

SCHEDULE 1

Schedule of Details

Accepted Contract Amount (Sub-Clause 1.1)	[Accepted Contract Amount to be inserted in words and figures]
Contractor's Representative (Sub-Clause 1.1)	[Name, Position title and Contact details to be inserted]
Defects Notification Periods (Sub-Clause 1.1)	12 months
Employer's Representative (Sub-Clause 1.1)	[Name, Position title and Contact details to be inserted]
Latent Defect Periods (Sub-Clause 1.1)	If nothing is stated, then no Latent Defects Period will apply, and the Contractor remains liable at Law for defects.
Project (Sub-Clause 1.1)	The design, supply, construction, commissioning, testing and completion, including the remedying of all defects, for the Construction of Eco-friendly Latrines in Ten Primary Schools Project.
Time for Completion (Sub-Clause 1.1)	Whole of the Works Six (6) months from the Date of the Contract Agreement. Sections Construction of Sub-structure for sixty (60) calendar days after mobilization) under Schedule 5

Address for Service of Notices and Communications (Sub-Clause 1.3)	<p>EMPLOYER: Attention: [to be inserted] Position title: [to be inserted] Address: [to be inserted] [insert city here]; [insert Country here] Phone: [to be inserted] P.O. Box/ZIP: [to be inserted] Email Address: [to be inserted]</p> <p>CONTRACTOR: Attention: [to be inserted] Position title: [to be inserted] Address: [to be inserted] [insert city here]; [insert Country here] Phone: [to be inserted] P.O. Box/ZIP: [to be inserted] Email Address: [to be inserted]</p>
Time(s) for access to and possession of site (Sub-Clause 2.1)	Within ten (10) working days after the sign of Measured Price Construction Contract.
Amount of Bank Guarantee for performance (Sub-Clause 4.2)	<p>The amount of the Bank Guarantee for performance to be provided under Sub-Clause 4.2(a) is the amount equal to 10% of the Accepted Contract Amount.</p> <p>The amount of any additional Bank Guarantee to be provided under Sub-Clause 4.2(c) is the amount equal to 10% of the amount by which the Contract Price has increased.</p>
Delay Damages for failure to provide or maintain diversions for roads (Sub-Clause 4.13)	Not Applicable (N/a)
Working hours (Sub-Clause 6.5(a))	8:30 am to 5:30 pm on regular working days; anytime outside this time bound prerequisite UNOPS approval

Delay Damages for failure to complete the Works within the Times for Completion (Sub-Clause 8.7)	<p>Whole of the Works</p> <p>0.1% per day excluding the Substructure amount.</p> <p>Sections</p> <p>ETB 3,600.00 per day for Construction of Sub-structure for Incinerator Warehouse on the basis of the Sub-structure Amount: (45 calendar days after mobilization) under Schedule 5</p>
Maximum amount of Delay Damages (Sub-Clause 8.7)	<p>10% of the Accepted Contract Amount.</p> <p>“Delay damages shall be paid for every day which elapses between the relevant Time for Completion and the date the whole of the Works or relevant Section has been Taken Over as stated in the Taking Over Certificate”</p>
Allowance for overhead charges and profit for provisional sums if Plant, Materials or services are purchased by the Contractor. (Sub-Clause 13.5)	Not Applicable (N/a)
Limit of Retention Money and percentage deduction for Retention (Sub-Clause 14.3)	The sum of 5% of the value of the amounts calculated under Sub-Clause 14.3(b)(i) & (ii) shall be retained from each and every payment up to a maximum of 5% of the Contract Price.
Currencies of payment (Sub-Clause 14.15)	ETB (Ethiopian Birr) as per UNORE
Amount of the aggregate limit of liability (Clause 17.6(b))	<p>The greater of the following amounts:</p> <p>(a) the aggregate amount of insurance cover to be procured and maintained by both Parties under Clause 18 [<i>Insurance</i>]; or</p> <p>(b) the Contract Price.</p>

<p>Senior Representatives (Sub-Clause 1.1 & 20.3(b))</p>	<p>EMPLOYER: Full name: [to be inserted] Position title: [to be inserted] Address: [to be inserted] [insert city here]; [insert Country here] Phone: [to be inserted] P.O. Box/ZIP: [to be inserted] Email Address: [to be inserted]</p> <p>CONTRACTOR: Full name: [to be inserted] Position title: [to be inserted] Address: [to be inserted] [insert city here]; [insert Country here] Phone: [to be inserted] P.O. Box/ZIP: [to be inserted] Email Address: [to be inserted]</p>
<p>Arbitration (Sub-Clause 20.3(e))</p>	<p>The place of the hearing, if any, shall be determined at the time the dispute arises.</p>

SCHEDULE 2

Schedule of Site Plan

I. DESCRIPTION OF THE SITE

- All the Ten school sites are located in Addis Ababa, with majority in Nifas Silk Lafto Sub-city, Lideta Sub city and Gulele Sub city. All the sites in existing schools can be accessed from the main road. Please refer to the architectural site plans to the respective schools.
- The coordinates for the respective schools are shown hereunder for references in Google Earth Map. The UTM Coordinates are shown in the Topographic Map attached separately.

Ser No.	Name of School	Longitudinal Coordinates	Latitudinal Coordinates
1	Hana Primary School	38.7342058E	8.9199562N
2	Lafto Secondary School	38.74623E	8.95076N
3	Megabit28 Primary School	38.753946E	8.945110N
4	Fana Secondary School	38.722398E	8.961199N
5	Lideta Selam Elementary School	38.7337E	9.00256N
6	Kotari Primary School	38.746868E	8.936481N
7	Hidase Primary School	38.72443E	8.93675N
8	Betel Primary School	38.6778402E	9.0050778N
9	Repi Primary School	38.674118E	8.978062N
10	Asko Addis Primary School	38.691673E	9.050038N

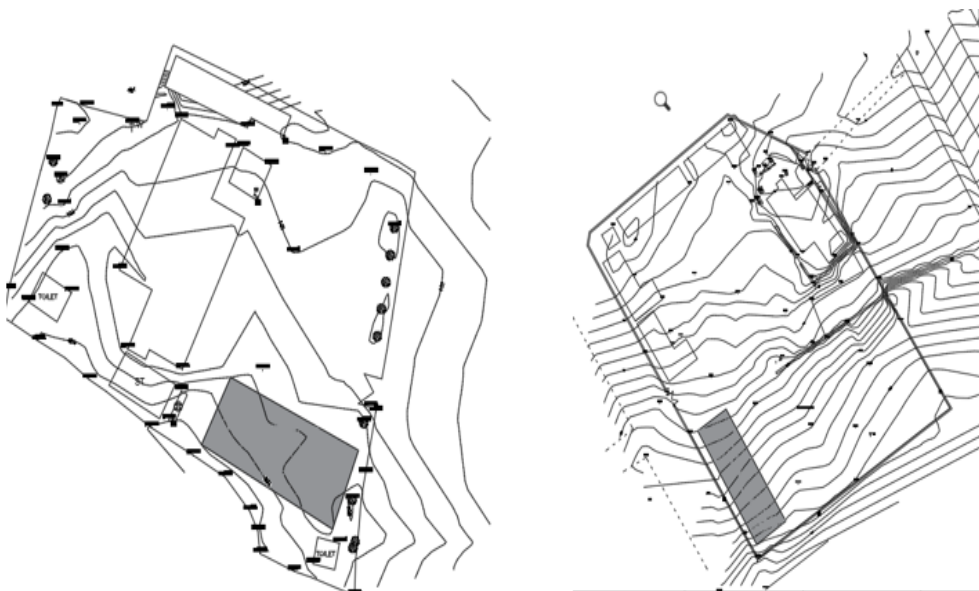
- All the schools run regular teaching-learning program with the premises occupied by built up structures such as solid fencing, walkways and circulations, parking, classroom buildings, administration building, existing latrines, sport field etc with all the necessary infrastructure as per the Education Standard Requirements.
- The sites for construction of flush toilets have been selected together with the school administration. Mostly they are located within the premises at corners free of any existing infrastructure, open land and accessible to all students. The selection has been made in a way to ensure that the latrine buildings do not affect further expansion of the school buildings.
- Almost all the schools are connected with the municipal water supply grid system. However, the water supply from the city administration is not reliable.

They get water once or twice a week. Besides, most of the schools do not have water reservoir facilities and adequate volume of elevated water tanker systems within the premises. In effect water is a serious problem in almost all schools investigated.

- All the Schools are connected to the electric grid but twice in a week there is no electricity. The electricity is not guaranteed and also no generator.
- None of the latrines in the schools are connected to central municipal sewage system. Based on the assessment made by UNOPS, the municipal central sewage system is located proximate to some of the school premises. Hence connection to central sewage system need to be considered for six schools. These included Hana, Lafto, Fana, Ledeta Selam, Hidase and Repi Primary School. The remaining schools have no sewage system in the surrounding, hence shall depend on septic and soak pit systems with regular removal of sledge.

Topographic Map:

The topographic map developed to the respective sites indicated that the proposed land for the latrines for four sites are literally flat land, 5 sites were found gentle slope less than 5% and one site with steep slope of about 8.3%. The sites with flat land included Asko, Fana, Kotari and Lideta Selam Primary Schools. Sites with gentle slope constitute Betel, Hana, Hidase, Megabit-28 and Repi Primary Schools. Lafto Secondary School has shown steep slope of about 8.3%.



Asko and Betel Primary School Site - Topographic Map

The geo-technical investigation conducted to the sites has revealed the following as shown on the table.

