EUCOM Humanitarian Assistance Program

Nova Greblia Kindergarten Renovation

Nova Greblia, Vinnitsia Oblast, Ukraine

OHASIS UP-HA-2014-00027834

May 2015

VERSION 001

1. PROJECT DESCRIPTION

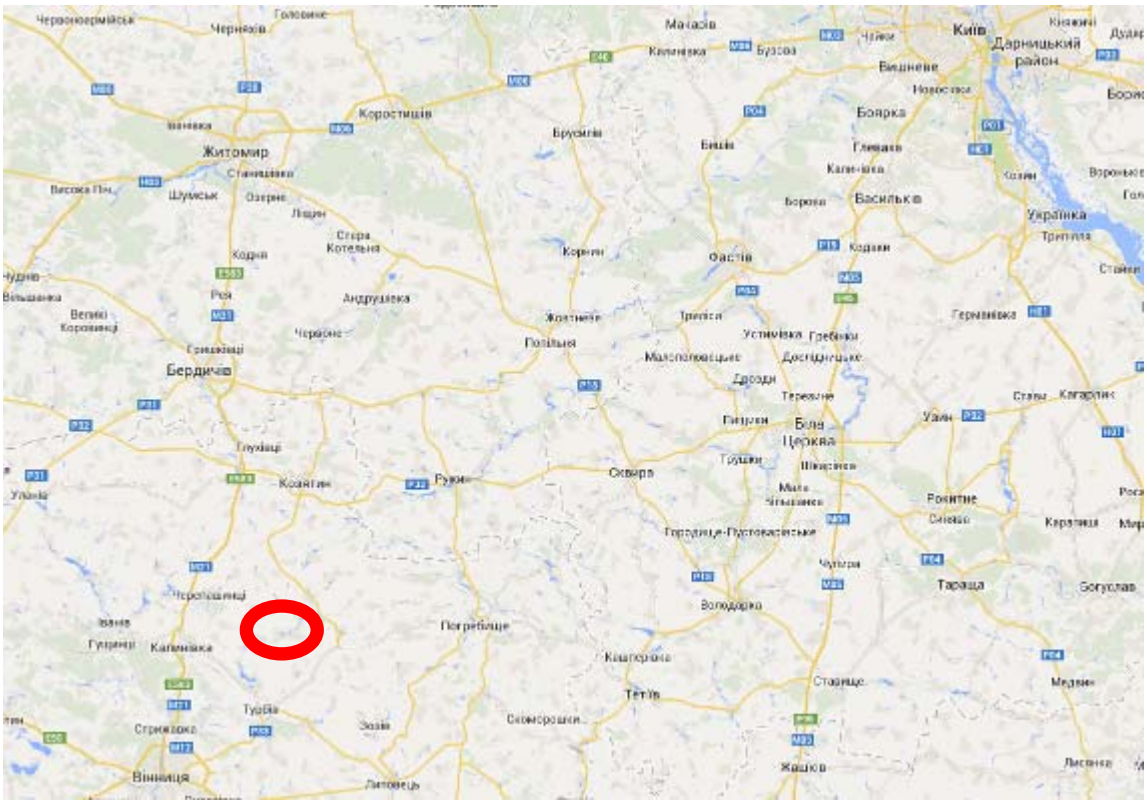
1.1. GENERAL

Provide all design, technical projects, permits, material, equipment and labor to renovate the Nova Greblia Kindergarten, located in the Vinnitsia Region of Ukraine, as described and required in this document.

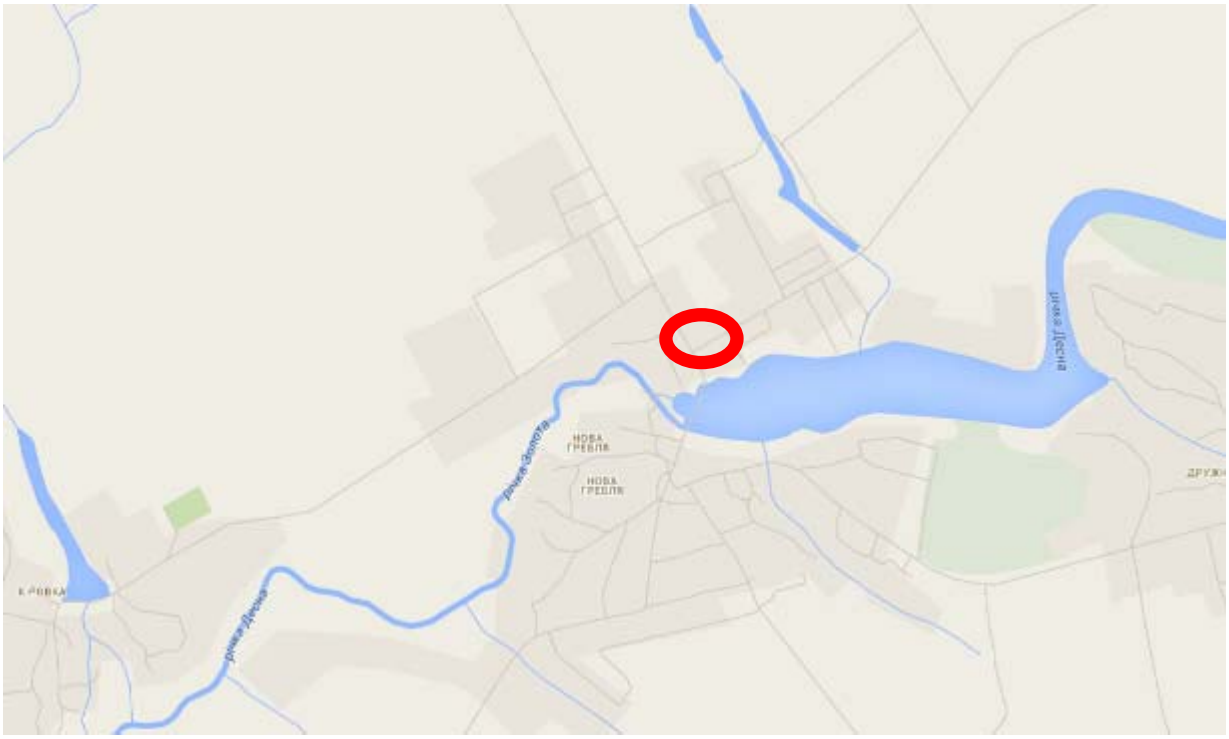
1.2. LOCATION OF THE PROJECT

The project is located in the Municipality of Nova Greblia, in the Kalinivka Region of the Vinnitsia Oblast.

Picture#01: Location Vinnitsia in Ukraine



Location of project



Location of project

Aerial view of existing kindergarten facility

1.3. GENERAL SCOPE OF WORK

The contract includes of all necessary items of work to convert the existing kindergarten facility into a fully certified and operational kindergarten, as required by Ukrainian regulations and as described in this document.

The work is divided into a BASE-BID and 2 CONTRACT OPTIONS. The Government reserves the right to unilaterally award, or not to award, the contract options. The contractor will provide separate pricing for the Base-Bid and the contract option as required in the solicitation documents.

Base Bid:

- Complete internal alternations, improvements and renovations to the existing kindergarten facility.
- All utility connections to have a fully operational and certified kindergarten facility
- Exterior improvements
- Commemorative plaque

Option-1:

- Exterior improvements

Option-2:

- Thermal façade system

1.4. LEGAL AND TECHNICAL REQUIREMENTS

The project execution is based on the following principles:

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

- Strict compliance in general with Ukrainian Technical, Legal and Administrative requirements, which are applicable for the renovation project described in the scope of work; and in particular with Ukrainian regulations related to kindergarten facilities.

- Compliance with Ukrainian safety regulations unless the US regulations are more stringent.

- Compliance with technical requirements included in this document

1.5. CONSTRUCTION PERMIT OR AUTHORIZATION

The contractor shall obtain formal written authorization from the competent Ukrainian authority to perform the works included in the scope of work of this project, as required by Ukrainian regulations.

The contractor is required, as part of this contract, to prepare all documentation, designs, reports, information, drawings, and everything that may be necessary as required by Ukrainian regulations, in order to obtain this Permit or Authorization. This includes the necessary coordination with competent Ukrainian authorities, as well as with electrical, water and gas supply companies.

This project includes all the necessary works to convert a semi-completed kindergarten facility into a fully operational and certified kindergarten. The contractor shall be familiar with competent Ukrainian regulations for kindergartens.

1.6. FINAL ACT OF ACCEPTANCE

The contract includes the official acceptance of the completed works by the competent Ukrainian authorities, certifying that the completed works are technically acceptable to be used as a kindergarten facility.

If the final official certificate does not allow for the facility to be used as a kindergarten, the report shall include which particular elements do not comply with the regulations, to analyze the responsibility for such non-acceptance. For example, if the kindergarten cannot be accepted because the roof is not acceptable, or because size of the kindergarten is not big enough, it shall not the contractor’s responsibility to correct such deficiencies. However, if the non-acceptance is because the floor does not comply with the regulations or because the bathrooms are not big enough, then it shall be the contractor’s responsibility to correct such deficiencies.

No payment above 80% shall be authorized until this final official certificate from the competent Ukrainian authorities is provided and the deficiencies which are the contractor’s responsibility are not corrected.

1.7. EXISTING CONDITIONS

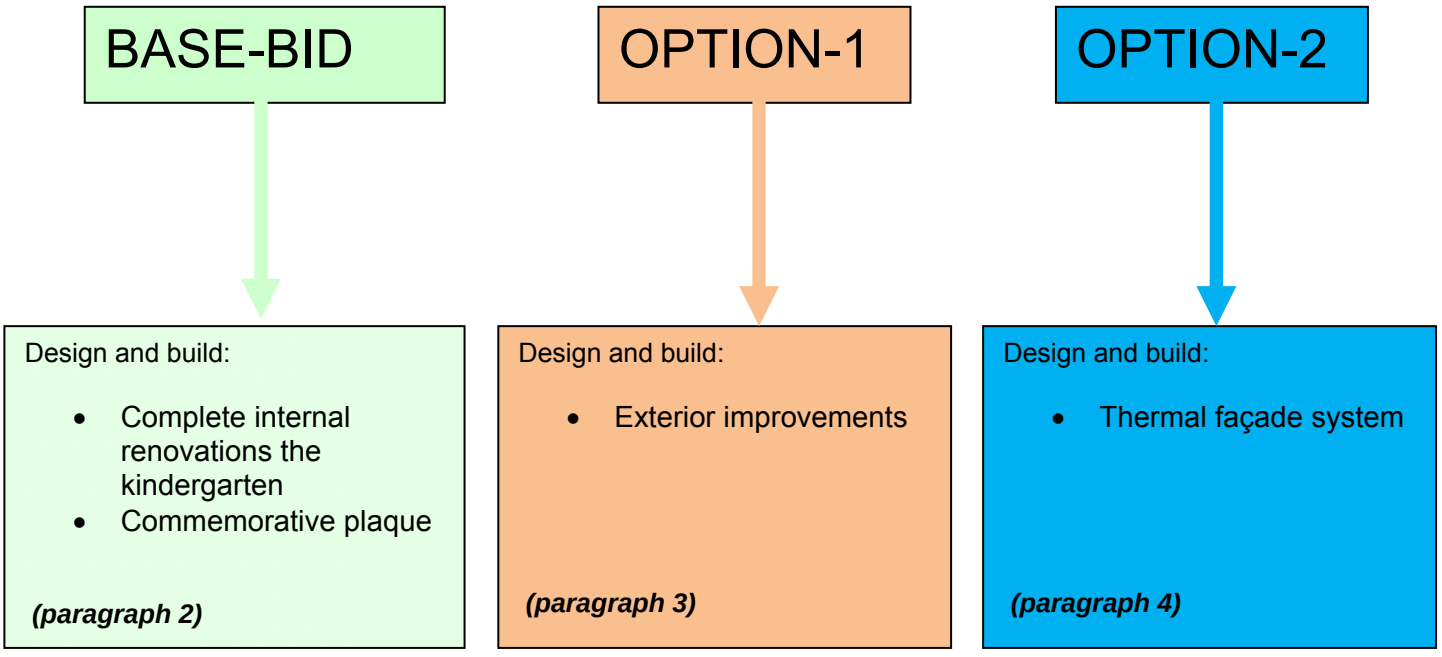
To show existing conditions, several pictures are included in this PTS. These pictures were taken in January and April 2015. These pictures do not guarantee the existing conditions of the building at the time to prepare the offer for the contract, and they are only a tool to describe the responsibilities of the contractor. The contractor is responsible to verify measurements and existing conditions. The contractor is responsible to visit the sites in order to measure and quantify the required work, as well as to verify the existing conditions, prior to the submission of their proposal.

Annex III includes architectural drawings of the existing facilities. Note that some walls have been removed. The US Government shall not take any responsibility for any mistake or error in the measurements of these drawings or in any of the other sketches which are provided in this document.

IT IS ABSOLUTELY NECESSARY FOR THE CONTRACTOR TO VISIT THE JOB SITES IN ORDER TO MEASURE AND TO QUANTIFY THE WORK INCLUDED IN THIS PROJECT AND TO VERIFY REAL FIELD CONDITIONS. THIS PROJECT DOES NOT INCLUDE ACCURATE MEASUREMENTS. ALL MEASUREMENTS SHOULD BE VERIFIED BY THE CONTRACTOR ON SITE.

1.8. STRUCTURE OF THE CONTRACT

The contract includes the complete renovation of the designated areas as detailed herein. The work is divided into Base-Bid and Contract Option-1. The Base-Bid is the minimum part of the project that will be awarded to a construction firm. The Option-1 will be awarded (or not) depending upon availability of funds, as well as other factors. The contractor shall provide a separate price for the Base-Bid and for the contract option, as required by the solicitation documents.



2. DETAILED SCOPE OF WORK (BASE-BID)

This contract includes internal and external renovations and improvements in order to convert a public kindergarten facility currently in an abandoned condition into a modern, fully operational and esthetically pleasant kindergarten, fully in compliance, certified and officially accepted by the competent Ukrainian authorities.

2.1 DESIGN – TECHNICAL PROJECT

This is a design-build contract. Prior to performance of any work on site, the contractor shall hire the services of a licensed architect in Ukraine, with legal and technical capacity to prepare technical projects for the construction of new kindergartens.

Based on information provided by the Municipality, the existing facility was designed and built in 1991 to be used as a kindergarten. However, the project was never completed and it was never used. The Municipality has done a great effort to renovate the existing facility. Recently they have replaced the roof and all exterior windows and doors

2.2 INTERNAL AREAS TO BE RENOVATED

The internal areas to be renovated as part of this contract include the ground floor and the second floor, as well as the stairways. It is not included in this contract the internal renovation of the basement or the stairways to access the basement. However, some work in the basement shall be required in order to provide the utilities and other installations. These works in the basement shall be performed so that the Municipality can renovate the basement in the near future, without the need to reroute any of the installations performed under this contract. This implies that all basement installations shall be routed along the ceilings or walls.

Work in renovated areas includes everything that is necessary in compliance with Ukrainian regulations and with the specific requirements of this document in order to provide a fully operational and certified kindergarten facility.

2.3 MODIFIED INTERNAL LAYOUT

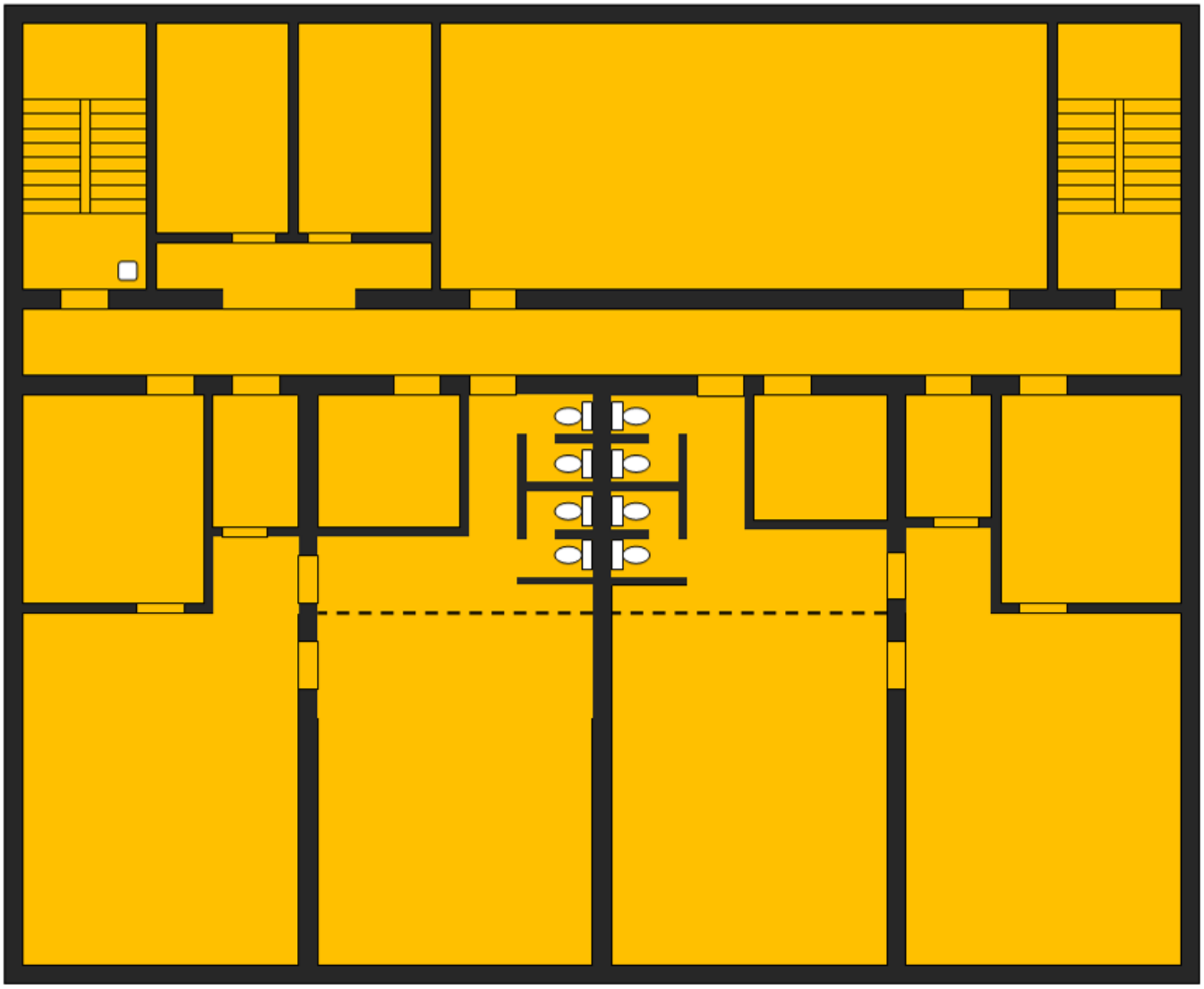
The works include the necessary modifications to the existing internal layout and partitions shown in the sketches included in this paragraph.

These sketches represent conceptually the existing conditions and the proposed new internal layout. Note that the new proposed internal layout does not include any measurements. It shall be the contractor's responsibility to design and propose the new internal layout, with the requirements of the sketches and the requirements of the Ukrainian legislation. In case of conflict between both requirements, the Ukrainian regulations take precedence. It is not included neither some of the existing internal windows. It shall be the contractor's architect responsibility to design and locate the necessary internal windows for the new renovated facility.

It is the contractor's responsibility to hire the services of a licensed architect in Ukraine to design the internal layout of the kindergarten. These sketches shall only be used as the initial proposal to be modified and improved during the design phase of this contract. The final layout shall be in compliance with Ukrainian regulations and officially approved by the competent Ukrainian authorities before the contractor is authorized to start work.

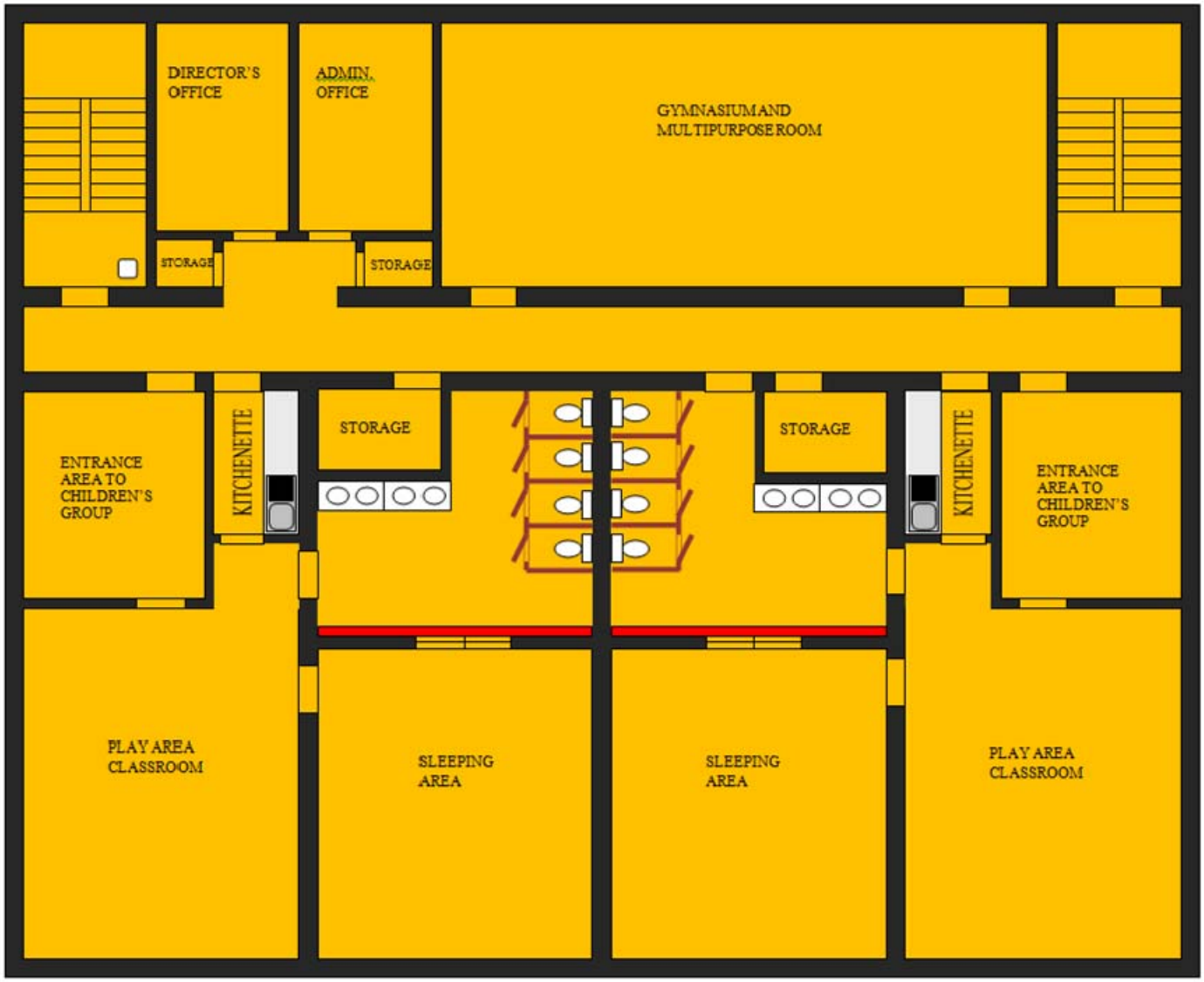
These sketches include the approximate existing and approximate proposed internal layout. It is not included in the sketches the mechanical room, which shall be built in a separate new construction to be attached to the existing facility. Description of the mechanical room shall be covered in a separate paragraph.

Approximate existing layout of the ground floor



Approximate existing layout of the second floor

Potential internal layout for ground floor, to be used as a starting point for the design to be prepared by the architect hired by the contractor.



Potential internal layout for second floor, to be used as a starting point for the design to be prepared by the architect hired by the contractor.

2.4 DEMOLITIONS

Demolish, remove and dispose of everything within the area under the scope of work which is not necessary for the new layout, distribution and required functions of this project. This includes among other elements:

- Ventilation system
- Electrical system
- Plumbing appliances in the bathrooms
- Piping
- Sinks
- Floor drains
- Heating system
- Internal windows
- Windows and doors
- Water piping
- Wall covering and plaster

2.5 FLOORS

All floors in the ground and second floors shall be provided at the same elevation and without any tripping hazards or impediments for movements of wheelchairs. Existing floors and their underlying materials shall be removed in order to provide all floors at the existing finished elevation. Installation of the new flooring surface over the existing flooring surfaces is not authorized. There shall be 2 types of floors: Homogeneous linoleum/vinyl (2 mm thickness) and grès ceramic

All colors and models of flooring to be selected by the representative from the Municipality among ample selection provided by the contractor.

Transition between different types of flooring shall be done with the product recommended by the manufacturer of the homogeneous linoleum.

New floors in ground floor: Orange: porcelain grès stoneware. Green: Homogeneous vinyl/linoleum

New floors in second floor: Orange: porcelain grès stoneware. Green: Homogeneous vinyl/linoleum

Grès Porcelain Flooring:

Provide homogeneous grès porcelain tiles where indicated in the drawing in orange in previous pictures. Include matching wall base board from the same model as the tiles. Install tiles 40x40 diagonally with respect to the walls.

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 the bottom, the top of the middle 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 40x40 cm

Typical installation of floor tiles with joints diagonal to the walls.

All floors shall be perfectly leveled, at the same height as the homogeneous vinyl flooring. In the toilet and boiler room 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.

The new porcelain grès tiles shall be minimum 40x40 centimeters.

Typical grès flooring

Typical grès base boards. Use same model as for the floor tiles

Homogeneous Linoleum (or vinyl) Flooring:

New 2 mm thickness homogeneous linoleum/vinyl for the areas highlighted in green in previous pictures, provided with combination of two colors in each room. Flooring material to be installed by specialized experienced workers, over self leveling grout to be perfectly leveled, and to be accepted by manufacturer representative.

In the gymnasium or multipurpose room, the contractor shall provide floor design typical for kindergartens, as shown in some of the pictures in next page. All colors and models of flooring to be selected by the Kindergarten Director among ample selection provided by the contractor. For estimating purposes, the contractor shall estimate that they shall use inm the gymnasium or multipurpose room one of the 4 models shown in the next page.

Clarification on the homogeneous linoleum (or vinyl) for the flooring surfaces:

The surfaces to which apply the homogeneous linoleum shall be perfectly leveled, and provided with high quality solid homogeneous linoleum (2 mm thickness of wear thickness). Linoleum material shall have the minimum technical characteristics listed below:

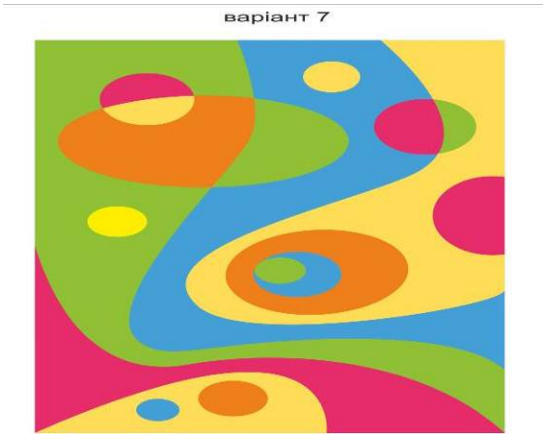
- Description (EN 649): Homogeneous single layered vinyl flooring
- Reaction to fire: Bfl-s1
- Electrical behavior - body voltage (EN 1815) – kV: < 2
- Thermal resistance (EN 12667) - m² K/W: Approx. 0.01
- Thermal conductivity: Approx. 0.01
- Bacteria resistance (EN ISO 846 Part C): Does not favor growth
- Total thickness (EN 428): 2 mm
- Wear layer thickness (EN 429): 2 mm
- Total weight (EN 430): >2.95
- Abrasion group - volume loss (EN 660 – 2) – Group: T
- Abrasion group - volume loss (EN 660 – 2) – mm3: ≤ 2.0
- Classification - industrial (EN 685) – Class: 43

Install following manufacturer's instructions for a perfectly leveled finished surface. Installed over self leveling layer, using welded joints, and installed over the lower portion of the walls, as indicated in the model shown in picture#11. The material used for the floor shall be extended up to 10 cm along the walls, without any joints separating the floor and the wall portions. Linoleum shall be provided in rolls and not in tiles.

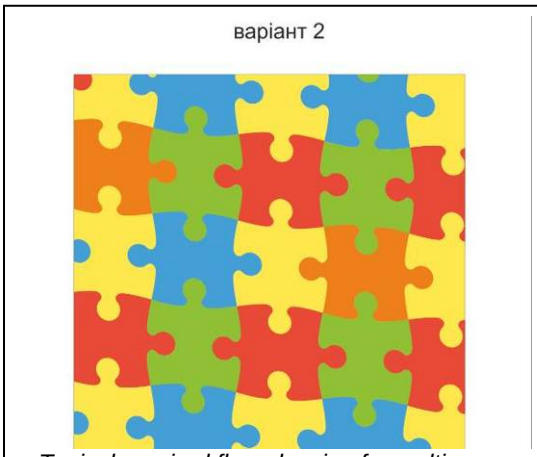
Definition of homogeneous linoleum: The linoleum or single layered vinyl flooring shall have a minimum thickness of the wear layer of 2 millimeters and a total thickness of 2 millimeters. This means that all the material of the linoleum flooring is wear layer. A linoleum flooring with less than 2 millimeters of wear surface and made up of several layers is not acceptable.

Typical homogeneous linoleum in combination of two colors as required for the classroom

Typical surface of the required homogeneous linoleum



Typical required floor drawing for multipurpose room



Typical required floor drawing for multipurpose room

Typical required floor drawing for multipurpose room

Typical required floor drawing for multipurpose room

2.6 WALLS

All walls within the renovated areas shall be completely renovated. Existing wall coverings (ceramic tiles, plastic, wall paper,…), internal windows, wooden frames, and paint and plaster shall be removed as necessary in order to provide perfectly leveled finished wall surfaces. Where plaster does not need to be removed, as a minimum the existing paint shall be removed before providing the new required wall covering. Covering the existing walls behind new gypsum board to provide perfectly leveled surfaces is not authorized. All internal walls shall be leveled using cement mortar plaster. It must be noted that some internal walls have exposed brick surface, which shall be plastered in order to provide all internal walls with an uniformed and perfectly leveled surface.

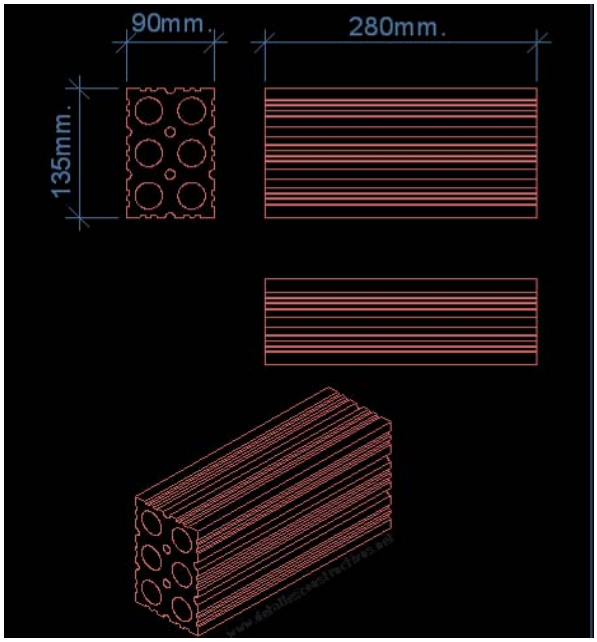
It shall be noted that the new required internal layout includes removing some of the internal partition walls, and building new masonry walls. Once the project is completed there shall be no visual difference between repaired existing and new walls. The use of gypsum board partitions to build new internal walls is not authorized, but all new walls or interior partitions shall be made with ceramic bricks, plastered and provided with the finishes required for each particular room. New masonry walls shall use ceramic bricks of 9 cm width, specifically recommended by the manufacturer for internal partition walls.

Note that all the installations (telephone, water, A/C, electricity,…) shall be installed recessed within the finished walls, and consequently the contractor shall estimate the necessary channels within the walls before they are provide with the finished layer.

Typical 9 cm double hole brick

Typical internal masonry partition wall with ceramic bricks

Typical double hole brick



Design of typical ceramic brick

Crack repairs: One crack along several wall surfaces was observed that needs to be repaired prior to provide the walls with the required finishes. The method of repair shall be designed by the architect hired by the contractor to prepare the kindergarten design.

Finished colors shall be selected by the beneficiary. Paint shall be rated and classified as washable, antibacterial and antifungal. Walls to be designed to cover all utilities (i.e. water, electrical, heating, fire alarm, drain and sewer lines,…). All corners shall be protected against impacts with stainless steel corner guards or other approved material.

