



Scope of Works

Trailer Swap Facility – Security System Development and Vehicles

SafeGates Project



Trailer Swap Facility – Security System Development			
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1 INTRODUCTION

1.1 Project Introduction

The construction of multiple state-of-the-art Trailer Swap Facilities (the Facility) at the Israel-Gaza border aims to streamline and secure the import of humanitarian aid into Gaza, facilitating the daily transit of 144 flatbed trucks carrying essential supplies. This project addresses the critical need for robust infrastructure to ensure timely and secure aid distribution amid the ongoing humanitarian crisis. By enhancing efficiency and safety in aid delivery, it not only tackles immediate logistical challenges but also lays the groundwork for sustained support and stability in the region.

Equipped with military-grade, remotely operated, and automated systems, the Facility will ensure high levels of security and operational efficiency. State-of-the-art security scanners, X-ray machines, and LiDAR systems will thoroughly inspect each truck, detecting unauthorized or dangerous items and mitigating security risks. Real-time radio frequency tracking will monitor truck movements, ensuring transparency and accountability throughout the transportation process. This technological integration will build trust among stakeholders and create a safer working environment by minimizing manual inspections and reducing security breaches. Additionally, the Project will foster collaboration between Israeli and Palestinian authorities, promoting a more coordinated and effective humanitarian response and contributing to long-term stability in the region.

1.2 Process Description

SafeGates is a fit-for-purpose solution designed to unblock the flow of food and medicine into Gaza while maintaining the highest levels of security. This military-grade system, developed by the principal, uses highly accurate 3D scanning technology, offering a level of detail and safety beyond human inspection. The remote monitoring and automation ensure a seamless and secure process for humanitarian aid delivery.

The process begins when an approved driver approaches the Facility at the swap-out zone with a loaded trailer. The truck's movements are recorded by a remote-control room, and the system conducts a full 3D scan of the truck and trailer. Once authorized, the entry gate opens, and the driver moves into the secure zone, leaves the truck running, and exits to the Israeli side. This allows a Gaza-side driver to enter, take control of the truck, and move through to Gaza. The trailer is detached and distributed by NGOs and Gazan citizens. Upon return, the truck and empty trailer are rescanned to ensure they match the initial 3D images and RFID tags, preventing discrepancies.

Each Facility will be designed to process up to 144 flatbed trucks per day, with the system designed for rapid deployment across multiple gates. The entire process from Israel's all-clear signal to full operational capacity across three gates takes approximately three weeks, ensuring transparency and reliability in humanitarian aid distribution.

The location of the Project is shown in Figure 1: Map of the Gaza Strip showing crossing points



Figure 1: Map of the Gaza Strip showing crossing points

1.3 Description of the Works

The principal requires the design and construction of three (3) Trailer Swap Facilities at separate locations along the Israeli-Gaza border (West Erez, Karni and Kerem Shalom - TBC).

This Scope of Work (SOW) document outlines the principal's requirements in relation to the design and construction of the infrastructure component of these facilities.

The below summarise the key Project Objectives:

Trailer Swap Facility – Security System Development and Vehicles

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Must be delivered on an expedited schedule (refer Section 5.2).

Must be a turn-key solution, reliable and easy to maintain.

1.4 Interpretation

Unless this SOW specifically provides that the principal is responsible for a particular action or requirement, the Contractor is responsible for satisfying all requirements set out in this SOW and the Contract.

A reference to an Israeli Standard, legislative or other standard or code in this SOW (and not to all Quality Standards) does not limit the Contractor’s obligations.

Obligations not expressly mentioned in this SOW, but which are necessary for the completion of the Works in accordance with the Contract, are the responsibility of the Contractor.

Except as otherwise expressly provided in this SOW, the Contractor must provide all labour, plant, equipment, materials, and services necessary to carry out and complete the Works under the Contract.

2 DEFINITIONS AND ABBREVIATIONS

2.1 Definitions

Defined capitalised terms used in this this SOW have the same meaning as specified in the General Conditions, unless specifically set out in Table 1 below:

Table 1: List of Definitions

Term	Definition
Contractor	Contractor responsible for completing the Works in accordance with this Scope of Work
Cycle	A complete Cycle for a single truck as detailed in the Process Description (includes inbound scanning, inbound driver swap, trailer swap, outbound driver swap and outbound scanning)
Facility	Trailer Swap Facility on the Israeli-Gaza border utilising the SafeGates solution.
Principal	The principal refers to the organization that commissions and oversees the Project, holding contractual authority, and providing necessary approvals, guidance, and resources to ensure the Project's successful completion
SafeGates	A fit-for-purpose solution developed by the principal, designed to unblock the flow of food and medicine into Gaza while maintaining the highest levels of security
Works	The Works encompass all activities, materials, labour, and services required to complete Scope of Work contained herein.



