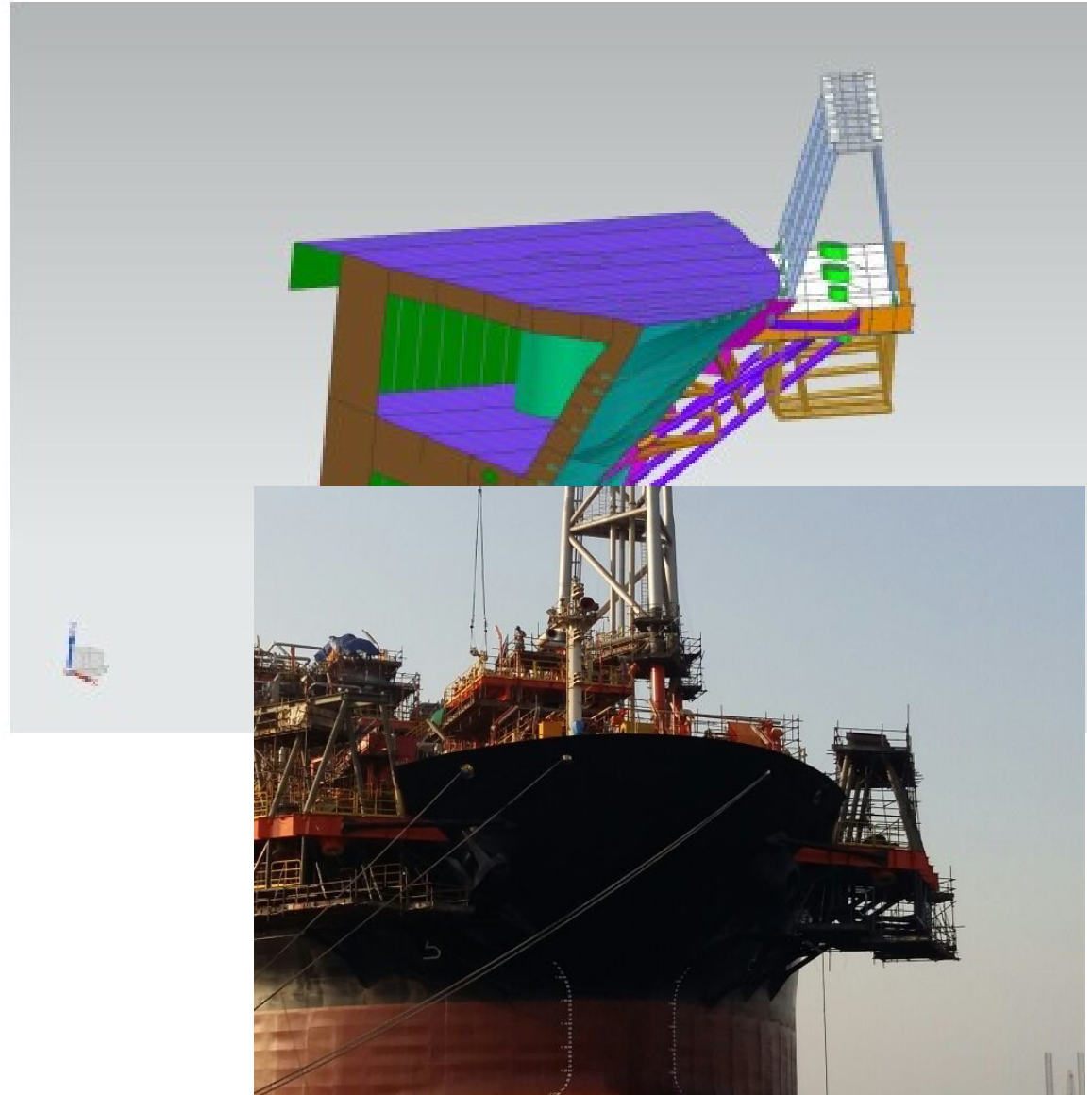


FPSO RISER BALCONY DESIGN AND FABRICATION

Client	UAE COMPANY
Field	UAE
Location	UAE
Waterdepth	70 m
Type	Riser Balcony
Items	Flexible risers, umbilical power cable integration

