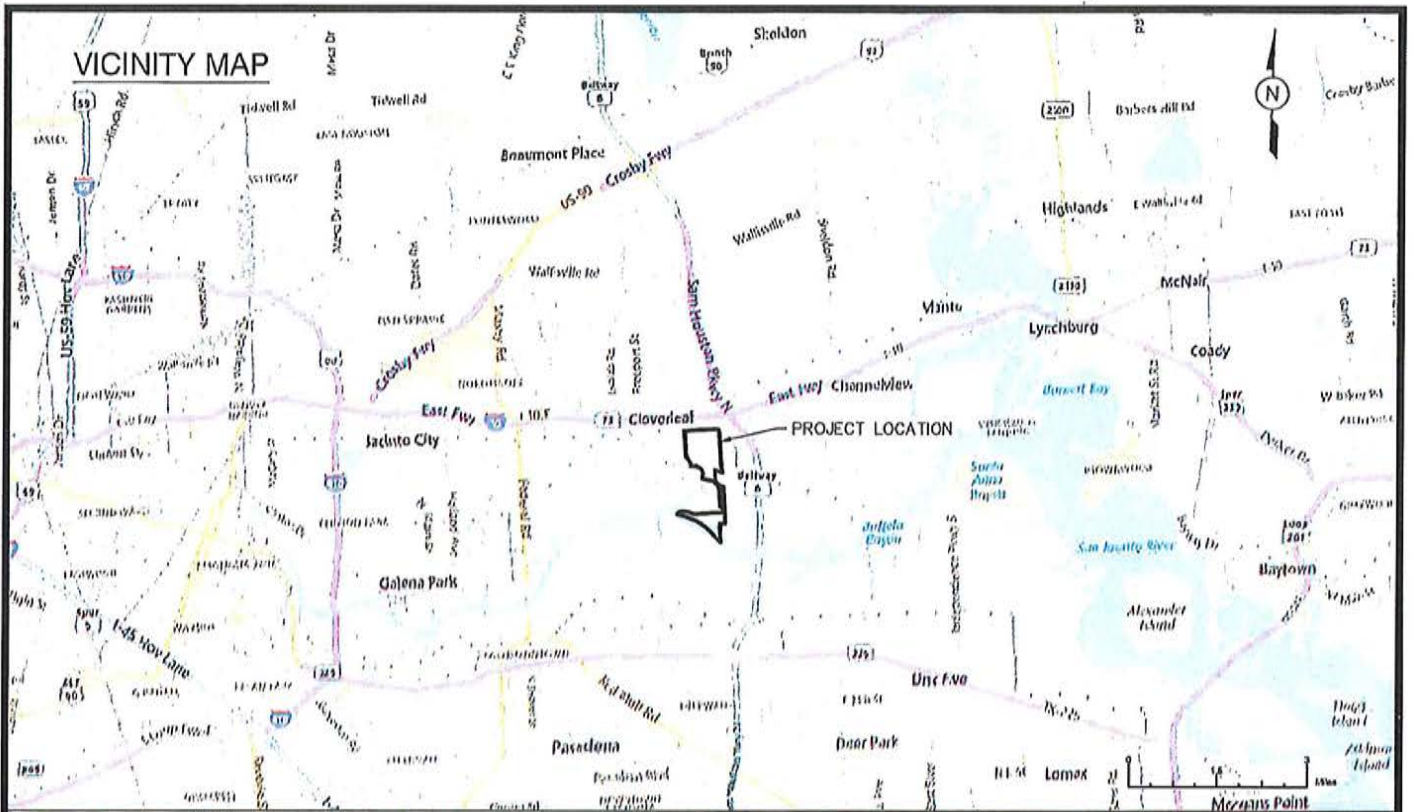


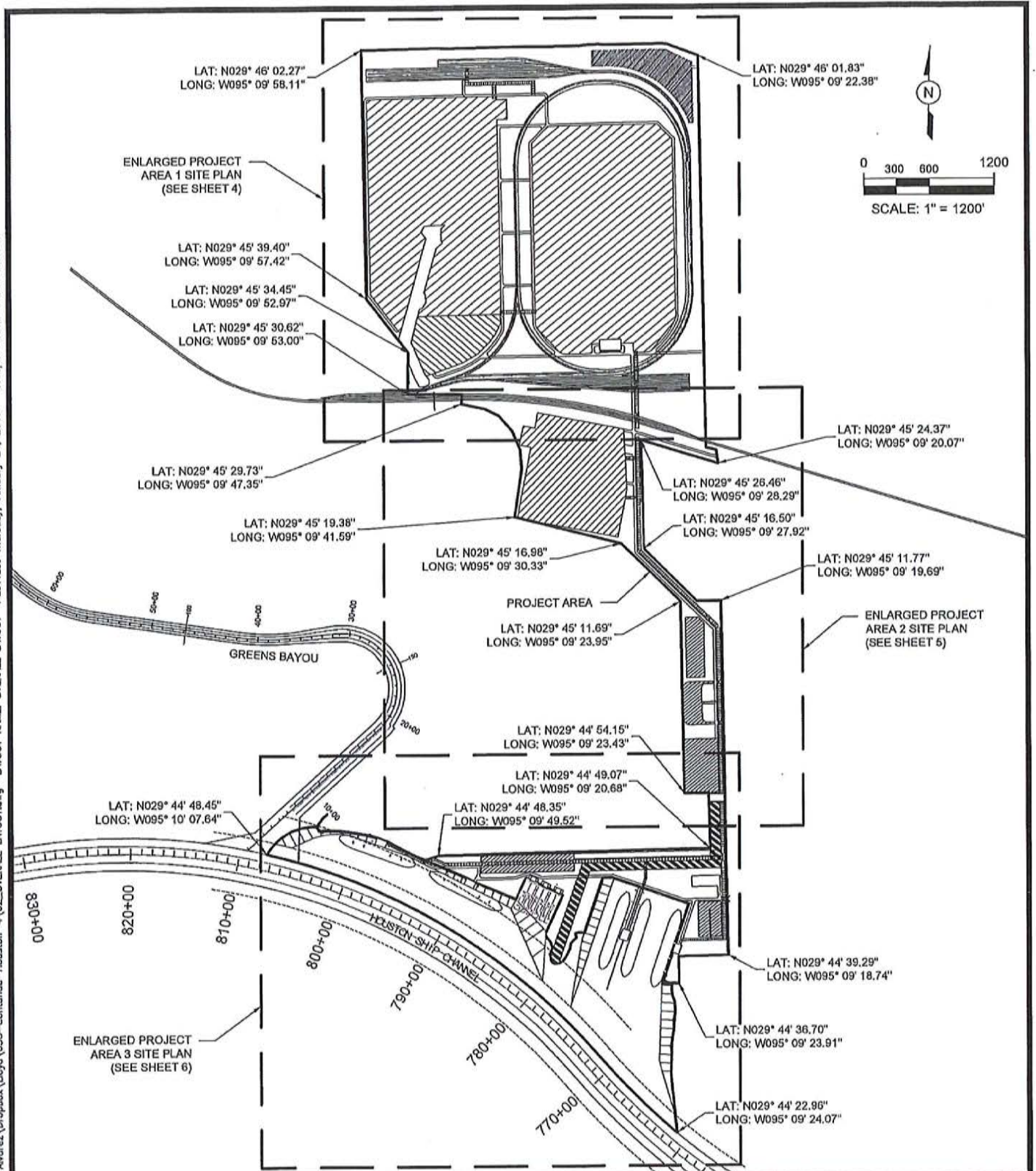
MAR 26 2019

FILE NAME: C:\Users\Carmilo Alvarez\Desktop\Lloyd\036-Contanda-Houston-4\01_COVER.dwg PLOTTED: Thursday, January 24, 2019 - 3:12pm USER: Carmilo Alvarez



PURPOSE:	HOUSTON 4 PROJECT VICINITY MAP	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY:	KEM	
LOCATION:	HOUSTON, TEXAS	APPLIED BY:	LLOYD ENGINEERING, INC.		DRAWN BY:	JBY	
		APPLIC. No:	SWG-2018-00560		SCALE:	AS NOTED	
		COUNTY:	HARRIS COUNTY		DATE:	01/14/2019	
		WATER BODY:	HOUSTON SHIP CHANNEL			SHEET No:	1
		DATUM:	MLLW				

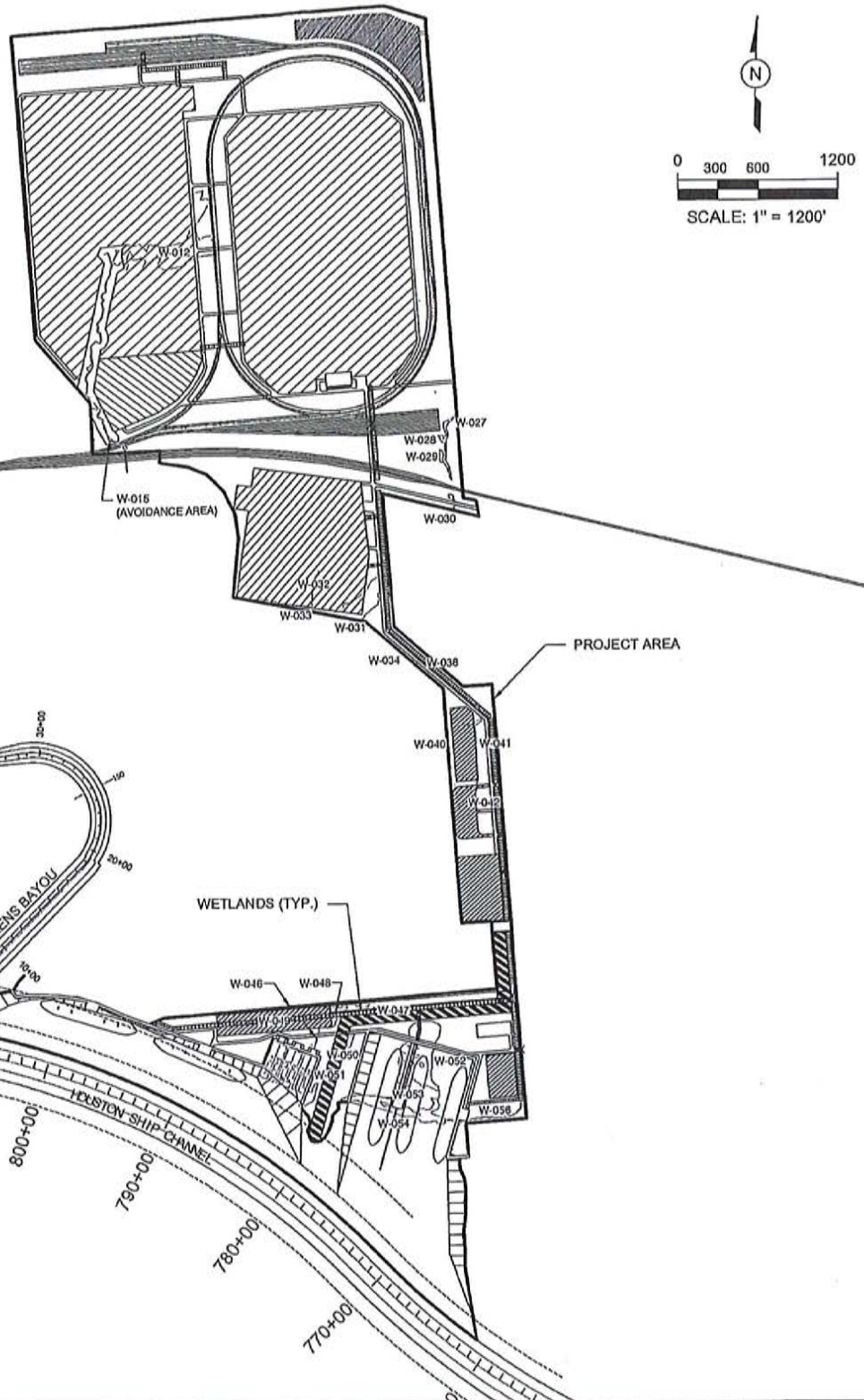
FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contanda-Houston-4\02_OVERALL LAYOUT.dwg LAYOUT NAME: OVERALL LAYOUT PLOTTED: Thursday, January 24, 2019 - 3:12pm USER: Camillo Alvarez



PURPOSE:	HOUSTON 4 PROJECT OVERALL SITE PLAN	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY:	KEM
	LOCATION:	HOUSTON, TEXAS	APPLIED BY:		LLOYD ENGINEERING, INC.	DRAWN BY:
			APPLIC. No:	SWG-2018-00560	SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY	DATE:	01/14/2019	SHEET No:
		WATER BODY:	HOUSTON SHIP CHANNEL			2
		DATUM:	MLLW			

Summary of Proposed Impacts to Waters of the U.S.

