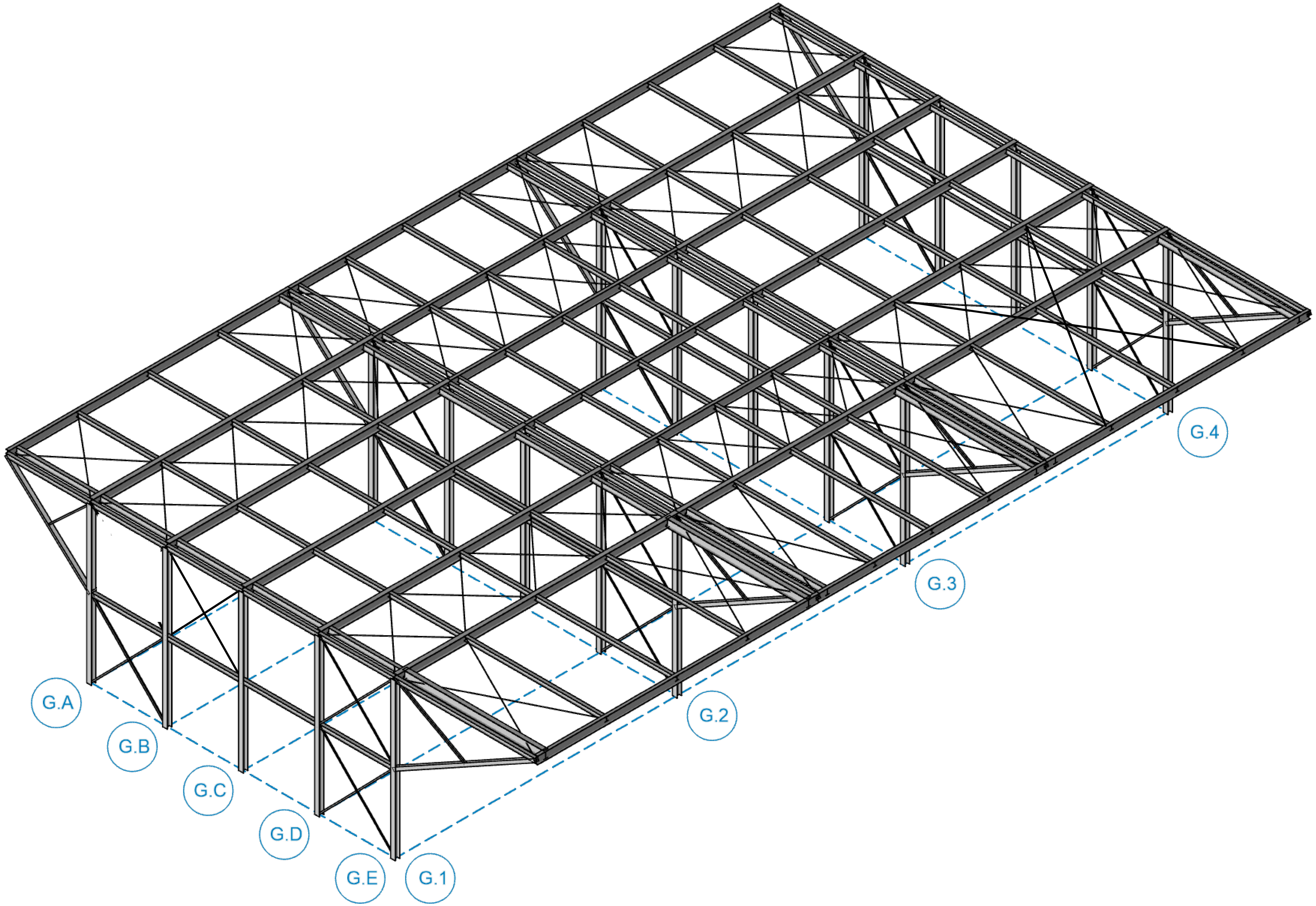

1 PROPOSED CRANE SUPPORT STRUCTURE
SCALE: N.T.S.

DAMMON
ENGINEERING, INC.
LOUISIANA & MISSISSIPPI
Chief Engineer: Brian Mistich, PE
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985.649.5832

#	DESCRIPTION	REVISIONS	DATE

SEAL:

NEW CRANE SUPPORT STRUCTURE
SHELL OIL
FOURCHON JUNCTION RAISED FACILITY
FOURCHON, LA.

