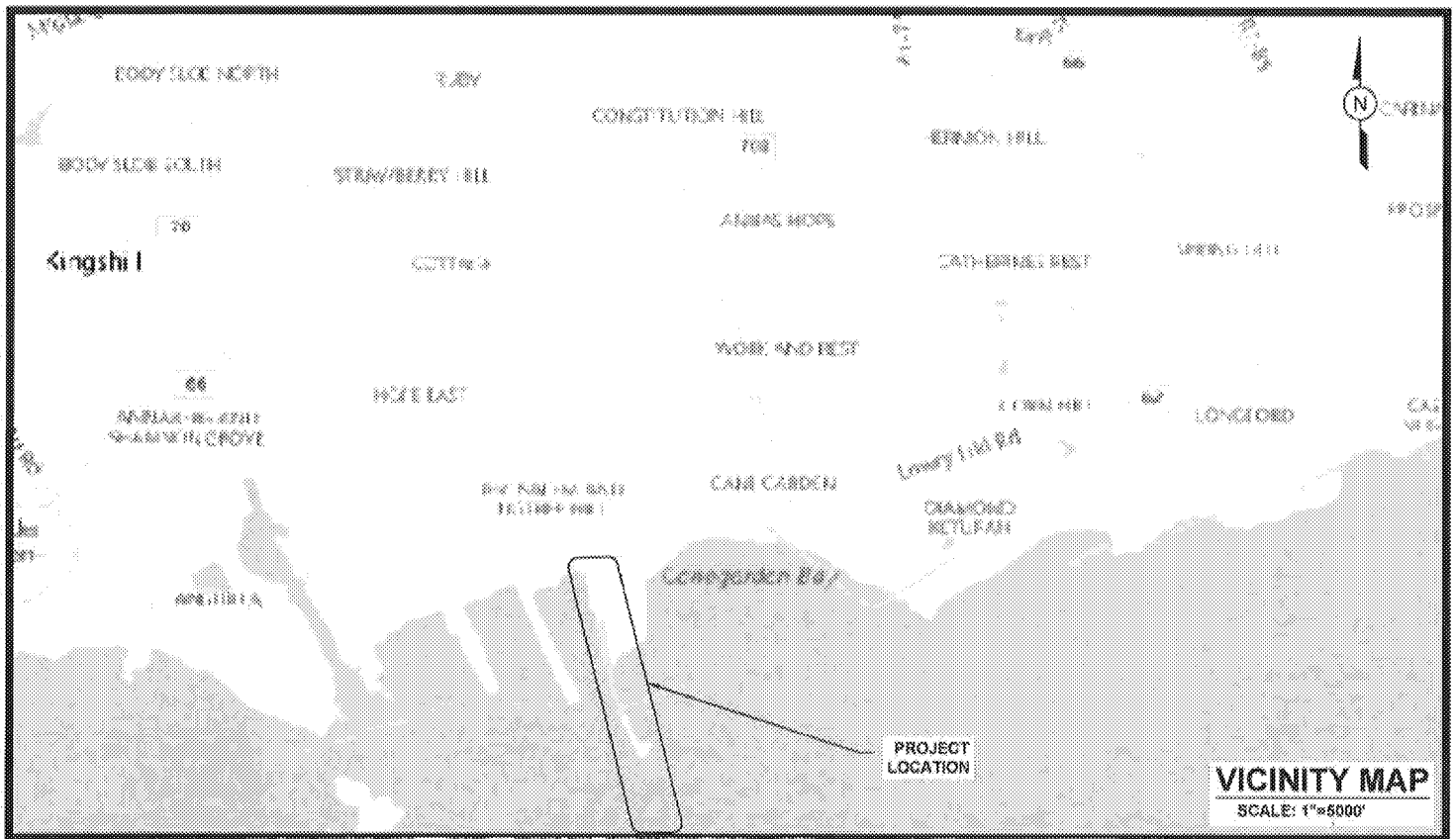


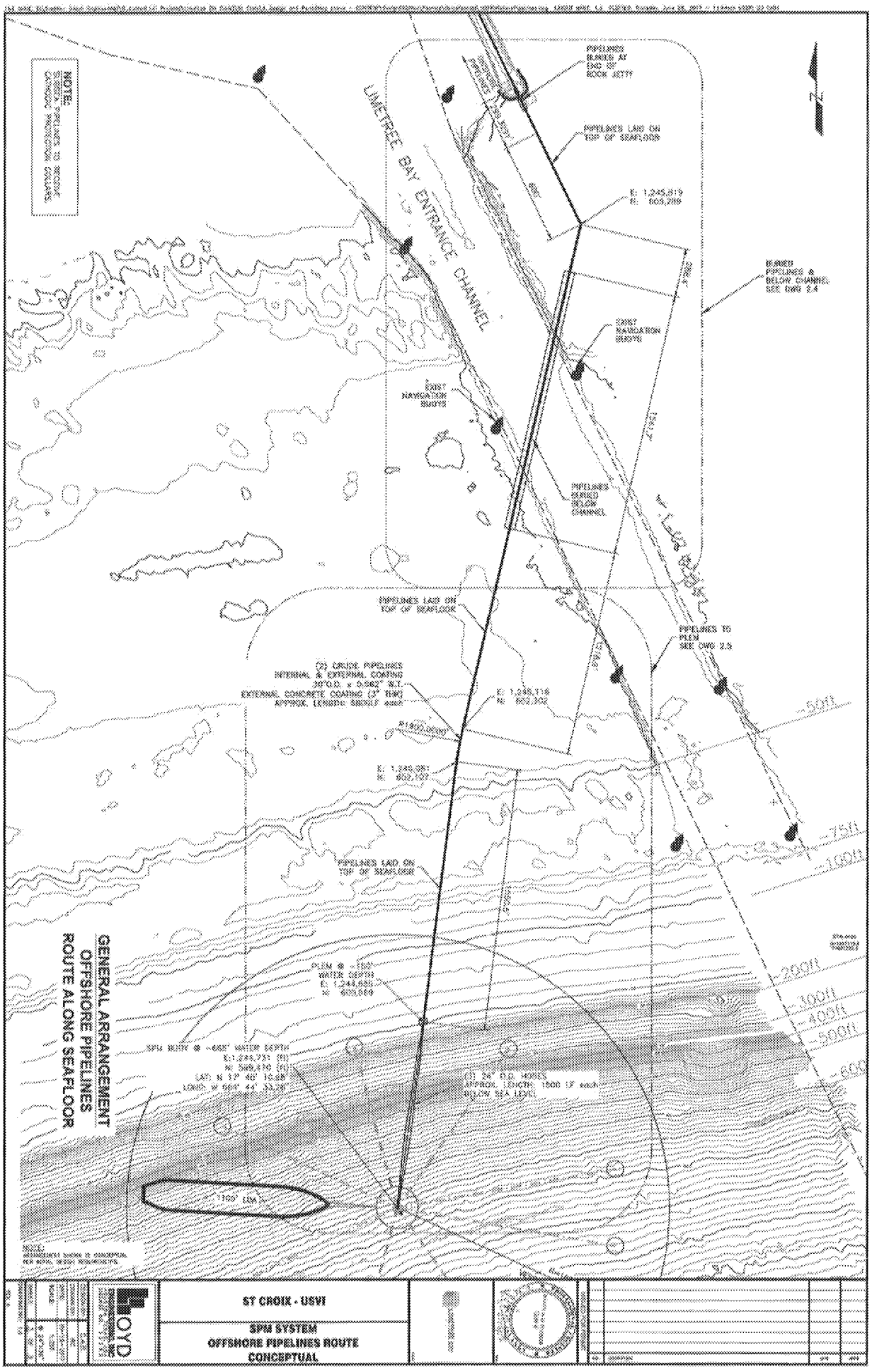
VICINITY MAP
SCALE: 1"=5000'

LOCATION MAP
SCALE: 1"=2500'

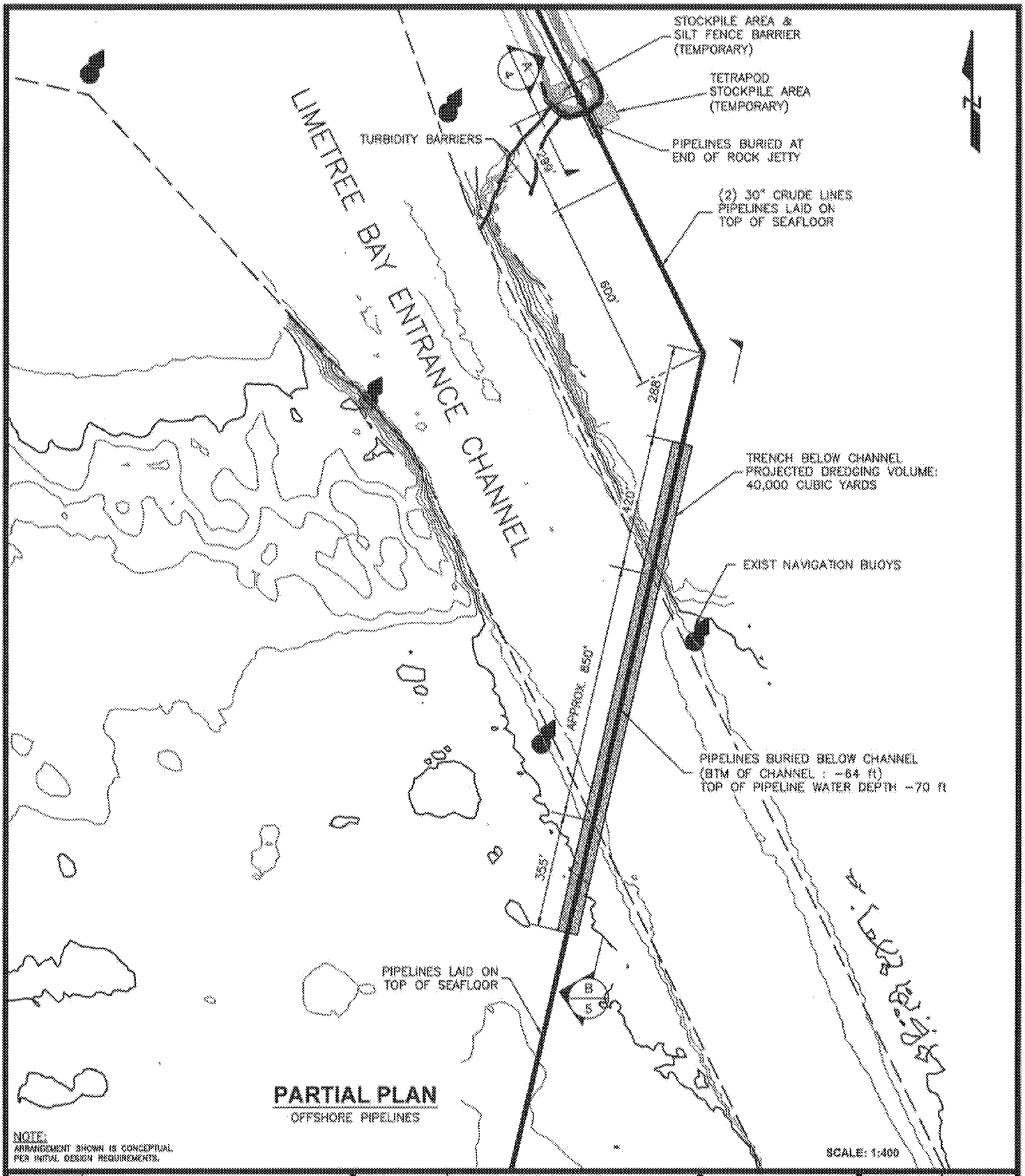
PURPOSE:	INSTALLATION OF A SINGLE POINT MOORING SYSTEM FOR BULK FUEL SHIPMENTS	OWNER:	LIMETREE BAY TERMINALS, LLC	DESIGN BY:	GAB
		APPLIED BY:	LLOYD ENGINEERING	DRAWN BY:	RC
		APPLIC. No:	XXX	SCALE:	AS NOTED
LOCATION:	U.S.VIRGIN ISLANDS UNITED STATES	COUNTY:	XXX	DATE:	06/16/17
		WATER BODY:	CARIBBEAN SEA	SHEET No:	0
		DATUM:	NAD83		

