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RFP NO. 872
ADDENDUM NO. 3

Date: November 15, 2013

To: ALL PROSPECTIVE PROPOSERS

Subject: RFP No. 872: Foreign Object Debris (FOD) Detection System

This Addendum No. 3 becomes a part of Request For Proposals (RFP) No. 872 entitled: Foreign Object Debris (FOD) Detection System

1. The proposal closing date has been extended. **The new proposal date is Monday, December 02, 2013 at 2:00 PM** (local time). All proposal instructions remain the same.

2. Attachment No. 1 replaces the previous County responses, as previously stated in Addendum No. 2, in its entirety to the questions submitted during the pre-proposal question period.

3. Attachment No. 2 includes the sign-in sheet from the third pre-proposal conference that was held on Monday, November 4, 2013.

All other portions of RFP No. 872 remain the same as written.

Miami-Dade County

Josh Brown

Josh Brown
Procurement Contracting Officer 2
Procurement Management Services
Internal Services Department

Attachment No. 1
Proposed Questions and Associated County Responses

Q 1. What are the current specifications of the MDAD workstations?

A 1. *ThinkStation E31 Series – NBD – with Onsite Warranty (3 Year Parts & 3 Year Labor)*

- *Part number 3695CTO*
- *Configuration Details:*
  - *English*
  - *Intel Core i5-3550 Processor (3.30GHz, 6MB cache)*
  - *Windows 7 Professional 64 – English*
  - *Rocky 240W 85% Single output / C216 Ready WW – Win7*
  - *4GB PC3 1600MHz uDIMM*
  - *Integrated Video-Core – Pentium*
  - *3.5" 500 GB SATA HDD 7200 rpm*
  - *Media Card Reader SFF – Win7*
  - *16x DVD +/- RW DL Win 7 only*
  - *Integrated Ethernet*
  - *IEEE 1394 Firewire Adapter*
  - *USB Full Keyboard – English*
  - *Lenovo USB Optical Wheel Mouse*
  - *LineCord – US*
  - *Publication - English*

Q 2. The RFP states that the system must be capable of operating accurately 24 hours per day seven days per week in various environmental conditions. Please expand on the environmental conditions expected to be encountered.

A 2. *Various environmental conditions include, but are not limited to, when the airport is operating in Visual Flight Rule (VFR) and/or in Instrument Flight Rule (IFR).*

Q 3. What are the project requirements for runway closures including the allowed shutdown schedule, days per week, continuous or nightly, whether daytime work is allowed and the hours available for the shutdowns? What is the runway recall time?

A 3. *Runway Closures must adhere to the following conditions:*

- *No runway closures between 10:00 AM and 11:00 PM*
- *No more than two (2) consecutive nightly closures (11:00 PM to 10:00 AM)*
- *No more than three (3) closures per week, including weekends.*
- *No closures will be permitted until the project for the Rehabilitation of Runway 12-30 and associated taxiways are complete.*
- *Additional runway closure requirements may be implemented at the discretion of MDAD.*

Runway recall should be "As soon as possible".

Q 4. What are the AOA escort requirements? Is 24-hour notification acceptable?

A 4. Vehicles used by employees of the successful proposer must be registered and insured by the successful proposer (not privately owned). A person with a MIA SIDA ID photo must come in person to the Airside Operations Office to fill out the form with a minimum 24 hour notification for vehicle access or escort. Emails, phone calls, or faxes are not acceptable. The above mentioned details do not address escort requirements for individuals that do not have a MDAD photo MIA SIDA ID. For those procedures, please contact Miami International Airport (MIA) Security.

Refer to Article 56 (Page 92) Airfield Operations Area (AOA) Security for additional requirements.

The following link will also provide additional information on the AOA requirements: http://www.miami-airport.com/access_control.asp

Q 5. When installing new cable in existing ducts from the vault to the runway lights and between runway lights, is it acceptable to remove an existing cable in order to install a pull rope, then re-install the existing cable along with the additional power and fiber optic cables? Will new connector kits be required?

A 5. No. If installing new cable in existing ducts, the removal of cable may not be possible since multiple conductors are usually run in the duct/conduit. Therefore, the successful proposer would have to pull all new conductors including cable for the proposed system. It is not recommended that existing AFL duct/conduit be utilized due to the high amperage and voltages present. If there is damage to AFL cable, it usually goes to ground and burns adjacent cables in the duct/conduit. Additional problems arise if repairs are needed and the circuits are energized.

Q 6. What is the off season period mentioned in the RFP to be used for runway closure?

A 6. The off season runs from June 15th through October 31st for each calendar year.

Q 7. How does toll collection relate to personnel qualifications?

A 7. Refer to Item #3 of Addendum No. 2 (above) which removes the words "toll collection" and inserts the word "Aviation".

Q 8. The FODetect system (server and clients) will comprise an independent network and is capable of performing backup. Is there a need to connect the FODetect network to the MDAD network for the purpose of backup or any other purpose?

A 8. Yes. According to RFP section 2.4 "the FOD software is required to be backed up on a regular basis in the MDAD storage infrastructure. The server application must be capable of communicating using the MDAD proxy server."

Q 9. Since the site visit did not include runway access, what is the distance of the runway light cans from the edge of the runway pavement?

A 9. The distance from the edge of the runway to the runway light cans is 10 feet.

Q 10. Our installation will require on site storage space and local office space. What is the planned location for on-site project trailer and storage container(s) for the contractor?

A 10. The planned location for office space, an on-site project trailer, and storage container(s) will depend on the foot print of the storage area and office space requirements and will be mutually agreed upon between the successful proposer and the project manager.

