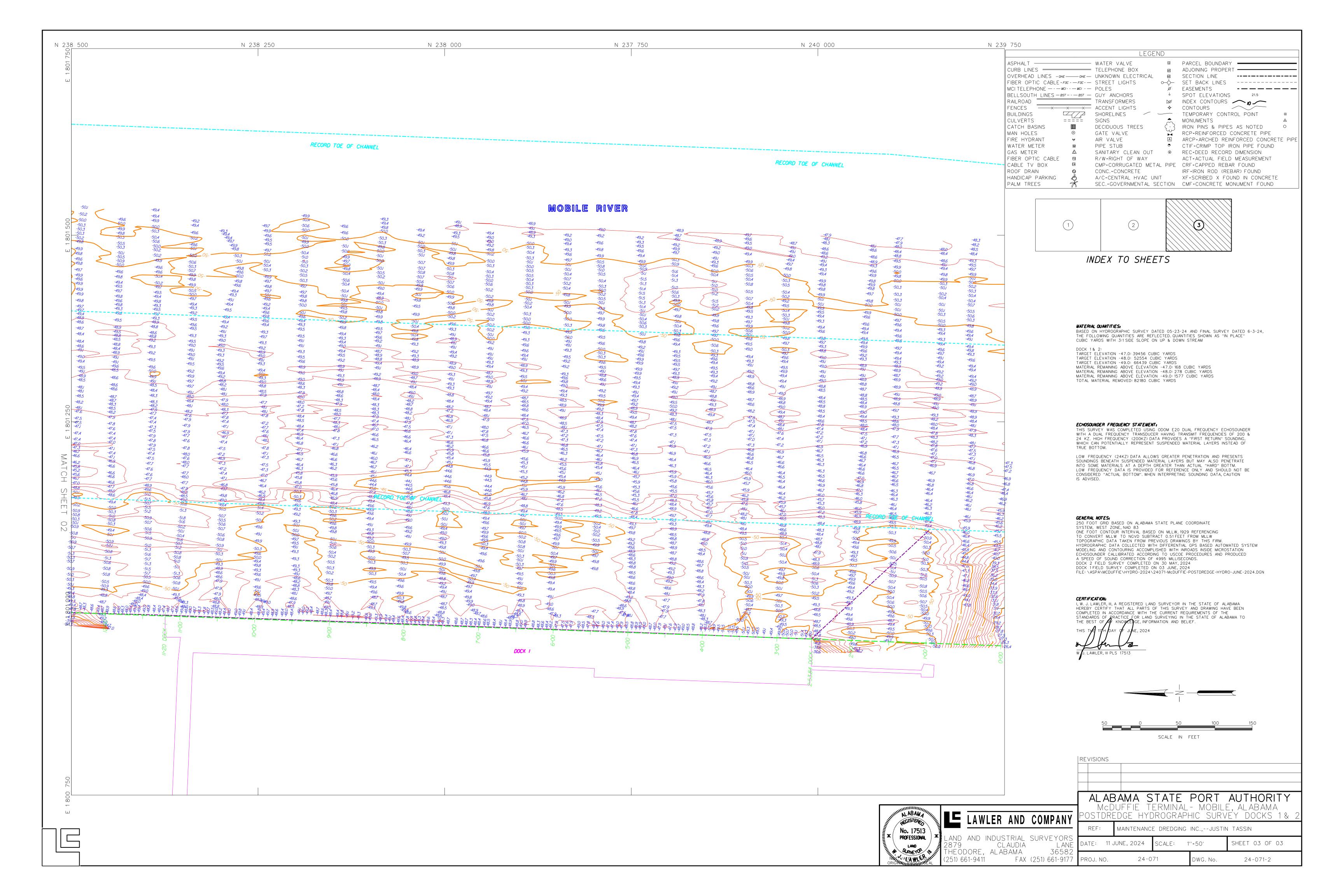
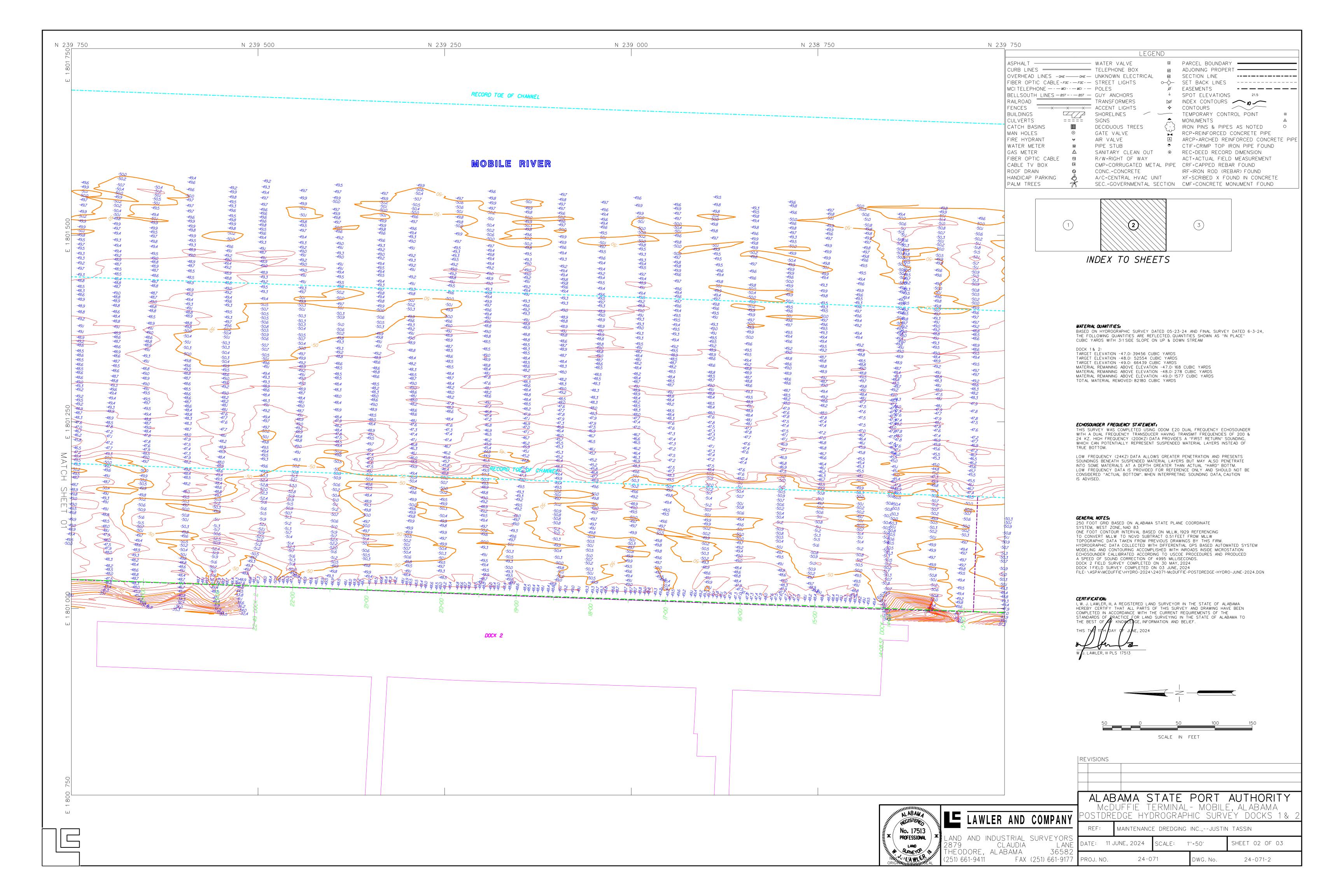
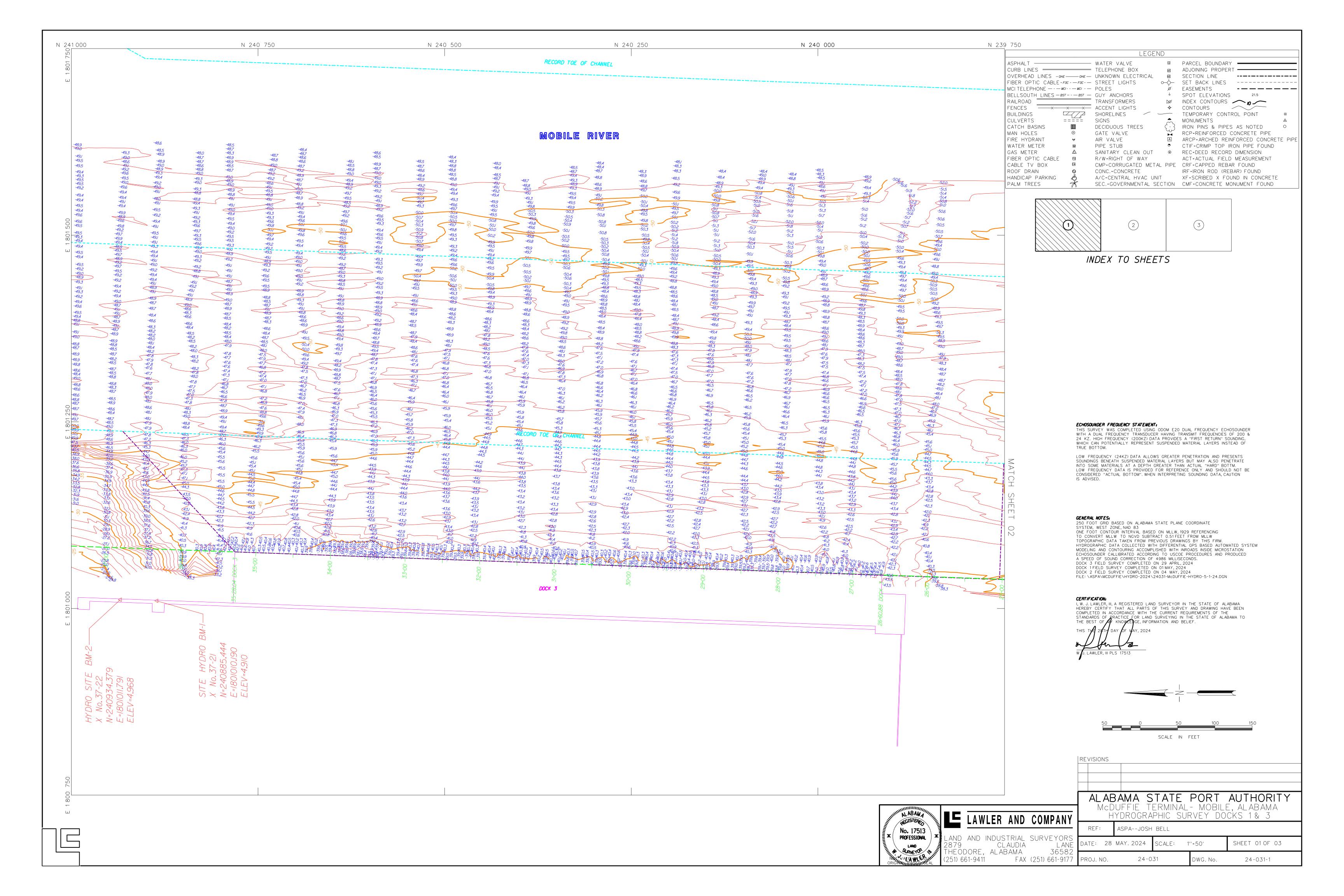
