FREEPORT LNG TERMINAL INFORMATION GUIDE

MARINE OPERATIONS MANUAL

AUGUST 22, 2024

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DEFINITIONS & ABBREVIATIONS

Arrival Location	The designated anchorage offshore Freeport, Texas, USA or the Pilot boarding station as further described in Section 4.2.5 of this manual
BTU	British Thermal Unit
CCR	Cargo Control Room on board an LNG vessel
CCTV	Closed Circuit Television
CF	Cubic foot
cm	Centimeter
COTP	Captain of the Port, United States Coast Guard
DCR	Dock Control Room
DCS	Distributed Control System
Displacement	Light: the weight of the vessel and its spare parts, only in tonnes Ballast: the weight of the vessel plus spare parts, fuels, fresh water, stores, ballast, and all personnel with their baggage; in tonnes Loaded: the weight of the vessel plus spare parts, fuels, fresh water, stores, cargo, and all personnel with their baggage; in tonnes
ERP	Emergency Response Plan
ESD	Emergency Shutdown
ETA	Estimated Time of Arrival
Facility	The waterfront facility handling LNG; 33 CFR 127.005
FERC	Federal Energy Regulatory Commission of the USA.
FiFi 1	Fire Fighting Class 1
FLNG	Freeport LNG Development, L.P. or its successors and assigns;

	the Terminal owner and operating company
FO	Fiber Optic
HSE	Health Safety Environmental
IG	Inert Gas
IMO	International Maritime Organization
ISGOTT	International Safety Guide for Oil Tankers and Terminals
kPaG	Kilo Pascal's, Gauge
LAT	Lowest Astronomical Tide
LNG	Liquefied Natural Gas
LOA	The Length Overall of a ship
LTA	Liquefaction Tolling Agreement
Manual	The current version of this operating handbook entitled, Freeport Marine Operations Manual
Marine Transfer Area	That part of the waterfront facility handling LNG between the vessel, or where the vessel moors, and the last manifold or valve immediately before the receiving tank; 33 CFR 127.005
MARSEC 1, 2 or 3	Maritime Security Level 1, 2 or 3, as dictated by the US Coast Guard
Master	The Captain of a ship
MCR	Main Control Room; the Terminal's principal control room
MLLW	Mean Lower Low Water
m	Meter
mb	millibar
m/s	Meters per second
m^3	Cubic meter; a volume equal to the volume of a cube, each side of which is one (1) meter in length
nm	Nautical mile; a distance of 6080ft
NOA	Notice of Arrival
NOAA	National Oceanic and Atmospheric Administration

NOR	Notice of Readiness
Notice to Proceed	The notification issued by FLNG to an LNG vessel FLNG will issue the Notice to Proceed when the Terminal is ready for the vessel to proceed to the berth.
PERC	Powered Emergency Release Coupling
PPE	Personal Protective Equipment
PIC	Person-in-Charge; the Terminal's / vessel's person in charge of the cargo transfer operation in the Terminal or on the vessel, respectively. The Terminal's PIC will be stationed in the Dock Control Room (DCR). The vessel's PIC will be stationed in the vessel's Cargo Control Room (CCR) throughout the cargo transfer operation.
Pilot	A member of the Brazos Pilots Association who is licensed as a State Pilot by the State of Texas and is engaged by the Transporter to board an LNG vessel to provide advice to the Master in Piloting, mooring, and unmooring the vessel inside the limits of the Port of Freeport.
Psig	Pounds per square inch gauge'
Responsible Officer	A person appointed by the Master and empowered to make all decisions relating to a specific task, and having the necessary knowledge and experience to perform that task
sec(s)	Second(s) of time
Security Zone	An area of exclusion around certain ships and waterfront facilities, subject to the designated USCG regulations
Shift Supervisor	The individual in charge of the Terminal's operations during the standard twelve (12) hour working shift. This individual has responsibility for operations activities throughout the entire Terminal during the working shift. The Terminal's cargo transfer PIC reports to the Shift Supervisor.
SIGTTO	Society of International Gas Tanker and Terminal Operators
SOLAS	The IMO 'Safety Of Life At Sea' convention.
SPA	Sale and Purchase Agreement

SSCS	Ship to Shore Compatibility Study
SSL	Ship-Shore Link; the data and voice communications umbilical cable between the LNG vessel and the Terminal
SWL	Safe Working Load
Terminal	The FLNG Terminal's berths, cargo transfer equipment, and all other on-shore structures, tanks, and equipment.
Terminal Marine Department	FLNG personnel designated as the marine representatives for the terminal.
Terminal User	A customer that is either party to a contract with FLNG to deliver LNG cargoes to the Terminal and/or a customer that is party to a contract with FLNG to load LNG cargoes onto their vessels at the Terminal.
tonne	A weight equal to 1,000 kilograms
Transporter	Any person or company that owns, operates or commercially controls an LNG vessel that calls at the Terminal for any purpose.
Unloading Window	The forty-eight (48) hour period of time starting at 06:00, Central Time on a specified day and ending forty-eight (48) consecutive hours thereafter during which FLNG makes available to customers, a berth and LNG transfer services at the FLNG Terminal.
USCG	The United States Coast Guard
VTS	Vessel Traffic Service

1. PURPOSE AND OBJECTIVES

1.1 STATEMENT OF PURPOSE AND DISCLAIMER

This manual has been prepared by FLNG for the benefit of Terminal Users, Transporters, vessel Masters, and ship agents. This manual provides important information on the FLNG Marine Terminal and its approach channel. Key components include information on Terminal entry and departure procedures, berth and mooring structure diagrams, manifold and shore connection diagrams, and FLNG corporate policies at the Terminal.

FLNG shall use its reasonable endeavors to ensure the accuracy of the data contained herein, provided however, FLNG does not warrant the accuracy of such data that is outside of its control. FLNG reserves the right to modify this manual at any time. Unless otherwise agreed by FLNG in writing, it is the manual user's responsibility to ensure that they have obtained the current edition of the manual. The latest version of this document can be obtained at www.freeportlng.com/contact-media/informational-postings.

1.2 REQUIRED COMPLIANCE

Terminal Users, Transporters, shipping agents, vessel Masters, ship staff, third-party service providers to the vessel, and FLNG employees are all required to comply with the provisions of this manual.

1.3 OBJECTIVES OF THIS MANUAL

This manual will:

I. Provide general information and contact information to Terminal users, Transporters, and vessel Masters for port entry and departure;

II. Inform vessel Masters and operators of FLNG marine Terminal's policies, procedures, and restrictions;

III. Allow vessel Masters to review port and Terminal information;

IV. Provide technical information about the Terminal, its mooring arrangements, and cargo transfer system;

V. Provide information for emergency procedures.

1.4 NOTES FOR TERMINAL USERS

This Manual is available at the Freeport LNG website at https://free-portlng.com/contact-media/informational-postings.

The executed agreements (LTAs, SPAs) between Freeport LNG Development, L.P. or any affiliate thereof and the Terminal Users, will be the controlling documents should any conflicts arise between this manual and such agreements.

2. GENERAL INFORMATION

TERMINAL DESCRIPTION

The FLNG Terminal is located on Quintana Island on the west side of the Freeport Channel and south of the Intracoastal Waterway. The Freeport Entrance Channel and the Freeport Jetty Channel are dredged to a width of 600ft (182.9m) and a depth of -45ft (-13.7m) and the Freeport LNG basin is dredged to -46.5ft. (-14.1m) below NAVD88 (North American Vertical Datum of 1988).

LNG vessels assigned to dock at Berth No. 1 proceed up the channel to the turning basin at the intersection of the channel and the Intracoastal Waterway, then maneuver astern, with the assistance of tugs, from the turning basin to the berth.

LNG vessels assigned to dock at Berth No. 2 proceed up the channel and turn to Port at the turning basin and maneuver bow first to the berth.

All berthing at the Terminal is Starboard side alongside.

These maneuvers are based on extensive full mission bridge simulation exercises performed by the Brazos Pilots who have proved them to be viable and safe.
The berths are of customary design. Both berths are equipped with two breasting and three

mooring dolphins both forward and aft of the ship's vapor connection. Both berths are equipped with three (3) 16-inch liquid cargo arms and one (1) 16-inch vapor arm. The rules and regulations governing the operation of the Terminal fall under the jurisdiction of the Federal Energy Regulatory Commission (FERC), the United States Coast Guard (USCG), the U.S. Department of Transportation (DoT), the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA) and various State of Texas regulatory agencies.

There is no air-draft restriction between the sea buoy and the Terminal.

BERTH SPECIFICATIONS

Berth No. 1	
Maximum Vessel LOA at Berth	1,132 ft. (345m)
Maximum Vessel Draft at Berth	42.0 ft. (12.8m)
Maximum Vessel Beam at Berth	180.0 ft. (54.8m)
Water depth at berth	46.5ft. (14.17m)
Ship Side Alongside	Starboard
Berth Heading	45.5°T
Maximum Approach Speed to Fenders	0.49 ft./s (15 cm/s)
Port's Chart Datum Level	Mean Lower Low Water (MLLW)
Mean Lower Low Water (MLLW)	0.0 ft. (0.0m)
Low Astronomical Tide (LAT)	-4.25 ft. - (-1.30m)
Mean Higher High Water	1.8 ft. (0.54m)
Highest Astronomical Tide (HAT)	5.91 ft. (1.8m)
Dock Water Density	Varies – Brackish to Salt
Cargo arm manufacturers – SVT	2 liquid, 1 vapor, 1 hybrid
Cargo arm size	16" 150 ANSI Class
Spacing of cargo arms	4.0m
Connectors	Flanged cam-lock quick connects
Design working pressure	275 psig (1896 kPaG) @ -270/150°F
Usual Terminal working pressure	81 psig (558 kPaG)
Emergency release	PERCs
Max LNG transfer rate	10,000m^3/hr.
Vapor arm maximum flow rate	30,182m^3/hr.

Berth No. 2	
Maximum Vessel LOA at Berth	985 ft. (300m)
Maximum Vessel Draft at Berth	42.0 ft. (12.8m)
Maximum Vessel Beam at Berth	170.6 ft. (52.0m)
Water depth at berth	46.5 ft. (14.17m)
Ship Side Alongside	Starboard
Berth Heading	224.5°T
Maximum Approach Speed to Fenders	0.49 ft./s (15 cm/s)
Port's Chart Datum Level	Mean Lower Low Water (MLLW)
Mean Lower Low Water (MLLW)	0.0 ft. (0.0m)
Low Astronomical Tide (LAT)	-4.25 ft. - (-1.30m)
Mean Higher High Water	1.8 ft. (0.54m)
Highest Astronomical Tide (HAT)	5.91 ft. (1.8m)
Dock Water Density	Varies – Brackish to Salt
Cargo arm manufacturers – SVT	2 liquid, 1 vapor, 1 hybrid
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Spacing of cargo arms	4.0m
Connectors	Flanged cam-lock quick connects
Design working pressure	275 psig (1896 kPaG) @ -270/150°F
Usual Terminal working pressure	81 psig (558 kPaG)
Emergency release	PERCs
Max LNG transfer rate	10,000m^3/hr.
Vapor arm maximum flow rate	30,182m^3/hr.

2.1 LOCATION

Nearest Major City:	Houston, Texas
Terminal Position:	Latitude 28° 56.9' N
	Longitude 95° 18.5' W
Time Zone:	GMT (-) 6 hours
	U.S. Central Time Zone
Daylight Saving Time:	Second Sunday in March (+1 Hour)
	First Sunday in November (-1 Hour)

2.2 WEATHER

Normal historic weather conditions in the Port of Freeport are as follows:

General direction of prevailing winds:	135° – 180°
General direction of maximum wind speed:	135° – 180°
Average wind speed:	5-10 knots (5.7 – 11.5 mph)
Cross channel current direction:	Winter Toward the SW
	Summer Toward the NE
Jetty channel current direction:	138 °/ 318° ebb/flood
Jetty channel current speed:	0-0.5 knots (0-0.6 mph)
Sea Temperature (average):	Winter 56°F (13.3°C)
	Summer 84°F (28.7°C)

2.3 RELEVANT CHARTS AND NAUTICAL PUBLICATIONS

Masters are to ensure that they have the latest editions of all relevant charts or an approved ECDIS (Electronic Chart Display and Information System) installed as well as other nautical publications for safe navigation:

NOAA Paper Chart No:	11321
	11322
Pilotage Guides:	Brazos Pilots Association
	Annual Port Guide and Tide Tables

2.4 TUG REQUIREMENTS

2.4.1 SELECTION OF TUG SERVICE PROVIDER

Terminal Users are required to coordinate with and advise FLNG which tug company they choose to employ.

2.4.2 REQUIRED TUG RESOURCES

The number of tugs required for any operation will be as specified in and at the discretion of the respective Pilots/Masters.

A minimum of four tugs will be used for inbound and outbound transits, depending on weather conditions and circumstances, two of which must be FiFi I.

The Brazos Pilots Association recommended tugs are listed in the Brazos Pilots Association Basic Operating Procedure in the Zone 1 tug requirements.

https://brazospilots.com/basic-operating-procedures/

Freeport LNG reserves the right to refuse the use of any tug for any reason.

- One (1) tug with FiFi 1 capabilities will remain on standby, in close proximity to the Terminal, and dedicated to the LNG vessel that is at the Terminal.

2.4.3 ADDITIONAL TUG CAPABILITY

It is up to the vessel's Master and/or Pilot to decide if additional tug capability is needed over and above the minimums required by FLNG.

In the event that there are two LNG vessels at the Terminal concurrently, there shall be a standby tug dedicated to each vessel, one of which must be FiFi 1, that remains within close proximity to the terminal.

2.5 DOCUMENTATION REQUIREMENTS

Vessel Masters are responsible for all required documentation for entry into the United States of America. Masters are advised to check with their local agents for the most up-to-date list of required port entry documents. For vessels that have traded to the Far East at any time during the previous 24 months, every vessel must have valid certification to prove that it was inspected, at its most recent departure from the Far East area, for infestation by the flighted spongy moth complex (FSMC) and the vessel was found to be infestation free. If applicable, and for the expediency of the vessel's Agent preparing the vessel's port entry documentation for the USA, the infestation free Certificate may be included in the vessel's Notice of Departure upon commencing its voyage to the FLNG facility.

3. POLICIES

3.1 TERMINAL SAFETY POLICIES

FLNG subscribes to all relevant safety principles and practices detailed in the latest edition of the ISGOTT. The Terminal uses ISGOTT safety checklists.

FLNG is a member of SIGTTO and subscribes to all relevant best working practices recommended by SIGTTO.

3.2 VISITOR POLICY

Freeport LNG security personnel will escort crewmembers, visitors and vendors to and from the gangway and the Terminal gate. Freeport LNG Security reserves the right to screen persons, baggage, personal effects and vehicles, for dangerous or forbidden items.

Crewmembers departing the vessel for any reason must contact Freeport LNG Security via radio or phone prior to crossing the gangway onto the Terminal.

All personnel transiting through the Terminal directly to and from a vessel at either dock must remain in designated walkways and must wear closed toe shoes, long pants and a long sleeve shirt, the material must be at a minimum, 100% cotton. All persons who will be remaining in the dock area or Terminal process area for any length of time greater than 5 minutes, or working on the open spaces of a vessel, must be equipped with, and wear, fire retardant outer clothing, safety shoes/boots, a hard hat, safety eyeglasses, and gloves as necessary.

Mobile phones must be turned off while in the process area or transiting to and from a vessel.

No visitors below the age of eighteen (18) years will be allowed within the Terminal. This policy applies to all individuals including those who are passing through the Terminal to board a vessel and those who are leaving a vessel to pass through and exit the Terminal.

The use of the following items on Terminal property are strictly forbidden unless special permission is granted by FLNG Security in advance:

1. Lighters
2. E-cigarettes
3. Matches
4. Alcohol
5. Fire arms and ammunition
6. Weapons of any type
7. Illicit drugs
8. Cameras and video equipment

Personnel who do not comply with Terminal requirements may be denied access to the Terminal.

3.3 VIOLATION OF FLNG VISITOR POLICIES

All vessel personnel and visitors are required to comply fully with FLNG Safety and Visitor policies at all times while within the Terminal limits.

All illegal or criminal activity observed at the Terminal will be immediately reported to the law enforcement authorities.

Neither the Terminal nor the Terminal users will be responsible for any costs or losses resulting from the actions taken by Terminal personnel stemming from the failure of vessel personnel and/or vessels' visitors to comply with FLNG Safety and Visitor policies.

4. PORT ENTRY PROTOCOLS & INFORMATION

4.1 REQUIRED REPORTING PRIOR TO PORT ENTRY

It is the responsibility of all Terminal Users and Transporters to ensure timely communications with the Terminal and issuance of notices as detailed in this section, to ensure the avoidance of delay in a ship's schedule.

4.1.1 LNG SHIP'S CARGO TANK ARRIVAL CONDITIONS (LOADING)

All vessels loading from our Terminal must arrive at the Terminal with their cargo tanks pressure at 120 mb or lower. Cargo tanks temperature in a load-ready state, not warmer than (Membrane) -130°C/-202°F average & (Moss) -110°C/-166°F at equatorial ring an unless otherwise approved by the Terminal.

Vapor generated during LNG loading will be sent to the Terminal using the ship's onboard compressor, which is capable of delivering such a vapor pressure not exceeding 1 bar at the ship's manifold during cargo operation and a minimum vapor temperature of -103.9°C/-155°F unless the vessel needs a cool down or has low heel onboard. Warm vapors will be allowed contingent on Terminal approval prior to vessel arrival.

4.1.2 SHIP TO SHORE COMPATIBILITY

Prior nominating a vessel to call at the FLNG Terminal for the first time, Terminal Users must submit a request to FLNG at VesselCompatibility@FreeportLNG.com, to initiate the SSCS, this request must include following information:

- LNG Vessel IMO Number
- LNG Vessel Name
- LNG Vessel Operator Name, Address, and Email
- 100% Cargo tank capacity (m3)
- Cargo Tank Type (Membrane, Moss, or SPB)
- Editing Business Party (if different from LNG Vessel Operator), if same as Operator please note it in the email
- Lifting Window

The vessel owners/operators must then provide all of the remaining information requested by FLNG in order to conduct a proper SSCS for both LNG berths.

