



Historic Bridge Management Plan for the Bayou Courtableau Bridge

Recall Number: 008120

Structure Number: 03493800404371

Parish: St. Landry

Route: LA 103

Crossing Description: Bayou Courtableau



Prepared for

**Louisiana Department of
Transportation and
Development**

Prepared by

**Mead
& Hunt**

www.meadhunt.com

June 2017

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Executive Summary

The Bayou Courtableau Bridge (Recall No. 008120) is located in St. Landry Parish, Louisiana, and is owned by the State of Louisiana. The bridge was completed in 1937 and was determined eligible for the National Register of Historic Places (National Register) in 2013. It is significant for its association with New Deal federal-relief efforts, specifically U.S. Works Program highway funds to provide work relief and improved infrastructure during the Depression era. It is also significant as an important variation of the steel I-beam bridge type designed with a removable span. Its design features include the floorbeam extensions to allow for removal of the steel beam center span.

This bridge carries Louisiana Highway (LA) 103 across the Bayou Courtableau. The approximately 271-foot crossing's main span is a steel I-beam removable span that is 45 feet long. It is flanked by three reinforced-concrete deck girder approach spans on each side. The main span is comprised of steel I-beam stringers that frame into steel lift girders (floorbeams) at each end of the span. The floorbeams are designed and detailed so that equipment can be attached to the end extensions of the lifting girders in order to remove the span. The bridge is classified as a fracture critical bridge because the steel I-beams in the removable span frame into steel floor beams at each end of the span.

The Bayou Courtableau Bridge is in satisfactory condition overall and appears to adequately serve its purpose of carrying vehicular and pedestrian traffic over the waterway. The major deficiencies consist of erosion at end bent 1 causing slight exposure of the concrete piles. With proper maintenance and rehabilitation, the Bayou Courtableau Bridge can continue to serve in its present capacity for 20 years or longer.

Any work on the bridge should proceed according to recommendations in this Historic Bridge Management Plan (Plan), which adhere to the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Secretary's Standards), the *Management Plan for Historic Bridges Statewide* (Statewide Historic Bridge Plan), and 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* (PA).

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1. Introduction

This Plan, used in conjunction with the Statewide Historic Bridge Plan, provides guidance on the approach to preservation activities for the Bayou Courtableau Bridge (Recall No. 008120), identified as a Preservation Priority Bridge. Completion of individual management plans for Preservation Priority Bridges and the Statewide Historic Bridge Plan fulfills terms of the PA, which was executed on September 21, 2015.

The PA provides the basis and procedures for the management of historic bridges in Louisiana and outlines the procedures for the treatment of historic bridges, including Preservation Priority Bridges. In accordance with the PA, an owner seeking state or federal funding for Preservation Priority Bridges will be required by the Louisiana Department of Transportation and Development (LADOTD), in cooperation with the Louisiana State Historic Preservation Office (LASHPO) and the Federal Highway Administration (FHWA), to follow the procedures outlined in this Plan and the Statewide Historic Bridge Plan.

The Statewide Historic Bridge Plan outlines the overall approach to bridge preservation through a discussion of the collaboration of the historian and engineer, guidance on assessing preservation needs, and resources and technical guidance on maintenance and rehabilitation activities that are broadly applicable to historic bridges. A glossary of common engineering and historical terms is included in the Statewide Historic Bridge Plan.

This Plan for the Bayou Courtableau Bridge compiles and summarizes the specific historic and engineering information for this Preservation Priority Bridge. It documents the existing use and condition of the bridge, along with assessments of the preservation needs, including cost estimates. Preservation can be accomplished in two manners: preventative maintenance and rehabilitation. Maintenance includes cyclical or condition-based activities that, along with regular structural inspections, are directed toward continued structure serviceability. Rehabilitation activities are near- or long-term steps that need to be taken to preserve and in some cases restore a bridge's structural condition and serviceability. In assessing preservation activities for each Preservation Priority Bridge, a design life of 20 years was considered, which is consistent with the duration of the PA. This Plan provides the bridge owner, and other interested parties, with detailed information related to the historic nature of the bridge and the necessary background to make an informed planning decision. Recommendations within this Plan should be reviewed in 10 years following completion of the Plan to identify any needed updates or revisions.

Existing bridge data sources typically available for Louisiana bridges were gathered for this Plan, and field investigation confirmed the general structural condition and character-defining features of the subject bridge. These sources include:

- The current LADOTD Bridge Inspection Report, and any other similar inspection reports
- Original bridge construction plans, any rehabilitation plans, and record as-built plans, as available
- Existing historical and documentary material related to the historic bridges

Recommendations within this Plan are consistent with the Secretary's Standards. The Secretary's Standards are basic principles created to help preserve the distinct character of a historic property and its site, while allowing for reasonable change to meet new engineering standards and codes. The Secretary's Standards recommend repairing, rather than replacing, deteriorated features whenever possible. A version of the Secretary's Standards that is specific to historic bridges is included in the Statewide Historic Bridge Plan. Following these standards is a requirement of the PA.

A bridge historian and bridge engineer from Mead & Hunt, Inc. (Mead & Hunt) jointly prepared this Plan under contract to the LADOTD. The LADOTD, FHWA, and LASHPO reviewed and provided input into the final Plan.

