



Annex D: Technical Drawings of Project Infrastructure

The design of the Nam Theun 2 Project infrastructure is the result of work conducted by the Engineering and Construction Division of EDF and Montgomery Watson Harza.

Initial infrastructure design began in 1995. Since then the infrastructure design has evolved through the various stages of Process Design, Concept Design and Basic Design. The Basic Design evolved from the Concept Design, and was prepared, in late 2001 and early 2002, in the form of technical specifications, by the Nam Theun 2 Development Contractor (a joint venture between EDF and Montgomery Watson Harza) for use in the construction contract bid documents.

The Reference Design is the design basis for the detail design, manufacture, construction and commissioning of the project works, and is based on the final Owner's Requirements and the final Basic Design. It incorporates design changes from i) additional studies and field investigations providing information leading to a change to the Concept Design (e.g. for increased performance, reduced construction time and/or reduced cost); and ii) change recommendations, during the bid and bid evaluation process, which have then been adopted by NTPC.

During the Construction Phase, the Head Construction Contractor and the various sub-contractors will be required to use the Reference Design as the basis for completing the final detailed design for the Project works. The detailed design will be required to be con-

sistent with the Owner's Requirements and the Reference Design and will be subject to approval by NTPC and GOL.

The following annex presents a selection of technical drawings from the Basic Design of key Project features. These drawings are only indicative of the final design and include:

1. Nakai Dam: Diversion works
2. Nakai Dam: General layout
3. Nakai Dam: Spillway and stilling basin
4. Nakai Dam: Riparian release
5. Intake structure for the power station
6. Underground works
7. Power Station: General layout
8. Power Station: Cross-section
9. Regulating Dam: General layout
10. Regulating Dam: Nam Kathang release
11. Downstream Channel alignment and components
12. Downstream Channel: Ban Itak crossing
13. Downstream Channel: Nam Gnom Siphon
14. Downstream Channel: Aeration weir
15. Downstream Channel: Confluence with Xe Bang Fai
16. Transmission Line: Mekong Crossing

All dimensions and elevations indicated on the drawings are in meters.



