EUCOM Humanitarian Assistance Program

Renovation of Psychological Support Center
Odessa - Ukraine

Odessa, Ukraine
OHASIS UP-HA-2016-00028938

Aug 2017
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1. TAXATION

In Accordance with Article 1 of the "Agreement Between the Government of Ukraine and the Government of the United States of America Regarding Humanitarian and Technical Economic Cooperation" prepared on 7 May 1992, regarding "Taxes and Other Charges", this project which is in connection with the United States assistance program, shall be free from any tariffs, dues, custom duties, import taxes and other similar taxes or charges imposed by Ukraine, or any subdivision thereof.

As such, this project will be awarded exempt from VAT taxes, and consequently the US Government will not pay any VAT taxes to the successful company who will get the award of the contract.

It shall be the contractor's responsibility to work directly with Ukrainian fiscal authorities on the implementation of the applicable tax exemption applicable for this assistance program. The Office of Defense Cooperation in Ukraine will provide the documents that may be requested by the contractor to certify that they are the company selected by the US Government to execute the necessary design and construction works included in this assistance contract. However, it is solely the contractor's responsibility to follow and implement the necessary procedures in strict compliance with Ukrainian regulations to exercise the free taxation agreement.

The US Government will not be responsible, nor will be financially liable for any mistakes or errors in the contractor's procedures for the correct implementation of the tax free agreement that applies to this United States assistance project.
2. GENERAL DESCRIPTION OF PROJECT

2.1. General Description of Work

This contract includes the renovations, reinforcement and upgrades in a section of ground floor of a three story university building. All work is on the ground floor and basement, and the rest of the areas of the building shall remain operational at all times except for temporary outages for water, electricity sewage and heat. The building shall remain operational except the areas affected by our project.

The area under the scope of work used to be a library, and it is located in the ground floor. It has a basement which is usable as well as fully occupied areas in the floors above.

The works includes in the Base-Bid everything necessary to reinforce the ceilings for the floor of the second floor above, provide new flooring for the ground floor areas under the scope of work, as well as performing all necessary interior and exterior repairs, modifications and improvements in order to provide a modern, high quality and fully operational Psychological Support Center.

Under a separate contract options, the contract includes additional related works, such as a direct access from the main university building or painting the entire building.

2.2. Location of project

Project is located in the rector’s office building of the University Yuzhnoukrainskiy Natsionalnyi Pedagogicheskiy named K. D. Ushinskogo. Building is located in Street Staroportofrankivska, No. 26 in downtown Odessa.
Location of building within downtown Odessa

Main administrative and Rector’s Office Building in red. Area under the scope of work in blue.
2.3. Legal and Technical Requirements

The contract is based on the following general requirements:

- Strict compliance with American Contracting Regulations, including the contracting requirements of the Department of Defense, the US Navy and the US Naval Facilities Engineering Command (NAVFAC).

- Strict compliance with Ukrainian technical and legal regulations.

- Strict compliance with Ukrainian Safety regulations, unless the US safety regulations (USACE EM 385-1-1) are more strict and not in conflict with Ukrainian safety regulations, in which case the US safety regulations shall be implemented.

- Compliance with technical and administrative requirements described in this document.

The project is based on the principle of strict compliance with Ukrainian technical and administrative regulations, with US Contracting Regulations and with Ukrainian Safety regulations, unless US regulations are more strict and not in conflict with Ukrainian safety regulations. In case of conflict between Ukrainian and US safety regulations, the contractor shall apply the Ukrainian regulations. If the US regulations are stricter and not contrary to the Ukrainian regulations, then the contractor shall apply the US regulation. The contractor shall inform the Contracting Officer Representative of any conflict between Ukrainian and US safety regulations.

The contractor shall hire the services of licensed architects/engineers in Ukraine to prepare the necessary designs and technical projects which are required for the scope of work included in this document.

The contractor shall hire the services of a licensed architect in Ukraine to:

- Make any necessary technical projects for the scope of work included in this project, as required by Ukrainian regulations in general and as required by Ukrainian standards for medical and health care facilities in particular.

- Obtain the necessary construction/renovation permits.

- Obtain formal approval from competent Ukrainian authorities for all completed works. This is a process designated as “formal expertise approval” which shall be managed and paid by the contractor, and which shall include all items of work. “Expertise” approval is required for all items of work included in this document, and it is the procedure by which the US Government will obtain formal confirmation of compliance with pertinent Ukrainian regulations.

Provide the final work as a complete and usable facility, including all items which are required by Ukraine regulations and which may not be described in this document. Technical details, items of work, permits or fees that are not explicitly described in this document, but which are necessary to provide fully operational and finished facilities shall be considered part of this contract.
2.4. General Contract Description

The contract is divided into two clearly separated parts: the Base-Bid and a Contract Option or Contract Option-1

- **Base Bid**: Everything necessary to have perfectly operational Psychological Support Center in the old library areas of the 3-story rector’s office building of the University Yuzhnoukrainskiy Natsionalnyi Pedagogicheskiy, as described in this document. This includes the new floors and structural reinforcements.

- **Contract Option-1**: This is divided into two parts:
  - A new direct access to the renovated areas from the main university building
  - Painting the entire building.

This is a design-build contract in which the US Government provides only some sketches.

The contractor is responsible to prepare all necessary design drawings and information, as it is required by Ukrainian regulations and as required for the contractor to show the Contracting Officer Representative the details of his proposed works.

Part of the work includes renovation and alterations and improvements to areas of an old and occupied building, and therefore it is absolutely necessary that the contractor visits the job sites and takes notes of field conditions before submitting their offers to the Contracting Officer. In order to visit the site, the offerors shall coordinate with the Program Manager of the United States Office of Defense Cooperation (ODC) in Kyiv Ms. Lyudmyla Kyryrenko lyudmyla.v.kyrylenko.ln@mail.mil.

This is a design-build contract. This means that the contractor is responsible to:

- Hire the services of licensed architects and engineers and technicians to make necessary design works. All design documents, including shop drawings shall be signed and stamped by the competent and pertinent licensed technical staff.

- Obtain the acceptance of those design works by the Contracting Officer Representative

- Obtain the formal approval of those design works by the competent Ukrainian authorities.

- Obtain the construction permit from Ukrainian authorities and the “Notice to Proceed” from the Contracting Officer.

- Execute the corresponding construction works.

- Provide supervision of construction activities by their architect/designer, who shall be responsible for their technical projects.

- Coordinates with the beneficiary the supervision of the construction by the designer and by the third party companies.

- Obtain the acceptance of NAVFAC and the formal approval of the competent and required Ukrainian authorities for the executed construction works (Act of Acceptance). Obtain “expertise” approval for all items of work performed under this contract.
2.5. **Construction Permit or Authorization**

The contractor shall obtain formal written authorization from the competent Ukrainian authorities to perform the works included in the scope of work of these projects.

The contractor is required, as part of this contract, to prepare all documentation, designs, reports, information, drawings, coordination and approvals by experts or monitoring entities, and everything that may be necessary as required by Ukrainian regulations, in order to obtain these Permits or Authorizations. The contractor is responsible to pay for any third party inspection or expertise that may be required by Ukrainian regulations for the scope of work of this project. The contractor shall be familiar with these requirements in order to prepare their bids, regarding the obligatory administrative and technical procedures in Ukraine for public facilities in general and for renovation of public old and/or historical buildings in downtown areas of large cities in particular.

2.6. **Measurements and Quantities**

This contract complies with the US Contracting Regulations, and as such, all measurements and quantities of materials provided shall be verified and measured on site by the contractor. The contractor needs to visit the job site in order to perform the necessary measurements and to observe the existing field conditions in order to prepare their cost proposal.

In order to visit the site before award, the contractor shall coordinate with the Program Manager of the United States Office of Defense Cooperation (ODC) in Kyiv Ms. Lyudmyla Kyrylenko *lyudmyla.v.kyrylenko.ln@mail.mil*

The US Government is not responsible for any mistake in the contractor’s measurements or assumptions of field conditions.
2.7. Construction Phase - General

Once the contractor completes the designs and they show evidence of formal authorization by the competent local authorities, and the contractor shows that they have completed other administrative contract requirements (Accident Prevention Plan, Quality Control Plan, Schedule,…), the Contracting Officer Representative will inform the contractor that they may start the construction phase of this design-build contract. This notification is called Notice to Proceed (or NTP).

The construction shall follow the design and technical projects prepared by the architect hired by the contractor, accepted by the COR and approved by pertinent Ukrainian authorities, and for which the contractor shall obtain the Construction Permit or Formal Authorization.

Under this phase, the contractor shall provide all necessary work in order to provide complete and usable facilities. Elements that may not be explicitly included in this document, but which are absolutely necessary to provide complete and usable facilities as required by Ukrainian regulations shall be considered to be an integral part of the project, and therefore, shall be considered to be part of this contract.

The contractor shall familiarize with the requirements of Ukraine regulations regarding renovations to old and historical buildings, as there may be required elements which are not specified in this document.

The architect who signs and certifies the technical projects shall visit the site for every important and relevant phase of work, to partially accept the completed works. Despite the requirements of the Ukrainian regulations for the visits of the designer, once the works start, the architect shall visit the site as a minimum once every week.

Two days in advance of the site visit, the contractor shall inform ODC Ukraine and the beneficiary of the planned arrival time to the job site.

In addition to these minimum weekly visits, the architect shall visit the site when the COR visits Odessa, estimated at once every two months.

In addition to these visits, the third party experts that shall be required will visit the site as required by Ukraine regulations, and also when NAVFAC’s PM visits the site.

Work will not be accepted until Final Act of Acceptance and/or expertise certificates are provided.

**Limitation on equipment under this contract:** Tables, desks, chairs, computer, phones, beds, televisions, and other movable equipment are not part of this contract, unless otherwise indicated in these technical specifications. Only those elements that are fixed, permanently attached to the building or considered as an integral part of the facility, and specifically described in these contract specifications are included in this contract, unless otherwise indicated in this document.

**Requirement for Ukraine Code and Regulation:** The contractor shall request, process and pay for any permits that may be required in accordance with Ukraine Law for this type of construction works. The contractor shall provide a copy of the pertinent construction permit to be issued by the competent local authorities and approval by the Monitoring Entity of the design, before they are authorized to start work.

For each completed phase of work, as required by Ukraine regulations, the contractor shall provide the certificate of the third party monitoring entity and/or “expertise” in order to process payment for that particular phase of work.
3. **DETAILED SCOPE OF WORK OF BASE-BID**

The work includes:

- Reinforcement of building structure (floor and ceilings, below and above areas to be renovated)
- Provide New drainage and sewage piping from upper floor to the basement
- Renovation, alterations and improvements to old library and adjacent areas.
- Improvements to exterior waterproofing of the facade

*Areas under the scope of work of this contract*
3.1. STRUCTURAL REINFORCEMENT OF THE CEILING AND FLOOR DECK

The floor deck of the ground floor under the scope of work of this contract has different conditions. In some areas it is apparently in acceptable conditions. In other areas it is completely destroyed, and in most areas it is in unknown condition.

It is absolutely necessary and part of this contract to guarantee perfect stability of the flooring deck.

The ceiling deck of the ground floor under the scope of work of this contract is in bad condition with visible deflection in most areas. The room in the West extreme has a metal reinforcement of the ceiling deck.

It is absolutely necessary and part of this contract to guarantee perfect stability of the ceiling deck.
Before executing any repair works, it is necessary to properly reinforce the building. In order to do such work, it is absolutely necessary that the contractor hires the services or a license architect and Ukrainian “Expertise” to develop a design and execute the necessary structural reinforcement works with the following basis of design:

- 80% of the flooring to be removed and replaced with new reinforced concrete deck. All wooden flooring deck to be removed and replaced with reinforced concrete structural deck.

- 20% of the flooring deck to remain. These areas correspond to areas where there is currently concrete structure for the flooring.

- Ceiling surfaces for the areas under the scope of work (highlighted in green in previous page): 100% of the ceiling surfaces shall be structurally reinforced, including areas previously reinforced by the beneficiary. In order to do this, the contractor shall estimate that they will need to provide a metal supporting structure or other approved technology in compliance with Ukrainian regulations.

The design shall be signed and stamped by the licensed architect and the corresponding Ukrainian “Expertise” and it shall include all necessary details for the contractor’s construction team to perform the work.