2.2 Abbreviations

Abbreviations used in this SOW have the following meaning:

Table 2: List of Abbreviations

Abbreviation	Meaning
AC	Air Conditioner
CCTV	Closed Circuit Television
COGAT	Coordinator of Government Activities in the Territories
CTP	Contractor to Provide
DB	Distribution Board
EMP	Emergency Management Plan
GPO's	General Purpose Outlets (electrical)
IDF	Israeli Defence Force
IS	Israeli Standards
ISO	International Standard Organisation
QA	Quality Assurance
QMP	Quality Management Plan
SOW	Scope of Work
TQ	Technical Query
UPS	Uninterrupted Power Supply



3 SYSTEM ARCHITECTURE

Figure 2: SafeGates System Architecture shows the high-level system architecture of the SafeGates Concept.

Notes/Assumptions

1. All modules to communicate with each other in Data Centre
2. Diagram showing control/instrumentation and network interconnections only. Excludes power.
3. Assumes selected smart gates and doors come with proxy switches.
4. Assumes Mag Latch and actuators interface with standard 24/48V High or 0V/GND Low trigger.
5. All CCTV to be PoE
6. Details on [redacted] to be finalised (11/6/2024).

- - - Ethernet
- . - . - Control/Dekron
- . - . - RaptorTech RFID Control

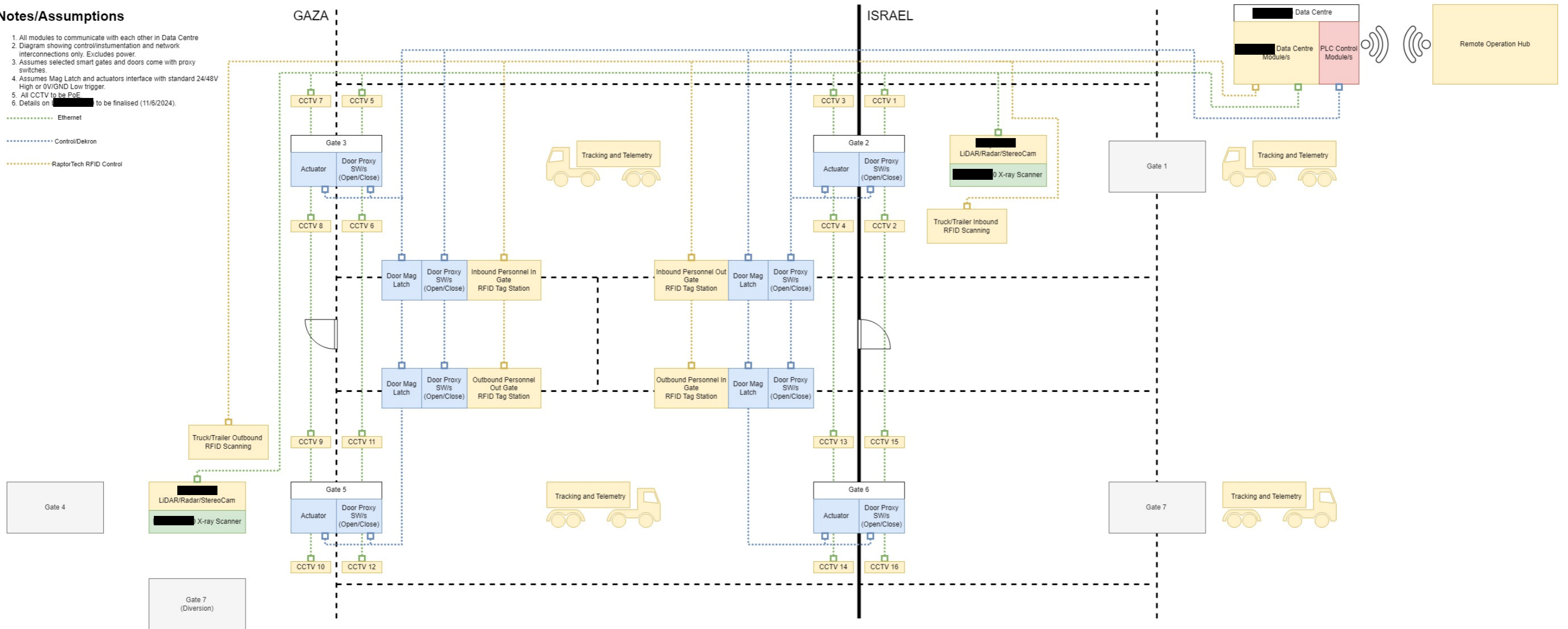


Figure 2: SafeGates System Architecture



4 STEP LOGIC

Table 1: Step Logic of the SafeGate Operation and Figure 3: Visual Representation of the SafeGates Step Logic below shows the fundamental logic of the system architecture. Throughout each step of the process, the operator in the Remote Operating Hub will authorise access through each gate once all dependencies have been met for that step.

Step #	Description	Dependency	Gate Operation							
			Gate 2	Gate 3	Gate 5	Gate 6	Inbound In	Inbound Out	Outbound In	Outbound Out
Step 1	Driver 1 enters Gate 1 and proceeds to get vehicle scanned. Successful scan & no personnel in security lock will allow Gate 2 to open. Vehicle will proceed to security lock and Gate 2 will close.	Gate 3 & all inbound personnel gates to be closed/locked. No personnel in security lock. Successful scan.	Accessible	Locked	Not Applicable	Not Applicable	Locked	Locked	Not Applicable	Not Applicable