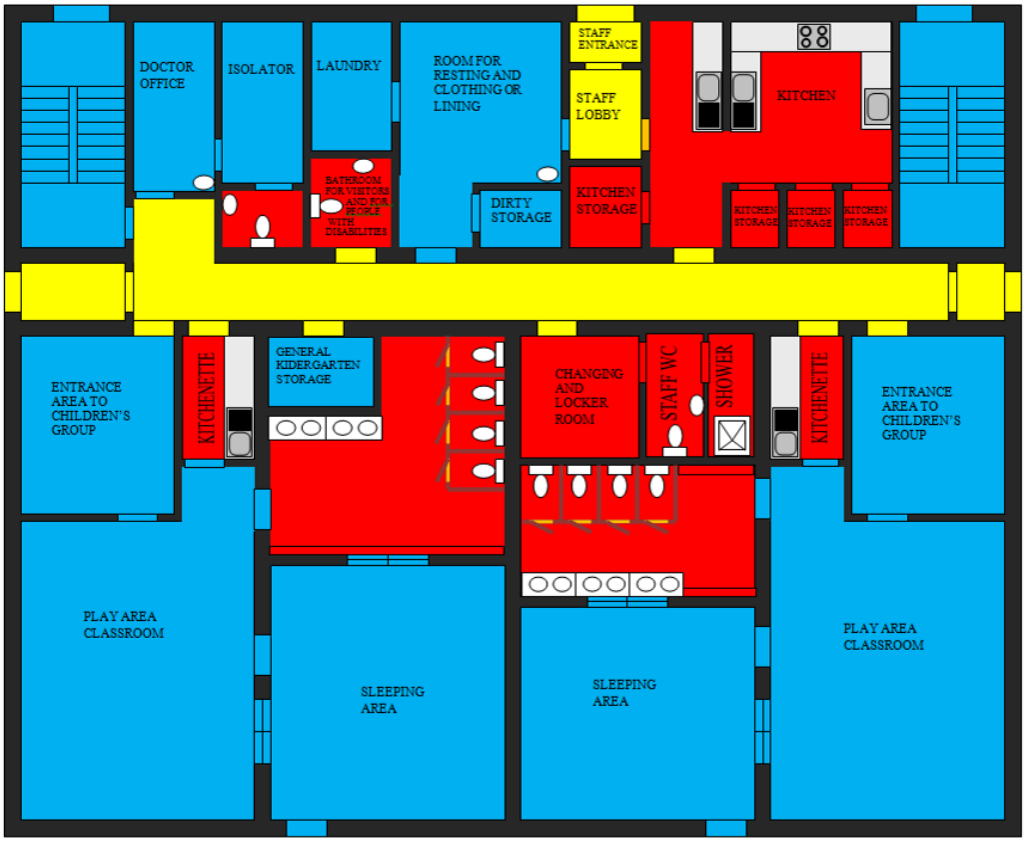
All finished walls shall be perfectly leveled. It is estimated that all surfaces of the existing walls shall be provided with new plaster in order to provide a perfectly leveled surface.

There shall be 3 different types of wall finishes, with minor potential differences to be proposed by the contractor's architect and accepted by the Contracting Officer.

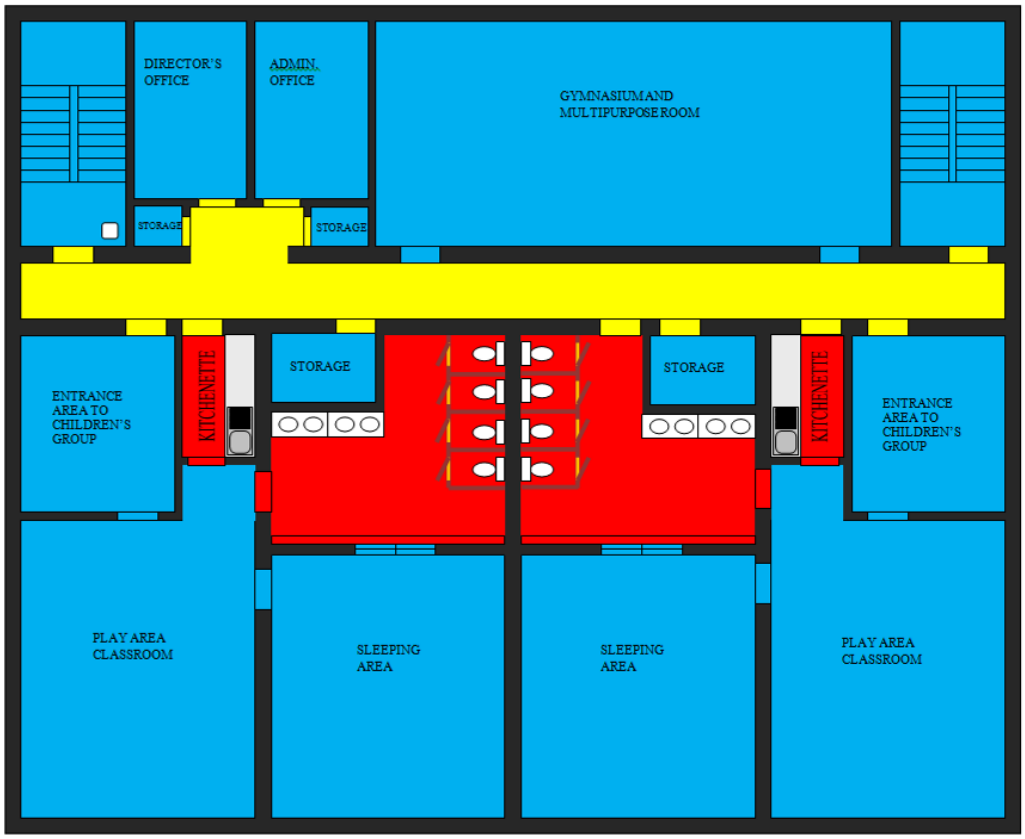
- Where indicated in blue: Plaster and paint finish. Use combination of two colors for lowest and highest sections of walls. Lowest 12 cm to be compatible with type of flooring (vinyl or ceramic wall base)

- Where indicated in red: Ceramic tiles from floor to new ceiling surface

- Where indicated in yellow: Ceramic wall covering (wainscot) in lowest 1.5 meters, using wall ceramic tiles of minimum size 20x30 cm in combination of two colors.



General wall finishes: colors as described in previous page



General wall finishes: colors as described in previous page

Specific requirements for ceramic wall tiles and their installation:

Material: Non-glazed ceramic tiles (for walls) with water resistant joints, glued onto the surface of the wall. Provide with stainless steel corner guards embedded in the wall tiles. Provide combination of 3 colors and patterns for the wall tiles, to be selected by beneficiary among ample selection to be provided by the contractor. Minimum size of tiles to be 20x30 cm.

Properties: I class (best quality) tiles, suitable for use in hospitals and kindergartens, thickness according to ISO10545-2

Installation: All corners of all ceramic tiled walls shall be provided with metal corner protection.

The contractor shall propose a design for the approval of the beneficiary, using a combination of 3 different colors of wall tiles (2 colors for the hallways). Wall tiles to be provided with a decorative friso at the middle and top of the walls.

Required finishes for the walls of the hallway.

Typical aluminum with anodized finish corner protection

Typical metal corner protection required for all tiled corners.

***Typical friso** for ceramic tiled walls*

2.7 CEILING FINISHES

There shall be four types of ceiling finishes: suspended ceiling of different types and plastered and painted ceiling.

For those areas to receive new suspended ceilings, before covering the existing ceilings, the contractor shall repair any damage that there may be. The ceiling shall be installed as high as technically possible to allow for the installation of the utilities above the ceiling, such as the ventilation ducts or the lighting fixtures.

There shall be 4 types of ceiling surface, described for each areas in the sketches in the following page:

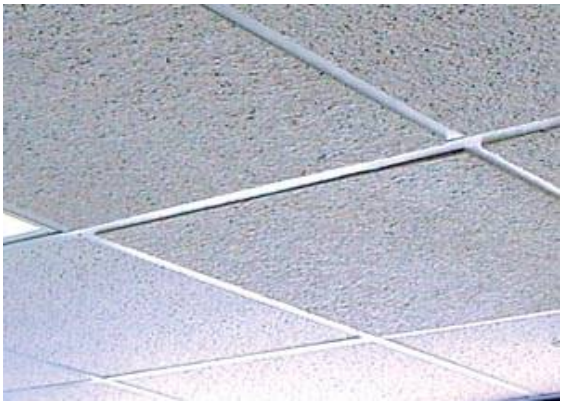
- **Type 1:** Red: Standard suspended acoustical ceiling
- **Type 2:** Yellow: Humidity rated and certified suspended ceiling.
- **Type 3:** Blue. Repair, plaster and paint with certified antibacterial/antifungal product.
- **Type 4:** Green: Impact resistant suspended ceiling.

Suspended Acoustical Ceiling

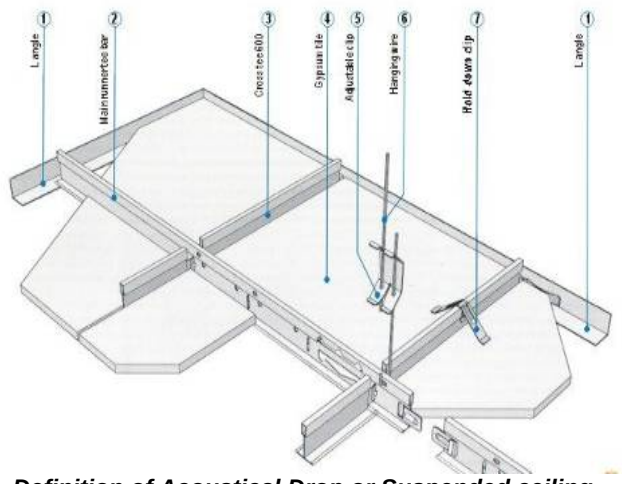
Where highlighted in red in the sketches. Use Mineral tiles 600/600/33mm on a metal sub-frame coated with a durable anti-bacterial finish.

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

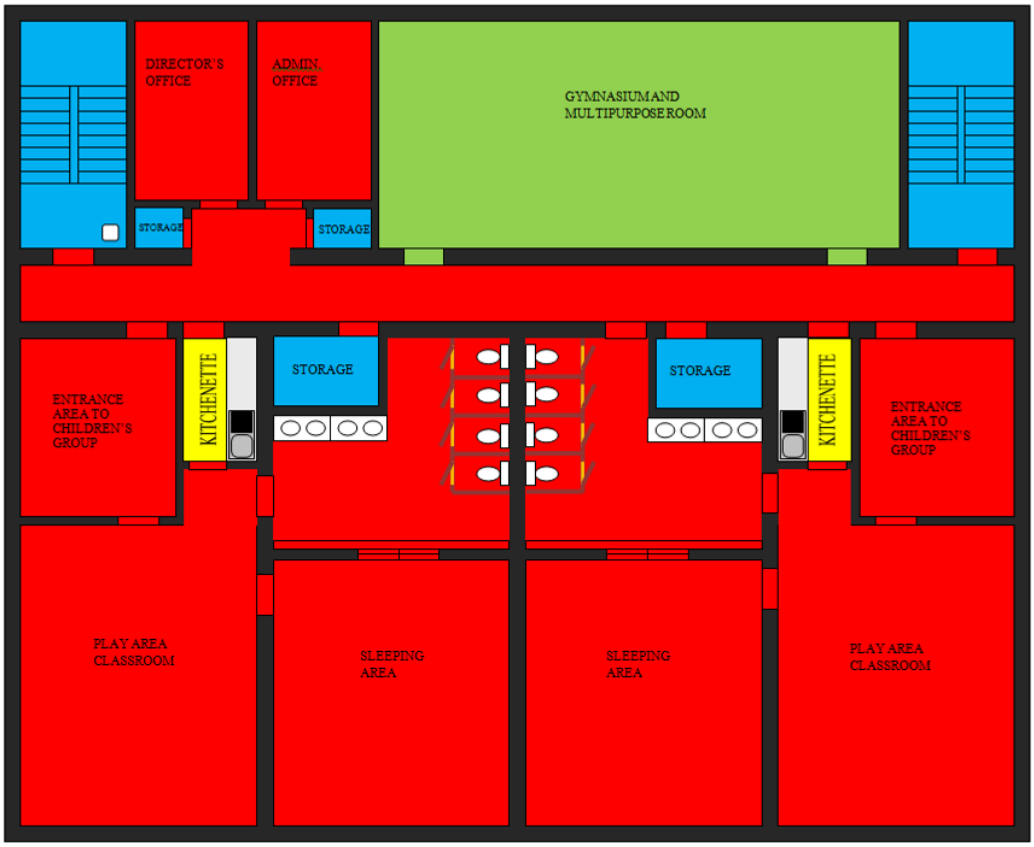


Typical acoustical suspended ceiling



Definition of Acoustical Drop or Suspended ceiling.

General ceiling finishes: colors as described in previous page



General ceiling finishes: colors as described in previous page

Humidity Rated Suspended Ceiling

Where highlighted in yellow in the sketches in the previous page, 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.

Typical installation of humidity resistant and certified acoustical suspended ceiling

Plaster and paint ceilings with certified antibacterial/antifungal paint for product

The ceiling where highlighted in blue in previous page, shall be plastered and coated with special paint, rated and classified as antibacterial and antifungal coating. It must be noted that the ceiling construction is apparently made with prefabricated concrete slabs, which will make it technically difficult to be plastered and provided with a perfectly finished surface. The contractor can choose between performing the necessary works to provide a perfectly leveled ceiling surface, or provide a gypsum board covering, to be painted with antibacterial and antifungal coating product.

Impact resistant suspended ceiling.

The contractor shall design a different ceiling covering solution for the gym or multipurpose room. This suspended ceiling shall be perfectly leveled, and resistant against impacts from balls. This room will be used for sports for young children, and therefore the ceiling shall be designed to resist the potential impacts that it will receive.

2.8 VENTILATION

Prior to the installation of the new ceiling surfaces, the contractor shall design, provide and install a fully operational ventilation system for the entire kindergarten. All existing ductwork and accessories shall be removed. The contractor shall hire the services of a licensed architect or engineer in Ukraine to design the ventilation system of the entire kindergarten facility.

The new ventilation system shall be designed in accordance with Ukrainian regulations for kindergarten 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 bathroom, kitchen and other rooms as specified below. These systems shall be designed with the following parameters:

For the children bathrooms (4 units):

- Electrical exhaust fans
- Galvanized ductwork connecting the bathrooms to the exterior of the building or to the space under the roof.
- Exterior self-closing louver in the façade of the building if connecting to the exterior through the walls (it opens only when the exhaust fan is connected)
- Capable of replacing the air volume of the bathroom in 10 minutes
- Coordinated with the design of the bathroom doors to allow for the necessary air flow

For the rest of bathrooms and laundry room (medical unit, visitors, staff WC, shower, changing and locker room and laundry):

- Electrical exhaust fans
- Galvanized ductwork connecting the rooms to the exterior of the building or to the space under the roof.
- Exterior self-closing louver in the façade of the building if connecting to the exterior through the walls (it opens only when the exhaust fan is connected)
- Capable of replacing the air volume of the bathroom in 3 minutes
- Coordinated with the design of the doors to allow for the necessary air flow

For the kitchen room:

- Electrical exhaust fans
- Galvanized ductwork to maximize air exchange in the room, connected to the exterior of the building through the exterior wall.
- Exterior self-closing louver in the façade of the building (it opens only when the exhaust fan is connected)
- With variable speed control
- Capable of replacing the air volume of the kitchen in 3 minutes at maximum speed
- Coordinated with the design of the doors to allow for the necessary air flow

For kitchen exhaust hood:

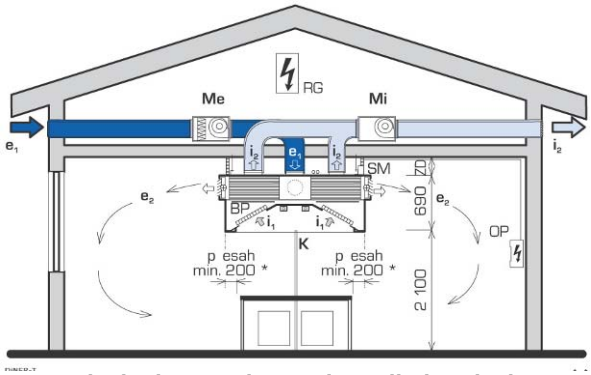
- Provide a stainless steel hood over the new stove to be provided in the kitchen, sized and designed in coordination with the size of the new stove and oven to be provided.

For rest of the areas of the kindergarten, the contractor shall design a complete natural ventilation system, unless Ukrainian regulations also require force ventilation for other areas.

Typical ductwork and in-line exhaust fans

Typical ventilation ductwork, connecting to the exterior of the building.

Typical internal ventilation ductwork



Typical adequate integral ventilation design, considering air extraction and intake.

Typical stainless steel hood as the one required over the new electric stove

Small metal exhaust fan with self-closing louvers as the ones that could be selected for the kitchen

2.9 ELECTRICAL INSTALLATION (GENERAL)

The project includes the complete design and installation of a completely new electrical system starting at the electrical substation located adjacent to the kindergarten building.

The work includes, but is not limited to:

- Design of the new electrical system and pertinent and required approvals by competent Ukrainian licensed engineer and authorities. This includes pertinent approval of the connection by the Ukrainian electrical company. 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. 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.

- The contractor shall prepare all documents and pay for any necessary connection fees. However, the actual electrical supply contract needs to be signed by the Municipality. The contractor is responsible to pay and sign the contract exclusively for the temporary electrical connection which the contractor may prepare in order to obtain electrical power for the construction phase of the contract.

- The contract includes internal renovations and works in the ground floor and second floor of the kindergarten. However, as an exception to this contract requirement, the electrical design shall include the basement, although no electrical work is to be performed in the basement with the exception of the necessary preinstallation of conduits from the new main electrical panel in the kindergarten building to the basement. This is to allow for the Municipality to perform the electrical works in the basement in the future without the need to perform any works in the ground floor.

- Demolitions: Remove any remains of the existing electrical installation in the kindergarten.

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

- Provide a new electrical feeder (circuit) from the electric substation to a new main electrical panel. Provide the new cables connecting the substation to the kindergarten in underground PVC conduits, unless this is not authorized by the utility company. Provide the necessary electrical protection for the new circuit in the substation area.

- Electric Meter: Provide the electric meter and the necessary protection and necessary auxiliary equipment and works in compliance with Ukrainian regulations and with the requirements of the electrical utility company. Place the electric meter where proposed by the contractor’s designer and allowed by the electrical utility company.

- Provide a new main electric panel on the main hallway of the ground floor of the kindergarten, or in another location to be selected by the contractor’s designer and accepted by the Contracting Officer. The new main electric panel shall be recessed on a wall surface.

- 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. When a particular room requires for example 3 receptacles, this means that there shall be 3 receptacles at direct locations, and not a single wall mounted box with the 3 receptacles together.

- Illumination: **Provide LED technology lighting** or rapid start fluorescent lighting, as indicated in the sketches provided in this paragraph. The contractor shall provide an illumination technical project indicating the illumination level at all areas of the kindergarten. 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. For the classrooms and sleeping areas, the LED lighting system shall be controlled by 2 LED approved dimmers, in coordination with the LED lighting fixtures. The contractor shall use the services of a manufacturer or authorized supplier of LED lighting fixtures to design the type, quantity and location of the lighting fixtures in order to provide the lighting levels required by the most strict of Ukrainian and European regulations.

- Exterior lighting: Provide LED technology lighting fixture where the original design of the building required exterior lighting. This can be seen by the remains if the existing exterior lighting system. Use floodlights of minimum 25 watts each with individual switches and motion detection. Lighting fixtures and all electrical installation to be rated for outdoor use.

- Provide full electrical installation for the new mechanical room (not included in the sketches in this paragraph)

- Provide the necessary special appliances as required by Romanian regulations, such as emergency lights, exit signs, etc

Location of electrical substation, where to connect the new electrical system

Potential LED lighting fixture in the suspended ceiling

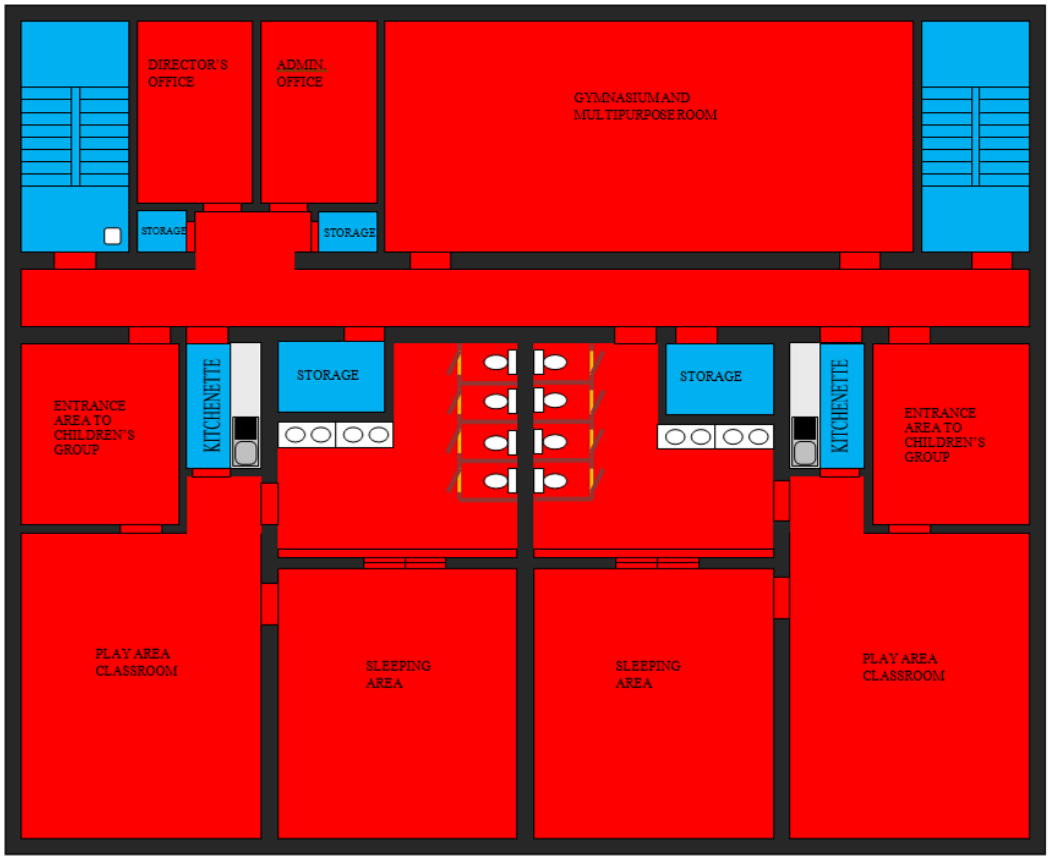
All electrical mechanisms to be recessed in the new walls. Provide wide switches as shown.

Required LED lighting fixtures in the acoustical suspended ceiling.

Typical required electrical panel to be recessed on the walls

Required exterior LED lighting fixture

Lighting systems: Red (recessed LED systems), blue (rapid start fluorescent)



Lighting systems: Red (recessed LED systems), blue (rapid start fluorescent)

2.10 HEATING

The contractor shall hire the services of a licensed technician in Ukraine to design a new central heating system. In general, the system will include:

- New separate construction for the mechanical room, to be located as close as technically possible to the kindergarten facility. It is preferred, if technically possible, to place the new mechanical room attached to the existing kindergarten facility.

- Dual fuel system with two separate boilers: gas and solid fuel

- New heating pipes to the areas to be renovated. All heating pipes to be recessed within the walls or running above the suspended ceiling, not visible.

- New bimetal aluminum type radiators to each of the areas to be renovated, sized and located as required by the contractor's design

2.10.1 Heating – Basis of Design for new mechanical room

The contractor shall hire the services of an architect licensed to design mechanical rooms in Ukraine. The contractor shall follow the following basis of design:

- Location of new mechanical room: As close as technically possible to the existing kindergarten building. The contractor may choose other locations within the school plot of land of the kindergarten. The contractor is responsible for any demolitions that may be necessary.

- Size of mechanical room: As required by Ukrainian regulations and depending on the size, model and requirements of the new boilers to be selected by the contractor.

- Elevation of the new mechanical room: Internal floors to be minimum 30 cm higher than existing grade elevation.

- Seismic criteria for the new mechanical room: As required by Ukrainian regulations for this location within Ukraine.

- Layout: The new construction shall have minimum of 3 separate areas:

    - Boiler room: Sized as recommended by the manufacturer of the boilers to be selected by the designer. Manufacturer of the boilers shall approve in writing the design of the boiler room.

    - Solid fuel storage: Properly separated by fire rated walls from the boiler room. Minimum 15 m².

    - Office: Provide a small office, to keep inventory of mechanical room. Minimum 10 m².

- Structure of the new mechanical room: Reinforced concrete foundations, columns and ceiling deck.

- Roof of the new mechanical room: Similar to the new roof provided by the Municipality on the kindergarten building, but supported by metal structure. The use of wood for the roof structure is not authorized. Provide 0.8 meter wide roof eave around the new facility. This means that the horizontal projection of the roof shall be 0.8 meters wider than the horizontal projection of the external enclosure of the new facility.

- Floors: Exposed concrete. Do not provide tiles or other floor finishes for this new facility.

- Walls and ceilings: Plastered and paint.

- Electrical: In compliance with Ukrainian and European standards. Rapid start fluorescent lighting. Electrical installation recessed within the walls. All cables to be installed within electrical conduits. Receptacles as needed for the intended use of the areas.

- Windows: Aluminum framed. Opening vertically and horizontally. Double glazing (6-24-6). Minimum thickness of glazing to be 6 millimeters.

- Doors: Aluminum doors. Without bottom frame. Provided with aluminum louver in the lowest section of minimum 20x40 cm. The exterior doors shall be minimum 90 cm wide. Aluminum can be substituted for galvanized steel for the exterior doors only.

- Heating radiators: As required for the kindergarten building, but only required in the office room.

- Water and Sewer/Drainage: As required by the mechanical design (minimum 1 sink)

- Exterior: Plaster and paint finish.

- Sidewalks: Provide 1 meter wide sidewalks around the new facility.

2.10.2 Heating – Basis of Design for new heating system

The contractor shall hire the services of a licensed engineer in Ukraine, authorized to execute designs for central heating systems, as required by Ukrainian legislation. Prior to starting the design, the contractor shall send copy of the Ukrainian design licenses to the Contracting Officer.

As explained in previous paragraph, the design of the new facility where to install the new boilers shall be coordinated with the design of the central heating system. The design of the new boiler room shall be approved in writing by the boiler manufacturers.

- Heating Boiler 1 (wood and other solid fuel): The new heating boiler shall have the following technical characteristics:

    - Minimum 100 KW (or 86,000 Kcal/h) of capacity.

    - Fuel: Designed, certified and classified as a wood and coal fuel heating boiler. Designed to burn all sort of wood and mineral coal.

    - CE certified boiler

- Heating Boiler 1 (gas): The new heating boiler shall have the following technical characteristics:
    - Minimum 100 KW (or 86,000 Kcal/h) of capacity.
    - Fuel: Natural gas
    - Wall mounted
    - CE certified boiler
- Heating boiler stacks: Provide and install two separate stainless steel stack, to extend 1 meter higher than the highest elevation of the roof of the kindergarten building. This will require additional supports and structural reinforcement of the stack structure.
- Hot water circulation pumps: To be sized and designed by the licensed specialist hired by the contractor. Provide dual pump system. This means that for any pump provided, the contractor shall install another one in parallel to be used in case the first one does not work. Under normal operating conditions, only one pump of every two provided shall be operational. The contractor can choose to provide one single pumping system (provided with 2 pumps in parallel with only one working under normal operating conditions) or one pumping system for each one of the heating sectors (provided with 8 pumps, of which 4 would be working under normal operating conditions).
- Heating sectors for the kindergarten: The school internal heating distribution system shall be divided into minimum 4 separate heating loops. This means that if there is any malfunction in any of the heating distribution piping or radiators, the School Administration shall be capable of shutting down that loop of the heating system in order to make the necessary repairs, while the other 3 loops would remain fully operational. In case or malfunction within the kindergarten heating system, 3 fourths of the school heating shall remain operational, while 1 fourth would be shut down in order to make the necessary repairs.
- Heating accessories: Provide all the necessary filters, valves, expansion tanks, pressure relief security valves, water connections, drainages, and everything necessary, as included in the design, in order to provide a perfectly operational central heating system throughout the school building.
- Interior temperature design: The sizes of the pumps, radiators and piping shall be designed in order to provide minimum temperature of 21 degrees Celsius in worst winter conditions in Nova Greblia, and a maximum of 24 degrees Celsius. It is not acceptable if by increasing the output of the boiler in order to obtain the minimum temperature in the worst location, the temperature in the most favorable location goes above 24 degrees. The whole system shall be balanced in order to obtain uniform interior temperatures.
- Piping: Sized as required by the design. Piping shall be certified by the manufacturer to be used in central heating systems.
- Piping installation: The piping shall be installed along the walls of the kindergarten. It is not authorized to install the heating laying piping on the floors, especially where it can cause tripping hazards. The installation of the piping shall require multiple wall and floor penetrations. All wall and floor penetrations shall be done through pipes sleeves, in order for rapid replacement of piping in the future in case it is needed.

- Radiators: Provide bimetal type heating radiators. Sized as required by the contractor's design. Provide each radiator with its individual control valves.

- Radiator and piping physical protection: In the areas used by the children, the contractor shall design a protection system for the radiators. These protection systems shall comply with the Ukrainian Fire Code and shall be approved in writing by the radiator manufacturer. The contractor shall provide several designs for the approval of the Municipality.

- Installation and Commissioning of New Boiler: To be performed and/or certified in writing by the manufacturer representative. Provide 500 kg of wood in the storage place after testing and acceptance is completed.

- Testing: All piping systems shall be tested at minimum 3 times the maximum operating pressure, with no noticeable drop in pressure after 48 hours. Pressure test to be certified by third party inspection company licensed in Ukraine.

- Acceptance: Final acceptance will be determined by measuring the temperature in worst winter conditions in Nova Greblia in each room (when outside temperature is maximum -10 degrees Celsius). Temperature test will be conducted by a third party inspection company licensed in Ukraine and witnessed by the Municipality representative. Duration of the contract is longer than the time required to make all necessary works. This is because payment over 80% for the new heating system will not be authorized until temperature test results are provided to the Contracting Officer Representative. In case the contractor finishes the works in April, only 80% payment for the heating system will be authorized until January or February of the following year, when the outside temperatures are expected to be -10 degrees or colder.

2.10.3 Heating – Basis of Design for new Gas Line

A new gas supply line is required and part of this contract, to connect the gas infrastructure existing in the village to the new mechanical room.

The contractor shall hire the services of a licensed engineer in Ukraine, authorized to execute designs for new gas lines, as required by Ukrainian legislation. Prior to starting the design, the contractor shall consult and coordinate with the gas company and with the Municipality the point of connection and routing of the necessary gas lines to supply heating gas fuel to the new mechanical room.

The contractor shall prepare a full design as required by the Ukrainian regulations and by the gas supply company, to be approved by the competent Ukrainian authorities and agencies prior to performing any works. The works shall include the necessary permits, pipes, supports, valves, meters, fences, and everything that is required by Ukrainian regulations in general, and by the gas supply company in particular, to provide gas from the nearest available gas line in the village to the new gas boiler to be installed in the new mechanical room.

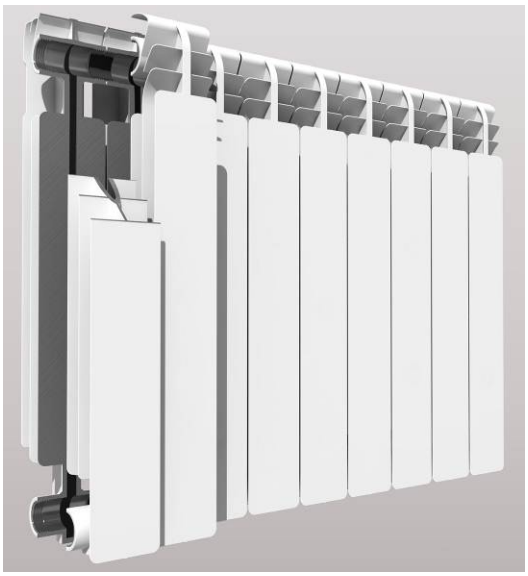
This is very specialized work, and it requires special licenses for the companies authorized to perform these works. The contractor needs to be perfectly informed of the specific applicable requirements for the design and installation of gas lines in Ukraine.

