CALCASIEU RIVER – WEST FORK BRIDGE HAER No. LA-30
(Bridge Recall No. 033353)
Carries Louisiana Highway 378 (LA 378) over West Fork of Calcasieu River
Lake Charles
Calcasieu Parish
Louisiana

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

HISTORIC AMERICAN ENGINEERING RECORD
CALCASIEU RIVER – WEST FORK BRIDGE
(Bridge Recall No. 033353)

HAER No. LA-30

Location: Carries Louisiana Highway 378 (LA 378) over West Fork of Calcasieu River near Moss Bluff, Calcasieu Parish, Louisiana. This branch of the West Fork of the Calcasieu River is also known as Indian Bayou.

The Calcasieu River – West Fork Bridge (Bridge Recall No. 033353) is located at latitude 30.296864 north, longitude -93.24887 west.[1] The coordinate represents the center of the bridge. It was obtained in 2016 by plotting its location in Google Earth. The location has no restriction on its release to the public.

Present Owner: State of Louisiana.

Present Use: Vehicular and pedestrian traffic. When in its open position, the bridge allows for marine traffic on a branch of the West Fork of the Calcasieu River.

Significance: The Calcasieu River – West Fork Bridge is significant as an important variation within the vertical lift bridge type. The bridge is a tower-drive-with-connected-towers vertical lift bridge and its variation is demonstrated in the location of the drive machinery at the center of a fixed structure between the bridge towers that operates the four sheaves simultaneously. The small size of the navigation channel and necessary span length make this configuration well-suited for this site. The Calcasieu River – West Fork Bridge was determined eligible for listing in the National Register of Historic Places (National Register) in 2013 under *Criterion C: Design/Engineering* at the state level of significance.[2]

Historian: Timothy S. Smith, Cultural Resource Specialist; Mead & Hunt, Inc. (Mead & Hunt); 2017.

Project Information: This documentation was prepared as mitigation to fulfill Stipulation IX.5 of the *Programmatic Agreement Among the Federal Highway Administration, the Louisiana Department of Transportation and Development, the Advisory Council on Historic Preservation, and the Louisiana State Historic Preservation Officer Regarding Management of Historic Bridges in Louisiana*, dated August 18, 2015, and executed September 21, 2015. The Louisiana Department of Transportation and Development (LADOTD) retained Mead & Hunt to prepare this document. It was prepared by cultural resource specialist Timothy S. Smith of Mead & Hunt. Dietrich Floeter completed the photography.

---

[1] The bridge is also known as Structure No. 07108101204221.

[2] Mead & Hunt, Inc., *National Register Eligibility Determination Report: Pre-1971 Louisiana Highway Bridges* (prepared for the Louisiana Department of Transportation and Development, September 2013).

Part I. Historical Information

A. Physical History:

1. **Date(s) of construction:** 1968.

2. **Engineer**: Bridge Design Section, Louisiana Department of Highways.

3. **Builder/Contractor/Supplier:** The bridge contractor was F. Miller & Sons of Lake Charles, Louisiana. W.B. Smiley Steel Company, also of Lake Charles, fabricated the steel components used in the construction of the movable span and tower structure.

4. **Original plans and construction:** Copies of the original plan sheets are available in the General Files room at the LADOTD's Baton Rouge headquarters. As-built plans indicate the design and details of the vertical lift span were based on the Old River Navigation Canal Bridge (Bridge Recall No. 054900) in Pointe Coupee Parish, which was constructed in 1965 with an approximate length of 102'. The Old River Navigation Canal Bridge was built as part of State Project 177-01-05 and those plans were modified to fit the design of the Calcasieu River – West Fork Bridge. The as-built plan sheets were approved on May 3, 1966, by the Assistant Chief Engineer. As-built plan sheets generally do not indicate who designed, checked, or detailed the sheets.

5. **Alterations and additions:** Portions of the steel grid deck at each end of the movable span have been partially filled in with concrete.

B. Historical Context:

Historical background

Since the Louisiana Highway Commission's (LHC's) inception in 1921 (replacing the State Highway Department), the agency's Bridge Department was responsible for the design and construction of many of Louisiana's bridges, including some of the largest and most significant examples. The department originally operated within the agency's construction division. Projects with only bridges were handled by the Bridge Department and those with both roads and bridges were completed by the office engineer with assistance from the bridge engineer.[3] The Bridge Department designed and often served a supervisory role in projects, eliminating the need for a general contractor during construction of State-owned bridges. As the Bureau of Public Roads (BPR) created design standards at the national level, the LHC also created Louisiana standard plans developed to assist in bridge design.[4] The LHC was reorganized as the Louisiana Department of Highways (LDH) in the 1940s, which designed the Calcasieu River – West Fork

---

[3] Louisiana Highway Commission, *Biennial Report of the Louisiana Highway Commission of the State of Louisiana, 1922-1924* (Baton Rouge, La.: Louisiana Highway Commission, 1924), 93.

[4] Louisiana Highway Commission, *Biennial Report of the Louisiana Highway Commission of the State of Louisiana, 1922-1924*, 93 and 95; Mead & Hunt, Inc., *Historic Context for Louisiana Bridges,* 17.

Bridge. LDH biennial reports from the 1950s and 1960s indicate that in the period following World War II economic growth and government funding combined to not only increase investment on a grand scale, but also improve and increase road and bridge construction statewide.[5]

Bridge engineering practices of the Bridge Department/Bridge Design Section in the 1950s and 1960s became an increasingly scientific discipline that stressed a calculated approach to the rapidly increasing demand for plentiful, affordable, and efficient bridge designs and construction methods. Standardization and cost analysis accompanied the use of early computer programs and automated work to aid engineers in new approaches and innovations.[6]

Making the work of the agency more complicated was the state's abundant waterways. Influenced by the need to create and facilitate a reliable transportation system, the agency looked to movable bridges to span these waterways while also allowing for marine navigation below. As a result, Louisiana has one of the largest collections of movable bridges in the nation. Few were constructed in the state prior to 1900; however, they gained popularity and a series of standard plans for movable bridges were developed by the LHC and LDH between 1924 and 1963. Standard plans were periodically revised with small adjustments to meet site-specific needs. Standard plans for tower-drive-with-connected-tower bridges such as the Calcasieu River – West Fork Bridge were available by at least 1955 and typically used for spans over small navigation channels with spans under 200 feet.

As of 2015 Louisiana had 31 vertical lift bridges constructed between 1914 and 1970, and approximately 18 of these are the tower-drive-with-connected-tower subtype. The type, with known examples restricted to only Louisiana and New Jersey, has extant examples in the southernmost parishes of the state, such as Terrebonne and Lafourche. Linear concentrations also exist along Bayou Lafourche, Bayou Teche, and the Vermilion River. The geography and occurrence of relatively small navigable waterways in this region of the state may explain why this variation is used in Louisiana, but quite uncommon nationally.[7]

Construction of the Calcasieu River – West Fork Bridge

One of the earliest known crossings near the present-day location of the Calcasieu River – West Fork Bridge was the Southerland Ferry. The ferry was in operation by 1935 and carried traffic across the Indian Bayou just north of the existing bridge. Approach roadways carried traffic along local roads at that time. The ferry was renamed the Indian Bayou Ferry by 1956 and operated for another 12 years.[8] By the mid-1960s the ferry carried a spur of LA 378 and early planning for a highway realignment and bridge construction project was underway. According to a May 1966 article in the *Lake Charles American-Press*, the overall project began on the spur of LA 378 about 3.8 miles north of LA 379 in Westlake and extended northeasterly along a new location of the LA 378 spur across the Calcasieu River – West Fork and then

[5] Mead & Hunt, Inc., *Historic Context for Louisiana Bridges,* 27.

[6] Mead & Hunt, Inc., *Historic Context for Louisiana Bridges*, 97.

[7] Mead & Hunt, Inc., *National Register Eligibility Determination Report: Pre-1971 Louisiana Highway Bridges,* 36, 44.

[8] Nationwide Environmental Title Research, LLC, *Historic Aerials,* 2016, http://www.historicaerials.com/ (accessed June 17, 2016).

about 1 mile to the junction with LA 378. Two locations for a new bridge were originally proposed: one at the site of the ferry crossing and another at the north end of Westwood Road. The time anticipated to complete the entire project once issued was 15 months.[9]

The LDH received three bids for the bridge construction. W.R. Aldrich & Co. of Baton Rouge submitted a bid of $1,068,016; the Southern Bridge Co. of Baton Rouge proposed a construction cost of $1,149,697; and F. Miller & Sons of Lake Charles submitted the low bid of $1,047,488 and was selected as the contractor for bridge construction.[10] Plans for the 624'-0" Calcasieu River – West Fork Bridge and approach roadways along LA 378 were completed by May 1966 as part of State Project 713-21-17. An aerial photograph included in the 1966 as-built plans illustrates how the proposed bridge and approach roadways served to realign the highway and improve road geometrics on either side of Indian Bayou for modern traffic volumes. As-built plans indicate the bridge was designed by the Bridge Design Section of the LDH based on State Project No. 177-01-05 for the Old River Navigation Canal Bridge (Bridge Recall No. 054900) in Pointe Coupee Parish and modified to fit this project. Annual reports indicate that construction expenditures on the Calcasieu River – West Fork Bridge were incurred between 1968 and 1970 with a total cost of $599,340.04.[11]

Engineering background

The Calcasieu River – West Fork Bridge is an example of a tower-drive-with-connected-towers vertical lift bridge. The oldest movable bridges in the U.S. date to the mid-to-late nineteenth century and most early examples were of the swing type. Small-scale vertical lift bridges consisting of girder spans of a maximum span length of approximately 50' were first constructed across canals throughout Europe and the U.S. in the early nineteenth century. These early vertical lift bridges had very short lifts and included such features as cast-iron towers and hydraulically operated movable spans. In the U.S., movable bridges were constructed over the Erie Canal in the early nineteenth century. Toward the end of the nineteenth century a series of other movable bridge types were rapidly developed and brought into common use, including bascule variations and vertical lift examples.[12]

---

[9] "Governor Gives Okay to Bridge," *Lake Charles American-Press*, June 22, 1965, 15; The location of Westwood Road in 1965 is unknown but likely corresponded to the south approach roadway for the existing bridge at the time of construction; "Work to Start Soon on West Fork Bridge," *Lake Charles American-Press*, May 26, 1966.

[10] "Work to Start Soon on West Fork Bridge."

[11] State of Louisiana Department of Highways, *Plans of Proposed State Highway, State Project No. 713-21-17*, as-built plans for West Fork Calcasieu River Bridge and Approaches (Indian Bayou), May 3, 1966, available in the General Files room, Louisiana Department of Transportation and Development, Baton Rouge, La.; W.B. Smiley Steel Company, *Shop Drawings*, West Fork Calcasieu River Bridge over Indian Bayou, July 30, 1966; State of Louisiana Department of Highways, *Financial & Statistical Report, Fiscal Year Ending June 30, 1968* (Baton Rouge, La.: State of Louisiana Department of Highways, 1968), 61; State of Louisiana Department of Highways, *Financial & Statistical Report, Fiscal Year Ending June 30, 1969* (Baton Rouge, La.: State of Louisiana Department of Highways, 1969), 43; State of Louisiana Department of Highways, *Financial & Statistical Report, Fiscal Year Ending June 30, 1970* (Baton Rouge, La.: State of Louisiana Department of Highways, 1970), 46.

[12] Terry L. Coglin, *Movable Bridge Engineering* (Hoboken, N.J.: John Wiley & Sons, Inc., 2003), 55.

The design of modern vertical lift bridges can be attributed to John Alexander Low Waddell's 1894 South Halsted Street Bridge in Chicago. In vertical lift bridges, the main span consists of steel girders or a truss that is raised and lowered via cables. The cables are carried over large, grooved pulleys or wheels (termed sheaves) at the tops of the bridge towers and attached to the movable span at one end and large counterweights at the other end. The cables and counterweights balance the weight of the lift span so very little effort or power is required to move it up or down. The up and down movement is accomplished through a second and separate set of cables called up-haul and down-haul ropes.

The design of vertical lift bridges can vary slightly based on the location of the motor(s) and drive mechanisms that move the span up and down by controlling the up-haul and down-haul ropes. The three basic variations include span drive, tower drive with independent towers, and tower drive with connected towers.[13] Span drive vertical lift bridges have a series of operating ropes (typically two up-haul and two down-haul ropes at each corner of the span) attached to geared operating drums. To lift the span, the drum winds the up-haul ropes and simultaneously unwinds the down-haul ropes. The sheaves at the top of each tower carry the counterweight ropes and are free spinning with no direct control over the movement of the span. Tower drive vertical lift bridges with independent towers are powered by a separate set of drive machinery located at the top of each lift tower. The movable span is raised and lowered by rotating the motorized sheaves by means of interconnected shaft and gears. A single motor operates two sheaves that enable the span to move.[14]

In contrast to span drive and tower drive vertical lift bridges, the Calcasieu River – West Fork Bridge has an overhead longitudinal steel structure that connects the vertical lift towers and supports a platform for the drive machinery. The centrally located drive machinery rotates a series of shafts that in turn simultaneously operate the four sheaves (grooved steel wheels), one located at the top of each tower corner.

Part II. Structural/Design Information

A. General Statement:

1. Character: The Calcasieu River – West Fork Bridge is a tower-drive-with-connected-tower vertical lift bridge with a steel plate girder movable span. It is a representative example of this uncommon vertical lift bridge type.

2. Condition of fabric: Good.

B. Description: The Calcasieu River – West Fork Bridge is located on the western edge of Moss Bluff, Louisiana, and carries LA 378 over a branch of the West Fork of the Calcasieu River (Indian Bayou). Moss Bluff is an unincorporated community located north of Lake Charles, Louisiana. LA 378 extends

---

[13] Coglin, *Movable Bridge Engineering*, 6, 55; Mead & Hunt, Inc., *Crossing the Bayou: Louisiana's Historic Bridges* (prepared for the Louisiana Department of Transportation and Development, 2015), 14.

[14] Mead & Hunt, Inc., *Crossing the Bayou: Louisiana's Historic Bridges,* 14-17.

west of U.S. Highway 171 in Moss Bluff, turns south at Sam Houston Jones State Park and extends south through Westlake to Interstate Highway 10. The north approach roadway is known locally as Sam Houston Jones Parkway and the south approach roadway is known locally as Davis Road.

The bridge is aligned on a nominal southwest-northeast axis. It has an overall structure length of 624'-0" and an out-to-out width of 33'-7". The nine-span structure has a 100'-0" center (main) steel girder vertical lift span; four precast, pre-stressed concrete girder approach spans at each end of the lift span, each with an individual length of 65'-0"; an operator's house adjacent to the bridge; and a machinery house located to the southeast of the bridge.

Main vertical lift span

The vertical lift span of the Calcasieu River – West Fork Bridge is a steel plate girder with high-tensile bolt connections and stiffeners situated between two cross-braced steel I-beam towers. Welded metal portals connect the towers above the roadway at either end of the movable span. Overhead longitudinal bracing provides additional stability to the tower structure. The bridge has a tower-drive-with-connected-towers configuration, meaning the drive machinery used to raise and lower the span is located on a platform at the center of the overhead longitudinal bracing. The drive machinery rotates a series of shafts that in turn simultaneously operate the four sheaves (grooved steel wheels), one located at the top of each tower corner. Structural connections on the overhead bracing and tower structure also utilize high tensile bolts.

Four heavy steel cables carried by the sheaves are attached to the movable span below, which is balanced at each end by a large counterweight that consists of a steel beam encased on concrete and large balance chains. The combined weight of the two counterweights is equal to the weight of the lift span, and thus for movement to occur the drive machinery needs to provide only enough force to overcome friction and wind resistance to operate the cables in the corresponding direction. This configuration enables enhanced synchronization between the four sheaves during operation since they are controlled from a single drive mechanism rather than separate motors. Other mechanical features on the vertical-lift span include span locks that secure the span in place when in the closed position, as well as guide rollers at the end of the span. The substructure for the vertical lift span consists of concrete bents that comprise multiple rectangular concrete columns supporting two massive concrete platforms under each of the paired steel lift towers.

The vertical lift span generally has a roadway width of 28'-6" accommodating a two-lane roadway. Across both sides of its entire length the bridge has a raised metal curb and a 1'-6" sidewalk with a concrete railing that consist of a single rail integrated with concrete posts. The deck consists of a steel grid that is partially filled in with concrete at each end of the movable span.

The design of the operator's house was taken from Standard Plan 55-30-01 and modified to fit this project. Located off the west side of the southern bridge approach, the central entry aluminum door is accessed from the bridge deck through a break in the handrail. The concrete-walled, box-like building is approximately 21' wide, 16' deep, and 12' tall. Pairs of horizontal grooves beneath the flat roofline give the building a restrained Moderne appearance, and a round stylized emblem of a pelican is set into the wall and above doors and windows on each elevation of the operator's house. One-over-one, double-hung, aluminum sash windows wrap around the corners of the building and span the entire north side of the building that faces the waterway. The interior spatial arrangement includes an L-shaped room with a control desk and switchboard, and a restroom. The operator's house sits on four concrete bents. The lift span is electrically powered, with a switchboard and electrical panels located in the operator's house.

Approach spans

Each of the eight approach spans consists of four prestressed concrete girders with concrete diaphragms. The south approach has a curved deck and is banked to account for the approach curve of the approach roadway. The approach spans generally have a roadway width of 28'-6" accommodating a two-lane roadway. The approach spans have a concrete deck, raised concrete curb, narrow 1'-6" sidewalk, and a concrete railing that consists of a single rail integrated with concrete posts (rail is continuous across the movable span) and rounded end posts stamped with "1968" and "West Fork." Metal guardrail is attached to the concrete approach railing.

The substructure consists of concrete abutments with abutment seats on which the girders sit. The abutments have no wingwalls. The end of each span is supported by an open concrete bent with concrete bent caps and multiple rectangular concrete bent columns. Some bent caps are variable depth.

Several traffic barriers are located along the approach spans. Metal drop-arm traffic barriers are located adjacent to the outermost approach span on each side of the bridge. Vertical drop-bar traffic barriers are located at the edge of the inner approach spans and feature a counterweighted design with concrete counterweight.

Other features

The machinery house is located on the east side of the southernmost approach span. The concrete building is approximately 20' wide, 16' deep, and 9' tall. The building's structural system consists of concrete blocks framed into two large, U-shaped, concrete beams on the principal (northwest) and rear (southeast) elevations. The roof features a concrete channel slab with metal cladding. The building is accessed by a pair of aluminum doors with plate-glass windows in the upper panel and flanked by three-light windows on either side of the entryway. A large louvered vent is located on the south side and is connected to the small generator plant inside the building.

C. Site Information: The Calcasieu River – West Fork Bridge spans a branch of the West Fork of the Calcasieu River (Indian Bayou). The river runs in a southeasterly direction, joining the Calcasieu River approximately 3.5 miles from the bridge. The landscape surrounding the bridge and river consists of deciduous trees and vegetation. The bridge is located less than a mile from the eastern edge of Sam Houston Jones State Park. The bridge carries two lanes of vehicular traffic, one in each direction.

Part III. Sources of Information

A. Primary Sources:

Bridge Inspection Report. Recall No. 033353. February 20, 2013. Available in Bridge Maintenance and Inspection Division, Louisiana Department of Transportation and Development, Baton Rouge, La.

"Governor Gives Okay to Bridge." *Lake Charles American-Press*, June 22, 1965.

Louisiana Highway Commission. *Biennial Report of the Louisiana Highway Commission of the State of Louisiana, 1922-1924.* Baton Rouge, La.: Louisiana Highway Commission, 1924.

Nationwide Environmental Title Research, LLC. *Historic Aerials*. 2016. http://www.historicaerials.com/ (accessed June 17, 2016).

State of Louisiana Department of Highways. *Plans of Proposed State Highway, State Project No. 713-21-17.* As-built plans for West Fork Calcasieu River Bridge and Approaches (Indian Bayou), Calcasieu Parish, *LA 378*. May 3, 1966. Available in the General Files room, Louisiana Department of Transportation and Development, Baton Rouge, La.

State of Louisiana Department of Highways. *Financial & Statistical Report, Fiscal Year Ending June 30, 1968*. Baton Rouge, La.: State of Louisiana Department of Highways, 1968.

State of Louisiana Department of Highways. *Financial & Statistical Report, Fiscal Year Ending June 30, 1969*. Baton Rouge, La.: State of Louisiana Department of Highways, 1969.

State of Louisiana Department of Highways. *Financial & Statistical Report, Fiscal Year Ending June 30, 1970*. Baton Rouge, La.: State of Louisiana Department of Highways, 1970.

W.B. Smiley Steel Company. *Shop Drawings*. West Fork Calcasieu River Bridge over Indian Bayou. July 30, 1966. Available at the General Files office, Louisiana Department of Transportation and Development, Baton Rouge, La.

"Work to Start Soon on West Fork Bridge." *Lake Charles American-Press*, May 26, 1966.

B. Secondary Sources:

Coglin, Terry L. *Movable Bridge Engineering*. Hoboken, N.J.: John Wiley & Sons, Inc., 2003.

Mead & Hunt, Inc. *Crossing the Bayou: Louisiana's Historic Bridges*. Prepared for the Louisiana Department of Transportation and Development, 2015.

