SECTION 6 - SUB-SECTION A
CONSTRUCTION PRINCIPLES AND DESIGN INSTRUCTIONS

CONTENTS

CONTENTS (continued)

PART A - Construction

This chapter describes the construction principles and guidelines for designing the facility, details and special features.

A1 Work Contents

The work includes an architectural planning of parts defined in the professionally drawn plans, and implementation of the facility according to the conditions and guidelines specified below.

The work includes planning and implementation of the facility in all its parts and systems, including connection to all outside systems.

A2 Definitions

In this chapter, usually, terms appearing in the left column will have the meaning defined in the right column below, except if the context indicates otherwise.

Term	**Meaning**
Client	Israel Tax Authority (ITA) /Dep. Customs and VAT
User	Dep. Customs and V.A.T.
Manager	The manager to be appointed by the Client, including any person authorized by the manager for the purposes of the contract.
Inspector / CTA	A person appointed in writing by the Client in order to supervise on his behalf the work or any part thereof.
Contractor	Includes the representatives of the Contractor, his workers, agents, authorized signatories, and including all subcontractors working in the name of or for the Contractor in carrying out the work.
Site authority	Land Owner / Israel Airport Authority
Local committee	Beit-Shean Local Authority committee
Planner	Architect, planner or consultant appointed by the Contractor for the purposes of this SOW.

Term	Meaning
Work or works	Planning and execution of all works, buildings and completing the project as specified in this SOW and in accordance with the instructions in its annexes, including all work demanded from the Contractor by the Client and/or the CTA /inspector in accordance with the contract and including any temporary work required for their execution. Without detracting from the general nature of the preceding definition, it is agreed that the work also includes the following components:
	All development work in the area of the land required to construct the project, including earthworks ، roads, sidewalks, drainage, ventilation, lighting, electricity, telephones, fire detection and extinguishing, security, communication and all such approved, among others, by the Client.
	Responsibility of a Contractor's engineer towards the local planning and building committees, to perform the inspection(s) and/or report(s) in accordance with the progress of execution and according to the requirements of the law, including engineer's signature on an appropriate obligation towards the above local committees.
	Fulfilling all obligations required to get the building license (s) and to fulfill the requirements and obligations of the building license(s), as well as execution of the work in accordance to it/them and in accordance with the demands of the relevant planning authorities (including the civil defense regulations for protected areas, electric corporation, Bezeq Corp., municipality, etc.), including all that relates to completing the work, including all work of coordination and/or dealing with the above bodies and/or authorities for the connection of the units in the project to various infrastructure networks (water, sewage electricity, communication, etc.) inspection of the work and receipt of approval from the above bodies and/or authorities to perform the connection(s) (form 4 and similar), and receipt of municipal permit to occupy, certificate of end of work and receipt of certificate of completion.
Work for measurement	Such part of the work for which specific provision has been made in one of the documents of the SOW that it will be measured.
Temporary work or temporary building	Any work or building required on a temporary basis, in order to perform the work or in connection with the work.

Term	Meaning
Execution of the work	Execution of all the work in full and completely according to this SOW at excellent quality and to the satisfaction of the inspector, the manager, the Client and the user.
Work site	The land on which, through which, under which or over which the work will be performed, and its near surroundings, including all the ground that may be put at the disposal of the Contractor in order to perform his obligations.
Order to start work (AEDC)	The day when the Contract is approved by the Client.
Act of God	Only the following events will be included: war, enemy invasion, battles with armed forces of an enemy country (whether war has been declared or not), or natural disaster. To remove all doubt, the following will not be defined "acts of God" for this purpose: days of rain, call-up to military service, curfew, disturbances, events related to Judea, Samaria and Gaza (riots), strikes and lockouts.
Plans	Plans constitute an inseparable part of the contract - including all changes in plans approved in writing by the Client or by the CTA/inspector concerned with this contract, whether they are plans from the Client, the Contractor, the user or any other statutory body, and also any other plan that may be approved in writing from time to time by the Client or by the CTA/inspector concerned with this SOW.

PART B - GENERAL AND SPECIAL CONDITIONS

B1. Requirements of this SOW

It is hereby agreed that the requirements of this SOW are the minimum basic requirements that serve as guidelines for the Contractor's preliminary planning as to the form, nature and quality of the Facility.

The facility will be designed and built according to the Contractor's plans after approved by the Client and after receiving all the approvals required by law and as specified in the documents of this SOW.

It should be noted that the Client is ordering a complete property suitable for operation from all points of view, wherein each part fulfills its specific functions (unless noted otherwise), and even if some part or other were not specifically required in the documents of this SOW. (For example, no door will be without a handle, a steel part not galvanized or painted, part of a wall without finish adequate for its purpose, etc.).

B2. Compliance

Planning and execution of the building will comply with all the laws, regulations, standards, instructions and standard specifications, including:

1. Instructions and guidelines within the framework of this SOW with all its annexes.
2. Urban Construction Planning regulations.
3. Rules and guidelines of the Local Committee and/or the Engineering Administration of Beit-Shean.
4. Rules and guidelines of other statutory bodies and authorities (such as: civil defense regulations for protected areas, fire-fighting brigade, Ministry of Health, Ministry of Economics/Labor, Ministry of Environment, Electric Corporation, Bezeq, Israel Police, security services, the user's security officer, etc.).
5. Instructions from the Client's consultants (CTA).
6. Planning and Building Law 1965 and regulations.

7. Engineers and Architects Law and Engineers and Architects Regulations.
8. Contractors Registration Law and Contractors Registration Regulations.
9. Sanitary installation rules.
10. Regulations for the disabled in public buildings, Ministry of the Interior.
11. General Specifications for Building Work (Blue Book) - Min. of Defense/Publishers - all chapters.
12. Standards from the Standards Institution of Israel (SII), and in their absence, Institution Specifications (ISIS). In the absence of relevant Israeli standards or Institution Specifications, standards from the U.S.A., Great Britain, France or Germany, approved by the Client;
13. Safety in the Workplace Order (last Version) - Safety Health and Welfare Institution.
14. Electricity Law - Safety and Welfare Institution.
15. Safety Regulations in the Workplace.

    All the laws, regulations, standards, rules, standard specifications and guidelines will be in their fullest and latest editions before the order to start work.
16. All the above documents constitute together the contract documentation, whether they are annexed to it or not. The Contractor declares hereby that he has in his possession all the specifications mentioned in this SOW, that he has read and understood them, that he has received all the explanations that he requested and that he undertakes to perform his work in compliance with the requirements defined in them.

B3. Contractor's management team - supervision

1. The Contractor undertakes to employ throughout the planning and execution period a professional engineering management team (hereinafter: the team), of a high professional level and with proven

experience in carrying out projects similar in their volume and nature to the work subject of this SOW.

2. The team will manage, coordinate and supervise, on behalf of the Contractor, all the planning and execution work undertaken by the Contractor in the course of the design, approval, execution and operation stages, and the period of warranty.

3. The team that will handle the project as stated above will include as a minimum the following:

    a. Project manager on behalf of the Contractor who will coordinate and manage all the planning and execution work and will be the point of contact (POC) for all communications from the Client or the user.

    b. Planning manager, who will manage, coordinate and supervise all planning work undertaken by the Contractor.

    c. Experienced and competent supervisor.

    d. Experienced and competent execution engineer, responsible for managing the work at the site.

    e. Safety officer, responsible for all aspects of safety, health and welfare at workplace.

    f. Quality control manager.

4. The Contractor undertakes that the team will manage all the work closely and will verify fulfillment of the conditions in this SOW.

5. The project manager on behalf of the Contractor, the planning manager and the safety and execution engineer will be empowered by the Contractor to make decisions on matters concerning work on and implementation of the contract, and will be empowered to represent the Contractor towards the Client in all the mentioned matters.

6. Any instruction or announcement given by the Client to Contractor’s project manager, to Contractor’s planning manager or to the execution engineer, will be regarded as given to the Contractor.

7. It is hereby clear that by employing the members of the team or any one of them, the Contractor is not relieved from his responsibilities and undertakings according to this SOW or to any legal ruling, in part or in full, and will not reduce in any way the Contractor's exclusive responsibility for the correct and full execution of the work in accordance with this SOW.

B4. Designers employed by the Contractor in Israel

1. All planning work required to be performed in Israel, according to this SOW, will be performed at the expense of the Contractor and by licensed architects and engineers, whether working independently and/or as employees of the Contractor.
2. The designers shall be qualified and licensed according to the applicable Israeli laws, regulations and standards.
3. All designers will have professional experience of at least 5 years and proven experience in planning large-scale projects and office buildings.
4. The Client is entitled to demand the addition of a designer or designer's expert in specific field, if in his opinion they were not included in the list submitted by the Contractor.
5. The Contractor's agreement with the designers will include, among others, a clear undertaking on the designer's part, both towards the Contractor and towards the Client, to perform the planning work at a high professional level, according to all professional rules, in accordance with the guidelines and the timetable included in this SOW.

B5. Planning and supervision services

1. The planning and supervision services to be supplied by the Contractor are as follows:

    a. Planning management.

    b. Architecture.

    c. Construction.

    d. Sanitary installations.

    e. Electricity.

    f. Elevators (for high-rise building).

    g. Air-conditioning, cooling, heating and ventilation, thermal insulation

    h. Landscaping and development of the grounds.

    i. Traffic and transportation engineering.

    j. Safety.

    k. Communication.

    l. Ground and foundation engineering.

    m. Telephones.

    n. Low voltage - security and building supervision installations.

    o. Fire detection and extinguishing

    p. Others, as needed.