3.1.1. Floor Deck – Structure Between Areas to be Renovated and Basement

The areas under the scope of work have basement. The deck between the basement and the areas under the scope of work is a wooden structure with some metal beams in most areas.

In order to guarantee stability and durability, this contract requires removing all wooden and metal structure from the flooring and providing a new cast in place reinforced concrete deck (or metal structure) in 80% of the flooring surfaces of the areas under the scope of work of the contract. The use of wood structure for the new flooring deck is not authorized.

The contractor shall remove all appliances and installations in the basement that are currently supported on their existing ceiling to be removed, and reinstall on the new ceiling surfaces. The contractor shall replace any appliance or installation that may be damaged as the result of this work.

It is not authorized to provide new supports or reinforcement for the floors, but at least 80% of the floors in the areas under the scope of work shall be completely removed and replaced with new. This means that after removal of the floor and before installing the new floor deck, the entire basement shall be visible and accessible from the areas under the scope of work.
3.1.2. Ceiling Deck – Structure Between Areas to be Renovated and Second Floor

In this case the basis of design is completely different from the floor deck. The contractor shall not remove any ceiling deck surfaces, but they shall reinforce the existing ceiling from the floor underneath (areas under the scope of work in the ground floor). All works shall be performed without interrupting the normal operations of the second floor above the areas under the scope of work.

For estimating purposes the contractor shall estimate that they will need to provide a new metal structure under the existing ceiling deck and above the new suspended ceiling to be provided under this project.

The contractor shall completely remove all plaster and false ceiling surfaces from the existing ceiling. They shall provide the new structural support for all ceiling decks to support the existing wooden structure, and then cover everything under a new suspended acoustic false ceiling. It is also included the treatment or repair of the potentially damaged sections of the existing wooden structure of the ceiling.

The contractor shall estimate that 100% of the existing ceiling deck is rotten, with 0% remaining structural strength for the existing wooden beam, and with imminent danger of collapse. The new reinforcing structural support shall be designed to support 100% of the loads of the ceiling deck.

*Damages to the existing false ceiling, with visible deflection. All ceiling plaster to be removed. Contractor to repair any damaged piece of the wooden structure and to provide a new structural metal surface under the existing structure to be repaired by the contractor.*
Damages to the existing false ceiling, with visible deflection. All ceiling plaster to be removed. Contractor to repair any damaged piece of the wooden structure and to provide a new structural metal surface under the existing structure to be repaired by the contractor.

Damages to ceiling plaster and walls from past water infiltration
Existing damages from past water infiltrations. All plaster to be removed. All wooden lintels to be removed and replaced or simply supported with new precast concrete beams or structural metal profiles.
Existing column from existing ceiling metal reinforcement, to remain to be supplemented with the new one, or to be replaced with the new system. All as required by the design prepared by the architect and Ukrainian “expertise”.

Metal beams from existing ceiling reinforcement in the room in the West of the wing.
Section of flooring deck (from the basement) to be completely removed and replaced with new metal or reinforced concrete structure flooring for the ground floor and ceiling for the basement.

Opposite to above picture. Section of the basement where its ceiling is structural concrete and therefore it is not required to be removed.
Destroyed flooring deck to be completely replaced with new structural floor

Same picture as above, taken from the basement.
Detail of ceiling in basement to be completely removed.

Destroyed section of flooring deck to be completely replaced with new structure. All to be demolished.
3.2. NEW DRAINAGE AND SEWAGE PIPING FROM UPPER FLOOR TO THE BASEMENT

There is evidence in various areas throughout the ceiling of past water leakages or infiltration. This contract includes very high quality finishes and items of work in the ground floor that cannot be damaged from defective piping and installations in the floors above. It is for that reason, that this contract includes the replacement of ALL drainage and sewer piping from the plumbing appliances in the upper floor to the basement, going through the areas under renovation. This also includes the sewer and drainage piping coming from the third floor, which shall be connected in the second floor. All sewer and drainage piping going through the areas highlighted in green in page 12 shall be completely replaced with new, but connected outside the areas to be renovated.

This includes all plumbing appliances and drainage and sewer lines in the areas above the ceilings to be reinforced, such as sinks, toilets, floor drains, piping coming from the third floor, and any other potential source of water leaks or infiltration through the ceiling deck.
3.3. RENOVATION, ALTERATIONS AND IMPROVEMENTS TO THE OLD LIBRARY AND ADJACENT AREAS

Once the floor deck of the ground floor areas under the scope of work has been removed and replaced with new, and its ceiling decks have been reinforced and certified by the architect and “expertise” hired by the contractor, the contractor shall perform the complete renovations of the areas under the scope of work as described in this document, in full compliance with pertinent and applicable Ukrainian regulations.

Areas of the ground floor of the building to be completely renovated and under the scope of work of the contract. Drawing representing approximate existing conditions
3.3.1. NEW LAYOUT

The renovated areas shall have a completely new and different layout, with a central hallway and rooms to both sides. The sketch below represents a schematic concept for the new required layout.

It is absolutely necessary to visit the job site before submitting the offer. This contract specifications do not include details such as specific demolitions, door opening width, condition of lintels, and other elements which need to be assessed on site by an specialist. The drawing in the previous page includes the overall existing conditions and this sketch includes the general final required layout.

Schematic required layout. Within the green oval it is the most complex area, enlarged in the following page.
Left: Approximate existing layout and dimensions  
Center: Proposed new layout  
Right: Proposed new layout if one of basement entrance cannot be removed

Basis of Design for new layout:

- New partitions shall be narrow masonry, not wider than 15 cm when finished, or double-double gypsum board filled with acoustic insulation.

- All areas under the scope of work to be accessible from the front street to people on wheelchairs, in strict compliance with Ukrainian and international regulations for people on wheelchairs (except the room named “bathroom with shower”)

- New partitions to separate new hallway from rooms to the right of the sketch shall be narrow masonry not wider than 15 cm from the floor up to 1.4 meters (or double-double gypsum board), and non-transparent glazing on aluminum profiles from 1.4 meters to the new ceiling surface. This is to maximize natural light into the hallway. This hallway wall shall be very visible and therefore high quality is specified and required. In addition to the above, the non-transparent glazing shall be provided with patterned design, such as resembling natural vegetation with the University logo in one of the glazing panes. The non-transparent treatment of the glazing shall be done by the glazing manufacturer in the factory and not by the application of special plastic films.

- New hallway to be as open as possible. Existing doors within the hallway shall be converted into “arcs” as much as technically possible.

- “Reception” room shall be shaped to allow one reception desk, to be provided under this project.
- All existing doors or openings between doors to be filled shall be used as a built-in cabinet. For example, the space left in “Office#2” or “Office#4” or “Conference Room” shall be provided with a built-in cabinet.

- The “Bathroom Disabilities” room is currently under the bathroom on the stairway and under the stairway itself. It has very low ceilings. The contract includes removing the floor (which is almost destroyed), the false ceiling, reinforcing the ceiling (as in the rest of the areas) and providing a bathroom area for people with disabilities. The area most under the stairway, with lowest ceiling shall be used as a built-in cabinet.

- The “Bathroom with Shower” room has very high flooring. This is to allow easy access into the basement from the exterior of the building. Currently this part of the building has two separate but immediately adjacent accesses to the basement. It is the intent of this project to remove one of the accesses, and to provide the floor of this room at the same elevation as the rest of the floors in the area under the scope of work. This area of the basement shall be accessible from other areas within the basement or through a floor hatch in the areas under the scope of work. Currently there is a blocked door that communicated the room directly from the future hallway, which shall be opened and used again.
Typical internal masonry partition wall with ceramic bricks

Patterned non-transparent glazing

Patterned non-transparent glazing

Typical 9 cm double hole brick
3.3.2. DEMOLITIONS

Demolish, remove and dispose of everything within the area under the scope of work until the building structure is exposed. After demolition is completed, the ceiling structure, the wall structure and the basement (in approximately 80% of the floor surface) shall be fully exposed.

All the existing heating stoves shall be completely removed.

All non-bearing internal partition walls shall be completely demolished. All wooden partitions shall be completely removed.

The contractor shall not weaken the building structure in any way during construction, but every aspect of the new layout and distribution and structural work is to strengthen the structure of the building.

If for example there is a wooden lintel over a door, the contractor shall remove the lintel and replace it with a precast concrete beam or with a structural metal profile. This may require temporary structural support of openings in order to remove the existing damaged wooden lintels. The building structure shall not be weakened under any circumstance. Any work that could out at risk the structural integrity of any part of the building shall be done in the physical presence of the architect or technical “expertise”.

If for example after removal of the wall plaster a new crack is exposed, the contractor shall repair it, as specified by their architect and “expertise” before covering the wall with new leveling plaster.
3.3.3. FLOORS – PORCELAIN LARGE FORMAT

Floor structure/deck shall be new in approximately 80% of the areas under the scope of work. All metal and wooden floor structure shall be replaced with new, as previously described. This paragraph refers to the required finishes of the areas under the scope of work.

All floor surfaces shall be provided with the same very high quality finishes, at the same elevation (if technically possible, as previously described in paragraph 3.3.1) and without any tripping hazards or impediments for movements of wheelchairs.

The contractor shall provide large format porcelain stoneware. Minimum size of tile shall be 0.32 m². There are several acceptable standard sizes in the market for these tiles. It is recommended to provide 60x120 cm, but it is also acceptable to provide sizes such as 40x80, 60x60, 30x120 or 80x80 as long as its area is equal or greater than 0.32 m². Thickness of homogeneous tile shall not be less than 10 mm.

Color and pattern to resemble natural stone as in the pictures included in this paragraph. Final model to be selected by the representative from the beneficiary among ample selection provided by the contractor.

It is acceptable to provide the same model, but in a different smaller size for the bathrooms and kitchen and other rooms smaller than the kitchen.

Grès Porcelain Flooring:

Provide homogeneous grès porcelain tiles in all areas under the scope of work of this project. Include matching wall base board from the same model as the tiles.

Grès Porcelain stoneware is a ceramic with a compact, hard, colored and non-porous body. Tiles shall be homogeneous or non-glazed. This means that all the material of the tile is made of the same material. If we cut a tile, there would be no difference between different layers of the tile. The word “grès” means that the ceramic body of the tile is extremely vitrified, that is to say compact, hence the exceptional great resistance. The result is a lean clay body, little refractory, fired in a kiln (at 1200-1400 C°) until it reaches a non-porous vitrification and a complete water-proofing.

The new ceramic tiles shall be high quality, provided with the following technical features:

- Scratch hardness of surface (Mohs) >8 (according to EN101)
- Resistant to impacts: Complies with ISO 10545-5
- Water Absorption: Tested by ISO 10545 - 3 ≤ 0.5%
- Deep abrasion resistance: Tested by ISO 10545 – 6: Max 175 mm³
- Frost resistance: Tested by ISO 10545 – 12: Tiles must not produce noticeable alteration to surface
- Chemical resistance: Tested by ISO 10545 – 13: Tiles must not produce noticeable signs of chemical attack
- Friction coefficient (slipperiness): Tested by ASTM C 1028 ≥ 0,60
- Size: Minimum 0.32 m²
- Thickness: Minimum 10 mm

All floors shall be perfectly leveled. In the bathrooms and kitchen the floors shall be sloped towards the new floor drains to be provided as part of this contract. Tile installation shall be done following manufacturer’s instructions and recommendations.
Required finishes for new porcelain stoneware
Required finishes for new porcelain stoneware
Typical required finishes for the floors

Typical required finishes for the floors

Typical required finishes for the floors
Cutting homogeneous porcelain stoneware tiles

Homogeneous characteristic of the porcelain stoneware in comparison with standard ceramic tile (not acceptable in this project)
Typical grès base boards. Use same model as for the floor tiles
3.3.4. WALL FINISHES

All walls shall be perfectly leveled. The use of gypsum board covers to level the existing walls is not authorized.

The contractor shall remove all plaster from existing walls, in order to provide a new leveling layer after filling any visible crack in the building structure. If the irregularity or unevenness of the wall is greater than 4 cm, the contractor shall supplement the walls with fill mortar with ceramic bricks. At the end, there shall be no visual difference between the existing repaired walls and the new partitions to be provided by this project. All finished walls shall be perfectly leveled and provided with similar finishes as required by this contract.