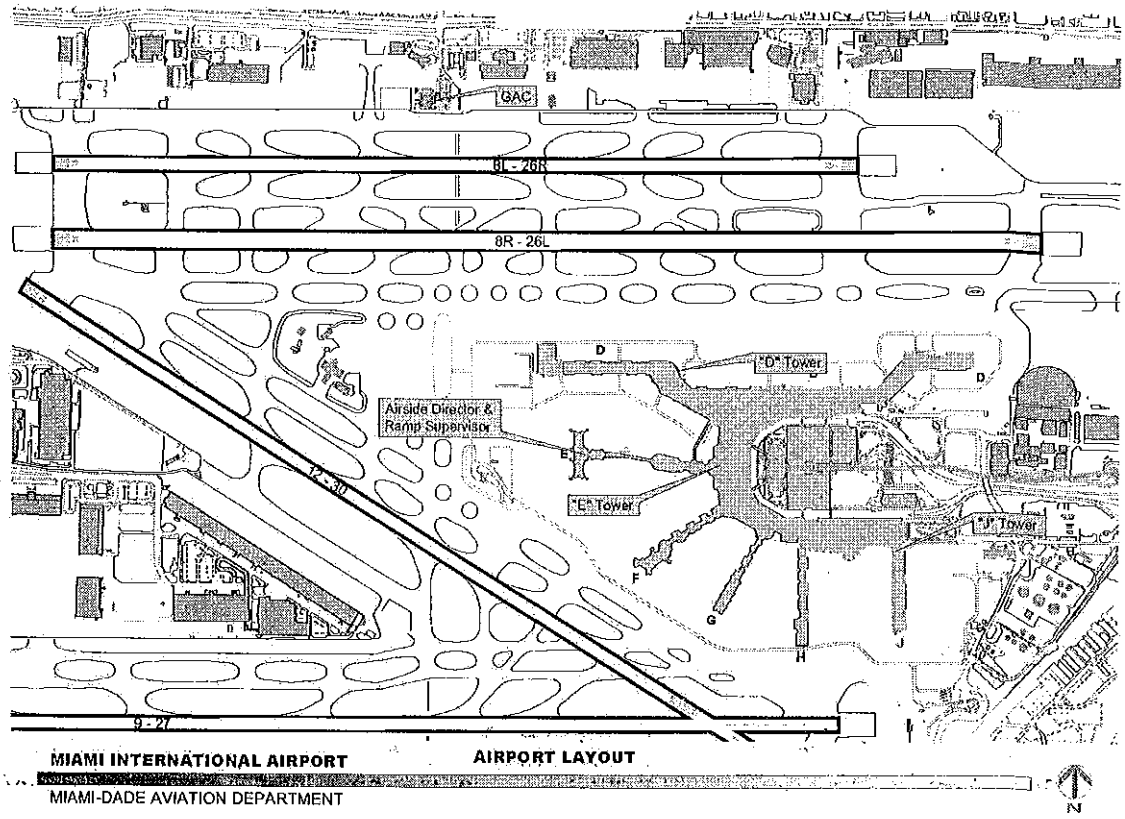
Q 11. Will MDAD provide resident engineer support to represent the owner during installation?

A 11. MDAD will assign a Project Manager during the installation of the proposed solution and they will coordinate all activities with the successful proposer.

Q 12. Will MDAD provide the new equipment for client computers or will the contractor provide the client computers for the four system operating consoles as mentioned during the pre-bid conference?

Q 12. *The successful proposer will be responsible for providing a total of six client computer consoles at the following locations:*

- *"E" Tower*
- *"J" Tower*
- *"D" Tower*
- *General Aviation Center (GAC)*
- *Ramp Supervisor*
- *Airside Director*



Q 13. When will MDAD provide the documentation and information regarding future MDAD navigation aids mentioned in the RFP?

A 13. *The documentation and information regarding future MDAD navigation aids is not available.*

Q 14. During the pre-bid conference discussion, MDAD indicated the proposer would be responsible for all MIA and FAA approvals for the installation. What FAA approvals, if any, are anticipated beyond the minimum qualification requirements noted on page 18 of the Proposer Information Section?

A 14. *In addition to the minimum qualification requirements as stated on page 18 of the RFP, Form 7460 (submittal of the design drawings) must be submitted to MDAD for filling with the FAA. Form 7460 must be reviewed and approved by MDAD and the FAA. The successful proposer is also responsible for obtaining any building permits that may be required.*

Q 15. The RFP on page 5 cites a contract goal of 10% DBE participation. In the DBE special provisions, Article 4.B.1. indicates a 12.5% goal. Please clarify.

A 15. The DBE participation goal is 10%.

Q 16. When will information regarding data interconnectivity diagrams described in Section 2.3.1, Runway Specifications, be made available?

A 16. Interconnectivity diagrams are not available. Proposers should identify the application, capacity, and locations (both source and destination) of data services required for the proposed solution.

Q 17. Refers to current MDAD processes in 2.2.2. There is no 2.2.2. Is this a reference to 2.3.2?

A 17. Correct. Please refer to Current FOD Detection Process outlined in Section 2.3.2.

Q 18. What future hardware and software infrastructure is referenced and when will MIA provide this information?

A 18. MDAD IT Staff are unable to answer this question due to a lack of specificity. Proposers should indicate any specific hardware, software, or infrastructure requirements specific to the solution.

Q 19. Is the redesign of the FOD management process a pre-acceptance or post-acceptance requirement?

A 19. The redesign of the FOD management process is a pre-acceptance requirement.

Q 20. The escalation process table lists "1=Critical" Severity as being "a high impact problem that impacts MDAD". Since this system is only one component of MDAD FOD management program, please provide examples of "high impact problems" that would not be mitigated by current manual FOD inspection procedures..

A 20. An example of a "high impact problem" would be FOD that was lodged on the Runway and remained undetected eventually causing damage to an aircraft. This would be a result of the limited amount of runway (FOD) inspections that currently occur.

Q 21. During the bidder's conference MDAD personnel indicated that the $5M+ that is cost shared with the FAA was applicable to the entire 5 year program. Our understanding is that AIP funding only applies to initial system installation and does not include recurring maintenance and support. Please clarify whether the AIP funding will support initial installation or the full 5 year program?

A 21. The $5 million allocated to this project shall cover the initial installation and the recurring maintenance and support for five years.

Q 22. Will the County provide a site survey and geotechnical data for the FOD equipment to be installed at grade?