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3. Historic Data

A. Identifying information

Structure Number: 03493800404371

Recall Number: 008120

LASHPO Number: 49-00003

Bridge Name: Bayou Courtableau Bridge

Date of Construction: 1937

Main Span Type: Steel I-beam

Contractor: Unknown

Designer/Engineer: Louisiana Highway Commission
Jones & Laughlin Steel Corporation, New Orleans, La. (fabricator)

B. Description of bridge

The Bayou Courtableau Bridge carries LA 103 across the Bayou Courtableau in St. Landry Parish. The average daily traffic (ADT) is approximately 6,400 vehicles. The approximately 271-foot crossing consists of one steel I-beam removable span and six reinforced-concrete deck girder approach spans, three on each side of the removable span. The bridge is not load (weight) posted. The bridge is classified as a fracture critical bridge because the steel I-beams in the removable span frame into steel floorbeams at each end of the span.

The total length of the bridge is approximately 271 feet measured from end bent to end bent, including a 3-foot joint between the end of and the asphalt approach roadway on both ends of the bridge. The bridge is described as follows, from south to north. Spans 1 through 3 are cast-in-place, reinforced-concrete deck girder spans that are each 36 feet, 9 inches long. Span 4 is the main span, a steel I-beam removable span with a total length of 45 feet. The main span is comprised of steel I-beam stringers that frame into steel lift girders (floorbeams) at each end of the span. The floorbeams are designed and detailed so that equipment can be attached to the end extensions of the lifting girders in order to remove the span. Spans 5 through 7 are cast-in-place, reinforced-concrete deck girder spans that are each 36 feet, 9 inches long.

The bridge provides two 12-foot-wide traffic lanes with a 24-foot clear roadway width and 3-foot-wide sidewalks on each side of the roadway. The railing is on the sidewalk and is made of cast-in-place, reinforced concrete.

The substructure for the approach spans consists of cast-in-place concrete end bents 1 and 6 supported on 14-inch-square precast concrete piles. Bents 2 and 5 are similar to the end bents, with 14-inch-square precast concrete piles forming the columns. Bents 3 and 4 are cast-in-place concrete supported on 16-inch-square precast concrete piles that form the columns. The substructure for the main span consists of cast-in-place, reinforced-concrete, wall-type piers (piers 1 and 2) supported on untreated timber piles.

C. History and significance

Completed in 1937, the Bayou Courtableau Bridge carries LA 103 (formerly Route 214) over the Bayou Courtableau within the town of Port Barre (also known as Barry) in St. Landry Parish. At the time of construction, the route was known as the Beggs-Port Barre Highway.¹ A significant proportion of the funding for the bridge project came from the U.S. Works Program Highway Projects (U.S. W.P.M.S.), a New Deal agency that improved safety nationwide by supporting the construction of roads and highways. In 1935 the State of Louisiana received allocated funds through the Emergency Relief Appropriation Act, which subsidized the U.S. W.P.M.S.² The structure was constructed through Federal Aid Project No. W.P.M.S. 311 and state project number 984.

The Bayou Courtableau Bridge replaced a previous structure at the site.³ The Louisiana Highway Commission (LHC) began planning for the bridge reconstruction in 1935.⁴ In May 1936 construction bids were requested and the construction contract was awarded in June for a cost of nearly \$60,000.⁵ The LHC designed the bridge with a removable steel I-beam main span. Standard plans were used for the design of the bridge including the spans, handrail (Type C), and headwalls.⁶ Bridge members were fabricated by the Jones & Laughlin Steel Corporation of New Orleans.⁷

The Bayou Courtableau Bridge has significance for its association with important trends or events that have made a significant contribution to the broad patterns of Louisiana history. Its significance under *Criterion A: Politics/Government* is demonstrated through its association with New Deal federal-relief efforts, specifically U.S. Works Program highway funds to provide work relief and improved infrastructure during the Depression era.

¹ Louisiana Highway Commission, "Louisiana Highway Commission Plan and Profile of Proposed State Highway Bayou Courtableau Bridge and Approaches, State Route No. 214, Beggs-Port Barre Highway, St. Landry Parish, U.S. Works Program Highway Project No. W.P.M.S. 311 State Project 984," 1936.

² "Eighth Biennial Report of the Louisiana Highway Commission of the State of Louisiana," prepared for the Governors and Members of the Legislature (1936), 145.

³ "Highway Commission Bridge Hearing Set," *The Times-Picayune*, November 1935.

⁴ "Highway Commission Bridge Hearing Set."

⁵ "Eighth Biennial Report of the Louisiana Highway Commission of the State of Louisiana," prepared for the Governors and Members of the Legislature (1936), 35, 189.

⁶ Louisiana Highway Commission, "Louisiana Highway Commission Plan and Profile of Proposed State Highway Bayou Courtableau Bridge and Approaches, State Route No. 214, Beggs-Port Barre Highway, St. Landry Parish, U.S. Works Program Highway Project No. W.P.M.S. 311 State Project 984."

⁷ Jones & Laughlin Steel Corporation. "Bayou Courtableau Bridge Shop Drawings," n.d. Louisiana Department of Transportation.

The bridge also possesses significance as an important variation of the steel I-beam bridge type designed with a removable span and is eligible under *Criterion C: Engineering*. Its design features include the floorbeam extensions to allow for removal of the steel beam center span. The reinforced-concrete deck girder approach spans follow standard plans from 1935.

D. Character-defining features

Character-defining features are prominent or distinctive aspects, qualities, or characteristics of a historic property that contribute significantly to its physical character. Features may include materials, engineering design, and structural and decorative details. Elements of the bridge that are not identified as character-defining features may be historic fabric. Historic fabric is material in a bridge that was part of original construction. It is important to consider both character-defining features and the bridge's historic fabric when planning any work.

