APPENDIX C: PROPOSED PROJECT OPINIONS OF PROBABLE CONSTRUCTION COST

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Table C-1- Preliminary Opinion of Probable Construction Cost
Bee Branch Watershed Improvements:
16th Street Detention Basin Flood Gates

No	Description	Item Cost
1	Construction	$1,650,000
2	Design & Engineering	$250,000
3	Contingency	$250,000
	SUBTOTAL	$2,150,000
	SUBTOTAL INFLATION FACTOR	1.03
	GRAND TOTAL	$2,210,000

Notes:

1) Construction cost was obtained from a combination of the CIP report for FY 2014 through FY 2018 and the November 2008 Strand Technical Memo No. 1.

2) Engineering cost was estimated to be 15% of the construction cost.

3) Escalation factors are based upon the Engineering News Record (ENR) Construction Cost Index (CCI). The escalation factors are a ratio of the CCI for June 2013 against the CCI from March 2012.

4) Construction cost has been rounded to the nearest ten thousand.

Table C-2- Preliminary Opinion of Probable Construction Cost
Bee Branch Watershed Improvements:
Valeria Street Project

No	Description	Item Cost
1	Construction	$34,000
2	Design & Engineering	$6,000
3	Contingency	$4,000
	SUBTOTAL	$44,000
	SUBTOTAL INFLATION FACTOR	1.02
	GRAND TOTAL	$45,000

Notes:

1) Construction cost was obtained from the August 20, 2012 Kaufmann-Valeria Flood Reduction Analysis memo.

2) Engineering cost was obtained from the August 20, 2012 Kaufmann-Valeria Flood Reduction Analysis memo.

3) Contingency cost was obtained from the August 20, 2012 Kaufmann-Valeria Flood Reduction Analysis memo.

4) Escalation factors are based upon the Engineering News Record (ENR) Construction Cost Index (CCI). The escalation factors are a ratio of the CCI for June 2013 against the CCI from August 2012.

Table C-3- Preliminary Opinion of Probable Construction Cost
Bee Branch Watershed Improvements:
Upper Bee Branch Channel Restoration

No	Description	Item Cost
1	Construction	$39,100,000
2	Design & Engineering	$5,900,000
3	Contingency	$2,000,000
4	Property Acquisitions	$11,900,000
	SUBTOTAL	$58,900,000
	SUBTOTAL INFLATION FACTOR	1.00
	GRAND TOTAL	$58,900,000

Notes:

1) Construction cost for the open channel was obtained from the 2013 cost estimate provided by the design engineer of record (Strand & Associates).

2) Engineering cost was estimated to be 15% of the construction cost.

3) Contingency was estimated to be 5% of the construction cost.

4) Land acquisition cost estimates from Office of the City Engineer. Costs include acquisition, relocation benefits, and site clearing (structure removal).

5) Escalation factors are based upon the Engineering News Record (ENR) Construction Cost Index (CCI). The escalation factors are a ratio of the CCI for June 2013 against the CCI from April 2013.

Table C-4- Preliminary Opinion of Probable Construction Cost
Bee Branch Watershed Improvements:
North End Storm Sewer Improvements

No	Description	Item Cost
1	Construction	$930,000
2	Design & Engineering	$60,000
	SUBTOTAL	$990,000
	SUBTOTAL INFLATION FACTOR	1.03
	GRAND TOTAL	$1,020,000

Notes:

1) Construction cost was obtained from the CIP report for FY 2013 through FY 2017.

2) Engineering cost was obtained from the CIP report for FY 2013 through FY 2017.

3) Escalation factors are based upon the Engineering News Record (ENR) Construction Cost Index (CCI). The escalation factors are a ratio of the CCI for June 2013 against the CCI from March 2012.

4) Construction cost has been rounded to the nearest ten thousand.

Table C-5- Preliminary Opinion of Probable Construction Cost
Bee Branch Watershed Improvements:
22nd Street Storm Sewer

No	Description	Item Cost
1	Construction	$2,610,000
2	Design & Engineering	$260,000
3	Contingency	$260,000
4	Property/ROW Acquisition	$10,000
	SUBTOTAL	$3,140,000
	SUBTOTAL INFLATION FACTOR	1.03
	GRAND TOTAL	$3,230,000

Notes:

1) Construction cost was obtained from the City.

2) Engineering cost was obtained from the CIP report for FY 2013 through FY 2017.

3) Escalation factors are based upon the Engineering News Record (ENR) Construction Cost Index (CCI). The escalation factors are a ratio of the CCI for June 2013 against the CCI from March 2012.

4) Construction cost has been rounded to the nearest ten thousand.

Table C-6- Preliminary Opinion of Probable Construction Cost
Bee Branch Watershed Improvements:
17th Street Storm Sewer

No	Description	Item Cost
1	Construction	$5,640,000
2	Design & Engineering	$560,000
3	Contingency	$560,000
4	Property/ROW Acquisition	$15,000
	SUBTOTAL	$6,775,000
	SUBTOTAL INFLATION FACTOR	1.00
	GRAND TOTAL	$6,780,000

Notes:

1) Costs obtained from the Office of the City Engineer.

2) Escalation factors are based upon the Engineering News Record (ENR) Construction Cost Index (CCI). The escalation factors are a ratio of the CCI for June 2013 against the CCI from March 2012.

3) Construction cost has been rounded to the nearest ten thousand.

Table C-7- Preliminary Opinion of Probable Construction Cost
Bee Branch Watershed Improvements:
Impervious Area Reduction

No	Description	Item Cost
1	Construction	$37,260,000
2	Design & Engineering	$3,730,000
3	Contingency	$1,860,000
	SUBTOTAL	$42,850,000
	SUBTOTAL INFLATION FACTOR	1.01
	GRAND TOTAL	$43,300,000

Notes:

1) Construction cost based on February 12, 2013 letter from the City to the Iowa Department of Natural Resources and historic costs to construct pervious alleys.

2) Construction cost estimate to reconstruct the 237 impervious alleys in the Bee Branch watershed with pervious pavement systems.

3) Escalation factors are based upon the Engineering News Record (ENR) Construction Cost Index (CCI). The escalation factors are a ratio of the CCI for June 2013 against the CCI from February 2013.

Table C-8- Preliminary Opinion of Probable Construction Cost
Dubuque Drainage Basin Master Plan Amendment:
Water Treatment Plant Floodproofing

No	Description	Unit	Unit Cost	Quantity	Item Cost
1	Construction	LS	7%	1	$2,100,000
2	Design & Engineering	LS	2%	1	$530,000
3	Contingency	LS	$10,500	1	$530,000
4	Property/ROW Acquisitions	AC	$6,300	0.5	$210,000
	SUBTOTAL				$3,370,000
	SUBTOTAL INFLATION FACTOR				1.00
	GRAND TOTAL				$3,370,000

Notes:

1) Escalation factors are based upon the Engineering News Record (ENR) Construction Cost Index (CCI). The escalation factors are a ratio of the CCI for June 2013 against the CCI from June 2013. Since there is no difference in month and year, there is no inflation for this project.

2) Construction cost has been rounded to the nearest ten thousand.