

December 2025



Florida Department of Transportation – District One

Technical Scope and LRE

**Technical Scope, Scope Analysis for Social and Environmental
Issues, and Long Range Estimate (LRE) for**

FPID 451022-1-52-01

SR 684 (US 41) from 30th St W. to N. of 41st Ave E.

Manatee County, Florida



Candidate Project RRR Scope

December 31, 2025

To: Lavenia Toole, PE
 From: Felicia Pannell, PE

RE: SR 684 (US 41) from 30th St W. to N. of 41st Ave E. TECHNICAL SCOPE

State Road Number: SR 684
 Section Number: 13040000/13040001/13040002/13130000
 County: Manatee County
 Project Limits: SR 684 (US 41) from 30th St W. to N. of 41st Ave E.
 Begin MP/End MP: 6.722 to 8.574 (13040),
 0.000 to 0.158 (13040001),
 0.000 to 0.073 (13040002),
 0.115 to 0.155 (13130)
 Section Equation: MP 8.440 (13040000) = MP 0.000 (13040001);
 MP 0.158 (13040001) = MP 0.115 (13130000),
 MP 0.059 (13040001) = MP 0.000 (13040002)
 Project Length: 2.123 miles
 FPID No.: 451022-1
 Work Mix: 0012 (Resurfacing)
 Criteria: Current Manuals and Design Standards for 25/26

1. Existing R/W Map Project Numbers:	13040-000_1960911; 13040-2501; 13040-2502
2. Old Construction Project Numbers:	13040: 196091-1 (2006) Add Lanes and Recon MP 7.730 to MP 8.574 13130: 427363-1 (2013) MP 0.155 to MP 1.125 13040: 446954-1 (2020) Median modification MP 7.012 to MP 7.804
3. Adjacent Projects:	13040: 445044-1 (2026) RRR MP 3.243 to MP 6.722 Phase IIR 13040: 406755-1 (2004) RRR MP 3.956 to MP 7.000
4. Proposed projects within the same limits (such as safety, sidewalk or drainage projects):	Safety audit Items have been incorporated into this project.
5. Additional R/W Required?	No
6. Level of Community Awareness Plan:	Level 1
7. Are there any bridges within the limits?	Yes; CB #04-0024 (MP 7.969 to MP 7.977)
8. Are there any RR Crossings within the project limits or in the vicinity?	No
9. Are there any Airports within 10-miles?	Yes, Sarasota-Bradenton International Airport
10. Storm Water Management Jurisdiction:	Southwest Florida WMD
11. AADT:	56,100 AADT (2025); Truck % = 4.2
12. Are there any old houses or buildings adjacent to the project?	No
13. Number of Existing Utilities:	14 Utilities: Black & Veatch Tampa – Fiber; Charter Communications – Cable Fiber; City of

	Bradenton – Sewer, Water; Comcast – CATV; Crown Castle – Fiber, Electric; Florida P&L – Electric; Frontier – CATV, Communication Lines; Manatee County – Traffic Lights, Traffic Signals, Reclaimed Water, Sewer, Water; MCI – Communication Lines, Fiber; Opticaltel – CATV; Teco – Gas; Uniti – Fiber; Verizon Wireless – Fiber; Zayo Group – Fiber.
14. Preliminary MOT Consideration: (Construction Office will supply this)	High/Medium/Low (Reviewed separately - pending)
15. Posted/Design Speed Limits:	Design Speed: 45 mph (MP 6.722 to MP 7.050 13040) 35 mph (MP 7.050 to MP 7.754 13040) 40 mph (MP 7.754 to MP 8.440 13040; MP 0.000 to 0.158 13040001; MP 0.115 to MP 0.155 13130000) 35 mph (MP 8.440 to MP 8.574 13040) Posted Speed/Target Speed: 45 mph (MP 6.747 to MP 7.050 13040) 35 mph (MP 7.050 to MP 8.440 13040; MP 0.000 to 0.158 13040001; MP 0.115 to MP 0.155 13130000) 30 mph (MP 8.440 to MP 8.574 13040)
16. SIS Facility? / Context Classification:	No / C3C
17. Access Classification:	05- MP 6.722 to MP 7.000 (13040) 07-MP 7.000 to MP 7.754 (13040) 05-MP 7.754 to MP 8.574 (13040) 05-MP 0.000 to MP 0.158 (13040001) 05-MP 0.0000 to MP 0.073 (13040002) 05-MP 0.115 to MP 0.155 (13130)
18. Resilient Modulus:	21,000 psi
19. Smoothness Class (To be included on Typical Section Sheets in Design Plans):	N/A (less than 55 mph)
20. List Non-ADA Compliant Curb Ramps Identified by Safety: (All ADA items should be evaluated during design when the field review is conducted).	The RSA documents missing detectable warning mats and tripping hazards in the sidewalks. The detectable warning mats are included in the LRE. Design will need to investigate sidewalk conditions and present them to the District Design Engineer for approval (and funding).
21. Safety Top 20:	Yes
22. State Materials Concurrence for Pav't Design	Yes (Concurred with 9/15/25)

The purpose of candidate project scope is to support the development of a long-range estimate (LRE) within the 5-year work program. There is a significant amount of planning assumptions made in order to develop and process the LRE. The district design project manager and engineer are responsible for verifying all items in the scope and shall review the project for conformance with all applicable criteria and standards.

Project Location Map:



Project Limits:

- This project includes segments for 4 roadway IDs.
 - Begin the project approximately 130 feet west of the 30th Street W bidirectional intersection MP 6.747 then proceed 1.827 miles east along the SR 684 (US 41) (Cortez Road) corridor (13040000) to east of the signalized 44th Avenue Connector/SR 684 (US 41) (S. Tamiami Trail-44th Avenue W) intersection MP 8.440.
 - Continue from MP 8.440 at 44th Avenue East one way in the EB direction to MP 8.574.
 - Then Continues for 13040001 within the intersection with begin construction at the SR 684 gore MP 0.000 then proceed northeast to 41st Avenue E turnout section equation MP 0.158 (13040000) = MP 0.115 (13040001) and proceeds northeast along SR 55 (US 41) 13130000 to the end project south of 301 Blvd E ramp MP 0.155 (13130000).
 - The intersection at 44th Avenue connector roadway 13040002 also included MP 0.000 and connects to SR 684 (44th Avenue E) to the end construction MP 0.073.

Project Description:

- This is a RRR project with milling and resurfacing of the existing roadway mainline and any side street connections. Other improvements include:
 - Reconstructing ramps that are not ADA compliant
 - Reconstruct and separate ADA ramps/landings within the existing signalized intersections to provide for existing and new crosswalks
 - Hardened centerlines where viable
 - Add sidewalk to existing gaps
 - Add 2 new directional median openings
 - Replace the signal at 5th St W (existing diagonal with limitations for pedestrian features)
 - Update signals and lighting for current RRR criteria
- Please reference Approved Typical Section Package (TSP) for lane configurations.
- The context and target speed meetings were held on August 4, 2023. In the context meeting the 12-ft lanes for typicals 01, 04 and 05 were changed to be 11-ft lane with a 2-ft offset. Typical 05 was also to have sidewalk added. The Target Speed Meeting set the target speed to match the posted speeds. The design speed was reduced to match the posted speed for the following locations:
 - MP 7.754 to MP 8.440 – design speed reduced from 40 mph to 35 mph
 - MP 8.011 to MP 8.365 – design speed reduced from 40 mph to 35 mph
 - MP 0.000 to MP 0.158) (13040001) – design speed reduced from 40 mph to 35 mph
 - MP 0.115 to MP 0.155) (13130000) – design speed reduced from 40 mph to 35 mph

Roadway Scope Items:

- The through lanes, turn lanes and median opening pavement for the SR 684 (US 41) (Cortez Road) six lane roadway, SR 45 (US 41) and 44th Avenue segments were overbuilt/resurfaced of the existing four-lane roadway under FPID 196091-1-52-01 in conjunction with widening on the outside to providing a six lane facility, construction of revised/reconstructed turn lanes and medians, reconstructed sidewalks, intersection improvements and modifications, new 44th Avenue connector, reconfigured SR 684 bifurcated 44th Avenue Connector/US 41 at grade interchange, left turn lane separators, and directional median openings in FY 06 from east of the 17th/18th Street intersection to east of the at-grade interchange to north of the 41st Avenue and SR 45 (US 41) intersection.
- From east of 26th Street to west of the 14th Street intersection the SR 684 (US 41) (Cortez Road) corridor was milled and resurfaced with median modifications that included directional median openings associated with the addition of five (5) signalized mid-block crossings under FPID 446594-1-52-01 in FY 22.
- While this is a designated Vision Zero workshop project the associated major improvements will be included in a separate future reconstruction project but several low-cost high impact items such a filling in the sidewalk gaps and providing directional medians at various locations are included with this project. There are also proposed safety improvements for enhancing both vehicular traffic flow and pedestrian traffic flow that are based on the RSA previously conducted in June 2022 that are also proposed to be included with this project.

Pavement Description:

Mainline and Major Side Streets Milling and Resurfacing:

- For budget purposes, the LRE assumes the mainline through and turn lanes, striped pull outs, crossovers, and intersection openings will be milled 3" and resurfaced with 1 ½" Type SP 12.5 (Traffic C, PG 76-22) structural course and 1 ½" Type FC-12.5 (Traffic C, PG 76-22) friction course.

Side Street Milling and Resurfacing:

- For budget purposes, the LRE assumes the side street turnouts listed in the above will be milled 1 ½" and resurfaced with 1 ½" SP 12.5 (Traffic C, PG 76-22).
- In accordance with the FDM Chapter 214, criteria, and the Standard Plans Index 330-001, it is recommended that all side streets be resurfaced to the back of the furthest return or existing pavement joint, whichever is greater.

Keyhole Widening:

- Existing designated right turn lanes (RTL) are provided at the following locations:
 - Westbound to northbound in advance of the 26th Street W. (outside through lane transitions directly into RTL and is associated with 6 to 4 lane transition)
 - Eastbound to southbound in advance of the 14th Street W. signalized intersection
 - Westbound to northbound in advance of the 14th Street W. signalized intersection
 - Eastbound to southbound in advance of the 9th Street W. signalized intersection (associated with 6-to-4 lane roadway transition).
 - Westbound in advance of driveway MP 8.195. This turn lane is not a typical one-provides no RTL pavement marking arrows.
 - Southbound in advance of driveway MP 0.115 SR 55 (US 41) (S. Tamiami Trail) (13130-000)
- It should be noted that the westbound right turn lane pavement at the Lowes driveway MP 7.618 has been retrofitted with concrete separators that precludes its use for the right turning movements in conjunction with the associated addition of the signalized mid-block crossing at this RTL location.
- It is not recommended that widening for a keyhole at the RTL's be added and for budget purposes have not been included in the LRE since there are no designated bicycle lanes or available pavement width throughout the corridor that would provide any form of continuity or connectivity, is cost prohibitive, and may not be viable due to the severely constrained ROW. A variation will be required.

Hardened Centerlines:

- To be provided at the signalized intersections where feasible. The cost for these has been included in the LRE for budget purposes.

Guardrail:

- Guardrail was requested by Safety for a section on the northbound side at the 44th St Connector. There is an existing rigid utility pole and a light pole that have had several fatalities. Guardrail has been included in the LRE and design will need to evaluate this further. Some additional posts have been included in the LRE and design will evaluate the placement with the speeds for this curve.

Horizontal Curves:

- While there are a total of seven (7) existing horizontal curves identified in the SLD and within the project limits there are only three (3) that could be confirmed with documented geometric information in the available as-builts and through desktop reviews. The project designer should confirm these elements through the project design survey for all the existing curves.

