

## MEMORANDUM

DATE: March 12, 2014

TO: Mr. Paul Volpe, Village Manager  
Village of Elmwood Park

FROM: Christopher B. Burke Engineering, Ltd.

SUBJECT: Elmwood Park Flood Mitigation  
Construction Scope and Cost

The current Flood Mitigation Project was initiated in June 2011. The original scope of improvement, as presented at the Village's Public Meeting of July 19, 2012, was to provide new storm sewers in the Westwood Subdivision. The project also included a 9 acre-foot detention basin in the OPCC (with pump station) and a flood wall along the west edge of Thatcher Avenue. Based on this conceptual plan, the estimated construction cost was \$19.75 million.

The project scope has grown and correspondingly the construction cost has increased to approximately \$33 million. We have developed this memorandum to outline the changes in construction cost since July 19, 2012. These changes came about as a result of an expansion in project scope and unanticipated design modifications that were realized during preparation of the contract plans. The additional costs have been mitigated by outside funding from MWRDGC and IDOT for a total of \$6.59 million.

Below is a summary of the items that were not included in the original project scope, but were added subsequent to the Public Meeting of July 19, 2012.

### SCOPE CHANGE

Item	Additional Construction Cost
All of the existing Village water main will be replaced at locations where new storm sewer is being constructed. This work also involves the replacement of residential water services and fire hydrants as well as the reconstruction of some streets that become necessary as a result of the additional water main trenching.	\$5,000,000
Expansion of storm sewer improvements to include Palmer Avenue at 76 <sup>th</sup> Avenue and 79 <sup>th</sup> Avenue (south of Altgeld Avenue), Diversey Avenue at 75th Court, Schubert Avenue at 74th Court, Cortland Parkway, and Country Club Lane. The pond size was increased by approximately 5 acre-feet and the capacity of the pumps increased to accommodate the additional drainage areas.	\$4,000,000



**CHRISTOPHER B. BURKE ENGINEERING, LTD.**

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## MEMORANDUM

Below is a summary of items that were realized during the preparation of design plans for the project.

### DESIGN CHANGE

Item	Additional Construction Cost
The original plan was to utilize an existing concrete culvert that crosses under the Metra tracks. The culvert, nicknamed "bums tunnel", wasn't deep enough to drain the Westwood Subdivision. Instead 3-48" steel pipes will be constructed below the tracks by a method called "pipe ramming". Three pipes were necessary (rather than one pipe) to avoid conflicts with a ComEd underground 138 kV transmission line, which was discovered while coordinating with utility companies during plan preparation. Although the relocation would have been paid for by ComEd, the planning and actual construction would have taken at least two years to complete. The proposed storm sewer was lowered at the Metra tracks by approximately two feet to avoid the ComEd transmission line. This increased sewer depth extended approximately 2,000 feet to the OPCC. The lower storm sewer results in higher construction costs due to increased excavation and aggregate backfill.	\$400,000
There were several locations where the existing combined sewers (currently conveying both storm and sanitary flows) will have to be replaced because of conflicts with the proposed storm sewer. Residential sanitary services that connected to the existing combined sewers will also be replaced.	\$500,000
The Forest Preserve District of Cook County (FPDCC) required that the Village acquire two parcels of property, east of Thatcher Avenue, as a stipulation for the Village to construct improvements on FPDCC property.	\$250,000
The sanitary sewer at OPCC was replaced to accommodate the enlarged detention basin and storm force main. The location of the existing sanitary sewer, which was unknown prior to initiation of the design plans, could not be avoided.	\$125,000
During the permitting phase, it was determined that the Illinois Department of Transportation will not allow storm sewer to be constructed by "open cut" methods at Grand Avenue. As a result, the storm sewer will be jacked.	\$100,000
<b>TOTAL INCREASE RESULTING FROM DESIGN MODIFICATIONS</b>	<b>\$1,375,000</b>



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## Paul Volpe

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**From:** Orion Galey <ogaley@cbbel.com>  
**Sent:** Monday, July 28, 2014 4:08 PM  
**To:** Paul Volpe  
**Cc:** Dino Braglia  
**Subject:** Areas 5 and 6 Change Orders

Paul and Dino,

Please be advised that unforeseen site conditions have created the need for several Change Orders in Areas 5 and 6. They are as follows:

**Area 5 combination sewer replacement.** During installation of the 84" storm sewer along Fullerton Avenue, we discovered the existing combination sewer to be severely cracked and deformed. Prior to reopening the street, this sewer main had to be replaced. The sewer was removed and replaced and new sanitary service connections were made to the homes between 78<sup>th</sup> Avenue and 78<sup>th</sup> Court. The total cost of this work was approximately \$55,000.

