

II-E-63-65
Box 1

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

BUTLER COUNTY
BOP 2-6
BRIDGE OVER GREEN RIVER
SUPERSTRUCTURE

AS BUILT PLANS
J. W. Wallingford
DIRECTOR - Division of Construction
Turnpike Engr.
Date: May 6-1975

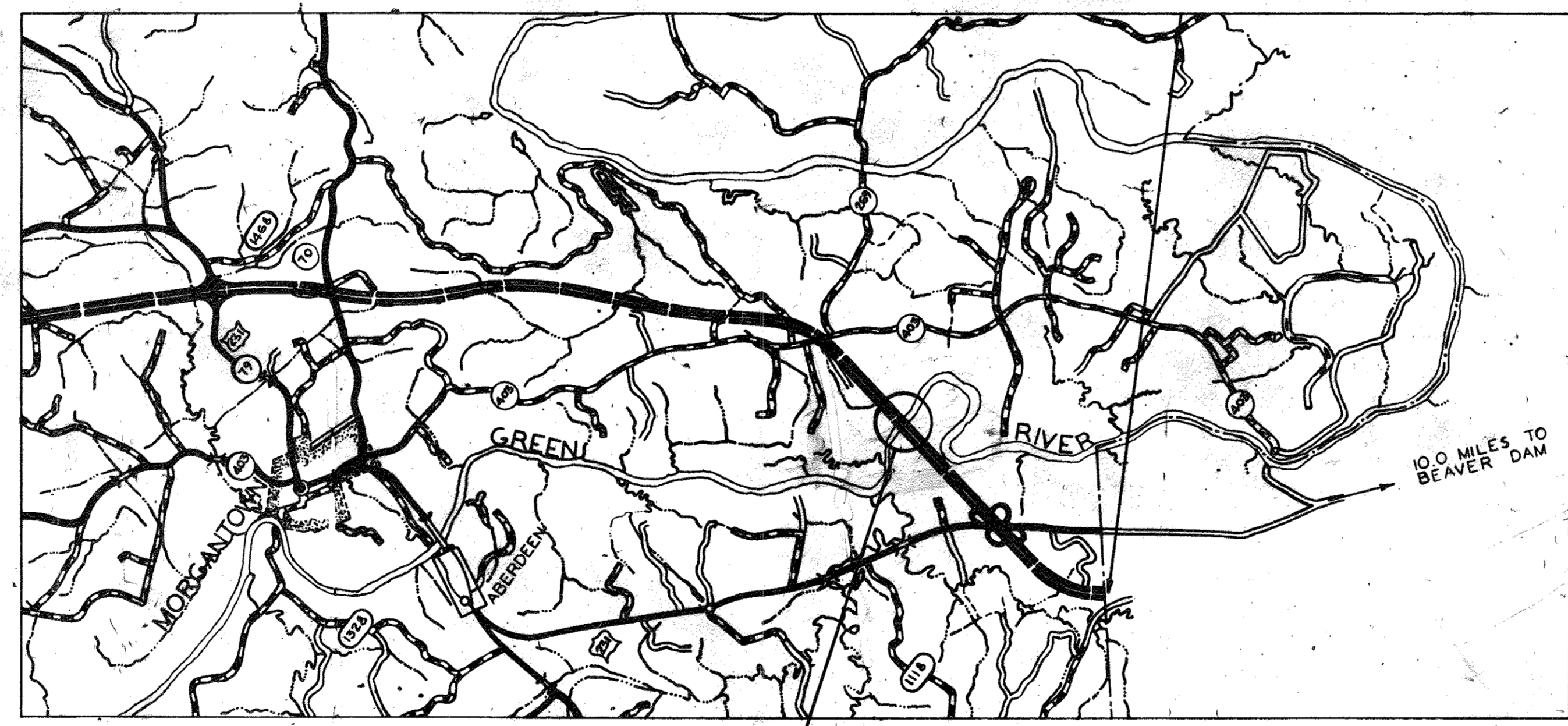
INDEX OF SHEETS

SHEET NO	TITLE SHEET- DESCRIPTION
1	TITLE SHEET
2	QUANTITIES
3	CONSTRUCTION PERMIT
4	GENERAL NOTES
5	NAVIGATION LIGHTING NOTES
6	LAYOUT
7-10	DETAILS

SENT FOR FEDERAL APPROVAL
RECORD PLANS
CONSTRUCTION PLANS

REVIEWED BY _____
DIVISION OF CONSTRUCTION

PLANS PLACED BY _____
PLANS COMPLETED BY _____
PLANS CHECKED BY _____
FINAL CHECK BY _____



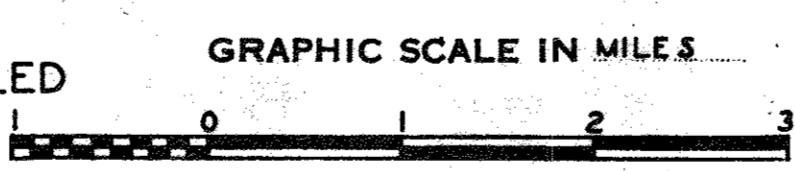
THIS PROJECT IS A FULLY
CONTROLLED ACCESS HIGHWAY

DESIGN CRITERIA
CLASS OF HIGHWAY _____ SPECIAL _____
TYPE OF TERRAIN _____ ROLLING
DESIGN SPEED _____ 70 M.P.H.

BRIDGE OVER GREEN RIVER
BEGIN PROJECT STA. 2653 + 45
END PROJECT STA. 2661 + 25

DESIGN DESIGNATION
ADT (1968) _____ 750
ADT (1992) _____ 2300
DHV (1992) _____ 340
D _____ 60
T _____ 12
V _____

CONTROL OF ACCESS _____ FULLY CONTROLLED
MAXIMUM GRADE _____ ±3%
MAX. DEGREE CURVES _____ 3°00'



LAYOUT MAP

NET LENGTH	FOR EQUALITIES	ADDED	DEDUCTED	FOR EQUALITIES	NET LENGTH	FOR EQUALITIES	ADDED	DEDUCTED	FOR EQUALITIES	NET LENGTH	FOR EQUALITIES	ADDED	DEDUCTED	FOR EQUALITIES	NET LENGTH	FOR EQUALITIES	ADDED	DEDUCTED	FOR EQUALITIES	
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

CONVENTIONAL SIGNS

- UNIMPROVED ROAD
- GRADE AND DRAINED ROAD
- SOIL SURFACE ROAD
- METAL SURFACED ROAD
- LOW TYPE BITUMINOUS ROAD
- PAVED ROAD
- COUNTY LINE
- CORPORATE LIMITS
- SURVEY LINE
- PROPOSED RIGHT OF WAY
- GRADE LINE
- GROUND LINE
- TRAVELED WAY
- RAILROAD
- FENCES - EXCEPT STONE & HEDG
- STONE FENCE
- HEDGE FENCE
- TREES & SHRUBS
- LINE LINE
- TELEPHONE POLES
- PIVOT
- SMALL STREAM
- BENCH MARKS
- ROAD INTERSECTIONS
- MARSH
- BUILDINGS

BOP 2-6

**KENTUCKY
DEPARTMENT OF HIGHWAYS**
COUNTY OF
BUTLER
BOWLING GREEN-OWENSBORO
PARKWAY
ROAD

STATE PROJECT No. S.P. 16-406

DATE 1969

SURVEYED 19 BY _____ CHIEF OF PARTY

APPROVED 19 BY _____ ASSISTANT STATE HIGHWAY ENGINEER

PLAN CHECKED 19 BY _____ CHIEF DRAFTSMAN

SURVEY AND PLAN APPROVED 10/11 1970 BY *Charles B. Cook* DIRECTOR DIVISION OF BRIDGES

SURVEY AND PLAN APPROVED 10/16 1970 BY *F. B. 91* ASSISTANT STATE HIGHWAY ENGINEER

SHEET 1 OF 30

DRAWING NO. 17777

LETTING DATE 6-4-71

KENTUCKY DEPARTMENT OF HIGHWAYS

BUTLER COUNTY

BOWLING GREEN - OWENSBORO PARKWAY

OVER GREEN RIVER

LETTING DATE

PLANS PREPARED BY
J. R. KING
DESIGN SECTION

DATE 3-4-71

REVISED DATE 5-25-72

ON SHEETS 18, 19, 20 (See Sheet 18-A), JK.

DESIGNED BY
J. R. KING

CHECKED BY
K. L. GALT

DATE 10-10-70

DATE 10-10-70

DATE 10-10-70

DATE 10-10-70

DATE 10-10-70

REFERENCES AND ESTIMATE OF QUANTITIES FOR SUPERSTRUCTURE

ITEM	SHEET NO.	CONCRETE	STEEL	STRUCTURAL	HIGH	INSPECTION	NAVIGATION	STYRENE	LINSEED	TRANSFLEX
		CLASS AA	REINFORCEMENT	STEEL	STRENGTH	WALK	LIGHTING	BUTADIENE	OIL	MODULAR
		CU. YDS.	LBS.	LUMP SUM	LIN. FT.	LIN. FT.	LUMP SUM	GALS.	GALS. SQ. YDS.	EXPANSION
										JOINT SYSTEM
										EACH
Project Layout Sheet	1									
Title and Quantities	2									
Construction Permit Information	3									
General Notes	4									
Navigation Lighting Notes	5									
Layout	6									
Spans 1-3, Structural Steel	7-14									2
Rockers and Shoes	16, 17									
Expansion Dams	18, 19, 20									
Inspection Walk Detail	15					770				
Navigation Lighting	21, 22	1710.4								
Concrete Deck	23, 24	1767.9	431740					71	5335	
High Strength Handrail	6				1686.2					
Construction Elevations	25, 26, 27									
End Bent 1	28, 29	24.6	2231	2232				2		
End Bent 2	28, 29	24.5	2234	2232				2		
Plan and Profile	30									
TEST STEEL			271							
TOTALS		1759.6 1767.9	436204 436479	①	1686.2	770	LUMP SUM	75	5335	2

C.O. 2

① Approximate Weight of Structural Steel is 2,837,000 lbs. (Included 991,000 lbs. of A588 Steel)

C.O. #1 Structural Steel Support 9320 Lbs.

C.O. #3 Linseed Oil 220 Gal. to be applied by others.

REFERENCES

Standard Drawings listed below are Current Edition and are to be used with these Plans.

AEI-D AWS-3 H116C 17.40A

SPECIAL PROVISIONS

No. 8A for Linseed Oil Protective Coating
No. 30B for Membrane Curing of Concrete Structures
No. 35B for Class AA Concrete

No. 77B for Styrene Butadiene Protective Coating
No. 79 for Concrete Bridge Deck Finishing Machine
No. 80A for Blast Cleaning and Painting Structural Steel

SPECIAL NOTES

Special notes and specifications on modular expansion joint seating system.

BILL OF INCIDENTAL MATERIAL

ITEM	NO.	SIZE
Four Bolt Insert Assembly	4	See Plan Note Sheet No. 6 - Wings

Sheet 1 of 9

Construction Revision No. 1

Replaces Modular Exp. Assy. with Transflex 650.
Added Sheet 18A Minor Revisions to Sheets
2, 18, 19, 23, 24, 25, 29. Void Sheet 20.

Requested By *C. L. ...* 6/7/72

Recommended By *...* 6-7-72

Recommended By *...* 6-15-72

Approved By *...* 6-15-72

BRIDGE OVER GREEN RIVER.

SHEET 2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

FRANKFORT
COUNTY OF

BUTLER

BOWLING GREEN - OWENSBORO PARKWAY

ROAD BOP 112 - 6

P. E. PROJECT NO. SP 16-406-IL

STATION 2657+35[±] CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.

BOP 2 - 6

17777

LETTING DATE



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Address reply to:
COMMANDANT (0-1)
Second Coast Guard District
Federal Bldg.
1520 Market St.
St. Louis, Mo. 63103
3271

6 AUG 1969

Mr. A. O. Neiser, State Highway Engineer
Commonwealth of Kentucky
Department of Highways
Frankfort, Kentucky 40601

Re: Butler County, Kentucky
BOP 112
Bowling Green - Owensboro Parkway
over Green River, Mile 136.5,
near Logansport, Kentucky

Dear Mr. Neiser:

Your application dated 24 March 1969 requesting approval of the location and plans for the above referenced proposed bridge has been approved by the Commandant, U. S. Coast Guard, Washington, D. C. The instrument of approval, Bridge Permit No. 134-69 dated 25 July 1969, is enclosed.

The office should be kept informed concerning the status of the construction of the proposed bridge. Please furnish the starting and completion dates as soon as they are available. Upon completion of the work furnish a certification as to whether or not the bridge was constructed in accordance with the approved plans and conditions in the Permit. It would be appreciated, also, if you will furnish us two 8 X 10-inch black and white glossy photographs of the completed structure showing the bridge from abutment to abutment.

The plans for any temporary structures in the water used in building the bridge should be submitted to this office for approval and prescribing temporary navigation lights.

You will not be required to install vertical clearance gauges on the bridge at the present time. Should the type of vessels using this reach of the river change, this matter will be reconsidered.

Your attention is invited to Condition No. 3 in the Permit requiring your compliance with the provisions of any law or regulation under the jurisdiction of the Federal Water Pollution Control Administration, Ohio Basin Region. A copy of a letter dated 6 June 1969 from that agency, outlining their requirements, is enclosed for your information.

The following permanent navigation lighting for the bridge is hereby prescribed in accordance with Title 33, Code of Federal Regulations, § 69.15-1:

The center of the navigation span shall be marked by a range of two green lights. Each green light shall show through a horizontal arc of 360° and shall be securely mounted just below the outermost edge of the bridge in line with the axis of the channel.

Each margin of the navigation channel shall be marked by two red lights. Each red light shall show through a horizontal arc of 180° and shall be securely mounted just below the outermost edge of the bridge directly above the extremities of the 200-foot navigation channel. Each red light shall show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.

All lights prescribed herein shall be displayed from sunset to sunrise each night of the year and at other times when the visibility is less than one mile. They shall be of sufficient candlepower as to be visible against a background lighting at a distance of at least 2,000 yards 90% of the nights of the year.

Responsibility of the owner does not cease upon installation of the prescribed lights. A thorough program of inspection and maintenance is necessary to insure that the lights are properly displayed.

A marked-up copy of Sheet 2 of 2 of your permit drawings showing the approved navigation lighting is enclosed. Please notify us when the lighting has been installed and placed in operation. Your cooperation will be appreciated.

Very truly yours,

C. W. FAIRCLOTH
Commander, U. S. Coast Guard
Chief, Aids to Navigation Branch
By direction of the District Commander

- Encl: (1) Bridge Permit No. 134-69 dtd 25 Jul 69
(2) Copy of ltr dtd 6 Jun 69 from FWPCA, Ohio Basin Region
(3) Marked-up permit dwg, Sheet 2 of 2



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

BRIDGE PERMIT
(134-69)

Address reply to:
COMMANDANT
U. S. COAST GUARD
WASHINGTON, D. C.
20591

25 JUL 1969

WHEREAS by Title V of an act of Congress approved August 2, 1946, entitled General Bridge Act of 1946, as amended (33 U.S.C. 525-533), the consent of Congress was granted for the construction, maintenance, and operation of bridges and approaches thereto over the navigable waters of the United States;

AND WHEREAS under Section 502(b) of said act as transferred to and vested in the Secretary of Transportation by Section 6(g)(6)(C) of the Department of Transportation Act (80 Stat. 931) and delegated by the Secretary to the Commandant, U. S. Coast Guard in Title 49 Code of Federal Regulations, Part 1, it is required that the location and plans for such bridges be approved by the Commandant before construction is commenced and in approving the location and plans of any such bridge, the Commandant may impose any specific conditions relating to the maintenance and operation of the structure which he deems necessary in the interest of public navigation, such conditions to have the force of law;

AND WHEREAS the - COMMONWEALTH OF KENTUCKY - has submitted plans and a map of location of a bridge to be constructed across the GREEN RIVER near Logansport, Kentucky;

NOW THEREFORE, This is to certify that the location and plans dated 17 March 1969 are hereby approved by the Commandant, subject to the following conditions:

1. No deviation from the approved plans shall be made either before or after completion of the structure unless the modification of said plans has previously been submitted to and received the approval of the Commandant.

2. All work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired. The construction of falsework, pilings or other obstructions, if required, shall be accomplished in accordance with plans submitted to and approved by the Commander, Second Coast Guard District prior to construction of the bridge. The channel or channels through the structure shall be promptly cleared of all obstructions placed therein or caused by the construction of the bridge to the satisfaction of the District Commander, when in his judgment the construction work has reached a point where such action should be taken, and in any case not later than ninety days after the bridge has been opened to traffic.

3. Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation under the jurisdiction of the Federal Water Pollution

BRIDGE PERMIT: Commonwealth of Kentucky bridge across the Green River (134-69) near Logansport, Kentucky;

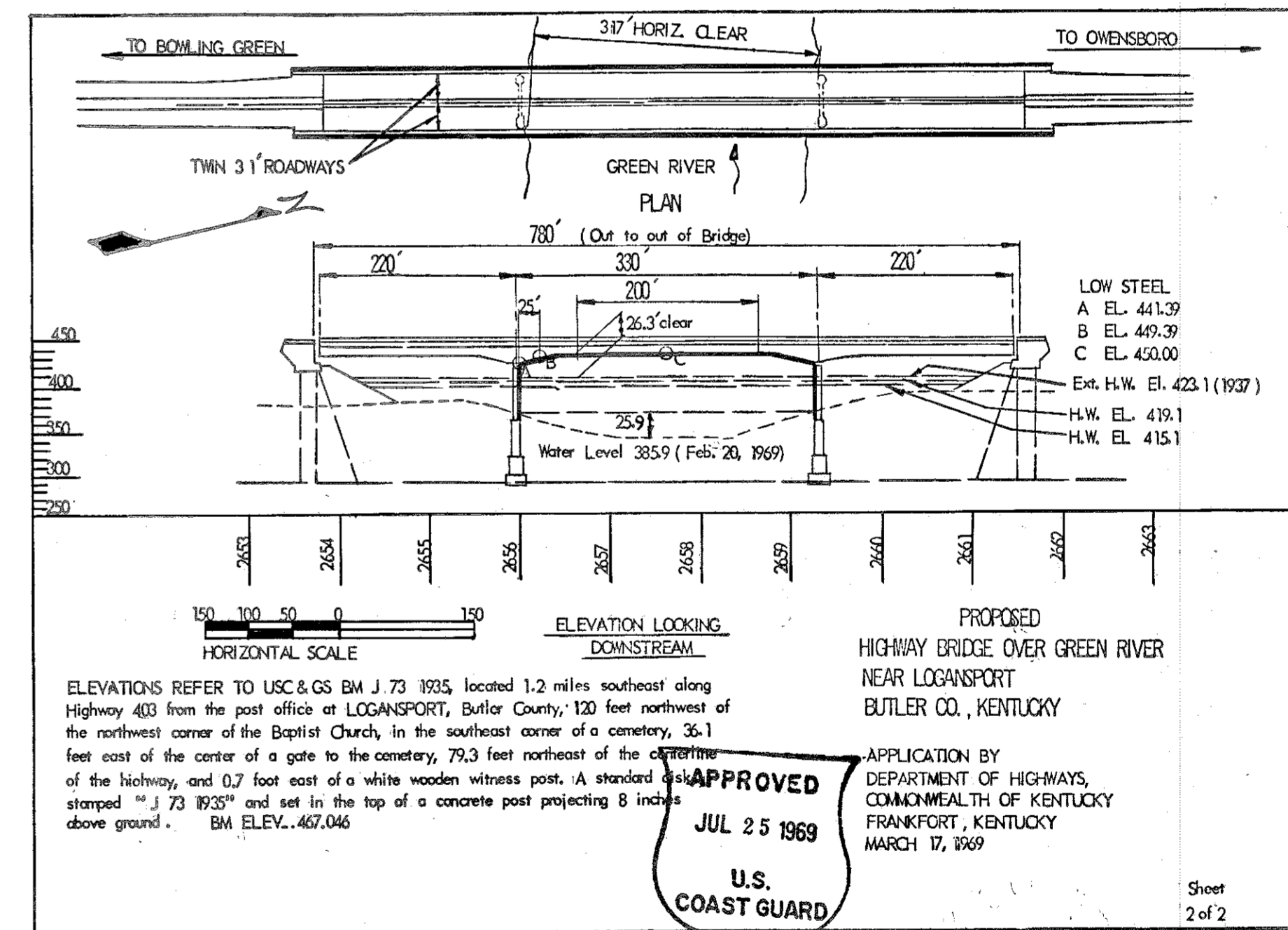
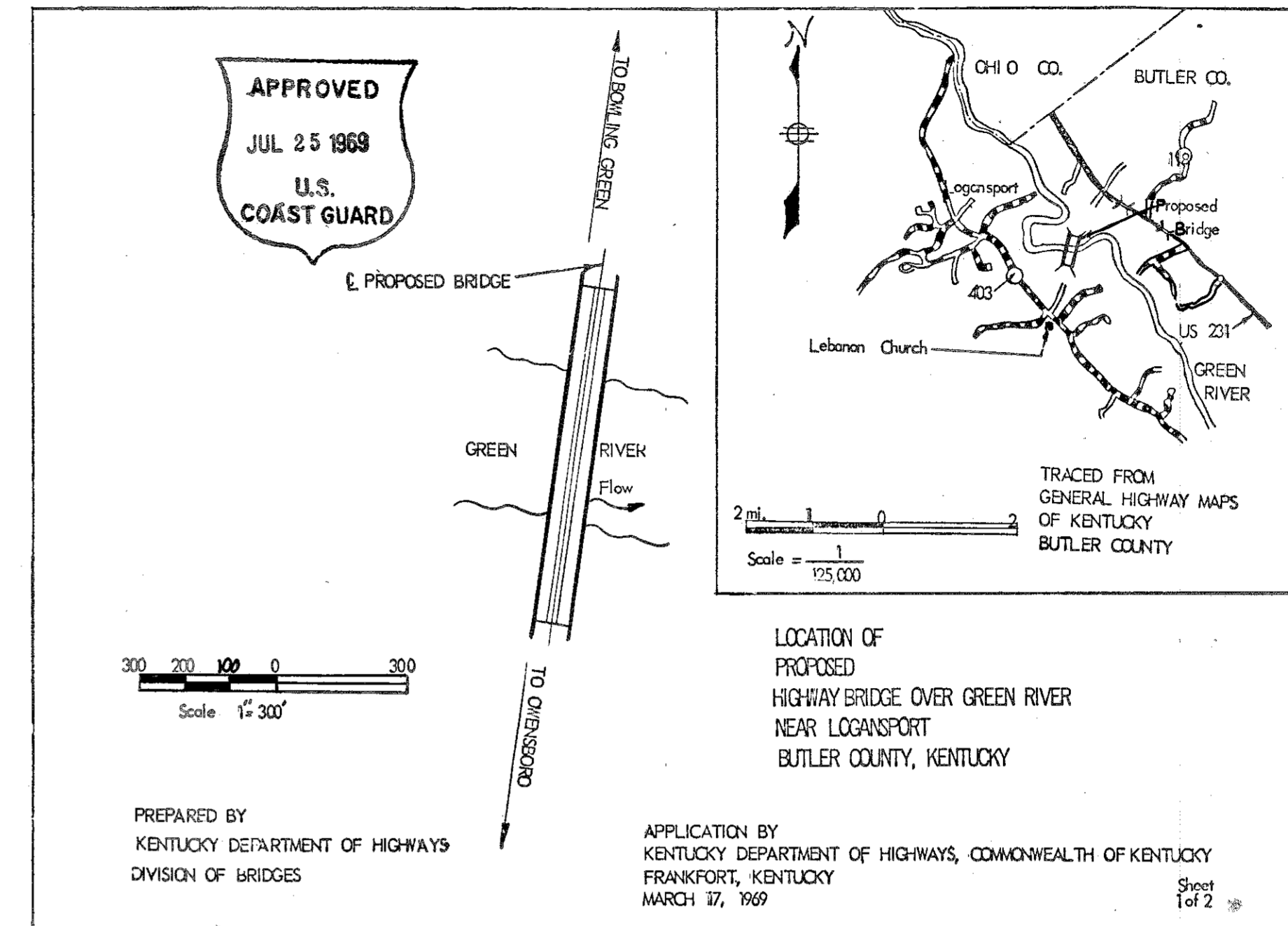
Control Administration, Ohio Basin Region, or any other federal, state or local authority having cognizance of any aspect of the location, construction, or maintenance of said bridge.

4. Clearance gauges shall be installed and maintained in a good legible condition by and at the expense of the owner of the bridge if and when required by the Commander, Second Coast Guard District. The District Commander will specify the type of gauges and the location in which they are to be installed.

5. The approval hereby granted shall cease and be null and void unless the actual construction of the bridge be commenced within 2 years and completed within 4 years of the date of this permit.

[Signature]

R. W. GORMING
Rear Admiral, U. S. Coast Guard
Chief, Office of Operations



REVISIONS: DATE, CHECKED BY, REVISIONS: DATE, CHECKED BY

CONSTRUCTION PERMIT INFORMATION

BRIDGE OVER GREEN RIVER. SHEET 3
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN-OWENSBORO PARKWAY
ROAD
P. E. PROJECT NO.
STATION 2657+35.0
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 17777

DESCRIPTION OF MAJOR EQUIPMENT

No. Required

- 4 DOUBLE LAMP CHANNEL LIMIT FIXED NAVIGATION LIGHTS, WEATHERPROOF, CORROSION RESISTANT, WITH 8 INCH FRESNEL DRUM LENS, 180° RED AND 180° DARK, AND TWO 125 V., 116 W., A21 TS LAMPS. THE LIGHT INTENSITY SHALL BE NOT LESS THAN 65 CANDLEPOWER AND SHALL BE VISIBLE AGAINST THE BACKGROUND LIGHTING FOR A DISTANCE OF AT LEAST 2,000 YARDS 90 PER CENT OF THE NIGHTS OF THE YEAR. THE UNITS SHALL BE TAMPER PROOF AND SWIVEL MOUNTED FOR SERVICING FROM THE ROADWAY.
- 2 DOUBLE LAMP MID-CHANNEL FIXED NAVIGATION LIGHTS, WEATHERPROOF, CORROSION RESISTANT, WITH 8 INCH, 360° GREEN FRESNEL DRUM LENS AND TWO 125 V., 116 W., A21 TS LAMPS. THE LIGHT INTENSITY SHALL NOT BE LESS THAN 65 CANDLEPOWER AND SHALL BE VISIBLE AGAINST THE BACKGROUND LIGHTING FOR A DISTANCE OF AT LEAST 2,000 YARDS 90 PERCENT OF THE NIGHTS OF THE YEAR. THE UNITS SHALL BE SWIVEL MOUNTED FOR SERVICING FROM ROADWAY LEVEL WITH A TWO-WAY LOCK.
- 6 LAMP BURN-OUT TRANSFER RELAY IN WEATHERPROOF ENCLOSURE SUITABLE FOR OPERATION ON 110 W. LAMPS.
- 4 CONTROL TRANSFORMER AND LIGHT TRANSFORMER, OUTDOOR DRY TYPE, 1 KVA, 480/120 V., WITH TWO 5% TAPS BELOW NORMAL. THREE-CONDUCTOR #12 SO CORD AS DESCRIBED IN THE SPECIFICATIONS. 1/2" X 8" COPPERWELD GROUND RODS WITH BRONZE CLAMPS AND GROUND WIRES AS REQUIRED. 1-CONDUCTOR #12 WIRE AS DESCRIBED IN THE SPECIFICATIONS. 1-CONDUCTOR #8 WIRE AS DESCRIBED IN THE SPECIFICATIONS. 1-CONDUCTOR #6 BARE WIRE AS DESCRIBED IN THE SPECIFICATIONS.
- 10 JUNCTION BOX, JB1, FLUSH MOUNTING, INSIDE FLANGE, RECESSED COVER, 16" X 6" X 6" GALVANIZED CAST IRON WEATHERPROOF BOX. OZ ELECTRIC CO. TYPE YU, SPRING CITY ELECTRICAL MANUFACTURING CO. TYPE IR, HOPE ELECTRICAL CO. TYPE H6200, OR APPROVED EQUAL.
- 1 JUNCTION BOX, JB2, FLUSH MOUNTING, INSIDE FLANGE, RECESSED COVER, 18" X 12" X 8" GALVANIZED CAST IRON WEATHERPROOF BOX. OZ ELECTRIC CO. TYPE YU, SPRING CITY ELECTRICAL MANUFACTURING CO. TYPE IR, HOPE ELECTRICAL CO. TYPE H6200, OR APPROVED EQUAL.
- 1 POWER PANEL AS SHOWN ON SHEET NO. 22.
- 1 PHOTO-ELECTRIC RELAY, TURN-ON AT 35 F.C., TURN-OFF AT 58 F.C., TO OPERATE ON 120 V. 60 CYCLE POWER SUPPLY, 120 V., 15 A. LOAD CONTACTS, WITH BUILT-IN TIME DELAY TO PREVENT FALSE OPERATION FROM INTERMITTENT LIGHT SOURCES.
- 2 480 V. SECONDARY LIGHTNING ARRESTOR.
- 1 HEAVY DUTY SECONDARY SERVICE TACK, HOT DIPPED GALVANIZED.
- 1 240 V., 30 A. DPDT, NON-FUSED MEMA I ENCLOSED SAFETY SWITCH, G.E. CAT. NO. TC 35221, SQUARE D NO. 92251, WESTINGHOUSE NO. XU-221, OR APPROVED EQUAL.
- 1 SECONDARY CONTROL FUSE AND BOX COVER UNIT WITH 4" SQUARE BY 2-1/8" DEEP SQUARE BOX, 3 A., 125 V. PLUG FUSE.
- 1 CONTROL TRANSFORMER PRIMARY FUSE BOX WITH TWO 2 A., 500 V., 1-1/2" X 13/32" MINATURE FERRULE FUSES; PORCELAIN FUSE HOLDER, AND 6" HIGH X 6" WIDE X 4" DEEP HINGED DOOR, NEMA 12 BOX.
- 1 15 A. CIRCUIT BREAKER, 2-POLE, 480 V., AC, NEMA I ENCLOSURE WITH GROUNDABLE NEUTRAL, G.E. TYPE TEF, WESTINGHOUSE TYPE EHB, SQUARE D TYPE FA, OR APPROVED EQUAL.
- 1 CONTRACTOR, NEMA SIZE 1, 2-POLE, 480 V., WITH 120 V. COIL, NEMA I ENCLOSURE, G.E. TYPE CR 105, WESTINGHOUSE TYPE A 201, SQUARE D CLASS 8502, OR APPROVED EQUAL.
- As Required CONDUIT EXPANSION FITTINGS, SUITABLE FOR EXPANSION MOVEMENT THAT WILL BE ENCOUNTERED IN INSTALLATION, CROUSE-HINDS TYPE XJ, WITH G6100 GROUNDING STRAP AND G6102 STRAP CLAMP, OZ ELECTRIC CO. TYPE EX WITH TYPE BJ BONDING JUMPER, SPRING CITY ELECTRICAL TYPE EF WITH EJ BONDING JUMPER, OR APPROVED EQUAL.

LIGHTING SPECIFICATIONS

STANDARDS:

THE FOLLOWING SPECIFICATIONS AND STANDARDS FORM A PART OF THESE SPECIFICATIONS UNLESS OTHERWISE DIRECTED IN THESE PLANS:

- KENTUCKY DEPARTMENT OF HIGHWAY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION WITH REVISIONS.
- NATIONAL ELECTRICAL CODE, LATEST ISSUE.
- STANDARDS OF THE UTILITY COMPANY SERVING THE INSTALLATION.
- MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE PROJECTS.

SCOPE OF WORK:

THE WORK SHALL INCLUDE THE FURNISHING, INSTALLING, CONNECTING, AND PLACING IN SATISFACTORY OPERATING CONDITION RIVER NAVIGATION LIGHTING SYSTEM IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE APPLICABLE DRAWINGS.

GENERAL:

THE LIGHTING SYSTEM SHALL BE COMPLETE WITH ALL NECESSARY ACCESSORIES FOR PROPER OPERATION. POWER FOR THE LIGHTING SYSTEM WILL BE FURNISHED BY THE UTILITY COMPANY LISTED ELSEWHERE IN THESE PLANS AND AT THE APPROXIMATE LOCATION AS INDICATED ON THESE DRAWINGS. BEFORE ORDERING THE EQUIPMENT, THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY CONCERNED FOR THE TYPE AND LOCATION OF SERVICE AVAILABLE AT THE TIME THIS INSTALLATION IS MADE. ALL POLES AND ASSOCIATED EQUIPMENT WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED IN THESE PLANS. THE INSTALLATION OF ALL EQUIPMENT SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE RULES AND STANDARDS OF THE UTILITY COMPANY SERVING THE INSTALLATION. THE CONTRACT DRAWINGS INDICATE THE EXTENT AND GENERAL ARRANGEMENT OF THE LIGHTING CIRCUITS AND EQUIPMENT. THE DRAWINGS ARE TO BE USED FOR THE GENERAL GUIDANCE OF THE CONTRACTOR, AND ANY COMMISSION OR OMISSION SHOWN OR IMPLIED SHALL NOT BE CAUSE FOR DEVIATING FROM THE INTENT OF THE DRAWINGS OR SPECIFICATIONS. IF ANY DEPARTURE FROM THE CONTRACT IS DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURE AND THE REASON THEREFOR SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR WRITTEN APPROVAL PRIOR TO COMMENCEMENT OF SUCH WORK.

MATERIAL:

THE CONTRACTOR SHALL PROVIDE, IN TRIPLICATE, DESCRIPTIVE LITERATURE OR DRAWINGS (FURNISHED BY THE MANUFACTURERS) OF ALL MATERIALS USED, FOR APPROVAL, PRIOR TO COMMENCEMENT OF WORK. EXCEPTIONS TO MATERIALS SPECIFIED MAY BE TAKEN ONLY WITH THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.

CONDUIT:

ALL CONDUCTORS SHALL BE RUN INSIDE RIGID STEEL CONDUIT EXCEPT FOR FLEXIBLE CORD INSTALLATIONS AS SHOWN ON THE PLANS. THE MINIMUM SIZE CONDUIT FOR INSTALLATION UNDERGROUND SHALL BE 2 INCH (NOMINAL DIAMETER), AND FOR EXPOSED INSTALLATION SHALL BE ONE SIZE LARGER THAN REQUIRED BY THE NATIONAL ELECTRICAL CODE, OR AS DIRECTED OTHERWISE IN THE DRAWINGS. ALL RIGID STEEL CONDUIT SHALL BE GALVANIZED INSIDE AND OUT, AND SHALL CONFORM TO THE UNDERWRITERS LABORATORIES REQUIREMENTS FOR RIGID METALLIC CONDUIT. ALL CONDUIT INSTALLATIONS SHALL CONFORM TO THE PROVISIONS OF THE NATIONAL CODE UNLESS OTHERWISE SPECIFIED IN THESE PLANS. THE ENDS OF ALL THE CONDUITS SHALL BE REAMED TO REMOVE BURRS, AND ROUGH EDGES. DAMAGED PORTIONS OF THE GALVANIZED COATING AND UNTREATED THREADS RESULTING FROM FIELD CUTS SHALL BE PAINTED WITH AN APPROVED RUST-INHIBITIVE PAINT. SLIP JOINTS WILL BE PERMITTED FOR COUPLING RIGID CONDUIT TO JUNCTION BOXES. WHEN A STANDARD COUPLING CANNOT BE USED FOR COUPLING RIGID CONDUIT, AN APPROVED THREADED UNION COUPLING SHALL BE USED. ALL CONDUIT THREADS SHALL BE PAINTED WITH WHITE LEAD WHEN FITTED UP. CONDUIT BENDS SHALL HAVE A RADIUS OF NOT LESS THAN TWELVE (12) TIMES THE NOMINAL DIAMETER OF THE CONDUIT, UNLESS OTHERWISE DIRECTED. CONDUIT WHICH WILL NOT BE SUBJECT TO REGULAR PRESSURE FROM TRAFFIC SHALL BE LAID TO A DEPTH OF NOT LESS THAN EIGHTEEN (18) INCHES BELOW GRADE. CONDUIT EXPANSION FITTINGS SHALL BE INSTALLED AT ALL CROSSINGS OF EXPANSION JOINTS IN THE STRUCTURE. CONDUIT FITTINGS SHALL BE THREADED AND GALVANIZED AND SHALL HAVE GASKETED COVERS. ALL JUNCTION BOXES AND PULL BOXES SHALL BE HOT DIPPED GALVANIZED AND BE MADE WATERTIGHT WITH GASKETED COVERS. MAXIMUM LENGTH TO PULL WIRE BETWEEN BOXES OR FITTINGS IN EXPOSED CONDUIT RUNS SHALL BE 100 FT. TO PREVENT ACCUMULATED CONDENSED MOISTURE IN THE CONDUIT SYSTEM, PROVIDE A FITTING WITH DRILLED PLUG ON BOTTOM AT ALL LOW POINTS IN EXPOSED CONDUIT RUNS AND DRILL A SMALL HOLE IN THE BOTTOM OF ALL BOXES. ALL BURIED CONDUIT SHALL HAVE A MINIMUM 18" COVER. AFTER CONDUIT HAS BEEN INSTALLED IN TRENCH, AND BEFORE BACKFILLING BEGINS, THE ENGINEER SHALL INSPECT AND APPROVE THE CONDUIT INSTALLATION.

WIRE:

THE MULTIPLE CIRCUIT NAVIGATION LIGHTING WIRE SHALL BE SINGLE CONDUCTOR AWG COPPER OF SIZES AS INDICATED BY APPROPRIATE NOTATIONS ON THE DRAWINGS. THE #10 WIRE AND SMALLER MAY BE EITHER SOLID OR STRANDED. SIZES LARGER THAN #10 SHALL BE STRANDED. INSULATION SHALL BE TYPE USE (UL RATED) EXCEPT THAT THE #12 3-CONDUCTOR CABLE SHALL BE TYPE SO CORD WITH RUBBER LEAD INSULATION AND NEOPRENE JACKET, AND AN ADDITIONAL WRAPPING OF MATERIAL TO PERMIT SLIPPAGE BETWEEN CONDUCTORS. WHERE MORE THAN ONE CIRCUIT IS INSTALLED WITHIN THE SAME CONDUIT, PERMANENT CIRCUIT IDENTIFICATION NUMBERS MUST BE AFFIXED TO THE WIRES. ALL THE WIRE SHALL BE IDENTIFIED IN ACCORDANCE WITH THE PROVISIONS OF THE NATIONAL ELECTRICAL CODE, 1965 EDITION, ARTICLE 310-2, PARAGRAPHS C AND D.

DRAWINGS:

PRIOR TO THE FINAL INSPECTION OF THE LIGHTING SYSTEM, THE CONTRACTOR SHALL PROVIDE, AT NO EXTRA COST, A COMPLETE SET OF REPRODUCIBLE WORKING DRAWINGS, ACCEPTABLE TO THE DEPARTMENT OF HIGHWAYS, SHOWING THE ARRANGEMENT AND LOCATION OF ALL EQUIPMENT AND CIRCUITS. THESE DRAWINGS WILL NOT BE REQUIRED UNTIL COMPLETION OF THE WORK, PROVIDED ALL WORK IS DONE IN GENERAL AGREEMENT WITH THE SPECIFICATIONS. IF ANY EXCEPTIONS TO THE SPECIFICATIONS OR DRAWINGS ARE TAKEN BY THE CONTRACTOR, DRAWINGS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF SUCH WORK. THE CONTRACTOR WILL KEEP DAILY RECORDS OF ALL CONDUIT PLACED IN TRENCHES SHOWING DISTANCE FROM BRIDGE STRUCTURE AND DEPTH, AND INDICATE SAME ON THE WORKING DRAWINGS.

PAINTING:

ALL STRUCTURAL STEEL MOUNTING BRACKETS AND FASTENINGS, JUNCTION BOXES, PULL BOXES, CONDUIT, POWER PANEL, ETC. SHALL BE GIVEN ONE SHOP COAT OF RED LEAD AND TWO FIELD COATS OF ALUMINUM PAINT. THE POWER PANEL SHALL BE PAINTED INSIDE AND OUT. GALVANIZED METAL SHALL BE TREATED BEFORE PAINTING. DRY TYPE TRANSFORMERS SHALL BE GIVEN TWO FIELD COATS OF ALUMINUM PAINT.

TESTING:

AFTER THE INSTALLATIONS ARE COMPLETED, AND AT SUCH TIME AS THE ENGINEER SHALL DIRECT, THE CONTRACTOR SHALL CONDUCT AN OPERATING TEST FOR APPROVAL. THE SYSTEM SHALL BE DEMONSTRATED TO OPERATE IN ACCORDANCE WITH THE SPECIFICATIONS. THE TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL INSTRUMENTS AND PERSONNEL NECESSARY FOR THE TEST, AND THE KENTUCKY DEPARTMENT OF HIGHWAYS WILL FURNISH THE POWER. CIRCUITS SHALL TEST FREE OF GROUNDS AND SHORTS AND SHALL HAVE AN INSULATING RESISTANCE NOT LESS THAN TEN (10) MEGOHMS WHEN TESTED WITH A 500 VOLT DIRECT CURRENT POTENTIAL IN A REASONABLY DRY ATMOSPHERE BETWEEN CONDUCTORS AND GROUND.

SPLICES:

SPLICES WILL BE PERMITTED ONLY IN JUNCTION BOXES OR CONDUIT FITTINGS. SPLICES FOR CONNECTING LIGHTING CONDUCTORS IN JUNCTION BOXES SHALL BE MADE WITH Y CABLE CONNECTIONS FOR MULTIPLE CIRCUITS. Y CABLE CONNECTIONS TO MULTIPLE ELECTRICAL EQUIPMENT SHALL BE MADE WITH APPROVED FIELD APPLIED WATERPROOF CONNECTOR KITS. THE THROUGH LEGS SHALL BE POSITIVELY JOINED BUT CAPABLE OF BEING DISASSEMBLED FROM EACH OTHER WITHOUT DAMAGE. THE TAP LEG SHALL BE A FUSED DISCONNECT CONNECTOR CAPABLE OF BEING DISCONNECTED FROM THE THROUGH LEG WITHOUT DAMAGE. EACH FUSED DISCONNECT Y CABLE CONNECTOR KIT SHALL CONTAIN:

- (1) A PAIR OF SPRING LOADED 90% MINIMUM CONDUCTIVELY CONTACTS SUITABLE FOR GRIPPING A SPECIFIED SIZE OF CARTRIDGE FUSE, TWO TERMINAL LUGS, A BOLT AND ELASTIC STOP NUT. ONE OF THE CONTACTS SHALL BE ADAPTED TO BE CRIMPED TO THE CABLE AND RETAINED SECURELY IN THE PROPER POSITION WITHIN A RUBBER LOADSIDE (TAP) HOUSING. THE SECOND CONTACT SHALL BE PREASSEMBLED AND RETAINED IN A RUBBER Y INSERT BODY AND SHALL PROVIDE A MOUNTING HOLE BY WHICH THE TERMINAL LUGS SHALL BE FASTENED WITH THE BOLT AND ELASTIC STOP NUT. BOTH CONTACTS SHALL BE FULLY ANNEALED.
- (2) A LOADSIDE (TAP) HOUSING, A Y INSERT BODY AND A Y HOUSING EACH MADE OF WATER RESISTANT SYNTHETIC RUBBER SUITABLE FOR BURIAL IN THE GROUND OR INSTALLATIONS IN SUNLIGHT. THE LOADSIDE HOUSING SHALL PROVIDE A SECTION TO FORM A WATER-SEAL AROUND THE CABLE, HAVE AN INTERIOR ARRANGEMENT TO SUITABLY AND COMPLIMENTARILY RECEIVE AND RETAIN THE CRIMPABLE COPPER FUSE CONTACT AND A SECTION TO PROVIDE A WATER-SEAL BETWEEN ITSELF AND THE Y INSERT BODY AT THE POINT OF DISCONNECTION. THE LOADSIDE HOUSING SHALL BE CONSTRUCTED TO RETAIN THE FUSE WHEN DISCONNECTED, AND SHALL BE PERMANENTLY MARKED LOADSIDE. THE Y INSERT BODY SHALL RETAIN THE SECOND COPPER FUSE CONTACT, SHALL PROVIDE A WATER-SEAL FOR THE LOADSIDE HOUSING AT THE POINT OF DISCONNECTION AND A WATER-SEAL FOR THE Y HOUSING AT THE POINT OF DISASSEMBLY. THE Y HOUSING SHALL PROVIDE SECTIONS TO FORM A WATER-SEAL AROUND TWO CABLES AND A SECTION TO PROVIDE A WATER-SEAL FOR THE INSERT BODY. EACH KIT SHALL BE SUPPLIED WITH SUFFICIENT SILICONE COMPOUND TO LUBRICATE THE METAL PARTS AND RUBBER HOUSING FOR EACH ASSEMBLY AND A DISPOSABLE MOUNTING PIN USED IN ASSEMBLING THE LOADSIDE TERMINAL.
- (3) EACH KIT SHALL ALSO BE PROVIDED WITH COMPLETE INSTRUCTIONS.
- (4) FUSES TO BE INCLUDED IN THE ABOVE SHALL BE OF HIGH INTERRUPTING CAPACITY TYPE AND HAVE A RATING OF SIX (6) AMPERES FOR NAVIGATION LIGHTING CIRCUITS. OTHER SPLICES SHALL BE MADE WITH MECHANICAL CONNECTORS OF A TYPE APPROVED BY THE ENGINEER OR TWISTED AND SOLDERED. SPLICES MUST BE PROTECTED AS FOLLOWS: DOUBLE SPIRAL WRAP OF RUBBER TAPE, DOUBLE SPIRAL WRAP OF FRICTION TAPE, AND THOROUGH PAINTING OF THE COMPLETED SPLICE WITH AN INSULATING ELECTRICAL PAINT.

LUMP SUM BID:

ALL OF THE WORK COVERED IN THIS SPECIFICATION WILL BE MEASURED AS A UNIT AND BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID FOR NAVIGATION LIGHTING. THE LUMP SUM PRICE BID FOR NAVIGATION LIGHTING SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, AND TRANSPORTATION NECESSARY TO FORM THE COMPLETED LIGHTING SYSTEM AS DESCRIBED IN SPECIFICATIONS AND DRAWINGS.

DESIGNED BY: DGM
 CHECKED BY: PAP
 DETAILED BY: SSG
 TRACED BY: SSG
 DATE: 3/69
 REVISION: Revised from Design Issues to fit this structure. M.F. DATE 10-70
 DATE: 3/69
 REVISION:

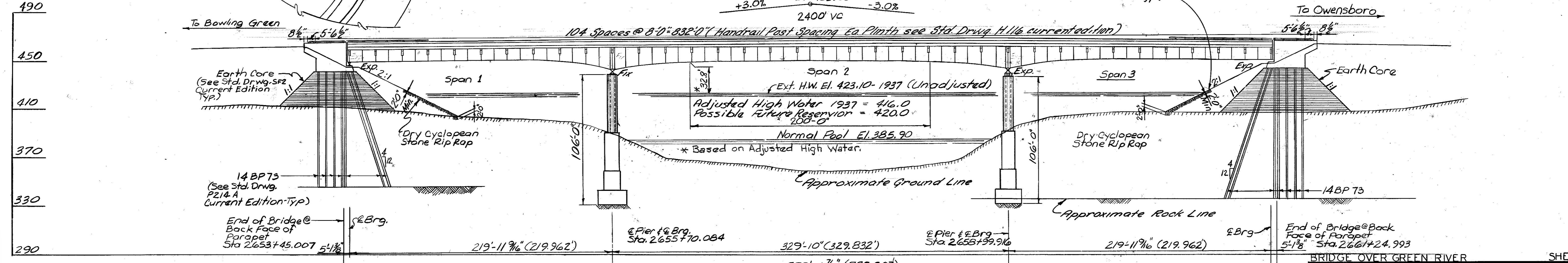
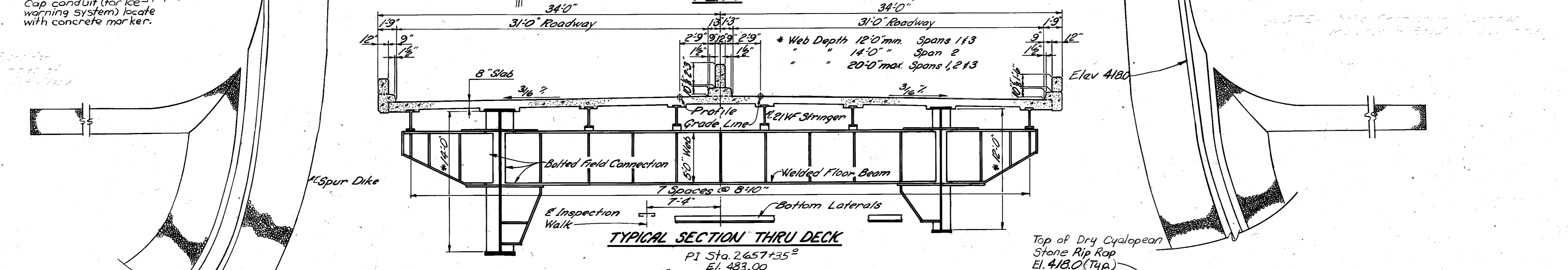
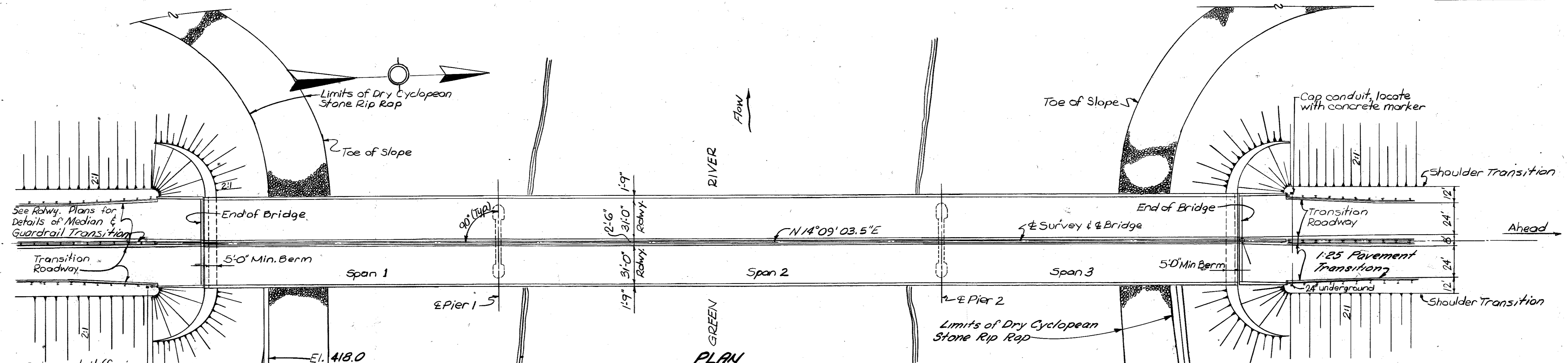
BRIDGE OVER GREEN RIVER. SHEET 5

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENSBORO PARKWAY

ROAD
 STATION 2657+35e PROJECT NO.