JOB No:	2400	DATE:	07-18-24
DRAWN BY:	CKD	CHECKED BY:	CDC

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SHEET TITLE:
PROPOSED CRANE SUPPORT STRUCTURE

DRAWING NUMBER:
S101

GENERAL NOTES

THE PURPOSE OF THIS DRAWING IS TO PROVIDE ENGINEERING DATA AND BUILDING COLUMN LOADS TO SUPPORT THE DESIGN OF A TRANSFER PLATFORM FOR SHELL OIL.

GENERAL SCOPE

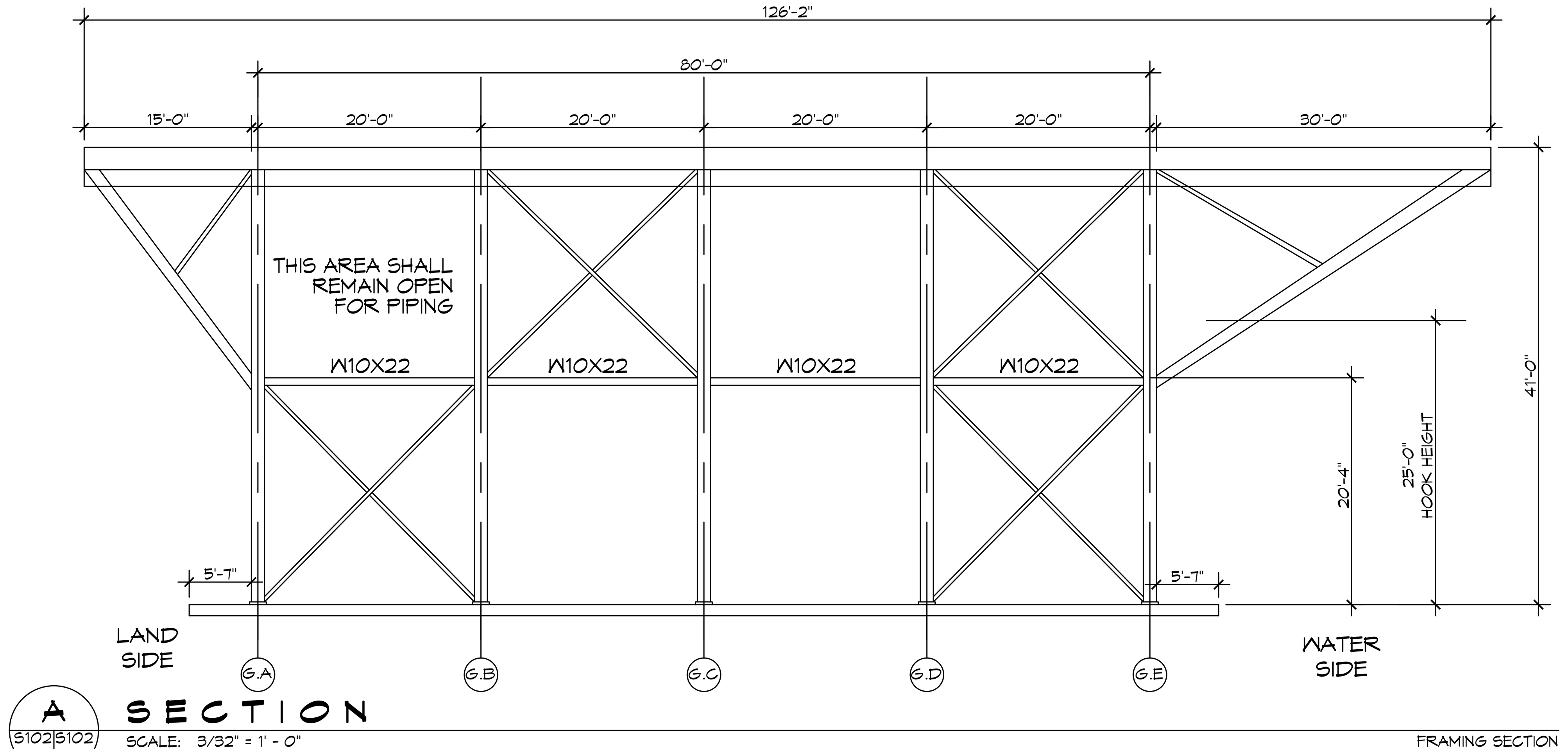
THE PROJECT IS LOCATED AT THE PORT FOURCHON JUNCTION AND IS WITHIN SHELL OIL FOURCHON TERMINAL STORAGE FACILITY, GOLDEN MEADOW LOUISIANA.