Mead & Hunt, Inc. *Historic Context for Louisiana Bridges*. Prepared for the Louisiana Department of Transportation and Development, December 2013.

Mead & Hunt, Inc. *National Register Eligibility Determination Report: Pre-1971 Louisiana Highway Bridges*. Prepared for the Louisiana Department of Transportation and Development, September 2013.

R. Christopher Goodwin & Associates. *Transportation in Louisiana: Final Report*. Prepared for the Office of Cultural Development Department of Culture, Recreation, & Tourism, 2012.

HISTORIC AMERICAN ENGINEERING RECORD

INDEX TO PHOTOGRAPHS

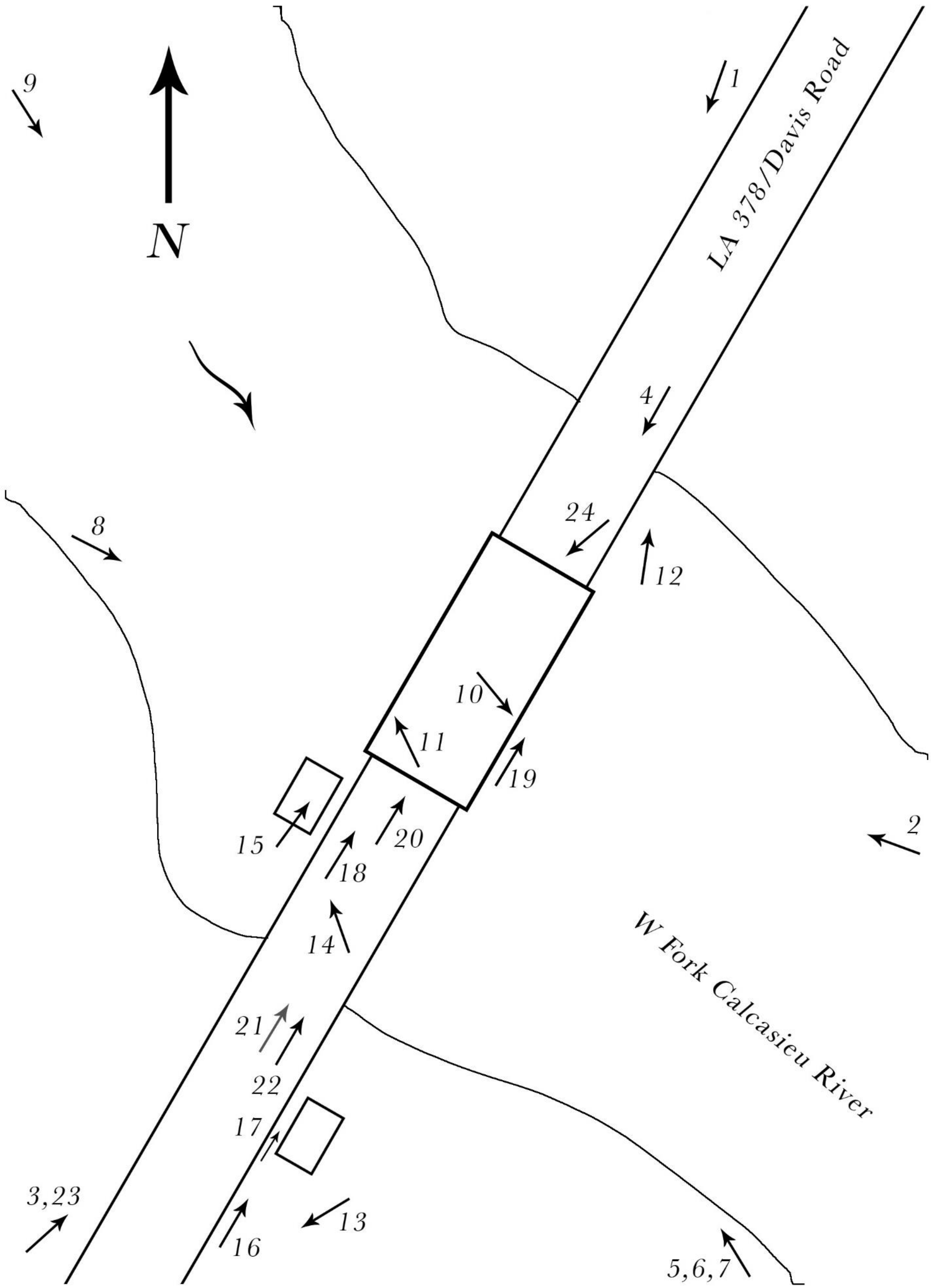
CALCASIEU RIVER – WEST FORK BRIDGE **HAER No. LA-30**
(Bridge Recall No. 033353)
Carries Louisiana Highway 378 (LA 378) over West Fork of Calcasieu River
Lake Charles
Calcasieu Parish
Louisiana

INDEX TO BLACK AND WHITE PHOTOGRAPHS

Dietrich G. Floeter, photographer, February and March 2016
Scale Device 8 Feet Long

LA-30-1	Northeast approach, from northeast
LA-30-2	Southeast elevation, from southeast
LA-30-3	Southwest approach, from southwest
LA-30-4	Northeast approach, from northeast
LA-30-5	Detail view of lifting span with 8-foot scale device, from southeast
LA-30-6	Detail view of lifting span open, from northeast
LA-30-7	Wider view of lifting span open, from southeast
LA-30-8	General setting view of northwest side, from northwest
LA-30-9	Setting view of bridge from boat launch, from southeast
LA-30-10	View from bridge to southeast
LA-30-11	View from bridge to northwest
LA-30-12	Detail view of northeast abutment, from south
LA-30-13	Detail view of southwest abutment, from northeast
LA-30-14	Detail view of operator’s house, from south

LA-30-15	Detail view of operator’s house interior showing control panel, from southwest
LA-30-16	Detail view of machinery house, from southwest
LA-30-17	Detail view south gate, from southwest
LA-30-18	Detail view of south barrier gate, from southwest
LA-30-19	Detail view of south barrier gate control motor, from southwest
LA-30-20	Detail view of south end and underside of lifting span, from southwest
LA-30-21	Detail view of underside of approach spans showing substructure, from southwest
LA-30-22	View of underside of bridge, from southwest
LA-30-23	Setting view of bridge, from southwest
LA-30-24	Deck view, from northeast


N
LA 378/Davis Road
W Fork Calcasieu River
1
2
3,23
4
5,6,7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
24

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-1

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-2

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-3

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-4

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-5

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-6

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-7

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-8

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-9

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-10

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-11

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-12

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-13

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-14

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-15

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-16

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-17

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-18

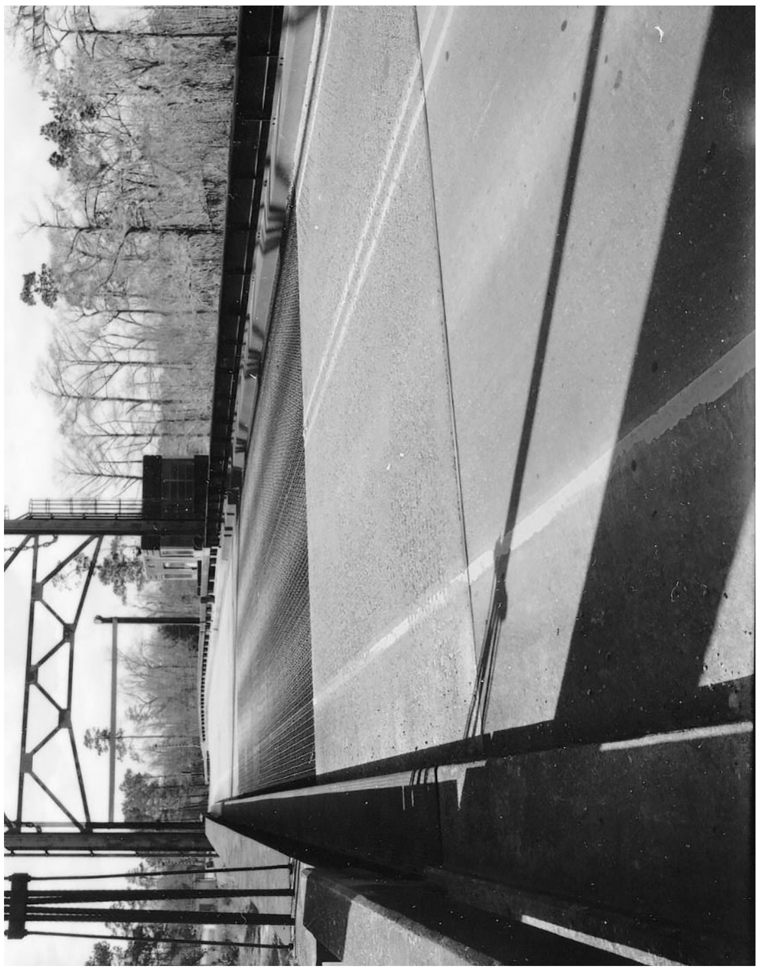
HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-19

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-20

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-22

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-23

HISTORIC AMERICAN ENGINEERING RECORD
See Index to Photographs for Caption
HAER NO. LA-30-24



41

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

PLANS OF PROPOSED
STATE HIGHWAY

STATE PROJECT NO. 713-21-17
WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES (INDIAN BAYOU)
CALCASIEU PARISH
La 378

STATE PROJECT	PARISH
713-21-17	CALCASIEU

INDEX TO SHEETS

SHEET No.	DESCRIPTION
1	TITLE PAGE & LAYOUT MAP
2-2a	TYPICAL SECTIONS & DETAILS
3-3a	SUMMARY SHEETS
4-6	PLAN & PROFILE SHEETS
7	SUMMARY OF DRAINAGE STRUCTURES SHEET
8	DETAILS OF TURNOUTS & CONNECTIONS
9	SUBGRADE SOIL SURVEY
101-173	BRIDGE PLANS

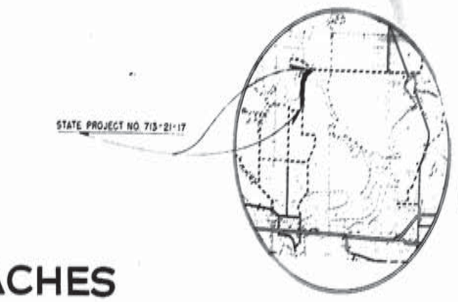
	STANDARD PLAN	REV. DATE
201	R-F-14	2-2-66
202-203	R-F-16 REV.	8-21-64
204-207	R-S-24 REV.	12-65
208	R-M-14	4-9-63
209	C-M-95	3-11-59
210	C-M-97	2-25-55
211	R-S-21	12-29-61

401-413 CROSS SECTION SHEETS

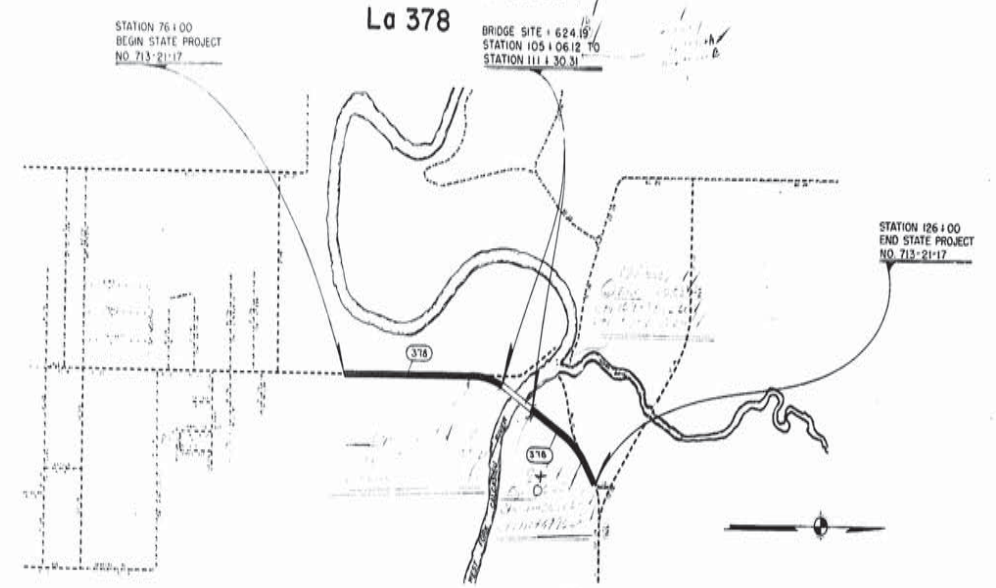
TOTAL SHEETS WITHOUT CROSS SECTION SHEETS 95
TOTAL SHEETS WITH CROSS SECTION SHEETS 108

PLAN CHANGE

SHEET No.	DESCRIPTION
1a	TITLE PAGE & LAYOUT MAP
5a	PLAN & PROFILE SHEET
8a	DETAILS OF TURNOUTS & CONNECTIONS



VICINITY MAP



SCHEDULE OF REVISIONS

DATE	REVISION	DATE	RECOMMENDED	DATE	APPROVED

TYPE OF CONSTRUCTION:
ASPHALTIC CONCRETE PAVEMENT

TRAFFIC DATA:
1965 ADT = 400

DATUM USED: M.S.L.
MAG. VAR.: 7° - 15' E.
BEARINGS ARE TRUE
TRANSIT BOOKS: 68-797 67-556
LEVEL BOOKS: 68-931 68-816
SCALES
PLAN: 1" = 100'
PROFILE: HOR. 1" = 100'
VERT. 1" = 10'

LAYOUT MAP

SCALE 1 INCH = 1000 FEET

1000 0 1000 2000 3000

LENGTH OF PROJECT

DESCRIPTION	ALGEBRAIC SUM OF ALL EQUATIONS	GROSS LENGTH	EXCEPTION	BRIDGE LENGTH		ROADWAY LENGTH	
STA. TO STA.	FEET	FEET	FEET	FEET	MILES	FEET	MILES
76+00 to 126+00		5000.00		624.19	0.118	4375.81	0.828
TOTAL LENGTH OF BRIDGES				624.19	0.118		
TOTAL LENGTH OF ROADWAY						4375.81	0.828
TOTAL MILES				0.946			

RECOMMENDED FOR APPROVAL
Frady ...
TRAFFIC & PLANNING ENGINEER
5-3-66

RECOMMENDED FOR APPROVAL
BRIDGE DESIGN ENGINEER
5-3-66

RECOMMENDED FOR APPROVAL
ROAD DESIGN ENGINEER
5-3-66

RECOMMENDED FOR APPROVAL
J. B. Carter
CHIEF LOCATION AND DESIGN ENGINEER
5-3-66

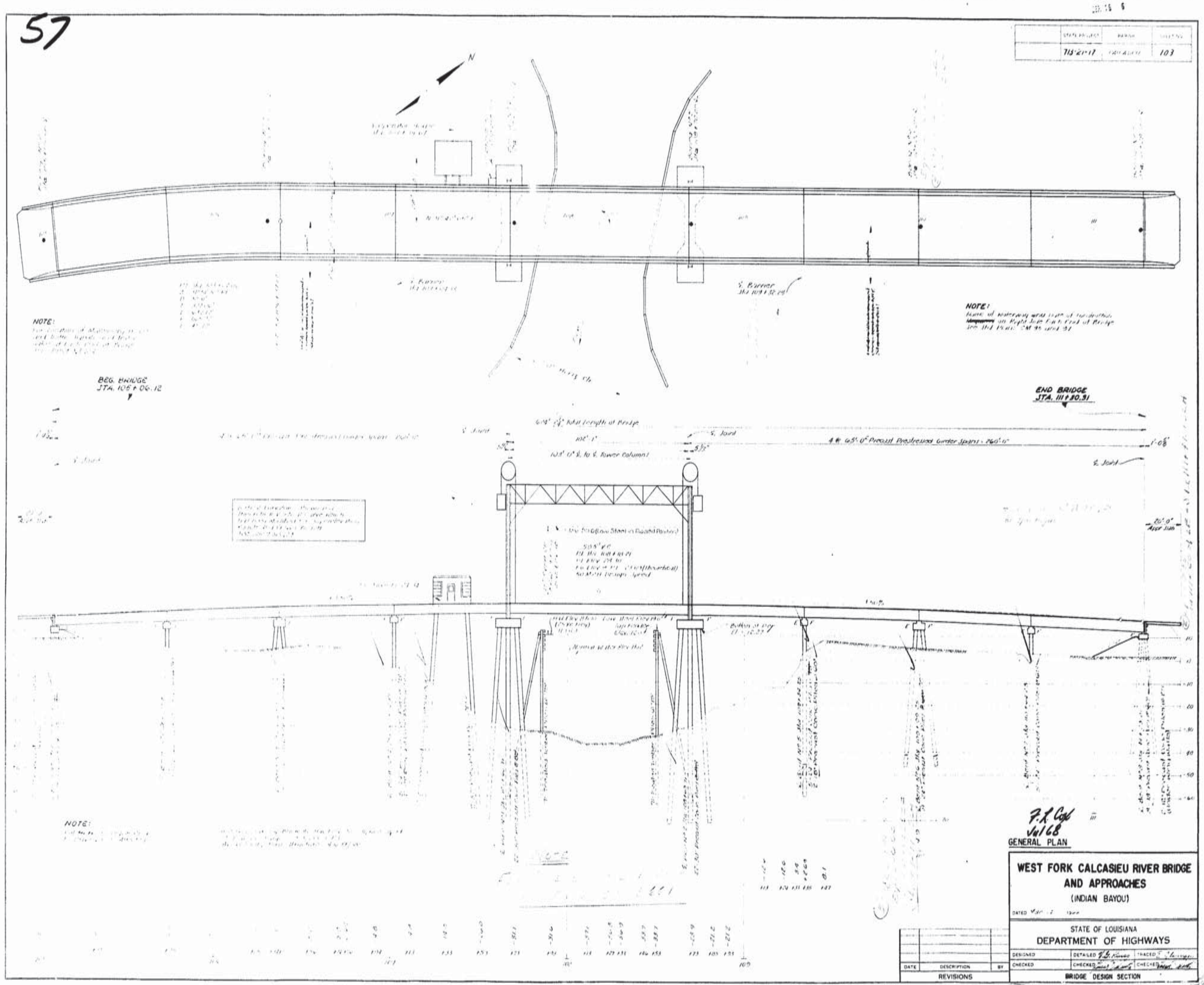
APPROVED
CHIEF ENGINEER
5-3-66

RECOMMENDED FOR APPROVAL DATE ______
[redacted]
DISTRICT ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

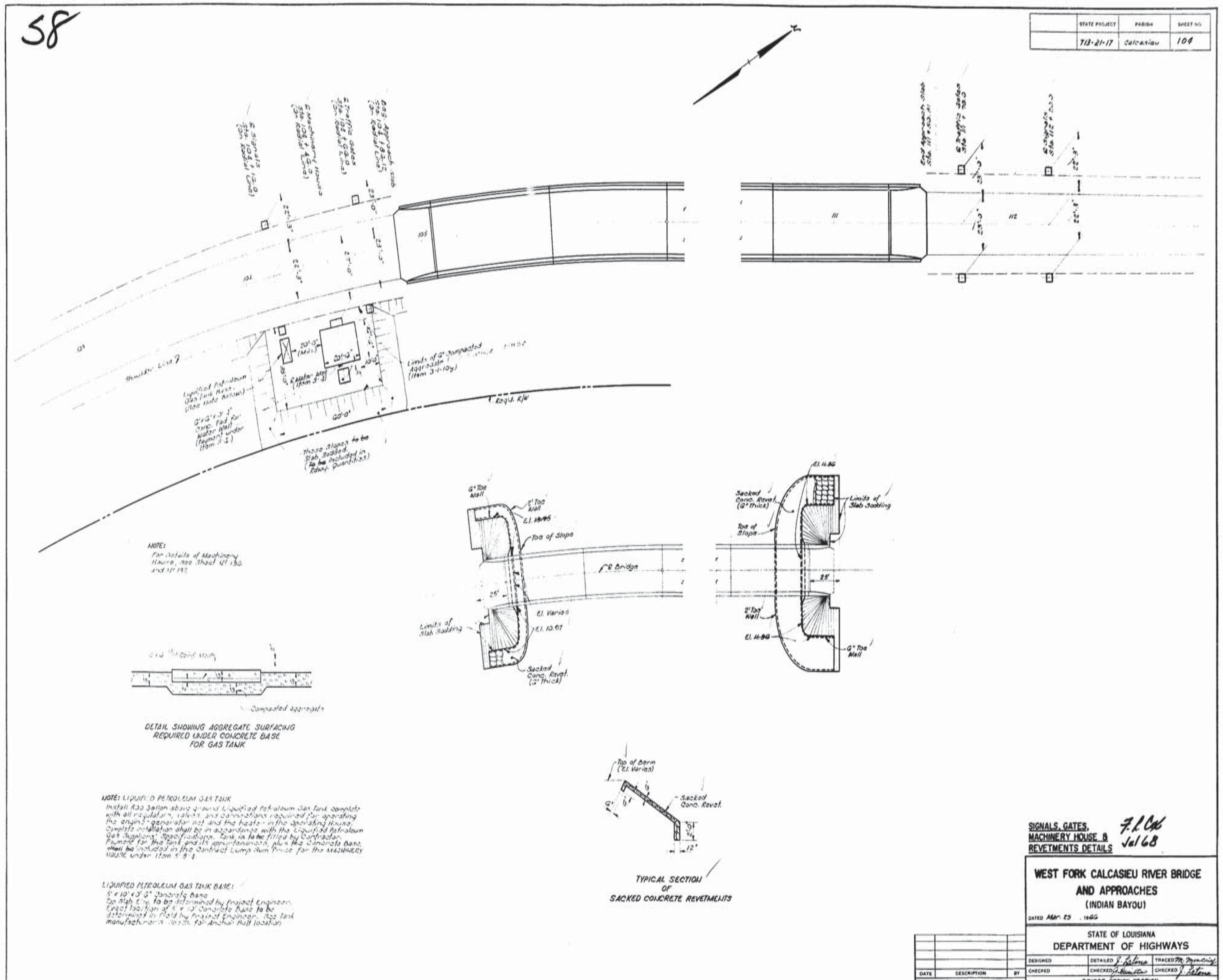
APPROVED DATE ______
[redacted]
DIVISION ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

