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**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise
indicated, all other terms and conditions of the Solicitation
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Ce document est par la présente révisé; sauf indication contraire,
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Title - Sujet BIO - Fish Lab Renovation IOB - Renovation au laboratoire d'ichtyopathologie	
Solicitation No. - N° de l'invitation EB144-221205/A	Amendment No. - N° modif. 005
Client Reference No. - N° de référence du client EB144-22-1205	Date 2021-11-23
GETS Reference No. - N° de référence de SEAG PW-SPWA-504-6200	
File No. - N° de dossier HAL-1-86041 (504)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Atlantic Standard Time AST on - le 2021-11-30 Heure Normale de l'Atlantique HNA	
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Solicitation Amendment 005 is raised for the following:

Answer Bidder's Questions:

QUESTIONS AND CLARIFICATIONS

.1 Q. Is the blowdown tank to be part of the boiler or separate? We can supply a separate one but the spec is unclear.

A. Blow down tank is intended to be part of the boiler package..

.2 Q. Section 10 51 13 Metal Lockers, Item 2.2.1.1.2 calls for locker EQ-23 to be 452mm wide x 452mm deep x 1830mm high, while Equipment Schedule on drawing A14.2 calls for 610mm x 610mm x 1830mm. Please confirm size requirement for locker EQ-23.

A. Dimensions in equipment schedule are correct. Corrected in addendum.

.3 Q. Please provide quantity and location for the Wire Mesh Storage Lockers as specified in Section 10 51 43 Item 2.1.

A. Wire mesh storage lockers are located in room FL-033. Dimensions provided in equipment list and in elevations.

.4 Q. Tag CW32 on the Lab Casework Schedule as found on drawing A14.1 states "refer to floor plan" for the width dimension. Please provide location of CW32 on the drawings so the width can be determined?

A. Refer to Addendum.

.5 Q. What reinforcing is required for the footings under trench drains detail 109/S02.1?

A. Disregard CW32.

.6 Q. Door schedule on A00.2 calls for a "SS" finish on frames 039A, 039B, 039C, 039D & 040. Abbreviation Legend on Drawing A00.2 does not list "SS". Please confirm what is required.

A. SS is stainless steel. Refer to clarification in addendum.

.7 Q. Section 08 11 00 Metal Doors and Frames calls for 2.11 Laminated Core Construction, 2.12 Stainless Steel Construction, and 2.13 Reinforced Core Construction for the Doors. The Door Schedule as found on drawing A00.2 does not indicate which construction is required for each door. Please clarify?

A. D016 doors to be of reinforced core construction. RC = Reinforced Core. Refer to legend and clarifications in addendum.

.8 Q. Section 08 16 13 Fibreglass Doors, Item 2.2.4 calls for stainless steel frames for fire rated doors. On the door schedule (drawing A00.2), Door 050 has a 45 min Fire Rating, however a fiberglass frame is shown. Please clarify?

A. See addendum for clarifications/revisions. All fibreglass doors to have stainless steel frames.

.9 Q. Drawing A02.1 shows locations of Wall Type "E10 – Concrete Foundation Wall Supporting Masonry". This wall type is shown on drawing S01.1 as section 104/S02.1. The quantity & location of these walls differ between the two drawings. Please indicate which drawing is correct in determining the amount of wall required?

A. The extent of wall detailed as 104/S02.1 noted on S01.1 is correct. Allow for minimum 1200mm of asphalt removal/replacement and excavation/backfill for the area affected by the concrete brick support install.

.10 Q. Section 04 21 13.13, 2.1.1 Specifies veneer to be concrete units Size 90x190x390mm. Texture and colour to be selected. There is a wide variety of finishes , colors and suppliers and pricing can vary substantially. Is it possible to be more specific to what is required for veneer units?.

A. Allow for selection from manufacturer's full range.

.11 Q. Please provide detail of millwork item EQ-26 work bench butcher block as listed on A14.2.

A. EQ-26 is not intended to be a custom millwork fabrication. The butcherblock work bench should be supplied by the same source as the stainless steel work bench EQ-24.

.12 Q. Is existing roof under warranty?.