The Bayou Courtableau has two character-defining features: the overall bridge superstructure that crosses the Bayou Courtableau and the aesthetic treatment of the bridge (discussed below). These treatments include an open balustrade concrete railing, geometric endposts, pier caps with an ornamental angular design, and tapered brackets under the sidewalks. Other elements that represent historic fabric but are not considered to be character-defining are the concrete substructure units.

The following items are the character-defining features of this bridge:

Feature 1: The reinforced-concrete deck girders and steel I-beam bridge superstructure

This feature consists of the six reinforced-concrete deck girder approach spans and the main steel I-beam span. The steel I-beam main span was designed to be removable.



Character-defining Feature Photo 1: Design and construction of the bridge superstructure. The steel I-beam main span and adjacent approach concrete deck girder spans comprise the superstructure.



Character-defining Feature Photo 2: Design and construction of the bridge superstructure. The steel I-beam main span was designed to be removable.

Feature 2: Aesthetic treatment of the concrete girder and steel I-beam bridge

This feature includes various decorative elements that create an aesthetic distinguished within this bridge type. These treatments include an open balustrade concrete railing, geometric endposts, pier caps with an ornamental angular design, and tapered concrete brackets under the sidewalks.



Character-defining Feature Photo 3: Aesthetic treatment of the open balustrade railing and tapered concrete sidewalk brackets contribute to the overall designed aesthetic of the bridge.



Character-defining Feature Photo 4: Aesthetic treatment of the geometric endposts contributes to the overall designed treatment of the bridge.

The following image illustrates other bridge features that are historic fabric, meaning they are part of original construction but are not considered to be character-defining features:



Historic Fabric Photo 1: Concrete substructure, which includes the bents and piers.

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4. Engineering Data

A. Existing conditions

(1) Structural observations

The Bayou Courtableau Bridge is in satisfactory condition overall and appears to adequately serve its purpose of carrying vehicular and pedestrian traffic over the waterway. The major deficiencies consist of erosion at end bent 1 causing slight exposure of the concrete piles. There are several minor deficiencies described below.

The bridge is not load (weight) posted.

Reinforced-concrete deck girder approach spans (spans 1-3 and 5-7)

The reinforced-concrete deck is in good condition, exhibiting minor map cracking and light to medium wear in the travel lanes. The underside of the deck exhibits minor cracking and efflorescence. The reinforced-concrete girders are in good condition. Dirt daubers are typical on the majority of the concrete girders and there is graffiti on the girders in spans 1, 6, and 7. Span 1 has a diaphragm overhang bracket that is spalled with exposed reinforcing steel and span 2 has a diaphragm overhang bracket that has a crack approximately 3 feet in length. The bents are in overall good condition, with water staining on the bent columns. The bent caps have debris build up and vegetation growing on them. Bent 6 has mild erosion at the columns. The end bents exhibit water staining and graffiti. The existing ground at end bent 1 is eroding and the concrete piles are slightly exposed. The open deck joints are in good condition. Most of the joints are open on one side of the bridge and closed on the other, and have debris on the shoulders and in the center of the joint. The bearings are in good condition, exhibiting no major deficiencies. The joint steel is in fair condition, although the joint is full of debris and the transition asphalt is in poor condition. The concrete railing is in good condition with minor spalling and cracks.

Removable steel I-beam main span (span 4)

The reinforced-concrete deck is in good condition, exhibiting minor map cracking and light to medium wear in the travel lanes. The steel floorbeams and stringers are in good condition with no paint system failure. Concrete piers 1 and 2 are in good condition with minor water staining and debris build up on the caps. The open deck joints are in good condition with debris on the shoulders. The bearings are in good condition, exhibiting no major deficiencies. The concrete railing is in good condition with minor spalling and cracks.

The latest inspection report stated that an underwater inspection was needed at bents 3, 4, 5, and 6.

The condition of the waterway embankments on each side of the bridge are good.

(2) Non-structural observations

The horizontal alignment and vertical geometry of the bridge are good.

(3) Serviceability observations

The ADT is approximately 6,400 vehicles. The posted speed limit is 25 mph. The bridge clear width of 24 feet provides for two lanes of traffic, one in each direction, with 3-foot sidewalks on each side of the roadway. The bridge appears to adequately handle the traffic volume. The railing on the bridge is the original concrete railing.

The approach roadway asphalt surface at end bent 1 has raveling, significant cracks and deterioration, and is in poor condition.

B. Sources of information

Plans available:	Yes, available at the LADOTD Bridge Section office
Inspection report date:	November 23, 2015
Fracture critical report date:	(included as part of routine inspection report)
Underwater inspection report:	February 11, 2014
Date of site visit:	February 3, 2016



Condition Photo 1: Overview of bridge, facing southwest.



Condition Photo 2: Concrete overhang diaphragm (span 1) spalled with exposed reinforcing.



Condition Photo 3: Graffiti on concrete approach span beams, span 7.



Condition Photo 4: Overview of concrete approach spans, spans 5 and 6, exhibiting watering staining.



Condition Photo 5: Exposed concrete piles at end bent 1; also showing graffiti.



Condition Photo 6: Typical condition of the underside of the concrete deck and concrete deck girders for the approach spans, including several dirt daubers.



Condition Photo 7: Looking north from the south approach to the bridge.



Condition Photo 8: Graffiti on the concrete bent cap, bent 2, piles and beams of the approach span.



Condition Photo 9: Steel beam removable span.



Condition Photo 10: Looking north from the north approach span.



Condition Photo 11: Looking south from the south approach span.



Condition Photo 12: Looking south from the approach span.



Condition Photo 13: Pier 2, open deck joint in good condition.