BRIDGE NUMBER	DRAWING NO. 17777	INDEX
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LIGHTING NOTES & SPECIFICATIONS



End Bent 1
Bridge Seat Elev. 447.084
Berm Elev. 446.084
Pile Cut-off 445.08

Pier 1
Bridge Seat Elev. 439.284
Bottom Footing Elev. 333.284

ELEVATION

220'-330'-220' CONTINUOUS WELDED PLATE GIRDER SPANS
TWIN 31'-0" ROADWAY ~ 80'-0" SHOULDERS @ BRIDGE
0° SKEW ~ 2:1 FILL SLOPES
HS20-44 OR ALTERNATE LOADING

Pier 2
Bridge Seat Elev. 436.950
Bottom Footing Elev. 330.950

End Bent 2
Bridge Seat El. 447.084
Berm El. 446.084
Pile cut off El. 445.08

LAYOUT

BRIDGE OVER GREEN RIVER SHEET 6

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER

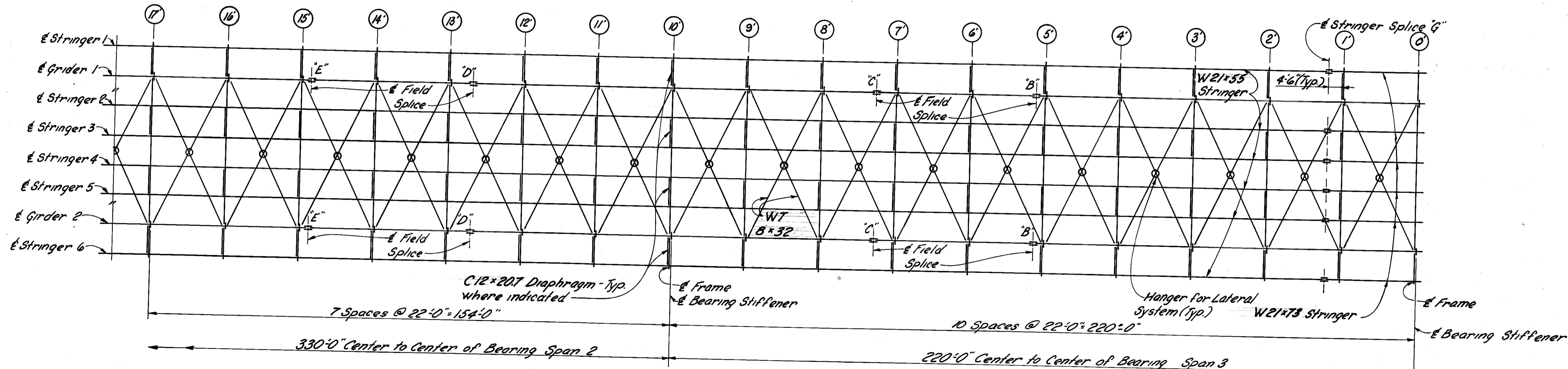
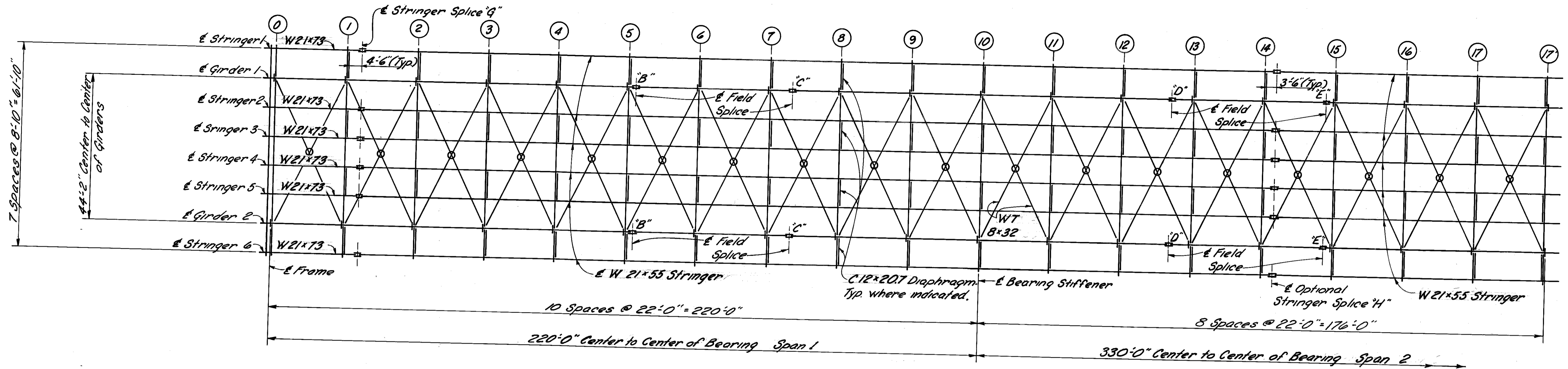
BOWLING GREEN-OWENSBORO PARKWAY ROAD

STATION 2657+35[±] PROJECT NO.

BRIDGE NUMBER	DRAWING NO.	INDEX
	17777	

DESIGNED BY: G.P.B. CHECKED BY: J.M. DATE: 5/2/82
 REVISIONS: 1. DATE: 5/2/82
 2. DATE: 5/2/82
 3. DATE: 5/2/82

LETTING DATE



FRAMING PLAN

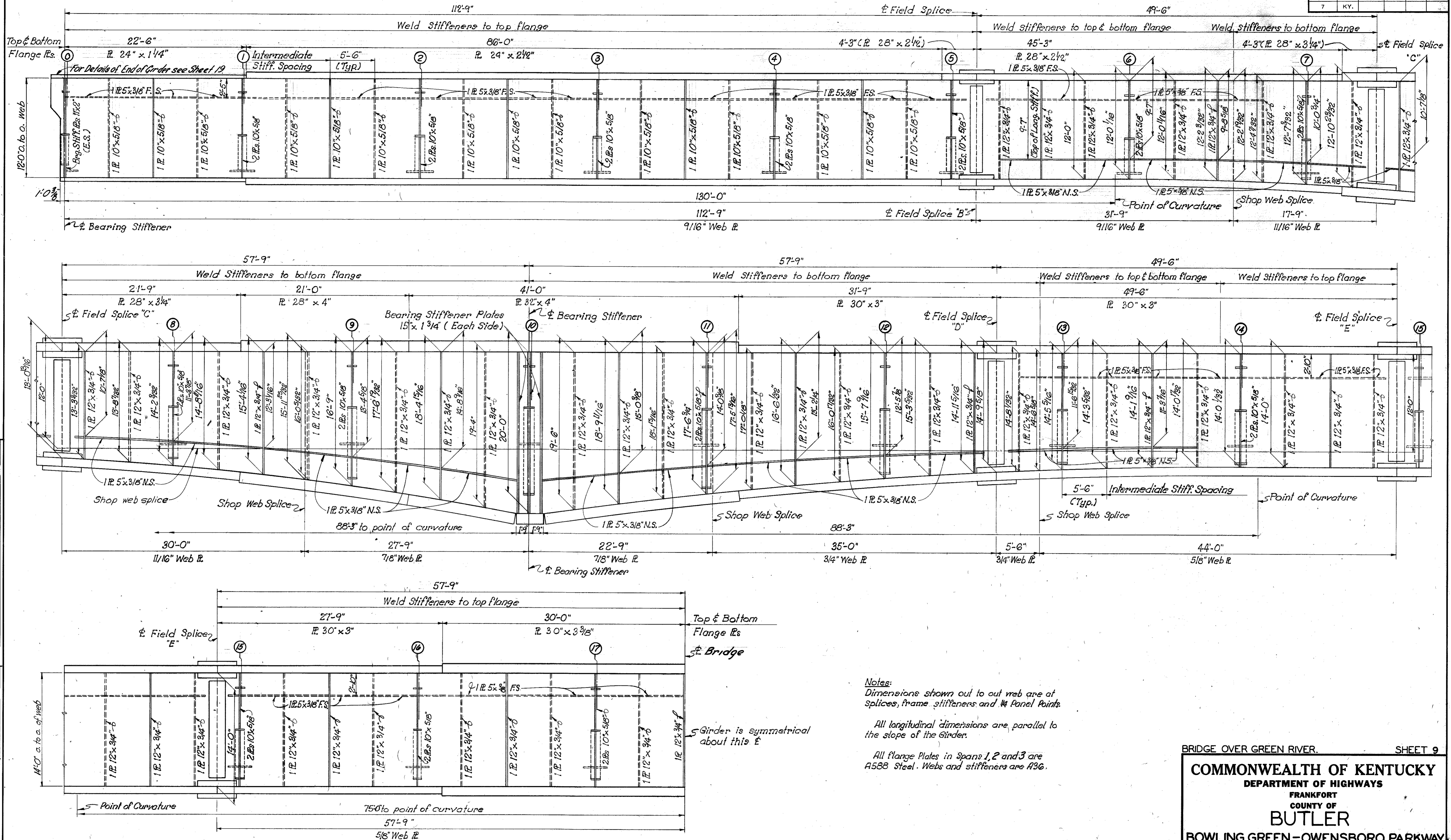
NOTE: See Girder Elevations for Location of Splice. See Sheet 14 for Splice Details.

FRAMING PLAN

DESIGNED BY	CHECKED BY	DATE	REVISION
DATE	DATE	DATE	DATE
10/10	G.R.B.		

BRIDGE OVER GREEN RIVER. SHEET 8

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENBORO PARKWAY
 ROAD
 STATION 2657+35.0 P. E. PROJECT NO.
 CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.
 17777



DESIGNED BY: C.P.K. Jr. DATE: 2/62
 CHECKED BY: H.J. DATE: 2/62
 REVISIONS: 1. DATE: 2/62
 2. DATE: 2/62
 3. DATE: 2/62
 4. DATE: 2/62
 5. DATE: 2/62
 6. DATE: 2/62
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 97. DATE: 2/62
 98. DATE: 2/62
 99. DATE: 2/62
 100. DATE: 2/62

PART GIRDER ELEVATION SPANS 1, 2 & 3
 (Looking @ Outside of Girder)

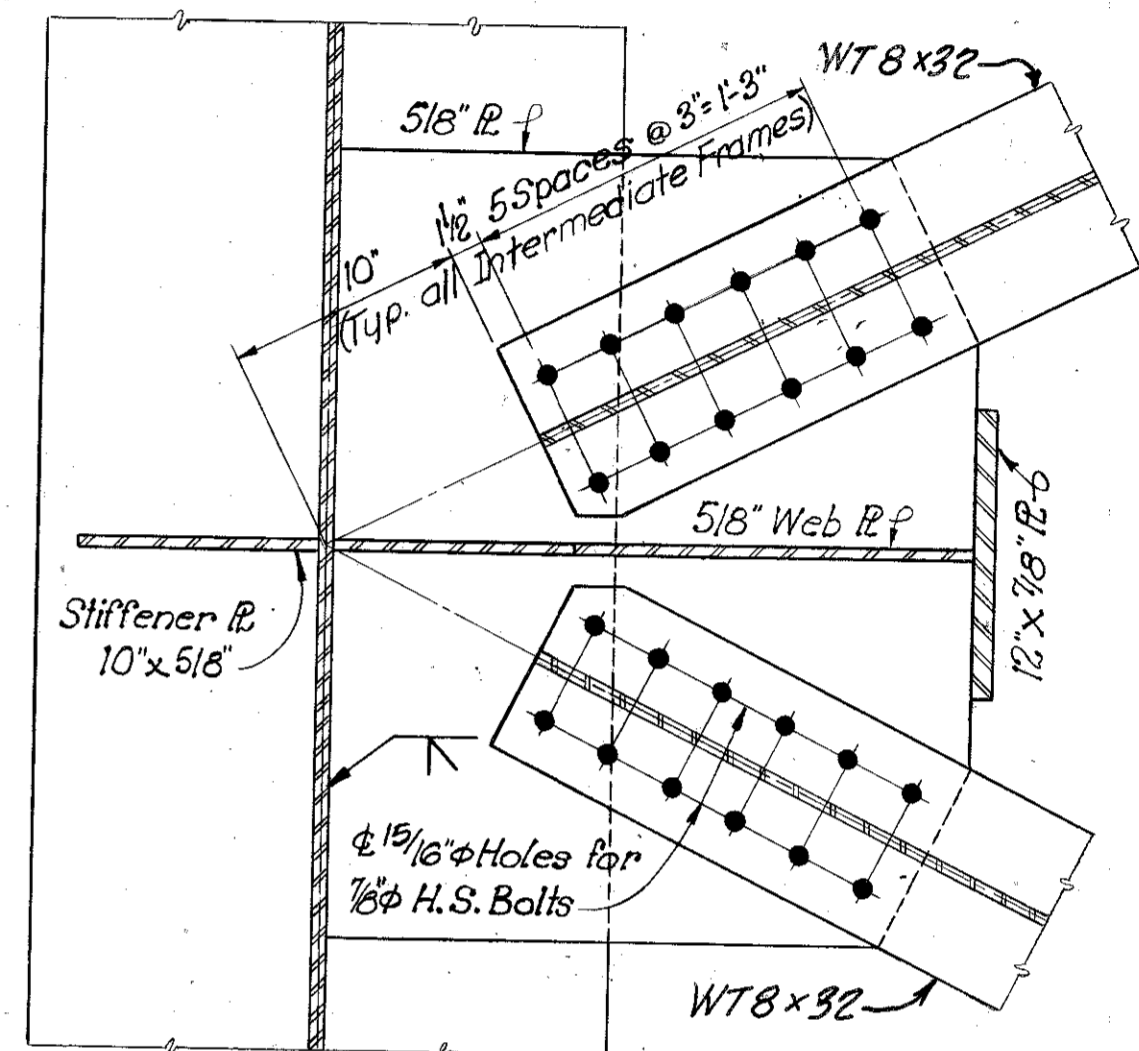
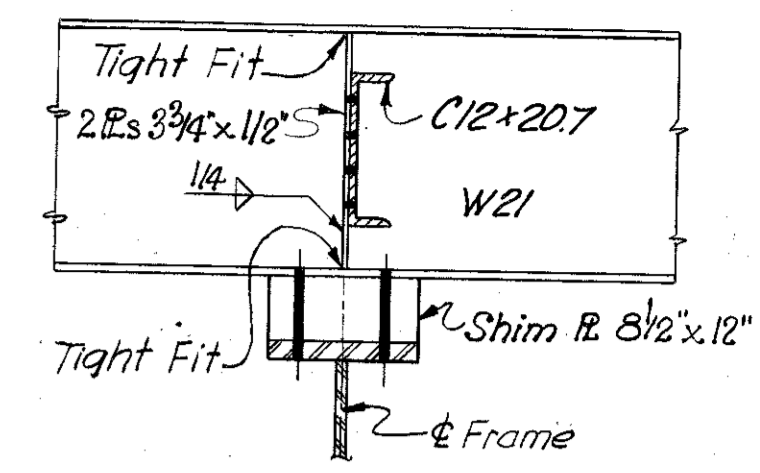
GIRDER DETAILS

BRIDGE OVER GREEN RIVER. SHEET 9

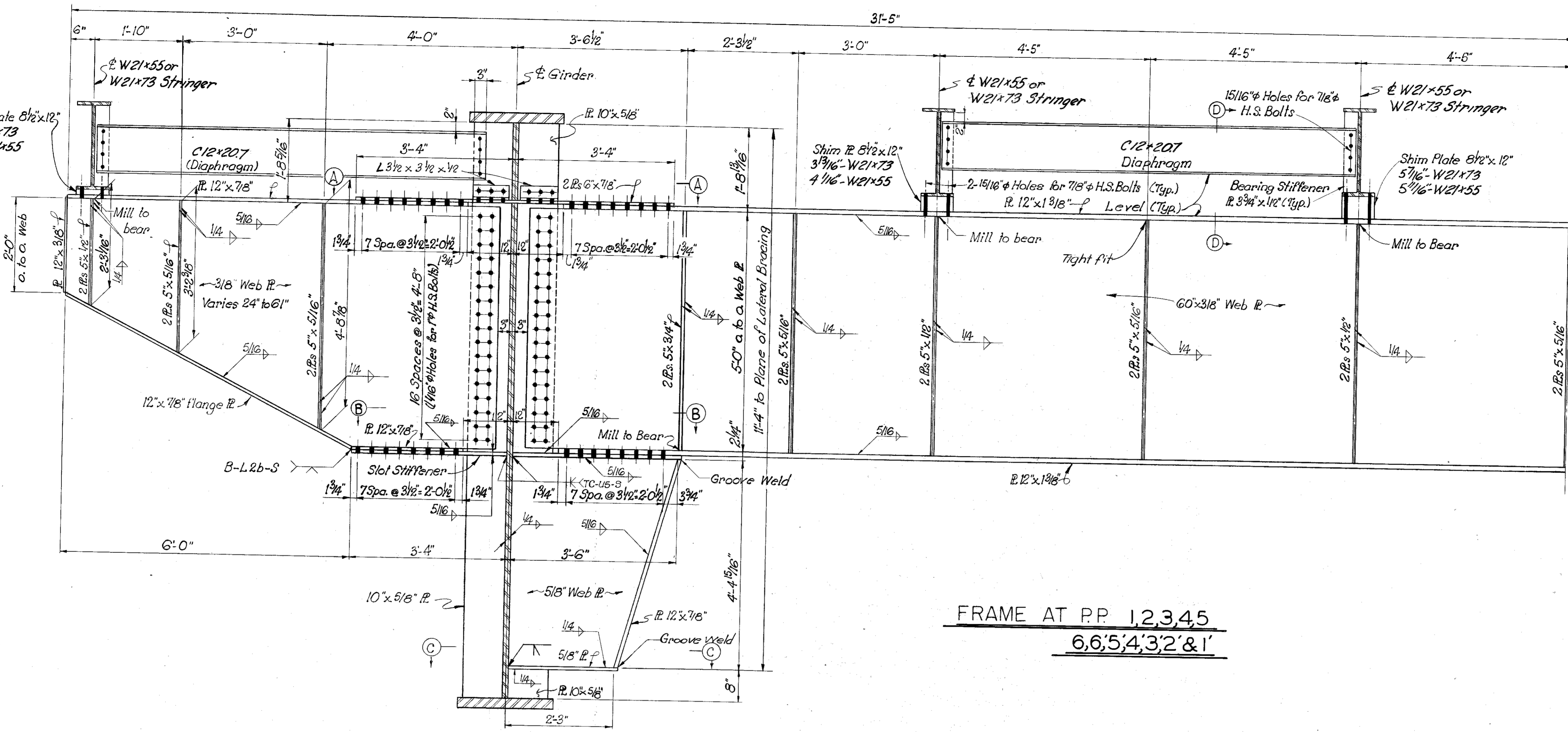
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENSBORO PARKWAY
 ROAD
 STATION 2657+35.2 PROJECT NO.

BRIDGE NUMBER 17777 INDEX

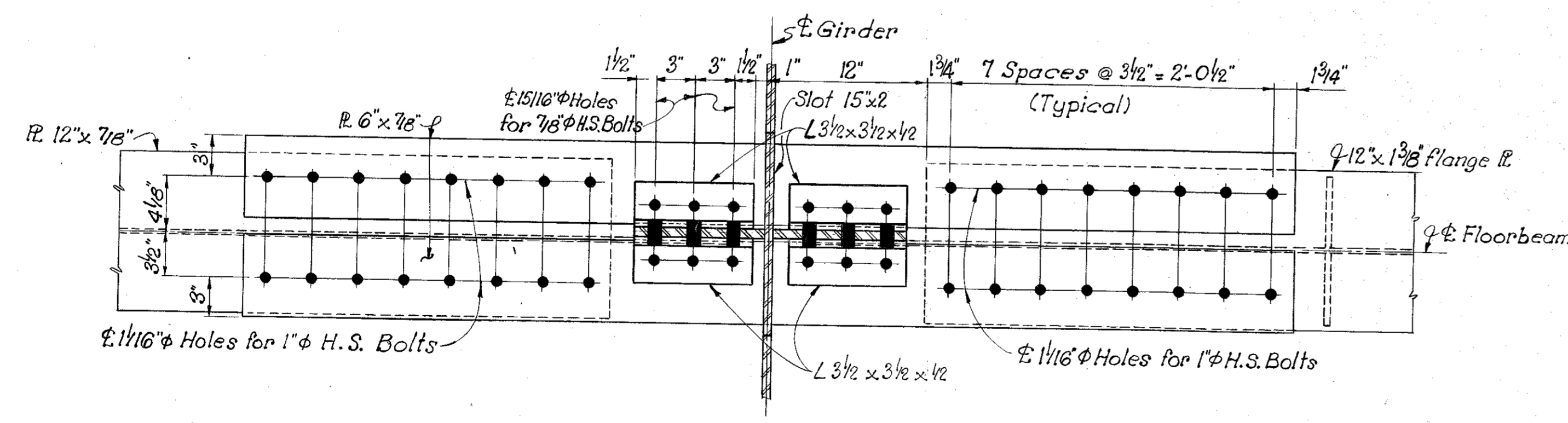
Note: Bearing Stiffener on Exterior Stringer may be shifted to allow Diaphragm to be flush with Girder Stiffeners.



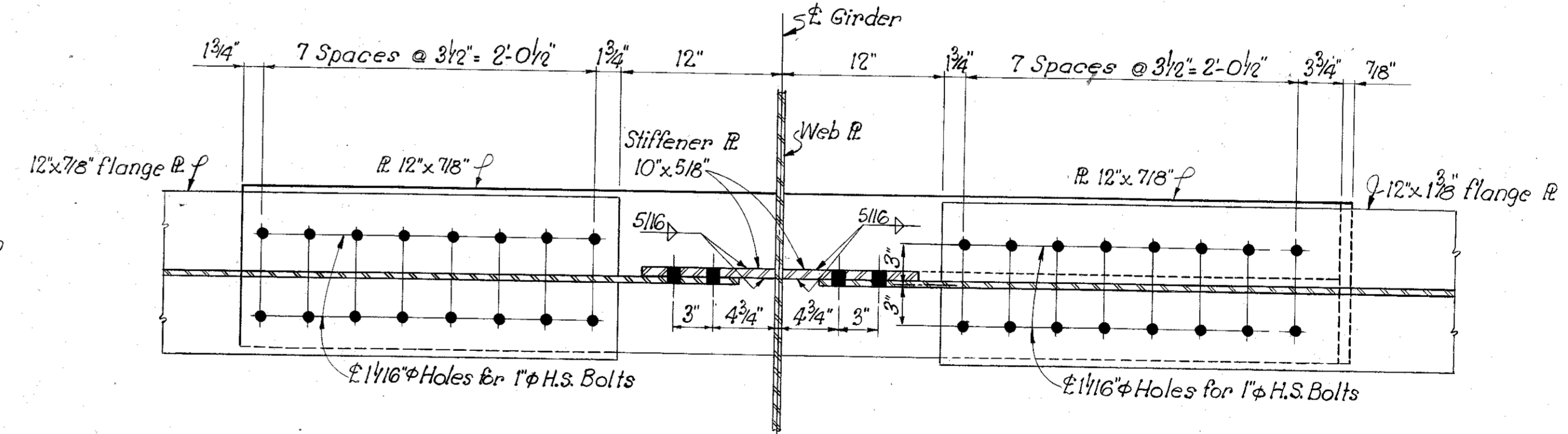
SECTION C-C



FRAME AT P.P. 1,2,3,4,5,6,6',5',4',3',2' & 1'



SECTION A-A



SECTION B-B

Note: Views of Frames @ P.P. 0-17 are looking back. Views of Frames @ P.P. 17-0' are looking ahead. All material for Frames Frame Splices and Lateral System to be A36

FRAMES & LATERAL SYSTEM
(P.P. 1,2,3,4,5,6,6',5',4',3',2',1')

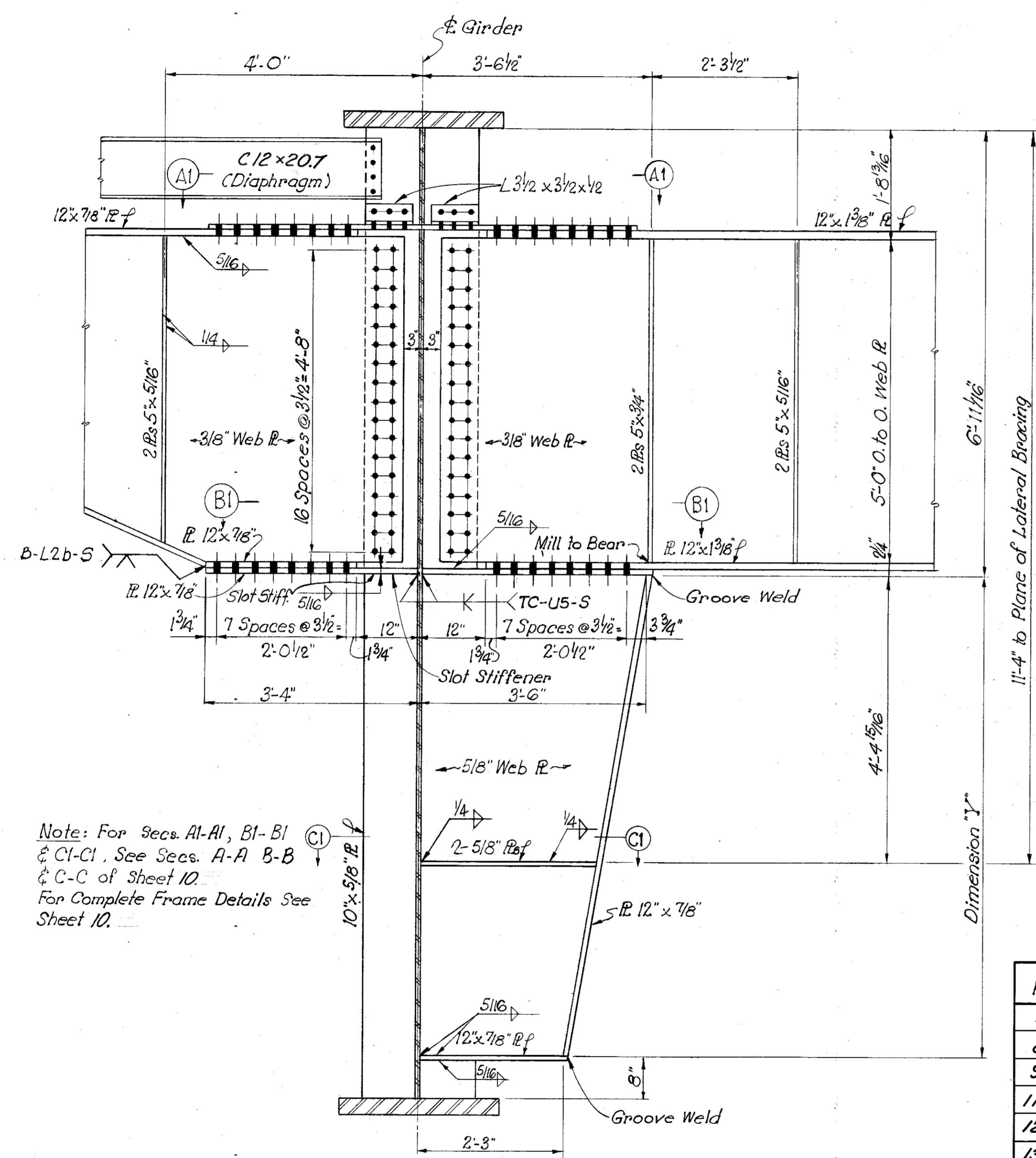
DESIGNED BY: G.P.K., Jr. DATE: 2/68
 CHECKED BY: H.L. DATE: 2/68
 TRACED BY: G.M. DATE: 10-70
 REVISIONS: 1. DATE: 10-70
 2. DATE: 10-70
 3. DATE: 10-70

BRIDGE OVER GREEN RIVER SHEET 10

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN - OWENSBORO PARKWAY
 ROAD

STATION 2657+35.4 PROJECT NO. 17777

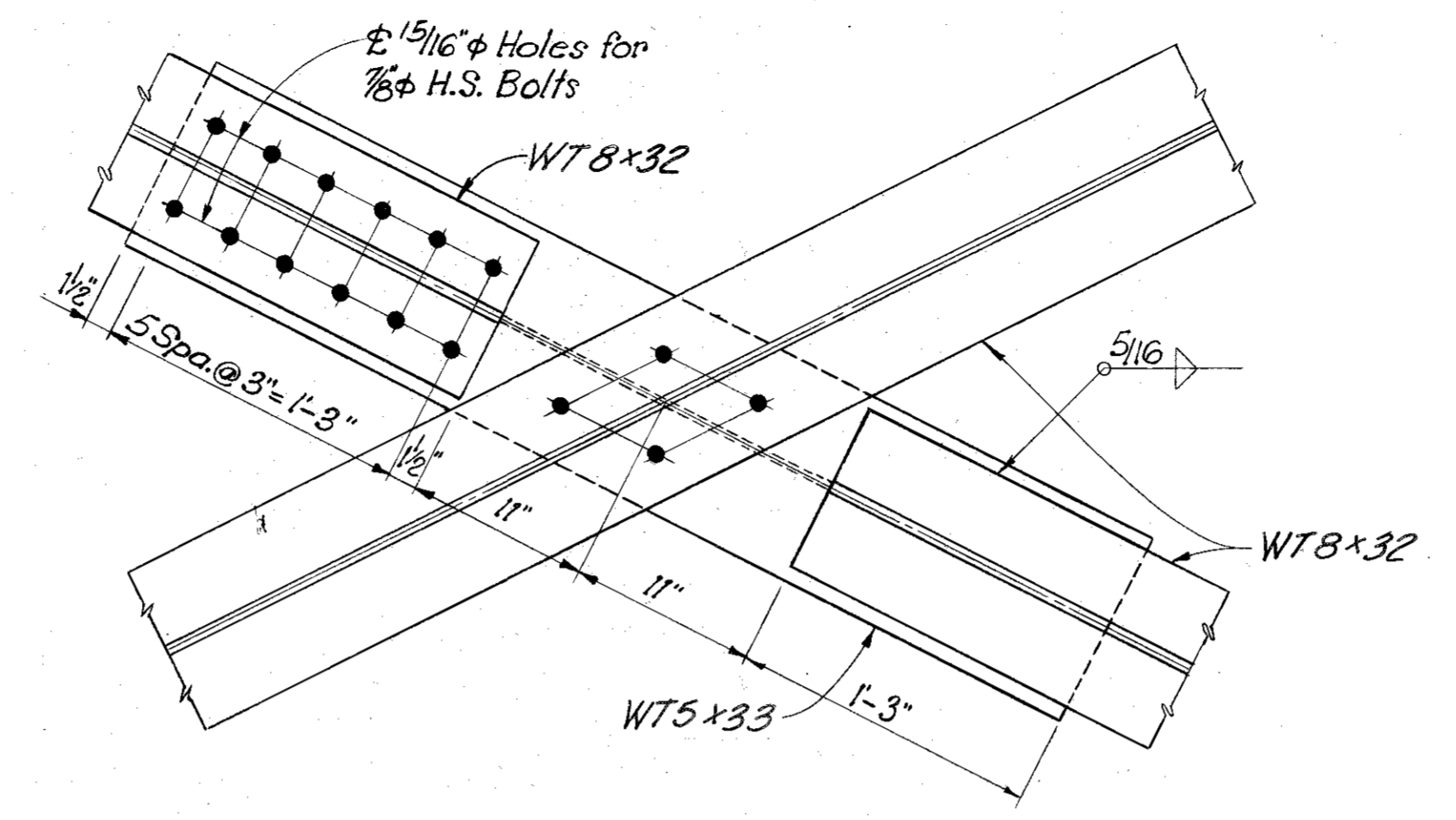
BRIDGE NUMBER 17777 INDEX



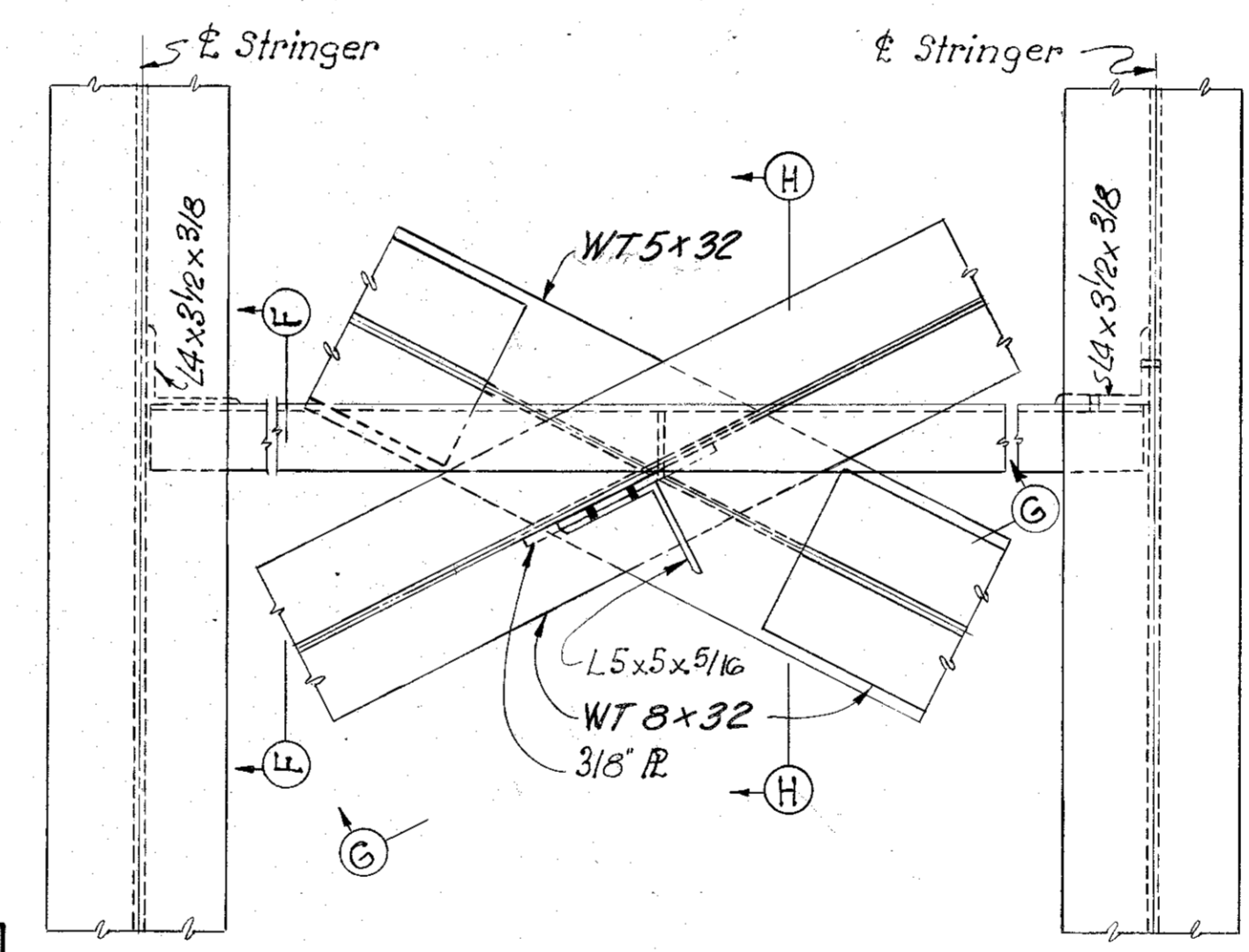
Note: For Secs. A1-A1, B1-B1 & C1-C1, See Secs. A-A B-B & C-C of Sheet 10.
For Complete Frame Details See Sheet 10.

FRAME AT P.P. 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
17, 16, 15, 14, 13, 12, 11, 9, 8 & 7'

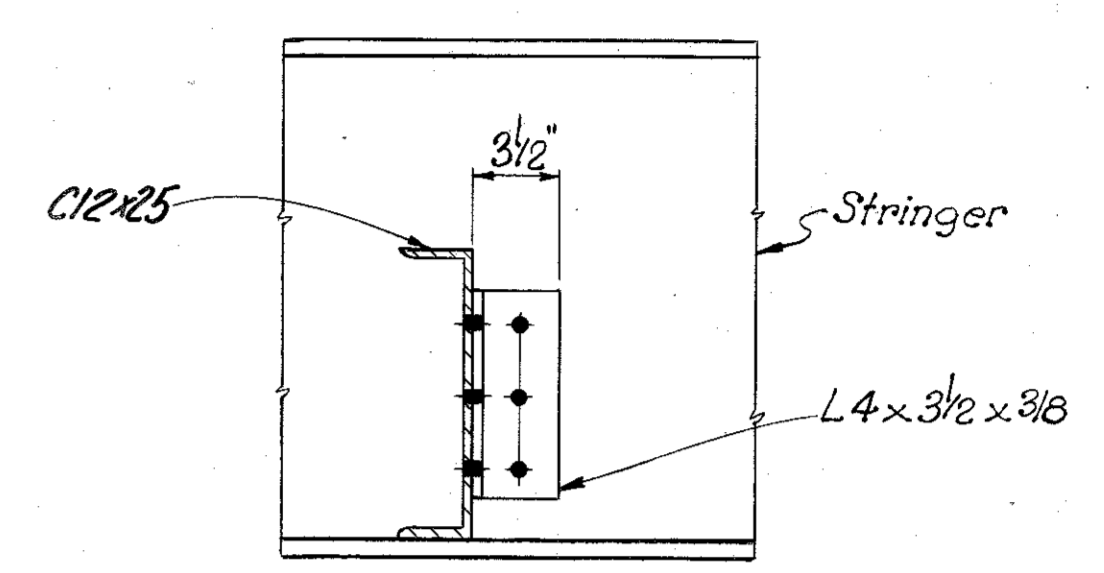
P.P.	Dimension "Y"
7 & 7'	5'-0 1/2"
8 & 8'	6'-7 1/8"
9 & 9'	9'-1 15/16"
11 & 11'	9'-11 1/16"
12 & 12'	8'-0 1/2"
13 & 13'	6'-10 1/4"
14 & 14'	6'-4 3/32"
15 & 15'	6'-4 7/16"
16 & 16'	6'-4 15/16"
17 & 17'	6'-4 15/16"



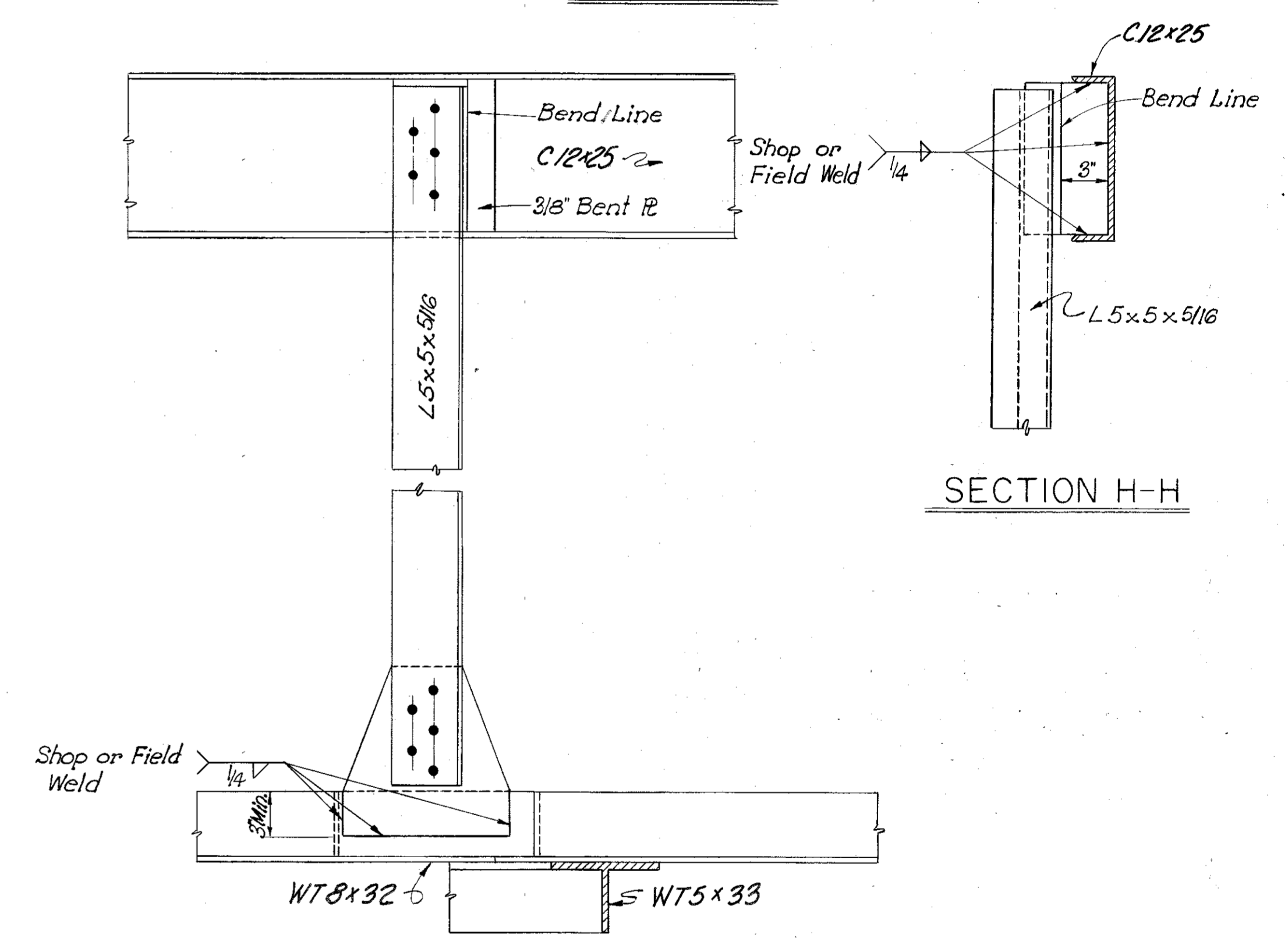
LATERAL SPLICE
WT 8 W 32



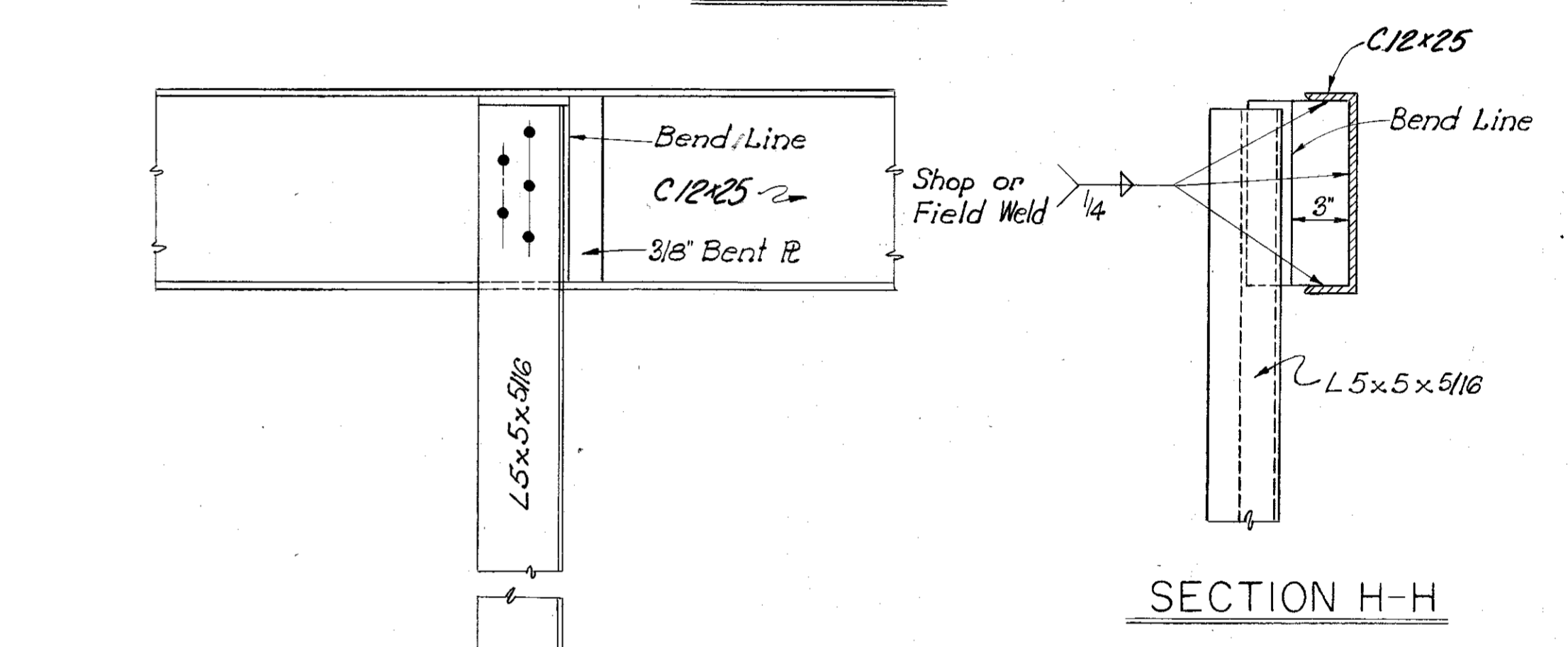
PLAN SHOWING LATERAL
BRACING HANGER



SECTION F-F



SECTION G-G



SECTION H-H

Note: All material for Frames, Frame Splices Lateral System and Hangers to be A36.