A. Yes, the manufacturer's warranty is still active.

.13 Q. On the Casework Schedule, The chairs CW23 and CW31 are shown and differentiated with two tags. 1) What is the difference between the "Lab Chair" and the "Lab Stool."? These items are not indicated in the lab casework section. 2) If this section is to provide these, please provide more information about them so we can price accurately. Heights and material specifically.

A. The task stool has height adjustment for a counter height of 915mm or higher. The task chair is appropriate for 737mm high counter surfaces..

.14 Q. Paragraph 2.3 in specifications call for an epoxy resin pegboard. With all of the stainless steel cabinets and countertops in these rooms, would you prefer the pegboards, (Glass Drying Racks) to be stainless steel also? These pegboards can also be made in 316 stainless steel like the rest of the spec. Unsure why epoxy is specified.

A. Stainless steel glass drying racks will be accepted.

.15 Q. Paragraph 2.5.8 calls for the flammable storage cabinets to have paddle style handles. our cabinets have a 3-point locking door and lockable twist handle. Is this acceptable?

A. Locks are not required. Hardware to meet minimum accessibility code requirements (CSA B651-18).

.16 Q. Room FL 105 plan shows 3 chairs or stools? They are elevated 5 times, and only one CW23 lab stool is tagged. What is required for seating in this room? is the schedule correct?.

A. 2 chairs, 1 stool. See criteria identified in line 237..

.17 Q. Room FL 105, details 12/A03.5. Is there a CW16 tag missing for the cabinet underneath the middle table?.

A. No, the components from the opposite side of the peninsula are showing up in the background.

.18 Q. Elevation detail 15/A03.5 shows nothing supporting the countertop. Are those cantilever supports from the wall supporting the countertop? If so, should they be tagged and indicated in the casework schedule? There appears to be 5 of them. Please confirm. Maybe these are what should support the tops on details 4 and 7 on drawing A03.5?

A. Provide type 316 stainless steel brackets at 900mm OC. Assume same counter weight capacity as adjacent casework components.

.19 Q. Room FL 106 East, detail 17/A03.5 shows a chair or stool. But it's not tagged. Which is it? Is this counted in the schedule?

A. The seating should be a stool. Bidders to verify quantities.

.20 Q. Elevation 10 on drawing A03.3. The floor plan shows the countertop extending all the way to the wall on the right side behind the fume hood. Yet the table does not. Does the countertop end at the last leg, or do we extend it to the wall. What is supporting the countertop at the wall? (Are the tables meant to be moveable or fixed in place?)

A. Countertops to be continuous as shown. Cleat or bracket to be provided to suit installation..

.21 Q. Floor plan detail 1/A03.5, room FL-105 shows a quantity of 12 tables in the middle of the room, These are all to be moveable, so each table will have its own countertop. Is this correct?

A. Provide continuous counter as shown. Bases to be modular as specified..

.22 Q. Elevation 9 on drawing A03.5. The floor plan shows the countertop extending all the way to the wall on the left side. Yet the table does not. Does the countertop end at the last leg, or do we extend it to the wall? What is supporting the countertop at the wall? Do we need to add another mini table here over the CW05? Is this picked up on the Casework Schedule? (Are the tables meant to be moveable or fixed in place?)

A. Countertops to be continuous as shown. Cleat or bracket to be provided to suit installation.

.23 Q. Electrical: Is it possible to confirm the dimensions for the wire basket required ? 4" deep x 12 " wide ?.

A. These dimensions are correct.

.24 Q. Can we confirm that the structured cabling scope of this tender is not included within this scope and is provided by Shared Services Canada?.

A. The only structured cabling scope to be carried by this contractor is the system surrounding the camera for the autonomy lab (FL-047). All other structured cabling to be completed by SSC..

.25 Q. On the power plans, there are several references to equipment numbers. I am assuming these pieces of equipment are specific to each area (ie lab equipment as opposed to mechanical equipment) Is it possible to get a list of these pieces of equipment ?.

A. The equipment is listed on ME1.4..

.26 Q. Is it possible to get a schedule of mechanical equipment along with a responsibility matrix (who provides means of disconnect, VFD's etc...).

A. See ME sheets included in drawing package.

.27 Q. Can we assume it is standard wiring methods (EMT) within the areas defined as exposed to salt air?.