2. In addition, the Contractor will avail himself of professional consulting in areas such as: acoustics, air-conditioning, aluminum, sealing, conveying and lifting equipment, illumination, operation and maintenance, raised flooring etc., in any field required.

3. The services of all planners/designers will be provided throughout the period of execution of the facility, including the warranty period.

B6. Approval of designers/planners

1. The Contractor will submit within 2 weeks AEDC the list of designers/planners and consultants in a detailed form as follows:

Serial No.	Planning Specialty	Name	Reg. No.	Qualified in year	Address	Phone & Fax & E-mail
01	Planning manager					
02	Architecture					
03	Construction					
04	Sanitary installation					
05	Electricity					
06	Elevators					
07	Air conditioning, cooling, heating, ventilation, thermal insulation					
08	Interior design					
09	Landscaping and ground development					
10	Traffic and transport engineering					
11	Safety					
12	Communications					
13	Soil and foundations engineering					
14	Kitchens					
15	Computers					
16	Telephones					
17	Low voltage security					
18	Other					

B7. Documentation (CAD)

1. All designers on behalf of the Contractor must work with CAD integration. Planning work will be performed according to procedures defined in advance under the responsibility of the planning manager, and they will guarantee full cooperation and coordination between the designers. The working software will be of the AutoCAD 2014 type, or compatible.
2. After completing the planning and its approval, the designers will transfer to the Client for his use a set of CD‘s describing the approved planning in all disciplines. The CD’s will be of a reputable and recognized manufacturer.
3. After completing execution, the planners and/or subcontractors of systems on behalf of the Contractor will transfer to the Client a full set of the executed work (as made), in addition to the documentation required in this tender.
4. Written documents, such as technical specifications, will be typed in a word processor such as Word for Windows environment, or a compatible processor.
5. All computerized plans will have unified and standardized measurements, and will bear margin strips - all according to the detailed guidelines of the Client. The margin strips will include the Client’s logo, names, addresses and telephone and fax numbers of the planners and consultants, updating list, distribution list, status of the plan, scale, specification of the designers who inspected and approved it, file number and version number, name of the program and number of the program.

B8. Fees for sampling and materials testing

The fees for testing samplings and materials will be at the expense of the Contractor. The Contractor will pay directly to the laboratories the testing fees. The Client reserves the right to:

1. Determine which laboratories will perform the tests.

2. Order execution of the tests.

B9. Work at night and overtime hours

The Contractor will not be entitled to demand any additional payment if, in order to comply with the fulfillment times for execution set in the contract, he is obliged to work more than one shift per day.

B10. Construction completion and certificate issue

1. The completion certificate will be issued to the Contractor, according to the Planning and Construction Law, after fulfilling all the following conditions:
    a. Delivery of the site to the Client in accordance with all conditions in the contract.
    b. Receipt of Form 4 from the Local Authority.
    c. Receipt of Form 5 within two months after the date of delivery.
2. After finishing the work, the Contractor undertakes to provide the Client with the certificates of completion of the building, legally signed, as follows:

    Form 4 - Request for Completion certificate.

    Form 5 - Completion Certificate;
3. The Contractor’s execution engineer undertakes to sign Form 4 as the engineer responsible for execution of the structure and all that is required by law.
4. Delivery of the facility will not take place under any circumstances before connections of the buildings to the electricity, water and drainage networks, before receipt of the Bezeq approval of the infrastructure, and before confirmation from the civil defense authorities for protected areas and fire department.
5. Handling of the requests for infrastructure connection will be as specified in this SOW.

B11. Topographic map

1. Planning of the site will be based on a topographic map, drawn on a 1:250 scale, and signed by a licensed surveyor.
2. The map will be drawn according to the planning and building regulations and according to the guidelines of the engineering administration, and will be updated to a date not earlier than 6 months before the time when the map is submitted for approval by the engineering administration.
3. The Contractor at his expense will prepare the map.

B12. Building and business license

1. The Contractor must apply to the local committee for planning and building in order to receive a building permit and a license for the site as defined in this SOW. It is hereby emphasized that the Contractor's offer includes also the full payment for preparing plans and documents required for obtaining the building permits, and also all fees and charges connected with the above application.
2. Preparation of the requests for permits and their follow-up until receipt of the licenses are included in the general time assigned to the work, and no request for extension of the time assigned for execution of the work due to delays in submitting the requests for licenses or delays in granting the licenses themselves will be accepted.

B13. Execution by registered Contractors

All Contractor and/or Sub-contractors employed by the Contractor for construction, production or installation of buildings, infrastructure, systems or any other component of the project, should have the proper qualification or/and licensing for the type or classification of work.

B14. Updating of Urban Construction Plan

1. The Urban Construction Master Plan and its regulations mentioned in this SOW are the most recent documents approved at the time the RFP was issued.

2. The Contractor undertakes to plan and perform the installation, subject of this SOW, in accordance with the maximum building rights available according to the most recent version of the Urban Construction Plan.

PART C - GENERAL PLANNING REQUIREMENTS

C1. Nature of the requirements

The requirements refer to:

1. Architectural planning, construction and installations of all systems and auxiliary areas attached to them as part of the facility.
2. All other planning/planning work required to construct the buildings, ready on a turnkey basis.

C2. Deviations and/or changes of planning requirements

1. The Contractor must base his planning on the planning requirements described in the documents of the SOW. No deviations from the planning requirements beyond the deviations allowed in the special specifications, general specifications, Israeli standards and planning requirements are acceptable.
2. On the other hand, any addition above what is required in the guidelines at any stage of planning or execution, on the Contractor's initiative, requires in each case the Client's approval and will be considered as included in the price of the Contractor's offer and no increment will be paid on its account.
3. The Client is entitled at any stage to demand changes in the planning requirements. The changes will be presented in writing or as an addition to the planning instructions.

C3. Site Personnel

1. Site planning will be based on the following assumptions:
2. Employees at the site:

   Employees – about 90 workers, 70% of which men and 30% women;

3. Visitors at the site:

   About 200 every day, 20% of whom women (in addition to employees)

4. Normal working hours:
    a. Sunday to Thursday - 24 hours.
    b. Fridays until 13:00.
5. The nature of the work might require extend, overtime working hours.
6. Planning must take into account an entrance for the disabled, according to regulations.

C4. Frame of the buildings

1. The structural frame will be made of at least B-30 reinforced concrete, or B-30 concrete combined with pre-stressed concrete elements, or a combination of steel construction elements protected against fire with a reinforced concrete structure - all of them calculated according to Israeli standards. The steel elements will be 100% resistant to sea atmosphere (sulfates and chlorides).
2. The protected area will be made of at least B-30 reinforced concrete and will be planned according to the latest updated Civil Defense instructions.
3. Resistance to loads, resistance to a situation of destruction under normal conditions of use, resistance to a situation of destruction at the time of an earthquake, resistance to situation of destruction following the effects of temperature changes, resistance to fire, resistance to penetration of air, resistance to penetration of water, wind strength, thermal insulation capacity and acoustic insulation capacity, all as specified in the relevant Israeli standards.
4. A two-story office building will be planned with a possibility of adding one more in the future.
5. The Contractor will present to the Client for his approval a signed declaration of the engineer’s design of the structural frame of the buildings, that the buildings were planned and are capable of supporting all static and dynamic loads, including loads resulting from wind and earthquake and climatic effects.

6. Loads as specified in Israeli standards.

   In addition, on each office floor of the user it must be possible to install functions that impose usage loads of 1000 kg/sq.m. (Such as compactors, archives, safes, paper stores, kitchen etc.) over an area of about 20 sq.m. on the average for a building. The layout of the reinforced areas will depend on the needs of the user. The loads on roofs for technical equipment will be in coordination with and according to the requirements of the air-conditioning consultant.

7. Building foundations:

   a. Planning and execution of all building construction shall be according to Israeli standards.

   b. Performing test bores and planning the foundation will be the responsibility of the Contractor.

   c. The Contractor will present to the Client a soil report from a reputable foundations consultant, including his signed declaration that the foundations of the building were designed and performed according to his recommendations.

8. Framework parts composed of materials sensitive to water will be planned to prevent penetration of humidity or formation of water condensation and will be protected from water and humidity penetration by a continuous sealing system.

   All metallic components of the building frame that are not covered with concrete will be protected against corrosion by appropriate means.

9. Designing the building frame will take into consideration the degree of precision of frame parts to enable easy assembly of the components and other building parts without affecting the safety and stability of the buildings.

10. The specific tolerance will be decided in each case in particular in accordance with the degree of precision of other building parts, directly or indirectly connected to the building frame components and in

accordance with the method of production and assembly and the type of connection between the different component parts.

11. Design of the building frame will enable flexible architectural planning, that is, the load-bearing components of the building frame will enable making changes in the planning and distribution of spaces within the building during the lifetime of the building.

C5. External walls

1. Resistance to loads, resistance to a borderline situation of destruction under normal conditions of use, resistance to a borderline situation of destruction at the time of an earthquake, resistance to a borderline situation of destruction following the effects of temperature changes, resistance to fire, resistance to penetration of air, resistance to penetration of wind, resistance to penetration of water, thermal insulation capacity and acoustic insulation capacity - as specified in the relevant Israeli standards.

2. The recommended wall cross-section is a sealed concrete wall with hewn stone / good quality ceramic facing on the outside and plasterboard with thermal insulation, on the inside.

3. In case Local Urban Authorities does not require construction with hewn stone facing, the contractor may propose alternative solution for approval by Client, at the PDR.