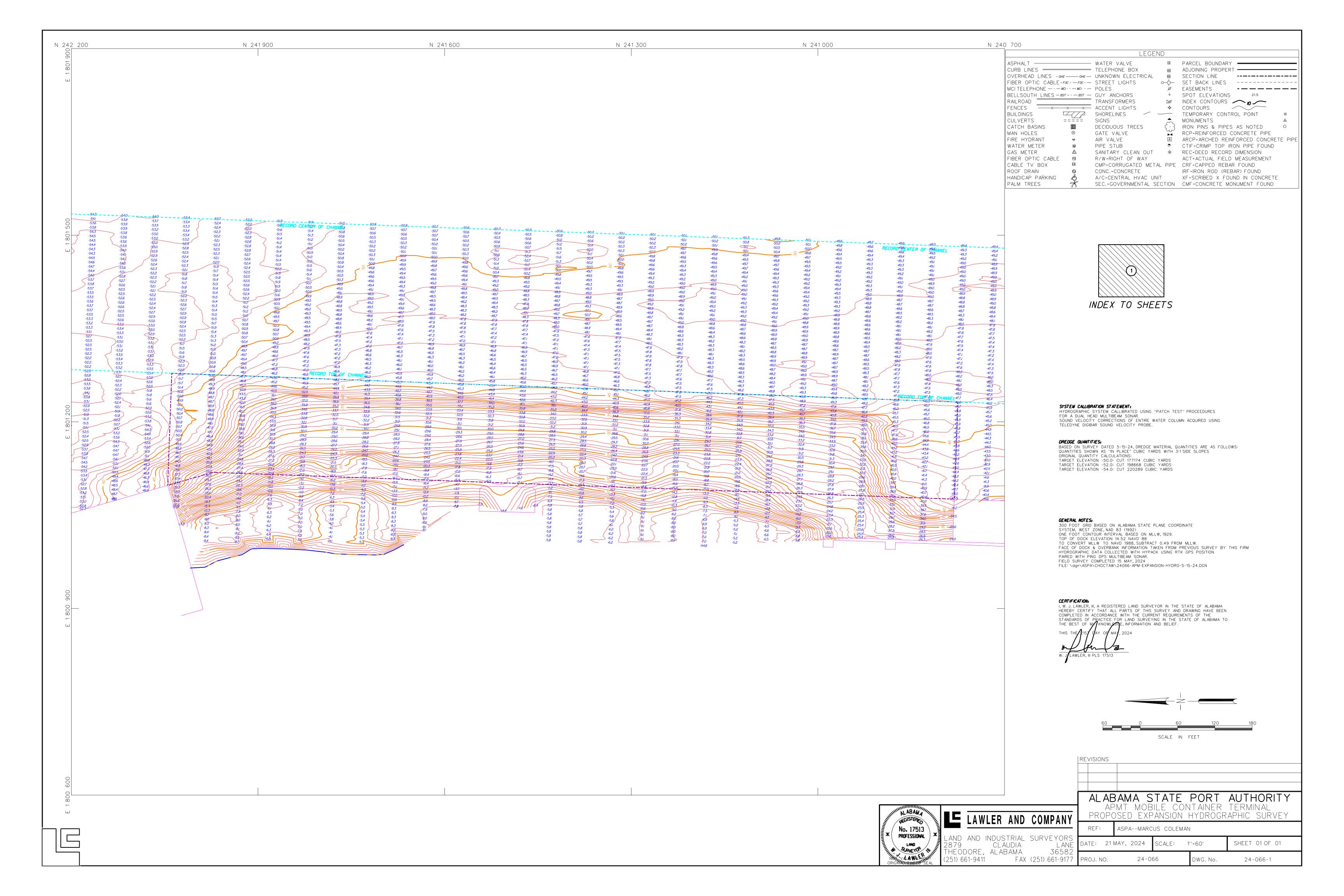
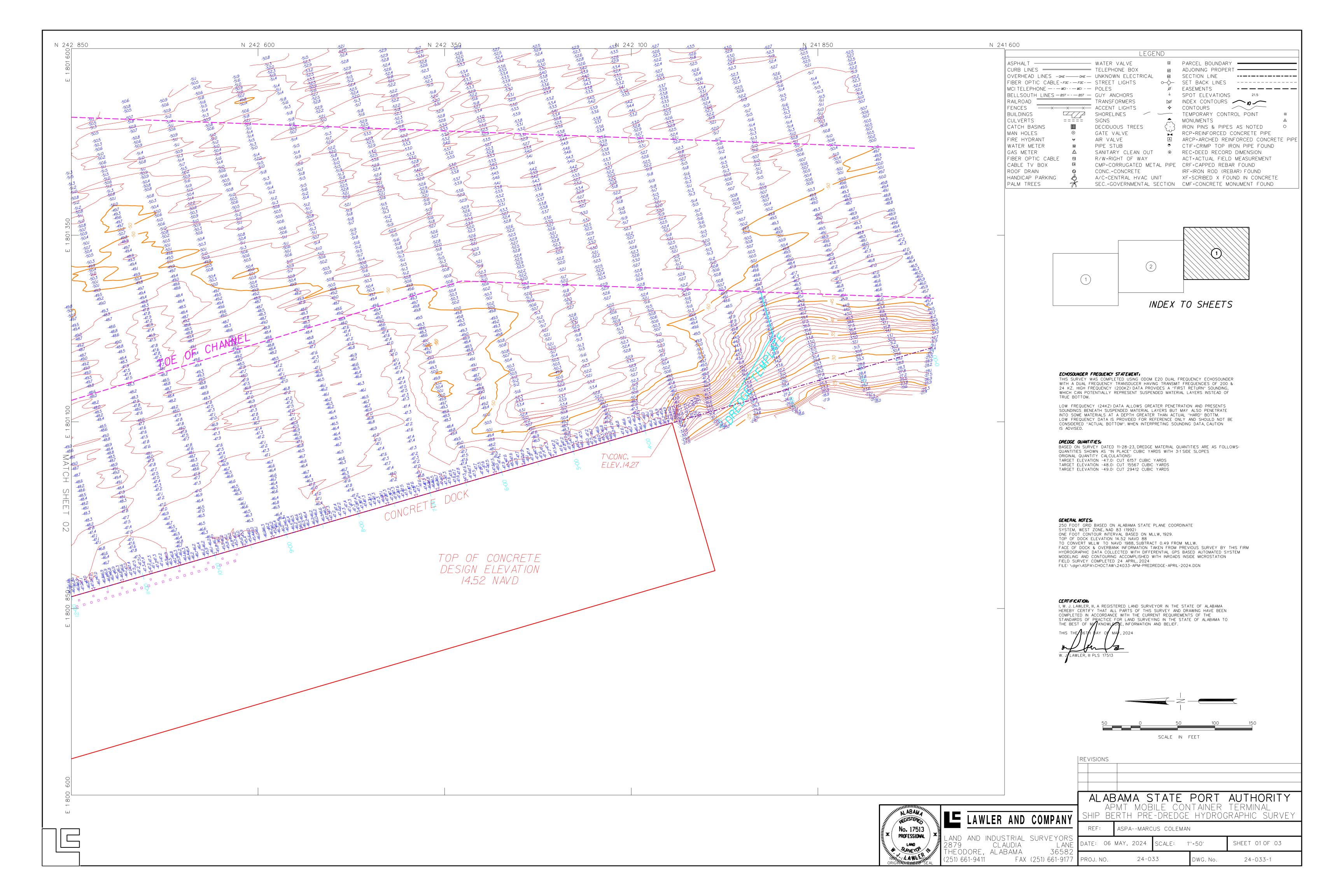
# APPENDIX C HYDROGRAPHIC SURVEYS