No.	Name of School	Soil Layer at shallow depth for foundation	Ground Water Availability	Bearing Capacity (KPa)
1	Asko Addis Primary School	Stiff reddish brown Clayey SILT to a depth of 3.5m from NGL	No GWT	246
2	Betel Primary School	Layer-A: Stiff silty Clay up to 0.9m. Layer-B: Stiff sandy silt up to 3.5m depth from NGL.	No GWT	264
3	Fana Secondary School	Layer-A: Backfill organic material to a depth of 0.45m. Layer-B: Stiff Black cotton soil to a depth of 3.5m	No GWT	247
4	Hana Primary School	Layer-A: Stiff Clayey SILT to a depth of 1.0m. Layer-B: Moderate to highly weathered basaltic rock and unable to dig beyond 1.7m depth from NGL	No GWT	560
5	Hidase Primary School	Stiff dark grey clayey SILT to a depth of 3.5m from NGL	No GWT	366
6	Kotari Primary School	Layer-A: Backfill organic material to a depth of 0.5m from NGL Layer-B: Stiff sandy SILT to a depth of 1.5m Layer-C: Highly weathered basalt rock unable to dig beyond 2.4m from NGL.	No GWT	560
7	Lafto Secondary School	Layer-A: Backfill organic material to a depth of 0.5m from NGL	No GWT	560

No.	Name of School	Soil Layer at shallow depth for foundation	Ground Water Availability	Bearing Capacity (KPa)
		<p>Layer-B: Stiff silty CLAY to a depth of 1.0m</p> <p>Layer-C: Highly weathered Ignimbrite rock. Unable to dig beyond 1.5m depth below NGL.</p>		
8	Lideta Selam Elementary School	<p>Layer-A: Backfill organic material to a depth of 0.4m from NGL.</p> <p>Layer-B: Black cotton soil to a depth of 1.0m</p> <p>Layer-C: Highly weathered and fractured basaltic rock. Unable to dig below 1.1m depth from NGL</p>	No GWT	560
9	Megabit-28 Primary School	<p>Layer-A: Stiff silty CLAY to a depth of 1.0m from NGL</p> <p>Layer-B: Highly weathered Ignimbrite rock. Unable to dig beyond 1.7m depth below NGL.</p>	No GWT	560
10	Repi Primary School	<p>Layer-A: Firm Clayey SILT to a depth of 0.8m from NGL,</p> <p>Layer-B: Stiff clayey sandy SILT to a depth of 1.5m,</p> <p>Layer-C: Stiff yellowish brown silty SAND to a depth of 3.5m.</p>	No GWT	268

II. ACCESS AND ACCESS RESTRICTIONS

- All the school's premises are currently accessed from the main road. They have pedestrian and vehicular access with proper circulation and parking areas;

- No access restriction to the site, however access to the particular site need to be discussed and arranged with the respective school administration for safety and security of the school community;
- During construction, the schools may run their regular educational program, hence the site need to be secured and fenced properly, signage to be fixed, student's access need to be discussed and identified with the school administration.

III. CONTRACTOR'S SITE FACILITIES

"Location of Contractor's Site Facilities to be discussed and agreed upon during mobilization period".

IV. SITE ARRANGEMENTS FOR THE EMPLOYER TO BE PROVIDED BY THE CONTRACTOR

The contractor shall furnish relevant site facilities submit the site arrangement to the approval of the site supervisor. The site facilities may include contractors site offices, material storage, temporary latrine, and working places. Since the Contractor is working in a built up environment, the provision of those temporary facilities need to be discussed and agreed upon with the school administration during mobilization period.

SCHEDULE 3

Schedule of Specification

I. GENERAL DESCRIPTION OF THE WORKS

The project is intended to improve the sanitation of ten primary schools in Addis Ababa through the establishment of eco-friendly flush toilets for children. It is intended to serve as a pilot project considering the use of eco-friendly local construction materials and renewable energy sources.

The scope of works will include the construction of the following infrastructure facilities associated with the improvement of sanitation in the selected ten schools in Addis Ababa:

- Construction of a typical latrine buildings for boys and girls. The building shall be made of concrete foundations and Compressed Earth Block Construction techniques using local clay soil and covered with green roofing.
- Pre-fabricated ground water reservoir with solar pumping system
- Elevated water tanker for supply of water to the flush toilets and hand wash basin via gravity;
- Piping works for ensuring proper water supply and waste water drainage systems to the proposed latrines including manholes;
- Waste water drainage systems with connection to municipal sewer lines, where it exists to the proximity of the schools, and/or drainage via a septic tank and soak system.
- A photovoltaic (PV) system for water pumping system and lightings for the latrines.
- External walkways as necessary.

Furthermore, Strengthening the capacity of 12 trainees from the Government Technical and Vocational Education Training (TVET) institutes by engaging them directly in construction activities remain part of the scope of works under the program. The capacity building is aimed at promoting employment opportunities, through transfer of knowledge and practical skills in the construction of simple structures made of Compressed Stabilized Earth Blocks (CSEB). The training to cover all aspects of planning, practical works of construction including the production of CSEB and maintenance of ordinary simple structures. The trainees shall also be given opportunities to demonstrate practical works in the project.

II. TECHNICAL SPECIFICATIONS

- School latrines for boys and girls each comprising 7 stances of squatting type, 1 PWD (People with disability), urinals, hand wash trough and janitor's closet.
- Sustainable infrastructure with design and construction considering the following:
 - i. Locally available materials. The latrine will be built made of Compressed Earth Blocks (CEB);
 - ii. Local skill and manpower;

- iii. Safety against seismic actions since Addis is a seismic zone;
 - iv. Capacity Building – Training to be provided for selected students for transfer of knowledge and skills in the construction of simple structures made of Compressed Earth Blocks (CEB).
- Foundations to be made of locally available stone masonry wall and isolated footings placed along the periphery of the block, tied with reinforced concrete ground beams. Internally concrete floor slab situated on earth fill material;
 - Reinforced concrete structural framing system with ring beams on top and covered with steel sheet material. Green Roofing with wooden truss, organic soil and greeneries will be considered in the design.
 - High windows will be provided and left open for natural light and ventilation.
 - Accessibility to the students, especially to PWD and proximity to existing utilities such as water supply and sewage systems are of prime concern in the selection of sites and location to the latrines;
 - In the absence of an existing municipal sewage grid, the latrines will be provided with septic tank of 75m³ capacity. The septic tank will be strategically located to receive sewage from other utilities as well;
 - Each latrine will be provided with elevated water tanker of 5000-liter capacity (plastic tank) mounted on 2.0m masonry tower. The toilet fixtures will be fed direct from the elevated water tanker;
 - Surface water reservoir of capacity 30,000 liter to be provided to each school with pumping system. The elevated water tanker to be fed from the water reservoir to provide steady supply of water to the toilets.
 - A solar pumping system will be introduced for pumping water from the reservoir to the elevated tank.
 - Wherever possible and found feasible, the municipal grid shall serve the prime water source for the flush toilets and shall be connected to the elevated tank.

Schedule of Facilities for construction at the respective schools

Ser. No.	Name of School	Toilet Building	Water Supply	Waste Water Drainage
1	Hana Primary School	<ul style="list-style-type: none"> ▪ Two block units (Boys & Girls) each with 7 squatting stances and 1 PWD toilet 	<ul style="list-style-type: none"> ▪ (30m³) capacity water reservoir; ▪ Solar Pumping system; ▪ 5m³ Elevated water tanker ▪ Piping works 	<ul style="list-style-type: none"> ▪ Septic tank (75m³); ▪ Attempt shall be made to connect to sewage line; ▪ Manholes and piping works.

Ser. No.	Name of School	Toilet Building	Water Supply	Waste Water Drainage
2	Lafto Secondary School	<ul style="list-style-type: none"> Two block units (Boys & Girls) each with 7 squatting stances and 1 PWD toilet 	<ul style="list-style-type: none"> (30m³) capacity water reservoir; Solar Pumping system; 5m³ Elevated water tanker Piping works 	<ul style="list-style-type: none"> Septic tank (75m³); Attempt shall be made to connect to sewage line; Manholes and piping works.
3	Megabit-28 Primary School	<ul style="list-style-type: none"> Two block units (Boys & Girls) each with 7 squatting stances and 1 PWD toilet 	<ul style="list-style-type: none"> (30m³) capacity water reservoir; Solar Pumping system; 5m³ Elevated water tanker Piping works 	<ul style="list-style-type: none"> Septic tank (75m³); Manholes and piping works.
4	Fana Secondary School	<ul style="list-style-type: none"> Single block unit (Girls) with 7 squatting stances and 1 PWD toilets. 	<ul style="list-style-type: none"> 30m³ capacity water reservoir; Solar Pumping system; 5m³ Elevated water tanker; Piping works. 	<ul style="list-style-type: none"> Septic tank (75m³); Attempt shall be made to connect to sewage line; Manholes and piping works.
5	Hidase Primary School	<ul style="list-style-type: none"> Two block units (Boys & Girls) each with 7 squatting stances and 1 PWD toilet 	<ul style="list-style-type: none"> 30m³ capacity water reservoir; Solar Pumping system; 5m³ Elevated water tanker & Piping works 	<ul style="list-style-type: none"> Septic tank (75m³); Attempt shall be made to connect to sewage line; Manholes and piping works.
6	Kotari Primary School	<ul style="list-style-type: none"> Two block units (Boys & Girls) each with 7 squatting stances and 1 PWD toilet 	<ul style="list-style-type: none"> (30m³) capacity water reservoir; Solar Pumping system; 5m³ Elevated water tanker Piping works 	<ul style="list-style-type: none"> Septic tank (75m³); Manholes and piping works.