PROJECT INCLUDES A PRE-ENGINEERED HYBRID OPEN STRUCTURE STEEL BUILDING BY BUTLER MFG WITH A TOTAL APPROXIMATELY 18473 SF FT GROSS AREA UNDER THE MAIN STRUCTURE WITH A THIRTY FOOT OVER HANG ON THE WATER SIDE 6090 SF FT GROSS AREA AND A FIFTEEN OVERHANG ON THE LAND SIDE 3045 SF FT GROSS AREA.

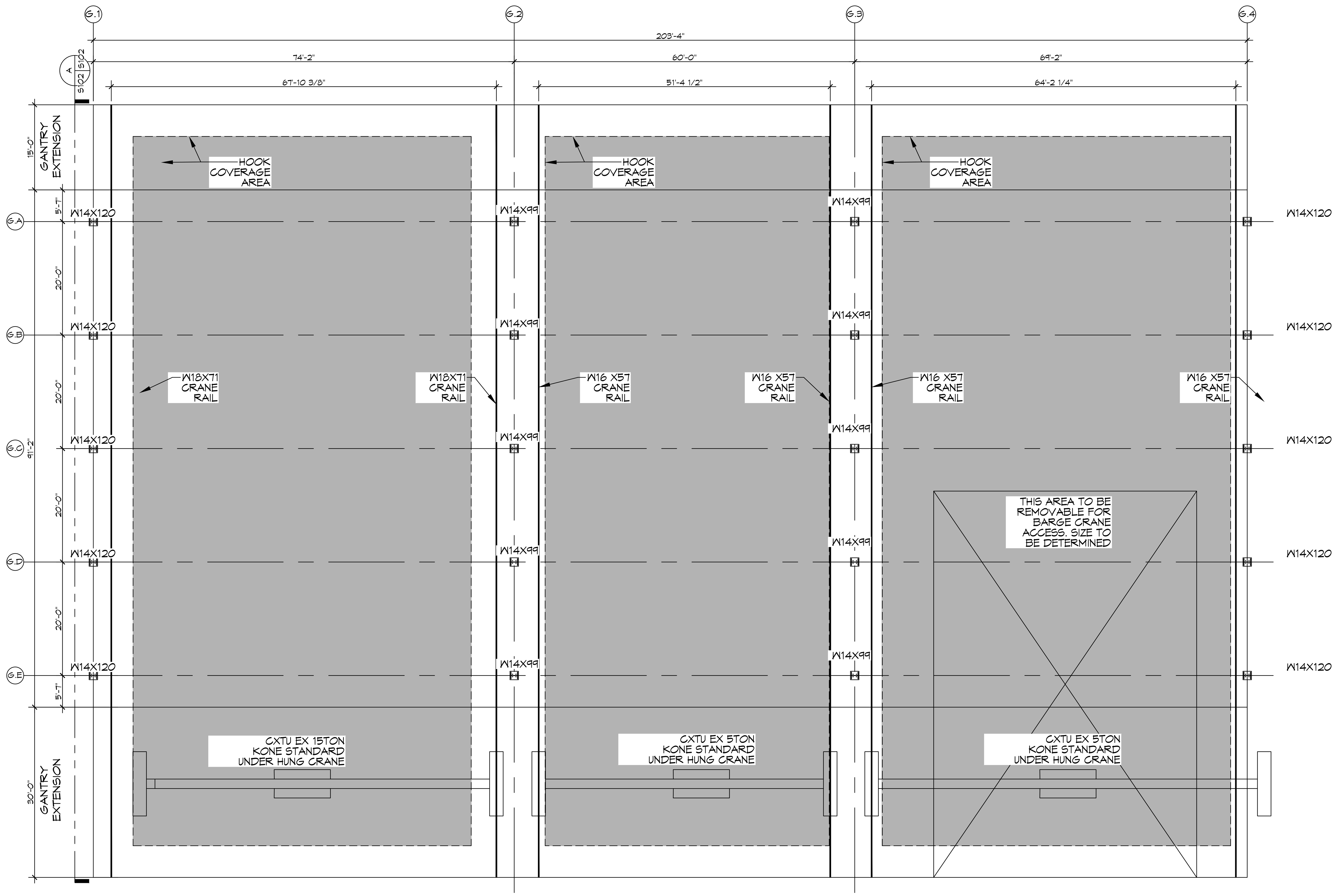
THE PROJECT INCLUDES ONE STRUCTURE WITH THREE BAYS WITH TWO FIVE TON AND ONE FIFTEEN TON UNDER HUNG CRANES.