Feature ID	Feature Classification	Total Impact Area (Ac)	Impact Type
W-012	PFO Wetland	2.787	Fill
W-015	Unnamed Tributary	0.029	Fill
W-027	Unnamed Tributary	0.003	Fill
W-028	PFO Wetland	0.827	Fill
W-029	PFO Wetland	0.048	Fill
W-030	Unnamed Tributary	0.011	Fill
W-031	PEM Wetland	1.266	Fill
W-032	PEM Wetland	0.042	Fill
W-033	PFO Wetland	0.355	Fill
W-034	PFO Wetland	0.005	Fill
W-035	PEM Wetland	0.874	Fill
W-040	PFO Wetland	0.630	Fill
W-041	PEM Wetland	2.313	Fill
W-042	PSS Wetland	0.164	Fill
W-046	PEM Wetland	0.057	Fill
W-047	PEM Wetland	0.515	Fill
W-048	PFO Wetland	0.165	Fill
W-049	Unnamed Tributary	0.651	Dredge/Fill
W-050	PEM Wetland	0.060	Fill
W-051	PEM Wetland	0.191	Fill
W-052	PUB Pond	2.056	Dredge/Fill
W-053	PEM Wetland	1.650	Dredge
W-054	PSS Wetland	1.177	Dredge/Fill
W-056	Unnamed Tributary	0.133	Dredge/Fill
Buffalo Bayou	Open Water (Buffalo Bayou)	54,520	Dredge/Fill
TOTAL PUB POND (1)		2.056	
TOTAL UNNAMED TRIBUTARY (5)		0.224	
TOTAL WETLAND (13)		11,702	
Total PFO Wetland (7)		3,925	
Total PEM Wetland (9)		6,446	
Total PSS Wetland (2)		1,331	
TOTAL OPEN WATER (1)		54,520	
OVERALL TOTAL (23)		68,502	



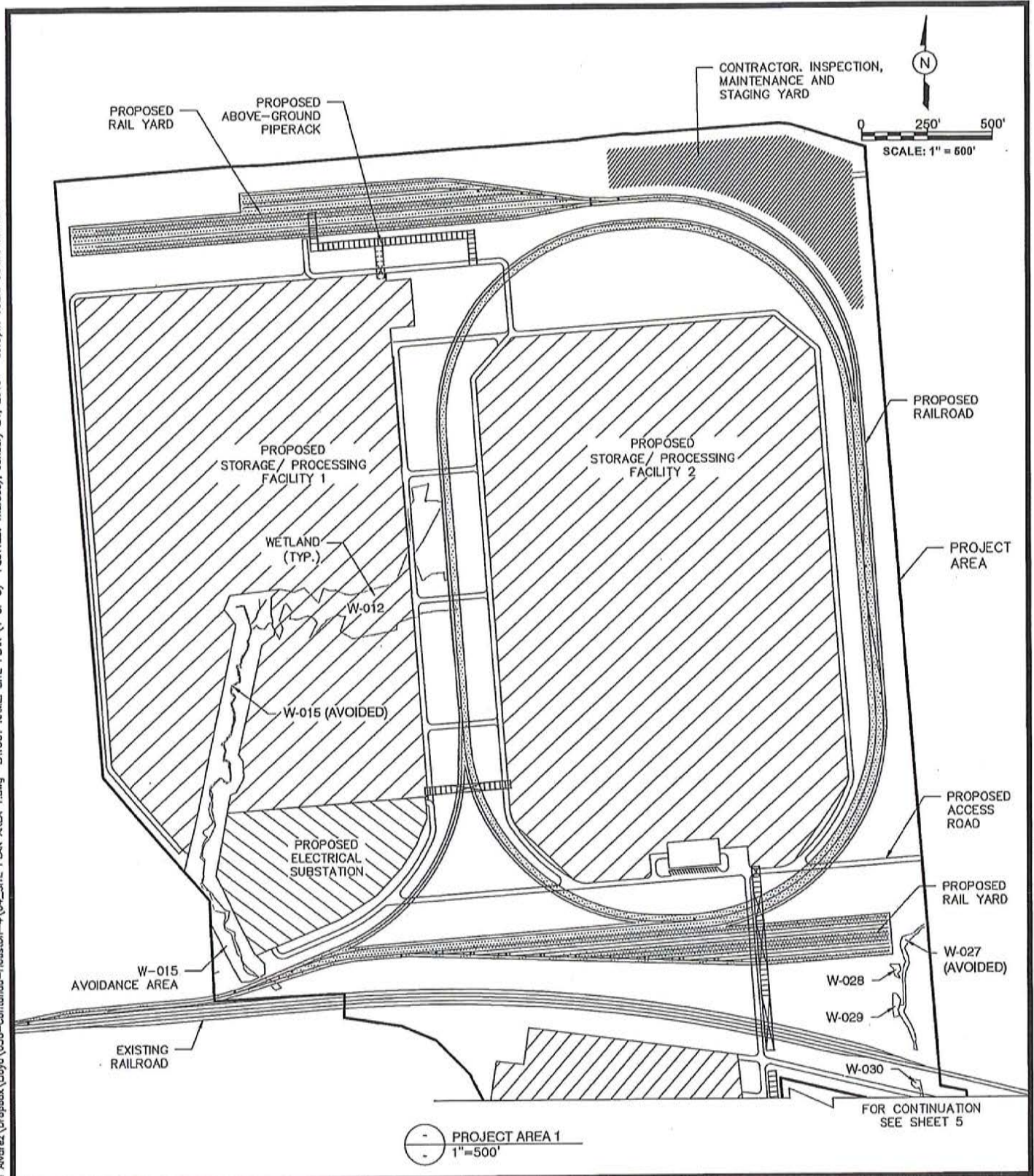
FILE NAME: C:\Users\Camillo Alvarez\Desktop\Lloyd\036-Contando-Houston-03 WETLANDS MAP.dwg LAYOUT NAME: 03 WETLANDS MAP.dwg PLOTTED: Thursday, January 24, 2019 - 3:12pm USER: Camillo Alvarez

PURPOSE:	HOUSTON 4 PROJECT WETLANDS OVERVIEW MAP
LOCATION:	HOUSTON, TEXAS

OWNER:	PORT OF HOUSTON AUTHORITY
APPLIED BY:	LLOYD ENGINEERING, INC.
APPLIC. No:	SWG-2018-00560
COUNTY:	HARRIS COUNTY
WATER BODY:	HOUSTON SHIP CHANNEL
DATUM:	MLLW

DESIGN BY:	KEM
DRAWN BY:	JBV
SCALE:	AS NOTED
DATE:	01/14/2019
SHEET No:	3

FILE NAME: C:\Users\Cornilio Alvarez\Dropbox\Lloyd\036-Corintanda-Houston-4\04_SITE PLAN AREA 1.dwg LAYOUT NAME: SITE PLAN (1 OF 3) PLOTTED: Thursday, January 24, 2019 - 3:13pm USER: Cornilio Alvarez



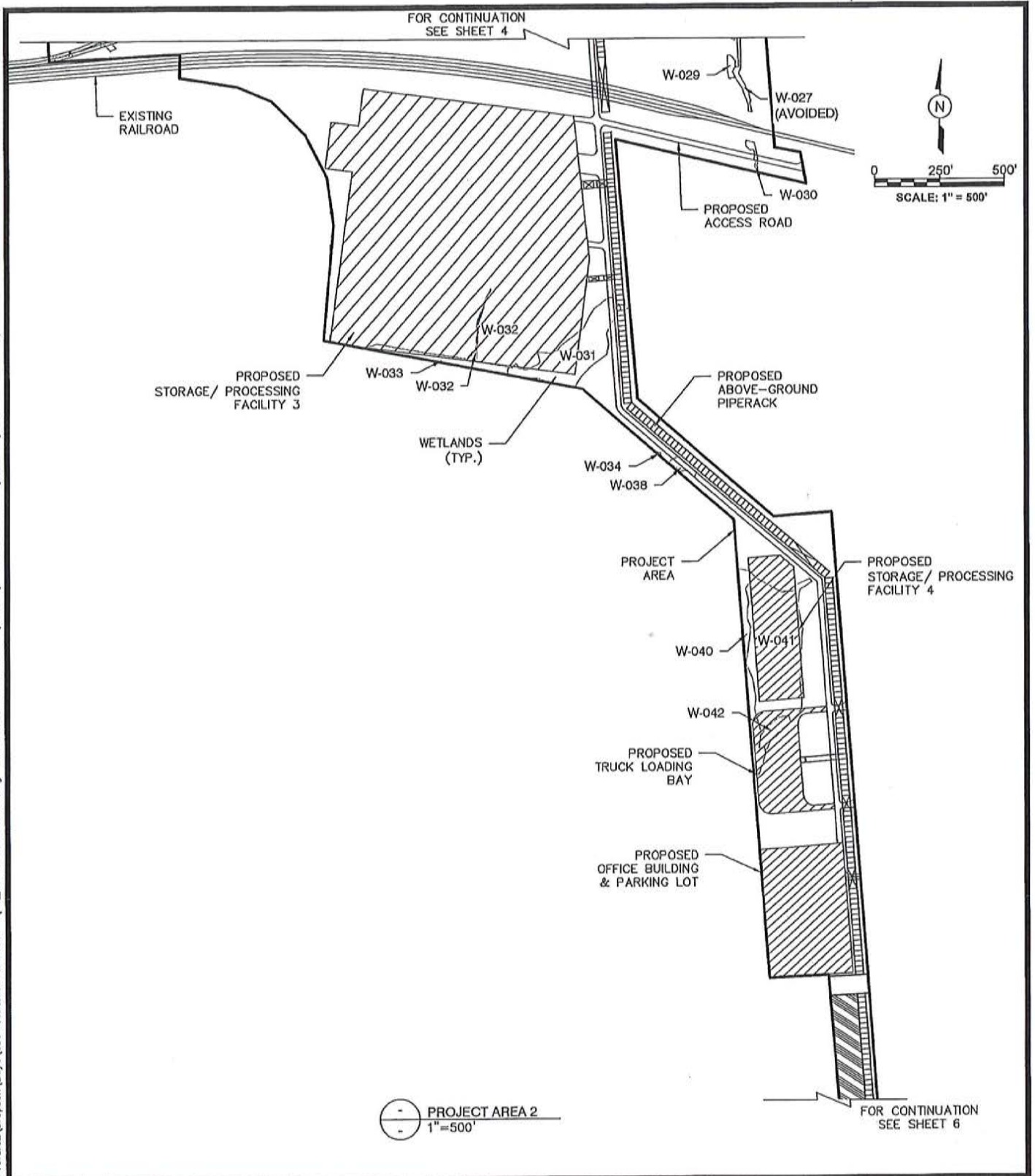
PURPOSE:	HOUSTON 4 PROJECT PROJECT AREA 1
LOCATION:	HOUSTON, TEXAS


OWNER:	PORT OF HOUSTON AUTHORITY
APPLIED BY:	LLOYD ENGINEERING, INC.
APPLIC. No:	SWG-2018-00560
COUNTY:	HARRIS COUNTY
WATER BODY:	HOUSTON SHIP CHANNEL
DATUM:	MLLW

LLOYD
ENGINEERING, INC
HOUSTON, TEXAS, USA
LICENSE NO. F-002846

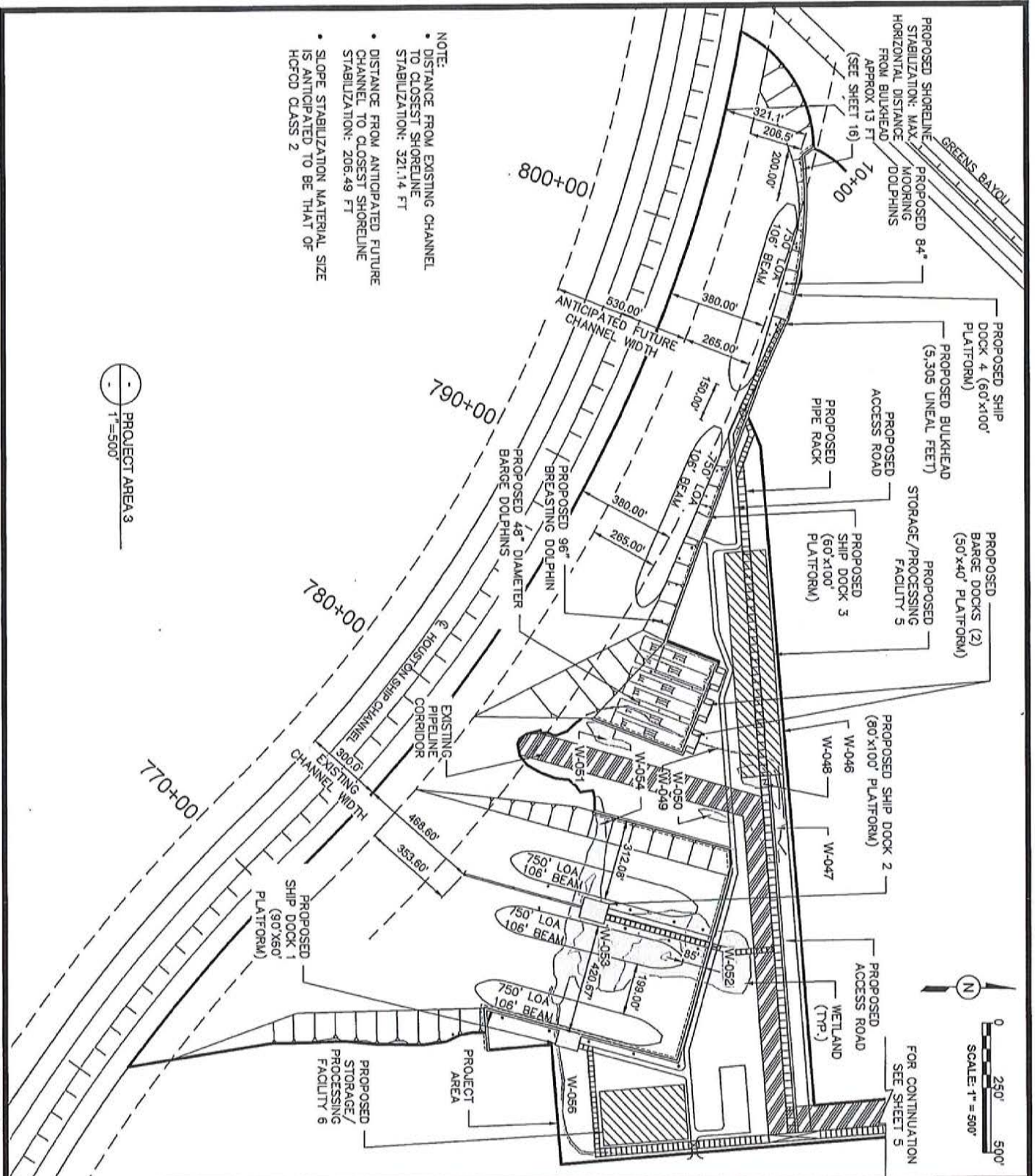
DESIGN BY:	KEM
DRAWN BY:	JBV
SCALE:	AS NOTED
DATE:	01/14/2019
SHEET No:	4

FILE NAME: C:\Users\Comilio Alvarez\Dropbox\Lloyd\036-Centers-Houston-4\05_SITE PLAN AREA 2.dwg LAYOUT NAME: SITE PLAN (2 OF 3) PLOTTED: Thursday, January 24, 2019 - 3:13pm USER: Comilio Alvarez

