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Solicitation No. - N° de l'invitation EE520-151410/B	Amendment No. - N° modif. 014
Client Reference No. - N° de référence du client EE520-151410	Date 2015-02-26
GETS Reference No. - N° de référence de SEAG PW-\$QCM-009-16291	
File No. - N° de dossier QCM-4-37219 (009)	CCC No./N° CCC - FMS No./N° VME
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QCM-4-37219

CCC No./N° CCC - FMS No/ N° VME

AMENDMENT 014

Content of amendment 014:

1) Questions and answers #453 to 517.

1) QUESTIONS AND ANSWERS

Question 453

Refer to plan A-110b. Should a heat-welded membrane (specification 07 13 52) be installed on the new basement foundation walls? Please provide an MF-XX composition for these walls.

Answer 453

No, but apply bituminous damproofing. See answer 397.

Question 454

Refer to specification section 07 11 13. Where should the bituminous coating be installed?

Answer 454

See answer 397.

Question 455

Should all slabs on grade and slabs on decking have synthetic fibre? If not, please specify which should have the synthetic fibre.

Answer 455

Yes, synthetic fiber is present in all slabs.

Question 456

Please specify where the snow guards should be installed from point 07-162, detail 5, plan A-440D.

Answer 456

See drawing A-115a Rev 1 in addendum 1 and drawings A-115c revised on addendum 5 to follow.

Question 457

Would it be possible to clarify who will do what on the ridge cresting and spires?

Answer 457

See specifications, sections 05 70 10 and 05 70 11.

Question 458

Some plans show the same note as the one included in plan M-431, which indicates in note #2 that all visible ducts must be black. Who is responsible for painting?

Answer 458

Section 09 91 23 Interior painting. See section 09 91 23 modified in addendum 4.

Question 459

In ventilation plan M-430, there are 2 PVC ducts, 1050 mm in diameter, provided by section 23. Which discipline is responsible for them? Plumbing, heating/cooling networks or ventilation?

Answer 459

All notes included on the drawings are part of the work on these, e.g. M-400 series – ventilation work.

Question 460

In plan M-460, detail #3 is not clear. Please indicate to what that detail refers.

Answer 460

Detail is cancelled.

Question 461

Do I need to provide a price for each of the three choices of carpet, or can I provide a single price for the least expensive of the three? We are submitting to BSDQ and there is only one box for the project price.

Answer 461

When 3 products are identified as acceptable, the supplier can submit a price with one of the 3 product, at its option.

Question 462

We believe that the work described in section 04 11 00 falls more under the steel structure specialty than the masonry specialty. The sections, details and structural drawings on page 5 of 5 of section 04 11 00 show anchors that serve to support steel structures with no connection to masonry works. Please consider this suggestion and make the appropriate corrections as needed.

Answer 462

See addendum 5.

Question 463

Question canceled.

Question 464

Refer to section 28 13 00, subsection 3.32.2

The section specifies that the contractor must provide 12 hours of training to managers of the electronic key storage cabinet. Who will supply the electronic key storage cabinet?

Answer 464

There is no electronic key cabinet in the project. A correction will be made in the next addendum.

Question 465

Electricity question:

- a) From answer #89, we understand that each discipline will be responsible for managing asbestos removal. This means that each contractor is responsible for demolition in high-risk asbestos conditions. Would it not be preferable to have appliances and ducts removed by the person responsible for asbestos removal as soon as asbestos is detected?
- b) From the answer to question #98, we understand that workers must wear Tyvek suits and masks with cartridge filters at all times during construction work, since they will be working in a high-risk area. Is this accurate?
- c) Should each division and each subcontractor buy asbestos insurance?
- d) In general, when there is a high asbestos risk, all drilling in walls and ceilings is done by a company specializing in asbestos. Is that the case for this project? Will it be the responsibility of the general contractor?
- e) Following addendum 1, you issued sketch #2 for plan E-501, typical detail – fire-stop waterproofing. Would it be possible to clarify in which sector we should use this type of sealant?
- f) On diagram E-507, a cat 5 cable is requested from the patch panel to the SGB. Which is the SGB and where is it located?
- g) On plan E900, will the underground ducts for guard houses, the temporary trailer and the Parc des champs-de-bataille substation building be removed by the civil division?
- h) On plans E-900 and E-903, should the work to remove the wiring between the Parc des champs-de-bataille substation and isolating switch 300A in room 019A be performed by a certified Hydro Quebec contractor?
- i) In the specifications, division 26, there is no section regarding variable frequency drives. Will these be supplied and installed by division 23?