The contractor shall be responsible to pay for any official connection fees from the gas supply company, and to coordinate all technical and administrative requirements for the new gas supply contract. However, the Municipality is responsible for signing the actual gas supply contract.

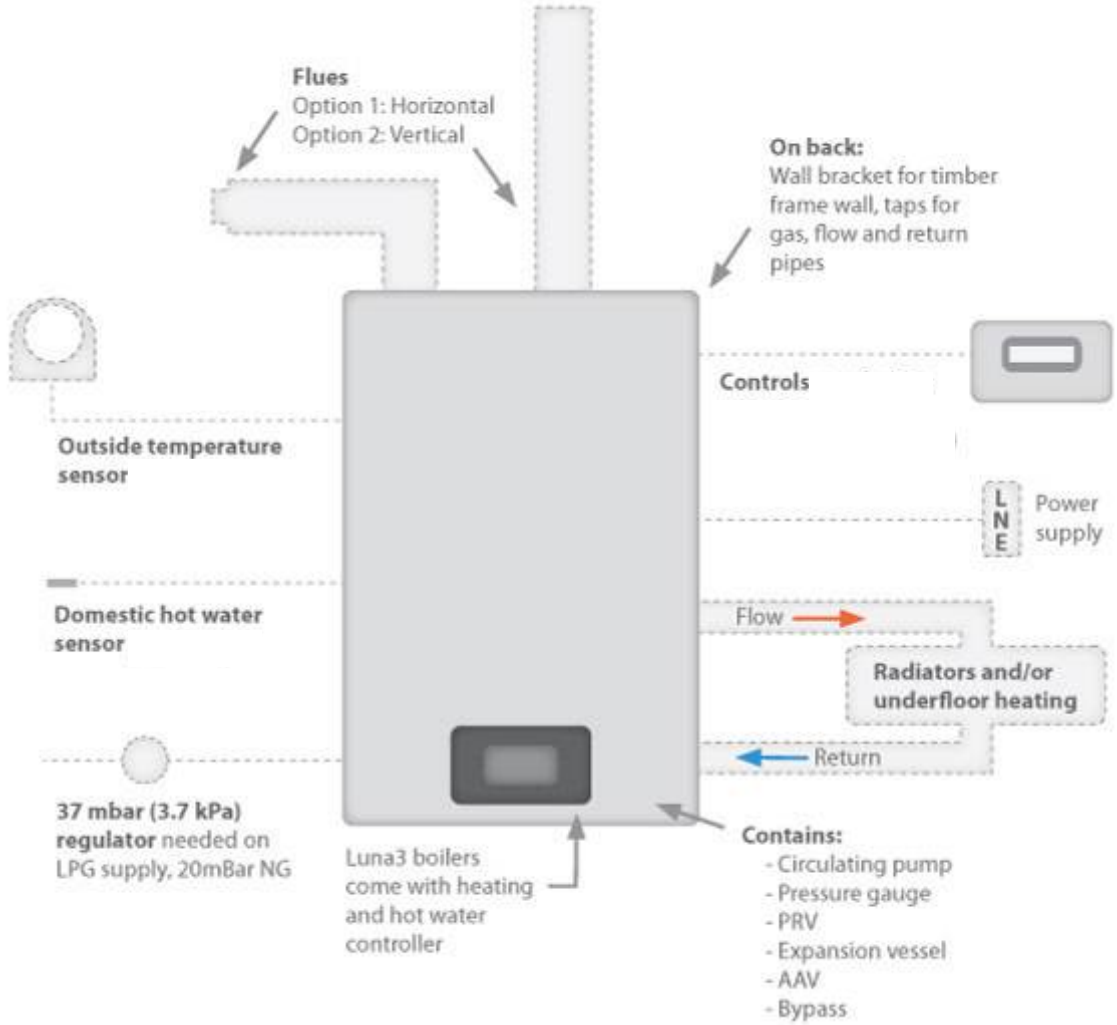
Typical required dual solid fuel boiler.

Typical gas boiler.

Definition of bimetal type radiator



Definition of bimetal type radiator



Typical required diagram for gas heating boiler

2.11 EXTERIOR WINDOWS AND DOORS

All exterior windows and doors were recently replaced by the Municipality and therefore they shall remain at the kindergarten. Nevertheless, the adjustment and finishes of these windows is defective in some areas, and they would not be compatible with the new internal finishes of the building. In order to repair the floors and walls it would be necessary to remove and reinstall them. The contract includes:

- Removing as necessary all exterior windows and doors in the areas to be renovated in order to provide perfect seal and finishes between the existing windows and doors and the new walls and floors.

- Adjust and repair all existing exterior windows and doors in order to have perfectly operational systems.

- Replace broken window panes. For estimating purposes the contractor shall estimate that they need to replace 3 double gazing panes.

- Similarly to the windows, the contractor shall remove, modify as necessary and install the existing internal window sills, in order to provide the new wall surfaces with a perfect finish.

- In the exterior of the kindergarten it is required to provide a perfect finish between the existing windows and doors and the façade so that the insulation foam cannot be seen.

- Modify as necessary, or replace if required, the exterior doors, in order to provide them with anti-panic hardware. In case the doors cannot be adjusted for new anti-panic hardware, the contractor shall be responsible to remove them and provide new doors with anti-panic hardware. In case new doors are required, these shall be provided with the same quality and finishes as the ones to be removed.

Typical new required Anti-panic hardware for all exterior doors

2.12 NEW INTERIOR DOORS

The contractor shall provide all new interior doors, as required by their new interior layout design, with the minimum requirements of the sketches provided in this document.

The contractor shall completely remove any remains of the existing interior doors. Nothing from the existing interior doors shall be reutilized.

The minimum width of all door leaves shall be 81 cm. If any of the existing door openings do not comply with this requirement, the contractor shall make the door openings wider if technically possible (i.e. without affecting the load bearing walls). The doors shall be provided as detailed herein:

Interior doors to be solid hardwood except a few doors that can be PVC framed (as shown in the sketches). For the solid hardwood doors, provide all required locks, tubular handles and heavy-duty hinges of stainless steel.

For the PVC doors provide tubular handles of stainless steel and the rest of the hardware, as recommended by the manufacturer.

Doors of the classrooms shall be provided with a see-through window of minimum dimension of 10 cm horizontal and 40 cm vertical. Use transparent glazing of minimum thickness 6 mm. Doors of the remaining rooms shall be solid, without any windows.

Doors shall all be delivered by the manufactured already installed in the frame. The doors shall be provided with 3 frames (without a bottom threshold). Separation between the floor and the bottom of the door leaves shall be minimum of 1 cm to allow for ventilation of the rooms.

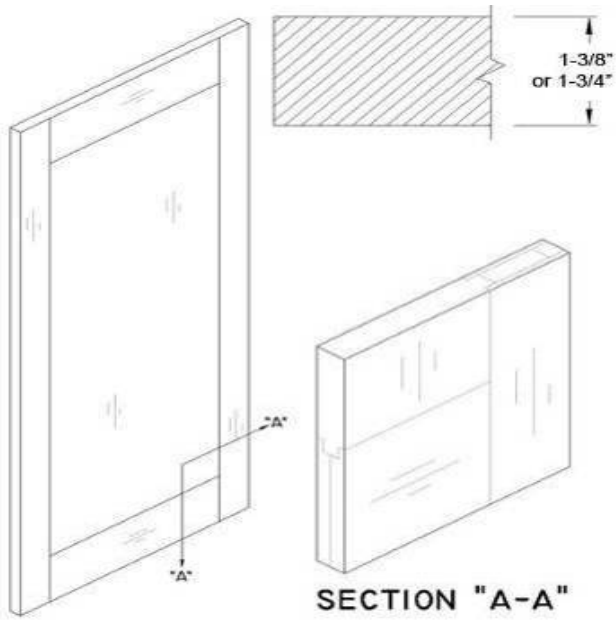
Required tubular stainless steel door handle required for solid hardwood doors

2.13 NEW INTERIOR WINDOWS

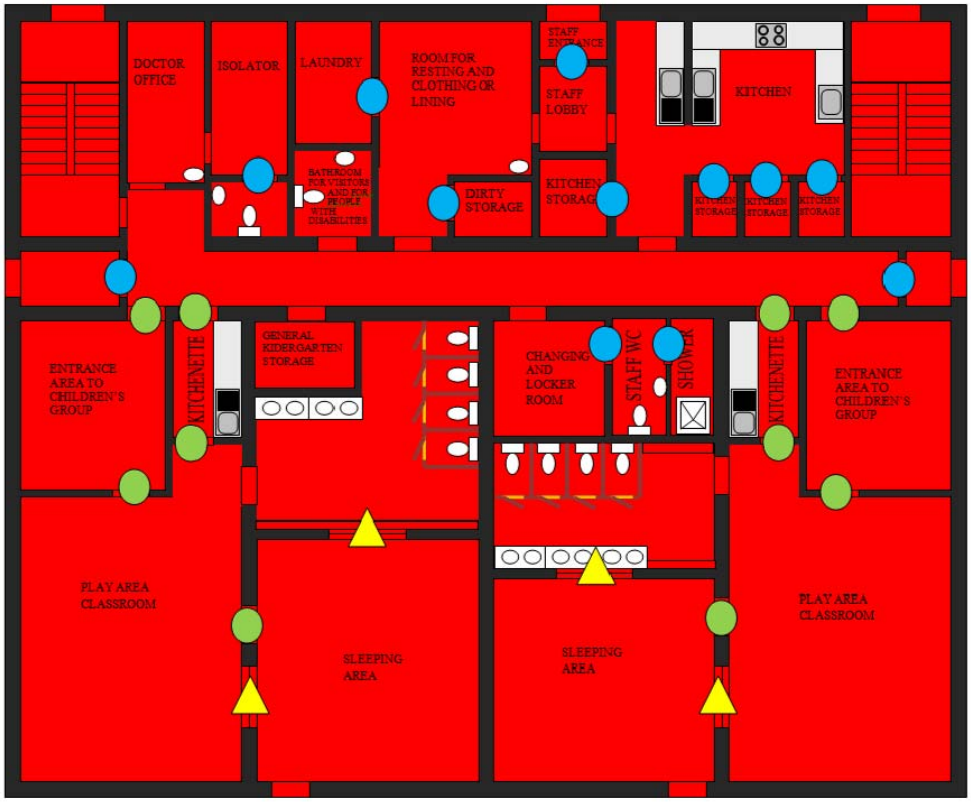
The contractor shall provide the interior windows that are required by the design provided by their architect and accepted by the Contracting Officer. As a minimum the contractor shall provide the internal windows indicated in the sketches in the next page. The window frames shall be of similar quality as the exterior windows recently installed by the Municipality, and the internal glass shall be minimum 8 millimeter non-transparent or translucent glass.

Typical required design for hardwood internal doors for the classrooms

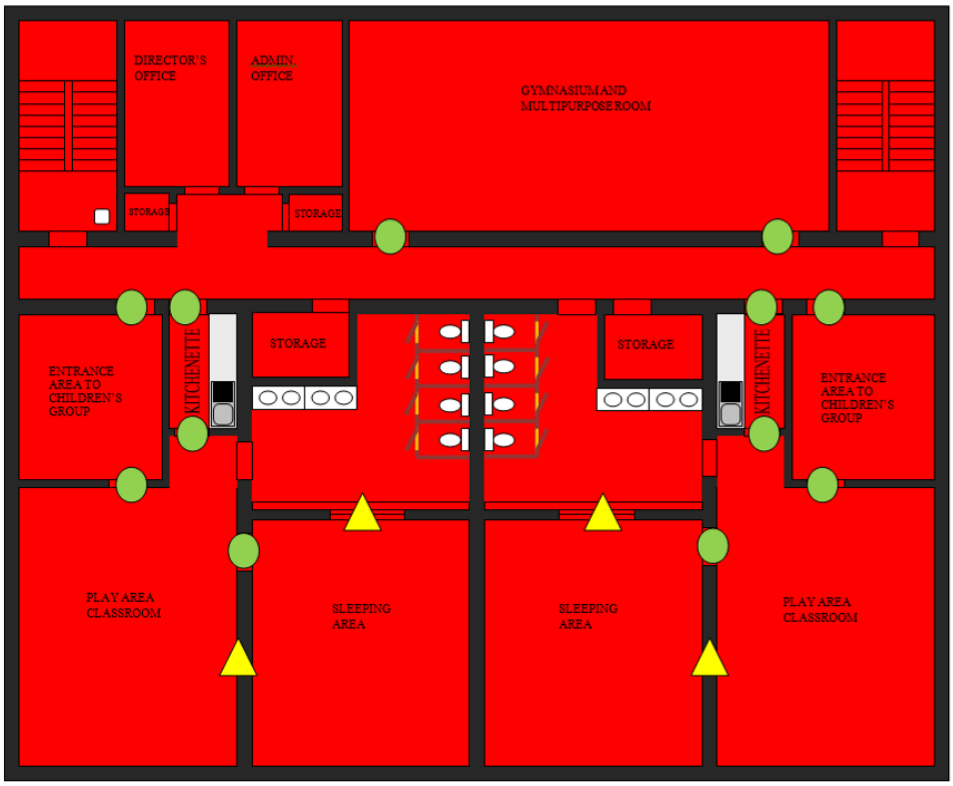
Typical new door for gymnasium



Picture#58: Definition of solid wood door. Minimum 4 cm thickness required.



Doors and windows: Blue circle (doors that could be PVC); green circle (solid hardwood doors with see through window); rest of doors not highlighted to be solid hardwood doors; triangle (minimum internal windows)



Doors and windows: Blue circle (doors that could be PVC); green circle (solid hardwood doors with see through window); rest of doors not highlighted to be solid hardwood doors; triangle (minimum internal windows)

2.14 WATER INSTALLATION / PIPING

The contract includes a complete new water distribution system. The contractor shall hire the services of a licensed engineer to design the new water distribution system, from the nearest public waterline within a radius of 100 meters from the kindergarten building. Installation of waterlines shall be done in strict compliance with Ukrainian regulations.

The contractor shall install a metering device as required by the water supply company.

The contractor shall completely remove all water piping in the kindergarten and provide new HDPE piping running as much as technically possible along the ceilings of the basement and recessed along the walls or above the new ceiling surfaces on the areas to be renovated.

The contractor shall provide cold and hot water as necessary for the intended use. Hot water shall be provided by the use of electric boilers. The number and size and locations of the hot water boilers shall be proposed by the designer hired by the contractor. The contractor shall use the hot water boilers with the highest standard thermal insulation. However, it is not allowed to provide one hot water heater for each room, but there shall be common hot water heaters for common areas. The maximum number of hot water heaters authorized for this contract is 5. No more than 5 hot water heaters are authorized.

Contractor to provide HDPE pipes and valves as necessary to isolate water supply to the facility and to each of the rooms with water supply.

Provide thermal insulation for hot and cold water piping. Thermal insulation is necessary for cold water to avoid condensation that may damage the new ceiling materials.

Each plumbing fixture shall be provided with a shut-off valve (toilets, sinks)
Each room with water supply shall be provided with an isolation valve
Each room with water supply shall be provided with a floor drain (except doctor’s office)
Each sink and shower to be provided with cold and hot water. All faucets be provided with a single monoblock or lever to control the flow and temperature of the water.

No drainage line shall be exposed to the view. In case the design and selection of the sinks and other appliances require the installation of exposed drainage lines, these shall be provided with stainless steel piping with p-traps.

Typical single lever monoblock faucet

2.15 NEW SEWAGE/VENT PIPING

The contractor shall provide new sewer/vent piping for all plumbing appliances installed under this project and shall cover under new masonry wall the existing sewer piping supplying the residents in the floors above. Similarly to the water lines installations, the contractor shall hire the services of a licensed technician to design and certify the drainage and sewer systems, from each plumbing appliance and floor drain to the adjacent septic tank, within 100 meters of the kindergarten building.

Prior to performing any works the contractor shall request and obtain the formal approval from the Municipality to connect to the adjacent septic tank.

Interior works:

Provide new sewer and drainage lines in the facility for all connection points (sinks, toilets, floor drains). Provide with the necessary siphons or clean-out for maintenance. Provide vent lines to the exterior of the building through the roof. Route to new concrete manholes outside of the building.

The sewer and drainage pipes shall be covered under masonry wall and/or recessed within the new wall surfaces. Once the project is completed the sewer piping shall not be visible except in the basement, where the piping shall run along the basement ceiling surfaces.

Exterior works:

Provide new PVC sewer gravity lines to the exterior of the kindergarten facility. Provide new manholes as required by the design. The new design shall include new concrete manholes in compliance with Ukrainian regulations. As a minimum the contractor shall provide sewer manhole at every change in direction of the pipes, at every connection between sewer pipes, and at every 50 linear meters of straight pipe.

Minimum diameter for any exterior sewer pipe shall be 250 mm internal diameter.

New Chain Linked Fence: The contract does not include any repairs to the septic tank, but it includes providing a metal chain linked fence of 2 meters height with a lockable gate around the perimeter of the existing septic tank for safety reasons.

Approximate location of the existing septic tank

2.16 COMMUNICATIONS – TELEPHONE/INTERNET

The contractor shall a total of 2 telephone outlets, in the exact location to be indicated by the beneficiary.

The contractor shall provide the preinstallation for the telephone lines, but they shall not provide the actual telephone cable of connections with telephone switchboard.

The contractor's work includes providing conduits, recessed within the walls or above the new ceiling surfaces, connecting the nearest telephone panel in the vicinity with each room selected by the beneficiary, and providing one telephone outlet recessed on the wall in each selected room. The exact location of the outlet to be provided by the beneficiary. The work also includes installing any necessary pull box that may be necessary to install the telephone cables in the future on this new conduits.

The intent is to provide the necessary preinstallation, so that if the beneficiary decides to install telephone signal in each room, they can do it easily pulling the cables on the conduits installed under this contract and connecting with the main telephone switches in the vicinity.

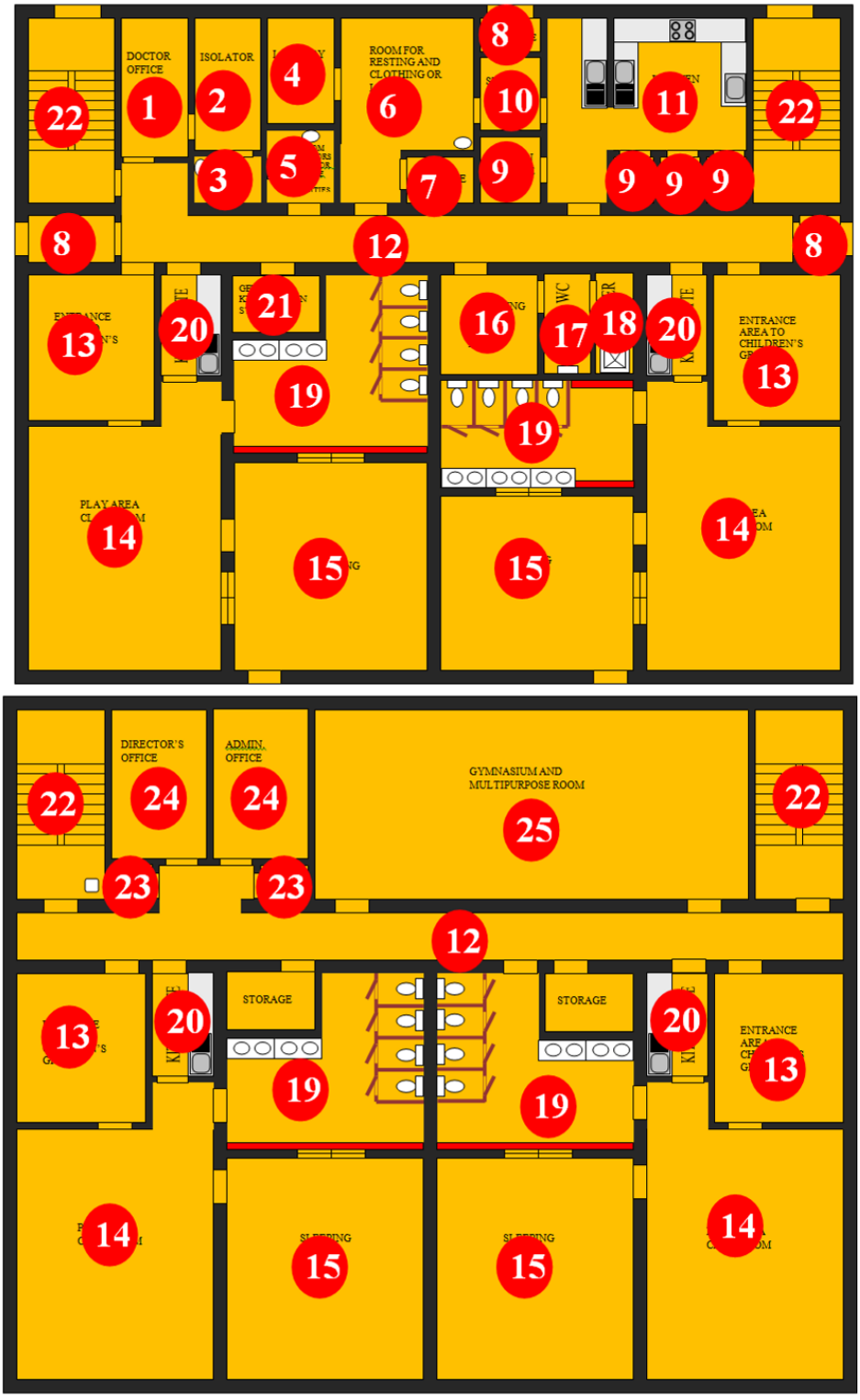
2.17 FIRE ALARM

The contractor shall design and install a Fire Detection system with the required alarms, pull stations, and smoke/heat detectors. All cables to be installed under conduit to be recessed along the walls and ceilings, similarly to the rest of the electrical and communications installation.

The contractor is responsible to prepare the design, perform the works and the final acceptance by the competent Ukrainian authorities (Fire Department).

2.18 SPECIFIC REQUIREMENTS FOR EACH ROOM

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.



Numbering for rooms

2.18.1 ROOM#01: Doctor's Office

Provide one stainless steel sink at the location to be proposed by the contractor's architect on a corner furniture, similar to the one shown in the picture below. The use of wood for the countertop is not authorized, but the contractor shall use granite or other synthetic material approved to be used in medical facilities.

Provide 3 wall electrical receptacles.

Typical required stainless steel sink on new countertop and furniture

2.18.2 ROOM#02: Isolator Room

This room shall be used for children that need to be separate from the rest of the children due to medical reasons.

Provide one electrical receptacle

2.18.3 ROOM#03: Isolator Room Bathroom

Provide the room with the following appliances and accessories:

- One wall mounted sink
- One adult sized wall mounted toilet for easy cleaning of the floor
- Wall hanger
- Do not provide any electrical receptacles in this room
- Floor drain
- One mirror, recessed on the wall (substituting the ceramic wall tiles) and surrounded by meal profile.

Typical wall mounted toilet, European style. Shall be rated for 200 kg or closest standard rating in Ukraine.

Typical required wall mounted sink

Typical required recessed mirror with metal profile around

2.18.4 ROOM#04: Laundry Room

Provide the room with the following appliances and accessories:

- One wall mounted sink
- One electrical 10 KG industrial washing machine, with mounted base bolted to the floor or wall.
- One electrical 10 KG industrial dryer, with mounted base bolted to the floor or wall.
- Required electrical, water, drain and ventilation connection for the industrial washing machine and dryer.
- 2 additional standard electrical receptacles
- Floor drain

Typical require 10kg industrial washing machine to be hard bolted to the floor or wall

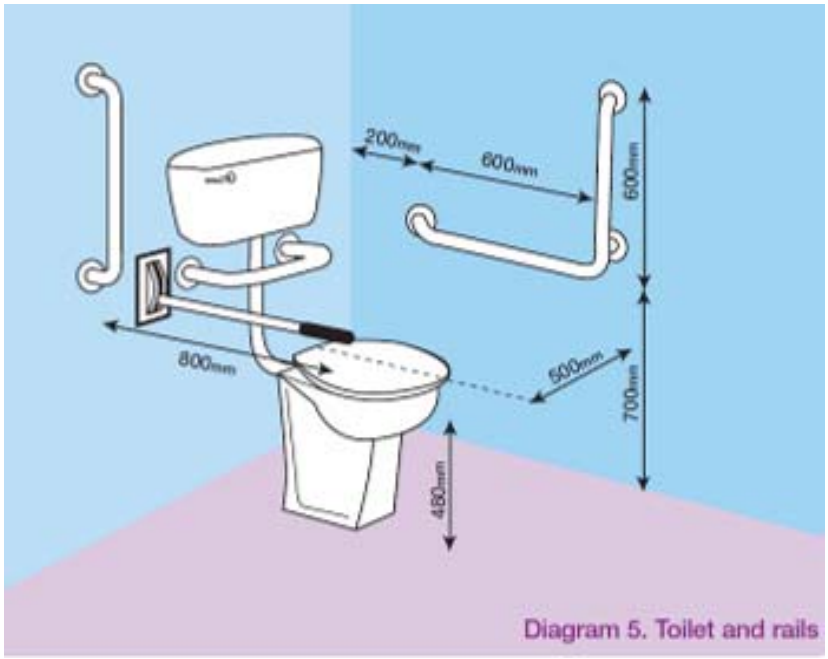
Typical require 10kg industrial dryer to be hard bolted to the floor or wall

2.18.5 ROOM#05: Visitors and Staff Bathroom (rated for people with disabilities - Wheelchairs)

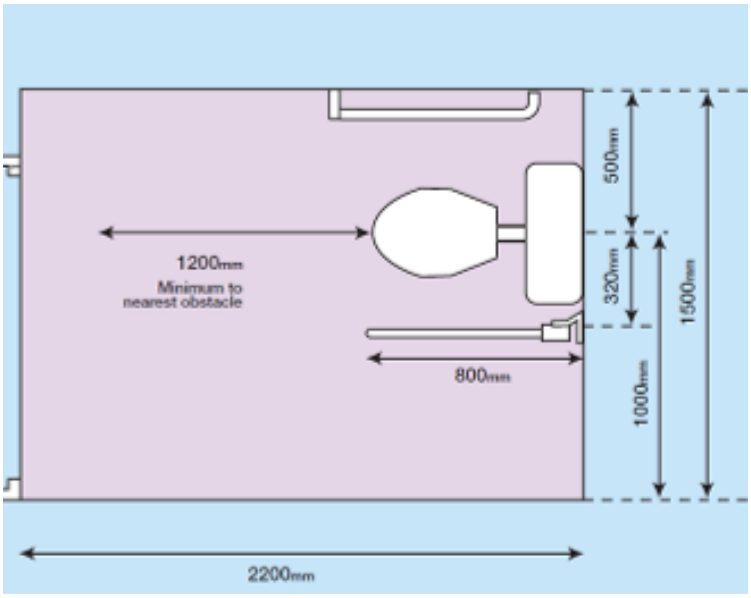
The contractor's architect shall design this room with the necessary space and accessories, as required by Ukrainian regulations to be used by people with limited mobility (wheelchairs)

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.

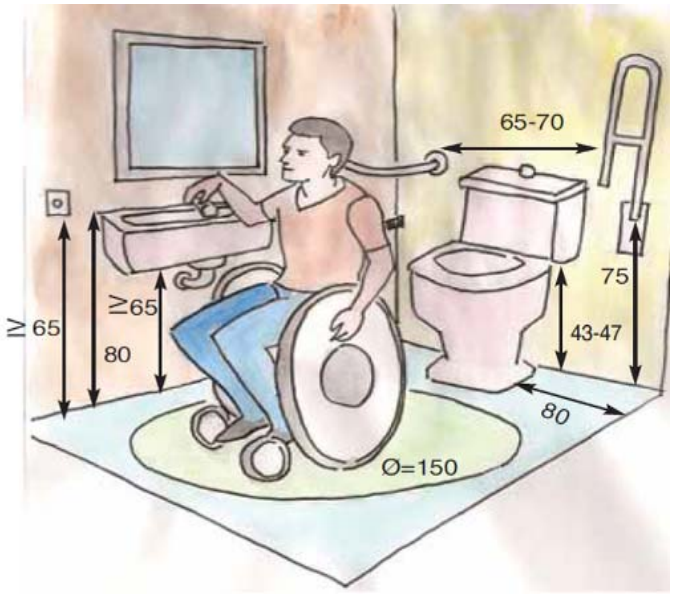


Typical location and size of stainless steel bars around the toilet.



Special requirements for bathroom

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



Typical special requirements for handicapped bathroom

Typical stainless steel hand drier

2.18.6 ROOM#06: Room for Resting and for Clothing and Lining

Provide the room with the following appliances and accessories:

- One wall mounted sink
- 5 electrical receptacles at the location to be selected by the beneficiary and/or contractor's designer.

2.18.7 ROOM#07: Dirty Clothing and Lining Storage

Provide the room with the following appliances and accessories:

- Metal shelves: Metal shelves shall be provided along 2 of the internal walls of the storage area. Shelves shall be bolted to the walls and floors, to be heavy duty, capable of resisting a load of 100 kg at any location without any visible sign of deflection. Provide 40 cm deep, 2 meter high, with shelves every 50 cm height. (4 horizontal platforms at 0.5, 1.0, 1.5 and 2.0 m high)
- No electrical receptacles.

Typical shelves

Shelves installed in a recently completed project in Bulgaria

Typical shelves

2.18.8 ROOM#08: Entrances for Staff and for the Main Hallway

No special requirements are specified for these rooms. These rooms are provided to minimize heat loss during the winter. For that reason the internal doors shall be provided with the necessary thermal insulation and adjustments in coordination with ventilation design of the kindergarten.

Doors shall be provided with anti-panic hardware for both exterior and interior door, as required by Ukrainian regulations.

These rooms shall be provided with their separate lighting switches.

No electrical receptacles are required in these areas.

2.18.9 ROOM#09: Kitchen Storage Rooms

The number and size of the kitchen storage rooms shall be determined by the contractor's architect in compliance with Ukrainian regulations. Provide the room with the following accessories:

- Metal shelves: Similar to the ones specified for the Room#07. Provide as many shelves as the design of the room would allow
- No electrical receptacles except in the storage area for the refrigerators and freezers, where 3 receptacles shall be installed. The actual refrigerators and freezers are not included in this contract.
- Lockable doors

2.18.10 ROOM#09: Staff Lobby Room

No special requirements are specified for this room, but provide one single electrical receptacle.

2.18.11 ROOM#11: Kitchen

Kitchen size and layout to be designed by the contractor's architect in compliance with Ukrainian regulations. Provide the following work, installations and accessories:

- **Design:** The contractor shall hire the services of a licensed architect in Ukraine to make the necessary changes and modifications to the provided sketch with the proposed layout in order for the finished facility to comply with latest Ukrainian Sanitation and Food regulations.

- **Floor:** Provide new grès tiles sloped towards a new floor drains with 1% slope. Provide non slippery tiles, sloped towards floor drains (minimum of one for each area of the kitchen) to be connected with the new sewer piping system. 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.

- **Floor drains:** Provide floor drains as necessary. Provide stainless steel floor drain with integral p-trap to avoid bad smells.

- **Walls:** Provide new partitions as required by the contractor's design.

- **Electrical:** The contractor shall provide

    - 10 electrical receptacles to be installed at the locations to be indicated by the beneficiary.

    - Lighting fixtures: Provide washable units

    - Provide individual circuits for lighting and power. Voltage drop to be less than 3%. This will be tested for acceptance of electrical installation.

    - Ventilation: 2 separate forced ventilation systems as previously described in this document: one for the kitchen volume of air and the other for the exhaust of cooking areas.

- **Countertops:** The contract requires providing stainless steel countertops, as required by Ukrainian regulations. The use of wood for the countertop materials is not authorized. For estimating purposes the contractor shall estimate the length of countertops shown in the sketches provided in this document.

- **Stainless Steel Shelves:** In addition to the countertops the contractor shall provide and install a total of 10 linear meters of stainless steel wall mounted shelves where indicated by the beneficiary.

- **Sinks**: Minimum of 3 industrial type sinks with industrial type faucet, as the one included in the picture included in this paragraph

- **Electric Stove and Oven:** The contractor shall provide and install a new industrial type stainless steel stove with minimum of 4 burners, similar to one of the units shown in the pictures included in this paragraph.

- **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 (or rooms). The metal exhaust fan shall have a minimum capacity of 1,000 m³/h, and shall be provided with exterior self-closing louvers. Provide with adjustable speed.

