

#### Dixon Road

Seminole County, Florida

Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

	red By: Nick Fi	of Probable Cost - Tier 1 Conceptual Improvements iederich		Date: April 25,2	2022		
		This Estimate	has a Rating of:		(See rating scale gu	ide be	elow.)
	PAY ITEM	DESCRIPTION	UNIT	TOTAL QUANTITY	UNIT PRICE		TOTAL COST
		SECTION 1: ROADWAY					
1	0546-71-1	Raised Rumble Strip Set - Permanent (Thermo)	EA	16	\$ 19.2	0 \$	
		SUBTOTAL ROADWAY				\$	307
		SECTION 2: STRIPING					
2	0711-11125	Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk	LF	42	\$ 6.7	0\$	281.4
3	0920-714A	Green Colored Pavement Markings	SF	75	\$ 10.8	0\$	810.0
		SUBTOTAL STRIPING				\$	5 1,091
		SECTION 3: SIGNING					
4	654-2-22	Rectangular Rapid Flashing Beacon, F&I - Solar, Complete Sign Assembly - Back to Back	AS	2	\$ 9,960.0	0 \$	19,920.00
5	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF	AS	10	\$ 496.6	9 \$	4,966.90
		SUBTOTAL SIGNING				\$	24,887
		SECTION 4: LANDSCAPING					
6	0570-1-2	Performance Turf, SOD	SY	23	\$ 4.1	2 \$	94.76
		SUBTOTAL LANDSCAPING		1	<b>1</b> •	\$	
		SECTION 5: SIGNAL				_	
7	646-1-11	Aluminum Signals Pole, Pedestal	EA	2	\$ 2,149.8	8 \$	4,299.7
8	646-1-12	Aluminum Signals Pole, F&I, Pedestian Detector Post	EA	2	\$ 1,693.5		
9	665-1-12	Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor	AS	2	\$ 3,136.9		
		SUBTOTAL SIGNAL			1	\$	13,961
		SECTION 6: CLEARING & GRUBBING/EARTHWORK					
10	0110-1-1	Clearing & Grubbing	AC	0.1	\$ 21,478.5	4 \$	2,147.8
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK				\$	
		SECTION 7: MISCELLANEOUS					
11	515-2-XXX	Bike Bar, Surface Mount, Starter, Powder Coated	EA	2	\$ 730.0	0 \$	1,460.00
	313-2-7007	SUBTOTAL MISCELLANEOUS	EA	2	ψ 130.0	υ φ \$	
_							.,
40	1	SECTION 8: MAINTENANCE OF TRAFFIC	1.0	400/			<b>.</b>
12		Subtotal Sections 1-5, 7	LS	10%	\$ 4,18	0	\$4,180.09
		SECTION 9: MOBILIZATION		T	T	_	
13		Subtotal Sections 1-5, 7	LS	10%	\$ 4,18	0	\$4,180.09
			ESTI	MATED CONS	TRUCTION COST	S \$	52,309
				30	0% CONTINGENC	Y \$	15,700
_			TOTAL ESTI		TRUCTION COST		
_		CAPITAL SUPPORT COSTS					
1		Project Engineering	LS	15%	\$ 68,00	9	\$10,210.0
2	1	Construction Support / Construction Management	LS	5%	\$ 68.00		\$3,410.00
-			-		SUPPORT COST	-	
				τοται	. PROJECT COS	т \$	81,629
				TOTAL		Ψ	01,027

#### Engineering Effort:

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Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Dixon Road

Seminole County, Florida

Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements

	red By: Nick Fr	of Probable Cost - Tier 2 Conceptual Improvements iederich			Date: April 25,2	2022			
			This Estimate has	a Ratina of:	В	(See r	rating scale guide	e below.	)
	PAY ITEM	DESCRIPTION		UNIT	TOTAL QUANTITY		NIT PRICE		AL COST
		SECTION 1: ROADWAY							
1	0334-1-52	Superpave Asphaltic Concrete, Traffic B, PG 76-22		TN	27	\$	134.71	\$	3,589.48
2	0327-70-6	Mill Existing Asphalt Pavement, 1 1/2" Avg. Depth		SY	116	\$	3.01	\$	349.16
3	0546-71-1	Raised Rumble Strip Set - Permanent		EA	16	\$	19.20	\$	307.20
		SUBTOTAL ROADWAY						\$	4,246
		SECTION 2: STRIPING							
4	0711-11123	Thermoplastic, Standard, White, Solid, 12" For Approach to raised intersection		LF	58	\$	3.73	\$	216.3
5	0711-11125	Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk		LF	38	\$	6.70	\$	254.60
6	0711-11160	Thermoplastic, Standard, White, Message or Symbol		EA	4	\$	185.41	\$	741.64
7	0920-714A	Green Colored Pavement Markings		SF	145	\$	10.80	\$	1,566.00
		SUBTOTAL STRIPING						\$	2,779
		SECTION 3: SIGNING							
8	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	12	\$	496.69	\$	5,960.28
		SUBTOTAL SIGNING						\$	5,960
		SECTION 4: LANDSCAPING							
9	0570-1-2	Performance Turf, SOD		SY	23	\$	4.12	\$	94.76
		SUBTOTAL LANDSCAPING						\$	95
		SECTION 5: SIGNAL							
10	646-1-11	Aluminum Signals Pole, Pedestal		EA	2	\$	2,149.88	\$	4,299.70
11	646-1-12	Aluminum Signals Pole, F&I, Pedestian Detector Post		EA	2	\$	1,693.54		3,387.08
12	649-21-1	Steel Mast Arm Assembly, F&I, Single Armm 30'		EA	1	\$	52,716.41		52,716.4
13	650-1-14	Vehicular Traffic Signal, F&I, Aluminum, 3 Section, 1 Way		AS	2	\$	1,373.58		2,747.10
14	653-1-11	Pedestrian Signal, F&I, LED Countdown, 1 Way		AS	2	\$	937.52		1,875.04
15	665-1-14	Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor		AS	2	\$	3,136.99		6,273.9
		SUBTOTAL SIGNAL						\$	71,299
		SECTION 6: CLEARING & GRUBBING/EARTHWORK							
16	0110-1-1	Clearing & Grubbing		AC	0.1	\$	21,478.54	\$	2,147.8
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK		-		<u>.</u>	,	\$	2,148
		SECTION 7: MISCELLANEOUS							
17	515-2-XXX	Bike Bar, Surface Mount, Starter, Powder Coated		EA	2	\$	730.00	\$	1,460.0
17	010 2 7000	SUBTOTAL MISCELLANEOUS				Ψ	100.00	Ψ \$	1,460
_		SECTION 8: MAINTENANCE OF TRAFFIC				_			
40		Subtotal Sections 1-5, 7		LS	10%	\$	8.584		\$8,583.9
18				LS	10%	¢	8,584		\$8,583.9
		SECTION 9: MOBILIZATION		-					
19		Subtotal Sections 1-5, 7		LS	10%	\$	8,584		\$8,583.9
				ESTIN	MATED CONS	TRUC	TION COSTS	\$	105,155
					30	0% CC	DNTINGENCY	\$	31,550
			TO	TAL ESTIN	MATED CONS	TRUC	TION COSTS	\$	136,705
		CAPITAL SUPPORT COSTS							
1		Project Engineering		LS	15%	\$	136,705		\$20,510.00
2	-	Construction Support / Construction Management		LS	5%	\$	136,705		\$6,840.00
-			TOT				PORT COSTS	\$	27,350
					TOTAL	PRO	JECT COST	\$	164,055

#### Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

X Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Long Pond Road

Seminole County, Florida

Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

	ared By: Nick Fi	of Probable Cost - Tier 1 Conceptual Improvements iederich		Date: April 25,	2022		
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		This Estimate	has a Rating of:	В	(See	rating scale guide	below.)
	PAY ITEM	DESCRIPTION	UNIT	TOTAL QUANTITY	L	JNIT PRICE	TOTAL COST
		SECTION 1: ROADWAY					
1	0546-71-1	Raised Rumble Strip Set - Permanent	EA	16	\$	19.20	\$ 307.20
		SUBTOTAL ROADWAY					\$ 307
		SECTION 2: STRIPING					
2	0711-11125	Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk	LF	40	\$	6.70	\$ 268.00
3	0920-714A	Green Colored Pavement Markings	SF	145	\$	10.80	\$ 1,566.00
		SUBTOTAL STRIPING					\$ 1,834
		SECTION 3: SIGNING					
4	654-2-22	Rectangular Rapid Flashing Beacon, F&I - Solar, Complete Sign Assembly - Back to Back	AS	2	\$	9,960.00	\$ 19,920.00
5	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF	AS	8	\$	496.69	\$ 3,973.52
		SUBTOTAL SIGNING					\$ 23,894
		SECTION 4: LANDSCAPING					
6	0570-1-2	Performance Turf, SOD	SY	62	\$	4.12	\$ 255.44
		SUBTOTAL LANDSCAPING					\$ 255
		SECTION 5: SIGNAL					
7	646-1-11	Aluminum Signals Pole, Pedestal	EA	2	\$	2,149.88	\$ 4,299.76
8	646-1-12	Aluminum Signals Pole, F&I, Pedestian Detector Post	EA	2	\$	1,693.54	\$ 3,387.08
9	665-1-12	Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor	AS	2	\$	3,136.99	· · · · · ·
		SUBTOTAL SIGNAL					\$ 13,961
		SECTION 6: CLEARING & GRUBBING/EARTHWORK					
10	0110-1-1	Clearing & Grubbing	AC	0.1	\$	21,478.54	\$ 2,147.85
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK					\$ 2,148
		SECTION 7: MISCELLANEOUS					
11	515-2-XXX	Bike Bar, Surface Mount, Starter, Powder Coated	EA	2	\$	730.00	\$ 1,460.00
		SUBTOTAL MISCELLANEOUS					\$ 1,460
		SECTION 8: MAINTENANCE OF TRAFFIC					
12	[	Subtotal Sections 1-5, 7	LS	10%	\$	4,171	\$4,171.05
		SECTION 9: MOBILIZATION				· · ·	
13	1	Subtotal Sections 1-5, 7	LS	10%	\$	4,171	\$4,171.05
10						·	
			ESTI		_	CTION COSTS	
				30	0% C	ONTINGENCY	\$ 15,670
			TOTAL ESTI	MATED CONS	TRUC	CTION COSTS	\$ 67,871
		CAPITAL SUPPORT COSTS					
1		Project Engineering	LS	15%	\$	67,871	\$10,190.00
2		Construction Support / Construction Management	LS	5%	\$	67,871	\$3,400.00
		1	OTAL ESTIM	ATE CAPITAL	. SUP	PORT COSTS	\$ 13,590
	_			TOTAL	PRO	JECT COST	\$ 81,461

#### Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

X Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Long Pond Road

Seminole County, Florida Trail Crossing Review KITTELSON & ASSOCIATES

pared	By: Nick Fri	ederich		Date: April 25,2	2022		
			This Estimate has a Rating of:	В	(See ri	ating scale guide	e helow )
P	AY ITEM	DESCRIPTION	UNIT	TOTAL QUANTITY			TOTAL COS
		SECTION 1: ROADWAY					
0	334-1-52	Superpave Asphaltic Concrete, Traffic B, PG 76-22	TN	57	\$	134.71	\$ 7,67
2 0	327-70-6	Mill Existing Asphalt Pavement, 1 1/2" Avg. Depth	SY	210	\$	3.01	\$ 63
3 0	546-71-1	Raised Rumble Strip Set - Permanent	EA	16	\$	19.20	\$ 30
		SUBTOTAL ROADWAY					\$ 8,0
		SECTION 2: STRIPING					
07	711-11123	Thermoplastic, Standard, White, Solid, 12" For Crosswalk	LF	58	\$	3.73	\$ 21
5 07	711-11125	Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk	LF	40	\$	6.70	\$ 26
		Thermoplastic, Standard, White, Message or Symbol	EA	4	\$	185.41	\$ 74
0	920-714A	Green Colored Pavement Markings	SF	145	\$	10.80	
		SUBTOTAL STRIPING					\$ 2,
		SECTION 3: SIGNING					
3	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF	AS	12	\$	496.69	\$ 5,96
		SUBTOTAL SIGNING					\$ 5,9
		SECTION 4: LANDSCAPING					
) (	0570-1-2	Performance Turf, SOD	SY	62	\$	4.12	\$ 25
		SUBTOTAL LANDSCAPING		•			\$ 2
		SECTION 5: SIGNAL					
0 0	646-1-11	Aluminum Signals Pole, Pedestal	EA	2	\$	2,149.88	\$ 4,29
-	646-1-12	Aluminum Signals Pole, F&I, Pedestian Detector Post	EA	2	\$	-	\$ 3,38
2 (	649-21-1	Steel Mast Arm Assembly, F&I, Single Armm 30'	EA	1	\$	52,716.41	\$ 52,71
3 (	650-1-14	Vehicular Traffic Signal, F&I, Aluminum, 3 Section, 1 Way	AS	2	\$	1,373.58	\$ 2,74
4 6	653-1-11	Pedestrian Signal, F&I, LED Countdown, 1 Way	AS	2	\$	937.52	\$ 1,87
5 (	665-1-14	Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor	AS	2	\$	3,136.99	\$ 6,27
		SUBTOTAL SIGNAL					\$ 71,2
		SECTION 6: CLEARING & GRUBBING/EARTHWORK					
6 (	0110-1-1	Clearing & Grubbing	AC	0.1	\$	21,478.54	\$ 2,14
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK					\$ 2,
		SECTION 7: MISCELLANEOUS					
75	15-2-XXX	Bike Bar, Surface Mount, Starter, Powder Coated	EA	2	\$	730.00	\$ 1,46
		SUBTOTAL MISCELLANEOUS		1			\$ 1,4
		SECTION 8: MAINTENANCE OF TRAFFIC					
8		Subtotal Sections 1-5, 7	LS	10%	\$	9,038	
0			13	10%	φ	9,036	\$9,03
-		SECTION 9: MOBILIZATION		T			
9		Subtotal Sections 1-5, 7	LS	10%	\$	9,038	\$9,03
			ESTIN	ATED CONS	TRUC	TION COSTS	\$ 110,0
				3(	0% CO	NTINGENCY	\$ 33,
			TOTAL ESTIN				
					ROC		Ψ 143,
		CAPITAL SUPPORT COSTS Project Engineering	LS	15%	\$	143,799	\$21,57
2		Construction Support / Construction Management	LS	5%	э \$	143,799	\$21,57 \$7,19
· .			TOTAL ESTIM			· · · ·	
				AND STATE TO ALL		010100010	20,

#### Engineering Effort:

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Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



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### Trail South of Lake Mary Blvd./ Vista Verdi Cir.

Seminole County, Florida Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

-	ared By: Nick Fi	iederich		Date: April 25,2	2022	
	,					
	-	This Estimate has	a Rating of:	В	(See rating scale guid	e below.)
	PAY ITEM	DESCRIPTION	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
		SECTION 1: STRIPING				
1	0711-11160	Thermoplastic, Standard, White, Message, Words or Symbol	EA	28	\$ 185.41	\$ 5,191.48
2	0711-15101	Thermoplastic, Standard-Open Graded Asphalt Surfaces White, Solid, 6"	GM	0.195	\$ 6,567.06	\$ 1,280.58
3	0711-15201	Thermoplastic, Standard-Open Graded Asphalt Surfaces Yellow, Solid, 6"	GM	0.049	\$ 5,402.27	\$ 264.71
		SUBTOTAL STRIPING				\$ 6,737
		SECTION 2: SIGNING				
4	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF	AS	5	\$ 496.69	\$ 2,483.45
		SUBTOTAL SIGNING				\$ 2,483
		SECTION 3: LANDSCAPING				
5	0570-1-2	Performance Turf, SOD	SY	95	\$ 4.12	\$ 392.43
		SUBTOTAL LANDSCAPING				\$ 392
		SECTION 4: CLEARING & GRUBBING/EARTHWORK				
6	0110-1-1	Clearing & Grubbing	AC	0.1	\$ 21,478.54	\$ 2,147.85
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK				\$ 2,148
		SECTION 5: MISCELLANEOUS				
7	751-36-12	Bike Rack, F&I, 1-2 Bicycles	EA	2	\$ 577.24	\$ 1,154.48
		SUBTOTAL MISCELLANEOUS				\$ 1,154
		SECTION 6: MAINTENANCE OF TRAFFIC				
8		Subtotal Sections 1-3, 5	LS	10%	\$ 1,077	\$1,076.69
		SECTION 7: MOBILIZATION				
9		Subtotal Sections 1-3, 5	LS	10%	\$ 1,077	\$1,076.69
			ESTIN	MATED CONS	TRUCTION COSTS	\$ 15,068
				30	% CONTINGENCY	\$ 4,530
		то	TAL ESTIN	MATED CONS	TRUCTION COSTS	\$ 19,598
		CAPITAL SUPPORT COSTS				
1		Project Engineering	LS	15%	\$ 19,598	\$2,940.00
2		Construction Support / Construction Management	LS	5%	\$ 19,598	\$980.00
		тот	AL ESTIM	ATE CAPITAL	SUPPORT COSTS	\$ 3,920
				TOT <u>AL</u>	PROJECT COST	\$ 23,518

#### Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

K Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.
 Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



### Trail South of Lake Mary Blvd./ Vista Verdi Cir.

Seminole County, Florida Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements

	v: Nick Friederich			Date: April 25,2	2022		
		This Estimate has a P	Rating of:	B TOTAL	(See	rating scale guide	e below.)
PAY	(ITEM DESCRIPTION		UNIT	QUANTITY	L	JNIT PRICE	TOTAL COST
	SECTION 1: STRIPING						
	1-11160 Thermoplastic, Standard, White, Message, Words or Symbol		EA	28	\$	185.41	· · · · · · · · · · · · · · · · · · ·
	1-15101 Thermoplastic, Standard-Open Graded Asphalt Surfaces White, Solid, 6"		GM	0.195	\$	6,468.59	
3 0711-	1-15201 Thermoplastic, Standard-Open Graded Asphalt Surfaces Yellow, Solid, 6"		GM	0.049	\$	6,574.13	
	SUBTOTAL STRIPING						\$ 6,775
	SECTION 2: SIGNING			Ē	1		
4 700	0-1-11 Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	11	\$	496.69	
	SUBTOTAL SIGNING						\$ 5,464
	SECTION 3: LANDSCAPING			-			
5 057	70-1-2 Performance Turf, SOD		SY	95	\$	4.12	
	SUBTOTAL LANDSCAPING						\$ 391
-	SECTION 4: SIGNAL			-			
6 700-1	11-231 Electric Display Sign (Speed Warning)		EA	2	\$	12,000.00	
	SUBTOTAL SIGNAL						\$ 24,000
	SECTION 5: CLEARING & GRUBBING/EARTHWORK				1		
7 011	10-1-1 Clearing & Grubbing		AC	0.1	\$	21,478.54	
	SUBTOTAL CLEARING & GRUBBING/EARTHWORK						\$ 2,148
-	SECTION 6: MISCELLANEOUS			-			
8 751-	-36-12 Bike Rack, F&I, 1-2 Bicycles		EA	2	\$	577.24	\$ 1,154.48
9 XXX-	-X-XXX Zicla ('Zebra' or similar) Cycle Lane Separator System		LF	256	\$	9.00	\$ 2,304.00
	SUBTOTAL MISCELLANEOUS						\$ 3,458
	SECTION 7: MAINTENANCE OF TRAFFIC						
10	Subtotal Sections 1-4, 6		LS	10%	\$	4,009	\$4,008.81
	SECTION 8: MOBILIZATION				1		
11	Subtotal Sections 1-4, 6		LS	10%	\$	4,009	\$4,008.81
			FSTIN	ATED CONS	TRU	CTION COSTS	\$ 50,254
			2011				
		ΤΟΤΑ	AL ESTIN	IATED CONS	TRU	CTION COSTS	\$ 65,334
	CAPITAL SUPPORT COSTS			4504	<u></u>	0	
1	Project Engineering		LS	15%	\$	65,334	\$9,810.00
2	Construction Support / Construction Management	τοται	LS	5%	\$ SLIP	65,334 PPORT COSTS	\$3,270.00
_			_ ESTIVI				
				TOTAL	PRO	DJECT COST	\$ 78,414

#### Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

X Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



# Longwood Lake Mary/Ronald Reagan Blvd/RR Seminole County, Florida Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

Prepa	nred By: Nick Fr	iederich		Date: April 25,	2022			
			This Estimate has a Rating		(See	e rating scale guid	e below.)	
	PAY ITEM	DESCRIPTION	UNIT	TOTAL QUANTITY		UNIT PRICE	TOTAL COS	ST
		SECTION 1: ROADWAY						
1	522-1	Concrete Sidewalk and Driveways, 4" Thick	SY	171	\$	50.55	\$ 8,63	7.98
2	527-2	Detectable Warnings	SF	75	\$	32.86	\$ 2,473	3.70
		SUBTOTAL ROADWAY					\$ 11,*	112
		SECTION 2: STRIPING						
3	0920-714A	Green Colored Pavement Markings (Includes 6" White End Stripes)	SF	1,035	\$	10.80	\$ 11,17	8.00
		SUBTOTAL STRIPING					\$ 11,	178
		SECTION 3: SIGNING						
4	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF	AS	4	\$	496.69	\$ 1,98	6.76
		SUBTOTAL SIGNING					\$ 1,9	987
		SECTION 6: SIGNAL						
5	646-1-11	Aluminum Signals Pole, Pedestal	EA	3	\$	2,149.88	\$ 6,44	9.64
6	646-1-12	Aluminum Signals Pole, F&I, Pedestian Detector Post	EA	3	\$	1,693.54	\$ 5,08	0.62
7	653-1-11	Pedestrian Signal, F&I, LED Countdown, 1 Way	AS	1	\$	781.27	\$ 78	1.27
8	653-1-12	Pedestrian Signal, F&I, LED Countdown, 2 Ways	AS	2	\$	1,377.49		4.98
9	665-1-12	Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor	AS	3	\$	3,136.99		0.97
		SUBTOTAL SIGNAL					\$ 24,4	477
		SECTION 8: CLEARING & GRUBBING/EARTHWORK						
10	0110-1-1	Clearing & Grubbing	AC	0.100	\$	21,478.54		7.85
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK					\$ 2,	148
			ES1	IMATED CONS	TRU	CTION COSTS	\$ 50,9	902
				3(	0% C	ONTINGENCY	\$ 15,2	280
			TOTAL EST	IMATED CONS	TRU	CTION COSTS	\$ 66,*	182



#### Longwood Lake Mary/Ronald Reagan Blvd/RR

Seminole County, Florida Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements

-	red By: Nick Fr	iederich			Date: April 25,2	2022		
			This Estimate has a Rat	ina of:	В	(Se	e rating scale guide	below.)
	PAY ITEM	DESCRIPTION		NIT	TOTAL QUANTITY	Ĺ	UNIT PRICE	TOTAL COST
		SECTION 1: ROADWAY						
1	522-1	Concrete Sidewalk and Driveways, 4" Thick		SY	785	\$	50.55	\$ 39,694.39
2	522.2	Concrete Sidewalk and Driveways, 6" Thick		SY	120	\$	71.78	\$ 8,642.31
3	527-2	Detectable Warnings		SF	79	\$	32.86	\$ 2,596.93
		SUBTOTAL ROADWAY						\$ 50,934
		SECTION 2: STRIPING						
4	0920-714A	Green Colored Pavement Markings (Includes 6" White End Stripes)		SF	1,017	\$	10.80	\$ 10,978.20
		SUBTOTAL STRIPING						\$ 10,978
		SECTION 3: SIGNING						
5	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	5	\$	496.69	\$ 2,483.45
		SUBTOTAL SIGNING						\$ 2,483
		SECTION 4: SIGNAL						
6	646-1-11	Aluminum Signals Pole, Pedestal		EA	4	\$	2,149.88	\$ 8,599.52
7	646-1-12	Aluminum Signals Pole, F&I, Pedestian Detector Post		EA	4	\$	1,693.54	\$ 6,774.16
8	653-1-11	Pedestrian Signal, F&I, LED Countdown, 1 Way		AS	3	\$	781.27	\$ 2,343.81
9	653-1-12	Pedestrian Signal, F&I, LED Countdown, 2 Ways		AS	1	\$	1,377.49	\$ 1,377.49
10	665-1-12	Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor		AS	4	\$	3,136.99	
		SUBTOTAL SIGNAL						\$ 31,643
		SECTION 5: CLEARING & GRUBBING/EARTHWORK						
11	0110-1-1	Clearing & Grubbing		AC	0.162	\$	21,478.54	\$ 3,479.52
12	0110-4-10	Removal of Existing Concrete Pavement/ Removal of Existing Concrete		SY	589	\$	32.08	\$ 18,887.10
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK						\$ 3,480
		SECTION 6: MAINTENANCE OF TRAFFIC						
13		Subtotal Sections 1-4		LS	10%	\$	9,604	\$9,603.80
		SECTION 7: MOBILIZATION						
14		Subtotal Sections 1-4		LS	10%	\$	9,604	\$9,603.80
				ESTIN	MATED CONS	TRU	ICTION COSTS	\$ 118,725
					30	)% (	CONTINGENCY	\$ 35,620
_			τοται	FSTIN			JCTION COSTS	
			TOTAL	ESTIN	MATED CONS	TRU	5011011 20513	<del>•</del> <del>154</del> ,545
		CAPITAL SUPPORT COSTS						
1		Project Engineering		LS	15%	\$	154,345	\$23,160.00
2		Construction Support / Construction Management		LS	5%	\$	154,345	\$7,720.00
			TOTAL E	STIM	ATE CAPITAL	. su	PPORT COSTS	\$ 30,880
					TOTAL	. PR	OJECT COST	\$ 185,225

#### Engineering Effort:

Х

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### S.R 46 & Rinehart Rd.