Condition Photo 14: Expansion joint closed at one end and open at the other, bent 5.



Condition Photo 15: Asphalt joint at south end of bridge.



Condition Photo 16: Water staining of concrete bent and piles, bent 3.

5. Recommendations

This Preservation Priority Bridge should remain in use and can meet current and projected transportation needs for the next 20 years or more. Maintenance and rehabilitation activities should be completed in a manner consistent with the long-term preservation of this historic bridge. The Statewide Historic Bridge Plan provides additional guidance and approaches to completing maintenance and rehabilitation activities that adhere to the Secretary's Standards. Work should be conducted under the supervision of a qualified professional historian, as defined in the PA. The bridge engineer, or the bridge engineer's supervising engineer, should have demonstrated expertise in historic bridge projects and must have completed the LADOTD's historic bridge training. When developing plans and specifications for a project, the bridge engineer should follow the recommendations below.

Under the terms agreed upon in the PA, the bridge owner may undertake certain activities that are considered to be best practices without additional consultation or public notification. These activities are documented in Attachment 5 of the PA and are limited to the activities specifically noted. All recommended preventative maintenance and rehabilitation activities for this bridge are included in Attachment 5 and are not expected to alter character-defining features or historic fabric of the bridge. Some cyclical or condition-based maintenance items are noted below under Rehabilitation because they are expected to be completed as part of an overall rehabilitation project for this bridge. These activities may need to be completed as conditions dictate to promote long-term preservation of this historic bridge. Recommendations within this Plan should be reviewed in 10 years following completion of the Plan to identify any needed updates or revisions.

The opinions of probable costs provided below are in 2016 dollars. The costs were developed without benefit of preliminary rehabilitation plans and are based on the above identified tasks using engineering judgment and/or gross estimates of quantities and historic unit prices and are intended to provide a programming level of estimated costs. Refinement of the probable costs is recommended once preliminary plans have been developed. The estimated preservation costs include a 10% contingency and 7% mobilization allowance of the preservation activities, excluding soft costs. Actual costs may vary significantly from those opinions of cost provided herein. Engineering design, historical consultation, and construction administration costs are not included as these may be provided by the owner or consultants.

A. Preventative maintenance

The following recommendation is for cyclical maintenance. Because these activities are routinely done, there are no cost estimates. There are no condition-based maintenance recommendations at this time, based on the bridge condition as observed during the site visit and as documented in available information.

1. Remove debris from top of deck and shoulders routinely to prevent debris build-up on the caps of the concrete substructure units.
2. Remove all debris build-up from the concrete cap substructure units regularly to keep the units in condition.

3. Monitor the joint openings during routine inspections. Repair work may be warranted if the pressure from the joint closing causes damage to the concrete beams.

B. Rehabilitation

The following are recommendations for rehabilitation. These activities should be performed when necessary (estimated to be within the next five years):

1. Clean concrete units to remove dirt daubers on the concrete beams and undersides of deck.
2. Remove graffiti from concrete beams and concrete substructure units using low-pressure water blast cleaning (no solvents) following testing on a small area.
3. Repair erosion at end bent 1 and end bent 6 with non-erodible material.
4. Mill and overlay the asphalt roadway pavement at the south roadway approach to the bridge.

Bridge Recall No. 008120				Date:	9/30/2016		
Bayou Courtableau Bridge							
Opinion of Probable Costs							
Rehabilitation							
Item	Quantity	Unit	Unit Cost	Total			
Clean concrete units to remove dirt daubers on the concrete beams and undersides of deck	1	LS	\$50,000	\$50,000			
Remove graffiti from concrete beams and concrete substructure units using low-pressure water blast cleaning (no solvents) following testing on a small area	1	LS	\$10,000	\$10,000			
Repair erosion at end bent 1 and end bent 6 with non-erodible material	2	EA	\$5,000	\$10,000			
Mill and overlay the asphalt roadway pavement at the south roadway approach to the bridge	54	SY	\$100	\$5,400			
Traffic control signage, drums and temporary pavement marking for staged construction of items listed above	1	LS	\$20,000	\$20,000			
Item Subtotal				\$95,400			
Contingency			10.00%	\$9,540			
Mobilization			7.00%	\$7,346			
TOTAL ESTIMATED CONSTRUCTION COST						\$112,286	
				Round to:	\$112,000		

C. Identification of any anticipated design exceptions

No design exceptions were noted, nor are any design exceptions recommended.

Appendix A. Historic Inventory Form

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Louisiana Historic Bridge Inventory

Recall Number: 008120

Structure Number: 03493800404371

SHPO Number: 49-00003

Bridge Name: COURTABLEAU BAYOU

Location Data:

District: 03

Parish: St. Landry

Feature Crossed: BAYOU COURTABLEAU

Facility Carried: LA0103

Location: 4.37 MI SOUTH OF LA 359

City, Village or Town (if applicable): Port Barre

Status: Open

Bridge Owner: State of Louisiana

Latitude: 30.559139

Longitude: -91.955028

Structural Data:

Bridge Type: Concrete Deck & Bents w/ Steel I-Beam w/ Removable Span Year Built: 1937

Main Span Configuration (if applicable):

Maximum Span Length (feet): 45

Number of Spans: 1

Overall Structure Length (feet): 271

Approach Span Type (if applicable): Concrete tee beam

Posted Load:

Current ADT: 007600

Design and Construction Data:

Engineer or Builder:

Louisiana Highway Commission

Bridge Plaque:

Bayou Courtableau Bridge; Federal Aid Project No W.P. M.S. 811; Commissioned under the Administration of Richard W. Leche Governor Earl K. Long, Lieut. Governor L.P. Abernathy, Chairman; Louisiana Highway Commission 1937 (plaque on top of concrete incised with "Bayou Courtableau")

National Register of Historic Places Evaluation:

This removable span bridge has significance for its association with important trends or events that have made a significant contribution to the broad patterns of Louisiana history. Its significance is demonstrated through its association with U.S. Works Program Highway funds to provide work relief and improved infrastructure during the Depression era. The construction of this bridge was part of New Deal federal-relief efforts. This bridge's association with a federal Depression-era program is documented in the Louisiana Highway Commission biennial reports.