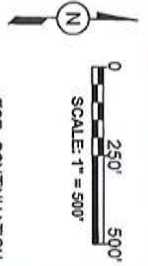


PURPOSE:	HOUSTON 4 PROJECT PROJECT AREA 2	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY: KEM
LOCATION:	HOUSTON, TEXAS	APPLIED BY:	LLOYD ENGINEERING, INC.		DRAWN BY: JBV
		APPLIC. No:	SWG-2018-00560		SCALE: AS NOTED
		COUNTY:	HARRIS COUNTY		DATE: 01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL		SHEET No: 5
		DATUM:	MLLW		

FILE NAME: C:\Users\Comilio Alverez\Dropbox\Lloyd\036-Contendo-Houston-2\06_SITE PLAN AREA 3.dwg LAYOUT NAME: SITE PLAN (3 OF 3) PLOTTED: Thursday, January 24, 2019 - 3:13pm USER: Comilio Alverez



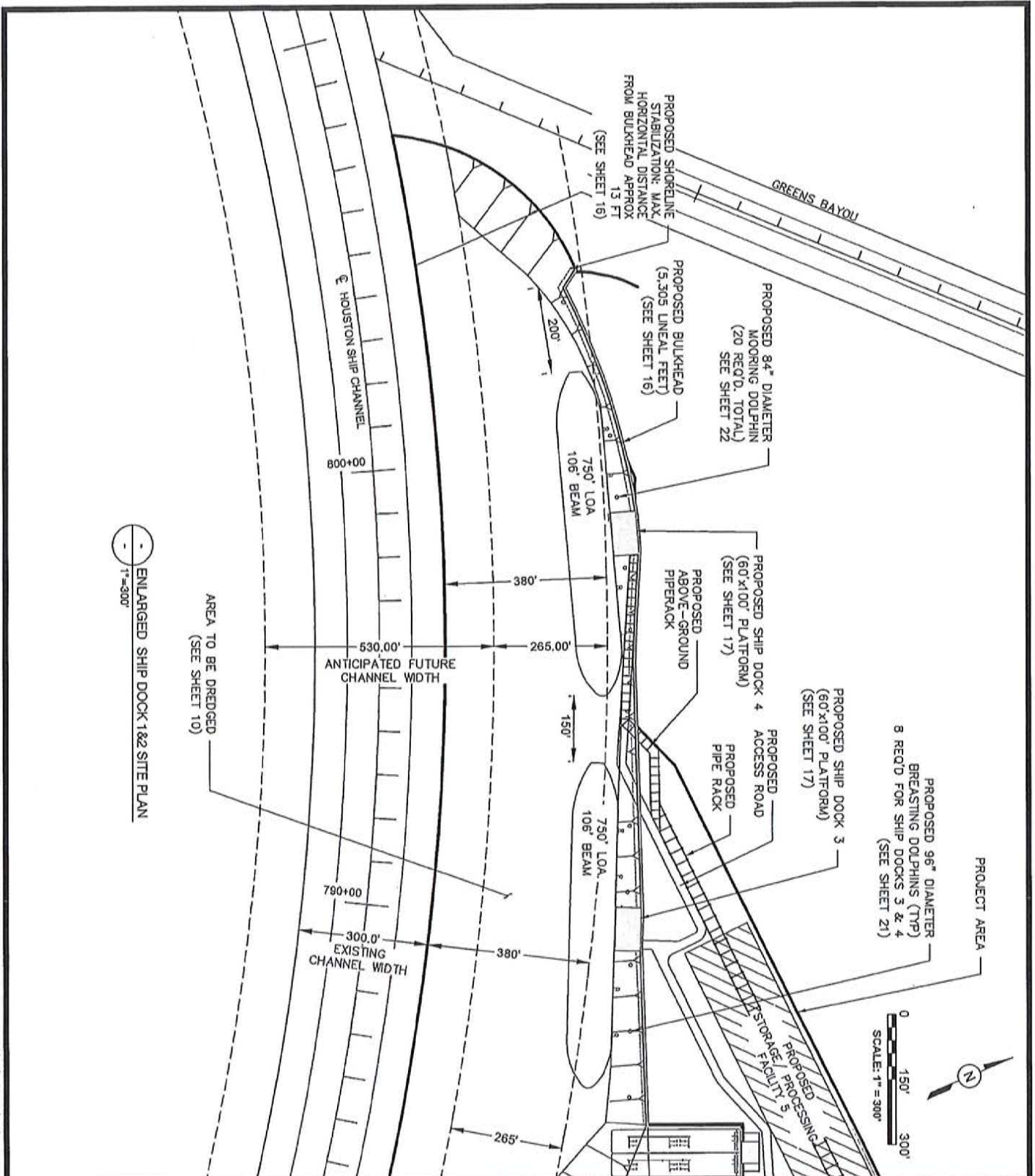
- NOTE:
- DISTANCE FROM EXISTING CHANNEL TO CLOSEST SHORELINE STABILIZATION: 321.14 FT
 - DISTANCE FROM ANTICIPATED FUTURE CHANNEL TO CLOSEST SHORELINE STABILIZATION: 206.49 FT
 - SLOPE STABILIZATION MATERIAL SIZE IS ANTICIPATED TO BE THAT OF HCFCD CLASS 2



PURPOSE:	HOUSTON 4 PROJECT PROJECT AREA 3	OWNER:	PORT OF HOUSTON AUTHORITY	DESIGN BY:	KEM
LOCATION:	HOUSTON, TEXAS	APPLIED BY:	LLOYD ENGINEERING, INC.	DRAWN BY:	JBV
		APPLIC. No:	SWG-2018-00560	SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY	DATE:	01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL	SHEET No:	6
		DATUM:	MLLW		

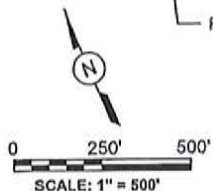
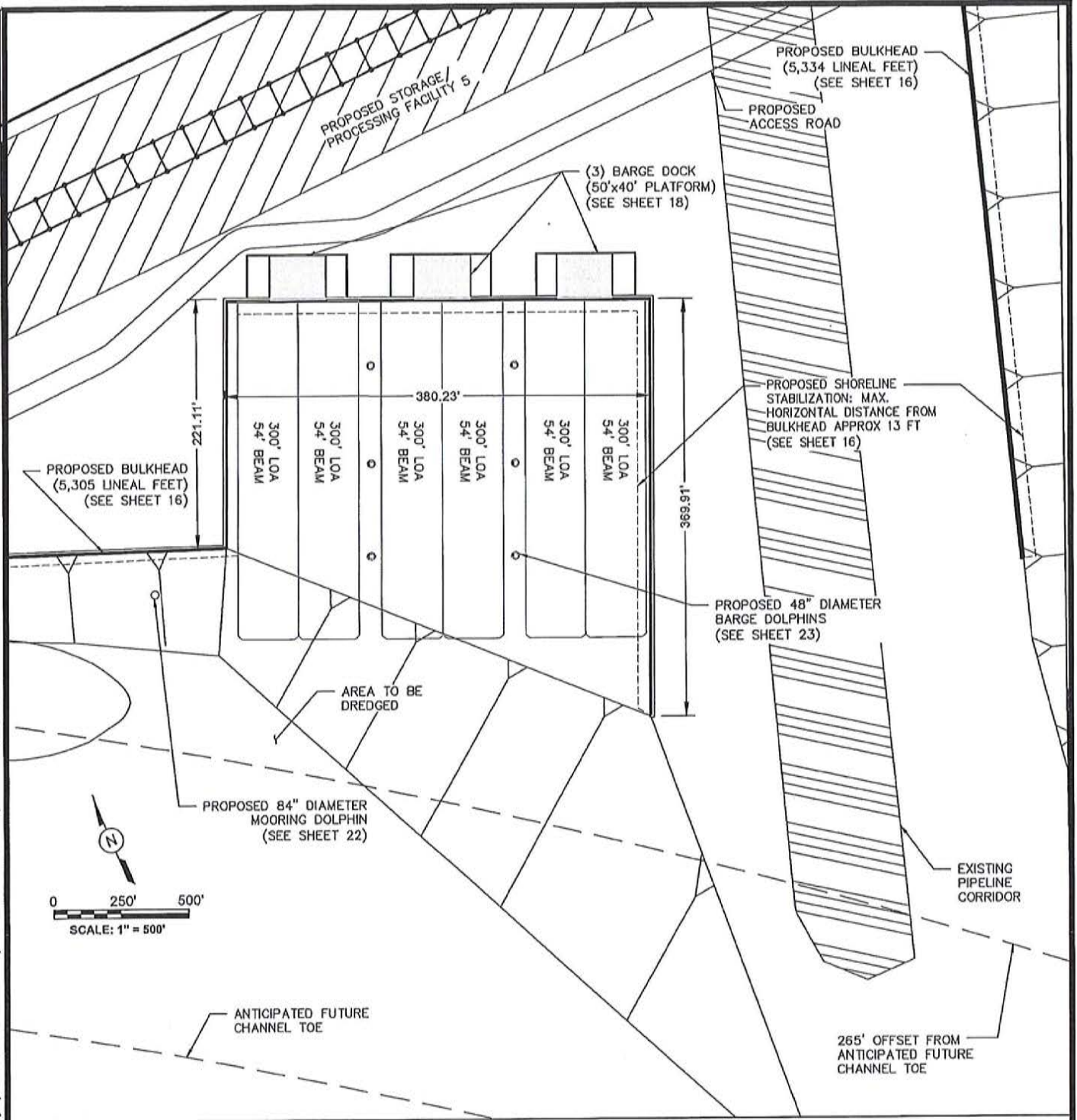


FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contando-Houston-4\07_ENLARGED SITE PLAN (DOCK 1 AND 2).dwg LAYOUT NAME: ENLARGED SITE PLAN (DOCK 1 AND 2) PLOTTED: Thursday, January 24, 2019 - 3:13pm USER: Camillo Alvarez




PURPOSE:	HOUSTON 4 PROJECT ENLARGED SHIP DOCK 1 & 2 SITE PLAN	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY:	KEM
	LOCATION:	HOUSTON, TEXAS	APPLIED BY:		LLOYD ENGINEERING, INC.	DRAWN BY:
		APPLIC. No:	SWG-2018-00560		SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY		DATE:	01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL		SHEET No:	7
		DATUM:	MLLW			

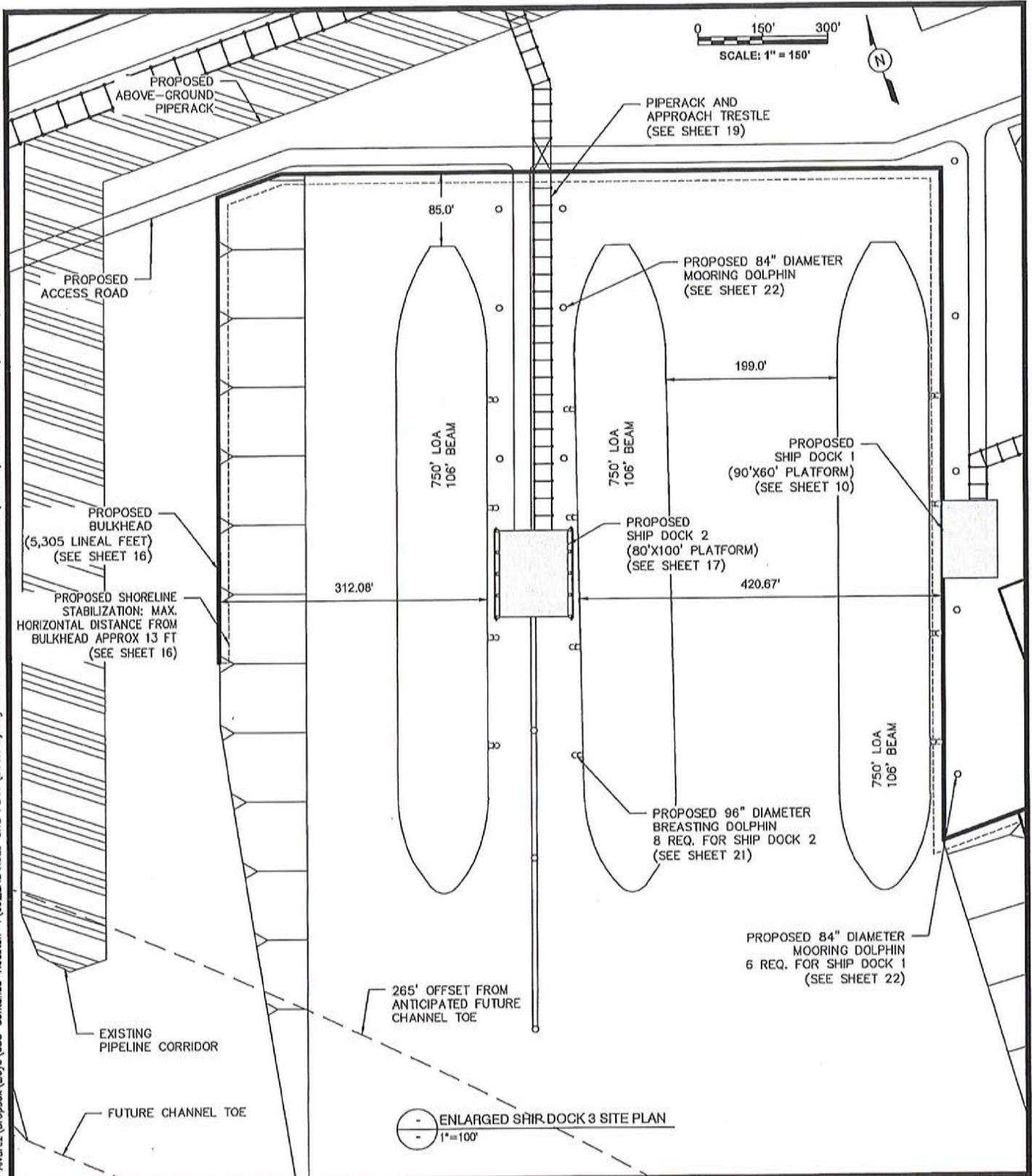
FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contando-Houston-4\08_ENLARGED SITE PLAN (BARGE DOCK).dwg LAYOUT NAME: ENLARGED SITE PLAN (BARGE DOCK) PLOTTED: Thursday, January 24, 2019 - 3:14pm USER: Camillo Alvarez