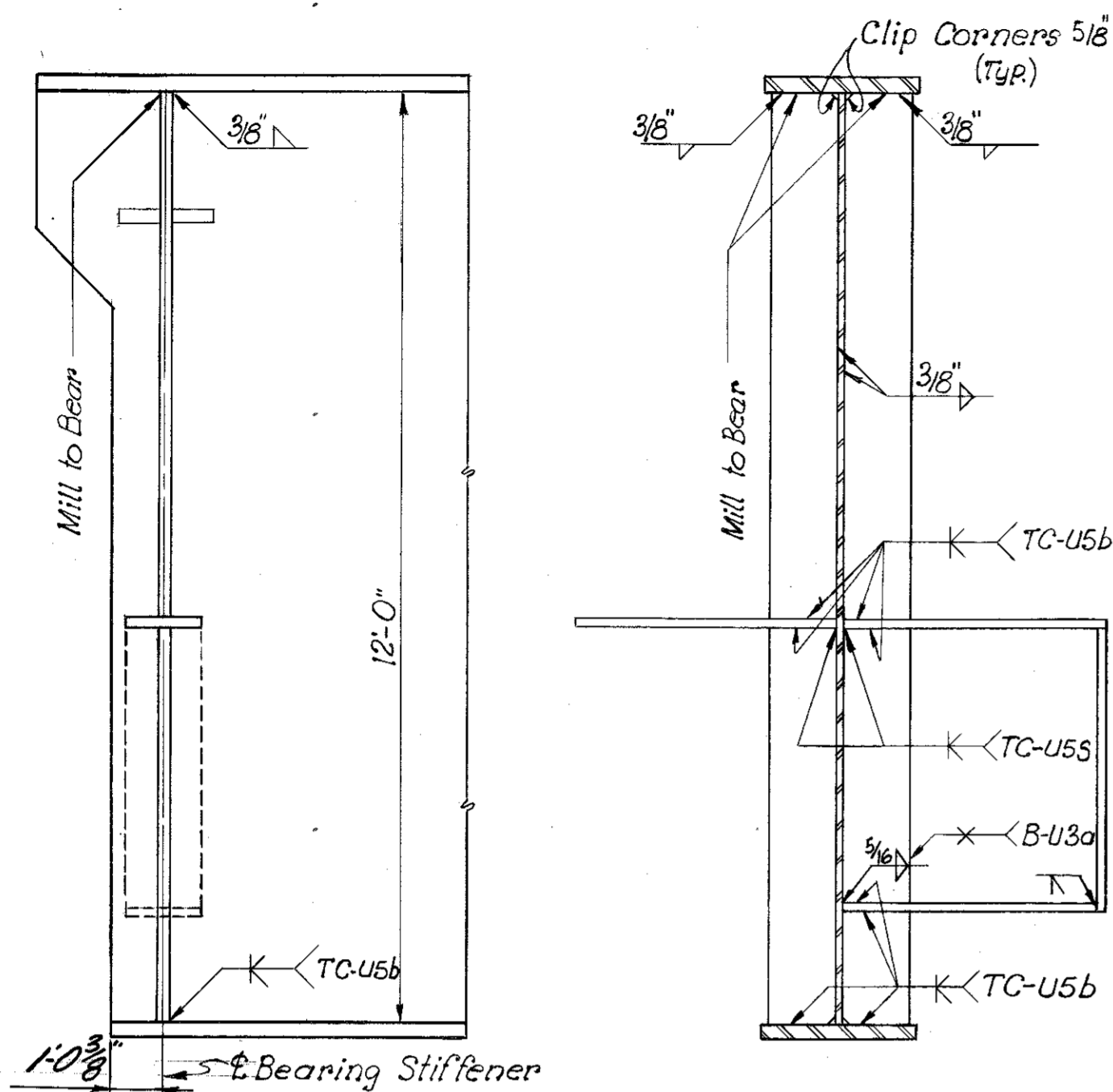
FRAMES & LATERAL SYSTEM
(P.P. 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 17, 16, 15, 14, 13, 12, 11, 9, 8, 7')

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN - OWENSBORO PARKWAY
ROAD

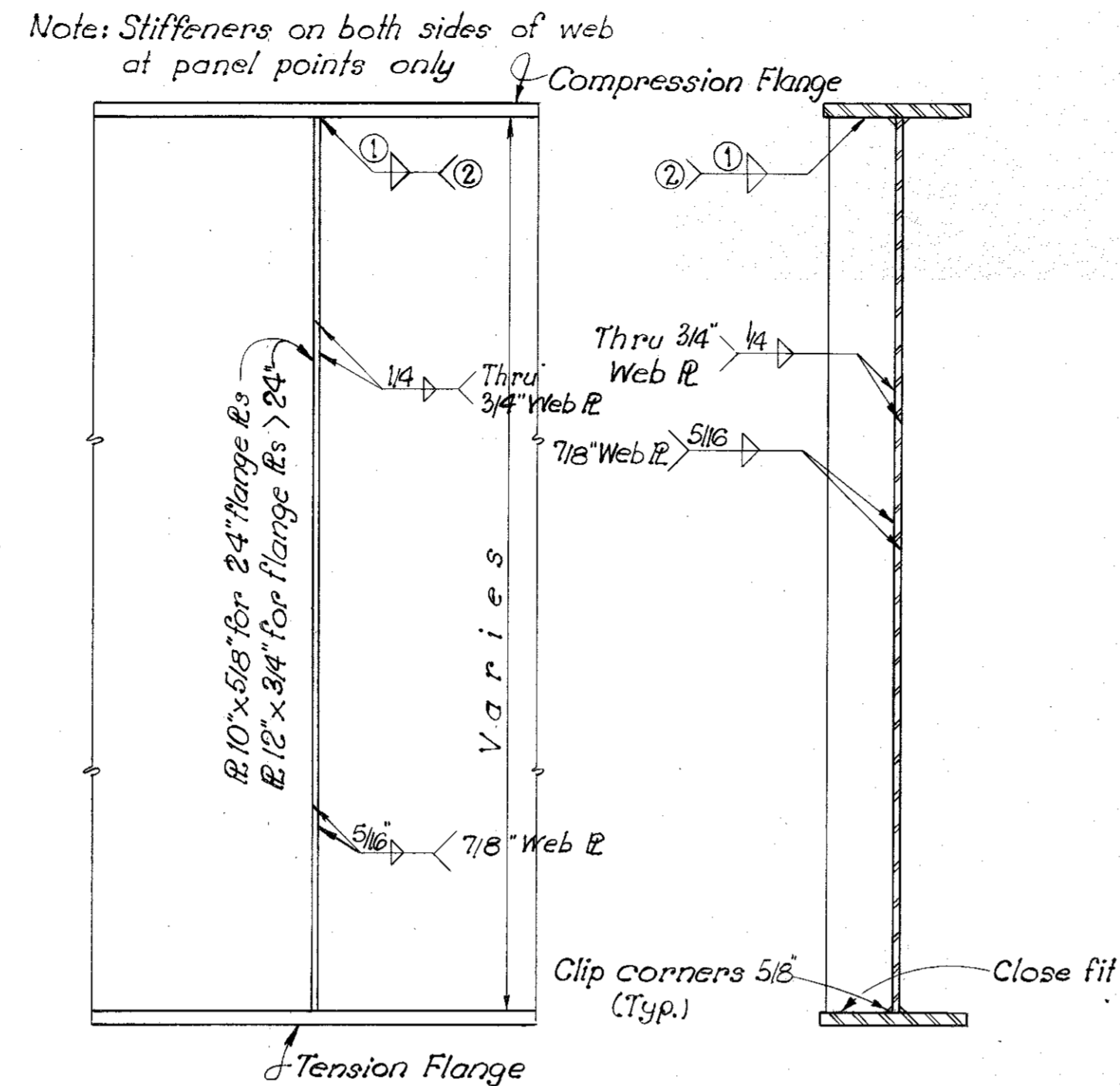
STATION 2657+35.0 PROJECT NO.
BRIDGE NUMBER DRAWING NO. 17777 INDEX

DESIGNED BY C.P.K. Jr. CHECKED BY D.B.M. DATE 10-70
 TRACED BY H.V. DATE 2/69
 REVISIONS: 1. DATE 2/69
 2. DATE 2/69

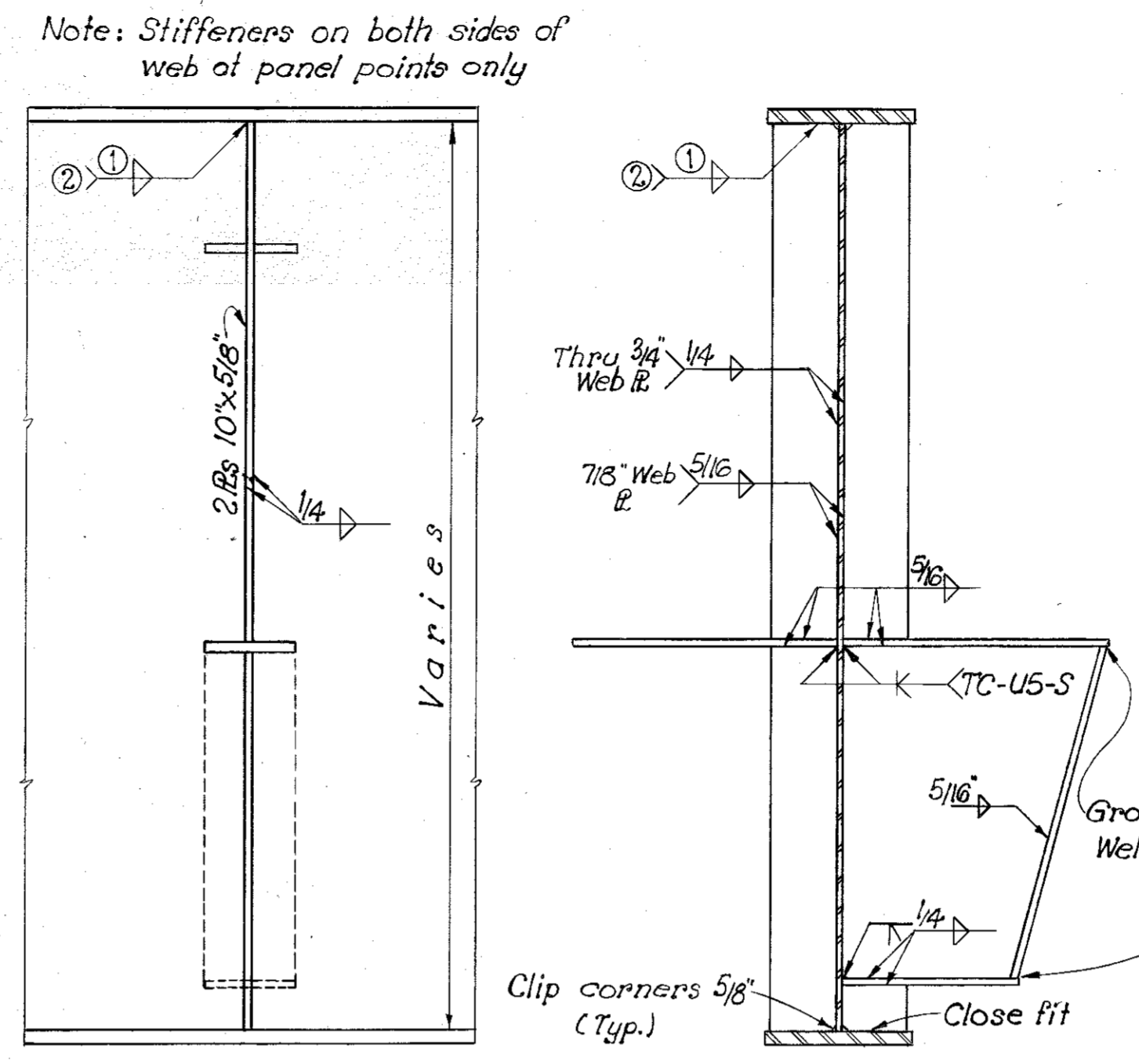
- ①: 5/16" Fillet Weld @ 1/4" Flange R
- 3/8" Fillet Weld @ 3/4" Flange R
- 1/2" Fillet Weld @ 2 1/2", 2 3/4", 3 1/4", 3 3/8" & 4" Flange R's
- ② See Girder Elev. for location Sht. 9.



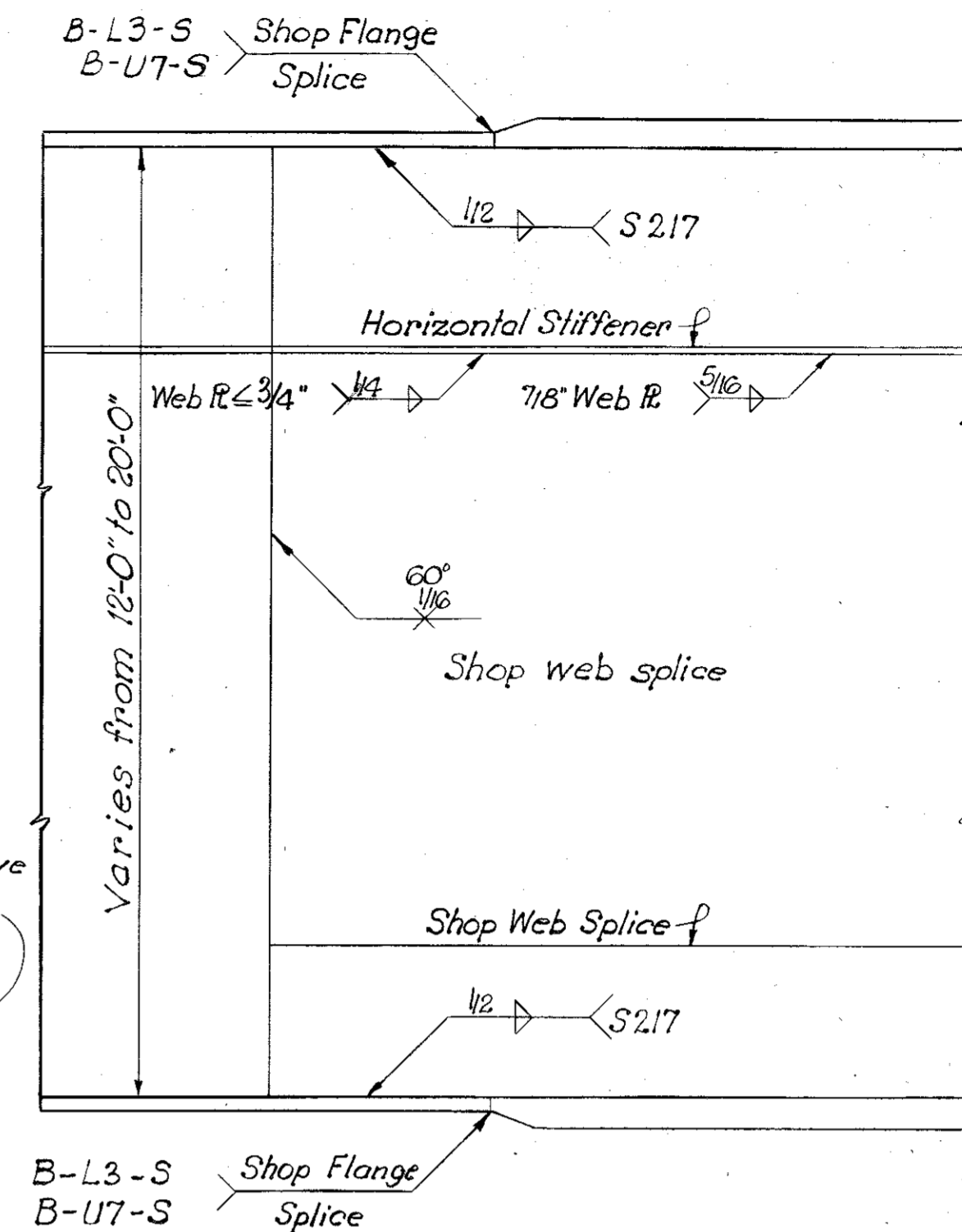
BEARING STIFFENERS P.P.O



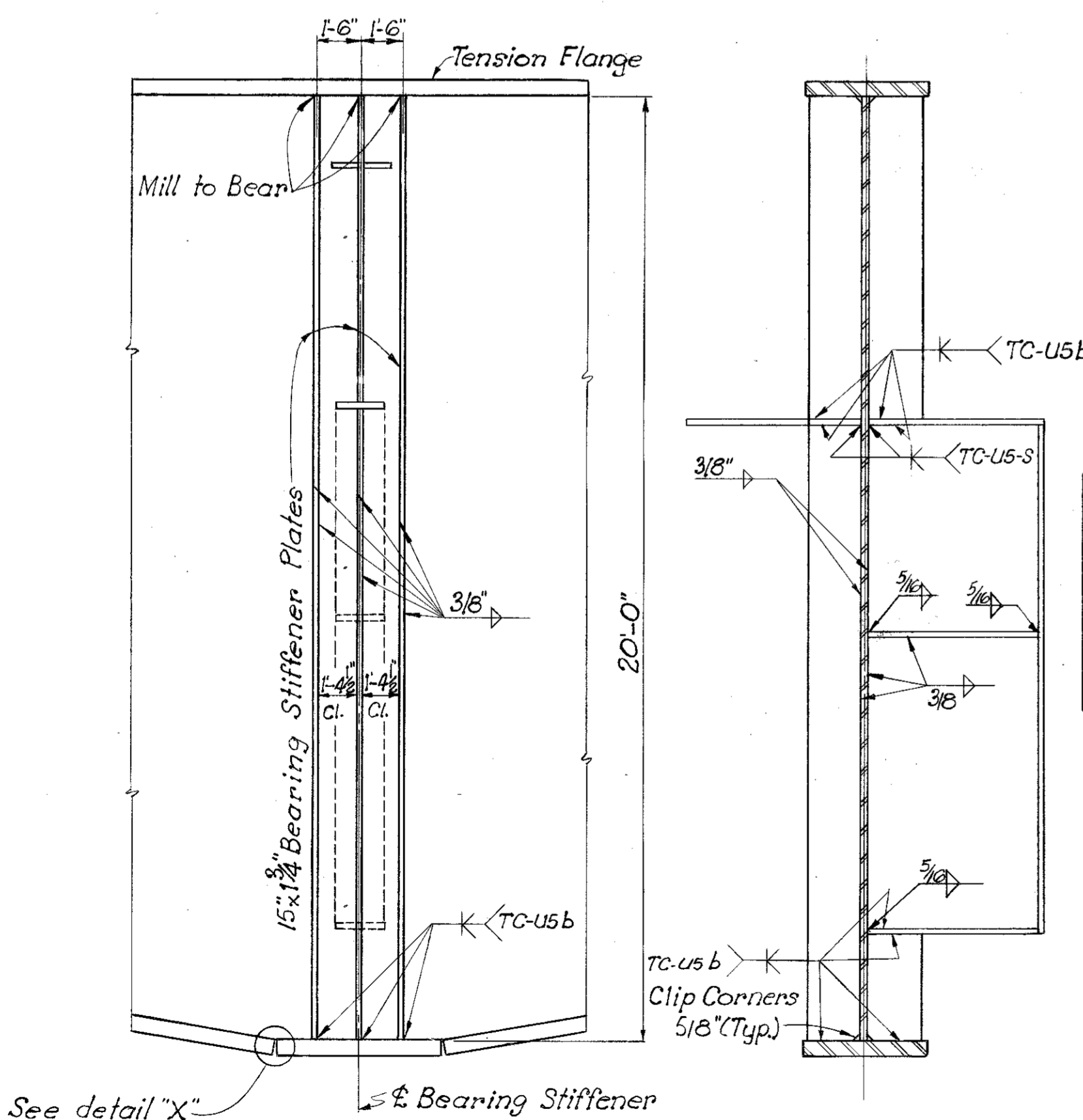
INTERMEDIATE STIFFENERS
(Other than Frame Locations)



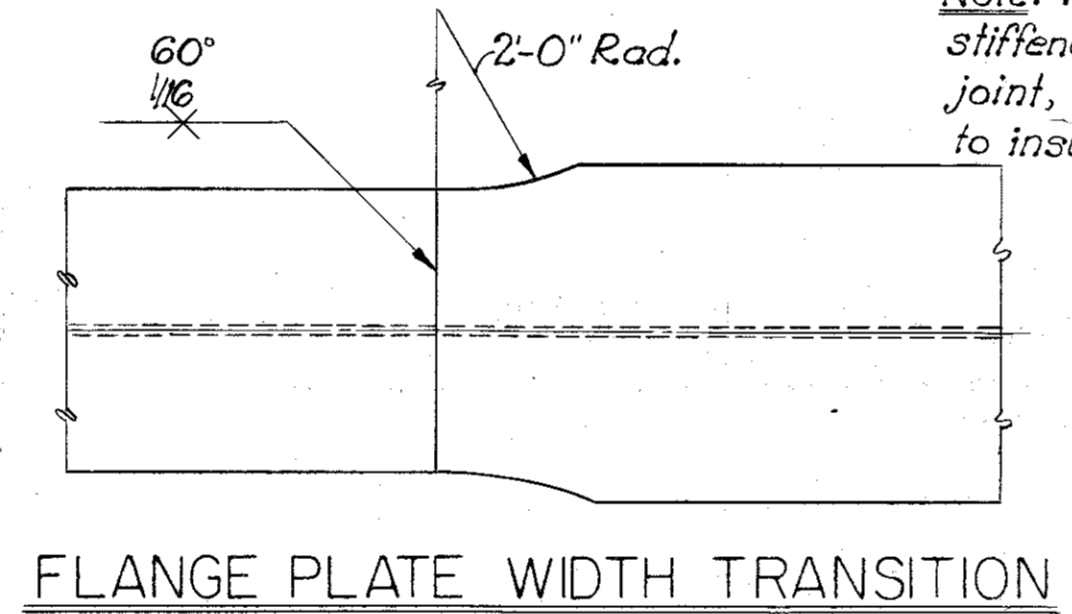
INTERMEDIATE STIFFENERS AT FRAMES



PART GIRDER ELEVATION

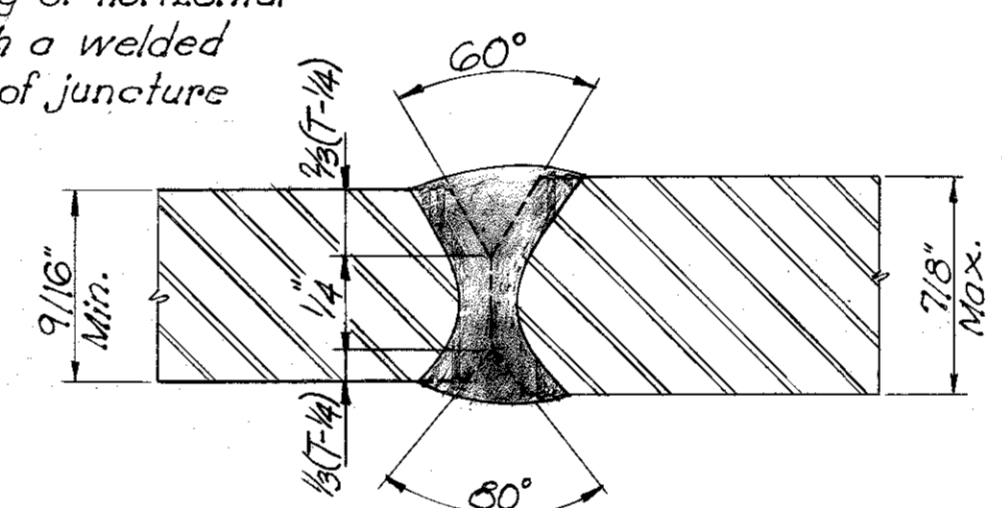


BEARING STIFFENER P.P. 10

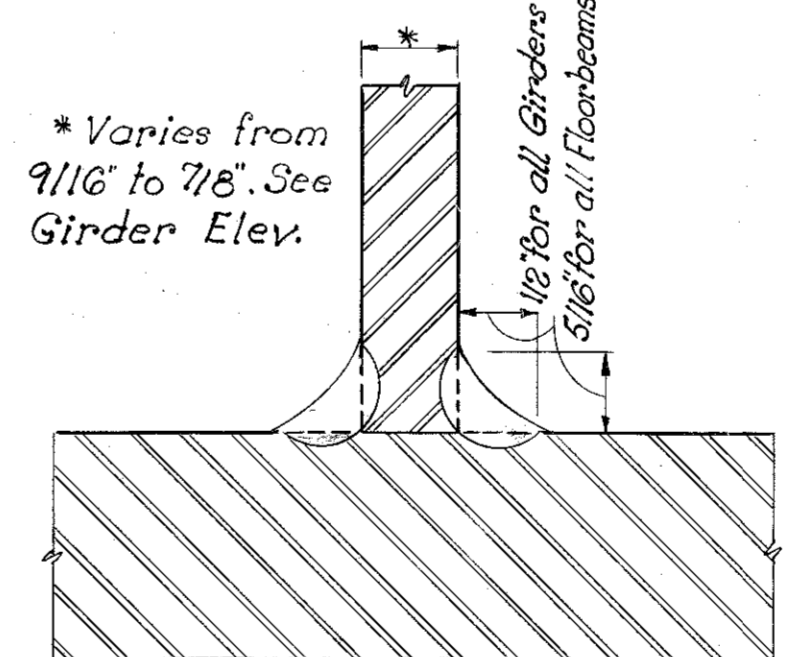


FLANGE PLATE WIDTH TRANSITION

Note: When intermediate, bearing or horizontal stiffeners come in contact with a welded joint, grind stiffener at point of juncture to insure good fit.



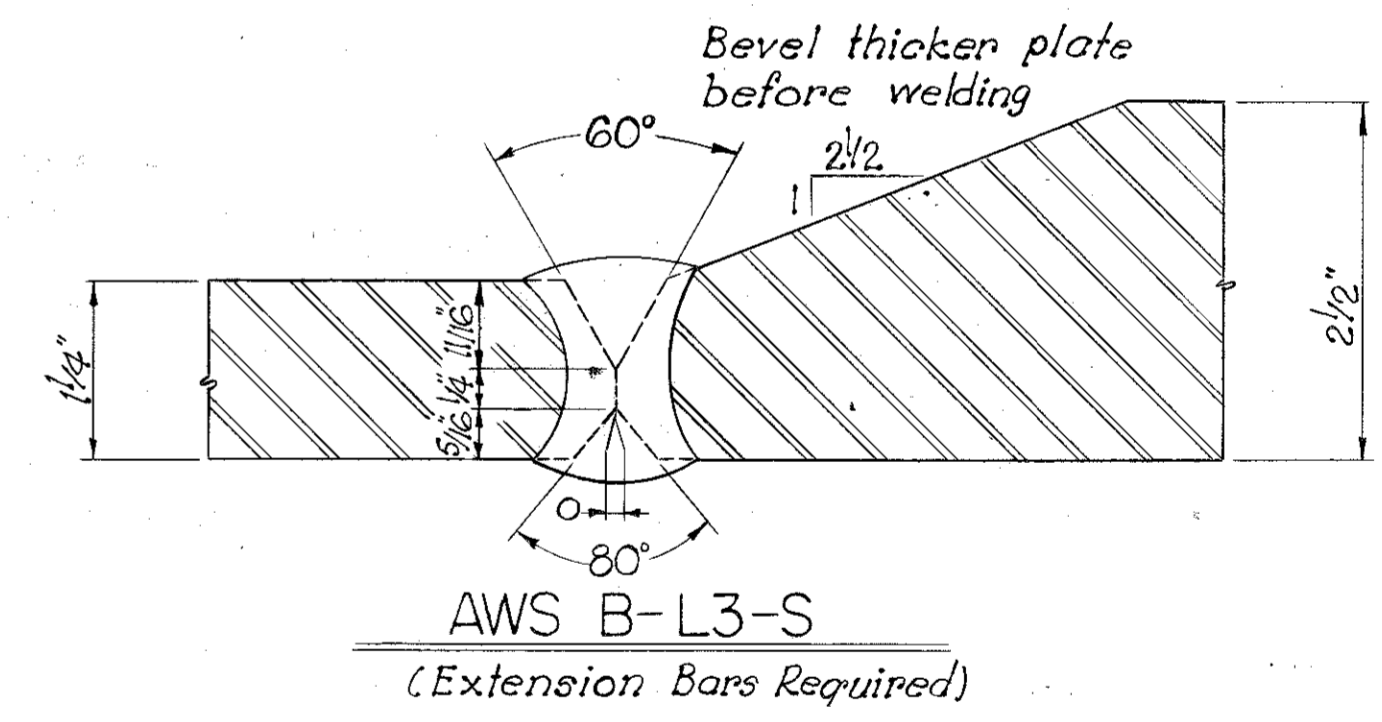
SHOP WEB SPLICE (B-L3-S)
(Horizontal or Vertical Splice.)



FLANGE TO WEB WELD

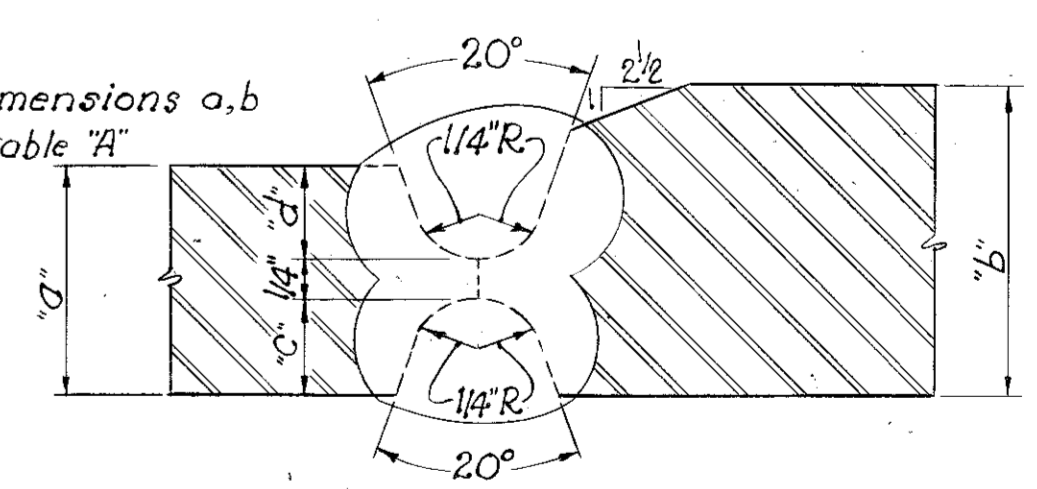
Note: Flange to web welds shall be single pass submerged arc fillet welds in the flat position. Parts are to be assembled with edge of web R tight against flange R before welding.

Note: See American Welding Society Specifications for Welded Highway and Railway Bridges, Current Edition for prequalified welds shown here.



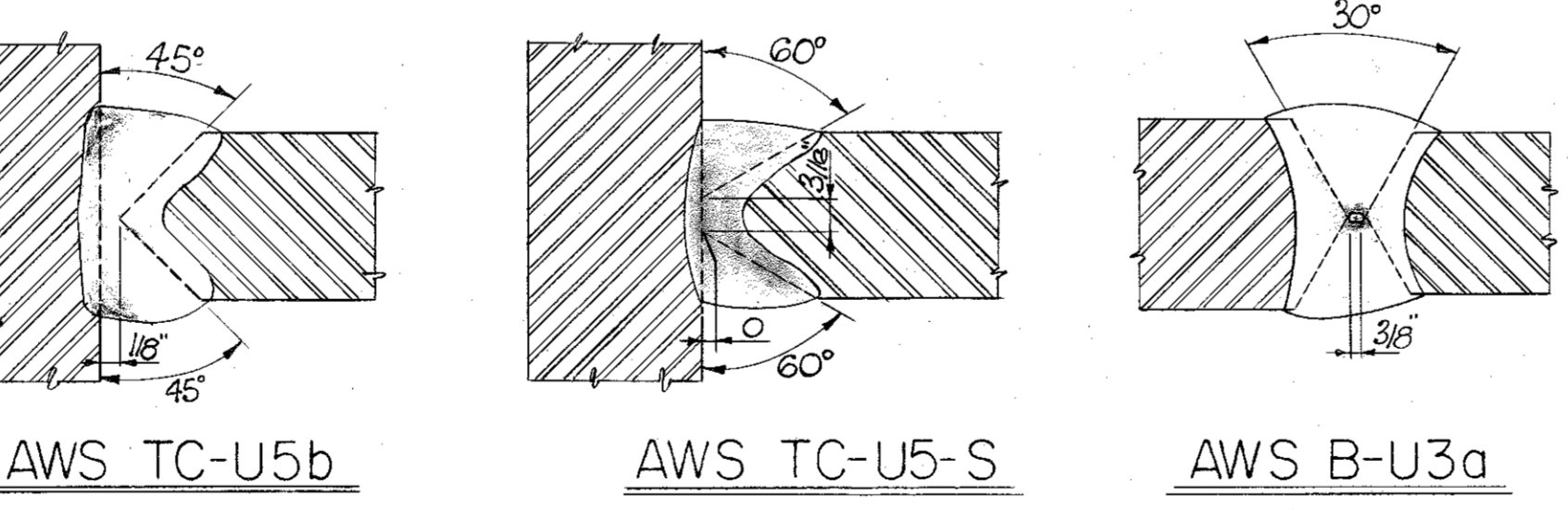
AWS B-L3-S
(Extension Bars Required)

Note: For dimensions a, b, c & d see table 'A'

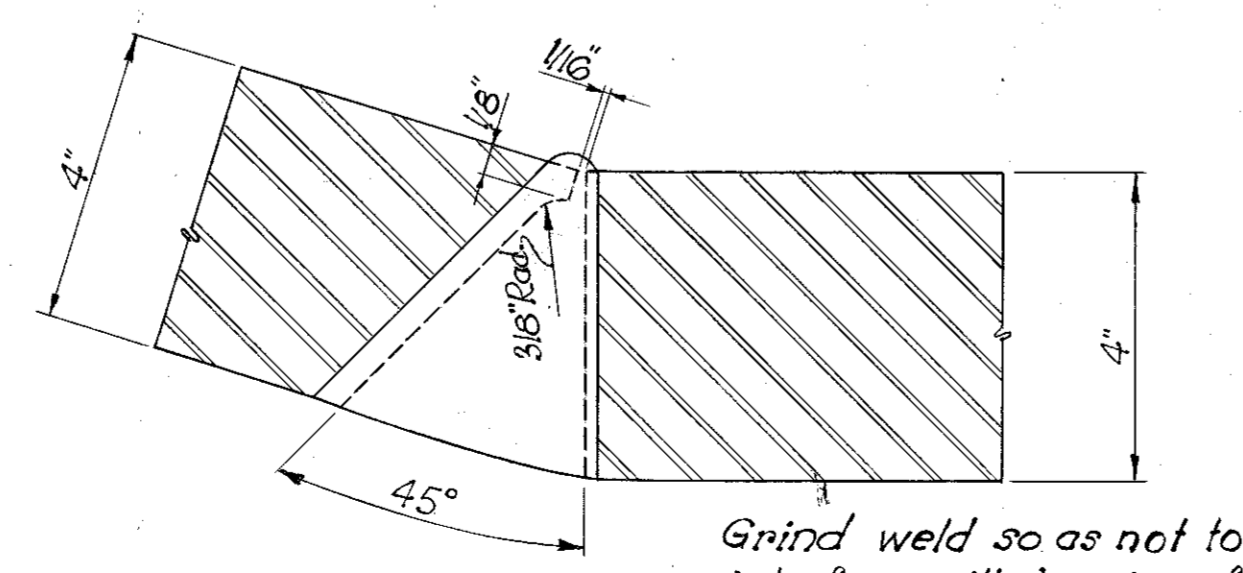


AWS B-U7-S
(Extension Bars Required)

TABLE 'A'			
a	b	c	d
1 3/4"	2 1/2"	3 1/4"	3 1/4"
2 1/2"	2 3/4"	1 1/8"	1 1/8"
2 1/2"	3 1/4"	1 1/8"	1 1/8"
3 1/4"	4"	1 1/8"	1 1/8"
3"	4"	1 3/8"	1 3/8"
3"	3 3/8"	1 3/8"	1 3/8"



AWS TC-U5b AWS TC-U5-S AWS B-U3a



DETAIL "X"

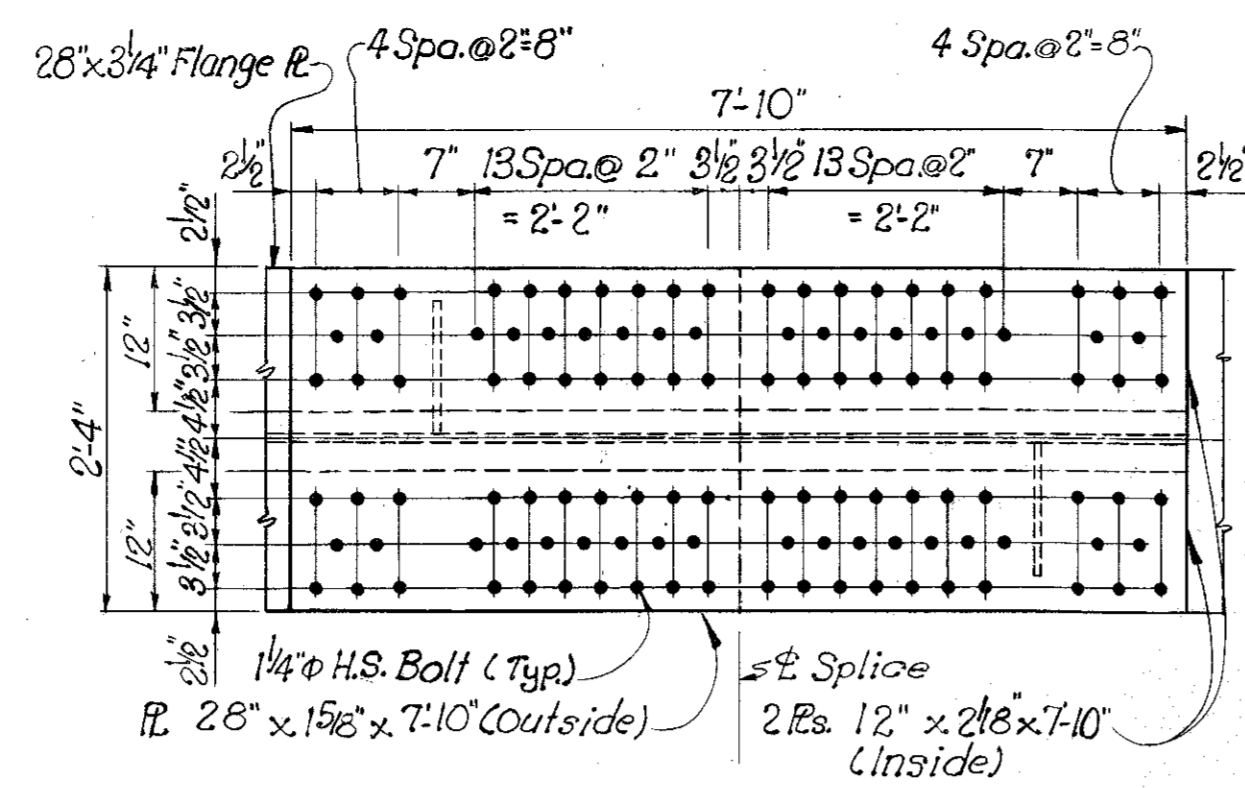
WELD DETAILS

DESIGNED BY: J.C.K. JR. CHECKED BY: D.G.M. DATE: 2/6/70
 REVISIONS: REVISIONS: DATE: 2/10/70
 DETAILED BY: H.H. CHECKED BY: D.G.M. DATE: 2/10/70
 TRACED BY: CHECKED BY: DATE:

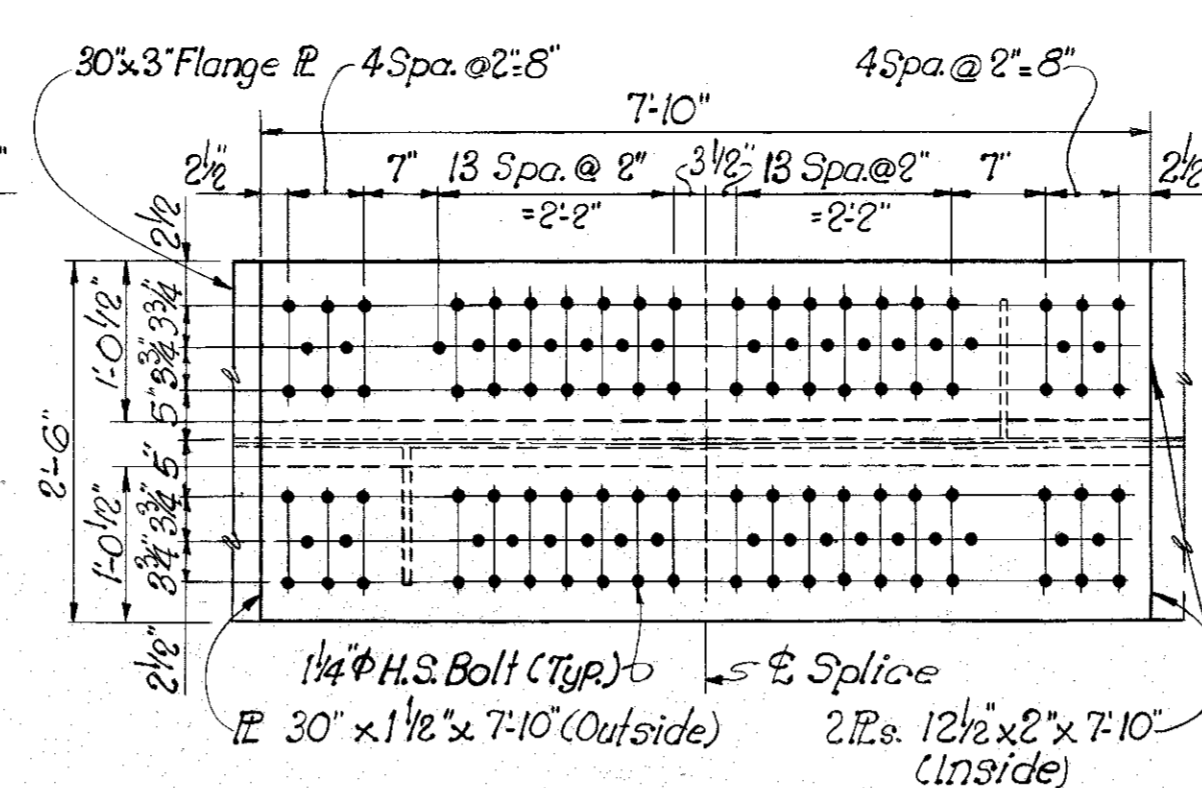
SHEET 13

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENBORO PARKWAY
 ROAD
 STATION 2657+35.2 PROJECT NO.

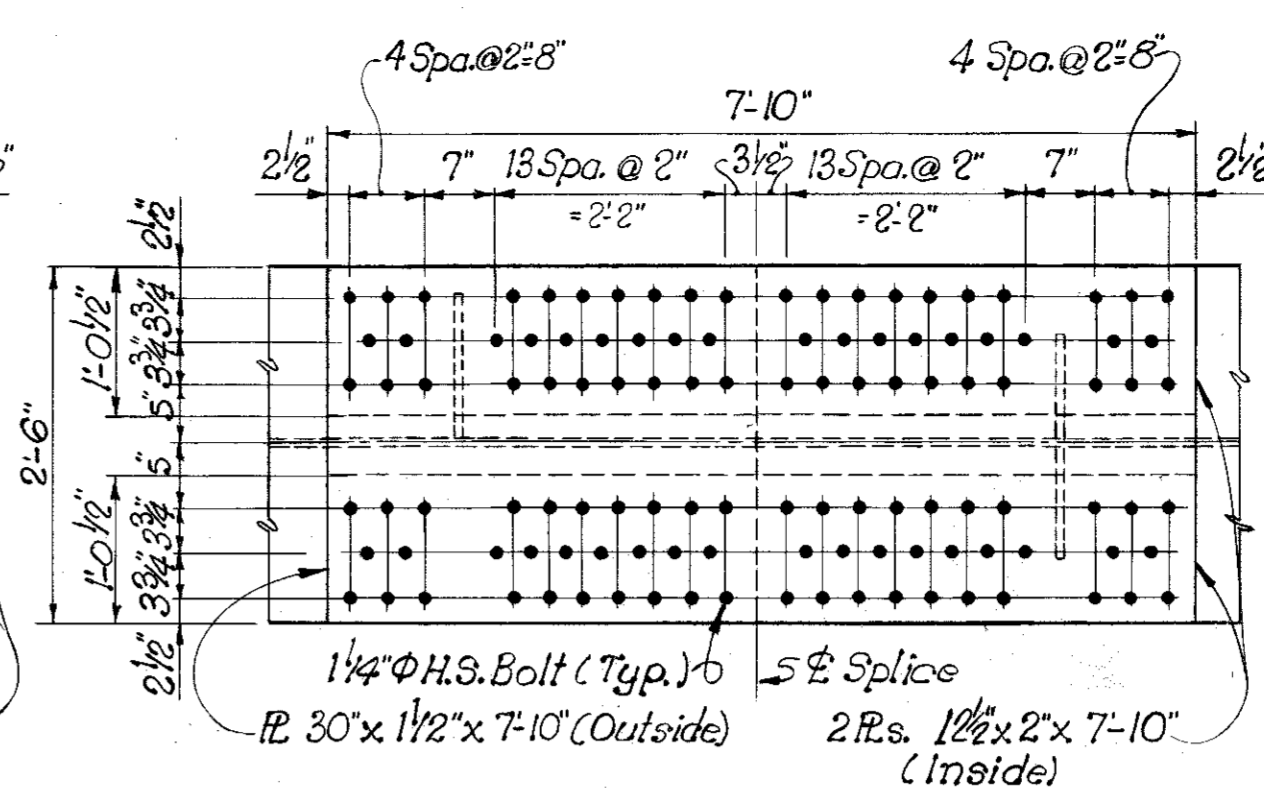
BRIDGE NUMBER	DRAWING NO. 17777	INDEX
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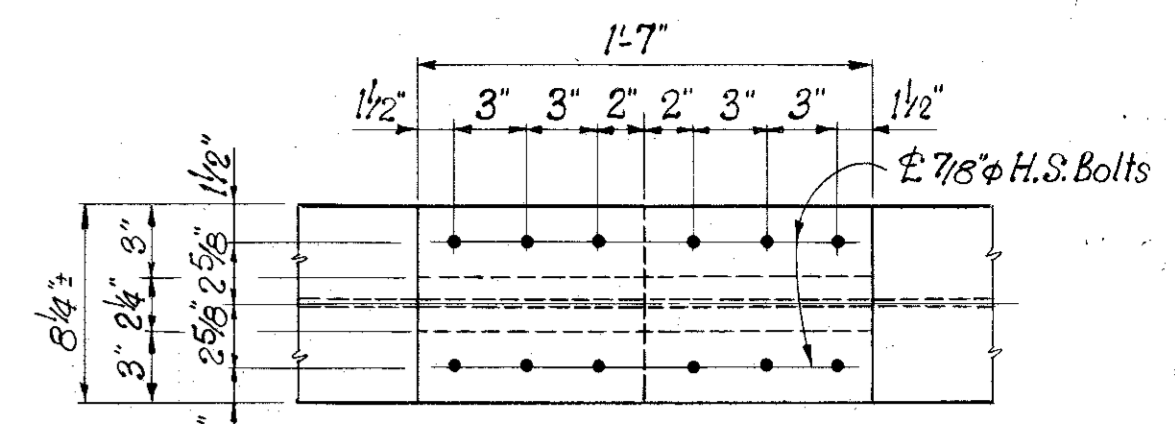
FIELD FLANGE SPLICE "C"



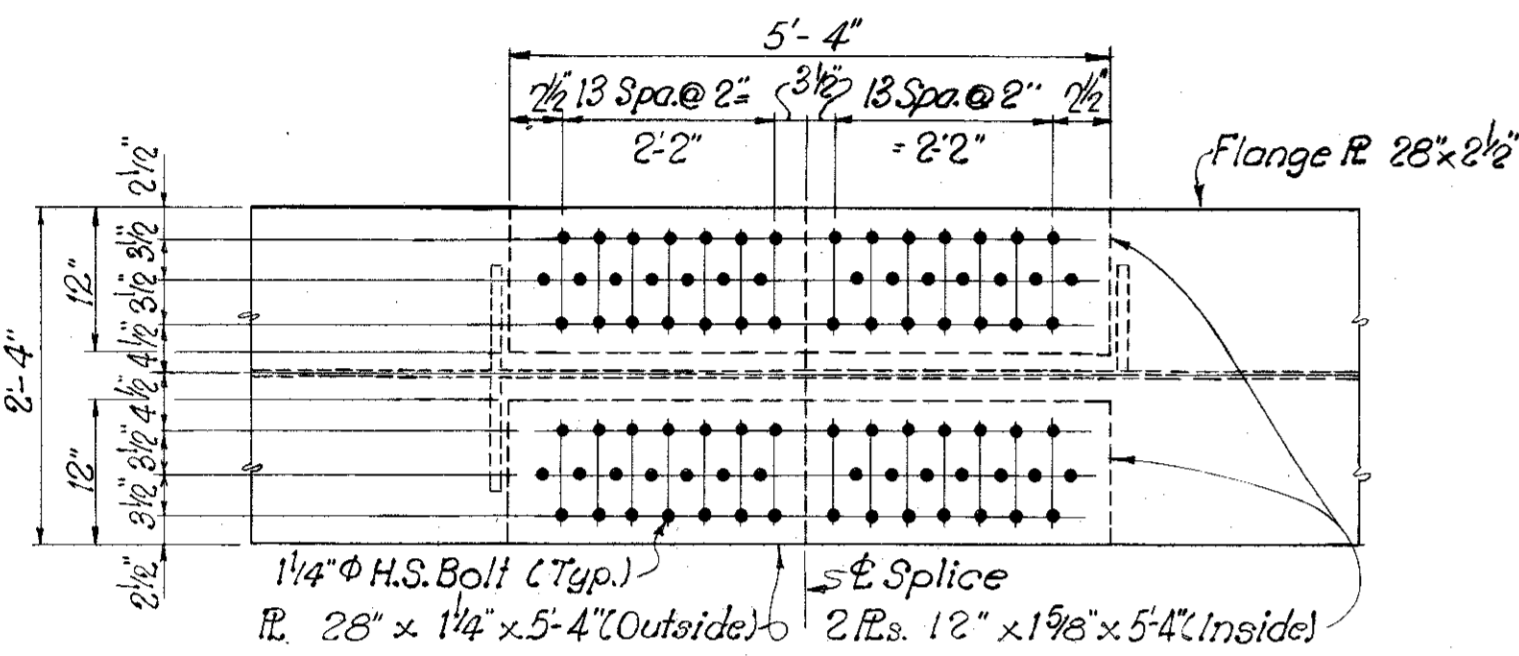
FIELD FLANGE SPLICE "D"