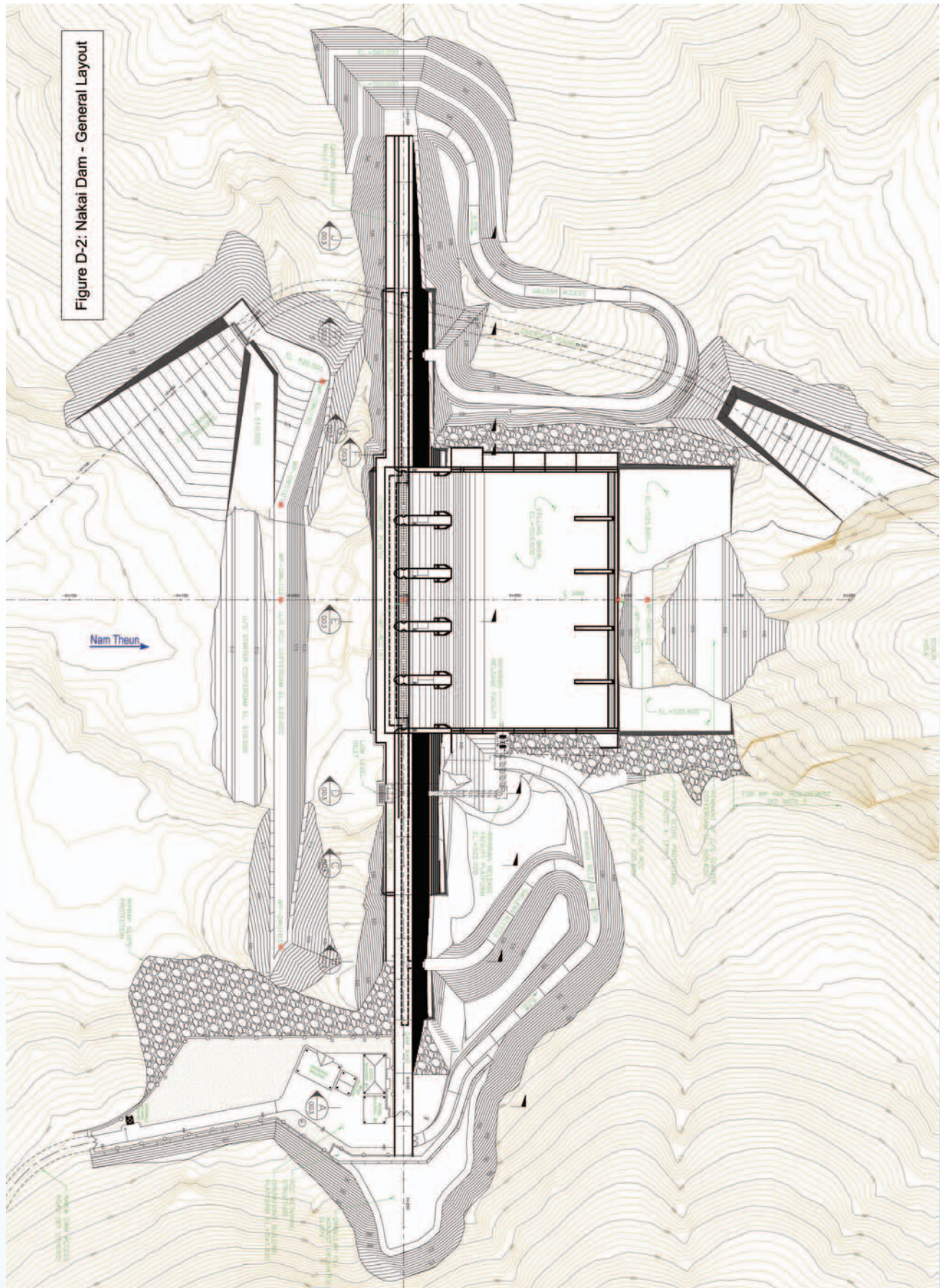


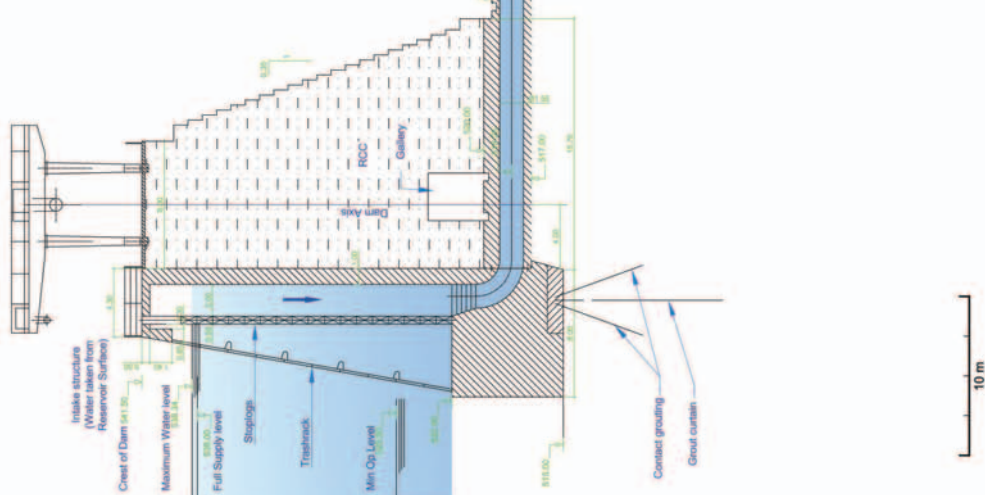
Figure D-3: Nakai Dam - Spillway and Stilling Basin

