Traffic Surveillance and Control System for Ayalon Highways

BIDDERS MEETING

Yoav Sacks Ltd.

RANGECOM ELECTRONICS

Shmuel Tzirkel Ltd.

Agenda

- Project Presentation
- Bidders Q&A
- Tour of Ayalon control room
- Tour of Ayalon highway (bus)

Disclaimer

- Oral answers or clarifications that may be given during the conference will not constitute a commitment, and the Company will only be bound by an addendum which may be issued by the Company in accordance with Clause 8.3 or 9.2 and Bidders should not rely upon any oral answers, clarifications or representations provided by the Company or by others during the conference.
- It is hereby clarified that the presentation and the conference serve only as aides for the convenience of participants and that the instructions provided in the tender documents are binding instructions.

AHCo

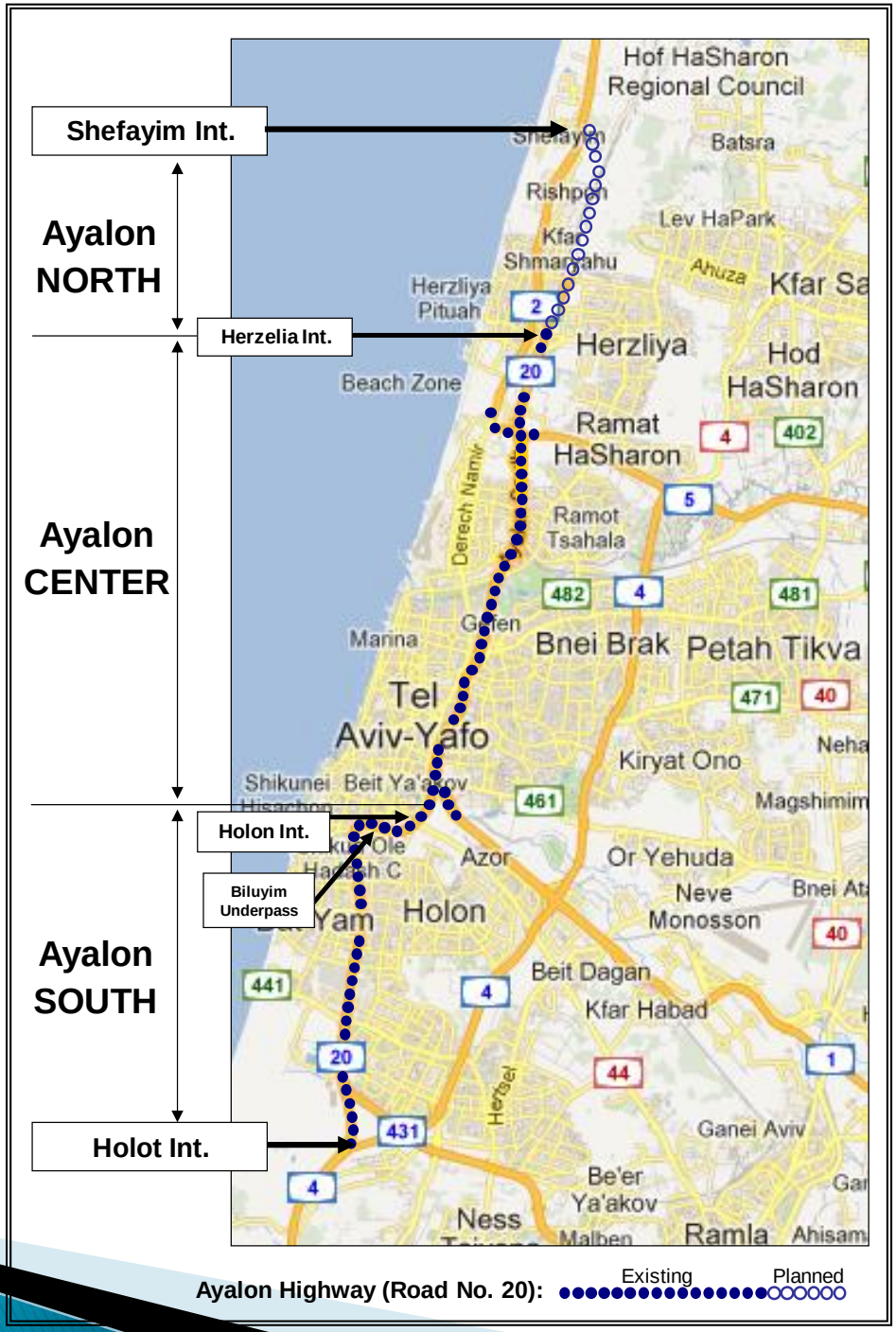
- Governmental company
- The local traffic authority in charge of designing, constructing, operating and maintaining of the Ayalon Highway (Road No. 20), which serves the Tel Aviv metropolitan area.

