



## Public Works Department

# SE 4<sup>th</sup> Street Reconstruction Project Depot Avenue to SE Williston Road



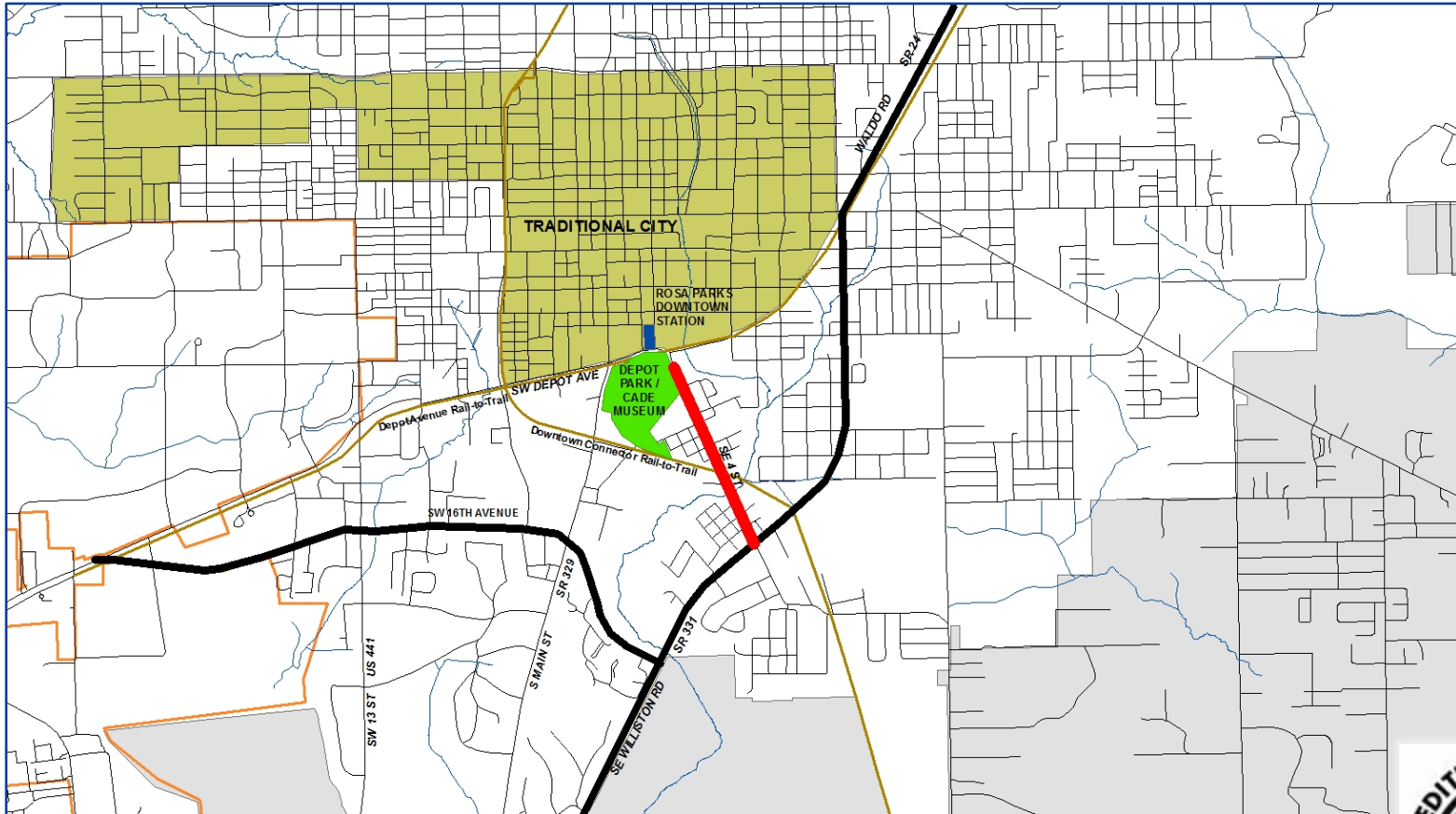
# Funding Background

- **The funding for this project is from 5-cent Local Option Gas Tax**
- **Per Florida Statutes Sec. 336.025(3) this revenue shall be used for “transportation expenditures needed to meet the requirements of the capital improvements element of an adopted comprehensive plan or for expenditures needed to meet immediate local transportation problems and for other transportation-related expenditures that are critical for building comprehensive roadway networks by local governments.” and these roads “shall be deemed to increase capacity and such projects shall be included in the capital improvements element of an adopted comprehensive plan.”**



- **City of Gainesville Comprehensive Plan – Transportation Mobility Element**
  - **Overall Goal** – ... “The transportation system shall be designed to meet the needs of pedestrians, bicyclists, transit, and auto users.”
  - **Policy 2.1.6** – “The City shall use ‘Complete Streets’ principles to ensure” ...
  - **Policy 3.1.2** – “The City shall identify arterial and collector segments that should be made more walkable. ... collector streets within, or adjacent to, the urban area and particularly within pedestrian-oriented areas, such as downtown, UF, and other mixed-use areas.”
  - **Policy 4.1.5** – Requires the City to identify locations lacking in-street bicycle facilities and to provide, where appropriate
  - **Policy 4.1.6** – Priority criteria for bicycle facilities when in close proximity to various points of interest
  - **Policy 4.1.7** – ... “arterials and collectors shall be designed using “Complete Streets” and “Context Sensitive Street Design” principles.”
  - **Policy 6.1.3** – “The City shall use the “City of Gainesville Engineering Design & Construction Manual” for street design and geometrics on City-maintained streets.”
  - **Policy 6.1.4** – “The City shall use street resurfacing projects as an opportunity to install or enhance sidewalks, bicycle lanes” ...





## ■ Complete Streets

- **“Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.”**
- **“By adopting a Complete Streets policy, communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicyclists – making your town a better place to live.”**

As defined by Smart Growth America ([www.smartgrowthamerica.org](http://www.smartgrowthamerica.org))



## Vehicular Lanes

### ■ FDOT Florida Greenbook

#### ○ Chapter 1 – Planning

- C.2.a.2 – Collector – A route providing service which is of relatively moderate average traffic volume, moderately average trip length, and moderately average operating speed. These routes also collect and distribute traffic between local roads or arterial roads and serve as a linkage between land access and mobility needs.

#### ○ Chapter 3 – Geometric Design

- C.7.b.1 – Pavement Width - Traffic lanes should be 12 feet in width, but shall not be less than 10 feet in width. Streets and highways with significant truck/bus traffic should have 12 feet wide traffic lanes. For minimum lane widths, see Table 3–7 and Table 3–8.



## Vehicular Lanes

Topic # 625-000-015  
 Manual of Uniform Minimum Standards  
 for Design, Construction and Maintenance  
 for Streets and Highways

May - 2011

**TABLE 3 – 7  
 MINIMUM LANE WIDTHS**

	Minimum Lane Width (FEET)
Freeways	12
Major Arterials	11
Minor Arterials	11
Collectors (Major and Minor)	11
Local Roads *	10
Auxiliary Lanes	10

traffic lanes. For minimum lane widths, see Table 3–7 and Table 3–8.



## Bicycle Facilities

### ■ FDOT Florida Greenbook

- Chapter 9–B.1– Minimum width of 4 feet. 1 foot additional width when the lane is adjacent to a curb or other barrier.
- Chapter 9–C – Shared Use Paths – The inclusion of a shared use path should not be considered as an alternative to providing on-street facilities, but, rather, as a supplement.
- Chapter 9–C.2 – Minimum width for a paved two-way path is 10 feet. 12 feet is desired. The width should be increased if there is expected substantial use by bicyclists, probable shared use with joggers and in-line skaters, steep grades, and locations where bicyclists are likely to ride two abreast.



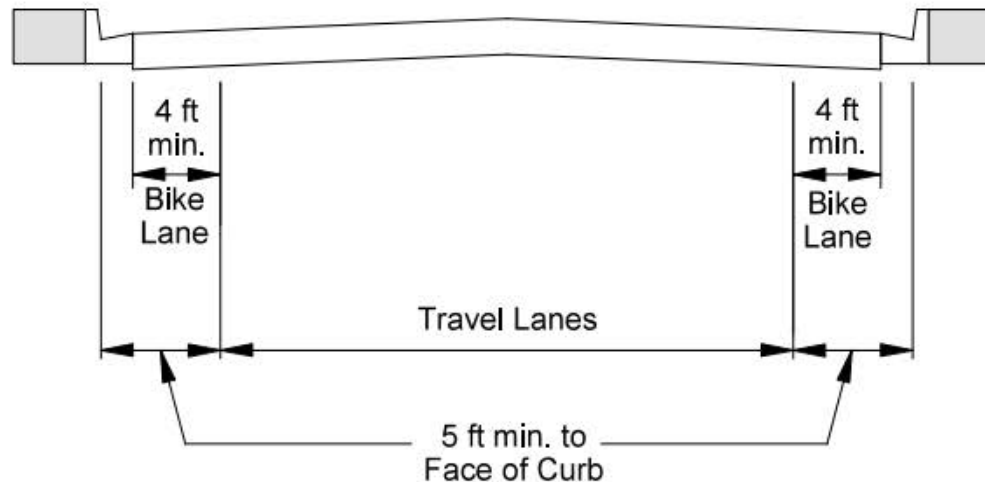


Topic # 625-000-015  
Manual of Uniform Minimum Standards  
for Design, Construction and Maintenance  
for Streets and Highways

May - 2011

**Figure 9-1 Minimum Widths for Bicycle Lanes**

**a) Curbed Street without Parking**



## Pedestrian Facilities

### ■ FDOT Florida Greenbook

- Chapter 8–B.1 – Sidewalks provided on both sides of a street are the preferred pedestrian facility; however, the construction of sidewalks on both sides of the street would not be required in cases where pedestrians would not be expected such as when the roadway parallels a railroad or drainage canal. To comply with ADA standards, newly constructed, reconstructed, or altered sidewalks must be accessible to and usable by persons with disabilities.
- Chapter 8–C.3.b – When separated from the curb, the minimum separation for a sidewalk from the back of curb is 2 feet.

### ■ FDOT Design Standards

- FDOT Index No. 310 – Minimum width is 5 feet with buffer or 6 feet with no buffer or immediately adjacent to curbing.