4. Exterior finishes - as specified in the planning and development instructions for building for execution, and as specified in the guidelines file of the Local Authorities engineering administration.

5. The above facing materials will cover the entire external surface of the buildings.

6. The external walls will be thermally insulated.

7. The exterior finishing materials will be resistant to weathering and extreme air pollution, to which they will be exposed during the lifetime of the external wall, without being damaged in a way that may cause failure. Likewise, they will be resistant to severe atmosphere.

8. The exterior finish will not break, crack, pit, erode, fall or lose its color under extreme environmental conditions (solar radiation, rain, wind, sand storms, temperature changes, salty air, chemicals, etc.). In addition, it will not lose its capacity to protect the wall without any need for preventive maintenance during an effective life of at least 60 years. If painted cement - 30 years. Paint will be warranted for 5 years

9. The design will prevent erosion of seams allowing penetration of water, humidity, wind or dirt through spaces or joints between adjoining building components, between different building parts and between building frames/carpentry and external walls.

10. The effective life of the sealing materials or enclosed seals that can be changed easily (full accessibility) will be at least 10 years.

    The life of a seal that cannot be changed will be at least 60 years.

11. Walls shall be smoothed to prevent birds from perching on them. A galvanized steel mesh net (resistant to the winds in the area and Israeli Standards) shall be stretched on openings in radiography tunnel to prevent entry of birds.

12. External walls will be resistant to attack from bacteria, other organisms, insects, birds and animals of any type.

    When the walls have materials subject to attack as described above, appropriate treatment of the material liable to attack must be planned, to give it a protective coating to ensure the resistance of the entire wall during its projected life.

    The design must guarantee full protection against corrosion of metallic elements in the outside walls.

13. Coatings that face outward will be applied with special attention to end details and special joints, including: coating cornices, window sills (joins with vertical side risers), door thresholds, end details of finishes, anchoring grills and handrails, ensuring stability of facing plates (prevention of falls), etc.

14. Application of the finishes will be accompanied by constant tests of the quality of the finishing materials and the workmanship, paying special attention to:

    a. Tests of mechanical resistance, to test the strength of mechanical attachments to walls.

    b. Spray tests, to test the quality of the sealing.

    c. Quality tests for finishing materials, testing absence of cracks, breaks, resistance to UV radiation, resistance to hail, resistance to temperature differences, resistance to sand storms, absence of fading, etc.

15. Inside finishes - smooth inside plastering or painted plasterboard, as specified. In the protected area, the finishes will comply with the instructions of the civil defense regulations for protected areas.

16. All external walls and roofs, independent of their structure (building, shed or warehouse), especially any non air-conditioned open structure, will be thermally insulated to provide comfortable working environment.

C6. Roofs/Ceilings/Floors

1. Resistance to loads, resistance to a borderline situation of destruction under normal conditions of use, resistance to a borderline situation of destruction at the time of an earthquake, resistance to a borderline situation of destruction following the effects of temperature changes, resistance to fire, resistance to penetration of air, resistance to penetration of water, resistance to the force of wind, thermal insulation capacity and acoustic insulation capacity - as specified in the relevant Israeli standards.

2. Access to the roof - through a flight of stairs and by elevator.

3. Outside stairs, giving access to the roof will be planned for all the buildings, to be used for the maintenance of the roofs and the equipment installed there.

4. Shape of the roof - according to the directions in the detailed construction plan and directions from the engineering administration.

5. Machine rooms, equipment, storage containers, etc. whose location was not defined in the SOW documents, and about which there are alternatives regarding their placement, can be integrated on the roof.

6. It should be emphasized that especially light roofs will provide acoustic and thermal solution to the buildings.

C7. Internal partitions

1. Type of partition
    a. Walls, elevator room risers (wells) etc. will be made of concrete with finish, complying with standards and regulations, according to this SOW documents and according to the inter-office specification.
    b. Walls of toilets, storerooms, kitchens and security rooms (safes), will be built of concrete blocks in 10 or 20 cm thickness, plastered and painted, according to this SOW documents and according to the inter-office specification.
    c. Separation partitions between offices and between offices and corridors will be made of painted plasterboard on a light construction of metallic profiles, according to this SOW documents and according to the inter-office specification.
2. Resistance to a borderline situation of service - as specified in Israeli standards.
3. Fire resistance
    a. Fire resistance of partitions not bearing loads will be at least as specified below:

Number	Type of partition	Minimum fire resistance (hours)
1	Partitions between office spaces others and the staircase	1 1/2
2	Partitions between office spaces others and public passages	1
3	Double partitions with expansion join	2

b. Partitions will be made of materials that do not ignite easily and the emission of poisonous gases, smoke, and dripping from them do not constitute an excessive risk during a fire. The partitions and all their layers will have a fire rating, as defined in Israeli Standard 755, at least as required in Israeli Standard 921, according to the building classification, placing of the partition, type of partition, etc.

c. Ducts and openings for utilities (electric systems and air conditioning ducts) will not damage the quality of partitions from the standpoint of flammability, gases, smoke and dripping, and will not enable passage of fire and smoke to the floor and from one closed space to another.

d. Openings and ducts for the introduction of sanitary installation, electrical installation, air-conditioning, etc. will be coated with a material equivalent to or better than the material from which the partition is made.

e. From the standpoint of the 3 parameters for rating, specified in Israeli Standard 755, when the duct, riser (well) or pipe pass from one floor to another, a fire barrier will be installed at the ceiling level. The characteristics of the barrier will comply at least with the requirements listed for the ceiling.

4. Thermal insulation

   a. Excessive loss of heat must be prevented and the risk of condensation on partitions between an air-conditioned space and a public space (such as the staircase) or a technical space (pump rooms, etc.) that is not air-conditioned must be reduced.

   b. The average resistance to heat transmission required of partitions between an air-conditioned space and public spaces that are not air conditioned will be not less than 0.5 (m2 / oC / watt).

5. Acoustic insulation

Partitions between office rooms and public spaces will enable adequate acoustic insulation between the operations that take place in the different spaces. If no other requirement is specified, the airless acoustic insulation index of the separation partitions will be at least as follows:

   a. Between ordinary office and ordinary office - 45 -STC.
   b. Between ordinary office and corridor, passage - 45 - STC.

6. Durability

   a. Attention must be paid to the fact that the partition must enable hanging objects for long times without extracting or disconnecting the connectors (nails, screws, etc.). The planning of the partitions will ensure the possibility of hanging the following loads on them by using any type of connector, without disconnecting the connectors, extracting them, etc.:

      1) Load of 700 newtons applied perpendicular to the partition in the direction of extraction.

      2) Load of 500 newtons applied parallel to the face of the partition at a distance of up to 20 cm from the face.

      3) Load of 100 newtons hanging on a hanger or nail parallel to the face of the partition, while the nail itself is bent at a different angle to the face of the wall.

b. Design will ensure that the functioning of an internal partition will be not be damaged by mechanical blows.

7. Appearance

Regarding partitions made of component parts, care must be taken that the joints do not detract from the partition's appearance.

a. When joints are hidden under a coating layer that covers the entire face of the partition: there will be no projection, depression or visible cracks at the joints between the components, or within the components themselves.

b. When the joints are hidden by local means alone (edge tiles, strips, tapes, etc.): the joint hiding elements will be securely fixed on the partition without leaving at any place a separation visible to the unassisted eye at a distance of 1.0 meter.

C8. Modules

1. The building will be planned according to the principles of module coordination (M=10 cm). Each length, width and height measurement of the building components will be multiples of the basic module.

2. The design grid and the module of the openings in the external envelope will provide flexibility for installing partitions, in order to enable enlarging/reducing spaces according to the needs of the user.

C9. Building heights

A typical office floor will take into consideration the following minimum heights:

1 Flooring: 10-12 cm.

2 Net height between face of floor and bottom of false ceiling: 270 cm.

3 Net height between floor face and bottom of concrete ceiling: 350 cm, without beams protruding downward.

C10. Openings

1. Windows will be integrated in the building envelope in a total proportion of at least 10% of the (gross) floor area in the floor. Despite and in addition to this, the percentage of openings integrated in the protected space will not exceed 6% of the (net) floor area.
2. The distribution of the windows will be as much as possible homogeneous and modular on all fronts, for all spaces adjacent to external walls.
3. Windows facing all directions will be equipped with interior shading elements.

C11. Toilet services

The sanitary structure will include the following:

1. Toilet services on each floor separate for men and women according to the updated sanitary code, in one single unit or divided into two areas according to the specifications in the architectural planning.
2. Toilet services for the disabled, separate for men and women.
3. Showers for men and women on each floor (unless specified otherwise).
4. The toilets and showers will be equipped with hot/cold water taps and all necessary accessories of high quality.

C12. Kitchenettes

1. Kitchenettes must be implemented in the locations defined in this SOW, with an area of at least 9 m^2 each, unless specified otherwise.
2. The kitchenettes are designed for the preparation of hot beverages and the supply of cold drinks and food storage for the employees.
3. Basic equipment in each kitchenette:
    a. Work counter (marble), measuring at least 65x300 cm.
    b. Lower cabinet under the counter and upper cabinet at a height of 75 cm above it, Formica covered, with length equal to that of the work counter.

c. Kitchen sink and hot/cold water mixing faucet.

d. Tableware drying device, integrated in the cabinets.

e. The electric outlets for the defined electric devices: refrigerator, microwave, water bar, heater, etc.

