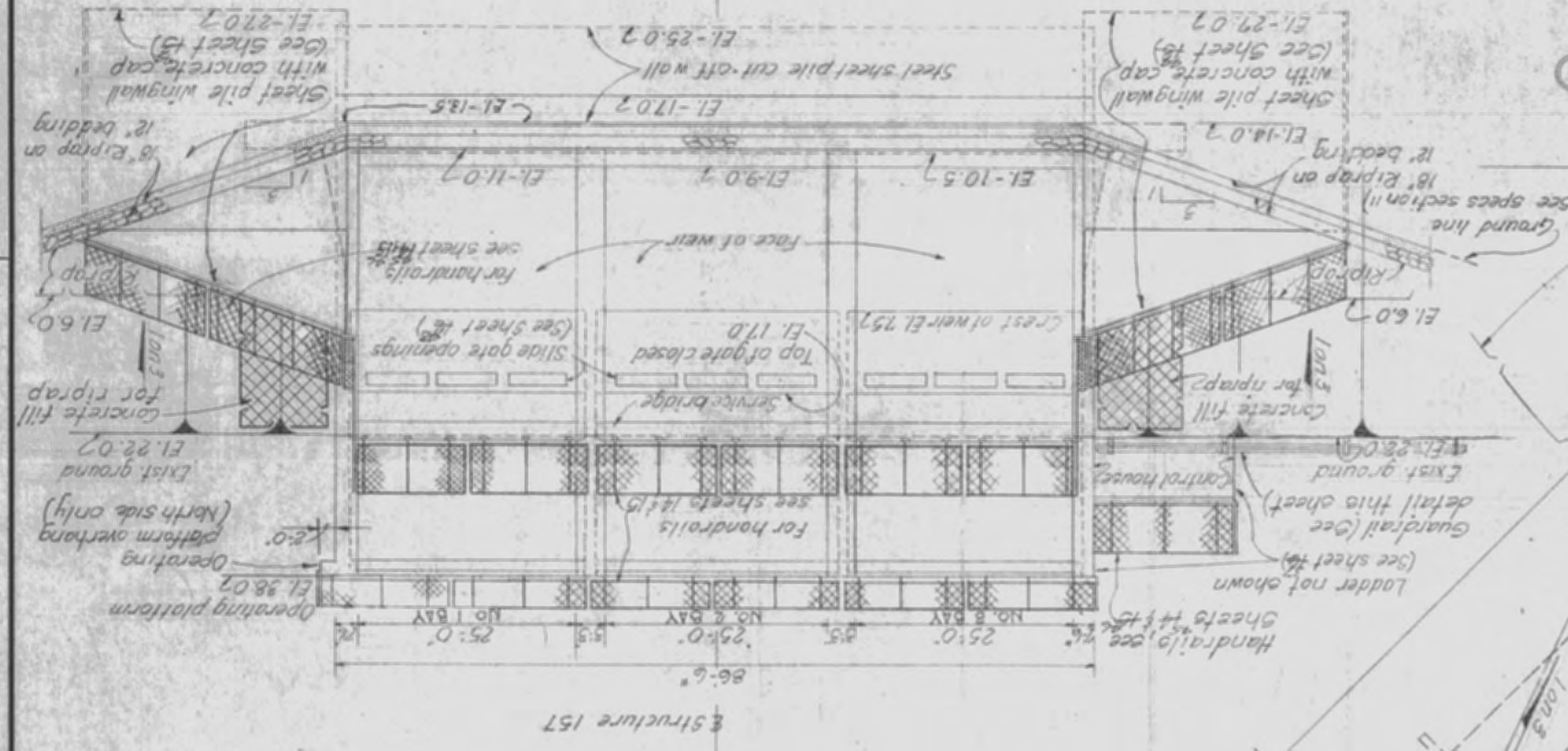
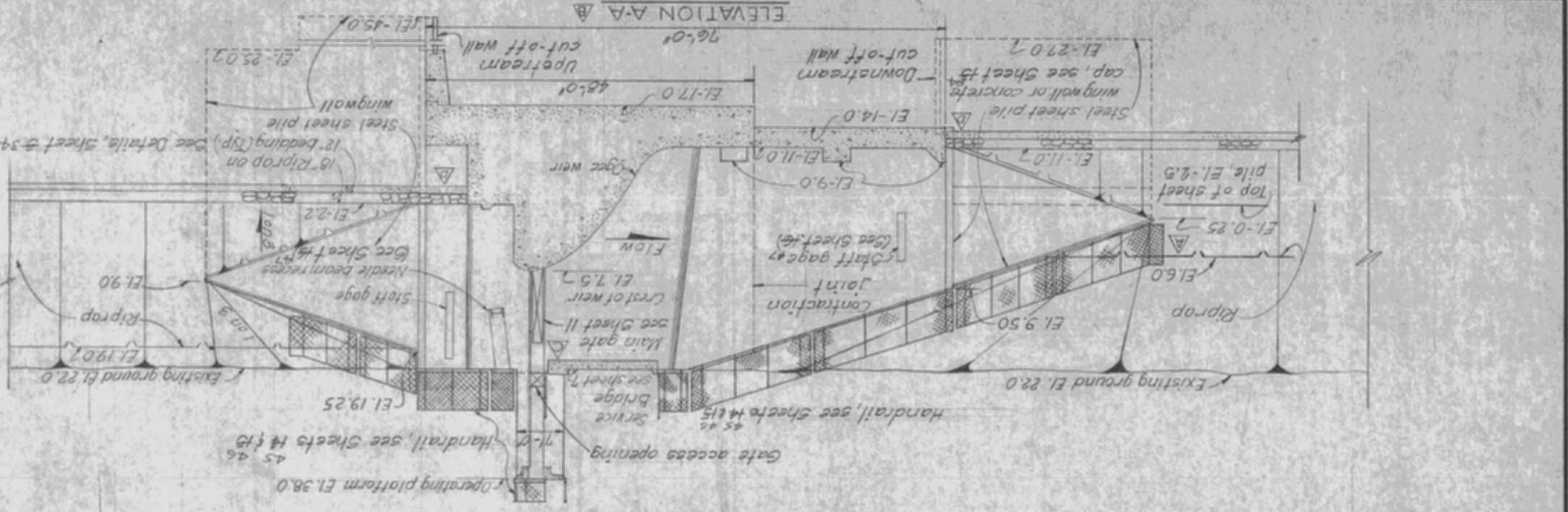
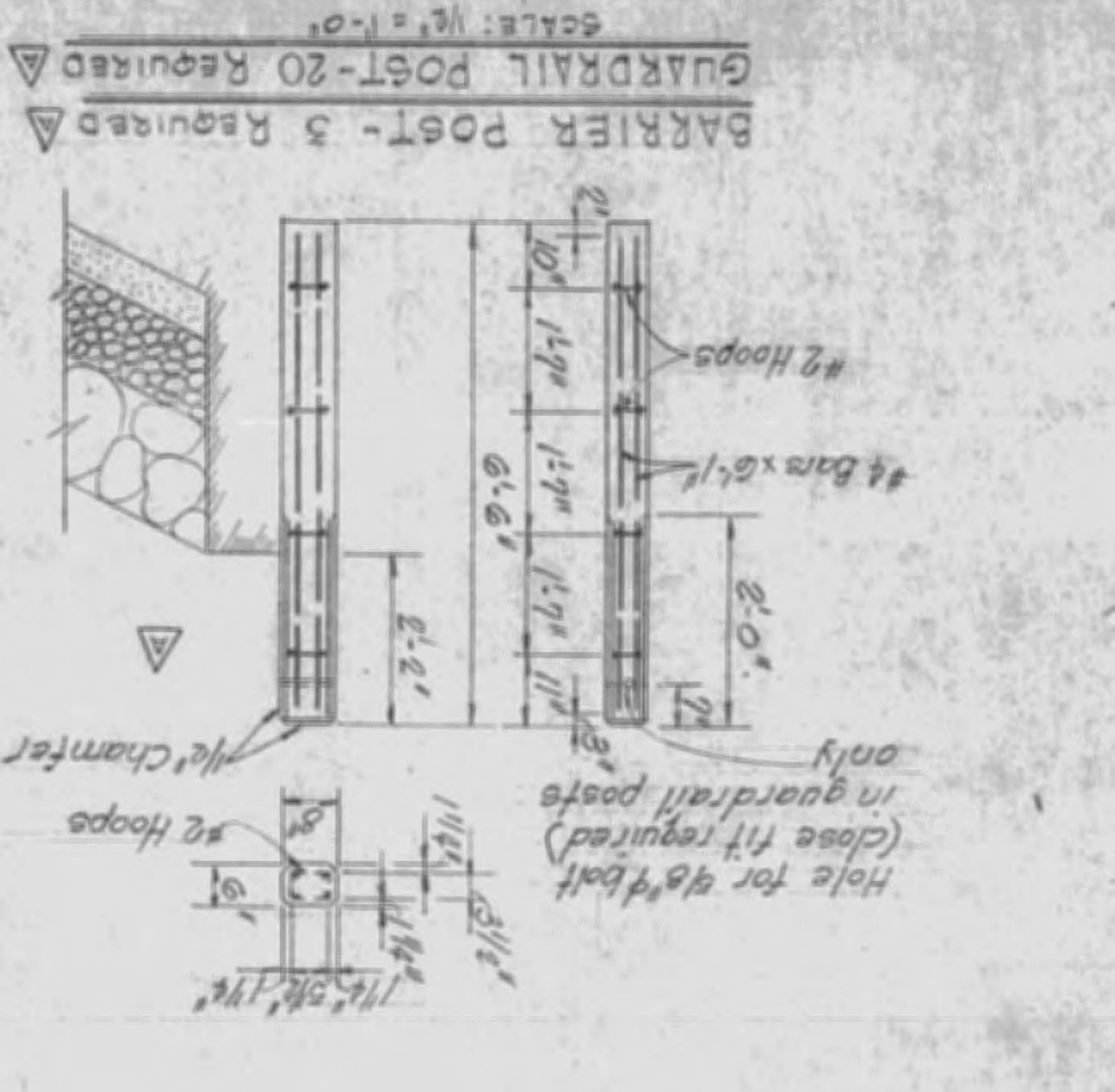
SITE PLAN
SCALE: 1" = 20'

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL B4, SECTION 2
 STRUCTURE-157
 GENERAL PLAN AND SECTIONS

SCALE: 1/4" = 1'-0"
 GRAPHIC SCALE
 DATE: 28 APRIL 1952
 SCALE: 1/8" = 1'-0"
 DATE: 28 APRIL 1952

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install,"
 "Remove," etc., indicates work
 was accomplished under the
 contract.

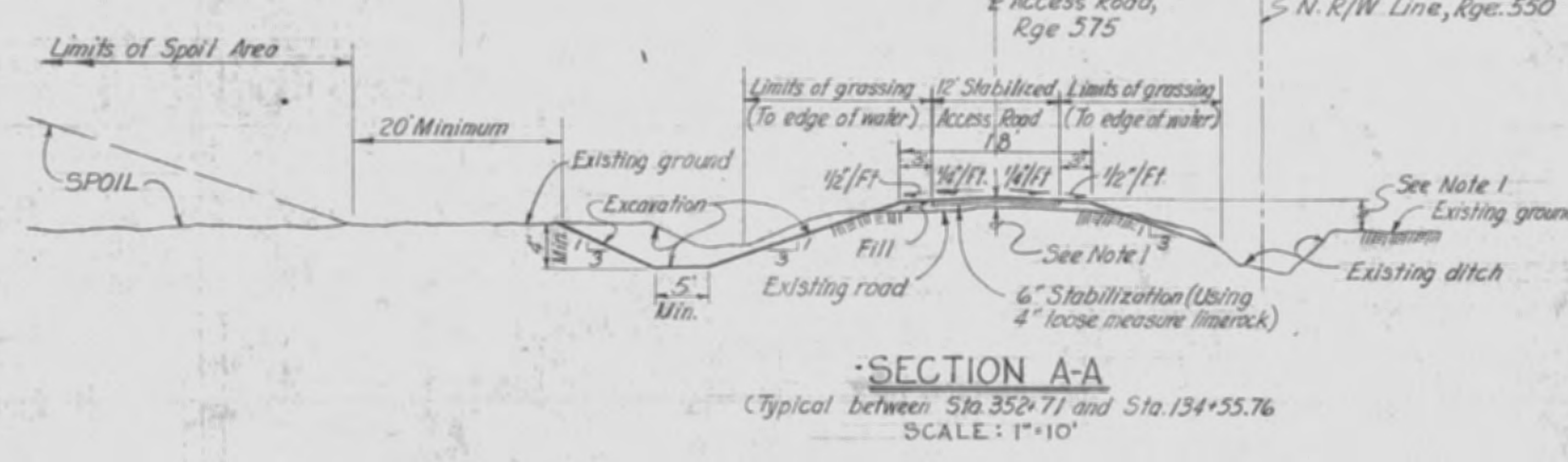
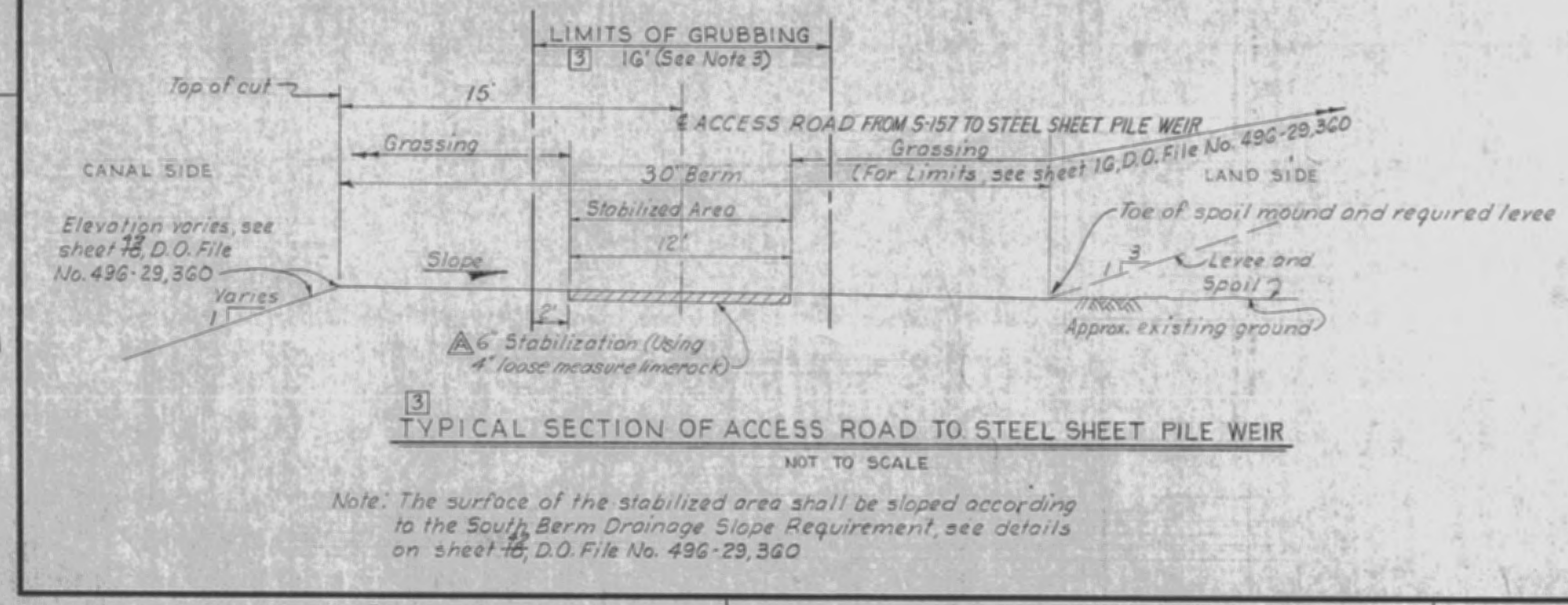
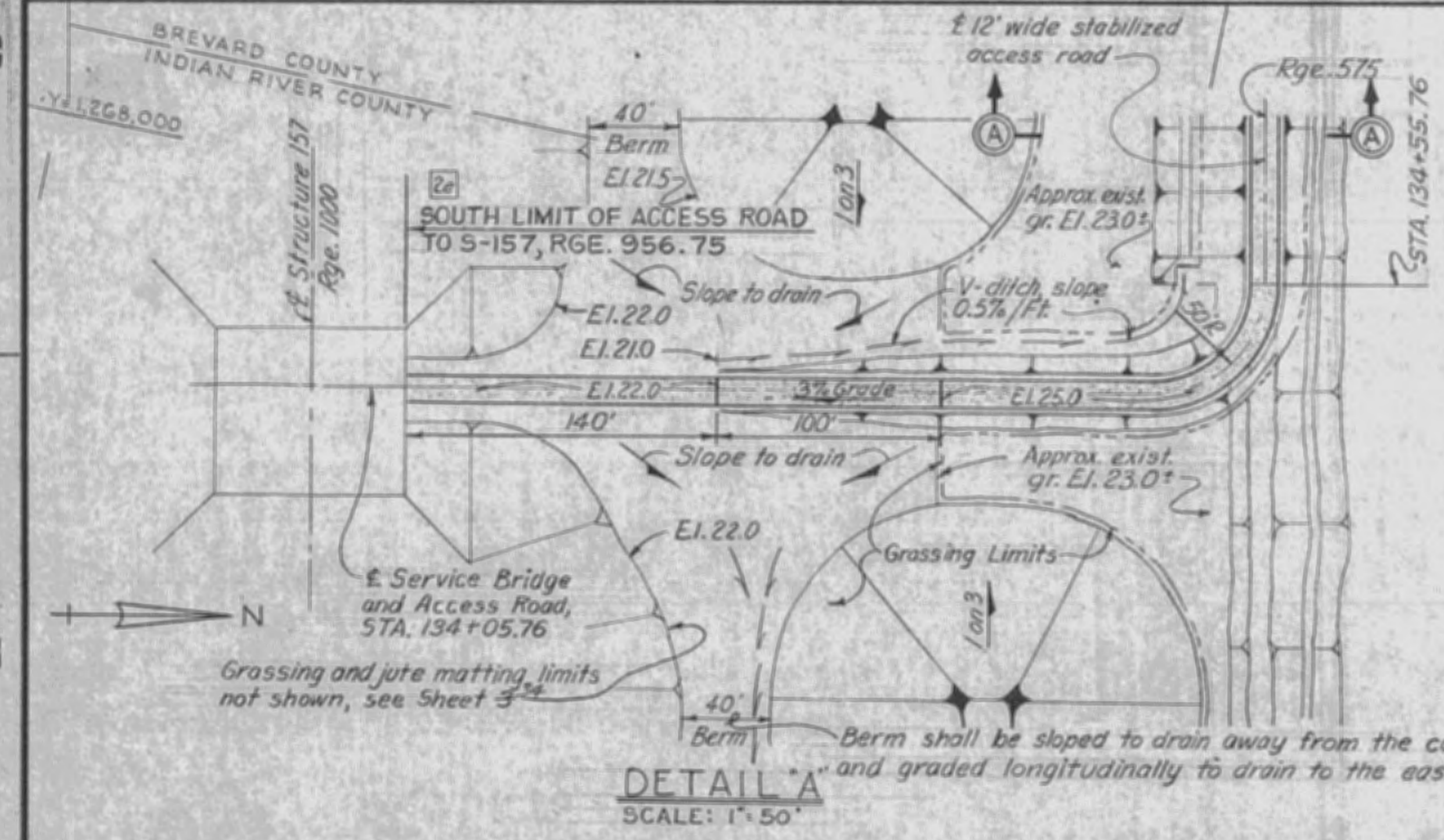
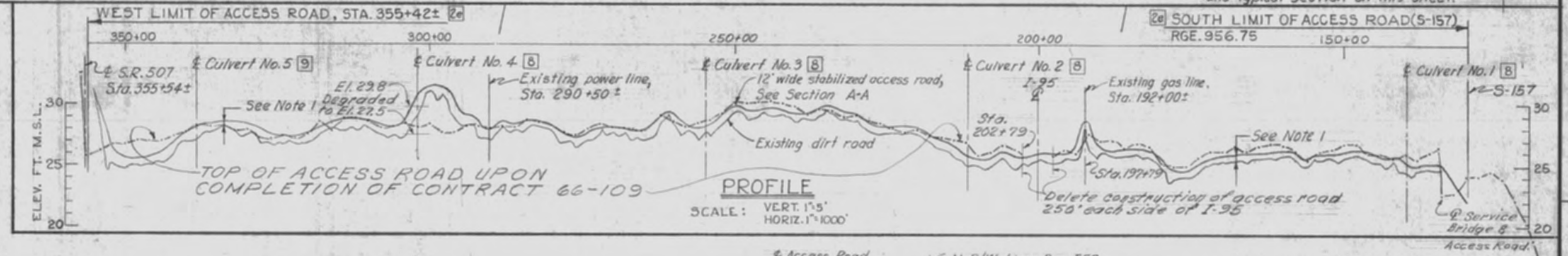
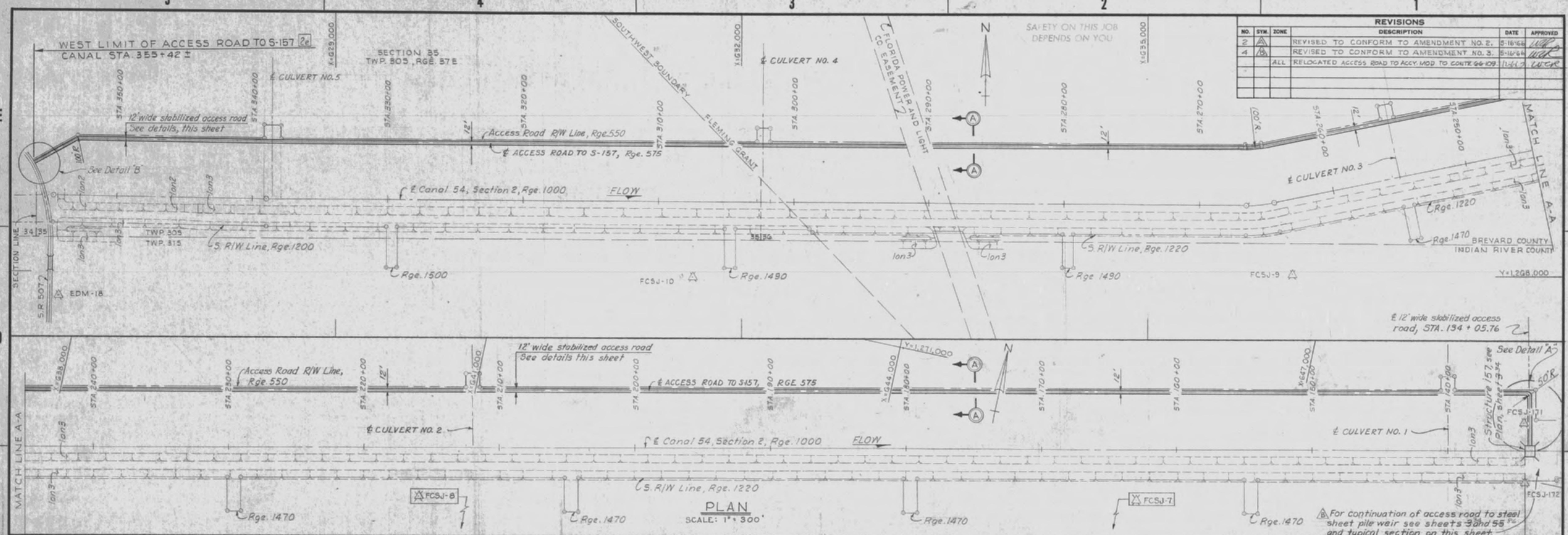
- NOTES:
1. FOR DETAILS OF STILLING WELLS AND LINES, SEE SHEET 38.
 2. CONSTRUCTION OF HYDRAULIC LINES, SEE SHEET 38.
 3. FOR SAFETY BARRIER DETAILS, SEE SHEET 38.
 4. FOR CONCRETE FILL FOR RIPRAP DETAILS, SEE SHEET 38.
 5. NEEDLE BEAMS FURNISHED UNDER S-71 CONTRACT, FILE NO. 463-24-297. TIMBER NEEDLES FURNISHED UNDER S-75 CONTRACT, FILE NO. 462-24-299.
 6. ALL FILL AND BACKFILL SHALL BE COMPACTED EXCEPT MATERIAL PLACED IN THE MET.
 7. FOR LEGEND, SEE SHEET 38.



| NO. | SYMBOL | DESCRIPTION | DATE | APPROVED |
|-----|--------|-------------------------------|------|----------|
| 11 | | REVISED DRAWING AND REVISIONS | | |
| 10 | | REVISIONS | | |
| 9 | | REVISIONS | | |
| 8 | | REVISIONS | | |
| 7 | | REVISIONS | | |
| 6 | | REVISIONS | | |
| 5 | | REVISIONS | | |
| 4 | | REVISIONS | | |
| 3 | | REVISIONS | | |
| 2 | | REVISIONS | | |
| 1 | | REVISIONS | | |

SAFETY ON THIS JOB
 DEPENDS ON YOU

| REVISIONS | | | | | |
|-----------|------|------|--|---------|----------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
| 2 | | | REVISED TO CONFORM TO AMENDMENT NO. 2. | 5-16-66 | |
| 4 | | | REVISED TO CONFORM TO AMENDMENT NO. 3. | 5-16-66 | |
| | | | ALL RELOCATED ACCESS ROAD TO ACCY. MOD. TO CONTR. 66-109 | 1-14-70 | |



- GENERAL NOTES ON ACCESS ROAD:
- CENTERLINE ELEVATION OF ACCESS ROAD SHALL BE 1.0' MINIMUM ABOVE CENTERLINE OF EXISTING ROAD BUT NOT LESS THAN 2.0' ABOVE ADJACENT EXISTING GROUND. (SEE NOTE 4)
 - VERTICAL TRANSITIONS IN ROAD GRADES SHALL BE SMOOTH AND FREE OF ABRUPT CHANGES AND SHALL NOT BE GREATER THAN 3" / 100'.
 - ANY PORTION OF THE EXISTING ROAD UPON WHICH FILL IS TO BE PLACED, SHALL BE SCARIFIED TO A DEPTH OF 6" AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY.
 - FOR LOCATION AND DETAILS OF CULVERTS NO. 1 THRU 5, SEE SHEET 496-29-360. CULVERTS NO. 1 THRU 4 ARE UNDER PAYMENT ITEM 18. CULVERT NO. 5 IS UNDER PAYMENT ITEM 8.
 - ACCESS ROAD TO S-157 IS UNDER PAYMENT ITEM 26.
 - ACCESS ROAD TO STEEL SHEET PILE WEIR IS UNDER PAYMENT ITEM 3.
 - WITHIN THE GRUBBING LIMITS AS SHOWN ON THIS SHEET, ALL FILL AND BACKFILL SHALL BE COMPACTED.
 - FOR RIGHT OF WAY AND CONTROL DATA, SEE SHEETS 24 AND 25, D. O. FILE NO. 496-29,360.

RECORD DRAWING NOTE

"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

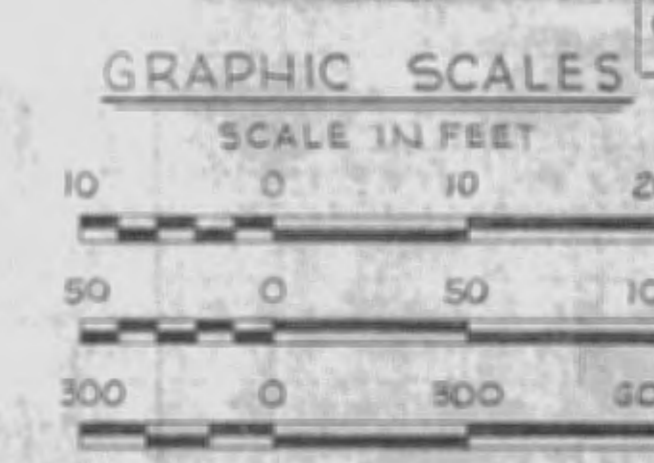
U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES

CANAL 54, SECTION 2
STRUCTURE 157
ACCESS ROAD

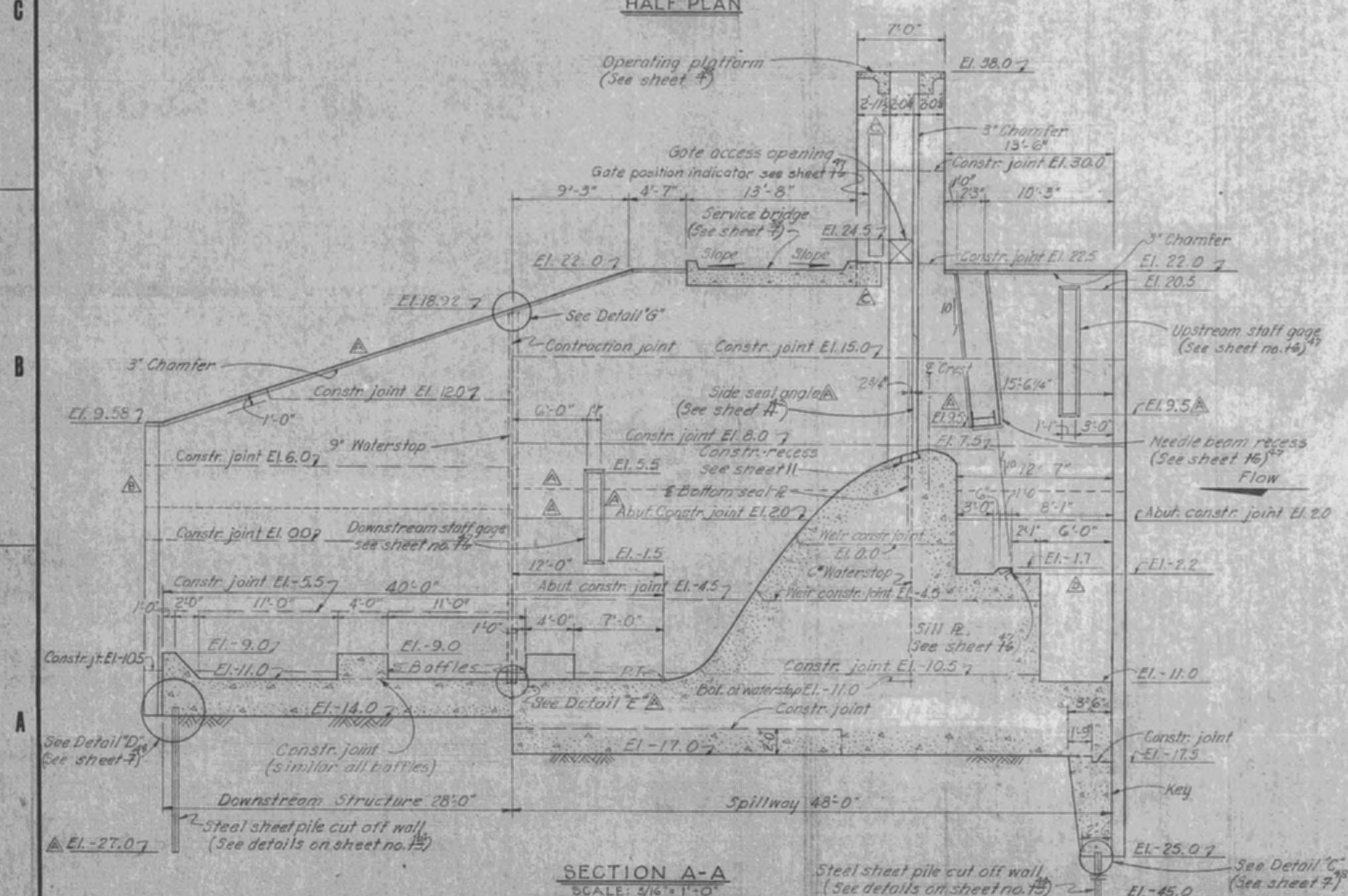
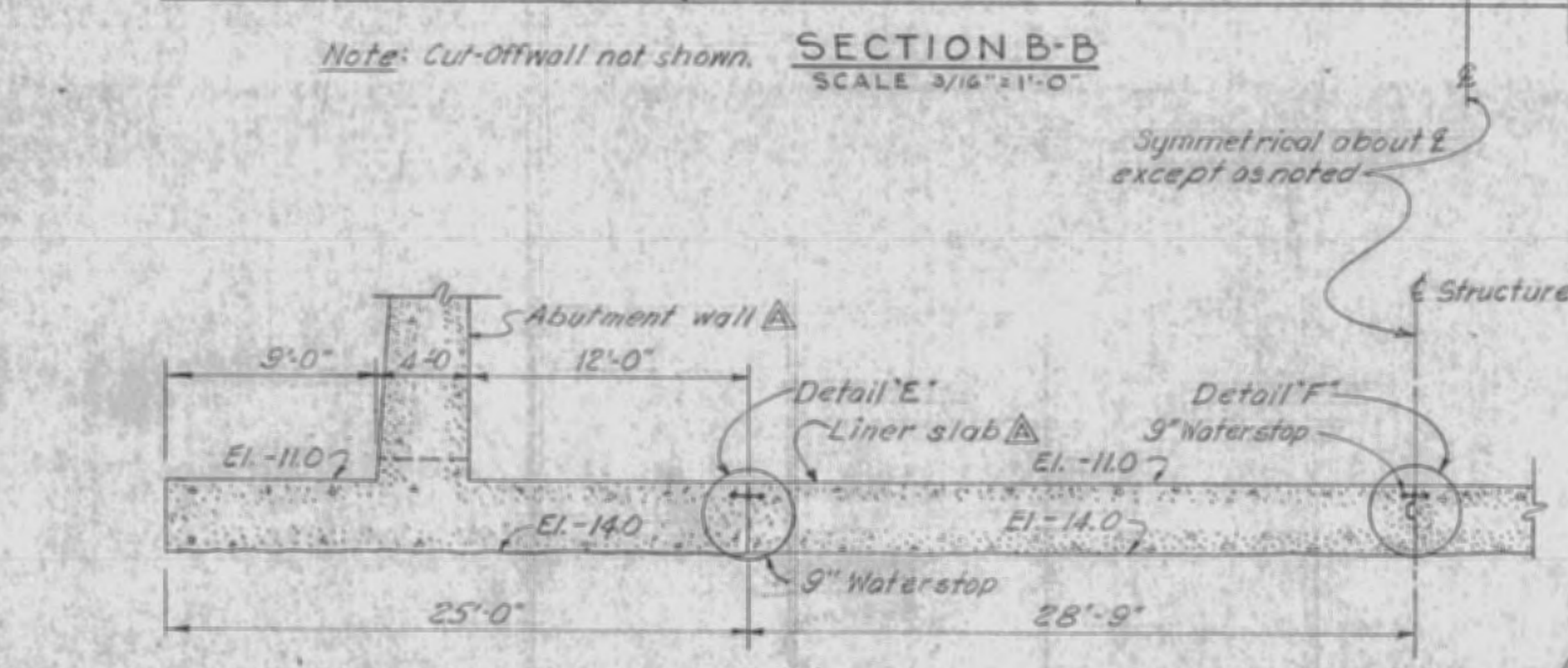
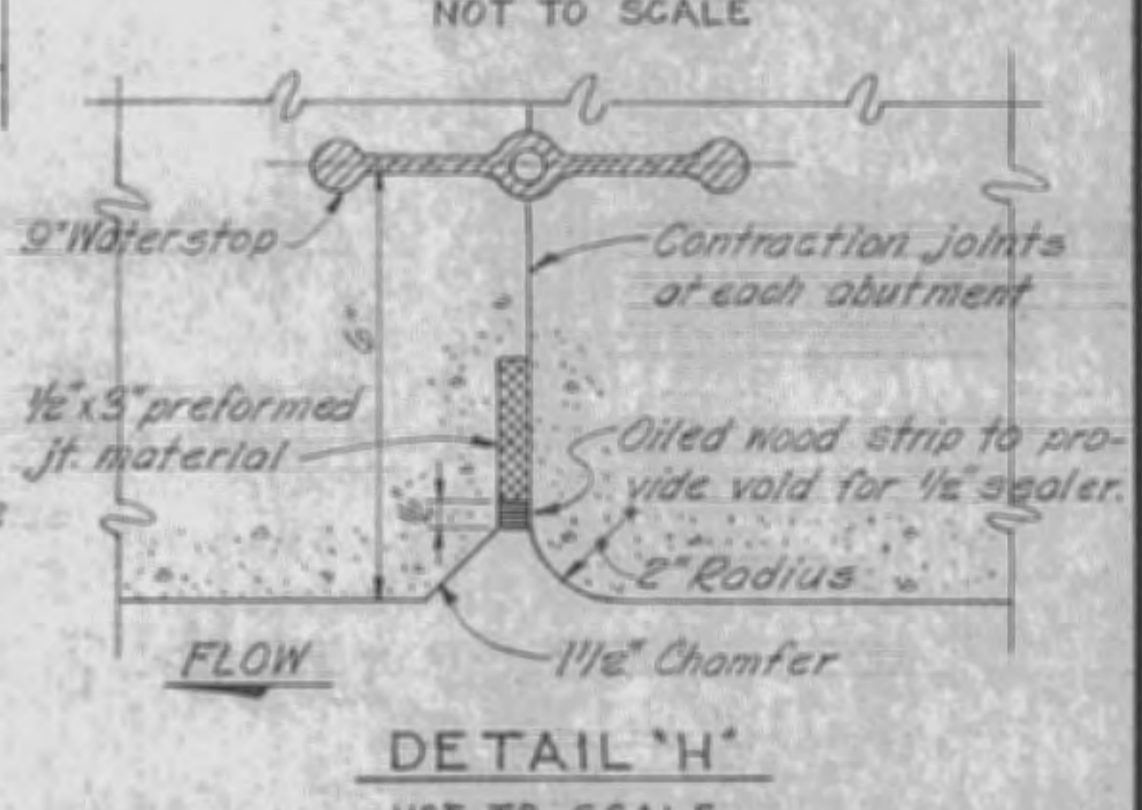
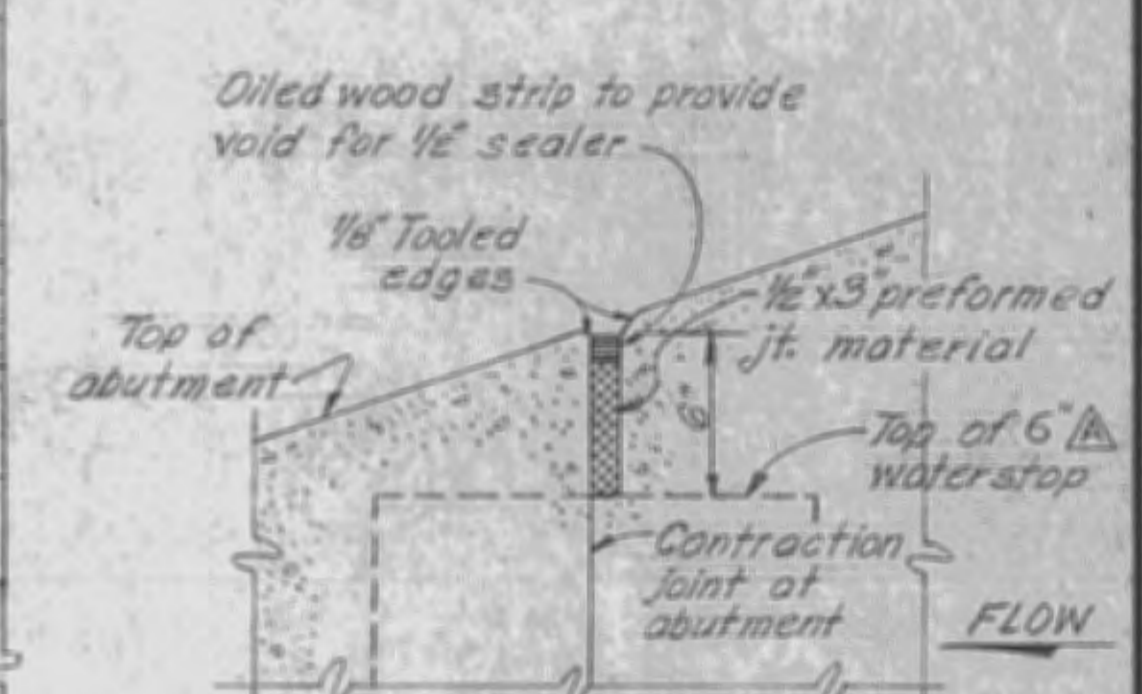
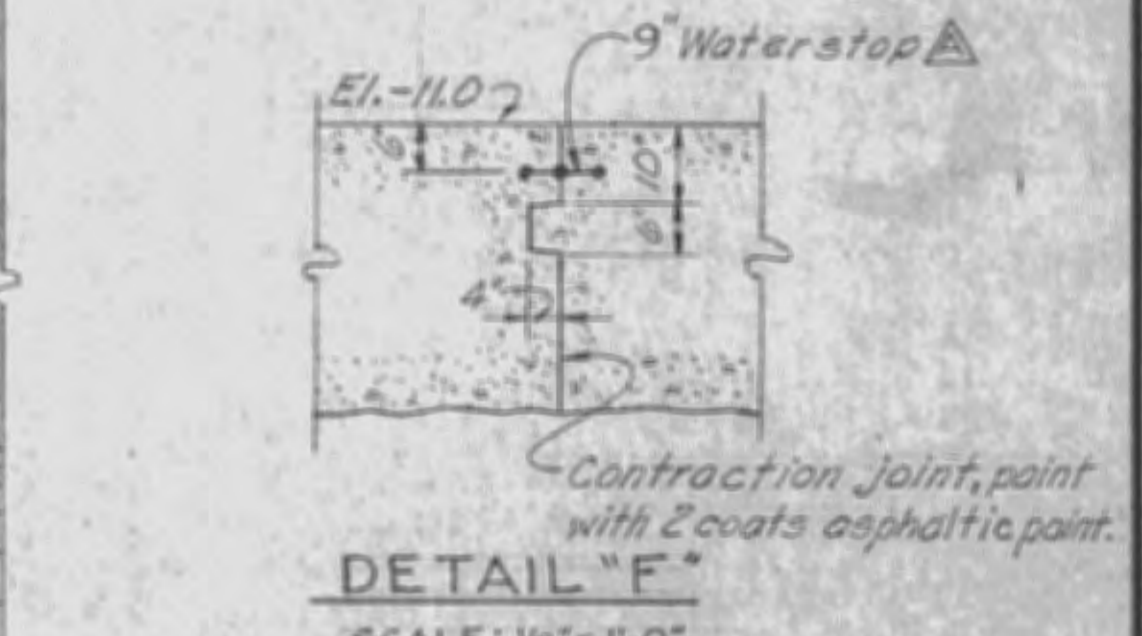
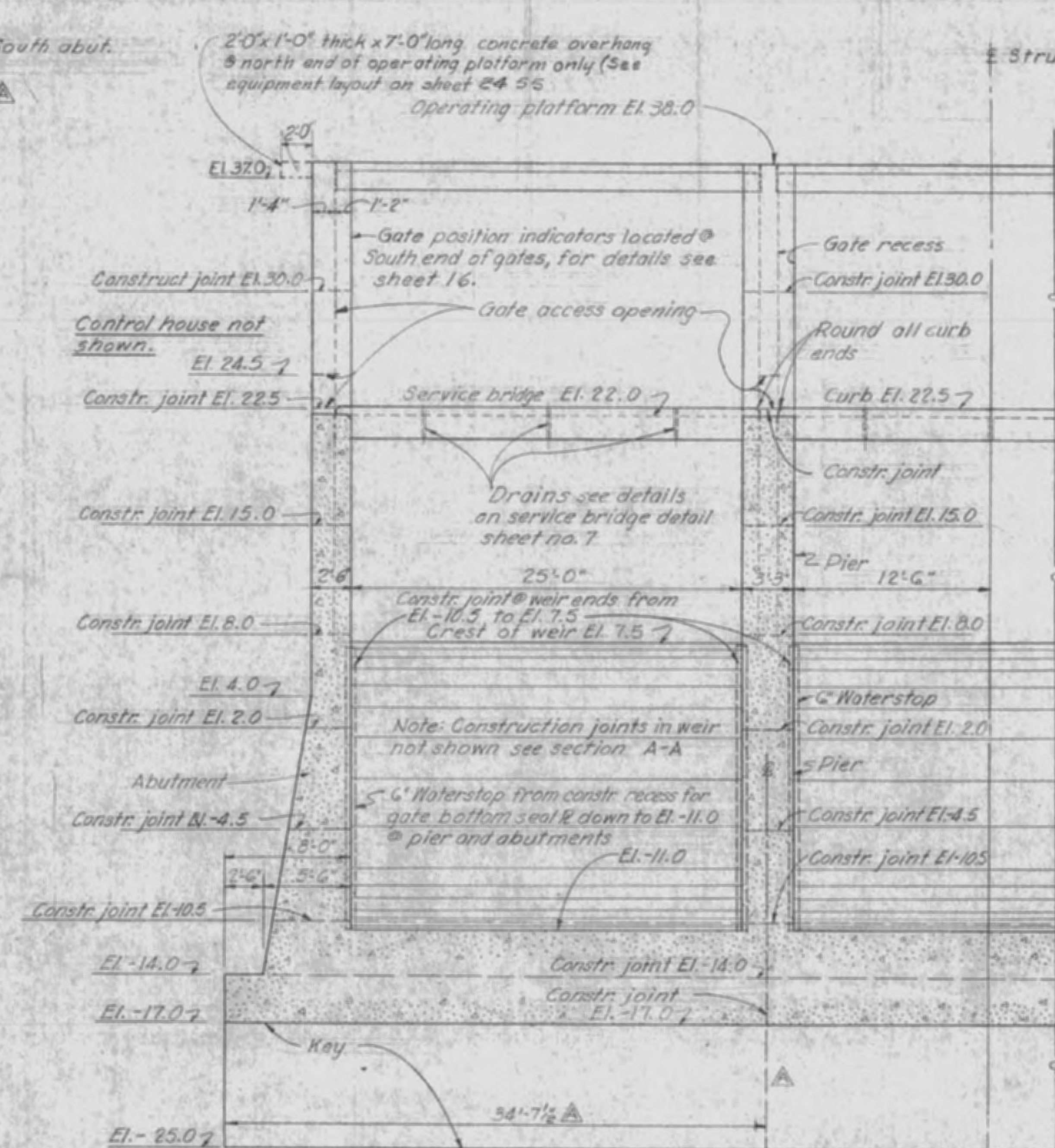
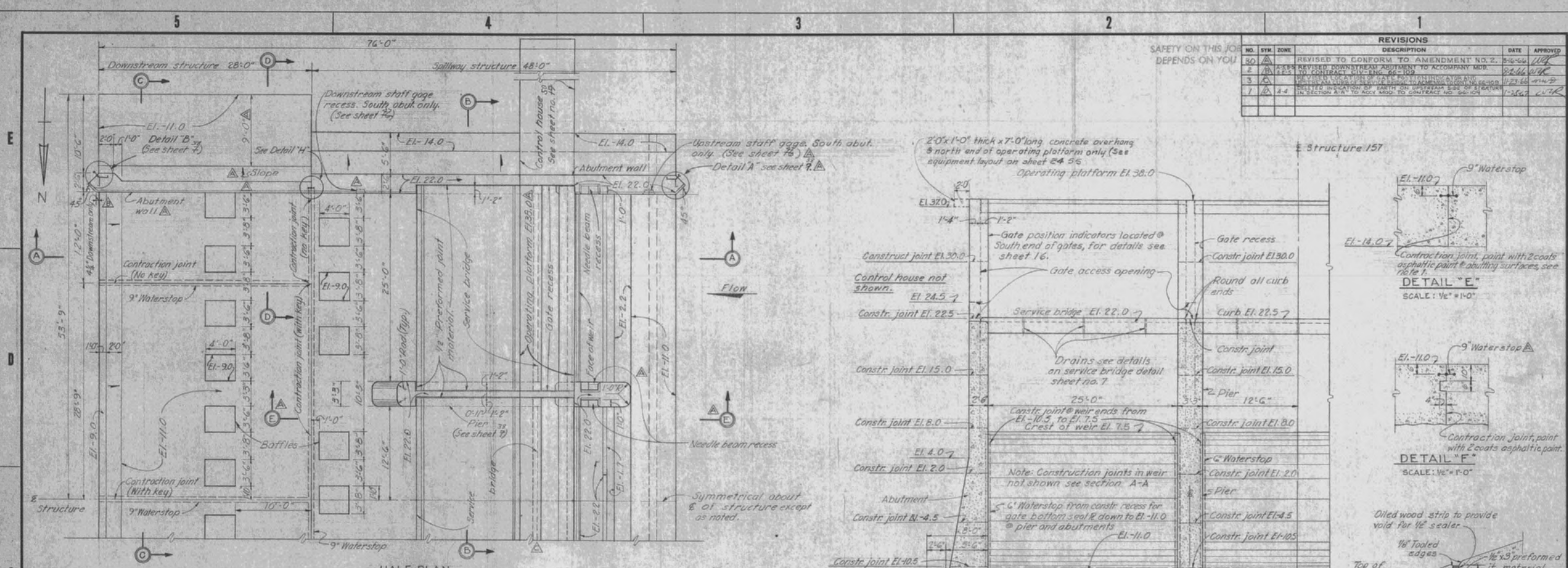
D.N.S. DATE: 28 APRIL 1966
SCALE: AS SHOWN
DATE: APRIL 1966
SHEET 5 OF 72

D. O. FILE NO. 496-29,360



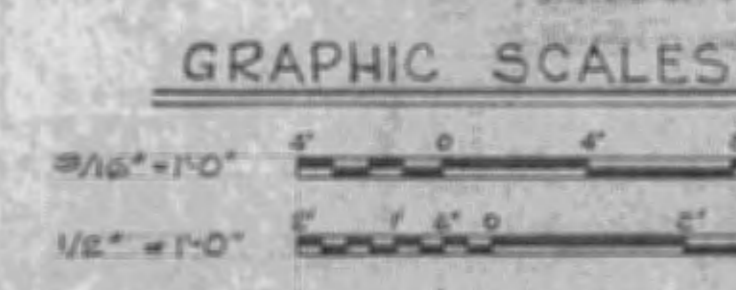
SAFETY ON THIS JOB
DEPENDS ON YOU

| REVISIONS | | | | |
|-----------|------|--|----------|----------|
| NO. | SYM. | DESCRIPTION | DATE | APPROVED |
| 30 | Δ | REVISED TO CONFORM TO AMENDMENT NO. 2. | 9-16-66 | WJK |
| 2 | Δ | REVISED DOWNSTREAM ABUTMENT TO ACCOMPANY MOD. TO CONTRACT NO. 496-29-370 | 9-16-66 | WJK |
| 3 | Δ | REVISED ABUTMENT TO ACCOMPANY MOD. TO CONTRACT NO. 496-29-370 | 11-27-66 | WJK |
| 7 | Δ | REVISED INDICATION OF FORTH AND BACK CURBS IN SECTION A-A TO ACCY. MOD. TO CONTRACT NO. 496-29-370 | 1-26-67 | WJK |



RECORD DRAWING NOTE

"Shall be," "Provide," "Install," "Remove," etc. indicates work was accomplished under the contract.



- NOTES:
- ALL CONTRACTION JOINTS SHALL BE PAINTED WITH TWO COATS OF ASPHALTIC PAINT AT ALL ABUTTING SURFACES. COATING APPLIED TO CONTRACTION JOINTS WITH WATERSTOP SHALL BE APPLIED NOT CLOSER THAN 1" FROM THE WATERSTOP.
 - FOR "GENERAL MASONRY AND DESIGN NOTES" SEE SHEET 35.
 - SEE SHEET 28 FOR SECTION D-D AND E-E.
 - FOR REINFORCEMENT NOTES SEE SHEET 33.
 - SEE SHEET 16 FOR WATERSTOP DETAILS.

AS BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES

CANAL 54, SECTION 2
STRUCTURE -157
MASONRY-PLAN AND SECTIONS

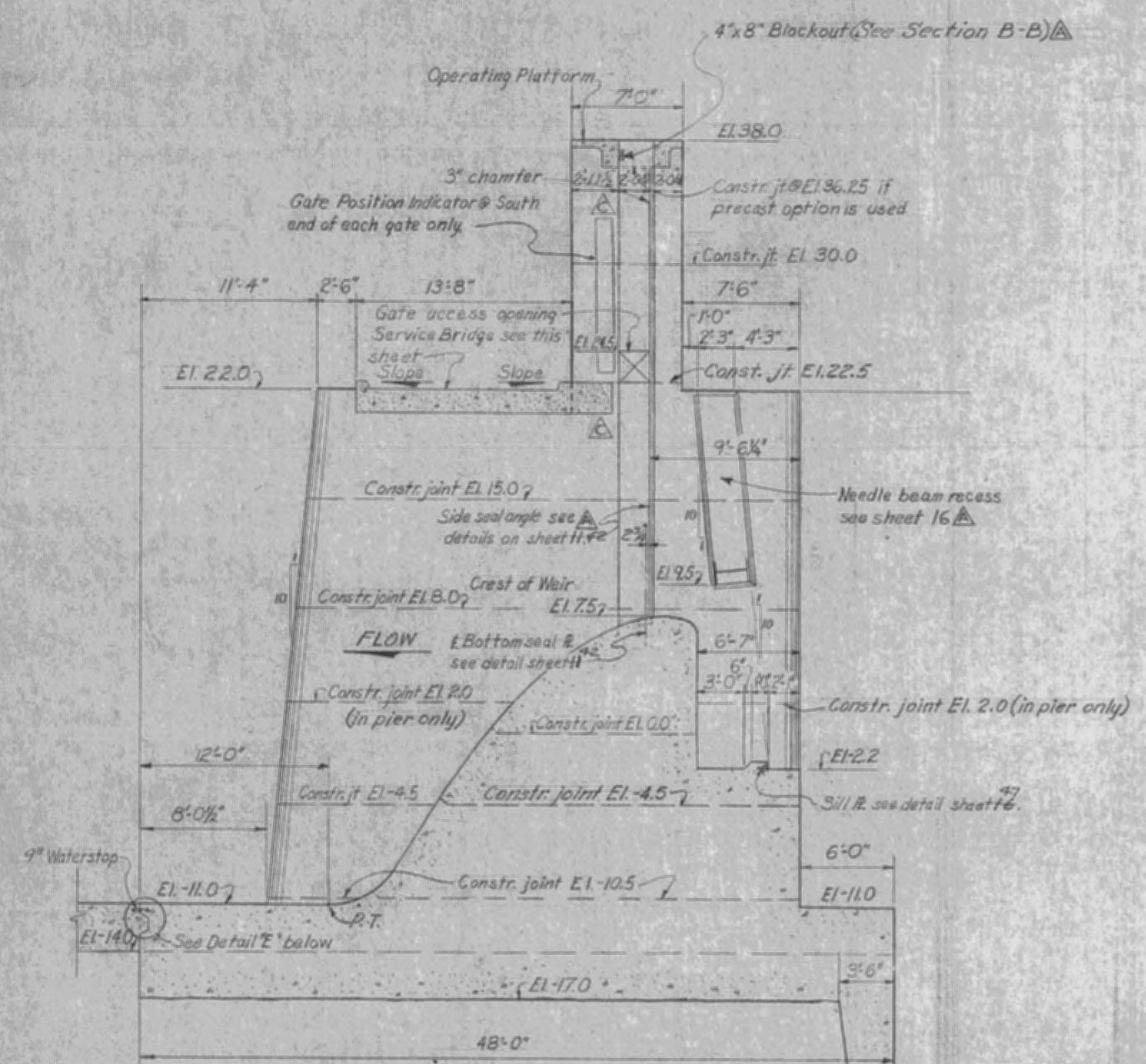
DES. BY: H.H. D.J.K.
CHK. BY: ASP T.W.R.

REV. NO. CIV. ENG. 10-112-24-102
DATE: 28 APRIL 1966

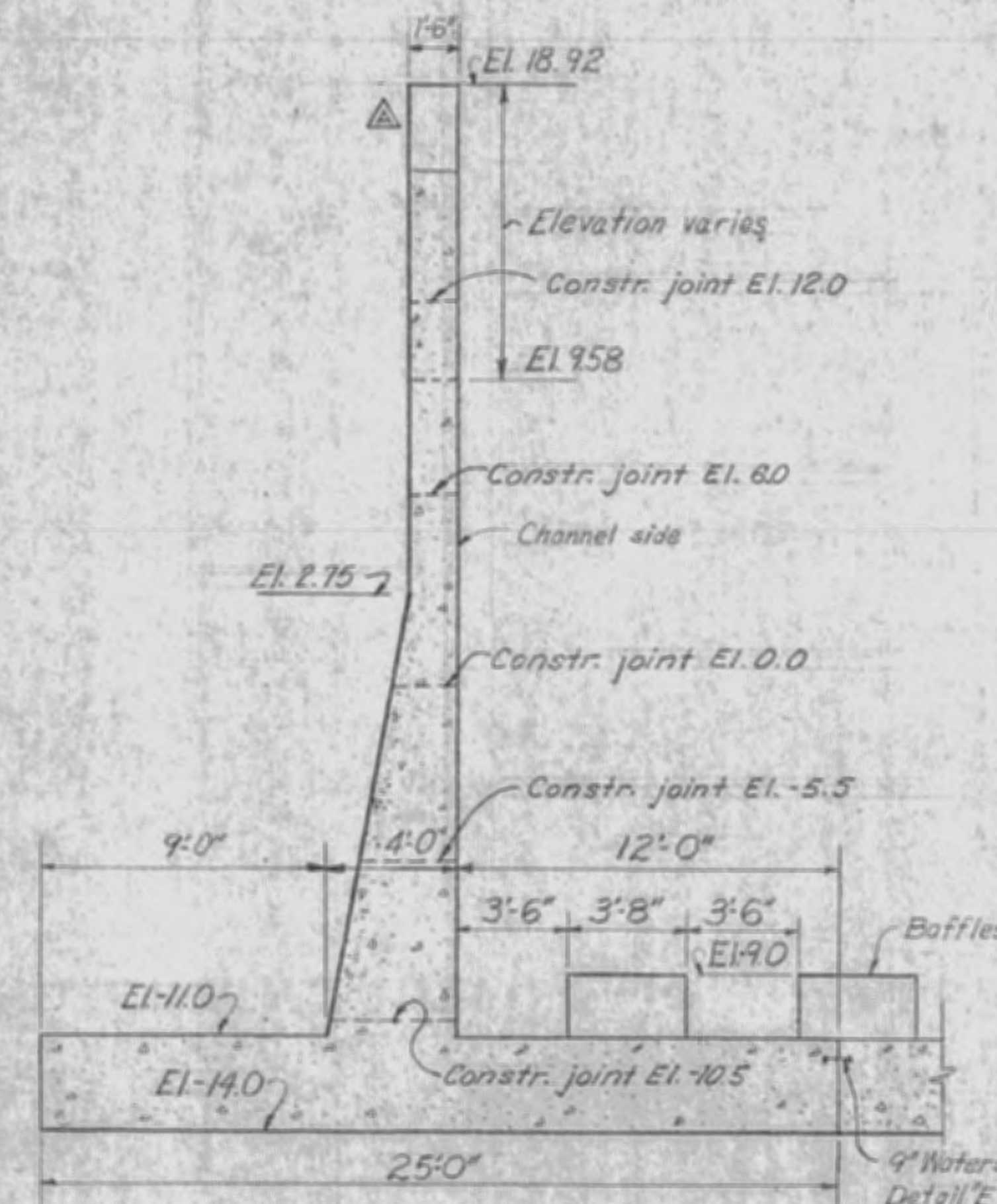
REV. NO. 1
DATE: APRIL 1966 SHEET 37 OF 78

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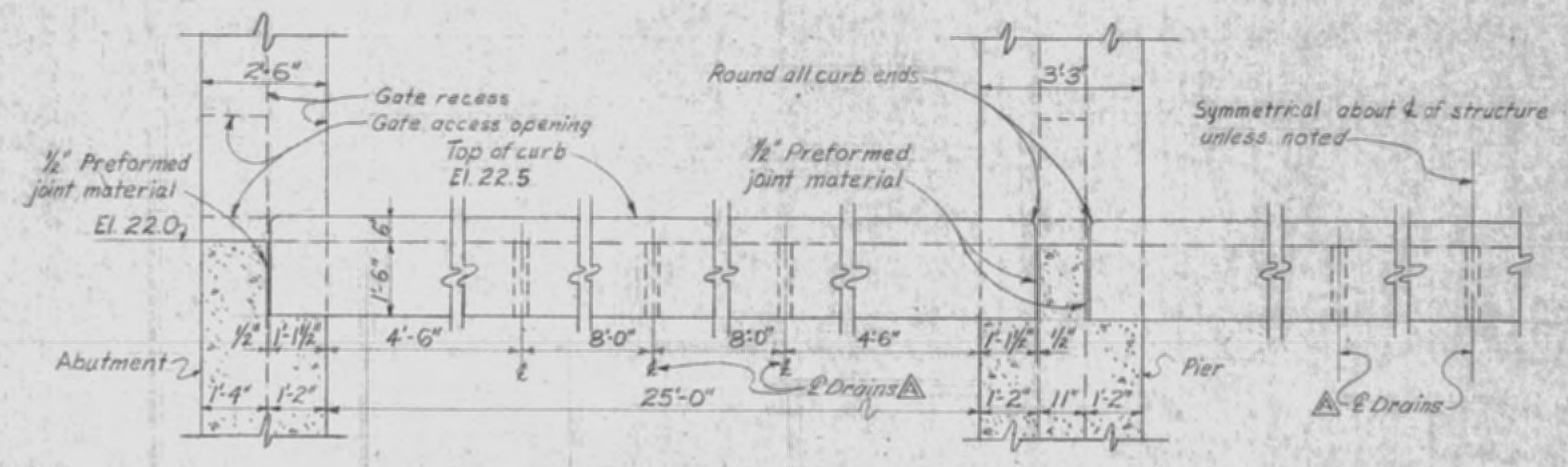
| REVISIONS | | | | | |
|-----------|------|------|--|---------|----------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
| 19 | A | | REVISED TO CONFORM TO AMENDMENT NO. 2. | 3-16-66 | WCB |
| 1 | A | B-3 | REVISED DOWNSTREAM ABUTMENT TO ACCOMPANY NOTE 1. | 9-2-66 | WCB |
| 5 | A | | REVISED TO CONFORM TO AMENDMENT NO. 1. | 12-2-66 | WCB |



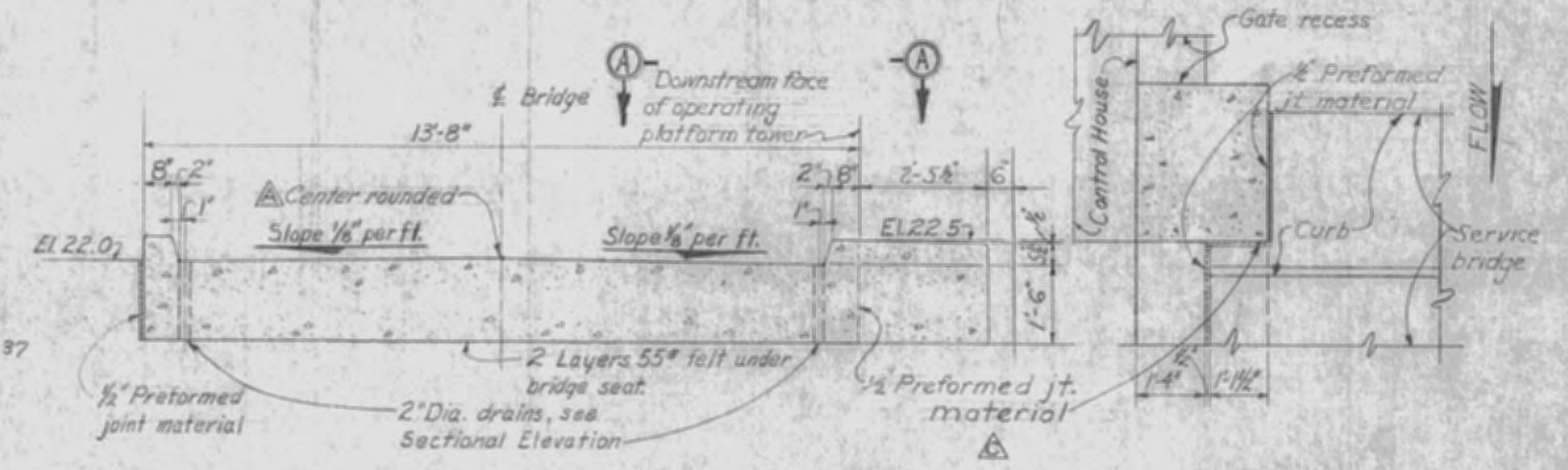
SECTION E-E PIER
SCALE: 3/8" = 1'-0"



SECTION D-D
DOWNSTREAM STRUCTURE
SCALE: 3/8" = 1'-0"



SECTIONAL ELEVATION

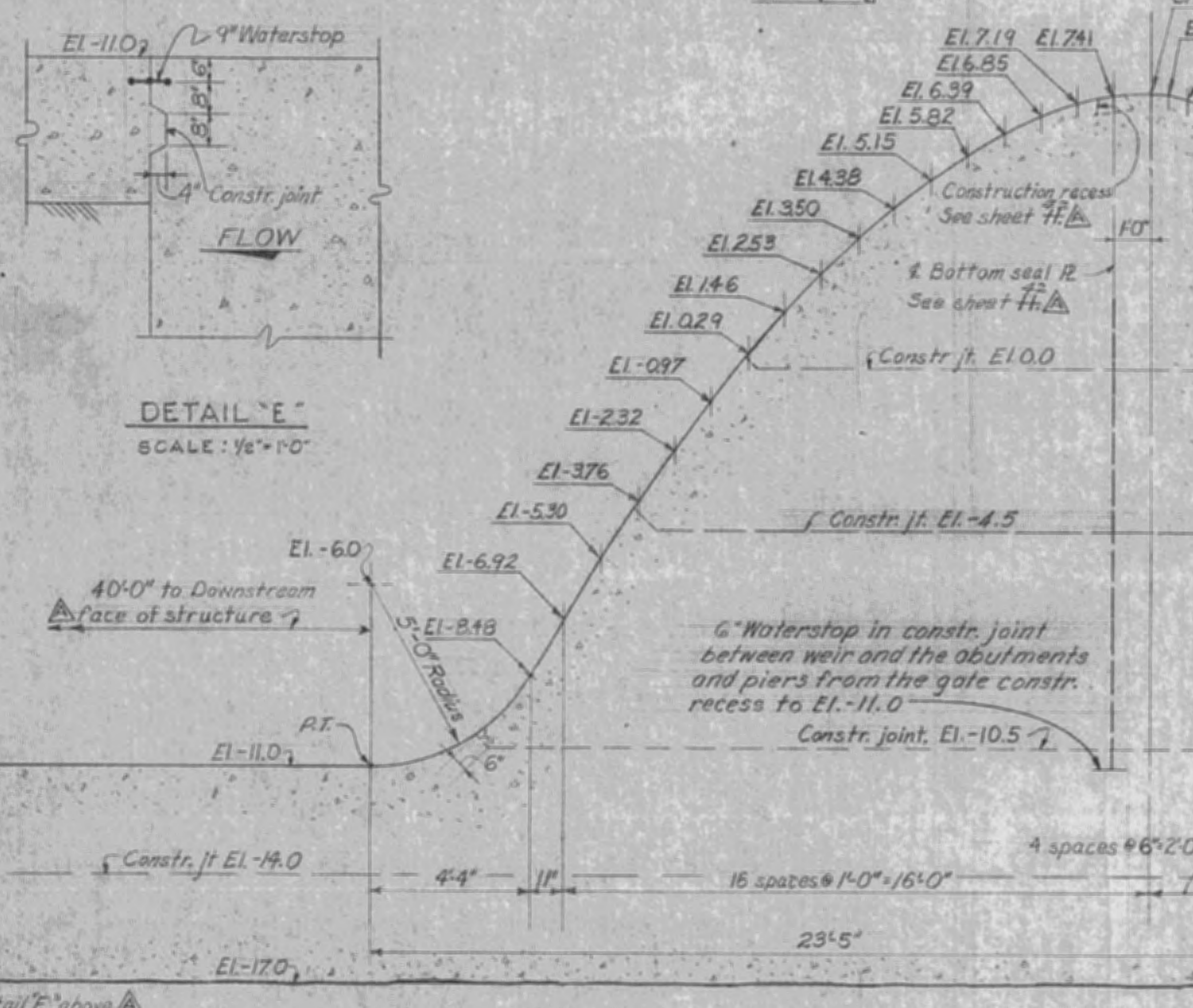


TRANSVERSE SECTION A-A

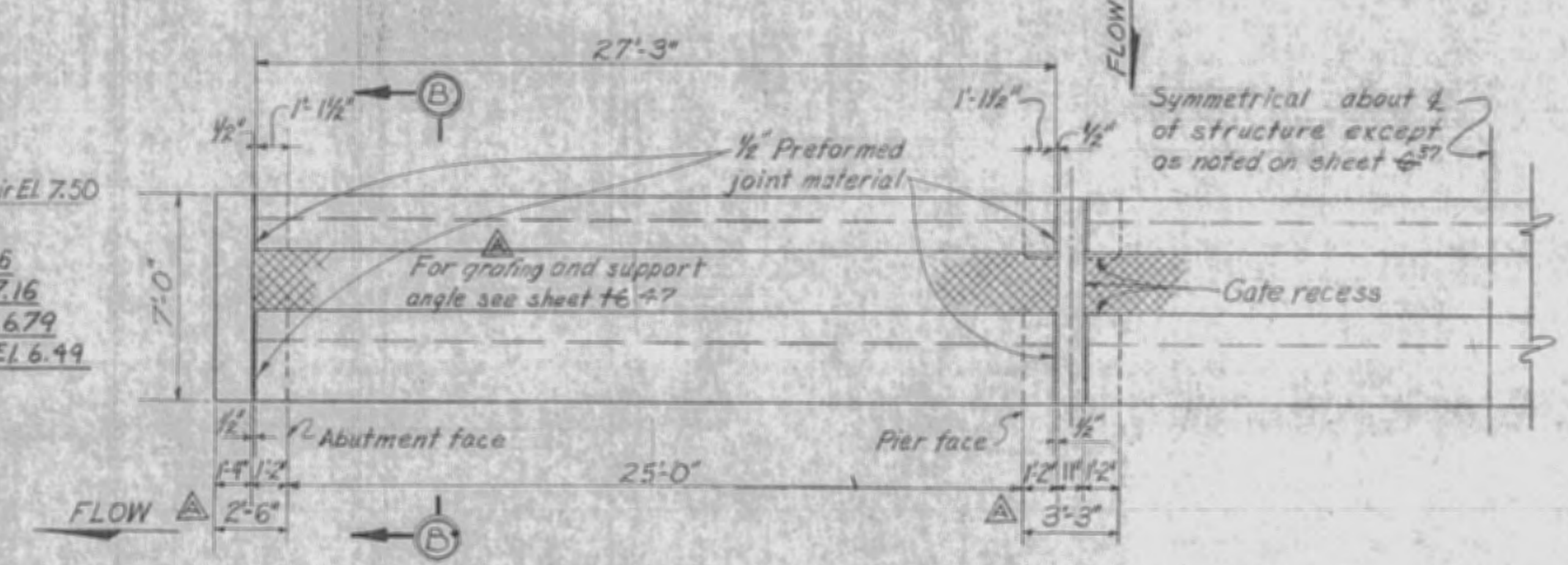
SERVICE BRIDGE
SCALE: 1/2" = 1'-0"



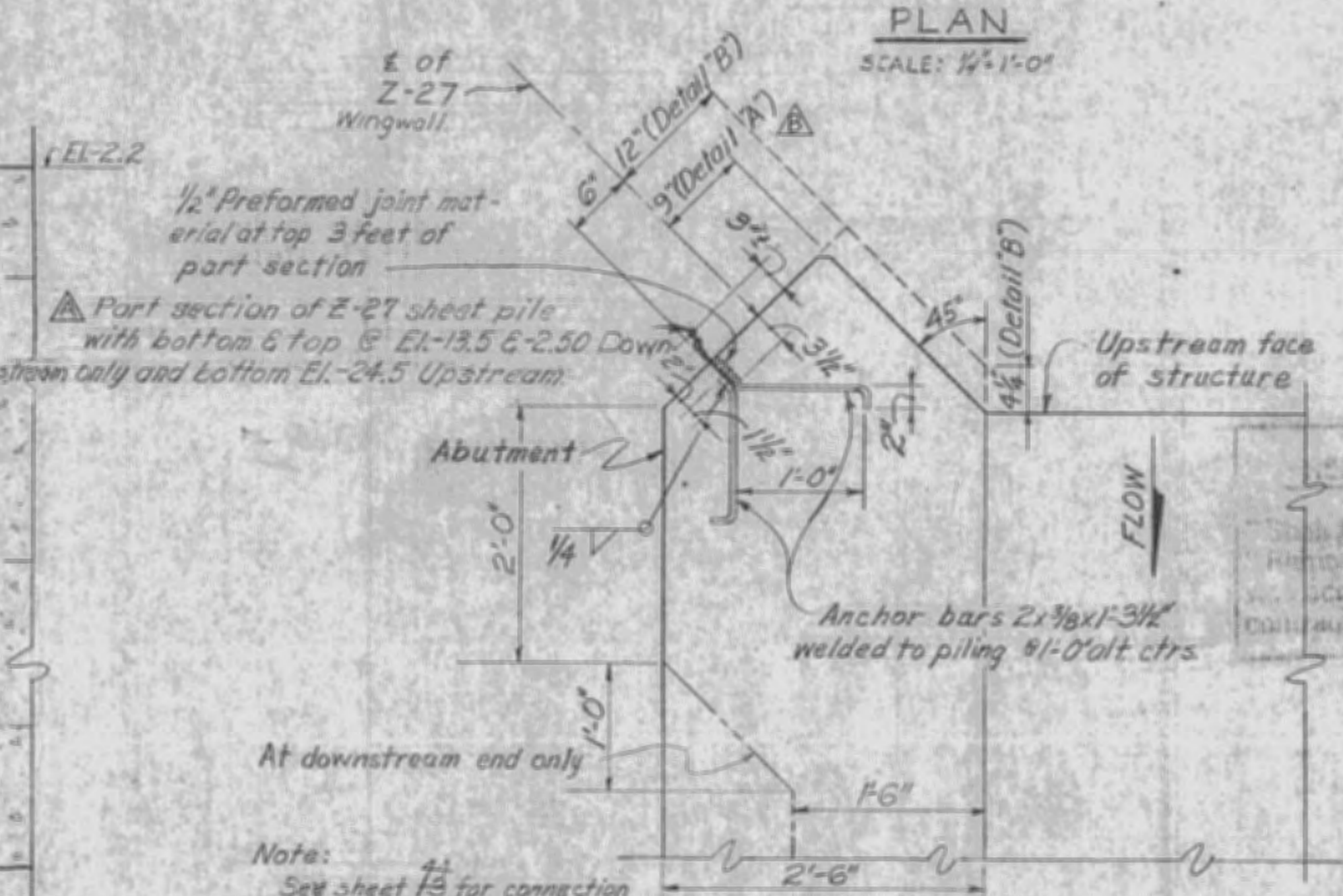
SECTION B-B
SCALE: 1/2" = 1'-0"



OGEE WEIR
SCALE: 3/8" = 1'-0"



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

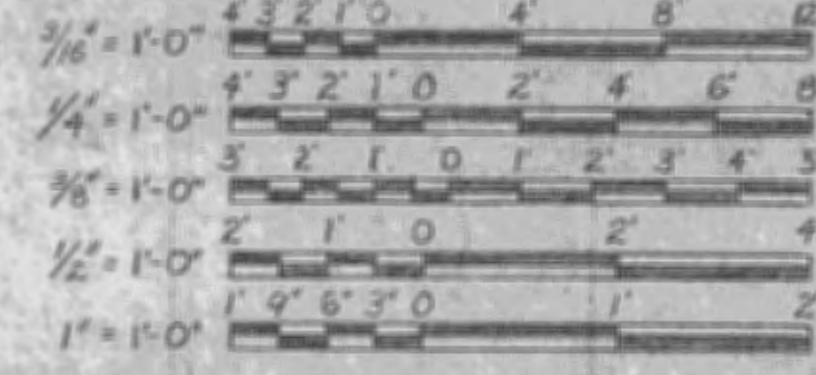


DETAIL A AS SHOWN
DETAIL B OPPOSITE HAND
SCALE: 1" = 1'-0"

OPERATING PLATFORM

DETAIL C - AS SHOWN
DETAIL D - OPP. HAND
SCALE: 1" = 1'-0"

GRAPHIC SCALES



RECORD DRAWING NOTE

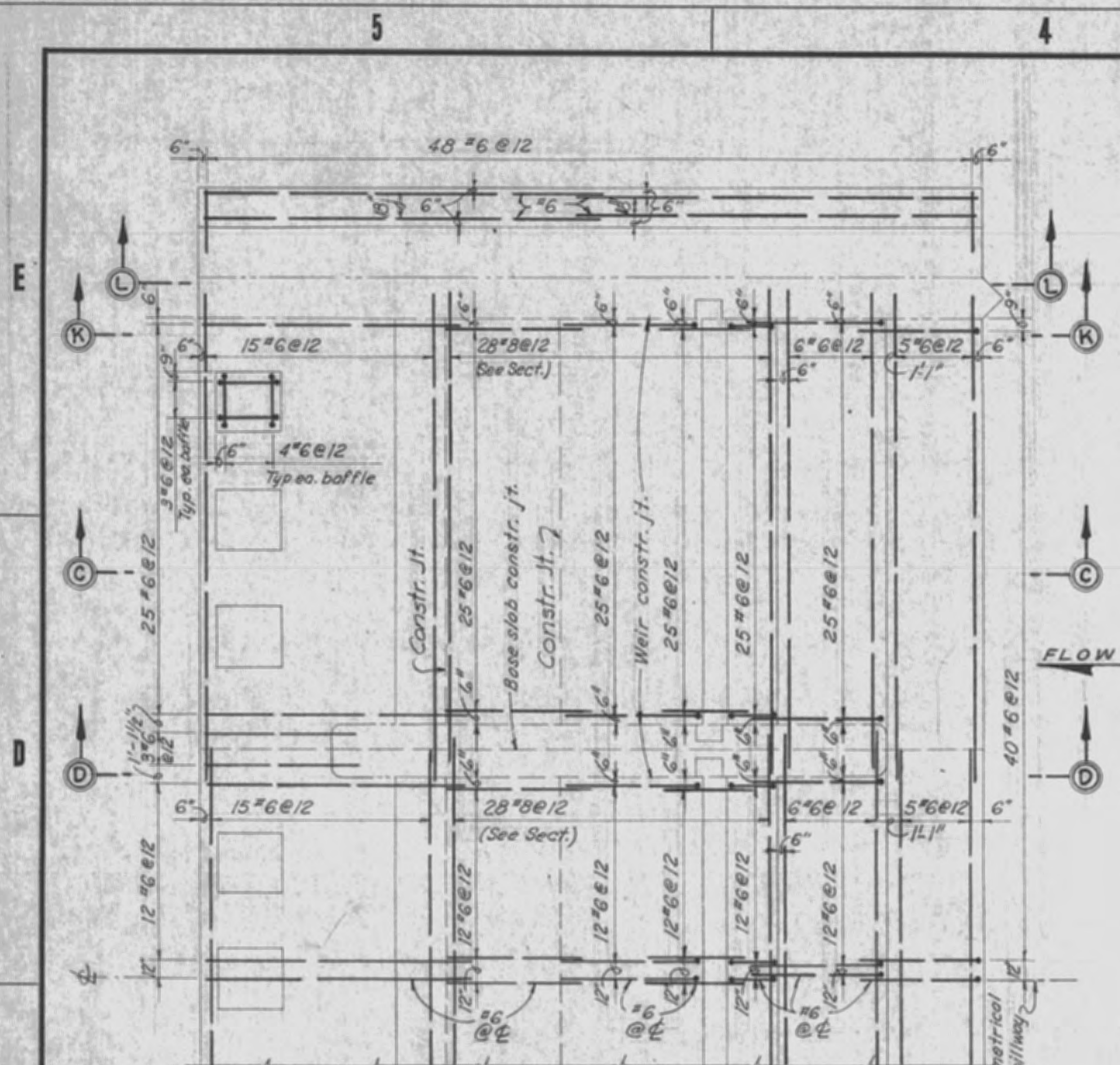
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

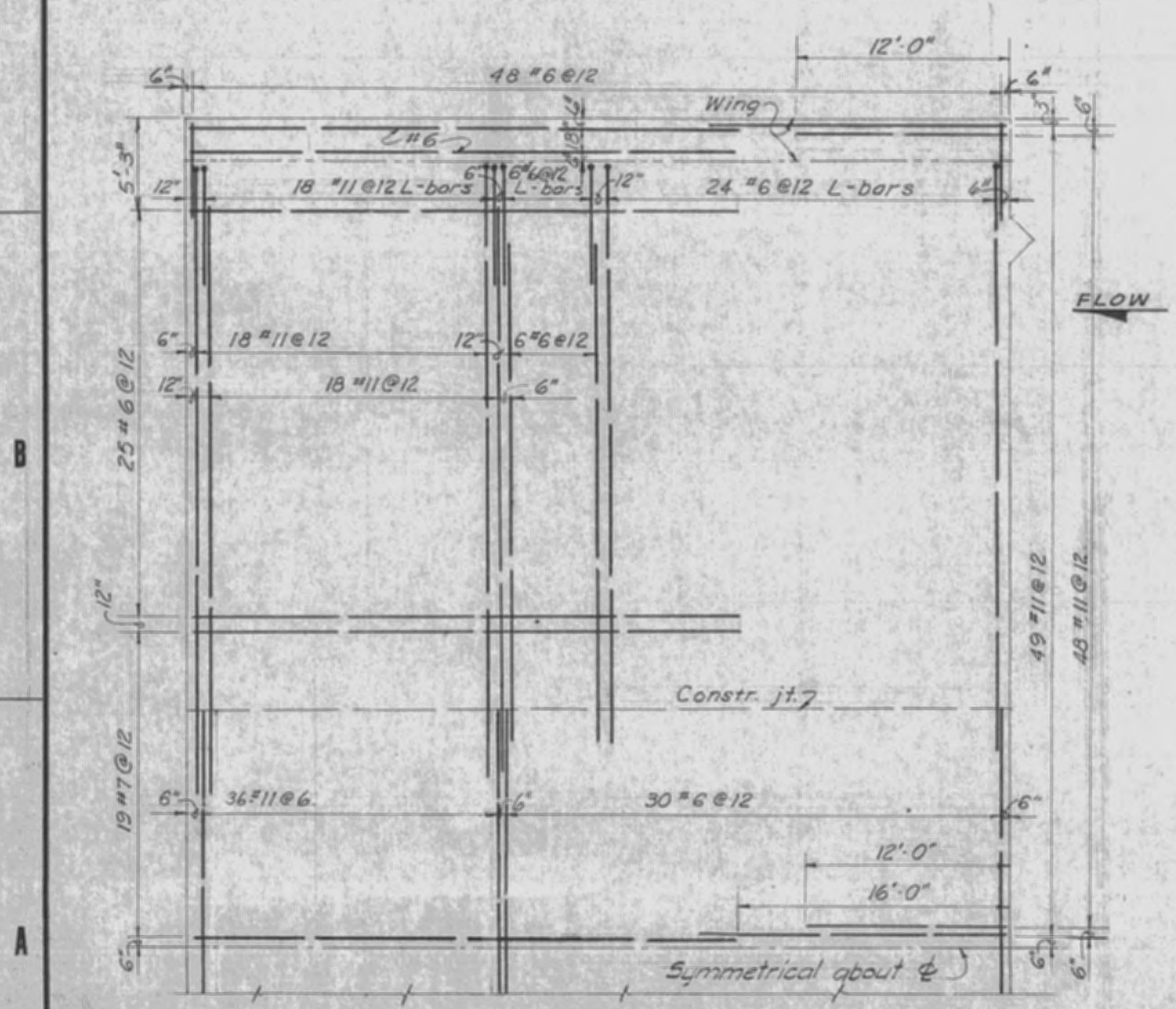
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CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE - 157
MASONRY DETAILS

| | | | | | |
|--------------------|-----------------|-------------------|-----------------------|----------------|---------------------|
| DESIGNED BY GCR | DRAWN BY GCR | CHECKED BY GCR | DATE 28 APRIL 1966 | SHEET NO. F | TOTAL SHEETS 103 |
|--------------------|-----------------|-------------------|-----------------------|----------------|---------------------|

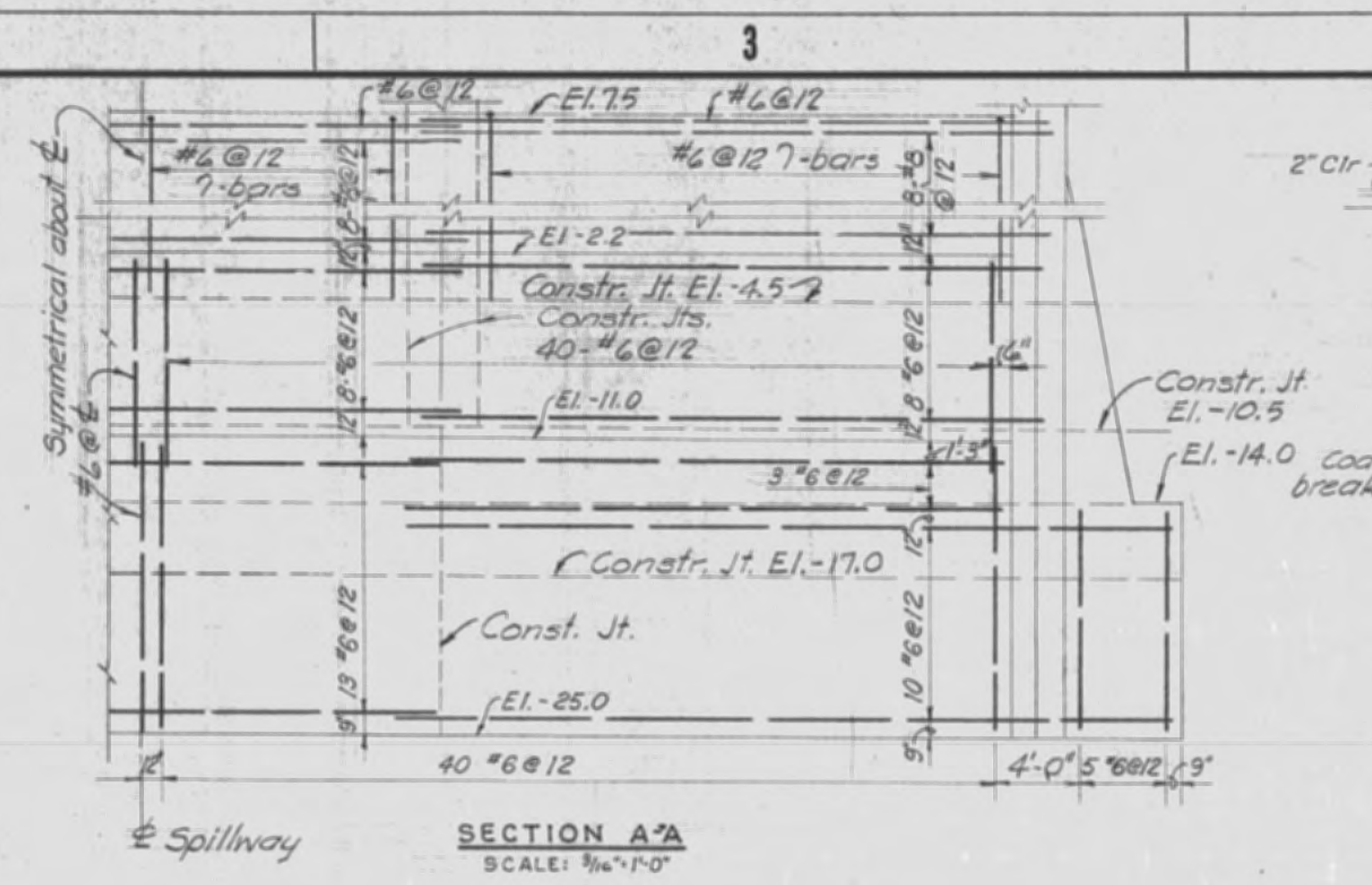
| REVISIONS | | | | | |
|-----------|------|------|--|---------|-------------|
| NO. | SYN. | ZONE | DESCRIPTION | DATE | APPROVED |
| 5 | A | | Revisions and clarifications on plan and sections to accompany Amendment No. 3 | 9/16/66 | [Signature] |



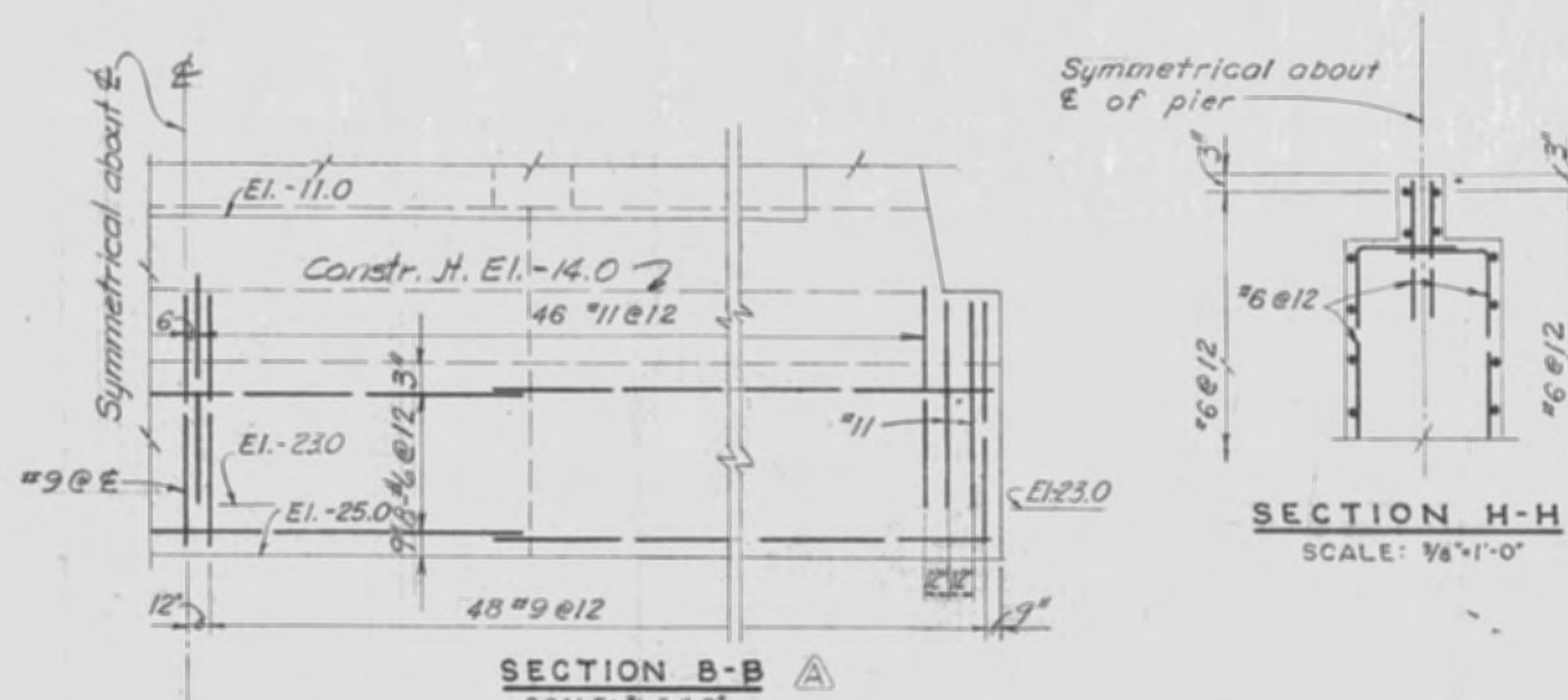
PLAN-WEIR AND BASE SLAB
TOP FACE
SCALE: 1/4"=1'-0"



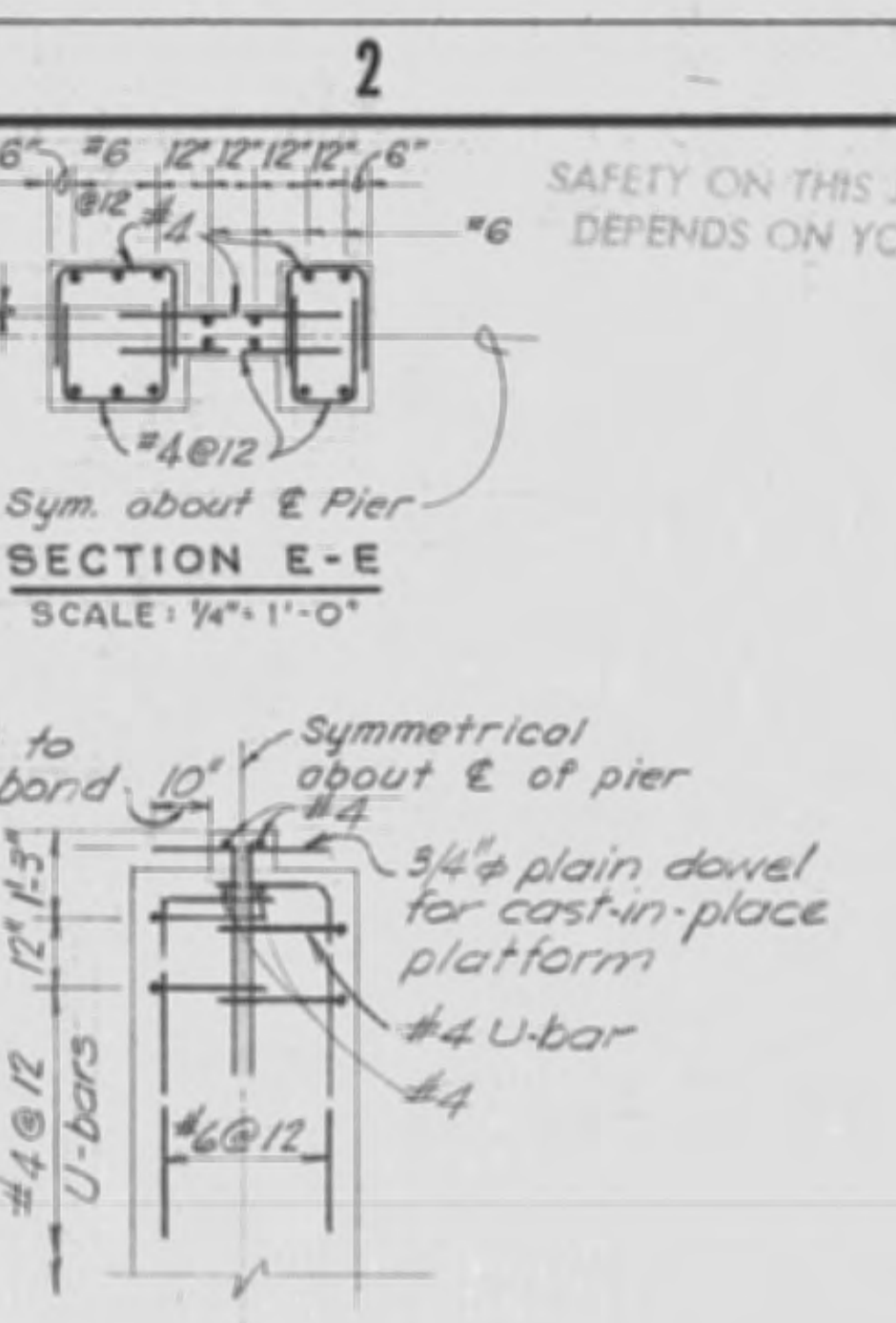
PLAN-BASE SLAB
BOTTOM FACE
SCALE: 1/4"=1'-0"



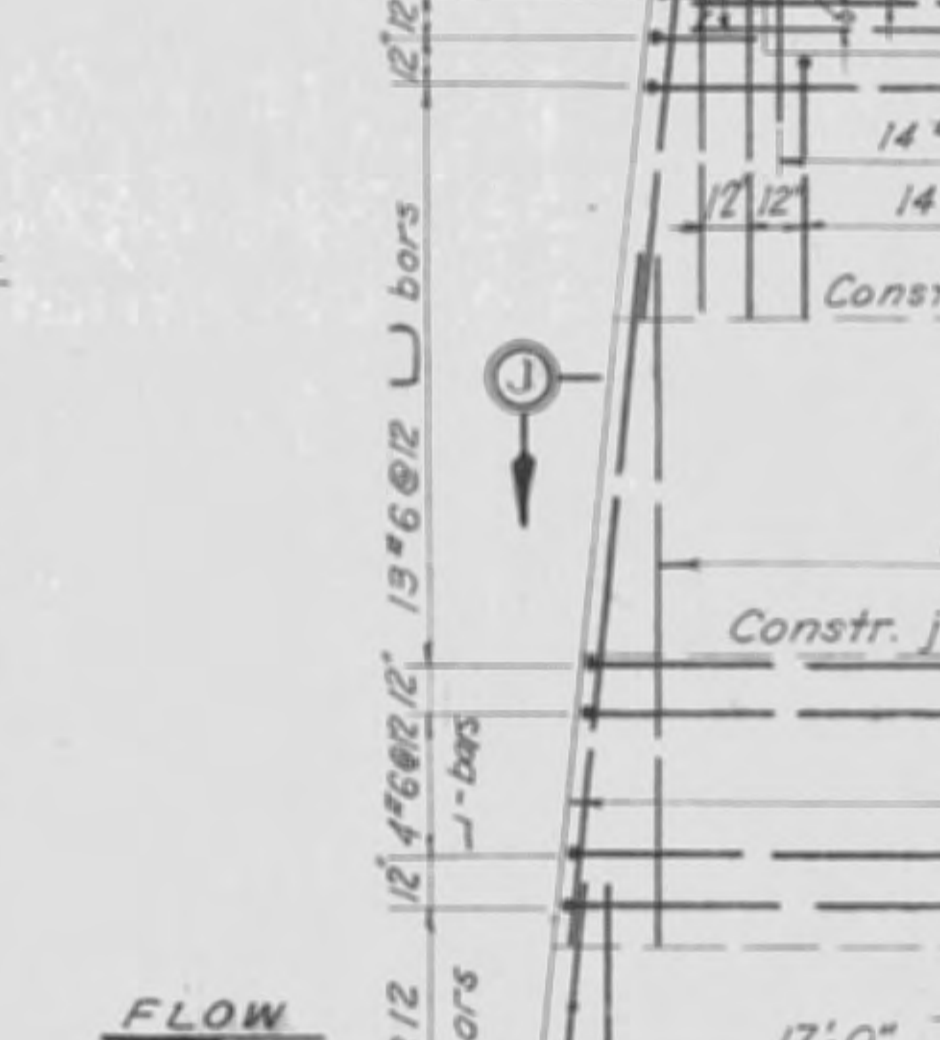
SECTION A-A
SCALE: 1/4"=1'-0"



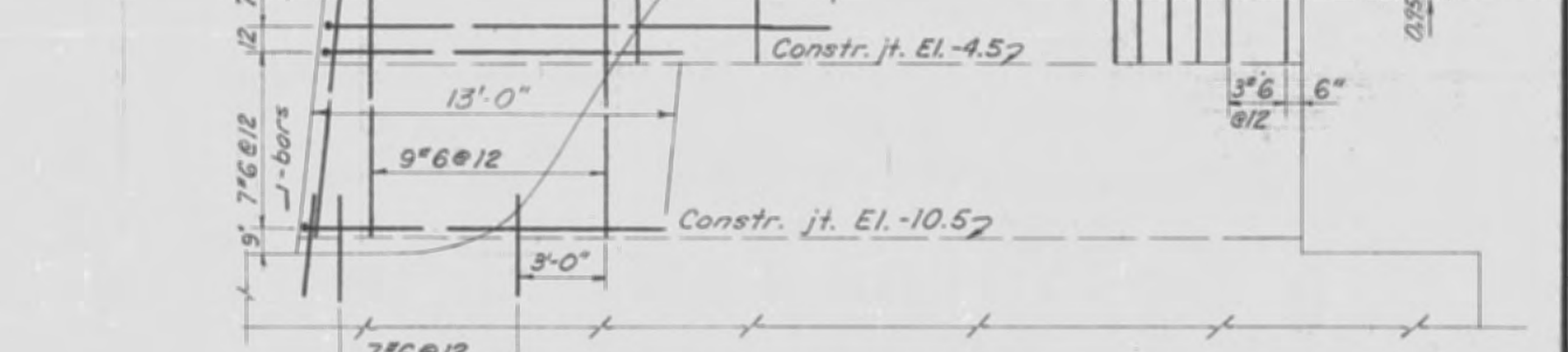
SECTION B-B
SCALE: 1/4"=1'-0"



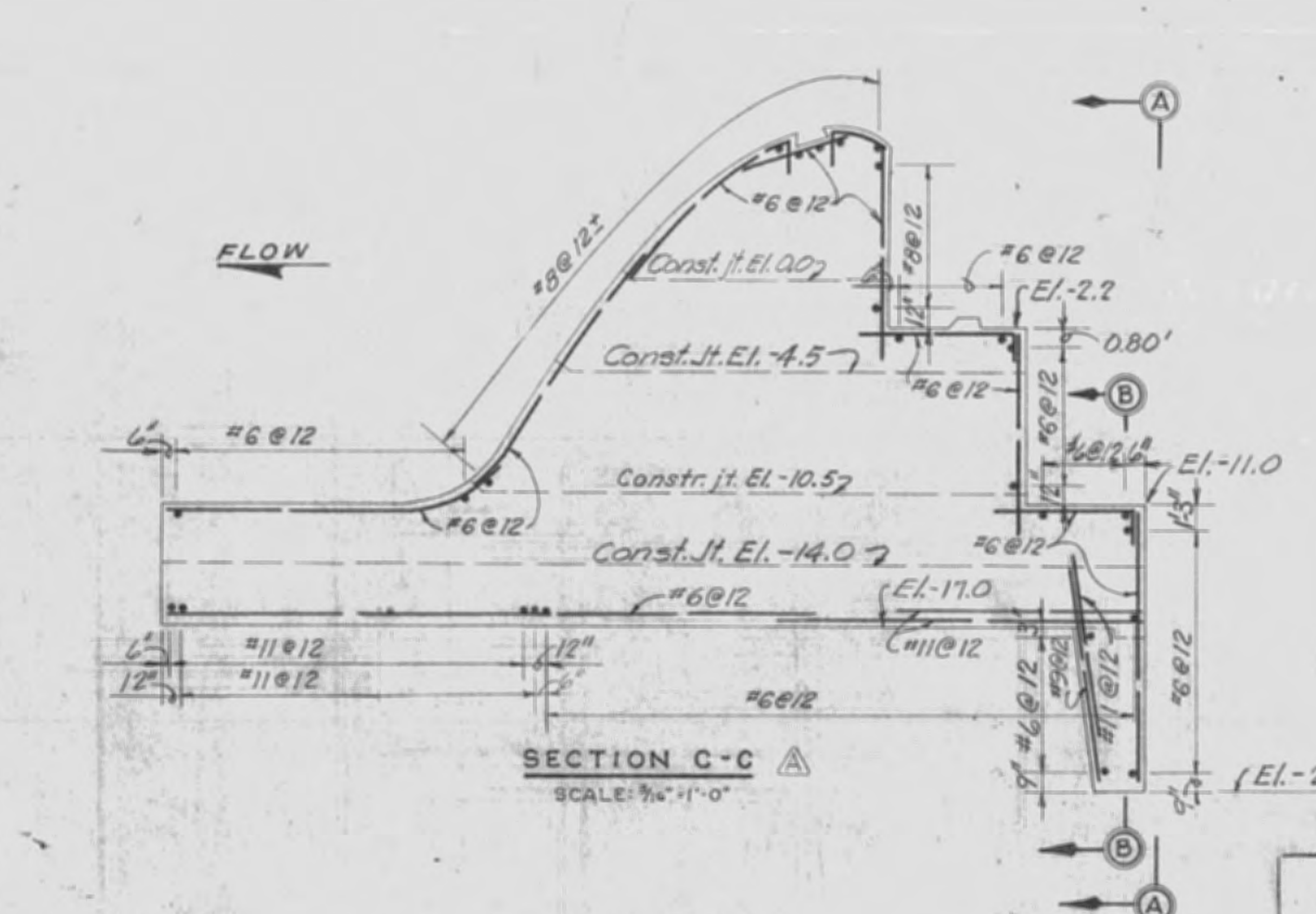
SECTION E-E
SCALE: 1/4"=1'-0"



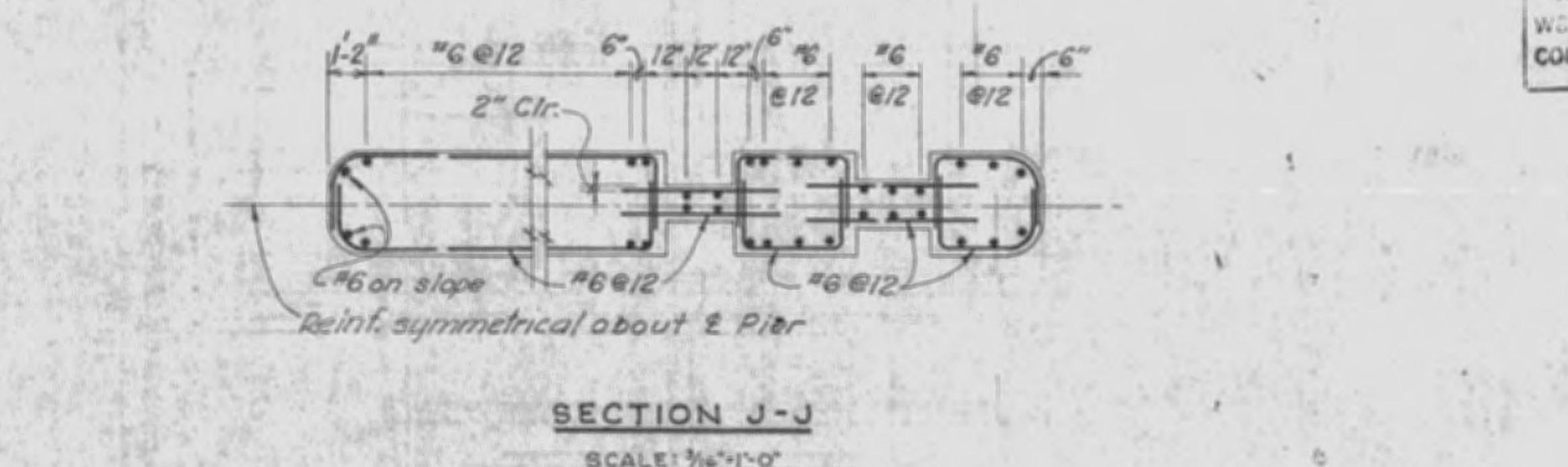
SECTION H-H
SCALE: 1/4"=1'-0"



SECTION D-D
SCALE: 1/4"=1'-0"



SECTION C-C
SCALE: 1/4"=1'-0"



SECTION J-J
SCALE: 1/4"=1'-0"

Note: 1. Reinforcing shown is for each face of pier.
2. All reinforcing not otherwise identified are #6 bars located as shown.

