

**FUEL SYSTEM GENERAL NOTES**

- THE CONTRACTOR MUST FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE AND OPERABLE NON ETHANOL REGULAR UNLEADED GASOLINE AND DIESEL STORAGE AND DISPENSING SYSTEM IN ACCORDANCE WITH THESE DRAWINGS AND THE CITY OF CLEARWATER SPECIFICATIONS. THESE DRAWINGS, SPECIFICATIONS, AND LOCAL ORDINANCES IN THE LATEST EDITION, THESE MUST INCLUDE, BUT NOT BE LIMITED TO STATE AND FEDERAL DEPARTMENT OF ENVIRONMENTAL PROTECTION RULES, PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION RULES, AND FEDERAL EQUIPMENT INSTITUTE (EPI) 100 AND RFA30, NFA30, AND 30A.
- THE CONTRACTOR IS RESPONSIBLE FOR HIRING A FUEL SYSTEM VENDOR TO CONDUCT A VISUAL INSPECTION OF THE EXISTING FUEL STORAGE TANK AND DISPENSING SYSTEM. THE CONTRACTOR'S ENGINEER MUST SUBMIT A REPORT TO THE CITY REPRESENTATIVE WITHIN 10 BUSINESS DAYS OF THE INSPECTION. THE DRAWINGS TO COMPLETE DESIGN AND DESIGN ENGINEER SEALED PACKAGE, THE DRAWINGS SHOW GENERAL LOCATION OF THE FUEL SYSTEM ELEMENTS. THE CONTRACTOR'S ENGINEER MUST SUBMIT A REPORT TO THE CITY REPRESENTATIVE WITHIN 10 BUSINESS DAYS OF THE INSPECTION. THE CONTRACTOR'S ENGINEER MUST SUBMIT A REPORT FOR ACCEPTANCE.
- AT THE TIME THE SYSTEM IS PLACED IN OPERATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SYSTEM. INSTRUCTIONS FOR ALL COMPONENTS OF THE FUEL STORAGE TANK, PIPING, LEAK DETECTION, CONTROLS, AND DISPENSING SYSTEM, AS WELL AS RECOMMENDED TEST PROCEDURES, MAINTENANCE SCHEDULES, AND REPAIR PROCEDURES THAT INDICATE LIQUID VOLUME IN THE TANK AS A FUNCTION OF DEPTH.
- THE CONTRACTOR MUST BE RESPONSIBLE FOR COORDINATION WITH THE CITY REPRESENTATIVE TO RESOLVE ANY CONFLICTS OR DISCREPANCIES AND POTENTIAL CONFLICTS WITH THE CITY REPRESENTATIVE IN WRITING.
- ALL ELECTRICAL INSTALLATION MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, ARTICLE 500 HAZARDOUS LOCATION, 501 CLASS I LOCATIONS, 514 MOTOR FUEL DISPENSING FACILITIES, NFPA 30, FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE AND NFPA 30A, CODE FOR MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES.
- ALL SUMPS MUST BE LIQUID TIGHT AND UL LISTED NONMETALLIC SUMPS. LEAK DETECTION MUST BE INSTALLED IN ALL SUMPS.
- FIELD VERIFY THE PERFORMANCE OF THE EXISTING FUEL PUMPS, UPSIZING MOTOR OR PUMP MAY BE REQUIRED TO ACCOMMODATE NEW FUEL DISPENSER DEMANDS.
- EXPOSED MARINA FUEL PIPING MATERIAL MUST BE IN ACCORDANCE WITH UL 1999.
- THE FUEL MONITORING AND LEAK DETECTION SYSTEM MUST BE INTEGRATED WITH THE COMPLETE, SITE MADE FUELING SYSTEM INCLUDING SUMPS, PUMPING SYSTEMS AND STORAGE TANKS. THE SYSTEM MUST BE CAPABLE OF DETECTING A FLUID OR FUEL LEAK IN THE SECONDARY CONTAINMENT, LEAK DETECTION CONTROL PANEL MUST BE LOCATED NEXT TO THE TANK. THE MONITORING SYSTEM MUST BE A VEEDEE ROOT T1LS 350 OR EQUIVALENT.
- EMERGENCY FUEL SHUTOFF SWITCH MUST BE A WEATHERPROOF RED PUSHROOM STYLE SWITCH, CONSPICUOUSLY MARKED AND EASILY ACCESSIBLE TO THE OPERATOR. THE SWITCH MUST BE LOCATED AT LEAST 20 FEET BUT NOT MORE THAN 100 FEET FROM THE DISPENSING LOCATION AND NEAR THE LEAK DETECTION CONTROLS AT THE CUSTOMER SERVICE AREA.
- THE FUEL DISPENSERS OR HOSE REELS MUST HAVE CORROSION RESISTANT ENCLOSURES.
- ALL ACCESS MANHOLES, VAULTS, TRANSITION SUMPS, AND GRADE PENETRATIONS MUST BE CONCRETE, NONMETALLIC OR OF CORROSION RESISTANT CONSTRUCTION.
- CLASS B HIGH HAZARD FIRE EXTINGUISHERS MUST BE PROVIDED ON THE FUEL DOCKS