1. Drawing No. IH NTED D 31 * 10031 PG HGB D

Figure D-4: Nakai Dam - Riparian Release



PLAN VIEW OF THE NAKAI DAM



1. Drawing No. IH NTED D 31 * 10017 PG HGB C
2. Drawing No. IH NTED D 31 * 10018 PG HGB E

1. Drawing No. IH NTED D 41 • 20004 PG HG8 D

Figure D-6: Underground Works



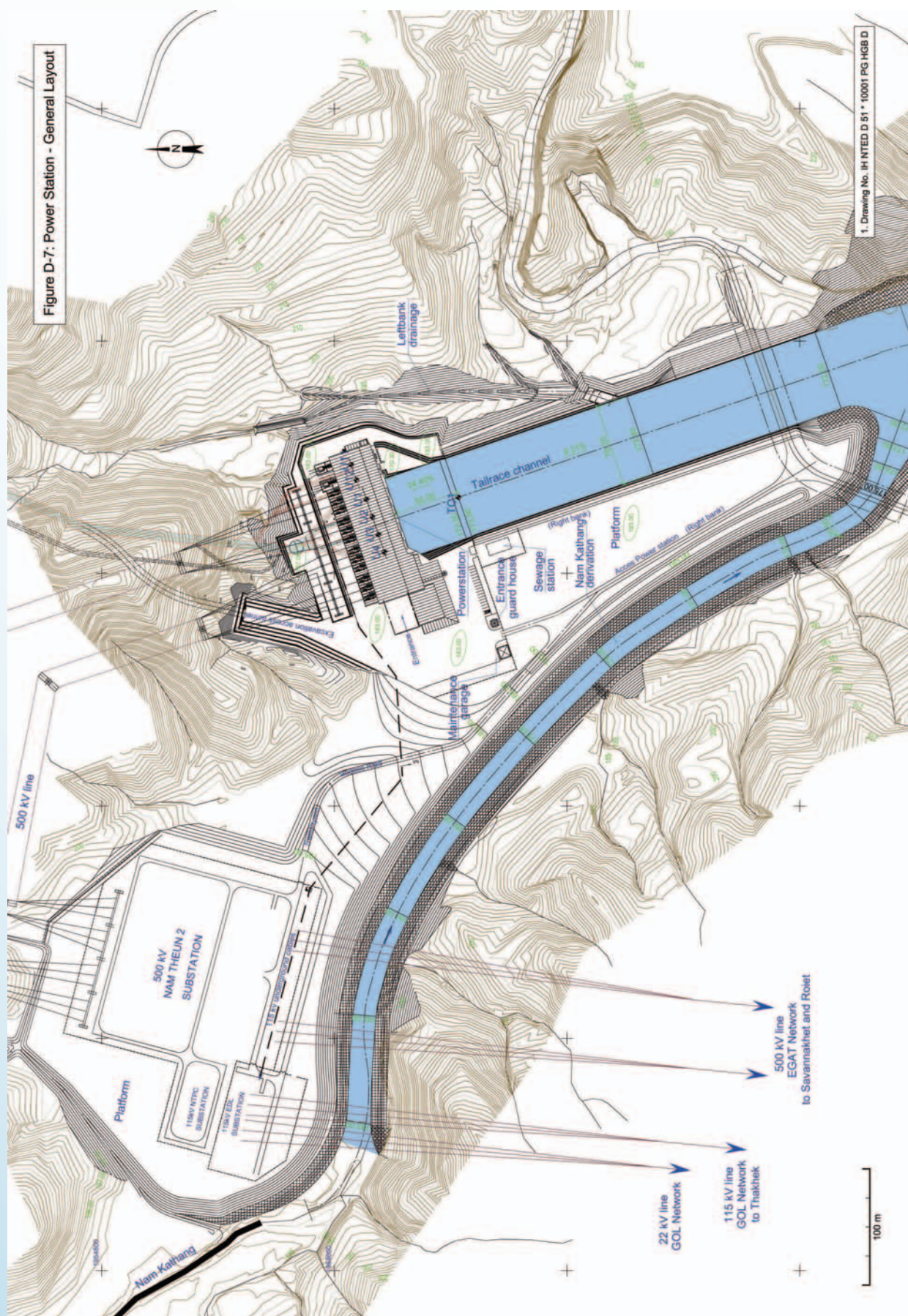
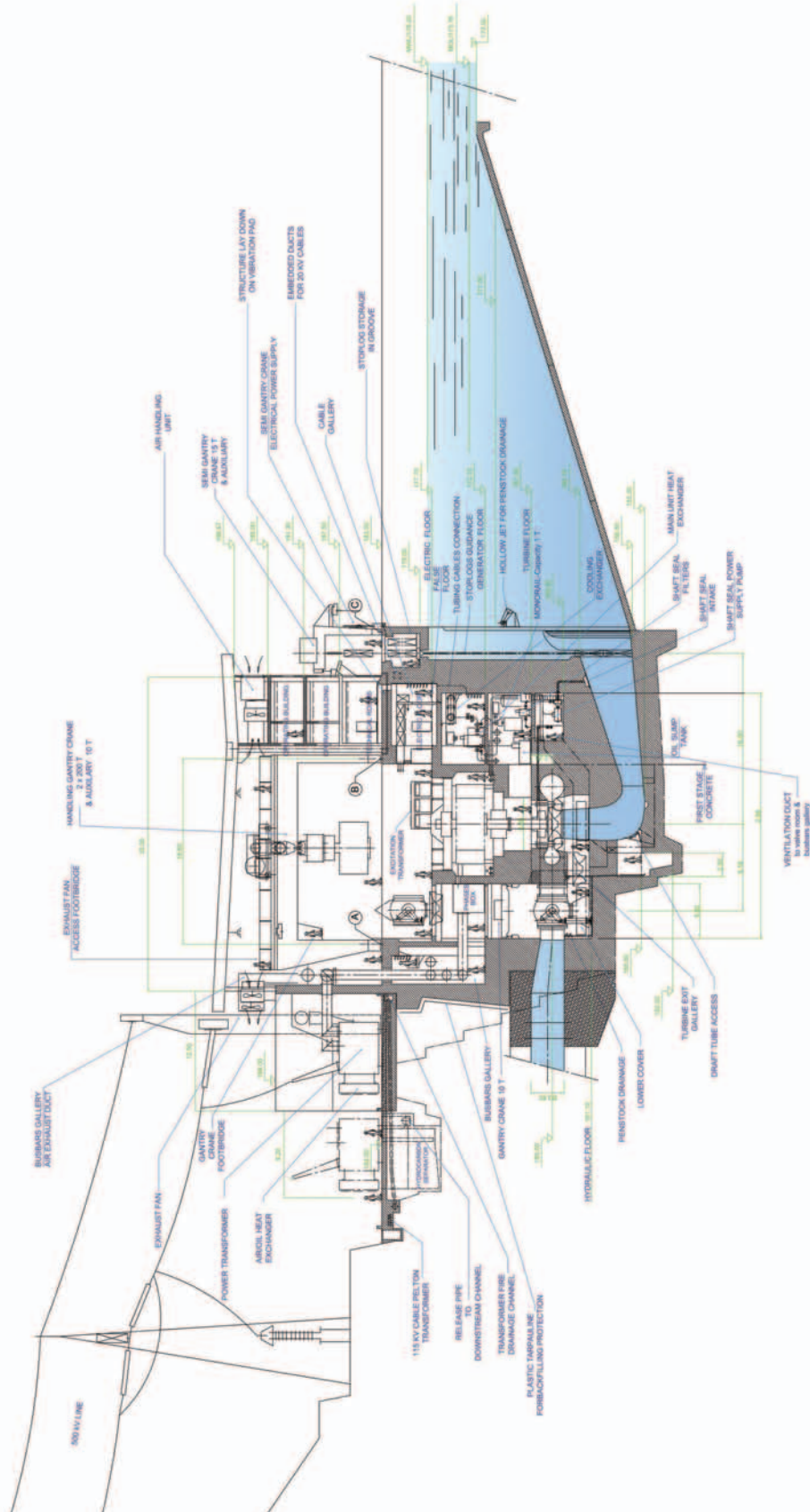