GENERAL REINFORCEMENT NOTES:
1. THE CLEAR DISTANCE BETWEEN CONCRETE SURFACES AND REINFORCING BARS SHALL BE 2 1/2 INCHES FOR FORMED SURFACES AND 4 INCHES WHERE CONCRETE IS PLACED AGAINST EARTH, ROCK, OR TREMIE CONCRETE, UNLESS SHOWN OTHERWISE.
2. UNLESS OTHERWISE SHOWN, THE LENGTH OF LAP AND EMBEDMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE:

| BAR SIZE | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | #11 |
|---------------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| LAPPED SPLICE | 1'-0" | 1'-2" | 1'-6" | 1'-10" | 2'-1" | 2'-6" | 3'-3" | 4'-1" | 5'-1" |
| EMBEDMENT | 0'-6" | 0'-9" | 1'-0" | 1'-3" | 1'-6" | 1'-9" | 2'-3" | 2'-9" | 3'-6" |

RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

GRAPHIC SCALES



AS BUILT

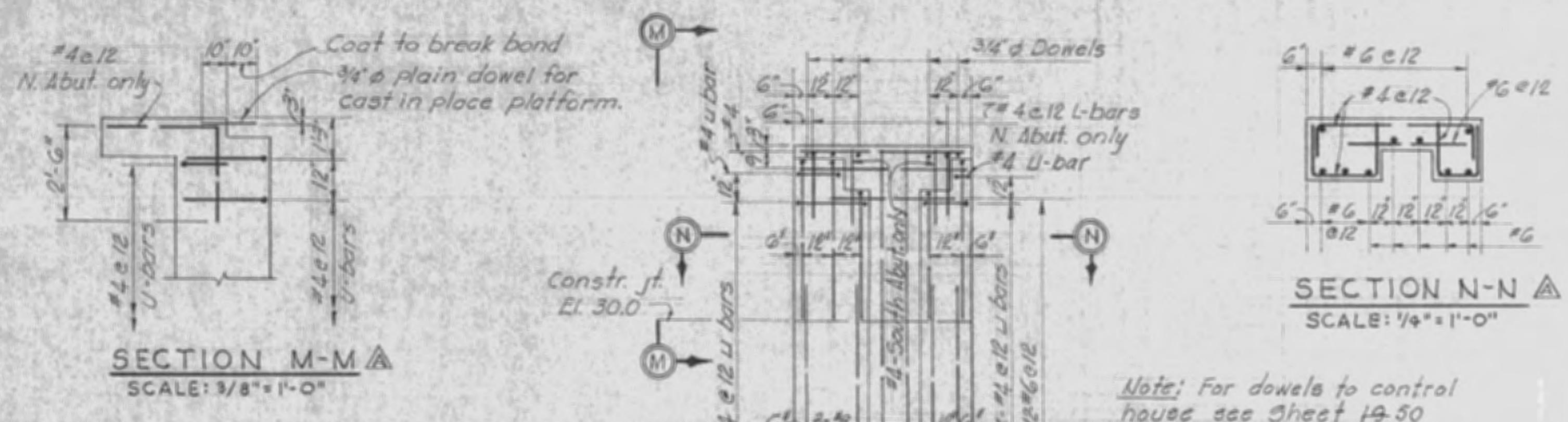
U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54 SECTION 2
STRUCTURE 157
REINFORCEMENT
SPILLWAY STRUCTURE DETAILS NO.1

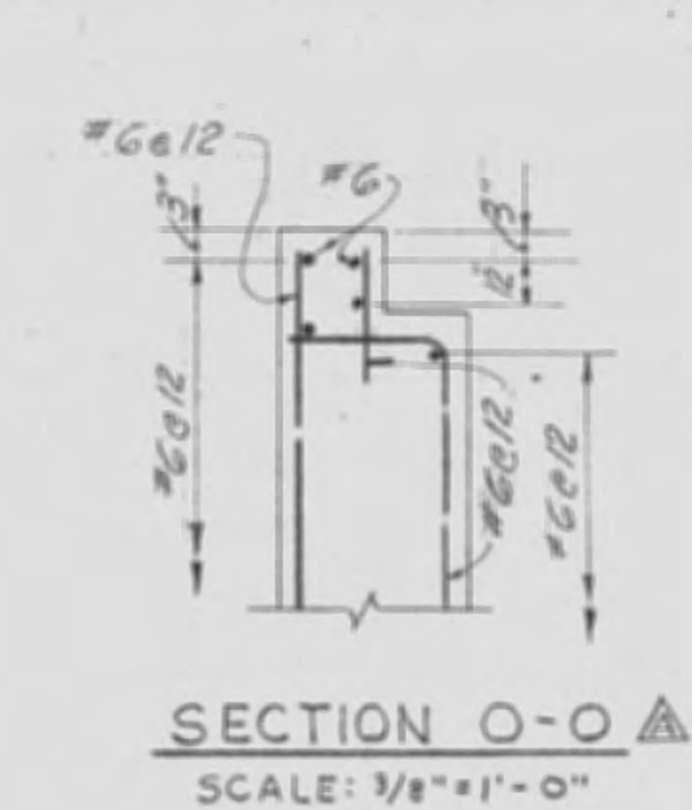
DATE: 26 APRIL 1966
SCALE AS SHOWN
SHEET 6 OF 72

SAFETY ON THIS JOB
DEPENDS ON YOU

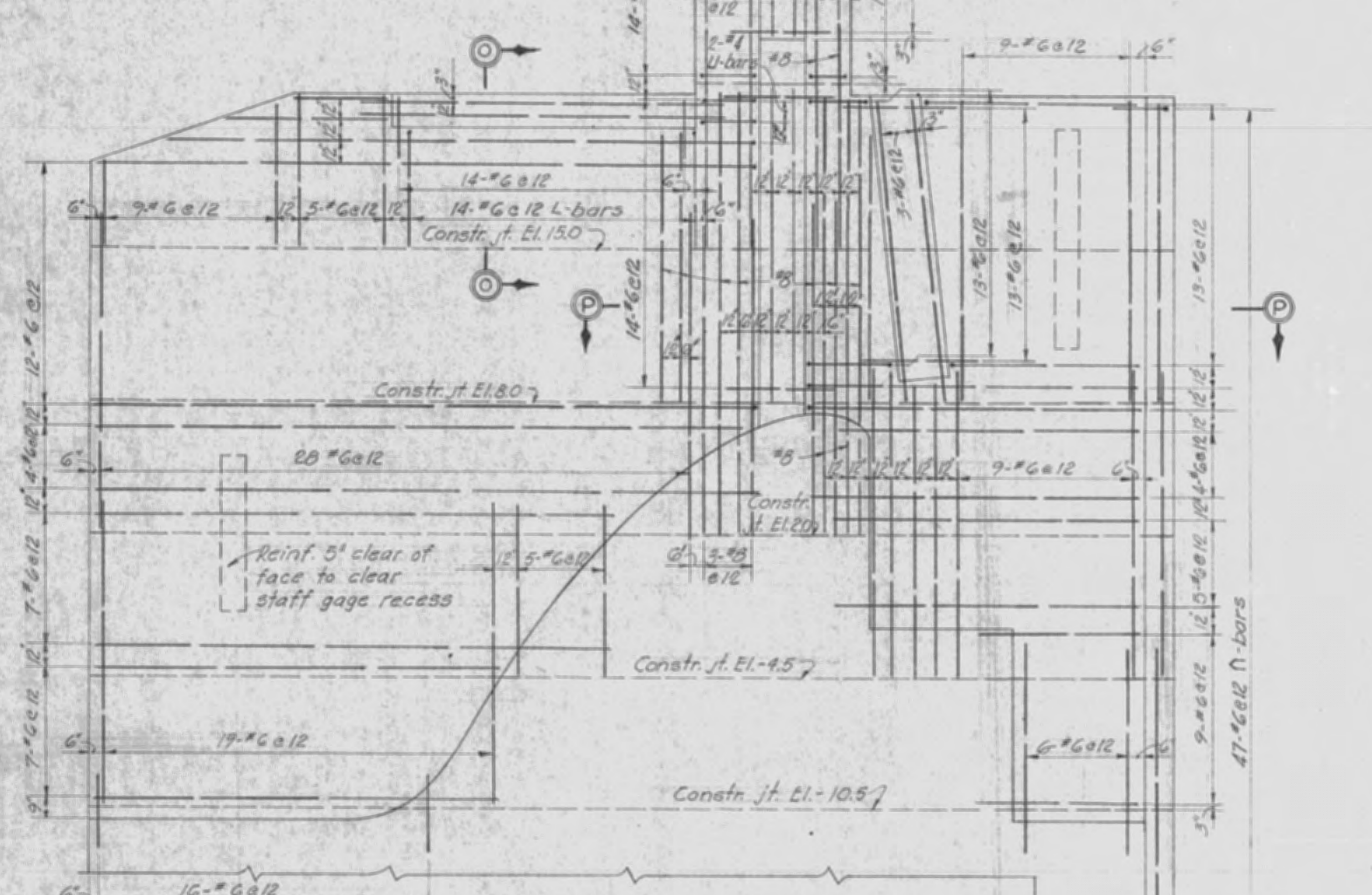
| REVISIONS | | | | | |
|-----------|----|------|---|---------|-------------|
| NO. | BY | ZONE | DESCRIPTION | DATE | APPROVED |
| 1 | | | REVISIONS AND CLARIFICATION ON ALL VIEWS TO ACCORDANCE WITH CONTRACT NO. 496-28-370 | 8-16-66 | [Signature] |
| 2 | | | REVISIONS AND CLARIFICATION ON ALL VIEWS TO ACCORDANCE WITH CONTRACT NO. 496-28-370 | 8-22-66 | [Signature] |
| 3 | | | REVISIONS AND CLARIFICATION ON ALL VIEWS TO ACCORDANCE WITH CONTRACT NO. 496-28-370 | 8-22-66 | [Signature] |



SECTION M-M
SCALE: 3/8"=1'-0"

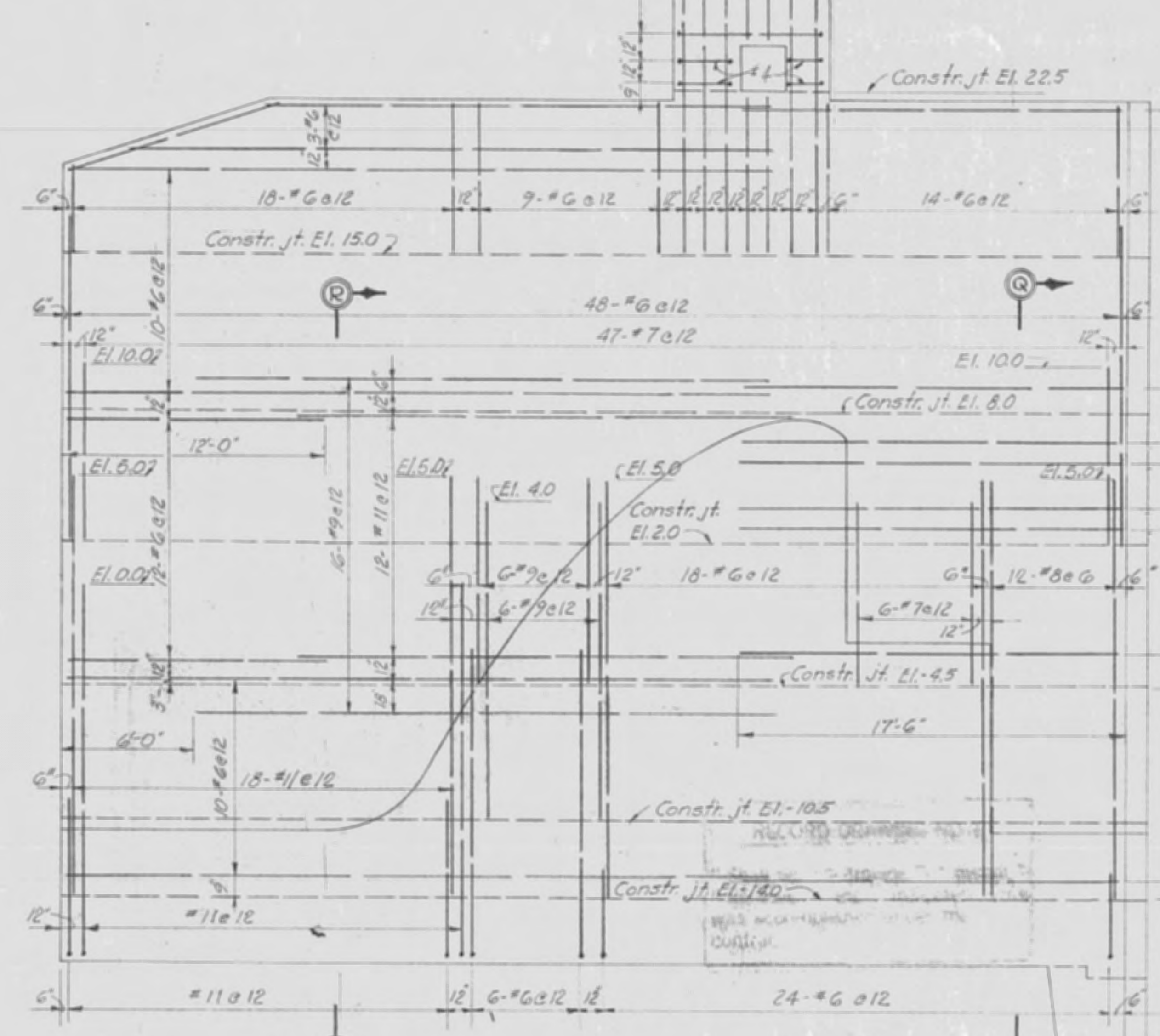


SECTION O-O
SCALE: 3/8"=1'-0"



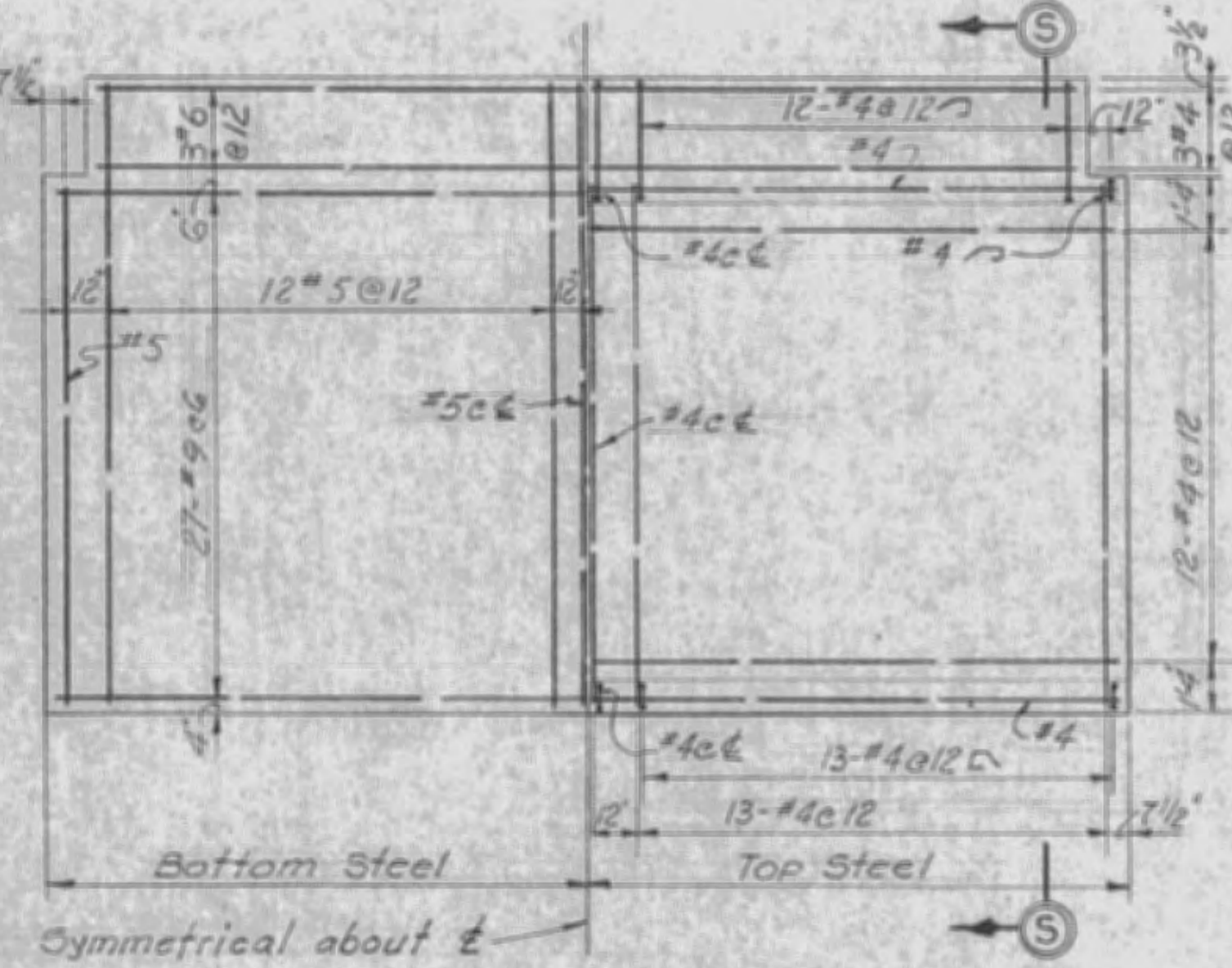
SECTION K-K
SCALE: 1/4"=1'-0"

Note: All reinforcing not otherwise identified are #6 bars located as shown.

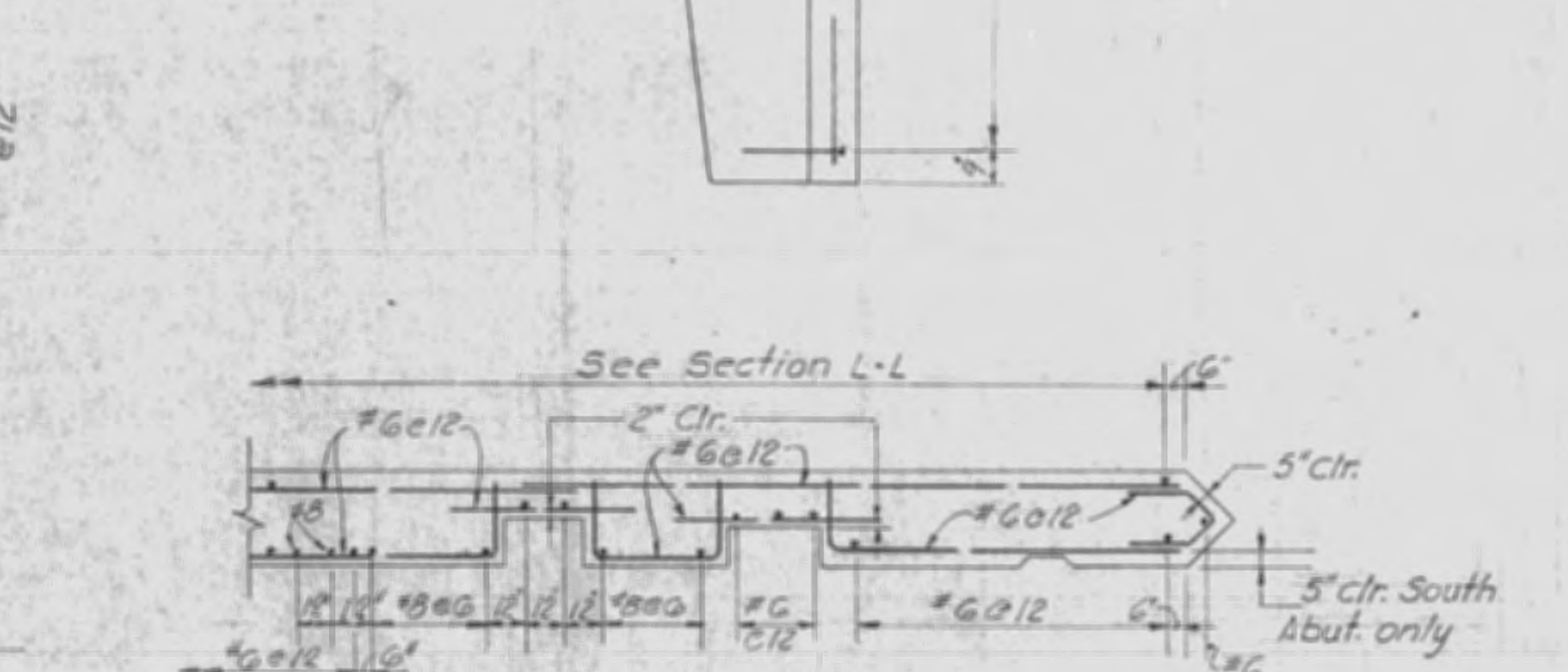


SECTION L-L
SCALE: 1/4"=1'-0"

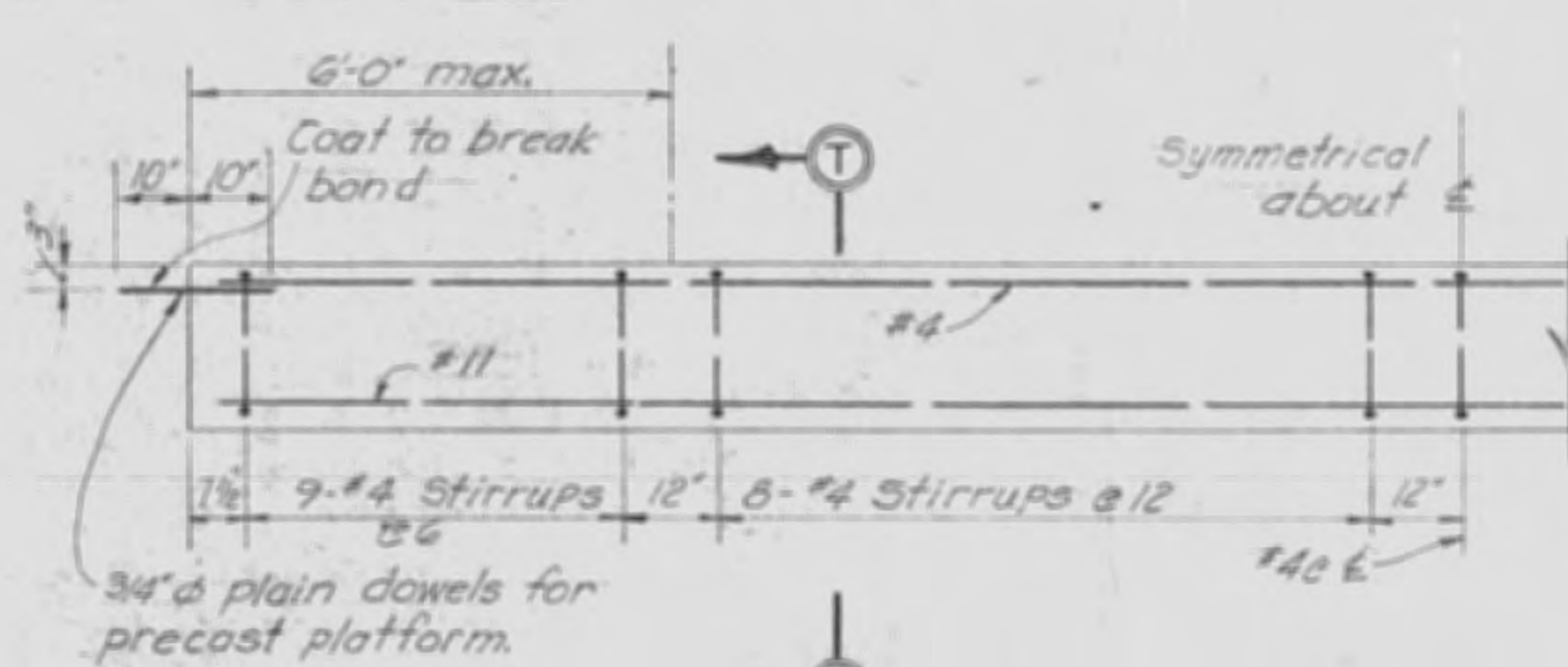
Note: All reinforcing not otherwise identified are #6 bars located as shown.



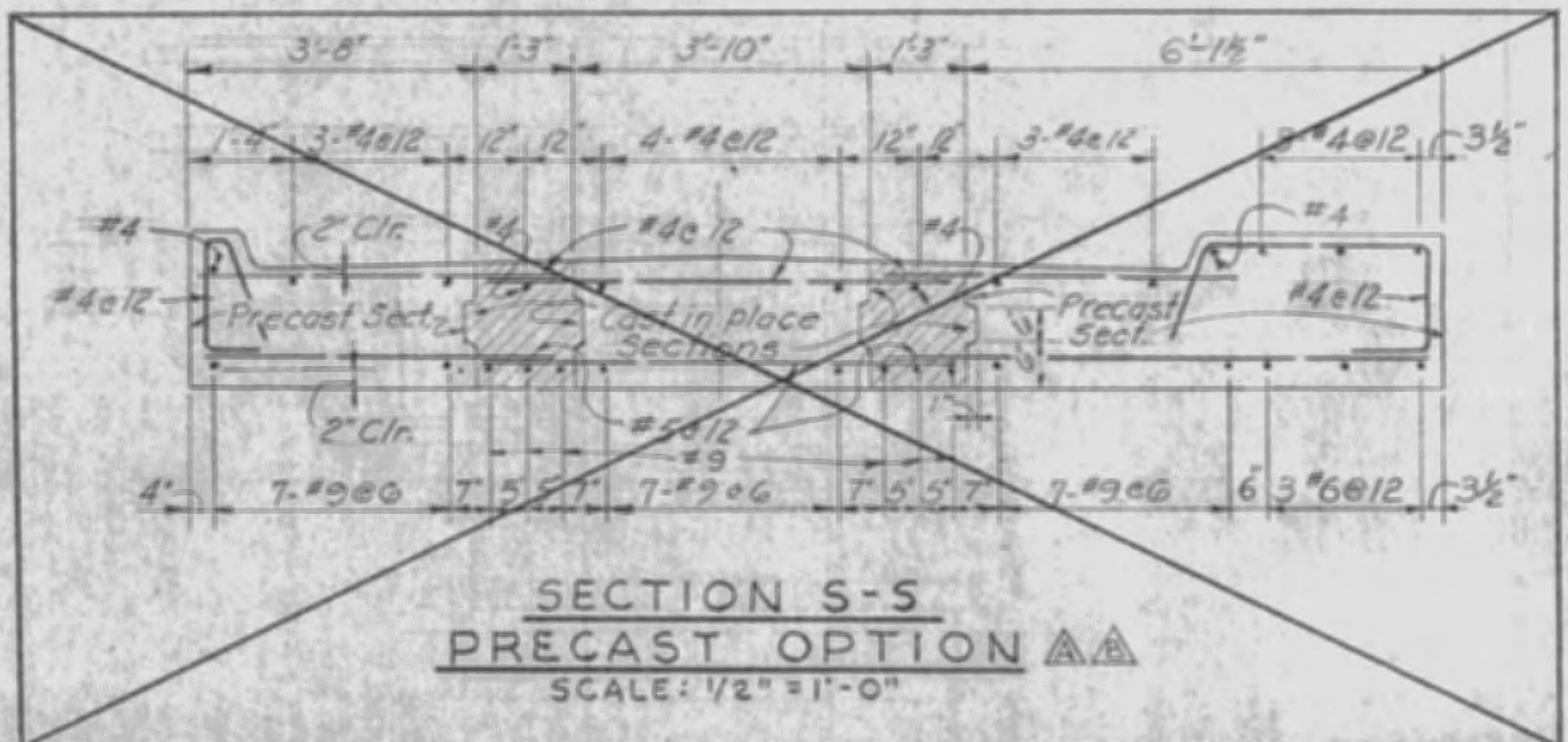
PLAN-SERVICE BRIDGE
SCALE: 1/4"=1'-0"



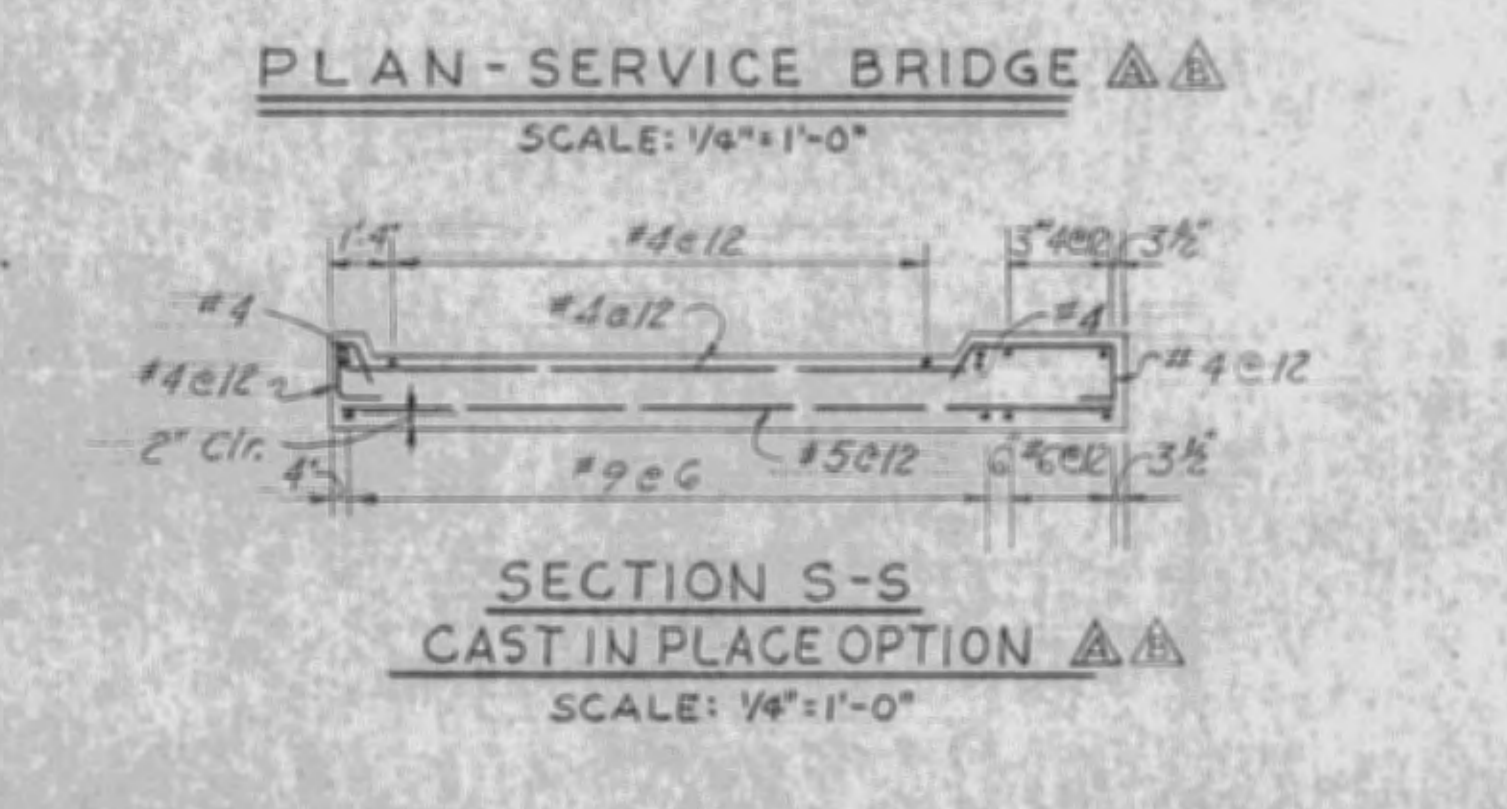
SECTION P-P
SCALE: 1/4"=1'-0"



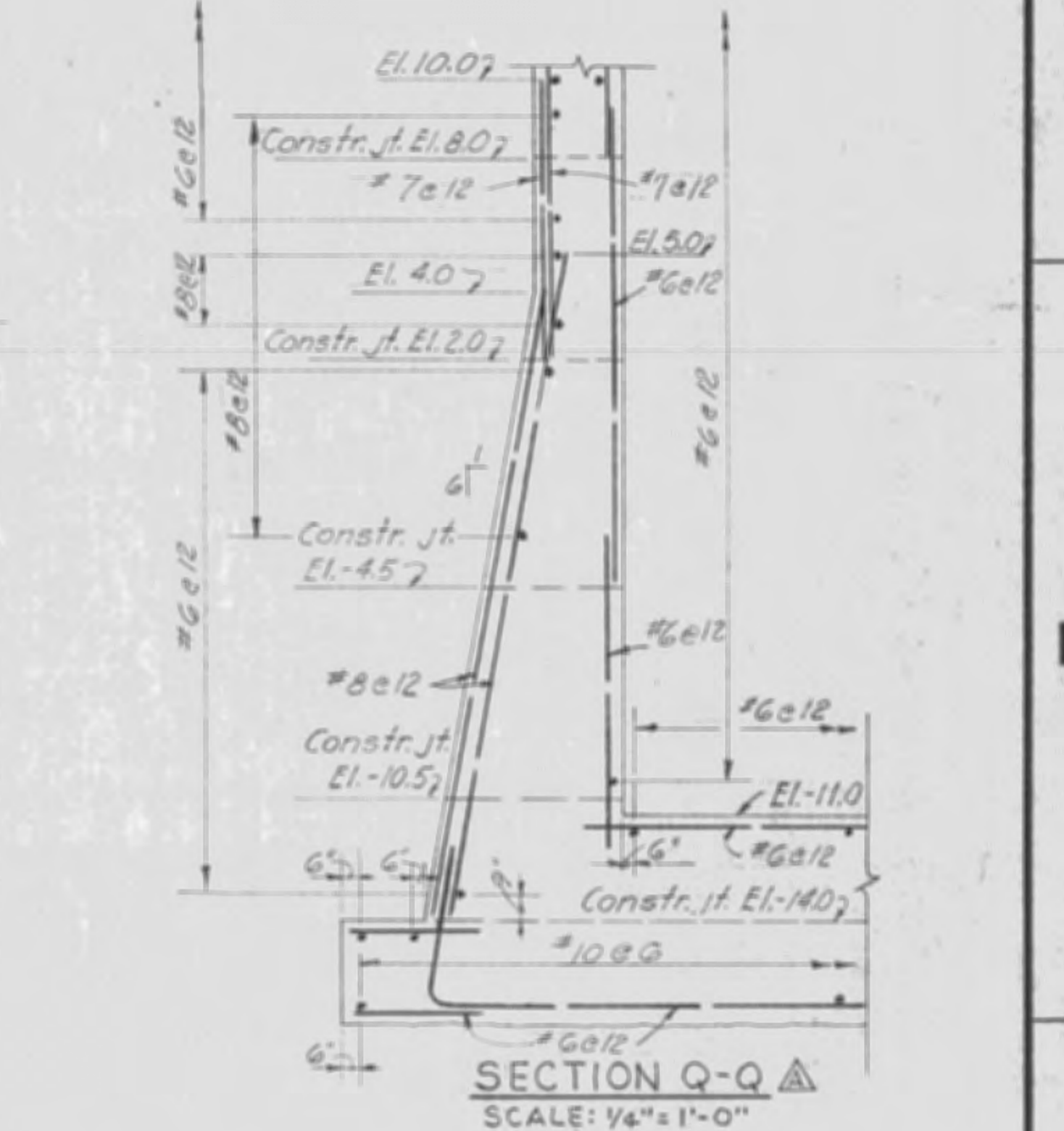
ELEVATION



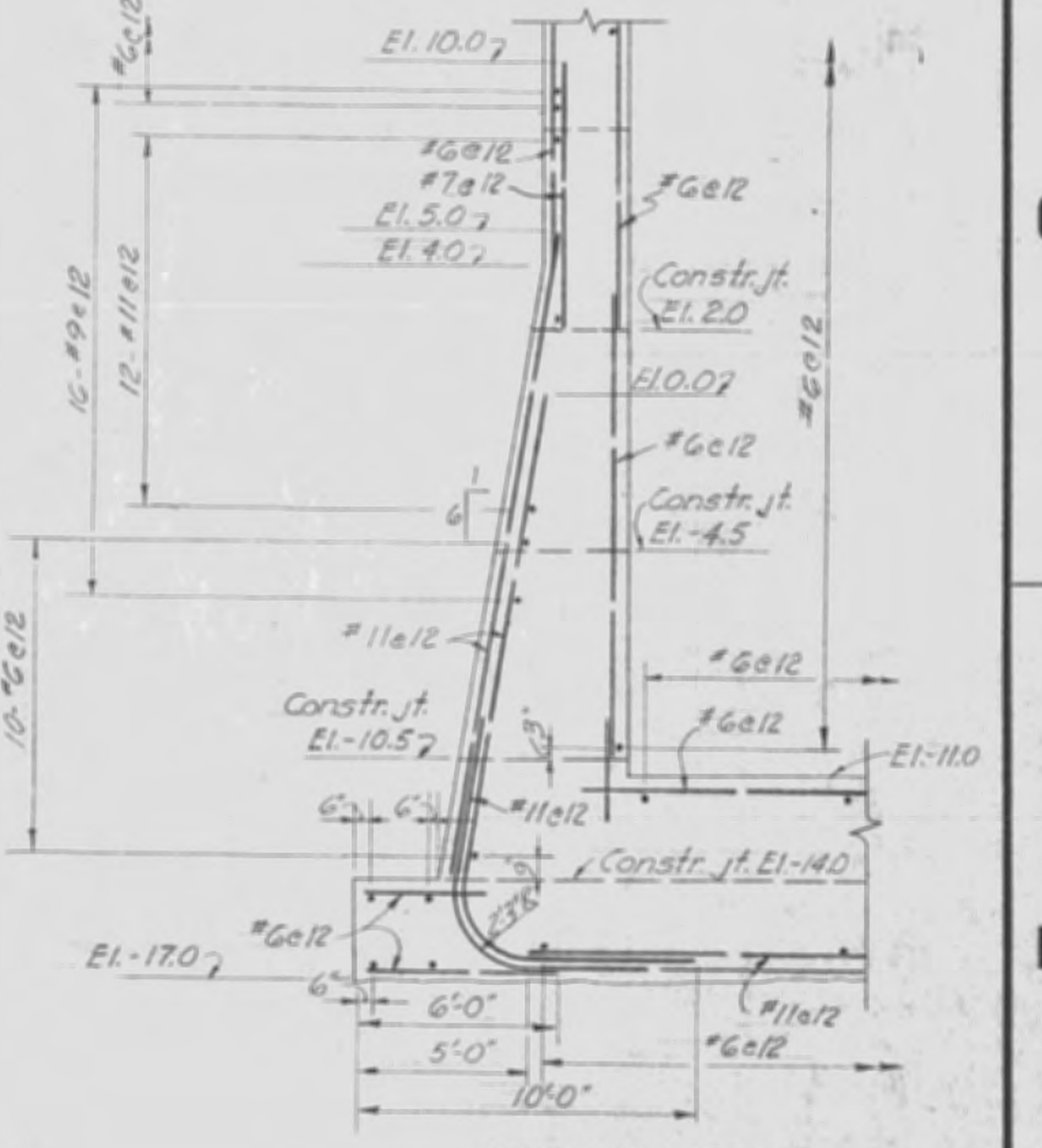
SECTION S-S
PRECAST OPTION
SCALE: 1/2"=1'-0"



SECTION S-S
CAST IN PLACE OPTION
SCALE: 1/4"=1'-0"



SECTION Q-Q
SCALE: 1/4"=1'-0"



SECTION R-R
SCALE: 1/4"=1'-0"

- NOTES:
- FOR GENERAL REINF. NOTES SEE SHEET 3-39
 - FOR LOCATION OF SECTIONS K-K AND L-L SEE SHEET 3-39

RECORD DRAWING NOTE

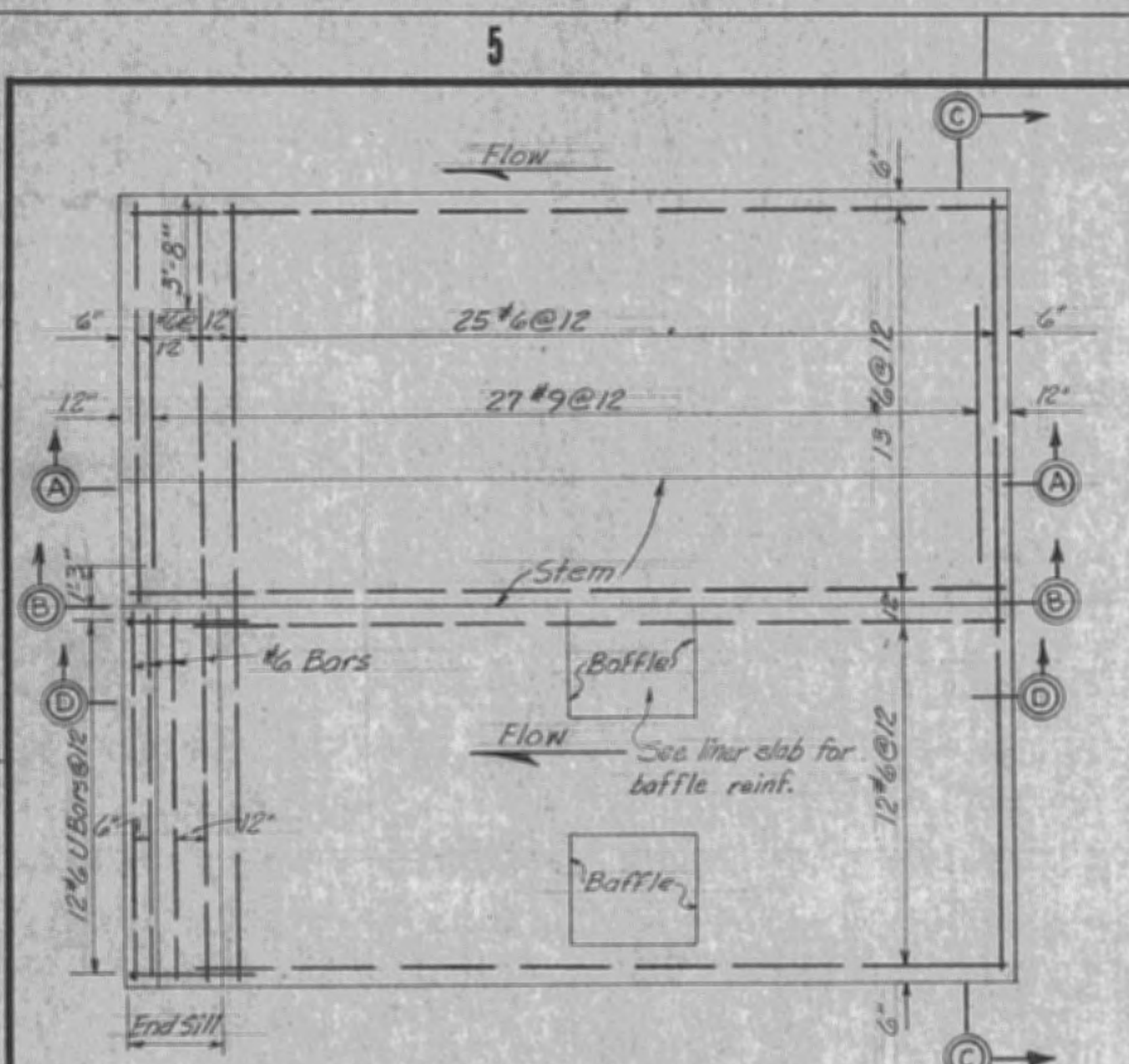
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

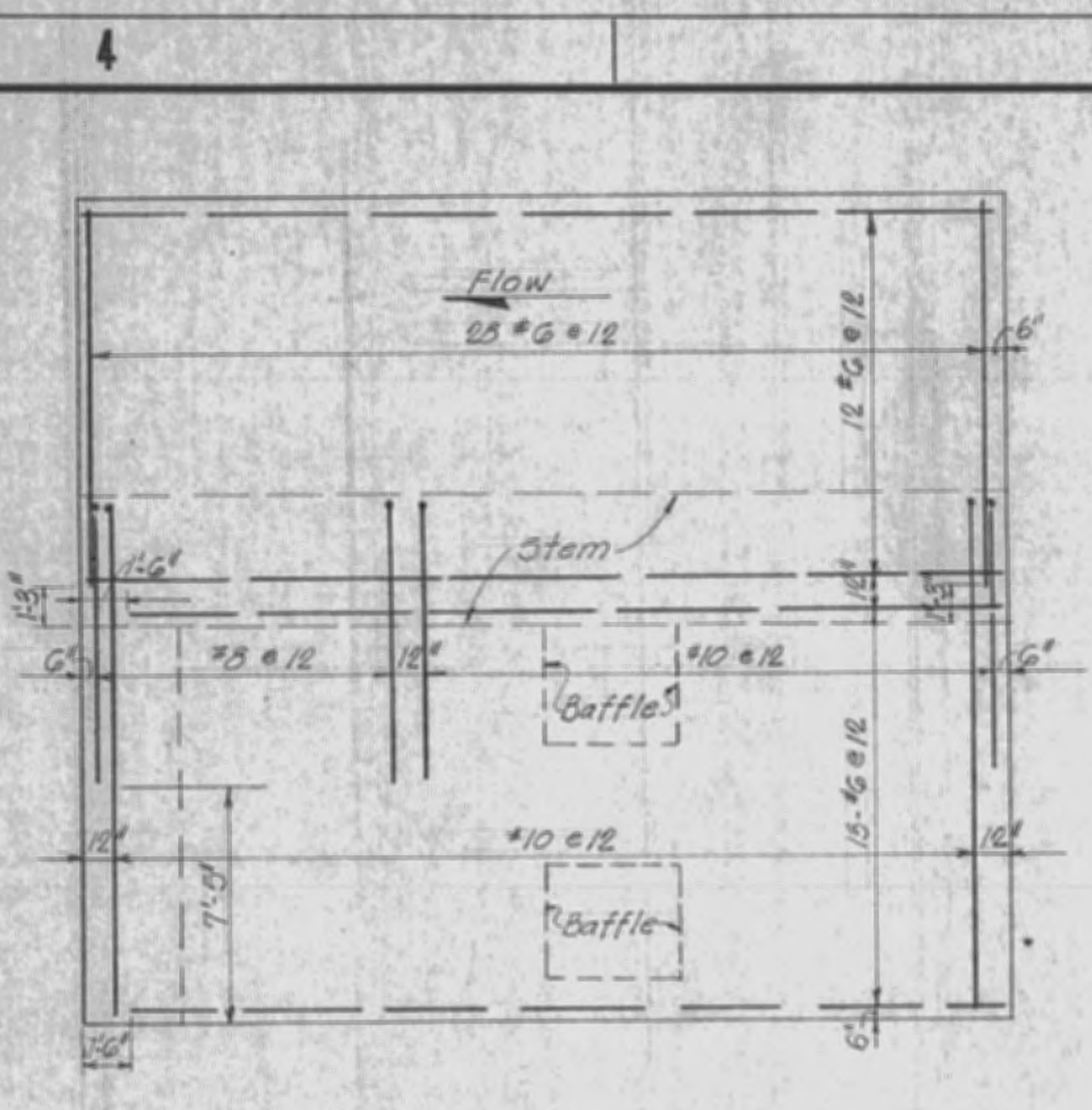
U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE - 157
REINFORCEMENT
SPILLWAY STRUCTURE DETAILS NO. 2

| | | | |
|---------------------|-----------------|------------------|----------------|
| DATE: 28 APRIL 1966 | SCALE: AS SHOWN | DATE: APRIL 1966 | SHEET 40 OF 78 |
|---------------------|-----------------|------------------|----------------|

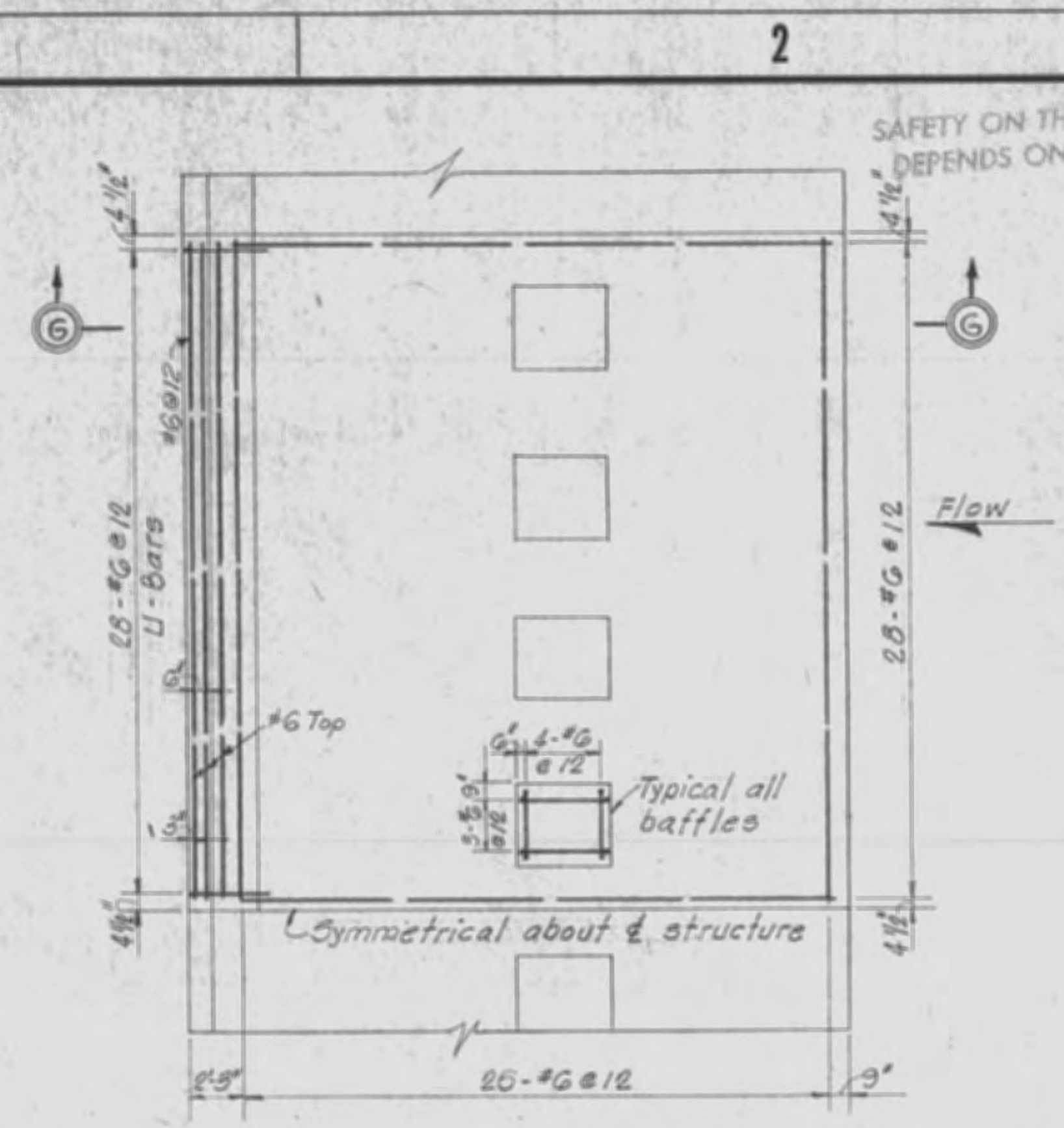
| REVISIONS | | | | |
|-----------|-----------|--------------------------------------|---------|----------|
| NO. | SYN. ZONE | DESCRIPTION | DATE | APPROVED |
| 4 | | REVISED TO CONFORM TO AMENDMENT NO 3 | 5/16/64 | W.C.R. |



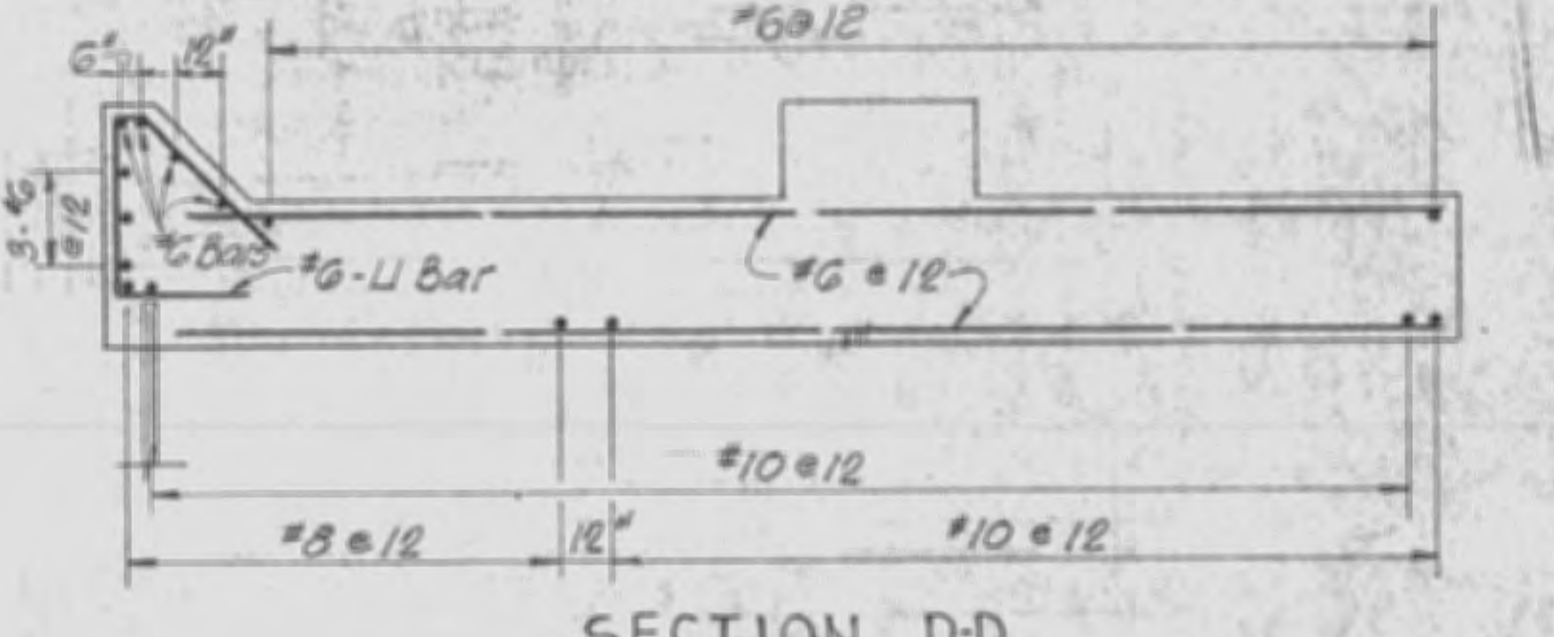
TOP STEEL BASE SLAB



BOTTOM STEEL BASE SLAB

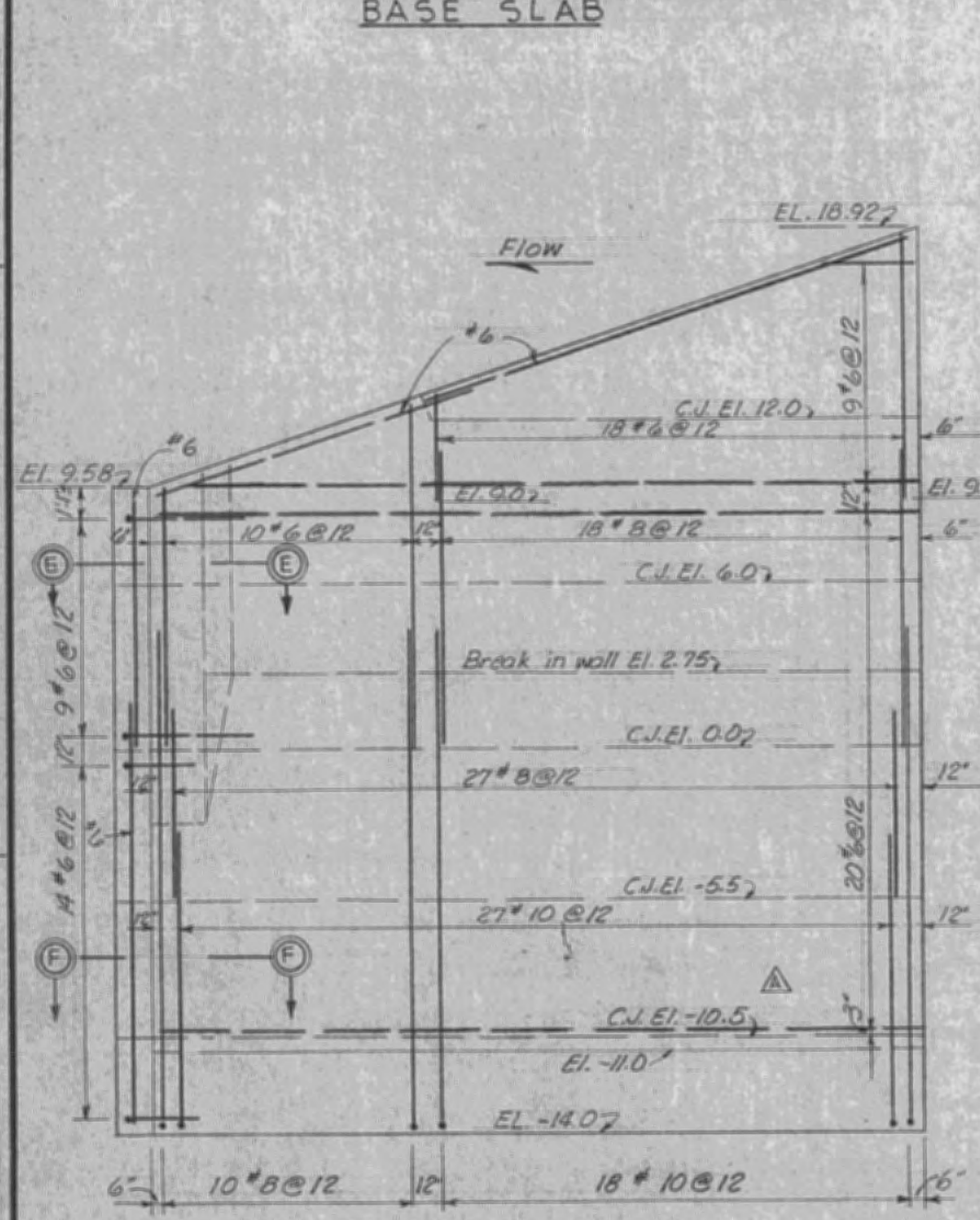


LINER SLAB TOP AND BOTTOM FACES

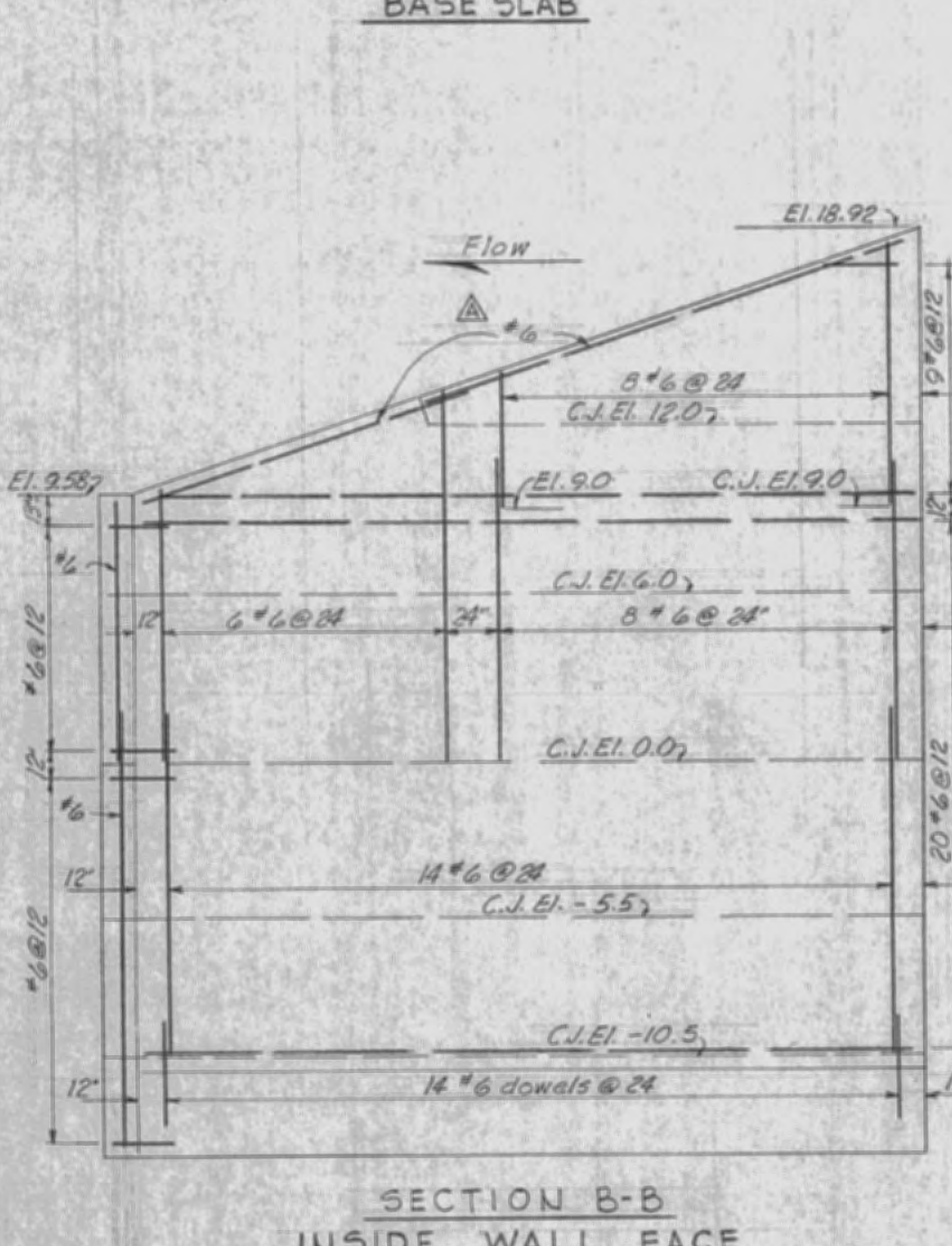


SECTION D-D

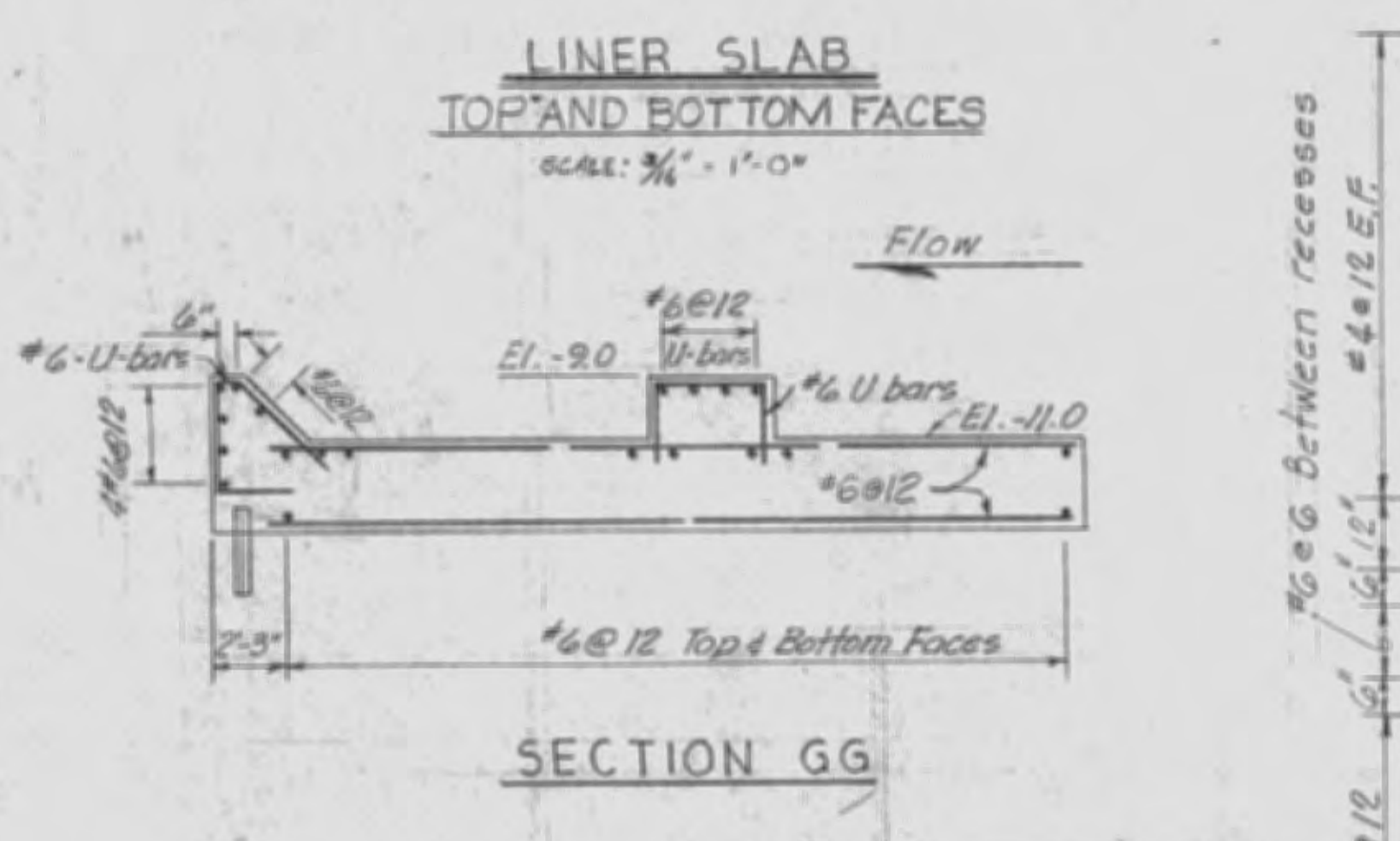
For baffle reinforcement see liner slab plan & section



SECTION A-A OUTSIDE WALL FACE

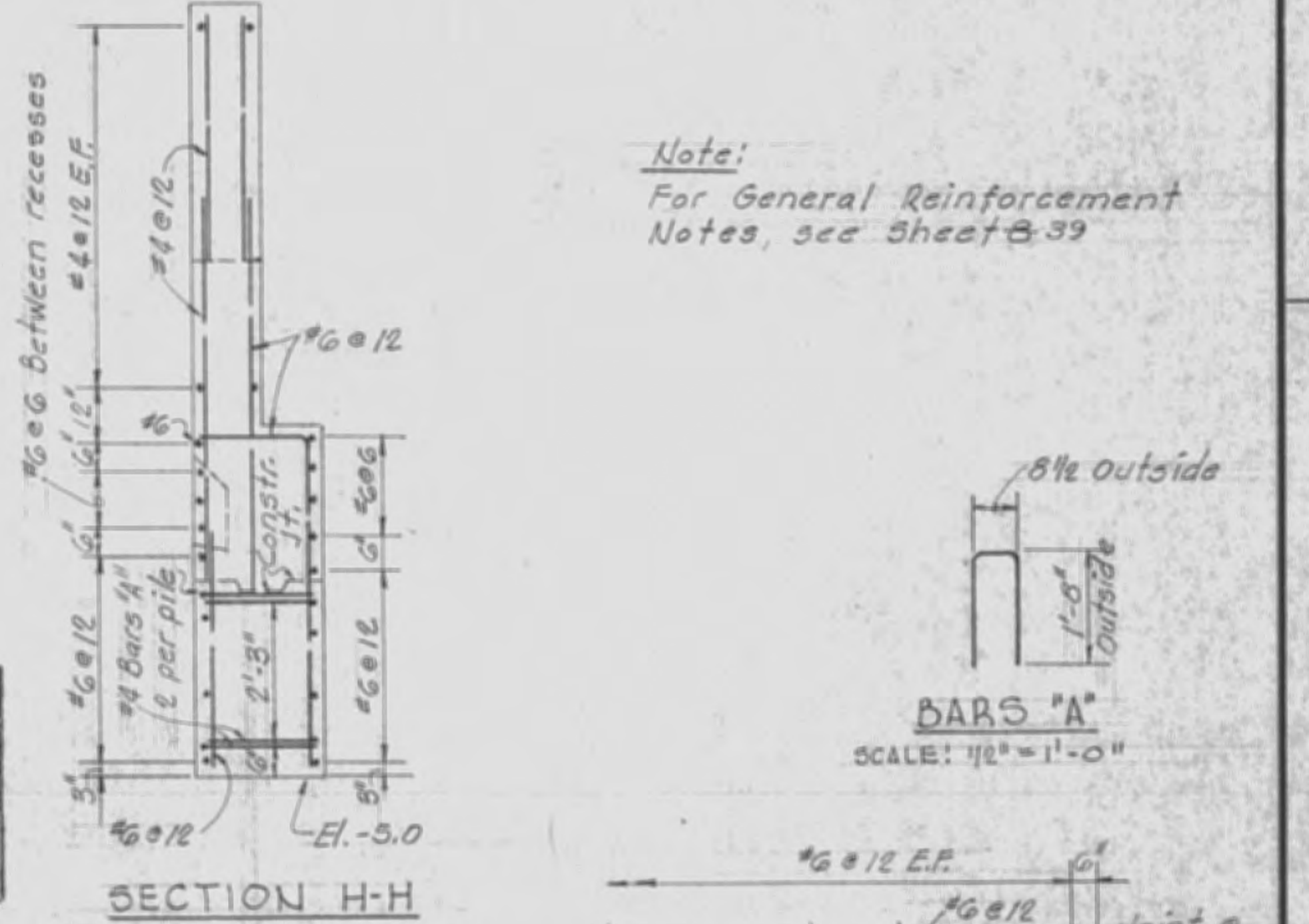


SECTION B-B INSIDE WALL FACE



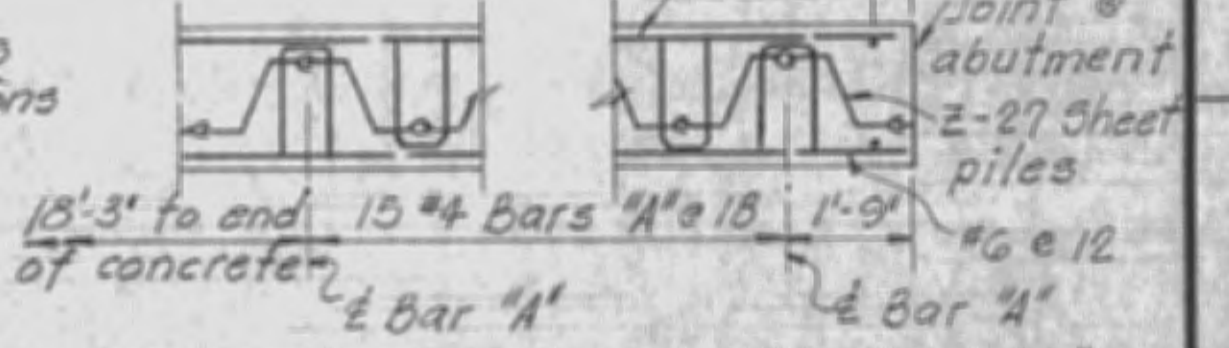
SECTION G-G

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

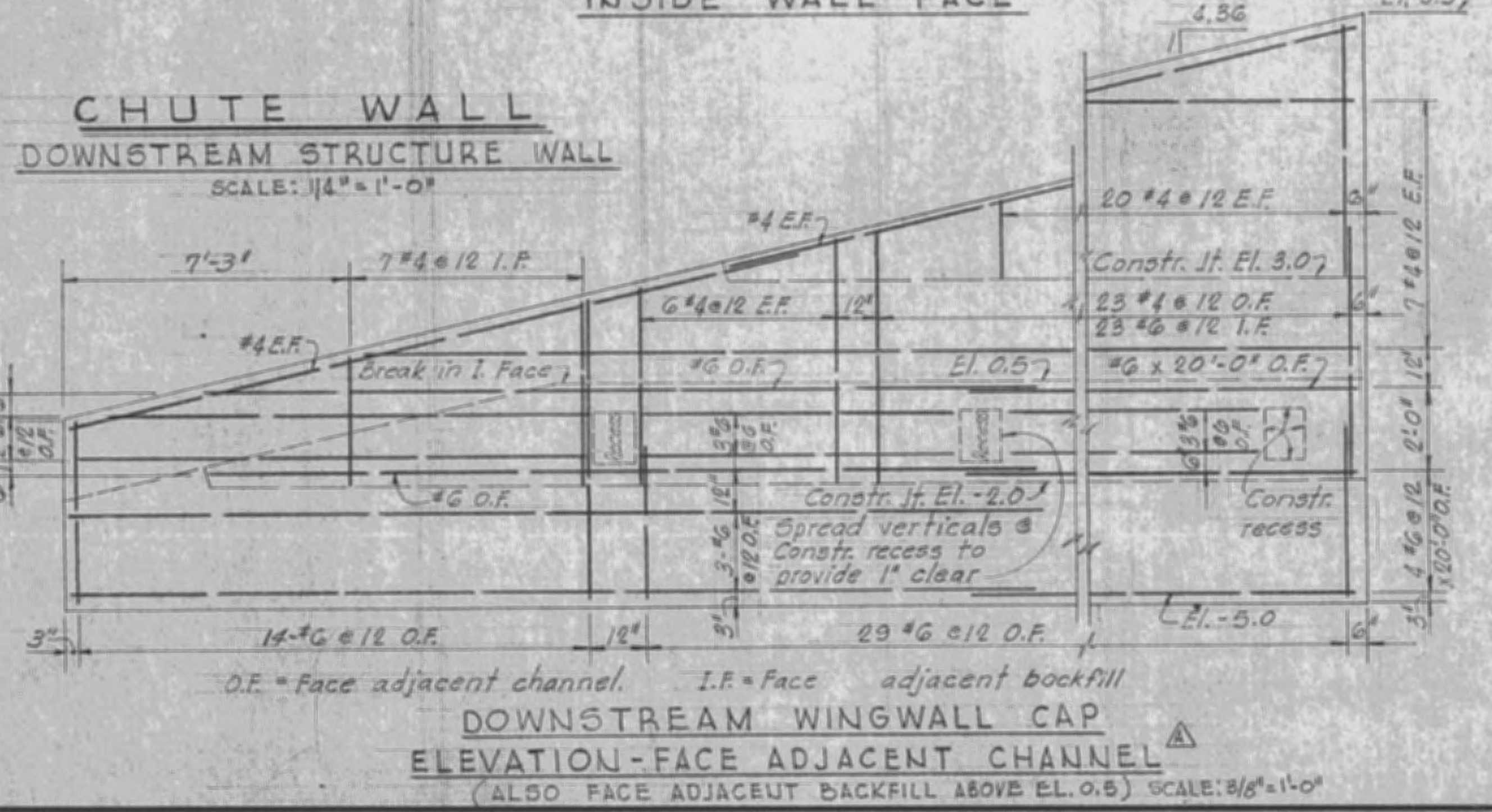


SECTION H-H

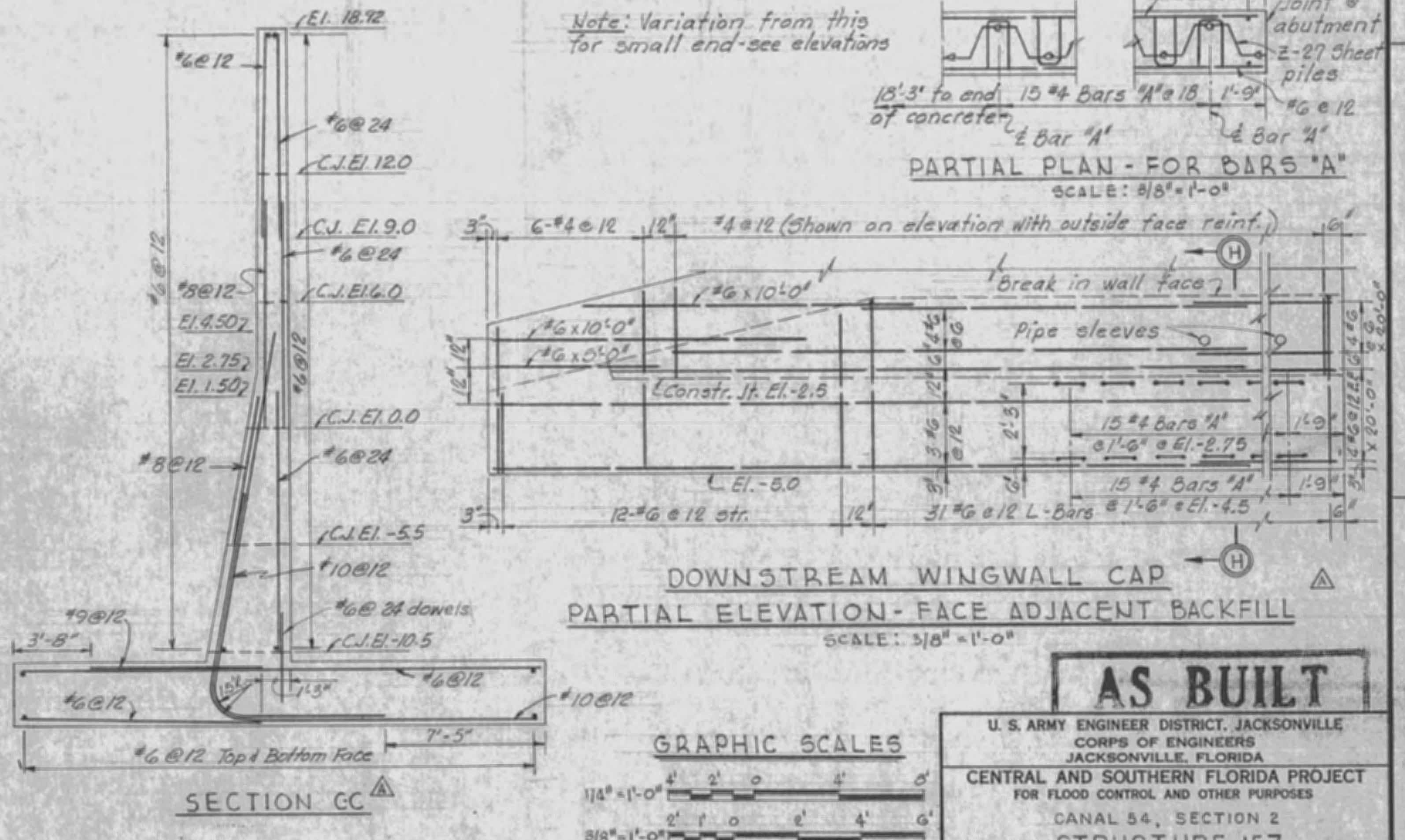
Note: Variation from this for small end-see elevations



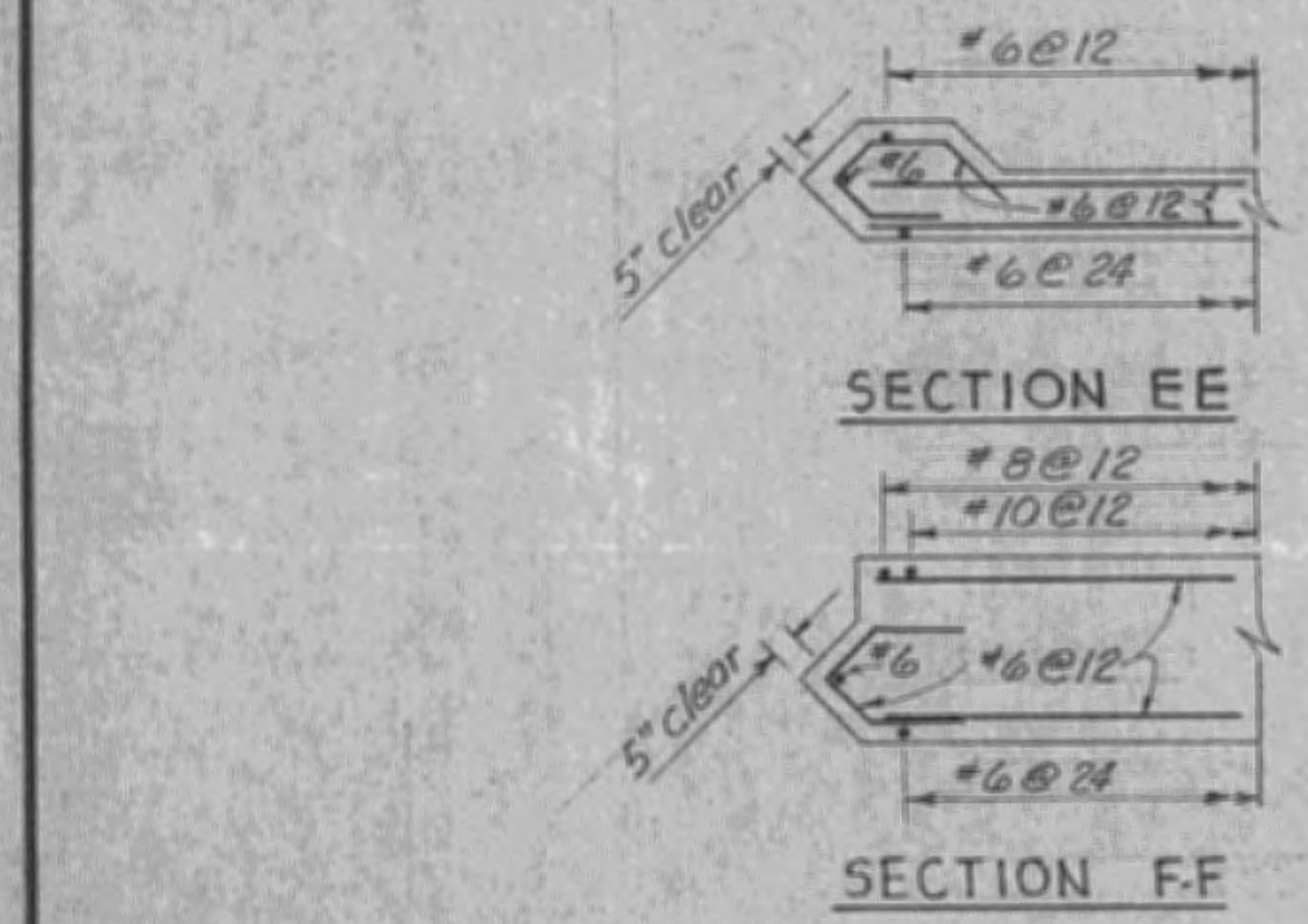
PARTIAL PLAN - FOR BARS 'A'