Step 2	Driver 1 will disembark and exit via Inbound Personnel Out Gate and Personnel Gate 1.	Gate 2 and 3 is closed/locked. Inbound Personnel In Gate is closed/locked. Driver 1 has no access to Inbound Personnel In Gate.	Locked	Locked	Not Applicable	Not Applicable	No Access Locked	Accessible	Locked	Not Applicable
Step 3	Driver 2 will enter Personnel Gate 2, Inbound Personnel In Gate and enter vehicle.	Gate 2 and 3 is closed/locked. Inbound Personnel Out Gate is closed/locked. Driver 2 has no access to inbound Personnel Out Gate.	Locked	Locked	Not Applicable	Not Applicable	Accessible	No Access Locked	Not Applicable	No Access Locked
Step 4	Driver 2 will enter Gate 3. Driver 2 will proceed to swap trailers and enter Gate 4 to get vehicle scanned. Successful scan & no personnel in security lock will allow Gate 5 to open. Vehicle will proceed to security lock and Gate 5 will close.	Gate 6 & all Outbound personnel gates to be closed/locked. No personnel in security lock. Successful scan.	Locked	Accessible	Accessible	Locked	No Access Locked	No Access Locked	No Access Locked	Locked
Step 5	Driver 2 will disembark and exit via Outbound Personnel Out Gate and Personnel Gate 2.	Gate 5 and 6 is closed/locked. Outbound Personnel In Gate is closed/locked. Driver 2 has no access to Outbound Personnel In Gate.	Not Applicable	Not Applicable	Locked	Locked	Locked	Not Applicable	No Access Locked	Accessible
Step 6	Driver 1 will enter Personnel Gate 1, Outbound Personnel In Gate and enter vehicle.	Gate 5 and 6 is closed/locked. Outbound Personnel Out Gate is closed/locked. Driver 1 has no access to Outbound Personnel Out Gate.	Not Applicable	Not Applicable	Locked	Locked	Not Applicable	No Access	Accessible	Locked
Step 7	Driver 1 will enter Gate 6 and proceed to exit via Gate 7.	Gate 5 & all Outbound personnel gates to be closed/locked. No personnel in security lock.	Not Applicable	Not Applicable	Locked	Accessible	Not Applicable	Not Applicable	No Access	No Access

