REQUEST FOR QUOTATION (RFQ)
MASSIT RFQ 15-37

Commonwealth of Massachusetts
MASSIT - MASSACHUSETTS OFFICE OF INFORMATION TECHNOLOGY

10 Park Plaza Fiber Optic Cabling
Statewide Contract ITC54
ISSUED: January 2, 2015

This request for quotation and all responses hereto, including the winning bid, shall become public record as of the date the contract referenced herein is awarded and can be obtained from the Massachusetts Office of Information Technology by sending an e-mail to: Louis.Kaczmarek@MassMail.State.MA.US

The deadline for responses is February 2, 2015 by 3:00 p.m.

PROCUREMENT MANAGEMENT TEAM (PMT) LEADER:

Massachusetts Office of Information Technology
Louis.Kaczmarek@MassMail.State.MA.US

*No Phone Calls Will Be Accepted*
1 Background
The Massachusetts Office of Information Technology (MassIT), seeks to engage a qualified vendor from the statewide contract number ITC54 to provide materials and services to install fiber optic cable at 10 Park Plaza, Boston, MA 02116. The principal objective is to provide additional capacity to the Executive Office of Public Safety and Security fiber optic network in the Loop A conduit system.

The materials consist of fiber optic cable, patch panels, splice enclosures and required ancillary components.

The services include placement of fiber optic cable in existing conduit and other pathways both indoors and underground. Also included is the installation of patch panels, as well as fiber termination, splicing, and testing.

1.1 Vendor Requirements
The vendor must meet the following minimum requirements:

- The vendor must be included and Active on Commonwealth of Massachusetts statewide contract ITC54.
- The vendor must meet the insurance and bonding requirements to work in the streets of the City of Boston.
- The vendor must be experienced with working in the streets of Boston, including processes for obtaining Grant of Location, Occupancy Permits, Police Details, etc.
- The vendor must have all qualifications and approvals required by the Joint Trench Partners (JTP) to perform work in the Level 3 Loop A conduit system.
- The vendor must have sufficient capability and capacity to procure all materials and complete and testing prior to February 19, 2015.

2 Scope of This Procurement

3 Materials
The vendor shall provide all materials required to perform the installation services outlined in section 4 Services. Table 1 - Estimated Materials outlines the estimated required quantities of materials. MassIT has confirmed that these materials are generally available with four (4) week lead time, however due to concerns in the availability of fiber optic cable it is required that the vendor order all of the materials within 5 days of receiving the award. The vendor must inform MassIT of expected delivery times of each item as soon as they are made available. The vendor is responsible for taking delivery and storing the materials until they are required for the project. If materials are unused or spare at the end of the project, they shall be delivered to MassIT in a timely manner.

**Table 1 - Estimated Materials**

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Description</th>
<th>Est. Qty.</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fiber Cable</td>
<td>96 Strand Single mode, Outdoor Rated, Non-armored</td>
<td>750</td>
<td>Feet</td>
</tr>
<tr>
<td>2</td>
<td>Fiber Cable</td>
<td>48 Strand Single mode Plenum Rated, Armored</td>
<td>750</td>
<td>Feet</td>
</tr>
<tr>
<td>3</td>
<td>Patch Panel</td>
<td>Rack Mount, 144 Position with SC Connector Modules</td>
<td>1</td>
<td>Kits</td>
</tr>
<tr>
<td>4</td>
<td>Patch Panel</td>
<td>Rack Mount, 48 Position with SC Connector Modules</td>
<td>1</td>
<td>Kits</td>
</tr>
<tr>
<td>5</td>
<td>Pigtail</td>
<td>Single Mode Pigtail , 1-3 Meter SC Connector, for Patch Panels (or equivalent cassette system)</td>
<td>192</td>
<td>Pcs</td>
</tr>
<tr>
<td>6</td>
<td>Fiber Spice Enclosure</td>
<td>Trays and Accessories to Splice new 96 strand lateral to 432 Backbone cable</td>
<td>1</td>
<td>Kits</td>
</tr>
<tr>
<td>7</td>
<td>Cable Tag/Labels</td>
<td>Cable Tags indicating ownership, contact information, and cable destination</td>
<td>35</td>
<td>Pcs</td>
</tr>
</tbody>
</table>