LAYOUT MAP ONLY

AS BUILT PLANS



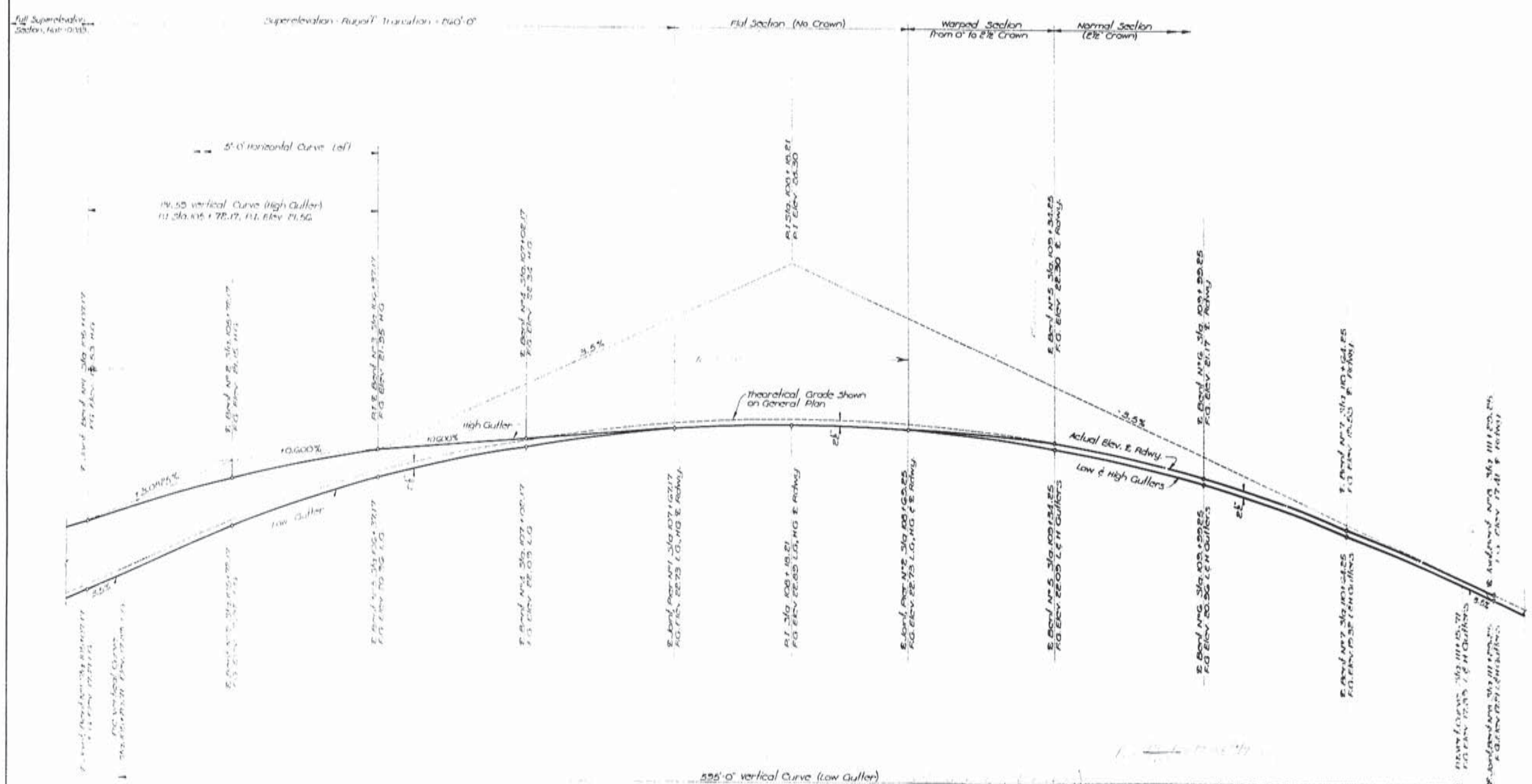
AS BUILT PLANS



AS BUILT PLANS

59

STATE PROJECT	PARISH	SHEET NO.
713-21-17	CALCASIEU	105



GRADE PROFILE

WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)

DATED March 22, 1966

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

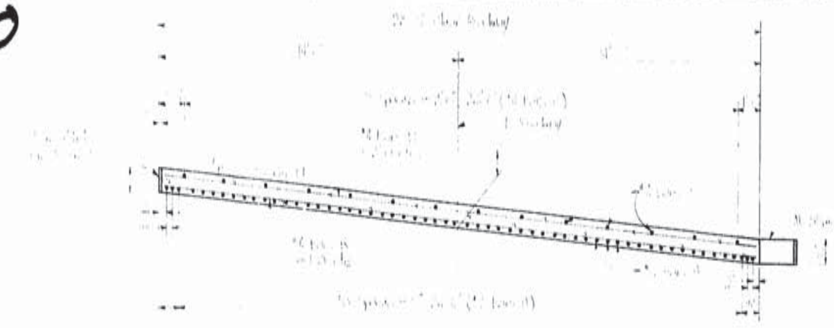
DESIGNED R. Bazzi | DETAILED R. Bazzi | TRACED D. Anders
CHECKED | CHECKED | CHECKED R. Bazzi
IN CHARGE OF BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
	REVISIONS	

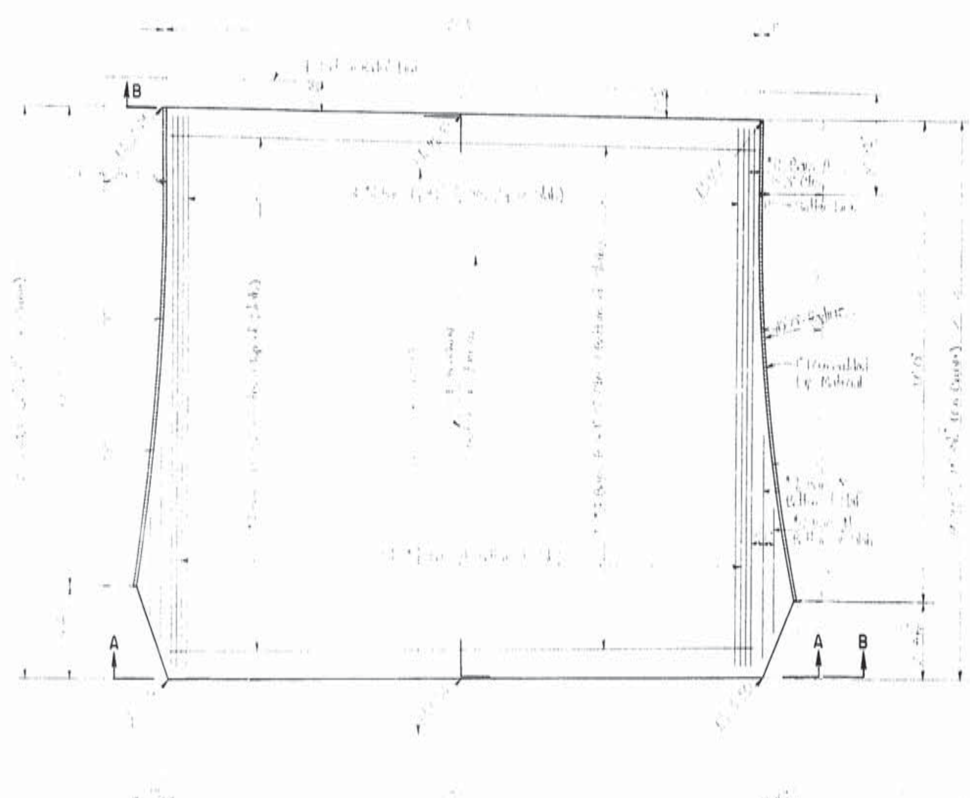
AS BUILT PLANS

60

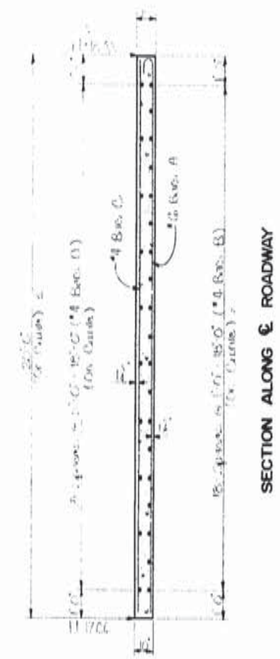
	STATE PROJECT	PARISH	SHEET NO.
	713-21-17	[illegible]	106



SECTION B-B



PLAN
(APPROACH SLAB - BEG. BRIDGE)



SECTION A-A
(REINFORCEMENT NOT SHOWN)

Nº 6 BARS A
($4\frac{1}{2}$" DIA. PIN)

ESTIMATED QUANTITIES					
BAR	SIZE	Nº	UNIT LENGTH	TOTAL LENGTH	LOCATION
A	#6	[illegible]	[illegible]	[illegible]	Long. - Bottom of Slab
M	#6	2	7'-6"	[illegible]	Long. - Bottom of Slab
N	#6	2	3'-4"	[illegible]	Long. - Bottom of Slab
TOTAL #6 BARS = [illegible] = 1775 LBS.					
B	#4	19	27'-1"	[illegible]	Trans. Bottom of Slab
C	#4	[illegible]	12'-5"	[illegible]	Long. Top of Slab
D	#4	[illegible]	27'-1"	[illegible]	Trans. Top of Slab
TOTAL #4 BARS = [illegible] = 705 LBS.					
DEFORMED REINFORCING STEEL					2480 LBS.
CONCRETE, APPROACH SLAB					[illegible] Cu. Yds.

NOTE:
Approach Slab ~~to be~~ Constructed on Vertical and Horizontal Curves shown on General Plan.

GENERAL NOTES:
Construction Specs.: Latest Approved La. Dept. of Highways Std. Specs.
Design Specs.: A.A.S.H.O. Std. Specs. for Highway Bridges, 1961, as amended by Interim Specs., 1964.
Reinforcement Bars shall be Intermediate or Hard Grade, A.S.T.M. A15 or A.S.T.M. A160 or Rail Steel A.S.T.M. A16, conforming with A.S.T.M. A305.
Dimensions relating to Reinforcing Steel are to Bar Centers.
Concrete ~~to be~~ Class "A".
1" Premoulded Expansion Material ~~to be~~ included in Price Bid for Concrete Approach Slab.

F. L. Cox
Jul 68

APPROACH SLAB - BEGIN. OF BRIDGE

WEST FORK CALCASIEU RIVER BRIDGE
AND APPROACHES
(INDIAN BAYOU)

DATED March 17, 1965

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED Samir Salman	TRACED [illegible]
CHECKED	CHECKED J. Estopa	CHECKED J. Estopa

BRIDGE DESIGN SECTION

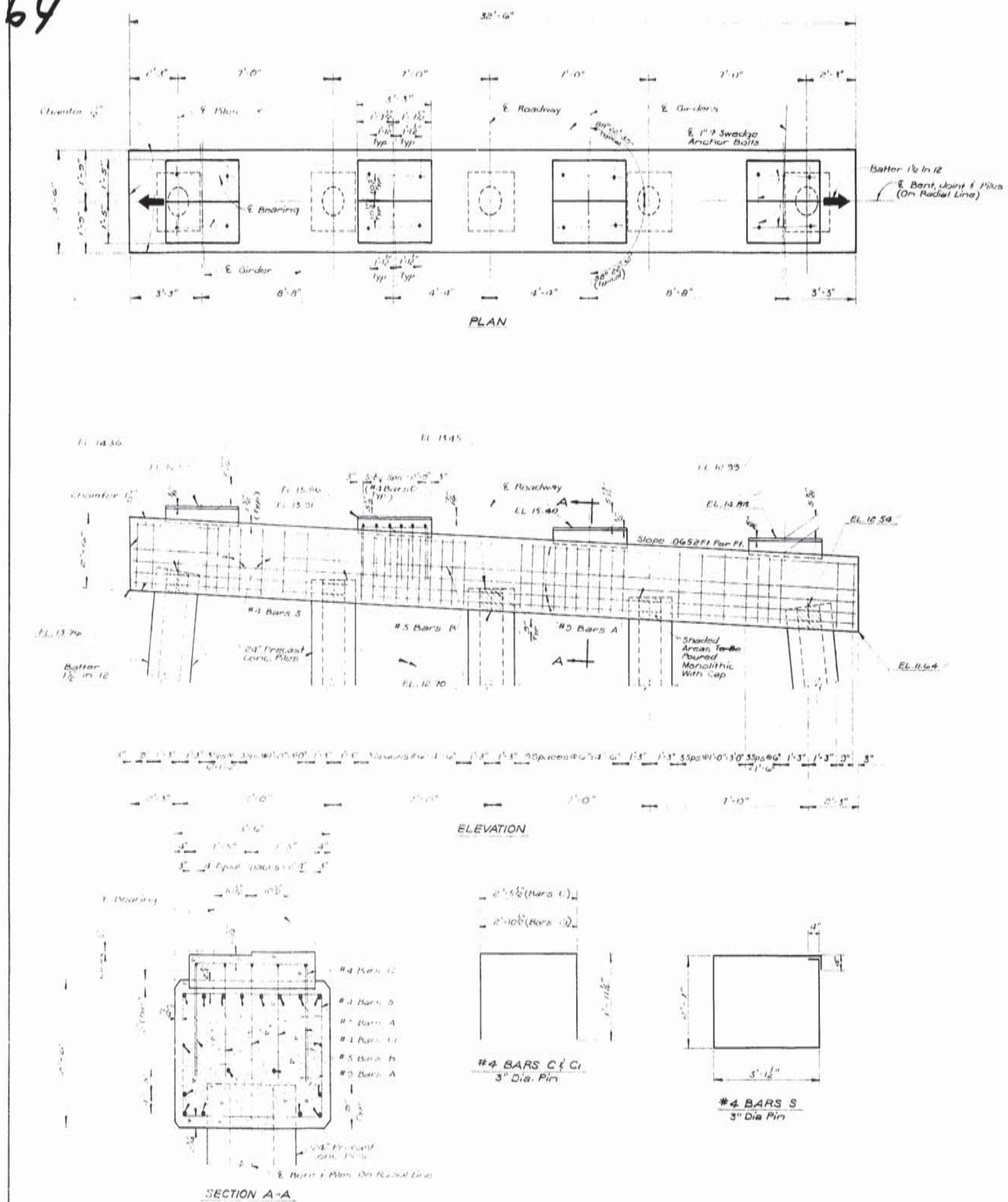
DATE	DESCRIPTION	BY

REVISIONS

AS BUILT PLANS

64

STATE PROJECT	PARISH	SHEET NO.
713-21-17	CALCASIEU	109



ESTIMATED QUANTITIES

BAR	SIZE	Nº	UNIT LGTH	TOTAL LGTH	LOCATION
A	#9	16	32'-2"	514'-8"	Long. In Cap
TOTAL #9 BARS = 514'-8" =					1,750 POUNDS
B	#5	2	32'-2"	64'-4"	Long. In Cap
TOTAL #5 BARS = 64'-4" =					67 POUNDS
C	#4	24	6'-4"	152'-0"	Stirrups In Riser
C1	#4	20	6'-9"	135'-0"	" " "
S	#4	38	11'-1"	421'-2"	Stirrups In Cap
TOTAL #4 BARS = 708-2"					= 473 POUNDS
DEFORMED REINFORCING STEEL					= 2,290 POUNDS
*CLASS "A" CONCRETE					= 10.72 CU. YDS.
MAX. PILE LOAD					= 74 TONS

*Includes Shaded Area Shown In Elevation View.

NOTE:
For General Notes, See Sheet Nº 114

F. L. Cob
Jul 68

BENT Nº 2

WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)

DATED MARCH 9, 1966

DATE	DESCRIPTION	BY
REVISIONS		

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

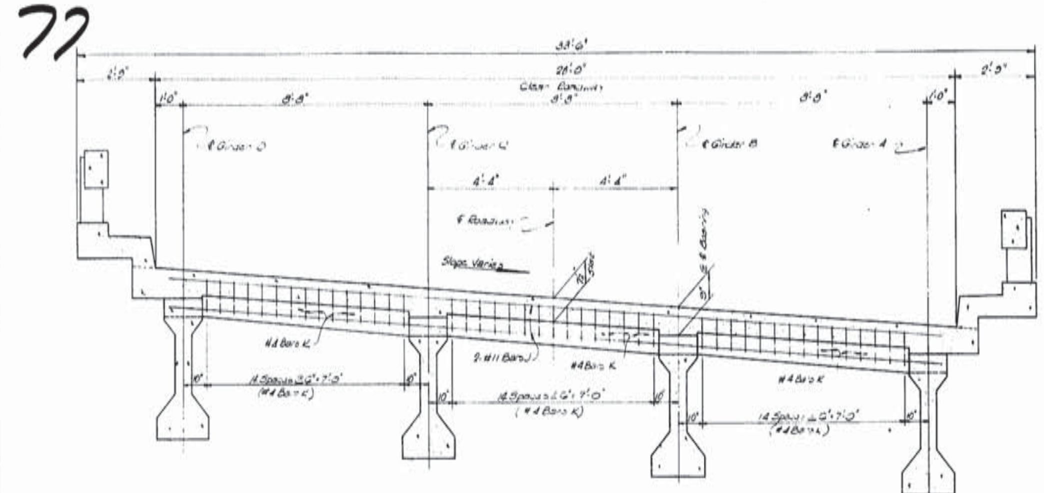
DESIGNED G. L. Russo | DETAILED J. Patone | TRACED
CHECKED | CHECKED R. Bazzi | CHECKED R. Bazzi

BRIDGE DESIGN SECTION

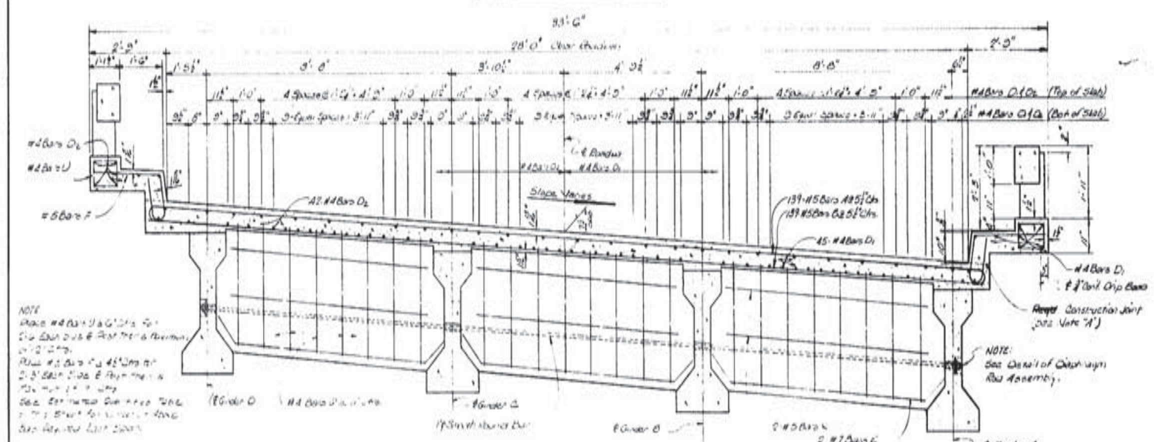
AS BUILT PLANS

72

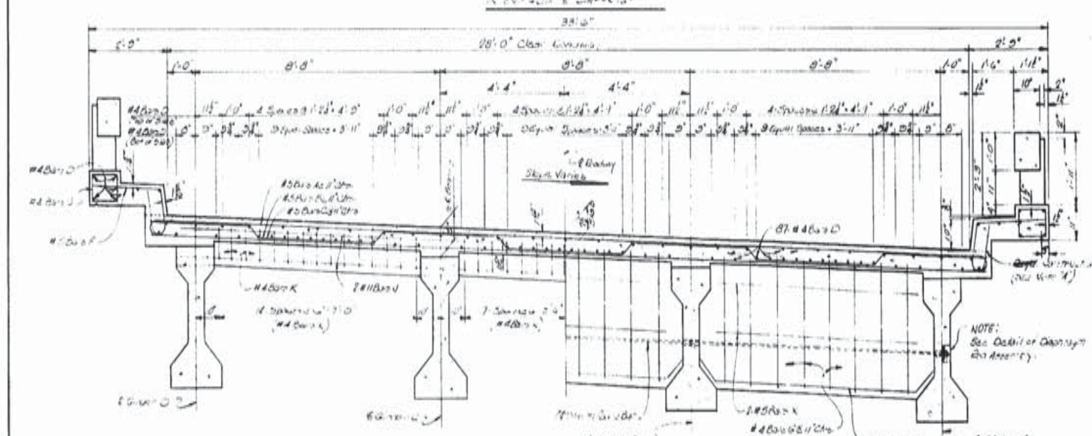
STATE PROJECT	PARISH	SHEET NO.
713-21-17	CALCASIEU	120