Answer 465

- a) It is required to have specialized contractor in asbestos removal: Refer to Section 02 82 00.03 for requirements, procedures and proposed sequence of work for demolition.
- b) No, again, refer to Section 00.03 February 82
- c) If subcontractors identify tasks involving materials containing asbestos then it should have a clause in their insurance coverage for asbestos.
- d) yes, what is known and to achieve is identified in the tender documents.
- e) This detail applies to sleeves crossing fire-rated partitions and conduits terminating after crossing fire-rated partitions for telecommunication cabling. The required device is dismountable and allows adding future cabling. A detail for sealing around a conduit crossing a fire-rated partition will be added in upcoming addendum.
- f) It is the building management system located in the mechanical room in the basement of the central building (room S100-14a).
- g) Demolition of conduits and concrete ductbanks is done by civil. Removal of cables is included in the scope of electrical works.
- h) Contractor is responsible for obtaining all licences required by authorities.
- i) Variable speed drives are provided and installed by division 23, and connected by division 26.

Question 466

Reference: plan A456, detail 7/456.

Section 5-011 mentions retaining rods for pediments (3 per pediment). Are these elements not requested in structure? Who will supply them and how will they be made?

Answer 466

By structure. See new structural sheets issued on addendum 1.

Question 467

Ventilation:

- a) Would it be possible to get the names of the products specified and/or equivalents for the following elements, which do not appear to be indicated in the specifications or in the equipment tables:
 - 1. Silencers – the equipment table indicates that this is in section 23 33 00, while it should be 23 32 48.
 - 2. Air-to-air recovery equipment – only the technical characteristics are listed in section 23 72 00.
- b) For diffusers and grilles (23 37 13) as well as terminal boxes (23 36 00), are products such as Titus, Nailor, Krueger considered equivalent to those specified?

Answer 467

- a) 1. Addendum coming
- 2. All respecting the technical characteristics. More details, addendum coming.
- b) All mentioned product in specification are considered as equivalent. Particular attention will be made for grilles and diffusers submitted for multifunctional room, "Foyer" and Memorial Hall (QM).

Question 468

Under what division does the 14" corrugated steel covering for composite walls MF-16, MF-17, ME-16, ME-17, ME-17.1 and ME-18 fall? Would it not be preferable for these coverings to be installed by metal cladding specialists rather than a covering subcontractor? Please clarify.

Answer 468

Corrugated steel cladding will be added to section 07 61 00 in addendum to come.

Question 469

Refer to answer 39, amendment 005. The response indicates that the answer will appear in a coming addendum. Will this addendum be issued soon? The answer is still not available.

Answer 469

Response to question 39 is: class 150 sleeve.

Question 470

When openings are made in masonry walls for a new door or window or an existing opening is widened, who is responsible for the temporary shoring work?

Answer 470

Shoring by the one in charge of the openings in masonry.

Question 471

Insulation questions:

- a) On plan M430, there is a range hood. Should it be insulated with fire resistant insulation or enclosed by a fire resistant box to clear the appropriate space in accordance with the standards? You do not specify and there is no information in specification section 23 07 13. Please specify how this range hood should be insulated.
- b) Should the fan coil air distribution ducts be insulated?

Answer 471

- a) See addendum 5.
- b) As provided in the specifications 23 07 13 "Table 3.5 - Thermal Insulation for air ducts" no matter what type of equipment.

Question 472

Questions regarding fabricated metals:

- a) Refer to plan A766
 - 1. Sections 4 and 5: What hardness is the neoprene (note 35)?
 - 2. Typical detail – trench plate, note 13 does not correctly describe the material illustrated. Please clarify.
- b) Refer to plan A436
Section 2, curtain wall holder: the detail regarding concrete/steel holes for threaded rods (note 5-112) is problematic because the only way to drill through concrete and steel is by using diamond drilling, which is very expensive. In addition, this detail seems inadequate for holding curtain walls. Can you clarify?
- c) Refer to addendum 3 - A003 page 9 of 186
Section .16: Does this section apply exclusively to note 127? Should it not also apply to expanded metal, i.e. note 121? Please confirm.

Answer 472

- a) 1. Neoprene Doro 80
2. See addendum 5
- b) The means and structural elements for the implementation of the curtain wall will be the subject of shop drawings, sealed by an engineer in order to validate the proposed solutions.
- c) Expanded metal specification is detailed on section 05 50 00. See addendum 4.

Question 473

Where in the specifications is 13 mm lightweight concrete sheathing mentioned? Standard surface or rugged surface? Who supplies it?

