



Figure 4.0-1

SYU Existing Offshore Facilities Overview

SANTA YNEZ UNIT FACILITIES

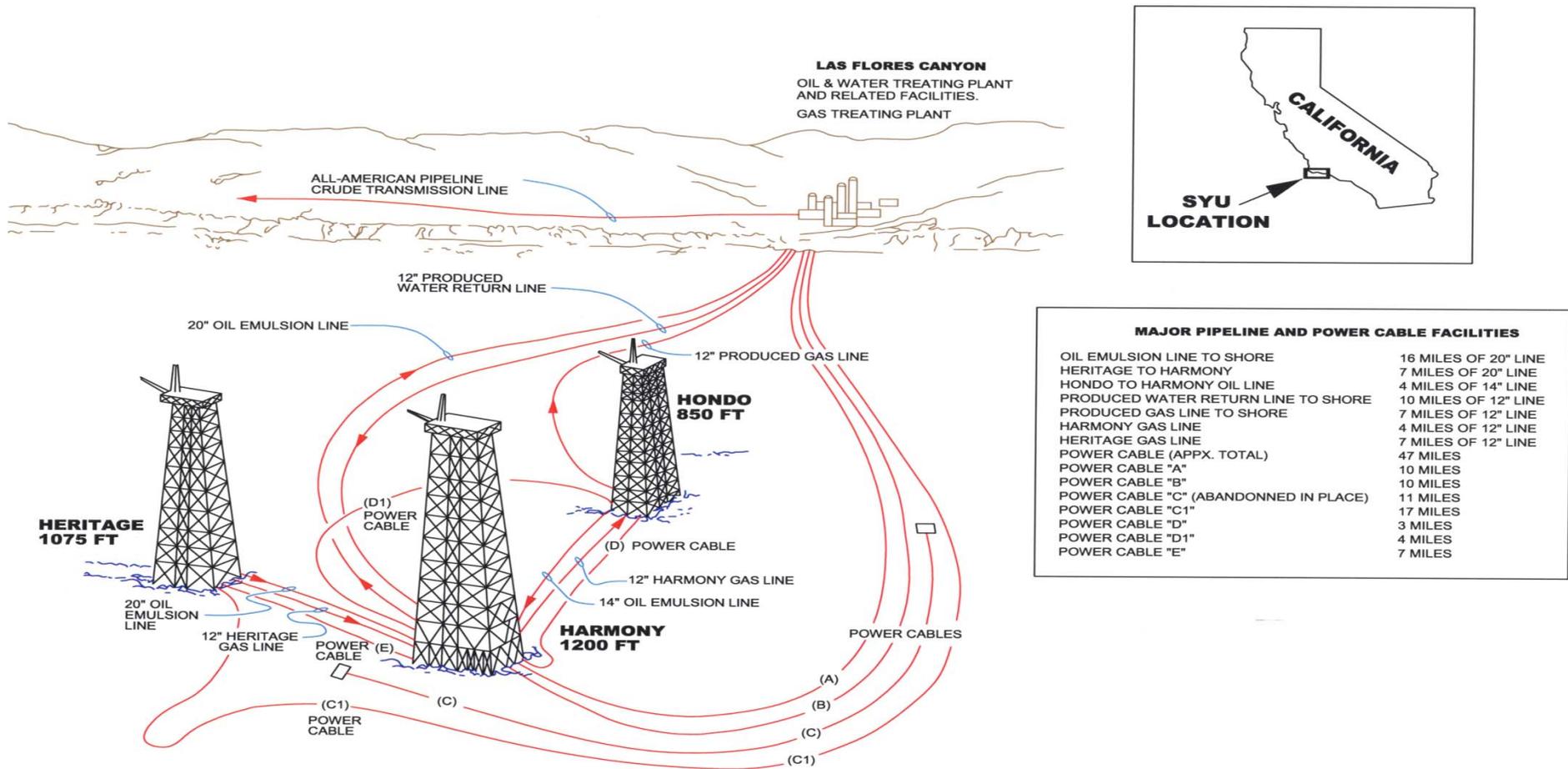


Figure 4.0-2

SYU OPSRB

SYU LFC Onshore Facilities Overview

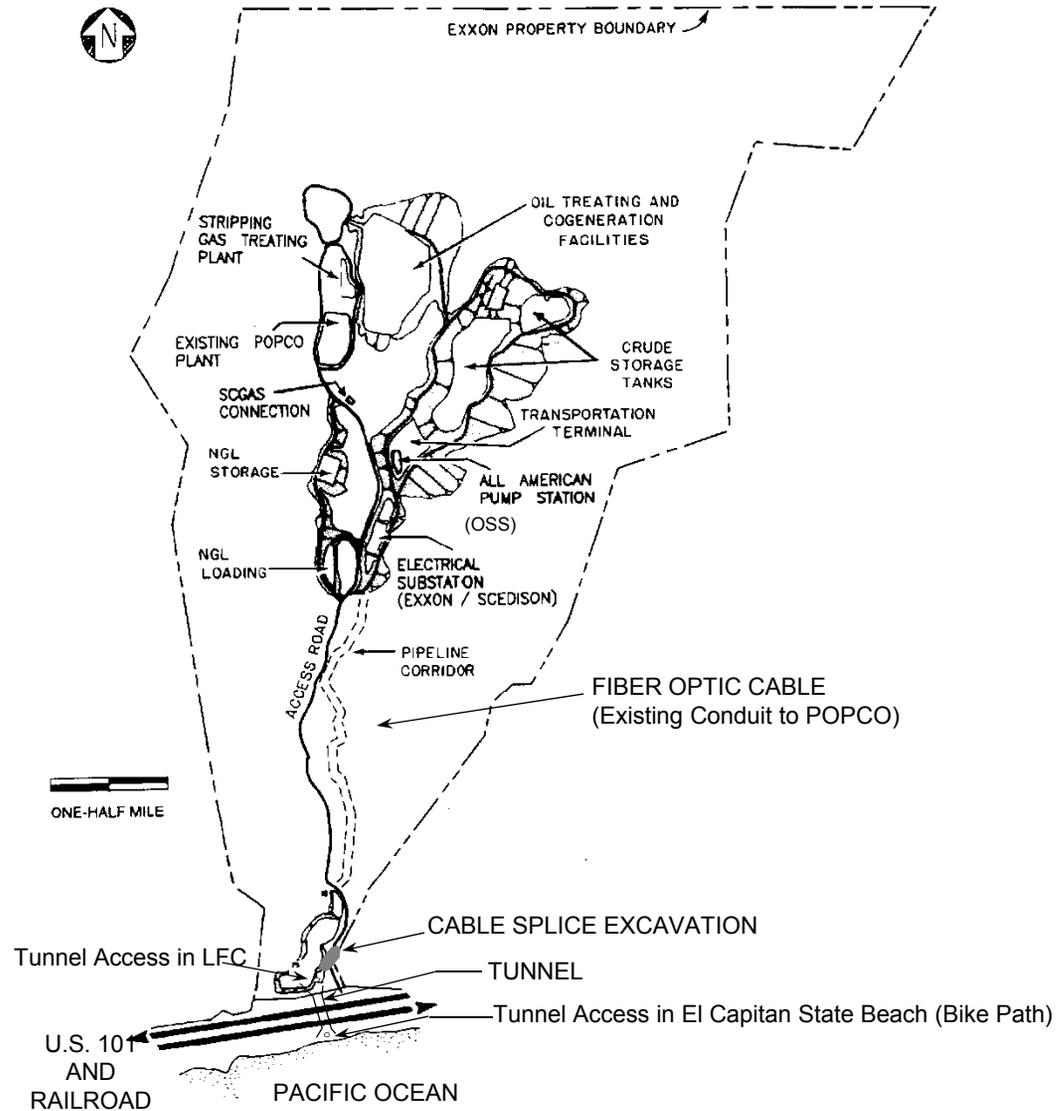