SECTION THRU SPANS 1 AND 2 AT END DIAPHRAGM

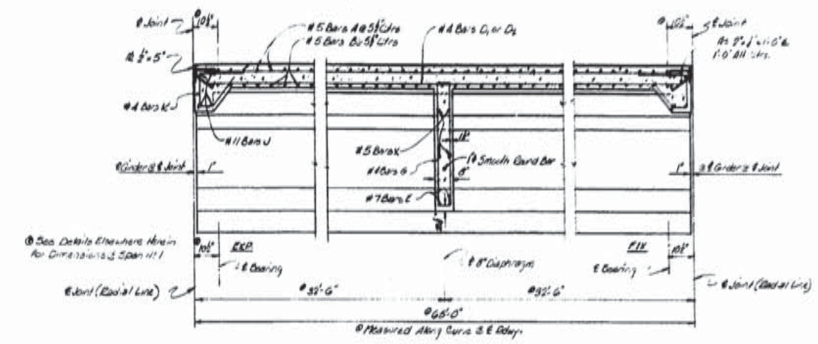


SECTION THRU SPANS 1 AND 2 AT INTERMEDIATE DIAPHRAGM

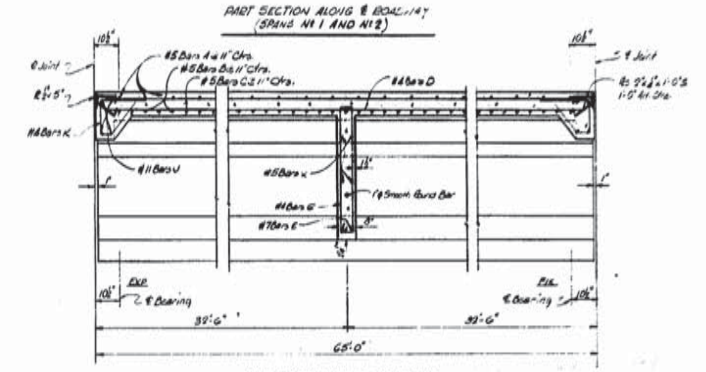


HALF SECTION THRU SPAN Nº 3 AT END DIAPHRAGM

HALF SECTION THRU SPAN Nº 3 AT INTERMEDIATE DIAPHRAGM



PART SECTION ALONG ℄ ROADWAY (SPAN Nº 1 AND Nº 2)



PART SECTION ALONG ℄ ROADWAY (SPAN Nº 3, AND Nº 4)

ESTIMATED QUANTITIES FOR SPAN Nº 1 or Nº 2					
BAR	SIZE	Nº	UNIT LENGTH	TOTAL LENGTH	LOCATION
U	#11	8	27'-0"	216'-0"	Long. in End Diaph.
TOTAL #11 BARS = 216'-0" = 1148 LBS.					
E	#7	6	8'-8"	52'-0"	Long. in Int. Diaph.
TOTAL #7 BARS = 52'-0" = 106 LBS.					
A	#5	139	30'-4"	4216'-4"	Transv. in Top of Slab
B	#5	139	29'-2"	4054'-2"	Transv. in Bot. of Slab
F	#5	294	4'-11"	1445'-6"	Sidewalk & Curb
K	#5	12	7'-2"	86'-0"	Long. in Int. Diaph.
TOTAL #5 BARS = 9802'-0" = 10,223 LBS.					
D	#4	45	ϕ66'-0"	2970'-0"	Long. in Slab
D_1	#4	42	ϕ66'-11"	2810'-6"	Long. in Slab
G	#4	24	8'-2"	196'-0"	Stirrups in Int. Diaph.
K	#4	90	3'-9"	337'-6"	Ties in End Diaph.
U	#4	222	3'-9"	832'-6"	Stirrups in Handrail Parapet
TOTAL #4 BARS = 7146'-6" = 4774 LBS.					
DEFORMED REINFORCING STEEL			= 16,251 LBS.		
CLASS "A(A)" CONCRETE			= 51.68 CU. YDS.		
STEEL A-36			= 809 LBS.		
CONCRETE HANDRAIL			= 128.00 LIN. FT.		
PRECAST PRESTRESSED CONCRETE GIRDERS (TYPE III)			SPAN 1 = [illegible] LIN. FT.; SPAN 2 = 259.54 LIN. FT.		
① PREFORMED COMPRESSION JOINT SEAL			= 34.5 LIN. FT.		

ϕ Includes One (1) 1'-6" Min. Lap Splice (Vary Splice as Req'd for Necessary Staking)
① Span Nº 1 Only.

ESTIMATED QUANTITIES FOR SPAN Nº 3					
BAR	SIZE	Nº	UNIT LENGTH	TOTAL LENGTH	LOCATION
J	#11	8	27'-0"	216'-0"	Long. in End Diaph.
TOTAL #11 BARS = 216'-0" = 1148 LBS.					
E	#7	6	8'-8"	52'-0"	Long. in Int. Diaph.
TOTAL #7 BARS = 52'-0" = 106 LBS.					
A	#5	70	30'-4"	2123'-4"	Transv. in Top of Slab
B	#5	70	29'-2"	2041'-8"	Transv. in Bot. of Slab
C	#5	69	30'-1"	2075'-9"	Transv. in Top & Bot. of Slab
F	#5	294	4'-11"	1445'-6"	Sidewalk & Curb
X	#5	12	7'-2"	86'-0"	Long. in Int. Diaphragm
TOTAL #5 BARS = 7772'-3" = 8106 LBS.					
D	#4	87	▲66'-0"	5742'-0"	Long. in Slab
G	#4	24	8'-2"	196'-0"	Stirrups in Int. Diaph.
K	#4	90	3'-9"	337'-6"	Ties in End Diaph.
U	#4	222	3'-9"	832'-6"	Stirrups in Handrail Parapet
TOTAL #4 BARS = 7108'-0" = 4748 LBS.					
DEFORMED REINFORCING STEEL			= 14,108 LBS.		
CLASS "A(A)" CONCRETE			= 54.62 CU. YDS.		
STEEL A-36			= 809 LBS.		
CONCRETE HANDRAIL			= 128.00 LIN. FT.		
PRECAST PRESTRESSED CONCRETE GIRDERS (TYPE III)			= 259.55 LIN. FT.		

▲ Includes One (1) 1'-6" Min. Lap Splice

SPANS 1 THRU 4 & 6 THRU 9

F.L.Gt
Jul 68

DATE	DESCRIPTION	BY

REVISIONS

WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES

(INDIAN BAYOU)

DATED March 1966

STATE OF LOUISIANA

DEPARTMENT OF HIGHWAYS

DESIGNED V.B. Russo · DETAILED J. Vanitlow · TRACED Hatt
CHECKED R. Bazzi · CHECKED R. Bazzi · CHECKED –

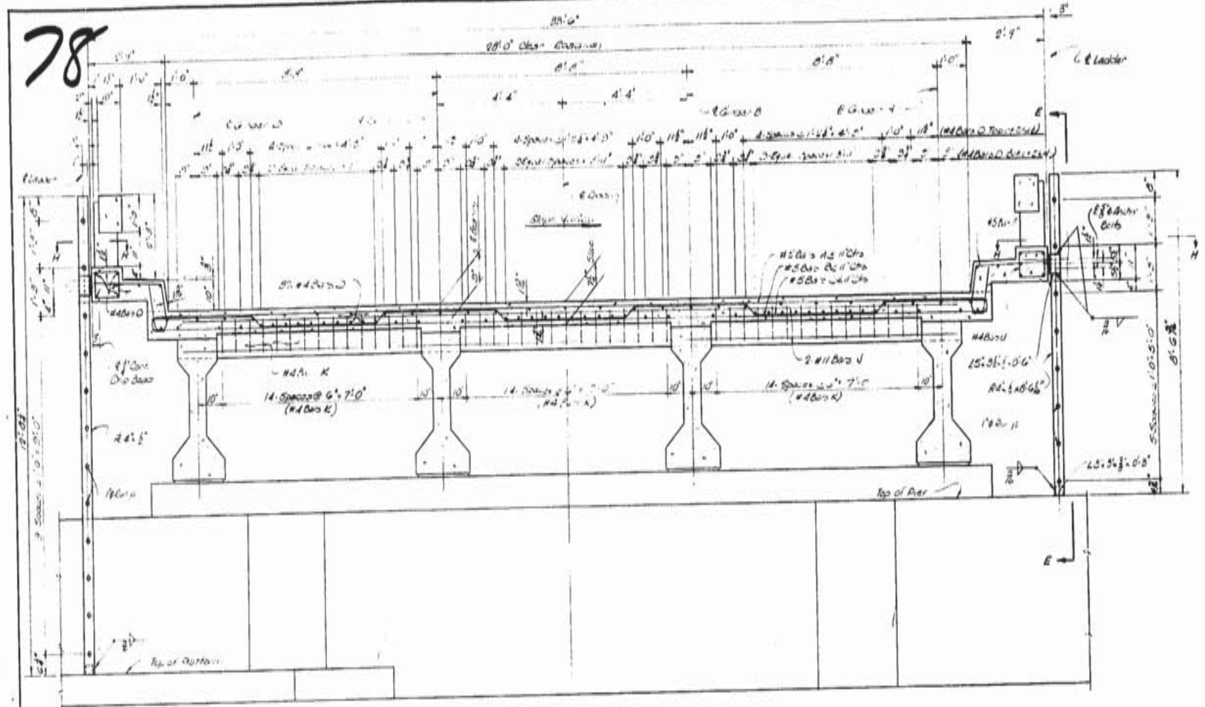
BRIDGE DESIGN SECTION

SHEET 2 OF 7

AS BUILT PLANS

STATE PROJECT	PARISH	SHEET NO.
713-21-17	CALCASIEU	121

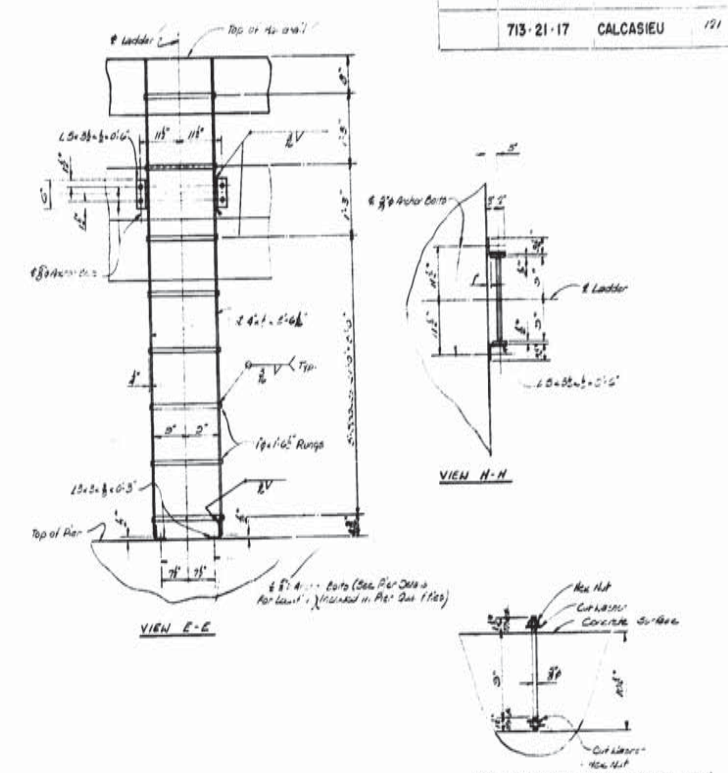
78



SECTION THRU SPAN Nº4
NEAR
LADDERS AND END DIAPHRAGM

NOTE: See Span Details, Sheet Nº1 of 7 For Location of Ladder

NOTE:
Place #4 Bars U @ 6" Ctrs. For 9'-6" Each Side ℄ Post Then a Maximum of 12" Ctrs.
Place #5 Bars F @ 4½" Ctrs. For 2'-3" Each Side ℄ Post Then a Maximum of 9" Ctrs.
See Estimated Quantities Table This Sheet For Number of Above Bars Required Each Span.



VIEW E-E

VIEW H-H

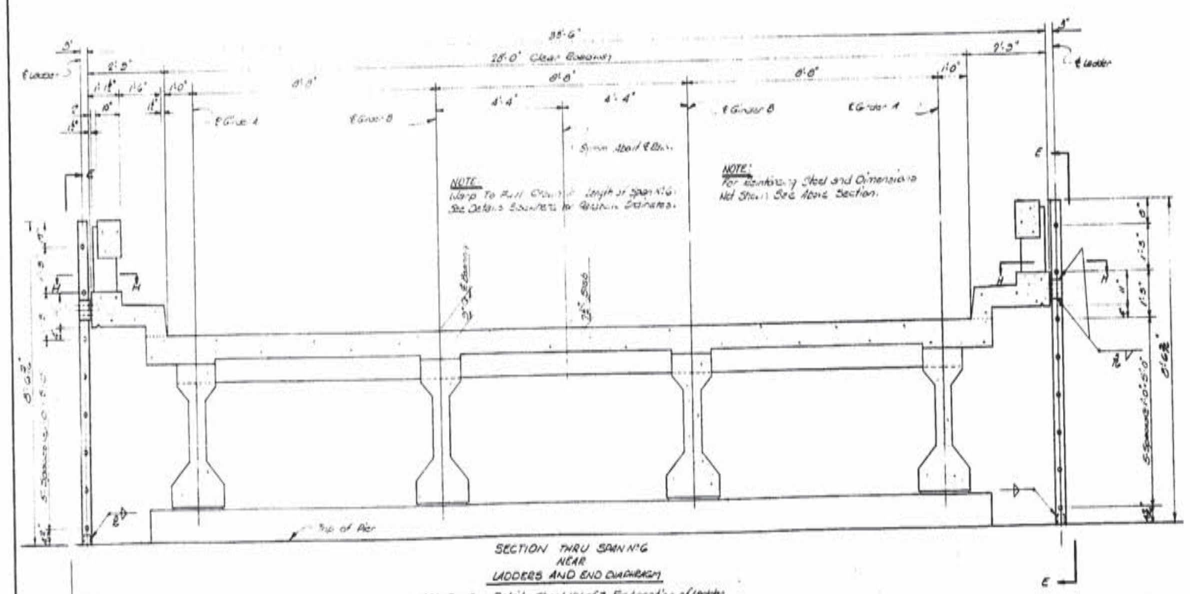
5/8"ϕ ANCHOR BOLT DETAIL (STEEL A-36)
(8 REQ'D. EACH SPAN)

ESTIMATED QUANTITIES FOR SPAN Nº4					
BAR	SIZE	Nº	UNIT LENGTH	TOTAL LENGTH	LOCATION
J	#11	8	27'-0"	216'-0"	Long. in End Diaph.
TOTAL #11 BARS = 216'-0" = 1148 LBS.					
E	#7	6	8'-8"	52'-0"	Long. in Int. Diaph.
TOTAL #7 BARS = 52'-0" = 106 LBS.					
A	#5	70	30'-4"	2123'-4"	Transv. in Top of Slab
B	#5	70	29'-2"	2041'-8"	Transv. in Bot. of Slab
C	#5	69	30'-1"	2075'-9"	Transv. in Top & Bot. of Slab
F	#5	284	4'-11"	1396'-4"	Sidewalk & Curb
X	#5	12	7'-2"	86'-0"	Long. in Int. Diaph.
TOTAL #5 BARS = 7723'-1" = 8055 LBS.					
D	#4	87	66'-0"	5742'-0"	Long. in Slab
G	#4	24	8'-2"	196'-0"	Stirrups in Int. Diaph.
K	#4	30	3'-3"	337'-6"	Ties in End Diaph.
U	#4	208	3'-9"	788'-0"	Stirrups in Handrail Parapet
TOTAL #4 BARS = 7065'-3" = 4716 LBS.					
DEFORMED REINFORCING STEEL					= 14,025 LBS.
CLASS "A(A)" CONCRETE					= 59.62 CU. YDS.
STEEL A-36					= 495 LBS.
CONCRETE HANDRAIL					= 170.92 LIN. FT.
PRECAST PRESTRESSED CONCRETE GIRDERS (TYPE III)					= 259.33 LIN. FT.

Δ Includes One (1) 1'-6" Min. Lap Splice.

ESTIMATED QUANTITIES FOR SPAN Nº6					
BAR	SIZE	Nº	UNIT LENGTH	TOTAL LENGTH	LOCATION
J	#11	8	27'-0"	216'-0"	Long. in End Diaph.
TOTAL #11 BARS = 216'-0" = 1148 LBS.					
E	#7	6	8'-8"	52'-0"	Long. in Int. Diaph.
TOTAL #7 BARS = 52'-0" = 106 LBS.					
A	#5	70	30'-4"	2123'-4"	Transv. in Top of Slab
B	#5	70	29'-2"	2041'-8"	Transv. in Bot. of Slab
C	#5	69	30'-1"	2075'-9"	Transv. in Top & Bot. of Slab
F	#5	274	4'-11"	1347'-2"	Sidewalk & Curb
X	#5	12	7'-2"	86'-0"	Long. in Int. Diaph.
TOTAL #5 BARS = 7673'-11" = 8004 LBS.					
D	#4	87	66'-0"	5742'-0"	Long. in Slab
G	#4	24	8'-2"	196'-0"	Stirrups in Int. Diaph.
K	#4	30	3'-3"	337'-6"	Ties in End Diaph.
U	#4	204	3'-9"	765'-0"	Stirrups in Handrail Parapet
TOTAL #4 BARS = 7040'-6" = 4703 LBS.					
DEFORMED REINFORCING STEEL					= 13,961 LBS.
CLASS "A(A)" CONCRETE					= 59.62 CU. YDS.
STEEL A-36					= 422 LBS.
CONCRETE HANDRAIL					= 126.17 LIN. FT.
PRECAST PRESTRESSED CONCRETE GIRDERS (TYPE III)					= 259.34 LIN. FT.

ϕ Includes One (1) 1'-6" Min. Lap Splice.