4. The kitchenette will be air-conditioned.

5. The counter and sink, the finishes, the cabinets, the electric installation and the defined devices, as well as the sanitary installations and devices, are included in the work contents – Bidder's architect proposal approved by the Client.

C13. Furniture (see also Sub-section F)

1. The following furniture items will be considered fixed and specialized furniture:

   a. Booths, counters, and reception windows.

   b. Control and office desks.

   c. Storage cabinets and work counters in kitchenettes, dining facilities

   d. Wall cabinets and shelves for files and storage (fixed and adapted to a special location).

   e. Writing boards.

   f. Hangers, hanging strips, protective strips and decorative strips.

   g. Fixed specialized furniture according to special requirements.

   h. Concealing cabinets for A/C Fan and Coil units.

   i. Other.

2. All furniture items for which the Contractor is responsible will be characterized and defined in a detailed and complete manner, in accordance with the following detailed guidelines, and will find expression in the planning of the detailed layout of the building.

3. In the detailed planning of the furniture, special attention will be given to the following planning principles:

    a. Full compliance with the operating requirements of the user.
    b. Adaptation of the planning to the building's space characteristics and the general furniture system, in coordination with the building planner.
    c. Materials, finishes and hardware intended for heavy duty and anti-vandalism use, in order to ensure functional operation at a suitable level for a long time.
    d. Preferred use of standard products, with long durability, in order to enable future additions of identical or similar items.
    e. Maximum flexibility in attaching auxiliary equipment and accessories, and installing end units.
    f. Long term ease and convenience of maintainability.
    g. Accuracy in practical attainment of the level of precision.
    h. Maximum modularity to enable flexibility for possible future changes, and to improve quality and viability.
    i. Furniture will be based on sub-assemblies (sub-modules) manufactured as complete industrialized units and which can be reinstalled at any time. The connection between the sub-assemblies will be performed with suitable hardware or bolts.

4. The detailed planning of the fixed and specialized furniture requires the Client's approval.

C14. Internal markings

1. The internal markings detailed below are included in the work:

    a. Signs/pictograms on toilet doors.
    b. Signs/pictograms on the different built-in cabinets (electrical, communications, fire-fighting, gas, cleaning, etc.), description of the types of piping, indication of numbers of circuits, control systems, etc.

c. Signs/pictograms related to escape routes and safety, as required by regulations.

d. Signs/pictograms related to protected spaces on the floors, as required in the regulations (directions to them and signs within them).

2. Other signs in the building (signs to direct traffic within the building, defining smoking corners, signs on doors, etc.) will be defined by the Client before occupation of the site, and will be supplied by the Contractor and mounted in the building.

3. All signs will be in Hebrew.

C15. Integration of engineering systems

1. General

Design of the building will include passageways/openings/sleeves in parts of the building frame, for the passage of ducts/pipes/cables of the various systems from side to side.

Planning and execution of passageways/openings/sleeves shall take into consideration beyond the volume required for the designed systems, at least additional 25%, as a reserve for future use by the Customer.

2. Working conditions

Activities in the facility may be carried out 24 hours a day. In view of the fact that people will be present in the facility and in the different buildings, optimum solutions must be given to the working conditions as reflected in the following parameters:

- Lighting

Design shall assure lighting conditions appropriate to the effort of vision, the environmental conditions outside and inside, and particularly work in front of computer monitors.

- Acoustics

Ensuring a level of acoustic insulation and noise absorption under all conditions

- Temperature

Design and execution shall assure a level of comfortable temperature (by means of air- condition, thermal insulation) for all working conditions in all working areas. The whole site shall be air-conditioned.

- Passages

The width of the passages shall be designed according to human engineering criteria and in accordance with the number of people using them either during normal times or in emergencies (including escape passages).

- Service rooms: Toilets, kitchenettes, etc

Service rooms shall be of a high standard in respect of shape, products standard, ease of maintenance and cleaning.

- Maintenance and cleaning

In all stages of planning, the subject of maintaining the facility and the different buildings including systems, and preserving cleanliness, must be taken into consideration.

3. Safety

3.1 Because of the nature of the facility and particularly the radiography building (x-ray screening site) and the importance of the systems in it, a higher than usual level of safety is necessary

It is required that already in the planning stages an expert safety consultant will plan, approve and supervise the work.

3.2 Safety issues will be emphasized in the following subjects:

3.2.1 An operational system that will enable:

3.2.1.1 Command and control of the screening procedure, with special attention paid to the subject of radiation safety.

3.2.1.2 Control of failures in the service systems (air-conditioning, electricity, etc.) with possible safety repercussions.

3.2.2 An automatic fire-extinguishing system in all electric panels

3.2.3 Control system for fire detection in the building

3.3 Design highlights

3.3.1 Use non-flammable materials, such as: electric cables with self-extinguishing coating that does not give off poisons, and fire-proof or fire-resistant materials, etc.

3.3.2 Insure traffic safety for vehicles, pedestrians and workers, both at the facility's grounds and inside the buildings.

3.3.3 Openings and escape stairs

3.3.4 Installing of emergency lighting in the buildings and on the facility's grounds

3.3.5 Installing hydrants at the facility's grounds and in the various buildings;

3.3.6 Preparing safety devices to prevent propagation of fires through the air-conditioning system

3.3.7 Determining fire zones and insulating them (sealing cable wells between floors, fire doors, etc.).

3.3.8 Removal of smoke and poisonous gases in case of fire or other exceptional circumstances

3.3.9 Emergency and manual fire-fighting equipment will be installed both in the facility's grounds and in the diverse buildings and installations.

3.3.10 Safety signs, including directions for special circumstances (Radiation);

3.3.11 In the electrical system's room, air conditioning room and accelerator room, doors will be installed in accordance with safety regulations.

3.3.12 One room will be assigned as first-aid room and will be equipped with appropriate equipment.

4. Changes and additions

4.1 Future changes should be possible in the layout of the rooms, following changes in site layout and/or working procedures of the operators.

4.2 In the control area, the analysis rooms, in order to enable maximum flexibility for changes, a modular area may be proposed, where the interior distribution will be made by light partitions. The modular building plan will enable creating rooms and halls in different sizes.

4.3 Moving partitions will be performed with minimum movements of other systems such as electric outlets, communication ducts, air-conditioning systems, fire detection and fighting systems, etc.

4.4 An air-conditioning system capable of responding to changes in heat distribution

4.5 Modular power distribution system that will enable simple connection at any place to any type of voltage supply, and that will also enable changes in the main centers of power consumption in the building.

4.6 Cable-carrying system that will enable carrying large volume cables, with flexibility in changes of routing, without the need to make building changes or additions.

4.7 Large reserves of cable entrances to the building.

4.8 Modular lighting network that will enable minimum changes and movements of lighting fixtures

4.9 Acoustic treatment of all rooms in the building which will provide an answer to the flexibility requirements listed above.

5. Operation and maintenance of systems

5.1 Good operation and maintenance of the systems is an important part of maintaining the site and its capacity for durability in its functions.

5.2 Planning back-up for the different systems will enable operating the site in such a way that will not affect the work.

5.3 The operation of the systems in the buildings will have the following characteristics:

5.3.1 Routine operation: provide an overall comprehensive description of the operation and status of the different systems as well as provide command and control of the traffic of vehicles and people.

5.3.2 Emergency operation: command and control on all systems as described in routine operations, but with emphasis on radiography, air-conditioning, electricity, water, fuel systems and systems that are critical for the operation of the site in those circumstances.

5.3.3 Operation during fire: opening and closing doors from the control center, directing people to escape, summoning forces to assist in controlling the fire, etc.

5.4 Maintenance of the systems is an important part of the preservation and operation of the systems in the building, therefore planners must keep in mind the subject of maintenance from the following aspects:

5.4.1 The system will be designed so that in certain circumstances when it is necessary to perform maintenance in the system or in part of it, this will not

affect the level of service it gives and will not cause disruptions in the efficient operation of the facility.

5.4.2 Systems will be planned so as to provide simplicity of maintenance (including maintenance tools).

5.4.3 Systems will be planned so as to provide easy access to equipment.

5.4.4 Detailed maintenance instructions in the installation manual will be provided.

5.4.5 The Contractor will provide five copies of the installation manual to include:

- As-made plans on magnetic media and hardcopies
- Installation operational instructions
- Routine maintenance instructions including check schedules for all equipment components. Estimated check durations and estimated durations for emergency treatments.
- Spare parts catalog including parts availability in Israel.

6. Building materials

6.1 In designing the facility and the various buildings, care will be taken to use materials impervious to fire or fire-resistant, having high strength and long durability, reliability and minimum possibility of harming or damaging the building and its accessories in the course of its routine use.

6.2 In designing the facility and the various buildings, care will be taken to use materials that are environmentally responsible and resource-efficient throughout building's life cycle.

6.3 While designing the building, different types of materials and solutions will be taken into consideration, such that will enable a minimum of repairs, and in case a repair becomes necessary will enable replacing assemblies and making repairs in the building easily and rapidly.

6.4 While designing the building, consideration will be given to using materials that are easy to clean and do not absorb dirt and dust. Protection of parts of the building (internal sections) from damage or rot caused by washing the floor (in those places where there is no raised floor) is required.

6.5 The site is located in very hot area, thus special care should be given to thermal insulation as well as aspects of sustainability (green construction).

