

PROPOSED REPLACEMENT OF EXISTING BAILEY BRIDGE, CONEY ISLAND, BERMUDA,

FEBRUARY 2020



SHEET INDEX

<u>SHEET</u>	<u>DESCRIPTION</u>
TP.0	LOCATION PLAN
S1.0	GENERAL ARRANGEMENT
S1.10	BAILEY BRIDGE, COMPONENT PARTS

DATE	NO.	REVISION
FEB 2020	P - 01	ISSUED FOR BUILDING PERMIT

BRUNEL
ENGINEERING CONSULTANTS

T: 441.297.6191 • info@brunelbm.com • www.brunelbm.com

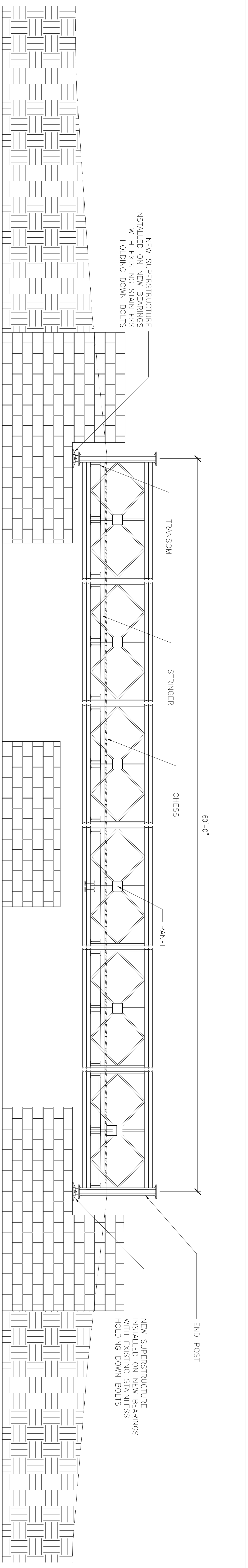
PROJECT:
CONEY ISLAND BRIDGE,
CONEY ISLAND,
HAMILTON PARISH

TITLE:
LOCATION PLAN

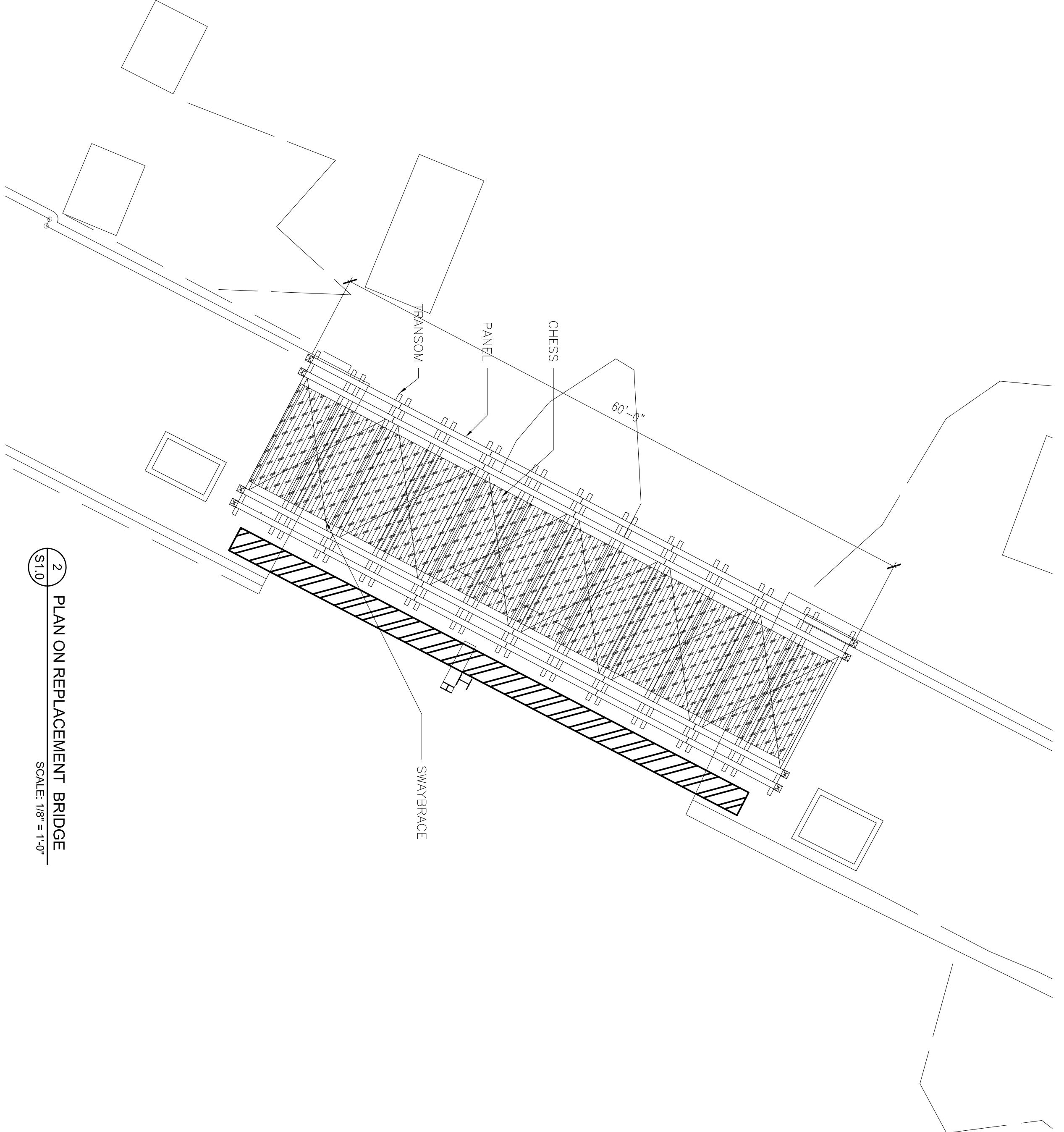
SCALE:	AS SHOWN	JOB NO.:	20 - 018
DRAWN BY:	RDC	DRAWING #:	TP.01
DATE:	FEBRUARY 2020		