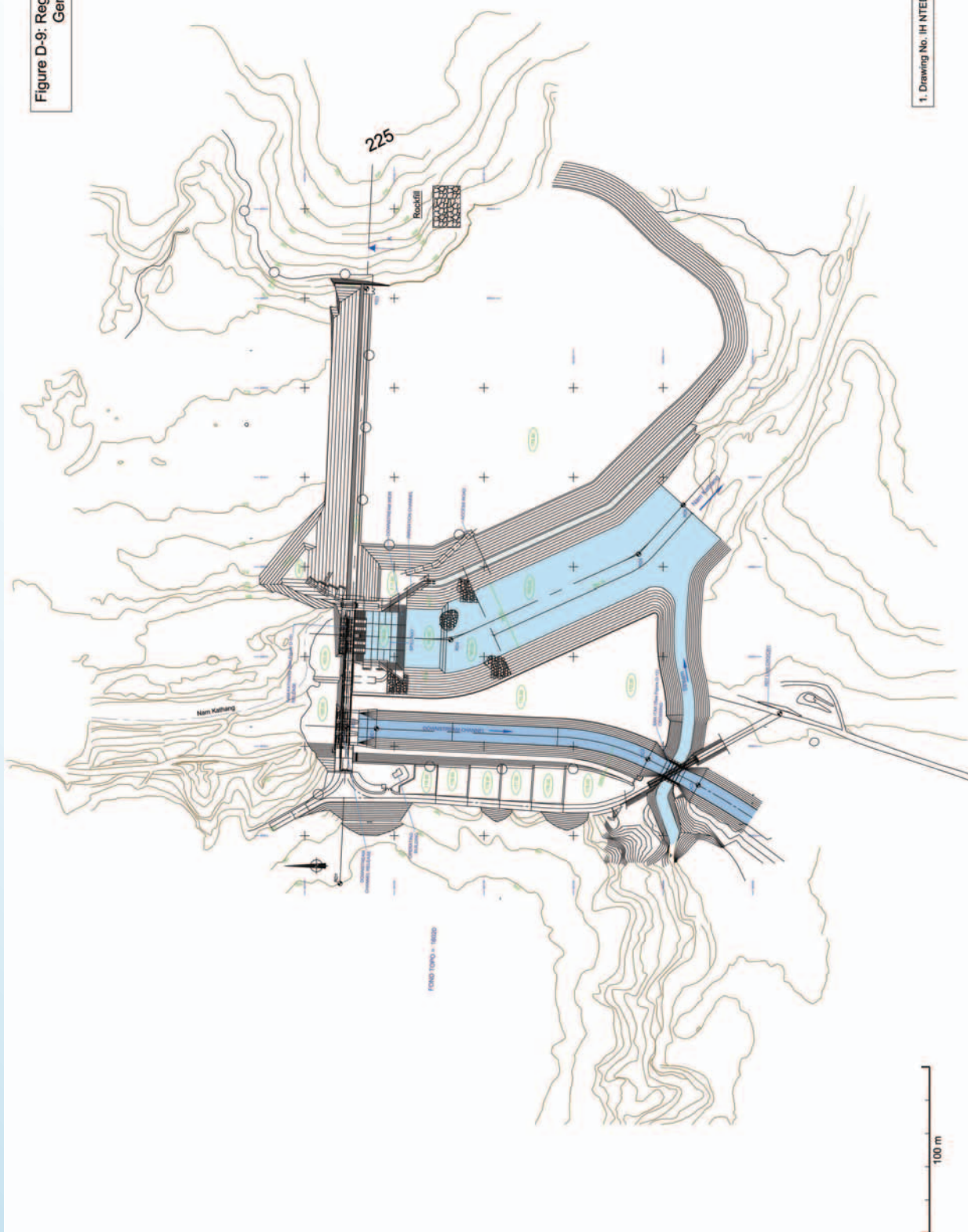
Figure D-8: Power Station - Cross Section