A. All items exposed to salt water environments shall be stainless steel 316 or corrosion resistant.

.28 Q. Note 2 on drawing E-06.2 refers to Panel "6EPM1" in regard to digital metering. Is it possible this should read panel '6SPM1" ? I can't seem to find the referenced panel on the riser..

A. Correct, this panel should be labeled 6SPM1..

.29 Q. On drawing E01.1 there is a note to relocate existing services to accommodate footings for a new corridor. Because of unknown conditions within this area, it is difficult to quantify this value. Is it possible to assign an allowance to this scope and it be addressed separately so as to ensure all bidders are taking the same approach?

A. No allowance will be provided for this item..

.30 Q. Please provide specification section and details for the Acoustic Wall Panels listed on the Finish Schedule?

A. Refer to Spec section 09 51 53 for product. Use manufacturer's instructions for direct fastening to wall.

.31 Q. Is the commissioning plan to be a cost carried by the GC?

A. Sections 01 91 XX and Appendix A (Commissioning Plan) within the specifications clarify the responsibilities of the contractor.

.32 Q. Please provide a section through Pump Room FL-053 to show information and details regarding the wall construction, juncture to roof, juncture to existing building wall, roof parapets, etc.

A. Refer to clarification details in addendum.

.33 Q. Reference section 10 56 53 Net Drying Racks. Is this an item that is manufactured or is it a custom built piece? Can you suggest some manufacturer's of this product, or provide some sketches of these 4 items? The description isn't descriptive enough to understand what is required.

A. Custom solution that may include manufactured parts that shall meet requirements to pully lift 4 next for drying at height indicated.

.34 Q. Drawing A03.7, section 10 shows a single EQ-62 at the top of the shaft. The equipment schedule on A14.2 indicates that 4 drying racks are required. Please clarify.

A. 4 nets must be dried at one time. Also refer to specifications.

.35 Q. The Glazed interior partitions in section 10 22 53, do these units come pre-glazed from the manufacturer? Also, can you please tell us specifically which interior partitions this specification is referring to? The partition schedule does not list any glazed partitions.

A. First floor glazing facing FL-050. See interior glazing types on A04.2.

.36 Q. Please confirm phase and voltage of building for the standup counterbalance forklift charging stations. Will this be a single, two or three phase system? And what is the max voltage?

A. Refer to revised specification in addendum.

.37 Q. Is there a certain R-value or thickness that the ballast tank cover needs to achieve / be?.

A. 75mm minimum.

.38 Q. Section 13 15 00 item 2.5.1 describes the tank cover system as being capable of multiple configurations. Can you please elaborate on what this means? Should the cover be made up of a number of sections, that can be secured together or removed individually? Please provide more information on this item to allow us to price the proper thing.

A. It must be possible to remove the cover in equal segments approx. 1200 wide. These segments attach to each other to form a single unit covering the complete tank. See 1/A03.1.

.39 Q. How many submersible luminaires (and supports) are required at the Ballast Tank?.

A. 2 Units as per A09.8.

.40 Q. Drawing E04.2 - 103MM conduits that are installed between telecom room and corridor that are installed in ceiling of room FL-050, will these conduits be PVC and the junction box have to be stainless steel?

A. Conduits and junction boxes shall conform to spec requirements.

.41 Q. Drawing E03.1 - Are the electrical devices that are indicated on block walls be flush or surface mount?

A. Devices on block walls are to be surface mounted.

.42 Q. On mechanical plan #M01.1 there are many new trench drains indicated, but the majority of them do not have any assigned tags next to them. Can you please revisit this page and assign tags to each new trench drain?

A. Trench drains are identified by either note 3, 4 or 5. The notes on the left side of the page identify what type of drain it is.

.43 Q. Sediment interceptors – the provided specifications are vague on dimensions required for these units. Can you please provide a minimum dimension in size, depth that they must be please to make it easier for us to get pricing?

A. Sediment interceptors are minimum inlet/outlet size of 75mm diameter.

.44 Q. On mechanical plan #M01.1, GL #17 & #U – there is mention of a Fresh Water Storage Tank, to be provided by division 22. I am unable to find any specifications on this tank within the spec sections provided. Can you please provide any specifications on this storage tank for our review, and allow us to get pricing?