FLNG will issue an email notification regarding the determination of compatibility, including notices of any additional required information needed to make the LNG Vessel compatible with the Freeport Facility.

FLNG recommends that the Terminal User and owner/operator supply FLNG with the vessel data as early as possible for the ship- to-shore compatibility review to be undertaken.

4.1.3 FLNG NOTFICATIONS

Customers are responsible for ensuring that each LNG Vessel nominated for a scheduled Lifting Window issues timely notices at the agreed intervals consistent with the applicable provisions of a customer's contract prior to arrival. The required Vessel Arrival Notice form is provided in Appendix D of this manual. The Master or the LNG Vessel agent shall submit all periodic notices, and NOR via email to VesselNotices@FreeportLNG.com.

1. A Notice of Departure shall be sent upon the departure of the LNG Vessel from the last unloading port, dry-dock, repair port or other point of departure en-route to Freeport LNG. A FSMC certificate, if applicable, should accompany this notice. In this notice, the Master will advise the Terminal of the average cargo temperature in each ship's cargo tanks and the cargo tank vapor space pressure in each of the ship's cargo tanks.

2. A first notice ("First Notice"), which shall set forth and be sent ninety-six 96) hours prior to the estimated time of arrival of the LNG Vessel at the Arrival Location ("ETA"). In this notice, the Master will advise the Terminal of the average cargo temperature in each ship's cargo tanks and the cargo tank vapor space pressure in millibars, in each of the ship's cargo tanks. If, thereafter, such ETA changes by more than six (6) hours, Customer shall give promptly, or cause the Master of the LNG Vessel to give promptly, to FLNG notice of the corrected ETA;

3. A second notice ("Second Notice"), which shall be sent seventy-two (72) hours prior to the ETA set forth in the First Notice (as corrected), confirming or amending such ETA. In this notice, the Master will advise the Terminal of the average cargo temperature in each ship's cargo tanks and the cargo tank vapor space pressure in millibars, in each of the ship's cargo tanks. If, thereafter, such ETA changes by more than six (6) hours, Customer shall give promptly, or cause the Master of the LNG Vessel to give promptly, to FLNG notice of the corrected ETA;

4. A third notice ("Third Notice"), which shall be sent forty-eight (48) hours prior to the ETA set forth in the Second Notice (as corrected), confirming or amending such ETA. In this notice, the Master will advise the Terminal of the average cargo temperature in each ship's cargo tanks and the cargo tank vapor space pressure in millibars, in each of the ship's cargo tanks. If, thereafter, such ETA changes by more than three (3) hours, Customer shall give promptly, or cause the Master of the LNG Vessel to give promptly, to FLNG notice of the corrected ETA;

5. A fourth notice ("Fourth Notice"), which shall be sent twenty-four (24) hours prior to the ETA set forth in the Third Notice (as corrected), confirming or amending such ETA. In this notice, the Master will advise the Terminal of the average cargo temperature in each ship's cargo tanks and the cargo tank vapor space pressure in millibars, in each of the ship's cargo tanks. If, thereafter, such ETA changes by more than three (3) hours, Customer shall give promptly, or cause the Master of the LNG Vessel to give promptly, to FLNG notice of the corrected ETA;

6. A fifth notice ("Final Notice"), which shall be sent twelve (12) hours prior to the
ETA set forth in the Fourth Notice (as corrected), confirming or amending such ETA. In this notice, the Master will advise the Terminal of the average cargo temperature in each ship's cargo tanks and the cargo tank vapor space pressure in millibars, in each of the ship's cargo tanks. If, thereafter, such ETA changes by more than one (1) hour, Customer shall give promptly, or cause the Master of the LNG Vessel to give promptly, to FLNG notice of the corrected ETA;

7. A NOA (Notice of Arrival) which may be given at the time the vessel arrives at the Arrival Location Freeport, TX. This notification is not contractual. In this notice, the Master will advise the Terminal of the average cargo temperature in each ship's cargo tanks and the cargo tank vapor space pressure in millibars, in each of the ship's cargo tanks.

8. After reaching the Arrival Location, and upon receipt of all clearances necessary for the LNG Vessel to proceed to berth, the Master shall issue the NOR in accordance with their charterer's instructions to VesselNotices@FreeportLNG.com.

Prior to the arrival of a vessel at the Terminal, the Facility Security Officer will coordinate with the Master via e-mail, and agree upon the content of

the Declaration of Security (DOS). At MARSEC Level 1, the DOS will be completed electronically, for MARSEC Levels 2 and 3 the DOS will be conducted onboard the vessel. Contact information for the Facility Security Officer is contained in Appendix B of this manual.

4.1.4 U.S. COAST GUARD NOTIFICATIONS

Federal Regulations (33 CFR 160.201 – 160.215) require ship's staff to provide a Notice of Arrival to the USCG COTP at Sector Houston / Galveston, at least 96 hours in advance of the vessel's arrival. Contact information for this USCG office is contained in Appendix A of this manual. Vessels must meet all USCG requirements for entering Port Freeport. For further guidance, please check with your local agent.

Vessel traffic in the Port of Freeport area is monitored by the USCG through the notification communications between the Coast Guard and arriving/departing vessels. However, the USCG does not maintain a VTS for vessels operating in and around Freeport.

4.1.5 BRAZOS PILOTS ASSOCIATION

LNG vessels entering and departing Port of Freeport are required to have two Pilots (hereinafter referred to in the singular) on board. Pilot services are provided by the Brazos Pilots Association.

For LNG vessels desiring to arrive or depart Port of Freeport outside of specified daylight hours, a nighttime waiver must be granted. Please refer to the Brazos Pilots Basic Operating Procedure for further guidance :

https://brazospilots.com/basic-operating-procedures/

LNG vessels shall meet the requirements of the Brazos Pilots Association Basic Operating Procedures effective as of the date of the arrival of the vessel at Freeport. The current Basic Operating Procedures of the Brazos Pilots Association can be sourced from the vessels local agent.

Vessel movement orders are the responsibility of the Terminal User, Transporter, or their designee. The Brazos Pilots accept movement orders by telephone only. Requests made by radio (VHF) will not be accepted. A minimum of two (2) hours advance notice is required for vessel arrivals. A minimum of one (1) hour notice is required for routine departures. Unscheduled departure notifications will be facilitated by either the ship's agent or FLNG Terminal personnel. Contact information for the Brazos Pilots and for tug assist companies is in Appendix A.

4.1.6 MASTER PILOT EXCHANGE

To ensure the safest possible transit, upon boarding the vessel and getting to the ship's navigation bridge, the Brazos Pilots will hold the Master Pilot Exchange (MPX) with the Master in accordance with the subject as detailed in the Brazos Pilots Association annual Port Guide.

4.1.7 PORT FREEPORT

Port entry requirements, procedures and restrictions are the responsibility of the Brazos River Harbor Navigation District, which operates as "Port Freeport". The Basic Operating Procedures and other information published by the Brazos Pilots reflect the Port of Freeport protocols.

Specific information on the port and its operations is available from Port of Freeport and can also be sourced from your local agent. Contact information for Port of Freeport officials is contained in Appendix A of this manual.

4.1.8 TERMINAL'S NOTIFICATIONS TO ARRIVING SHIPS

FLNG will issue 'Instructions for Arrival' to the ship, via email, with all pertinent parties copied. This notice will be sent no later than one day prior to the berthing. Its purpose is to instruct the ship regarding its berthing prospects following its arrival at the Pilot station, general plans for the cargo transfer, mooring arrangement, Terminal arrangements that have been made for the supervision of visitors to the ship once they have entered the Terminal's secure area, requirements for PPE while inside the Terminal's secure area, etc.

In the event that circumstances in the Terminal, in the port or elsewhere change to the degree that it will affect the ship's berthing prospects following its scheduled arrival, FLNG will provide updated berthing information to the ship via the ship's own local agent.

When the Terminal is ready to receive the vessel, FLNG will issue a 'Notice to Proceed' to the ship and to its agent. This notice will provide the ship with relevant information regarding its transit from its arrival position to the FLNG Terminal.

4.2 PORT ENTRY INFORMATION

4.2.1 TYPICAL TRANSIT ROUTES

Freeport Harbor lies approximately 40 miles southwest of Galveston, Texas. The area is known locally as Brazosport because of its location near the mouth of the Brazos River.

Approaches to Freeport Harbor, including the Shipping Safety Fairways, the Freeport Entrance Channel and the Freeport Jetty Channel are depicted on NOAA Charts No. 11321 and 11322. Federal Regulations require that all commercial vessels calling at Freeport, Texas have these fully updated and corrected charts on board or an approved ECDIS installed.

4.2.2 LOCAL NAVIGATION CONDITIONS

Electronic access to the Coast Pilot is possible through the NOAA Office of Coast Survey website: https://nautical-charts.noaa.gov/publications/coast-pilot/index.html

Federal Regulations require that all commercial vessels calling at United States ports along the Gulf of Mexico have this publication onboard.

4.2.3 U.S. COAST GUARD BOARDING LOCATION

The USCG generally boards LNG carriers to perform inspections after the vessel has secured to its berth at the FLNG Terminal. Depending upon the inspection to be performed while the vessel is at the berth, the USCG team may, or may not, permit normal cargo transfer processes (pre-transfer meeting, heel/cargo measurement, bunker surveys, cargo transfer arm connecting, etc.) to be performed. Other non-regulatory agency inspections on board the ship, which are undertaken by organizations not affiliated with FLNG, may be undertaken contingent upon those inspections NOT hindering or delaying the ordinary port operations and cargo transfer procedures to be undertaken by the vessel.

The USCG has advised FLNG that some LNG carriers approaching Freeport, Texas, may have an offshore security boarding conducted by USCG personnel prior to entering port.

Masters are solely responsible for the safe navigation of their vessels during the entire USCG boarding and inspection process and should not hesitate to inform the USCG boarding party of any unsafe situation which arises and which requires immediate attention. The USCG boarding party's top priority is the safety of the vessel and its crew. Ship's staff should contact the USCG COTP Sector Houston-Galveston through their vessel agent to determine when and where the USCG boarding will take place. Contact information for the USCG is in Appendix A of this manual.

4.2.4 U.S. COAST GUARD MOVING SECURITY ZONE

Under the U.S. Code of Federal Regulations, 33 CFR 165.818, the USCG COTP Sector Houston-Galveston has established a moving security zone for certain vessels transiting the territorial waters of the USA to Port Freeport. This moving security zone is applicable to all LNG vessels. The moving security zone is applicable from the point at which the LNG vessel crosses from international waters into territorial waters, twelve (12) miles from the coastline, until it secures to the Terminal's berth. The security zone extends from the surface of the sea to the ocean bed, one thousand (1000) yards (941.4m) ahead of, one thousand (1000) yards (941.4m) astern of and five hundred (500) yards (457.2m) on each side of the LNG vessel. All vessels, to which this moving security zone applies, shall fly the International Signal Flag pennant number five (5), to advise other vessels that a USCG imposed security zone exists around the ship.

4.2.5 PILOT BOARDING

The Pilot boat operator monitors VHF Channels 14 and 16 and ship's staff are required to contact the Pilot boat on either of these channels for boarding directions.

Pilot Boarding Station: One mile southeast of the Freeport Entrance Lighted Whistle Buoy ("FP" Buoy), which is in position:

Latitude: 28º 52.5" N
Longitude: 95º 14.2 W

The Master should obtain the Pilot Boarding Details from their local agent.

For reference the IMO / International Maritime Pilots' Association standard placard detailing the rigging of Pilot ladders is shown in Appendix C – Reference 1. Vessels must comply with the Brazos Pilots Association Pilot ladder requirements and they differ in minor ways from the standard Pilot ladder arrangements, which differences are detailed immediately above.

4.2.6 U.S. CUSTOMS AND BOARDER PROTECTION

Freeport, Texas is a U.S. Customs port of entry. Typically, the U.S. Customs and Border Protection board the vessel together with the ship's agent after the vessel has completed securing to the LNG berth. Contact information is located in Appendix A and all notification and coordination is the responsibility of the Terminal User, Transporter or their designee.

5. BERTHING PROTOCOL / PROCEDURES

5.1 TERMINAL OPERATIONAL RESTRICTIONS

The FLNG Terminal is normally open 24 hours a day, 365 days a year, weather and sea conditions permitting. However, it is a policy of the Brazos Pilots that because of their sizes, all LNG ships will be daylight-restricted vessels, unless a nighttime waiver is granted by the Pilots. Please contact your Agent for further guidance.

Port entry and berthing is always subject to daylight and the prevailing weather. When transiting the port and mooring in conditions of reduced visibility, the decision to move the vessel will be made jointly by the Pilot and the Master. Both parties will discuss the prevailing conditions and only move the vessel when they both agree that it is safe to do so.

The following table provides a guide to the status of the Terminal operations as it relates to prevailing wind conditions. These are strictly guidelines not rules. Wind conditions will be measured using Terminal equipment, if the Master feels that it is unsafe to continue cargo operations based on the Vessel's equipment readings they may decide to suspend transfer operations. At the time that a vessel movement is due to be carried out, should the prevailing wind conditions be complicated by unusual tidal flows, cross currents, or any other environmental, traffic, or other issues, the vessel movement will be contingent upon the agreement of the Master and the Pilot.

5.2 FLNG MARINE TERMINAL OPERATIONAL STATUS – WIND CONDITIONS

5.2.1 OPERATING WIND SPEED GUIDELINES

Wind Speed	Operational Status
Sustained wind less than 20 knots	Terminal open for all operations.
Sustained wind greater than 20kts (23.0mph) but Less than 35kts	All operations already under way shall continue.
Sustained winds at 35kts (40.3mph) for a period of 60 seconds or more	Cargo transfer to terminate, cargo arms drained, purged, disconnected and retracted into their locked position.
Sustained wind greater than 35kts (40.3mph) for a period of 60 seconds or more	Vessel to remain at berth. Master's decision to deploy or not, additional mooring lines. (Line handlers will be required) See Section 5.2.3.

5.2.2 VESSEL DEPARTING THE TERMINAL DUE TO HIGH WINDS

Prior to the decision regarding the movement of a vessel as reflected in the table above, the issue will be discussed between the assigned Pilot, the Master and the Terminal Marine Department.

5.2.3 USCG SECTOR HURRICANE PREPAREDNESS PLAN

For additional information on the USCG Houston – Galveston Zone preparations at the approach of a hurricane, details of the "Sector Houston – Galveston Storm Preparedness & Response Plan" can be sourced through the ship's Agent.

5.3 DESCRIPTION OF BERTHS AND DOCKING PROCEDURES

5.3.1 BERTH NO. 1 CAPACITY AND CONFIGURATION

The LNG berth is designed to accommodate ships with maximum dimensions of:

LOA: 1132.8 ft. (345m)
Max Beam: 180.0 ft. (54.8m)
Max Draft: 42 ft. (12.8m)

The berth is equipped with four (4) breasting dolphins and six (6) mooring dolphins.

The breasting dolphins are numbered BD-1 to BD-4 from the southwest to the northeast. Each breasting dolphin is fitted with a double quick-release

hook assembly. Each hook in the assembly is rated at 150t SWL. Every breasting dolphin is equipped with a motorized capstan.

See Appendix F, Exhibit 1 for the Typical Breasting Dolphin plan drawing.

The mooring dolphins are numbered MD-1 to MD-6 from the southwest to the northeast. MD-1, MD-2, MD-5 and MD-6 are each fitted with a quadruple quick-release hook assembly. Each hook in the assembly is rated at 150t SWL. MD-3 and MD-4 are each fitted with a triple quick-release hook assembly. Each hook in the assembly is rated at 150t SWL. Every mooring dolphin is equipped with a motorized capstan.

See Appendix F, Exhibit 2, for the Typical Mooring Dolphin plan drawing.

See Appendix F, Exhibit 3, for the Mooring Diagram showing the layout of the entire LNG berth.

Arriving LNG vessels will be met by their attending tugs outside of the port's jetties and they will proceed between the jetties to the turning basin which is at the intersection of the channel and the Intracoastal Waterway. They will be stopped in the turning basin and, with the assistance of the tugs, they will be turned, and maneuvered, stern first, into the LNG dock basin and then pushed alongside the berth by the attending tugs.

The berth and cargo transfer systems are designed for LNG carriers to moor starboard side alongside, with the vessel's bow facing the port's channel. This is the preferred mooring plan for all vessels at the Berth No. 1.

See Appendix F, Exhibit 4, for the Fender-line Elevation diagram.

See Appendix F, Exhibit 6, for the Dock Fender Performance Diagram.

5.3.2 BERTH NO. 2 CAPACITY AND CONFIGURATION

The LNG berth is designed to accommodate ships with maximum dimensions of:

LOA: 985 ft. (300.0m)
Max Beam: 170.6 ft. (52.0m)
Max Draft: 42 ft. (12.8m)

NOTE: By the regulations of the Brazos Pilot's, this berth cannot be utilized in the event that a Q-Max vessel is docked at Berth No. 1.

The berth is equipped with four (4) breasting dolphins and six (6) mooring dolphins.

The breasting dolphins are numbered BD-1 to BD-4 from the northeast to the southwest. Each breasting dolphin is fitted with a double quick-release hook assembly. Each hook in the assembly is rated at 150t SWL. Every breasting dolphin is equipped with a motorized capstan.

See Appendix F, Exhibit 8, for the Typical Breasting Dolphin plan drawing.

The mooring dolphins are numbered MD-1 to MD-6 from the northeast to the southwest. MD-1, MD-2, MD-5 and MD-6 are each fitted with a quadruple quick-release hook assembly. Each hook in the assembly is rated at 150t SWL. MD-3 and MD-4 are each fitted with a triple quick-release hook assembly. Each hook in the assembly is rated at 150t SWL. Every mooring dolphin is equipped with a motorized capstan.

See Appendix F, Exhibit 9, for the Typical Mooring Dolphin plan drawing.