1. Drawing No. IH NTED D 51 • 5000 PG HMB E

15 m

Figure D-9: Regulating Dam -
General Layout

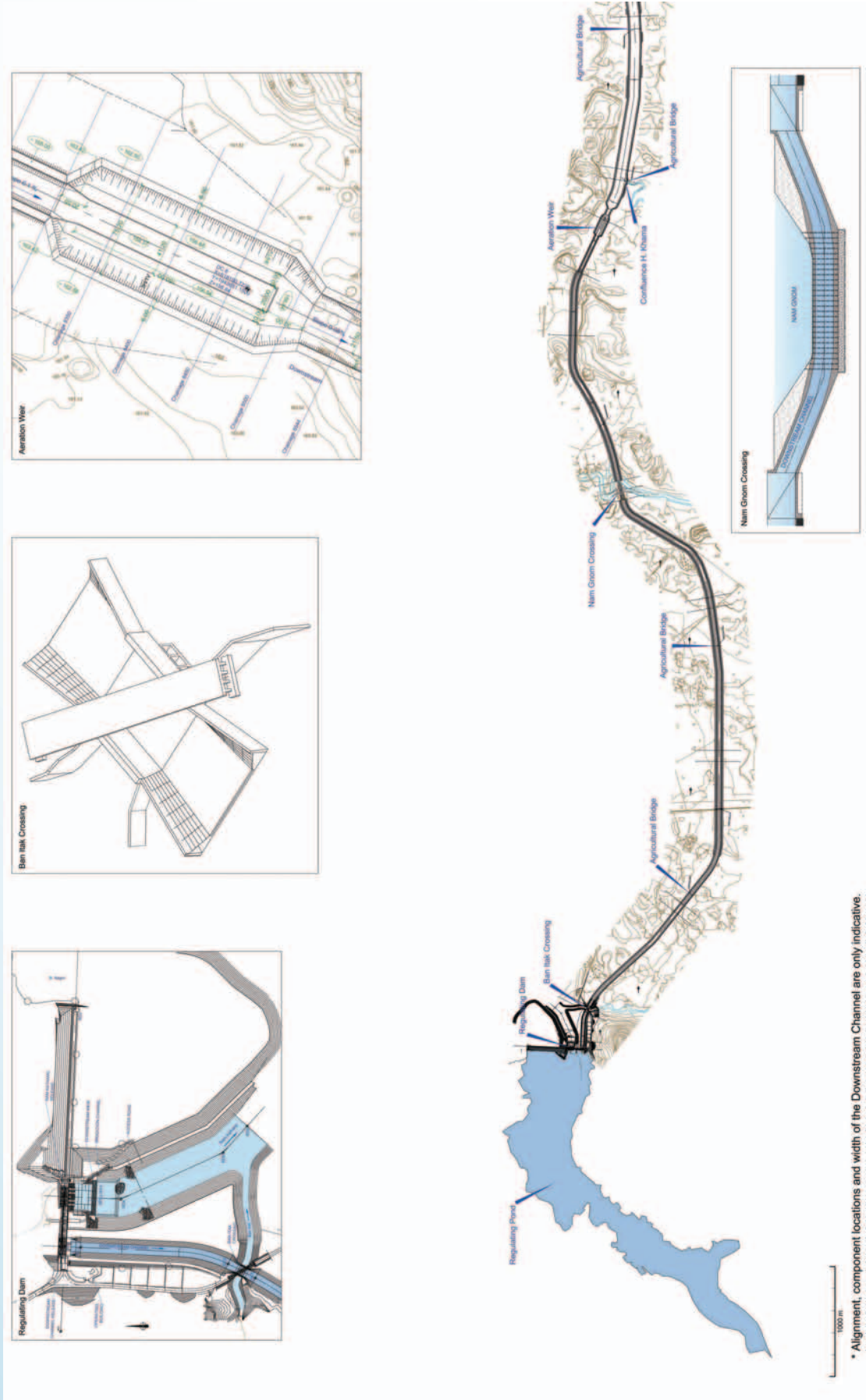




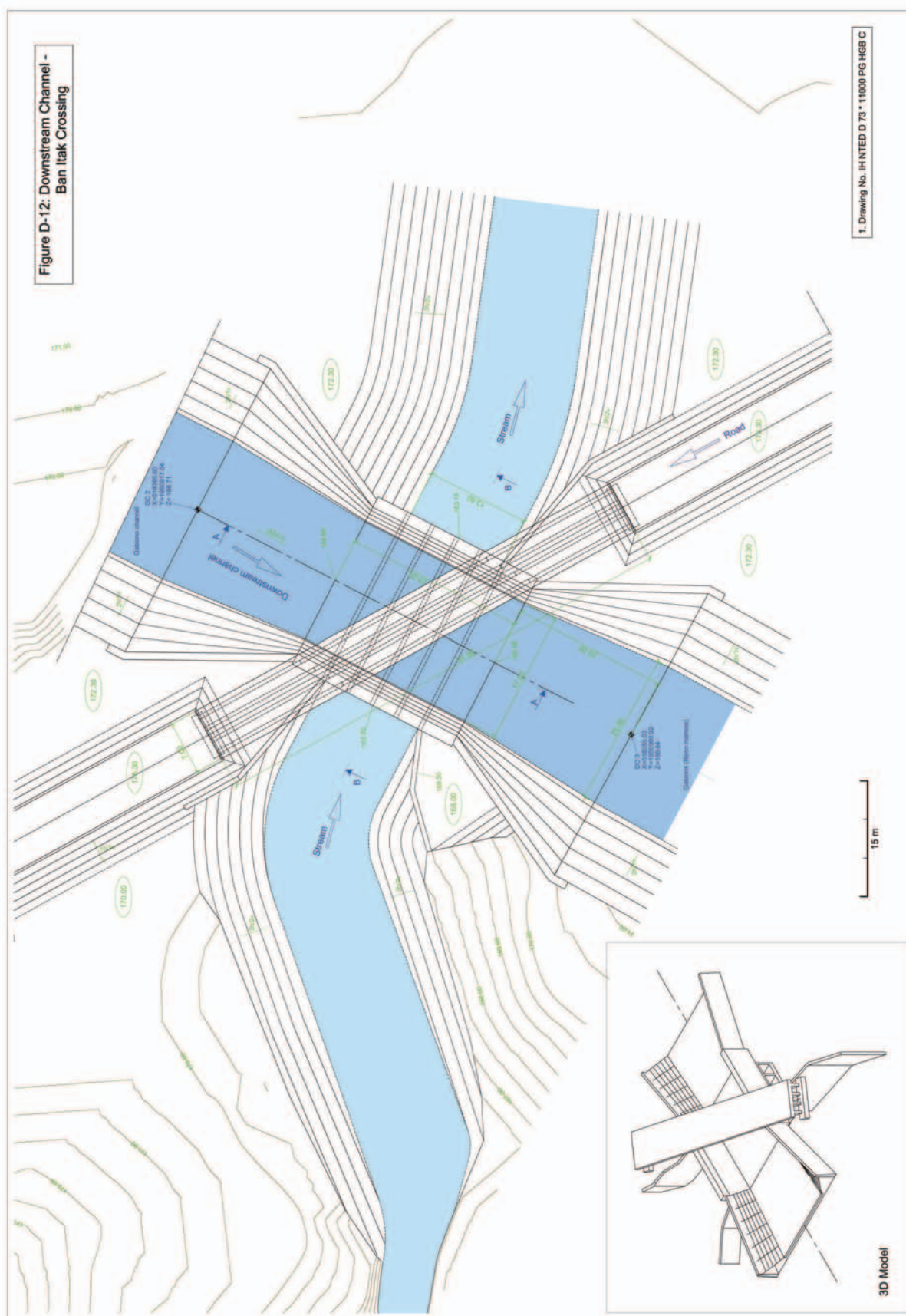
3D Model of Release Gate for Nam Kathang Release



