




December 10, 2012

TO: Board of Mayor and Aldermen

FROM: Eric S. Stuckey, City Administrator 
David Parker, P.E., City Engineer/CIP Executive
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SUBJECT: South Carothers Parkway Extension Project Information & Options

Purpose

The purpose of this memorandum is to provide the Board of Mayor and Alderman (BOMA) with additional information and potential options for the South Carothers Parkway Extension Project.

Background

On July 10, 2007, the BOMA unanimously approved a professional services agreement (PSA) in an amount not to exceed \$1,420,000 with Sullivan Engineering, Inc. (SEI) for the design of the South Carothers Extension. The proposed extension of South Carothers Parkway, from Falcon Creek Subdivision to the Highlands at Ladd Park Subdivision, was to consist of a 4-lane, median divided roadway, with sidewalk and multi-use trail. This design was in keeping with previous iterations of Carothers Parkway.

On December 11, 2007 the BOMA unanimously approved Amendment 1 to the PSA with SEI in an amount of \$100,000. The purposed of this amendment was to modify the South Carothers Parkway Extension design to accommodate the proposed Nichols Bend development. This amendment was to be funded by the developer of Nichols Bend.

On September 9, 2008, the BOMA unanimously approved Amendment 2 to the PSA with SEI, in an amount of \$30,020, for hydraulic modeling of the Harpeth River. Amendment 3 to the PSA with SEI, at a cost of \$61,000 was approved unanimously by the BOMA on January 13, 2009. The purpose of Amendment 3 was to modify the design plans to allow for the detention requirements of the Nichols Bend development and to redesign of the proposed bridge over the Harpeth River to allow the inclusion of a Milcrofton water line.

On September 22, 2009, the BOMA approved COF Contract 2009-0052 with SEI, in an amount not to exceed \$242,570 for additional design services related to the South Carothers Parkway Extension. The additional design services approved within COF Contract 2009-0052 provide a continuous roadway from the South Carothers Parkway bridge over the Harpeth river to Long Lane.



On April 24, 2012, an option to authorize a 2-lane design of the South Carothers Parkway Extension was offered to the BOMA. Subsequently, COF Contract 2012-0078 with SEI, was presented to the BOMA on May 8, 2012. This contract provides for the redesign of South Carothers Parkway Extension as a 2-lane roadway. Two (2) options were offered for a 2-lane design. The first option, at a design cost of \$262,970, was for a 2-lane curb and gutter typical section, with sidewalk. The second option, at a design cost of \$406,350, was for a 2-lane typical section, with ditch drainage and no sidewalk. The BOMA ultimately chose option 1 for COF Contract 2012-0078.

On November 27, 2012 City Staff presented *preliminary* construction cost estimates (e.g. opinion of probable cost) for the redesigned, 2-lane typical section South Carothers Parkway Extension. Those estimates are as follows:

	<u>North Only</u>	<u>South Only</u>	<u>Entire Project</u>
Roadway	\$ 5,047,542.83	\$ 5,522,563.06	\$ 10,120,436.04
Lighting	\$ 234,260.68	\$ 237,230.83	\$ 471,267.08
Bridge	\$ 0.00	\$ 1,565,174.04	\$ 1,565,174.04
Contingency	<u>\$ 264,090.18</u>	<u>\$ 366,248.40</u>	<u>\$ 607,843.86</u>
Total	\$ 5,545,893.68	\$ 7,691,216.32	\$ 12,764,721.02

At this November 27, 2012 meeting, the BOMA requested that the estimated construction costs for a 4-lane typical section of South Carothers Parkway also be presented.

Financial Impact

SEI, the design consultant for the South Carothers Parkway Extension Project has prepared construction estimates for 2-lane & 4-lane typical sections. Also, for each typical section, the costs are broken down into their major components for: north segment construction only, south segment construction only, and entire project construction. You will notice that costs for the 2-lane section differ significantly from the costs presented on November 13, 2012. Additional information about the construction of detention ponds and recent bid information (i.e. McEwen Drive Temporary Connector & Hillsboro Road) was used to create a more up-to-date *estimate* of construction costs.

2-Lane Typical Section Estimates

	<u>North Only</u>	<u>South Only</u>	<u>Entire Project</u>
Add'l Design	\$ 0.00	\$ 0.00	\$ 0.00
Roadway	\$ 2,537,681.74	\$ 2,675,395.14	\$ 4,944,708.96
Sidewalk/Trail	\$ 125,003.12	\$ 153,630.15	\$ 278,633.27
Bridge/Wall(s)	\$ 189,000.00	\$ 1,643,432.74	\$ 1,832,432.74
Lighting	\$ 221,376.34	\$ 224,183.13	\$ 442,353.28
*Miscellaneous	<u>\$ 2,839,918.65</u>	<u>\$ 2,968,466.76</u>	<u>\$ 5,547,267.37</u>
Total	\$ 5,912,979.85	\$ 7,665,107.92	\$ 13,045,395.62



4-Lane Typical Section Estimates

	<u>North Only</u>	<u>South Only</u>	<u>Entire Project</u>
Add'l Design	\$ 31,500.00	\$ 44,100.00	\$ 44,100.00
Roadway	\$ 3,996,945.69	\$ 3,896,921.09	\$ 7,825,841.49
Sidewalk/Trail	\$ 125,003.12	\$ 153,630.15	\$ 278,633.27
Bridge/Wall(s)	\$ 189,000.00	\$ 3,286,865.48	\$ 3,475,865.48
Lighting	\$ 277,430.46	\$ 284,619.89	\$ 502,790.03
*Miscellaneous	<u>\$ 2,785,266.71</u>	<u>\$ 3,258,661.14</u>	<u>\$ 5,722,527.75</u>
Total	\$ 7,405,145.98	\$ 10,924,797.75	\$ 17,849,758.02