LLOYD ENGINEERING, INC
HOUSTON TEXAS, USA
LICENSE NO. 32262

FILE NAME: D:\Dropbox (Lloyd Engineering)\0_Current LEI Projects\Limetree (St. Croix)\St Croix\4_Design and Permitting phase - CURRENT\DesignCADFiles\Permits\DataFormat\0_COVER.dwg LAYOUT NAME: Aviso PLOTTED: Thursday, June 29, 2017 - 1:28pm USER: LEI CAD1



NOTE:
LIMETREE BAY ENTRANCE CHANNEL
PIPELINES BURIED AT END OF ROCK JETTY
PIPELINES LAID ON TOP OF SEAFLOOR
BURIED PIPELINES & BELOW CHANNEL SEE DWG 2.4
EXIST NAVIGATION BUOYS
PIPELINES BURIED BELOW CHANNEL
PIPELINES LAID ON TOP OF SEAFLOOR
PIPELINES TO PLEM SEE DWG 2.5
(2) CRUDE PIPELINES INTERNAL & EXTERNAL COATING
EXTERNAL CONCRETE COATING (3" THK)
-50ft
-75ft
-100ft
-200ft
-300ft
-400ft
-500ft
PIPELINES LAID ON TOP OF SEAFLOOR
PLEM @ -150' WATER DEPTH
SPM BUOY @ -665' WATER DEPTH
(3) 24" O.D. HOSES APPROX. LENGTH: 1500 LF each BELOW SEA LEVEL
1100' LOA
GENERAL ARRANGEMENT
OFFSHORE PIPELINES
ROUTE ALONG SEAFLOOR
ST CROIX - USVI
SPM SYSTEM
OFFSHORE PIPELINES ROUTE
CONCEPTUAL



PARTIAL PLAN

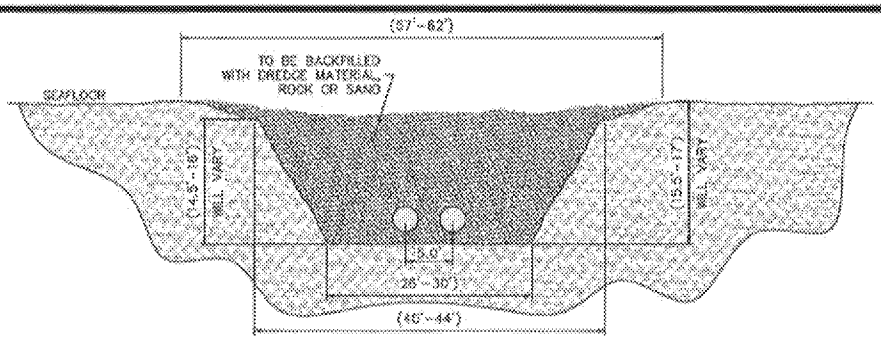
OFFSHORE PIPELINES

NOTE:
ARRANGEMENT SHOWN IS CONCEPTUAL PER INITIAL DESIGN REQUIREMENTS.