Seminole County, Florida

Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

This Estimate has a Rating of PAY ITEM         Cise rating scale guide below.)           PAY ITEM         DESCRIPTION         UNIT         COTAL QUANTITY         UNIT PRICE         TOTAL COTAL COST           SECTION 1: ROADWAY         SECTION 2: SECTION		red By: Nick Fr	of Probable Cost - Tier 1 Conceptual Improvements			Date: April 25,2	2022				
PAY ITEM         DESCRIPTION         UNIT         TOTAL QUANTITY         UNIT PRICE         TOTAL COST           SECTION 1: ROADWAY         SECTION 1: ROADWAY         SY         6         \$         165.27         \$         1.005.77         \$         3.055.67         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$ <th>repu</th> <th>ited by. Nick II</th> <th></th> <th></th> <th></th> <th>Dute. April 23,2</th> <th>.022</th> <th></th> <th></th> <th></th>	repu	ited by. Nick II				Dute. April 23,2	.022				
PAY TEM         DESCRIPTION         UNIT         QUANTITY         UNIT PRICe         TOTAL COST           1         052070         SECTION 1: ROADWAY         SY         6         \$         165.22         S         1.00677           2         65221         Concrete Trifte Separator, Special-Variable Width         SY         67         \$         5.05.25         \$         3.308.66           3         5222         Concrete Stewak and Drivways, 4"Thick.         SY         67         \$         5.05.25         \$         3.308.66           3         5222         Concrete Stewak and Drivways, 4"Thick.         SY         67         \$         5.05.55         \$         3.308.66           5         0220-714A         Green Colored Parkement Markings (Includes 6" White End Stripes)         SF         6.027         \$         1.080         \$         6.771.60           SECTION 2: STRIPING           SECTION 2: STRIPING         S         6.971.60           SECTION 2: STRIPING           SECTION 3: SIGNING           SECTION 3: SIGNING           SECTION 3: SIGNING           SECTION 4: LANDSCAPING           SECTION 4: LANDSCAPING <td colspa<="" th=""><th></th><th></th><th></th><th>This Estimate has a</th><th>a Rating of:</th><th>В</th><th>(See i</th><th>rating scale guide</th><th>e below.)</th><th>1</th></td>	<th></th> <th></th> <th></th> <th>This Estimate has a</th> <th>a Rating of:</th> <th>В</th> <th>(See i</th> <th>rating scale guide</th> <th>e below.)</th> <th>1</th>				This Estimate has a	a Rating of:	В	(See i	rating scale guide	e below.)	1
1         0520-70         Concrete Stateward Anishe Witch         SY         6         \$         1063.2         5         1067.7           2         522-1         Concrete Stateward, and Driveways, 4' Thick         SY         67         \$         503.25         3,335.52           3         522.2         Concrete Stateward, and Driveways, 4' Thick         SY         67         \$         503.25         3,355.52           3         522.2         Concrete Stateward, and Driveways, 4' Thick         SY         67         \$         50.335.52           3         522.2         Concrete Stateward, Antiongs, 6' Unite Stateward, 5' White End Stripes)         SF         627         \$         10.80         \$         6,771.60           5         0220-714.A         Creen Colored Pavement Markings (Includes 6' White End Stripes)         SF         627         \$         10.80         \$         6,771.60           5         0220-714.A         STRIPING         S         6,771.60         \$         9,771.60         \$         9,771.60           5         0210-714.         STRIPING         S         5         9,993         \$         5,671.70         \$         9,973           5         SCTION 3: STGNING         S         127         \$ </th <th></th> <th>PAY ITEM</th> <th>DESCRIPTION</th> <th></th> <th>UNIT</th> <th></th> <th>U</th> <th>INIT PRICE</th> <th>тоти</th> <th>AL COST</th>		PAY ITEM	DESCRIPTION		UNIT		U	INIT PRICE	тоти	AL COST	
2         52:1         Concrete Sidewak and Dirveways, 4' Thick         SY         67         \$         50:55         \$         3.38656           4         527-2         Detectable Warning:         SF         69         \$         3:282         \$         7:17.6         \$         5:15.69           5         0202-714A         Green Colored Pavement Markings (Includes 6' White End Stripes)         \$         \$         6:27         \$         10.80         \$         6:77.16           5         0202-714A         Green Colored Pavement Markings (Includes 6' White End Stripes)         \$         \$         6:77.16         \$         \$         6:77.16         \$         \$         6:77.16         \$			SECTION 1: ROADWAY								
3         522.2         Concrete Sidewalk and Driveways, 6" Thick         SY         82         \$         71.78         \$         5.915.33           4         527-2         Detectable Warnings         SF         68         \$         2.260.81         \$         2.260.81         \$         2.260.81         \$         2.260.81         \$         2.260.81         \$         1.2.5.49         \$         1.2.5.49         \$         1.2.5.49         \$         1.2.5.49         \$         1.2.5.49         \$         1.2.5.49         \$         1.2.5.49         \$         5         1.2.5.49         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         6.777.40         \$         \$         6.777.40         \$         \$         5.777.40         \$         \$         5.777.40         \$         \$         \$	1	0520-70	Concrete Traffic Separator, Special-Variable Width		SY	6	\$	156.32	\$	1,006.70	
4         S27-2         Detectable Warnings         SF         69         \$         22.86         \$         22.80.8         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         12.549         \$         5         0920-714A         Green Colored Pavement Markings (Includes 6' While End Stripes)         \$         \$         \$         6,771.60         \$         6,771.60         \$         6,772         \$         10.80         \$         6,772         \$         10.80         \$         6,772         \$         10.80         \$         6,771.60         \$         5         7         10.80         \$         6,771.60         \$         6,771.60         \$         5         7         10.80         \$         6,771.60         \$         5         7         10.80         \$         6,772.61         10.81         10.81         10.81         10.81         10.81         10.81         10.81         10.81 <t< td=""><td>2</td><td>522-1</td><td>Concrete Sidewalk and Driveways, 4" Thick</td><td></td><td>SY</td><td>67</td><td>\$</td><td>50.55</td><td>\$</td><td>3,365.62</td></t<>	2	522-1	Concrete Sidewalk and Driveways, 4" Thick		SY	67	\$	50.55	\$	3,365.62	
SUBTOTAL ROADWAY         S         12,569           SECTION 2: STRIPING         5         0920-714A         Creen Colord Parment Markings (Includes 6' White End Stripes)         SF         627         \$         10,800         \$         6,771.6C           SUBTOTAL STRIPING         S         S         6,771.6C         \$         \$         6,771.6C           SUBTOTAL STRIPING         S         S         5,772         \$         6,771.6C         \$         \$         6,771.6C           SUBTOTAL STRIPING         S         S         5         993.3E         \$         \$         993.3E         \$         \$         993.3E         \$         \$         \$         \$         993.3E         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$         \$ <t< td=""><td>3</td><td>522.2</td><td>Concrete Sidewalk and Driveways, 6" Thick</td><td></td><td>SY</td><td>82</td><td>\$</td><td>71.78</td><td>\$</td><td>5,915.39</td></t<>	3	522.2	Concrete Sidewalk and Driveways, 6" Thick		SY	82	\$	71.78	\$	5,915.39	
SECTION 2: STRIPING         SF         627         \$         10.80         \$         6.771.6C           5         0920/14A         Green Colored Pavement Markings (Includes 6' While End Stripes)         SF         627         \$         10.80         \$         6.771.6C         \$         9.933         \$         6.993         \$         9.933         \$         9.933         \$         \$         9.933         \$         \$         9.933         \$         \$         9.933         \$         9.933         \$         \$         \$         \$         \$         \$         \$         \$         9.933         \$	4	527-2	Detectable Warnings		SF	69	\$	32.86	\$	2,280.81	
5         0920-714A         Green Colored Pavement Markings (includes 6' White End Stripes)         SF         6.27         \$         10.80         \$         6.771.60           SUBTOTAL_STRIPING         S         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         6.771.60         \$         7         9050-12         \$         4.966.81         \$         993.26         \$         993.26         \$         5         522           SECTION 4: LANDSCAPING         SY         127         \$         4.12         \$         \$         5         522           SECTION 4: LANDSCAPING         S         1.1471.00         \$         \$         5         522           SECTION 4: LANDSCAPING         S         1.2749.81         \$         6.449.64         \$         \$         1.673.11         \$         5         522           SECTION 4: LANDSCAPING         EA         3         \$         1.1633.51         \$			SUBTOTAL ROADWAY						\$	12,569	
SUBTOTAL STRIPING         \$ 6,772           SECTION 3: SIGNING         AS         2         \$ 496.69         \$ 993.8           SUBTOTAL SIGNING         SUBTOTAL SIGNING         \$ 993.8         \$ 993.8           SUBTOTAL SIGNING         SUBTOTAL SIGNING         \$ 993.8         \$ 993.8           SUBTOTAL SIGNING         SUBTOTAL SIGNING         \$ 993.8         \$ 993.8           SECTION 4: LANDSCAPING         \$ 127         \$ 4.12         \$ 521.84           SUBTOTAL LANDSCAPING         \$ 572.14         \$ 522.8           SECTION 5: SIGNAL         \$ 646-11         Auminum Signals Pole, Pedestal         \$ 646-12           0 646-12.1         Auminum Signals Pole, Pedestal         \$ 646-13         \$ 1.693.54         \$ 6.649.64           0 646-12.1         Auminum Signals Pole, Pedestal         \$ 6.496.45         \$ 521.84         \$ 5.080.64           10         653-121         Pedestain Delector Post         \$ 8.1         \$ 7.81.27         \$ 7.81.27           11         663-122         Pedestain Signal, F&I, ED Countdown, 2, Ways         AS         2 \$ \$ 1.377.46         \$ 2.754.96           12         Pedestain Delector, FAI, Acceable Button with Passive Thermal Sensor         AS         3 \$ \$ 2.1478.57         \$ 2.706.33           14         0110-4-10 <td< td=""><td></td><td></td><td>SECTION 2: STRIPING</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			SECTION 2: STRIPING								