Table 1: Step Logic of the SafeGate Operation

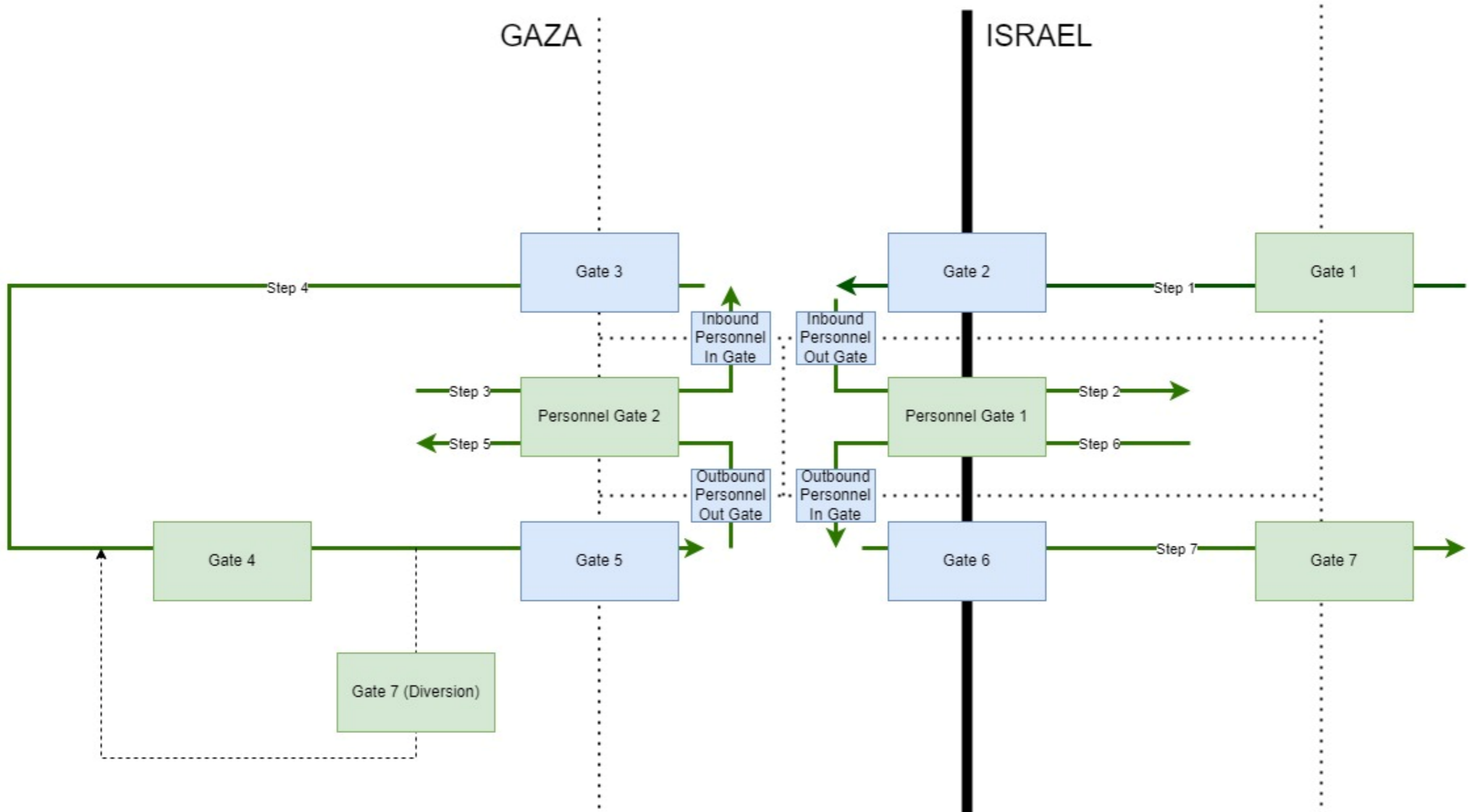


Figure 3: Visual Representation of the SafeGates Step Logic



5 HARDWARE

The Contractor must provide all necessary design and construction services, materials, equipment, and labour required to complete the following scope.

5.1 Gates

5.1.1 Vehicle Gates

Automatic vehicle gates to be fitted with actuator and open/close proxy switches. The actuator is operated through PLC logic and powered separately. The proxy switches will wire back to the Data Control Centre and into the PLC to provide open and close feedback.

5.1.2 Personnel Gates

Automatic personnel gates to be fitted with magnetic strips for locking and open/close proxy switches. The magnetic strip is operated through PLC logic and powered separately. The proxy switches will wire back to the Data Control Centre and into the PLC to provide open and close feedback.

5.1.3 Control System

The control system of the gate is controlled by the PLC. It can be overwritten by the operator in the Remote Operation Hub. The control system is integrated/interlocked with the cameras, personnel, vehicle tracking and telemetry and the other gates.

5.2 RFID Tagging

5.2.1 Vehicle Tagging

Trucks and trailers will be fitted out with a RFID tag to identify and record the scan of each asset. The RFID tags are fix securely onto each asset to prevent removal and installation onto unauthorised assets.