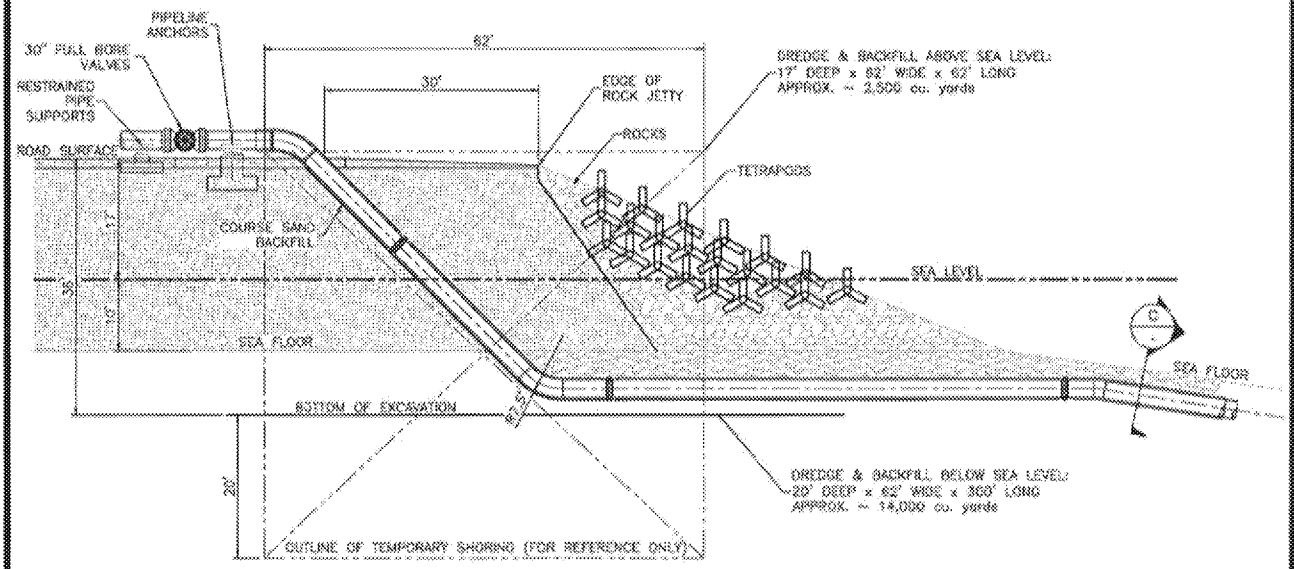
SCALE: 1:400

PURPOSE:	INSTALLATION OF A SINGLE POINT MOORING SYSTEM FOR BULK FUEL SHIPMENTS	OWNER:	LIMETREE BAY TERMINALS, LLC	DESIGN BY:	GAB
		APPLIED BY:	LLOYD ENGINEERING	DRAWN BY:	RC
		APPLIC. No:	XXX	SCALE:	AS NOTED
LOCATION:	U.S. VIRGIN ISLANDS UNITED STATES	COUNTY:	XXX	DATE:	06/16/17
		WATER BODY:	CARIBBEAN SEA	SHEET No:	3
		DATUM:	NAD83		

LLOYD ENGINEERING, INC
HOUSTON, TEXAS, USA
LICENSE NO. 32283



C **SECTION VIEW**
BURIED PIPELINE AT END OF ROCK JETTY
NO SCALE



A/3 **SECTION VIEW**
BURIED PIPELINE AT END OF ROCK JETTY
SCALE: 1"=20'

NOTE:
ARRANGEMENT SHOWN IS CONCEPTUAL AND FOR PRESENTATION PURPOSES ONLY.

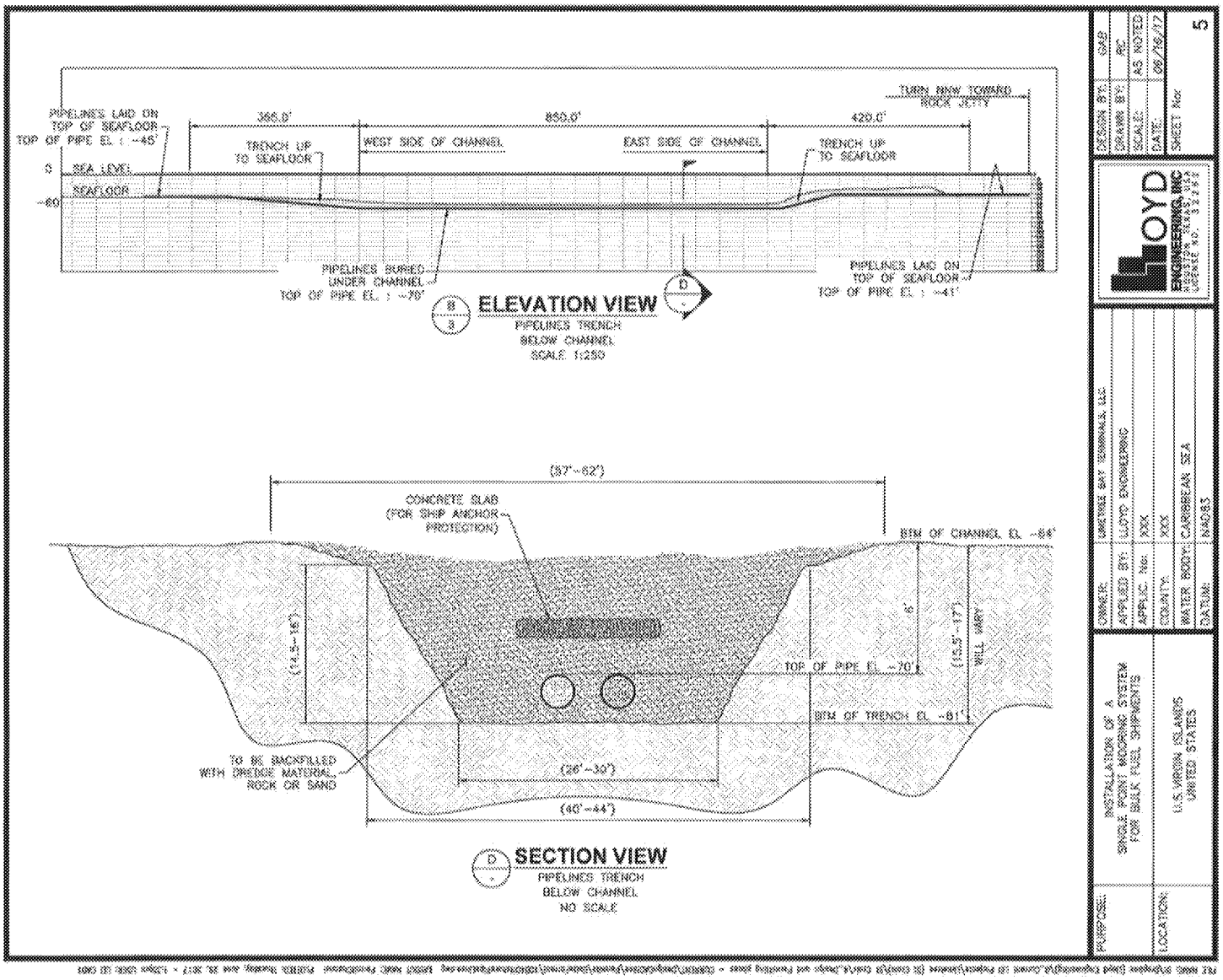
DESIGN BY:	GAB
DRAWN BY:	RC
SCALE:	AS NOTED
DATE:	06/16/17
SHEET No:	4