Answer 473

Lightweight concrete panel sheathing does not appear in specifications. It will be added in the next addendum in section 06 20 00. Section 06 20 00 supplied lightweight concrete panel sheathing to the following sections and will be installed in each of the following sections:

- 06 10 00 Rough Carpentry
- 06 20 00 Finish Carpentry
- 07 52 00 Modified bituminous membrane roofing
- 07 62 00 Sheet metal flashing and trims

- 09 21 16 Gypsum board assemblies
 - 09 22 16 Non structural metal framing
- *****

Question 474

Could the detail of section 15/A301 be provided as indicated on sheet A609 detail #7?

Answer 474

This staircase is described on sheets A-421a, A-422 and A-423. See sheets A-422 and A-423 revised at addendum 3.

Question 475

Could details on staircase #19 be provided as shown on sheet A609?

Answer 475

Stairs no.19 & no.20 construction and its handrails are identical types of materials and details of staircase no.27 at the north end of the pedestrian bridge. Staircase no.27 is illustrated on sheets A-423 and A-425. See especially sections 10 and 18 on sheet 423 and detail A-2a/A-425. Both sheets have been revised in addendum 3.

Question 476

Could details on staircase #20 be clarified as shown on sheet A609?

Answer 476

See answer 475.

Question 477

Could a section be provided for the prefabricated concrete treads shown in item #35, sheet A605?

Answer 477

Addendum to come.

Question 478

Could the missing notes on sheet A-613 be provided (Notes #75, 175, 172, 174, 176)?

Answer 478

See addendum 5, revised detail 9/ A-613.

Question 479

Where do the sections indicated below go?

Type	Diamètre de l'ancrage	Diamètre du trou	Longueur total	Longueur gaine/coulis	Quincaillerie	Surcharge d'utilisation, non pondérée	Emplacement	Dessin(s)	Quantité
D1	20mm	50	550	450	Bout Simple		Coupe 1	S-643	
D1	20mm	50	550	400	Bout Simple		Coupe 6	S-643	— ?
D1	20mm	50	600	450	Bout Simple		Coupe 10	S-645	— ?
E1	25mm	65	625	550	Bout Simple		Détail D	S-522	— ?

Answer 479

Addendum to come.

Question 480

Reference Question/Answer #181:

Regarding the ducts in the central part, level 3, the ducts are considered exposed as indicated in Question 181, but exposed ducts in a section ventilated by them do not need to be insulated, because the ventilation ducts are at the same temperature. Do they need to be insulated?

Answer 480

As per specification. Please, verify alimentation temperatures provided. The assertion is not accurate. See answer 471.

Question 481

We have a question concerning the percentage of slope indicated in the specifications. The Architectural specifications, at section 07 52 00, page 8 of 14, require that sloped insulation be installed with a minimum slope of 2%. However, on sheet A-001.2, the composition of roof type T-2 requires a slope that is less than that indicated in the specifications. Please clarify.

Answer 481

T-2 composition is for a marquise roof (canopy). The slope of 1% is accepted for roof marquises (canopies).

Question 482

a) Where can we find the Z-bar for exterior walls in the specifications? The Z-bar that is generally in urethane or board insulation? Not the one that is used as nailing strips for exterior cladding panels.

- b) On drawing sheet 212a, "Existing Plaster" is indicated for room 203-01, but on sheet 441 the gypsum board on the gable seems to be new. Please clarify.
- c) With regard to the ceiling of room S100-31 on the ceilings drawing, detail is lacking. The schedule of finishes indicates SA. But details 9 and 10/423 indicate gypsum board, and the same appears in details 5 and 6/427? Please clarify.
- d) Who is responsible for laying out steel stud partitions?
- e) In room S-100-22, is there really gypsum board on the foundation wall? See detail 1/415.

Answer 482

- a) See section 05 50 00.
- b) Existing plaster refers ceiling covering of the arched section , visible from inside the room. A new gypsum sheathing is required on the inside of the roof, visible from the ceiling plenum , as shown in the composition T -8.
- c) Finish schedule will be modified in upcoming addendum to replace SA by painted gypsum.
- d) Section 09 22 16
- e) Refer to wall composition identified on this detail.

Question 483

Regarding the shelter for bikes and recycling bins:

- a) What type of foundation is required? (type 1 or type 2)
- b) Which payment item should used for the footpath in this area? There is no item for this work in the civil engineering table.

Answer 483

- a) If referring to foundation anchor rods : type 2.
- b) Refer to the C- 07 plan and specification section 01 29 00.