5.2.2 Personnel Tagging

Personnel will have RFID tags to access areas which are permitted. The RFID tagging will work in conjunction with the facial recognition of the system to ensure there is no unauthorised personnel within non-permitted areas.

5.3 Scanning

5.3.1 LiDAR

The LiDAR scanner will allow an in-depth scan of the under carriage of the trucks and trailers. The scan will form a baseline and subsequent scans that indicate changes will be flagged and result in asset being sent for inspection. The LiDAR works in conjunction with the Radar to recreate a high-definition 3D model from each object and compare against baseline



5.3.2 Radar

The Radar scanner will provide a surface map of the under carriage of the trucks and trailers. The main purpose of the radar is to assist in removing environmental noise from the optical scans.

5.3.3 Stereo Camera

The Stereo Camera will provide an image map baseline. The video feed will provide additional security verification on abnormalities when detected where the operator can see an image of the variation.

5.4 Data Control Centre

5.4.1 Undisclosed vendor Data Control Centre

The Undisclosed vendor Data Control Centre will serve as the backbone for the SafeGates system. The compute, control and communication will perform within the Data Control Centre. The centre is a 10ft sea container equipped with:

- Battery backup/UPS
- Communication modules (Cellular, WIFI and LTE)
- Industrial computes for image processing
- PLCs for control

The container will be fully secured, and only authorized access will be allowed.

5.4.2 PLC Control

The PLC control will integrate all the information from the scanning, operation of the doors personnel tracking and vehicle tracking to inform and prompt the operator in the Remote Operating Hub to authorise/not authorise access. The PLC control will include:

- PLC Controller
- Digital In Card
- Digital Out Card

5.5 Remote Operations Hub

The Remote Operations Hub will be the control centre where the operator of the gates is based. The hub will be a fitted-out sea container that communicates directly with the Data Control Centre to allow the operator to oversee all the scanning, personnel movements, gate statuses and to authorise the access of gates.



5.6 X-Scanner

5.6.1 Undisclosed vendor X-ray Scanner

The mobile inspection system features state-of-the-art X-ray scanning mounted on a compact, rugged truck platform. The system helps inspectors search for weapons, contraband, undeclared cargo and other items of interest in trucks, cargo containers, passenger cars, and other vehicles under a wide range of conditions and scenarios.

6 TRAILER SWAP FACILITY – SECURITY SYSTEM DEVELOPMENT

6.1 Undisclosed vendor

Undisclosed vendor will supply and provide software/integration for the following:

- Data Control Centre
- Under Carriage scanning equipment and software
- CCTV around the perimeter of the compound with personnel tracking and detection.
- Facial recognition cameras at the personnel gates.
- Personnel RFID tags.
- Remote Operations Hub

Undisclosed vendor will ensure data being flowed out of devices and computes are able to be integrated with other parts of the SafeGates architecture.

6.1.1 Data Centre

To provide a localised data storage, processing and backhaul facility, an 8Ft cube will be supplied with

inbuild 20KwH backup power, AC battery charging infrastructure, server racks and local server infrastructure.

This module will provide site-wide communications infrastructure at each gate location – including storage, compute and power for PLC infrastructure.

6.1.1.1 LTE Data Centre

- 20KwH BYD battery storage
- 50W LTE Small Cell radio transmitter – will provide 5-10km LoS LTE
- data connectivity with sensors and LTE modems



- 20Tb localised storage server for raw data streams
- 32U Server Rack with integrated AC power
- 3D point cloud post-processing
- WLAN Access point for generalised data backhaul
- UWB Mesh link for localised positioning and communication with sensors
- Hydraulic / Electric mast – allowing remote or emergency lowering
- GNSS Base station for high precision location, speed and pose tracking
- 3x Redundant backhaul communications link
 - Internet backhaul
 - Commercial LTE backhaul backup with failover
 - Point to point link to local wired backhaul (10km range)

6.1.2 Software/Cloud Infrastructure

There are several software components necessary to provide a full gate management interface. Importantly, the PLC control (fixed gate infrastructure and door systems) should seamlessly integrate with the gate controller interface.

The Gate controller interface should be operable locally – on only local disconnected infrastructure – as well as remotely using the backhaul methods described earlier.