ENLARGED BARGE DOCK SITE PLAN
1"=120'

PURPOSE:	HOUSTON 4 PROJECT ENLARGED BARGE DOCK SITE PLAN	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY:	KEM
	LOCATION:	HOUSTON, TEXAS	APPLIED BY:		LLOYD ENGINEERING, INC.	DRAWN BY:
		APPLIC. No:	SWG-2018-00560		SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY		DATE:	01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL		SHEET No:	8
		DATUM:	MLLW			

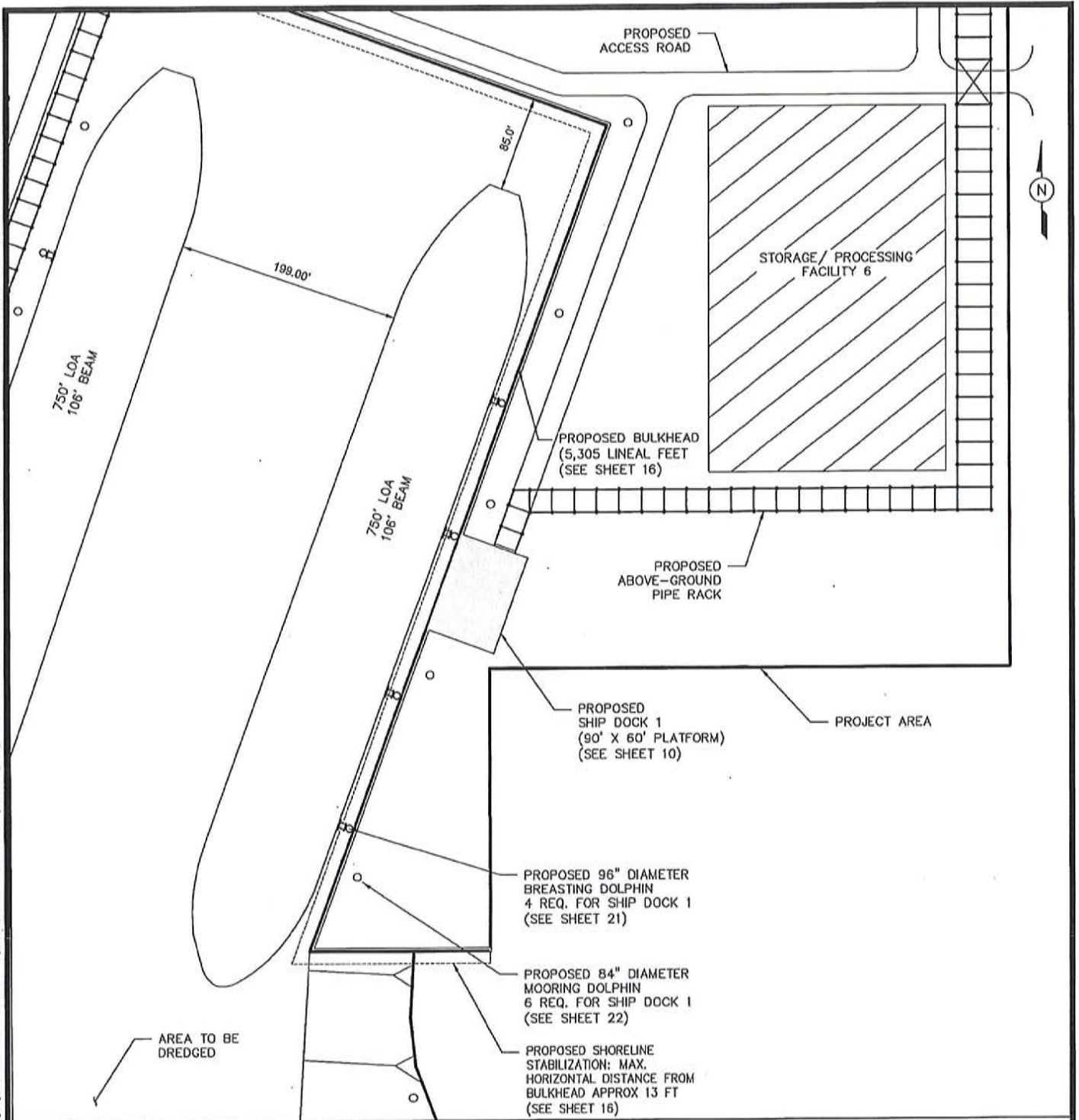
FILE NAME: C:\Users\Camillo Alvarez\Desktop\Lloyd\035-Contanda-Houston-4\09_ENLARGED SITE PLAN (DOCK 3).dwg LAYOUT NAME: ENLARGED SITE PLAN (DOCK 3) PLOTTED: Thursday, January 24, 2019 - 2:14pm USER: Camilo Alvarez



ENLARGED SHIP DOCK 3 SITE PLAN
1"=100'


PURPOSE:	HOUSTON 4 PROJECT ENLARGED SHIP DOCK 3 SITE PLAN	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY:	KEM
	LOCATION:	HOUSTON, TEXAS	APPLIED BY:		LLOYD ENGINEERING, INC.	DRAWN BY:
		APPLIC. No:	SWG-2018-00560		SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY		DATE:	01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL		SHEET No:	9
		DATUM:	MLLW			

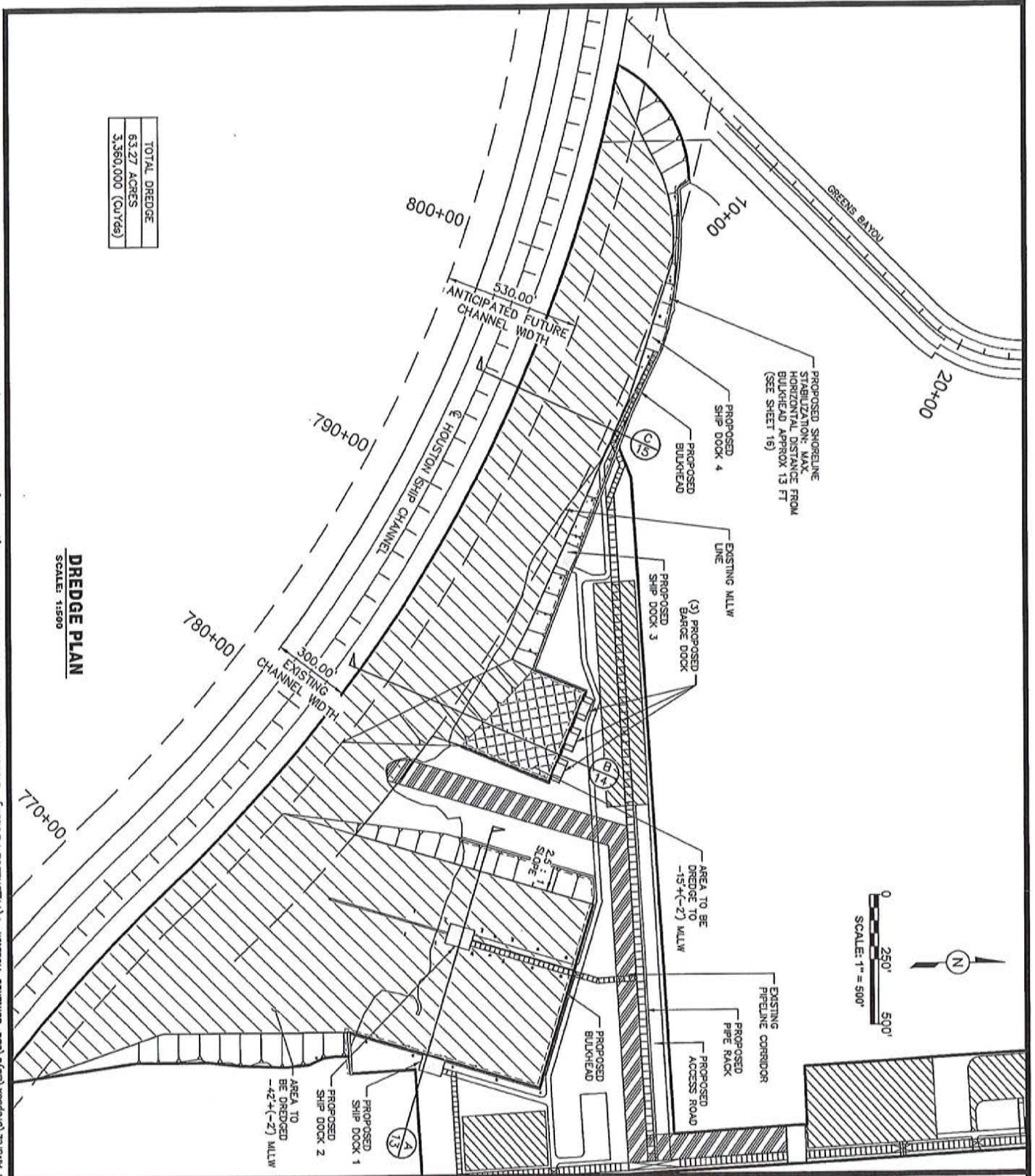
FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\035-Cantanda-Houston-4\10_ENLARGED SITE PLAN (DOCK 4).dwg LAYOUT NAME: ENLARGED SITE PLAN (DOCK 4) PLOTTED: Thursday, January 24, 2019 - 3:14pm USER: Camillo Alvarez



ENLARGED SHIP DOCK 4 SITE PLAN
1" = 120'



PURPOSE:	HOUSTON 4 PROJECT ENLARGED SHIP DOCK 4 SITE PLAN	OWNER:	PORT OF HOUSTON AUTHORITY	 <p>LLOYD ENGINEERING, INC HOUSTON TEXAS, USA LICENSE NO. F-002846</p>	DESIGN BY:	KEM
	LOCATION:	HOUSTON, TEXAS	APPLIED BY:		LLOYD ENGINEERING, INC.	DRAWN BY:
		APPLIC. No:	SWG-2018-00560		SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY		DATE:	01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL		SHEET No:	10
		DATUM:	MLLW			



TOTAL DREDGE	63.27 ACRES
	3,360,000 (CU YDS)

DREDGE PLAN
SCALE: 1"=500'

FILE NAME: C:\Users\Camillo Alvarez\Desktop\Lloyd\036-Contanda-Houston-4\11_DREDGE PLAN.dwg LAYOUT NAME: DREDGE PLAN PLOTTED: Thursday, January 24, 2019 - 3:14pm USER: Camillo Alvarez

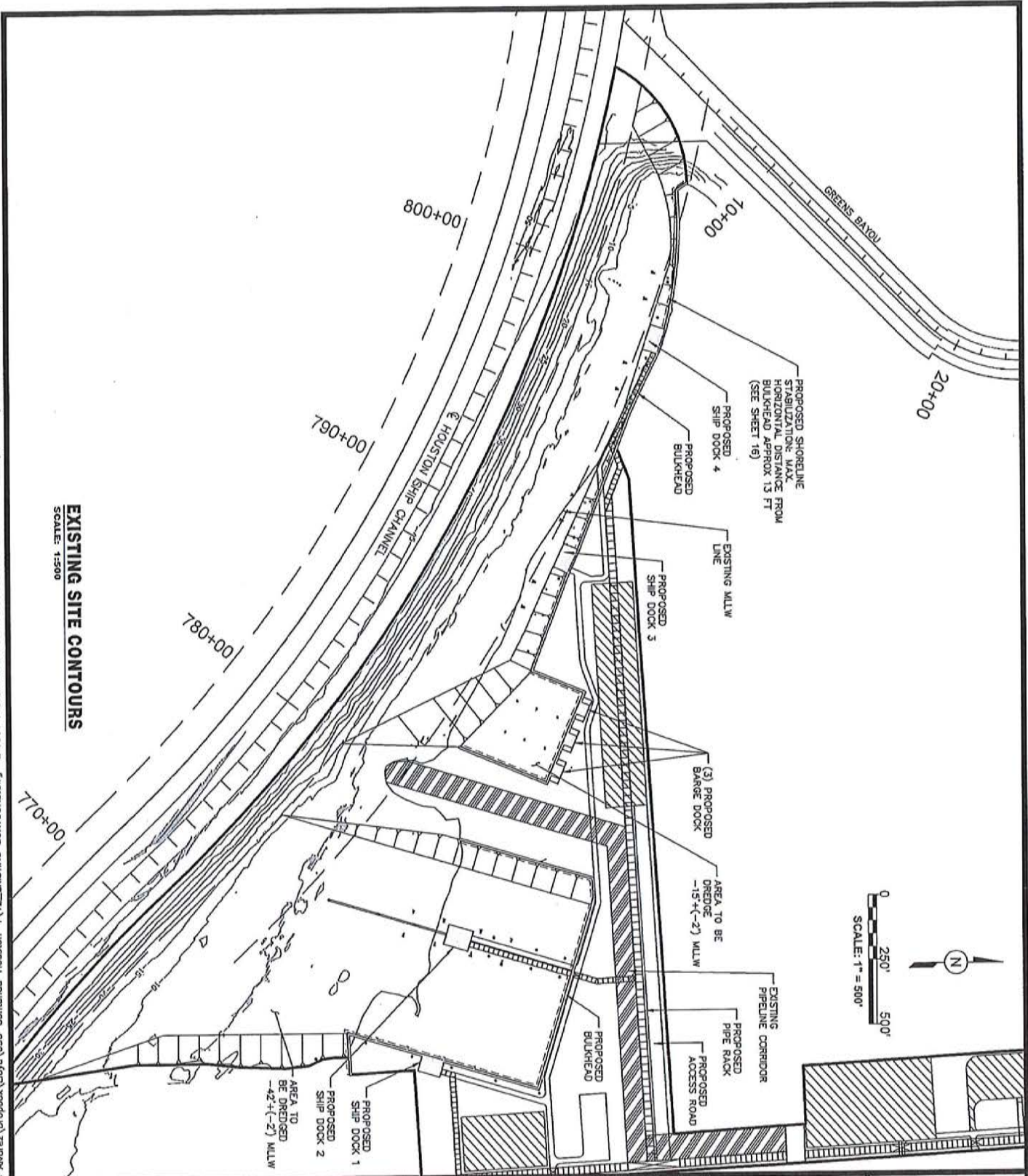
PURPOSE:	HOUSTON 4 PROJECT DREDGE PLAN
LOCATION:	HOUSTON, TEXAS

OWNER:	PORT OF HOUSTON AUTHORITY
APPLIED BY:	LLOYD ENGINEERING, INC.
APPLIC. No:	SWG-2018-00560
COUNTY:	HARRIS COUNTY
WATER BODY:	HOUSTON SHIP CHANNEL
DATUM:	MLLW