SECTION 3: SIGNING           6         700-1-11         Single Post Sign, F&I Ground Mount, Up to 12 SF         AS         2         \$ 496.69         \$ 993.38           SECTION 3: LANDSCAPING           7         0570-1-2         Performance Turf, SDD         SY         127         \$ 4.12         \$ 521.84           SECTION 3: SIGNAL           SECTION 3: SIGNAL           SECTION 3: SIGNAL           SECTION 4: LANDSCAPING           SECTION 5: SIGNAL           SECTION 5: SIG	5	0920-714A	Green Colored Pavement Markings (Includes 6" White End Stripes)		SF	627	\$	10.80	\$	6,771.60	
6       700-1-11       Single Post Sign, F&I Ground Mount, Up to 12 SF       AS       2       \$       4966.89       \$       993.32         SECTION 4: LANDSCAPING         SECTION 4: LANDSCAPING         7       0570-12       Performance Turf, SOD       SY       127       \$       4.12       \$       521.84         SUBTOTAL LANDSCAPING         SUBTOTAL SUBJORAL         SUBTOTAL SUBJORAL         SUBTOTAL SUBJORAL Mays         AS       1       \$       781.27       \$       7.757.97         SUBTOTAL SUBJORAL       \$       1,377.49       \$       2.754.92         SUBTOTAL SUBJORAL       \$       1,377.49       \$       2.754.92         SUBTOTAL SUBJORAL       \$       1,377.49       \$       2.754.92       \$       3,316.99       \$			SUBTOTAL STRIPING						\$	6,772	
6       700-1-11       Single Post Sign, F&I Ground Mount, Up to 12 SF       AS       2       \$       4966.89       \$       993.32         SECTION 4: LANDSCAPING         SECTION 4: LANDSCAPING         7       0570-12       Performance Turf, SOD       SY       127       \$       4.12       \$       521.84         SUBTOTAL LANDSCAPING         SUBTOTAL SUBJORAL         SUBTOTAL SUBJORAL         SUBTOTAL SUBJORAL Mays         AS       1       \$       781.27       \$       7.757.97         SUBTOTAL SUBJORAL       \$       1,377.49       \$       2.754.92         SUBTOTAL SUBJORAL       \$       1,377.49       \$       2.754.92         SUBTOTAL SUBJORAL       \$       1,377.49       \$       2.754.92       \$       3,316.99       \$			SECTION 3: SIGNING								
SUBTOTAL SIGNING         \$         993           SECTION 4: LANDSCAPING         SY         127         \$         4.12         \$         52164           7         0570-12         Performance Turf, SOD         SY         127         \$         4.12         \$         52184           8         6461-11         Aluminum Signals Pole, Pedestal         EA         3         \$         2,149.88         \$         6,449.64           9         6461-12         Aluminum Signals Pole, F&I, Pedestian Detector Post         EA         3         \$         1,639.54         \$         5,000.62           0         6451-11         Aluminum Signal, F&I, LED Countdown, 1 Way         EA         3         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         7,81.27         \$         2,4,477         \$         2,4,477         \$         2,4,477         \$         2,2,4,477	6	700-1-11			AS	2	\$	496.69	\$	993.38	
7       0570-1-2       Performance Turf, SOD       SY       127       \$       4.12       \$       521.84         SUBTOTAL LANDSCAPING         SECTION 5: SIGNAL         SECTION Signals Pole, Pédestal       Detector Post       EA       3       \$       1.683.41       \$       781.27       \$									\$	993	
7       0570-1-2       Performance Turf, SOD       SY       127       \$       4.12       \$       521.84         SUBTOTAL LANDSCAPING         SECTION 5: SIGNAL         SECTION Signals Pole, Pédestal       Detector Post       EA       3       \$       1.683.41       \$       781.27       \$			SECTION 4- LANDSCAPING								
SUBTOTAL LANDSCAPING         \$ 5.22           SECTION 5: SIGNAL           8         646-1-11         Aluminum Signals Pole, Pedestian Detector Post         EA         3         \$ 2,149.88         \$ 6,449,64           9         646-1.12         Aluminum Signals Pole, Pedestian Detector Post         EA         3         \$ 1,693.54         \$ 5,080.62           10         653-1.11         Pedestrian Signal, F&I, LED Countdown, 1 Way         AS         1         \$ 781.27         \$ 781.27           11         653-1.12         Pedestrian Detector, FAI, Accessible Button with Passive Thermal Sensor         AS         3         \$ 3,313.69         \$ 9.410.97           21         665-1.12         Pedestrian Detector, FAI, Accessible Button with Passive Thermal Sensor         AS         3         \$ 3,313.699         \$ 9.410.97           SUBTOTAL SIGNAL         \$ 24,477           SUBTOTAL SIGNAL           SUBTOTAL SIGNAL         \$ 24,477           SUBTOTAL SIGNAL           SUBTOTAL CLEARING & GRUBBING/EARTHWORK	7	0570-1-2			SY	127	\$	4 12	¢	521.84	
SECTION 5: SIGNAL           8         646-11         Aluminum Signals Pole, Pedestal         EA         3         \$ 2,149,88         \$ 6,449,64           9         646-12         Aluminum Signals Pole, F&I, Pedestian Detector Post         EA         3         \$ 1,693,54         \$ 5,080,6C           10         653-112         Pedestrian Signal, F&I, LED Countdown, 1 Way         AS         1         \$ 781,27         \$ 781,27           11         653-12         Pedestrian Signal, F&I, LED Countdown, 2 Ways         AS         2         \$ 1,377,49         \$ 2,754,96           12         665-112         Pedestrian Detector, F&I, Accessible Button with Passive Thermal Sensor         AS         3         \$ 3,136,99         \$ 9,410,97           SUBTOTAL SIGNAL         S 21,477.45         \$ 2,764,96         \$ 24,477           SUBTOTAL SIGNAL         S 21,477.45         \$ 2,706,30         \$ 24,477           SUBTOTAL CLEARING & GRUBBING/EARTHWORK         S 21,478,54         \$ 2,706,30         \$ 24,477           13         0110-1-1         Clearing & GrubBing Cencrete         SY         149         \$ 32.08         \$ 4,779,92           SUBTOTAL CLEARING & GRUBBING/EARTHWORK         S 21,478,54         \$ 2,706,30         \$ 4,533         \$ 4,533           SUBTOTAL CLEARING & GRUBBING/EARTHWO	,	001012			0.		Ψ	7.12		521.04	
8         646-1-11         Aluminum Signals Pole, Pedestal         EA         3         \$         2.149.88         \$         6.449.64           9         646-1-12         Aluminum Signals Pole, F&I, Pedestian Detector Post         EA         3         \$         1.693.54         \$         5.080.62           10         653-1-11         Pedestrian Signal, F&I, LED Countdown, 1 Way         AS         1         \$         7.81.27         \$	_						_		<u> </u>		
9       646-1-12       Aluminum Signals Pole, F&I, Pedestian Detector Post       EA       3       \$       1,693,54       \$       5,080,62         10       6531-11       Pedestrian Signal, F&I, LED Countdown, 1 Way       AS       1       \$       781,27       \$       2,754,96       \$       2,4,774       \$       2,754,96       \$       2,4,773       \$       2,4,773       \$       2,4,773       \$       2,4,773       \$       2,4,773       \$       2,4,773       \$       2,4,773       \$       2,706,30       \$       4,973,92       \$       2,706,30       \$       4,773,92       \$       2,706,30       \$       4,773,92       \$       2,706,30       \$       4,773,92       \$       2,706       \$	0	646 1 11			E۸	2	¢	2 140 99	¢	6 440 64	
10       653.1-11       Pedestrian Signal, F&I, LED Countdown, 1 Way       AS       1       \$       781.27       \$       781.27         11       663.1-12       Pedestrian Signal, F&I, LED Countdown, 2 Ways       AS       2       \$       1.377.49       \$       2.754.95         12       665.1-12       Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor       AS       3       \$       3.136.99       \$       9.410.97         SUBTOTAL SIGNAL       \$       3.3       \$       3.136.99       \$       9.410.97         SUBTOTAL SIGNAL       \$       2.477.54       \$       2.766.30         SECTION 6: CLEARING & GRUBBING/EARTHWORK         SUBTOTAL Clearing & Grubbing       AC       0.126       \$       2.1478.54       \$       2.706.30         SUBTOTAL CLEARING & GRUBBING/EARTHWORK       \$       2.706       \$       2.776.92         SUBTOTAL CLEARING & GRUBBING/EARTHWORK       \$       2.706.30         SUBTOTAL CLEARING & GRUBBING/EARTHWORK       \$       2.706         SUBTOTAL CLEARING & GRUBBING/EARTHWORK       \$       2.706       \$         SUBTOTAL CLEARING & GRUBBING/EARTHWORK       \$       3.53.34       \$											
11       653-1-12       Pedestrian Signal, F&I, LED Countdown, 2 Ways       AS       2       \$       1,377.49       \$       2,754.98         12       665-1-12       Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor       AS       3       \$       3,136.99       \$       9,410.97         SUBTOTAL SIGNAL       \$       21,477.49       \$       2,764.98         SUBTOTAL SIGNAL       \$       3,316.99       \$       9,410.97         SUBTOTAL SIGNAL       \$       21,478.54       \$       2,706.30         SUBTOTAL SIGNAL         SUBTOTAL CLEARING & GRUBBING/EARTHWORK         SUBTOTAL CLEARING & GRUBBING/EARTHWORK       \$       2,706.30         SUBTOTAL CLEARING & GRUBBING/EARTHWORK       \$       2,706         SUBTOTAL CLEARING & GRUBBING/EARTHWORK       \$       2,706         SUBTOTAL SUPPORT COF TRAFFIC         IS Subtotal Sections 1-5       LS       10%       \$       4,533       \$       \$4,533.34         SUBTOTAL SUPPORT COSTS       \$       10%       \$       4,533       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$<									-		
12       665-1-12       Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor       AS       3       \$       3,136.99       \$       9,410.97         SUBTOTAL SIGNAL       \$       24,477         SECTION 6: CLEARING & GRUBBING/EARTHWORK         13       0110-1-1       Clearing & Grubbing       AC       0.126       \$       21,478.54       \$       2,706.30         14       0110-4-10       Removal of Existing Concrete       SY       149       \$       32.08       \$       4,779.92         SUBTOTAL CLEARING & GRUBBING/EARTHWORK         SECTION 7: MAINTENANCE OF TRAFFIC         15       Subtotal Sections 1-5       LS       10%       \$       4,533       \$       \$4,533.34         SECTION 8: MOBILIZATION         16       Subtotal Sections 1-5       LS       10%       \$       4,533       \$       \$4,533.34         SECTION 2: MAINTENANCE OF TRAFFIC         16       Subtotal Sections 1-5       LS       10%       \$       4,533       \$       \$4,533.34         SECTION 2: MAINTENANCE OF TRAFFIC         SUBTOTAL CLEARING & GRUBBING/EARTHWORK											

#### Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.
 Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### S.R 46 & Rinehart Rd.

Seminole County, Florida

Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements

-	red By: Nick Fr	of Probable Cost - Tier 2 Conceptual Improvements		Date: Ap	ril 25 20	122	
пери	cu by. Mick II	cacitai		Dute. Ap	11 23,20		
			This Estimate has a Rating	of: B		(See rating scale guid	e below.)
	DAV ITEM	DESCRIPTION	UNI	г ТОТ.	AL	UNIT PRICE	TOTAL COST
		DESCRIPTION	ONI	QUAN	ΓΙΤΥ	CINIT PRICE	TOTAL COST
		SECTION 1: ROADWAY					
1	0520-70	Concrete Traffic Separator, Special-Variable Width	SY	64		\$ 156.32	\$ 10,031.05
2	522-1	Concrete Sidewalk and Driveways, 4" Thick	SY	67		\$ 50.55	\$ 3,386.85
3	522.2	Concrete Sidewalk and Driveways, 6" Thick	SY	128	3	\$ 71.78	\$ 9,187.84
4	527-2	Detectable Warnings	SF	80		\$ 32.86	\$ 2,615.00
		67					\$ 25,221
		SECTION 2: STRIPING					
5	0920-714A	Green Colored Pavement Markings (Includes 6" White End Stripes)	SF	1,27	2	\$ 10.80	\$ 13,733.28
		SUBTOTAL STRIPING					\$ 13,733
		SECTION 3: SIGNING					
6	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF	AS	2		\$ 496.69	\$ 993.38
		SUBTOTAL SIGNING					\$ 993
		SECTION 4: LANDSCAPING					
7	0570-1-2	Performance Turf, SOD	SY	163	3	\$ 4.12	\$ 671.56
		SUBTOTAL LANDSCAPING				•=	\$ 672
		SECTION 5: SIGNAL					
8	646-1-11	Aluminum Signals Pole, Pedestal	EA	3		\$ 2,149.88	\$ 6,449.64
9	646-1-12	Aluminum Signals Pole, F&I, Pedestian Detector Post	EA	3		\$ 1,693.54	\$ 5,080.62
10	653-1-11	Pedestrian Signal, F&I, LED Countdown, 1 Way	AS	1		\$ 781.27	\$ 781.27
11	653-1-12	Pedestrian Signal, F&I, LED Countdown, 2 Ways	AS	2		\$ 1,377.49	\$ 2,754.98
12	665-1-12	Pedestrian Detector, F&I, Accesible Button with Passive Thermal Sensor	AS	3		\$ 3,136.99	\$ 9,410.97
		SUBTOTAL SIGNAL					\$ 24,477
		SECTION 6: CLEARING & GRUBBING/EARTHWORK					
13	0110-1-1	Clearing & Grubbing	AC	0.12	6	\$ 21,478.54	\$ 2,706.30
14	0110-4-10	Removal of Existing Concrete Pavement/ Removal of Existing Concrete	SY	195	5	\$ 32.08	\$ 6,255.60
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK					\$ 2,706
		SECTION 7: MAINTENANCE OF TRAFFIC					
15		Subtotal Sections 1-5	LS	10%	6	\$ 6,510	\$6,509.66
		SECTION 8: MOBILIZATION					
16		Subtotal Sections 1-5	LS	10%	6	\$ 6,510	\$6,509.66
-			ES			RUCTION COSTS	
			E				
						% CONTINGENCY	
			TOTAL ES	TIMATED C	ONST	RUCTION COSTS	\$ 105,072
		CAPITAL SUPPORT COSTS					
1		Project Engineering	LS	15%		\$ 105,072	\$15,770.00
2		Construction Support / Construction Management	LS	5%		\$ 105,072	\$5,260.00
			TOTAL EST	IMATE CAP	PITAL	SUPPORT COSTS	\$ 21,030
				тс	TAL	PROJECT COST	\$ 126,102

#### Engineering Effort:

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Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.
 Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Trail Bridge Over SR 434

Seminole County, Florida Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

-	ared By: Nick Fr	iederich		Date: April 25,	2022		
					10		. ( l
-			This Estimate has a Rating o	B TOTAL		rating scale guide	
	PAY ITEM	DESCRIPTION	UNIT	QUANTITY	l	JNIT PRICE	TOTAL COST
		SECTION 1: ROADWAY					
1	0160-4	Type B Stabilization	SY	885	\$	6.98	\$ 6,180.02
2	0339-1	Miscellaneous Asphalt Pavement	TN	177.1	\$	134.71	\$ 23,854.30
3	0400-2-10	Concrete Class II, (replaces rubberized tile inlay)	CY	47.6	\$	386.46	\$ 18,395.50
4	0520-2-4	Concrete Curb, Type D	LF	119	\$	52.64	
		SUBTOTAL ROADWAY					\$ 54,678
		SECTION 2: STRIPING					
5	0711-11160	Thermoplastic, Standard, White, Message or Symbol	EA	18	\$	185.41	\$ 3,337.38
6	0711-15101	Thermoplastic, Standard-Open Graded Asphalt Surfaces White, Solid, 6"	GM	1.055	\$	6,468.59	\$ 6,824.36
		SUBTOTAL STRIPING					\$ 10,162
		SECTION 3: SIGNING					
7	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF	AS	11	\$	496.69	\$ 5,463.59
		SUBTOTAL SIGNING					\$ 5,464
		SECTION 4: LANDSCAPING					
8	0570-1-2	Performance Turf, SOD	SY	35	\$	4.12	\$ 144.20
0	0370-1-2	SUBTOTAL LANDSCAPING	01	00	Ψ	4:12	\$ 144
		SECTION 5: CLEARING & GRUBBING/EARTHWORK					
9	0110-1-1	Clearing & Grubbing	AC	0.7	\$	21,478.54	\$ 15,034.98
3	0110-1-1	SUBTOTAL CLEARING & GRUBBING/EARTHWORK	A0	0.7	φ	21,470.34	\$ 15,034.96
		SECTION 6: MISCELLANEOUS					
10	XXX-X-XXX	Zicla ('Zebra' or similar) Cycle Lane Separator System	LF	2785	\$	9.00	\$ 25,068.24
		SUBTOTAL MISCELLANEOUS					\$ 25,068
		SECTION 7: MAINTENANCE OF TRAFFIC					
11		Subtotal Sections 1-5	LS	10%	\$	9,552	\$9,551.55
		SECTION 8: MOBILIZATION					
12		Subtotal Sections 1-5	LS	10%	\$	9,552	\$9,551.55
			EST	MATED CONS	TRU	CTION COSTS	\$ 129,654
				30	0% C	ONTINGENCY	\$ 38,900
			TOTAL EST	MATED CONS	TRU	CTION COSTS	\$ 168,554
		CAPITAL SUPPORT COSTS					
1		Project Engineering	LS	15%	\$	168,554	\$25,290.00
2		Construction Support / Construction Management	LS	5%	\$	168,554	\$8,430.00
			TOTAL ESTIN	IATE CAPITAL	SUP	PORT COSTS	\$ 33,720
				TOTAL	PRO	DJECT COST	\$ 202,274
-							

#### Engineering Effort:

Х

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Trail Bridge Over SR 434

Seminole County, Florida Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements

	red By: Nick Fr	of Probable Cost - Tier 2 Conceptual Improvements iederich			Date: April 25,	2022		
_			This Estimate has a l	Rating of:	B	(See	rating scale guide	below.)
	PAY ITEM	DESCRIPTION		UNIT	TOTAL QUANTITY		UNIT PRICE	TOTAL COST
		SECTION 1: ROADWAY				-		
1	0160-4	Type B Slabilization		SY	885	\$	6.98	\$ 6,180.02
2	0339-1	Miscellaneous Asphalt Pavement		TN	177.1	\$	134.71	\$ 23,854.30
3	0400-2-10	Concrete Class II, (replaces rubberized tile inlay)		CY	47.6	\$	386.46	\$ 18,395.50
4	0520-2-4	Concrete Curb, Type D		LF	119	\$	52.64	\$ 6,247.84
		SUBTOTAL ROADWAY						\$ 54,678
		SECTION 2: STRIPING						
5	0711-11160	Thermoplastic, Standard, White, Message or Symbol		EA	18	\$	185.41	\$ 3,337.38
6	0711-15101	Thermoplastic, Standard-Open Graded Asphalt Surfaces White, Solid, 6"		GM	1.055	\$	6,468.59	
		SUBTOTAL STRIPING						\$ 10,162
		SECTION 3: SIGNING						
7	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	13	\$	496.69	\$ 6,456.97
		SUBTOTAL SIGNING						\$ 6,457
		SECTION 4: LANDSCAPING						
8	0570-1-2	Performance Turf, SOD		SY	35	\$	4.12	\$ 144.20
		SUBTOTAL LANDSCAPING						\$ 144
		SECTION 5: SIGNAL						
9	700-11-231	Electronic Display Sign, F&I, Ground Mount-Solar Power, Feedback, Up to 12SF		EA	2	\$	12,000.00	\$ 24,000.00
		SUBTOTAL SIGNAL						\$ 24,000
		SECTION 6: CLEARING & GRUBBING/EARTHWORK						
10	0110-1-1	Clearing & Grubbing		AC	0.7	\$	21,478.54	\$ 15,034.98
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK						\$ 15,035
		SECTION 7: MISCELLANEOUS						
11	XXX-X-XXX	Zicla ('Zebra' or similar) Cycle Lane Separator System		LF	2785	\$	9.00	\$ 25,068.24
		SUBTOTAL MISCELLANEOUS			1	-		\$ 25,068
		SECTION 8: MAINTENANCE OF TRAFFIC						
12		Subtotal Sections 1-5		LS	10%	\$	12,051	\$12,050.89
		SECTION 9: MOBILIZATION						
13		Subtotal Sections 1-5		LS	10%	\$	12,051	\$12,050.89
				ESTIN	ATED CONS	TRU	CTION COSTS	\$ 159,646
					30	0% C	ONTINGENCY	\$ 47,900
			тотя	L ESTIN	ATED CONS	TRU	CTION COSTS	\$ 207,546
		CAPITAL SUPPORT COSTS						
1		Project Engineering		LS	15%	\$	207,546	\$31,140.00
2		Construction Support / Construction Management		LS	5%	\$	207,546	\$10,380.00
			TOTAL	ESTIM	ATE CAPITAL	. SU	PPORT COSTS	\$ 41,520
	_				TOT <u>AL</u>	. PR	OJECT COST	\$ 249,066
_								