Figure 4.0-3

LFC Side of Tunnel

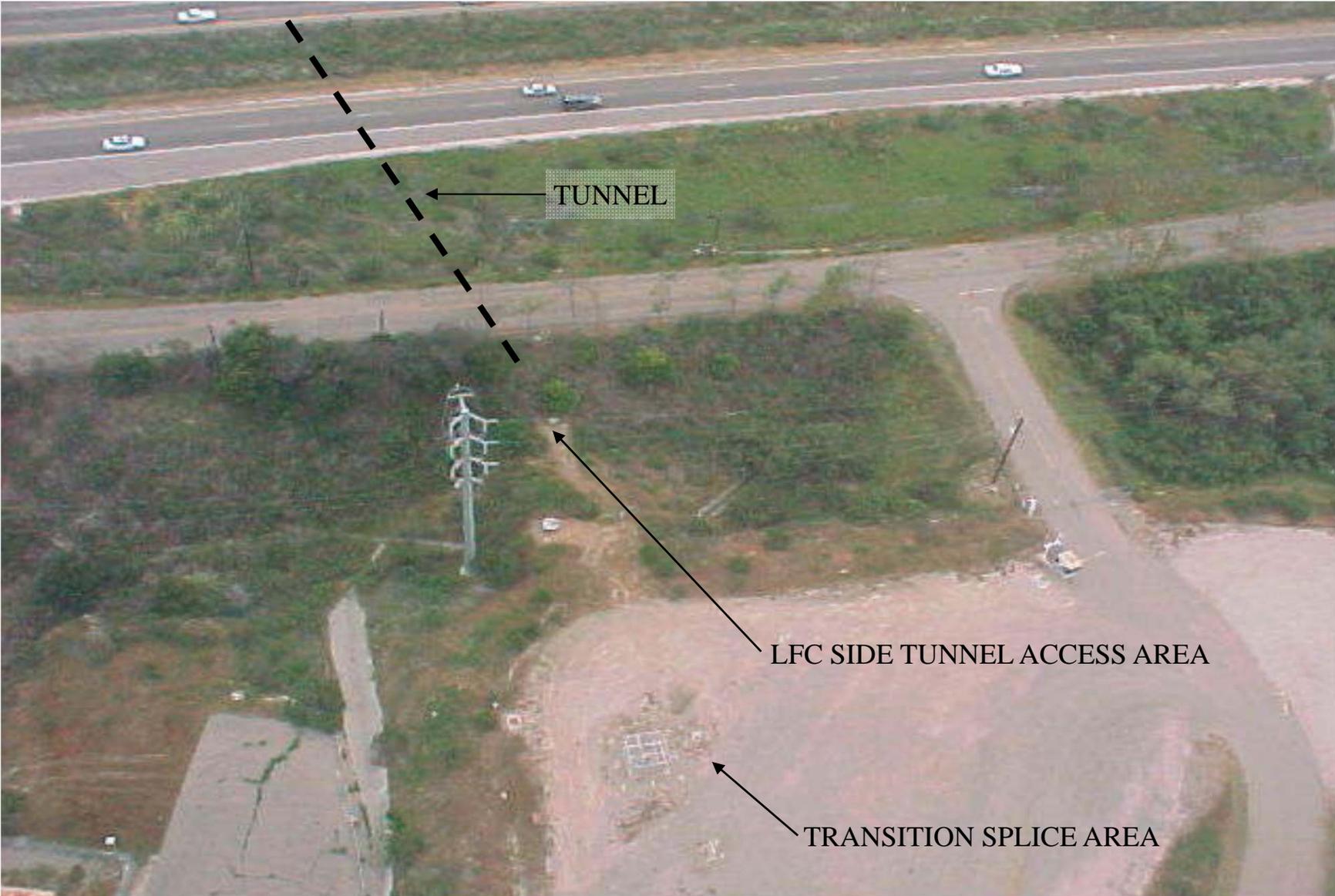


Figure 4.0-4

Cross-Section of Tunnel

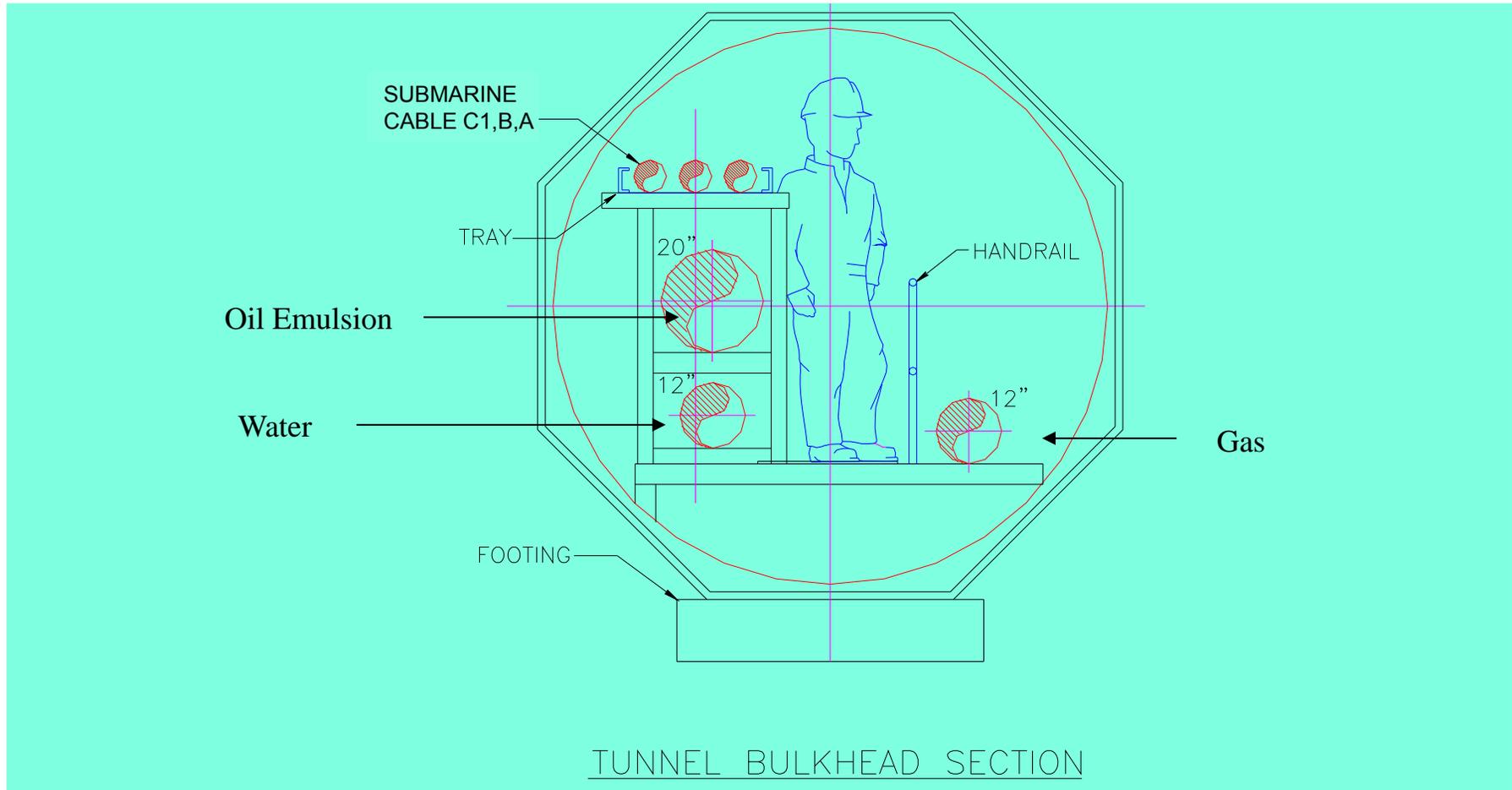
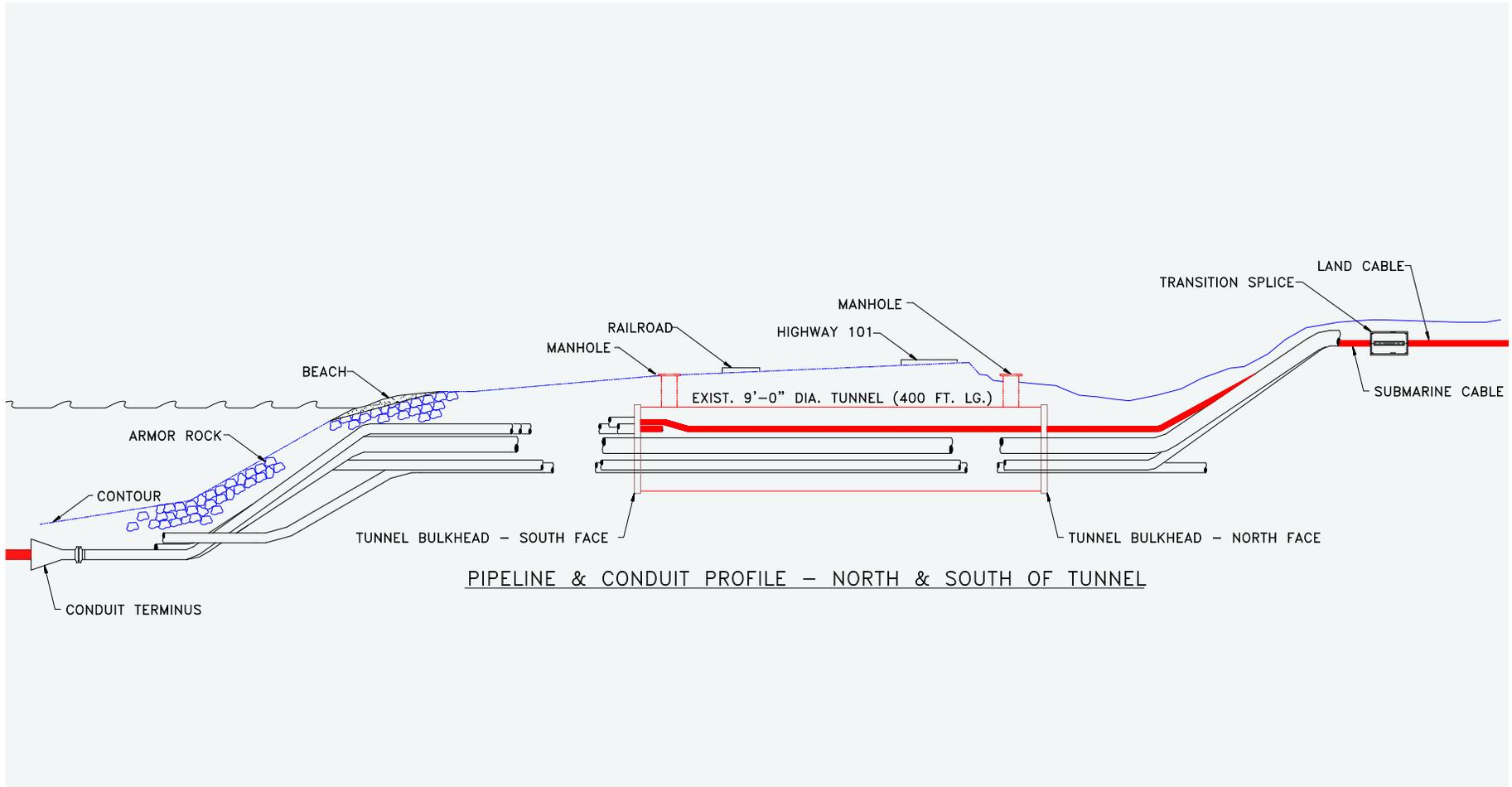