DRAWING SCALE SHOWN IS FOR FULL-SIZE
DRAWINGS. DRAWINGS PLOTTED ON 11X17" ON
SCALE 1/8"=1'-0" (1/7" SHEET)
THIS SHEET = 1/8"=1'-0" ON 11X17" SHEET

1 LOCATION PLAN
TP.01 SCALE: 1/8"=1'-0"



1 ELEVATION OF EXISTING / PROPOSED STRUCTURE
SCALE: 1/4" = 1'-0"



2 PLAN ON REPLACEMENT BRIDGE
SCALE: 1/8" = 1'-0"

GENERAL NOTES

THE WORKS COMPRISE AS FOLLOWS:

1. THE DEMOLITION OF EXISTING DOUBLE SINGLE REINFORCED (OSR) BAILEY BRIDGE CROSSING SUPERSTRUCTURE.
2. INSTALLATION OF NEW PREFABRICATED OSR BAILEY BRIDGE SUPERSTRUCTURE ON EXISTING FOUNDATIONS AND BEARINGS. REPLACEMENT BRIDGE SHALL BE OF THE SAME FORM, SPAN AND CAPACITY AS THE ORIGINAL BRIDGE.

DEMOLITION

3. THE CONTRACTOR SHALL PROVIDE A METHOD STATEMENT SETTING OUT THE STEPS TO DEMOLISH AND REMOVE THE EXISTING BAILEY BRIDGE STRUCTURE.
4. CARE SHALL BE TAKEN DURING DEMOLITION OF THE EXISTING BRIDGE SO AS NOT TO UNDOLE DISTURB ANY PART OF THE EXISTING STRUCTURE THAT ARE TO REMAIN.
5. WHERE REQUIRED, THE CONTRACTOR SHALL SUBMIT WRITTEN PROPOSALS ON HOW THEY INTEND TO SUPPORT ANY EXISTING INFRASTRUCTURE DURING CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORKS.

FOUNDATIONS

6. THE CONTRACTOR SHALL REUSE EXISTING BRIDGE FOUNDATIONS.

SUPERSTRUCTURE

7. THE NEW BAILEY BRIDGE SUPERSTRUCTURE SHALL BE FABRICATED IN ACCORDANCE WITH THE BAILEY BRIDGE MANUAL AND SUPERVISED BY A REGISTERED PROFESSIONAL ENGINEER.
8. THE NEW BRIDGE STRUCTURE WILL REQUIRE A LIFT PLAN SUBMITTED TO THE GOVERNMENT ENGINEER PRIOR TO LIFTING AND PLACEMENT ON THE EXISTING FOUNDATIONS.
9. THE BRIDGE STRUCTURE SHALL UNDER NO CIRCUMSTANCES FOR ANY DURATION BE LIFTED FROM ATTACHMENTS TO THE BRIDGE TRANSOMS.
10. THE TIMBER DECK STRUCTURE (CHESSES AND RIBBANDS) BE SUPPLIED BY THE CONTRACTOR AS NEW TREATED TIMBER.
11. ALL BRIDGE FIXING HARDWARE, TRANSOM CLAMPS AND BRACKING BOLTS SHALL BE THROUGHOUT GRADED FINISH TO INSTALLATION.