See Appendix F, Exhibit 10, for the Mooring Diagram showing the layout of the entire LNG berth.

Arriving LNG vessels will be met by their attending tugs outside of the port's jetties and they will proceed between the jetties to the turning basin which is at the intersection of the channel and the Intracoastal Waterway. At the turning basin, with the assistance of the tugs, they will be turned to Port and be maneuvered bow first into the LNG dock basin and then pushed alongside the berth.

The berth and cargo transfer systems are designed for LNG carriers to moor starboard side alongside, with the vessel's bow facing the back of the dock basin. This is the preferred mooring plan for all vessels at the Berth No. 2.

See Appendix F, Exhibit 11, for the Fender-line Elevation diagram.

5.3.3 MOORING LINE HANDLING

Mooring line handling services will be scheduled, coordinated by, and are the responsibility of the Terminal user or its shipping agent. The mooring line pattern to be used for each ship will be established through an Optimoor study to be performed by the ship's operators and agreed by the Terminal before the ship's arrival in the port. Following agreement between the ship operators and the Terminal regarding the mooring pattern to be used for the particular ship, the Terminal will distribute each ship's mooring pattern to the mooring line handlers prior to the ship's arrival at the Terminal.

The line-handling supervisor on the berth will be in direct communication with the Pilot on the vessel's bridge. The Pilot, in consultation with the Master, will direct the order in which the ship's mooring lines are passed to the mooring and berthing dolphins. The Terminal has pre-positioned

messenger lines on each mooring dolphin which will be passed to the vessel by using the vessel's heaving lines. Mooring lines will be passed from the ship to the mooring and breasting dolphins in accordance with the Master's instructions and the Pilot's advice.

FLNG requires that vessels are secured at the berths with a minimum of eight (8) mooring lines at the bow, and eight (8) mooring lines at the stern, two (2) of which, at both the bow and stern, shall be spring lines.

5.3.4 SPOTTING THE VESSEL ON THE BERTH

FLNG requires that a ship's officer be stationed at the vessel's vapor connection to communicate with the ship's bridge team and the FLNG representative at the vapor cargo arm to ensure the correct spotting of the vessel on the berth.

5.4 BERTH EQUIPMENT

5.4.1 APPROACH SPEED INDICATOR BOARD

Each berth is equipped with an approach speed indicator board to aid in vessel alignment and to indicate the speed of approach of the ship to the berth. The indicator boards are erected on the Mooring Dolphins Nos. 3 (MD-3) on each berth and can be rotated to face the position of the incoming ship's bridge.

At both berths, the maximum permitted approach speed of the ship to the fenders is 15 cm. per sec.

At both berths, the maximum permitted angle between the ship's side and the fenderline for landing the vessel on the fenders is ten (10) degrees.

5.4.2 MOORING LINE TENSION MONITORING

The system installed at FLNG for mooring line tension monitoring data transfer between the berth and the vessel is the Trelleborg system which uses radio communication to transfer the data between the dock and the vessel.

The Terminal PIC in the DCR also monitors the mooring line tension data on the DCR's control panel.

5.4.3 SHIP-TO-SHORE COMMUNICATIONS LINKS

Both FLNG berths are equipped with two umbilical type Ship – Shore Link systems which are both manufactured by SeaTechnik. Each dock has a fiber optic system and an electric system. Both systems are configured for voice/telephone communications and for ESD
signal communications. The Terminal's "hot-line" telephone for both of these systems is located in the Dock Control Room.

The fiber optic systems are compatible with the Sumitomo-Furukawa system. The Terminal's FO cable connectors mate physically and optically with the six-way Furukawa connector and the system's signals are compatible with all shipboard Furukawa systems.

The electrical systems utilize the Pyle National 37 Pin connector for coupling to the vessels.

The pin placement for the functions of the Pyle National systems on both berths is tabulated below:

Pin Numbers	**Function**
5 and 6	Hot-line telephone
9 and 10	Terminal telephone
13 and 14	ESD Shore to Ship
15 and 16	ESD Ship to Shore

5.4.4 FAILURE OF SHIP-TO-SHORE VOICE COMMUNICATIONS

- In the event of any failure of the hot-line voice communication system between the vessel's CCR and the Terminal's DCR, voice communications will default to communications via the handheld radios and/or the ships phone Any shipboard operations that are ongoing if the hot-line voice communications fail, including cargo transfer operations, will be stopped immediately until either the hot-line voice communications link is re-established through one or the other of the umbilical systems, or agreement is reached between the vessel and the Terminal to rely on

handheld radios for voice communications.

- In the event that a vessel detects that hot-line voice communications and handheld radio communications between the vessel CCR and the Terminal's DCR fail at the same time during cargo transfer operations, that vessel shall signal the Terminal that cargo transfer operations will immediately be stopped by giving one prolonged blast on the ship's whistle/fog horn.

- In the event that the Terminal detects that hot-line voice communications and handheld radio communications between the Terminal DCR and a vessel's CCR fail at the same time during cargo transfer operations, the Terminal shall signal the vessel that cargo transfer operations will immediately stop by advising the vessel of the stoppage through the use of the voice loud hailer system installed on the berth. The stoppage signal will be the word 'STOP' repeated three times over the loud hailer at full volume.

- This failure of the communications systems plan will be confirmed between the Terminal's PIC and the vessel's PIC at the pre-cargo transfer meeting.

- In the event of the failure of a voice communications system that causes the stoppage of cargo transfer, the transfer process will not be resumed until effective ship / shore voice communications have been re-established and tested to verify their ongoing reliability.

5.4.5 CARGO ARMS

The cargo arms on both berths are manufactured by SVT of Germany. All are fitted with PERCs. The securing mechanisms for connecting the arms to the vessel's manifold are cam-locks. The connection flanges are flat-faced and utilize three concentric SVT customized "O" ring-type seals on each flange. It is recommended that, in order to avoid any possible damage to the vessel's manifold connecting flanges, a short spool piece, to which the arms can be connected, be fitted outboard of all vessels' cargo and vapor manifold pipe connecting flanges. It is further recommended that vessels arrive at the Terminal with manifold spool pieces that have non-serrated, flat-faced presentation flanges with a flange surface finish that is smoother than 3.2 / 6.3 RA. Vessels must provide their own spool pieces.

Cargo arms on both berths are spaced on 4.0m centers. All cargo arms are fitted with insulating flanges.

At Berth No. 1, from the southwest to the northeast, the cargo arms' numbered designations and services are as follows:

Designation	Service
LA-1C	Liquid
LA-2	Vapor
LA-1B	Liquid/vapor hybrid
LA-1A	Liquid

For the avoidance of doubt, when the vessel is berthed Starboard side alongside, cargo arm LA-1C will be closest to the stern of the vessel and cargo arm LA-1A will be closest to the bow of the vessel.

See Appendix F, Exhibit 5, for the PROFILE view of the Cargo Arm Operating Envelopes at Berth No. 1.

At Berth No. 2, from the southwest to the northeast the cargo arms' numbered designations and services are as follows:

Designation	Service
18LA-21A	Liquid
18LA-21B	Liquid/vapor hybrid
18LA-22	Vapor
18LA-21C	Liquid

For the avoidance of doubt, when the vessel is berthed Starboard side alongside, cargo arm 18LA-21C will be closest to the stern of the vessel and cargo arm 18LA-21A will be closest to the bow of the vessel.

See Appendix F, Exhibit 12, for the PROFILE view of the Cargo Arm Operating Envelopes at Berth No. 2.

5.4.6 ESD 1 Valves

The closing times of the ESD 1 valves on both docks are in accordance with the SIGTTO recommended closing times.

5.4.7 Gangways

Both berths are equipped with a pedestal-mounted, telescopic, self-leveling tread, gangway. Each gangway requires a landing area of about 1.85 sq. m.

The gangway on both berths is forward of the ship's manifold when the ship is berthed Starboard side alongside.

See Appendix F, Exhibit 7, for the layout and operating limits of the gangway at Berth No. 1.

See Appendix F, Exhibit 13, for the layout and operating limits of the gangway at Berth No. 2.

5.4.8 Bonding Cable

In accordance with the guidelines of ISGOTT, a bonding cable is not used at the Terminal.

5.4.9 Fire Wires

Ship's fire wires are not required at the Terminal's docks.

5.5 STANDBY TUG

Freeport LNG requires that one tug with fire-fighting water cannon capability, rated at FiFi 1, remain in close proximity to the Terminal for immediate response to a call by the ship or the Terminal for the entire time that the LNG carrier is at the berth. If there are two LNG ships alongside the berths simultaneously, each ship must have its own dedicated attending tug.

5.5.1 COMMUNICATIONS – SHIP TO STANDBY TUG

Masters of LNG vessels are advised that, following the completion of docking operations at the Terminal, they should establish contact with the tug fleet which assists with the ship's docking and un-docking operations, to identify the specific tug that has been assigned the stand-by duties for their particular ship. Vessel Masters should establish a communications protocol with the stand-by tug Master in order to facilitate ease of communications between ship and tug should emergency tug assistance become necessary during the ship's port call.

5.6 SECURITY ZONE

Under the U.S. Code of Federal Regulations, 33 CFR 165.814, the USCG COTP Sector Houston-Galveston has established a security zone that encompasses the entire Freeport LNG dock basin. The only vessels that are legally allowed to enter this security zone are commercial vessels transiting to or from other waterfront facilities within Port of Freeport or commercial vessels providing logistic support to LNG vessels such as Pilot vessels, tugs, storing launches and barges, etc.

5.7 INTERNATIONAL SHORE CONNECTION

International Shore Connections and the valves controlling the flow of water to them are located on the uppermost platform of both docks' gangway towers. The Terminal's fire main is always pressurized.

In addition to the International Shore Connection at each dock, both docks are equipped with elevated firewater monitors, one on each of the outer corners of each of the jetty heads. These monitors are elevated to the level of the vessels' main decks and are remotely controlled from the respective dock's DCRs. Targeting of the discharge from these water cannons is performed utilizing the Terminal's closed-circuit video camera system.

5.8 RECEIPT OF STORES AND DELIVERIES

Storing is not permitted while alongside the FLNG Terminal Facilities from either Terminal side or Waterside unless approved under special circumstances by Terminal Management. No equipment or personnel will be provided by the Terminal for purposes of handling stores, provisions, and deliveries. The Vessel's agent and crew members may carry small personal packages, luggage, and other personal items up the gangway, provided that such items can be carried by one person with one hand and do not weigh more than twenty pounds (20 lbs).

In order for a special request to be assessed, Vessel personnel, stores launch companies, agents or other Vessel representatives must provide Terminal Marine Department at least one (24) hours' notice in advance of any intended storing. The notification must include the following:

- The name of the stores launch company,
- A description of the activities to be performed (i.e., delivery of provisions, removal of life rafts for recertification, removal of garbage, delivery of spare parts, etc.),

- The intended time and duration of the activity.

Freeport LNG does not allow the delivery of lube oils or any other hazardous materials to LNG vessels via barge, truck, or drums while the vessels are alongside our Terminal. In accordance with the Terminal's USCG approved Security Plan deliveries may NOT be made at MARSEC Levels Two (2) or Three (3) without the express permission and approval of the USCG.

Freeport LNG reserves the right to refuse or terminate stores loading operations if it does not comply with Freeport LNG policies or could potentially delay marine operations at the Terminal.

Requests must be made via email to FLNGPortOPS@FreeportLNG.com

5.9 BUNKERING

Fuel oil transfer from a bunker barge to an LNG ship is not allowed at the Terminal.

Potable and/or fresh water bunkers are not available from the Terminal. Water can only be supplied to an LNG ship by barge after the cargo arms have been disconnected from the ship's manifold at the completion of cargo transfer operations. Arrangements for the delivery of water bunkers must be made through the ship's agent.

In accordance with the Terminal's USCG approved Security Plan, at MARSEC Levels Two (2) and Three (3) specific permission must be obtained from the USCG for the delivery of water to the ship by barge.

Liquid nitrogen is not available from the Terminal.

5.10 REPAIRS

There are no ship repair facilities at the Terminal. Vessels may perform routine maintenance and inspection procedures while at the Terminal, but they shall not perform any maintenance on any control or propulsion system that could compromise the vessel's maneuverability in any way. In the event of the failure of any of the vessel's control or propulsion systems that occurs after the vessel has secured to either of the FLNG docks, the vessel's Master shall advise the Terminal, as soon as possible after the system failure has been detected, of the details of this equipment failure together with the plan to make repairs to the failed system and an estimate of the time it will take to return the vessel's failed system to full operational readiness. All of a vessel's maneuvering control and propulsion systems, ordinarily utilized by the vessel when entering or departing Port of Freeport and while secured to either of the FLNG docks, must be in full operating condition at all times. Vessels must be in a seaworthy condition, as defined by the IMO, before they depart FLNG's facility to proceed to sea, unless otherwise authorized by the USCG and Brazos Pilots. Authorization Form for Maintenance in

Appendix D must be completed and sent via email for approval to FLNGPortOps@FreeportLNG.com.

5.11 DISCHARGE OF BALLAST WATER

There are no facilities available at the Terminal for on-shore reception or disposal of ballast water. All ballast water is discharged into the FLNG dock basin. While at the Terminal, vessels must control their ballast to provide sufficient trim for efficient steering and maneuverability, in case the ship must depart the berth while partially loaded or discharged.

5.12 HANDLING OF NON-BALLAST OILY WASTE AND GARBAGE

FLNG has no facilities for receiving or handling ship's waste. Waste transfers may not be conducted while the cargo arms are connected and must be conducted on the outboard side of the vessel onto a barge provided by the identified waste handlers. Contact your vessel agent to arrange handling ship waste.

Transfer of garbage and oily waste may be carried out at MARSEC Level 1 as specified above. In accordance with the Terminal's USCG approved Security Plan, at MARSEC Levels Two (2) and Three (3) specific permission must be obtained from the USCG for the transfer of garbage and oily waste from the ship to a waste disposal barge.

5.13 CREW: SHORE LEAVE AND CREW CHANGE

Shore leave is allowed subject to the approval of the U.S. Customs and Border Protection Agency. The Terminal User or Transporter or their designee will be responsible for and assist in all vessel personnel logistics, crew transfer and assignments. All vessel personnel will be required to pass through FLNG security when entering and leaving the facility. The Terminal security staff will be responsible for searching personnel, vehicles and packages entering the facility or items to be transferred across the marine Terminal.

Berth No. 1 Dock
By U.S. federal regulations, all ship's staff walking between the vessel and the nearest Terminal gate, Gate No. 10, must be escorted by Terminal security personnel. Gate No. 10 is approximately 150 meters from the gangway.

Ship's staff departing the ship and those joining the ship are expected to walk with their belongings/baggage from Gate No. 10 to the dock gangway.

Berth No. 2 Dock
By U.S. federal regulations, all ship's staff traveling between the vessel at this dock and the nearest Terminal gate, Gate No. 10, must be transported in a Terminal operated vehicle unless otherwise authorized by the Terminal facility security officer.

This transport will take ship's staff directly to Gate No. 10. Ship's staff returning to their vessel will wait outside of Gate 10 until the transport vehicle arrives at the gate to transport them back to the ship.

Ship's staff departing the ship and those joining the ship are to be transported by the same Terminal operated vehicle with their belongings/baggage between the gangway and Gate No. 10.

Taxis are not allowed inside the perimeter fence of the Terminal.

6. CARGO TRANSFER

6.1 OVERVIEW

As a time saving measure, vessels are requested to arrive at their assigned docks with their deck cargo lines cold and drained back to the cargo tanks. However vessels may choose to arrive with deck cargo lines at ambient temperature. After an LNG vessel is securely moored, the cargo transfer procedure starts. The cargo transfer operation is under supervision of the PIC for that particular dock. All communication during cargo operation will be conducted between the PIC and the designated vessel representative.

Vessels will be requested by the Terminal to utilize their manifold cargo strainers whenever the Terminal cargo transfer pipeline or cargo transfer arms have been opened for maintenance or repair immediately prior to the arrival of a ship at the particular dock. Strainers no finer than 200 mesh shall be provided by vessels and fitted by the ship's crew in each of the nominated liquid manifold lines for start-up / initial Terminal LNG transfer, after major maintenance periods or at other times when debris may be expected in either the ship's cargo tanks or cargo lines or in the Terminal's loading lines.

Vessels are permitted to utilize boil off gas (BOG) while at the FLNG facility only if the vessel is equipped with a gas measurement meter system, suitably certified by a relevant classification authority, and gas meter readings taken at the time of the opening custody transfer measurement and again at the closing of the custody transfer measurement to quantify the gas used by the vessel during the ship to shore or shore to ship cargo transfer operation.

Due to the Terminal's FERC noise level and vibration standard vessels are not permitted to use their gas combustion unit (GCU) while in port to reduce noise while a ship is in port. The GCU can be utilized during inbound transit until opening custody transfer is complete and again when closing custody transfer is complete and during the outbound transit.

6.2 TRANSFER PROCEDURES / PRE-TRANSFER MEETING

The transfer procedures will be discussed in detail by the Terminal's personnel assigned to that particular loading and the vessel's PIC at the pre-transfer meeting During the same meeting the various safety and security checklists and declarations will be completed and signed by the Terminal PIC and the PIC for the vessel.

LNG transfer operations are controlled and monitored from the facility's MCR which is centrally located in the Terminal complex and monitored from the DCR at each respective dock.

6.3 DEPLOYMENT OF CARGO ARMS

The LNG cargo arms are extended and retracted using the controls at either the fixed control panel situated on the uppermost platform of the berth structure or through use of a wireless portable control unit.

6.4 CONTROLS

6.4.1 DOCK OPERATION CONTROLS

The operation of the cargo arms, gangway and the ship-to-shore communication umbilicals are the responsibility of the PIC. During cargo transfer the PIC is stationed in the DCR monitoring all parameters of the cargo transfer through the installed control instrumentation and communication systems.

Mooring hooks are ordinarily operated manually by the mooring line handlers, locally at the hooks. However, the mooring hooks can be released remotely by the PIC utilizing the control system in the DCR.