Figure 4.0-5

Diagram of Elevation of Tunnel and Conduit Area

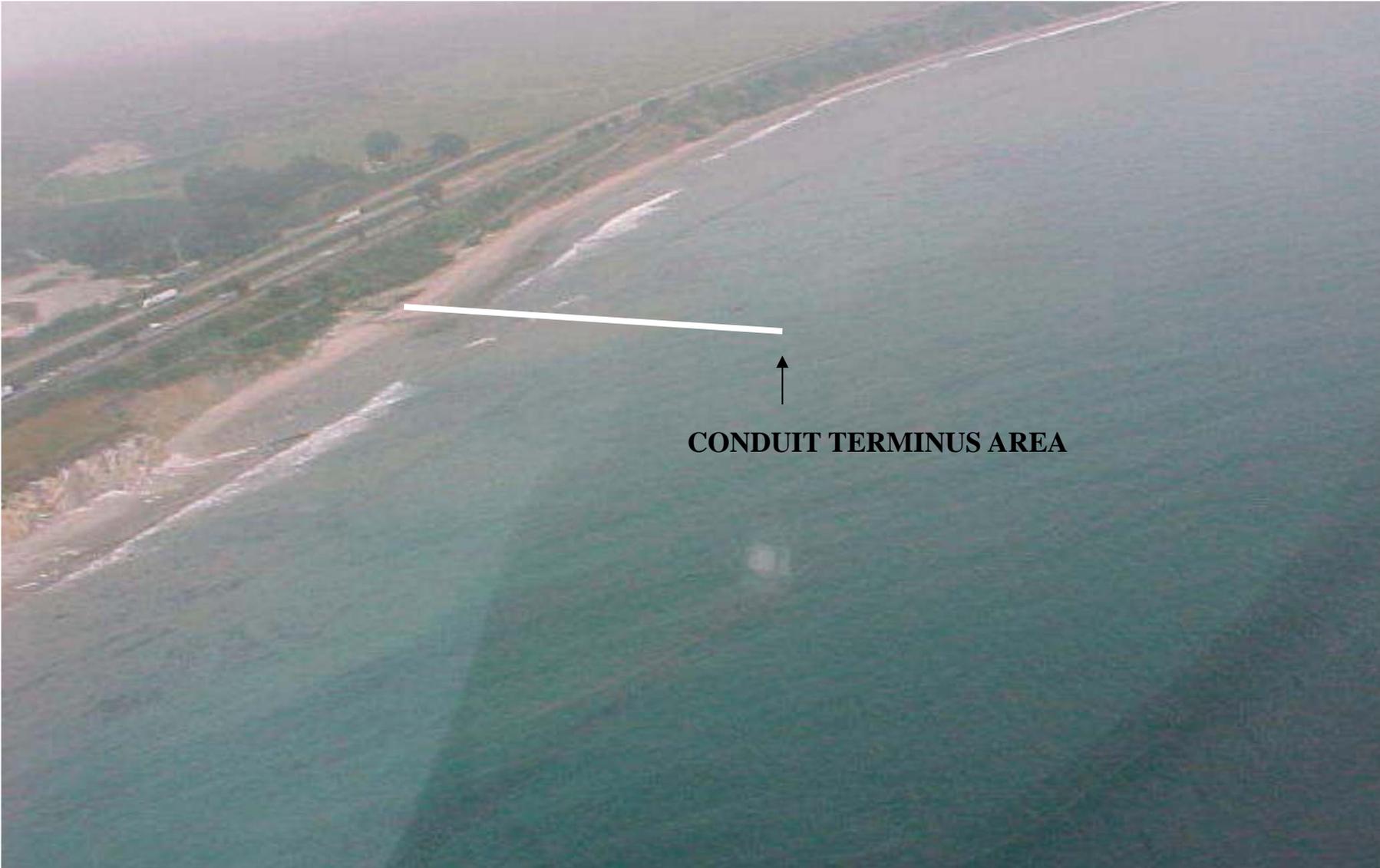


↑
Nearshore Area

LFC Area
↑

Figure 4.0-6

SYU Nearshore Power Cable Conduit Location



CONDUIT TERMINUS AREA

Figure 4.0-7

SYU Existing Power Distribution System

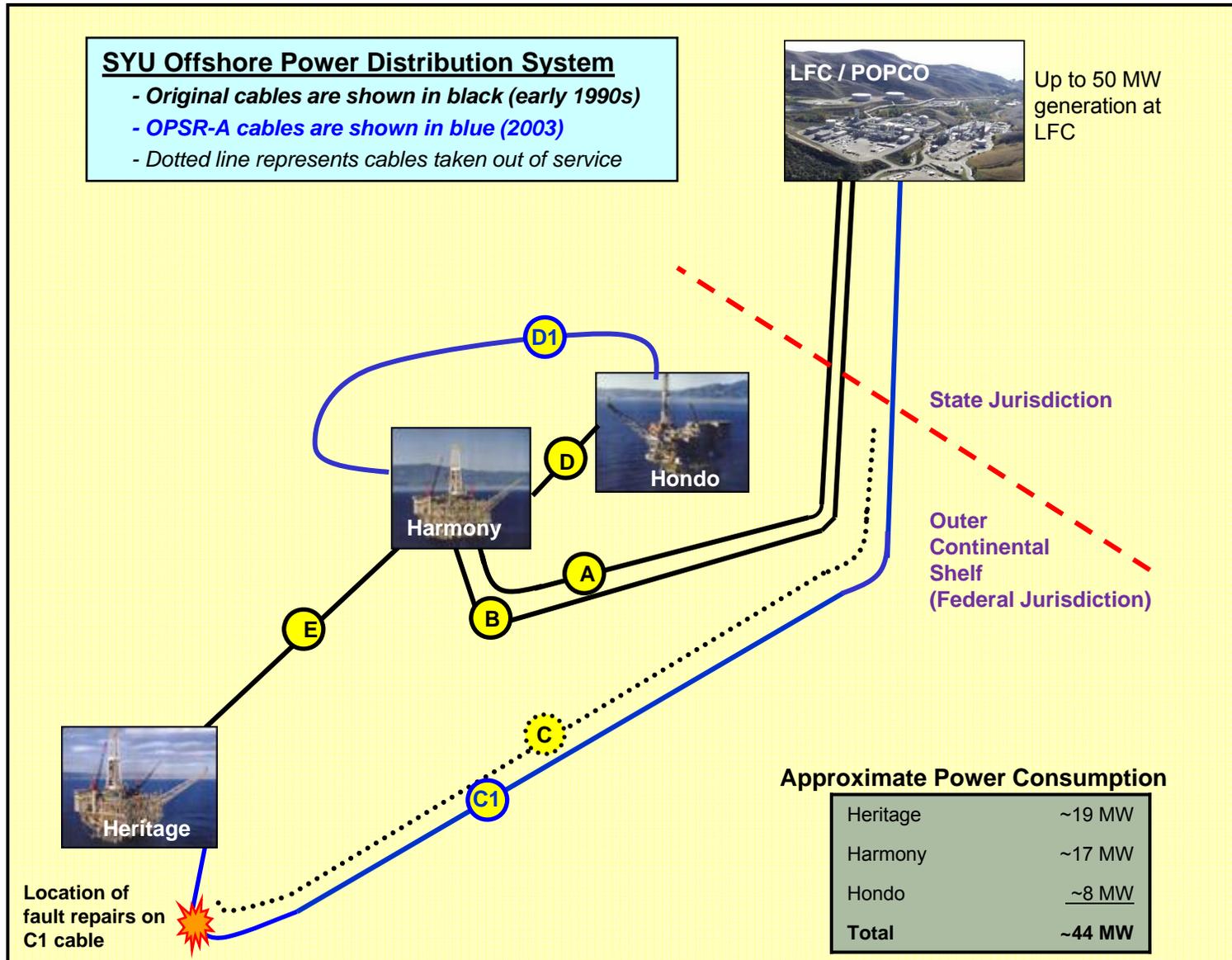


Figure 4.0-8

OPSRB Proposed Scope

Description

- Replace 2 existing submarine power cables: Replace A (or B) with A2 (or B2) and replace C1 with F2 and G2 [Phase-2]