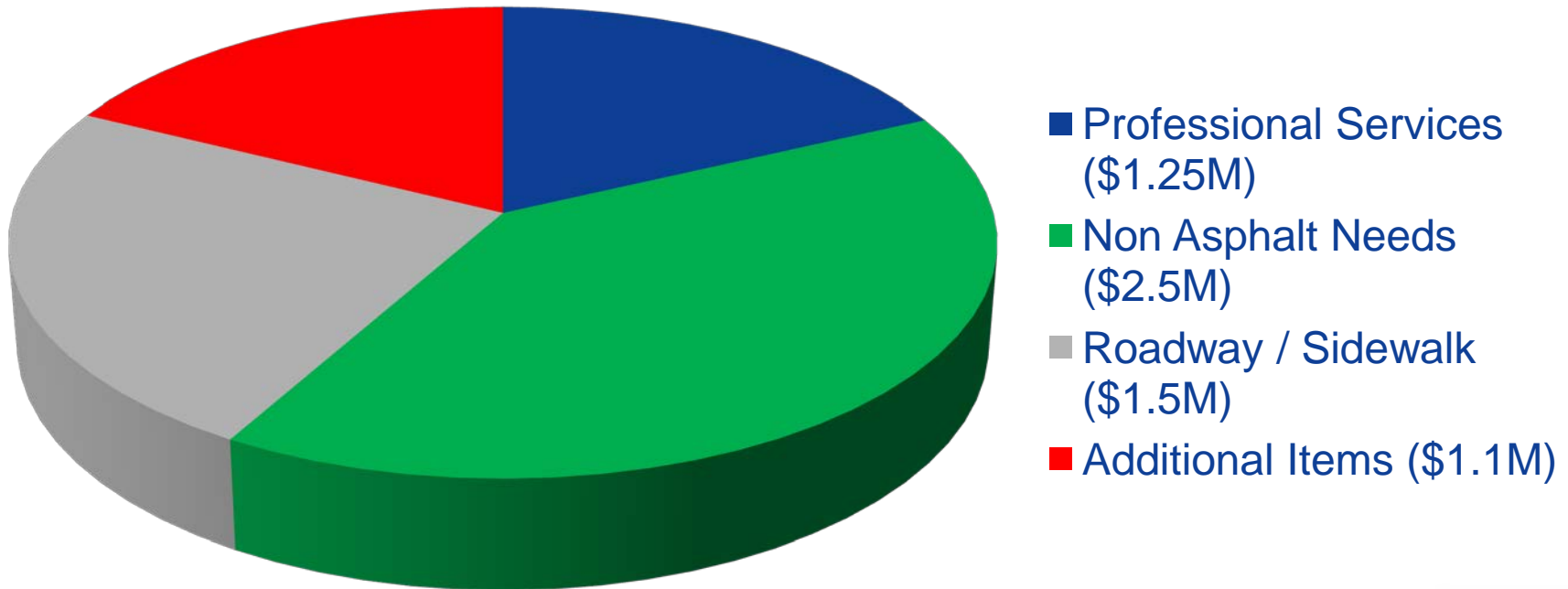
# Budget Breakdown

- **The current budget for SE 4<sup>th</sup> Street Reconstruction from Depot Avenue to SE Williston Road is \$5.9 million**
- **This includes the following areas:**
  - **Professional Services (Design, Construction Services)**
  - **Non Asphalt Needs (RW/Land Acquisition, Stormwater Improvements, Underpass Upgrade, Lighting, Traffic Signalization)**
  - **Roadway / Sidewalk (Asphalt Roadway, Bike Lanes, Sidewalk, Sod)**
  - **Additional Needs (Mobilization, MOT, Contingency)**



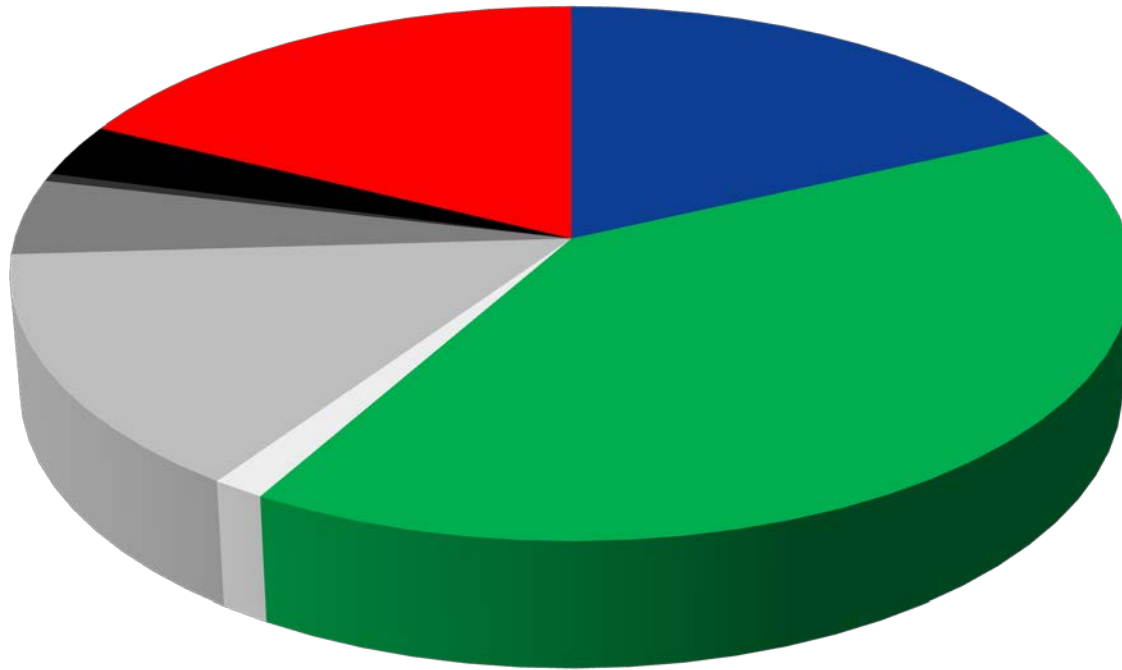
# Budget Breakdown

## SE 4th Street Budget Breakdown



# Budget Breakdown

## SE 4th Street Budget Breakdown

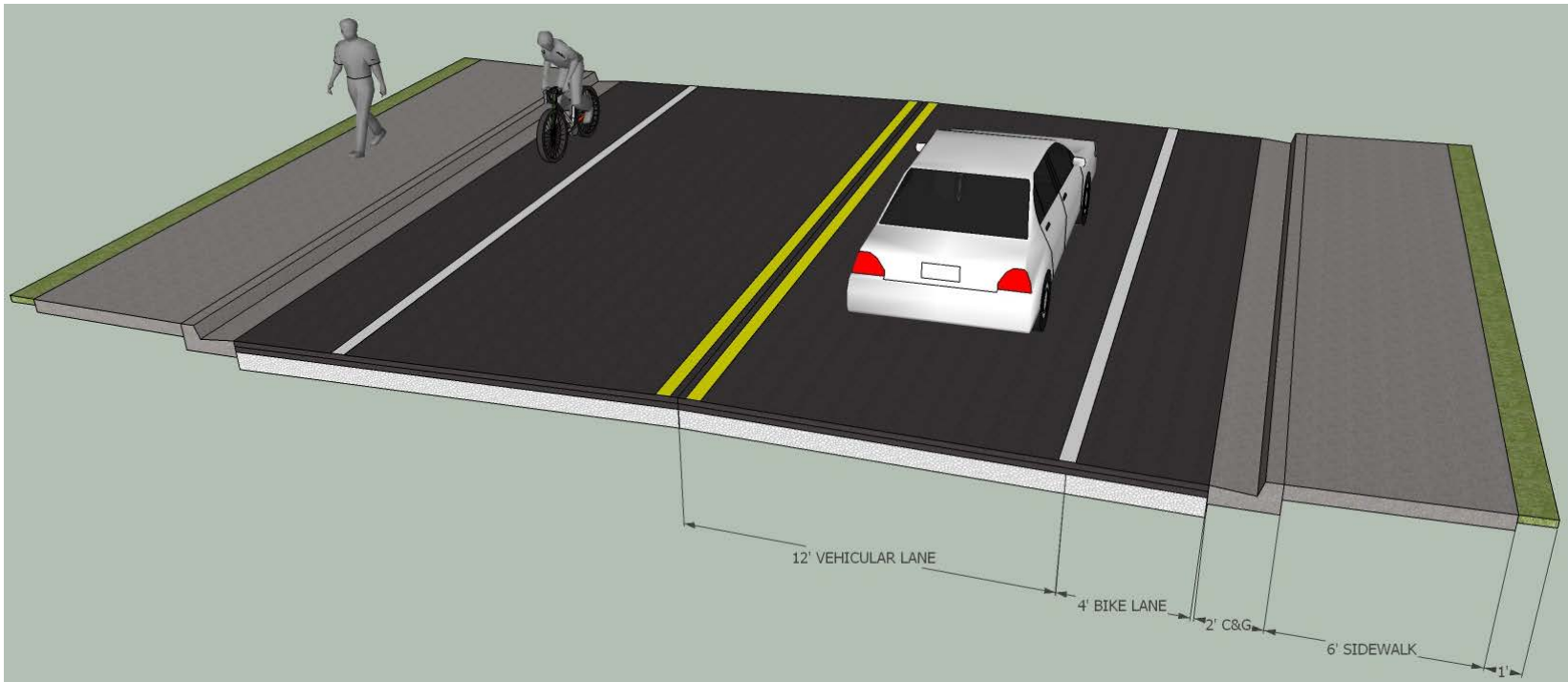


- Professional Services
- Non Asphalt Needs
- Demolition
- Asphalt
- Concrete
- Sod
- CRA Requirements
- Additional Items