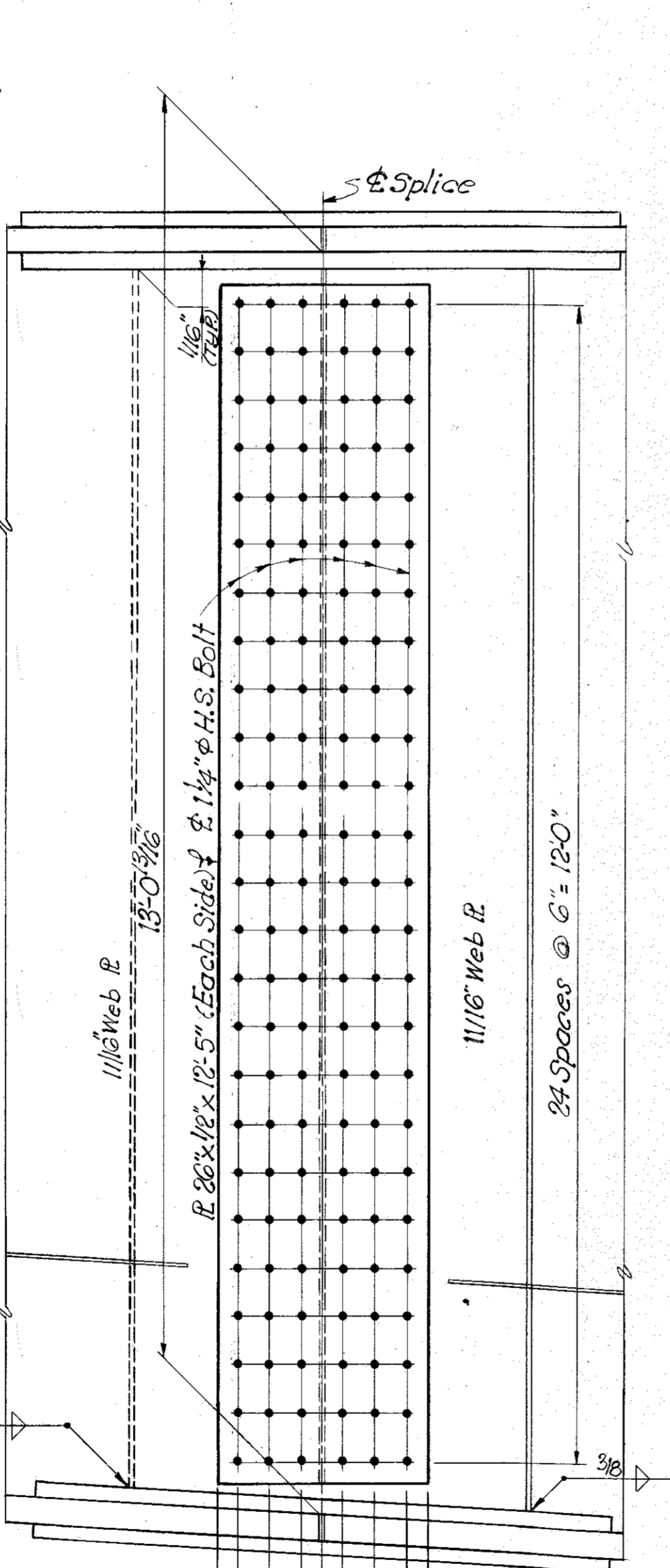
FIELD FLANGE SPLICE "E"



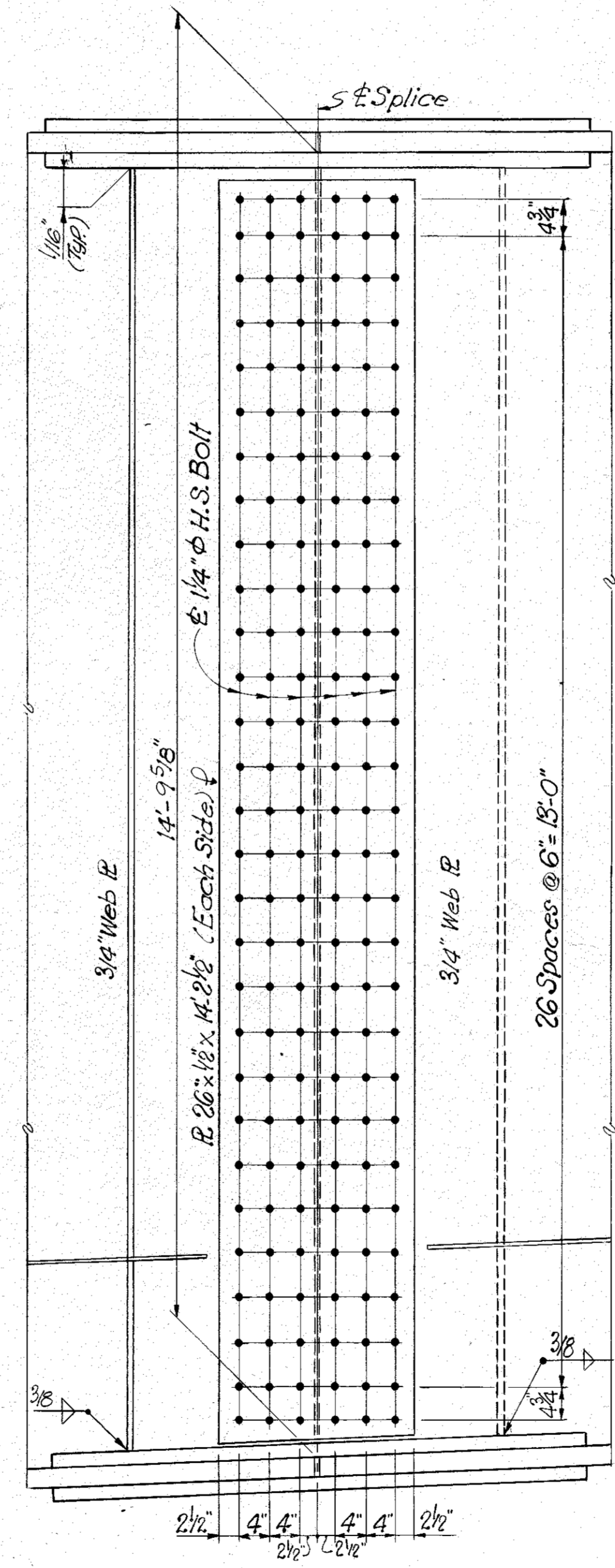
STRINGER FLANGE FIELD SPLICE
(Typical all Stringer Flanges)



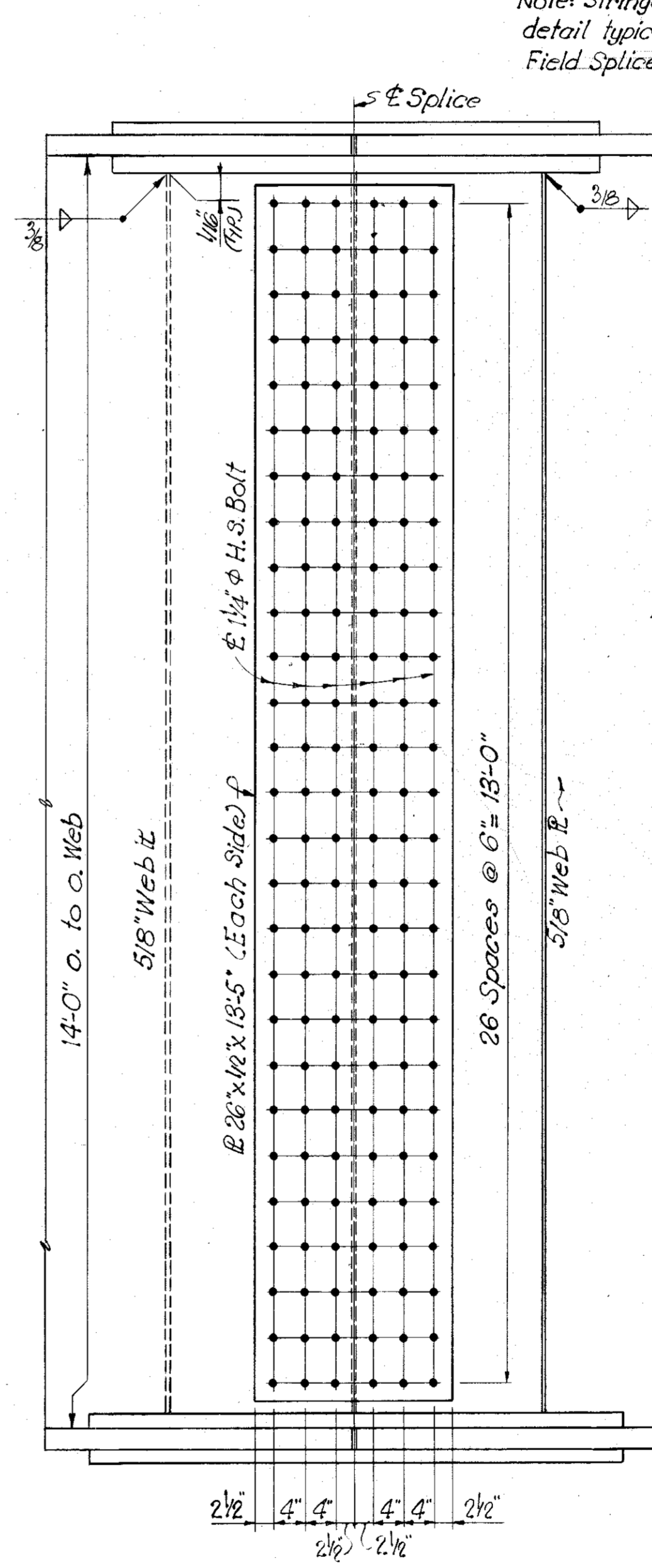
FIELD FLANGE SPLICE "B"



FIELD WEB SPLICE "C"

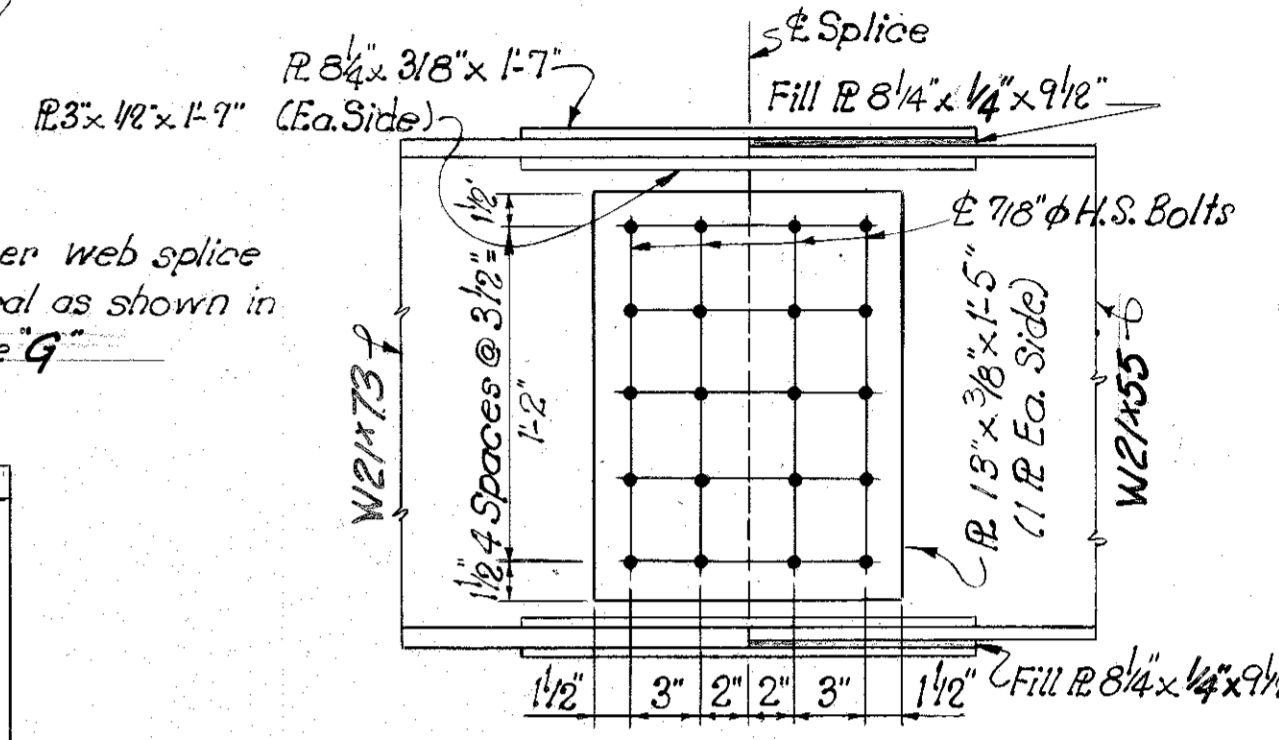


FIELD WEB SPLICE "D"

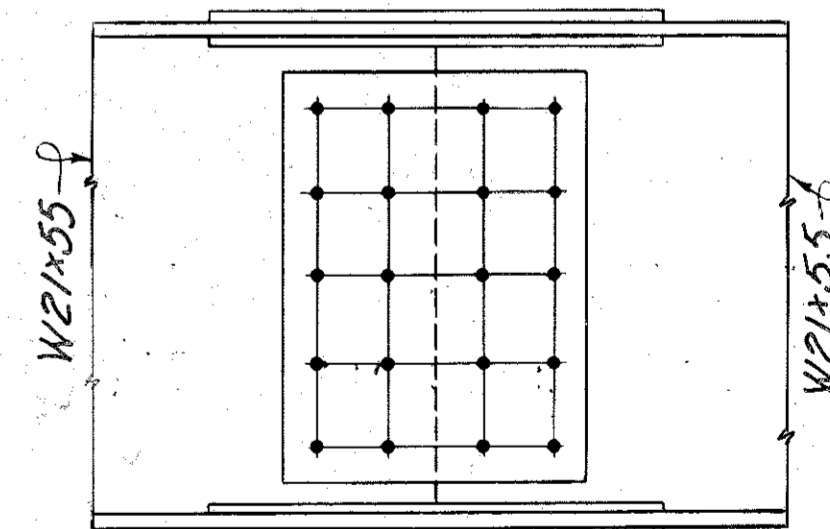


FIELD WEB SPLICE "E"

Note: Stringer web splice detail typical as shown in Field Splice "G"



FIELD WEB SPLICE "G"



FIELD WEB SPLICE "H"

SPLICE DETAIL IN STRINGERS

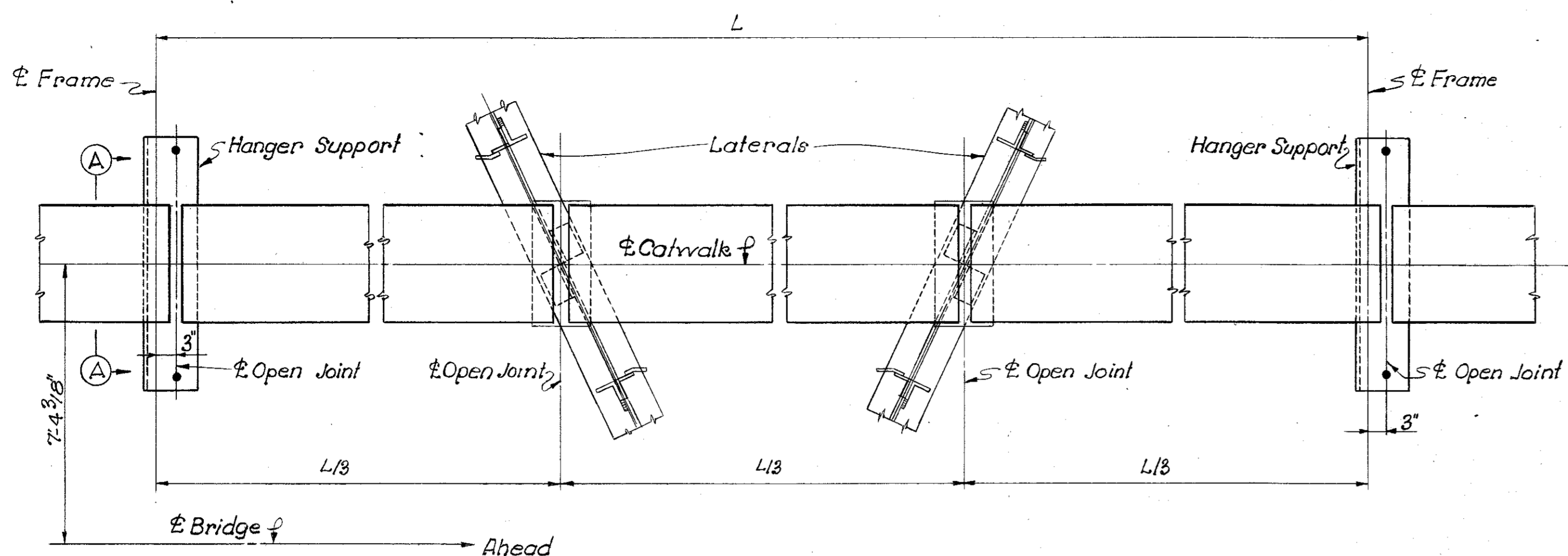
Note: Web Splice details in Field Splice "A" & "B" are identical

Note: Material for Web & Flange Splices in the Girders to be A588. All Stringer Splice Material to be A36. For Location of Splices see Girder Elevations. For Location of Stringer Splice see Framing Plan.

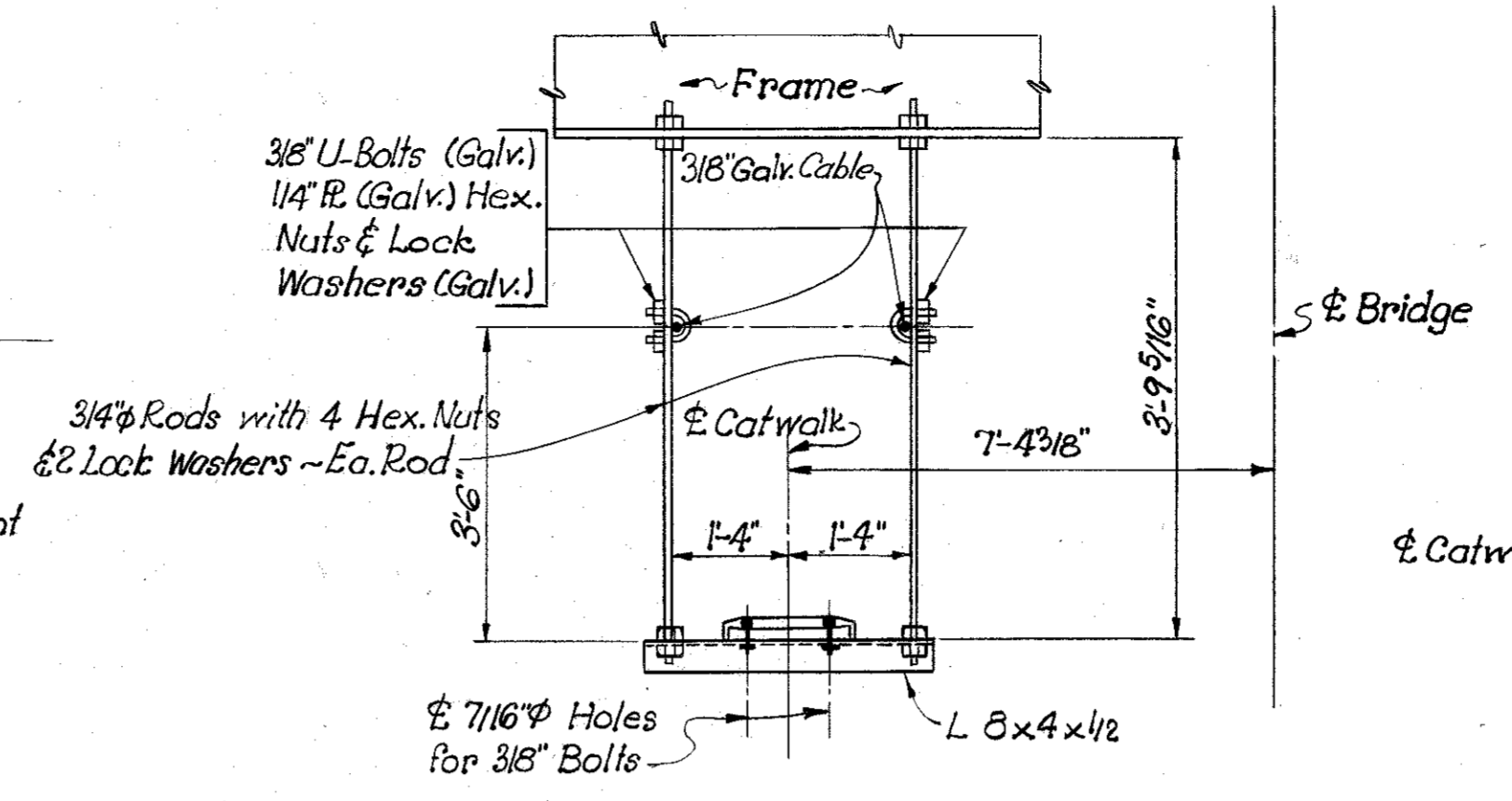
GIRDER & STRINGER SPLICES

DESIGNED BY: C.K.P. Jr. CHECKED BY: DGM DATE: 2/6/79
 REVISIONS: 1. DATE: 2/6/79
 2. DATE: 2/6/79
 3. DATE: 2/6/79
 4. DATE: 2/6/79
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 98. DATE: 2/6/79
 99. DATE: 2/6/79
 100. DATE: 2/6/79

BRIDGE OVER GREEN RIVER. SHEET 14
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
BOWLING GREEN-OWENBORO PARKWAY
 ROAD
 STATION 2657.35± PROJECT NO.
 BRIDGE NUMBER 17777 INDEX

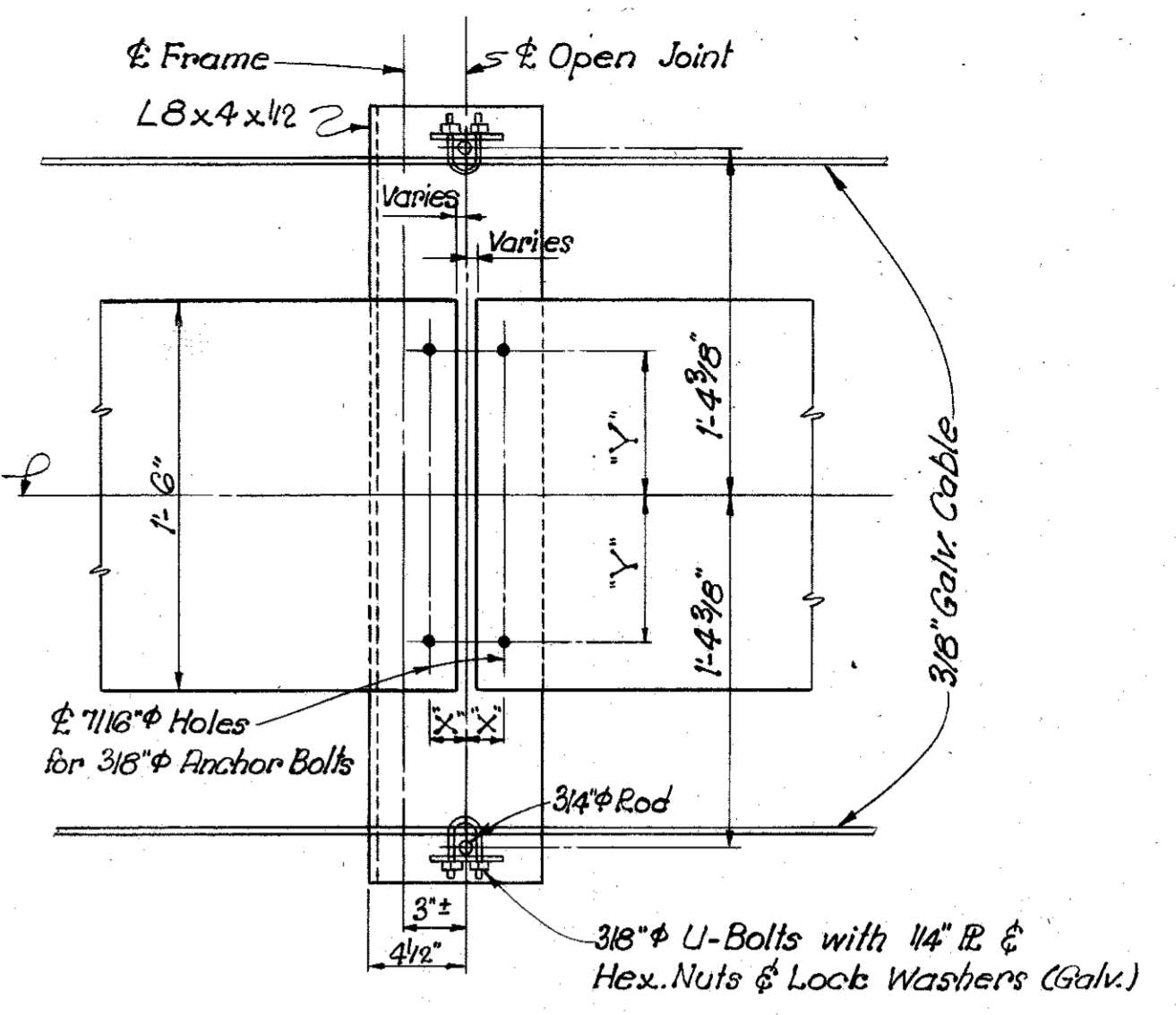


PART PLAN OF TYPICAL CATWALK PANEL

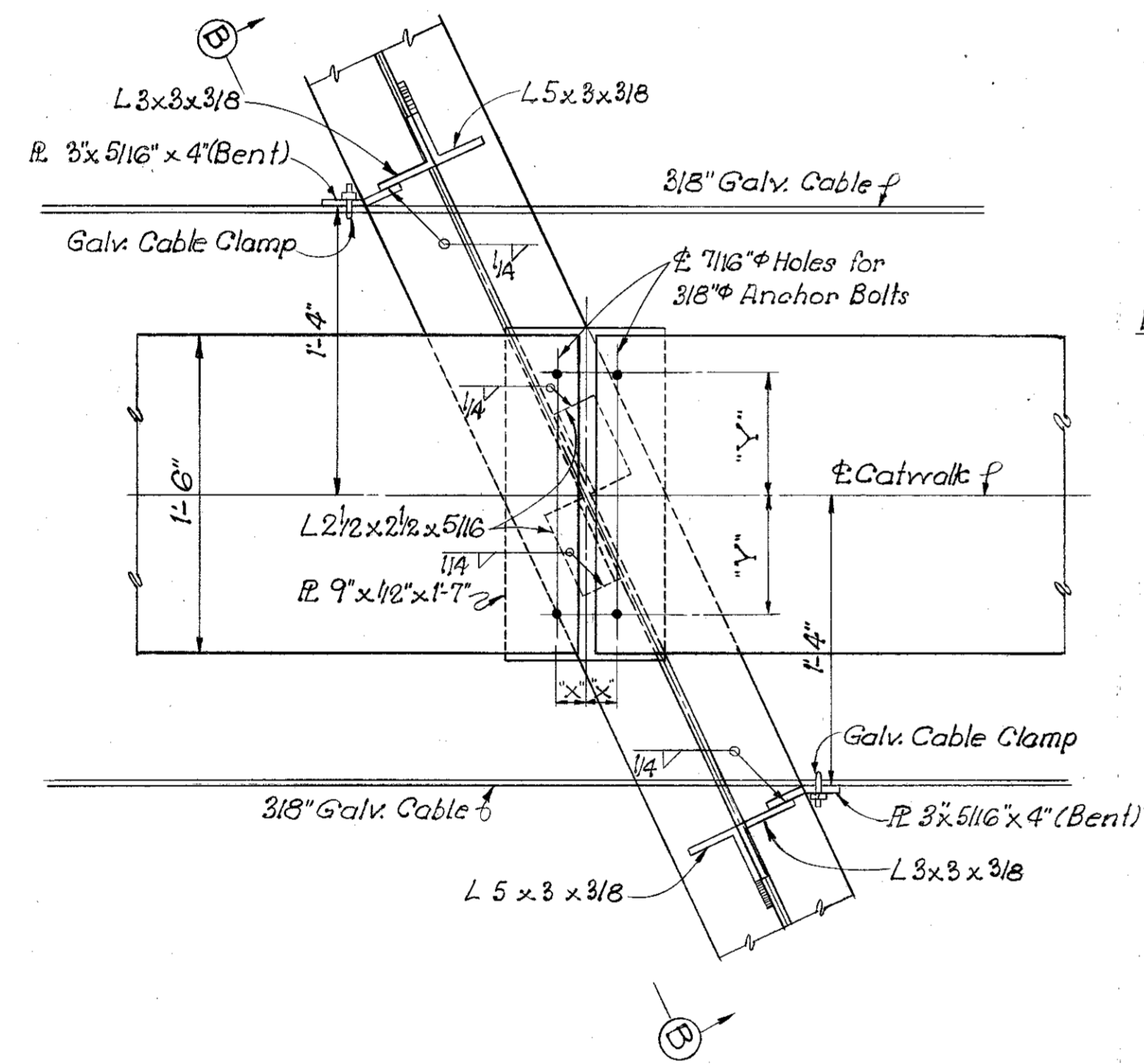


SECTION A-A

Note: At PP 0, 10, 10, 0 the L 3x4x1/2 shall be omitted and the Grating & 3/4\" Rods shall be connected to top Flange of Jacking Beam.

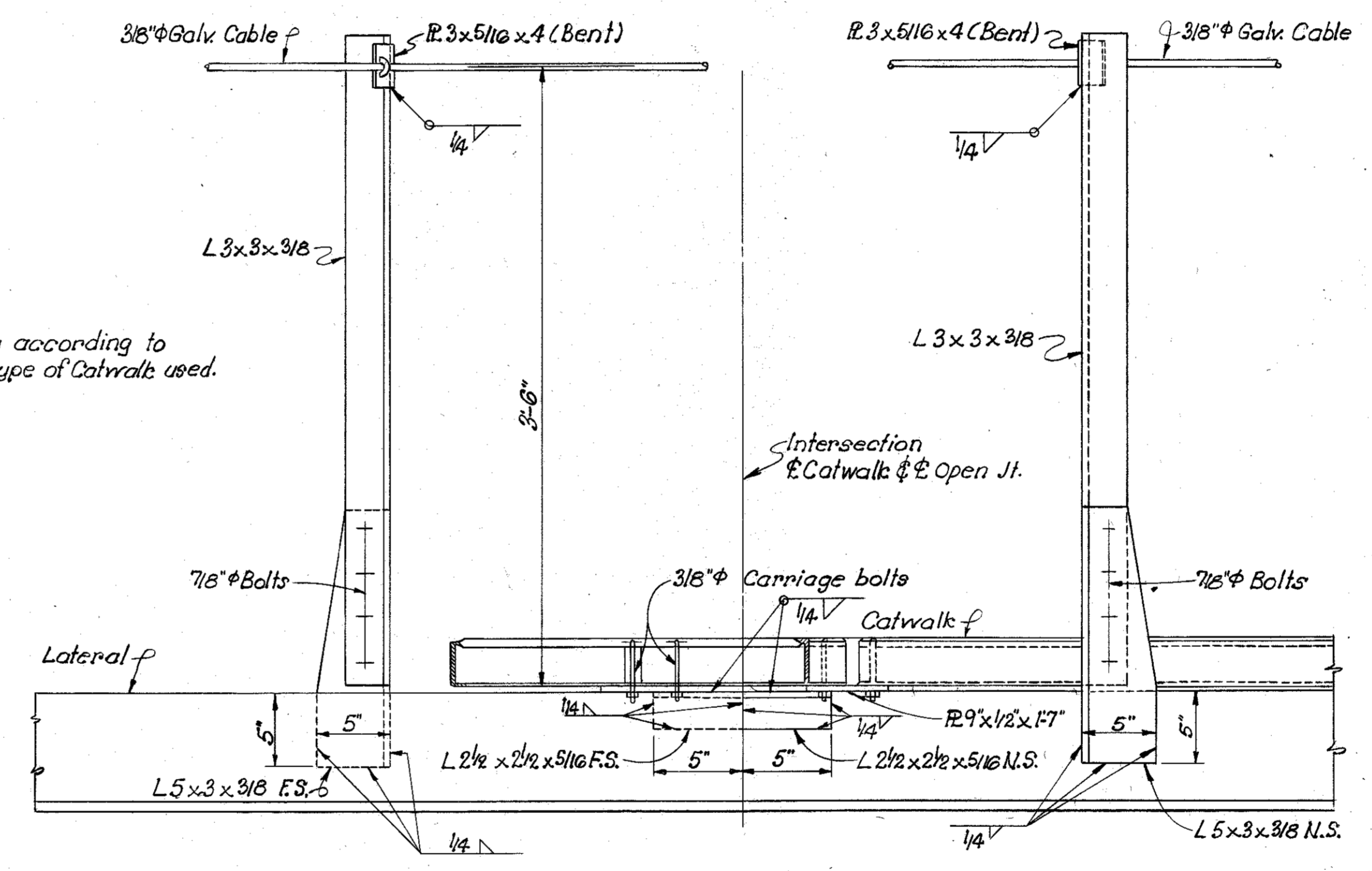


CATWALK HANGER SUPPORT AT FRAMES



CATWALK SUPPORT AT LATERALS

Note: Dimension "X" & "Y" vary according to Frame Spacing and type of Catwalk used.



SECTION B-B

Estimate of Quantities: (See General Note Sheet 4)
Galvanized Catwalk - 770 Lin. Ft.

CATWALK DETAILS

DESIGNED BY: C.P.K. Jr. DATE: 8/69
 CHECKED BY: D.G.M. DATE: 3/69
 TRACED BY: H.V. DATE: 3/69
 REVISION: Revised from Drawings 17659 to fit this date 10-70
 REVISION: Revised - Situation 11.F

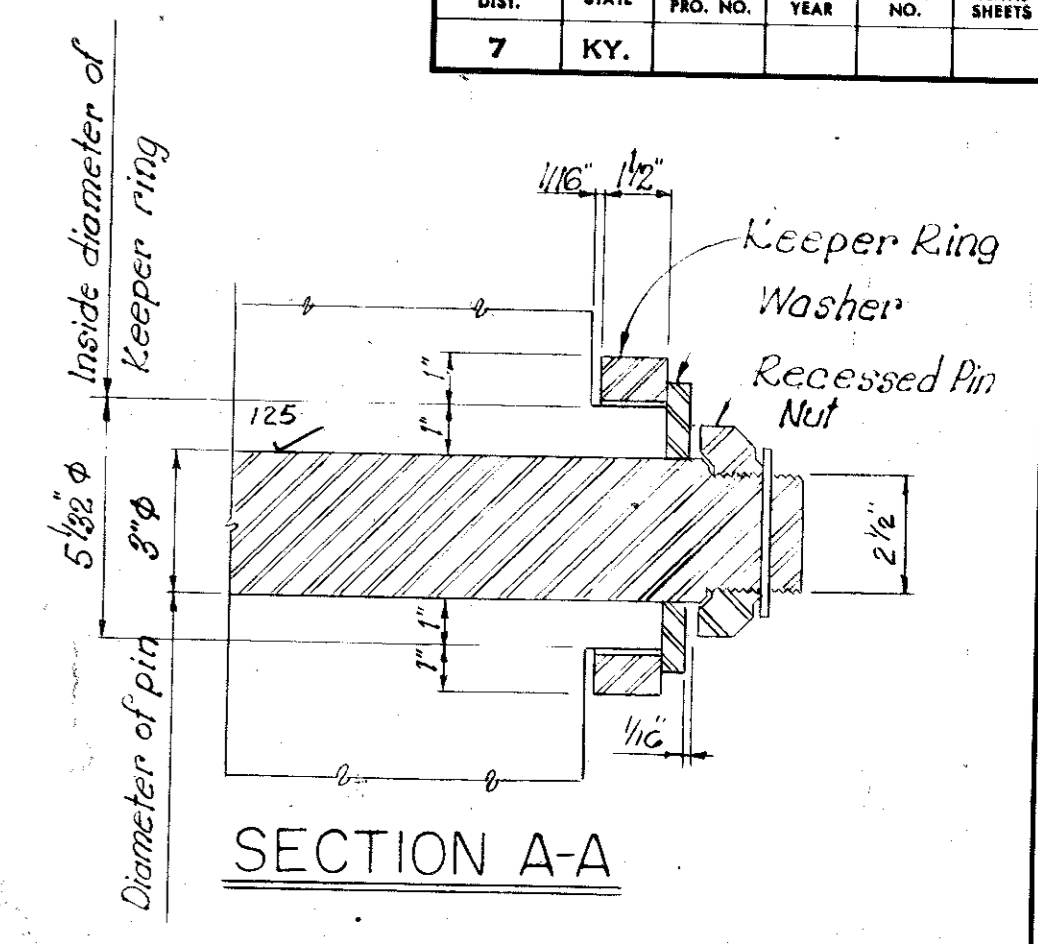
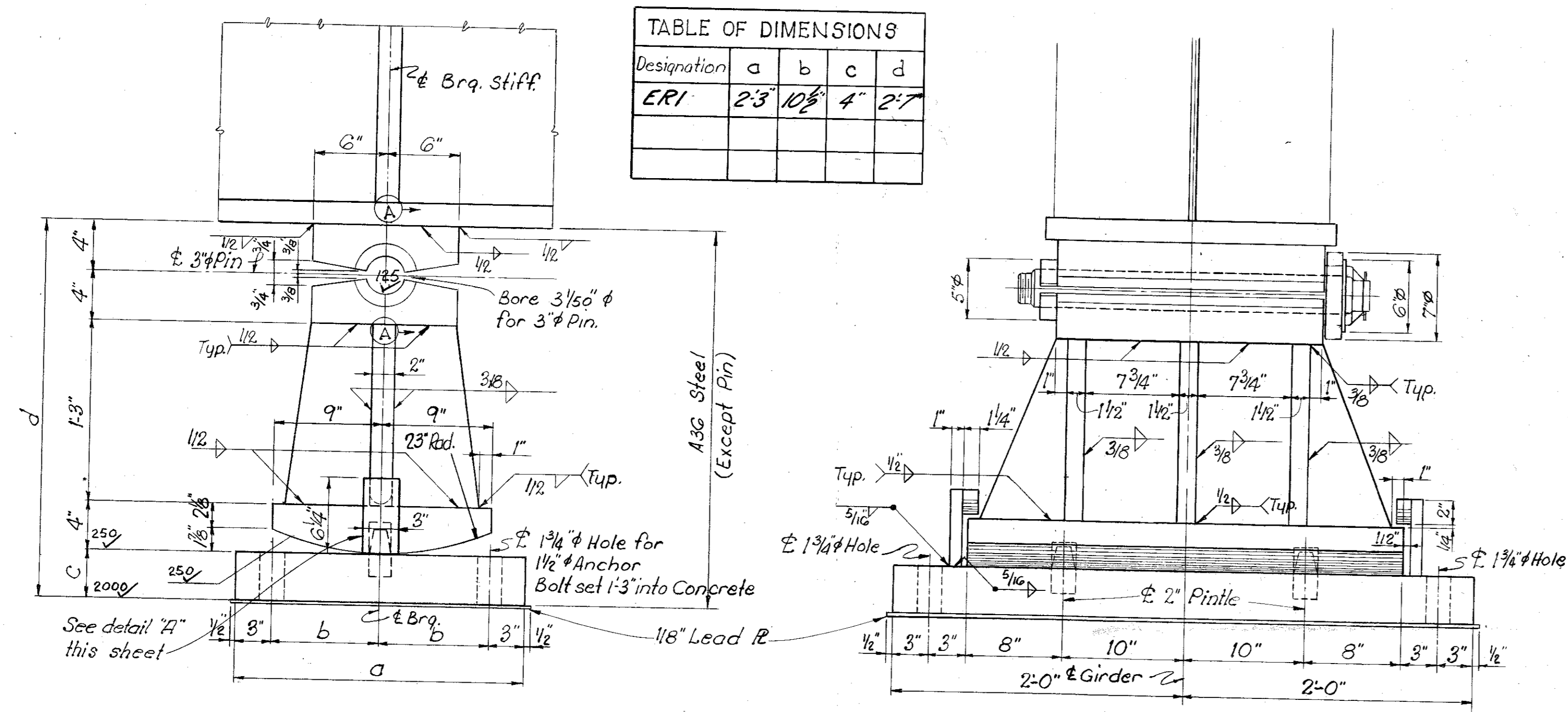
BRIDGE OVER GREEN RIVER. SHEET 15

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER

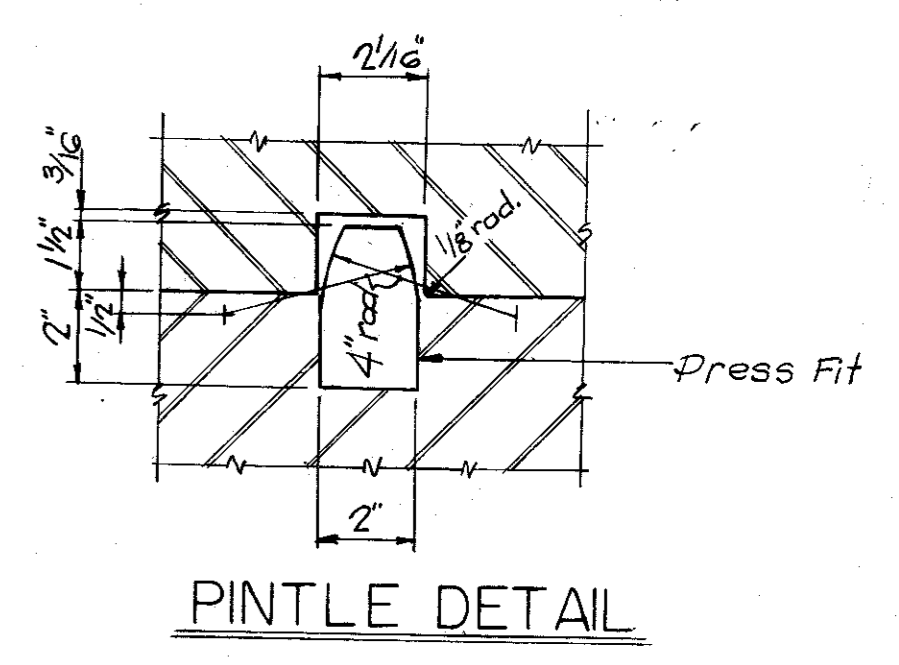
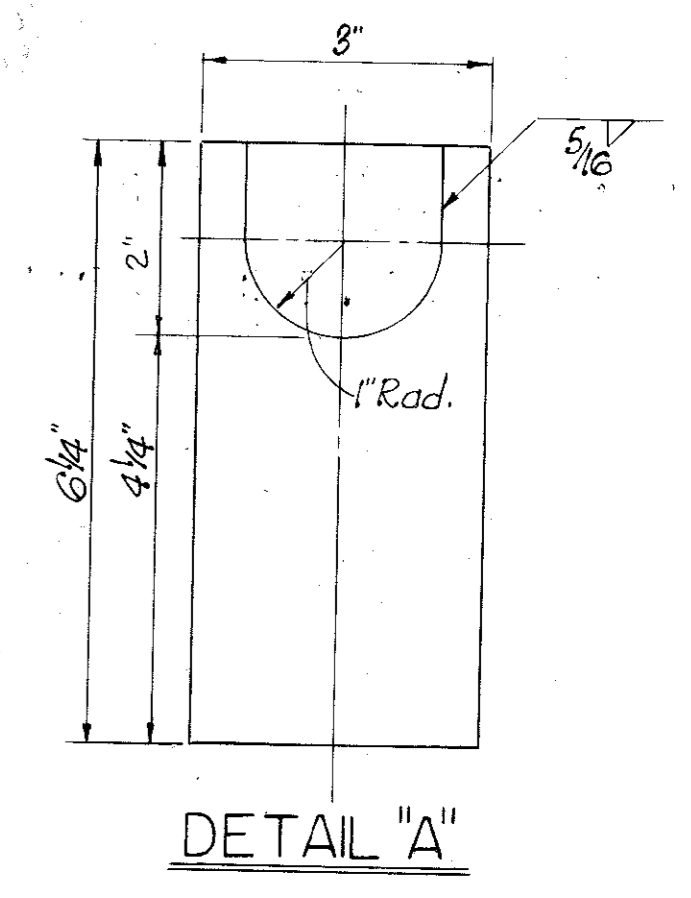
BOWLING GREEN-OWENSBORO PARKWAY ROAD.

STATION 2657+35[±] PROJECT NO. _____

BRIDGE NUMBER	DRAWING NO.	INDEX
	17777	

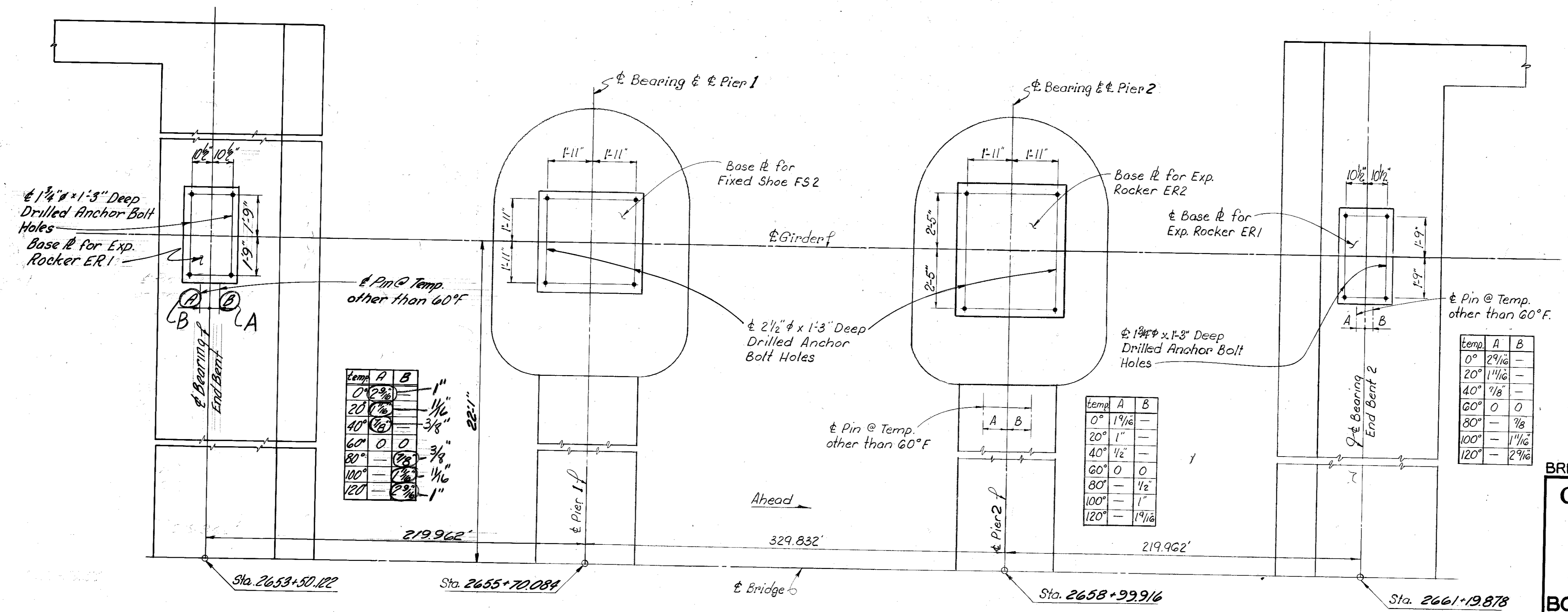


Notes:
Pin Steel to be A-108. Threads to be Am. Std. Class 2 Fit, 6 thread per inch.



