



PRELIMINARY ENGINEERING REPORT

Littleton Road/Kismet Parkway

at NE 24th Avenue

Realignment Study Lee County, Florida

Contract Number: CN160459DLK

This preliminary engineering report contains detailed engineering information that fulfills the purpose and need for Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study in Lee County.



PROFESSIONAL ENGINEER CERTIFICATE

I hereby certify that I am a registered professional engineer in the State of Florida practicing with **AIM Engineering & Surveying, Inc.**, and that I have supervised the preparation of, and approved the analysis, findings, opinions, conclusions, and technical advice reported in:

REPORT:	Preliminary Engineering Report
PROJECT:	Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study
LOCATION:	Lee County, Florida
CONTRACT:	CN160459DLK
CLIENT:	Lee County Department of Transportation City of Cape Coral

The following duly authorized engineering business performed the engineering work represented by this report:

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This preliminary engineering report contains detailed engineering information that fulfills the purpose and need for the Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study in Lee County, Florida.

I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through design standards and criteria set forth by the federal, state, and local regulatory agencies as well as professional judgment and experience.

Name: Erik J. Fleming, P.E.

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Signature: No. 56685 Date: Total State of the second state of the

TABLE OF CONTENTS

Section 1	.0 Introd	luction1-	1
1.1	Project D	escription1-	1
1.2	Purpose	and Need1-:	2
1.3	Public Inv	volvement Program1-2	2
Section 2	.0 Exist	ing Conditions2-	1
2.1	Typical S	ection2-	1
2.2	Existing F	Roadway Right-of-Way2-3	3
2.3	Roadway	Classification2-	3
2.4	Pedestria	n Facilities2-:	3
2.5	Bicycle F	acilities2-3	3
2.6	Transit Fa	acilities2-3	3
2.7	Lighting		4
2.8	Posted S	peeds2-4	4
2.9	Intersecti	on Layout2-	5
2.10	Signalize	d Intersections2-	5
2.11	Existing 7	raffic Conditions2-	5
	2.11.1 2.11.2	Existing Year Traffic Volumes2- Existing Year Levels of Service2-	5 7
2.12	Utilities		8
2.13	Access M	lanagement2-	9
2.14	Structure	s2-1	0
2.15	Contamir	ation2-1	0
Section 3	.0 Proje	ct Design Criteria3-	1
Section 4	.0 Alteri	natives Analysis4-	1
4.1	No-Build	Alternative4-	1
4.2	Alternativ	e Evaluations4-	1
	4.2.1 4.2.2 4.2.3 4.2.4 4.2.5	Typical Section Evaluation4-Viable Alternatives4-Design Year Traffic Volumes4-Preliminary Evaluation Matrix4-1Evaluation Matrix4-1	1 2 5 0 3
Section 5	.0 Publi	c Involvement5-	1
5.1	Realignm	ent Public Meeting5-	1

5.2	Public Comments	5-1
Section 6	6.0 Recommended Alternative	6-1
6.1	Selection of Recommended Alternative	6-1
6.2	Typical Section	6-1
6.3	Design Year Traffic Volumes	6-2
	6.3.1 Design Year Traffic Volumes	6-2
6.4	Design Variations and Exceptions	6-4
6.5	Right-of-Way Needs and Relocations	6-4
6.6	Structures	6-4
6.7	Access Management	6-4
6.8	Utility Impacts	6-5
6.9	Bicycle and Pedestrian Accommodations	6-6
6.10) Preliminary Drainage Analysis	6-6
	6.10.1 Stormwater Management	6-6
6.11	1 Horizontal Geometry	6-7
	6.11.1 Roundabout Performance Checks	6-7
6.12	2 Cost Estimates	6-9
6.13	3 Environmental Impacts	6-10
	6.13.1 Natural Resources 6.13.2 Physical Resources	6-10 6-11
Section 7	7.0 Conclusion and Recommendation	7-1
	7.1.1 Conclusion 7.1.2 Recommendation	7-1 7-1

LIST OF TABLES

Table 2-1	Existing Right-of-Way	2-3
Table 2-2	Functional Classification	2-3
Table 2-3	Posted Speed Limits	2-4
Table 2-4	2017 AADT Mainline Volumes	2-6
Table 2-5	2017 AADT Cross Street Volumes	2-6
Table 2-6	Existing Year (2017) Peak Hour Intersection Analysis Summary	2-8
Table 2-7	Existing Year (2017) Peak Hour Roadway Segment Analysis Summary	2-8
Table 2-8	Utility Companies	2-9

Table 2-9	Existing Cross Street and Driveway Connections2	2-9
Table 2-10	Risk Ranking for Potential Contamination Sites2-	10
Table 3-1	Project Design Criteria	3-1
Table 4-1	Northern Alternatives	1-2
Table 4-2	Southern Alternatives	1-5
Table 4-3	Future Year AADT Volumes	1-8
Table 4-4	Design Year (2040) Peak Hour Signalized Intersection Analysis Summary	1-9
Table 4-5	Design Year (2040) Peak Hour Roundabout Analysis Summary at Corbett Rd4	1-9
Table 4-6	Design Year (2040) Peak Hour Roundabout Analysis Summary at NE 24th Ave4-	10
Table 4-7	Evaluation Matrix – Northern Alternatives4-	11
Table 4-8	Evaluation Matrix – Southern Alternatives4-	12
Table 4-9	Realignment Public Meeting Evaluation Matrix4-	13
Table 6-1	Future Year AADT Volumes6	3-2
Table 6-2	Design Year (2040) Peak Hour Signalized Intersection Analysis Summary	3-3
Table 6-3	Design Year (2040) Peak Hour Roundabout Analysis Summary at Corbett Rd6	3-4
Table 6-4	Proposed Access Management6	3-5
Table 6-5	Utility Companies6	3-6
Table 6-6	Stormwater Management Facilities6	3-6
Table 6-7	Project Cost Estimate6	3-9
Table 6-8	Surface Water and Wetland Effects6-	10
Table 6-9	Risk Ranking for Potential Contamination Sites6-	12

LIST OF FIGURES

Figure 1-1 Project Location Map	1-1
Figure 2-1 Kismet Parkway – Looking East	2-1
Figure 2-2 Littleton Road – Looking East	2-2
Figure 2-3 NE 24 th Avenue – Looking North	2-2
Figure 2-4 LeeTran Route 595	2-4
Figure 2-5 Existing Intersection Lane Geometry	2-5
Figure 2-6 Existing Year (2017) Peak Hour Volumes	2-7
Figure 4-1 Proposed Typical Section	4-2

Figure 4-2	North Alternatives with T-intersection at Corbett Rd	4-3
Figure 4-3	Northern Alternatives with Roundabout at Corbett Rd	4-4
Figure 4-4	Southern Alternatives with T-intersection at Corbett Rd	4-6
Figure 4-5	Southern Alternatives with roundabout at Corbett Rd	4-7
Figure 4-6	Design Year (2040) Peak Hour Volumes	4-8
Figure 6-1	Modified Southern Alternative	6-1
Figure 6-2	Recommended Typical Section	6-2
Figure 6-3	Design Year (2040) Peak Hour Volumes	6-3
Figure 6-4	Fastest Path	6-7
Figure 6-5	Design Vehicle Swept Path 1	6-8
Figure 6-6	Design Vehicle Swept Path 2	6-8
Figure 6-7	Design Vehicle Swept Path 3	6-9

LIST OF APPENDICES

- Appendix A Traffic Documentation
- Appendix B Northern Alternative
- Appendix C Southern Alternative
- Appendix D Public Meeting Technical Memorandum
- Appendix E Recommended Alternative
- Appendix F Engineer's Estimate of Construction Cost

This preliminary engineering report contains detailed engineering information that fulfills the purpose and need for Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study in Lee County.

The purpose of this report is to document the decision-making process, factors considered and recommendations made as a result of the study. This report includes information about the alternatives analyzed, recommended improvements, possible environmental effects, and the public involvement program.

1.1 Project Description

Lee County Department of Transportation (LCDOT) and the City of Cape Coral are conducting a study to evaluate the proposed realignment of Littleton Road/Kismet Parkway/NE 24th Avenue intersection in Lee County. The purpose of the study is to evaluate engineering and environmental data and document information that will aid LCDOT and the City of Cape Coral in determining the type, preliminary design and location of the proposed improvements. The project limits are shown in **Figure 1-1**.



Figure 1-1 Project Location Map

1.2 Purpose and Need

The purpose of this project is to align Kismet Parkway and Littleton Road resulting in one intersection with NE 24th Avenue. The intersections of Kismet Parkway and Littleton Road with NE 24th Avenue are off-set T-intersections separated by a distance of approximately 200 feet. The proposed realignment of Kismet Parkway or Littleton Road is anticipated to improve traffic operations in the area and improve east-west access between the City of Cape Coral and Lee County. Littleton Road and NE 24th Avenue are in the Lee County Metropolitan Planning Organization's 2040 Cost Feasible Road and Highway Projects Long Range Transportation Plan to be widened to four lanes. Littleton Road or Kismet Parkway needs to be realigned to improve system continuity and better accommodate future year traffic volumes.

1.3 Public Involvement Program

A public involvement program was implemented to inform and solicit local government and community interaction throughout the study. Newsletters were mailed to public officials, property owners, and interested persons to inform them of project information and opportunity for involvement. The public workshop provided project information, allowed interested persons to ask the project team questions, and the opportunity to submit comments.

The existing conditions described in the following sections of this report were derived from a review of multiple data sources as well as additional data that was collected during several field reviews conducted in the early stages of this study.

2.1 Typical Section

Kismet Parkway is a four-lane divided facility with 10-foot travel lanes (two in each direction) and a 32-foot grass median. There are no paved shoulders, bicycle lanes or sidewalks on Kismet Parkway within the study area. The posted speed limit for Kismet Parkway is 45 miles per hour (mph). **Figure 2-1** shows a view of Kismet Parkway to the east of NE 24th Avenue.



Figure 2-1 Kismet Parkway – Looking East

Littleton Road is a two-lane undivided facility with 10-foot travel lanes (one in each direction) and a posted speed limit of 30 mph. There are no paved shoulders, bicycle lanes or sidewalks on Littleton Road from NE 24th Avenue to Corbett Road. **Figure 2-2** shows a view of Littleton Road to the east of NE 24th Avenue.



Figure 2-2 Littleton Road – Looking East

NE 24th Avenue is a two-lane undivided facility with 10-foot travel lanes (one in each direction) and a posted speed limit of 40 mph south of Littleton Road. There are no paved shoulders, bicycle lanes or sidewalks on NE 24th Avenue within this area. **Figure 2-3** shows a view of NE 24th Avenue to the south of Kismet Parkway.



Figure 2-3 NE 24th Avenue – Looking North

2.2 Existing Roadway Right-of-Way

The existing right-of-way information was obtained from right-of-way maps and property appraiser maps from Lee County. **Table 2-1** summarizes the existing right-of-way for the project area.

Roadway	Existing Right-of-Way Width (ft)	Limits
Kismet Parkway	100	From NE 22 nd Avenue to NE 24 th Avenue
Littleton Road	50	From NE 24 th Avenue to west of Corbett Road
NE 24 th Avenue	55	South of Littleton Road
NE 24 th Avenue	65	North of Littleton Road
Corbett Road	45	South of Littleton Road

Table 2-1 Existing Right-of-Way

2.3 Roadway Classification

The functional classifications of the roadways within the project limits were obtained from the Lee County Administrative Code AC-11-1 and the Cape Coral Comprehensive Plan are summarized in **Table 2-2**. Kismet Parkway is classified as a Minor Arterial while Littleton Road is classified as a Major Collector.

Table 2-2 Functional Classification	on
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Roadway	Functional Classification	Limits	Maintained By
Kismet Parkway	Minor Arterial	From NE 22 nd Avenue to NE 24 th Avenue	City of Cape Coral
Littleton Road	Major Collector	From NE 24 th Avenue to west of Corbett Road	Lee County
NE 24 th Avenue	Major Collector	South of Littleton Road	City of Cape Coral
NE 24 th Avenue	Local Road	North of Littleton Road	City of Cape Coral
Corbett Road	Major Collector	South of Littleton Road	Lee County

2.4 Pedestrian Facilities

There are no pedestrian facilities within the project limits.

2.5 Bicycle Facilities

There are no bicycle facilities within the project limits.

2.6 Transit Facilities

LeeTran currently provides transit (bus) service via Route 595 (Merchants Crossing/Pondella Road) which travels northbound on Corbett Road and eastbound on Littleton Road. Route 595 is shown in **Figure 2-4**. The service operates from 5:00 a.m. to 8:00 p.m. with one-hour headways

on Monday through Saturday. Sunday service operates only from 10:20 a.m. to 5:00 p.m. There are no bus stops within the project limits.



Figure 2-4 LeeTran Route 595

2.7 Lighting

There is no lighting within the project limits except one overhead light on the southwest corner of Kismet Parkway and NE 24th Avenue.

2.8 Posted Speeds

The posted speed limits range from 25 to 45 mph. **Table 2-3** lists the posted speed limits for all roadways within the project limits.

Roadway	Posted Speed Limit (mph)	Limits
Kismet Parkway	45	From NE 22 nd Avenue to NE 24 th Avenue
Littleton Road	30	From NE 24 th Avenue to west of Corbett Road
NE 24 th Avenue	40	South of Littleton Road
NE 24 th Avenue	25	North of Littleton Road
Corbett Road	40	South of Littleton Road

Table 2-3 Posted Speed Limits

2.9 Intersection Layout

There are three intersections within the project limits. All three intersections are stop sign controlled. **Figure 2-5** illustrates the lane geometry and intersection control for all three intersections.



Figure 2-5 Existing Intersection Lane Geometry

2.10 Signalized Intersections

There are no signalized intersections within the project limits.

2.11 Existing Traffic Conditions

This section provides a brief summary of the existing traffic conditions information contained in the *Existing (2017) and Design Year (2040) Traffic Volumes Memorandum (September 2017),* prepared under separate cover. A more thorough discussion of the existing daily and peak hour traffic volumes that were obtained for this study is provided in the memorandum.

2.11.1 Existing Year Traffic Volumes

A traffic count program was conducted during the month of April 2017. Twenty-four hour bidirectional volume counts were conducted at three locations on Littleton Road and Kismet Parkway for two consecutive days on Tuesday April 18th and Wednesday April 19th, 2017. **Table 2-4** summarizes the traffic counts for each day, as well as the two-day average values at the three mainline locations.

Roadway	Location	Date	Volume	MF	DF	AF	AADT	AADT ⁽¹⁾
Kismet Pkwy	West of NE 24th Ave	4/18/2017	6,343	1.03	1.11	0.99	5,492	
		4/19/2017	6,530	1.03	1.11	0.99	5,654	
		Two-day Avg.	6,437				5,573	5,600
Littleton Rd	East of NE 24th Ave	4/18/2017	6,263	1.03	1.11	0.99	5,423	
		4/19/2017	6,518	1.03	1.11	0.99	5,644	
		Two-day Avg.	6,391				5,534	5,500
Littleton Rd	East of Corbett Rd	4/18/2017	7,320	1.03	1.11	0.99	6,338	
		4/19/2017	7,565	1.03	1.11	0.99	6,551	
		Two-day Avg.	7,443				6,445	6,400

Table 2-4 2017 AADT Mainline Volumes

MF = Monthly Adjustment Factor, DF = Day of Week Adjustment Factor, AF = Axle Adjustment Factor

(1) Rounded

Twenty-four hour bi-directional volume counts were also conducted north and/or south of Littleton Road on two cross streets during this same two-day period. **Table 2-5** summarizes the traffic counts for each day, as well as the two-day average values on the two cross streets.

Table 2-5 2017 AADT Cross Street Volumes

Roadway	Location	Date	Volume	MF	DF	AF	AADT	AADT ⁽¹⁾
		4/18/2017	3,023	1.03	1.11	0.99	2,618	
NE 24th Ave	South of Kismet Pkwv	4/19/2017	3,059	1.03	1.11	0.99	2,649	
	, ,	Two-day Avg.	3,041				2,633	2,600
	Between Kismet	4/18/2017	7,215	1.03	1.11	0.99	6,248	
NE 24th Ave	Pkwy and Littleton Rd	4/19/2017	7,442	1.03	1.11	0.99	6,444	
		Two-day Avg.	7,329				6,346	6,300
	North of Littleton	4/18/2017	1,801	1.03	1.11	0.99	1,560	
NE 24th Ave		4/19/2017	1,806	1.03	1.11	0.99	1,564	
		Two-day Avg.	1,804				1,562	1,600
Corbett Rd		4/18/2017	1,417	1.03	1.11	1.00	1,239	
	South of Littleton Rd	4/19/2017	1,449	1.03	1.11	1.00	1,267	
	i tu	Two-day Avg.	1,433				1,253	1,250

MF = Monthly Adjustment Factor, DF = Day of Week Adjustment Factor, AF = Axle Adjustment Factor

(1) Rounded

Eight-hour turning movement counts were conducted on Littleton Road and Kismet Parkway at the two cross streets listed above. These turning movement counts were conducted on April 19, 2017 during the following time periods:

- 7:00 a.m. to 9:00 a.m.
- 12:00 p.m. to 3:00 p.m.
- 3:30 p.m. to 6:30 p.m.

A review of the turning movement count data indicated that the highest a.m. and p.m. hourly volumes generally occurred from 7:00 a.m. to 8:00 a.m. and from 4:30 p.m. to 5:30 p.m., respectively. Consequently, these time periods were used to represent the existing peak hours of the study corridor. The raw turning movement count data was adjusted using the monthly and weekday adjustment factors and **Figure 2-6** illustrates the resulting 2017 a.m. and p.m. peak hour volumes.



Figure 2-6 Existing Year (2017) Peak Hour Volumes

2.11.2 Existing Year Levels of Service

Table 2-6 summarizes the results of the peak hour traffic operations analyses conducted for the three stop controlled intersections. All three of these intersections are currently operating at LOS B or better overall during both the a.m. and p.m. peak hours. An arterial analysis was also conducted for Littleton Road and the results are summarized in **Table 2-7**. Littleton Road is currently operating at LOS B during both the a.m. and p.m. peak hours.

	Annroach	Movement	AM Peak Hour			PM Peak Hour		
Intersection	Approach	movement	V/C	Delay	LOS	V/C	Delay	LOS
	Northbound	LT	0.01	7.8	А	0.06	8.0	А
Kismet Pkwy & NE 24th Ave	Eastbound	LT	0.49	14.8	В	0.23	13.0	В
	Eastbound	RT	0.07	9.3	А	0.03	9.2	А
Littleton Rd & NE 24th	Southbound	LT	0.05	8.3	А	0.01	7.8	А
Ave	Westbound	LT/RT	0.34	14.5	В	0.37	11.8	В
	Northbound	LT/RT	0.09	8.5	А	0.11	8.3	А
Littleton Rd & Corbett Rd (All-Way Stop)	Eastbound	TH/RT	0.58	13.2	В	0.21	8.7	А
(,	Westbound	LT/TH	0.35	10.1	В	0.43	10.6	В

 Table 2-6 Existing Year (2017) Peak Hour Intersection Analysis Summary

V/C = Volume-to-Capacity Ratio

Delay = Average Stopped Delay (in seconds per vehicle)

LOS = Level of Service

Table 2-7 Existing Year (2017) Peak Hour Roadway Segment Analysis Summary

Segment AM Peak Hour			PM Peak Hour										
From	То	Two- Way Volume	Peak Dir. Volume	V/C	PTSF	PFFS	LOS	Two- Way Volume	Peak Dir. Volume	V/C	PTSF	PFFS	LOS
NE 24th Ave	Corbett Rd	573	402	0.53	64.1%	84.0%	В	458	302	0.53	56.3%	88.0%	В

V/C = Volume-to-Capacity Ratio

PTSF = Percent Time-Spent-Following

PFFS = Percent Free Flow Speed LOS = Level of Service

2.12 Utilities

The utility companies listed in **Table 2-8** were contacted by e-mail on April 18, 2017, to identify the locations and types of utilities within the project limits. Plan sheets were mailed to the companies with a request to identify the location(s) of existing facilities and planned facilities. The existing utilities include overhead electric, overhead cable, buried communication lines, water, and sewer. **Table 2-8** also provides a summary of the responses received from providers.

The Lee County Electric Co-op (LCEC) has indicated that they have a utility easement adjacent to the roadway, within the project limits. The 40-foot easement on the north side of Littleton Road extends from their substation in the northeast quadrant of the Littleton Road/NE 24th Avenue intersection to east of Corbett Road.

Utility Company		Buried/ Overhead	Description
Distribution		Overhead	Along the south side of KP to west side of NE. Along the east side of NE and crosses over LR. Along the west side of NE from LR north. Along the west side of CR and cross LR and continues north.
LCEC		Buried	NE crossing on the south side of KP. LR crossings east side of NE and three crossing at driveway to substation.
Transmission		Overhead	Along the north side of KP. Along the east side of NE and crosses LR into substation. Along north side of LR.
Century Link		Buried	Along the north side of LR from CR to NE then turns up the east side of NE. Along the west side of NE and along the south side of KR. Northwest corner of KR and NE along north side of KR for 250 feet then cross KR to the south side. Along the west side of CR then turns to south side of LR for 140 feet then cross LR to the north side.
City of Cape	Wastewater	Buried	Sewer main along the center of the eastbound KP travel lanes and turns south along the center of the northbound NE travel lanes for 50 feet and turns east. Along KP there are 17 service connections.
Coral	Water	Buried	12" PVC along the north side of KP and turns south along the west side of NE. Along KP there are 11 service connections. Two fire hydrants along the north side of KP.
Comcast		Buried	Along the south side of KP and turns south along the west side of NE. Vault in the southwest quadrant of KP and NE.
		Overhead	Along the south side of KP to 130' east of NE.
Fibernet Direct		Buried	Along the south side of KP and then turns north along the west side of NE, and turns east along the south side of LR.

Table 2-8 Utility Companies

LR = Littleton Road, KP = Kismet Parkway, NE = NE 24th Avenue, CR = Corbett Road

2.13 Access Management

Kismet Parkway is the only four-lane divided roadway within the project limits. There are full median openings for NE 22nd Avenue and NE 23rd Place approximately 1,200 and 300 feet west of the NE 24th Avenue intersection.

Table 2-9 summarizes the number of parcels and driveway connections. A review of this table indicates that all segments have at least six existing driveway connections but Kismet Parkway has the largest potential for future connections.

Segment	Side of Roadway	No. of Roads	No. of Parcels	No. of Driveways
Kismet Pkwy	North Side	0	13	3
from NE 22 nd Ave to	South Side	1	13	4
NE 24 th Ave	Both Sides	1	26	7
Littleton Rd	North Side	0	7	6
from NE 24 th Ave to	South Side	0	2	1
Corbett Road	Both Sides	0	9	7
Corbett Rd	West Side	0	2	0
from Littleton Rd to	East Side	0	5	6
1,000 ft south	Both Sides	0	7	6

Table 2-9 Existing Cross Street and Driveway Connections

2.14 Structures

There are no structures located within the project limits. Yellow Fever Creek is located approximately 150 feet east of Corbett Road.

2.15 Contamination

Contamination evaluations were conducted for the study following standard environmental assessment practices of reviewing records of regulatory agencies, site reconnaissance, and historical information review within the limits of the project. An Environmental Data Report (EDR) was obtained in May 2017 to identify sites within one-half mile of the project corridor containing documented or suspected petroleum contamination or other hazardous materials.

Four sites were investigated for facilities or operations that may present the potential for finding petroleum contamination or hazardous materials, and therefore may impact the proposed improvements for this project. **Table 2-10** identifies the Risk Ranking for the identified sites.