It is required as part of this contract to remove all wooden lintels above the doors and windows, and to replace them with precast concrete beams and/or structural metal profiles, as specified by the contractor’s architect.

There will be 4 types of wall finishes:

- In bathrooms and kitchen: Provide ceramic tiles from floor to ceiling surface, in combination of 3 colors.

- In offices, classrooms and other similar spaces: Provide plastered and painted perfectly leveled surfaces. Provide with wall base ceramic tile, from the same model as the porcelain stoneware used for the flooring.

- Along the hallways, provide ceramic cover of lowest 1.4 meters. The ceramic tiles shall be of the same quality as those specified for the floor. The wall tiles on the hallways shall be rated as floor tiles. The use of standard ceramic wall tiles, as those to be used in the bathrooms, is not authorized. Minimum size of tiles to be 20x80. Minimum length of tiles to be 80 cm.

- On one side of main hallway, the contractor shall provide a masonry or double-double gypsum board wall, with aluminum partition with non-transparent glazing. Glazing to be single leaf with minimum 8 mm thickness. The use of plastic film to make the glazing non-transparent is not authorized. Glazing to be rated as non-transparent by the manufacturer.

All utilities and piping shall be recessed within the new wall finishes. This includes not only the pipes serving this floor, but also the pipes which shall be replaced as part of this contract to provide new drainage/sewage to all appliances in the areas above the areas in the ground floor under the scope of work of this contract.
Typical required wall finished for the lowest section of the main hallway walls. The use of wall tiles for the wall is not authorized, but the contractor shall use porcelain stoneware floor tiles of the specified size.
3.3.5. CEILING FINISHES

The existing ceiling deck shall be supported by a new structure, as previously described in this document. All reinforcement shall be covered under new acoustic suspended ceiling.

The height of the new suspended ceiling shall be determined by the architect hired by the contractor, but for estimating purposes the contractor shall estimate that they will install the suspended ceiling 10 cm above the upper edge of the existing windows.

In the bathrooms with showers the contractor shall provide over new metal support humidity rated acoustic tiles. These tiles shall be designed and certified to be in ambient of 100% relative humidity for extended periods of time. The contractor’s architect shall select the material to be used, which could be mineral fiber tiles with baseboards, calcium silicate tiles or metal tiles. Use tiles of the same sizes as the other standard acoustical tiles to be provided throughout the building.

The contractor shall install above the suspended ceiling as many installations as possible, such as fire alarm, water, sewer, electrical, communications, ventilation, air conditioning piping or drainage, and any other interior systems.

Use Mineral tiles 600/600/33mm on a metal sub-frame coated with a durable anti-bacterial finish.

Module (mm): 600 x 600 x 19 MMire reaction: EEA - Euroclass A2-s1,d0
Humidity resistance (%): 95
Material: Mineral
Humidity resistance (RH%) 95

Fire reaction  EEA Euroclass A2-s1,d0
Cleanability: With a moist cloth
Definition of Acoustical Drop or Suspended ceiling.

Typical acoustical suspended ceiling

Typical installation of humidity resistant and certified acoustical suspended ceiling
3.3.6. VENTILATION

Prior to the installation of the new ceiling surfaces, the contractor shall design, provide and install a fully operational ventilation system for the areas under the scope of work. The contractor shall hire the services of a licensed architect or engineer in Ukraine to design the ventilation system of the entire areas under the scope of work.

The new ventilation system shall be designed in accordance with Ukrainian regulations for office facilities. In addition to those elements that are required by the Ukrainian regulations, the contractor shall design and install a separate forced ventilation system for the bathrooms and the kitchen.

The contractor shall provide ventilation to all areas, but especially to those without exterior windows. The basis of design is the compliance with Ukrainian regulations for ventilation of public buildings used as office areas, including kitchenette and bathrooms.
3.3.7. ELECTRICAL INSTALLATIONS (GENERAL)

The project includes the complete design and installation of a completely new electrical system starting at the main electric panel located immediately adjacent to the areas under the scope of work.

The work includes:

- Design of the new electrical system and pertinent and required approvals by competent Ukrainian licensed engineer and authorities. The contractor shall use the services of a licensed engineer in Ukraine to prepare the drawing and calculations. Copy of the designs shall be provided to the Contracting Officer Representative. All electrical cables shall be installed under conduit and the conduits shall be recessed on the walls and over the new ceilings surfaces, so that no electrical conduit is visible within the areas to be renovated. All electrical appliances (boxes, panels, lighting fixtures, receptacles, switches) shall be recessed within the walls.

- Connect a new feeder or circuit immediate after the electric meter, with the necessary electrical protections and provide a new electric panel for all areas under the scope of work of this project. This new main panel to be recessed within a wall, similarly to the rest of the electrical installation.

- It is estimated that the removal of the floor deck will severely affect the electrical installation of the basement. Those electrical installations in the basement that are affected by the removal of the flooring shall be removed and reinstalled, if, and only if, they are found to be in compliance with Ukrainian code and regulations. Otherwise, they shall be replaced with new, with similar features as the ones to be removed, but in compliance with latest applicable electrical code in Ukraine.

- Any electrical system or installation which is currently powered, but which could be affected by the renovation works, shall continue to have electrical power after the renovation works. For example, if there is a wall receptacle in the second floor, connected to an electric panel located in the ground floor areas under the scope of work. This construction contract includes the removal of such electric panel, and therefore the electrical receptacle will lose power. Then, this contract also includes the connection of the electrical circuits supplying power to such receptacles to a new circuit breaker to be installed in one of the new electrical panels to be installed recessed within the walls of the areas of the ground floor under the scope of work of this contract. Anything in the building that currently has electric power, shall remain with electric power after the completion of this project.

- Demolitions: Remove any remains of the existing electrical installation in the kindergarten. This includes boxes, cables, lighting fixtures, panels or wall receptacles.

- All electrical equipment shall be CE certified (European Community certified)

- Provide new electrical grounding systems as required by Ukrainian regulations. Provide copy of the grounding resistance tests to the Contracting Officer.

- Electrical protection: All circuits shall be protected against short circuits and against indirect contacts with differential protection of maximum allowed current 30 mA.

- Receptacles: As described for each particular room, with a minimum of 4 receptacles per room. When a particular room requires for example 4 receptacles, this means that there shall be 4 receptacles at different locations, and not a single wall mounted box with the 4 receptacles together.
- **Illumination:** Provide **LED technology lighting.** It must be noted that LED technology lighting system is much more expensive than other lighting technologies. The contractor shall include LED technology lighting in their project. Minimum power for each individual lighting fixture shall be 8 watts. Lighting fixtures shall be recessed within the new suspended ceiling.

The contractor shall provide a lighting design for the renovated areas, showing the illumination design pattern for each room in compliance with EN 12464-1. In each room, the design shall include the number and location of specific LED lighting fixtures, to show that they meet the minimum lighting levels required by standard EN 12464-1. These designs are normally done by the manufacturer of the proposed lighting fixtures. For the final inspection and acceptance the contractor shall provide the services of a certified third party inspection company with a lighting meter to test the illumination levels. This test shall be done in presence of the beneficiary representative.

Models: All models shall be selected by the contractor’s designer, to meet the requirements specified herein.

- All internal areas in the building annex shall be provided with suspended acoustic ceiling, and therefore the contractor shall provide recessed lighting fixtures.

- As a minimum, one of every 10 internal lighting fixtures shall be provided with autonomous battery to operate for a minimum of 30 minutes in case of power failure.

- Provide the necessary special appliances as required by Ukrainian regulations, such as emergency lights, exit signs, etc
All electrical mechanisms to be recessed in the new walls. Provide wide switches as shown.

Typical required electrical panel to be recessed on the walls

Recessed LED lighting fixtures, from a recently completed NAVFAC project in Ukraine

Professional 3D lighting design

Standard lighting design.
## ILLUMINATION LEVELS

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>LUX LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL AREAS</strong></td>
<td></td>
</tr>
<tr>
<td>Entrance halls, lobbies etc.</td>
<td>200</td>
</tr>
<tr>
<td>Enquiry desks</td>
<td>500</td>
</tr>
<tr>
<td>Gastrohouses</td>
<td>200</td>
</tr>
<tr>
<td><strong>CIRCULATION AREAS</strong></td>
<td></td>
</tr>
<tr>
<td>Lifts</td>
<td>100</td>
</tr>
<tr>
<td>Corridors, stairs</td>
<td>100</td>
</tr>
<tr>
<td>Escalators</td>
<td>150</td>
</tr>
<tr>
<td>Entrances, exits</td>
<td>200</td>
</tr>
<tr>
<td>Atria</td>
<td>50–200</td>
</tr>
<tr>
<td>Atria with plant growth</td>
<td>500–3000</td>
</tr>
<tr>
<td><strong>STAFF ROOMS</strong></td>
<td></td>
</tr>
<tr>
<td>Changing rooms &amp; toilets</td>
<td>100</td>
</tr>
<tr>
<td>Rest rooms</td>
<td>150</td>
</tr>
<tr>
<td>Restaurants, canteens</td>
<td>200</td>
</tr>
<tr>
<td><strong>OFFICES</strong></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>500</td>
</tr>
<tr>
<td>Computer work stations</td>
<td>300–500</td>
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<td>Filling rooms</td>
<td>300</td>
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<tr>
<td>Drawing office general</td>
<td>500</td>
</tr>
<tr>
<td>Drawing boards</td>
<td>750</td>
</tr>
<tr>
<td>Cad design areas</td>
<td>300–500</td>
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<tr>
<td>Print rooms</td>
<td>300</td>
</tr>
<tr>
<td><strong>KITCHENS</strong></td>
<td></td>
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<tr>
<td>Serving &amp; washing up areas</td>
<td>300</td>
</tr>
<tr>
<td>Food preparation &amp; cooking</td>
<td>500</td>
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<tr>
<td>Food stores</td>
<td>150</td>
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<tr>
<td><strong>RETAILING</strong></td>
<td></td>
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<tr>
<td>Small retail outlets</td>
<td>500</td>
</tr>
<tr>
<td>Supermarkets</td>
<td>750</td>
</tr>
<tr>
<td>Hypermarkets</td>
<td>1000</td>
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<tr>
<td>D.I.Y Superstores</td>
<td>1000</td>
</tr>
<tr>
<td>Garden centres</td>
<td>500</td>
</tr>
<tr>
<td>Show rooms</td>
<td>500–750</td>
</tr>
<tr>
<td><strong>PAINT SHOPS</strong></td>
<td></td>
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<tr>
<td>Rough spraying</td>
<td>300</td>
</tr>
<tr>
<td>Fine spraying</td>
<td>750</td>
</tr>
<tr>
<td>Inspection, matching</td>
<td>1000</td>
</tr>
<tr>
<td><strong>BUILDING SERVICES</strong></td>
<td></td>
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<tr>
<td>Boiler houses</td>
<td>100</td>
</tr>
<tr>
<td>Control rooms</td>
<td>300</td>
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<tr>
<td>Mechanical plant rooms</td>
<td>150</td>
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<tr>
<td>Electrical plant rooms</td>
<td>100</td>
</tr>
<tr>
<td><strong>PLACES OF PUBLIC ASSEMBLY</strong></td>
<td></td>
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<tr>
<td>Churches &amp; village halls etc</td>
<td>300</td>
</tr>
<tr>
<td><strong>BANKS &amp; BUILDING SOCIETIES</strong></td>
<td></td>
</tr>
<tr>
<td>Counter &amp; offices</td>
<td>500</td>
</tr>
<tr>
<td>Public areas</td>
<td>300</td>
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<tr>
<td><strong>DISTRIBUTION &amp; STORAGE</strong></td>
<td></td>
</tr>
<tr>
<td>Loading bays</td>
<td>150</td>
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<tr>
<td>Unpacking &amp; sorting</td>
<td>200</td>
</tr>
<tr>
<td>Large item stores</td>
<td>100</td>
</tr>
<tr>
<td>Small item stores</td>
<td>200</td>
</tr>
<tr>
<td>Trade counter</td>
<td>500</td>
</tr>
<tr>
<td>Warehouse, bulk stores</td>
<td>100</td>
</tr>
<tr>
<td>Packing &amp; dispatch</td>
<td>300</td>
</tr>
<tr>
<td>Cold stores</td>
<td>300</td>
</tr>
<tr>
<td><strong>ENGINEERING</strong></td>
<td></td>
</tr>
<tr>
<td>Tool shops</td>
<td>300–750</td>
</tr>
<tr>
<td>Arc welding</td>
<td>300</td>
</tr>
<tr>
<td>Spot welding</td>
<td>500–1000</td>
</tr>
<tr>
<td>Heavy machine assembly</td>
<td>300</td>
</tr>
<tr>
<td>Inspection &amp; testing</td>
<td>500–2000</td>
</tr>
<tr>
<td><strong>COMMUNICATION</strong></td>
<td></td>
</tr>
<tr>
<td>Switchboards</td>
<td>300</td>
</tr>
<tr>
<td>Post rooms</td>
<td>500</td>
</tr>
</tbody>
</table>

**Typical required illumination levels for each type of facility**

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![Typical conduit to be recessed on the walls](image-url)

**Typical conduit to be recessed on the walls**
Electrical installations in the basement that would be affected by the removal of the ceiling of these rooms.