Note: Finish Designation indicated thus √ Refers to A.S.A Standard

EXPANSION ROCKER (ERI)
(4 Required - See Plan Below)

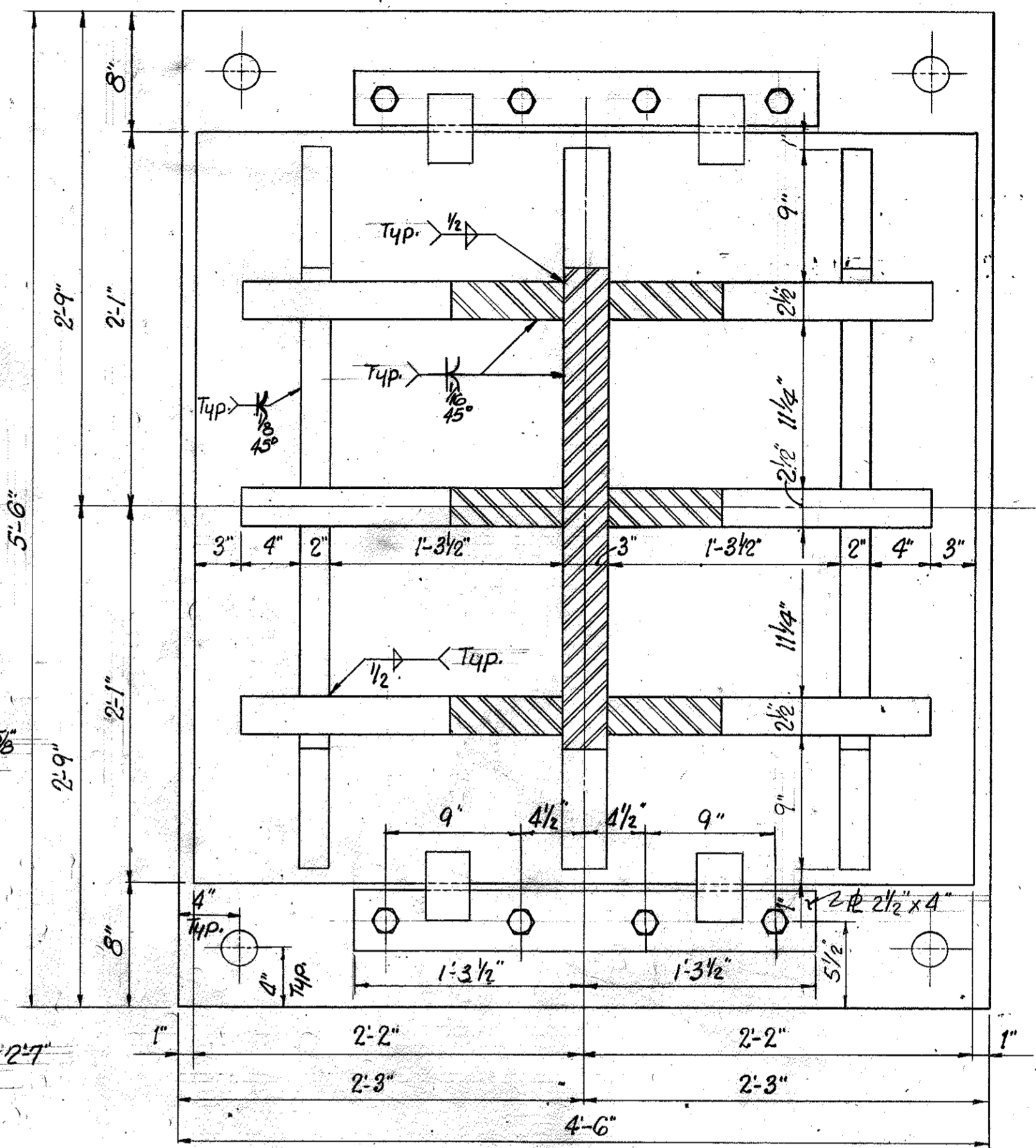
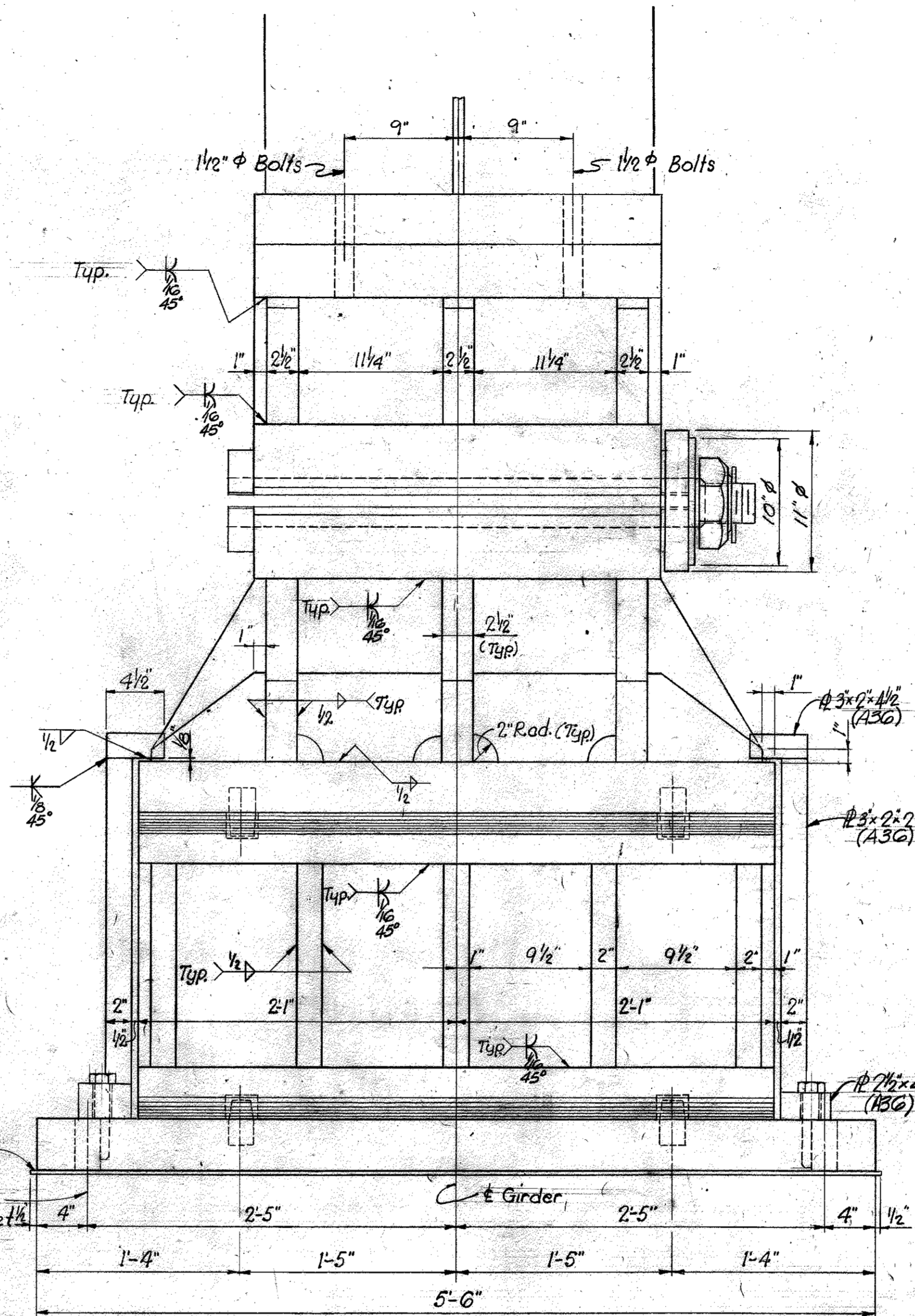
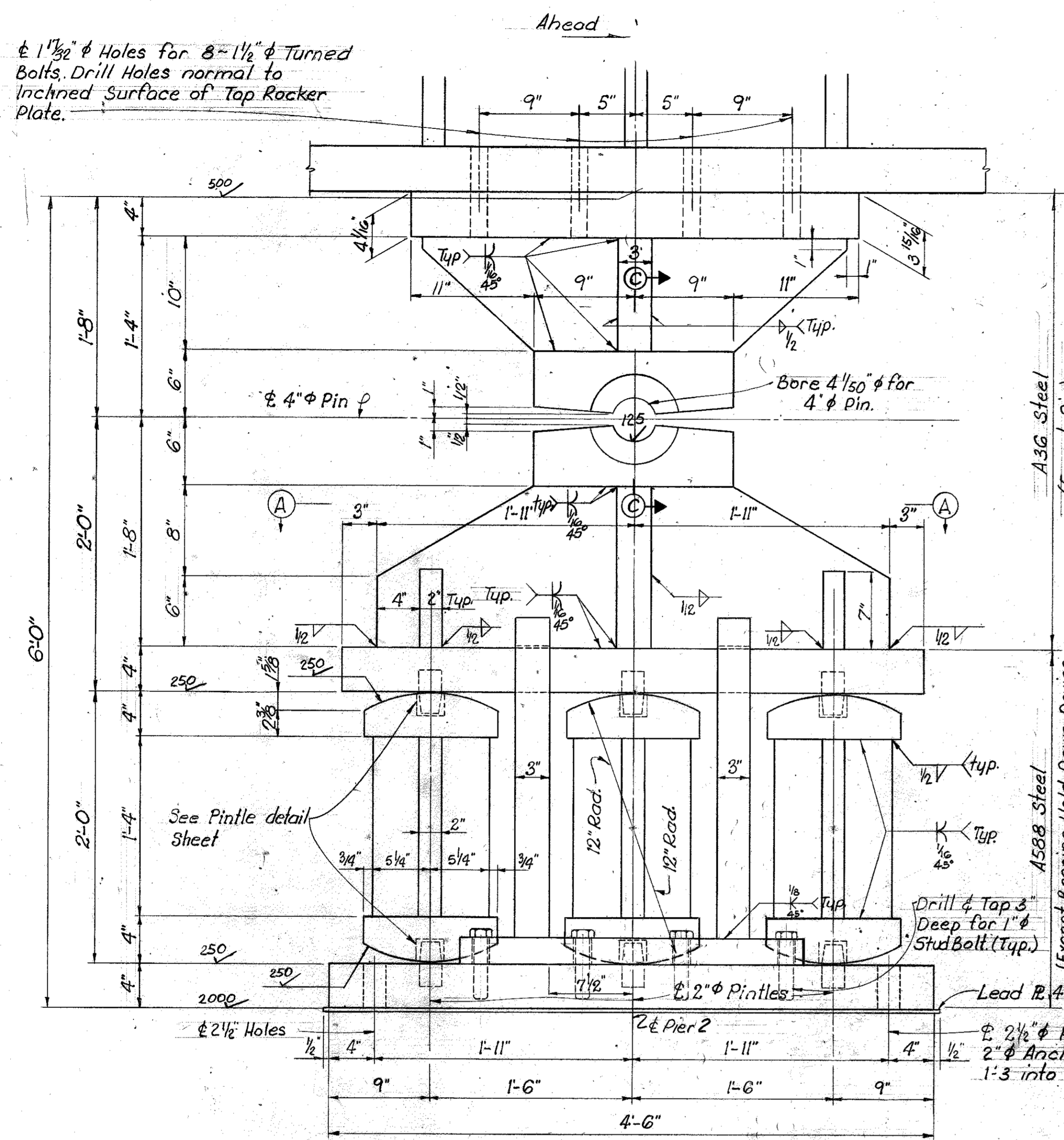


Temp	A	B
0°	0	0
20°	1/16"	1/16"
40°	3/16"	3/16"
60°	0	0
80°	1/8"	1/8"
100°	1/4"	1/4"
120°	1/2"	1/2"

Temp	A	B
0°	1 1/4"	1 1/4"
20°	1"	1"
40°	1/2"	1/2"
60°	0	0
80°	1/2"	1/2"
100°	1"	1"
120°	1 1/4"	1 1/4"

Temp	A	B
0°	2 9/16"	2 9/16"
20°	1 1/16"	1 1/16"
40°	1/8"	1/8"
60°	0	0
80°	1/8"	1/8"
100°	1 1/16"	1 1/16"
120°	2 9/16"	2 9/16"

DESIGNED BY: DPK, JR. CHECKED BY: DGM
 DATE: 3/69 REVISION: Revised from Design 1169 to fit the situation. S.H.F. DATE: 4-7-72
 DATE: 3/69 REVISION: Felt Temp. Correction J.K. & G.L.G.
 DATE: DATE



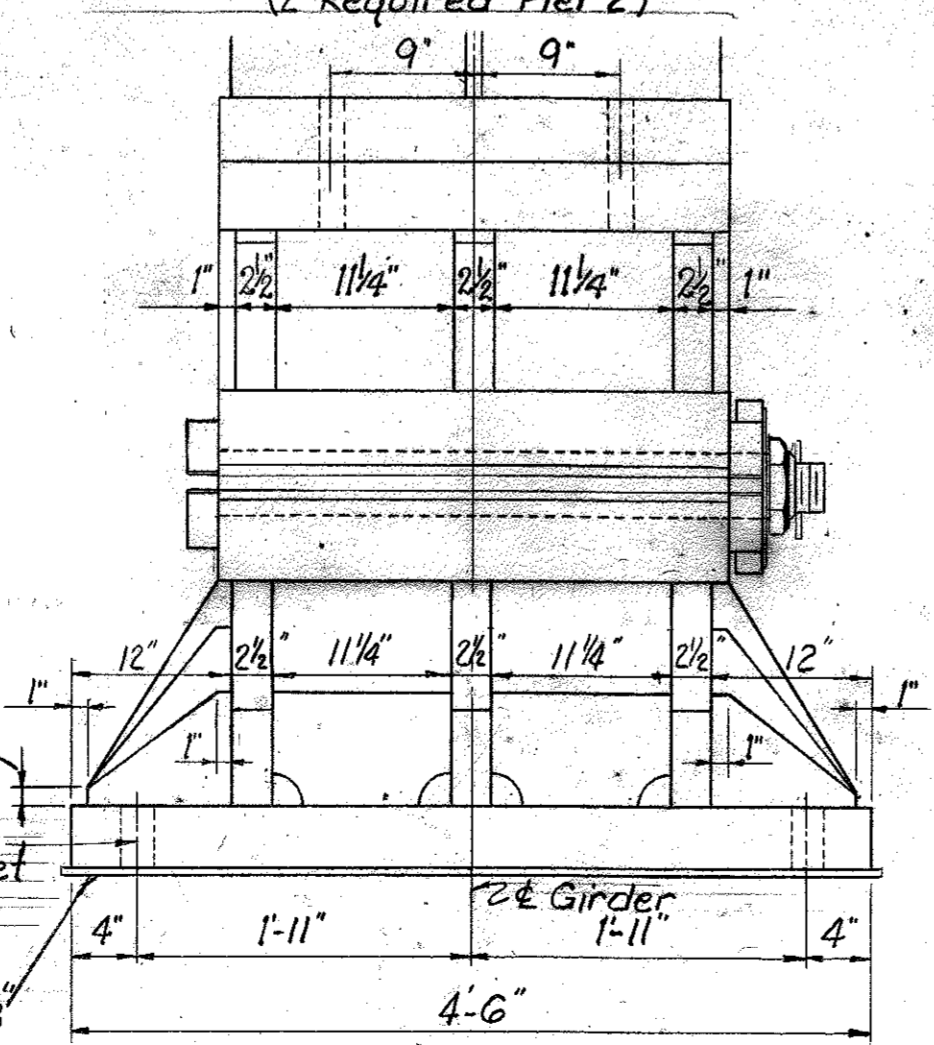
SECTION A-A

ESTIMATE OF WEIGHTS (Per Assembly)

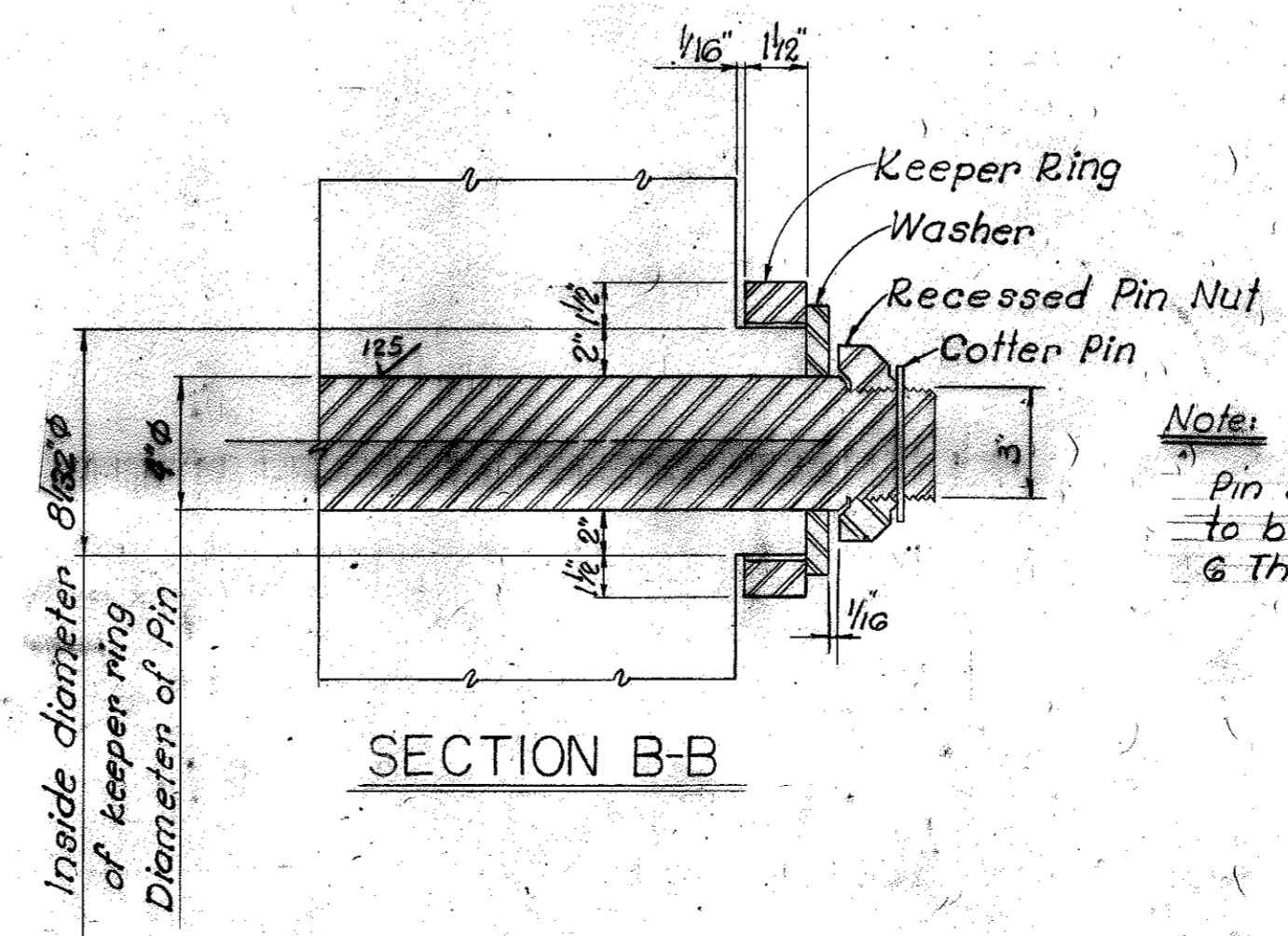
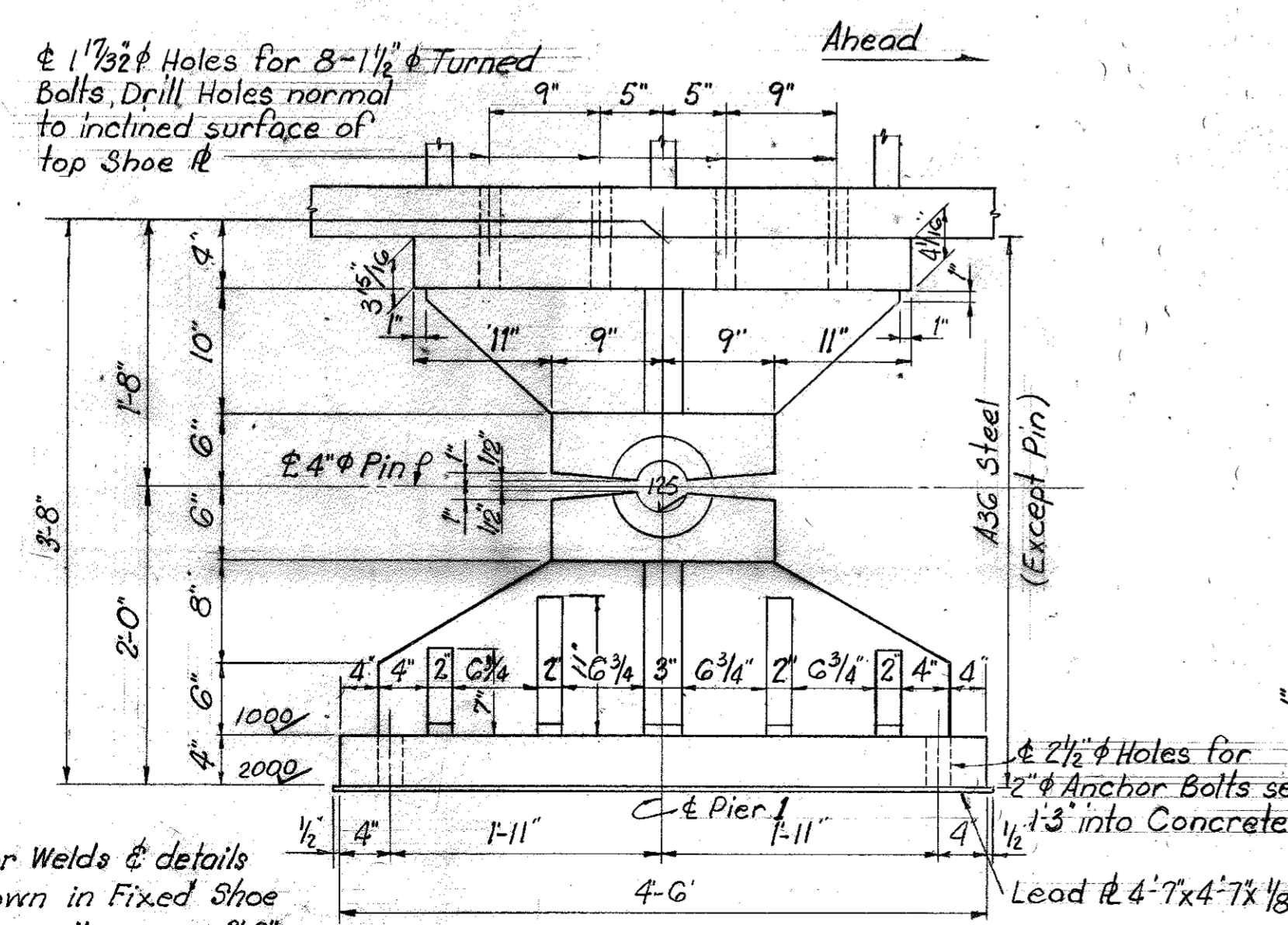
BEARING ASSEMBLY	STRUCTURAL STEEL	PIN STEEL	LEAD PLATE
ER1	3,127*	63*	71*
ER2	19,322*	142*	190*
FS2	9,592*	142*	156*

* Includes Weight of Anchor Bolts. Weight of Weld Material not Included.

EXPANSION ROCKER (ER 2)
(2 Required Pier 2)



FIXED SHOE (FS 2)
(2 Required Pier 1)



SECTION B-B

BEARING ASSEMBLIES
(See General Note Sheet)

Note: Pin Steel to be A-108 Threads to be Am. Std. Class 2 Fit, 6 Threads.

Note: For Welds & details not shown in Fixed Shoe details, see the upper 3'-8" of Expansion Rocker this sheet

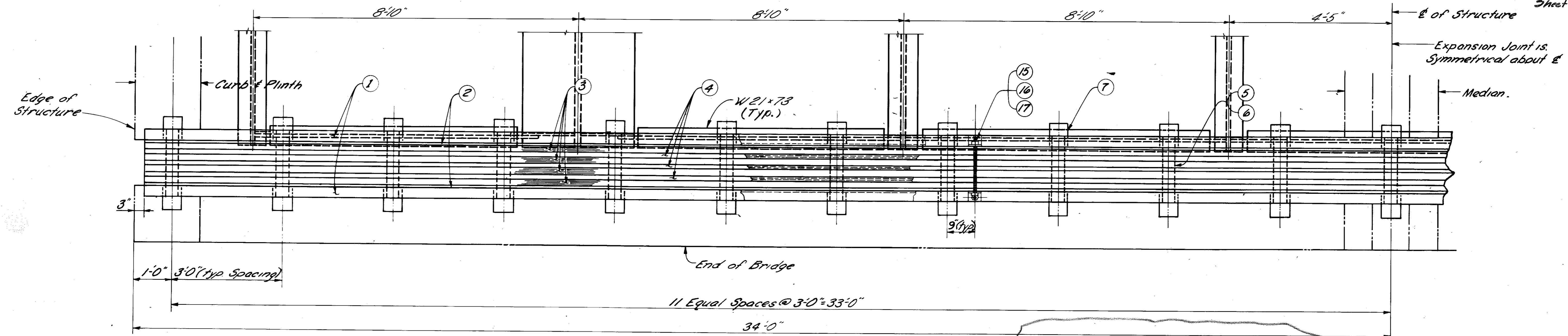
DESIGNED BY: C.P.K. Jr. DATE: 3/69
 CHECKED BY: D.G.M. DATE: 3/69
 TRACED BY: H.H. DATE: 3/69
 REVISIONS: REVISION 1: Revised from Design Notes to A-108 DATE: 10-70
 REVISION 2: Revised Section A-A DATE: 3/69

BRIDGE OVER GREEN RIVER. SHEET 17

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENBORO PARKWAY
 ROAD

STATION 2657+35.0 PROJECT NO. _____
 BRIDGE NUMBER _____ DRAWING NO. 17777 INDEX _____

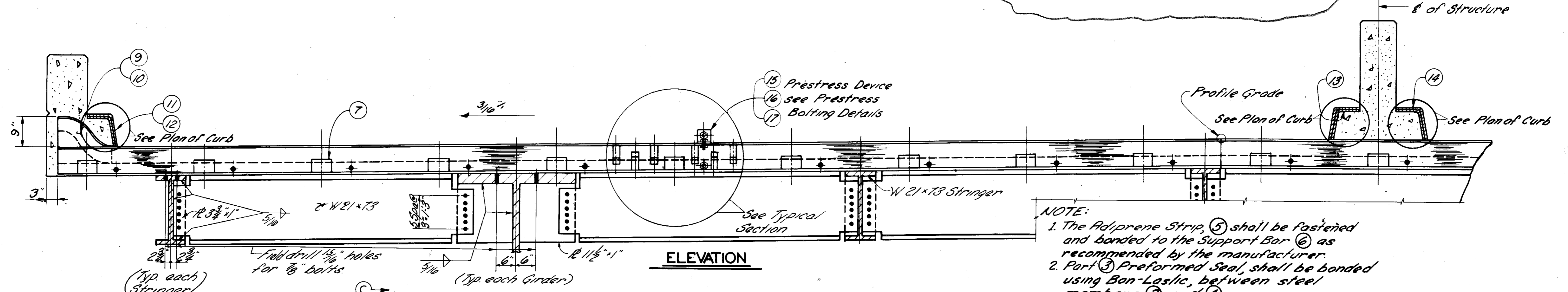
LETTING DATE



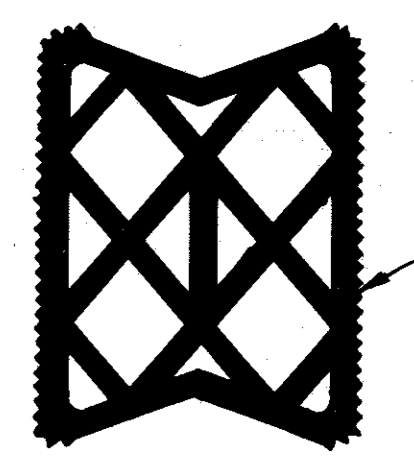
NOTE: For description and specifications of ① thru ⑱ see Material Description this Sheet.

HALF PLAN AT END BENT 1 OR 2

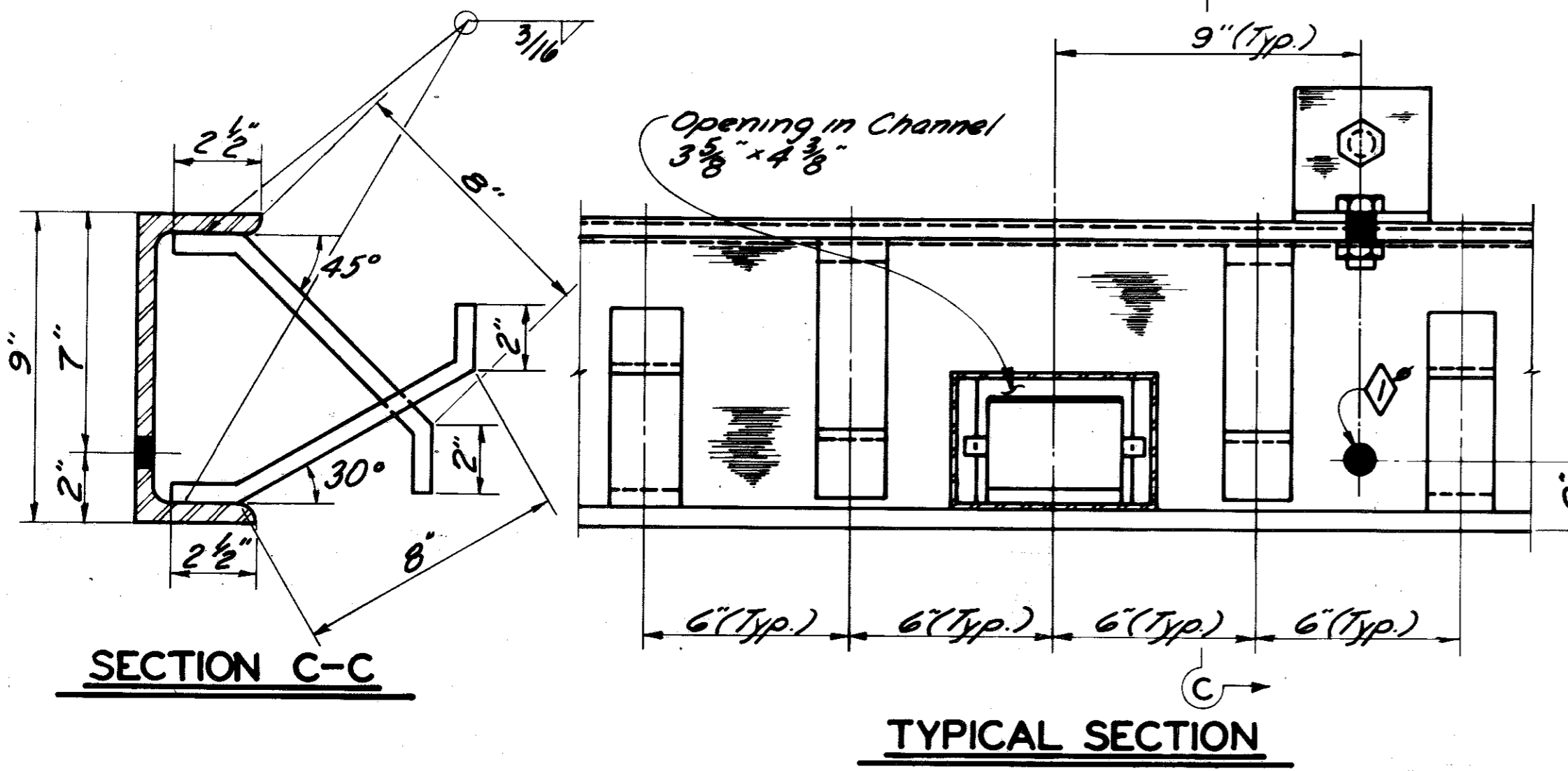
NOTE: Transflex 650 Expansion Dam to be used in lieu of Modular Dam as shown. For details of Transflex Dam See Sh. 18-A.



- NOTE:
- The Adiprene Strip, ⑤ shall be fastened and bonded to the Support Bar ⑥ as recommended by the manufacturer.
 - Part ③ Preformed Seal, shall be bonded using Bon-Lastic, between steel members ② and ④.
 - Prior to bonding, all surfaces must be cleaned by sand-blasting.
 - Tops of 5" I-Beams, ② and 5" L, ②, shall be set 1/8" below top surface of item ①.
 - Top Flanges of 5" I and 5" L to have a 1/8" x 45° Chamfer.
 - Shim Plates, as may be required, are to be supplied by others.
 - The Adiprene Strip and Bon-Lastic are to conform to the specifications as shown in the Special Notes.



③ (See Special Notes)



MATERIAL DESCRIPTION			
No.	Description	Material	Quantity
1	9" Channel @ 23.9# x 67'-6"	ASTM A-242	2
2	5" Channel @ 9.0# x 64'-6"	ASTM A-242	2
3	Preformed Joint Seal	See Special Notes	4
4	5" I-Beam @ 14.75# x 64'-6"	ASTM A-242	3
5	3/16" Thk. Adiprene Strip	See Special Notes	23
6	Support Bar 4" x 2 1/2" x 21"	AISI 1045	23
7	Support Bar Cover	ASTM A-242	46
8	Bearing	AISI 1045	46
9	5" Channel Curb End	ASTM A-283	4
10	5" I-Beam Curb End	ASTM A-283	6
11	Inside Slider Plate @ Parapet	ASTM A36	2
12	Outside Slider Plate @ Parapet	ASTM A36	2
13	Inside Slider Plate @ Median	ASTM A36	2
14	Outside Slider Plate @ Median	ASTM A36	1
15	Prestress Bolts	Threaded Rod ASTM A-307	46
16	Prestress Angle	ASTM A36	46
17	3/4" Dia. H.S. Bolt x 2" long	ASTM A-325	46

Work This Sheet With Sheet 19 E 20.

EXPANSION DAM

BRIDGE OVER GREEN RIVER. SHEET 18

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN-OWENBORO PARKWAY

ROAD
STATION 2657+35[±]
CONSTRUCTION PROJECT NO.

P. E. PROJECT NO.
MAINTENANCE PROJECT NO.

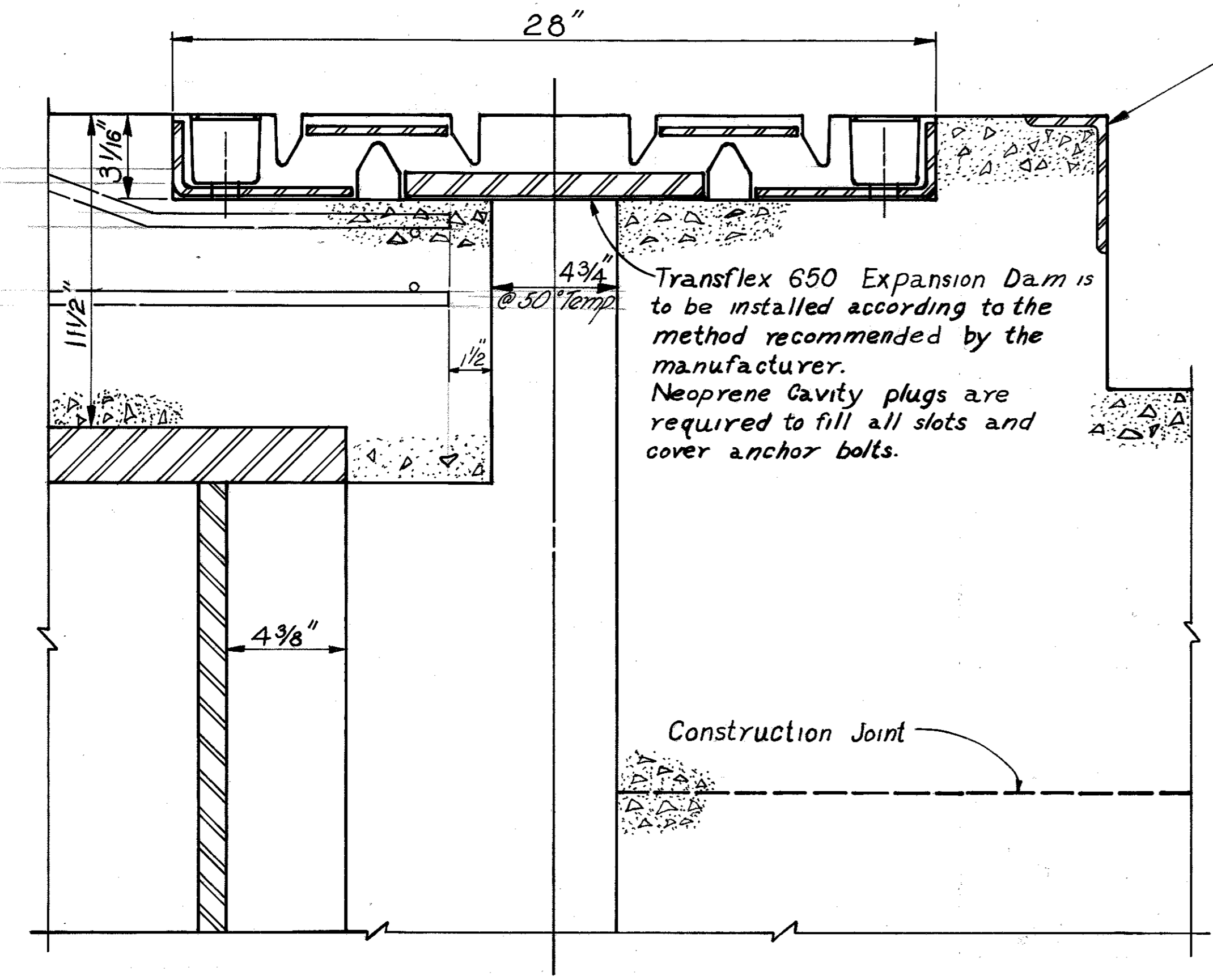
DRAWING NO.
17777

DESIGNED BY: DATE: 1/20/70
 CHECKED BY: G.R.B. DATE: 1/20/70
 REVISION: Expansion Dam Support Beams Added S.L. DATE: 1-20-70
 REVISION: Transflex 650 to be used in lieu of Modular Dam (See Sh. 18-A) DATE: 5-24-72
 TRACED BY:

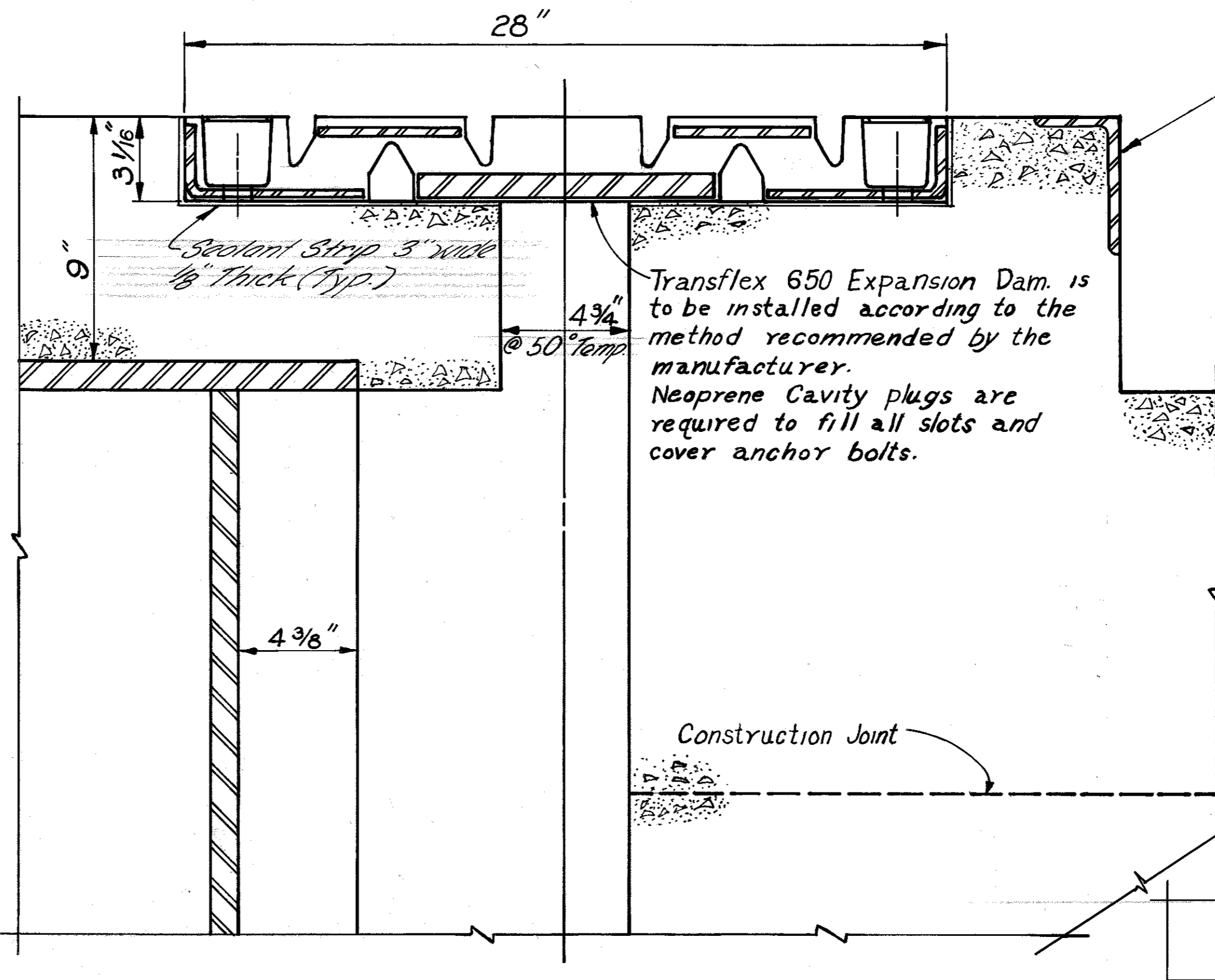
LETTING DATE

Armored Edge see Std. Drwg.
AE1, current edition.

Armored Edge see Std. Drwg.
AE1, current edition.



EXPANSION DAM AT GIRDERS

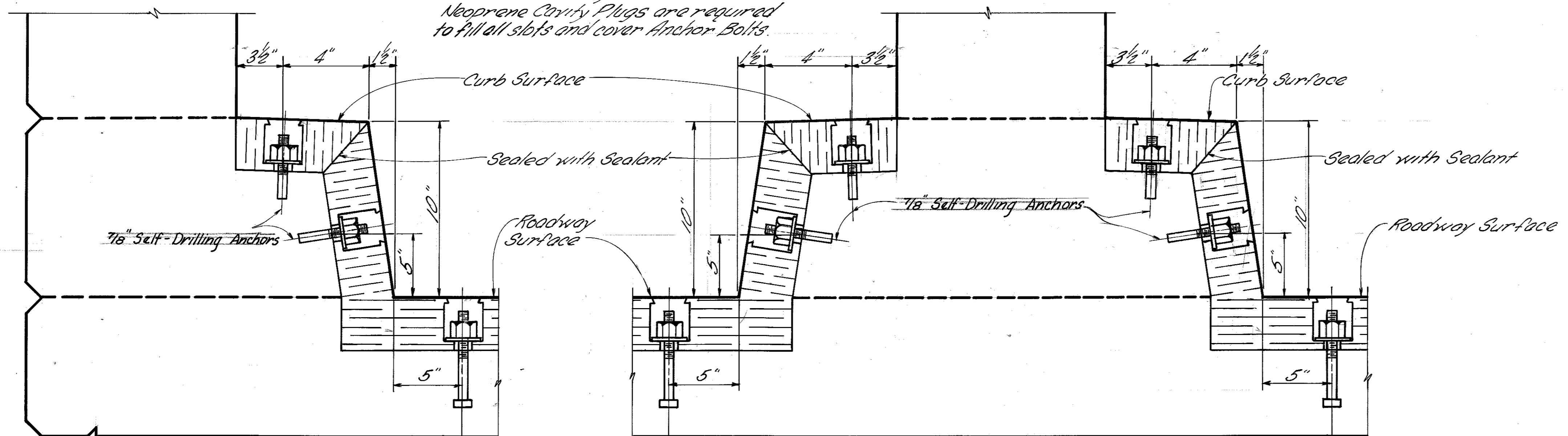


EXPANSION DAM AT STRINGERS

NOTE: The Contractor shall submit full sets of prints of the Detailed Shop Drawings for the Transflex 650 Expansion Dam. All plates to be ASTM A-36 steel bolts are to set to a template.

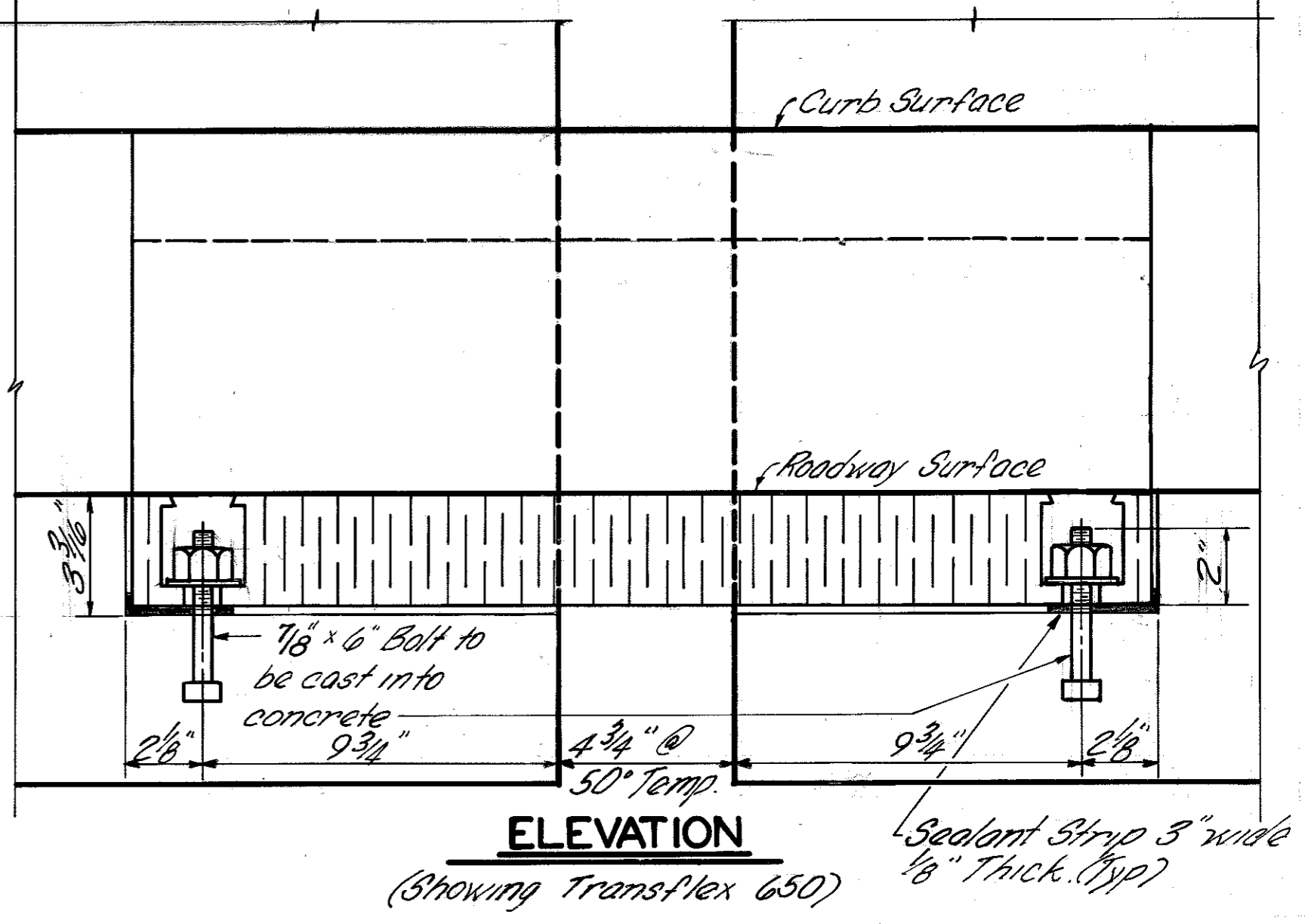
Construction Revision No. _____ this sheet added		
Requested By	Director - Division of Bridges	Date
Recommended By	Brighton Engineering Company	Date
Recommended By	Turnpike Construction Engineer	Date
Approved By	Assistant State Highway Engineer Const.	Date

NOTE: Transflex 650 Expansion Dam is to be installed according to the method recommended by the manufacturer. Neoprene Cavity Plugs are required to fill all slots and cover Anchor Bolts.