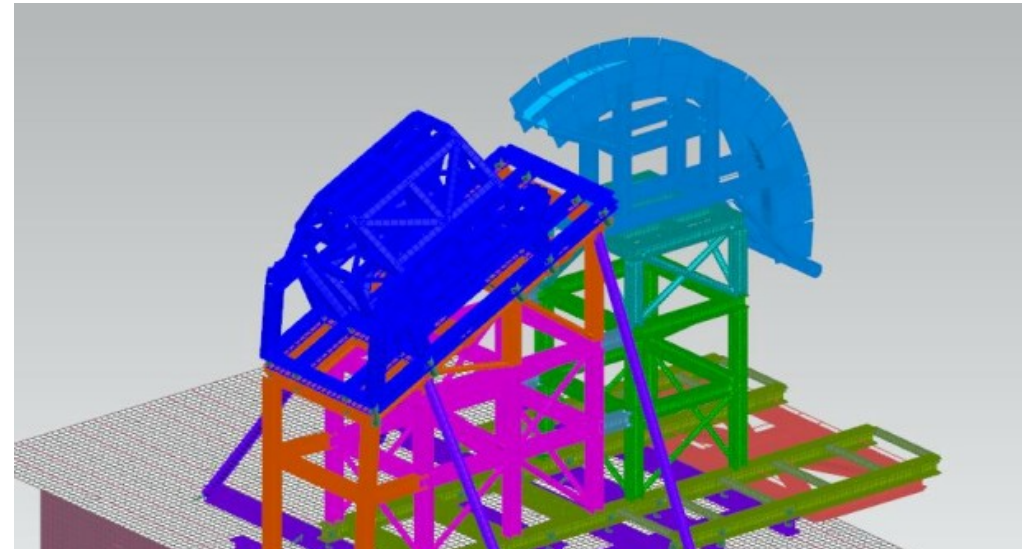
Scope of Design

1. EPIC for structural modifications for the FPSO conversion.
2. Detailed design of under deck strengthening for all non-process related topsides and marine equipment.
3. Design of riser & Umbilical porches, floating hose porches.
4. General Naval Architecture.
5. Marine systems engineering and design.



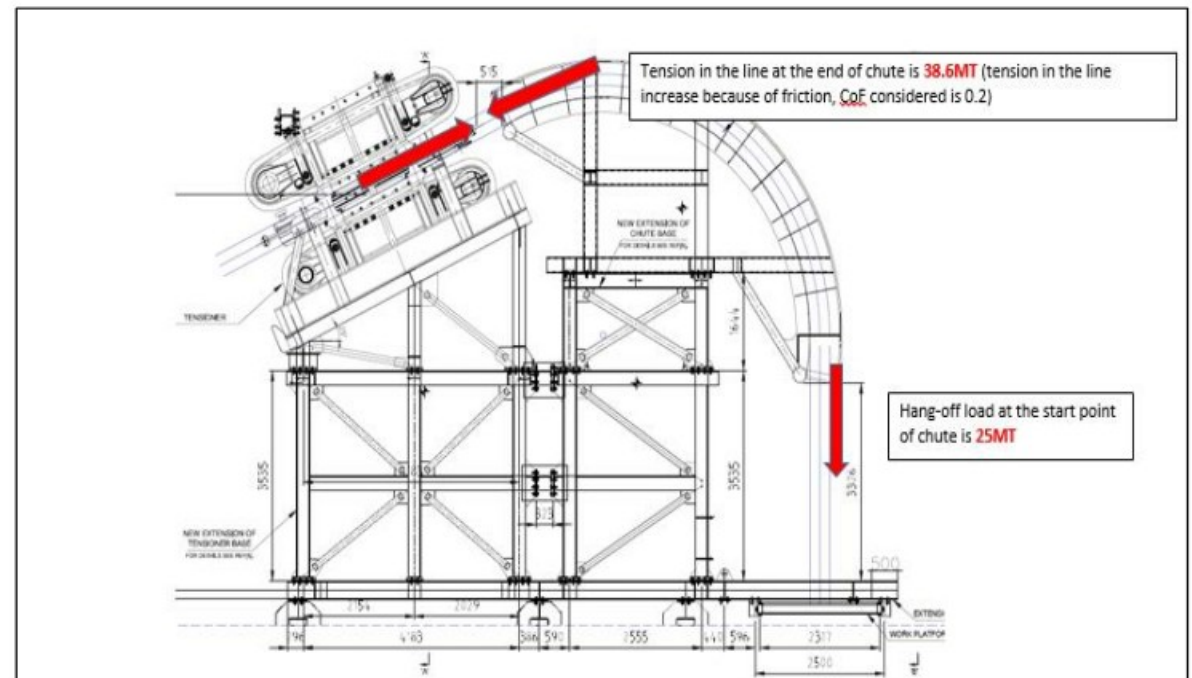
VLS Engineering, design, fabrication & installation