7. Cleaning

7.1 Planners will take into consideration in all stages of planning the possibility of maintaining cleanliness, from the following aspects:

7.2 Ease and simplicity of cleaning the area

7.3 Ease and simplicity in vacuuming the dust under the raised floor

7.4 Easy access to clean lighting fixtures, windows, etc

7.5 Possibility of cleaning dust and soot accumulated in air-conditioning ducts and in other parts of the building.

7.6 Prevention of entry of dust to the building and escape of air conditioning by designing a system of automatic double doors

7.7 Preventing the formation of places and spaces of difficult access or inconvenient, which enable accumulation of rubbish and dirt, both in the building and in the furniture.

7.8 Possibility of easy cleaning in the tunnel, both for trucks and to evacuate smoke from the trucks

8. Garbage recycling, collection and removal

8.1 The type of work in the facility and its continuous occupation in shifts will constantly produce garbage and waste.

8.2 Garbage comprises two main types:

8.2.1 A large quantity of classified papers that must be destroyed under supervision in a shredder

8.2.2 Garbage that does not require shredding

8.3 Recycling

8.3.1 Facility design will take into account the Israeli laws under the power of Ministry of Health and the Ministry of Environmental Protection that relate to waste collection, waste disposal and recycling.

8.4 Consequently, facility design will take into account:

8.4.1 Convenient planning of points to gather garbage

8.4.2 Convenient planning of areas to install recycling devices

8.4.3 Mounting ashtrays in all outdoor smoking areas

8.4.4 Care must be taken in planning to prevent unauthorized disassembly of ashtrays.

8.4.5 A central place to assemble a large quantity of sacks for paper designated for shredding.

8.4.6 Garbage cans for a large quantity paper products;

8.4.7 A convenient route for removal of waste paper and general garbage from the building and out of the facility

8.4.8 Preventing odor originating in garbage, and preventing the spread of its odor into the buildings

8.4.9 Assigning appointed places to store all work tools and cleaning materials (utility rooms, vacuum cleaner).

9. Acoustics

9.1 The need to partition and maintain rooms with noise sources within the building make it necessary to use good acoustic insulation (ceiling, partitions, doors, ducts and air grills), which will be performed on two levels:

9.1.1 Acoustic absorption, to minimize noise creation in the room where it originates

9.1.2 Acoustic sealing, to prevent transmission of noise or voices from one room to another and out of the building

9.2 In those rooms defined as noise sources, the level of noise produced may reach up to 60-70 decibels.

9.3 Production of echo in the above rooms for over 0.2-0.5 seconds must be prevented.

9.4 In the area comprising the system control room and the analysis workstations, in addition to the above; complete acoustic separation will be required.

9.5 Between the above rooms and outside area, a reduction of at least 45 decibels is required.

9.6 Acoustic solutions will include the following places:

9.6.1 Joints between the partition and the ceiling

9.6.2 Opening for passage of cables

9.6.3 Sealing of doors and windows

9.6.4 Air-conditioning ducts (will be examined in the course of planning).

9.6.5 Other openings

9.7 No flammable materials should be used, nor materials that disintegrate or have the capacity to accumulate static electricity.

9.8 In corridors, it is required to install a false ceiling to hide cables and also to enable convenient access for maintenance and repairs.

9.9 The acoustic ceiling will integrate air-conditioning openings, lighting fixtures, fire detectors, etc. according to the requirements of the designers.

9.10 An acoustic ceiling shall be installed in all office rooms in all buildings.

10. Floors

10.1 Two types of floors will be designed in the buildings:

10.1.1 High standard floor (smoothed concrete with a durable finish and/or paved with terrazzo-style or ceramic, granite porcelain floor tiles in building offices.)

10.1.2 Raised floor

10.2 Ordinary floors will be coated with a coating resistant to erosion and that does not accumulate static electricity, does not burn and does not emit poisonous gases in a fire or on heating.

10.3 The floor will be designed for load bearing as follows:

10.3.1 In specific places, about 800 kg/m^2 (communication rooms, etc

10.3.2 In the systems and service areas, about 1500 kg/sq.m (the exact load will be set by the system designer).

10.3.3 In offices, administrative and public areas, about 500 kg/ m^2 (the exact load will be set by the designer).

10.4 In the service area used for service systems (air-conditioning, electricity, communication, etc.) the floor will be ordinary with PVC coating.

10.5 In radiography system control room and computer and communication hardware rooms, floating floor will be installed.

10.6 The raised (floating) floor will be designed in accordance with the following principles:

10.6.1 The floor will be unitary and will have a load bearing capacity of about 800 kg/m^2

10.6.2 The upper facing will be matte in color to prevent glare.

10.6.3 The floor tiles will be made of durable material (ceramic) in single pieces and without separating profiles.

10.6.4 The size of the floor tiles will enable lifting by one person (60x60 cm).

10.6.5 Re-installation of a tile will be simple (obviating the need to re-level legs of furnishings).

10.6.6 Floor tiles will be light and resistant to fast erosion (according to the rate of pedestrian traffic), and of a type that does not accumulate static electricity.

10.6.7 The height of the floor will enable easy passage of cables for service systems such as computers, controls, fire detection, etc. In any event, in principle the height will not be less than 35 cm net between the floor of the building and the bottom of the raised floor.

10.6.8 In the case of stepped floors, the side walls of the tiles will be an integral and inseparable part of the floor and will enable replacement and disassembly.

10.6.9 The raised floor tiles will be divided as follows:

a. Full tiles.

b. Perforated tiles for air-conditioning (in accordance with air-conditioning planning).

c. Full tiles with opening for passage of cables.

10.6.10 Acoustic insulation of the raised floor

The raised floor system will solve two main types of acoustic problems:

a. The floor will enable noise absorption.

b. The floor will prevent transmission of noise from one space to another in the following sections:

- In the upper section separated with light partitions.
- In the lower section under the raised floor.

10.6.11 Planning and implementation of the floor will be such as to prevent, in a reasonable degree, transmission of vibration from instruments or machines mounted on it

10.6.12 The raised floor will comply with the requirements of fire resistance according to the requirements of the safety consultant. Nevertheless, the designer should abstain from using a floor whose components include components that emit poisonous gases during combustion.

11. Partitions and transparent partitions

11.1 The interior partitions will be light and will enable the purpose of the rooms to be changed.

11.2 It is emphasized that adequate advance planning of the construction is required, in order to enable future changes (details of assembly of ceiling and raised floor).

11.3 Each partition will be designed to bear attached shelves and hanging shelves with a width of up to 30 cm and stacked one above the other.

11.4 The usable load for each shelf will be about 50 kg per running meter.

11.5 Acoustic insulation of at least 45 decibels including transparent partitions and doors mounted on the same partition.

11.6 The partitions will comply with the requirements of fire resistance according to the definitions of the safety consultant and Israeli standards.

11.7 Transparent partitions will be in frames and will be of a quality and type that enable long life, are not easily scratched, prevent glare and reflections and are noise insulating.

12. Passages

12.1 Passages and main corridors in the building will be wide enough to enable convenient passage of equipment and passage of people at times of escape and evacuation of the building.

12.2 Main corridors will be at least 160 cm wide (net) according to regulations.

12.3 Internal corridors will be at least 120 cm wide (net) according to regulations.

12.4 Main corridors will have installed along the walls wooden boards to serve for grasping and as protection of the walls during transport of carts with equipment, etc.

12.5 In case the corridors also serve as main routes to conduct systems in the building, consideration must be given during all stages of planning to aspects of adequate safety, lighting and finish.

12.6 The materials finish, and smoke-releasing openings will all be as demanded by regulations.

13. Workshop carpentry and steel frames

13.1 General

13.1.1 The architect for the Contractor will be responsible for designing all details of the doors and gates in the building, making them compatible with other parts of the building and this, among others, by incorporating them in layouts and preparing detailed lists and special specifications for each detail.

13.1.2 Detailed planning of the items and supervision of their manufacture, combined with professional consultant's advice on the following subjects:

a. Acoustic doors - in coordination with the building's acoustics consultant and Client's requirements (at least in the following rooms: Staff meeting room, Site's manager office).

b. Fire doors - approved by the building's safety consultant.

c. Security doors – according to clients requirements (instructions given by client's security officer).

d. Large/special movable gates – according to instructions from the building's machinery consultant.

e. Large/special gates - according to instructions from the building's construction planner.

f. Blast-proof doors to protected spaces - according to instructions from the protection consultant.

g. Radiation-protection doors - according to requirements of radiation protection consultant.

13.1.3 Planning of all items requires the Client's approval.

13.2 Frames

13.2.1 All frames will be industrially manufactured of bent galvanized steel plate with minimum 2 mm thickness, or of steel profiles intended for this use. Large door frames will be made of bent steel plate of greater thickness with the approval of the Client.

13.2.2 Frames destined to be incorporated in plaster partitions will also be made of bent steel plate, at least 2-mm thick.

13.2.3 A bottom connector to steady the frame will be included.

13.2.4 The shape of the cross section will depend on the use of the door.

13.2.5 The frame will not include rubber cushions to brake the panel, but frames of acoustic doors will include a double slot to incorporate continuous rubber seals around the periphery.

13.2.6 In sanitary services, the bottom of the frames will be specially treated to prevent corrosion and the cross-section of the frame will ensure adequate side coverage on the ceramic tiles.

13.2.7 All doorframes will be hot-galvanized after manufacture and will be painted with an upper coat above a bonding coating.

13.2.8 Frames for electricity, communication, fire-fighting cabinets, and wells will be made industrially of steel plate as above, with full circumference. Finish - as above.

13.3 Panels

13.3.1 In outside openings, only metallic doors or workshop doors (not carpentry doors) will be installed.

13.3.2 The panels of metallic doors will be made of bent steel plate with double walls, centrally filled with acoustic/thermal material.