DATE	NO.	REVISION
FEB. 2020	P-01	ISSUED FOR BUILDING PERMIT

BRUNEL
ENGINEERING CONSULTANTS

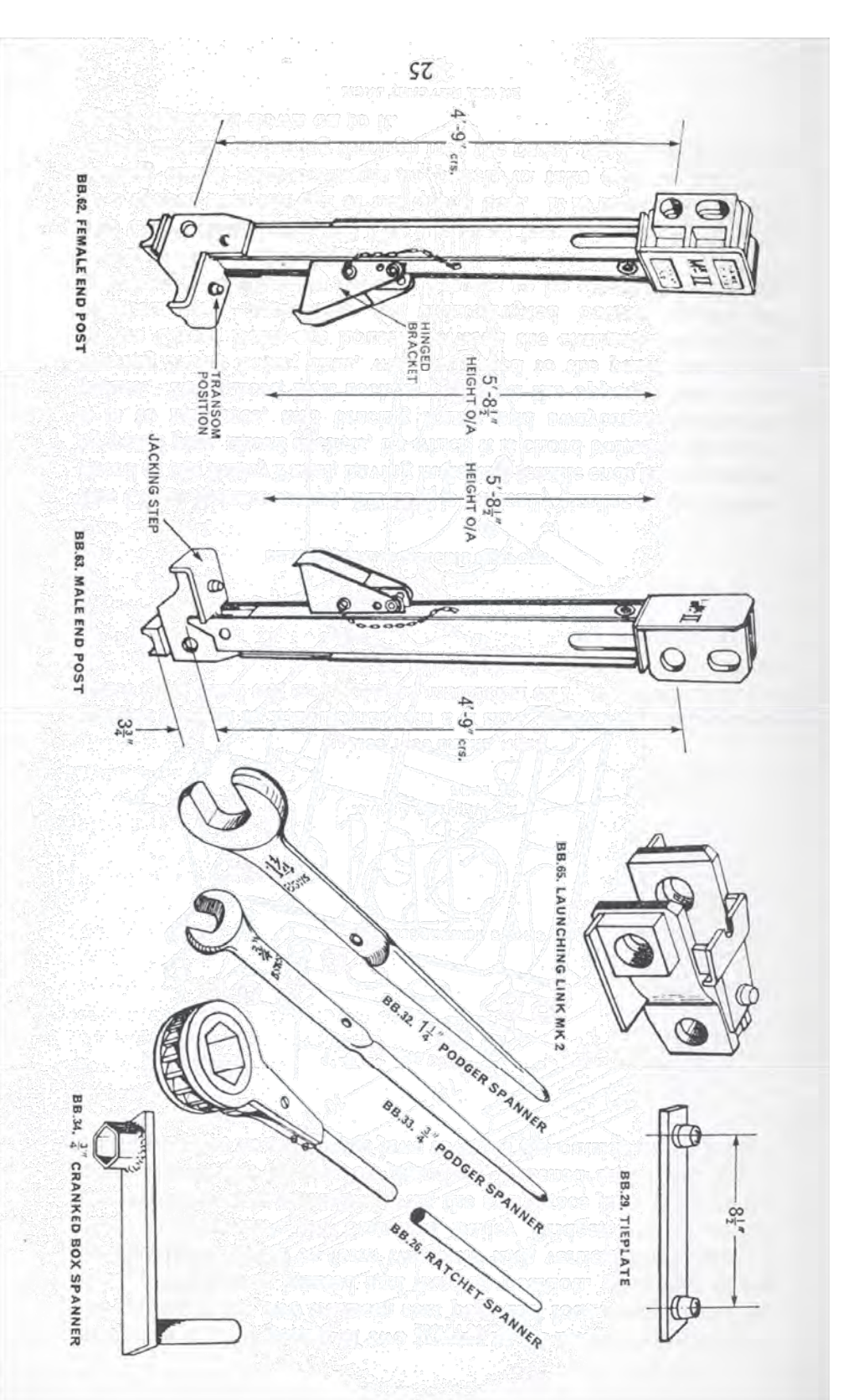
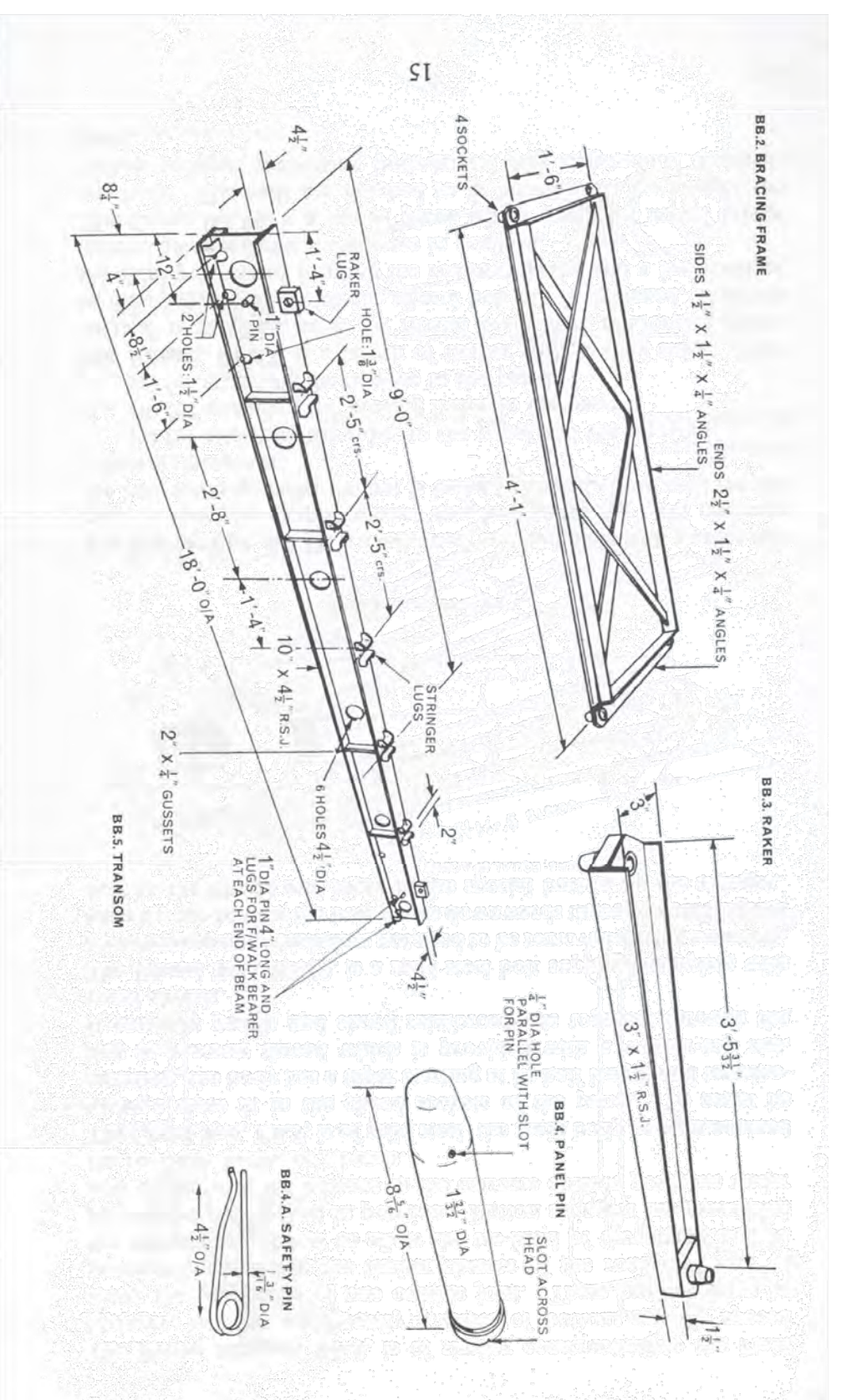
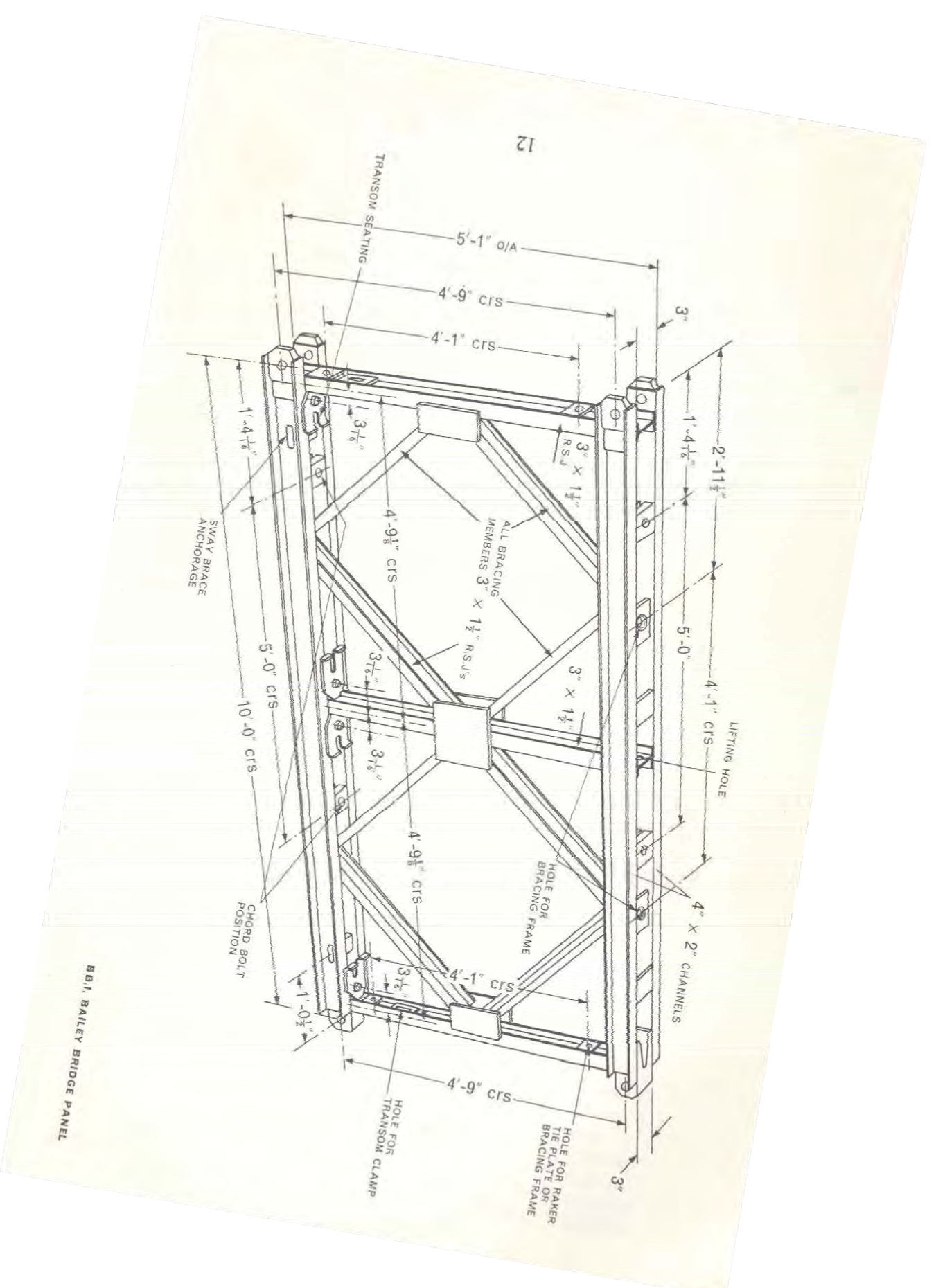
T: 441.297.5191 • info@brunel.com • www.brunel.com