#### Engineering Effort:

Х

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Tuscora Road

Seminole County, Florida





Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

Prepared By: Nick Friederich			Date: April 25,2	2022			
	This Estimate has a	Ratina of:	В	(See ra	iting scale guide	e below.)	
PAY ITEM DESCRIPTION		UNIT	TOTAL QUANTITY		NIT PRICE	TOTAL	соѕт
SECTION 1: STRIPING							
1 0711-11125 Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk		LF	16	\$	6.70		107.20
2 0920-714A Green Colored Pavement Markings		SF	151	\$	10.80	\$	1,630.80
SUBTOTAL STRIPING						\$	1,738
SECTION 2: SIGNING							
3 700-1-11 Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	10	\$	496.69	\$	4,966.90
SUBTOTAL SIGNING						\$	4,967
SECTION 3: LANDSCAPING							
4 0570-1-2 Performance Turf, SOD		SY	27	\$	4.12	\$	111.24
SUBTOTAL LANDSCAPING						\$	111
SECTION 4: CLEARING & GRUBBING/EARTHWORK							
5 0110-1-1 Clearing & Grubbing		AC	0.1	\$	21,478.54	\$	2,147.85
SUBTOTAL CLEARING & GRUBBING/EARTHWORK						\$	2,148
SECTION 5: MISCELLANEOUS							
6 515-2-XXX Bike Bar, Surface Mount, Starter, Powder Coated		EA	2	\$	730.00	\$	1,460.00
SUBTOTAL MISCELLANEOUS			1			\$	1,460
SECTION 6: MAINTENANCE OF TRAFFIC							
7 Subtotal Sections 1-3, 5		LS	10%	\$	828		\$827.59
SECTION 7: MOBILIZATION							
8 Subtotal Sections 1-3, 5		LS	10%	\$	828		\$827.59
		ESTIN	ATED CONS	TRUCT	ION COSTS	\$	12,079
			30	0% COI	NTINGENCY	\$	3,630
	тот	AL ESTIN	ATED CONS	TRUCT	ION COSTS	\$	15,709
CAPITAL SUPPORT COSTS							
1 Project Engineering		LS	15%	\$	15,709	9	\$2,360.00
2 Construction Support / Construction Management		LS	5%	\$	15,709		\$790.00
	ΤΟΤΑ	LESTIM	ATE CAPITAL	SUPP	ORT COSTS	\$	3,150
			TOTAL	PROJ	IECT COST	\$	18,859

#### Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

X Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.
 Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Tuscora Road

Seminole County, Florida

Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements

-		of Probable Cost - Tier 2 Conceptual Improvements							
Prepo	ared By: Nick Fr	iederich			Date: April 25,2	022			
-			This Estimate has a H	Pating of:	В	/Soo r/	ating scale guide	halow	)
			This Estimate has a r		TOTAL				
	PAY ITEM	DESCRIPTION		UNIT	QUANTITY	U	NIT PRICE	тот	AL COST
		SECTION 1: ROADWAY							
1	0334-1-52	Superpave Asphaltic Concrete, Traffic B, PG 76-22		TN	26	\$	134.71	\$	3,497.97
2	0327-70-6	Mill Existing Asphalt Pavement, 1 1/2" Avg. Depth		SY	116	\$	3.01	\$	349.16
		SUBTOTAL ROADWAY						\$	3,847
		SECTION 2: STRIPING							
3	0711-11123	Thermoplastic, Standard, White, Solid, 12" For Approach to raised intersection		LF	58	\$	3.73	\$	216.34
4	0711-11125	Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk		LF	38	\$	6.70	\$	254.60
5	0711-11160	Thermoplastic, Standard, White, Message or Symbol		EA	4	\$	185.41	\$	741.64
6	0920-714A	Green Colored Pavement Markings		SF	150	\$	10.80	\$	1,620.00
		SUBTOTAL STRIPING						\$	2,833
		SECTION 3: SIGNING							
7	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	10	\$	496.69	\$	4,966.90
		SUBTOTAL SIGNING						\$	4,967
		SECTION 4: LANDSCAPING							
8	0570-1-2	Performance Turf, SOD		SY	27	\$	4.12	¢	111.24
0	001012	SUBTOTAL LANDSCAPING		0.		Ψ	4.12	\$	111.24
_		SECTION 5: CLEARING & GRUBBING/EARTHWORK							
9	0110-1-1	Clearing & Grubbing		AC	0.1	\$	21,478.54	\$	2,147.85
5	011011	SUBTOTAL CLEARING & GRUBBING/EARTHWORK		110	0.1	Ψ	21,470.04	\$	2,148
_		SECTION 6: MISCELLANEOUS				_			
10	515-2-XXX	Bike Bar, Surface Mount, Starter, Powder Coated		EA	2	\$	730.00	\$	1,460.00
10	515-2-777	SUBTOTAL MISCELLANEOUS		EA	2	φ	730.00	ቅ \$	1,460.00
						_		\$	1,460
		SECTION 7: MAINTENANCE OF TRAFFIC							
11		Subtotal Sections 1-5		LS	10%	\$	1,322		\$1,321.80
		SECTION 8: MOBILIZATION							
12		Subtotal Sections 1-5		LS	10%	\$	1,322		\$1,321.80
				ESTIN	ATED CONS	<b>TRUC</b>	TION COSTS	\$	18,009
					30	% CO	NTINGENCY	\$	5,410
			τοτα	AL ESTIN	MATED CONS	rruc'	TION COSTS	\$	23,419
		CAPITAL SUPPORT COSTS							
1		Project Engineering		LS	15%	\$	23,419		\$3,520.00
2	1	Construction Support / Construction Management		LS	5%	\$	23,419		\$1,180.00
	•		TOTAL	_ ESTIM/			PORT COSTS	\$	4,700
					TOTAL	PRQ.	JECT COST	\$	28,119

#### Engineering Effort:

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Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Retail Entrance S. of Red Bug

Seminole County, Florida Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

Prepared By: Nick	n of Probable Cost - Tier 1 Conceptual Improvements		ſ	Date: April 25,2	0000			
TEPUTEU By. NICK	neuenen			лисе. мртн 25,2	.022			
		This Estimate has a Ratir	ng of:	В	(See r	e below.)		
PAY ITEN	1 DESCRIPTION	U	NIT	TOTAL QUANTITY	U	NIT PRICE	ΤΟΤΑ	L COST
	SECTION 1: ROADWAY							
1 0546-71-1		E	A	12	\$	19.20		230.40
	SUBTOTAL ROADWAY						\$	230
	SECTION 2: STRIPING							
	5 Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk		.F	32	\$		\$	214.40
3 0920-714		S	SF	108	\$	10.80		1,166.40
	SUBTOTAL STRIPING						\$	1,381
	SECTION 3: SIGNING		-		1.	T		
4 700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF	A	S	8	\$	496.69	· ·	3,973.52
	SUBTOTAL SIGNING						\$	3,974
	SECTION 4: LANDSCAPING		-		1.	T		
5 0570-1-2	Performance Turf, SOD	S	SY	13	\$	4.12	•	51.91
	SUBTOTAL LANDSCAPING			16			\$	52
	SECTION 5: CLEARING & GRUBBING/EARTHWORK				1.		-	
6 0110-1-1		A	C	0.1	\$	21,478.54	\$ \$	2,147.85
	SUBTOTAL CLEARING & GRUBBING/EARTHWORK						\$	2,148
	SECTION 6: MISCELLANEOUS							
7 515-2-XXX		E	A	2	\$	730.00		1,460.00
	SUBTOTAL MISCELLANEOUS						\$	1,460
	SECTION 7: MAINTENANCE OF TRAFFIC							
8	Subtotal Sections 1-5	L	.s	10%	\$	710		\$709.69
	SECTION 8: MOBILIZATION							
9	Subtotal Sections 1-5	L	.S	10%	\$	710		\$709.69
		E	STIM	ATED CONS	TRUC	TION COSTS	\$	10,664
				30	0% CO	NTINGENCY	\$	3,200
		TOTAL E	STIM	ATED CONS		TION COSTS	\$	13,864
	CAPITAL SUPPORT COSTS							
1	Project Engineering	L	.S	15%	\$	13,864		\$2,080.00
2	Construction Support / Construction Management		.S	5%	\$	13,864		\$700.00
		TOTAL ES	<b>БТІМА</b>	TE CAPITAL	SUPF	PORT COSTS	\$	2,780
				TOTAL	PRO.	JECT COST	\$	16,644

#### Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

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Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### Retail Entrance S. of Red Bug

Seminole County, Florida Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements

