

Subappendix F6 – Utility Conflict Evaluation

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1.0 Introduction

AECOM was awarded a contract by the New Jersey Department of Environmental Protection (NJDEP) to complete a feasibility study, environmental impact statement, project design and construction administration for the Rebuild By Design (RBD) Meadowlands Flood Protection Project (the Proposed Project). That project was one of several award winners for a Rebuild by Design competition sponsored by the United States Department of Housing and Urban Development (HUD). Funds for the project are being provided to NJDEP by HUD. AECOM subsequently signed HDR to a subcontract to provide data management, engineering, and environmental sciences support throughout the project. Engineering support for the project included developed and screening of drainage improvement concepts.

The RBD Meadowlands drainage improvement concept development and screening process included evaluation of how concept implementation would affect existing utilities, where protect in-place actions or relocations would be needed, and what the cost of those efforts may be. To that end, the team gathered existing utility information from the New Jersey Sport and Exhibition Authority, the public works departments of the five townships in the project area, and PSE&G. That information was incorporated into a geodatabase and utilized as part of concept Level of Development 2 and Screening 2 of the drainage improvement concepts. Cost information for protect or modifying utilities was developed and provided to the AECOM cost team for use as part of Screening 2.

2.0 Utility Inventories

The HDR design developed detailed utility inventories for the seven concepts that were evaluated as part of Screening 2. Those include the following:

- 1) Main Street
- 2) East Riser/Main Street Extension
- 3) East Riser Ditch
- 4) West Riser Ditch
- 5) Losen Slote Creek / Park Street
- 6) Carol Place
- 7) DePeyster Creek

Those inventories include the following information:

- 1) Utility type
- 2) Utility size
- 3) Utility location (above ground or below ground)
- 4) Action required (protect in-place or modify)
- 5) Location of conflict relative to concept base line
- 6) Type of conflict (i.e. within excavation limits, construction limits, or operation and maintenance access corridor)
- 7) Utility orientation with respect to concept baseline
- 8) Statement of assumptions
- 9) Engineer's notes

Attachment A contains copies of the concept-specific utility inventories. Attachment B contains exhibits displaying the utilities near to and within the concept footprints.



3.0 Opinion of Probable Cost

Unit costs were developed for remove and replace actions, and for protect in-place actions. Cost were based on bid tabs published by the New York City Department of Design and Construction Division of Infrastructure. **Table F6-1** provides a summary of the actions for which unit costs were developed. Attachment C contains a summary of those costs.

Table F6-1 Utility Modification and Protect In-Place Actions for which Unit Costs were Developed

Action	Notes
Remove, Protect, Relocate Stormwater Outfall	24-inch pipe and CIP headwall
Remove, Protect, Replace Utility Pole	Pole Relocation cost high to take into consideration that some poles will have transformers and others will not
Protect Catch Basin, Replace Pipe – lawn area	18-in diameter pipe, 18 feet of pipe
Stormwater Manhole, Remove and Replace - Lawn Area	Assume 4-inch Diameter MH - 6 feet deep
Remove/ Replace Bridge Culvert	Assume 12 feet x12 feet Box Culvert
Remove/ Replace 36" Stormwater Pipe	Assume RCP Material
Remove/ Replace 18" Stormwater Pipe	Assume DIP Material
Remove/ Relocate 210V UG Electric	Assume 2 feet W x 2 feet D trench
Remove/ Replace Gas Main	Assume gas main install done by utility
Protect Overhead wires Utility Pole	Assume utility pole 40 feet tall
Protect Catch Basin, Replace Pipe - roadway	Assume 18-in Diameter Pipe - replace 18 feet of pipe (one length)
Stormwater Manhole, Remove and Replace - Roadway	Assume 4-in Diameter MH - 6 feet deep
Replace Catch Basin, Replace Pipe - Roadway	Assume 18-inch Diameter Pipe - replace 18 feet of pipe (one length)
Protect Underground Utility	Assume hand excavation to depth of 2.5 feet and 3 feet wide

4.0 Attachments

Attachment A	Utility Inventory Tables
Attachment B	LOD 2 Grey and Green Concepts Utilities
Attachment C	RBDM Utility Relocation Costs

Attachment A
Utility Inventory Tables
(See Disc for Attachment A of Appendix F6)



Attachment B
LOD 2 Grey and Green Concepts Utilities
(See Disc for Attachment B of Appendix F6)



Attachment C
RBDM Utility Relocation Costs
(See Disc for Attachment C of Appendix F6)



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