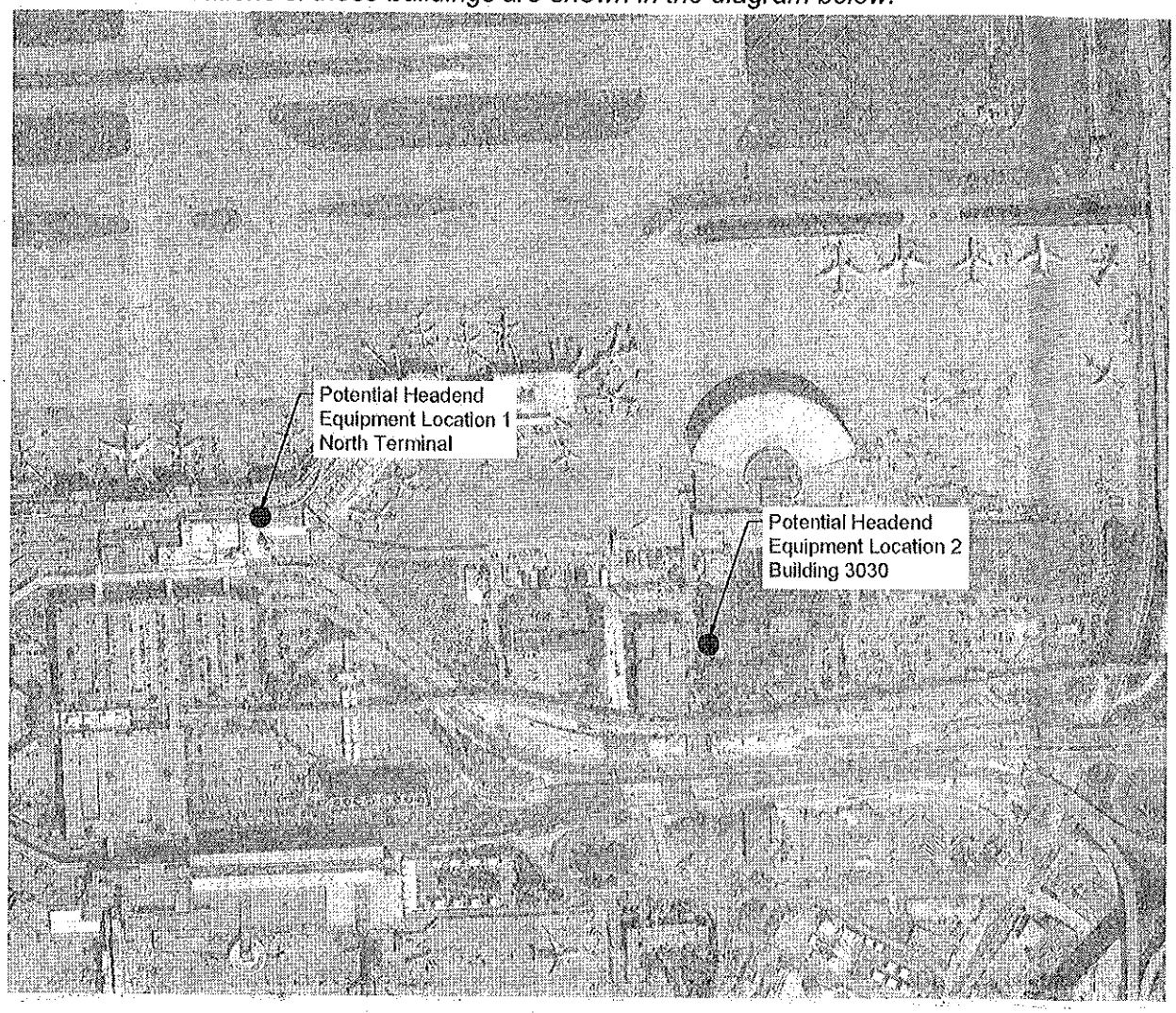
A 22. Geotechnical data and the site survey will be provided to the successful proposer once awarded.

Q 23. Will the County provide a proposed project schedule for the installation and implementation?

A 23. Each Proposer is responsible for providing the project schedule for the installation, implementation, and configuration of the system. The project schedule and all associated tasks and deliverables shall be approved by MDAD prior to work commencing.

Q 24. Can you identify where the "headend" equipment for this FOD Detection System will be located?

A 24. *The servers and equipment may be located in the eastern portion of the North Terminal or Building 3030. The locations of these buildings are shown in the diagram below.*



Q 25. Can you identify any EXISTING ducts and/or fiber optic cabling IF ANY that will be made available for use on this project installation?

A 25. *Existing fiber and approximate manhole locations were made available at the third pre-proposal conference scheduled on November 4, 2013. Proposers are advised to submit their proposal responses assuming no existing fiber cabling or ducts are available. In the event that existing capacity of conduits can be made available to the successful proposer once facility requirements are identified, facilities will be assigned to the project given that sufficient capacity exists in excess of forecasted MDAD Enterprise service requirements.*

Q 26. Can you clarify the available work hours for this project?

A 26. *Available work hours may vary depending on the location within the Airfield. Refer to the question #3 as it pertains to runway closures.*

Q 27. Is installing conduit/ducts via directional bore method under the runway permissible?

A 27. *Concrete encased duct banks are required per the Miami-Dade Aviation Department's Design Guidelines Manual (DGM) for the AOA. Deviation from the DGM would require a design waiver.*

Q 28. Are there existing conduit crossings in place under the proposed runway for use in this project?

A 28. *No.*

Q 29. Steel towers up to 40 feet in height may be needed to mount the FOD equipment. How close to the runway can these towers be installed?

A 29. *Towers can be installed 780 feet perpendicular to the runway, but placement will require FAA review and approval.*

Q 30. What is the procedure to have existing underground utility facilities marked?

A 30. *There are two agencies that need to be notified of the work area and upon request will mark the existing utilities in the area of interest. The successful proposer will be provided with the contact information for the two agencies.*

Q 31. Do workers have to work under the supervision of MIA personnel? If so, what is the cost if any?

A 31. *No, the successful proposer's personnel will have to wait for an authorized MDAD escort in and out of their defined and marked work site. This will be coordinated with the assigned Project Manager.*

Q 32. Will communications design (FO) be "point to point" or "trunk & drop"?

A 32. *If fiber optic connection (FOC) facilities are to be provided by MDAD to the successful proposer they will be point to point. If it is the design being provided by the Proposer as part of the proposed system, it shall be for the Proposer to decide and MDAD to evaluate.*

Q 33. Please explain the OSP-ISP paths for FO connectivity (any existing/available conduits and/or fibers)?

A 33. *To and from where are the OSP/ISP facilities required by the Proposer's approach and methodology; MDAD will provide information specific to the System's proposed requirements.*

Q 34. Will 2F tight buffer SM FOC be acceptable for this installation?

A 34. *Two fiber tight buffer tube single mode fiber is acceptable for patch cord, but shall not be used in the underground cable plant. Proposers should refer to BICSI TDMM 12 standards.*

Q 35. Where will these devices be monitored?

A 35. *Please refer to Question #12 and the associated response.*

Q 36. Critical to know if ANY existing fiber or ductwork will be made available for use as part of this installation?

A 36. *Existing or available ducts will be made available to the successful proposer once facility requirements are identified. Facilities can be assigned to the project given that sufficient capacity exists in excess of forecasted MDAD Enterprise service requirements. Proposers are advised to assume no existing or available ducts exist when preparing the proposal response.*

Q 37. Critical to know if ANY existing power/ductwork will be made available for use as part of this installation?

A 37. *Info Sys/Telecom has no record of power ductwork.*

Q 38. In reference to 2.3.3.1 (MDAD conducts weekly patch management updates on all systems): Does the contractor need to provide patch management solution or could the proposed System leverage on patch management solution provided by MDAD?

A 38. *If MDAD owns the system, MDAD's Patch Management will be used; otherwise the Proposer will need to provide patch management as part of the System's infrastructure.*

Q 39. In reference to 2.3.3.2 (TSM requires the installation of a backup client on the hardware/server that houses the application): Does the contractor need to provide TSM backup client software for the proposed System's servers (including Database Server) or will the TSM client software for the System's servers be provided by MDAD?