Prepared	jineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements pared By: Nick Friederich					Date: April 25,2022					
			This Estimate has a	Ratina of:	В	(See rating scale guide below.)					
P/	AY ITEM	DESCRIPTION		UNIT	TOTAL QUANTITY		JNIT PRICE	TOTAL CO	оѕт		
		SECTION 1: ROADWAY									
1	0160-4	Type B Stabilization		SY	411	\$	6.98	\$ 2,8	870.53		
	0339-1	Miscellaneous Asphalt Pavement		TN	77.0	\$	134.71	\$ 10,3	378.90		
	0520-70	Concrete Traffic Separator, Special-Variable Width		SY	10	\$	156.32		531.9		
4 0	546-71-1	Raised Rumble Strip Set - Permanent		EA	11	\$	19.20		211.2		
		SUBTOTAL ROADWAY						\$ 14	4,993		
		SECTION 2: STRIPING									
5 07	711-11125	Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk		LF	64	\$	6.70	\$ 4	428.8		
6 07	711-11160	Thermoplastic, Standard, White, Message or Symbol		EA	4	\$	185.41	\$ 7	741.6		
7 07	711-15201	Thermoplastic, StdOpen Graded Asphalt Surfaces, Yellow Solid 6"		GM	0.032	\$	5,478.44	\$ 1	175.3		
8 09	920-714A	Green Colored Pavement Markings		SF	108	\$	10.80	\$ 1,1	166.4		
		SUBTOTAL STRIPING						\$ 2	2,51		
		SECTION 3: SIGNING									
9 7	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	12	\$	496.69	\$ 5.9	960.2		
		SUBTOTAL SIGNING				ļ.÷		· ·	5,96		
		SECTION 4: DRAINAGE									
10 43	0-174-118	Pipe Culvert<, Opt. Material,Round 24" SD		LF	30	\$	126.12	\$ 3.7	783.		
		Mitered End Section, Opt. Round, 24" SD		EA	1	\$			180.		
		SUBTOTAL DRAINAGE			1	·			5,96		
		SECTION 5: LANDSCAPING				_					
12 0	0570-1-2	Performance Turf, SOD		SY	373	\$	4.12	\$ 15	536.7		
		SUBTOTAL LANDSCAPING				i ·			1,53		
		SECTION 6: CLEARING & GRUBBING/EARTHWORK									
13 0	0110-1-1	Clearing & Grubbing		AC	0.30	\$	21,478.54	¢ 6/	443.5		
13 0	5110-1-1	SUBTOTAL CLEARING & GRUBBING/EARTHWORK		AC	0.30	φ	21,478.34		6,44		
		SECTION 7: MISCELLANEOUS				_		• •			
44 5	45.0.3000			EA	2	\$	730.00	<u> </u>	100.0		
14 5	15-2-888	Bike Bar, Surface Mount, Starter, Powder Coated		EA	2	Э	730.00		460.0		
		SUBTOTAL MISCELLANEOUS						\$ 1	1,46		
		SECTION 8: MAINTENANCE OF TRAFFIC									
15		Subtotal Sections 1-5		LS	10%	\$	3,243	\$3,2	242.6		
		SECTION 9: MOBILIZATION									
16		Subtotal Sections 1-5		LS	10%	\$	3,243	\$3,2	242.0		
				ESTIN	NATED CONS	TRU	CTION COSTS	\$ 39	9,39		
					30	0% C	ONTINGENCY	<b>\$ 1</b> 1	1,82		
			тот	AL ESTIN	MATED CONS	TRU	CTION COSTS	<b>\$</b> 51	1,21		
		CAPITAL SUPPORT COSTS									
		Project Engineering		LS	15%	\$	51,211	\$7.6	690.0		
1											
1		Construction Support / Construction Management		LS	5%	\$	51,211	\$2.5	570.0		

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

X Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.
 Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we make no warranty for these costs for any duration of time

61,471

TOTAL PROJECT COST \$



#### N. Lake Jessup Road

Seminole County, Florida

Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 1 Conceptual Improvements

-	red By: Nick Fr	of Probable Cost - Tier 1 Conceptual Improvements			Date: April 25,2	022			
rrepu	ieu by. Niek ii				Dute. April 23,2	.022			
			This Estimate has a Ra	В	(Se	e rating scale guide	e belo	w.)	
	PAY ITEM	DESCRIPTION	L	JNIT	TOTAL QUANTITY		UNIT PRICE	т	DTAL COST
		SECTION 1: ROADWAY							
1	0546-71-1	Raised Rumble Strip Set - Permanent		EA	8	\$	19.20	\$	153.60
		SUBTOTAL ROADWAY						\$	154
		SECTION 2: STRIPING							
2	0711-11125	Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk		LF	38	\$	6.70	\$	254.60
3	0920-714A	Green Colored Pavement Markings		SF	164	\$	10.80	\$	1,771.20
		SUBTOTAL STRIPING						\$	2,026
		SECTION 3: SIGNING							
4	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	16	\$	496.69	\$	7,947.04
		SUBTOTAL SIGNING						\$	7,947
		SECTION 4: LANDSCAPING							
5	0570-1-2	Performance Turf, SOD		SY	13	\$	4.12	\$	51.91
		SUBTOTAL LANDSCAPING			16			\$	52
		SECTION 5: CLEARING & GRUBBING/EARTHWORK							
6	0110-1-1	Clearing & Grubbing		AC	0.1	\$	21,478.54	\$	2,147.85
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK						\$	2,148
		SECTION 6: MISCELLANEOUS							
7	515-2-XXX	Bike Bar, Surface Mount, Starter, Powder Coated		EA	2	\$	730.00	\$	1,460.00
		SUBTOTAL MISCELLANEOUS						\$	1,460
		SECTION 7: MAINTENANCE OF TRAFFIC							
8		Subtotal Sections 1-4, 6		LS	10%	\$	1,164		\$1,163.86
		SECTION 8: MOBILIZATION							
9		Subtotal Sections 1-4, 6		LS	10%	\$	1,164		\$1,163.86
				ESTIN	NATED CONS	TRU	JCTION COSTS	\$	16,114
					30	)% C	CONTINGENCY	\$	4,840
			TOTAL	ESTIN	MATED CONS	TRU	JCTION COSTS	\$	20,954
		CAPITAL SUPPORT COSTS							
1		Project Engineering		LS	15%	\$	20,954		\$3,150.00
2		Construction Support / Construction Management		LS	5%	\$	20,954		\$1,050.00
			TOTAL	STIM			PPORT COSTS	_	4,200
					TOTAL	PR	OJECT COST	\$	25,154

#### Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



#### N. Lake Jessup Avenue

Seminole County, Florida

Trail Crossing Review



Engineer's Opinion of Probable Cost - Tier 2 Conceptual Improvements

	red By: Nick Fr	iederich			Date: April 25,2	2022			
			This Estimate has a	Ratina of	В	(See	/)		
	PAY ITEM	DESCRIPTION		UNIT	TOTAL QUANTITY		rating scale guide		TAL COST
		SECTION 1: ROADWAY							
1	0334-1-52	Superpave Asphaltic Concrete, Traffic B, PG 76-22	1	TN	90	\$	134.71	\$	12,137.5
2	0327-70-6	Mill Existing Asphalt Pavement, 1 1/2" Avg. Depth		SY	355	\$	3.01	\$	1,069.3
3	0546-71-1	Raised Rumble Strip Set - Permanent		EA	16	\$	19.20	\$	307.2
		SUBTOTAL ROADWAY						\$	13,51
		SECTION 2: STRIPING							
4	0711-11123	Thermoplastic, Standard, White, Solid, 12" For Approach to raised intersection		LF	51	\$	3.73	\$	190.2
5		Thermoplastic, Standard, White, Solid, 24" For Stop Line and Crosswalk		LF	51	\$	6.70	\$	341.7
6	0711-11160	Thermoplastic, Standard, White, Message or Symbol		EA	7	\$	185.41	\$	1,297.8
7	0920-714A	Green Colored Pavement Markings		SF	263	\$	10.80	\$	2,843.8
		SUBTOTAL STRIPING						\$	4,67
		SECTION 3: SIGNING							
8	700-1-11	Single Post Sign, F&I Ground Mount, Up to 12 SF		AS	16	\$	496.69	\$	7,947.0
		SUBTOTAL SIGNING						\$	7,94
		SECTION 4: LANDSCAPING							
9	0570-1-2	Performance Turf, SOD		SY	15	\$	4.12	\$	61.3
		SUBTOTAL LANDSCAPING						\$	6
		SECTION 5: CLEARING & GRUBBING/EARTHWORK							
10	0110-1-1	Clearing & Grubbing		AC	0.1	\$	21,478.54	\$	2,147.8
		SUBTOTAL CLEARING & GRUBBING/EARTHWORK						\$	2,14
		SECTION 6: MISCELLANEOUS							
11	515-2-XXX	Bike Bar, Surface Mount, Starter, Powder Coated		EA	2	\$	730.00	\$	1,460.0
		SUBTOTAL MISCELLANEOUS				<u> </u>		\$	1,46
		SECTION 7: MAINTENANCE OF TRAFFIC							
12		Subtotal Sections 1-5		LS	10%	\$	2,766		\$2,765.6
		SECTION 8: MOBILIZATION			•	-			
13		Subtotal Sections 1-5		LS	10%	\$	2,766		\$2,765.6
				ESTIN	ATED CONS	TRU	CTION COSTS	\$	35,33
					30	0% C	ONTINGENCY	\$	10,61
			τοτι	AL ESTIN			CTION COSTS		45,94
			101	AE ESTIN	IATED CONS	rku		\$	45,94
		CAPITAL SUPPORT COSTS							
1		Project Engineering		LS	15%	\$	45,945		\$6,900.0
		Construction Support / Construction Management		LS	5%	\$	45.945		\$2,300.0

TOTAL PROJECT COST \$ 55,145

#### Engineering Effort:

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Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%. Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



8:33:58

AM

SPECIAL DETAILS

SHEET NO.

000







## PARALLEL CONFIGURATION

A: 8ft 6 23/64 in (middle of the road). B: 4ft 3 3/16 in (near the intersection).



## OBLIQUE CONFIGURATION A: 8ft 6 23/64 in (middle of the road). B: 4ft 3 3/16 in (near the intersection).



