

# Appendix I

Catalytic Infrastructure  
Opinions of Probable Cost



# ESTIMATE

## MAJOR BRIDGE CROSSING AT WILSON CREEK

### Stonebridge Drive

**DESCRIPTION:** 6-Lane Bridge (Major Arterial)  
**LENGTH:** 563 Linear Feet

**ESTIMATE LEVEL:** Planning  
**DATE:** January 2015

CONSTRUCTION ITEM DESCRIPTION	UNIT	BASIC BRIDGE			GATEWAY BRIDGE		
		QUANTITY	UNIT COST	TOTAL COST	QUANTITY	UNIT COST	TOTAL COST
CLEARING & REMOVALS	ACRE	1.6	\$2,000	\$3,200	1.6	\$2,000	\$3,200
BANK PROTECTION	CU.YD	325.00	\$60	\$19,500	325.00	\$60	\$19,500
BRIDGE STRUCTURES (total deck area)	SQ.FT.	56,300	\$80	\$4,504,000	63,056	\$90	\$5,675,040
LIGHTING	L.FT.	563	\$30	\$16,890	563	\$35	\$19,705
EROSION CONTROL	L.FT.	563	\$10	\$5,630	563	\$10	\$5,630
MOBILIZATION (8% of Contractor Estimate)	L.SUM	1	\$450,000	\$450,000	1	\$570,000	\$570,000
CONTRACTOR QUALITY CONTROL	L.SUM	1	\$85,000	\$85,000	1	\$85,000	\$85,000
CONSTRUCTION SURVEYING	L.SUM	1	\$60,000	\$60,000	1	\$60,000	\$60,000
<b>CONSTRUCTION ITEM TOTAL</b>				<b>\$5,144,220</b>	<b>\$6,438,075</b>		
PLANNING LEVEL CONTINGENCIES			10.0%	\$514,422	10.0% \$643,808		
<b>CONTRACTOR CONSTRUCTION ESTIMATE</b>				<b>\$5,658,642</b>	<b>\$7,081,883</b>		
DESIGN ENGINEERING COST			9.0%	\$510,000	9.0% \$640,000		
<b>TOTAL DESIGN &amp; CONTRACTOR CONSTRUCTION ESTIMATE</b>				<b>\$6,168,642</b>	<b>\$7,721,883</b>		

<u>Major Arterial Assumptions</u>		
	Basic	Gateway
# of Lanes (EA)	6	6
Lane width (FT)	12'	12'
# of Shoulders (EA)	4	4
Shoulder width (FT)	1'	1'
# of sidewalks (EA)	2	2
Sidewalk width (FT)	6'	12'
# of barriers/parapets (EA)	6	6
Barrier/parapet width (FT)	2'	2'

**Cost Estimate Assumptions:**

- Right-of-way, permitting, and construction inspection and oversight costs are not included.
- Bridge length assumes that structure only spans 1/3 the width of the floodplain.
- Unit prices for bridge structures are based on recent TxDOT cost data.
- Separate bridge structure assumed for each direction of travel. Deck area includes both directions.
- Deck width includes one sidewalk and three travel lanes in each direction for Basic and Gateway bridges.