OYD ENGINEERING INC
CERTIFICATE No. 31-3-3-7

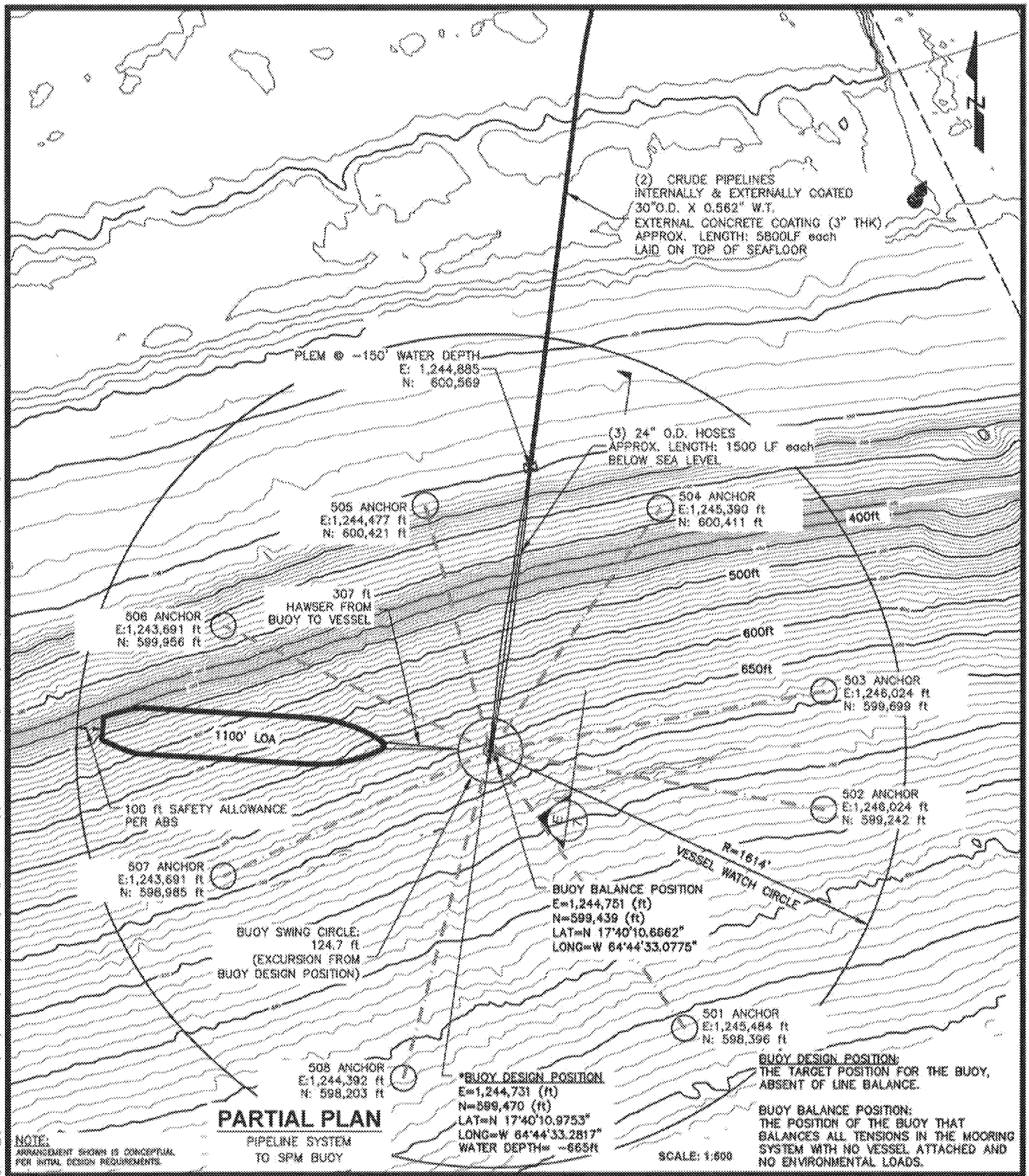
OWNER:	UNITED BAY TERMINALS, LLC
APPLIED BY:	LLCPS ENGINEERING
APPLIC. No:	XXX
COUNTY:	XXX
WATER BODY:	CARIBBEAN SEA
DATUM:	NAD83