The fire pumps serving the docks are started on pressure demand, i.e. if the pressure in the fire main drops, the fire pump starts automatically. The berth mounted fire water cannons are controlled remotely by the PIC from the DCR, and targeted by use of the CCTV dock monitoring system.

The DCR is equipped with a plant-wide phone system and handheld radios for use in contacting operations personnel when they are away from their telephones.

6.4.2 TERMINAL CONTROLS

Overall Terminal operations are controlled from the MCR.
The Marine Transfer Area for LNG is under the supervision of the PIC stationed in the DCR in accordance with 33 CFR 127.319 (a) (1).

6.5 TERMINAL MONITORING

6.5.1 SECURITY

There are CCTV cameras at a number of locations throughout the Terminal through which activities within and around the Terminal are monitored. The images from the cameras are displayed in both the control rooms and

in the Terminal's security office.

6.5.2 LOCAL WEATHER

The prevailing weather conditions are monitored by the MCR and by the PICs in both DCRs via a weather display monitor with an electronic feed from the Terminal's own weather station, mounted above each DCR. The wind conditions in which cargo transfer operations are conducted are defined in Section 5.2.1.

6.5.3 SHORT RANGE WEATHER

FLNG has contracted with StormGeo. to provide continuous, real-time regional weather alerts to the Terminal. The data reported to the Terminal security and safety officer includes the proximity of electrical storms to the Terminal. A warning is provided to the Terminal when any electrical discharges from storms breach the ten (10) mile radius circle around the Terminal. In this event, when cargo transfer operations are progressing, a warning will be given to the vessel by the Terminal's PIC of the storm's proximity and the storm's projected direction of travel will be monitored by the Terminal. Should the projected path of the storm bring it into closer proximity with the Terminal, a notification will be given to the ship(s) advising that the cargo transfer may be temporarily stopped until the passage of the storm, after which the cargo transfer will resume.

6.6 POST CARGO TRANSFER DOCUMENTATION

LNG transfer documentation and records are completed post transfer. Documentation is in accordance with the individual Terminal use agreements (LTAs, and SPAs) and their respective applicable terms and conditions.

7. EMERGENCIES

7.1 FREEPORT LNG EMERGENCY RESPONSE PLAN

7.1.1 Regulatory Compliance

It is the policy of FLNG to comply with all applicable federal, state and local laws and regulatory requirements through the incorporation of the applicable requirements into FLNG policies and procedures. FLNG management expects all employees and contract personnel to adhere to company procedures and practices, which are communicated to all employees and contract personnel through training programs and performance management systems.

The Terminal's Emergency Response Plan (ERP) has been prepared in consultation with the U.S. Coast Guard, the Federal Energy Regulatory Commission, DOT-PHMSA, and state and local agencies. The principal requirements incorporated into the ERP are found at:

I. Section 311 of the Energy Policy Act of 2005
II. Conditions 76 and 77 in the Order Issuing Authorization under Section 3 of the Natural Gas Act for the construction of Phase 2 of the FLNG Terminal issued by the Federal Energy Regulatory Commission (FERC) on September 26, 2006 in Docket No. CP05-361-000
III. The U.S. Department of Transportation (DOT) regulations at 49 CFR Part 193.2509 "Emergency Procedures"
IV. The U.S. Coast Guard regulations at 33 CFR Part 127.019 "Operations Manual and Emergency Manual: Procedures for Examination"; Part 127.307 "Emergency Manual"; and Part 127.309 "Operations Manual and Emergency Manual: Use"

7.1.2 Purpose

The purpose of the ERP is to provide an effective operational plan that sets forth FLNG's policies and procedures to respond to emergencies within the FLNG Terminal, emergencies that could affect the public adjacent to the FLNG Terminal and emergencies that could affect the public along the LNG vessel transit route.

7.1.3 Scope

The ERP addresses situations and conditions that require activation of FLNG's ERP in order to contain and control emergencies. It provides general guidelines and procedures for responding to emergencies within the Terminal.

7.1.4 Objective

The objective of the ERP is to give clear guidelines to FLNG staff and contractors, public officials and emergency responders, and the public in the event of an emergency in order to:

I. Be informed of FLNG plans and the Incident Command Structure used during an emergency at the Terminal.
II. Ensure efficient and effective steps are taken to safely secure the Terminal thereby preventing public and personnel injuries, minimizing the impact on the environment and protecting the physical assets.
III. Ensure that a formal communication structure is in place with relevant internal and external parties and governmental authorities in order to report and coordinate activities to ensure all parties are properly informed and updated on the steps taken to effectively handle the emergency.
IV. Conduct tactical direction (applying tactics appropriate to strategy, assigning the right resources and monitoring performance).
V. Initiate investigation into incidents with proper consideration of forensic evidence.
VI. Expedite the return of the asset to normal safe Terminal operation.

7.2 EMERGENCY SITUATIONS AT THE LNG BERTHS

7.2.1 General

An emergency at the LNG berths could be in the form of any one of a host of possible situations, be it on the vessel or on a berth. Each emergency requires responses particular to its own characteristics. The Terminal's USCG inspected and approved Emergency Response Manual contains details of specific responses to specific emergencies in the Terminal. LNG vessels each have their own Emergency Response Manuals that contain response information specific to the particular ship.

This FLNG manual provides only guidelines as to what is expected of vessels, should an emergency occur while an LNG vessel is berthed.

7.3 EMERGENCY ON A VESSEL

7.3.1 Actions by the Vessel

If an emergency occurs on a vessel at the berth, the vessel must raise the appropriate alarm for the vessel that is recognized by its crew. At the sounding of the alarm all cargo and ballast transfer operations must be stopped and the ship's main engines and steering gear brought to a readiness condition.

Responsibility for responding to the emergency on the vessel is that of the Master or his/her designated representative if he/she is not on the vessel. The same emergency response organization that the ship uses for an emergency when the ship is at sea will be used for responding to the similar emergency on the ship when it is in port**.**

It is the Master's responsibility to decide if preparing to drain and disconnect the cargo arms from the ship's manifold, or to request the Terminal to initiate an ESD 2 / PERC activation / cargo arm disconnection, is a necessary part of the response to a particular emergency.

The stand-by tug will be called by the vessel to come into close proximity with the vessel to be available to respond in any way that the Master may deem practicable. This tug is always at the disposal of the LNG vessel's Master.

7.3.2 Actions by the Terminal

On detecting the ship's alarm, if there is any delay in the stoppage of cargo transfer, the PIC in the DCR should manually activate an ESD 1 and immediately report the situation to the MCR. The Terminal will thereafter take emergency response action in accordance with its Emergency Manual, as deemed necessary. This could include summoning the local emergency services.

7.3.3 Preparations for Evacuation

The berth areas of FLNG have clearly signposted personnel muster areas. In the event that evacuation of a docked ship becomes necessary, the ship's crew will evacuate the ship via the Terminal's gangway and muster at the FLNG personnel muster station. If the particular emergency precludes the use of the Terminal gangway the secondary evacuation routes for the ship's crew will be by the ship's outboard lifeboat or the outboard accommodation ladder to a rescue craft.

7.4 EMERGENCY ON THE BERTH

7.4.1 Actions by the Vessel

If an emergency on the berth is detected by the vessel's crew, the vessel must immediately report the emergency to the DCR via the phone hot-line, handheld radio or most expeditious method available. Although certain emergencies on the berth will more than likely automatically trigger an ESD 1 event, should cargo transfer still be ongoing when the ship detects the emergency, all cargo and ballast transfer operations must be immediately stopped. The ship's main engines and steering gear must be brought to an instant readiness condition. The ship's crew must be ready to drain and assist with the disconnection of the cargo arms from the manifold if it is deemed necessary by either the Master or by the Terminal's PIC and if it is safe to do so.

Responsibility for responding to an emergency on the berth is that of the Terminal. The vessel's Master must assess the likelihood of the emergency effecting the vessel and take appropriate action to protect the crew, cargo and vessel. The Master's action could include requesting the Terminal to initiate an ESD 2 / PERC activation / cargo arm disconnection.

The Master of the vessel should keep in mind that the stand-by tug is available to assist in any way that is deemed necessary and feasible. The tug can be called by the vessel at any time to assist as may be appropriate for the particular emergency.

7.4.2 Actions by the Terminal

On detecting the emergency on the berth, if the cargo transfer is still ongoing, the PIC in the DCR should manually activate an ESD 1 and immediately report the situation to the MCR. The Terminal will thereafter take emergency response action in accordance with its Emergency Manual, as deemed necessary. This could include summoning the local emergency services.

7.4.3 Preparations for Evacuation

The berth areas of FLNG have clearly signposted personnel muster areas. In the event that evacuation becomes necessary, the Terminal personnel will muster at that location. The Master must assess the emergency and decide if evacuation of the ship's crew or taking his vessel off the berth and out of harm's way is his best course of action.

If the particular emergency on the berth impacts the vessel and prevents its departure, while at the same time precluding the use of the Terminal gangway as a route for evacuating the ship's crew from the vessel, the secondary evacuation route for the ship's crew will be by the ship's lifeboat(s).

7.5 EMERGENCIES ELSEWHERE IN THE PORT

7.5.1 Actions by the Vessel and Terminal

If an emergency is detected at another Terminal within the port of Freeport, the LNG vessel's Master should immediately have the ship's main engines and steering gear brought to a state of instant readiness and summon the attending tug(s) to come alongside the vessel.

Thereafter the Terminal management will consult with the Master in monitoring the emergency to assess the likely threat to which the LNG vessel may become exposed. Actions taken to ensure the safety of the ship's crew, Terminal personnel, the ship and the cargo may include stopping cargo transfer, disconnecting the cargo arms and taking the vessel off the berth and sending her to sea.

Any decision to take the vessel out of the port must be coordinated with the Terminal Marine Department and the Brazos Pilots Association.

8. DEPARTURE PROTOCOLS / PROCEDURES

8.1 PREPARING FOR DEPARTURE

8.1.1 Daylight Restrictions

LNG vessels are daylight restricted for departures unless there is an approved nighttime waiver from the Brazos Pilots Association. The hours of daylight are defined and published by the Brazos Pilots Association and vary with the seasons. Furthermore, departure of a vessel is always contingent upon other marine traffic in the Port as well as the prevailing environmental conditions being within acceptable limits in order to ensure the safe movement of the vessel from berth to the sea buoy.

8.1.2 Pilots

Pilots must be ordered no later than two (2) hours before the vessel's intended departure time. If the order for the Pilot is placed a significant time before the two (2) hour Pilot order deadline, vessel Masters should ensure that the Pilot order is reconfirmed two (2) hours before the intended departure time.

Should there be a conflict as a result of other vessels planning to depart Port of Freeport at the same time as requested by the LNG vessel, the Pilots will determine the order of departure.

It is a general guideline of the Brazos Pilots Association that departing vessels will have transit priority over arriving vessels.

8.1.3 Vessel Engine Room Preparations

Steamships are permitted to keep their main engine turbines' turning gear engaged while secured to the FLNG docks.
If equipped with an auto-spin system, steamships are permitted to utilize the system for preparing their main engine turbines for departing from the Terminal only if the Master agrees to the Terminal's requirements for using this system.

The Terminal's requirements are as follows:

- Prior to the initiation of the auto-spin process all cargo arms must have been disconnected from the vessel's cargo manifold and retracted to their stored positions.

- Prior to the initiation of the auto-spin process the ship-shore communications umbilical must have been disconnected from the ship and retrieved on to the dock.
- Prior to the initiation of the auto-spin process a minimum of three (3) of the vessel's contracted tug service provider's tugs must be in attendance at the ship and be secured to the ship with the tug's own towing line.
- Prior to the initiation of the auto-spin process all of the ship's mooring lines must have been verified by the duty deck officer to be tight.
- Prior to the initiation of the auto-spin process a deck officer of the ship's crew must be on duty on the ship's navigation bridge to observe any possible movement of the
  ship when the auto-spin is initiated. The officer must remain on the bridge throughout the operation of the system, to observe and report on any movement of the ship along the dock.
- Throughout the time of the operation of the auto-spin system an engineering officer of the ship's crew must be in the engine control room monitoring the operation of the auto-spin system and the engineering officer must be in contact with the deck officer on the ship's navigation bridge.
- During the operation of the auto-spin system, should the ship start moving along the dock, the deck officer on the ship's navigation bridge must instruct the engineering officer in the engine control room to immediately stop the operation of the system and must instruct the attending tugs to hold the ship in place.

This list of these Terminal's 'Conditions of Use of Auto-Spin' will be provided, at the cargo pre-transfer meeting between the Terminal's Person In Charge (PIC) and the ship's cargo officer/ship's PIC, to every vessel that requests to use the system.

8.1.4 Cargo Arm Draining, Purging and Disconnection

At the completion of cargo transfer, Terminal personnel will attend at the ship's manifold for the draining and purging of the cargo arms. A ship's officer shall attend at the manifold to coordinate the ship's part in disconnecting the cargo arms. The secondary arm of the cargo arm will first be drained to the ship. The primary arm of the cargo arm will then be drained to the shore. After draining and purging, they will be disconnected from the ship's manifold by Terminal personnel and retracted to their stowed position.

8.1.5 Ship-to-Shore Data Communication Devices and Gangway

Unless the Ship-to-Shore hot-line telephone connection must be maintained for some justifiable reason, under normal operating conditions the FLNG Terminal berth operating personnel will remove the umbilical from the vessel's

receptacle after the cargo arms have been disconnected from the ship's manifold. Ship-to-Shore communications will thereafter be maintained through the Terminal representative stationed in the vessel's CCR. The Terminal representative will be equipped with one of the Terminal's hand-held radios.

On completion of post cargo transfer paperwork, FLNG personnel will collect the Terminal's mooring line tension monitoring system laptop computer from the ship's CCR. After all personnel traffic between ship and shore ceases, FLNG personnel will remove the gangway from the ship's deck in readiness for the vessel's departure.

8.2 DEPARTING

8.2.1 Tugs

The tug requirements as specified in Section 2.5 will be utilized upon departure.

8.2.2 Mooring Line Handlers

The Terminal personnel and the line-handling supervisor and crew will await instructions from the Pilot to begin releasing the mooring lines. The mooring lines will be released in accordance with the orders and requirements of the Pilot.

APPENDIX A

FREEPORT AREA ORGANIZATIONS AND CONTACT INFORMATION

Area Port Authorities

Port Freeport
Executive Offices
1100 Cherry St.
Freeport, TX 77541-5863
Phone: 979-233-2667
Fax: 979-233-5625
www.portfreeport.com

Port Freeport Terminal
1001 Navigation Blvd
Freeport, TX 77541-5863
Phone: 979-233-2667

Brazos Pilots Association
Office address
2502 Deep Sea Drive Freeport, TX 77541
Phone: 979-233-1120
Mailing address
P.O. Box 1076 Freeport, TX 77542
VHF Channel 14 & 16
www.brazospilots.com

U.S. Coast Guard -Marine Safety Unit Texas City
3101 FM 2004
Texas City, Texas 77591
Phone: 409-978-2702

U.S. Coast Guard Sector Houston-Galveston COTP Office
USCG Sector Houston-Galveston
13411 Hillard St,
Houston, TX 77034,
Switchboard: 281-464-4800
Emergency: 281-464-4854
Fax: 281-464-4814
VHF Channels 16 and 21

APPENDIX A

FREEPORT AREA ORGANIZATIONS AND CONTACT INFORMATION

U.S. Coast Guard (Freeport Station)
823 Coast Guard Drive Freeport, TX 77541
Phone: 979-233-7551
Fax: 979-233-7551
VHF Channel 16

U.S. Customs and Border Protection - Freeport
575 Pete Schaff Blvd Freeport, TX 77541
Phone: 979-233-3004
Fax: 979-233-8661

U.S. Customs and Border Protection - Houston (Regional Headquarters)
7141 Office City Drive
Houston, TX 77087
Phone: 713-454-8002

Tug Services

Suderman & Young Towing Co.
2777 Allen Parkway
Houston, Texas 77019
Phone: 409-763-2428

Bay Houston Towing Co.
2201 Market St.
Galveston, TX 77550
Phone: 409-765-9381

Signet Maritime Corporation
1500 Main Street
Ingleside, Texas 78362
Phone: 361-776-7500

APPENDIX A

FREEPORT AREA ORGANIZATIONS AND CONTACT INFORMATION

Shipping Agencies

Norton Lilly International
226 W Park Ave.
Freeport, TX 77541
Office: 979.730.0031
Email: fpo-ops@nortonlilly.com

GAC North America
311 S. Brazosport Blvd.
Freeport, TX 77541,
Office: 979-233 3208
Email: freeport@gac.com

Cory Brothers
Remington Square 1
10603 West Sam Houston Parkway
Suite 240, Houston, TX 77064
Office: 713-904-5780
Email: agency.houston@corybrothers.com

Maritime Endeavors Shipping Co.
8866 Gulf Freeway, suite 300
Houston, TX 77017
Office: 713-599-0300
Email: ops-texas@mescltd.com

Wilhelmsen Ships Service
9400 New Century Dr.
Pasadena, TX. 77507
Office: 281 867 2020
Email: wss.hou.ops@wilhelmsen.com
Email: wss.namgulf.husbandry@wilhelmsen.com

Launch Services

Harbor Offshore Marine
1122 Marlin Lane
Freeport, TX 77541
Phone: 409-741-1222

APPENDIX A

FREEPORT AREA ORGANIZATIONS AND CONTACT INFORMATION

Freeport Launch
1201 E. Brazos Street
Freeport, TX 77541
Phone: 979-233-8044

Fueling Services

Buffalo Marine
8201 East Erath
Houston, TX 77012
Phone: 713-923-5571

Kirby Marine
55 Waugh Drive
Houston, TX 77007
Phone: 713-435-1000

Sun Coast Resources, Inc.
6922 Cavalcade
Houston, TX 77028
Phone: 713-844-9665

J.A.M. Marine Services
7010 Mykawa Road
Houston, TX 77033
Phone: 713-844-7788

Oil and Chemical Spills / Releases

National Response Center
2100 2nd Street SW, Room 2611B
Washington, DC 20593
Phone: 800-424-8802
Phone: 202-267-1322

Texas General Land Office Region 2
11811 North 'D' Street
LaPorte, TX 77571-9135
Phone: 281-470-6597
Fax: 281-470-6679
VHF Channel 16

APPENDIX A

FREEPORT AREA ORGANIZATIONS AND CONTACT INFORMATION

Marine Equipment and Supplies

Alpha Mar Group
5814 Heffernan St.
Houston, TX 77087
Phone: 713-640-2700

Evco Industrial Hardware, Inc.
606 N Brazosport Blvd
Freeport, TX 77541
Phone: 979-233-5303
Fax: 979-233-8610

Ship Repair

Alpha Mar Group
5814 Heffernan St.
Houston, TX 77087
Phone: 713-640-2700

Houston Ship Repair
8303 Millet Street
Houston, TX 77012
Phone: 281-452-5841

Hellenic Marine LLC
6933 Clinton Dr.
Houston, TX 77020
Phone: 713-678-7008

Precision Pneumatic
6618 E. Highway 332
Freeport, TX 77541
Phone: 979-230-9003

APPENDIX A

FREEPORT AREA ORGANIZATIONS AND CONTACT INFORMATION

Oily waste and garbage disposal

For disposal of oily waste, USCG certificated contractors are:

I. Intergulf Corp. – Phone: 281-474-1937

II. Nature Environmental & Marine Services, LLC – Phone: 866-770-7952

For disposal of garbage, certified contractors are:

I. Nucore Environmental – Phone: 713-557-5086

II. Nature Environmental & Marine Services, LLC – Phone: 866-770-7952

NOTE: For these oily waste and disposable garbage services, if alternative contractors are selected, a lead-time of 30 to 45 days is required for the chosen contractor to obtain the necessary operating certification through the USCG.