Question 484

The structure for the sunscreen indicated on sheet S-698 is stainless steel. Specifications section 05 12 23 does not indicate any stainless steel materials. This structure appears to be indicated also in section 08 44 13. Who should include this structure: the structural steel subcontractor or the curtain wall subcontractor?

Answer 484

Refer to section 08 44 11-Curtain wall for these items.

Question 485

Reference to addendum ME-04, drawing M-603 concerning concrete bases: is it correct that housekeeping pads will be done by the structural division and inertia bases will be done by the division or divisions concerned (e.g., plumbing/heating)?

Answer 485

Exactly, housekeeping pads are among the structural work and inertia base are among mechanical work.

Question 486

These questions relate to asbestos conditions and responsibility:

-
- a) During the demolition phase, it is indicated that each division is responsible for their own demolition. That means there will be perhaps five or six trades involved in demolition work in an area where the asbestos risk is high. In the event of a problem or failure by a worker to follow procedures, who will be held responsible for the repercussions and the additional costs incurred?
 - b) According to ASP Construction, all workers are required to complete the relevant training and hold a card issued by ASP Construction for asbestos work. Also, demolition work in a high-risk area should be assigned to just one specialized contractor to minimize risks and ensure that the work is supervised effectively; that's what is done for all construction projects in Quebec City. Shouldn't you hire just one contractor specializing in asbestos work in order to minimize risks?
 - c) Since the project involves a high risk of exposure to asbestos, buffer zones should be established to provide for waste removal and showers and change rooms for workers. If 30 workers from eight different trades do their own demolition work, it will be impossible to supervise the work effectively and impossible to determine who failed to follow the rules if the job site needs to shut down for decontamination. Please indicate your position with regard to these issues.
 - d) Once demolition is completed, when a contractor needs to drill holes to run conduit, install anchors or do seismic protection work, will the site be in a constant state of high risk? What procedures will need to be followed in that case: will all workers on the site be required to wear Tyvek suits, dust masks and goggles? Will every contractor need to install an airtight enclosure for every hole they make?
 - e) Who will be responsible for providing airlocks, showers and containers and for removing asbestos waste from the site?

Answer 486

- a) Refer to the procedures and sequence of demolition suggested in Section 02 83 00.03. It is required that the demolition and removal of asbestos contaminated areas is done by a specialized asbestos removal contractor.
- b) This is what is indicated in the documents.
- c) Once most of the demolition and asbestos removal is completed, minor procedures (e.g. minor openings to pass wiring or fixing equipment) that involve contact with cement plasters or residual lead paint should be evaluated on the risk they present, and the method of work for each.
The work of openings (with a diameter equal to or less than ¾ inch (18 mm)) to achieve in cementitious materials containing asbestos following the completion of work areas contaminated by asbestos in specialized contractor can be made with tools equipped with a manifold to the source connected to a vacuum cleaner with a functional HEPA filter. This work should be carried out in accordance with the requirements for a low-risk site.
In situations where the perforations or openings are expected to exceed ¾ inch (18 mm) and the debris generated will be less than 0.03 cubic meters, the work must be performed in accordance with the requirements for a medium-risk site.
In situations where the openings or openings should be greater than ¾ inch (18 millimeters) and whose debris generated will be higher than 0.03 cubic meters but less than 0.3 cubic meter, the work must be performed in accordance with requirements for a high-risk construction site. If exceeded 0.3 cubic meter of debris in the same area, the work will be performed at high risk.
Finally, during these interventions it is required to provide for the application of an encapsulating of all cementitious materials containing asbestos uncovered following these interventions.
- d) See previous answer c)
- e) These items are included in the working procedures in high-risk planned. The subcontractor specializing in decontamination obligation to provide them during the implementation of these work areas.

Question 487

Is the capacity of the existing masonry walls sufficient to bear the lateral and horizontal loads generated during erection of the structures?

Answer 487

It is a case by case basis depending on the intervention areas. Permanent structures have been designed to suit the condition of the existing masonry. For temporary works, it is the contractor's responsibility to provide the support required for the establishment of the permanent works and, in the greatest respect for the abilities and conditions in place.

Question 488

Can a detail be provided for cooling tower connections?

Answer 488

Addendum to come.

Question 489

We noted many differences between the quantities of contaminated soil indicated in the soils report, the unit price table and our calculations based on the levels indicated. For comparison:

- Table: 3,500 metric tonnes
- Geotechnical report: 4,150 metric tonnes
- Our evaluation: 4,650 metric tonnes

Shouldn't the quantities in the unit price table be amended to at least reflect the quantities indicated in the geotechnical report?