# ESTIMATE

## MAJOR BRIDGE CROSSING AT WILSON CREEK

### Ridge Road

**DESCRIPTION:** 6-Lane Bridge (Major Arterial)  
**LENGTH:** 367 Linear Feet

**ESTIMATE LEVEL:** Planning  
**DATE:** January 2015

CONSTRUCTION ITEM DESCRIPTION	UNIT	BASIC BRIDGE			GATEWAY BRIDGE		
		QUANTITY	UNIT COST	TOTAL COST	QUANTITY	UNIT COST	TOTAL COST
CLEARING & REMOVALS	ACRE	1.0	\$2,000	\$2,000	1.0	\$2,000	\$2,000
BANK PROTECTION	CU.YD	325.00	\$60	\$19,500	325.00	\$60	\$19,500
BRIDGE STRUCTURES (total deck area)	SQ.FT.	36,700	\$80	\$2,936,000	41,104	\$90	\$3,699,360
LIGHTING	L.FT.	367	\$30	\$11,010	367	\$35	\$12,845
EROSION CONTROL	L.FT.	367	\$10	\$3,670	367	\$10	\$3,670
MOBILIZATION (8% of Contractor Estimate)	L.SUM	1	\$300,000	\$300,000	1	\$370,000	\$370,000
CONTRACTOR QUALITY CONTROL	L.SUM	1	\$55,000	\$55,000	1	\$55,000	\$55,000
CONSTRUCTION SURVEYING	L.SUM	1	\$40,000	\$40,000	1	\$40,000	\$40,000
<b>CONSTRUCTION ITEM TOTAL</b>				<b>\$3,367,180</b>	<b>\$4,202,375</b>		
PLANNING LEVEL CONTINGENCIES			10.0%	\$336,718	10.0% \$420,238		
<b>CONTRACTOR CONSTRUCTION ESTIMATE</b>				<b>\$3,703,898</b>	<b>\$4,622,613</b>		
<b>DESIGN ENGINEERING COST</b>			9.0%	<b>\$330,000</b>	9.0% <b>\$420,000</b>		
<b>TOTAL DESIGN &amp; CONTRACTOR CONSTRUCTION ESTIMATE</b>				<b>\$4,033,898</b>	<b>\$5,042,613</b>		

<u>Major Arterial Assumptions</u>		
	Basic	Gateway
# of Lanes (EA)	6	6
Lane width (FT)	12'	12'
# of Shoulders (EA)	4	4
Shoulder width (FT)	1'	1'
# of sidewalks (EA)	2	2
Sidewalk width (FT)	6'	12'
# of barriers/parapets (EA)	6	6
Barrier/parapet width (FT)	2'	2'

#### Cost Estimate Assumptions:

- Right-of-way, permitting, and construction inspection and oversight costs are not included.
- Bridge length assumes that structure only spans 1/3 the width of the floodplain.
- Unit prices for bridge structures are based on recent TxDOT cost data.
- Separate bridge structure assumed for each direction of travel. Deck area includes both directions.
- Deck width includes one sidewalk and three travel lanes in each direction for Basic and Gateway bridges.

# ESTIMATE

## MAJOR BRIDGE CROSSING AT NRCS LAKE 17 Bloomdale Road

**DESCRIPTION:** 6-Lane Bridge (Major Arterial)  
**LENGTH:** 800 Linear Feet

**ESTIMATE LEVEL:** Planning  
**DATE:** January 2015

CONSTRUCTION ITEM DESCRIPTION	UNIT	BASIC BRIDGE			GATEWAY BRIDGE		
		QUANTITY	UNIT COST	TOTAL COST	QUANTITY	UNIT COST	TOTAL COST
CLEARING & REMOVALS	ACRE	2.2	\$2,000	\$4,400	2.2	\$2,000	\$4,400
BANK PROTECTION	CU.YD	325.00	\$60	\$19,500	325.00	\$60	\$19,500
BRIDGE STRUCTURES (total deck area)	SQ.FT.	80,000	\$80	\$6,400,000	89,600	\$90	\$8,064,000
LIGHTING	L.FT	800	\$30	\$24,000	800	\$35	\$28,000
EROSION CONTROL	L.FT.	800	\$10	\$8,000	800	\$10	\$8,000
MOBILIZATION (8% of Contractor Estimate)	L.SUM	1	\$640,000	\$640,000	1	\$805,000	\$805,000
CONTRACTOR QUALITY CONTROL	L.SUM	1	\$120,000	\$120,000	1	\$120,000	\$120,000
CONSTRUCTION SURVEYING	L.SUM	1	\$80,000	\$80,000	1	\$80,000	\$80,000
<b>CONSTRUCTION ITEM TOTAL</b>				<b>\$7,295,900</b>	<b>\$9,128,900</b>		
PLANNING LEVEL CONTINGENCIES			10.0%	\$729,590	10.0% \$912,890		
<b>CONTRACTOR CONSTRUCTION ESTIMATE</b>				<b>\$8,025,490</b>	<b>\$10,041,790</b>		
<b>DESIGN ENGINEERING COST</b>			9.0%	<b>\$720,000</b>	9.0% <b>\$900,000</b>		
<b>TOTAL DESIGN &amp; CONTRACTOR CONSTRUCTION ESTIMATE</b>				<b>\$8,745,490</b>	<b>\$10,941,790</b>		