- **Ventilation (2) – Kitchen Hood Ventilation System:** The contractor shall hire the services of a specialized company to design a new kitchen hood exhaust system in compliance with Ukrainian regulations. The works shall include as a minimum:

    - New stainless steel kitchen hood, which shall be standard manufacturer's product. The use of the shop made stainless steel hood is not authorized. The contractor shall show the catalog information from the kitchen hold for the approval of the Contracting Officer. Hood to extend minimum of 30 cm over the perimeter of the stove. Place the hood over the proposed location of the stove. Coordinate the location with the beneficiary. Design the system in compliance with Fire Protection regulations of Ukraine.

    - Stainless steel air ducts in the kitchen areas, to be installed under the new drop ceiling to the maximum extent technically possible. Provided with access hatches for cleaning.

Typical required stainless steel stove and oven

Typical required stainless steel stove and oven

Typical stainless steel countertop with required industrial type faucet. Provide minimum 3 similar sinks with similar faucet.

New typical stainless steel countertops and shelves

Typical stainless steel countertops and shelves.

Typical stainless steel shelves

Typical new required floor drains

Typical new required stainless steel countertop with integrated shelves

2.18.12 ROOM#12: Hallways

Provide one electrical receptacle for each 10 linear meters of wall.

Provide the necessary fire water hoses.

2.18.13 ROOM#13: Entrance Areas to Children's Groups

The size of these rooms may need to be reduced or modified in order to provide for wider kitchenettes (if necessary) and for the installation of the lockers. The room shall be provided with:

- 1 electrical receptacle each.
- 25 small children's locker furniture per room (total 100 units), similar to the ones shown in the pictures included in this paragraph. The width of each individual locker shall be as necessary to allow for the installation of 25 units in each room, but approximately 30 cm each. Each locker to have 3 compartments as the ones in the pictures below.

Typical required lockers

Typical required lockers

Typical required lockers

Typical required lockers

2.18.14 ROOM#14: Playing Area and Classrooms

These rooms shall be provided with:

- 4 electrical receptacles each.

2.18.15 ROOM#15: Sleeping Area

These rooms shall be provided with:

- 3 electrical receptacles each.

2.18.16 ROOM#16: Changing and Locker Room for the Staff

These rooms shall be provided with:

- 8 metal lockers.
- Lockable door from the inside
- 10 stainless steel wall hangers

Typical metal required lockers

Stainless steel wall hanger

2.18.17 ROOM#17: Staff WC Room

This room shall be provided with:

- One wall mounted WC.
- One wall mounted sink.
- One stainless steel hand drier
- One recessed mirror
- Lockable door from inside

2.18.18 ROOM#18: Shower

These rooms shall be provided with:

- Designed so that when the door is closed no water can leave the room, even if intentionally aiming the shower head towards the door.
- One fully operated shower, including hose and head and single lever faucet.
- 2 stainless steel wall hanger
- Required shower accessories, such as soap support.
- Lighting fixtures rated for direct contact with water.
- One stainless steel hand drier
- Lockable door from inside

Typical required shower setup

2.18.19 ROOM#19: Children's bathrooms

The sketches included in this document show the proposed and approximate layout of the 4 new required children's bathrooms. It does not include measurement. The contractor's architect shall design for the acceptance of the Contracting Officer the layout and dimensions of these rooms, in order to comply with the Ukrainian regulations and with the requirements of this document.

Each children's bathroom room shall be provided with:

- Wall mounted furniture (for towel, comb,…), typical for kindergarten use, similar to the ones shown in picture in this paragraph, using solid varnished wood. Use of composite wood is not authorized. Approximate location of this required wall mounted furniture is shown in red in the sketches included in this document. Total of 25 compartments.

- 4 sinks at elevation to be indicated by beneficiary. Installation shall be very low to allow for use by young children. Provide stainless steel faucets.

- Sinks countertop: The sinks shall be installed recessed on continuous artificial stone countertop with rounded edges and designed to support the load of people standing on top of the countertop. The use of wood for the countertop is not authorized. The countertop shall be made of artificial compound made of minimum 94% natural quartz with anti-bacterial protection. Provide with live colors (orange, blue, red of yellow), to be selected by kindergarten director among ample selection provided by the contractor. All exposed drainage piping from the sinks shall be stainless steel, provided with p-trap to avoid bad smell. The use of granite as a substitute for the artificial stone is authorized.

- Toilets and toilet partitions: Use special kindergarten size toilet seats with ceramic seat and ceramic water tank. The use of plastic water tanks is not authorized. These partitions shall be designed to be used by young children, and they shall be manufacturer's standard products for toilet partitions with live colors. The use of shop made toilet partitions is not authorized. The contractor shall show to the Contracting Officer a copy of the catalog where the proposed toilet partitions are shown. It is the intent of the project to build the toilets with privacy, but at the same time with possibility of adult supervision. The contractor shall provide a design within the parameters of this contract for approval of the Contracting Officer and the Municipality representative. Size of the partitions shall be coordinated with the size of the rooms and size of the toilets. The most important is that the toilet partitions shall be manufacturer's standard product, not shop-made by a local company, and specifically designed to be used in kindergartens. The partitions shall be designed and installed with minimum contact with the floor for hygienic reasons. Provide with combination of colors typical for a kindergarten as shown in pictures in this paragraph.

- One shower plate per bathroom, to be separated by masonry partition of 1. 5 meters height wall from the rest of the room. Shower plate to be perfectly embedded into the masonry walls to avoid any possibility of water leakage. Shower plate to be 20 cm higher than finished elevation of the room flooring. Provide with a shower water hose with hot and cold water. Provide water faucet with connection to the main faucet and to the shower head.

- One additional wall mounted faucet, with cold and hot water, for janitorial purposes (fill up water buckets)

- Two stainless steel automatic wall-mounted hardwired hand-driers per bathroom at the height of young children. These shall be hardwired to the walls, without any exposed or visible electric cables.

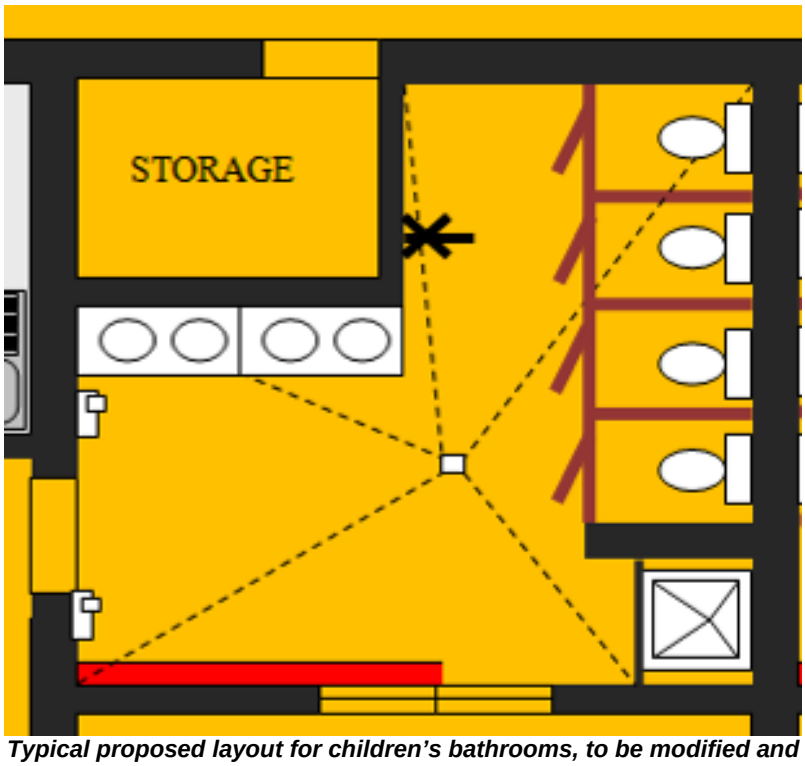
- One wall mounted electrical receptacles in the handwashing area at 2.0 meters height from the finished floor elevation.

- Floor drains: Provide minimum of one floor drain per room. Provide stainless steel floor drain with integral p-trap to avoid bad smells.

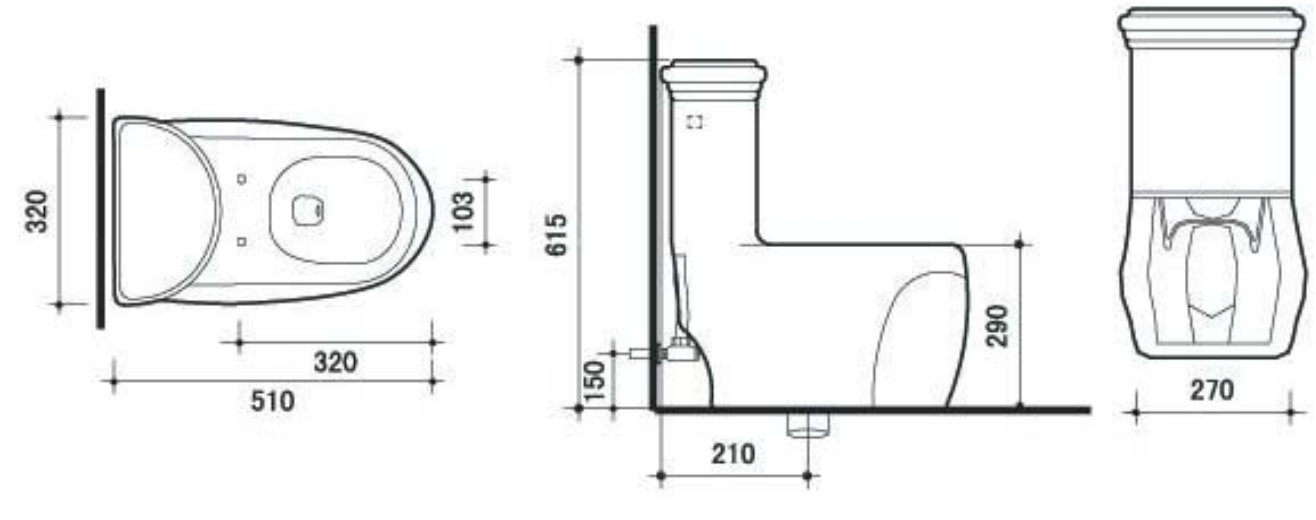
- Masonry Partitions for New Layouts: New partitions required by new layout shall be made of thin masonry wall as previously described in this document. New masonry partition of 1.5 meters height shall be provided to separate the new shower plate to be provided in the handwashing room. Cover all surfaces with new ceramic tiles as with the rest of the walls.

- Mirrors: To be provided over the countertop of the sinks. Mirror to be recessed within the new ceramic wall tiles of minimum size 0.6 meter high and with the same length as the countertops. Mirrors shall be surrounded by ornamental ceramic tiles (friso) or my stainless steel profile/framing as shown for Room#03.

- Accessories: Provide all required accessories made of stainless steel, in order to have a perfectly finished and operational bathroom facility. This includes toilet paper holder, soap holder, wall hanger or door and window stops.



Typical proposed layout for children's bathrooms, to be modified and improved by the contractor's architect in order to provide bathroom facilities with the required appliances and in compliance with Ukrainian regulations. Wall mounted furniture indicated in red.



Typical sizes for kindergarten sized toilet

Typical required design for required furniture. Provide 25 units.

Typical installation of the countertop before installing the sinks

Typical color chart for the countertop for the sinks, to be provided by the contractor to the Kindergarten Director to select the final color of the countertops. Provide live colors as the one in picture#26.

Typical required stainless steel drainage with p-trap for the sinks to be installed over the continuous countertop

Typical required kindergarten toilet partitions.

Typical required kindergarten toilet partitions.

Typical kindergarten toilet in a partition

Typical required continuous countertop for the sinks.

Renovated bathroom in Moldova

All pictures in this page correspond to a recently NAVFAC EURAFSWA completed project in Moldova, with very similar scope of work.

Renovated bathroom in Moldova

Renovated bathroom in Moldova

Furniture required in bathrooms for children

Renovated bathroom in Moldova

Typical stainless steel drainage and p-trap, for the recessed sinks.

2.18.20 ROOM#20: Kitchenettes

There shall be 4 kitchenettes in the kindergarten. Actual size of the kitchenette to be designed by the contractor's architect.

Each finished kitchenette shall be provided with:

- 2 industrial-type sinks on a new stainless steel countertop. Provide stainless steel faucets with cold and hot water. Stainless steel countertop for the sinks shall be provided with splash board similar to the one in picture included in this paragraph, made of the same piece of metal.

- Stainless steel countertop, of approximate size as shown in the sketches included in this document.

- Kitchen type furniture under the new stainless steel sinks countertop and on the wall over the sink countertop; along the wall and under the new sinks.

- 4 (four) wall mounted electrical receptacles at the locations to be indicated by the kindergarten Director or Municipality representative.

- Floor drains: Provide one floor drain per kitchenette. Provide stainless steel floor drain with integral p-trap to avoid bad smells.

New required stainless steel sinks and countertop with furniture underneath. Note that the stainless steel countertop shall extend over the wall, and provided with a perfect seal between the wall and the metal.

2.18.21 ROOM#21: General Kindergarten Storage

Provide the room with the following appliances and accessories:

- Metal shelves: Metal shelves shall be provided along 2 of the internal walls of the storage area. Shelves shall be bolted to the walls and floors, to be heavy duty, capable of resisting a load of 100 kg at any location without any visible sign of deflection. Provide 40 cm deep, 2 meter high, with shelves every 50 cm height. (4 horizontal platforms at 0.5, 1.0, 1.5 and 2.0 m high)

- No electrical receptacles.

2.18.22 ROOM#22: Stairways

Provide the staircase areas with the following work:

- Wall mounted lighting fixtures to provide 50 lux.

- Provide one access hatch to the area under the roof at each one of the two staircases. Provide metal cat walk on the wall for easy access without the need to provide a ladder.

- New stainless steel railing. The contractor shall remove the existing railing and shall provide new stainless steel railing on both sides of the stairway, where existing and on the walls (handrails). Stainless steel railing shall be similar to the ones shown in the pictures in this paragraph.

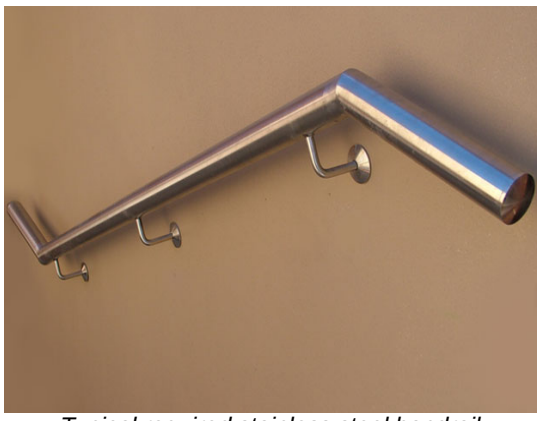
- Floor: Previously in this document, it was stated that the floor shall be ceramic. Ceramic tiles for the stairway steps shall be specifically designed to be used in stairways. The use of metal protection in coordination with regular floor tiles is not authorized.

Typical required stainless steel railing

Typical required stainless steel railing

Typical required stainless steel railing and handrail

Typical required special tiles for stairway



Typical required stainless steel handrail

Typical required design for special tiles for stairways

Typical required tiles for stairways

Typical required tiles for stairways

2.18.23 ROOM#23: Small Storage

Provide the rooms with the following appliances and accessories:

- Metal shelves: Metal shelves shall be provided along one of the internal walls of the storage area. Shelves shall be bolted to the walls and floors, to be heavy duty, capable of resisting a load of 100 kg at any location without any visible sign of deflection. Provide 25 cm deep, 2 meter high, with shelves every 50 cm height. (4 horizontal platforms at 0.5, 1.0, 1.5 and 2.0 m high)

- No electrical receptacles.

2.18.24 ROOM#24: Offices

Provide the rooms with the following appliances and accessories:

- 4 electrical receptacles

- 1 telephone/Internet plug, with preinstallation up to the point of connection with the telecommunications infrastructure outside the kindergarten.

2.18.25 ROOM#25: Gymnasium – Multipurpose Room

Provide the room with the following appliances and accessories:

- Floor: As previously discussed, provide with special design for kindergartens.

- The room shall be designed to be able to resist impacts of children playing with balls with the size of a tennis ball. The ceiling shall be impact resistant, but in addition, the contractor shall provide:

  - Impact resistant lighting fixtures

  - Protection against the windows. It is recommended to provide fabric mesh sized for a tennis ball

- Provide 6 linear meters of new wood racks for exercises (see picture in this paragraph for definition of wood rack). Location of these wood racks to be proposed by architect hired by the contractor.

Provide new similar wood racks

2.19 SCAFFOLDING AND FALL PROTECTION

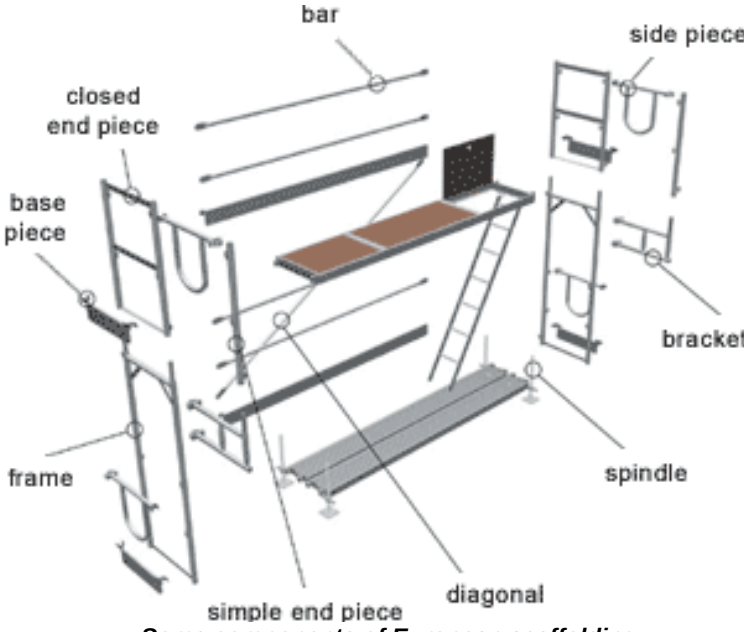
In order to execute the works included in this project, the contractor shall be required to use scaffolding and/or elevating working platforms.

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 picture 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.

Required type of scaffold

Required type of scaffold

Acceptable man-lift



Some components of European scaffolding

2.20 COMMEMORATIVE PLAQUE

At the end of the construction works, the contractor shall provide and install 1 commemorative plaque at the location to be indicated by ODC representative. The plaque shall have the following information engraved on it:

- Colored Flag of Ukraine
- Colored Flag of the United States of America
- EUCOM Logo
- This text: “The Renovation of this kindergarten was accomplished as a partnership between the people of the United States of America and the people of Ukraine, through the combined efforts of the United States European Command, Office of Defense Cooperation, US Embassy Ukraine and City Administration of Nova Greblia - *Date*”
- Same text as above in Ukrainian.

The plaque shall have the following characteristics:

- Fabricated with powder coated aluminum with permanent printed 3.5 cm high, style font "Arial" letters. Adhesive letters will not be accepted.
- Minimum dimensions 75 centimeters wide by 50 centimeters high. Minimum thickness 8 millimeters
- Resistant to outdoor weather and UV radiation.
- Plaque to be manufactured by specialized company.
- Before purchasing the plaques, the contractor shall submit the design to the Contracting Officer for approval.

2.21 PICTURES OF EXISTING KINDERGARTEN FACILITY

Find herein several pictures with description of situation and some of the required works

Septic tank to be provided with a chain linked fence around. Kindergarten building in the back.

Approximate location of water connection, with kindergarten facility in the back. If the manhole is used, the contractor shall repair it and provide a new cover.

General conditions of the basement. Provide installations on the ceiling surface to the maximum extend technically possible

Old kitchen and exhaust system to be removed.

Kitchen doors towards the entrance lobby. Remove existing flooring materials and all wood.

Typical existing new windows requiring adjustments in order to repair the walls.

Kitchen ventilation system to be completely removed.

General internal conditions, with some partitions already removed

Hallway with ventilation systems to be removed

Hallway with old installations to be removed

Partitions to be removed. This is in the proposed room for isolator bathroom

Internal windows to be removed

Stairways requiring new railing and new ceramic flooring, with special pieces in the steps.

Railing to be replaced with new stainless steel one. Provide handrail on the wall site.

Railing to be replaced with new stainless steel one. Provide handrail on the wall site

Space to be converted into small storage in the second floor

General condition of classroom

Old cables to be removed. Ceiling surfaces to be repaired prior to provide the new suspended ceiling.

Gym or multipurpose room. Remove all electrical installation and protect windows with fibric mesh

Crack to be repaired as required by the architect hired by the contractor.

Existing masonry toilet partitions to be completely removed. Children's bathrooms to be completely diaphanous.

Ventilation ductworks going towards the area under the roof. To be completely removed and replaced by new ventilation system as designed by the expert hired by the contractor.

Old ventilation fan to be completely removed

Hallway

Existing masonry toilet partitions to be completely removed. Children's bathrooms to be completely diaphanous.

Typical broken glass to be replaced with new.

Typical condition of walls/windows

General condition of rooms

Sleeping area with bathroom at the end. Note that the partition was already removed.

Classroom with crack to be repaired between doors to sleeping area and bathrooms

Access hatch to area under the roof to be provided with adequate cover and permanent access

Gym or multipurpose room

Existing toilets. Remove all masonry partitions and piping.

General condition of classroom

Rest of removed partitions with old bathrooms in the back all

Exterior door to be provided with anti-panic hardware. It should be necessary to remove, repair, adjust and reinstall the door with the new hardware.

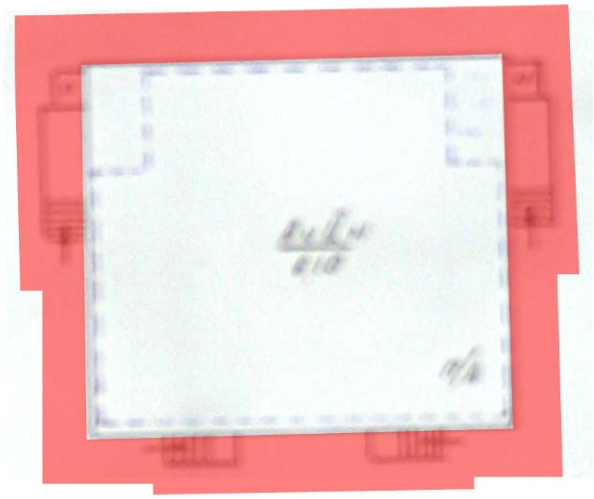
3. DETAILED SCOPE OF WORK (CONTRACT OPTION-1) – EXTERIOR IMPROVEMENTS

This portion of the contract described in paragraph 3 corresponds to work included under Contract Option-1, and can be awarded, or not, to the contractor based on availability of funds as well as other factors. Award of this Contract Option-1 will be decided unilaterally by the Contracting Officer. Pricing for Base-Bid and Contract Option-1 shall be provided separate as required by the solicitation documents.

This contract option includes external repairs and improvements to the kindergarten accesses in order to provide safe and esthetically pleasant accesses. The scope of work includes all accesses to the kindergarten and exterior surface repairs within a perimeter extending 3 meters from the façade of the building.

3.1 DESCRIPTION OF EXTENTION OF WORKS

The works includes all surfaces, horizontal and vertical within 3 meters of the kindergarten façade, including the access stairways. This means that if a stairway extends 2.5 meters from the kindergarten façade, in that particular location, the extend of repairs, improvements and restoration to the ground would be 5.5 meters.



Extent of repair works included in Contract Option-1

Extent of repair works included in Contract Option-1

3.2 DESIGN – TECHNICAL PROJECT

This is a design-build contract. Similarly to all other areas to be renovated in the kindergarten, the contractor's architect shall hire the services of a licensed engineer to design the areas under the scope of work of contract option-1.

The basis of design is the following:

- Paved or grass areas as designed by the architect.
- Paved access to all entrances of the kindergarten. A person could walk out of any access and enter any other access without stepping on grass areas.
- Paved areas to be exposed concrete.
- Railing to be masonry or aluminum.
- Landing platforms and steps to be covered with non-slippery gres tiles.
- Steps to be provided with special gres tiles, specifically designed for stairways.
- Sidewalk around the perimeter of the building, with minimum width of 1 meter.
- One access ramp to one of the lateral accesses to the ground floor hallway. Ramp to be in compliance with Ukrainian regulations and provided with similar non-slippery gres tiles as for the landing platforms.
- Drainage around the perimeter of the facility to facilitate water draining away from the building and avoiding any accumulation of water on the surface.

3.3 DETAILED SCOPE OF WORK

To better describe the scope of work, several pictures are included herein. If a particular item of work is described in one picture for a particular element, the requirement will be applicable for all other similar situations in the area around the perimeter of the building.

Provide sidewalk around the perimeter of the building. Provide new non-slippery gres tiles in the landing platform and use special tiles for the new required steps. Provide new aluminum metal railing and new metal supports for the existing canopy. Ramp could be located in this access or in the opposite access to the hallway in the ground floor.

Remove and redesign the openings for the basement windows. Design in order to avoid rain water entering into the basement but allowing light through the windows.

New aluminum railing. New sidewalks and tiles and paved areas as previously described.

General condition of the steps and landing platforms and railing. All to be completely reconstructed.

New aluminum railing. New sidewalks and tiles and paved areas as previously described.

Other lateral access to hallway. Provide ramp in this or the opposite side. Complete repairs as described for opposite side access.

Access to stairway to second floor and to basement. Provide sidewalk around the building.

Access to kitchen area. Remove the access steps and landing platform and provide a new one with similar size with the same finishes as the ones described for the access to the hallway: gres tiles non-slippery with special tiles for the steps.

Access to basement and basement ventilation to be removed and replaced with acceptable ventilation systems.

Front of facility

Front of facility. Coordinate the new areas to be paved with the existing roadways and other paved areas. Provide adequate drainage for all areas around the kindergarten facility and within the area in the scope of work of this contract option.

Typical tiles to be used for new steps.

Typical tiles to be used for the new steps.

Typical tile for landing platform

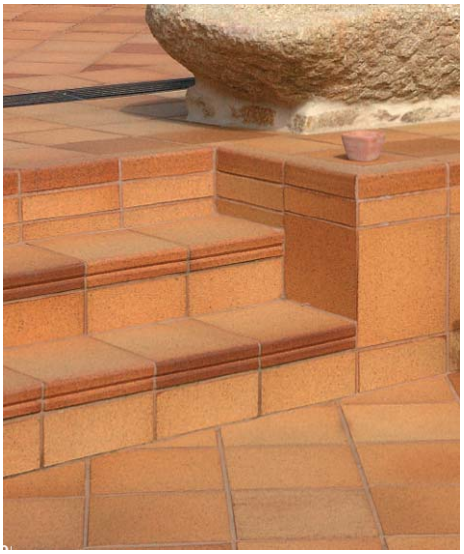
Typical tile for corner of steps

Typical tile for steps and edges of the landing platform

Typical installed tile as required for the landing platform

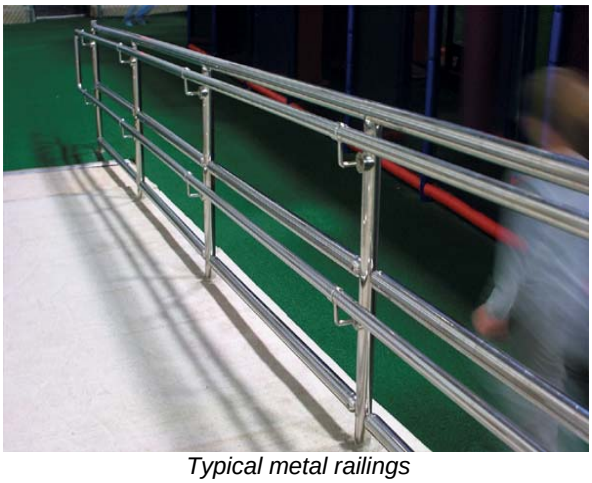
Typical steps with special grès tiles

Typical steps with snow



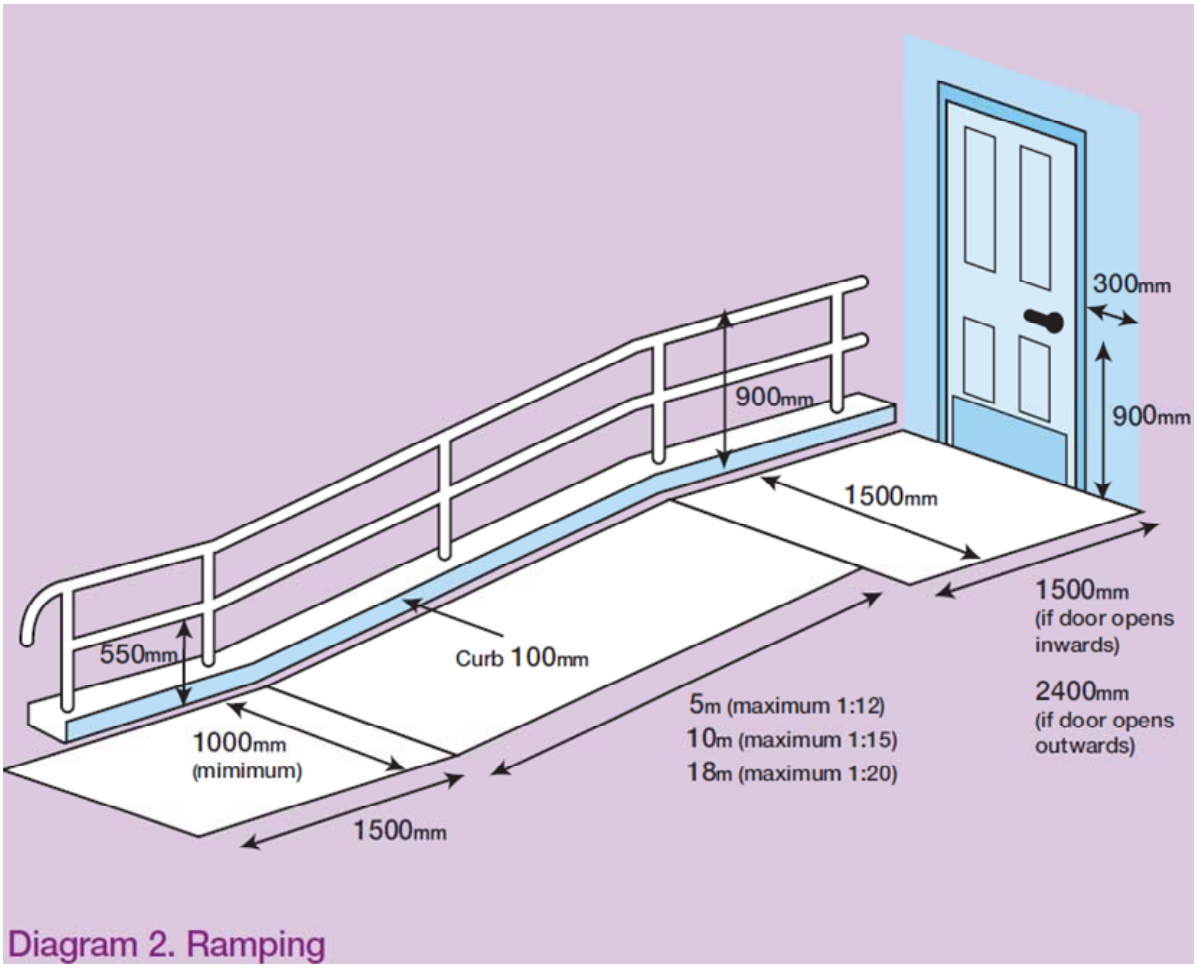
Typical acceptable use of special tiles

Required look for landing platforms

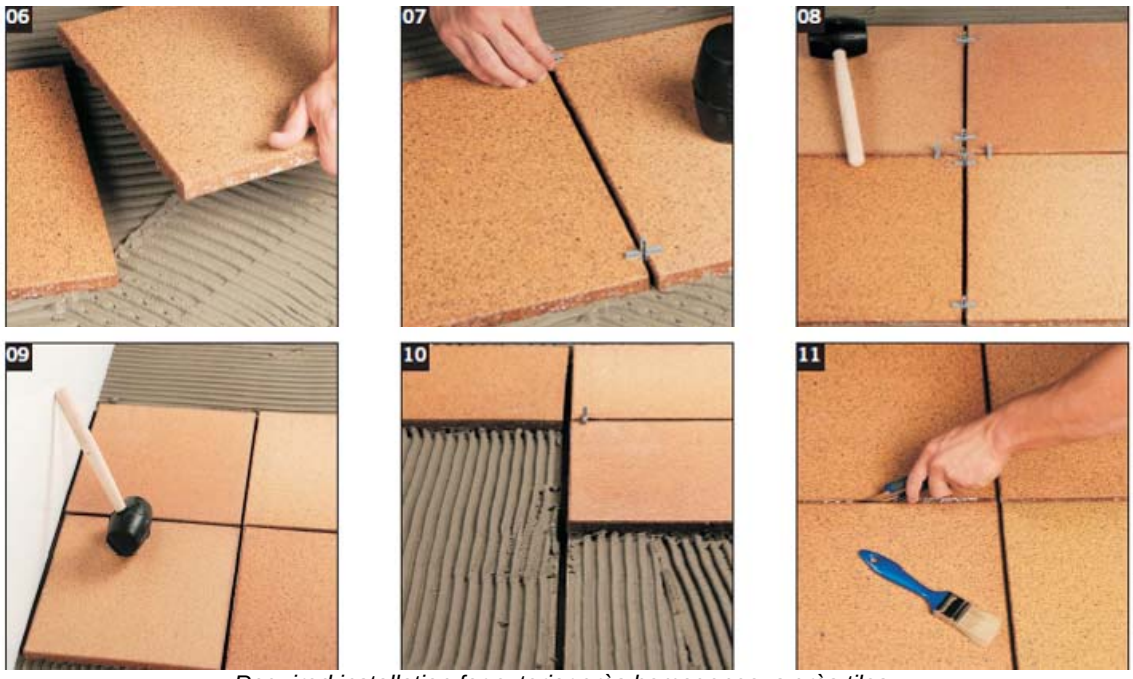


Typical metal railings

Typical metal railings



Area under the scope of work for internal renovations



Required installation for exterior grès homogeneous grès tiles

4. DETAILED SCOPE OF WORK (CONTRACT OPTION-2) – THERMAL FACADE

This portion of the contract described in paragraph 4 corresponds to work included under Contract Option-2, and can be awarded, or not, to the contractor based on availability of funds as well as other factors. Award of this Contract Option-2 will be decided unilaterally by the Contracting Officer. Pricing for Base-Bid and Contract Option-1 and Contract Option-2 shall be provided separate as required by the solicitation documents.