The bridge also possesses significance as an important variation of the steel I-beam bridge subtype. Its design features include the floor beam extensions and the open grated deck to allow for removal of the steel beam center span. It appears to follow standard plans from the 1930s. The bridge exhibits alterations to the open grate, which has been covered with pavement making it challenging to remove the span. These changes result in a major loss of integrity because the removable span no longer functions in the manner in which it was designed. As a result, the bridge is not eligible for listing in the National Register under Criterion C. However, despite these alterations, the bridge continues to convey design features that demonstrate its significance as a work of a Depression-era program and is eligible for the National Register under Criterion A: Politics/Government.

Within/Adjacent to Known Historic District: N/A

National Register Historic District Name: N/A

National Register Determination: Eligible

National Register Determination Date: 2013

Surveyor: Mead & Hunt, Inc.

Date Surveyed: 2013



Louisiana Historic Bridge Inventory

Recall Number: 008120

Structure Number: 03493800404371

Bridge Name: COURTABLEAU BAYOU

Parish: St. Landry

Bridge Owner: State of Louisiana

Feature Crossed: BAYOU COURTABLEAU

Facility Carried: LA0103

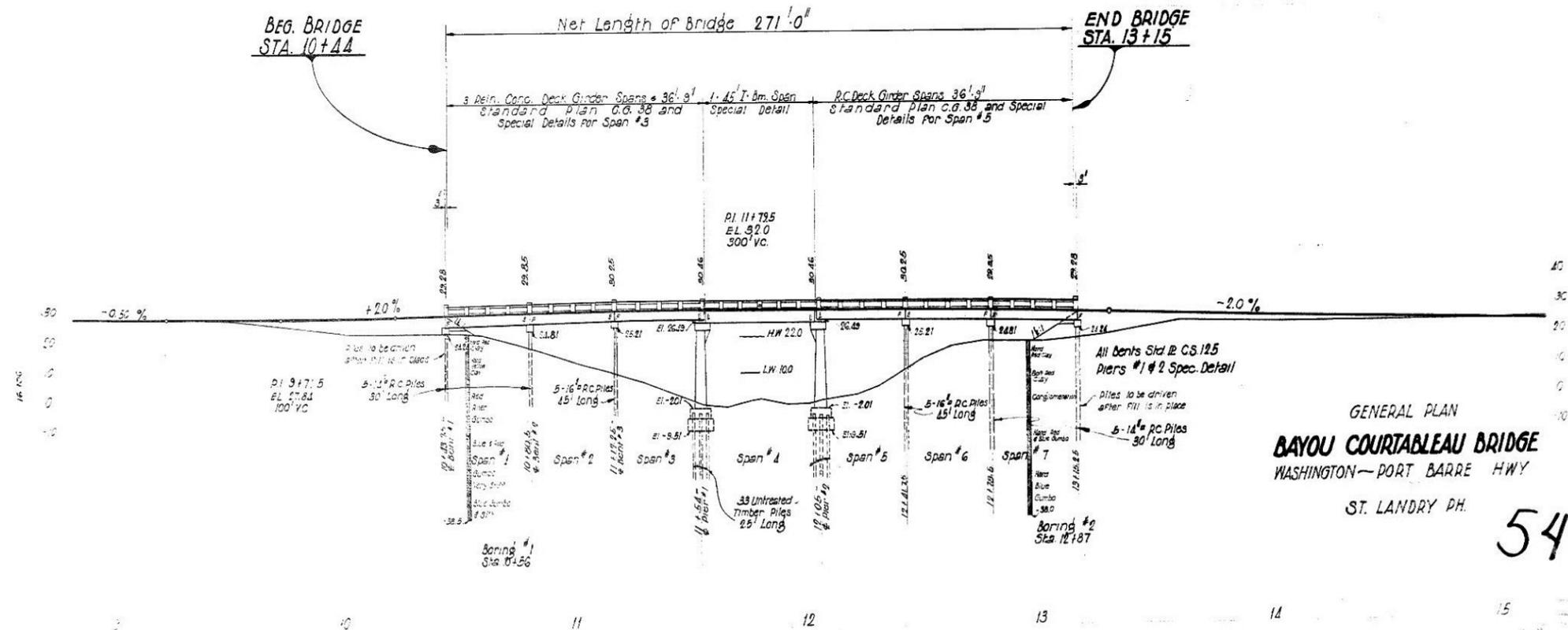
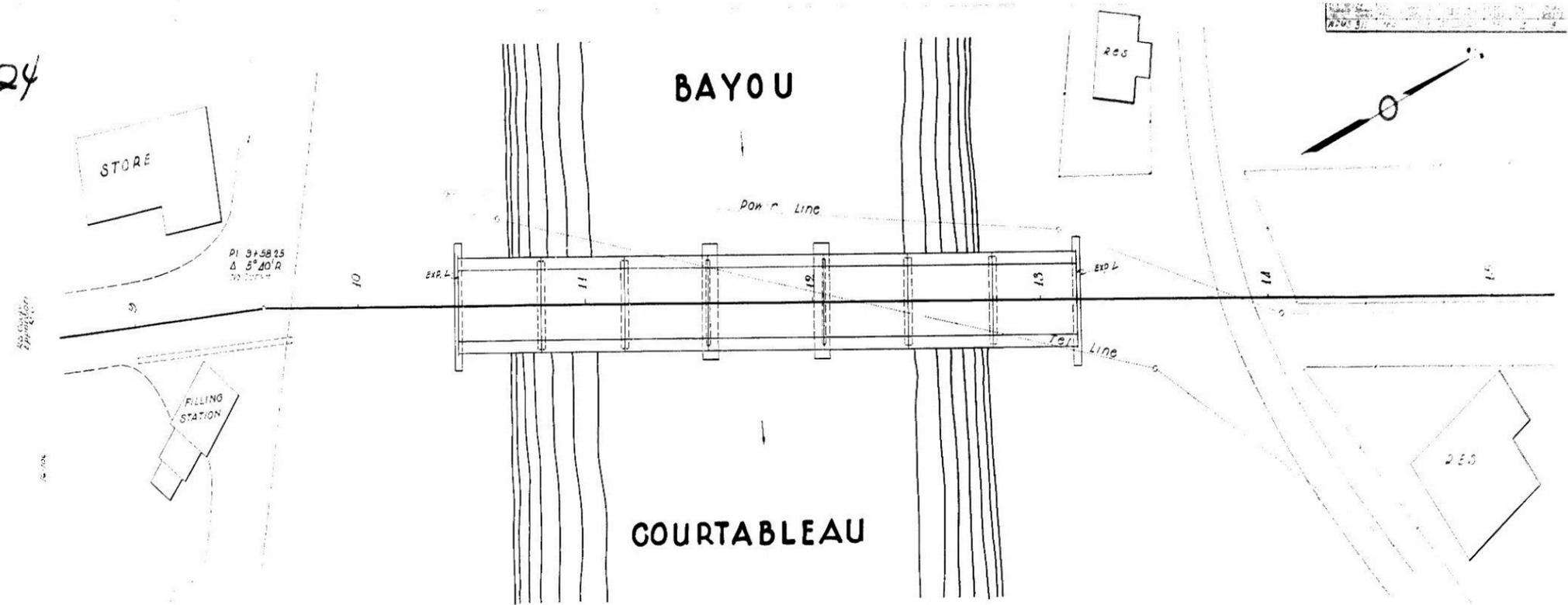
Photographs:



Appendix B. Select Plan Sheets

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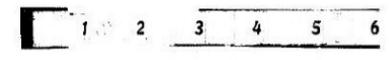
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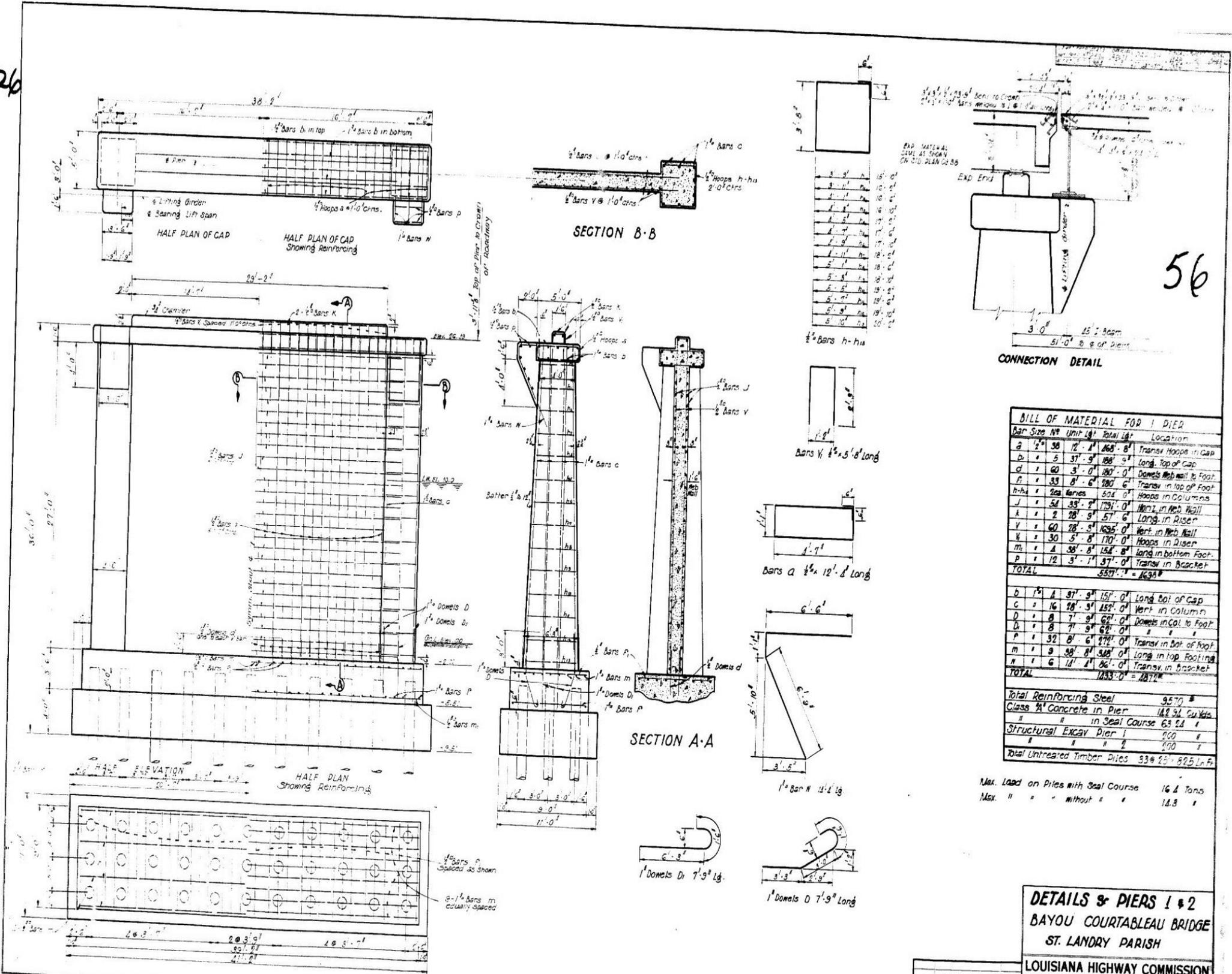
GENERAL PLAN
BAYOU COURTABLEAU BRIDGE
 WASHINGTON-PORT BARRE HWY
 ST. LANDRY PH.