A 39. *No, the TSM client software for the System's servers will be provided by MDAD.*

Q 40. In reference to 2.4 (The server application must be capable of communicating using the MDAD proxy server): Would MDAD provide specifications of MDAD proxy server?

A 40. *Proxy Setting will be provided to the successful proposer awarded the resultant contract.*

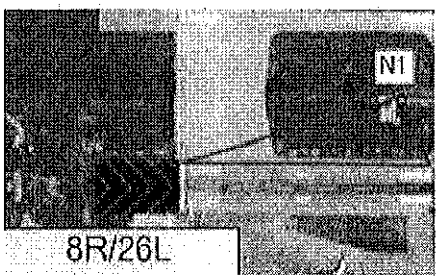
Q 41. In reference to 2.5 (Maintenance Services may be provided via Remote Services using virtual private network (VPN) access): Does the contractor need to provide VPN gateway (for remote access to perform maintenance services) or could the proposed System leverage on VPN gateway provided by MDAD?

A 41. *VPN Access will be provided by MDAD to the successful proposer.*

Q 42. In reference to 2.5 (All environments, production and non-production, including testing and staging, shall also be covered under Maintenance Services): Does the contractor need to provide a testing environment which is physically separated from the production environment (i.e. not sharing the same local network)?

A 42. *The successful proposer needs to provide a solution that covers both test and production needs and that allows for proper testing while maintaining the production System uptime and SLA's.*

Q 43. Is there any constrain to install an approximately 16.4ft (5m) high iFerret tower above runway center line at location mark N1 (which is to be situated behind the ILS and about 400 ft from the runway center line) for iFerret Electro-Optics Sensor Mounting (picture below)?

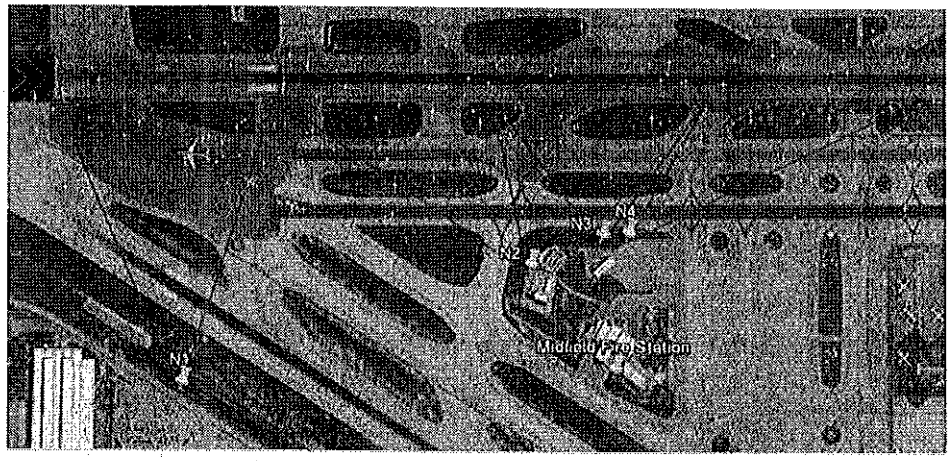


A 43. *The structure as shown penetrates the FAR Part 77 surfaces and would require FAA review.*

Q 44. If N1 (above picture) is to be installed here, is there any available Fiber Optics for tapping around the N1 vicinity?

A 44. *Please refer to Question #25 and the associated response.*

Q 45. Is there any constrain to install an approximately 36ft (11m) high iFerret tower above runway center line at location mark at N1 for iFerret Electro-Optics Sensor Mounting (picture below)?



A 45. *The structure as shown penetrates the FAR Part 77 surfaces and would require FAA review and approval.*

Q 46. Is there any constrain to install a 33ft (10m) high iFerret tower above runway center line at location mark at N2, N3, N4 for iFerret Sensor Mounting (see figure above)?

A 46. *A tower installed within these locations may conflict with a Taxiway Object Free Area and would require FAA review and approval.*

Q 47. How many Operator Consoles are required for this RFP?

A 47. *Please refer to Question #12 and the associated response.*

Q 48. Where exactly are the locations for each Operator Console required?

A 48. *Please refer to Question #12 and the associated response.*

Q 49. Would MDAD allocate fiber optic cabling to all the Operator Consoles area?

A 49. *Please refer to Question #25 and the associated response.*

Q 50. Where is the allocated location to house the FOD Detection System backend system equipment?

A 50. *Please refer to Question #24 and the associated response.*

Q 51. Will there be at least 9 strands (core) of single mode fiber optic cable from the system equipment room to the terminal building and Midfield Fire Station area?

A 51. *Please refer to Question #25 and the associated response.*

Q 52. Question #52 is intentionally omitted.

A 52. *Answer #52 is intentionally omitted.*

Q 53. Is there any storage room size of about 300 to 400ft^2 area to allow for storing of equipment (e.g. Management servers and Electro-Optic Sensors) before installation onsite to each Tower or Building node and the equipment room?

A 53. *Yes, MDAD will allocate approximately 400 square feet of space that may be used as a storage room.*

Q 54. Can the proposal closing date of October 16, 2013 be extended until October 30, 2013 to allow for additional time to submit a comprehensive proposal?

A 54. *The proposal closing date has been extended to November 20, 2013 per Addendum No. 2.*

Q 55. Requirement #4 (Page 42) states "Proposed System operates in conjunction with, and does not interfere with, existing and planned future airport and aircraft communication, navigation, and surveillance systems." Please Clarify "Does not interfere".

The FCC has licensed the 78-81GHZ Spectrum under Part 90 for FOD Detection Systems. Licensing required certification by a 3rd party (approved/appointed by FCC) to verify spectrum and power output to ensure that the system "Does not interfere" with other airport/aircraft systems. Part 15 Systems are not licensed. Part 15 Systems must still be certified to confirm they will not cause interference. They are allowed with the understanding that the operator understands the interference and liability of operating an unlicensed system.

Based on "Does not interfere" wording, we would like to confirm that any Radar Component System selected would be Part 90 licensed and have an authorization certificate from the FCC in order to avoid liability and to be compliant as a safety system.

A 55. *The proposed system must fully satisfy performance specifications for systems and equipment that detect FOD on airports contained in the FAA Advisory Circular 150/5220-24 – Foreign Object Debris Detection Equipment.*

Q 56. Requirement #5 (Page 42) states "Proposed system operates in conjunction with, and without interference from, normal airport and aircraft operations (e.g., aircraft and vehicle movements).

Please clarify "Without Interference" to normal airport/aircraft operations.