6.1.2.1 Point cloud processing and surface generation

- Trucks passing through the scanner will automatically have a fused multi-sensor point cloud generated.
- This point cloud will be processed into a simple 3D mesh surface for further analysis.
- The processing and analysis will occur automatically with no intervention
- Raw point clouds and processed surfaces will be stored locally and in the cloud database

6.1.3 Gate Controller – Gate Control UI

- This UI will provide a 3D interactive view of the whole gate compound
- All personnel detections and vehicles will be rendered in real time



- All detections within secure areas will be highlighted
- Audible and visual alerts will be triggered on configurable criteria (i.e. more than expected people in secure area)
- Doors and gates can be opened within the UI – as long as they adhere to the PLC control logic (e.g. only one door open at any time). Incorrect requests will provide the gate controller with an error message.

6.1.4 Gate Controller – Vehicle inspection UI

- This UI will allow Gate controllers to specifically review and interact with a single truck and trailer 3D scanned image.
- Any areas of interest will be highlighted in red, with camera images available in areas of interest for further manual inspection
- Prior to approving a vehicle for entry/exit through a gate, the 3D scan must be accepted

6.1.5 PLC Integration

- The Field telemetry, vision data and 3D scanning results will all be collated into a specific location state (i.e. gate approved for opening) which will then trigger the PLC to execute the required function
- The protocol that will allow communication between the gate monitoring technology and the PLC control system is to be specified (collaboratively) and implemented by Undisclosed vendor during the project
- All PLC sensor and state data will also be read and stored in the local and cloud database schema for further reporting and analysis
- PLC or control system faults will be reported through to the Gate Controller UI for action

6.2 Undisclosed vendor

Undisclosed vendor scope to be the:

- Design, Supply and Build single stainless steel wall mounted cabinet with control system PLC, I/O field termination wiring terminals and door mounted 7" touchscreen HMI
- Design, Supply and Build single stainless steel wall mounted motor control cabinet with I/O field termination wiring terminals, door mounted isolator, 8off three phase contactors complete with thermal/magnetic overloads for 415vAC gate and door motor control



- Review and assist in development of system control functional specification and control sequence definition
- PLC and HMI Control system interface and sequence development, within PLC and HMI to provide: -
 - HMI graphical presentation of equipment, including manual control (whilst maintaining operation rules)
 - PLC control system function blocks for truck and personnel gate control
 - Undisclosed vendor Modbus (Ethernet or Serial) interface definition and development
 - Xray System Modbus (Ethernet or Serial) interface definition and development and associated control decision processing
- Secure Remote system access to PLC and HMI application development software
- Offsite Remote system installation and commissioning support (expected at 5off 12hrs shifts to suit onsite personnel work hours (Australian nightshift expected))

6.2.1 Control Equipment Hardware

1off Control System Enclosure, wall mounted 600w X 760H x 210d, complete with

- PLC (brand tbc) but expected to contain: -
- PLC CPU controller, with Ethernet and Serial communications interface, complete with
 - 1off 16ch 24vDC Digital Input module
 - 1off 16ch 24vDC Digital Output module
 - 1off 8ch Analogue Input module (4-20mA)
 - 1off 4ch Analogue Output Module (4-20mA)
- 7" colour touchscreen door-mounted HMI
- Field I/O wiring through-terminal strips, complete with circuit protection fuses
- 24vDC incoming main supply, and power distribution miniature circuit breakers
- Complete with all wiring, wire and equipment labels, ducting and testing
- 1off total PLC and 1off HMI programming software licence (for installation to Client supplied Engineering workstation)



6.2.2 Power Equipment Hardware

1off Power System Enclosure, wall mounted 600w X 760H x 210d, complete with

- 240vAC or 415/24vDC incoming main supply, door interlocked isolator and power distribution miniature circuit breakers
- 8off 3phase power motor contactors with thermal overload for Gate drive motors (wiring will be suitable for other lower voltages)
- I/O wiring through-terminal strips for individual motor field wiring termination
- Complete with all wiring, wire and equipment labels, ducting and testing
- Basic GA & wiring schematics

6.2.3 Control Equipment Programming Software

1off total PLC and 1off HMI programming software licence (for installation to Client supplied Engineering workstation)

6.2.4 Control Equipment Spares

1off total spares package of

- PLC CPU, including comms card
- I/O cards
- HMI
- motor contactor
- thermal overload

6.2.5 Design Documentation

- Review of client IFC provided documents.
- Review and red pen of Functional Specification.
- Client and third-party liaison and control interface & control.
- sequence discussions, review meetings and schedule planning.
- Red pen of client supplied drawings as required.