Ser. No.	Name of School	Toilet Building	Water Supply	Waste Water Drainage
7	Lideta Selam Elementary School	<ul style="list-style-type: none"> Single block unit (Girls) with 7 squatting stances and 1 PWD toilets. 	<ul style="list-style-type: none"> 30m3 capacity water reservoir; Solar Pumping system; 5m3 Elevated water tanker; Piping works. 	<ul style="list-style-type: none"> Septic tank (75m3); Attempt shall be made to connect to sewage line; Manholes and piping works.
8	Betel Primary School	<ul style="list-style-type: none"> Two block units (Boys & Girls) each with 7 squatting stances and 1 PWD toilet 	<ul style="list-style-type: none"> (30m3) capacity water reservoir; Solar Pumping system; 5m3 Elevated water tanker Piping works 	<ul style="list-style-type: none"> Septic tank (75m3); Manholes and piping works.
9	Repi Primary School	<ul style="list-style-type: none"> Single block unit (Girls) with 7 squatting stances and 1 PWD toilets. 	<ul style="list-style-type: none"> (30m3) capacity water reservoir; Solar Pumping system; 5m3 Elevated water tanker Piping works 	<ul style="list-style-type: none"> Septic tank (75m3); Attempt shall be made to connect to sewage line; Manholes and piping works.
10	Asko Addis Primary School	<ul style="list-style-type: none"> Two block unit (Boys & Girls) with 7 squatting stances and 1 PWD toilets. 	<ul style="list-style-type: none"> 30m3 capacity water reservoir; Solar Pumping system; 5m3 Elevated water tanker; Piping works. 	<ul style="list-style-type: none"> Septic tank (75m3); Manholes and piping works.

III. STANDARDS AND PROCEDURES

The quality of all materials and workmanship used in the execution of the works shall comply with the requirements of the most recent issues of the following standards:

Ethiopian Building Code Standards:

- ES EN 1990:2015 Basis of Structural Design
- ES EN 1991:2015 Action on Structures (Part 1; 1.1, 1.4)
- ES EN 1992:2015 Design of Concrete Structures (Part 1; 1.1 and 1.2)

- ES EN 1998:2015 Design of Structures for Earthquake Resistance (Part 1 and 5)
- ES EN 1995:2015 Design of Timber Structures (Part 1.1)
- ES EN 1991-1-2015: Actions on structures — General actions Wind actions;
- Euro code 8 EN 1998-1:2004: : Design of structures for earthquake resistance;
- EBCS-9-2015: Plumbing Services for Buildings
- EBCS-10 -2015: Electrical Installation for Buildings.

UNOPS Environmental Management System Handbook 2014, Guidelines and Policies, which can be downloaded from UNOPS website:

- Environmental Management Plan - EMP (to be attached with this Tender)
- Local and International Practice for Quality Management
- Local and International Practice for Occupational Health and Safety

IV. PROGRAMME REQUIREMENTS

The successful bidder will be expected to submit a contract programme in accordance with Sub-Clause 7.2.

The Contract Programme must be in such form and detail as the Employer's Representative requires and must contain as a minimum:

- (a) The order in which the Contractor proposes to carry out the Works;
- (b) The time limits within which submission of any Contractor's documents are required under the Contract.

The Contract Programme must be prepared in sufficient detail to ensure the adequate planning, execution and monitoring of the Works. The networked activities must be detailed enough to provide a meaningful measurement tool for progress of works.

The Contract Programme must be resource loaded and include material, plant and labour. The labour resource assignment must be further broken down to clearly identify types (trade and/or discipline) and number of resources allocated to an activity.

The Contract Programme must be accompanied by and/or detail:

- (a) A programme narrative that describes the inclusions and assumptions made in preparing the Contract Programme;
- (b) A general description of the arrangements and methods which the Contractor proposes to adopt for carrying out the Works;
- (c) The critical path for the Works and a complete critical path analysis for the execution of the Works which must show clearly the links between

activities and the float times available within the Contract Programme and the earliest start/earliest finish and latest start/latest finish times for each and every activity;

- (d) The Preliminary Programme may be prepared in MS Excel or MS Project. The Outline Statement of Proposed methods demonstrates the Bidder's capacity to identify the core or sensitive components required to complete the works within the required quality expectations and indicated the approach that the Bidder intends to use in order to execute those components.
- (e) Details, and durations on Site, of the resources proposed to achieve the Contract Programme;
- (f) A manpower (resource) histogram detailing cumulative and monthly volumes by trade for the duration of the Works;
- (g) A detailed cash flow estimate, in quarterly periods, of all payments to which the Contractor may be entitled under the Contract;
- (h) A schedule of all submittals and material procurement activities, including time for submittals, re-submittals and reviews and time for any fabrication and delivery of manufactured products and samples. The interdependence of design, procurement and construction activities must be included in this schedule.

V. TESTING

The Basic Test requirements are given under the following table. However, the Contractor need to conduct other relevant tests as necessary and required by the UNOPS Project Manager.

No	Description of test	Required result
1	Compactions	95% Standard Proctor Test
2	Cement:	Ordinal Portland Cement - ASTM C150-74
3	Concrete Aggregates: Sand and Gravel Gradation	ASTM C33
4	Concrete: Compressive Strength and Slump Test	Euro-Code: 25 Mpa Cube Crushing strength: Slump Test- ASTM C143
5	Compressed Stabilized Earth Block	20-50 Kgs/cm ²
6	Hollow Blocks: Compressive Strength	28 Kgs/cm ²

No	Description of test	Required result
7	Reinforcement Bar: Yield Strength	400 Mpa
8	Roof Timber Structure – Characteristic Compressive Strength parallel to the Grain	29 Mpa
9	Roof Timber Structure – Characteristic Tensile Strength parallel to the Grain	31 Mpa
10	Roof Timber Structure – Characteristic Bending Strength parallel to the Grain	28 Mpa

All necessary quality control documents such as samples, mockup, product specifications, catalogue, manual shall be submitted to all materials for approval.

VI. REPORTING REQUIREMENTS

Monthly Report with the following minimum information:

- a. Executive Summary of construction activities during the month;
- b. Background information of the construction work;
- c. Detail work executed during the month;
- d. Resource supply: Materials, workmen, equipment and tools;
- e. Quality supervision and procedures made in the execution of the works;
- f. Approvals made to construction resources on the basis of submittals, mock ups, tests, certificates, product catalogues etc...
- g. Any changes, work orders and variations issued;
- h. Any challenges and/or compensation events or unforeseeable obstructions;
- i. Any defectives work identified during supervision and proposal for rectifications;
- j. Detail work Plan for the next month as distinguished by weekly plans;
- k. Pictures of the works at each stage

VII. DOCUMENTATION

The contractor shall keep and make available as required the below documents:

- Drawings and specifications of works
- Instructions given by the engineer on the site book
- Any official letters/e-mail communications between UNOPS and the contractor
- Testing certificates
- Work plan

- Monthly reports
- Financial updates: Payments made and the outstanding balances

VIII. ABBREVIATIONS

The following abbreviations have been used in the Bills of Quantities:

Abb.	Descriptions
kg	kilogram
t	tonne
m	meter
m²	square meter
m³	cubic meter
mm	millimeter
Nr.	Number
USD	Unites States Dollar
uPVC	un-plasticized poly vinyl chloride
HDPE	high density polyethylene
GMS	galvanized mild steel
LS	Lump Sum
PS	Provisional Sum

SCHEDULE 4

Schedule of Drawings

This schedule lists the Drawings.

The complete list of the Drawings is set out in the drawing register attached to this schedule as Schedule 4 - Appendix A and are referenced by drawing number, title, date and revision number, of which the latest of each prevails.

The Drawings are annexed to the Contract in Annexure as follows to the Contract for the Drawings.

Schedule 4 -Appendix A

No.	Annexure	Drawing Description (Title)	Drawing Number	Date	Revision Number
A. Architectural Drawings					
1	A	Cover Page and Drawing Index	AR00/34	15/12 2019	R0
2	A	Asko Primary School – Site Plan	AR01/34	" " "	"
3	A	Betel Primary School – Site Plan	AR02/34	" " "	"
4	A	Fana Secondary School – Site Layout	AR03/34	" " "	"
5	A	Hana Primary School – Site Layout	AR04/34	" " "	"
6	A	Hidase Primary School – Site Layout	AR05/34	" " "	"
7	A	Kotari Primary School – Site Plan	AR06/34	" " "	"
8	A	Lafto Secondary School-Site Layout	AR07/34	" " "	"
9	A	Lideta Selam Secondary School – Site Layout	AR08/34	" " "	"
10	A	Megabit 28 Primary School – Site Layout	AR09/34	" " "	"
11	A	Repi Primary School – Site Layout	AR10/34	" " "	"
12	A	Boys School Latrine Typology – Ground Floor Plan Furnished	AR11/34	" " "	"
13	A	Boys School Latrine Typology – Ground Floor Plan Dimensioned	AR12/34	" " "	"
14	A	Girls School Latrine Typology – Ground Floor Plan Furnished	AR13/34	" " "	"
15	A	Girls School Latrine Typology – Ground Floor Plan Dimensioned	AR14/34	" " "	"