SECTION THRU CURB

SECTION THRU MEDIAN



ELEVATION
(Showing Transflex 650)

1/1 Nut, 1 Washer
1 Lock Washer
3/8 x 6 High Strength Bolts @ 16" centers to be cast in concrete

1/1 Nut, 1 Washer
1 Lock Washer
3/8 x 6 High Strength Bolts @ 16" centers to be cast in concrete

EXPANSION DAM

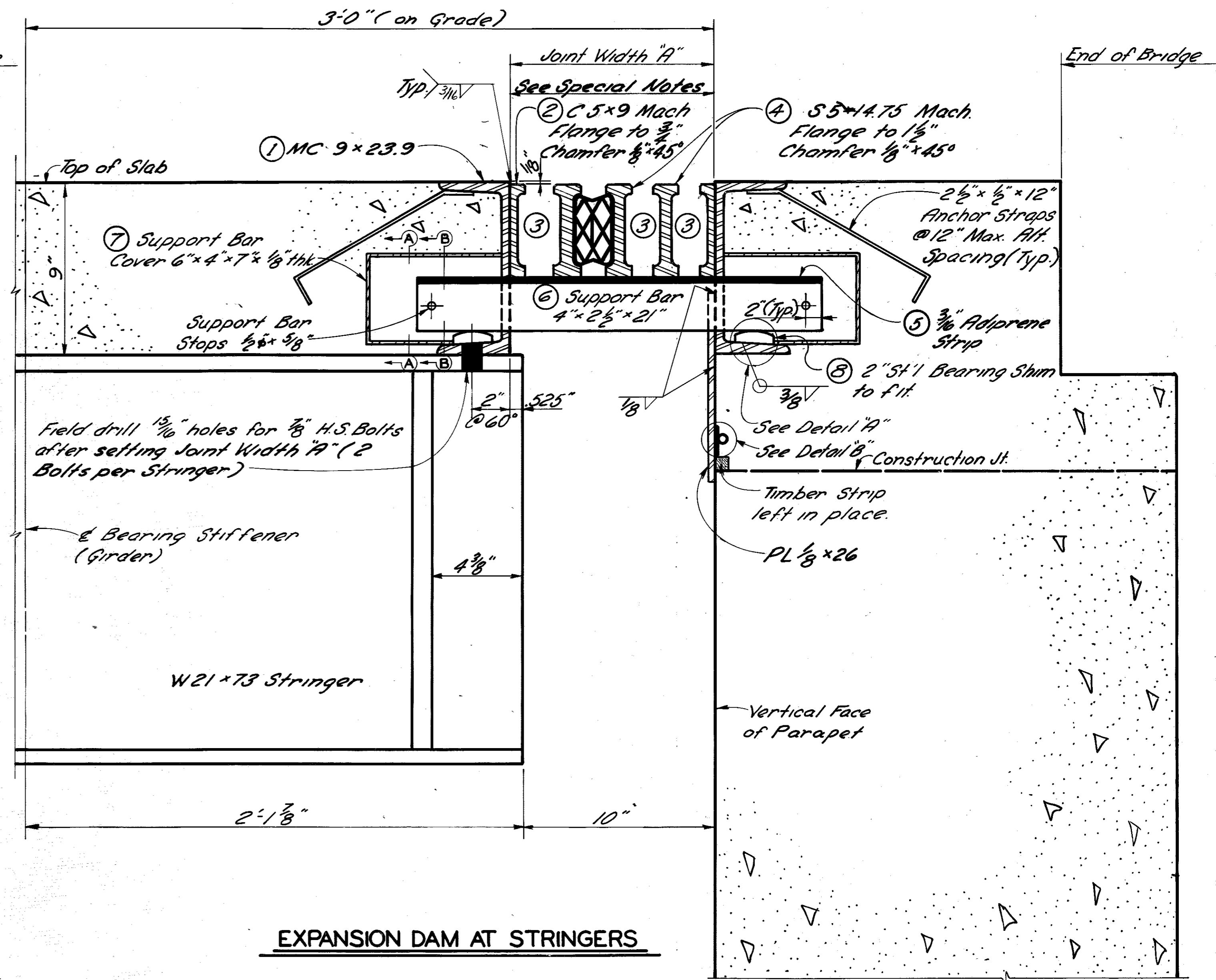
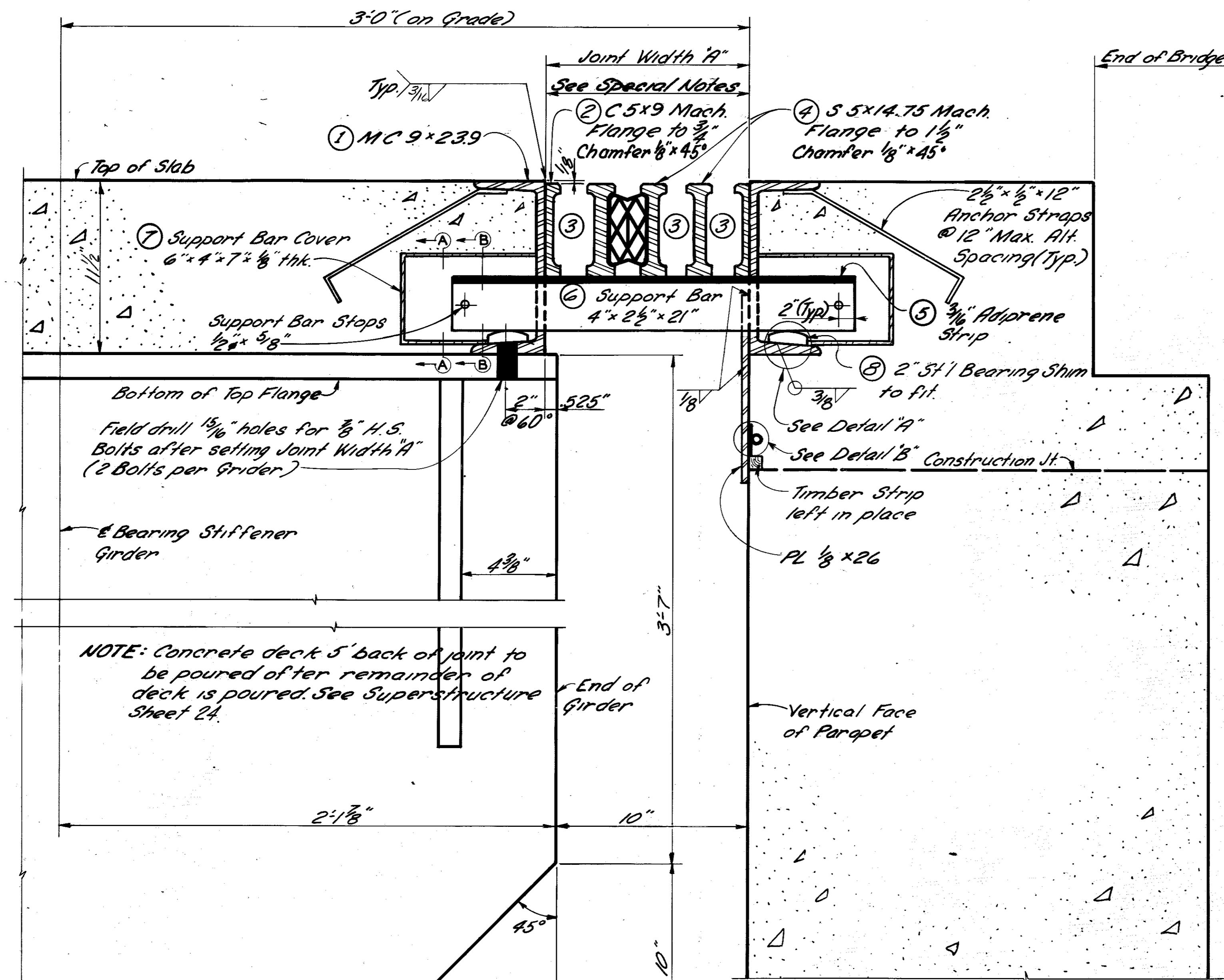
DESIGNED BY: _____
CHECKED BY: _____
DATE: _____
REVISIONS: _____
DATE: _____

BRIDGE OVER GREEN RIVER. SHEET 18A

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN-OWENBORO PARKWAY
ROAD

STATION 2657+35.0 P. E. PROJECT NO. _____
CONSTRUCTION PROJECT NO. _____ MAINTENANCE PROJECT NO. _____ DRAWING NO. 17777

LETTING DATE

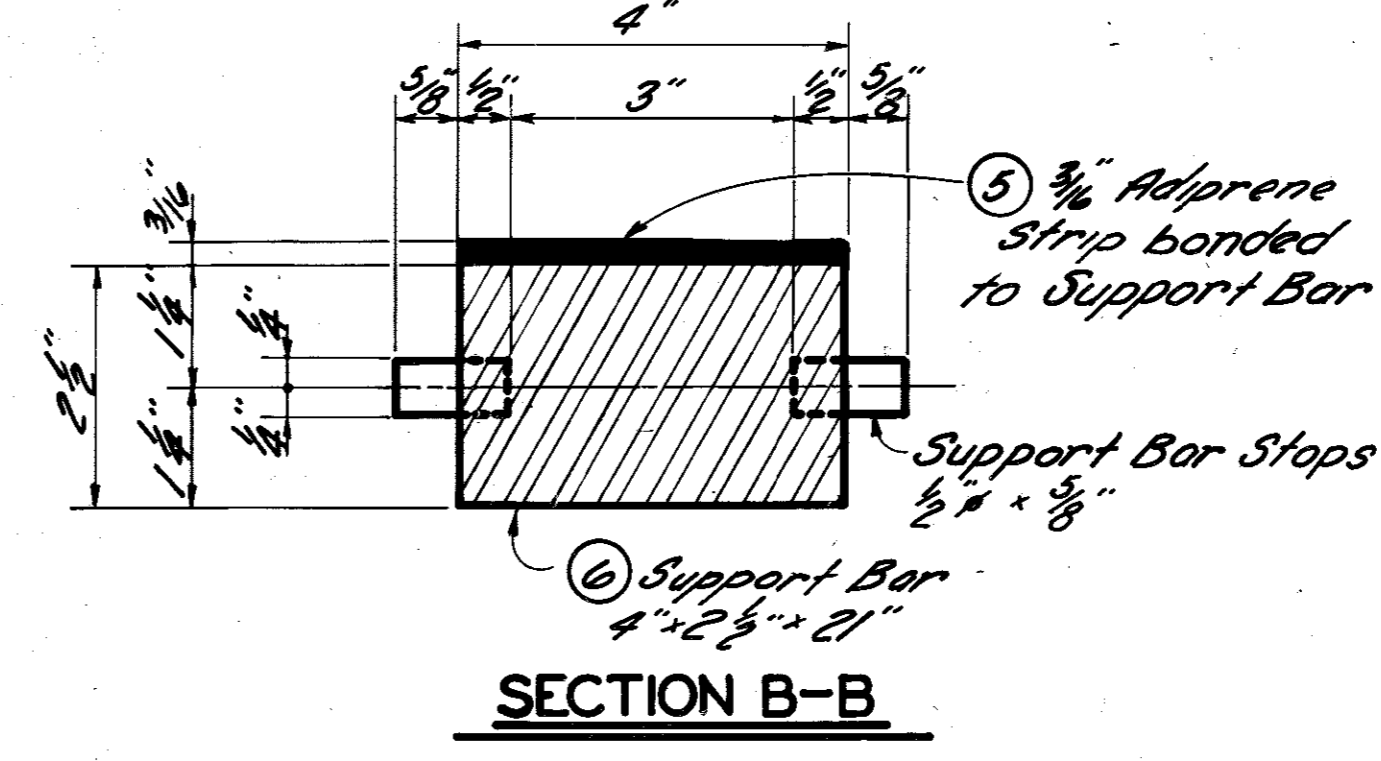
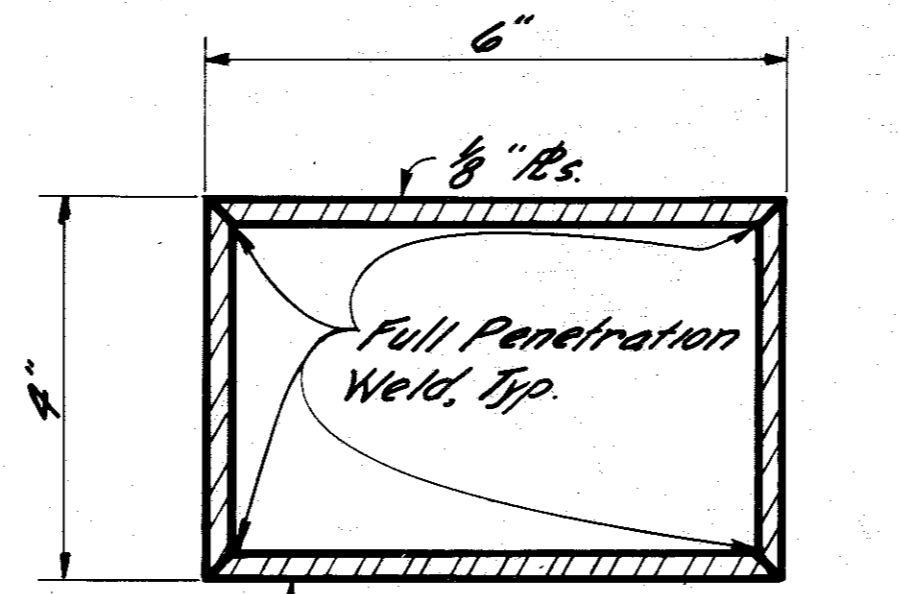
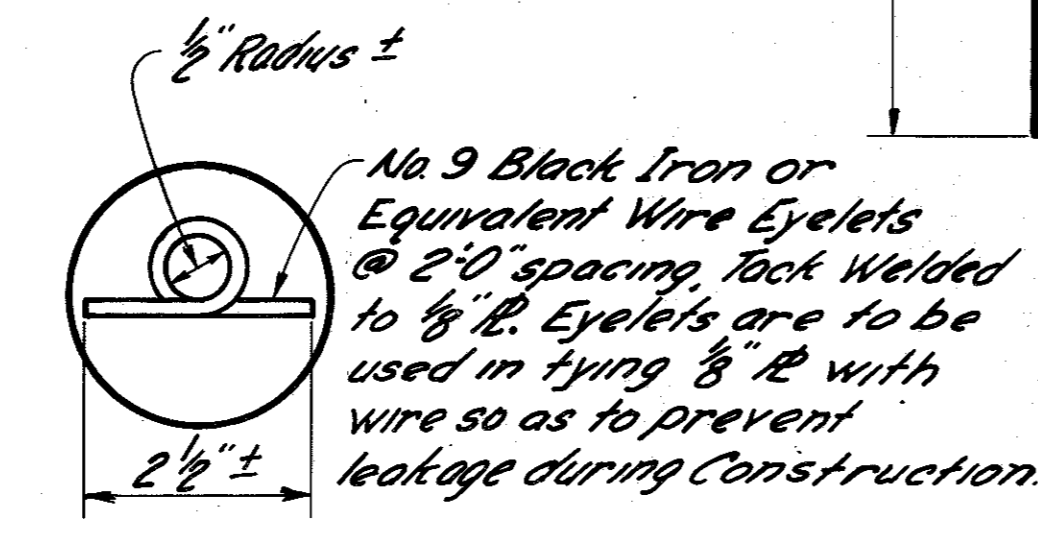
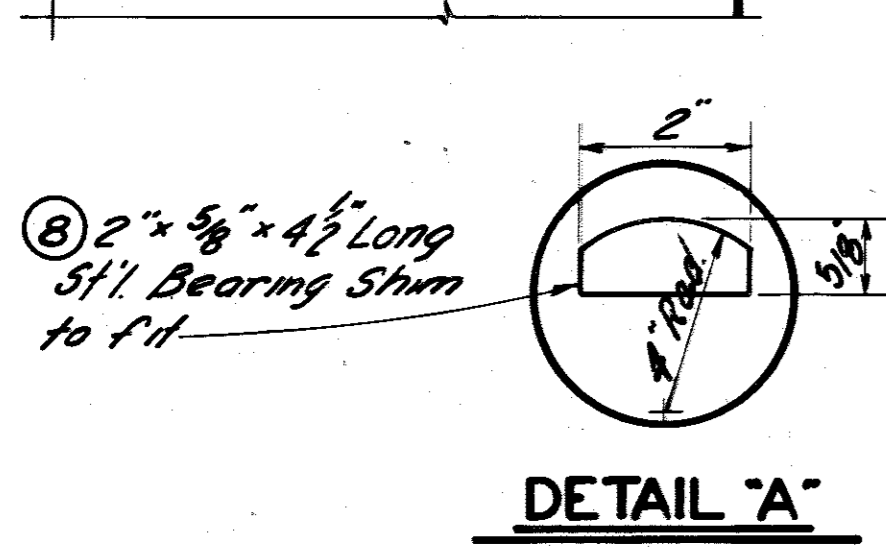


NOTE: Concrete deck 5' back of joint to be poured after remainder of deck is poured. See Superstructure Sheet 24.

NOTE: TransFlex 650 Expansion Dam to be used in lieu of Modular Dam as shown. For details of TransFlex Dam see sheet 18-A.

EXPANSION DAM AT GIRDERS

EXPANSION DAM AT STRINGERS



SECTION A-A

SECTION B-B

EXPANSION DAM

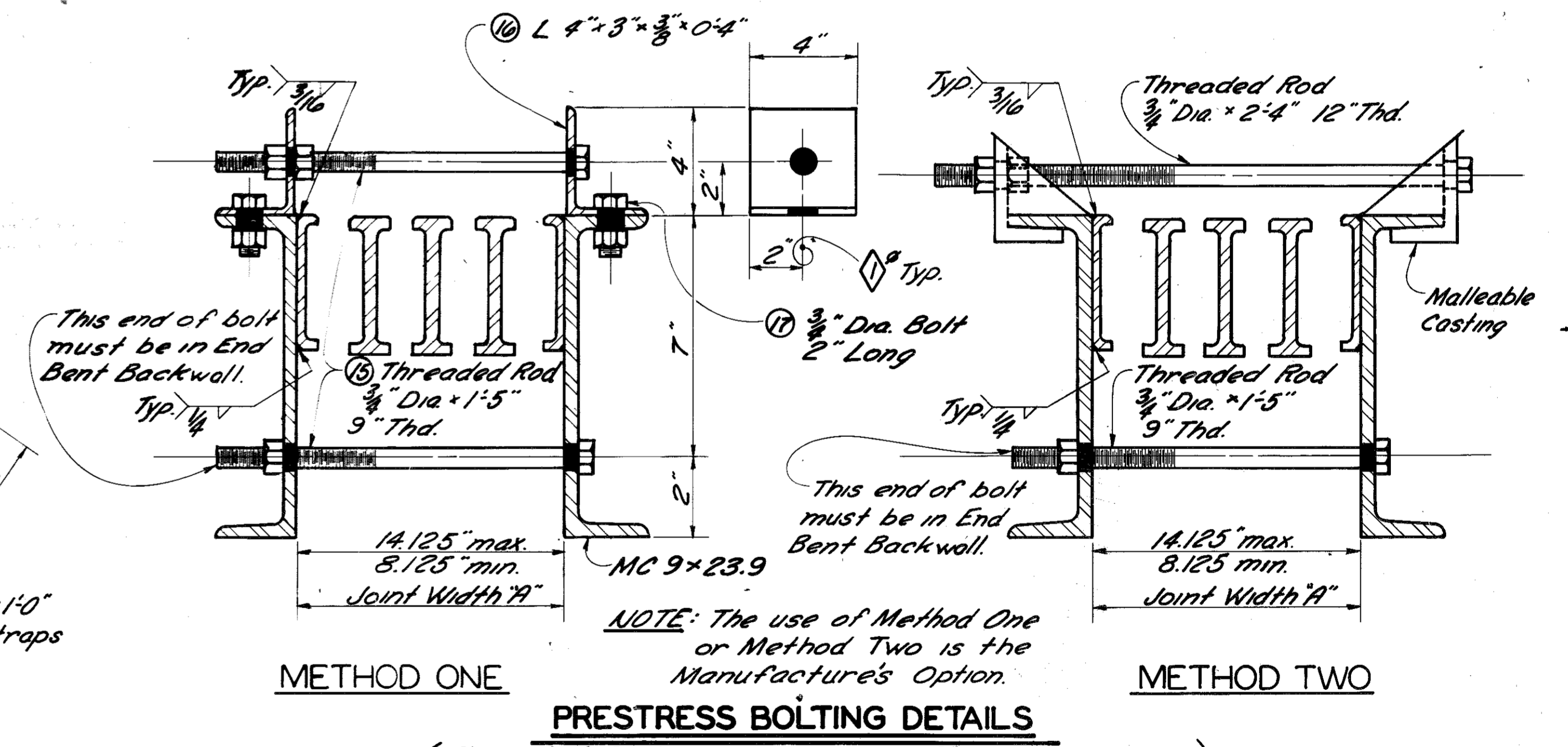
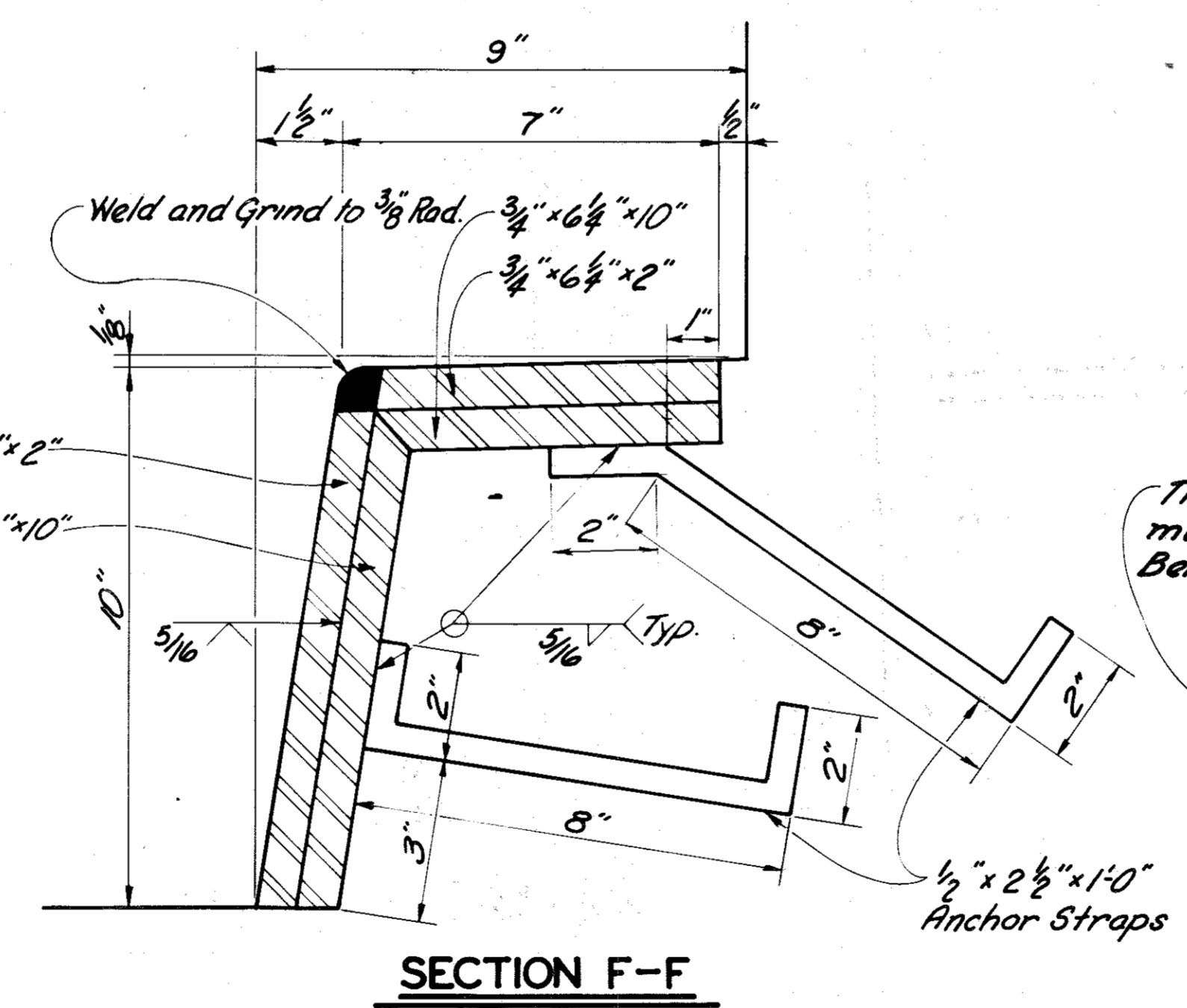
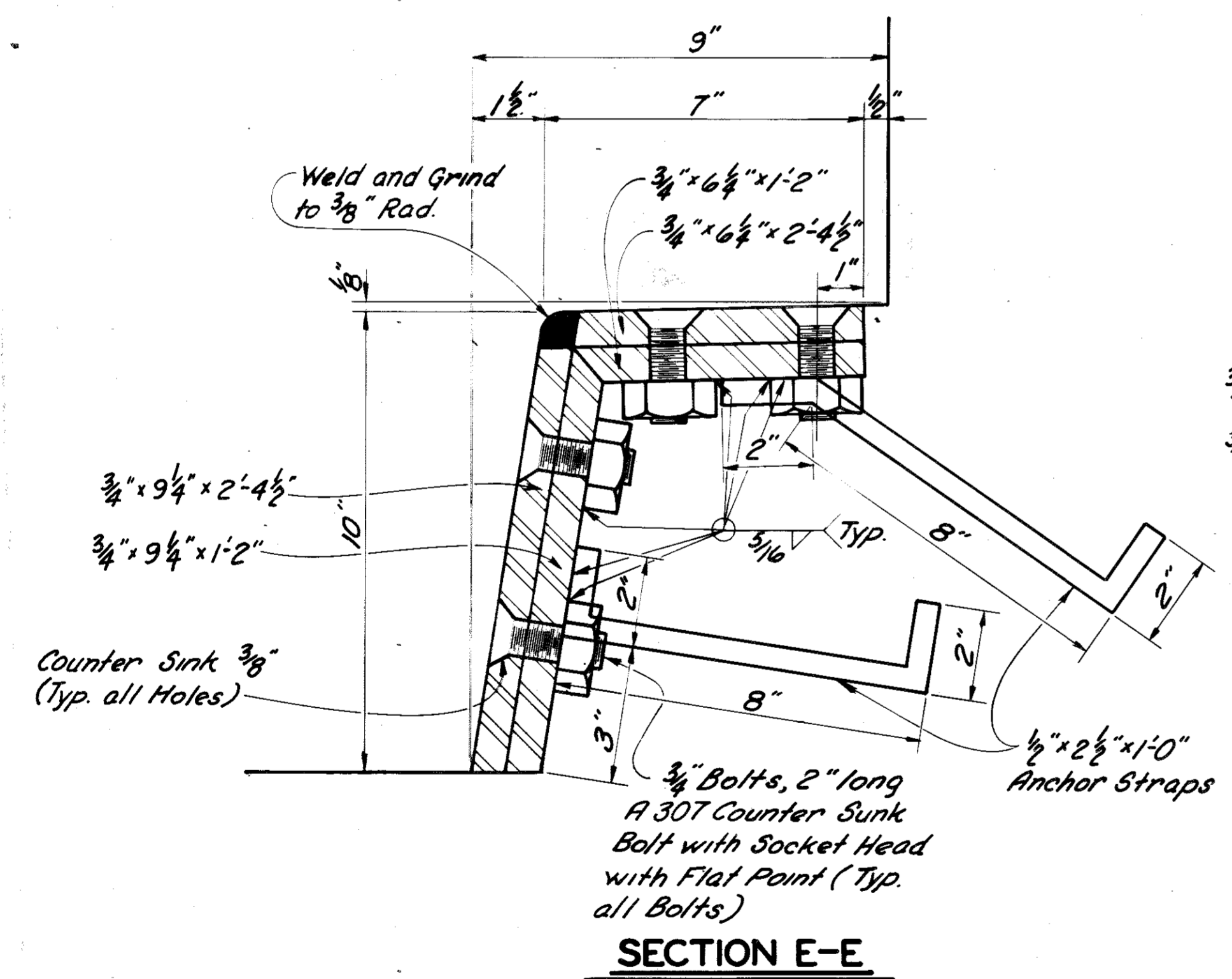
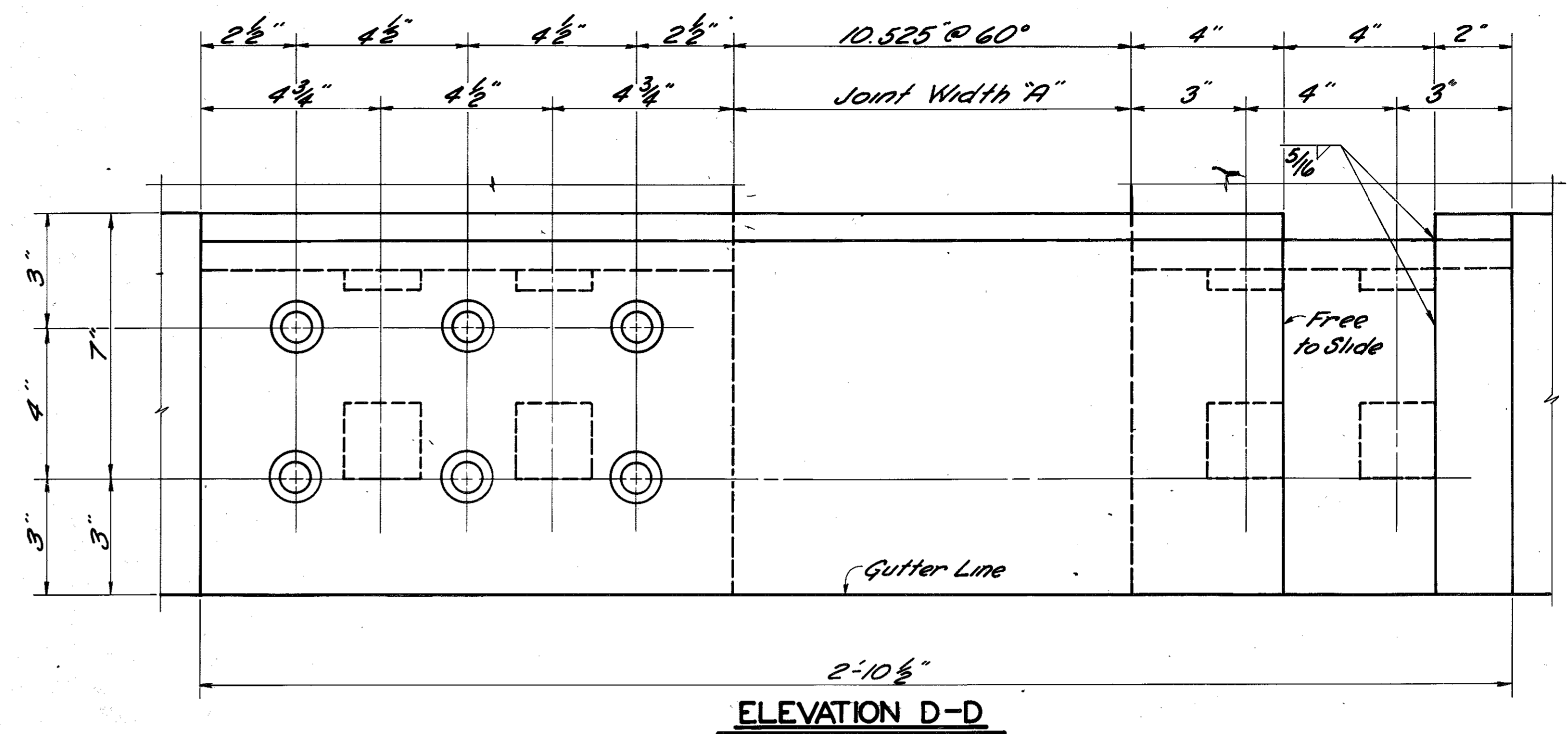
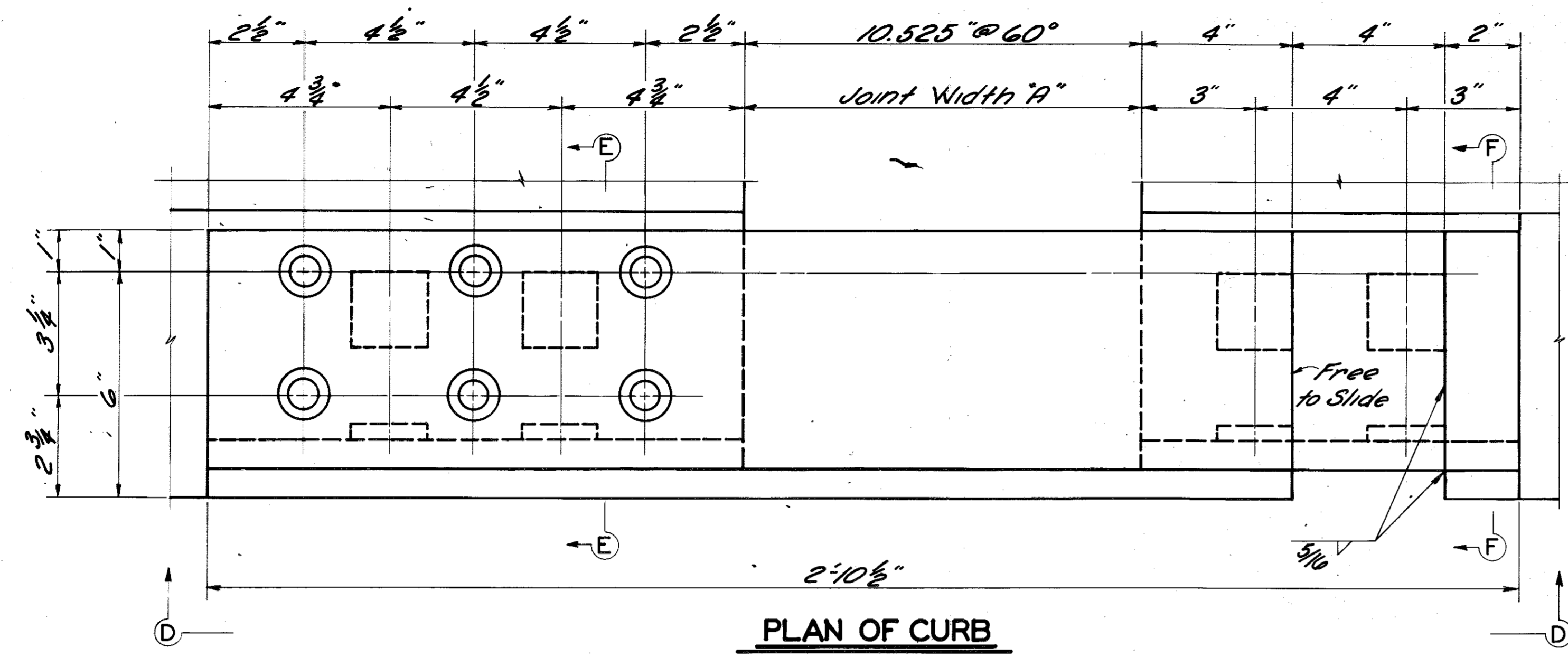
DESIGNED BY: G.R.B. DATE: 10/70
 CHECKED BY: L.L. Flood DATE: 1/20/71
 REVISION: EXPANSION DAM SUPPORT BEAMS ADDED DATE: 1/20/71
 REVISED TRANSFLEX 650 TO BE USED IN LIEU OF MODULAR DAM (SEE SHEET 18-A) DATE: 5/25/72

BRIDGE OVER GREEN RIVER. SHEET 19

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENBORO PARKWAY
 ROAD

STATION 2657+35[±] P. E. PROJECT NO.
 CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.
17777

LETTING DATE



DESIGNED BY: U.L. STANLEY
CHECKED BY: G.R. B.
DATE: 11/70
REVISIONS:
REVISION NO. DATE BY

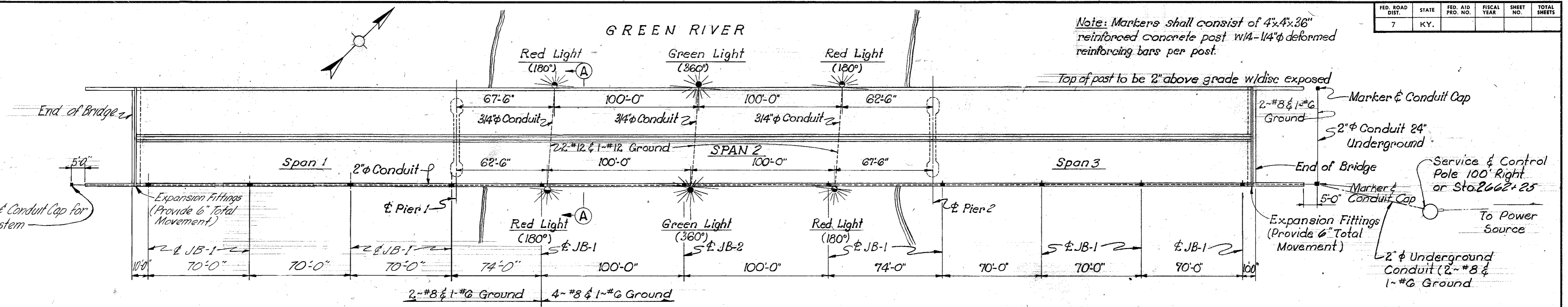
VOID THIS SHEET
For details of Expansion dam
See Sheet 18-A

Work This Sheet
With Sheets 18 & 19.

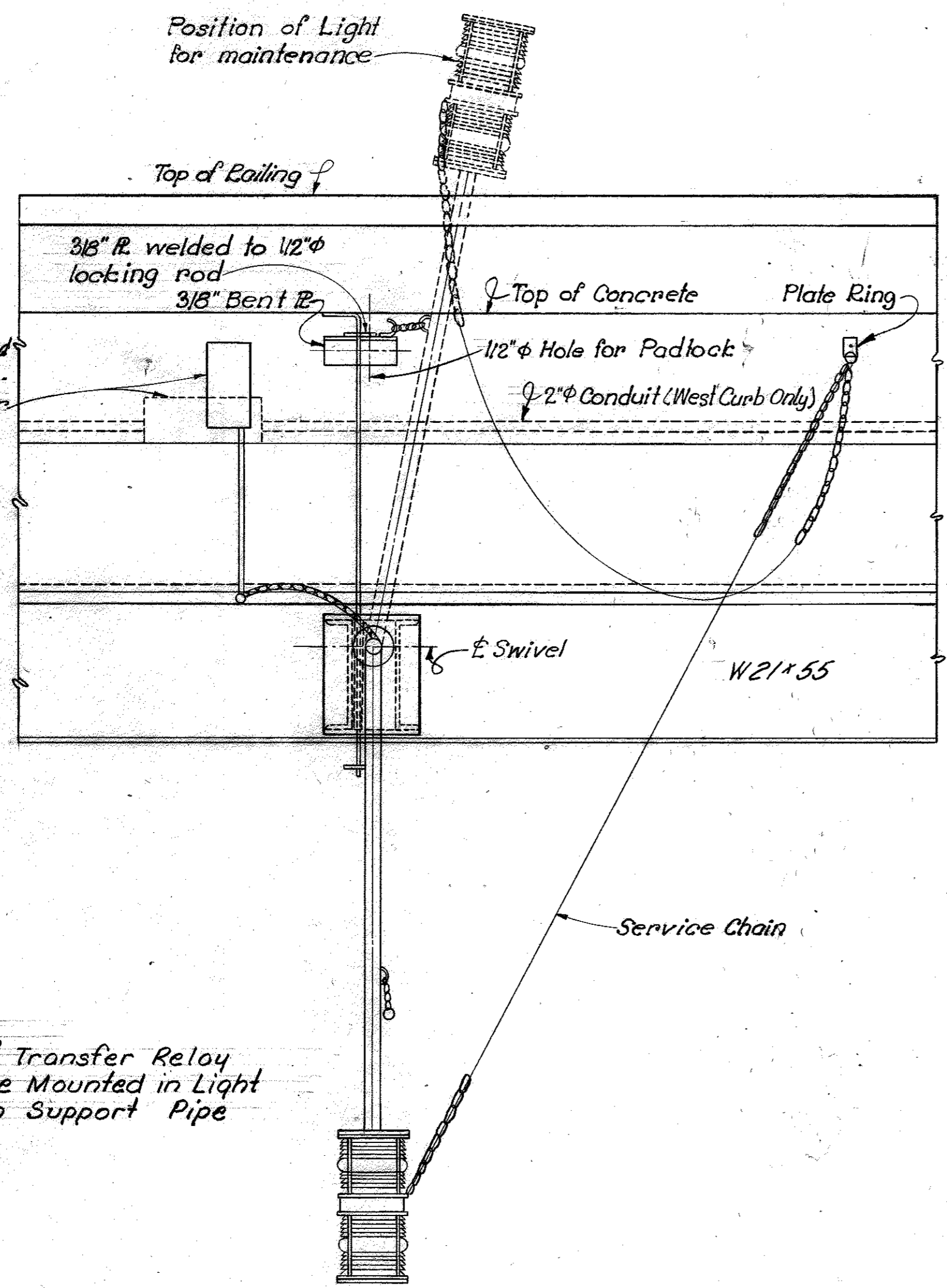
EXPANSION DAM

BRIDGE OVER GREEN RIVER. SHEET 20

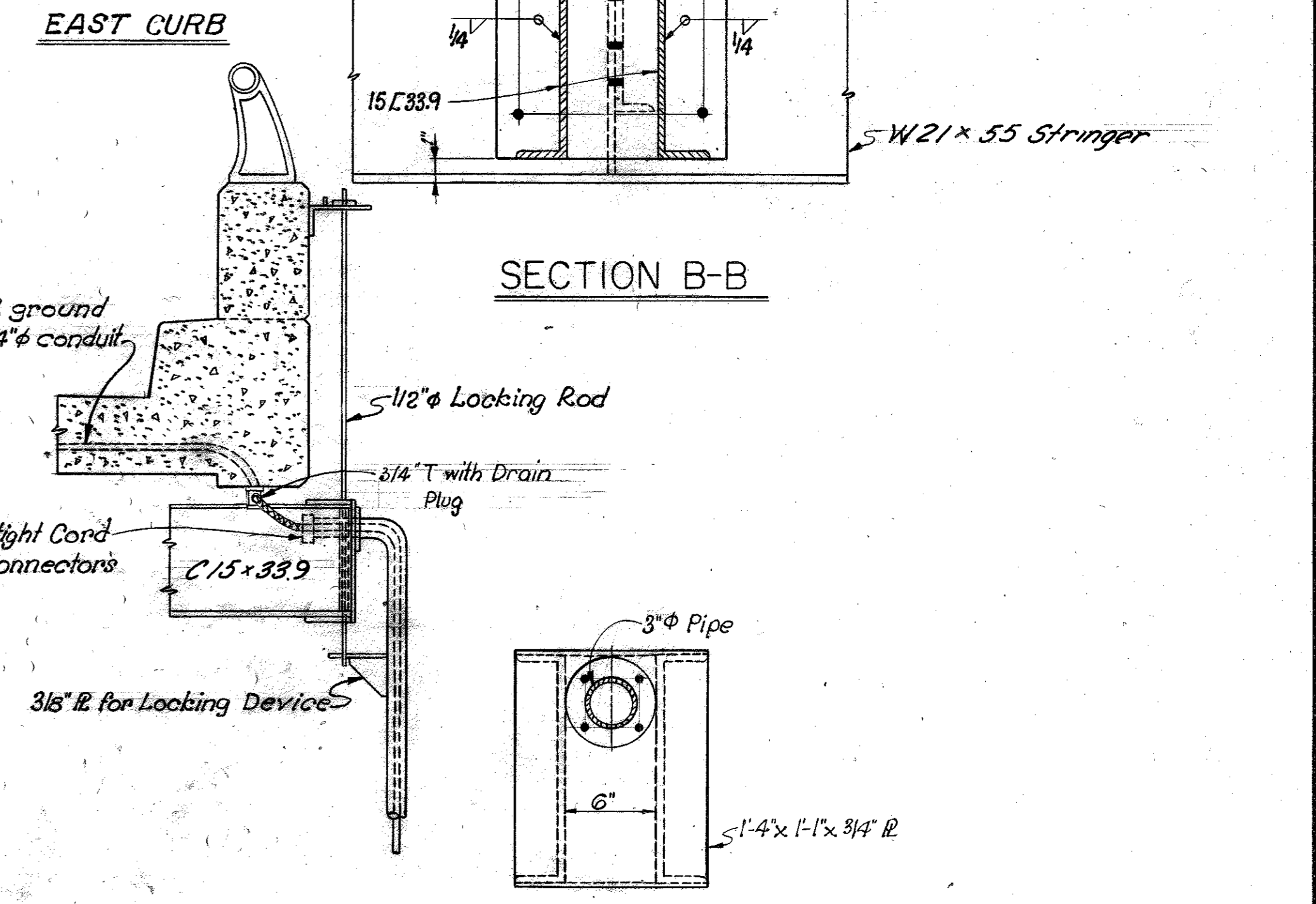
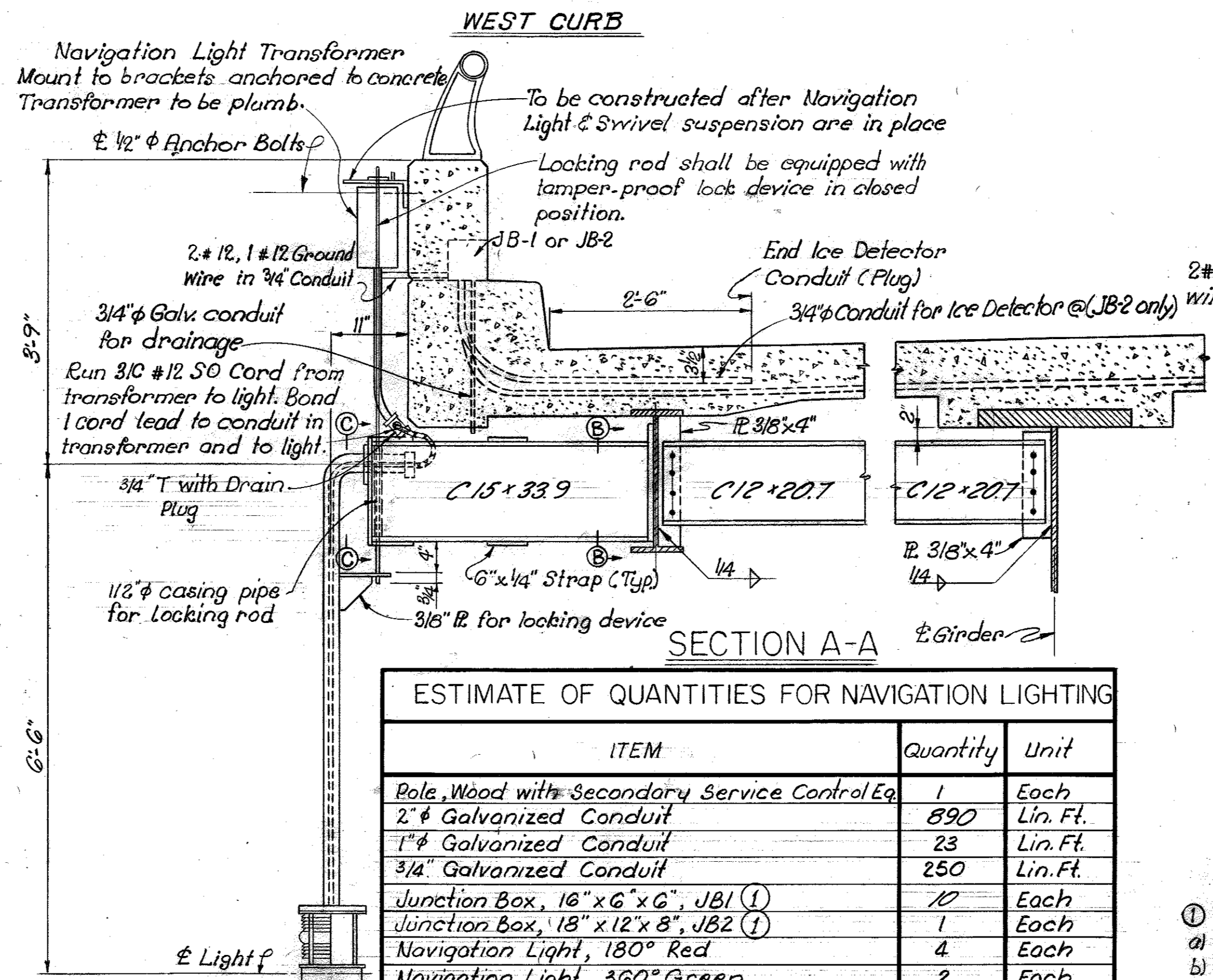
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN-OWENBORO PARKWAY
ROAD
STATION 2657+35 P. E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.
17777



NAVIGATION LIGHT & CONDUIT PLAN



TYPICAL WIRING FOR NAVIGATION LIGHTS



NOTE: Contact Warren RECC to determine Service Pole location along side of Roadway. Set Service Pole on either side as directed by WIRECC.