 - 29 miles of 3 phase cables; 35 kV ; 32 MW
 - Total cable weight approx. 2900 tons
- Retrieve and recycle 12-18 miles of Cables A (or B) and C1 (LFC to State/Federal Boundary, on and adjacent to HA and HE, and along route) [Phase-2]
- Install modifications on HA and HE for cable installation and electrical equipment [Phase-1]

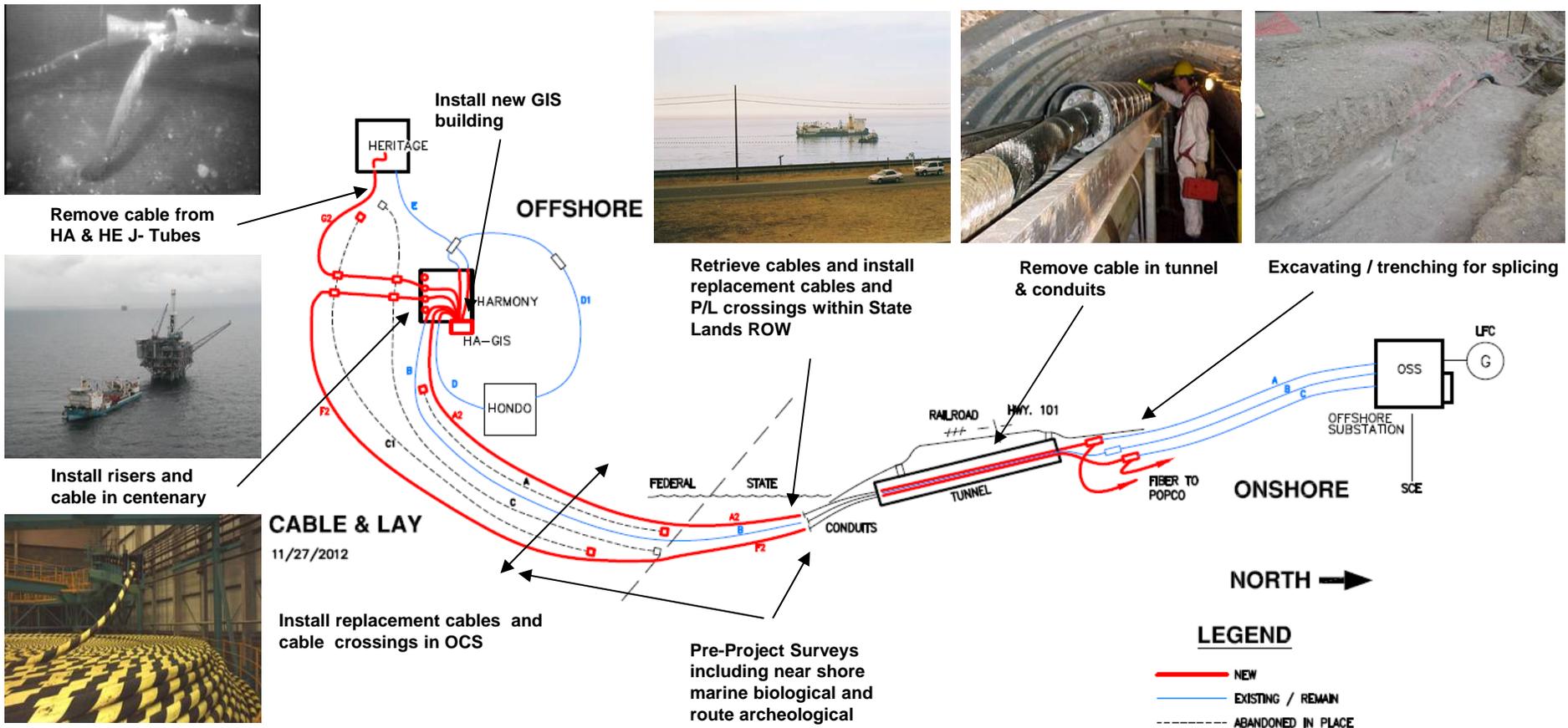
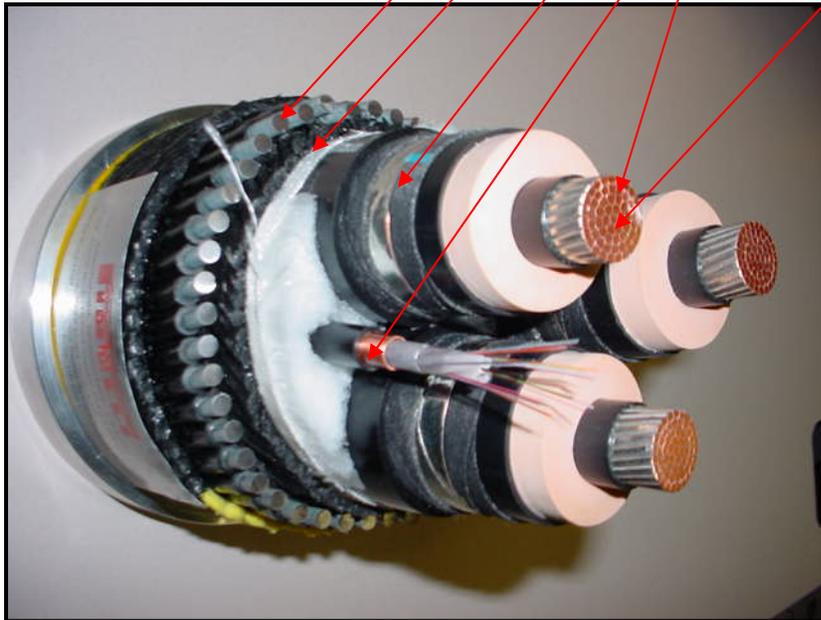
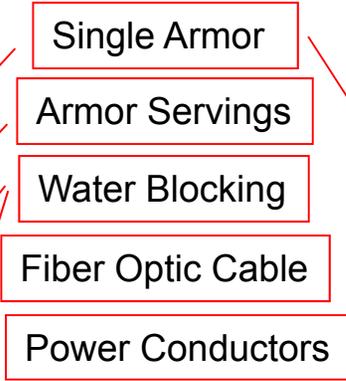