PROJECT:
CONEY ISLAND BRIDGE
CONEY ISLAND,
HAMILTON PARISH

TITLE:
GENERAL ARRANGEMENT

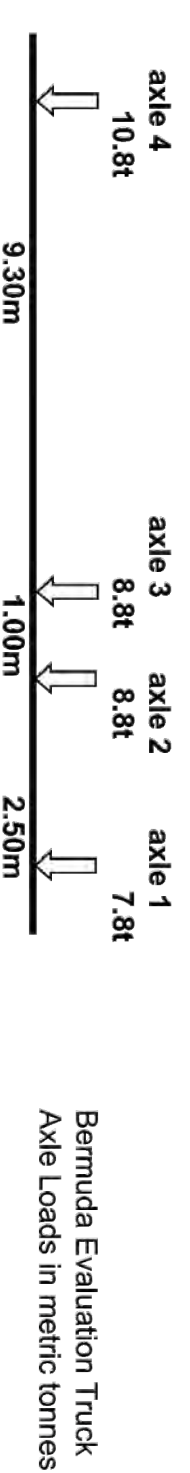
SCALE:	AS SHOWN	JOB NO.:	20-018
DRAWN BY:	RDC	DRAWING #:	S1.0
DATE:	FEB 2020		

DRAWING SCALE SHOWN IS FOR FULL-SIZE SHEETS. DRAWINGS NOTED ON 11"x17" SHEETS SHALL BE SCALED TO FIT ON 11"x17" SHEET. 24"x36" SHEET = 1/8"=1'-0" ON 11"x17" SHEET)