Please confirm that the runway will be completely shut down if service, repair, or inspection of a FOD System that has elements/components mounted on the edge of a runway. How does this impact the time table specifications in 2.6 Technical Support services to be provided?

A 56. *The proposed system must fully satisfy performance specifications for systems and equipment that detect FOD on airports contained in the FAA Advisory Circular 150/5220-24 – Foreign Object Debris Detection Equipment. The successful proposer is responsible for responding within the times listed in the Response Time column. If MDAD is able to close the runway at its sole discretion then the successful proposer is responsible for meeting the times listed in the Resolution Time column. If MDAD is not able to close the runway then the successful proposer will not be required to meet the times listed in the Resolution Time column.*

Q 57. Requirement #25 states (page 45) "Proposed System is designed to withstand and operate without damage or failure in ambient temperatures ranging from -25 degrees F (-32 degrees C) to +123 degrees F (+52 degrees C). Please clarify "Withstand and Operate without damage".

In some cases, large bore holes will need to be placed along the edge of the runway for some systems. These holes can impact PCI/Pavement Conditions. Does this qualify as "without damage"? Some components mounted below the surface are susceptible to replacement on a 24 month cycle due to overheating. Does this qualify without damage?

A 57. *Requirement #25 refers to the system itself and its ability to function in ambient temperature. During the construction/installation, bore holes may be placed as suggested; provided that the soil is returned to its original or better condition prior to opening the runway. In regard to parts replacement due to overheating, that is a maintenance item and like normal maintenance must be scheduled in advance to coincide with pre scheduled runway closures.*

Q 58. Requirement #38 (Page 45) states "Proposed System records chain of custody information" Please clarify "Chain of Custody".

A Quantas A380 lost its engine after departing from ChanglA Airport. Digital images from the IFerret System proved the engine was in 100% working condition at takeoff and there was no FOD on the runway. This proof was provided to Quantas by the airport to eliminate their liability and drove Quantas to question Rolls Royce on the dependability of their new generation engine. Rolls Royce took responsibility and redesigned engine. Is this an example of "Chain of Custody"?

A 58. *Requirement #38 requires that the system records chain of custody information. An example of "Chain of custody" documentation is provided below:*

1) *The system records the initial notification of FOD detection*
2) *The system records the closure of the runway*
3) *The system records the dispatching of an Airside Ops.*
4) *The system records the interception and retrieval of the FOD by an agent*
5) *The system records when the runway is reopened.*

Q 59. Requirement #43 (page 46) states "Proposed system has a minimum total life of 10 years". Please clarify "Minimum Total Life." Some systems need major component changes every 2 years. How does this qualify to the above?

A 59. *The proposed system must fully satisfy performance specifications for systems and equipment that detect FOD on airports contained in the FAA Advisory Circular 150/5220-24 – Foreign Object Debris Detection Equipment.*

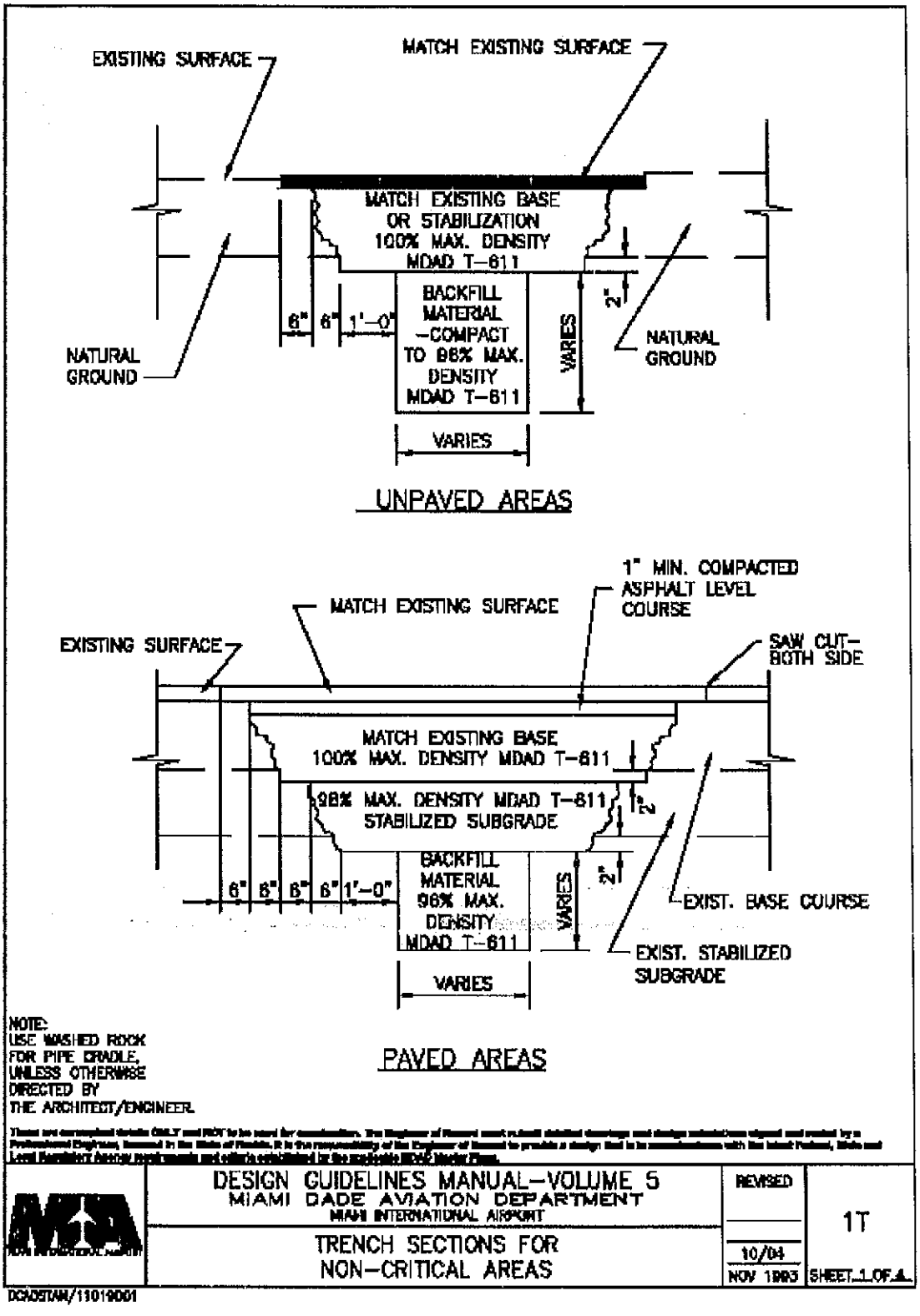
Q 60. Paragraph 2.3.1 states "Data connectivity is available in the form of 10/100/1000 gigabit Ethernet. Diagrams depicted the location of available data connections will be made available to all proposers during the Site Visit." Is data connectivity available between the Vault associated with RW8R-26L and the area of terminals D,E,J, and the GA Ops Center designated to receive the system operation consoles? (I.E. Spare fiber optics cables to be used by the contractor?)