This contract option includes designing and providing a new thermal façade system around all kindergarten vertical enclosures (façade and not the roof)

4.1 THERMAL FAÇADE SYSTEM (10 cm)

Contractor shall provide a new thermal façade system on all exterior surfaces of the building. This includes all vertical masonry sections of the exterior enclosure of the building.

This is a design-build contract and therefore the contractor shall be responsible for the design and for the execution of the works.

Façade Design: The contractor shall provide a façade design, signed and certified by a licensed architect in Ukraine, to be accepted by the Contracting Officer Representative and approved by the competent Ukrainian authorities. This design shall include as a minimum:

- Typical section of thermal façade system
- Special cover of the lowest section of thermal facade
- Color and finishes or “façade passport” with the new proposed finishes. Provide pattern and color as approved by competent local authorities. The contractor’s architect shall provide several designs for the exterior appearance of the façade for the approval of the competent Ukrainian authorities. The design shall consist of a maximum of combination of 3 colors, in addition to the different finishes required for the lowest section of the façade.
- Details of finishes of the thermal façade system in the top and bottom.
- Details for special finishes and reinforcements in the corners and around the windows and doors.

The new thermal façade system shall include, but shall not be limited to:

- Repair all façade defects, by removing loose pieces of plaster, ceramic tiles, bricks, and providing leveling mortar as needed for the new thermal façade system. Repair all cracks by method proposed by architect hired by the contractor. Correct any exposed reinforcing steel by epoxy based product, specifically designed for that purpose.

- Provide thermal insulation panels, minimum of 10 cm thickness, properly attached to the existing repaired and leveled façade, in accordance with manufacturer's recommendations. Follow Ukrainian Fire Code. There has been a recent change in Ukrainian regulations regarding the type of materials authorized for thermal insulation on educational facades. The use of Styrofoam may not be allowed in some (or in all) locations. The contractor shall consult the latest Ukrainian regulations prior to submission of their bids. Only materials and installations in accordance with Ukrainian regulations in effect at the time of submission of the offers shall be authorized.

- Window adjustment and sills. IN order to provide a perfectly sealed finish between the existing windows to remain and the new façade system, the contractor may have to remove, modify and reinstall some of the windows recently replaced installed. The exterior window sill shall be replaced to allow for the wider wall and installed with adequate slope to divert rain water away from the building.

- Protective plaster. There are several systems available in the market to cover the thermal insulation. The contractor shall apply over the rigid thermal insulation a protective plaster, designed to resist impact. Minimum of 1 cm thickness. This may require double netting prior to the application of the final coat of plaster. Apply in accordance with manufacturer's recommendations.

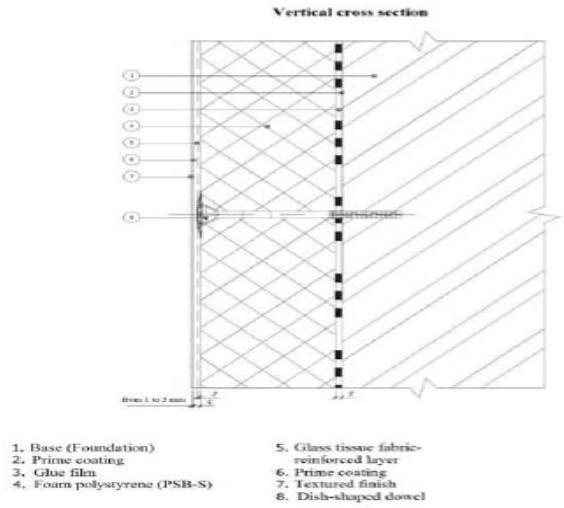
- The lowest section of the façade, currently with plastered finish shall be provided with a different cover over the thermal insulation. This lowest section shall be provided with new perfectly leveled plaster with granular finish, or covered with new homogeneous ceramic tiles, recommended by the manufacturer for exterior façade application or covered by other approved bricks or tiles designed for exterior façade use. All products to be approved by the Contracting Officer Representative.

- Paint thermal façade system with 3 coats of paint rated for exterior use and recommended by the manufacturer of the thermal façade system.

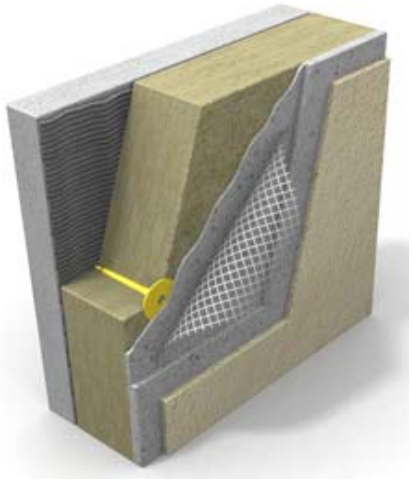
- Final certificate: Once the thermal façade is complete, the contractor shall provide a copy of a certificate from the architect certifying that the thermal façade has been properly installed in accordance with their recommendations. Payment for thermal façade shall not be authorized until the contractor provides such certificate.

- Letters to designate the kindergarten, similar to the existing letters on the existing façade.

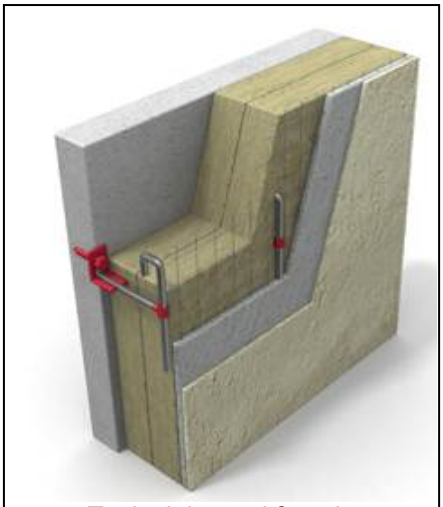
Typical granular façade finishes on the lower section



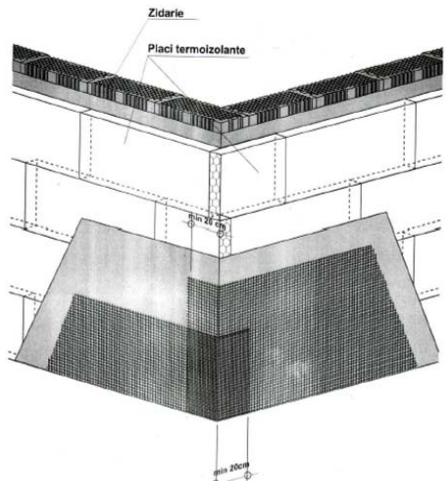
Typical cross section. Thicker plaster required to build an impact resistant facade.



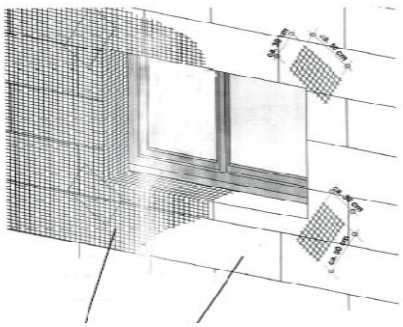
Typical thermal facade



Typical thermal facade

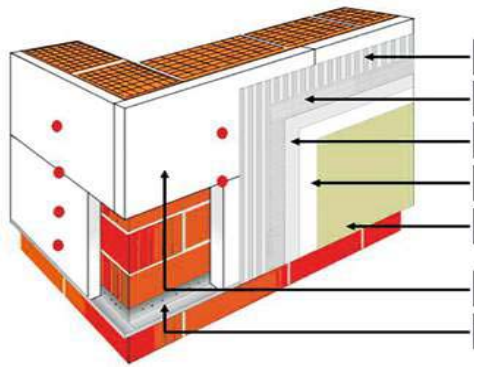


Typical thermal facade



Typical installation of thermal facade

Typical required special granular plaster for lowest section of facade



Typical installation of thermal facade

4.2 Façade Installations, Extensions and Other Exterior Surfaces

The contractor shall be responsible to reroute, remove and reinstall any of the accessories or installations that are currently anchored or supported by the existing façade which are to remain, including electrical poles, electric cables, road signs, building sign, electrical conduits, security cameras, water pipes, telephone cables, gas pipes, canopies and any other installation that may exist on the façade to be provided with new thermal insulation and new finishes. However, it is estimated that everything will be new with the exception of the canopies which were recently repaired by the Municipality.

All works to be done in compliance with Ukrainian regulations and with approval or permit of the owner, in case it is owned by a third party. For example: if an electrical cable is owned by the electrical utility company, the contractor shall obtain the approval, or the assistance of the electrical company to remove and reinstall this cable. The contractor is responsible for all coordination and for all costs associated with this necessary work.

Those installations on the façade that are not be reutilized shall be removed and disposed of by the contractor.

The existing canopies shall be removed and reinstalled providing perfect sealing between the new thermal façade and the canopy materials. The contractor shall be responsible to modify and/or adjust any of the materials to be reutilized in order to provide a perfect finish.

It is the intent of this contract, and it is the scope of work of this contract, to provide the building with the exterior appearance of a new kindergarten. For that reason, the contract includes the repairs of other exterior surfaces, which require repairs, but which do not require thermal insulation. The limits of the exterior façade works extend beyond the exterior enclosure, and it includes all masonry structures attached to the building which are an integral part of the building.

4.3 Existing exterior roof work: gutters, downspouts and eaves.

Our project does not include any work in the new roofing system, but includes some works related with the roof. Our project does not include any management or handling of any asbestos containing material or any repairs to the existing roof. If due to the scope of work of this contract, our contractor feels that they need to manage, dispose of, alter, touch or in any other way they feel that they need to work with any asbestos containing material, they shall NOT do so, and shall immediately notify the Contracting Officer.

Eaves: The contract includes perfect seal between the new thermal façade system and the existing eave surface. The new thermal façade shall finish at the eaves as designed by the contractor’s architect. The façade shall be properly sealed at the top of the façade at the intersection with the eave. It is not estimated that any repairs shall be necessary to the eave, but if any are necessary in order to install and properly finish the thermal insulation system, these shall be included in this contract.

Gutters: Repair the gutters. The contract includes repairing the existing gutters at their current locations. The contract does not include providing new gutters where there is currently none.

Downspouts: Remove, repair as necessary and reinstall the existing downspouts. It will be necessary to remove the downspouts in order to install the new thermal façade system. The contractor shall remove the existing downspouts, and shall repair them as necessary and reinstall them over the new thermal façade system reutilize the existing downspouts that they will remove, if and only if, they are properly designed for the intended use due to the new thicker façade. Any defective section of downspout shall be replaced with new ones, using similar materials.

Crack to be repaired before applying the thermal insulation system. Window sills to be replaced with wider units.

Details of roof eave, gutters and downspouts

5. PROCEDURE

This construction contract is based on 4 principles:

- Strict compliance with American 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, with special emphasis on the specific technical regulations regarding health care facilities.
- Strict compliance with the most stringent of US and Ukrainian Safety regulations
- Compliance with technical requirements described in paragraphs 2-4.

The contractor shall provide a Construction Permit from the Municipality, or the competent Ukrainian authority authorizing the works included in this contract.

Construction shall be in accordance with sound construction practices, and shall conform to the latest revision/edition of the codes, criteria, and standards referenced below except as otherwise indicated by this Request for Proposal. Construction shall also comply with applicable codes, ordinances and regulations of Ukraine governing life/safety, fire protection, building construction, conveying 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 codes, ordinances and regulations will be removed and reinstalled at Contractor's expense.

5.1 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 documents to prove 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, Health Care Directorate, 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 (Urban Planning),
- 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.

Specific additional requirements may be necessary for Hospital and Health Care renovations.

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 would not 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.

Acceptance by Health Care Directorate or other competent Ukrainian Health Care official office may be necessary for the scope of work of this contract.

5.2 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:

- Provide a 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 for the 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 job site.

- The Contracting Officer Representative accept their Accident Prevention Plan. See Annex 1 for the requirements of this Plan

- The Contracting Officer Representative accept their Quality Control Plan. See Annex 2.

- The Contracting Officer Representative accept their Construction Schedule

- Construction Sign is placed on site (see paragraph 5.10)

5.3 Scheduling Requirements / Phasing

All work shall be completed within 360 calendar days after project award.

The beneficiary of this project is the Municipality of Nova Greblia. All works shall be closely coordinated with beneficiary on a weekly basis.

The facility is currently abandoned and therefore the contractor shall estimate that there shall be no users of the facility until the project is completed and accepted by the competent Ukrainian authorities.

5.4 Construction Schedule (bar chart is authorized).

Perform all work within 360 calendar days after contract award. Within 15 days after contract award, the contractor shall provide a construction schedule including a minimum of 40 activities.

5.5 Accident Prevention Plan

SAFETY SHALL BE THE FIRST PRIORITY OF THE CONTRACTOR. SAFETY OF THE WORKERS, RESIDENTS, AND VISITORS SHALL TAKE PRECEDENCE OVER ANY OTHER FACTOR.

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 residents in the vicinity, the general public, and the equipment at the job site. The Plan shall clearly define the measurement that the contractor will implement to guarantee that this personnel will not be exposed to any hazards as a result of this construction contract.

This plan shall clearly identify the protection of the residents of the vicinity.

Additionally, the safety plan must address types of personnel 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 than the requirements of the Ukraine Safety Law.

No work shall start at the job site until the Accident Prevention Plan is received and accepted by the US Government representative. In Annex 1 of this document, it is included the requirements and checklist to prepare this Plan.

Ukrainian Safety Code and EM385-1-1 must be strictly followed. The contractor is responsible for the safety of the workers, the safety of the users of the facility and the general public.

The contractor shall propose a Site Health and Safety Officer (SSHO). This person, must have completed the 30-hour OSHA Construction safety class or as an equivalent, this person must have completed 30 hours of formal construction safety and health training in other accredited institution, covering the subjects of the OSHA 30-hour course (see Appendix A, paragraph 4.b) applicable to the work to be performed and given by qualified instructors. *The SSHO is also required to have five (5) years of construction industry safety experience or three (3) years if he possesses a Certified Safety Professional (CSP) or safety and health degree*. In Appendix 1, it allows equivalent certificate issued and acknowledged by local authorities. This means that the SSHO would meet the requirements is he/she shows evidence of having completed a safety course of at least 30 hours, covering general construction safety; given that the training was conducted by an authorized official institution, such as an University, or European certified safety agency. This is in addition to the required 5 or 3 years of experience in the construction sector.

5.6 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 (Ukrainian or Russian). 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 Russian/Ukrainian languages.

5.7 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 Project Manager before they are purchased by the contractor. Any material or equipment utilized at the job site that is not accepted 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. This includes among others:

- floor tiles,
- homogeneous linoleum/vinyl,
- ceiling tiles and structure,
- toilet,
- sink,
- boilers,
- radiators,
- doors,
- kitchen appliances,
- Washing machine and dryer
- Shelves,
- railings,…

5.8 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.

5.9 Quality Control Plan

Within the timeframe allowed for the final design submission, 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.

In Annex 2, it is included a guideline to prepare this Plan.

5.10 Construction Sign

Immediately after award the contractor shall prepare and install at the main street, at a very visible location, a construction sign with the following characteristics and information on it:

- Wood sign with minimum dimensions 2 meters wide by 1 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 KINDERGARTEN IS FUNDED BY THE UNITED STATES EUROPEAN COMMAND AND PROVIDED TO THE PEOPLE OF UKRAINE IN COOPERATION WITH THE ADMINISTRATION OF NOVA GREBLIA. EXECUTIVE AGENT: US EMBASSY IN UKRAINE. CUSTOMER: US NAVAL FACILITIES ENGINEERING COMMAND. PRIME CONTRACTOR:?
- Logo of NAVFAC
- Logo of EUCOM
- Start and completion dates.
- Same text in Ukrainian

Example of typical construction sign in Macedonia

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

- Partial monthly payments as agreed with the US Representative, as work is being completed and accepted

- Maximum of 90% (cumulative) is authorized until the final inspection is completed and all potential deficiencies are corrected. No payment over 90% 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 and a copy of the acceptance letter from competent Ukrainian authority is provided. Contractor to include the Final Release Form properly filled (NAVFAC Form 4330/7 (6-72)

Together with each invoice, the contractor shall provide:

- Official invoice

- 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 the Republic 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 NAVFAC representative 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. NAVFAC representative 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.

5.12 Occupancy of the building

The facility will remain unoccupied during the performance of works.

Coordination with the appointed representatives from the Municipality is absolutely necessary and required as part of this contract.

5.13 Payment for Utilities

The contractor is responsible to pay for any additional consumption of heat or electricity, which may be required for the execution of these works.

For electricity: They shall pay directly to the utility company. If this is not possible, the contractor shall install an electric meter and separate their temporary electric installation from the rest of the electrical loads.

For heating: They shall pay to the agency, entity or company providing heating.

For water: They shall pay directly to the water distribution company.

6. GENERAL TECHNICAL SPECIFICATION

6.1 CONSTRUCTION GUIDANCE / REFERENCE STANDARD

NOTE: This is an American document, and this note is to define the way in which numbers are presented herein:
1,000 = one thousand
3,500 = three-thousand five-hundred
1.08 = one and eight hundredths
0.1 = one-tenth

REFERENCE STANDARD

Construction shall be in accordance with sound construction practices, and shall conform to the latest revision/edition of the codes, criteria, and standards referenced herein; except as otherwise indicated by this Request for Proposal.

Construction shall also comply with applicable codes, ordinances and regulations of Ukraine governing Health Care facilities, life/safety, fire protection, building construction, conveying, HVAC (heating ventilation and air conditioning) systems, plumbing systems 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 codes, ordinances and regulations will be removed and a new one reinstalled at Contractor's expense.

In the next paragraphs, we can find the General Work Requirements and Technical Specifications for the work requested and included in this project.

For those items required to complete the Scope of Work, which are not specified herein, the contractor shall follow the applicable Ukrainian Codes and Regulations.

6.2 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 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.
- Direct burial of cables within the walls without their corresponding conduits

6.3 RESPONSIBILITY OF 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.

All refuse, demolished or salvaged materials shall become the property of the Contractor and shall be disposed of, off-site, in accordance with applicable Ukrainian regulations, unless the Municipality requests these removed materials. In case the Municipality wants some of the removed or demolished materials, the contractor shall be responsible to temporarily store it within the kindergarten plot of land. The Contracting Officer may ask for receipts of proper disposal of debris, or excess materials, which the Municipality does not want.

6.4 SAFETY AND PROTECTION

Execution of this construction contract requires compliance with Ukrainian and USACE Safety regulations. In addition to the Accident Prevention Plan which needs to be prepared as outlined in EM385-1-1 (see Annex 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.

6.4.1 Safety of the workers, residents in the vicinity, visitors, and general public shall be the highest priority of the contractor.

6.4.2 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. A digital copy of this manual can be found here: http://140.194.76.129/publications/eng-manuals/em385-1-1/2008_English/toc.html.

6.4.3 The contractor shall provide an accepted copy of their Accident Prevention Plan (APP) before any work is authorized to start. See Annex 1 for minimum requirements for this Plan

6.4.4 The contractor is responsible for the safety of the contractors 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 public areas accessible by the residents in the vicinity.

6.4.5 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.

6.4.6 The construction areas shall be securely separated from those areas with general access to the neighbors from the vicinity.

6.4.7 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.

6.4.8 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.

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

6.4.10 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.

6.4.11 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).

6.4.12 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).

6.4.13 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.

6.4.14 Special precautions shall be taken to maintain the area around the facility clean for its intended service to the Community. The contractor must take into consideration that there are children in the compound, and that the compound will remain in use at all times during the renovation project.

6.4.15 Injuries to any person and damage to any property not belonging to the Contractor shall be reported immediately to the PM or 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.

6.5 CERTIFICATIONS, LICENSES, PERMITS, FEES, ETC.

The Contractor shall be responsible for determining, processing and 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, construction permits, construction monitoring, utilities, road improvements, communications, etc. The contractor is responsible for acquiring any required certifications (licensing) required in order to perform design and construction works in Ukraine, as required by Ukrainian regulations and Law. 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 Contracting Officer 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.

6.6 COORDINATION.

All coordination with the municipal, regional, national authorities shall be the responsibility of the contractor. The Contracting Officer shall be notified of any disputes between agencies or approvals that could affect Contract duration or Contract Price.

Coordination between the contractor and the Municipality is required and part of this contract.

6.7 SPECIAL SITE CONDITIONS

Confine all operations, equipment, apparatus and storage of materials, to the plot of land og the kindergarten. Contractor shall ascertain, observe and comply with all rules and regulations in effect on the project site in a highly populated urban area, including parking and traffic regulations, use of walks, security restrictions, use of public street and parking, ….

6.8 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 PM'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.

Daily waste shall be placed in proper metal containers, properly separated from general public. The storage of debris on the ground is not acceptable.

6.9 SPARE 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 material utilized
- 20 liters of each type of paint to be used,
- and other typical materials that were used in this construction project that may be used for the user of the facility for maintenance purposes.

6.10 CLOSING THE CONTRACT

To close the contract, and to authorize final payment, the contractor shall provide:

- A copy of the letter from the contractor to the Municipality with 2 year warranty for all the works unless the Ukrainian regulations require a longer duration for the warranty. The warranty period starts on the day that the Contracting Officer representative accepts 100% of the work included in this contract.

- A copy of the official acceptance letter from competent Ukrainian authority (Municipality and/or education agency of Vinnitsia) accepting the works performed by the contractor.

- A list of spare parts provided to the facility signed by the beneficiary.

- 2 books or folders containing copies of all design documents, technical information on materials and equipment used, drawing, permits and certificates used for the project. One copy to remain with the beneficiary and the other copy to be provided to the US Embassy in Kiev.

- 1 CD/DVD containing all technical information and the contract files to be given to the Contracting Officer Representative.

<<<END OF PERFORMANCE TECHNICAL SPECIFICATIONS>>>

ANNEX 1

Annex 1: Guideline to Prepare the Safety Plan / Accident Prevention Plan

Immediately after award, the contractor shall prepare a Safety Plan / Accident Prevention Plan following the guideline and format provided in this Annex. This is in addition to any safety plan of safety 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.

NAVFAC EURAFSWA Contingency Engineering

ACCIDENT PREVENTION PLAN [APP]

Minimum Basic Outline

This first page is NOT to be included in the APP you're going to submit.

This document shall be customized in agreement to the instructions below, pages not applicable shall be removed, and the signed final document shall be submitted in pdf format.

Instructions

A. The contractor is required, at a minimum, to type-in information called for in areas denoted with a RED arrow and put a checkmark in the appropriate box or boxes corresponding to that section *(to check a box, double click on it, then select checked in the pop up window).* By signing this plan, the contractor is agreeing to all checked information herein and the checkmark will signify:

a) Contractor selected one or more items from a list of items
b) Contractor agrees with the corresponding information,
c) Contractor agrees to follow the requirement(s) listed herein and those contained in EM 385-1-1 dated 15 September 2008
d) Contractor agrees to develop written plans based on the requirements listed herein when required by this accident prevention plan.

B. The plan must consist of the following 10 sections:

1. Signature Sheet	6. Training
2. Background Information	7. Safety and Health Inspections
3. Statement of Safety and Health Policy	8. Accident Reporting
4. Responsibilities and Lines of Authority	9. Plans (Programs, Procedures)
5. Subcontractors and Suppliers	10. Risk Management Processes (AHA – Activity Hazard Analysis)

C. In addition to completing each section listed above several sections require certain supporting documents (resumes, certificates of training, organization chart, specific plans (crane lift plan medical support plan, etc.)). The supporting documents and plans must be attached / inserted in the appendices listed below.

Appendix	Title	Required Contents
I	Signature Sheet	As required per Section 1
II	Background Information	Area map
III	Statement of Health Policy.	Copy of signed company Safety Policy if not using generic one
IV	Responsibilities and Lines of Authority	Resume' and NAVFAC online Construction Safety Course certificate for SSHO (http://cst.wbdg.org/start.html); Proof of competency / qualification (Resumes and certificates) for persons listed in Section 4; Organization Chart (with names) for Key Corporate and Project personnel.
V	Subcontractors and Suppliers	As required per Section 5
VI	Training	As required per Section 6
VII	Safety and Health Inspection	As required per Section 7
VIII	Accident Reporting	As required per Section 8
IX	Plans	Area map showing site location; Site layout map; Acknowledgement of applicable plan key elements or NA.
X	Risk Management Processes (AHA – Activity Hazard Analysis)	AHA form for each feature of work

The reviewer of the Accident Prevention Plan shall use this checklist. The preparer of the APP shall use it to verify that all necessary information was included in the APP.

CONTRACTOR:	DATE:
CONTRACT:	SIGNATURE:

	A qualified reviewer shall check to assure submitted copies of the following items applicable from EM 385-1-1 Appendix A are included in the APP.	**YES**	**NO**	**REMARKS**
1	SIGNATURE SHEET: Plan Preparer, Approval, Concurrence.			
2	BACKGROUND INFO: Contractor, Contract #, Project Name, Brief Project Description, Contractor Accident Experience (EMR, OSHA) Corp. Trend Analysis, list of activities requiring AHA.			
3	STATEMENT OF SAFETY & HEALTH POLICY.			
4	RESPONSIBILITIES & LINES OF AUTHORITY: Identification of personnel responsible for safety (Corp. & Project Level).			
5	SUBCONTRACTOR & SUPPLIERS: Identification of Subs and Suppliers; means for controlling & coordinating; safety responsibilities.			
6	TRAINING: List subjects in safety indoctrination; mandatory training & certification, emergency response, outline requirements for supv and employee safety meetings.			
7	SAFETY & HEALTH INSPECTIONS: Identify who will conduct inspections, when & how it will be conducted & recorded, deficiency tracking sys and follow-up procedures. Any external inspections/certifications (e.g., Coast Guard etc).			
8	SAFETY & HEALTH EXPECTATIONS, INCENTIVE PROGRAMS AND COMPLIANCE: Company's written safety program goals, objectives, and accident experience goals; description of company's safety incentive program; policy/procedures for non-compliance with safety requirements; written company procedures for holding mgr. /supvs accountable for safety.			
9	ACCIDENT REPORTING: Identify person who completes the following, how, and when; exposure data (m/hrs worked); accident investigations, reports & logs; immediate notification of major accidents.			
10	MEDICAL SUPPORT: Outline on-site medical support and off-site medical arrangements.			
11	PERSONAL PROTECTIVE EQUIPMENT: Outline procedures (who, when, how) for conducting hazard assessments & written certifications for use of personal protective equipment.			
12	PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL: a) Hazard Communication; b) emergency response plans; c) layout plans; d) respiratory protection plan; e) health hazard control program; f) lead/asbestos abatement plan; g) abrasive blasting; h) confined space; i.e.) hazardous energy control plan; j) critical lift procedures; k) contingency plan for severe weather; l) access/haul road plan; m) demolition plan (engineering and asbestos surveys); n) compressed air plan; o) formwork and shoring erection and removal plans; p) lift slab plans; q) SHP/SSHP (for HTRW work); r) diving plan; s) alcohol drug abuse prevention plan; t) fall protection plan.			a) k) b) l) c) m) d) n) e) o) f) p) g) q) h) r) I) s) j) t)
13	Information on how the contractor will meet the requirements of the major sections of EM 385-1-1 in the accident prevention plan. Particular attention shall be paid to a) excavations; b) scaffolding; c) medical/first aid requirements; d) sanitation; e) PPE; f) fire prevention; g) machinery and mechanized equipment; h) electrical safety; I) chemical, physical agent, and biological occupational exposure prevention requirements. Detailed site specific hazards and controls shall be provided in the activity hazard analysis for each phase of the operation. A list of anticipated AHAs should be submitted with the APP.			a) b) c) d) e) f) g) h) i.e.)
14	Plans for maintaining job cleanup and safe access			
15	Public safety requirements (e.g., fencing, signs)			

LANT Form 385-APP

ACCIDENT PREVENTION PLAN [APP]

Contract No.:
Project Name:
Location:

1. SIGNATURE SHEET

a. Plan preparer (Safety manager, site safety and health officer (SSHO), or quality control representative will fill this role)**.**

Name:	**Title:**
Phone no.:	**Date:**
Signature:	

b. Plan approval (Company owner or Company / corporate officer authorized to obligate the company)**.**

Name:	**Title:**
Phone no.:	**Date:**
Signature:	

c. Plan concurrence (e.g., Chief of Operations, Corporate Chief of Safety, Corporate Industrial Hygienist, project manager or superintendent, project safety professional, project QC).

Name:	**Title:**
Phone no.:	**Date:**
Signature:	

2. BACKGROUND INFORMATION

Prime Contractor:
Project name:
Contract no.:

a. Project description and location. Prime contractor will provide a brief description of the project to include its location.

b. ☒ A map of the project site general location and site plan – Insert in Appendix IX.

c. Prime contractor accident experience. Prime contractor will provide accident experience information, if available, on how many accidents he or she has experienced in the last two years and what type of accidents have occurred.

d. Phases of work / Definable Features of Work. (**Examples:** Grading, excavation, formwork & shoring, steel erection, etc). NOTE: Section 10 requires an AHA for each of these phases

G1 - Mobilization / General Construction
G2 - Demolition
G3 - Scaffolding / Fall Protection
G4 - Excavation / Trenching
G5 - Electrical
G6 – Cement Work
G7 – Masonry Work
G8 – Confined Spaces & Hazardous Atmosphere
G9 – Plumbing
G10 – Painting
G11 – Steel Structure Erection
G12 – Abrasive Blasting

3. STATEMENT OF SAFETY AND HEALTH POLICY

3. ☒ **STATEMENT OF SAFETY AND HEALTH POLICY.** Prime contractor will provide a safe and healthful project site which is free from recognized and anticipated hazards that could cause injury or death. The prime contractor and his subcontractor(s) and supplier(s), and visitor(s), will comply with the policies set forth in EM 385-1-1 'Safety and Health Requirements Manual' dated 15 September 2008. Include a copy of Company's Safety Policy at Appendix III.

4. RESPONSIBILITIES AND LINES OF AUTHORITY

a. ☒ **Resumes.** Prime contractor will provide resumes for safety and industrial hygiene personnel if the contract requires these positions. Competent person qualifications for the Site Safety and Health Officer (SSHO) will also be provided. At a minimum, the SSHO will have completed the OSHA 30 hour training and have one year experience. Provide training certificates for all designated competent personnel at Appendix IV.

b. ☒ **Accountability for personnel responsible for safety.**

Company owner will:
- Accept responsibility and accountability for the safety program.
- Provide leadership and guidance to supervisory personnel for the acceptance, maintenance, and enforcement of the safety program.
- Provide the necessary resources to maintain a safe and healthful project site.
- Conduct or attend monthly supervisory safety meetings.

Company owner name/phone no.

Project manager (superintendent) will:
- Implement the safety and health program at the project site.
- Conduct periodic project site inspections to verify accident prevention plan (APP) and EM 385-1-1 compliance.
- Review and act upon site safety and health inspection reports.
- Prepare man-hour reports, if applicable.
- Have authority to make spot corrections or stop work for safety purposes.
- Conduct or attend monthly supervisory safety meetings.
- Generate and/or sign ENG Form 3394 when required.