A. Fresh water and dunk tanks have been spec'd in Addendum, sketches SKM2 and SKM3.

.45 Q. On mechanical plan #M01.4, GL #16 & #T-U – there is what seems to be an equipment / fixture tag “BF”. Can you please confirm if this is an equipment / fixture tag? If it is, can you please provide specifications for this item for us to review and get priced?

A. SS-2 is specified in section 22 42 16. BF signifies Barrier Free.

.46 Q. On mechanical plan #M01.2, GL #15-16 & #T – there is “DW” tag indicated here. Can you please advise which dishwasher this is on the Equipment Schedule provided within the architectural plans? Item EQ-20 (Owner Supplied & Owner Installed) or EQ-31 (Owner Supplied & Contractor Installed)?

A. EQ-31 on drawing ME1.4, Miscellaneous Equipment Connection Schedule.

.47 Q. On mechanical plan #M04.3, detail #1 – there are mention of “gutter drains” and a “sand filter” among other items not mentioned within the specifications provided. Are these items that are not mentioned in the specifications supplied and installed by others?

A. Gutter drains and sand filter are for the Ballast tank, and are specified in addendum No. 1, section 22 67 00, paragraph 2.3 Ballast Tank Equipment.

.48 Q. The extent and thickness of the concrete topping on the First floor is a bit confusing. Floor finishes plan A11.2 indicates a shaded area with note 3 as being

100mm topping. This plan also shows a concrete hatched area south of the shaded area. S01.2 indicates that a concrete topping is needed in the area that seems to match up roughly with the concrete hatched area on A11.2. Please clarify the difference and extents between the area with Concrete slab on Steel deck vs a Concrete "topping".

A. Floor structure of FL-123 is comprised of existing floor and new floor (see note 4 on A11.2 for transition), and S1.2 for new floor type. Sloped topping is in addition to, and applied on top of, existing and new steel deck with concrete topping.

.49 Q. Does the parapet detail 1/A07.4 shown to be at grid line "R" apply to all of the perimeter parapets around this portion of the building? Example: GL 9, GL U, South of GL U, Between GL 9&10. There are no call outs along these areas to determine which parapet detail is required.

A. Quarantine Lab Parapet detail is typical for the noted portion of building.

.50 Q. The finish plans, drawings A11.1 and A11.2 indicate that most of the floor slabs have slopes at 2%. Room FL-123 Mechanical Room indicates a 2% slope in a long north/south direction that would result in a drop of 205mm. Is the metal deck sloped in this area? If not, please revise the slopes in this area to accommodate the thickness of the concrete slab.

A. Metal deck is not sloped. 2% is max slope. Slope can be less at distance from floor drains and to match the north floor level.

.51 Q. Is it possible to use stainless steel embedded angles for the floor drains in lieu of the FRP embedded angles? If it is acceptable, please specify the type of stainless that is acceptable.

A. No

.52 Q. Sections 3 and 4/A06.1 and section 5/A06.3 seem to show as suspended ceiling in rooms where deck mounted ACU's are indicated in the reflected ceiling plan and finish schedule. This is creating some confusion. Please clarify if these suspended items are meant to represent suspended light fixtures, or a suspended ceiling.

A. 4/A06.1 First Floor ceiling is open with ACUs and a suspended luminaire. This is consistent with the other drawings and schedules.

.53 Q. A01.1 Note 11 states remove door & frame, Existing rough opening to remain. It is the assumption that these same opening locations on A02.2 where new door and frames installed in existing rough opening will not require work to the opening surround. Please confirm.

A. Contractor is to prepare existing rough opening to receive new door and frame of same/similar size.

.54 Q. A03.1 please advise what is wall type for interior walls of cooler FL030 & freezer FL031.

A. Refer to specifications for cooler and freezer requirements.

.55 Q. Section 042113.13, 2.1.1 Specifies veneer to be concrete units Size 90*190*390. Texture and colour to be selected. There is a wide variety of finishes, colors and suppliers and pricing can vary substantially. Is it possible to be more specific to what is required for veneer units.

A. Veneer units to meet performance specifications. Color and texture of units to be selected by Departmental Representative from manufacturer's full range.

.56 Q. Is the existing sprinkler system charged and active?

A. Yes.

.57 Q. The cover for the ballast tank, is there a basis of design for the specification?

A. The cover for the ballast tank is a custom manufactured product produced by a supplier specializing in similar products.