Site	Name	Facility Address	Risk Ranking
1	Northeast Loop Utility Betterment	Kismet Pkwy and NE 24 th Ave	No
2	Corbett Substation Expansion	9980 Littleton Rd	No
3	Honc Contractor's Office	2501 NE 24 th Ave	No
4	Kismet Industrial Park	2313 NE 24 th Ave	No

Table 2-10 Risk Ranking for Potential Contamination Sites

SITE 1 – Ranking: No – NE LOOP – Utility Betterment Project is registered in the Permit Compliance System (PCS) and in the Facility Registry Services (FRS). The PCS provides information on companies which have been issued permits to discharge wastewater into rivers and the FRS is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. Facilities that register with either of these systems do not necessarily indicate involvement with hazardous materials. This site was a utility construction project, in which the construction contractor obtained a general stormwater permit. This site is incorporated within the current project limits. Based on all available information, there is no reason to believe there would be any involvement with contamination.

SITE 2 – Ranking: No – Corbett Substation Expansion is registered in the PCS and FRS. This site was a utility construction project, in which the construction contractor obtained a general stormwater permit. This site is located on adjacent property to the north of the project limits. Based on all available information, there is no reason to believe there would be any involvement with contamination.

SITE 3 – Ranking: No – Honc Contractor's Office is registered in the PCS and FRS. This site was a utility construction contractor who obtained a general stormwater permit. This site is located approximately 0.11 miles north of the project limits. Based on all available information, there is no reason to believe there would be any involvement with contamination.

SITE 4 – Ranking: No – Kismet Industrial Park is registered in the PCS and FRS. This site was a construction project, in which the construction contractor obtained a general stormwater permit.

This site is located approximately 0.14 miles southeast of the project limits. Based on all available information, there is no reason to believe there would be any involvement with contamination.

For the sites ranked "No" for potential contamination, no further action is planned. These sites have been evaluated and determined not to have any potential environmental risk to the study area at this time.

The design criteria for the proposed intersection realignment of Littleton Road/Kismet Parkway/NE 24th Avenue intersection adhere to the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (2016 Edition), commonly known as the Florida Greenbook. **Table 3-1** lists the specific design criteria that were used to develop the typical sections, as well as the horizontal and vertical alignment for the proposed improvements. The design year for the proposed improvements is 2040. The functional classification for Kismet Parkway and Littleton Road are different, therefore, the urban arterial classification was utilized for selecting the design criteria for the realignment.

	Design El	Urban Arterial	Documentation / Florida Greenbook 2016 Edition	
Ę	Design Speed (mph)		45	Table 3-1
ectio	Lane Widths (ft)		11	Table 3-10
al Se	Bicycle Lane Widths (ft)		4	Figure 9-1
ypic	Min. Median Width (ft)		15.5	Table 3-14
F	Min. Width of Clear Zone (ft)	4	Table 3-15
-	Min. Stopping Sight Distanc	e (ft)	360	Table 3-3
onte	Max. Superelevation (%)		5	Table 3-5
Horiz	Max. Curvature (e=NC) (ft)		680	Table 3-5
–	Max. Curvature (e max = 0.	05) (ft)	680	Table 3-5
	Max. Grade (Flat Terrain) (%	%)	6	Table 3-7
	Max. Change in Grade with	out Vertical Curve (%)	0.70	Table 3-8
tical	Croot Curvo	K Value	61	Table 3-9
Vert		Min. Length (ft)	135	Table 3-9
	Sag Curvo	K Value	79	Table 3-9
	Say Curve	Min. Length (ft)	135	Table 3-9

Table 3-1 Project Design Criteria

The objective of the alternatives analysis process is to identify technically and environmentally sound alternatives that meet the needs of the project, are cost-effective, and are acceptable to the community. This section describes the alternatives considered and the results of the alternatives evaluation.

4.1 No-Build Alternative

The No-Build Alternative assumes that Littleton Road/NE 24th Avenue and Kismet Parkway/NE 24th Avenue intersections will remain as they currently are through the design year 2040, with only routine maintenance being performed during this period. The 2040 traffic analysis conducted for the No-Build Alternative indicates that the Littleton Road/NE 24th Avenue intersection is projected to operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour without the proposed realignment. The Kismet Parkway/NE 24th Avenue intersection is projected to operate at LOS F during both peak hours in 2040 without the proposed realignment.

The following are the advantages and limitations associated with the No-Build Alternative:

Advantages of the No-Build Alternative include:

- No additional right-of-way needed;
- No design, right-of-way, or construction costs;
- No delays to motorists or inconveniences to property owners during construction; and
- No construction impacts to the adjacent natural, physical, and social environment.

Limitations of the No-Build Alternative include:

- No pedestrian and bicycle facilities added;
- Increased potential for crashes to occur due to congested travel lanes and intersections;
- Increased traffic congestion and user costs associated with increased delays;
- Increased emergency vehicle response times; and
- Increased vehicle emission pollutants due to higher levels of traffic congestion.

The No-Build Alternative will remain a viable alternative throughout this study.

4.2 Alternative Evaluations

4.2.1 Typical Section Evaluation

The proposed typical section includes four 11-foot travel lanes, curb and gutter, and a 26.5-foot grassed median. Six-foot sidewalks and four-foot bicycle lanes will accommodate pedestrian and bicycle traffic. A total right-of-way width of 106.5 feet is needed to accommodate the proposed improvements. The proposed typical section is illustrated in **Figure 4-1**. The proposed typical section includes constructing four new travel lanes, without saving the existing pavement. The design speed for this urban typical section is 45 mph.



Figure 4-1 Proposed Typical Section

4.2.2 Viable Alternatives

There is a separate project evaluating the widening of Littleton Road from Corbett Road to US 41 being studied by LCDOT. Based on this study, the Littleton Road widening improvements are a north, middle, and south alternative east of Corbett Road. The separate project for widening Littleton Road will be referred to as the adjacent project. The adjacent project will influence the tie-in point for this realignment project.

4.2.2.1 Northern Alternatives

The northern alignment alternatives begin east of NE 22nd Avenue and realign existing Kismet Parkway north to the Littleton Road/NE 24th Avenue intersection. Two reverse horizontal curves are used with degree of curve of 2° 45' (or radius of 2,083.48 feet). This degree of curve does not require superelevation for a design speed of 45 mph. These alignment alternatives then hold the northern existing right-of-way line of Littleton Road and widen to the south from NE 24th Avenue to west of Corbett Road. All six northern alternatives are the same from NE 23rd Avenue to approximately 600 feet west of Corbett Road. **Table 4-1** identifies the six northern alternatives.

Alternative Name Corbett Road Intersection Configuration		Adjacent Study
1AN	T-Intersection	Northern Alignment
1AM	T-Intersection	Middle Alignment
1AS	T-Intersection	South Alignment
1BN	Roundabout	Northern Alignment
1BM	Roundabout	Middle Alignment
1BS Roundabout		South Alignment

Table 4-1 Northern Alternatives

SECTION 4.0 ALTERNATIVE ANALYSIS



Figure 4-2 North Alternatives with T-intersection at Corbett Rd



Figure 4-3 Northern Alternatives with Roundabout at Corbett Rd

The first three alternatives that provide a T-intersection at Corbett Road are slightly different along Littleton Road because of their tie-in to the adjacent study alignment. The last three alternatives that provide a roundabout at Corbett Road are only slightly different from east of the roundabout to the tie-in with the adjacent study alignment.

4.2.2.2 Southern Alternatives

The southern alignment alternatives begin at the Kismet Parkway/NE 24th Avenue intersection and realign Littleton Road north to a location east of Corbett Road. Two reverse horizontal curves are used with degree of curve of 2° 45' (or radius of 2,083.48 feet). This degree of curve does not require superelevation for a design speed of 45 mph. The intersection at NE 24th Avenue and the first horizontal curve are the same for all six alternatives. **Table 4-2** identifies the six southern alternatives.

Alternative Name	Corbett Road Intersection Configuration	Adjacent Study			
1CN	T-Intersection	Northern Alignment			
1CM	Middle Alignment				
1CS	T-Intersection	South Alignment			
1DN	Roundabout	Northern Alignment			
1DM	Roundabout	Middle Alignment			
1DS	Roundabout	South Alignment			

Table 4-2 Southern Alternatives

The second horizontal curve associated with the first three alternatives that provide a Tintersection at Corbett Road changes location to tie-in to the adjacent study alignment. The last three alternatives that provide a roundabout at Corbett Road have the same second horizontal curve and only slightly change from east of the roundabout to the tie-in with the adjacent study alignment.

4.2.3 Design Year Traffic Volumes

The 2040 AADT volumes were obtained by multiplying the 2040 Peak Season Weekday Average Daily Traffic (PSWADT) volumes by a Model Output Conversion Factor (MOCF) obtained from the FDOT's Peak Season Factor Category Report. An MOCF value of 0.95 was used for Littleton Road, Kismet Parkway, NE 24th Avenue and Corbett Road. The 2040 PSWADT volumes were obtained from the Florida Department of Transportation District One Regional Planning Model. **Table 4-3** summarizes the 2040 AADT volumes.

SECTION 4.0 ALTERNATIVE ANALYSIS



Figure 4-4 Southern Alternatives with T-intersection at Corbett Rd



Figure 4-5 Southern Alternatives with roundabout at Corbett Rd

Roadway	Location	2017 AADT	2040 Model PSWADT	2040 Model AADT ⁽¹⁾	2040 Model AADT ⁽²⁾
Kismet Pkwy	West of NE 24th Ave	5,600	14,485	13,761	13,800
Littleton Rd	East of NE 24th Ave	5,500	21,723	20,637	20,600
Littleton Rd	East of Corbett Rd	6,400	20,362	19,344	19,300

 Table 4-3
 Future Year AADT Volumes

(1) 2040 AADT volume = 2040 PSWADT volume x MOCF (0.95).

(2) Rounded to the nearest 100 vehicles.

(3) 2020 AADT volumes were derived via interpolation using the 2017 and 2040 AADT volumes.

Figure 4-6 illustrates the design year (2040) a.m. and p.m. peak hour volumes. The methodology used to derive these peak hour volumes is documented in the Existing (2017) and Design Year (2040) Traffic Volumes Memorandum (September 2017) located in **Appendix A**.

Figure 4-6 Design Year (2040) Peak Hour Volumes



4.2.3.1 Design Year Level of Service

4.2.3.2 Intersection Analysis

Table 4-4 summarizes the results of the peak hour signalized intersection analyses conducted for these two intersections. Both of these intersections are projected to operate at LOS D or better overall during the a.m. and p.m. peak hours.

Interception	Approach	AM Pea	k Hour	PM Peak Hour		
Intersection	Арргоасп	Delay	LOS	Delay	LOS	
	EB	48.9	D	40.6	D	
	WB	36.7	D	35.6	D	
Littleton Rd/Kismet Pkwv & NE 24th Ave	NB	36.4	D	44.6	D	
· · · · · , · · · · · · · · · · · · · · · · · · ·	SB	47.4	D	47.9	D	
	Overall	42.6	D	41.1	D	
	EB	27.9	С	18.0	В	
Littleton Rd & Corbett	WB	9.4	А	8.7	А	
Rd	NB	34.9	С	32.5	С	
	Overall	22.6	С	15.2	В	

Table 4-4 Design Year (2040) Peak Hour Signalized Intersection Analysis Summary

Delay = Average Stopped Delay (in seconds per vehicle)

LOS = Level of Service

4.2.3.3 Roundabout Evaluation

Roundabouts were analyzed at both the Littleton Road/Kismet Parkway/NE 24th Avenue and Littleton Road/Corbett Road intersections. The results of the roundabout traffic operations analysis are shown in **Table 4-5** and **Table 4-6**. The Littleton Road/Corbett Road intersection is projected to operate at LOS B overall during both the a.m. and p.m. peak hours.

Table 4-5	Design	Year (2040) Peak Hour	[.] Roundabout Ana	lysis Summary	/ at Corbett Rd
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Intersection	Approach	AM Pea	k Hour	PM Peak Hour		
		Delay	LOS	Delay	LOS	
Littleton Rd & Corbett Rd	EB	11.9	В	8.1	A	
	WB	7.8	А	13.0	В	
	NB	16.3	С	7.9	А	
	Overall	11.9	В	10.7	В	

Delay = Average Stopped Delay (in seconds per vehicle)

LOS = Level of Service

The Littleton Road/Kismet Parkway/NE 24th Avenue intersection is projected to operate at LOS F overall during both the a.m. and p.m. peak hours.

Intersection	Annroach	AM Peak	Hour	PM Peak Hour		
	Арргоасп	Delay	LOS	Delay	LOS	
Littleton Rd/Kismet Pkwy & NE 24 th Ave	EB	56.1	F	14.7	В	
	WB	11.4	В	114.3	F	
	NB	50.5	F	82.7	F	
	SB	183.1	F	192.8	F	
	Overall	77.5	F	104.7	F	

Table 4-6 Design Year (2040) Peak Hour Roundabout Analysis Summary at NE 24th Ave

Delay = Average Stopped Delay (in seconds per vehicle) LOS = Level of Service

4.2.4 Preliminary Evaluation Matrix

Each build alternative was evaluated based on environmental impacts, ROW needs, project costs and engineering factors. The evaluation matrices for the northern and southern alternatives are provided in **Table 4-7** and **Table 4-8**, respectively. These matrices quantify considerations including potential business and residential relocations, impacts to environmental resources, and the acres of ROW needed for roadway improvements and stormwater facilities. The potential for the proposed realignment to impact surface waters, wetlands, threatened and endangered species, and contamination sites were also qualified in the matrix.

The bottom portion of the matrices provides cost estimates for design, wetland mitigation, utility relocations, construction, and construction engineering and inspection. The estimates were based on 2017 unit costs. The mitigation cost estimates are based on \$115,000 per credit price for forested freshwater credits at the Little Pine Island Mitigation Bank. The costs for design and construction engineering and inspection are estimated as 10% of the total construction cost.

Evaluation Critoria	Corbett Road T- Intersection			Corbett Road Roundabout		
	1AN - North	1AM - North	1AS - North	1BN - North	1BM - North	1BS - North
Number of business relocations	0	0	0	0	0	0
Number of residential relocations	3	3	3	3	3	3
Surface Waters (acres)	0.097	0.097	0.097	0.059	0.058	0.058
Wetland (acres)	0.199	0.131	0.117	0.145	0.159	0.139
Potential threatened and endangered species involvement	Medium	Medium	Medium	Medium	Medium	Medium
Potential contamination sites	Low	Low	Low	Low	Low	Low
Transmission poles	3	3	3	2	2	2
Transmission pole support wires	4	4	4	2	2	2
Distribution poles	6	6	6	5	5	5
Parcels impacted	22	22	22	20	21	29
Right-of-way to be acquired for roadway improvements (acres)	2.85	2.79	2.81	3.36	3.35	3.35
Right-of-way to be acquired for stormwater facilities (acres)	2.74	2.74	2.74	2.74	2.74	2.74
Design cost	\$553,600	\$553,600	\$553,600	\$546,800	\$546,800	\$546,800
Mitigation cost	\$18,400	\$12,100	\$10,800	\$13,400	\$14,700	\$12,800
Utility relocation costs	\$1,481,000	\$1,481,000	\$1,481,000	\$1,019,000	\$1,019,000	\$1,019,000
Construction cost for stormwater sites	\$590,000	\$590,000	\$590,000	\$590,000	\$590,000	\$590,000
Construction cost for roadway	\$4,946,000	\$4,946,000	\$4,946,000	\$4,878,000	\$4,878,000	\$4,878,000
Total construction cost	\$5,536,000	\$5,536,000	\$5,536,000	\$5,468,000	\$5,468,000	\$5,468,000
Construction engineering & inspection cost	\$553,600	\$553,600	\$553,600	\$546,800	\$546,800	\$546,800
Preliminary Estimate of Total Project Cost (2017 Cost)	\$8,142,600	\$8,136,300	\$8,135,000	\$7,594,000	\$7,595,300	\$7,593,400

Table 4-7 Evaluation Matrix – Northern Alternatives

Evaluation Critoria	Corbett Road T- Intersection			Corbett Road Roundabout		
	1CN - South	1CM - South	1CS- South	1DN - South	1DM - South	1DS - South
Number of business relocations	0	0	0	0	0	0
Number of residential relocations	0	0	0	0	0	0
Surface waters (acres)	0.097	0.097	0.097	0.059	0.058	0.058
Wetland (acres)	0.277	0.161	0.120	0.164	0.120	0.139
Potential threatened and endangered species involvement	Medium	Medium	Medium	Medium	Medium	Medium
Potential contamination sites	Low	Low	Low	Low	Low	Low
Transmission poles	1	1	1	0	0	0
Transmission poles support wires	2	3	3	1	1	1
Distribution poles	2	2	2	1	1	1
Parcels impacted	10	12	12	11	11	11
Right-of-way to be acquired for roadway improvements (acres)	3.38	3.32	3.30	3.84	3.82	3.81
Right-of-way to be acquired for stormwater facilities (acres)	1.46	1.46	1.46	1.46	1.46	1.46
Design cost	\$417,400	\$417,400	\$417,400	\$410,600	\$410,600	\$410,600
Mitigation cost	\$25,500	\$14,900	\$11,100	\$15,100	\$11,100	\$12,800
Utility relocation costs	\$531,000	\$588,000	\$588,000	\$125,000	\$125,000	\$125,000
Construction cost for stormwater sites	\$306,000	\$306,000	\$306,000	\$306,000	\$306,000	\$306,000
Construction cost for roadway	\$3,868,000	\$3,868,000	\$3,868,000	\$3,800,000	\$3,800,000	\$3,800,000
Total construction cost	\$4,174,000	\$4,174,000	\$4,174,000	\$4,106,000	\$4,106,000	\$4,106,000
Construction engineering & inspection cost	\$417,400	\$417,400	\$417,400	\$410,600	\$410,600	\$410,600
Preliminary Estimate of Total Project Cost (2017 Cost)	\$5,565,300	\$5,611,700	\$5,607,900	\$5,067,300	\$5,063,300	\$5,065,000

Table 4-8 Evaluation Matrix – Southern Alternatives

As shown in the matrix for both the northern and southern alternatives, the right-of-way impacts for the T-intersection are less than the roundabout alternatives; however, the surface water and wetland impacts are greater for the T-intersection alternatives resulting in a higher mitigation cost. The roundabout alternatives are projected to operate at a lower overall delay in both the a.m. and p.m. peak hours, and enhance access management and safety.

Based on the reduced environmental impacts, enhanced safety, and overall lower preliminary estimate of total project cost, the roundabout alternatives were selected. In order to select one northern and southern alternative, the adjacent project (i.e., the widening of Littleton Road from Corbett Road to US 41) has to be considered. Since the roundabout alternatives are relatively similar and a northern alignment of the adjacent project would minimize impacts to the residential properties on the south side of Littleton Road, Alternatives 1BN and 1DN were selected for display at the Public Meeting. Alternative 1BN was identified as the Northern Alternative and Alternative 1DN was identified as the Southern Alternative.

4.2.5 Evaluation Matrix

The evaluation matrix shown in **Table 4-9** compares the Northern and Southern Alternatives. Based on coordination meetings with LCEC, additional information regarding preliminary utility relocations were provided and these costs were updated from the previous preliminary evaluation matrices. Lee County Department of County Lands estimated the right-of-way cost for both alternatives which is estimated land cost for budgetary and management purposes only.

Evaluation Criteria	No-Build Alternative	Northern Alternative	Southern Alternative				
Business Impacts							
Number of business relocations	0	0	0				
Residential Impacts							
Number of residential relocations	0	3	0				
Environmental Effects							
Surface Waters (acres)	0	0.059	0.059				
Wetland (acres)	0	0.145	0.164				
Potential threatened and endangered species involvement ¹	None	Medium	Medium				
Potential contamination sites	None	Low	Low				
Right-of-Way Needs							
Parcels Impacted	0	20	11				
Right-of-way to be acquired for roadway improvements (acres)	0	3.36	3.84				
Right-of-way to be acquired for stormwater facilities (acres)	0	2.74	1.46				
Estimated Total Project Costs (2017 Cost)							
Design ²	\$0	\$546,800	\$410,600				
Mitigation Cost ³	\$0	\$13,400	\$15,100				
Utility relocation costs	\$0	\$560,000	\$140,000				
Total Right-of-Way Cost	\$0	\$4,007,100	\$3,500,000				
Construction Cost for stormwater sites	\$0	\$590,000	\$306,000				
Construction Cost for roadway	\$0	\$4,878,000	\$3,800,000				
Total Construction Cost	\$0	\$5,468,000	\$4,106,000				
Construction Engineering & Inspection ²	\$0	\$546,800	\$410,600				
Preliminary Estimate of Total Project Cost (2017 Cost)	\$0	\$11,142,100	\$8,582,300				

Table 4-9 Realignment Public Meeting Evaluation Matrix

1. Build Alternatives require a protected species survey and consultation with the U.S. Fish and Wildlife Service and Florida Fish and Wildlife Conservation Commission during permitting. Preliminary site evaluations were conducted to determine the likelihood of protected species presence. Low = unlikely protected species are present, Medium = protected species habitat observed and species may be present, High = protected species habitat and species presence observed.

2. Design and Construction Engineering & Inspection is estimated as 10% of the Total Construction Cost.

3. Final Mitigation Cost will be determined through consultation with environmental agencies. Mitigation cost estimate is based on \$115,000 per credit price for forested freshwater credits at the Little Pine Island Mitigation Bank. A preliminary functional assessment score of 0.8 was applied to account for diminished habitat quality and location scores.

The evaluation matrix was displayed at the Public Meeting held on January 9, 2018 to share the results of the alternatives evaluation process. It quantifies considerations such as potential business and residential relocations, impacts to environmental resources, the acres of ROW needed for roadway improvements and stormwater facilities and the estimated costs of the alternatives. The potential for the proposed realignment to impact surface waters, wetlands, threatened and endangered species, and contamination sites were also qualified in the matrix.

5.1 Realignment Public Meeting

The Lee County Department of Transportation held a public meeting on January 9, 2018 at the Northside Baptist Church Worship Center at 8250 Littleton Road, North Fort Myers, Florida for the Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study. A total of 62 attendees signed in at the registration table. Members of the public were provided a meeting handout and comment form upon arrival. Displays of the improvement concepts were available for review and project representatives answered questions and discussed the project.

5.2 Public Comments

Members of the public were provided comment forms at the meeting in order to have their opinion recorded as public record. The public was also able to submit their comments online or mail them in until January 23, 2018 to the email address and mailing address provided on the comment forms. There were a total of 25 written comment forms received from the meeting.

Below is a summary of the written comments received and the number of times the same comment was made. Multiple comments may have been made on one comment form.

- 1 In favor of the Southern Alternative: 16 comments
- 2 In favor of no improvements: 3 comments
- 3 In favor of a different alternative: 3 comments
- 4 Concern with driveway access: 3 comments
- 5 Concerns with adjacent project: 3 comments
- 6 In favor of moving the roundabout south: 2 comments
- 7 Concerns with funding: 1 comment

6.1 Selection of Recommended Alternative

Following the public workshop Lee County met with Randy Krise, owner of the Kismet Industrial Park property, to discuss modifying the Southern Alternative. If the alignment is shifted further south, the existing Littleton Road could remain as a frontage road. This frontage road would provide access to properties north of Littleton Road via an access connection to the realigned Littleton Road approximately centered between NE 24th Avenue and Corbett Road. Mr. Krise indicated that he was not opposed to this modification. **Figure 6-1** illustrates the Modified Southern Alternative.



Figure 6-1 Modified Southern Alternative

Based on the alternatives evaluation described in **Section 4.0** and a follow-up meeting, the City of Cape Coral and Lee County agreed to recommend the Modified Southern Alternative as the Recommended Alternative. The Recommended Alternative is illustrated on the concept plan contained in **Appendix E**.