Client	SHELF SUBSEA
Field	NA
Location	SINGAPORE
Waterdepth	NA
Type	Structural design and integration
Items	Vertical Lay system for flowline and riser installation



Scope of Work

1. Structural design and engineering and fabrication management of Vertical Lay System, VLS.
2. Structural integration with DP-2 vessel, for the SURF installation of flowlines and risers.
3. Integration of new system with existing systems

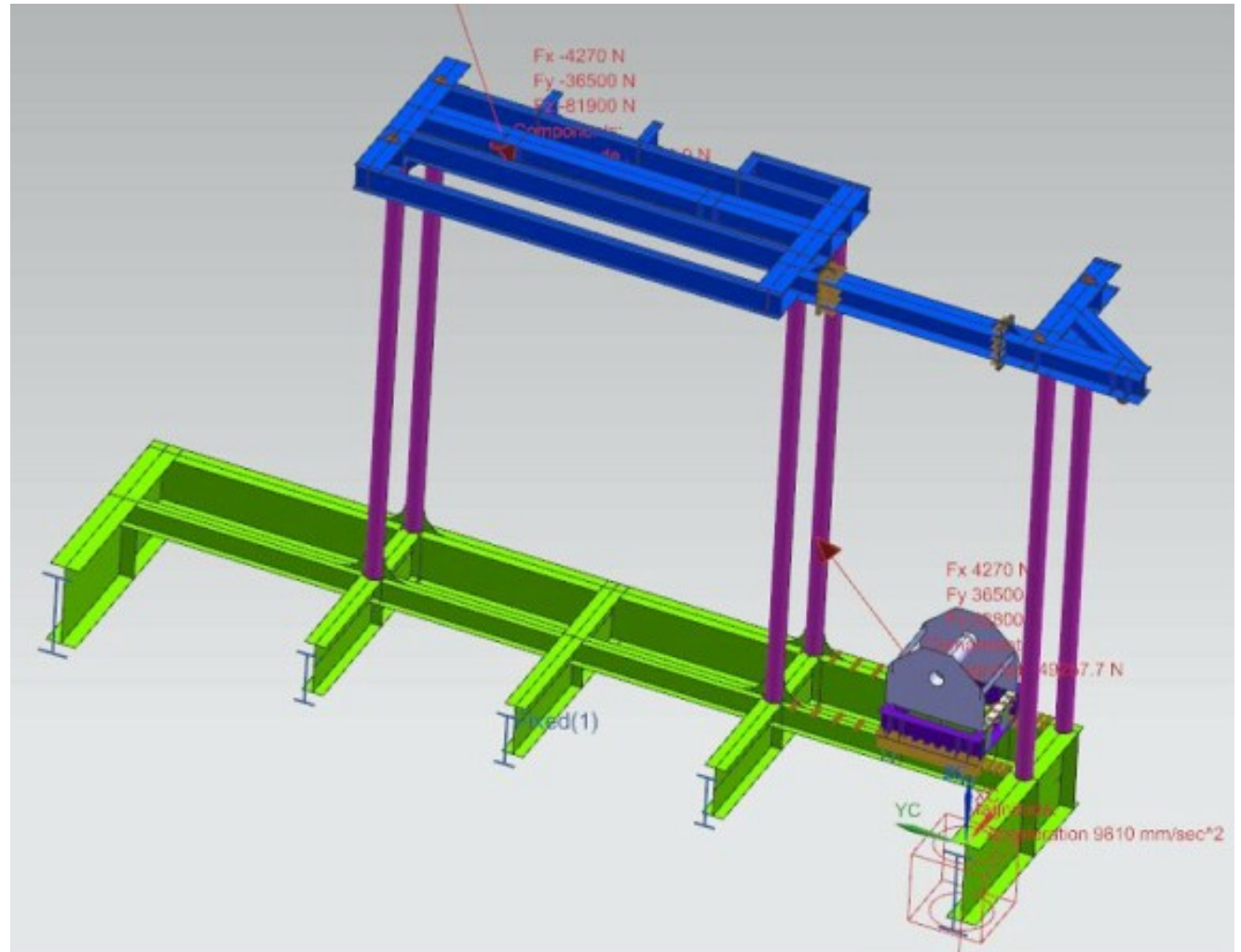


Offshore retrofit of Riser Balcony for WHP

Client	Kris Energy
Field	Apsara
Location	Cambodia
Waterdepth	80 m
Type	Riser Balcony for existing platform
Items	Riser Balcony for 6" and power cable

Scope of Work

1. Design of riser and power cable hang-off balcony for WHP.
2. Design for handling and suitable integration offshore.
3. Integration with existing WHP.
4. Installation manual.