<u>Major Arterial Assumptions</u>		
	Basic	Gateway
# of Lanes (EA)	6	6
Lane width (FT)	12'	12'
# of Shoulders (EA)	4	4
Shoulder width (FT)	1'	1'
# of sidewalks (EA)	2	2
Sidewalk width (FT)	6'	12'
# of barriers/parapets (EA)	6	6
Barrier/parapet width (FT)	2'	2'

### Cost Estimate Assumptions:

- Right-of-way, permitting, and construction inspection and oversight costs are not included.
- Bridge length assumes that structure only spans 1/3 the width of the floodplain.
- Unit prices for bridge structures are based on recent TxDOT cost data.
- Separate bridge structure assumed for each direction of travel. Deck area includes both directions.
- Deck width includes one sidewalk and three travel lanes in each direction for Basic and Gateway bridges.

# ESTIMATE

## MAJOR BRIDGE CROSSING AT HONEY CREEK

### Laud Howell Parkway

**DESCRIPTION:** 6-Lane Bridge (Principal Arterial)  
**LENGTH:** 930 Linear Feet

**ESTIMATE LEVEL:** Planning  
**DATE:** January 2015

CONSTRUCTION ITEM DESCRIPTION	UNIT	BASIC BRIDGE			GATEWAY BRIDGE		
		QUANTITY	UNIT COST	TOTAL COST	QUANTITY	UNIT COST	TOTAL COST
CLEARING & REMOVALS	ACRE	2.8	\$2,000	\$5,600	2.8	\$2,000	\$5,600
BANK PROTECTION	CU.YD	340.00	\$60	\$20,400	340.00	\$60	\$20,400
BRIDGE STRUCTURES (total deck area)	SQ.FT.	93,000	\$80	\$7,440,000	104,160	\$90	\$9,374,400
LIGHTING	L.FT.	930	\$30	\$27,900	930	\$35	\$32,550
EROSION CONTROL	L.FT.	930	\$10	\$9,300	930	\$10	\$9,300
MOBILIZATION (8% of Contractor Estimate)	L.SUM	1	\$750,000	\$750,000	1	\$930,000	\$930,000
CONTRACTOR QUALITY CONTROL	L.SUM	1	\$140,000	\$140,000	1	\$140,000	\$140,000
CONSTRUCTION SURVEYING	L.SUM	1	\$95,000	\$95,000	1	\$95,000	\$95,000
<b>CONSTRUCTION ITEM TOTAL</b>				<b>\$8,488,200</b>	<b>\$10,607,250</b>		
PLANNING LEVEL CONTINGENCIES			10.0%	\$848,820	10.0%	\$1,060,725	
<b>CONTRACTOR CONSTRUCTION ESTIMATE</b>				<b>\$9,337,020</b>	<b>\$11,667,975</b>		
<b>DESIGN ENGINEERING COST</b>			9.0%	<b>\$840,000</b>	9.0%	<b>\$1,050,000</b>	
<b>TOTAL DESIGN &amp; CONTRACTOR CONSTRUCTION ESTIMATE</b>				<b>\$10,177,020</b>	<b>\$12,717,975</b>		

<b>Principal Arterial Assumptions</b>		
	Basic	Gateway
# of Lanes (EA)	6	6
Lane width (FT)	12'	12'
# of Shoulders (EA)	4	4
Shoulder width (FT)	1'	1'
# of sidewalks (EA)	2	2
Sidewalk width (FT)	6'	12'
# of barriers/parapets (EA)	6	6
Barrier/parapet width (FT)	2'	2'

#### **Cost Estimate Assumptions:**

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- Separate bridge structure assumed for each direction of travel. Deck area includes both directions.
- Deck width includes one sidewalk and three travel lanes in each direction for Basic and Gateway bridges.