

Addendum #2

Central City Tunnel System Parallel Tunnel Layout Design

April 20, 2016

Dear prospective respondents,

Questions have been received concerning the Request for Proposals for the Central City Tunnel System Parallel Tunnel Layout Design Project. These questions include those raised at the pre-proposal meeting on April 13, 2016, and those submitted in writing prior to 4:00 PM on April 15, 2016. The questions and responses to the questions are provided below. A copy of the pre-proposal meeting agenda and a list of people who attended the meeting are also provided as an attachment to this Addendum.

Sincerely,



William T. Shutte, PE

*City of Minneapolis Public Works
Surface Water & Sewers Division*

Attachments: Response to Questions Provided at Pre-Proposal Meeting
 Response to Written Questions
 A: Pre-Proposal Meeting Sign-in Sheets
 B: Pre-Proposal Meeting Agenda
 C: Pressure Meter Map and Data
 D: Map of Access Shafts to the Tunnel System

Response to Questions Provided at Pre-Proposal Meeting

1. Is the tunnel model available for all to review?

Response: No. The model will not be available to all prior to the selection of the consultant, and will be provided only to the selected consultant.

2. Is the Barr report on the website?

Response: Yes, it was posted as Addendum 1 prior to this meeting.

3. Has the entire Central City tunnel system been rehabilitated?

Response: No, it has only been rehabilitated at failure locations. The concrete liner is currently intact throughout the system. Void grouting outside of the tunnel liner has been completed on the Hennepin Avenue tunnel between Washington Avenue and 10th Street, on the Washington Avenue tunnel between Hennepin Avenue and Nicollet Avenue, and on the Nicollet Avenue tunnel between Washington Avenue and 4th Avenue. Incidental repairs to the tunnel liner were completed at two locations where failures occurred. These locations were on the Nicollet Avenue tunnel near 8th Street as well as on the 2nd Avenue tunnel near 5th Street. A major modification to the tunnel was completed near the intersection of Portland Avenue and Washington Avenue, in which the City mined a sweep into the tunnel section replacing an approximate 90° turn in the tunnel to create a turn that was less abrupt.

4. What is the goal of this project?

Response: The goal of this project is to reduce the pressures in the Central City tunnel system during rain events to levels below which structural failures of the concrete liner occur.

5. Has there been localized flooding at streets grade?

Response: No. Water has not reached street grade or created any flooding due to the pressure in the tunnel system. However, air pressure has rattled manhole covers along 2nd Avenue during some large rain events.

6. Do you want the entire tunnel system surveyed?

Response: Yes, as stated in the RFP, the entire tunnel system is to be surveyed to verify as-builts as well as to have accurate data for future design. The entire tunnel system includes mainline tunnel as well as all drifts, casings, and shafts.

Also, permanent stationing shall be placed within certain locations in the tunnel system. These locations include along all of the Washington Avenue tunnel as well as on every tunnel leg (2nd Avenue, Marquette Avenue, Nicollet Mall, and Hennepin Avenue) up to 100 feet upstream from the Washington Avenue tunnel. Permanent station markers shall be placed every 50 feet.

7. Is the Barr model the most current representation of the tunnel system and when was it completed?

Response: Yes, the Barr model is the most recent model of the system. It was completed in 2015.

8. As part of the RFP, are we looking at the outlet and including it as part of the proposal?

Response: Yes, as noted in the RFP, the outlet will be addressed with this project. Depending on the layout selected, the project could reconstruct or rehabilitate the current outlet, or an entirely new outlet could be constructed.

9. What is going to be required for permanent and temporary easements?

Response: Permanent and temporary easements will need to be acquired by the Consultant based on the approved layout of the new tunnel. Currently the City is reviewing what permanent easements exist for the tunnel system.

10. Can the layout remain in the Right-of-Way?

Response: Yes, it is expected that throughout the layout process, the new tunnel shall remain within the City or County Right-of-Way as much as possible. This will help eliminate the need for additional permanent easements.

11. Are all of the tunnels within the system in need of renovation?

Response: No, at this time, it is assumed that all work will be on the Washington Avenue tunnel to reduce pressures. Right now we do not anticipate working on or changing the other four tunnels within the system.