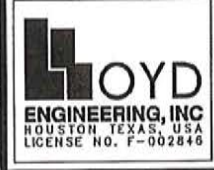
LLOYD
ENGINEERING, INC
HOUSTON, TEXAS, USA
LICENSE NO. F-002846

DESIGN BY:	KEM
DRAWN BY:	JBV
SCALE:	AS NOTED
DATE:	01/14/2019
SHEET No:	11

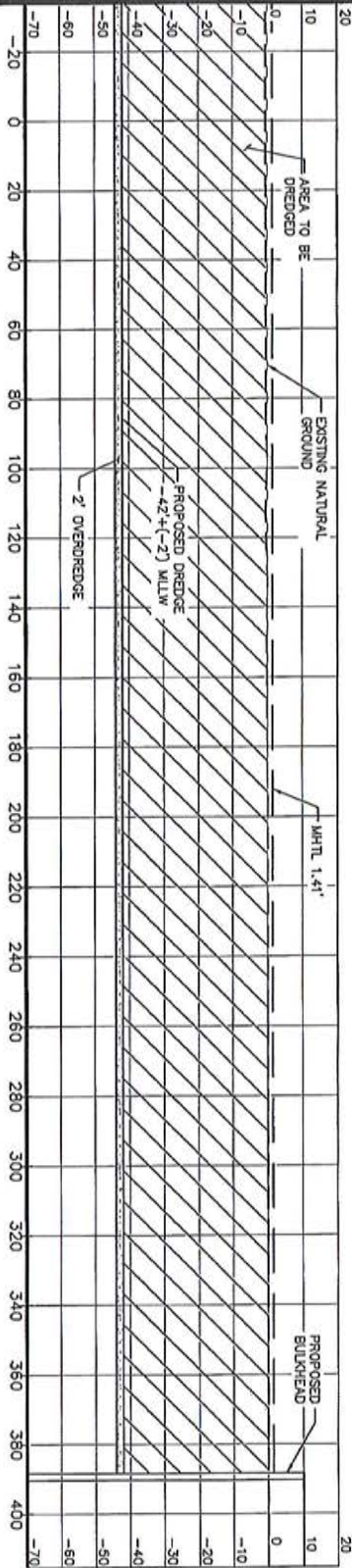
FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contanda-Houston-4\12_EXISTING CONTOURS.dwg LAYOUT NAME: EXISTING SITE CONTOURS PLOTTED: Thursday, January 24, 2019 - 3:15pm USER: Camillo Alvarez



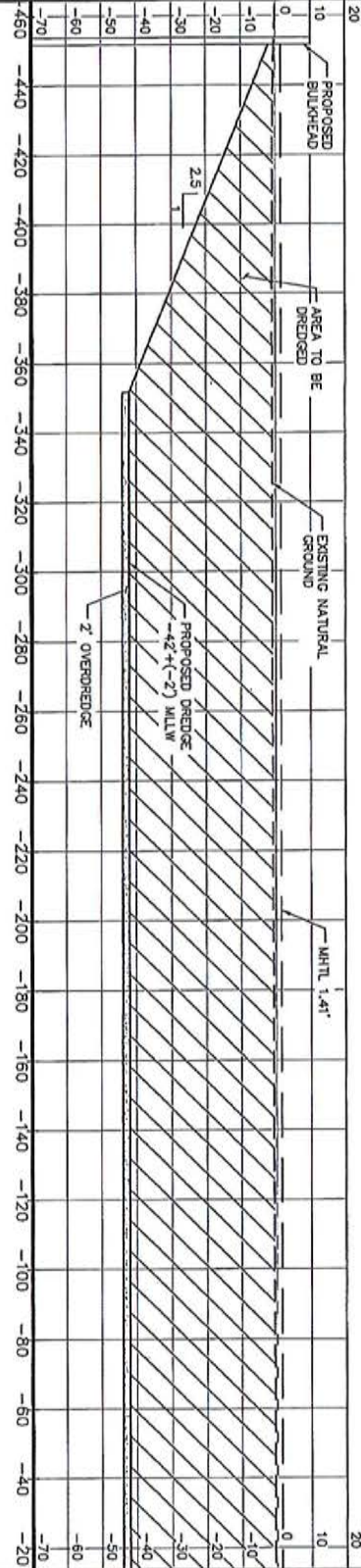
PURPOSE:	HOUSTON 4 PROJECT EXISTING SITE CONTOURS	OWNER:	PORT OF HOUSTON AUTHORITY	DESIGN BY:	KEM
LOCATION:	HOUSTON, TEXAS	APPLIED BY:	LLOYD ENGINEERING, INC.	DRAWN BY:	JBV
		APPLIC. No:	SWG-2018-00560	SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY	DATE:	01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL	SHEET No:	12
		DATUM:	MLLW		



FILE NAME: C:\Users\Carmilo Alvarez\Dropbox\Lloyd\036-Contanda-Houston-13-14-15-DREDGE PROFILES.dwg LAYOUT NAME: DREDGE PROFILE (1) OF (1) PLOTTED: Thursday, January 24, 2019 - 3:15pm USER: Carmilo Alvarez



SECTION (CONT.)
1"=50'

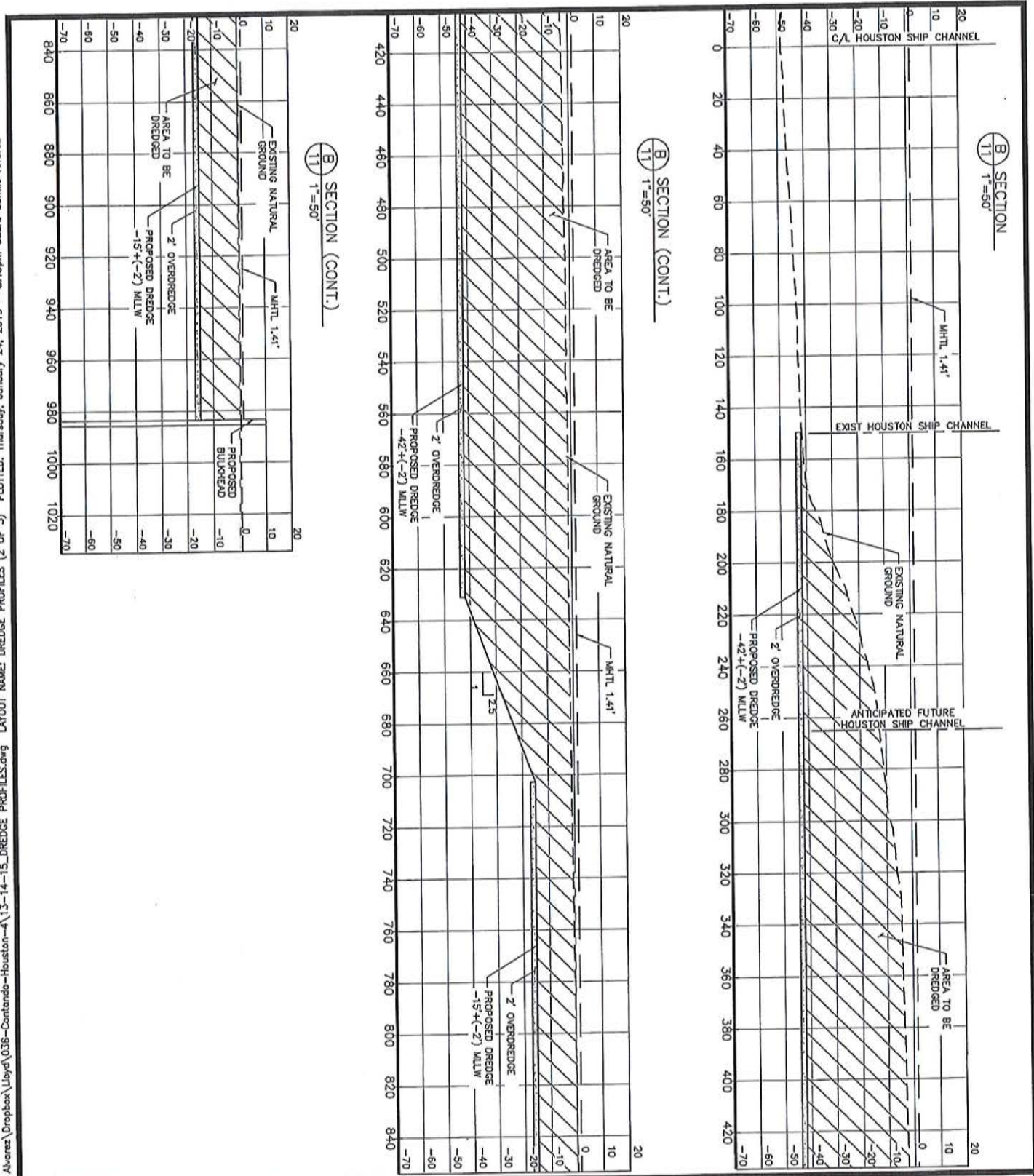


SECTION
1"=50'

PURPOSE:	HOUSTON 4 PROJECT DREDGE CROSS SECTION	OWNER:	PORT OF HOUSTON AUTHORITY	DESIGN BY:	KEM
LOCATION:	HOUSTON, TEXAS	APPLIED BY:	LLOYD ENGINEERING, INC.	DRAWN BY:	JBV
		APPLIC. No:	SWG-2018-00560	SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY	DATE:	01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL	SHEET No:	13
		DATUM:	MLLW		



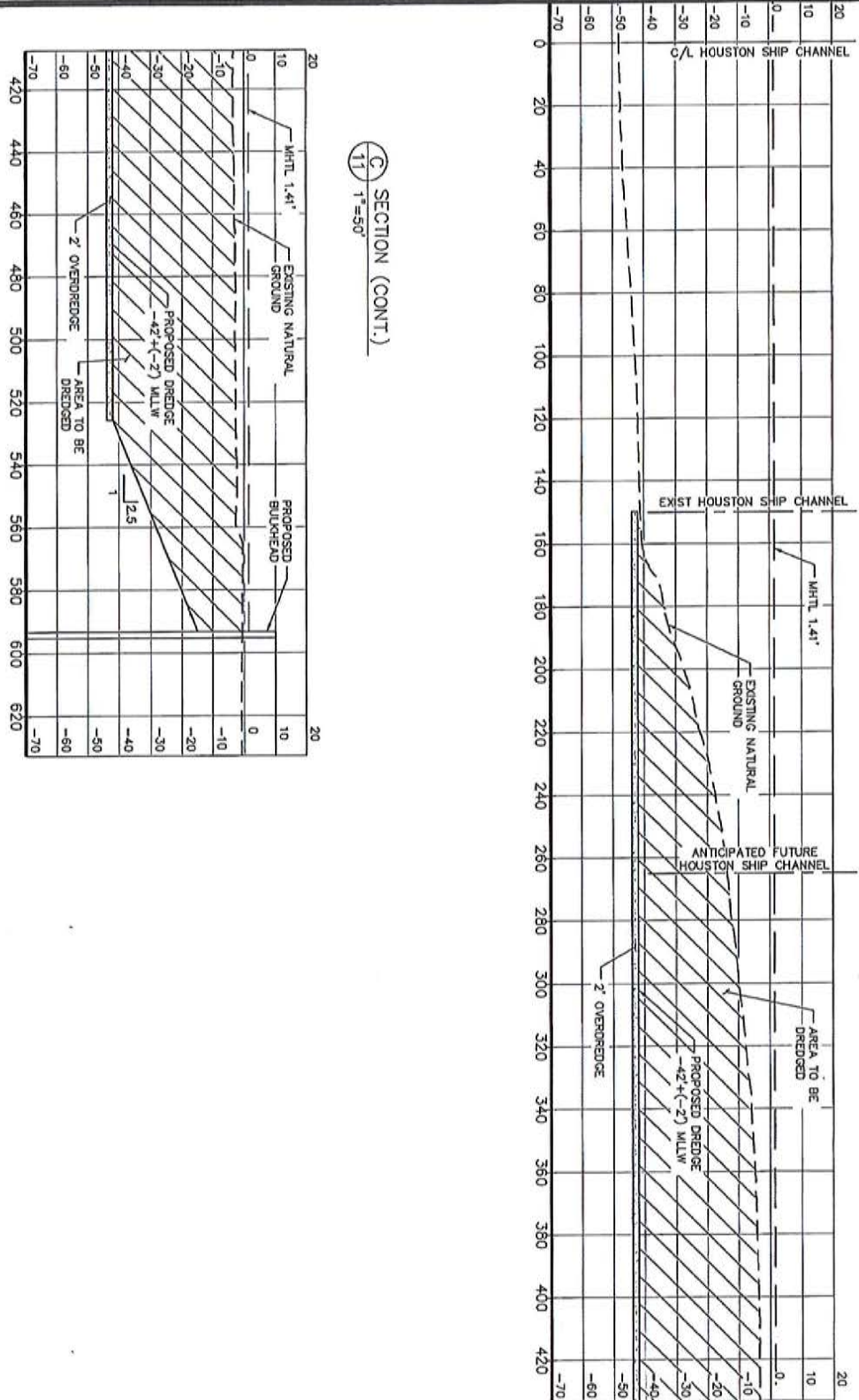
FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contandab-Houston-13-13-14-15_DREDGE PROFILES.dwg PLOTTED: Thursday, January 24, 2019 3:15pm USER: Camillo Alvarez