**Table 1 - Estimated Materials Notes:**
- Items 1,2 -- Single mode fiber must comply with GR-20-CORE Issue 2 RUS CFR-1755-900 (PE90 listed)
- Items 1 – Fiber must be suitable to run in underground conduit
- Items 3,4 – Bidder may propose patch panel systems that utilize the specified individual pigtails or systems that utilize cassettes, cartridges, pigtail bundles that utilize fusion butt splice for installation
- Item 6 – An existing splice enclosure (Type D) currently houses a 96 strand lateral and 432 backbone. There is likely sufficient room to add the new 96 strand lateral, but additional accessories (e.g. splice trays) may be required.
4 Installation Services

Installation services will be divided into discreet tasks. While it is MassIT’s intention to complete all tasks under this procurement, certain factors outside of MassIT’s control may prevent MassIT from requesting individual tasks. Vendors should quote each task individually and MassIT reserves the right to proceed or not proceed on each item individually.

4.1 General Vendor Responsibilities

For each task vendor shall provide all labor, materials, tools, field-test instruments, and equipment required to complete all work described herein, at the respective project location. The vendor is responsible for all permitting and administrative coordination and costs as well as miscellaneous hardware, wiring, and accessories for a complete and functioning installation. This shall include, but not be limited to:

A. All permits and inspections required by municipal or other governmental entities
B. Police protection details
C. Required bonds or insurance
D. Permission or internal approvals from building management
E. Permission or approval from Joint Trench Partners (JTP) for accessing Loop A, including preparation of MOPs or other documentation (note, The Executive Office of Public Safety and Security (EOPSS) is a participant in JTP)
F. Supervision or Inspection requirements by conduit owners (e.g. JTP and/or Level 3)
G. All traffic control per city requirements
H. All materials required to complete the described tasks including, but not limited to those items in Table 1 - Estimated Materials
I. All labor and other costs required to complete the described tasks

5 Installation Tasks

5.1 Task 1 – Lateral for 10 Park Plaza, Boston

5.1.1 Task 1 Overview
Task 1 is the placement, splicing and terminating of a 96 strand fiber optic lateral cables in existing conduit from Level 3/JTP Loop A Manhole 0515-1900 to the 10 Park Plaza, Upper Garage Telephone Equipment Room. This path is approximately 300 feet. This new lateral cable will run from the Executive Office of Public Safety and Security (EOPSS) backbone cable alongside the existing lateral cable to increase capacity into the building.
5.1.2 Task 1 Vendor Responsibilities and Assumptions

In addition to general responsibilities outlined in 4.1 General Vendor Responsibilities, the following list of Task Specific Responsibilities should be considered. It should be noted that this list may not be all-inclusive and the vendor should use its experience to ensure that all considerations for labor, materials, and other expenses are made to quote a complete solution to this task.

Please reference the following drawing. A confidential, detailed drawing is available upon request to interested ITC54 vendors. Requests can be made by emailing Louis Kaczmarek at Louis.Kaczmarek@MassMail.State.MA.US

![Figure 1 – 10 Park Lateral](image)

5.1.2.1 Task 1 Specific Responsibilities:

A. Pump and otherwise prepare all manholes as necessary.
B. Provide and install 96-Strand Outdoor Rated fiber optic cable (Table 1 - Estimated Materials, Item 1) from Level 3/JTP Manhole 0515-1900 to the 10 Park Plaza, Upper Garage Telephone Equipment Room in one continuous pull. This cable will run in the same path as the existing 96 strand lateral:
   a. 75’ Slack Coil in Level 3/JTP MH 0515-1900
   b. 50’ Slack Coil in Telephone Equipment Room
   c. Total interior pathway length approximately 250’
   d. Total exterior pathway length approximately 50’
   e. Total cable length plus slack and 20% = 510’
C. Splice 10 Park 96-strand lateral cable into existing EOPSS 432 backbone cable in Level 3/JTP Loop A Manhole 0515-1900 utilizing existing supplied splice enclosure and vendor provided accessories, if needed (Table 1 - Estimated Materials, Item 6), with a maximum of 144 fusion splices. Note the specific splice plans will be provided prior to the start of this task.
D. Neatly rack, store, and label fiber cables within the Loop A manhole and Telephone Room
E. Provide and install 128 position rack mount fiber optic patch panel (Table 1 - Estimated Materials, Item 3) in existing rack in the Upper Garage Telephone Equipment Room.
F. Provide and fusion splice 96 SC pigtails or equivalent cartridge/cassette based system (Table 1 - Estimated Materials, Item 5) to terminate the newly installed cable to the new patch panel installed in the Upper Garage Telephone Equipment Room.
G. Label fiber cables inside and out utilizing vendor supplied tags (Table 1 - Estimated Materials, Item 7).
H. Label patch panel

5.1.2.2 Task 1 Assumptions
The following assumptions should be considered for Task 4. It should be noted that this list may not be all-inclusive and the vendor should use its experience to ensure that all considerations are made to quote a complete solution to this task.