Project manager name/phone no.

Safety manager will:
- Accept administrative and oversight responsibility for the project site safety program.
- Provide technical guidance and support to the project manager, SSHO, supervisors, and foremen on safety and health issues.
- Conduct periodic worksite visits to verify APP and EM 385-1-1 compliance.
- Report observations and findings to the company owner.
- Purchase personal protective equipment (PPE) and safety supplies as necessary.
- Have authority to make spot corrections or stop work for safety purposes.
- Conduct or attend monthly supervisory safety meetings.
- Generate and/or sign ENG Form 3394 when required.

Safety manager name/phone no.

Site safety and health officer will:
- Be on site at all times when work is performed.
- Conduct frequent worksite inspections to verify APP and EM 385-1-1 compliance.
- Conduct or supervise on-site safety training.
- Investigate accidents and incidents as necessary.
- Purchase PPE and safety supplies as necessary.
- Have authority to make spot corrections or stop work for safety purposes.
- Conduct weekly employee safety meetings and attend monthly supervisory safety meetings.
- Generate and/or sign ENG Form 3394 when required.

Site safety and health officer name/phone no.

Supervisors (foremen) will:
- Cover appropriate activity hazard analysis before work begins.
- Conduct periodic project site inspections to verify APP and EM 385-1-1 compliance.
- Assist SSHO with accident and incident investigations.
- Have authority to make spot corrections or stop work for safety purposes.
- Conduct daily safety meetings with specific work crews.
- Conduct weekly employee safety meetings and attend monthly supervisory safety meetings.
- Generate and/or sign ENG Form 3394.

Workers will:
- Wear required PPE for each task.
- Inspect electrical cords daily before use.
- Inspect in-use hand and power tools daily before work begins. Guards will NOT be removed from tools equipped with guards.
- Inspect in-use machinery and mechanized equipment daily before work begins.
- Maintain good housekeeping at the worksite.
- Report accidents and incidents immediately to supervisor.
- Have authority to make spot corrections or stop work for safety purposes.
- Attend employee safety meetings.

c. ☒ **Lines of authority.** Prime contractor lines of authority will be as follows: Company owner, project manager, safety manager, SSHO, supervisors, and workers.

i. ☒ **Company goal.** Prime contractor will provide a safe and healthful worksite that is free from recognized or anticipated hazards that could cause serious injury or death. We will strive for a zero accident rate and demand zero tolerance for unsafe acts, the workers who perpetrate them, and persons in positions of leadership who condone such actions.

ii. ☒ **Incentive program.** Prime contractor will provide their incentive program, if any.

iii. ☐ **Check the box if prime contractor will provide his own non-compliance program. If not, prime will put a check mark in paragraph's d and e.**

iv. ☒ **Worker non-compliance with safety requirements.** The commission of unsafe acts will not be tolerated at the project site. In the event this type behavior occurs the following disciplinary actions will be taken:
    - **First offense.** The offending party will be verbally warned and asked to correct the unsafe act (mentoring will take place if necessary - action will be noted in the daily report).
    - **Second offense.** The offending party will be issued a written reprimand (action will be noted in the daily report).
    - **Third offense.** The offending party will be removed from the worksite (action will be noted in the daily report).

v. ☒ **Supervisor non-compliance with safety requirements.** The condoning of unsafe acts at the worksite will not be tolerated. In the event this type behavior occurs the prime contractor will ensure disciplinary actions commensurate with the violation are taken.

5. SUBCONTRACTORS AND SUPPLIERS

a. ☐Check the box if there aren't any subcontractors or suppliers working the site. If subcontractors will be onsite please identify them below, if not, continue to Section 6.

b. Identification of subcontractors and suppliers. Prime contractor will list subcontractors and suppliers, if known, and their phone numbers.

Co:	**Ph:**
Co:	**Ph:**
Co:	**Ph:**
Co:	**Ph:**

c. ☐ Means for controlling subcontractors and suppliers. Prime contractor will meet with subcontractors and suppliers before work begins, and periodically thereafter, to coordinate activities and schedules, and to resolve any safety issues that may arise.

d. ☐ Subcontractor and supplier safety responsibilities. Subcontractors and suppliers will adhere to the requirements of the prime contractor's APP. Prime contractor will have subcontractors and suppliers sign the accident prevention plan signifying their understanding of, and compliance with, its provisions.

SUBCONTRACTOR AND SUPPLIER ACCEPTANCE OF ACCIDENT PREVENTION PLAN

Name:	**Date:**
Signature:	

Name:	**Date:**
Signature:	

Name:	**Date:**
Signature:	

Name:	**Date:**
Signature:	

Name:	**Date:**
Signature:	

6. TRAINING

a. ☒ Safety indoctrination subjects.

- Personal protective equipment requirements for project site.
- Review of accident prevention plan and activity hazard analyses.
- Weekly (employees) and monthly (supervisors) safety meetings.
- Location of portable fire extinguishers.
- Location of first-aid kits.
- Identification of first-aid/CPR qualified personnel (if applicable).
- Location of emergency phone numbers.
- Location of the nearest on-site/off-site medical facility.
- Emergency plans for fires/spills (if applicable).
- Accident notification and reporting procedures.
- Current project site safety issues.

Other safety indoctrination subjects.

b. Training or certifications applicable to the project. (Note: If the activity selected is in **bold** the prime contractor will provide employee names working the job along with their years of 'on-the-job' experience in **Appendix VI**. If workers have attended a specific training class or hold a certification in the job the prime will also annotate this information – **See Appendix VI.**)

☐ **Abrasive blasting.**	☒ Fall protection.
☐ **Blasting.**	☒ First-aid/CPR.
☐ Compressed gas cylinders.	☒Formwork/shoring.
☒ Concrete/masonry.	☒Hand/power tools.
☐ **Confined space.**	☐Hazard communication.
☐ **Cranes/derricks.**	☐ Hazardous waste.
☐ Crane hand signals.	☐ **Lockout/tagout.**
☒ **Electrical.**	☒ **Machinery/mechanized equipment.**
☐ Elevating work platforms.	☐ Motor/all-terrain vehicles.
☐ Emergency response (fires/spills).	☐ Pneumatic tools.
☒ Excavation.	☒ Portable fire extinguishers.
☐ **Explosive-actuated tools.**	☐ Powered industrial trucks.
☐ Pressurized equipment/systems.	☒ Scaffold systems.
☐ Respiratory protection.	☐ Steel erection.

☐ Rigging.
☐ Vehicle-mounted elevating platforms.
☐ Rotating work platform.
☐ Wearing/maintaining PPE.
☐ Safe lifting techniques.
☐ **Welding/cutting.**

Other training and certifications.

c. Weekly employee safety meetings.

☒ Project manager, safety manager, site safety and health officer, or supervisor will conduct employee safety meetings.

☒ Prime contractor and subcontractor workers will attend employee safety meetings.

Day and time of employee safety meetings is listed below:

Day:	**Time:**
Day:	**Time:**

☒ Meetings will be documented with facilitator/attendee names, date, and subjects discussed.

d. Monthly supervisory safety meetings.

☒ Company owner, safety manager; or project manager will conduct supervisory safety meetings.

☒ Prime contractor and subcontractor supervisors will attend supervisory safety meetings.

Day and time of supervisory safety meeting is listed below:

Day:	**Time:**
Day:	**Time:**

☒ Meetings will be documented with facilitator/attendee names, date, and subjects discussed.

7. SAFETY AND HEALTH INSPECTION

a. ☒ Project site safety inspections.

- Company safety manager (periodically).
- Project manager (periodically).
- Supervisors and foremen (periodically).
- Site safety and health officer (SSHO) (frequently).
- Quality control representative (daily).
- Employees will conduct project site inspections of electrical cords, in-use hand and power tools, and in-use machinery/mechanized equipment (daily).

b. ☒ Inspector qualifications. Prime contractor will provide inspector qualifications for safety manager, SSHO, and quality control representative.

c. ☒ Deficiency log. A deficiency log will be generated after inspections using the criteria listed below. Follow-up inspections will be performed to ensure identified deficiencies have been corrected.

- Date deficiency identified.
- Description of deficiency.
- Name of person responsible for correcting deficiency.
- Projected resolution date.
- Date actually resolved.

d. External inspections. Are external inspections or certifications required? ☐ Yes ☒ No

If yes please explain.

8. ACCIDENT REPORTING

a. ☒ **Exposure data.** Man-hours worked will be reported to NAVFAC EURAFSWA Project Manager by the 25th of every month using the "Contractor Monthly Safety Self- Evaluation Form"(must insert in **Appendix VIII**).

b. ☒ **Accident notification.** Prime contractor will report accidents and incidents as soon as they happen to the contracting officer's representative (COR). The COR, in turn, will notify the Safety Office according to the notification information below. For accidents and incidents that require immediate notification, the prime contractor will seal-off the site and wait for the NAVFAC Safety investigation team.

Immediate notification (telephonically):

- Fatality.
- Permanent total disability.
- Permanent partial disability.
- Three or more persons admitted to a hospital.
- Property damage of $200,000 damage or more.

24-hour notification (telephonically and/or email):

- Lost time (**Note:** Lost time is defined as any loss of time away from work beyond the day or shift on which it occurred).
- Property damage not less than $2,000 but no greater than $200,000.
- Treatment of medical injuries not resulting in lost time.

c. ☒ **Accident recording.** Prime contractor will coordinate with the COR on forwarding the appropriate documents to the NAVFAC Safety Office.

Reportable accident and incident requirements: All accidents and incidents to include occupational injuries and illnesses that result in medical treatment with no lost time, and property damage of less than $2,000, will be documented in an email and sent to the NAVFAC Safety Office within 24 hours.

Recordable accident and incident requirements: All accidents and incidents to include occupational injuries and illnesses that result in lost time (measured in days) or property damage of $2,000 or more will be documented on ENG Form 3394 'U.S. Army Corps of Engineers Accident Investigation Report' dated March 1999 and submitted to the NAVFAC Safety Office within five (5) days of the occurrence.

9. PLANS (PROGRAMS, PROCEDURES)

A. LAYOUT PLANS – MUST INSERT IN APPENDIX IX.

B. EMERGENCY RESPONSE PLANS – SEE APPENDIX IX.

C. MEDICAL SUPPORT.

a. General requirements.

☒ An effective means of communication (hard-wired, cellular, or two-way radio and tested in the area of use for functionality) with emergency response source access will be provided along with transportation for injured workers.

☒ Telephone numbers of medical facilities, physicians, and ambulances will be conspicuously posted (at a minimum these numbers will be posted near project-office telephones).

☒ A map showing the best route to the nearest medical facility will be conspicuously posted.

Medical Facility Name:
Address:
Phone Number(s):

b. Type of medical support:

☒ **Less than 100 persons employed on any one shift.** On sites with less than 100 workers, and where neither a first-aid station nor infirmary is available, prime contractor will provided a first-aid kit for every 25 persons. These kits will have latex gloves and a CPR shield.

Location of first-aid kits:

☒ **Trained first-aid/CPR employees.** Prime contractor will have at least two employees on each shift trained to administer first-aid/CPR when a medical facility or physician is not accessible within five minutes of an injury to a group of two or more employees. Provide training certificates or copy of certification card.

Employee Name:	Certification expiration date:
Employee Name:	Certification expiration date:

☐ **More than 99 but less than 300 persons employed on any one shift.** On sites with more than 99 but less than 300 workers the prime contractor will establish and equip, as directed by a licensed physician, a first-aid station. Identification signs and directional markers will be used to denote the station's location. Emergency lighting will be provided and a first-aid attendant will be on duty at all hours when work is in progress.

☐ **300 or more persons employed on any one shift.** On sites with 300 or more workers the prime contractor will establish and equip, as directed by a licensed physician, an infirmary. Identification signs and directional markers will be used to denote the infirmary's location and emergency lighting will be provided.

Infirmaries will provide reasonably quiet conditions with some privacy, lighting, climate control, adequate toilet facilities, hot and cold water, drainage, and electrical outlets. Walls and ceilings will be finished with two coasts of white paint, windows and doors screened, and the floors made of impervious construction.

A properly-equipped emergency vehicle, helicopter, or mobile first-aid unit will be provided during work hours (the emergency vehicle will not be used for any other purpose). A registered nurse, licensed physician's assistant, certified emergency medical technician, or a licensed practical nurse (approval by a licensed physician) will be assigned on a full-time basis to each work site.

D. PERSONAL PROTECTIVE EQUIPMENT (PPE).

a. General Requirements.

☒ Prime contractor will conduct hazard assessments to find out the type(s) of PPE required.

☒ Prime contractor will ensure workers know how to put on, adjust, wear, remove, and use PPE. PPE will be inspected before each use, maintained in a serviceable and sanitary condition, and stored so the integrity of the equipment is protected. This training will be documented with the name of the facilitator/attendees, date, and subjects taught.

☒ Damaged and defective equipment will not be used but rather marked 'out-of-service' and removed from the project site.

b. PPE used on the project site.

☒ Minimum required clothing.	☐ Welding goggles.
☒ Hard hat.	☐ Welding hand-held shields.
☒ Safety glasses/goggles.	☐ Full-body harness w/lanyard(s).
☐ Face shield.	☒ Reflective vest.
☒ Ear plugs/muffs.	☒ Dust mask.
☒ Work gloves.	☐ Half-face/full-face respirator.
☐ Welding gloves.	☐ Personal floatation device.
☒ Steel-toed/hard-soled shoes.	☐ Life ring.
☐ Welding helmet.	☐

Other PPE used on the project site.

E. OTHER PLANS: Must check if "YES" or NA (not applicable) for all listed plans. If you check "YES" then you must complete Appendix IX boxes for that plan or insert your company plan. Sections in parenthesis refer to plan coverage in the 2008 EM 385-1-1.

PLAN NAME	YES	NA	PLAN NAME	YES	NA
Plan for prevention of alcohol and drug abuse (01.C.02)	×		Contingency plan for severe weather (19.A.03);	×	
Site sanitation plan (Section 02)	×		Float Plan (19.F.04);		×
Access and haul road plan (4.B)		×	Site-Specific Fall Protection & Prevention Plan (21.C);	×	
Respiratory protection plan (05.G)		×	Demolition plan (to include engineering survey) (23.A.01);	×	
Health hazard control program (06.A)		×	Excavation/trenching plan (25.A.01);	×	
Hazard communication program (06.B.01)		×	Emergency rescue (tunneling) (26.A.);		×
Lead abatement plan (06.B.05 & specifications);		×	Underground construction fire prevention and protection plan (26.D.01);		×
Asbestos abatement plan (06.B.05 & specifications);		×	Compressed air plan (26.I.01);		×
Safety Program (06.E.03.a);	×		Formwork and shoring erection and removal plans (27.C);	×	
Abrasive blasting (06.H.01);		×	Precast Concrete Plan (27.D);		×
Heat/Cold Stress Monitoring Plan (06.I.02)		×	Lift slab plans (27.E);		×
Crystalline Silica Monitoring Plan (Assessment) (06.M) ;		×	Steel erection plan (27.F.01);		×
Night operations lighting plan (07.A.08);		×	Site Safety and Health Plan for HTRW work (28.B);		×
Fire Prevention Plan (09.A);	×		Blasting Safety Plan (29.A.01);		×
Wild Land Fire Management Plan (09.K);		×	Diving plan (30.A.13);		×
Hazardous energy control plan (12.A.01);		×	Confined space Program (34.A).		×
Critical lift Plan (16.H);		×			

☒ **Temporary facilities/layout plan (Section 4.A).** ☐ **NA.**
*****Written Company plan required**

- Trailers and other temporary structures used as field offices, personnel housing, or storage areas will be anchored with rods and cables or by steel straps attached to ground anchors.
- Temporary facility spacing requirements will be in accordance with (IAW) paragraph 09.A.19.
- Temporary power distribution requirements will be IAW paragraph 11.D.01.
- Temporary project fencing will be provided on projects located in areas used by the public.
- Signs warning of construction hazards will be posted on fencing every 300'.
- Temporary structures with an electrical capability will be grounded.
- Temporary work camps will be adequately drained (graded and ditched) and rendered free from depressions where water may settle.
- The area surrounding the structures will be free of debris, garbage, and rubbish.
- Temporary sleeping quarters will be heated, ventilated, lighted, and maintained in a clean and safe condition.

☐ **Emergency response plans for fires/spills (Section 01.E.01).** ☒ **NA.**
*****Written Company plan required.**

- Discuss escape procedures and routes.
- Designate critical project site operations and discuss how the operations will be protected.
- Discuss employee accountability procedures following an evacuation.
- Discuss employee roles in emergencies to include responsibilities and equipment used.
- Discuss the location of emergency contact information to include reporting procedures.

☐ **Hazard communication plan (Section 06.B.01).** ☒ **NA.**
*****Written Company plan required.**

- A current inventory of project site hazardous chemicals will be prepared.
- Material safety data sheets for hazardous substances will be kept at the project site.
- Containers will be labeled with the type of hazardous substance they contain.
- Workers will be notified about new substances that are brought onto the worksite to include the hazards associated with them.

☐ **Respiratory protection plan (Section 05.G.03).** ☒ **NA.**
*****Written Company plan required.**

- Discuss the use of dust masks to protect workers from large particulate matter.
- Discuss the use of half-faced respirators to protect workers from small particulate matter to include fumes, mists, and aerosols.
- Discuss sealing a half-face respirator properly.
- Discuss cleaning a half-faced respirator properly
- Discuss inspecting and storing a half-face respirator properly.

☒ **Health hazard and control plan (Section 06.A.02(b)).** ☐ **NA.**
An activity hazard analysis (AHA) will be completed for each applicable area.

- Discuss hazardous substances.
- Discuss hot substances (heating devices and melting kettles).
- Discuss harmful plants, animals, and insects.
- Discuss ionizing radiation.
- Discuss the use of lasers.
- Discuss ventilation and exhaust systems.

☐ **Abrasive blasting plan (Section 06.H.01(b)).** ☒ **NA.**
*****Written Company plan required.**

- Use Regulator to control Air supply.
- Change Filters at the advised frequency.
- Monitor the air supply and ensure adequate supply of air.
- Ensure the Dead Man's switch is in good operating condition.
- Make sure blasting is only done by trained personnel with the proper PPE.
- Barricade the area to prevent unauthorized entry.
- Turn machine 'Off' prior to moving equipment. Follow 'Lock Out / Tag Out' procedures.
- Ensure the Dead Man's switch is in good operating condition.
- Maintain and ensure good housekeeping.
- Wear proper Respiratory PPE.
- Wear proper PPE (Gloves and Tyvek suit). Take breaks and hydrate when high temperatures are encountered while wearing PPE.
- Dispose of blasting residue according to all Environmental regulations.

☐ **Confined space plan (Section 34.A.06).** ☒ **NA.**
*****Written Company plan required.**

- Discuss responsibilities of attendants, entrants, and entry supervisors.
- Train workers how testing and monitoring equipment is used.
- Discuss the type of ventilating equipment needed to obtain acceptable entry conditions.
- Discuss the type of communication equipment to be used.
- Discuss the PPE to be used when engineering and/or administrative controls fail to protect workers adequately.
- Discuss the lighting equipment to be used.
- Discuss the equipment to be used for entrant ingress and egress.
- Discuss rescue procedures to include required equipment and emergency phone numbers.

☐ **Hazardous energy control plan (Section 12.A.12).** ☒ **NA.**
*****Written Company plan required.**

- Discuss why the lock out/tag out procedure is being used.
- Communicate and coordinate the lockout/tagout procedure with the workers being affected by the procedure and the government's designated authority.
- Discuss the procedural steps in place for shutting down, isolating, blocking, and securing systems to control the release of hazardous energy to include the person(s) responsible for performing this task.
- Discuss the procedural steps in place for placing, removing, and transferring lockout/tagout devices to include the person(s) responsible for performing this task.

- Discuss the procedural steps in place for placing and removing locks and/or tags to include the person(s) responsible for performing this task.
- Discuss the procedures for testing the effectiveness of isolating hazardous energy to include lockout/tagout.
- Discuss emergency scenarios that could arise during the lockout/tagout procedure to include the actions to be taken for safely responding to an emergency.
- Discuss the procedure for transferring removal authority from one person to another.

☐ **Critical lift plan (Section 16.H.02).** ☒ **NA.**
*****Written Company plan required.**

- Designate a crane operator, lift supervisor, and rigger (and state their qualifications).
- Describe ground conditions and outrigger and crawler track requirements.
- Discuss crane position, height of the lift, load radius, and boom angle and length for the entire range of the lift.
- Discuss the size and weight of the load to include any crane and rigging components that add to the weight.
- Discuss the rigging plan to include lift points, hardware requirements, and procedures.
- Discuss coordination of the lift and how individual players will communicate with each other.
- Discuss tandem and tailing-crane lift procedures, if applicable.
- Describe environmental conditions which, when in effect, will stop the lift.

☐ **Access and haul roads plan (Section 04.B).** ☒ **NA.**
*****Written Company plan required.**

- Discuss equipment to be used on the road, traffic density, and the hours of operation.
- Discuss road layout and widths, horizontal and vertical curve data, and sight distances.
- Discuss sign and signalperson requirements, road markings, and traffic-control devices.
- Discuss how drainage will be controlled.
- Outline contact between vehicles and the public to include implementing safety controls at each one of these places.
- Discuss the maintenance needed to keep the roads hard, smooth, and as dust-free as possible.

☒ **Demolition plan (Section 23.A.01).** ☐ **NA.**
*****Written Company plan required.**

- A demolition plan based on engineering, lead, and asbestos surveys will be prepared.
- Utilities and other service lines will be shut-off, capped, or otherwise controlled outside the building line.
- Service lines will be temporarily relocated and protected if utilities are maintained.
- If hazardous building materials and chemicals, flammable materials, explosives, gases, or other dangerous substances have been used in building construction, pipes, tanks, or other equipment on the property they will be controlled or eliminated before demolition begins.
- Glass fragmentation will be controlled.
- Mechanical equipment will not be used on floors or other working surfaces unless the floors and surfaces are of sufficient strength to support the loads.
- Chute openings will be protected by a guardrail 42” in height. When debris is dropped through floor openings without chutes, the openings and the area onto which the material is dropped will be enclosed with barricades not less than 42” in height and not less than 6’ back from the protected edge of the opening above. Signs warning of the fall-material hazard will be posted at each side of the debris opening at each floor.
- No wall section more than 6’ in height will stand without lateral bracing unless the wall was designed and constructed to stand without this support and its condition is determined safe enough to be self-supporting.

- Workers will not be allowed in the area directly underneath floor arches when they're being removed. The area will be barricaded to prevent access and signed to warn of the hazard.
- Steel construction will be dismantled column-by-column and tier-by-tier (columns may be in two-story lengths).

☐ **Compressed air and gas systems plan (Section 20.B).** ☒ **NA.**
No written plan required.

- Compressors and related equipment will be located so safe access is provided to all parts of the equipment for operation, maintenance, and repairs.
- Air hose, pipes, valves, filters, and other fittings will be pressure-rated by the manufacturer and not exceeded. Defective hose will be removed from service.
- Hose will not be laid over walkways, steps, ladders, and scaffolds to create a tripping hazard.
- Compressed air will not be used to blow dirt from the hands, face, or clothing.
- A speed governor independent of the unloaders will be installed on air compressors except those driven electrical induction or electrical synchronized motors.
- Piping will be equipped with traps or other means for removing liquid from the lines.
- Air receivers will be installed so that all drains, hand holes, and manholes are accessible.

☒ **Formwork/shoring (Section 27.C).** ☐ **NA.**
*****Written Company plan required.**

- Formwork, shoring, and bracing will be erected and maintained to safety support all vertical and lateral loads that might be applied until such loads can be supported by the structure.
- Sills will be sound, rigid, and capable of carrying the maximum intended load.
- Base plates, shore heads, extension devices, or adjustment screws will be in firm contact with the sill and form material and, as applicable, will be snug against the posts.
- Diagonal bracing will be provided in vertical and horizontal planes to provide stiffness and to prevent buckling of the individual members.
- Forms and shores (except those on slab or grade and slip forms) will not be removed until the concrete has gained sufficient strength to support its weight and all superimposed loads.

☐ **Lift-Slab Operations (Jacking plan) (Section 27.E).** ☒ **NA.**
*****Written Company plan required.**

- Manufacturer's rated capacity will be legibly marked on all jacks and not exceeded.
- Jacks will be designed and installed so they won't continue to lift when overloaded.
- Jacks will have a positive stop to prevent over-travel.
- Base of the jack will be blocked or cribbed. If there's a possibility of slippage a wood block will be placed between the jack's metal cap and the load.
- Maximum number of manually-controlled jacks on one slab will be limited to 14.
- During lifting all point of the slab support will be kept within ½" of that needed to maintain the slab in a level position.
- No one will be permitted under the slab during jacking operations.

☒ **Personal Fall Protection Program (Section 21.C.01).** ☐ **NA.**
*****Written plan required.**

- Workers will be protected by guardrail, personal fall protection, safety nets, catch platforms, or temporary floors in the following situations: Worker can fall 6' or more; on access ways or work platforms over water, machinery, or dangerous operations; on runways where workers can fall 4' or more; and on all exposed sides of stairways and ladder-floor openings.
- Top rails, mid rails, and toe boards will be able to withstand outward and downward forces of 200, 150, and 50 lbs., respectively.
- Wire rope can be used as a top or mid rail under the following conditions: When the posts are spaced no farther than 8"; deflection of the rope under 200 lbs. of force is less than 3"; and the rope if flagged for visibility. Synthetic and natural-fiber rope will not be used.
- Paneling and screening will be in place from the mid rail to the toe board when material is piled higher than the toe board.
- Personal fall protection will consist of a full-body harness (not chest-wait units or body belts), lifeline, and anchorage point.
- Two lanyards will be used when vertical movement is required and when a horizontal lifeline is inappropriate.
- Anchorages capable of supporting 5,000 lbs. per worker will be independent of anchorages used to support or suspend platforms. Lifelines will not be attached to guardrails or hoists but rather to the structure.
- Floor holes will be covered completely and securely. If the cover to an open hole is missing the hole will be barricaded with a guardrail. Workers laboring by wall openings 6' or more above a lower level will be protected by a guardrail or personal fall protection.
- Roofers will be protected by the following forms of fall protection: Guardrails; personal fall protection; a warning line 6' from the roof's edge, or a safety-monitoring system.
- Excavations will be guarded when they are 6' or more in depth and not readily seen because of plant growth or other visual barriers.

☐ **Steel Erection Plan (Section 27.F).** ☒ **NA.**
*****Written Company plan required.**

- Verify the Weight of the Objects to be picked.
- Inspect slings before each pick. Remove all cut or frayed slings.
- Check winch lines regularly.
- Make sure workers have proper skills and experience.
- Know hand signals; Use Tag Ropes and Pay Attention.
- Use Spud Wrench & Pull Pins.
- Know where steel is supposed to be landed.
- No lifting near energized wires and maintain proper clearances.
- If welding steel, wear Proper Eye Protection for High Energy Light Source as well as to protect from impact.
- Wear proper PPE (Gloves and Eye Protection). Take breaks and hydrate when high temperatures are encountered while wearing PPE.
- Follow erection plan and drawings. Ensure a sequential erection procedure is prepared, which has been approved by the erection engineer.
- Make provisions for positive connections between members of the structure that have been specified to resist imposed lateral and vertical force.
- Reinforcement required for in-service loads and temporary conditions. Ensure temporary guys or bracing are securely anchored
- Steel Members should be clearly marked and labeled.
- Verify the stability of the structure in accordance with the erection engineer's specifications:

- at the end of each work day
- when fastenings may be incomplete
- during strong winds or when strong winds are forecast.

☐ **Night operations lighting plan (Section 7.A.08).** ☒ **NA.**
*****Written Company plan required.**

☒ **Site sanitation plan (Section 02.A).** ☐ **NA.**
No written plan required.

- An adequate supply of drinking water (cool water during hot weather) will be provided.
- Portable drinking-water dispensers will have a tap – water will not be dipped. Dispensers will be clearly marked as "Drinking Water" and will be capable of being closed. Use of a common cup will be prohibited unless sanitized between uses.
- When sanitary sewers are not available porta-johns will be provided.
- Washing facilities will have running water, soap, and an individual means of drying (hand sanitizer will be used when running water is not practical).
- No food or beverage will be stored or consumed in a toilet room or in any area that is exposed to a toxic material.
- An adequate number of waste receptacles will be provided. Receptacles will have covers that fit tightly, be emptied at least daily, and be maintained in a sanitary condition.

☒ **Fire Prevention Plan (Section 09.A).** ☐ **NA.**
*****Written Company plan required.**

- Discuss the major worksite fire hazards to include potential ignition sources.
- Describe the types of fire-suppression systems to be used (portable fire extinguishers, etc.).
- Discuss employee responsibilities for maintaining the fire-prevention equipment and systems.
- Discuss employee responsibilities for controlling fuel-source hazards.
- Discuss housekeeping procedures to include the removal of waste materials.

☒ **Excavations (Section 25.A).** ☐ **NA.**

*****Written Company plan and AHA required for excavations or trenches greater than 5 ft (1.5 m) in depth. For excavations or trenches less than 5 ft (1.5 m) in depth, An AHA is required but plan is optional.**

- Workers will not labor in excavations in which there is accumulated water or where water is accumulating until the water hazard is controlled.
- Shoring will be used for unstable soil or depths greater than 5' unless benching, lay-back, or another acceptable plan can be implemented.
- In excavations less than 20' in depth the maximum slope will be 34 degrees measured from horizontal (1 1/2' horizontal to 1' vertical).
- Excavations will not go below adjacent structures unless they are underpinned or determined safe by a registered professional engineer.
- Excavated material will be placed a minimum of 2' from the excavation's edge.
- Stairs, ramps, or ladders will be provided to workers who are required to enter excavations greater than 4' in depth. This equipment will be located so no more than 25' of lateral travel is required to escape the excavation.
- Ladders will extend 3' past the excavation's edge.
- Personal access ramps will be 4' wide with guardrails while equipment ramps will be 12' wide with curbs of 8" X 8" timbers or equivalent.

- Protection for excavations exposed to the public will meet guardrail requirements while protection against vehicles will be able to withstand the impact forces with traffic.
- Excavations 6’ or more in depth, or where workers are routinely exposed to a hazard (impalement or hazardous material), will have a barricade no closer to the edge than 6’ with a warning (tape, flags, act.) located 3-4’ above the ground.
- Excavations less than 6’ in depth will have a barricade no closer than 6”/no farther than 6’.

☒ **Scaffolds (Section 21.J.01, 21.J.02 on page 509 and 22.A and 22.B).** ☐ **NA.**
No written plan required (included as part of the Fall Protection Plan).

- Scaffolds will be level and plumb and erected with base plates upon mudsills or other adequate foundation. Rolling scaffolds will have wheels locked and/or outriggers secured in place.
- Work near overhead power lines will not commence until a survey is made to ascertain a safe clearance distance from the lines. Scaffolds will not be erected or used near power lines until the lines are insulated, de-energized, or rendered safe.
- Scaffolds and their components will be capable of supporting four times the maximum anticipated load. If a scaffold’s height is more than four times the minimum base dimension (to include the width added by outriggers) it will be secured to the wall or structure.
- Guardrails will be installed on open sides and ends.
- Platforms will be a minimum of 18” in width and extend over their end supports by at least 6” but no more than 12”, unless cleated or restrained by hooks or equivalent means. Platforms will overlap over supports by a minimum of 12” unless nailed together or restrained from movement.
- Platform area will be fully-planked with no greater than 1” gaps between adjacent platforms, and platforms and uprights.
- Scaffold access will be from ladders (bottom rung no greater than 24” in height), stair towers, ramps, and walkways but not from cross-braces.
- If a worker can fall 6’ or more to a lower level they will be protected by a guardrail or a full-body harness with lifeline and anchorage point.

☒ **Machinery/mechanized equipment (Section 18.G).** ☐ **NA.**
No written plan required.

- Before machinery and mechanized equipment is placed into service it will be inspected and certified as safe by a competent person.
- Front-end loaders, bulldozers, backhoes, cranes, and similar equipment will have at least one dry chemical or CO2 portable fire extinguisher on-board with a minimum rating of 5-B:C.
- Self-propelled construction equipment will have a reverse signal alarm.
- Belts, gears, chains, shafts, pulleys, drums, and other rotating and moving equipment parts will be guarded when exposed to contact by persons or when they otherwise create a hazard.
- Crane will operate at least 10’ away from overhead power lines.
- An operating manual, log book, load chart, and document detailing operating limits in windy or cold weather conditions will be in the cab when the crane is operating.
- Crane will be within one degree of level and outriggers fully-extended when in use. Wheels will be off the ground at every setting.
- Crane outrigger floats will be securely attached. Float blocking will be of sufficient size and stability to support the total area. Blocking will not be performed under the outrigger beams.
- Crane’s rear swing radius will be barricaded.
- Riding on or standing under loads is prohibited.