.58 Q. Dwg A02.3 at gridline U & 10 (within ST-001). What does the wall shown in yellow represent? Please clarify assembly..

A. Both are partition type P6.

.59 Q. Please clarify Partition Type P4D as shown in Detail 4/A06.3, on Gridline S. It is not listed in the Schedule of partition types..

A. P4D is same as P7.

.60 Q. Please clarify this note shown on A02.2. What type of material and to what height? 10. Remove adhesive and prep column to smooth finish ready for paint..

A. Appears to be construction adhesive. Full height of face of flange. Also refer to provided building scan for visual.

.61 Q. Wall Type E1C is called out on dwg. A02.2. Please clarify where this WT starts and stops.

A. To the extent of walls at perimeter of interior of Mechanical FL-021.

.62 Q. Wall Type E1A is not listed on the A00.1 Schedule but is referred to Dwg. A02.3. Please clarify wall type E1A.?

A. Second E1 (between first E1 and E1B) in this exterior wall types legend shall be relabeled E1A..

.63 Q. Please clarify the wall type in Detail 3/A06.1, where P3E is called out. This Partition type is not included on A00.1.

A. Revise all instances of partition tag P3E to P6..

.64 Q. On the North Elevation page A04.1/1 where there's part of the building missing between grid 10 & 11 do the IMP panels start at the ground level or should it be similar to section A06.3/3?

A. Section is similar to 3/A06.3. See sketch in addendum for elevation.

.65 Q. Can you confirm if any of the insulated metal panels are to be fire rated? The spec does not specify any fire rated panels nor do the wall types on the drawings. If some of the IMP is to be fire rated please specify the locations.

A. First floor soffit IMP on north side is fire rated mineral core. Refer to details for location and type. Core specifications are within 07 42 13.19.

.66 Q. Spec section 05 21 00 item 2.1.4 indicates hot galvanizing for structural steel. Spec section 05 21 00 item 2.1.4 indicates shop paint primer to CISC/CPMA 2-75 for steel joists. Spec section 05 31 00 item 2.1.1 indicates G90 galvanized for the steel deck. Please confirm the finish for structural steel. It is atypical that the OWSJ would be prime paint while everything else is galvanized. The existing structure also appears prime painted. The structural drawings also read as typical where galvanized finishes are noted at select locations only. Can you please verify where galvanizing is required vs prime paint?

A. Spec section 05 12 00 relates to structural steel - Provide galvanized steel where indicated on the structural drawings. The majority of the structural steel will not require galvanizing.

Spec section 05 21 00 relates to steel joists and does not require galvanizing.

Spec section 05 31 00 relates to steel deck and requires G90 galvanizing for all steel deck.

See painting specifications and architectural drawings for additional coatings on steel elements.

.67 Q. Can you please clarify where/what Tag B1 is (it is found on the M&E 1.3 schedule). It is under boiler however there are no specs or manufacture given.

A. B1 is the steam generator in Autoclave Room FL-015..

.68 Q. Is the epoxy wall coating noted in spec 09 96 59 required to extend to the underside of finish ceiling only?.

A. Yes .Refer to Room Finish Schedule for wall and ceiling finishes.

.69 Q. Reference spec section 09 96 59 – please confirm the requirement for 3mm thick. Typically this is 15-20 mils for wall coatings.

A. 3mm is correct. This is a trowel on product.

.70 Q. spec section 09 67 23 item 2.2.2 – can zinc cap strips be used in lieu of stainless steel? / In the Epoxy Flooring section # 09 67 23, paragraph # 2.2.2 Cove cap strips: Stainless Steel , Type 316 is mentioned: We typically use Zinc strips for epoxy floors, our Terrazzo suppliers does not carry those. I've tried to find some online and I couldn't find any. The only stainless strips I've found are Type 304 and the price are 4x more expensive. Do you think we can use the zinc strips instead? I'm not sure why it would be a problem, they don't rust.

A. Yes this is acceptable.

.71 Q. The finish schedule on A00.2 indicates "EPT (Epoxy Paint) and "HBEC" (High Build Epoxy Coating). Specification 09 91 00 lists some applications of "Epoxy High build" over epoxy primer or latex sealer. Specification 09 96 59 describes a High-Build Epoxy Coating. Can you please clarify which specification applies to which abbreviation in the finish schedule.