PURPOSE: INSTALLATION OF A SINGLE POINT MOORING SYSTEM FOR BULK FUEL SHIPMENTS

LOCATION: U.S. VIRGIN ISLANDS UNITED STATES

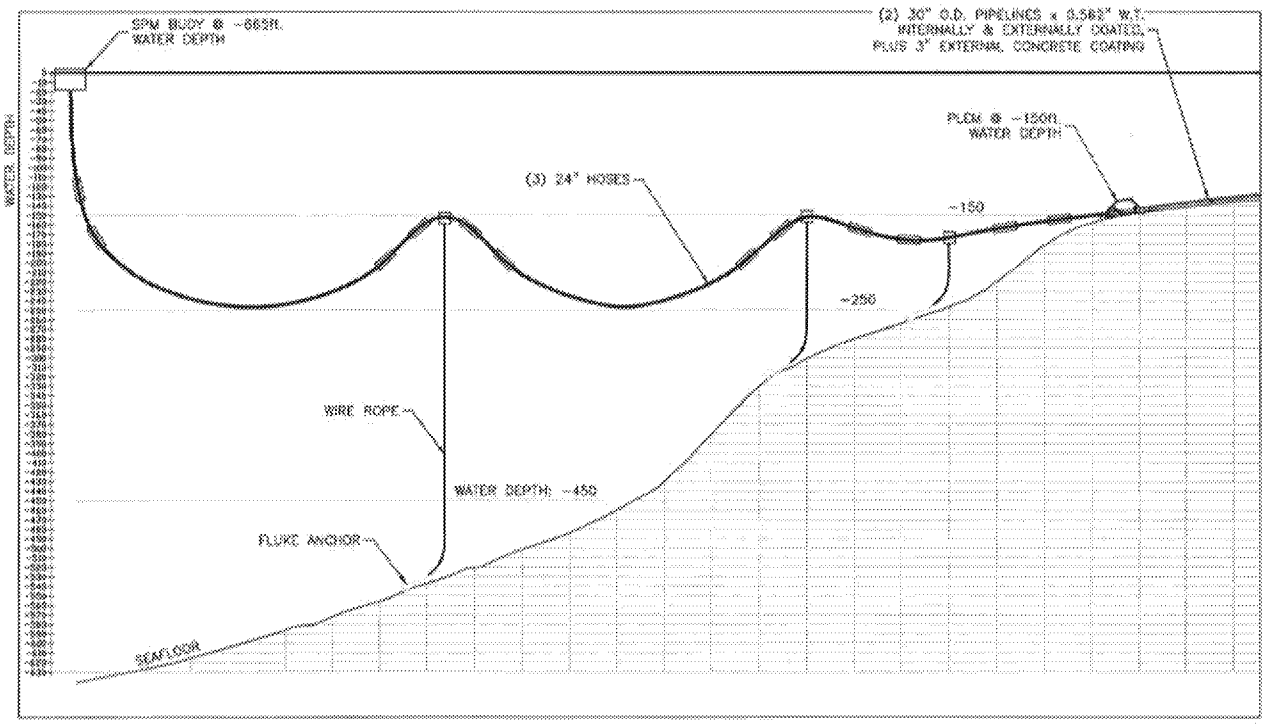


PIPELINES LAID ON TOP OF SEAFLOOR
TOP OF PIPE EL : -45'
365.0'
850.0'
420.0'
TURN NNW TOWARD ROCK JETTY
TRENCH UP TO SEAFLOOR
WEST SIDE OF CHANNEL
EAST SIDE OF CHANNEL
TRENCH UP TO SEAFLOOR
0
SEA LEVEL
SEAFLOOR
-60
PIPELINES BURIED UNDER CHANNEL
TOP OF PIPE EL : -70'
PIPELINES LAID ON TOP OF SEAFLOOR
TOP OF PIPE EL : -41'
B
3
ELEVATION VIEW
PIPELINES TRENCH BELOW CHANNEL
SCALE 1:250
D
(57'-62')
CONCRETE SLAB (FOR SHIP ANCHOR PROTECTION)
BTM OF CHANNEL EL -64'
(14.5'-16')
6'
(15.5'-17')
WILL VARY
TOP OF PIPE EL -70'
BTM OF TRENCH EL -81'
TO BE BACKFILLED WITH DREDGE MATERIAL, ROCK OR SAND
(26'-30')
(40'-44')
D
SECTION VIEW
PIPELINES TRENCH BELOW CHANNEL
NO SCALE
PURPOSE:
INSTALLATION OF A SINGLE POINT MOORING SYSTEM FOR BULK FUEL SHIPMENTS
LOCATION:
U.S. VIRGIN ISLANDS UNITED STATES
OWNER: UNITREE BAY TERMINALS, LLC
APPLIED BY: LLOYD ENGINEERING
APPLIC. No: XXX
COUNTY: XXX
WATER BODY: CARIBBEAN SEA
DATUM: NAD83
LLOYD ENGINEERING, INC
DESIGN BY: GAB
DRAWN BY: RC
SCALE: AS NOTED
DATE: 06/16/17
SHEET No: 5