ESTIMATE OF QUANTITIES FOR NAVIGATION LIGHTING

ITEM	Quantity	Unit
Pole, Wood with Secondary Service Control Eq	1	Each
2" Galvanized Conduit	890	Lin. Ft.
1" Galvanized Conduit	23	Lin. Ft.
3/4" Galvanized Conduit	250	Lin. Ft.
Junction Box, 16" x 6" x 6", JB1 (1)	10	Each
Junction Box, 18" x 12" x 8", JB2 (1)	1	Each
Navigation Light, 180° Red	4	Each
Navigation Light, 360° Green	2	Each
Connector Y Fused	3	Each
Wire #6 AWG (Bare)	1125	Lin. Ft.
Wire #8 AWG	3325	Lin. Ft.
Wire #12 AWG	800	Lin. Ft.
3-Conductor #12 SO Cord	50	Lin. Ft.
1.0 KVA Transformer, Dry 480-120	4	Each
Expansion Fittings (2)	2	Each

- ① a) OZ Electric Co. Type YU
- b) Spring City Electric Co. Type 1B
- c) Hope Electric Products Co. Type H 6200
- d) or approved equal
- ② a) Crouse-Hinds, Type XJ 641 #1/8" 100 Bonding Jumper
- b) OZ Electric Co. Type EX 200 #1/8" 1520-24 Bonding Jumper
- c) Spring City Electric Co. Type EF 200 #1/8" 200 Bonding Jumper
- d) or approved equal

DESIGNED BY: H.J. CHECKED BY: DGM DATE: 3/69
 TRACED BY: H.J. REVISION: DATE: REVISION: DATE:

NAVIGATION LIGHTS

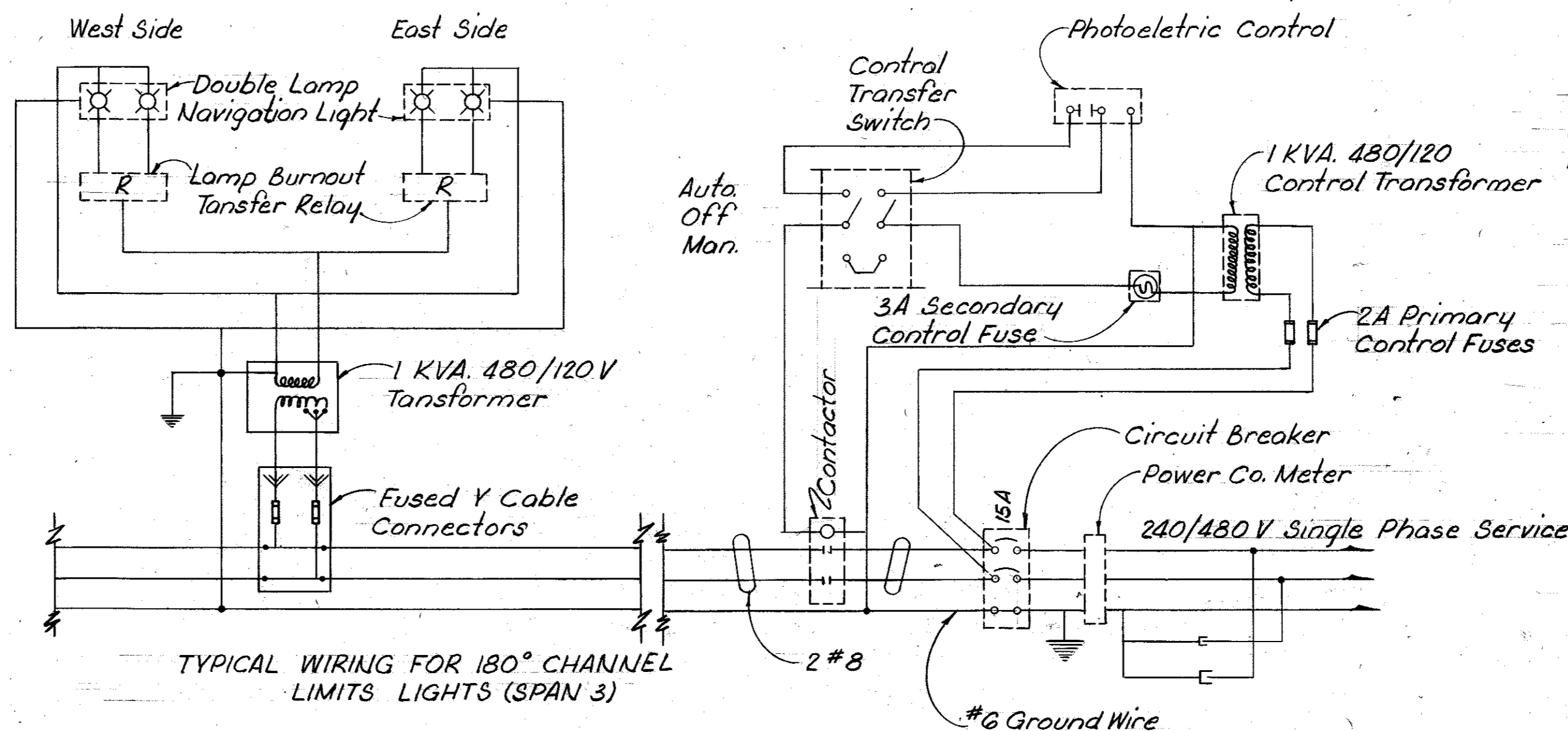
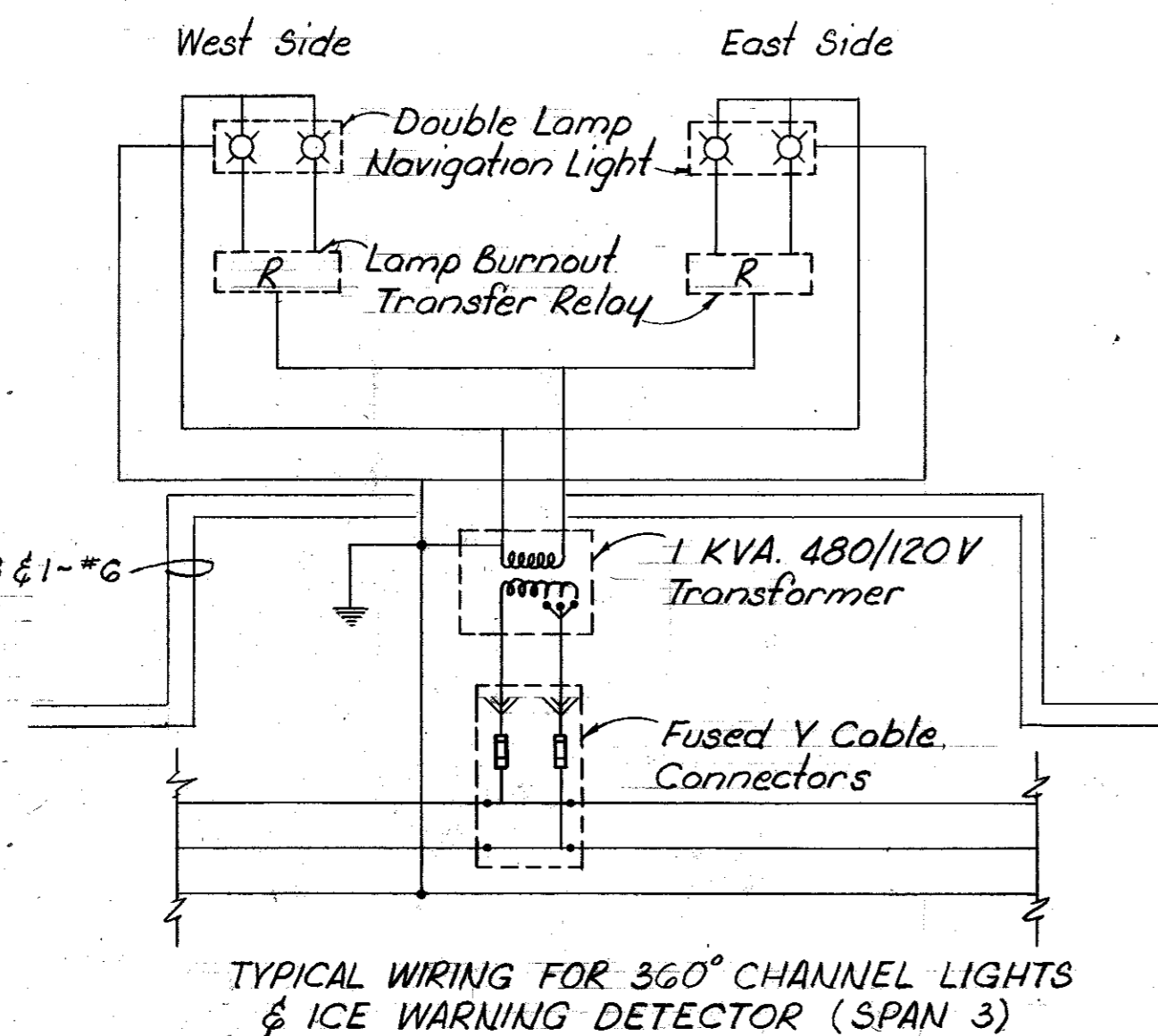
(Includes Wire for Ice Detection Device)

BRIDGE OVER GREEN RIVER. SHEET 21

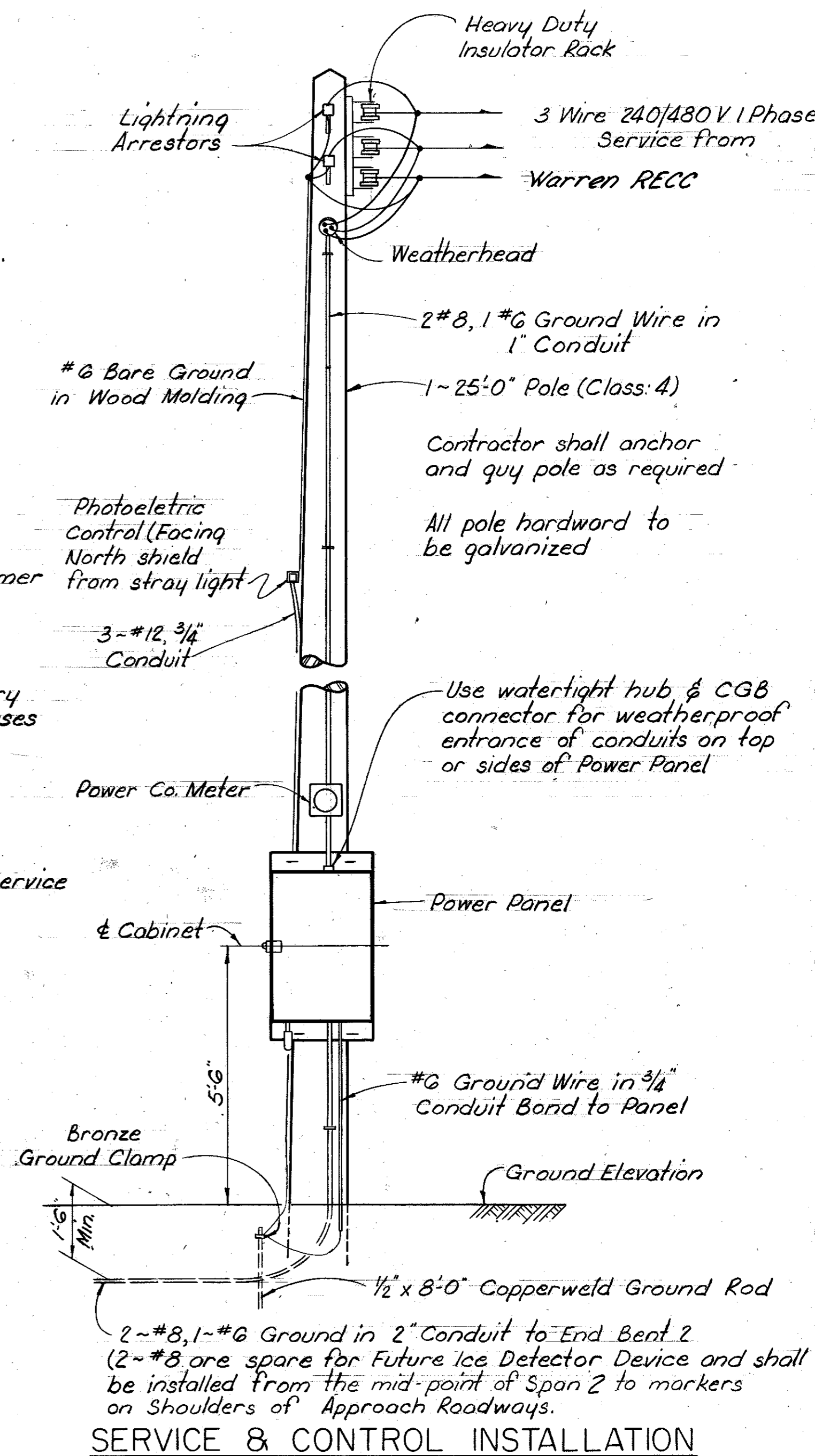
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN-OWENBORO PARKWAY
 ROAD
STATION 2657+35[±] **PROJECT NO.**
 BRIDGE NUMBER INDEX

NOTES

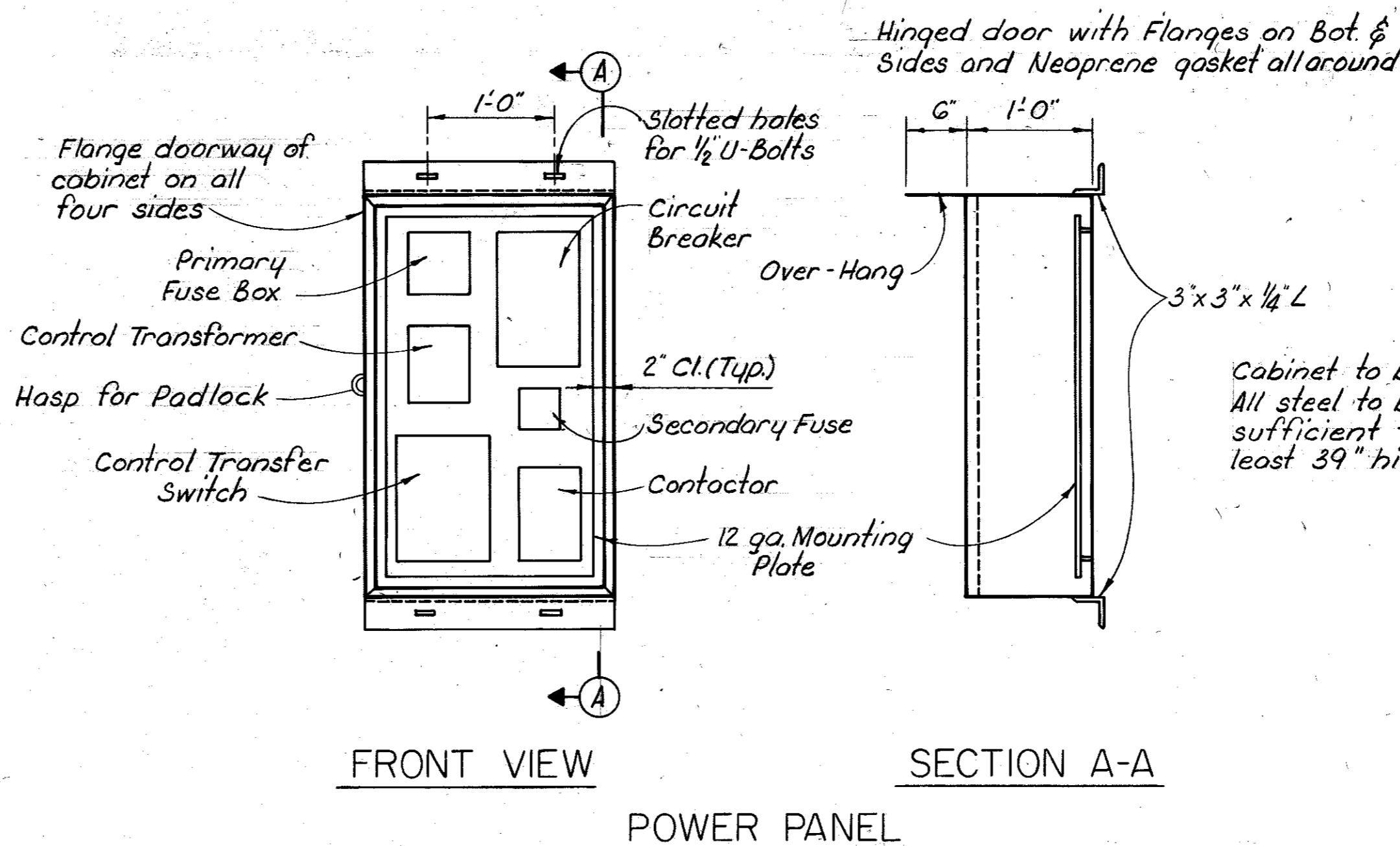
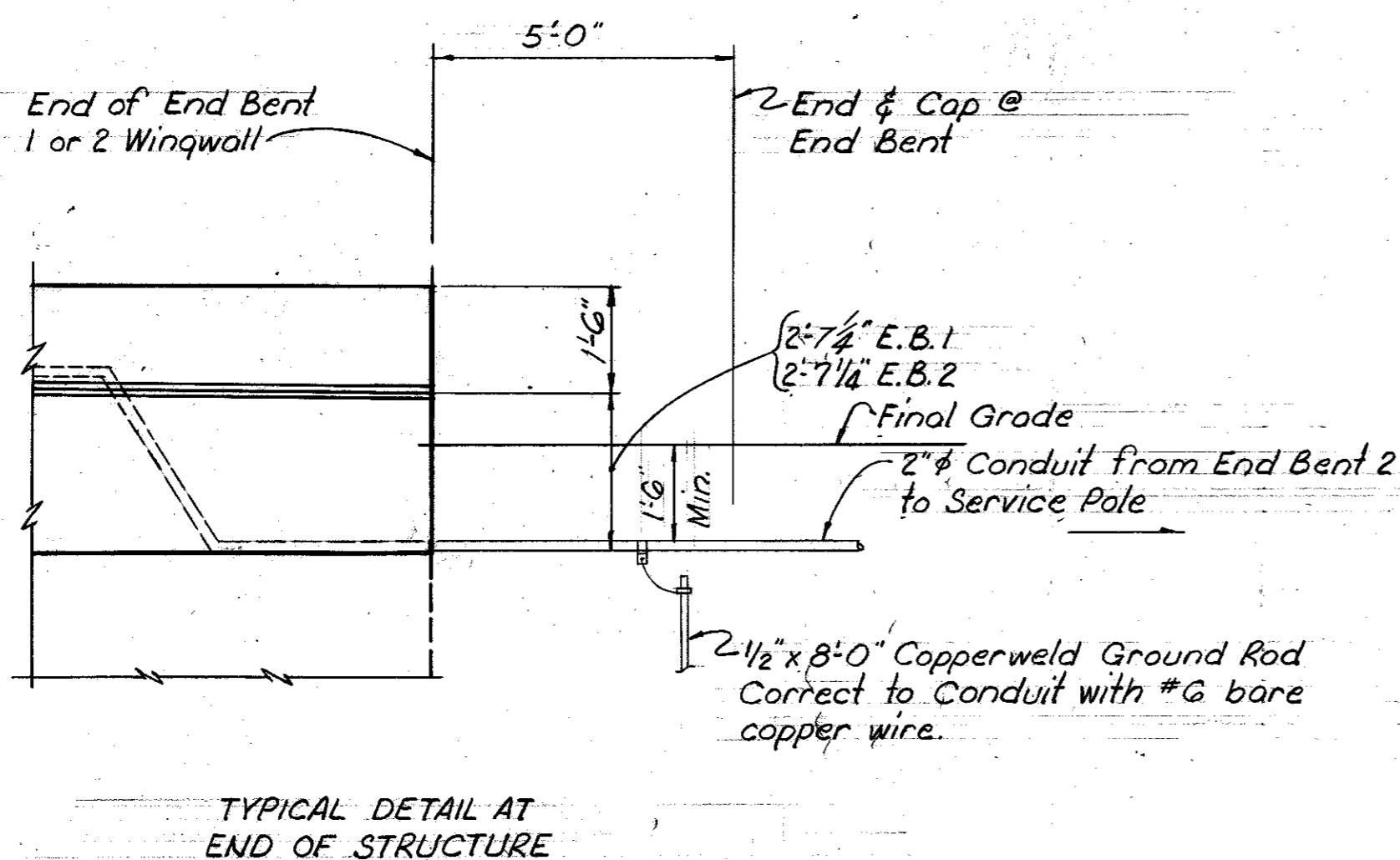
- All 120V wire shall be #12
- Connect Primary Taps of each Transformer so that Secondary Voltage is 115-120V when all lights are burning normally
- #6 Ground Wire not used as Current Carrying Circuit Conductor may be bare wire.
- All 480V Branch Circuits for Navigation Lights shall be Connected to Main Current Wires in JB's with Fused "Y" Cable Connectors.



SCHMATIC WIRING DIAGRAM



For Future Ice Warning System; to be carried to Markers beyond each End Bent. Wires to be labeled but not connected.



Cabinet to be weatherproof and constructed of 12 Ga. steel. All steel to be galvanized after fabrication. Size of cabinet shall be sufficient for equipment furnished, but shall be at least 39" high x 24" wide x 12" deep.

DESIGNED BY: CPK
 CHECKED BY: RAS
 DATE: 3/63
 REVISIONS:
 DATE: 3/63
 CHECKED BY: DGM
 DATE: 3/63
 REVISIONS:
 DATE: 10-70
 CHECKED BY: DGM
 DATE: 10-70
 REVISIONS:
 DATE: 10-70
 CHECKED BY: DGM
 DATE: 10-70
 REVISIONS:

BRIDGE OVER GREEN RIVER. SHEET 22

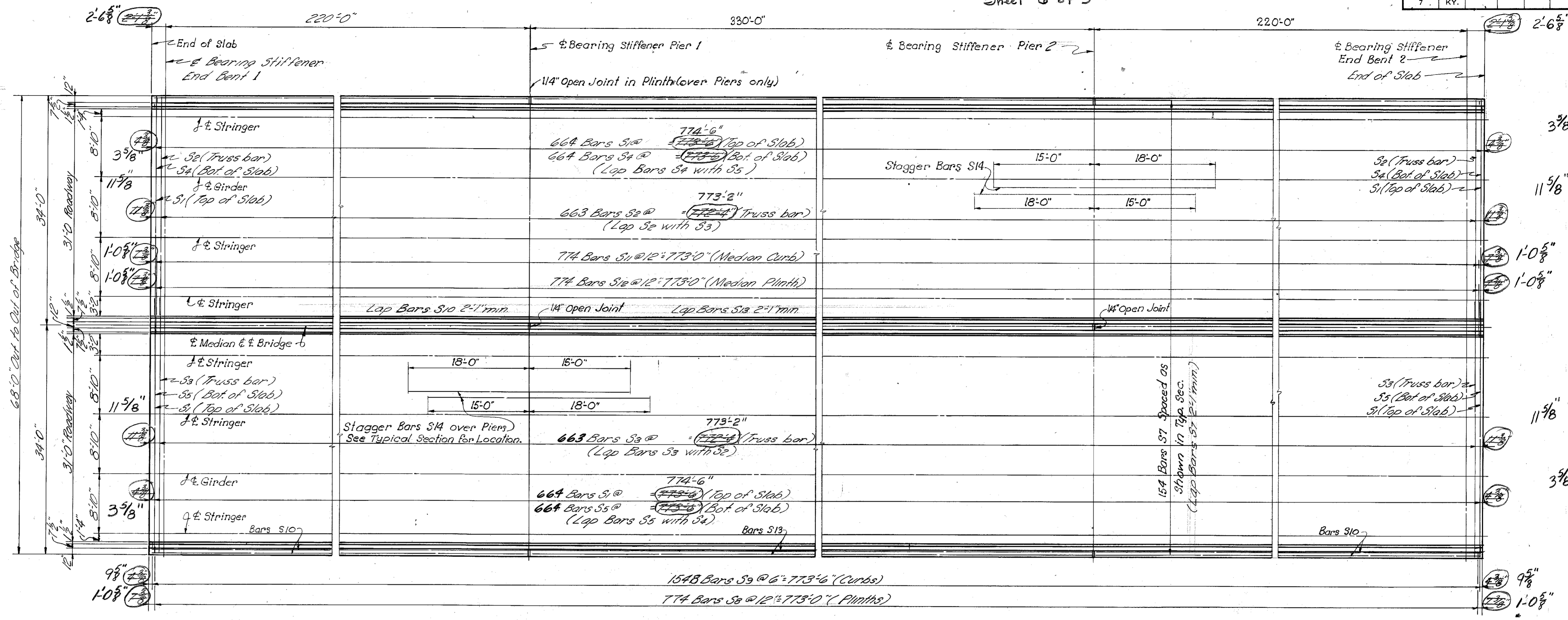
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENBORO PARKWAY
 ROAD

STATION 2657+35.0 PROJECT NO. _____

BRIDGE NUMBER	DRAWING NO.	INDEX
	17777	

LIGHTING DETAILS

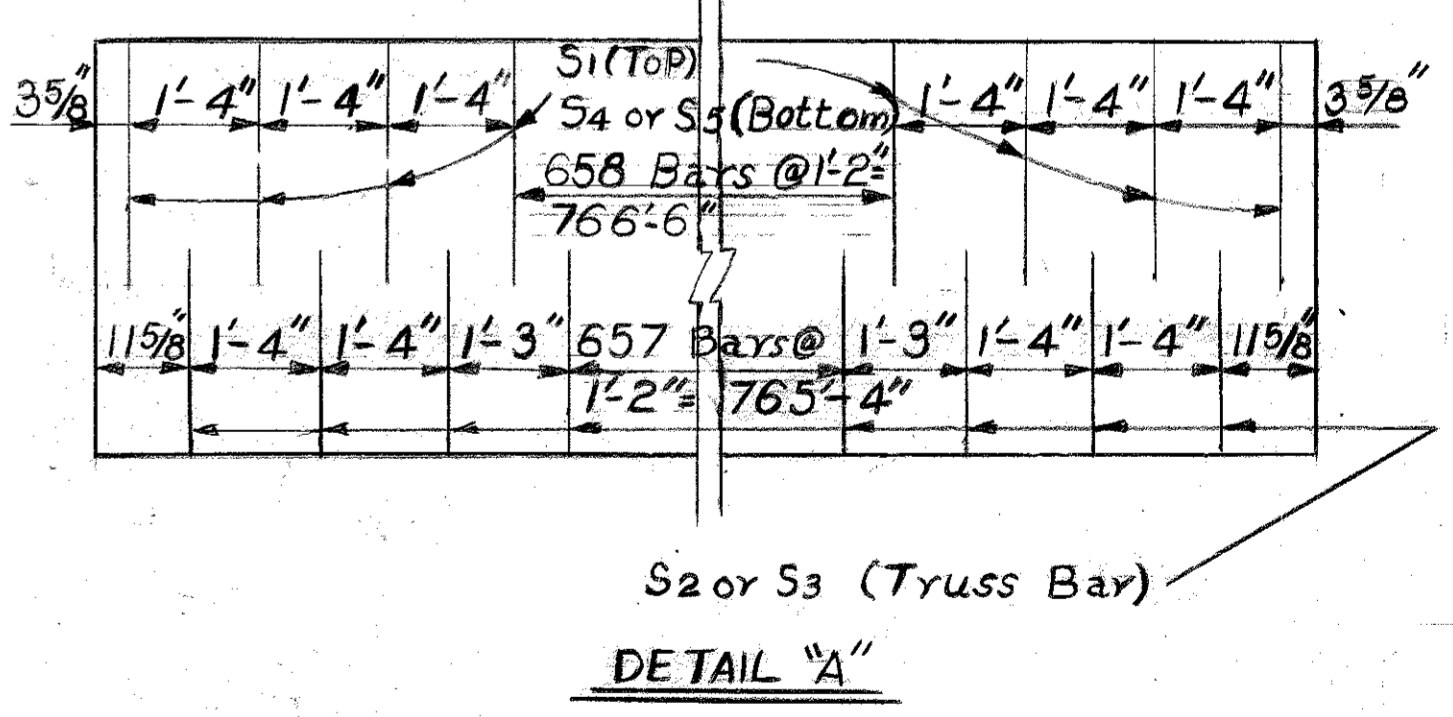
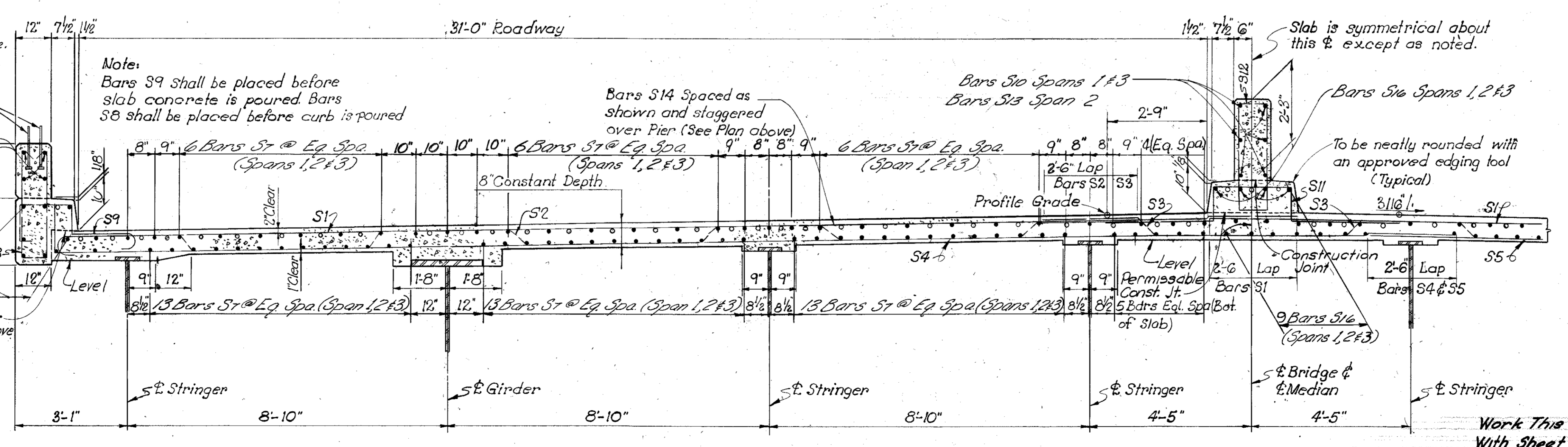
Note: For Location of Bars S1 thru S5 See Detail "A"



See Standard Drawing H116 Cur. Ede. for High Strength Handrail Detail and Anchor Bolt Setting. Bolts to be in place before plinth is poured.

Note: Bars S9 shall be placed before slab concrete is poured. Bars S8 shall be placed before curb is poured.

This construction joint is mandatory. There is to be no concrete placed above this joint until deck has cured.



SUPERSTRUCTURE

DESIGNED BY: C.E.K. jr. CHECKED BY: D.G.M. DATE: 3/69
 REVISIONS: 1. DATE: 3/69
 2. DATE: 3/69
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 98. DATE: 3/69
 99. DATE: 3/69
 100. DATE: 3/69

BRIDGE OVER GREEN RIVER. SHEET 23

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT COUNTY OF
BUTLER
BOWLING GREEN-OWENSBORO PARKWAY
ROAD.

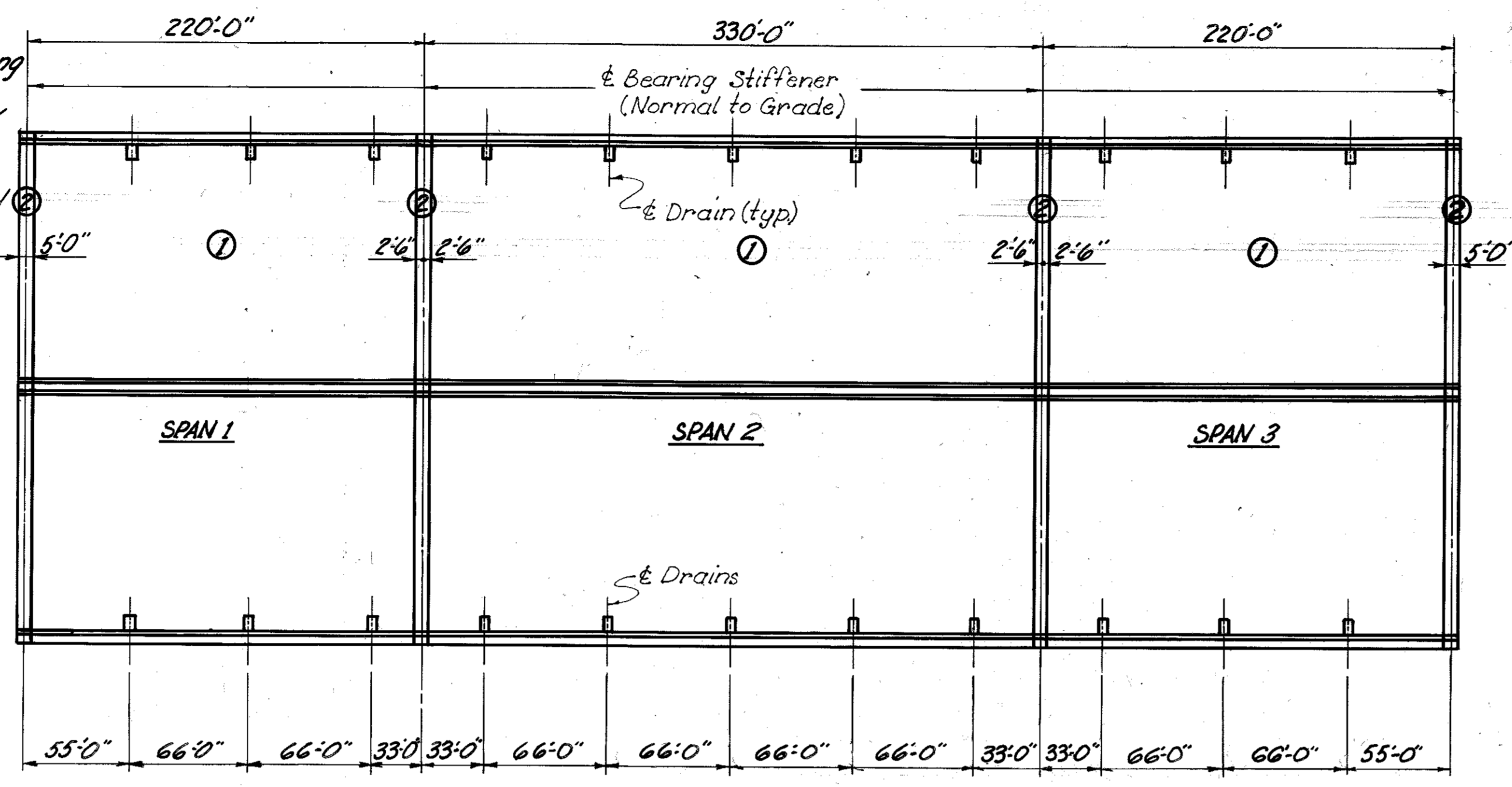
STATION 2657+35.0 PROJECT NO. _____

BRIDGE NUMBER _____ DRAWING NO. 17777 INDEX _____

NOTE: Pouring of Concrete Slab: Pour ① providing 5' blackout at End Bents and over Piers. Pour ② is not to be made for a minimum period of 10 hours after all of pour ① has been made, to reduce creep and shrinkage of the concrete. Pour ② shall be bonded to pour ① with a two-component epoxy resin system conforming to AASHTO designation M 200-65 Type A. The epoxy resin bonding material shall be applied in accordance with the manufacturer's specifications. The cost of this work, including all labor, tools and materials, is to be included in the Unit Price Bid for Class "AA" Concrete.

BOP 2-6
Construction Rev. No. 1
Sheet 7 of 9

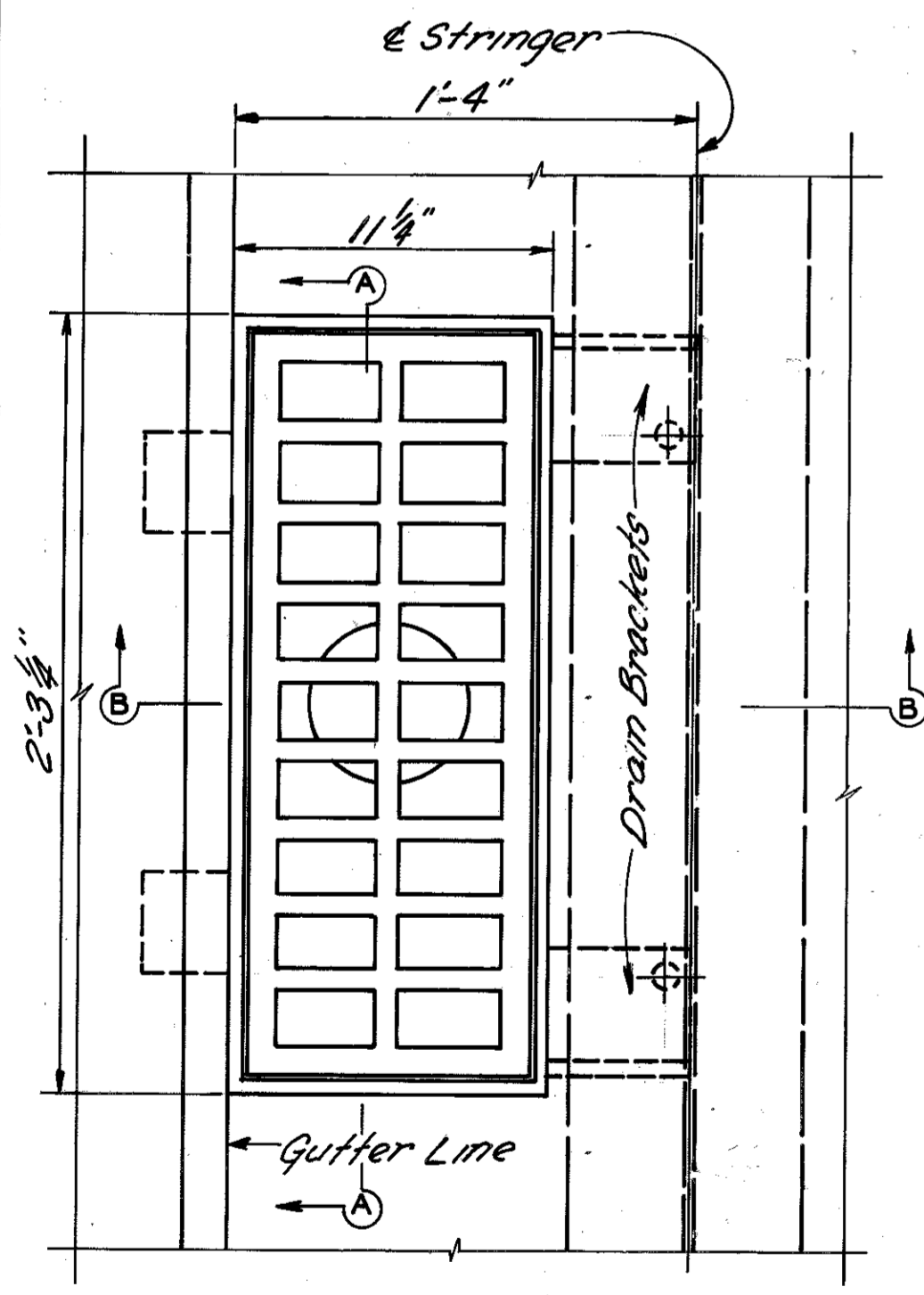
BILL OF REINFORCEMENT										
Maine	Type	Number	Bar Size	Length		Location	a		b	
				Ft.	In.		Ft.	In.	Ft.	In.
S1	①	1328	#6	34	9	Top of Slab	-	-	-	-
S2	②	663	#6	31	6	Bent	-	-	-	-
S3	③	663	#6	40	7	Bent	-	-	-	-
S4	④	664	#6	39	8	Bottom of Slab	38	6	1	3
S5	④	664	#6	30	10	Bottom of Slab	29	8	1	3
S6						Not Used				
S7	Str.	3080	#5	40	8	Top & Bot. of Slab	-	-	-	-
S8	⑤	1548	#5	7	9	Plinth	-	-	-	-
S9	⑥	3096	#5	5	7	Curb	-	-	-	-
S10	Str.	112	#5	57	1	Plinth & Med. Plinth	-	-	-	-
S11	⑦	774	#5	9	6	Median Curb	-	-	-	-
S12	⑧	774	#5	7	7	Median Plinth	0	9	2	10
S13	Str.	84	#5	56	9	Plinth	-	-	-	-
S14	Str.	142	#8	38	0	Slab over Piers	-	-	-	-
S15						Not Used				
S16	Str.	500	#5	40	8	Curbs				



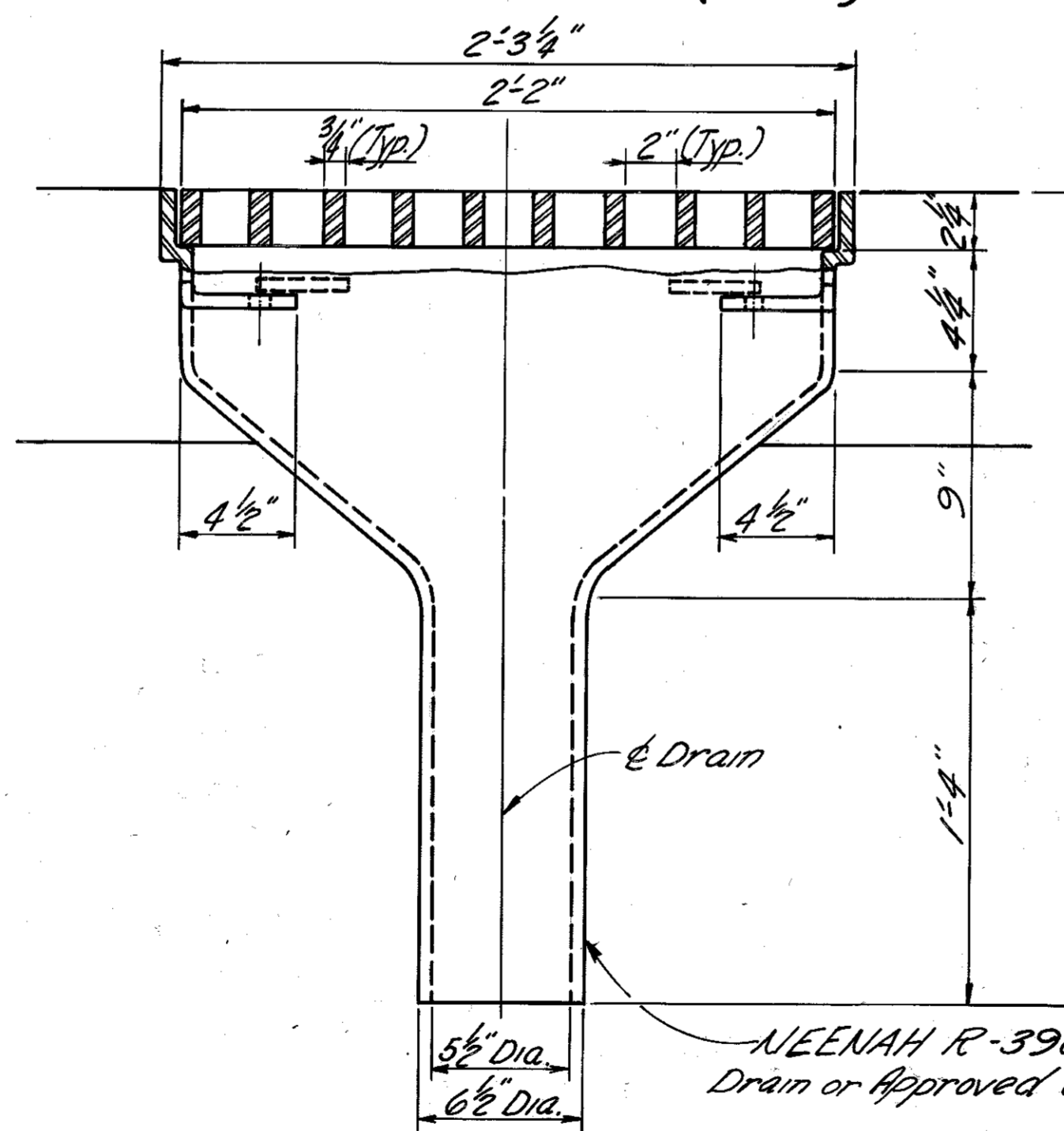
PLAN
(Showing Location of Drains & Pouring Order of Slab)

NOTE: Dimensions to bolt holes of Drain are to be obtained from Foundry.

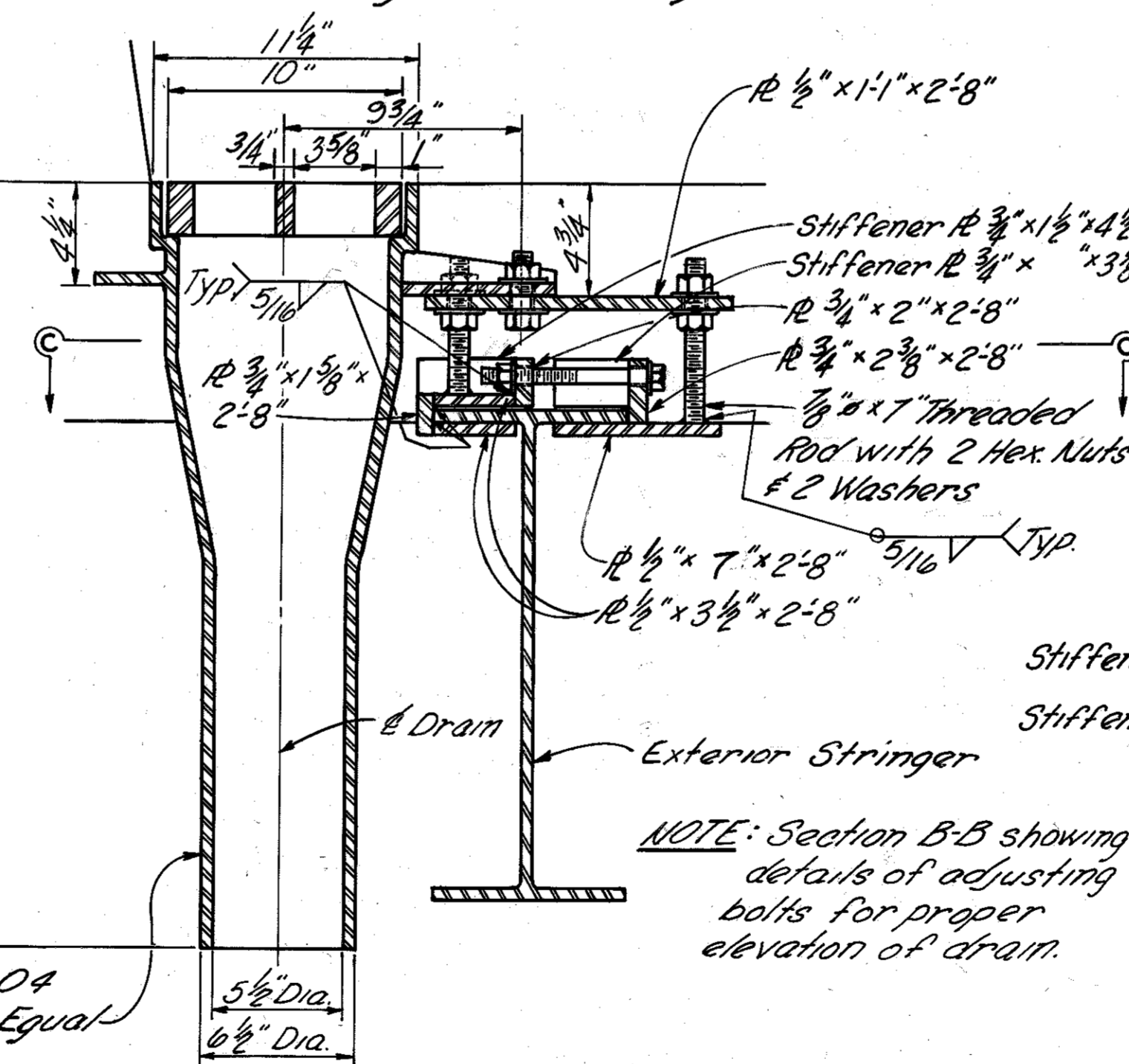
Stringer (W 21 x 55)



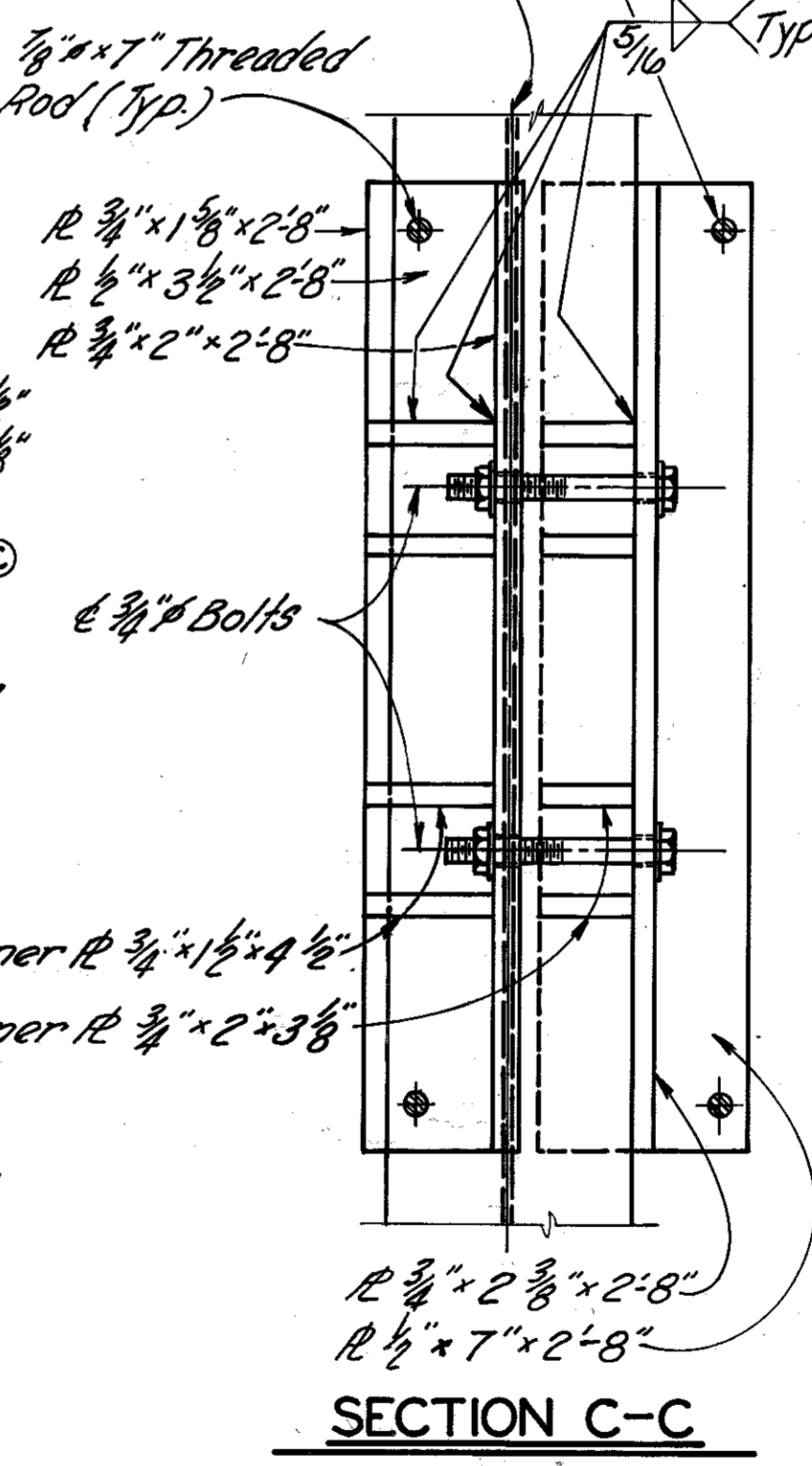
DRAIN PLAN
(22 Required - Approx. Weight = 280 # Ea.)