A. With reference to the Room Finish Schedule: Section 09 96 59 applies to HBEC. Section 09 91 00 2.6.5.2 applies to EPT.

.72 Q. Sections details through windows indicate an HPDL sill. The sills cannot be identified in plan view to determine where they are required. Please clarify where individual HDPL sills are required, and where continuous sills are required.

A. All windows require HPDL sills. Strip windows require continuous sills.

.73 Q. Are we able to use 168mm pipe bollards (stock material) in lieu of the 250mm bollards shown? 250mm pipe is uncommon, expensive, and likely overkill for this application.

A. 200mm is acceptable.

.74 Q. S01.1 wall BW10 & BW20 call out vert reinf. #15M @400 c/c. I don't see any vertical reinforcement called out for the remaining CMU walls. Please advise if required?

A. Masonry reinforcing as per specifications.

.75 Q. For new exterior concrete walls (Wall Types E9 & E10 as described in exterior wall Types list as found on A00.1), it calls for waterproofing membrane below grade. Please confirm if waterproofing is required, as there is no basement, and existing adjacent walls appear to not have a waterproofing membrane installed.

A. Waterproofing membrane to remain.

.76 Q. Section 01 11 00 General Instructions Item 1.3.3 reads "Work of Project executed prior to start of Work of this Contract, and which is specifically excluded from this Contract: .1 Temporary shoring and protection." Please confirm all shoring & protection will be completed by others, and will not be required to be included with General Contractors pricing.

A. Shoring has only been provided by others to support the building in its current condition. It will remain in place for the Contractor taking over the site for this Contract. No additional shoring will be provided for this project by others. The Contractor is responsible for providing all shoring required to execute the work of the Contract as per the drawings and specifications.

.77 Q. here are numerous reference to other contractors, to be clear, the general contractor awarded this contract completes all of the work within our contract boundary – correct

A: The successful bidder is responsible for all Work described in the Plans, Specifications and Addendums. Any references to sub-contracted work shall be the responsibility of the successful bidder of this solicitation. For example, but not limited to, "Electrical Contractor", "Mechanical Contractor", "Specialist", etc. all are the responsibility of the Contractor that is awarded this Contract. If the Contractor is not responsible for a particular task, it is noted as the responsibility of the Departmental Representative. For example, the Departmental Representative is responsible for providing the Commissionaires to escort into secure areas.

.78 Q. Is the existing structure to be covered by our insurance? If the existing building is to be covered by our insurance, please provide the approximate value for our insurers to include coverage.

A. Refer to Solicitation. Existing building value not assessed.

.79 Q. Is there any further information for the signage? I see in the spec they have listed some approved materials, however, there are no sizes listed. I will need to know what sizes are required for each sign type in order to quote this part of the project.

A. Refer to 10 14 00 Signage, 2.1.

.80 Q. Is it acceptable to change the profile to shadowline on both faces with embossed texture? (07 42 13. 19 Spec. section) The smooth flat face max height is 24' Panels. Panels for this job reach 28' heights.

A. Refer to addendum for additional acceptable profiles and face textures.

.81 Q. There is anticipated concerns on PVDF IMP finish availability for the rest of this year and most of next. Is a SMP paint finish acceptable?

A. No.

.82 Q. Also at the 2hr fire rated wall are we to change from a 4" IMP to a 6" fire rated panel?

A. No.

.83 Q. We are unable to find a laboratory sterilizer that meets the performance specification as noted in Section 11 53 19. Please indicate which manufacturer / product was used in developing the performance specification.

A. Refer to revised 11 53 19 issued in addendum.

.84 Q. Section 11 53 19 2.1.2 indicates the chamber cross section of 660 x 1550mm. Please indicate the depth required.

A. Refer to revised 11 53 19 issued in addendum.

.85 Q. Is the laboratory sterilizer to be fed with building steam or is the sterilizer to be equipped with a steam generator?

A. Refer to revised 11 53 19 issued in addendum. Sterilizer has built in steam generator.

.86 Q. Demolition Notes #3, 7, 15 & 16 as found on A01.4 read " ... Infill rough opening as indicated (Refer to construction plans and elevations)." Construction plans and elevations do not provide detail on infills. Please provide detail / wall assembly required for infill of rough openings.