1. Drawing No. IH NTED D 71 • 10010 PG HGB C SHEET 3/5







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3D model

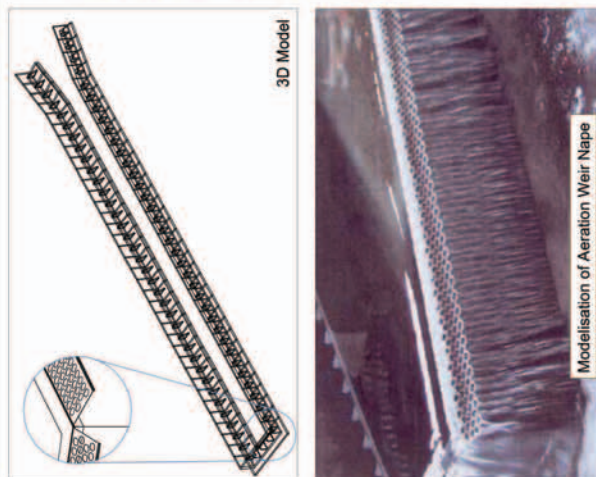
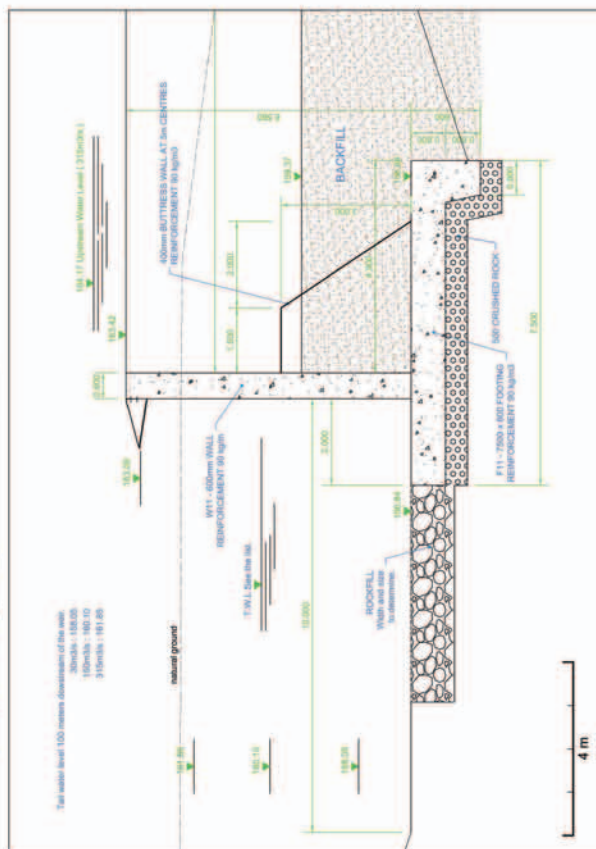
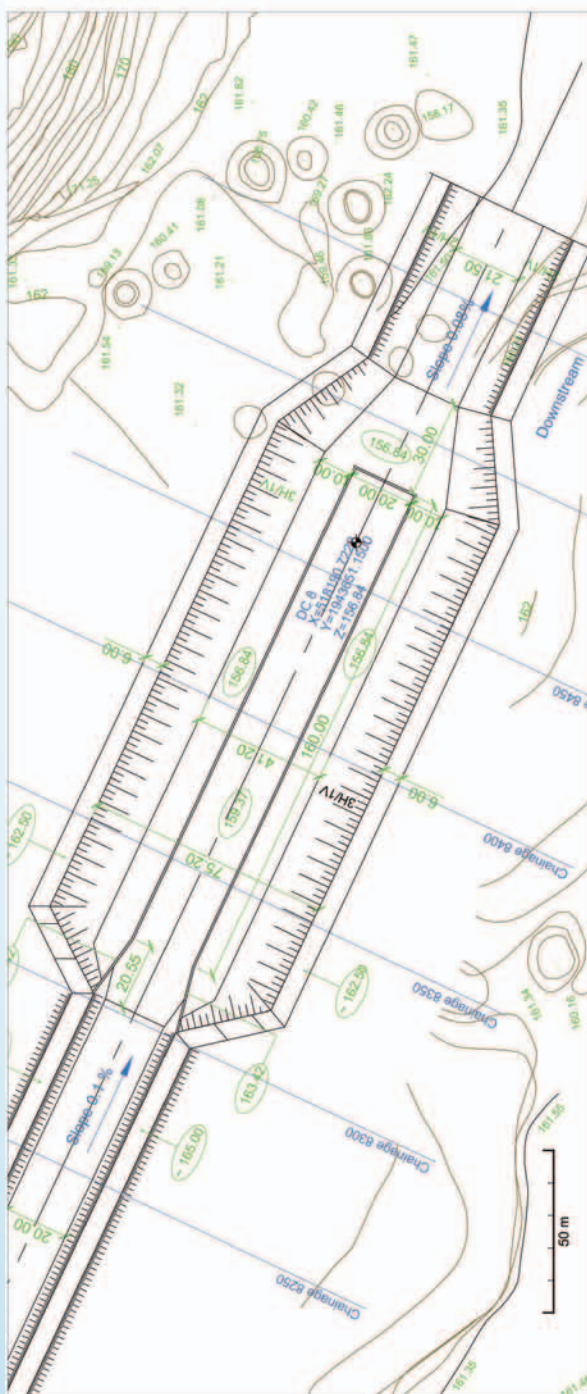
High Gain