A. Boston street work will be during nighttime hours
B. Boston Police details will be required for street work
C. City of Boston Permits will be required for street work
D. Formal MOPs, coordination, and possible supervision will be required to work in the JTP/Loop A conduit system.
E. A sketch and work outline will be required for building approval before work may begin. Information on cable attachments methods and other relevant information will be required.
F. Coordination and possible supervision will be required to work in the 10 Park facility

5.2 Task 2 – Internal Cabling and Patch Panels at 10 Park Plaza, Boston

5.2.1 Task 2 Overview
Task 2 is the placement of cable and patch panels within 10 Park Plaza, Boston. Specifically under this task, a 48-Strand fiber optic cables will be placed connecting to 10 Park Plaza, Upper Garage Telephone Equipment Room and the 8th Floor MassDOT Data Center. Patch panels will be installed and fiber terminated at both ends.

5.2.2 Task 2 Vendor Responsibilities and Assumptions
In addition to general responsibilities outlined in 4.1 General Vendor Responsibilities, the following list of Task Specific Responsibilities should be considered. It should be noted that this list may not be all-inclusive and the vendor should use its experience to ensure that all considerations for labor, materials, and other expenses are made to quote a complete solution to this task.
Please reference the following diagram. A confidential, detailed drawing is available upon request to interested ITC54 vendors. Requests can be made by emailing Louis Kaczmarek at Louis.Kaczmarek@MassMail.State.MA.US

Figure 2 – 10 Park Internal Cable

5.2.2.1 Task 2 Specific Responsibilities:

A. Provide and install 48-Strand Indoor Plenum Rated fiber optic cable (Table 1 - Estimated Materials, Item 2) as follows from Upper Garage Telephone Room to the MassDOT Data Center on the 8th Floor.
   i. 25' Slack Loop in Telephone room
   ii. Approx. 120' from Telephone Room to 2nd Floor Telco Closet
iii. Approx. 110' in stacked Teco Closets to 8th Floor  
iv. Approx. 190' in drop ceiling to MassDOT Data Center  
v. 25' Slack Loop in Data Center  
vi. Total cable plus slack and 20% = 564'  

B. Provide and install modules for 48 additional fiber termination in rack mount fiber optic patch panel installed (Table 1 - Estimated Materials, Item 3) in Upper Garage Telephone Room panel installed in Task 1.  
C. Provide and install 48 position rack mount fiber optic patch panel (Table 1 - Estimated Materials, Item 4) in MassDOT 8th Data Center  
D. Provide and fusion splice SC pigtails or equivalent cartridge/cassette based system (Table 1 - Estimated Materials, Item 5) to terminated fiber to patch panels at all locations – 144 Total  
E. Install LC connector or alternative assemblies in the patch panel.  
F. Neatly store slack and excess fiber at all locations  
G. Label fiber cables utilizing vendor supplied tags (Table 1 - Estimated Materials, Item 7).  
H. Label patch panel ports  

5.2.2.2 Task 2 Assumptions  
The following assumptions should be considered for Task 2. It should be noted that this list may not be all-inclusive and the vendor should use its experience to ensure that all considerations are made to quote a complete solution to this task.  

A. A sketch and work outline will be required for building approval before work may begin. Information on cable attachments methods and other relevant information will be required.  
B. Coordination and possible supervision will be required to work in the 10 Park facility  
C. Vendor must coordinate with building office occupants to minimize any disruptions  

5.3 Task 3 – Splicing Loop A Fiber  

5.3.1 Task 3 Overview  
Task 3 is a splice change at Loop A manhole MH 0515-2203 on the Mass Pike On-Ramp at Massachusetts Avenue in Boston. This splice change will interrupt a live network and will require careful coordination. If problems are detected immediately after the change it may be required to change splicing back to the original configuration.  

5.3.2 Task 3 Vendor Responsibilities and Assumptions  
In addition to general responsibilities outlined in 4.1 General Vendor Responsibilities, the following list of Task Specific Responsibilities should be considered. It should be noted that this list may not be all-inclusive and the vendor should use its experience to ensure that all
considerations for labor, materials, and other expenses are made to quote a complete solution to this task.