Curve No.	DS	PC MP	PT MP	Degree of Curvature/ Deflection Angle	Radius (ft)	As-built SE (e)	SLD SE (e)	FDM SE (e)
1 – Right (EB) (Listed in SLD only)	40	7.697	7.726	N/A (AB) 0°30'00" (SLD) N/A (AB) Δ=0°46'40" (SLD)	Unknown (for lane transitions)	N/A	N/A	NC
2 – Right (WB) (Listed in SLD only)	40	7.697	7.726	N/A (AB) 0°30'00" (SLD) N/A (AB) Δ=0°46'40" (SLD)	Unknown (for lane transitions)	N/A	N/A	NC
3 – Left (EB) (Listed in SLD only)	40	7.803	7.838	N/A (AB) 2°00'00" (SLD) N/A (AB) Δ=3°43'32" (SLD)	Unknown (for lane transitions)	N/A	N/A	NC
4 – Left (EB) (Listed in SLD only)	40	7.838	7.874	N/A (AB) 2°00'00" (SLD) N/A (AB) Δ=3°43'32" (SLD)	Unknown (for lane transitions)	N/A	N/A	NC
5 – Right (Listed in as-builts (AB) and SLD)	40	7.970	8.017	1°53'55" (AB) 2°00'00" (SLD) Δ=5°13'51" (AB) Δ=5°01'21" (SLD)	3,017.75	NC	N/A	NC
6 – Left (Listed in SLD only)	40	8.017	8.041	N/A (AB) 2°00'00" (SLD) N/A (AB) Δ=5°01'21" (SLD)	Unknown	N/A	N/A	NC
7 – Left (Listed in as-builts (AB) and SLD) (13040-000 & 13040-001)	40	8.405 0.000	8.429 0.158	8°11'06" (AB) 12°57'00" (SLD) 9°00'00" (SLD) Δ=89°40'36" (AB) Δ=16°19'06" (SLD) Δ=75°05'00" (SLD)	700	Match Exist	N/A	0.022
8 – Right 44 th Ave Connector (13040-002) (Listed in as-builts (AB) and SLD)	40	0.000	0.038	21°57'09" (AB) 22°42'00" (SLD) Δ=47°17'24" (AB) Δ=45°32'49" (SLD)	261	NC	N/A	0.050*

- Per the FDM Chapter 210, Section 210.9.2, for low-speed curves if the existing superelevation rates are within 0.5% of the new construction values in Table 201.9.2, superelevation rate correction is not required. However, if there are any crashes within the last 5 years that are attributed to superelevation, correct the superelevation rates to the new construction values provided in Table 210.9.2.

Access Management:

- To improve vehicular and pedestrian safety, improve access control, and address operational concerns a channelizing curbed concrete island is proposed for separating the through and egress right turning movements for the southbound 9th Street W. to westbound SR 684 (US 41) Cortez Road) as indicated in the Roadway Safety Audit (RSA) Report US 41/SR 684 (Cortez Road) from 9th Street W. to 5th Street W. (June 2022). For budget purposes, the LRE provides for the addition of this concrete island and reconstruction of the 9th Street W. northwest curb return, adjacent sidewalk, and ADA curb ramp.
- The RSA recommended converting the full median openings at MP 8.135 and MP 8.194 to bi-directional median openings for access to the mall entrance on the eastbound side, and side-by-side driveways and skewed Denny's driveway on the westbound side of SR 684 (US 41) (Cortez Road). Subsequently, due to safety concerns, resulting ingress/egress conflicts due to misalignment of left turning movements, and the presence of several mall access points at other driveways as well as at signalized intersections it has been recommended this median opening be modified to provide only the eastbound left turn movement with elimination of the westbound left turning movement at the mall. A new signalized mid-block crossing will be added at this location. For budget purposes, the LRE provides for the addition of this grassed directional median, extension of the 4-foot concrete separator, radial concrete median end, and special width concrete separator adjoining the radial concrete end. The geometric layout and design for this directional median should be fully assessed by the designer.
- The RSA recommended improvements to the 5th Street W/ DeSoto Square Mall Driveway. This involves adding crosswalks along all four legs with the addition of ADA ramps with sidewalk landings at the northeast, northwest, and southwest corners, modification of the existing ADA ramp with sidewalk landing at the southeast corner, reconstruction of the concrete separator nose on the east leg, and signalization improvements. In addition, this will require removal of the westbound taper located at the northeast corner of the DeSoto Square Mall Driveway as well as reconstruction of the curb return with a proper radius (minimum 50 foot) and in conjunction with a new adjoining sidewalk segment for pedestrian connectivity/continuity.

Multi-Modal Transportation:

- Sidewalk gaps: Sidewalk gaps were identified in the RSA report and for budget purposes included in the LRE for this project are new segments of sidewalk to fill in the following gaps of the otherwise continuous and connected existing sidewalks:
 - MP 8.055 (adjoin to existing sidewalk) to concrete driveway MP 8.075 (WB side) – it should be noted the viability at this location should be assessed due to the severely constrained ROW, roadway light pole, and close proximity of the light poles associated with the adjacent auto dealer parking lot.
 - Concrete driveway MP 8.075 to side-by-side driveways at MP 8.135 (WB side) – it should be noted the viability at this location should be assessed due to the severely constrained ROW, overhead electric transmission pole, cross drain headwall with railing, roadway light poles, and close proximity of the light poles associated with the adjacent auto dealer parking lot.
 - Side-by-side driveways MP 8.135 to Cortez Plaza Mobile Park egress driveway MP 8.155 (WB side) – it should be noted the viability at this location should be assessed due to the severely constrained ROW, drainage structures at both ends of the ditch with paved bottom, steep roadside slope, roadway light pole, and close proximity to the adjacent private appurtenances. For budget purposes the LRE also includes BOS gravity wall with bicycle/pedestrian picket railing since there is a drop-off elevation associated with adding the sidewalk within this segment. It is anticipated that the drainage system will also need to be

- replaced in conjunction with adding the sidewalk.
- Bus Pad MP 8.165 to Denny’s driveway MP 8.194 (WB side) – it should be noted the viability at this location should be assessed due to severely constrained ROW, overhead electric transmission pole, roadway light pole, and close proximity of adjacent vegetation.
- Desoto Square Mall Driveway northeast corner MP 8.263 to MP 8.310 (adjoin to existing sidewalk) (WB side) – the associated taper will be removed to provide this sidewalk with ADA ramps and landings.
- MP 8.285 (adjoin to existing sidewalk) to Plaza Entrance Driveway MP 8.370 (EB side) – this was not identified in the RSA report referenced in the above. The viability of this location should be assessed due to severely constrained ROW, very close proximity of overhead electric transmission poles, utilities, and adjacent private appurtenances.
- Transit: There are seven (7) eastbound and nine (9) westbound public transit bus stops associated with the Route 6 within the SR 684 (US 41) (Cortez Road) project limits. At a minimum these transit bus stops all provide benches with bus pads with adjoining sidewalk and some provide additional transit features including several with shelters. No bus pullouts are provided but a few are located within limited width striped out pavement areas that are associated with lane and median width transitions. These bus stops are predominately located in the vicinity of intersections, mid-block crossings, and limited width striped areas. The designer shall coordinate features and confirm the transit bus stop locations as well as any potential upgrades with District 1 Transit Office and with the public transit agency Manatee County Area Transit (MCAT) for the disposition of bus stops and if additional features are to be considered.

Design Variation/Exception:

- A design variation is needed for the absence of bicycle lanes and keyholes. Adding an isolated keyhole would not provide any type of connectivity or continuity, and thus these additional features are beyond RRR projects and may not be viable or is likely cost prohibitive.
- A design variation may be required for the 44th Avenue Connector superelevation associated with curve 8 but it should be noted that this roadway is a very short segment that operates as an intersecting turning roadway that is documented to have a 40-mph design speed.

Drainage Scope Items:

Maintenance has performed drainage infrastructure repairs from MP 6.722 to MP 7.754, but Maintenance has requested inlet repairs in 2 locations to be investigated in design. These areas show some depressions.

The first settled drainage structures at SR 684 WB, the first one is West of 24th St. W. besides the Waffle House GPS 27.46257 -82.58629.



The 2nd is at SR 684 WB, East of 30th St. W. besides The Cox Chevrolet Dealership GPS.27.46256 -82.59048.



Permitting Scope Items:

- This project is anticipated to be exempt from WMD permitting under FAC 62-330.051 (4)(c), as it is limited to pavement resurfacing and safety modifications. A permit exemption request will be needed.

Utility Scope Items:

- SUE is anticipated for new signal or lighting foundations.

Signing Scope Items:

- All existing signing should be evaluated for possible replacement to ensure signs meet current design criteria for size, placement, and reflectivity.
- Of the six traffic signal locations, four have existing advance street name signs on both approaches, and the other two (Loc. 3 and 6) have a sign on only one approach. All of the existing signs are too close to their respective intersection, and none meet current design criteria for letter size. See Chapter 2.37 of the Traffic Engineering Manual (TEM) and "Condition A" of Table 2C-4 of the MUTCD for current guidelines. All should be evaluated for possible replacement. Add signs at Loc's. 3 and 6 on the approach where they are missing.
 1. 26th St. W.
 2. 20th St. W.
 3. US 41 (14th St. W.)
 4. 9th St. W.
 5. 5th St. W.
 6. 44th Ave. E.
- Although the northern project limits do not include the traffic signal at 301 Blvd., the advance street name sign is within the limits. This sign should also be evaluated for replacement.
- There are two sets of guide signs on overhead span sign structures. Both structures and most of the signs were installed in 2006. At a minimum, sign panels should be replaced. If replaced, an ancillary structural evaluation should be requested from the District Structures office to ensure

the structure may be reused. It was determined in the Technical Review Meeting (TRM) to not include the overhead structure in the LRE. If the structure fails the evaluation, please coordinate with the District Design Engineer for approval and to seek funding.



- Construction has been completed reconfiguring medians between 26th St. W. and 14th St. E. (US 41) and installation of five pedestrian hybrid beacon (PHB) assemblies for pedestrian midblock crossings. This was done under FPID #446954-1-52-01. Evaluate condition of all signs installed in that project. Replace damaged signs if needed.
- Safety has recommended installation of R10-15 (RIGHT TURN YIELD TO PEDS) signs at the intersection of 14th St. on all approaches.
- There is a curve at the end of this project. The traffic signal at 44th Ave. E. is in the middle of this curve. A recommendation has been made to evaluate additional signing (including chevron alignment signs) with bright sticks to improve safety through this curve. Please see the two-page concept drawings at the end of this signing and pavement marking portion of the scope for details. Additional signs and bright sticks have been included in the overall estimate for the project to include the requested items. However, if considered, coordination is required with the District Traffic Operations Engineer for installation of the bright sticks.