CHUTE WALL DOWNSTREAM STRUCTURE WALL

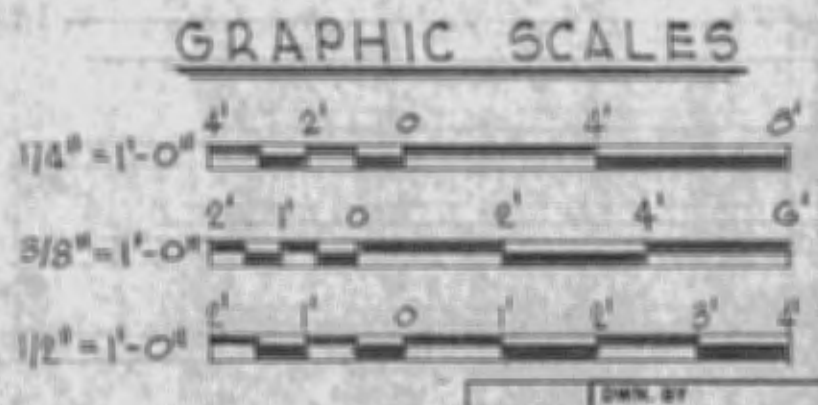


DOWNSTREAM WINGWALL CAP PARTIAL ELEVATION - FACE ADJACENT BACKFILL



SECTION EE

SECTION FF



GRAPHIC SCALES

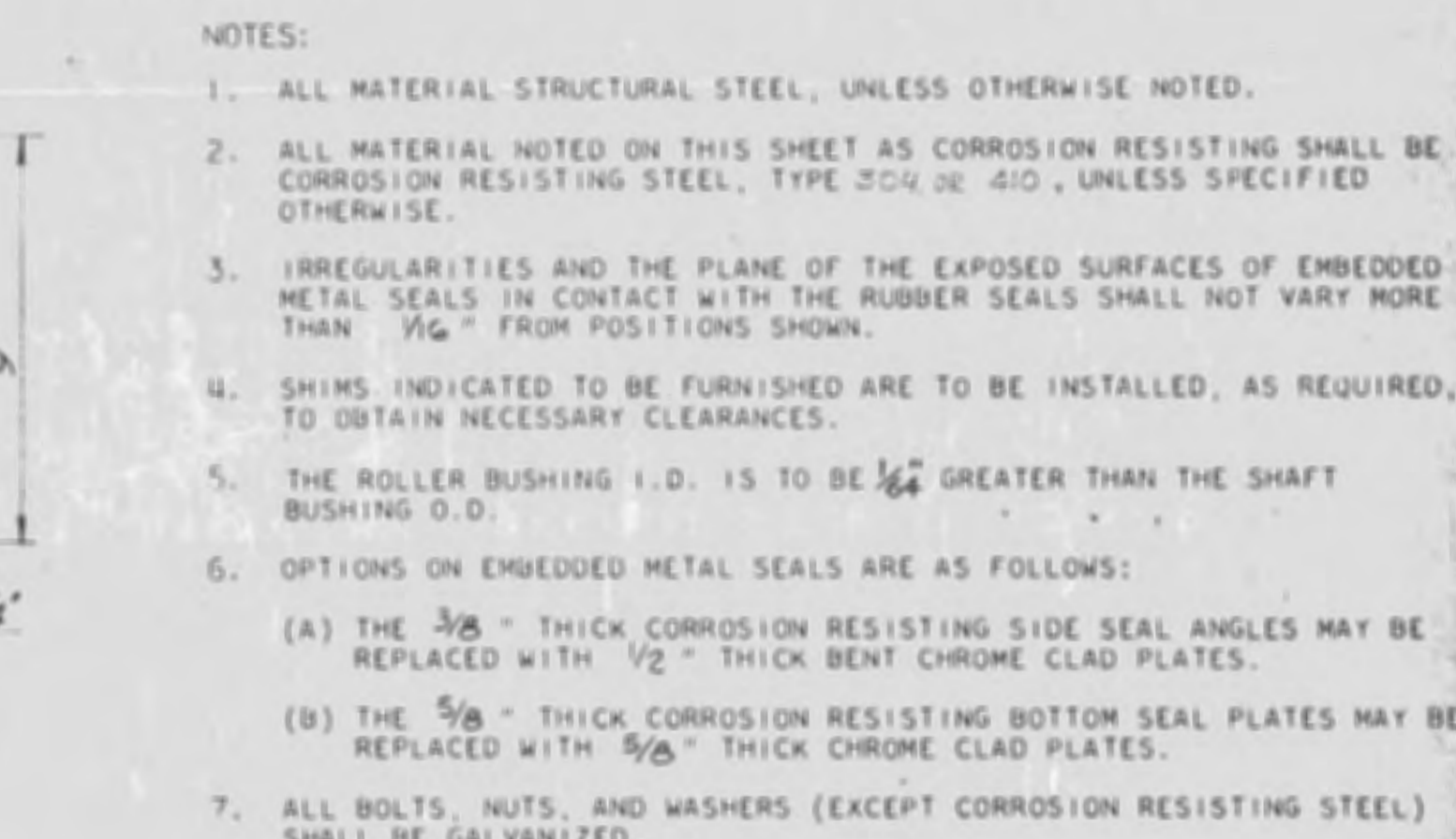
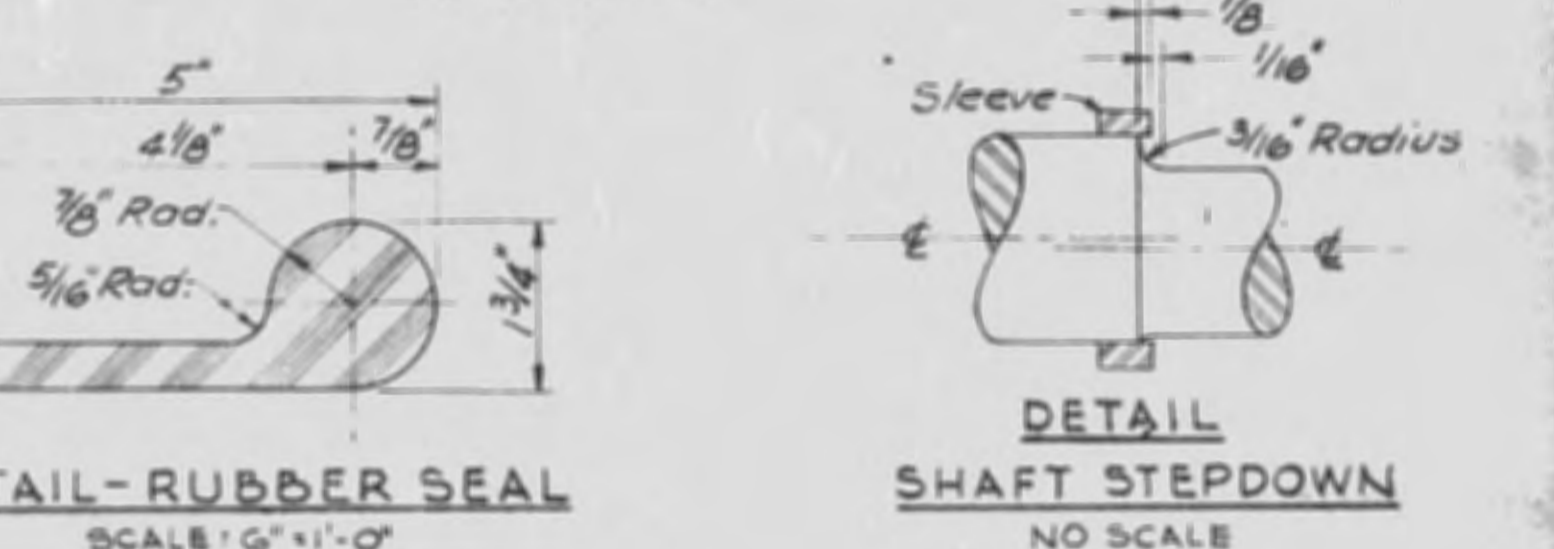
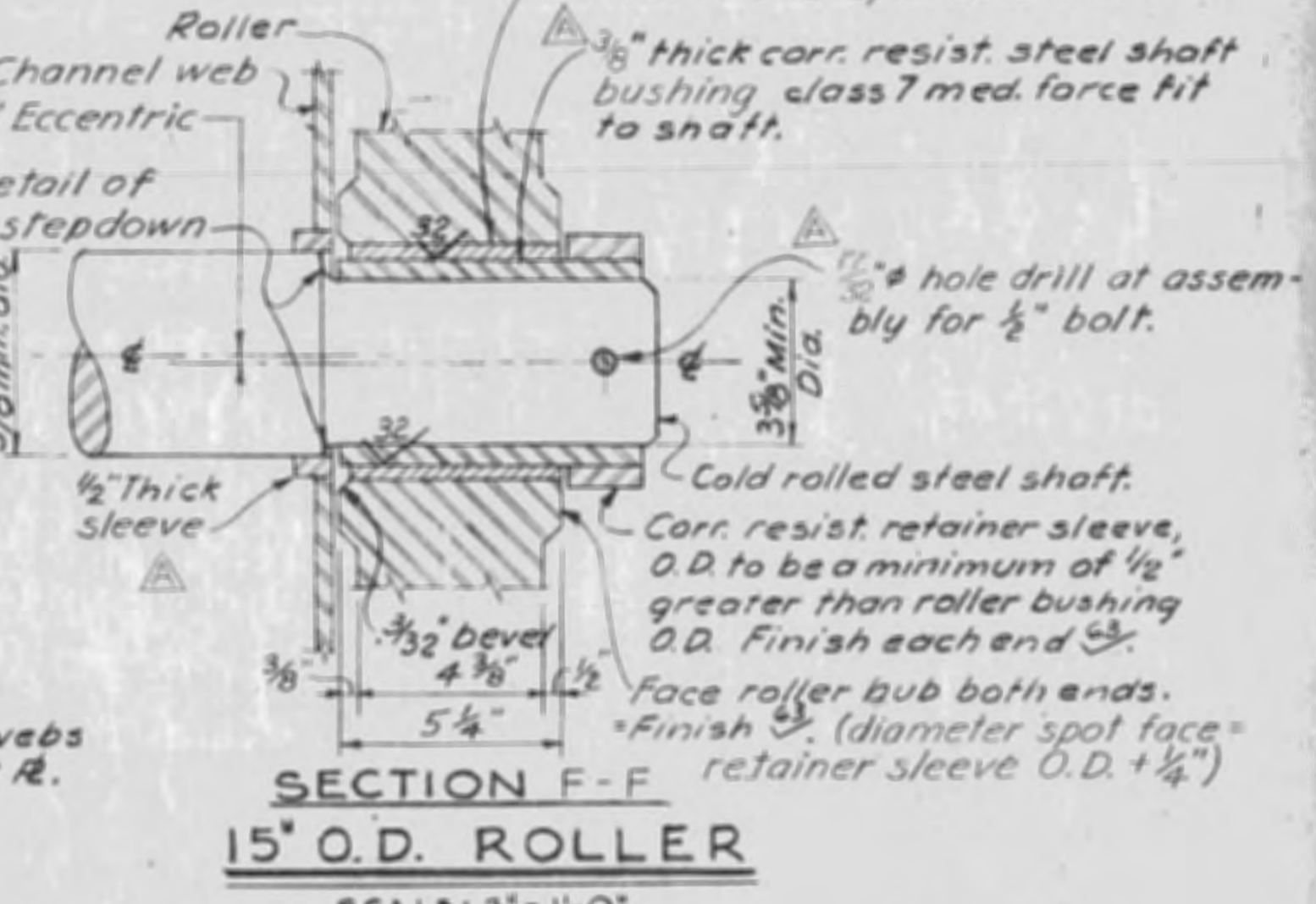
AS BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE, FLORIDA
 CENTRAL AND SOUTHERN FLORIDA PROJECT FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL 54, SECTION 2
 STRUCTURE-157
 REINFORCEMENT - DOWNSTREAM STRUCTURE AND DOWNSTREAM WINGWALL CAP
 DATED: 28 APRIL 1966
 SCALE: AS SHOWN

D. O. FILE NO. 496-29,370-496-30,952

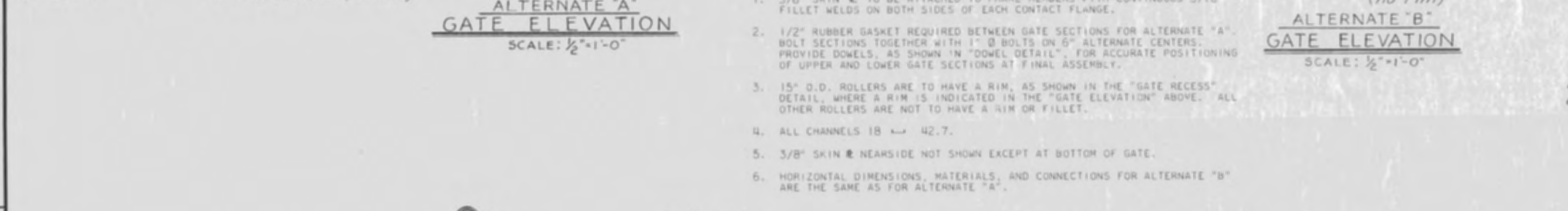
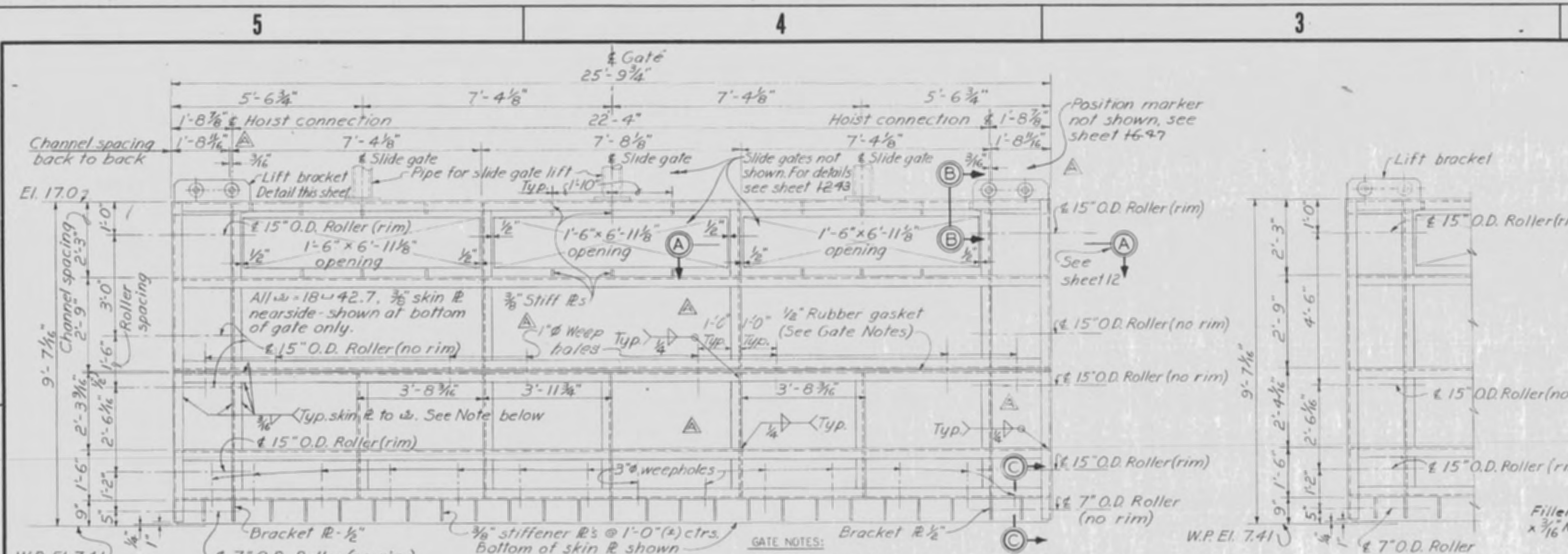
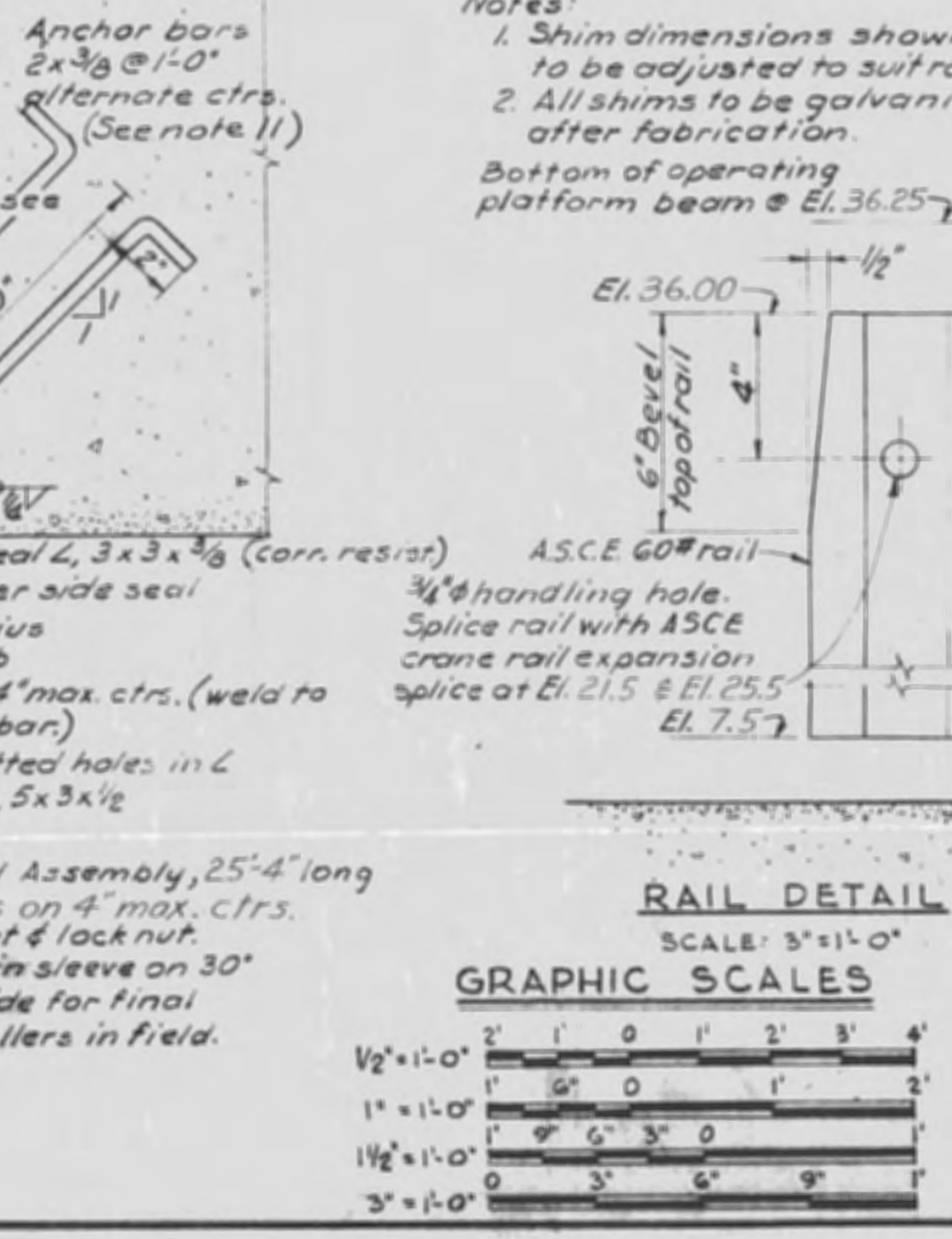
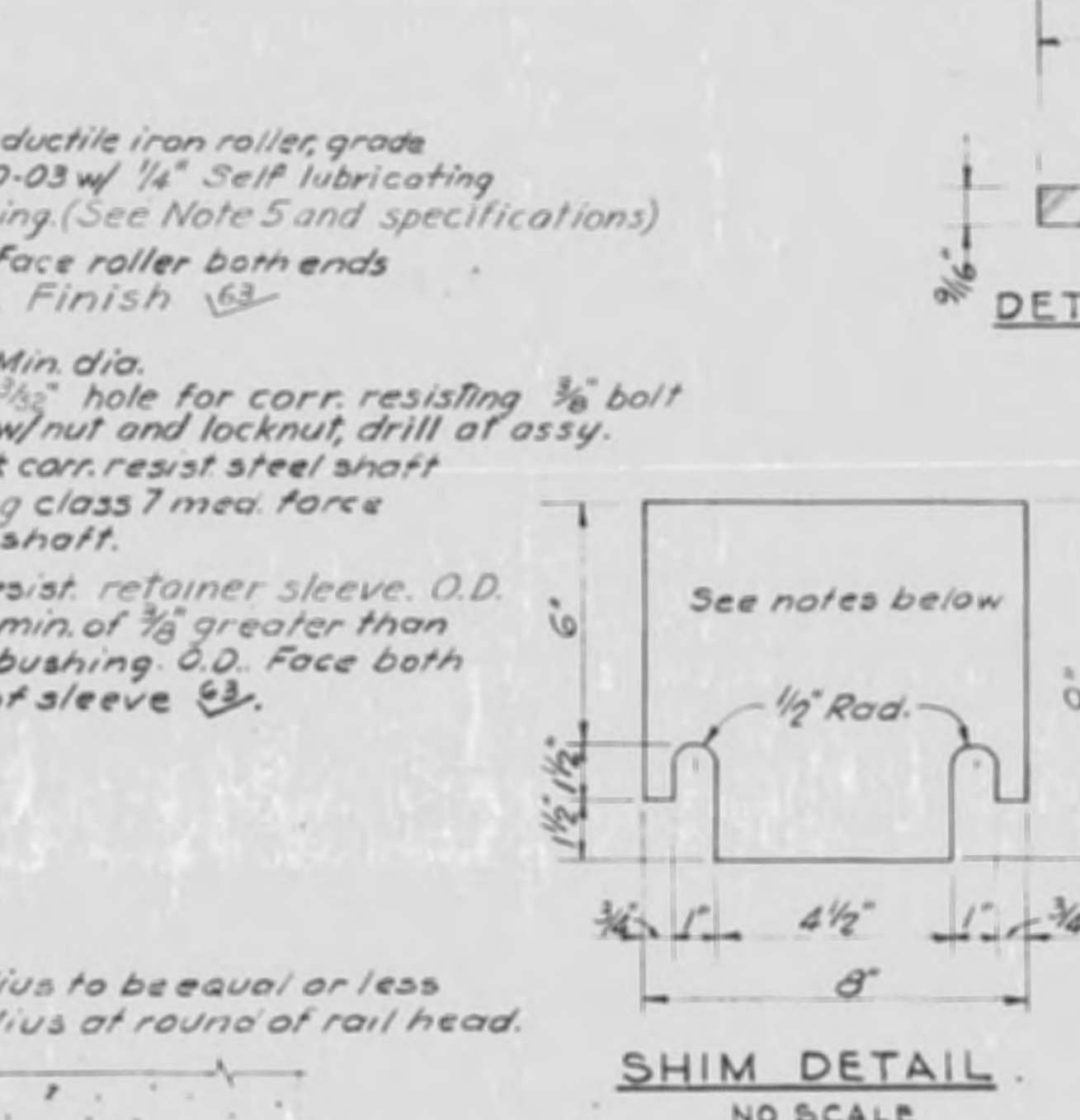
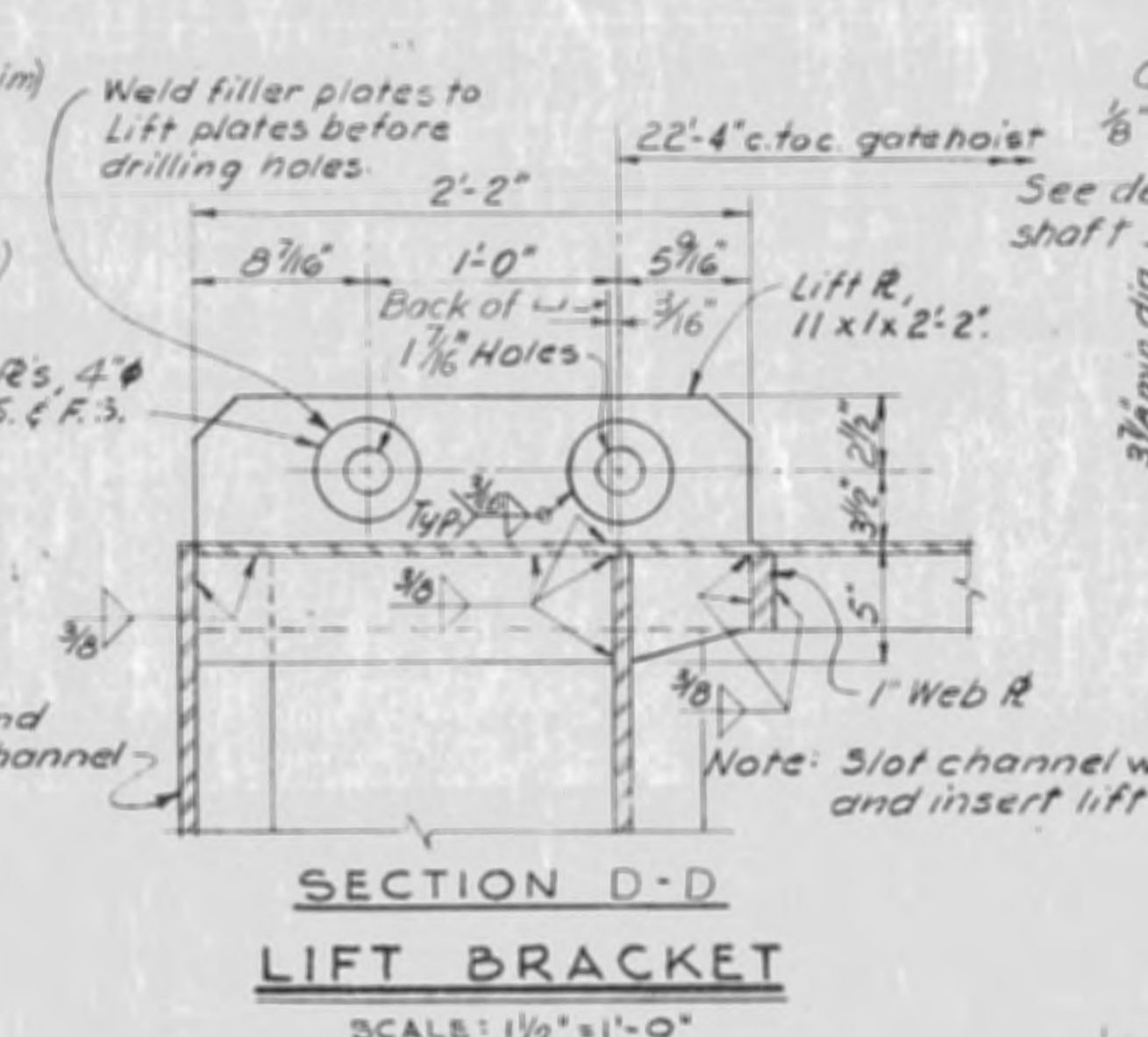
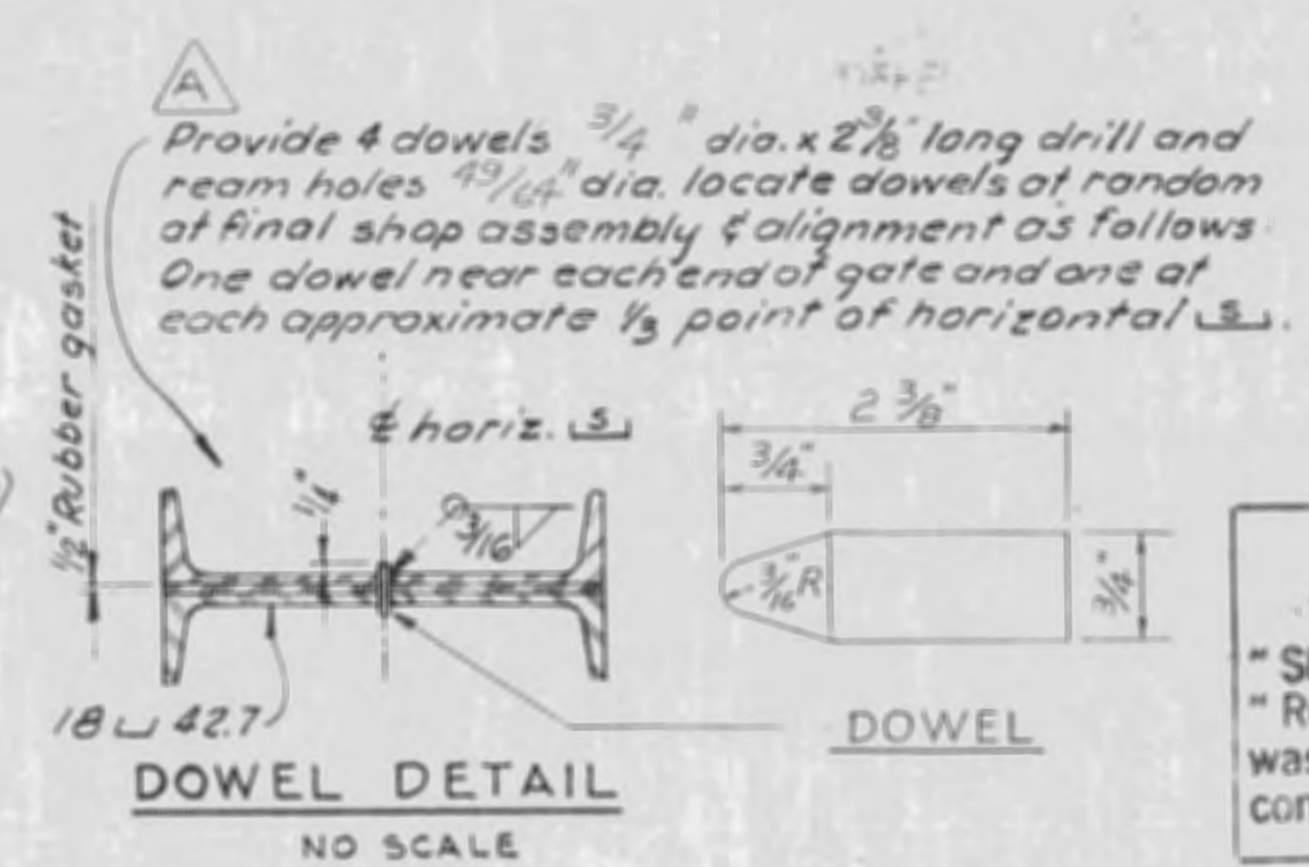
| REVISIONS | | | | |
|-----------|------|---------------------------------------|---------|----------|
| NO. | SYM. | DESCRIPTION | DATE | APPROVED |
| 20 | | REVISED TO CONFORM TO AMENDMENT NO. 2 | 5-16-66 | MLB |

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

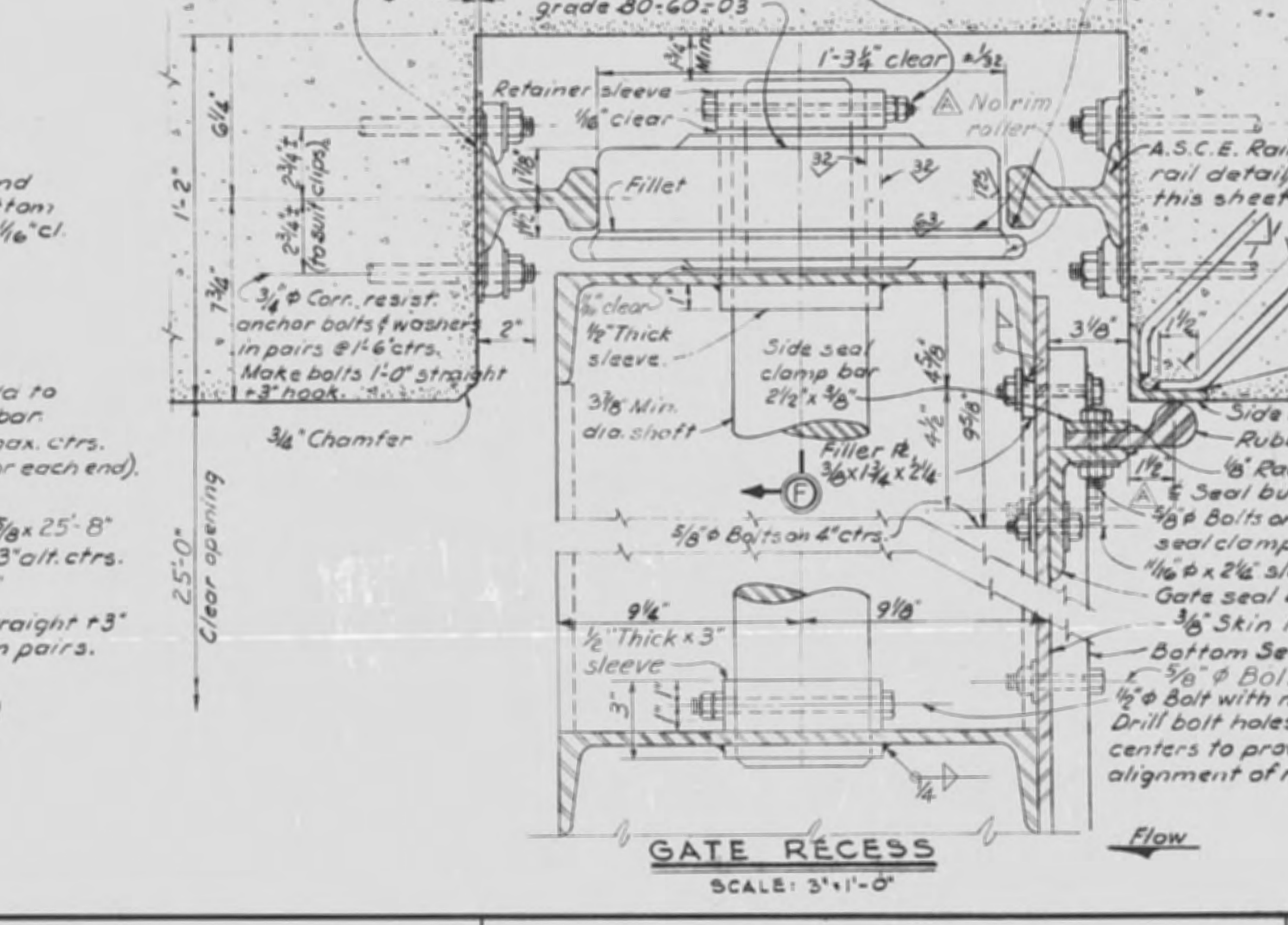
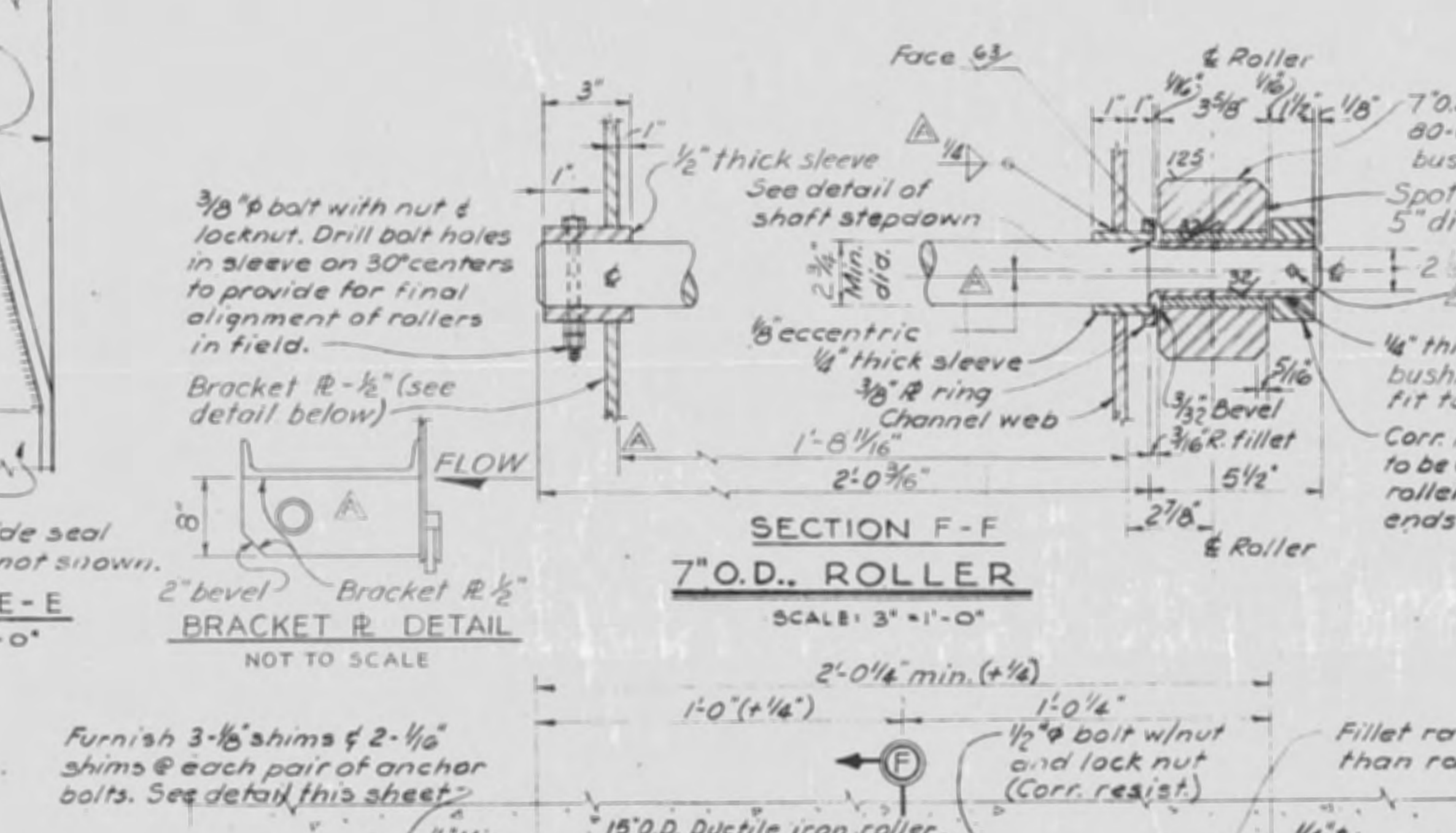
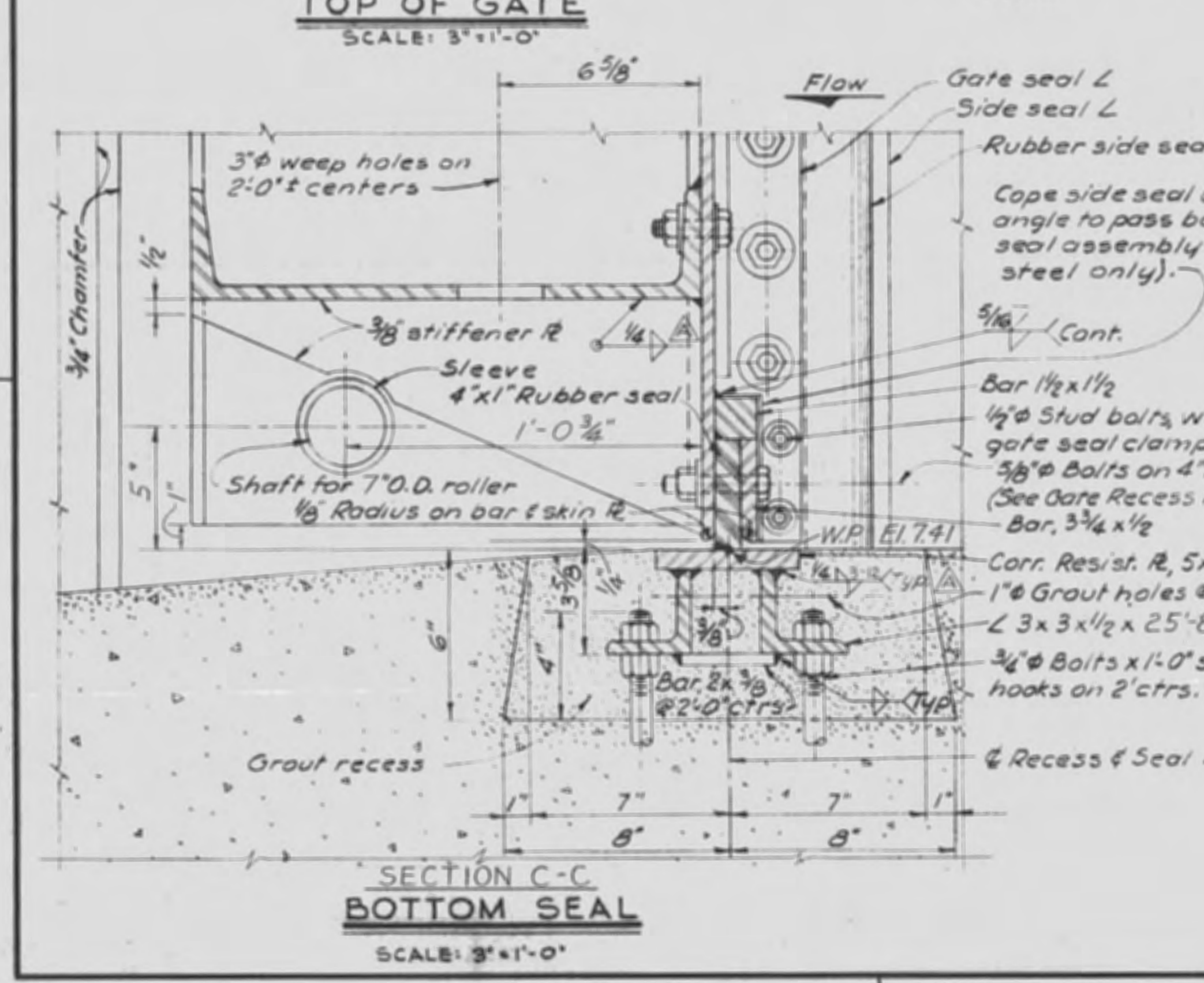
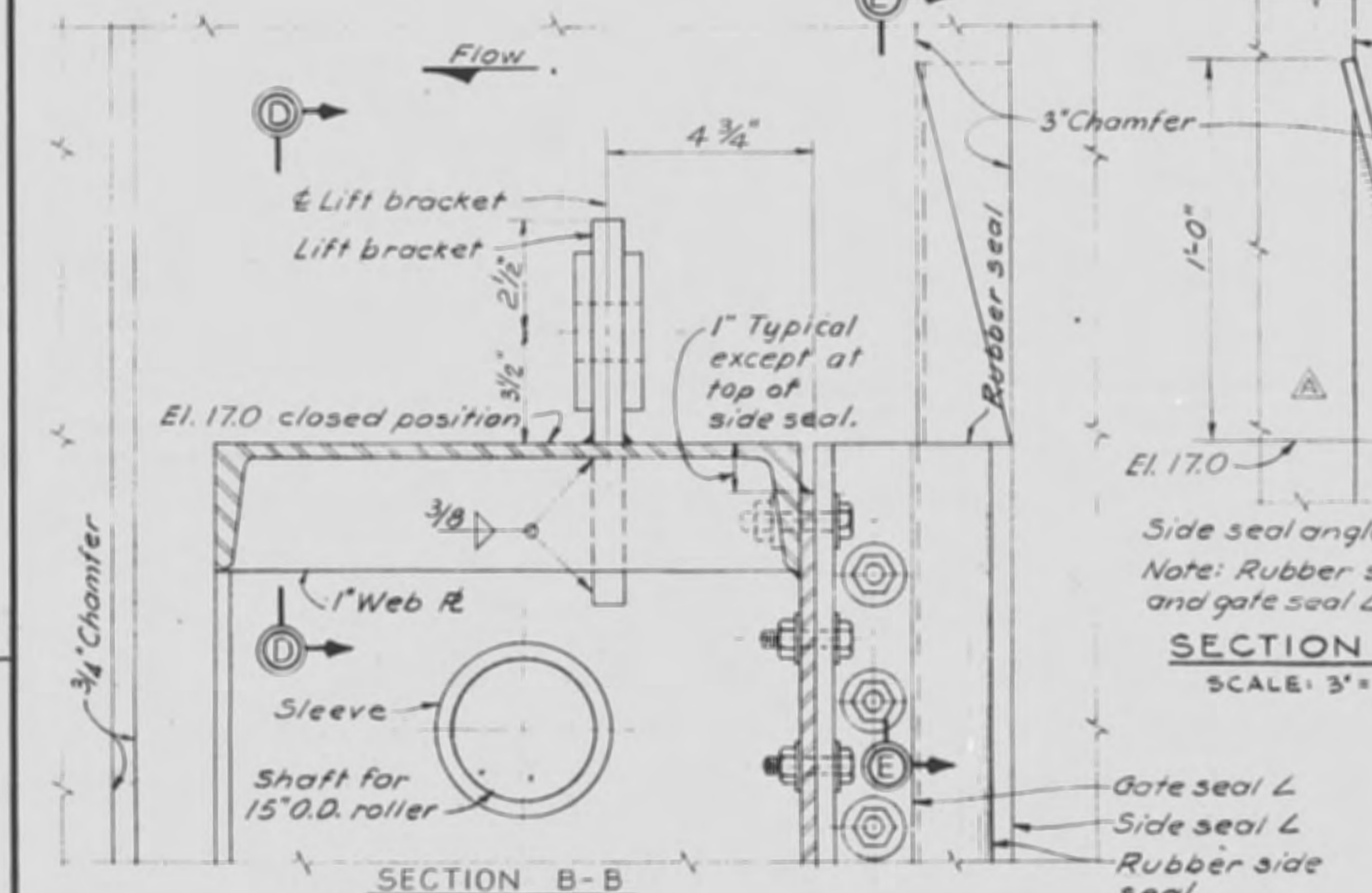


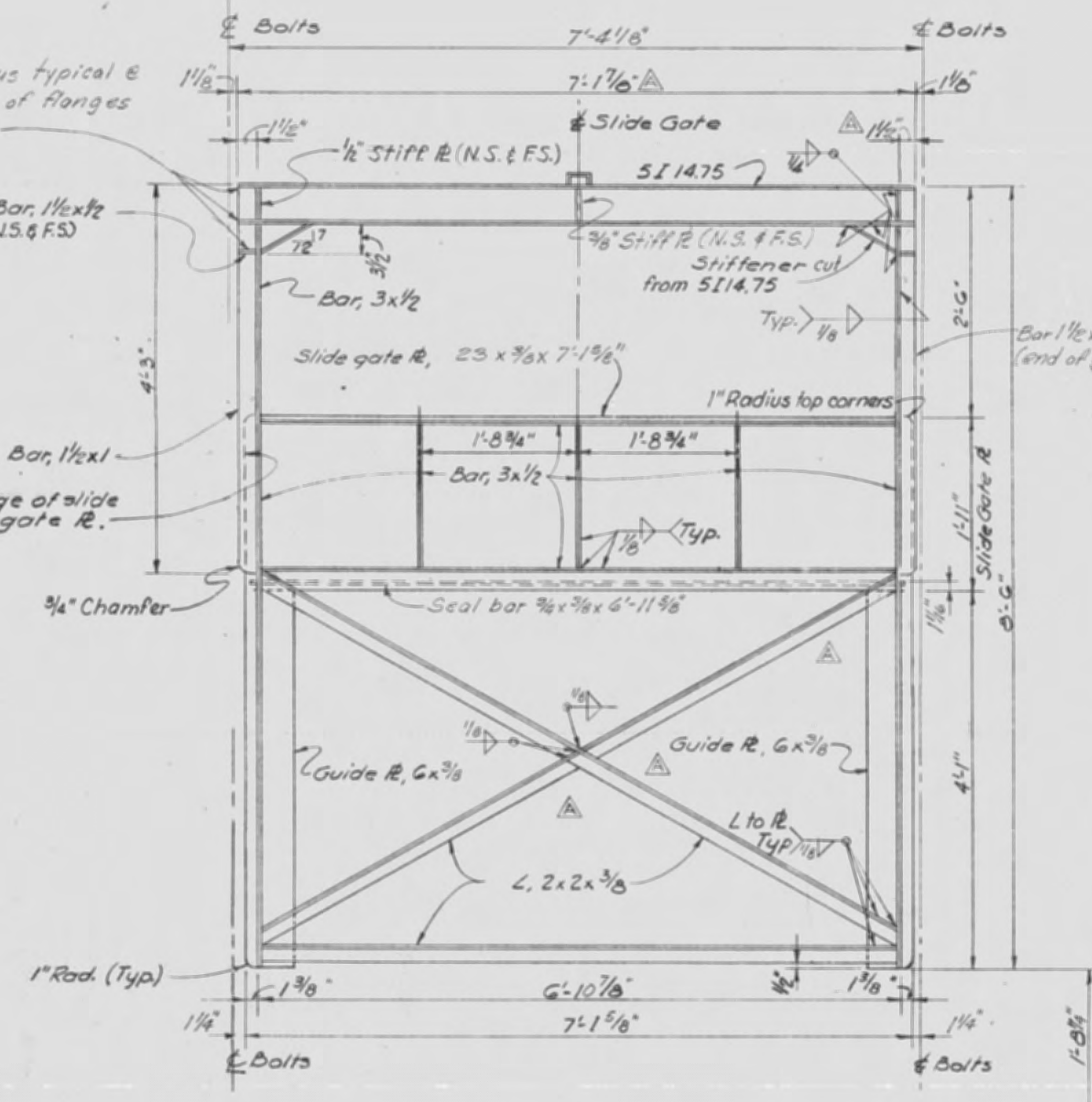
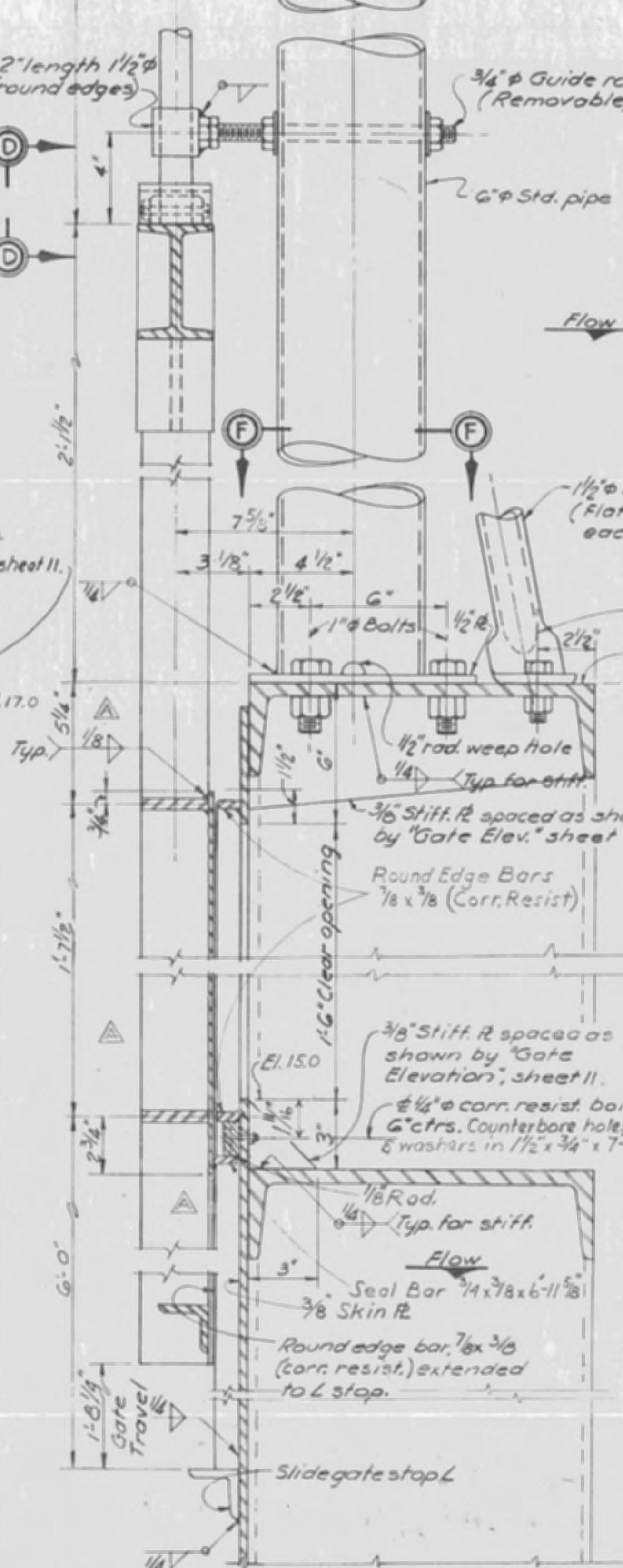
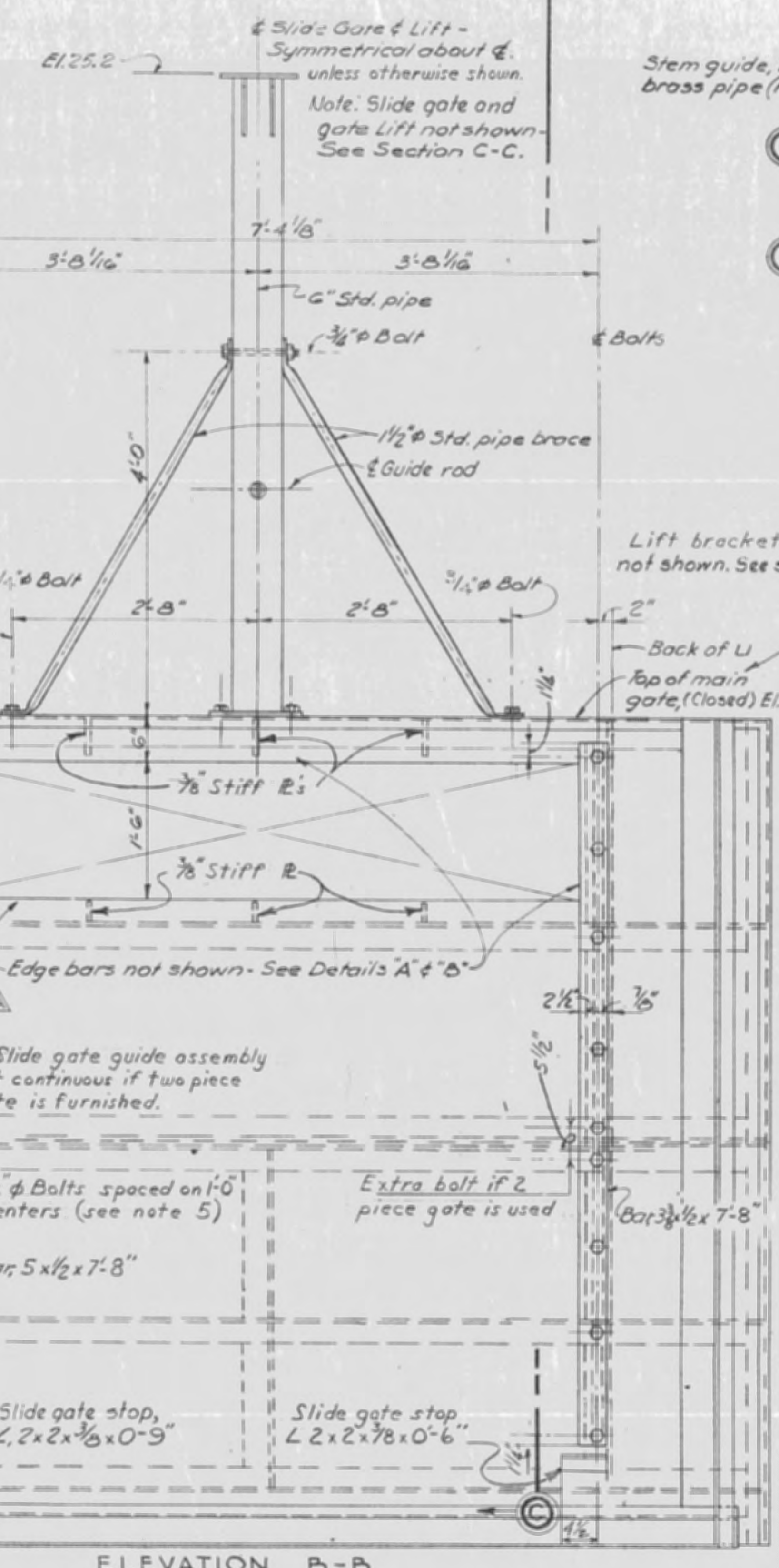
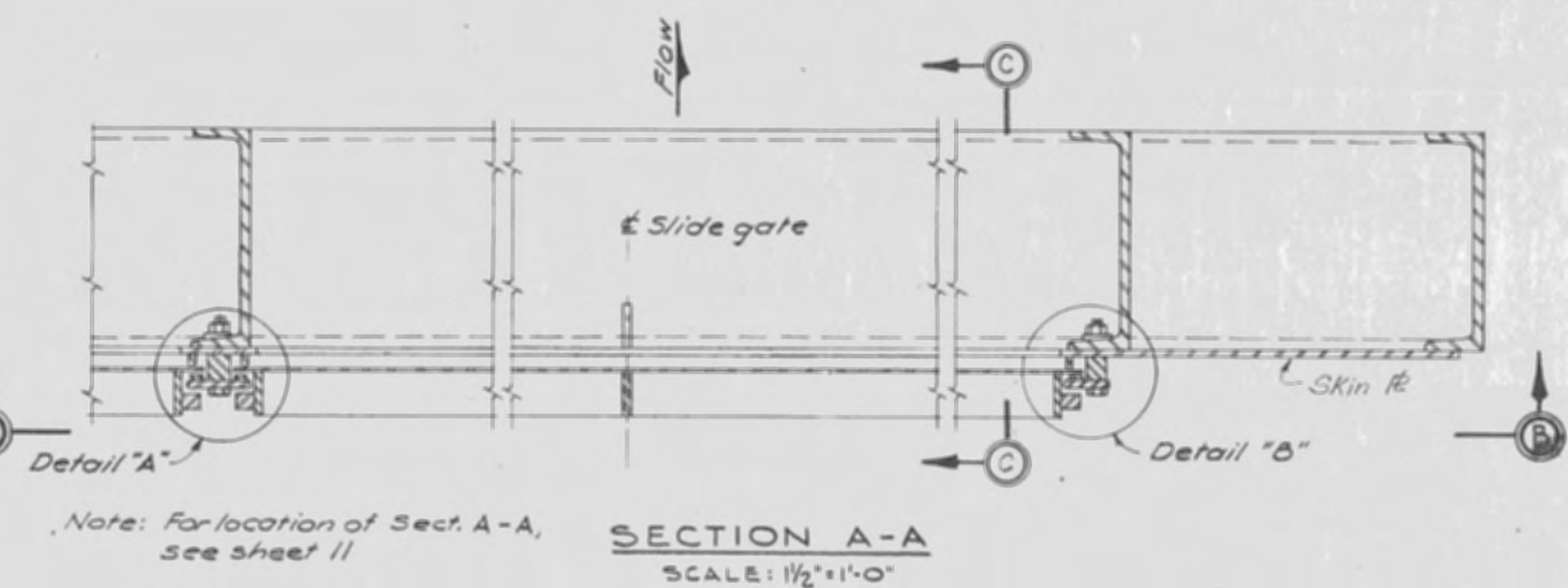
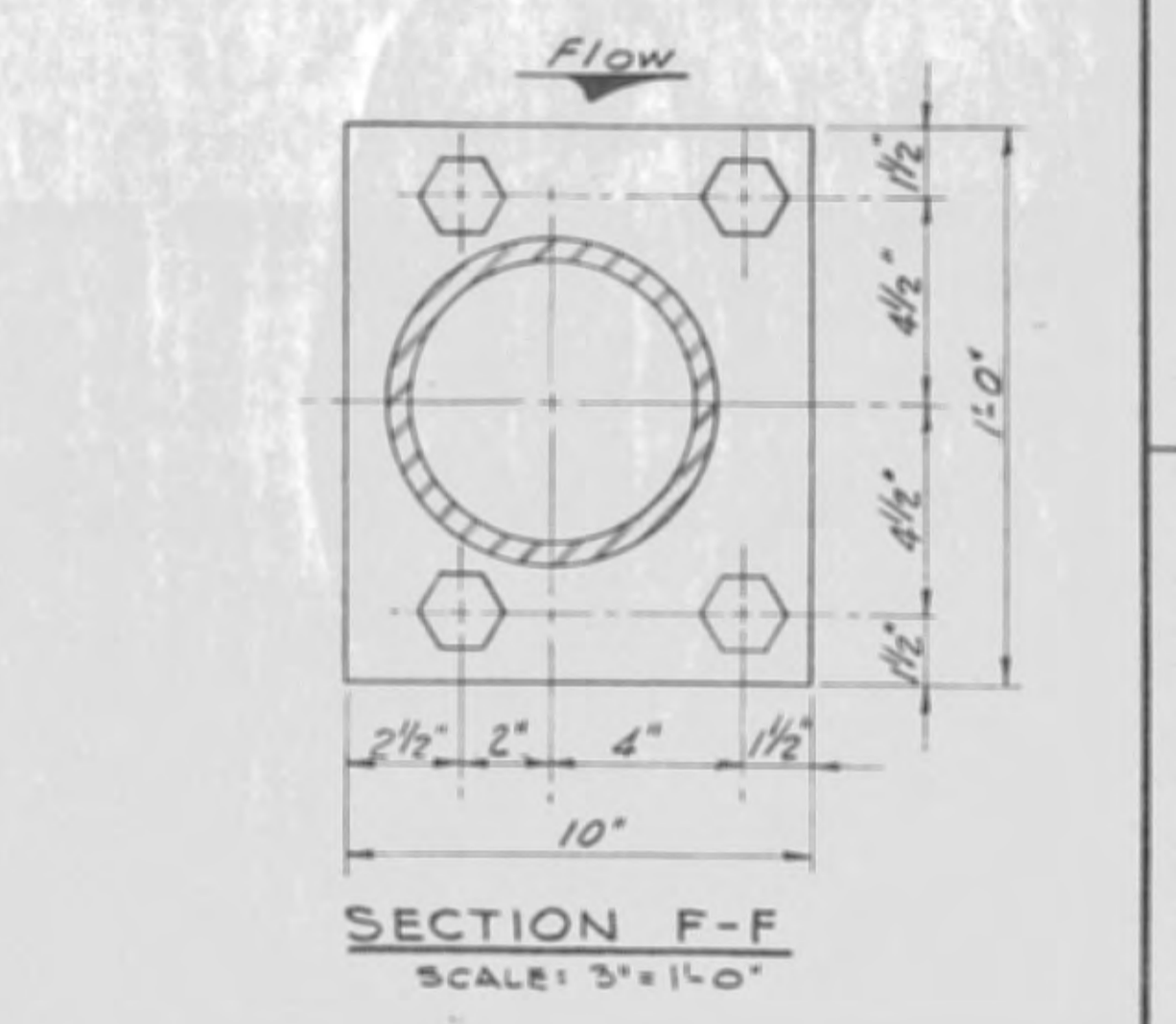
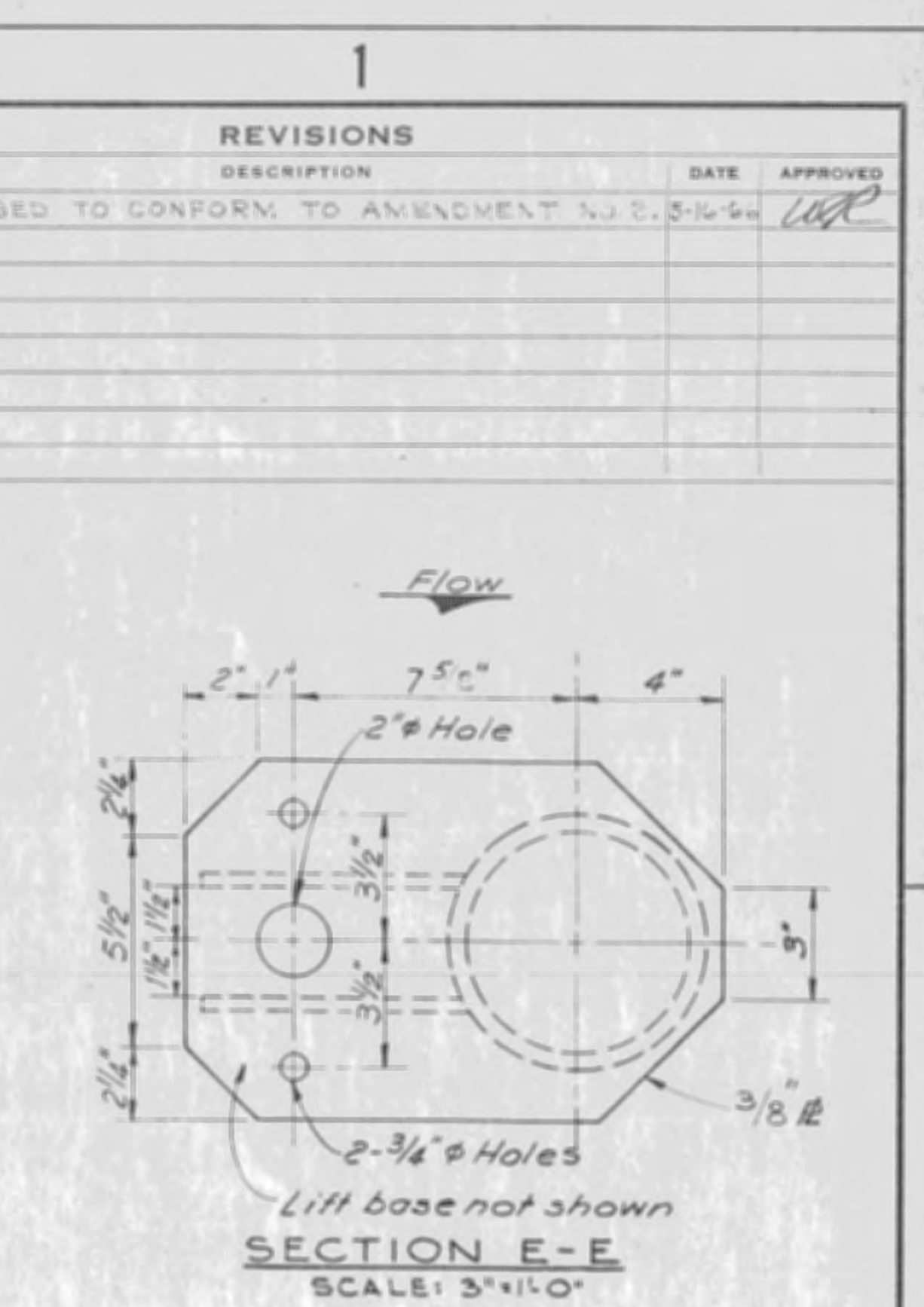
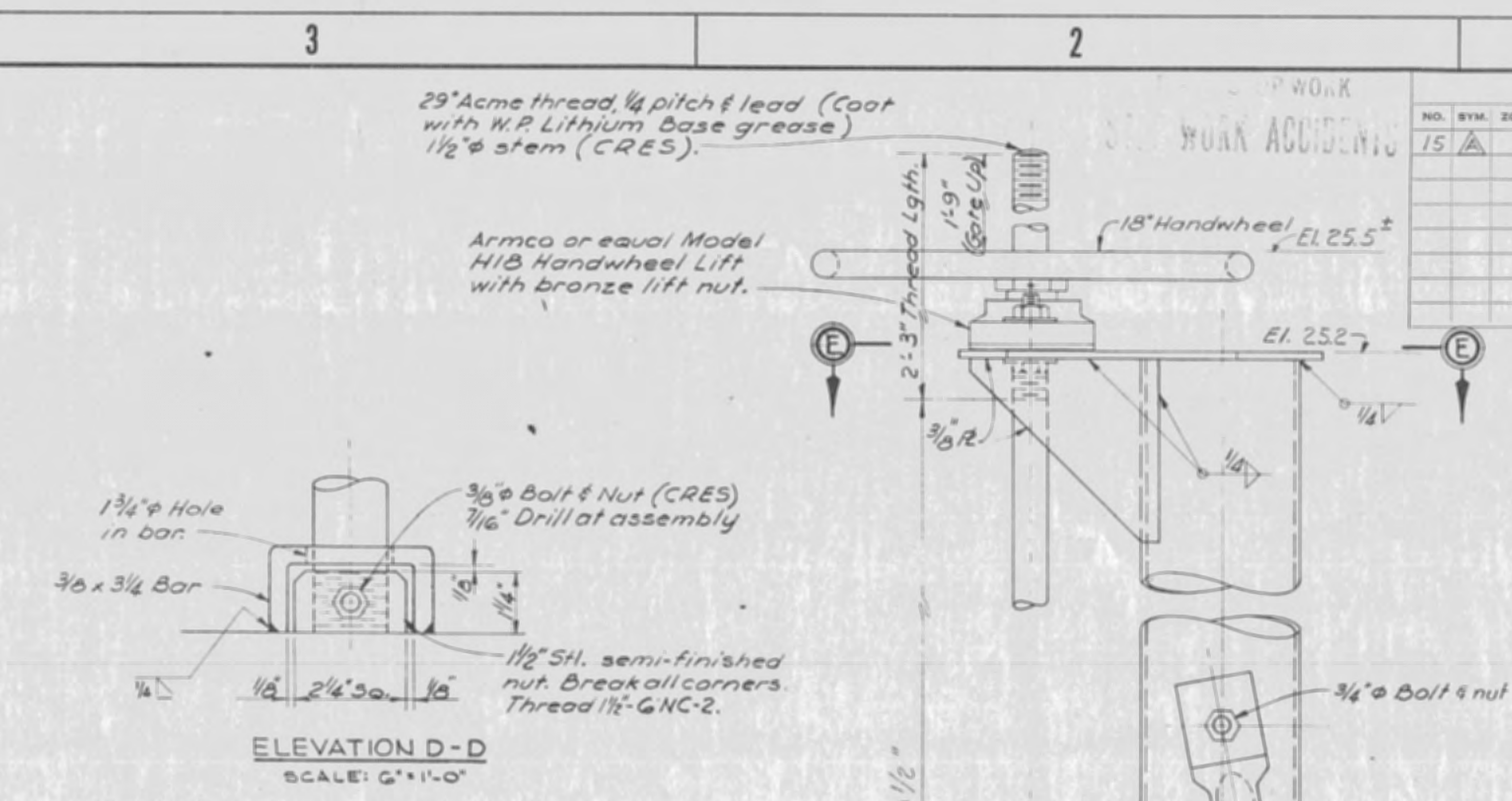
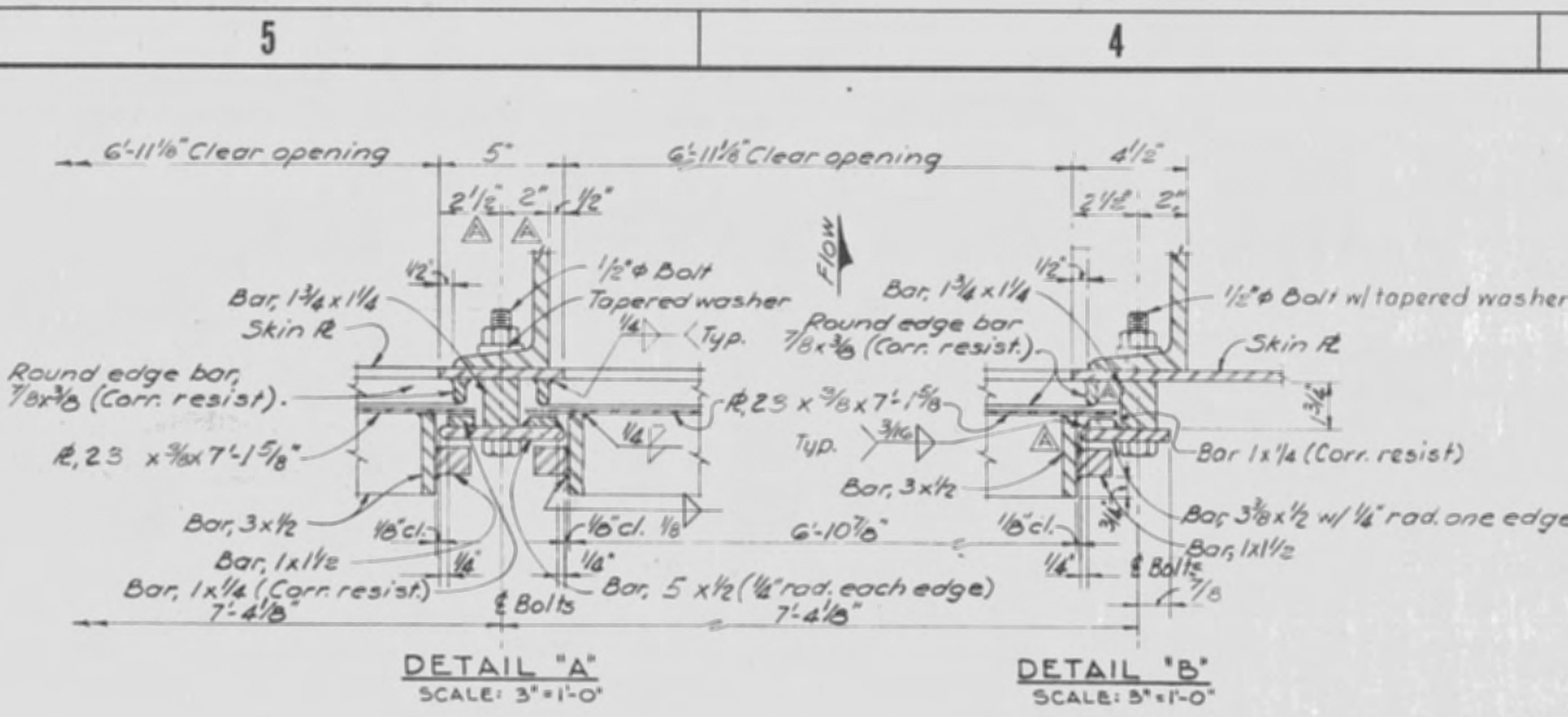
AS BUILT
 U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA
 CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL 54, SECTION 2
 STRUCTURE-157
 MAIN GATES

DATE: 28 APRIL 1966
 SCALE: AS SHOWN
 SHEET 41 OF 72



- GATE NOTES:**
- 3/8" SKIN R TO BE ATTACHED TO FRAME MEMBERS WITH CONTINUOUS 3/16" FILLET WELDS ON BOTH SIDES OF EACH CONTACT FLANGE.
 - 1/2" RUBBER GASKET REQUIRED BETWEEN GATE SECTIONS FOR ALTERNATE "A". BOLT SECTIONS TOGETHER WITH 1" Ø BOLTS ON 6" ALTERNATE CENTERS. PROVIDE DOWELS, AS SHOWN IN "DOWEL DETAIL", FOR ACCURATE POSITIONING OF UPPER AND LOWER GATE SECTIONS AT FINAL ASSEMBLY.
 - 15" O.D. ROLLERS ARE TO HAVE A RIM, AS SHOWN IN THE "GATE RECESS" DETAIL, WHERE A RIM IS INDICATED IN THE "GATE ELEVATION" ABOVE. ALL OTHER ROLLERS ARE NOT TO HAVE A RIM OR FILLET.
 - ALL CHANNELS 18 x 42.7.
 - 3/8" SKIN R NEAR SIDE NOT SHOWN EXCEPT AT BOTTOM OF GATE.
 - HORIZONTAL DIMENSIONS, MATERIALS, AND CONNECTIONS FOR ALTERNATE "B" ARE THE SAME AS FOR ALTERNATE "A".





RECORD DRAWING NOTE

"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

- NOTES:**
- ALL MATERIAL STRUCTURAL STEEL UNLESS OTHERWISE NOTED.
 - ALL MATERIAL NOTED ON THIS SHEET AS CORROSION RESISTING OR CRES SHALL BE CORROSION RESISTING STEEL TYPE 304 OR 410.
 - ALL BOLTS, NUTS AND WASHERS (EXCEPT CORROSION RESISTING STEEL) SHALL BE GALVANIZED. ALL BOLTS SHALL BE FURNISHED WITH ONE NUT AND WASHER UNLESS OTHERWISE INDICATED.
 - ALL GALVANIZED ITEMS SHALL BE GALVANIZED AFTER FABRICATION.
 - BOLTS FOR SLIDE GATE GUIDE BARS SHALL BE SPACED 1'-0" ON CENTERS, EXCEPT WHERE THEY PASS THROUGH A HORIZONTAL CHANNEL, THEY ARE TO BE PLACED ON THE GATE LINE.
 - FURNISH THREE SLIDE GATES COMPLETE WITH GUIDES, AS DETAILED ON THIS SHEET.

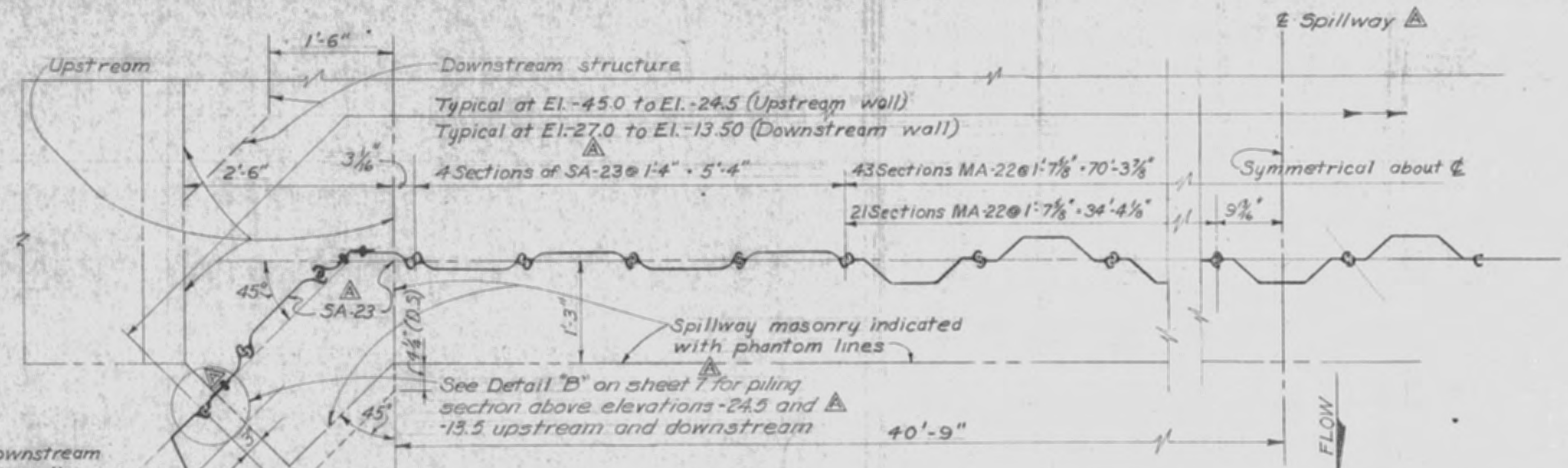
AS BUILT



U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE-157
SLIDE GATES

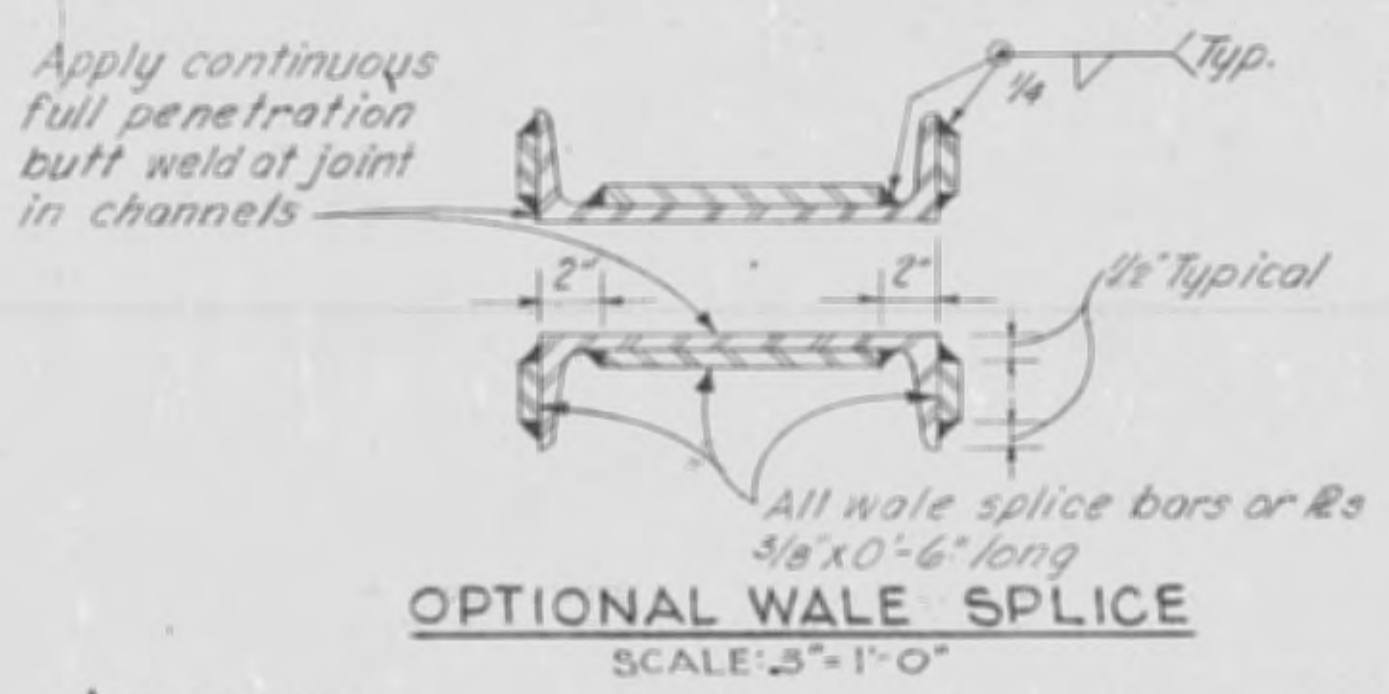
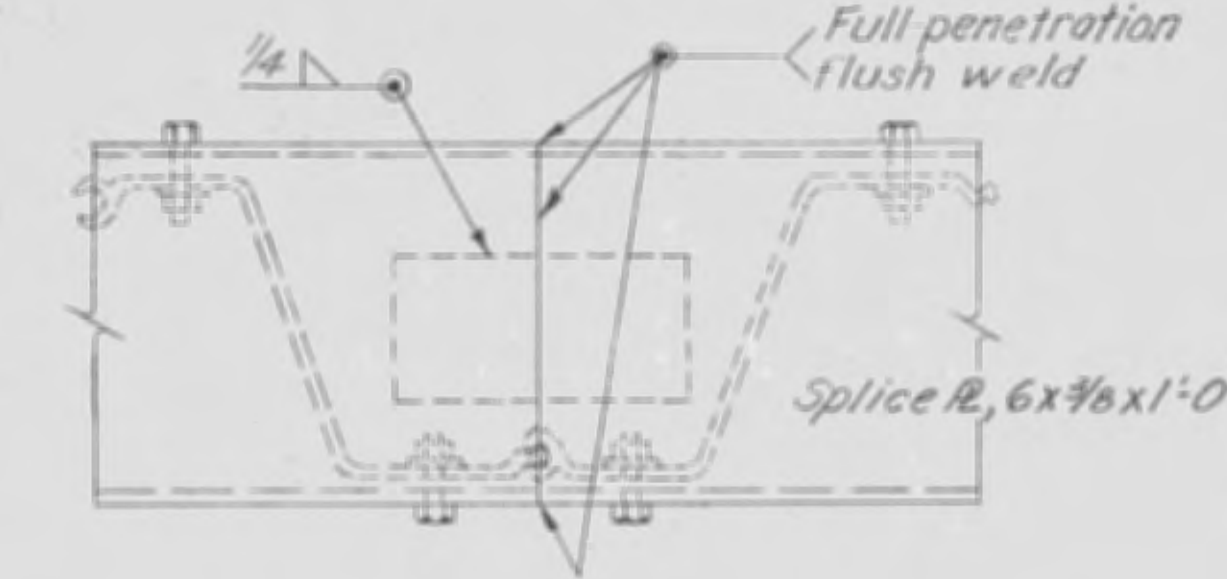
H.H. Des J.J. CIV. ENGR. 2817-44-44
M.G.L. Des T.M.R. CIV. ENGR. 1966
SCALE: AS SHOWN
APRIL 1966
SHEET 18 OF 22

| REVISIONS | | | | |
|-----------|----|---------|---|---------------|
| NO. | BY | DATE | DESCRIPTION | APPROVED |
| 26 | AS | 2/14/66 | REVISED TO CONFORM TO AMENDMENT NO. 2 | UJG |
| 3 | AS | 2-2-66 | REVISED DOWNSTREAM ABUTMENT ADDED 3" CHAMFER AT PILE CAP TO ACCOMPANY MOD. TO CONTRACT CIV. ENG. 12-109 | P. J. GARDNER |

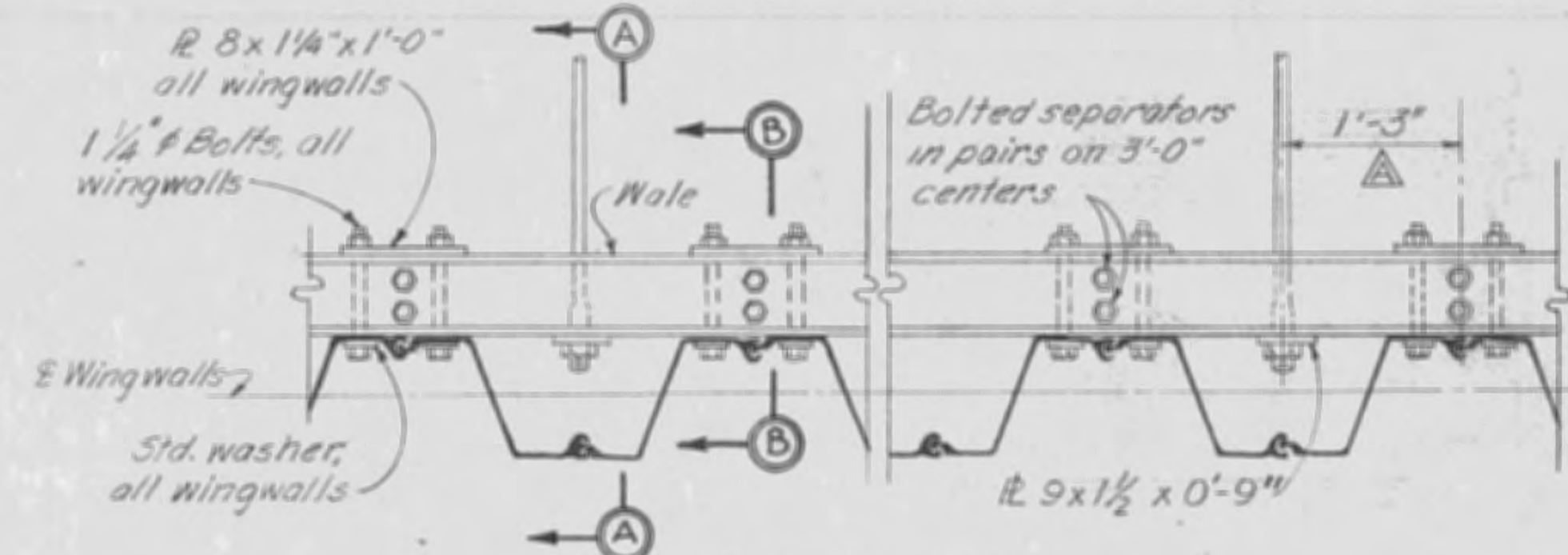
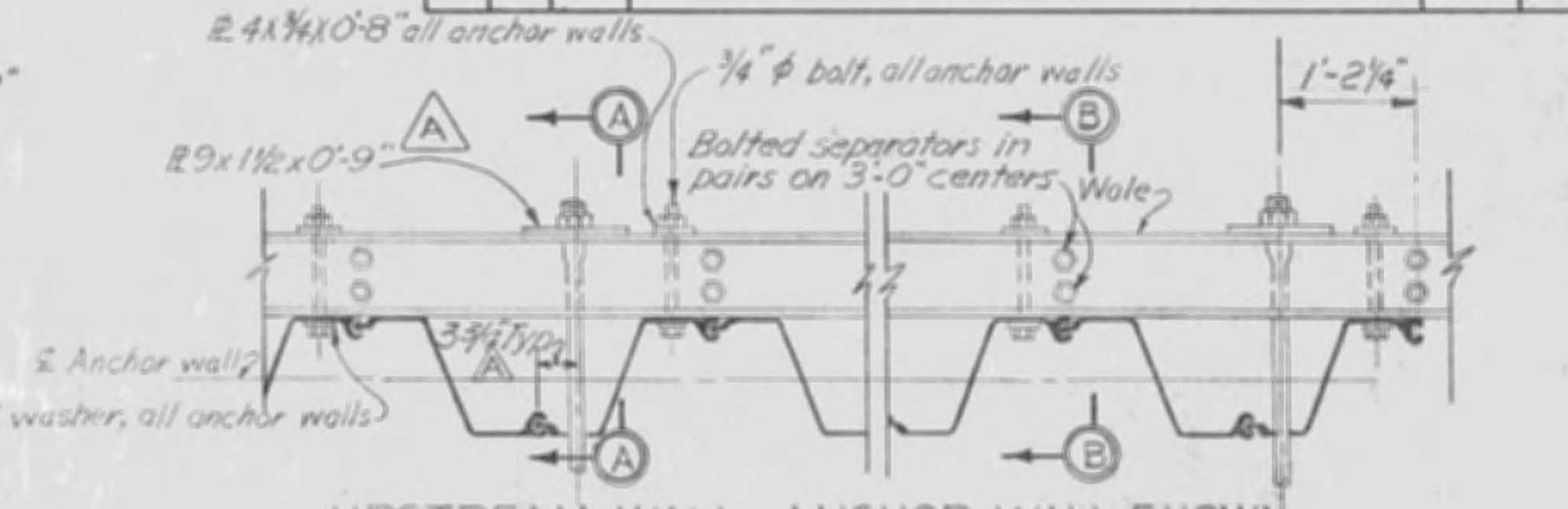


CUT-OFF WALLS
SCALE: 1" = 1'-0"
DOWNSTREAM WALL SHOWN
UPSTREAM WALL OPP. HAND

- NOTES: FABRICATED PILING SECTIONS:**
1. SPLICE PLATES AND ANGLES USED ON FABRICATED SECTIONS OF PILING TO BE EQUAL IN THICKNESS TO THE THICKEST PILING WEB JOINED.
 2. FABRICATE SECTIONS WITH 7/8" Ø RIVETS SPACED AT 3" CTRS. AT THE TOP AND BOTTOM 2' OF THE SECTION AND SPACED AT 6" CTRS. BETWEEN.
 3. WELDING OF FABRICATED SECTION OF PILING IN LIEU OF RIVETING WILL BE ACCEPTED IF WELDS ARE SIZED TO PROVIDE STRENGTH EQUIVALENT TO REQUIRED RIVETS AT INDICATED SPACING.
 4. CUT OFF PILING LAYOUT AND FABRICATED CONNECTION DETAILS TO WINGWALLS SHOWN ABOVE MAY BE VARIED TO AN EQUIVALENT LAYOUT. APPROVAL BY THE CONTRACTING OFFICER IS REQUIRED.

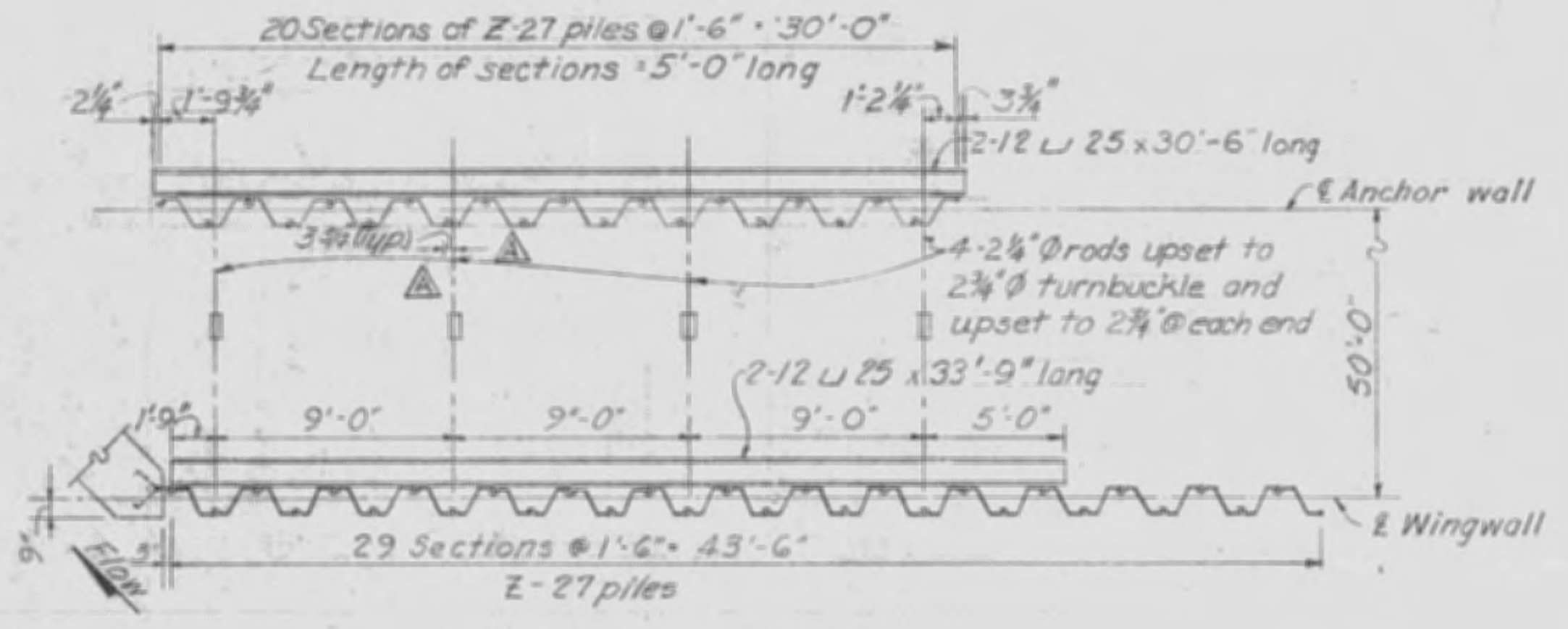
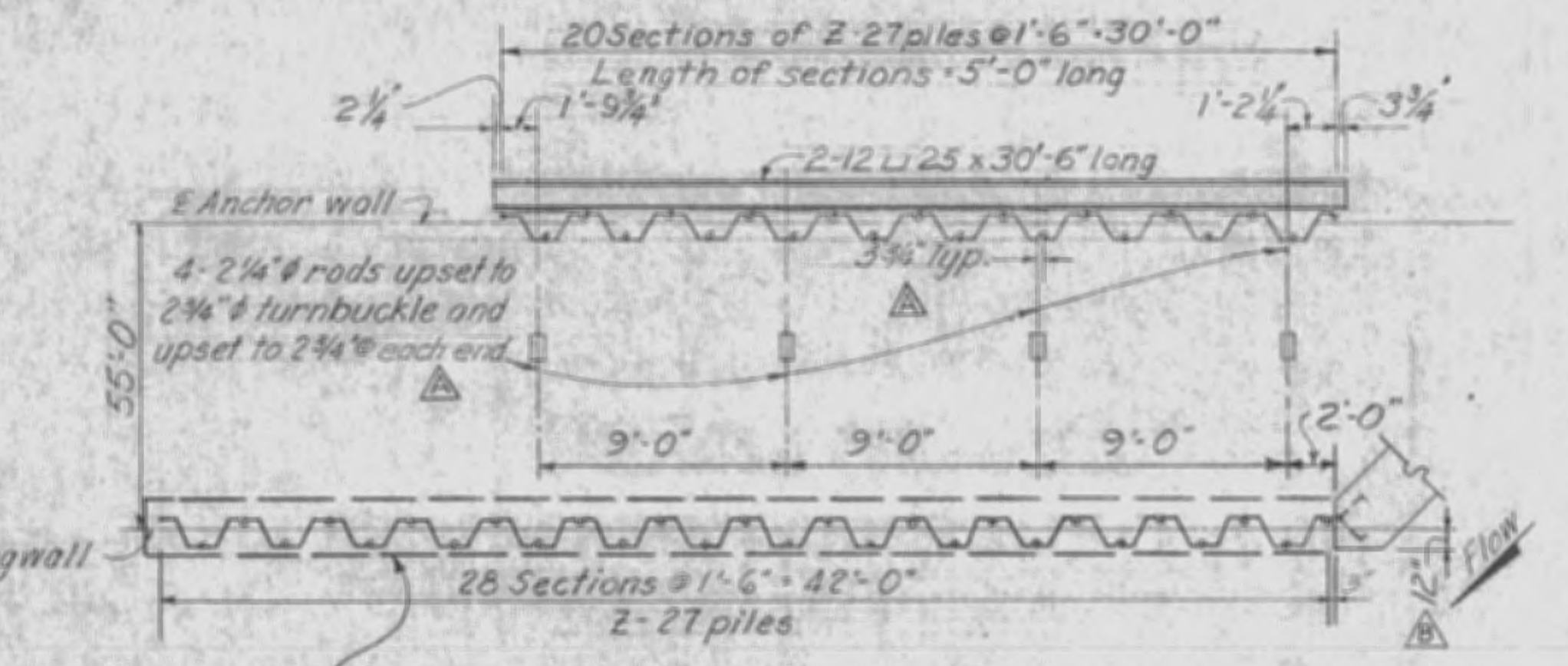
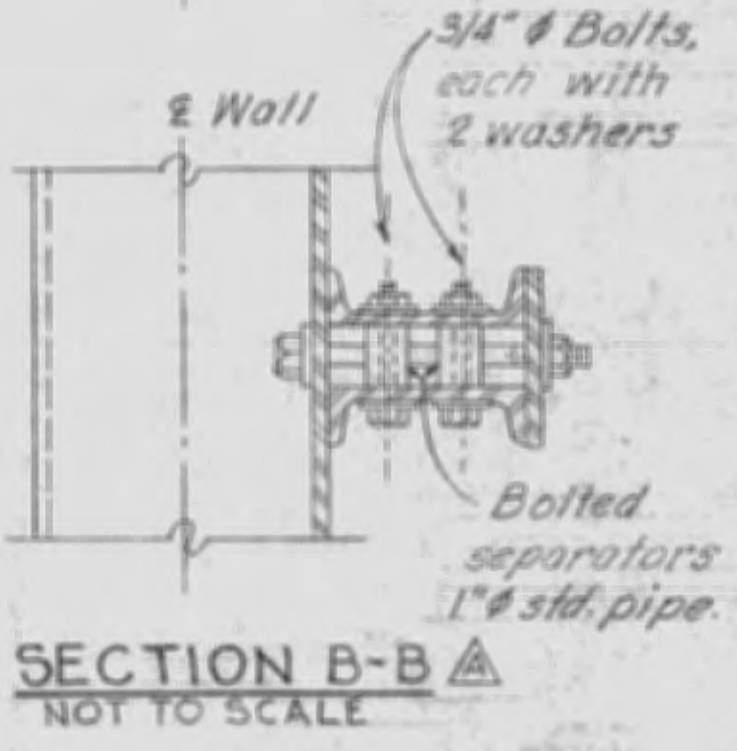
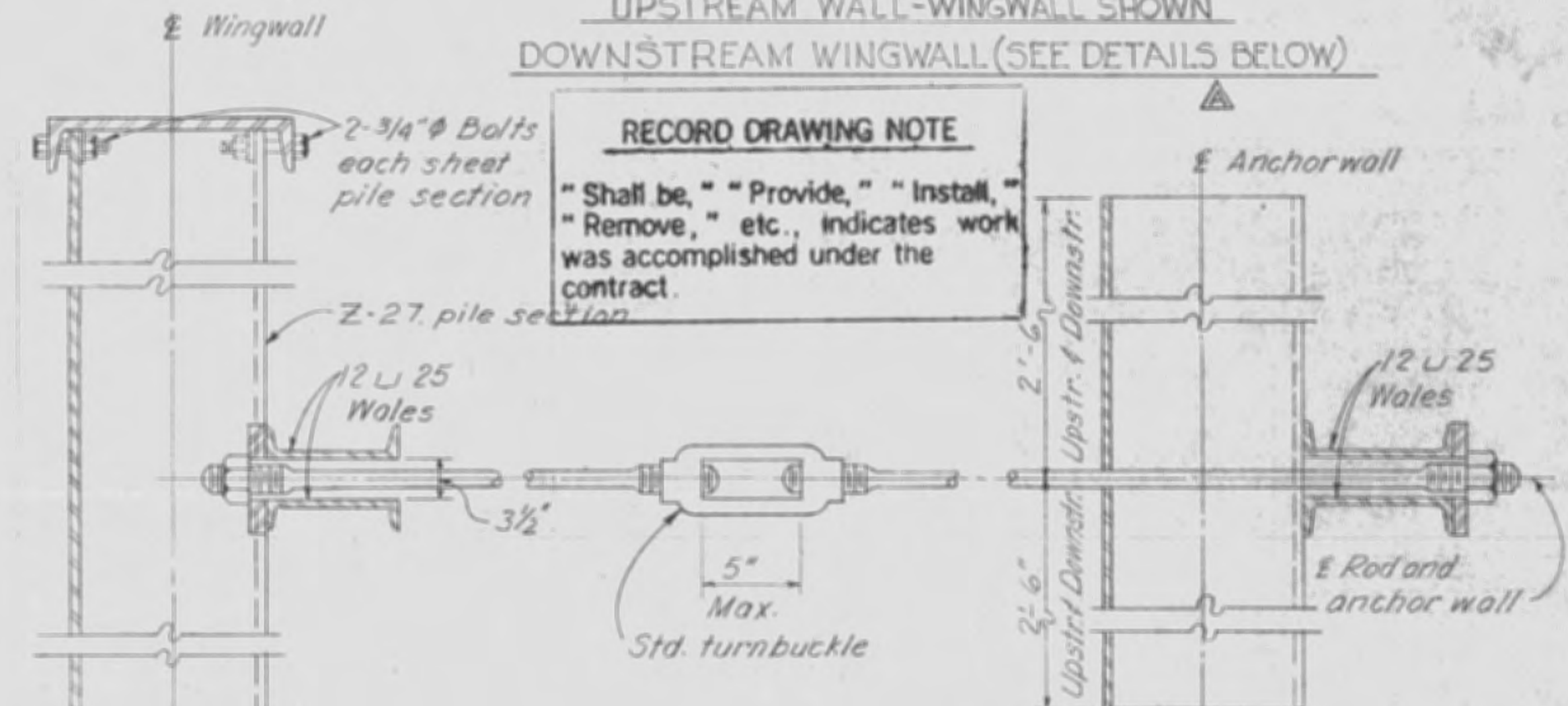


- SPLICE NOTES:**
1. WALES ON THE UPSTREAM WALL MAY BE SPLICED AT THE OPTION OF CONTRACTOR. IF SPLICE IS USED THE SPLICE IS TO BE PLACED NOT LESS THAN 1'-6" OR MORE THAN 3'-0" FROM C OF THE NEAREST TIE ROD.
 2. PILE CAPS MAY BE SPLICED AT OPTION OF CONTRACTOR USING DETAIL SHOWN ABOVE.