12. What is the reasoning for no SUBP goals?

Response: Goals are normally set based in part on specific anticipated subcontracting opportunities, where City staff can anticipate the cost of those particular scopes of work. Here, the inclusion of certain scopes of work, and per-scope costs, are variables that depend heavily on the RFP responses. So, there are no specific goals because the existence of certain subcontracting opportunities is at present difficult to anticipate, and for the identifiable scopes of work that may be subcontracted, the cost is difficult to anticipate.

13. Since no goals were set, what are the requirements for SUBP?

Response: The Small and Underutilized Business Program (SUBP) still applies, and prime RFP respondents should make every necessary and reasonable effort to subcontract work to MBEs/WBEs in advance of the dates specified for submitting of proposals. Also, certified MBEs and WBEs are encouraged to respond as primary consultants. Inclusion of MBEs and WBEs will be a factor considered in the evaluation of proposals.

14. Has a budget been determined for this project?

Response: No. A budget will be determined based on the final layout.

Response to Written Questions

15. Task 1A (Data Acquisition and Review): Will the City provide assistance (crane and man-basket) for tunnel access?

Response: No.

16. Task 1A (Data Acquisition and Review): When was the last inspection performed of the tunnel system and will the information be made available to the consultant performing the work?

Response: The last full inspection of the Central City tunnel system was in 2011. The information from that inspection will be provided to the selected Consultant.

17. Task 1A (Data Acquisition and Review): As discussed at the pre-bid meeting, please clarify the tunnels to be included in the full survey of the tunnel system?

Response: The entire Central City tunnel system is to be surveyed. Refer to the response for Question 6 as to expectations. The map of the system was Attachment D of the RFP.

18. Task C (Permitting & Historic Review): The RFP states “acquire permits” – we assume this should be “submit permit applications as appropriate.”

Response: The selected Consultant will determine which permits are applicable, submit applications to acquire these permits, and assist the City in acquiring applicable permits.

19. Task C (Permitting & Historic Review): What permits does the City anticipate will need to be obtained as part of the scope?

Response: Any and all permits are to be obtained through this scope. The RFP listed several permits that are assumed to be required. Permits required will be determined upon finalization of the new tunnel layout.

20. Task C (Permitting & Historic Review): Is getting through the Section 106 review process assumed to be part of the scope, or should less of an effort be assumed for this project phase (such as assuming 106 review process will not be required)?

Response: Yes.

21. Terms: Can the City consider eliminating Clause 3 (e) from this phase of the project. This insurance is not typically provided to consulting engineering firms. Also,

although the City of Minneapolis encourages the use MBE's and WBE's, it may be difficult for these enterprises to meet the requirement.

Response: Due to the nature of this project, Clause 3(e) will be included.

22. What is the level of detail in the current XP-SWMM system model? Can you provide a copy of it, including output files?

Response: The base conditions XP-SWMM model is a 1D model with a high level of detail. There are approximately 800 nodes, including approximately 400 catchments draining to a catch basin or group of catch basins. There are approximately 1,200 links, including storm sewer (except catch-basin runs), tunnels (with user-defined sections), streets, and drill holes (connections to the tunnel system). The model was calibrated based on pressure data and found to reasonably represent the tunnel system. This base conditions model was used to complete the Feasibility Report and a separate model was developed for each of the improvement options.

Modeling work completed under this project will include modifying the base conditions model to address three tunnel improvements that were recently completed and to reflect survey data that is to be gathered as a part of this project. This revised model will be used to develop separate models for each of the improvement options evaluated as a part of this project.

23. Can you provide a listing of where the current hydraulic issues are located and the magnitude of the issues?

Response: Attachment C to this addendum is a map of where pressure meters are located. Also as part of that attachment, data from those meters is provided for certain large events over the last several years. This data represents the water head pressure measured at these meters.

24. What easements exist for existing tunnel—what assumptions should be made for pricing proposed easement parcel acquisition (# of parcels) for new parallel tunnel?

Response: It is unknown at this point what existing easements are present for the existing tunnel. Refer to the response for Question 9. Assume no more than 10 parcels will need permanent easements. There is a possibility no permanent easements will need to be acquired based on what the City finds with its research.

25. What are the four current parallel tunnel concepts/alignments---is there a report or tech memo available for review?

Response: The Barr report was posted as part of Addendum 1.

26. Can you provide a summary of what rehab work has been completed on existing tunnel system?

Response: Refer to the response for Question 3.

27. Can you provide inspection data or summary on current tunnel system that has not

been rehabbed?

Response: Refer to the response for Question 16.