APPENDIX B

FREEPORT LNG CONTACT INFORMATION

TERMINAL OFFICES

Freeport LNG Terminal
1500 Lamar Street
Quintana, Texas, USA 77541
979-415-8700
979-415-8733

CORPORATE OFFICES

Freeport LNG Development, L.P.
333 Clay Street, Suite 5050
Houston, Texas, USA, 77002
713-980-2888
713-980-2903

Freeport LNG Terminal Main Control Room
Phone: 979-415-8750

Freeport LNG Terminal Dock Control Rooms
Berth No. 1 Dock: Phone: 979-415-8760
Berth No. 2 Dock: Phone: 979-415-8705

Freeport LNG Terminal Security Office
Phone: 979-415-8725

Freeport LNG Website: www.freeportlng.com

Email: FLNGPortOps@freeportlng.com

TUA Customer Website: www.efreeportlng.com

LTA/SPA Customer Website: https://ede-portal.freeportlng.com/User-Access

APPENDIX C
REFERENCE 1

Pilot Boarding Details:

Vessels are requested to contact the pilot boat one hour before pilot boarding on VHF channel 14 for pilot ladder instructions.

Brazos Pilot pilot ladder should be rigged 3 meters above the water line
Freeport Pilot 1 pilot ladder should be rigged 2.5 meters above the water line

If the vessel's freeboard is more than 9 meters, a combination ladder is required. The pilot ladder should be located at amidships, NO man ropes and NO boat ropes shall be utilized.

Boarding speed will be 8-10 knots.

REQUIRED BOARDING ARRANGEMENTS FOR PILOT

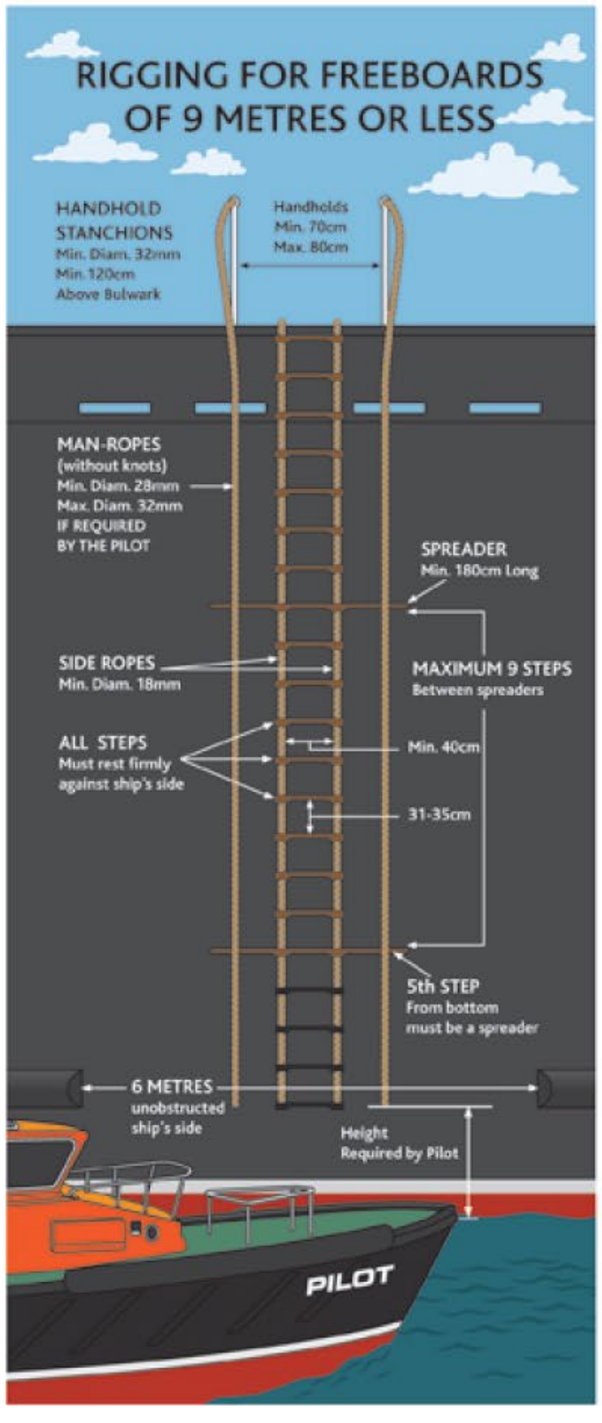
In accordance with SOLAS Regulation V/23 & IMO Resolution A.1045(27)

INTERNATIONAL MARITIME PILOTS' ASSOCIATION

H.Q.S. "Wellington" Temple Stairs, Victoria Embankment, London WC2R 2PN Tel: +44 (0)20 7240 3973 Fax: +44 (0)20 7210 3518 Email: office@impahq.org

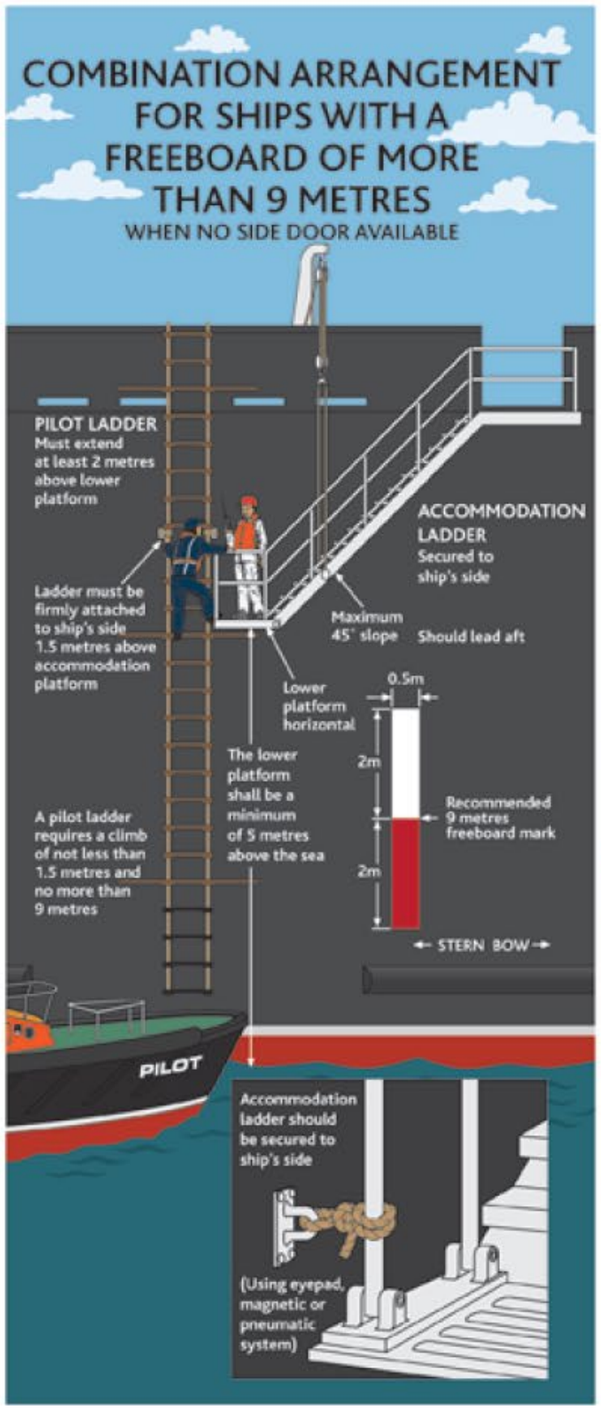
This document and all IMO Pilot-related documents are available for download at: http://www.impahq.org

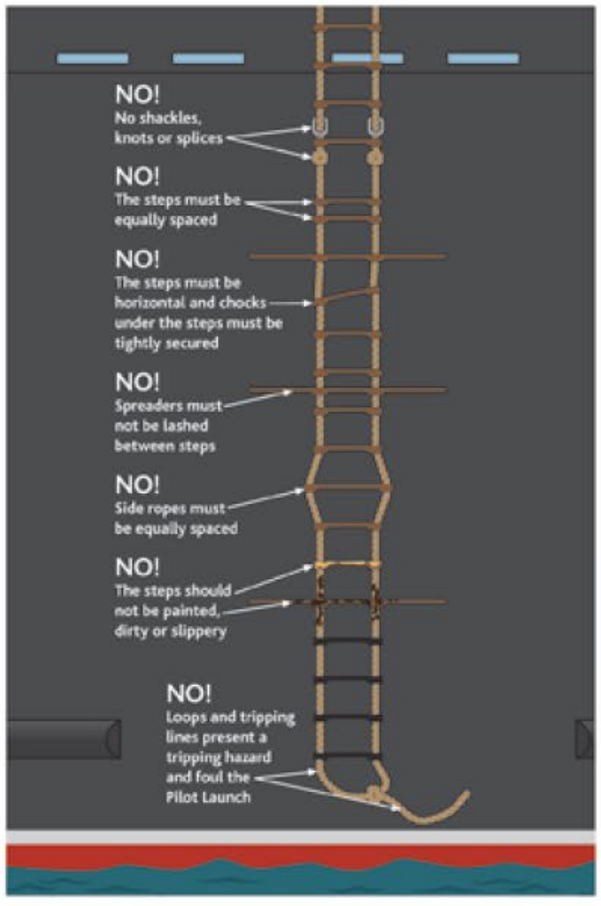
RIGGING FOR FREEBOARDS OF 9 METRES OR LESS

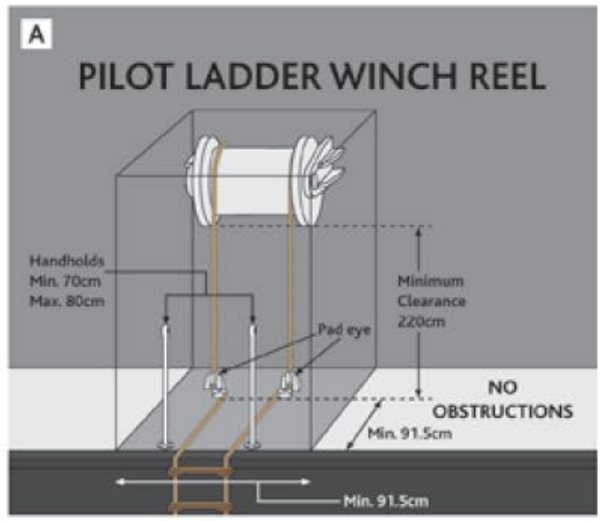


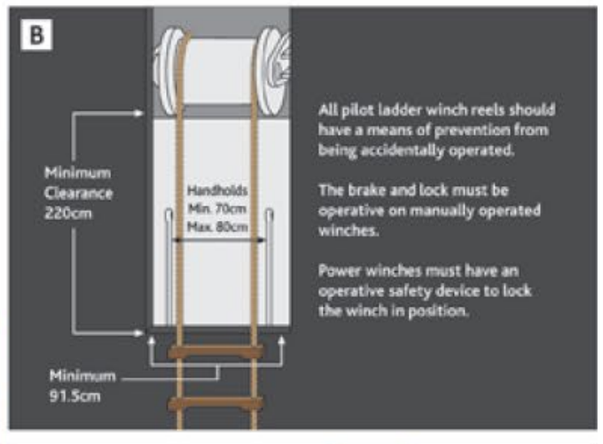
COMBINATION ARRANGEMENT FOR SHIPS WITH A FREEBOARD OF MORE THAN 9 METRES

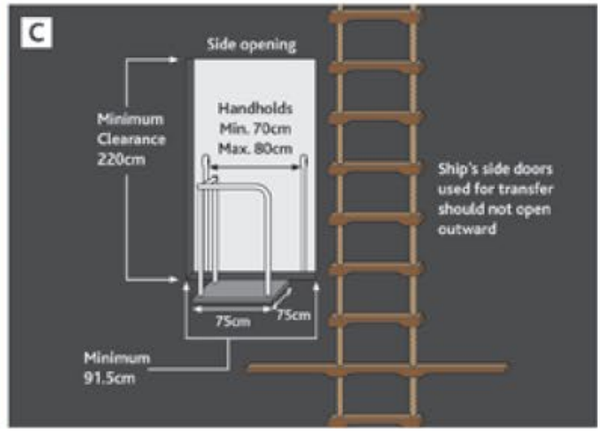
WHEN NO SIDE DOOR AVAILABLE











APPENDIX C
REFERENCE 2

For Terminal Users, the following FLNG manuals and other information sources are incorporated by reference and are available on the FLNG Customer website:

I. FLNG LTA & SPA Customer Website: https://ede.freeportlng.com/CustomerPortal
   A. Marine Operations Manual (MOM)
   B. Vessel Management Training Guide

II. U.S. Code of Federal Regulations, Title 46 - Shipping

CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION

46 CFR 154 – SAFETY STANDARDS FOR SELF-PROPELLED VESSELS CARRYING BULK LIQUEFIED GASES
https://www.ecfr.gov/current/title-46/chapter-I/subchapter-O/part-154

III. Brazos Pilots Association
   A. https://brazospilots.com/

IV. Port Freeport
   A. https://www.portfreeport.com/

V. U.S. Army Corps of Engineers
   A. https://www.swg.usace.army.mil/Missions/Navigation/HydrographicSurveys/Freeport_Harbor/

VI. NOAA PORTS
   A. https://tidesandcurrents.noaa.gov/ports.html

APPENDIX C
REFERENCE 3
Declaration of Security (DOS)

EXHIBIT 1 - DECLARATION OF SECURITY

Name of Ship_____ Port of Registry: _____

IMO Number:_____ Port Facility: Freeport LNG Development, LP

This Declaration of Security is valid from_____ until_____ for the following activities: loading of cargo

Maritime Security Level	For the ship: _____	For the facility: _____

The port facility and ship agree to the following security measures and responsibilities to ensure compliance with the requirements of part A of the International Code for the Security of Ships and Port Facilities

	The affixing of the initials of the Ship Security Officer and the Facility Security Officer under these columns indicates that the activity will be done in accordance with the relevant approved security plan.	
Activity	The ship	The port facility
Communications established between the vessel and facility		
Monitoring restricted areas to ensure that only authorized personnel have access		
Controlling access to the port facility		
Controlling access to the ship		
Monitoring of the port facility, including berthing areas and areas surrounding the ship		
Handling of cargo		
Screening of stores, cargo, hand carried items, and baggage		
Controlling the embarkation of persons and their effects		

The signatories to this agreement certify that security measures and arrangements for both the port facility and the ship during the specified activities meet the provisions of Part A of the ISPS Code that will be implemented in accordance with the provisions already stipulated in approved security plans.

Date of Issue: _____

Signed for and on behalf of

The ship: _____ (signature of Master or Ship Security Officer)	The port Facility: _____ (signature of Facility Security Officer)
Name: _____ (printed name)	Name: _____ (printed name)
Title: _____	Title: _____
Ship Stamp	Port Facility Stamp

APPENDIX C
REFERENCE 4
Terminal Gate list Template

Freeport LNG Gate list

Security Guard shack : 979-415-8730 (Gate 10)

Email Gatelist to: Gatelist@FreeportLNG.com

Vessel Name: _____

Agency: _____

Vessel Arrival Date: _____

Agenct Phone/Email: _____

Dock: _____

Type of Agent: _____

No	Name	Company	ID Type & Number
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APPENDIX D
Terminal Forms

Freeport LNG Development, L.P.
333 Clay Street, Suite 5050
Houston, Texas 77002

LNG VESSEL ARRIVAL NOTICE FORM

Please email the completed form to: vesselnotices@freeportlng.com

Vessel Name: _____ **Owners Agent:** _____

Date of Notice: _____ **Charterers Agent:** _____

NOTICE TYPE:

☐ **Notice of Departure (from unloading port, dry-dock, repair port, or other points of departure en route to the Freeport LNG Facility.) If applicable, include the Asian Gypsy Moth (AGM) Certificate when issuing NOD.**

☐ 1st Notice (96 hr.) ☐ 2nd Notice (72 hr.) ☐ 3rd Notice (48 hr.) ☐ 4th Notice (24 hr.)