# Cross Section Reviews

- **Option 1 [12' vehicle lanes, 4' bike lanes, 6' sidewalks]**



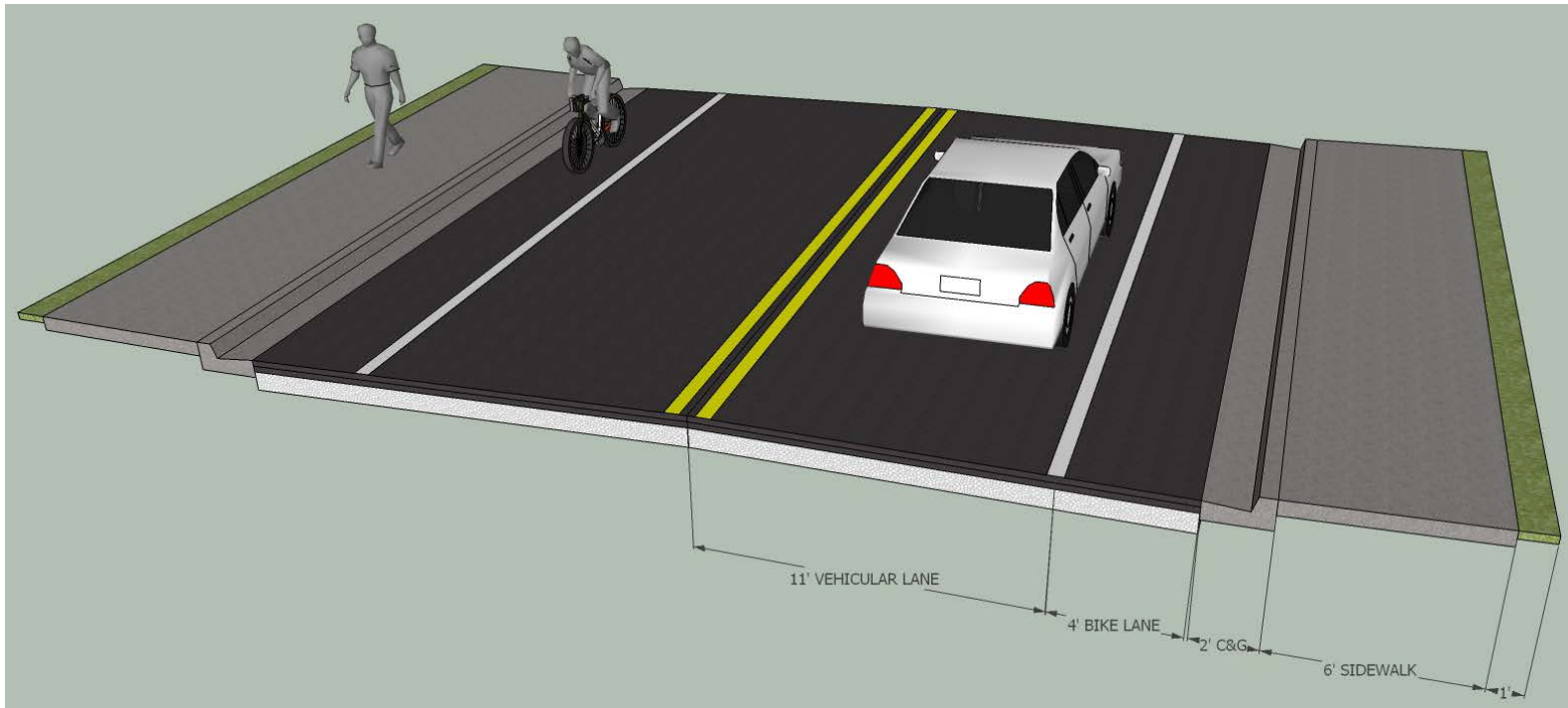
**R/W Width = 50 feet**

**Roadway Costs = \$1.5M**



# Cross Section Reviews

- **Option 2 [11' vehicle lanes, 4' bike lanes, 6' sidewalks]**

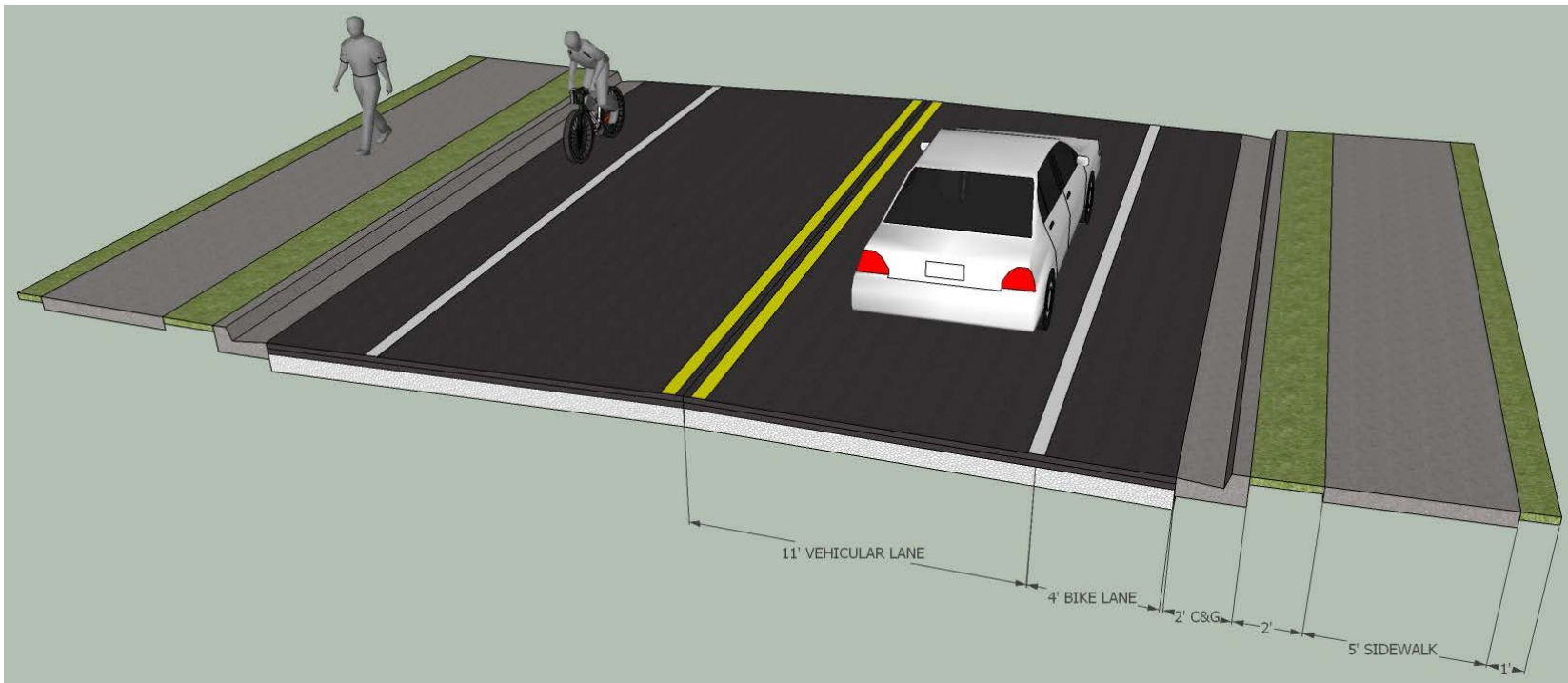


**R/W Width = 48 feet**

**Roadway Costs = \$1.45M**

# Cross Section Reviews

- **Option 3 [11' vehicle lanes, 4' bike lanes, 5' sidewalks]**



**R/W Width = 50 feet**

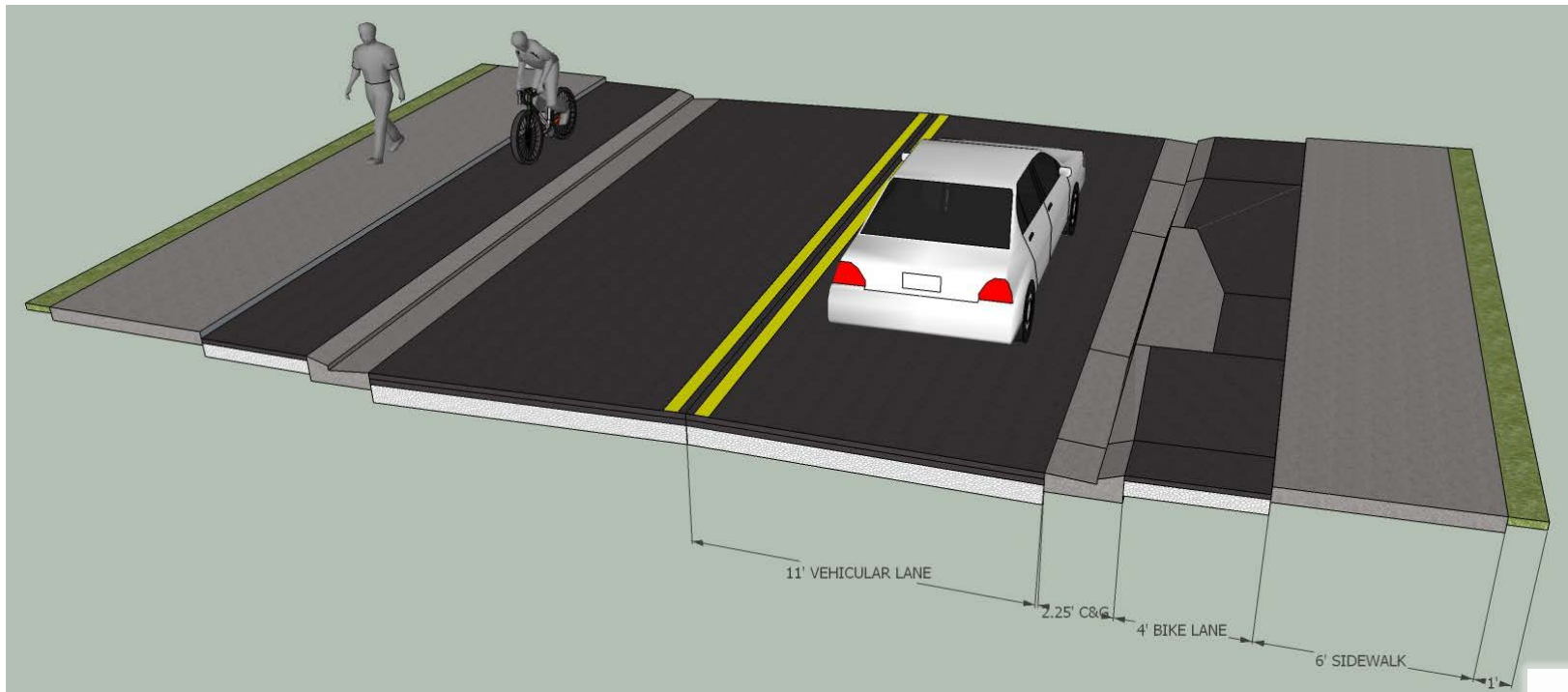
**Roadway Costs = \$1.43M**





# Cross Section Reviews

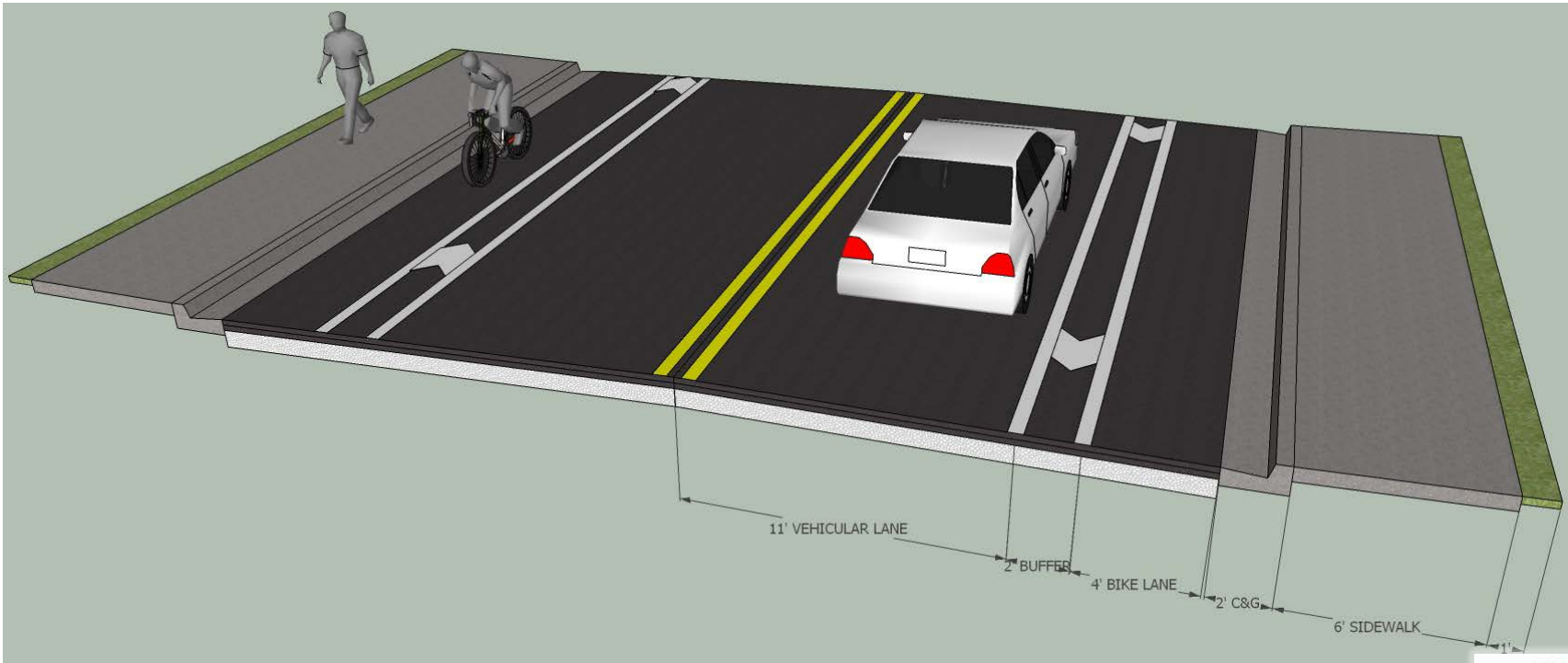
- **Option 4 [(2) 11' vehicle lanes, (2) 4' raised bike lanes (cycle track), (2) 6' sidewalks]**



