Deepening of fairway, Strengthening of Quays

NordPIANC 2019
A joint project between

Swedish Maritime Administration

and

Port of Gothenburg

Swedish Maritime Administration – *dredging and re-allocation of fairway markings*

Port of Gothenburg – *Strengthening of existing quays*
Jan Andersson

Overall Scope

- Water depth today 12-14 m
- Water depth tomorrow 18-19 m?
- Today's container vessel, 400 x 59 m but increased draught
- Future container vessels 430x65 m?
Scope; The Swedish Maritime Administration

Some 11 million m³ clay/1 million m³ rock

10-15 fairway markings

Jan Andersson
Scope; The Port of Gothenburg

- Strengthening of 1200 m quayfront
- Dredging appr 100 m width along quayfront
Scope; The Port of Gothenburg

Reinforcement of load bearing capacity of adjacent terminal areas.
Scope

Strengthening of quays, the major part of the total cost
Prel technical solution

1. Excavation 2.5 meter
2. Piling to solid rock, 40-50 m length, slab of concrete on top
3. Filling, operations can resume on terminal areas
4. Sheet piling installation
5. Dredging
Phasing of Works

During Phase 1, container handling to be moved to the adjacent quays?
Estimated Cost for the Joint Project

Estimated cost (2016) for vessel with 16.5 m draught
380 million € (1 € = 10 SEK)

Financing by the Government 120 million (Dredging Cost)

Funds available from the Government first during 2024
Time schedule, dredging + phase 1

Based on experience from previous project 2003-2005

1 year pre-design, 2 years detailed design

Phase 1, 4 years construction, completion Q-22

Two "dredging-seasons", start autumn -24

Quay phase 1 + Fairway, completion Q1/Q2 -26

3 years for environmental permit
Status as per today

• Preparations for vessel-simulations are ongoing, simulations to start week 42, proposal fairway design by the end of the year

• Work with Environmental Impact Assessment has started, to be completed and submitted for environmental approval by end June 20.

• Technical progress; field investigations completed, lab analysis are ongoing, the Project is eagerly awaiting result.

• Draft pre-design report with cost estimate to be completed by December -19. Includes estimate of 2 alternative depths

• Provided a joint decision PoG/Swedish Maritime Administration on final water depth, detail design to start Q1 2020.
QUESTIONS?