PURPOSE:	INSTALLATION OF A SINGLE POINT MOORING SYSTEM FOR BULK FUEL SHIPMENTS	OWNER:	LIMETREE BAY TERMINALS, LLC	DESIGN BY:	GAB
		APPLIED BY:	LLOYD ENGINEERING	DRAWN BY:	RC
		APPLIC. No:	XXX	SCALE:	AS NOTED
LOCATION:	U.S.VIRGIN ISLANDS UNITED STATES	COUNTY:	XXX	DATE:	06/16/17
		WATER BODY:	CARIBBEAN SEA	SHEET No:	6
		DATUM:	NAD83		

LLOYD ENGINEERING, INC
HOUSTON, TEXAS, USA
LICENSE No. 32262



ELEVATION
PIPELINE HOSES
FROM PLEM TO BUOY
SCALE 1:150
LOOKING TO SHORE

DESIGN BY:	GAB
DRAWN BY:	RC
SCALE:	AS NOTED
DATE:	06/16/17
SHEET No:	7

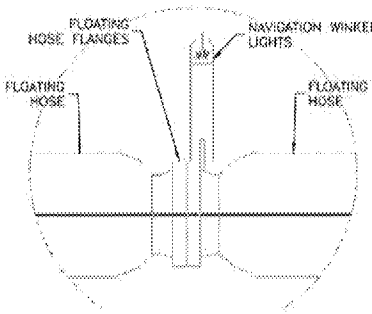
LLOYD ENGINEERING, INC.
MISSION TEXAS, USA
LICENSE No. 5262

OWNER:	UNITREE BAY TERMINALS, LLC
APPLIED BY:	LLOYD ENGINEERING
APPLIC. No:	XXX
COUNTY:	XXX
WATER BODY:	CARIBBEAN SEA
DATUM:	NAD83

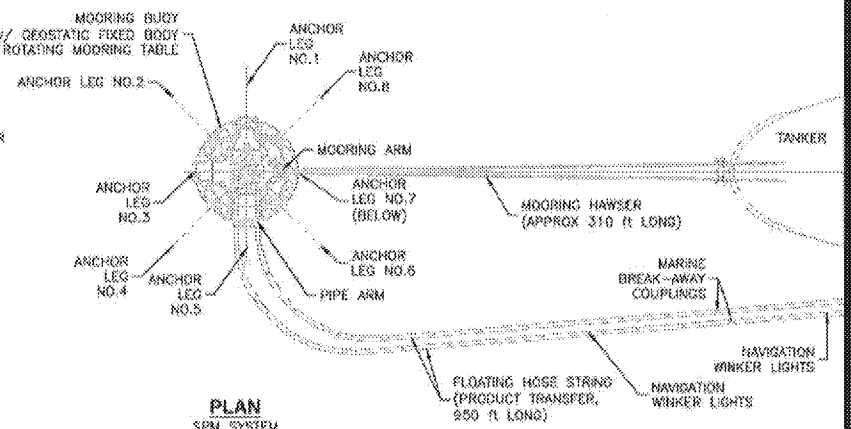
PURPOSE: INSTALLATION OF A SINGLE POINT MOORING SYSTEM FOR BULK FUEL SHIPMENTS

LOCATION: U.S. VIRGIN ISLANDS UNITED STATES

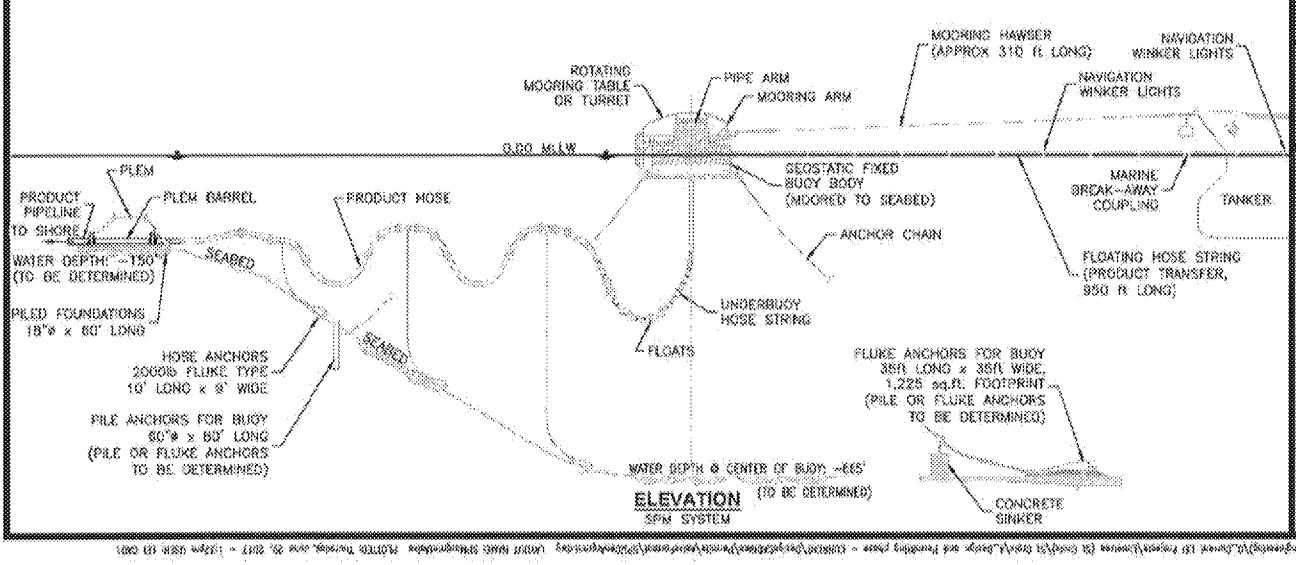
NOTE:
ARRANGEMENT SHOWN IS CONCEPTUAL AND FOR PRESENTATION PURPOSES ONLY.