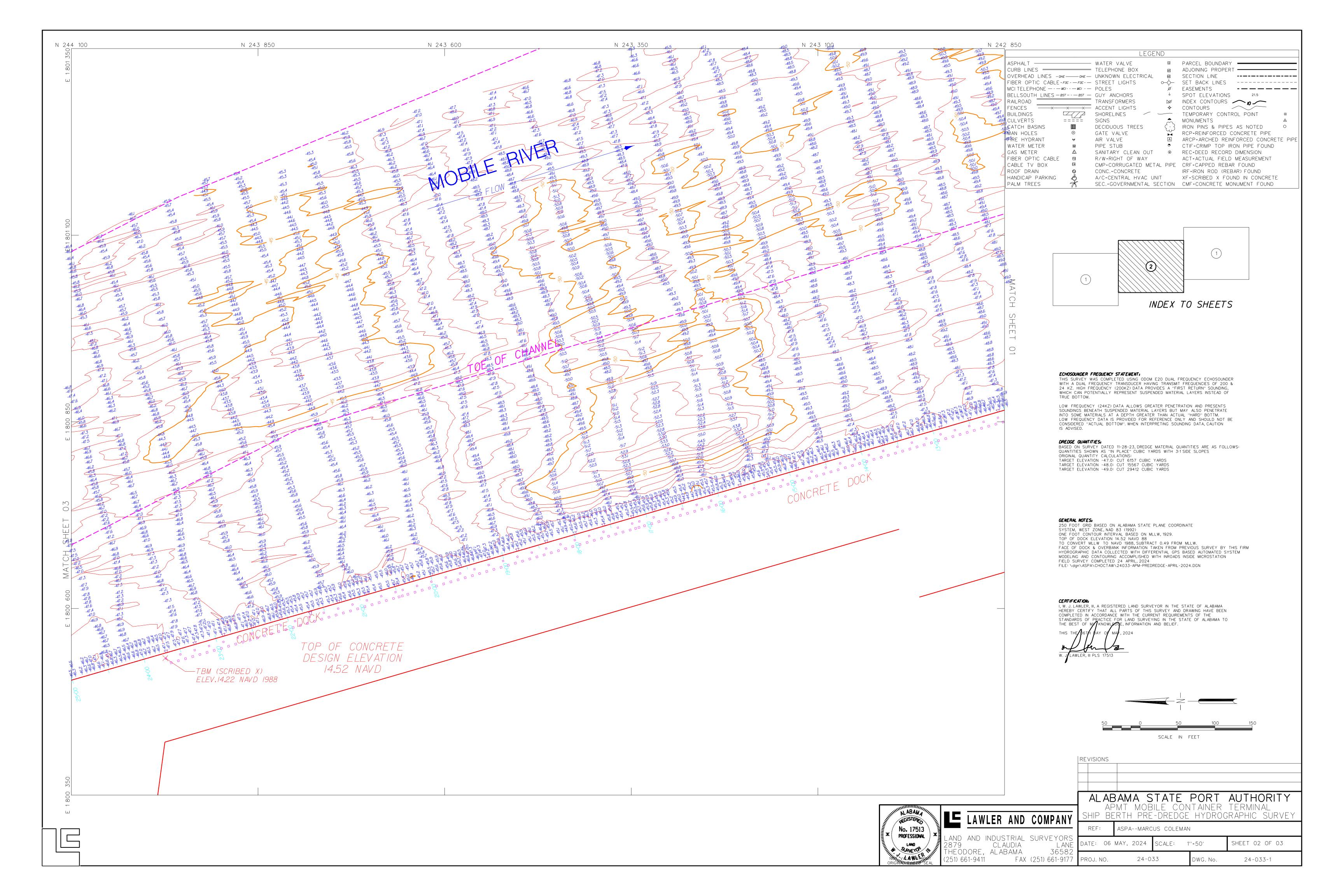


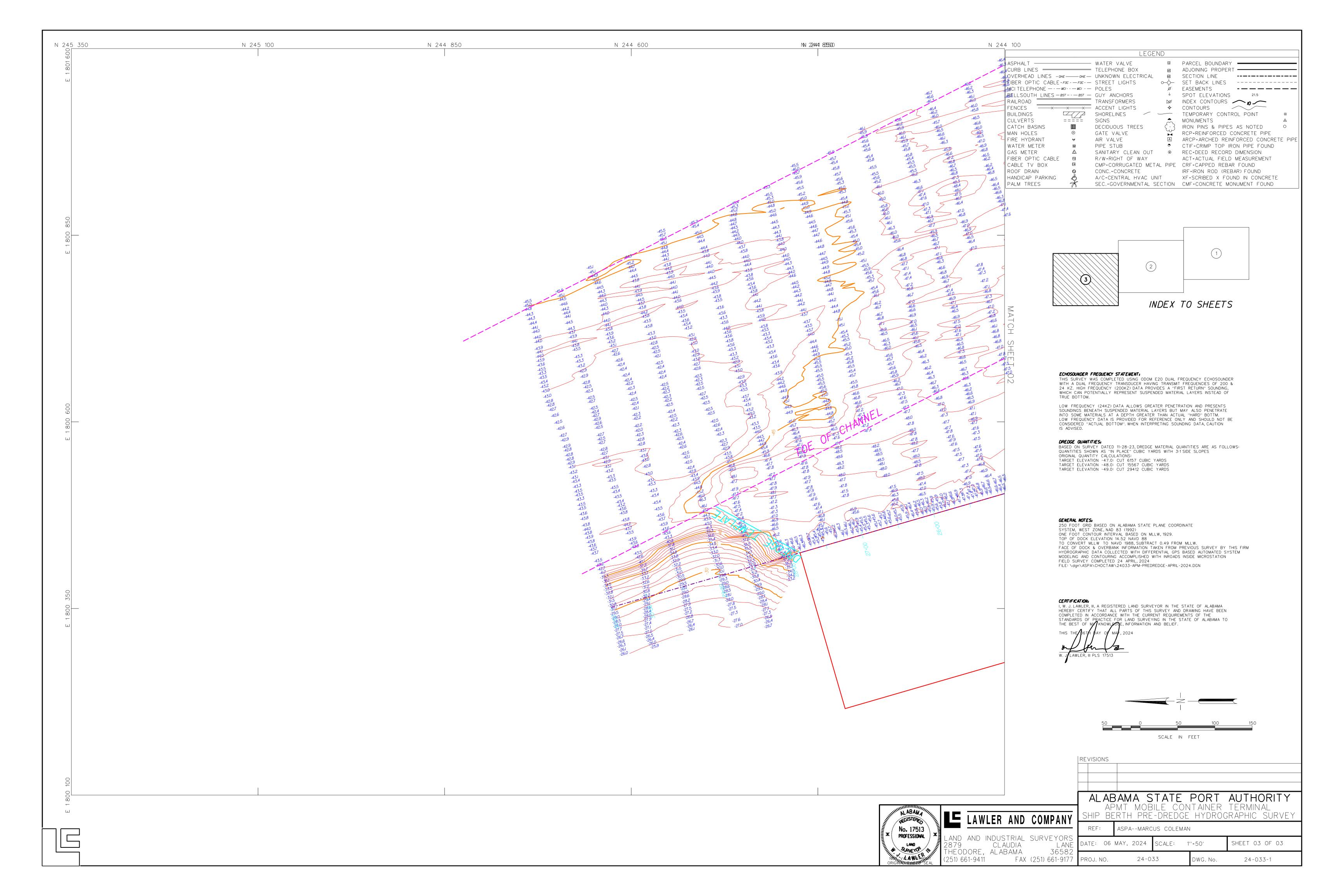


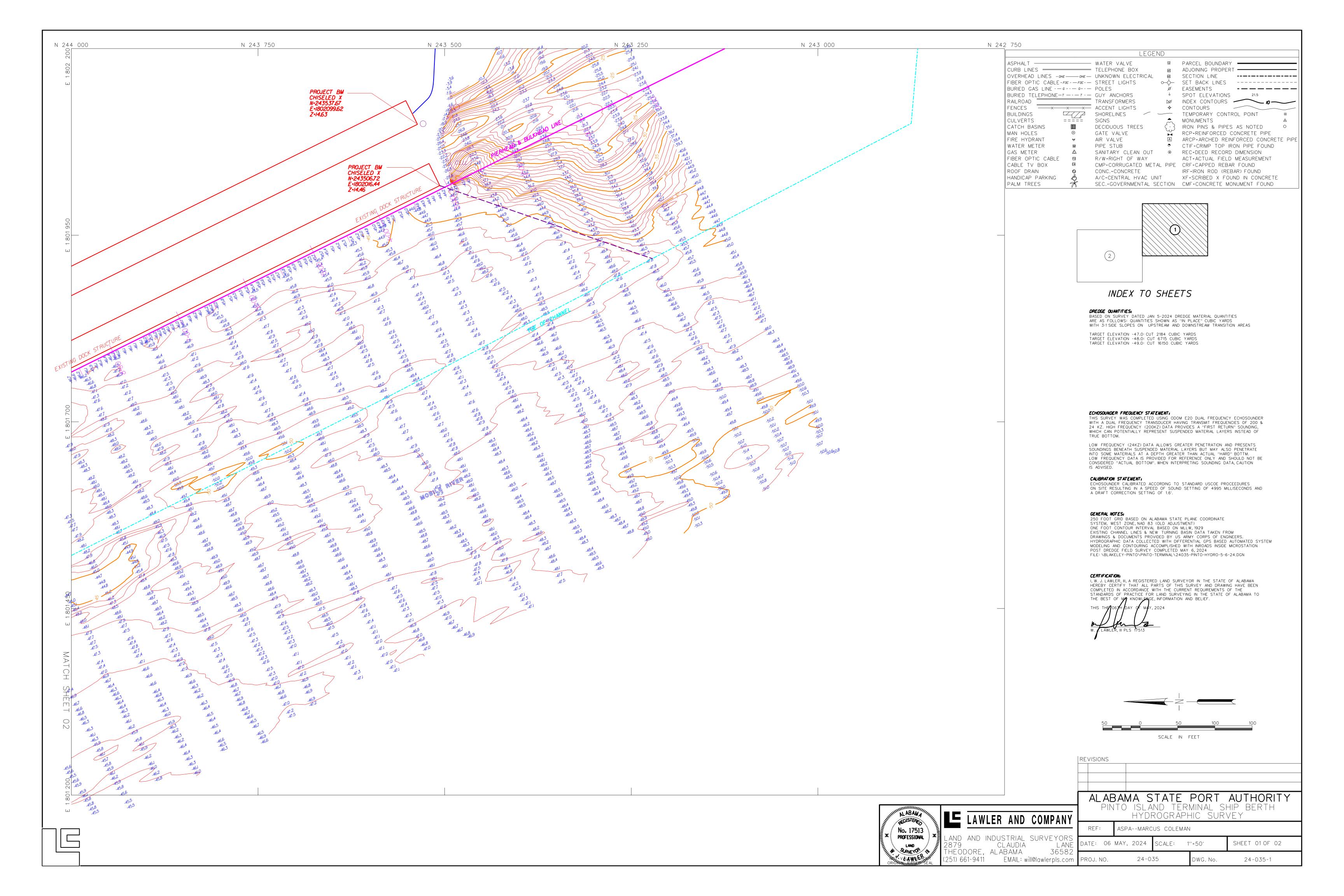


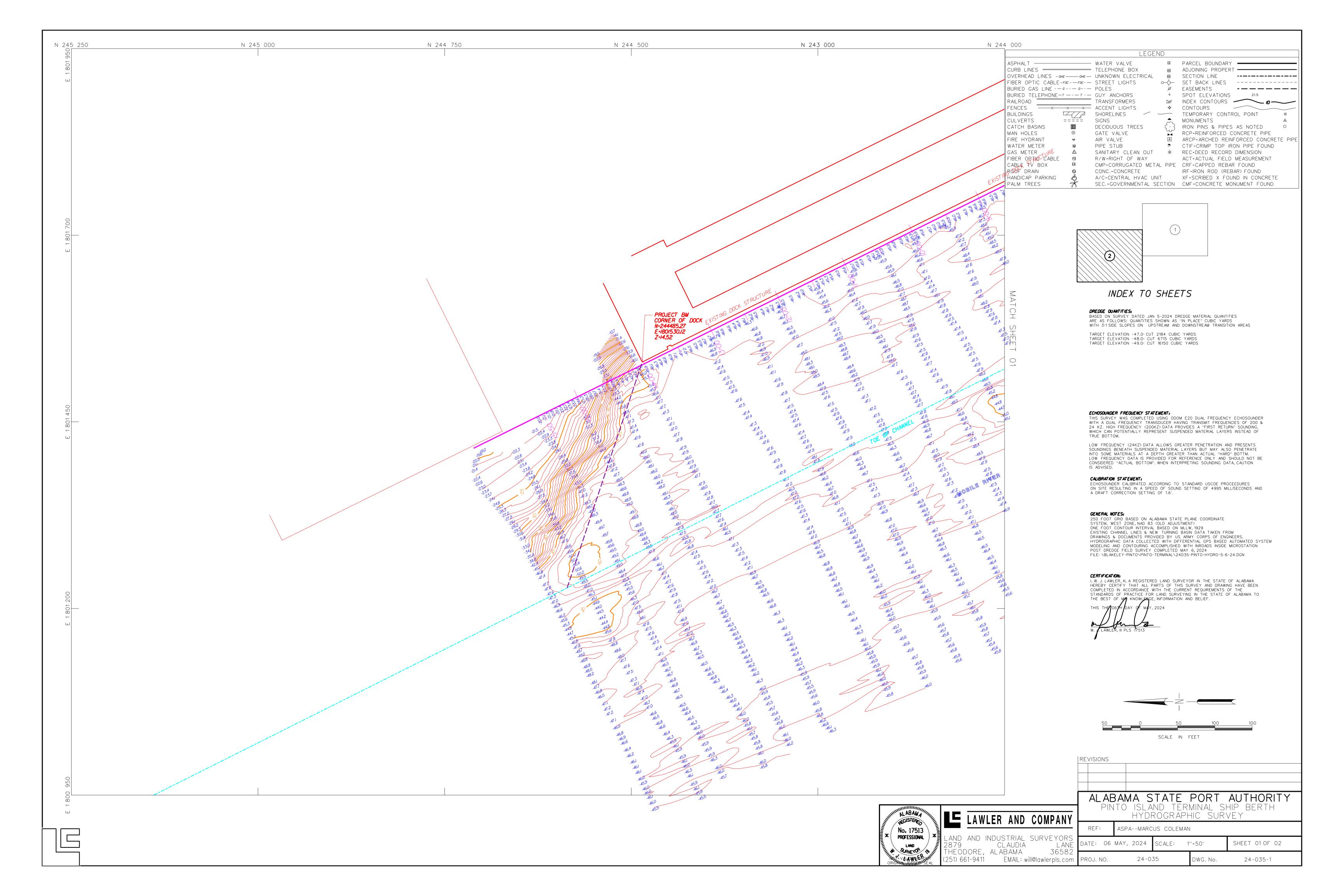




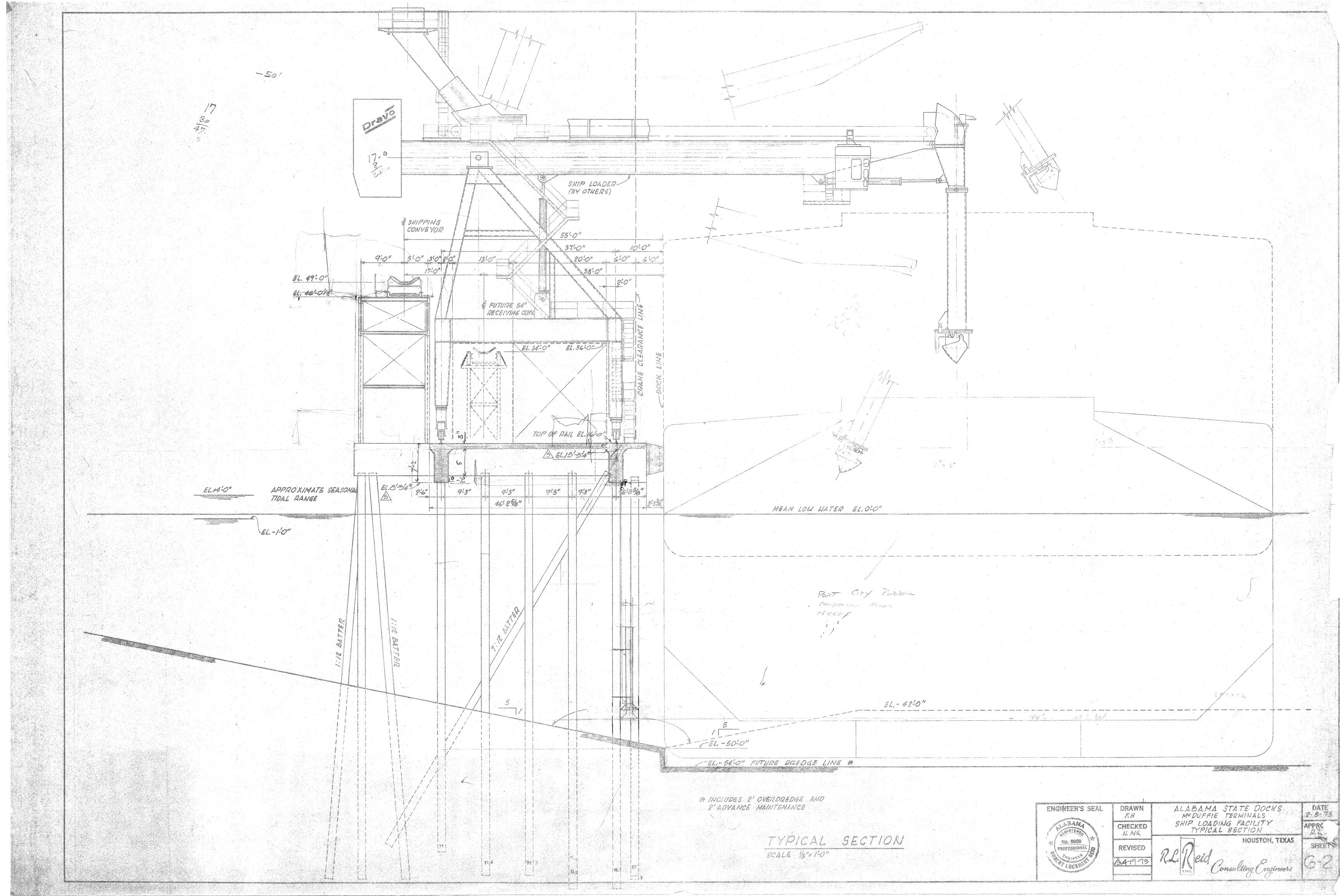








## APPENDIX D REFERENCE DRAWINGS



	BORING NO.: MB-1 WATER ELEVATION:  TIME OF DRILLING: -34.1 FEET MEAN SEA LEVEL	BORING NO.: MB-2 WATER ELEVATION:  TIME OF DRILLING: -39.8 FEET MEAN SEA LEVEL
	DATE: $7-18-94$ WOH — Weight of Hammer WOR = Weight of Rod US = Undisturbed Sample	DATE: 7-20-94 WOH - Weight of Hammer WOR = Weight of Rod US = Undisturbed Sample
	SAMPLE NO. FROM TO SPT US FIELD SOILS CLASSIFICATION UNIFIED % *BLOWS/6"   1st   2nd   3rd	SAMPLE DEPTH (FT) TYPE FIELD SOILS CLASSIFICATION UNIFIED % REC'V 1st
	1 -34.1 -35.6 X Very Loose Black SILT ML 95 W O R	1 -39.8 -41.3 X Very Loose Black SILT ML 100 W
	2 -39.1 -40.6 X Very Loose Black SILT, Trace Gray Silty Sand ML 95 W O R	2 -44.8 -46.3 X Very Loose Black SILT ML 100 W
	3 -44.1 -45.6 X Very Loose Black SILT, Trace Gray Silty Sand ML 90 W O R	3 -49.8 -51.3 X Very Loose Black SILT ML 100 W
	4 -49.1 -50.6 X Very Loose Black SILT, Trace Gray Silty Sand ML 90 W O R	4 -56.8 -58.3 X Firm Gray Fine To Medium SAND, Trace Gravel SP 75 3
	5 -57.6 -59.1 X Firm Tan SAND, Trace Pea Gravel SP 75 2 6 7	
	6 -62.6 -64.1 X Firm Tan SAND, Trace Pea Gravel SP 75 5 10 10	
	7 -67.6 -69.1 X Firm Tan SAND, Trace Pea Gravel SP 75 3 4 6	
		The state of the s
		The state of the s
		9         -81.8         -83.3         X         Dense Tan Fine To Coarse SAND         SP         70         14
	10 -82.6 -84.1 X Very Dense Gray & Tan SAND, Trace Pea Gravel SP 80 14 28 30	10
	11         -87.6         -89.1         X         Very Dense Tan SAND, Trace Pea Gravel         SP         80         15         28         27           10         Very Dense Tan Coarse To Medium SAND, Trace         SP         80         15         28         27	11
	12 -92.6 -94.1 X Gravel SP 90 12 21 35	12 -96.8 -98.3 X Stiff Gray CLAY, Trace Organics CH 60 3
	13 -97.6 -99.1 X Firm Tan Coarse To Medium SAND SP 80 8 10 13	-99.8 -101.6 X Attempt Thin Wall Tube, No Recovery 0 PL
	14         -102.6         -104.1         X         Very Dense Tan Coarse To Medium SAND         SP         75         18         31         25	13 -101.8-103.3 X Very Stiff Gray CLAY, Trace Organics CH 95 6
	15         -107.6         -109.1         X         Firm Tan Coarse To Fine SAND, Trace Gravel         SP         80         2         9         15           Soft Gray Sandy CLAY (0-1.0')/ Firm Fine Gray         CL	14 -106.8 -108.3 X Very Stiff Gray CLAY, Trace Organics CH 95 8
	16 -112.6 -114.1 X SAND SP-SM 95 2 4 21	15 -111.8 -113.3 X Stiff Gray Sandy CLAY, Lenses Fine Sand CL 80 5 (Sand Encountered at -114.3)
	17 -117.6 -119.1 X Very Dense Gray Coarse To Fine SAND SP 75 11 32 For 4	" 16 -116.8-118.3 X Very Dense Gray Fine To Coarse SAND SP 60 11
	18         -122.6         -124.1         X         Very Dense Gray Coarse To Fine SAND         SP         70         19         26         34           Very Dense Gray Coarse To Fine SAND, 1" Lense         50	17   -126.8   -128.3   X   Dense Gray Fine To Coarse SAND   SP   75   13
	19 -127.6 -129.0 X   Pea Gravel   SP   75   24   44   For 5	
	Notes to Boring: 1. Set 53' Of 4" Casing 2. Boring Located= 415 Feet South of Dock.	Notes to Boring: 1. Set 63' Of 4" Casing 2. Boring Located = 195' South of
	DRILL RIG: Barge Mounted Drill Rig  DRILL METHOD  START COMPLETE  Note: Number of Blows of	DRILL RIG: Barge Mounted Drill Rig  DRILL METHOD  START COMPLETE NOTE:
경기를 받는 것이 있습니다. 그런 그는 것이 되었다면 보고 있는 것이 되었다면 되었다. 그는 그는 것이 되었다는 것이 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면 보다는 것이 되었다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보	START COMPLETE Number of Blows of	SIARI
경우 현실 경우 보고 있다. 등이 발생된 이 경우 보고 있는 것이 되었다. 그 사람들은 경우 현실 이 경우를 받는 것이 되었다. 그는 것이 되었다. 그 것이 되었다. 경우 경우 경우 경우 경우는 것이 경우이 있는 것이 되었습니다. 그 것이 되었습니다. 그 것이 되었습니다. 그 것이 되었습니다.	MID: $\nabla$ FROM: 0.0 TO: 130.0	AGER. DATE: 7-20-94 DATE: 7-21-94 140 lb.  MUD: XI FROM: 0.0 TO: 130.0 30" to I