Connect new electric circuit or circuits for the areas under the scope of work to this panel.

Typical electrical installations in the areas under the scope of work in the ground floor. All existing electrical installations to be completely removed and replaced with new.
3.3.8. TELEPHONE / INTERNET / COMMUNICATIONS

The contractor shall provide 8 outlets for telephone and internet connection. If the connector is not the same for both, the contractor shall provide 8 telephone and 8 internet connectors.

Location for the 8 (or 16) wall receptacles for telephone and Internet shall be indicated by the beneficiary. The contractor is responsible to provide all necessary installations in order to provide perfectly operational signal to the wall outlets from the nearest available point (or points) of connection with the service provider. This includes conduits, cables, cabinets, boxes, switches and everything else that may be necessary in compliance with Ukrainian regulations and with the particular technical requirements of the service provider (telephone and Internet). The contractor is responsible to pay for any official connecting fee that may be applicable. Similarly to the electrical connection, the contractor is not responsible to sign the contract with the service provider, but they are responsible to coordinate with the beneficiary.

3.3.9. FIRE ALARM

Provide Fire Alarm system as required by Ukrainian Regulations for this type of public facility. Provide with required smoke detectors, pull stations, horns and strobe lights.

All cables and boxes shall be recessed within the walls if allowed by Ukrainian regulations.

Main fire alarm panel to be recessed on one of the hallway walls, near the reception area.
3.3.10. HEATING

The contractor shall completely replace the closed circuit heated water heating system installation in the areas under the scope of work. This means replacement of the heating piping and the radiators, and not the replacement of the manifolds, boilers or heat exchangers. The existing heating installation shall be completely removed and replaced with new one in full compliance with latest Ukrainian regulations in the areas highlighted in green in page 22.

Basis of Design:

- Connect the piping on areas outside the area in the ground floor under the scope of work. This means that the contractor shall connect the piping in the basement, in the second floor and in the ground floor rooms immediately adjacent to the rooms under the scope of work. The point of connection does not necessarily have to be in the basement. It is estimated that the contractor will connect in the main heating manifolds of the building, where they will need to provide new pump and control systems.

- Provide bi-metal aluminum radiators. Size and location to be determined by the specialist hired by the contractor to provide the temperatures required by Ukrainian regulations based on available flow and temperature of available heating fluid. The contractor shall provide copy of the calculations done by the specialist hired by the contractor to size the radiators.

- Provide individual regulating valve in each radiator

- Provide the necessary valves, pumps, filters and everything necessary in order to have a perfectly operational centralized heating system, connected with the existing heating system of the building. The place of connection shall be determined by the expert hired by the contractor, but within the footprint of the building.

- Piping to be installed recessed within the walls to the maximum extent technically possible, but all connections shall be left exposed. This is one of the main reasons to perform the connections outside the areas under the scope of work.

- Provide pipe sleeves to install the piping from room to room and from floor to floor.
Definition of “pipe sleeve” as required for all wall and ceiling penetrations.
3.3.11. EXTERIOR WINDOWS

Some exterior windows were replaced by the beneficiary. The contractor shall not alter or modify the existing PCV windows, but they shall completely replace the wooden windows.

The windows shall comply with Ukrainian regulations for public facilities of this type. As a minimum the windows shall be manufactured with PVC profile and triple thermally insulated glazing.

Minimum requirement is PVC profiles with 5 chambers and triple glazing. Each glazing shall have a minimum thickness of 4 mm, except the internal one that shall be 6 mm.

The contractor shall make the required adjustments and repairs to the window opening on the walls before installing the new windows. The contractor is responsible to visit the site, to take note of the existing conditions of the window openings and to make all required measurements to quantify the amount of work required by this contract. It is estimated that the contractor shall modify the size of the two existing windows in the areas to become bathrooms.

The contractor shall completely remove the exterior windows, including all framing, trims, anchors and supports.

The new windows shall operate similar as the existing ones. In other words: if a window has 2 operational panels, the new windows shall have two operational panels of approximately similar dimensions, but the opening panels/leaves of the windows shall open vertically and horizontally. For estimating purposes, the contractor shall estimate that 50% of the window surfaces shall be operational (horizontally and vertically).
The new PVC windows shall be perfectly finished inside and outside. The joints between the building and the windows shall be perfectly sealed as seen in pictures below for a typical installation (typical yellow foam cannot be seen). Contractor to provide PVC sill inside as seen in the pictures below and outside sills made of aluminum or other approved material (i.e. natural marble or exterior rated special ceramic tiles or galvanize metal sheet).
Installation

The contractor shall completely remove the existing wood and/or metal materials from the window openings on the walls. Some of the existing windows may be double windows, therefore in this case the contractor shall repair and prepare the openings in the walls to install one single window with double glazing.

The new required exterior window sills shall be properly sloped away from the building in order to drain the rain water away from the building. Minimum 5% slope. The lower window frames/profiles shall be properly provided with water drains.
3.3.12. EXTERIOR DOORS

The building areas under the scope of work shall have two entrances:

- The Main Entrance from front street
- The back door to enter into “Hallway#2”

Both doors are new and in acceptable condition. However, the contractor shall remove them, repair them as necessary to be adjusted to the new interior wall and floor surfaces, and provide them with the proper required hardware (i.e. with new anti-panic hardware).

The Main Entrance from the front street requires a double door system from the front street, which is provided to minimize temperature differences between interior and exterior of the building. Therefore, the contractor shall provide a new door inside to provide a double door entrance. This new door, although it will be installed inside the building, shall be rated as an exterior door.

The contract requires therefore one new exterior rated door: between the existing door to remain facing the street and the “Reception” area. This door shall be a new heavy duty aluminum door, with glazing in the upper half. This exterior door shall be designed and built with the minimum requirements specified herein:

- European standard aluminum profiles with break in the thermal bridge, and must have three rubber dust protection seals.
- With double glazing in the upper half, with 8 - air gap - 8 mm thickness for double glazing.
- With required locks and anti-panic hardware, all made of stainless steel.
- Provided with door closers and door stops to avoid damages by users.
- Aluminum profiles shall be minimum 8 cm wide and minimum of 1.8 kg/m (heavy duty)
- Fire rated as required by Ukrainian regulations
- Thermally insulated

All doors to be provided without bottom threshold, to avoid tripping hazards and movement of equipment on wheels.
Renovation of Psychological Support Center  
Odessa, Ukraine

Typical new required Anti-panic hardware for all exterior doors

Example of acceptable design for the main entrance doors

Example of acceptable design for the main entrance doors

Example of acceptable design for the main entrance doors
Door facing the front street to be provided with new hardware, such as the anti-panic bar.

Door from back patio towards “hallway#2”, to be provided with new hardware, such as the anti-panic bar.

Interior door to be replaced with new exterior dated door.
3.3.13. INTERIOR DOORS

All doors within the areas to be renovated, as well as all doors connecting the existing building with the areas to be renovated, shall be new high quality solid hardwood doors.

The term “hardwood” refers to wood from dicot angiosperm trees. The term may also be used for the trees from which the wood is derived; these are usually broad-leaved temperate and tropical forests. In temperate and boreal latitudes they are mostly deciduous, but in tropics and subtropics mostly evergreen. Hardwood contrasts with softwood (which is from gymnosperm trees). The use of softwood is not authorized for the new doors.

All doors shall be similar and provided with the following features and characteristics and accessories:

- Material for door leaf: Solid hardwood (i.e. pine wood is not authorized)
- Material for door frame: Metal (the use of wood for the door frame is not authorized)
- Finish: Factory applied varnish for the wood and anodized metal finish for the frames.
- Lockset: Mortise lock with stainless steel handles as shown in picture below. Provide with 2 master keys capable of opening all new door.
- Stainless steel mop-plate as shown in the pictures below.
- Anti-panic hardware as required by Ukrainian regulations, but as a minimum for:
  - Exterior door from “hallway#2” to the exterior
  - Exterior door, but installed in the interior of the building, between the “Reception” and the existing door facing the main street.
  - In the existing door facing the main street.
- 3 heavy duty stainless steel hinges per door leaf
- Door leaves installed on the frames in the factory, and not assembled at the job site.
- Each door to be provided with a door sign (number of room, name of room, use of room, …)
Typical required doors (see mop-plate as required by our contract)

Required anti-panic hardware as described in this paragraph, and as required by Ukrainian regulations

Typical required locks and handles for each individual door (this is minimum required quality for the locks)
Required tubular stainless steel door handle required for solid hardwood doors

Provide metal frames for all individual room doors.

Typical potential door for each individual room, provided with metal frame and without bottom threshold.

Typical required new double swing doors connecting the hallway#2 with the stairways.
3.3.14. AIR CONDITIONING: HEAT PUMP – INVERTER TECHNOLOGY

The contractor shall provide heat pumps for all areas in the ground floor under the scope of work on this project, with the exception of the bathrooms.

The contract includes a centralized heating system, by connecting new bimetal aluminum radiators and underfloor heating to the heating system of the building. However, in addition to this source of heating, the contractor shall also provide heat pumps to provide heat in the winter or cold air in the summer. Heating by the use of electric resistance is not authorized. The contractor shall provide cooling and heating system using split-type inverter technology heat pump units. Provide heat pumps with exterior units protected from the view and snow to the maximum extent technically possible.

It is required to provide a maximum of 3 external units for as many internal units as designed by the contractor. It is not authorized to provide one exterior unit for each interior unit.

The contractor shall hire the services of a specialized company or engineer to design the new air conditioning system. For estimating purposes, the contractor can estimate a system with the following technical parameters:

- Heat pump system using inverter technology with variable refrigerant flow. Capable of providing hot and cold air and maintaining 21 degrees in hottest summer conditions.

- The compressor units shall be installed over a new structural support wall in the back of the building or on a concrete pad. It is not authorized to install one compressor (exterior unit) for each condenser (internal unit). They shall be provided with metal roofing to protect them from inclement weather, even if the units are rated for exterior installation.

- Ceiling mounted internal units.

- Individual temperature control for each room

- Drainage from the condensate to be connected with the exterior ground

![Typical multi zone split type air conditioning system with 3 ceiling mounted units.](image-url)
3.3.15. GENERAL PIPING AND SEWAGE

The contractor shall provide new piping for all plumbing appliances to be provided in the areas to be renovated. This includes plumbing appliances in 3 rooms.

The contractor shall provide new water lines, with the necessary diameter, as designed by the contractor’s architect, to provide the necessary pressure and flow to all water supply points. The contractor shall connect to the basement of the building, in a place with adequate new water piping, which may not be necessarily under the areas within the scope of work, but in other sections of the basement of the building.

The contractor shall provide a shut-off valve for each particular room and for each particular plumbing appliance, as well as a new shut-off valve at the point of connection to isolate the new water lines if necessary.

Sewer and drainage lines shall be connected to the existing sewer lines in the basement, and they shall be provided with the necessary clean-outs for maintenance.

Within the ground floor, all water and sewer piping shall be properly recessed within the finished walls, but provided with hatches for inspection and maintenance.

It is required to provide hot and cold water. The contractor's designer shall determine the optimal source of hot water, in compliance with Ukrainian regulations.