5.3.2.1 Task 3 Specific Responsibilities:
A. Acquire any occupancy permits or other authorizations to perform this task.
B. Coordinate timing with network engineers responsible for operation.
C. Pump and otherwise prepare all manholes as necessary.
D. Test unused and un-terminated fiber pair with OTDR and/or Optical Power Meter to confirm new pathway.
E. Change splicing of 2 strands in existing splice enclosure as requested (detailed splice diagram will be provided prior to the start of this task).
F. Wait no more than 1 hour for engineers to test new configuration. Possibly return to original configuration if testing is not satisfactory.
G. Neatly rack, store, and label fiber cables within the Loop A manhole.

5.3.2.2 Task 3 Assumptions
The following assumptions should be considered for Task 3. It should be noted that this list may not be all-inclusive and the vendor should use its experience to ensure that all considerations are made to quote a complete solution to this task.

A. Bidders should assume this is a stand-alone tasked to be performed on a different day than other tasks.
B. Boston street work will be during nighttime hours.
C. Police details will be required for street work.
D. Boston and Cambridge Permits will be required for street work in the respective cities.
E. Formal MOPs, coordination, and possible supervision will be required to work in the JTP/Loop A conduit system.

5.4 Task 4 – Testing

5.4.1 Task 4 Overview
Task 4 is the testing of newly installed fiber to adjacent sites on the backbone ring.

5.4.2 Task 4 Vendor Responsibilities and Assumptions
In addition to general responsibilities outlined in 4.1 General Vendor Responsibilities, the following list of Task Specific Responsibilities should be considered. It should be noted that this list may not be all-inclusive and the vendor should use its experience to ensure that all considerations for labor, materials, and other expenses are made to quote a complete solution to this task.

5.4.2.1 Task 4 Specific Responsibilities:
A. Bi-Directional OTDR and Optical Power Loss test of all 96 fibers carried into 10 Park Plaza from Loop A. Fibers will terminate at:
5.4.2.2 Task 4 Assumptions

The following assumptions should be considered for Task 4. It should be noted that this list may not be all-inclusive and the vendor should use its experience to ensure that all considerations are made to quote a complete solution to this task.

A. Coordination will be provided for access to Ashburton, Summer and 6th Street Sites.
B. Tests should be performed at 1310 nm wavelength.

6 General Response Instructions

MassIT does not intend to obtain secondary quotes. Bidders should provide their best pricing in response to this RFQ.

Vendor must provide in its response:

A. A single point of contact for working with MassIT.
B. Confirmation that the vendor understands and meets the requirements set forth in this RFQ.
C. Brief overview of experience working within:
   a. Executive Office of Public Safety and Security (EOPSS) and MassIT Infrastructure
   b. Level 3 / Joint Trench Partners Conduit
   c. Cities of Boston
D. Fixed Price Cost Proposal in Excel Spreadsheet: Appendix A-10 Park Plaza Materials and Installation Cost Proposal

6.1 Response Format for Materials

All costs for materials should be provided in the Excel spreadsheet Appendix A“10 park Plaza Materials and Installation Cost Proposal”. Bidders should complete areas in green for costs and delivery date.

Any anticipated shortfall between estimated quantity shown in Table 1 - Estimated Materials and bidder’s internal estimates should be itemized and included under “Additional Materials...
Required”. This is a fixed price engagement and it is the responsibility of the bidder to include all costs.

Responses must include detailed specification sheets for all items, as well as any variance in specifications between the proposed products and the specifications shown in Appendix A.

Delivery time is a critical factor. Bidders may, in addition to the specific items requested, propose alternatives that may reduce delivery time.

6.1.1 Materials Delivery Requirements

While the vendor is expected to take delivery of the materials for installation bidders must include in their quote any cost associated with delivery of any unused or excess materials to MassIT.

- All deliveries must be made to the MITC loading dock area located at:
  Massachusetts Information Technology Center
  200 Arlington Street
  Chelsea, MA 02150
- All deliveries must be made between Monday and Friday during the hours of 9:00 a.m. and 5:00 p.m.
- Access to the MITC must be made via the Spruce Street entrance.
- To access the MITC Parking Lot A from the Spruce Street entrance, the delivery person will be required to contact MITC Security by pushing the intercom button located on the gate.
- The delivery person will be required to provide their name, company affiliation, and purpose for the delivery.
- The delivery person will be granted access to the MITC loading dock area.
- MITC Security Personnel will notify the MassIT of the delivery.