No.	Annexure	Drawing Description (Title)	Drawing Number	Date	Revision Number
16	A	School Latrine Typology – Roof Plan	AR15/34	" " "	"
17	A	School Latrine Typology – Setting out Guide	AR16/34	" " "	"
18	A	School Latrine Typology – Section X-X	AR17/34	" " "	"
19	A	School Latrine Typology – Section Y-Y	AR18/34	" " "	"
20	A	School Latrine Typology – Odd Courses above/below windows	AR19/34	" " "	"
21	A	School Latrine Typology – Even Courses above/below windows	AR20/34	" " "	"
22	A	School Latrine Typology – Odd Courses through windows	AR21/34	" " "	"
23	A	School Latrine Typology – Even Courses through windows	AR22/34	" " "	"
24	A	School Latrine Typology – Elevations	AR23/34	" " "	"
25	A	School Latrine Typology – Elevations	AR24/34	" " "	"
26	A	School Latrine Typology – Details	AR25/34	" " "	"
27	A	School Latrine Typology – Details	AR26/34	" " "	"
28	A	School Latrine Typology – Details	AR27/34	" " "	"
29	A	School Latrine Typology – Ferrocement Details	AR28/34	" " "	"
30	A	School Latrine Typology – Schedules	AR29/34	" " "	"

No.	Annexure	Drawing Description (Title)	Drawing Number	Date	Revision Number
31	A	School Latrine Typology – Wall Finish Details	AR30/34	15/12/2019	R0
32	A	School Latrine Typology – Wall Finish Details	AR31/34	" " "	"
33	A	School Latrine Typology – Wall Finish Details	AR32/34	" " "	"
34	A	School Latrine Typology – Wall Finish Details	AR33/34	" " "	"
35	A	School Latrine Typology – Wall Finish Details	AR34/34	" " "	"
B. Structural Drawings					
36	B	Structural Drawing Index	ST00/06	15/12/2019	R0
37	B	General Notes	ST01/06	" " "	"
38	B	Column, Footing Layout and Details	ST02/06	" " "	"
39	B	Ground Floor Slab Reinforcement and Column Details	ST03/06	" " "	"
40	B	Roof Beam, Truss Layout and Details	ST04/06	" " "	"
41	B	Beam Reinforcement Details	ST05/06	" " "	"
42	B	Water Reservoir Platform and Fence details	ST06/06	" " "	"
C. Electrical Drawings					
43	C	Electrical Drawing Index	EL00/04	15/12/2019	R0
44	C	Boys Latrine Distribution Board Schedule & Light Fitting Schedule	EL01/04	" " "	"

No.	Annexure	Drawing Description (Title)	Drawing Number	Date	Revision Number
45	C	Girls Latrine Distribution Board Schedule & Light Fitting Schedule	EL02/04	" " "	"
46	C	School Latrine –PV System Layout	EL03/04	" " "	"
47	C	PV System Block diagram and grounding detail	EL04/04	" " "	"
D. Sanitary Drawings					
48	D	Sanitary Drawing Index	SN00/28	15/12/2019	R0
49	D	Asko Primary School – Site Sanitary Layout	SN01/28	" " "	"
50	D	Asko Primary School – Site Sanitary Layout	SN02/28	" " "	"
51	D	Betel Primary School – Site Sanitary Layout	SN03/28	" " "	"
52	D	Betel Primary School – Site Sanitary Layout	SN04/28	" " "	"
53	D	Fana Secondary School – Site Sanitary Layout	SN05/28	" " "	"
54	D	Fana Secondary School – Site Sanitary Layout	SN06/28	" " "	"
55	D	Hana Primary School – Site Sanitary Layout	SN07/28	" " "	"
56	D	Hana Primary School – Site Sanitary Layout	SN08/28	15/12/2019	R0
57	D	Hidase Primary School – Site Sanitary Layout	SN09/28	" " "	"
58	D	Hidase Primary School – Site Sanitary Layout	SN10/28	" " "	"

No.	Annexure	Drawing Description (Title)	Drawing Number	Date	Revision Number
59	D	Kotari Primary School – Site Sanitary Layout	SN11/28	" " "	"
60	D	Kotari Primary School – Site Sanitary Layout	SN12/28	" " "	"
61	D	Lafto Secondary School – Site Sanitary Layout	SN13/28	" " "	"
62	D	Lafto Secondary School – Site Sanitary Layout	SN14/28	" " "	"
63	D	Lideta Selam Elementary School – Site Sanitary Layout	SN15/28	" " "	"
64	D	Lideta Selam Elementary School – Site Sanitary Layout	SN16/28	" " "	"
65	D	Megabit 28 Primary School – Site Sanitary Layout	SN17/28	" " "	"
66	D	Megabit 28 Primary School – Site Sanitary Layout	SN18/28	" " "	"
67	D	Repi 28 Primary School – Site Sanitary Layout	SN19/28	" " "	"
68	D	Repi 28 Primary School – Site Sanitary Layout	SN20/28	" " "	"
69	D	Boys Latrine Typology - Waste Water Drainage System	SN21/28	" " "	"
70	D	Boys Latrine Typology – Water Supply System	SN22/28	" " "	"
71	D	Girls Latrine Typology - Waste Water Drainage System	SN23/28	" " "	"
72	D	Girls Latrine Typology – Water Supply System	SN24/28	" " "	"

No.	Annexure	Drawing Description (Title)	Drawing Number	Date	Revision Number
73	D	Roof Rainwater Drainage System	SN25/28	" " "	"
74	D	Sanitary Details	SN26/28	" " "	"
75	D	Water Reservoir Details	SN27/28	" " "	"
76	D	75 m ³ capacity Septic Tank Details	SN28/28	" " "	"

SCHEDULE 5

Schedule of Sections

This schedule lists each Section of the Works.

Each Section must be supplied, constructed, commissioned, and tested by the Contractor, ready to be Taken Over by the Employer, by the corresponding Times for Completion set out in Schedule 1 and otherwise in accordance with the Contract.

Access to the Site for each Section, is to be provided by the Employer to the Contractor by the corresponding Times for Access set out in Schedule 1.

The Contractor shall comply with the following timing requirements:

No.	Construction Milestones	Duration (approx.)	Remarks (if any)
1	Mobilization	21 Calendar days	Literally no mobilization period. Contractor to mobilize immediately after signing of agreement. UNOPS shall issue a letter of intent to the successful bidder and shall be taken adequate to initiate contractor to mobilize.
2	Substructure work of the 17 school latrines and septic tank construction. Earthwork, foundations, and ground floor slab	60 Calendar Days	Contractor shall immediately start fabrication of Compressed Stabilized Earth Block during sub structure work.
3	Super-structure such as concrete work, Roofing work, Compressed Earth Blocks, Finish works, Sanitary and Electrical Works	120 calendar Days	Water Supply and PV Power supply system shall be carried out concurrently with the construction of super structure work.
4	Commissioning for Handover: Testing, commissioning and site clearing works		
Total Calendar Days		6 Months	

a. Mobilization Period: mobilization shall commence immediately after signing of the contract. It shall include the following activities during this time:

- Site Possession;
- Setting out
- Submission of Work Program;

- Submission of Safety and Health (H&S) and Environment Management Plans;
 - Arrangement and submission of Bank Guarantee (BG) for Performance;
 - Site Preparations such as site office, storage areas, access to the workmen and equipment etc;
 - Resource Mobilization to the site;
 - Issuance of the necessary Insurances to the works, personnel, equipment and third-party all according to the contract.
- b. Construction of Sub-structure**
- Excavation: Site Clearing, Excavation for pit foundation, and trench for stone masonry wall;
 - Concrete work: Reinforced concrete for footings, ground beams and foundation columns;
 - Stone masonry walls around the building;
 - Backfill with selected material and well ram with 95% proctor under floor slab;
 - Crushed stone well blinded under floor slab; and
 - Ground floor Concrete slab
 - Construction of septic Tank: Excavations, masonry wall and concrete works.
- c. Production of Compressed Stabilized Earth Block**
- Selection of site for production of Compressed Stabilized Earth Block;
 - Deployment of the machine for production of Compressed Stabilized Earth Block;
 - Supply of necessary materials such as soil, stabilizer and water to the site;
 - Pulverizing and screening the materials;
 - Proportioning and mixing the ingredients with the right proportion and molding;
 - Transporting, storing and curing the Compressed Stabilized Earth Block.
- d. Construction of the Whole Works:**
- Concrete Columns and Ring beams;
 - Roof Timber structure such as trusses, and wooden purlin
 - Green roofing works with different layers as detailed on the drawings;
 - Compressed Stabilized Earth Block works;
 - Finishing works such as plastering, painting, ceiling and tiling works;
 - Electrical Installation works/ PV Solar system with distribution boards for lighting and power sockets including pumping system
 - Plumbing works that include water reservoir (30m³) in each school, elevated water tanker, piping systems, waste water drainage systems, manhole construction, septic tanks and supply and fix sanitary fixtures.
- e. Defects Notification Period (DNP): 12 Months**
- As Built Drawings;
 - Operation and Maintenance Manual;
 - A snagging list identification and updating;
 - Rectification of the snagging list;
 - Technical and Financial Closure of the project; and
 - Final Handover.

If no Sections are listed above, then no Sections apply at the Date of the Contract.

The Employer is entitled to nominate a Section after the Date of the Contract in accordance with Sub-Clause 1.15(b) [*Sections*].