3.3.16. SPECIFIC AND ADDITIONAL REQUIREMENT FOR SOME AREAS

The work described in the previous paragraphs apply to all the areas under the scope of work of the contract. However, there are some rooms that require some additional work or specific details, which are detailed herein. If an appliance, accessory or any item is specified in one room, and it is listed in another room later in this document, the same requirements would apply for all rooms.
3.3.16.1. RECEPTION ROOM

In addition to all previous requirements, the contractor shall provide for this room:

- Operational TV signal (one receptacle recessed in the wall, at the location to be indicated by the beneficiary for them to provide a TV set in the future)
- 4 electrical receptacles + 2 on the desk
- One high quality reception desk. This work Desk/Countertop shall be made of a permanent/fixed desk with 2.5 linear meters of countertop surface with the following characteristics:
  - Desk made of solid hardwood
  - Countertop of granite with rounded edges
  - With 2 telephone/internet connections
  - With 2 electrical plug/receptacles (fully operational after the renovation is complete)
  - Designed with drawers and space for the legs of the receptionists.

![Typical required desk to be provided with granite countertop (should be 2.5 meters long)](image)

![Definition of rounded edges for the countertop for the desk](image)
3.3.16.2. KITCHEN OR KITCHENETTE

The room is approximately 2.5 x 2.6 m. The contractor shall provide a kitchenette with artificial stone or granite countertop with rounded edges along the longest free wall inside the room, one sink with drying area for dishes, one built-in stove with 2 electric burners and electric oven with stainless steel hood above with ductwork to the roof of the building, with 8 electric receptacles on the wall, with a built-in small refrigerator within the kitchen furniture, and all necessary accessories to have a fully operational kitchenette.

Layout to be designed by the contractor’s architect in compliance with Ukrainian regulations. Provide the following work, installations and accessories:

- **Floor:** Provide new flooring surface sloped towards a new stainless steel floor drain. Testing of the slopes shall be done by pouring one bucket of water and waiting 5 minutes. After this period there shall be no sitting water on any surface of the new floor tiles.

- **Electrical:** The contractor shall provide
  
  o 8 electrical receptacles to be installed at the locations to be indicated by the beneficiary.

  o Lighting fixtures: Provide washable LED fixtures

  o Ventilation: 2 separate forced ventilation systems: one for the kitchen volume of air and the other for the exhaust of cooking areas.

- **Countertops:** Countertops over the kitchen furniture to be made of artificial stone material with double width and rounded edges. Use bright color for the countertop. The countertops shall be made of artificial stone with rounded edges made or quartz (or granite). Use of wooden material or any Formica is not authorized. Countertop to be provided with the typical base of 10 to 12 cm along the walls to avoid humidity getting into the walls. Electrical receptacles to be installed immediately above this wall base along the countertop. Estimated 2.6 meters length.

- **Kitchen furniture:** The contractor shall provide high quality kitchen furniture under the countertop and wall mounted in the opposite wall. Total estimated in addition to the furniture under the countertop shall be 1 m³.

- **Sinks:** Minimum of 1 stainless steel sinks with faucet with cold and hot water

- **Electric Stove:** The contractor shall provide and install a small electric stove with two burners on the new countertop.

- **Oven and Microwave:** The contractor shall provide two separate microwave and oven to be built-in within the new kitchen furniture, so that it cannot be moved to another location after its installation without destroying the kitchen furniture. The contractor can provide the smallest available in the market, or a standard size microwave with minimum 1,000 Watts instead.
- **Refrigerator:** The contractor shall provide a small refrigerator built-in within the new kitchen furniture, so that it cannot be moved to another location after its installation without destroying the kitchen furniture.

- **Ventilation (1) – Kitchen Volume Ventilation System:** The contractor shall install a minimum of 1 metal exhaust fan with ductwork to extract the air volume from all areas of the kitchen room. The metal exhaust fan shall have a minimum capacity of 500 m³/h, and shall be provided with exterior self-closing louvers. Provide with adjustable speed.

- **Ventilation (2) – Kitchen Hood Ventilation System:** As previously described

- **Window:** Provide with mosquito net.
Typical new required floor drains

Definition of built-in microwave and oven. Provide the smallest available in the market

Built-in microwave. Contractor may replace the oven with larger microwave, and provide a single bigger microwave instead of two appliances.

Definition of built-in refrigerator
3.3.16.3. BATHROOM FOR HANDICAPPED

Where indicated in the sketches in paragraph 3.3.1, the contractor shall design and build a new bathroom facility for people with disabilities (wheelchairs).

Similarly to the rest of the areas, the contractor shall demolish everything in these areas, with the main difference that the structure in these sections of the building is very deteriorated and extreme caution shall be used during all activities.

The contractor shall reinforce not only the ceiling structure above which there is an operational bathroom, but the contractor shall also reinforce the stairway structure. All piping connecting this bathroom with the basement utility lines shall be replaced and recessed within the finished walls of the “bathroom for handicapped”.

The minimum requirement is to provide one toilet with one sink. If the available area allows, the contractor shall provide a toilet, a sink and a shower, designed, rated and certified to be used by people on wheelchairs.

It is estimated that the contractor will completely remove the window and provide a new smaller one. All glazing in the bathrooms shall be non-transparent and provided with mosquito net.

The contractor’s architect shall design this room with the necessary space and accessories, as required by Ukrainian regulations to be used by people with limited mobility (wheelchairs).

In addition to those additional elements that may be required by Ukrainian regulations, this bathroom shall be provided with the following:

- Wall mounted WC, rated for 200 kg
- Stainless steel bars for handicapped people
- Sink with hot and cold water and stainless steel drain with p-trap
- Inclined hinged mirror
- Floor drain
- No electrical receptacle.
- One stainless steel hand dryer, hardwired to the wall, so that no cables are visible.
- Shower, if, and only if, there is sufficient space available.
- Stainless steel wall hangers and all required accessories, such as toilet paper holder, soap holder, door stop,...
Typical stainless steel hand drier

Typical location and size of stainless steel bars around the toilet.

Typical required sink with bars, and hinged mirror for the bathroom

Typical special requirements for handicapped bathroom

Special requirements for bathroom

Hinged mirror
3.3.16.4. BATHROOM WITH SHOWER

All requirements are as previously described for the “Bathroom for Handicapped” but without any special requirement for people with special needs. The contractor shall provide the optimal layout and entrance, in order to provide this area with a walk-in shower, toilet and sink, as well as those items of work described in the previous paragraph.

The main difference is that this room is elevated, with rotten wooden flooring. This floor is elevated in order to allow access into a section of the basement. The contractor shall provide the flooring at the same elevation as the rest of the flooring areas of the building, for which they will block one of the two entrances to the basement (see picture), or even both if necessary and allowed by the pertinent Ukrainian Code. If the area in the basement needs to be accessed, the contractor could provide an access hatch somewhere in the renovated areas.

The windows will be modified as necessary.

The shower shall be walk-in type, without curtains, and using pebble type flooring.

*Typical pebble flooring for shower*

*Typical premanufactured pebble flooring before grouting*

*Typical shower installation. Similar new flooring deck is also required as part of this contract.*
3.4. **EXTERIOR WORKS**

The required exterior works are limited to those absolutely necessary to allow for the required internal works. These include:

- Modification to the entrance to the basement (see pictures)
- Modification to the shape of bathroom windows
- Replacement of metal sheet on the cornice (see picture)
- Painting the ground floor for waterproofing.
- Sealing existing windows to remain
- Replace entrance steps with a new ramp. Provide highest quality porcelain stoneware tiles, rated for exterior use.

*Remove entrance steps. Provide a ramp.*
KITCHEN WINDOW.
REPLACE AND PROVIDE NEW MOSQUITO NET.

BATHROOM WINDOWS, TO BE MODIFIED AS NECESSARY AND PROVIDED WITH MOSQUITO NETS.

COMPLETELY REMOVE THIS ENTRANCE TO THE BASEMENT IF TECHNICALLY POSSIBLE TO LOWER FLOOR. REMOVE THE ENTRANCE TO THE LEFT IF POSSIBLE. REMOVE BOTH IF POSSIBLE. FILL IN PAVEMENT AND REPAIR FAÇADE SO THAT THERE IS NO EVIDENCE OF BASEMENT ENTRANCE.

METAL CORNICE TO BE REPLACED TO GUARANTEE WATERPROOFING

PAINT THE FAÇADE TO GUARANTEE WATERPROOFING AND MAINTENANCE OF INTERNAL REPAIRED SURFACES. PAINT FROM METAL CORNICE TO BE REPLACED TO FLOOR.
Metal cornice to be replaced

Metal cornice to be replaced
3.5. GENERAL PICTURES

Stairway, not in the scope of work. But the area under the stairway is under the scope of work. This area shall be the bathroom for people with disabilities and its storage (under the steps). Door is to operational bathroom, in which the contractor will need to provide new piping (sewer, and water if it comes from the basement).
Flooring in future bathroom with shower. See that it is very elevated and see blocked door to future hallway.

Remove old heating stoves. Remove all plaster from walls and from ceiling.
Remove old heating stoves

Remove sewer lines from the floor above to the basement. See old sewage piping recessed within the old walls.
Elevated floors. All floors to be leveled. Room to become “bathroom with shower” at the end.
Damages on the walls from poor installation of the windows. Existing windows to be properly installed to avoid any humidity into the renovated areas.

All electrical installation and fire detection to be replaced with new.
All lintels from all interior door opening to be replaced with new beam (metal or precast reinforced concrete)

Bathroom window to be reshaped as needed by the new design.
3.6. SCAFFOLDING – MANLIFTS – HARNESS – FALL PROTECTION

In order to perform some of the works in this contract, the contractor shall be required to install scaffolding or to use manlifts. The contractor is required to provide a scaffolding design to be signed and certified by a licensed Ukrainian engineer or other technician authorized by Ukrainian regulations.

Despite the scaffolds that may be authorized by Ukrainian regulations, the contractor is only authorized to utilize European Standard scaffolds similar to the ones shown in pictures below. These scaffolds shall be installed and used in accordance with manufacturer’s recommendations. In case the contractor needs to access the façade at any particular point without the need to install scaffolds, the contractor shall use a CE certified self-propelled man-lift, similar to the one shown in pictures below. The use of other type of scaffolds, other non CE certified man-lifts, or any type of ladders for façade or roof work, IS NOT AUTHORIZED. This is applicable for all works in this contract.

Despite the requirements of Ukrainian Law for Fall Protection, any contractor employee working on the roof shall be protected with an approved harness properly tied to an approved lifeline.

All other requirements of EM385-1-1 (Safety manual of US Army Corps of Engineers) and of Ukrainian Law applies for every work activity included in this project.
3.7. COMMEMORATIVE PLAQUE

The contractor shall provide and install 1 commemorative plaque at the location to be indicated by the Contracting Officer. The plaque shall have the following information engraved on it:

- Colored Flag of Ukraine
- Colored Flag of the United States of America
- This text (or similar): “The renovation to this Psychological Rehabilitation Center was made possible through a donation from the people of the United States of America to the People of Odessa with the support of the Office of Defense Cooperation and US Embassy in Ukraine – Date”
- Same text as above in Ukrainian.

- Minimum thickness 6 millimeters of aluminum.
- Minimum dimensions 90 centimeters wide by 50 centimeters high.
- Resistant to outdoor weather and UV radiation.
- Plaque to be manufactured by specialized company.
- Before purchasing the plaque, the contractor shall submit the design to the Contracting Officer for approval.
4. DETAILED SCOPE OF WORK OF CONTRACT OPTION-1

The work included in the Base-Bid of this contract is clearly described in paragraph 3 and all its subparagraphs.

The work included and described in this paragraph (and its subparagraphs) shall be performed if, and only if, contract option-1 is awarded to the successful offeror by the Contracting Officer. The US Government will unilaterally decide whether to award or not this portion of the contract based on availability of funds, as well as other factors.

The Contract Option-1 includes a new direct access to the renovated areas from the main university building as well as painting the entire building.
4.1 DIRECT ACCESS FROM MAIN UNIVERSITY BUILDING AREA

The contractor shall hire the services of a licensed architect to provide a new access from the fully operational areas of the university building into the renovated areas. In order to do this, it is estimated that the contractor shall provide an exterior passageway, approximately as shown in the sketch below.

