The attention of Contractors submitting General Bids and or Filed Sub-Bids for the above referenced project is called to the following Responses to Questions and/or RFI’s.

Responses to Questions:

Standard Signs, Inc. (Lumacurve Airfield Signs) e-mail from Dave Benson dated Monday, March 21, 2016.

Item #1 – Sign Quantities:

Summary of Question: After an overview of the documents, I noticed that there are four new airfield guidance signs listed in the Base Bid (Item L-858-1 (3 ea.) and L-858-2 (1 ea.). There are no other signs in any of the Add Alt bids. The sign schedule shows five signs. Which is correct?

Design Team Response: The Proposal (Page P-33), Specification (Project Item L-858) and Drawings (E-201 & E-220) have been revised and were included as part of Addendum No. 2.

E.T.&L Corporation e-mail from James Murray, P.E., R.L.S dated Tuesday, March 22, 2016.

Item #2 – Existing Conditions:

Summary of Question: The existing conditions drawings and the grading plan drawings are not show the elevations of the existing contours. Can you please reissue these drawings with labels on the existing contours?

Design Team Response: The following drawings were revised to include labels on the existing contours (DWGS C-002 through C-016 and C-201 through C-208) and were included as part of Addendum No. 2.
Item #3 – CAD Files:

**Summary of Question:** Will a CAD file be made available for the bidding of this project?

**Design Team Response:** No, however, CAD files will be made available to the successful bidder after award of the contract.

Item #4 – Glideslope Access Road:

**Summary of Question:** Can you please clarify what section, if any, of the glide slope access road receives pavement?

**Design Team Response:** The limits of paving are from Station 0+50 to Station 3+75 shown on drawings C-105 & C-203.

Item #5 – ALSF Substation Road:

**Summary of Question:** Can you please clarify what section, if any, of the ALSF Substation road receives pavement?

**Design Team Response:** The ALSF Substation road is a gravel road and receives no pavement.

KOBO Utility Construction Corp. e-mail to CPBidQuestions from Rebecca Curtis dated Tuesday, March 30, 2016.

Item #6 – Prequalification:

**Summary of Question:** Do you have to have any special qualifications/prequalification’s to bid as a Subcontractor or General Contractor?

**Design Team Response:** No. By submitting proposals for the work, each firm is indicating that its company is responsible and qualified to perform the work. The design consultant will also provide a review of the low bidder’s background and provide Massport with an assessment of the low bidder’s ability to perform the work based on their experience in similar work.

E.T.&L Corporation e-mail to CPBidQuestions from James Murray, P.E., R.L.S dated Tuesday, March 30, 2016.

Item #7 – Glideslope Access Road:

**Summary of Question:** Sheet S-107 shows a typical foundation for the new towers to be installed. Can you please provide the details for these foundations showing the size, depth and reinforcing requirements?
Design Team Response: On Sheet 107, Proposed Tower – Schematic Design for Stations 9+00R, 11+00, 15+00, 19+00 7 21+00, the tower foundations details are considered part of the tower manufacturer’s performance specification. Refer to Project Item L-891, Installation of Runway Approach Light Sequence Flasher 2 System (ALSF-2), Section Execution, Sub-section, L-891-3.9 Installation of MS-20/GP-1 Tower Structure, Paragraph 3, for additional information.

Daniel O'Connell's Sons e-mail to CPBidQuestions from Steve Nannini dated Tuesday, March 30, 2016.

Item #8 – Existing Conditions:

Summary of Question: Existing contours shown on grading plans have no elevations shown. Please provide contour elevations for existing contours.

Design Team Response: The following drawings were revised to include labels on the existing contours (DWGS C-002 through C-016 and C-201 through C-208) and were included as part of Addendum No. 2.

Item #9 – Underdrain Details:

Summary of Question: No details or plans are provided for underdrain system. Please provide details for the underdrain.

Design Team Response: Drawing C-211 has been revised to include underdrain installation details and is included as part of Addendum No. 2.

Item #10 – MSE Underdrain:

Summary of Question: Will the 6” diameter perforated pipe behind the MSE wall shown on drawing S302 section AA be paid under item D-705-5.1, 6” underdrain pipe or included with item M-005-1, MSE Wall?

Design Team Response: The underdrain as shown on the Mechanically Stabilized Earth (MSE) wall section on drawing S-302 is considered part of and incidental to Project Item M0-005, Mechanically Stabilized Earth (MSE) Wall.

