Lessons Learned Management Response: Procurement

Compiled By Project Controls
<table>
<thead>
<tr>
<th>I.D. #</th>
<th>Item No.</th>
<th>Classification</th>
<th>Brief Description</th>
<th>Recommendation</th>
<th>Management Brief Action Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.PL12.1</td>
<td>1</td>
<td>Parking Lot design build procurement</td>
<td>mandatory ATC should be identified</td>
<td>closely follow MassDot Design Build Process as adapted for Longfellow Bridge</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>clarify what items should not be ATC</td>
<td>Agreed; should be in each RFP</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>ATC submittal should require sufficient detail</td>
<td>Agreed; should be in each RFP</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>procure design builder earlier in design process (30%)</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>better coordination between depts.</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>better documentation of scope and design changes during the V.E. process</td>
<td>Agree; revisit/develop VE process</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>best value selection</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>produce a good risk allocation matrix</td>
<td>Agree; will revisit procurement guidelines</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td>determine stakeholder requirements</td>
<td>Agree; will revisit procurement guidelines</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>allocate process management to the contractor for utility relocation</td>
<td>Agree; this is currently in place</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>provide incentive to contractor for management of all risks</td>
<td>will consider further</td>
<td></td>
</tr>
</tbody>
</table>

<p>| P.PL12.2 | 1 | Parking Lot general design build procurement | selection criteria should be 1 criteria | review Selection Criteria; review design build procurement contract |
| 2 | | training for Design Build contractor teams | Agree; implement on next Design Build Contract; review design build procurement contract |</p>
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<tr>
<td>3</td>
<td></td>
<td></td>
<td>training for selection committee members</td>
<td>Agree; implement on next Design Build Contract; review design build procurement contract</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>well defined legal agreements between parties</td>
<td>Agree; implement on next Design Build Contract; have well-defined contractual agreements; review design build procurement contract</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>code egress review completed prior to design build procurement</td>
<td>Agree; implement on next Design Build Contract; review design build procurement contract</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>clear expectations that all standards &amp; guidelines are required to be met to have a compliant submittal (technical proposal &amp; cost proposal)</td>
<td>Agree; implement on next Design Build Contract; review design build procurement contract</td>
<td></td>
</tr>
<tr>
<td>P.SR12.1</td>
<td>1</td>
<td>Station Renovation</td>
<td>technical requirements and cost defined by track dept. prior to construction</td>
<td>do not issue NTP if Scope of Work is not defined</td>
<td>Agree; PBCRS have been changed to reflect this</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>when consultant's identify conflicts with existing conditions, all affected depts. should be invited to a meeting to discuss condition</td>
<td>Agree; determine who will make decisions on what to do in order to resolve conflict</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>determine who will make decision on what to do to correct conflict</td>
<td>Agree; determine who will make decisions on what to do in order to resolve conflict</td>
<td></td>
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### Lessons Learned Management Response - Procurement

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<td></td>
<td>4</td>
<td></td>
<td>determine who is responsible for cost</td>
<td>Agree; determine who will make decisions on what to do in order to resolve conflict</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td>confirm who is responsible for schedule</td>
<td>Agree; determine who will make decisions on what to do in order to resolve conflict</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td>require designers to obtain their own equipment in order to perform inspections</td>
<td>Agree; determine who will make decisions on what to do in order to resolve conflict</td>
<td></td>
</tr>
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</table>
PROCUREMENT
PARKING LOT
Lessons Learned Form

QTR. 20___


1. Project Title: Wonderland Parking Garage

2. Contract #: D38CN01

3. Lessons Learned #:

4. Date: 1/9/12

5. Project Delivery Method

☐ Design - Bid - Build
☐ Design Build
☐ CM @ Risk

6. Phase:

☐ Conceptual Design of 15%
☐ Preliminary Design 15% - 60%
☐ Final Design 60% - 100%
☐ Procurement
☐ Construction
7. Project Classification:

- ☐ System Improvement
- ☐ Parking Lot
- ☐ Roadway
- ☐ Commuter Rail
- ☐ Bridge
- ☐ Station Renovation
- ☐ New Capital Expansion
- ☐ Noise Wall
- ☐ Building Demo
- ☑ Maintenance Facility Improvement
- ☐ New Elevator
- ☐ Replacement Elevator
- ☐ Parking Garage
- ☐ Light Rail Right-of-Way
- ☐ New Vertical Construction
- ☐ Environmental
- ☐ Heavy Civil
- ☐ Signal/Comm./Power

8. Lessons Learned Affected Category:

- ☑ Scope
- ☑ Time
- ☑ Cost
- ☑ Management

9. Is this a safety related lesson? ☐ Yes ☑ No

10. Title of Lessons Learned: ________________________________

11. Background:

This project was advanced to 90%. When the ARRA funds became available it was decided to complete the design as a Design Build to mitigate risk, control costs and expedite the schedule.
12. Lessons Learned Challenges (what needs improvement or what went well?):

13. Lessons Learned Recommendations (how would you improve or avoid or why do you think it went so well?):

As many Mandatory ATC's should be identified as possible - especially when budget concerns exist. These MATC's should be defined early in the design process such that the design team can keep track and provide detailed descriptions of system and scope included in the MATC. It should be made clear what items should not be considered ATC's. It seems that the process would be more fruitful if it were clear that ATC's should not change project scope or quality (avoiding the "low-hanging fruit" approach) and find ways to incentivize creative thinking (such as SCCI's hybrid foundation system). From an evaluation point of view, more detail from the DB teams should be required in order to have ATC's considered. More definition in the ATC would allow for earlier evaluation, hopefully avoiding lengthy negotiation during contract from ATC's. Need to better manage internally signing authority for startries and departments.