SCHEDULE 6

Schedule of Forms of Security

- (A) Form of Bank Guarantee for Performance
- (B) Form of Bank Guarantee for Advance Payment
- (C) Form of Parent Company Guarantee
- (D) Form of Legal Opinion

BANK GUARANTEE FOR PERFORMANCE

[On the letterhead of the Bank]

Note to bidders: This form, when required, shall only be completed by the successful Bidder after contract award. The bank, as requested by the successful bidder, shall fill in this form in accordance with the instructions indicated.

Date: [Insert date (as day, month, and year) of submission]

ITB No. and title: [xx-xxx and title of the ITB]

Bank's Branch or Office: [Insert complete name of guarantor]

Beneficiary: United Nations Office for Project Services (UNOPS)
(Name and address of the Employer)

Performance Guarantee No.: [Insert Performance Guarantee number]

We have been informed that [insert complete name of supplier] (hereinafter called "the supplier") has entered into Contract No. [Insert number] dated [Insert day and month], [Insert year] with you, for the supply of [description of goods and related services] (hereinafter called "the contract"). Furthermore, we understand that, according to the conditions of the contract, a Performance Guarantee is required.

At the request of the supplier, we hereby irrevocably undertake to pay you any sum(s) not exceeding [insert amount(s) in figures and words], upon receipt by us of your first demand in writing declaring the supplier to be in default under the contract, without cavil or argument, or your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee shall expire no later than the [insert number] day of [insert month] [insert year], and any demand for payment under it must be received by us at this office on or before that date.

We agree to an extension of this Guarantee for a period not to exceed one year, in response to UNOPS's written request for such extension.

This guarantee is subject to the Uniform Rules for Demand Guarantees (2010 Revision), International Chamber of Commerce Publication No. 758, except that the supporting statement under article 15(a) is excluded.

[Signatures of authorized representatives of the bank and the supplier]

BANK GUARANTEE FOR ADVANCE PAYMENT

NOT USED

Form of legal opinion

Company

[insert name of company]

Documents

[insert name of documents]

Form of opinion text

On the basis of the assumptions and subject to the qualifications set out in this opinion, we are of the opinion that:

- (a) the Company is incorporated and validly existing under the laws of **[insert country of incorporation]** and is capable of suing and being sued in its corporate name;
- (b) the company has:
 - (i) the corporate power to enter into each Document and to observe its obligations under them; and
 - (ii) taken all corporate action required on its part to authorise the execution, delivery and observance of each document;
- (c) the obligations of the Company under each document are valid, binding and enforceable in accordance with its terms;
- (d) the execution and delivery by or on behalf of the Company of each document and the observance by the company of its obligations under them has not violated and will not contravene:
 - (i) any law in force in **[insert relevant opinion country]** applicable to companies or transactions generally; or
 - (ii) any stock exchange rules and regulations of **[insert relevant opinion country]**; or
 - (iii) its constitution;

- (e) each authorisation necessary under the laws in force in **[insert relevant opinion country]** applicable to companies generally for the company to enter into each Document and observe obligations under them has been obtained;
- (f) the Documents are in proper form for enforcement in the appropriate courts of **[insert relevant opinion country]**;
- (g) claims against the Company under each document will rank at least equally with the claims of all its unsecured and unsubordinated creditors (other than creditors mandatorily preferred by law);
- (h) the Company does not enjoy any immunity from suit in **[insert relevant opinion country]** nor are its assets exempt from execution;

SCHEDULE 7

Schedule of Contract Price

(i) Contract Price

The Contract Price shall be agreed or determined under Sub-Clause 12.3 [*Evaluation*] and shall be subject to adjustments only in accordance with the Contract.

1. Accepted Contract Amount

The Accepted Contract Amount is [insert amount in figures and words].

2. Bill of Quantities

A detailed breakdown of the Contract Price is set out in the "Bill of Quantities" in Schedule 7 - Appendix A.

Note:

"The rates and prices inserted in the Bill of Quantities (BoQs), shall be deemed to include amounts to cover the contingency of rises and falls in the cost of labour, Goods and other inputs to the Works"

The quantities, rates and prices in the Bill of Quantities may also be used when determining the value of Variations, only to the extent that the description and scope of such rates and prices are directly comparable to the scope of the Variation, and there are no existing comparable rates or prices in the Schedule of Rates for Variations.

Where a price or rate for an item listed in the Bill of Quantities is not priced, such price or rate is deemed be included in other rates or prices contained in the Bill of Quantities.

3. Provisional Sum Items

"There are no provisional sum items."

4. Schedule of Rates for Variations

The rates for the purposes of valuing Variations are set out in the Schedule of Rates for Variations in Schedule 7 - Appendix B.

The rates set out in the Schedule of Rates are fixed for the duration of the Contract and are not subject to escalation or adjustment for rises or falls in the cost of labour, goods, material and other inputs to the Works. The rates set out in the Schedule of Rates also include provision for Contractor's overheads and profit.

Where the scope of any Variation is not directly comparable to the rates and descriptions included in the Schedule of Rates, the value of a Variation may be determined by:

- using rates provided in the Bill of Quantities which, in the opinion of the Employer's Representative, are directly comparable to the descriptions of the Variation works ; or
- if, in the opinion of the Employer's Representative, no directly comparable rates exist in the Schedule of Rates or the Bill of Quantities, the Employer's Representative shall determine a fair and reasonable valuation.

5. Schedule of Daywork Rates

The Dayworks Rates are set out in the Schedule of Dayworks Rates in Schedule 7 - Appendix C.

The Dayworks Rates are fixed for the duration of the Contract and are not subject to escalation or adjustment for rises or falls in the cost of labour, Goods, material and other inputs to the Works. The Dayworks Rates also include provision for Contractor's overheads and profit.

6. Adjustments for Changes in Cost

"The Contract Price will not be adjusted for rises or falls in the cost of labour, Goods and other inputs to the Works"

Schedule 7 - Appendix A

BILL OF QUANTITIES (BOQs)

The Bill of Quantities (BOQs) is annexed to this Contract.

Schedule 7 - Appendix B

SCHEDULE OF VARIATION RATES

The Bill of Quantities (BOQs) shall be used as schedule of variation

Schedule 7 - Appendix C

SCHEDULE OF DAYWORK RATES

The Bill of Quantities (BOQs) shall be used as daywork rates

SCHEDULE 8

Schedule of Payments

1. Advance Payment

The Contractor is not entitled to an advance payment.

2. Applications for Interim Payments

Monthly Interim Payments

On the last day of each month (or as otherwise agreed by us) the Contractor must submit an Application for Interim Payment in accordance with Sub-Clause 14.3.

The Employer's Representative is not bound to issue an Interim Payment Certificate in an amount which would be less than [\[insert amount\]](#).

3. Plant and Materials listed for payment when delivered to the Site

The following plant and materials are designated as to paid on delivery to the site:

Not Applicable

4. Plant and Materials listed for payment when shipped to the Country

The following plant and materials are designated as to paid when shipped to the Country:

[Not Applicable](#)

SCHEDULE 9

Schedule of Programme

- (A) Approved Preliminary Programme
- (B) Milestone Dates
- (C) Contract Programme Requirements

(A). Approved Preliminary Programme

The Approved Preliminary Programme is attached to this Schedule and set out immediately after this page.

[insert the Approved Preliminary Programme]

Approved Preliminary Programme will be inserted and/or annexed upon Contract Award of a successful bidder

(B). Milestone Dates

NOT USED

(C). Contract Programme Requirements

Within **ten (10) working days** after the Date of the Contract, the Contractor must submit to the Employer's Representative a draft Contract Programme incorporating all timing requirements of the Contract, in accordance with Sub-Clause 8.3 of the General Conditions. Upon approval and certification by the Employer's Representative, the draft Contract Programme, or resubmission thereof, will become the Contract Programme.

The draft Contract Programme must be in such form and detail as the Employer's Representative requires and shall contain as a minimum:

- (a) the order in which the Contractor proposes to carry out the Works;
- (b) the time limits within which submission of any Contractor's Documents are required under the Contract; and
- (c) all other requirements specified in this Schedule 9 Section (C) "Programme Requirements".

The Contract Programme must be prepared in sufficient detail to ensure the adequate planning, execution and monitoring of the Works. The networked activities must be detailed enough to provide a meaningful measurement tool for progress of works. For this purpose, with the exception of approval cycles and the procurement of material, no activity can have a duration of more than 28 days.

The Contract Programme shall be resource loaded and include material, plant and labour. The labour resource assignment shall be further broken down to clearly identify types (trade and/or discipline) and number of resources allocated to an activity.

The Contract Programme must include a detailed CPM logic linked network with activity durations and resource allocations. **Negative lags and/or SF (start – finish)** relationships are not to be used in developing the Contract Programme.

The Contract Programme will be prepared in electronic format using a recognised computer programme or as otherwise directed by the Employer's Representative.

The Contract Programme will be coded as such to identify the work packages within the scope of work and each ID will be in a format approved by the Employer's Representative. Additionally, the Contract Programme will also identify the life-cycle phases of the work to be carried out i.e. Design, Procurement, Construction, Commissioning & Handover.

The Contract Programme must be accompanied by and/or detail:

- (a) a programme narrative that describes the inclusions and assumptions made in preparing the Contract Programme;
- (b) a general description of the arrangements and methods which the Contractor proposes to adopt for carrying out the Works;
- (c) the critical path for the Works and a complete critical path analysis for the execution of the Works which must show clearly the links between activities and

the float times available within the Contract Programme and the earliest start/earliest finish and latest start/latest finish times for each and every activity;

- (d) Details, and durations on Site, of the resources proposed to achieve the Contract Programme;
- (e) A manpower (resource) histogram detailing cumulative and monthly volumes by trade for the duration of the Works;
- (f) A detailed cash flow estimate, in quarterly periods, of all payments to which the Contractor may be entitled under the Contract;
- (g) An overall planned performance monetary s-curve based upon the approved Contract Programme; and
- (h) A schedule of all submittals and material procurement activities, including time for submittals, re-submittals and reviews and time for any fabrication and delivery of manufactured products and samples. The interdependence of design, procurement and construction activities must be included in this schedule.