	MUD: X FROM: 0.0 TO: 130.0 TIME: 8.30 AM TIME: 11.00 AM Splitspoon Sampler.	MUD: X FROM: 0.0 TO: 130.0  DATE: 7-20-94 DATE: 7-21-94 30" to I  TIME: 1:30 TIME: 3:30 Splitspoo
	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 11 00 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing	AGER. DATE: 7-20-94 DATE: 7-21-94 140 lb.  MUD: XI FROM: 0.0 TO: 130.0 30" to I
	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 11 00 AM Splitspoon Sampler.  Log Notes:	MUD: X FROM: 0.0 TO: 130.0  DATE: 7-20-94 DATE: 7-21-94 30" to I Splitspool  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet
	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 11 00 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing	MUD: X FROM: 0.0 TO: 130.0  DATE: 7-20-94 DATE: 7-21-94 30" to I 30" to I Splitspool  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing
	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 11 00 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet	MUD: X FROM: 0.0 TO: 130.0  DATE: 7-20-94 DATE: 7-21-94 30" to I Splitspool  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet
$\Theta$	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 11.00 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet   E D C B A	MUD: X FROM: 0.0 TO: 130.0  DATE: 7-20-94 DATE: 7-21-94 30" to I Splitspool  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet
	MUD: X FROM: 0.0 TO: 130.0  DATE: 7-18-94 DATE: 11.00 AM  TIME: 8.30 AM TIME: 11.00 AM  Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing 2.) Water Depth at Time of Drilling = -1.5 Feet	MUD: X FROM: 0.0 TO: 130.0  DATE: 7-20-94 DATE: 7-21-94 30" to I Splitspool  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet
H 1'-9" 17'-0" EL. 15.41' \( \) EL. 15.60	MUD: X FROM: 0.0 TO: 130.0    MUD: X   FROM: 0.0 TO: 130.0   DATE: 7-18-94   TIME: 11.00 AM   TIME: 11.00 AM	DATE: 7-20-94 DATE: 7-21-94 140 lb. 30" to I IME: 1:30 TIME: 3:30 Splitspool Splitspool DATE: 7-21-94 TIME: 1:30 TIME: 3:30 Splitspool DATE: 7-21-94 TIME: 3:30 TIME: 3
1'-9" 17'-0"	MUD: X FROM: 0.0 TO: 130.0 TIME: 8.30 AM TIME: 11.100 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing 2.) Water Depth at Time of Drilling = -1.5 Feet  F  (E) (D) (C) (B) (A) (A) (B) (A) (B) (A) (B) (A) (B) (B) (A) (B) (B) (A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B	MUD: X FROM: 0.0 TO: 130.0  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing 2.) Water Depth at Time of Drilling = -1.5 Feet  CURRENT (1994) SOIL BORINGS   B-43  (-)10
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0 TIME: 8.30 AM TIME: 11.00 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing 2.) Water Depth at Time of Drilling = -1.5 Feet  E D C B A  62'-58"  SLOPE SLOPE SLOPE  RUBBER FENDER UNITS	DATE: 7-20-94 DATE: 7-21-94 TIME: 1:30 TIME: 3:30 To 15 Splitspoot  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet  CURRENT (1994) SOIL BORINGS   B-43  (-)10
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0    DAIL: 7-19-94   TIME: 8.30 AM TIME: 11.00 AM   TIME: 11.00 AM	DATE: 7-20-94 DATE: 7-21-94 TIME: 1:30 TIME: 3:30 To 15 Splitspoot  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet  CURRENT (1994) SOIL BORINGS   B-43  (-)10
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0 TIME: 8.30 AM TIME: 11.00 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing 2.) Water Depth at Time of Drilling = -1.5 Feet  E D C B A  62'-58"  SLOPE SLOPE SLOPE  RUBBER FENDER UNITS	DATE: 7-20-94 DATE: 7-21-94 TIME: 1:30 TIME: 3:30 To 15 Splitspoot  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet  CURRENT (1994) SOIL BORINGS   B-43  (-)10