14. Applicability:

Submitted by: _____________________________

Telephone #: 781-927-5766    Email: erikvanaarem@pmc-ma.com

_____________________________
Lessons Learned Form

QTR. 20

1. Project Title: WONDERLAND TOP'S

2. Contract #: 038CN01 & 039CN01

3. Lessons Learned #: 3 (GENERAL DB PROCUREMENT)

4. Date: 1/12/10

5. Project Delivery Method
   - [ ] Design - Bid - Build
   - [x] Design Build
   - [ ] CM @ Risk

6. Phase:
   - [ ] Conceptual Design of 15%
   - [ ] Preliminary Design 15% - 60%
   - [ ] Final Design 60% - 100%
   - [x] Procurement
   - [ ] Construction
7. Project Classification:

- [ ] System Improvement
- [ ] Parking Lot
- [ ] Roadway
- [ ] Commuter Rail
- [ ] Bridge
- [ ] Station Renovation
- [ ] New Capital Expansion
- [ ] Noise Wall
- [ ] Building Demo

8. Lessons Learned Affected Category:

- [ ] Scope
- [x] Time
- [x] Cost
- [ ] Management

9. Is this a safety related lesson?  

- [ ] Yes
- [x] No

10. Title of Lessons Learned: General DB Procurement

11. Background:
12. Lessons Learned Challenges (what needs improvement or what went well?):

- Selection Criteria should be revised.
- Training for DB contractors teams.
- Training for Selection Committee members.
- Well defined agreements between parties.

13. Lessons Learned Recommendations (how would you improve or avoid or why do you think it went so well?):

- Clear expectations that all MB9 standards and guidelines are required to be met to have a compliant submission (technical proposal and cost proposal).
- Code/EEES review completed for DB procurement.

Submitted by: ______

Telephone #: 3259-0761  Email: TRAVERSE@MB.COM
STATION RENOVATION (RAPID TRANSIT)
Lessons Learned Form

QTR. 20 11


1. Project Title: ____________________________________________

Orient Heights Station

2. Contract #:___________________________________________

S09CN10

3. Lessons Learned #:____________________________________

1

4. Date: _______________ 1/12/12

5. Project Delivery Method

☑ Design - Bid - Build
☐ Design Build
☐ CM @ Risk

6. Phase:

☐ Conceptual Design of 15%
☐ Preliminary Design 15% - 60%
☐ Final Design 60% - 100%
☑ Procurement
☐ Construction
7. Project Classification:

- System Improvement
- Parking Lot
- Roadway
- Commuter Rail
- Bridge
- Station Renovation
- New Capital Expansion
- Noise Wall
- Building Demo
- Maintenance Facility Improvement
- New Elevator
- Replacement Elevator
- Parking Garage
- Light Rail Right-of-Way
- New Vertical Construction
- Environmental
- Heavy Civil
- Signal/Comm./Power

8. Lessons Learned Affected Category:

- Scope
- Cost
- Time
- Management

9. Is this a safety related lesson?  ☐ Yes  ☐ No

Ongoing technical discussions with the Track Department

10. Title of Lessons Learned:

11. Background:

The construction NTP for the Orient Heights Station Project was issued on 12/7/11. Unfortunately, as of 11/13/12 the extent of track work in the station and adjoining areas has not been defined and the design of the future track profile is a work in progress. Also, the Project Office and Track Department, which is committed to performing the track work, must agree on a schedule for performing the track improvements in concert with the construction contract.
12. Lessons Learned Challenges (what needs improvement or what went well?):

During preliminary design, the Consultant performed a survey of the top of rail elevations throughout the station area in order to determine the platform elevations. Upon completion of the survey, the Consultant submitted a memo requesting concurrence on the platform elevation (so that it was constant throughout the station) based on proposed top of rail elevations and the MBTA design standard. This memo identified areas of the track that would need to be raised 3-4" to accommodate the proposed platform elevation. The focus should have been on completely understanding the limits of track work that would need to be modified to accommodate the proposed design, or in fact, modifying the design to accommodate a proposed track profile.

13. Lessons Learned Recommendations (how would you improve or avoid or why do you think it went so well?):

When the Consultant identifies conflicts with existing conditions, all affected MBTA Departments should be invited to meetings to discuss the existing conditions; develop a game plan to collect additional information if needed; determine who will make the decision on what to do to correct the conflict; and then determine how it will be paid and when it will be completed.

14. Applicability:

Any station renovation project that involves platform or near-track work is driven by MBTA Track Design and Accessibility Standards.

Submitted by: ____________________________ John Favorito

Telephone #: ____________________________  617-222-4330  Email:__________________________ jfavorito@mbta.com