DESIGN REQUIREMENTS
WIND SPEED 190 VMPH 10-YEAR MRI 86 VMPH 25-YEAR MRI 107 VMPH 50-YEAR MRI 120 VMPH 100-YEAR MRI 133 VMPH DATA SOURCE: ASCE/SEI 7-16, FIG. 26.5-1D AND FIGS. CC.2-1-CC.2-4, AND SECTION 26.5.2 DATE ACCESSED: SITE IS IN A HURRICANE-PRONE REGION AS DEFINED IN ASCE/SEI 7-16 SECTION 26.2.

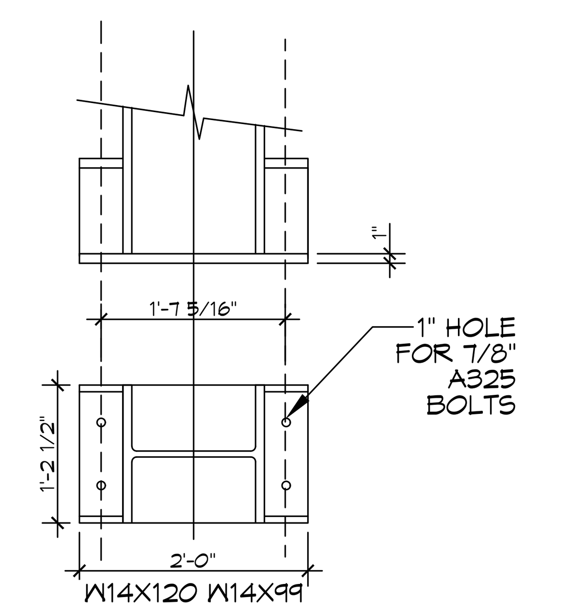
LOADS ARE CALCULATED
USING KONE STANDARD UNDER HUNG CRANES MODELS CXTU EX 5-TON AND CXTU EX 15-TON.



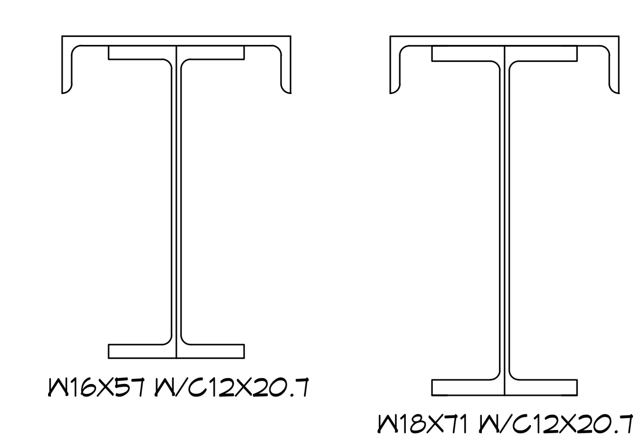
A SECTION
S102 S102
SCALE: 3/32" = 1' - 0"
FRAMING SECTION



2 PROPOSED BUILDING LAYOUT
SCALE: 3/32" = 1'-0"



BASE PLATE
SCALE: 3/4" = 1' - 0"
COLUMN



CRANE RAILS
SCALE: 1-1/2" = 1' - 0"
SECTION

DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI
Chief Engineer: Brian Mistich, PE
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985.649.5832

#	DESCRIPTION	REVISIONS	DATE

SEAL:

NEW CRANE SUPPORT STRUCTURE
SHELL OIL FOURCHON JUNCTION RAISED FACILITY
FOURCHON, LA

JOB No:	2400	DATE:	07-18-24
DRAWN BY:	CKD	CHECKED BY:	CDC

SHEET TITLE:
PROPOSED BUILDING LAYOUT AND DETAILS

DRAWING NUMBER:
S102

SHEET No: 1 of 3

FILE NAME: J:\- INDUSTRIAL SITES\Chevron Fourchon Junction Sparrows Group\Drawings\Current Drawings\S103C - Load Sheet.dwg PLOT DATE & TIME: Thursday, July 18, 2024 1:56:47 PM

DL-DEAD LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	-1.61	15.48	1.46	19.87
G.B - G.4	0.10	26.73	1.79	24.51
G.C - G.4	0.13	17.55	1.76	24.03
G.D - G.4	0.16	6.89	1.43	19.57
G.E - G.4	0.21	44.65	1.71	23.49
G.A - G.3	-0.79	25.94	-0.68	-9.06
G.B - G.3	0.21	40.90	-0.80	-10.51
G.C - G.3	0.26	27.71	-0.80	-10.57
G.D - G.3	0.31	9.82	-0.67	-8.80
G.E - G.3	0.64	75.00	-0.55	-7.07
G.A - G.2	-0.50	27.01	0.90	12.42
G.B - G.2	0.25	44.68	1.08	15.02
G.C - G.2	0.31	29.67	1.07	14.84
G.D - G.2	0.36	9.65	0.89	12.41
G.E - G.2	1.21	85.46	0.86	12.05
G.A - G.1	-2.07	14.90	-1.69	-22.52
G.B - G.1	0.15	31.24	-2.05	-27.37
G.C - G.1	0.18	18.94	-2.02	-27.02
G.D - G.1	0.22	5.09	-1.65	-21.90
G.E - G.1	0.28	55.73	-2.02	-26.91

CLL-COLLATERAL LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	0.00	0.01	0.00	0.07
G.B - G.4	0.00	1.70	0.34	4.64
G.C - G.4	0.00	1.71	0.34	4.71
G.D - G.4	-0.01	-0.02	0.00	0.00
G.E - G.4	0.00	0.02	0.00	0.00
G.A - G.3	0.00	0.04	0.00	0.08
G.B - G.3	0.00	3.67	-0.15	-1.96
G.C - G.3	0.00	3.71	-0.14	-1.88
G.D - G.3	0.00	-0.03	0.00	0.00
G.E - G.3	0.00	0.03	0.00	0.00
G.A - G.2	0.00	0.04	0.00	0.08
G.B - G.2	0.00	3.88	0.19	2.62
G.C - G.2	0.00	3.92	0.19	2.70
G.D - G.2	0.00	-0.03	0.00	0.00
G.E - G.2	0.00	0.03	0.00	0.00
G.A - G.1	0.00	0.01	0.00	0.07
G.B - G.1	0.00	1.69	-0.40	5.36
G.C - G.1	0.00	1.70	-0.40	-5.29
G.D - G.1	-0.01	-0.03	0.00	0.00
G.E - G.1	0.00	0.03	0.00	0.00

RLL-ROOF LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	0.00	0.03	0.01	0.18
G.B - G.4	0.00	4.08	0.82	11.14
G.C - G.4	0.00	4.11	0.83	11.31
G.D - G.4	-0.01	-0.05	0.00	0.00
G.E - G.4	0.00	0.05	0.00	0.00
G.A - G.3	0.00	0.09	0.01	0.19
G.B - G.3	0.01	8.81	-0.35	-4.70
G.C - G.3	0.00	8.90	-0.34	-4.51
G.D - G.3	0.00	-0.07	0.00	0.00
G.E - G.3	0.00	0.07	0.00	0.00
G.A - G.2	0.00	0.10	0.01	0.20
G.B - G.2	0.01	9.31	0.46	6.28
G.C - G.2	0.00	9.41	0.47	6.47
G.D - G.2	0.00	-0.07	0.00	0.00
G.E - G.2	0.00	0.07	0.00	0.00
G.A - G.1	0.00	0.02	0.01	0.17
G.B - G.1	0.00	4.06	-0.96	-12.86
G.C - G.1	0.00	4.09	-0.95	-12.69
G.D - G.1	-0.02	-0.06	0.00	0.00
G.E - G.1	0.00	0.06	0.00	0.00