PURPOSE:	HOUSTON 4 PROJECT DREDGE CROSS SECTION	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY:	KEM
LOCATION:	HOUSTON, TEXAS	APPLIED BY:	LLOYD ENGINEERING, INC.		DRAWN BY:	JBV
		APPLIC. No:	SWG-2018-00560		SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY		DATE:	01/14/2019
		WATER BODY:	HOUSTON SHIP CHANNEL		SHEET No:	14
		DATUM:	MLLW			

MAR 26 2019

FILE NAME: C:\Users\Camilio Alvarez\Dropbox\Lloyd\035-Contanda-Houston-15-DREDGE PROFILES.dwg LAYOUT NAME: DREDGE PROFILES (3 OF 3) PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Camilio Alvarez



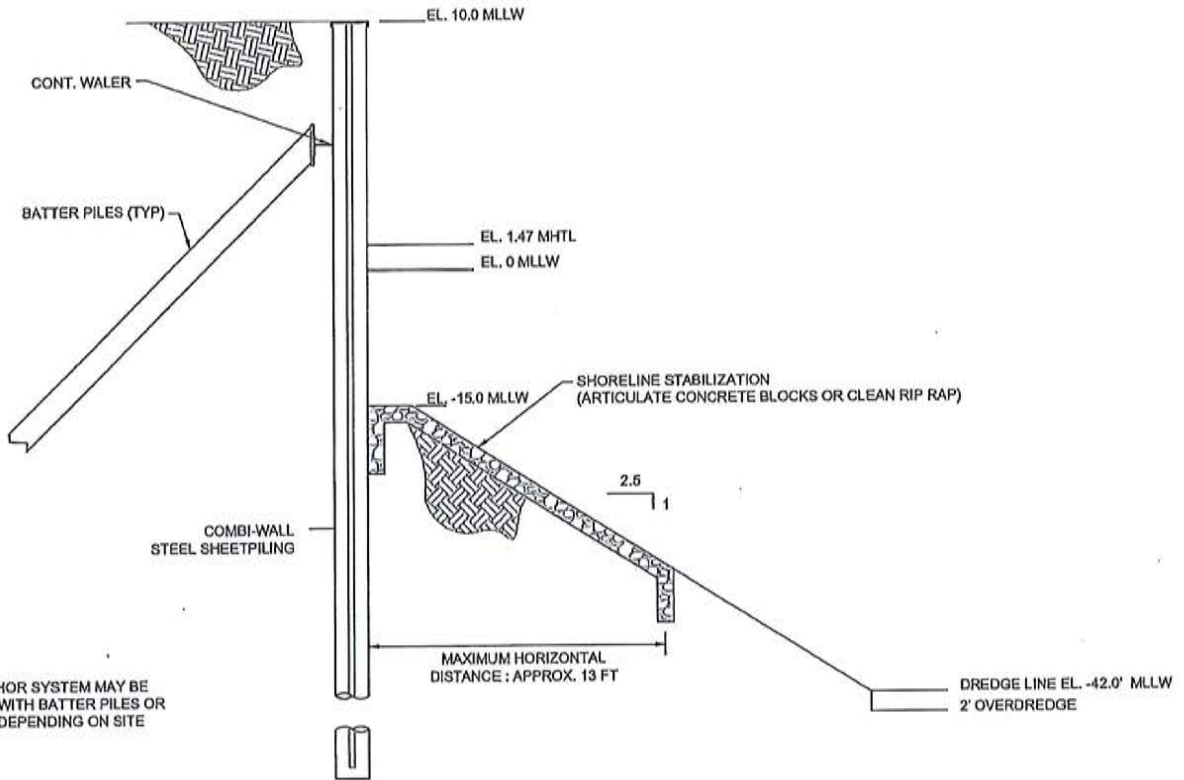
PURPOSE:	HOUSTON 4 PROJECT DREDGE CROSS SECTION
LOCATION:	HOUSTON, TEXAS

OWNER:	PORT OF HOUSTON AUTHORITY
APPLIED BY:	LLOYD ENGINEERING, INC.
APPLIC. No:	SWG-2018-00560
COUNTY:	HARRIS COUNTY
WATER BODY:	HOUSTON SHIP CHANNEL
DATUM:	MLLW



DESIGN BY:	KEM
DRAWN BY:	JBV
SCALE:	AS NOTED
DATE:	01/14/2019
SHEET No:	15

FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contanda-Houston-4\16_Bulkhead Plan and section.dwg LAYOUT NAME: BULKHEAD PLAN AND DETAILS PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Camillo Alvarez



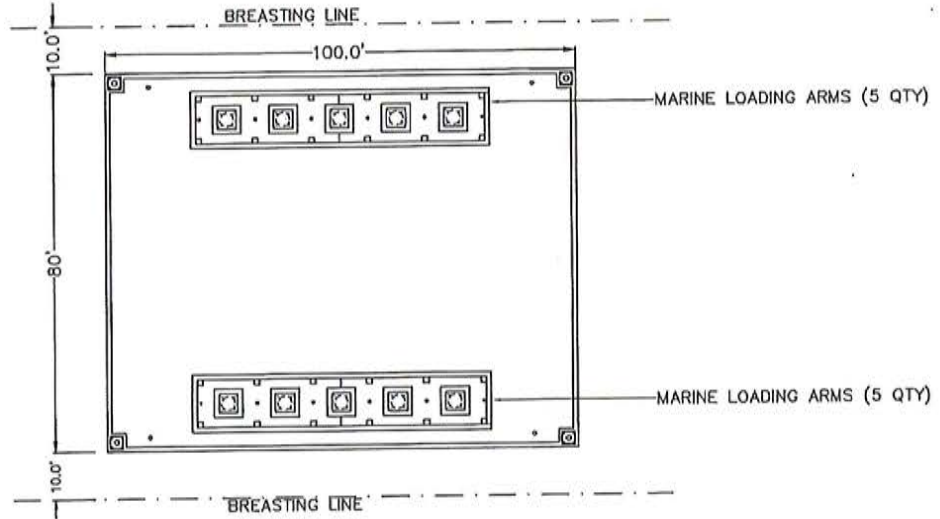
NOTE:

BULKHEAD ANCHOR SYSTEM MAY BE CONSTRUCTED WITH BATTER PILES OR ANCHOR WALL, DEPENDING ON SITE GEOLOGY.

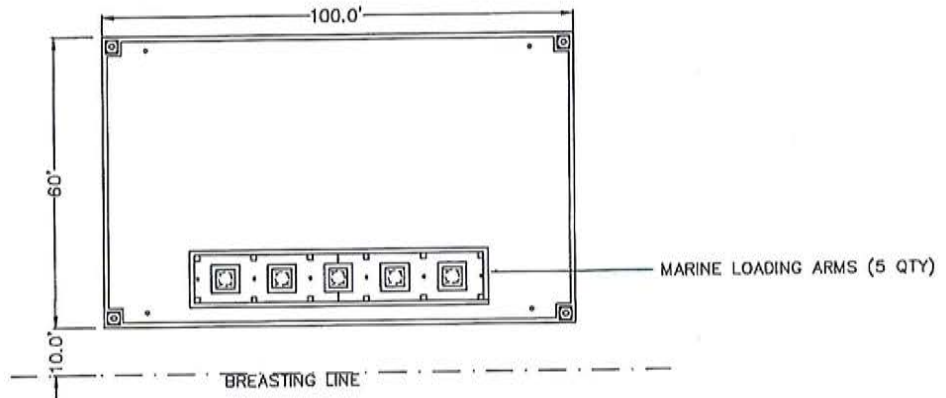
- APPROXIMATE 5,927 CU. YD. SLOPE STABILIZATION REQUIRED ALONG PROPOSED BULKHEAD.
- PLACEMENT OF SLOPE STABILIZATION MATERIAL WITHIN APPROXIMATELY 71,120 SQ. FT. AREA ALONG PROPOSED BULKHEAD WALL.
- MAXIMUM HORIZONTAL DISTANCE OF SLOPE STABILIZATION MATERIAL FROM BULKHEAD WALL IS APPROXIMATELY 13 FEET.
- SLOPE STABILIZATION MATERIAL SIZE IS ESTIMATED TO BE HCFCD CLASS 2

⊖ TYPICAL BULKHEAD SECTION
N.T.S.

PURPOSE:	HOUSTON 4 PROJECT TYPICAL BULKHEAD SECTION	OWNER:	PORT OF HOUSTON AUTHORITY	DESIGN BY: <i>KEM</i>
		APPLIED BY:	LLOYD ENGINEERING, INC.	
LOCATION:	HOUSTON, TEXAS	APPLIC. No:	SWG-2018-00560	SCALE: <i>AS NOTED</i>
		COUNTY:	HARRIS COUNTY	DATE: <i>01/14/2019</i>
		WATER BODY:	HOUSTON SHIP CHANNEL	SHEET No:
		DATUM:	MLLW	16



1 TYPICAL SHIP DOCK 2 PLAN
1" = 40'



2 TYPICAL SHIP DOCK 3 & 4 PLAN
1" = 40'

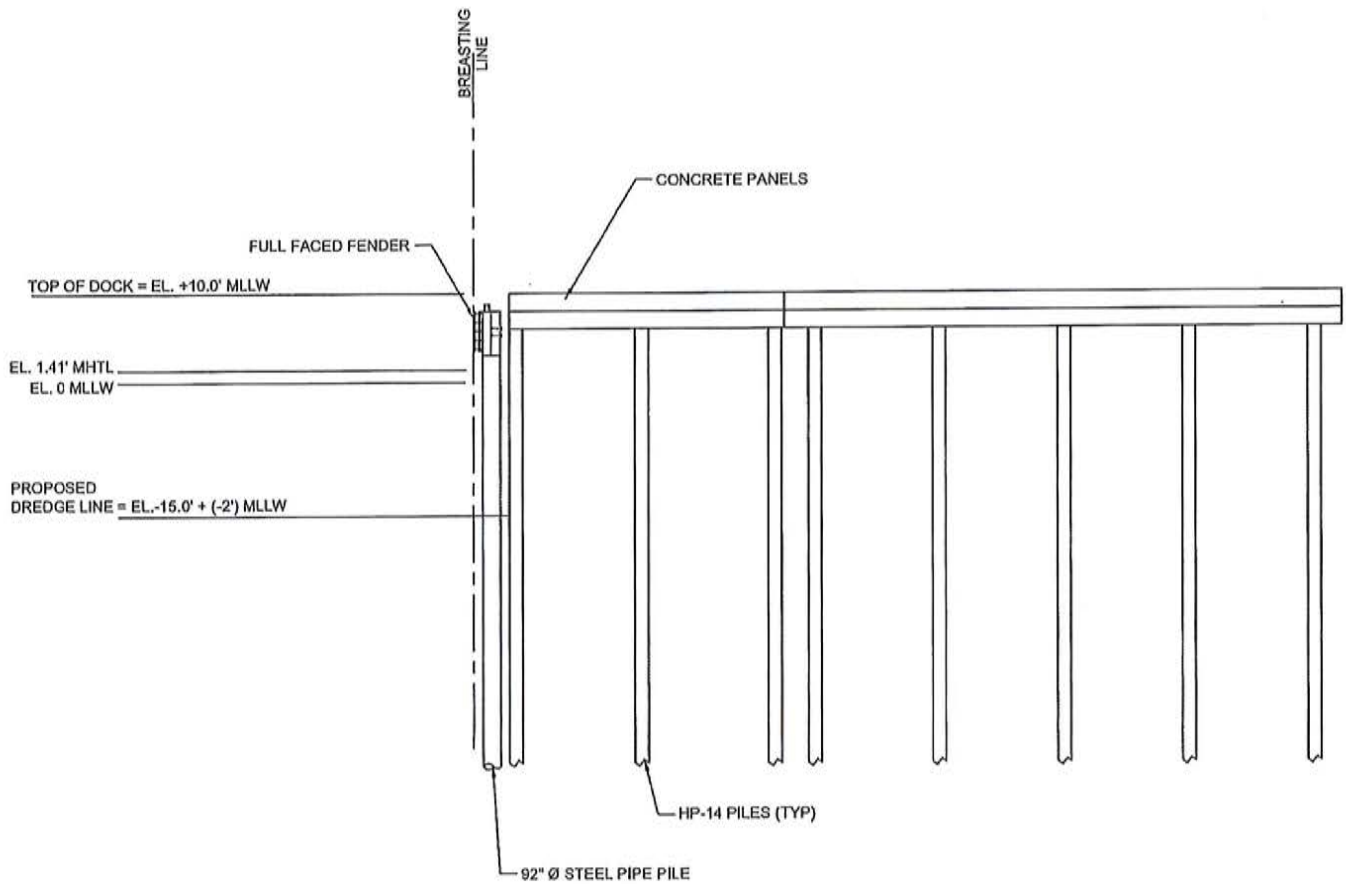


FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\038-Contando-Houston-4\17_Typical ship dock.dwg LAYOUT NAME: TYPICAL SHIP DOCK PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Camilo Alvarez

PURPOSE:	HOUSTON 4 PROJECT TYPICAL SHIP DOCK PLAN	OWNER:	PORT OF HOUSTON AUTHORITY	DESIGN BY: <i>KEM</i>
	LOCATION:	HOUSTON, TEXAS	APPLIED BY:	
APPLIC. No:			SWG-2018-00560	SCALE: AS NOTED
COUNTY:			HARRIS COUNTY	DATE: 01/14/2019
WATER BODY:			HOUSTON SHIP CHANNEL	SHEET No: 17
		DATUM:	MLLW	




FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contanda-Houston-4\18_TYPICAL BARGE DOCK SECTION.dwg LAYOUT NAME: TYPICAL BARGE DOCK SECTION PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Camilo Alvarez