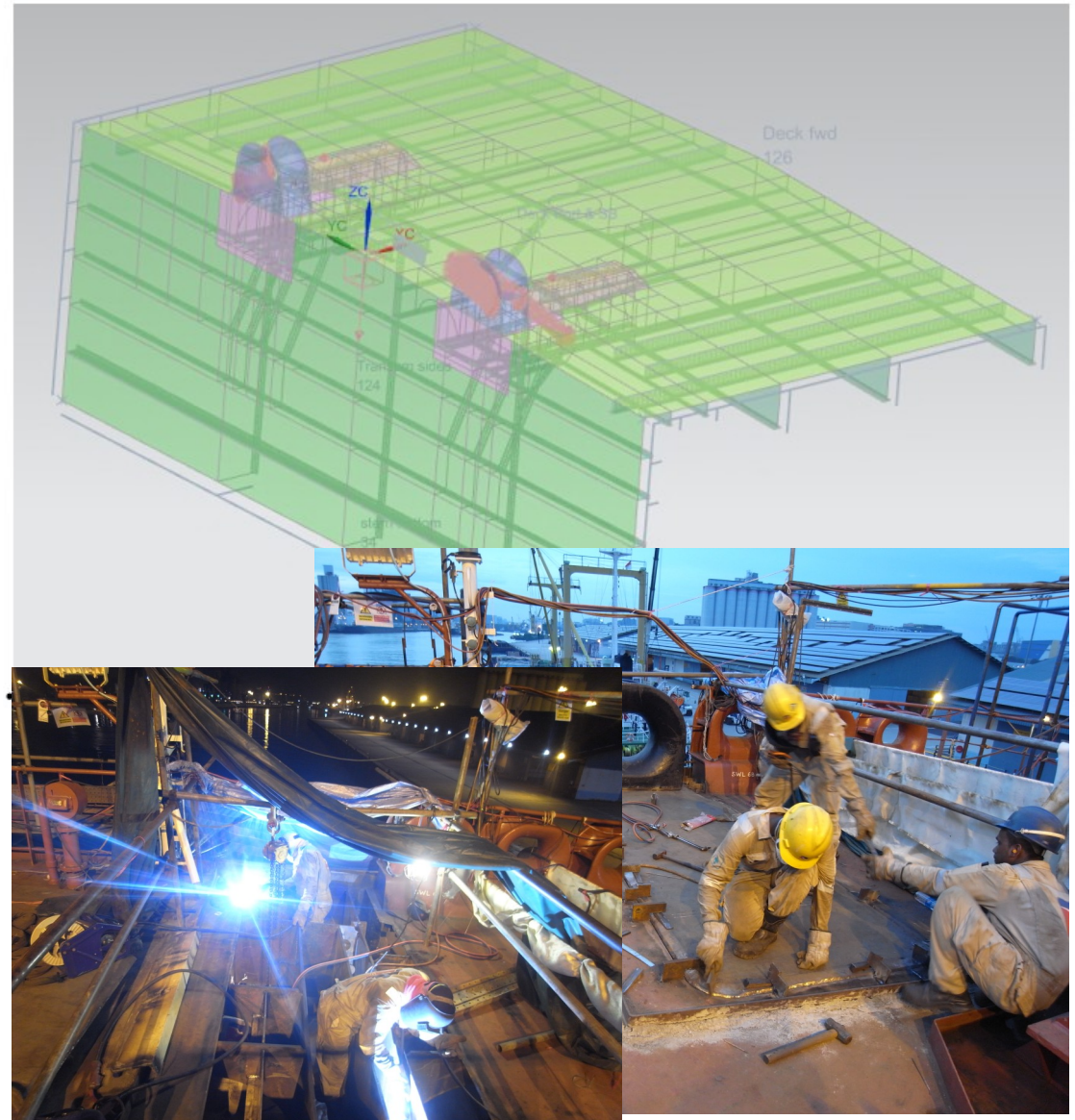


Offshore retrofit of Riser Balcony for WHP

Client	HESS
Field	Bergading
Location	Malaysia
Waterdepth	56 m
Type	Tanker modifications
Items	Under desk stiffening Chain stoppers QRH uintegration