Road 20

- 30 Km of highway from Herzlia to Holot
- Crosses the Tel Aviv metropolitan Area
- Serves 750,000 vehicles per day (600,000 over the central section)
- The Busiest section between Hashalom to La Guarida (one direction, 5 lanes) serves 145,000 vehicles daily and 10,000 vehicles during the peak hour

Existing Traffic Control Center

- Main control center
- 47 CCTV
- 18 fixed cameras in La Guardia tunnel
- 62 detector station (550 loops)
- 32 Gantries
  - 127 Lane Control Signs
  - 9 Variable Message Signs
- Fiber optic infrastructure


Shefayim Int.
Ayalon NORTH
Herzelia Int.
Ayalon CENTER
Holon Int.
Biluyim Underpass
Ayalon SOUTH
Holot Int.
Hof HaSharon Regional Council
Batsra
Lev HaPark
Herzliya Pituah
Herzliya
Hod HaSharon
Beach Zone
Ramat HaSharon
Ramot Tsahala
Marina
Bnei Brak
Petah Tikva
Tel Aviv-Yafo
Kiryat Ono
Azor
Or Yehuda
Holon
Neve Monosson
Beit Dagan
Kfar Habad
Ganei Aviv
Be'er Ya'akov
Ramla
Ness
Ayalon Highway (Road No. 20):
Existing
Planned

Tender Segments

Segment 1	Ayalon South- Holot to Holon
Segment 2	PT Lane- Ayalon South
Segment 3	Ayalon Center-Holot to 531
Segment 4	Maintenance

Turnkey Project

- Design ,supply, Install and maintain a new TSCS for Ayalon south including:
  - Central system
  - Traffic management equipment (DTS, VMS, LCS...)
  - Completion of Infrastructure works
- Ayalon save the right to order partial quantities from the Bill of Material

Milestones

Requests for clarification	November 29, 2015 at 12:00 pm postponed to **December 14 at 12:00 pm** (Israel time)
Submitting Proposals	January 20, 2016, 12:00 pm (Israel time)
Compilation of Segment 1	2 years from contract signed

Submitting Proposals

- Two sealed envelopes (According to clause 12 Vol A)
  - Envelope No. 1
  - Envelope No. 2- The price proposal
- The envelopes shall be put in a third envelope and delivered to the Tender Box at the Company's offices

Evaluation Of The Bids

Stage A	Pre-Qualification Requirements (Clause 3 & 4,Vol A)
Stage B	Quality evaluation (Clause 14 ,Vol A)
Stage C	Evaluation of the Central Software (Clause 15 ,Vol A)
Stage D	Evaluation of the price proposal (Clause 16 ,Vol A)
Stage E	Weighting of the Bids (40% Quality , 60% Price)

Existing infrastructure

In the field (Chapter 11 of SOW): **As Is**

- As part of this Project AHCo is providing different plans which include details of infrastructure, electrical and communication work performed in the past.
- These plans are provided as an indicator and shall not be relied on by Contractor in terms of accuracy.
  - Ducts, Manholes, Cabinet Bases

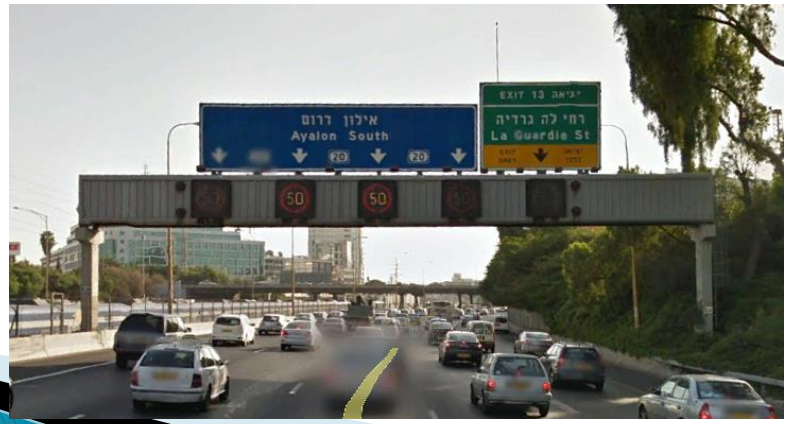
Condition Varies...

Existing infrastructure

- Gantries (exception of cantilever)