13.3.3 The panels of carpentry doors will be made of plywood with a minimum thickness of 5 mm on each side, with wood filling (not cardboard honeycomb). The filling will be 100% from the floor bottom to a height of 1 meter, and above that, at least 50%. Edges will be of hardwood (and not PVC).

13.3.4 The finish of metallic door panels will be as specified for frames.

13.3.5 The finish of carpentry door panels will be one of the following alternatives:

a. Formica (silk finish).

b. Veneer with lacquer or stamped plywood.

c. Other equivalent finishes approved by the Client.

13.3.6 At the bottom of the panels, on both sides, decorative metal protective strips will be mounted, glued and screwed to the panel.

13.3.7 Door panels to defined security room will be steel protective doors, of the Pladelet type made by MultiLock or equivalent.

13.3.8 Acoustic door panels:

a. Will be made with two panels of plywood of different thickness (14 and 16 mm).

b. The central space will incorporate a 1.5 mm thick metal plate, and a 1” layer of rock wool with a density of 80 kg/m^2.

c. On the periphery of the panel a double step will be made and rubber sealing profiles inserted.

d. The threshold will incorporate a Schall-EX mechanism made by Athmer or equivalent, with counter-profile.

13.3.9 Electricity, communication, fire-fighting cabinet doors, etc, will be made of bent steel plate with single wall, finished as above. Hinges and locks will have hidden mounting. Handles will be recessed.

13.4 Doors Hardware

a. Each door will have three hinges, according to Israel standards, appropriate to the weight of the door. Hinges will be inserted in the frames so as to be hidden.

b. Entrance doors to departments and sanitary services will include automatic closing devices, of heavy-duty type.

c. Each door will have a stopper and a holder to keep the door open, of heavy-duty type.

d. Each panel will have a cylinder lock of the Rav mafteah (Multi-Key) type with selectable levels of locking - in coordination with and under the guidance of the user's security officer, in a hierarchy of up to 4 levels.

e. Special locking procedures including special arrangements for controlled-access sections, in coordination with the user's security officer. Electric locks will be installed in the doors to controlled-access rooms.

f. All handles will be metallic (not plastic), with panels (not rosettes).

g. Toilet doors incorporate Occupied-Vacant locks that can be disassembled from the outside.

h. Panic doors will be installed as required by the regulations.

i. Water shields will be installed on the bottom of doors opening to the outside.

j. Standard mezuzot will be supplied and mounted by the Contractor on all doors (except toilet doors).

k. On two-panel doors, reversible hidden hinges will be installed, of heavy-duty type.

l. Protective doors for the security rooms will include an opening lock of combination type.

m. Controlled doors with electric locks will be installed with a metal blind frame and tubing to supply power, intercom, reader and electric lock.

n. A magnetic lock will be mounted in controlled escape doors, which will be automatically released if fire is detected.

o. On double-panel doors, a special device will be mounted to pass a power cable to the electric lock.

13.5 Skylights, screens, latticework

a. Skylights will be closed with tempered or plated glass. Thickness according to Israeli standards.

b. Ventilation grills/screens will be installed as required by regulations or as demanded by the air-conditioning planner (return air). Introducing superfluous ventilation grills/screens should be avoided, and they must not be included in acoustic rooms.

13.6 Measurements, types of opening and direction of opening

a. Width and height measurements of doors will be modular according to Israeli standards.

b. The door to at toilet will have a minimum width of 0.70 m.

The door to an office will have a minimum width of 0.9 m.

c. Doors intended for the use of the disabled, including the entrance to the disabled toilet, will have a minimum width of 1.0 m.

d. Width of the doors will be in accordance with the requirements of the safety regulations.

e. The type of opening and direction of opening of the doors will be in accordance with the requirements of the safety regulations and the civil defense regulations for protected areas.

f. Sliding doors should be used as little as possible. In case of a sliding door being used, an aluminum quiet track should be incorporated.

g. Swing doors should be used as little as possible. If a swing door is used, a glass window should be incorporated.

h. Blast-proof doors for protected spaces will be in accordance with the requirements of the regulations of the civil defense regulations for protected areas and the specifications of the Israel Standards Institution.

i. A 360-degree rotary door should not be used, except by special approval of the Client.

j. Fire doors should include windows with glazing and in the measurements set by standards.

13.7 Cabinets in the kitchenettes

13.7.1 Manufacture of the kitchenette cabinets will be according to ISI Specification 49 of October 1979, and the Israeli standards mentioned there, including amendment sheet No.1 to ISI Specification 49 of January 1986.

13.7.2 Cabinets will be mounted from modular cabinet units (cases), assembled by complete attachment one to another to create a single unit.

13.7.3 The bottom cabinet units will be mounted on legs that will be hidden from view by a removable bottom panel on the front and with a pediment or fixed bottom panel.

13.7.4 Cabinet units will be assembled of wood panels as specified below:

a. Bottom, top and side walls: 18 mm thick plywood with Formica finish.

b. Upper wall of the cabinet below the sink: solid wood beams or plywood panels in the front and back (upper face of the unit - open).

c. Bottom closing panel: 18 mm thick wood block, finished with TAP Formica on the outside, or a special plastic panel with rubber seal towards the floor.

d. Back wall: 5 mm thick plywood with interior Formica finish on the inside of the cabinet (not masonite).

e. Closing wall strips: 18 mm thick plywood, finished with TAP Formica according to the style of the doors.

f. Exterior edges will be covered with TAP Formica.

g. On side walls of cabinets incorporating shelves, modular preparation will be made (holes) to set shelves at variable heights.

h. Outside walls of the ends units will be covered with Tap Formica.

i. Doors to the cabinet units and the drawers will be covered with Formica (1/4 rounded), made of 18 mm thick plywood (covered with white TAP Formica).

j. Internal shelves - of 18 mm thick plywood finished around with TAP Formica. In the bottom cabinet - one shelf. In the upper cabinet - 2 shelves.

k. Open shelves (exterior) - of 18 mm thick plywood covered with TAP Formica on all sides.

13.7.5 Drawers

a. Drawer walls - 14 mm thick plywood panel, finished within by two-sided Formica.

b. Front side - as specified above.

c. Each kitchenette will have a cutlery drawer including a plastic cutlery tray. The cutlery tray will fit the drawer perfectly and will be affixed to it.

13.7.6 Hardware

a. Handles - oven-painted steel.

b. Door hinges - hidden spring steel hinges with 180-degree opening. Each panel will have 2 hinges.

c. Drawer slides - telescopic steel drawer slides of Grass type or equivalent.

d. Adjustable legs (if mounted) - Nehl type or equivalent, 4 legs under each cabinet unit (case).

e. Hanging shelves - by means of painted steel pins (4 for each shelf), rounded, with at least 7 mm diameter. Also, plastic upper shelf holders will be supplied, to prevent extraction /drop/turning of the shelf in its place.

f. Flat white rubber absorbers to prevent the noise of slamming doors.

13.7.7 Connections

a. Connections between the walls of the cabinets will be by means of local continuous spline of density to the inspector's satisfaction, including gluing with good quality glue.

b. Connection between cabinets will be by means of a metal bolt with double thread.

13.7.8 Miscellaneous

a. There must be a good seal between the backs of the cabinets and the ceramic tiles and/or marble surface and/or plastered wall, using white silicone.

b. The cabinet units will be well packed before leaving the factory, using corrugated carton and/or bubble plastic sheets, in a thorough manner, to ensure prevention of damage of any type to the product during loading, transport, unloading and intermediate storage. Movable parts will be packed and tied so as to prevent them from moving.

c. After mounting the bottom cabinets, they must be protected against damage that may be caused to them during work by covering them with a thick plastic sheet, acceptable to the inspector.

13.7.9 Specialized fixed furniture

The specialized fixed furniture will comply with the following principles:

a. Locking of doors and drawers will be only as required. Hinges will be of the type and number appropriate for the weight of the panel and the frequency of opening.

b. Drawers will be metallic with integral slides, or of plywood with telescopic slides.

c. Wood shelves will be of plywood at least 18 mm thick. Unless otherwise specified, work tables will be 72 cm high. The front edge of the tables will be Post Framed or covered with a hardwood strip or covered with an aluminum end strip.

d. Finish for wooden furniture:

    a. For normal use - on nitrocellulose base.

    b. For heavy duty - two-component lacquer based on polyurethane.

e. Metallic furniture will be oven-finished with epoxy powder (with polyester).

f. Absence of damage to items during shipment and until delivery to the user will be assured. In the case of movable furniture items, they must be tied to as to prevent damage during transport and no signs of the tying should be left.

g. A prototype should be manufactured for approval of each series of items included in the SOW, before mass producing the entire quantity. The item will be manufactured with the same exact materials and finishes and with the same production methods of the series itself. The prototype must be approved by the Client.

14. Workshop hardware (aluminum)

14.1 General

14.1.1 Areas of responsibility in planning and supervision:

a. The basic and detailed planning of the aluminum frames will be the responsibility of the building architect, taking into consideration the location of the items, their measurements, type of opening, and principle of the technical specifications and details of connection to the building.

b. The detailed planning of the aluminum frames will be the responsibility of the aluminum consultant.

c. Details of connection of the aluminum frames to the building will be the responsibility of the building architect, in coordination and consultation with the aluminum consultant.