☐ 5th Notice (12 hr.) ☐ Notice of Arrival (NOA)* *not contractually required ☐ Notice of Readiness (NOR)

Estimated Time of Arrival at Arrival Location: _____
* Freeport Anchorage

Estimated LNG ROB upon Arrival: _____ **m3**

Expected Arrival Draft: _____ **Estimated Departure Draft:** _____

ESTIMATED CARGO TANK TEMPERATURE AND PRESSURE (mbar) UPON ARRIVAL:

Tank 1: _____ Tank 2: _____ Tank 3: _____ Tank 4: _____

OTHER INFORMATION :

☐ **Lifting Window:** _____ (mm/dd/yyyy) ☐ **Estimated Load Quantity:** _____m3

☐ **Strainer type and size during loading:** _____

☐ **Gas up Required:** Quantity: _____m3 Duration: _____ hrs.

☐ **Cooldown Required:** Quantity: _____m3 Duration: _____ hrs.

☐ **USCG COC Required:** Annual Exam Date: _____ (Mid-term Exam) mm/dd/yyyy Date of Expiration: _____ (Renewal Exam) mm/dd/yyyy

MASTER'S REMARKS: This includes any other relevant information, including but not limited to deficiencies that may affect the vessel's operations at the Freeport LNG Terminal.

Vessel Repair and Maintenance Request Form

The Master of the M/V _____ requests permission to conduct the following repairs/maintenance while the vessel is docked at your facility. This work will not involve any hot work, impede cargo operations, or immobilize the vessel, ensuring it can safely depart in an emergency. The estimated duration for this repairs/maintenance is _____ hours.

Should the Master determine that the work is likely to extend beyond the estimated time, they will promptly notify the Person In Charge (PIC) and request an extension to the Terminal Marine Department.

Description of repair/maintenance:

Description of risk analysis finding:

The Master conducted a comprehensive risk analysis and reported the findings to the Terminal Marine Department. The Master will ensure all repairs and maintenance are carried out safely.

Master Name:	Terminal Representative Name:
Master Signature:	Signature:
Ship Stamp:	Title:
Date:	Date:

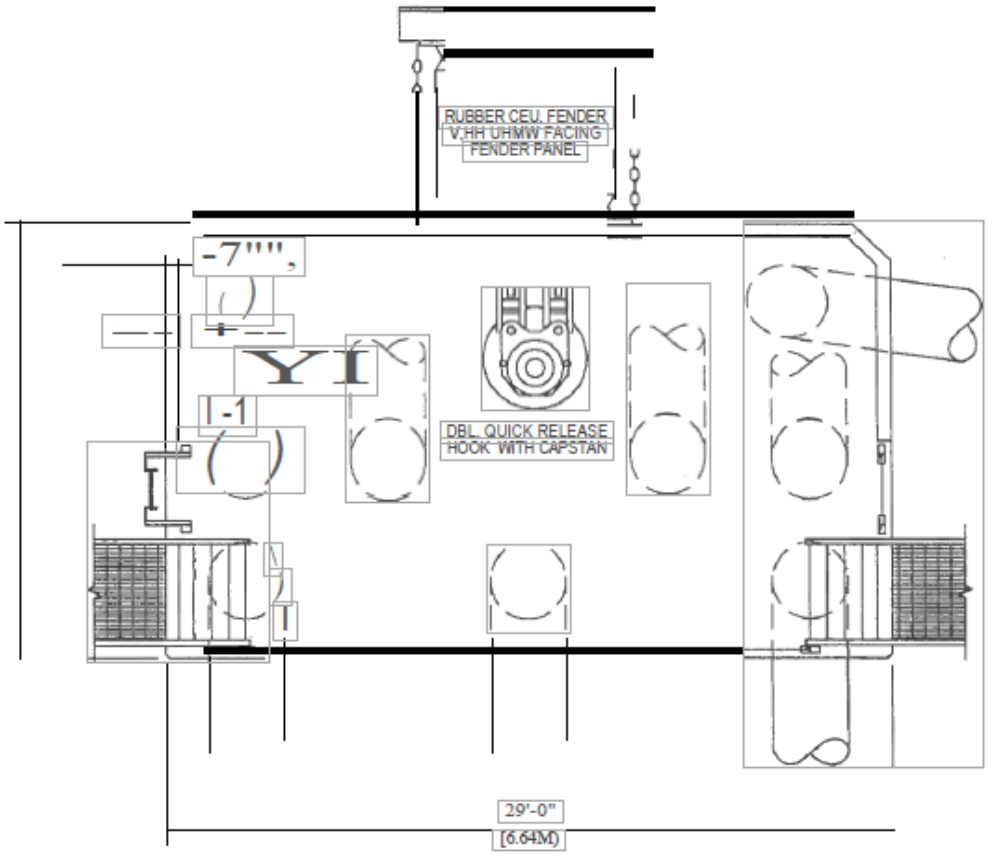
Email request to FLNGPORTOPS@FreeportLNG.com

APPENDIX E
[NOT USED]

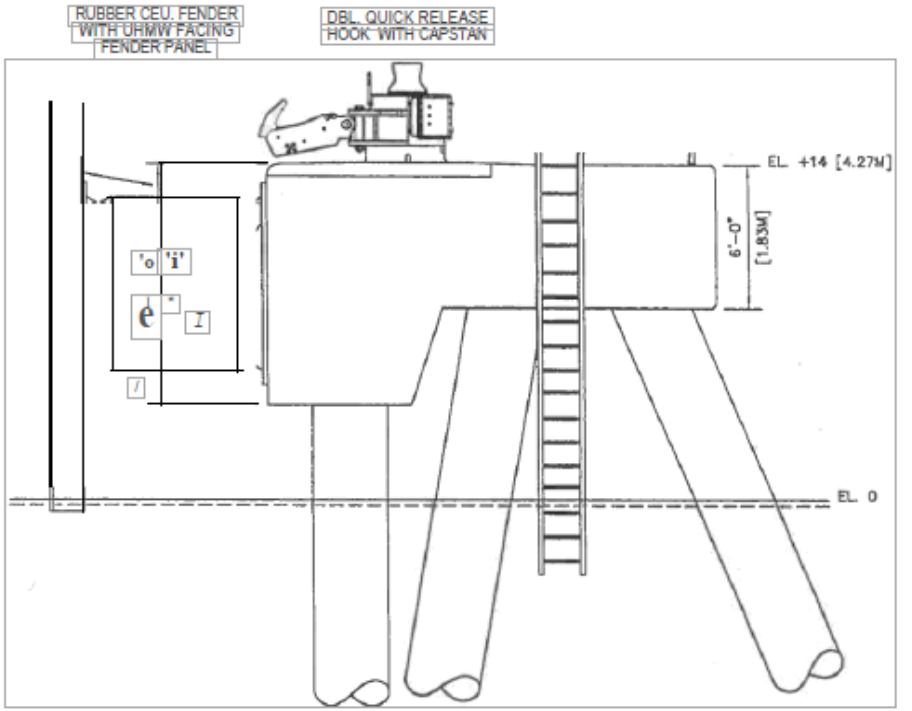
APPENDIX F
DOCK 1 AND 2
DRAWINGS

Exhibit 1	Dock 1 Breasting Dolphin
Exhibit 2	Dock 1 Mooring Dolphin
Exhibit 3	Dock 1 Mooring diagram
Exhibit 4	Dock 1 Fender line elevation
Exhibit 5	Dock 1 Cargo Arm Operating Envelopes
Exhibit 6	Dock 1 Fender Performance Diagram
Exhibit 7	Dock 1 Layout and Operating Envelope of the gangway
Exhibit 8	Dock 2 Breasting Dolphins
Exhibit 9	Dock 2 Mooring Dolphins
Exhibit 10	Dock 2 Mooring Diagram
Exhibit 11	Dock 2 Fender Line Elevation
Exhibit 12	Dock 2 Cargo Arm Operating Envelopes
Exhibit 13	Dock 2 Layout and Operating Envelope of the Gangway

Exhibit 1 – Dock 1 Breasting Dolphin



PLAN VIEW



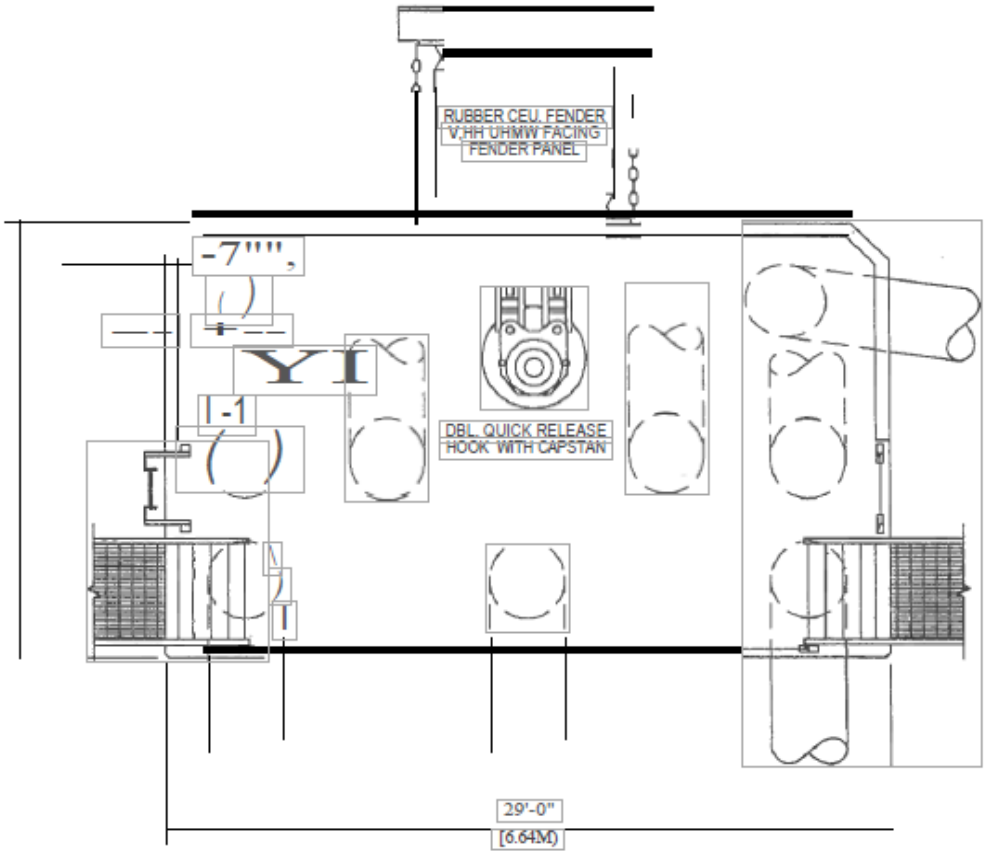
TYPICAL SIDE ELEVATION

MARINE FACILITY PHASE 1

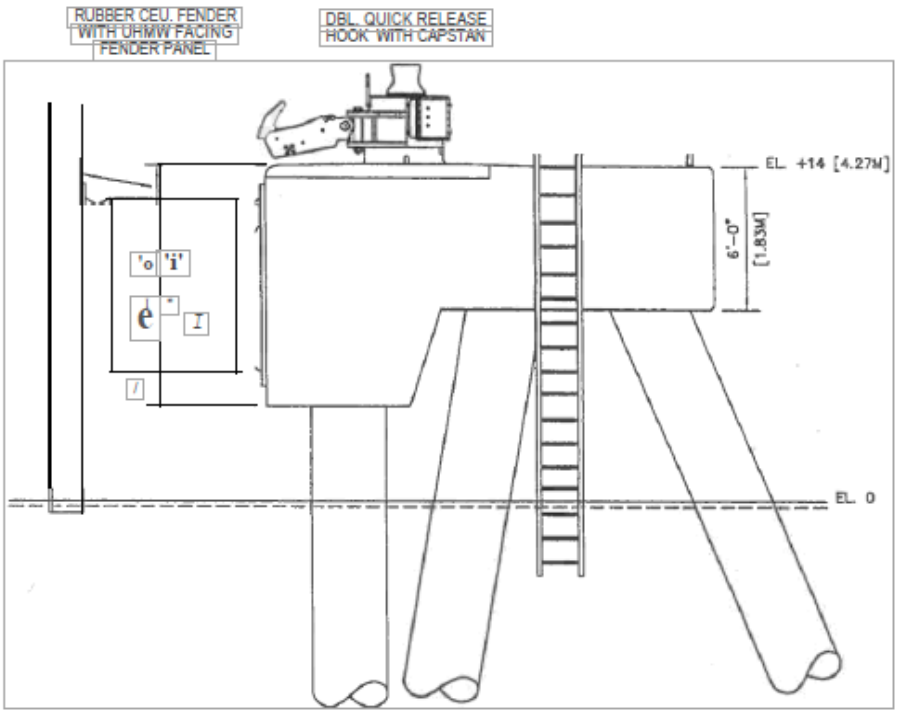
TYP. BREASTING DOLPHINS
DLAN AND ELEVATION
TYPICAL (SIMILAR) 4 PLACES

DRAWING NO.

Exhibit 2 – Dock 1 Mooring Dolphin



PLAN VIEW



TYPICAL SIDE ELEVATION

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MARINE FACILITY PHASE 1

TYP. BREASTING DOLPHINS

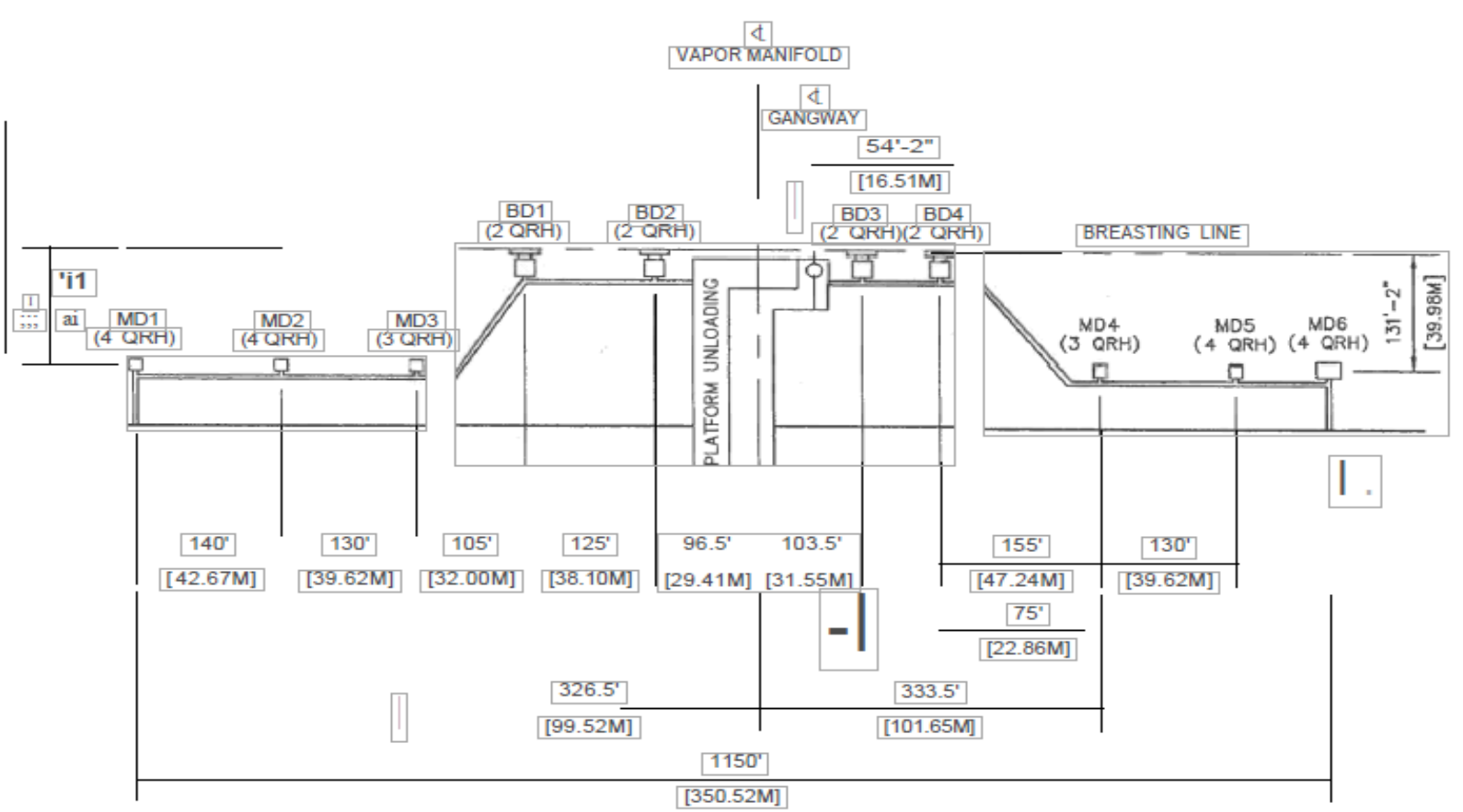
DLAN AND ELEVATION

TYPICAL (SIMILAR) 4 PLACES

DRAWING NO.

DWG. BY: JFG | APPR.: | DAIE | REV.

Exhibit 3 – Dock 1 Mooring Diagram



mz4tNS
MARINE FACILITY PHASE 1

MOORING DIAGRAM

DRAWING NO.

