Welcome to the briefing regarding Tunnel Lovö
Introduction

TrV representatives:

- Johan Brantmark, Project Director Bypass Stockholm
- Erik Lindgren, dep. Project Director Tunnel
- Thomas Lindberg, act. Project Manager
- Josefina Sonnhammer, dep. Project Manager
- Sofia Tysk, Project Engineer
- Christopher Dahlin, HSQ Engineer
- Ove Strömberg, Head of Purchasing
- Peter Jonsson, Purchasing Process Organizer
- Christofer Wilson, Purchaser
- Christina Roos, Organizer
Meeting objectives

- To create interest in the Tunnel Lovö contract
- To inform about the present situation
- Describe TrV needs
- Describe TrV ideas
- Facilitate for bidders to prepare for the coming Request for Tender
- Get feedback from the audience
Agenda

• Present situation for Tunnel Lovö
• TrV main objectives
• Procurement strategy
• Schedule for procurement
• Scope
• Feedback - Questions
Present situation, Tunnel Lovö

- Termination of contracts FSE302/308
- Take-over of the worksite
- Procurement of protective and securing works completed
- Procurement of contractor for all remaining works ongoing
Realisation of temporary protective works

- Procurement of Veidekke Entreprenad AB for protective works
- Effective to the end of oct. 2019 with extension options
- Securing of worksites
- Complementary works to enable handover to new contractor
Scope of temporary protective works

- Tarmac on access tunnel roads
- Hauling of rock masses in tunnels
- Securing of trenches in tunnels
- Securing of quality of executed works
- Reduce effects of standstill
North Lovö

Tunnel works
Rem.        Done
880´m3  120´m3
5700 m   1000 m

Civil works
7200 m road
Prefab walls
Shotcrete roof
Concrete works
South Lovö

Tunnel works
Rem.  Done
1400´m3  130´m3
6350 m  430 m M.T.
4700 m  1130 m R.T.

Civil works
12850 m road
Prefab walls
Shotcrete roof
Concrete works
Present situation at the worksite

Södra/South Lovö

Norra/North Lovö
Present situation at the worksite

Södra/South Lovö

Norra/North Lovö
Present situation at the worksite

Södra/South Lovö

Norra/North Lovö
TrV objective – One new contract FSE305

- Accident free worksites
- Respect for environment
- Minimizing of schedule impact at Tunnel Lovö
- Efficient hand-over to M&E works
- Professional organisations with common understanding
- Support cost-effective production in close cooperation with the new contractor
- Planning and production governance on highest level
- Constant improvement by measuring and feedback
TrV asks for

- State of the art Health and Safety standard
- Competent and well-formed organisation with prominent management
- Planning and Production Management with an "Industrial Work Procedure"
- High technical and design skills
- Profound procurement and cost-control
- Prominent cooperation and communication
- Environmental care and respect on highest level
- Professional and well timed reporting
TrV organisation
TrV organisation

- Ongoing review regarding organisation
  - Complementary
  - Mirrored

- Decision during 2019 dependent on overall situation incl. tenders
The TrV way of working

- High involvement on site
- Close cooperation on all levels
- Supportive way of working
- High demands on both parties
- Special attention to working environment, environment, productivity, logistics, cost-control
Special challenges

- Compact time schedule
- Efficient start up on large scale
- Health and Safety work needs focus and management
- Sensitive environment with high cultural values
- Few access points for extensive tunneling works (2,500,000 m³)
- Road transportation limited (308) or not allowed (302)
- Rock handling managed by conveyors and barges (TrV)
Special challenges cont.

- Perfected planning and logistics key issues for success
- Consistent production management required
- Extensive civil works parallell to rock excavation for long periods
- Large and deep ventilation shafts with large chambers
Procurement strategy for FSE305

• According to TrV strategy E5
  - Cost plus (Target cost under discussion)
  - Build contract with design for concrete works (AB04)
  - Public Procurement Act (LOU), open procedure
  - Qualifying requirements
  - Contractors fee (8-12%) (appr. 50%)
  - Added values (appr. 50%)
  - Bonus (3%)
• Contractual language is Swedish (Svenska är kontraktsspråk)
Procurement strategy cont.

Qualifying requirements:

- Financial situation
- Technical and professional capacity
Procurement strategy cont.

Added value:

- Organisation and competence
- Production Management
- Cost control
- Cooperation and communication
- Working environment

Verbal presentation and understanding is included in the evaluation
Schedule for the tendering procedure

- Request for tender available: June
- Tender meetings: August/September
- Tender: October
- Contract award decision: November
Scope of works

General volumes:

• Rock tunnel excavation 2,500,000 m³
• Civil works, tunnel (road works/sewage/sealing lining) 20,000 m
• Evacuation route tunnels 75 no
• Ventilation stations incl. vertical shafts 8 no
• Electric power centrals 10 no
• Dewatering/quenching water stations 3 no
Scope of works cont.

Special conditions for the RFT:
• The scope is not fixed in detail
• Drawings are for information only (cat.13 doc.)
• Enclosed memorandums show identified coming alterations (cat.13 doc.)
• Working documents will be delivered at/after contract signing
• General technical solutions for concrete structures, sealing lining and sewage system will be available but to be finally designed by the contractor
Scope of works cont.

Special conditions

Following supplies and services will be provided by TrV:

• Leasing contracts for key equipment
• Other onsite assets owned by TrV
• Handling of excavated and crushed rock by conveyors and barges is provided by TrV but managed by the contractor
## Signed supplies and services

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Vendor</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drill Rigs</td>
<td>Atlas Copco WE3</td>
<td>4 no</td>
<td>leasing</td>
</tr>
<tr>
<td></td>
<td>Atlas Copco XE3</td>
<td>1 no</td>
<td>leasing</td>
</tr>
<tr>
<td></td>
<td>Atlas Copco E2</td>
<td>1 no</td>
<td>leasing</td>
</tr>
<tr>
<td>Shotcrete robots</td>
<td>Meyco M5</td>
<td>3 no</td>
<td>leasing</td>
</tr>
<tr>
<td>Grouting units</td>
<td>AMV 5</td>
<td>2 no</td>
<td>owned</td>
</tr>
<tr>
<td>Working platforms</td>
<td>AMV</td>
<td>2 no</td>
<td>owned</td>
</tr>
<tr>
<td>Dumpers</td>
<td>Volvo</td>
<td>4 no</td>
<td>rental</td>
</tr>
<tr>
<td>Wheel loaders</td>
<td>Volvo</td>
<td>2 no</td>
<td>leasing</td>
</tr>
<tr>
<td>Scaling units</td>
<td>Volvo</td>
<td>2 no</td>
<td>leasing</td>
</tr>
<tr>
<td>Grouting pumps</td>
<td>Putzmeister</td>
<td>5 no</td>
<td>owned</td>
</tr>
</tbody>
</table>
Signed supplies and services cont.

- Rescue chambers Removex RG10 12 no owned
- Tunnel fans Swedevent 9 no owned
- Ventilation duct 4500 m owned
- Workshop/stores owned
- Offices owned
- Workers sheds owned
- Containers, pumps, electric inst., lighting owned
- Contractor for passage control FSE815
Feedback - Questions
Contact

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