Item #11 – Sub-surface Infiltration System Finish Grade:

Summary of Question: Drawing C302, Section A shows the subsurface infiltration system. What is the anticipated finished grade as the grading plans show no changes in this area. If the finished grade is to match existing grade, please provide existing grades.

Design Team Response: The finish grade will match the existing grades as shown on the Existing Conditions (DWGS C-002 through C-016).
Item #12 – Environmental Drawings Status:

**Summary of Question:** Environmental drawings are all labeled as draft. Is it anticipated that final drawings will be provided prior to bid opening? Please confirm that DEP and conservation commission approvals are not the responsibility of the Contractor.

**Design Team Response:** The Department of Environmental Protection (DEP) is currently reviewing these plans. Upon receipt of approval by the DEP, final drawings will be released. Such approval is not anticipated before the bid date. Therefore, bidders are to price the environmental work based on the draft plans. Adjustments may need to be made to the contract if there are significant changes within the approved plans.

Item #13 – Glideslope Drainage:

**Summary of Question:** Drawing S-303 shows a proposed 12” RCP, drainage structure and FES. These are not shown on drawing C-300 drainage plan. However, there is an 18” RCP shown in the same general area. Please clarify.

**Design Team Response:** The drainage as shown on Drawing S-303 needs to be installed to tie into the existing drainage features and extend the feature under the proposed fill section. The drainage associated to Drawing C-300 is to collect and discharge surface run-off. These are purposely designed as two separate systems.

Item #14 – P-154 Material Clarification:

**Summary of Question:** Please define the locations for the P-154 materials. It appears that item P-154-1 is for the 18” of subbase under the taxiway. However, unable to find anywhere else which might use P-154-2 or P-154-3 material pay items.

**Design Team Response:** The P-154-2 Dense-Graded Crushed Stone for Subbase material is material that may be required to help maintain stabilization within the pavement box section for Taxiway G-G3 located within the deep fill section. The P-154-3, Crushed Stone Subbase Course material is material shown as 12” stone base utilized in the construction of the pavement box section for Taxiway G-G3.

Item #15 – 12” Stone Base Payment Clarification:

**Summary of Question:** Where does the 12” stone base shown on taxiway G typical section C-211 get paid? Please provide specification for material to be used.

**Design Team Response:** The P-154-3, Crushed Stone Subbase Course material is material shown as 12” stone base utilized in the construction of the pavement box section for Taxiway G-G3.
Item #16 – Specification F-162 Chain-link Fence and Gates:

**Summary of Question:** Please provide F-162 specification.

**Design Team Response:** Specification for Project Item F-162, Chain-link Fence and Gates was distributed as part of the Bid Documents released on March 15, 2016. The specification is located in Division III before Item T-901, Seeding. See the technical specification table of contents for Division III.

Item #17 – ALSF-2 Gates:

**Summary of Question:** Are there any gates needed for fence enclosures on ALSF areas? If so, what item are they paid under?

**Design Team Response:** 3’ wide Man Gates are required as shown on Drawing C-603 and are considered incidental to the installation of the ALSF-2 Approach as described in Project Item L-891, Installation of Runway Approach Light Sequence Flasher 2 System (ALSF-2), Section Method of Measurement, Sub-section L-891-4.1 Measurement, Paragraphs b, d, & e.

E.T.&L Corporation e-mail to CPBidQuestions from James Murray, P.E., R.L.S dated Tuesday, March 31, 2016.

Item #18 – Sod and Topsoil Removal:

**Summary of Question:** The specifications state that all sod and topsoil shall be removed in fill areas that are less than 4 feet in depth. What item does this topsoil and sod removal get paid under?

**Design Team Response:** Payment for stripping of topsoil shall be in accordance with Specification Project Item P-152, Excavation and Embankment, Construction Methods, P-152-2.10, Topsoil as amended in Addendum No. 3, to be issued. Payment shall be made under Project Item P-152-1 – Unclassified Excavation.

D.W. White Construction, Inc. e-mail to CPBidQuestions from Steven Dean dated Friday, April 1, 2016.

Item #19 – Boring Logs:

**Summary of Question:** Plan Sheet B-3, note1 refers the contractor to appendix B for specific conditions encountered in each boring however, none of the boring logs are shown. Please provide boring logs.

**Design Team Response:** Boring logs have been incorporated as part of Addendum Number 3, to be issued.
Item #20 – Crushed Stone Details:

**Summary of Question:** Plan Sheet S-302, Section A-A shows a crushed stone detail in front of the wall. What is the specification for the stone and under what item is it paid?