SECTION THRU SPAN Nº6
NEAR
LADDERS AND END DIAPHRAGM

NOTE: See Span Details, Sheet Nº1 of 7 For Location of Ladder

7. L. Col
Jul 68

SPANS 1 THRU 4 & 6 THRU 9

WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)

DATED March 1966

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

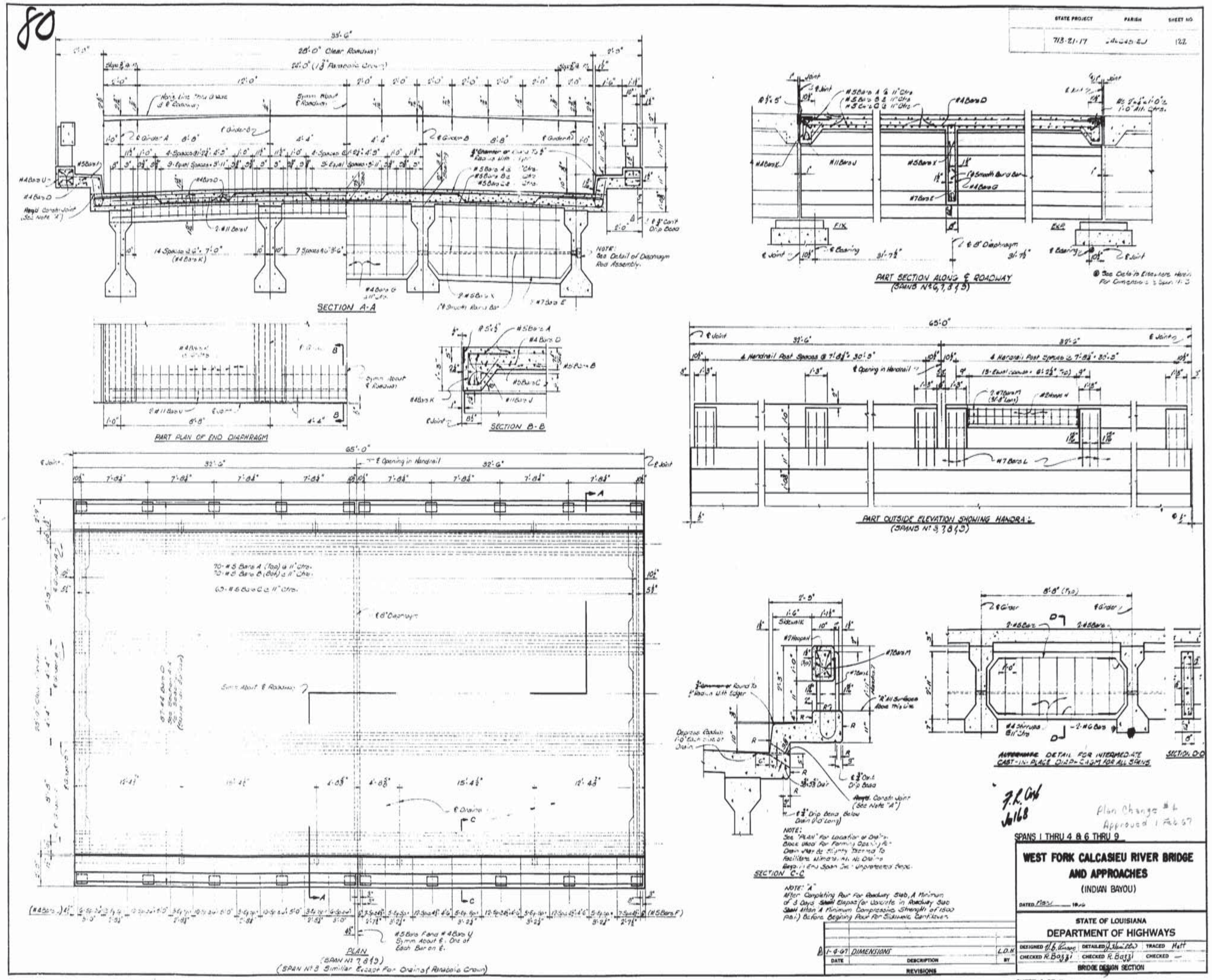
DESIGNED	DETAILED	TRACED
CHECKED R. Bozzi	CHECKED R. Bozzi	CHECKED —

BRIDGE DESIGN SECTION

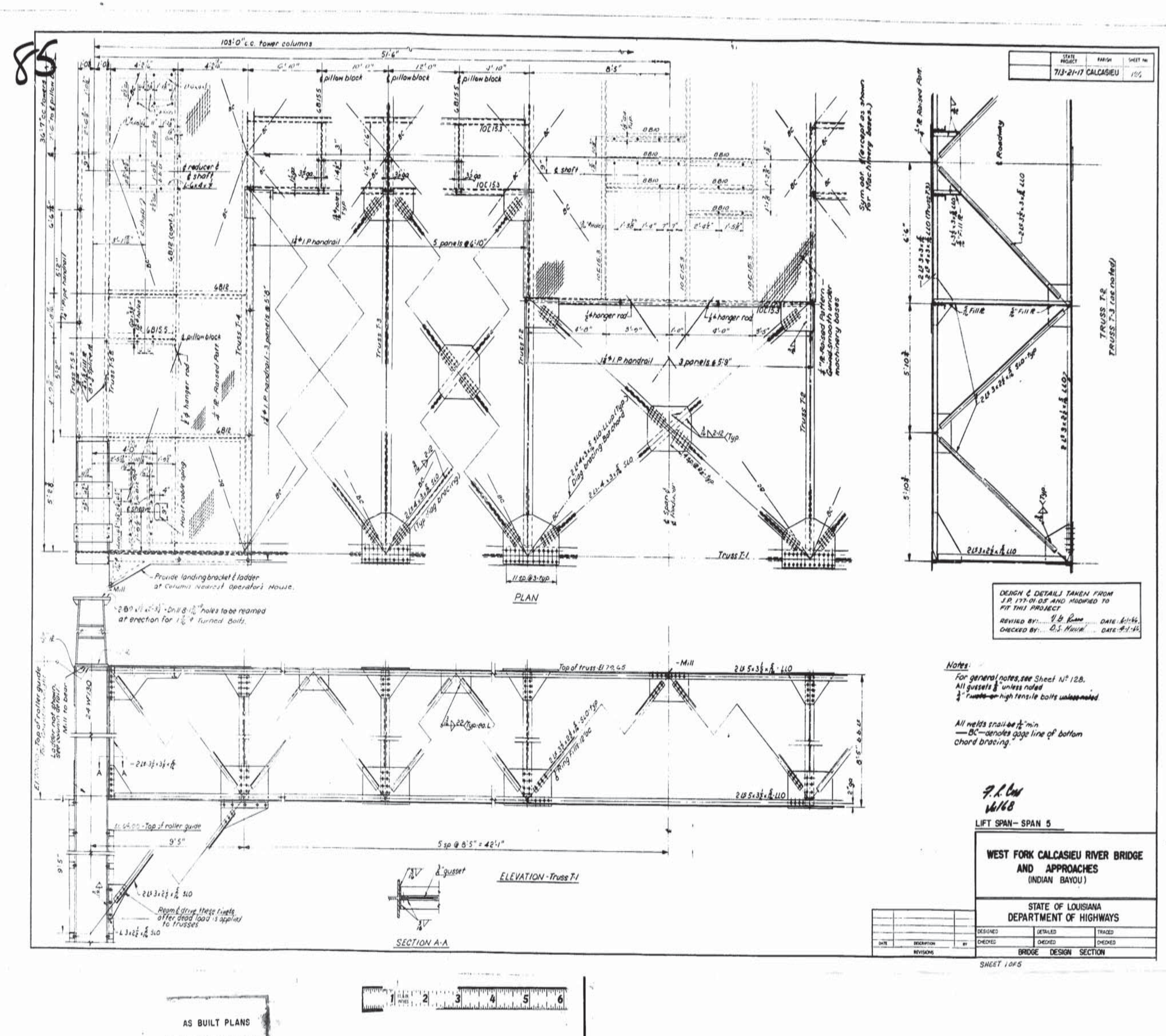
DATE	DESCRIPTION	BY
	REVISIONS	

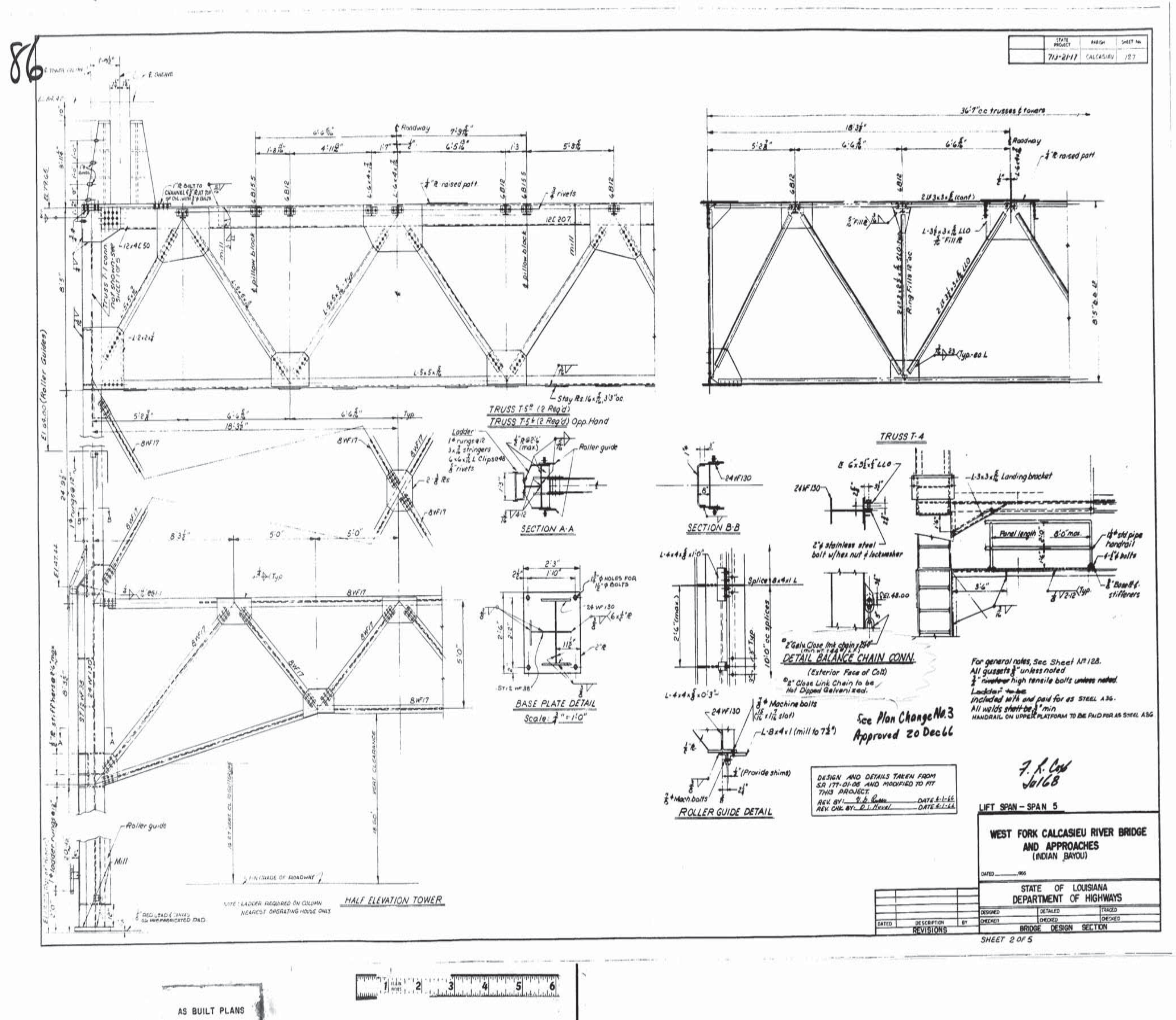
SHEET 3 of 7

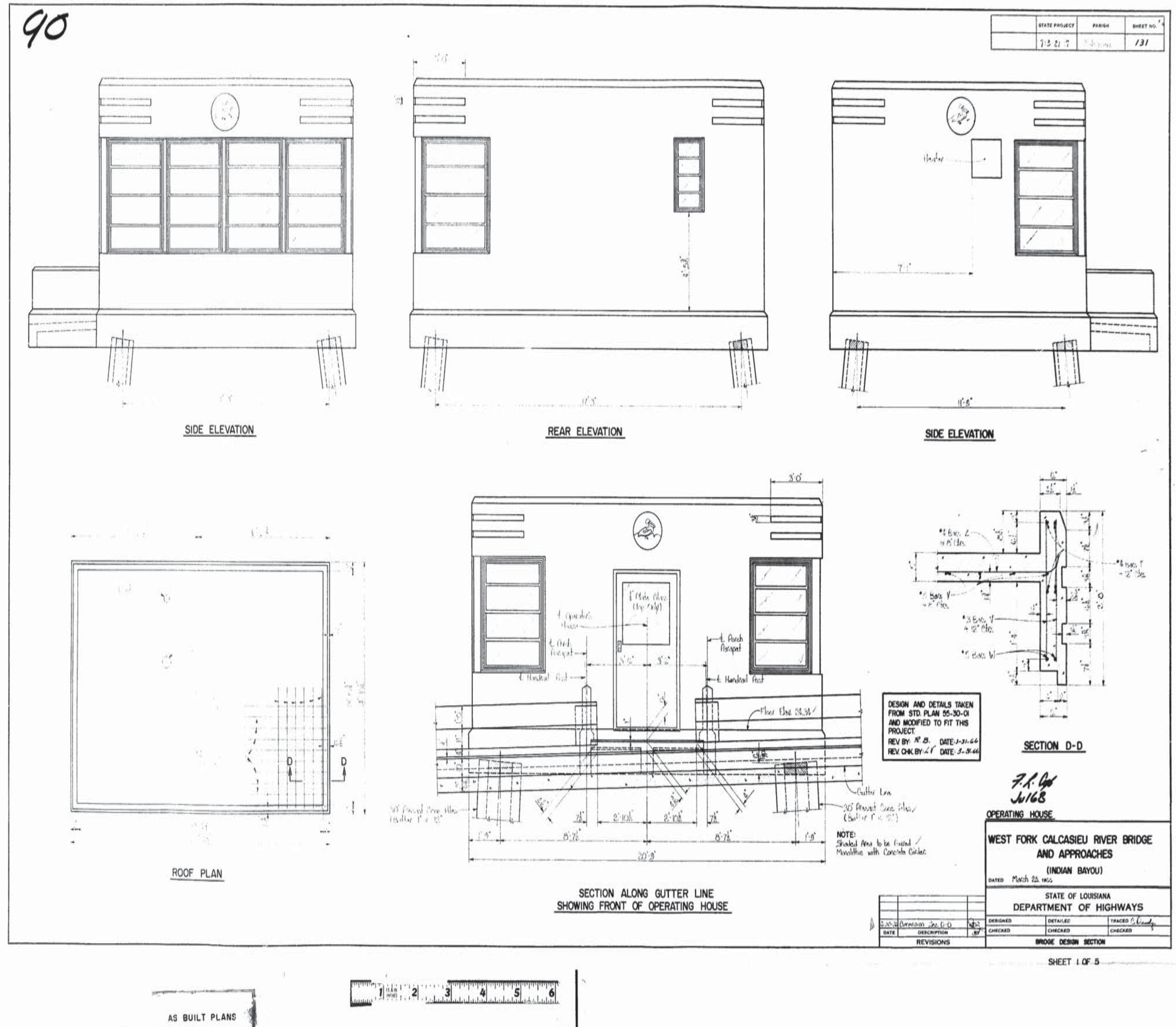
AS BUILT PLANS

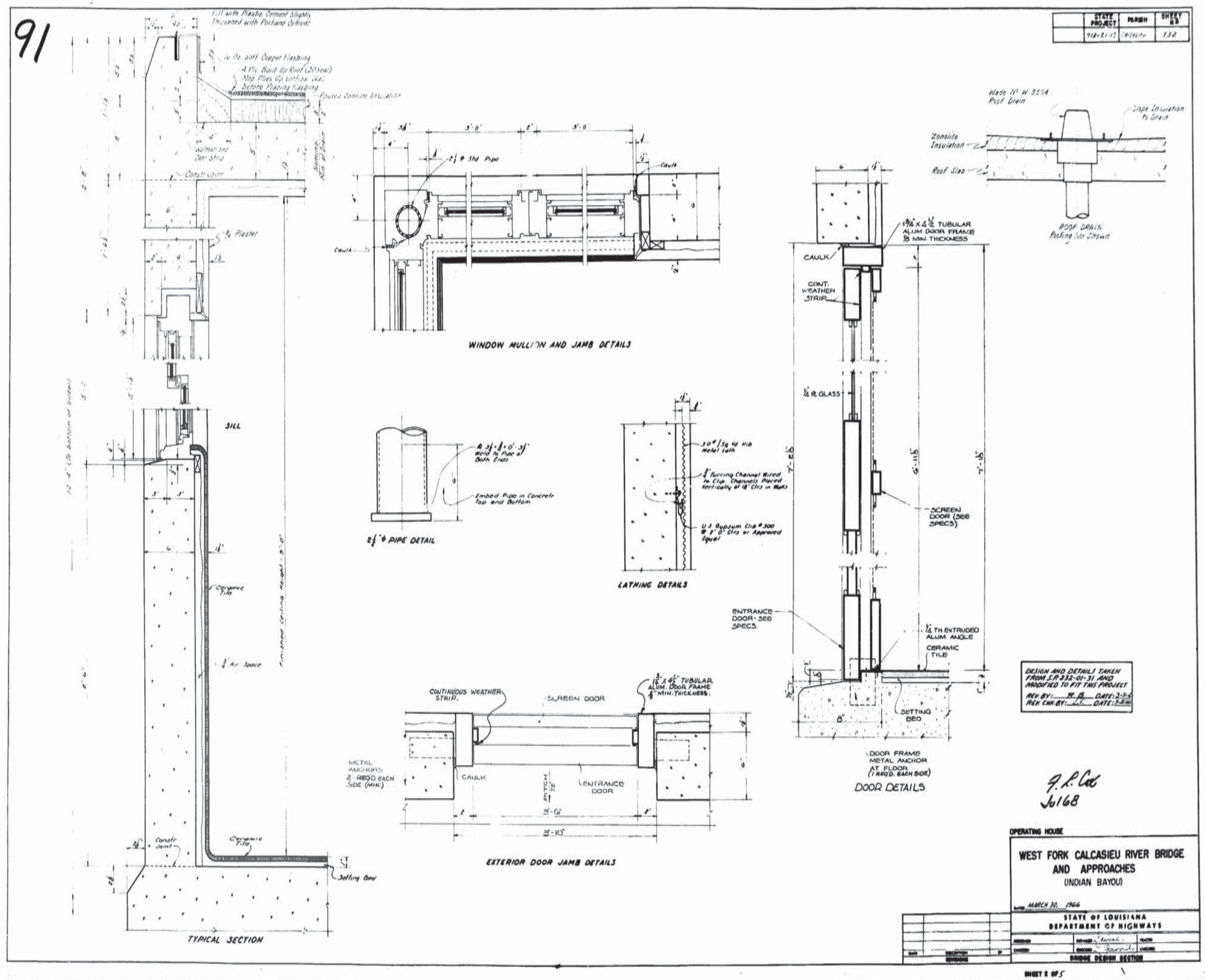


AS BUILT PLANS


85
103'-0" c.c. tower columns
51'-6"
PLAN
ELEVATION - Truss T-1
SECTION A-A
Provide landing bracket & ladder at Column Nearest Operator's House.
DESIGN & DETAILS TAKEN FROM S.P. 177-01-05 AND MODIFIED TO FIT THIS PROJECT
Notes:
For general notes, see Sheet No. 128.
All gussets 3/8" unless noted
All welds shall be 1/4" min
—BC— denotes gage line of bottom chord bracing.
Ream & drive these rivets after dead load is applied to trusses
5 sp @ 8'5" = 42'-1"
713-21-17 CALCASIEU
LIFT SPAN - SPAN 5
WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
BRIDGE DESIGN SECTION
SHEET 1 OF 5
AS BUILT PLANS


86
713-21-11 CALCASIEU 127
TRUSS T5a (2 Req'd)
TRUSS T5b (2 Req'd) Opp. Hand
TRUSS T-4
SECTION A-A
SECTION B-B
BASE PLATE DETAIL
Scale: 3/4" = 1'-0"
DETAIL BALANCE CHAIN CONN.
(Exterior Face of Col.)
ROLLER GUIDE DETAIL
HALF ELEVATION TOWER
For general notes, See Sheet No. 128.
See Plan Change No. 3
Approved 20 Dec 66
DESIGN AND DETAILS TAKEN FROM
THIS PROJECT.
LIFT SPAN - SPAN 5
WEST FORK CALCASIEU RIVER BRIDGE
AND APPROACHES
(INDIAN BAYOU)
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
BRIDGE DESIGN SECTION
REVISIONS
SHEET 2 OF 5
AS BUILT PLANS

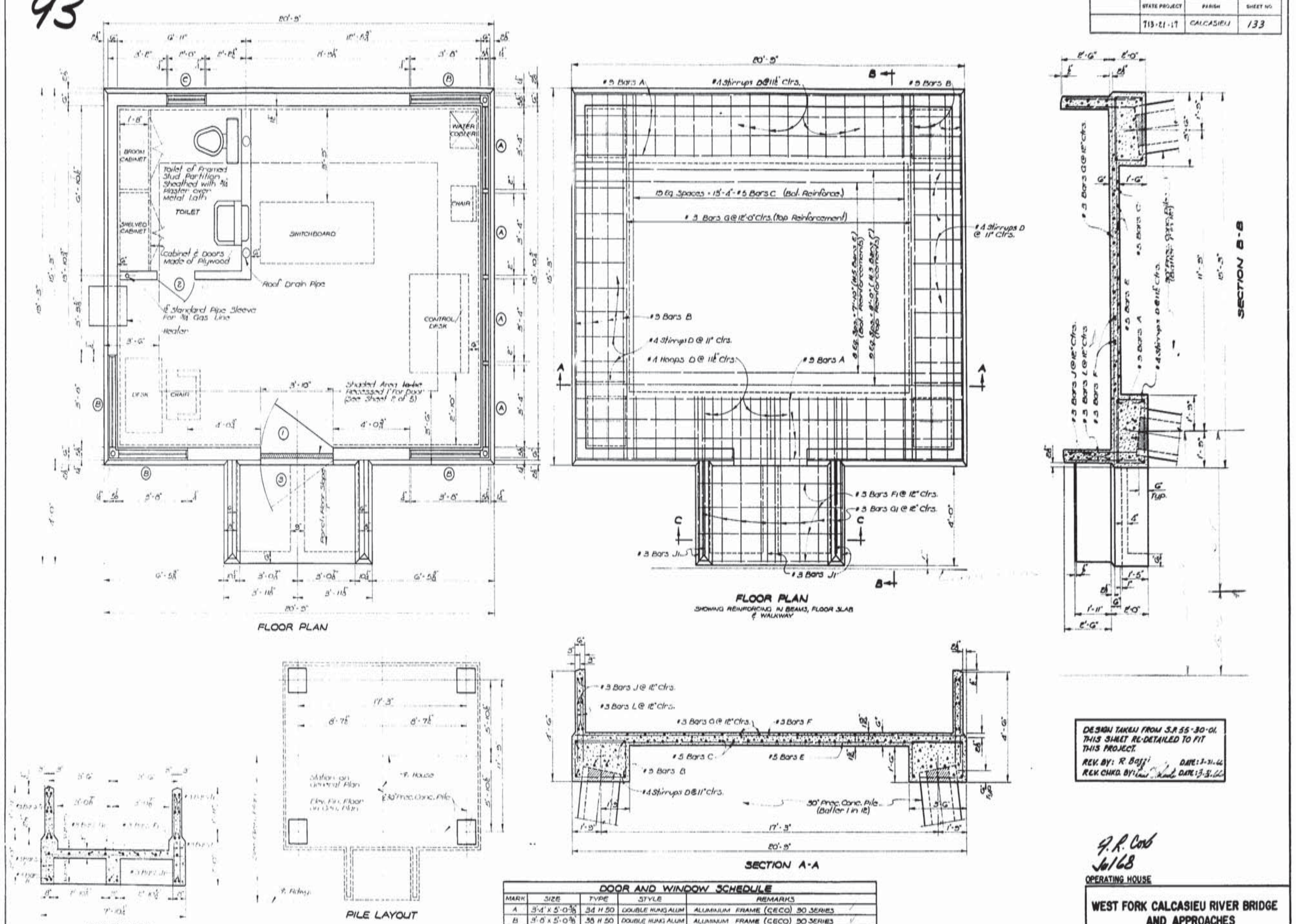

90
SIDE ELEVATION
REAR ELEVATION
SIDE ELEVATION
ROOF PLAN
SECTION ALONG GUTTER LINE
SHOWING FRONT OF OPERATING HOUSE
SECTION D-D
DESIGN AND DETAILS TAKEN FROM STD. PLAN 55-30-01 AND MODIFIED TO FIT THIS PROJECT.
REV BY: R.B. DATE: 3-31-66
REV. CHK. BY: LV DATE: 3-31-66
NOTE:
Shaded Area to be Cured / Monolithic with Concrete Girder.
OPERATING HOUSE
WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED
DETAILED
TRACED
CHECKED
DATE
DESCRIPTION
BY
REVISIONS
BRIDGE DESIGN SECTION
SHEET 1 OF 5
AS BUILT PLANS