CR1-CRANE LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	-0.53	26.69	0.72	11.11
G.B - G.4	0.10	22.00	0.76	12.09
G.C - G.4	0.14	16.00	0.74	11.62
G.D - G.4	0.19	7.64	0.73	11.28
G.E - G.4	0.99	45.34	0.85	13.39
G.A - G.3	-2.06	19.51	0.03	1.75
G.B - G.3	0.08	21.74	0.08	2.84
G.C - G.3	0.12	13.63	0.05	2.30
G.D - G.3	0.16	4.74	0.03	1.87
G.E - G.3	0.20	40.21	0.10	3.35
G.A - G.2	-1.59	44.92	0.42	7.06
G.B - G.2	0.18	40.93	0.47	8.16
G.C - G.2	0.25	28.82	0.44	7.60
G.D - G.2	0.33	13.30	0.42	7.08
G.E - G.2	1.03	80.06	0.51	8.87
G.A - G.1	-2.22	64.10	-1.26	-15.55
G.B - G.1	0.24	56.12	-1.21	-14.56
G.C - G.1	0.36	39.99	-1.23	-15.03
G.D - G.1	0.47	16.84	-1.26	-15.54
G.E - G.1	1.55	114.06	-1.37	-16.53

CR2-CRANE LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	-2.03	7.89	0.32	4.09
G.B - G.4	0.04	12.42	0.36	4.88
G.C - G.4	0.06	6.68	0.34	4.46
G.D - G.4	-0.38	0.70	0.32	4.10
G.E - G.4	0.10	21.59	0.43	5.94
G.A - G.3	-1.73	32.88	-0.40	-5.62
G.B - G.3	0.19	36.20	-0.37	-4.92
G.C - G.3	0.26	22.90	-0.39	-5.34
G.D - G.3	0.33	6.62	-0.40	-5.66
G.E - G.3	0.70	75.04	-0.43	-5.73
G.A - G.2	-0.12	96.18	0.71	9.39
G.B - G.2	0.36	75.96	0.72	9.64
G.C - G.2	0.51	57.87	0.71	9.52
G.D - G.2	0.65	33.08	0.71	9.55
G.E - G.2	5.10	154.30	0.75	10.24
G.A - G.1	-3.58	13.34	-0.67	-9.19
G.B - G.1	0.06	21.14	-0.67	-9.12
G.C - G.1	0.09	11.22	-0.66	-9.07
G.D - G.1	-0.78	0.92	-0.65	-8.85
G.E - G.1	0.17	36.54	-0.73	-9.88

CR3-CRANE LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	-2.39	7.01	0.22	2.18
G.B - G.4	0.04	13.02	0.25	2.85
G.C - G.4	0.06	6.53	0.23	2.47
G.D - G.4	-0.74	-0.18	0.22	2.25
G.E - G.4	0.10	22.21	0.34	4.09
G.A - G.3	-1.06	50.22	-0.29	-4.68
G.B - G.3	0.25	47.39	-0.27	-4.13
G.C - G.3	0.34	32.58	-0.28	-4.46
G.D - G.3	0.43	13.68	-0.29	-4.59
G.E - G.3	2.21	98.86	-0.35	-5.18
G.A - G.2	-0.78	78.89	0.82	10.39
G.B - G.2	0.30	64.74	0.82	10.49
G.C - G.2	0.43	48.20	0.82	10.48
G.D - G.2	0.55	26.04	0.83	10.68
G.E - G.2	3.60	130.48	0.84	10.82
G.A - G.1	-3.22	14.19	-0.78	-11.10
G.B - G.1	0.06	20.55	-0.78	-11.15
G.C - G.1	0.09	11.35	-0.77	-11.05
G.D - G.1	-0.44	1.76	-0.75	10.71
G.E - G.1	0.17	35.93	-0.83	-11.74

CR>-CRANE LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	-0.66	-2.91	-3.70	-83.85
G.B - G.4	0.00	-0.58	-3.66	-82.84
G.C - G.4	0.00	-1.16	-2.45	-55.51
G.D - G.4	-0.64	-3.01	-3.16	-71.54
G.E - G.4	0.00	0.03	-3.23	-73.48
G.A - G.3	-0.07	0.56	-4.30	-92.02
G.B - G.3	0.00	0.86	-4.25	-90.93
G.C - G.3	0.00	0.47	-2.85	-60.96
G.D - G.3	-0.08	0.45	-3.67	-78.48
G.E - G.3	0.00	0.52	-3.88	-82.21
G.A - G.2	0.00	0.48	-4.28	-91.77
G.B - G.2	0.04	-0.64	-4.23	-90.72
G.C - G.2	0.00	-0.37	-2.84	-60.87
G.D - G.2	0.00	-0.39	-3.64	-78.09
G.E - G.2	0.04	-0.33	-3.86	-82.05
G.A - G.1	0.00	2.82	-3.65	-83.24
G.B - G.1	0.67	0.37	-3.61	-82.30
G.C - G.1	0.00	1.06	-2.42	-55.25
G.D - G.1	0.00	2.95	-3.10	-70.60
G.E - G.1	0.70	-0.24	-3.19	-72.94