Figure 4.0-9

SYU Cable Cross-Sections

- Kerite (1993)- Original submarine power cable installations
- Pirelli (2003)- Cable C1 and D1 (Similar design except water blocking and fiber optics)
- OPSRB (2015)- Similar to Pirelli with double armor wire, 46 kV insulation, and larger conductors



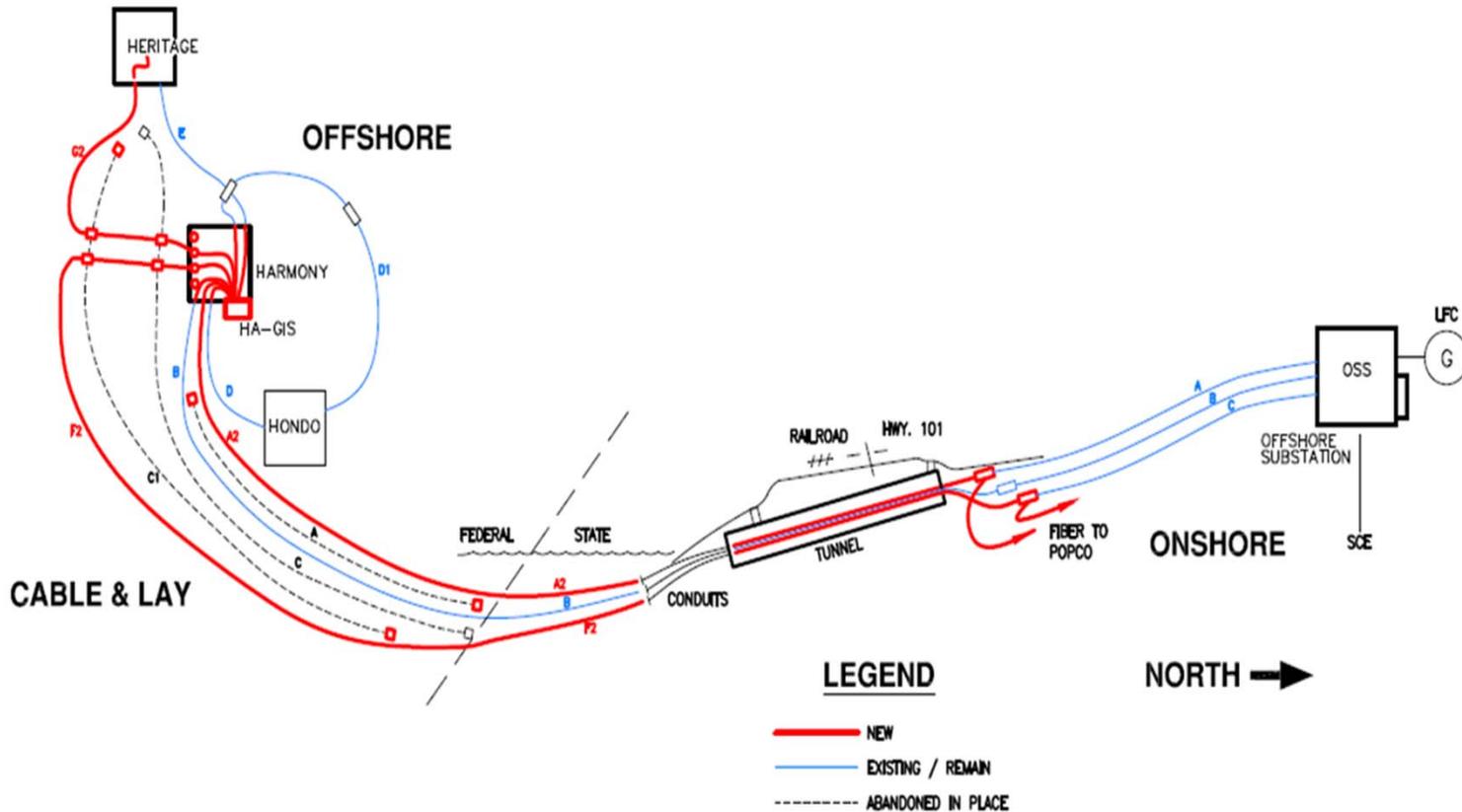
35 kV Pirelli Cable Installed in 2003



35 kV Kerite Cable Installed in 1993

Figure 4.0-10

OPSRB Cable Overview Diagram



Red Cables A2 (or B2), F2 & G2 will be installed replacement cables. Blue Cables B (or A), D, D1, & E are existing cables that will remain in operation. Black Dashed Cables A (or B), C1 & C will be abandoned in place. Cables A (or B) & C1 will be retrieved in Tunnel, Conduits, State Waters and adjacent to Platforms.