6.2 Typical Section

The recommended typical section consists of four 11-foot travel lanes, curb and gutter, and a 26.5 -foot grass median. Six-foot sidewalks and four-foot bicycle lanes will accommodate pedestrian and bicycle traffic along the corridor. This typical section requires approximately 106.5 feet of proposed right-of-way as illustrated in **Figure 6-2**. The design speed for this project is 45 mph.


Figure 6-2 Recommended Typical Section

6.3 Design Year Traffic Volumes

6.3.1 Design Year Traffic Volumes

The 2040 AADT volumes were obtained by multiplying the 2040 Peak Season Weekday Average Daily Traffic (PSWADT) volumes by a Model Output Conversion Factor (MOCF) obtained from the FDOT's Peak Season Factor Category Report. An MOCF value of 0.95 was used for Littleton Road, Kismet Parkway, NE 24th Avenue and Corbett Road. The 2040 PSWADT volumes were obtained from the Florida Department of Transportation District One Regional Planning Model. **Table 6-1** summarizes the 2040 AADT volumes.

Roadway	Location	2017 AADT	2040 Model PSWADT	2040 Model AADT ⁽¹⁾	2040 Model AADT ⁽²⁾
Kismet Pkwy	West of NE 24th Ave	5,600	14,485	13,761	13,800
Littleton Rd	East of NE 24th Ave	5,500	21,723	20,637	20,600
Littleton Rd	East of Corbett Rd	6,400	20,362	19,344	19,300

 Table 6-1 Future Year AADT Volumes

(4) 2040 AADT volume = 2040 PSWADT volume x MOCF (0.95).

(5) Rounded to the nearest 100 vehicles.

 2020 AADT volumes were derived via interpolation using the 2017 and 2040 AADT volumes.

Figure 6-3 illustrates the design year (2040) a.m. and p.m. peak hour volumes. The methodology used to derive these peak hour volumes is documented in the Existing (2017) and Design Year (2040) Traffic Volumes Memorandum (September 2017).



Figure 6-3 Design Year (2040) Peak Hour Volumes

6.3.1.1 Design Year Level of Service

6.3.1.2 Intersection Analysis

Table 6-2 summarizes the results of the peak hour signalized intersection analyses conducted at Littleton Road/Kismet Parkway/NE 24th Avenue. This intersection is projected to operate at LOS D overall during the a.m. and p.m. peak hours.

Table 6-2	Design	Year (2040)	Peak Hour	[,] Signalized	Intersection	Analysis Summ	ary
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Interception	Approach	AM Pea	k Hour	PM Peak Hour		
Intersection	Арргоасті	Delay	LOS	Delay	LOS	
Littleton Rd/Kismet Pkwy & NE 24th Ave	EB	48.9	D	40.6	D	
	WB	36.7	D	35.6	D	
	NB	36.4	D	44.6	D	
	SB	47.4	D	47.9	D	
	Overall	42.6	D	41.1	D	

Delay = Average Stopped Delay (in seconds per vehicle) LOS = Level of Service

6.3.1.3 Roundabout Evaluation

A roundabout was analyzed at Littleton Road/Corbett Road intersection and the results of the traffic operations analysis are shown in **Table 6-3**. The Littleton Road/Corbett Road intersection is projected to operate at LOS B overall during both the a.m. and p.m. peak hours.

Interpotion	Approach	AM Peal	k Hour	PM Peak Hour		
Intersection	Арргоасп	Delay	LOS	Delay	LOS	
Littleton Rd & Corbett Rd	EB	11.9	В	8.1	А	
	WB	7.8	А	13.0	В	
	NB	16.3	С	7.9	А	
	Overall	11.9	В	10.7	В	

Table 6-3 Design Year (2040) Peak Hour Roundabout Analysis Summary at Corbett Rd

Delay = Average Stopped Delay (in seconds per vehicle) LOS = Level of Service

6.4 Design Variations and Exceptions

No design variations or exceptions were identified or are anticipated as part of these improvements. The Lee County Land Development Code identifies a 150-foot right-of-way width for a Principal or Minor Arterial. It also identifies a five-foot on-road bicycle facility and a planting area or utility strip between the curb and gutter and sidewalk. To minimize the proposed right-of-way width, a four-foot bicycle lane and no utility strip was selected for this typical section. The design criteria for this project is located in **Section 3.0**. The criteria follows the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (2016 Edition), commonly known as the Florida Greenbook.

6.5 Right-of-Way Needs and Relocations

The Recommended Alternative requires approximately 106.5 feet of right-of-way for the southern realignment of Littleton Road over to Kismet Parkway. The proposed roundabout is located in the southwest quadrant of the existing Littleton Road/Corbett Road intersection. The Recommended Alternative is estimated to require 6.58 acres of proposed right-of-way from eight parcels. The proposed improvements will not result in any business or residential relocations.

6.6 Structures

This study did not evaluate the existing bridge over Yellow Fever Creek.

6.7 Access Management

The proposed realignment includes two full median openings, a roundabout, and closes one existing full median opening on Kismet Parkway. **Table 6-4** lists the median opening types and locations for the proposed improvements within the study area.

Intersection with Kismet Pkwy/Realigned Littleton Rd	Type of Median Opening	Distance (feet)
Kismet Pkwy/NE 22 nd Ave	Existing Full Median Opening	
Kismet Pkwy/NE 23 rd Pl	Close Existing Full Median Opening	1,200
Kismet Pkwy/Realigned Littleton Rd/NE 24 th Ave	Full Median Opening	
		600
Realigned Littleton Rd/Connection to Frontage Rd (Existing Littleton Rd)	Full Median Opening	
		600
Realigned Littleton Rd/Corbett Rd	Roundabout	

Table 6-4	Proposed	Access	Management
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The proposed median openings (and existing median opening closure) are shown in **Figure 6-1**. Comments received at the public workshop identified concerns with large trailers accessing existing driveways with the roundabout located further north as shown in the Southern Alternative. The Recommended Alternative does not require any modifications to the existing driveways along the existing Littleton Road from NE 24th Avenue to Corbett Road. These existing driveways will access the realigned Littleton Road through a connection in the middle of the realignment.

6.8 Utility Impacts

The utility companies listed in **Table 6-5** were contacted by e-mail on April 18, 2017, to identify the locations and types of utilities within the project limits. Plan sheets were mailed to the companies with a request to identify the location(s) of existing facilities and planned facilities. The existing utilities include overhead electric, overhead cable, buried communication lines, water, and sewer. **Table 6-5** also provides a summary of the responses received from providers.

The Lee County Electric Co-op (LCEC) has indicated that they have a utility easement adjacent to the roadway, within the project limits. The 40-foot easement on the north side of Littleton Road extends from their substation in the northeast quadrant of the Littleton Road/NE 24th Avenue intersection to east of Corbett Road.

Utility Company		Buried/ Overhead	Description
Distribution		Overhead	Along the south side of KP to west side of NE. Along the east side of NE and crosses over LR. Along the west side of NE from LR north. Along the west side of CR and cross LR and continues north.
LCEC		Buried	NE crossing on the south side of KP. LR crossings east side of NE and three crossing at driveway to substation.
Transmission		Overhead	Along the north side of KP. Along the east side of NE and crosses LR into substation. Along north side of LR.
Century Link		Buried	Along the north side of LR from CR to NE then turns up the east side of NE. Along the west side of NE and along the south side of KR. Northwest corner of KR and NE along north side of KR for 250 feet then cross KR to the south side. Along the west side of CR then turns to south side of LR for 140 feet then cross LR to the north side.
City of Cape	Wastewater	Buried	Sewer main along the center of the eastbound KP travel lanes and turns south along the center of the northbound NE travel lanes for 50 feet and turns east. Along KP there are 17 service connections.
Coral Water		Buried	12" PVC along the north side of KP and turns south along the west side of NE. Along KP there are 11 service connections. Two fire hydrants along the north side of KP.
Comcast		Buried	Along the south side of KP and turns south along the west side of NE. Vault in the southwest quadrant of KP and NE.
		Overhead	Along the south side of KP to 130' east of NE.
Fibernet Direc	ct	Buried	Along the south side of KP and then turns north along the west side of NE, and turns east along the south side of LR.

Table 6-5 Utility Companies

LR = Littleton Road, KP = Kismet Parkway, NE = NE 24th Avenue, CR = Corbett Road

6.9 Bicycle and Pedestrian Accommodations

The proposed typical section provides six-foot sidewalks and four-foot bicycle lanes on both sides of the roadway. The proposed sidewalks and bicycle lanes will be designed and constructed to comply with the Americans with Disabilities Act (ADA) of 1990, as amended. The sidewalks will meet ADA requirements for access, width, and grade.

6.10 Preliminary Drainage Analysis

6.10.1 Stormwater Management

Stormwater runoff from the realignment improvements will be collected and conveyed to stormwater management facilities by curb and gutter. These stormwater management facilities will provide water quality (treatment) and water quantity (attenuation). The method of stormwater treatment for this project includes wet detention due to the high Seasonal High Water Table.

The pond sizes were estimated using SFWMD water quality treatment and attenuation requirements. **Table 6-6** lists the one stormwater management facility.

Table 6-6 Stormwater Management Facilities

Basin	SMF Alternative	SMF Area (Acres)
2	Pond B	1.46

The proposed stormwater facility design will include, at a minimum, the quantity requirements for water quality impacts as required by the SFWMD. The facility will be designed to meet Lee County

water quality and quantity requirements, and best management practices will be utilized during construction. Therefore, the Recommended Alternative is expected to have no significant impact on water quality and quantity.

6.11 Horizontal Geometry

The Recommended Alternative begins at the Kismet Parkway/NE 24th Avenue intersection and realigns Littleton Road north to a location east of Corbett Road. Two reverse horizontal curves are used with degree of curve of 2° 45' (or radius of 2,083.48 feet). This degree of curve does not require superelevation for a design speed of 45 mph. The radii associated with the horizontal curves approaching the roundabout at Littleton Road/Corbett Road are approximately 546 feet (the south approach) and 350 feet (the east approach).

6.11.1 Roundabout Performance Checks

The following geometric performance checks were conducted for the Recommended Alternative roundabout at the Littleton Road/Corbett Road intersection:

- Fastest path speeds
- Design vehicle swept path (i.e., AutoTURN analysis)

The fastest path allowed by the roundabout geometry determines the speed for that particular movement into, through and out of the roundabout. It is the smoothest, flattest travel path possible for a single vehicle, in the absence of any other vehicles and ignoring all lane markings. **Figure 6-4** illustrates the fastest path performance check.



Figure 6-4 Fastest Path

The fastest path speeds range from 17 mph to 34 mph. National Cooperative Highway Research Program (NCHRP) Report 672 states that two-lane roundabouts should be designed for operating speeds between 25 and 30 mph. It should be noted that the fastest path speed greater than 30

mph is associated with westbound vehicles exiting the roundabout. The speed of the westbound vehicles exiting the roundabout at the crosswalk is 30 mph.

The AutoTURN analysis output is illustrated in **Figure 6-5**, **Figure 6-6**, and **Figure 6-7**. With respect to the through movements, the roundabout concept geometry was developed to accommodate a passenger vehicle traveling in the inside lane side-by-side with a WB-40 design vehicle traveling in the outside lane. **Figure 6-5** illustrates WB-40 design vehicles traveling in both lanes.



Figure 6-5 Design Vehicle Swept Path 1



Figure 6-6 Design Vehicle Swept Path 2



Figure 6-7 Design Vehicle Swept Path 3

6.12 Cost Estimates

The project costs estimated for the Recommended Alternative are summarized in **Table 6-7**. Construction costs were estimated using an Engineering Estimate and this is provided in **Appendix F**. The cost for final design and construction engineering and inspection was estimated at 10% of the total construction cost.

Table	6-7	Project	Cost	Estimate
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Project Phases	Optimized Alternative
Design ¹	\$408,000
Mitigation Cost ²	\$12,000
Utility Relocation Cost	\$153,000
Total right-of-way cost	\$2,600,000
Total construction cost	\$4,077,000
Construction Engineering & Inspection ¹	\$408,000
Preliminary Estimate of Total Project Cost	\$7,658,000

1 Design and Construction Engineering & Inspection is estimated at 10% of the Total Construction Cost.

2 Final Mitigation Cost will be determined through consultation with environmental agencies. Mitigation cost estimate is based on \$115,000 per credit price for forested freshwater credits at the Little Pine Island Mitigation Bank. A preliminary functional assessment score of 0.8 was applied to account for diminished habitat quality and location scores.

6.13 Environmental Impacts

6.13.1 Natural Resources

6.13.1.1 Wetlands

South Florida Water Management District (SFWMD) and U.S. Army Corps of Engineers (Corps) Jurisdictional wetlands and Other Surface Waters (OSW) within the recommended alignment are limited to approximately 5,132 square feet (0.13 acres) of forested wetland on the westerly adjacent edge of Yellow Fever Creek and approximately 2,298 square feet (0.06 acres) of roadside ditches located on the north side of the Littleton Road/Corbett Road intersection and the west side of Corbett Rd. **Table 6-8** identifies the wetland and surface water impacts of the Recommended Alternative. The forested wetland is primarily comprised of oaks (Quercus spp.), slash pines (Pinus elliottii) and cabbage palms (Sabal palmetto) with a scattered leather fern (Acrostichum danaeifolium) understory. The roadside ditches have maintained herbaceous side slopes that are sparsely vegetated with bahiagrass (Paspalum notatum), torpedograss (Panicum repens), and frogfruit (Phyla nodiflora).

The potential wetland impacts are located within the Tidal Caloosahatchee Drainage Basin. Because no known permitted off-site mitigation credits are available within the basin, and due to the extremely small area of impact, mitigation would be most appropriately provided through the purchase of an estimated 0.10 (0.13 acreage of impact X 0.8 functional assessment score) forested freshwater credits at the Little Pine Island Mitigation Bank (LPIMB). Off-site mitigation would be most appropriately provided at the LPIMB because the proposed impacts are located within the Bank's Service Area and are associated with a linear project.

Mitigation proposed outside of the drainage basin may require a Cumulative Impact Assessment that demonstrates the loss of wetlands will not result in an unacceptable cumulative loss of wetland function within the Tidal Caloosahatchee Basin. Due to the minor wetland impact proposed, it is anticipated the SFWMD will concur that an unacceptable cumulative impact will not occur. However, should the SFWMD require a portion of the mitigation within the same basin, onsite mitigation could potentially be provided through native planting enhancements within the creek.

Table 6-8	Surface	Water a	and	Wetland	Effects
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Environmental Effects	Square Footage	Acres
Surface Water	2,298	0.06
Wetlands	5,132	0.13

6.13.1.2 Protected Species and Habitat

Most of the project area is comprised of uplands including existing paved roadway with maintained right-of-way along Kismet Parkway and NE 24th Avenue. The remaining uplands are comprised of undeveloped and previously disturbed / cleared lands located at the southeast corner of NE 24th Avenue and Littleton Road. The previously disturbed area is primarily comprised of herbaceous vegetation with scattered cabbage palms and Brazilian pepper (Schinus

terebinthifolius). Herbaceous vegetation is predominately comprised of bahiagrass, grapevine (Vitis rotundifolia), ragweed (Ambrosia artemisiifolia), and caesarweed (Urena lobate).

Preliminary site investigations of the study area were conducted during the morning hours of September 5, 2017. The purpose of the survey was to identify and document the presence of listed species and their habitat that are regulated by the U.S. Fish and Wildlife Service (FWS) and Florida Fish and Wildlife Conservation Commission (FWC). No nests, dens, burrows, tracks or signs indicative of protected species use of the property were identified during the preliminary investigations. However, the project area is located within the consultation areas and contains suitable habitat for the federally threatened eastern indigo snake (Drymarchon corais couperi), wood stork (Mycteria Americana) and endangered Florida bonneted bat (Eumops floridanus). The project area additionally contains habitat suitable for the state listed gopher tortoise (Gopherus Polyphemus), burrowing owl (Athene cunicularia floridana), and various wading birds. Comprehensive protected species surveys for these species and consultation with the FWS and FWC will be required at the time of permitting.

Based on the preliminary site investigations, it is anticipated the project area does not include roosting habitat or significant foraging habitat for the bonneted bat. Upon completion and review of the detailed species survey findings, it is anticipated the FWS will determine that the project may affect but is not likely to adversely affect the Florida bonneted bat. It is also anticipated the FWS will make the same determinations for the eastern indigo snake with the applicant's commitment to adhere to the Service's Standard Protection Measures for the Eastern Indigo Snake, and for the wood stork given the minor wetland impacts proposed.

Should gopher tortoise and/or burrowing owl burrows be observed during the comprehensive protected species surveys, further permitting with the FWC will be required. Relocation permits would need to be obtained to excavate gopher tortoises and relocate them to an approved on-site or off-site location prior to construction. Migratory Bird Nest Removal / Incidental Take permits would need to be obtained to excavate burrowing owl burrows outside of the nesting season (generally February 15 – July 10). Impacts to burrowing owls also requires conservation measures that typically include replacement starter burrows within the project limits post construction and mitigation donations to a non-profit agency specializing in conservation for burrowing owls.

6.13.2 Physical Resources

6.13.2.1 Contamination

Contamination evaluations were conducted for the study following standard environmental assessment practices of reviewing records of regulatory agencies, site reconnaissance, and historical information review within the limits of the project. An Environmental Data Report (EDR) was obtained in May 2017 to identify sites within one-half mile of the project corridor containing documented or suspected petroleum contamination or other hazardous materials.

Four sites were investigated for facilities or operations that may present the potential for finding petroleum contamination or hazardous materials, and therefore may impact the proposed improvements for this project. **Table 6-9** identifies the Risk Ranking for the identified sites.

Site	Name	Facility Address	Risk Ranking
1	Northeast Loop Utility Betterment	Kismet Pkwy and NE 24 th Ave	No
2	Corbett Substation Expansion	9980 Littleton Rd	No
3	Honc Contractor's Office	2501 NE 24 th Ave	No
4	Kismet Industrial Park	2313 NE 24 th Ave	No

Table 6-9 Risk Ranking for Potential Contamination Sites

7.1.1 Conclusion

The purpose of this study is to evaluate engineering and environmental data and document information that will aid the City of Cape Coral and Lee County in determining the type, preliminary design and location of the proposed improvements. The purpose of this project is to align Kismet Parkway and Littleton Road resulting in one intersection with NE 24th Avenue. The intersections of Kismet Parkway and Littleton Road with NE 24th Avenue are off-set T-intersections separated by a distance of approximately 200 feet. The proposed realignment of Littleton Road is anticipated to improve traffic operations in the area and improve east-west access between the City of Cape Coral and Lee County. Littleton Road and NE 24th Avenue are in the Lee County Metropolitan Planning Organization's 2040 Cost Feasible Road and Highway Projects Long Range Transportation Plan to be widened to four lanes. The proposed realignment of Littleton Road is needed to improve system continuity and better accommodate future year traffic volumes.

7.1.2 Recommendation

Based on comments received from the public and evaluations of engineering and environmental factors, the Modified Southern Alternative will meet the needs of the City of Cape Coral and Lee County. The recommended typical section consists of four 11-foot travel lanes, curb and gutter, and a 26.5-foot grass median. Six-foot sidewalks and four-foot bicycle lanes will accommodate pedestrian and bicycle traffic along the corridor. This typical section requires approximately 106.5 feet of proposed right-of-way.

APPENDIX A

Traffic Documentation

MEMORANDUM



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Date:	September 1, 2017
То:	Vincent Miller, PE
From:	Greg Root
Subject:	Littleton Road/Kismet Parkway Realignment Study, Lee County Project No. CN160459DLK Existing (2017) and Design Year (2040) Traffic Volumes

Introduction

The purpose of this memorandum is to document the existing (2017) and design year (2040) Average Annual Daily Traffic (AADT) volumes and peak hour volumes that have been developed in support of the Littleton Road/Kismet Parkway Realignment Study. More specifically, this memorandum discusses the traffic counts that were conducted, the existing (2017) AADT volumes and peak hour volumes that were derived based on the traffic count data, and the methodology used to estimate the design year (2040) AADT and peak hour volumes for the study corridor.

Existing Year (2017) AADT Volumes

Twenty-four hour bi-directional volume counts were conducted at seven locations on Littleton Road and Kismet Parkway for two consecutive days on Tuesday April 18th and Wednesday April 19th, 2017. These locations included the following:

- Kismet Parkway west of NE 24th Avenue;
- Littleton Road east of NE 24th Avenue;
- Littleton Road east of Corbett Road;
- Littleton Road between Hutto Road and Horizon Boulevard;
- Littleton Road between Palmer Road and Windmill Boulevard;
- Littleton Road west of US 41; and
- Littleton Road east of US 41

Twenty-four hour bi-directional volume counts were also conducted north and/or south of Littleton Road on eight cross streets during this same two-day period. These cross streets included the following:

- NE 24th Avenue
- Corbett Road
- Nicklaus Boulevard
- Horizon Boulevard
- Palmer Boulevard
- Windmill Boulevard
- Serendipity Boulevard
- US 41

Table 1 summarizes the traffic counts for each day, as well as the two-day average values. The 24-hour counts were subsequently converted to AADT volumes using monthly and weekday adjustment factors obtained from Lee County Permanent Count Stations. The adjustment factors associated with the Permanent Count Station (PCS) located on Pondella Road east of Betmar Road (PCS No. 34) were used for all locations except US 41. This PCS data is provided in **Appendix A**. The 24-hour counts on Littleton Road and Kismet Parkway were also multiplied by an axle adjustment factor of 0.99. This axle adjustment factor was calculated based on data obtained from a two-day vehicle classification count conducted on Littleton Road west of Corbett Road. The axle adjustment factor calculations are also provided in Appendix A. This axle adjustment factor was also applied to the 24hour traffic counts on NE 24th Avenue. The traffic counts conducted on US 41 north and south of Littleton Road were adjusted using the monthly and weekday factors associated with PCS No. 1 (US 41 north of North Key Drive), as well as the axle adjustment factor for US 41 obtained from the FDOT's 2016 Weekly Axle Factor Category Report. This PCS data is also provided in Appendix A. Table 1 indicates that the 2017 AADT volumes for the study corridor range from 5,500 vehicles per day (vpd) just east of NE 24th Avenue to 8,200 vpd just west of US 41.

Existing Year (2017) Peak Hour Volumes

Eight-hour turning movement counts were conducted on Littleton Road and Kismet Parkway at the eight cross streets listed above, as well as at Hutto Road and the Littleton Elementary School entrance/exit roadway located to the east of Hutto Road. These turning movement counts were conducted on April 19, 2017 during the following time periods:

- 7:00 a.m. to 9:00 a.m.
- 12:00 p.m. to 3:00 p.m.
- 3:30 p.m. to 6:30 p.m.

A review of the turning movement count data indicated that the highest a.m. and p.m. hourly volumes generally occurred from 7:00 a.m. to 8:00 a.m. and from 4:30 p.m. to 5:30 p.m., respectively. Consequently, these time periods were used to represent the existing peak hours of the study corridor. The raw turning movement count data was adjusted using the monthly and weekday adjustment factors and the resulting 2017 a.m. and p.m. peak hour volumes are illustrated in **Figure 1** and **Figure 2**, respectively.

Design Year (2040) AADT Volumes

The FDOT District One 2040 Districtwide travel demand model was run and the 2040 Peak Season Weekday Average Daily Traffic (PSWADT) volumes for the study corridor were obtained. A plot of the 2040 PSWADT volumes is provided in **Appendix B**. The 2040 AADT volumes were obtained by multiplying the 2040 PSWADT volumes by a Model Output Conversion Factor (MOCF) obtained from the FDOT's Peak Season Factor Category Report. An MOCF value of 0.95 was used for Littleton Road, Kismet Parkway, NE 24th Avenue and Corbett Road, while an MOCF value of 0.91 was used for US 41. The 2040 AADT volumes are provided in **Table 2**. A review of **Table 2** indicates that the 2040 AADT volumes for the study corridor are projected to range between 13,800 vpd (just east of NE 24th Avenue) and 22,900 vpd (just west of US 41).