AS BUILT PLANS

93

STATE PROJECT	PARISH	SHEET NO.
713-21-17	CALCASIEU	133



DESIGN TAKEN FROM S.P. 55-30-01. THIS SHEET RE-DETAILED TO FIT THIS PROJECT.
REV. BY: R. Bazzi DATE: 3-31-66
REV. CHKD. BY: DATE: 3-31-66

FINISH SCHEDULE								
ITEM	WALLS		CEILING	ROOF	FLOOR	BASE	WAINSCOT	REMARKS
	INSIDE	OUTSIDE						
HOUSE	TILE & PLASTER	RUBBED	PLASTER	TAR & GRAVEL	CERAMIC TILE	CERAMIC TILE	48" ABOVE FLOOR	SEE DETAIL & GEN. NOTES
TOILETS	TILE & PLASTER	PLASTER	PLASTER	TAR & GRAVEL	CERAMIC TILE	TILE	48" ABOVE FLOOR	SEE DETAIL & GEN. NOTES
CABINETS	PLYWOOD	PLYWOOD						

DOOR AND WINDOW SCHEDULE				
MARK	SIZE	TYPE	STYLE	REMARKS
A	3'-4" x 5'-0 3/16"	34 H 50	DOUBLE HUNG ALUM	ALUMINUM FRAME (CECO) 50 SERIES
B	3'-8" x 5'-0 3/16"	38 H 50	DOUBLE HUNG ALUM	ALUMINUM FRAME (CECO) 50 SERIES
C	2'-0" x 3'-0 3/16"	20 H 30	DOUBLE HUNG ALUM.	ALUMINUM FRAME (CECO) 50 SERIES
1	3'-6" x 7'-0"	SCREEN	ALUMINUM	TUBELITE (SEE NOTES)
2	2'-0" x 7'-0" x 1 3/4	S-11	ALUMINUM	TUBELITE PANEL DOOR (SEE NOTES)
3	3'-6" x 7'-0" x 1 3/4	H-301	ALUMINUM	ALUMILINE (SEE NOTES)

DATE	DESCRIPTION	BY
4-30-66	No. 3 Bars F Relocated	R.B.

REVISIONS

J. R. Cobb
Jul 68

OPERATING HOUSE

WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)

DATED March 24, 1966

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED D. Anders
CHECKED	CHECKED	CHECKED

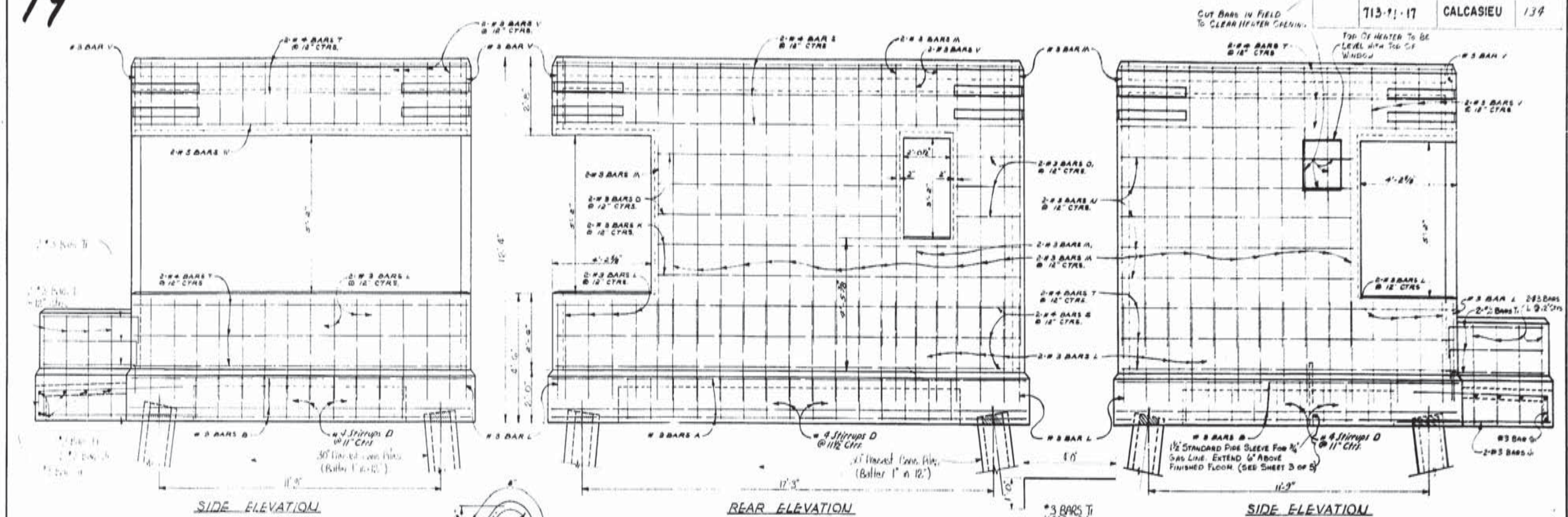
BRIDGE DESIGN SECTION

SHEET 3 OF 5

AS BUILT PLANS

94

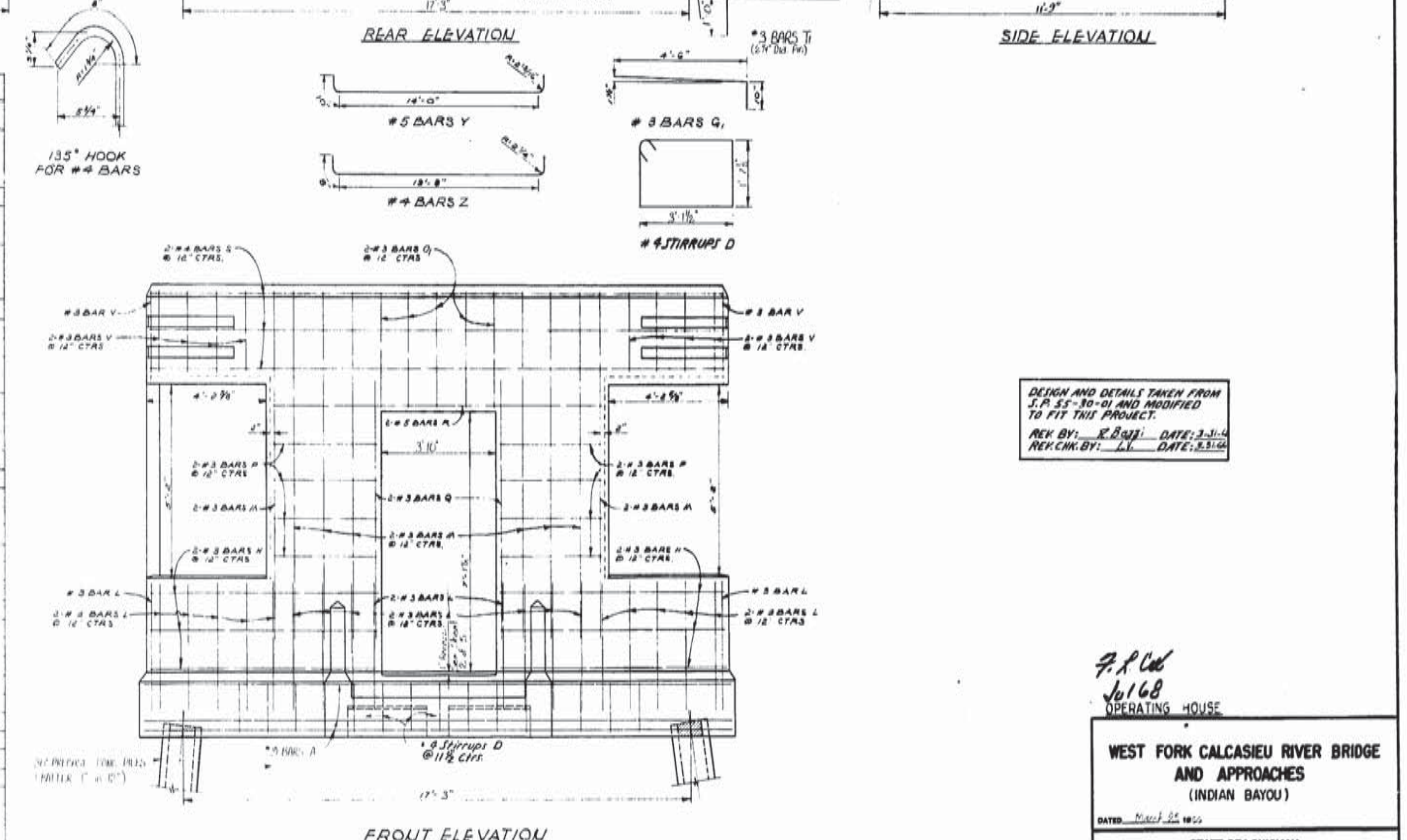
STATE PROJECT	PARISH	SHEET NO.
713-71-17	CALCASIEU	134



BILL OF REINFORCING STEEL

BAR	SIZE	№	LENGTH	TOTAL LENGTH	LOCATION
A	#9	12	20'-5"	245'-0"	Front and Rear Elev. – Top and Bot. in Girders
B	#9	12	14'-11"	179'-0"	Side Elev. – Top and Bot. in Girders
TOTAL #9 BARS = 424'-0" =					1442 LBS.
C	#5	20	14'-11"	298'-4"	Sec. A-A & B-B – Floor slab
R	#5	2	11'-5"	22'-10"	Wall above door – Front Elev.
W	#5	2	14'-7"	29'-2"	Wall above window – Side Elev.
Y	#5	30	15'-8"	470'-0"	Roof slab
[illegible]	#5	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL #5 BARS = 1001'-1"					1047 LBS.
D	#4	50	[illegible]	525'-0"	Stirrups in Girders
S	#4	18	20'-1"	361'-3"	Wall – Front and Rear Elev.
T	#4	22	14'-7"	320'-10"	Wall – Side Elev.
Z	#4	20	21'-0"	420'-0"	Roof Slab
TOTAL #4 BARS = 1627'-4"					1087 LBS.
F	#3	10	[illegible]	203'-4"	Sec. A-A & B-B – Floor
G	#3	16	4'-9"	236'-0"	Sec. A-A & B-B – Floor
G₁	#3	[illegible]	5'-4"	[illegible]	Sidewalk
H	#3	12	7'-11"	95'-0"	Wall below window – Front Elev.
K	#3	4	15'-8"	63'-0"	Wall – Rear Elev.
L	#3	158	3'-4"	526'-8"	Vert. in Wall – Front, Rear Side Elev. and Porch Floor Parapet
M	#3	68	9'-3"	629'-0"	Vert. in wall – Front, Rear, and Side Elev.
M₁	#3	4	3'-6"	14'-0"	Vert. in wall – Rear Elev.
N	#3	[illegible]	10'-3"	102'-6"	Horizontal in wall – Side Elevation
O	#3	6	10'-4"	62'-0"	Horizontal in wall – Rear Elev.
O₁	#3	16	2'-8"	42'-8"	Horizontal in Wall – Rear Elev. and Vert. in Wall above Door
P	#3	16	3'-7"	57'-4"	
Q	#3	4	6'-11"	27'-8"	[illegible] in wall – Front Elev.
V	#3	70	2'-1"	145'-10"	Vert. in wall above windows
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	#3	[illegible]	[illegible]	[illegible]	Horizontal in Porch Parapet
[illegible]	#3	[illegible]	[illegible]	[illegible]	Horizontal in Porch Floor
TOTAL #3 BARS 2385'-2"					897 LBS.

[illegible]



DESIGN AND DETAILS TAKEN FROM S.P. 55-30-01 AND MODIFIED TO FIT THIS PROJECT.
REV. BY: R. Bazzi DATE: 3-31-64
REV. CHK. BY: L.V. DATE: 3-31-64

F. L. Cox
Jul 68

OPERATING HOUSE

WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)
DATED March 26 1964

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

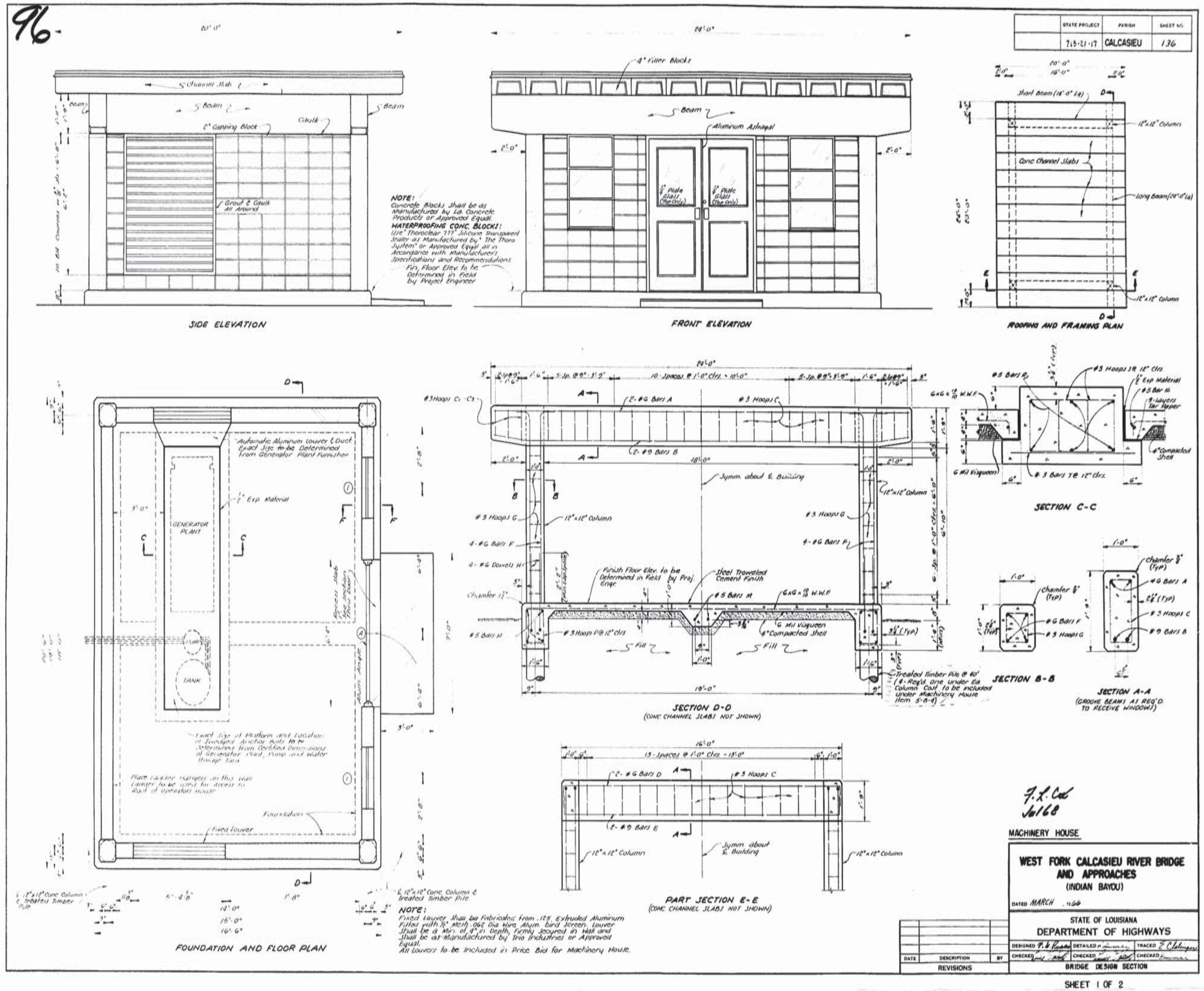
DESIGNED	DETAILED D. GODSO	TRACED
CHECKED	CHECKED H. Pearson	CHECKED