**LEGEND**

- G — UNLEADED GASOLINE
- D — DIESEL FUEL
- [Symbol] — BALL VALVE
- [Symbol] — FUEL DISPENSER
- [Symbol] — FIRE EXTINGUISHER CABINET

**ABBREVIATIONS**

- GAL GALLONS
- NFPA NATIONAL FIRE PROTECTION ASSOCIATION
- NTS NOT TO SCALE
- RP RECOMMENDED PRACTICE
- TYP TYPICAL
- UL UNDERWRITERS LABORATORY

100% DRAWINGS  
ISSUED: 2024-03-04

PROJECT NO.	24-0028-04A	DATE	03/04/24
ISSUED FOR	2023/1/15	ISSUED BY	KJG
PROJECT NO.	211223	PROJECT	AK
DATE ISSUED	2024-03-04	PROJECT	WRP
DRAWN BY: NICOLE M. SWANK, PE			

CLEARWATER BEACH MARINA REPLACEMENT  
**MECHANICAL FUEL SYSTEM NOTES**

**CITY OF CLEARWATER, FLORIDA**  
ENGINEER  
100 S. MYRTLE AVE.  
CLEARWATER, FL 33756

REVISION	BY	DATE

**moffatt & moffatt**  
501 E. KENNEDY BLVD., STE. 1910  
TAMPA, FL 33602  
PHONE: (813) 258-8818



100% DRAWINGS  
ISSUED: 2024-03-04

PROJECT NO.	24-00824A	DESIGNER	KJG
PROJECT NAME	2021HS	OWNER	KJG
PROJECT NO.	211223	DESIGNER	AK
PROJECT NAME	2024-03-04	OWNER	WRP
PROJECT NO.	2024-03-04	DESIGNER	WRP
PROJECT NAME	MECHANICAL FUEL SYSTEM	OWNER	WRP