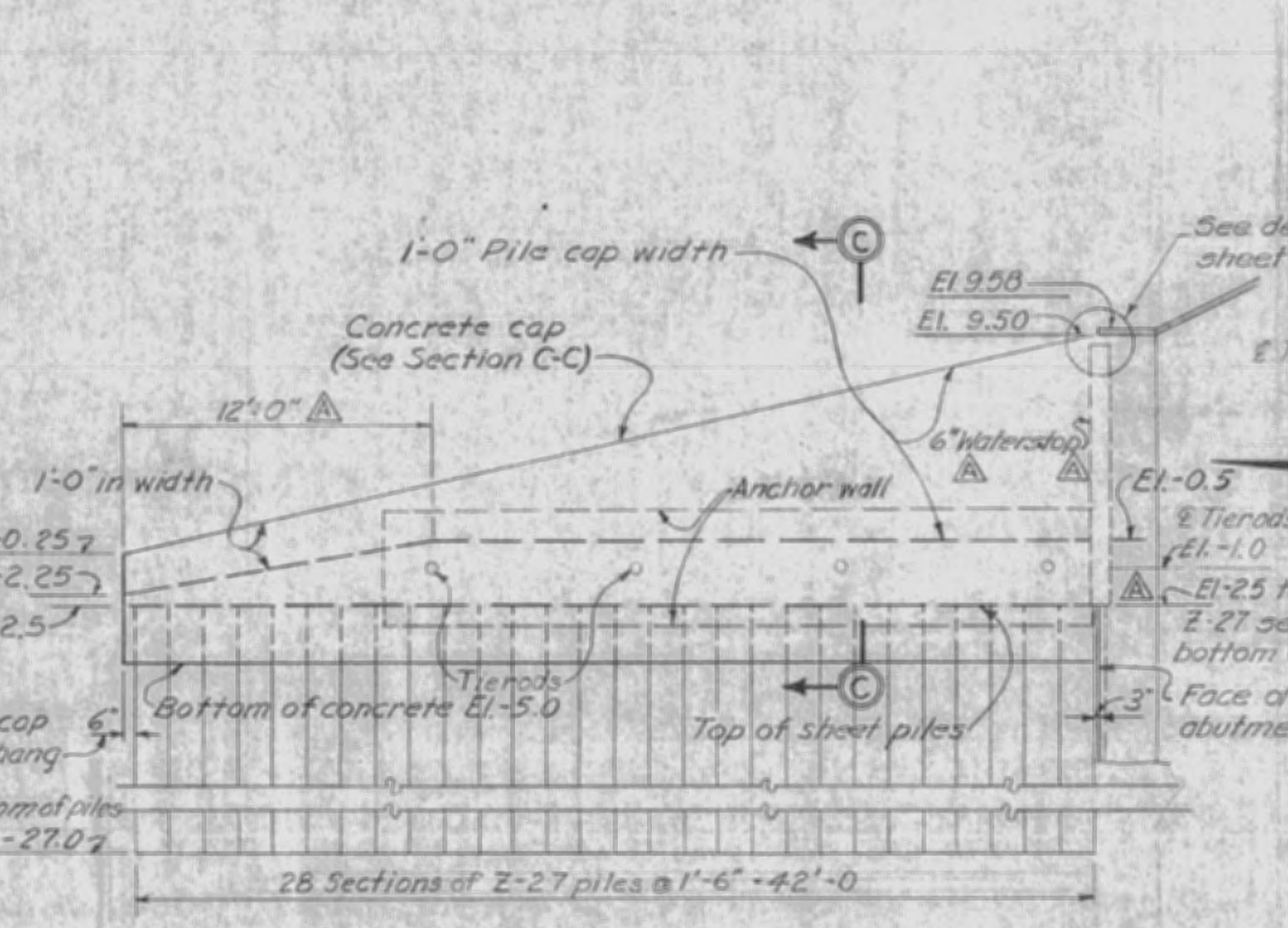
PART PLAN
NOT TO SCALE

RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.



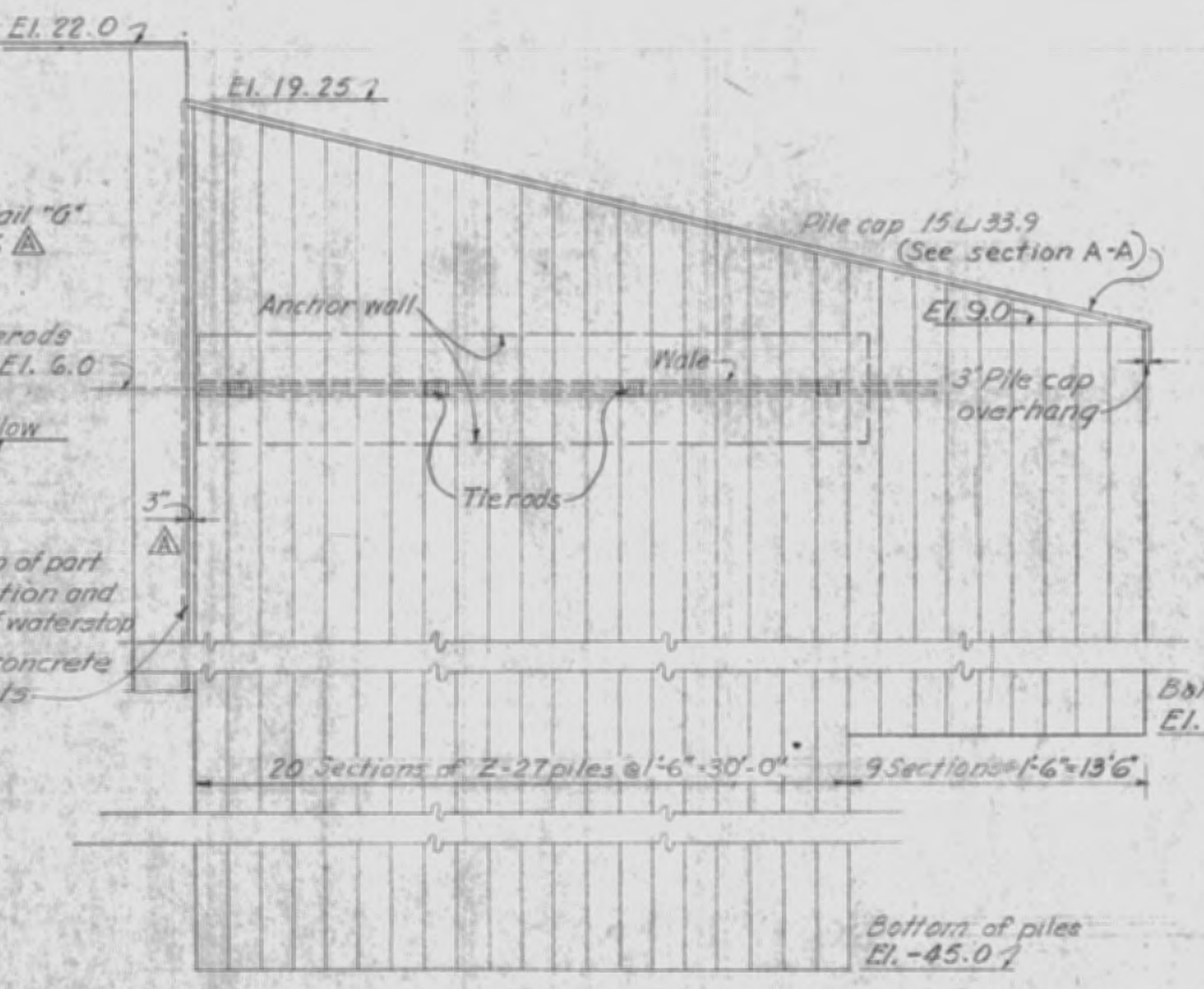
SECTIONAL PLAN DOWNSTREAM WALL

SECTIONAL PLAN UPSTREAM WALL

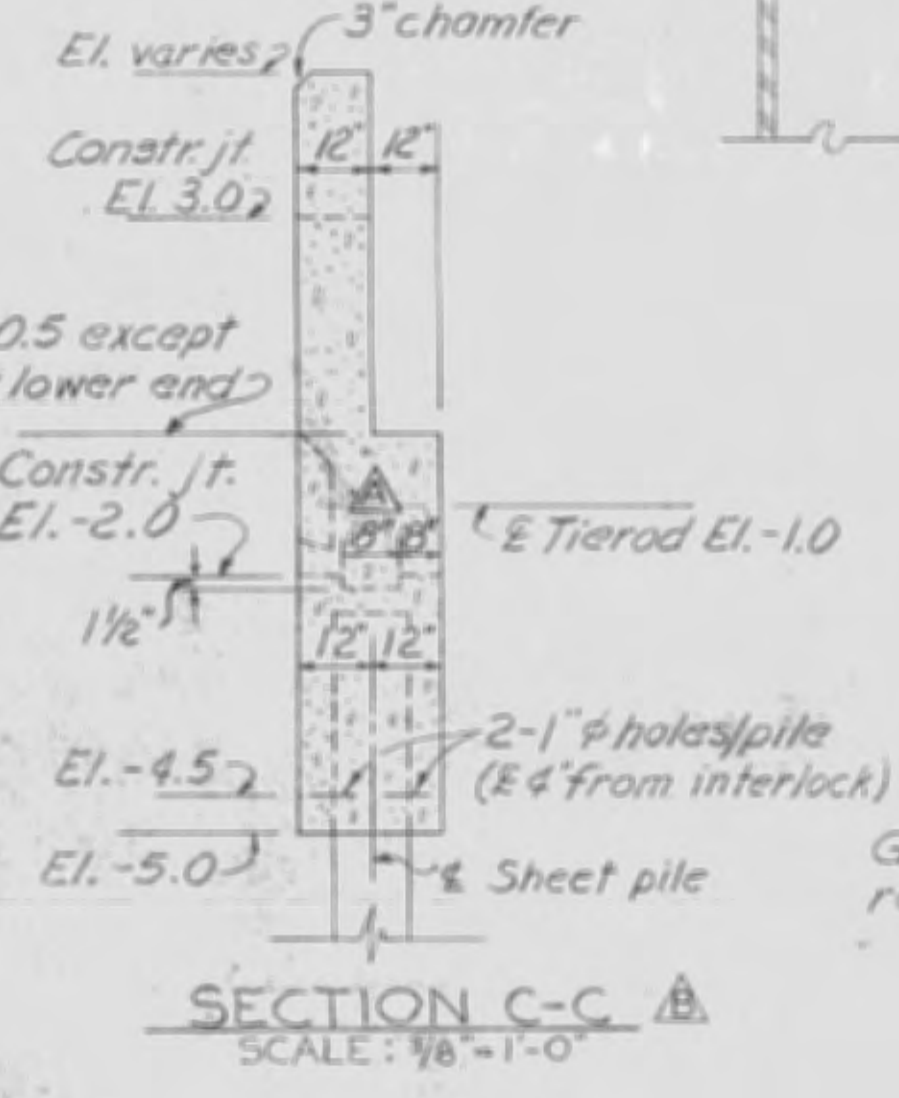


ELEVATION

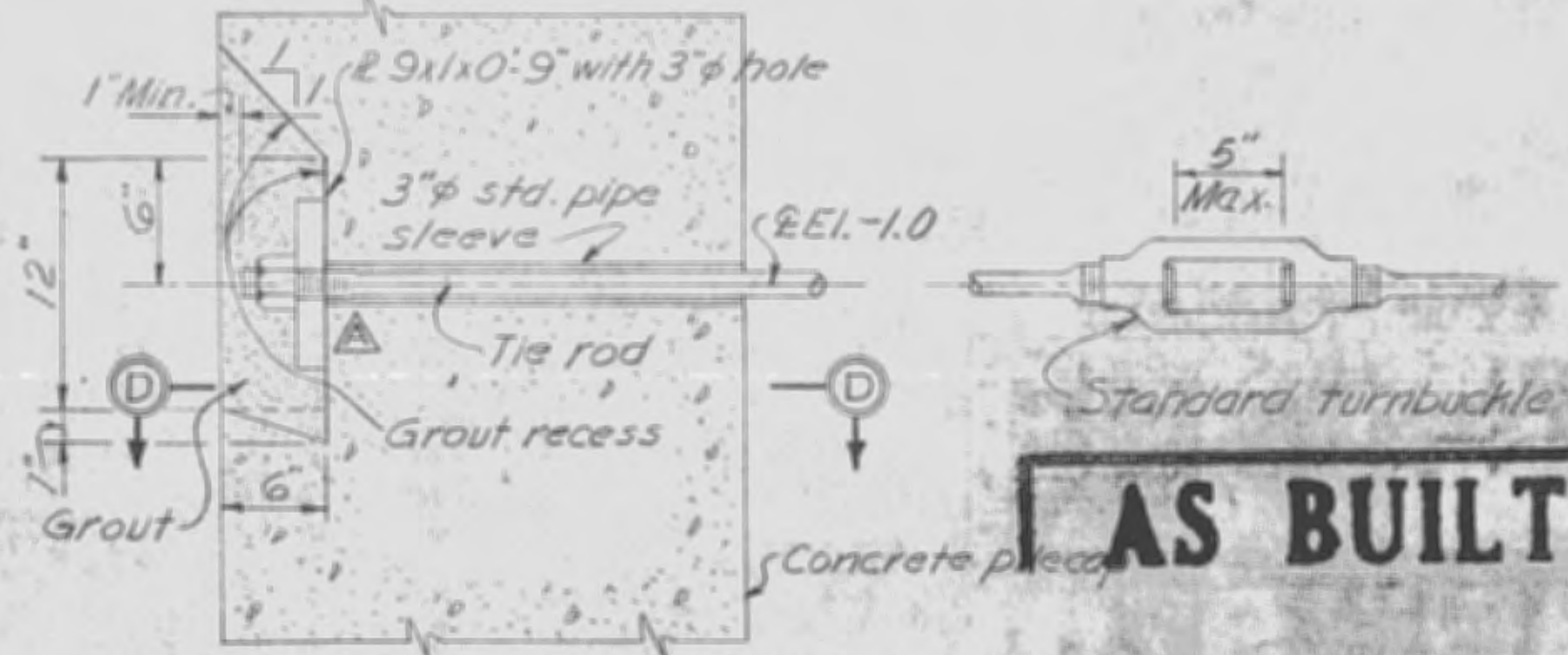
WINGWALLS
SCALE: 3/16" = 1'-0"



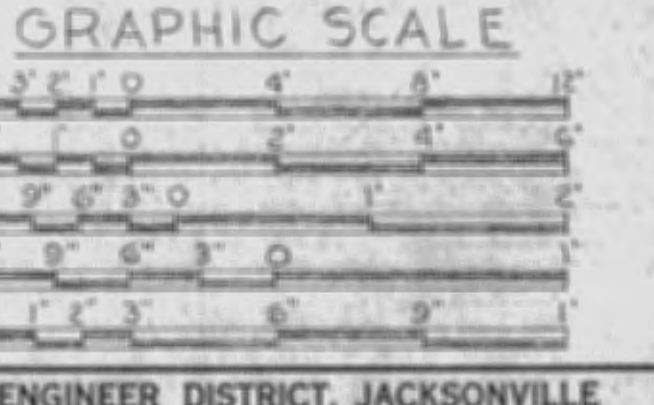
ELEVATION



SECTION C-C
SCALE: 3/8" = 1'-0"



SECTION AT TIE ROD
(NOT TO SCALE)

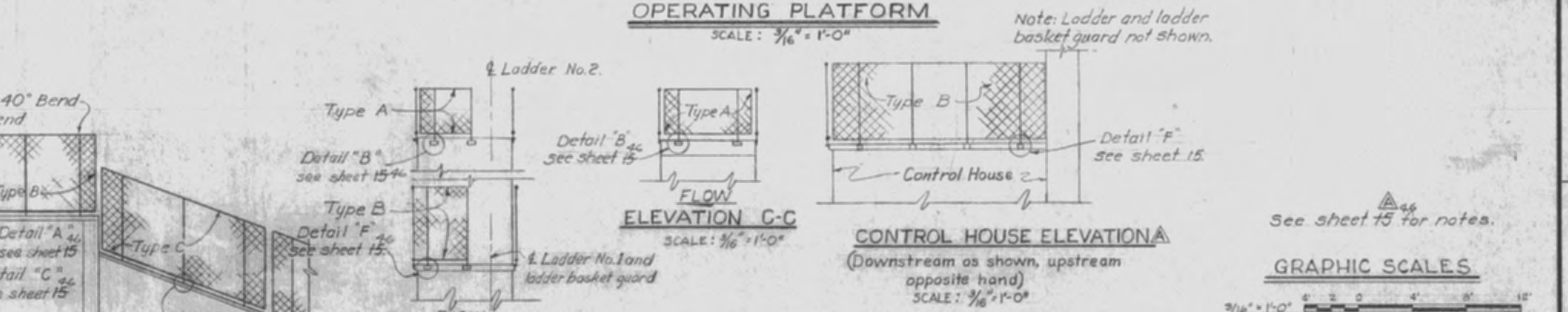
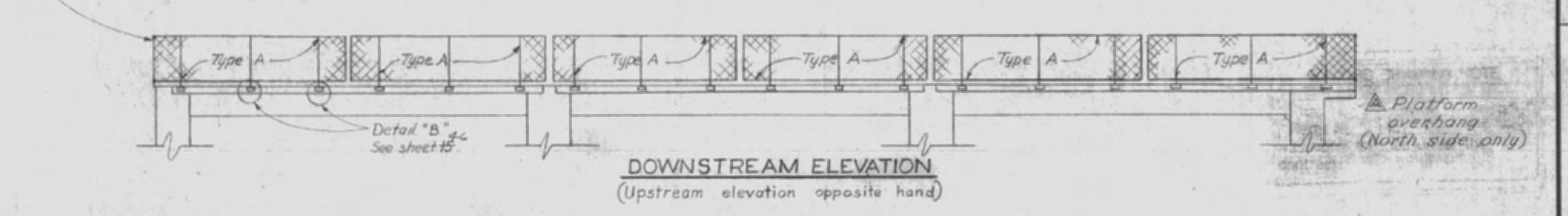
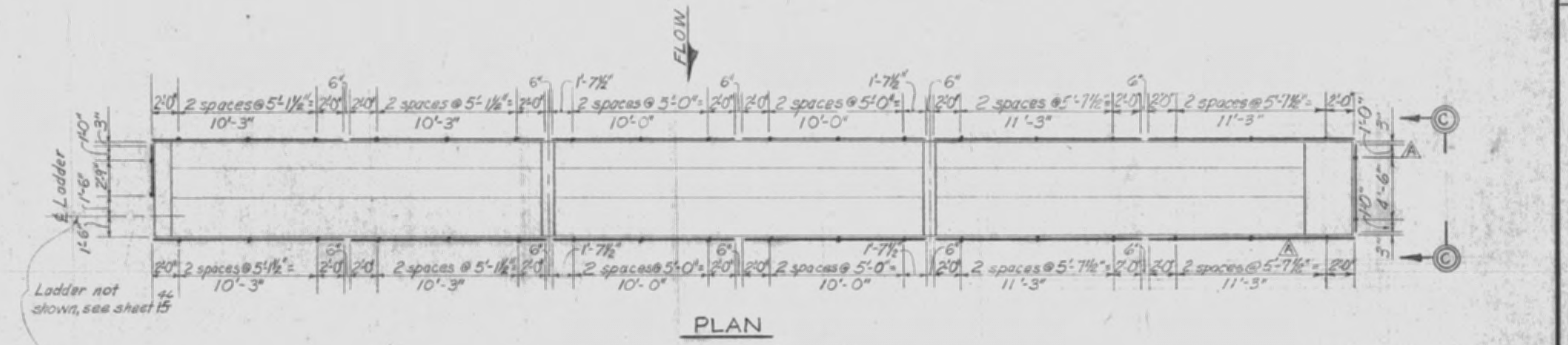
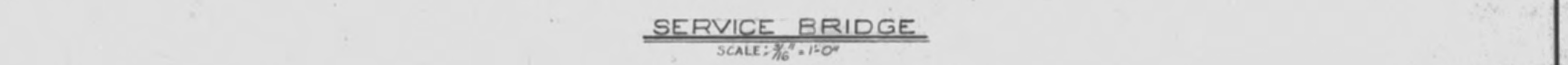
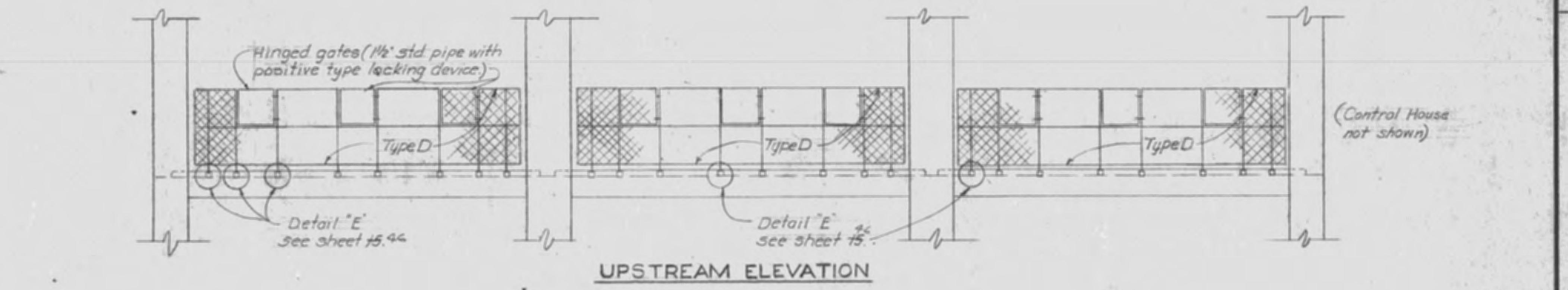
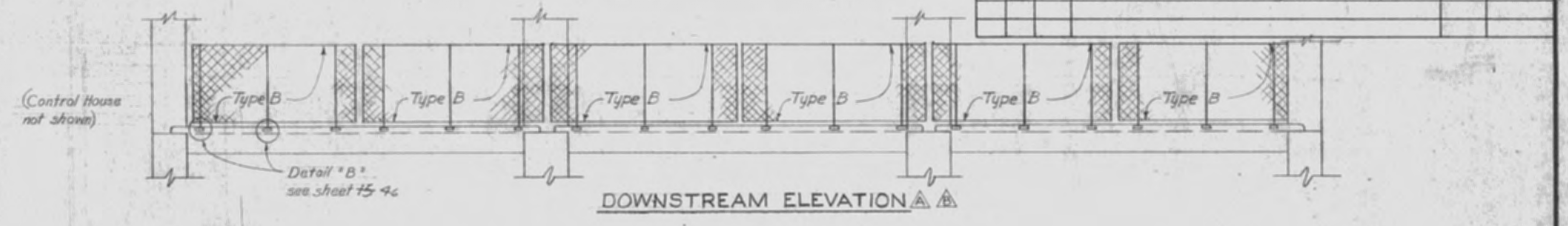
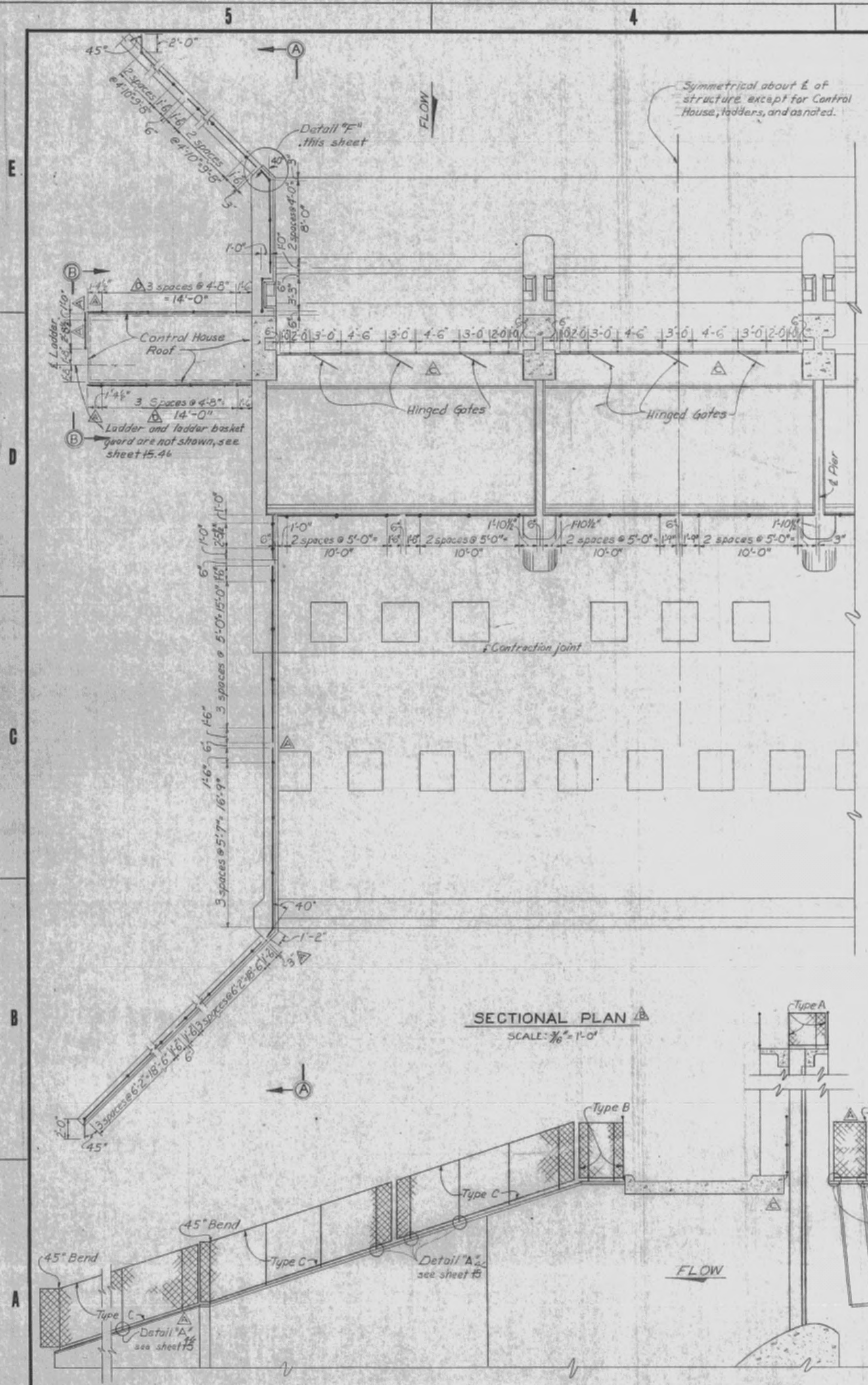


U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE - 157
WINGWALLS

| | | | | | | |
|-----|--------|--------|-------|---------------|------------|------------|
| HHH | CHK BY | D.J.K. | DATE | 28 APRIL 1966 | DESIGN NO. | F |
| ASP | CHK BY | T.M.R. | SCALE | AS SHOWN | DATE | APRIL 1966 |

SHEET 13 OF 72

| REVISIONS | | | | | |
|-----------|------|------|--|---------|-------------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
| 15 | ▲ | | REVISED TO CONFORM TO AMENDMENT NO. 2, 3-16-64 | 3-16-64 | [Signature] |
| 4 | ▲ | | ADDED HANDRAIL AND REVISED EXISTING HANDRAIL TO ACCOMPANY MOD TO CONTROL HOUSE | 2-26-64 | [Signature] |
| 3 | ▲ | | REVISED HANDRAIL TO MEET LOCAL CODES AND TO MEET AESTHETIC HANDRAIL ON CONTROL HOUSE | 2-26-64 | [Signature] |
| 2 | ▲ | | REVISED HANDRAIL ON CONTROL HOUSE | 1-3-67 | [Signature] |



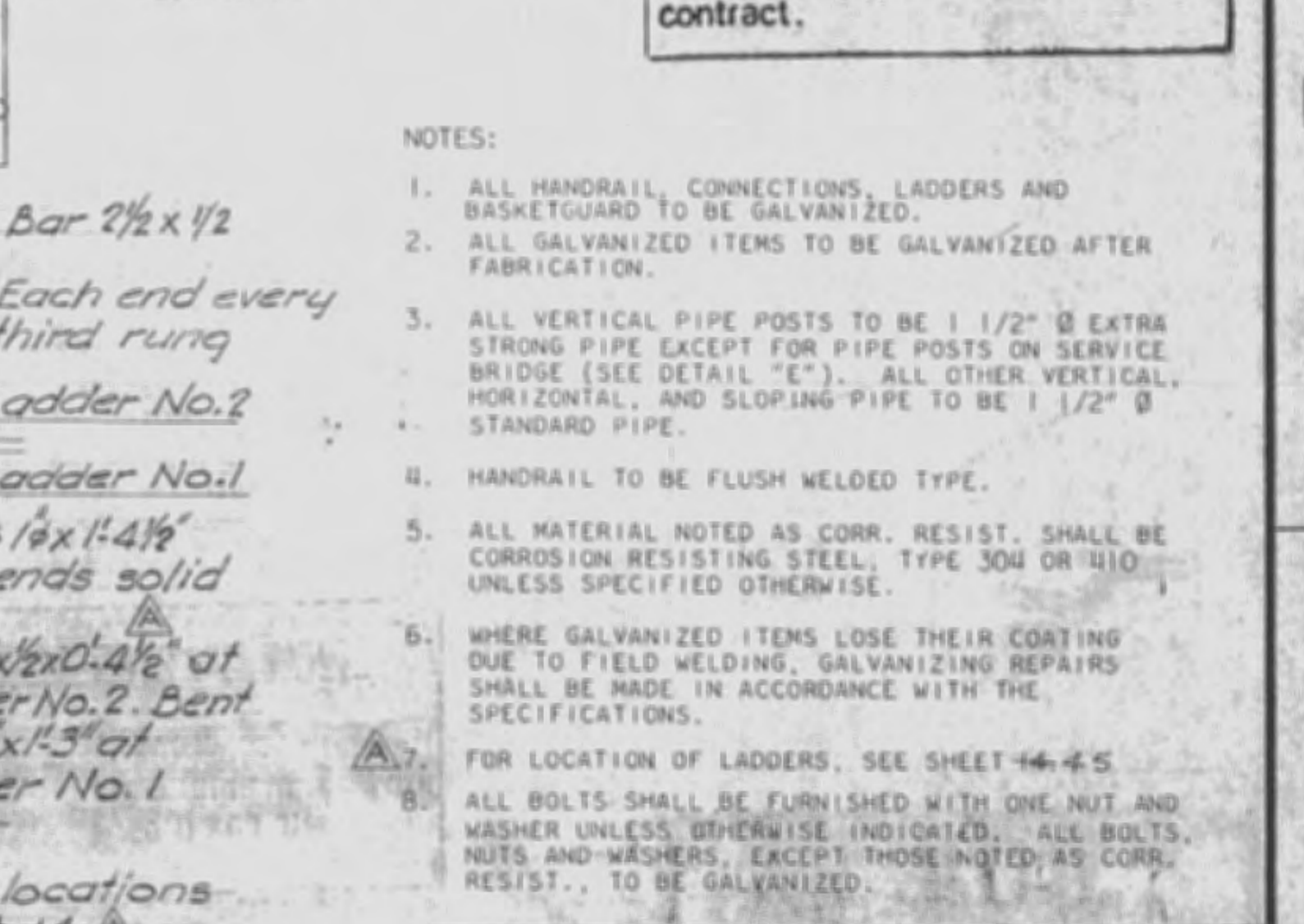
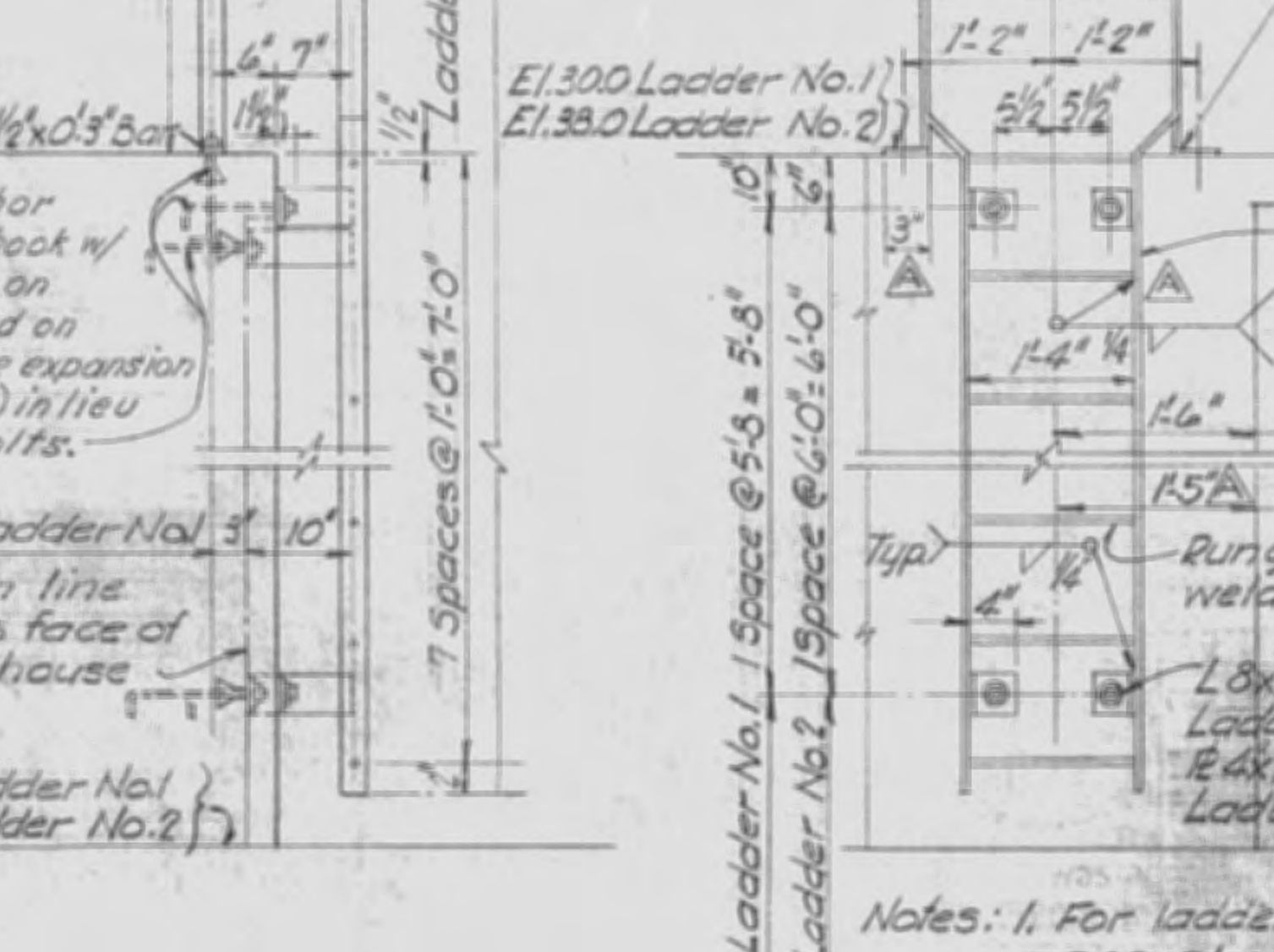
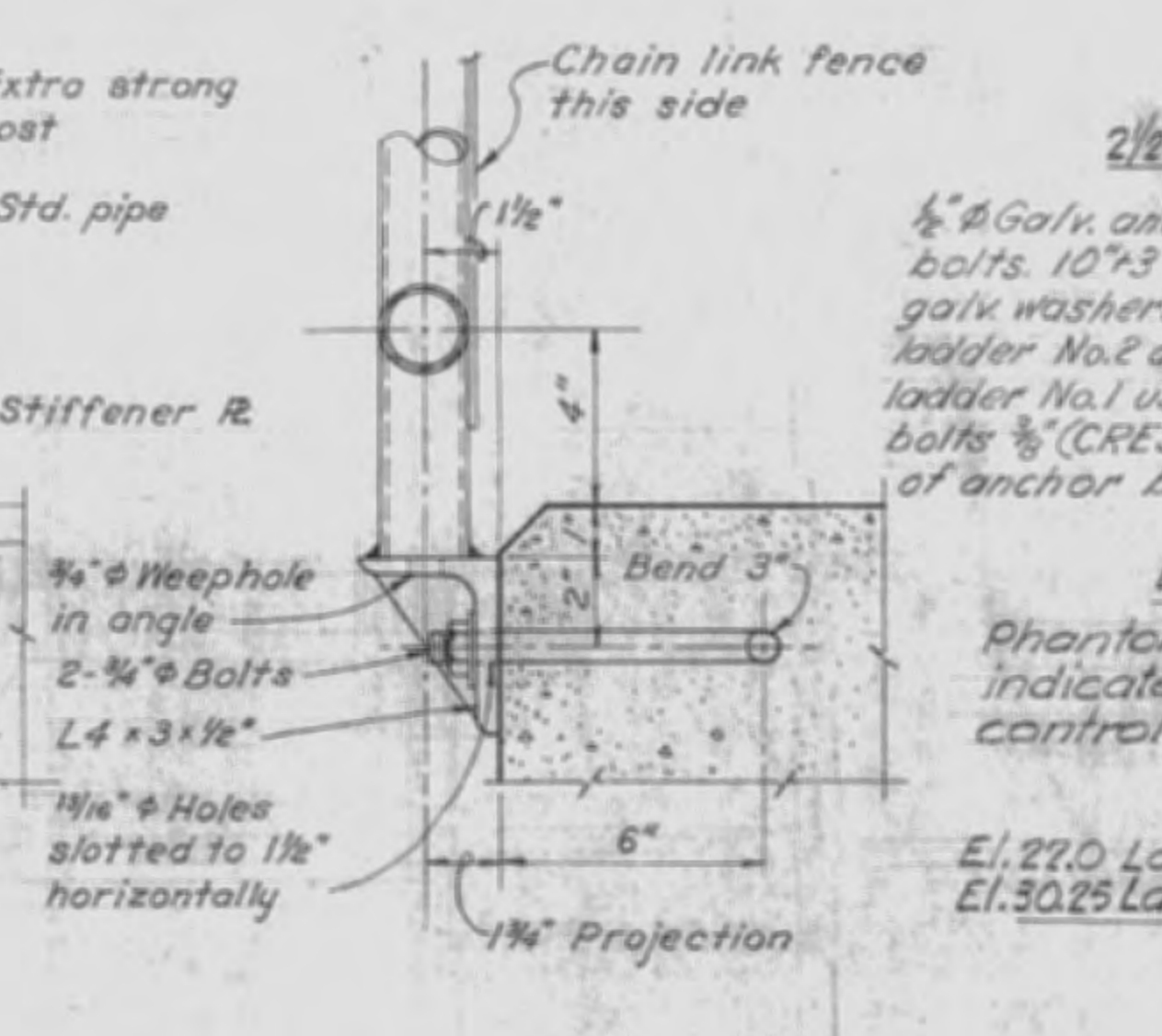
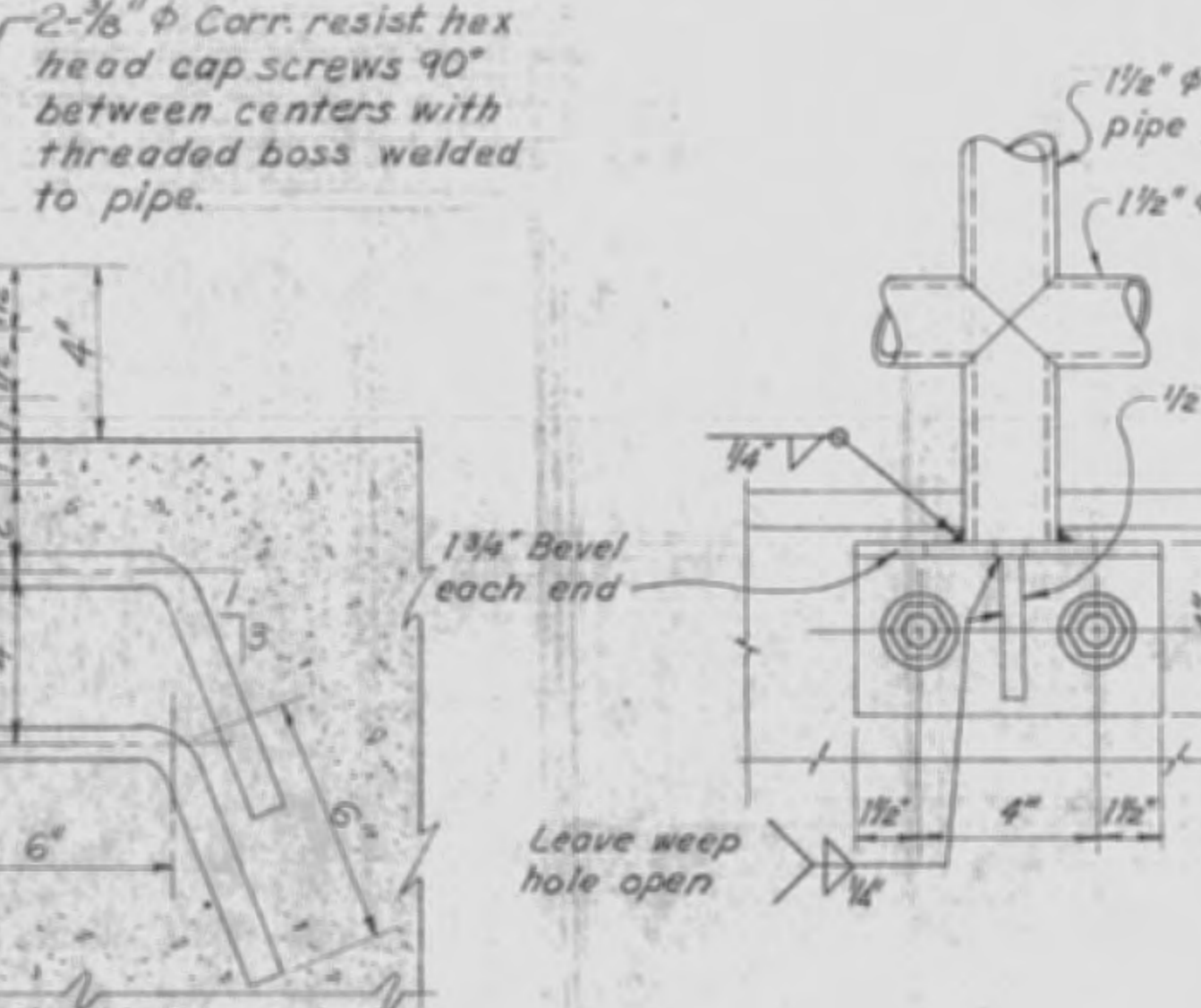
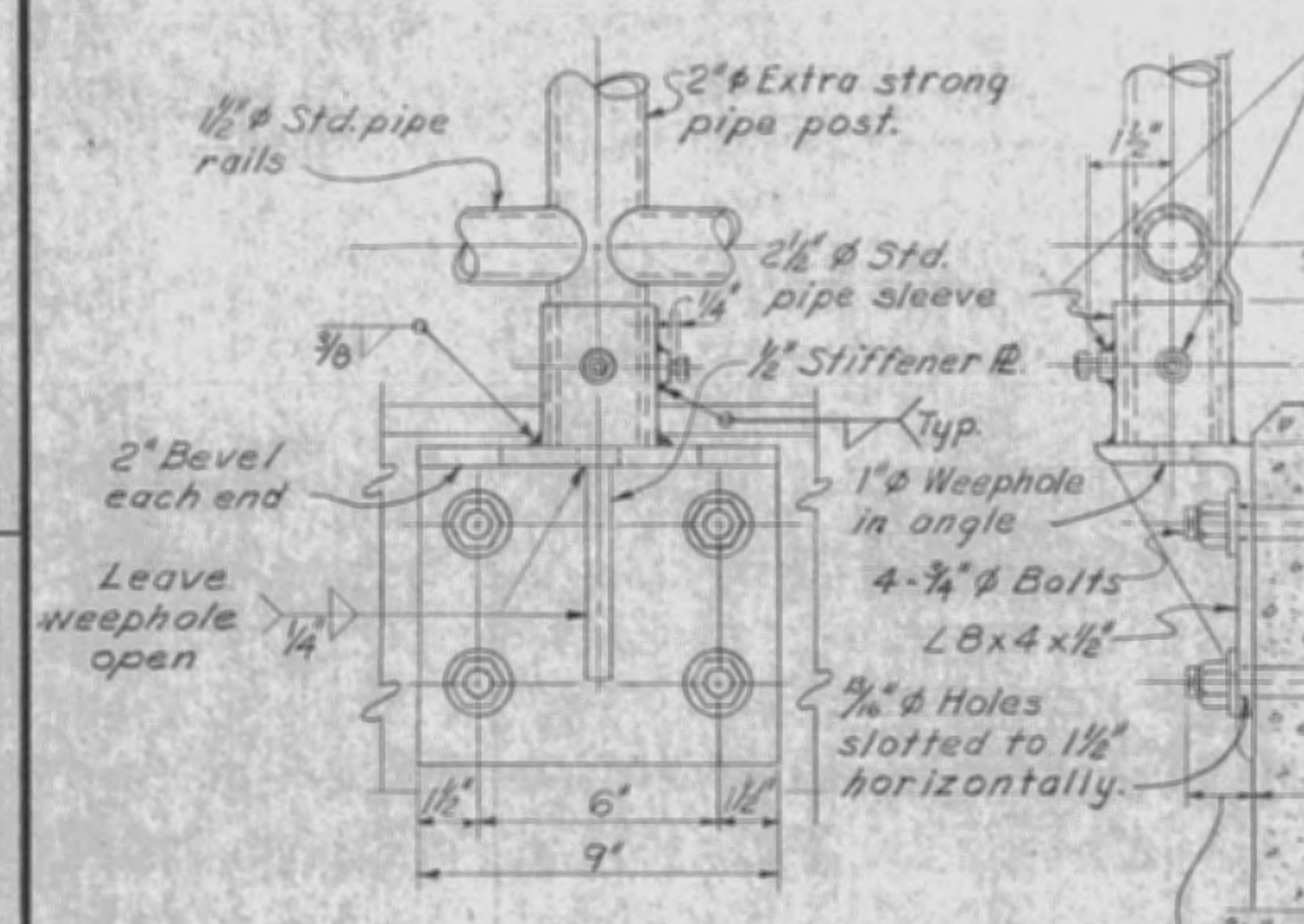
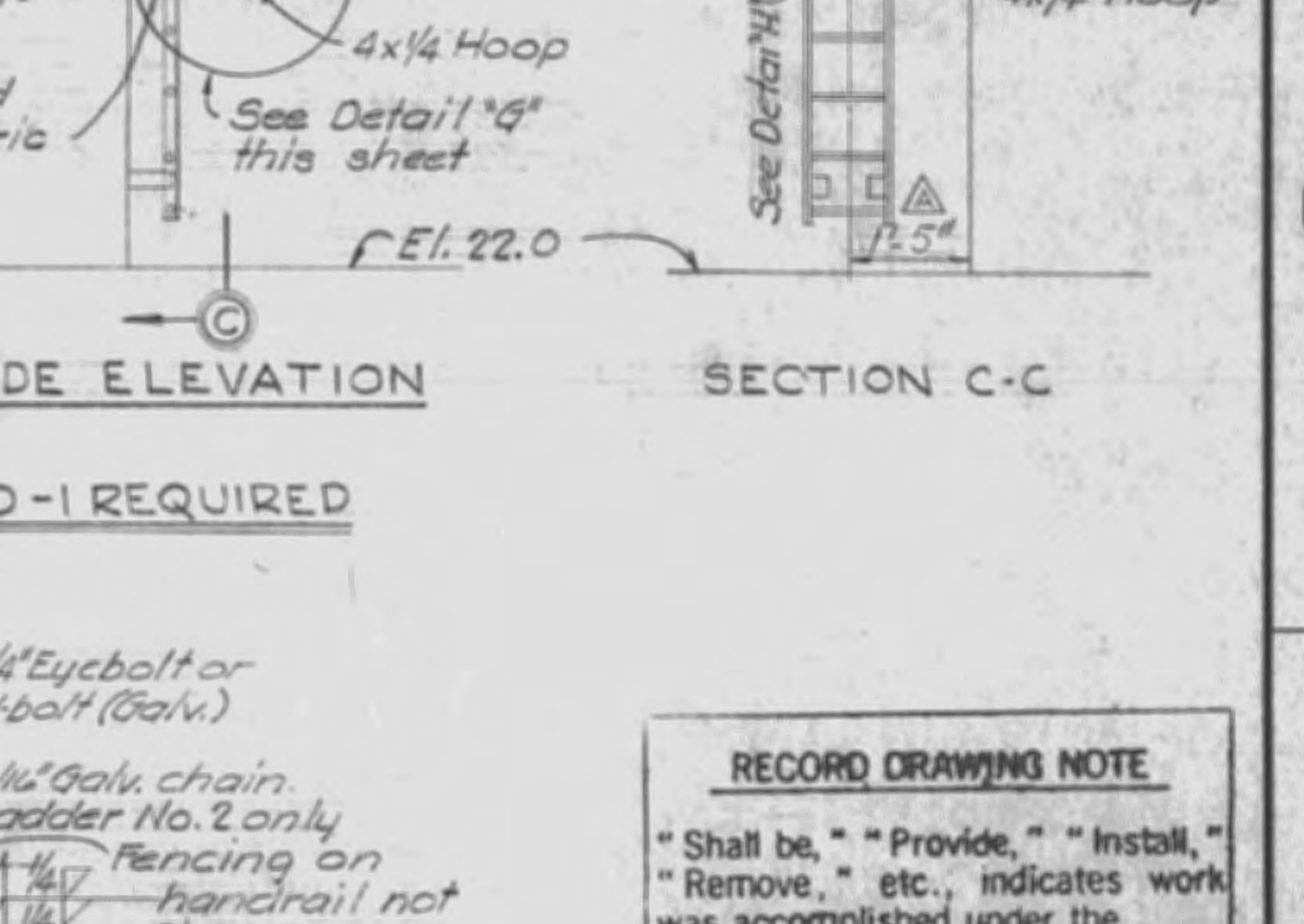
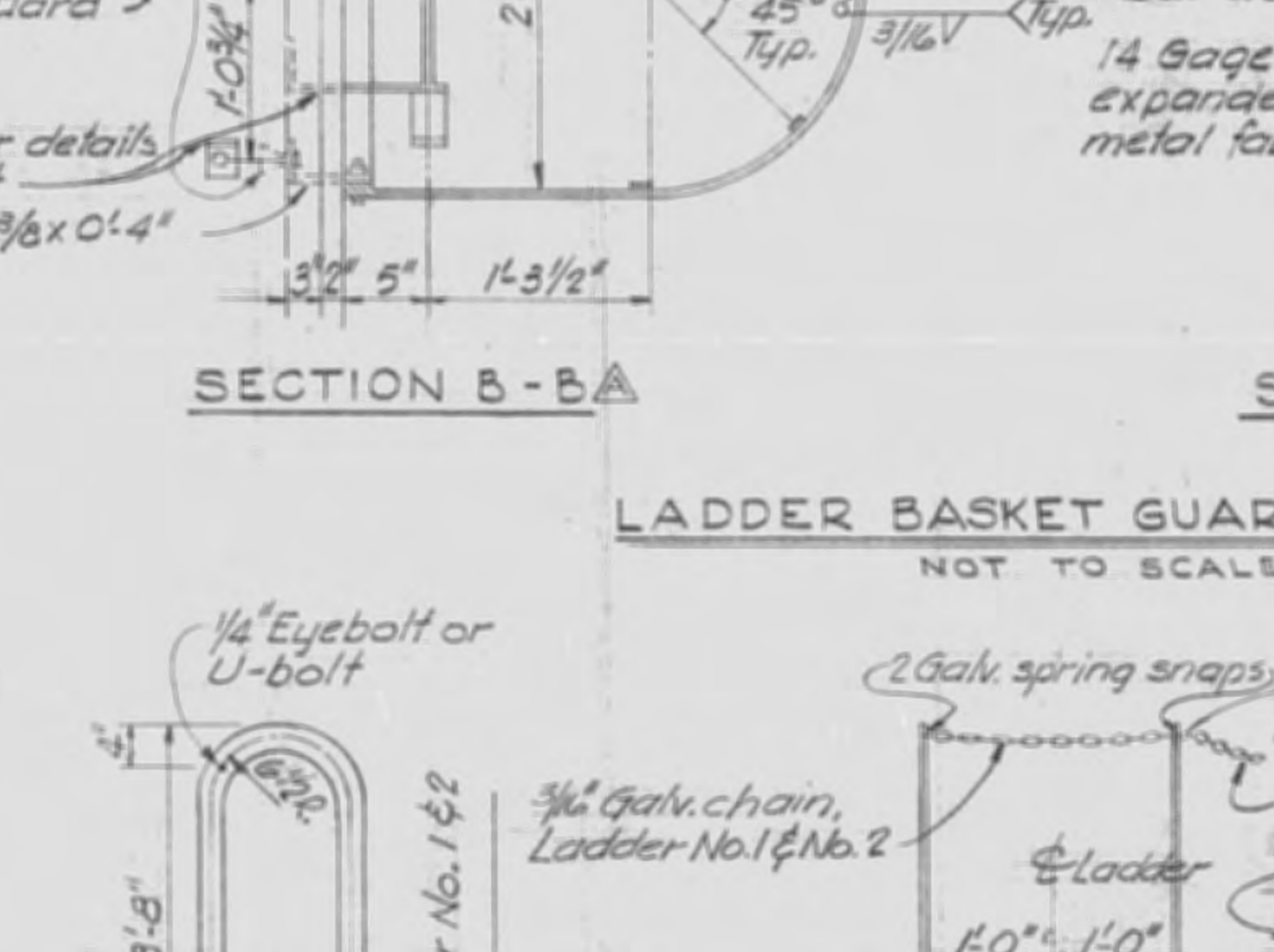
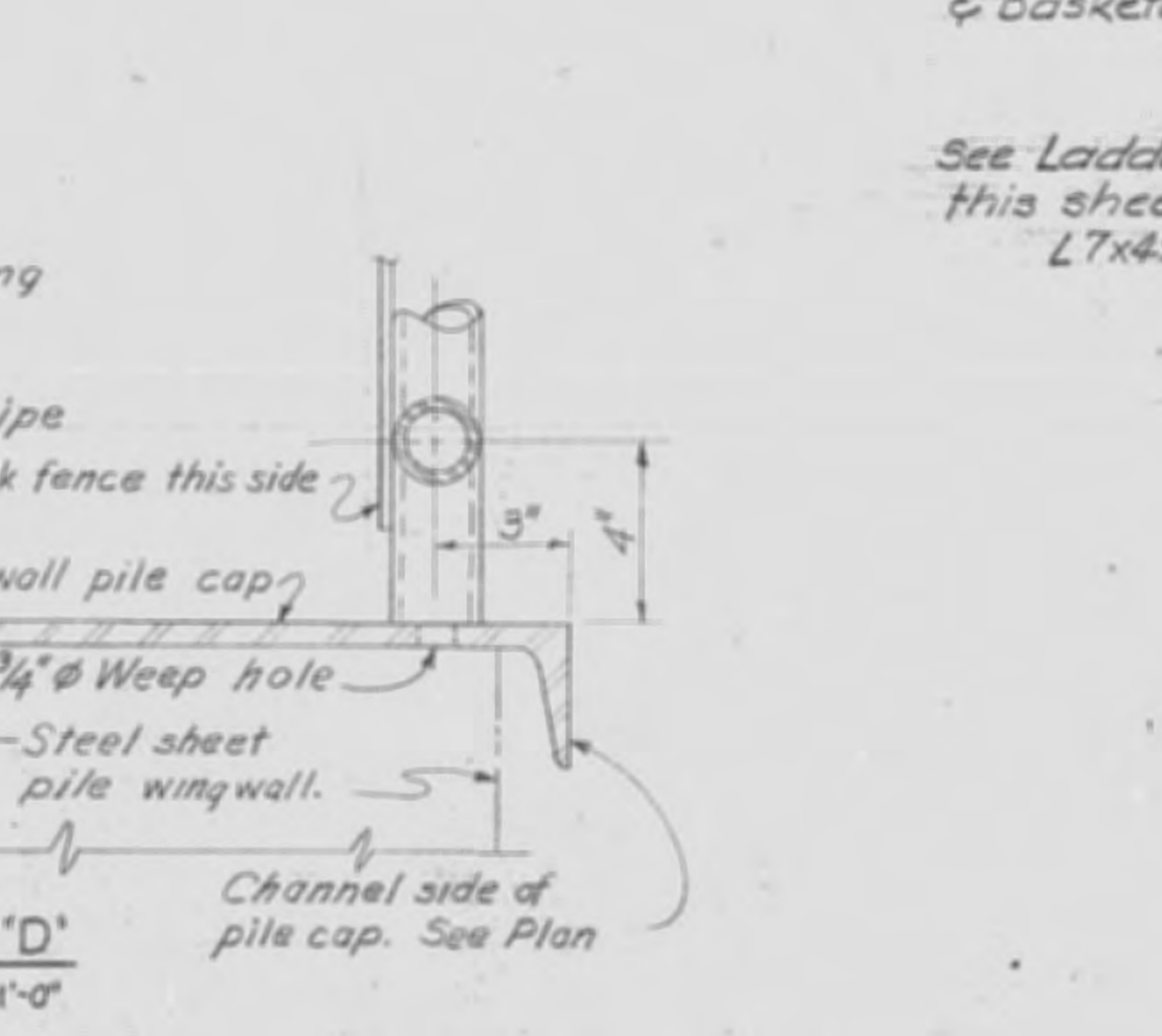
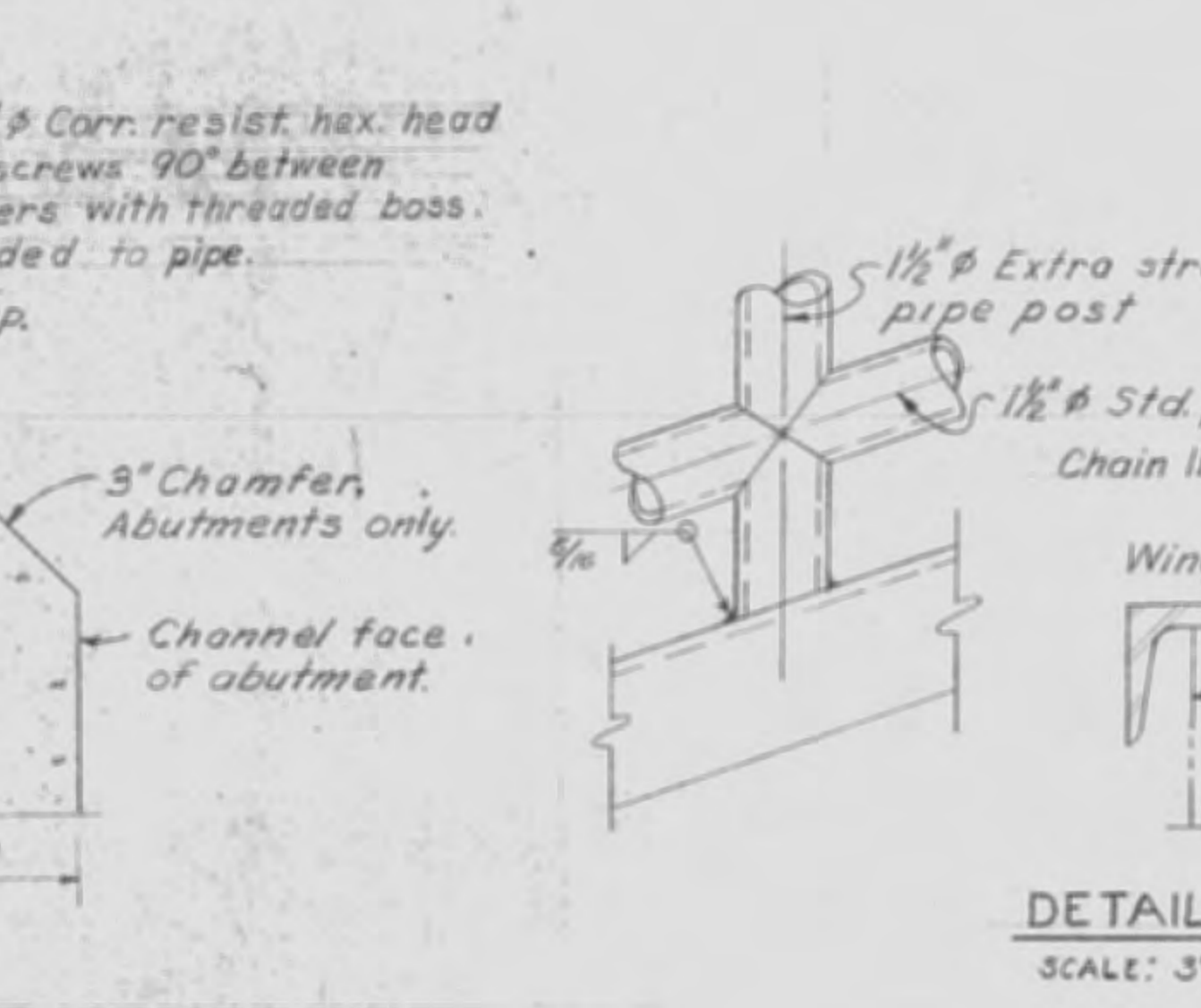
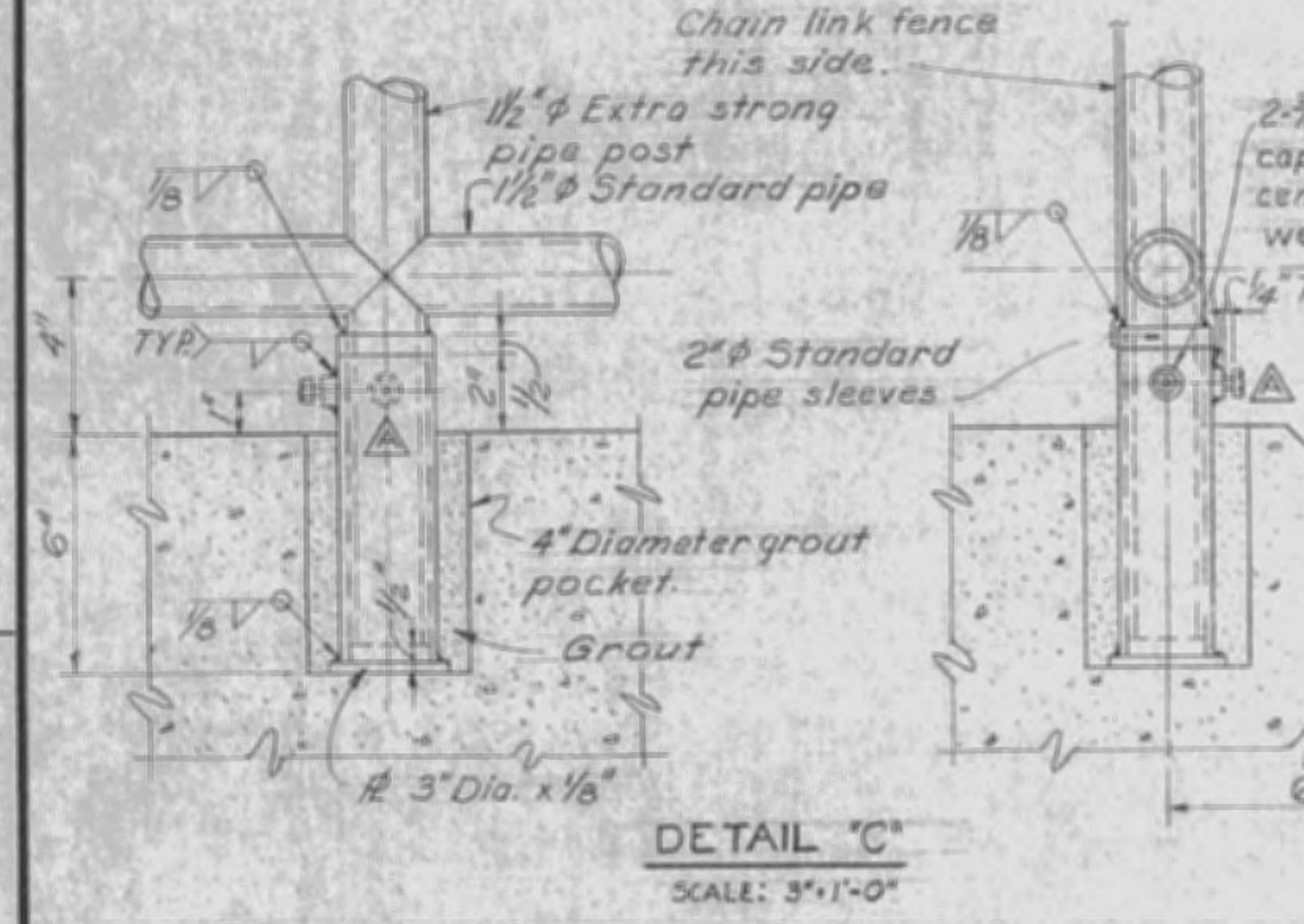
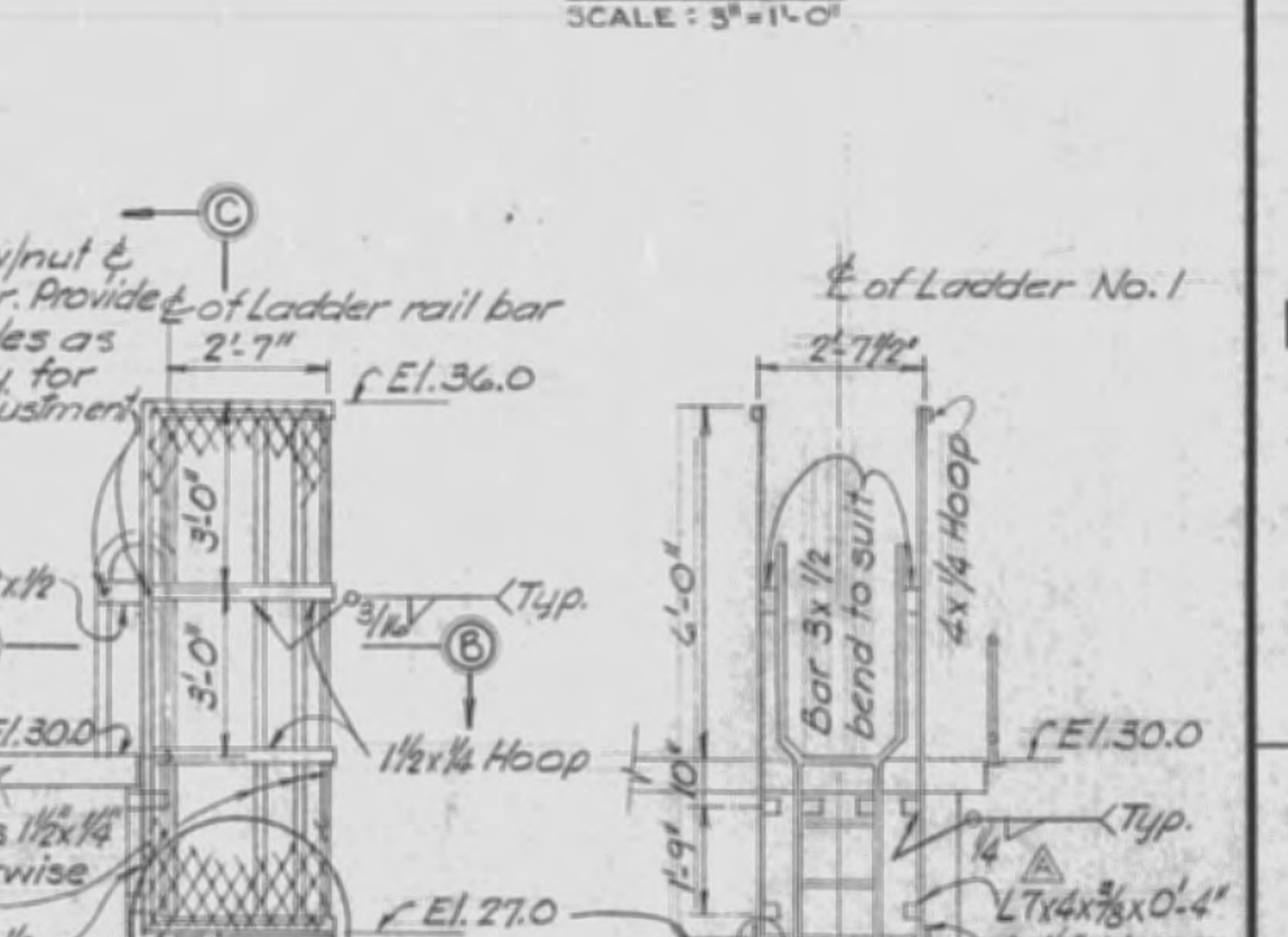
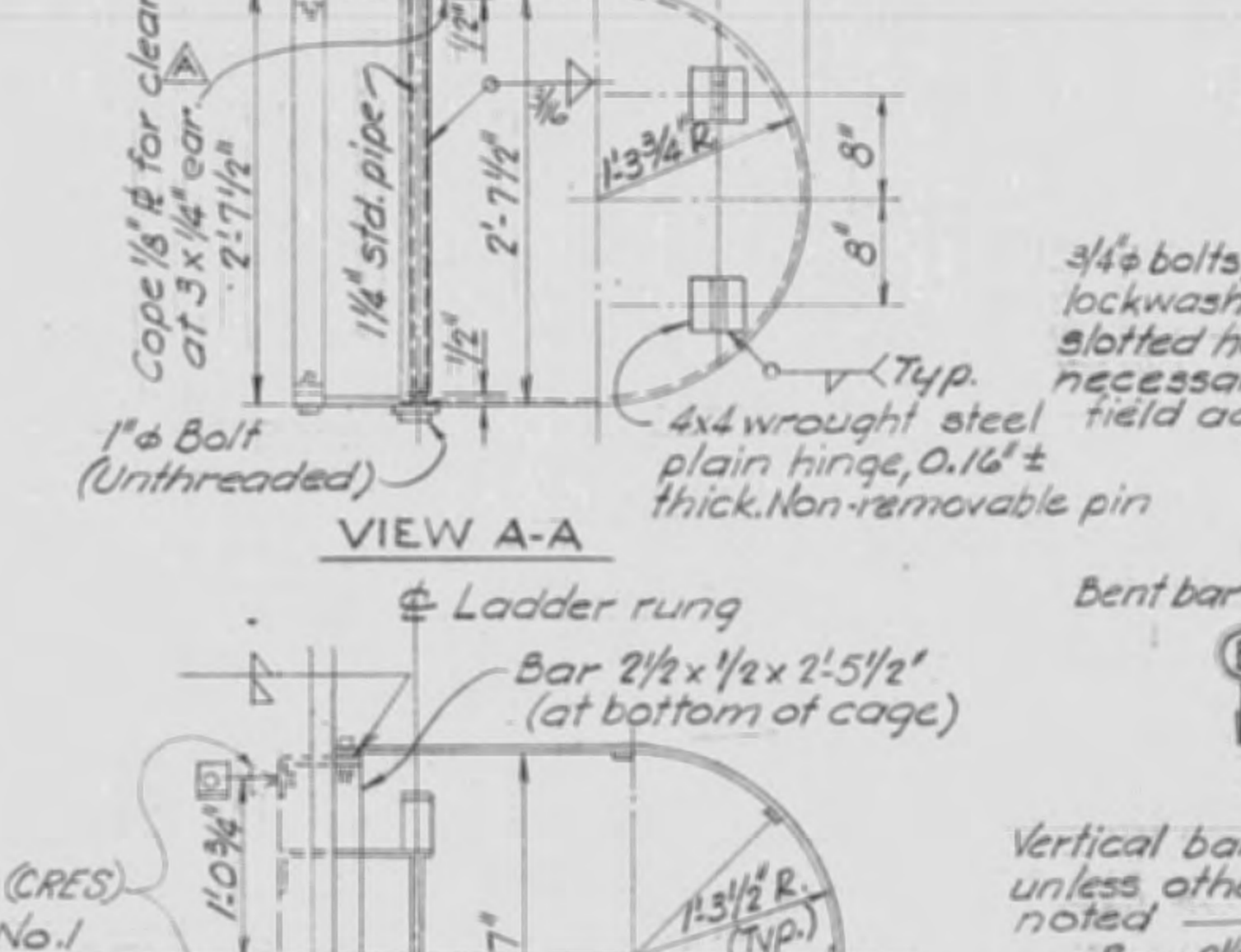
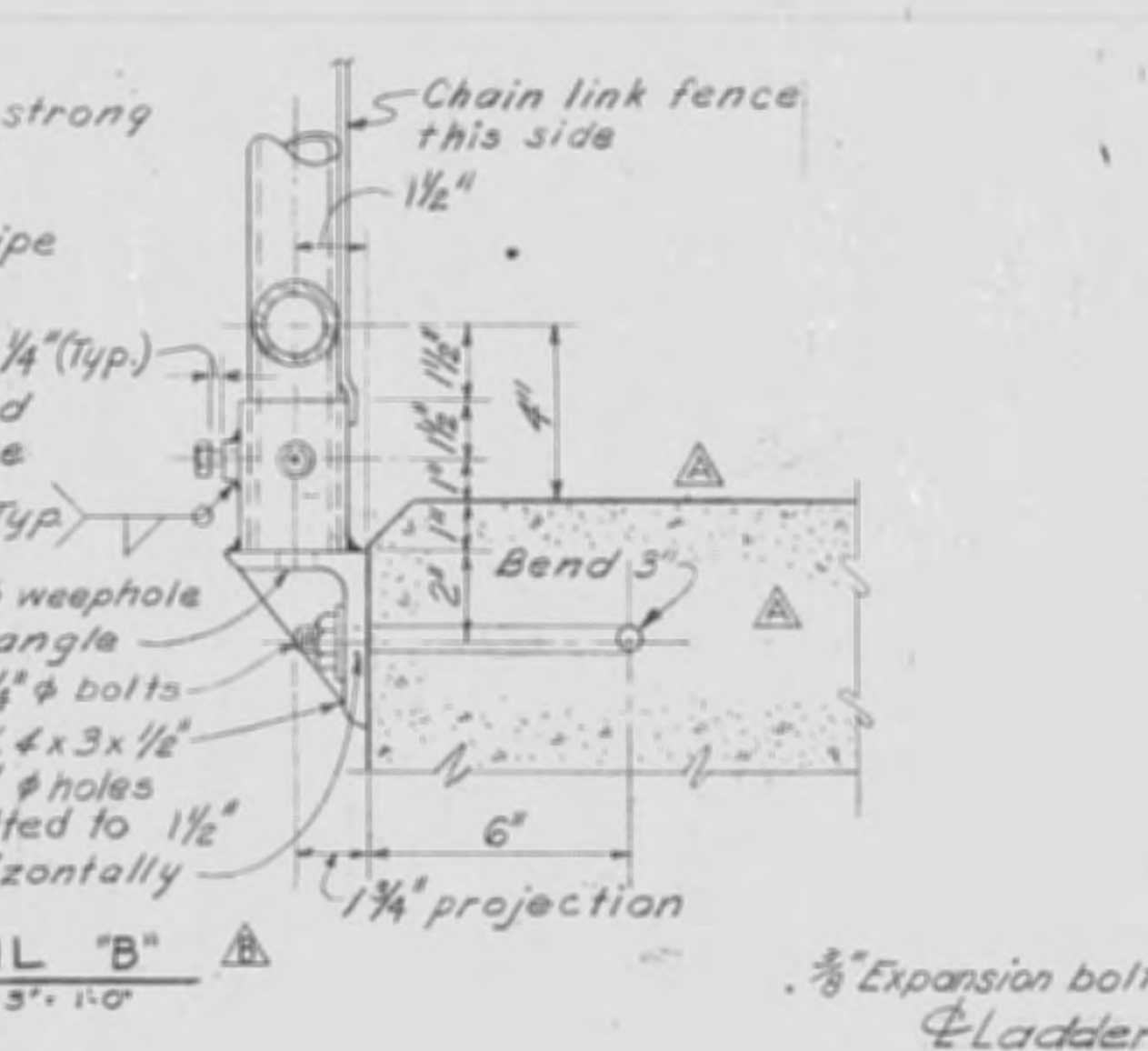
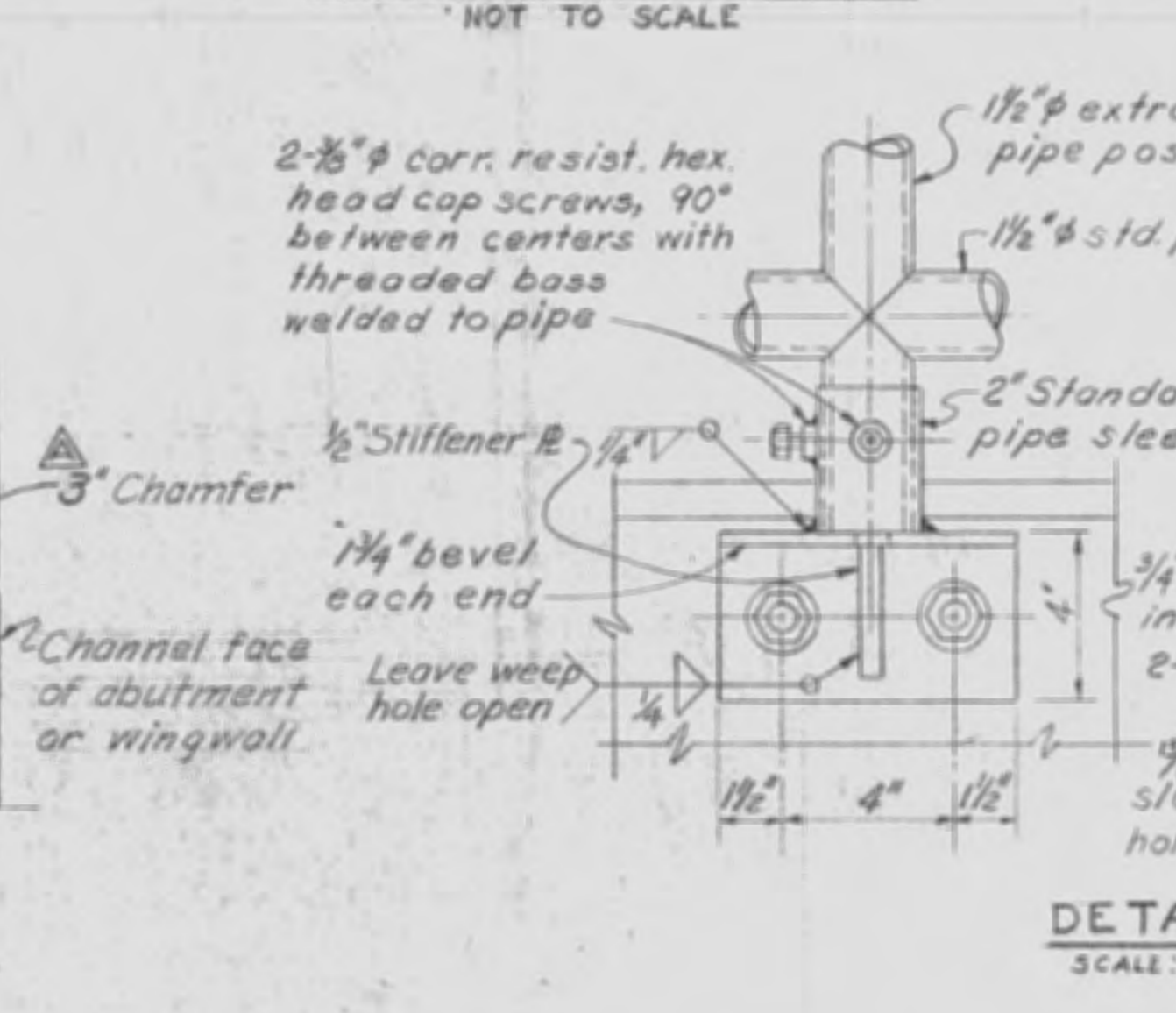
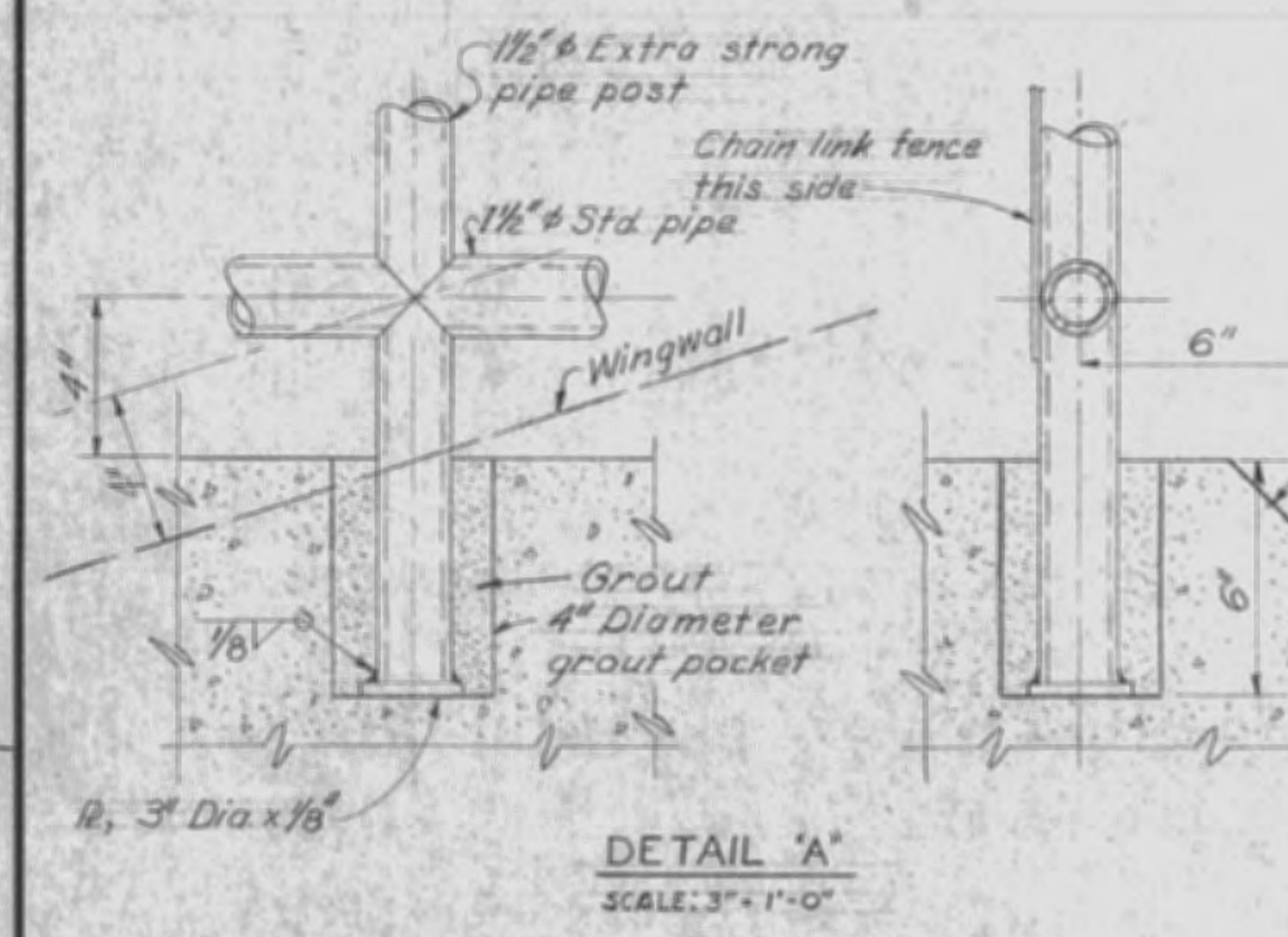
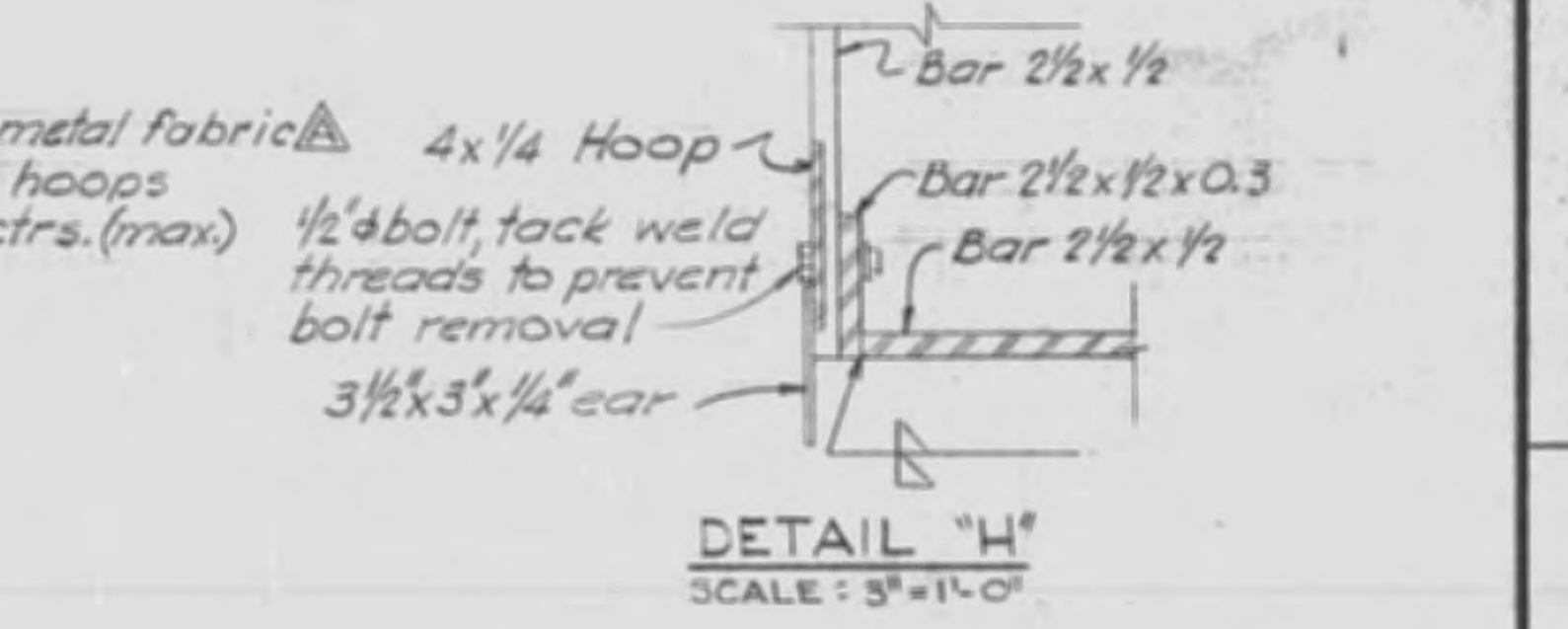
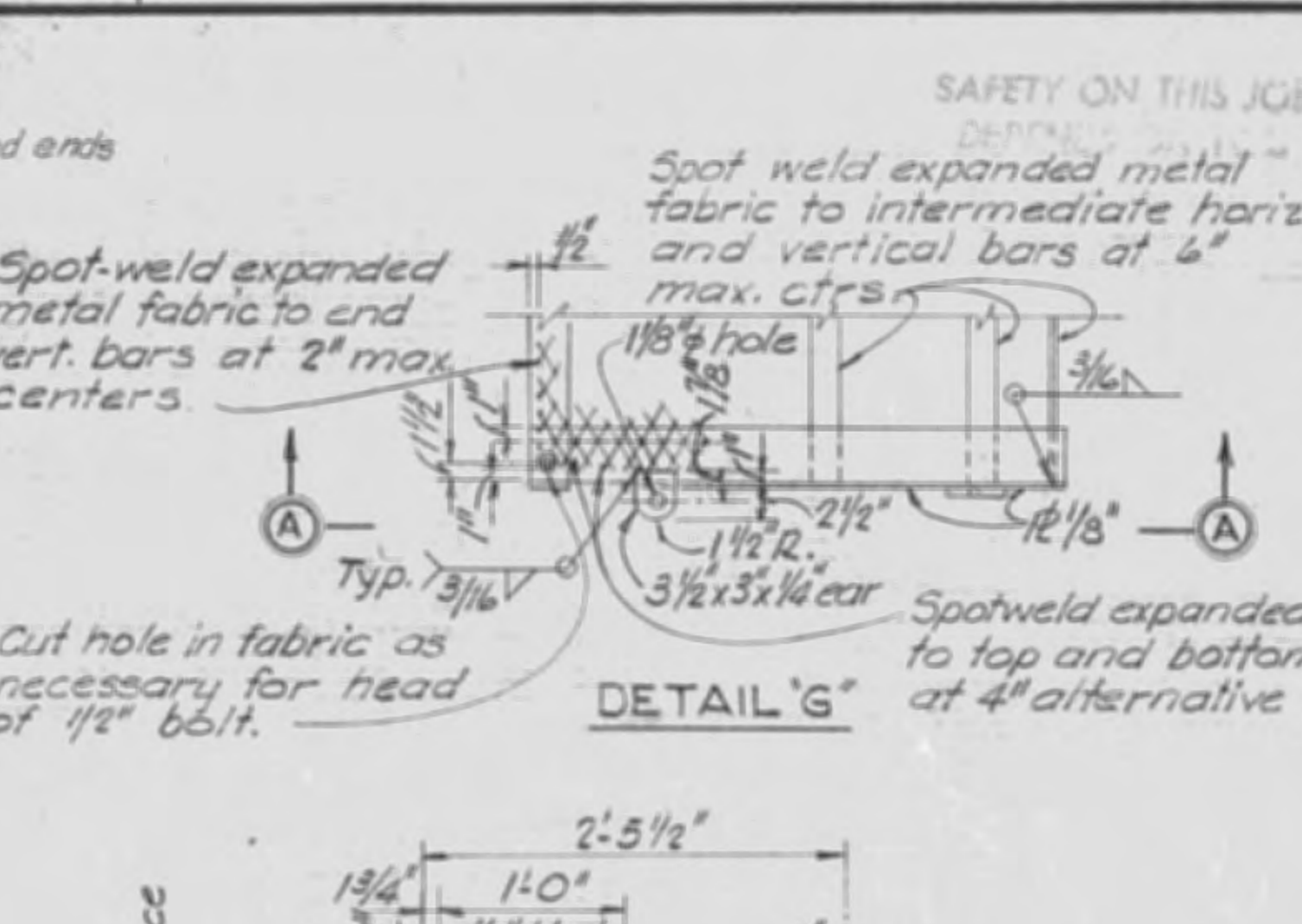
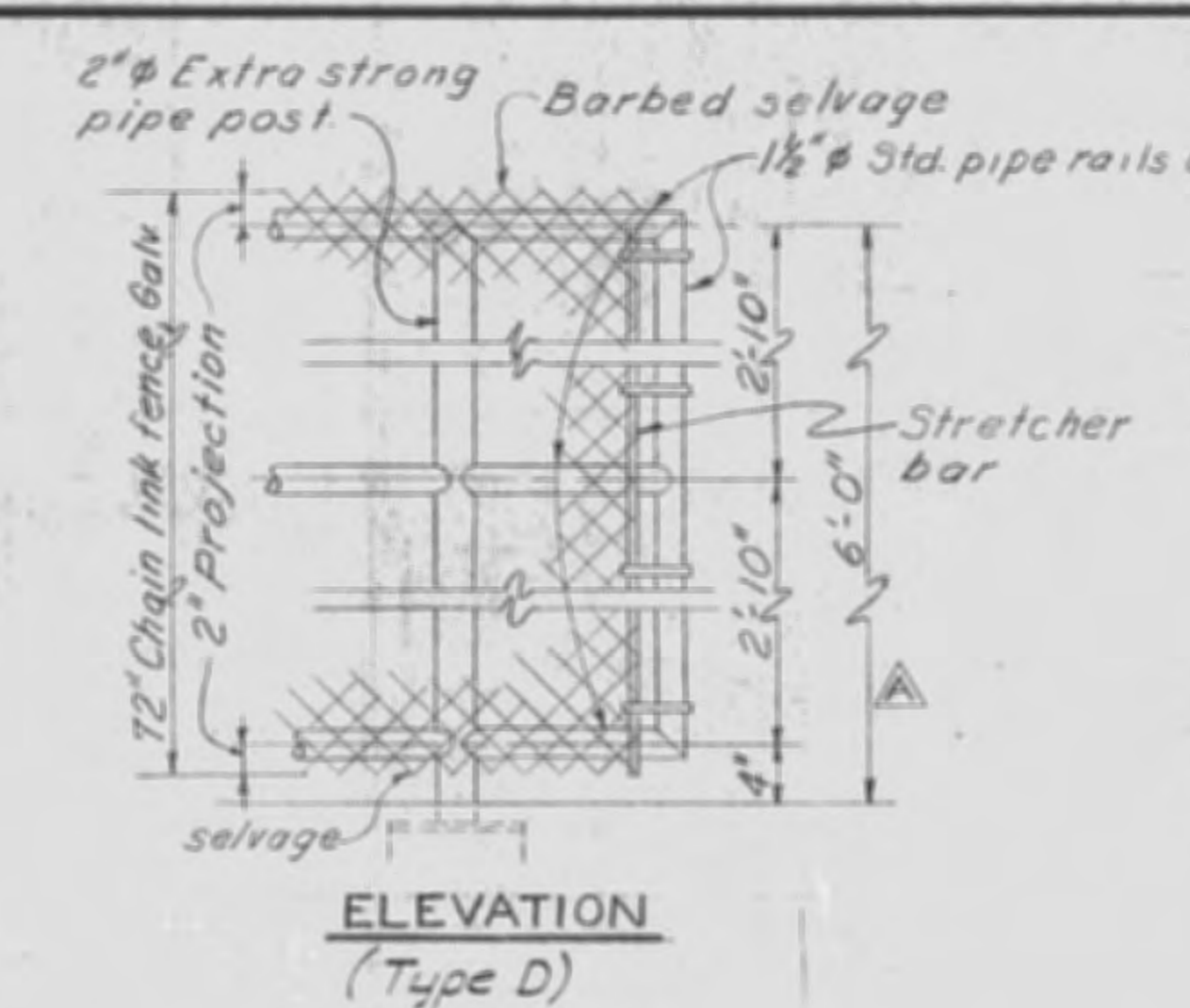
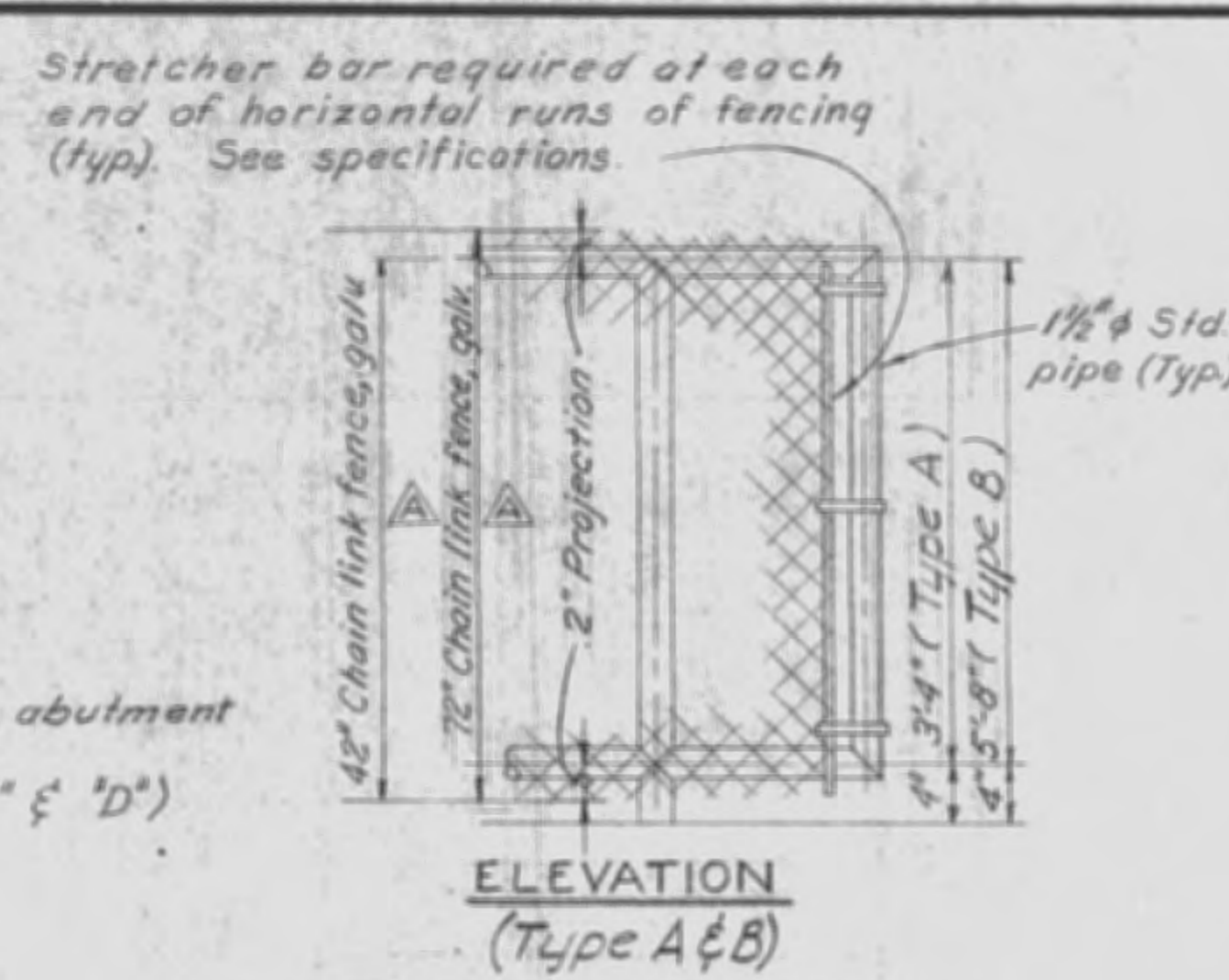
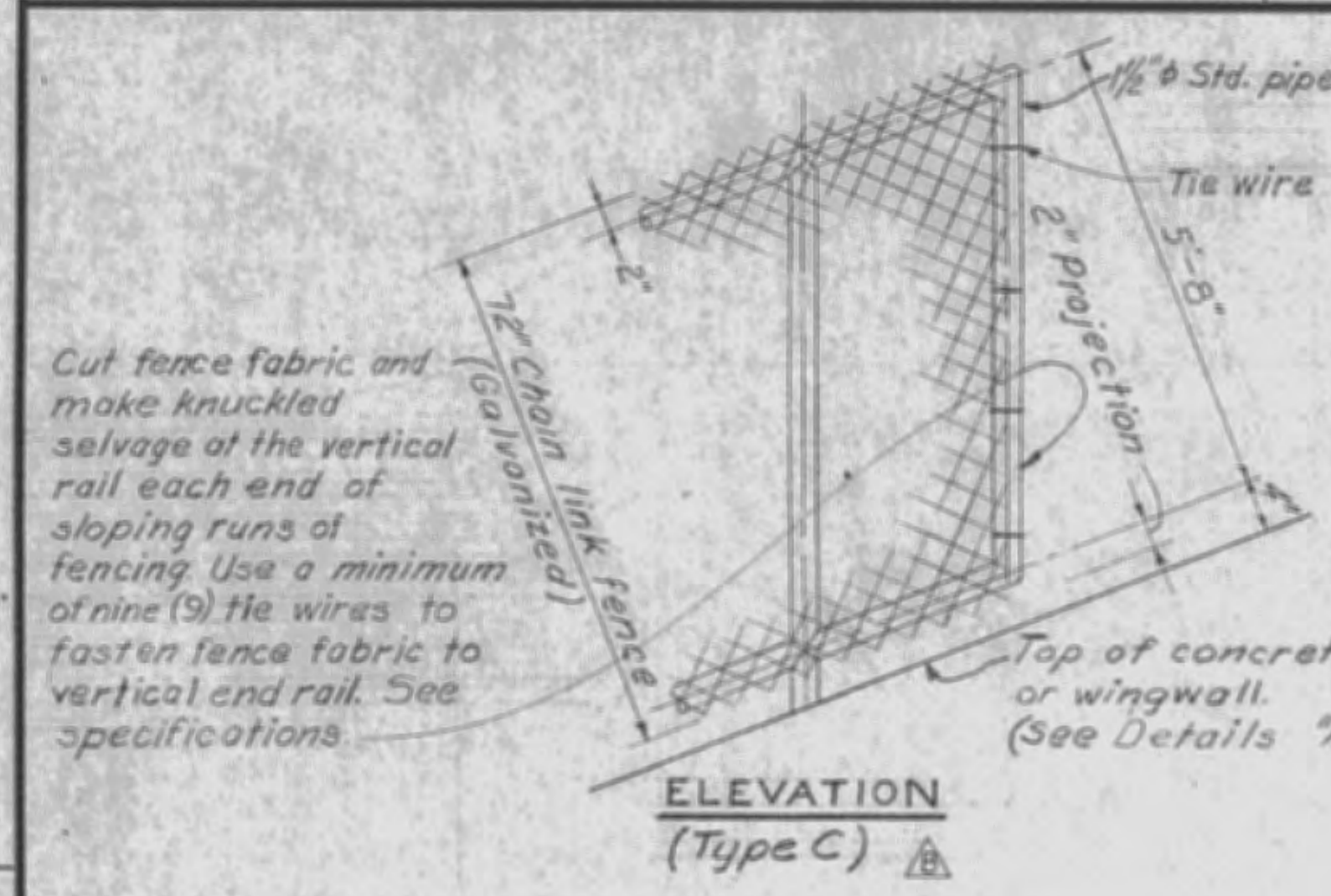
RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE, FLORIDA
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE-157
HANDRAIL DETAILS NO. 1

| | | | | | |
|---------------------------------------|----------------------|-----------------------|-------------------|--------------------|-------------------|
| DESIGNED BY H.N.H. G.C.E. & B.D.R. | CHECKED BY T.M.R. | DATE 28 APRIL 1964 | SCALE AS SHOWN | DATE APRIL 1964 | SHEET 44 OF 45 |
|---------------------------------------|----------------------|-----------------------|-------------------|--------------------|-------------------|

| REVISIONS | | | | |
|-----------|----|---------|--|----------|
| NO. | BY | DATE | DESCRIPTION | APPROVED |
| 20 | | 5-16-66 | REVISED TO CONFORM TO AMENDMENT NO. 2 | W.H. |
| 3 | | 8-2-66 | CLOSED HANDRAIL AND REVISED EXISTING HANDRAIL TO ACCORDANCE WITH SECTION 109 | W.H. |
| 1 | | 8-23-66 | REVISED DETAIL 'E' TO ACCOMPANY M&T TO CONTRACT NO. 46-109 | W.H. |



RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

- NOTES:
- ALL HANDRAIL, CONNECTIONS, LADDERS AND BASKETGUARD TO BE GALVANIZED.
 - ALL GALVANIZED ITEMS TO BE GALVANIZED AFTER FABRICATION.
 - ALL VERTICAL PIPE POSTS TO BE 1 1/2 INCH EXTRA STRONG PIPE EXCEPT FOR PIPE POSTS ON SERVICE BRIDGE (SEE DETAIL "E"). ALL OTHER VERTICAL, HORIZONTAL, AND SLOPING PIPE TO BE 1 1/2 INCH STANDARD PIPE.
 - HANDRAIL TO BE FLUSH WELDED TYPE.
 - ALL MATERIAL NOTED AS CORR. RESIST. SHALL BE CORROSION RESISTING STEEL TYPE 304 OR 316 UNLESS SPECIFIED OTHERWISE.
 - WHERE GALVANIZED ITEMS LOSE THEIR COATING DUE TO FIELD WELDING, GALVANIZING REPAIRS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.
 - FOR LOCATION OF LADDERS, SEE SHEET 44-45.
 - ALL BOLTS SHALL BE FURNISHED WITH ONE NUT AND WASHER UNLESS OTHERWISE INDICATED. ALL BOLTS, NUTS AND WASHERS, EXCEPT THOSE NOTED AS CORR. RESIST., TO BE GALVANIZED.