Figure 4.0-11

Typical DP Cable Installation Vessel

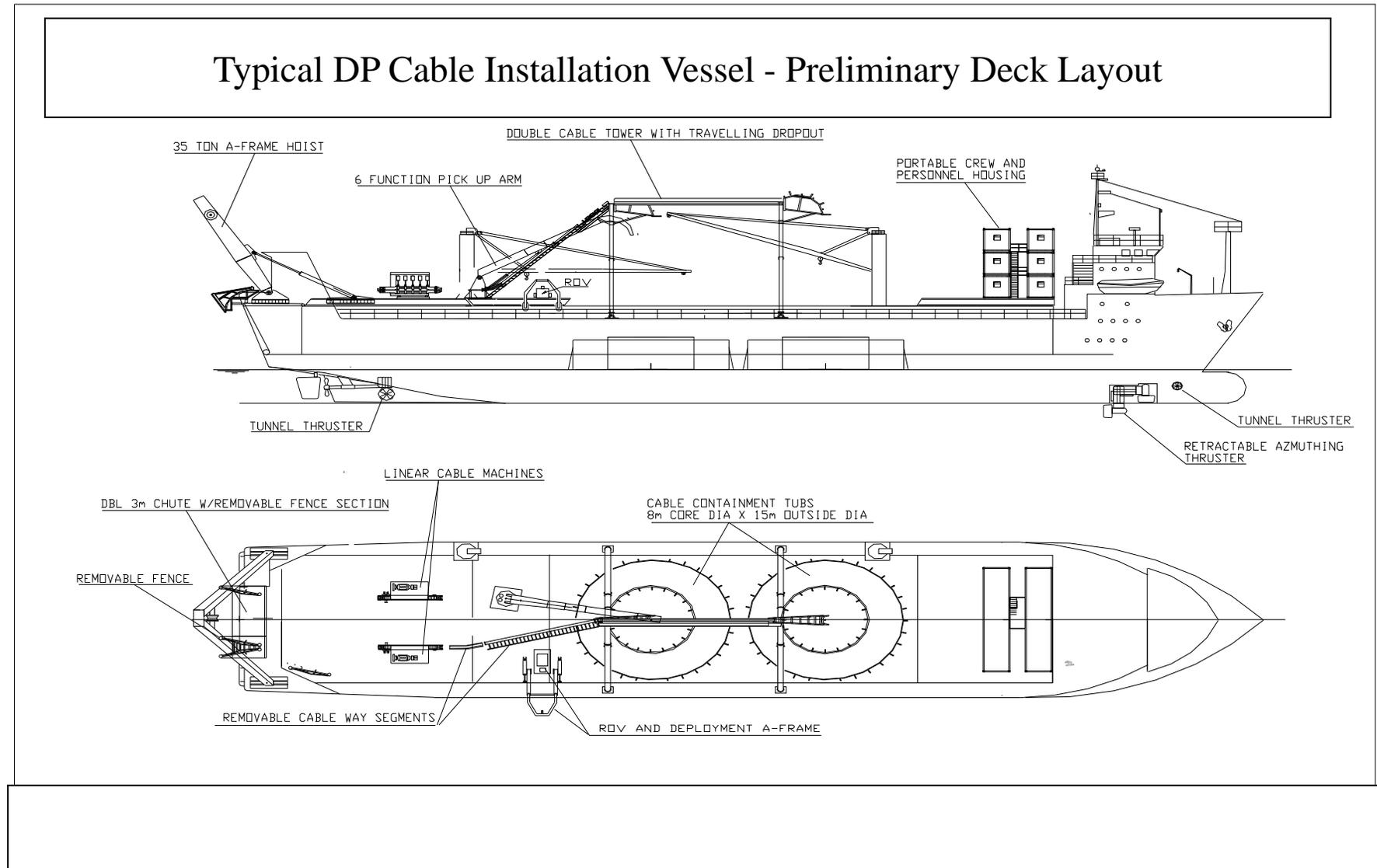


Figure 4.0-12

Cable Retrieval from Conduit and Tunnel

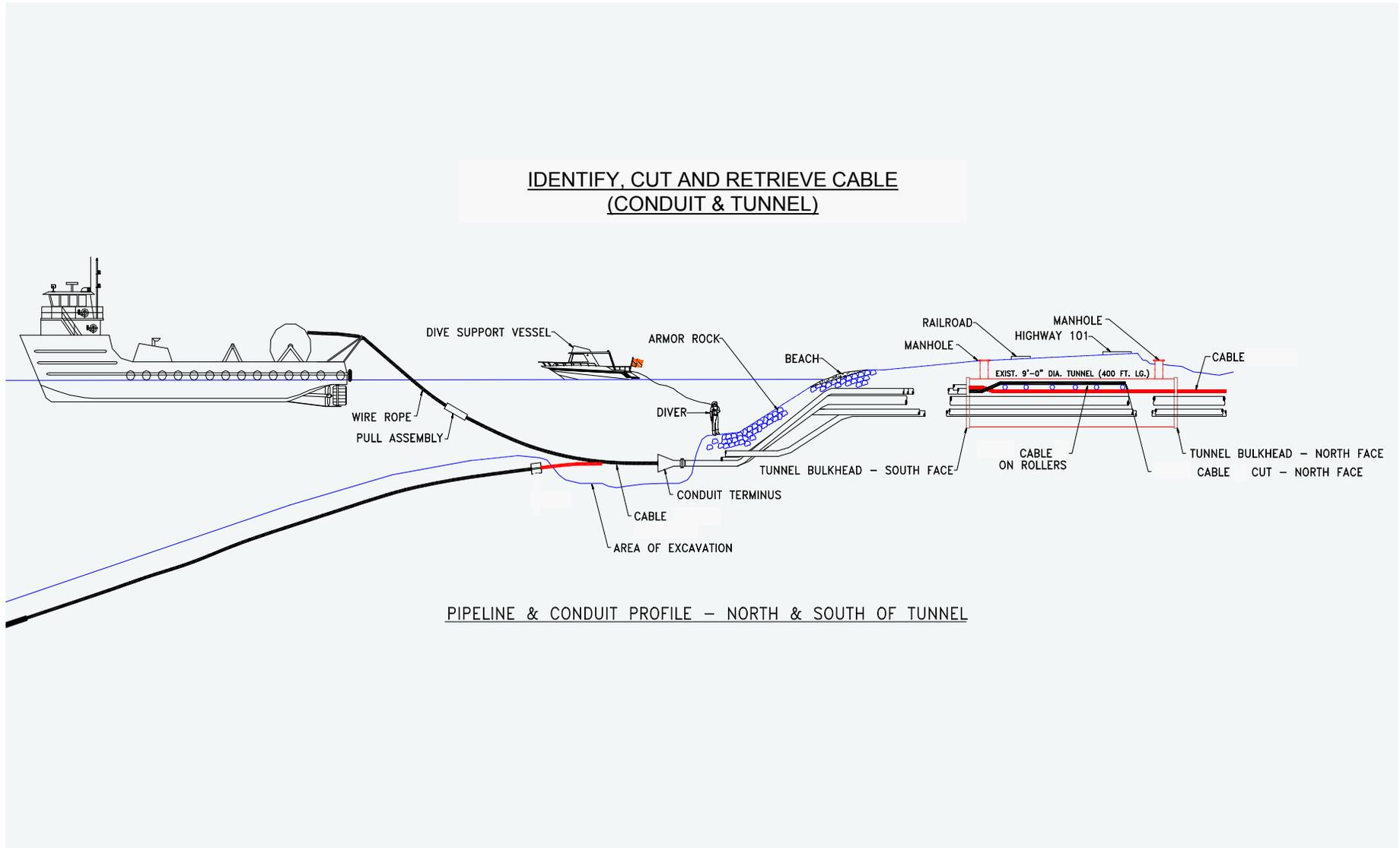


Figure 4.0-13

Cable Installation Start Pull-In at Platform