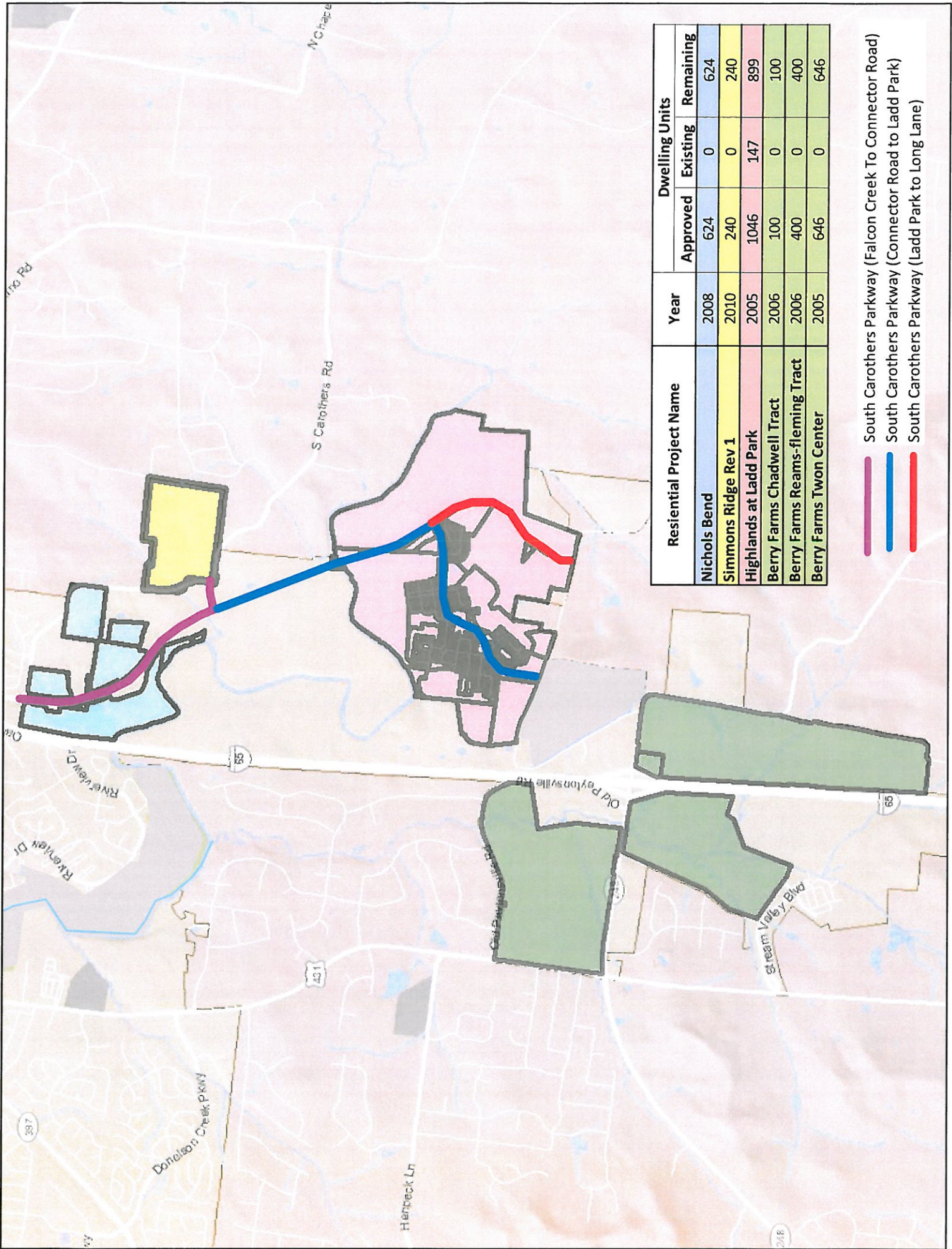
***Notes:**

1. It is assumed that the borrow excavation can be obtained locally, on or near the construction site. However, if off site material is required, then the cost per unit would increase to \$18+/- per cubic yard in lieu of the \$7+/- used in the cost analysis. Please keep in mind, that from all indications, it appears the necessary borrow material is obtainable on site.
2. This cost includes the retention/detention ponds that are to be constructed as a part of the City's Agreement with Nichols Bend.

Recommendation

In order to prepare final plans and specifications for construction, staff needs final direction from the BOMA. The options are:

1. Complete plans, but place construction on hold indefinitely,
2. Construct South Carothers Parkway Extension as a 2-lane facility
 - a. Construct Full Length Project
 - b. Construct North Section Only
 - c. Construct South Section Only
3. Construct South Carothers Parkway Extension as a 4-lane facility
 - a. Construct Full Length Project
 - b. Construct North Section Only
 - c. Construct South Section Only



Residential Project Name	Year	Dwelling Units		
		Approved	Existing	Remaining
Nichols Bend	2008	624	0	624
Simmons Ridge Rev 1	2010	240	0	240
Highlands at Ladd Park	2005	1046	147	899
Berry Farms Chadwell Tract	2006	100	0	100
Berry Farms Reams-fleming Tract	2006	400	0	400
Berry Farms Twon Center	2005	646	0	646

- South Carothers Parkway (Falcon Creek To Connector Road)
- South Carothers Parkway (Connector Road to Ladd Park)
- South Carothers Parkway (Ladd Park to Long Lane)