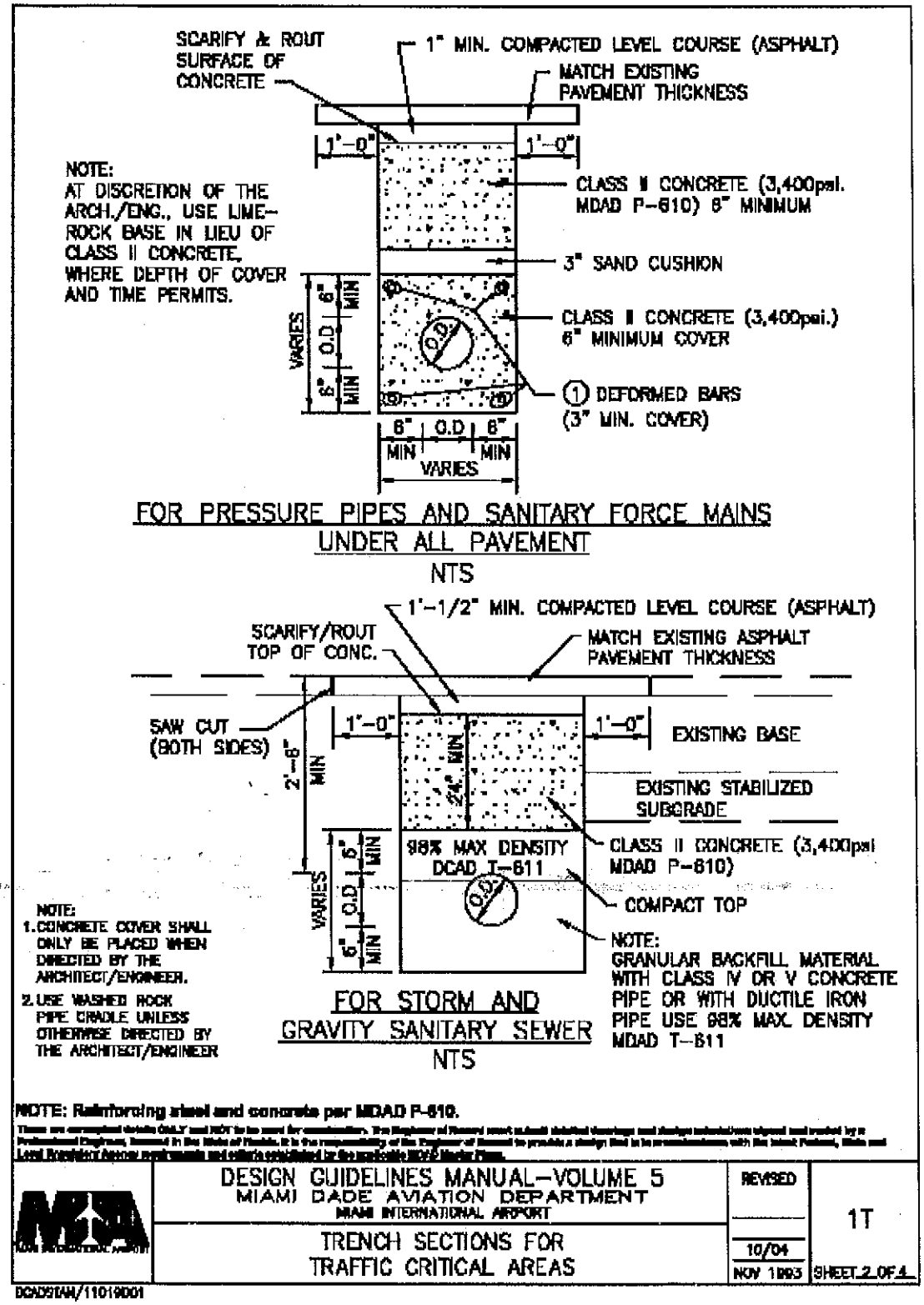
Is data connectivity (as noted) available between the planned SOC location in terminal E ops and the other three proposed SOC locations? (I.E. spare fiber optics cables to be used by the contractor?) If fiber optic cable is not available, as in Q1 & Q2 above; please provide the approximate routing length of cable trays/runs between each of the SOC locations, the RW 8R-26L vault, and between the GA Ops center and terminal E ops area.

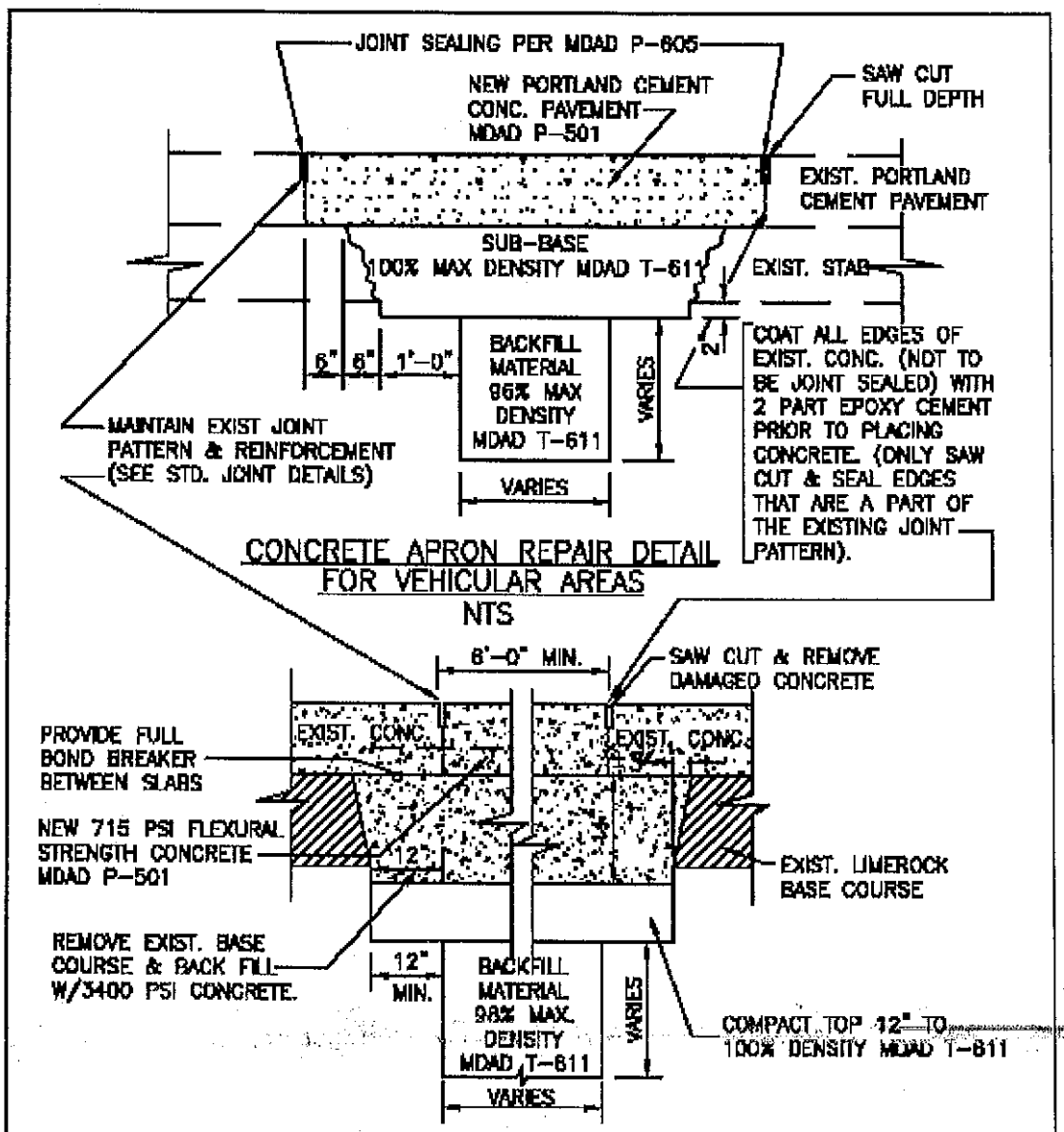
A 60. *Please refer to Question #25 and the associated response.*