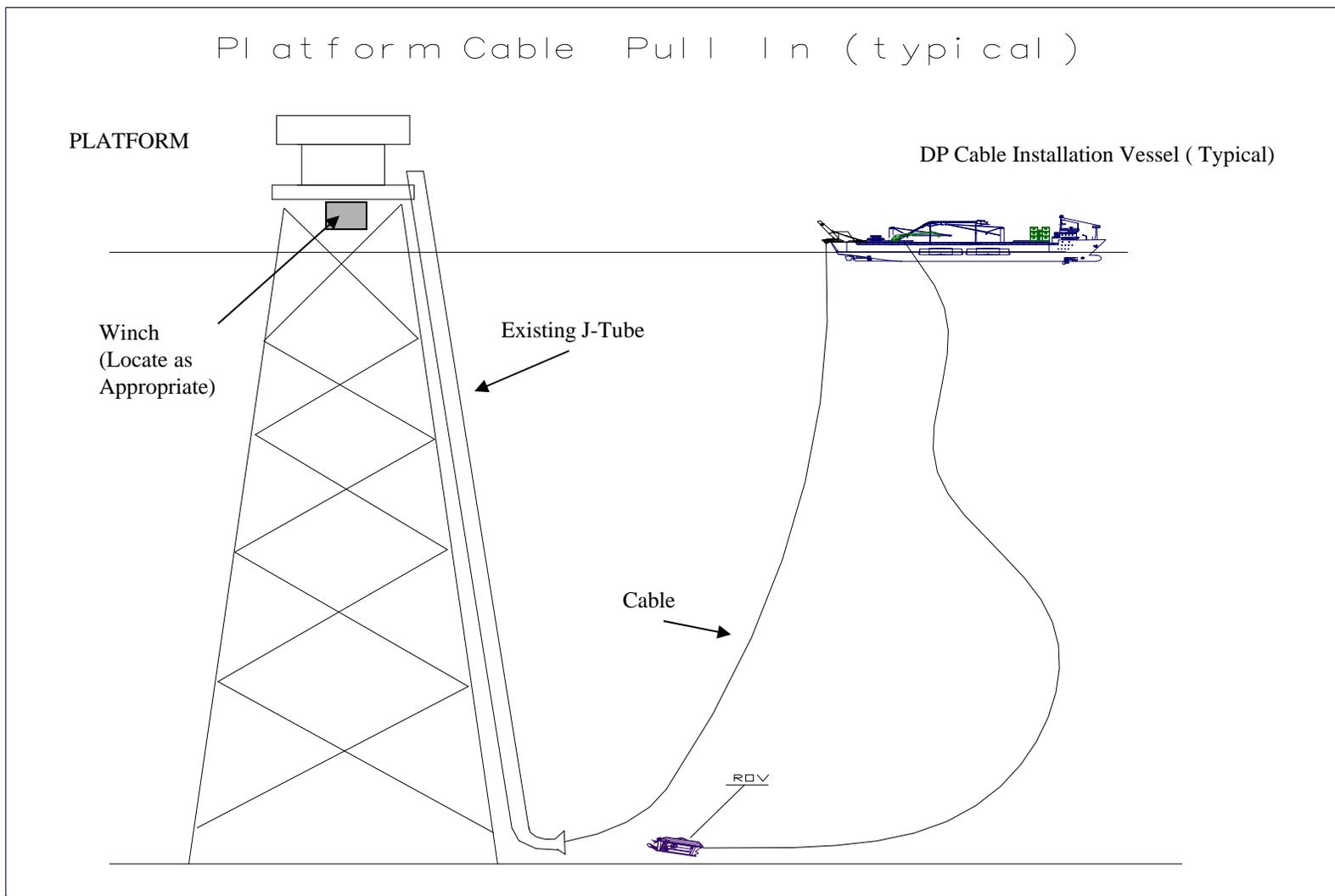


Figure 4.0-14

Cable Installation Platform to Platform or Platform to Shore

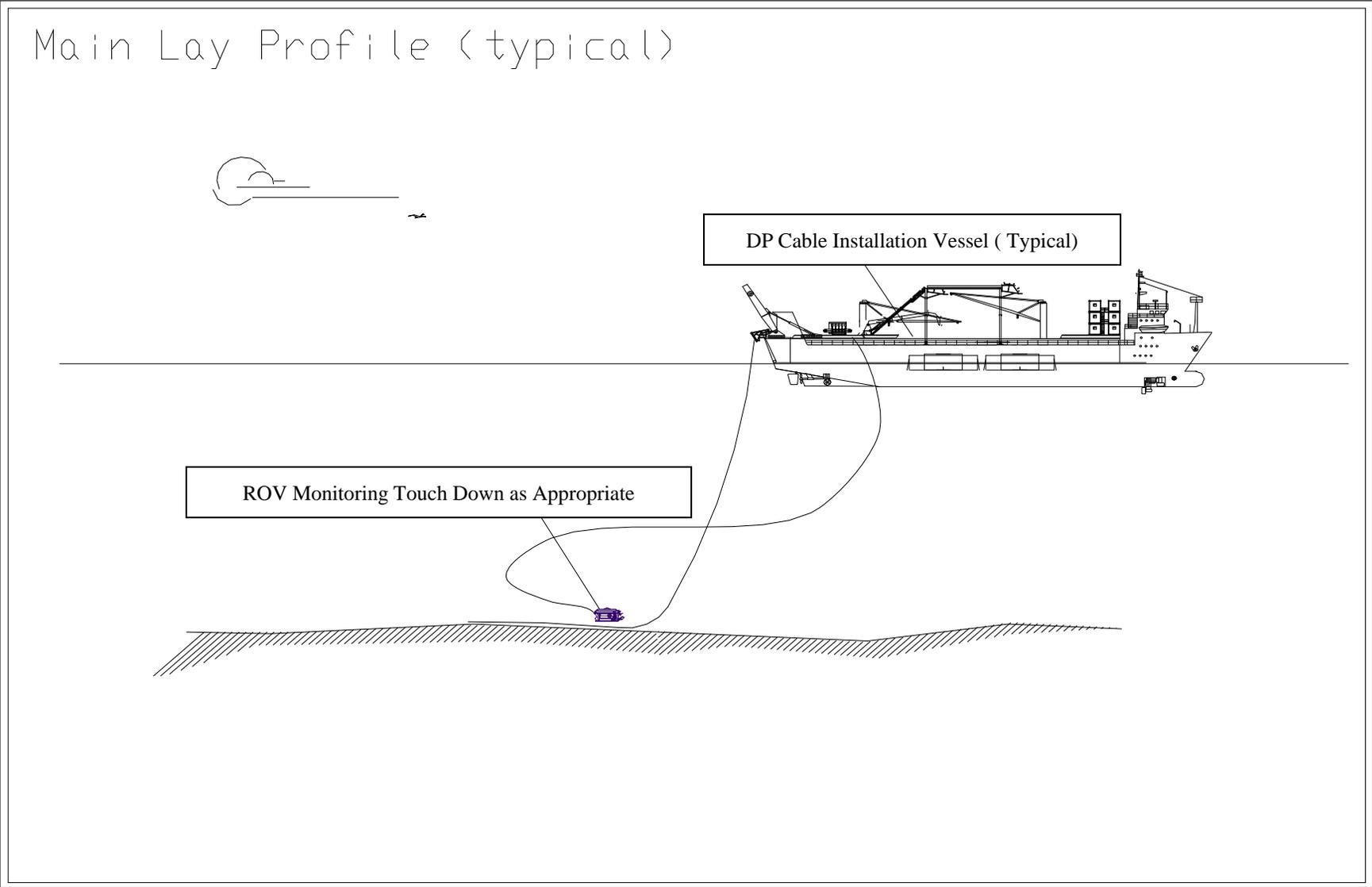


Figure 4.0-15

Cable Installation Final Pull-In (Platform to Platform)