**R/W Width = 48.5 feet    Roadway Costs = \$1.39MM**

# Cross Section Reviews

- **Option 5 [(2) 11' vehicle lanes, (2) 4' bike lanes with 2' separation, (2) 6' sidewalks]**

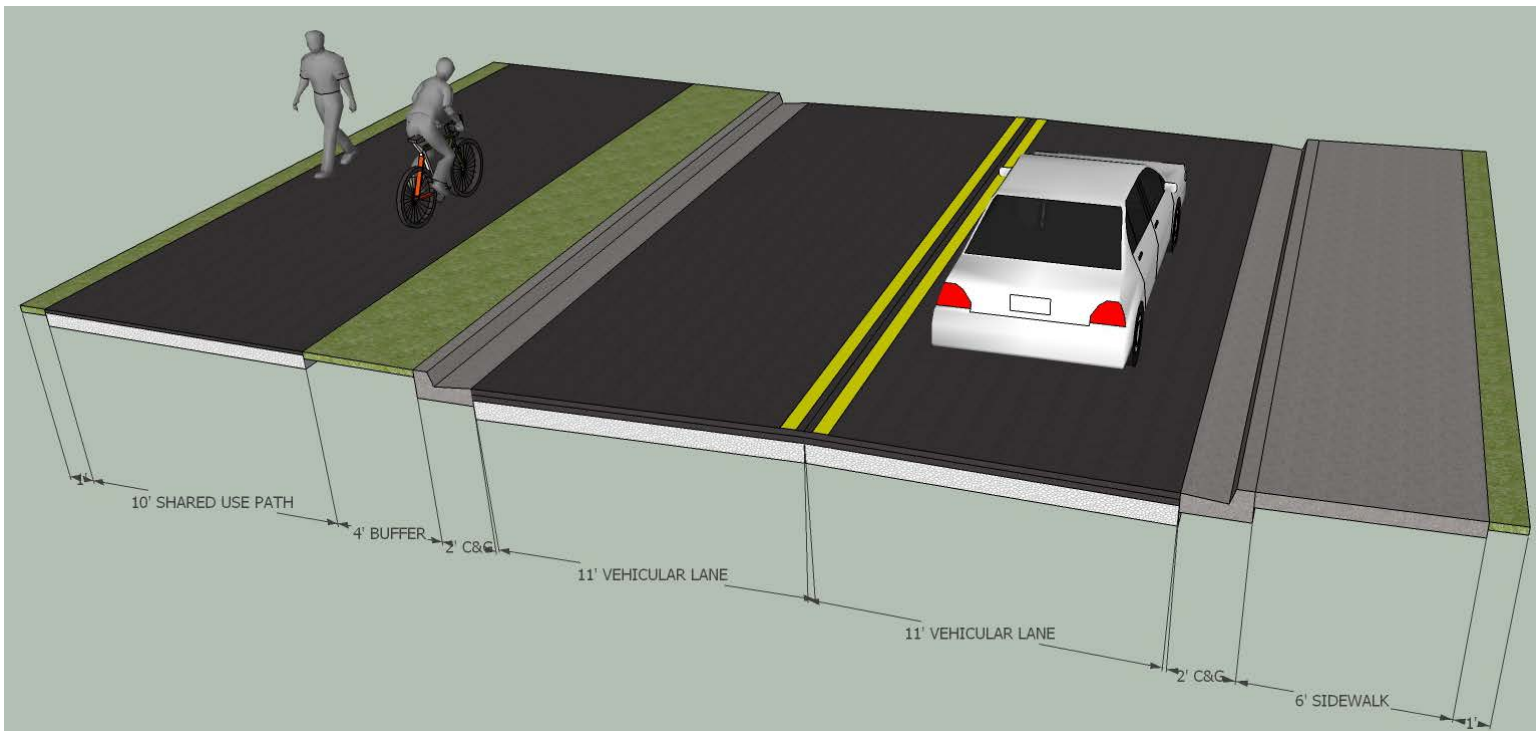


**R/W Width = 52 feet**

**Roadway Costs = \$1.52MM**

# Cross Section Reviews

- **Option 6 [(2) 11' vehicle lanes, (1) 10' multi-use path, (1) 6' sidewalk]**

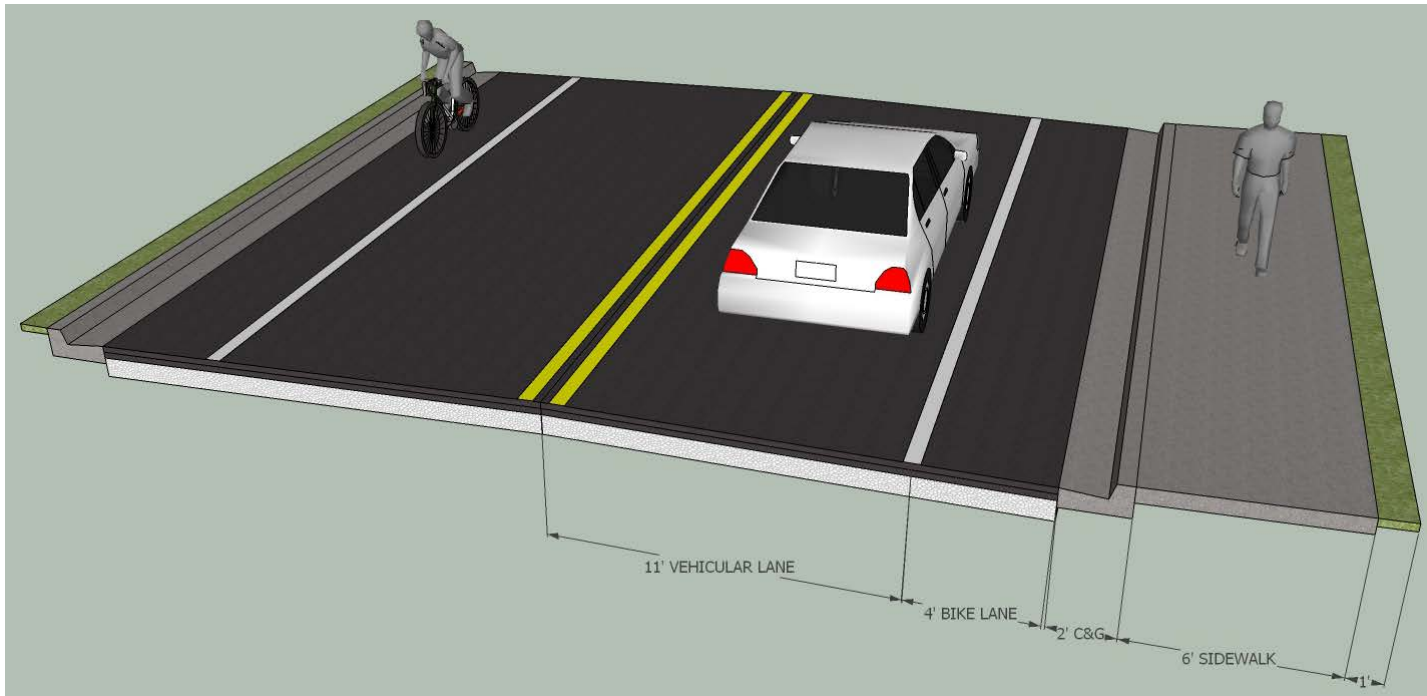


**R/W Width = 48 feet**

**Roadway Costs = \$1.29MM**

# Cross Section Reviews

- **Option 7 [(2) 11' vehicle lanes, (2) 4' bike lanes, (1) 6' sidewalk]**



**R/W Width = 42 feet**

**Roadway Costs = \$1.42MM**

# Cross Section Reviews

	Opt. #1	Opt. #2	Opt. #3	Opt. #4	Opt. #5	Opt. #6	Opt. #7
<b>Vehicular Lanes</b>	12'	11'					
<b>Bike Lanes</b>	4'			4' raised cycle track	4' (with 2' buffer)	10' multi-use path	4'
<b>Side-walk(s)</b>	6'		5'	6'		6' one-side	
<b>R/W Width</b>	50'	48'	50'	48.5'	52'	48'	42'
<b>R/W West Impacts</b>	0'-4' (S) 0'-8' (N)	0'-3' (S) 0'-7' (N)	0'-4' (S) 0'-8' (N)	0'-3' (S) 0'-7' (N)	0'-5' (S) 0'-9' (N)	0'-3' (S) 0'-7' (N)	0' (S) 0'-4' (N)
<b>R/W East Impacts</b>	6'-11' (S) 4'-10' (N)	5'-10' (S) 3'-9' (N)	6'-11' (S) 4'-10' (N)	5'-10' (S) 3'-9' (N)	7'-12' (S) 5'-11' (N)	5'-10' (S) 3'-9' (N)	2'-7' (S) 0'-6' (N)
<b>Cost</b>	\$1.50M	\$1.45M	\$1.43M	\$1.39M	\$1.52M	\$1.29M	\$1.42M

**Ex. R/W width is 40' within residential area and**

**Varies between 35' (at SW 11<sup>th</sup> Place) to 60' (north of Gainesville Ice building to SW 10<sup>th</sup> Avenue), with the majority being 45' within the industrial area.**