54

FINAL TRACINGS



26



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BILL OF MATERIAL FOR 1 PIER

Bar Size	N ^o	Unit Lg	Total Lgt	Location
a	30	12'-0"	360'-0"	Transv Hoops in Cap
b	5	37'-3"	186'-15"	Long. Top of Cap
c	60	3'-0"	180'-0"	Dowels in Cap to Foot
d	33	8'-6"	283'-0"	Transv in Top of Foot
h-h	224	Baries	504'-0"	Hoops in Columns
j	54	33'-0"	1782'-0"	Vert. in Web Wall
k	2	28'-9"	57'-0"	Long. in Riser
v	60	28'-9"	1734'-0"	Vert. in Web Wall
y	30	5'-8"	174'-0"	Hoops in Riser
m	4	38'-8"	155'-2"	Long. in Bottom Foot
p	12	3'-7"	44'-0"	Transv in Bracket
TOTAL			5571'-0"	= 1632 #
b	1	37'-3"	151'-0"	Long. Bot of Cap
c	16	28'-3"	452'-0"	Vert. in Column
d	8	7'-9"	63'-0"	Dowels in Col. to Foot
e	8	7'-9"	63'-0"	"
f	32	8'-6"	273'-0"	Transv in Bot of Foot
m	9	38'-8"	349'-0"	Long. in Top Footing
n	6	14'-4"	86'-0"	Transv in Bracket
TOTAL			1233'-0"	= 2872 #
Total Reinforcing Steel				9570 #
Class "A" Concrete in Pier				142 cu Yds
" " in Seal Course				63 cu "
Structural Excav Pier 1				700 "
" " Pier 2				700 "
Total Untreated Timber Piles				33 # 28" 82.5 L.F.

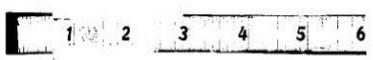
Max. Load on Piles with Seal Course 16.4 Tons
 Max. " " " without " " 14.3 "

DETAILS OF PIERS 1 & 2
BAYOU COURTABLEAU BRIDGE
ST. LANDRY PARISH

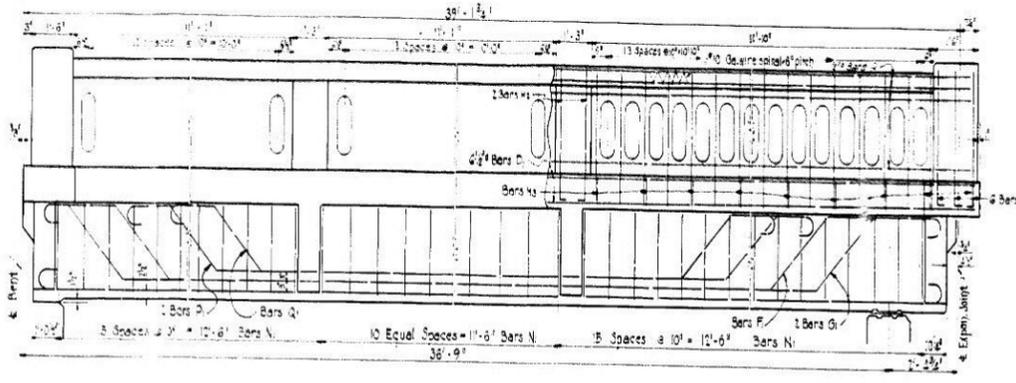
LOUISIANA HIGHWAY COMMISSION
 BATON ROUGE, LA. JAN. 1936