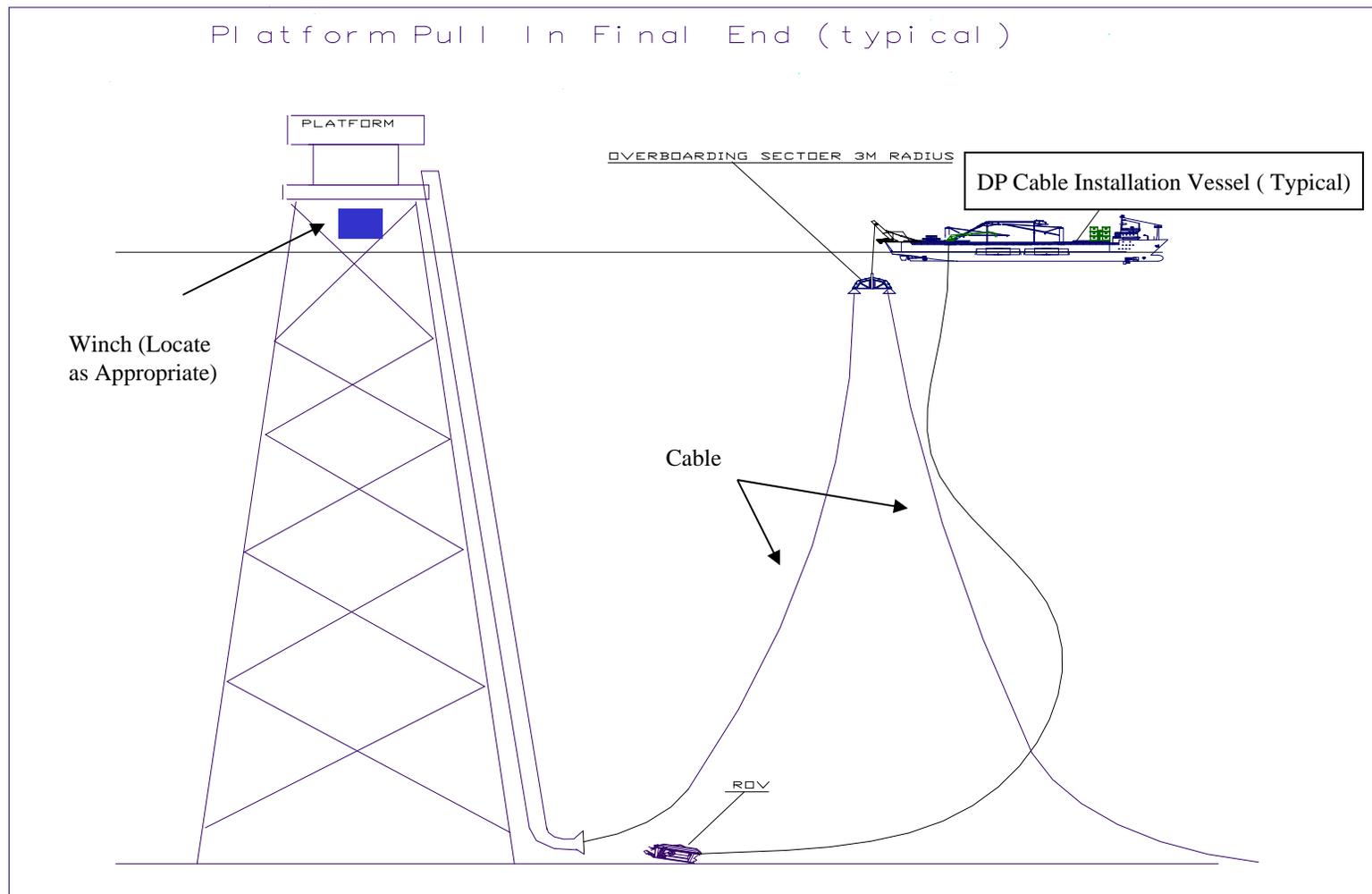


Figure 4.0-16

Cable Installation Final Shore Pull-In (Platform to Shore)

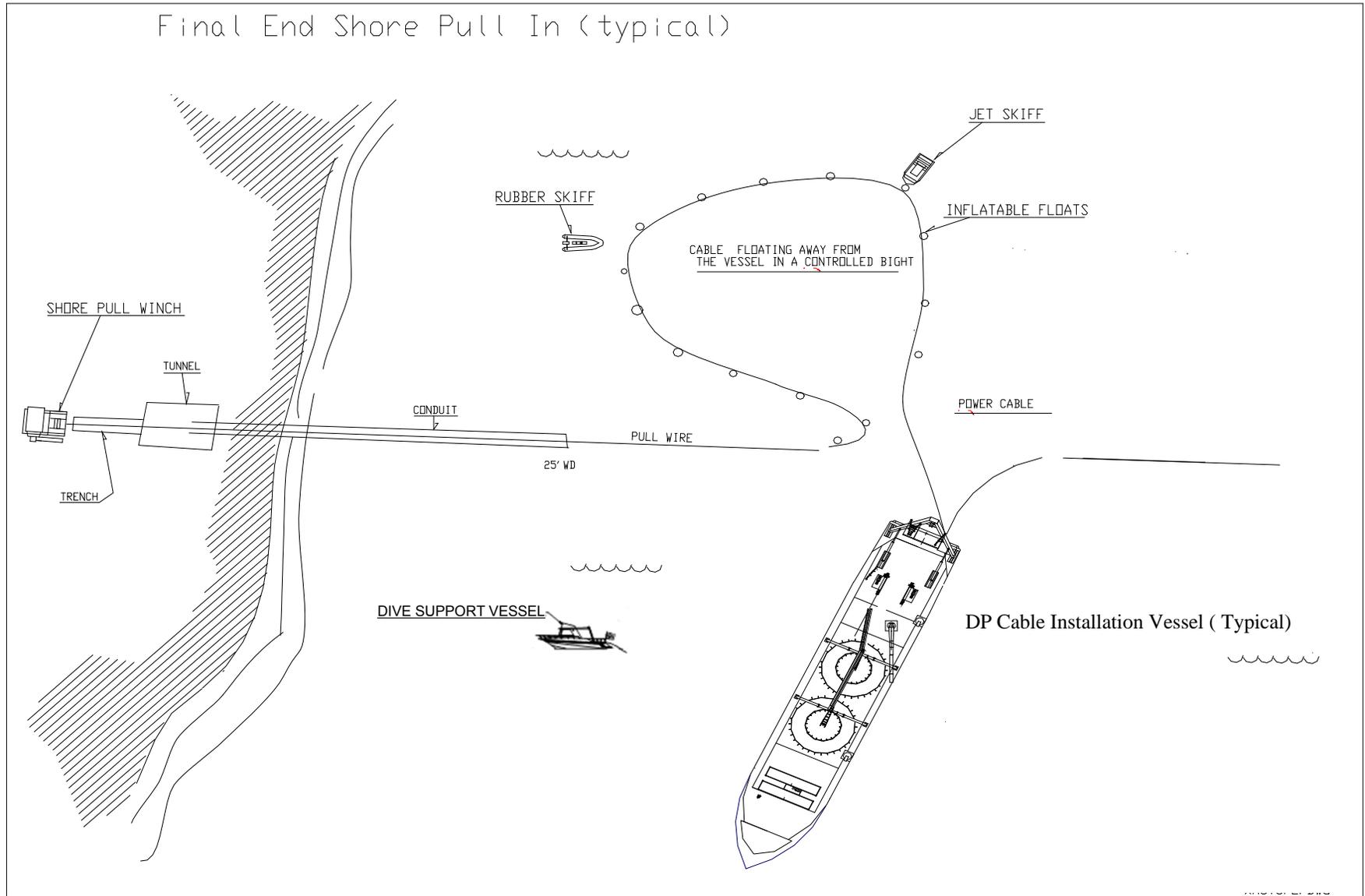


Figure 4.0-17