A. Additional infill is not required. Refer to details for new wall construction.

.87 Q. Please confirm that NSF 61 certified FRP is required?

A. Not required.

.88 Q. Please confirm if existing section of slab on deck within Room FL-123 is to receive a concrete topping in order to achieve sloping as shown on Dwg. A11.2 & S01.2.

A. Yes, sloped topping with floor finish in addition to the structural topping.

.89 Q. Please confirm if new section of slab on deck within Room FL-123 is to receive a concrete topping in order to achieve sloping as shown on Dwg. A11.2 & S01.2, or if the sloping is to be achieved in the initial slab on deck pour.

A. Slope is achieved through additional topping over the structural topping.

.90 Q. Please confirm if new section of slab on deck within rooms FL-119, FL-120 & FL-122 are to receive a concrete topping. Section 202/S02.2 indicates a concrete topping, while section 204/S02.2 does not.

A. Yes, they require additional topping.

.91 General Note 8 on drawings A00.1 states all interior partitions extend to underside of floor and roof deck unless noted or detailed otherwise. Details 5/A09.2 & 6/A09.2 show steel stud & drywall on top of masonry walls as a typical detail. Please clarify this drywall detail applies to all first floor masonry walls.

A. Applies to all first floor masonry partitions. Load bearing masonry partitions may differ. Refer to drawings.

.92 Q. Please clarify detail 3/A06.1 & 4/A06.1. Ceiling is drawn as a suspended ceiling, while A02.6 and A00.2 are referencing the direct applied acoustical ceilings.

A. Suspended items at first floor level ceiling in these drawings are luminaires.

.93 Q. Please provide details of AWP (acoustic wall panel) as listed on A00.2 Finish schedule indicate AWP for north, south, and west walls of room FL-050.

A. Refer to 09 51 53.

.94 Q. Div 28 section 2.3 calls for a 32TB server, and Addendum 2 Add sections 2.4.1.10 and 2.4.1.11 as follows: .10 8TB Hard drive. - Please clarify the Avigilon workstation model required, and if a 32 TB server is to be provided. A single "8TB workstation NVR" is recommended, model NVR4-WKS-8TB-NA.

A. The 32TB server is for the existing Avigilon system. The 8TB is for the new Autonomy Lab camera system.

.95 Q. Drawing E.2 shows two camera icons with "EX" please confirm the meaning of "EX", Is this to mean Existing?

A. EX represents "existing to remain".

.96 Q. Are the 65" monitors described in section 11 52 33 to be provided in the electrical package? They do not appear in the electrical drawings, though addendum 2 states that the CCTV tower be able to "support" them. And drawing SKE-2 shows cabling and outlets, still no 65" monitors shown as a deliverable.

A. Refer to architectural for additional information. The Contractor is to coordinate responsibility for supply of equipment.

.97 Q. Section 28 23 00 2.6.1 describes a UPS however none are shown on the drawings. Please confirm if required.

A. The UPS is for the Autonomy Lab workstation as indicated in the spec..

.98 Q. Addendum 2 section 25 on page 4 calls for BACnet integration for the access control. Please confirm this not a deliverable under the electrical package.

A: The controls contractor shall integrate the access control system. The electrical contractor shall provide an access control system compatible with BACnet..

.99 Q Section 28 23 00 2.7.1 describes a KVM switch but none shown on drawing. Please confirm if required.

A. A KVM switch is not required.

.100 Q. Please confirm if the general contractor is responsible for applying and paying for the building permit for this project.

A. A building permit is not required. Costs for trade permits and all other permits are the responsibility of the Contractor.

.101 Q. Please confirm if the general contractor is responsible for applying and paying for the HRM solid waste charge, or regional development charges (wastewater & water).

A. All costs are borne by the Contractor.

.102 Q. Please confirm if there is a minimum requirement for the thickness of insulation for the ballast tank cover as specified in section 13 15 00 2.5.

A. min 75mm, but must be able to span ballast tank width without touching surface of water. refer to addendum.

.103 Q. What is the elevation of the existing grade inside the building? Is it currently at Sub Grade (underside of concrete slab)?

A. Current grade is at underside of concrete slab.

.104 Q. Are we required to install any gravels under the slab on grade? None are shown on the drawings.