BAILEY BRIDGE SELECTION CHART

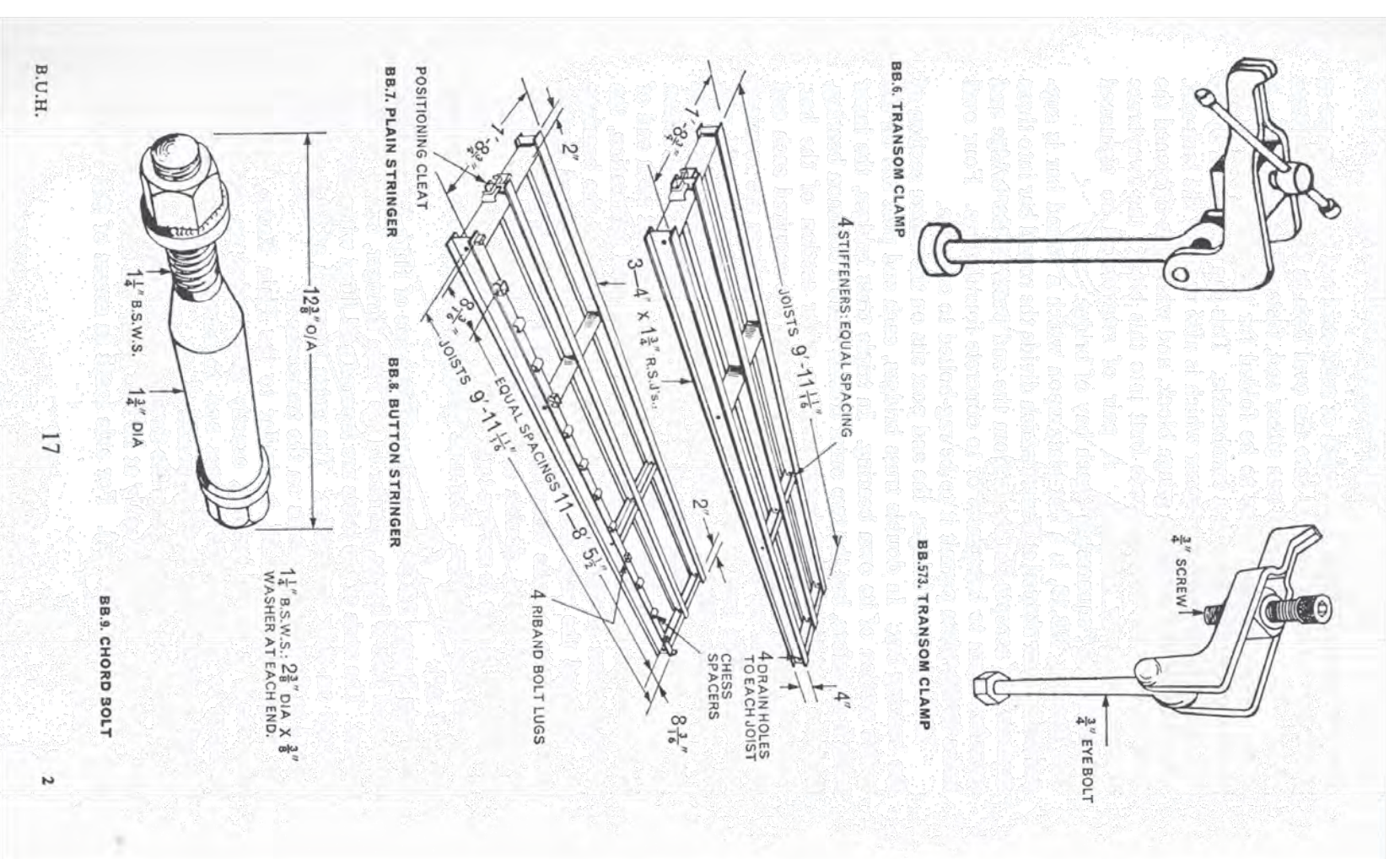
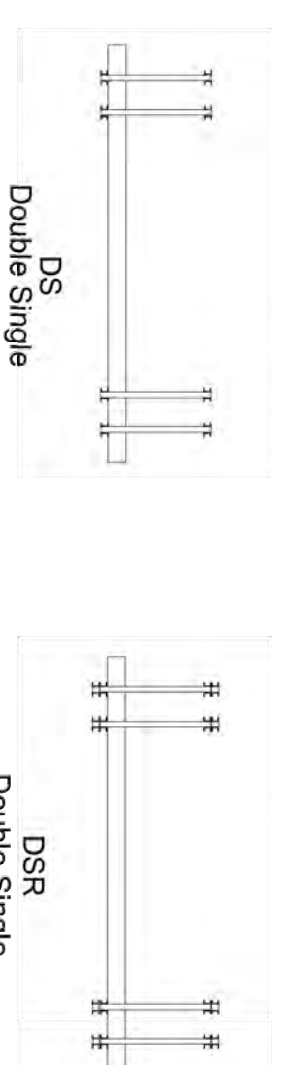
THIS CHART IS BASED ON THE BERMUDEA EVALUATION LOAD AS SHOWN



FOR SIMPLY SUPPORTED SINGLE SPAN BRIDGES USE LAYOUT SHOWN IN TABLE

APPROXIMATE SPAN	10 feet	20 feet	30 feet	40 feet	50 feet	60 feet	70 feet	80 feet	Greater than 80 feet
NUMBER OF BAYS OF BAILEY BRIDGE	1 bay	2 bays	3 bays	4 bays	5 bays	6 bays	7 bays	8 bays	LAYOUT TO BE DETERMINED BY QUALIFIED ENGINEER
TYPE OF BAILEY BRIDGE SUITABLE	DS	DS	DS	DS	DS	DSR	DSR	DSR	