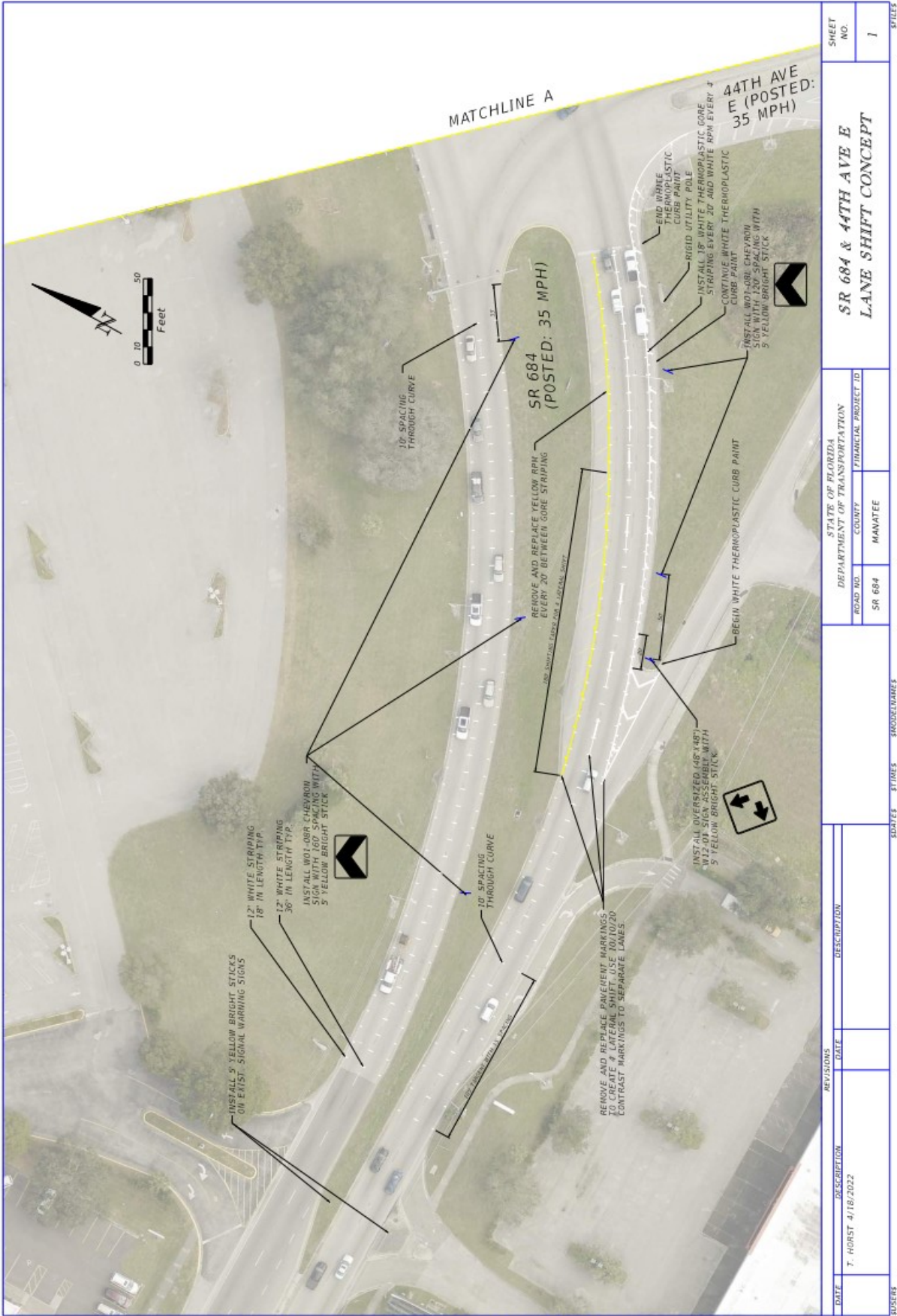
Pavement Marking Scope Items:

- Use special emphasis/preformed thermoplastic for all crosswalks at signalized intersections and at midblock pedestrian crossings.

- Replace all markings not otherwise noted in this report with standard thermoplastic. This will include advance PED XING pavement messages for all approaches to midblock pedestrian crossings.
- In addition to the added signing recommended in the safety concept noted previously, recommendation has been made to include optical pavement markings for the curve at the end of the project. Such markings have already been placed at this location within the past year, and these should be replaced as shown on the concept.

Object Marker and Delineator Scope Items:

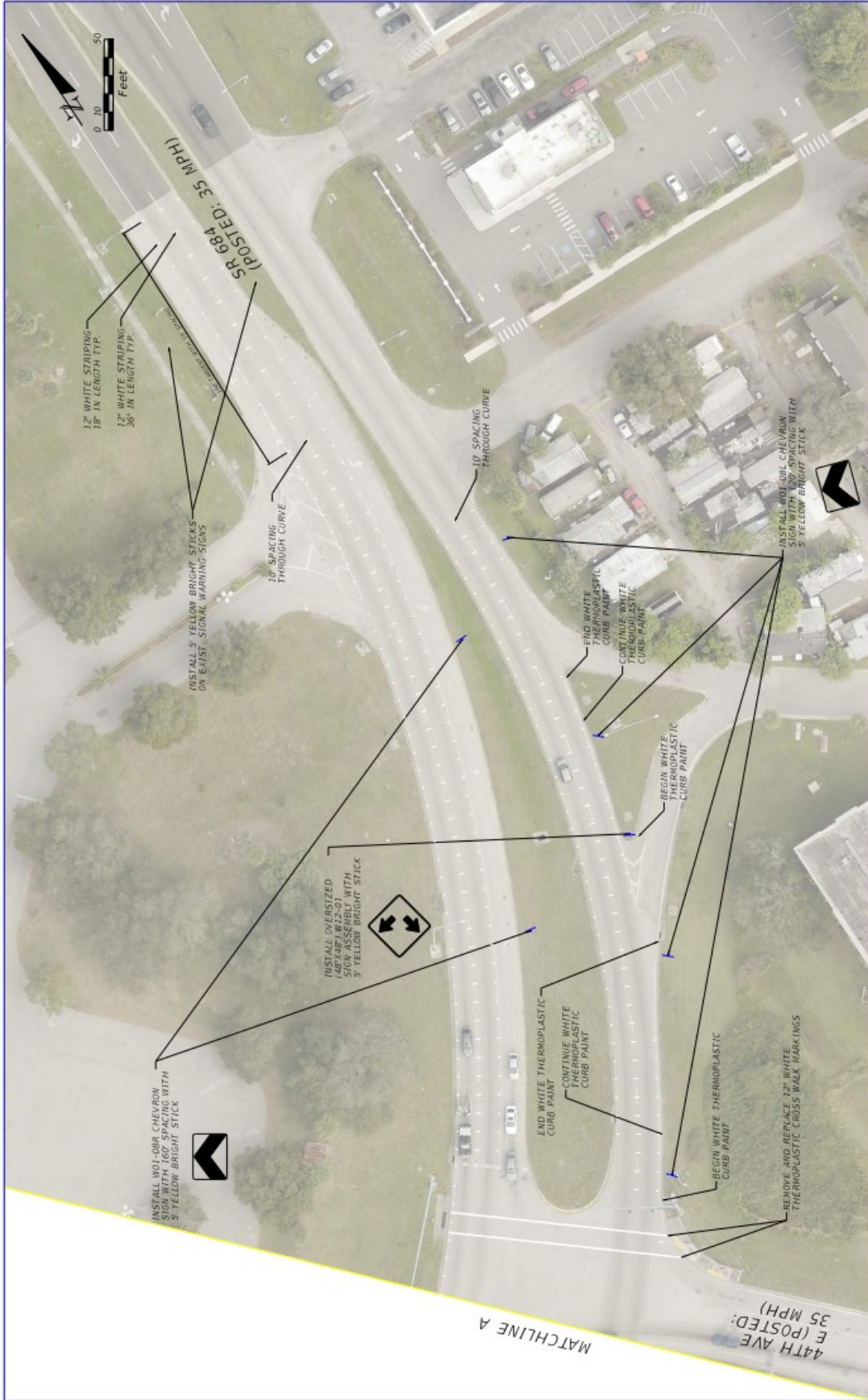
- Evaluate the condition of all existing object markers within the project. Replace if required.
- Replace delineators in the median/separator noses where needed. See Index 711-001-1 for guidelines.



REVISIONS		DESCRIPTION		DATE	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
T. HOIST 4/18/2022					

STATE OF FLORIDA	STATE OF FLORIDA	STATE OF FLORIDA	STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION
ROAD NO. SR 684	COUNTY MANATEE	FINANCIAL PROJECT ID	

SR 684 & 44TH AVE E		SHEET NO.
LANE SHIFT CONCEPT		1



REVISIONS		STATES - STILES - PROCEEDURES		SR 684 - MANATEE		SR 684 & 44TH AVE E LANE SHIFT CONCEPT		SHEET NO. 2	
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID			
T. HORST 4/18/2022				SR 684	MANATEE				

Signalization Scope Items:

Signal scoping items and recommendations are limited to the following:

- Required improvements listed within section 114 of the FDM and RDB 22-01.
- Items specifically recommended by District Safety that advance safety countermeasures.
- Upgrades of existing vehicle detection methods based on current Maintaining Agency requirements.
- Approved replacement of existing signal structures. Signal structures displaying characteristics that lead to a high probability of replacement.
- Approved requests from District TSM&O for ITS related improvements or additions.

Existing traffic signal related features not meeting this criterion will not be included in the scope.

All traffic signal related recommendations listed within this scope shall follow the latest design guidelines as outlined in the FDM, Standard Plans, MUTCD, TEM, MUTS, District One’s Maintaining Agency requirements guidelines and Structures Design Manual.

The following signalized intersections fall within the limits of the begin and end mile posts for this RRR scope:

Signal location 1:

SR 684 (Cortez Rd.)
at 26th St. W
MP: 7.000
Sig ID: 449

Signal location 4:

SR 684 / US 41 (Cortez Rd.)
at 9th St. W
MP: 8.011
Sig ID: 451

Signal location 2:

SR 684 (Cortez Rd.)
at 20th St. W
MP: 7.349
Sig ID: 450

Signal location 5:

SR 684 / US 41 (Cortez Rd.)
at Mall Ent. / 5th St. W
MP: 8.263
Sig ID: 452

Signal location 3:

SR 684 (Cortez Rd.)
at SR 45 / US 41 (14th St. W)
MP: 7.754
Sig ID: 401

Signal location 6: (13040-001)

SR 684 / US 41
at 44th Ave. Connector
MP: 0.059
Sig ID: 453

Existing PHB mid-block crossings:

PHB location 1

MP: 7.189
Sig ID: 3145

PHB location 4

MP: 7.536
Sig ID: 3148

PHB location 2

MP: 7.277
Sig ID: 3146

PHB location 5

MP: 7.620
Sig ID: 3149

PHB location 3

MP: 7.442
Sig ID: 3147

Roadway safety audit impacts:

In June of 2022 and within the limits of this project, a roadway safety audit (RSA) was conducted. Recommendations from that study are bulleted under the intersections listed below. This scope intends to incorporate these recommendations.

SR 684 / US 41 (Cortez Rd.) at 9th St. W:

- Add right turn signal for East bound right turn lane.
- Replace 5 section heads with 4 section flashing yellow arrow heads.
- Add R10-15 signs to all approaches.
- Relocate pedestrian assembly on the SW corner.

SR 684 / US 41 (Cortez Rd.) at 5th St. W:

- Replace 5 section heads with 4 section flashing yellow arrow heads.
- Install crosswalks on all approaches.
- Change SOP to split (northbound and southbound) operation.
- Add flexible backplates.

Signal location 1:

SR 684 (Cortez Rd.)
at 26th St. W

District Safety recommendations:

- None provided.

District TSM&O recommendations:

- Provide Connected Vehicle (CV) roadside unit (RSU).
- Provide NEMA / ATC standard controller.

Additional scoping recommendations:

Structural support:

- Proposed modifications are anticipated for the existing mast arms. Per FDM 261.8.1, a condition evaluation is required when there are modifications without load increase (flexible backplates, etc.). Per FDM 261.8.2, a structural analysis will be required if the assembly is subject to additional loading (rigid backplates, additional heads etc.).