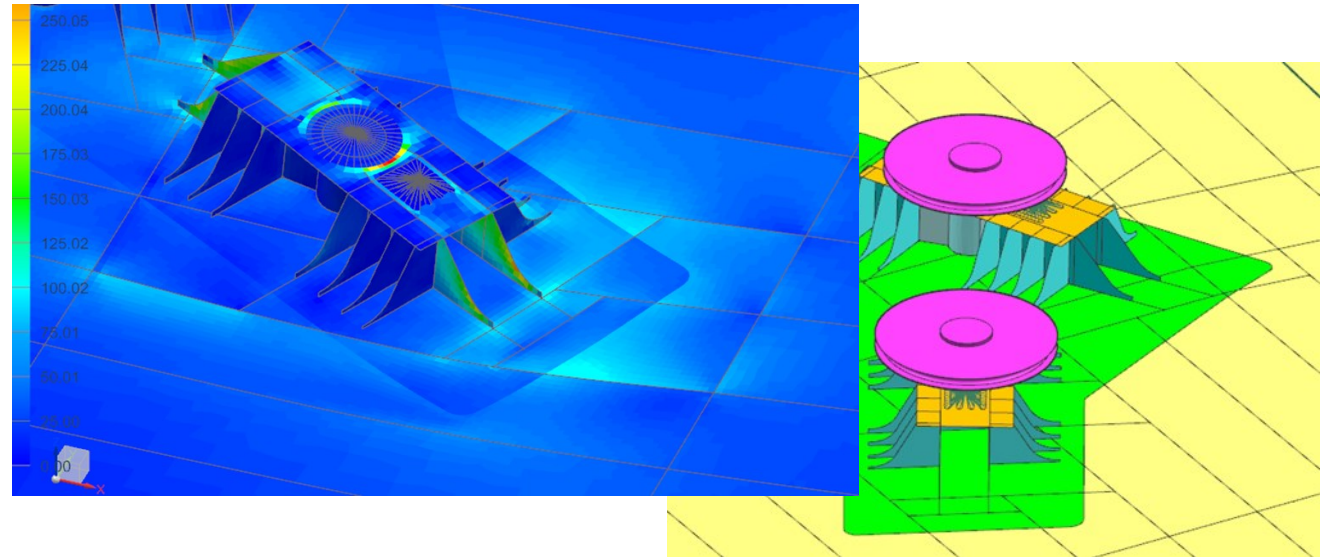
Scope of Work

1. Design and manufacturing of subsea bases.
2. Structural changes required for upgrading the vessel from 6-point mooring system to 8-point mooring system.
3. Structural modifications to install 2 chain stoppers and 1 QRH at the stern of the TST.
4. EPIC of the modifications and manufacturing work at Port in Singapore.