28. What are the anticipated project features that will require historical review?

Response: If the project requires the demolishing or modifying of any part of the existing tunnel, a historical review could possibly be required. However, the portion of the tunnel system between the intersection of Portland Avenue and Washington Avenue to the Mississippi River outlet will likely need a historical review process if it is modified or demolished.

29. Can we have access to record drawings of the existing tunnels to determine potential access locations and better understand tunnel location and construction?

Response: Yes, the tunnel as-builts will be provided to the selected Consultant. Attachment D to this Addendum is a map of the entire Central City tunnel system showing existing access shaft points. Access throughout the project will have to be coordinated with the City which generally is determined through the Right-of-Way Obstruction permit process. Surface construction projects may limit access to these shafts at various times.

30. The RFP indicates that the scope includes completing the easement acquisitions.

Does the City intend for its consultant to negotiate on the City's behalf? Or should our scope be limited to providing legal descriptions, exhibits, and technical support for the City's negotiators?

Response: Yes, the selected Consultant and/or its substitutes will negotiate on the City's behalf.

31. The specific effort that will be needed for the easements is unknown at this time and could be widely variable depending upon the recommended solution, so for the fee estimate portion of the proposal would it be appropriate to exclude the easement related effort?

Response: Refer to the response for Question 24.

32. Are the tunnels typically dry except near the outlet?

Response: No, there is typically 6 inches of ground water in the invert throughout the tunnel system. Near the outlet, there is typically 3 feet of water.

33. On page 8 of the Addendum 1 pdf another report by Barr is referenced. Is that report available for review?

Response: This report will be posted as Addendum 3.

(End of question responses)

ATTACHMENT A

Pre-Proposal Meeting Sign-in Sheets

ATTACHMENT B

Pre-Proposal Meeting Agenda



Public Works
Surface Water & Sewers Division
309 2nd Avenue S – Room 301
Minneapolis, MN 55401
www.minneapolismn.gov

Subject: Pre-proposal Meeting
Central City Parallel Tunnel Layout

Date: April 13, 2016, 1:00 PM

Location: Hiawatha Yard (1901 E. 26th St)

Contract Manager: William T. Shutte, PE
Professional Engineer, Surface Water & Sewers Division
william.shutte@minneapolismn.gov