6.2.6 PLC Application Development

- PLC to Undisclosed vendor Interface (Modbus) Data Mapping
- PLC to Xray Interface (Modbus) Data Mapping



- PLC Hardware configuration, tag list development
- PLC UDT and PLC Blocks development for control interface
- I/O module and control sequence development for truck and personnel and gate control, simulation and functional testing
- Internal Testing
- External device interface and system FAT testing

6.2.7 HMI Configuration and Development

- Develop basic system overview/status screen
- Add control functionality, including password protection for gate open, close operation (whilst retaining system operational and interlock rules)
- Internal Testing

6.2.8 Pre-testing and FAT

Documentation development:

- FAT Specification
- Set up Test Environments
- External device interface and system FAT testing
- Client witnessed FAT (estimate 1 engineer for 10hrs)
- FAT Report

6.2.9 Miscellaneous

- SAT Specification and Installation guidelines manual (for third party onsite guidance and use)
- Offsite remote installation and commissioning support



7 VEHICLE – SECURITY SYSTEM DEVELOPMENT

7.1 Undisclosed vendor

Undisclosed vendor will supply and provide software/integration for the following:

- Vehicle and trailer RFID tags.
- Vehicle and trailer telemetry and tracking.

7.1.1 Software/Cloud Infrastructure

There are several software components necessary to provide a full gate management interface. Importantly, the PLC control (fixed gate infrastructure and door systems) should seamlessly integrate with the gate controller interface.

The Gate controller interface should be operable locally – on only local disconnected infrastructure – as well as remotely using the backhaul methods described earlier.

7.1.1.1 Point cloud processing and surface generation

- Trucks passing through the scanner will automatically have a fused multi-sensor point cloud generated.
- This point cloud will be processed into a simple 3D mesh surface for further analysis.
- The processing and analysis will occur automatically with no intervention
- Raw point clouds and processed surfaces will be stored locally and in the cloud database

7.1.2 Asset Geolocation

- All “tagged” assets (prime movers, trailers, light vehicles) will be automatically geolocated using a combination of GPS data, UWB positioning and vision systems.
- Asset locations will be stored every 2 seconds as timeseries JSONB records with any relevant sensor and state machine data included in the JSONB structure.

7.1.3 Truck Operator UI

- A simple UI allowing the truck operator to receive instructions (e.g. “proceed to gate”) or communicate with the gate controller
- The operator will also receive proximity alerts for vehicles or personnel entry to the exclusion zone around the truck.
- The interface will communicate the scheduled arrival time at the gate, allowing the operator to communicate any issues in arriving in the scheduled window.



7.1.4 Vehicle RFID Scanning

- Vehicle to be fitted with a non-removable RFID tag for identification.
- RFID tag to scanned by fixed scanner at inbound and outbound side for data sync and comparative analysis.

8 BILL OF MATERIALS

8.1 Equipment List

Table 2: Bill of Materials outlines the key components of the SafeGates Design.

Equipment	s	Supplier
Data Control Centre	3	Undisclosed vendor
Remote Operations Hub	3	Undisclosed vendor/ Undisclosed vendor
LiDAR	30	Undisclosed vendor
Radar	6	Undisclosed vendor
Stereo Camera	6	UNDISCLOSED VENDOR
X-Ray Scanner	6	Undisclosed vendor
CCTV/Facial Recognition Cameras	48	Undisclosed vendor
Personnel RFID Tags	300	Undisclosed vendor
Vehicle and trailer RFID Tags	450	Undisclosed vendor
Vehicle and trailer telemetry and tracking	450	Undisclosed vendor
PLC Controller	3	Undisclosed vendor
Digital I/O Cards	6	Undisclosed vendor
Gate Actuator	12	TBC



Gate Proxy Switches	48	TBC
Gate Magnet Latches	12	TBC

Table 2: Bill of Materials

8.2 Cable Schedule

Table 3: Cable Schedule outlines the key selected cables for the SafeGates Design.