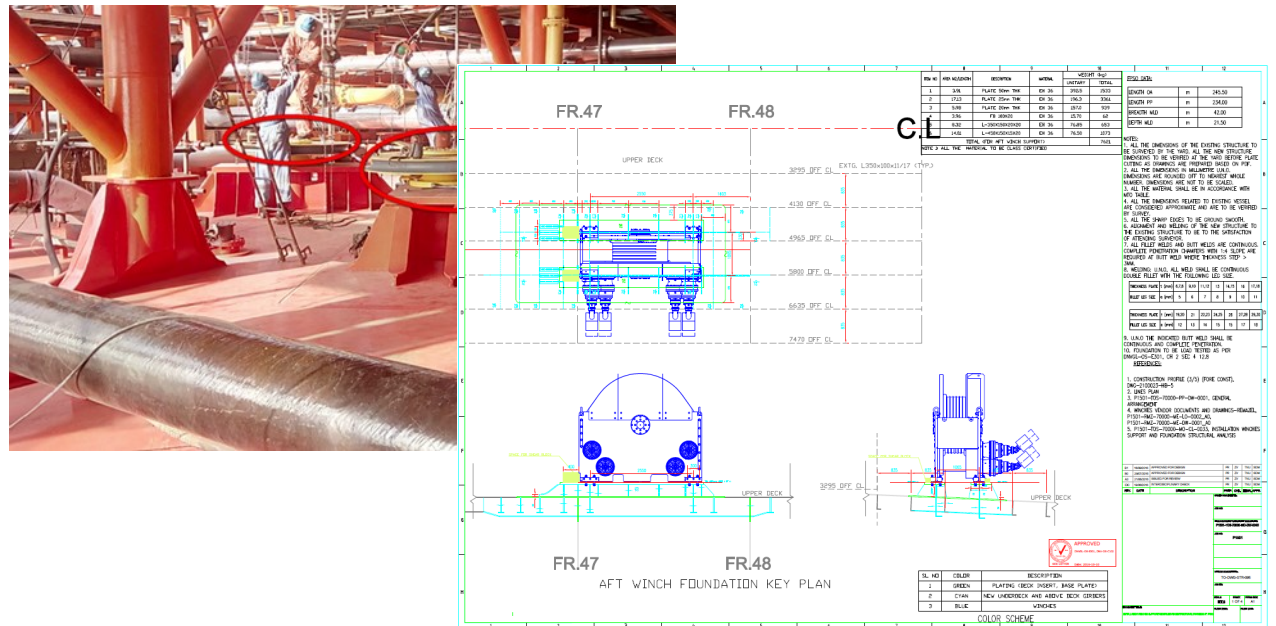
DECK REINFORCEMENTS FOR FPSO

Client	UAE
Field	UAE
Location	UAE
Waterdepth	150 m
Type	FPSO
Items	Structural design



Scope of Work

1. Structural foundations design and FE analysis for mooring installation sheaves and winches.
2. Design scope for fwd- 2 Sheaves (design load = 600MT) and 1 winch (design load = 320 MT)
3. Design scope for aft- 3 Sheaves (design load = 500MT) and 1 winch (design load = 320 MT)

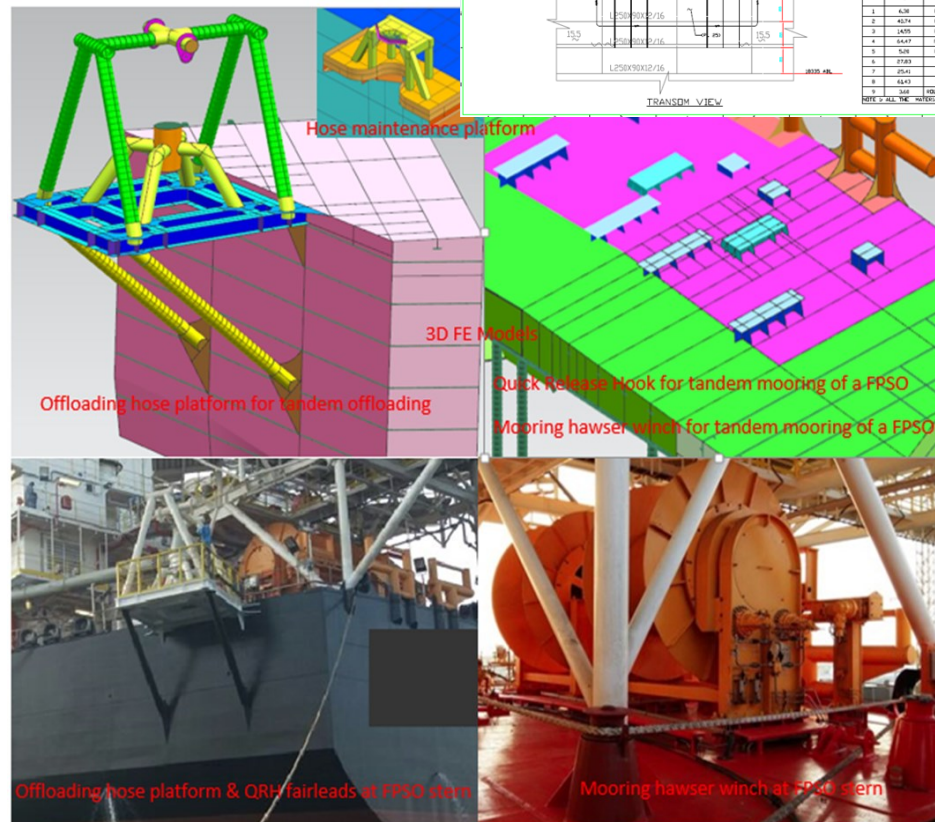
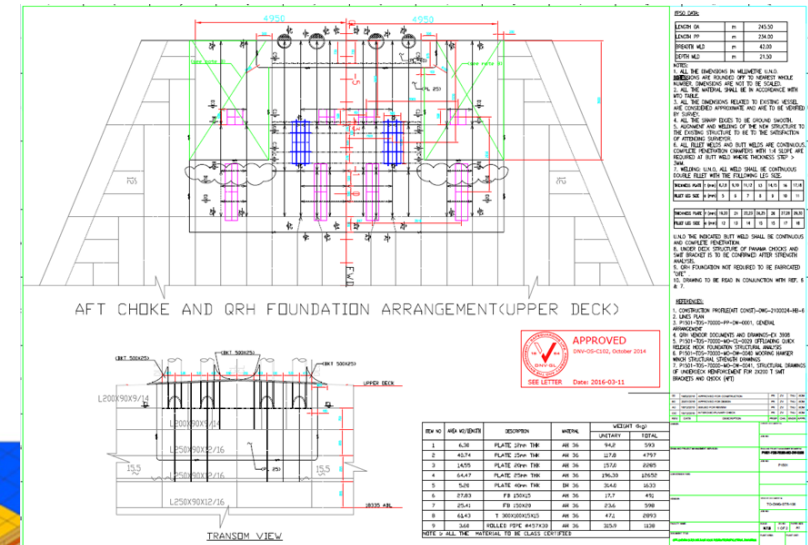