14.1.2 The following points must be taken into consideration in the design of aluminum works:

a. In the different buildings, windows must be designed for natural illumination and ventilation.

b. Convenient and easy maintenance (spare parts, cleaning, etc.).

c. No disturbance in the functionality of the rooms by the adjustment of opening window panels.

d. Energy conservation, thermal insulation.

e. Acoustics - consideration must be given to identifying glazing that will prevent acoustic leaks.

14.1.3 Bars - due to security considerations, bars must be fitted on all windows.

14.1.4 Shading - the designer must provide solutions for shading such as Venetian blinds for all windows, as part of the SOW.

14.2 <u>Quality of the products</u>

a. The items will be manufactured in a factory under the supervision of the Israel Standards Institution and will bear a quality stamp (Tav Teken).

b. The items will include all accessories, hardware and original components that constitute a part of assemblies approved by the Quality Stamp. The types of profiles will be appropriate for the type of opening and size of the openings.

c. In the detailed planning, care must be put to perform adequate joints between the auxiliary frames and the walls, paying special attention to sealing.

d. All materials and finishes will be of the type that complies with tests according to IS 1068.

e. All hardware accessories will be of the type intended for heavy duty, resistant to damage and esthetic.

f. Items will be finished with oven painting or anodized, as the architect may decide, with the approval of the Client.

14.3 Auxiliary frames

a. Auxiliary frames will be made of bent steel sheet with a minimum thickness of 2.0 mm, according to the size of the opening. The sheet metal will be galvanized. The use of blind frames of wood will not be allowed.

b. Auxiliary frames will be anchored at the openings by means of split steel anchors, connected with screws with dowel pins (and not clips), and well cemented with cement-rich mortar.

c. The metal parts will be connected to the auxiliary frames by means of screws on the sides of the items and on their upper part (no reinforcing should be made on the bottom).

14.4 Miscellaneous

a. In all types of products numbering more than ten items, a prototype will be made for the approval of the designer, before mass-producing the lot.

b. Concerning modern systems, such as UPVC profiles or combination of aluminum and wood frames, special approval must be obtained from the Client before performing them, demonstrating their adaptation to the requirements, needs and conditions of the relevant standards.

15 Finishes

15.1 Walls will be painted according to standards and the type of room (offices, workrooms).

15.2 Interior walls, particularly in the accumulator, accelerator and equipment room, will be made with paints resistant to mold, damp and chemicals.

15.3 Colors will be light and will be chosen in coordination with the Client.

15.4 Plastering

15.4.1 Interior plaster

Two layers of plaster with a thickness of at least 15 mm, made with a leveling ruler in both directions and finished with felt.

15.4.2 Galvanized angle screens

All external corners must be reinforced with galvanized angle screens (X.P.M.). Angles will extend the full height of the corner. In openings without frame, galvanized angle screens through the entire circumference of the opening.

15.4.3 Interior plaster in damp places

a. In kitchenettes and sanitary services, plastering will be done in three layers, including a primer layer, bottom layer and top layer.

b. The primer layer will have no lime but instead a synthetic binder additive to improve sealing.

c. The lower layer will have no lime but instead a synthetic binder additive to improve sealing.

d. The top layer will have a synthetic binder additive to improve sealing.

16 Height

a. In specialized rooms (computers, etc.) and technical departments, the height between the raised floor and the acoustic ceiling will be at least 3m.

b. The height of the radioscopy rooms, power, etc. will be planned according to the requirements of the specific equipment.

17 Drainage

17.1 In all areas where water washing is used, or flooding, water leakage, etc., may happen, appropriate gradients will be planned for the purposes of drainage.

17.2 Drainage under the raised floor will be done so as to ensure draining water to appropriate wells/channels in order to reduce to a minimum the damage to the conduit system and service systems beneath the raised floor.

17.3 Extraction of water from drains/channels will be by means of drainage channels and/or automatic pumps.

18 Sealing (insulation)

18.1 General

18.1.1 Planning of sealing and insulation will be the responsibility of the building architect and his construction designer, in close cooperation in accordance with the guidelines of the sealing and insulation expert for the Contractor.

18.1.2 The sealing system will be adequate for the characteristics of the building, paying special attention to the following subjects:

a. Adequacy to the building construction (prefabricated elements, or poured in place, from the standpoint of danger of cracking).

b. Adequacy to the functionality of the roof as bearing equipment and people, to reduce possible damage to the sealing system.

c. Adequacy to the climate in the region and resistance of the sealing to radiation.

d. Prevention of possible failure of wall sealing.

e. Preventing water penetration under the flooring and its absorption in the walls.

f. Drainage of the grounds around the building.

g. Solutions to the output of gutters and water collection.

h. Sealing basements in a convenient manner from the standpoint of long-lasting seal.

18.1.3 The main building parts to be sealed and insulated that must be presented by the Contractor for the Client’s approval are:

a. Fundamental cross-section of the roof sealing and insulation.

b. Gutters.

c. Parapets.

d. Exit stairs to the roof and sealing walls on the roof.

e. Seams.

f. Bases of machines, antennas, solar heaters, etc.

g. Diverse finishes connected to sealing.

h. Solution to handling cold bridges.

i. Sealing damp rooms (toilets, kitchenettes, etc.).

18.1.4 Sealing materials will be resistant to hot and humid atmosphere.

18.1.5 Warranty period - at least 5 years.

18.2 Roofs Sealing

18.2.1 The following is the desired roof sealing system:

18.2.1.1 Roof construction

Roof sealing and insulation will be achieved by light concrete and bituminous sheets.

18.2.1.2 Gradients

a. Minimum gradients in a flat roof will be 2% (along the channel).

b. Preferred way of producing the gradient: with concrete (smoothed by helicopter). Creating the gradient in the construction roof is preferred. Alternatively, a horizontal roof can be built and the gradient created with foamed light concrete for gradients, with a density of 1200-1400 kg/m^2.

18.2.1.3 Sealing materials

a. Sealing will be made with improved bituminous sheets.

b. The sheets will be laid down in two layers (one on top of the other).

c. The sheets will be of bitumen upgraded with polymers of the S.B.S. type, with a minimum thickness of 4 mm each.

d. The sheets will be fully bonded to the base, including the vertical surfaces of edges.

e. If the sheets are not covered (by paving, insulation panels, etc.), they must receive a top finish of white gravel (on the top sheet).

f. Sealing finish around edges and around the bases of equipment, by means of an appropriate reinforcing profile made of aluminum and inside sealing with two-component sealing material (alternatively, bases can be prepared for equipment on top of the sealing).

18.2.1.4 Drainage of roofs

a. Drainage must be done by means of industrial gutters. Gutters must be fully connected to the roof sealing.

b. The gutter structure must be such that its upper opening will be much wider than the exit opening. The exit-opening diameter of the gutter must be similar to the diameter of the drainpipe according to the engineering calculations.

c. Gutter downspouts will always drop vertically from a point distant from the roof parapet.

d. The gutters will be made of sea atmosphere resistant materials.

18.2.1.5 Sealing damp room floors

a. Floors of damp rooms, such as toilets, kitchenettes, etc. will be sealed before putting down the floor.

b. Sealing will be done with three bitumen coats and fabric, as specified, or equivalent with approval.

c. Sealing must create a protective layer on the concrete, and paving should be done with ceramic tiles glued without a sand base.

18.2.1.6 Insulation

The insulation system will be adequate for the building's characteristics, paying special attention to the following subjects:

a. Thermal insulation on roofs according to the principles of Israeli Standard 1045, as specified for a residential building.

b. Thermal insulation on exterior walls according to the principles of Israeli Standard 1045, as specified for a residential building, reducing to a minimum the cold bridges and weighing alternatives for the positioning of the insulation (on the inside, on the outside, or in the structure of the wall itself as insulating wall).

c. Thermal insulation on walls adjoining staircases and spaces not air-conditioned.

d. Thermal insulation on walls and roofs in spaces not air-conditioned.

18.3 Planning will ensure fulfillment of the following functional requirements:

a. Prevent the formation of condense on interior surfaces of the outer envelope. For this purpose, a minimum value should be set to the resistance to heat transmission of parts of the envelope and limiting the width of thermal bridges. Everything must relate to the provisions of Israeli Standard 1045, Part 2: Thermal insulation of buildings, schools and kindergartens, Table No. 1.

b. Conserving energy by limiting heat loss and by capacity for thermal storage by setting a thermal time constant (T.T.C.) of the outer envelope to a value not less than 20 hours.

c. Limiting the influence of air changes on the loss of energy by defining minimum sealing for windows and doors, so as to ensure that under average winter conditions during heating hours (according to the different areas as defined in Israeli Standard 1045, Part 1), the air change will be one at the most.

19 **Sanitary installations** (See also Sub-section 6K)

19.1 Sanitary water supply and drainage to evacuate sewage

a. Water supply will be vertical along special shafts.

b. The drainage pipes for sewage and dirty water will be in vertical shafts.

c. The drainage pipes for sewage will be appropriate for intensive use and will have a diameter of not less than 4 inches. Access to cleaning openings will be convenient.

d. In areas open to the public at large, the drainage pipes for sewage will have a 5-inch diameter.