SUBMISSIONS

All programme submissions by the Contractor are to include:

- **3 coloured hard copies, plus**
- **1 full copy in native electronic format on CD.**

CALENDARS

All programmes shall be developed using appropriate calendars that reflect the intended method of working, public holidays, etc. The standard calendars to be used are:

- Calendar 1 – Eight (8) hour day, Five (5) day work week, Saturday and Sunday non-working days and include public holidays. The start day for the calendar is Sunday. This calendar should generally be applied to all non-construction activities related to design, procurement, government and/or other approvals, etc.

SCHEDULE 10**Schedule of Key Personnel**

The Contractor's Key Personnel for the Project are:

If there is a position stated in this Schedule but no person is named in that particular role, then the Contractor shall obtain the Employer's Representative's approval before appointing a person to fill that role.

The Contractor's Key Personnel for the Project are:

No.	Position Description	Name	Remark (indicate specific Site)
1	Project Manager/Engineer	[insert name]	xxxx Site
2	Site Engineer	[insert name]	xxxx Site
3	Site Engineer	[insert name]	xxxx Site
4	Site Engineer	[insert name]	xxxx Site
5	Site Engineer	[insert name]	xxxx Site
6	Site Engineer	[insert name]	xxxx Site
7	Sanitary Engineer	[insert name]	xxxx Site
8	Electrical Engineer	[insert name]	xxxx Site
9	Licensed Surveyor	[insert name]	xxxx Site
10	Licensed Surveyor	[insert name]	xxxx Site
11	Licensed Surveyor	[insert name]	xxxx Site
12	Licensed Surveyor	[insert name]	xxxx Site
13	Licensed Surveyor	[insert name]	xxxx Site
14	Health & Safety & Environment Project Officer	[insert name]	xxxx Site
15	Lead General Forman	[insert name]	xxxx Site
16	Lead General Forman	[insert name]	xxxx Site
17	Lead General Forman	[insert name]	xxxx Site
24	Lead General Forman	[insert name]	xxxx Site
25	Lead General Forman	[insert name]	xxxx Site

If there is a position stated in this Schedule but no person is named in that particular role, then the Contractor shall obtain the **Employer's Representative's approval** before appointing a person to fill that role.

SCHEDULE 11

Schedule of Forms of Collateral Warranty

Form of Collateral Warranty – Subcontractor

Details

Parties	Warrantor, Beneficiary	
Warrantor	Name	[insert]
	Address	[insert]
	Telephone	[insert]
	Fax	[insert]
Beneficiary	Name	[insert]
	Address	[insert]
	Telephone	[insert]
	Fax	[insert]

Recitals

The Contractor entered into the Construction Contract with the Employer for the Works forming part of the Project.

The Warrantor contracted with the Contractor for a portion of the Works under the Subcontract.

The Contractor agreed under the Construction Contract to procure that the Warrantor execute this warranty in favour of the Beneficiary.

The Warrantor agreed under the Subcontract to execute this warranty in favour of the Beneficiary.

Date of Warranty

[insert]

General terms

1. Warranty

The Warrantor warrants to the Beneficiary that all work performed and all materials or parts supplied by the Warrantor in the course of the Subcontract Works will be:

- (a) at least of the quality and to the standard required by both the Construction Contract and the Subcontract; and
- (b) to the extent that the level of quality or standard are not stipulated in the Construction Contract or the Subcontract, of good workmanship and merchantable quality; and
- (c) fit for the purpose or purposes for which they are required.

2. Manufacturer's warranty

This warranty is in addition to and does not derogate from any manufacturer's warranty or warranty implied by any law, attaching to any materials or goods provided under the Subcontract.

3. Rectification

The Warrantor agrees to at its own expense, replace and make good to the reasonable satisfaction of the Beneficiary so much of the Subcontract Works within 10 years from the Time for Completion of the Subcontract Works that:

- (a) the Beneficiary reasonably considers are of a lower quality or standard than that referred to in clause 1; or
- (b) show deterioration to an extent that the Beneficiary reasonably considers that the Subcontract Works, or the goods supplied by the Warrantor, ought to be made good or replaced in order to achieve fitness for the purpose or purposes for which the Subcontract Works were performed or supplied.

4. Time for rectification

Within a reasonable time after written notification to the Warrantor of a decision of the Beneficiary as to work required by clause 3, the Warrantor will replace and/or make good the Subcontract Works at its cost whether or not any dispute or difference exists between the parties. The Warrantor indemnifies the Beneficiary against any direct, indirect or consequential loss or damage of any nature whatsoever, directly or indirectly arising out of any breach of the warranties, covenants or other conditions given by the Warrantor.

5. Rectification at Warrantor's cost

If within the time stated in a notice provided under clause 4 the Warrantor does not carry out the work stated in the notice, the Beneficiary may carry out that work, or cause it to be carried out. The Warrantor indemnifies the Beneficiary against all costs and expenses of, and incidental to, the carrying out of the work and also against any direct, indirect or consequential loss or damage sustained by it as a result of the Warrantor's failure to comply with the notice under clause 4.

6. Assignment

The Beneficiary may assign all of its rights under this agreement by written notice to the Contractor and the Warrantor.

7. Relevance of execution

This warranty operates in favour of the Beneficiary even if it has not been executed by the Beneficiary.

8. Arbitration

Any disputes arising out or in connection with this Warranty, or the breach, termination, or invalidity thereof shall be referred to and finally resolved by arbitration in accordance with the UNCITRAL Arbitration Rules then in effect. The language of the proceedings shall be English. The decisions of the arbitral tribunal will be based on general principles of international commercial law. The arbitral tribunal must not award punitive damages. In addition, the arbitral tribunal must not award interest in excess of the London Inter-Bank Offered Rate ("LIBOR") then prevailing, and any such interest must be simple interest only.

9. Privileges and Immunities

Nothing in or relating to this Warranty shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including its subsidiary organs, of which UNOPS is an integral part, which are hereby expressly reserved.

10. Definitions

Beneficiary means the party stipulated in the Details.

Contractor means **[insert]**.

Construction Contract means the contract between the Employer and the Contractor dated **[insert]** for the construction of the Works.

Employer means UNOPS **[insert PO Box]**, and the legal successors in title and assigns and novates to this entity.

Project means the development, design, engineering, procurement, construction, commissioning, testing, completion and financing of the [insert Project title] Project.

Subcontract means the contract between the Contractor and the Warrantor dated [insert] for part of the Works.

Subcontract Works means the works undertaken by the Warrantor under the Subcontract.

Warrantor means the party stipulated in the Details.

Works means the works and services undertaken by the Contractor under the Construction Contract and forming part of the Project.

EXECUTED as an agreement.

[Amend this signing page as required to suit authorised representatives of the parties]

EXECUTED by [WARRANTOR])
by its duly authorised)
representative:)

Name:

Title:

Name of Witness:

Title:

EXECUTED by [BENEFICIARY])
by its duly authorised)
representative:)

Name:

Title:

Name of Witness:

Title:

SCHEDULE 12

Schedule of Form of Subcontractor Side Agreement

Form of Subcontractor Side Agreement

Details

Interpretation – definitions are at the end of the General terms

Parties	Employer, Contractor and Subcontractor	
Employer	Name	UNOPS, [insert PO Box] , and the legal successors in title and assigns and novates to this entity.
	Telephone	[insert]
	Fax	[insert]
	Attention	[insert]
Contractor	Name	[insert]
	Address	[insert]
	Telephone	[insert]
	Fax	[insert]
	Attention	[insert]
Subcontractor	Name	[insert]
	Address	[insert]
	Telephone	[insert]
	Fax	[insert]
	Attention	[insert]
Subcontract Works	[insert details]	

Recitals	<p>The Employer has entered into the Construction Contract with the Contractor.</p> <p>The Contractor has entered into the Subcontract with the Subcontractor.</p> <p>The Contractor agreed under the Construction Contract to procure that the Subcontractor execute this Agreement in favour of the Employer.</p> <p>The Subcontractor agreed under the Subcontract to execute this Agreement in favour of the Employer.</p> <p>The Employer, the Contractor and the Subcontractor wish to make certain arrangements relating to the termination of the Construction Contract and to confirm the obligations of the Subcontractor under the Subcontract.</p>
-----------------	--

Date of agreement	See Signing page
--------------------------	------------------

General terms

1. Definitions and Interpretation

1.1 Definitions

In this Agreement the following words and expressions have the meanings set out below:

Agreement means this subcontractor side agreement.

Contractor means the party described in the Details and any replacement.

Construction Contract means the contract between the Employer and the Contractor dated **[insert]** for certain works and services forming part of the Project.

Employer means the person described in the Details.

Project means the development, design, engineering, procurement, construction, commissioning, testing, completion and financing of the **[insert Project title]** Project.

Subcontract means the contract between the Contractor and the Subcontractor.

Subcontractor means the person described in the Details.

Subcontract Works means the works described in the Details forming part of the Works.

Substituted Contract means the contract to be entered into by the Subcontractor and the Employer or the person nominated by the Employer pursuant to Clause 2.1(a) of this Agreement.