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL 54, SECTION 2
 STRUCTURE - 157
 HANDRAIL DETAILS NO. 2

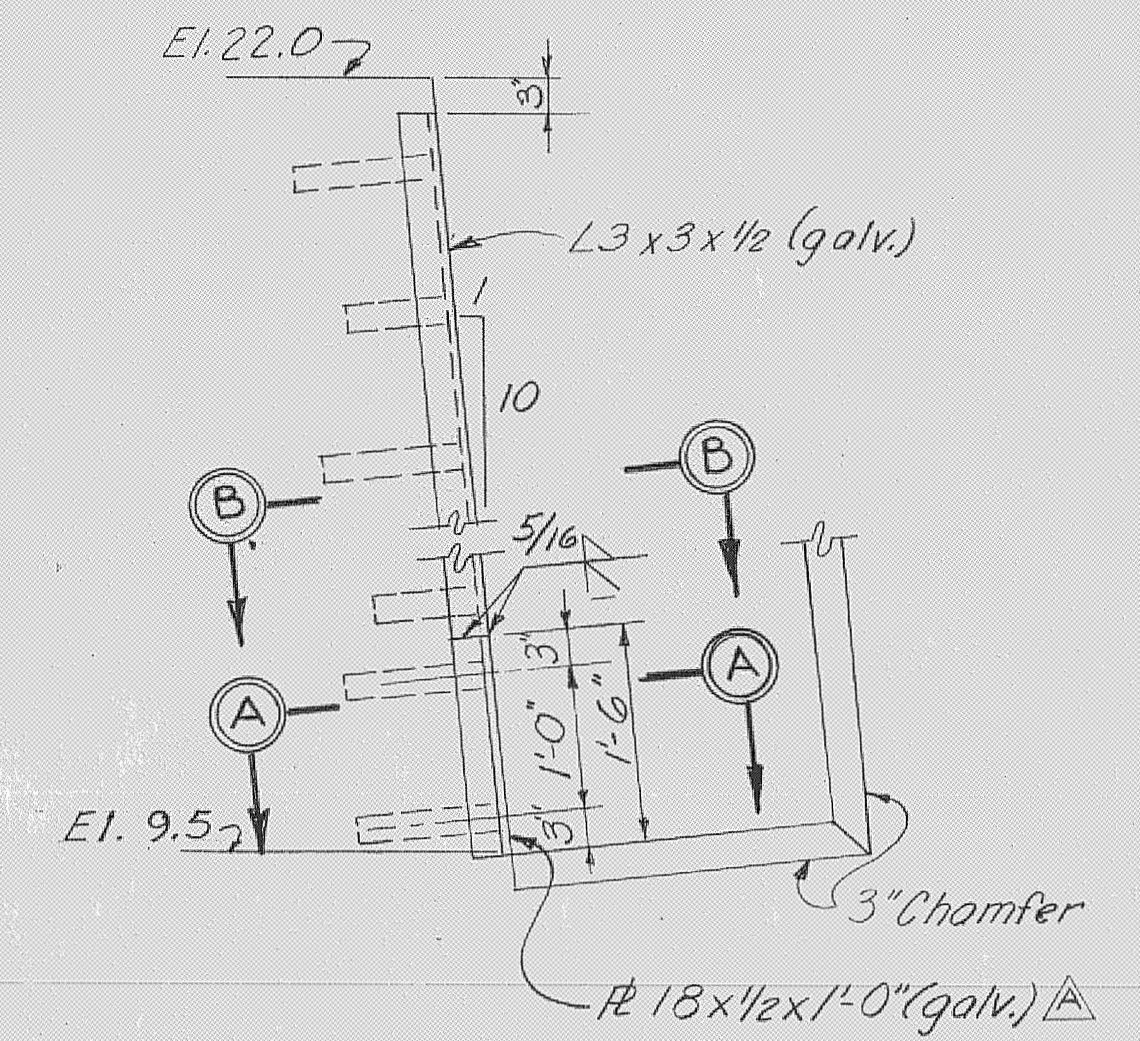
GRAPHIC SCALES
 3" = 1'-0"

LADDERS
 One each Required
 NOT TO SCALE

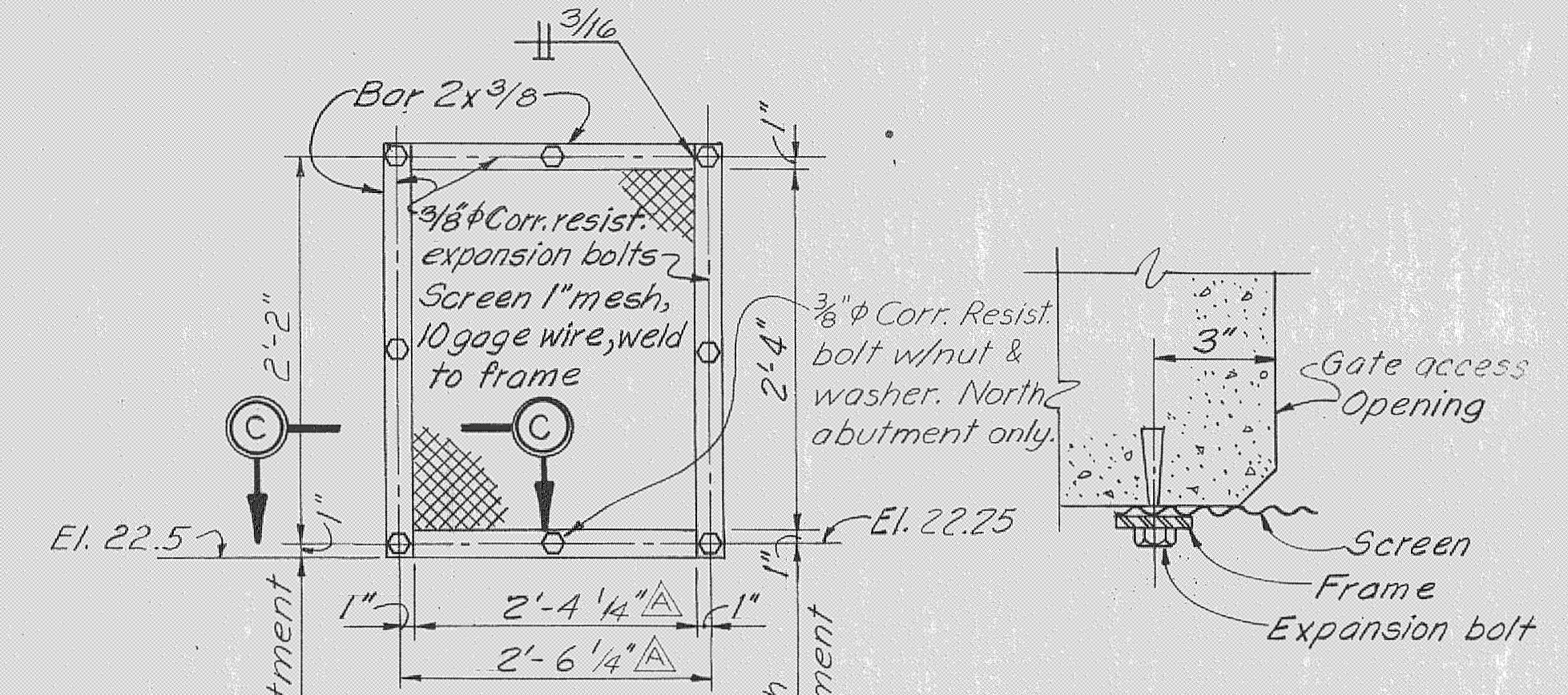
AS BUILT

DATE: 28 APRIL 1966
 SCALE: AS SHOWN
 SHEET 15 OF 22

| REVISIONS | | | | | |
|-----------|------|------|--|----------|----------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
| 13 | Δ | | REVISED TO CONFORM TO AMENDMENT NO. 2. | 5-16-66 | W.R. |
| 2 | Δ | | REVISED POSITION MARKER AND POSITION INDICATOR TO BE CORRESPONDING TO CONTRACT NO. 66-109. | 11-23-66 | M.W.S. |
| 1 | Δ | | REVISED DETAIL OF GATE ACCESS OPENING COVER TO ACCY. MOD. TO CONTRACT NO. 66-109. | 1-28-67 | W.R. |



ELEVATION

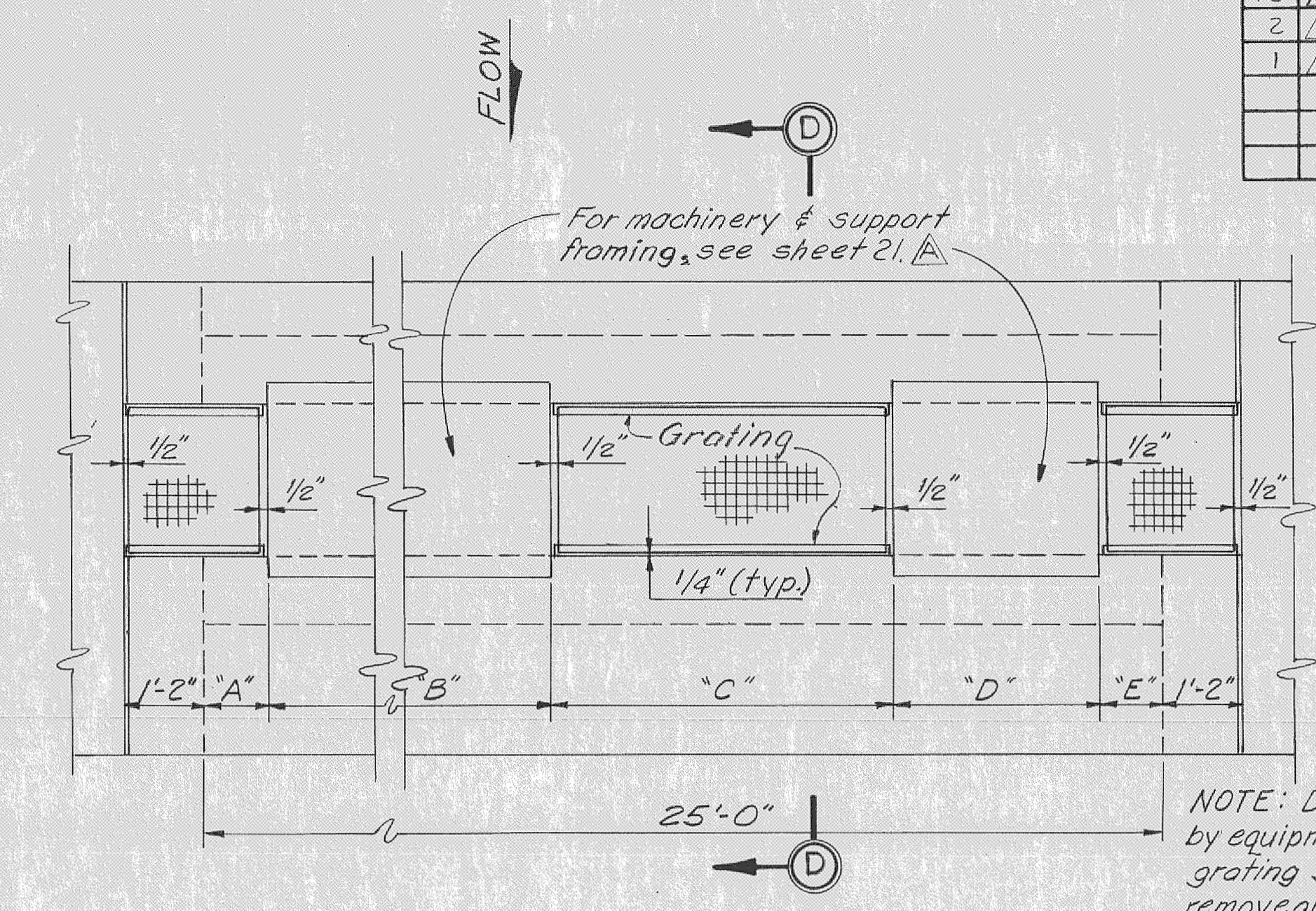


ELEVATION
SCALE: 1"=1'-0"

SECTION C-C
SCALE: 3"=1'-0"

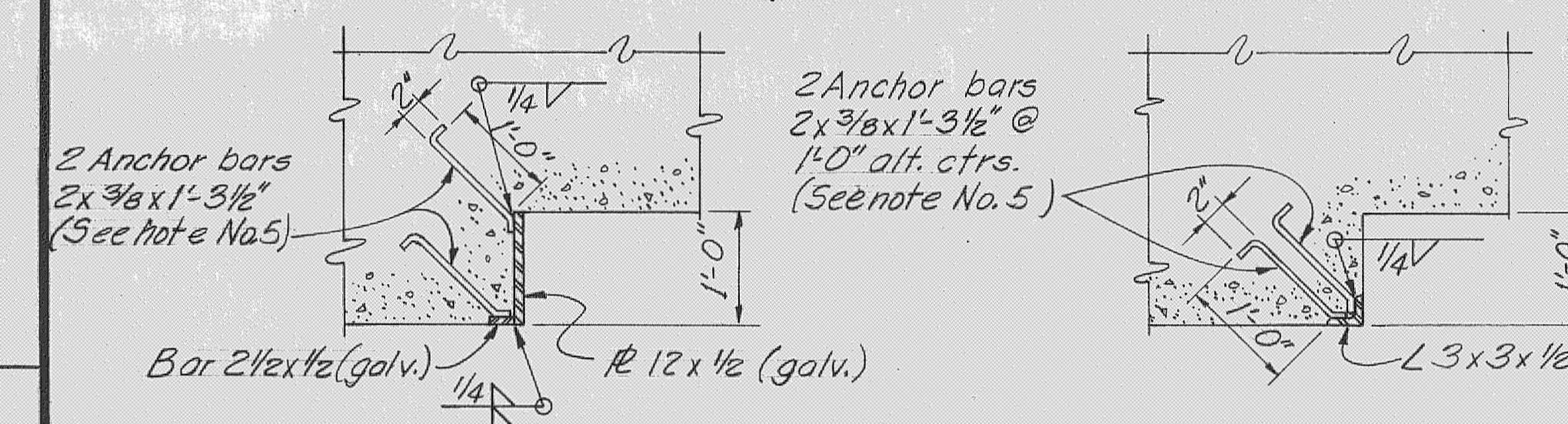
NOTES:
1. Cover to be galv. after fabrication.
2. For locations of opening, see sheet 6.

GATE ACCESS OPENING COVER
2 REQUIRED
1 REQUIRED AT EACH OUTSIDE ABUTMENT FACE



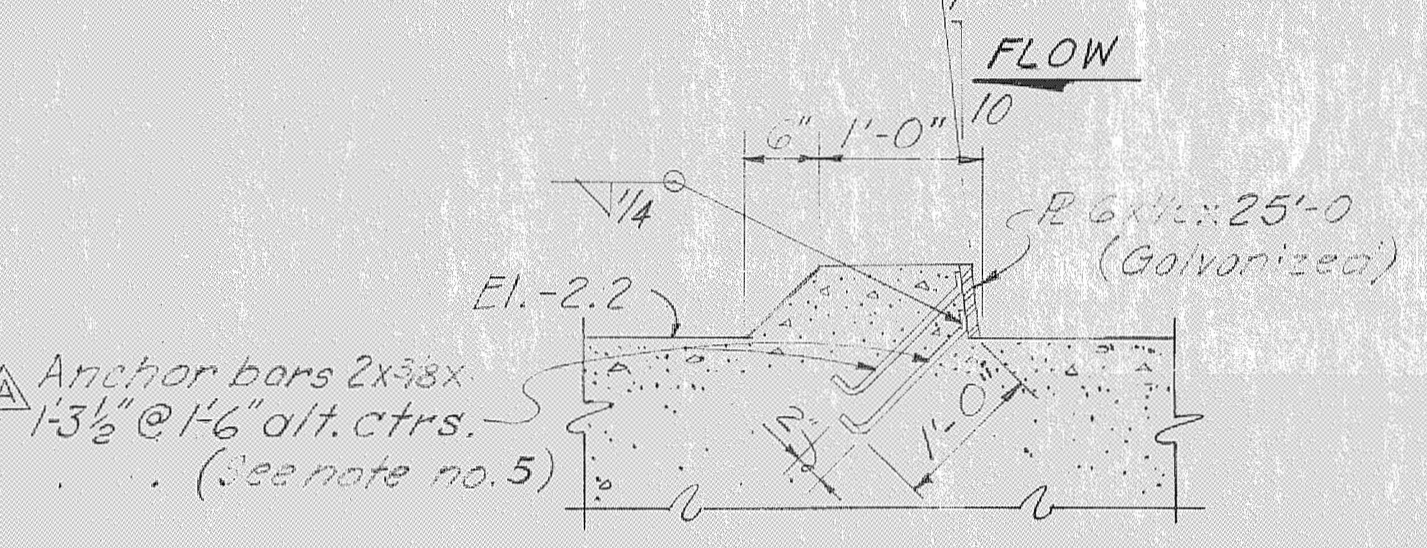
OPERATING PLATFORM GRATING
NOT TO SCALE

NOTE: Dimensions "A" thru "E" to be established by equipment furnished. Fasten corners of each grating section to frame with std. clips or removable bolts (galv.). Fastening device not to extend above top of grating. Extend supporting angle 1/4" in length beyond the grating except at each end of the platform.



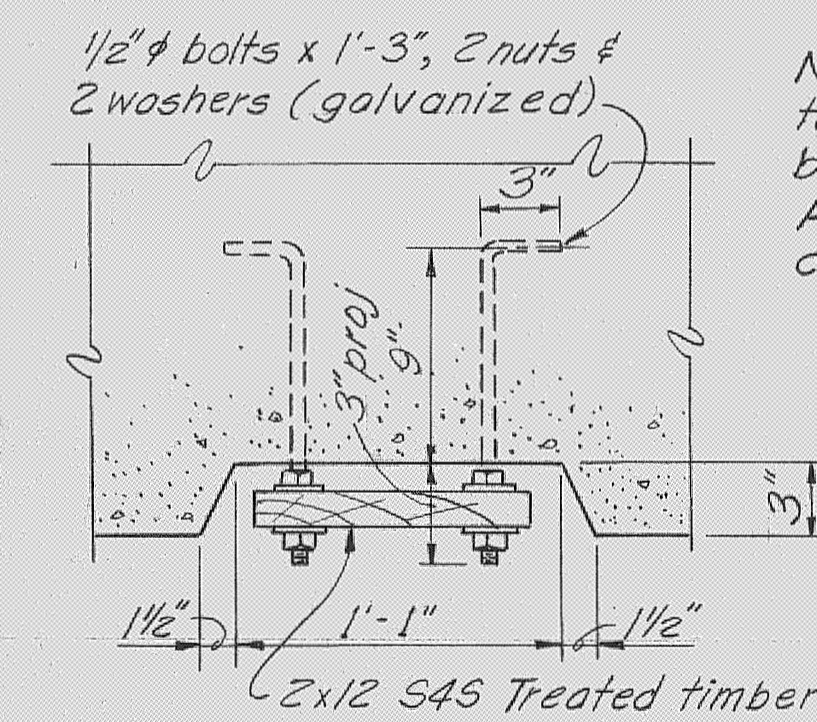
NEEDLE BEAM RECESS
SCALE: 3/4"=1'-0"

3 REQUIRED AS SHOWN
3 REQUIRED OPP. HAND

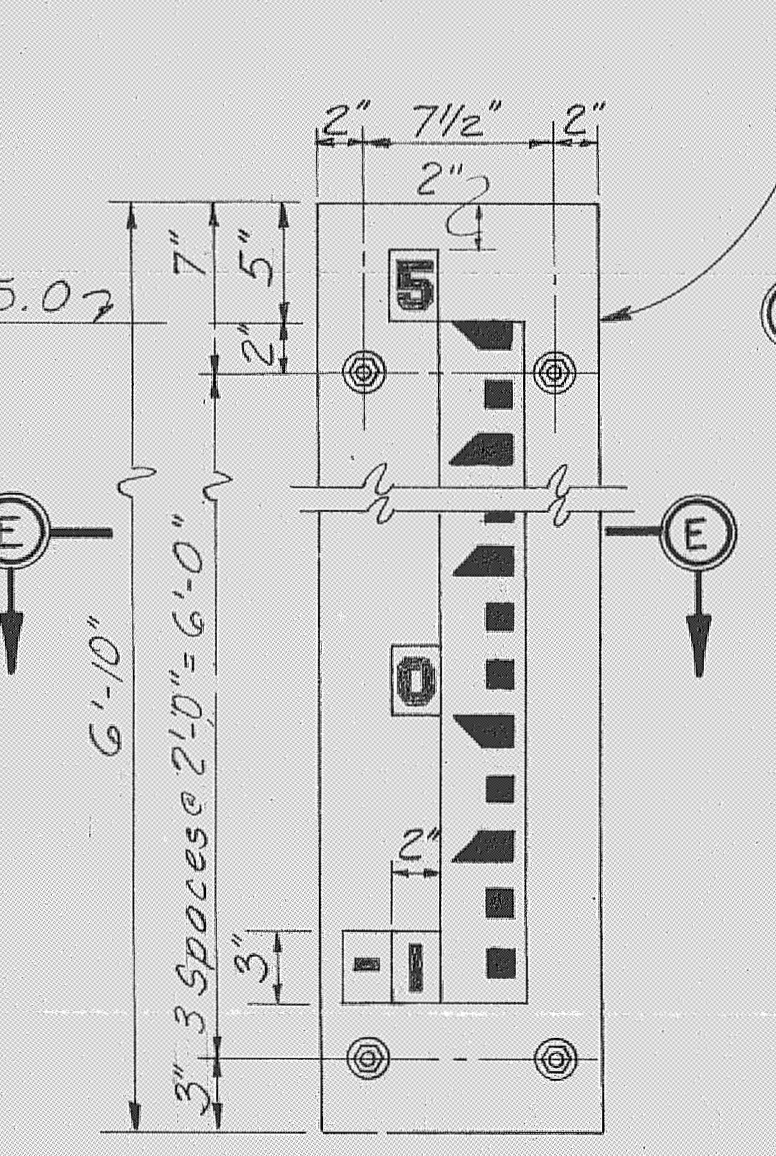


NEEDLE SILL PLATE
3 REQUIRED

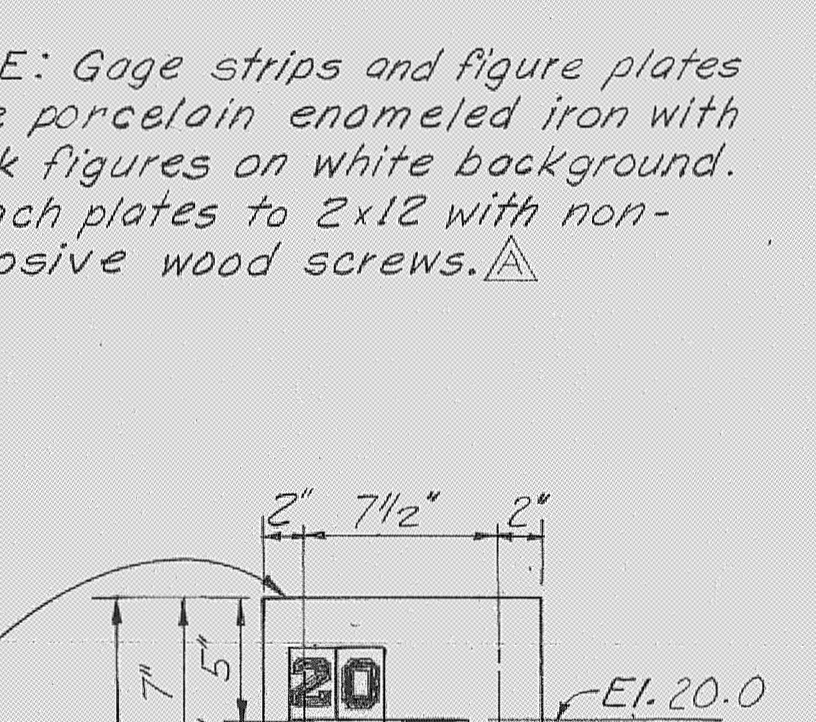
SCALE: 3/4"=1'-0"



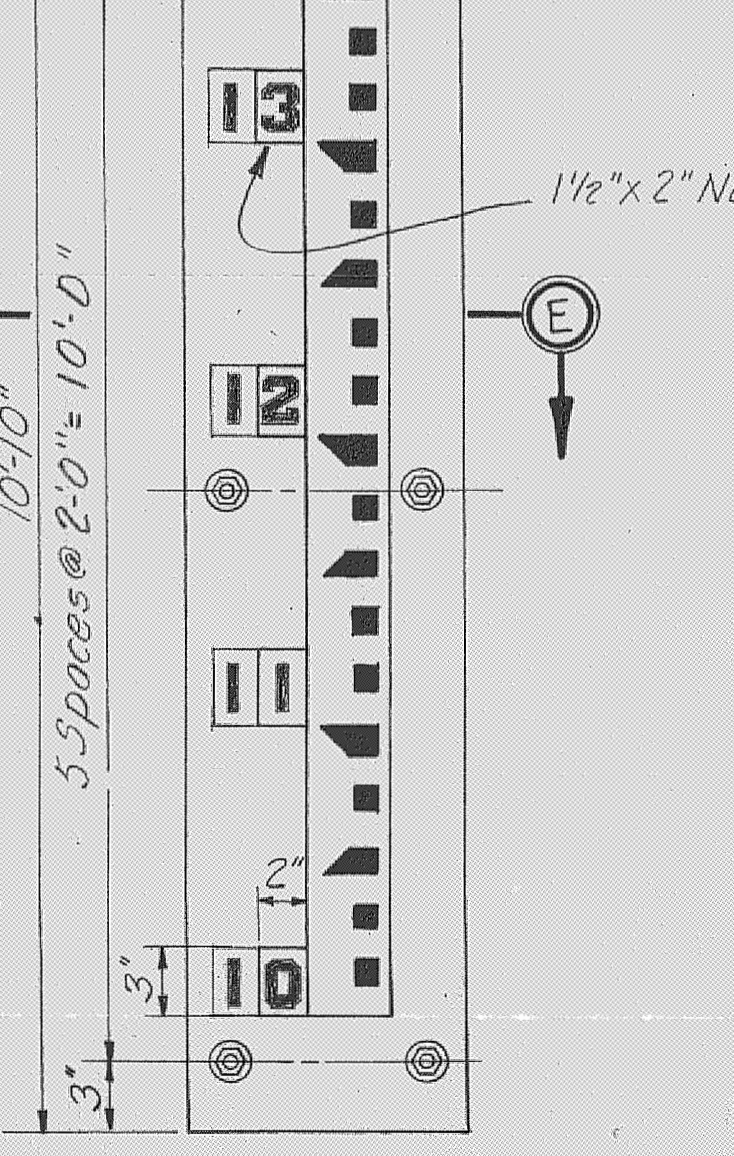
SECTION E-E



DOWNSTREAM GAGE
1 REQUIRED

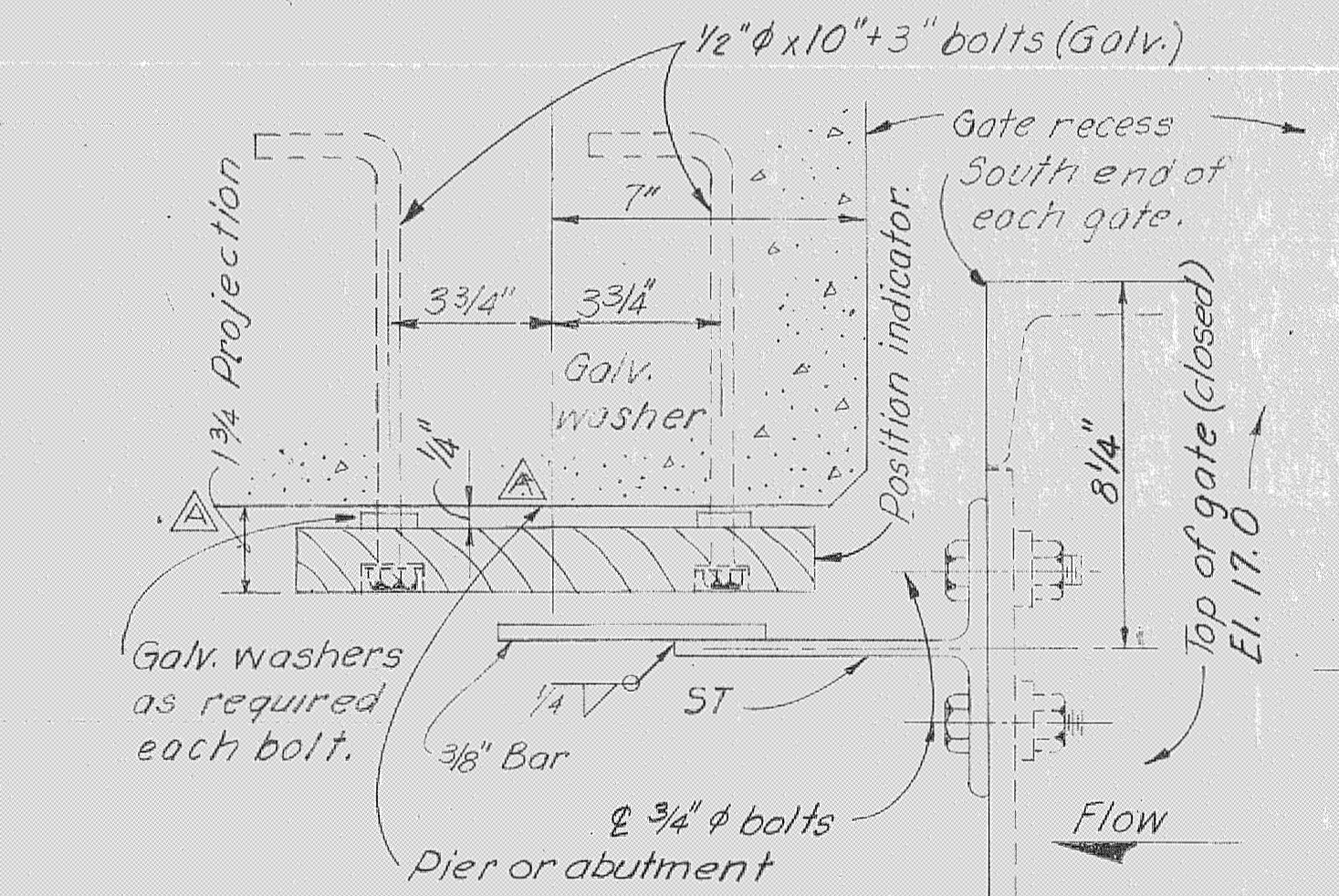


SECTION A-A
SCALE: 3"=1'-0"

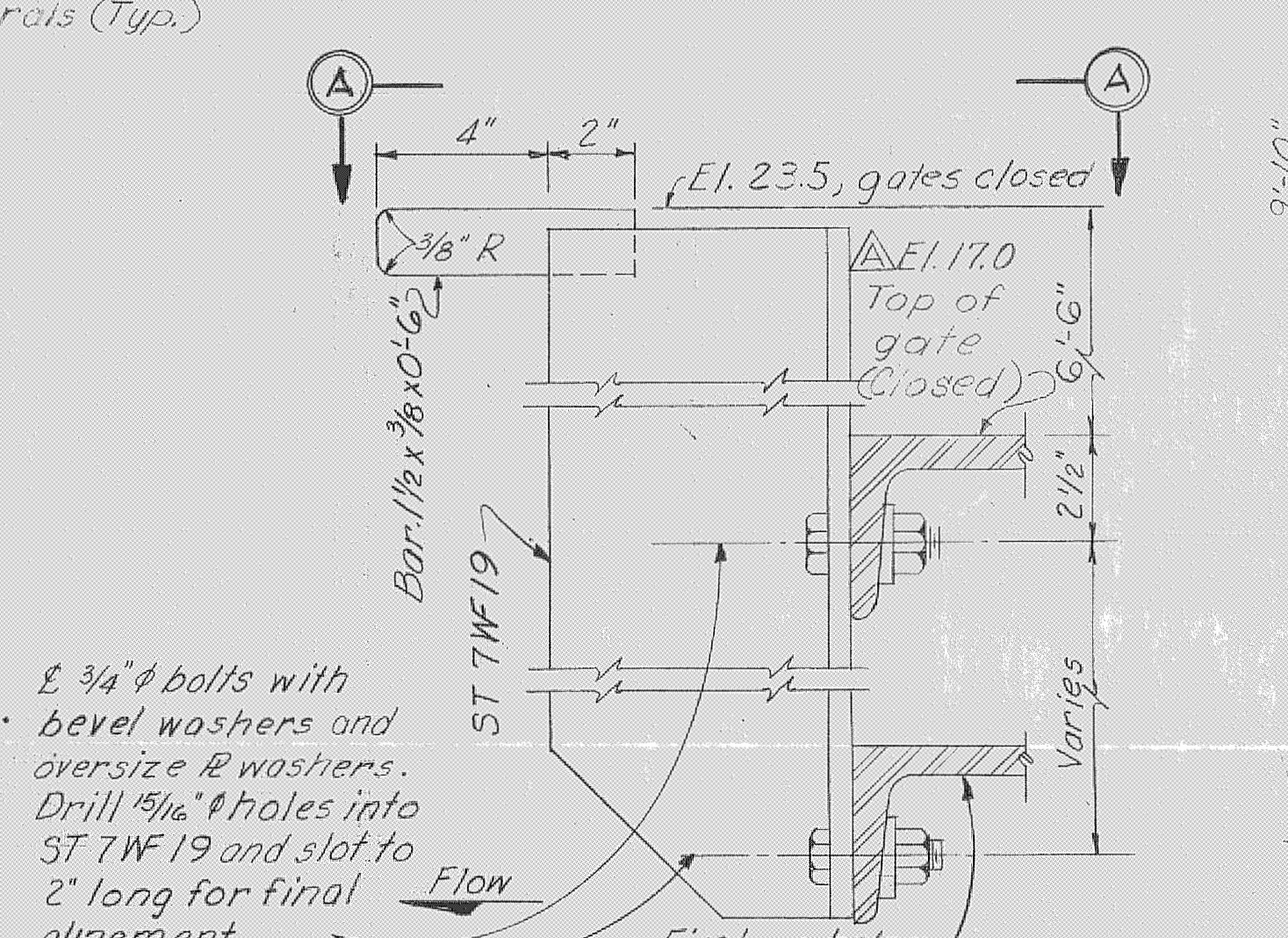


UPSTREAM GAGE
1 REQUIRED

STAFF GAGES
SCALE: 1 1/2"=1'-0"

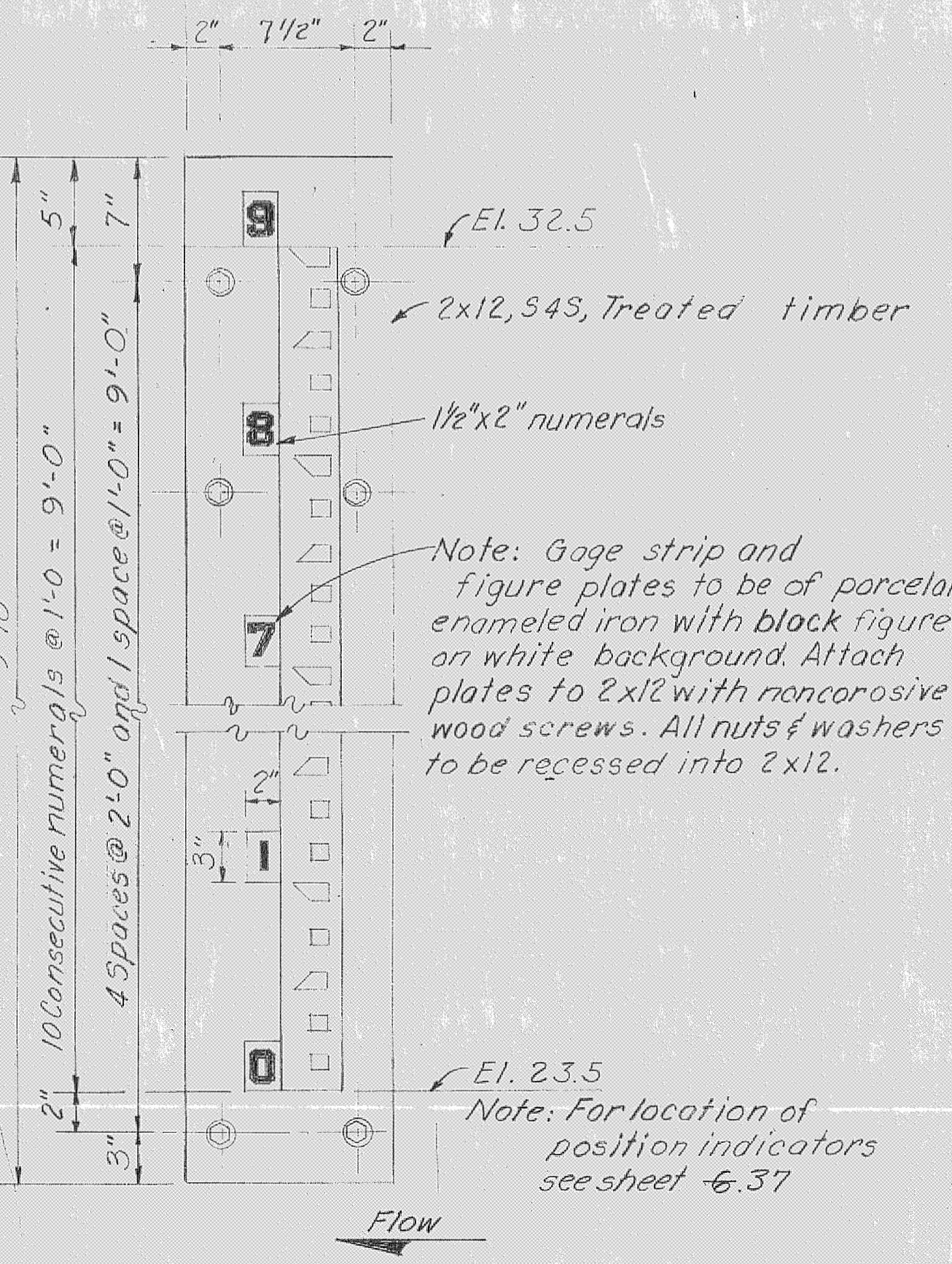


SECTION A-A
SCALE: 3"=1'-0"



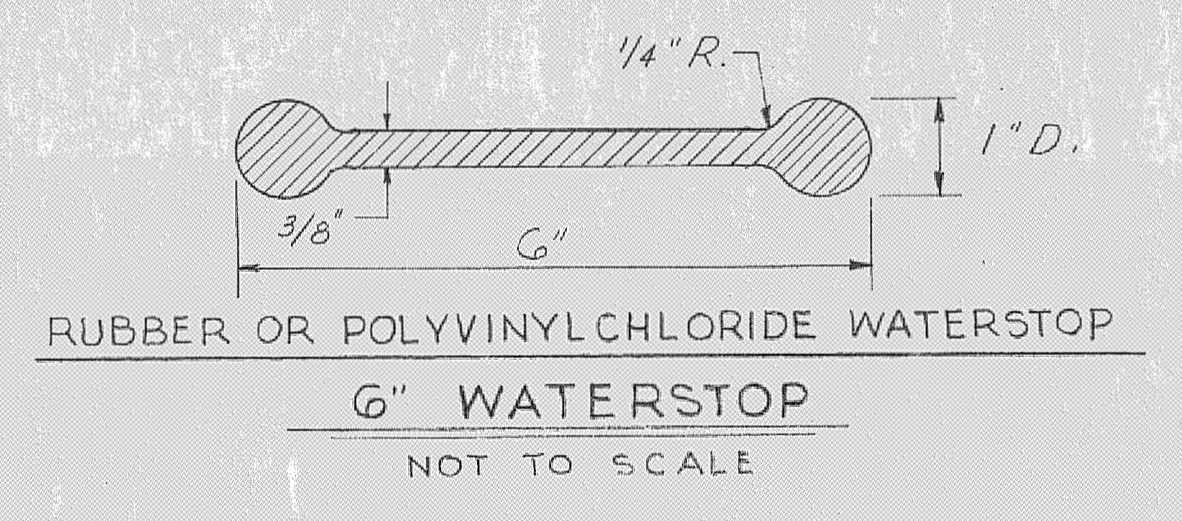
POSITION MARKER
SCALE: 3"=1'-0"

3 REQUIRED

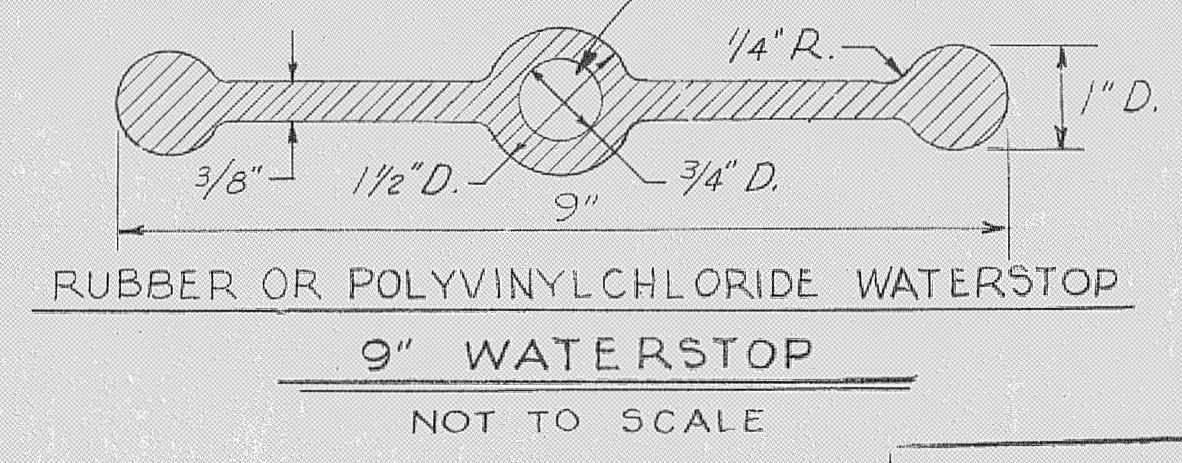


POSITION INDICATOR
SCALE: 1 1/2"=1'-0"

3 REQUIRED



RUBBER OR POLYVINYLCHLORIDE WATERSTOP
6" WATERSTOP
NOT TO SCALE

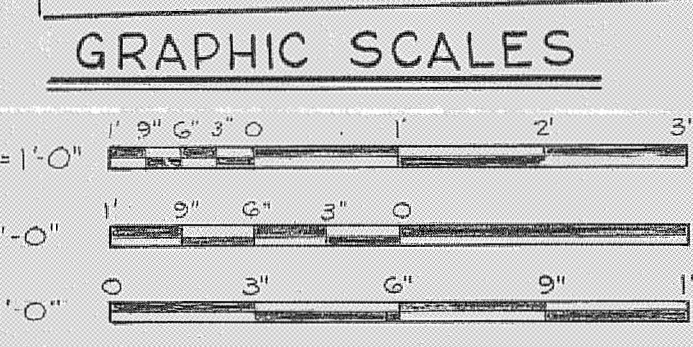


RUBBER OR POLYVINYLCHLORIDE WATERSTOP
9" WATERSTOP
NOT TO SCALE

Note: Plug holes of exposed ends of all runs with rubber or polyvinylchloride material.

- NOTES:**
- ALL MATERIAL STRUCTURAL STEEL, UNLESS OTHERWISE NOTED.
 - ALL MATERIAL NOTED ON THIS SHEET AS CORR. RESIST. SHALL BE CORROSION RESIST STEEL, TYPE 304 OR 410, UNLESS SPECIFIED OTHERWISE.
 - ALL GALVANIZED ITEMS TO BE GALVANIZED AFTER FABRICATION.
 - ALL BOLTS TO BE FURNISHED WITH ONE NUT AND WASHER, UNLESS OTHERWISE INDICATED. ALL BOLTS, NUTS AND WASHERS, EXCEPT THOSE NOTED AS CORR. RESIST., TO BE GALVANIZED.
 - AT OPTION OF THE CONTRACTOR, 5/8" x 6 3/8" OR EQUAL ANCHOR STUDS MAY GENERALLY BE SUBSTITUTED FOR 2" x 3/8" ANCHOR BARS. HOWEVER, SPECIFIC APPROVAL OF THE SUBSTITUTION FOR EACH INDIVIDUAL EMBEDDED ITEM IS REQUIRED PRIOR TO FABRICATION.
 - WHERE GALVANIZED ITEMS LOSE THEIR COATING DUE TO FIELD WELDING, GALVANIZING REPAIRS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.

RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.



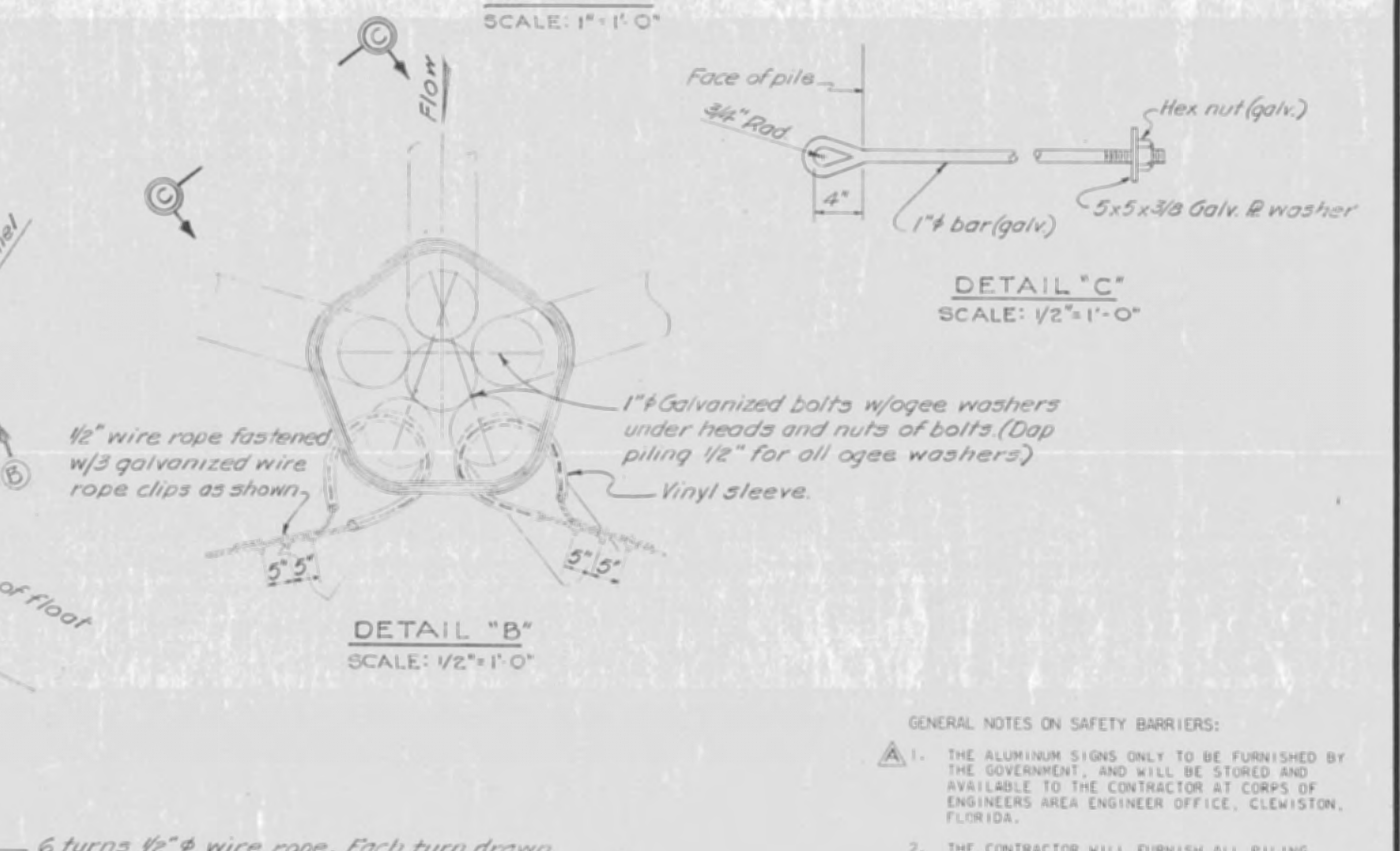
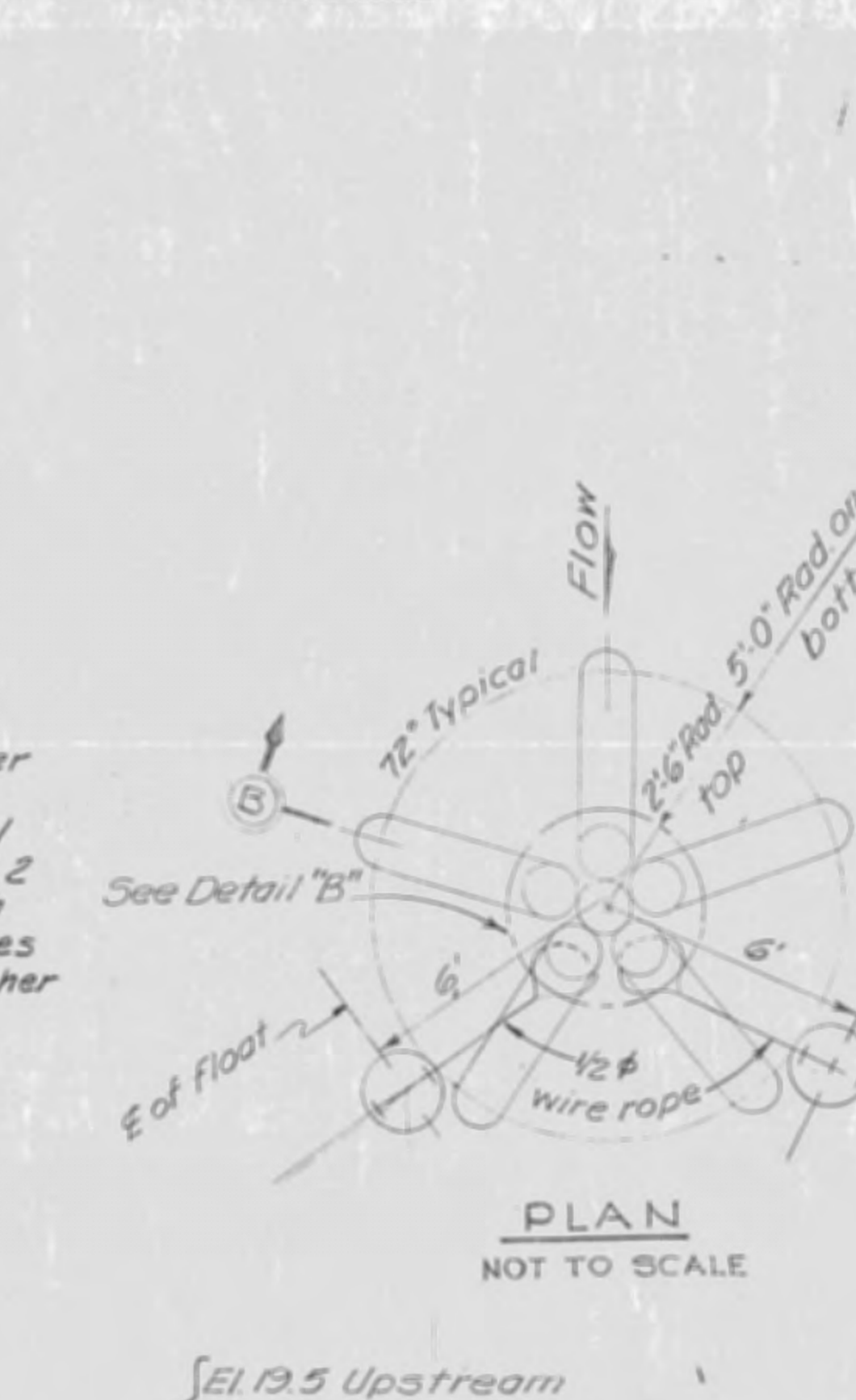
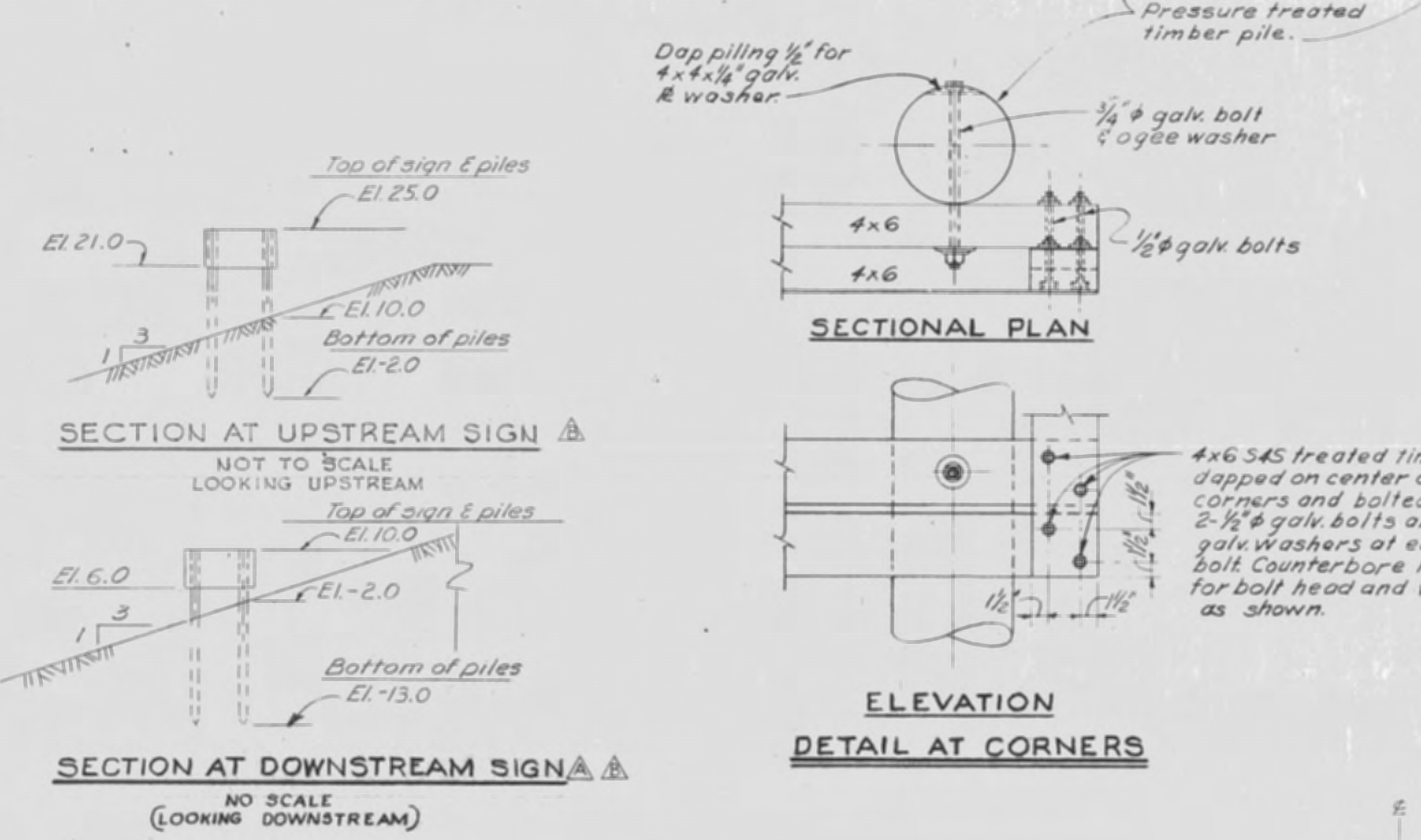
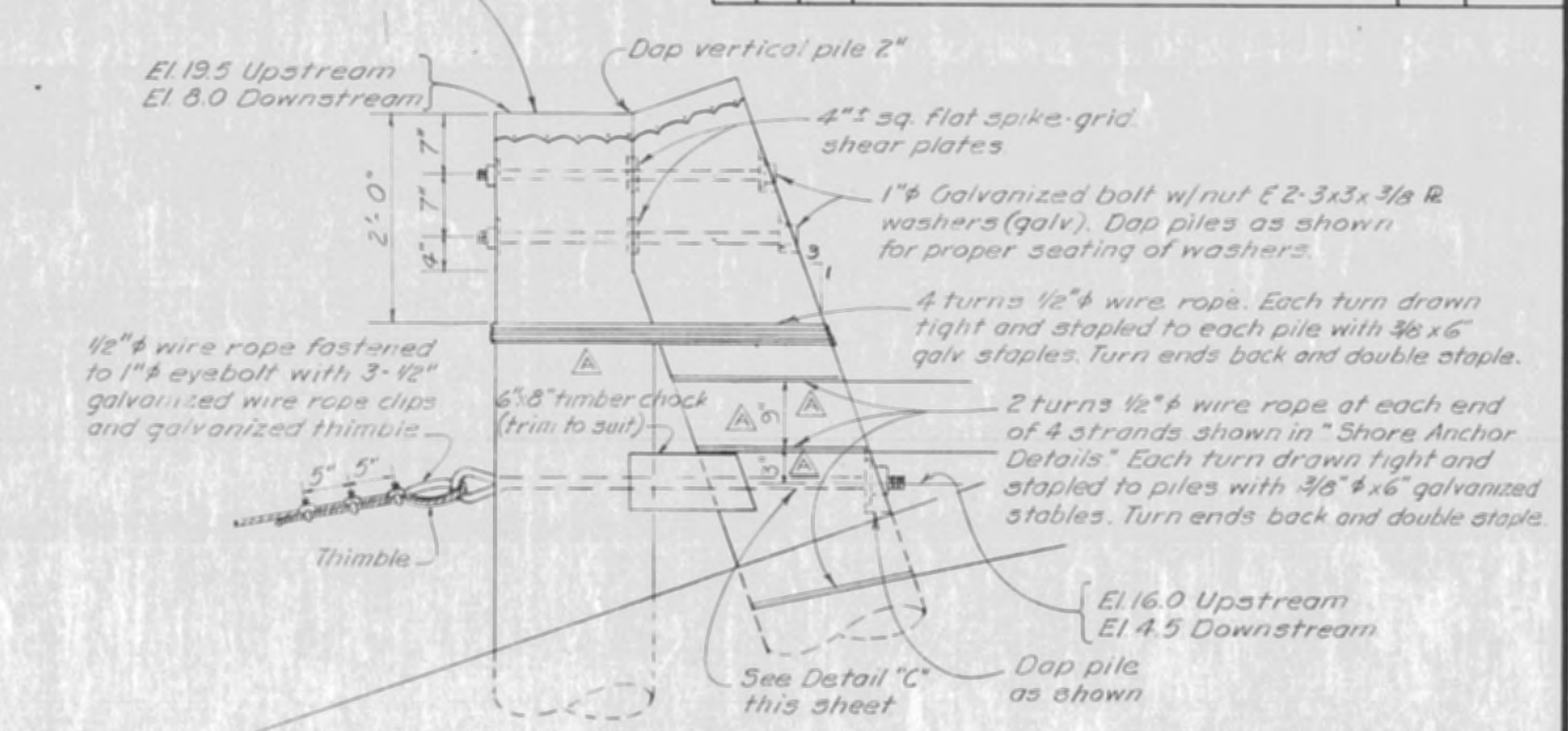
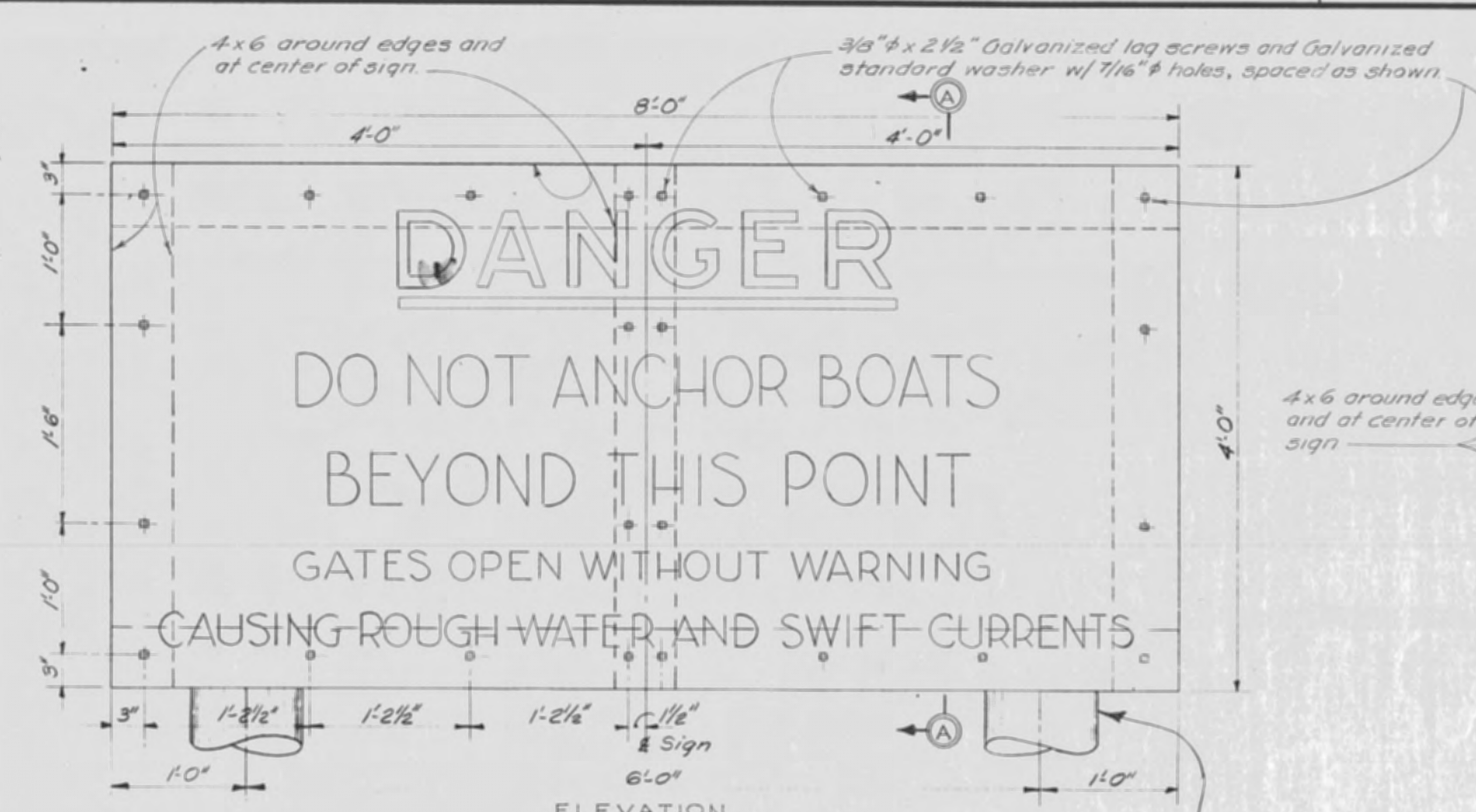
GRAPHIC SCALES

AS BUILT

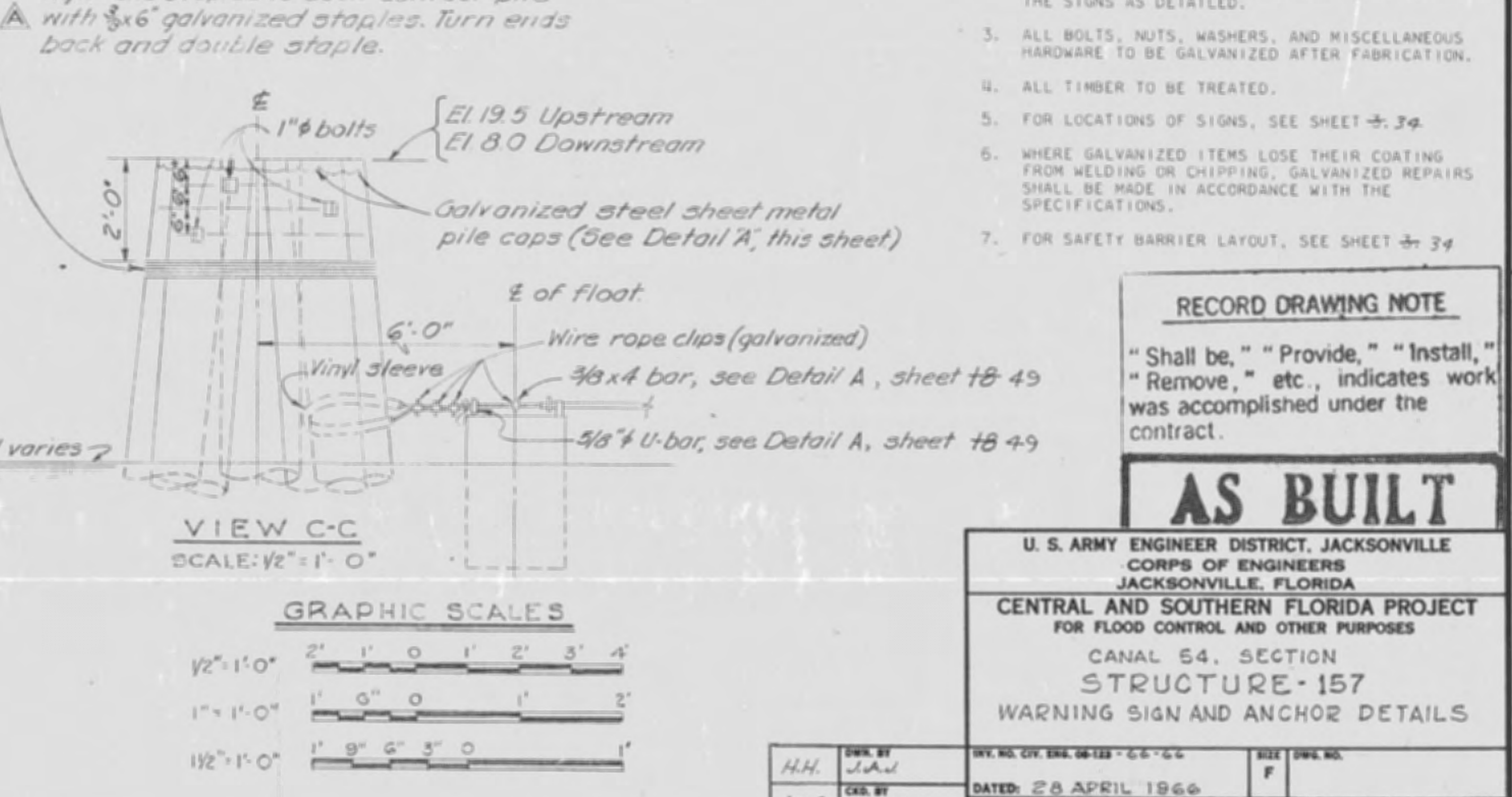
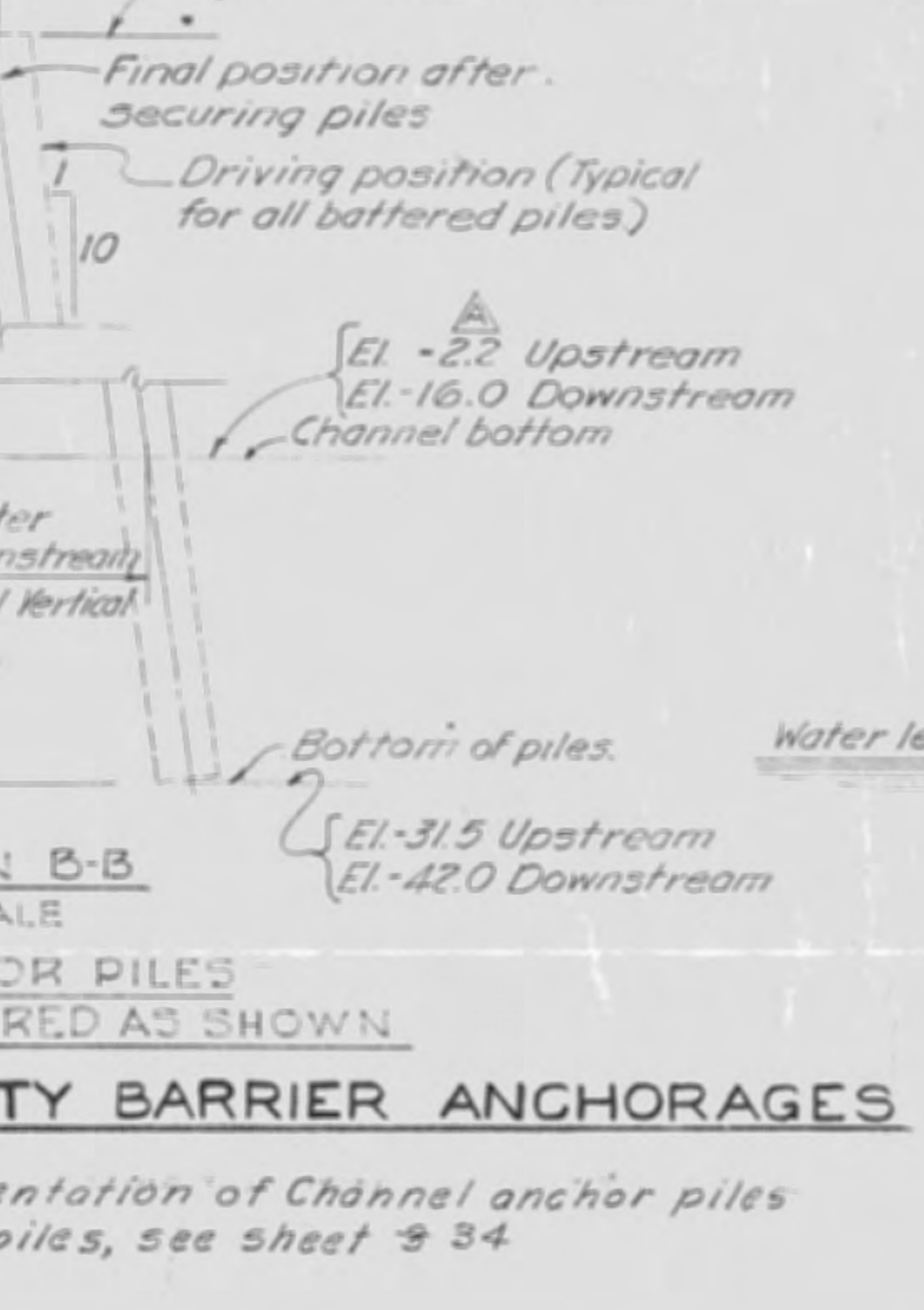
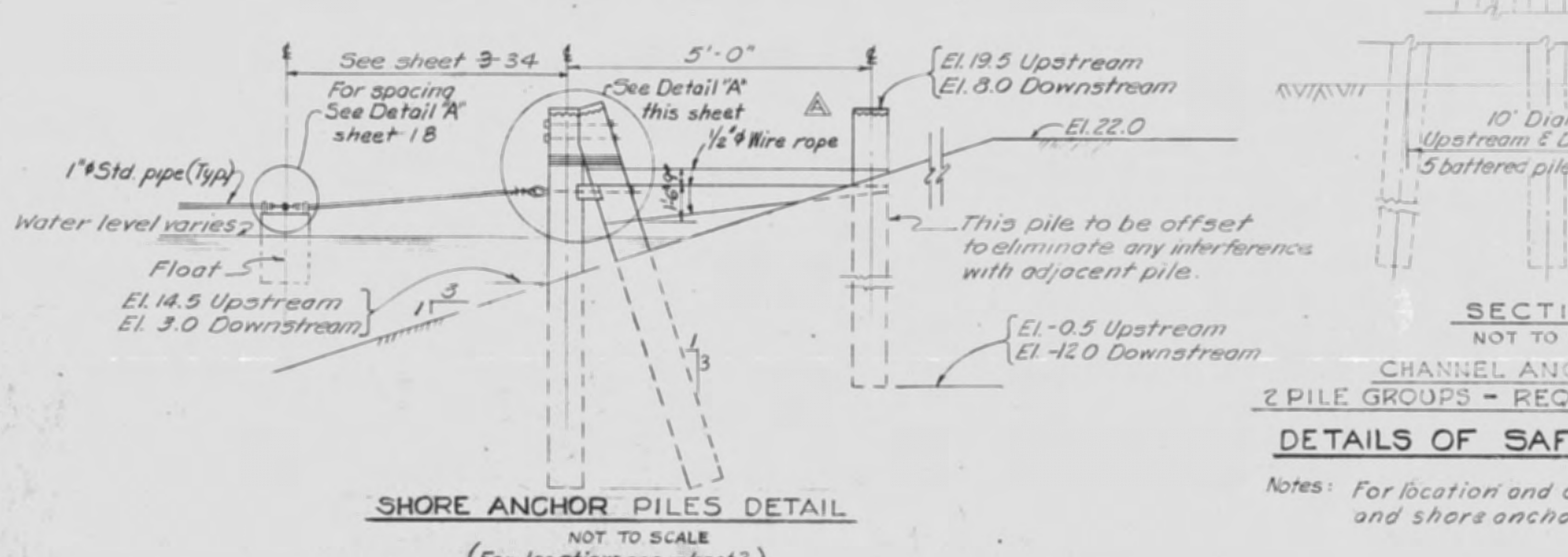
U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL - 54, SECTION 2
STRUCTURE - 157
EMBEDDED METALS
AND MISCELLANEOUS DETAILS

| | | | | | |
|-------------------------------------|-----------------------|---------------------------|-------------------|--------------------|-------------------|
| DESIGNED BY H.H.H. D.K.R. & H.H. | DATE 28 APRIL 1966 | DRAWN BY A.S.P. T.M.R. | SCALE AS SHOWN | DATE APRIL 1966 | SHEET 40 OF 72 |
|-------------------------------------|-----------------------|---------------------------|-------------------|--------------------|-------------------|

| REVISIONS | | | | |
|-----------|------|--------|---|----------|
| NO. | SYM. | DATE | DESCRIPTION | APPROVED |
| 1 | | | REVISED TO CONFORM TO AMENDMENT NO. 2 | |
| 2 | A | 5-8-66 | REVISION LOCATION OF 12" TYPICAL WARNING SIGNS TO ACCORDANCE WITH CONTRACT DIV. ENG. 86-109 | |



DETAILS OF WARNING SIGNS
SCALE: 1/2" = 1'-0"
1 REQUIRED UPSTREAM
1 REQUIRED DOWNSTREAM



CHANNEL ANCHOR PILES
2 PILE GROUPS - REQUIRED AS SHOWN
DETAILS OF SAFETY BARRIER ANCHORAGES
Notes: For location and orientation of Channel anchor piles and shore anchor piles, see sheet 3-34



- GENERAL NOTES ON SAFETY BARRIERS:
1. THE ALUMINUM SIGNS ONLY TO BE FURNISHED BY THE GOVERNMENT, AND WILL BE STORED AND AVAILABLE TO THE CONTRACTOR AT CORPS OF ENGINEERS AREA ENGINEER OFFICE, CLEWISTON, FLORIDA.
 2. THE CONTRACTOR WILL FURNISH ALL PILING, TIMBER, AND HARDWARE REQUIRED, AND ERECT THE SIGNS AS DETAILED.
 3. ALL BOLTS, NUTS, WASHERS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED AFTER FABRICATION.
 4. ALL TIMBER TO BE TREATED.
 5. FOR LOCATIONS OF SIGNS, SEE SHEET 3-34.
 6. WHERE GALVANIZED ITEMS LOSE THEIR COATING FROM WELDING OR CHIPPING, GALVANIZED REPAIRS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.
 7. FOR SAFETY BARRIER LAYOUT, SEE SHEET 3-34.

RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

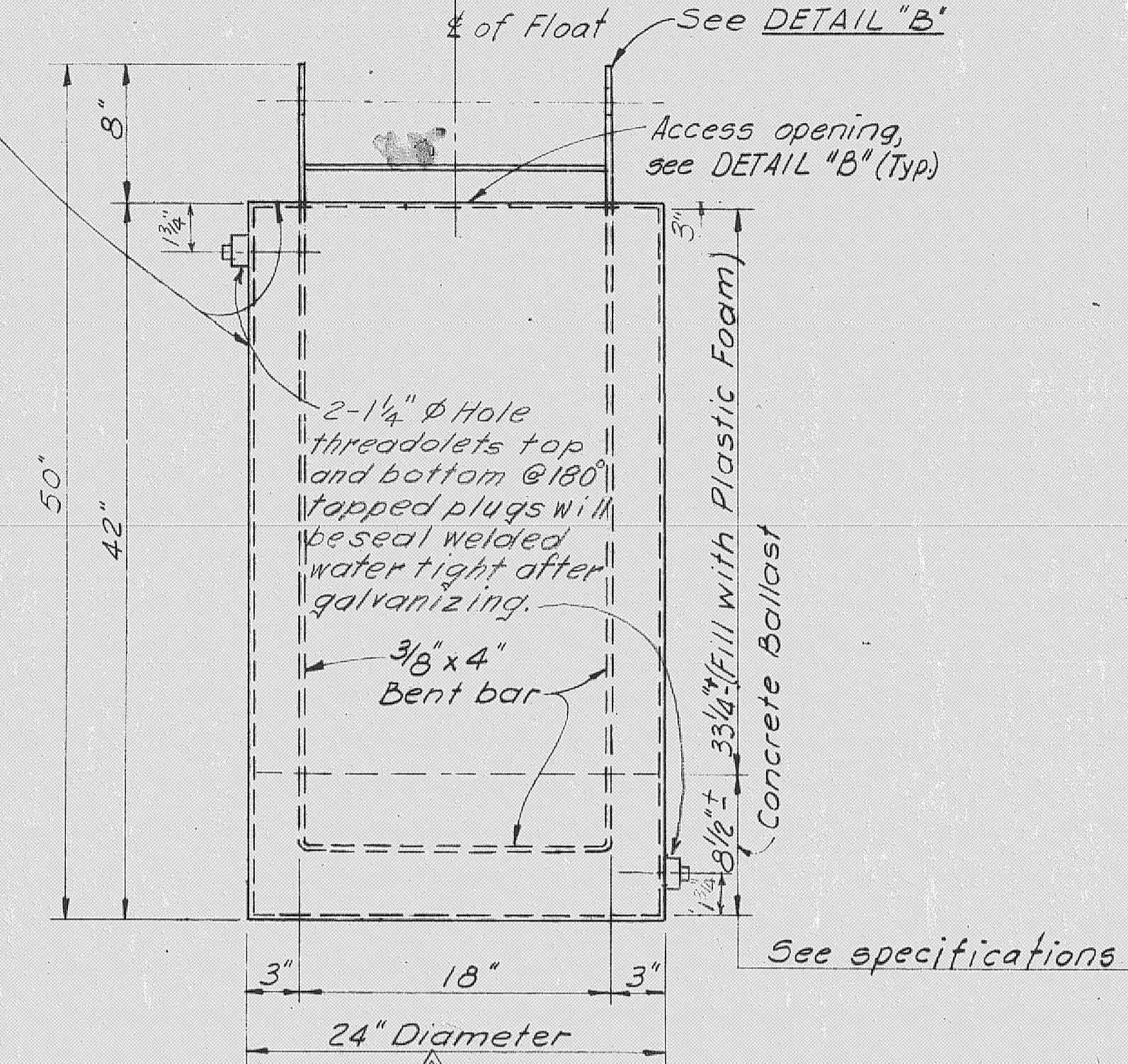
AS BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION
STRUCTURE - 157
WARNING SIGN AND ANCHOR DETAILS

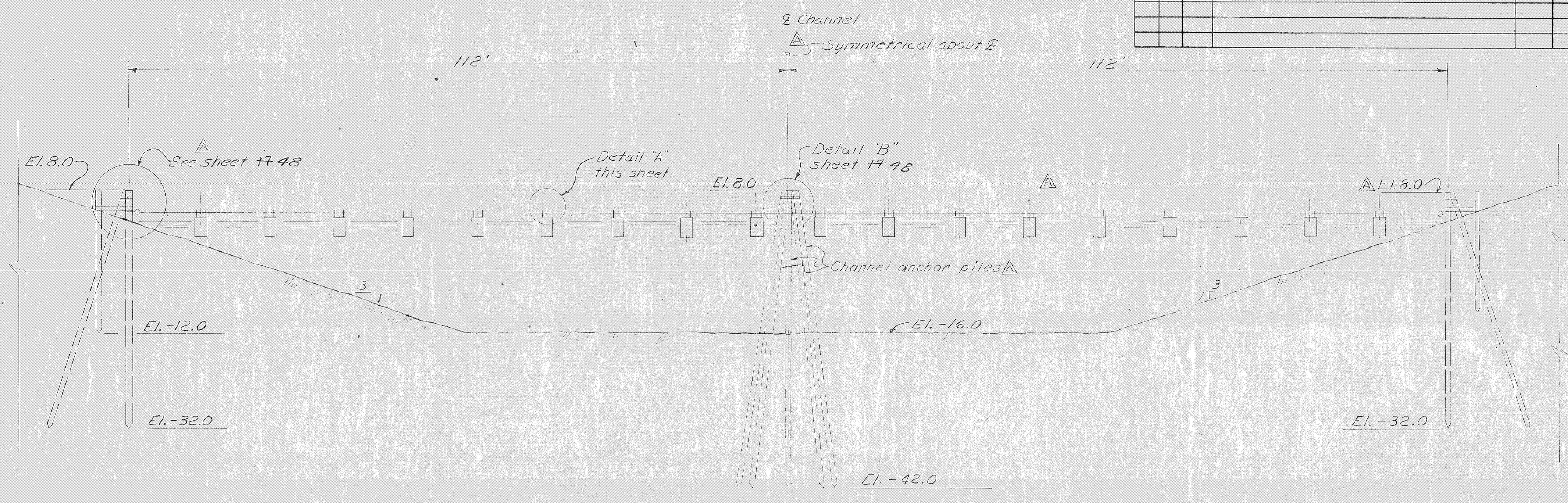
| | | | |
|---------------------|-----------------|------------------|----------------|
| DATE: 28 APRIL 1966 | SCALE: AS SHOWN | DATE: APRIL 1966 | SHEET 17 OF 78 |
|---------------------|-----------------|------------------|----------------|

| REVISIONS | | | | | |
|-----------|------|------|--|---------|----------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
| 1 | Δ | | REVISED TO CONFORM TO AMENDMENT NO. 2. | 5-16-66 | WGR |
| | | | | | |
| | | | | | |
| | | | | | |

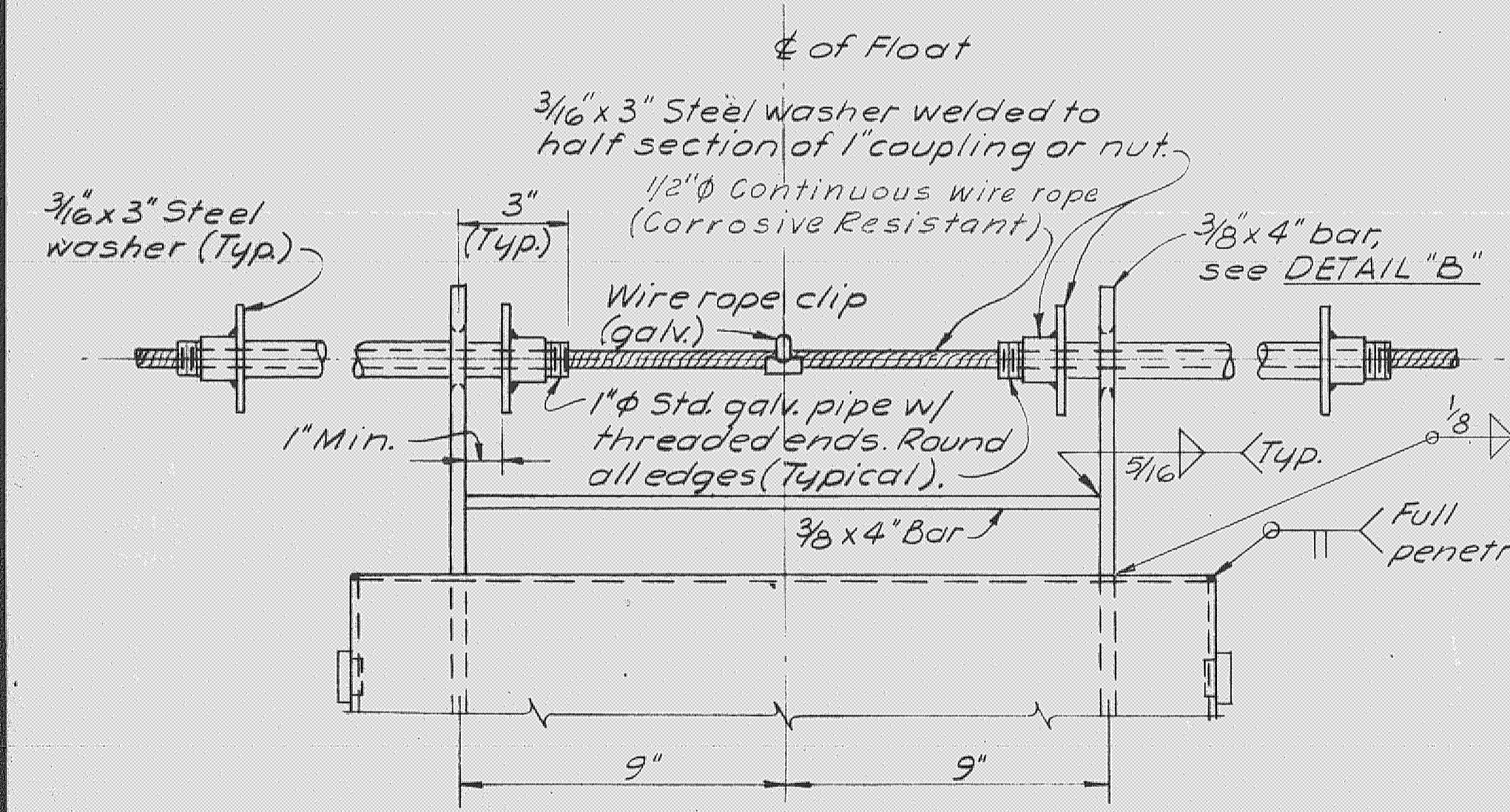
Note: Cylinder to be fabricated from 12 gage steel plates. All joints shall be welded in such a manner to provide a completely water-tight cylinder.