DWG. BY: JFG | APPR.: | DATE | REV

Exhibit 4 – Dock 1 Fender Line Elevation

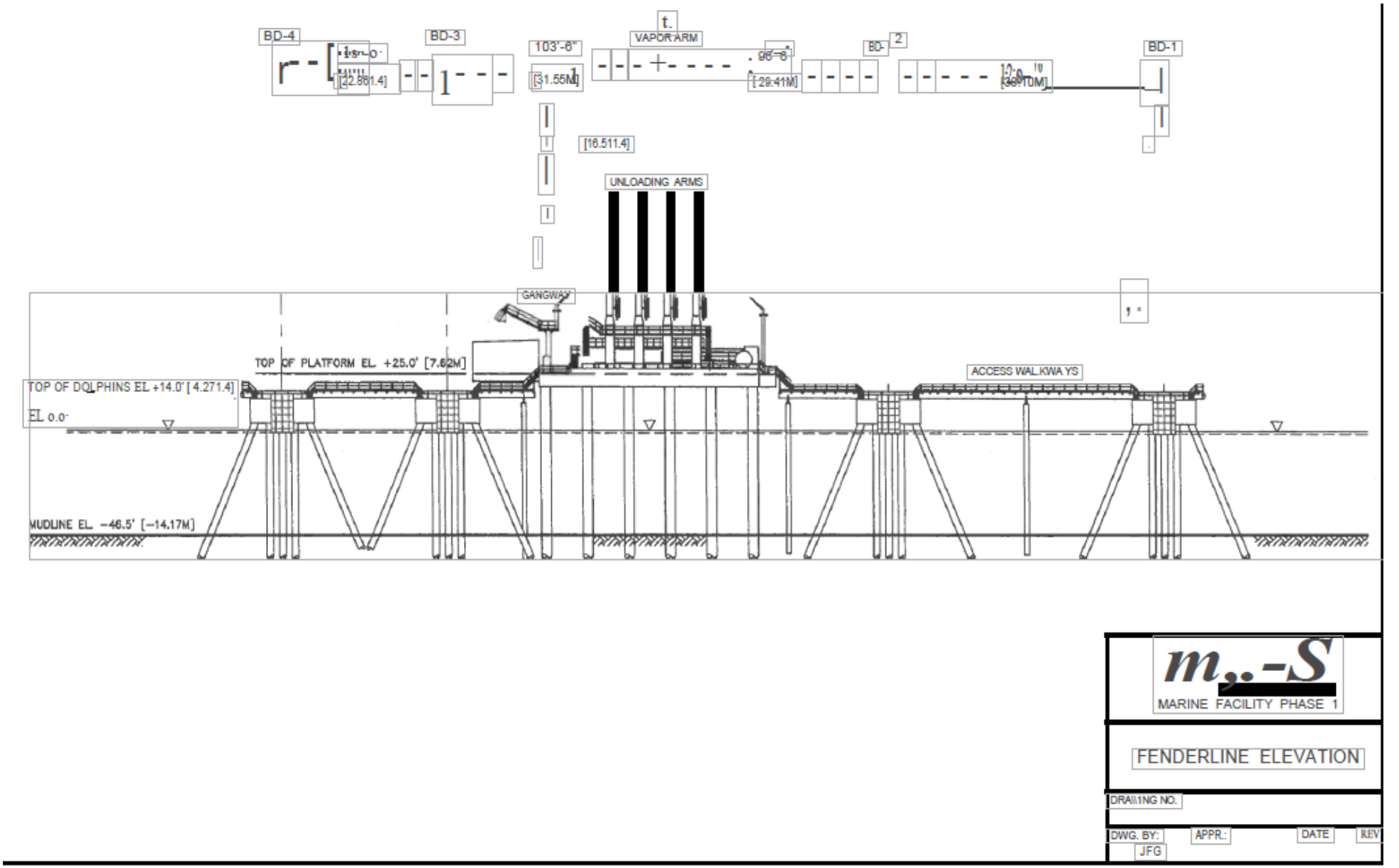


Exhibit 5 – Dock 1 Cargo Arm Operating Envelope

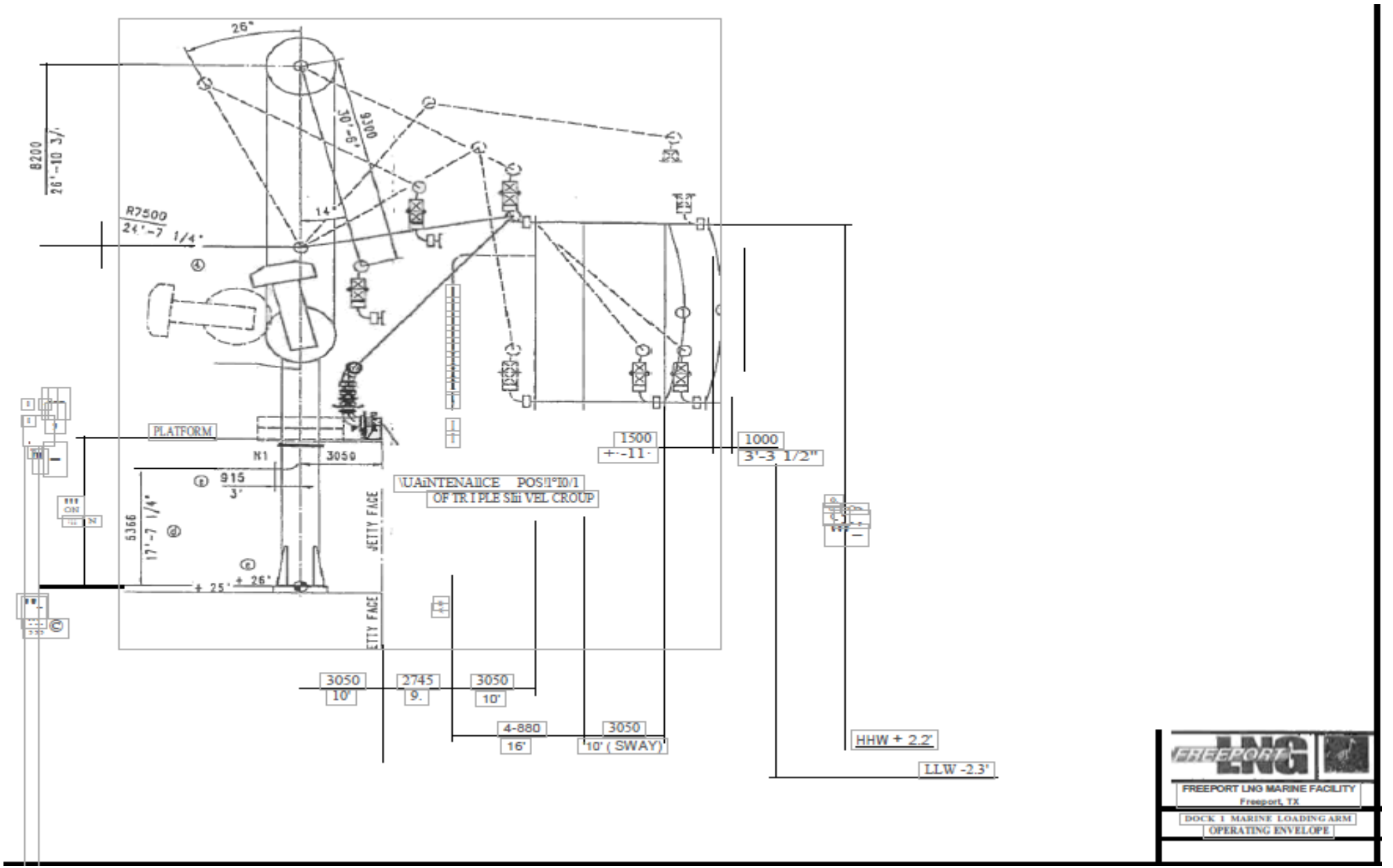


Exhibit 6 – Dock 1 Fender Performance Diagram

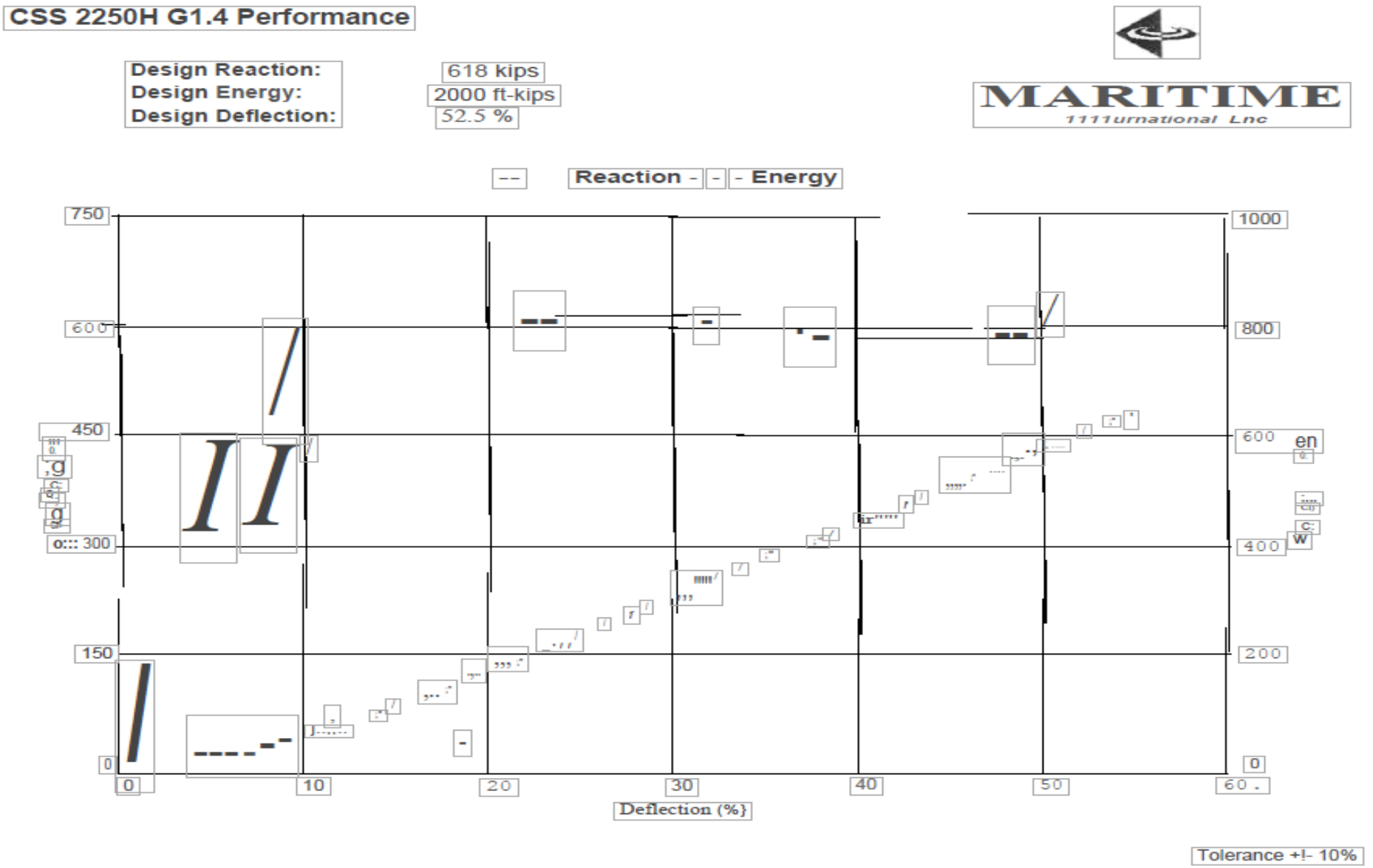


Exhibit 7 – Dock 1 Layout and Operating Envelope of Gangway

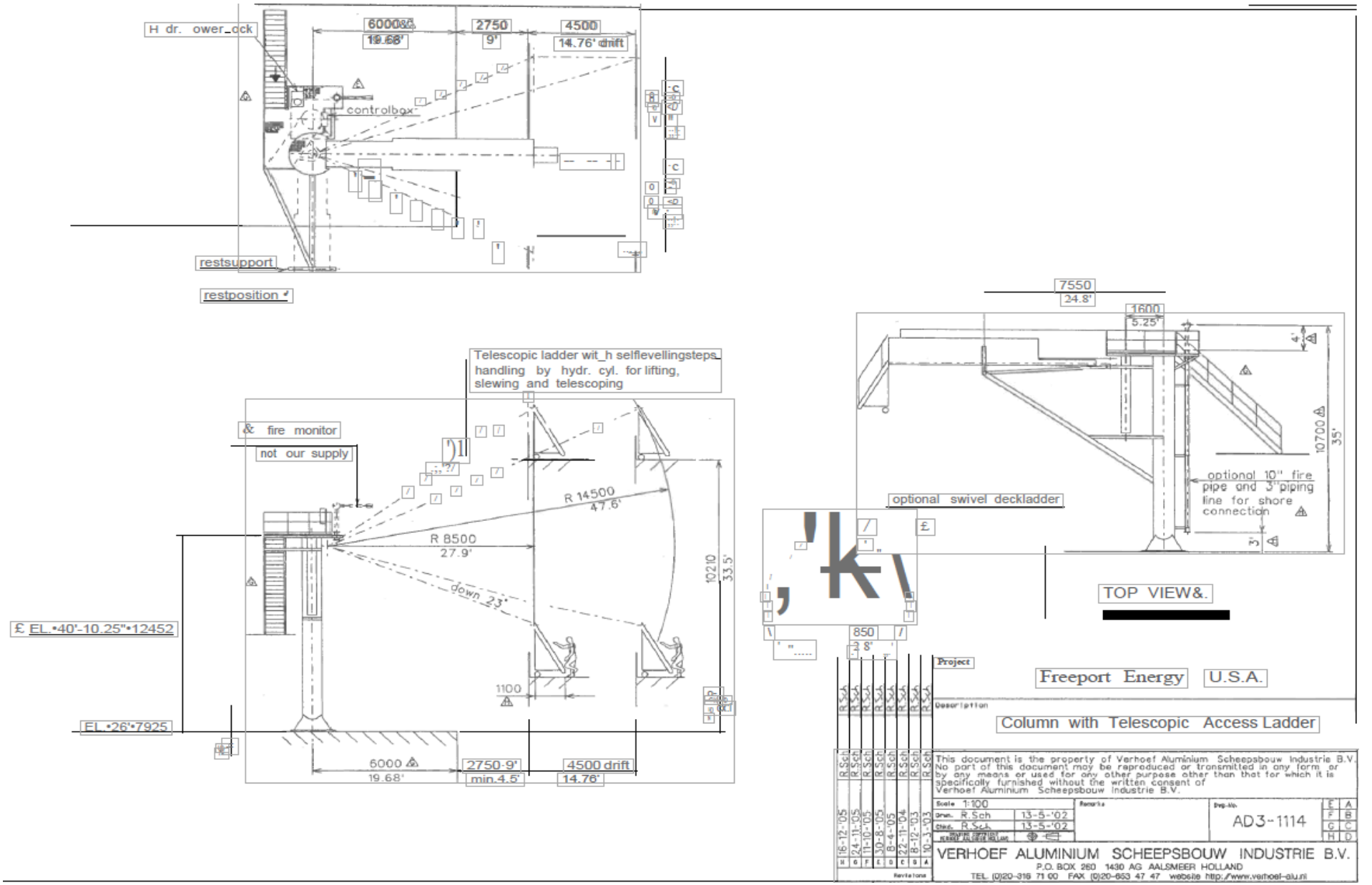
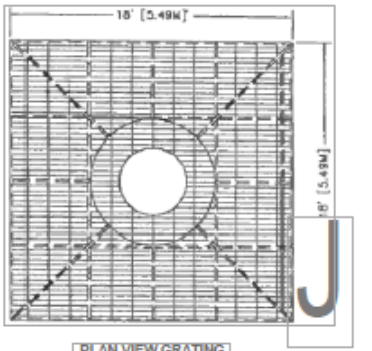
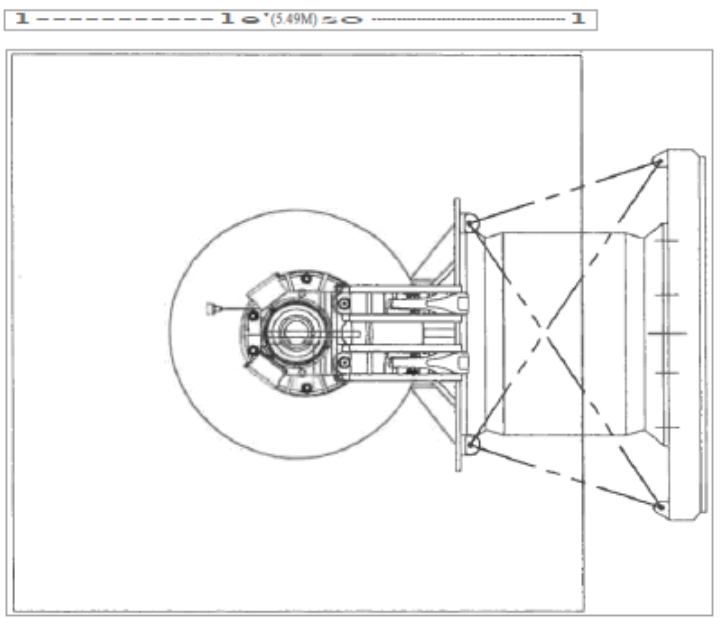


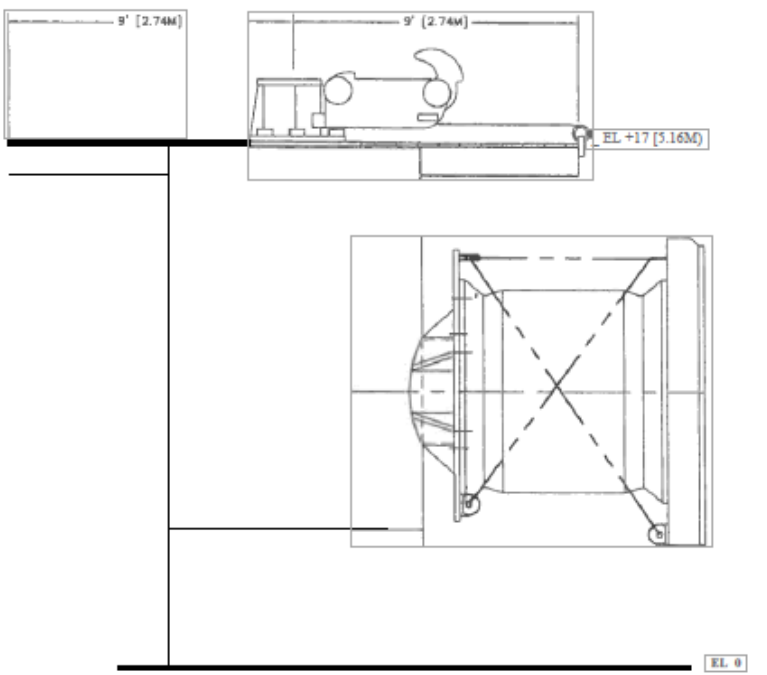
Exhibit 8 – Dock 2 Breasting Dolphin



PLAN VIEW GRATING
T.O.G. EL +17 [5.18M]