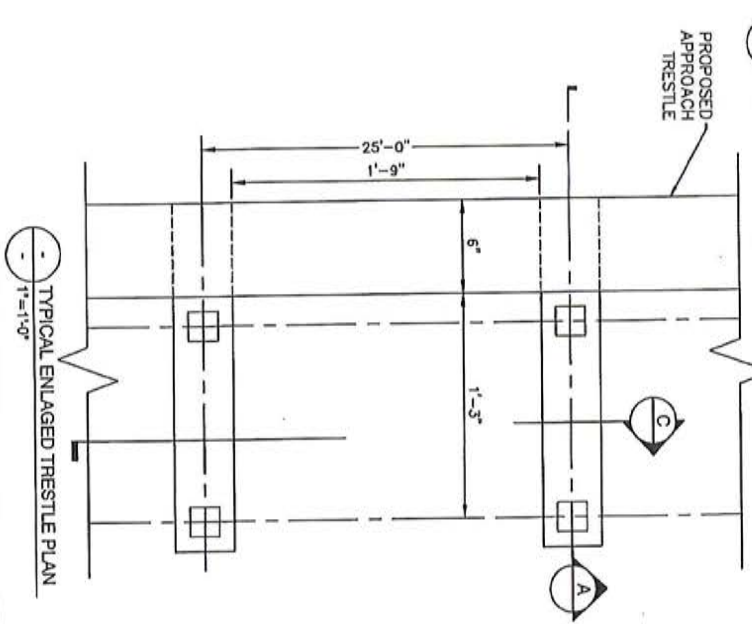
○ TYPICAL BARGE DOCK SECTION
1" = 20'



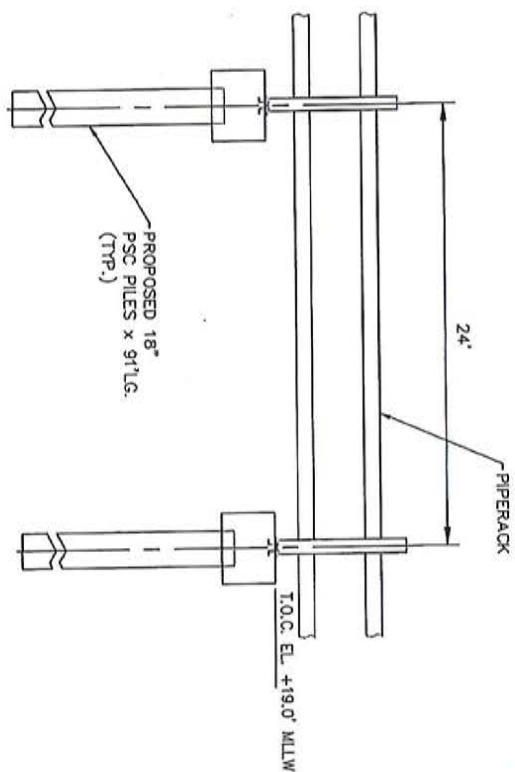
PURPOSE:	HOUSTON 4 PROJECT TYPICAL BARGE DOCK SECTION	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY:	KEM
	LOCATION:	HOUSTON, TEXAS	APPLIED BY:		LLOYD ENGINEERING, INC.	DRAWN BY:
APPLIC. No:			SWG-2018-00560	SCALE:	AS NOTED	
COUNTY:			HARRIS COUNTY	DATE:	01/14/2019	
		WATER BODY:	HOUSTON SHIP CHANNEL	SHEET No:	18	
		DATUM:	MLLW			

MAR 26 2019

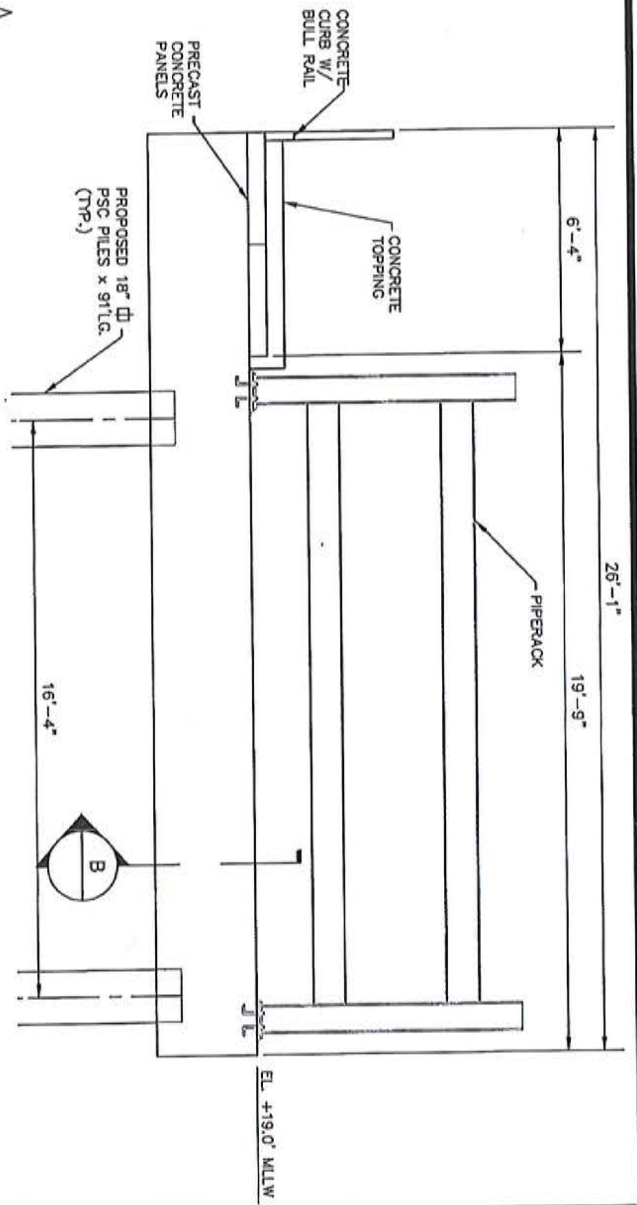
FILE NAME: C:\Users\Comilio Alvarez\Dropbox\Uloyd\036-Contandis-Houston-4\19_Pipe Trestle plan and sections.dwg LAYOUT NAME: PIPE TRESTLE SECTIONS PLOTTED: Thursday, January 24, 2019 - 3:15pm USER: Comilio Alvarez



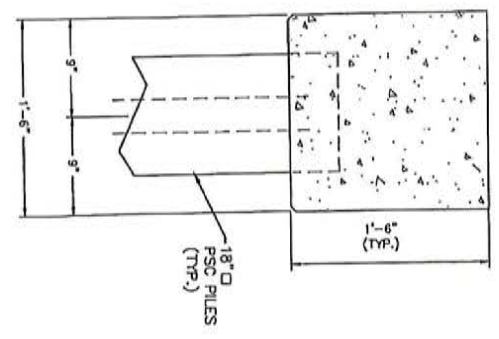
TYPICAL TRESTLE SECTION
N.T.S.



TYPICAL TRESTLE SECTION
N.T.S.



TYPICAL PILE CAP SECTION
N.T.S.



PURPOSE:	HOUSTON 4 PROJECT TYPICAL TRESTLE
LOCATION:	HOUSTON, TEXAS

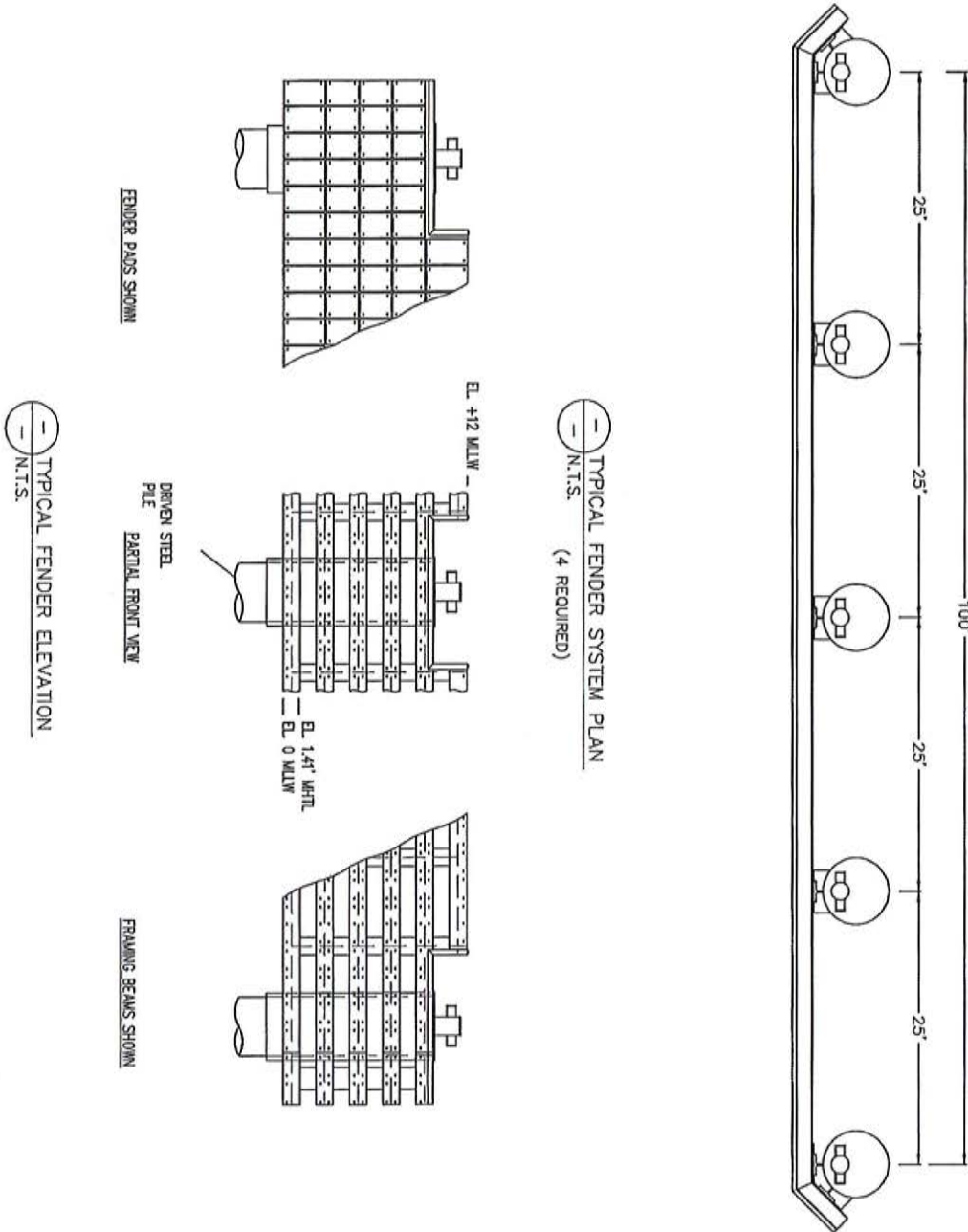
OWNER:	PORT OF HOUSTON AUTHORITY
APPLIED BY:	LLOYD ENGINEERING, INC.
APPLIC. No:	SWG-2018-00560
COUNTY:	HARRIS COUNTY
WATER BODY:	HOUSTON SHIP CHANNEL
DATUM:	MLLW



DESIGN BY:	KEM
DRAWN BY:	JBV
SCALE:	AS NOTED
DATE:	01/14/2019
SHEET No:	19

MAR 26 2019

FILE NAME: C:\Users\Camilio Alvarez\Dropbox\Uoyd\035-Contanda-Houston-4\20_Full Faced Fender.dwg LAYOUT NAME: FULL FACE FENDER DETAILS PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Camilio Alvarez



PURPOSE:	HOUSTON 4 PROJECT FULL FACE FENDER DETAILS
LOCATION:	HOUSTON, TEXAS

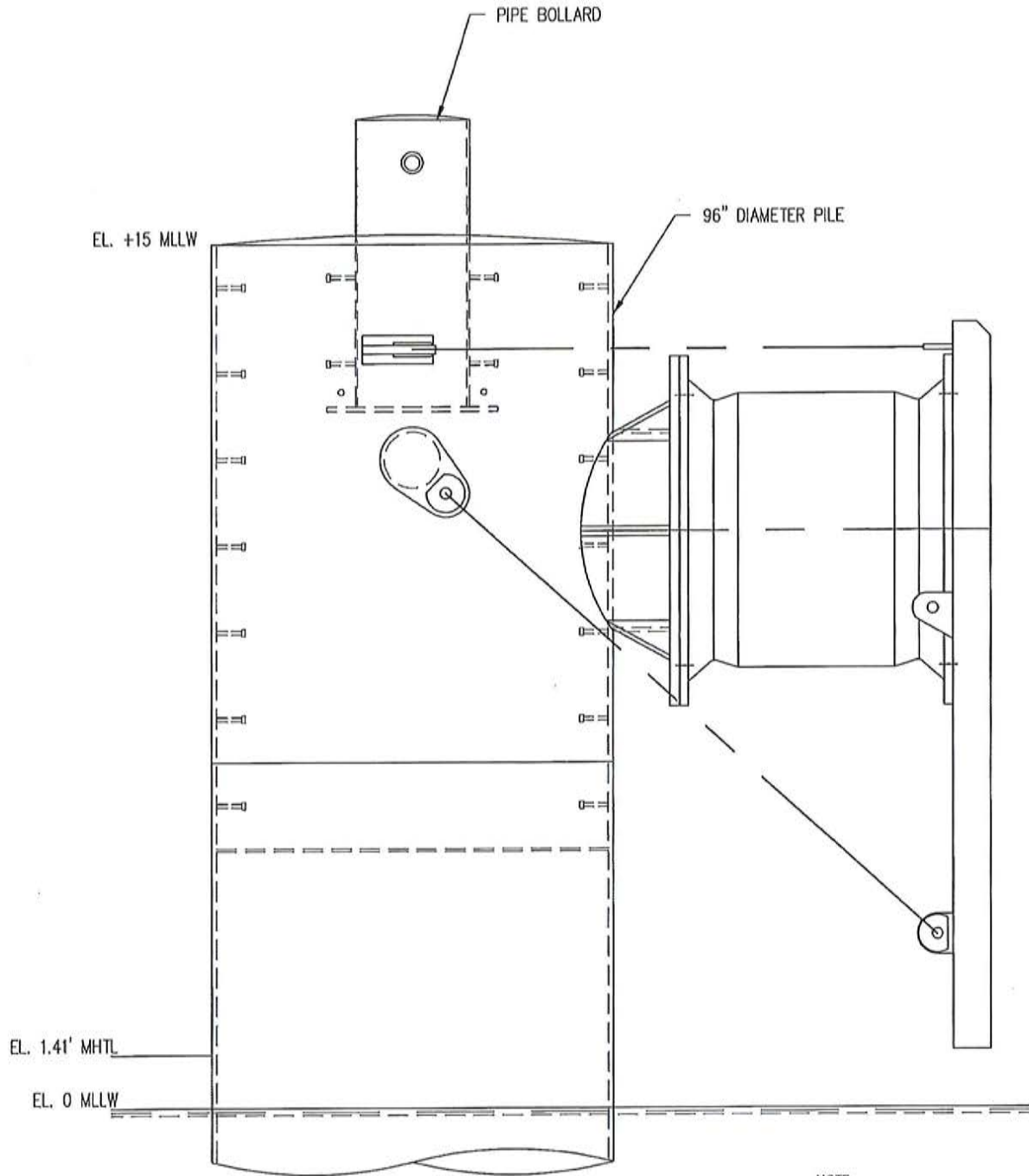
OWNER:	PORT OF HOUSTON AUTHORITY
APPLIED BY:	LLOYD ENGINEERING, INC.
APPLIC. No:	SWG-2018-00560
COUNTY:	HARRIS COUNTY
WATER BODY:	HOUSTON SHIP CHANNEL
DATUM:	MLLW

LLOYD
ENGINEERING, INC.
HOUSTON TEXAS, USA
LICENSE NO. F-002846

DESIGN BY:	KEM
DRAWN BY:	JBV
SCALE:	AS NOTED
DATE:	01/14/2019
SHEET No:	20

MAR 26 2019

FILE NAME: C:\Users\Carmilo Alvarez\Dropbox\Lloyd\036-Contanda-Houston-4\21_Typical Breasting Dolphin.dwg PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Carmilo Alvarez



NOTE:
DOLPHIN MAY BE CONSTRUCTED IN SINGLE OR
MULTIPLE PILE CONFIGURATION DEPENDING ON
SITE GEOLOGY.