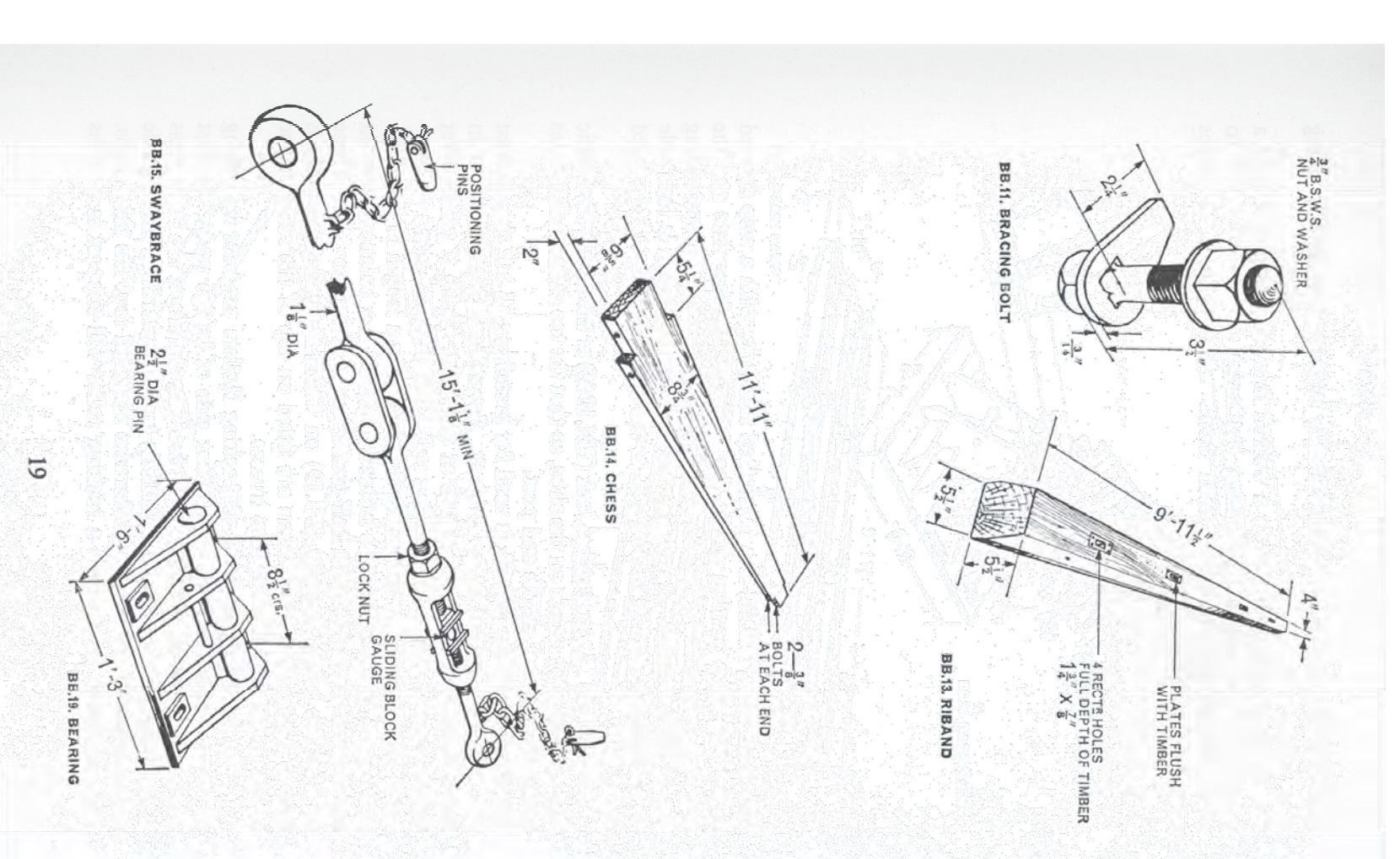
USE 4 TRANSOMS PER BAY FOR ALL BRIDGES



NOTE : The design loading covers standard vehicles using Bermudea's roads including the following:-
 Fire Trucks (Including Servo Aviation Services Heavy Duty Fire Truck)
 Public Buses
 Concrete Trucks
 Tractor-Trailers up to 30t Gross Vehicle Weight
 It does not cover special vehicles such as mobile cranes and other heavy construction equipment
 The proposed bridge layout must be checked by a qualified engineer for any of these special vehicles