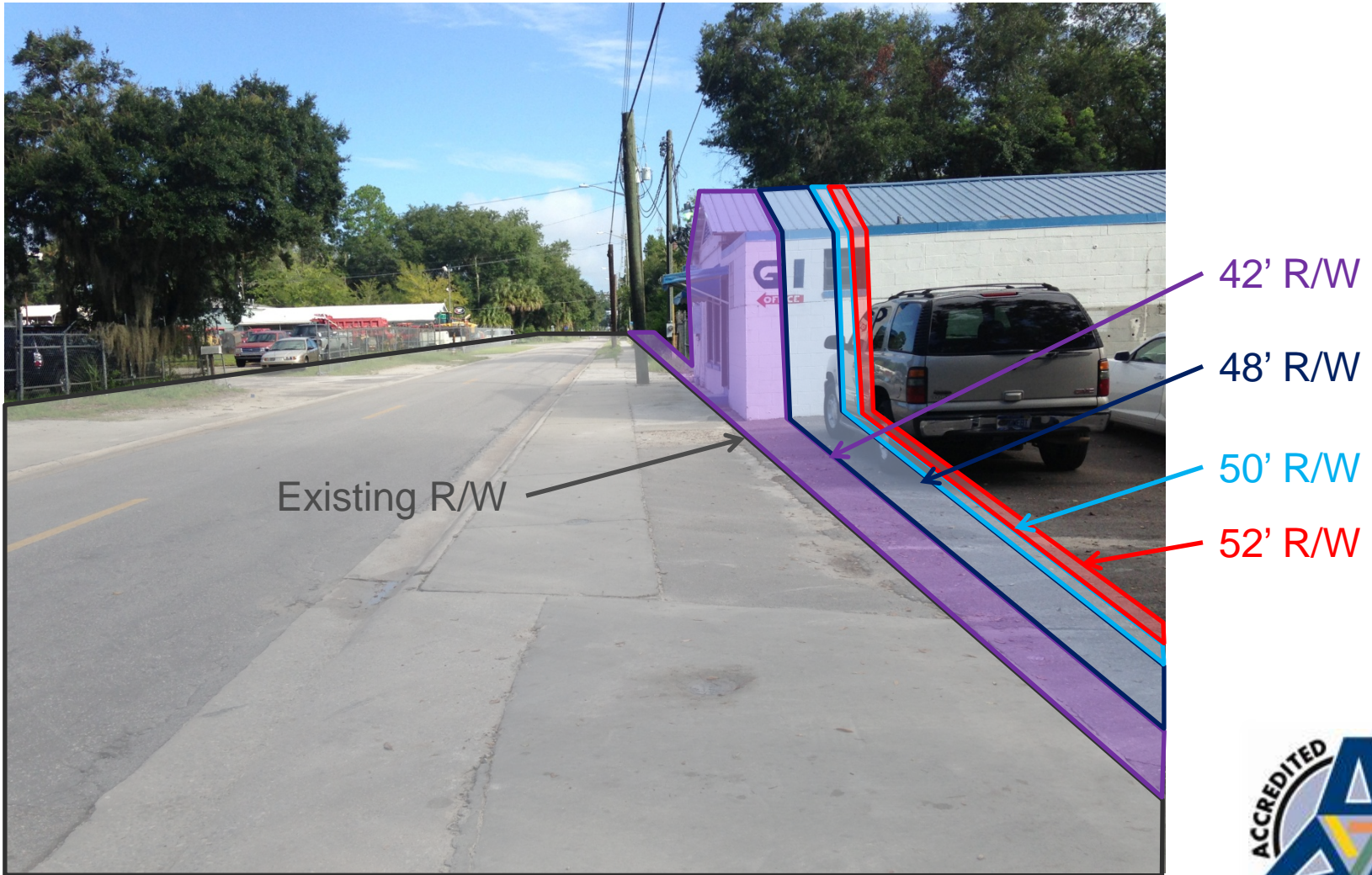
# Enhancements



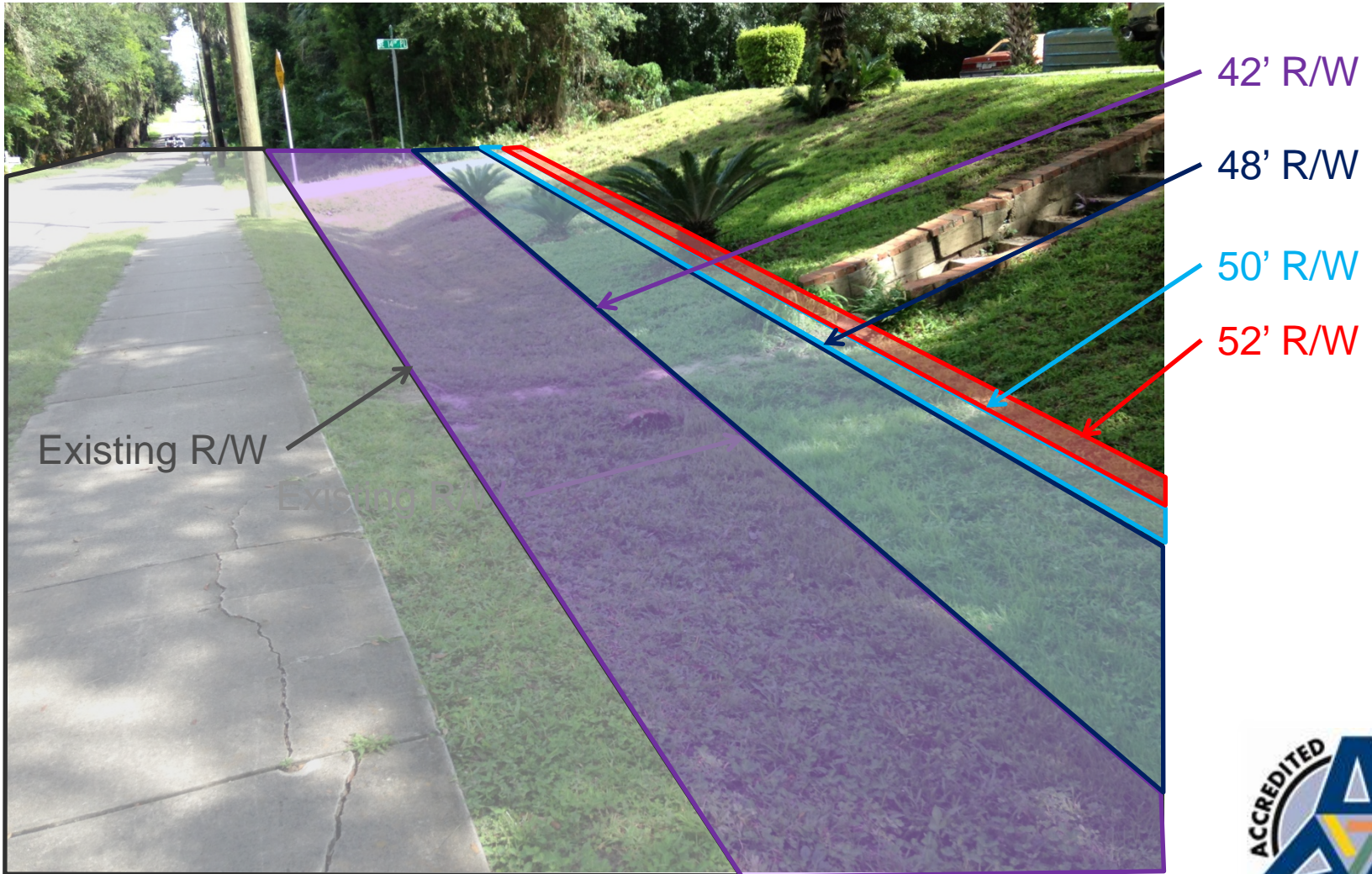
Sidewalk enhancements ~ \$0.05M  
Lighting enhancements ~ \$0.40M



# Right-of-Way Impacts



# Right-of-Way Impacts





# Heritage Trees

June 16, 2014

To: City Commission of Gainesville, Florida

From: City Tree Advisory Board

Ivor Kincaide, Chair; Meg Niederhofer, Secretary; E.J. Bolduc; Joe Durando; Chris Kodadek

Subject: Reconstruction of SE 4<sup>th</sup> Street from Depot Ave to Williston Road

On June 9, 2014 the Tree Advisory Board was informed that all seven designs proposed for the reconstruction of SE 4<sup>th</sup> Street require the removal of five Heritage Live Oaks on the west side of the street. Heritage status is conferred on trees of high quality species that are 20" in diameter or larger. The Live Oaks in question are on the NW corner of SE 13<sup>th</sup> Avenue and 4<sup>th</sup> St (estimated at 35" in diameter). Proceeding south, estimated diameters of the Heritage Live Oaks are 20", 38", 44" and 31". The latter two trees flank the sides of Sweetwater Branch and provide structural stability to the creek bank. The large canopies mean that rain falling on the crown is intercepted and therefore reaches the ground much more slowly than if the precipitation fell directly onto hardscape, ameliorating the impact on creek water quality during storm events.

Live Oaks are identified in the Gainesville Land Development Code as worthy of special consideration due to their environmental and aesthetic qualities. Their structural stability has been documented by University of Florida research which found them most likely of all tree species to withstand hurricane force winds, thus providing protection to buildings in their vicinity. The branches keep the winds well above roof levels, and they intercept wind-carried debris in the form of large limbs, metal siding, and signs, which hit the trees instead of walls and roofs.

In order to encourage preservation of trees like these Heritage Live Oaks, land development regulations require financial mitigation for their destruction during development or civic-improvement projects. The basic value of Heritage trees of high quality species is calculated at \$40/square inch, modified by a reduction factor because no tree is perfect. These provisions were established using the methodology of the Council of Tree and Landscape Appraisers as modified after lengthy discussions with local developers, University of Florida Development representatives, landscape architects, City Tree Advisory and City Beautification Boards, citizens representing a variety of local organizations, and City and GRU staff. The Tree Advisory Board estimates that the Heritage Live Oaks trees to be destroyed by the reconstruction of SE 4<sup>th</sup> Street would be valued at approximately \$100,000. The intention of this letter from the Tree Advisory Board is to remind the City Commission that the Metropolitan Planning Organization Design Guidelines require tree protection and planting just as they require bike lanes, sidewalks, and appropriate lane widths.