Ayalon South

Ayalon Center



Existing infrastructure

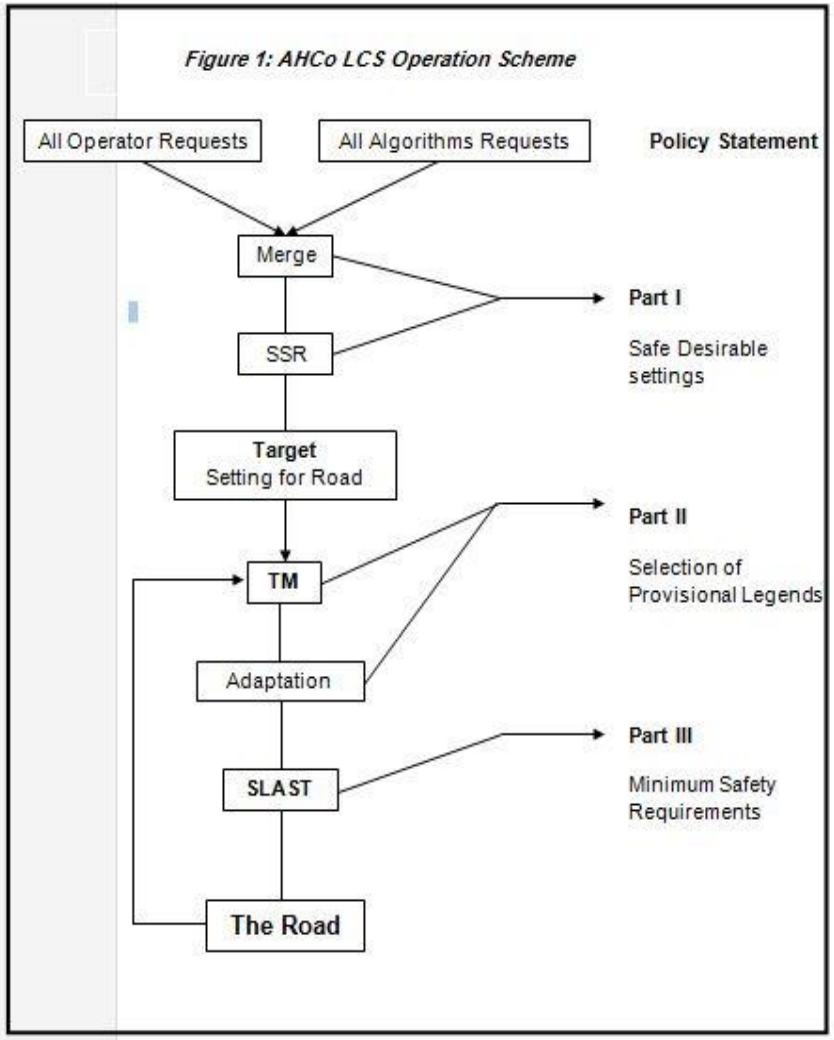
- Electrical Cabling
- Communication Fiber Optics Cables (along mainline)

Existing infrastructure

- Ayalon Control room includes:
  - Air conditioning
  - Cabling ducts
  - UPS for the control room
  - Generator
  - Fire Alarms & Protection
  - Electrical power distributed -230VAC, 3-phase

Traffic Control Strategies

- **Annex E**: LCS Operation Policy
  - Definitions
  - Rule based (MOT guidelines)



Traffic Control Strategies

- **Annex F**: AHCo VMS Operation Policy
  - Qualitative Traffic Information
    - Rules for determining Level of congestion and message
  - Travel Time
  - Definitions (such as message priority)
  - Rule Based

Software Evaluation Document

(Appendix 15)

- The proposed Central Software must be based on an existing and operating Central Software that had already been installed by the Bidder for at least one (1) client ("Off the Shelf Software").

Central TSCS Characteristics - Evaluation Table Stage B

Clause Num	Section in Specs	General Clause Description	Specific System Requirements	STATUS: Fulfilled in "Off the Shelf Software" (OTS) or in "Other Software" (Other) or To Be Developed (TBD) (by Bidder)	Required presentation for features (by Bidder)	Max Score	Evaluation (by AHCo)
9	5.2.7		Presentation of latest traffic data from graphically selected detection site. It shall be possible to view data per lane , group of lanes and per cross section	☐OTS ☐Other ☐TBD	Sample from map\ display	10	
			Possibility to create and format tables containing		Sample different		

Software Evaluation Document

(Appendix 15)

Status:

- **Completed in "Off the Shelf Software" (OTS)**

  Fully completed and currently operating in the Off the Shelf Software…no additional development or integration being required.

- **Completed in "Other Software" (Other)**

  Completed and operating but not in the "Off the Shelf Software". The requirements are either:

  - Completed and operating in other systems owned by the Bidder which can be presented to AHCo. The Bidder intends to integrate these modules as part of the proposed system.
  - Development of the requirements is completed but is operating only in a demo which can be presented to AHCo. The Bidder intends to integrate this development into the proposed system.

- **To be Developed (TBD)**

  Not currently completed. The Bidder intends to develop the system to meet these requirements.

Interfaces requirements

- The system shall include C2C interfaces and C2F interfaces as required in the tender. The main principles are as follows:
  - The C2C and C2F interfaces shall be based mainly on NTCIP standards or according to AHCo approval
  - In some cases the interfaces shall comply with proprietary native interfaces.
  - Some of the required C2C interfaces shall be determined in detail during the design stage.
  - The contractor will be required to support and develop C2F interfaces with third-party field equipment that might be added to the system during stage III.

Main C2C interfaces

- The system shall be required to provide C2C interfaces both for external control systems and internal AHCo systems and services, which shall include mainly the external control systems and servers:
  - **Netivay Israel NTMS** central nationwide highway control system, this interface shall be based on using TMDD as described in the tender and will be further defined during the design stage.
  - **Tel Aviv traffic lights control central system** namely AVIVIM, this interface shall be based on NTCIP protocol using TMDD to be defined in detail during the design stage.

Other Considerations

The design and implementation of the TSCS system shall take in consideration:

- The Railway electrification project
- Existing infrastructure in Ayalon south
- Working near “Live Traffic”
- Cyber Security MOT regulation

Thank You