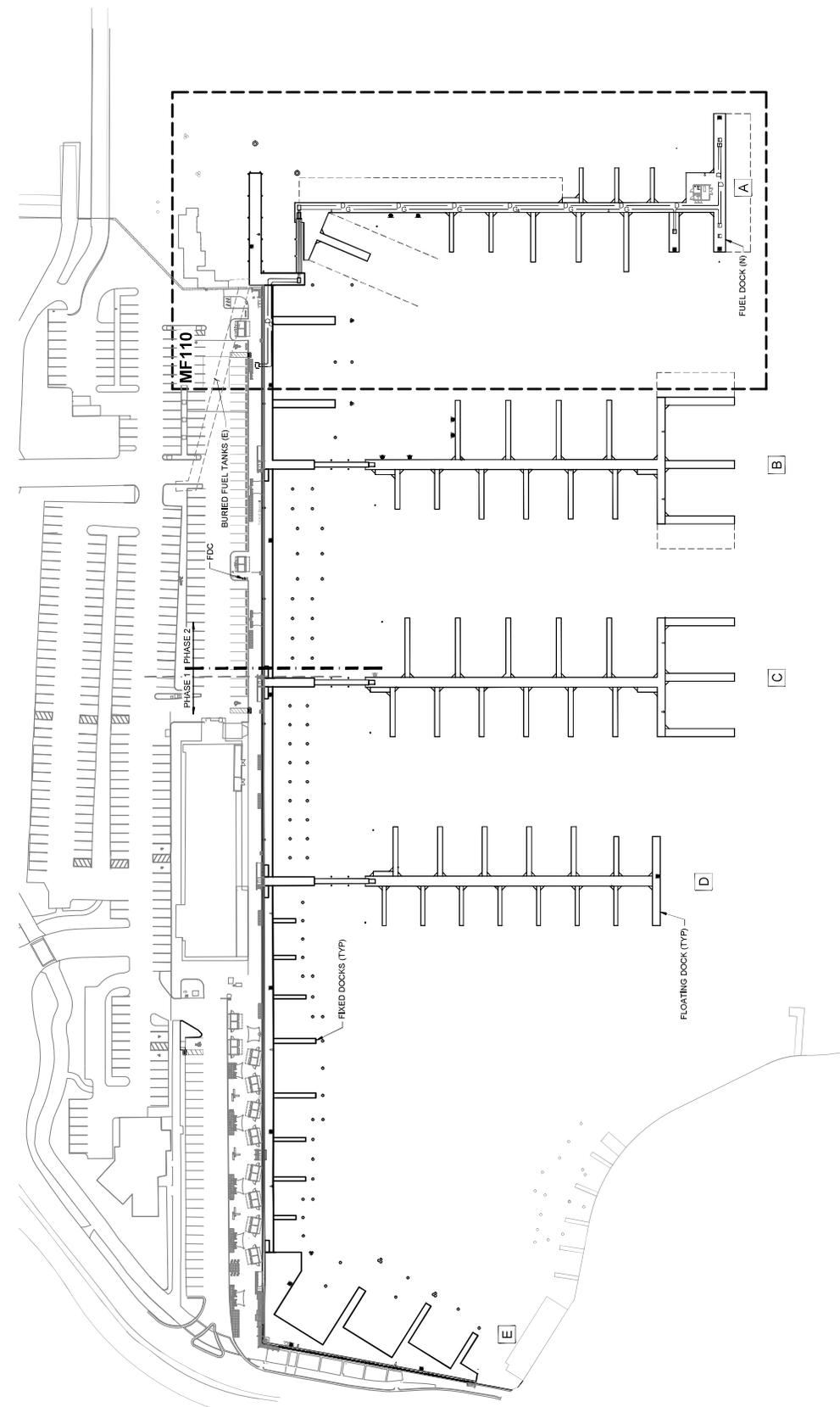
CLEARWATER BEACH MARINA REPLACEMENT  
**MECHANICAL FUEL SYSTEM SITE PLAN**

**CITY OF CLEARWATER, FLORIDA**  
ENGINEERING DEPARTMENT  
100 S. MYRTLE AVE.  
CLEARWATER, FL 33756

NO.	DATE	BY	REVISION

501 E. KENNEDY BLVD., STE. 1910  
TAMPA, FL 33602  
PHONE: (813) 255-8818

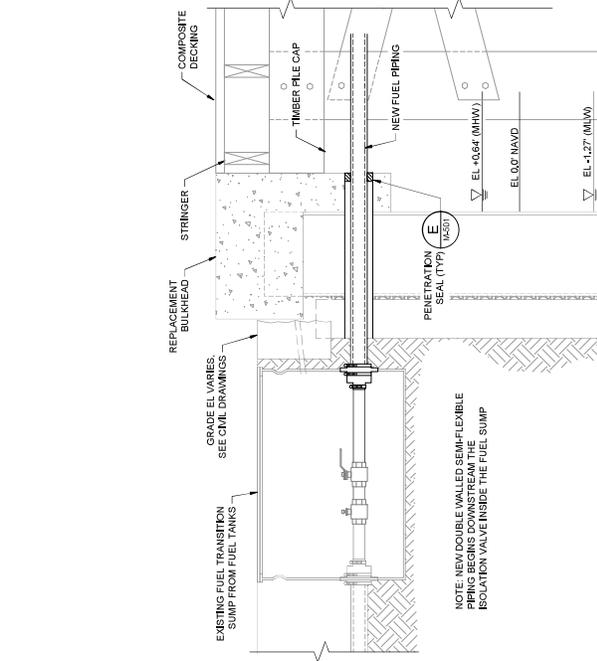
**meffert & nichol**





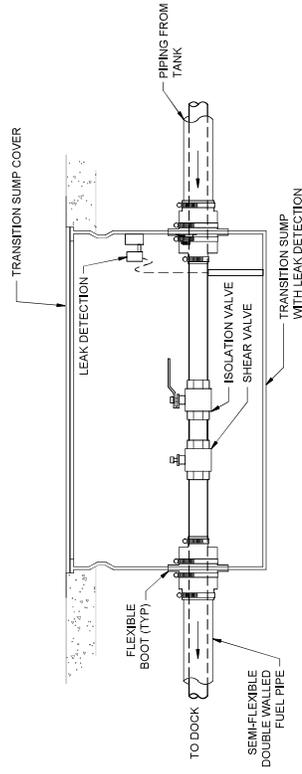
**NOTE**

1. FLOATING DOCK UTILITY ROUTING SHALL BE IN ACCORDANCE WITH THE VENDOR'S SHOP DRAWINGS. VENDOR'S SHOP DRAWINGS MUST BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION.
2. EXPOSED MARINA FUEL PIPING MUST BE UL 1389