**Area 5 water main offset.** Last week the Contractor dug test holes in the parkway in front of the Elmbrook Senior Residences to determine whether or not any of the existing utilities were in conflict with the proposed 84" Storm Sewer to be jacked under Grand. The existing 4-inch water main was found to be buried at a depth of 7 ft and in conflict with the top one foot of the proposed 84" pipe. The contractor must relocate the water main in order to avoid this conflict. This work will be paid for on a time and materials basis (T&M).

**Area 6 concrete structure removal.** While excavating for the proposed water main on Thatcher, a concrete structure which we believe to be 15 ft deep X 25 ft long X 25 ft wide was identified approximately 3' below the pavement. This structure will need to be removed and hauled away to allow for the installation of the water main, 30-inch diameter gravity sewer, and two 36-inch diameter force mains. This work will be paid for on a time and materials basis (T&M).

**Area 6 Thatcher Avenue sewer washout.** The catch basin and storm sewer on the west side of Thatcher Avenue across from Russell's barbeque collapsed a number of months ago. Prior to starting construction on Area 6, the area was further inspected and it was discovered that the road's base had washed out leaving a 6-8 feet deep void approximately 10 ft into the southbound lane of Thatcher Avenue. The riverbank had also succumb to a considerable amount of erosion over time. The contractor replaced the catch basin and sewer outfall, filled in the eroded riverbank with riprap, and rebuilt the failed section of pavement and base. This work will be paid for on a time and materials basis (T&M).

I will forward the T&M bills to you for approval as individual change orders once they are submitted by the Contractor. If you have any questions regarding this work, let me know.

Regards,  
Orion

**Orion C. Galey, PE**  
*Senior Project Manager*  
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Village of Elmwood Park  
 Flood Mitigation Project  
 Summary of Costs to Date  
 19-Mar-14

FMP Construction Projects

Project Area	Area 1	Area 2	Area 3	Area 4-North	Area 4-South	Area 5	Area 6	TOTAL
Expected Final Contract Amount	\$ 2,720,014.19	\$ 6,550,000.00	\$ 3,591,000.00	\$ 3,850,320.50	\$ 5,877,902.00	\$ 4,505,392.51	\$ 5,500,000.00	\$ 32,594,629.20
Amount Paid to Date	\$ (2,584,013.48)	\$ (5,425,853.59)	\$ (3,263,876.99)	\$ -	\$ -	\$ -	\$ -	\$ (11,273,744.06)
Amount Remaining to be Paid	\$ 136,000.71	\$ 1,124,146.41	\$ 327,123.01	\$ 3,850,320.50	\$ 5,877,902.00	\$ 4,505,392.51	\$ 5,500,000.00	\$ 21,320,885.14

Other Agency / Professional Services Expenses

Agency	Oak Park CC Reimbursement	Forest Preserve District Property	Legal Fees	Engineering Fees	TOTAL
Expected Final Contract Amount	\$ 850,000.00	\$ 278,558.36	\$ 40,000.00	\$ 3,363,260.50	\$ 4,531,818.86
Amount Paid to Date	\$ (598,887.71)	\$ (28,558.36)	\$ (34,351.80)	\$ (2,490,479.87)	\$ (3,152,277.74)
Amount Remaining to be Paid	\$ 251,112.29	\$ 250,000.00	\$ 5,648.20	\$ 872,780.63	\$ 1,379,541.12

\*Other Agency Cost Share Participation

Agency	IDOT	MWRD	TOTAL
Participating Amount	\$ (1,420,000.00)	\$ (5,170,087.00)	\$ (6,590,087.00)

Summary

Expenses to date	\$ 37,126,448.06
Paid to date	\$ (14,426,021.80)
* Other Agency Participation	\$ (6,590,087.00)
Remainder to be Paid	\$ 16,110,339.26

\* These funds have been obligated but may not be immediately available