Controller and cabinet:

- District TSM&O is requesting that the controller be upgraded to a NEMA / ATC standard. Should the request be granted, coordinate with the maintaining agency specifications for any sole sourced controller and cabinet related equipment.

Signal head assemblies:

- Review and coordinate the planned SOP with TSM&O and replace 5-section heads with 4-section heads where appropriate. Follow MUTCD guidance (section 4D.11) for the number of signal faces on an approach and add additional signal heads where necessary.
- Recommend providing near-side, 3-section arrowed signal heads for all approaches left turning movements (MUTCD section 4D.13).

Overhead signs:

- Consideration should be given to placing FTP-85-13 signs adjacent to any proposed 4-section heads.

Vehicle detection:

- Based on the maintaining agency's preferences, it is recommended to utilize radar vehicle detection devices for both stop bar and multiple point detection zones. Coordinate preferences and any sole sourced or proprietary equipment requirements with the maintaining agency.

Traffic monitoring and associated technologies:

- District TSM&O is requesting a connected vehicle RSU at this location. Should this system be implemented, it is recommended to coordinate this effort with the maintaining agency to determine specifications for any sole sourced or proprietary controller and cabinet related equipment.

Signal location 2:

SR 684 (Cortez Rd.)

at 20th St. W

District Safety recommendations:

- None provided.

District TSM&O recommendations:

- Provide Connected Vehicle (CV) roadside unit (RSU).
- Provide CCTV camera.

Additional scoping recommendations:

Structural support:

- Proposed modifications are anticipated for the existing mast arms. Per FDM 261.8.1, a condition evaluation is required when there are modifications without load increase (flexible backplates, etc.). Per FDM 261.8.2, a structural analysis will be required if the assembly is subject to additional loading (rigid backplates, additional heads etc.).

Controller and cabinet:

- District TSM&O is requesting that the controller be upgraded to a NEMA / ATC standard. Should the request be granted, coordinate with the maintaining agency specifications for any sole sourced controller and cabinet related equipment.

Signal head assemblies:

- Review and coordinate the planned SOP with TSM&O and replace 5-section heads with 4-section heads where appropriate. Follow MUTCD guidance (section 4D.11) for the number of signal faces on an approach and add additional signal heads where necessary.
- Recommend providing near-side, 3-section arrowed signal heads for all approaches left turning movements (MUTCD section 4D.13).

Overhead signs:

- Consideration should be given to placing FTP-85-13 signs adjacent to any proposed 4-section heads.

Internally illuminated street name signs:

- Removal of static (non-illuminated) street name signs and the Installation of internally illuminated street name signs is recommended. Follow TEM and FDM guidelines to ensure appropriate letter and sign sizing. Coordinate sign and mounting preferences with the maintaining agency.

Vehicle detection:

- Based on the maintaining agency’s preferences, it is recommended to utilize radar vehicle detection devices for both stop bar and multiple point detection zones. Coordinate preferences and any sole sourced or proprietary equipment requirements with the maintaining agency.

Traffic monitoring and associated technologies:

- District TSM&O is requesting a connected vehicle RSU at this location. Should this system be implemented, it is recommended to coordinate this effort with the maintaining agency to determine specifications for any sole sourced or proprietary controller and cabinet related equipment.
- District TSM&O is requesting the addition of a CCTV camera at this location for traffic monitoring. Should the request be granted, coordinate any sole sourced or proprietary equipment preferences with the maintaining agency.

Signal location 3:

SR 684 (Cortez Rd.)

at SR 45 / US 41 (14th St. W)

District Safety recommendations:

- Non provided.

District TSM&O recommendations:

- Provide Connected Vehicle (CV) roadside unit (RSU).
- Provide NEMA / ATC standard controller.

Additional scoping recommendations:

Structural support:

- Proposed modifications are anticipated for the existing mast arms. Per FDM 261.8.1, a condition evaluation is required when there are modifications without load increase (flexible backplates, etc.). Per FDM 261.8.2, a structural analysis will be required if the assembly is subject to additional loading (rigid backplates, additional heads etc.).

Controller and cabinet:

- District TSM&O is requesting that the controller be upgraded to a NEMA / ATC standard. Should the request be granted, coordinate with the maintaining agency specifications for any sole sourced controller and cabinet related equipment.

Signal head assemblies:

- Recommend providing near-side, 3-section arrowed signal heads for both eastbound and westbound left turning movements (MUTCD section 4D.13).

Vehicle detection:

- Based on the maintaining agency’s preferences, it is recommended to utilize radar vehicle detection devices for stop bar detection zones. Coordinate preferences and any sole sourced or proprietary equipment requirements with the maintaining agency.

Traffic monitoring and associated technologies:

- District TSM&O is requesting a connected vehicle RSU at this location. Should this system be implemented, it is recommended to coordinate this effort with the maintaining agency to determine specifications for any sole sourced or proprietary controller and cabinet related equipment.

Pedestrian assemblies and detection:

- Some existing pedestrian detectors and /or assemblies appear to be in locations or are combined in a manner that is not conducive in meeting ADA, District or MUTCD guidelines. Consider the following corrective actions:
 - NW return: Relocate both assemblies out of the ramp slope.

Signal location 4:

SR 684 / US 41 (Cortez Rd.)
at 9th St. W

District Safety recommendations:

- Incorporate 2022 RSA recommendations.

District TSM&O recommendations:

- Provide Connected Vehicle (CV) roadside unit (RSU).
- Provide NEMA / ATC standard controller.
- Provide CCTV camera.

Additional scoping recommendations:

Structural support:

- Proposed modifications are anticipated for the existing mast arms. Per FDM 261.8.1, a condition evaluation is required when there are modifications without load increase (flexible backplates, etc.). Per FDM 261.8.2, a structural analysis will be required if the assembly is subject to additional loading (rigid backplates, additional heads etc.).

Controller and cabinet:

- District TSM&O is requesting that the controller be upgraded to a NEMA / ATC standard. Should the request be granted, coordinate with the maintaining agency specifications for any sole sourced controller and cabinet related equipment.

Signal head assemblies:

- Review and coordinate the planned SOP with TSM&O and replace 5-section heads with 4-section heads where appropriate. Follow MUTCD guidance (section 4D.11) for the number of signal faces on an approach and add additional signal heads where necessary.
- Recommend providing near-side, 3-section arrowed signal heads for all left turning vehicle movements (MUTCD section 4D.13).
- 2022 RSA recommends that a right turn signal head be added to the eastbound approach that can be used to restrict right turns when a pedestrian call is placed across the east leg. The Engineer should develop or coordinate with District TSM&O for the appropriate signal operation plan.

Overhead signs:

- Consideration should be given to placing FTP-85-13 signs adjacent to any proposed 4-section heads.

For enhanced pedestrian safety, consider adding overhead mounted R10-15a signs (per TEM 2.44.3) for all approaches.

Vehicle detection:

- Based on the maintaining agency’s preferences, it is recommended to utilize radar vehicle detection devices for stop bar detection zones. Coordinate preferences and any sole sourced or proprietary equipment requirements with the maintaining agency.

Traffic monitoring and associated technologies:

- District TSM&O is requesting a connected vehicle RSU at this location. Should this system be implemented, it is recommended to coordinate this effort with the maintaining agency to determine specifications for any sole sourced or proprietary controller and cabinet related equipment.

Pedestrian assemblies and detection:

- Some existing pedestrian detectors and /or assemblies appear to be in locations or are combined in a manner that is not conducive in meeting ADA, District or MUTCD guidelines. Consider the following corrective actions:
 - On the NW return, separate pedestrian detectors that reside on the same mast arm upright. Provide new detector posts or provide new assemblies.
 - NE and SE returns: Relocate assemblies out of the ramp slopes.

Signal location 5:

SR 684 / US 41 (Cortez Rd.)
at Mall Ent. / 5th St. W

District Safety recommendations:

- Incorporate 2022 RSA recommendations.

District TSM&O recommendations:

- Provide Connected Vehicle (CV) roadside unit (RSU).
- Provide NEMA / ATC standard controller.

Additional scoping recommendations:

Structural support:

- The existing diagonal span structure lies within the ten-mile mast arm zone. Per FDM 232.8.1 & 114.1.1, galvanized mast arm support structures are required within the ten-mile coastline boundary. Additionally, and per FDM 232.9, diagonal signal spans are only to be used for flashing beacon installations. If mast arm signal structures cannot be accommodated due to site conditions or other restricting factors, it is recommended to replace or modify the existing diagonal configuration with a box span configuration. During the design phase, should it be determined that the diagonal configuration shall remain, a design variation will be required.
- If the diagonal span is to remain upon approved design variation, the existing support structures should be evaluated for load capacity and signs of distress. Evaluate the existing span structure in accordance with FDM 261.8. Replacement shall be considered if the existing signal structures are found to be deficient.

Controller and cabinet:

- With the recommendation for new structures, replacement of controller and cabinet is also recommended. Coordinate with the maintaining agency specifications for any sole sourced controller and cabinet related equipment. District One policy is to provide UPS battery backup for all controllers and cabinets. Coordinate UPS placement and mounting preferences with the maintaining agency. NEMA / ATC standard controllers are required.

Signal head assemblies:

- With the recommendation for new structures, replacement of the existing signal head assemblies is also recommended. Per FDM 232.1.5, provide backplates with retroreflective borders for all overhead signal heads. Review and coordinate the planned SOP with TSM&O. Follow MUTCD guidance (section 4D.11) for the number of signal faces on an approach. Utilize 4-section signal heads with FYA where appropriate for protected / permissive movements.

2022 RSA recommends the following:

- Conduct a traffic or timing study to determine the feasibility of changing the NB and SB movements to split phased movements. Should the existing protected / permissive phasing remain, utilization of 4-section heads is recommended.

Overhead signs:

- Consideration should be given to placing FTP-85-13 signs adjacent to any proposed 4-section heads.

Internally illuminated street name signs:

- With the recommendation for new structures, installation of internally illuminated street name signs is recommended. Follow TEM and FDM guidelines to ensure appropriate letter and sign sizing. Coordinate sign and mounting preferences with the maintaining agency.
- Should the existing span system remain, it is recommended that new internally illuminated sign be proposed and that they are hung by cantilever to the strain pole uprights. This method of presentation will help reduce unnecessary wind loading. Follow TEM and FDM guidelines to ensure appropriate letter and sign sizing.

Vehicle detection:

- Based on the maintaining agency's preferences, it is recommended to utilize radar vehicle detection devices for stop bar detection zones. Coordinate preferences and any sole sourced or proprietary equipment requirements with the maintaining agency.

Traffic monitoring and associated technologies:

- District TSM&O is requesting a connected vehicle RSU at this location. Should this system be implemented, it is recommended to coordinate this effort with the maintaining agency to determine specifications for any sole sourced or proprietary controller and cabinet related equipment.

Fiber interconnect: ATMS / TMC communications:

- With the recommended replacement of the controller and cabinet, it will be necessary to upgrade, replace or relocate ITS items. Confirm and coordinate equipment compatibility and reconnection methods with the maintaining agency.

Power source and service type:

- With the recommended replacement of the controller and cabinet, it is also recommended that a new power service assembly be added. Coordinate service type with maintaining agency (flat rate or metered).

Pedestrian assemblies and detection:

2022 RSA recommends the following:

- To facilitate pedestrian actuated crossings for all legs of the intersection, provide pedestrian signals and detectors at all returns. Location of pedestrian detectors and assemblies shall follow ADA, FDOT Standard Plans and MUTCD guidelines.

Signal location 6: (13040-001)

SR 684 / US 41

at 44th Ave. Connector

District Safety recommendations:

- None provided.

District TSM&O recommendations:

- Provide Connected Vehicle (CV) roadside unit (RSU).
- Provide NEMA / ATC standard controller.