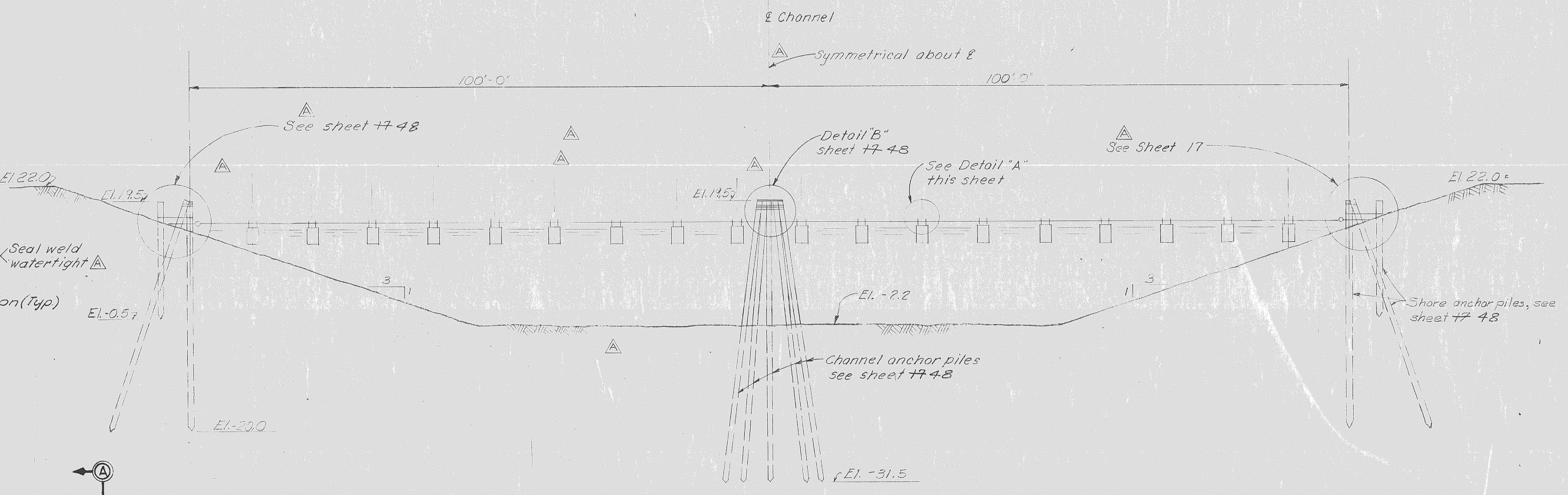
Note: Refer to Note No. 4 this sheet
FLOAT ELEVATION (TYP)
 SCALE: 1 1/2" = 1'-0"
 Δ36 Required



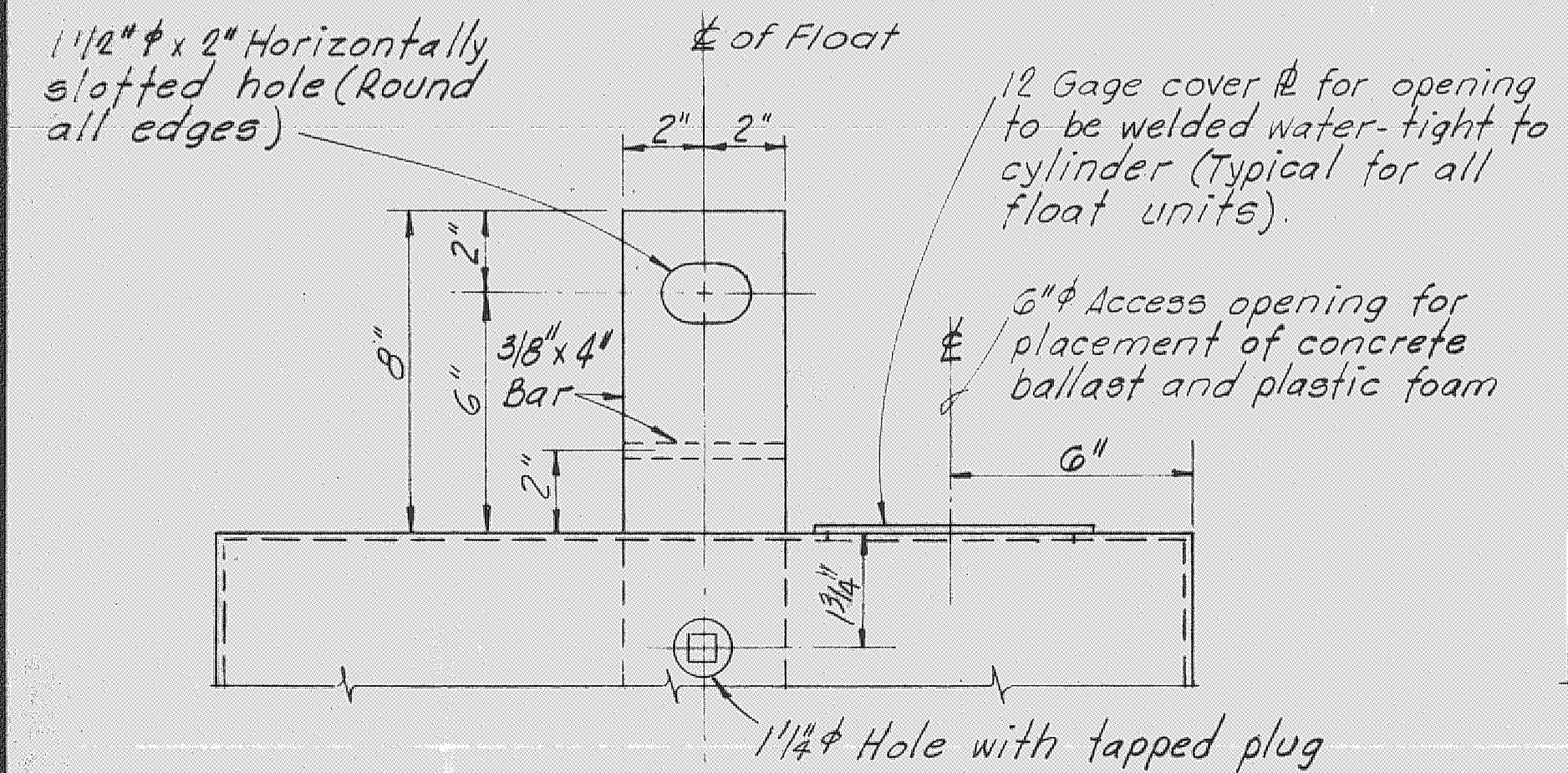
SAFETY BARRIER - DOWNSTREAM
 NOT TO SCALE



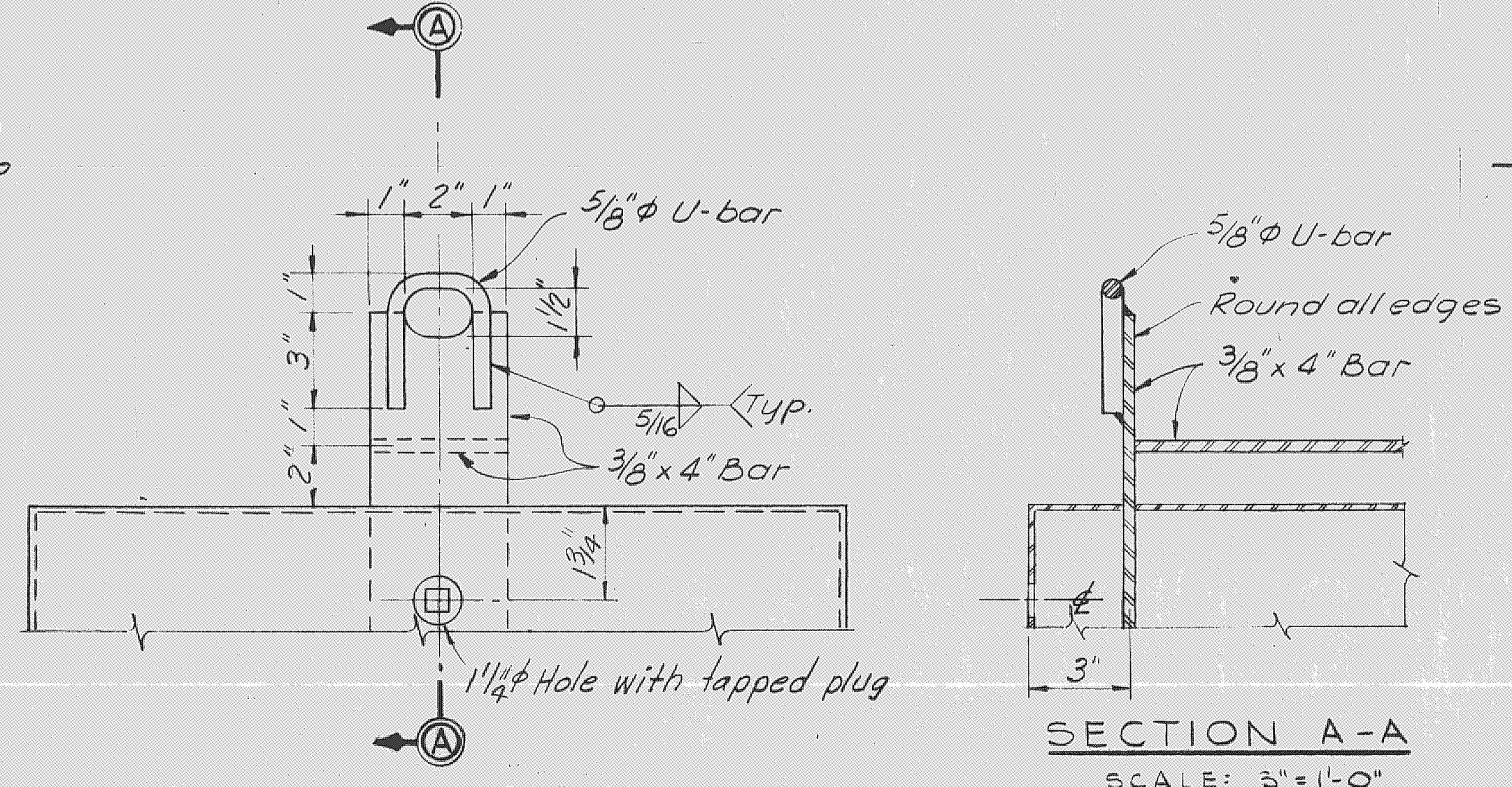
DETAIL "A"
 SCALE: 3" = 1'-0"



SAFETY BARRIER - UPSTREAM
 NOT TO SCALE



DETAIL "B"
 SCALE: 3" = 1'-0"

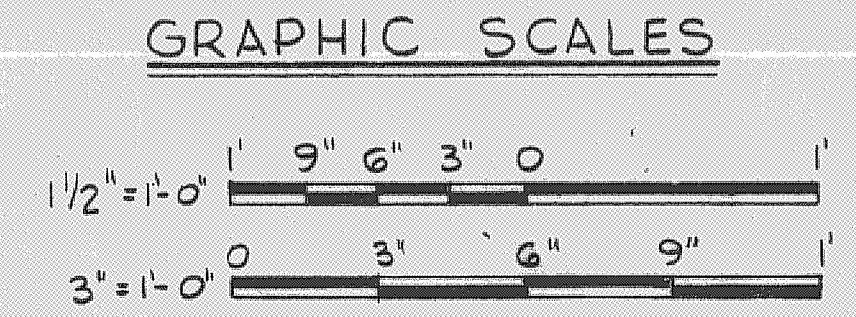


DETAIL "C"
 SCALE: 3" = 1'-0"

SECTION A-A
 SCALE: 3" = 1'-0"

- NOTES:
- FOR SAFETY BARRIER LAYOUT, SEE SHEET 3.
 - FOR DETAILS OF CHANNEL ANCHOR PILE, SEE SHEET 17.
 - ALL GALVANIZED ITEMS SHALL BE GALVANIZED AFTER FABRICATION.
 - ALL SAFETY BARRIER FLOATS SHALL BE GALVANIZED. WHERE GALVANIZED ITEMS LOSE THEIR COATINGS DUE TO FIELD WELDING, GALVANIZING REPAIRS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.

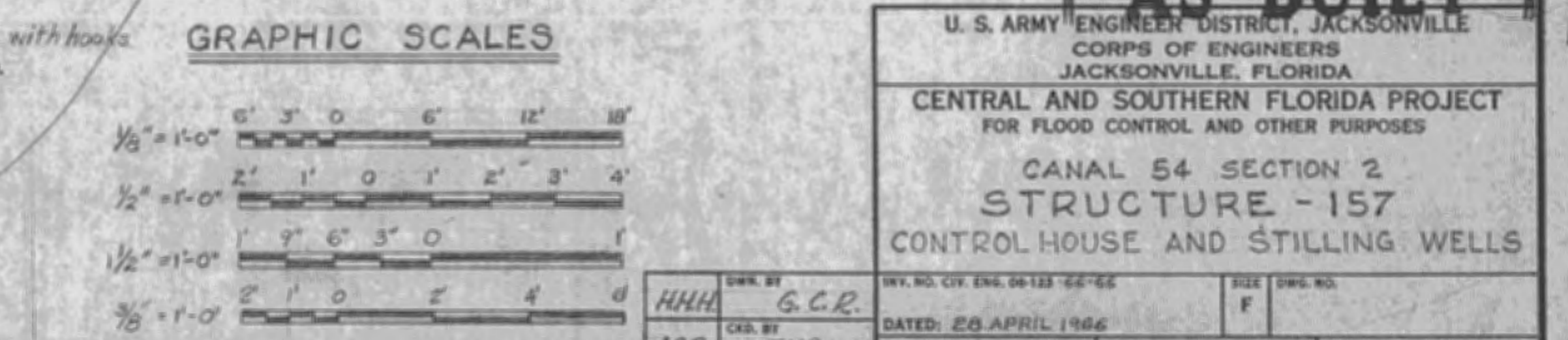
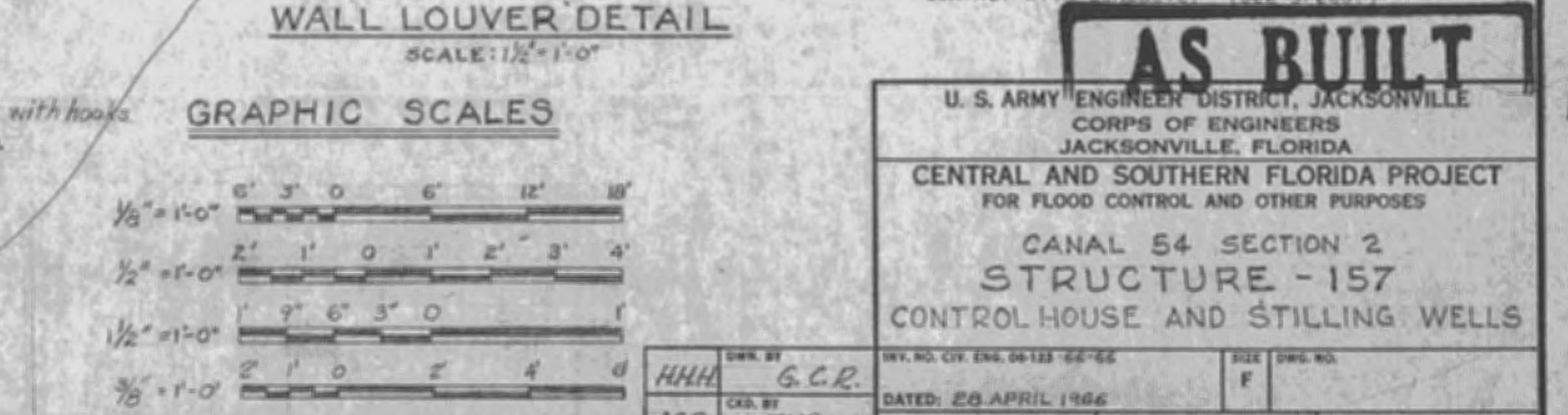
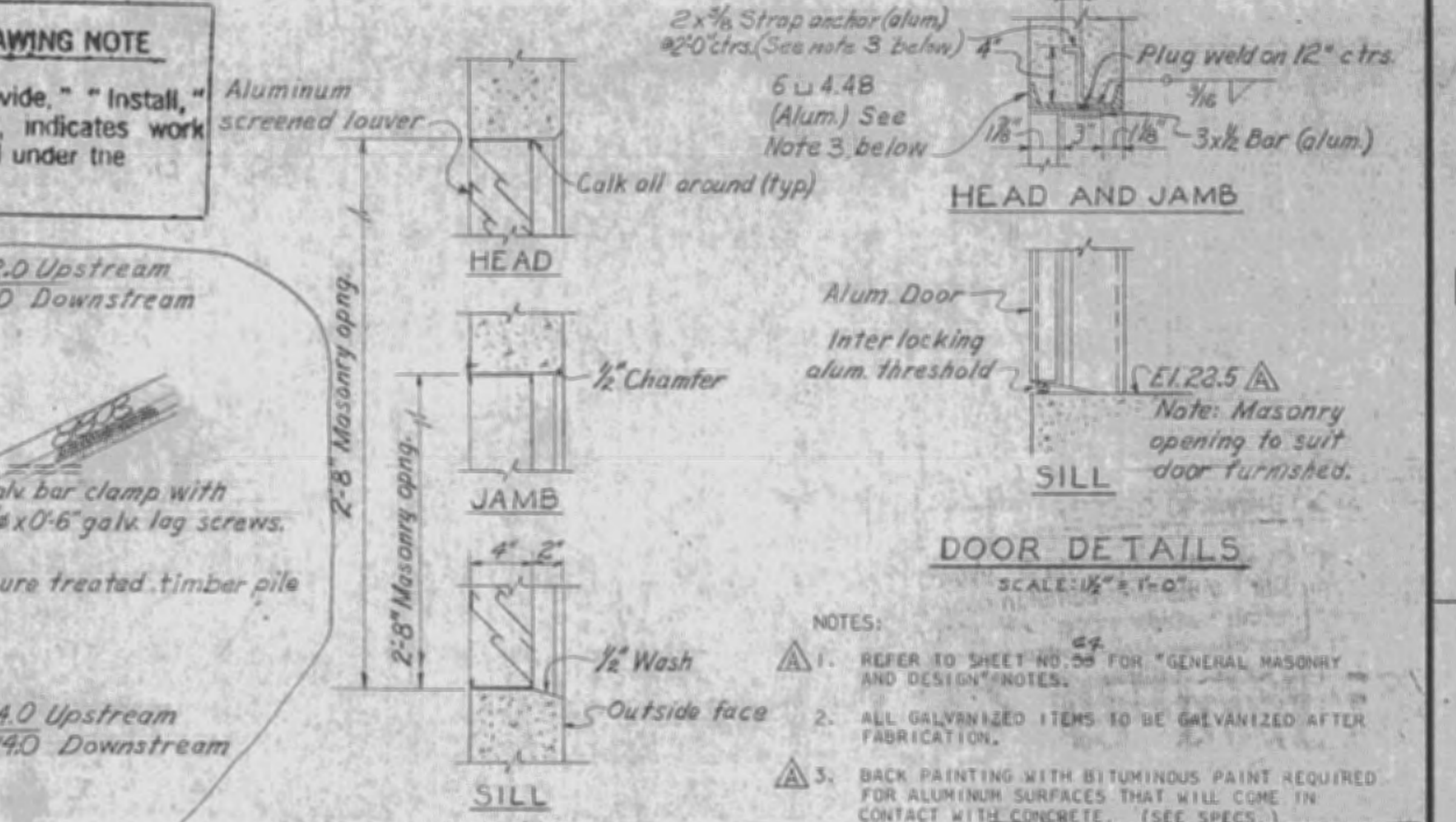
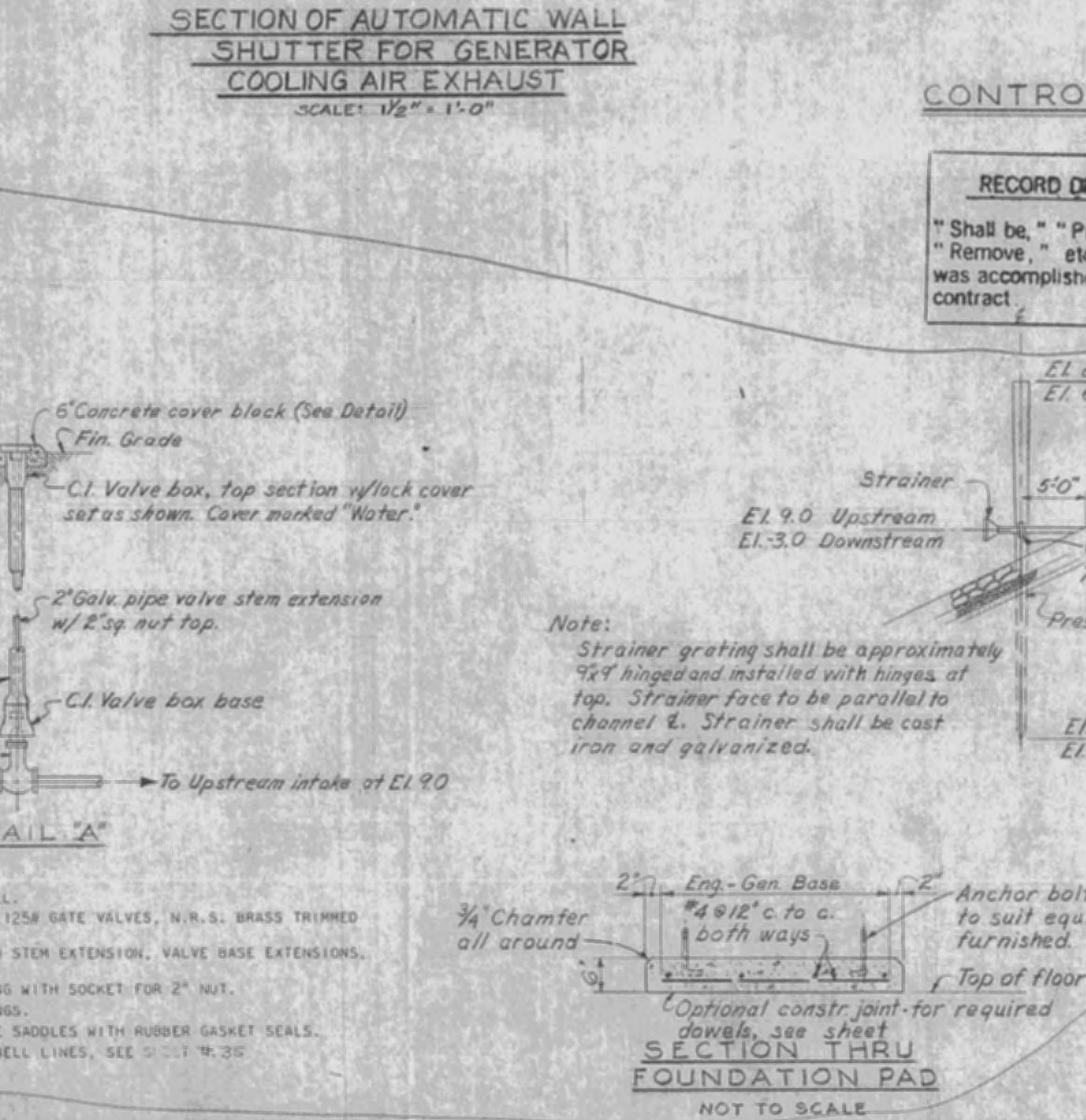
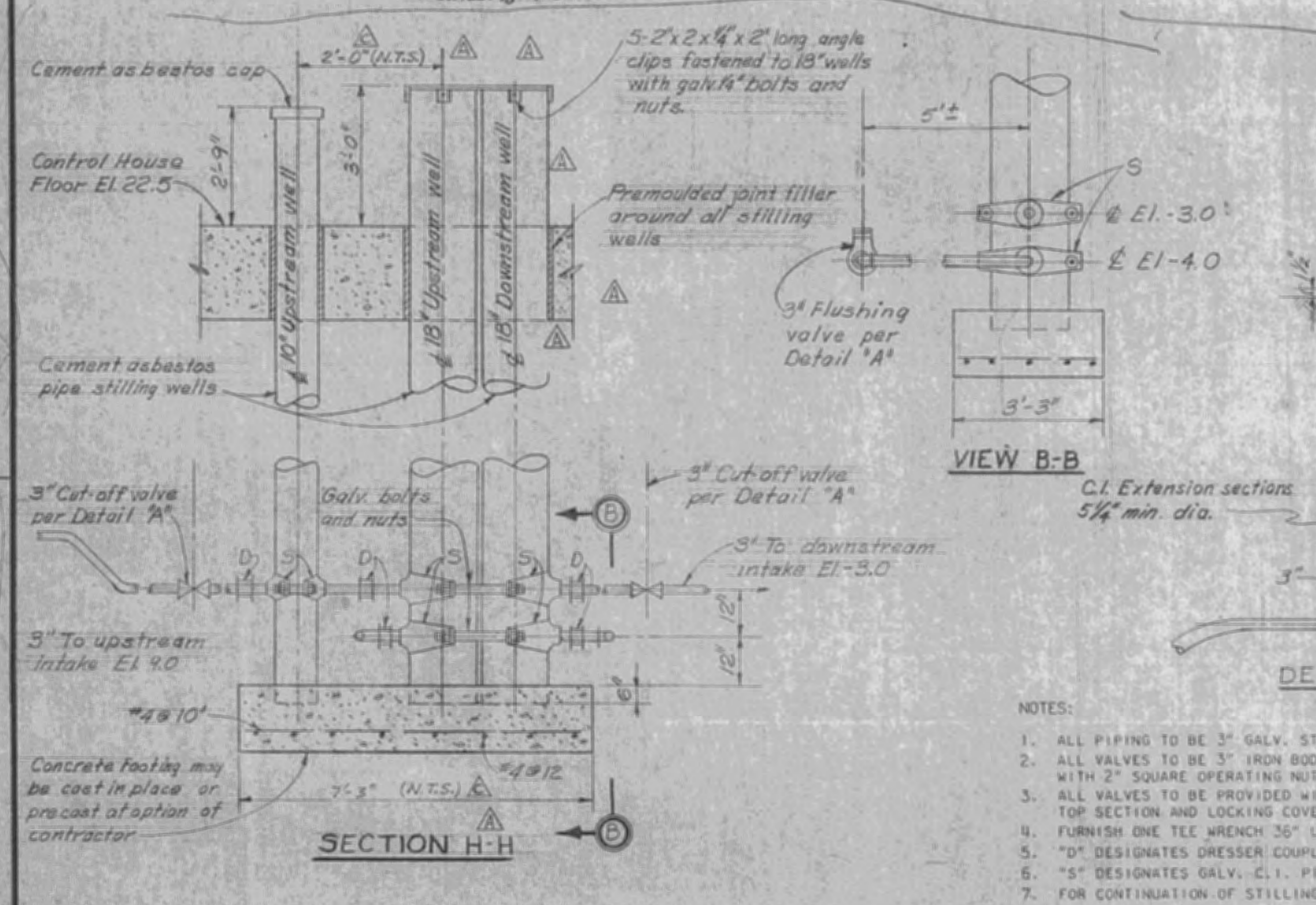
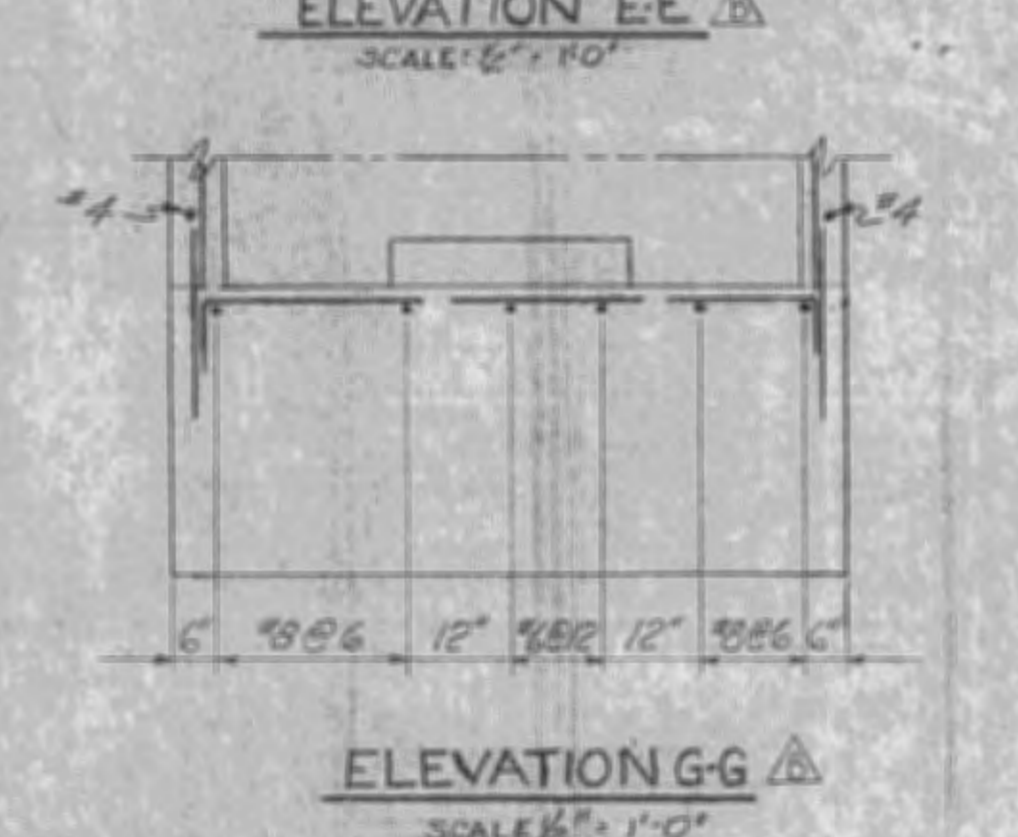
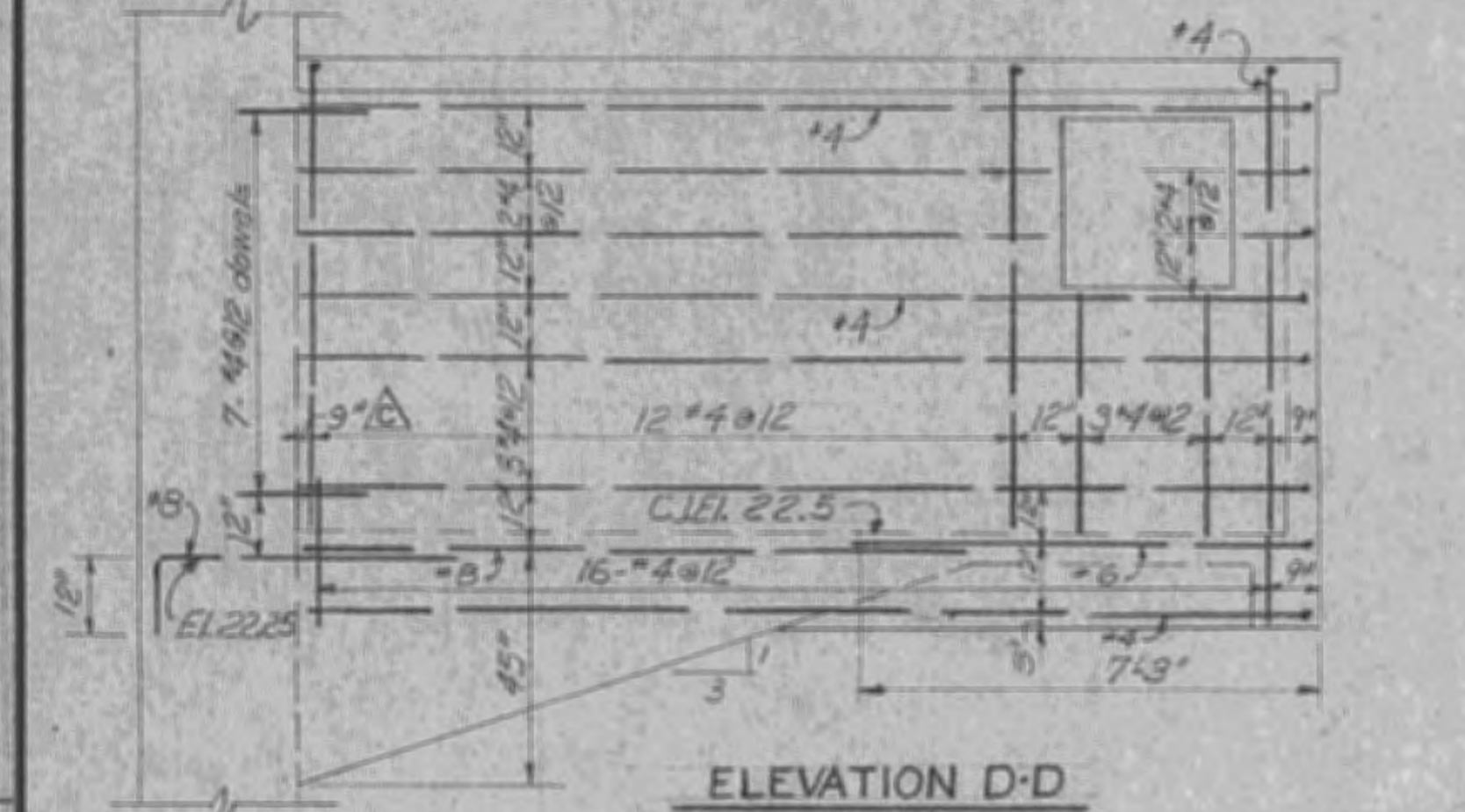
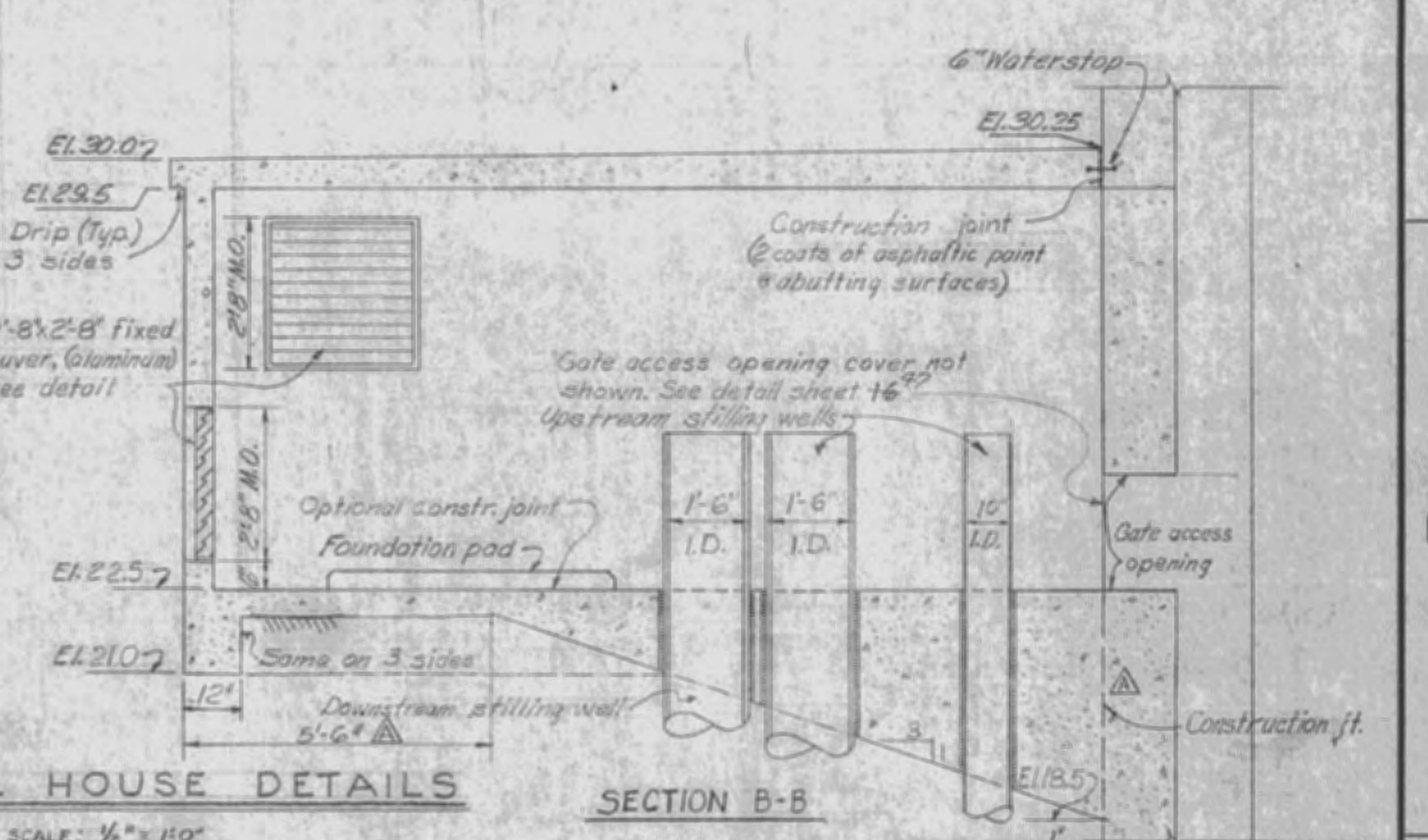
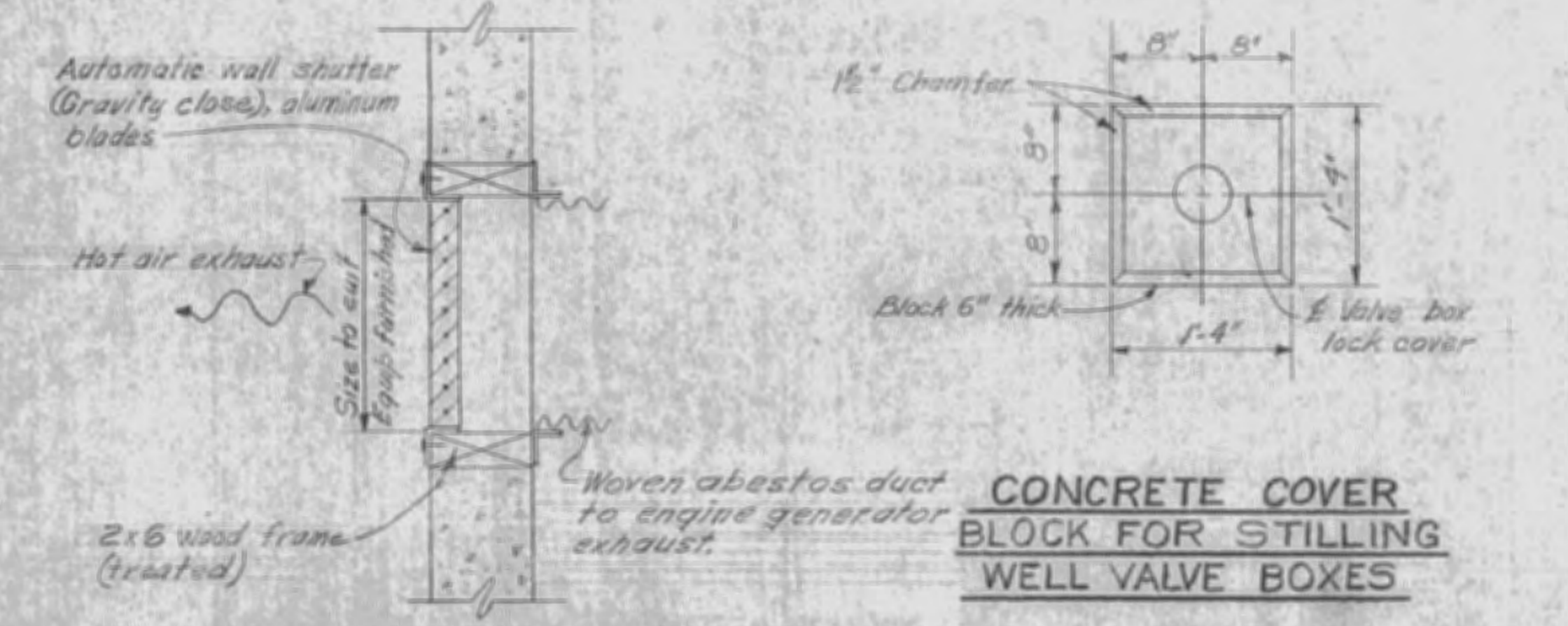
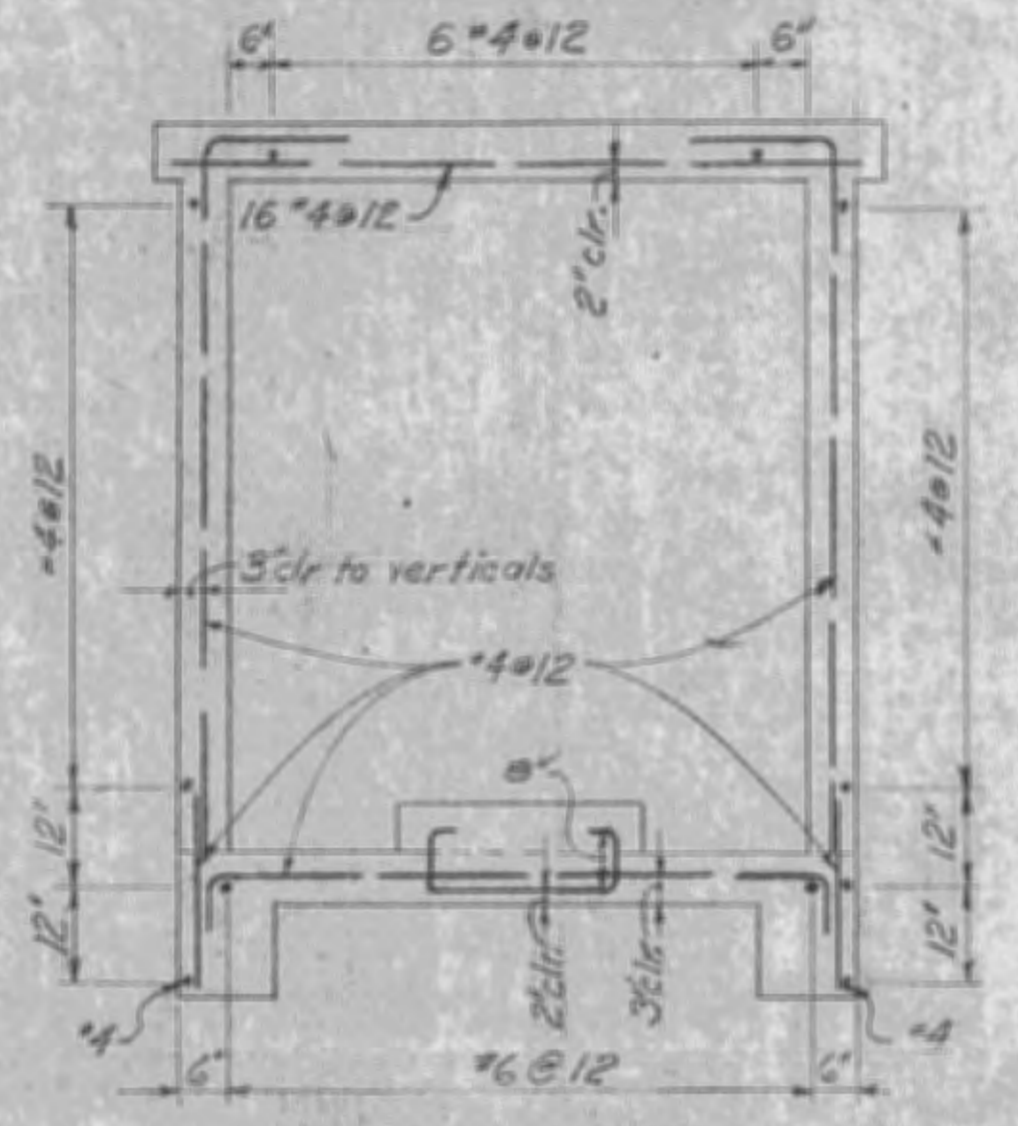
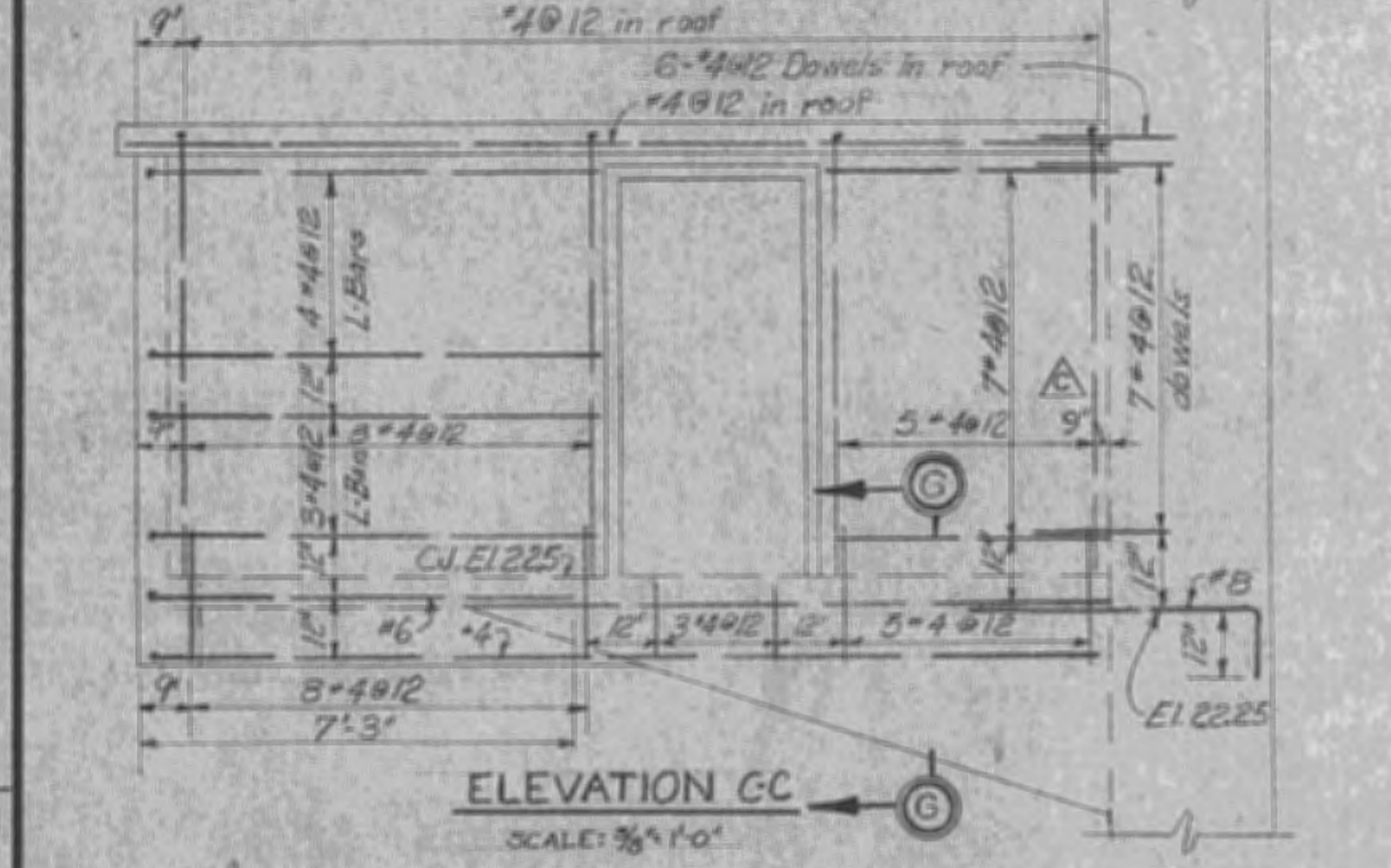
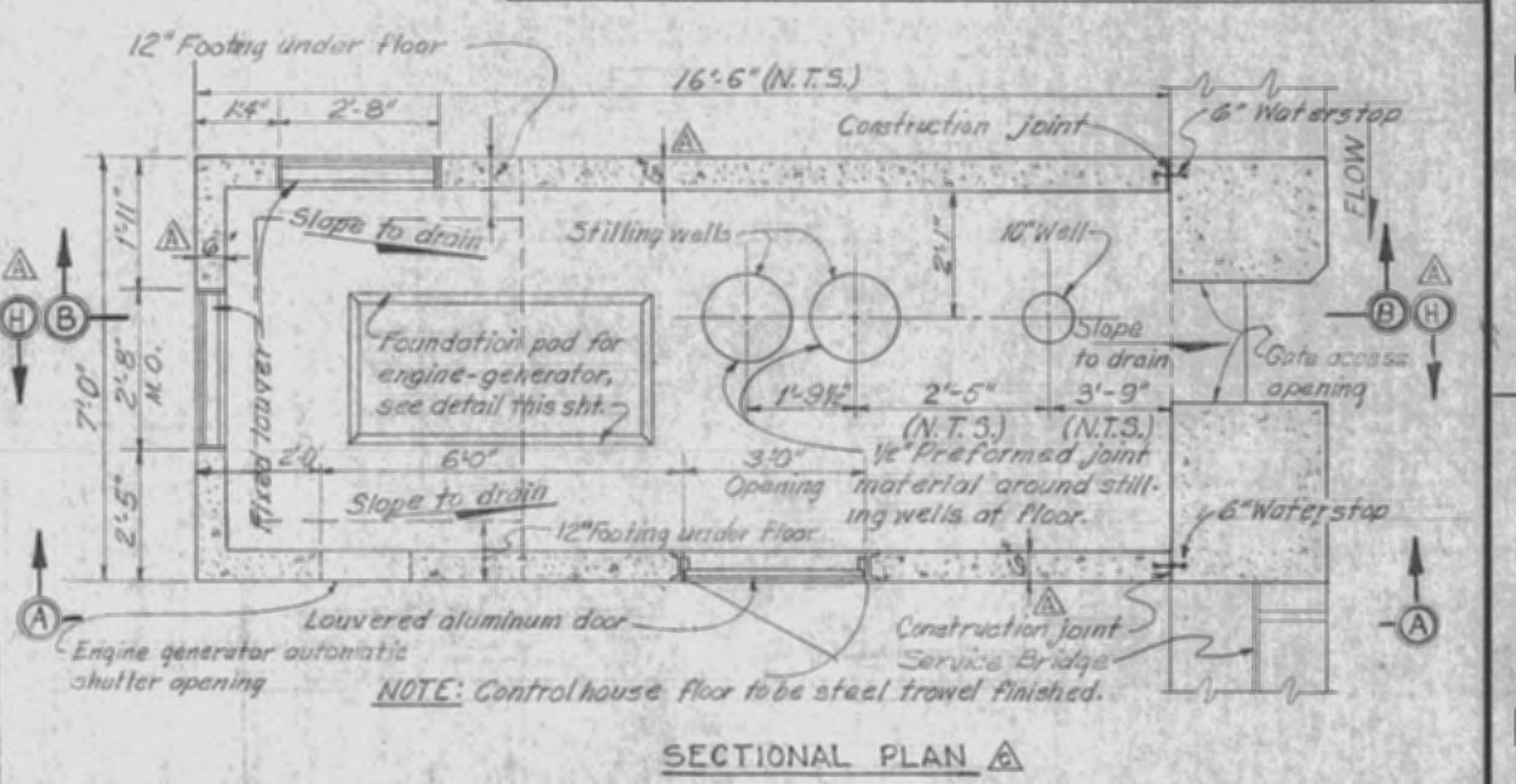
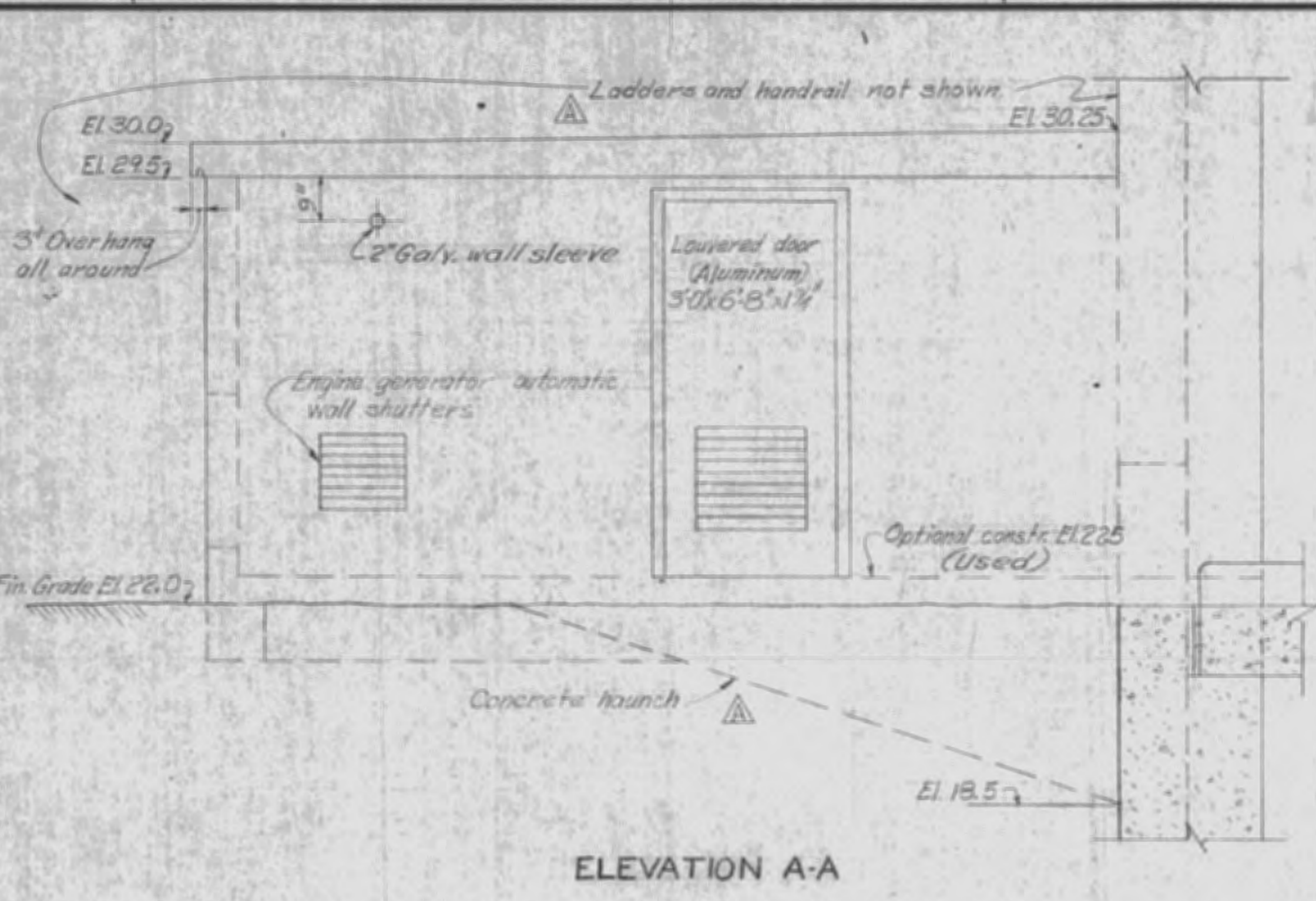
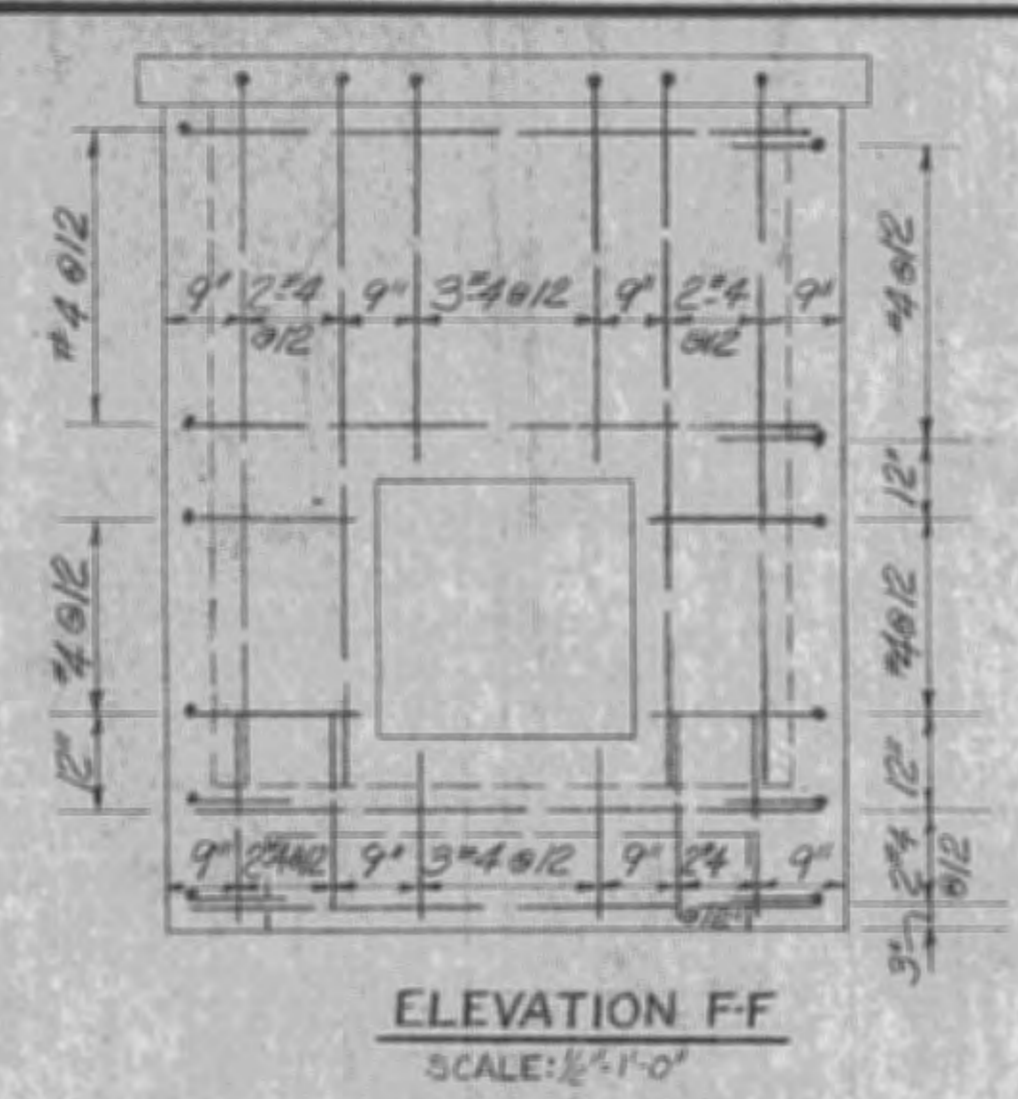
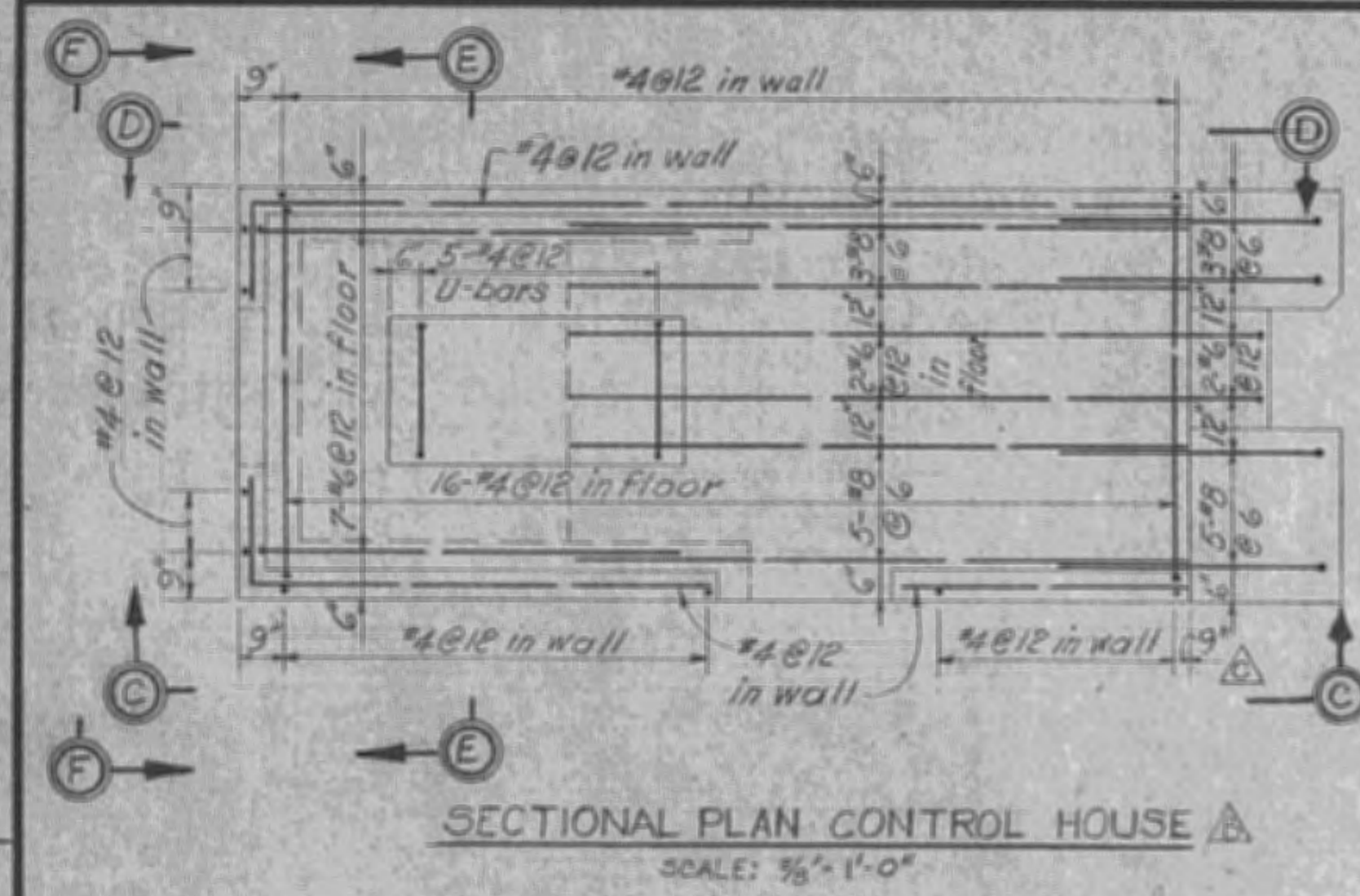
RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.



AS BUILT
 U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA
 CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL 54, SECTION 2
STRUCTURE - 157
SAFETY BARRIER DETAILS

| | | | | | |
|------------------|-----------------|---------------------|-----------------|-------------------|----------------|
| DESIGNED BY: BDR | CHKD BY: T.M.R. | DATE: 28 APRIL 1966 | SCALE: AS SHOWN | DATED: APRIL 1966 | SHEET 18 OF 74 |
|------------------|-----------------|---------------------|-----------------|-------------------|----------------|

| REVISIONS | | | | |
|-----------|--------|---|---------|----------|
| NO. | SYMBOL | DESCRIPTION | DATE | APPROVED |
| 1 | | REVISED TO CONFORM TO AMENDMENT NO. 2 | 5-10-66 | W.F.C. |
| 2 | | REVISED TO ACCOMPANY MODIFICATION NO. 2 | 5-16-66 | W.F.C. |
| 3 | | REVISED TO ACCOMPANY MODIFICATION NO. 3 | 7-3-67 | W.F.C. |

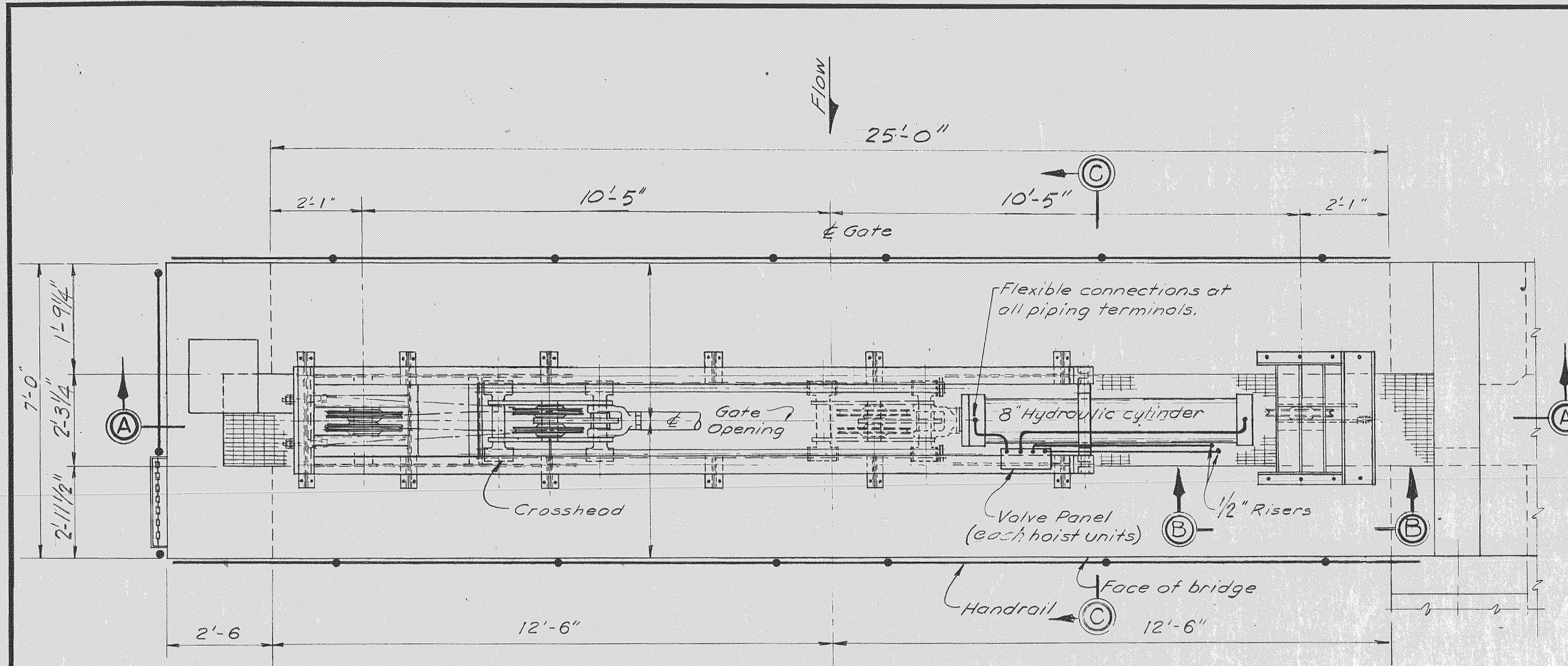


RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

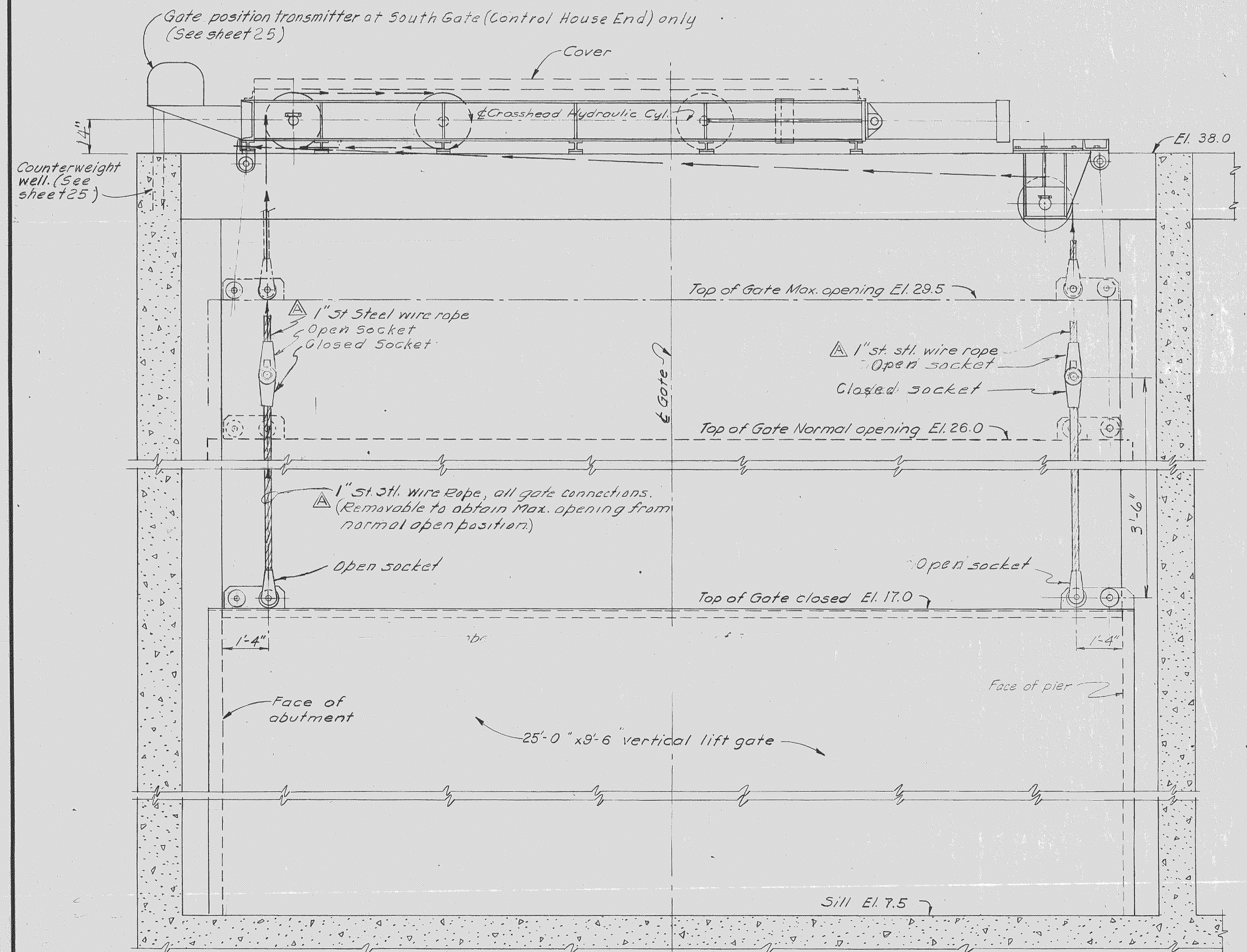
- NOTES:
1. ALL PIPING TO BE 3" GALV. STEEL.
 2. ALL VALVES TO BE 3" IRON BODY 125# GATE VALVES, N.R.S. BRASS TRIMMED WITH 2" SQUARE OPERATING NUTS.
 3. ALL VALVES TO BE PROVIDED WITH STEM EXTENSION, VALVE BASE EXTENSIONS, TOP SECTION AND LOCKING COVER.
 4. FURNISH ONE TEE WRENCH 36" LONG WITH SOCKET FOR 2" NUT.
 5. "D" DESIGNATES DRESSER COUPLINGS.
 6. "S" DESIGNATES GALV. C.I. PIPE SADDLES WITH RUBBER GASKET SEALS.
 7. FOR CONTINUATION OF STILLING WELL LINES, SEE SHEET 19-35.

AS BUILT
 U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA
 CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL 54 SECTION 2
 STRUCTURE - 157
 CONTROL HOUSE AND STILLING WELLS

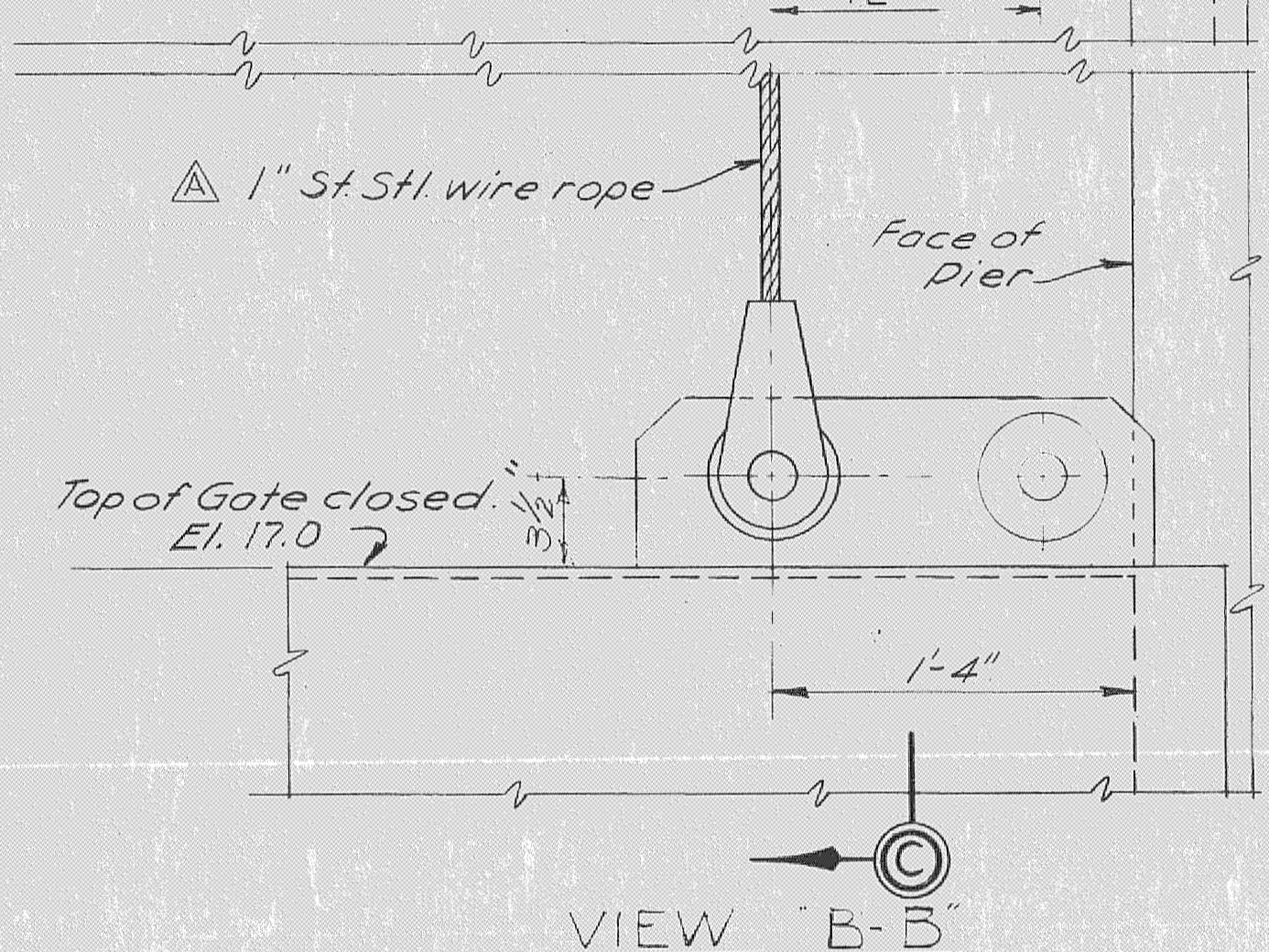
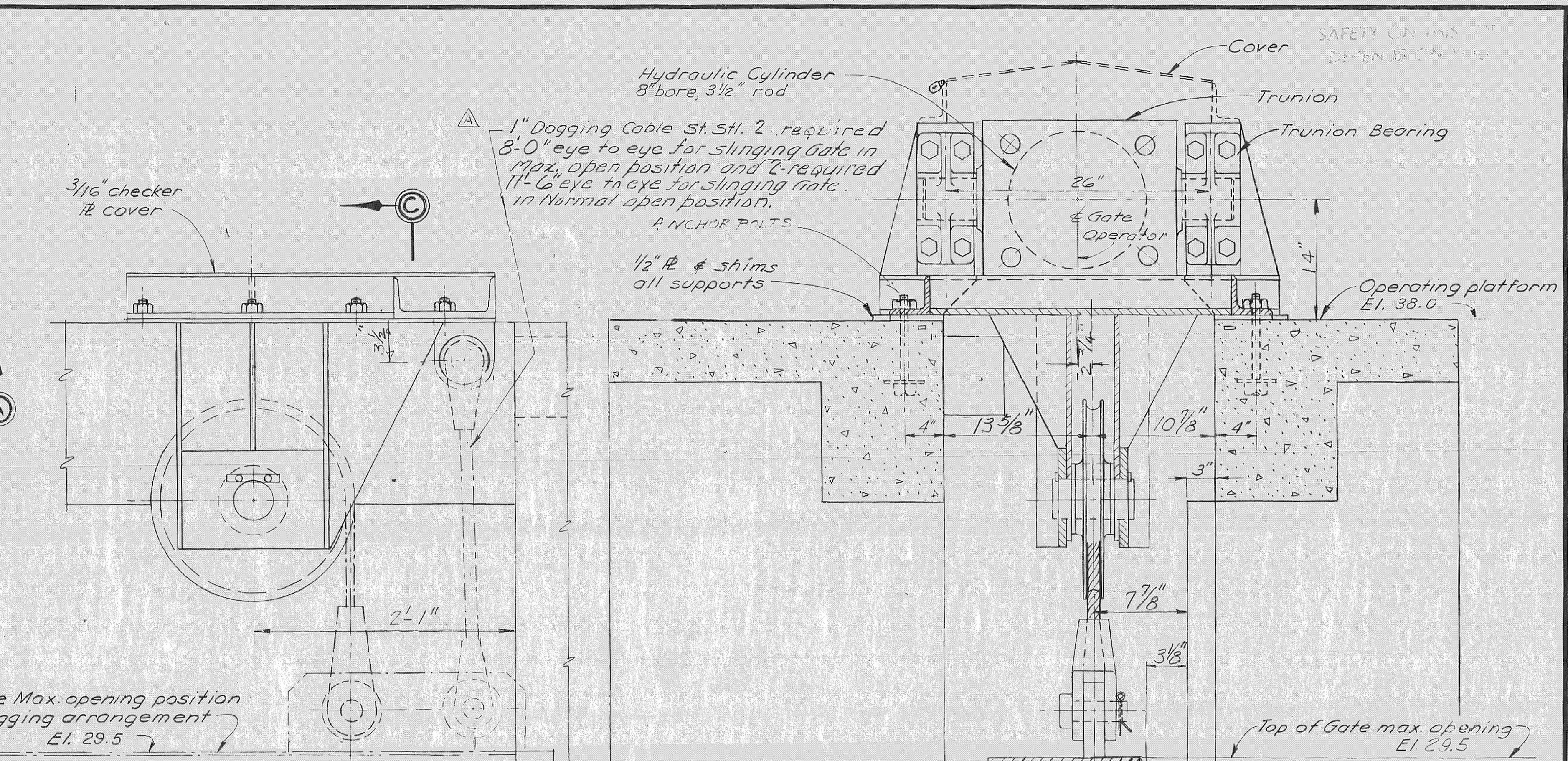
DATE: 28 APRIL 1966
 SCALE AS SHOWN DATED: APRIL 1966 SHEET 19 OF 73



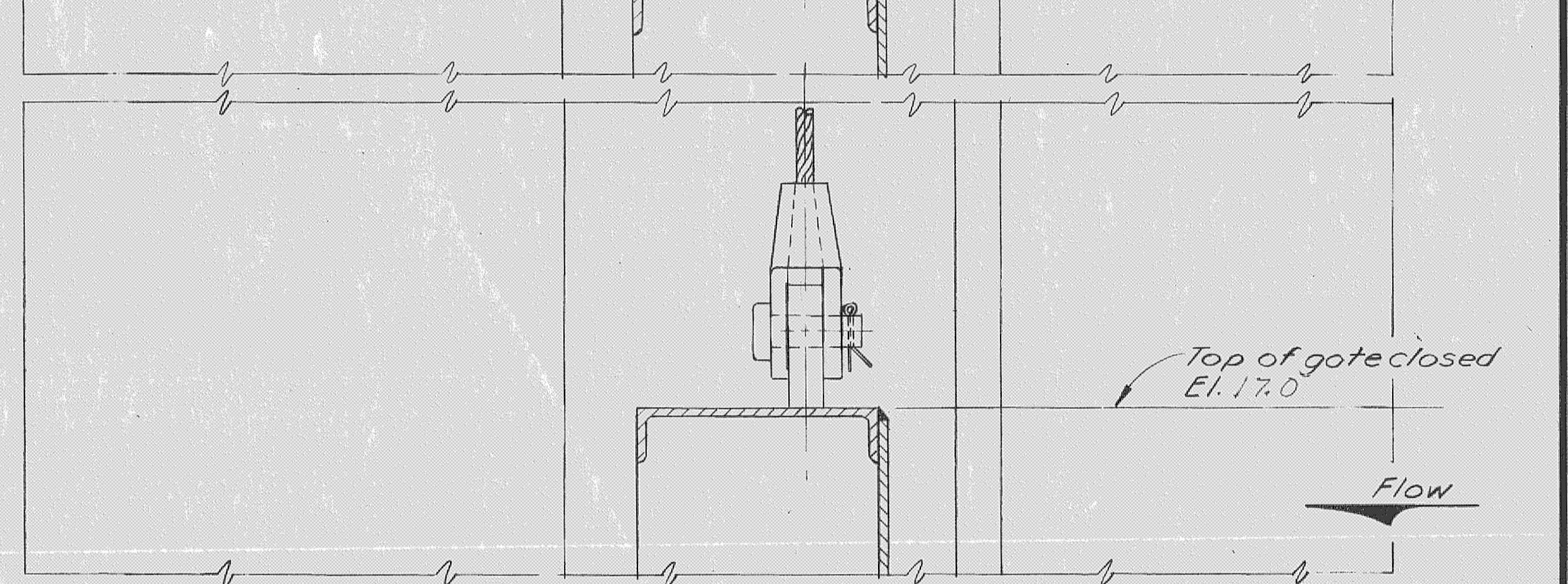
PLAN AT OPERATING PLATFORM (TYPICAL ALL GATES) (Cover not shown)
SCALE: 1/2" = 1'-0"



SECTION "A-A"



VIEW "B-B"



SECTION "C-C"

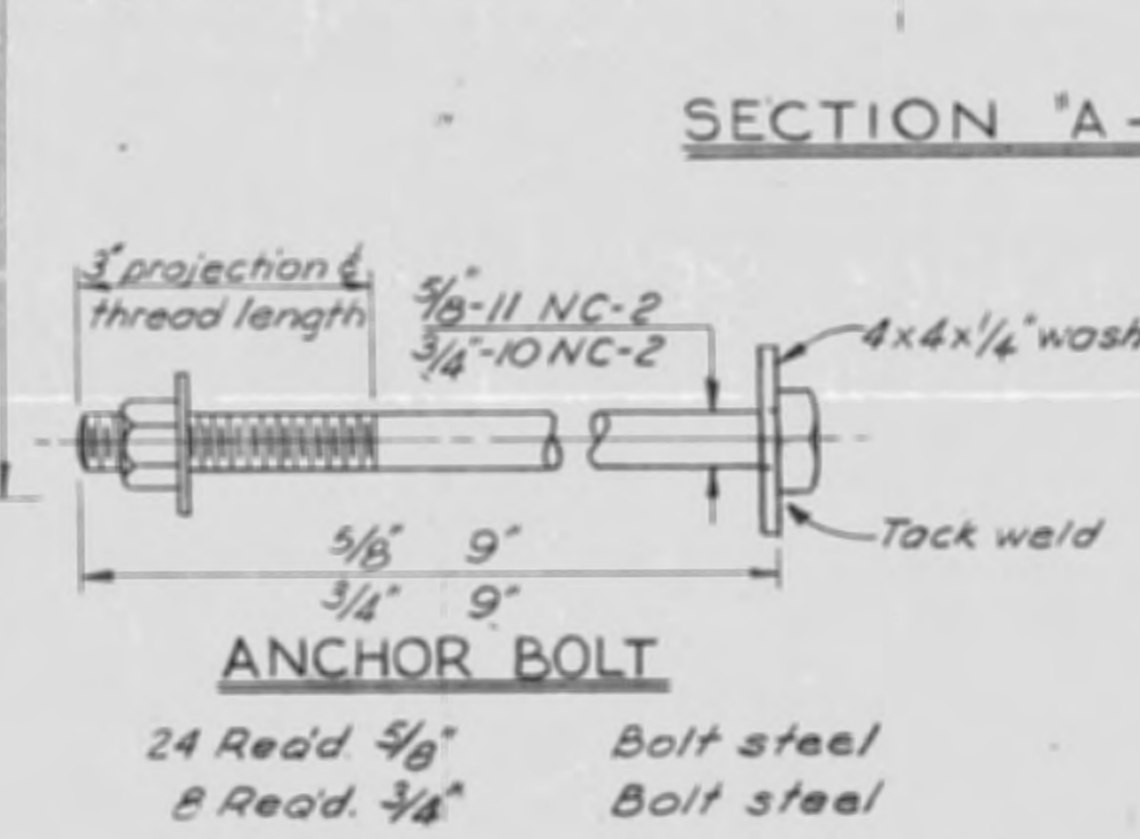
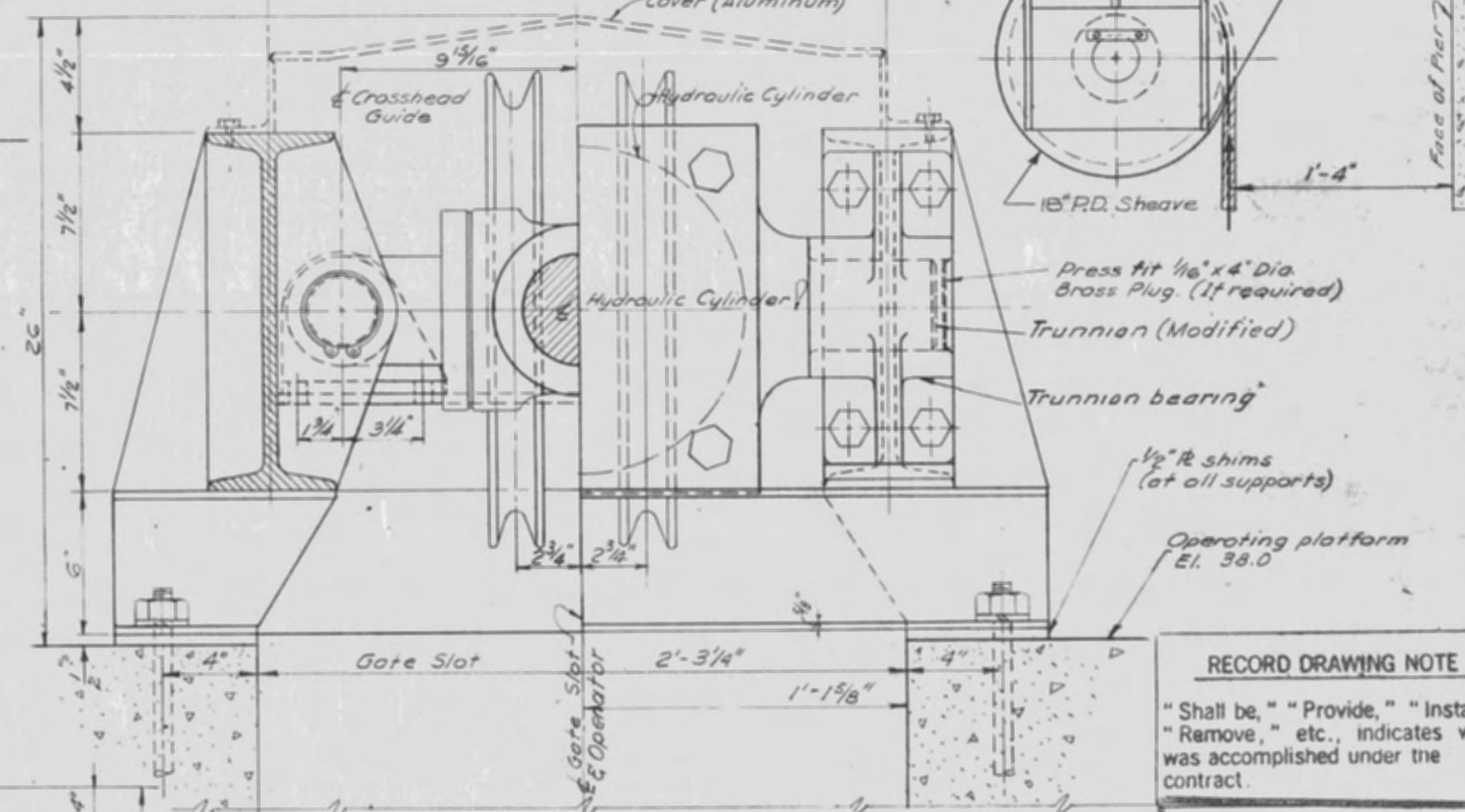
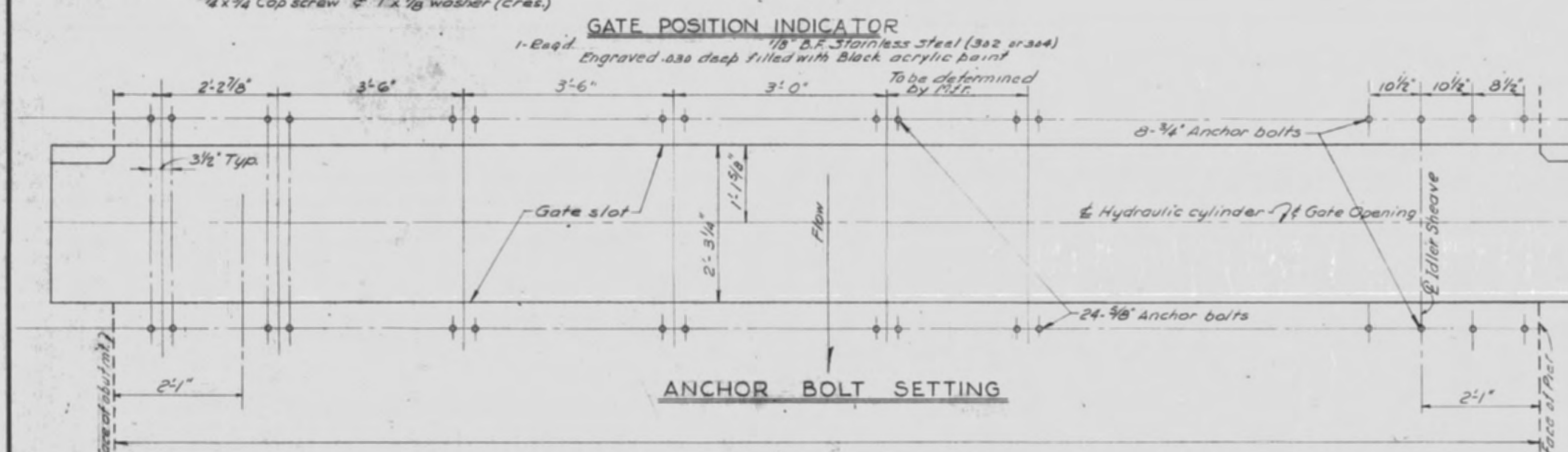
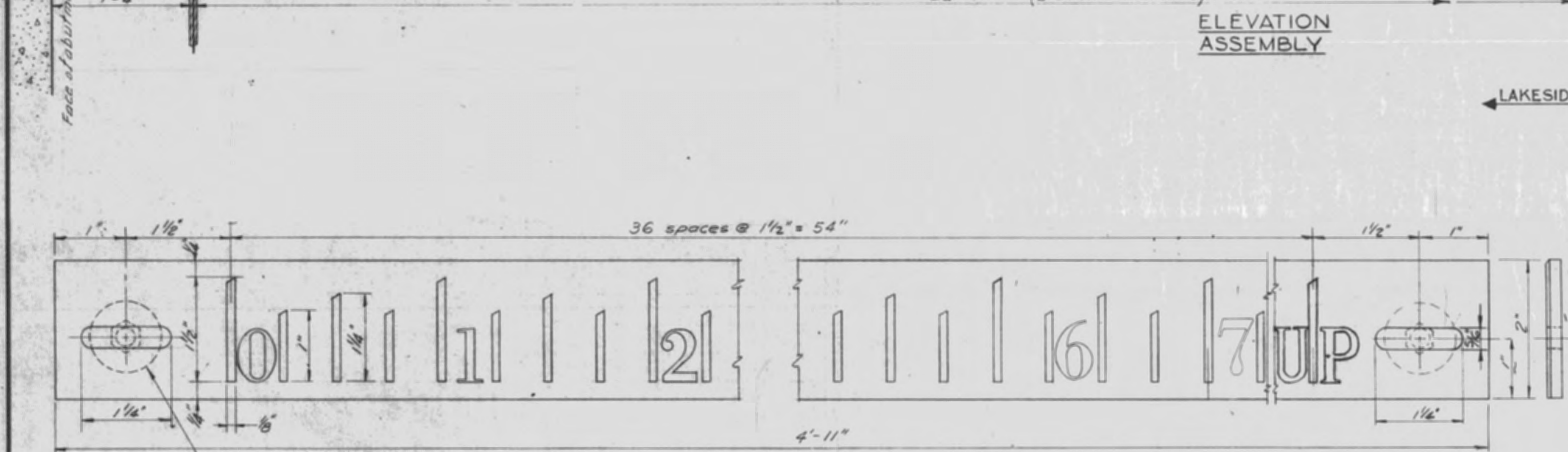
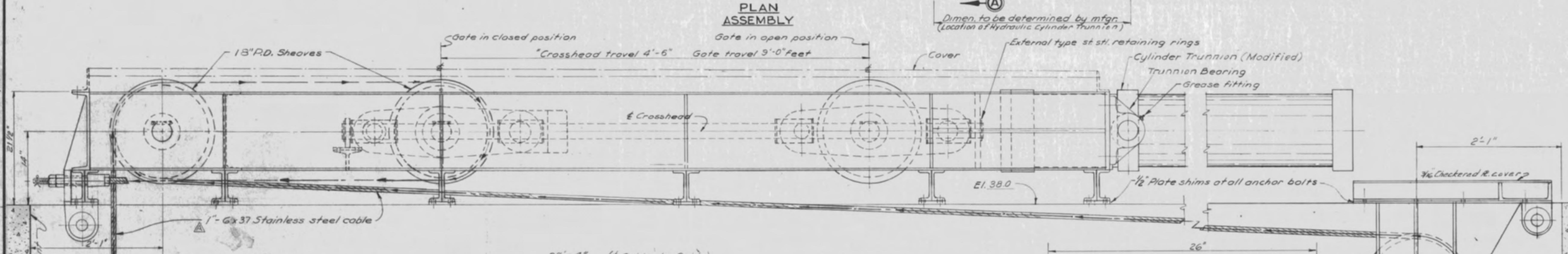
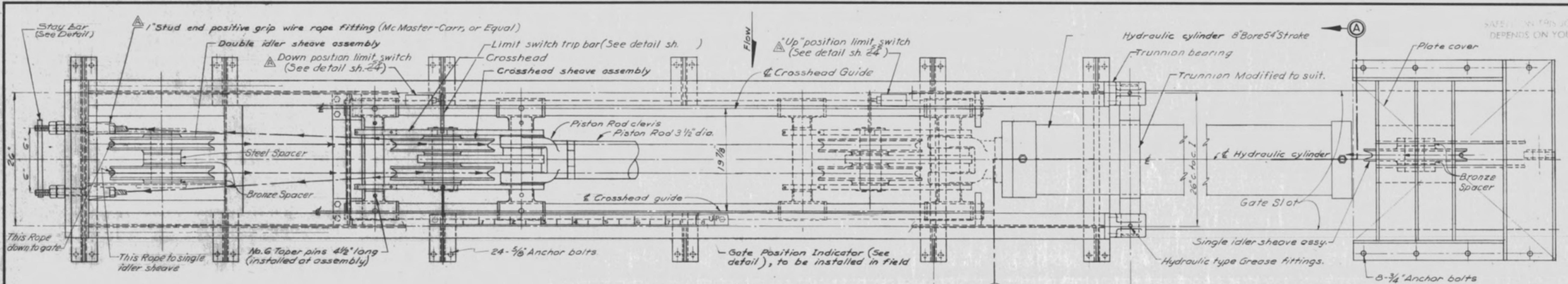
NOTE
 DOGGING CABLES MANUFACTURED WITH MEASUREMENTS AS INDICATED ABOVE. TESTS TO ENSURE THAT CABLES WOULD OPERATE AS DESIGNED INDICATED THAT CABLES ARE NOT LONG ENOUGH TO ALLOW FOR PLATES, SHIMS, CABLE STRETCH, EXPANSION OF CABLES, ALLOWABLE TOLERANCES IN CONCRETE. DOGGING CABLES SHOULD BE DESIGNED 1 INCH LONGER.
 CONTRACTOR ELECTED TO PROVIDE SPECIALLY MANUFACTURED ADAPTORS WITH PINS TO FIT PLATE ON TOP OF GATE AND SOCKET ON DOGGING CABLES. 6 EACH ADAPTORS PROVIDED. THIS WILL PROVIDE SUFFICIENT LENGTH FOR EASY INSTALLATION OF DOGGING SLINGS.

- Notes:**
- 1 - a. Estimated Gate weight 21,000 *
 b. Estimated Hoist load 29,000 *
 - 2 Gate Speed 1'/min. for simultaneous operation.
 - 3 - Working Pressure of estimated hoist load 2000 p.s.i.
 - 4 - By positioning of Control Valves Gate will be self lowering without the use of Power Unit.