Q 61. Please provide a detail diagram for repair of a sawcut in the shoulder area?

A 61. The MDAD Standard Details for pavement restoration associated with utility trenches are below. The selection of the appropriate repair is predicated on the location, type of traffic (aircraft or vehicular), trench width, type of utility and pavement (flexible or rigid). In flexible (asphalt) pavement, the saw cut is normally full depth; the subsequent restoration will require tack coating along the edge of the sawcut and the new pavement matching the existing asphalt thickness. Depending on the trench width, concrete may also be cast to the surface, and subsequently milled and overlay with asphalt. It should be noted that MDAD will not allow a sawcut in pavement for the sole purpose of installing direct buried cables.


EXISTING SURFACE
MATCH EXISTING SURFACE
MATCH EXISTING BASE OR STABILIZATION 100% MAX. DENSITY MDAD T-611
BACKFILL MATERIAL -COMPACT TO 98% MAX. DENSITY MDAD T-611
6"
6"
1'-0"
2"
VARIES
NATURAL GROUND
NATURAL GROUND
VARIES
UNPAVED AREAS
1" MIN. COMPACTED ASPHALT LEVEL COURSE
MATCH EXISTING SURFACE
EXISTING SURFACE
SAW CUT-BOTH SIDE
MATCH EXISTING BASE 100% MAX. DENSITY MDAD T-611
98% MAX. DENSITY MDAD T-611 STABILIZED SUBGRADE
BACKFILL MATERIAL 96% MAX. DENSITY MDAD T-611
6"
6"
6"
6"
1'-0"
2"
VARIES
EXIST. BASE COURSE
EXIST. STABILIZED SUBGRADE
VARIES
PAVED AREAS
NOTE:
USE WASHED ROCK FOR PIPE CRADLE, UNLESS OTHERWISE DIRECTED BY THE ARCHITECT/ENGINEER.
DESIGN GUIDELINES MANUAL-VOLUME 5
MIAMI DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
TRENCH SECTIONS FOR NON-CRITICAL AREAS
REVISED
10/04
NOV 1993
1T
SHEET 1 OF 4
DGN/STAN/11019001


SCARIFY & ROUT SURFACE OF CONCRETE
1" MIN. COMPACTED LEVEL COURSE (ASPHALT)
MATCH EXISTING PAVEMENT THICKNESS
1'-0"
1'-0"
NOTE:
AT DISCRETION OF THE ARCH./ENG., USE LIME-ROCK BASE IN LIEU OF CLASS II CONCRETE, WHERE DEPTH OF COVER AND TIME PERMITS.
CLASS II CONCRETE (3,400psi. MDAD P-610) 6" MINIMUM
3" SAND CUSHION
CLASS II CONCRETE (3,400psi.) 6" MINIMUM COVER
1 DEFORMED BARS (3" MIN. COVER)
VARIES
6" MIN
O.D
6" MIN
6" O.D 6"
MIN MIN
VARIES
FOR PRESSURE PIPES AND SANITARY FORCE MAINS UNDER ALL PAVEMENT
NTS
1'-1/2" MIN. COMPACTED LEVEL COURSE (ASPHALT)
SCARIFY/ROUT TOP OF CONC.
MATCH EXISTING ASPHALT PAVEMENT THICKNESS
SAW CUT (BOTH SIDES)
1'-0"
1'-0"
EXISTING BASE
2'-6" MIN
24" MIN
EXISTING STABILIZED SUBGRADE
98% MAX DENSITY DCAD T-611
CLASS II CONCRETE (3,400psi MDAD P-610)
COMPACT TOP
VARIES
6" MIN
O.D
6" MIN
NOTE:
1. CONCRETE COVER SHALL ONLY BE PLACED WHEN DIRECTED BY THE ARCHITECT/ENGINEER.
2. USE WASHED ROCK PIPE CRADLE UNLESS OTHERWISE DIRECTED BY THE ARCHITECT/ENGINEER
NOTE:
GRANULAR BACKFILL MATERIAL WITH CLASS IV OR V CONCRETE PIPE OR WITH DUCTILE IRON PIPE USE 98% MAX. DENSITY MDAD T-611
FOR STORM AND GRAVITY SANITARY SEWER
NTS
NOTE: Reinforcing steel and concrete per MDAD P-610.
DESIGN GUIDELINES MANUAL-VOLUME 5
MIAMI DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
TRENCH SECTIONS FOR TRAFFIC CRITICAL AREAS
REVISED
10/04
NOV 1993
1T
SHEET 2 OF 4
DCAD91AH/11019001