**Design Team Response:** The specification and gradation for the stone in front of the wall can be found in Project Item P-154, Subbase, Dense-Graded Crushed Stone for Subbase and Crushed Stone Subbase Course, Materials, Section P-154-2.3, Crushed Stone Subbase Material, Page P-154-3. Payment for the placement of this material is considered part of Project Item M-005, Mechanically Stabilized Earth (MSE) Wall, Basis of Payment, M-005-5.1, Project Item M-005-1 – MSE Wall.

Item #21 – Limits of Over-Excavation MSE Wall:

**Summary of Question:** Sheet S-303, Section B-B has a note which states “limits of P-209 (crushed stone aggregate base) for replacement of unsuitable soils (if required)”. Per specification page M-005-8 unsuitable material is replaced with Item P-209-1. Under which item is the over-excavation covered?

**Design Team Response:** All excavation and/or over-excavation for Project Item M-005, Mechanically Stabilized Earth (MSE) Wall is considered as part of Basis of Payment, M-005-5.1, Project Item M-005-1 – MSE Wall.

Item #22 – Drainage Schedule:

**Summary of Question:** The drainage schedule on Sheet C-301 has a total of 471 LF of 12” RCP. However bid item D-701-5.1a has 895 lf. Which is correct?

**Design Team Response:** Both the schedule as shown on Sheet C-301 and the Quantity as indicated on D-701-5.1a are correct, additional 12” RCP is shown on Sheet S-303. (See Response to Item #13 for additional clarification).

Item #23 – Drainage Schedule 4’ Diameter Deep Sump Manholes:

**Summary of Question:** The drainage schedule on Sheet C-301 refers to a 4’ diameter structure for the deep sump drain manholes. Sheet C-303, Detail F shows the deep sump drain manholes as 6’ diameter. Which is correct?

**Design Team Response:** Deep Sump DMH -09, DMH-10, and DMH -11 are 4’ in diameter as indicated on the Sheet C-301, Drainage Schedule and Sheet C-302, Subsurface Infiltration System, Plan View. Detail F shown on Sheet C-303 is incorrect.

Item #24 – Drainage Schedule 4’ Diameter Double Grate Catch Basins:

**Summary of Question:** The drainage schedule on Sheet C-301 refers to a 4’ diameter structure for the double grate catch basin. Sheet C-304, Detail K shows the deep sump drain manholes as 5’ diameter. Which is correct?
Design Team Response: All double grate catch basins are 4’ diameter structures as indicated on Sheet C-301, Drainage Schedule. The correct diameter for the catch basin is grates is 4’.

Item #25 – Glide Slope MSE Wall Drainage:

Summary of Question: Plan Sheet S-303, Glide Slope MSE wall plan designates a proposed drain structure, 12” RCP and a flared end section. What are the rim and invert elevations? Under what items are these drain structures paid?

Design Team Response: The drain manhole structure rim elevation = 975.80. The invert elevation of the pipe exiting the structure is = 968.00. The flared end invert elevation is 942.00. The drain manhole structure is considered under Item D-751-5.1a, 4’ Diameter Drainage Manholes, the 12”RCP is considered under Item D-701-5.1a 12 Inch Class V RCP and the Flared End section is considered under Item D-752-5.3c.

Item #26 – Underdrain:

Summary of Question: Please provide locations on the drainage plans for item D-705-5.1, 6” Underdrain Pipe. Also, please provide rim and invert elevations for item D-705-5.2 Observation Riser.

Design Team Response: The 6” Underdrain Pipe location is indicated on Sheet C-211, Taxiway G Typical Section (With Wall). The invert elevation, and pipe gradient shall be determined by the Taxiway Centerline Profile as indicated on Sheet C-209. Observation Riser Schedule will be provided in the conform set of drawings.

Middlesex Corporation, e-mail to CPBidQuestions from Thomas Grondine dated Friday, April 1, 2016.

Item #27 – Saw and Sealing:

Summary of Question: Page M-001-4 refers to “Saw and Sealing” to be paid under item M-001-2 per lf. There is no pay item for this work. Please clarify.

Design Team Response: Proposal, Page 12, has been revised to incorporate Project Item M-001-2, SAW AND SEAL, per Linear Foot, as part of Addendum Number 3.

Item #28 – Stripping Topsoil:

Summary of Question: T-905-4.1 states that initial stripping of topsoil from existing turf areas shall be paid for under project item “P-152 Excavation and Embankment”. There is no pay item for this work. Please clarify.