☒ **Electrical (Section 11).** ☐ **NA.**
No written plan required.

- Electrical work shall be performed by Qualified Personnel with verifiable credentials.
- An AHA and written work procedures must be prepared for unusual or complicated work activities or any activity identified by the Qualified Person.
- Work activity adjacent to energized overhead power lines will not be initiated until a survey has been made to ascertain the safe clearance distance from the lines.
- Whenever possible, all circuits and equipment will be de-energized before work is started and personnel protected by lockout/tagout and clearance procedures, and grounding.
- Live parts of wiring or equipment will be guarded.
- Transformer banks and high-voltage equipment will be protected against unauthorized access and those entrances not under constant observation will be kept locked. Metallic enclosures will be grounded and signs warning of high voltage and prohibiting unauthorized entrance posted.
- Flexible cords will be inspected by the user daily. Cord sets used on construction sites or in damp locations will contain an equipment ground wire and have a plug attached.
- Flexible cords will be protected from damage caused by vehicles, foot traffic, sharp corners, and pinching. Cords passing through holes will be protected by suitable means.
- Flexible cords will only be used in continuous lengths. Cords No. 12 or larger may be used with a splice if the splice is made by a qualified electrician, the insulation is equal to the cord being spliced, and the wire connections are soldered. No wire nuts will be used.
- Flexible cords and cables will not be secured by staples or hung from nails or bare wire.
- Enclosures containing over-current protective devices will be provided with lockable, close-fitting doors. Circuit-breakers, switches, fuse panels, and motor controllers located out-of-doors or in wet locations will be contained in weatherproof enclosures or cabinets. When receptacles are used in wet locations they will be contained in a weatherproof enclosure the integrity of which is not affected when a plug is inserted.
- All electrical circuits will be grounded.
- Portable and semi-portable electrical tools and equipment will be grounded by a multi-conductor cord having a polarized plug with a grounding conductor. Double-insulated tools do not have to be grounded.
- Grounding rods with pipe electrodes will be used in 8’ lengths and driven to full depth.
- Temporary lights will not be suspended by their electric wire unless designed for suspension.
- Bulbs attached to temporary lighting strings and extension cords will be protected by guards. Empty light sockets (broken bulbs, etc.) will be immediately filled.
- All receptacle outlets that provide temporary electrical power during construction or demolition shall have GFCI protection.

10. RISK MANAGEMENT PROCESSES (AHA – ACTIVITY HAZARD ANALYSIS)

Instructions

1. List each definable feature of work / phase of work in the table below. NOTE: Definable feature of work / phase of work should be same as listed in Section 2.d. of this APP)

2. For each listed phase/feature complete an Activity Hazard Analysis form (See Figure 1-2 page 10 of EM 385-1-1) and insert into Appendix X.

ID No.	Feature of work / phase of work
1	G1 - Mobilization / General Construction
2	G2 - Demolition
3	G3 - Scaffolding / Fall Protection
4	G4 - Excavation / Trenching
5	G5 - Electrical
6	G6 – Cement Work
7	G7 – Masonry Work
8	G8 – Confined Spaces & Hazardous Atmosphere
9	G9 – Plumbing
10	G10 – Painting
11	G11 – Steel Structure Erection
12	G12 – Abrasive Blasting

APPENDIX I.

SIGNATURE SHEET

(Reserved if more space is needed other than Section 1)

APPENDIX II.

BACKGROUND INFORMATION

Required Enclosures:

Optional:

Copy of project description from SOW, etc.

APPENDIX III.

STATEMENT OF SAFETY AND HEALTH POLICY

Required Enclosures:

1. Copy of signed company statement of Safety and Health Policy (if not using generic option in Section 3).

2. The Contractor's written safety program goals, objectives, and accident experience goals for this contract (if not using generic option in Sections 2 and 3).

Optional:

APPENDIX IV.

RESPONSIBILITIES AND LINES OF AUTHORITY

Required Enclosures:

1. Contractor's Resume and "USACE 30 hour Construction Safety Course certificate for SSHO" or equivalent certificate issued and acknowledged by local authorities.

2. Proof of competency / qualification (Resumes and certificates) for the other persons listed in Section 4.

3. Organization Chart (with names) for Key Corporate and Project personnel.

4. Corporate/Company accountability policies and procedures (if not using generic option).

Optional:

APPENDIX V.

SUBCONTRACTORS AND SUPPLIERS

Required Enclosures:

Optional:

Copies of Subcontractor Safety policies and procedures

APPENDIX VI.

TRAINING

Required Enclosures:

Company Safety and Occupational Health (SOH) Training policies, procedures, and plans (if not using generic option in Section 6).

Optional:

Company SOH training documents – such as training logs, certificates, etc.

SPECIFIC WORKER TRAINING

Abrasive blasting.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Blasting.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Confined space.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Cranes/derricks.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Electrical.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Explosive-actuated tools.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

First-aid/CPR.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Lockout/tagout.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Machinery/mechanized equipment.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Scaffolding.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

Welding/cutting.

Name:	**Training:**
Name:	**Training:**
Name:	**Training:**

APPENDIX VII.

SAFETY AND HEALTH INSPECTION

Required Enclosures:

1. Company safety and health inspection policies, procedures, and forms. (if not using generic option Section 7).

2. Documents supporting Section 7 requirements.

Optional:

APPENDIX VIII.

ACCIDENT REPORTING

Required Enclosures:

1. Company accident reporting policies, procedures, and forms. (if not using generic option in Section 8).

2. Documents supporting Section 8 requirements.

Optional:

APPENDIX IX.

PLANS

Required Enclosures:

1. Area map showing site location.

2. Site layout map also showing site lay down areas, sanitation facilities, on-site medical support location (e.g. 1st Aid Kit), emergency telephone location and numbers.

3. Acknowledgement of key provisions of all required plans – or copies of company SOH policies, procedures, or plans related to requirements.

Optional:

APPENDIX X.

RISK MANAGEMENT PROCESSES (AHA – ACTIVITY HAZARD ANALYSIS)

Required Enclosures:

1. One completed AHA form for each phase of work / feature of work. Refer to AHA template and include the completed forms in Appendix X.

Optional:

Activity Hazard Analysis Template

How to use this document

This first page is NOT to be included in the APP you're going to submit.
PLEASE DELETE IT BEFORE PRINTING THE FILLED DOCUMENT

Directions:
Activity Hazard Analysis [AHA] is required for each definable feature of work (DFOW).
However, many if not all projects involve one or more of the following activities as part of one or more DFOWs.

Work Activities:
a. Mobilization / General Construction
b. Demolition
c. Scaffolding / Fall Protection
d. Excavation / Trenching
e. Electrical
f. Cement Work
g. Masonry Work
h. Confined Spaces
i. Plumbing
j. Painting
k. Steel Structure Erection
I. Abrasive Blasting

Contractors are authorized to utilize the attached Generic AHAs relevant to each of the above said activities in their submittal and then incorporate them into their Accident Prevention Plan (APP). The Contractor is responsible for reviewing this document in its entirety and to make any changes to adapt the document to their construction practices. The Contractor may substitute their own AHAs for submittal review if they have their own APP and AHAs.

*NOTE: To use the Generic AHA you MUST complete the tables on the following pages (to be part of your submittal) and fill **all** blanks and areas denoted by the RED arrows in each generic AHA including checking the "Accepted as part of the APP" box at the bottom of the Generic AHA and completing the APP preparer signature box at the bottom right of each form. If any step or hazard reported in the AHA does not apply to your case it shall be deleted and or modified to meet the needs of the Contractor's operations.*

In addition to the changes mentioned above, update the required information pertaining to Contractor Identity, Contract #, Project Name, Date, ID of Qualified Safety Official, and Signatures.

The AHA shall be submitted in pdf format and incorporated as Appendix X of the ACCIDENT PREVENTION PLAN [APP].

The Generic AHAs are not a substitute for full compliance with EM 385-1-1 requirement but are intended only to highlight selection items.

Activity Hazard Analysis

Contract No.:

Project Name:

Location:

Date:

Contractor's competent / qualified person:

The following Generic AHAs are incorporated into the site specific AHAs.

Generic AHA used in this APP	Yes	No/NA
G1 - Mobilization / General Construction	✕	
G2 - Demolition	✕	
G3 - Scaffolding / Fall Protection	✕	
G4 - Excavation / Trenching	✕	
G5 - Electrical	✕	
G6 – Cement Work	✕	
G7 – Masonry Work	✕	
G8 – Confined Spaces & Hazardous Atmosphere	✕	
G9 – Plumbing	✕	
G10 – Painting	✕	
G11 – Steel Structure Erection	✕	
G12 – Abrasive Blasting	✕	

ACTIVITY HAZARD ANALYSIS		
ID No. G-1	FEATURE OF WORK: GENERIC AHA – Mobilization / General Construction Hazards	
Contract No. N33191-XX-X-XXXX	Project: Xxxx	Location: XXX, XXX
Date: 9/11/13	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
General Safety Requirements during mobilization and in general construction projects.	1. Exposure to Cold or Hot Weather 2. Dehydration 3. Illnesses from improper sanitation 4. Injury from use of hand and power tools 5. Slip, Trip, Fall hazards 6. Back, shoulder, and other ergonomic injuries 7. Struck by / Caught between hazards from heavy equipment operations. 8. Injury from mines and unexploded ordnance.	1a. Minimum Personal Protective Equipment Dress: Long Pants Shirts with Sleeves Hardhat Covered Shoes (Steel Toe Preferred) Safety Glasses (Potential Eye Hazard Areas) Reflective Safety Vest if working around heavy equipment or on/near roadways. 1b. Weather: Wear appropriate clothing for hot or cold weather. Sun block Lip balm 2. Dehydration: Drink at least ½ liter of water an hour. Refer to Company quick sheet, SOPs, plan, etc. for specific details on heat stress signs and symptoms. 3. Provide approved potable water, toilet and hand washing facilities; food service, and waste disposal per EM 385-1-1 Section 2. 4a. Use hand and power tools only if in good working condition and only for intended use. Inspect prior to each use. 4b. Do not use any power tool that does not have the proper electrical grounding plug unless it is double insulated. 4c. Provide proper guarding on all power tools – especially abrasive and grinding wheels. 4d. Do not carry electrical power tools by the cord. 4e. Provide all personal protective equipment necessary to control eye, face, head, body, and foot protection for the task. 4f. Comply with other specific requirements of EM 385-1-1 Section 13. 5a. Maintain housekeeping – maintain the work are free from debris such as board, blocks, rocks, etc. that might create a tripping hazard. (EM 385-1-1 Sec 14.C.) 5b. Store all materials in a neat orderly manner. Do not stack beyond stable levels. (EM 385-1-1 Sec 14) 5b. Provide adequate lighting for the work area – especially at night or during the day in areas without adequate natural light. (EM 385-1-1 Sec 7.A.) 6a. Use proper lifting techniques for manual material handling. 6b. Limit one man lifts to no more than 25 kg. 7a. All vehicles and heavy equipment must be operated by qualified personnel and in accordance with manufacturer's instructions. 7b. Inspect all heavy equipment prior to use (EM 385-1-1 Sec 18.A.03) 7c. Passengers must be seated and wearing seat belts during movement. 7d. Backup alarms or ground guides must be used whenever backing where worker are present In the area. 7e. Other provisions of EM 385-1-1 Section 18 must be followed.

		8a. Verify UXO clearance certificate in on file and to anticipated depth of construction for entire site area including lay-down yard. 8b. Train all workers on 3Rs – Recognize, Retreat, Report for anticipated UXO. Use the clearance report to anticipate likely items to be found. 8c. Train all workers in standard marking color code: White – safe, Blue – unexploded ordnance, Red – mines. All hazards – Post accident prevention signs, tags, labels, and signals at key points around project site in proximity to the hazard and at project entry of general site hazards. Conduct entry brief for all visitors to the site and provide all required PPE for safe entry.
Ladders	Defective ladders Falling	Only OSHA approved ladders are to be used. Defective and/or damaged ladders shall be removed from jobsite immediately. Standing on top step of ladder is forbidden. Use of metal ladders around exposed energized electrical wiring is forbidden. Always move the ladder to avoid overreaching. Extension ladders are to be properly tied off at the top and rigidly secure at the bottom: The base of the ladder must be set back a safe distance from vertical approximately ¼ of the working length of the ladder. Face the ladder at all times when ascending or descending. Do not carry any material in your hand while using any ladder. Use Hand line.
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Hand and power tools Heavy Equipment	Hand and power tools inspected prior to use and per manufacturer's specifications. Heavy equipment when brought on site and per EM 385-1-1 Sec 18.	Proper use of hand and power tools Heavy equipment operator training for specific type, make, model of equipment. Specialized training for equipment as required by manufacturer. UXO hazard recognition, retreat, and report for probable site munitions.
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ACTIVITY HAZARD ANALYSIS		
ID No. G-2	FEATURE OF WORK: GENERIC AHA – Demolition	
Contract No.	Project:	Location:
Date: 9/11/13	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
1. Planning	1. Lead or asbestos exposure 2. Unplanned structural failure 3. Unplanned hazards from existing utilities	1. Conduct a lead and asbestos survey of the facility to be demolished prior to the start of work. 2. Evaluate the structural integrity of the building and prepare a demolition plan (See EM 385-1-1 Sec 23.A.01). 3. Identify all electric, gas, water, steam, sewer, and other service lines.
2. Demolition	1. General construction hazards. 2. Lead or asbestos exposure . 3. Unplanned structural failure. 4. Hazards from existing utilities. 5. Hazards from debris removal.	1. Follow mobilization and general construction generic AHA requirements. 2. Conduct lead and asbestos abatement per approved plan. 3a. Follow approved demolition plan for sequencing demolition. 3b. Unless specified otherwise in the demolition plan demolition of floors and exterior walls begin at the top of the structure and proceed downward. 3c. Control hazards from fragmentation of glass. 3d. Do not use mechanical equipment on floors that have not been structurally evaluated to support the imposed load. 3e. Competent person will make continuing inspections to detect hazards from weakened or deteriorating floors, wall, or loosened material. If detected do not work in area until hazard abated by shoring, bracing, or other means. 4. Shutoff, cap, or otherwise control outside the building line all utilities identified in Step 1 – planning. 5a. Manage debris removal IAW EM 385-1-1 Sec 23.B with regards to chutes, 5b. Never allow a vertical wall section more than 6 ft in height to stand without lateral bracing. 5c. Control dust exposure by wetting or other means. If this is not practical then provide respiratory protection to workers. 5d. Mark and manage area around demolition site to control falling debris hazard. 5e. Comply with other provisions of EM 385-1-1 Section 23 relevant to site specific demolition hazards.
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Hand and Power tools. Sledge hammers, wrecking bars, and other demolition specific tools. Mechanical demolition equipment.	Inspect hand and power tools daily and per manufacturer's directions. Daily inspection of mechanical equipment per Sec 18 of EM 385-1-1.	Competent person training for demolition. Qualified operator training for all mechanical equipment.

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ACTIVITY HAZARD ANALYSIS		
ID No. G-3	FEATURE OF WORK: GENERIC AHA – Scaffolding / Fall Protection	
Contract No.	Project:	Location:
Date: 9/11/13	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
1. Set-Up	1. Back Strain from uploading or moving scaffold components. 2. Lacerations on hands 3. Scaffold failure due to damaged scaffolding components. 4. Struck by mechanized equipment. 5. Loss of load. 6. Stuck by suspended loads or material. 7. Electrical Shock 8. Scaffold failure due to improper set-up	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety apply to this activity. 1a. Utilize proper lifting techniques. 1b. Size up load before lifting. 1c. Ask for help when lifting heavy items more than 50 lbs. 2. Wear leather gloves. 3a. INSPECT all scaffolding components defects or damage such as cracks, excessive rust, metal fatigue, unauthorized repairs, bent tubing or frame, etc. Frames Tubing Base Plates Locking Pins Access Ladder Planking (Wood or Metal) Cross Braces 3b. REMOVE damaged or defective scaffold components immediately. 3c. Attach tag or label "DO NOT USE" on scaffold component. 4a. ALWAYS maintain eye contact with operator of equipment. 4b. NEVER stand behind (Blind Spots) equipment. 4c. NEVER stand near unloading or moving of scaffold components. 4d. ONLY qualified operators shall operate equipment. 5a. Secure loads from displacement with ropes, cables, chains, etc. before movement. 5b. Ensure load to be lifted is secured, balanced, etc. 5c. Keep hands, fingers, or other body parts away from pinch points. 6a. NEVER stand underneath suspended loads. 6b. Use taglines to control loads when elevated. 7a. Check above for overhead power lines. 7b. NEVER erect scaffolding within 10 ft (3 m) of overhead power lines. Refer to EM 385-1-1, Table 11-1 for Minimum Clearance from Energized Overhead Electrical Lines 7c. NEVER string or hang temporary power cords, wires, etc. on metal scaffolding. Consult with Safety Officer. 8a. Inspect ground conditions (level and firm). 8b. Stable base is necessary for proper scaffold assembly. 8c. Scaffold shall be tied into structure when the scaffold height exceeds four times the minimum scaffold base dimension per EM 385-1-1, para 22.B.09 *Develop specific controls to eliminate or reduce each hazard to an acceptable level of risk.*
2. Assembly of Scaffolding	1 Fall from Elevated Heights 2. Scaffold Failure 3. Back Strain	1a. 100 percent fall protection required during assembly. 1b. Personnel shall not be exposed to unprotected sides or falls greater than 6 ft (1.8 m).

	4. Lacerations on hands	1c. Scaffolding shall not exceed 14 inches (35.5 cm) from the planking to the face of the building or structure. 1d. Scaffolding more than 14 inches (35.5 cm) from the planking to the face of the building or structure shall be guardrails and/or the use of personal fall protection. 1e. Personnel shall be tied off to a vertical lifeline with a rope grab during assembly of scaffolding. 1f. Vertical lifeline shall be secured to an anchor point of at least 5,000 lbs (2,267.9 kg) per individual. 1g. Contact Safety Officer for additional guidance on fall protection requirements. 2a. See diagram below and refer EM 385-1-1, Section 22 for specific requirements (i.e., toe boards, guard rails, safe access, etc.) 2b. Scaffolding shall be assembled on mud sills and base plates. 2c. Mud sills shall be at least 2 times the size of the base plates to disperse total weight of scaffolding. 2d. Scaffolding shall be plumb and level. 2e. Working levels shall be fully decked and/or planked. 2f. Planking shall extend over the end supports not less than 6 in (30.4 cm), 2g. Planking shall be secured, supported, or braced to prevent excessive spring or deflection and secured to prevent loosening, tipping, or displacement. Use of tie wire, cleats, etc. are options. 2h. Planking shall overlapped at least 12 inches (30.4 cm) or secured from movement. 2i. Scaffold shall be capable of supporting without failure at least 4 times the maximum anticipated loads. 2j. Scaffolding shall be all required cross, horizontal, or diagonal braces to secure vertical members laterally. 2k. Scaffolding shall be rigid. 3a. Utilize proper lifting techniques. 3b. Size up load before lifting. 3c. Ask for help when lifting heavy items more than 50 lbs. 4. Wear leather gloves.
3. Use of Scaffolding	Scaffold Failure Falls from Heights Slips, Trips, or Fall	1a. DO NOT overload more than 4 times the maximum load rating. 1b. DO NOT attached hoists or other material lifting devices without Safety Officer approval. 1c. Scaffolding shall be tied into building whenever height of the scaffold exceeds 4 times the minimal base. Refer to EM 385-1-1, para 22.B.09 for additional guidance. 1d. Scaffold usage shall cease during high winds or severe inclement weather conditions. 2a. Guardrails shall be used as primary fall protection. Guard rails shall installed IAW EM 385-1-1, para 21.B.02. 2b. Securing of personal fall protection devices to scaffolding is prohibited. 2c. Personnel shall have fall protection whenever above 6 ft (1.8 m). 2d. Climbing of braces or cross bracing is prohibited. 2e. Safe access (ladder) shall be provided. 2f. Personnel shall not stand on mid rails. 2g. Ladders shall extend at least 3 ft (0.9 m) past the work area. 3. Walking surfaces on and around scaffolding shall be clear of debris.
4. Disassembling of Scaffolding	1 Fall from Elevated Heights 2. Back Strain 3. Lacerations on hands	1a. 100 percent fall protection required during disassembly. 1b. Personnel shall not be exposed to unprotected sides or falls greater than 6 ft (1.8 m). 1c. Personnel shall be tied off to a vertical lifeline with a rope grab during assembly of scaffolding. 1d. Vertical lifeline shall be secured to an anchor point of at least 5,000

		lbs (2,267.9 kg) per individual. 1e. Contact Safety Officer for additional guidance on fall protection requirements. 2a. Utilize proper lifting techniques. 2b. Size up load before lifting. 2c. Ask for help when lifting heavy items more than 50 lbs. 3. Wear leather gloves.
EQUIPMENT	INSPECTION	TRAINING REQUIREMENTS
Scaffold components Hammers Mud sills Full body harness Lanyard Lifeline Fall protection anchor points Float	Inspect scaffold components prior to use Inspect scaffold daily (Use Checklist) Inspect level and plumb of scaffoldings during erection and daily when in use. Daily Housekeeping of work areas and scaffolding	Competent Person qualification Scaffold Assembly Fall Protection Inspection of Work Platforms

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ACTIVITY HAZARD ANALYSIS		
ID No. G-4	FEATURE OF WORK: GENERIC AHA – Excavation / Trenching	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
1. Prepare excavation / trench work area.	1. Struck by traffic in area. 2. Struck by / caught between heavy equipment. 3. UXO hazard.	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety apply to this activity. 1a. Develop a traffic control plan for the work areas to keep traffic back from the planned excavation edge and work area. 1b. Wear proper reflective vest type for traffic. 1c. Use proper class perimeter protection (EM 385-1-1 pgs Q55-56 / Sec 25.B.) 2a. Plan for equipment laydown and operating area in traffic control plan. 2b. Perform initial and routine equipment inspections. 2c. Use ground guides in close proximity areas – no exceptions. 3. Verify UXO clearance certificate against work area location.
2. Open excavation / trench.	1. Struck by/ caught between traffic and heavy equipment. 2. UXO hazard. 3. Contact with buried utility lines (electrical, gas, etc.) 4. Cave in / Collapse.	1. Same as step 1 and 2 above controls. 2. Same as 3 above – plus regularly inspect dig for signs of buried UXO. 3a. Pre-locate all buried utilities. 3b. Observe for marking / signs of buried utilities during dig – barriers, warning tape, etc. 4a. Prepare excavation plan for all excavations over 5 ft (1.5m) in depth. Optional for excavations less than 5 ft – AHA is acceptable. (EM 385-1-1 Sec 25.A.01) 4b. Identify a Competent person for the planning and work. 4c. Evaluate soil type at all planned excavation depths. 4d. Design a protective system (e.g. Bench, slope, or shore) for the excavation per the soil type and other site conditions. 4e. Remove all overburden from edge of trench at least 2 ft. 4f. Protect the stability of adjacent structures including buildings, roadways, etc. 4g. Protect the excavation from water entry 4h. Do not work in excavations where there is standing water. 4i. Provide safe access to and from the excavation – ramps, stairs, ladders. 4j. When persons will be in or around an excavation, a Competent Person shall inspect the excavation, the adjacent areas, and protective systems daily: before each work shift; throughout the work shifts as dictated by the work being done; after every rainstorm; after other events that could increase hazards, e.g., snowstorm, windstorm, thaw, earthquake, etc.; when fissures, tension cracks, sloughing, undercutting, water seepage, bulging at the bottom or other similar conditions occur; when there is a change in size, location or placement of the spoil pile; and where there is any indication or change in adjacent structures. (EM 385-1-1 Sec 25.A.02)
3. Work in/around excavation/ trench.	1. Cave in / Collapse. 2. Fall from excavation / trench edge. 3. Inability to egress especially in an emergency. 4. Changes in soil conditions / atmospheric conditions in trench (confined space hazards). 5. Traffic hazards.	1, 2, 3, and 4 – same controls as Step 2 above.
4. Close excavation /	1. Struck by/ caught between heavy	All controls outlined in steps 1, 2, and 3 above.

trench.	equipment. 2. Cave in / Collapse. 3. Traffic hazard.	All excavation hazards exist and must be controlled until the excavation is properly closed..
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Hand shovels and tools Excavation equipment	Tool inspections Equipment Inspections Daily plus excavation inspection	Competent person qualification training (EM 385-1-1 Sec 25.A.02.b) Equipment operator training.

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ACTIVITY HAZARD ANALYSIS		
ID No. G-5	FEATURE OF WORK: GENERIC AHA – Electrical	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
1. Provide temporary power to the construction project and potentially the building occupants.	1. Falls 2. Electrocution	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety apply to this activity. 1a. Provide safe work platform and access to all work areas (see generic AHA G3 – scaffolding/fall protection). 1b. Protect all openings in work surfaces from falls. 1c. Do not use drums or other unstable objects as work platforms. 2a. Use only qualified person, electrical (EM 385-1-1, App Q) to perform all electrical work. 2b. Use only CE or UL approved wiring and equipment. 2c. All work must comply with NEC or CE code requirements. 2d. Insure that before work is begun the circuit is de-energized and free from stored energy. Comply with the specific requirements in EM 385-1-1 (e.g. Lockout/Tagout – Control of Hazardous Energy – Sec 12 and 11.A.02 – Isolation) 2e. Provide temporary power from a properly grounded source through a 10mA GFCI protected weatherproof panel. 2f. Protect all circuits from overload by circuit breakers or other approved overload protection methods. 2g. Maintain ground throughout the temporary power circuit to portable hand tools, and other equipment unless the tool is double insulated and marked as such. 2h. Comply with all other provisions of EM 385-1-1 Section 11 (e.g. 11.E temporary wiring and lighting – sketch of plan, testing, clearance, wet locations, etc.)
2. Remove / de-commission existing wiring and electrical equipment.	1. Falls 2. Electrocution	All controls listed in Step 1 apply to this step also. 1a. Provide safe work platform and access to all work areas (see generic AHA G3 – scaffolding/fall protection). 1b. Protect all openings in work surfaces from falls. 1c. Do not use drums or other unstable objects as work platforms. 2a. All controls identified above – plus: 2b. Control of Hazardous energy – Lock Out / Tag Out. Due to potential for poor understanding of existing wiring service special care must be used to test all circuits prior to removal / de-commissioning. 2c. Warning: stored energy in capacitors and other electrical equipment can present an electrocution hazard even after it is disconnect from a power supply. Stored energy must be dissipated prior to handling.
3. Install new wiring and electrical equipment	1. Falls 2. Electrocution	All controls listed in Step 1 apply to this step also. 1a. Provide safe work platform and access to all work areas (see generic AHA G3 – scaffolding/fall protection). 1b. Protect all openings in work surfaces from falls. 1c. Do not use drums or other unstable objects as work platforms. 2a. All controls identified above – plus: 2b. Exercise special care to identify energized temporary electrical wiring from non-energized new wiring. 2c. Do not use permanent wiring to provide temporary power without specific plan for identifying energized circuits.
4. Remove temporary power and energize permanent system.	1. Falls 2. Electrocution	All controls listed in Step 1 apply to this step also. 1a. Provide safe work platform and access to all work areas (see generic AHA G3 – scaffolding/fall protection).

		1b. Protect all openings in work surfaces from falls. 1c. Do not use drums or other unstable objects as work platforms. 2a. All controls identified above – plus: 2b. De-energize all temporary power
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Hand and power tools Specialized electrical tools and equipment	Tool and equipment inspections Lock-Out / Tag-Out inspections for stored energy	Competent person training and qualification

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ACTIVITY HAZARD ANALYSIS		
ID No. G-6	FEATURE OF WORK: GENERIC AHA – Concrete	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
Cut Lumber; Set & Secure Lumber; Drive & Secure; Formwork	Excessive Noise Cuts/Lacerations Electrical Shock Flying Debris Crush Hazard	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection, and AGA G4: Excavation and Trenching apply to this activity. Hearing and eye protection will be worn while operating saws. Inspect and test equipment and cords prior to use. All guards must in place and operational, prior to use. Ensure that no overhead hazards in the work area. Tools that are not in use will be unplugged from their power source. Worker using sledge hammer will ensure that his work area is clear of other workers prior to swinging the hammer. Steel toed boots will be worn. Visually inspect formwork for defects before use Stage formwork as close to the work area as possible to minimize the material handling exposure. Wear gloves, hardhats and proper PPE. Use proper lifting methods when handling forms. Use team lifting when handling awkward, bulky or heavy loads. Make sure to shore forms properly and they are inspected by qualified individual.
2. Rebar Installation	Struck By (Hot Metal) Cuts/Lacerations Mill scale Sharp/Sheared Tire Wire Ends Trips/Falls Impalement Hazard Overhead Power Lines	All controls listed in Step 1 apply to this step also. Workers cutting rebar will wear face shields, gloves, hearing protection, and hard hats. Grinder guards must be in place and fully operational prior to use. Lathers will wear safety glasses, gloves, and hard hats. Construction debris will be removed on a daily basis. All rebar ends shall be capped to protect workers from impalement/laceration hazards. If possible, stack rebar in a location that is free from overhead power lines. If this is not possible, rebar will be moved forward and away from the power lines before being lifted. No workers will be working under suspended rebar cages at any time.
3. Placing Concrete	Mix Truck Placement Struck By/Caught Between Catch in Cement Mixer Hand Injuries Eye Injuries Concrete Burns	All controls listed in Steps 1 & 2 apply to this step also. Use qualified flagmen to ensure a clear path to the work zone. The mix truck will have an operational back-up alarm. Only the truck's operator will place the chute and run the mixer. Train mixer operator; Keep hands and loose clothing away from moving parts; Use of kill-switch on mixer Wear safety glasses when working with wet concrete. Wear impervious gloves, boots and pants when working with wet concrete. Wash off any excess concrete from your skin as soon as possible.
4. Removing concrete forms.	Slips/Trips/Falls same level Fall from Elevation Manual Material Handling Struck by falling/flying materials	All controls listed in Steps 1, 2 & 3 apply to this step also. 1. Visually inspect any tools or equipment to be used in the formwork removal operation for defects or damage before each use. 2. Stage formwork transportation cages as close to the work area as possible to minimize the material handling exposure. 3. Be sure the walking/working areas around the forms and the form cages are free from ruts, holes and accumulation of water. 4. Be sure that the formwork is in the firm grasp of the worker(s) before removing any of the form supports. 5. Safety glasses to be worn at all times when removing the forms due

		to the flying object exposure. 6. Use proper lifting methods when handling forms. 7. Personal fall arrest systems, PFAS, will be utilized to control fall hazards. 8. PFAS will be utilized whenever the workers are exposed to a fall greater than six feet. 9. Gloves will be worn when handling forms to prevent cuts and scrapes 10. Hardhats and safety glasses will be worn at all times to protect the workers from flying/falling objects. 11. All form removal work is to be performed at the direction of the competent person.
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Power and hand tools; Rebar	Tool and equipment inspections Lock-Out / Tag-Out inspections for stored energy; Inspect hand tools for defects; Inspect PPE for wear or defects; Inspect rebar for sharp edges and impale hazards.	Competent person training and qualification

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ACTIVITY HAZARD ANALYSIS		
ID No. G-7	FEATURE OF WORK: GENERIC AHA – Masonry	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
1. Material Handling	• Back Injuries • Crush Injuries • Cuts, Bruises and Contusions • Eye Injuries	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection, AGA G4: Excavation and Trenching and AHA G6: Concrete apply to this activity. 1. Train employees in proper lifting techniques with bent knees and back erect. 2. Use equipment such as cable or jacks to lift heavy objects. 3. Ask for help from others. Think before lifting. 4. Proper hand protection shall be worn when handling sheet metal raw goods. 5. Hard hats shall be worn at all times. Eye protection shall be worn.
2. Material Installation and Rebar Installation	Crush Injuries / Cuts / Lacerations Mill Scale Sharp/Sheared Tire Wire Ends Trips/Falls Impalement Hazard Overhead Power Lines	All controls listed in previous steps apply to this step also. 1. Workers cutting rebar will wear face shields, gloves, hearing protection, and hard hats. 2. Grinder guards must be in place and fully operational prior to use. 3. Lathers will wear safety glasses, gloves, and hard hats. 4. Construction debris will be removed on a daily basis. 5. All rebar ends shall be capped to protect workers from impalement/laceration hazards. 6. If possible, stack rebar in a location that is free from overhead power lines. If this is not possible, rebar will be moved forward and away from the power lines before being lifted. 7. No workers will be working under suspended materials at any time.
3. Placing Mortar	Mix Truck Placement Struck By/Caught Between Catch in Mixer Hand Injuries Eye Injuries Skin Irritation	All controls listed in previous steps apply to this step also. Use qualified flagmen to ensure a clear path to the work zone. The mix truck will have an operational back-up alarm. Only the truck's operator will place the chute and run the mixer. Train mixer operator; Keep hands and loose clothing away from moving parts; Use of kill-switch on mixer Wear safety glasses when working with wet concrete. Wear impervious gloves, boots and pants when working with wet concrete. Wash off any excess mortar from your skin as soon as possible.
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Power and hand tools; Rebar;	Tool and equipment inspections Lock-Out / Tag-Out inspections for stored energy; Inspect hand tools for defects; Inspect PPE for wear or defects; Inspect rebar for sharp edges and impale hazards.	Competent person training and qualification