Works means the works and services undertaken by the Contractor under the Construction Contract and forming part of the Project.

1.2 Interpretation

In this Agreement unless the contrary intention appears:

- (a) a reference to this Agreement or another instrument includes any variation or replacement of them;
- (b) a reference to a statute, ordinance, code or other law includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of any of them;
- (c) the singular includes the plural and vice versa;
- (d) the masculine includes the feminine and neuter; the feminine includes the masculine and neuter; the neuter includes the masculine and the feminine;
- (e) the word "person" includes a firm, a body corporate, an unincorporated association, and an authority;
- (f) a reference to a person includes a reference to the person's executors, administrators, successors, substitutes (including, without limitation, a person taking by novation) and assigns;
- (g) an agreement, representation or warranty on the party of or in favour of two or more persons binds them, or is for the benefit of them jointly and severally;
- (h) a reference to any thing (including, without limitation, any amount) is a reference to the whole or any part of it and a reference to a group of persons is a reference to any one or more of them; and
- (i) a reference to all parties, clauses, exhibits, annexures or schedules is, unless otherwise provided, to the parties, clauses, exhibits, annexures or schedules of or to this Agreement.

2. Termination of the Construction Contract

2.1 Notice of Termination

If the Construction Contract is terminated then:

- (a) whether or not the Subcontract has been terminated, within 14 days of the date of termination of the Construction Contract, the Employer may, by written notice, direct the Subcontractor to enter into a contract with the Employer, or a person nominated by the Employer, to complete the Subcontract Works; or
- (b) if the Subcontract has not been terminated the Employer may, within 14 days of the date of termination of the Construction Contract, direct that the Subcontract be novated from the Contractor to the Employer or a person nominated by the Employer.

2.2 Substituted Contract

If the Employer delivers a notice pursuant to Clause 2.1(a), then:

- (a) such contract is deemed to have been entered into by the Employer and the Subcontractor upon delivery of the notice by the Employer pursuant to Clause 2.1(a); and
- (b) the contract so formed is on the same terms as the Subcontract.

2.3 Liability

If a Substituted Contract is formed then neither the Employer nor the person nominated by the Employer is liable to the Subcontractor in respect of any claims made, or payment for any work carried out or goods, materials, plant, equipment or other items or services provided before the formation of the Substituted Contract or any claims that may be made by the Subcontractor against the Contractor for breach of the Subcontract or on any other basis whatsoever arising out of or in connection with the Subcontract.

2.4 Report by Subcontract

If the Employer delivers a notice pursuant to Clause 2.1 then the Subcontractor must provide to the Employer a written report detailing the status of the Subcontract Works in a format and within such a time as stipulated by the Employer.

2.5 Termination of Subcontract

Upon the formation of the Substituted Contract the Subcontract will be deemed to have been terminated pursuant to the Subcontract.

2.6 Novation

If the Employer delivers a notice pursuant to Clause 2.1(b), then, the novation will be effected on the same terms as the agreement contained in Appendix 1 to this agreement and will be effective from the date of the Employer's notice notwithstanding that a separate agreement of novation is not executed. If the Employer nominates another person under the notice delivered pursuant to

Clause 2.1(b), all references in the agreement to the Employer will be read as a reference to its nominee.

3. Termination and amendment of the Subcontract

The Contractor and the Subcontractor must not materially amend the Subcontract without the prior written approval of the Employer and must not terminate the Subcontract without giving the Employer notice of not less than 14 days of the intention to terminate, providing a full explanation of the grounds for the termination.

4. Property in goods, materials, plant and equipment

Property in all goods, materials, plant, equipment and other items for which payment has been made by the Contractor to the Subcontractor, less any retentions or other withholdings permitted by the Subcontract, will vest in the Employer upon the making of such payment.

5. Notices

All notices required to be delivered pursuant to this Agreement must be delivered by hand, sent by facsimile or posted by pre-paid certified mail, addressed to the party to which it is necessary or required to be given at the address set out in the Details, or any replacement address notified by the parties to each other in writing.

6. Power of Attorney

- (a) For the purpose of effecting a novation contemplated under Clause 2.6 or a Substituted Contract contemplated under Clause 2.2, the Contractor and the Subcontractor each irrevocably and severally appoints the Employer as its attorney with authority to execute, sign, seal and deliver all notices, deeds and documents required for the purposes referred to in this Clause 6(a).
- (b) The Contractor and Subcontractor ratifies anything done by the Employer as its attorney in accordance with Clause 6(a).

7. Arbitration

Any disputes arising out or in connection with this Agreement, or the breach, termination, or invalidity thereof shall be referred to and finally resolved by arbitration in accordance with the UNCITRAL Arbitration Rules then in effect. The language of the proceedings shall be English. The decisions of the arbitral tribunal will be based on general principles of international commercial law. The arbitral tribunal must not award punitive damages. In addition, the arbitral tribunal must not award interest in excess of the London Inter-Bank Offered Rate ("LIBOR") then prevailing, and any such interest must be simple interest only.

8. Privileges and Immunities

Nothing in or relating to this Agreement shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including its subsidiary organs, of which UNOPS is an integral part, which are hereby expressly reserved.

EXECUTED as an agreement.

[Amend this signing page as required to suit authorised representatives of the parties]

EXECUTED by **UNOPS** by its)
duly authorised representative:)
)

Name:

Title:

Name of Witness:

Title:

EXECUTED by [CONTRACTOR])
by its duly authorised)
representative:)

Name:

Title:

Name of Witness:

Title:

EXECUTED by)
[SUBCONTRACTOR] by its duly)
authorised representative:)

Name:

Title:

Name of Witness:

Title:

APPENDIX 1 TO SUBCONTRACTOR SIDE AGREEMENT

Novation Agreement

UNOPS

("Employer")

and

[insert]

("Contractor")

and

[insert]

("Subcontractor")

DETAILS

Parties	Employer, Contractor and Subcontractor	
Employer	Name	UNOPS
	Address	[insert]
	Attention	[insert]
Contractor	Name	[insert]
	Address	[insert]
	Attention	[insert]
Subcontractor	Name	[insert]
	Address	[insert]
	Attention	[insert]
Subcontract Works	[insert]	
Recitals	A	The Contractor and the Subcontractor are parties to the Subcontract.
	B	In accordance with the terms of this Agreement:
	(i)	the Employer has agreed to accept all of the Contractor's liabilities and obligations under the Subcontract; and
	(ii)	the Subcontractor has agreed to accept the Employer in place of the Contractor for the performance of the obligations of the Contractor and to release completely and discharge the Contractor from all of its liabilities and obligations under the Subcontract.
Date of agreement	See Signing page	

1. Agreed Terms

1.1 In this Agreement:

- (a) **Claim** means any allegation, debt, cause of action, liability, claim, proceeding, suit or demand of any nature howsoever arising and whether present or future, fixed or unascertained, actual or contingent whether at law, in equity, under statute or otherwise and which any party

may have against another in connection with the Subcontract or this agreement.

- (b) **Novation Date** means [insert date].
- (c) **Subcontract** means the agreement between the Contractor and the Subcontractor on [insert date] for the Subcontract Works.
- (d) **Subcontract Works** means [insert description].

1.2 With effect from and including the Novation Date:

- (a) the Employer must perform all of the obligations of the Contractor under the Subcontract which are not performed at the Novation Date;
- (b) the Employer replaces the Contractor under the Subcontract;
- (c) the Subcontractor accepts the liability of the Employer in place of the Contractor;
- (d) the Subcontractor must perform its obligations under the Subcontract which have not yet been performed in favour of the Employer rather than the Contractor.

1.3 Subject to the Contractor's payment to the Subcontractor of any fees due under the Subcontract at the Novation Date, the Subcontractor releases and forever discharges the Contractor from its liabilities and obligations under the Subcontract and from all claims and demands in respect of the Subcontract.

1.4 The Subcontractor has no entitlement to make any Claim against the Employer and the Employer shall have no liability to the Subcontractor arising out of or in connection with the Subcontract or provision of the Subcontract Works prior to the Novation Date.

1.5 The Subcontractor warrants to the Employer that it has complied with its obligations under the Subcontract before the Novation Date.

2. Privileges and Immunities

Nothing in or relating to this Agreement shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including its subsidiary organs, of which UNOPS is an integral part, which are hereby expressly reserved.

EXECUTION PAGE

EXECUTED as an agreement.

[Amend this signing page as required to suit authorised representatives of the parties]

EXECUTED by **UNOPS** by its duly)
authorised representative:)
)

Name:

Title:

Name of Witness:

Title:

EXECUTED by [CONTRACTOR])
by its duly authorised)
representative:)

Name:

Title:

Name of Witness:

Title:

EXECUTED by)
[SUBCONTRACTOR] by its duly)
authorised representative:)

Name:

Title:

Name of Witness:

Title:

SCHEDULE 13

Schedule of Forms of Certificates

- (A) Form of Interim Payment Certificate
- (B) Form of Final Payment Certificate
- (C) Form of Taking Over Certificate
- (D) Form of Final Completion Certificate
- (E) Form of Discharge

(A) FORM OF INTERIM PAYMENT CERTIFICATE

[ON UNOPS' LETTERHEAD]

[insert Date]

Contractor's Representative

[Address]

INTERIM PAYMENT CERTIFICATE

Dear [insert]

[insert works title] Construction Contract ("Contract")

[insert name of the project]

This Interim Payment Certificate is issued pursuant to Clause 14.6 of the Contract.