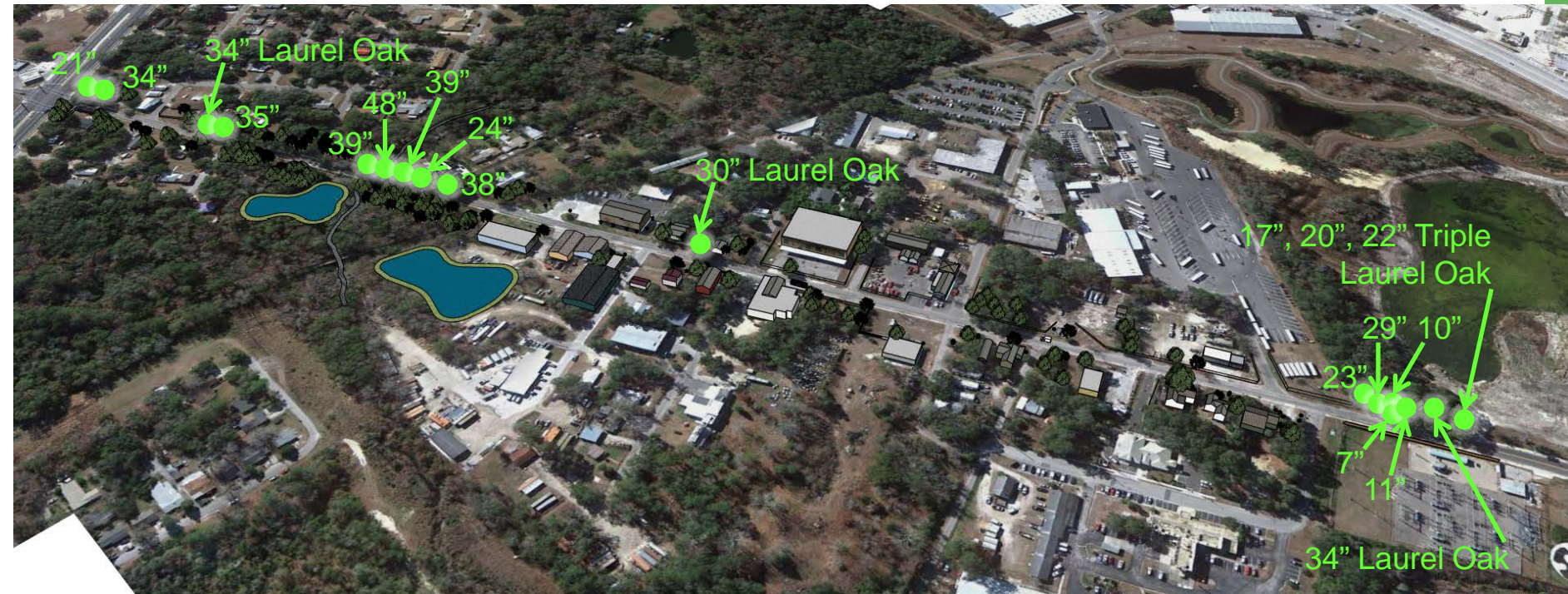
The Tree Advisory Board motion: "Chair Ivor Kincaide is authorized to prepare a letter to the City Commission, copied to the Director of City Public Works, urging that a plan for the reconstruction of SE 4<sup>th</sup> Street be developed that preserves the 5 Heritage Live Oaks in the public right-of-way on the west side, in the vicinity of Sweetwater Branch Creek and SE 13<sup>th</sup> Avenue. The letter should reiterate the policy of financial mitigation that shall be exacted if the trees are destroyed. Also, whatever plan is adopted should include the replanting of shade trees along the newly reconstructed SE 4<sup>th</sup> St. The Board understands that Public Works is working within very narrow right-of-way constraints. Perhaps the funds that would be used to mitigate the destruction of the Heritage trees could be used instead to acquire additional right-of-way from the undeveloped property directly across the street from the Heritage Live Oaks." (Motion: Joe Durando; second, E.J. Bolduc; unanimous).

On behalf of the Tree Advisory Board, I thank you for consideration of this matter.

Ivor Kincaide, Chair



## Heritage Live and Laurel Oak Trees



### Mitigation

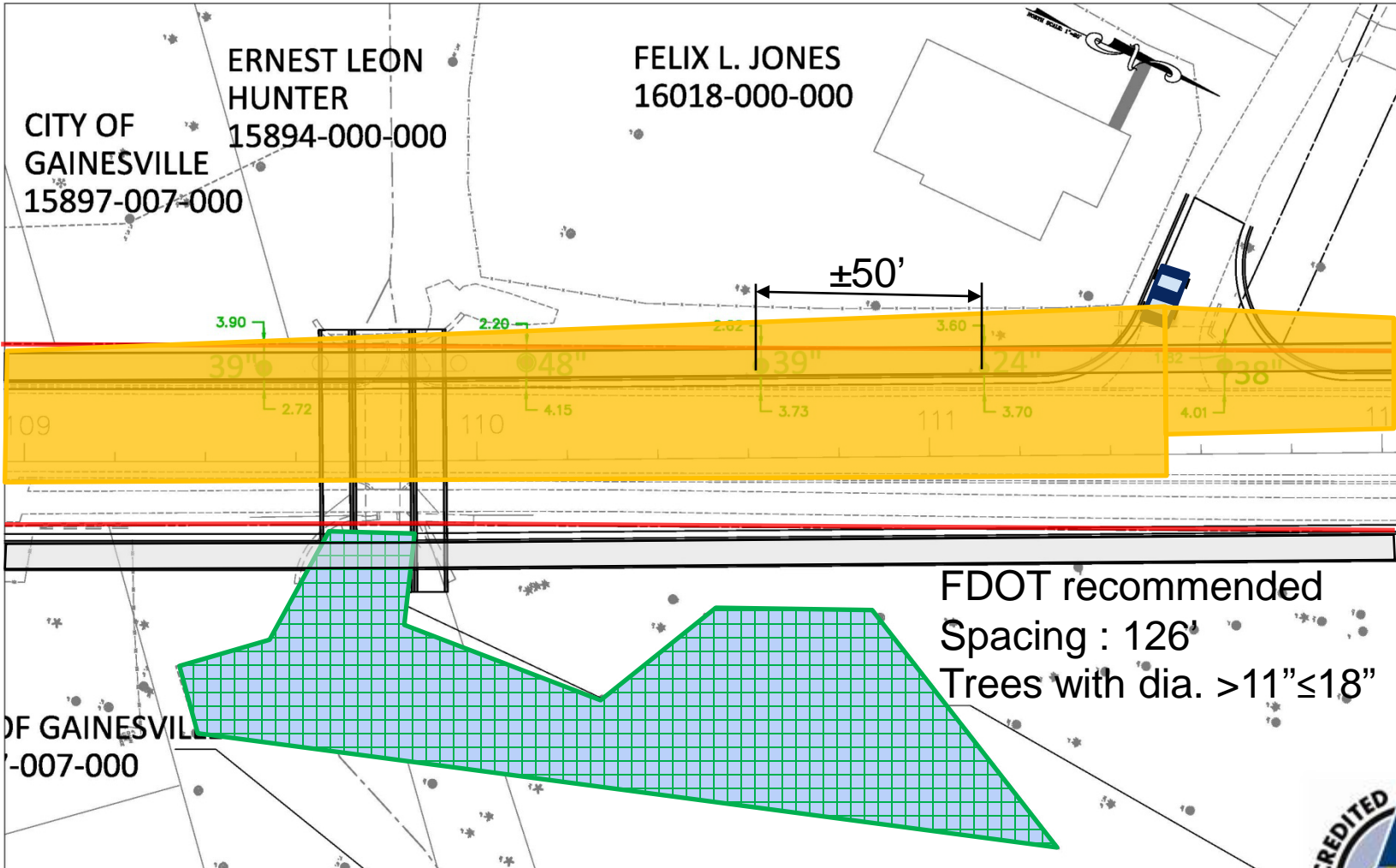
Five live oaks by Sweetwater Branch – \$127,219.82

Remainder of the live oaks – \$48,735.94

**Total – \$175,955.76**

(Remainder can be mitigated with a 2:1 planting of replacement trees ~\$1,400)





REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WILLIAM V. ANDERSON, P.E. (No. 36683)  
**JMPT**  
JOHNSON, MURPHY & THOMPSON  
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CERTIFICATE OF AUTHORIZATION No. 2917



PUBLIC WORKS DEPARTMENT  
CITY OF GAINESVILLE  
400 NEW SPYRE AVENUE  
GAINESVILLE, FL 32609  
TEL: (352) 334-3070  
FAX: (352) 334-3093

SE 4th STREET  
SE WILLISTON ROAD TO SE DEPOT AVENUE  
RIGHT-OF-WAY IMPACTS



# Heritage Trees



# Heritage Trees



# Heritage Trees

**From:** Moran John [<mailto:johnmoranphoto@gmail.com>]

**Sent:** Wednesday, June 18, 2014 2:37 PM

**To:** citycomm

**Cc:** Siburt, Mark D.; Demetropoulos, Linda S.; PubWrk; Francis Putz E; [megnolia@aol.com](mailto:megnolia@aol.com); Eleanor Sommer K.; Joni Ellis; Hamann Richard; [boydsla@gmail.com](mailto:boydsla@gmail.com); Anne Barkdoll; Dave O'Keefe; Hutchinson Robert

**Subject:** Saving our heritage oaks on SE 4th St.

Dear Commissioners,

Concerning the fate of the heritage oaks on SE 4th St., Gainesville deserves better than the failure of imagination that would have us believe that there is no recourse but to destroy these magnificent trees.

Driving home yesterday from the Wekiva River, I was struck by the beauty of SR 42 just east of Altoona, where the state recently reconstructed the highway (per the attached photo) and in doing so, found a way to safeguard the impressive oaks that add immeasurably to the life of the community.

If DOT can see fit to demonstrate flexible thinking and creative engineering along a major state highway, I am confident that the City of Gainesville can find a way to do the right thing.

I am proud to live in a community that has earned the distinction of "Tree City, USA". I urge commissioners to remember that the measure of a civilization is not merely what it creates but what it refuses to destroy.

Best,

John Moran



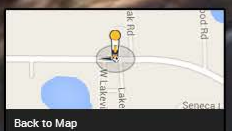
# Heritage Trees



# Heritage Trees



19393-19401 County Road 42  
Altoona, FL 32702 - approximate address  
Street View - Jan 2008