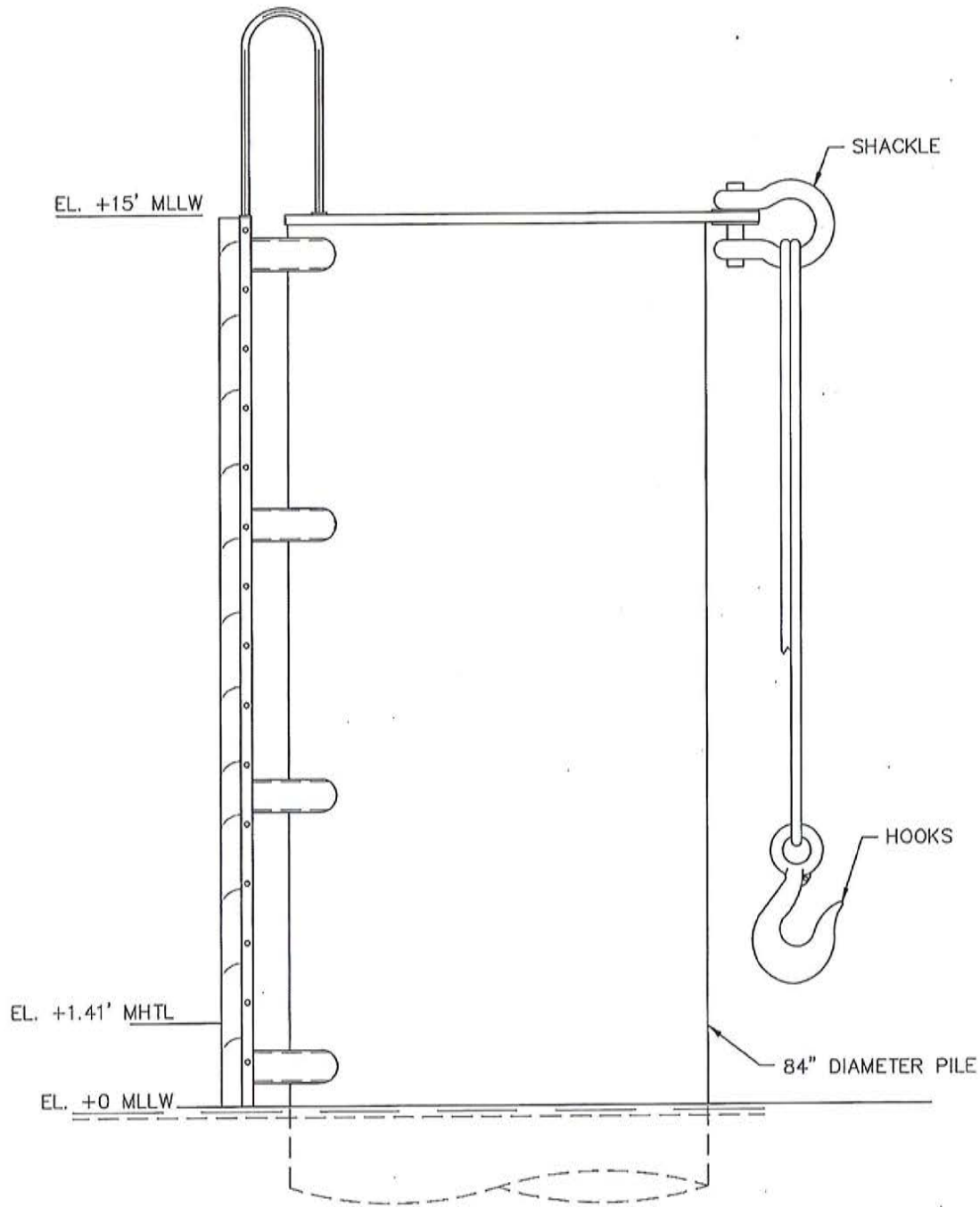
⊖ TYPICAL BREASTING DOLPHIN
3/8" = 1'-0"

PURPOSE:	HOUSTON 4 PROJECT TYPICAL BREASTING DOLPHIN	OWNER:	PORT OF HOUSTON AUTHORITY	DESIGN BY: <i>KEM</i>
		APPLIED BY:	LLOYD ENGINEERING, INC.	
LOCATION:	HOUSTON, TEXAS	APPLIC. No:	SWG-2018-00560	SCALE: <i>AS NOTED</i>
		COUNTY:	HARRIS COUNTY	DATE: <i>01/14/2019</i>
		WATER BODY:	HOUSTON SHIP CHANNEL	SHEET No:
		DATUM:	MLLW	21



MAR 26 2019

FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Cantlands-Houston-4\22_Typical Mooring Dolphin.dwg PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Camilo Alvarez



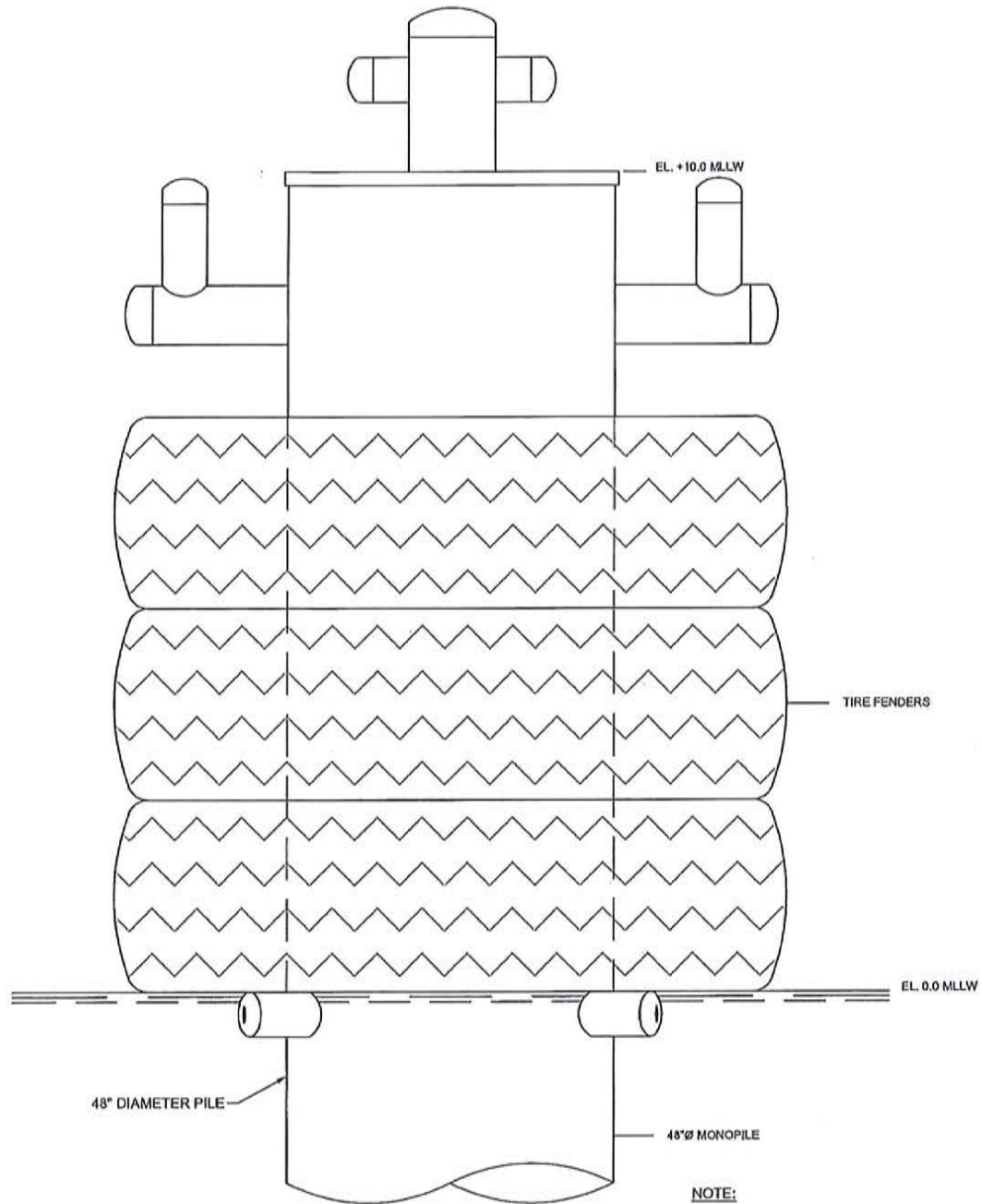
⊖ TYPICAL MOORING DOLPHIN PROFILE
3/8" = 1'-0"

NOTE:
DOLPHIN MAY BE CONSTRUCTED IN
SINGLE OR MULTIPLE PILE CONFIGURATION
DEPENDING ON SITE GEOLOGY.

PURPOSE:	HOUSTON 4 PROJECT TYPICAL MOORING DOLPHIN	OWNER:	PORT OF HOUSTON AUTHORITY		DESIGN BY:	KEM
	LOCATION:	HOUSTON, TEXAS	APPLIED BY:		LLOYD ENGINEERING, INC.	DRAWN BY:
			APPLIC. No:	SWG-2018-00560	SCALE:	AS NOTED
		COUNTY:	HARRIS COUNTY	DATE:	01/14/2019	SHEET No:
		WATER BODY:	HOUSTON SHIP CHANNEL			22
		DATUM:	MLLW			

MAR 26 2019

FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contends-Houston-4\23-TYPICAL-BARGE-DOLPHIN.dwg LAYOUT NAME: MOORING DOLPHIN PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Camillo Alvarez



TYPICAL BARGE DOLPHIN
N.T.S (ELEVATION)

PURPOSE:	HOUSTON 4 PROJECT TYPICAL BARGE DOLPHIN	OWNER:	PORT OF HOUSTON AUTHORITY	DESIGN BY: <i>KEM</i>
		APPLIED BY:	LLOYD ENGINEERING, INC.	
LOCATION:	HOUSTON, TEXAS	APPLIC. No:	SWG-2018-00560	SCALE: <i>AS NOTED</i>
		COUNTY:	HARRIS COUNTY	DATE: <i>01/14/2019</i>
		WATER BODY:	HOUSTON SHIP CHANNEL	SHEET No: 23
		DATUM:	MLLW	



MAR 26 2019

FILE NAME: C:\Users\Camillo Alvarez\Dropbox\Lloyd\036-Contandis-Houston-4\24_POHA_DMPA_OVERALL.dwg LAYOUT NAME: POHA_DMPA_OVERALL PLOTTED: Thursday, January 24, 2019 - 3:16pm USER: Camillo Alvarez



PROPOSED DREDGE MATERIAL PLACEMENT AREAS:

1. EAST/WEST JONES (ORION) (29.731596', -95.192358')
2. ADLOY - PRIVATE (29.839430', -95.096743')
3. BELTWAY 8 TRACT (29.744695', -95.140081')
4. STIMSON TRACT (29.762103', -95.261168')
5. HOUSE TRACT (29.753575', -95.260827')
6. GLENDALE (29.750374', -95.272320')
7. ROSA ALLEN (29.696459', -95.231863')
8. CLINTON (29.754445', -95.242692')
9. LAUGHLIN - THYSSIN (29.743902', -95.169128')
10. PINTO LION (29.758383', -95.133295')
11. PEGGY LAKE (29.734783', -95.064269')
13. ALEXANDER ISLAND (29.691154', -95.034307')
14. SPILMAN ISLAND (29.691154', -95.010517')
15. HOUSTON SPOILS (29.744036', -95.119884')
16. ON SITE (29.734795', -95.163853')



PURPOSE:	HOUSTON 4 PROJECT DREDGE MATERIAL PLACEMENT AREA MAP
LOCATION:	HOUSTON, TEXAS

OWNER:	PORT OF HOUSTON AUTHORITY
APPLIED BY:	LLOYD ENGINEERING, INC.
APPLIC. No:	SWG-2018-00560
COUNTY:	HARRIS COUNTY
WATER BODY:	HOUSTON SHIP CHANNEL
DATUM:	MLLW



DESIGN BY:	KEM
DRAWN BY:	JBV
SCALE:	AS NOTED
DATE:	01/14/2019
SHEET No:	24

MAR 26 2019