Additional scoping recommendations:

Structural support:

- Proposed modifications are anticipated for the existing mast arms. Per FDM 261.8.1, a condition evaluation is required when there are modifications without load increase (flexible backplates, etc.). Per FDM 261.8.2, a structural analysis will be required if the assembly is subject to additional loading (rigid backplates, additional heads etc.).

Controller and cabinet:

- District TSM&O is requesting that the controller be upgraded to a NEMA / ATC standard. Should the request be granted, coordinate with the maintaining agency specifications for any sole sourced controller and cabinet related equipment.

Signal head assemblies:

- Add backplates to the mast arm upright mounted supplemental signal heads.

Vehicle detection:

- Based on the maintaining agency's preferences, it is recommended to utilize radar vehicle detection devices for stop bar detection zones. Coordinate preferences and any sole sourced or proprietary equipment requirements with the maintaining agency.

Traffic monitoring and associated technologies:

- District TSM&O is requesting a connected vehicle RSU at this location. Should this system be implemented, it is recommended to coordinate this effort with the maintaining agency to determine specifications for any sole sourced or proprietary controller and cabinet related equipment.

Pedestrian assemblies and detection:

- Recommend relocation of pedestrian detector that resides on NE corner that is not conducive in meeting ADA, District or MUTCD guidelines is recommended.
- Recommend relocation of pedestrian assemblies that resides on SE corner that is not conducive in meeting ADA, District or MUTCD guidelines is recommended.

Lighting Scope Items:

Lighting scoping items and recommendations are limited to the following criteria:

- For new or fully reconstructed signalized intersections that fall within roadway context classifications C3 through C6, or at locations with a roadway context classification lower than a C3 that have pedestrian facilities.
- Existing signalized intersections that have been identified by District Safety as having a history of nighttime pedestrian crashes.
- Corridor or sections of corridor that have been identified by District Safety as having a history of nighttime crashes.

- Retrofit existing HPS luminaires to LED (intersection physical limits).
- New or existing mid-block pedestrian crossings.
- Transit locations identified by D1 Modal Development Office.

The locations listed below have been identified as meeting this criterion.

Intersection location 3:

SR 684 (Cortez Rd.)
at SR 45 / US 41 (14th St. W)
MP: 7.754

Intersection location 5:

SR 684 / US 41 (Cortez Rd.)
at Mall Ent. / 5th St. W
MP: 8.263

Intersection location 4:

SR 684 / US 41 (Cortez Rd.)
at 9th St. W
MP: 8.011

Intersection location 6:

SR 684 / US 41
at 44th Ave. Connector
MP: 0.059

Roadway safety audit impacts:

This scope intends to incorporate lighting recommendations from the Roadway Safety Audit (RSA) that was conducted in June of 2022. The audit recommends adding or providing supplemental lighting at the following intersections:

- Intersection location 4 - SR 684 / US 41 (Cortez Rd.) at 9th St. W.
- Intersection location 5 - SR 684 / US 41 (Cortez Rd.) at Mall Ent. / 5th St. W

Existing lighting features:

Elements of corridor and intersection lighting exist within the limits of the project. LED luminaires make up the majority of luminaires west of 14th St. While the east side of 14th St. is a mixture of HPS and LED luminaires.

District Safety recommendations:

- Incorporate lighting recommendations from June 2022 Roadway Safety Audit.

Additional scoping items and recommended design considerations:

The following guidance and recommendations apply for rebuilt intersections as well as areas identified as needing lighting upgrades or retrofit by D1 Safety.

- In addition to the RSA recommendations for Intersection location 5, This intersection has also been recommended for full signal replacement. Based on District policy for rebuilt signalized intersections, pedestrian level intersection lighting shall be provided.
- Within the physical limits of the intersection location 3, retrofit existing high pressure sodium (HPS) luminaires with LED luminaires.
- Within the project limits, there are five existing PHB mid-block crossings. During the design phase, these existing mid-block crossings should be assessed with a complete lighting analysis to ensure minimum vertical and horizontal illumination values are met. Utilize lighting design criteria based on the latest FDOT FDM, Standard Specifications and Standard Plans for Road and Bridge Construction.
- At locations where lighting improvements are recommended, the existing and proposed intersection lighting should be assessed with a complete lighting analysis to ensure

minimum vertical and horizontal illumination values are met. Utilize lighting design criteria based on the latest FDOT FDM, Standard Specifications and Standard Plans for Road and Bridge Construction. Per RDM 16-02 and Standard Spec 992, LED light fixtures shall be used.

- During the design phase, it should be determined if new intersection and/or corridor luminaires can be powered by extending the circuits of the existing intersection or corridor lighting infrastructure.
- Coordinate with signal design any potential shared facilities (i.e., directional bores, luminaire support structures, and power service poles).
- Coordinate any new power source locations and requirements with UAO.
- Coordinate lighting maintenance agreement with the District Maintenance Office and the Maintaining Agency.
- Coordinate light fixture types with Maintaining Agency. Only light fixtures that appear on the Departments approved product list are allowed.
- Existing light poles and / or mast arm upright mounted luminaires that are not in locations that are conducive to appropriately illuminate pedestrian crosswalks should be evaluated for relocation, removal or replacement.
- Overhead utility lines are present within the corridor. Coordination with District Utilities and UAO will be necessary. Utilization of conflict light poles may be required.

Structural Scope Items:

- Per section 261.8 of the FDM, if we are modifying any of the existing structures an Ancillary Structures Report will need to be provided for all existing sign, signal, lighting, and ITS support structures within the project limits.
- MP 7.969 - Bridge Culvert 130024: No changes anticipated.
- MP 8.103 - Box Culvert 2-8'x7'x98' CBC: No changes anticipated.

Scope Analysis for Social and Environmental Issues

FPID No:	451022-1	County:	Manatee	City:	Bradenton
Project Limits:	State Road (SR) 684 (US 41) from 30th Street W to north of 41st Avenue E				
Section:	13040-000 / 13040-001 13040-002 / 13130-000	Length of Project:	2.089 miles		
Begin Milepost:	6.747 / 0.000 0.000 / 0.115	End Milepost:	8.574 / 0.158 0.073 / 0.146		
Scope:	Resurfacing, Restoration, and Rehabilitation (RRR) with reconstruction of Americans with Disabilities Act (ADA) ramps/landings within existing signalized intersections for new and existing crosswalks, repair or reconstruct concrete sidewalks and driveways, add sidewalk in existing gaps, provide concrete island, remove tapers, adjust side street curb returns, and median modifications				
Review Date:	12/16/2024 – B. Feagle	Anticipated NEPA COA:	Type 1 CE / NMSA		

Potential Cost or Schedule Impacts

Public Hearing: The scope includes the modification of medians; therefore, a public hearing will be required at least 180 days (six months) prior to construction to allow for public input regarding access management.

Social: 11.3% of the population is designated as limited English proficiency (LEP); therefore, LEP services must be provided through verbal interpretation and written translation of vital documents.

Cultural: The project must be formally evaluated for cultural resources involvement during plans development. Due to the limited nature of proposed improvements, the project is expected to meet the conditions set forth in Stipulation VI – Minor Project Considered Unlikely to Affect Historic Properties of the Statewide Section 106 Programmatic Agreement.

Wetlands: A design-phase field visit is recommended to verify the quality of wetlands and assess impacts of the project.

Eastern indigo snake: The most recent version of the *Standard Protection Measures for the Eastern Indigo Snake* must be followed during site preparation and construction and Special Provision SP0070104-7 (indigo snake) should be added to the Standard Specifications.

Gopher tortoise: Design-phase field review must be completed to verify if a permit is required to relocate tortoises. If burrows remain within the project area, the location must be noted in the plans and silt fence must be installed to protect the burrow from destruction during ground-disturbing activities. Special Provision SP0070104-3 (gopher tortoise) should be added to the Standard Specifications.

Bald eagle: A design-phase field review must be conducted to confirm the location of any active bald eagle nests as construction activities may not occur within 330 feet of an active nest during nesting season (October 1st to May 15th), or until all nestlings fledge.

Contamination: The project plans must be formally evaluated for contamination involvement during plans development. It is anticipated a Contamination Memorandum will be prepared and the Contamination Assessment and Remediation (CAR) Contactor will investigate and summarize the results in a *Level II Impact to Construction Report (L2-ICR)* to generate final plans markings.

Special Designation: Due to the Scenic Highway involvement, coordination must take place with the District Scenic Highway Coordinator.

Social and Economic Resources

Social: The minority population accounts for 50% of the population of the area with 22.7% of the population residing below poverty level. There are 186 people who do not speak English well or at all, which equates to 11.3% of the population.

Land Use Changes: The current land use consists of commercial and services, transportation, industrial, and high-density residential areas while the future land use is anticipated to be mainly mixed use and industrial; therefore, the project is not expected to result in land use changes.

Mobility: Additional traffic capacity, change in traffic volume, or change in vehicle speed are not expected.

Community Cohesion: The project is not expected to affect community services or cohesion.

Farmlands: While there are 114.2 acres of farmland of unique importance within the area, the project is located within the Sarasota-Bradenton urbanized area. The project is not subject to the provisions of the Farmland Protection Policy Act as construction is anticipated to remain within existing right-of-way.

Relocation Potential: No right-of-way acquisition or relocations are expected for this project.

Cultural Resources

Archaeological and Historical Resources: A review of the Florida Master Site File (FMSF) records revealed two resource groups (MA01981 and MA01987) occur within the project area. Site MA01981 (223 301 Blvd East) is a building complex and Site MA01987 (301 Blvd E) is a linear resource, both of which have been determined ineligible for listing on the National Register of Historic Places (NRHP). Approximately 49 structures in the project area were constructed prior to 1970.

Protected Lands: There are no properties located within the project area that are protected pursuant to Section 4(f) of the Department of Transportation Act of 1966 [23 Code of Federal Regulations (CFR) Part 744] or Section 6(f) of the Land and Water Conservation Fund of 1965.

Natural Resources

Wetlands and Other Surface Waters: Based on a review of the US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data, the project may impact riverine wetlands at the Cedar Hammock crossing on 13040-000 from milepost (MP) 7.969 to MP 7.977 and a culvert at MP 8.103, along with two palustrine wetland areas on 13040-001 at approximately MP 0.025 and MP 0.10 that are within the right-of-way.

Essential Fish Habitat: No Essential Fish Habitat (EFH) is present within the project area.

Floodplains: 63.5 acres (25%) of the project area is located within the 100-year floodplain (Zone AE); however, the project is not expected to have impact on floodplains.

Sole Source Aquifer: The project area is not associated with a sole source aquifer.

Aquatic Preserves and Outstanding Florida Waters: No aquatic preserves or outstanding Florida waters are located within the project area.

Wild and Scenic Rivers: No Wild and Scenic Rivers are identified within the project area.

Coastal Barrier Resources: The project is not located within a Coastal Barrier Resource Act (CBRA) designated area.

Protected Species and Habitat: The project area was reviewed for potential impacts to wildlife and habitat resources, including federal and state protected species in accordance with Section 7 of the Endangered Species Act (ESA, 1973), as amended, and Chapter 68A-27 Florida Administrative Code (FAC).

The following anticipated determinations of effects utilized applicable species keys and the 2024 FDOT *Programmatic Approach for Minor Transportation Activities* for Activities B12 and C5.

Eastern indigo snake: Undeveloped habitat was noted proximal to the project; therefore, eastern indigo snakes have the potential to occur. The project is expected to include sidewalk or multi-use path construction; therefore, the project is expected to result in a *may affect, not likely to adversely affect* determination for the eastern indigo snake.