Back to Map

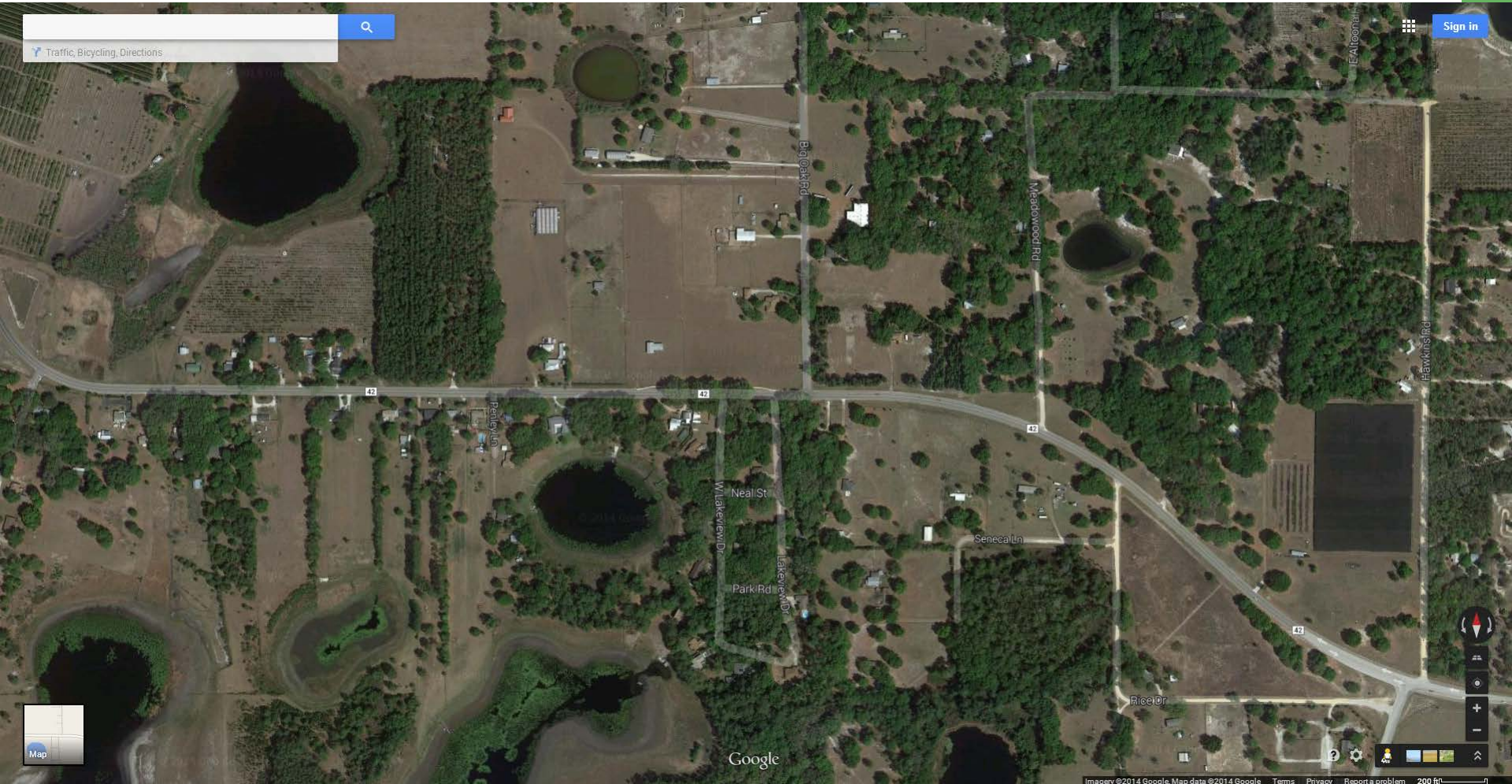
Google

Image capture: Jan 2008

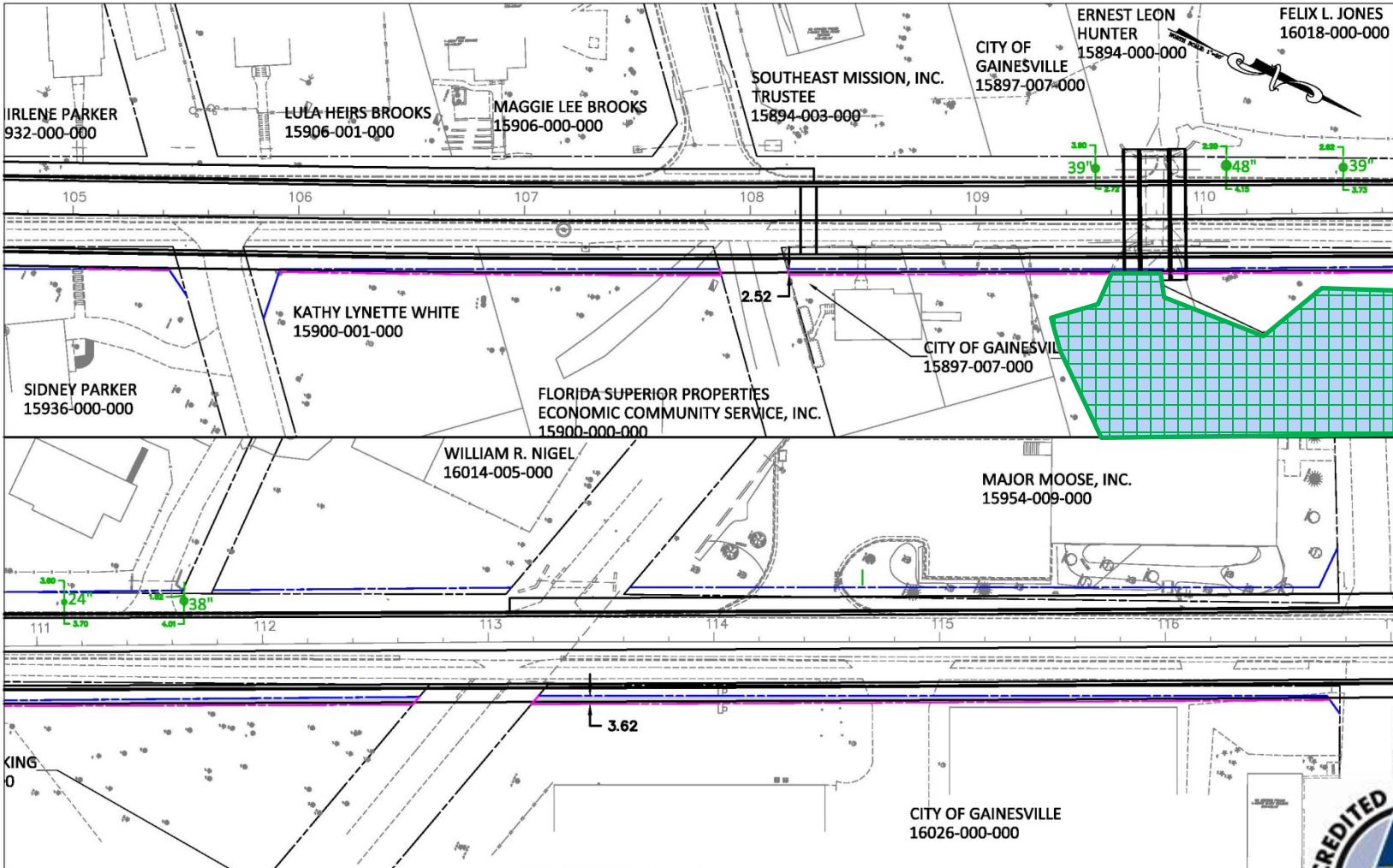




# Heritage Trees



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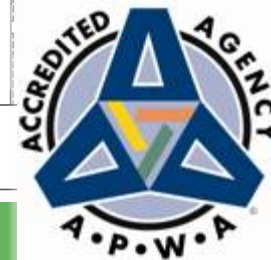
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WILLIAM V. ANDERSON, P.E. (No. 36682)  
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CERTIFICATE OF AUTHORIZATION NO.: 3917



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SE 4th STREET  
SE WILLISTON ROAD TO SE DEPOT AVENUE  
RIGHT-OF-WAY IMPACTS



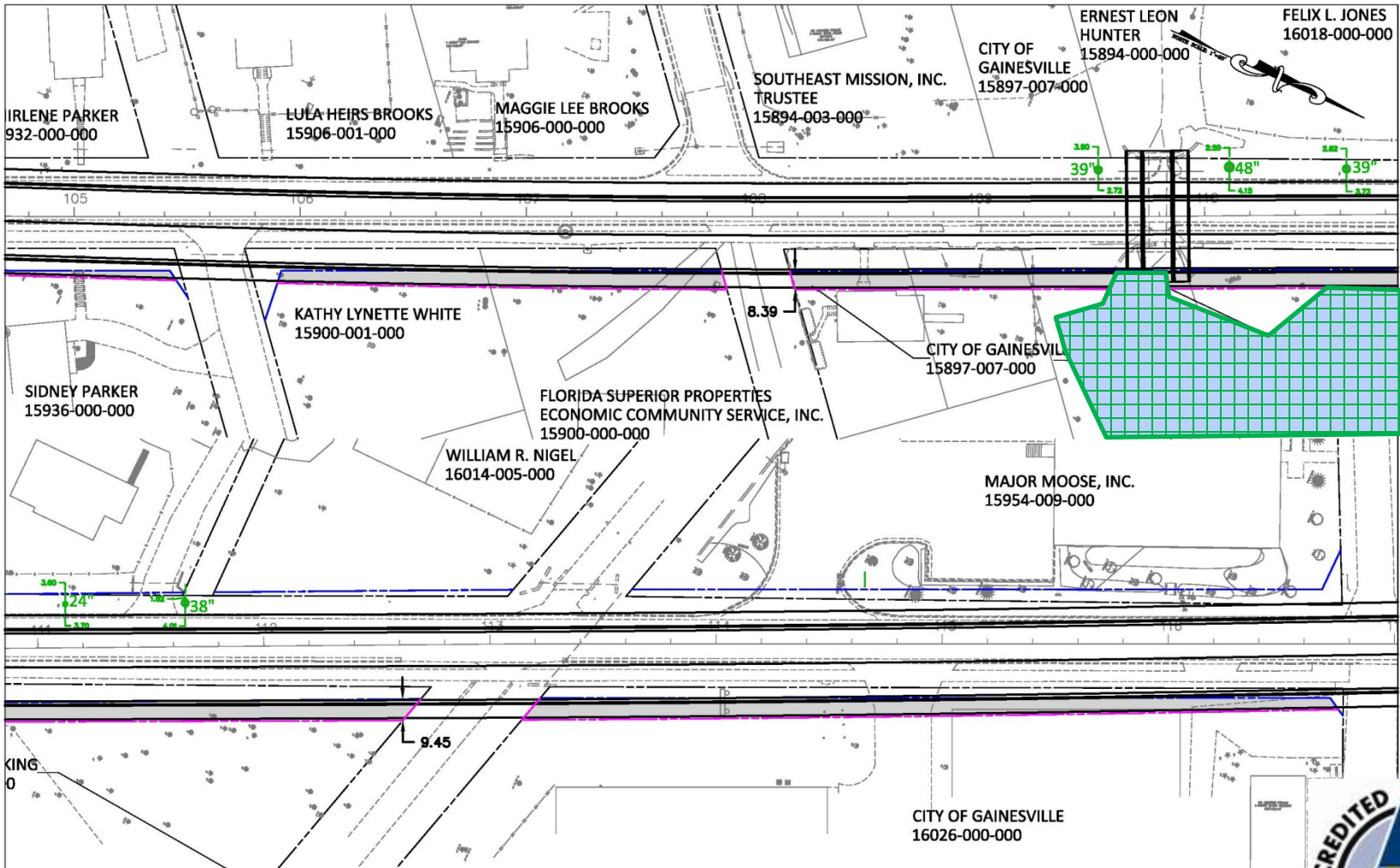
# Heritage Trees



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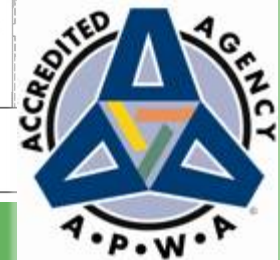
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DATE	DESCRIPTION	DATE	DESCRIPTION

WILLIAM V. ANDERSON, P.E. (No. 36682)  
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SE 4th STREET  
SE WILLISTON ROAD TO SE DEPOT AVENUE  
RIGHT-OF-WAY IMPACTS



# Public Outreach

There were several forms of public outreach performed in order to solicit public input for what the public would like to see for this corridor.