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0 TIME: 8.30 AM TIME: 11.00 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing 2.) Water Depth at Time of Drilling = -1.5 Feet  E D C B A  62'-58"  SLOPE SLOPE SLOPE  RUBBER FENDER UNITS	DATE: 7-20-94 DATE: 7-21-94 TIME: 1:30 TIME: 3:30 To 15 Splitspoot  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet  CURRENT (1994) SOIL BORINGS   B-43  (-)10
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0 TIME: 8.30 AM TIME: 11.00 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing 2.) Water Depth at Time of Drilling = -1.5 Feet  E D C B A  62'-58"  SLOPE SLOPE SLOPE  RUBBER FENDER UNITS	MUD: ▼ FROM: 0.0 To: 130.0  DATE: 7-20-94 DATE: 7-21-94 30' to 1 Splitspool  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Casing  2.) Water Depth at Time of Drilling = -1.5 Feet  CURRENT (1994) SOIL BORINGS   0 B-42 B-43  (-)10  (-)20  VERY SOFT CLAYS  WOH
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 1100 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Cosing 2.) Water Depth at Time of Drilling = -1.5 Feet  F  (E) (D) (C) (B) (A)  30° to Drive a 2° 0.0. Splitspoon Sampler.  F  (E) (D) (C) (B) (A)  (E) (D) (C) (C) (TYP.)  (E) (D) (C) (C) (TYP.)	DATE: 7-20-94 DATE: 7-21-94 Id 140 lb.  MUD. X FROM: 0.0 To: 130.0 DATE: 7-21-94 TIME: 130 TIME: 330 Sof' to 1 Splitspool  Log Notes: 1.) Set Five (5) Feet of 4 Inch Steel Casing 2.) Water Depth at Time of Drilling = -1.5 Feet  CURRENT (1994) SOIL BORINGS   O B-42 B-43  (-)10  (-)20 VERY SOFT CLAYS  (-)30  (-)40 WOH  WOH  WOH  WOH  WOH  WOH  WOH  WOH
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 1100 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Cosing 2.) Water Depth at Time of Drilling = -1.5 Feet  F  (E) (D) (C) (B) (A)  30° to Drive a 2° 0.0. Splitspoon Sampler.  F  (E) (D) (C) (B) (A)  (E) (D) (C) (C) (TYP.)  (E) (D) (C) (C) (TYP.)	DATE: 7-20-94 DATE: 7-21-94 DA
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 1100 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Cosing 2.) Water Depth at Time of Drilling = -1.5 Feet  F  (E) (D) (C) (B) (A)  30° to Drive a 2° 0.0. Splitspoon Sampler.  F  (E) (D) (C) (B) (A)  (E) (D) (C) (C) (TYP.)  (E) (D) (C) (C) (TYP.)	DATE: 7-29-94 DATE: 7-21-94 TIME: 330 BORINGS  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Cosing 2.) Water Depth at Time of Drilling = -1.5 Feet  CURRENT (1994) SOIL BORINGS   0 B-42 B-43  (-)10 VERY SOFT CLAYS  (-)30 VERY SOFT CLAYS  (-)40 WOH WOH WOH  2 WOH
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD: X FROM: 0.0 TO: 130.0  TIME: 8.30 AM TIME: 1100 AM Splitspoon Sampler.  Log Notes:  1.) Set Five (5) Feet of 4 Inch Steel Cosing 2.) Water Depth at Time of Drilling = -1.5 Feet  F  (E) (D) (C) (B) (A)  30° to Drive a 2° 0.0. Splitspoon Sampler.  F  (E) (D) (C) (B) (A)  (E) (D) (C) (C) (TYP.)  (E) (D) (C) (C) (TYP.)	DATE: 7-28-94 DATE: 7-28-94 TIME: 330 DATE: 7-21-94 TIME: 330 TIME
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD. X FROM. 0.0 TO: 130.0    DATE: 21.93 M TIME: 31.9.4M   Splitspoon Sampler.	DATE: 7-20-94   DATE: 7-21-96   MUD:   Notes:   1.30.0   TIME: 1:30   TIME: 2:30   Multiple   Mul
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD. X FROM. 0.0 TO: 130.0    DATE: 21.93 M TIME: 31.9.4M   Splitspoon Sampler.	DATE: 7-20-94 DATE: 7-20-94 DATE: 7-21-94 TIME: 109 IN TI
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD. X FROM. 0.0 TO: 130.0    DATE: 21.93 M TIME: 31.9.4M   Splitspoon Sampler.	DATE: 7-20-94   DATE: 7-21-96   MUD:   Notes:   1.30.0   TIME: 1:30   TIME: 2:30   Multiple   Mul
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD. X FROM. 0.0 TO: 130.0    DATE: 21.93 M TIME: 31.9.4M   Splitspoon Sampler.	MUD.  X    FROM   Q.0   To:   130.0   Time:   130   Time
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD. X FROM. 0.0 TO: 130.0    DATE: 21.93 M TIME: 31.9.4M   Splitspoon Sampler.	DAIL: 12994
1'-9" 17'-0" EL. 15.41' — — EL. 15.60	MUD. X FROM. 0.0 TO: 130.0    DATE: 21.93 M TIME: 31.9.4M   Splitspoon Sampler.	DATE: 2-29-94 DATE: 2-21-94   1-49 B.     MUDE     FROM   Q.O.   To:   130.0   TIME:   130   TIME:

SAMPLE DEPTH (FT)		(FT)	TYPE		FIELD SOILS CLASSIFICATION	UNIFIED	%		*BLOWS/6"			
NO.	FROM	to	SPT	us	FIELD SOILS CLASSIFICATION	SYMBOL	REC'V	1st	2nd	3rd		
1	-39.8	-41.3	X		Very Loose Black SILT	ML	100	W	0	R		
2	-44.8	-46.3	X		Very Loose Black SILT	ML	100	W	0	R		
3	-49.8	-51.3	Χ		Very Loose Black SILT	ML	100	W	0	R		
4	-56.8	-58.3	X		Firm Gray Fine To Medium SAND, Trace Gravel	SP	75	3	5	11		
5	-61.8	-63.3	Х		Firm Gray Coarse To Fine SAND, Trace Gravel	SP	55	7	7	10		
6	-66.8	-68.3	X		Firm Gray Coarse To Fine SAND	SP	60	3	5	8		
7	-71.8	-73.3	Х		Firm Gray Coarse To Fine SAND	SP	70	7	8	10		
8	-76.8	-78.3	Х		Firm Tan Fine SAND, Lense Tan Sandy Clay	SP	50	10	15	17		
9	-81.8	-83.3	Х		Dense Tan Fine To Coarse SAND	SP	70	14	22	19		
10	-86.8	-88.3	Χ		Dense Tan Fine To Coarse SAND	SP	70	12	16	17		
11	-91.8	-93.3	Χ		Very Dense Tan Fine To Medium SAND	SP	60	13	24	36		
12	-96.8	-98.3	Χ		(Clay Encountered at -94.8) Stiff Gray CLAY, Trace Organics	СН	60	3	4	5		
	-99.8	-101.6		X	Attempt Thin Wall Tube, No Recovery		0	PU	SH	1.8'		
13	-101.8	-103.3	Χ		Very Stiff Gray CLAY, Trace Organics	СН	95	6	7	9		
14	-106.8	-108.3	Χ		Very Stiff Gray CLAY, Trace Organics	СН	95	8	6	9		
15	-111.8	-113.3	Χ		Stiff Gray Sandy CLAY, Lenses Fine Sand	CL	80	5	6	8		
16	-116.8	-118.3	X		(Sand Encountered at -114.3) Very Dense Gray Fine To Coarse SAND	SP	60	11	22	37		
17	-126.8	-128.3	X		Dense Gray Fine To Coarse SAND	SP	75	13	19	19		

EXISTING BOTTOM LINE

DESIGN DEPTH

INCLUDES 1 FT. OVERDREDGE ALLOW.

(-) 55.0' (FUTURE DESIGN DEPTH)

TYPICAL SECTION  $\frac{1}{8}$ " = 1'-0"

INCLUDES 1 FT. OVERDREDGE ALLOW.

BORING NO.: MB-3 WATER ELEVATION:
TIME OF DRILLING: -39.5 FEET MEAN SEA LEVEL

SAMPLE	DEPTH	(FT)	TYF	PE .	FIFE COURS OF ASSISTEDATION	UNIFIED	%		*BLOWS/6"	
NO	FROM	ТО	SPT	us	FIELD SOILS CLASSIFICATION	SYMBOL	REC'Y	1st	2nd	31
1	-39.5	-41.0	X		Very Loose Black SILT	ML	60	W	O	F
2	-44.5	-46.0	X		Very Loose Black SILT	ML	70	W	0	F
3	-49.5	-51.0	Χ		Very Loose Black SILT	ML	60	W	0	F
4	-54.5	-56.0	X		WOOD		70	15	7	
5	61.5	-63.0	Х		Firm Gray Fine To Medium SAND	SP	60	7	9	1
6	-66.5	-68.0	Х		Firm Gray Fine To Medium SAND	SP	60	7	11	1
7	-71.5	-73.0	Χ		Firm Gray Coarse To Fine SAND	SP	75	7	12	1
8	-77.0	-78.5	Χ		Dense Gray Fine To Coarse SAND	SP	70	8	15	1
9	-82.0	-83.5	X		Firm Gray Fine To Coarse SAND, Trace Pea Gravel	SP	55	7	8	1
10	-87.0	-88.5	X		Dense Gray Fine To Coarse SAND	SP	60	10	16	2
11	-92.0	-93.5	Χ		Dense Gray & Tan Fine To Coarse SAND, Trace Pea Gravel	SP	70	9	13	2
12	-97.0	-98.5	X		Stiff Gray Sandy CLAY	CL	90	3	5	<del>,</del>
lange, a system dyndrinen mygge	-102.0	-103.5		Х	Attempt Thin Wall Tube, No Recovery		0	PU	SH	2
	-104.0	-106.0		X	Attempt Thin Wall Tube, No Recovery		0 ·	PU	SH	2
13	-106.0	-107.5	X		Very Stiff Gray CLAY, Trace Organics	СН	95	4	8	1
14	-112.0	-113.5	X		Stiff Gray Sandy CLAY, Lenses Fine Sand	CL	75	3	5	(
15	-117.0	-118.5	Х		Dense Gray Coarse To Medium SAND	SP	80	4	13	1
16	-122.0	-123.5	X		Very Dense Gray Coarse To Medium SAND	SP	50	15	26	2
17	-127.0	-128.5	Х		Dense Gray Fine To Medium SAND	SP	65	11	10	2

WOH — Weight of Hammer WOR = Weight of Rod US = Undisturbed Sample

Log Notes:

DRILL METHOD

1.) Set Five (5) Feet of 4 Inch Steel Casing

Notes to Boring: 1. Set 63' Of 4" Casing

DRILL RIG: Barge Mounted Drill Rig

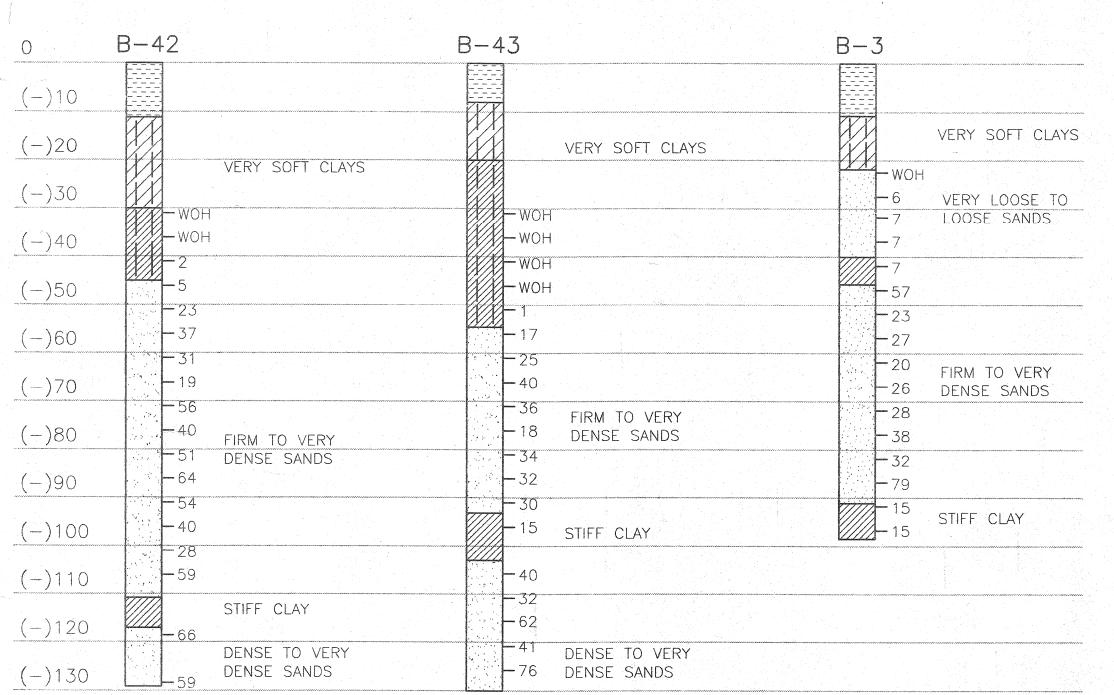
MUD: X FROM: 0.0 TO: 130.0

AUGER: FROM: TO:

2.) Water Depth at Time of Drilling = -1.5 Feet

## NT (1994) SOIL BORINGS

2. Boring Located = 195' South of Dock



NOTE: Number of Blows of

140 lb. Hammer Falling 30" to Drive a 2" O.D. Splitspoon Sampler.