Gopher tortoise: Undeveloped habitat was noted proximal to the project; therefore, gopher tortoises have the potential to occur. Design-phase review and coordination will determine if a gopher tortoise survey is required.

Bald eagle: Bald eagle nest MN046 occurs 0.25-mile south of SR 684 (27.45816, -82.575849); however, it was last surveyed and known active in 2015. A design-phase field review must be conducted to confirm the location of any active bald eagle nests.

Piping plover: The project is located within the USFWS consultation area for the piping plover. Based on the lack of suitable beach habitat, it is expected the project will result in *no effect* on the piping plover.

Florida Scrub-jay: The project is located within the USFWS consultation area for the scrub-jay. Based on the lack of suitable scrub habitat, it is expected the project will result in *no effect* on the scrub-jay.

Wood stork: The project is located within the 15-mile core foraging area of one wood stork colony and is expected to include sidewalk or multi-use path construction. However, there is no suitable foraging habitat within the project area; therefore, it is expected the project will result in *no effect* on the wood stork.

American crocodile: The project is located within the species range for the American crocodile. Based on the lack of suitable wetland habitat, it is expected the project will result in *no effect* on the crocodile.

Eastern black rail: The project is located within the species range for the eastern black rail. Based on the lack of suitable wetland habitat with salt, brackish, or freshwater marsh with dense herbaceous cover, it is expected the project will result in *no effect* on the eastern black rail.

Everglade snail kite: The project is located within the species range for the Everglade snail kite. Based on the lack of suitable wetland habitat, it is expected the project will result in *no effect* on the snail kite.

Sea turtles: The project is located within the species range for the green sea turtle, hawksbill sea turtle, and leatherback sea turtle. The project is not located adjacent to beaches or waterbodies and therefore will have no effect on sea turtles.

Red-cockaded woodpecker: The project is located within the species range for the red-cockaded woodpecker. Per the 2020 USFWS *Red-Cockaded Woodpecker Determination Key*, the project will not

remove suitable foraging habitat nor occur within suitable nesting habitat (A > B); therefore the project is expected to result in *no effect* on the red-cockaded woodpecker.

Rufa red knot: The project is located within the species range for the Rufa red knot. Per the 2019 USFWS *Red Knot Determination Key*, the project is not a renewable energy project (A > no effect) and will therefore have *no effect* on the Rufa red knot.

Wading birds: The project is located within the species range for the state-protected reddish egret, little blue heron, roseate spoonbill, and tricolored heron. Based on the lack of suitable wetland habitat for these species to nest or forage, the project will result in *no adverse effect* on these species.

Imperiled beach-nesting birds: The project is located within the species range for the state-protected American oystercatcher, snowy plover, black skimmer, and least tern. Based on the lack of suitable coastal habitat for these species to nest or forage, the project will result in *no adverse effect* on these species.

Listed plants: The federal-listed Florida goldenaster, Florida perforate cladonia, and pygmy fringe-tree, and state-listed many-flowered grass-pink and nodding pinweed have the potential to occur within the area. With the limited scope of the project within the existing right-of-way and lack of remaining natural habitat, the project is expected to have *no effect* on listed plants.

Physical Resources

Noise: The project meets the criteria for a Type III project established in 23 CFR 772; therefore, analysis of highway traffic noise is not required.

Air Quality: Since this project will not impact traffic volumes, no changes to air quality are anticipated.

Contamination: Based on prior project plan reviews in the area it appears there are 12 low and 5 medium risk-rated contamination sites in the project corridor. This information is based off the 2021 ERC comments from the contamination review of the 90% Plans for 446954-1: SR 684 from 26th St W to 14th St W.

Utilities and Railroads: The project area contains two electric power transmission lines.

Navigation: The project does not include any bridges or waterways.

Special Designations

Scenic Highway Designation: The portion of SR 684 (US 41) from US 41/14th Street W to US 301 is designated as the Tamiami Trail – Windows To the Gulf Coast Waters Scenic Highway. This highway was designated as a scenic highway in December 2003.

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 451022-1-52-01

Letting Date: 07/2028

Description: SR 684 (US 41) FROM 30TH ST W TO N OF 41ST AVE E

District: 01 **County:** 13 MANATEE **Market Area:** 10 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 2.089 MI

Project Manager: NEM-LAT-4P

Version 7-P Project Grand Total

\$12,266,632.46

Description: Copy V6 - changes from 9/29/25 TRM meeting - delete PHB (seq 5), remove sign structures, update guardrail estimates for additional post spacing - 10/01/25

Sequence: 1 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: RRR (no reconstruction) includes Signing (3" milling) 2025 PCR 6.5/6.6

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING Comment: For drainage structure repair	0.02	AC	\$102,274.21	\$2,045.48
110-4-10	REMOVAL OF EXIST CONC Comment: 1780 SY mainline; 13.89 SY For drainage structure repair	1,793.89	SY	\$42.31	\$75,899.49
120-1	REGULAR EXCAVATION Comment: For drainage structure repair	0.18	CY	\$38.17	\$6.87
160-4	TYPE B STABILIZATION Comment: For drainage structure repair	80.56	SY	\$91.61	\$7,380.10
285-711	OPTIONAL BASE,BASE GROUP 11 Comment: For drainage structure repair	66.67	SY	\$115.82	\$7,721.72
327-70-4	MILLING EXIST ASPH PAVT, 3" AVG DEPTH	88,992.12	SY	\$4.60	\$409,363.75
327-70-6	MILLING EXIST ASPH PAVT,1 1/2" AVG DEPTH	7,501.62	SY	\$7.36	\$55,211.92
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22 Comment: 7960.73 mainline; 5.5 For drainage structure repair	7,966.23	TN	\$196.98	\$1,569,187.99
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22 Comment: 7341.85 mainline; 5.5 For drainage structure repair	7,347.35	TN	\$213.43	\$1,568,144.91
520-1-10	CONCRETE CURB & GUTTER, TYPE F	50.00	LF	\$43.66	\$2,183.00
520-5-41	TRAF SEP CONC-TYPE IV, 4' WIDE	1,066.00	LF	\$89.08	\$94,959.28
520-5-42	TRAF SEP CONC-TYPE IV, 6' WIDE	614.00	LF	\$150.67	\$92,511.38
520-5-46	TRAF SEP CONC-TYPE IV,8.5' WIDE	1,009.00	LF	\$324.16	\$327,077.44
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	33.33	SY	\$82.91	\$2,763.39
527-2	DETECTABLE WARNINGS	1,692.00	SF	\$38.16	\$64,566.72
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3 Comment: Fatality at utility pole and light pole at intersection. Safety noted for design to investigate guardrail	150.00	LF	\$26.23	\$3,934.50

	in this area.			
536-7-3	SPECIAL GUARDRAIL POST-ENCASED POST SM	19.00 EA	\$66.18	\$1,257.42
	Comment: Added per TRM 9/29/25 to allow for increased guardrail cost for additional posts in the curve.			
536-85-24	GUARDRAIL END TREATMENT-PARA APP TERM	2.00 EA	\$3,707.29	\$7,414.58
	Comment: Fatality at utility pole and light pole at intersection. Safety noted for design to investigate guardrail in this area.			
710-11-290	PAINTED PAVT MARK,STD,YELLOW,ISLAND NOSE	282.00 SF	\$3.65	\$1,029.30
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	1.00 LS	\$49,985.46	\$49,985.46
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	7,400.00 LF	\$3.94	\$29,156.00
711-11-124	THERMOPLASTIC, STD, WHITE, SOLID, 18"	1,533.00 LF	\$6.13	\$9,397.29
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	1,880.00 LF	\$8.00	\$15,040.00
711-11-141	THERMOPLASTIC, STD, WHITE, DOT GUIDE, 6"	0.36 GM	\$2,848.83	\$1,025.58
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	77.00 EA	\$177.23	\$13,646.71
711-11-170	THERMOPLASTIC, STD, WHITE, ARROW	124.00 EA	\$88.48	\$10,971.52
711-11-224	THERMOPLASTIC, STD, YELLOW, SOLID, 18"	591.00 LF	\$5.93	\$3,504.63
711-11-241	THERMOPLASTIC,STD,YELLOW,DOT / GUIDE, 6"	0.24 GM	\$2,910.50	\$698.52
711-14-125	THERMOPLASTIC, PREFORM, WHITE, SOLID,24"	3,660.00 LF	\$17.52	\$64,123.20
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	5.44 GM	\$5,929.85	\$32,258.38
711-16-102	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 8"	1.05 GM	\$6,882.95	\$7,227.10
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	4.29 GM	\$2,184.12	\$9,369.87
711-16-201	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"	3.57 GM	\$5,966.81	\$21,301.51
711-17-1	THERMOPLASTIC, REMOVE	400.00 SF	\$3.41	\$1,364.00
	Roadway Component Total			\$4,561,729.01

SHOULDER COMPONENT

User Input Data

Description		Value		
X-Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	21,732.48 LF	\$2.39	\$51,940.63
104-15	SOIL TRACKING PREVENTION DEVICE	3.00 EA	\$4,260.49	\$12,781.47
104-18	INLET PROTECTION SYSTEM	114.00 EA	\$177.61	\$20,247.54
107-1	LITTER REMOVAL	5.88 AC	\$68.03	\$400.02
107-2	MOWING	5.88 AC	\$88.00	\$517.44
570-1-2	PERFORMANCE TURF, SOD	28,353.01 SY	\$5.15	\$146,018.00

Shoulder Component Total

\$231,905.10

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-15-51	INLET TOP, REPLACE, CURB INLET	2.00 EA	\$5,323.00	\$10,646.00
Drainage Component Total				\$10,646.00

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-111	SINGLE COL GRND SIGN AS, F&I GM, <12 SF	94.00 EA	\$637.45	\$59,920.30
700-1-112	SINGLE COL GRND SIGN AS, F&I GM, 12-20	26.00 EA	\$1,977.65	\$51,418.90
700-1-113	SINGLE COL GRND SIGN AS, F&I GM, 20.1-30	8.00 EA	\$2,866.68	\$22,933.44
700-1-500	SINGLE COL GRND SIGN AS, RELOCATE	2.00 EA	\$290.61	\$581.22
700-1-600	SINGLE COL GRND SIGN AS, REMOVE	89.00 EA	\$50.32	\$4,478.48
700-2-113	MULTI- COLUMN SIGN, F&I GM, 20.1-30 SF	5.00 EA	\$6,238.78	\$31,193.90
700-2-600	MULTI- COLUMN GROUND SIGN, REMOVE	5.00 EA	\$1,307.26	\$6,536.30
700-3-201	SIGN PANEL, F&I OM, UP TO 12 SF	18.00 EA	\$1,159.43	\$20,869.74
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF Comment: Sig1 (2), Sig2 (2), Sig4 (6), Sig5 (8)	4.00 EA	\$108.12	\$432.48
700-5-22	INTERNAL ILLUM SIGN, F&I OM, 12-18 SF Comment: Sig2 (3), Sig5 (4)	7.00 EA	\$5,500.93	\$38,506.51
700-13-15	RETROREFLECTIVE SIGN STRIP-F&I, 5'	21.00 EA	\$88.82	\$1,865.22
705-10-1	OBJECT MARKER, TYPE 1	4.00 EA	\$233.97	\$935.88
705-10-2	OBJECT MARKER, TYPE 2	7.00 EA	\$112.90	\$790.30
705-11-1	DELINEATOR, FLEXIBLE TUBULAR	26.00 EA	\$111.62	\$2,902.12
706-1-3	RAISED PAVMT MARK, TYPE B	1,700.00 EA	\$4.63	\$7,871.00
Signing Component Total				\$251,235.79