*Conceptual design for the new walkway.*
Basis of design:

The contractor’s architect to design the passageway in compliance with Ukrainian regulations in general and in particular with Urban Planning of Odessa. If possible, this construction shall be reinforced concrete structure. If this represents a problem with Urban Planning and it is not possible to get a permit for new construction, the contractor shall provide light metal structure construction or any other construction method which shall not require the formal approval for “new construction”.

- Maximize the use of natural light
- Do not obstruct any of the existing windows
- Repair all wall surfaces of the building that will end up inside this corridor
- Provide new LED lighting
- Provide esthetic design similar to the existing university building (this is lowest quality finishes than the areas repaired under the Base-Bid of this contract)
- Demolish existing steps and landing platforms as necessary for the new construction.
- Provide new steps to the back patio of the building
- Provide continuous flooring so that a person with wheelchair can go from the main street, throughout the renovated areas, through this new passageway and into the main university building, without going over any floor obstructions. All floors shall be continuous. This requires all internal doors to be installed without any bottom frame or threshold or obstruction.
- Provide exterior esthetics similar to the exterior esthetics of the building.
- New exterior door into the new steps and new required windows to be with same quality and with the same features as those specified for the Base-Bid.
4.2 PAINT ENTIRE BUILDING

The contractor shall paint the façade of the building. The contractor shall paint the entire building facade. The works include repairing any loose piece of plaster and other repairs in order to provide the building with the appearance of a newly painted facility. This includes elements for example as the repair and painting the downspout pipes or any other metal pieces. The contractor shall use the same color as the building currently uses.

This is not a façade restoration project, but only paint and minor repairs are required. It is not required to remove the old paint, but only to wash the existing surfaces before applying the new paint. This contract does not include replacing wooden doors or windows, or painting windows or doors.
Façade of the building to be painted
5. PROCEDURE AND GENERAL CONTRACT REQUIREMENTS AND GUIDELINES

5.1 Principles

This construction contract is based on 3 principles:

- Strict compliance with US Contracting Regulations, including the requirements of the Department of Defense, the US Navy and Naval Facilities Engineering Command (NAVFAC).
- Strict compliance with Ukrainian technical and legal regulations.
- Strict compliance with Ukrainian Safety regulations unless the US regulations is more strict and not in conflict with the local safety regulations, in which case, the US Safety regulations shall be applied.

Construction shall be in accordance with sound construction practices, and shall conform to the latest revision/edition of the codes, criteria, and standards in effect at the time of submission of the bids, except as otherwise indicated by this Request for Proposal. Construction shall also comply with applicable codes, ordinances and regulations of Ukrainian governing life/safety, fire protection, building construction, and electrical systems in effect during this contract, except where specifically stated herein. Any material installed that does not meet the requirements of this Technical Specification and/or applicable Ukrainian codes, ordinances and regulations will be removed and reinstalled at Contractor’s expense.

5.2 Prohibited Items

Use of the following items in this construction project is prohibited:

- Use of aluminum for electrical conductors.
- Embedding aluminum conduit in concrete.
- Use of fluorescent light ballasts and other products containing PCB’s.
- Use of incandescent lighting
- Use of urea-formaldehyde foam insulation products.
- Use of any paint/coatings having a lead content of over 0.06 percent by weight of non-volatile content. The use of ozone depleting chemicals is prohibited. The use of zinc-chromate is prohibited.
- The use of materials containing asbestos is prohibited.
- The use of any radioactive materials
5.3 Permit/Authorizations before and during construction

The contractor is responsible to coordinate, request, pay for any applicable fee and obtain the required construction permits and authorizations that are required for the works included in this construction contract as required by Ukrainian Law. No work shall commence at the job site until the contractor shows sufficient evidence that they have complied with all legal and administrative requirements of Ukrainian legislation.

The contractor shall show licenses or other verifiable evidence that they are legally authorized to perform the works described in these technical specifications in UKRAINE.

All requirements of Ukrainian legislation in order to execute this construction contract, such as declaration of works, information for commencement of works to local state administration, Fire and Technical Safety, registration of appropriate inspection declaration, obtaining the written consent of the owner of the facility, etc, are part of the construction contract.

All requirements of these Web Pages are considered an integral part of this contract. The contractor shall include in their bids the costs of carrying out all requirements of Ukrainian legislation in order to execute and manage this construction contract in strict compliance with Ukrainian legislation.

http://zakon2.rada.gov.ua/laws/show/466-2011-п

http://gost.at.ua/load/normativnye_dokumenty/derzhavni_budivelni_normi_dbn/12

The construction contract, by signing the award document, is thereafter delegated with the required authority and/or responsibility to obtain all required documents. The US Government remains at the disposal of the construction contractor for any assistance that could be provided, or to provide a letter with official delegation of authority. But it is the contractor's responsibility, and part of this construction contract, to obtain all required permits, authorizations and to coordinate with competent local authorities before construction and during construction.

Currently all construction projects in Ukraine are separated depending on category of complexity. Category of complexity may influence directly on the procedures of receipt of proper city planning (permitting) documents. Construction site may be attributed to appropriate category of complexity either by designer or by the Customer.

Category of complexity of construction site is determined accordingly to state norms and standards considering grade of consequences (responsibility) of such a construction site.

Grade of consequences (responsibility) of construction site is determined according to State Construction Norms of Ukraine (ДБН В.1.2-14-2009) «General principles of providing reliability and structural safeness of facilities, construction structures and foundations» according to levels of possible economic damages and (or) other losses, connecting with suspension of operation or site integrity loss.

Project documentation for facilities construction is developed in the form of procedures determined by order of Ministry of Regional Development, Construction and Housing of Ukraine dated 16.05.11 #45 («Acceptance of project documentation working out order») and also Law of Ukraine «Control of city planning activity». To provide a design of construction project Customer has to supply Prime Designer with input project data.
Input project data may consist of:

- City planning conditions and restrictions,
- Technical specification, which includes grounded requirements of the Customer to planning, architectural, engineering and technological decisions and properties of the facility, its main parameters, cost and construction arrangement and are working out with consideration of city planning conditions and restrictions and technical terms as well.

Construction Design Terms (Technical Specification) is developed and approved by Customer including acceptance of investor and Prime Designer. Approval of Construction Design Terms is implemented through signing and stamping.

Renovation Terms for working out project documentation is developed considering requirements of state construction regulations «Structure, content, order of development, acceptance and approval project documentation to renovate cultural facilities».

Both Prime Designer and Customer should determine grade of consequences (responsibilities) of construction facility and its category of complexity, on the basis of which the number of design stages is established.

Design stages:

for facilities of 1st and 2nd categories of complexity design is implemented:
- single stage – working draft stage (WDS);
- double stage – for facilities of non-production purpose – draft stage (DS), and as for facilities having production purpose and linear facilities of engineering and transport infrastructure – pre-investment feasibility study (PIFS), and for both – WDS;

for facilities of 3rd category of complexity design is implemented in two stages:
- plan stage (PS);
- working documentation stage (WDoS)

for facilities of 4th and 5th categories of complexity design is implemented in three stages:
for non-production facilities – DS, or having grounded Customer’s decision – PIFS, and as for production facilities and linear facilities of engineering and transport infrastructure – PIFS, PS, WDS.

Customer and Prime Designer may take the agreed decision as to the number of design stages. When the project is developed depending on the project category of complexity, the 4th and 5th categories of complexity are subject to compulsory expertise - keeping sanitary and epidemiological standards, ecology, labor protection, energy savings, fire, man-caused, nuclear and radiation safeness, tightness, reliability, durability of buildings and structures, its’ operational safeness and engineering securing.

Construction projects of 1st and 2nd categories of complexity are not subject to obligatory expertise.
Implementation of construction works

All construction facilities according to Ukrainian regulations «Control of city planning activity» depending on complication of architectural and construction decisions and/or engineering equipping are split up into several categories of complexity

Depending on category of complexity Customer is granted the right to fulfill construction according to indicated Law in case:

- Start of construction (preparatory) works notification is submitted to proper State Inspection of Architectural and Construction Control;
- Start of construction (preparatory) works declaration is registered;
- Construction (preparatory) permission is issued by appropriate inspection and is granted to the Customer.

To receive the construction (preparatory) permission as to construction facilities of the 1st–3rd categories, Customer is obliged to register (submit) start of construction declaration. Appropriation of such facilities to the 1st–3rd categories of complexity is implemented by any project entity and construction Customer according to state construction norms and regulations considering the grade of consequences (responsibility) of such a construction facility.

Prior start of construction (preparatory) works as to construction facilities of the 4th – 5th categories of complexity, Customer is obliged to receiving construction permission. The order of attributing of construction facilities to the 4th and 5th categories of complexity is determined by Cabinet of Ministers of Ukraine.

The order of submission and document forms which afford a right of fulfillment construction (preparatory) works is determined by Cabinet of Ministers of Ukraine.

According to clauses of Law of Ukraine «Control of city planning activity» period of registration of declaration in an appropriate inspection is five working days, and as for construction permission – ten working days from the record date of proper statement.

Also it is necessary to mention that in case construction permission is delegated to another Customer or either change of a Prime Contractor, Contractor or persons responsible for implementation of author supervision, or responsible work executers, Customer (Client) must inform appropriate inspection regarding such changes within three days.

If construction permission was received by the Customer, replacement of either Customer or Prime Contractor or Contractor, Customer is obliged to re-process this permission again and such procedure wouldn’t stop construction process. In case of replacement of persons responsible for author and technical supervision, or responsible work executers Customer is obliged to informing State Inspection of Architectural and Construction Control, which issued this permission, concerning these alterations within three days from the moment of occurrence.

According to the law, Customer is responsible for fulfillment of construction (preparatory) works without providing information to appropriate inspection concerning beginning, either with non-registered declaration or without received permission from inspection.

Acceptance of operation of completed construction facilities, which may be considered as 1st and 3rd categories of complexity, and facilities construction of which were implemented under Construction
Passport, is accomplished through registration of Declaration of Availability for Service which had been initially provided to the State Inspection of Architectural and Construction Control.

Acceptance of operation of completed construction facilities, which may be considered as 4th and 5th categories of complexity, is accomplished according to Availability for Service Act through providing proper certificates by State Inspection of Architectural and Construction Control.

5.4 Start of Construction

The Project Manager (PM) or Contracting Officer Representative shall authorize the start of construction. This authorization to start will not be given until the contractor:

- Provides written evidence that they comply with all legal requirements in Ukraine in order to perform the works described in these PTS.
- Provides copy of the required permits or authorizations from the competent Ukrainian authority authorizing the execution of the works
- Provides technical information and technical projects for the designs, including proposed materials and equipment to be used for the project. Only materials and equipment previously accepted by the Contracting Officer Representative shall be brought to the site.
- The Contracting Officer Representative accepts their Accident Prevention Plan. See the guidelines for preparation of the APP attached to the solicitation package.
- The Contracting Officer Representative accepts their Quality Control Plan. See Annex 1.
- The Contracting Officer Representative accept their Construction Schedule
- Construction Sign is placed on site (see pertinent paragraph for the Construction Sign)

5.5 Responsibility for New Materials

All materials delivered to the construction site shall remain in the ownership and responsibility of Contractor. Contractor will be responsible to safeguard the procession and condition of the material until US Government takes procession of the finalized project. Any materials or equipment stolen or disappeared from the job site before final acceptance is the responsibility of the contractor.

Material that is not intended to become part of the project shall not be delivered, placed, retained nor stored on the project site.
5.6 Design

The design procedure has different phases, which will require the contractor to provide, submit and process different documents, drawings, permits and/or calculations for approval or acceptance of all parties involved in the design process. The US Government representative shall not approve the design, but they shall “accept” the design. It is the contractor’s designing team responsibility to “approve” the design once “accepted” by the US Government representative. The contractor shall follow the required steps in Ukraine for this type of design.

The Performance Technical Specification (PTS) are a guideline for the design package.

- If an item in the project design is included in the PTS, the requirements of the PTS and applicable local Ukrainian and international codes shall govern.

- If an item in the project design is NOT included in the PTS, the requirements of applicable local Ukrainian and international codes shall govern.

Provide the Final work as a complete and usable facility including technical details, items of work, permits or fees that are not explicitly described in this RFP, but which are necessary to provide a fully operational and finished facility shall be considered part of this contract. The contractor shall hire the necessary and required licensed architects/engineers to prepare the necessary design in accordance with the scope of work of this contract, and with the technical and quality requirements described in this document.