DATA FROM SUBSURFACE INVESTIGATION AND ANALYSIS BY VESTER J. THOMPSON JR. INC. DATED FEB. 8, 1973.

#### 1973 SOIL BORINGS (REFERENCE)

DESCRIPTION REV. DATE ALABAMA STATE DOCKS DEPARTMENT GBB Gottlieb Barnett Bridges McDUFFIE TERMINALS 268 FT. DOCK EXTENSION TYPICAL SECTION AND SOIL BORINGS Drawn By: L.W.R. Date: JULY 94 Checked By: P.E.B. | Date: 9/19/94 764-1-2 0 REV. DRAWING NO.

2. Boring Located = 70 Feet South of Dock

NOTE: Number of Blows of 140 lb. Hammer Falling 30" to Drive a 2" O.D. Splitspoon Sampler.

TOTAL % RECOVERY 61.3

START COMPLETE

DATE: 7-19-94 DATE: 7-20-94

TIME: 11:00 TIME: 1.15

		WATER ELEVATION:		WATED FU
	BORING NO.: MB-1	TIME OF DRILLING: -34.1 FEET MEAN SEA LEVEL		BORING NO.: MB-2 WATER ELI
	DATE: 7-18-94		US = Undisturbed Sample	DATE: 7-20-94 WOH - Wei
	SAMPLE DEPTH (FT) TYPE NO. FROM TO SPT		UNIFIED % *BLOWS/6" SYMBOL REC'V 1st 2nd 3rd	SAMPLE DEPTH (FT) TYPE F
	1 -34.1 -35.6 X	Very Loose Black SILT	ML 95 W O R	1 -39.8 -41.3 X Very Loo
	<b>2</b> -39.1 -40.6 X	Very Loose Black SILT, Trace Gray Silty Sand	ML 95 W O R	2 -44.8 -46.3 X Very Loo
경우 사용하는 경우 생활을 하는 것이 되었다. 그 사용을 하는 것은 것이 되었다. 그는 것이 되었다. 그는 것이 되었다. 	3   -44.1   -45.6   X	Very Loose Black SILT, Trace Gray Silty Sand	ML 90 W O R	3 -49.8 -51.3 X Very Loo
용하는 경험 등 사용하는 사용하는 사용하는 사용하는 사용하는 사용하는 것이 되었다. 1980년 - 1985년 - 1985년 1985년 - 1985년	4 -49.1 -50.6 X	Very Loose Black SILT, Trace Gray Silty Sand	ML 90 W O R	4 -56.8 -58.3 X Firm Gra
게 하는 것이 되었다. 그런 경우 전에 가는 것이 되었다. 그런 것이 되었다. 그런 것이 되었다. 사용하는 것이 되었다. 그런 것이 되었다. 사용하는 것이 되었다. 그런 것이 되었다.	5 -57.6 -59.1 X	Firm Tan SAND, Trace Pea Gravel	SP 75 2 6 7	5 -61.8 -63.3 X Firm Gra
하는 발표하는 경기를 가입니다. 	6 -62.6 -64.1 X	Firm Tan SAND, Trace Pea Gravel	SP 75 5 10 10	6 -66.8 -68.3 X Firm Gra
	7 -67.6 -69.1 X	Firm Tan SAND, Trace Pea Gravel	SP 75 3 4 6	7 -71.8 -73.3 X Firm Gra
마이 현재를 하는 것이 되었다. 그는 사람들은 그리고 있다는 것이 되었다. 그는 것이 되었다. 1985년 1일	8 -72.6 -74.1 X	Dense Gray SAND	SP 80 18 18 19	8 -76.8 -78.3 X Firm Tan
	9 -77.6 -79.1 X	Dense Gray SAND	SP 80 19 21 19	9 -81.8 -83.3 X Dense To
마이 현실 기계가 하고 있다. 마음에 가지 하고 있다. 이 등에 가지 않는 것이다. 하는 것이 되었다. 그는 것이 되었다. 이 마음에 하는 것이 되었다. 그는 것이 되었다. 그는 것이 되었다. 그는 것이 되었다. 그는 것이 되었다. 하는 경우 사람들은 것이 있다. 그는 것이 되었다. 그는 것이 되었다. 그는 것이 되었다.	10 -82.6 -84.1 X	Very Dense Gray & Tan SAND, Trace Pea Gravel	SP 80 14 28 30	10 -86.8 -88.3 X Dense To
마이스 등 경험 마이크 (1995년) 이 그들은 이 그런 그는 사람들이 함께 보고 있다. 사용 경우 사용 기계 (1995년) 이 기계 (1995년) 사용 경우 사용 기계 (1995년)	11 -87.6 -89.1 X	Very Dense Tan SAND, Trace Pea Gravel  Very Dense Tan Coarse To Medium SAND, Trace	SP 80 15 28 27	11 -91.8 -93.3 X Very Den
마이 경기 등에 가는 것으로 가득하다. 그런 그는 그 아이들이 되었다. 	12 -92.6 -94.1 X	Gravel Gravel	SP 90 12 21 35	12 -96.8 -98.3 X Stiff Gray
	13   -97.6   -99.1   X	Firm Tan Coarse To Medium SAND	SP 80 8 10 13	-99.8 -101.6 X Attempt
	14 -102.6 -104.1 X	Very Dense Tan Coarse To Medium SAND	SP 75 18 31 25	13 -101.8 -103.3 X Very Stiff
경험하다는 경험을 하는 것을 받는데 보고 있다. 참 하는 것이 되었다. 1980년 - 1981년 1981년 1일 전 1981년 1일	15 -107.6 -109.1 X	Firm Tan Coarse To Fine SAND, Trace Gravel Soft Gray Sandy CLAY (0-1.0')/ Firm Fine Gray	SP 80 2 9 15	14 -106.8 -108.3 X Very Stiff
있다. 이 경기 발표를 보고 있다. 그런 그는 그는 그는 그는 그는 그를 보고 있는 것이 되었다. 그는 그를 보고 있다. 	16 -112.6 -114.1 X	SAND	CL SP-SM 95 2 4 21 50	15 -111.8 -113.3 X Stiff Gray
요즘 하는 보고 있는 다음이 가는 사람들이 있는 것이 가능하는 것이 되었다. 그는 것이 되는 것이 되었다. 그는 것이 되었다. 2008년 - 1985년 - 1일 전문 - 1985년 - 1985년 1987년 - 1987년	17 -117.6 -119.1 X	Very Dense Gray Coarse To Fine SAND	SP 75 11 32 For 4"	16 -116.8 -118.3 X Very Den
등 유럽에 가지 않는 경기에 가장하는 사람이 되었다. 그 사람이 되었다는 것은 사람이 되었다. 유럽에 가장하는 것이 되었다는 것이 되었다는 것이 되었다는 것이 되었다. 경험이 되었다는 것이 되었다는 것이 되었다는 것이 되었다는 것이 되었다.	18  -122.6  -124.1 X	Very Dense Gray Coarse To Fine SAND  Very Dense Gray Coarse To Fine SAND, 1" Lense	SP 70 19 26 34 50	17 -126.8 -128.3 X Dense Gr
변경 보고 있다. 그리고 있다고 말하고 있는 것이 되었다. 그 사람이 있는 것이 되었다. 그는 것이 되었다. 발경 보고 말했다. 그렇게 되었다면 하고 있는 것이 되었다. 그 사람이 있는 것이 되었다.	19  -127.6 -129.0  X	Pea Gravel	SP 75 24 44 For 5"	
	DRILL RIG: Barge Mounte		d= 415 Feet South of Dock.  RECOVERY 82	Notes to Boring: 1. Set 63' Of  DRILL RIG: Barge Mounted Drill Rig
경영 사용 전쟁 경영 기업 등 경영 기업	DRILL METHOD	START COMPLET	NOTE	DRILL METHOD
	AUGER: FROM: MUD: X FROM: 0.0	$1)$ $\Lambda$ $1$ $E$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$	19-94 140 lb. Hammer Falling 30" to Drive a 2" O.D.	AUGER: FROM: TO:
	Log Notes:			Log Notes:
	<ol> <li>Set Five (5) Feet (</li> <li>Water Depth at Time</li> </ol>	of 4 Inch Steel Casing e of Drilling = -1.5 Feet		<ol> <li>Set Five (5) Feet of 4 Inch Ste</li> <li>Water Depth at Time of Drilling</li> </ol>
수 있다. 				CURRI
사용 등록 기업 시간 시간 시간 사용을 가는 것 같습니다. 그 사용을 보고 있는 것이 되었다. 그 것 같습니다. 사용하는 물 사용을 보고 있는 것이 되었다. 그 사용을 보고 있는 것이 되었다. 그 것이 그 사용을 통해 되었다. 그 것이 되었다.				Operation and Control of Control
(H) (G) (	F E D (			
	62'-5\frac{5}{8}"			
1'-9" 17'-0" EL. 15.41' \( \) \( \) EL. 15.60	37'-0"     EL. 15.79	$\frac{1}{1} = \frac{6'-8\frac{5}{8}''}{6'-8\frac{5}{8}}$		
	SLOPE SLOPE	EL. 15.53' O		(-)10
			ATE FENDER	(-)20
	6///		20'-0" CTRS.	(-)30
		12		(-)40
			MLW 0.0	(-)50
		CA TOTAL ANTHRONOUS MATERIAL TOTAL TO A TOTAL TO		