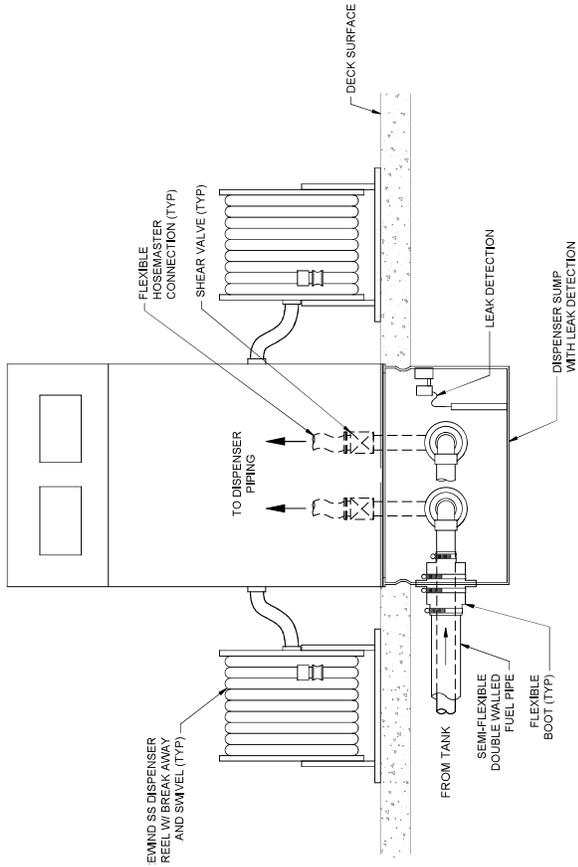


NOTE: NEW INSULATED, VALVED, SEMI-FLEXIBLE PIPING BEGINS DOWNSTREAM THE ISOLATION VALVE INSIDE THE FUEL SUMP

**B. EXISTING FUEL SUMP**  
SCALE: NTS  
MF110

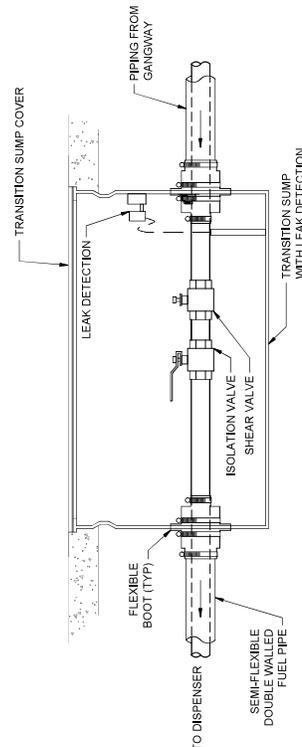


**D. DETAIL - PLATFORM TRANSITION SUMP**  
SCALE: NTS



NOTE: GENERAL ARRANGEMENT SHOWN. GAS/GAS, GAS/DIESEL, AND HIGH SPEED DIESEL DISPENSERS ARE INDICATED IN PLAN VIEW

**A. DETAIL - DUAL FUEL DISPENSER**  
SCALE: NTS



**C. DETAIL - DOCK TRANSITION SUMP**  
SCALE: NTS

**100% DRAWINGS**  
ISSUED: 2024-03-04

PROJECT NO.	24-00824A	REV.	KUG
DATE	2024/03/04	ISSUED BY	KUG
PROJECT	2024/03/04	DESIGNED BY	AK
DATE	2024-03-04	PREPARED BY	WRP
PROJECT	NICOLEM SWAMP		

**MECHANICAL FUEL DETAILS (1 OF 2)**

**CITY OF CLEARWATER, FLORIDA**  
ENGINEERING DEPARTMENT  
100 S. MYRTLE AVE.  
CLEARWATER, FL 33756

NO.	REVISION	BY	DATE

501 E. KENNEDY BLVD., STE. 1910  
TAMPA, FL 33602  
PHONE: (813) 258-5818



**moffatt & mohr**