Design Year (2040) Peak Hour Volumes

The design year (2040) peak hour intersection volumes were derived using the following methodology:

Step 1 – The 2040 AADT volumes on Kismet Parkway, Littleton Road, NE 24th Avenue and Corbett Road were multiplied by a K-factor of 0.105 and a D-factor of 0.615. The 2040 AADT volumes on US 41 were multiplied by a K-factor of 0.095 and a D-factor of 0.615. These K-factors are the K_{30} -factors associated with PCS No. 34 and PCS No. 1 and represent the proportion of the AADT volume occurring during the 30th highest hour of the year. The D-factor that was used is the average of the two p.m. peak hour D-factors associated with PCS No. 34 and PCS No. 34 and PCS No. 1.

Step 2 – The 2040 peak direction p.m. peak hour volumes calculated in Step 1 were multiplied by the existing p.m. peak hour turning movement percentages.

Step 3 – The 2040 off-peak direction (i.e., intersection departure volumes) p.m. peak hour volumes were obtained by summing the contributing turning movement volumes.

Step 4 – Manual adjustments were made to individual movement volumes to obtain peak and off-peak direction volumes that more closely reflected the initial K- and D-factors. Manual adjustments were also made to improve the reasonableness of individual movement volumes that were viewed as being unrealistically high or low.

Step 5 – The 2040 a.m. peak hour volumes were obtained by "reversing" the reciprocal movement volumes (e.g., the p.m. peak hour westbound left-turn volume was used as the a.m. peak hour northbound right-turn volume). This method was used to avoid overestimating the design year a.m. peak hour volumes. The a.m. peak hour D-factors associated with the two permanent count stations are significantly higher than the p.m. peak hour D-factors. The use of these factors, coupled with the high K₃₀-factors, would result in excessively high design year a.m. peak hour volumes, which in turn, could result in the need for even more future year intersection improvements.

Step 6 – The 2040 a.m. and p.m. peak hour left-turn and right-turn volumes at the seven intersections located between Corbett Road and US 41 were derived by multiplying the 2017 peak hour turning movement volumes by 1.23. This represents a linear growth rate of 1.0% per year. The use of a growth rate was necessary because the existing cross streets located between Corbett Road and US 41 were not included (coded) in the District One Districtwide travel demand model. Although the existing residential communities located between Nicklaus Boulevard and Serendipity Boulevard are built-out, the use of a growth rate to derive the design year peak hour volumes for these roadways assumes that there will be (or could be) a minor increase in peak hour volumes. This accounts for the peak hours analyzed for this study. In most cases, the use of this low growth rate resulted in only minor increases in peak hour volumes).

Step 7 – The 2040 peak hour left-turn and right-turn volumes estimated in Step 6 were added and subtracted from the 2040 peak hour approach and departure volumes west of the US 41 intersection to obtain a second estimate of the 2040 a.m. and p.m. peak hour approach and departure volumes east of Corbett Road.

Step 8 – The 2040 a.m. and p.m. peak hour turning movement volumes previously estimated for the Corbett Road intersection were manually adjusted to yield the 2040 peak hour approach and departure volumes that were previously estimated for Littleton Road west of Corbett Road.

The 2040 a.m. and p.m. peak hour volumes resulting from this methodology are illustrated in **Figure 3** and **Figure 4**, respectively.

If you have any questions about the contents of this memorandum and would like to discuss this in more detail, please contact me at your earliest convenience.

Table 1: 2017 AADT Volumes - Littleton Road and Kismet Parkway Mainline	
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Roadway	Location	Date	Volume	MF	DF	AF	AADT	AADT ⁽¹⁾
		4/18/2017	6,343	1.03	1.11	0.99	5,492	
Kismet Pkwy	West of NE 24th Ave	4/19/2017	6,530	1.03	1.11	0.99	5,654	
		Two-day Avg.	6,437				5,573	5,600
		4/18/2017	6,263	1.03	1.11	0.99	5,423	
Littleton Rd	East of NE 24th Ave	4/19/2017	6,518	1.03	1.11	0.99	5,644	
		Two-day Avg.	6,391				5,534	5,500
		4/18/2017	7,320	1.03	1.11	0.99	6,338	
Littleton Rd	East of Corbett Rd	4/19/2017	7,565	1.03	1.11	0.99	6,551	
		Two-day Avg.	7,443				6,445	6,400
		4/18/2017	7,357	1.03	1.11	0.99	6,371	
Littleton Rd	Btwn Hutto Rd and Horizon Blvd	4/19/2017	7,533	1.03	1.11	0.99	6,523	
		Two-day Avg.	7,445				6,447	6,400
		4/18/2017	8,316	1.03	1.11	0.99	7,201	
Littleton Rd	Btwn Palmer Rd and Windmill Blvd	4/19/2017	8,594	1.03	1.11	0.99	7,442	
		Two-day Avg.	8,455				7,321	7,300
		4/18/2017	9,373	1.03	1.11	0.99	8,116	
Littleton Rd	West of US 41	4/19/2017	9,665	1.03	1.11	0.99	8,369	
		Two-day Avg.	9,519				8,243	8,200
		4/18/2017	8,674	1.03	1.11	0.99	7,511	
Littleton Rd	East of US 41	4/19/2017	8,752	1.03	1.11	0.99	7,578	
		Two-day Avg.	8,713				7,545	7,500

	2017 AADT Volumes - Littleto	on Road and Kisme	t Parkway C	Cross Street	S			
Roadway	Location	Date	Volume	MF	DF	AF	AADT	AADT ⁽¹⁾
		4/18/2017	3,023	1.03	1.11	0.99	2,618	
NE 24th Ave	South of Kismet Pkwy	4/19/2017	3,059	1.03	1.11	0.99	2,649	
		Two-day Avg.	3,041				2,633	2,600
		4/18/2017	7,215	1.03	1.11	0.99	6,248	
NE 24th Ave	Btwn Kismet Pkwy and Littleton Rd	4/19/2017	7,442	1.03	1.11	0.99	6,444	
		Two-day Avg.	7,329				6,346	6,300
		4/18/2017	1,801	1.03	1.11	0.99	1,560	
NE 24th Ave	North of Littleton Rd	4/19/2017	1,806	1.03	1.11	0.99	1,564	
		Two-day Avg.	1,804				1,562	1,600
		4/18/2017	1,417	1.03	1.11	1.00	1,239	
Corbett Rd	South of Littleton Rd	4/19/2017	1,449	1.03	1.11	1.00	1,267	
		Two-day Avg.	1,433				1,253	1,250
		4/18/2017	251	1.03	1.11	1.00	220	
Nicklaus Blvd	South of Littleton Rd	4/19/2017	223	1.03	1.11	1.00	195	
		Two-day Avg.	237				207	200
		4/18/2017	1,715	1.03	1.11	1.00	1,500	
Horizon Blvd	North of Littleton Rd	4/19/2017	1,692	1.03	1.11	1.00	1,480	
		Two-day Avg.	1,704				1,490	1,500
		4/18/2017	1,262	1.03	1.11	1.00	1,104	
Palmer Blvd	South of Littleton Rd	4/19/2017	1,296	1.03	1.11	1.00	1,134	
		Two-day Avg.	1,279				1,119	1,100
		4/18/2017	949	1.03	1.11	1.00	830	
Windmill Blvd	North of Littleton Rd	4/19/2017	968	1.03	1.11	1.00	847	
		Two-day Avg.	959				838	850
		4/18/2017	1,061	1.03	1.11	1.00	928	
Serendipity Blvd	South of Littleton Rd	4/19/2017	1,118	1.03	1.11	1.00	978	
		Two-day Avg.	1,090				953	950
		4/18/2017	27,742	1.02	1.09	0.95	23,705	
US 41	South of Littleton Rd	4/19/2017	27,621	1.02	1.11	0.95	23,176	
		Two-day Avg.	27,682				23,440	23,400
		4/18/2017	24,320	1.02	1.09	0.95	20,781	
US 41	North of Littleton Rd	4/19/2017	24,304	1.02	1.11	0.95	20,393	
		Two-day Avg.	24,312				20,587	20,600

MF - Monthly Adjustment Factor

DF - Day of Week Adjustment Factor

AF - Axle Adjustment Factor ⁽¹⁾ Rounded





		2017	2040 Model	2040 Model	2040 Model	2020	2020
Roadway	Location	AADT	PSWADT	AADT ⁽¹⁾	AADT ⁽²⁾	AADT ⁽³⁾	AADT ⁽²⁾
Kismet Pkwy	West of NE 24th Ave	5,600	14,485	13,761	13,800	6,759	6,700
Littleton Rd	East of NE 24th Ave	5,500	21,723	20,637	20,600	7,616	7,500
Littleton Rd	East of Corbett Rd	6,400	20,362	19,344	19,300	8,221	8,100
Littleton Rd	West of US 41	8,200	24,145	22,938	22,900	10,280	10,100
Littleton Rd	East of US 41	7,500	22,841	21,699	21,700	9,501	9,400
NE 24th Ave	South of Kismet Pkwy	2,600	17,745	16,858	16,900	4,575	4,500
NE 24th Ave	North of Littleton Rd	1,600	15,727	14,941	14,900	3,443	3,300
Corbett Rd	South of Littleton Rd	1,250	8,432	8,010	8,000	2,187	2,100
US 41	South of Littleton Rd	23,400	41,545	37,806	37,800	25,767	25,300
US 41	North of Littleton Rd	20,600	37,533	34,155	34,200	22,809	22,400

 Table 2: Existing and Future Year Average Annual Daily Traffic (AADT) Volumes

⁽¹⁾ 2040 AADT volume = 2040 PSWADT volume x Model Output Conversion Factor (MOCF). MOCF = 0.91 for US 41 and 0.95 for all other roads.

⁽²⁾ Rounded to the nearest 100 vehicles

 $^{(3)}$ 2020 AADT volumes were derived via interpolation using the 2017 and 2040 AADT volumes.





Appendix A

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	Total	0.74%	0.49%	0.43%	0.41%	0.78%	1.84%	4.75%	6.72%	6.07%	5.22%	5.29%	5.58%	6.10%	6.30%	6.56%	7.08%	7.92%	8.32%	6.11%	4.23%	3.25%	2.65%	1.90%	1.25%
	WB	0.86%	0.60%	0.52%	0.34%	0.44%	1.11%	3.04%	4.11%	4.33%	4.29%	4.73%	5.34%	6.17%	6.45%	6.98%	8.01%	9.52%	10.45%	7.30%	4.86%	3.74%	3.08%	2.24%	1.44%
	EB	0.61%	0.38%	0.33%	0.49%	1.16%	2.65%	6.65%	9.63%	8.01%	6.24%	5.91%	5.84%	6.02%	6.13%	6.09%	6.05%	6.14%	5.95%	4.78%	3.52%	2.69%	2.17%	1.52%	1.03%
	Hour	0	.	8	n	4	ъ	9	~		6	10	11	12	13	44	15	16	17	18	19	20	21	22	23

VPD	Fraction	0.99	1.06	1.05	1.03	0.98	0.97	0.93	0.99	F	-	-	1
21,100	Month of Year	January	February	March	April	May	June	July	August	September	October	November	December

Fraction	0.64	1.03	1.11	1.11	1.11	1.15	0.84
ay of Week	Sunday	Monday	Tuesday	Vednesday	Thursday	Friday	Saturday





1.5	1.3			ה. ⊃	0.7	0.5		"Uer	
olume	Factor	10.70	10.60	10.50	10.50	10.30	10.10	9.90	9.70
gn Hour Vo	Volume								
Desig	#	5	10	20	30	50	100	150	200





ume	K Factor	9.7	9.7	9.7	9.7	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.5	9.5	9.5	9.5	9.5	9.5	9.4	9.3	9.2	9.2	9.1	0
Design Hour Vol	Volume	4258	4252	4233	4225	4217	4215	4212	4205	4204	4203	4184	4171	4159	4154	4147	4143	4132	4111	4069	4034	4004	3980	3959
	*	-	2	ę	4	ъ	9	7	æ	6	10	20	25	30	35	40	45	50	75	100	125	150	175	200



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	Total No.		80	9278	3024	22	364	81	4	200	30	0	0	0	0	13,083	2.022727	0.988764			
orbett Road - 4/19/2017	Avg. No. of Axles/Vehicle		2	2	2	2	2	ŝ	4	4	5	6	ß	6	7	Total Axles	Axles/Veh	Axle Factor			
	olume Two-Way		/olume Two-Way		/olume Two-Way		40	4,639	1,512	11	182	27	1	50	9	0	0	0	0	6,468	
d West of C	ır Vehicle V	WB	16	2299	699	1	97	7	1	37	3	0	0	0	0	3,130					
tleton Road	24-Hou	EB	24	2340	843	10	85	20	0	13	3	0	0	0	0	3,338					
Lit	FHWA Vehicle Class		1	2	ß	4	5	9	7	8	6	10	11	12	13	Total Volume					
	Total No. of Axles		70	9008	2936	42	354	69	4	120	10	9	0	0	0	12,619	2.015171	0.992472			
- 4/18/2017	Avg. No. of Axles/Vehicle		2	2	2	2	2	3	4	4	5	6	5	6	7	Total Axles	Axles/Veh	Axle Factor			
orbett Road	olume	Two-Way	35	4,504	1,468	21	177	23	1	30	2	1	0	0	0	6,262					
d West of C	ır Vehicle V	WB	12	2,265	649	4	94	9	1	24	2	1	0	0	0	3,058					
ttleton Road	24-Hoi	EB	23	2,239	819	17	83	17	0	9	0	0	0	0	0	3,204					
	FHWA Vehicle	Class	7	2	3	4	ß	9	7	8	6	10	11	12	13	Total Volume					

Axle Adjustment Factor = [(Average Two-Way 24-Hour Volume)x(2)]/[Average Total Axles] = 0.991 Average Two-Way 24-Hour Volume = (6,262 vehicles + 6,468 vehicles)/2 = 6,365 vehicles Average Total Axles = (12,619 axles + 13,083 axels)/2 = 12,851 axles Axle Adjustment Factor = (0.992472 + 0.988764)/2 = 0.991 Appendix B



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AADTIS for Littlebur Red, Kismet Phuy, NE 24th Are & Corbett Rd = PSWADT × 0.93 AADTIS for U.S.41 = PSWADT × 0.91

2016 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL CATEGORY: 1242 CAPE CORAL

			MOCE. 0.55
WEEK	DATES	SF	PSCF
======		===============	
1	01/01/2016 - 01/02/2016	0.99	1.04
2	01/03/2016 - 01/09/2016	0.98	1.03
* 3	01/10/2016 - 01/16/2016	0.96	1.01
* 4	01/17/2016 = 01/23/2016	0.96	1 01
	01/24/2016 $01/25/2016$	0.90	1 00
- D	01/24/2016 - 01/30/2016	0.95	1.00
* 6	01/31/2016 - 02/06/2016	0.94	0.99
* 7	02/07/2016 - 02/13/2016	0.94	0.99
* 8	02/14/2016 - 02/20/2016	0.93	0.98
* 9	02/21/2016 - 02/27/2016	0.93	0.98
*10	02/28/2016 - 03/05/2016	0.94	0.99
*11	03/06/2016 = 03/12/2016	0 94	0 99
*10	03/13/2016 = 03/10/2016	0.94	0.99
*17	03/13/2010 = 03/13/2010	0.04	1 00
^13	03/20/2016 - 03/26/2016	0.95	1.00
*14	03/2/2016 - 04/02/2016	0.96	1.01
*15	04/03/2016 - 04/09/2016	0.97	1.02
16	04/10/2016 - 04/16/2016	0.98	1.03
17	04/17/2016 - 04/23/2016	0.98	1.03
18	04/24/2016 - 04/30/2016	0.99	1.04
19	05/01/2016 = 05/07/2016	1 00	1 05
20	05/09/2016 05/07/2016	1 01	1 06
20	05/08/2010 = 05/14/2010	1.01	1.00
21	05/15/2016 - 05/21/2016	1.02	1.07
22	05/22/2016 - 05/28/2016	1.03	1.08
23	05/29/2016 - 06/04/2016	1.05	1.11
24	06/05/2016 - 06/11/2016	1.06	1.12
25	06/12/2016 - 06/18/2016	1.07	1.13
26	06/19/2016 - 06/25/2016	1.08	1.14
27	06/26/2016 = 07/02/2016	1 09	1 15
20	07/02/2016 07/02/2016	1 09	1 15
20	07/03/2016 = 07/09/2016	1 10	1.15
29	0//10/2016 - 0//16/2016	1.10	1.10
30	07/17/2016 - 07/23/2016	1.09	1.15
31	07/24/2016 - 07/30/2016	1.09	1.15
32	07/31/2016 - 08/06/2016	1.08	1.14
33	08/07/2016 - 08/13/2016	1.08	1.14
34	08/14/2016 - 08/20/2016	1.07	1.13
35	08/21/2016 - 08/27/2016	1.07	1.13
36	08/28/2016 = 09/03/2016	1 06	1 12
20	00/20/2010 00/00/2010	1.00	1 10
27	09/04/2016 ~ 09/10/2016	1.08	1.12
38	09/11/2016 - 09/1//2016	1.05	
39	09/18/2016 - 09/24/2016	1.05	1.11
40	09/25/2016 - 10/01/2016	1.04	1.09
41	10/02/2016 - 10/08/2016	1.04	1.09
42	10/09/2016 - 10/15/2016	1.03	1.08
43	10/16/2016 - 10/22/2016	1.03	1.08
11	10/23/2016 = 10/29/2016	1 02	1 07
44	10/20/2016 = 11/00016	1 01	1 06
40	10/30/2010 - 11/05/2010	1 01	1.00
46	11/06/2016 - 11/12/2016	1.01	1.00
47	11/13/2016 - 11/19/2016	1.00	1.05
48	11/20/2016 - 11/26/2016	1.00	1.05
49	11/27/2016 - 12/03/2016	0.99	1.04
50	12/04/2016 - 12/10/2016	0.99	1.04
51	12/11/2016 - 12/17/2016	0.99	1.04
52	12/18/2016 = 12/24/2016	0 98	1 03
24	12/25/2016 - 12/24/2016	0.90	1 01
53	TS/SS/SATP - TS/ST/SATP	0.30	T • 0 T

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2016 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL CATEGORY: 1201 US41

			MOCF: 0.91
WEEK	DATES	SF	PSCF
		==========	
1	01/01/2016 - 01/02/2016	0.95	1.04
* 2	01/03/2016 - 01/09/2016	0.93	1.02
* 3	01/10/2016 - 01/16/2016	0.92	1.01
* 4	01/17/2016 - 01/23/2016	0 92	1 01
* 5	01/24/2016 = 01/20/2016	0 01	1.00
- J	01/24/2016 - 01/30/2016	0.91	1.00
* 6	01/31/2016 - 02/06/2016	0.91	1.00
* '/	02/07/2016 - 02/13/2016	0.90	0.99
* 8	02/14/2016 - 02/20/2016	0.90	0.99
* 9	02/21/2016 - 02/27/2016	0.90	0.99
*10	02/28/2016 - 03/05/2016	0.90	0.99
*11	03/06/2016 - 03/12/2016	0.90	0.99
*12	03/13/2016 = 03/19/2016	0.91	1.00
*13	03/20/2016 = 03/26/2016	0 92	1 01
+14	03/20/2010 $03/20/2010$	0.92	1.02
~ 14	03/27/2016 = 04/02/2016	0.94	1.05
15	04/03/2016 - 04/09/2016	0.95	1.04
16	04/10/2016 - 04/16/2016	0.97	1.07
17	04/17/2016 - 04/23/2016	0.99	1.09
18	04/24/2016 - 04/30/2016	1.00	1.10
19	05/01/2016 - 05/07/2016	1.02	1.12
20	05/08/2016 - 05/14/2016	1.04	1.14
21	05/15/2016 = 05/21/2016	1 06	1 16
22	05/15/2010 = 05/21/2010	1 00	1 10
44	05/22/2016 - 05/20/2016	1.00	1.13
23	05/29/2016 - 06/04/2016	1.10	1.21
24	06/05/2016 - 06/11/2016	1.12	1.23
25	06/12/2016 - 06/18/2016	1.14	1.25
26	06/19/2016 - 06/25/2016	1.14	1.25
27	06/26/2016 - 07/02/2016	1.14	1.25
28	07/03/2016 - 07/09/2016	1.14	1.25
29	07/10/2016 = 07/16/2016	1 14	1 25
30	07/17/2016 = 07/23/2016	1 1 2	1 24
21	07/24/2016 $07/25/2016$	1 1 2	1.24
22	07/24/2016 = 07/30/2016	1.13	1.24
32	07/31/2016 - 08/06/2016	1.13	1.24
33	08/07/2016 - 08/13/2016	1.12	1.23
34	08/14/2016 - 08/20/2016	1.12	1.23
35	08/21/2016 - 08/27/2016	1.12	1.23
36	08/28/2016 - 09/03/2016	1.11	1.22
37	09/04/2016 - 09/10/2016	1.11	1.22
38	09/11/2016 - 09/17/2016	1 11	1.22
20	09/18/2016 = 09/24/2016	1 00	1 20
39	09/10/2010 = 09/24/2010	1.07	1 10
40	09/20/2016 - 10/01/2016	1.07	1.10
41	10/02/2016 - 10/08/2016	1.05	1.15
42	10/09/2016 - 10/15/2016	1.03	1.13
43	10/16/2016 - 10/22/2016	1.01	1.11
44	10/23/2016 - 10/29/2016	0.99	1.09
45	10/30/2016 - 11/05/2016	0.97	1.07
46	11/06/2016 - 11/12/2016	0.96	1.05
47	11/13/2016 - 11/19/2016	0.94	1.03
4.9	11/20/2016 = 11/26/2016	0 94	1 03
10	11/27/2016 = 12/02/2016	0.04	1 02
47	17/2//2016 - 12/03/2016	0.74	1.02
50	12/04/2016 - 12/10/2016	0.94	1.03
51	12/11/2016 - 12/17/2016	0.95	1.04
52	12/18/2016 - 12/24/2016	0.93	1.02
53	12/25/2016 - 12/31/2016	0.92	1.01

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SITE LAYOUT

Site: 1 [Littleton Road/Corbett Road]

2040 AM Peak Hour Roundabout



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MOVEMENT SUMMARY

Site: 1 [Littleton Road/Corbett Road]

2040 AM Peak Hour Roundabout

Mover	Movement Performance - Vehicles														
Mo∨ ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back (Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed				
South:	Corbett Roa	d									100				
3	L2	157	3.0	0.359	14.6	LOS B	1.8	45.6	0.80	0.84	21.9				
18	R2	296	3.0	0.495	14.3	LOS B	3.0	78.1	0.84	0.93	21.7				
Approa	ch	452	3.0	0.495	14.4	LOS B	3.0	78.1	0.83	0.90	21.8				
East: Littleton Road															
1	L2	251	3.0	0.430	7.6	LOS A	3.0	75.8	0.45	0.29	24.0				
6	T1	749	3.0	0.430	7.5	LOS A	3.0	76.4	0.45	0.28	22.9				
Approa	ch	1000	3.0	0.430	7.6	LOS A	3.0	76.4	0.45	0.28	23.2				
West: L	ittleton Road	ł													
2	T1	1279	3.0	0.659	12.7	LOS B	6.1	155.8	0.67	0.55	21.9				
12	R2	166	3.0	0.659	12.5	LOS B	6.1	155.6	0.67	0.54	22.3				
Approach		1446	3.0	0.659	12.7	LOS B	6.1	155.8	0.67	0.55	22.0				
All Vehi	cles	2898	3.0	0.659	11.2	LOS B	6.1	155.8	0.62	0.51	22.3				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). Roundabout Capacity Model: SIDRA Standard.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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SITE LAYOUT