Tandem Mooring & Offloading System for FPSO

Client	UAE Company
Field	UAE
Location	UAE
Waterdepth	150 m
Type	FPSO
Items	Structural design

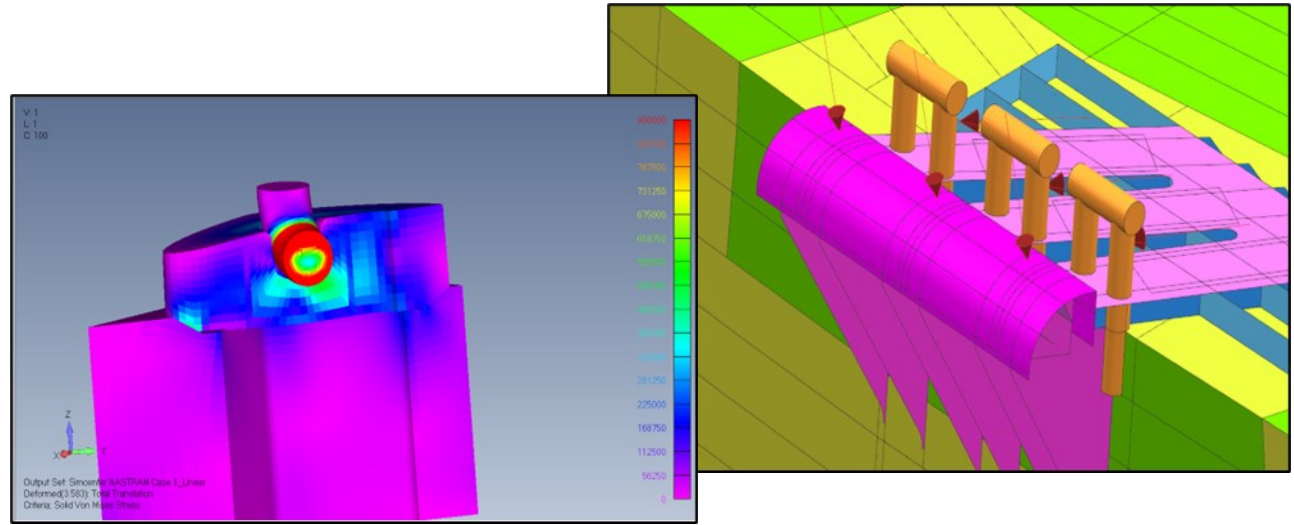
Scope of Work

1. Offloading hose platform to support the offloading floating hose at FPSO
2. Above deck foundation and underdeck reinforcements for Quick Release Hooks (SWL-250 MT) & corresponding fair leads (for tandem mooring) at FPSO stern
3. Above deck foundation and underdeck reinforcements for mooring hawser winch (for tandem mooring) at FPSO stern
4. Hose maintenance platform to support offloading floating hose