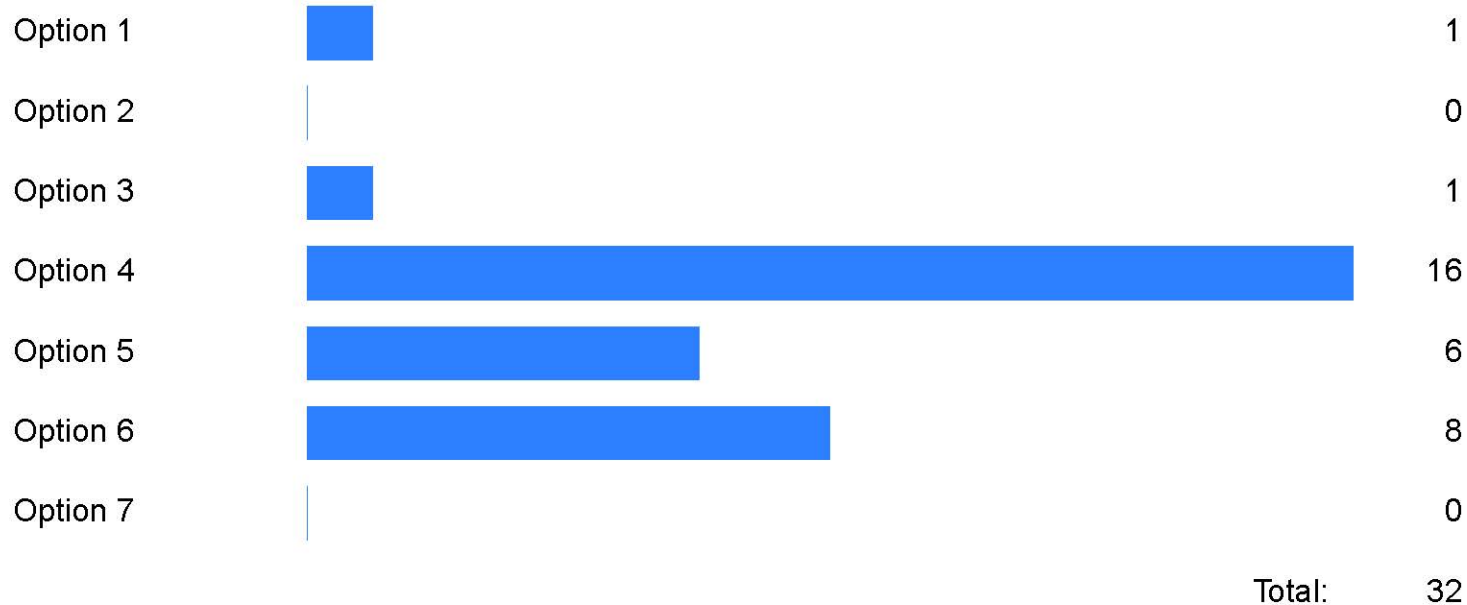
- Public Workshop held on June 4
- engageGNV
- [www.gainesvillepublicworks.org](http://www.gainesvillepublicworks.org)
- Electronic Newsletters



## engageGNV Responses

### On topic participants:

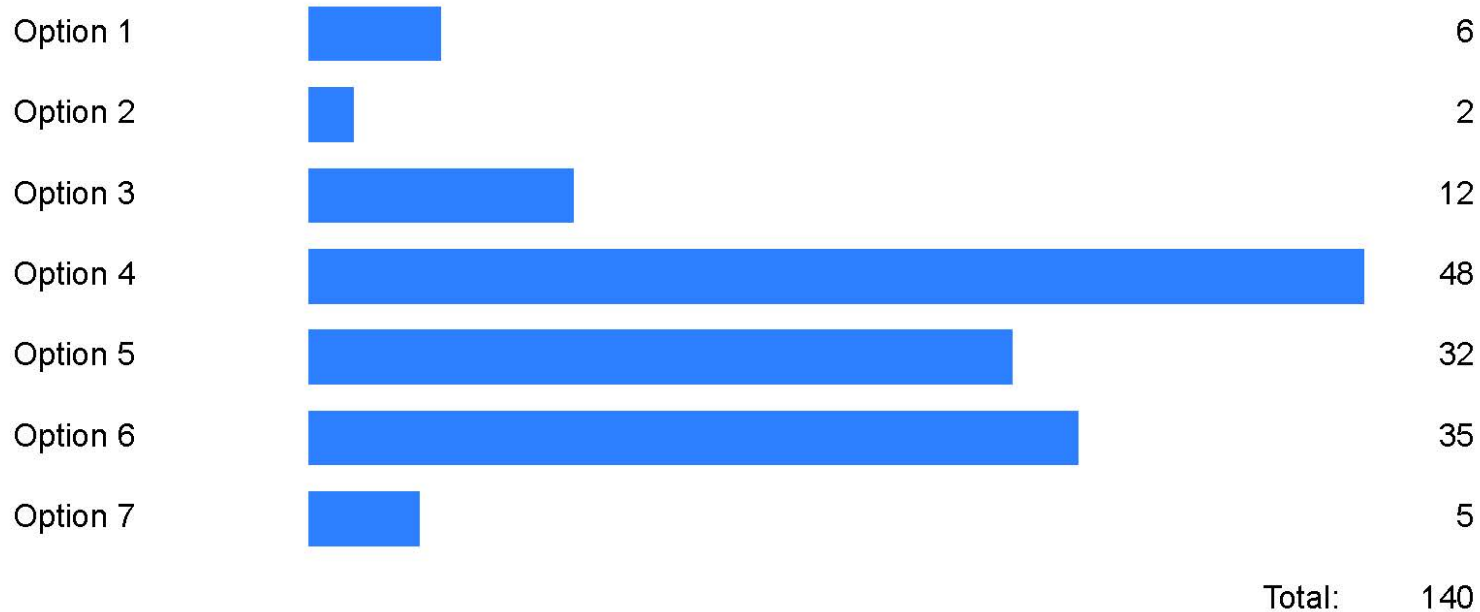
Attendees:	313
On Forum Positions:	32
All Positions:	140
Hours of Public Comment:	7.0



## engageGNV Responses

### All participants:

Attendees: 313  
All Positions: 140  
Hours of Public Comment: 7.0



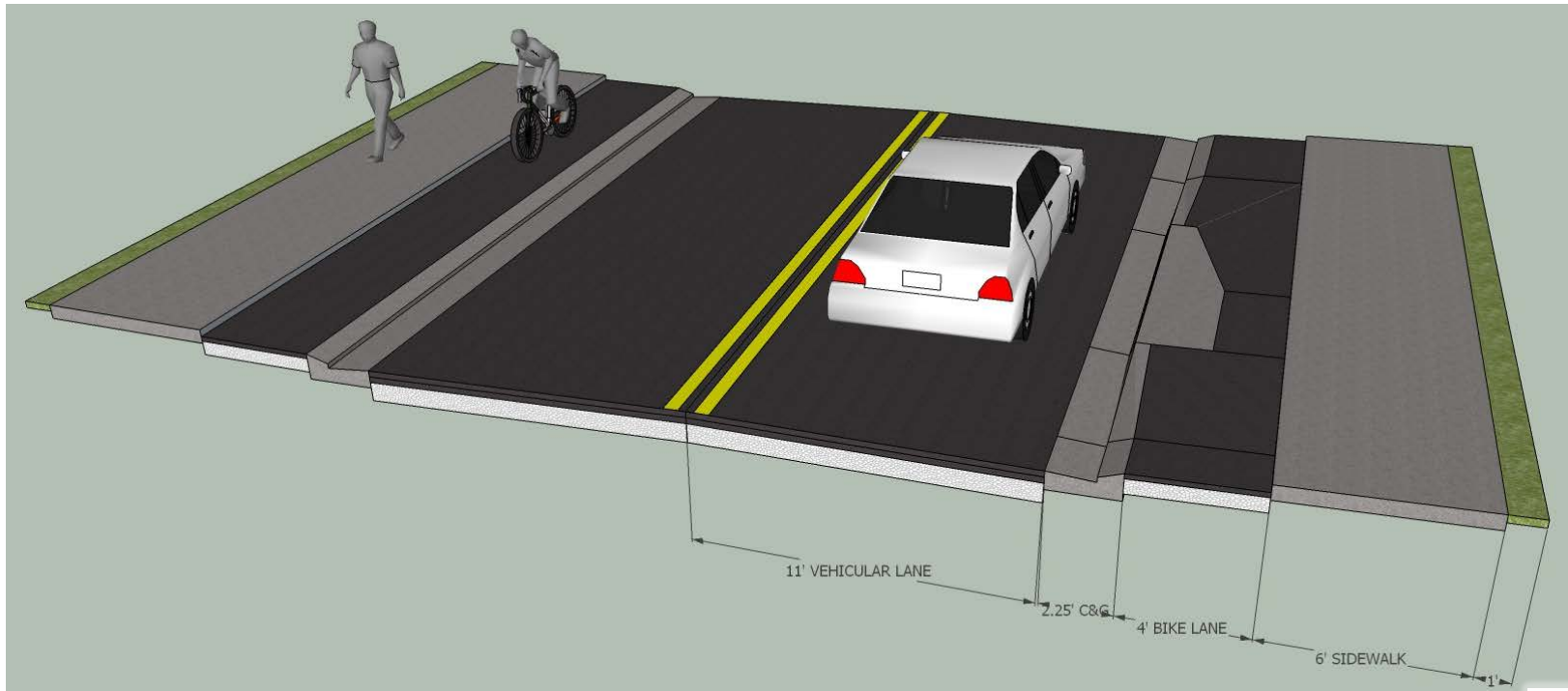


# Public Outreach

	Opt. #1	Opt. #2	Opt. #3	Opt. #4	Opt. #5	Opt. #6	Opt. #7
<b>Vehicular Lanes</b>	12'	11'					
<b>Bike Lanes</b>	4'			4' raised cycle track	4' (with 2' buffer)	10' multi-use path	4'
<b>Side-walk(s)</b>	6'		5'	6'		6' one-side	
<b>R/W Width</b>	50'	48'	50'	48.5'	52'	48'	42'
<b>R/W West Impacts</b>	0'-4' (S) 0'-8' (N)	0'-3' (S) 0'-7' (N)	0'-4' (S) 0'-8' (N)	0'-3' (S) 0'-7' (N)	0'-5' (S) 0'-9' (N)	0'-3' (S) 0'-7' (N)	0' (S) 0'-4' (N)
<b>R/W East Impacts</b>	6'-11' (S) 4'-10' (N)	5'-10' (S) 3'-9' (N)	6'-11' (S) 4'-10' (N)	5'-10' (S) 3'-9' (N)	7'-12' (S) 5'-11' (N)	5'-10' (S) 3'-9' (N)	2'-7' (S) 0'-6' (N)
<b>Cost</b>	\$1.50M	\$1.45M	\$1.43M	\$1.39M	\$1.52M	\$1.29M	\$1.42M
<b>engageGNV On Topic</b>	1	0	1	16	6	9	0
<b>engageGNV Off Topic</b>	6	2	12	48	32	35	5

# Staff Recommendation

- **Option 4 [ 11' travel lanes, 4' raised bike lanes (cycle track), 6' sidewalks]**



**R/W Width = 48.5 feet Roadway Costs = \$1.39M**

**Also install wooden boardwalk around 5 oaks at the Sweetwater Branch underpass**