Site: 1 [Littleton Road/Corbett Road] 2040 PM Peak Hour Roundabout



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MOVEMENT SUMMARY

Site: 1 [Littleton Road/Corbett Road]

2040 PM Peak Hour Roundabout

Mover	Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph			
South:	Corbett	Road									ant shall			
3	L2	182	3.0	0.249	7.8	LOS A	1.2	30.0	0.64	0.62	23.4			
18	R2	235	3.0	0.276	7.2	LOSA	1.4	35.0	0.64	0.61	23.3			
Approach		416	3.0	0.276	7.5	LOS A	1.4	35.0	0.64	0.61	23.3			
East: Littleton R		Road												
1	L2	258	3.0	0.663	12.6	LOS B	6.0	154.3	0.63	0.44	23.0			
6	T1	1264	3.0	0. <u>66</u> 3	12.4	LOSB	6.0	154.8	0.63	0.43	21.9			
Approa	ch	1522	3.0	0.663	12.4	LOS B	6.0	154.8	0.63	0.43	22.1			
West: L	ittleton	Road												
2	T 1	711	3.0	0.420	7.9	LOS A	2.7	69.5	0.53	0.39	23.0			
12	R2	195	3.0	0.420	7.7	LOS A	2.7	69.5	0.53	0.39	23.3			
Approach		905	3.0	0.420	7.8	LOSA	2.7	69.5	0.53	0.39	23.0			
All Vehi	cles	2843	3.0	0.663	10.2	LOS B	6.0	154.8	0.60	0.45	22.6			

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). Roundabout Capacity Model: SIDRA Standard.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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HCS 2010 Signalized Intersection Results Summary

							100	1000	~ *		500	1233	Section and	10 M			
General Information		and the second						Intersec	tion Inf	ormatio	on	1.1	4.1.4.4.1	Þ. (.			
Agency	AIM Enginering & S	Surveyin	g	·				Duration	h	0.25			470				
Analyst	MDA		Analys	is Date	8/8/20)17		Area Tvp	e	Other		4					
Jurisdiction	Lee Co.		Time F	Period	AM P	eak Hou	ir 1	PHF		0.92		44		5			
Urban Street	Littleton Road	and an	Analys	is Year	2040		ALL OF DELACOPTICE OF	Analysis Period		1> 7:0	00			4			
Intersection	Littleton/Kismet & N	JE 24	File Na	File Name 2040 Littleton NE 24th AM Peak Build Alt.xus									A 14 2	Contraction of the			
Project Description	2040 Build Alternati	ive	1		1-0.0							- 11.1.4.71.1.7					
		1000	and the second														
Demand Information				EB			WE	3	ſ	NB			SB				
Approach Movement			L	T	R	L L	T	R	L	T	R	L	Т	R			
Demand (v), veh/h			82	700	110	236	36) 237	91	344	403	227	572	117			
		K. 10-						S. Dent									
Signal Information				3	5 ¢	5	21	6		1.11	-						
Cycle, s 120.0	Reference Phase	4	2	F *	5	6	17		×		Q .		4.				
Offset, s 0	Reference Point	Green	14.5	36.5	10.0	31.	0.0	0.0			K						
Uncoordinated No	Simult. Gap E/W	On	Yellow	4.5	4.5	4.5	4.5	0.0	0.0	_			5	V			
Force Mode Fixed	Simult. Gap N/S	On	Red	2.5	2.5	2.5	2.5	0.0	0.0		5	6	7	8			
										r				0.0.7			
Timer Results	<u> </u>		EBL		EBI	WB		WBI	NBI		NBI	SBL		SBI			
Assigned Phase		******	5		2	1		6	3		8			4			
Case Number			1.1		4.0	1.1		4.0	1.1	3.0		1.1	_	4.0			
Phase Duration, s			21.5		43.5	21.5	<u>}</u>	43.5	17.0) :	38.0		2	38.0			
Change Period, (Y+R	c), S		7.0		7.0	7.0		7.0	7.0 7.0		7.0			7.0			
Max Allow Headway (MAH), s		3.1		0.0	3.1		0.0	3.1	4	3.1			3.1			
Queue Clearance Time	e (gs), s		5.1		z	13.8	3		0.1		31.0	0.0		25.6			
Green Extension Time	(ge), s		0.1		0.0	0.0		0.0	0.0		0.0	0.0		2.1			
Phase Call Probability			1.00			1.00			1.00)	1.00	1.00)	1.00			
Max Out Probability			0.00	. L		1.00)L_		0.74	+	1.00	1.00		0.01			
Movement Group Res	sults			EB			WB	1	id and	NB	** * ** *		SB				
Approach Movement			L	Т	R	L	Т	R	L	Т	R	L	Т	R			
Assigned Movement	ne i unu nues	-	5	2	12	1	6	16	3	8	18	7	4	14			
Adjusted Flow Rate (/). veh/h		89	451	430	257	345	304	99	374	438	247	385	364			
Adjusted Saturation Fl	ow Rate (s), veh/h/l	n	1757	1845	1757	1757	1845	1600	1757	1756	1563	1757	1845	1735			
Queue Service Time (<i>as</i>). s		3.7	27.0	27.0	11.8	19.2	19.6	4.7	10.6	29.0	10.0	23.5	23.6			
Cycle Queue Clearance	e Time (<i>a</i> _c), s		3.7	27.0	27.0	11.8	19.2	19.6	4.7	10.6	29.0	10.0	23.5	23.6			
Green Ratio (g/C)			0.42	0.30	0.30	0.42	0.30	0.30	0.34	0.26	0.38	0.34	0.26	0.26			
Capacity (c), veh/h			368	561	534	311	561	487	238	907	593	359	477	448			
Volume-to-Capacity Ra	atio (X)	data ndenomi	0.242	0.804	0.804	0.825	0.615	0.624	0.415	0.412	0.739	0.687	0.809	0.811			
Back of Queue (Q), ft	/In (95 th percentile))	68.8	504.8	475.6	258.9	362.6	323.9	91	203.7	419.4	98.6	441.1	413.5			
Back of Queue (Q), v	eh/In (95 th percenti	ile)	2.7	19.7	19.0	10.1	14.2	13.0	3.6	8.0	16.8	3.9	17.2	16.5			
Queue Storage Ratio (RQ) (95 th percent	tile)	0.46	0.00	0.00	0.58	0.00	0.00	0.30	0.00	1.01	0.33	0.00	0.00			
Uniform Delay (d1), s	/veh	a	23.1	38.4	38.5	28.2	35.7	35.9	30.7	36.9	32.1	33.8	41.7	41.8			
Incremental Delay (d :	0.1	11.6	12.1	15.4	5.0	5.9	0.4	0.1	4.3	4.5	9.3	10.1					
Initial Queue Delay (d	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Control Delay (d), s/v	eh		23.2	50.1	50.6	43.7	40.7	41.8	31.2	37.0	36.4	38.4	51.0	51.8			
Level of Service (LOS)			С	D	D	D	D	D	C	D	D	D	D	D			
Approach Delay, s/veh	47.8		D	41.9		D	36.	1	D	48.2	2	D					
Intersection Delay, s/ve	eh / LOS	анцан (т. к. с. ж.) Спорти и стан		: విజినా దు	43	3.7	an xa . ⁴ taa	2. 98.098.00.00		mon salo e	194	D D					
						S. A. S.		18									
Multimodal Results	B	C. Mark I Have	ac antick to ber	EB		Arts & second	WB		NB			-	SB				
Pedestrian LOS Score	/LOS		3.0		С	2.8		С	2.8		С	2.8		C			
Bicycle LOS Score / LO	OS		1.3		Α	1.2		Α	1.2	1	Α	1.3		A			

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HCS 2010 Signalized Intersection Results Summary

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General Inform	nation			_					Intersec	tion Inf	ormatio	on		A. S. A. J.	SIN.
Agency		AIM Engineeri	ma doc	Surver	Asna		The Party of Street		Duration	, h	0.25				L
Analyst		MDA 🤍	<u> </u>	Analy	sis Date	8/8/20	017	3	Area Typ	e	Other	-	4		4
Jurisdiction		Lee Co.	- NO 1221. MINT / 100	Time I	Period	PM P	eak Hou	ır	PHF		0.92				1
Urban Street		Littleton Road		Analys	sis Year	2040			Analysis	Period	1> 7:	00	1		
Intersection		Littleton/Kismet & N	IE 24	File N	ame	2040	Littleton	NE 2	4th PM F	eak Bui	ld Alt.xu	ıs		5112	
Project Descrip	tion	2040 Build Alternati	ive								2.		10	4144	
		al solution of the													
Demand Inform	nation				EB		1	W	3	1	NB	-	-	SB	
Approach Move	ement	and frances that there is		L	T	R	L	Т	R	L	Т	R	L	T	R
Demand (v), v	eh/h			117	360	91	403	70	0 227	110	572	236	237	344	82
Signal Informa	tion			1	T				T III				- 1	112	
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Eoroo Modo	Fixed	Simult. Gap E/W	On	Ped	4.5	4.5	4.5	4.5	4.5	0.0			V		Y
	Fixed	Simult. Gap N/S	On	Reu	2.3	2.0	2.0	2.5	2.5	0.0		9	8		- A
Timer Results	-	and the second		FBI		FBT	[WB	10	WBT	NB	1	NBT	SBI		SBT
Assigned Phase	9	ACCORE ON CONCERNMENT OF THE OWNER		5		2	1		6	3		8	7	-	4
Case Number	Torona and a mercura	n- Cana Internetienen Kunne erste same far den den staten seinen som seiner		1.1		4.0	1.1	anna i	4.0	1.1		3.0	1.1		4.0
Phase Duration	, S			14.0		35.5	30.0		51.5	22.5	5	32.0	22.5	;	32.0
Change Period,	(Y+R	c), S		7.0		7.0	7.0		7.0	7.0		7.0	7.0		7.0
Max Allow Head	dway (A	ЛАН), s		3.1		0.0	3.1		0.0	3.1	¥	3.1	3.1	1	3.1
Queue Clearan	ce Time	(gs), s	-	8.6			24.1	1	200	7.8		22.4	15.7	,	16.3
Green Extensio	n Time	(ge), s		0.0	· · · · A · · A · ·	0.0	0.0		0.0	0.1		1.1	0.0		2.3
Phase Call Prol	oability			1.00)	-	1.00			1.00		1.00	1.00		1.00
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Movement Gro	oup Res	sults			EB		-	WB		ľ	NB			SB	
Approach Move	ment	a : a harden and an an a second and a second and a second	- 100-100-00	L	T	R	L	T T	R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	Rate (v), veh/h	****	127	252	238	438	526	482	120	622	257	258	237	226
Adjusted Satura	ation Flo	w Rate (s), veh/h/l	n	1757	1845	1716	1757	1845	1689	1757	1756	1563	1757	1845	1722
Queue Service	Time (g	7 s), S		6.6	14.5	14.8	22.1	30.1	30.1	5.8	20.4	14.1	13.7	14.0	14.3
Cycle Queue C	learance	e Time (<i>g</i> _c), s		6.6	14.5	14.8	22.1	30.1	30.1	5.8	20.4	14.1	13.7	14.0	14.3
Green Ratio (g	/C)			0.30	0.24	0.24	0.45	0.37	0.37	0.34	0.21	0.40	0.34	0.21	0.21
Capacity (c), v	eh/h	210. Asoline Divers		219	438	408	499	684	626	353	732	625	304	384	359
Volume-to-Capa	acity Ra	tio(X)		0.580	0.575	0.585	0.878	0.769	0.769	0.339	0.850	0.410	0.848	0.618	0.629
Back of Queue	(Q), ft/	In (95 th percentile)		134.1	293.4	276.7	420.1	531.0	6 485.1	111.6	376.1	221.3	297.7	273.9	258.8
Back of Queue	(Q), ve	eh/In (95 th percenti	le)	5.2	11.5	11.1	16.4	20.8	19.4	4.4	14.7	8.9	11.6	10.7	10.4
Queue Storage	Ratio (RQ) (95 th percent	ile)	0.89	0.00	0.00	0.93	0.00	0.00	0.37	0.00	0.53	0.99	0.00	0.00
Uniform Delay (d 1), s/	/veh		33.5	40.4	40.5	26.8	33.2	33.2	29.5	45.7	25.8	33.4	43.2	43.3
Incremental Del	ay (d 2), s/veh		2.5	5.4	6.0	15.6	8.1	8.8	0.2	8.9	0.2	18.7	2.2	2.7
Initial Queue De	elay (d .	3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/ve	eh		36.0	45.8	46.5	42.4	41.3	42.0	29.7	54.6	26.0	52.1	45.4	45.9
Level of Service	e (LOS)			D	D	D	D			C			D	D	
Approach Delay	, s/veh	/ LUS		44.1		D	41.9	1	D	44.3	5	D	47.9		
intersection Del	ay, s/ve			L		44	1.0				-	1200	U '		
Multimodal Po	sulte		- aller	1 - 1	EP						ND	-		SP	
Pedestrian LOS	Score	/1.05		30	ED	C	20	VVD	C	20	DIND	<u> </u>	20	30	
Bicycle LOS Sc	ore /I C	IS IS	a wa are:	1.0		Δ	2.0		Δ	1.9		Δ	2.9		
LOUGE LOU OU	JIG / LC			1.0	-	~	1./		~	1.0		~	E Fr I		~

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APPENDIX B

Northern Alternative

LEGEND

EXISTING R.O.W MAINTAINED R.O. EASEMENT LINE PROPOSED R.O.W.



PROPOSED PAVEMENT ROPOSED SIDEWALK EXISTING PAVEMENT TO BE REMOVED DRIVEWAY CONNECTION



Public Meeting

Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study Northern Alternative











APPENDIX C

Southern Alternative

LEGEND

EXISTING R.O.W MAINTAINED R.O. EASEMENT LINE PROPOSED R.O.W.



PROPOSED PAVEMENT ROPOSED SIDEWALK EXISTING PAVEMENT TO BE REMOVED DRIVEWAY CONNECTION



Public Meeting

Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study Southern Alternative











APPENDIX D

Public Meeting Technical Memorandum



Lee County, Florida

No. CN160459DLK

Technical Memorandum

Public Meeting January 9, 2018



January 2018

Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study

Lee County, Florida

No. CN160459DLK

Technical Memorandum Public Meeting – January 9, 2018

Submitted to: Lee County Department of Transportation

> Submitted by: Cella Molnar & Associates, Inc.

> > January 2018

Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study Lee County, Florida

Public Meeting

The Lee County Department of Transportation, held a public meeting on January 9, 2018 at the Northside Baptist Church Worship Center at 8250 Littleton Road, North Fort Myers, Florida for the Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study.

A newsletter announcing the public meeting was mailed to property owners within 300 feet on either side of the project area. The newsletter and mailing list are provided in Appendix A. An email with the newsletter as an attachment was sent to elected officials and local agencies to notify them about the public meeting. The meeting was advertised in the *News Press*. A media release was sent to all local media. The email distribution lists, advertisements, and press release are provided in Appendix B.

A total of 62 attendees signed in at the registration table. Members of the public were provided a meeting handout and comment form upon arrival. Displays of the design were available for review and project representatives answered questions and discussed the project. The sign-in sheets and handouts are provided in Appendix C. The displays presented at the meeting are provided in Appendix D.

Members of the public were provided comment forms at the meeting in order to have their opinion recorded as public record. The public was also able to submit their comments online or mail them in until January 23, 2018 to the email address and mailing address provided on the comment forms. There were a total of 25 written comments received from the meeting. A summary of the comments follows. All comments are contained in this memorandum and are a part of the public meeting record. Copies of written comments are provided in Appendix E.

Comment Summary

- Southern route is a no brainer.
- Southern plan would be most beneficial.
- I vote for the southern route.
- I vote for the southern project.
- Do the southern alternative plan.
- I want the southern alternative.
- No new road, move it south on open land.
- No way on this project, clean up North Fort Myers.
- I think the southern route is best.
- I prefer the southern route.
- 4 lanes going into a 2 lane does not work very well.
- Increased noise will greatly adversely affect the quality of life for thousands.
- I prefer southern alternative.
- We like the southern alternative.
- Would like to see you move the roundabout more to the south.
- Please move the roundabout to the south 60-100', we will never get out if the roundabout is there.
- We will not be able to pull out of our driveway with these trailers in the proposed plan.
- Southern alternative will provide the most beneficial and effective transportation selection.
- I want southern alternative.
- We prefer the southern route.
- I would prefer the "do nothing" plan.
- If residents living in the three communities along Littleton do not have center turn lane, getting into and out of the communities would be very dangerous.
- How are you going to control the traffic this will bring?
- Is this project cost prohibitive for the City?

Summary

The public meeting was advertised consistent with federal and state requirements and was conducted consistent with the Americans with Disabilities Act of 1990.

This meeting was held to give all interested people the right to understand the project and give their comments to the Lee County Department of Transportation. Public participation at the meeting was solicited without regard to race, color, religion, sex, age, national origin, disability or family status.

APPENDIX A



Lee County Department of Transportation P.O. Box 398 Fort Myers, FL 33902



Newsletter 1

Lee County, in conjunction with the City of Cape Coral, is developing and evaluating alternative realignments for Kismet Parkway and Littleton Road at NE 24th Avenue. Littleton Road and NE 24th Avenue are on the Lee County Metropolitan Planning Organization's 2040 Cost Feasible Road and Highway Projects Long Range Transportation plan to be widened to four lanes. As growth continues in the area, traffic continues to increase. The Littleton Road/Kismet Parkway intersection needs to be realigned to improve system continuity and better accommodate traffic. The traffic evaluation shows that on Littleton Road, east of NE 24th Avenue, the 2017 Average Annual Daily Traffic (AADT) is 5,500 vehicles and it is predicted that in 2040 the AADT will be 20,600 vehicles.

The typical section or what the road would look like includes two 11-foot-wide lanes in each direction with a 26.5-foot-wide median. The roadway design also includes four-foot-wide bike lanes and six-foot-wide sidewalks.



The study includes evaluation of alternative intersection configurations at the NE 24th Avenue and Corbett Road intersections. A preferred realignment concept will be determined based on engineering analysis, traffic operations/safety, cost, environmental considerations, and public involvement. The study is expected to be complete in summer 2018.

Littleton Road/Kismet Parkway at NE 24th Ave Realignment Study

Join us for a Public Meeting

Date: Tuesday, January 9, 2018 Time: 5 p.m. to 7 p.m. Location: Northside Baptist Church Worship Center 8250 Littleton Road North Fort Myers, FL 33903



We urge you to participate in this study and invite your comments and questions. Please contact: **Kris Cella**

Cella Molnar & Associates, Inc. 1631 Hendry Street Fort Myers, FL 33901 (239) 337-1071 | <u>kcella@cella.cc</u>



Littleton Road/Kismet Parkway at NE 24th Ave Realignment Study

January 2018

Littleton Road/Kismet Parkway Realignment Study



Alignment Alternatives

There are two alternatives for the Littleton Road/Kismet Parkway at NE 24th Avenue realignment. Existing access to properties will change due to the addition of a median, result of widening the road. This study is evaluating two alignment, or "build" alternatives for this project.

The Northern Alternative realigns Kismet Parkway from NE 22nd Avenue to the intersection of Littleton Road and NE 24th Avenue. The Southern Alternative realigns Littleton Road from the intersection of Kismet Parkway and NE 24th Avenue to Corbett Road.

The no-build alternative is an option throughout this study.

Littleton Road/Kismet Parkway Realignment Study

LEE COUNTY LITTLETON ROAD/KISMET PARKWAY at NE 24TH AVE REALIGNMENT STUDY

STRAP	SITEADDR	NAME	OTHERS	ADDRESS	СІТҮ	STATE	ZIP	COUNTRY
294324C3022480130	2226 NE 24TH TER	ACAMPORA ALDO TR	FOR LUIGI ACAMPORA TRUST	16138 92ND ST	HOWARD BEACH	NY	11414	
324324C2022420090	2122 KISMET PKWY E	BAKER EDWARD T JR TR +	BAKER CONSTANCE T TR FOR BAKER FAMILY TRUST	1308 SE 27TH ST	CAPE CORAL	FL	33904	
33432400000050100	9521 LITTLETON RD	BALLARD DANNY G + DEBRA R		9521 LITTLETON RD	NORTH FORT MYERS	FL	33903	
324324C2022420270	2222 KISMET PKWY E	BELCHER GLADYS		1722 SW 4TH AVE	CAPE CORAL	FL	33914	
334324C100001002A	CORBETT RD	BRAND PHYLLIS W + EVENSON MARK +	EVENSON THOMAS A + EVENSON KURT A T/C	501 SW 8TH TER	CAPE CORAL	FL	33991	
294324C3022480190	2310 NE 24TH TER	BUCKLAND RHEA		PO BOX 153102	CAPE CORAL	FL	33915	
294324C3022480010	2202 NE 24TH TER	BULCC LLC		1423 SE 10TH ST	CAPE CORAL	FL	33990	
324324C2022420050	2114 KISMET PKWY E	CARLE LENETTE SANTIAGO		141 NORFOLK ST APT 6C	NEW YORK	NY	10002	
294324C3022480110	2222 NE 24TH TER	CARLSON KARL LEE		140 MOREWOOD AVE APT 2	PITTSBURGH	PA	15213	
294324C3022480210	2314 NE 24TH TER	CC FLORIDA LAND HOLDINGS LLC		20900 NE 30TH AVE # 514	AVENTURA	FL	33180	
294324C3022480170	2306 NE 24TH TER	CITY OF CAPE CORAL		PO BOX 150027	CAPE CORAL	FL	33915	
324324C2022480290/								
324324C2022480330 /								
324324C2022480370 /								
324324C2022480410 /								
324324C2022480440 /	2325/2317/2309/2301/222							
324324C2022480350 /	3/2313/2209							
324324C2022480510	KISMET PKWY E	CITY OF CAPE CORAL	C/O REAL ESTATE DIVISION	PO BOX 150027	CAPE CORAL	FL	33915	
2843240000060000	9880 LITTLETON RD	COLLIER JULIE ANN		9880 LITTLETON RD	NORTH FORT MYERS	FL	33903	
2843240000060000	9810 LITTLETON RD	CROCKER CLAYTON M + SARA H	CROCKER MICHAEL K 1/2	9810 LITTLETON RD	NORTH FORT MYERS	FL	33903	
2843240000060000	9780 LITTLETON RD	CROCKER MICHAEL + PATRICIA		9780 LITTLETON RD	NORTH FORT MYERS	FL	33903	
2843240000060000 /								
2843240000060000	9760/ 9900 LITTLETON RD	CROCKER W W JR + CAROL J TR		9760 LITTLETON RD	NORTH FORT MYERS	FL	33903	
324324C2022420130	2130 KISMET PKWY E	DARTLAND WALTER T		2086 WILDRIDGE DR	TALLAHASSEE	FL	32303	
294324C3022480250	2322 NE 24TH TER	DEL-CARMEL INVESTMENTS LLC		PO BOX 5309	SLIDELL	LA	70469	
33432400000020000	1818 CORBETT RD	ECKERT STEVEN J		1818 CORBETT RD	CAPE CORAL	FL	33909	
33432400000020000	1828 CORBETT RD	EYSTER MICHAEL + ROSE MARIE		1828 CORBETT RD	CAPE CORAL	FL	33909	
324324C2022380410	2314 NE 24TH AVE	FLORES DAISY TR	FOR DAISY K GARCIA REVOCABLE TRUST	12300 SW 151ST ST #186	MIAMI	FL	33186	
28432400000050000	9500 LITTLETON RD	FLORIDA POWER + LIGHT CO	C/O PROPERTY TAX-PSX-JB	700 UNIVERSE BLVD	JUNO BEACH	FL	33408	
33432400000040000	9631 LITTLETON RD	GETTS JOHNNY C		9631 LITTLETON RD	NORTH FORT MYERS	FL	33903	
324324C2022420110	2126 KISMET PKWY E	HAARBAUER ELIZABETH +	BARNEY MELISSA	2126 KISMET PKWY E	CAPE CORAL	FL	33909	
324324C2022420150	2134 KISMET PKWY E	HERRERA DIANA		14756 NW 88TH AVE	MIAMI LAKES	FL	33018	
324324C2022380330	2317 NE 23RD PL	HUGHES CAREY		60 SW 13TH ST	MIAMI	FL	33130	
33432400000020000	1814/1816 CORBETT RD	INCARDONA MADELINE M		1816 CORBETT RD	CAPE CORAL	FL	33909	
294324C3022480090	2218 NE 24TH TER	IRWIN ELLEN + RICHARD II		848 W BAY AVE BLDG D	BARNEGAT	NJ	08005	
33432400000050000	9541 LITTLETON RD	JONES DON E		9541 LITTLETON RD	NORTH FORT MYERS	FL	33903	
324324C2022420170	2202 KISMET PKWY E	KCW 12TH LLC		728 PINE ISLAND RD #4	CAPE CORAL	FL	33993	
324324C2022420250	2218 KISMET PKWY E	KIESINGER IRMGARD		4908 SW 22ND PL	CAPE CORAL	FL	33914	
334324C1000010020	2313 NE 24TH AVE	KISMET INDUSTRIAL PARK LLC		2040 VIRGINIA AVE	FORT MYERS	FL	33901	
294324C3022480230	2318 NE 24TH TER	KUHL BEATRICE		110 HARRIETT ST	WANAQUE	NJ	07465	
28432400000050000	9680 LITTLETON RD	LEE COUNTY		PO BOX 398	FORT MYERS	FL	33902	
28432400000050000	9650 LITTLETON RD	LEE COUNTY DIST SCHOOL BOARD		2855 COLONIAL BLVD	FORT MYERS	FL	33966	
2843240000060000	9980 LITTLETON RD	LEE COUNTY ELECTRIC CO-OP INC		PO BOX 3455	NORTH FORT MYERS	FL	33918	
33432400000010000	9981 LITTLETON RD	LEE COUNTY ELECTRIC CO-OP INC		PO BOX 3455	NORTH FORT MYERS	FL	33918	
294324C3022480050	2210 NE 24TH TER	LEONIAK TADEUSZ + KRYSTYN		1204 SCHOOL ST	WEBSTER	MA	01570	