Date of Statement applying for an Interim Payment Certificate:

Total amount claimed in the Statement: \$

Value of the Works executed (measured in accordance with the Schedule of Contract Price) and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in Sub-Clause 14.3(b)(ii) to (vi)); \$

The achievement of the Milestones (if any) set out in the Schedule of Contract Price in the amounts specified therein; \$

Amount to be deducted for retention, calculated by applying the percentage of retention stated in the Details to the total of the above amounts until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in the Details; \$

Amounts to be deducted for advance payment and repayments in accordance with Sub-Clause 14.2 [Advance Payments]; \$

Amount to be added for Plant and Materials in accordance with Clause 14.5 [Plant and Materials intended for the Works]; \$

Amount to be deducted for Plant and Materials in accordance with Clause 14.5 [Plant and Materials intended for the Works]; \$

Amount to be deducted for all prior payments made by the Employer to the Contractor: \$

Any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 20 [*Claims, Disputes and Arbitration*]: \$

Total of the amount due for payment to [the Contractor by the Employer][the Employer by the Contractor]: \$

Yours sincerely

.....
[insert]

Employer's Representative

(B) FORM OF FINAL PAYMENT CERTIFICATE

[ON UNOPS' LETTERHEAD]

[insert Date]

Contractor's Representative

[Address]

FINAL PAYMENT CERTIFICATE

Dear [insert]

[insert works title] Construction Contract ("Contract")

[insert name of the development]

This Final Payment Certificate is issued pursuant to Clause 14.13 of the Contract.

Date of Final Statement applying for a Final Payment Certificate:

Total amount claimed in the Final Statement: \$

Value of all work done in accordance with Contract: \$

Any additional amount that the Contractor is entitled to under the Contract: \$

Amount to be deducted for all prior payments made by the Employer to the Contractor: \$

Total of the amount due for payment to [the Contractor by the Employer][the Employer by the Contractor]: \$

Yours sincerely

.....
[insert]

Employer's Representative

(C) FORM OF TAKING-OVER CERTIFICATE

[ON UNOPS' LETTERHEAD]

[insert Date]

Contractor's Representative

[Address]

TAKING-OVER CERTIFICATE

Dear [insert]

[insert works title] Construction Contract ("Contract")
[insert name of the development]

We refer to Clause 10.1 of the Contract.

We advise you that on [insert date] the Works, or a Section or part of the Works as specified below, were completed to a stage ready to be Taken Over by the Employer in accordance with the Contract.

The works to which this Taking-Over Certificate relates are:	
--	--

By signing this Taking-Over Certificate, the Employer acknowledges and accepts that the Works, or the Section or part of the Works specified above, were completed, including the matters described in Clause 8.2 [*Time for Completion*], and Taken Over by the Employer in accordance with the Contract on [insert date].

This Taking-Over Certificate is executed by an official representative duly authorised to bind the Employer.

This Taking-Over Certificate does not relieve you from any of your unperformed or continuing warranties, obligations or liabilities under or in connection with the Contract or at law, including the remedying of all defects.

Yours sincerely

.....
[insert]

Employer's Representative

(D) FORM OF FINAL COMPLETION CERTIFICATE

[ON UNOPS' LETTERHEAD]

[insert Date]

Contractor's Representative

[Address]

FINAL COMPLETION CERTIFICATE

Dear [insert]

[insert works title] Construction Contract ("Contract")
[insert name of the development]

We refer to Sub-Clause 11.9 of the Contract.

We advise that on [insert date] you have completed your obligations under the Contract to a stage ready for the Final Completion Certificate to be issued by the Employer in accordance with the Contract.

By signing this Final Completion Certificate, the Employer acknowledges and accepts that your obligations under the Contract have been completed to a stage ready for the Final Completion Certificate to be issued by the Employer and the last Defect Notification Period has expired.

This Final Completion Certificate is executed by an official representative duly authorised to bind the Employer.

This Final Completion Certificate does not relieve you from any of its unperformed or continuing warranties, obligations or liabilities under or in connection with the Contract or at law.

Yours sincerely

.....
[insert]

Employer's Representative

(E) FORM OF DISCHARGE

[ON CONTRACTOR'S LETTERHEAD]

[insert Date]

Employer's Representative

[Address]

DISCHARGE

Dear [insert]

[insert works title] Construction Contract ("Contract")
[insert name of the development]

We refer to Sub-Clause 14.12 [*Discharge*] of the Contract.

The Contractor warrants that it has lodged with the Employer all claims that it has which arise out of or in connection with the Contract in relation to all works and services performed in connection with the Contract and those claims have been satisfied in full by the Employer.

The Contractor releases the Employer from all claims, actions, suits and demands which it presently has or which might in the future arise out of or in connection with the Contract or the works and services performed in connection with the Contract other than claims, actions, suits and demands made by third parties.

The Contractor acknowledges that the Employer will make the Final Payment pursuant to Clause 14.13 [*Issue of Final Payment Certificate*] of the Contract and that such payment will be made in reliance on the warranties and releases contained in this Discharge.

This Discharge is executed by an official representative duly authorised to bind the Contractor.

Yours sincerely

.....
[insert]

Contractor's Representative

SCHEDULE 14

Schedule of Insurance Requirements

CONTRACTOR INSURANCES

1. Construction All Risks Insurance/Third Party Liability Insurance

1.1

Scope of cover

- (a) All risks of physical loss or damage from any cause not excluded, in relation to all property and interest of every description used for and intended for incorporation in the Works relating to design, engineering, development, procurement, fabrication, construction, erection, installation, rehabilitation, upgrading, completion, supply, testing, commissioning, recommissioning or ownership of the Works.
- (b) Indemnity in respect of legal liability of the insured parties to third parties for or arising from:
 - (i) bodily injury, illness, death;
 - (ii) physical loss or damage to the property; and
 - (iii) interference, trespass, loss of amenities, nuisance, infringement, obstruction,arising out of or in connection with the design, engineering, development, procurement, fabrication, construction, erection, installation, rehabilitation, operating, completion, testing, commissioning, supply of products, recommissioning and ownership of the Works.

1.2

Insured parties

- (a) the Employer;
 - (b) the Contractor and subcontractors;
- each for their respective rights and interests.

1.3

Term

From the Date of the Contract to the issue of the Final Completion Certificate

1.4

Limit of Indemnity

- a. Contract Works – Full Estimated Contract Value
- b. Third Party Liability – **[insert]** any one occurrence

1.5

Level of Deductible

Major Perils/Testing and Commissioning **[insert]**
Others/Underground Services **[insert]**
Third Party Property Damage **[insert]**
Body injury to, illness or death of a third party **[insert]**

1.6

Policy Jurisdiction

Worldwide

2. Marine Cargo Insurance

2.1

Scope of cover

All risk of loss, destruction or damage as per the Institute Cargo Clauses, to property and interests of every description for all transits by sea, air or land for all goods intended for the Works where such items are carried for the accounts and interests of the insured. From risk attachment during loading at factory premises to site including off-site storage other than where covered under the Construction All Risk Insurance.

2.2

Insured parties

- (a) the Employer;

- (b) the Contractor and subcontractors;
each for their respective rights and interests.

2.3

Term

From the Date of the Contract to the issue of the Final Completion Certificate.

2.4

Limit of Indemnity

New replacement value plus 10%

2.5

Level of Deductible

[insert]

3. Workman's Compensation/Employer's Liability Insurance

3.1

Limit of Indemnity

No less than [insert] for any one incident an [insert] in the aggregate or as otherwise required by Law.

3.2

Term

[insert]

4. Contractor's Plant and Equipment Insurance (including plant and equipment required for operational activities and temporary buildings (e.g. labour camps))

4.1

Limit of Indemnity

The replacement value of the Contractor's Plant and Equipment.

4.2

Term

[insert]

5. Motor Insurance

5.1

Limit of Indemnity

Third party property damage minimum [insert].

5.2

Term

[insert]

6. Professional Indemnity Insurance

6.1

Scope of cover

Indemnify the Contractor against any liability of the Contractor (and its subcontractors/subconsultants) as a result of any negligent act, error or omission in carrying out of professional activities and duties in connection with the Works (including the costs of redesign, reconstruction, rectification or any other liability the Contractor may have to the Employer as a result of such negligent act, error or omission).

6.2

Insured parties

The Contractor (and its subcontractors/subcontractors undertaking professional activities).

6.3

Term

From the Date of the Contract until the date 10 years from the issue of the Final Completion Certificate.

6.4

Limit of Indemnity

[*insert*] any one claim, [*insert*] in the aggregate

SCHEDULE 15

Schedule of Permitted Subcontractors

NOT USED

SCHEDULE 16

Schedule of Nominated Subcontractors

NOT USED

SCHEDULE 17

Schedule of Auxiliary Works

NOT USED

SCHEDULE 18

SCHEDULE OF HEALTH AND SAFETY REQUIREMENTS

In addition to the Contractor's general Health and Safety (H&S) obligations described in the General Conditions, the Contractor must comply with health and safety requirements, policies, procedures, guidelines and other documents referred to in this Schedule.

To be inserted and/or annexed to this agreement upon Contract Award to a successful bidder

SCHEDULE 19

SCHEDULE OF ENVIRONMENTAL REQUIREMENTS

In addition to the Contractor's general environmental obligations described in the General Conditions, the Contractor must comply with the environmental policies, procedures, guidelines and other documents referred to in this Schedule.

To be inserted and/or annexed to this agreement upon Contract Award to a successful bidder



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