1 BAILEY BRIDGE COMPONENTS

SCALE: NTS



DATE	FEB 2020	NO.	P-01	ISSUED FOR BUILDING PERMIT
DATE		NO.		REVISION

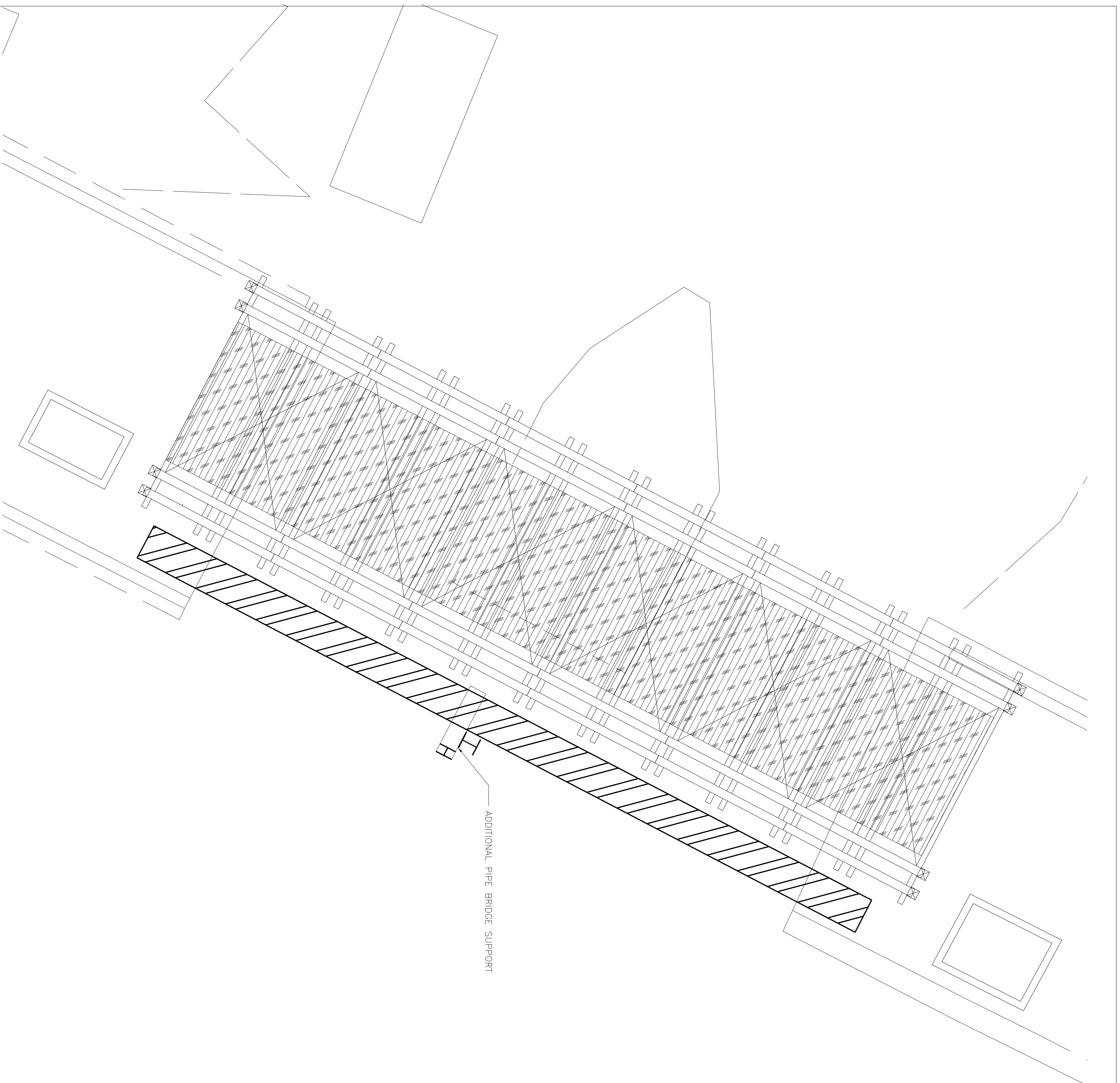


T: 441.297.6191 • info@brunel.com • www.brunel.com
PROJECT:
 CONEY ISLAND BRIDGE,
 CONEY ISLAND,
 HAMILTON PARISH