The contractor shall perform the work in strict compliance with the construction codes and regulations of Ukraine. The contractor is responsible to provide a copy of a Construction Permit issued by the corresponding local authority. The contractor is responsible to prepare any required documentation and/or designs that will be required in order to obtain these permits. No work shall be executed until the corresponding construction permit is issued by the competent authority, and a copy provided to the Contracting Officer Representative (COR).

For those items required by the Scope of Work, which are not specified herein, the contractor shall follow the applicable Ukraine Codes and Regulations.
5.7  Design-Build Procedure

A design-build contract means that the contractor is responsible not only to perform the works described in this document, but to prepare all necessary additional designs and technical projects.

All designs shall include the items of work described in this document, as well as those items of work not included in this document, but required by Ukrainian regulations in order to have perfectly operational and functional medical therapy facility.

This contract includes the preparation of the required designs, technical projects, surveys, permits, certifications as well as any required coordination with local authorities. The contract also includes processing and paying for any potential fees that may be required in order to obtain the required Construction Permits or authorizations.

All designs and the completed works shall be verified by the corresponding and pertinent Ukrainian “expertise” to verify compliance with applicable regulations.

The contractor shall visit and inspect the work site prior to submission of their offer to the US Government. The contractor may consult with the beneficiaries if any information of the site conditions is necessary, in coordination with the representative and Project Manager from the United States Office of Defense Cooperation in Kyiv: Ms. Lyudmyla Kyrylenko lyudmyla.v.kyrylenko.ln@mail.mil, who is also be responsible to coordinate the site visits.
5.8 Construction/Design Schedule and Contractual Milestones

Perform all work within 450 calendar days after contract award. Provide a bar chart with a minimum of 40 activities.

In addition to the contractual requirement to complete all construction works within the 450 calendar days after award of the contract, the contractor shall comply with the following required milestones. Failure to comply with these milestones will be objective basis for invoice retention or further contractual action by the Contracting Officer.

| Tax exemption information: | Coordinate with the US Embassy representative within 14 days after contract award date |
| Construction signs | Install within 45 days after contract award. Text and design to be approved by US Embassy in Kyiv. |
| Construction/Design Schedule | Submit within 45 days after contract award date |
| Accident Prevention Plan and Quality Control Plan | Submit within 45 days after contract award date |
| Conceptual Design | Submit within 90 days after contract award date |
| Final inspection notification | The contractor shall notify the Contracting Officer with a minimum of 60 calendar days prior to the requested official final inspection of the works. |
| Warranty: | As required by Ukrainian regulations, with minimum of 1 year for all the works except facade work which shall be 5 years. Warranty starts the day after all works are accepted by the Contracting Officer. |

5.9 Construction Schedule (bar chart is authorized)

Perform all work within 450 calendar days after contract award. Within 45 days after contract award, the contractor shall provide a construction schedule including a minimum of 40 activities.

450 days are included because it is estimated that up to 180 calendar days could be required to obtain all necessary permits for the structural works included in our contract.
5.10 SAFETY: Accident Prevention Plan

SAFETY SHALL BE THE FIRST PRIORITY OF THE CONTRACTOR. SAFETY OF THE WORKERS AND STUDENTS AND PERSONNEL AT THE SITE SHALL TAKE PRECEDENCE OVER ANY OTHER FACTOR.

The contractor shall use the format or guidelines included in the solicitation package to prepare the Safety Plan or Accident Prevention Plan.

Within the timeframe allowed for the final design submission, the Contractor will prepare and submit an Accident Prevention Plan as required and outlined by the US Army Corps of Engineers Safety Manual (EM-385-1-1), describing procedures they plan to perform to ensure the safety of the workers, the staff of the facilities, the general public, and the equipment on the job site. The Plan shall clearly define the measurement that the contractor will implement to guarantee that nobody will be exposed to any hazards as a result of this construction contract.

Additionally, the safety plan must address types of personal protective equipment to be used by personnel, types and frequencies of safety inspections, hazard analysis plan to prevent safety incidents, and training utilized to familiarize employees with safety policies and practices. The contractor shall comply with the US Army Corps of Engineers Safety Manual EM385-1-1 wherever the requirements of this manual are more stringent and not in conflict with the requirements of the Ukrainian Safety Law.

No work shall start at the job site until the Accident Prevention Plan is received and accepted by the COR.

Execution of this construction contract requires compliance with Ukrainian and United States Army Corps of Engineers Safety regulations. In addition to the Accident Prevention Plan which needs to be prepared as outlined in EM385-1-1, the contractor is responsible to prepare all necessary safety documentation, studies, reports, books, design or logs, which may be required by Ukrainian regulations/legislation.

- Safety of the people shall be the highest priority of the contractor.

- The contractor shall comply with the Safety Manual of the US Army Corps of Engineers (EM-385-1-1), wherever this US manual has more stringent safety requirements than those required by Ukrainian Code and these requirements are not in conflict with local safety regulations. A digital copy of this manual can be found here: http://www.usace.army.mil/Safety-and-Occupational-Health/Safety-and-Health-Requirements-Manual/

- In accordance with previous safety paragraphs, the contractor shall provide an accepted copy of their Accident Prevention Plan before any work is authorized to start.

- The contractor is responsible for the safety of the contractor’s employees, subcontractors, visitors and the general public, as they could be affected by this construction project. Contractor shall provide proper fences or barricades to separate the construction areas from the rest of operational areas of the building.
The contractor is responsible to comply with Ukrainian Safety Code. All costs of compliance with safety and with Ukrainian safety regulations are the responsibility of the contractor. Any costs related with safety inspections, safety monitoring, or anything else required to comply with the Safety regulations shall be the responsibility of the contractor.

Within the context of his responsibilities, the contractor shall take the necessary actions to protect the safety and health of the employees, including the prevention of occupational risks, information and training measures, and measures for the organization of the health and safety at work and its necessary means as required by Ukrainian Code. The following general prevention principles shall be taken into account for the adoption and implementation of the measures provided above:

a. avoiding risks;

b. evaluating the risks which cannot be avoided;

c. combating the risks at the source;

d. adapting the work to the individual, in particular as regards the design of the workplace and the choice of work and production equipment and methods, with a view, in particular, to alleviating monotonous and repetitive work, and its effects on health;

e. adapting to technical progress;

f. replacing the dangerous by the non-dangerous;

g. prevention planning;

h. giving collective protective measures priority over individual protective measures;

i. giving appropriate instructions to the employees.

An employer shall insure all employees against occupational accident and disease risks, under the terms of Ukrainian law. The contractor shall verify that all employees of the prime contractor or any subcontractor employed in this project meet the legal requirements of Ukrainian Law.

The contractor shall organize the employee training in the field of health and safety at work. This training must be provided to new employees, those changing the workplace or type of work and those resuming their activity after a break longer than 6 months. In all such cases, the training shall take place before the actual beginning of the activity. The contractor shall be responsible for the facilities related to the provision of first aid in case of occupational accidents, for fire prevention and the evacuation of the employees in special situations and imminent danger.

The contractor shall be responsible for a safe and hygienic work environment both on the project site and at off-site locations where work is done in conjunction with this project.

The contractor shall be responsible for the protection of all grounds, vegetation and improvements that exist and are to remain after the project is complete; with-in the project work areas, adjacent to the project work areas and along the common route of
access to the site, outside of the work areas. The Contractor shall be responsible to have any damage caused by Contractor’s employees, equipment or sub-contractors repaired and restored to pre-damage condition, as approved by the PM or Contracting Officer Representative (COR), at no cost to the Government.

- The Contractor shall comply with all applicable safety regulations of Ukraine, including all required record keeping.

- The Contractor shall provide and maintain in working order during the entire construction period, such fire protective equipment and devices as required by applicable safety standards and as deemed necessary and suitable for any possible class or type of fires. Extinguishers shall be non-freeze type of not less than ten pound (5KG) capacity each.

- Provide protection against rain, wind, or heat so as to maintain all work, materials, apparatus, and fixtures, incorporated in the work or stored on the site, free from injury or damage. At the end of the day’s work, cover all new work and existing installations likely to be damaged as a result of the construction activities (i.e. roofing work).

- Contractor shall acquaint themselves with the location of utilities, which may be encountered or be affected by work, and shall be responsible for damage caused by neglect to provide proper precautions or protection. If needed, the contractor shall contact any local authorities or utility companies to locate any utility service, (and pay for their services if needed).

- Provide, erect and maintain all required barricades, of sufficient size and strength necessary for protection of material storage, as well as to prevent accidents to the public and the workmen at the job site.

- Special precautions shall be taken to maintain the area around the facility clean so that the building can continue its normal operation. The contractor must take into consideration that the building will remain fully operational at all times during the project execution, except those areas under renovation.

- Report all injuries to any person and damage to any property not belonging to the contractor immediately to the COR (Contracting Officer Representative). Compensation to any third party affected by the construction activities (such as damage to private property) shall be the exclusive responsibility of the contractor.

- Contractor shall have a minimum of 8 new hard hats available at the job site for the official visitors.

5.11 Special Site Conditions

Confine all operations, equipment, apparatus and storage of materials, to the immediate area of work to the greatest possible extent. Contractor shall ascertain, observe and comply with all rules and regulations in effect on the project site, including, but not limited to parking and traffic regulations, use of walks, security restrictions or hours of allowable ingress and egress.
5.12 Phasing and Coordination

Works are to be performed in an operational university building, which shall remain operational during performance of works.

The contractor may require for safety reasons to vacate certain areas above the areas under the scope of work during the performance of the works. In case some area needs to be vacated, the contractor shall notify the beneficiary with at least 15 days advance notice.

It is absolutely necessary to coordinate the daily operations with the beneficiary. All coordination with the beneficiary shall be the responsibility of the contractor. The Contracting Officer Representative shall be notified of any disputes between agencies or approvals that will affect Contract duration or Contract Price. All works shall be closely coordinated with the beneficiary on a daily basis.

5.13 Language

All communication and correspondence between the contractor and the Government personnel shall be in English. It shall be the responsibility of the Contractor to prepare proposals, invoices, shop drawings and submittals, quality control reports, computations, and all correspondence pertaining to this contract, in the English language; but the Contractor may, for his own record purposes, prepare them in the local language. All correspondence to and from the Contracting Officer shall be in the English language. In case of dispute or claim, the English version will govern.

Immediately after award, the contractor shall appoint an English speaking representative, with cellular phone and e-mail address. The Contracting Officer Representative reserves the unilateral right to disapprove this person if it is found that his English language capacity is not sufficient to perform the duties required for such position.

For the visits of the Contracting Officer, the PM or their authorized representative to the job site, the contractor shall provide somebody capable of representing the construction company who can communicate in English language or the contractor shall provide a translator to translate from English to local languages.

5.14 Submittals – Technical Information

The contractor shall provide technical information on all materials and equipment to be incorporated to the job site. This information must be sent to and accepted by the COR before they are purchased by the contractor. Any material or equipment utilized at the job site that is not approved by the representative of the Contracting Officer and that if found not to comply with the requirements of this contract (or Ukrainian Legislation) shall be removed at no cost to the US Government.
5.15 Deliverable

The contractor shall provide for acceptance to the COR, as a minimum the deliverables listed in the tables below. For all technical deliverables/submittals, the contractor’s quality control representative shall certify that each proposed product meets the technical requirements listed on this Performance Technical Specifications.