Sequence 1 Total

\$5,055,515.90

Sequence: 2 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: Sidewalk Gaps (9th St W to 5th St W)

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.17 AC	\$102,274.21	\$17,386.62
120-1	REGULAR EXCAVATION	440.63 CY	\$38.17	\$16,818.85
120-6	EMBANKMENT	176.25 CY	\$56.65	\$9,984.56
400-0-11	CONC CLASS NS, GRAVITY WALL	181.89 CY	\$980.98	\$178,430.45
515-2-111	PED/BICYCLE RAILING,NS, 42" TYPE 1	423.00 LF	\$122.91	\$51,990.93
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	470.00 SY	\$104.19	\$48,969.30
570-1-2	PERFORMANCE TURF, SOD	708.63 SY	\$5.15	\$3,649.44
Roadway Component Total				\$327,230.15

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-1-529	INLETS, DT BOT, TYPE C, MODIFY	6.00 EA	\$8,095.26	\$48,571.56
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	424.00 LF	\$207.64	\$88,039.36
Drainage Component Total				\$136,610.92

Sequence 2 Total

\$463,841.07

Sequence: 3 MIS - Miscellaneous Construction

Net Length: 0.000 MI
0 LF

Description: Hardened Centerlines

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4-10	REMOVAL OF EXIST CONC	131.11	SY	\$42.31	\$5,547.26
520-1-10	CONCRETE CURB & GUTTER, TYPE F	50.00	LF	\$43.66	\$2,183.00
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	100.00	SY	\$104.19	\$10,419.00
527-2	DETECTABLE WARNINGS	120.00	SF	\$38.16	\$4,579.20
570-1-2	PERFORMANCE TURF, SOD	133.50	SY	\$5.15	\$687.52
704-1-4	TUBULAR MARKER, 36" YELLOW POST	159.00	EA	\$241.90	\$38,462.10
711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	864.00	LF	\$3.94	\$3,404.16
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	1,020.00	LF	\$8.00	\$8,160.00
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	0.05	GM	\$7,407.85	\$370.39
Roadway Component Total					\$73,812.64

Sequence 3 Total

\$73,812.64

Sequence: 4 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: Safety Funded (52-02) - median improvements

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.33	AC	\$102,274.21	\$33,750.49
110-4-10	REMOVAL OF EXIST CONC	222.89	SY	\$42.31	\$9,430.48
120-1	REGULAR EXCAVATION	820.30	CY	\$38.17	\$31,310.85
120-6	EMBANKMENT	410.15	CY	\$56.65	\$23,235.00
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,008.00	LF	\$43.66	\$44,009.28
520-5-41	TRAF SEP CONC-TYPE IV, 4' WIDE	118.00	LF	\$89.08	\$10,511.44
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	408.64	SY	\$104.19	\$42,576.20
570-1-2	PERFORMANCE TURF, SOD	708.63	SY	\$5.15	\$3,649.44
Roadway Component Total					\$198,473.18

SHOULDER COMPONENT

User Input Data

Description **Value**

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	96.00	LF	\$53.05	\$5,092.80
Shoulder Component Total					\$5,092.80

Sequence 4 Total **\$203,565.98**

Sequence: 6 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: Signal-RRR updates - 26th ST W, 20th St W, 14th St W, 9th St W, 5th St W (updates), 44th Ave
Conn

SIGNALIZATIONS COMPONENT

Signalization 1

Description		Value
Type		Miscellaneous
Multiplier		1
Description	26th St. W	

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
611-1-1	ITSFM SUBSURFACE DOCUMENTATION- PROJ LEN	1.98	MI	\$4,344.25	\$8,601.62
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERS	1.00	EA	\$3,101.63	\$3,101.63
630-2-11	CONDUIT, F& I, OPEN TRENCH	75.00	LF	\$19.47	\$1,460.25
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	402.00	LF	\$29.68	\$11,931.36
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$12,592.41	\$12,592.41
632-7-6	SIGNAL CABLE, REMOVE- INTERSECTION	1.00	PI	\$1,740.91	\$1,740.91
635-2-14	PULL & SPLICE BOX, F&I, 17" X 30"	10.00	EA	\$1,910.93	\$19,109.30
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00	AS	\$1,850.56	\$11,103.36
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	2.00	AS	\$2,479.85	\$4,959.70
650-1-60	VEH TRAF SIGNAL, REMOVE- POLES TO REMAIN	2.00	AS	\$242.81	\$485.62
650-1-70	VEHICULAR TRAFFIC SIGNAL, RELOCATE	2.00	AS	\$1,142.03	\$2,284.06
660-3-11	VEHICLE DETECTION SYSTEM- MICRO,F&I, CAB	2.00	EA	\$12,387.31	\$24,774.62
660-3-12	VEHICLE DETECTION SYSTEM- MICRO,F&I, ABO	6.00	EA	\$12,840.86	\$77,045.16
660-4-60	VEHICLE DETECTION SYSTEM- VIDEO, REMOVE	4.00	EA	\$492.63	\$1,970.52
671-2-40	TRAFFIC CONTROLLER, MODIFY	1.00	EA	\$2,465.42	\$2,465.42

Signalization 2

Description		Value
Type		Miscellaneous
Multiplier		1
Description	20th St. W	

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERS	1.00	EA	\$3,101.63	\$3,101.63
630-2-11	CONDUIT, F& I, OPEN TRENCH	75.00	LF	\$19.47	\$1,460.25
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	320.00	LF	\$29.68	\$9,497.60
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$12,592.41	\$12,592.41
632-7-6	SIGNAL CABLE, REMOVE- INTERSECTION	1.00	PI	\$1,740.91	\$1,740.91

635-2-14	PULL & SPLICE BOX, F&I, 17" X 30"	11.00 EA	\$1,910.93	\$21,020.23
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00 AS	\$1,850.56	\$11,103.36
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	2.00 AS	\$2,479.85	\$4,959.70
650-1-60	VEH TRAF SIGNAL, REMOVE- POLES TO REMAIN	2.00 AS	\$242.81	\$485.62
650-1-70	VEHICULAR TRAFFIC SIGNAL, RELOCATE	2.00 AS	\$1,142.03	\$2,284.06
660-3-11	VEHICLE DETECTION SYSTEM- MICRO,F&I, CAB	1.00 EA	\$12,387.31	\$12,387.31
660-3-12	VEHICLE DETECTION SYSTEM- MICRO,F&I, ABO	4.00 EA	\$12,840.86	\$51,363.44
660-4-60	VEHICLE DETECTION SYSTEM- VIDEO, REMOVE	4.00 EA	\$492.63	\$1,970.52
671-2-40	TRAFFIC CONTROLLER, MODIFY	1.00 EA	\$2,465.42	\$2,465.42

Signalization 3

Description		Value
Type		Miscellaneous
Multiplier		1
Description	14th St W	

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERS	1.00	EA	\$3,101.63	\$3,101.63
630-2-11	CONDUIT, F& I, OPEN TRENCH	90.00	LF	\$19.47	\$1,752.30
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	465.00	LF	\$29.68	\$13,801.20
635-2-14	PULL & SPLICE BOX, F&I, 17" X 30"	8.00	EA	\$1,910.93	\$15,287.44
646-1-40	ALUMINUM SIGNALS POLE, RELOCATE	2.00	EA	\$2,301.22	\$4,602.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	4.00	AS	\$1,850.56	\$7,402.24
660-3-11	VEHICLE DETECTION SYSTEM- MICRO,F&I, CAB	2.00	EA	\$12,387.31	\$24,774.62
660-3-12	VEHICLE DETECTION SYSTEM- MICRO,F&I, ABO	6.00	EA	\$12,840.86	\$77,045.16
660-4-60	VEHICLE DETECTION SYSTEM- VIDEO, REMOVE	4.00	EA	\$492.63	\$1,970.52
671-2-40	TRAFFIC CONTROLLER, MODIFY	1.00	EA	\$2,465.42	\$2,465.42

Signalization 4

Description		Value
Type		Miscellaneous
Multiplier		1
Description	9th St. W	

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERS	1.00	EA	\$3,101.63	\$3,101.63
630-2-11	CONDUIT, F& I, OPEN TRENCH	80.00	LF	\$19.47	\$1,557.60
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	297.00	LF	\$29.68	\$8,814.96
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$12,592.41	\$12,592.41

632-7-6	SIGNAL CABLE, REMOVE-INTERSECTION	1.00	PI	\$1,740.91	\$1,740.91
635-2-14	PULL & SPLICE BOX, F&I, 17" X 30"	12.00	EA	\$1,910.93	\$22,931.16
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	2.00	EA	\$2,802.27	\$5,604.54
646-1-40	ALUMINUM SIGNALS POLE, RELOCATE	4.00	EA	\$2,301.22	\$9,204.88
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	7.00	AS	\$1,850.56	\$12,953.92
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	2.00	AS	\$2,479.85	\$4,959.70
650-1-60	VEH TRAF SIGNAL, REMOVE-POLES TO REMAIN	2.00	AS	\$242.81	\$485.62
650-1-70	VEHICULAR TRAFFIC SIGNAL, RELOCATE	2.00	AS	\$1,142.03	\$2,284.06
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	2.00	AS	\$1,036.91	\$2,073.82
653-1-60	PEDESTRIAN SIGNAL, REMOVE	2.00	AS	\$162.20	\$324.40
660-1-600	LOOP DETECTOR INDUCTIVE, REMOVE	1.00	EA	\$78.55	\$78.55
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	1.00	EA	\$12,387.31	\$12,387.31
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	4.00	EA	\$12,840.86	\$51,363.44
660-4-60	VEHICLE DETECTION SYSTEM-VIDEO, REMOVE	1.00	EA	\$492.63	\$492.63
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	2.00	EA	\$519.40	\$1,038.80
665-1-60	PEDESTRIAN DETECTOR, REMOVE	2.00	EA	\$77.14	\$154.28
671-2-40	TRAFFIC CONTROLLER, MODIFY	1.00	EA	\$2,465.42	\$2,465.42

Signalization 5

Description

Type

Multiplier

Description

5th St. W

Value

Miscellaneous

1

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERS	1.00	EA	\$3,101.63	\$3,101.63
630-2-11	CONDUIT, F& I, OPEN TRENCH	140.00	LF	\$19.47	\$2,725.80
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	322.00	LF	\$29.68	\$9,556.96
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$12,592.41	\$12,592.41
632-7-6	SIGNAL CABLE, REMOVE-INTERSECTION	1.00	PI	\$1,740.91	\$1,740.91
635-2-14	PULL & SPLICE BOX, F&I, 17" X 30"	12.00	EA	\$1,910.93	\$22,931.16
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	8.00	EA	\$2,802.27	\$22,418.16
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00	AS	\$1,850.56	\$14,804.48
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	4.00	AS	\$2,479.85	\$9,919.40
650-1-19	VEH TRAF SIGNAL,F&I ALUMINUM, 5 S CL 1 W	2.00	AS	\$3,417.46	\$6,834.92

650-1-60	VEH TRAF SIGNAL, REMOVE- POLES TO REMAIN	4.00 AS	\$242.81	\$971.24
650-1-70	VEHICULAR TRAFFIC SIGNAL, RELOCATE	4.00 AS	\$1,142.03	\$4,568.12
650-2-102	VEHIC SIGNAL AUX, REP/RETROFIT- F&I, BAC	4.00 EA	\$970.38	\$3,881.52
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$1,036.91	\$8,295.28
660-1-600	LOOP DETECTOR INDUCTIVE, REMOVE	10.00 EA	\$78.55	\$785.50
660-3-11	VEHICLE DETECTION SYSTEM- MICRO,F&I, CAB	1.00 EA	\$12,387.31	\$12,387.31
660-3-12	VEHICLE DETECTION SYSTEM- MICRO,F&I, ABO	4.00 EA	\$12,840.86	\$51,363.44
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$519.40	\$4,155.20
671-2-40	TRAFFIC CONTROLLER, MODIFY	1.00 EA	\$2,465.42	\$2,465.42