Downstream Control

[illegible]

Figure D-14: Downstream Channel -
Aeration Weir

1. Drawing No. IH NTED D 73 - 13001 PG HGB C
2. Drawing No. IH NTED D 73 - 13004 PG HGB A
3. Drawing No. IH NTED D 73 - 13005 PG HGB A

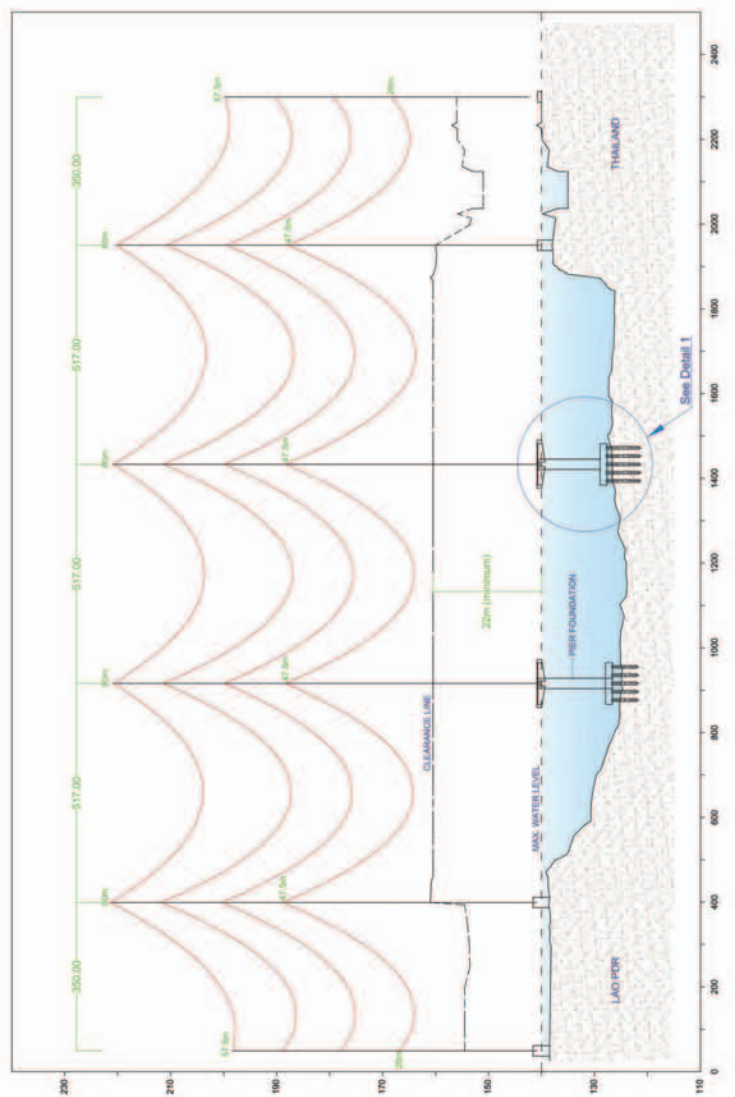


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1. Drawing No. IH NTED D 73 * 10030 PG HGB C
2. Drawing No. IH NTED D 73 * 10031 PG HGB B

Figure D-16: Transmission Line -
Mekong Crossing

DETAIL 1



1. Drawing No. P3 NTD D 98 * 6863 PM RSE C
2. Drawing No. P3 NTD D 98 * 6864 PG RSE C