LEE COUNTY LITTLETON ROAD/KISMET PARKWAY at NE 24TH AVE REALIGNMENT STUDY

STRAP	SITEADDR	NAME	OTHERS	ADDRESS	СІТҮ	STATE	ZIP	COUNTRY
33432400000030000 /								
33432400000030000	9671/9691 LITTLETON RD	LIGHTFOOT LOIS C		9691 LITTLETON RD	NORTH FORT MYERS	FL	33903	
324324C2022420190	2206 KISMET PKWY E	M T LOTZ LLC		912 SE 46TH LN # 204	CAPE CORAL	FL	33904	
324324C2022420010	2106 KISMET PKWY E	MACALUSO MICHAEL &	MACALUSO CHRISTINE M	2106 KISMET PKWY E	CAPE CORAL	FL	33909	
294324C3022480150	2302 NE 24TH TER	MACKENZIE RONALD N		60 BRANCH AVE	PAINESVILLE	ОН	44077	
324324C2022420410	2307 NE 23RD TER	MCDONNELL EDWARD P TR	FOR MC K REVOCABLE LIVING TRUST	37 W BELLE ISLE RD NE	ATLANTA	GA	30342	
33432400000050000	9591 LITTLETON RD	MCKISSICK DANIEL		9591 LITTLETON RD	NORTH FORT MYERS	FL	33903	
324324C2022420330	2304 KISMET PKWY E	METZROTH MANUEL + KRISTINA		2304 KISMET PKWY E	CAPE CORAL	FL	33909	
294324C3022480070	2214 NE 24TH TER	NAMUO STEPHANIE	KIMGDOM TRUST COMPANY CUST	1105 STATE ROUTE 121 N STE B	MURRAY	KY	42071	
324324C2022420310	2230 KISMET PKWY E	NOONAN MICHAEL		2230 KISMET PKWY E	CAPE CORAL	FL	33909	
294324C3022480030	2206 NE 24TH TER	OGLES JACOB + JENNIFER		2206 NE 24TH TER	CAPE CORAL	FL	33909	
324324C2022380310	2313 NE 23RD PL	RIESEN DANIEL + DONNA		2313 NE 23RD PL	CAPE CORAL	FL	33909	
324324C2022420210	2210 KISMET PKWY E	RINGS MICHAEL G +	RINGS THOMAS D + TAWNEY PATRICIA	5628 KINGSLEY DR	ROCKFORD	MI	49341	
324324C2022420290	2226 KISMET PKWY E	RIVERSIDE GROUP LLC		1753 VENUS DR	SANIBEL	FL	33957	
324324C2022420370	2312 KISMET PKWY E	ROQUE MARLENY CANETE		2312 KISMET PKWY E	CAPE CORAL	FL	33909	
324324C2022480550	2201 KISMET PKWY E	RUIZ HUMBERTO RAFAEL		12085 SW 18TH ST APT 1	MIAMI	FL	33175	
33432400000050000	9571 LITTLETON RD	SHEFFLER CHARLES W		9571 LITTLETON RD NW	NORTH FORT MYERS	FL	33903	
294324C3022480270	2326 NE 24TH TER	SMITH PATRICIA A		6640 SW 85TH PL	OCALA	FL	34476	
324324C2022480390	2305 KISMET PKWY E	SOUSA MANUEL D + KATHLEEN M		18 OVERLOOK CIR	HUDSON	NH	3051	
324324C2022480530	2205 KISMET PKWY E	SPEITH NANCY L + JAMES K		2205 KISMET PKWY E	CAPE CORAL	FL	33909	
33432400000020000	1780 CORBETT RD	TODD ANDREA A		1780 CORBETT RD	CAPE CORAL	FL	33909	
324324C2022380350	2321 NE 23RD PL	TORRES JOSE L + JUANITA		7673 NW 182ND TER	HIALEAH	FL	33015	
324324C2022480310	2321 KISMET PKWY E	TRINH HANG		2321 KISMET PKWY E	CAPE CORAL	FL	33909	
324324C2022420230	2214 KISMET PKWY E	TRINH HUNG		4107 NE 105TH AVE	PORTLAND	OR	97220	
324324C2022380370	2322 NE 24TH AVE	TRINH PHONG THANH		2322 NE 24TH AVE	CAPE CORAL	FL	33909	
324324C2022480490	2213 KISMET PKWY E	TUCKER-GAINER MILDRED G		1989 BISCAYNE DR	WINTER PARK	FL	32789	
324324C2022420030	2110 KISMET PKWY E	WARREN EDWINA S	C/O GEORGE A WARREN JR	18531 SW 92ND PL	MIAMI	FL	33157	
324324C2022480470	2217 KISMET PKWY E	WELLNITZ SCOTT R		2217 KISMET PKWY E	CAPE CORAL	FL	33909	
33432400000020000	1820 CORBETT RD	WISE TIMOTHY J + MARGARET E		1820 CORBETT RD	CAPE CORAL	FL	33909	
		CELLA MOLNAR & ASSOCIATES, INC.		1631 HENDRY STREET	FORT MYERS	FL	33901	
324324C2022420070	2118 KISMET PKWY E	KNOWLES MICHAEL A		PO BOX 3404	NASSAU			BAHAMAS
		POSTAL CUSTOMER		1814 CORBETT RD	CAPE CORAL		33909	
		POSTAL CUSTOMER		2122 KISMET PKWY E	CAPE CORAL		33909	
		POSTAL CUSTOMER		2210 NE 24TH TER	CAPE CORAL		33909	
		POSTAL CUSTOMER		2218 NE 24TH TER	CAPE CORAL		33909	
		POSTAL CUSTOMER		2222 KISMET PKWY E	CAPE CORAL		33909	
		POSTAL CUSTOMER		2307 NE 23RD TER	CAPE CORAL		33909	
		POSTAL CUSTOMER		2310 NE 24TH TER	CAPE CORAL		33909	
		POSTAL CUSTOMER		2317 NE 23RD PL	CAPE CORAL		33909	
		POSTAL CUSTOMER		2322 NE 24TH TER	CAPE CORAL		33909	
		POSTAL CUSTOMER		9500 LITTLETON RD	NORTH FORT MYERS		33903	
		POSTAL CUSTOMER		9571 LITTLETON RD	NORTH FORT MYERS		33903	
		POSTAL CUSTOMER		9650 LITTLETON RD	NORTH FORT MYERS		33903	
		POSTAL CUSTOMER		9680 LITTLETON RD	NORTH FORT MYERS		33903	
		POSTAL CUSTOMER		9900 LITTLETON RD	NORTH FORT MYERS		33903	
		POSTAL CUSTOMER		9980 LITTLETON RD	NORTH FORT MYERS		33903	

APPENDIX B



Lee County Littleton/Kismet Realignment Study

ELECTED OFFICIALS

Salutation	First Name	Last Name	Title	Agency	Email
State of Florida			·		·
The Honorable	Denise	Grimsley	State Senator District 26	Florida State Senate	grimsley.denise@flsenate.gov
The Honorable	Lizbeth	Benacquisto	State Senator District 27	Florida State Senate	benacquisto.lizbeth@flsenate.gov
The Honorable	Kathleen	Passimodo	State Senator District 28	Florida State Senate	passidomo.kathleen@flsenate.gov
The Honorable	Ray	Rodrigues	State Representative District 76	Florida State House of Representatives	Ray.Rodrigues@myfloridahouse.gov
The Honorable	Dane	Engle	State Representative District 77	Florida State House of Representatives	Dane.Eagle@myfloridahouse.gov
The Honorable	Heather	Fitzehnagen	State Representative District 78	Florida State House of Representatives	Heather.Fitzenhagen@myfloridahouse.gov
The Honorable	Matt	Caldwell	State Representative District 79	Florida State House of Representatives	matt.caldwell@myfloridahouse.gov
Lee County					
The Honorable	John	Manning	Commissioner District 1	Lee County Board of Commissioners	dist1@leegov.com
The Honorable	Cecil	Pendergrass	Commissioner District 2	Lee County Board of Commissioners	dist2@leegov.com
The Honorable	Larry	Kiker	Commissioner District 3	Lee County Board of Commissioners	dist3@leegov.com
The Honorable	Brian	Hamman	Commissioner District 4	Lee County Board of Commissioners	dist4@leegov.com
The Honorable	Frank	Mann	Commissioner District 5	Lee County Board of Commissioners	dist5@leegov.com
Sheriff	Mike	Scott	Sheriff	Lee County	mscott@sheriffleefl.org
The Honorable	Linda	Doggett	Clerk of the Circuit Court	Lee County	ldoggett@leeclerk.org
The Honorable	Kenneth M.	Wilkinson, C.F.A.	Property Appraiser	Lee County	wilkinsonk@leepa.org
The Honorable	Larry D.	Hart	Tax Collector	Lee County	larryh@leetc.com
The Honorable	Tommy	Doyle	Supervisor of Elections	Lee County	elections@lee.vote
The Honorable	Mary	Fischer	Board Member District 1 - Chairman	Lee County School Board District 1	MaryBF@leeschools.net
The Honorable	Melisa W.	Giovannelli	Board Member District 2	Lee County School Board District 2	MelisaWG@leeschools.net
The Honorable	Chris N.	Patricca	Board Member District 3	Lee County School Board District 3	ChrisNP@leeschools.net
The Honorable	Steven K.	Teuber	Board Member District 4	Lee County School Board District 4	StevenKT@leeschools.net
The Honorable	Pamela H.	LaRiviere	Board Member District 5	Lee County School Board District 5	PamelaHL@leeschools.net
The Honorable	Jane E.	Kuckel, PhD	Board Member District 6 - Vice Chairman	Lee County School Board District 6	JaneEK@leeschools.net
The Honorable	Cathleen O'Daniel	Morgan	Board Member District 7	Lee County School Board District 7	CathleenOM@leeschools.net
City of Cape Coral					
The Honorable	Marni	Sawicki	Mayor	City of Cape Coral	msawicki@capecoral.net
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The Honorable	Richard	Leon	Councilman District 4	City of Cape Coral	rleon@capecoral.net
The Honorable	Rana	Erbrick	Councilwoman District 5	City of Cape Coral	rerbrick@capecoral.net
The Honorable	Rick	Williams	Councilman District 6	City of Cape Coral	rwilliam@capecoral.net

Salutation	First Name	Last Name	Title	Agency	Email
The Honorable	Jessica	Cosden	Councilwoman District 7	City of Cape Coral	jcosden@capecoral.net



Lee County Littleton/Kismet Realignment Study

AGENCIES

Salutation	First Name	Last Name	Title	Agency	Email
Lee County			·		·
Mr.	Roger	Desjarlais	County Manager	Lee County	rdesjarlais@leegov.com
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Mr.	Robert	Farmer	Director	Lee County - Public Safety	RFarmer@leegov.com
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Mr.	Roger	Mercado	Department Director	Lee County - Human Services	RMercado@leegov.com
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Mr.	David	Murphy	DOT Deputy Director	Lee County Department of Transportation (LCDOT)	DMurphy@leegov.com
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Mr.	Dirk	Danley	Public Works Engineering Project Manager Sr.	Lee County Department of Transportation (LCDOT)	DDanley@leegov.com
Mr.	Douglas	Padgett, Jr.	Public Works Engineering Project Manager	Lee County Department of Transportation (LCDOT)	DPadgettJr@leegov.com
Mr.	Lee	Werst	Public Works Engineering Project Manager	Lee County Department of Transportation (LCDOT)	LCWerst@leegov.com
Mr.	Daniel	Kirkpatrick	Public Works Planning Project Manager	Lee County Department of Transportation (LCDOT)	DKirkpatrick@leegov.com
Mr.	Sean	Lingwall	Traffic Engineer	Lee County Department of Transportation (LCDOT)	SLingwall@leegov.com

Salutation	First Name	Last Name	Title	Agency	Email
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Captain	Conner	Cardwell	Southern Region Commander	Florida Highway Patrol	connercardwell@flhsmv.gov
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Ms.	Roger	Lloyd	Assistant Director Transportation South Zone	Lee Schools Transportation	RogerWL@leeschools.net
Mr.	James	Buchanan	Assistant Director Transportation West Zone	Lee Schools Transportation	JamesLB@leeschools.net
City of Cape Coral					
Ms.	Pearl	Taylor	Legislative Executive Assistant	City of Cape Coral	ptaylor@capecoral.net
Mr.	John	Szeriag	City Manager	City of Cape Coral	jszerlag@capecoral.net
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Ms.	Rebecca	Van Deutekom	City Clerk	City of Cape Coral	ctyclk@capecoral.net
Mr.	William	Corbett, P.E., PTOE	City Traffic Engineer	City of Cape Coral - Engineering	wcorbett@capecoral.net
Mr.	Charlie	Kruvelis	Traffic Operations Supervisor	City of Cape Coral - Engineering	ckruveli@capecoral.net
Mr.	Vincent A.	Cautero	Community Development Director	City of Cape Coral - Community Development	vcautero@capecoral.net
Mr.	Paul	Clinghan, P.E.	Public Works Director	City of Cape Coral - Public Works	pclinghan@capecoral.net
Mr.	Jeff	Pearson	Utilities Director	City of Cape Coral - Utilities	jpearson@capecoral.net
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Ms.	Connie	Jarvis	Manager	City of Cape Coral - Environmental Resources	cjarvis@capecoral.net
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Chief	David	Newlan	Chief of Police	City of Cape Coral Police Department	dnewlan@capecoral.net
Chief	Mike	Russell	Chief of Fire	City of Cape Coral Fire Department	mrussell@capecoral.net
Ms.	Connie	Barron	Public Information Manager	City of Cape Coral	cbarron@capecoral.net
Mr.	Dana	Burnett	Economic Development Manger	City of Cape Coral	dbrunett@capecoral.net
Mr.	David	Hyyti	Development Services Manager	City of Cape Coral	<u>dhyyti@capecoral.net</u>
Ms.	Jenna	White	Administrative Secretary	City of Cape Coral Fire Department	jwhite@capecoral.net



INTERESTED PARTIES

Salutation	First Name	Last Name	Title	Agency	Phone Number	Email
Lee County						
НОА						
Mr.	Jim	Logan	Manager	Horizon Village - 9200 Littleton Road, North Fort Myers, FL 33903	239-997-1140	HorizonReception@gmail.com
Ms.	Bonnie	Allen	General Manager	Six Lakes Country Club - 9151 Littleton Road, North Fort Myers, FL 33903	239-995-0595	sixlakescountryclub@gmail.com
				Windmill Village - 16131 North Cleveland Avenue, North Fort Myers, FL 33903	866-446-9490	
Ms.	Ronda	Kontak	Manager	Serendipity - 8791 Littleton Road, North Fort Myers, FL 33903	239-997-7144	R.Kontak@suncommunities.com
SCHOOLS						
Ms.	Monica	Broughton	Principal	Dr. Carrie D. Robinson Littleton Elementary School - 700 Hutto Rd, North Fort Myers, FL 33903	239-995-3800	MonicaTB@leeschools.net
Mr.	Jeff	Sanders	Principal Assistant	Dr. Carrie D. Robinson Littleton Elementary School - 700 Hutto Rd, North Fort Myers, FL 33903	239-995-3800	JeffLSa@LeeSchools.Net
CHURCHES						
				Caloosa Congregation (Jehovah's Witnesses Kingdom) - 701 Hutto Rd, North Fort Myers, FL 33903	239-656-3036	
Mr.	Dan	Lumadue	Lead Pastor	King's Way Christian Center - 2016 Kismet Pkwy E, Cape Coral, FL 33909	239-458-2700	info@mykingsway.org
BUSINESSES						
Mr.	Clifford	Bender		LCEC Lee Substation - 9500 Littleton Road, North Fort Myers, FL 33903	239-656-2414	clifford.bender@lcec.net
				Sunoco Gas Station - 8671 Littleton Road, North Fort Myers, FL 33903	239-995-2300	
				7-Eleven - 15991 N. Cleveland Avenue, North Fort Myers, FL 33903	239-995-4362	
MISCELLANE	OUS					
City of Cape C	Coral					

Littleton Road/Kismet Parkway Realignment Study



Lee County, Florida

The Lee County Department of Transportation (DOT) will hold a public meeting on the Littleton Road/Kismet Parkway Realignment Study from 5 p.m. to 7 p.m. on Tuesday, January 9, 2018 at the Northside Baptist Church Worship Center, 8250 Littleton Road, North Fort Myers, FL, 33903. Lee County, in conjunction with the City of Cape Coral, is developing and evaluating alternative realignments for Kismet Parkway and Littleton Road at NE 24th Avenue. Littleton Road and NE 24th Avenue are on the Lee County Metropolitan Planning Organization's 2040 Cost Feasible Road and Highway Projects Long Range Transportation plan to be widened to four lanes. The study includes evaluation of alternative intersection configurations at the NE 24th Avenue and Corbett Road intersections. A preferred realignment concept will be determined based on engineering analysis, traffic operations/safety, cost, environmental considerations, and public involvement. The study is expected to be complete in summer 2018.

The meeting is an opportunity for the public to review and comment on the status of the study. The workshop is an open house format, and the public is welcome to come at any time between 5 p.m. and 7 p.m. Lee County DOT staff will be available to answer your questions about the study.

In accordance with the Americans with Disabilities Act, Lee County will not discriminate against qualified individuals with disabilities in its services, programs, or activities. To request an auxiliary aid or service for effective communication or a reasonable modification to participate, contact Joan LaGuardia, (239) 533-2314, Florida Relay Service 711, or jlaguardia@leegov.com. Accommodation will be provided at no cost to the requestor. Requests should be made at least five business days in advance.

If you have questions about the project or scheduled public workshop, please contact Vince Miller, P.E., Lee County Department of Transportation Project Manager at (239) 533-8577 or vmiller@leegov.com.



FOR IMMEDIATE RELEASE

Contact: Betsy Clayton, APR/CPRC Communications Director Lee County Government 239-826-4606 bclayton@leegov.com

Littleton Road/Kismet Parkway Realignment Study *Public meeting, Tuesday, Jan.* 9

FORT MYERS, FL, January 3, 2018 —

The Lee County Department of Transportation (DOT) will hold a public meeting on the Littleton Road/Kismet Parkway Realignment Study from 5 p.m. to 7 p.m. on Tuesday, January 9, 2018 at the Northside Baptist Church Worship Center, 8250 Littleton Road, North Fort Myers, FL, 33903. Lee County, in conjunction with the City of Cape Coral, is developing and evaluating alternative realignments for Kismet Parkway and Littleton Road at NE 24th Avenue. Littleton Road and NE 24th Avenue are on the Lee County Metropolitan Planning Organization's 2040 Cost Feasible Road and Highway Projects Long Range Transportation plan to be widened to four lanes. The study includes evaluation of alternative intersection configurations at the NE 24th Avenue and Corbett Road intersections. A preferred realignment concept will be determined based on engineering analysis, traffic operations/safety, cost, environmental considerations, and public involvement. The study is expected to be complete in summer 2018.

The meeting is an opportunity for the public to review and comment on the status of the study. The workshop is an open house format, and the public is welcome to come at any time between 5 p.m. and 7 p.m. Lee County DOT staff will be available to answer your questions about the study.

In accordance with the Americans with Disabilities Act, Lee County will not discriminate against qualified individuals with disabilities in its services, programs, or activities. To request an auxiliary aid or service for effective communication or a reasonable modification to participate, contact Joan LaGuardia, (239) 533-2314, Florida Relay Service 711, or jlaguardia@leegov.com. Accommodation will be provided at no cost to the requestor. Requests should be made at least five business days in advance.

If you have questions about the project or scheduled public workshop, please contact Vince Miller, P.E., Lee County Department of Transportation Project Manager at (239) 533-8577 or vmiller@leegov.com.