9'-3" 9'-3"

 $\frac{\textbf{TYPICAL} \quad \textbf{SECTION}}{\frac{1}{8}" = 1" - 0"}$ 

SAMPLE	DEPTH (FT)		TYPE		FIELD SOILS CLASSIFICATION	UNIFIED	%	*BLOWS/6"			
NO.	FROM	ТО	SPT	US		SYMBOL	REC'V	1st	2nd	3r	
1	-39.8	-41.3	X		Very Loose Black SILT	ML	100	W	0	R	
2	-44.8	-46.3	Χ		Very Loose Black SILT	ML	100	W	0	R	
3	-49.8	-51.3	Χ		Very Loose Black SILT	ML	100	W	0	R	
4	-56.8	-58.3	X		Firm Gray Fine To Medium SAND, Trace Gravel	SP	75	3	5	1	
5	-61.8	-63.3	Χ		Firm Gray Coarse To Fine SAND, Trace Gravel	SP	55	7	7	1(	
6	-66.8	-68.3	Х		Firm Gray Coarse To Fine SAND	SP	60	3	5	8	
7	-71.8	-73.3	Χ		Firm Gray Coarse To Fine SAND	SP	70	7	8	10	
8	-76.8	-78.3	X		Firm Tan Fine SAND, Lense Tan Sandy Clay	SP	50	10	15	1	
9	-81.8	-83.3	Χ		Dense Tan Fine To Coarse SAND	SP	70	14	22	1	
10	-86.8	-88.3	Χ		Dense Tan Fine To Coarse SAND	SP	70	12	16	1	
11	-91.8	-93.3	X		Very Dense Tan Fine To Medium SAND	SP	60	13	24	3	
12	-96.8	-98.3	Х		(Clay Encountered at -94.8) Stiff Gray CLAY, Trace Organics	СН	60	3	4	5	
	-99.8	-101.6		X	Attempt Thin Wall Tube, No Recovery		0	PL	SH	1.	
13	-101.8	-103.3	Χ		Very Stiff Gray CLAY, Trace Organics	СН	95	6	7	5	
14	-106.8	-108.3	X		Very Stiff Gray CLAY, Trace Organics	СН	95	8	6	9	
15	-111.8	-113.3	Χ		Stiff Gray Sandy CLAY, Lenses Fine Sand	CL	80	5	6	8	
16	-116.8	-118.3	X	and the state of t	(Sand Encountered at -114.3) Very Dense Gray Fine To Coarse SAND	SP	60	11	22	3	
17	-126.8	-128.3	X		Dense Gray Fine To Coarse SAND	SP	75	13	19	1	

TIME OF DRILLING: -39.8 FEET MEAN SEA LEVEL

- EXISTING BOTTOM LINE

--- DESIGN DEPTH

(-) 50.0'

INCLUDES 1 FT. OVERDREDGE ALLOW. IIIIIII

(-) 55.0' (FUTURE DESIGN DEPTH)

1.) Set Five (5) Feet of 4 Inch Steel Casing

2.) Water Depth at Time of Drilling = -1.5 Feet

BORING NO.: MB-3 WATER ELEVATION: TIME OF DRILLING

TIME OF DRILLING: -39.5 FEET MEAN SEA LEVEL

SMIVIFLE	DEPTH		TYI		FIELD SOILS CLASSIFICATION	UNIFIED.	%		*BLOWS/6"	3, 6,
NO	FROM	ТО	SPT	US	TIELD SOILS CLASSII ICATION	SYMBOL	REC'V	1st	2nd	
1	-39.5	-41.0	X		Very Loose Black SILT	ML	60	W.	0	
2	-44.5	-46.0	X		Very Loose Black SILT	ML	70	W	0	
3	-49.5	-51.0	X		Very Loose Black SILT	ML	60,	W	0	
4	-54.5	-56.0	X		WOOD		70	15	7	
5	61.5	-63.0	X		Firm Gray Fine To Medium SAND	SP	60	7	9	
6	-66.5	-68.0	X		Firm Gray Fine To Medium SAND	SP	60	7	11	
7	-71.5	-73.0	X		Firm Gray Coarse To Fine SAND	SP	75	7	12	
8	-77.0	-78.5	X		Dense Gray Fine To Coarse SAND	SP	70	8	15	
9	-82.0	-83.5	X		Firm Gray Fine To Coarse SAND, Trace Pea Gravel	SP	55	7	8	
0	-87.0	-88.5	Χ		Dense Gray Fine To Coarse SAND	SP	60	10	16	
1	-92.0	-93.5	X		Dense Gray & Tan Fine To Coarse SAND, Trace Pea Gravel	SP	70	9	13	
2	-97.0	-98.5	X		Stiff Gray Sandy CLAY	CL	90	3	5	
	-102.0	-103.5		X	Attempt Thin Wall Tube, No Recovery		0	PU	SH	
	-104.0	-106.0		X	Attempt Thin Wall Tube, No Recovery		0	PU	SH	
3	-106.0	-107.5	Χ		Very Stiff Gray CLAY, Trace Organics	СН	95	4	8	
4	-112.0	-113.5	X	and the second s	Stiff Gray Sandy CLAY, Lenses Fine Sand	CL	75	3	5	
5	-117.0	-118.5	X	The state of the s	Dense Gray Coarse To Medium SAND	SP	80	4	13	
6	-122.0	-123.5	X		Very Dense Gray Coarse To Medium SAND	SP	50	15	26	
7	-127.0	-128.5	X		Dense Gray Fine To Medium SAND	SP	65	11	10	
lote	s to E	Borina:	1.	Set	: 63' Of 4" Casing 2. Boring Located	= 70	Feet S	outh	of Do	

START COMPLETE

DATE: 7-19-94 DATE: 7-20-94

TIME: 11:00 TIME: 1.15

Log Notes:

DRILL METHOD

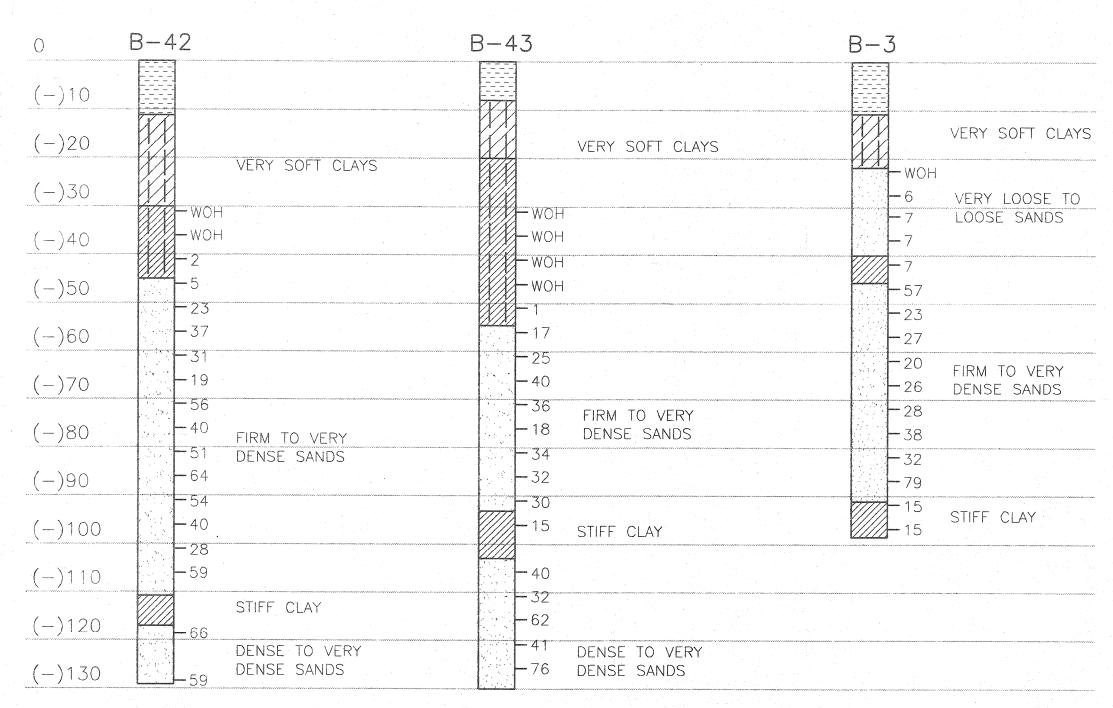
AUGER: FROM: TO:

MUD: X FROM: 0.0 TO: 130.0

1.) Set Five (5) Feet of 4 Inch Steel Casing

2.) Water Depth at Time of Drilling = -1.5 Feet

### CURRENT (1994) SOIL BORINGS



TOTAL % RECOVERY 71

Number of Blows of

140 lb. Hammer Falling 30" to Drive a 2" O.D. Splitspoon Sampler.

START COMPLETE

DATE: 7-20-94 DATE: 7-21-94

TIME: 1:30 TIME: 3:30

DATA FROM SUBSURFACE INVESTIGATION AND ANALYSIS BY VESTER J. THOMPSON JR. INC. DATED FEB. 8, 1973. 1973 SOIL BORINGS (REFERENCE) INCLUDES 1 FT. OVERDREDGE ALLOW.

REV. DATE DESCRIPTION ALABAMA STATE DOCKS DEPARTMENT MOBILE ALABAMA McDUFFIE TERMINALS 268 FT. DOCK EXTENSION GBB Barnett Bridges (ALTERNATE)
TYPICAL SECTION
AND SOIL BORINGS Drawn By: L.W.R. Date: JULY 94 764-1-2A 0 REV. DRAWING NO.

NOTE: Number of Blows of

140 lb. Hammer Falling 30" to Drive a 2" O.D. Splitspoon Sampler.