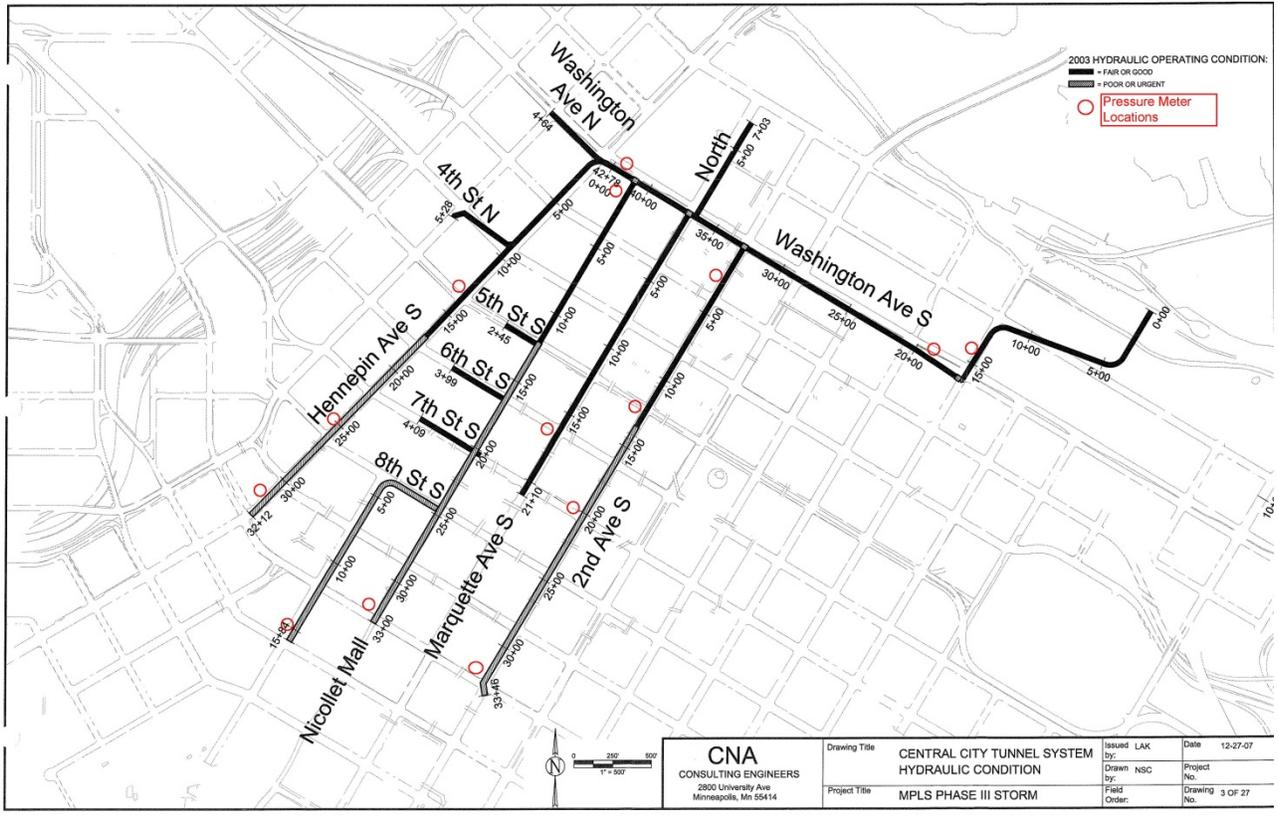
MEETING AGENDA

1. Introduction
 2. Presentation of RFP
 - a. Project Description
 - b. Schedule
 - c. Requested Scope of Services
 - d. Evaluation of Proposals
 3. Question / Answer Session
 4. Adjournment
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ATTACHMENT C

Pressure Meter Map and Data

TUNNEL SYSTEM	BRANCH	STATION	6/25/2010 Event PSI	Head (ft) of Water	8/10/2010 Event PSI	Head (ft) of Water	7/16/2011 Event PSI	Head (ft) of Water	7/19/2011 Event PSI	Head (ft) of Water	8/1/2011 Event PSI	Head (ft) of Water	6/21/2013 Event PSI	Head (ft) of Water	7/11/2014 Event PSI	Head (ft) of Water	7/28/2015 Event PSI	Head (ft) of Water
Central City	Main dnstr of bend	14+50	NOT INSTALLED		19.9	14	19.1	12	17.4	8	17.3	8	18.5	10	18.1	10	DEAD BATTERY	
Central City	Main upstr of bend	18+00	24.6	25	25.4	26	18.0	9	16.2	5	16.2	5	17.4	8	16.7	6	DEAD BATTERY	
Central City	Main	42+00	29.9	37	33.4	45	24.0	23	18.7	11	18.0	9	22.1	19	20.6	15	DEAD BATTERY	
Central City	Marquette	17+00	NOT INSTALLED UNTIL 2012										21.7	18	19.5	13	18.1	10
Central City	Hennepin	13+50	NOT INSTALLED UNTIL 2012										20.9	16	18.9	11	16.7	6
Central City	Hennepin	25+00	NOT INSTALLED UNTIL 2012										19.5	13	17.8	9	15.6	4
Central City	Hennepin	31+00	27.1	30	30.0	37	21.0	16	15.2	5	14.6	1	18.8	11	14.4	1	DEAD BATTERY	
Central City	Lasalle	15+00	28.1	33	31.7	41	21.9	18	15.7	4	14.7	2	19.8	13	19.2	12	DEAD BATTERY	
Central City	Nicollet Mall	1+00	29.8	37	33.2	44	23.9	23	18.5	10	17.7	9	22.0	19	20.7	16	DEAD BATTERY	
Central City	Nicollet Mall	32+00	28.1	33	32.1	42	22.4	19	16.3	5	15.4	3	21.8	18	20.1	14	DEAD BATTERY	
Central City	2nd Avenue S	2+50	NOT INSTALLED UNTIL 2012										22.9	21	21.5	17	19.6	13
Central City	2nd Avenue S	12+50	NOT INSTALLED UNTIL 2012										26.0	28	23.8	23	21.7	18
Central City	2nd Avenue S	20+00	NOT INSTALLED UNTIL 2012										28.0	32	25.2	26	23.6	22
Central City	2nd Avenue S	32+50	40.9	62	42.3	65	34.5	47	27.3	31	19.2	12	32.4	43	27.9	32	DEAD BATTERY	



ATTACHMENT D

Map of Access Shafts to the Tunnel System