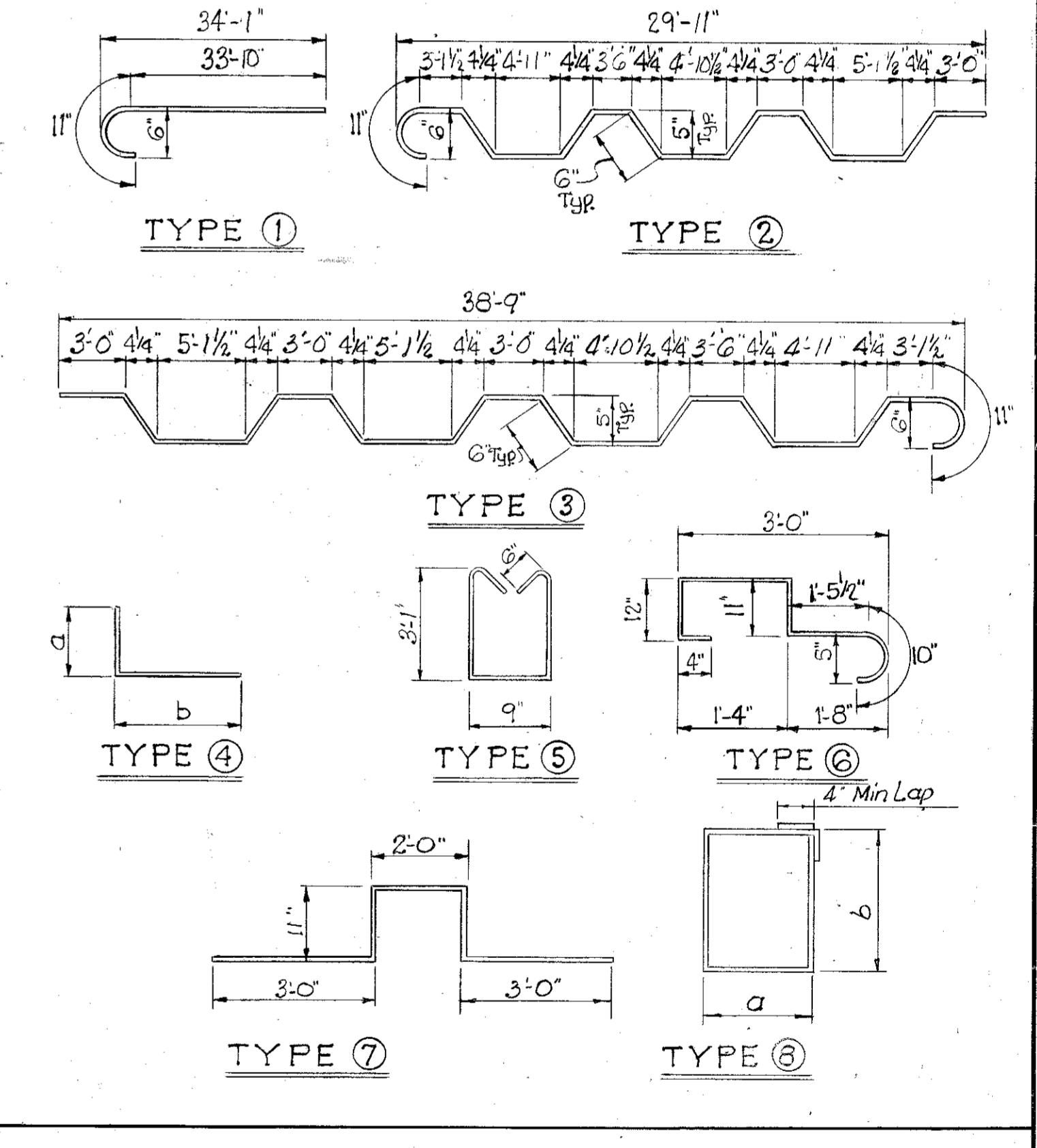
SECTION A-A



SECTION B-B



SECTION C-C



ESTIMATE OF QUANTITIES	
Item	Unit
Concrete Class "AA", Cu. Yds	1707.9
Steel Reinforcement, Lbs	431740

Work This Sheet With Sheet 23. 1710.4

SUPERSTRUCTURE

BRIDGE OVER GREEN RIVER. SHEET 24

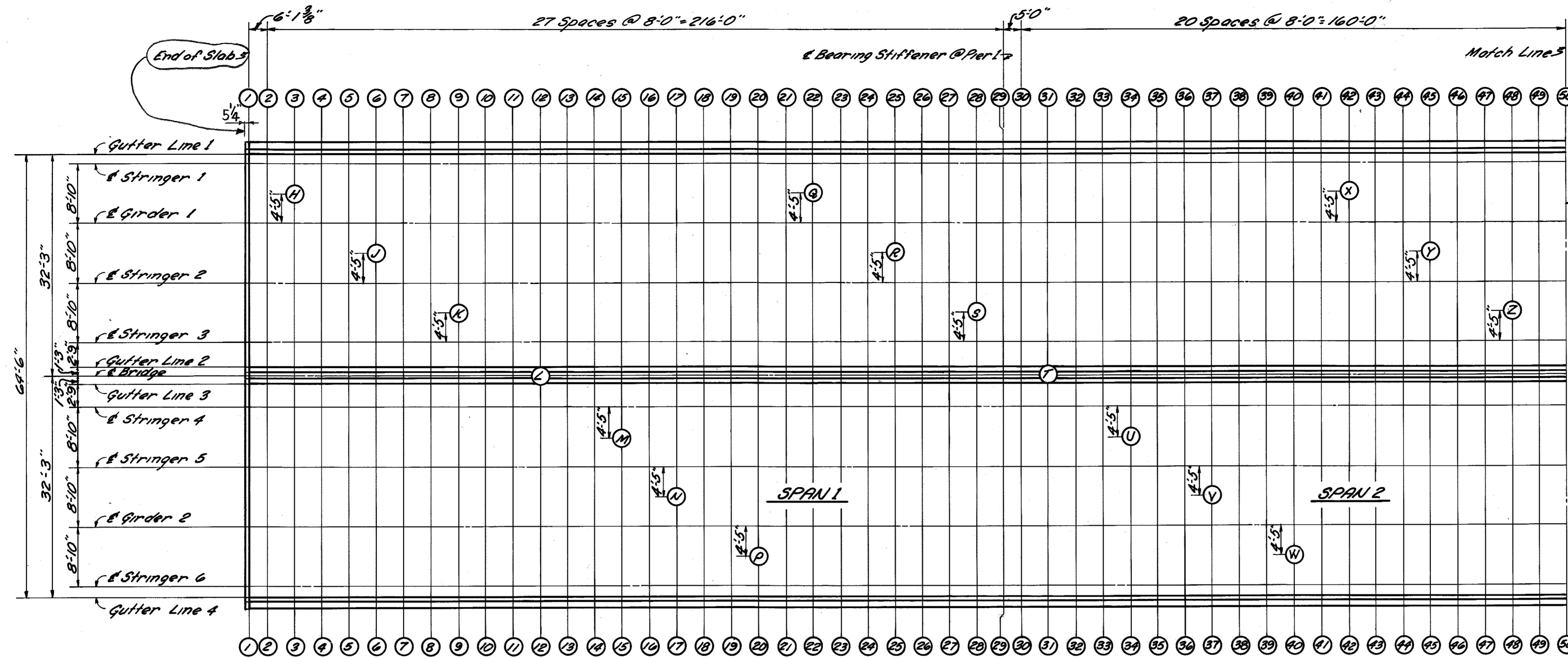
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN-OWENSBORO PARKWAY
ROAD
STATION 2657+35.2 PROJECT NO.

BRIDGE NUMBER 17777 INDEX

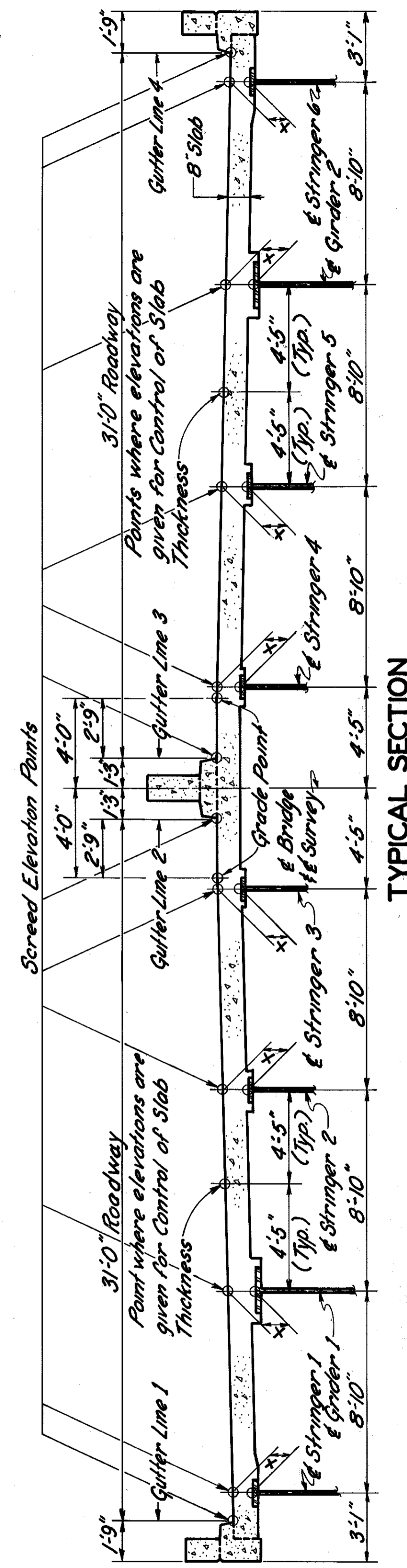
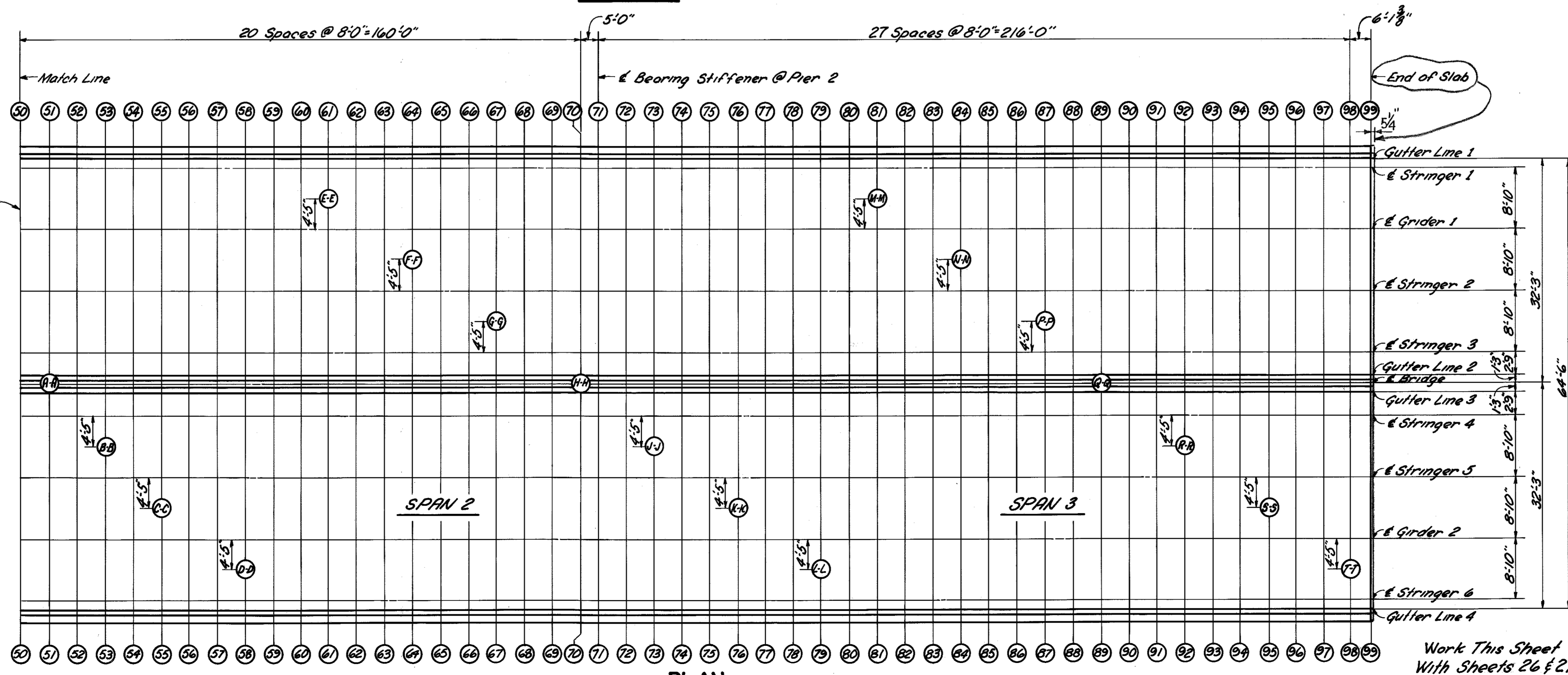
DESIGNED BY: E.P.E. DATE: 11/27/70
 CHECKED BY: DGM DATE: 1/23/71
 REVISION: Revised from Design 1750 to B1. Date 11/27/70
 REVISION: Revised from Design 1750 to B1. Date 11/27/70
 REVISION: Revised Concrete Quantities. Date 5/26/72

BOP 2-6
Construction Rev. No. 1
Sheet 8 of 9

LETTING DATE



NOTE: Dimensions shown on plan are slope dimensions.



DESIGNED BY: M.L. Flood
CHECKED BY: G.R.B.
DATE: 10/70
REVISED: Increased length of slab. See sheet 15-A
DATE: 5-26-72

CONSTRUCTION ELEVATIONS

BRIDGE OVER GREEN RIVER. SHEET 25

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN-OWENBORO PARKWAY

ROAD
P. E. PROJECT NO.
STATION 2657+35.0
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.

17777

Work This Sheet
With Sheets 26 & 27.

CONSTRUCTION ELEVATIONS — SPAN 1

Table for Construction Elevations - Span 1 with 28 columns and 29 rows of elevation data.

CONSTRUCTION ELEVATIONS — SPAN 2

Table for Construction Elevations - Span 2 with 28 columns and 42 rows of elevation data.

Work This Sheet With Sheets 25 & 27.

BRIDGE OVER GREEN RIVER. SHEET 26

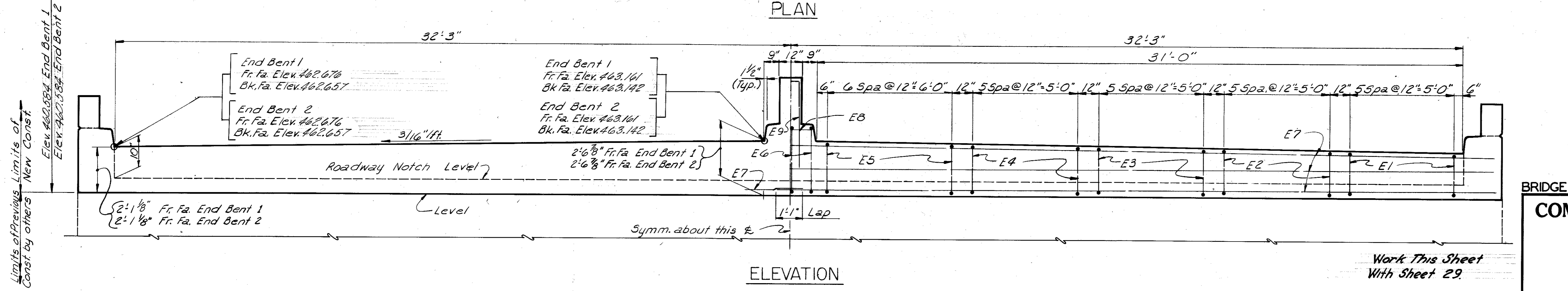
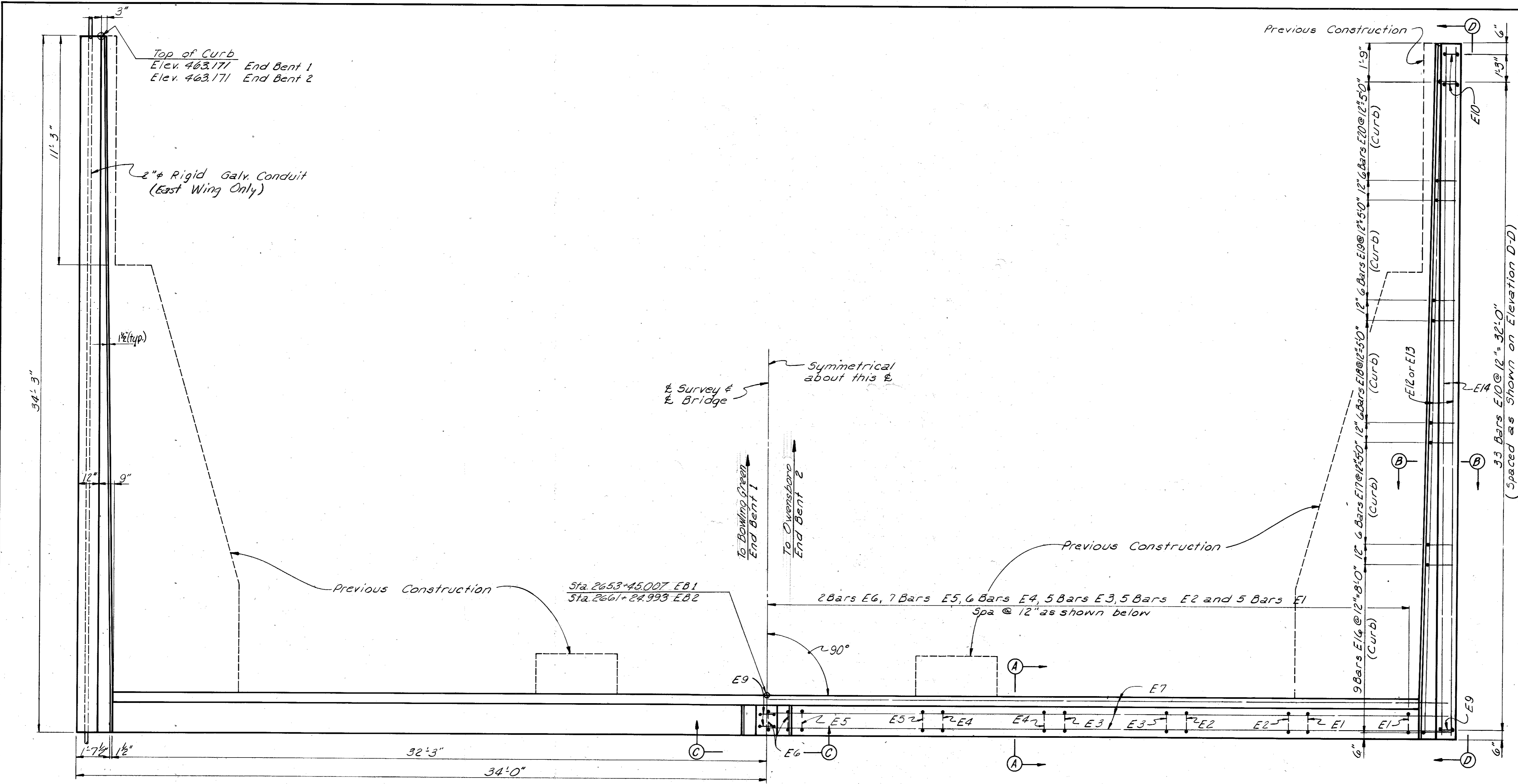
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS FRANKFORT COUNTY OF BUTLER BOWLING GREEN-OWENSBORO PARKWAY STATION 2657.35± CONSTRUCTION PROJECT NO. P. E. PROJECT NO. DRAWING NO. 17777

CONSTRUCTION ELEVATIONS

VERTICAL DATE, DATE, CHECKED BY, REVISED, TRACED BY, G. R. B.

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

DESIGNED BY: C.P.K. Jr. CHECKED BY: D.G.M. DATE: 10/16/63
 REVISION: Revised from Design 174.59 to 174.59 to 174.59
 DATE: 10/16/63
 TRACED BY: D.W.G. CHECKED BY: D.G.M. DATE: 10/16/63



Limits of Previous Const. by others
 Limits of Previous New Const.

END BENTS 1 & 2

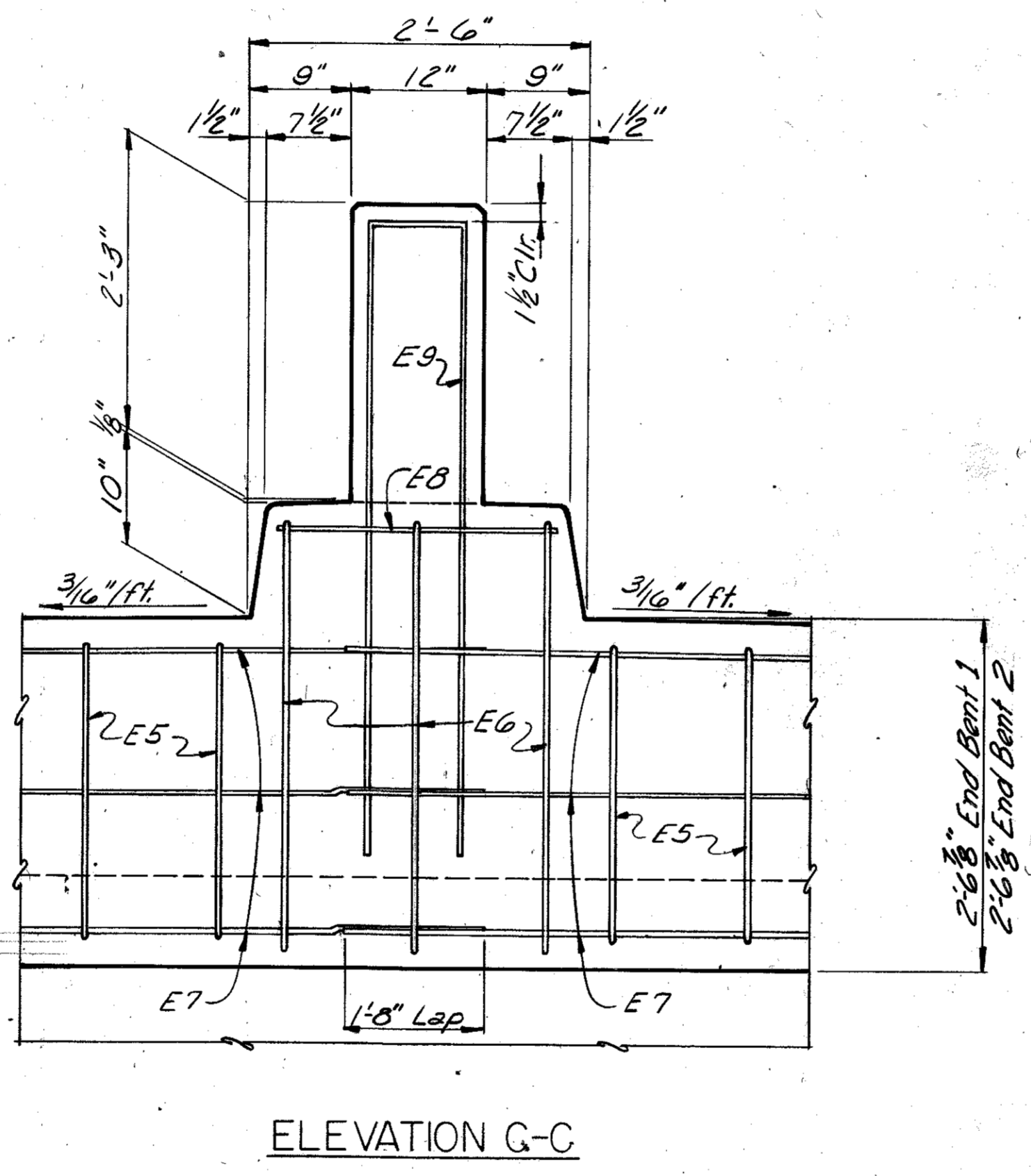
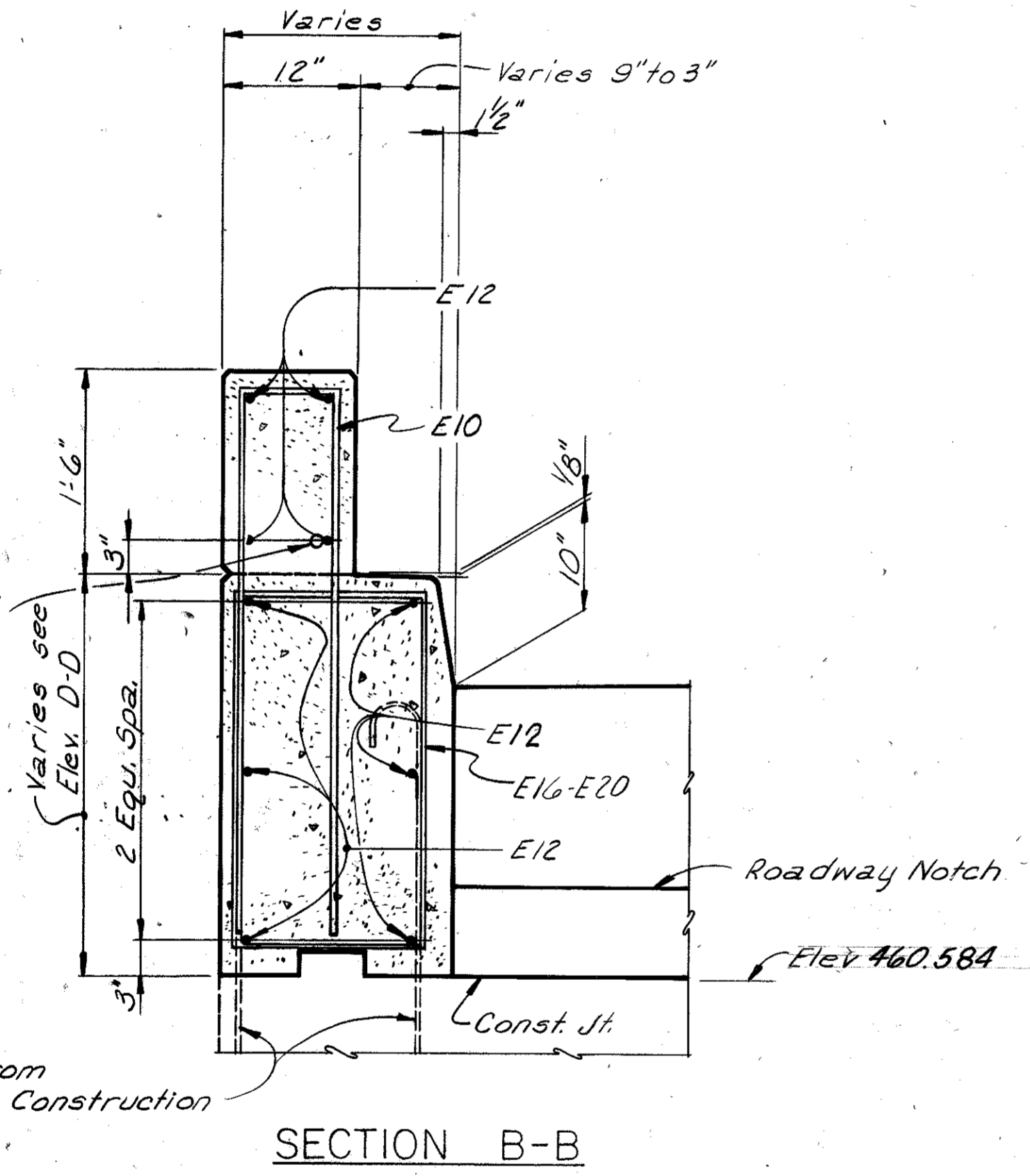
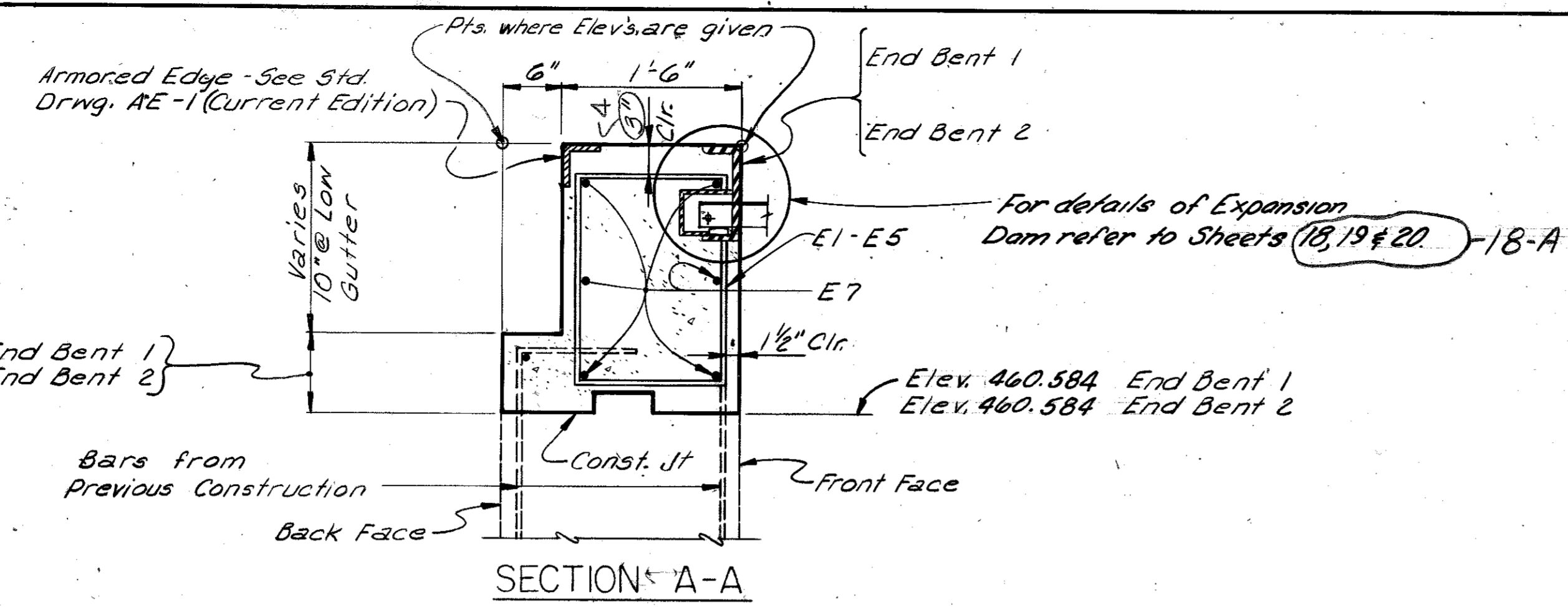
BRIDGE OVER GREEN RIVER. SHEET 28

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENBORO PARKWAY
 ROAD
 STATION 2657+35.2 PROJECT NO.

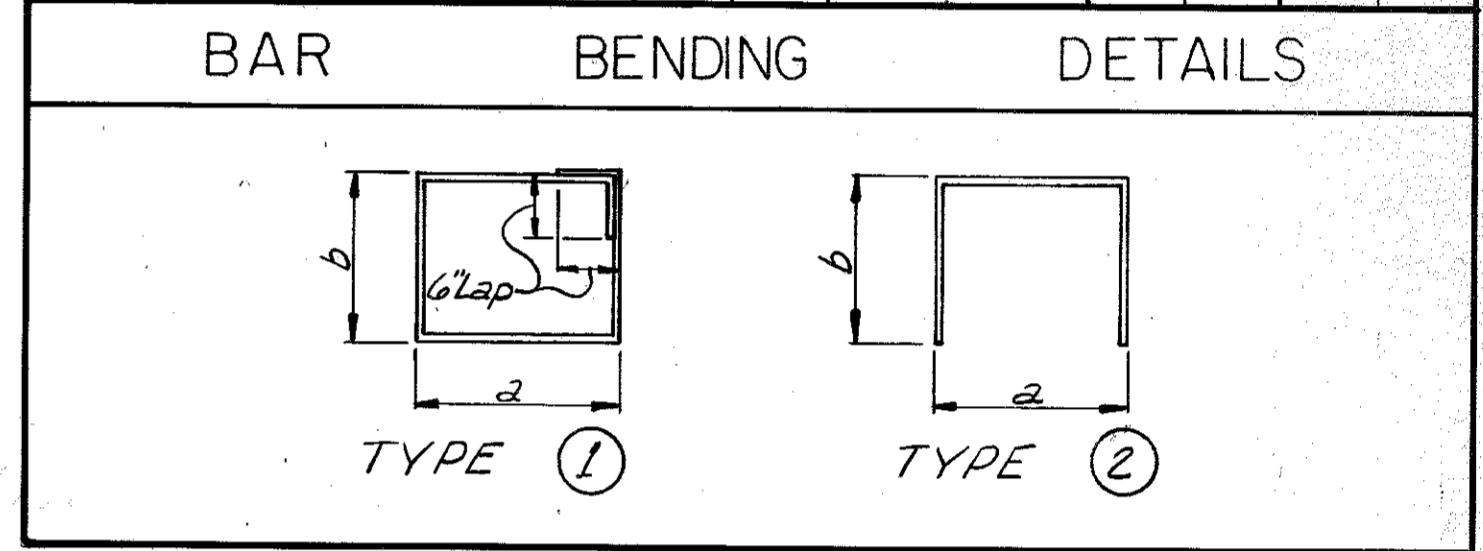
BRIDGE NUMBER	DRAWING NO.	INDEX
	17777	

BOP 2-6
Construction Rev. No. 1
Sheet 9 of 9

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

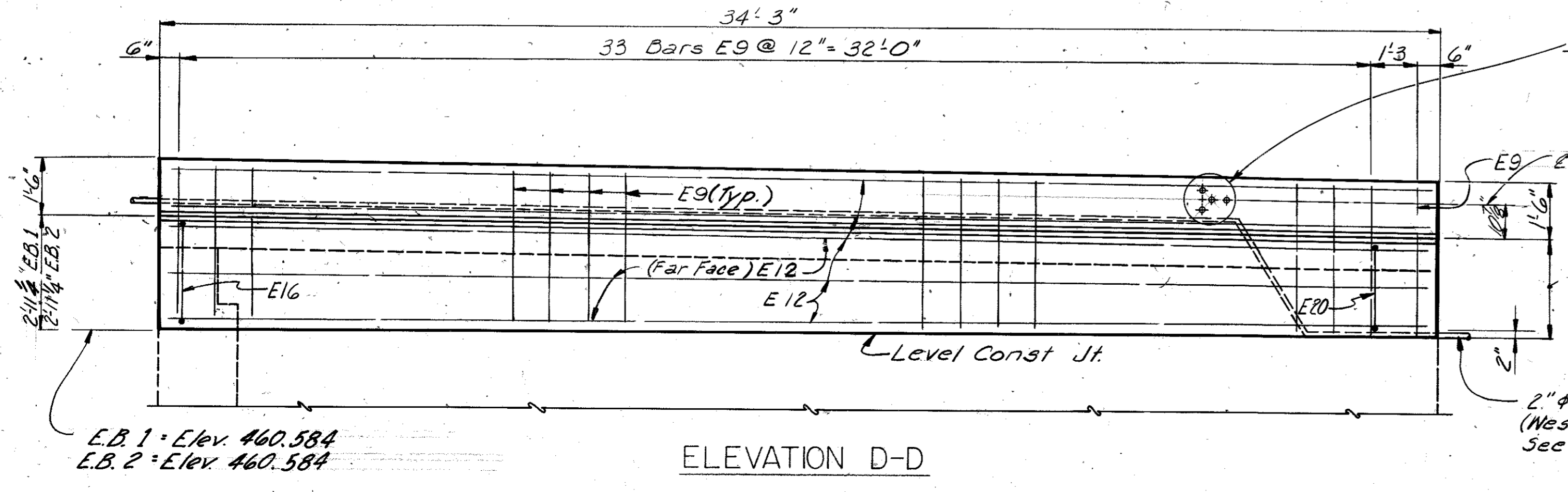


MARK	TYPE	NO. OF BARS		SIZE	LENGTH Ft. In.	LOCATION	a		b	
		E.B. 1	E.B. 2				Ft.	In.	Ft.	In.
E1	①	12	12	#5	6 ⑦	Parapet	1	3	1	⑧
E2	①	12	12	#5	6 ⑨	"	1	3	1	⑨
E3	①	12	12	#5	6 ⑩	"	1	3	1	⑩
E4	①	12	12	#5	7 ⑪	"	1	3	1	⑪
E5	①	14	14	#5	7 ⑫	"	1	3	2	⑫
E6	①	3	3	#5	9 3	"	1	3	3	0
E7	Str.	14	14	#4	34 8	"				
E8	Str.	2	2	#4	2 0	"				
E9	②	2	2	#5	8 5	Median	0	9	3	11
E10	②	68	68	#5	6 1	Plinth	0	9	2	9
E11						NOT USED				
E12	Str.	20	20	#4	33 11	Plinth				
E13						NOT USED				
E14						NOT USED				
E15						NOT USED				
E16	①	18	18	#5	8 3	Curb	1	3	2	6
E17	①	12	12	#5	7 11	"	1	2	2	5
E18	①	12	12	#5	7 7	"	1	1	2	4
E19	①	12	12	#5	7 3	"	1	0	2	3
E20	①	12	12	#5	7 1	"	0	11	2	3



Item	Location	E.B. 1	E.B. 2
Concrete, Class "AA"	Cu. Yds.	24.6	24.6
Steel Reinforcement	Lbs.	2234	2234
		2232	2232

DESIGNED BY: C.R.K. Jr. DATE: 10/10
 CHECKED BY: D.G.M. DATE: 5-25-12
 TRACED BY: DING DATE: 5-25-12
 REVISION: REVISION: REVISION: REVISION: REVISION: REVISION:



NOTE: Four-Bolt Insert Assembly to be placed in End Bent Wings (Inside) before pouring Concrete. For details see Std. Drwg 17.40, Current Edition

Work This Sheet With Sheet 28.

END BENTS 1 & 2

BRIDGE OVER GREEN RIVER. SHEET 29

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
BUTLER
BOWLING GREEN-OWENBORO PARKWAY
ROAD

STATION 2657+35.2 PROJECT NO. 17777

DATE	
BY	
NO.	
DATE	
BY	
NO.	
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NO.	

UTILITY OWNERS

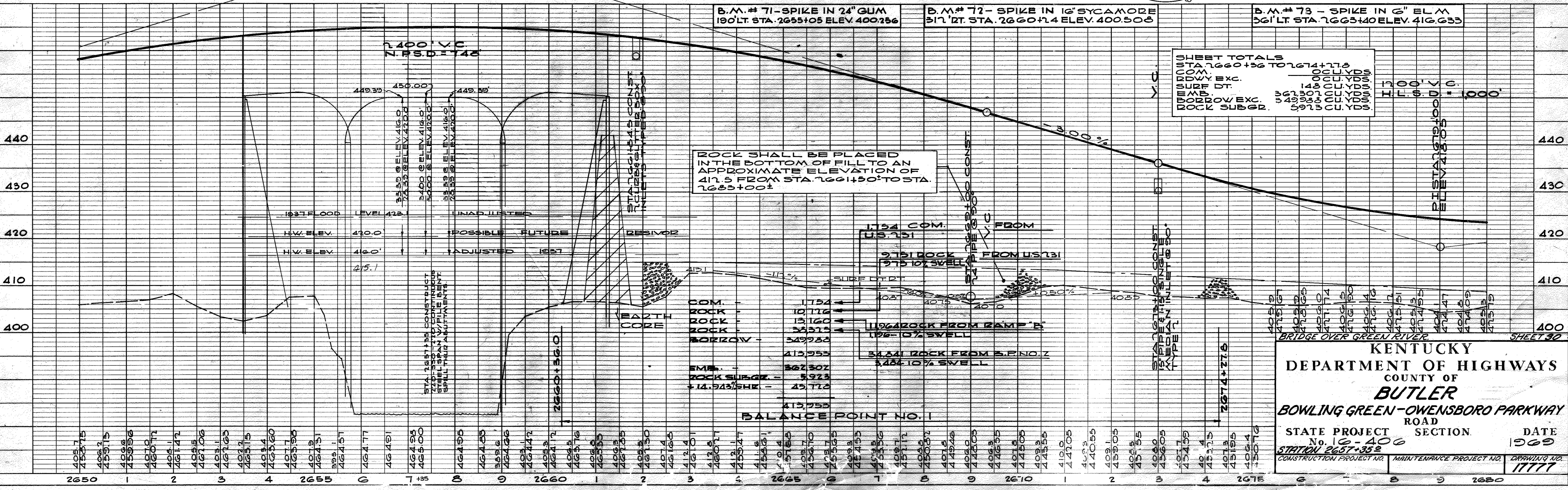
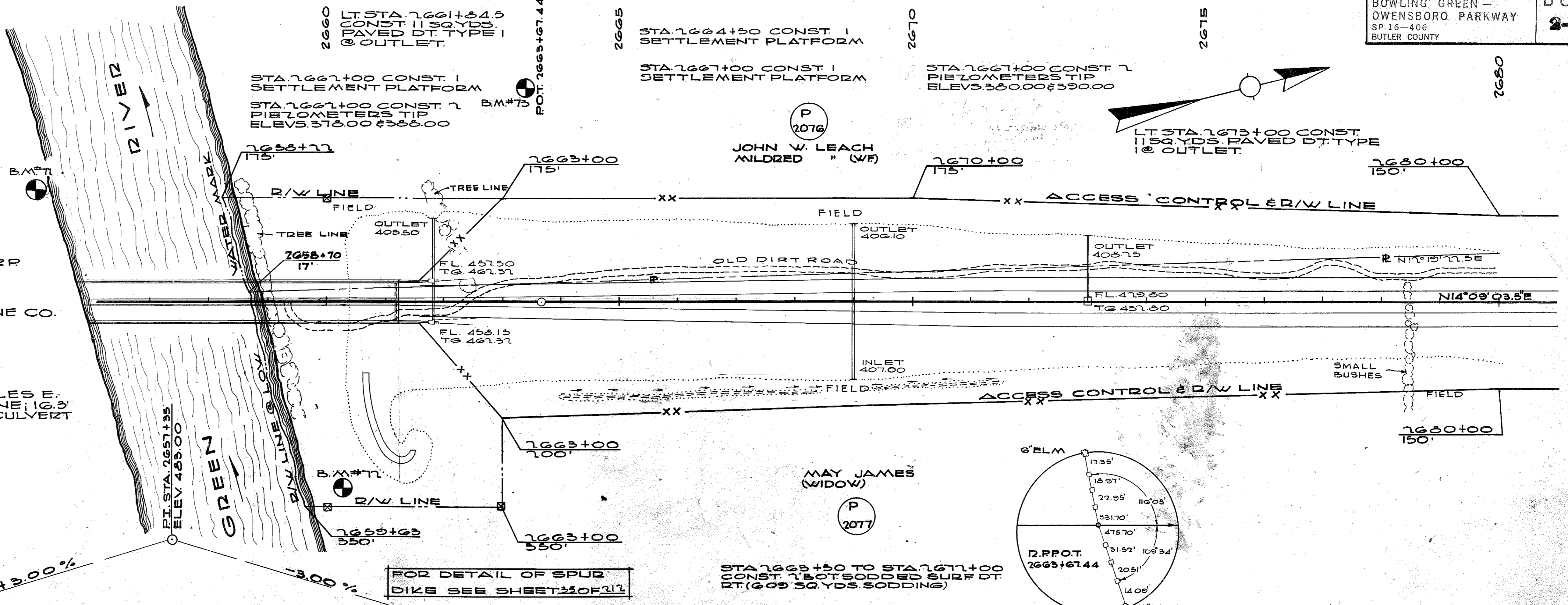
TENNESSEE VALLEY AUTHORITY
 KEY SPRINKLE BLDG.
 KNOXVILLE, TENN.

WARREN RURAL ELEC. COOP CORP
 915 TADBYNEX BLVD.
 BOWLING GREEN, KY.

SOUTH CENTRAL BELL TELEPHONE CO.
 1180 STATE ST.
 BOWLING GREEN, KY.

SOURCE OF LEVELS

U.S.C. & G.S. B.M. # 12-120-0.2 MILES E.
 OF BUTLER - WARREN COUNTY LINE; 16.3
 S.W. OF U.S. HWY. # 231 ON A CONC. CULVERT
 ELEV. 417.020



ROCK SHALL BE PLACED
 IN THE BOTTOM OF FILL TO AN
 APPROXIMATE ELEVATION OF
 417.5 FROM STA. 2661+90 TO STA.
 2663+00±

COM.	11754
ROCK	107114
ROCK	15160
ROCK	32375
SUBGR.	549232
	415955
EMB.	362302
ROCK SUBGR.	5923
+ 14.543% SKE	45712
	413755

SHEET TOTALS

STA 2660+56 TO 2674+77.8	
COM.	00 CL. YDS.
DDWY. EXC.	00 CL. YDS.
SURF. DT.	1400 CL. YDS.
EMB.	367140 CL. YDS.
ROCK EXC.	549307 CL. YDS.
ROCK SUBGR.	5915 CL. YDS.

KENTUCKY
 DEPARTMENT OF HIGHWAYS
 COUNTY OF
BUTLER
 BOWLING GREEN-OWENSBORO PARKWAY
 ROAD
 STATE PROJECT No. 16-406 SECTION DATE 1969
 STATION 2657+352 CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 17777