CR<-CRANE LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	0.00	2.60	3.70	83.79
G.B - G.4	0.49	0.88	3.65	82.76
G.C - G.4	0.00	1.16	2.45	55.52
G.D - G.4	0.00	3.03	3.88	87.83
G.E - G.4	0.51	0.60	3.92	89.05
G.A - G.3	0.00	-0.58	4.30	92.02
G.B - G.3	0.07	0.84	4.25	90.87
G.C - G.3	0.00	-0.47	2.85	60.97
G.D - G.3	0.00	-0.60	4.51	96.44
G.E - G.3	0.07	-0.60	4.70	99.72
G.A - G.2	-0.02	0.52	4.28	91.86
G.B - G.2	0.00	0.60	4.23	90.68
G.C - G.2	0.00	0.37	2.84	60.87
G.D - G.2	-0.02	0.55	4.49	96.24
G.E - G.2	0.00	0.33	4.69	99.60
G.A - G.1	-0.56	-2.54	3.66	83.39
G.B - G.1	0.00	-0.64	3.61	82.30
G.C - G.1	0.00	-1.06	2.42	55.25
G.D - G.1	-0.54	-2.99	3.83	87.34
G.E - G.1	0.00	-0.34	3.87	88.62

WLX>-WIND LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	-53.71	-95.95	-0.11	-2.42
G.B - G.4	-1.40	70.72	-4.96	-66.89
G.C - G.4	-1.40	-25.24	-5.08	-69.46
G.D - G.4	-51.38	-93.75	-0.09	-2.03
G.E - G.4	-1.35	93.74	0.04	0.85
G.A - G.3	-74.47	-137.65	-0.09	-1.99
G.B - G.3	-1.39	82.95	2.22	29.87
G.C - G.3	-1.39	-54.69	2.11	27.69
G.D - G.3	-70.79	-134.12	-0.06	-1.16
G.E - G.3	-1.30	134.13	0.03	0.65
G.A - G.2	-76.39	-141.52	-0.05	-1.05
G.B - G.2	-1.39	83.72	-2.83	-38.91
G.C - G.2	-1.39	-57.79	-2.87	-39.74
G.D - G.2	-72.58	-137.88	0.02	0.46
G.E - G.2	-1.30	137.89	0.00	-0.04
G.A - G.1	-56.08	-100.65	-0.01	-0.22
G.B - G.1	-1.40	75.57	5.84	78.00
G.C - G.1	-1.40	-25.10	5.84	77.93
G.D - G.1	-53.66	-98.51	0.07	1.59
G.E - G.1	-1.34	98.50	-0.02	-0.34

WLX<-WIND LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	1.34	94.55	-0.02	-0.59
G.B - G.4	51.77	-119.81	-5.12	-70.44
G.C - G.4	1.39	-25.24	-5.08	-69.46
G.D - G.4	1.39	95.73	0.07	1.50
G.E - G.4	53.64	-95.73	-0.07	-1.49
G.A - G.3	1.29	134.73	-0.03	-0.63
G.B - G.3	71.16	-189.40	2.11	27.68
G.C - G.3	1.37	-54.69	2.11	27.69
G.D - G.3	1.37	136.42	0.05	1.02
G.E - G.3	73.83	-136.42	-0.04	-0.83
G.A - G.2	1.28	138.43	-0.06	-1.17
G.B - G.2	72.96	-196.19	-2.79	-38.05
G.C - G.2	1.37	-57.79	-2.87	-39.74
G.D - G.2	1.37	140.18	-0.02	-0.38
G.E - G.2	75.69	-140.19	0.01	0.14
G.A - G.1	1.33	99.41	-0.05	-1.01
G.B - G.1	54.10	-124.52	5.96	80.62
G.C - G.1	1.39	-25.10	5.84	77.93
G.D - G.1	1.39	100.59	-0.05	-0.99
G.E - G.1	56.06	-100.58	0.05	1.01