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ACTIVITY HAZARD ANALYSIS		
ID No. G-8	FEATURE OF WORK: GENERIC AHA – Confined Spaces and Hazardous Atmosphere	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
Confined Spaces (Examples) 1. Intake Structure 2. Outlet Works structures 3. Structural drainage galleries 4. Interior drainage structures 5. Steam Gage house 6. Septic Tanks	• Lack of Oxygen • Flammable or toxic atmosphere • Animals • Insects • Heights and Ladders • Slipping and Tripping potential • Temperature extremes	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection, AGA G4: Excavation and Trenching and AHA G6: Concrete apply to this activity. 1. Personnel entering confined spaces will be required to have the 4 hour confined space training class prior to entry. 2. Contact the appropriate project office to determine structures classified as confined spaces and the appropriate procedures prior to entry. This includes contacting the confined space coordinator and coordinating the confined space entry with him. 3. Where appropriate follow confined space procedures to test the atmosphere for lack of oxygen, flammable or toxic atmosphere. 4. 4. Personnel should be wary of animals and pests lurking in the confined space – particularly outlet works and interior drainage structures. Inspect entrances for signs of animal habitation prior to entry. 5. Personnel should note all areas where the potential for falls may occur and ensure the fall protection appears sound before approaching the area. 6. Personnel should inspect ladders prior to t heir use and use safety equipment when needed. 7. Personnel should inspect areas where debris or slick surfaces are present to prevent tripping and slipping accidents. Appropriate footwear is needed to provide adequate traction. 8. Safety shoes are required for all personnel entering confined spaces to provide both adequate foot wear with traction and to protect the feet 9. Temperatures in confined spaces may vary dramatically from the outside atmosphere, personnel must dress accordingly for these extremes including both cold. 10. Equipment (combustion engine) shall not be allowed to idle near confined spaces. The contractor shall monitor equipment emissions utilizing appropriate data logging capable instruments. The instrument(s) shall be utilized by a qualified person who has been trained to utilize such instrument(s).
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Power and hand tools; Rebar;	Tool and equipment inspections Lock-Out / Tag-Out inspections for stored energy; Inspect hand tools for defects; Inspect PPE for wear or defects; Inspect rebar for sharp edges and impale hazards.	Competent person training and qualification
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ACTIVITY HAZARD ANALYSIS		
ID No. G-9	FEATURE OF WORK: GENERIC AHA – Plumbing	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
Preparing area for plumbing pipes and plumbing fixtures. Installation of plumbing pipes and plumbing fixtures.	• Injury from use of hand and power tools • Slip, Trip, Fall hazards • Eye Injuries	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection, AGA G4: Excavation and Trenching apply to this activity. 1. Employees shall be directed to ensure that there is proper lighting in the work area. 2. Housekeeping in the area will need to be kept clean so that there are no tripping hazards created by the debris. 3. All tools and equipment will be inspected for damage and defects before use. 4. Materials to be utilized for this task are to be staged as close as possible to the work area. Carts and other mechanical devices will be used to minimize the manual handling of the materials, tools and equipment 5. Hard hats, safety glasses and hard-soled work boots are required for this and all operations. If power tools are used for the grinding operation, then a face shield will also be provided and it's use will be mandated. 6. Materials will be moved to and from the work area on carts and other mechanical devices to minimize the amount of manual material handling. 7. Workers using ladders, scaffolding or scissor lifts will follow all of the safe use requirements spelled out by the manufacturers and the guidelines from AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection, AGA G4: Excavation and Trenching. 8. Cords and hoses will be moved out of the walking and working areas. When possible, the cords and hoses will be suspended.
Soldering Piping	• Burns • Eye Injuries • Fires • Inhalation of Hazardous Vapors	1. All smelting pots will be set up in well ventilated areas. 2. Respirators will be supplied and used (with training) if required. 3. Contractor will provide a fire extinguisher in the immediate area around the pot. A Fire Watch will be posted. 4. Pots will be located away from water or areas likely to have water present. 5. All tools and equipment use in this operation will be free from water to prevent a boil-over accident. 6. Heavy leather gloves will be required on all workers handling the molten lead. 7. Hard hats, safety glasses and hard-soled work boots are required for this and all operations. If power tools are used for the grinding operation, then a face shield will also be provided and it's use will be mandated 8. Cords and hoses will be moved out of the walking and working areas. When possible, the cords and hoses will be suspended.
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS

Power and hand tools; Rebar;	Tool and equipment inspections Lock-Out / Tag-Out inspections for stored energy; Inspect hand tools for defects; Inspect PPE for wear or defects; Inspect rebar for sharp edges and impale hazards.	Competent person training and qualification

Prepared by: *(Contractor's competent/qualified person signature)*	
☒ - AHA Accepted as part of project Accident Prevention Plan	Signature: Date:

ACTIVITY HAZARD ANALYSIS		
ID No. G-10	FEATURE OF WORK: GENERIC AHA – Painting	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
Compressor and Sprayer Use	• High Pressure Hazards • Inhalation of Fumes and Particles Hazards • Eye Injury	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection, AGA G4: Excavation and Trenching apply to this activity. 1. Lock-Out / Tag-Out Procedures in place prior to using compressor. 2. Proper Spray nozzles used for compressor pressure. 3. Ventilate work area. 4. Inspect compressor lines for any damage. Replace any damaged lines. 5. Wear Respirator with proper filter for paints being used. 6. Wear gloves and Tyvek suit. Take breaks and hydrate when high temperatures are encountered while wearing PPE.
Paint Storage	• Volatile Organic Fumes Hazard • Explosion Hazard	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection, AGA G4: Excavation and Trenching apply to this activity. 1. Store paints in a properly designed (explosion proof) and well ventilated cabinet. 2. Wear respirator. 3. Wear proper PPE (Gloves and Tyvek suit). Take breaks and hydrate when high temperatures are encountered while wearing PPE. 4. Adequate numbers of the extinguishers must be kept by exits in the storage building and in addition extinguishers kept outside of building. 5. Exits clearly marked and kept free of obstructions. 6. Signs posted to mark 'Flammable Material' and 'No Smoking'.
Paint Mixing and Use	• Volatile Organic Fumes Hazard • Respiratory Hazard • Skin Exposure Hazard	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection, AGA G4: Excavation and Trenching apply to this activity. 1. Wear respirator. 2. Work in well ventilated work area. 3. Wear proper PPE (Gloves and Tyvek suit). Take breaks and hydrate when high temperatures are encountered while wearing PPE. 4. Adequate numbers of the extinguishers must be kept by exits in the storage building and in addition extinguishers kept outside of building. 5. Exits clearly marked and kept free of obstructions. 6. Signs posted to mark 'Flammable Material' and 'No Smoking'.
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Power and hand tools; Rebar;	Tool and equipment inspections Lock-Out / Tag-Out inspections for stored energy; Inspect hand tools for defects; Inspect PPE for wear or defects; Inspect rebar for sharp edges and impale hazards.	Competent person training and qualification
Prepared by: *(Contractor's competent/qualified person signature)*		
☒ - AHA Accepted as part of project Accident Prevention Plan		Signature: Date:

ACTIVITY HAZARD ANALYSIS		
ID No. G-11	FEATURE OF WORK: GENERIC AHA – Steel Structure Erection	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
Rigging Steel for Picking	• Under Rated Slings • Cut Slings • Damaged Winch Line • Unqualified Personnel	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection apply to this activity. 1. Verify the Weight of the Objects to be picked. 2. Inspect slings before each pick. Remove all cut or frayed slings. 3. Check winch lines regularly. 4. Make sure workers have proper skills and experience.
Picking, Swinging and Guiding Steel Members Drifting and Bolting Steel Members	• Under sized Crane or Winch • Pinch or Crush Injuries • Contact with Energized Bus or Wires	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection apply to this activity. 1. Verify the Weight if the Objects to be lifted. 2. Know hand signals; Use Tag Ropes and Pay Attention. 3. Use Spud Wrench & Pull Pins. 4. Know where steel is supposed to be landed. 5. No lifting near energized wires and maintain proper clearances.
Drilling, Cutting and Welding Galvanized Steel	• Metal in Eyes or Hand • Burns to Eyes	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection apply to this activity. 1. Wear Proper Eye Protection for High Energy Light Source as well as to protect from impact. 2. Work in well ventilated work area. 3. Wear proper PPE (Gloves and Eye Protection). Take breaks and hydrate when high temperatures are encountered while wearing PPE.
Collapse of Structure due to Member Failure from Temporary Loading during Erection	• Crush Injuries • Impalement Injuries • Death	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety, AHA G3: Scaffolding and Fall Protection apply to this activity. 1. Follow erection plan and drawings. Ensure a sequential erection procedure is prepared, which has been approved by the erection engineer. 2. Make provisions for positive connections between members of the structure that have been specified to resist imposed lateral and vertical force. 3. Reinforcement required for in-service loads and temporary conditions. Ensure temporary guys or bracing are securely anchored 4. Members should be clearly marked and labeled. 5. Verify the stability of the structure in accordance with the erection engineer's specifications: a. – at the end of each work day b. – when fastenings may be incomplete c. – during strong winds or when strong winds are forecast
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Power and hand tools; Rebar;	Tool and equipment inspections Lock-Out / Tag-Out inspections for stored energy; Inspect hand tools	Competent person training and qualification

	for defects; Inspect PPE for wear or defects; Inspect rebar for sharp edges and impale hazards.	
Prepared by: *(Contractor's competent/qualified person signature)*		
☒ - AHA Accepted as part of project Accident Prevention Plan		Signature: Date:

ACTIVITY HAZARD ANALYSIS		
ID No. G-12	FEATURE OF WORK: GENERIC AHA – Abrasive Blasting	
Contract No.	Project:	Location:
Date:	Activity:	Estimated Start Date:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
Blasting Operation	• Insufficient air for breathing • Air contaminated. (Breathing problem) • Improper supply of air. • Ineffective filters • Sand blasting on body part / Body injury • Locking of dead man's device for intermediate inspection	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety apply to this activity. 1. Use Regulator to control supply. 2. Change Filter at the advised frequency. 3. Monitor the air supply and ensure adequate supply of air. 4. Ensure the Dead Man's switch is in good operating condition. 5. Make sure blasting is only done by trained personnel with the proper PPE. 6. Barricade the area to prevent unauthorized entry.
Changing Positions to Blast in New Area	• Sand blasting on body part (body injury) • Trip/fall Machine remain 'ON' • Locking of dead man's device. • Poor housekeeping	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety apply to this activity. 1. Turn machine 'Off' prior to moving equipment. Follow 'Lock Out / Tag Out' procedures. 2. Ensure the Dead Man's switch is in good operating condition. 3. Maintain and ensure good housekeeping.
Hazardous Waste	• Inhalation of blasted residue • Ingestion of blasted residue	NOTE: All items hazards and controls in generic AHA G1: Mobilization and General Construction Safety apply to this activity. 1. Wear proper Respiratory PPE. 2. Wear proper PPE (Gloves and Tyvek suit). Take breaks and hydrate when high temperatures are encountered while wearing PPE. 3. Dispose of blasting residue according to all Environmental regulations.
EQUIPMENT	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Power and hand tools; Rebar;	Tool and equipment inspections Lock-Out / Tag-Out inspections for stored energy; Inspect hand tools for defects; Inspect PPE for wear or defects; Inspect rebar for sharp edges and impale hazards.	Competent training and qualification
Prepared by: *(Contractor's competent/qualified person signature)*		
☒ - AHA Accepted as part of project Accident Prevention Plan		Signature: Date:

ANNEX 2

Annex 2: 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 2. 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.

[Project Title]
[Contract Number]

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]

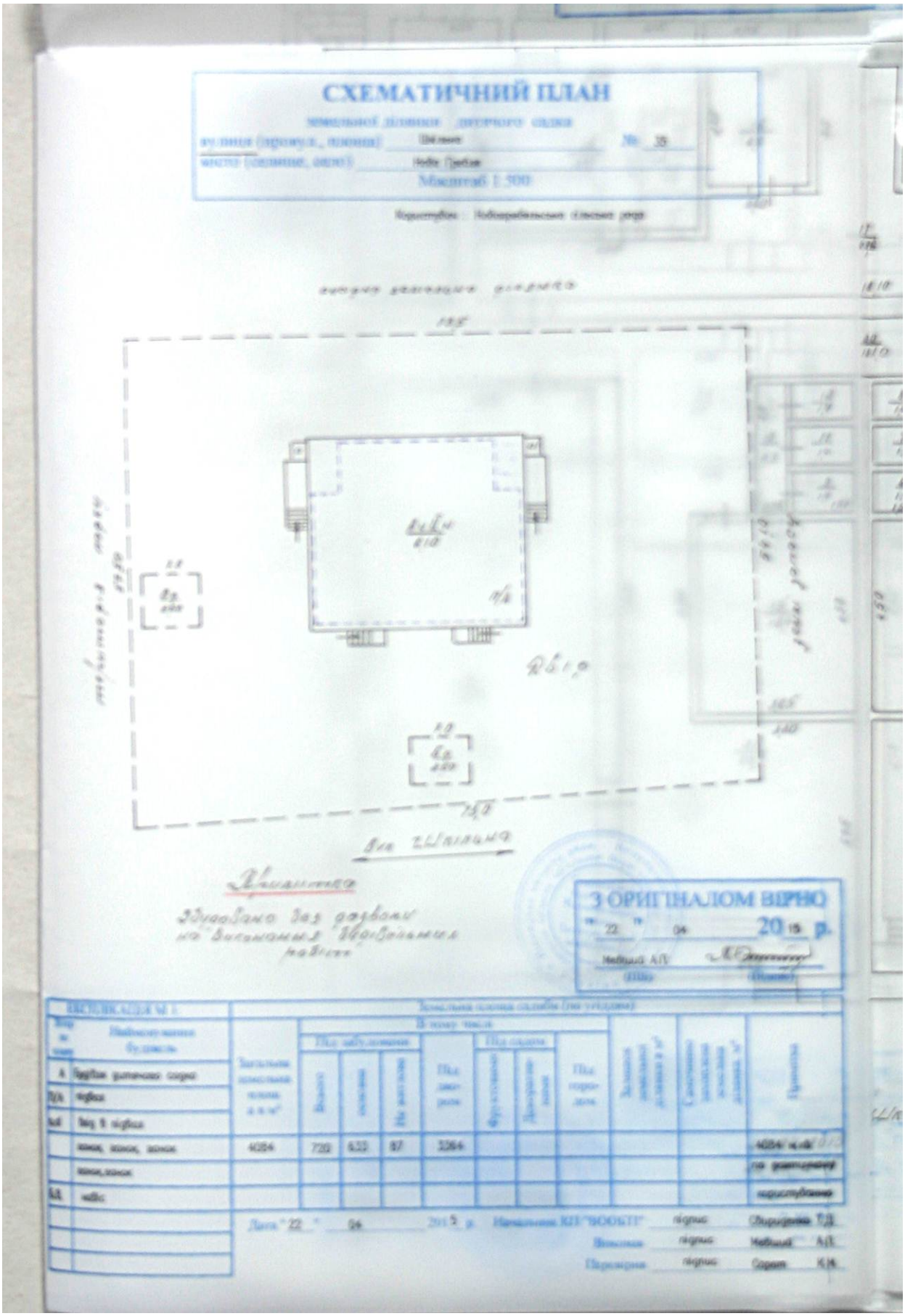
SAFETY ON SITE

[Describe]

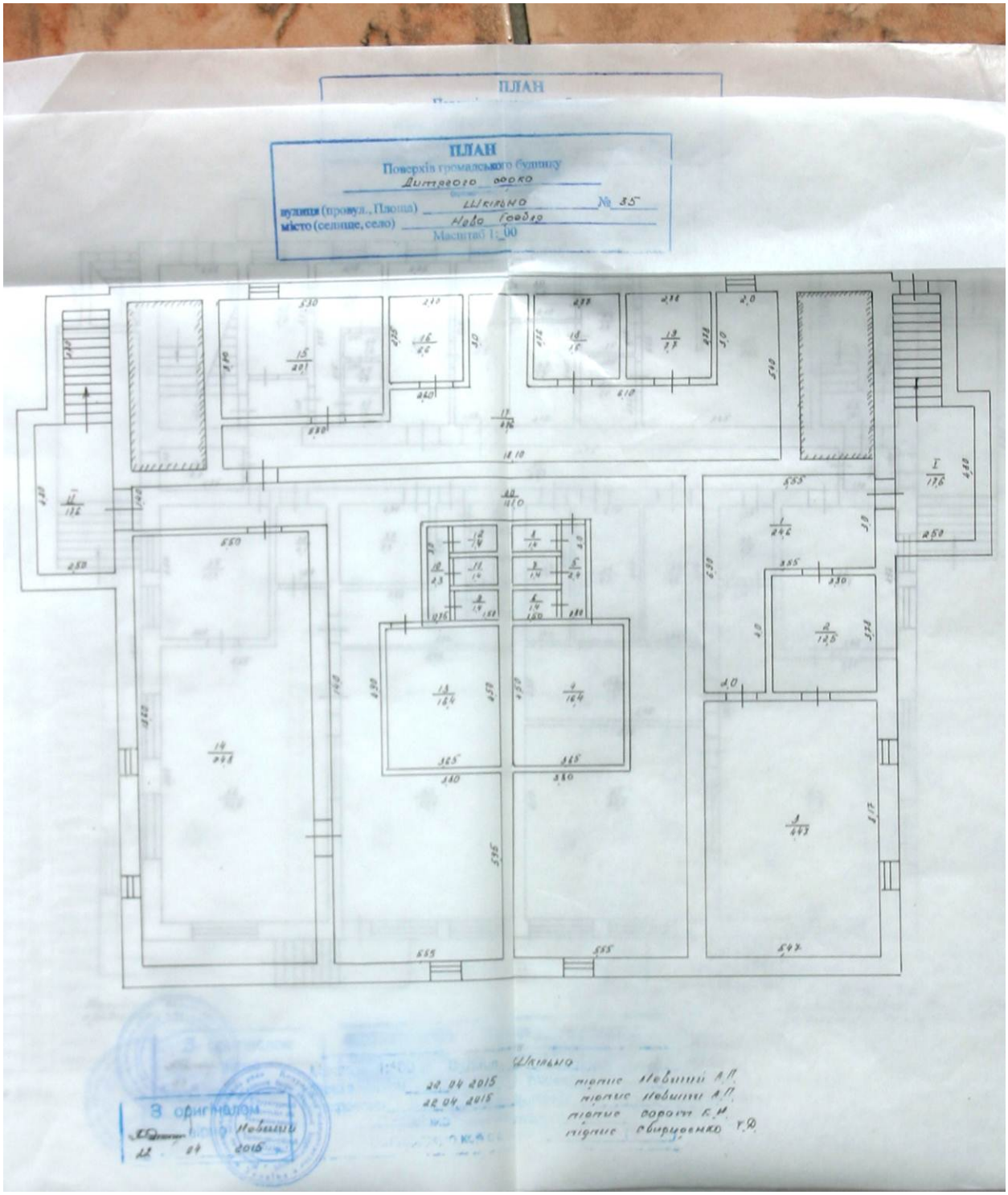
ANNEX 3

Annex 3: Available drawings of the building

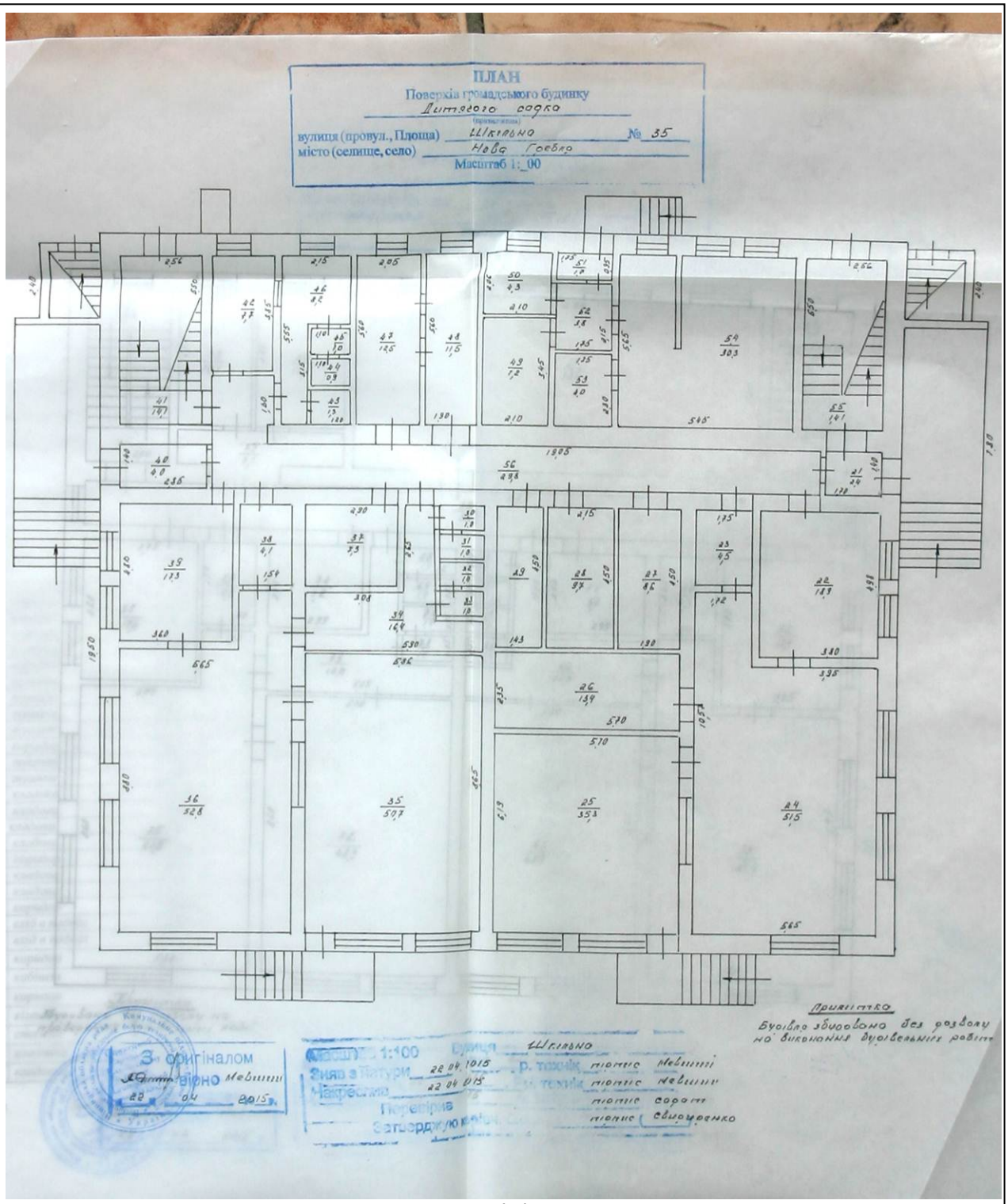
The next 5 drawings are all available drawings of the facility to be renovated.



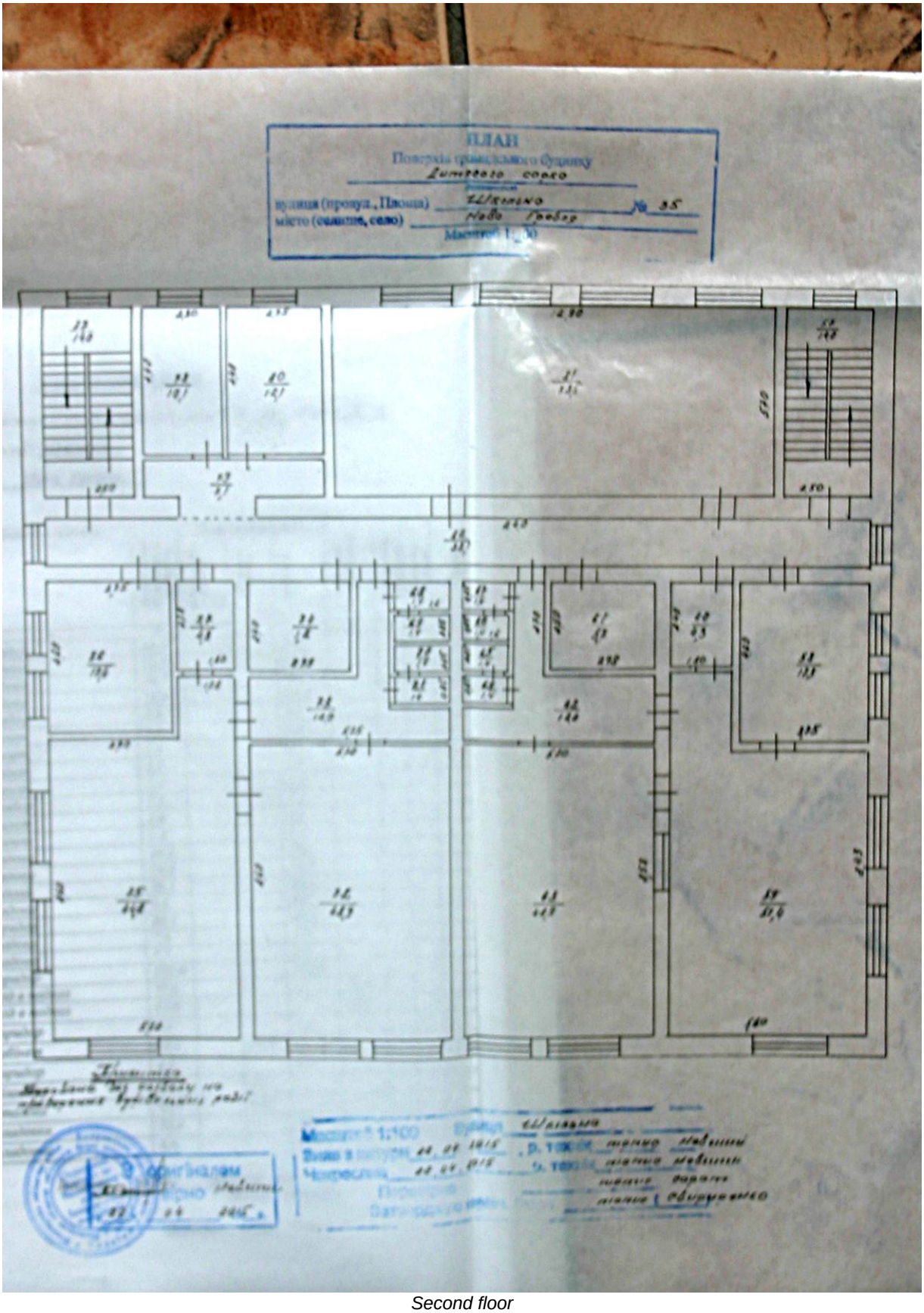
Plot of land of kindergarten


ПЛАН
ПЛАН
Поверхів громадського будинку
Дитячого садка
вулиця (провул., площа) Шкільна № 35
місто (селище, село) Нова Гребля
Масштаб 1:100
З оригіналом
20 04 2015
20 04 2015

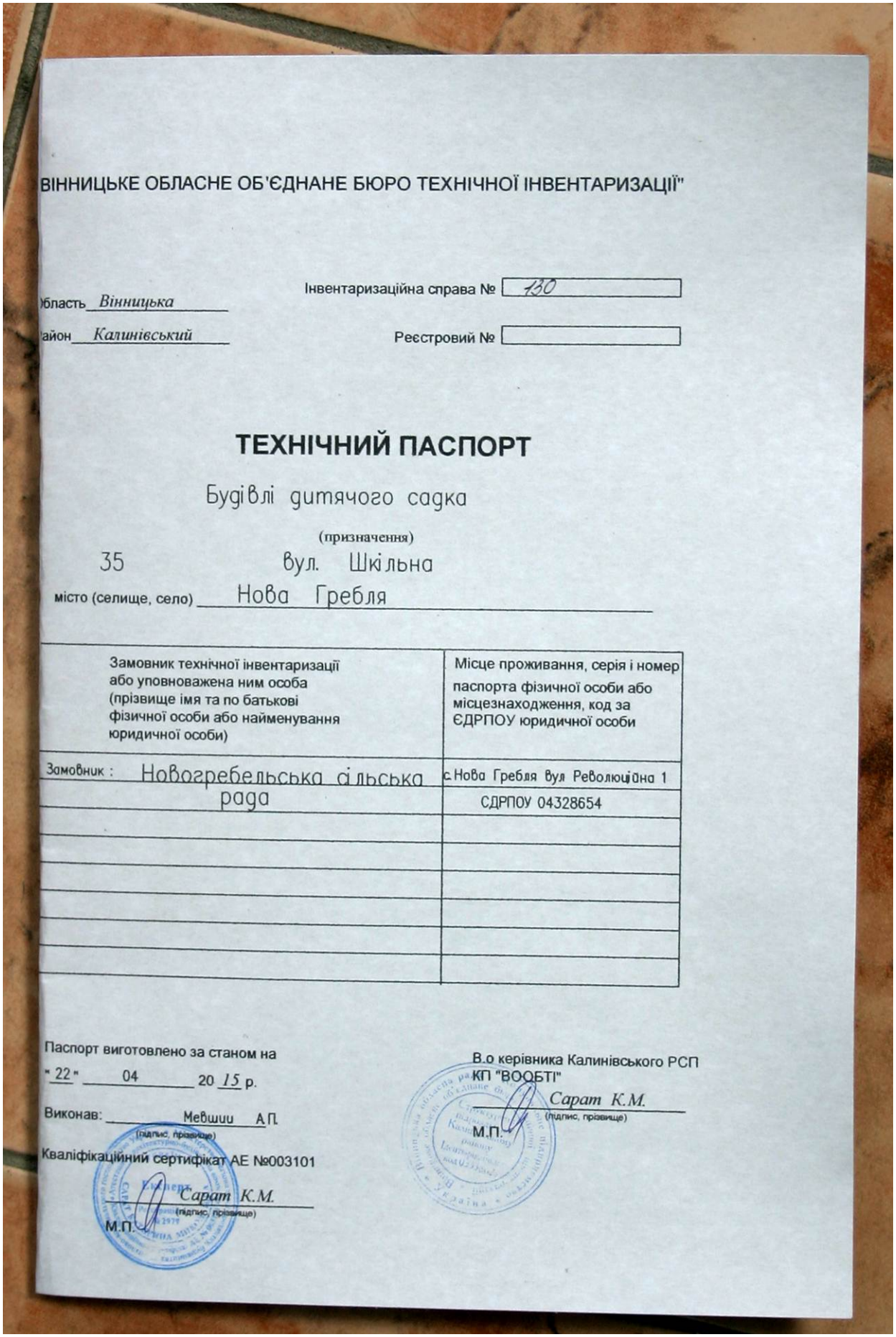
Basement



Ground Floor



Second floor



ВІННИЦЬКЕ ОБЛАСНЕ ОБ'ЄДНАНЕ БЮРО ТЕХНІЧНОЇ ІНВЕНТАРИЗАЦІЇ"

Інвентаризаційна справа № 130

Область Вінницька

Район Калинівський

Реєстровий №

ТЕХНІЧНИЙ ПАСПОРТ

Будівлі дитячого садка

(призначення)

35 вул. Шкільна

місто (селище, село) Нова Гребля

Замовник технічної інвентаризації або уповноважена ним особа (прізвище ім'я та по батькові фізичної особи або найменування юридичної особи)	Місце проживання, серія і номер паспорта фізичної особи або місцезнаходження, код за ЄДРПОУ юридичної особи
Замовник: Новогребельська сільська рада	с.Нова Гребля вул Революційна 1
	СДРПОУ 04328654

Паспорт виготовлено за станом на

"22" 04 20 15 р.

Виконав: Мевшии А.П.
(підпис, прізвище)

Кваліфікаційний сертифікат АЕ №003101

Сарат К.М.
(підпис, прізвище)

М.П.

В.о керівника Калинівського РСП КП "ВООБТІ"

Сарат К.М.
(підпис, прізвище)

М.П.

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