Answer 489

No, refer to section 01 35 13.43 (part 2) and section 01 29 00 (1.6.1). For establishing the quantities refer to contaminated soil management drawing (C-008).

« Contaminated materials above level « A » as per the MDDELCC and inferior to the CCME criteria must be reused as backfilling material or RFM. »

« Contractor must perform an optimal and careful management of contaminated soils below the CCME criteria in order to reuse those materials as backfilling for the trenches. At all times these materials shall be prioritized as backfill in trenches; that is to say that no uncontaminated material can be reused in trenches before all reusable contaminated soils are fully reused in the trenches. If Contractor performs mismanagement of these soils or neglects this aspect, reusable contaminated soils in surplus must be disposed in an authorized treatment center by the MDDELCC at the Contractor's expense. »

It is normal that the quantities on the bid form for the disposal of these materials are less than the quantities that will be encountered because those materials will be largely reused as backfill materials on site.

Question 490

- a) How many of the cable systems shown in section 1/S-557 are we required to supply? Are they required for each pair of stirrups? (drawing S-113b) Or will one system be moved around as required, and which section of the specifications deals with these cables and accessories?
- b) On A-111C, in room 100-41, Note 07 indicates a prefabricated cold room. It is not mentioned in section 11 41 10. Who is required to supply this cold room? Where is the information concerning the room?

-
- c) On A-111a, door P103-04C is not listed in the table on sheet A-720. What is required to be supplied in connection with this door and who is required to do it?
 - d) On A-111c, there is a door between rooms 100-38 and 100-78 that is not listed in the table on sheet A-720. What is required to be supplied in connection with this door and who is required to do it?
 - e) On A-112a, door P203-16 is not listed in the table on sheet A-720. What is required to be supplied in connection with this door and who is required to do it?
 - f) In the table on sheet A-720, doors S100-37 and S100-38 are listed. We cannot find them on the drawings; are they really required?
 - g) Rooms 100-29, 100-31, 102-02, 102-06, 103-07, 103-09 and 300-01 are not shown on sheet A-700. Do they have finishes?
 - h) Room 100-75 does not have the same finish in the table on sheet A-700 as in the detail on sheet A-705. Which is correct?
 - i) Room 100-59 does not have the same finish in the table on sheet A-700 as in the detail on sheet A-705. Which is correct?

Answer 490

- a) See the cut 1 / S-557 in addendum 1. Is shown a cable system (in ramp) on each side of the cross-type catwalk.
There are three (3) steel cables by each cable system which included:
 - The long cable, 3875 mm, with thimble at each end.
 - The average cable 2185 mm, with thimble at each end.
 - The short cable, 420 mm, with thimble at each end.The contract must included 102 cable systems, as shown in the cut 1 / S-557 and 8 type vertical cable systems, as shown in S-554-1 sketch in addendum 3.
System type vertical cables, include:
 - Manille same type as the cable system.
 - Cable of 2665 mm, with thimble at each end.
 - Manille same type as the cable system.See also section 27 51 17 section 2.5 for additional equipment to be provided in addition to the equipment shown in the plans.
- b) Refer to addendum 4.
- c) Refer to addendum 5– door 103-04C.
- d) Refer to addendum 5– door 100-78.
- e) Refer to addendum 1- door is cancelled.
- f) Doors were added to the plans, see addendum 1.
- g) Finishes for rooms 100-29, 100-31, 103-07 and 300-01 have been added to the finish schedule in addendum 4. Room 103-09 will be add in next addendum and rooms 102-02 and 102-06 do not exist.
- h) Consider finish on shown on A-704. (Modification of page A-700 in upcoming addendum)
- i) Consider finish shown on A-705. (Modification of page A-700 in upcoming addendum)

Question 491

Reference Notes 23 and 25 in the door schedule and in section 08 14 16, p. 2, art. 1.5.1 and page 4 art. 2.2.2:

Please specify the STC requirement for doors and frames. In the schedule, Notes 23 and 25 indicate a minimum STC of 50 is required, whereas specifications section 08 14 16 – Flush Wood Doors indicates an STC of 46. The only manufacturer that makes doors certified as STC 50 is Ambico. Several manufacturers make STC 46 doors. Because this has a major impact on product price, please clarify your requirement.

Answer 491

Refer to addendum 5

Question 492

In details 8/A-452, 4/A-448, 4/A-457, the roof composition is indicated as type T-11. In the description of this composition, you indicate "Roof trusses (see Structural)". However, we could not find any details on the roof trusses in the structural drawings. Please clarify.