BRIDGE DESIGN SECTION

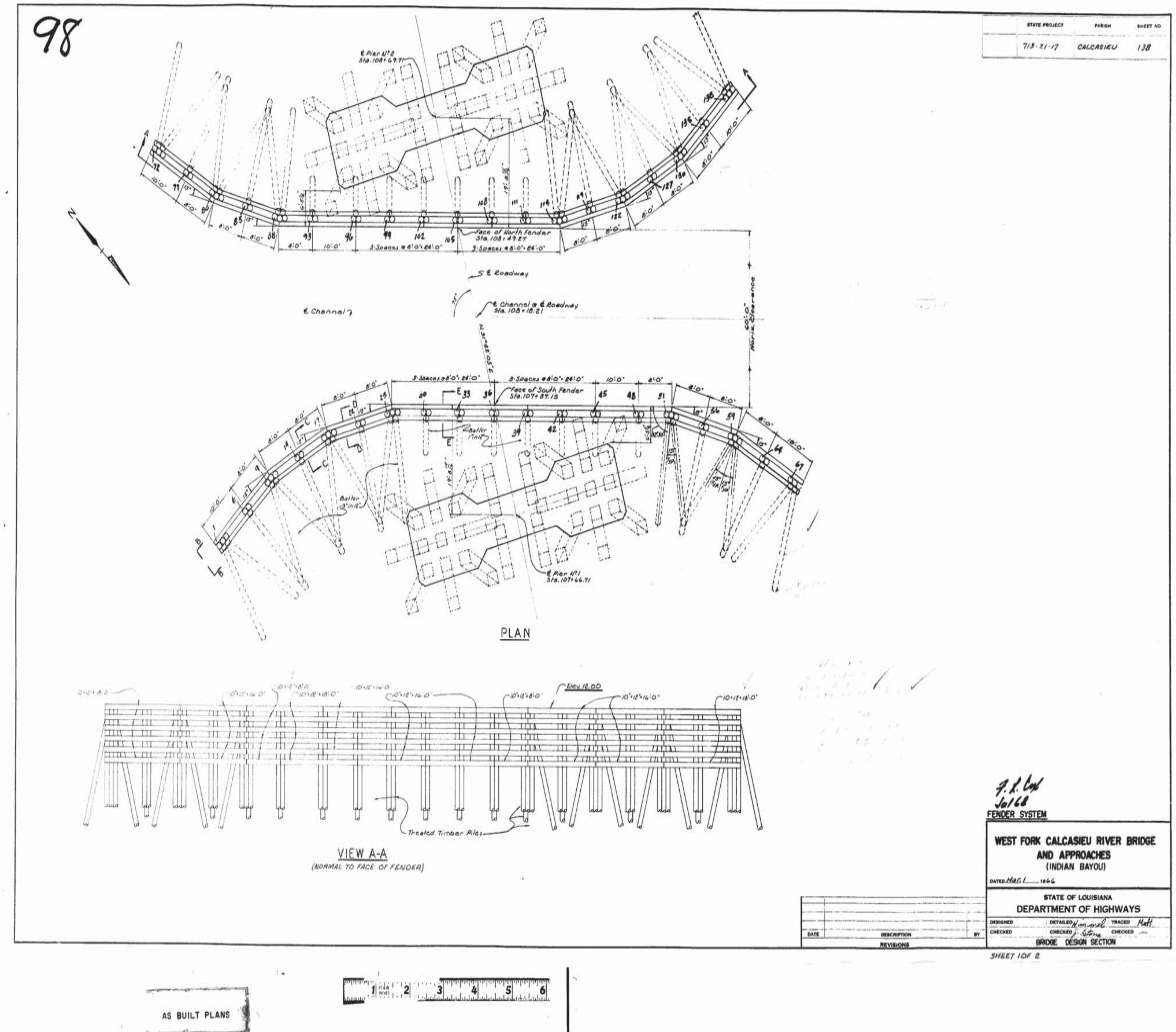
DATE	DESCRIPTION	BY
	REVISIONS	

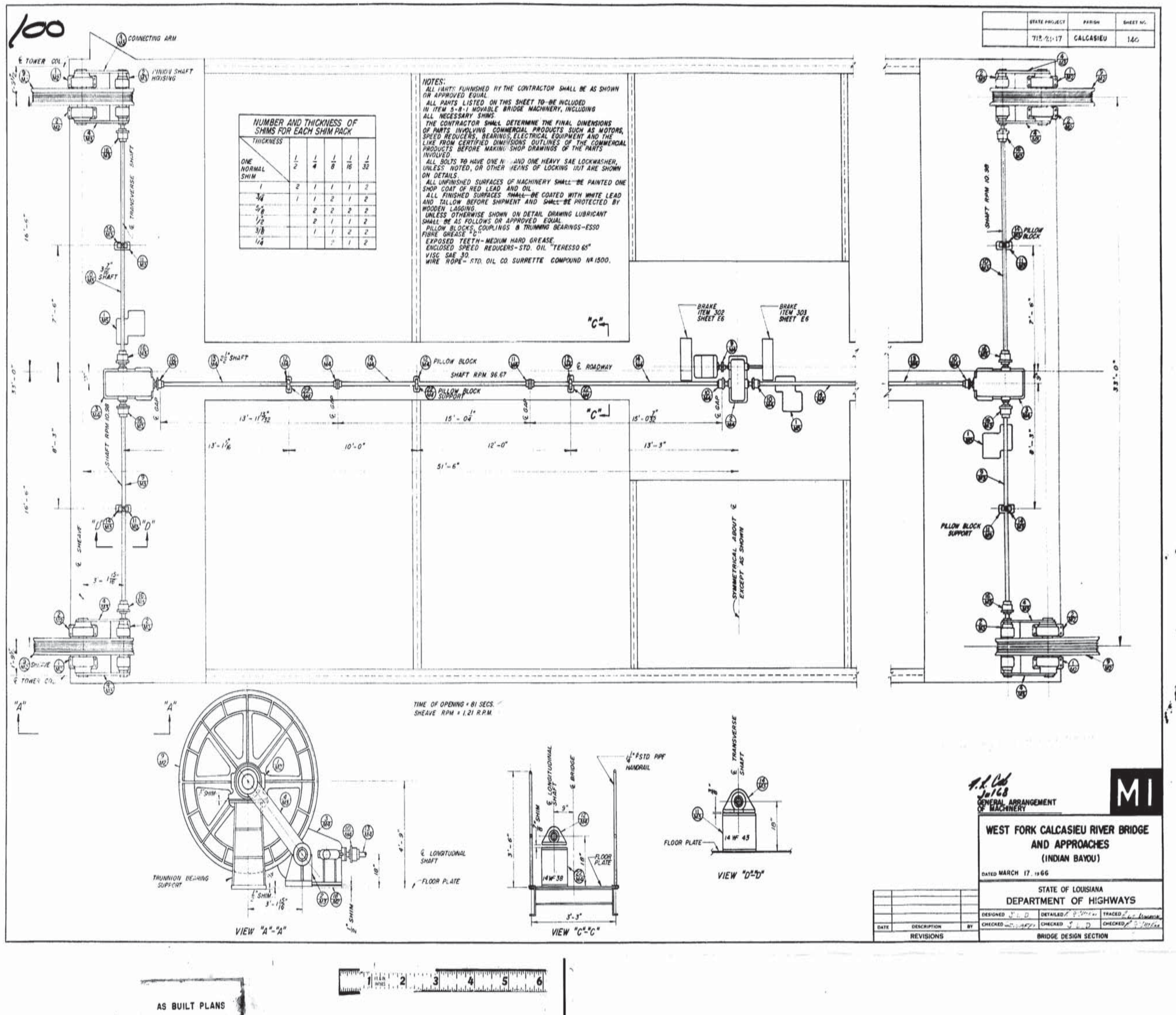
SHEET 4 OF 5

AS BUILT PLANS



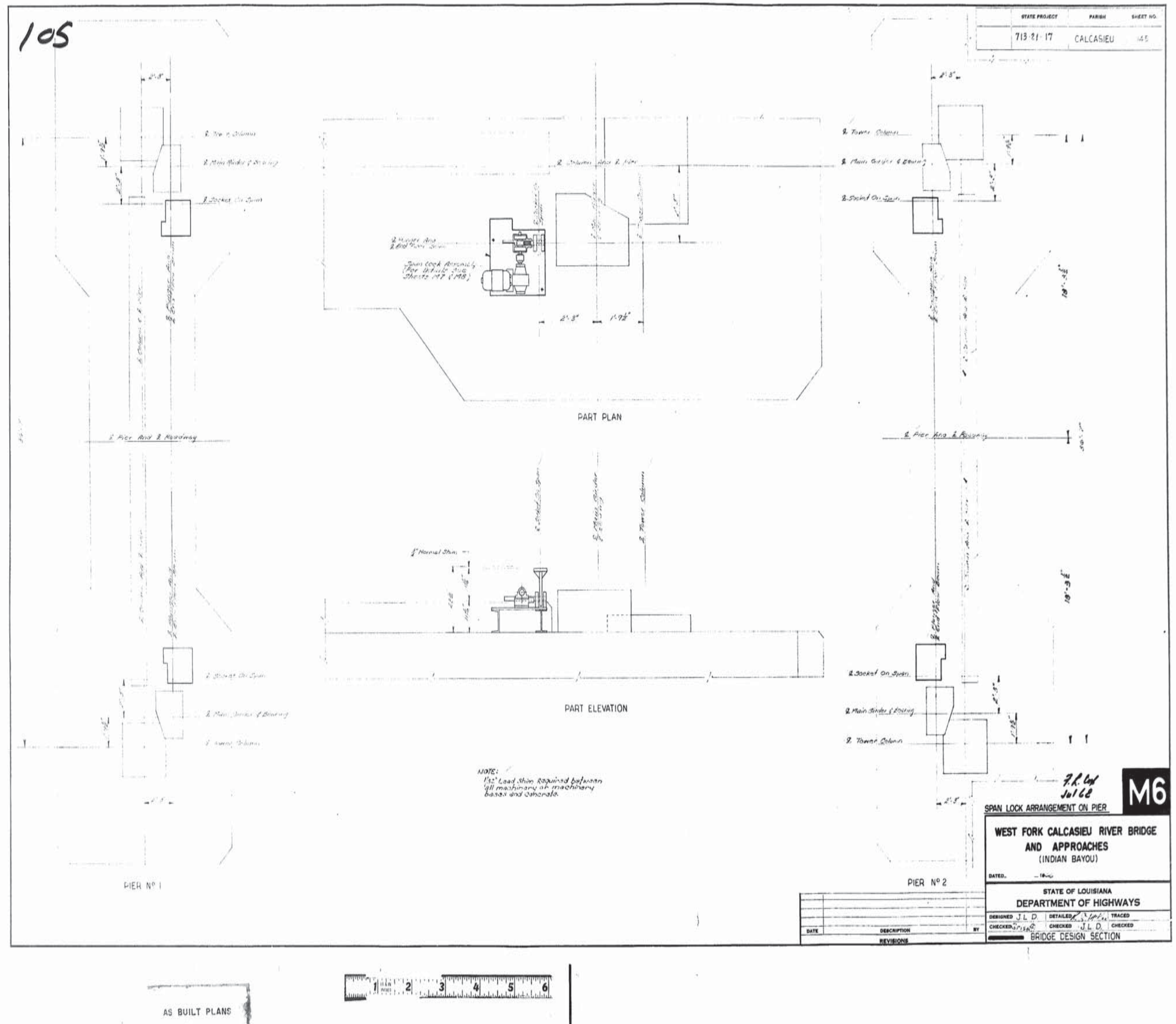
AS BUILT PLANS


98
STATE PROJECT
PARISH
SHEET NO.
713-21-17
CALCASIEU
138
PLAN
VIEW A-A
(NORMAL TO FACE OF FENDER)
Treated Timber Piles
Elev. 12.00
FENDER SYSTEM
WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
BRIDGE DESIGN SECTION
REVISIONS
SHEET 1 OF 2
AS BUILT PLANS



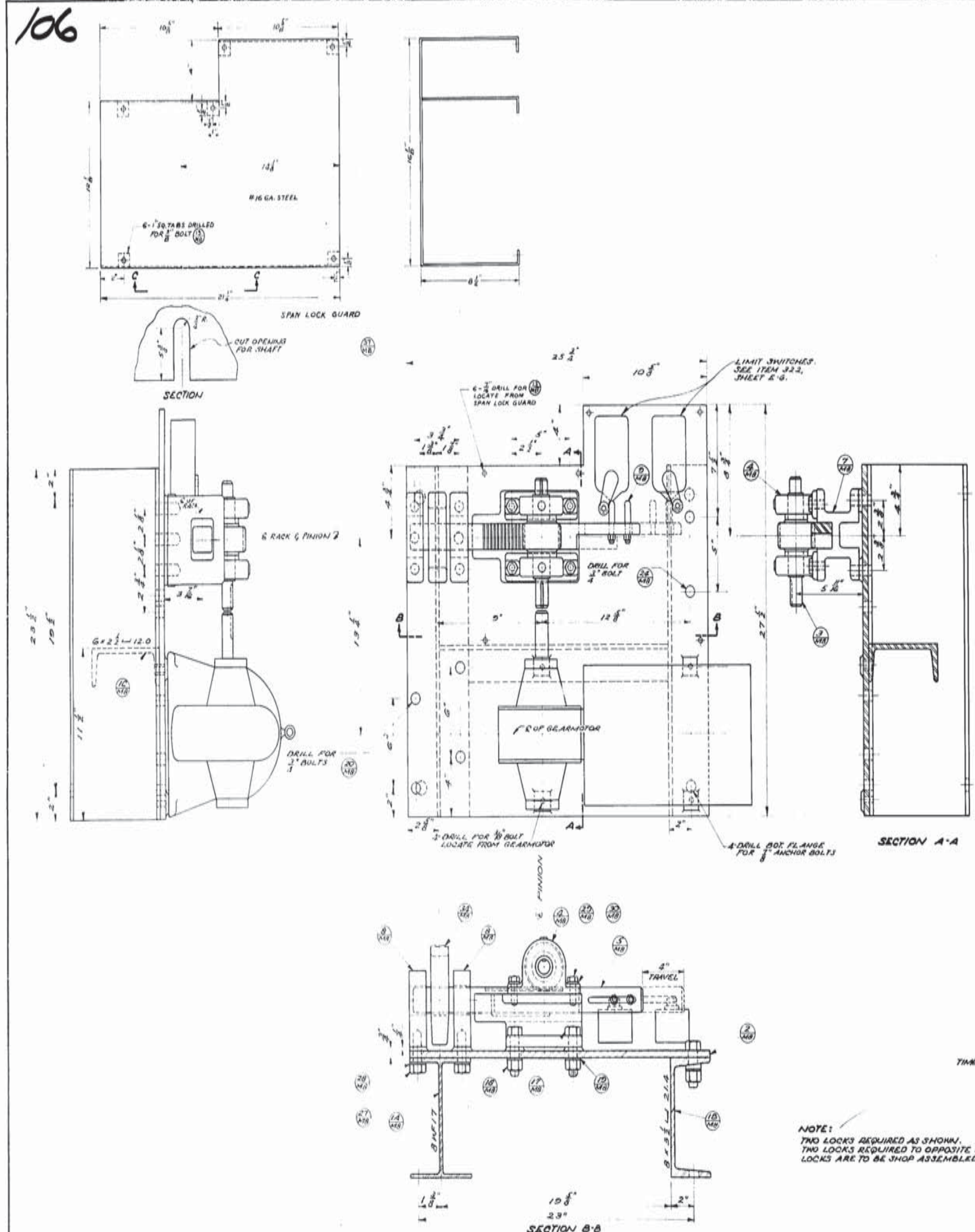
NUMBER AND THICKNESS OF SHIMS FOR EACH SHIM PACK

ONE NORMAL SHIM \ THICKNESS	1/2	1/4	1/8	1/16	1/32
1	2	1	1	1	2
3/4	1	1	2	1	2
5/8		2	2	2	2
1/2		2	1	1	2
3/8		1	1	2	2
1/4			2	1	2


105
STATE PROJECT | PARISH | SHEET NO.
713-21-17 | CALCASIEU
PART PLAN
PART ELEVATION
PIER Nº 1
PIER Nº 2
SPAN LOCK ARRANGEMENT ON PIER
M6
WEST FORK CALCASIEU RIVER BRIDGE
AND APPROACHES
(INDIAN BAYOU)
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
BRIDGE DESIGN SECTION
REVISIONS
AS BUILT PLANS

106

	STATE PROJECT	PARISH	SHEET Nº
	713-31-17	CALCASIEU	46



NUMBER AND THICKNESS OF SHIMS FOR EACH SHIM PACK					
ONE NORMAL SHIM \ THICKNESS	1/2	1/4	1/8	1/16	1/32
1"	2	1	1	1	2
3/4"	1	1	2	1	2
5/8"		2	2	2	2
1/2"		2	1	1	2
3/8"		1	1	2	2
1/4"			2	1	2

NOTE:
THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.

PAINTING NOTE:
ALL UNFINISHED SURFACES OF MACHINERY SHALL BE PAINTED ONE SHOP COAT OF RED LEAD AND OIL.
ALL FINISHED SURFACES SHALL BE COATED WITH WHITE LEAD AND TALLOW BEFORE SHIPMENT, AND SHALL BE PROTECTED BY WOODEN LAGGING.

LUBRICATION NOTE:
UNLESS OTHERWISE SHOWN ON DETAIL DRAWING,
LUBRICANT SHALL BE AS FOLLOWS OR APPROVED EQUAL:
PILLOW BLOCKS, COUPLINGS & TRUNNION BEARINGS - E330 FIBRE GREASE "C".
EXPOSED TEETH - MEDIUM HARD GREASE.
ENCLOSED SPEED REDUCERS - STD. OIL "TERESSO 65" VISC SAE 30.
WIRE ROPE - STD. OIL CO. SURRETTE COMPOUND Nº 1500.

NOTE:
1/8" LEAD SHIM REQUIRED BETWEEN MACHINERY OR MACHINERY BASES AND CONCRETE.

TIME OF OPERATION - 6 SECONDS

NOTE:
TWO LOCKS REQUIRED AS SHOWN.
TWO LOCKS REQUIRED TO OPPOSITE HAND.
LOCKS ARE TO BE SHOP ASSEMBLED.

F.L.C.W.
Jul 68

ASSEMBLY OF SPAN LOCK

M7

WEST FORK CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)

DATED

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DATE	DESCRIPTION	BY
	REVISIONS	

DESIGNED Kuzel	DETAILED Hodges	TRACED A.A. Afoncrez
CHECKED Brewer	CHECKED Grush	CHECKED Brewer