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.
AS BUILT

| | | |
|---|------------------|----------------|
| TO CONFORM TO AMENDMENT NO. 1 | | 5-12-66 |
| NO. 334 | DATE | APPROVED |
| REVISIONS | | |
| U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE CORPS OF ENGINEERS JACKSONVILLE, FLORIDA | | |
| CENTRAL AND SOUTHERN FLORIDA PROJECT FOR FLOOD CONTROL AND OTHER PURPOSES | | |
| STRUCTURE-157 | | |
| GATE HOIST-GENERAL ARRANGEMENT | | |
| INVESTIGATION NO. CIV. ENG. 28-123-64-66 | DATE | SIZE |
| DATED 28 APRIL 1966 | DATE: APRIL 1966 | F |
| SCALE: AS SHOWN | DATE: APRIL 1966 | SHEET 20 OF 72 |

SAFETY ON THIS JOB DEPENDS ON YOU



RECORD DRAWING NOTE

"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

Notes:
1. Quantities shown on this sheet are for one gate only.
2. All taper pins & dowels to be installed at assembly.

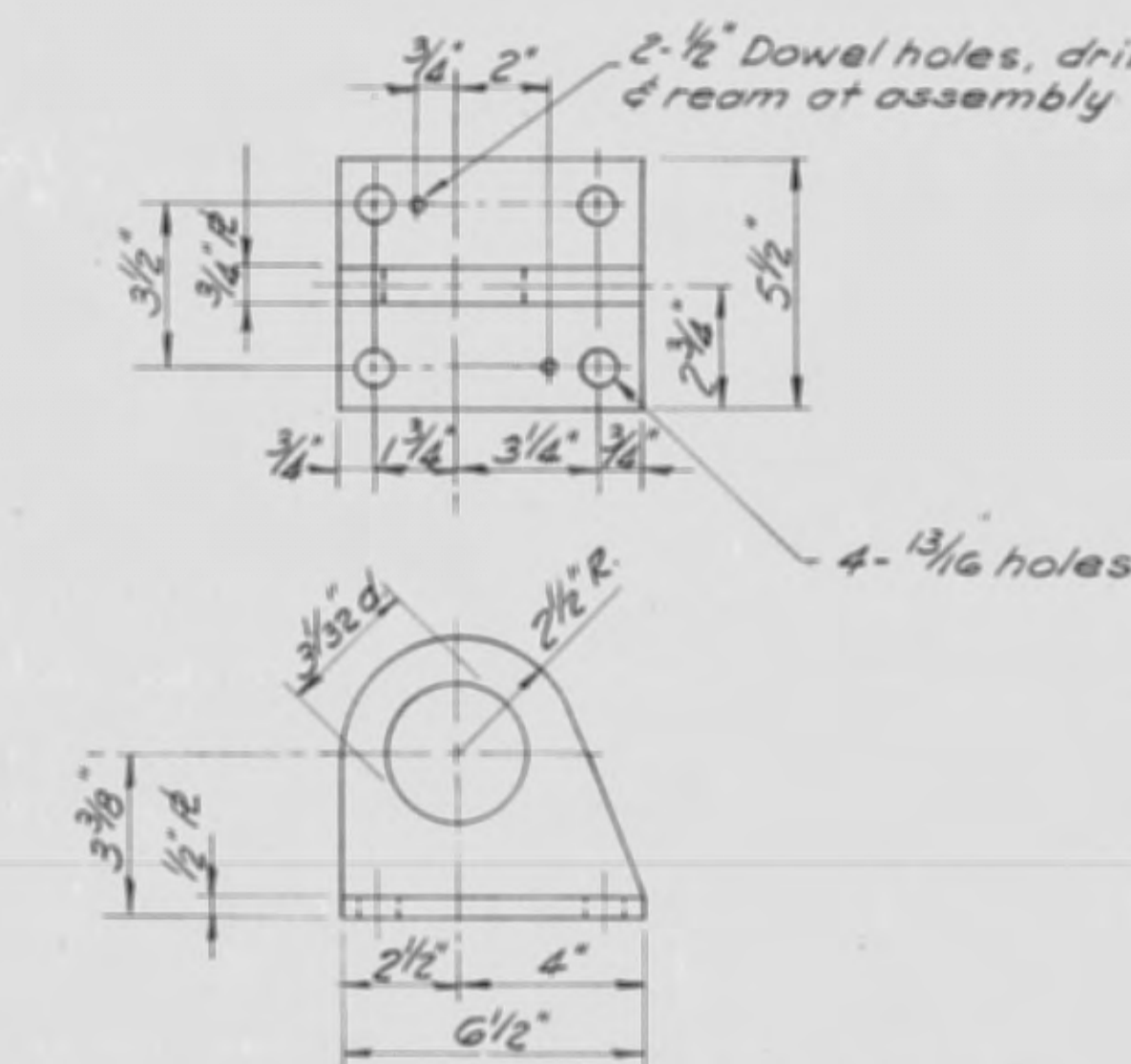
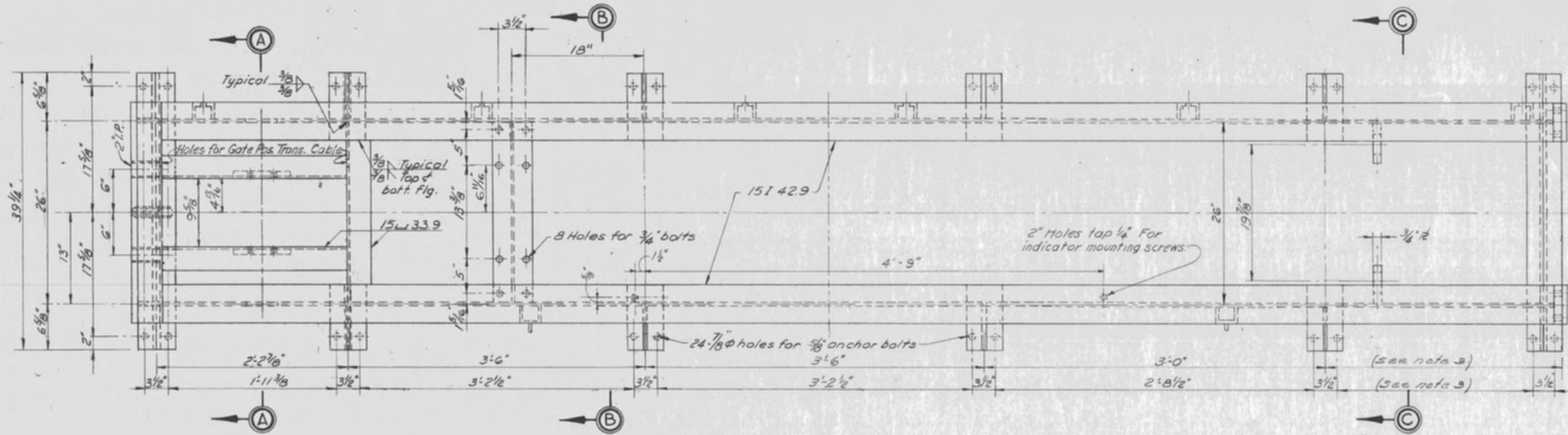
| REVISIONS | | DATE | APPROVED |
|-----------|-------------------------------|---------|----------|
| 4 | TO CONFORM TO AMENDMENT NO. 1 | 5-12-64 | |
| NO. | SYN | DATE | APPROVED |

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES

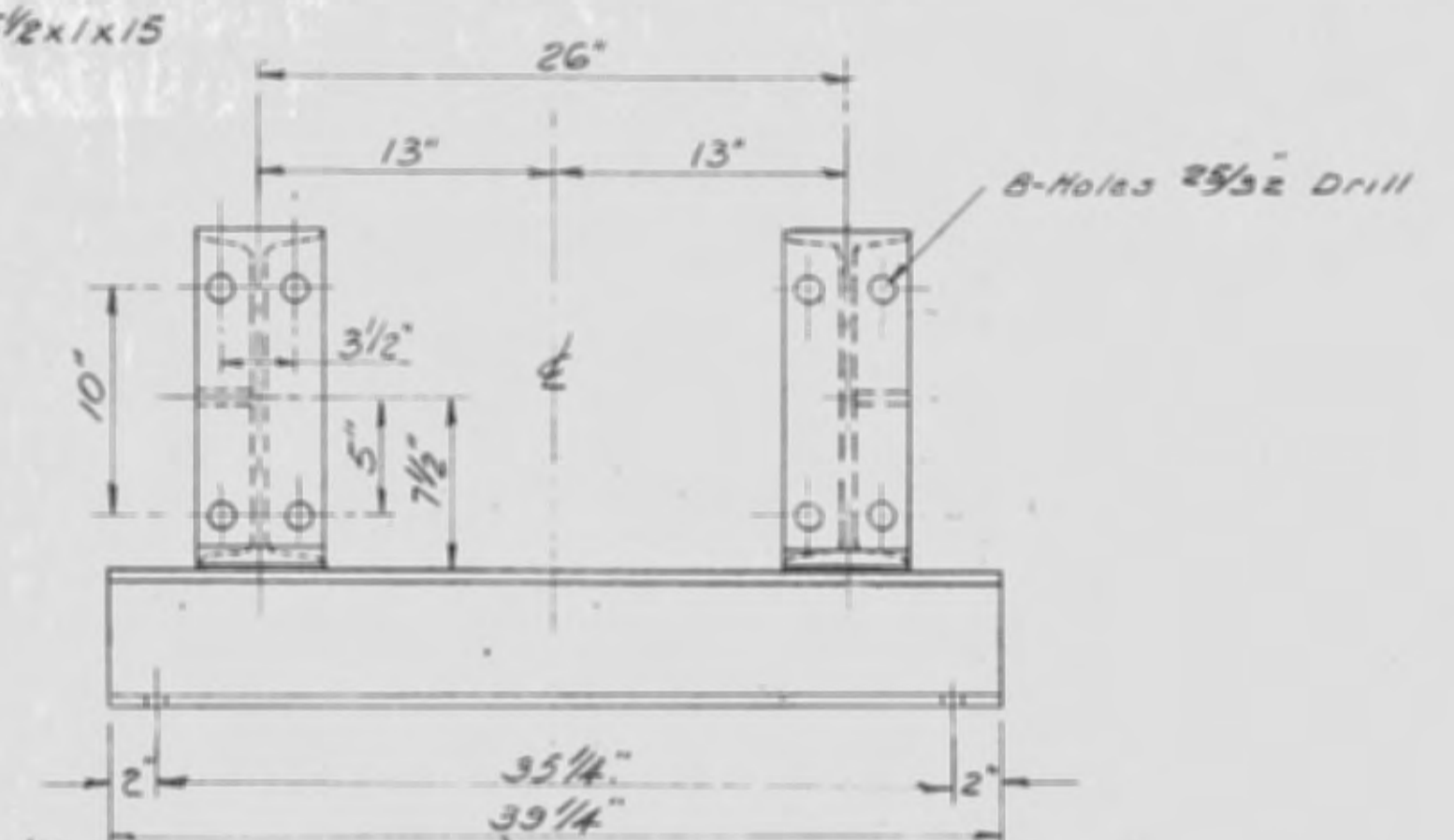
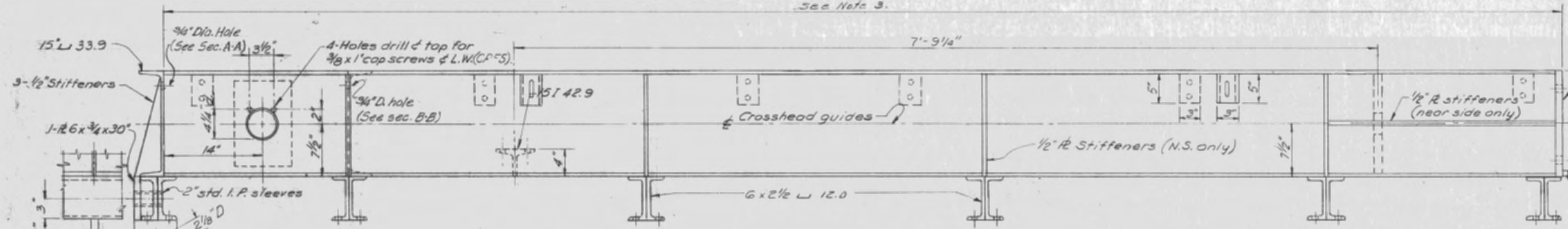
STRUCTURE-157
GATE HOIST--ASSEMBLY

INVIATION NO. CIV ENG. 05-12-64-68
DATED: 28 APRIL 1964
SCALE: AS SHOWN
DATE: APRIL 1964
SHEET 1 OF 2

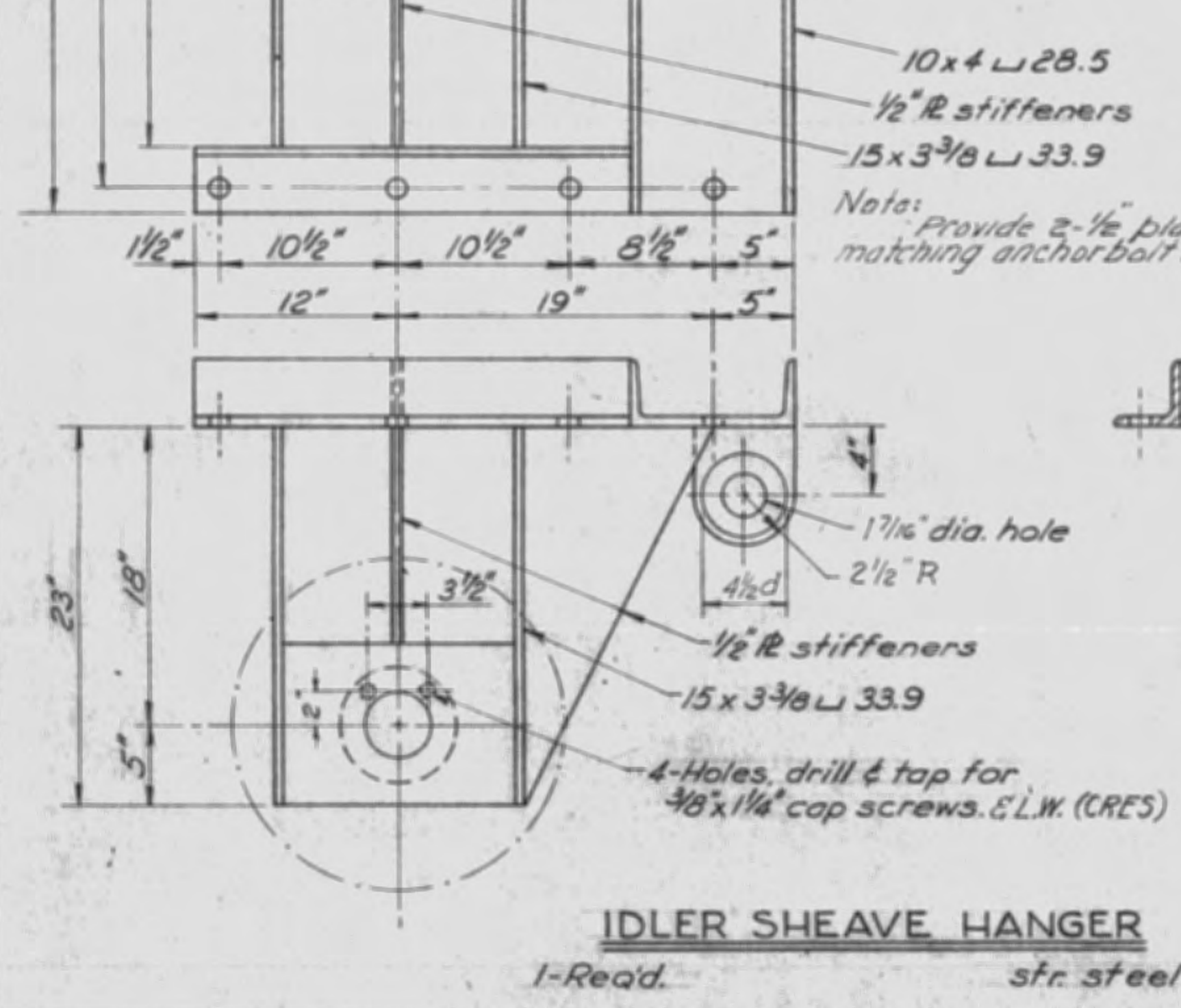
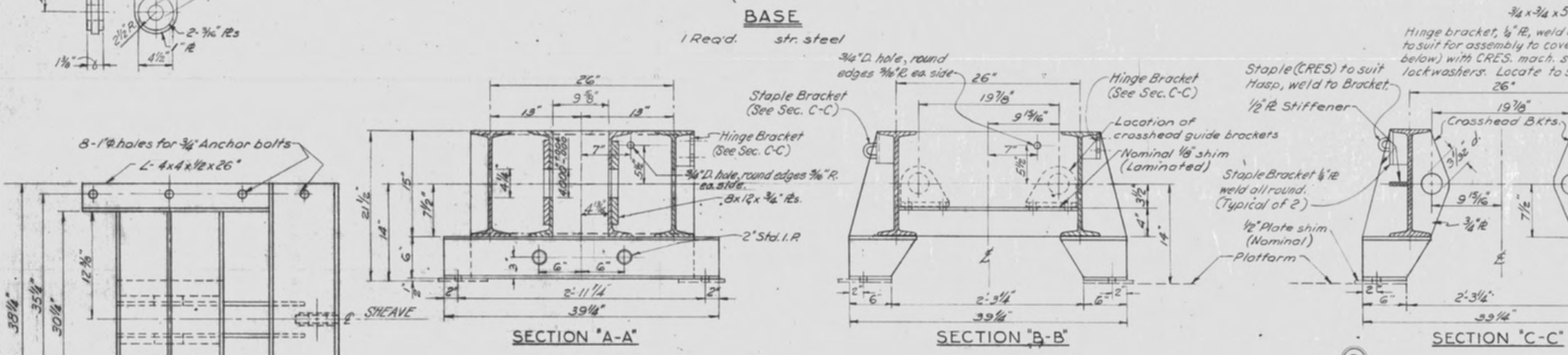
SAFETY ON THIS JOB
DEPENDS ON YOU



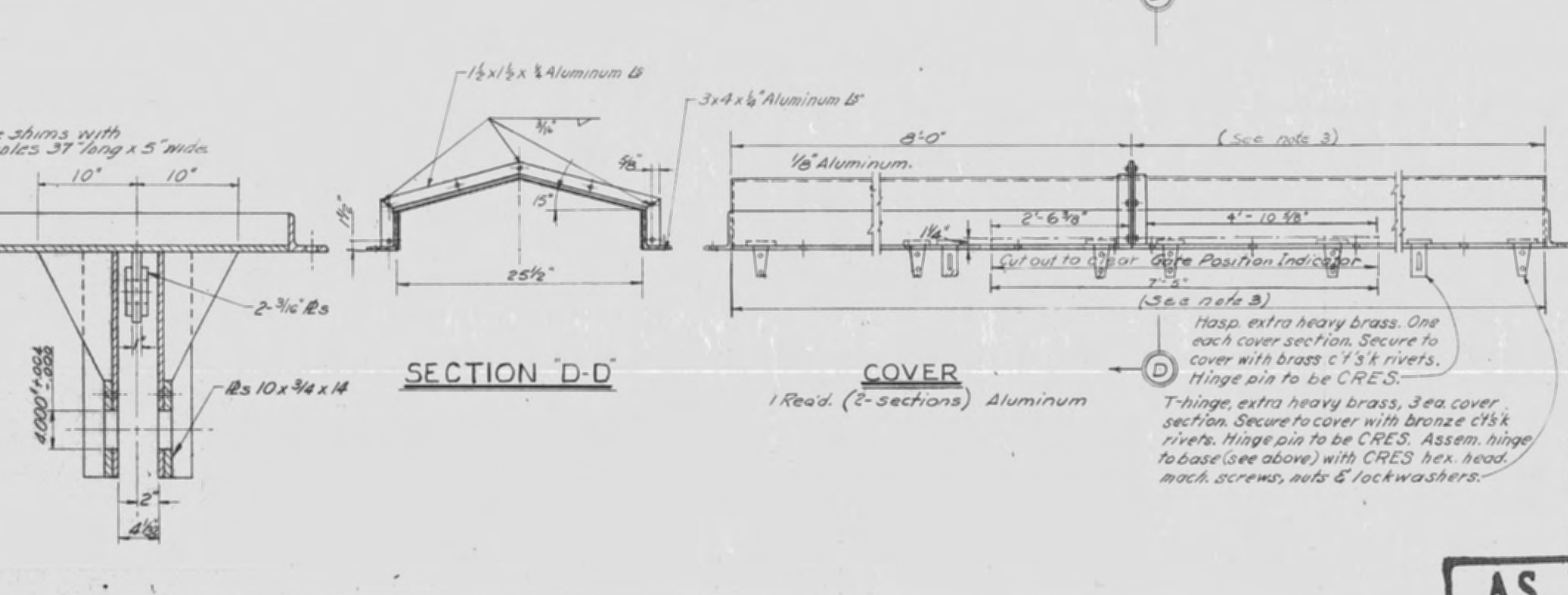
CROSSHEAD GUIDE BRACKET
2 Req'd. Str. Steel



TRUNNION BEARING
2-Req'd. Cast Stl. or Ductile Iron



IDLER SHEAVE HANGER
1-Req'd. str. steel



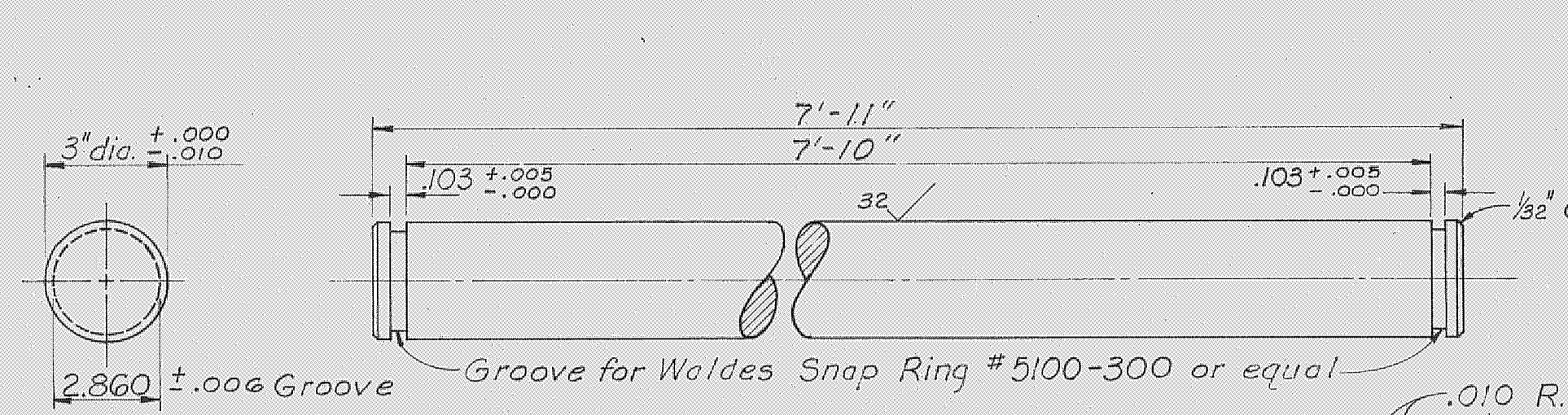
COVER
1 Read. (2-sections) Aluminum

- NOTES:
- QUANTITIES SHOWN ON THIS SHEET ARE FOR ONE GATE HOIST ONLY.
 - INSTALL ALL DOWELS AND TAPER PINS AT ASSEMBLY.
 - DIMENSIONS, AS NOTED, ARE TO BE DETERMINED BY MFR. BASED ON FINAL LOCATION OF TRUNNION ON HYD. CYLINDER.
 - STRUCTURAL MEMBERS ARE ALL WELDED CONSTRUCTION UNLESS OTHERWISE NOTED: MINIMUM WELD 3/8" CONT. FILLET OR FULL PENETRATION BUTT WELD ALL AROUND EACH CONNECTION.
 - CRES = CORROSION RESISTING STEEL ASTM A276 TYPE 304.

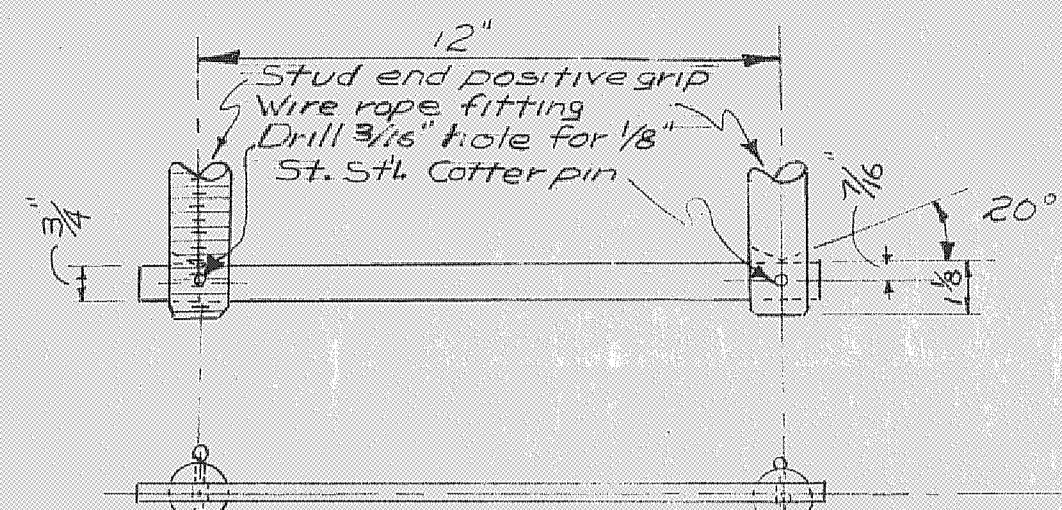
RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
|---|---------------|------|-------------|----------------|----------|
| REVISIONS | | | | | |
| U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE CORPS OF ENGINEERS JACKSONVILLE, FLORIDA | | | | | |
| CENTRAL AND SOUTHERN FLORIDA PROJECT FOR FLOOD CONTROL AND OTHER PURPOSES | | | | | |
| STRUCTURE - 157 | | | | | |
| GATE HOIST - DETAILS NO. 1 | | | | | |
| INVT. NO. | ENR. 0-12-46 | SIZE | | | |
| DATED | 28 APRIL 1956 | F | | | |
| SCALE | AS SHOWN | DATE | APRIL 1956 | SHEET 28 OF 70 | |
| 8/70 | | 8/70 | | | |

AS BUILT

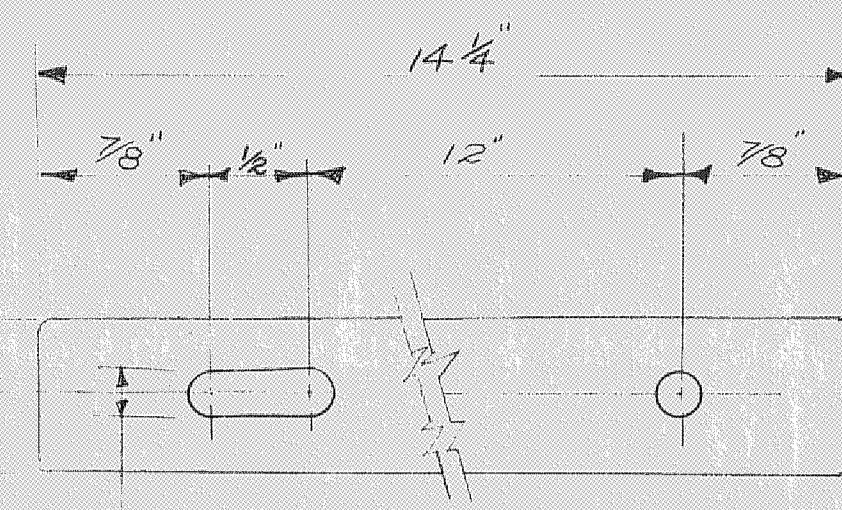


CROSSHEAD GUIDE
2-Req'd. 3\"/>



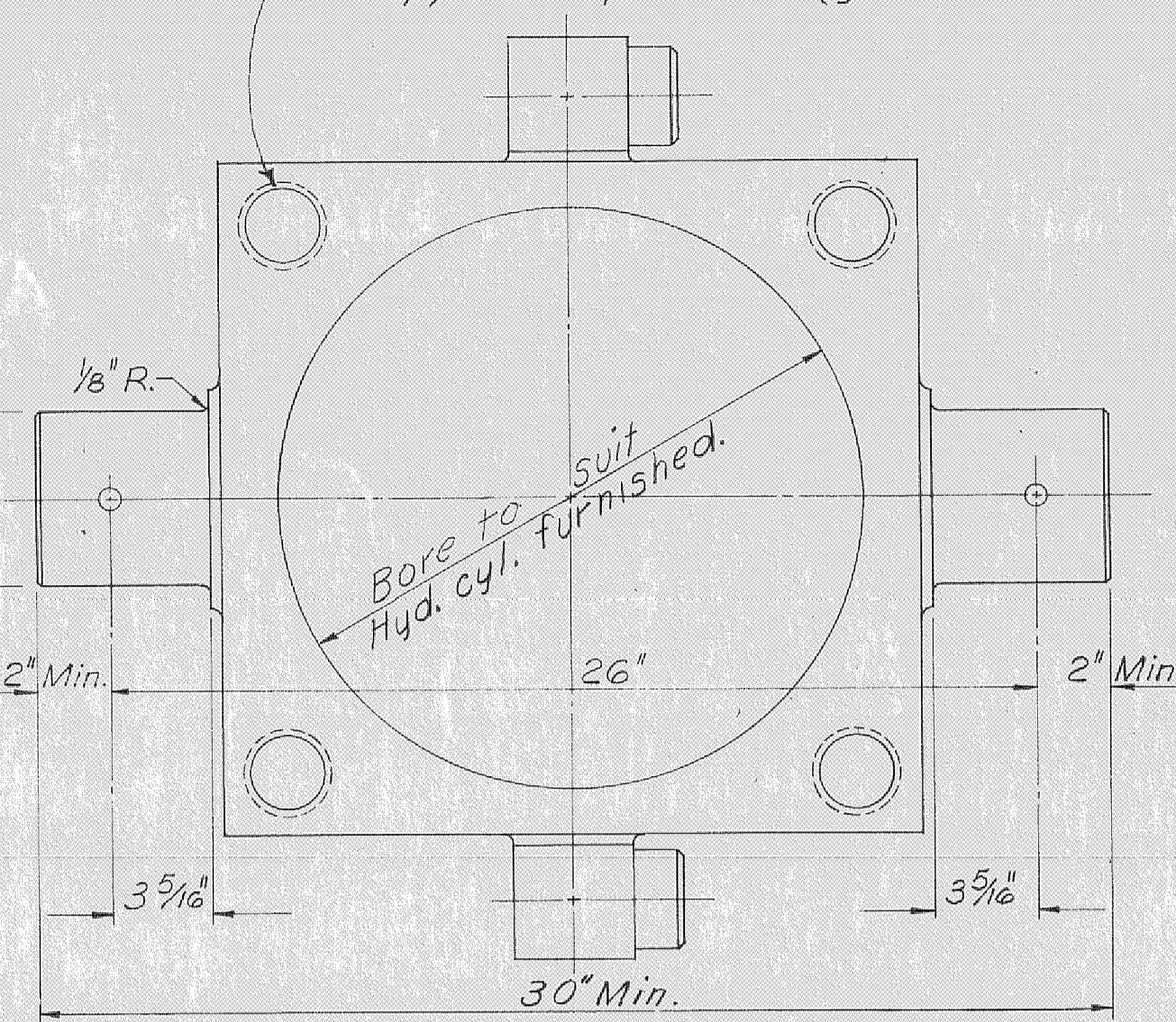
STAY BAR
1-Req'd. Str. Stl. (Galv.)

SLOT DETAIL

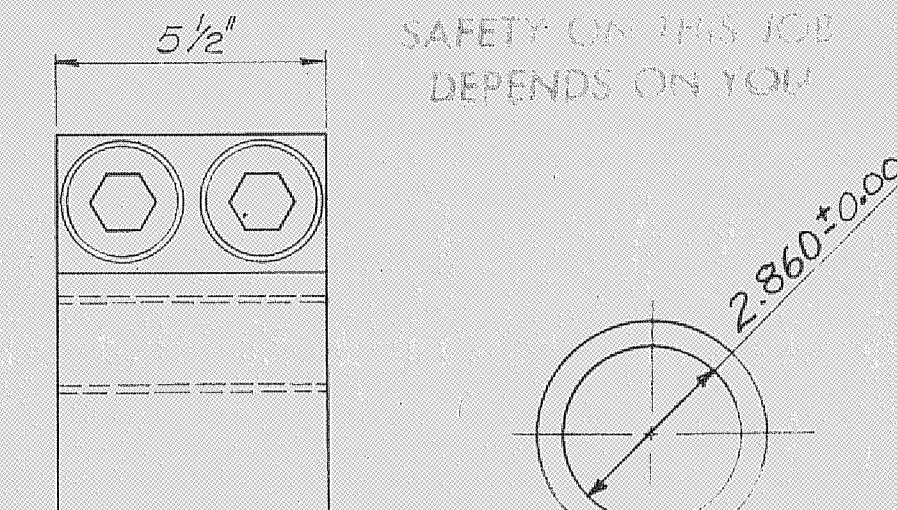


STAY BAR DETAIL
1-Req'd. 3/8\"/>

Holes for tie rods, drilled & tapped as req'd. to suit cyl. furnished.

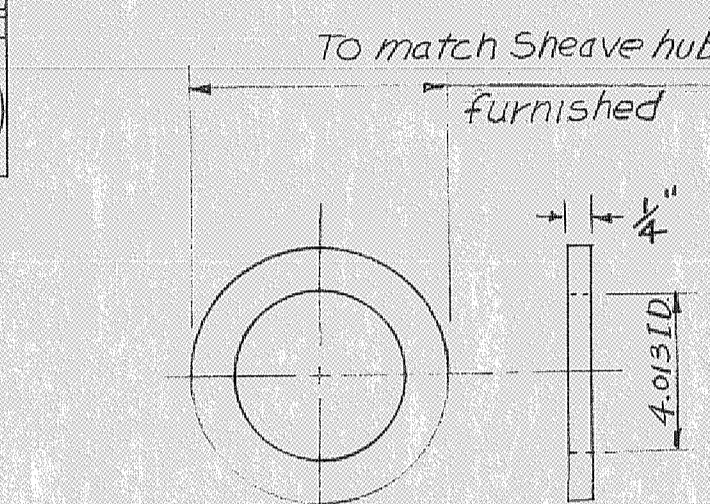


HYDRAULIC CYLINDER TRUNNION
1-Req'd. Steel
(Hannifin style D D Center Trunnion or equal)

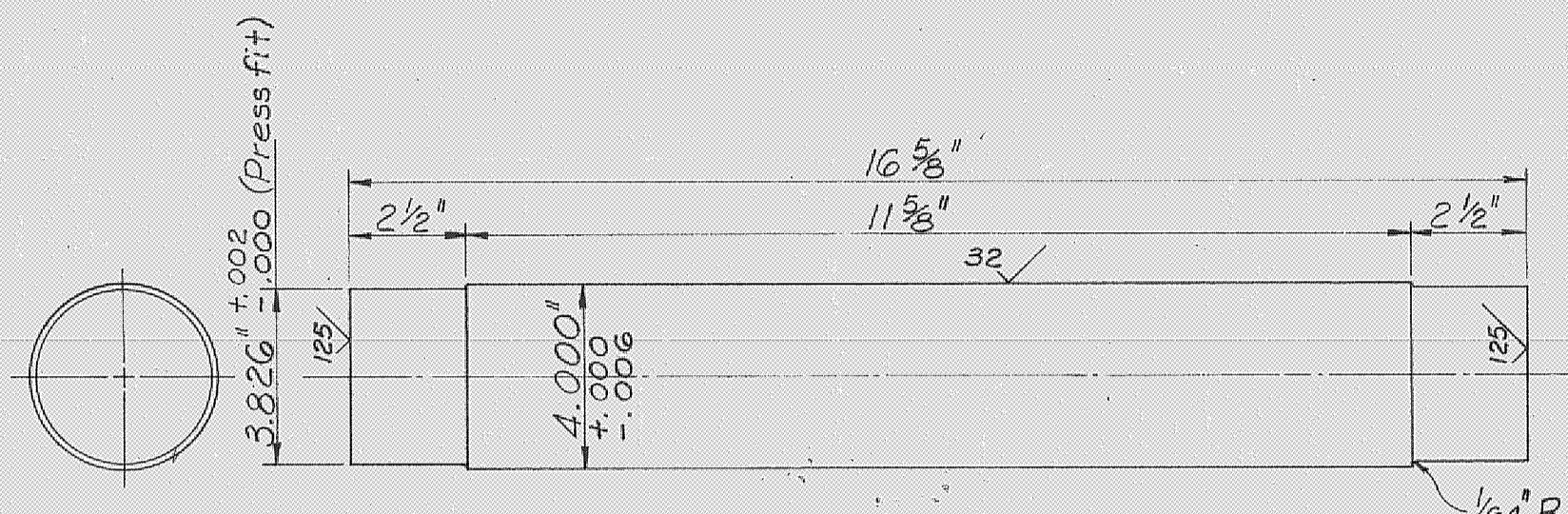


CROSSHEAD GUIDE RETAINING RING
4-Req'd. Steel
(Waltes Retaining Ring #5100-300 or equal)

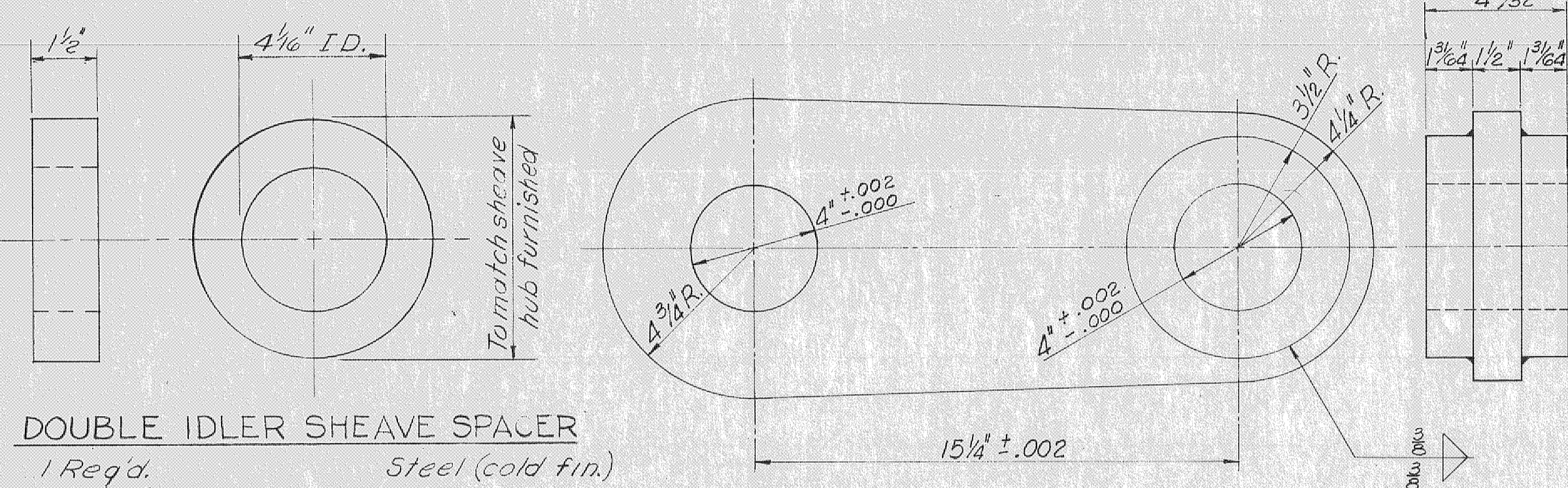
To match Sheave hub furnished



SHEAVE SPACER
12-Req'd. Bronze

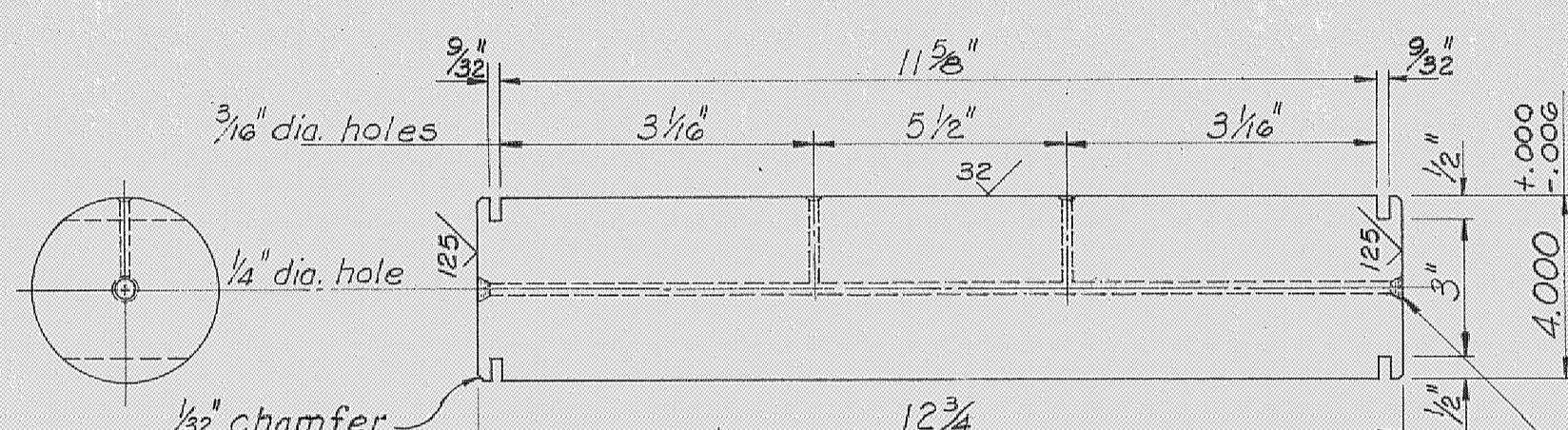


CROSSHEAD TIE ROD
1-Req'd. 4\"/>

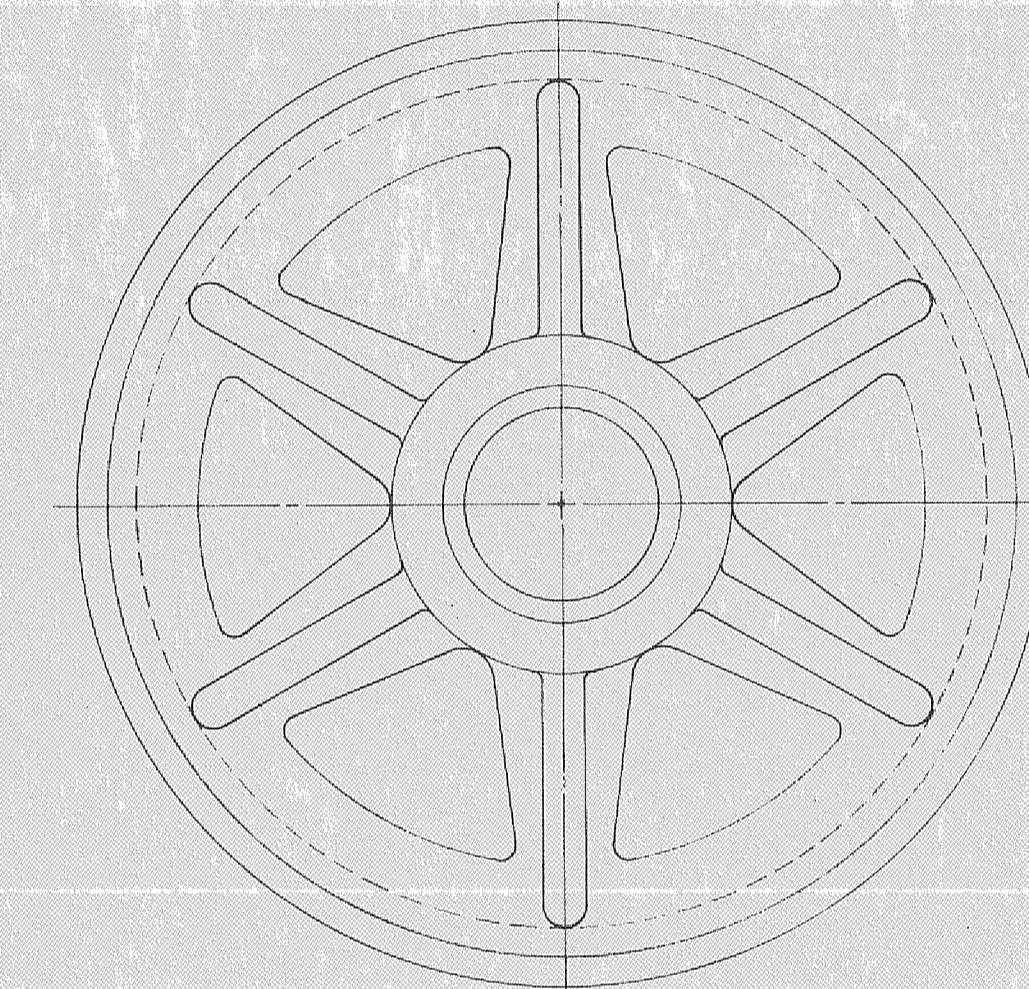


DOUBLE IDLER SHEAVE SPACER
1 Req'd. Steel (cold fin.)
(Remove sharp corners)

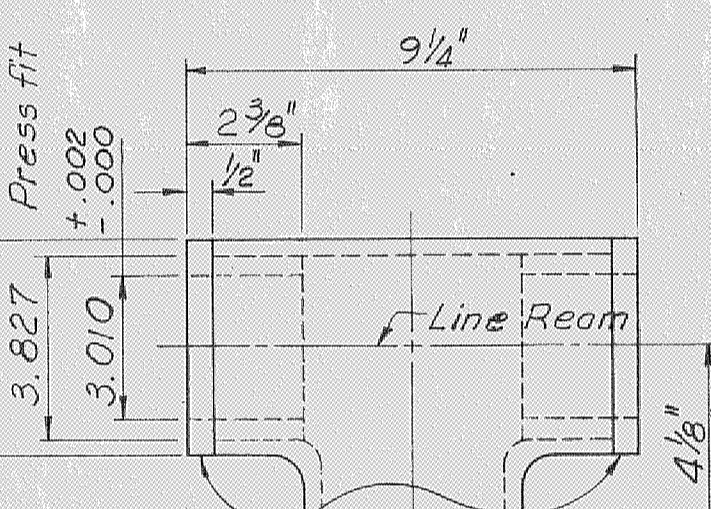
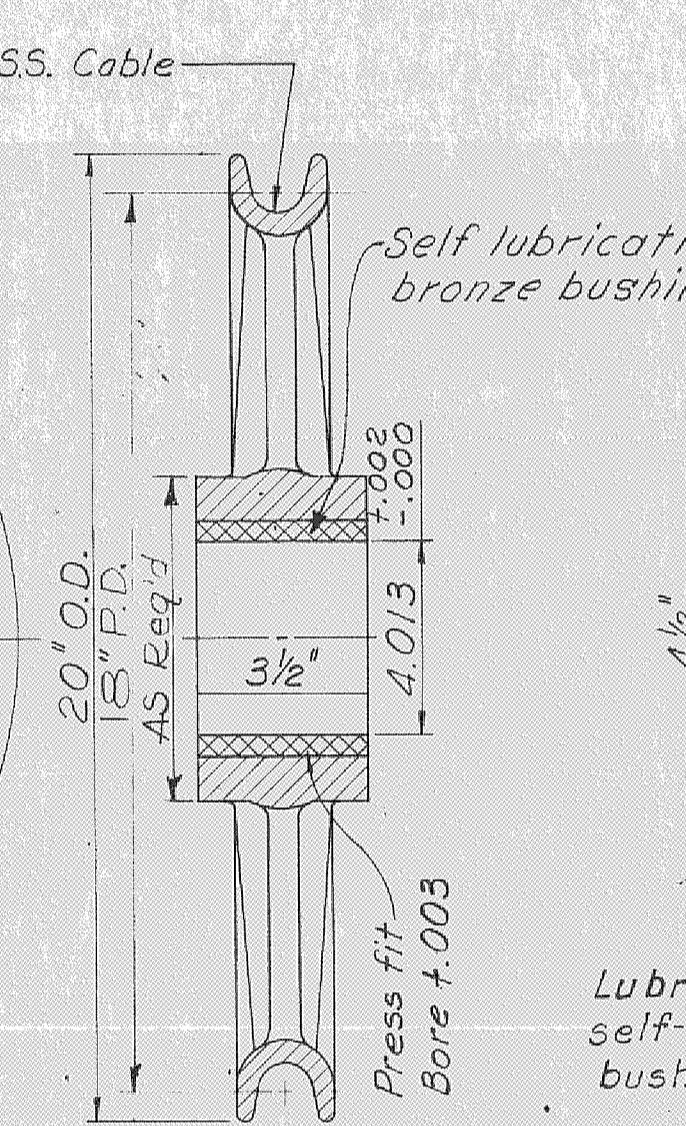
CROSSHEAD FRAME DRAG LINK CENTER
1-Req'd. Str. Steel
(Remove all sharp corners)



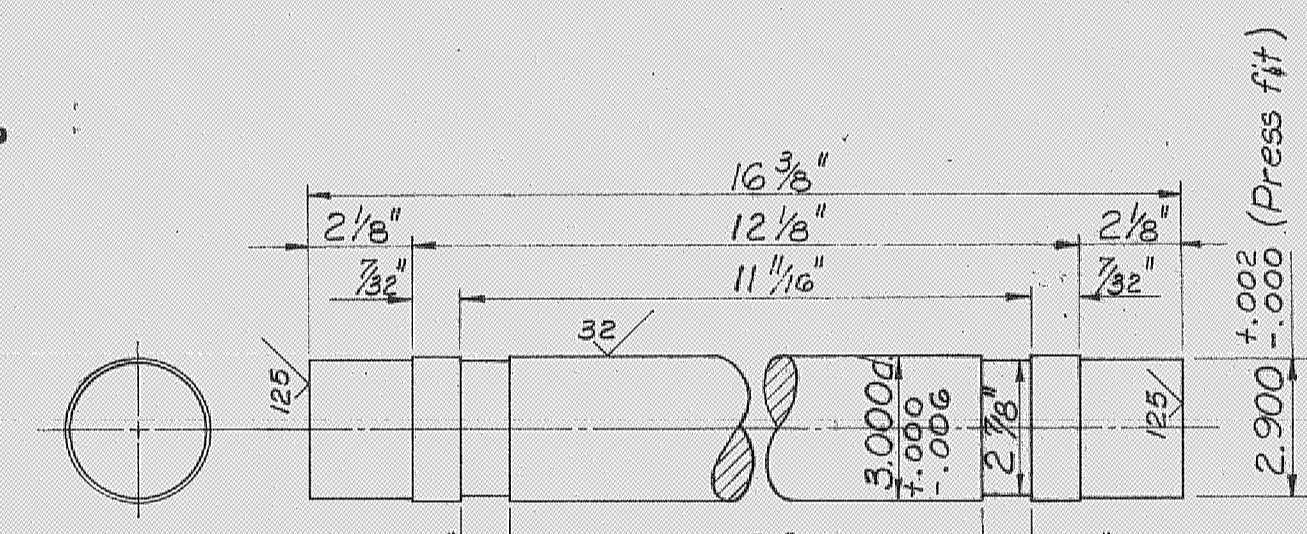
CROSSHEAD SHEAVE SHAFT
1-Req'd. 4\"/>



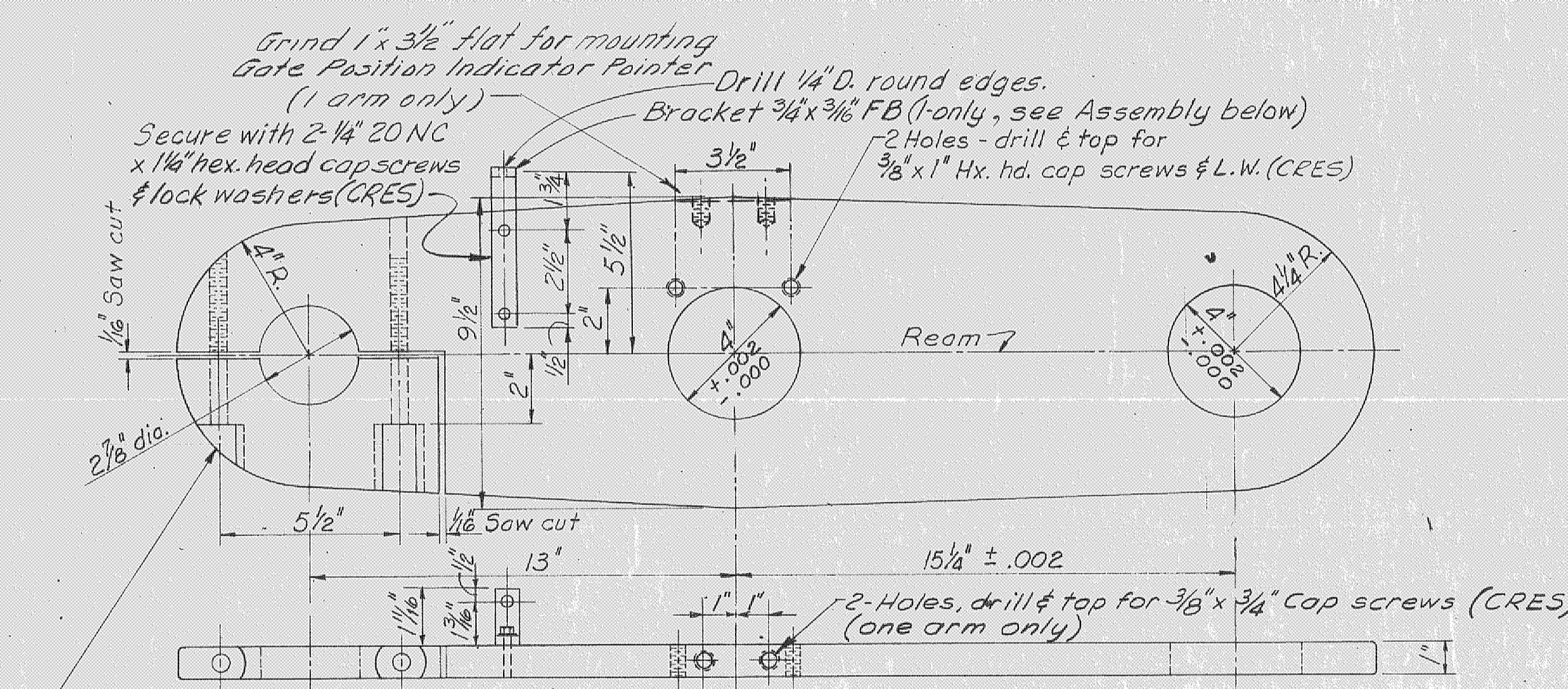
SHEAVE
5-Req'd. Cast Steel or Ductile Iron.



CROSSHEAD GUIDE BEARING
2-Req'd. Welding fittings (4x4x4)
2-Req'd. Welding fittings (4x4x3)
(Taylor Forge or equal extra strong Tees)

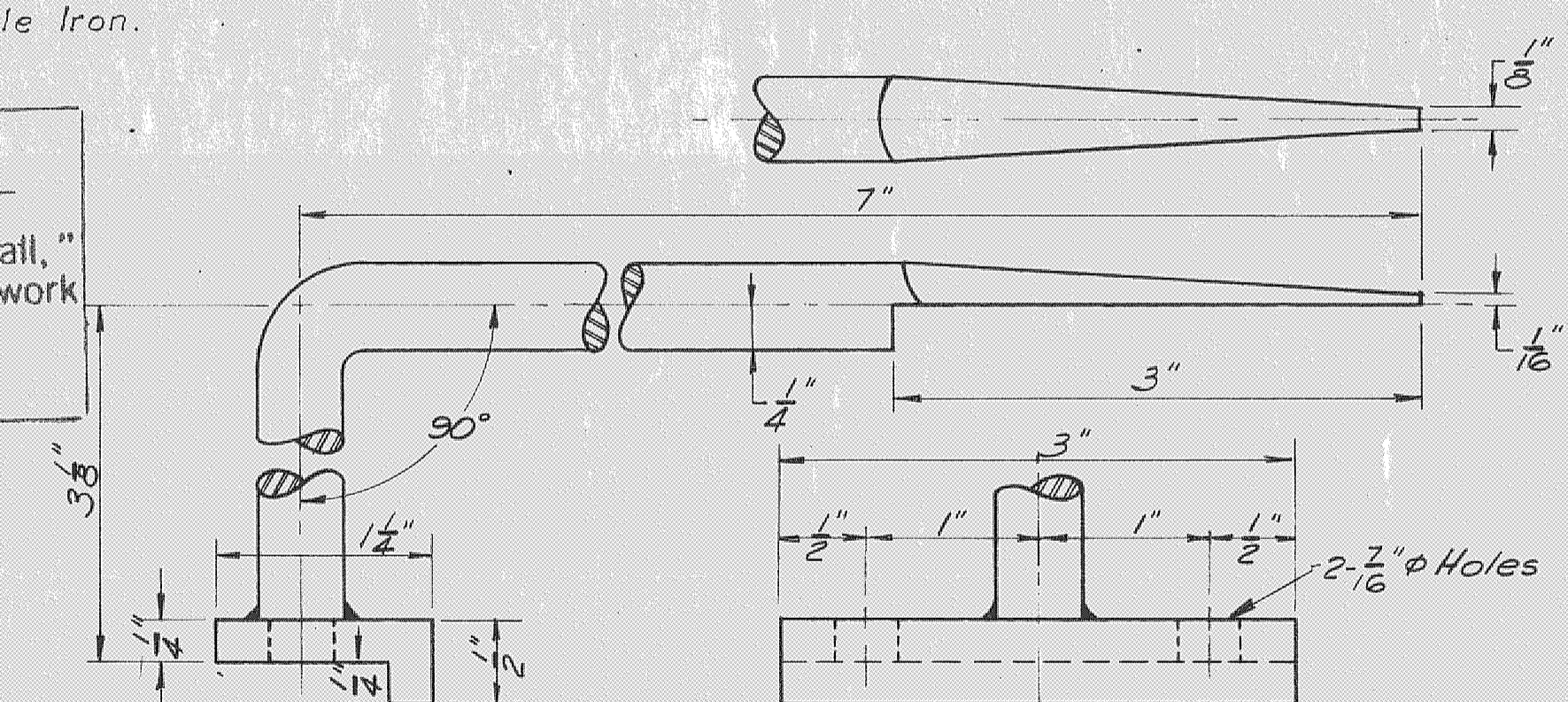


CROSSHEAD TIE ROD
1-Req'd. 3\"/>



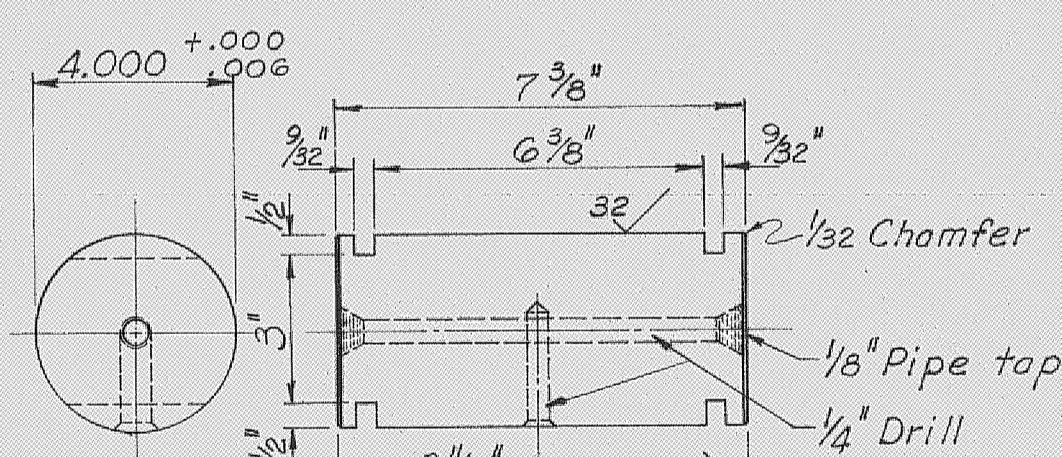
CROSSHEAD FRAME ARMS
2-Req'd. Str. Steel
(Remove all sharp corners)

RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

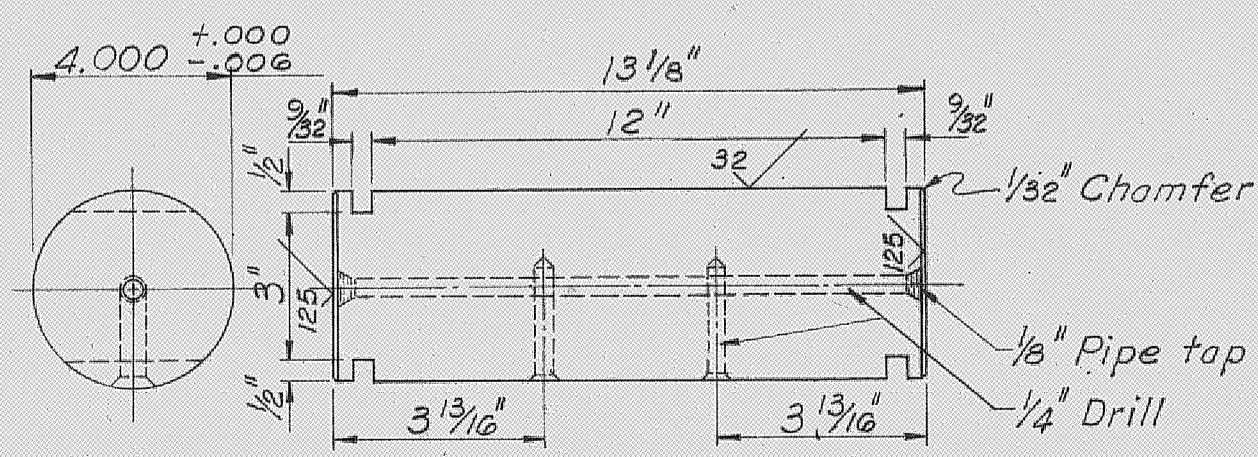


GATE POSITION INDICATOR POINTER
1 Req'd. 3/2\"/>

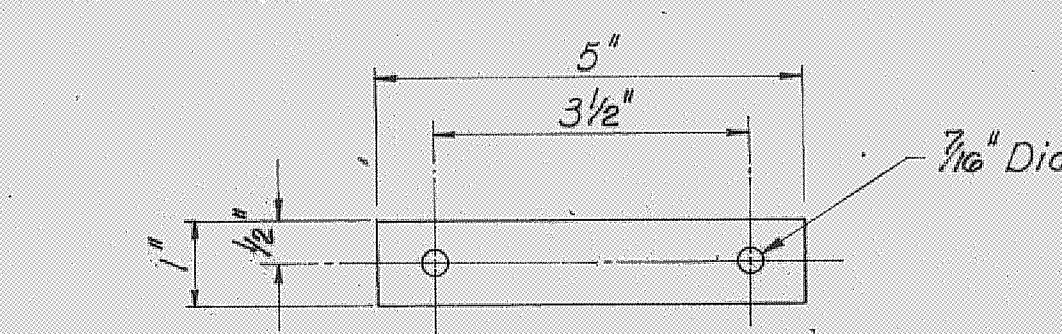
Notes:
1. Quantities shown on this sheet are for one gate hoist only.
2. CRES - Corrosion resisting steel ASTM A276, Type 304.



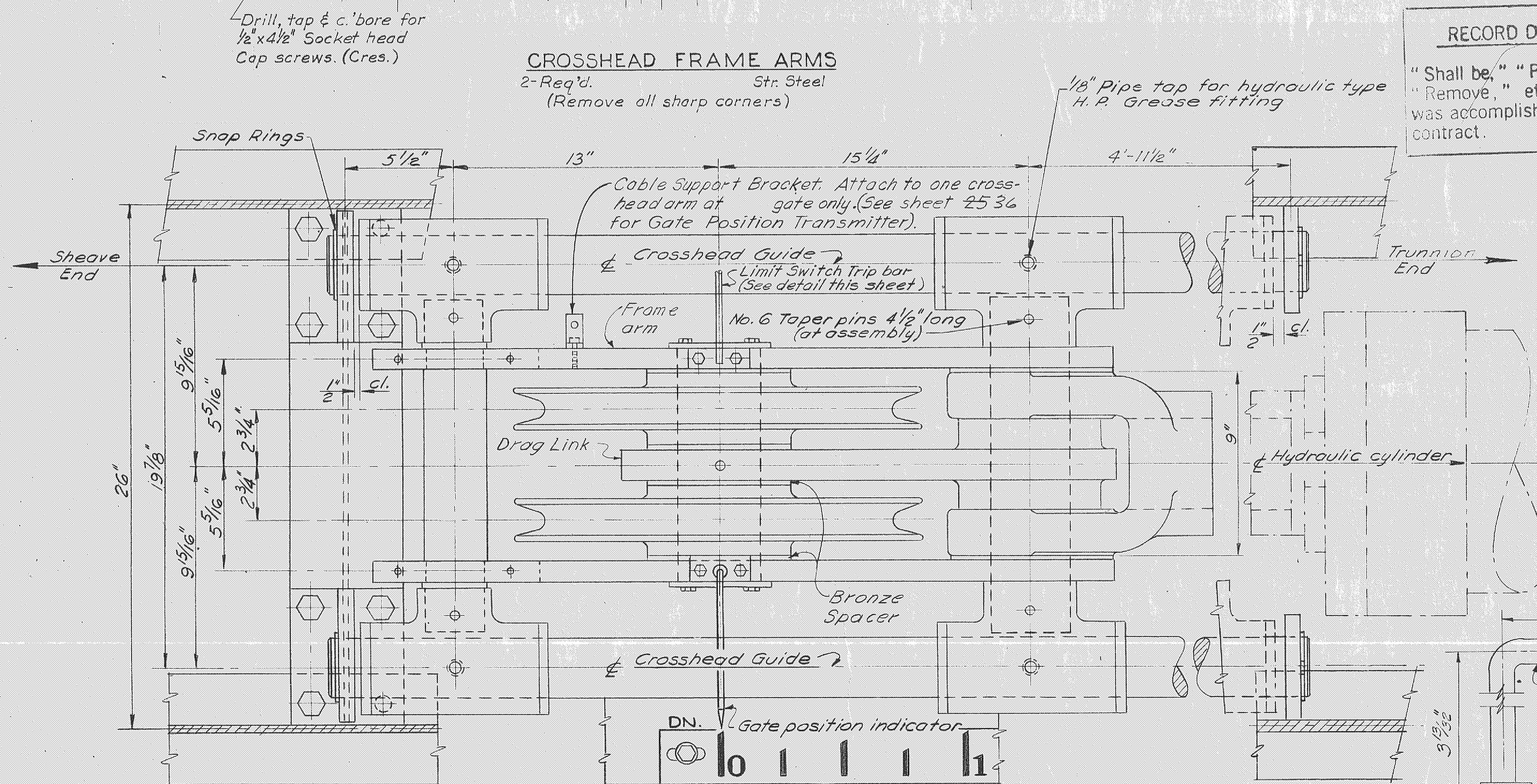
SINGLE SHEAVE IDLER PIN
1-Req'd. 4\"/>



DOUBLE SHEAVE IDLER PIN
1-Req'd. 4\"/>



SHEAVE PIN KEEPER
6-Req'd. 1/4\"/>



CROSSHEAD ASSEMBLY

LIMIT SWITCH TRIP
1-Req'd. 1/2\"/>

AS BUILT

| TO CONFORM TO AMENDMENT NO. 1 | | |
|-------------------------------|-------------|------|
| NO. SYM. ZONE | DESCRIPTION | DATE |
| REVISIONS | | |
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U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES

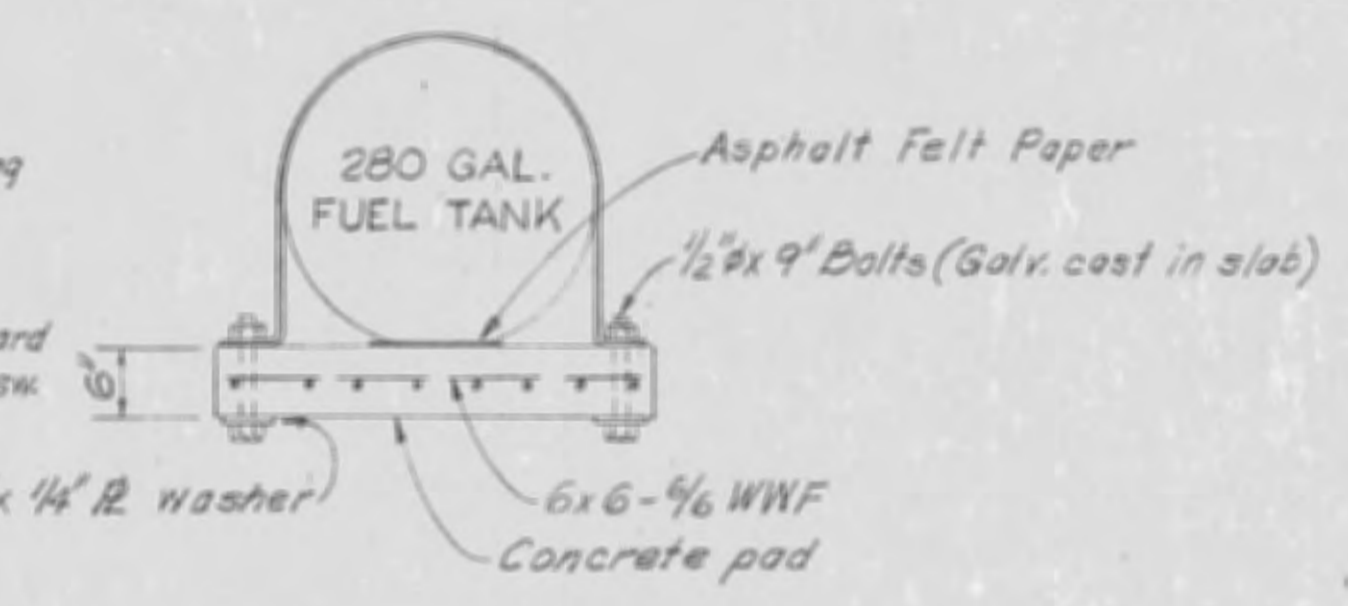
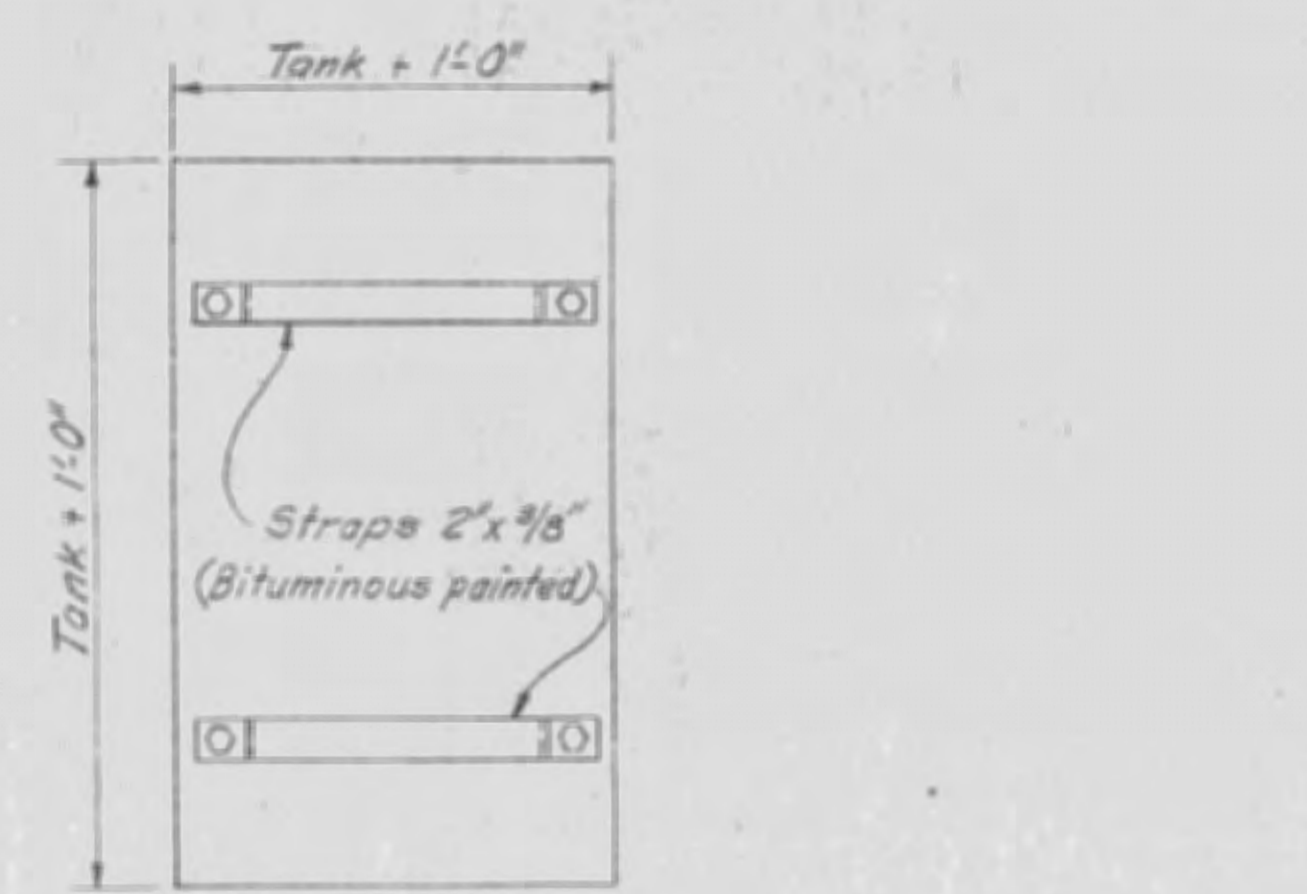
STRUCTURE - 157

GATE HOIST - DETAILS NO. 2

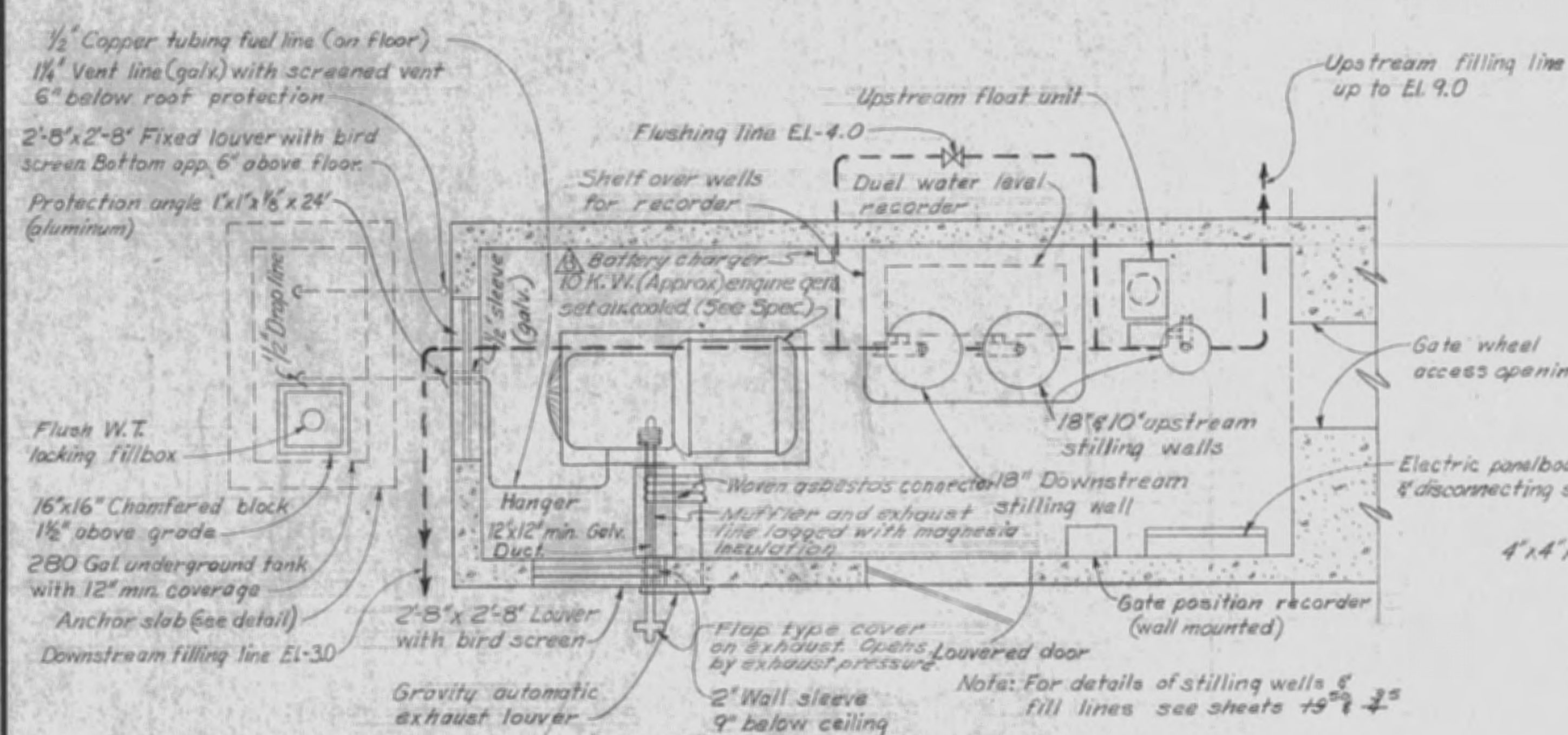
INVIATION NO. CIV. ENG. 08-123-66-66 SIZE F
DATED 28 APRIL 1966

SCALE: DATE: APRIL 1966 SHEET 23 OF 76

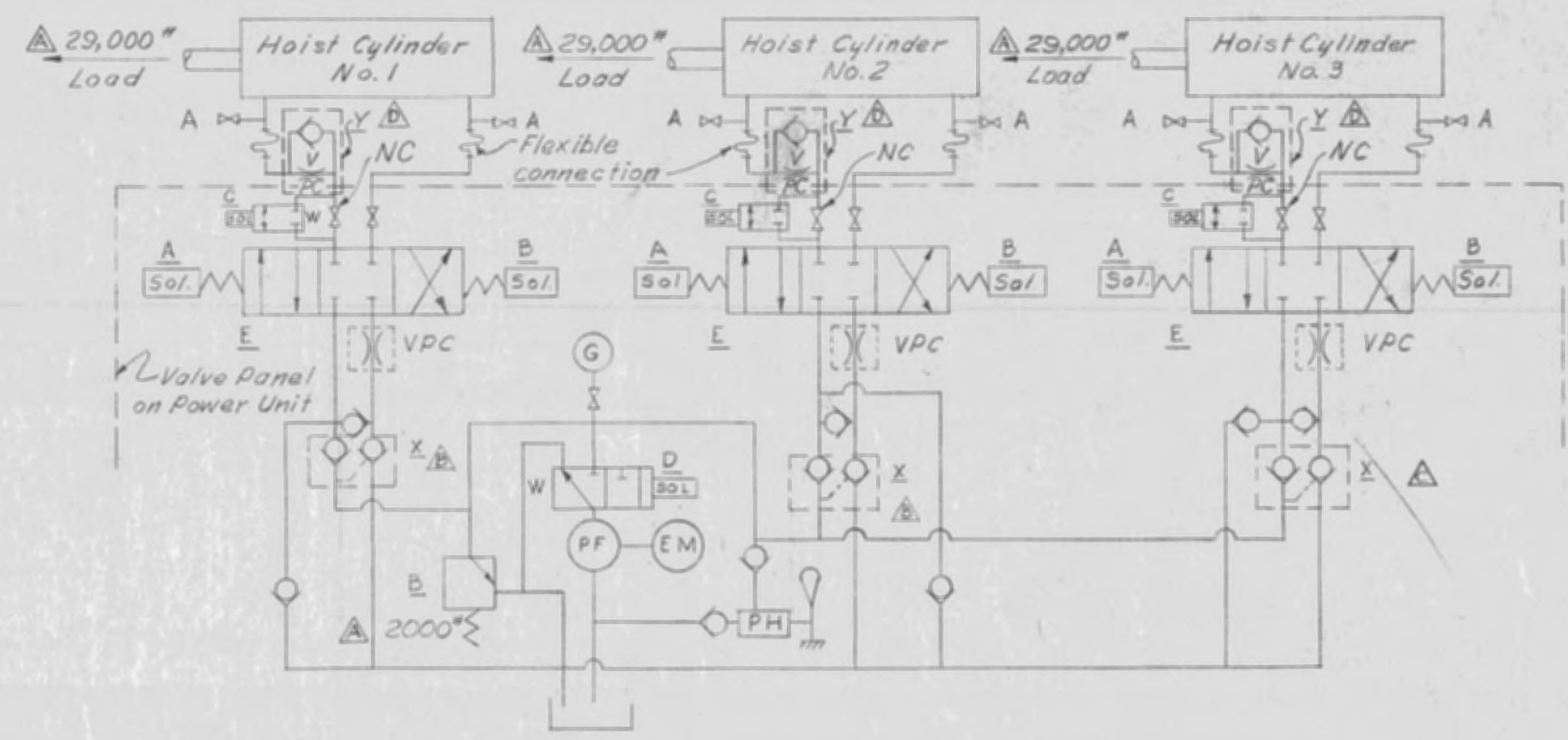
| REVISIONS | | | | | |
|-----------|------|------|---|---------|----------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
| 5 | Δ | | TO CONFORM TO AMENDMENT NO. 1 | 5-12-66 | |
| 1 | Δ | | TO CONFORM TO AMENDMENT NO. 2 | 5-18-66 | |
| 1 | Δ | | TO CONFORM TO AMENDMENT NO. 3 | 5-16-66 | |
| 4 | Δ | | ADD FLOW CONTROL VALVE IN LINE TO HYDRAULIC CYLINDER TO ACCOMPANY MOD TO CONTRACT 496-109 | 5-5-66 | |



DETAIL OF ANCHOR SLAB
NOT TO SCALE

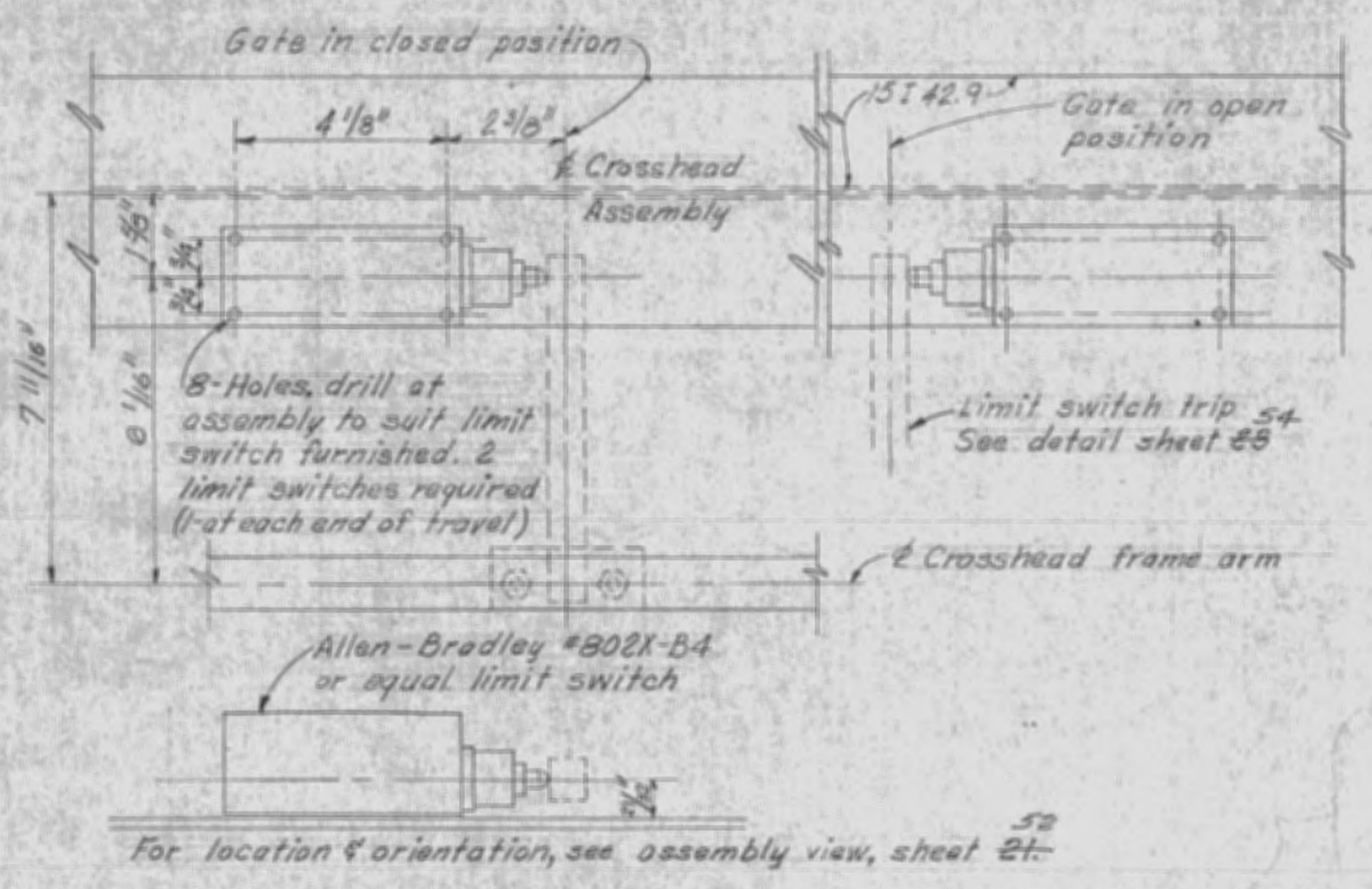


CONTROL HOUSE PLAN
SCALE: 1/2" = 1'-0"

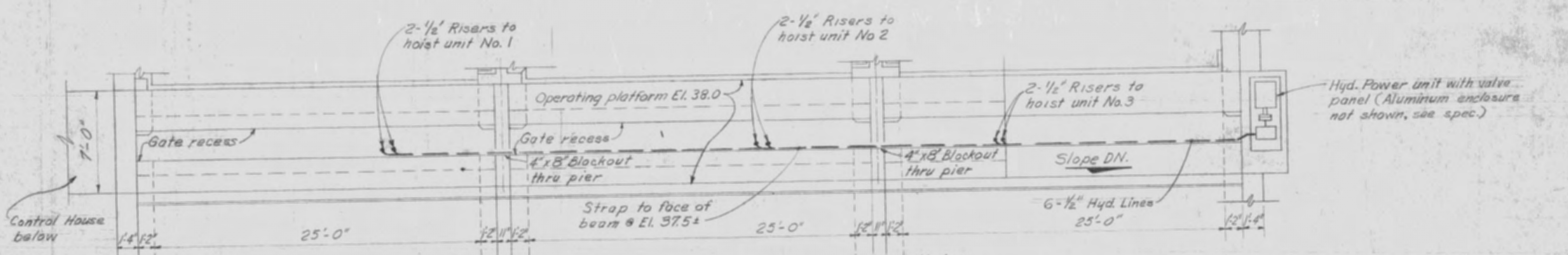


- LEGEND**
- 1. - HYDRAULIC HOIST CYLINDER; 8" BORE, 54" STROKE, 3 1/2" DIA. ROD.
 - 2. - HOIST (GATE) SPEED; 4"/MIN. (SIMULTANEOUS OPERATION).
 - 3. - ALL PIPE STAINLESS STEEL TUBING, 0.035" WALL.
 - A - AIR BLEEDER VALVE.
 - EM - ELECTRIC MOTOR, 220V., 1Ø.
 - PF - HYDRAULIC PUMP, 1.1 GAL./MIN. @ 1000 P.S.I.
 - PH - HAND PUMP.
 - E - MULTI-PORT DIRECTION CONTROL VALVE SPRING CENTERED, DOUBLE SOLENOID ACTUATED.
 - VPC - FLOW CONTROL, PRESSURE COMPENSATED, MANUALLY ADJUSTABLE. (SET FOR 4"/MIN. SIMULTANEOUS OPENING GATE SPEED).
 - G - PRESSURE GAGE, 0 - 3000 R.M.
 - B - RELIEF VALVE (SET AT 2000 P.S.I.)
 - O - CHECK.
 - C - GATE HOLD SOLENOID VALVE (N.C.).
 - D - UNLOADING VALVE, SOLENOID OPERATED, TIME DELAYED.
 - X - DOUBLE PILOT CHECK (LOCK VALVE) WATERMAN MODEL 271 OR EQUAL.
 - Y - FLOW CONTROL, PRESSURE COMPENSATED, WITH INTEGRAL CHECK.
- NOTE: DRAIN LINES TO COMPONENTS REQUIRING SAME SHALL BE PROVIDED ALTHOUGH NOT SHOWN AND AIR BLEEDING VALVES SHALL BE PROVIDED AT HIGH POINTS OF SYSTEM.

HOIST HYDRAULIC SYSTEM



GATE LIMIT SWITCH ARRANGEMENT
NO SCALE



HYDRAULIC PIPING AT SPILLWAY
NO SCALE

- Notes:**
- Hydraulic lines to be supported at not less than 4'-0" intervals using corrosion resisting straps & fasteners.
 - All piping 1/2" stainless steel tubing 0.035 wall.