TYP. PLAN VIEW

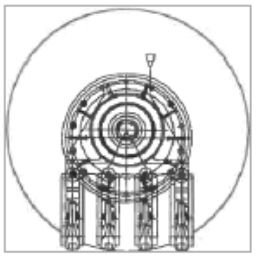


TYP. SIDE ELEVATION

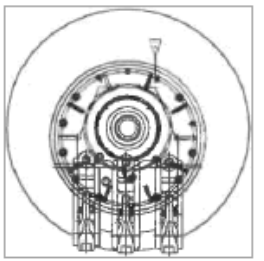
FREEPORT LNG MARINE FACILITY
Freeport, Texas

DOCK 2
BREASTING DOLPHINS

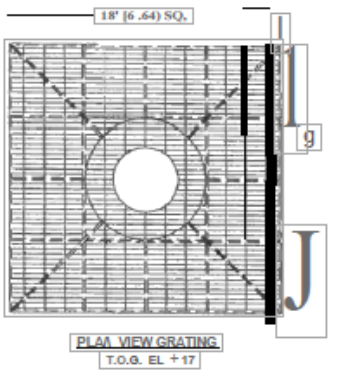
Exhibit 9 – Dock 2 Mooring Dolphin



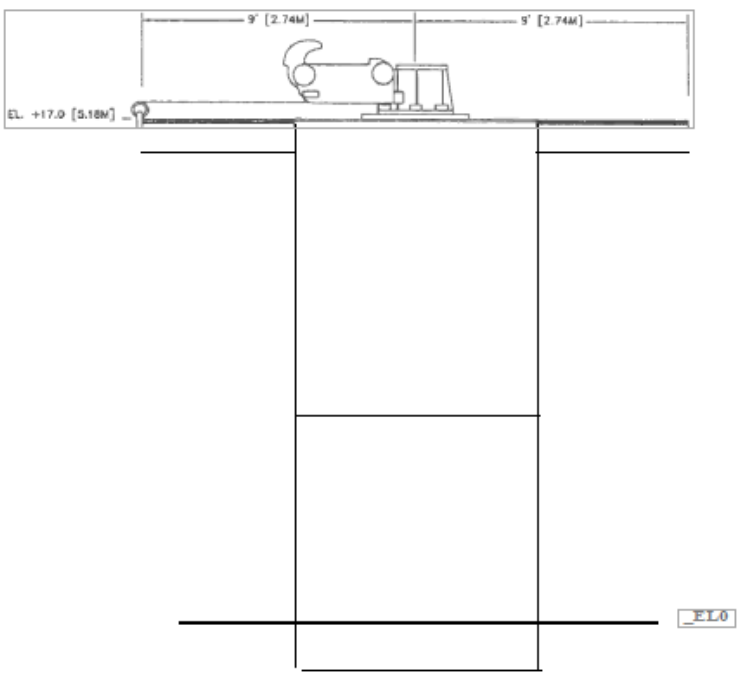
4 REQ. - MD 1, 2, 5 & 6



2REQ.-MD3&4



PLAN VIEW GRATING
T.O.G. EL +17

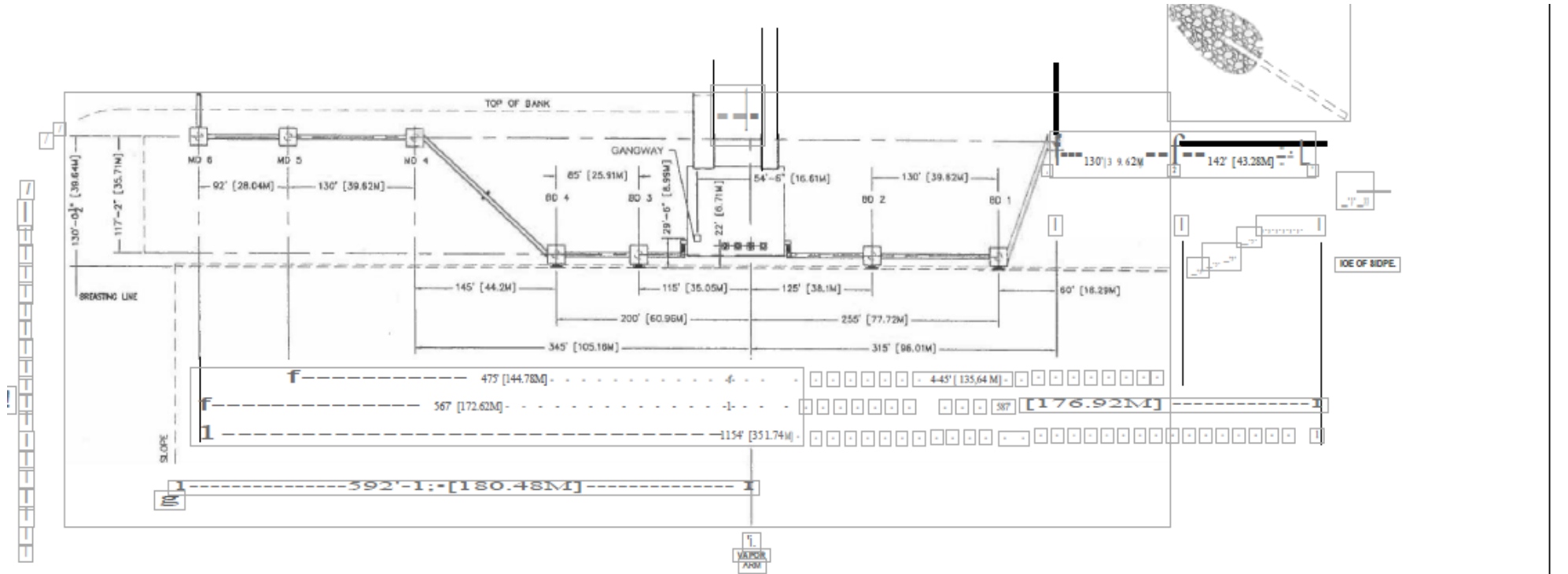


TYP. SIDE ELEVATION

FREEPORT LNG MARINE FACILITY
FrHport,Texas

DOCK 2
MOORING DOLPHINS

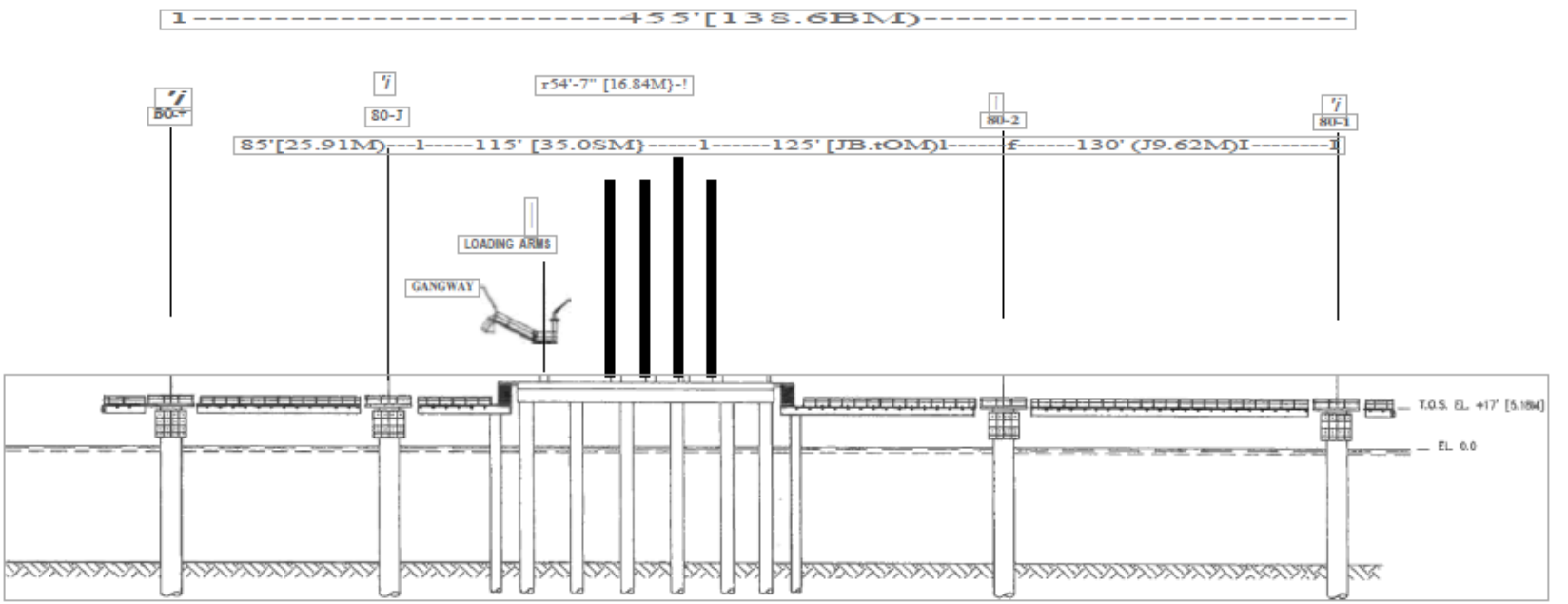
Exhibit 10 – Dock 2 Berth Layout



FREEPORT LNG MARINE FACILITY
Freeport, Texas

BERTH 2 LAYOUT

Exhibit 11 – Dock 2 Fender Line Elevation



BERTH 2 ELEVATION
(LOOKING NORTH)

FREEPORT LNG

FREEPORT LNG MARINE FACILITY
Freeport, Texas

BERTH 2 ELEVATION

Exhibit 12 – Dock 2 Cargo Arm Operating Envelope

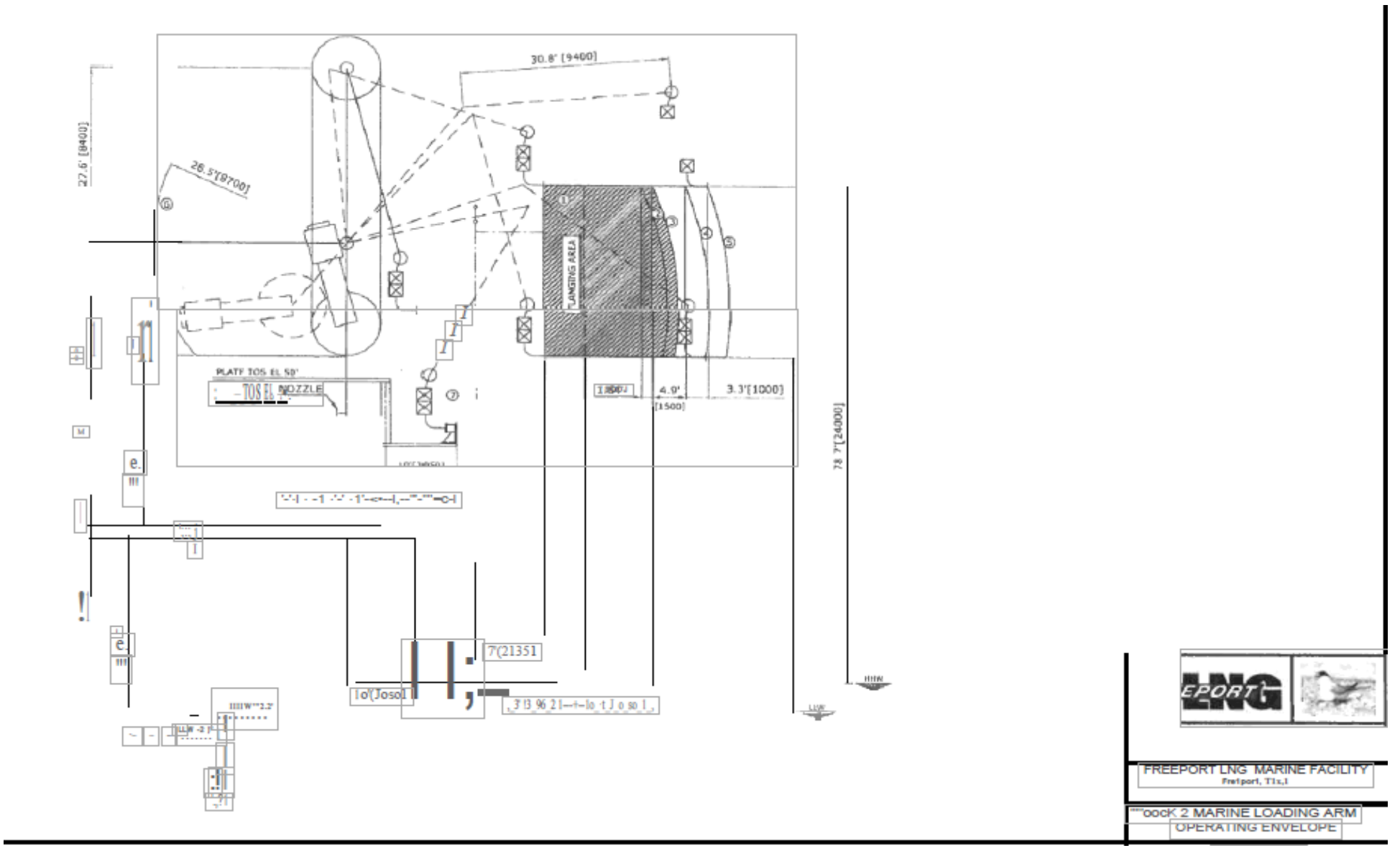
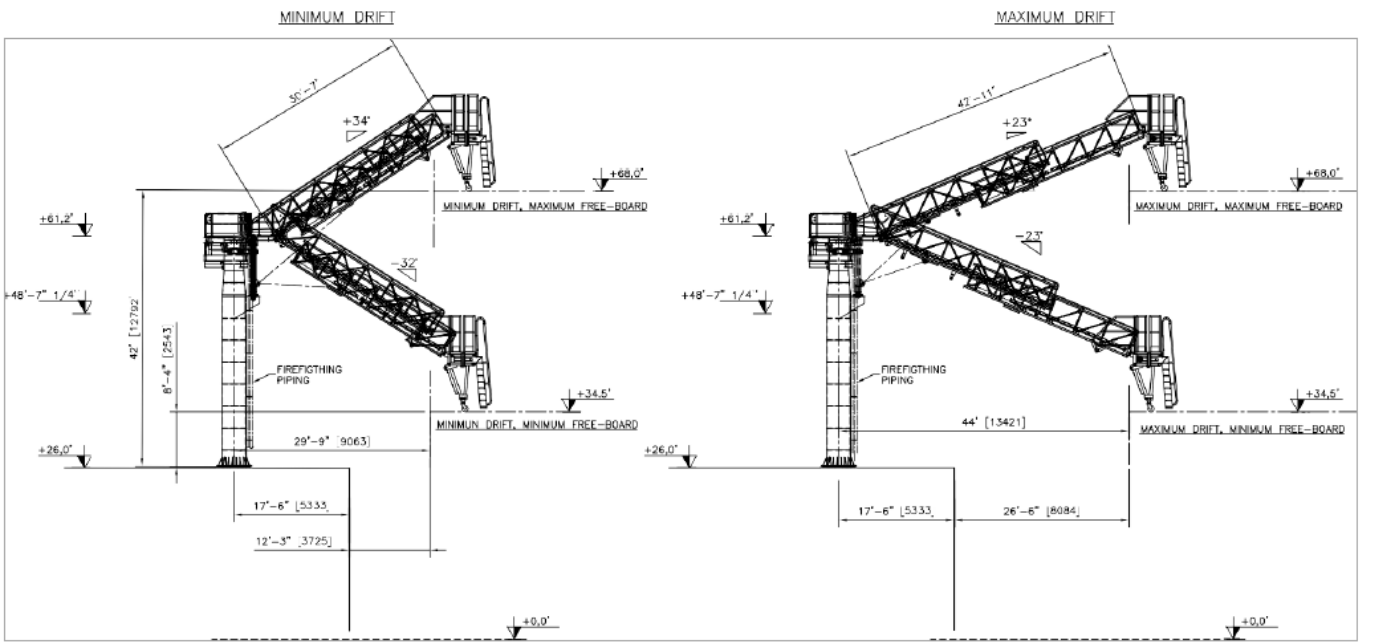
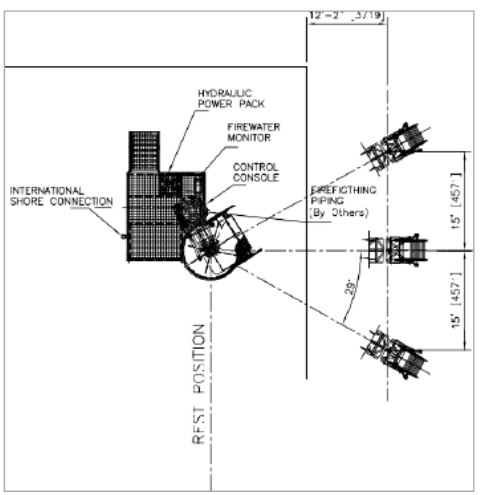
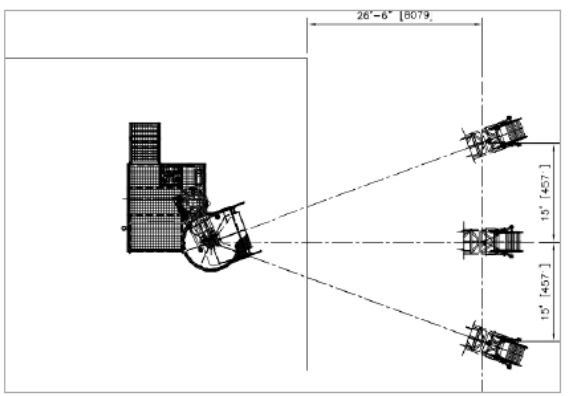


Exhibit 13 – Dock 2 Layout and Operating Envelope of Gangway







EXTREME OPERATIVE POSITIONS