-30-

APPENDIX C



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N. Fort Myers, FL 33903

STAFF SIGN-IN SHEET

NAME	(Please Print)	REPRESENTING	(Please Print)	EMAIL	(Please Print)
Adam Aquila		AIM		aaguila Caimengr.com	
Kris Cella		CMA			
Shrah Clark	e	AIM			
Chevi Briles	1	CMA			
Erik Flend		AIM			
MARCA BRI	TTON	LC CANDS			
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Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N. Fort Myers, FL 33903

NAME	(Please Print)	ADDRESS	(Please Print)	EMAIL	(Please Print)
Ray Roman		1831 Concordéa Lakel	ci- #1401		
HArold WAKE	ley	2939 JANOT Dr	N FT mjers		
Debra WAK	eles	11 11	111-2		
Stuart Coo	ke	397 Horizon D	r. With		
Ken Jones		2320 FIRSTST	· FM	Kioneseralas.	COM
Ron Croque	li	100 MPO		Vgogo i @leeuy	po.com
Rudy Herhdl	ngier	20676 Pennis	port Lang NEM 33917	& rudyinfma	a @ gma
	G				-
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Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N. Fort Myers, FL 33903

NAME	(Please Print)	ADDRESS	(Please Print)	EMAIL	(Please Print)
STUBRT MEELR	251	593 SONSHINE LA			
DEbra BA	Ilard	9521 Littleton	Rd.	LEBBS 74 CEMBARS	Mail Con
Kelley CRou	cker	9780 Littleton	RD	CBHSERVICE ON	12-com
WALTER W.CR	OCKER-	E 9760 LITTLETO	N RD		
John Kap	pom	72 Sunrise a	v,		
MARTIN JISI	KIND	624 SUBSET LN		MARTY SISKINDES	andic. Com
STEVE & EVE.	ECKERT	1818 CORBETT Rol		eves bine HOL CD.	n
Clay & Sara C	rocker	9810 Littleton Rd	b	Sarahonda umo	ilcon
Chiarles WS&	alle	9571 Littleton P	e MAIL		
Rhen Buckland	00	2310 NE 24th fina	Le (POB 158102 CCPL 339151	rheauthateva e em	adrom
FRANK DEPI	FANIO	523 SONShint	EAVE	. U	
Jan Weinm	ann	292 Boros Dr	NFM	126319 bby epr	odigy ne
LORNY& Sandie As	RENCHSEN	354 HOROZON PR			
COEINNE JONE	75	3064NW 5BAUE	C.C.		
Don't Mary &	etr.	414 Housen Dr N.F	M	mgada Doutloo	k.com
Jerry KRISMO	uats	227 Thereins CT. N	FM	Min 2FL@ comen	IST. Net
				Q	



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N. Fort Myers, FL 33903

NAME	(Please Print)	ADDRESS	(Please Print)	EMAIL	(Please Print)
Dunned Raun K	4 855 enh	eide 67 Snehd Siv	Lake.	Kell 900 g. com	
phong The	6	2322 NE 24th Au	re Cape Coral	phongett 6963 @ yahoo	- com.
Ellin	6	2544 Sangrass Jake (Ct capecoul	ekuzual eya Las, con	n
BONNIE A	LLEN	9151 LITTLETON	RD NFM	BONNIE @ Six LA	KES, NE
BILL WURS	T	517 HOGAN GLAK	ES NFM	GDBLUE 51 CMS.	W.COM
Janis Snuth	2	353 Horizon Dr		Linedancer 9 Ome	com
Phere BOLLER		4258 COROWARD RU	awy GC	BOLLETE 1970 5- ADL	. 6039
Jara Brenett	-	1015 Citoral Park Bl	vd. C. C. FL 32909	downetterspectral.	Not
P. Hallyn		1624 60 8th p1 CC, F1 339	193	Skellinger O ad. com	
GARY Rohde		2810 NW Sth Ave	33993	feel good colo contro	rylinkin
ROGER & LINDA	YORDE	18771 CROSSWIND AVE	NFM	regeryorde @ earthle	nt. net
Kingle Just		P.U. By ISWYS Capt	Ciral FL 33415	- decite leempu.c	N
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Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N. Fort Myers, FL 33903

NAMÉ	(Please Print)	ADDRESS	(Please Print)	EMAIL	(Please Print)
BRUELY MER	roy	Horizon Villa	90	BAMC 4912 CO VO	ihco
Danny Ba	lladd	9521 LiH/2700	Rd	five vmace emd	Barano
LIZ WISE		1820 Corbett Rd		/	eo
Timvise		1820 Corbett R.	5	towise 62 @ yphoo	S.COM
JIM FNANCy.	Speta	2205 Risuret PRO	J.E	TSpietly 1944 Dem	sil Coas
HAL ARKIN		2324 SE 27 TH ST	cc 33904	harting Remay	Loet
Jushalrak	en.	9780 Lettleton RO.	N.FM 33903	/	
Carol Go	Au	9760 LittleTMR.	WF1 33903		
Charles Balla	ro	Port Cherlo De			
Dorathy y Jerry D.	arly	Hoursvilleg.		dearling 1940 gmail com	~
RANDY KRi	spe	2040 Vinginia Ave FI	M 3390/	RANDY @ KRISECG	F. Con
Mayre Elaine	falsem	622 Hornon Un Mc	Fort mygas	WAYNE . CLAINE 2 6	Anhar. Ca
V. Alef maytes		233 BOUTREN DR	NFM	. /	
RAY VERHS	DUEN	351 HORIZON DR	alfm		
Kose Eyster	^	1828 Corbett Rd	Cape Coral	imevister Thotmail.	can
Mike Eys	ter	1828 Corbett Rd	1		
Madeline Incar	lona	1816 Corbett Rd			



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N. Fort Myers, FL 33903

N	AME	(Please Print)	ADDRESS	(Please Print)	EMAIL	(Please Print)
Victoria	Zutten		2322 NE 24th terro	ice	x twins 30 h	ict mail.com
			÷			
-						

Littleton Road/Kismet Parkway Realignment Study



Lee County Department of Transportation P.O. Box 398 Fort Myers, FL 33902



We urge you to participate in this study and invite your comments and questions. Please contact: **Kris Cella** Cella Molnar & Associates, Inc. 1631 Hendry Street Fort Myers, FL 33901 (239) 337-1071 | kcella@cella.cc



Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study

Handout

Lee County, in conjunction with the City of Cape Coral, is developing and evaluating alternative realignments for Kismet Parkway and Littleton Road at NE 24th Avenue. Littleton Road and NE 24th Avenue are on the Lee County Metropolitan Planning Organization's 2040 Cost Feasible Road and Highway Projects Long Range Transportation Plan to be widened to four lanes. As growth continues in the area, traffic continues to increase. The Littleton Road/Kismet Parkway intersection needs to be realigned to improve system continuity and better accommodate traffic. The traffic evaluation shows that on Littleton Road, east of NE 24th Avenue, the 2017 Average Annual Daily Traffic (AADT) is 5,500 vehicles and it is predicted that in 2040 the AADT will be 20,600 vehicles.

The study includes evaluation of alternative intersection configurations at the NE 24th Avenue and Corbett Road intersections. A preferred realignment concept will be determined based on engineering analysis, traffic operations/safety, cost, environmental considerations, and public involvement. The study is expected to be complete in summer 2018.



Public Meeting



January 2018

Widening Option

The proposed widening of Littleton Road includes four 11-foot travel lanes, curb and gutter, and a minimum median width of 15.5-feet. Six-foot sidewalks and four-foot bicycle lanes will accommodate pedestrian and bicycle traffic along the corridor. The proposed typical section or what the road would look like is shown below.



Alignment Alternatives

There are two alternatives for the Littleton Road/Kismet Parkway at NE 24th Avenue realignment. Existing access to properties will change due to the addition of a median, a result of widening the road. This study is evaluating two alignment alternatives, or "build" alternatives for this project.

The Northern Alternative realigns Kismet Parkway from NE 22nd Avenue to the intersection of Littleton Road and NE 24th Avenue.

The Southern Alternative realigns Littleton Road from the intersection of Kismet Parkway and NE 24th Avenue to Corbett Road.

What's Next?

Based on the input received at this public meeting, and further engineering analysis, a Preferred Alternative will be selected. LC DOT will present the Preferred Alternative to the City of Cape Coral and Board of County Commissioners (BOCC) this spring for approval. The No-Build Alternative will remain an alternative for the BOCC. Any necessary right-of-way acquisition determinations will be made only after the final alignment options are presented to and considered by the Lee County BOCC, as well as the City of Cape Coral. Once an alignment is selected and adopted, the right-of-way acquisition process may move forward. Currently there is funding available for right-of-way acquisition and construction of the project.

Evaluation Matrix for Littleton Road/Kismet Parkway at NE 24th Avenue Realignment

Evaluation Criteria	No-Build Alternative	Northern Alternative	Southern Alternative				
Business Impacts							
Number of business relocations	0	0	0				
Residential Impacts							
Number of residential relocations	0	3	0				
Environmental Effects							
Surface Waters (acres)	0	0.059	0.059				
Wetland (acres)	0	0.145	0.164				
Potential threatened and endangered species involvement ¹	None	Medium	Medium				
Potential contamination sites	None	Low	Low				
Right-of-Way Needs							
Parcels Impacted	0	20	11				
Right-of-way to be acquired for roadway improvements (acres)	0	3.36	3.84				
Right-of-way to be acquired for stormwater facilities (acres)	0	2.74	1.46				
Estimated Total Project Costs (2017 Cost)							
Design ²	\$0	\$546,800	\$410,600				
Mitigation Cost ³	\$0	\$13,400	\$15,100				
Utility relocation costs	\$0	\$560,000	\$140,000				
Total Right-of-Way Cost	\$0	\$4,007,100	\$3,500,000				
Construction Cost for stormwater sites	\$0	\$590,000	\$306,000				
Construction Cost for roadway	\$0	\$4,878,000	\$3,800,000				
Total Construction Cost	\$0	\$5,468,000	\$4,106,000				
Construction Engineering & Inspection ²	\$0	\$546,800	\$410,600				
Preliminary Estimate of Total Project Cost (2017 Cost)	\$0	\$11,142,100	\$8,582,300				

- 1. Build Alternatives require a protected species survey and consultation with the U.S. Fish and Wildlife Service species habitat and species presence observed.
- 2. Design and Construction Engineering & Inspection is estimated at 10% of the Total Construction Cost.
- habitat quality and location scores.

and Florida Fish and Wildlife Conservation Commission during permitting. Preliminary site evaluations were conducted to determine the likelihood of protected species presence. Low = unlikely protected species are present, medium = protected species habitat observed and species may be present, high = protected

3. Final Mitigation Cost will be determined through consultation with environmental agencies. Mitigation cost estimate is based on \$115,000 per credit price for forested freshwater credits at the Little Pine Island Mitigation Bank. A preliminary functional assessment score of 0.8 was applied to account for diminished

January 9, 2018

APPENDIX D



Public Meeting

Littleton Road/Kismet Parkway at NE 24th Avenue **Realignment Study**

Welcome to the Public Meeting







January 9, 2018







Public Meeting

Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study

Project Location Map













January 9, 2018




Public Meeting

Littleton Road/Kismet Parkway at NE 24th Avenue **Realignment Study**

Typical Section







Business Impacts

Number of business reloc **Residential Impacts** Number of residential relo **Environmental Effects** Surface Waters (acres) Wetland (acres) Potential threatened and Potential contamination s **Right-of-Way Needs Parcels Impacted** Right-of-way to be acquire Right-of-way to be acquir **Estimated Total Project** Design² Mitigation Cost³ **Utility relocation costs** Total Right-of-Way Cost **Construction Cost for s Construction Cost for ro Total Construction Cost Construction Engineeri Preliminary Estimate**

Evaluation Matrix

Evaluation Criteria	No-Build Alternative	Northern Alternative	Southern Alternative
			-
cations	0	0	0
ocations	0	3	0
	0	0.059	0.059
	0	0.145	0.164
endangered species involvement ¹	None	Medium	Medium
ites	None	Low	Low
	0	20	11
ed for roadway improvements (acres)	0	3.36	3.84
ed for stormwater facilities (acres)	0	2.74	1.46
Costs (2017 Cost)			
	\$0	\$546,800	\$410,600
	\$0	\$13,400	\$15,100
	\$0	\$560,000	\$140,000
t	\$0	\$4,007,100	\$3,500,000
tormwater sites	\$0	\$590,000	\$306,000
oadway	\$0	\$4,878,000	\$3,800,000
t	\$0	\$5,468,000	\$4,106,000
ng & Inspection ²	\$0	\$546,800	\$410,600
of Total Project Cost (2017 Cost)	\$0	\$11,142,100	\$8,582,300

1. Build Alternatives require a protected species survey and consultation with the U.S. Fish and Wildlife Service and Florida Fish and Wildlife Conservation Commission during permitting. Preliminary site evaluations were conducted to determine the likelihood of protected species presence. Low = unlikely protected species are present, medium = protected species habitat observed and species may be present, high = protected species habitat and species presence observed.

2. Design and Construction Engineering & Inspection is estimated at 10% of the Total Construction Cost

3. Final Mitigation Cost will be determined through consultation with environmental agencies. Mitigation cost estimate is based on \$115,000 per credit price for forested freshwater credits at the Little Pine Island Mitigation Bank. A preliminary functional assessment score of 0.8 was applied to account for diminished habitat quality and location scores.









KEY

Littleton Road/Kismet Parkway at NE 24th Avenue **Realignment Study**

Study Schedule

Begin or End of Study:



Alignment Alternatives Public Meeting:

Newsletter Mailed:











Public Meeting

Littleton Road/Kismet Parkway at NE 24th Avenue **Realignment Study**

Thank you for Attending the Public Meeting





LEGEND

EXISTING R.O.W MAINTAINED R.O. EASEMENT LINE PROPOSED R.O.W.



PROPOSED PAVEMENT ROPOSED SIDEWALK EXISTING PAVEMENT TO BE REMOVED DRIVEWAY CONNECTION



Public Meeting

Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study Northern Alternative











LEGEND

EXISTING R.O.W MAINTAINED R.O. EASEMENT LINE PROPOSED R.O.W.



PROPOSED PAVEMENT ROPOSED SIDEWALK EXISTING PAVEMENT TO BE REMOVED DRIVEWAY CONNECTION



Public Meeting

Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study Southern Alternative











APPENDIX E



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Plages keep in mind that this is a public record

Name Roger Worde
Address 18771 CROSSWIND
City
Email Address roger gorde @ earthluck.net
Please add me to your email list for notifications concerning this project.
Comments: Southern Route is a no-brainer due to lower costs
I no residential properties involved. Good to see you
thinking about pound-a - bouts
Roy & Perk
(Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.

Name_1/10toria Ze	otten		
Address 2322 NE	24th terrace		
City CiApe Coral	State <u>F</u>	_Zip Code_3390 9	
Email Address X twins	30 hotmail.co	m,	

Please add me to your email list for notifications concerning this project.

Comments: most beneficial. en I am reen

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.

Name Danny Ballard
Address 9521 hitleton RD
City N FE Myers State FI Zip Code 33903
Email Address fire um pa em Bergmail. com
Please add me to your email list for notifications concerning this project.
Comments: Please call me for a 3rd
Design
Your Design huits me with Tracklic
on Littleton east of CorBett
239-633-3064 cell phone

(Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.

Name Jours Drucky Dave w
Address 194 Sun Br
City <u>N ft Nyess</u> State <u>FL</u> Zip Code <u>33903</u>
Email Address ddarling 1948 gmail : Com
Please add me to your email list for notifications concerning this project.
Comments: Juste Los the souther route. Les Cest and
Seens less invisive & homes.

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.

Name MACTIN SISKIND
Address 624 SUNSET LA HORIZON VILLAGE
City N.Fr. Mysks State FL Zip Code 33903
Email Address MARTY SISKIND @ GMALL. COM
Please add me to your email list for notifications concerning this project.
Comments:
FOR THE HOMES ON THE NORTH SIDE

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.
Name thong Truth
Address 2322 NE 24th Ave C
City Cape Coral State FL Zip Code 33909
Email Address phong + 6903 @ yahoo.com
Please add me to your email list for notifications concerning this project.
Comments: I Tust want the city and County will
do the Southern Alternative plan.

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.

Name Hang Trinh
Address 2321 Kismet PKWg F
City Cape Coval State FL Zip Code 33909
Email Address
□ Please add me to your email list for notifications concerning this project.
Comments: I Tust want the Caunty and Government
will do the Souther Alternative plan to
my house from Northern Alternative plan will
hop be affected.

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

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Please k eepin mind that this is a public record.
Name Debra BAllard
Address 9521 Littleton RQ.
City <u>N, FF, Myrrs</u> State <u>F1</u> Zip Code <u>33903</u>
Email Address de bbs 74 @ Enbargmail.com
Please add me to your email list for notifications concerning this project.
Comments: WE ARE NOT CAPE Coral,
Don't wast ANY PArt of CAPE Coral.
NO NEW ROad, LEAVE OID
North Ft. MyErs ALONE.
MOVE it South ON OPEN
Lando

(Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

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Please keep in mind that this is a public record.
Name Debra Wa Keley
Address 2939 Jonet Pr.
City N. Amilens State D. Zip Code 33908
Email Address Dobra Wakeky (Jama). Com
Please add me to your email list for notifications concerning this project.
Comments: Waste more tax payers dollars
on useless of projects instead of
Cleaning up North Fortmyers-emply
Shapping centers have less people
living in the woods toining our
property values for the progress -
Lee county is pushing people out
OF N.F. myers to acomidate
Cape CORDII NO WAY ON this
(Attach additional sheets innecessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.

Name JERRY DARLING
Address 194 Sow DR
City N. FT. MYERS State FL Zip Code 38963
Email Address DARLING 194 CG MALL, COM
□ Please add me to your email list for notifications concerning this project.
Comments:
BEST, BECAUSE IT DISLODGES NO ONE,
UTILIZES AN EXISTING ROUTE & GSTOLESS,

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.
Name RANDY KRISE
Address 2046 Vinginia Ave
City Font Myens State FI Zip Code 3390/
Email Address RANDY @ KRise CG. COM
Please add me to your email list for notifications concerning this project.
Comments: I prefer the southern Route I
just uport a decision soon.

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

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Please keep in mind that this is a public record.
Name YAUL FOFFMASTER
Address 233 RAINBON DR
City N. Fr MyERS State FC Zip Code 33903
Email Address
Please add me to your email list for notifications concerning this project.
Comments: Mail News felfer John

(Attach additional sheets if necessary)

Horizon Village Resident Concerns Re: Littleton Road/Kismet Parkway Realignment Study

What consideration has been given to the fact that a 4 lane going into a 2 lane does not work very well?

Would that result in widening Littleton Road from Corbett to Cleveland Ave? Widening of Littleton Road to 4 lanes would affect 4 mobile home parks with an estimated population of 4000 to 5000 residents.

3 Parks only have access through Littleton Road

It is already a problem to exit these parks onto Littleton Road due to high traffic volume.

Noise is already unbearable. The bedrooms in most or all of the homes face Littleton Road.

Increased noise will greatly adversely affect the quality of life for thousands of residents.

If Littleton Road is expanded will a sound barrier be put up and paid for by Lee County/ Cape Coral? Would it be put up first before construction started?

Widening of Littleton Road appears to affect Horizon Village the most as HV has the most land.

Guy wires to the high transmission lines would be affected as would the poles. Will they be moved elsewhere.

Diplomat Parkway is hardly used. It is already 4 lanes. Diverting traffic to Diplomat Parkway would be a better traffic solution. Changing the intersection at Cleveland Ave (41) to allow a left turn would be an efficient way to get to Cleveland ave (41) going north and would not adversely affect thousands of residents.

Janweith 375, JSmill 375, 278 480 375, 278 a phone by here 278 480 375, 278 a phone by here 278 480 375, 200 a phone by here 2



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.			
Name_John Kappan			
Address 72 Sunnie Wy			
City N, 7t Myers State 7l Zip Code 33903			
Email Address			
□ Please add me to your email list for notifications concerning this project.			
Comments: 2 prefer Southern actornation -			
utilizes vacant land			
impacts fewer land owners			
cost esto are less			

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

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Please keep in mind that this is a public record.

Name STEVE & EVE ECKERT
Address 1818 CORBETT Rd.
City CARE CORAL State FL Zip Code 33909
Email Address every AOL COM
Please add me to your email list for notifications concerning this project.
Comments: No. like the Southern alternative It seens to
be the passier rente cencl uncomplicated.

⁽Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

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Please keep in mind that this is a public record.

Name UDALTER W CROCKER NR		
Address 9760 LITTLETON RP		
City N.FT. MYERS State FL. Zip Code 33903		
Email Address		
Please add me to your email list for notifications concerning this project.		
Comments: WOULD LIKE TO SEE YOU MOVE THE		
ROUND ABOUT MORE TO THE SOUTH.		
TO LEAVE LITTLETON WEST OF CORBLIT		
AS A PRIVATE ROAD,		
THE PLANS NOW LOOKS LIKE WERE GOING		
TO HAVE TROUBLE LEAVING OUR HOME.		
IT'S A CHALENGE THE WAY IT IS NOW		

(Attach additional sheets if necessary)

Thank you for your interest in this project. Public participation is solicited without regard to race, color national origin, age, sex religion, disability or family status. The information you provide on this comment form becomes part of the project files. This information may be provided to other individuals who may make a public records request.

16



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.
Name Clayton Crocker
Address 9810 Littleton Rd.
City N. F.M. State FL Zip Code 33903
Email Address Sarahonc (aymail. Com
Please add me to your email list for notifications concerning this project.
Comments: Our drivences The roundabart is
right on the edge of my drive way. My
family and I have had a ranch called Rocker
N Ranch we have trailers & equipmant weekly almost
daily. ICR I will never be able to make that turn
with our trailers that we have. Please adjust the
round about to the south (00'- 100'. It is almost
impossible to get out of our drivency pour Ne will
NEVER get at if the roundabut is there

(Attach additional sheets indecessary)



PHILIP R. BOLLER, P.E.

4258 Coronado Parkway Cape Coral, Fl 33904

01/09/18

from the desk of...

Alignment Alternatives Analysis

Presented for

Kismet/Littleton

My Professional Engineering observation on the two offered analysis routes clearly results in finding the following facts:

- + North is greater in cost than South for Design, construction & R/W.
- + All right-of-way acquisition of real property is within the <u>City only</u>.
- + A Teed Intersection design at Corbett is <u>substantially adequate</u> for its ADDT for the next years.

+ The typical section proposed <u>does not</u> meet the City's existing standard on Kismet.

+ The proposed analysis <u>fails to delineate</u> a specfic storm water detention area!

My Professional opinion of these two presented routing analysis is that the "Southern Alternative" will provide the most beneficial and effective transportation selection for the growth of our City.

1

Respectfully submitted,

Philip R. Boller, P.E., BCEE BOLLESZ 1970 @ ADL. COM



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.
Name Kelley Crocker
Address 9780 Liffleton RO.
City N. Fri Myers State FL Zip Code 33903
Email Address Chhservice agol.com
Please add me to your email list for notifications concerning this project.
Comments:
Our property is zoned agriculture and we have areen bet
We have a 35' gooseneek trailer and 20' equipment tool
that we use to being in hay for pur cours and equipment
to work our property. We will not be able to out
out of our driveway with these trailers in the
proposed plan. We have a hard time now truin
to get out at on Littleton, so without a stop
sign the it will become extremely hard and
dangerous, the house lived on this property for
(Attach additional shorts if necessary)

(Attach additional sheets if necessary)

Over 65 years starting with my Grandparents. My grandfather Cleared Littleton R.O. by hand and the County agreed to build a base rock road if he did.

> Post Office Will Not Deliver Without Proper Postage

LEE COUNTY DEPARTMENT OF TRANSPORTATION C/O CELLA MOLNAR & ASSOCIATES, INC. 1631 HENDRY STREET FORT MYERS, FL 33901



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public	record. pob153102
Name they buckland	CC FC 33915
Address 2310 NE 24th Tenace	
City Cape Coul State M Zip	Code
Email Address they what eva e grand.com	
Please add me to your email list for notifications concerning this project.	
Comments: I want the Southern allemative because	I don't want a road
rightin my boch yard. I don't want to see the	other home owners affected.
I think my property value will decline consid	luably welt the road
neht on part of my properly, no	
I you take the morthan route I d	n't want to remain in my
home because of all the Inaffic + moise the	t will be right in my back your
It want he proverty to me.	
Why con't all of this construction road	alignment stay on Piblomat?
in commend areas instead of residential	
(Attach additional sheets if necessary)	1 VIA

Havingthe commit meeting on Fet 14th during the day time hours is may be difficult for people to all because of this jobs. That will not allow propert all persons involved opinions to be heard.



LEE COUNTY DEPARTMENT OF TRANSPORTATION C/O CELLA MOLNAR & ASSOCIATES, INC. 1631 HENDRY STREET FORT MYERS, FL 33901



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church 8250 Littleton Road, N Fort Myers, FL 33903

Please use this feedback form to express your opinions about this project. Drop your written comments into the comment box here today, mail them to the address on the back of this form, or email them to Kris Cella, Public Information Consultant at <u>kcella@cella.cc</u> by January 23, 2018.