Signalization 6

Description	Value
Type	Miscellaneous
Multiplier	1
Description	44th Ave connector

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERS	1.00	EA	\$3,101.63	\$3,101.63
630-2-11	CONDUIT, F& I, OPEN TRENCH	20.00	LF	\$19.47	\$389.40
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$12,592.41	\$12,592.41
632-7-6	SIGNAL CABLE, REMOVE- INTERSECTION	1.00	PI	\$1,740.91	\$1,740.91
635-2-14	PULL & SPLICE BOX, F&I, 17" X 30"	1.00	EA	\$1,910.93	\$1,910.93
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	1.00	EA	\$2,802.27	\$2,802.27
646-1-60	ALUMINUM SIGNALS POLE, REMOVE	1.00	EA	\$543.10	\$543.10
650-2-102	VEHIC SIGNAL AUX, REP/RETROFIT- F&I, BAC	2.00	EA	\$970.38	\$1,940.76
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	1.00	AS	\$1,036.91	\$1,036.91
660-1-600	LOOP DETECTOR INDUCTIVE, REMOVE	4.00	EA	\$78.55	\$314.20
660-3-11	VEHICLE DETECTION SYSTEM- MICRO,F&I, CAB	1.00	EA	\$12,387.31	\$12,387.31
660-3-12	VEHICLE DETECTION SYSTEM- MICRO,F&I, ABO	3.00	EA	\$12,840.86	\$38,522.58
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	1.00	EA	\$519.40	\$519.40
665-1-40	PEDESTRIAN DETECTOR, RELOCATE	1.00	EA	\$241.08	\$241.08

Comment: Replaced obsolete pay item 655-1-41

Signalizations Component Total \$902,413.16

Sequence 6 Total \$902,413.16

Sequence: 7 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: Lighting - intersection updates 14th ST W, 9th St W

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1
Description	Lighting

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
641-2-12	PREST CNC POLE,F&I,TYP P-II SRV POLE	1.00 EA	\$2,481.35	\$2,481.35
Signalizations Component Total				\$2,481.35

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MAX

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	120.00 LF	\$19.47	\$2,336.40
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	180.00 LF	\$29.68	\$5,342.40
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	5.00 EA	\$1,525.00	\$7,625.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$4,372.84	\$4,372.84
639-2-1	ELECTRICAL SERVICE WIRE, F&I	50.00 LF	\$12.86	\$643.00
715-1-12	LIGHTING CONDUCTORS, F&I, INSUL,NO.8-6	1,014.00 LF	\$2.52	\$2,555.28
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	1.00 EA	\$20,418.25	\$20,418.25
715-11-213	LUMINAIRE ,F&I-REP EXIST, RDWY, POLE T	5.00 EA	\$2,478.55	\$12,392.75
715-61-100	LIGHT POLE CMPLT,STD,F&I, 30'MH, 0'ARM L	2.00 EA	\$7,874.70	\$15,749.40
715-61-442	LIGHT POLE CMPLT,STD,F&I, 45'MH,12'ARM L	1.00 EA	\$11,304.94	\$11,304.94
715-68-000	LIGHT POLE COMPLETE, RELOCATE	1.00 EA	\$6,781.99	\$6,781.99
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	3.00 EA	\$852.49	\$2,557.47
Lighting Component Total				\$92,079.72

Sequence 7 Total

\$94,561.07

Sequence: 8 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: Safety Funded (52-02) Lighting - Safety Request at 44th St Conn

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1
Description	Lighting

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
641-2-12	PREST CNC POLE,F&I,TYP P-II SRV POLE	1.00	EA	\$2,481.35	\$2,481.35
Signalizations Component Total					\$2,481.35

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MAX

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	140.00	LF	\$19.47	\$2,725.80
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	285.00	LF	\$29.68	\$8,458.80
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	8.00	EA	\$1,525.00	\$12,200.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$4,372.84	\$4,372.84
639-2-1	ELECTRICAL SERVICE WIRE, F&I	40.00	LF	\$12.86	\$514.40
715-1-12	LIGHTING CONDUCTORS, F&I, INSUL,NO.8-6	1,563.00	LF	\$2.52	\$3,938.76
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	1.00	EA	\$20,418.25	\$20,418.25
715-61-442	LIGHT POLE CMPLT,STD,F&I, 45'MH,12'ARM L	3.00	EA	\$11,304.94	\$33,914.82
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	3.00	EA	\$852.49	\$2,557.47
Lighting Component Total					\$89,101.14

Sequence 8 Total

\$91,582.49

Sequence: 9 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: Signal-RRR - Replace Diagonal - (Signal 5) 5th St W - replacement items only

SIGNALIZATIONS COMPONENT

Signalization 5

Description	Value
Type	Miscellaneous
Multiplier	1
Description	5th St. W

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	165.00	LF	\$19.47	\$3,212.55
633-1-121	FIBER OPTIC CABLE, F&I, UG,2-12	150.00	LF	\$4.44	\$666.00
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	4.00	EA	\$57.29	\$229.16
633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERM	8.00	EA	\$91.62	\$732.96
633-3-14	FIBER OPTIC CONN HDWR, BUFFER TUBE FAN O	1.00	EA	\$98.91	\$98.91
633-3-16	FIBER OPTIC CONN HDWR, PATCH PANEL- FIE	1.00	EA	\$1,354.66	\$1,354.66
633-3-51	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	1.00	EA	\$1,067.44	\$1,067.44
633-3-52	FIBER OPTIC CONN HDWR, ADJ, SPL TRAY	1.00	EA	\$37.30	\$37.30
635-2-14	PULL & SPLICE BOX, F&I, 17" X 30"	2.00	EA	\$1,910.93	\$3,821.86
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$4,372.84	\$4,372.84
639-1-610	ELECTRICAL POWER SRV,REM OHD	1.00	AS	\$810.88	\$810.88
639-2-1	ELECTRICAL SERVICE WIRE, F&I	170.00	LF	\$12.86	\$2,186.20
639-3-11	ELEC SERV DISCON, F&I, POLE MNT	1.00	EA	\$1,948.60	\$1,948.60
641-2-12	PREST CNC POLE,F&I,TYP P-II SRV POLE	1.00	EA	\$2,481.35	\$2,481.35
649-1-65	STEEL STRAIN POLE, REMOVE,DEEP, BOLT	2.00	EA	\$12,093.19	\$24,186.38
649-21-13	STEEL MAST ARM ASSEMBLY, F&I, 60'- 50'	1.00	EA	\$142,837.51	\$142,837.51
649-21-19	STEEL MAST ARM ASSEMBLY, F&I, 70-60	1.00	EA	\$133,108.37	\$133,108.37
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	4.00	AS	\$1,850.56	\$7,402.24
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$63,972.30	\$63,972.30
682-1-133	ITS CCTV CAMERA, F&I, DOME ENCL-NP.	1.00	EA	\$9,177.22	\$9,177.22
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	1.00	EA	\$7,244.28	\$7,244.28
685-1-13	UPS, F&I, LINE INTERACTIVE W CAB	1.00	EA	\$10,403.67	\$10,403.67
Signalizations Component Total					\$421,352.68

Sequence 9 Total

\$421,352.68

Sequence: 10 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: Lighting - new signal replacement at 5th St W (replacing diagonal)

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1
Description	Lighting

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
641-2-12	PREST CNC POLE,F&I,TYP P-II SRV POLE	1.00	EA	\$2,481.35	\$2,481.35
Signalizations Component Total					\$2,481.35

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MAX

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	280.00	LF	\$19.47	\$5,451.60
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	270.00	LF	\$29.68	\$8,013.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	14.00	EA	\$1,525.00	\$21,350.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$4,372.84	\$4,372.84
639-2-1	ELECTRICAL SERVICE WIRE, F&I	100.00	LF	\$12.86	\$1,286.00
715-1-12	LIGHTING CONDUCTORS, F&I, INSUL,NO.8-6	2,118.00	LF	\$2.52	\$5,337.36
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	1.00	EA	\$20,418.25	\$20,418.25
715-11-211	LUMINAIRE ,F&I-REP EXIST, RDWY, COBRA H	1.00	EA	\$1,529.50	\$1,529.50
715-61-442	LIGHT POLE CMPLT,STD,F&I, 45'MH,12'ARM L	8.00	EA	\$11,304.94	\$90,439.52
715-68-000	LIGHT POLE COMPLETE, RELOCATE	1.00	EA	\$6,781.99	\$6,781.99
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	8.00	EA	\$852.49	\$6,819.92
Lighting Component Total					\$171,800.58

Sequence 10 Total

\$174,281.93

Sequence: 11 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: Signing (Overhead - Panels only)

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	2.00	EA	\$4,895.16	\$9,790.32
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	3.00	EA	\$8,920.71	\$26,762.13
700-3-207	SIGN PANEL, F&I OM, 201-300 SF	1.00	EA	\$13,225.09	\$13,225.09
700-3-605	SIGN PANEL, REMOVE, 51-100 SF	2.00	EA	\$232.50	\$465.00
700-3-606	SIGN PANEL, REMOVE, 101-200 SF	3.00	EA	\$829.90	\$2,489.70
700-3-607	SIGN PANEL, REMOVE, 201-300 SF	1.00	EA	\$1,562.33	\$1,562.33
Signing Component Total					\$54,294.57

Sequence 11 Total

\$54,294.57

Sequence: 12 MIS - Miscellaneous Construction

Net Length: 2.089 MI
11,030 LF

Description: TSM&O Request

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1
Description	TSM&O Request

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	130.00	LF	\$19.47	\$2,531.10
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	\$1,525.00	\$9,150.00
671-2-11	TRAFFIC CONTROLLER, F&I, NEMA	4.00	EA	\$11,164.37	\$44,657.48
671-2-60	TRAFFIC CONTROLLER, REMOVE	4.00	EA	\$563.39	\$2,253.56
682-1-133	ITS CCTV CAMERA, F&I, DOME ENCL-NP.	1.00	EA	\$9,177.22	\$9,177.22
924-681-1	CONNECTED VEHICLE ROADSIDE EQUIPMENT,RSU	6.00	EA	\$12,959.30	\$77,755.80
Signalizations Component Total					\$145,525.16

Sequence 12 Total

\$145,525.16

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 451022-1-52-01

Letting Date: 07/2028

Description: SR 684 (US 41) FROM 30TH ST W TO N OF 41ST AVE E

District: 01 **County:** 13 MANATEE **Market Area:** 10 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 2.089 MI

Project Manager: NEM-LAT-4P

Version 7-P Project Grand Total

\$12,266,632.46

Description: Copy V6 - changes from 9/29/25 TRM meeting - delete PHB (seq 5), remove sign structures, update guardrail estimates for additional post spacing - 10/01/25

Resurfacing Lane Mile Cost	\$0.00
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Project Sequences Subtotal	\$7,680,746.65
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102-1	Maintenance of Traffic	15.00 %	\$1,152,112.00
101-1	Mobilization	10.00 %	\$883,285.87

Project Sequences Total	\$9,716,144.52
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Project Unknowns	25.00 %	\$2,429,036.13
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$121,451.81	\$121,451.81
Project Non-Bid Subtotal					\$121,451.81

Version 7-P Project Grand Total

\$12,266,632.46