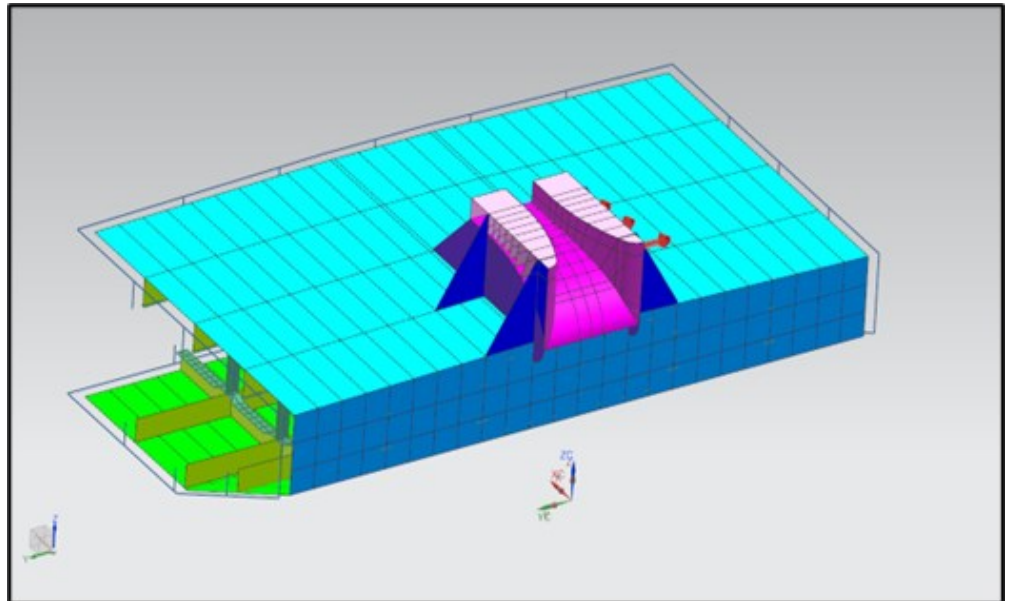
FPSO FEED Structural Design For Mooring Supports

Client	TUFF Offshore
Field	FEED study
Location	
Waterdepth	150 m
Type	FPSO
Items	Structural design



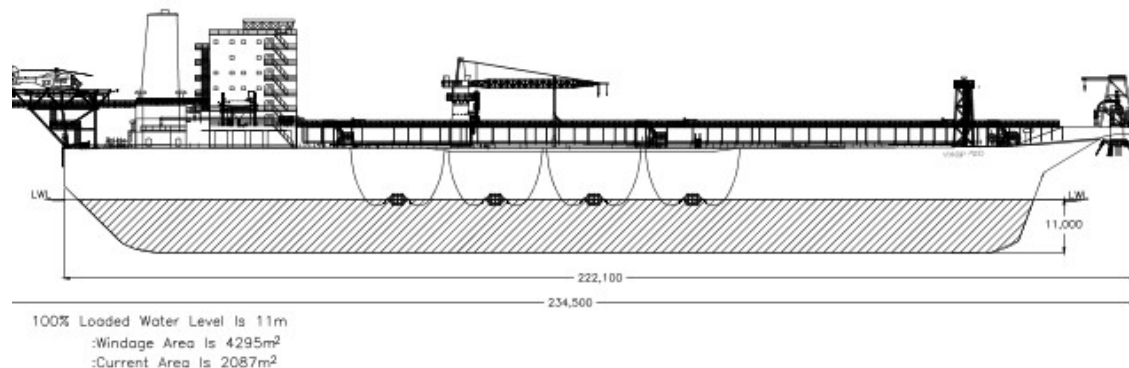
Scope of Work

1. Mooring porches for spread mooring with 4x3 mooring lines system
2. Mooring anchor pile detail design.
3. Chain stopper design with non-linear elastic-plastic analysis in contact region



FEED for New Build Turret FSO

Client	CHEVRON
Field	Block-B
Location	Vietnam
Waterdepth	150 m
Type	FSO
Items	Full FEED of new build FSO

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Scope of Work

1. Detailed design and FEED study for:
2. FSO structural and naval architectural preliminary design and requirements.
3. All marine systems, IG, cargo, ballast, HVAC, LQ, ER, electrical, mechanical etc.
4. Preparation of technical specification and RFQs for the above in order to issue for BID to EPIC Contractor.