Design Team Response: Payment for stripping of topsoil shall be in accordance with Specification Project Item P-152, Excavation and Embankment, Construction Methods, P-152-2.10, Topsoil as amended in Addendum No. 3. Payment shall be made under Project Item P-152-1 – Unclassified Excavation.
Item #29 – Sheeting:

Summary of Question: Dwg No. S-302 States that the proposed vibratory driven sheeting is to be cut at the existing grade upon completion of the MSE wall construction. Does the contractor have the option to pull the sheets instead of leaving them in place?

Design Team Response: No, the contractor does not have the option to pull the sheets. The sheeting that remains is part of wild life mitigation control measures to prevent animals from burrowing under the fence.

Item #30 – 0” – 4” Milling:

Summary of Question: Where is the 0”-4” milling? Detail is not clear enough.

Design Team Response: The requirement for 0”-4” milling is part of the requirement of Project Item P-401WMA Warm Mix Asphalt. This specification requires the placement of a test strip section, the milling quantity is provided to compensate the contractor for any milling associated with placement of the test strip section.

J.H. Lynch & Sons, Inc., e-mail to CPBidQuestions from Gregory Oswitt dated Friday, April 1, 2016.

Item #31 – Geotechnical Report:

Summary of Question: Is there a geotechnical report for the retaining walls and stair foundation and any other structures on the airport to provide soil bearing capacities.

Design Team Response: Yes a Geotechnical report has been issued as part of Addendum Number 3.

Item #32 – Top Soil:

Summary of Question: Regarding Item T-905-5.1-15, 390 CY of on-site topsoil:

Has the on-site loam been tested for suitability for re-use?
If the loam has not been tested, is the contactor required to test it?
If it does not pass, how will the contractor be paid to amend the topsoil?

Design Team Response: The existing on-site loam has not been tested for re-use and is the responsibility of the contractor, in accordance with Project Item T-905, Topsoiling. In the event the topsoil does not meet the requirements of Project Item T-905 the contractor shall make provision to provide corrections, all costs associated with amending the topsoil are consider incidental to the cost of the item.
Item #33 – On-Airport Borrow:

Summary of Question: Regarding Item P-152-3, 8000 CY of On-Airport Borrow:
- Has any geotechnical testing (sieves, Proctors, etc.) been done on this material?
- Is this material suitable for use (gradation, chemical, etc)?
- Is the contractor required to test the material for geotechnical and chemical properties?
- If it is not suitable for re-use, how will the contractor be paid to screen, amend, dry out etc. the material to make it suitable material?

Design Team Response: - The existing On-Airport Borrow has not been tested and is the responsibility of the contractor, in accordance with Project Item P-152, Excavation and Embankment.
- The intended use of this material is to be utilized in the deep fill sections associated with the installation of the MSE Walls.
- The contractor is responsible for all geotechnical testing of the material to provide information for sieve, gradation, proctors and other geotechnical characteristics requiring the re-use of on-site airport borrow.
- In the event modification to the On-site Airport Borrow is required for allowable re-use the contractor will be compensated in accordance with the contract documents, consistent with the effort required to modify the material.

Item #34 – Vibration Monitoring:

Summary of Question: During the installation of Item M-003-7.1, Permanent Steel Sheet Pile Wall, is vibration monitoring required? If so, please provide criteria for acceptable vibration levels.

Design Team Response: No. Vibration monitoring is not required.

Item #35 – Ductbank Trench Compaction:

Summary of Question: Sheet E-562, Detail D, Shows “existing base material from excavation min. 95% compaction”, Spec. page P-152-4, subsection C, states compaction under areas to be paved shall not be less than 100%. This also re-iterated on spec page P-152-6 to maintain 100% compaction. Which compaction % governs the detail on the plan or the specification?

Design Team Response: The requirements of Project Item P-152, Excavation and Embankment shall govern and Sheet E 562 has been amended accordingly and issued as part of Addendum No. 3. The correct compaction percentage is 100%

Item #36 – Localizer Access Road:

Summary of Question: Is the access road to the Localizer Tower paved or unpaved? It is called out to be paved per Sheet C-208. On Sheet E-760 it calls out to be un-paved. Can you please provide which drawing you would like to use for the access road C-208 or E-760?
Design Team Response: The Localizer Access road shall be a gravel road as indicated on Sheet E-760. Sheet C-208 has been amended accordingly and issued as part of Addendum No. 3.