NAVIGATION WINKER LIGHT DETAIL



PLAN
SPM SYSTEM



ELEVATION
SPM SYSTEM

DESIGN BY:	GAB
DRAWN BY:	RC
SCALE:	NO SCALE
DATE:	06/16/17
SHEET No:	8

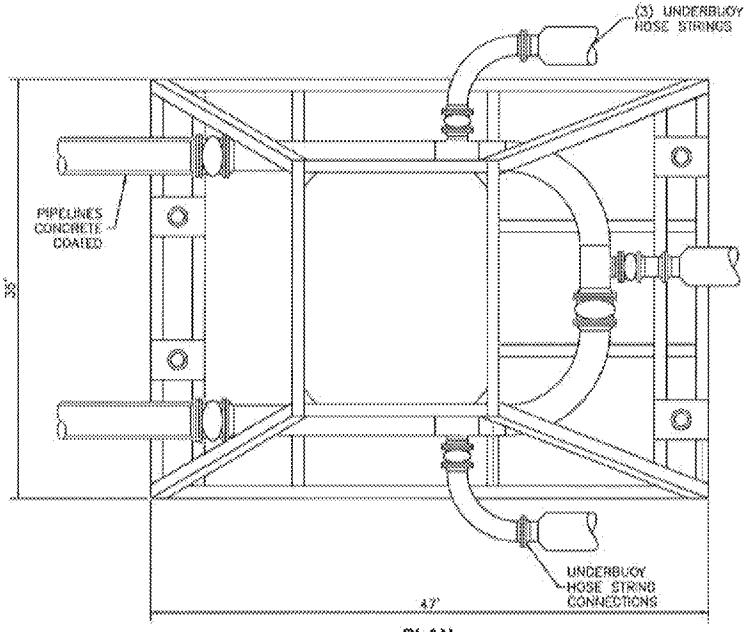
LLOYD ENGINEERING, INC.
LICENSE NO. 17783, 3333

OWNER:	UNITREE BAY TERMINALS, LLC
APPLIED BY:	LLOYD ENGINEERING
APPLIC. No:	XXX
COUNTY:	XXX
WATER BODY:	CARIBBEAN SEA
DATUM:	NAD83

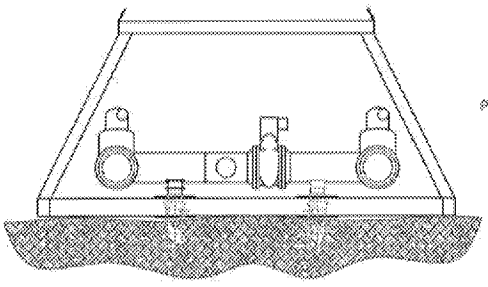
PURPOSE: INSTALLATION OF A SINGLE POINT MOORING SYSTEM FOR BULK FUEL SHIPMENTS

LOCATION: U.S. VIRGIN ISLANDS UNITED STATES

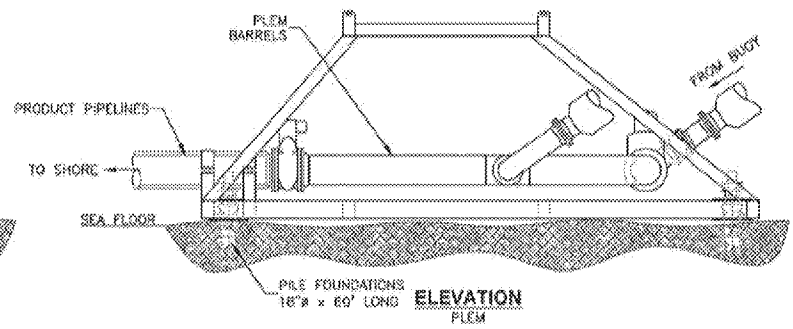
NOTE:
ARRANGEMENT SHOWN IS CONCEPTUAL AND SUBJECT TO MODIFICATIONS AS REQUIRED.



PLAN
PLEM ARRANGEMENT



FRONT VIEW
PLEM



ELEVATION
PLEM

DESIGN BY:	GAB
DRAWN BY:	RC
SCALE:	NO SCALE
DATE:	06/16/17
SHEET No:	9

LLOYD ENGINEERING, INC
HOUSTON, TEXAS, USA
LICENSE NO. 3 7 2 6 2

OWNER:	LIMETREE BAY TERMINALS, LLC
APPLIED BY:	LLOYD ENGINEERING
APPLIC. No:	XXX
COUNTY:	XXX
WATER BODY:	CARIBBEAN SEA
DATUM:	NAD83

PURPOSE: INSTALLATION OF A SINGLE POINT MOORING SYSTEM FOR BULK FUEL SHIPMENTS

LOCATION: U.S. VIRGIN ISLANDS UNITED STATES