Answer 492

Pieces of structural carpentry wood shown on architecture plans are for information. Refer to structure plans for dimensions of structural carpentry wood.
See addendum already issued. Details of dormer windows which refer these architectural details can be learned from those shown in S- 562 and S -563 pages.

Question 493

In details 10/A-451 and 7/A-459, the roof composition is indicated as type T-12. In the description of this composition, you indicate "Wood framing (see Structural)". However, we could not find any details on the roof trusses in the structural drawings. Please clarify.

Answer 493

Pieces of structural carpentry wood shown on architecture plans are for information. Refer to structure plans for dimensions of structural carpentry wood.
See addendum already issued. Details of dormer windows which refer these architectural details can be learned from those shown in S- 562 and S -563 pages.

Question 494

In details 3 and 6/A-423, you indicate that 2 x #5-014 are to be installed. Are they to be provided at a certain frequency?

Answer 494

Placing irons (L) # 5-014 1220 mm C / C maximum.

Question 495

You added detail 12/A-426 to drawing extract 1/A-422 in addendum A-03. However, that detail does not appear on sheet A-426. Please clarify.

Answer 495

See sheet A-426 revised in addendum 4.

Question 496

Is it normal that on detail 3/A-426, the item designated #5-041 is to be supplied by structural while all the other elements on which it rests are to be supplied by fabricated metals?

Answer 496

You must be talking about the 5-047 note pointing the HSS steel to be supplied and installed by structure. The note has been revised in addendum 4 for 5-019 « HSS steel profile (see structure) ». See A-410 sheet revised in addendum 3 and see sheet A-426 revised in addendum 4.

Question 497

Request for clarification on item 3, addendum 4-S04. The sentence used leaves room for interpretation, since glued-laminated timber includes cross-laminated timber. Therefore if the two materials need to be of the same species, that means that only on manufacturer of glued-laminated timber can submit a price. Do the glued-laminated beams/columns all need to be of the same species, or must they include cross-laminated timber? If both of these elements must be of the same species, it would appear that the supplier of glued-laminated and/or cross-laminated timber has already been selected.

Answer 497

The requirement regarding the same wood only deals with elements that are part of a system or column-beam roof, girts or trusses. The cross-laminated panels could be of another species relative to the frame.

Question 498

Reference to Specifications, section 04 03 43, item 1.4.8.
Who is responsible for removing the temporary protection and the windows?

Answer 498

The responsibility to remove windows to be demolished and temporary protections belongs to the general contractor and/or his sub-trade in demolition. The removal of the windows to be conserved in a masonry area to be dismantled / rebuilt is to be done by the specialized sub-trade in heritage windows.

Question 499

Reference: section 04 11 00, item 3.1.3.
Could you please indicate the areas that may be asbestos-contaminated?

Answer 499

See general note no.1 on demolition plans (A-010 and following). See legends of interior and exterior interventions (A-500@A-543) to know the graphic symbol designating the plaster on the elevations.

Question 500

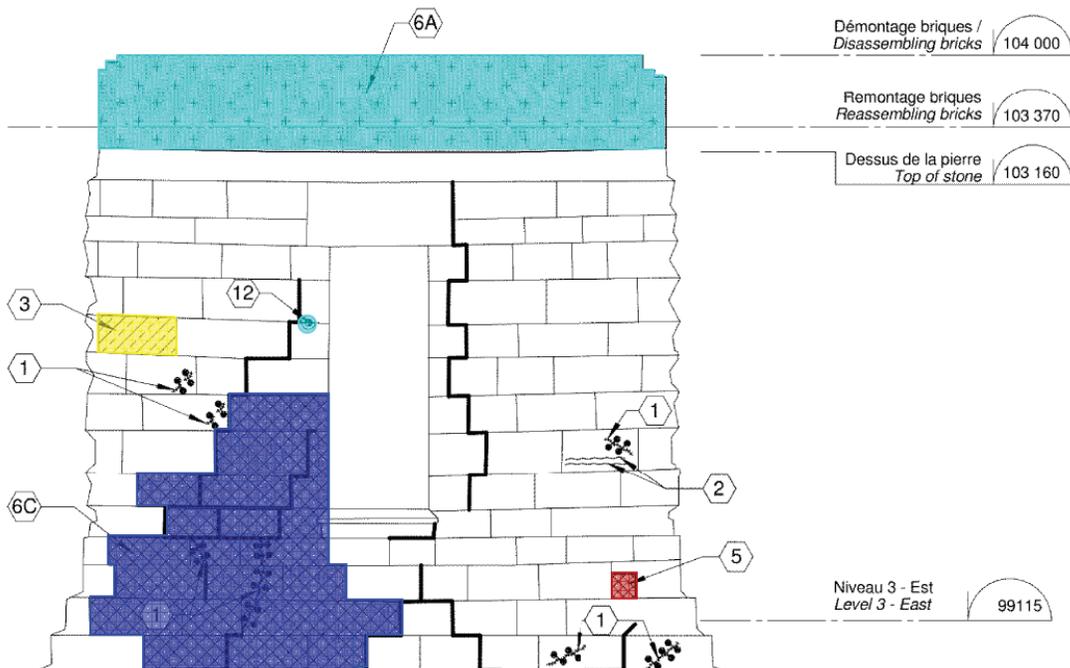
Reference to Specifications, section 04 11 00, table of anchors.
Where are the drawings and details for the anchors?