Item #37 – Localizer Shelter Transformer:

Summary of Question: On Sheet E-761 there is a Localizer Shelter Transformer. Could you please provide a detail of the foundation for the transformer at the Localizer Shelter?

Design Team Response: Sheet E-761, Note 6, refers to Sheet E-718 for Transformer Pad Details

Item #38 – Bid Extension:

Summary of Question: Can the bid date be extended at least 1 week?

Design Team Response: No. The Bid Date shall remain as advertised.

J.H. Lynch & Sons, Inc., e-mail to CPBidQuestions from Jonathan Neeser dated Friday, April 1, 2016.

Item #39 – P-209 Compaction Requirements:

Summary of Question: Section P-209-3.4 Compaction states that “immediately upon completion of the spreading operations, the crushed aggregates shall be thoroughly compacted to 100% of the maximum density as determined by ASTM D1557. Will this apply only to Taxiway G and paved Access Roads or shall the Un-paved Access Roads and maintenance Plots and Walkways also be compacted to 100% of the maximum density?

Design Team Response: All areas in which P-209 is placed shall be well graded to ensure water shed and compacted to 100% of the maximum density in accordance with the requirements of Project Item P-209, Dense Graded Aggregate.

Item #40 – P-401 Placement Requirements:

Summary of Question: The Taxiway G Typical Section detail on Sheet C-211 specifies 10” of P-401 WMA placed in maximum 3” lifts. However on page P-401-18 of the Technical Specifications it states “The normal depth of compacted pavement is to be a minimum of 2-1/2, inches and a maximum of 4 inches per layer.”

Design Team Response: The requirements of Project Item P-401WMA Warm Mixture Asphalt shall govern. Sheet C-211 has been amended accordingly as part of Addendum No. 3.
Item #41 – Geotechnical Report:

Summary of Question: Please provide a copy of the geotechnical report related to the MSE Wall (M-005), and or design assumptions/recommendations outlined in the geotechnical report generated for the MES retaining wall.

Design Team Response: Yes a Geotechnical report has been issued as part of Addendum Number 3.

J.F. White Contracting Co., e-mail to CPBidQuestions from Tom Pyle dated Monday, April 4, 2016.

Item #42 – Massachusetts Registration:

Summary of Question: Sheet E-808 , Note 3 states licensed in the state of Texas, why not Massachusetts, thanks.

Design Team Response: Note 3, on Drawing E-808 requires that all precast materials supplied for the project be sealed by Registered Massachusetts Professional Engineer.

Questions Received at the Pre-Bid Conference dated Tuesday, March 29, 2016.

Item #43 – 18 Hour Closure Clarification:

Summary of Question: What are the 18 continuous hours in the bid documents?

Design Team Response: The Eighteen continuous hours is the time allotted to the contractor for allowable runway closures, during which time continuous work can be performed. Following the 18-hour work period, the Runway must be returned to full service for a six-hour window for commercial service. The current Airline flight schedule has the first arrival at 5 PM and the last departure is at 7PM. This airline schedule is subject to change per the season. The Authority is informed of the draft airline schedule approximately 4 months in advance of the actual implementation of service. Information will be forwarded to the successful contractor upon receipt of the confirmed schedule.

Item #44 – Night work requirement:

Summary of Question: Is there any night work required?

Design Team Response: The Authority established drop dead dates in the contract. If you need to work nights it is up to you. The engineering staff will gear up to support the project.
Item #45 – Night work requirement:

Summary of Question: When will a decision be made on the add alternates?

Design Team Response: Fairly quickly based on the budgets and the need to go to the April board for approval of the budget. This board meeting is April 28. The contract will follow. Selection of the add alts will be in order of: Base only, Base + Add Alt 1, Base + Add Alt 1 + 2, Base + Add Alt 1 + 2 + 3, Base + Add Alt 1 + 2 + 3 + 4.

Item #46 – Gate Guards:

Summary of Question: Will there be a limited amount of gate guards that may result in waiting at the gate?

Design Team Response: Worcester plans to add staff to support the construction. Appropriate staff will be provided.

Item #47 – On-site Fill:

Summary of Question: Will the on-site fill be required to be screened?

Design Team Response: See response to Item # 33 – On-site Airport Borrow.

Item #48 – Site Visit:

A pre-construction Site Visit was conducted on Tuesday, April 5, 2016 in accordance with Addendum No. 1.

The above Responses to Questions consist of forty-eight (48) items.

- End of Responses -