6.2 Response Format for Installation Services

All costs for installation services should be provided in the Excel spreadsheet Appendix A “10 Park Plaza Materials and Installation Cost Proposal”. Bidders should complete areas in green for Costs, Earliest Start Date, and Estimated Completion Date. Earliest Start Date should be based on the availability of materials, permitting, coordination and other anticipated factors

This is a fixed price engagement and it is the responsibility of the bidder to include all costs for each task. While it is MassIT intention to complete all tasks under this procurement, certain factors outside of MassIT’ control may prevent MassIT from requesting individual
tasks. Vendors should quote each task individually and MassIT reserves the right to proceed or not proceed on each item individually.

Delivery time is a critical factor. Bidders may, in addition to the specific tasks requested, propose alternatives that may reduce delivery time.

Responses must be submitted in CommBuys no later than the response due date and time indicated in the Procurement Calendar below or they will not be evaluated.

Useful Links:
- Job aid on how to submit a quote: [http://www.mass.gov/anf/docs/osd/commbuys/create-a-quote-v1.docx](http://www.mass.gov/anf/docs/osd/commbuys/create-a-quote-v1.docx)
- Webcast: How to Locate and Respond to a Bid in CommBuys, which will familiarize bidders with CommBuys terminology, basic navigation, and provide guidance for locating bid opportunities in CommBuys and submitting an online quote.

Bidder may contact the CommBuys Help Desk at CommBuys@state.ma.us or call during normal business hours (8AM – 5PM, Monday – Friday) at 1-888-627-8283 or 617-720-3197.

### 6.3 Procurement Calendar and Submission

MassIT has forecasted these milestones and dates. These dates are subject to change at the department’s sole discretion. Bidders will be notified by the PMT Leader of any date or time changes.

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release of RFQ to Vendors</td>
<td>January 02, 2015</td>
</tr>
<tr>
<td>The deadline for Interested Bidder's Questions</td>
<td>January 16, 2015 by 3:00 p.m. EDT</td>
</tr>
<tr>
<td>Vendor Submission of Responses Deadline Date</td>
<td>February 2, 2015 by 3:00 p.m. EDT</td>
</tr>
<tr>
<td>Vendor to Receive Award Bid Notification</td>
<td>February 19, 2015</td>
</tr>
<tr>
<td>Anticipated Contract Award</td>
<td>February 27, 2015</td>
</tr>
<tr>
<td>Mandatory Project Completion</td>
<td>March 31, 2015</td>
</tr>
</tbody>
</table>
Questions must be emailed to Louis.Kaczmarek@MassMail.State.MA.US by the date and time specified in the Procurement Calendar above. The subject line of the email must read RFQ 15-37 Question [vendor name] It is the vendors responsibility to make sure that their questions have been received. Answers will be posted in CommBuys.

7 Evaluation Criteria

The responses to this RFQ will be evaluated based on the criteria listed below. The criteria are listed in descending order of importance with the most important criteria in each section listed first. The following subsections are listed in the descending order of importance with the most important criteria listed first:

A. Cost

Each bidder will be assigned points based on the estimated ratio of its total price to the lowest total price with the lowest total price receiving the maximum points in this category.

B. Business and Technical

1. The bidder's ability to meet the business, functional and technical requirements of this RFQ
2. The availability date of the products requested
3. Estimated completion time for Installation Services

8 Costs Associated with RFQ Response

Each respondent, by submitting a Response, agrees that any cost incurred by it in responding to this RFQ, or in support of activities associated with this RFQ, shall be the sole responsibility of respondent. MassIT shall incur no obligations or liabilities whatsoever, to anyone, for any costs or expenses incurred by respondent in responding to this RFQ.

9 Review Rights

Responses to the RFQ may be reviewed and evaluated by any person(s) at the discretion of MassIT including non-allied and independent consultants retained by MassIT now or in the future, for the sole purpose of obtaining an analysis of Responses. Any and all respondents may be asked to further explain or clarify in writing areas of their Response during the review process. MassIT retains the right to request further information from respondents.
10 Interested Bidder’s Questions and Detailed Diagrams

Should you have any questions or wish to receive the confidential, detailed diagrams, please email the Procurement Team Leader at Louis.Kaczmarek@MassMail.State.MA.US

The deadline for Interested Bidder’s Questions is January 16, 2015 by 3:00 p.m. EDT.