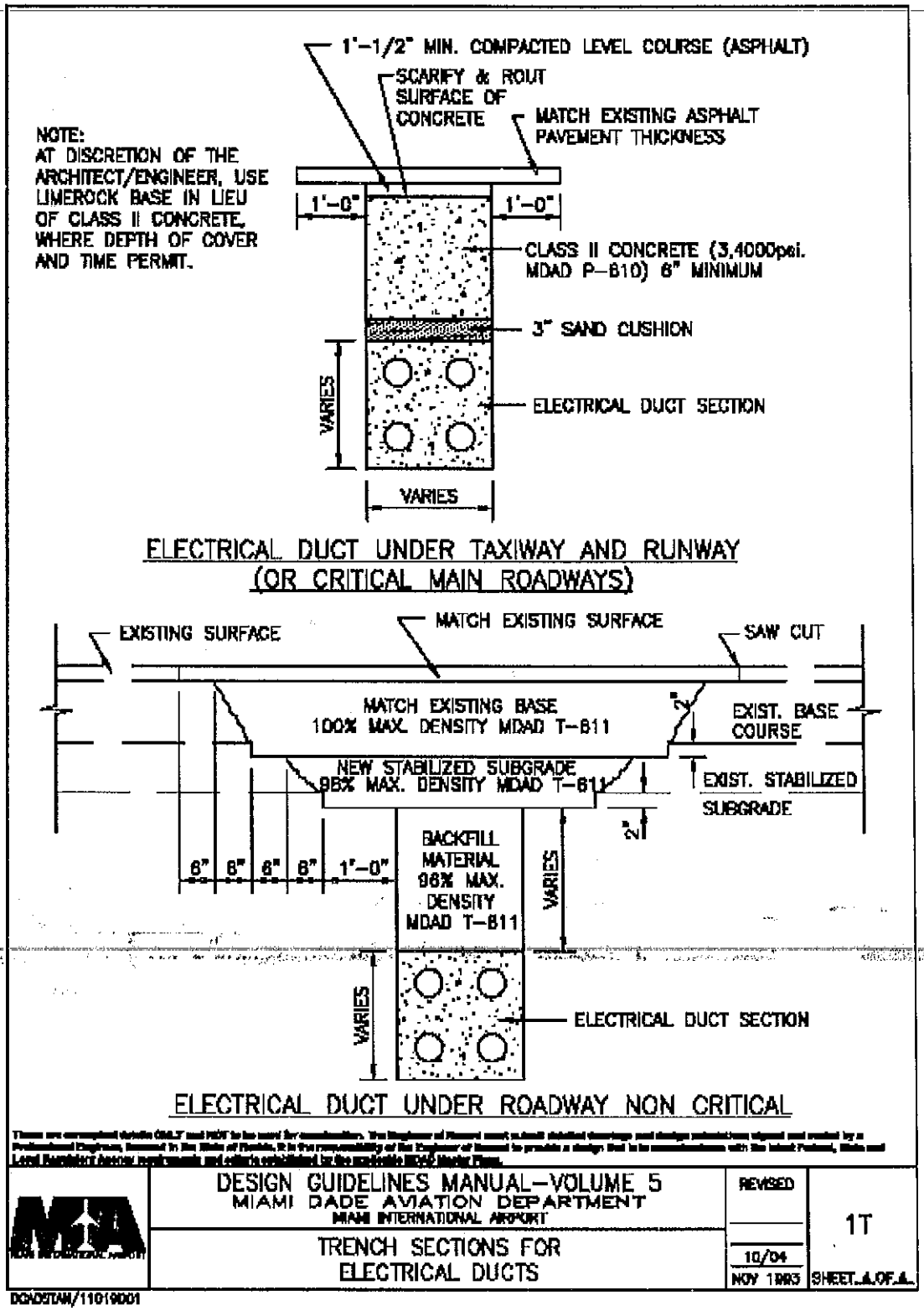


NOTES:

1. SAW CUT FULL DEPTH OF SLABS
2. USE CAUTION DEMOLISHING PAVEMENT WITHIN LIMITS OF SAW CUT AREAS.
3. MINIMUM DISTANCE BETWEEN SAW CUTS & EXISTING JOINTS SHALL BE 6 FEET
4. TOOL EDGE, SAW CUT & RESEAL EXISTING JOINTS IN AREA (SEE STANDARD JOINT SEALING DETAILS)

MDA MIAMI DADE AVIATION AUTHORITY	DESIGN GUIDELINES MANUAL-VOLUME 5 MIAMI DADE AVIATION DEPARTMENT MIAMI INTERNATIONAL AIRPORT	REVISED	1T
	UTILITY TRENCH AND PAVEMENT RESTORATION	10/04 NOV 1993	SHEET 3 OF 4

DGADSTAN/11019001


1'-1/2" MIN. COMPACTED LEVEL COURSE (ASPHALT)
SCARIFY & ROUT SURFACE OF CONCRETE
MATCH EXISTING ASPHALT PAVEMENT THICKNESS
NOTE:
AT DISCRETION OF THE ARCHITECT/ENGINEER, USE LIMEROCK BASE IN LIEU OF CLASS II CONCRETE, WHERE DEPTH OF COVER AND TIME PERMIT.
1'-0"
1'-0"
CLASS II CONCRETE (3,4000psi. MDAD P-610) 6" MINIMUM
3" SAND CUSHION
VARIES
ELECTRICAL DUCT SECTION
VARIES
ELECTRICAL DUCT UNDER TAXIWAY AND RUNWAY (OR CRITICAL MAIN ROADWAYS)
EXISTING SURFACE
MATCH EXISTING SURFACE
SAW CUT
MATCH EXISTING BASE 100% MAX. DENSITY MDAD T-611
EXIST. BASE COURSE
NEW STABILIZED SUBGRADE 98% MAX. DENSITY MDAD T-611
EXIST. STABILIZED SUBGRADE
6" 6" 6" 6" 1'-0"
BACKFILL MATERIAL 98% MAX. DENSITY MDAD T-611
VARIES
VARIES
ELECTRICAL DUCT SECTION
ELECTRICAL DUCT UNDER ROADWAY NON CRITICAL
DESIGN GUIDELINES MANUAL-VOLUME 5
MIAMI DADE AVIATION DEPARTMENT
MIAMI INTERNATIONAL AIRPORT
TRENCH SECTIONS FOR ELECTRICAL DUCTS
REVISED
10/04
NOV 1993
1T
SHEET A OF A
DGNDSTAN/11019001

Attachment No. 2
Sign-in Sheet from the Pre-Proposal Conference #3 held at the Miami-Dade Aviation Department on Monday, November 4, 2013.

ATTENDANCE SHEET

MIAMI-DADE

BID NUMBER / TITLE: RFP872 / Foreign Object Debris (FOD) Detection System

LOCATION: MDAD : 4200 NW 36th ST, Building 5A, 4th Floor, Conference Room C, Miami FL

PURPOSE: Pre-Bid Conference #3

DATE: 4-Nov-13

NAME / TITLE	COMPANY	ADDRESS	PHONE	E-MAIL
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Rev. 10/18/99