19.2 Materials and accessories

a. Steel pipes and pipes of plastic materials complying with the relevant Israeli standards. Steel pipes for water supply will be galvanized schedule 40. The sewage pipes will be made of high-density polyethylene (HDPE) or alternatively of cast iron.

b. Sanitary facilities will be planned to allow convenient and efficient cleaning of the toilets. Samples of the appliances and the faucets chosen in coordination with the architect; Unless otherwise specified, sanitary appliances will be first class, of good quality white ceramic.

c. Water faucets for the urinals will be automatic, operated by electronic proximity detectors.

d. Flushing the toilet bowls by means of a low flushing container, with dual-quantity flushing mechanism.

e. Cold and hot water faucets for the wash sinks will be of the flower type, with chrome-nickel finish.

f. At the side of each sink faucet a liquid soap faucet must be installed, with hidden container and a device for paper towels.

g. Mirrors must be installed above the sinks, with minimum measurements of 80 x 80 cm for each position. Mirrors may be common to several wash sinks. The configuration, (hidden) connection method, measurements and type of mirror, will be in coordination with the architect and Client's approval.

h. Each toilet room will have an automatic electric hand drying apparatus installed (operated by detectors).

i. Each toilet bowl position will have an external holder for 3 rolls of toilet paper.

j. For each set of appliances, a cut-off valve will be installed.

k. Lids for control boxes and floor traps will have a square frame and will be oven-painted with epoxy paint, in a shade matching the color of the floor tiles.

l. The hand-washing sinks in the toilets will be ceramic upper sinks or stainless steel, mounted on a granite base.

m. Client's approval will be required for all items proposed by the architect.

19.3 Fire extinguishing (See Sub-sections E and K)

a. Water supply for fire extinguishing will comply with the regulations of the fire-fighting services and the guidelines of fire-fighting authorities.

b. Hose reels and hydrants will be in coordination and in accordance with the instructions of the local fire-fighting forces and of the safety consultant.

c. The capacity of the water tanks kept in reserve for fire fighting will be in accordance with the fire brigade's instructions.

d. Specifications of water pumps for fire fighting; pressures, flow volume, location and operational instructions will be determined in coordination with local fire-fighting forces and the safety consultant.

e. Sprinklers - according to requirements of the fire-fighting forces and according to regulations and under the supervision of the Standards Institution.

f. Indicators for the fire-detector system must be built into the building control system.

19.4 Hot water will be supplied to kitchenettes, toilets and showers.

19.5 Water for cleaning and miscellaneous

a. Bucket faucets will be installed at an appropriate height to fill buckets in the toilets areas.

b. Bucket faucets will be installed in the janitor rooms, including a sink bowl. The faucet will be placed above the sink bowl.

c. Supply of water and drains to automatic drink machines and cold water fountains in public places.

d. Supply of water from the public network to air-conditioning installations, drains for area units, supply of water for gardening, etc according to the requirements of other consultants.

e. In damp areas, floor drains must be installed using 4”/8” floor traps.

20 Miscellaneous

20.1 Wall covering with ceramic tiles

20.1.1 The walls of sanitary services and kitchenettes will be covered all around (including partitions inside them) with ceramic tiles to a height of 200 cm.
The covering will be according to a sample, texture and color approved by the Client.

20.1.2 Joints will run in both directions, the width of the joints will be 4 mm. The filling grout for the joints will be synthetic, of a type and color approved by the Client and executed in accordance with the manufacturer’s recommendations. The ceramic tiles will be glued on to the walls. Adhesion will be done by means of glue.

20.1.3 Under the ceramic surfaces, a base preparation with cement will be performed as specified. The base will consist of several layers (between 5 mm and 8 mm thick each, and not thicker than that), as required to obtain a flat surface (in both directions).
The tiles must be pressed onto the adhesive clay so that the compressed clay will have a final thickness of 5-6 mm.

20.1.4 Outer corners will be fitted with standard aluminum angles.
Attention must be paid to performing full grouting in all the grooves and all joints between tiles to cover the floor.

20.2 Covering the sewage pipes in toilets

Open pipes, vertical and horizontal, will be covered with plaster and/or ceramic tile in accordance with the height of the cover. A vertical pipe will be covered in the shape of a false column, while a horizontal pipe will be covered in the shape of a bench or false beam.

The covering will be performed with the help of stretched galvanized screen and a framework of steel profiles, and the space between the faces of the cover and the pipe will be filled with cement grout.

Exterior finish - ceramic tiles. Outer corners finished with grout (in ceramic areas) or painted plaster (in the area of painted plaster).

20.3 Holding handrails for invalids

Handrails will be in accordance with regulations.

Holding handrails for invalids will be made of stainless steel tubing bent and cemented to the wall, with protective rosettes of stainless steel over the points of insertion.

The tubing will have silk matte finish, without protuberances (such as welds, connections, etc.).

21 Plans for submission and receiving approvals

21.1 The Contractor will be responsible for preparing and submitting for approval to the relevant authorities the plans relating to building licenses.

21.2 The plans will include the following details:

21.2.1 Drawing of the area on a 1:10,000 scale

21.2.2 Plan of the grounds according to the surveyor’s plans (existing situation and proposed situation), on a 1:500 scale.

21.2.3 Architectural plans (ground plan and cross-sections) of all buildings and installations in the grounds on a 1:100 scale.

21.2.4 Calculation of areas and tables of areas;

21.2.5 Static calculations of stability of the buildings and installations;

21.3 The plans will be submitted for approval of the Customer and for the approval of the engineering department of the authorities concerned such as the municipality and its professional departments, the Electric Corporation, the fire brigade, Civil Defense, environmental protection, etc.

21.4 The Contractor is responsible for performing all necessary adaptations, including updating the plans according to the requirements of the authorities and is responsible for receiving the corresponding final licenses from each of the authorities.

21.5 It is emphasized that the price offer of the Contractor for the work in the site includes the full payment for submitting the plans for the building license and to receive the final licenses from each of the authorities concerned.

21.6 The Contractor shall provide for Customer two copies of all plans, approvals and detailed static calculations.

22 Design - Additional Remarks

22.1 General

22.1.1 Site design should take into account entrance of wider (370 cm) and full-trailer (2200cm) trucks as well as higher (4600cm) trucks.

22.1.2 This require design of appropriate roads and accordingly of check-in/out cabins as well as traffic roads for maneuvering of the trucks inside the site.

22.1.3 Long trucks (2200cm) will be accepted for x-ray, manual and pit inspection.

22.1.4 Regarding longer trucks (2800cm) - The importer will be notified in advance to bring the goods on a standard truck (that in order to be able to drive into and through the site).

22.2 Truck Parking

22.2.1 Truck parking spaces should be planned for trucks (up to 25 meters long). Location of parking spaces should allow convenient maneuvering of trucks to entrances and exits.

22.2.2 Truck lanes should be clearly marked in color including turning radius.

22.2.3 Drain should be installed in each truck parking space. Oil separators should be installed to prevent liquids flow into main sewage.

22.3 x-Ray Tunnel

22.3.1 Tunnel size will be designed by the Contractor to accommodate two full length trucks (~ 20m each), according to radiation safety requirements, system constrains and the physical shielding applied in the construction.

22.3.2 When screening of longer trucks is required (truck carrying cars), length 22m – only one truck will be irradiated.

22.3.3 Height at lowest point shall be not less than 6.0 meters.

22.3.4 Tunnel Floor shall be designed for the load of the trucks and X-Ray equipment. Floor shall be abrasion and skid-resistant. Floor shall be cast on compacted Grade A substrate of at least 30 cm thick.

22.3.5 Entry lanes of the trucks and parking spaces shall be marked on the floor in resistant and phosphorescent paint. On both sides of the truck parking marking, a robust profile shall be set to prevent trucks from deviating from routes. Profiles shall be impact-resistant in case trucks deviate from lanes.

22.3.6 Moisture-proofing shall be executed on the underside of the floor.

22.3.7 Walls and ceiling shall be acoustically and thermally insulated, as specified in the SOW and in accordance to Israeli standards. Profiles of the walls will be constructed in a manner which prevents birds from perching on them.

22.3.8 Walls, ceiling and doors shall be designed appropriately to comply with Radiation Safety standards defined in Israeli Regulations, and specified in chapter 5.

22.3.9 The X-Ray tunnel shall be ventilated according to SOW requirements.

22.4 Office buildings

22.4.1 Offices and service rooms shall be constructed of rigid construction materials (concrete blocks).

22.4.2 Floor of the office building shall be concrete covered with ceramic /granite porcelain 60*60 cm tiles.

22.4.3 Floors of service rooms, excluding communications and electricity rooms, shall be of abrasion-proof and able to withstand loads of the equipment.

22.4.4 Floor of electricity and communications rooms shall be anti-static PVC.

22.4.5 External walls of the office building and service rooms shall be party plaster protected against moisture and solar radiation and temperatures, and party tiles in ceramic tiles, at the discretion of the architect.

22.5 Manual Area

22.5.1 A parking area for five (5) trucks (4m x 25m) should be planned in front of the manual ramp, leaving at least 4 meters space between trucks for forklift movement to unload the pallets.

22.5.2 The manual inspection shed shall be air-conditioned

22.5.3 Height at lowest point of the inspection area shall be not less than 6.0 meters

22.5.4 Floor shall be abrasion and skid-resistant

22.5.5 The width and height of the two entrance doors to the ramp should be adjusted in order to allow forklift to get in/out.

22.6 Inspection Pits

22.6.1 The site includes three (3) pits: two designated for inspection of usual size truck and one pit for inspection of oversized trucks (Width of 370 cm, length 22m)

22.6.2 Pits inspection building shall be air-conditioned

22.6.3 Pit design shall take into account truck's sizes.

22.6.4 Pit's sizes capable of inspecting these wide and long trucks shall be:

- Width of "entry door" in/out of pit: at least 430 cm
- Pit width: ~ 620 cm
- Length: 2500cm

22.6.5 When inspecting cars loaded on a semi-trailer, site design shall take into account the unloading of private vehicles from the semi-trailer as part of the process.