WLZ>-WIND LOAD

NODE LABEL	- X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	-53.71	-95.95	-0.11	-2.42
G.B - G.4	-1.40	70.72	-4.96	-66.89
G.C - G.4	-1.40	-25.24	-5.08	-69.46
G.D - G.4	-51.38	-93.75	-0.09	-2.03
G.E - G.4	-1.35	93.74	0.04	0.85
G.A - G.3	-74.47	-137.65	-0.09	-1.99
G.B - G.3	-1.39	82.95	2.22	29.87
G.C - G.3	-1.39	-54.69	2.11	27.69
G.D - G.3	-70.79	-134.12	-0.06	-1.16
G.E - G.3	-1.30	134.13	0.03	0.65
G.A - G.2	-76.39	-141.52	-0.05	-1.05
G.B - G.2	-1.39	83.72	-2.83	-38.91
G.C - G.2	-1.39	-57.79	-2.87	-39.74
G.D - G.2	-72.58	-137.88	0.02	0.46
G.E - G.2	-1.30	1.7.89	0.00	-0.04
G.A - G.1	-56.08	-100.65	-0.01	-0.22
G.B - G.1	-1.40	75.57	5.84	78.00
G.C - G.1	-1.40	-25.10	5.84	77.93
G.D - G.1	-53.66	-98.51	0.07	1.59
G.E - G.1	-1.34	98.50	-0.02	-0.34

WLZ<-WIND LOAD

NODE LABEL	+ X (K)	- Z (K)	- Y (K)	MX (K-FT)
G.A - G.4	1.34	94.55	-0.02	-0.59
G.B - G.4	51.77	-119.81	-5.12	-70.44
G.C - G.4	1.39	-25.24	-5.08	-69.46
G.D - G.4	1.39	95.73	0.07	1.50
G.E - G.4	53.64	-95.73	-0.07	-1.49
G.A - G.3	1.29	134.73	-0.03	-0.63
G.B - G.3	71.16	-189.40	2.11	27.68
G.C - G.3	1.37	-54.69	2.11	27.69
G.D - G.3	1.37	136.42	0.05	1.02
G.E - G.3	73.83	-136.42	-0.04	-0.83
G.A - G.2	1.28	138.43	-0.06	-1.17
G.B - G.2	12.96	-196.19	-2.79	-38.05
G.C - G.2	1.37	-57.79	-2.87	-39.74
G.D - G.2	1.37	140.18	-0.02	-0.38
G.E - G.2	75.69	-140.19	0.01	0.14
G.A - G.1	1.33	99.41	-0.05	-1.01
G.B - G.1	54.10	-124.52	5.96	80.62
G.C - G.1	1.39	-25.10	5.84	77.93
G.D - G.1	1.39	100.59	-0.05	-0.99
G.E - G.1	56.06	-100.58	0.05	1.01

Load Case

DL	Dead load
CLL	Collateral oad
RLL	Roof Load
CR1	Crane load 15 ton loaded at line G.1, and 5ton crane loaded at line G.4
CR2	Crane load 15 ton loaded+ 5ton crane in adjacent bay at line G.2
CR3	Crane load 5 ton loaded+ 5ton crane in adjacent bay at line G.3
CR>	Crane lateral load Z +ve
CR<	Crane lateral load Z -ve
WLx>	Wind load X +ve
WLx<	Wind load X-ve
WLz>	Wind load Z+ve
WLz<	Wind load Z-ve

Wind loads are un factored load

DAMMON
ENGINEERING, INC.
LOUISIANA & MISSISSIPPI
Chief Engineer: Brian Mistich, PE
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985.649.5832

REVISIONS

#	DESCRIPTION	DATE

SEAL:

NEW CRANE SUPPORT STRUCTURE
SHELL OIL
FOURCHON JUNCTION RAISED FACILITY
FOURCHON, LA.

JOB No: 2400 DATE: 07-18-24
DRAWN BY: CKD CHECKED BY: CDC

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SHEET TITLE:
LOAD SHEET

DRAWING NUMBER:
S103