A. Yes granular fill is required as per floor types. See A00.1. Refer to geotechnical for fill requirements.

.105 Q. I looked at the report and no it does not seem like pipe fittings (elbows) were tested. Looking at the site photographs there look to be a number of mitered corners and plastic jackets at the elbows which are typically indicative of fiberglass piping.

A. Pipe elbows were not tested.

.106 Q. In this drawing (S01.3) there is approx. 270 Mechanical anchors for the solar depicted, using aluminum pipe support detailed in "Section 306 Typ". Can you confirm

if this is diagrammatic, and the number of roof anchors and type is expected to be as indicated here, or is it possible to propose our own roof anchor?

A. No anchors required. Revised to ballasted system in addendum.

.107 Q. Is the building not able to support a ballasted system, which is typical for this size, with an approx. PSF rating between 5 and 8 PSF? We would propose a ballasted system as the roof anchors spec'd are very expensive and non typical for flat roof solar.

A. A ballasted system is acceptable. Refer to revisions in addendum.

.108 Q. The PV module loading specification exceeds that of most commercially available modules that are widely used in Nova Scotia. Can the snow/wind load spec be changed to 5400kPa/2400kPa?

A. No. Provide products meeting the project specifications.

.109 Q. Wall along GL T b/w GL's 2 & 19 on Ground Floor calls for Wall Type E3A. Wall Type E3A denotes an existing concrete masonry wall. The site scan as included in Addendum #2 does not seem to include an existing masonry wall. Please confirm wall construction.

A. Masonry wall is new and in contract.

.110 Q. Detail 3/M01.7 Reverse osmosis schematic shows a duplex pump skid with a 208/ 3 phase electrical requirement, however Spec section 22 67 00 2.6.1 mentions providing (1) pump with a 120/1 phase electrical requirement. Can you clarify if we are to provide a pump skid as per the detail or just a single pump as mentioned in the spec.

A. Provide single pump as per spec.

.111 Q. Can you please provide a detail which illustrates the water connection/equipment requirements at the Sinks which are connected to the RO system. The symbol RO appears at the new lab sink locations. Does this symbol represent further equipment and if so please provide a spec for these items.

A: The RO symbol indicates a PVC deck mounted, grey PVC faucet with 150 mm rigid gooseneck faucet and serrated tip with 9mm (3/8") NPT inlet for distilled or RO water.

.112 Q: Can you confirm that there are no modifications to the existing RO system located within the Ellis bldg. and that the only scope of work required for this project is to tie into existing pipe in Ellis Bldg. and route it to the location within the Fish Lab.

A: Correct, just a tie into the existing valved connection is all that is required.

.113 Q: Can you elaborate on the remote display requirements described within Section 22 67 00 – 2.7 Is this asking for a laptop/iPad type device, does it need to be tied into the BAS system, is it supplied by the Controls contractor?

A: Remote controller not required. Just a level controller for the solenoid valve with contacts for a low and high level alarm to the BAS. Controller supplied by Div 22.

.114 Q: Are the existing units AHU-4, EF-1 to EF-5s curb to remain as indicated on drawing MD1.5 or removed and infilled as described on MD1.12?

A: Curbs should be removed and infilled.

.115 Q: Section 22 10 10 2.4 RO WATER CIRCULATION PUMP- 1.2 lps is approximately 20 us gpm but no mention of pipe sizes or configuration, single or duplex.- the drawing shows a duplex pump skid with BACnet interface and doesn't mention any of this in the specification section.

A: Single pump is required, BACnet connection is not, RO Line size is 38mm, all the way, with 12mm branches to the lab faucets.

.116 Q: Section 22 67 00 LABORATORY REVERSE OSMOSIS PIPING SYSTEM

- there is no mention of the RO specifications, size, flow rates, electrical, etc.

- is there a RO unit already in the building that we are connecting to?

- remote display for the RO unit but again no mention of the specifications for the RO unit.

A: RO pump per spec section 22 10 10, paragraph 2.4. RO system exists in Ellis Penthouse, this scope is just connection from existing valved connection in the Ellis, Level 2 mechanical room. RO unit and remote display not required.

.117 Q: Could I get dimensions of the sink for LS-2 and LS-3?

A: See Lab Casework drawings for dimensions.

Changes to Specifications and Drawings:

See Attachments

All other terms and conditions remain the same.