Please keep in mind that this is a public record.

Name Ji Address Zip Code 33909-4759 City Care State D Email Address 150 Please add me to your email list for notifications concerning this project. comments: no

(Attach additional sheets if necessary)



Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.

Name CORINNE JONES	A start
Address 3064 NW 5BAR	
City Cape Coral State 76. Zip Code 33993	
Email Address NONE	

Please add me to your email list for notifications concerning this project.

Comments:

(Attach additional sheets if necessary)

Thank you for your interest in this project. Public participation is solicited without regard to race, color national origin, age, sex religion, bility or family status. The information you provide on this comment form becomes part of the project files. This information may be provided to other individuals who may make a public records request.

22



23

Public Meeting

Tuesday, January 9, 2018

Northside Baptist Church

8250 Littleton Road, N Fort Myers, FL 33903

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Please keep in mind that this is a public record.

LEN - SIX LAKES COUNTRY CLUB Name BONNE Address Citv State Zip Code Email Address

Please add me to your email list for notifications concerning this project.

Comments:

EASE SEE ATTA CHED

(Attach additional sheets if necessary)

2073

January 19, 2018

Attn: Kris Celia Public Information Consultant

Six Lakes Country Club, Inc. is one of four manufactured home communities who use Littleton Road for access into and out of their community. Three of the four communities only have ingress and egress onto Littleton Road. The fourth community does have a second entry/exit point on U.S. 41. All four communities are 55+.

I attended the meeting on January 9th and expressed a very real concern about the safety of the residents living in these communities if the Littleton Road/Kismet Parkway project is completed without simultaneously providing a center turn lane on Littleton Road between Corbett and U.S. 41.

Traffic on Littleton Road, between Corbett and U.S. 41, has already been dramatically impacted due to development between Pine Island Road and U.S. 41. What this project would do, in essence, is route 4-lanes of traffic into 2-lanes on our section of Littleton Road. Traffic traveling west would increase, but would flow from 1-lane into 2-lanes. However, traffic flowing east would merge from 2-lanes into 1-lane at the Corbett roundabout and continue as 1-lane along our portion of Littleton Road. If residents living in the three communities along the Littleton corridor (between Corbett and U.S. 41) do not have a center turn lane, getting into and out of the communities would become a very dangerous driving hazard.

Although the January 9, 2018 meeting was for the sole purpose of presenting the Kismet/Littleton Road project, I expressed the need to Brian Hamm, our County Commissioner, and the Lee County Representatives that improvements must be made, by a least creating a center turn lane, to allow residents a safe way to enter and exit from their community.

Specifically concerning Six Lakes, across the street from us is a very wide and very deep drainage ditch. Without a center turn lane, our senior residents, who may have impaired eyesight and/or reflexes, and who quite often have little patience, are going to try to manipulate between vehicles when they see a break in traffic, very easily ending up in the ditch, or risk being hit by another car. A center turn lane will allow them to remain out of the flow of traffic and cross over one lane at a time, as traffic permits. It will also prevent traffic backups, while those behind you wait for you to turn into Six Lakes. Right now, the wait at the Littleton signal at rush hour is up to 10 minutes. Increasing traffic feeding from a 2-lane road onto this 1-lane stretch of highway is simply a tragedy waiting to happen.

If safety of Lee County residents is the purpose for these improvements, County Commissioners must be realistic and realize that a center turn lane is a mandatory improvement that must be made before or simultaneous with the Littleton/Kismet project. It should also be noted that Littleton Road already has a center turn lane in front of Littleton Elementary School. The residents of the three land-locked communities feeding onto Littleton Road between Corbett and U.S. 41 must receive the same safety considerations.

I am also requesting that I be allowed to attend/participate in any meetings pertaining to this project. My concerns will be representative of all residents living in these four communities.

Sincerely,

Bonnie Allen, CCM, CAM General Manager Six Lakes Country Club, Inc.

From:	Kris Cella
То:	<u>"Frank"</u>
Subject:	RE: Littleton
Date:	Monday, January 22, 2018 2:44:00 PM
Attachments:	image003.jpg

Frank, the project that was presented at the workshop on January 9, 2017 was one of two projects Lee County has underway on Littleton Road. The projects are identified as needs in the 2040 Long Range Transportation Plan, which is a planning tool that looks at growth and determines where additional road capacity will be needed on a county wide basis.

The first project is collaboration with the City of Cape Coral to re-align the Littleton Road/Kismet Parkway intersection at NE 24th Avenue; it was this project that was presented at the workshop on January 9, 2018. The intent of this project is to connect Kismet Parkway and Littleton Road into a contiguous road and reduce the number of intersections from two (2) to one (1) thereby removing the jog that currently exists. This will provide better system continuity and will improve traffic operations and safety. The project limits extend from west of NE 24th Avenue to Corbett Road in order to have a logical end point and assess impacts to all properties along the corridor.

The second project is tracking slightly behind the first. This project will look at options for widening Littleton Road from Corbett Road to US 41. This project will look at traffic projections and patterns and will better address your concerns regarding safety and access to residential communities and the school. We expect to hold another public workshop in the near future to present alternatives for this segment of Littleton Road.

We will include you on our mailing list and look forward to your input.

Thanks!	
cma_logo_new	
	?

Kris Cella, CEO Cella Molnar & Associates, Inc. 1631 Hendry Street Fort Myers, FL 33901 239.337.1071

www.cella.cc

Please note: Florida has a very broad public records law. Most written communications to or from government employees and officials regarding government business are public records available to the public and media upon request. Your email communication may be subject to public disclosure. Under Florida law, email addresses are public records. If you do not want your email address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

From: Frank [mailto:frankdep@wowway.com] Sent: Friday, January 19, 2018 1:15 PM To: Kris Cella Subject: Littleton

I have a concern with the Little road/Kisment Parkway at NE24 Ave Realignment Study. I did try to use the form on line but it did not work???My concern is the people living off of Littleton road. Going west on Little Roan from 41 in a half mils we have over 1300 homes that use Littleton Road We also have a school .If you go forrward with this How are you going to control the additional traffic with seniors over 1300 going in and out onto Littleton Road?? Also the SCHOOL?? Thank You Frank frankdep@wowway.com

Sent from Mail for Windows 10
Brianna Wagner

From:	Miller, Vincent <vmiller@leegov.com></vmiller@leegov.com>
Sent:	Monday, January 22, 2018 2:17 PM
То:	Kris Cella; Erik Fleming (efleming@aimengr.com); Sarah Clarke
Subject:	FW: RE: Kismet/Littleton Public Meeting

FYSA

Vincent J. Miller, P.E.

Lee County Department of Transportation 1500 Monroe St. Fort Myers, FL 33901 239-533-8577 (O) 239-823-5576 (C) 239-485-8520 (Fax)

vmiller@leegov.com www.leegov.com

From: boller1970@aol.com [mailto:boller1970@aol.com]
Sent: Monday, January 22, 2018 1:01 PM
To: pzambran@capecoral.net
Cc: pclingha@capecoral.net; Miller, Vincent <VMiller@leegov.com>
Subject: Re: RE: Kismet/Littleton Public Meeting

Hello Again,

Is this Project now Cost prohibitive for the City? Some body blew this cost There are a number of ways to substantially reduce its cost which the City' Project Manger could suggest at this time but, would require modification to the interlocal Agreement.

Have a great week.

PHIL

In a message dated 1/19/2018 5:14:36 PM Eastern Standard Time, pzambran@capecoral.net writes:

The Kismet/Littleton Realignment will be subject of discussion in the next TAC meeting. At that meeting an update of the project will be provided, including public input received and potential project costs increases.

The agreement is predicated on a 50/50 cost sharing, with the caveat that Lee County will contribute an additional \$500,000 as economic incentive for the building of the convention center by Tarpon Point. Per the original planning level cost estimates, the City budgeted \$1.5 million for this project.

Please let me know if you have any follow-up questions.

Persides

From: <u>boller1970@aol.com</u> [mailto:boller1970@aol.com] Sent: Friday, January 12, 2018 5:51 PM To: Persides Zambrano <<u>pzambran@capecoral.net</u>> Cc: Paul Clinghan <<u>pclingha@capecoral.net</u>> Subject: Kismet/Littleton Public Meeting

Hello again,

What was the City's submitted comments on this meeting and will you report same at this coming CTAC meeting?

I noted there was no reference either shown or in the printed hand out that this portion of the Roadway was a 50/50 cost sharing between the City and County? Not important to inform the Citizens of our City that its Estimated Total Project Cost could cost them between 4.3M and 5.6M

BTW, how much has the City got in its 2018-2019 5-year CIP for this Project?

Philip R. Boller, P.E., BCEE

4258 Coronado Parkway

Cape Coral, FL 33904

E-Mail: Boller1970@aol.com

Please note Florida has a very broad public records law. Most written communications to or from County Employees and officials regarding County business are public records available to the public and media upon request. our email communication may be subject to public disclosure.

Under Florida law, email addresses are public records. If you do not want your email address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

APPENDIX E

Recommended Alternative

LEGEND

EXISTING R.O.W MAINTAINED R.O. EASEMENT LINE PROPOSED R.O.W.



PROPOSED PAVEMENT ROPOSED SIDEWALK EXISTING PAVEMENT TO BE REMOVED DRIVEWAY CONNECTION



Littleton Road/Kismet Parkway at NE 24th Avenue Realignment Study **Recommended Alternative**



APPENDIX F

Engineer's Estimate of Construction Cost

ENGINEER'S ESTIMATE

DEPARTMENT OF TRANSPORTATION

	FINANCIAL PROJECT ID # :	
PROJECT DESCRIPTION:	Littleton Kismet Realignment	
	PAY ITEM SPEC YEAR:	January 2018
	SUBMITTAL TYPE:	Preliminary Design Estimate
	COUNTY:	Lee
	DATE:	February 16, 2018
	ENGINEERING CONSULTANT FIRM:	AIM Engineering & Surveying
	CONTACT NAME:	Adam Aguila, P.E.
	PHONE NUMBER:	(813) 637-2554
	FILE VERSION:	EE_12-15_Rev28
	PAGE NUMBER:	1 of 5

COMPONENT GROUPS

100 - STRUCTURES	NOT USED	
200 - ROADWAY		\$1,198,659.32
300 - SIGNING & PAVEMENT MARKINGS		\$83,906.15
400 - LIGHTING		\$43,026.86
500 - SIGNALIZATION	NOT USED	
550 - ITS	NOT USED	
600 - LANDSCAPE / PERIPHERALS		\$47,946.37
700 - UTILITIES	NOT USED	
800 - ARCHITECTURAL	NOT USED	
900 - MASS TRANSIT	NOT USED	
1000 - INVALID & OTHER ITEMS	NOT USED	
COMPONENT	T SUB-TOTAL	\$1,373,538.71
(102-1) MOT (Maintenance of Traffic)	10%	\$137,353.87
	SUB-TOTAL	\$1,510,892.58
(101-1) MOB (Mobilization)	10%	\$151,089.26
	SUB-TOTAL	\$1,661,981.83
PU (Project Unknowns)	25%	\$415,495.46
	SUB-TOTAL	\$2,077,477.29
(999-25) Initial Contingency (Do Not Bid)		
PROJECT GRA	AND TOTAL	\$2,077,477.29

NOTES:

 FINANCIAL PROJECT ID:

 FILE VERSION:
 EE_12-15_Rev28

 PAGE NUMBER:
 2 of 5

200-Roadway

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION		10%	See Sun	nmary Sheet
0102 1	MAINTENANCE OF TRAFFIC		10%	See Sun	nmary Sheet
0999 25		LS			
0110 1 1	CLEARING & GRUBBING	AC	7.2	\$12,000.00	\$86,400.00
0120 1	REGULAR EXCAVATION	CY	9270	\$6.35	\$58,864.50
0120 6	EMBANKMENT	CY	18540	\$11.11	\$205,979.40
0160 4	TYPE B STABILIZATION	SY	7400	\$4.10	\$30,340.00
0285701	OPTIONAL BASE, BASE GROUP 01	SY	500	\$14.64	\$7,320.00
0285710	OPTIONAL BASE, BASE GROUP 10	SY	7400	\$19.30	\$142,820.00
0327 70 6	MILLING EXIST ASPH PAVT, 1 1/2" AVG DEPTH	SY	5800	\$2.77	\$16,066.00
0334 1 23	SUPERPAVE ASPH CONC, TRAFFIC C, PG76-22, PMA	ΤN	1050	\$109.97	\$115,468.50
0337 7 43	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-12.5, PG 76-22	ΤN	900	\$134.83	\$121,347.00
0425 1361	INLETS, CURB, TYPE P-6, <10'	EA	8	\$6,506.79	\$52,054.32
0425 2 41	MANHOLES, P-7, <10'	EA	1	\$6,377.46	\$6,377.46
0430175124	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 24"S/CD	LF	1350	\$95.76	\$129,276.00
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	1090	\$26.07	\$28,416.30
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	LF	620	\$19.25	\$11,935.00
0286 1	TURNOUT CONSTRUCTION	SY	230	\$31.62	\$7,272.60
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	1260	\$38.97	\$49,102.20
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	140	\$55.51	\$7,771.40
0570 1 2	PERFORMANCE TURF, SOD	SY	20000	\$2.70	\$54,000.00
	Erosion Control (3%)				\$33,924.32
	MOT Items (3%)				\$33,924.32
200-Roadw	av			ΤΟΤΑΙ	\$1 198 659 32
200-Ruauw	ay		CONFORMENT	IUTAL	\$1,190,009.3Z

FINANCIAL PROJECT ID: FILE VERSION: PAGE NUMBER:

EE_12-15_Rev28 3 of 5

300-Signing & Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
	Signing and Markings - 7% of Roadway				\$83,906.15
300-Signing	g & Pavement Markings		COMPONENT	TOTAL	\$83,906.15

 FINANCIAL PROJECT ID:

 FILE VERSION:
 EE_12-15_Rev28

 PAGE NUMBER:
 4 of 5

400-Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	4	\$572.32	\$2,289.28
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	500	\$2.06	\$1,030.00
0715 4 12	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STAND	EA	4	\$6,357.50	\$25,430.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1	\$14,277.58	\$14,277.58
400-Lightin	g		COMPONENT	TOTAL	\$43,026.86

FINANCIAL PROJECT ID: FILE VERSION: PAGE NUMBER:

EE_12-15_Rev28 1 of 5

600-Landscape & Peripherals

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
	Landscaping - 4% of Roadway				\$47,946.37
				_	
600-Landsc	ape & Peripherals		COMPONENT	TOTAL	\$47,946.37

FINANCIAL PROJECT ID # : PROJECT DESCRIPTION: Littleton Kismet - Roundabout Section PAY ITEM SPEC YEAR: January 2018 SUBMITTAL TYPE: Preliminary Design Estimate COUNTY: Lee DATE: February 16, 2018 **ENGINEERING CONSULTANT FIRM:** AIM Engineering & Surveying CONTACT NAME: Adam Aguila, P.E. PHONE NUMBER: (813) 637-2554 EE_12-15_Rev28 FILE VERSION: 1 of 5 PAGE NUMBER:

COMPONENT GROUPS

100 - STRUCTURES	NOT USED	
200 - ROADWAY		\$928,7 <u>82.95</u>
300 - SIGNING & PAVEMENT MARKINGS		\$65,014.81
400 - LIGHTING		\$58,076.82
500 - SIGNALIZATION	NOT USED	
550 - ITS	NOT USED	
600 - LANDSCAPE / PERIPHERALS		\$37,151.32
700 - UTILITIES	NOT USED	
800 - ARCHITECTURAL	NOT USED	
900 - MASS TRANSIT	NOT USED	
1000 - INVALID & OTHER ITEMS	NOT USED	
COMPONEI	NT SUB-TOTAL	\$1,089,025.89
(102-1) MOT (Maintenance of Traffic)	10%	\$108,902.59
	SUB-TOTAL	\$1,197,928.48
(101-1) MOB (Mobilization)	10%	\$119,792.85
	SUB-TOTAL	\$1,317,721.33
PU (Project Unknowns)	25%	\$329,430.33
	SUB-TOTAL	\$1,647,151.67
(999-25) Initial Contingency (Do Not Bid)		
PROJECT GI	\$1,647,151.67	

NOTES:

 FINANCIAL PROJECT ID:

 FILE VERSION:
 EE_12-15_Rev28

 PAGE NUMBER:
 2 of 5

200-Roadway

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION		10%	See Sun	nmary Sheet
0102 1	MAINTENANCE OF TRAFFIC		10%	See Sun	nmary Sheet
0999 25		LS			
0110 1 1	CLEARING & GRUBBING	AC	3.0	\$12,000.00	\$36,000.00
0120 1	REGULAR EXCAVATION	CY	5850	\$6.35	\$37,147.50
0120 6	EMBANKMENT	CY	11700	\$11.11	\$129,987.00
0160 4	TYPE B STABILIZATION	SY	4900	\$4.10	\$20,090.00
0285701	OPTIONAL BASE, BASE GROUP 01	SY	500	\$14.64	\$7,320.00
0285710	OPTIONAL BASE, BASE GROUP 10	SY	4900	\$19.30	\$94,570.00
0327 70 6	MILLING EXIST ASPH PAVT, 1 1/2" AVG DEPTH	SY	2600	\$2.77	\$7,202.00
0334 1 23	SUPERPAVE ASPH CONC, TRAFFIC C, PG76-22, PMA	ΤN	700	\$109.97	\$76,979.00
0337 7 43	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-12.5, PG 76-22	ΤN	650	\$134.83	\$87,639.50
0425 1361	INLETS, CURB, TYPE P-6, <10'	EA	15	\$6,506.79	\$97,601.85
0425 2 41	MANHOLES, P-7, <10'	EA	3	\$6,377.46	\$19,132.38
0430173124	PIPE CULVERT OPTIONAL MATERIAL, ROUND, 24", GUTTER DRAIN	LF	920	\$90.00	\$82,800.00
0430173136	PIPE CULVERT OPTIONAL MATERIAL, ROUND, 36", GUTTER DRAIN	LF	380	\$135.00	\$51,300.00
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	620	\$26.07	\$16,163.40
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	LF	450	\$19.25	\$8,662.50
0286 1	TURNOUT CONSTRUCTION	SY	200	\$31.62	\$6,324.00
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	1120	\$38.97	\$43,646.40
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	480	\$55.51	\$26,644.80
0570 1 2	PERFORMANCE TURF, SOD	SY	10000	\$2.70	\$27,000.00
	Erosion Control (3%)				\$26,286.31
	MOT Items (3%)				\$26,286.31
			00000000000		
200-Roadwa	ау		COMPONENT	IUTAL	\$928,782.95

FINANCIAL PROJECT ID: FILE VERSION: PAGE NUMBER:

EE_12-15_Rev28 3 of 5

300-Signing & Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
	Signing and Markings - 7% of Roadway				\$65,014.81
300-Signing	g & Pavement Markings		COMPONENT	TOTAL	\$65,014.81

 FINANCIAL PROJECT ID:

 FILE VERSION:
 EE_12-15_Rev28

 PAGE NUMBER:
 4 of 5

400-Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	7	\$572.32	\$4,006.24
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	800	\$2.06	\$1,648.00
0715 4 12	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STAND	EA	6	\$6,357.50	\$38,145.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1	\$14,277.58	\$14,277.58
		-			
400-Lightin	9		COMPONENT	TOTAL	\$58,076.82

FINANCIAL PROJECT ID: FILE VERSION: PAGE NUMBER:

EE_12-15_Rev28 5 of 5

600-Landscape & Peripherals

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
	Landscaping - 4% of Roadway				\$37,151.32
					
600-Landsc	ape & Peripherals		COMPONENT	TOTAL	\$37,151.32

ENGINEER'S ESTIMATE

DEPARTMENT OF TRANSPORTATION

FINANCIAL P	L PROJECT ID # :					
PROJECT DESCRIPTION: Littleton Kismet - Pond Site						
PAY ITEI	TEM SPEC YEAR: January 2018					
SUB	UBMITTAL TYPE: Preliminary Design Estimate					
	COUNTY: Lee					
	DATE: February 16, 2018					
ENGINEERING CONS	NSULTANT FIRM: AIM Engineering & Surveying					
со	CONTACT NAME: Adam Aguila, P.E.					
PHO	PHONE NUMBER: (813) 637-2554					
F	FILE VERSION: EE_12-15_Rev28					
P	PAGE NUMBER: 1 of 3					

COMPONENT GROUPS

100 - STRUCTURES	NOT USED	
200 - ROADWAY		\$245,966.05
300 - SIGNING & PAVEMENT MARKINGS	NOT USED	
400 - LIGHTING	NOT USED	
500 - SIGNALIZATION	NOT USED	
550 - ITS	NOT USED	
600 - LANDSCAPE / PERIPHERALS		\$9,838.64
700 - UTILITIES	NOT USED	
800 - ARCHITECTURAL	NOT USED	
900 - MASS TRANSIT	NOT USED	
1000 - INVALID & OTHER ITEMS	NOT USED	
СОМ	PONENT SUB-TOTAL	\$255,804.69
(102-1) MOT (Maintenance of Traf	fic)	
	SUB-TOTAL	\$255,804.69
(101-1) MOB (Mobilization)	10%	\$25,580.47
	SUB-TOTAL	\$281,385.16
PU (Project Unknowns)	25%	\$70,346.29
	SUB-TOTAL	\$351,731.45
(999-25) Initial Contingency (Do No		
PROJE	\$351,731.45	

NOTES:

 FINANCIAL PROJECT ID:

 FILE VERSION:
 EE_12-15_Rev28

 PAGE NUMBER:
 2 of 3

200-Roadway

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION		10%	See Sun	nmary Sheet
0102 1	MAINTENANCE OF TRAFFIC			See Sun	nmary Sheet
0999 25		LS			
0110 1 1	CLEARING & GRUBBING	AC	1.4	\$12,000.00	\$16,800.00
0120 1	REGULAR EXCAVATION	CY	6615	\$6.35	\$42,005.25
0120 6	EMBANKMENT	CY	1867	\$11.11	\$20,742.37
0400 1 2	CONCRETE CLASS I, ENDWALLS	CY	2	\$1,423.69	\$3,189.07
0425 1529	INLETS, DT BOT, TYPE C, MODIFY	EA	1	\$4,371.33	\$4,371.33
0425 2 41	MANHOLES, P-7, <10'	EA	2	\$4,804.49	\$9,608.98
0430175124	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 24"S/CD	LF	400	\$95.76	\$38,304.00
0430175136	PIPE CULVERT, OPT MATERIAL, ROUND, 36"S/CD	LF	540	\$152.22	\$82,198.80
0430982129	MITERED END SECTION, OPTIONAL ROUND, 24" CD	EA	1	\$2,059.43	\$2,059.43
0430982138	MITERED END SECTION, OPTIONAL ROUND, 36" CD	EA	1	\$4,000.00	\$4,000.00
0550 10220	FENCING, TYPE B, 5.1-6.0', STANDARD	LF	1500	\$13.61	\$20,415.00
0550 60234	FENCE GATE, TYPE B, SLIDING/CANTILEVER, 18.1-20.0' OPENING	EA	1	\$2,271.82	\$2,271.82
			COMPONENT	TOTAL	¢045.000.05
∠uu-koadw	ay		COMPONENT	IUIAL	\$245,966.05

FINANCIAL PROJECT ID: FILE VERSION: PAGE NUMBER:

EE_12-15_Rev28 3 of 3

600-Landscape & Peripherals

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
	Landscaping - 4% of Roadway				\$9,838.64
				<u> </u>	
600 L andaa	ano 8 Porinhoralo				¢0 020 64
ouu-Lanusc	ape a recipiterais		COMPONENT	IUTAL	३ ७,ठ <i>3</i> ठ.७4