Cable Type	Cable From	Cable To
6 Pair 1.5mm ² Overall Foil PVC/SWA/PVC Dekoron	Data Control Centre	Gates Instrumentation
8 Pair 1.5mm ² Overall Foil PVC/SWA/PVC Dekoron	Data Control Centre	RFID Tag Stations
ET-CAT6M-300B Cat6 Ethernet	Data Control Centre	CCTV
ET-CAT6M-300B Cat6 Ethernet	Data Control Centre	LiDAR
TBC	Data Control Centre/Power DB	Gate Actuator

Table 3: Cable Schedule

9 WORKS EXCLUDED

The provision of the following items, activities, materials, or equipment are excluded from this SOW:

- Trailer Swap Facility – Infrastructure
 - Earthworks
 - Windrow/Blast Barriers
 - Automatic and Manual Vehicle Gates
 - Security Pedestrian Gates/Turnstiles
 - Security Fencing
 - Offices and Ablutions
 - Potable Water and Wastewater Storage



- Back-up Diesel Generator and Fuel Storage
- Electrical Power connection to grid

10 BATTERY LIMITS

The following battery limits apply to the Works:

- a. Overall battery limits as shown on TCH0000-GN-0000-DLP-0005 with Separable Portion (SP 1 and SP 2) battery limits as indicated in Figures 6 and 8.
- b. Site access roads; and
- c. Unloading of the Principal Supplied Items.

11 QUALITY

11.1 Technical Query

All TQ's regarding design or construction must be forwarded to the principal using the appropriate form, available from the principal on request.

Modifications to the proposed Works must not be undertaken unless a signed variation is issued.

11.2 Inspection Test Plan

Construction Works must be carried out using methods outlined in ITP's prepared for the elements of the Works.

The Contractor must carry out all testing as required within the ITP plan, which are to be carried out to current IS and Principal's Standards.

The Contractor must prepare and submit a copy of the Contractor's ITP templates for approval as part of the Contractor's QMP.

The Contractor is responsible for completing all inspections, notifying the principal of hold points and witness points for approval and record keeping for the Works, as required by the Contractors QMP and in accordance with this Contract.

The Contractor must submit, at least weekly to the principal, in hardcopy format copies, all ITP sheets for approval and signoff. ITP's must be accompanied by:

- a. copies of any test results relating to the portion of the Works; and
- b. a signed surveyor or Certificate of conformity (COC) to confirm 'as constructed' record relating to the portion of the Works.



11.3 Quality of Workmanship

All Personnel must have the necessary skills, experience, qualification, and supervision for the role they are engaged for, to enable a sufficient quality of workmanship.

11.4 Quality of Materials and Products

All materials, products and supplies used by the Contractor must comply with the following requirements:

- a. Be fit for purpose with consideration to the use and environment of the Project.
- b. Be of commercial/industrial grade.
- c. Align to good industry practice; and
- d. Meet all standards and legislation.

12 CODES AND STANDARDS

All Works must conform to the requirements of the latest applicable Israeli Standards, IS or, where such do not exist, the ISO or other standards approved by the principal, including those listed in this SOW and Principal's Standards.

12.1 Statutory Requirements

The Contractor must comply with all Legislation applicable to the Works including the following:

Title
Planning and Building Law, 1965
Water Law, 1959
Clean Air Law, 2008
Protection of the Coastal Environment Law, 2004
Building Maintenance Regulations, 1988
Electricity Law, 1996
Safety at Work Ordinance, 1970
Hazardous Substances Law, 1993



Public Health Ordinance, 1940

National Outline Plan for the Disposal of Waste (Tamam 16)

Noise Abatement Regulations, 1992

Firefighting and Fire Safety Services Law, 1959

Israel Standard 1001 - Fire Safety in Buildings

Equal Rights for Persons with Disabilities Law, 1998

Traffic Regulations, 1961

National Outline Plan for Transportation (Tama 42)

Planning and Building Law, 1965

Table 4: Statutory Requirements

12.2 Israeli Codes, Standards and Guidelines

As a minimum, the Contractor must comply with the requirements of the following standards:

Doc. Number	Title
IS 163	General Design Guidelines
IS 151	Road and Pavement Design
IS 1205	Stormwater Drainage Systems
IS 400	Environmental Protection in Design
IS 1225	Structural Load Requirements
IS 123	Earthquake-Resistant Design
IS 413	Design Provisions for Earthquake Resistance of Structures
IS 421	Concrete Design and Construction



IS 445	Steel Structures
IS 1225	Loads for the Design of Buildings
IS 61439	Low-Voltage Switchgear and Control gear Assemblies
IS 1710	Electrical Installations in Buildings
IS 900	Electrical Safety
IS 1801	Security Systems
IS 556	Fire Safety in Buildings
IS 618	Lighting for Outdoor Areas
IS 268	Hazardous Materials Handling

Table 5: Israeli Standards References