Answer 500

The drawings of anchors were issued with addendum 1.

Question 501

We are currently establishing masonry quantities. On several exterior elevations, we see thick lines resembling fissures. What work must be done on those lines? There is no indication in the legend. Is it the same work as for Note 2 on the *Legend of Exterior Interventions*? (See below.)



Answer 501

The bold lines shown on the exterior elevations of series A-500 are cracks as an indicative information. All diverse masonry interventions shown on the drawings as mortar joints repointing, stone repairs, masonry dismantling/rebuilt are to address the sources of the cracking and fissures.

Question 502

Question on the steel structure:

- Who is responsible for supplying the anchoring bolts and the base plates for the wooden columns (e.g. base plates type A and type A1)?
- Who is responsible for supplying the anchoring bolts and the W200 x 42 steel beams cast in concrete and under the load-bearing partitions? (See detail on plan S-582.)
- Section 4/S-555: What are the dimensions of the 427-mm long tubes? 48di x 5.08 or 48di x 10.06?
- At section 9/S-551, there are two horizontal pieces at 191 mm c/c. However, section 4/S-555 does not show two Dn40 tubes at 191 mm c/c. Please clarify.

Answer 502

- see section 06 18 00, article 1.3.1
- see section 06 18 00, article 1.3.1. This is considered part of the plates and anchor bolts in concrete.
- 48di x 5.08
- The sections are good. At cut 4 on S-555, the two tubes are shown, but not at the same elevation. The distance 191 is from the subtraction of 427-236.

Question 503

Mechanical: Is there a section pertaining to the variable speed drives? If so, what equipment is needed and who must provide it?

Answer 503

See specification, section 25 30 02

Question 504

Reference to type 1 and type 2 rock anchor details, plan S-902: Does Specifications section 31 39 10 apply to the rock anchors?

Answer 504

yes

Question 505

Questions regarding roofing:

- a) Is it possible to have a detail of the basin separator axis $\pm E-6$ and basin separator axis ± 26 of the level 2 roof plan, west wing (page A-112c)?
- b) Also on the level 2 roof plan, west wing page A-112c): Should the axis 23 parapet be considered to be the same type as that of axis A-2 (detail 6 of 432)? If not, is it possible to know the detail reference?
- c) Should roof dividers be used?
- d) Detail 6 on page 436: Does this detail not apply rather to the parapet/wall of axis F.4 of the west wing roofing plan, level 3? If not, where is the detail?
- e) Level 2 plan, west wing (page A-112c): is the "square" in the corner formed by axes ± 29 to 29.7 and $\pm A.9$ to A.2 membrane roofing to be covered?
- f) Are there applicable and available details for the mechanical bases for the west wing plan, level 3 (page A-113c)?

Answer 505

- a) Details to come in upcoming addendum for axis E.6. For axis 26, refer to similar detail 6/A-436.
- b) Refer to similar detail 6/A-432.
- c) Provide joint on axis E.8 of higher roof level of West wing (A-115c). Refer to upcoming addendum.
- d) Replace axis 26 by F.4 on this detail. Refer to upcoming addendum.
- e) Refer to A-439d for composition and roof details for this area.
- f) Refer to addendum 4 (Page A-438).

Question 506

Reference to the unit price table (Table 2).

- a) For items 45, 46 and 47, please indicate the depth of masonry to remove and replace. Unless otherwise specified, the depth of the narrowest wall sections will be considered.
- b) For items 66, 67 and 68, a repointing depth of 250 mm is impossible. There is a risk of compromising the wall's stability. Please amend/clarify the requirements.