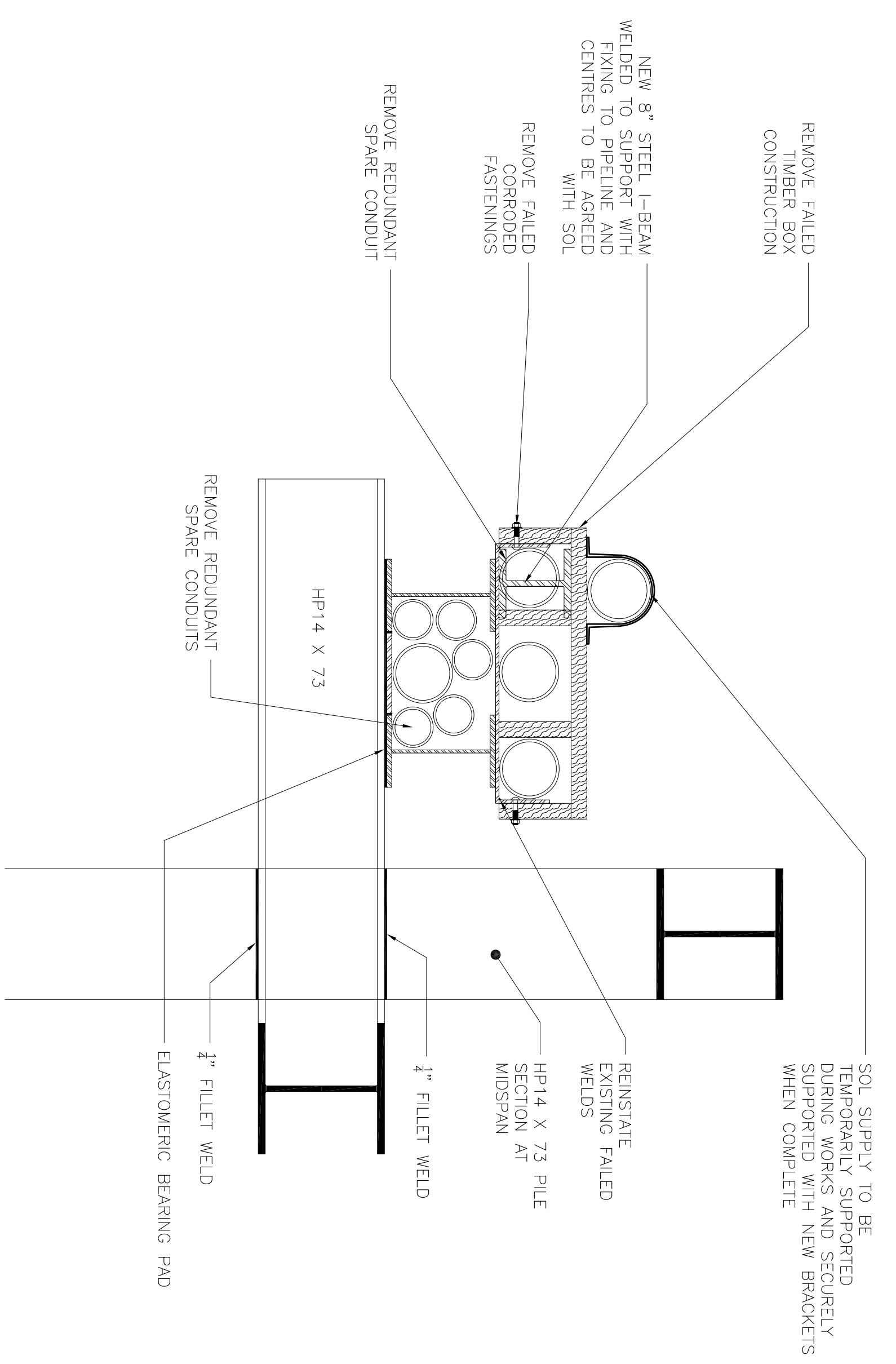
TITLE:
 BAILEY BRIDGE
 COMPONENT PARTS

SCALE: AS SHOWN JOB NO.: 20-018
 DRAWN BY: RDC DRAWING #: **S1.1**
 DATE: FEB 2020

DRAWING SCALE SHOWN IS FOR FULL-SIZE
 DRAWINGS. DRAWINGS PLOTTED ON 11X17" SHEETS
 ARE HALF SCALE SHOWN (1/4" = 1'-0")
 24 X36 SHEET = 1/8" = 1'-0" ON 11X17" SHEET



1 GENERAL ARRANGEMENT
SCALE: 1/4" = 1'-0"



2 ADDITIONAL PIPE BRIDGE SUPPORT
SCALE: 1" = 1'-0"

ADDITIONAL PIPE BRIDGE SUPPORT

GENERAL NOTES

THE WORKS COMPRISE AS FOLLOWS:

1. THE DEMOLITION OF EXISTING DOUBLE SINGLE REINFORCED (DSR) BAILEY BRIDGE CROSSING SUPERSTRUCTURE.
2. INSTALLATION OF NEW PREFABRICATED DSR BAILEY BRIDGE SUPERSTRUCTURE ON EXISTING FOUNDATIONS AND BEARINGS. REPLACEMENT BRIDGE SHALL BE OF THE SAME FORM, SPAN AND CAPACITY AS THE ORIGINAL BRIDGE.
3. MAINTENANCE WORKS TO EXISTING PIPE BRIDGE ADJACENT TO BAILEY BRIDGE.

DEMOLITION

4. THE CONTRACTOR SHALL PROVIDE A METHOD STATEMENT SETTING OUT THE STEPS TO DEMOLISH AND REMOVE THE EXISTING BAILEY BRIDGE STRUCTURE.
5. CARE SHALL BE TAKEN DURING DEMOLITION OF THE EXISTING BRIDGE SO AS NOT TO UNDOUBTLY DISTURB ANY PART OF THE EXISTING STRUCTURE THAT ARE TO REMAIN.
6. WHERE REQUIRED, THE CONTRACTOR SHALL SUBMIT WRITTEN PROPOSALS ON HOW THEY INTEND TO SUPPORT ANY EXISTING INFRASTRUCTURE DURING CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORKS.

FOUNDATIONS

7. THE CONTRACTOR SHALL REUSE EXISTING BRIDGE FOUNDATIONS.
8. THE CONTRACTOR SHALL PROVIDE ADDITIONAL PILED FOUNDATIONS AT THE MID SPAN OF THE EXISTING PIPE BRIDGE. THESE FOUNDATIONS WILL SUPPLEMENT THE EXISTING FOUNDATIONS AND SHALL BE INSTALLED TO A MINIMUM DEPTH OF 60' BELOW BED LEVEL.
9. THE NEW BAILEY BRIDGE SUPERSTRUCTURE SHALL BE FABRICATED IN ACCORDANCE WITH THE BAILEY BRIDGE MANUAL AND SUPERVISED BY A REGISTERED PROFESSIONAL ENGINEER.
10. THE NEW BRIDGE STRUCTURE WILL REQUIRE A LIFT PLAN SUBMITTED TO THE GOVERNMENT ENGINEER PRIOR TO LIFTING AND PLACEMENT ON THE EXISTING FOUNDATIONS.
11. THE BRIDGE STRUCTURE SHALL UNDER NO CIRCUMSTANCES FOR ANY DURATION BE LIFTED FROM ATTACHMENTS TO THE BRIDGE TRANSOMS.
12. THE TIMBER DECK STRUCTURE (CHESSES AND RIBS) BE SUPPLIED BY THE CONTRACTOR AS NEW TREATED TIMBER.
13. ALL BRIDGE FIXING HARDWARE, TRANSOM CLAMPS AND BRACKING BOLTS SHALL BE THOROUGHLY GREASED PRIOR TO INSTALLATION.
14. ALL PIPE BRIDGE STRAPS AND WELDING FABRICATION SHALL BE THOROUGHLY SURVEYED. WELDS SHALL BE CUT OUT IN THEIR ENTIRETY AND REPLACED AS DIRECTED BY THE GOVERNMENT ENGINEER.

SOL SUPPLY TO BE TEMPORARILY SUPPORTED DURING WORKS AND SECURELY SUPPORTED WITH NEW BRACKETS WHEN COMPLETE

DATE	NO.	REVISION
FEB. 2020	P - 01	ISSUED FOR INFORMATION

PROJECT: CONEY ISLAND BRIDGE, CONEY ISLAND, HAMILTON PARISH	
TITLE: ENGINEERING DRAWING	
SCALE: AS SHOWN	JOB NO.: 20-018
DRAWN BY: RDC	DRAWING #: SI.2
DATE: FEB 2020	

DRAWING SCALE SHOWN IS FOR FULL-SIZE
 DRAWINGS. DRAWINGS PLOTTED ON 11"x17"
 SHEETS SHALL SCALE DOWN (1/17 SHEET)
 24"x36 SHEET = 1/8" = 1'-0" ON 11"x17 SHEET)