Administrative deliverables:

<table>
<thead>
<tr>
<th>Administrative deliverables</th>
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</thead>
<tbody>
<tr>
<td>Conceptual designs</td>
</tr>
<tr>
<td>Final designs</td>
</tr>
<tr>
<td>Construction Authorization</td>
</tr>
<tr>
<td>Accident Prevention Plan</td>
</tr>
<tr>
<td>Quality Control Plan</td>
</tr>
<tr>
<td>Schedule of Prices</td>
</tr>
<tr>
<td>Act of Acceptance</td>
</tr>
<tr>
<td>Warranty letter</td>
</tr>
<tr>
<td>List of spare parts and training</td>
</tr>
<tr>
<td>Final documents</td>
</tr>
</tbody>
</table>

Technical deliverables shall include

<table>
<thead>
<tr>
<th>Technical deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction sign design</td>
</tr>
<tr>
<td>Radiators</td>
</tr>
<tr>
<td>Interior and exterior Doors</td>
</tr>
<tr>
<td>Porcelain stoneware tiles</td>
</tr>
<tr>
<td>Paint</td>
</tr>
<tr>
<td>Water piping</td>
</tr>
<tr>
<td>Wall tiles</td>
</tr>
<tr>
<td>Acoustic ceiling panels</td>
</tr>
<tr>
<td>Hand dryers</td>
</tr>
<tr>
<td>Wall tile metal edge protection</td>
</tr>
<tr>
<td>Faucets</td>
</tr>
<tr>
<td>Mirrors</td>
</tr>
<tr>
<td>Electrical conduits</td>
</tr>
<tr>
<td>Toilets</td>
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<tr>
<td>Sinks</td>
</tr>
<tr>
<td>Electric panel</td>
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<tr>
<td>Scaffolding</td>
</tr>
<tr>
<td>Shower flooring</td>
</tr>
<tr>
<td>Light switches</td>
</tr>
<tr>
<td>Commemorative plaque design</td>
</tr>
<tr>
<td>Aluminum partitions</td>
</tr>
<tr>
<td>Lighting fixtures</td>
</tr>
<tr>
<td>Cables</td>
</tr>
<tr>
<td>Desk for reception area</td>
</tr>
<tr>
<td>Stove, microwave &amp; hood</td>
</tr>
<tr>
<td>Kitchen countertop</td>
</tr>
<tr>
<td>Refrigerator</td>
</tr>
<tr>
<td>Electrical receptacles</td>
</tr>
<tr>
<td>Windows</td>
</tr>
<tr>
<td>Wall mounted exhaust fan</td>
</tr>
</tbody>
</table>

5.16 Pictures

The contractor shall send weekly and representative digital pictures of their construction by e-mail once construction starts, showing construction progress. These pictures shall be used to monitor the contractor’s performance and to validate the progress monthly invoices. The US Government will not process payments unless the contractor provides complete and verifiable evidence of the work performed.

Failure to provide updated pictures will impact the ability of the Contracting Officer to validate and therefore to pay for the invoices.
5.17 Responsibility and Ownership of Removed Materials

All refuse or salvaged materials are the property of the University, and therefore they shall be moved to a location within the building. Prior to moving them to the location to be indicated by the beneficiary, they shall be properly cleaned. The contractor shall not be held responsible in case something is damaged or broken during its removal or transportation.

Those elements that are not requested by the beneficiary shall become the property of the Contractor and shall be disposed of, off-site, in accordance with applicable Ukrainian regulations. The Contracting Officer Representative may ask for receipts of proper disposal of debris, or excess materials.

5.18 Certifications, Licenses, Permits, Fees, etc.

The contractor shall be legally capable of performing construction and design works in Ukraine, as required by Ukrainian regulations. The contractor shall possess the necessary licenses and authorizations in order to be able to perform the design and construction activities described in this document in strict compliance with Ukrainian legislation.

All workers employed or performing any works for this construction project shall be legally capable of performing such works in Ukraine. This includes work permits for any worker who is not a legal resident in Ukraine.

The Contractor shall be responsible for determining, processing, requesting and paying all fees associated with, and obtaining any required permits for this project including, but not necessarily limited to permits for on-site and off-site hauling, demolition/disposal, construction activity, utilities, communications, etc. The contractor is responsible for acquiring any required certifications (licensing). Coordinate all permit requirements with the COR. Submit all completed permit application material, and associated back-up material, required to operate facilities, to the Contracting Officer for approval prior to agency submission. Contractor shall be responsible for complying with environmental laws, regulations and requirements. The Contracting Officer Representative may require at any time evidence of proper construction licensing of the contractor.

Coordinate all permit requirements with the competent local authorities or with the COR as required. Submit all completed permit application material, and associated back-up material, required to operate facilities, to the Contracting Officer for approval prior to agency submission. Contractor shall be responsible for complying with environmental laws, regulations and requirements.

5.19 Quality Control Plan

Within the timeframe allowed for the submission of documentation before starting the works, the Contractor will prepare and submit a Quality Control Plan describing personnel, procedures, tests and installation techniques that he plans to perform to ensure the quality required by these Technical Requirements and his design is obtained.

The Quality Control Plan shall include the name and qualifications of the person responsible for the quality of the works In Annex 1, it is included a guideline to prepare this Plan.
5.20 Construction Sign

Immediately after award the contractor shall prepare and install where indicated by the Contracting Officer Representative (COR) a construction sign with the following characteristics and information:

- Wood / plasticized sign with minimum dimensions 2.5 meters wide by 1.5 meter high
- Letters and logos prepared by an specialized company and designed for outdoor installation
- Flags of Ukraine and the United States of America
- The following text: THE RENOVATION OF THIS BUILDING TO PROVIDE A NEW PSYCHOLOGICAL REHABILITATION CENTER IS FUNDED BY THE UNITED STATES EUROPEAN COMMAND AND PROVIDED TO THE PEOPLE OF ODESSA. EXECUTIVE AGENT: US EMBASSY IN UKRAINE. CUSTOMER: US NAVAL FACILITIES ENGINEERING COMMAND. PRIME CONTRACTOR:?
- Start and completion dates.
- Same text in Ukrainian.
5.21 Payment

Payment shall be performed as required by US Administrative Requirements. See Contract Clauses pertinent to Payment procedures.

** NO ADVANCE PAYMENT IS AUTHORIZED **

Payment shall be performed following the principle of payment for completed work. Payment shall be phased as detailed herein:

- Partial monthly payments as agreed with the Contracting Officer Representative, and in accordance with the Schedule of Prices as described in section 7.22.

- Maximum of 80% (cumulative) is authorized until the final inspection is completed and all potential deficiencies are corrected. No payment over 80% is authorized until all work included in the contract is completed.

- Final invoice (100%) shall be paid once final inspection is completed and all potential defects identified in the final inspection are properly corrected.

Together with each invoice, the contractor shall provide:

- Official invoice (dated, signed and stamped and with banking information)

- Cost breakdown to justify the amounts for which the contractor is requesting payment

- Pertinent “expertise” formal approval of completed work

- Filled Contractor’s Safety Self Evaluation Form

- Invoice Statement: With this text signed by a responsible person from the company (ideally the one that signed the contract):

  I hereby certify, to the best of my knowledge and belief, that:

  (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

  (2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and legal requirements of Ukraine;

  (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

  (4) This certification is not to be construed as final acceptance of a subcontractor’s performance.

Progress payment shall only be authorized if COR verifies on site the amount of work performed, or if the contractor proves with sufficient pictures and documentation that the work was actually performed as required by the contract. COR will disallow from the requested amount those portions of the invoice that the contractor does not prove that they were performed as required by the contract.
5.22 Schedule of Prices

In order to process the invoices, the contractor shall submit a Schedule of Prices to the COR for acceptance. This document shall include the main elements of the construction contract, and in the invoices the Contracting Officer Representative and Project Manager of the contractor shall agree on the percentages executed for each of the line items.

Only elements that are tangible and incorporated into the finished project shall be authorized. The value of all items shall be properly distributed. Front-in loading the Schedule of Prices is not authorized.

The Schedule of Prices shall clearly separate the elements of the Base-Bid from those items of work with are part of the contract options that may be awarded.

No invoice shall be processed until the Schedule of Prices is accepted by the Contracting Officer Representative.

![Example of typical Schedule of Prices for a contract with one option](chart.png)
5.23 Damages/Impact to Existing Facilities

The contractor is responsible to repair any damage or impact caused by their construction activities to any premises within the Base. This includes potential damages such as:

- Damages or disturbances to any around the job site.
- Damages to the areas of the building not included in the contract (i.e. if some cracking develop during the demolition of structural reinforcement works, it will be the contractor’s responsibility to repair everything)
- Damages to any utility infrastructure, such as electrical cables, water lines or communications cables.
- Indirect damages to the facilities (i.e. humidity on a room from placing concrete in the adjacent room)

In order to avoid unnecessary conflicts, it is the contractor’s responsibility to perform a detailed photographic report on the condition of the building before works start. This should include over 1,000 pictures.

5.24 Cleaning

Contractor shall keep premises free of accumulations of surplus materials and rubbish caused by their operations. Combustible rubbish shall be removed from the premises each day. Burning of rubbish on premises is not permitted. In addition, the Contractor shall perform final cleaning to remove all foreign matter, spots, soil and construction dust, so as to put the project in a complete and finished condition ready for acceptance and use intended.

All waste areas and storage areas will be cleaned up to the COR’s satisfaction. All excess materials will be removed from the site and the Contractor will leave the premises free of debris and excess waste materials. Any garbage of debris to stay at the job site for more than one day will be stored in proper approved containers, properly separated from general public. Stockpiling debris and garbage directly on the ground is not acceptable, but the contractor shall provide adequate metal containers.

5.25 Space Parts

The contractor will provide spare parts for all new materials to be incorporated to the job site. They shall provide a total of:

- 1 lamp of each type utilized for this project,
- 5 m² or 5% of each type of flooring or ceramic tile utilized
- 20 liters of each type of paint to be used,
- other typical materials that were used in this construction project that may be used for the user of the facility for maintenance purposes
5.26 Warranty and Training

The completed works shall have the warranty periods required by Ukrainian regulations, which under no circumstance shall be less than one year general warranty.

The contractor shall provide the warranty letter to the competent Ukrainian authorities with a copy to the Contracting Officer Representative and to the US Embassy representative. The start dates for the warranty is the day when all works are accepted by the US Government in each site, not when the different tasks are completed.

The contractor shall notify the US Government representative at least two months in advance of the proposed final inspection date.

As part of this contract, the contractor shall provide formal training to the beneficiary representatives as part of the turn-over procedure. Prior to turning over the keys of the new facilities, the contractor shall provide not less than 8 hours (1 working day) of formal maintenance training of the facility. The contractor shall provide the services of specialized personnel for the maintenance of the equipment. The beneficiary shall sign the attendance sheet rooster after each day of formal training which the contractor will submit to the COR as evidence of this required training.

5.27 Close-Out Procedure

In order to close the project, the following is necessary:

The contractor shall follow this procedure in order to close-out the contract:

1) Work completed at the construction site. Contractor shall notify the Contracting Officer at least with 60 days advance noticed of when the project will be ready for final inspection.

2) COR receives Acceptance Act signed by all required Ukrainian Government agencies, as stated in the Law. This document should be available during the final inspection. Acceptance Act to be signed by the competent local authorities and the end user.

3) Contracting Officer to receive copies of the warranty letter, a copy of the folder with all construction documents, the spare parts lists signed by the beneficiary, training attendance sheets, and other related documentation. In total, the contractor shall provide 2 books, packages or boxes containing all technical, maintenance and administrative documentation of the contract. One box to remain at the job site and the other to be sent to the US Embassy in Kyiv.

4) Final Inspection by COR and beneficiary representatives.

5) If any defects are identified during final inspection, the contractor to show evidence of proper correction.

6) Once all defects (if any) are corrected, contractor to submit and COR to process final invoice.

7) Contracting Officer to send official Beneficial Occupancy Date Letter.

-/-/-/-/-/-/- end of technical specification -/-/-/-/-/-/-/-
6 Annex 1: Guideline to Prepare the Quality Control Plan

Immediately after award, the contractor shall prepare a Quality Control Plan following the guideline and format provided in this Annex 1. This is in addition to any quality control plan or documentation that may be required by Ukrainian regulations for this type of construction activity. The Plan shall be accepted by the Contracting Officer before works are authorized to start at the job site.
QUALITY CONTROL PLAN

The purpose of this paper is to illustrate how our site organization, our staff and our procedures will help ensure the quality required by the technical requirements.

SITE ADMINISTRATION
[Describe how to carry out all formalities required by local law to open and run the worksite]

SITE FACILITIES
[Describe how the specific worksite is going to be delimited and organized]

STAFF SITE
[List the roles and relevant names of the staff to be employed on the worksite; provide a short description if necessary]

CONTROL ORGANIZATION
[Detail how it will work; who does what]

TESTING
[Describe how tests of soil and concrete will be conducted]

CHECKING THE QUALITY OF THE WORKS
[Describe]

CONTROL OF MATERIALS
[Describe]

GENERAL CONSTRUCTION CONTROL ACTIVITIES
[Describe]

SAFETY ON SITE
[Describe]