BRIDGE DESIGN SECTION

AS BUILT PLANS

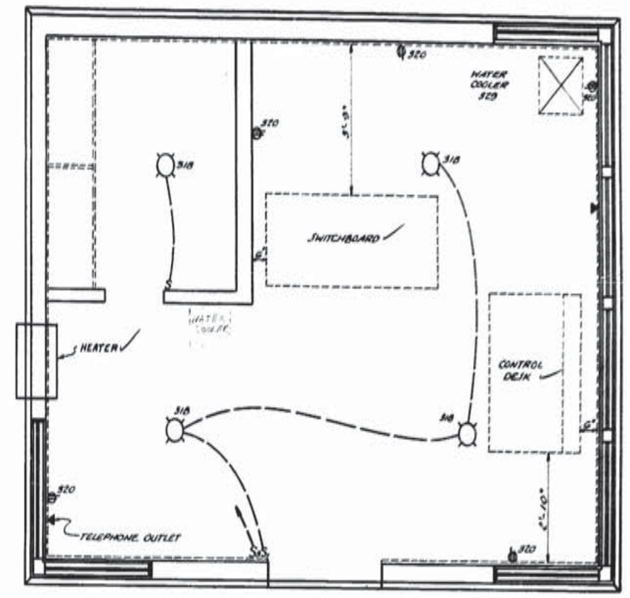
1 2 3 4 5 6

129

STATE PROJECT	PARISH	SHEET NO
713-21-17	CALCASIEU	163

EQUIPMENT LIST

ITEM	QUAN	NAME	SERVICE	LOCATION	MANUFACTURER	STYLE, TYPE, MODEL, CAT Nº	DESCRIPTION
301	1	MOTOR	SPAN MOTOR	CENTER OF SUPERSTRUCTURE	GENERAL ELECTRIC	TYPE MN, FRAME 3262S	WOUND-MOTOR, 20 H.P., 3 PHASE, 60 CYCLES, 220 VOLTS A.C., 900 SYN RPM, APPROX. 66 AMPS F.L. PRIMARY, 255 VOLTS, 37.5 AMPS F.L. SECONDARY, BALL BEARING, SHORT TIME RATED CRANE & HOIST, 30 MIN. 55° C RISE, TENV, WEATHERPROOF STRAIGHT SHAFT DRIVE END. TAPERED SHAFT FRONT END FOR BRAKE; WITH BRACKET FOR MOTOR MOUNTED THRUSTOR BRAKE, WITH OVERSIZE JUNCTION BOX.
302	1	BRAKE	SERVICE BRAKE		GENERAL ELECTRIC	CAT Nº IC8516G636	THRUSTOR OPERATED, 220 VOLTS A.C., 3 PHASE, 60 CYCLES, 160 LB. FT. INTERMITTENT TORQUE, MOTOR MOUNTED, WATERTIGHT NEMA TYPE 4 ENCL., WITH TIME DELAY ON DOWNSTROKE, WITH 2 CIRCUIT (1-NO & 1-N.C.) BRAKE LIMIT SWITCH, HAND RELEASE & HAND RELEASED LIMIT SWITCH (1-NC CONTACT), CORROSION RESISTANT FITTINGS, (LEFT HAND)
303	1	BRAKE	EMERGENCY BRAKE		SAME AS ITEM 302		EXCEPT FLOOR MOUNTED (RIGHT HAND), WITH SHAFT SEAL FOR 1½" ϕ SHAFT
304	3	CLUTCH MOTOR & BRAKE	CLUTCHES	SUPERSTRUCTURE	FURNISHED UNDER ITEM S-8-1		TO BE 220 VOLT A.C., 3 PHASE, 60 CYCLE.
305	4	LOCK MOTOR & BRAKE	LOCKS	PIERS	FURNISHED UNDER ITEM S-8-1		TO BE 220 VOLT A.C., 3 PHASE, 60 CYCLE.
306	1	DISCONNECT	MAIN DISCONNECT	SERVICE POLE	CROUSE-HINDS	CAT NºDVI 264-W1150-3-5454V	3 POLE, 4 WIRE, 3/N, 600 VOLTS A.C., 150 AMP TRIP RATING, 225 AMP FRAME, NEMA TYPE IV ENCL., 3" UNION HUBS TOP & BOTTOM, DRAIN & BREATHER.
307	4	GATES	GATES	SEE GEN. PLAN	B & B ENGINEERING	TYPE ABC 26	½ H.P., 220 VOLTS, 60 CYCLE, 3 PHASE, MOTOR WITH THERMAL PROTECTION & AUTO. RESET, 8 CIRCUIT LIMIT SWITCH, SEE SHEET E8 FOR DETAILS. See Note 3
308	4	BARRIER LIGHTS	GATES	GATES	CROUSE-HINDS	CAT Nº GAL-111-LDH	12" RED L.T.E. LENS, 120 VOLTS, CAST ALUM HOUSING, PAINTED TRAFFIC SIGNAL GREEN, BRACKET MOUNTING, FOR 150 WATT T.S. LAMP, WITH HOOD.
309	4	TRAFFIC SIGNALS	TRAFFIC WARNING	SEE GEN. PLAN	CROUSE-HINDS	CAT. Nº HJV-14-JCL	4 SECTION, "R-R-A-G" 12" LENSES, CAST ALUMINUM, WITH HOODS, 4" PIPE SHAFT, WITH HOT DIP GALVANIZED ANCHOR BOLTS AND HARDWARE, PAINTED TRAFFIC SIGNAL GREEN, SEE DETAIL, SHEET E8
310	6	FENDER LIGHTS	NAVIGATION	FENDERS	B & B ENGINEERING	CAT. Nº MS-53-RM	8" RED FRESNEL LENS, 180°, HEAVY DUTY CAST ALUM. HOUSING WITH MOUNTING FLANGE, TAPPED FOR 1" CONDUIT, FOR 100 WATT R.S. LAMPS.
311	2	NAVIGATION LIGHTS	NAVIGATION	SPAN	B & B ENGINEERING	CAT. Nº MS-88-LK	180° RED & 360° GREEN FRESNEL LENSES, SWINGING BRACKET TYPE WITH LOCK & CHAIN, CONSTRUCTED OF ALUMINUM WITH ALL SHAFTS STAINLESS STEEL. SEE SHEET E8 FOR DETAILS.
312	2	FLOODLIGHT	CHANNEL & ROWY	SEE NOTE SHEET E9	CROUSE-HINDS	CAT. Nº 424288-M-DF	HEAVY DUTY, INCANDESCENT, 300 WATT, 120 VOLTS DIFFUSING LENS, APPROVED FOR MARINE USE, WIDE BEAM, POLISHED ALZAK REFLECTOR.
313	2	LIMIT SWITCH	BARRIERS	BENTS	GENERAL ELECTRIC	CAT. Nº IC9441-LS429GV	6 CIRCUITS, 10 AMPS, 600 VOLTS A.C., DIRECT CONNECTION, WATERTIGHT NEOPRENE GASKETED ENCLOSURE, WITH EXTRA DOGS FOR REVERSING SERVICE WITH CROUSE-HINDS DRAIN AND BREATHER, ALL SHAFTS AND HARDWARE STAINLESS STEEL.
314	1	AIR COMPRESSOR	NAVIGATION HORN	PIER Nº 1	QUINCY COMPRESSOR	MODEL F106	¾ HP, 220 VOLTS, SINGLE PHASE, 60 CYCLES A.C., 4.6 CU. FT. PISTON DISPLACEMENT 120 PSI "CUT-IN", 150 PSI "CUT-OUT," 30 GAL. TANK, COMPLETE WITH ½" VALVE, STRAINER, DRAIN COCK, PRESSURE GAUGE AND BELT GUARD, WITH TENV MOTOR, AND CAST NEMA 4 PRESSURE SWITCH.
315	1	AIR HORN	NAVIGATION HORN	PIER Nº 1	LESLIE	CAT. Nº SM-25-2R	MARINE CONSTRUCTION, CAST ALUMINUM, MOUNTED BACK TO BACK, ½ PIPE TAP MIN. 6" DIAPHRAGM, MIN. OVERALL INDIVIDUAL LENGTH 21."
316	1	SOLENOID VALVE	NAVIGATION HORN	PIER Nº 1	B & B ENGINEERING	TYPE FLVI8A32	220 VOLT COIL, CAST IRON ENCL., CAST IRON VALVE, BRONZE MANUAL HANDLEVER OPERATOR, ½" SIZE, ¾" CONDUIT HUB, MAX. LINE PRESSURE-300 LBS., MAX. OPERATING PRESSURE-200 LBS., NORMALLY CLOSED VALVE, INTERNAL PILOT OPERATED.
317	4	PLUNGER LIMIT SW.	SPAN SEATING	PIERS	WESTERN RAILRD SUPPLY	CAT. Nº 5907-214 B	QUICK BREAK, PLUNGER TYPE, WITH 4 N.O. POLES, CAST IRON WEATHERPROOF CASE, ALL PARTS SUBJECT TO CORROSION TO BE CADMIUM PLATED, EQUIPPED WITH CROUSE-HINDS ECD 15 DRAIN AND BREATHER
318	4	LIGHT FIXTURE	OPERATING HOUSE	OPERATING HOUSE	PERFECLITE	CAT. Nº HH17	OPAL GLASS, SATIN ALUMINUM FINISH, FOR 3-75 WATT LAMPS, HINGED.
319	7	LIGHT FIXTURE	MACH DECK, GEN HOUSE	JUNCTION BOXES, GEN. HOUSE	CROUSE-HINDS	CAT. Nº VM 2827	VAPOR TIGHT FOR 100 WATT T.S. LAMP, ¾" CONDUIT OPENING, PEAR SHAPED GLOBE, DOME REFLECTOR.
320	16	RECEPTACLE	CONVENIENCE OUTLET	SEE SHEET E1A	BRYANT	CAT. Nº 52621	DUPLEX RECEPTACLE, 15 AMPS, 125 VOLTS, 3 WIRE GROUNDING TYPE, IVORY
321	3	TUMBLER SWITCH	LIGHTING	OPER & GEN. HOUSE	BRYANT	CAT. Nº 4901-I	20 AMPS, 125 VOLTS, SINGLE POLE, HEAVY DUTY, IVORY HANDLE.
322	1	CABLE REEL	NAVIGATION LIGHTS	PIER Nº	APPLETON	CAT. Nº CS34	CONSTANT DUTY, EQUIPPED WITH GUIDE RAIL OUTLET, 35 AMP 600 VOLT RATING, WITH 75' OF 3 CONDUCTOR Nº 12, NEC TYPE SO, LEAD CURED CORD.
323	14	LIMIT SWITCH	CLUTCHES & LOCKS	BRIDGE STRUCTURE	ALLEN-BRADLEY	CAT. Nº ASH2-6X	4 CIRCUITS (2-N.O. & 2-N.C.) SNAP ACTION, SPRING RETURN, IDENTICAL OPERATION IN EITHER DIRECTION, ROLLER TYPE, 2½" RADIUS, 12° TO OPERATE, 43° OVER TRAVEL, HEAVY DUTY, 10 AMPS, 220 VOLTS A.C.
324	3	LIMIT SWITCH	SPAN OPERATION	NEAR TOWER	ALLEN-BRADLEY	CAT. Nº ASN2-5X	10 AMPS, 220 VOLTS A.C. 2 CIRCUITS (2-N.O.), SNAP ACTION, SPRING RETURN, 9° TO OPERATE, 46° OVER TRAVEL, IDENTICAL CONTACT OPERATION IN EITHER DIRECTION. HEAVY DUTY, ROLLER TYPE, 2½" RADIUS.
325	2	LIMIT SWITCH	SPAN OPERATION	NEAR TOWER	ALLEN-BRADLEY	CAT. Nº ASO2-5X	2 CIRCUITS (2-N.C.), SNAP ACTION, SPRING RETURN, 9° TO OPERATE, 46° OVER TRAVEL, IDENTICAL CONTACT OPERATION IN EITHER DIRECTION, HEAVY DUTY ROLLER TYPE, 2½" RADIUS, 10 AMPS, 220 VOLTS A.C.
326	3	LIMIT SWITCH	SPAN OPERATION	NEAR TOWER	ALLEN-BRADLEY	CAT. Nº ASC2-5X	2 CIRCUITS (1-N.C. & 1-N.O.), SNAP ACTION, SPRING RETURN, 9° TO OPERATE, 46° OVER TRAVEL, IDENTICAL CONTACT OPERATOR IN EITHER DIRECTION, HEAVY DUTY, ROLLER TYPE, 2½" RADIUS, 10 AMPS, 220 VOLTS A.C.
327		TERMINAL BLOCK	CONDUCTOR TERMINAL	JUNCTION BOXES	BUCHANAN	CAT. Nº B112 S	12 CIRCUIT, 25 AMPS, 600 VOLTS, SOLDERLESS BOX LUGS, HIGH COMPRESSION TYPE, WHITE MARKING STRIP
328		TERMINAL BLOCK	CONDUCTOR TERMINAL	JUNCTION BOXES	SQUARE D	TYPE U3	3 CIRCUIT, 100 AMPS, 600 VOLTS, SOLDERLESS BOX LUGS, HIGH COMPRESSION TYPE, WHITE MARKING STRIP.
329	1	WATER COOLER	OPERATING HOUSE	OPERATING HOUSE	WESTINGHOUSE	MODEL WC8B	COMPARTMENT TYPE, WITH "3-TEMP" FOOD, ICE, WATER, 110 VOLT, 1 CU. FT. STORAGE, 3½ LB. ICE CAPACITY
330	1	GENERATOR SET	EMERGENCY POWER	GENERATOR HOUSE	SEE SHEET E9 FOR COMPLETE SPECIFICATIONS		
331	1	TRANSFER SWITCH	EMERGENCY POWER	GENERATOR HOUSE	ALLEN-BRADLEY	BULLETIN 1270, STYLE "A" CAT Nº 1270 EAA93-943	3 PHASE, 4 WIRE, 3/N, 220 VOLTS, 60 CYCLES A.C. 50 H.P., 135 AMPS, LESS ENCLOSURE, PLACE IN STANDARD L.D.H. JUNCTION BOX, SEE SHEET E7.
332	2	GEARMOTOR & BRAKE	BARRIERS	BENTS	MASTER ELECTRIC	TYPE PD, FRAME 224 RC	2 H.P., 220 VOLTS, 3 PHASE, 60 CYCLES A.C. 13.5 RPM, 55° C RISE, 30 MIN. CRANE AND HOIST DUTY, 6.0 F.L.A. TENV WATERPROOF, J-1 MOUNTING, OVERSIZE CAST IRON JUNCTION BOX WITH NEOPRENE GASKET-ROTATED 40° FROM NORMAL, WITH 1⅝" DRIVE SHAFT AND ⅝" SHAFT OPPOSITE FOR LIMIT SWITCH WITH DISC TYPE BRAKE WITH EXTERNAL MANUAL RELEASE, 18 LBS. FT. TORQUE ON BRAKE. ALL AS PER MASTER DRAWING Nº SD-22-2321.
333	2	3 WAY SWITCH	LIGHTING	OPER & GEN HOUSE	BRYANT	CAT. Nº 4903-I	20 AMP, 125 VOLT, 3-WAY, HEAVY DUTY, IVORY HANDLE



OPERATING HOUSE LAYOUT

GENERAL NOTES:
1. THE CONTRACTOR ~~SHALL~~ FURNISH EQUIPMENT AS SHOWN ON THE ABOVE LIST ~~OR THE APPROVED EQUAL~~. APPROVAL FOR ANY SUBSTITUTE EQUIPMENT ~~SHALL BE~~ OBTAINED FROM THE BRIDGE DESIGN ENGINEER BEFORE THE EQUIPMENT IS ORDERED.
2. ALL GASKETS FOR ALL ELECTRICAL EQUIPMENT ~~SHALL BE~~ NEOPRENE.

EQUIPMENT LIST NOTES:
1. WATER COOLER ~~TO BE~~ FINISHED WITH SEA-MIST GREEN ENAMEL
2. SWITCH AND OUTLET PLATES IN OPERATING HOUSE SHALL BE SIERRA CO. TYPE "P" LINE IVORY PLASTIC, CAT Nº PO-1, PO-8 AND PO-11
3. GATES TO BE LOCATED ON A SUPERELEVATED SECTION SEE SHEET E8 AND PROVIDE PROPER TRAVEL SO THAT GATE ARMS WILL BE VERTICAL WHEN IN THE RAISED POSITION.

F.L. Cof
Jul 68

BRIDGE EQUIPMENT LIST & OPERATING HOUSE LAYOUT

E6

WEST FORK – CALCASIEU RIVER BRIDGE AND APPROACHES
(INDIAN BAYOU)

DATED Feb. 21 1966

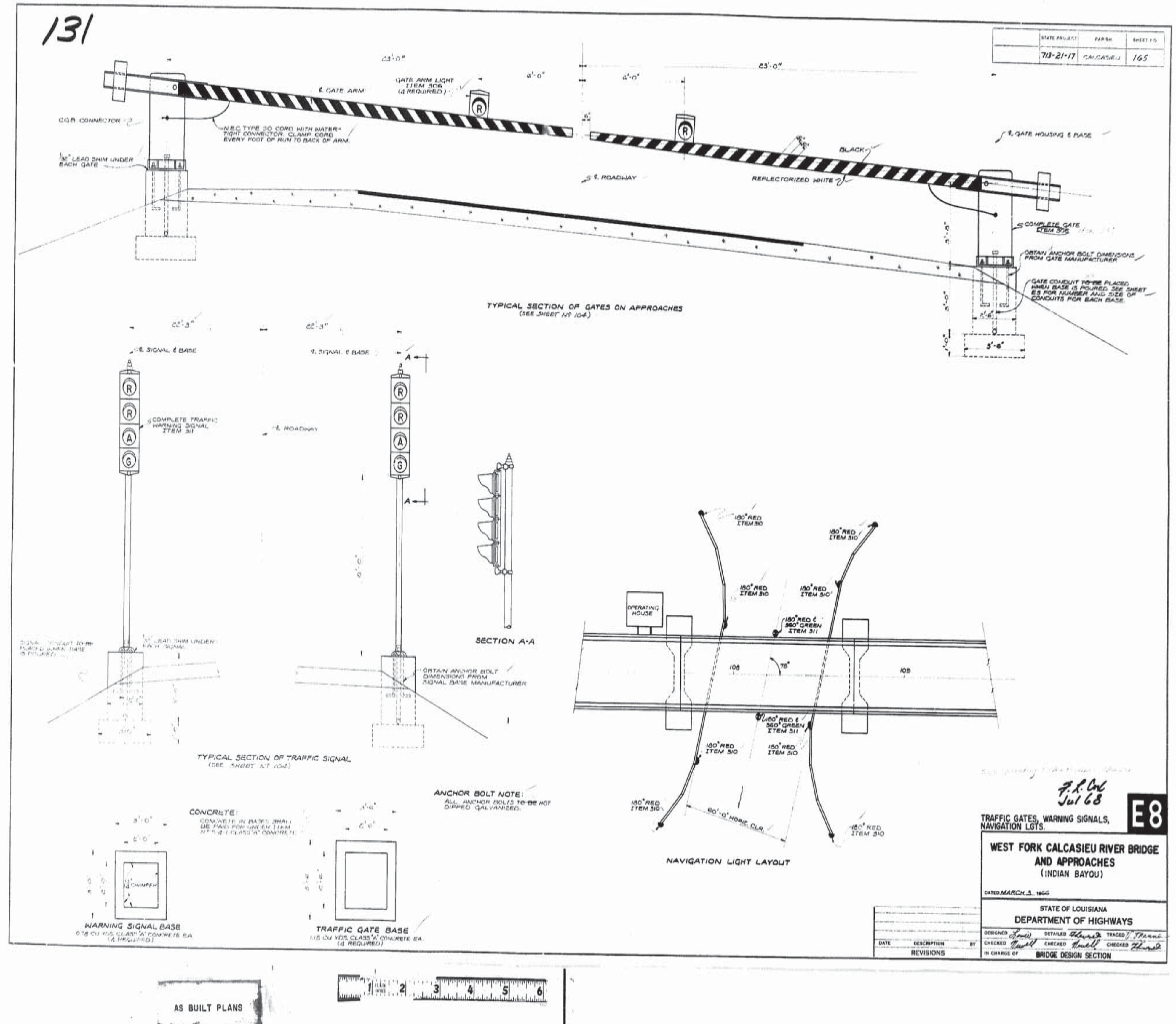
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

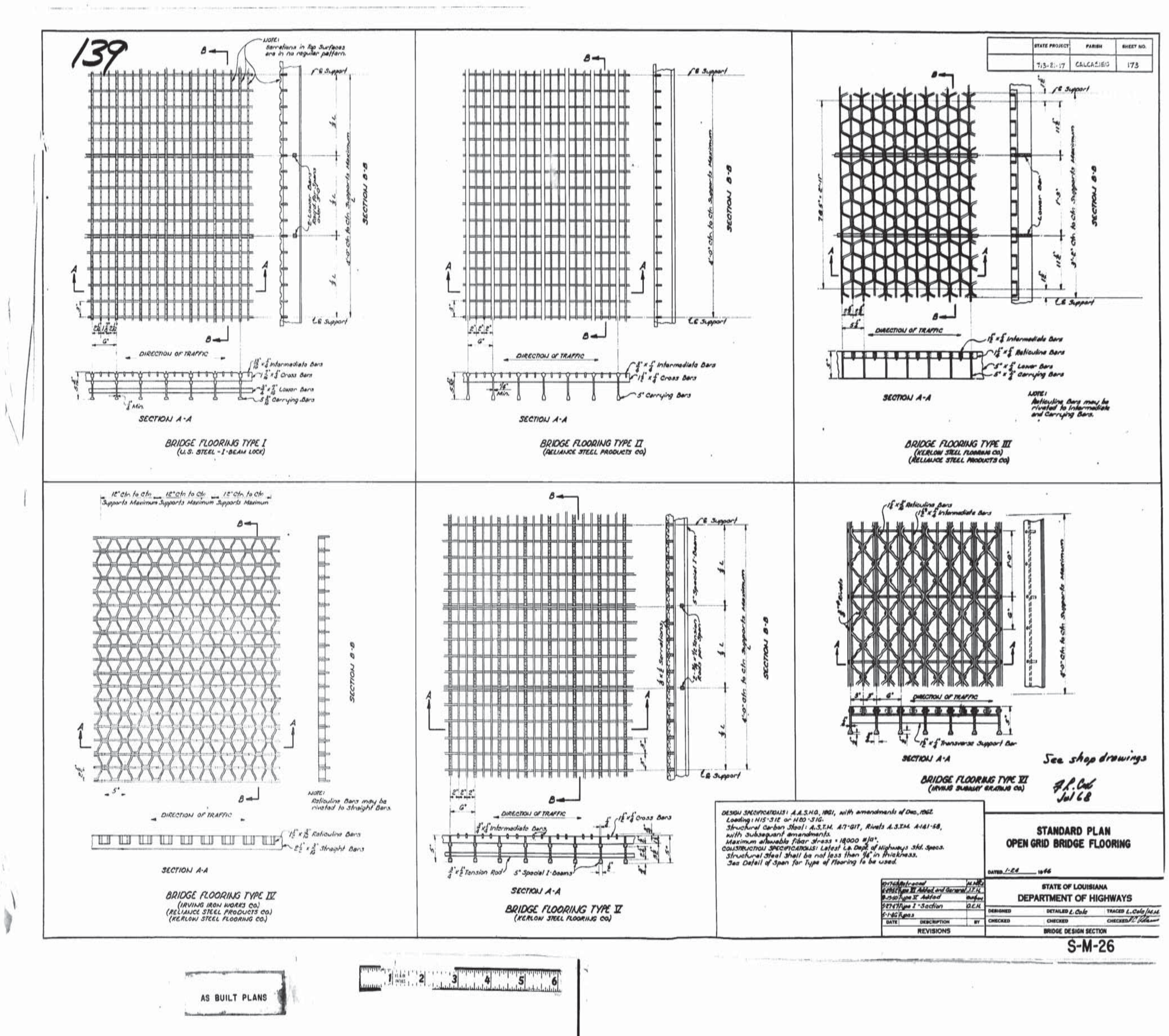
DESIGNED Ronic DETAILED Howard TRACED E. Chapman
CHECKED Nowell CHECKED Dave CHECKED Fabares
BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
REVISIONS		

AS BUILT PLANS

HAER No. LA-30


131
STATE PROJECT
PARISH
SHEET NO.
713-21-17
CALCASIEU
165
TYPICAL SECTION OF GATES ON APPROACHES
(SEE SHEET Nº 104)
GATE ARM LIGHT
ITEM 306
(4 REQUIRED)
N.E.C. TYPE SO CORD WITH WATER-TIGHT CONNECTOR. CLAMP CORD EVERY FOOT OF RUN TO BACK OF ARM.
BLACK
REFLECTORIZED WHITE
COMPLETE GATE
ITEM 305
OBTAIN ANCHOR BOLT DIMENSIONS FROM GATE MANUFACTURER
TYPICAL SECTION OF TRAFFIC SIGNAL
(SEE SHEET Nº 104)
COMPLETE TRAFFIC WARNING SIGNAL
ITEM 311
OBTAIN ANCHOR BOLT DIMENSIONS FROM SIGNAL BASE MANUFACTURER
SECTION A-A
ANCHOR BOLT NOTE:
ALL ANCHOR BOLTS TO BE HOT DIPPED GALVANIZED.
CONCRETE:
WARNING SIGNAL BASE
TRAFFIC GATE BASE
OPERATING HOUSE
180° RED
ITEM 310
NAVIGATION LIGHT LAYOUT
F. L. Cox
Jul 68
TRAFFIC GATES, WARNING SIGNALS, NAVIGATION LGTS.
E8
WEST FORK CALCASIEU RIVER BRIDGE
AND APPROACHES
(INDIAN BAYOU)
DATED MARCH 3, 1966
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED
DETAILED
TRACED
CHECKED
IN CHARGE OF
BRIDGE DESIGN SECTION
DATE
DESCRIPTION
BY
REVISIONS
AS BUILT PLANS


139
STATE PROJECT
PARISH
SHEET NO.
CALCASIEU
173
SECTION A-A
BRIDGE FLOORING TYPE I
(U.S. STEEL - I-BEAM LOCK)
SECTION A-A
BRIDGE FLOORING TYPE II
(RELIANCE STEEL PRODUCTS CO)
SECTION A-A
BRIDGE FLOORING TYPE III
(KERLOW STEEL FLOORING CO)
(RELIANCE STEEL PRODUCTS CO)
SECTION A-A
BRIDGE FLOORING TYPE IV
(IRVING IRON WORKS CO)
(RELIANCE STEEL PRODUCTS CO)
(KERLOW STEEL FLOORING CO)
SECTION A-A
BRIDGE FLOORING TYPE V
(KERLOW STEEL FLOORING CO)
SECTION A-A
See shop drawings
BRIDGE FLOORING TYPE VI
Jul 68
DESIGN SPECIFICATIONS: A.A.S.H.O., 1961, with amendments of Dec., 1962.
Loading: H15-S12 or H20-S16.
Structural Carbon Steel: A.S.T.M. A7-61T, Rivets A.S.T.M. A141-58, with subsequent amendments.
Maximum allowable fiber stress = 18000 #/□".
CONSTRUCTION SPECIFICATIONS: Latest La. Dept. of Highways Std. Specs.
Structural Steel shall be not less than 1/4" in thickness.
See Detail of Span for Type of Flooring to be used.
Retraced
Type VI Added and General
Type V Added
Type I - Section
Types
DATE
DESCRIPTION
BY
REVISIONS
STANDARD PLAN
OPEN GRID BRIDGE FLOORING
DATED 1-24 1946
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED
DETAILED L. Cole
TRACED L. Cole
CHECKED
CHECKED
CHECKED
BRIDGE DESIGN SECTION
S-M-26
AS BUILT PLANS