DATE	DESCRIPTION	BY	CHECKED	DESIGNED	TRACED

FINAL TRACINGS

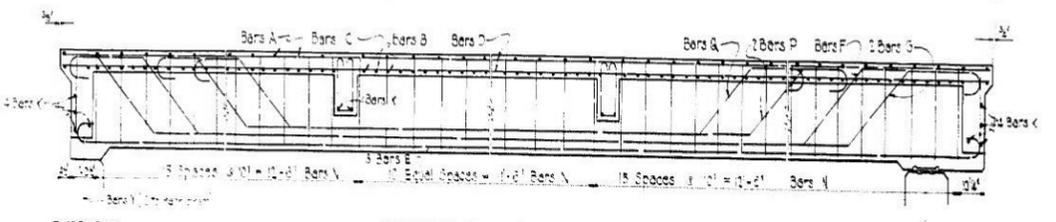


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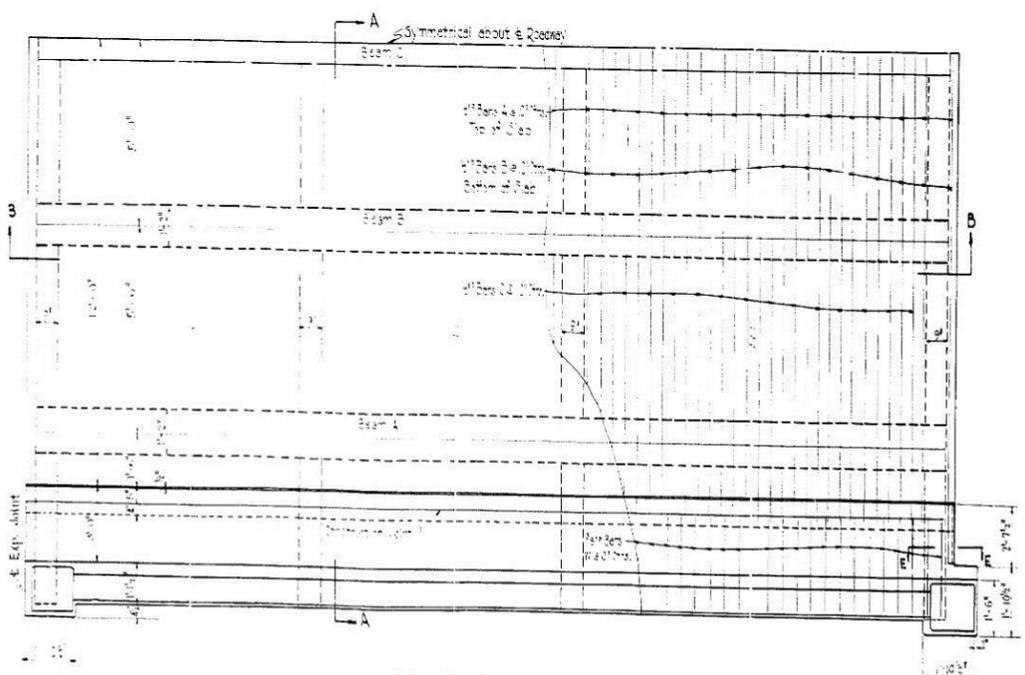
ELEVATION

Showing handrail and Reinf. Steel in Beam A.

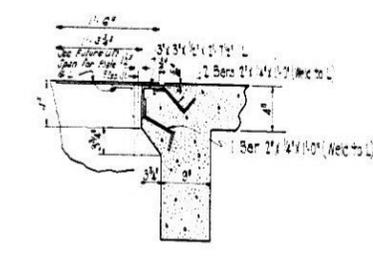
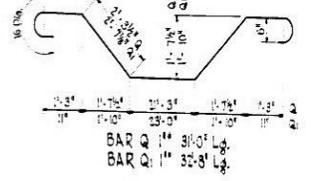
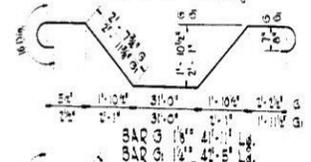
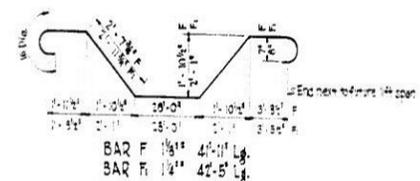
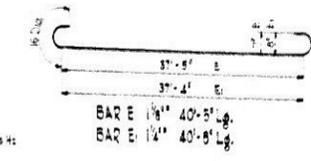


SECTION B-B

Showing Reinf. Steel in Slab, Curtain Walls and Beams B and C.



HALF PLAN



NO.	DATE	BY	CHKD.	APP'D.	TITLE
1	1936				

BILL OF MATERIAL - REINFORCING		TOTAL	
BAR	SIZE	NO.	LENGTH
A	1/2"	48	240'-0"
B	1/2"	48	240'-0"
C	1/2"	48	240'-0"
D	1/2"	48	240'-0"
E	1 1/4"	2	81'-0"
F	1 1/4"	2	81'-0"
G	1 1/4"	2	81'-0"
H	1 1/4"	2	81'-0"
I	1 1/4"	2	81'-0"
J	1 1/4"	2	81'-0"
K	1 1/4"	2	81'-0"
L	1 1/4"	2	81'-0"
M	1 1/4"	2	81'-0"
N	1 1/4"	2	81'-0"
O	1 1/4"	2	81'-0"
P	1 1/4"	2	81'-0"
Q	1 1/4"	2	81'-0"
R	1 1/4"	2	81'-0"
S	1 1/4"	2	81'-0"
T	1 1/4"	2	81'-0"
U	1 1/4"	2	81'-0"
V	1 1/4"	2	81'-0"
W	1 1/4"	2	81'-0"
X	1 1/4"	2	81'-0"
Y	1 1/4"	2	81'-0"
Z	1 1/4"	2	81'-0"
Total		480	2400'-0"

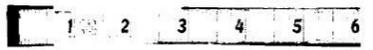
NOTES:-
For Section A-A, Expansion Material at Pier.
Details of reinforcing steel not shown in this drawing or General Notes, see the Plans 10-11.
For details of expansion at Pier, see Detail of Piers, Note 1 and 2.

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SPAN # 3 & 5
BAYOU COURTABLEAU BRIDGE
PORT BARRE

DATE	DESCRIPTION	BY	CHKD.	APP'D.

FINAL TRACINGS



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