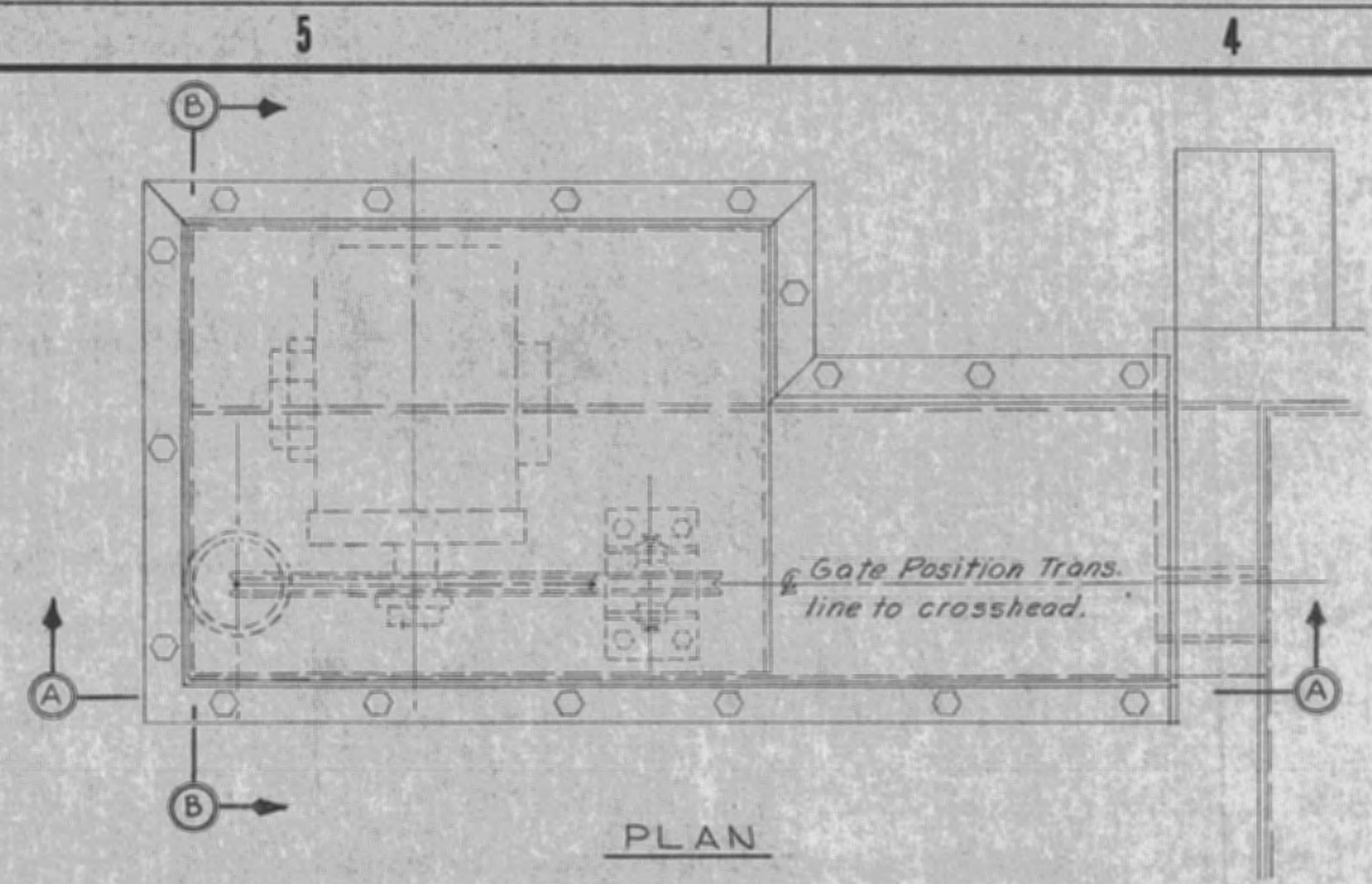
RECORD DRAWING NOTE
"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

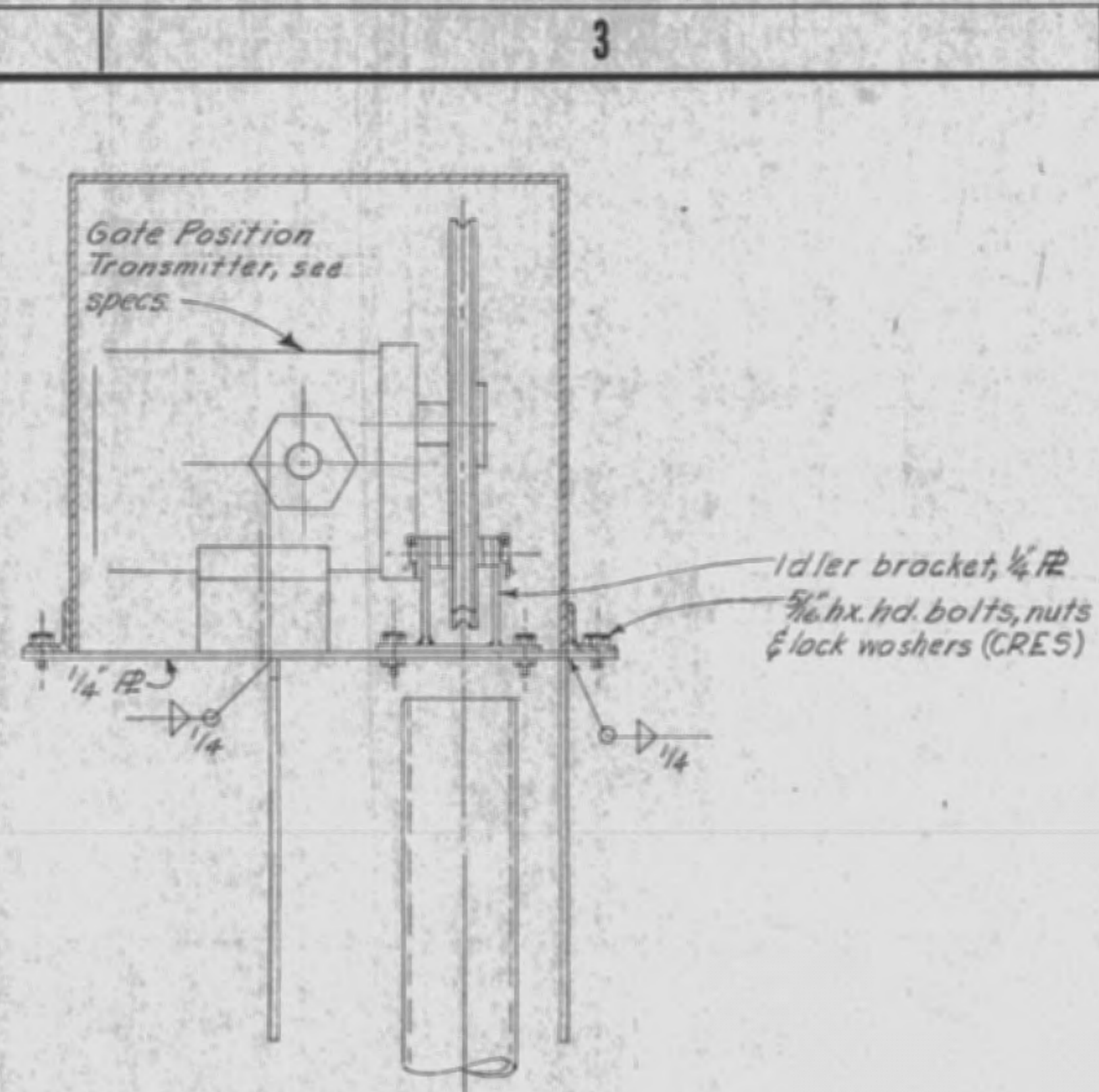
U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE - 157
CONTROL HOUSE AND HYDRAULIC PIPING

| | | |
|----------------------|-----------------------------|----------------------------------|
| DES. BY G.C.R. | REV. OF. ENG. 08-13-55 - 53 | SHEET NO. F |
| DATED: 28 APRIL 1966 | SCALE: 1/2" = 1'-0" | DATED: APRIL 1966 SHEET 24 OF 25 |

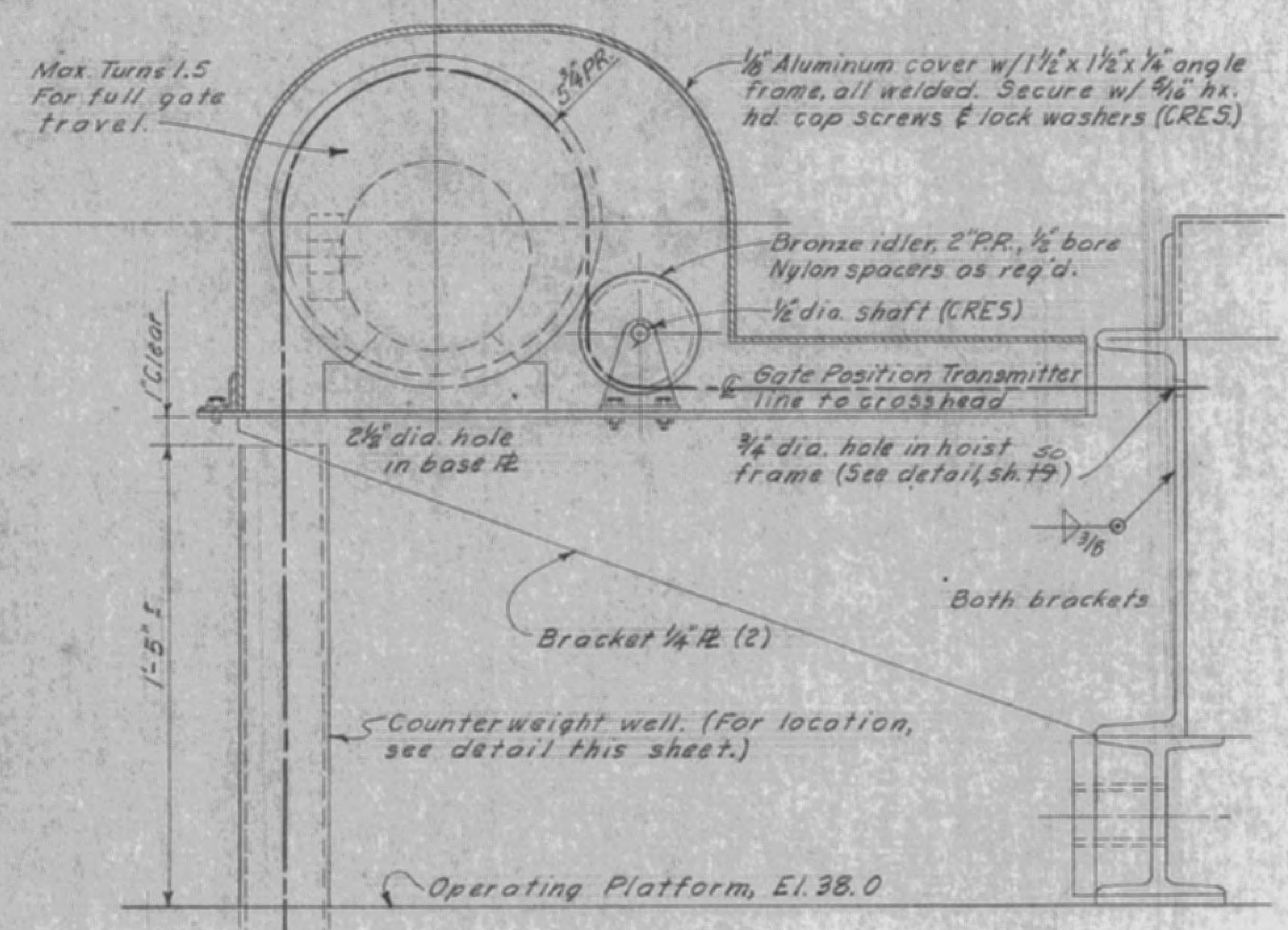
| REVISIONS | | | | | |
|-----------|------|------|-------------|------|----------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
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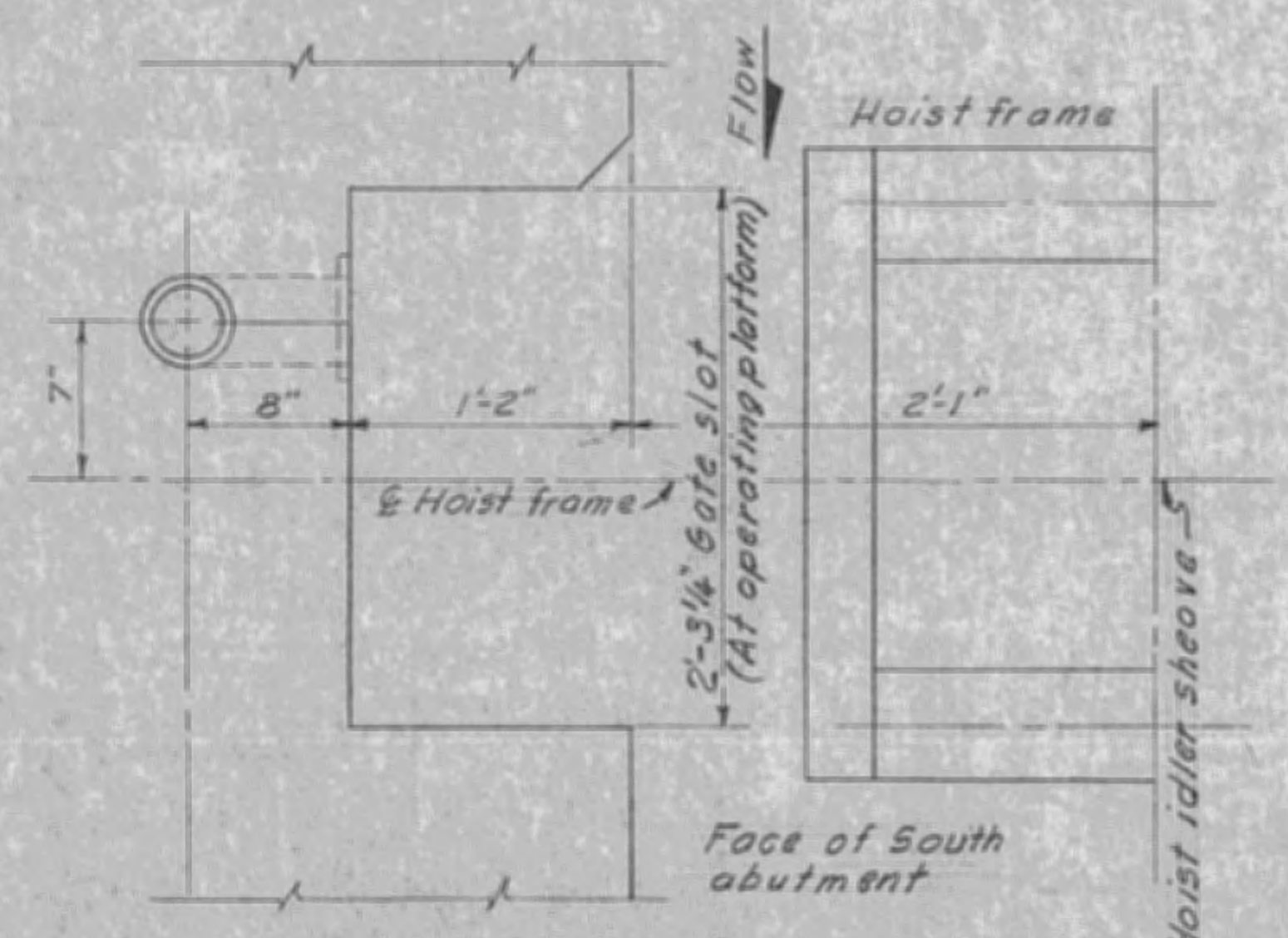
PLAN



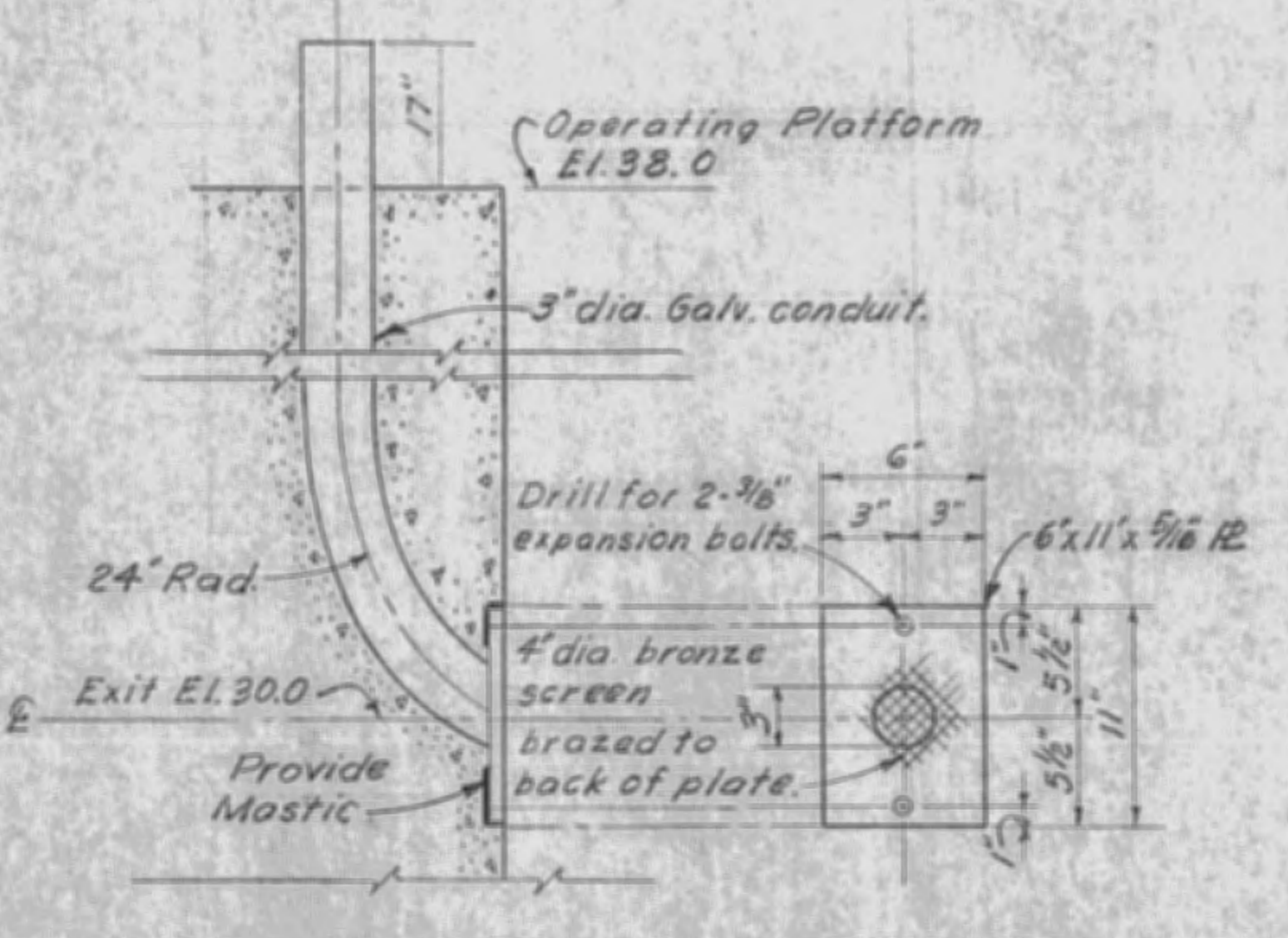
SECTION B-B



SECTION A-A



PLAN



PIPE WELL FOR COUNTERWEIGHT IN SOUTH ABUTMENT NOT TO SCALE

- NOTES:
1. DETAILS OF TRANSMITTER SWITCH MOUNTING, AND DRIVE TO BE FURNISHED BY CONTRACTOR TO SUIT EQUIPMENT FURNISHED.
 2. TRANSMITTER TO BE INSTALLED ON SOUTH GATE HOIST ONLY.
 3. CRES = CROSSION RESISTING STEEL ASTM A276 TYPE 304.

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA
 CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL 54, SECTION 2
 STRUCTURE - 157
 GATE POSITION TRANSMITTER

| | | | | | | |
|-----------------|--------------|-----------------------|---------------|---------------------|-------------|----------|
| DRW. BY A.R. | CHK. BY F | DATE 28 APRIL 1966 | SCALE NONE | DATED APRIL 1966 | SHEET 25 | OF 72 |
|-----------------|--------------|-----------------------|---------------|---------------------|-------------|----------|

5

SCHEDULE "A" CONDUIT AND WIRE DATA

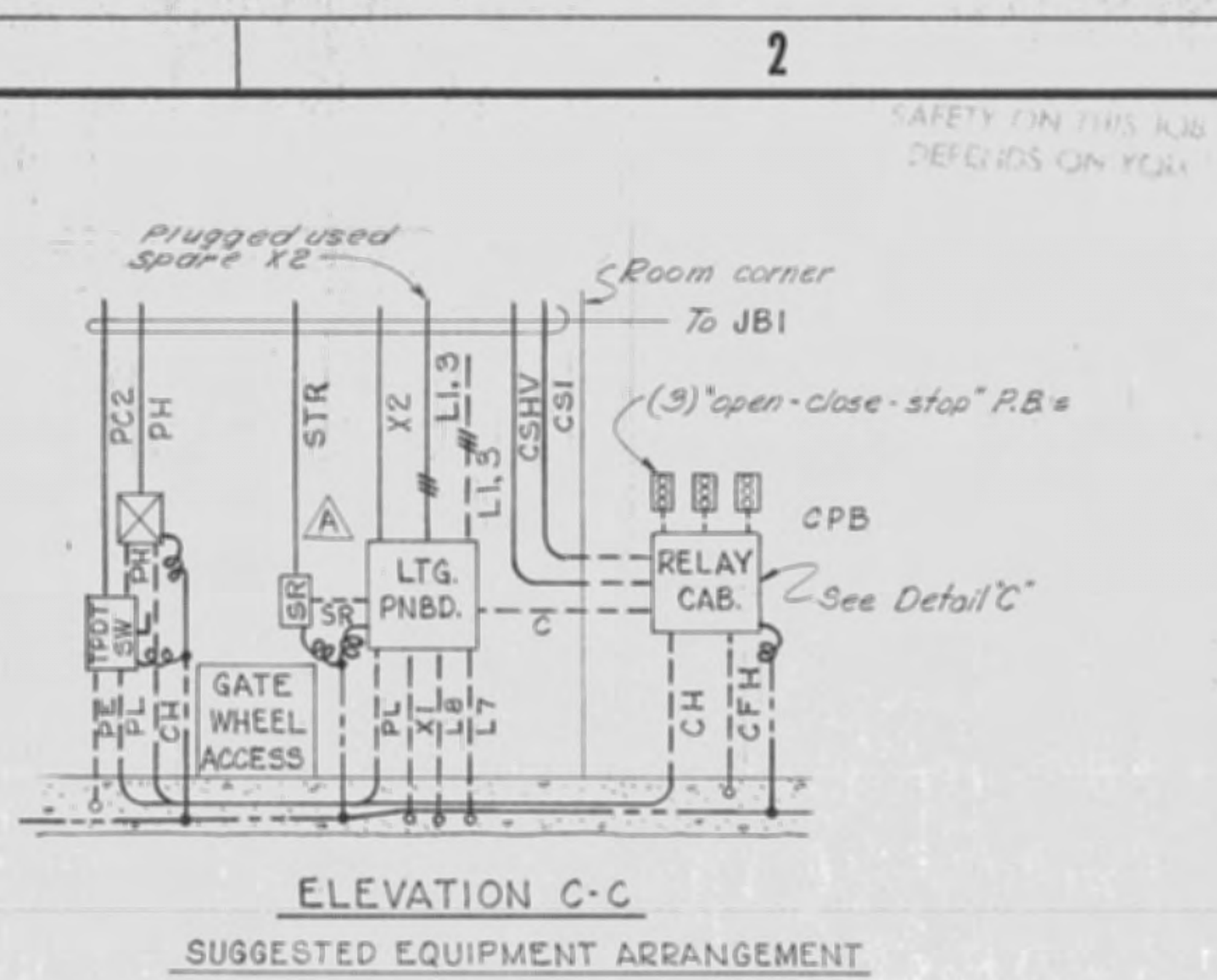
| SYM. | SIZE | NO.-AVG. | FUNCTION | FROM | TO | REMARKS |
|------|--------|----------|-----------------------------|-------------------|-----------------|----------------|
| C | 3/4" | 4-12 | GATE CONTROL CIRCUITS | LTG. PNBD. | RELAY CABINET | INCL. L7 |
| CFH | 1" | 5-12 | FLOAT UNIT - H.W. | RELAY CAB. | FLOAT UNIT | INCL. L7 |
| CH | 3/4" | 4-12 | HYD. PWR. UNIT CONTROL | RELAY CAB. | STARTER | INCL. L7 |
| CPB | 3/4" | 4-12 | P.B. STATION | RELAY CAB. | (3) P.B. STA'S | CONTROL HOUSE |
| CS1 | 2" | 24-12 | SPILLWAY STRUCT. CIRC'S. | RELAY CAB. | JB1 | INCL. 4 SPARES |
| CS2 | 2" | 22-12 | SPILLWAY STRUCT. CIRC'S. | JB1 | JB2 | INCL. 4 SPARES |
| CS3 | 1 1/2" | 12-12 | SPILLWAY STRUCT. CIRC'S. | JB2 | JB3 | INCL. 4 SPARES |
| CSHV | 1 1/2" | 1-12 | HYD. PWR. UNIT VALVES | RELAY CAB. | HYD. PWR. UNIT | VIA JB1-JB4 |
| CSLS | 3/4" | 3/2-12 | LIMIT SWITCHES | JB1, 2, 3 | LIMIT SW'S. | |
| CSPB | 1" | 5-12 | P.B. STATIONS | JB2, 2, 3 | (3) P.B. STA'S. | |
| D | 3/4" | -- | DRAIN | JB'S. & P.B. CAB. | DRAIN | DETAIL "B" |
| PC1 | 2" | 3-4 | COMM. POWER SUPPLY | TERMINAL POLE | METER BOX | SEE NOTE 1 |
| PC2 | 1 1/2" | 3-4 | COMM. POWER SUPPLY | METER BOX | TPDT SW. | VIA SAFETY SW. |
| PE | 1 1/2" | 3-6 | EMERGENCY POWER SUPPLY | TPDT SWITCH | EMERG. GEN. | |
| PH | 1" | 3-8 | HYD. PWR. UNIT MOTOR P.D.R. | TPDT SWITCH | MOTOR | VIA STR. & SW. |
| PL | 1" | 3-8 | LTG. PANELBOARD FEEDER | TPDT SWITCH | LTG. PNBD. | |
| LR | * | * | LIGHTING CIRC. NUMBER | LTG. PNBD. | EQUIPMENT | |
| SR | 3/4" | 4-12 | SELSYN GATE POS. RECORDER | LTG. PNBD. | RECORDER | INCL. L7 |
| STR | 1" | 5-12 | SELSYN GATE POS. RECORDER | RECORDER | X'MITTER | |
| X1 | 1 1/2" | -- | SPARE CONDUIT | LTG. PNBD. | STUB OUT | CONTROL HOUSE |
| X2 | 1 1/2" | -- | SPARE CONDUIT | LTG. PNBD. | JB1 | |
| X3 | 1 1/2" | -- | SPARE CONDUIT | JB3 | JB4 | |
| X4 | 1 1/2" | -- | SPARE CONDUIT | JB4 | STUB OUT | |

4

SCHEDULE "B" JUNCTION BOXES

| DRILL | JB1 | JB2 | JB3 | JB4 | DRILL TEMPLATE |
|-------|----------------|----------------|----------------|---------------|----------------|
| A | PC2-1 1/4" C | BLANK | BLANK | BLANK | |
| B | PH-1" C | BLANK | BLANK | BLANK | |
| C | L1, 3- 3/4" C | CSPB-1" C | BLANK | BLANK | |
| D | X2-1 1/2" C | CSPB-1" C | CSPB-1" C | BLANK | |
| E | CSHV-1 1/4" C | BLANK | BLANK | BLANK | |
| F | CS1-2" C | BLANK | BLANK | BLANK | |
| G | STR-1" C | BLANK | BLANK | BLANK | |
| H | L3- 3/4" C | L3- 3/4" C | L3- 3/4" C | BLANK | |
| I | BLANK | BLANK | BLANK | X4-1 1/2" C | |
| J | BLANK | BLANK | BLANK | PC2-1 1/4" C | |
| K | BLANK | BLANK | BLANK | L3- 3/4" C | |
| L | D- 3/4" C | D- 3/4" C | D- 3/4" C | D- 3/4" C | |
| M | BLANK | CSHV-1 1/4" C | CSHV-1 1/4" C | CSHV-1 1/4" C | |
| N | BLANK | PC2-1 1/4" C | PC2-1 1/4" C | PC2-1 1/4" C | |
| O | BLANK | L1, 3-1 1/2" C | L1, 3-1 1/2" C | L1, 3- 3/4" C | |
| P | BLANK | CS2-2" C | CS3-1 1/4" C | X3-1 1/2" C | |
| Q | BLANK | PH-1" C | PH-1" C | PH-1" C | |
| R | CSHV-1 1/4" C | CSHV-1 1/4" C | CSHV-1 1/4" C | CSHV-1 1/4" C | |
| S | PC2-1 1/4" C | PC2-1 1/4" C | PC2-1 1/4" C | BLANK | |
| T | L1, 3-1 1/2" C | L1, 3-1 1/2" C | L1, 3- 3/4" C | BLANK | |
| U | CS2-2" C | CS3-1 1/4" C | X3-1 1/2" C | BLANK | |
| V | PH-1" C | PH-1" C | PH-1" C | PH-1" C | |
| W | L1- 3/4" NIP | BLANK | BLANK | BLANK | |
| X | STR-1" C | BLANK | BLANK | L1- 3/4" NIP | |
| Y | CSLS- 3/4" C | CSLS- 3/4" C | CSLS- 3/4" C | BLANK | |

DRILL A-L: PROVIDE SLIP FIT AS NOTED
M-Y: PROVIDE CONDUIT BOSS AS NOTED (MIN. 5 FULL THREADS)
M-Q: PROVIDE CONDUIT EXPANSION FITTING - OZ TYPE "EXE"
JUNCTION BOXES SHALL BE MOUNTED ON MINIMUM 1/2" MASTIC
JUNCTION BOXES SHALL BE HOT DIP GALVANIZED CAST IRON SIMILAR TO OZ TYPE "YH"



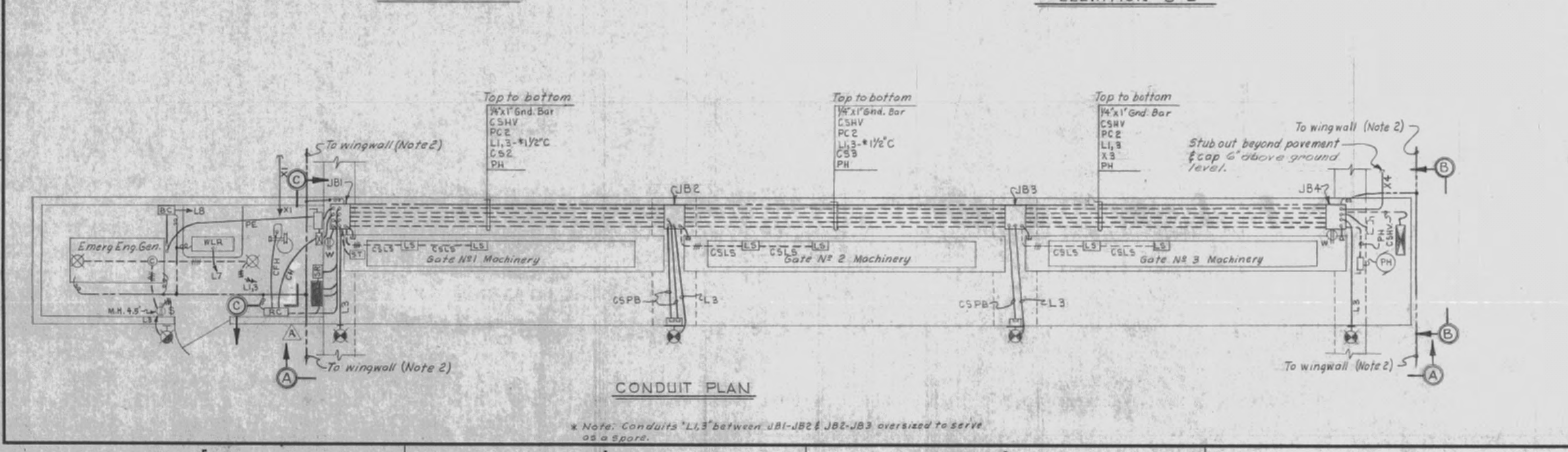
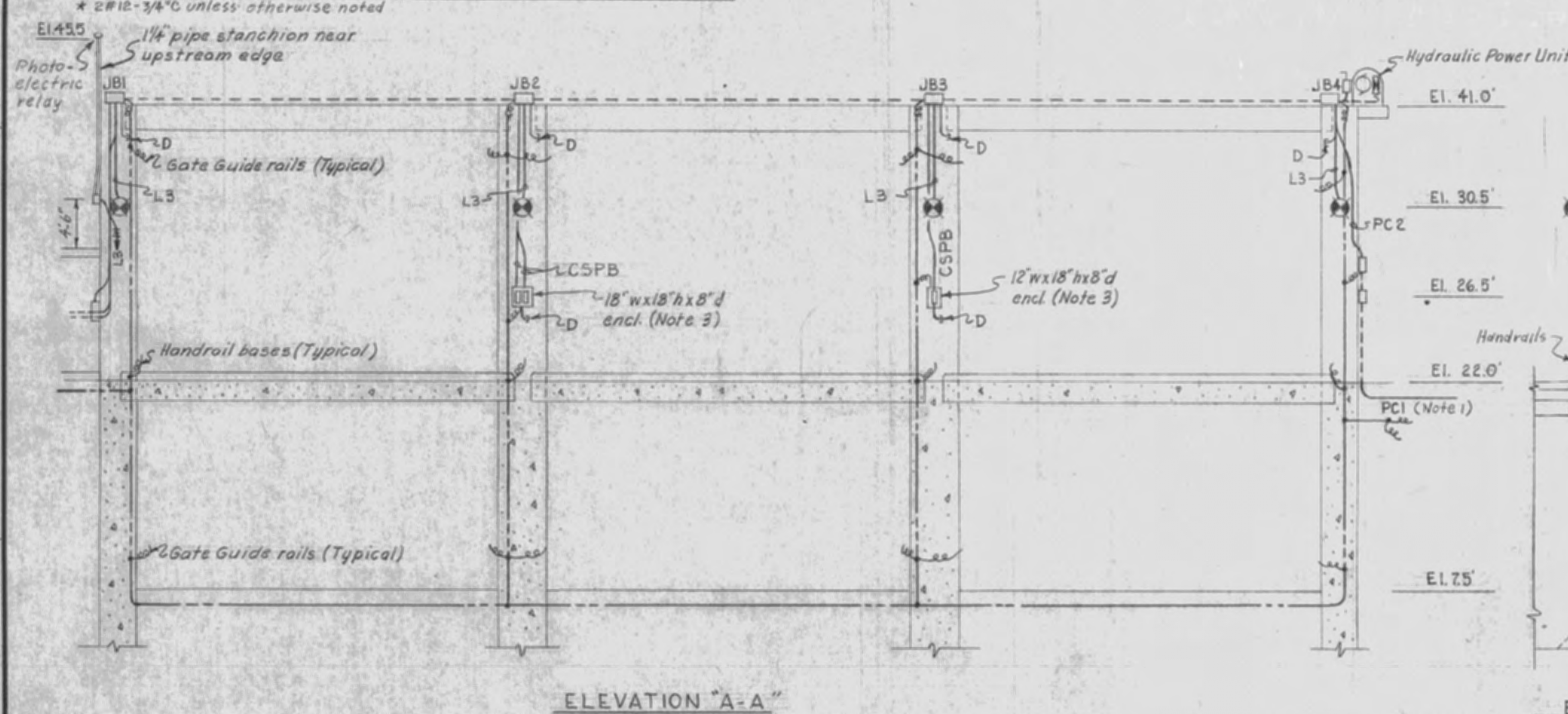
1

REVISIONS

| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
|-----|------|------|---------------------------------------|---------|----------|
| 3 | A | | REVISED TO CONFORM TO AMENDMENT NO. 1 | 5/12/66 | J.P.C. |

SYMBOL LIST

- INDICATING LIGHT: "MOTOR RUNNING", RED LENS
- LIGHTING FIXTURE: CONTROL HOUSE INTERIOR, 100W
- LIGHTING FIXTURE: CONTROL HOUSE EXTERIOR, 60W
- LIGHTING FIXTURE: SERVICE BRIDGE, 150W
- DUPLEX CONVENIENCE OUTLET: 2P3W GROUNDED TYPE
- * DENOTES WEATHERPROOF
- SWITCH: TOGGLE, SPST, @ DENOTES PILOT LIGHT
- PUSHBUTTON CONTACT: N.O. START AND N.C. STOP CONTROL
- LIMIT SWITCH: SEE GATE MACH. DWG'S FOR INSTALLATION
- MERCURY SW.: LOW AND HIGH WATER LEVEL CONTROL
- JUNCTION BOX: SEE SCHEDULE "B"
- CONNECTION BOX: SIZED AS REQUIRED
- EQUIPMENT SPACE HEATER
- HYDRAULIC CONTROL VALVE: SOLENOID OPERATED - TIME DELAY, GATE OPEN-CLOSE, GATE HOLD
- HYDRAULIC CONTROL VALVE PANEL
- SAFETY OR TRANSFER SWITCH: SEE SCH. WIRING DIAG.
- RELAY CABINET: SEE SPECIFICATIONS
- CONTROL RELAY COIL: SEE SCHEDULE "D"
- CONTACTOR, MOTOR CONTROL: COIL AND MAIN CONTACT
- CONTACT, CONTROL RELAY OR AUX. CONTACTOR: N.O. AND N.C.
- COMBINATION MOTOR STARTER
- MOTOR: AS NOTED ON SCH. WIRING DIAGRAM
- LIGHTING PANELBOARD
- CIRCUIT BREAKER: 1 POLE, 20A TRIP, 240V, "E" FRAME
- CIRCUIT BREAKER: 2 POLE, TRIP AS NOTED, 600V, "F" FRAME
- OVERLOAD TRIPS: THERMAL AND INSTANTANEOUS MAGNETIC
- BATTERY CHARGER, BATTERY AND BATTERY RACK
- GATE POSITION SELSYN SYS: RECORDER AND TRANSMITTER
- PRESSURE SWITCH: AS NOTED
- WATER LEVEL RECORDER: SEE SPECIFICATIONS
- PNEUMATIC CONTROL VALVE
- FUSE AS NOTED: DUAL ELEMENT TIME DELAY TYPE
- GROUND ROD: COPPERWELD, 1" DIA. X 10'
- CONDUIT, CONCEALED: SEE SCHEDULE "A"
- CONDUIT, EXPOSED: SEE SCHEDULE "A"
- CONDUIT DESIGNATION: SEE SCHEDULE "A"
- CONDUIT, FLEXIBLE CONNECTION
- CONDUIT HOME RUN: AS NOTED
- HASH MARKS: NO. AWG#12 CONDUCTORS IN CONDUIT
- GROUND CONDUCTOR
- EQUIPMENT GROUND CONNECTION



NOTES: FOR GENERAL NOTES, SEE "SCHEMATIC WIRING DIAGRAM AND MISC. DETAILS" SHEET.

RECORD DRAWING NOTE
 "Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA
 CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL 54, SECTION 2
 STRUCTURE - 157
 ELECTRICAL - CONDUIT PLAN

| | | |
|-------------|------------|-------|
| DESIGNED BY | DATE | SCALE |
| CHKD BY | APRIL 1966 | NONE |
| APP'D BY | DATE | SCALE |
| | APRIL 1966 | NONE |

D. O. FILE NO. 496-29,370-496-30,952

DESCRIPTION OF SPILLWAY GATE CONTROL OPERATION

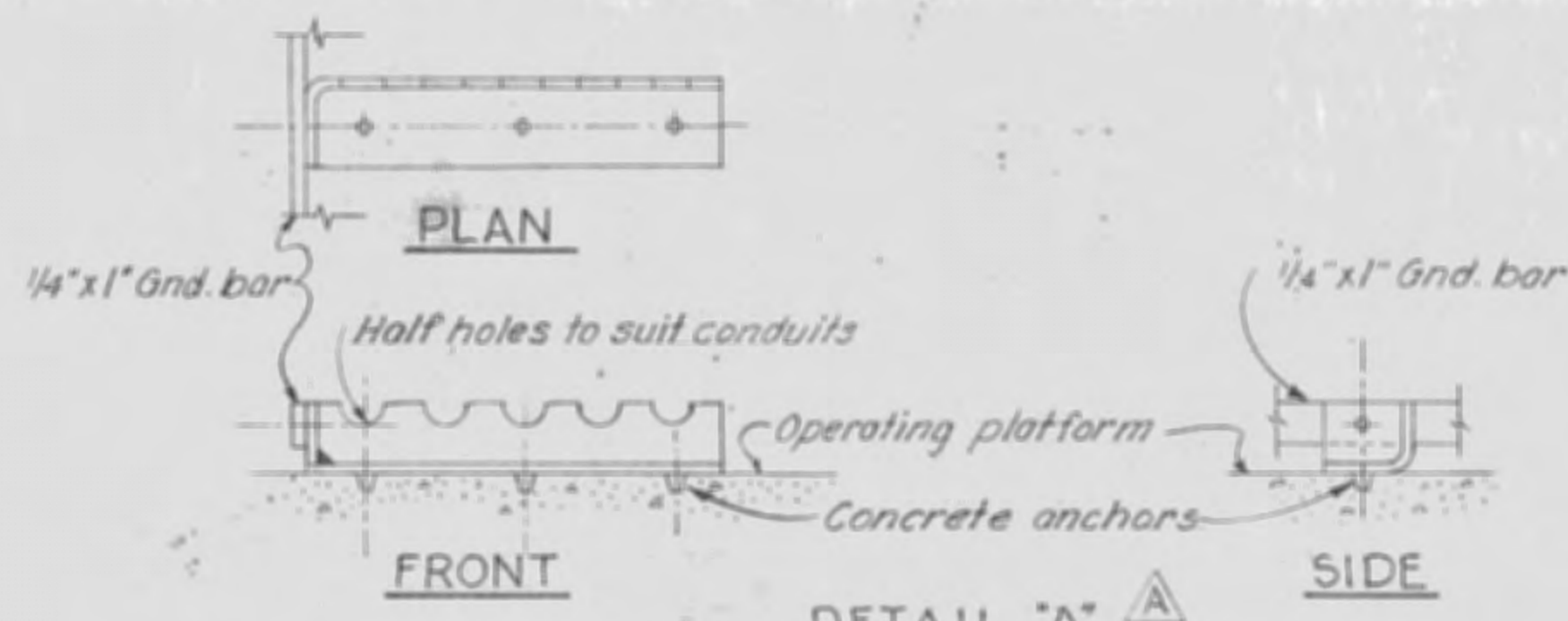
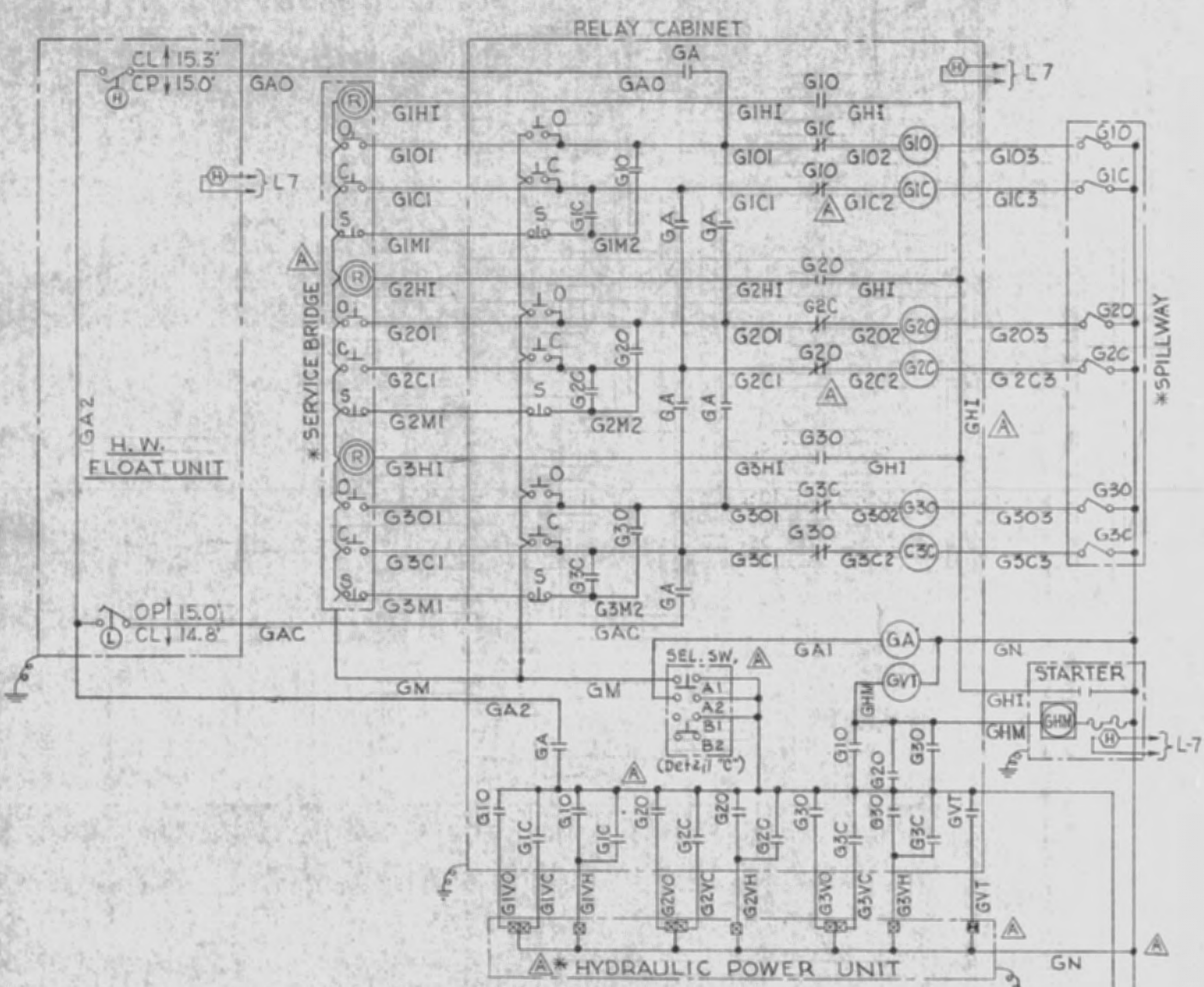
- GATE MACHINERY: A GATE SHALL BE OPENED BY A HYDRAULIC CYLINDER AND SHALL BE CLOSED BY GRAVITY. A HYDRAULIC POWER UNIT WITH AN ELECTRICALLY DRIVEN PUMP SHALL FURNISH THE NECESSARY HYDRAULIC POWER FOR GATE OPEN OPERATIONS. A HYDRAULIC VALVE PANEL ON THE POWER UNIT SHALL BE EQUIPPED WITH NECESSARY SOLENOID OPERATED HYDRAULIC CONTROL VALVES.
- LIMIT SWITCH CONTROLS: A LIMIT SWITCH CONTACT SHALL BE PROVIDED IN EACH GATE OPEN AND GATE CLOSE CONTROL CIRCUIT TO DE-ENERGIZE THE CIRCUIT WHEN A GATE IS EITHER FULLY OPENED OR FULLY CLOSED.
- HYDRAULIC SOLENOID OPERATED CONTROL VALVES: A DUMPING VALVE WITH TIME DELAY ENERGIZATION, GATE OPEN-CLOSE, AND GATE HOLD CONTROL VALVES SHALL BE PROVIDED AS SHOWN ON THE GATE MACHINERY DRAWINGS.
- RELAY CONTROLS: GATE OPEN AND GATE CLOSE CONTROLS SHALL BE PROVIDED BY RELAYS "GRO" AND "GWC". THE HYDRAULIC POWER UNIT ELECTRIC MOTOR SHALL BE PERMITTED TO START UNDER NO-LOAD CONDITIONS BY TIME DELAY "GVT" PROVIDING A 5 SECOND ENERGIZATION DELAY FOR THE HYDRAULIC DUMPING VALVE. MANUAL AND AUTOMATIC CONTROL CIRCUITS SHALL BE ISOLATED BY RELAY "GA".
- ON-OFF CONTROL: A FOUR POSITION SELECTOR SWITCH SHALL BE PROVIDED FOR "MANUAL-OFF-AUTOMATIC" CONTROL AS SHOWN IN DETAIL "C".
- MANUAL GATE CONTROL: DUPLICATE "OPEN-CLOSE-STOP" PUSHBUTTON STATIONS FOR EACH GATE SHALL BE LOCATED AT THE SPILLWAY SERVICE BRIDGE AND AT THE CONTROL RELAY CABINET. IN ADDITION, A "POWER-ON" INDICATING LIGHT SHALL BE PROVIDED AT SERVICE BRIDGE P.B. STATIONS.
- AUTOMATIC GATE CONTROL: A HEADWATER CONTROL UNIT SHALL CONTAIN HIGH "H" AND LOW "L" DUAL FLOAT OPERATED MERCURY SWITCHES WHICH SHALL FUNCTION AS FOLLOWS:
 - HIGH HEADWATER CONTROL MERCURY SWITCH "H" SHALL CLOSE ON RISING WATER LEVEL AND, THROUGH A LOST MOTION CLUTCH ARRANGEMENT, SHALL OPEN ON FALLING WATER LEVEL AT THE ELEVATIONS SHOWN ON THE SCHEMATIC WIRING DIAGRAM.
 - LOW HEADWATER CONTROL MERCURY SWITCH "L" SHALL CLOSE ON FALLING WATER LEVEL AND, THROUGH A LOST MOTION CLUTCH ARRANGEMENT, SHALL OPEN ON RISING WATER LEVEL AT THE ELEVATIONS SHOWN ON THE SCHEMATIC WIRING DIAGRAM.
 - GATE OPEN/(CLOSE) CONTROL CIRCUITS SHALL BE ENERGIZED WHENEVER A HIGH/(LOW) WATER LEVEL CONTROL MERCURY SWITCH CONTACT IS CLOSED, THUS OPENING/(CLOSING) GATES TO MAINTAIN A MAXIMUM/(MINIMUM) WATER LEVEL.
 - MERCURY SWITCH SETTINGS SHALL BE ADJUSTABLE TO PERMIT VARYING OPERATIONAL WATER LEVELS IN THE FIELD.
- SPILLWAY GATE POSITION RECORDER: A SELSYN RECEIVER-TRANSMITTER SYSTEM SHALL BE PROVIDED TO GIVE A PERMANENT CONTINUOUS RECORD OF GATE POSITION.

| REVISIONS | | | | | |
|-----------|--------|------|---------------------------------------|--------|----------|
| NO. | SYMBOL | ZONE | DESCRIPTION | DATE | APPROVED |
| 21 | Δ | | REVISED TO CONFORM TO AMENDMENT NO. 1 | 5/2/66 | JTC |

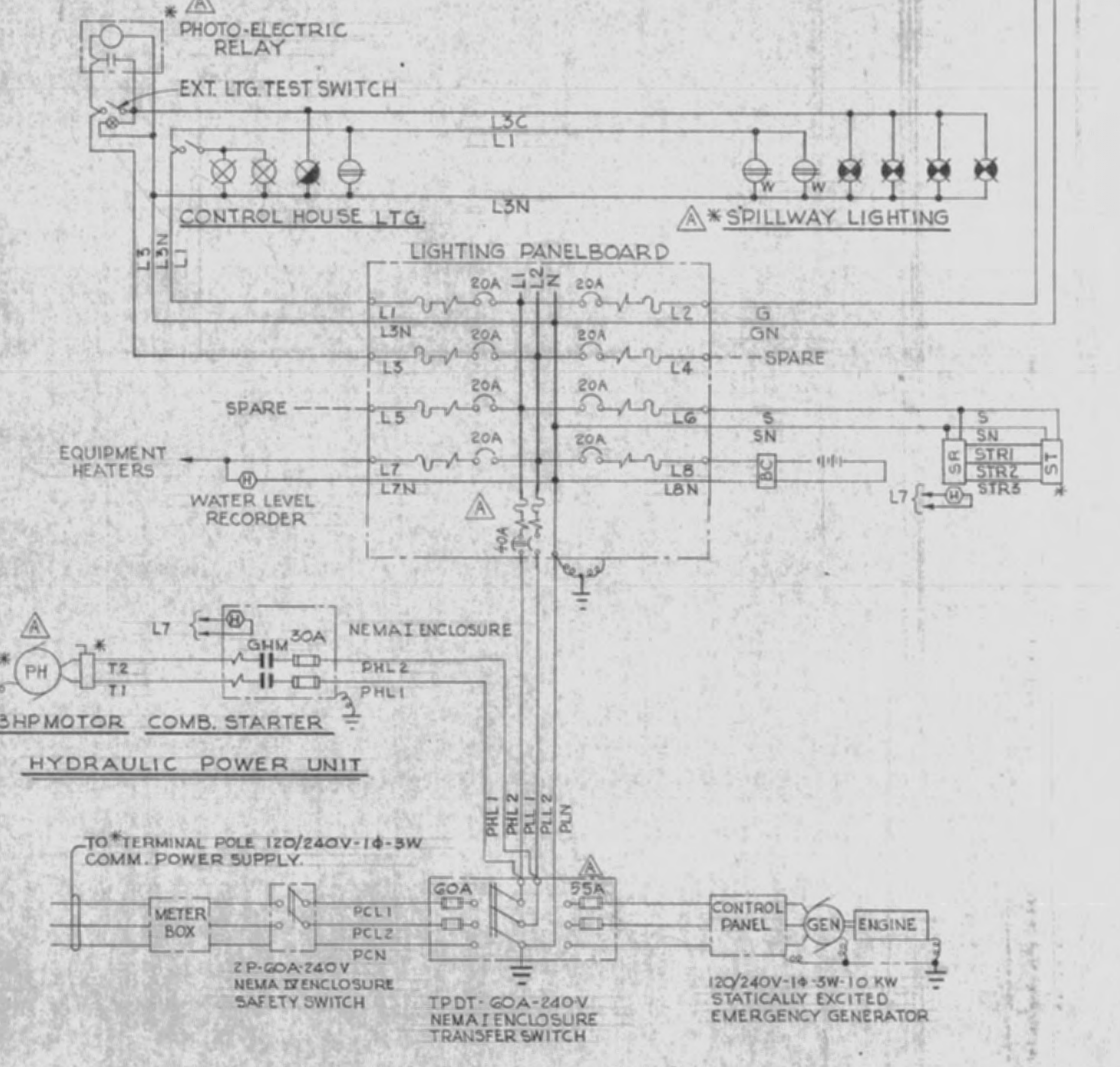
SAFETY ON THE JOB
DEPENDS ON YOU

NOTES

- THE LOCAL POWER COMPANY SHALL FURNISH AND INSTALL A TERMINAL POLE WITHIN 40 FEET OF THE NORTH SIDE OF THE SPILLWAY STRUCTURE. THE CONTRACTOR SHALL FURNISH AND INSTALL UNDERGROUND CONDUIT WITH WIRING FROM THE TERMINAL POLE TO THE METER BOX LOCATED ON THE NORTH ABUTMENT PIER.
- AT EACH WINGWALL, BOND THE INDIVIDUAL SHEET STEEL PILES TOGETHER BY SPOT WELDING A CONTINUOUS 1/2" REINFORCING ROD TO EACH PILE JUST BELOW THE CONCRETE CAP. BOLT AND THEN BRAZE OR EXOTHERMIC WELD A #8 GROUND WIRE TO EACH WINGWALL.
- SERVICE BRIDGE PUSHBUTTON STATIONS SHALL CONSIST OF PUSHBUTTON UNITS INSTALLED IN FLUSH MOUNTED CABINETS PROVIDED WITH A DRAIN. THE NEMA IV PUSHBUTTON UNIT SHALL BE FURNISHED WITH "OPEN-CLOSE-STOP" PUSHBUTTONS AND A "MOTOR RUNNING" INDICATOR LIGHT. CUTLER-HAMMER CAT. NO. 10250-H1561. CABINETS SHALL BE SIZED AS NOTED ON ELEVATION "A-A", SHALL HAVE TRIM, BOX AND HINGED DOOR OF GALVANIZED CAST IRON CONSTRUCTION WITH CONDUIT BOSSES AND NO EXPOSED MOUNTING SCREWS, AND SHALL BE SIMILAR AND EQUAL TO #200 TYPE CABINET AS MANUFACTURED BY HOPE ELECTRICAL PRODUCTS CO., HILLSIDE, N.J. A HEAVY DUTY HASP SHALL BE PROVIDED FOR PADLOCKING.
- SUPPORT BRACKETS SHALL BE PROVIDED ON THE SPILLWAY STRUCTURE OPERATING PLATFORM FOR CONDUITS AND GROUNDING BAR AS SHOWN IN DETAIL "A". THE BRACKETS SHALL BE SIZED TO PROVIDE STRAIGHT CONDUIT RUNS BETWEEN JUNCTION BOXES, SHALL BE OF WELDED GALVANIZED 1/4" PLATE CONSTRUCTION, AND SHALL HAVE ALL SHARP EDGES, CORNERS AND BURRS GRIND SMOOTH. THE GROUND BAR SHALL BE BOLTED TO THE BRACKETS WITH 1/4" BOLTS AND A SUITABLE GASKET SHALL BE PROVIDED BETWEEN THE COPPER BAR AND GALVANIZED BRACKET TO MITIGATE CORROSION. BRACKETS SHALL BE LOCATED WITHIN 1 FOOT OF JUNCTION BOXES AND SHALL BE PROVIDED ALONG THE CONDUIT RUNS WITH A MAXIMUM SPACING OF 4 FEET.

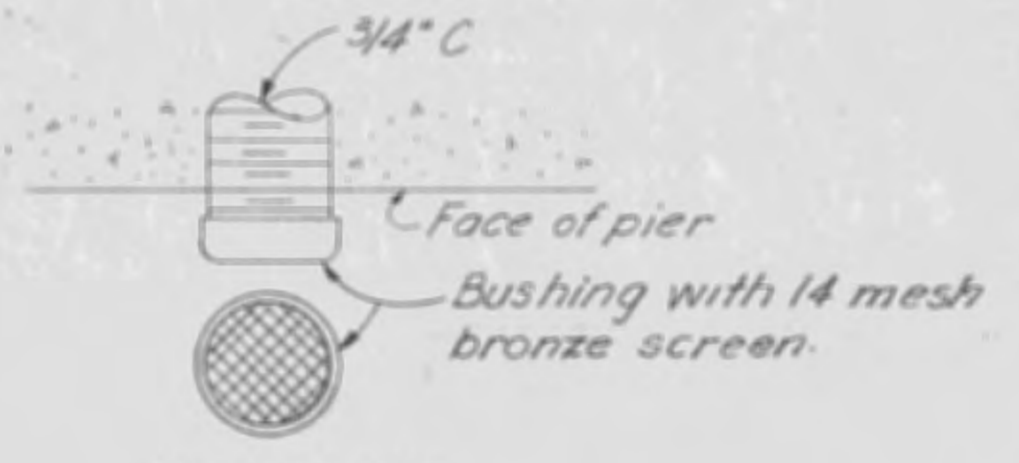


TYPICAL SUPPORT BRACKET FOR CONDUIT & GROUND BAR
(See note 4)



SCHEMATIC WIRING DIAGRAM
* DENOTES REMOTE LOCATION FROM CONTROL HOUSE

| WIRE NUMBER PREFIXES AND EQUIPMENT SYMBOL ABBREVIATIONS | | | | |
|---|--------|-----------|--------|---|
| ABBREVIATIONS | | FUNCTIONS | | |
| COMM. | GATE 1 | GATE 2 | GATE 3 | |
| G | | | | GATE CONTROL |
| GA | | | | AUTOMATIC CONTROL |
| GAC | | | | CLOSE |
| GAD | | | | OPEN |
| GHM | | | | HYD. PWR. UNIT MOTOR-CONTROL |
| GN | | | | CIRCUIT NEUTRAL |
| GIC- | G2C- | G3C- | | CLOSE CONTROL |
| GHI- | G2HI- | G3HI- | | HYD. PWR. UNIT "MOTOR RUNNING" IND. LT. |
| GM- | G2M- | G3M- | | MANUAL CONTROL |
| GIO- | G2O- | G3O- | | OPEN CONTROL |
| GIVC- | G2VC- | G3VC- | | HYDRAULIC VALVES - CLOSE CONTROL |
| GIVH- | G2VH- | G3VH- | | HOLD CONTROL |
| GIVO- | G2VO- | G3VO- | | OPEN CONTROL |
| GVT | | | | TIME DELAY RELAY CONTROL |
| L# | | | | LIGHTING CIRCUIT NUMBER |
| LRC | | | | CONTROLLED CIRCUIT |
| L#N | | | | CIRCUIT NEUTRAL |
| PC | | | | POWER CIRCUIT - COMMERCIAL |
| PE | | | | EMERGENCY GENERATOR |
| PH | | | | HYDRAULIC POWER UNIT MOTOR |
| PL | | | | LIGHTING PANELBOARD FEEDER |
| P-L# | | | | SUFFIX "L#" AND "L2" DENOTE LINE NUMBER |
| P-N | | | | SUFFIX "N" DENOTES CIRCUIT NEUTRAL |
| SR | | | | SELSYN SYSTEM - GATE POSITION RECORDER |
| ST | | | | TRANSMITTER |
| STR | | | | TRANSMITTER - RECEIVER - WIRING |



DETAIL "B" DRAIN ASSEMBLY

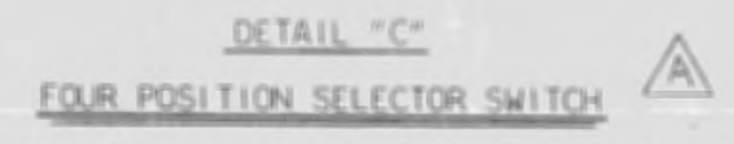
| CONTACT | POS. 1 | POS. 2 | POS. 3 | POS. 4 |
|---------|--------|--------|--------|--------|
| A1 | C | O | O | O |
| A2 | O | O | C | O |
| B1 | O | O | O | C |
| B2 | O | O | C | O |

C & O DENOTE CLOSED OR OPEN CONTACT

SELECTOR SW. SELECTOR SWITCH CONTACT SCHEDULE



NAMEPLATE



- THE SELECTOR SWITCH AND NAMEPLATE SHALL BE COVER MOUNTED ON THE RELAY CABINET.
- THE SELECTOR SWITCH SHALL BE SIMILAR AND EQUAL TO SQUARE D CAT. NO. TS-NO1B.

| SCHEDULE "D" CONTROL RELAYS | | | | |
|-----------------------------|----------|----------------------------|------------|-------------------------------------|
| SYM. | CONTACTS | WESTINGHOUSE CATALOGUE NO. | NO. REQ'D. | DESCRIPTION |
| GA | 8 | 0 BFBDF | 1 | GATE AUTOMATIC CONTROL |
| GVT | 1TD | 505C-069001 | 1 | SOLID STATE 5 SEC. TIME DELAY RELAY |
| GFC | 5 | 4 BFBDF | 3 | GATE CLOSE CONTROL RELAY |
| GFO | 5 | 4 BFBDF | 3 | GATE OPEN CONTROL RELAY |

RECORD DRAWING NOTE

"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

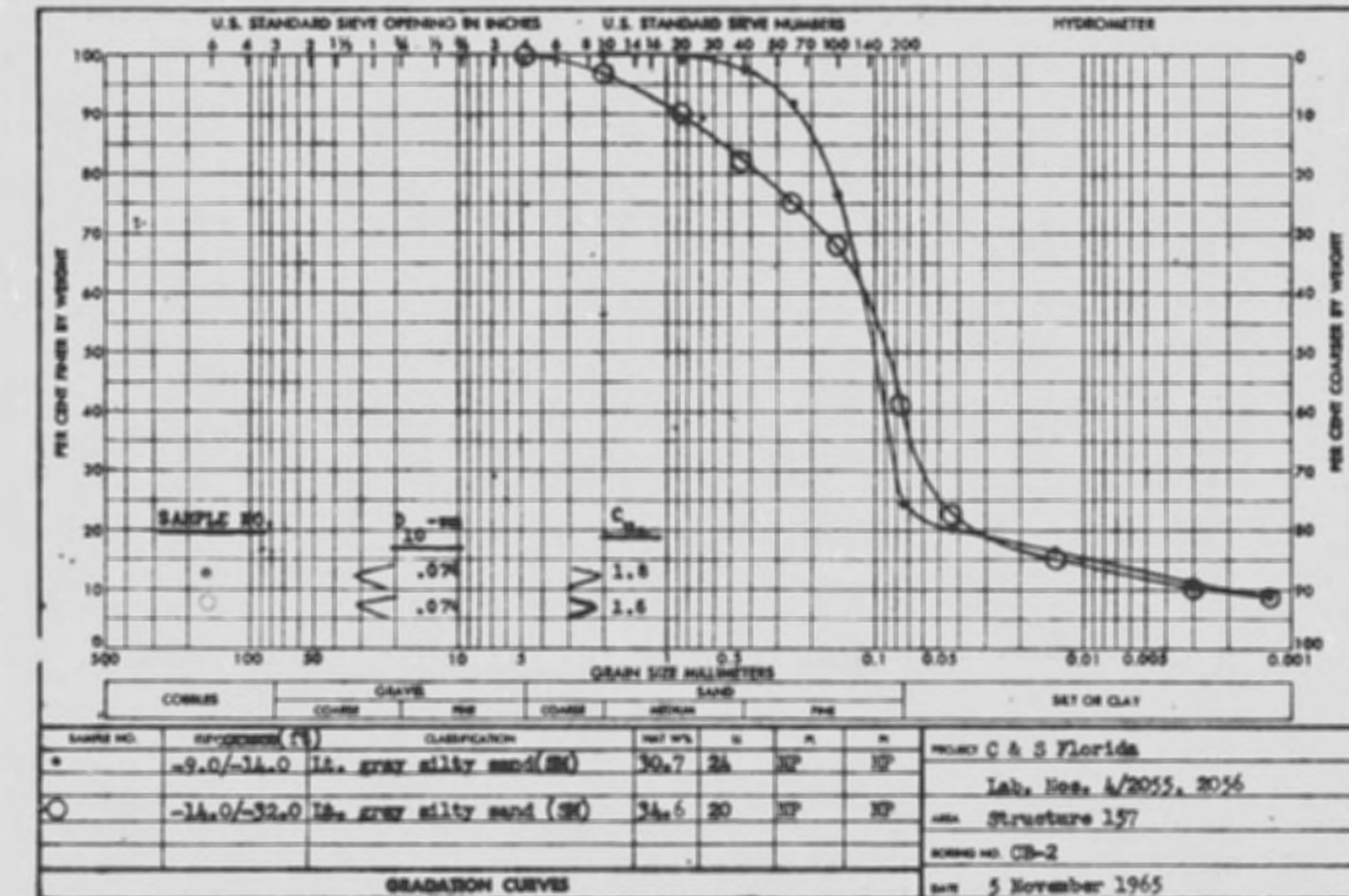
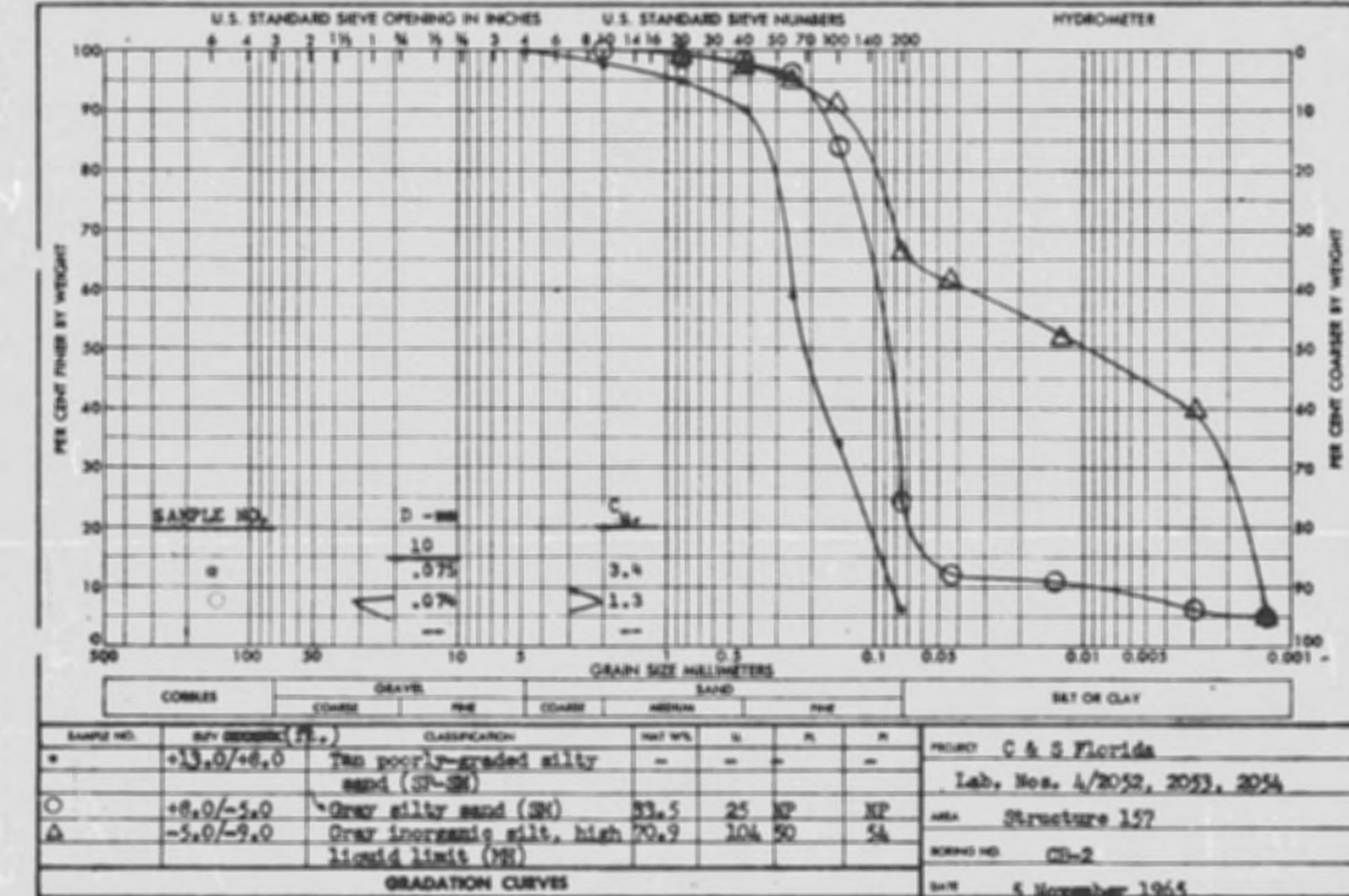
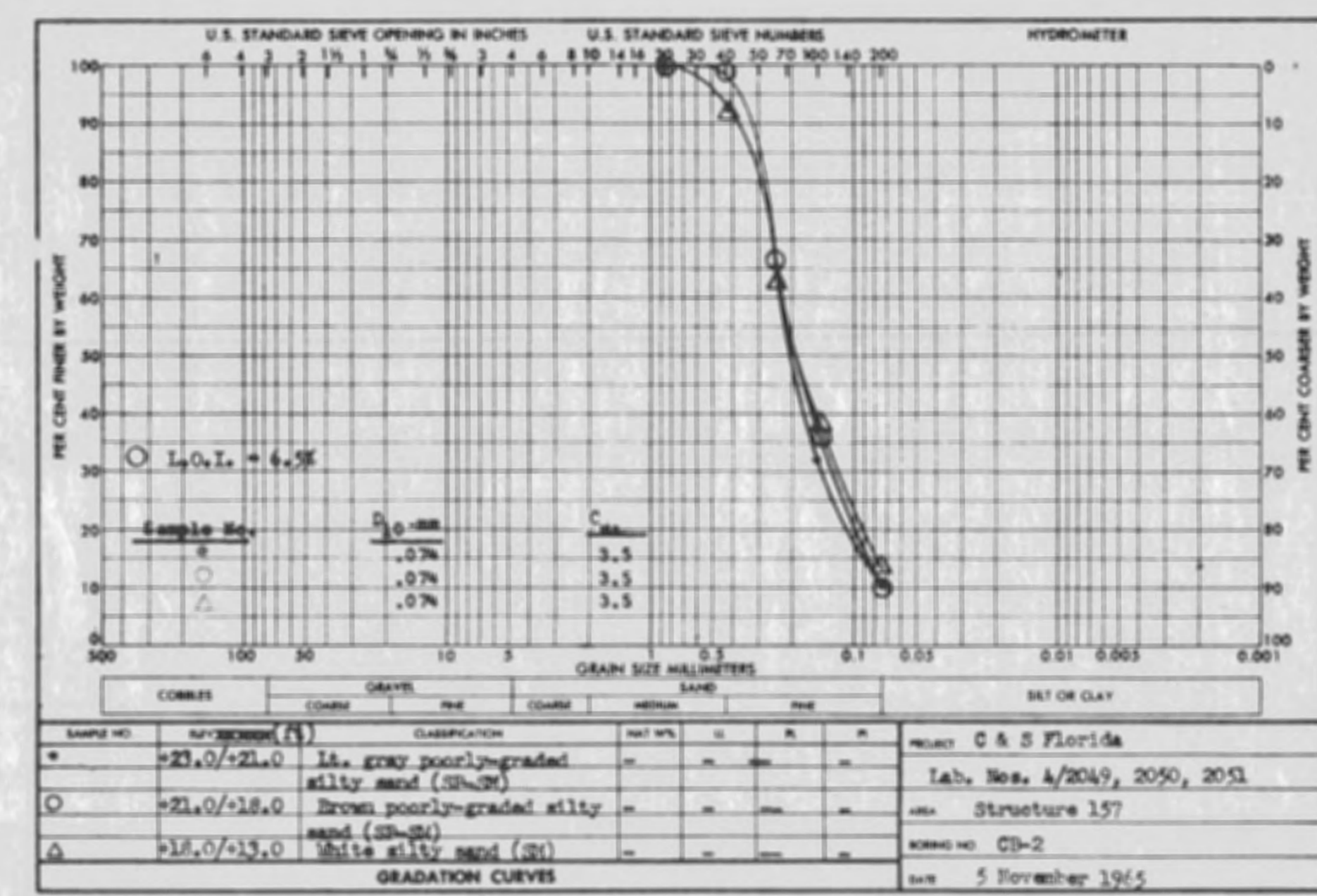
U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES
CANAL 54, SECTION 2
STRUCTURE - 157
ELECTRICAL-SCHEMATIC WIRING DIAGRAM
AND MISC. DETAILS

SCALE: AS SHOWN
DATE: 28 APRIL 1966
SHEET 27 OF 70

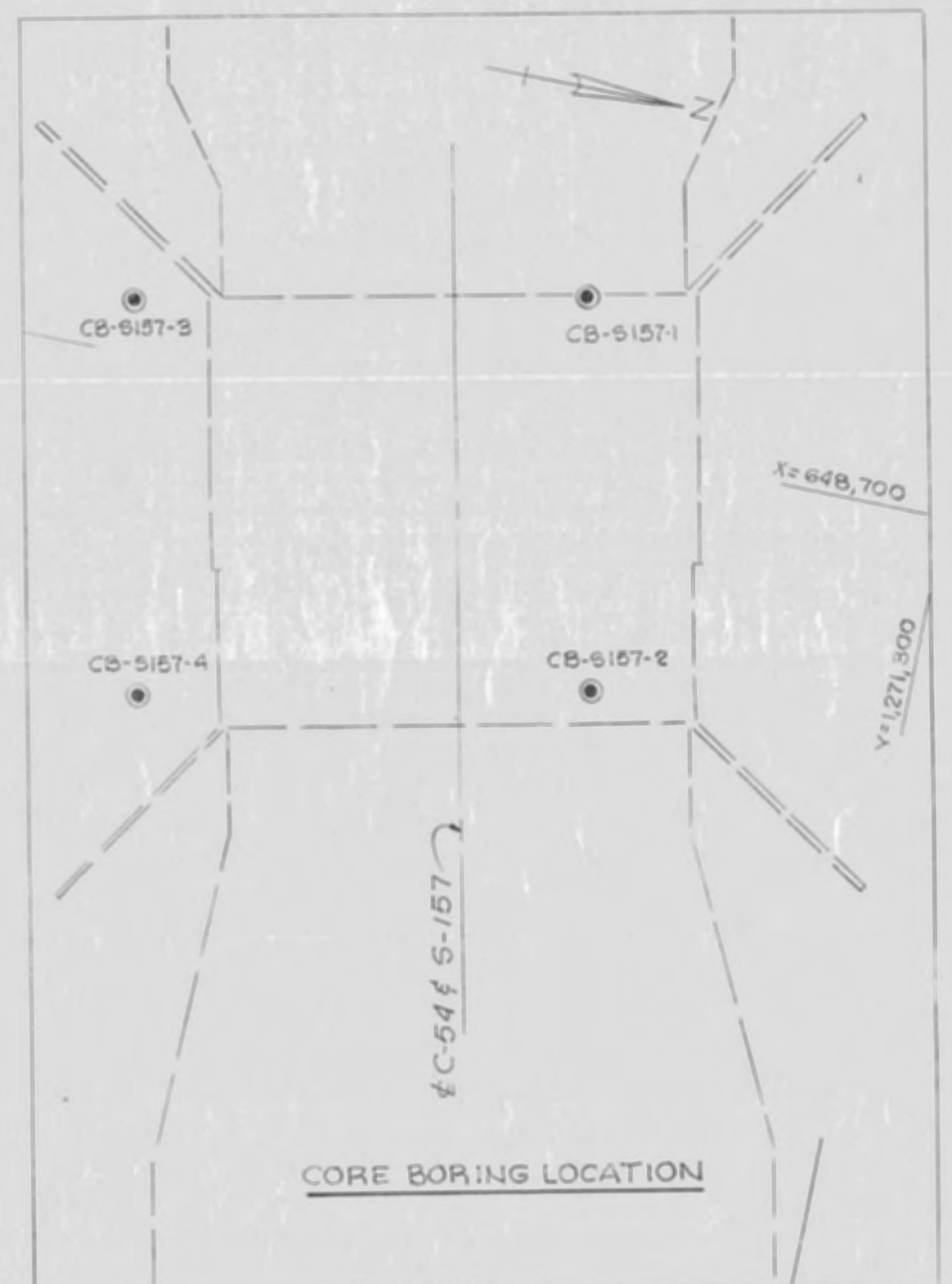
| REVISIONS | | | | | |
|-----------|------|------|-------------|------|----------|
| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
| | | | | | |
| | | | | | |
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| DRILLING LOG | | | | | |
|-----------------------------|------|--|-------|-------------------------------------|---------|
| PROJECT | | LOCATION | | DATE | |
| CAF Structure 157 | | Jacksonville District | | 1965 | |
| CORPUS OF ENGINEERS | | South Atlantic | | 8/20/65 | |
| HOLE NO. CB-1 | | FAILING-11a | | 8/23/65 | |
| DEPTH OF HOLE: 60.0' | | TOTAL NUMBER OF CORES: 13 | | TOTAL CORE RECOVERY FOR BORING: 91% | |
| THICKNESS OF OVERBURDEN: 0' | | TOTAL DEPTH OF HOLE: 60.0' | | TOTAL DEPTH OF CORE: 60.0' | |
| CORPUS OF ENGINEERS | | Geologist: G. J. Krzyzak | | SECRET | |
| HOLE NO. CB-1 | | DATE: 8/20/65 | | DATE: 8/23/65 | |
| HOLE NO. CB-1 | | HOLE NO. CB-1 | | HOLE NO. CB-1 | |
| DEPTH | LOG | CLASSIFICATION OF MATERIALS | TESTS | REMARKS | REMARKS |
| 0.0 | 0.0 | SAND, light and dark gray, fine to medium, slightly organic (SP) | 1 | 2" I.D. Spoon | 1 |
| 2.0 | 2.0 | MUD, sandy and other organic soils, dark brown (PT) | 2 | 18.1 | 16 |
| 6.5 | 6.5 | SAND, clayey, fine to medium, greenish-gray (SC) | 3 | 13.1 | 12 |
| 11.0 | 11.0 | SILT, sandy, light gray | 4 | 8.1 | 10 |
| 17.0 | 17.0 | SAND, fine to medium, slightly silty, shelly, dark gray (SM) | 5 | 7.1 | 7 |
| 28.0 | 28.0 | SAND, coarse to fine, calcareous, tan, silty, shelly (SP-SM) | 6 | 1.9 | 7 |
| 37.0 | 37.0 | SILT, sandy, gravelly, light gray (ML) | 7 | 6.9 | 7 |
| 43.0 | 43.0 | SILT, silty, dark blue-gray | 8 | 11.9 | 8 |
| 50.0 | 50.0 | SAND, shelly, fine to medium, blue-gray, silty (SP) | 9 | 14.9 | 21 |
| 60.0 | 60.0 | 300F Hammer with 18" Drop used on 2" I.D. Spoon. | 10 | 21.9 | 27 |
| | | | 11 | 26.9 | 212 |
| | | | 12 | 31.9 | 112 |
| | | | 13 | 36.9 | 178 |
| | | | | 60.0 | 272 |

| DRILLING LOG | | | | | |
|-----------------------------|------|---|-------|-------------------------------------|---------|
| PROJECT | | LOCATION | | DATE | |
| CAF Structure 157 | | Jacksonville District | | 1965 | |
| CORPUS OF ENGINEERS | | South Atlantic | | 8/20/65 | |
| HOLE NO. CB-2 | | FAILING-11a | | 8/23/65 | |
| DEPTH OF HOLE: 60.0' | | TOTAL NUMBER OF CORES: 13 | | TOTAL CORE RECOVERY FOR BORING: 95% | |
| THICKNESS OF OVERBURDEN: 0' | | TOTAL DEPTH OF HOLE: 60.0' | | TOTAL DEPTH OF CORE: 60.0' | |
| CORPUS OF ENGINEERS | | Geologist: G. J. Krzyzak | | SECRET | |
| HOLE NO. CB-2 | | DATE: 8/20/65 | | DATE: 8/23/65 | |
| HOLE NO. CB-2 | | HOLE NO. CB-2 | | HOLE NO. CB-2 | |
| DEPTH | LOG | CLASSIFICATION OF MATERIALS | TESTS | REMARKS | REMARKS |
| 0.0 | 0.0 | SAND, fine to medium, slightly organic, light and dark gray (SP-SM) | 1 | 2" I.D. Spoon | 2 |
| 2.0 | 2.0 | SAND, medium to fine, quartz, brown, silty, (SP-SM) | 2 | 18.0 | 19 |
| 5.0 | 5.0 | SAND, fine to medium, greenish-gray, silty (SM) | 3 | 13.0 | 10 |
| 10.0 | 10.0 | SAND, coarse to fine, calcareous, tan, silty, shelly (SP-SM) | 4 | 13.0 | 5 |
| 15.0 | 15.0 | SAND, fine to medium, slightly silty, slightly shelly (SM) | 5 | 8.0 | 9 |
| 28.0 | 28.0 | SILT, gray, inorganic, high liquid limit (MH) | 6 | 3.0 | 1 |
| 33.0 | 33.0 | SAND, medium to fine, quartz, light gray, silty (SM) | 7 | 7.0 | 1 |
| 37.0 | 37.0 | SAND, coarse to fine, calcareous, gray, silty, (SM) | 8 | 12.0 | 13 |
| 43.0 | 43.0 | SILT, silty, dark blue-gray | 9 | 17.0 | 7 |
| 50.0 | 50.0 | SAND, shelly, fine to medium, blue-gray, silty (SP) | 10 | 22.0 | 18 |
| 60.0 | 60.0 | 300F Hammer with 18" Drop used on 2" I.D. Spoon. | 11 | 22.0 | 52 |
| | | | 12 | 27.0 | 78 |
| | | | 13 | 32.0 | 154 |
| | | | | 60.0 | 280 |



- CORE BORING NOTES
- BORING LOCATIONS ARE SHOWN ON THIS SHEET AND ON SHEET 2.
 - BL/S/FT REFERS TO THE NUMBER OF HAMMER BLOWS REQUIRED TO ADVANCE A 2" I.D. SOLID SAMPLE SPOON 1 FT. THE SPOON IS 5 FT. LONG AND DRIVEN CONTINUOUSLY 5 FT., WHERE POSSIBLE.
 - (SP) (SM), ETC. REFERS TO THE CORPUS OF ENGINEERS UNIFIED SOILS CLASSIFICATION SYSTEM. CLASSIFICATION OF MATERIALS IS BASED ON VISUAL EXAMINATION AND LABORATORY TESTS.
 - CORE SAMPLES TAKEN DURING THE BORING OPERATIONS ARE AVAILABLE FOR INSPECTION AT THE CORPUS OF ENGINEERS DREDGE DEPT IN JACKSONVILLE, FLA.
 - ORIGINAL BORING NOTES ARE AVAILABLE FOR INSPECTION AT THE JACKSONVILLE DISTRICT OFFICE.
 - GROUND WATER ELEVATIONS WERE OBSERVED ON THE COMPLETION DATES OF THE BORINGS AND ARE SUBJECT TO SEASONAL FLUCTUATIONS.
 - DN IS THE DIAMETER IN MILLIMETERS SUCH THAT THE AGGREGATE WEIGHT OF ALL SMALLER GRAINS IS N PERCENT OF THE TOTAL WEIGHT OF THE SAMPLE.
 - CU IS D60 - D10.



RECORD DRAWING NOTE
 "Shall be," "Provide," "Install,"
 "Remove," etc., indicates work
 was accomplished under the
 contract.

AS BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
 CORPUS OF ENGINEERS
 JACKSONVILLE, FLORIDA
 CENTRAL AND SOUTHERN FLORIDA PROJECT
 FOR FLOOD CONTROL AND OTHER PURPOSES
 CANAL 54, SECTION 2
 STRUCTURE 157
 LOG OF BORINGS

| | | | |
|-------------|----------|-------|---------------|
| DESIGNED BY | B.A.P. | DATE | 28 APRIL 1966 |
| CHECKED BY | C.F.Z. | SCALE | AS SHOWN |
| DRAWN BY | | DATE | |
| SCALE | AS SHOWN | DATE | |

SAFETY ON THIS JOB
DEPENDS ON YOU

REVISIONS

| NO. | SYM. | ZONE | DESCRIPTION | DATE | APPROVED |
|-----|------|------|-------------|------|----------|
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Hole No. CB-3

DRILLING LOG SOUTH ATLANTIC Jacksonville District

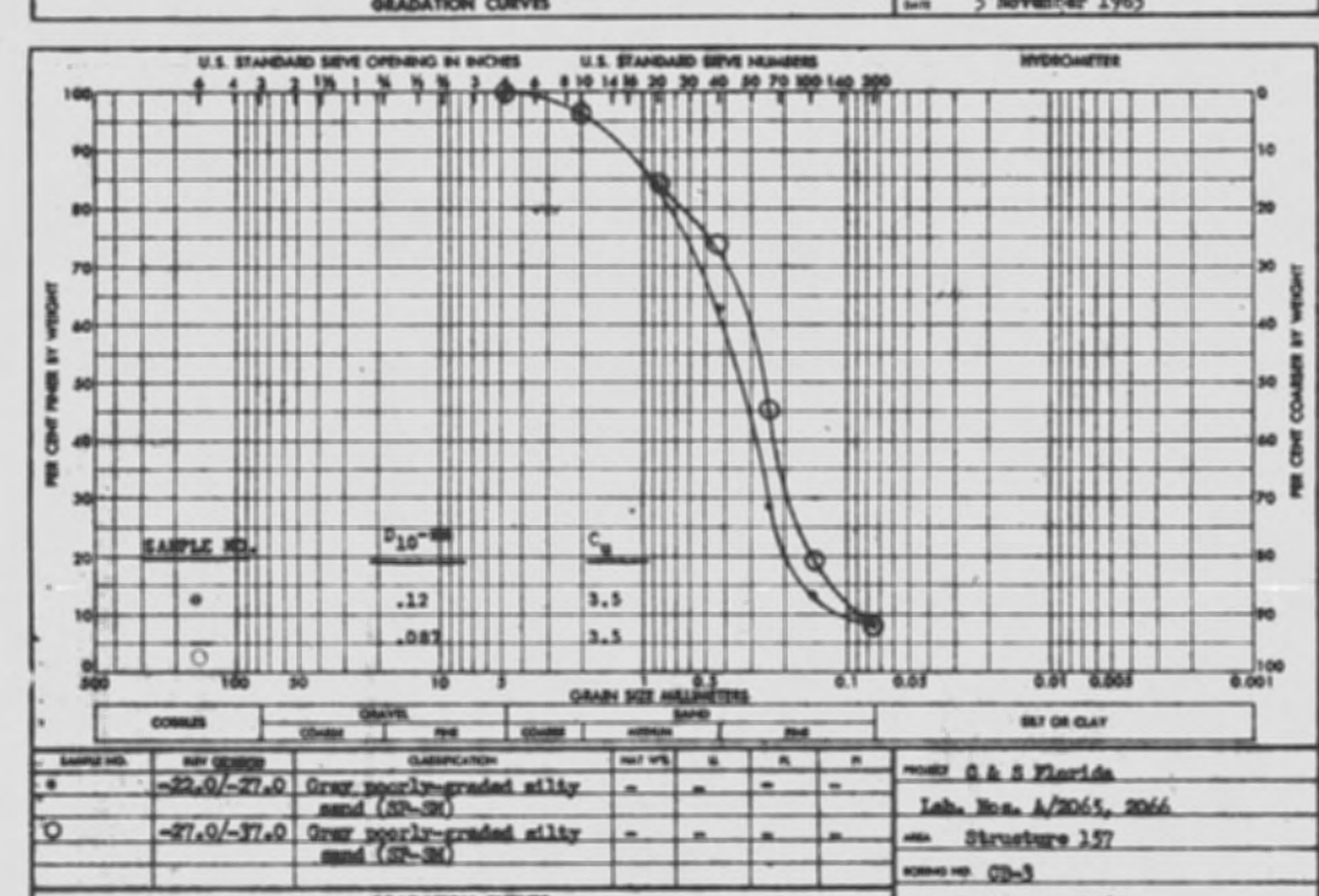
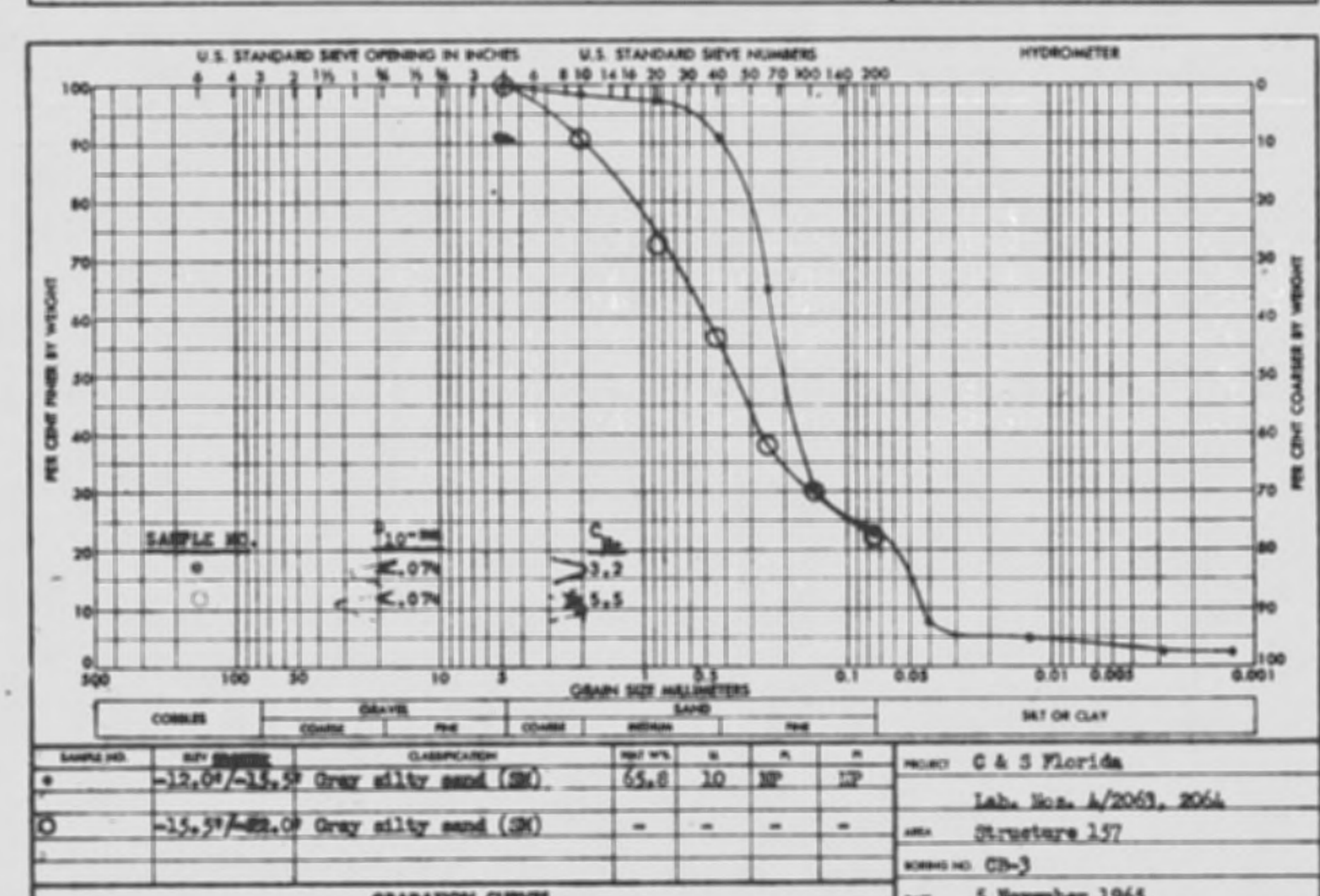
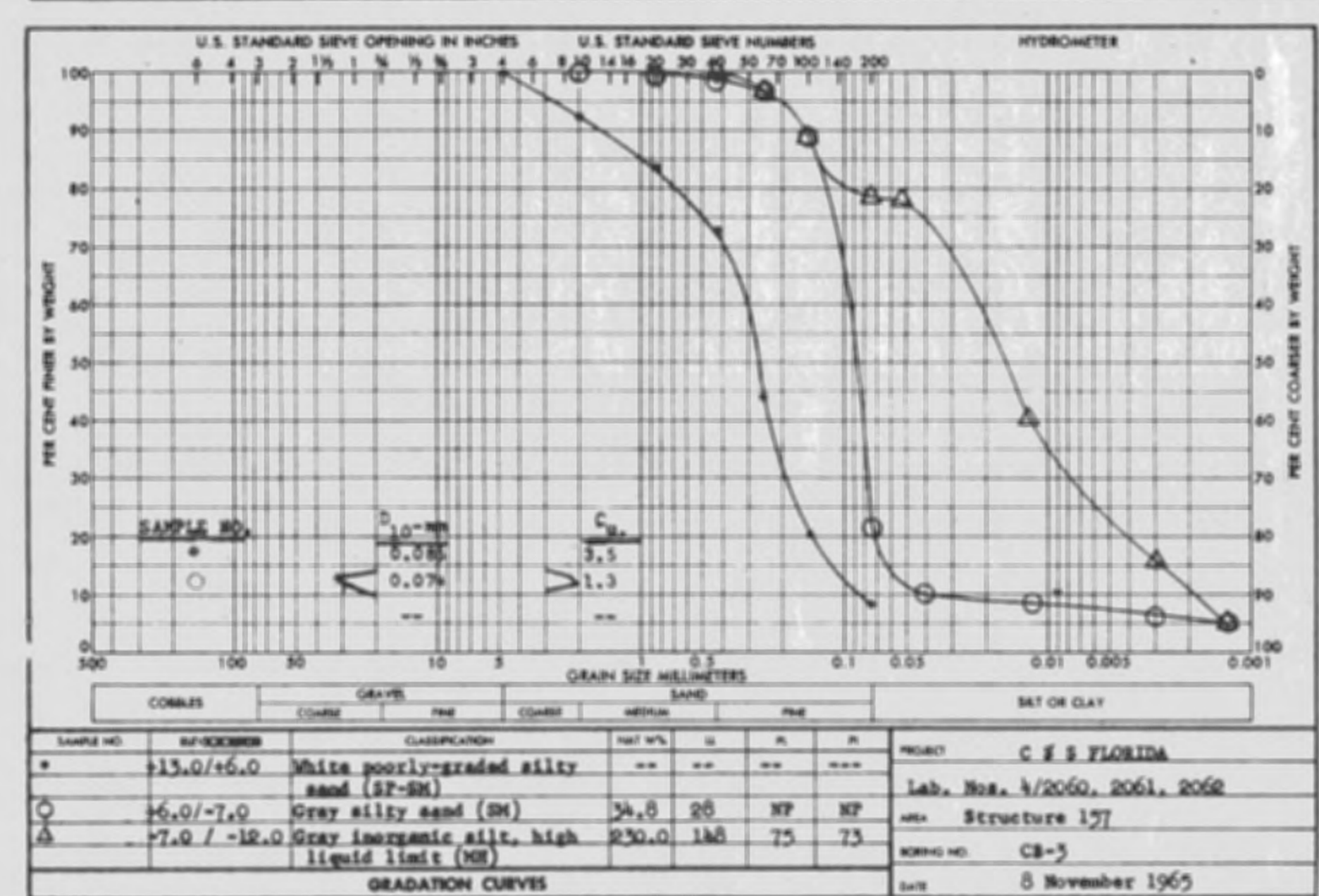
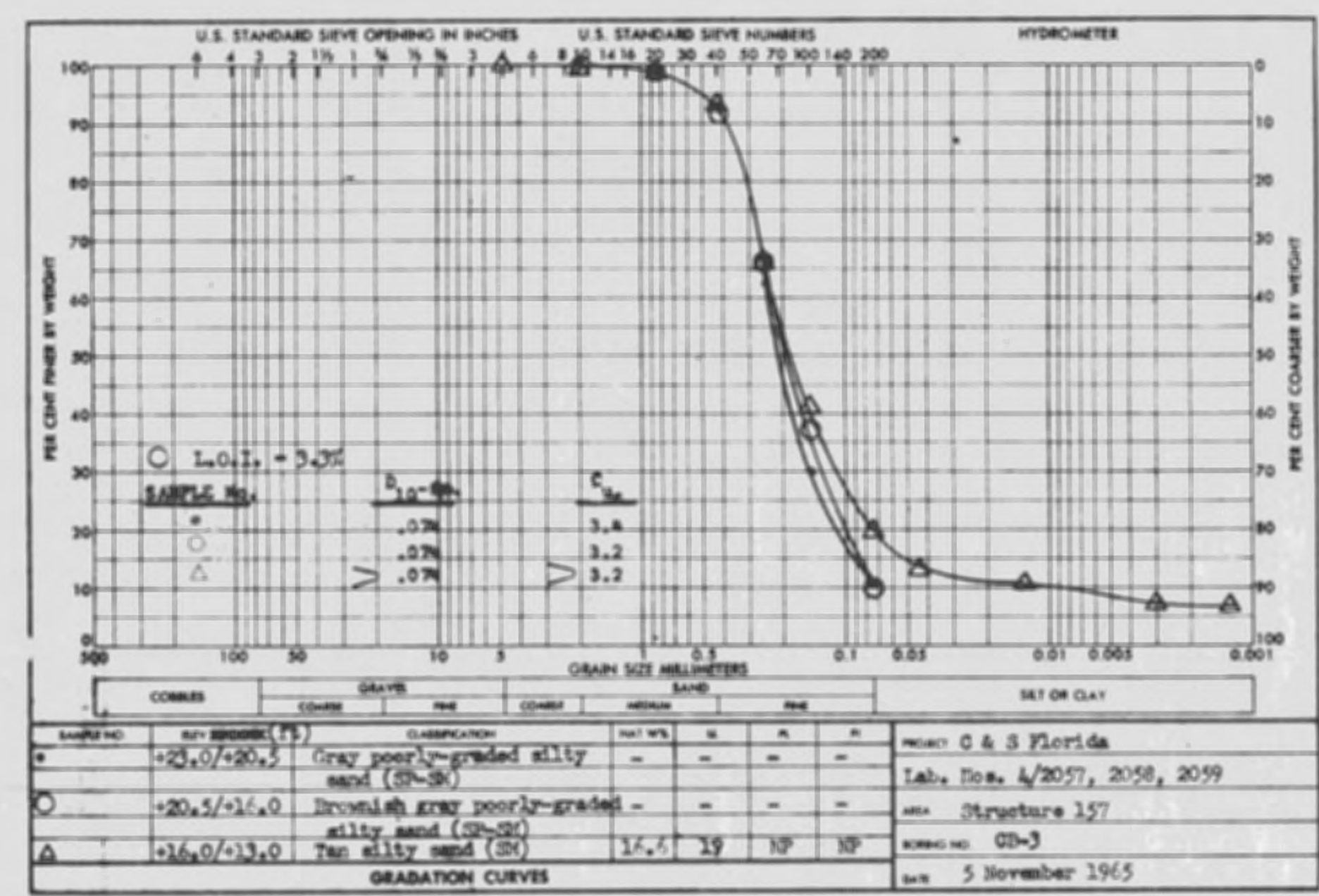
PROJECT: CASF Structure 157

DATE: 8/19/65

Geologist: G. J. Krzyzak

| DEPTH | LOG | CLASSIFICATION | LAB. NO. | REMARKS |
|-------|-----|----------------|----------|------------------------|
| 0.0 | | | | Bit & Barrel 8 1/2 ft. |
| 2.0 | | | | 2" I. D. Spoon |
| 7.0 | | | | |
| 10.0 | | | | |
| 17.0 | | | | |
| 30.0 | | | | |
| 35.0 | | | | |
| 38.5 | | | | |
| 45.0 | | | | |
| 50.0 | | | | |
| 57.0 | | | | |
| 60.0 | | | | |

300# Hammer with 18" drop used on 2" I. D. Spoon



Hole No. CB-4

DRILLING LOG SOUTH ATLANTIC Jacksonville District

PROJECT: CASF Structure 157

DATE: 8/18/65

Geologist: G. J. Krzyzak

| DEPTH | LOG | CLASSIFICATION | LAB. NO. | REMARKS |
|-------|-----|----------------|----------|------------------------|
| 0.0 | | | | BIT & BARREL 8 1/2 ft. |
| 2.0 | | | | 2" I. D. Spoon |
| 4.5 | | | | |
| 8.5 | | | | |
| 11.0 | | | | |
| 15.0 | | | | |
| 18.0 | | | | |
| 20.0 | | | | |
| 21.0 | | | | |
| 31.0 | | | | |
| 40.0 | | | | |
| 46.0 | | | | |
| 50.0 | | | | |
| 57.0 | | | | |
| 60.0 | | | | |

300# Hammer with 18" drop used on 2" I. D. spoon

NOTE:
CORE BORING NOTES SHOWN ON SHEET CB-3

RECORD DRAWING NOTE

"Shall be," "Provide," "Install," "Remove," etc., indicates work was accomplished under the contract.

AS BUILT

U. S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

CENTRAL AND SOUTHERN FLORIDA PROJECT
FOR FLOOD CONTROL AND OTHER PURPOSES

CANAL 54, SECTION 2
STRUCTURE 157

LOG OF BORINGS

INVESTIGATION NO. CIV. ENG. 08-123-69

DATE: 28 APRIL 1968

SCALE: AS SHOWN

DATE: APRIL 1966

SHEET 20 OF 70