Answer 506

- a) The depth of masonry dismantling/rebuilding described at the item 45 of the unit rate table is to be 950mm.
The depth of masonry dismantling/rebuilding described at the item 46 of the unit rate table is to be 550mm.
The depth of masonry dismantling/rebuilding described at the item 47 of the unit rate table is as per the detail 9/A550. Assume a cladding stone thickness of about 250mm on the detail.

- b) It is common to see vertical empty mortar joints of 250mm. The contractor is responsible to assure the masonry stability through a safe sequence of the work (repoint mortar joints of only small areas at the time) in order to safeguard the masonry walls and details.

Question 507

Reference to the screw chiller vents.

No pipes are drawn on the plan view. In addition, no dimensions are indicated for the pipes. Please explain.

Answer 507

See addendum 5 for partial answer. More details coming in an addendum to come.

Question 508

In Specifications section 07 19 00, item 2.2.1, it is indicated that the acceptable product is SilkaTop 122 F. When we researched the product, we discovered that it is sold in a bag, whereas the Specifications refer to drainage mortar bands. In addition, section at section 3.4.2 it is indicated that when the strips are put in place they will be higher than the PVC strips. Is there an error regarding the product to be used? Please clarify.

Answer 508

Each stone tile must be supported on PVC leveling pads on a bed of mortar adhesion (SikaTop-122-F). The mortar must be set up in strips to allow free drainage bands of ± 25 mm in width without mortar. All bands are parallel to the flow direction of the concrete slab. There will be three free mortar bands by wide stone slab. The mortar is applied to ensure good adhesion when the stone is deposited on the pads.

Question 509

What are the required dimensions for the PVC bases? Are there different sizes?

Answer 509

Dimensions PVC leveling pads : 25mm x 25mm x 12mm high, non-adjustable, four (4) by tile.

Question 510

In the area under the bridge, concrete paving stones are required, but the plans do not make it clear what type. Since the two paving colours are not the same price, please clarify.

Answer 510

See answer to question 385.

Question 511

PVC bases are required under the bridge tiling. There is not enough information available about this product, namely the dimensions, whether they need to be adjustable and how many are required. Please clarify.

Answer 511

See answer to 509.

Question 512

Dowels must be installed for the tiling at the bridge edge, detail 6 plan A-423. Should these dowels be anchored to the metal structure underneath? The detail does not show any holes. Please clarify.

Answer 512

The pins are welded on the surface of the steel plate. The penetration length of the pins in the steel plates must not exceed 25 mm deep. All pins setting must be done before applying the membrane. The membrane must be applied to the concrete slab and on steel plates. Sealing the membrane to the perimeter of the pins.

Question 513

Ventilation system VC1-402-B00 for emergency fresh air intake and VE1-402-B00 for emergency evacuation: should these be insulated with fireproof insulation or regular insulation?

Answer 513

As specifications, see answers 471 and 480.

Question 514

On west wing plan S-113c, axis F.9 between axes 26 and 26.8, there is an unidentified beam. What profile should be used?

Answer 514

Specified in addendum 5 : W200x21.

Question 515

On mechanical room roof plan S-113c, axis E.8(-261mm)/axis 25, the beam is not identified. What profile should be used?

Answer 515

Specified in addendum 5 : W150x14.

Question 516

The central wing structure plan, plan S-551 to S-555, S-557 to S-559 and S-561, shows walkways. In specification section 05 50 00 (metal fabrications), subsection 1.2.5, the walkways are attributed to that section of the specifications. Please specify which section of the specifications should include these walkways: section 05 12 23 (structural steel) or 05 50 00 (metal fabrications)?

Answer 516

Catwalks to the central wing are fully taken up by section 05 12 23 (structural steel).

Question 517

Masonry:

- a) On page A-519, sections S8.1 & S8.2: please confirm that the numbers next to intervention types #12 and #25 correspond to the intervention numbers.
- b) Page A-521, section 128.2 North: please provide a detail for the work that applies to consoles. How much brick should be demolished and rebuilt in depth?
- c) Page section 128.2 North: what is the depth of the brick replacement work to be performed on the turret?

Answer 517

- a) The number indicated beside the repair interventions type #12 and #25 does represents the quantity of repairs to be done in the given area. Note that the interventions #25 are cancelled on the elevations S8.1 and S8.2 on the page A-521.
- b) See wall sections 4/A300 and 3/A016 on the sheet A402a and 4/A300 et 3/A016 on the sheet A400.
- c) Plan for the first 3 wythes of bricks to be replaced on the 2 turrets (portion above the north wall and in south quadrant).

*** All other terms and conditions remain unchanged ***